

MAGPIE run analysis

Aperture Science Enrichment Center

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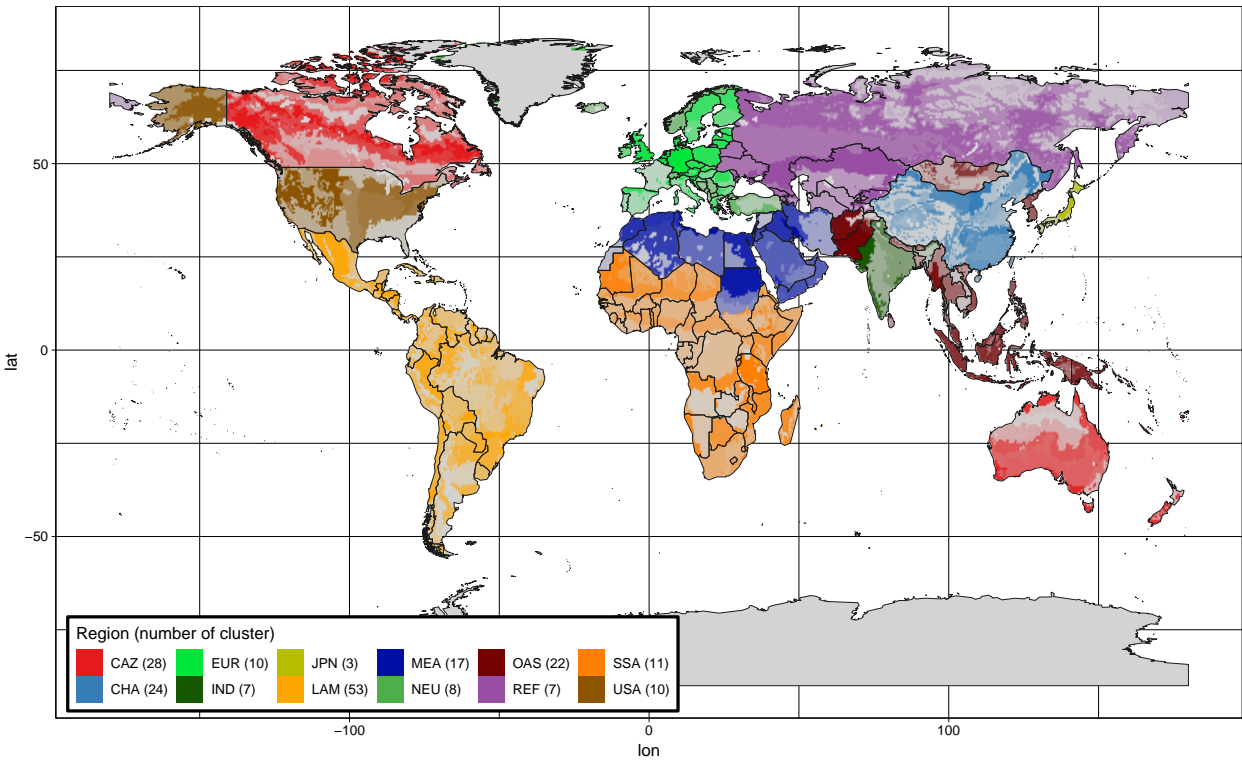
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59.1.7	Other crops—Fruits Vegetables Nuts	1867
59.1.8	Other crops—Potatoes	1870
59.1.9	Other crops—Pulses	1873
59.1.10	Other crops—Tropical roots	1876
59.1.11	Sugar crops	1879
59.1.12	Sugar crops—Sugar beet	1882
59.1.13	Sugar crops—Sugar cane	1885
59.2	Fish	1888
59.3	Livestock products	1891
59.3.1	Dairy	1894
59.3.2	Eggs	1897
59.3.3	Monogastric meat	1900
59.3.4	Poultry meat	1903
59.3.5	Ruminant meat	1906
59.4	Secondary products	1909
59.4.1	Alcoholic beverages	1909
59.4.2	Brans	1912
59.4.3	Cotton lint	1915
59.4.4	Distillers grains	1918
59.4.5	Ethanol	1921
59.4.6	Molasses	1924
59.4.7	Oilcakes	1927
59.4.8	Oils	1930
59.4.9	Sugar	1933
XVI	Trade Value	1936
60	Exports	1936
61	Imports	1936
62	Net-Exports	1936
XVII	Statistics	1937
63	Traffic Lights	1937
63.1	Total	1937
63.2	Trend	1937
63.3	Overlap	1937
63.4	Level	1937
64	Ignored data	1938

65 Non-Matching Data	1941
65.1 Model outputs	1941
65.2 Validation data	1944
 XVIII Run Information	 1956
66 Calibration	1956
66.1 Yield calibration factors	1956
66.2 Land use change in 1995 (reshuffling)	1956
 67 Model settings	 1956
67.1 Code settings	1956
67.2 Dataset	1958
67.3 R Information	1959
 68 Runtime information	 1970

Part I

Basics

0.1 World regions



0.2 Modelstat

Table 1: main

	GLO
y1995	2.00
y2000	2.00
y2005	2.00
y2010	2.00
y2015	2.00
y2020	2.00
y2025	2.00
y2030	2.00
y2035	2.00
y2040	2.00
y2045	2.00
y2050	2.00
y2055	2.00
y2060	2.00
y2070	2.00
y2080	2.00
y2090	2.00
y2100	2.00

0.3 Food Modelstat

Table 2: main

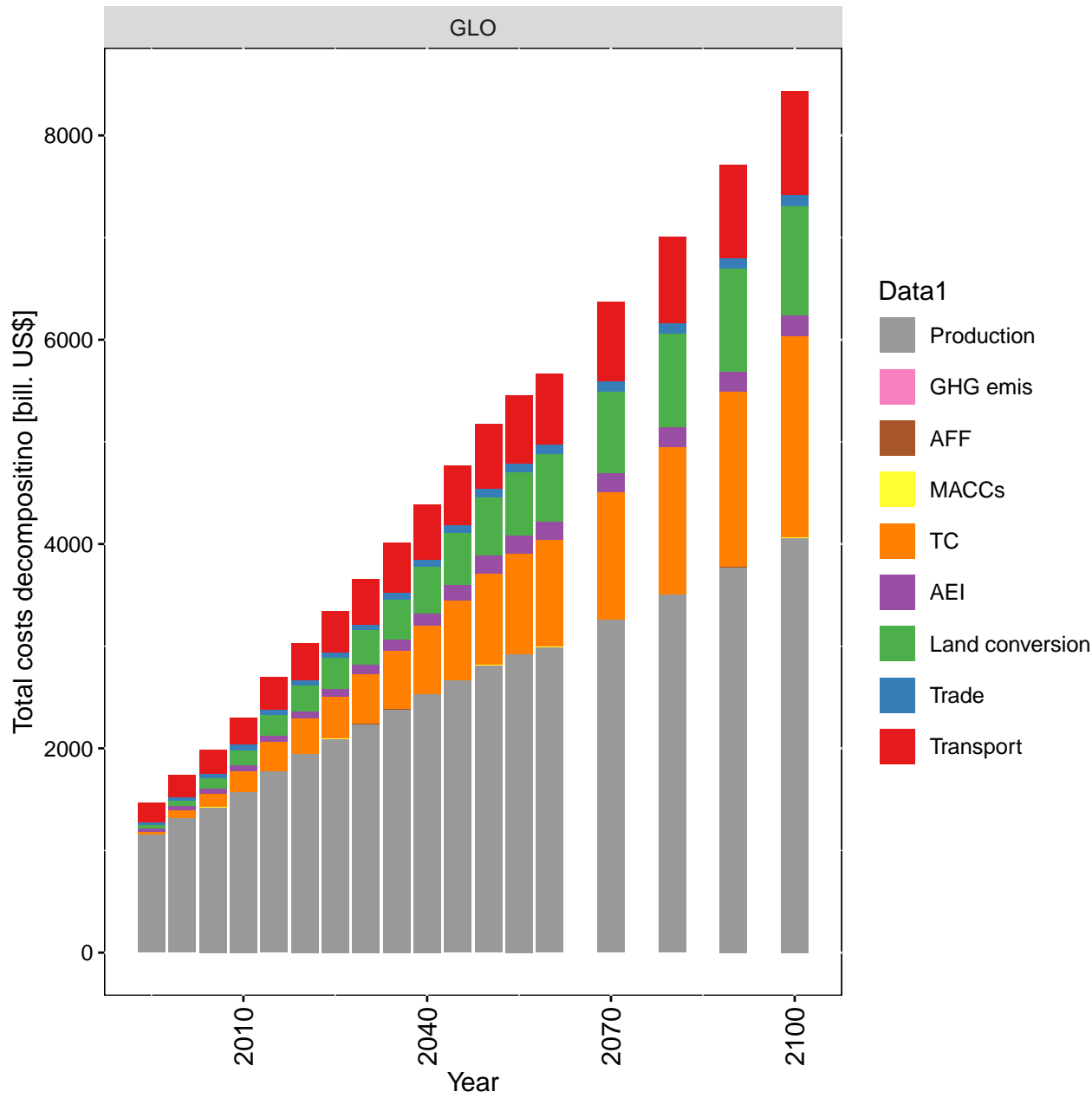
	convergence (limit = 0.005)	iterations (limit = 5)
y1995	0.22	1.00
y2000	0.29	1.00
y2005	0.05	1.00
y2010	0.03	1.00
y2015	0.09	6.00
y2020	0.00	2.00
y2025	0.00	2.00
y2030	0.00	3.00
y2035	0.00	2.00
y2040	0.00	2.00
y2045	0.00	2.00
y2050	0.00	2.00
y2055	0.00	2.00
y2060	0.00	1.00
y2070	0.00	2.00
y2080	0.00	2.00
y2090	0.00	3.00
y2100	0.00	3.00

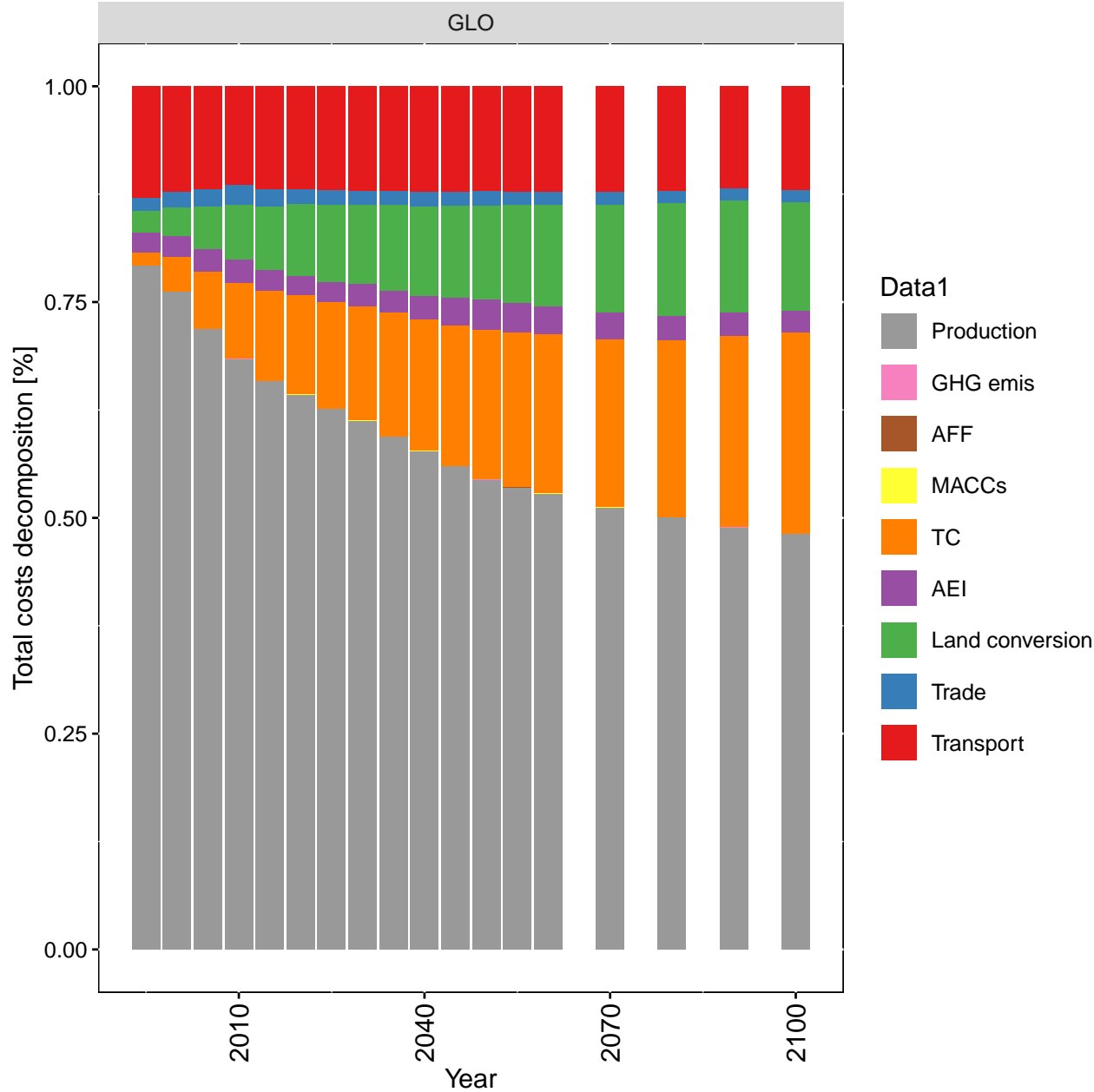
0.4 Goal function value

Table 3: Global costs (billion USD)

	GLO
y1995	1766.16
y2000	2063.26
y2005	2365.80
y2010	2740.46
y2015	3247.31
y2020	3662.12
y2025	4067.84
y2030	4471.66
y2035	4894.02
y2040	5326.82
y2045	5759.75
y2050	6209.83
y2055	6525.25
y2060	6752.11
y2070	7530.30
y2080	8229.63
y2090	8995.50
y2100	9780.05

0.4.1 Total costs decomposition





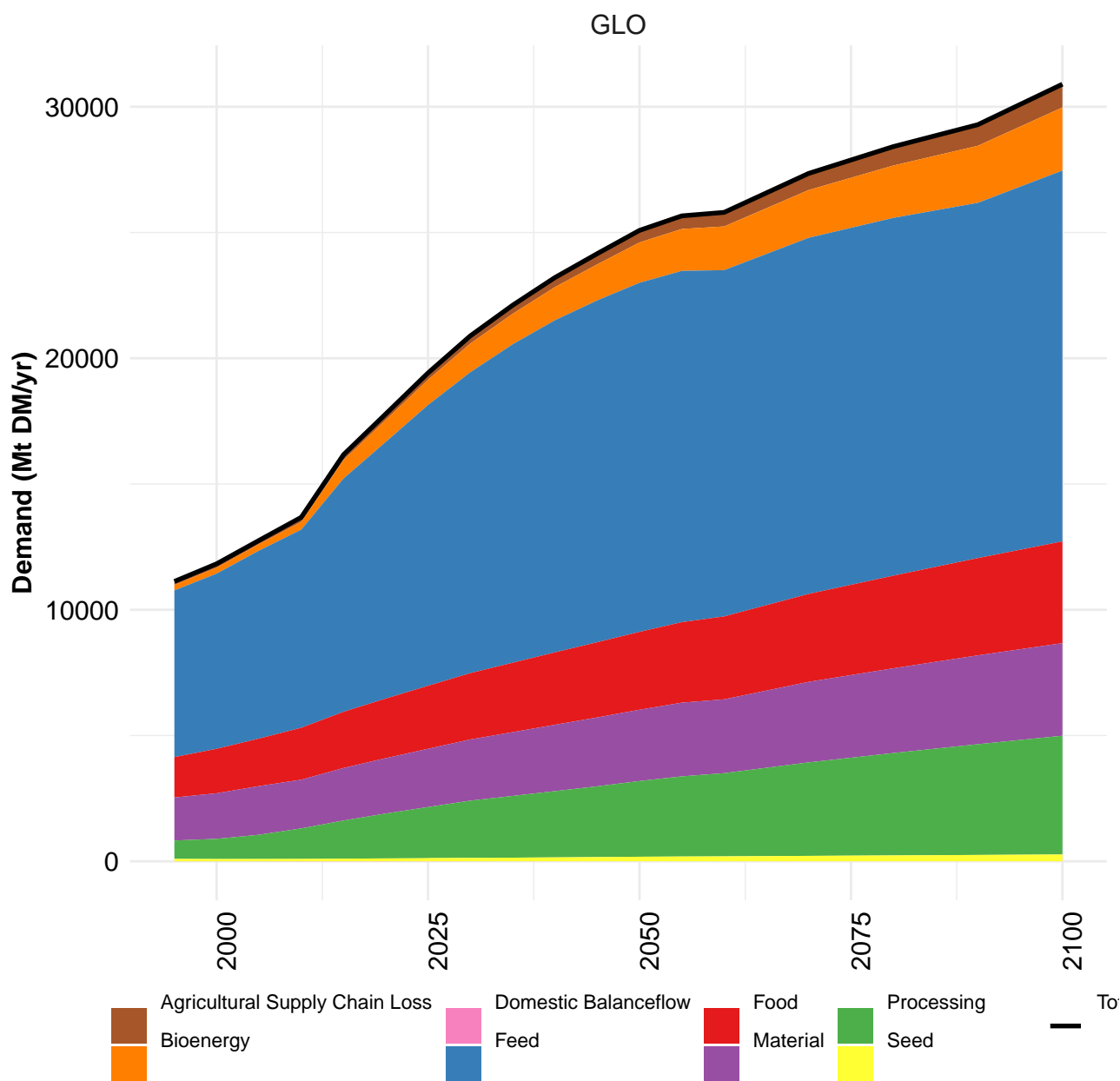
Part II

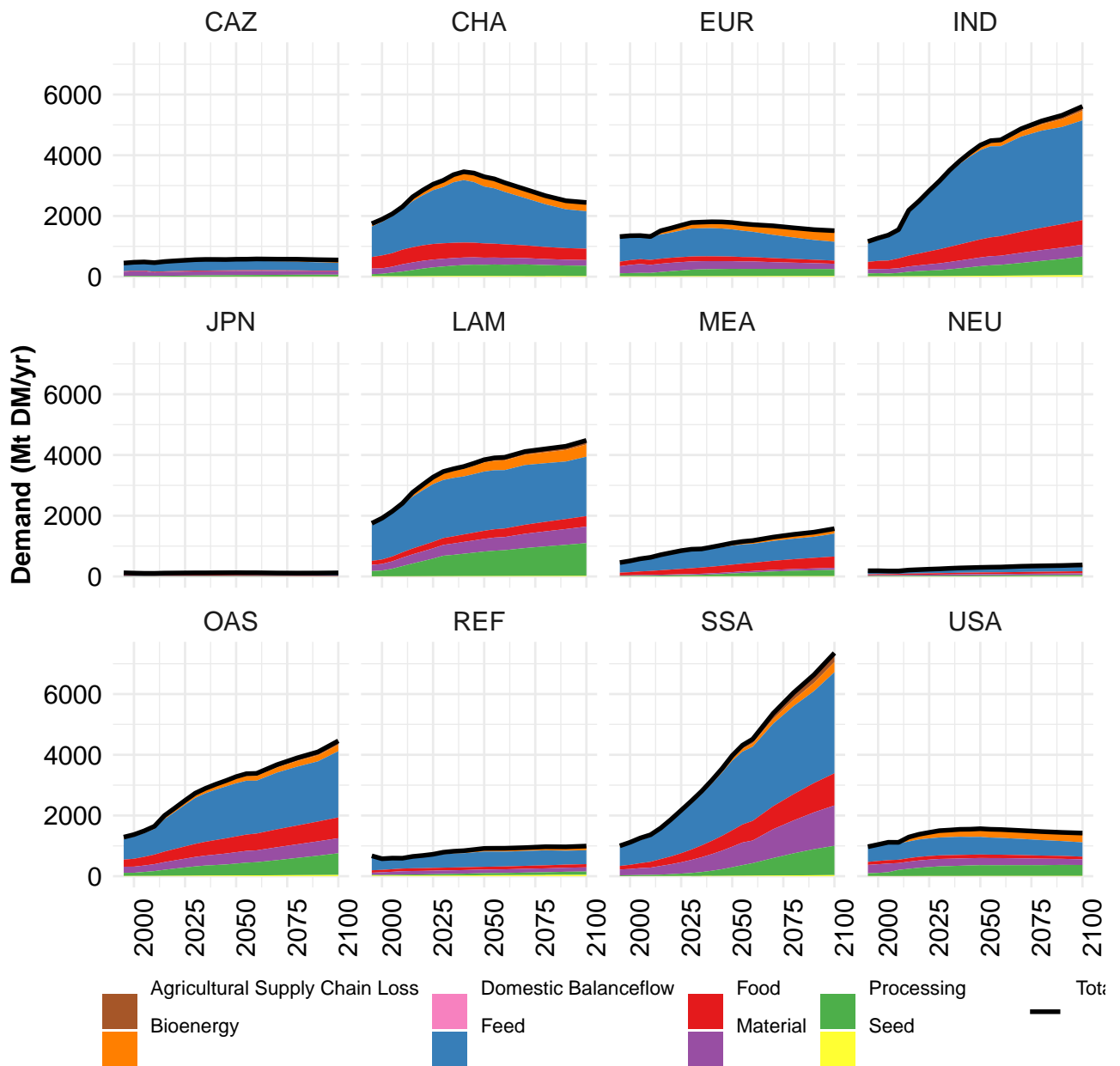
Costs

- 1 MainSolve
- 2 MainSolve w/o GHG Emissions

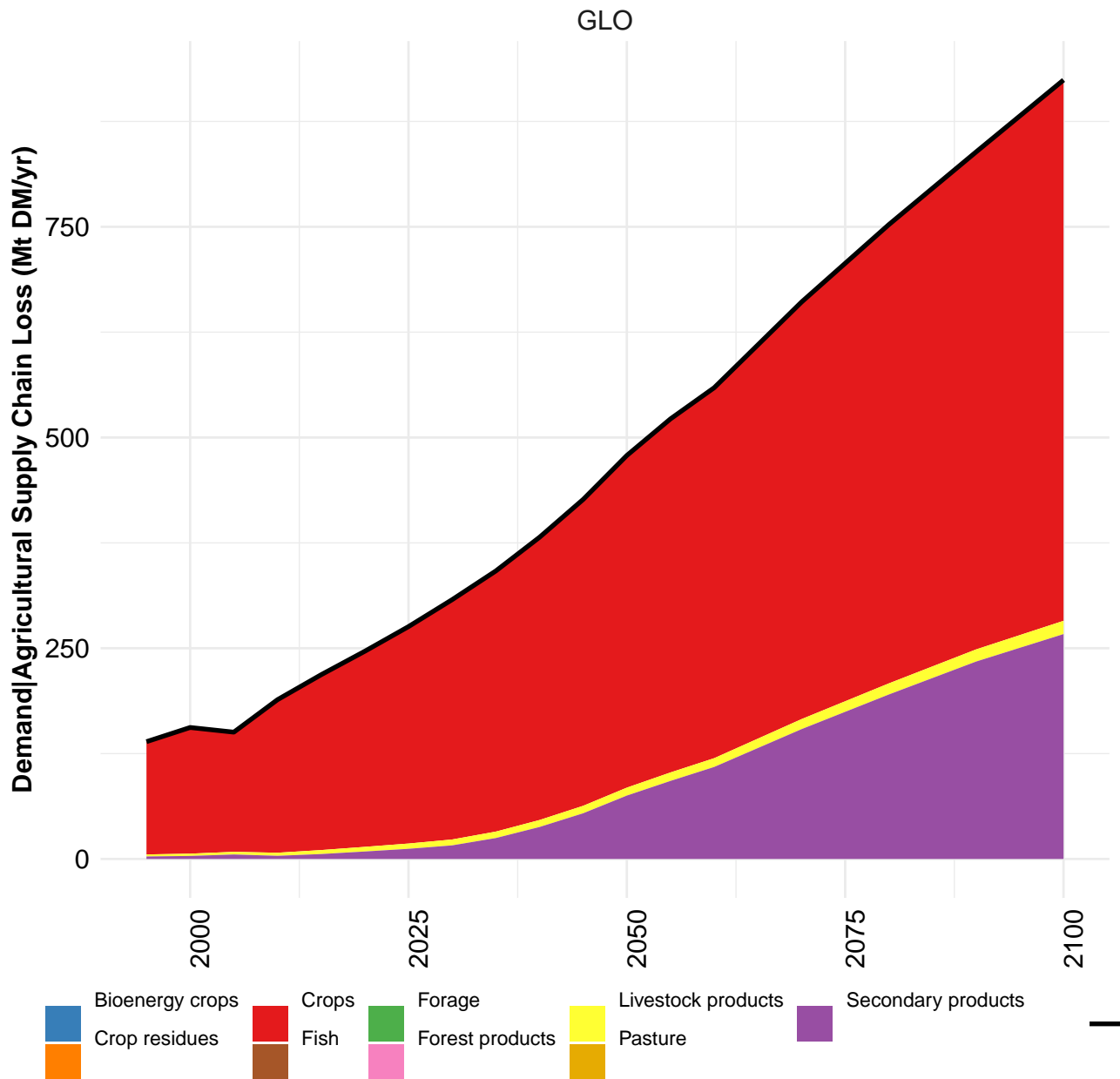
Part III

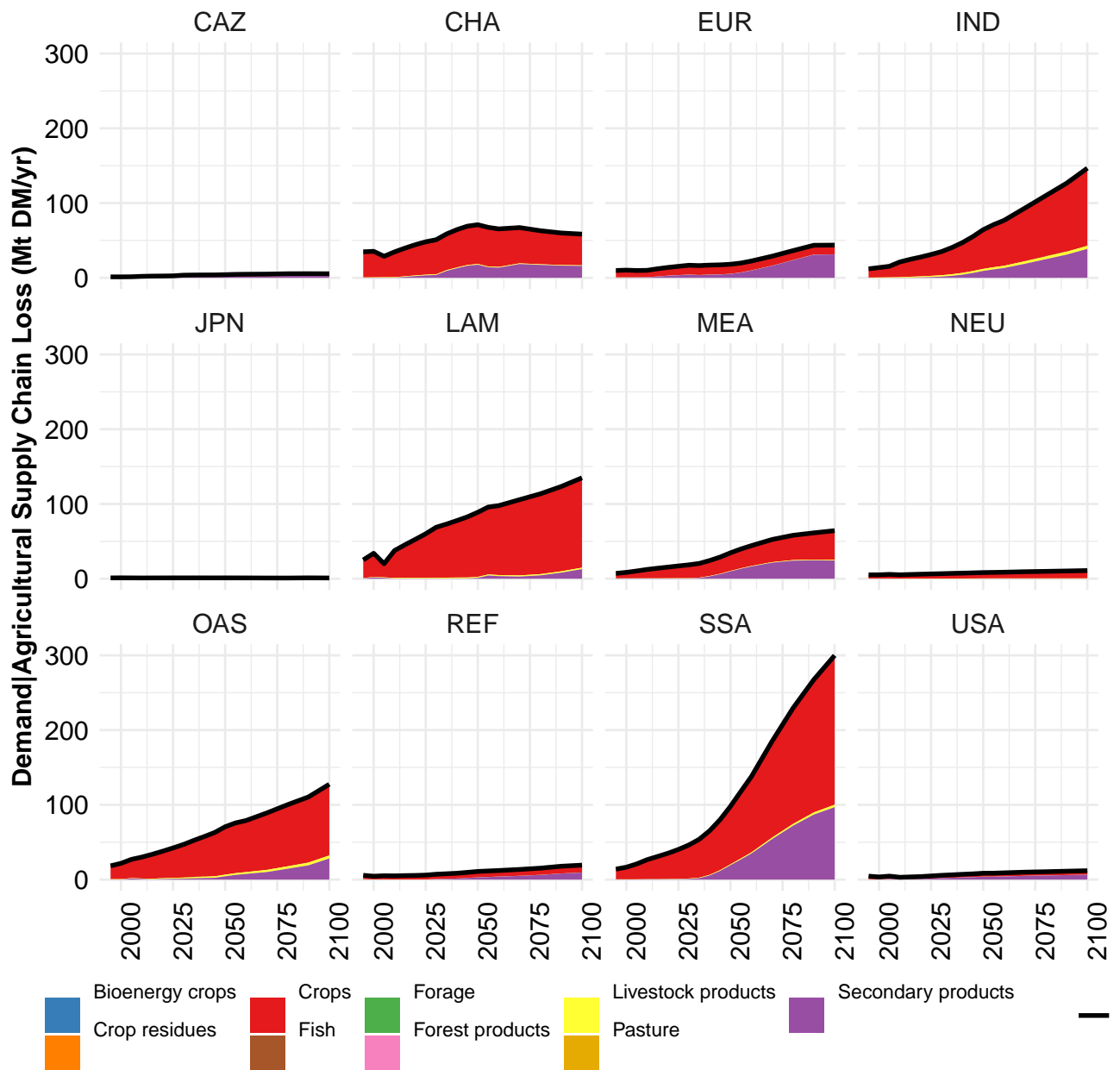
Demand

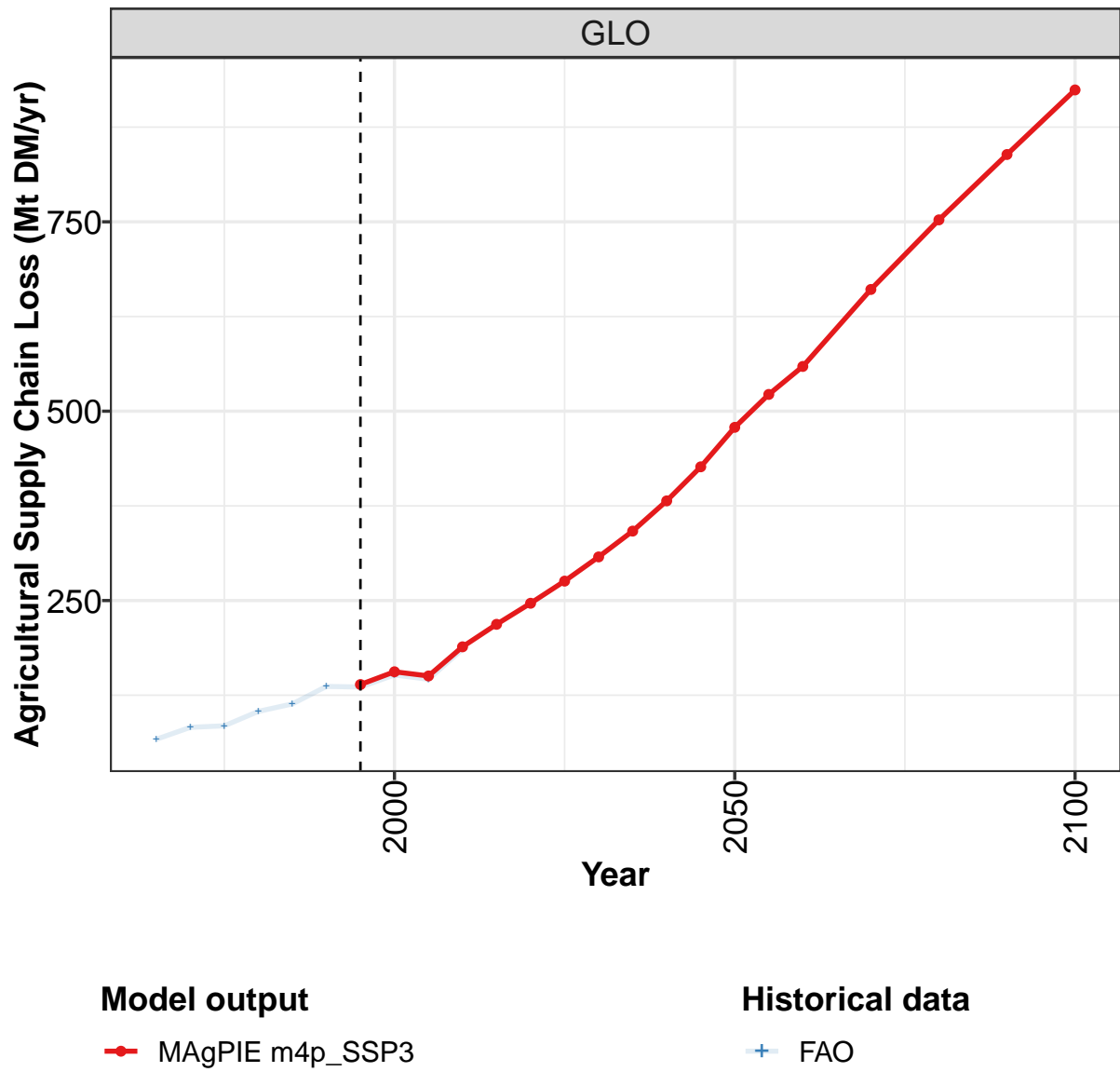




3 Agricultural Supply Chain Loss







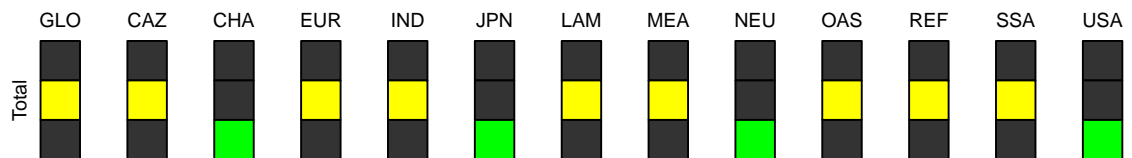
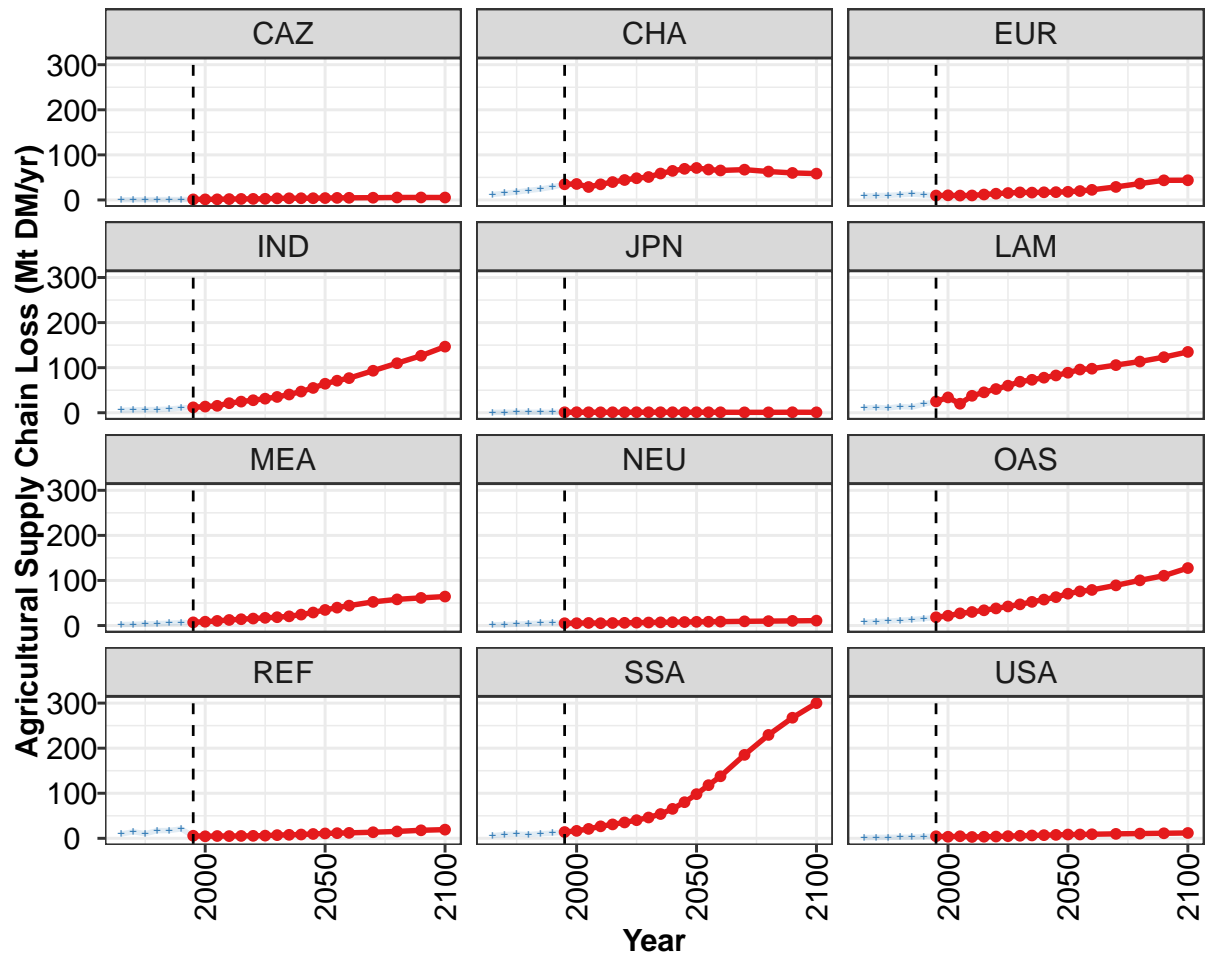


Figure 1: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	139	156	150	189	219	246	276	308	342	382	427
CAZ	1	1	1	2	2	2	3	4	4	4	4
CHA	35	35	29	35	40	44	48	51	59	65	69
EUR	10	10	10	10	12	14	15	17	16	17	17
IND	12	14	15	21	25	28	31	35	40	47	55
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	25	34	20	38	45	53	60	69	73	78	83
MEA	7	8	10	12	14	16	17	19	20	24	29
NEU	5	5	6	5	6	6	6	7	7	7	8
OAS	18	22	27	30	34	38	42	47	53	58	63
REF	6	5	5	5	5	6	6	7	8	8	10
SSA	14	17	21	27	31	35	40	46	54	65	80
USA	5	4	5	3	4	4	5	6	6	7	8

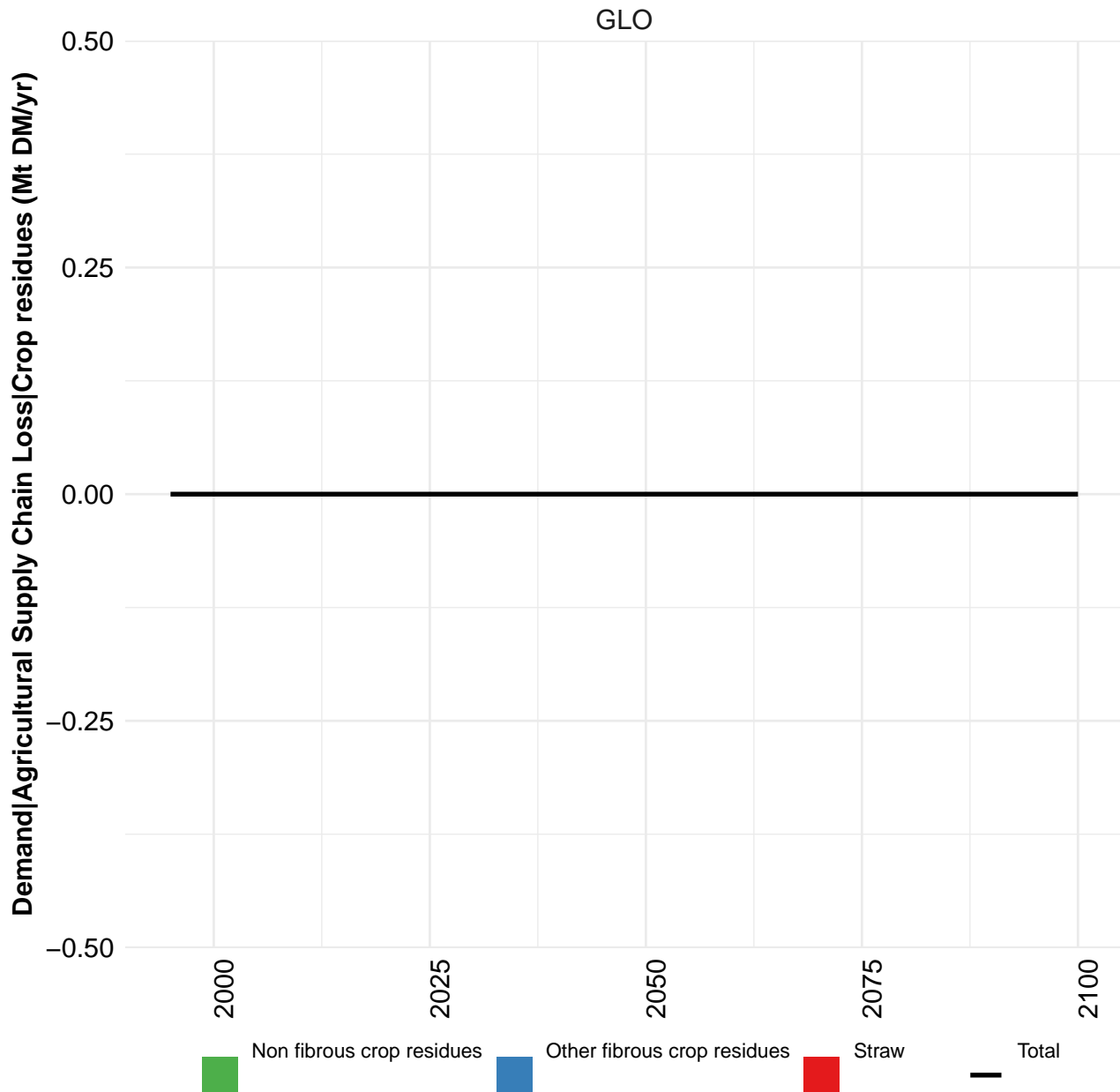
Table 4: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss (Mt DM/yr) [PART 1/2]

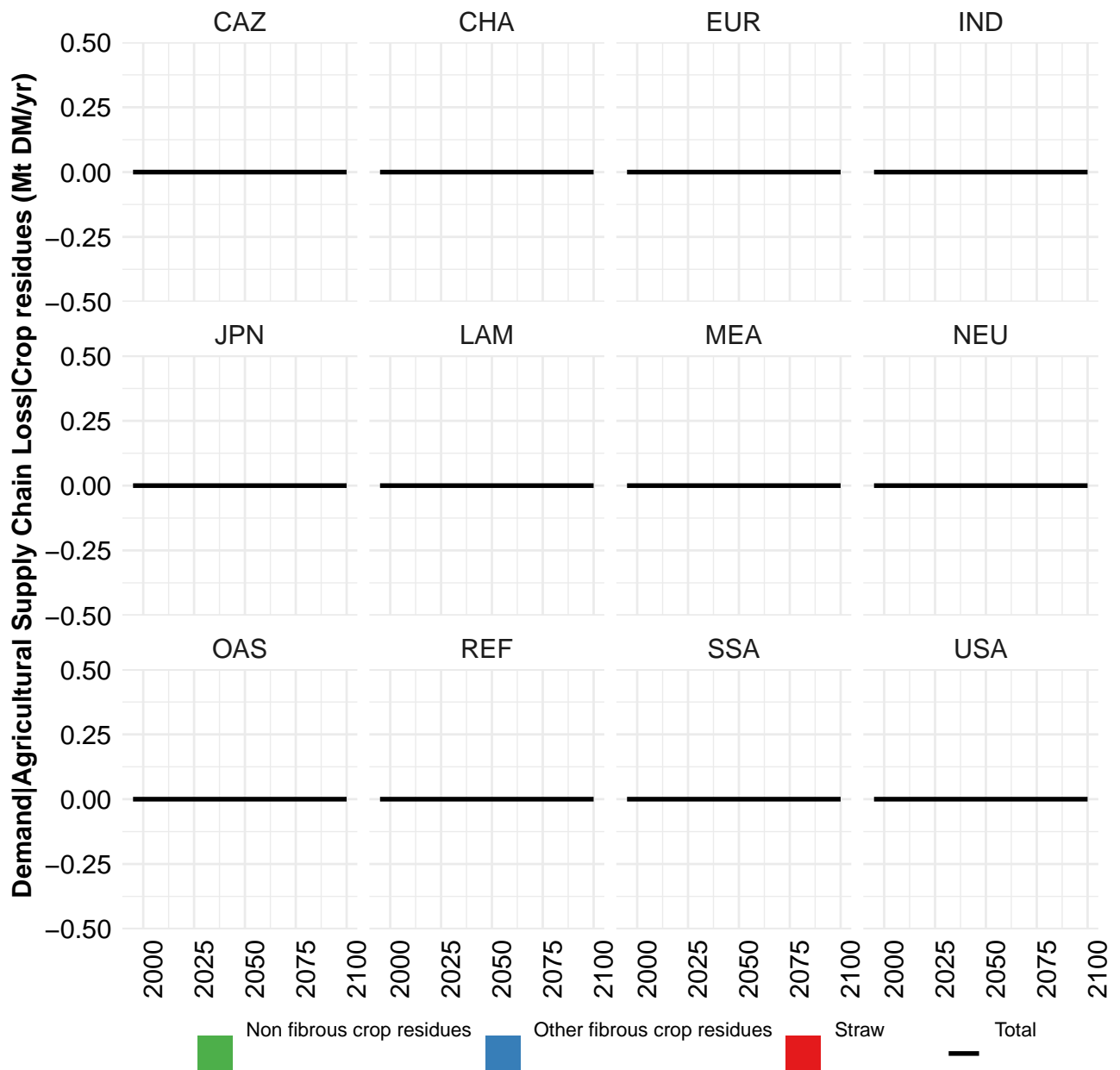
	2050	2055	2060	2070	2080	2090	2100
GLO	479	522	559	661	753	839	924
CAZ	4	5	5	5	5	6	5
CHA	71	68	65	67	63	60	58
EUR	18	20	22	29	36	44	44
IND	64	71	77	93	110	126	147
JPN	1	1	1	1	1	1	1
LAM	89	96	98	106	114	123	135
MEA	35	40	44	52	58	61	64
NEU	8	8	9	9	10	10	11
OAS	71	76	79	89	100	111	128
REF	11	12	12	14	15	18	19
SSA	98	118	138	185	229	268	300
USA	9	9	9	10	11	11	12

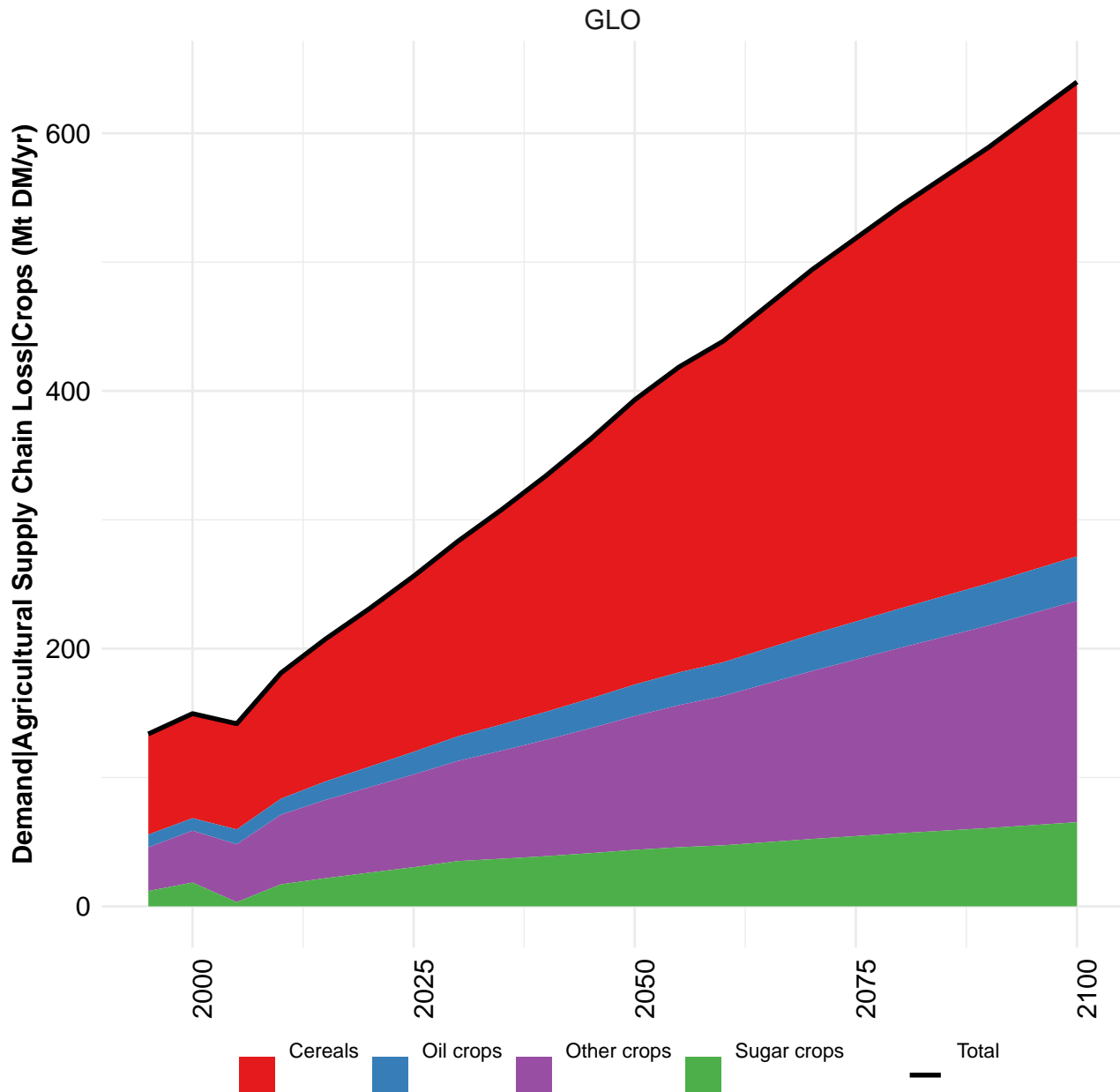
Table 5: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss (Mt DM/yr) [PART 2/2]

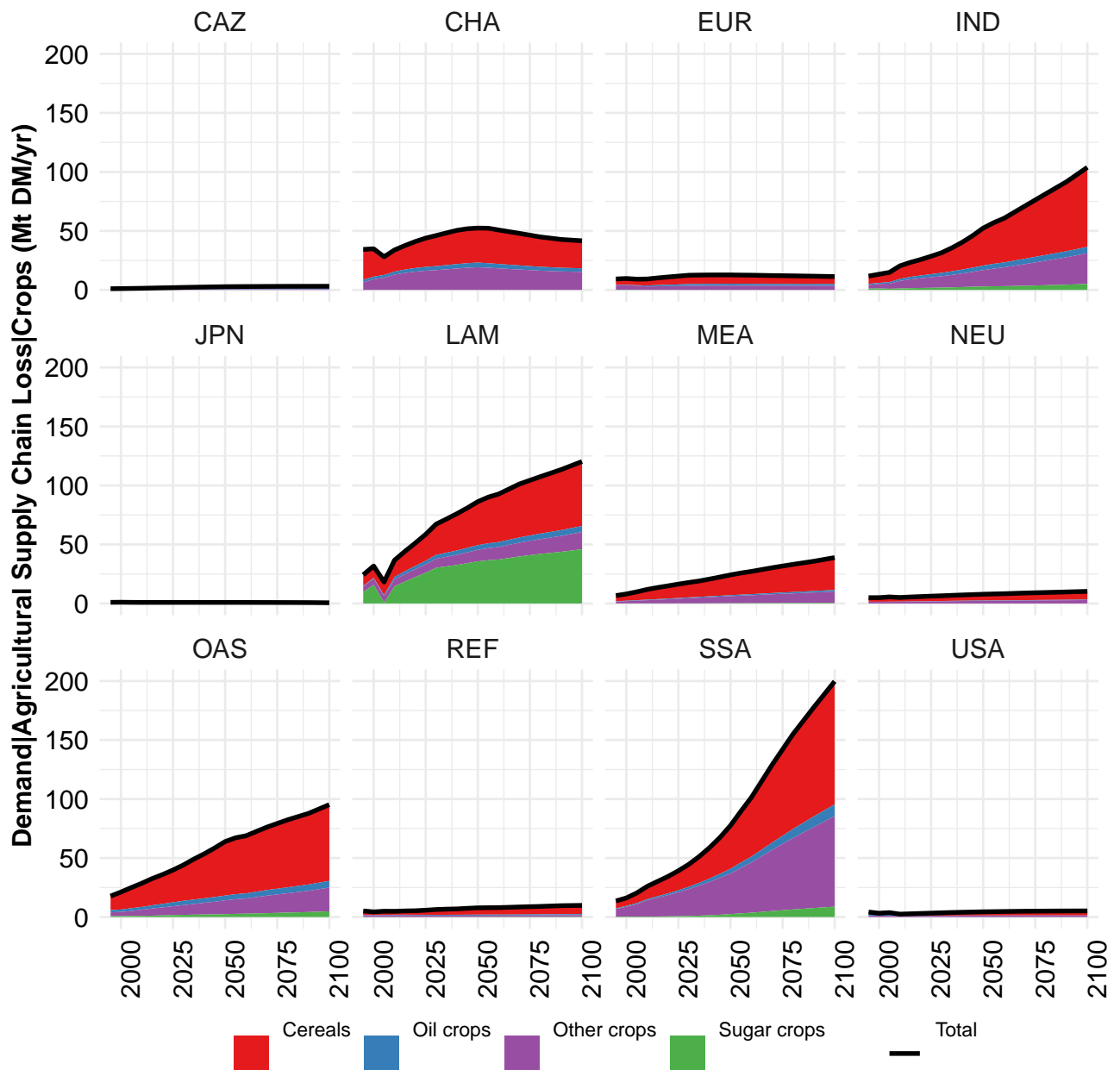
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	67	83	85	104	113	137	136	152	146	186
CAZ	0	1	1	1	1	1	1	1	1	2
CHA	12	15	17	21	24	29	35	35	29	35
EUR	9	10	10	12	13	11	9	10	9	9
IND	6	6	7	7	8	11	12	14	15	21
JPN	1	1	1	1	1	1	1	1	1	1
LAM	11	12	10	14	12	19	25	32	19	37
MEA	2	3	4	4	5	6	7	8	10	12
NEU	2	2	3	4	5	6	5	5	6	5
OAS	7	9	10	11	13	16	18	21	25	29
REF	9	15	10	17	17	21	5	4	5	5
SSA	6	8	9	8	10	12	14	16	21	26
USA	2	2	2	2	2	4	5	3	5	3

Table 6: FAO — Demand—Agricultural Supply Chain Loss (Mt DM/yr)

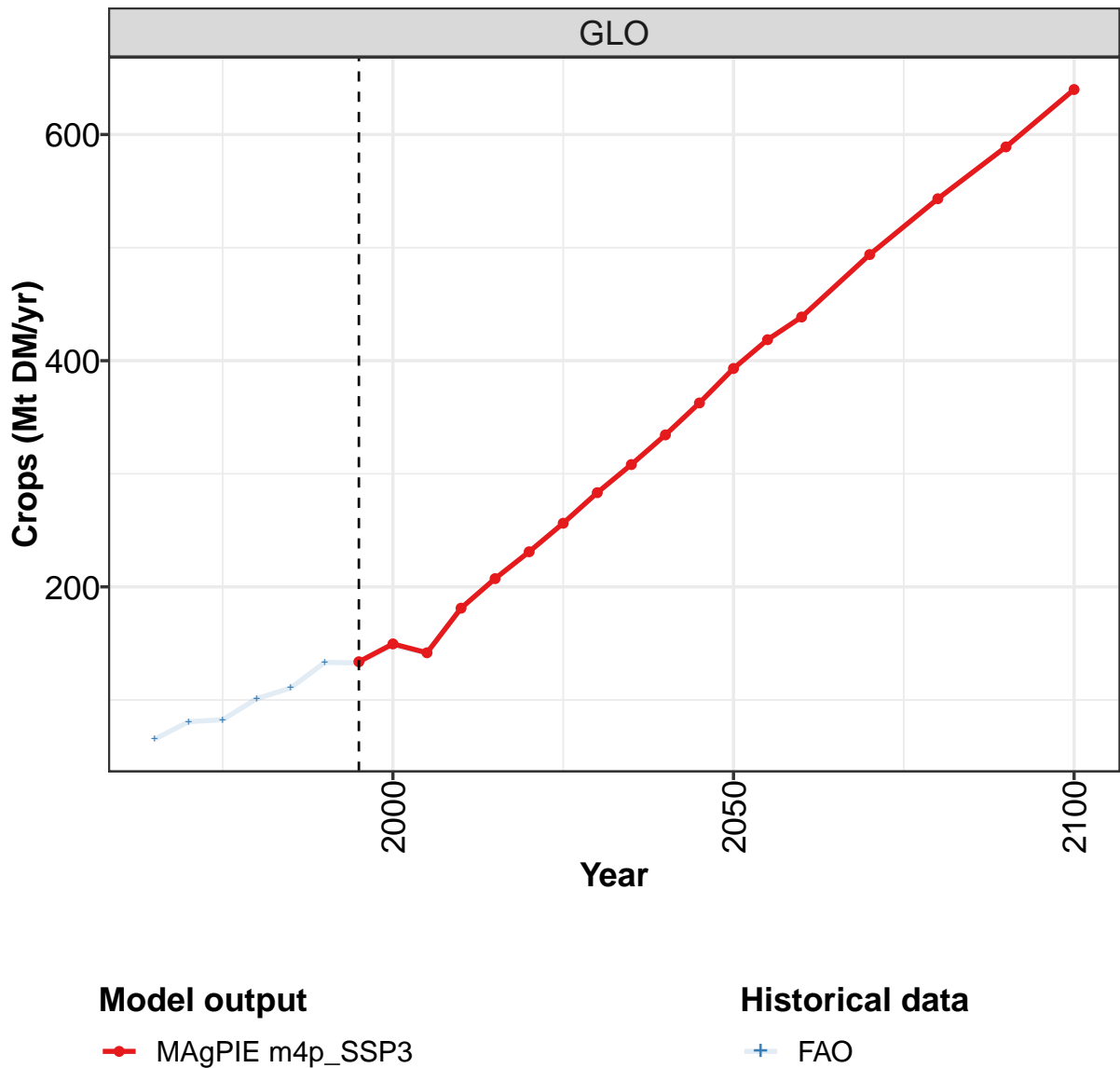








3.1 Crops



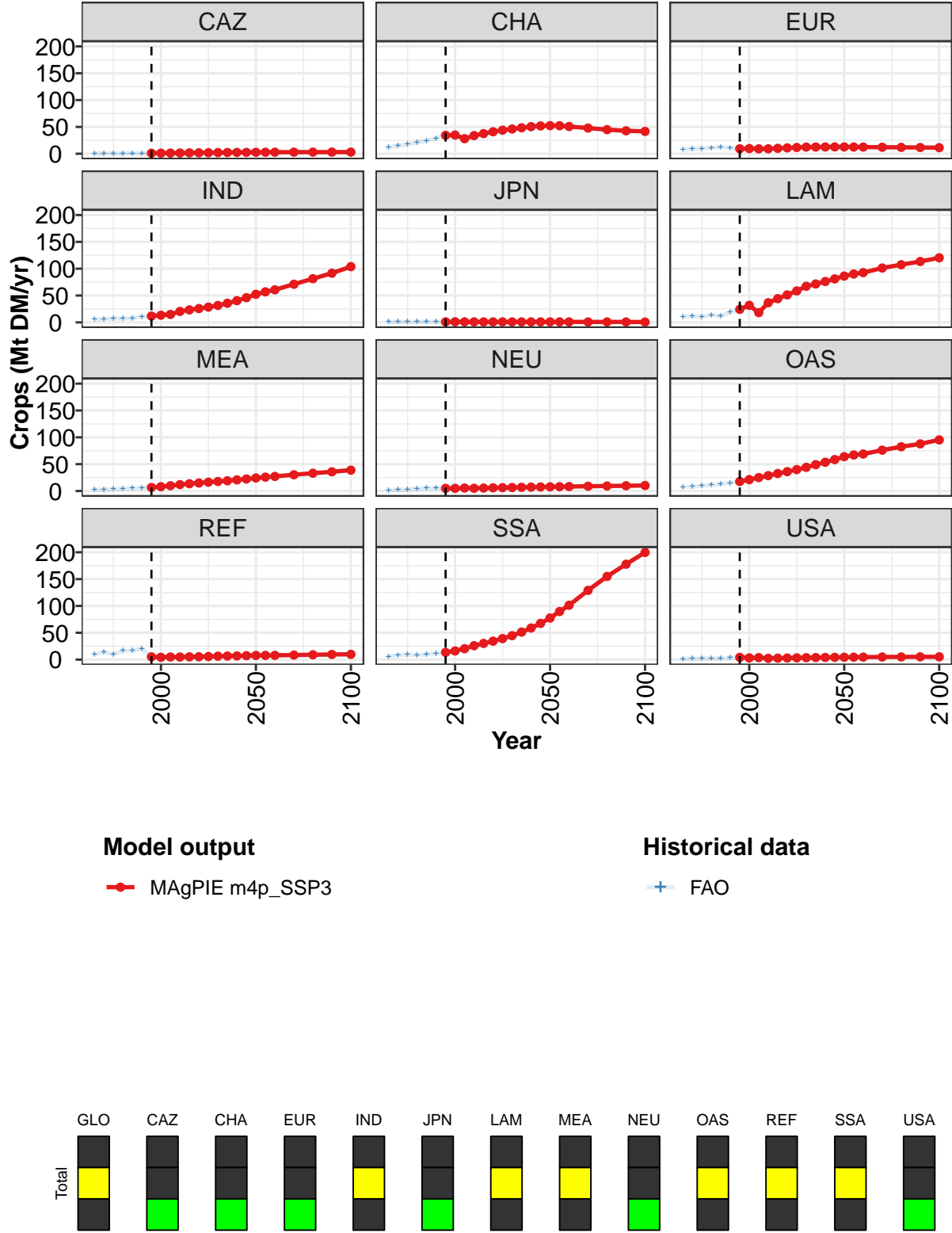


Figure 2: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	134	150	142	181	207	231	256	283	308	334	363
CAZ	1	1	1	1	2	2	2	2	2	2	3
CHA	34	35	28	34	38	41	44	46	48	50	52
EUR	9	10	9	9	10	11	12	12	13	13	13
IND	12	13	15	20	23	26	29	32	36	40	46
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	24	32	18	37	44	51	59	67	72	76	81
MEA	7	8	10	12	13	15	16	18	19	21	22
NEU	5	5	6	5	5	6	6	7	7	7	8
OAS	18	21	25	29	33	36	40	44	49	54	59
REF	5	4	5	5	5	5	6	6	7	7	7
SSA	14	16	20	26	30	34	39	45	51	59	68
USA	4	3	4	2	3	3	3	4	4	4	4

Table 7: MAgPIE m4p-SSP3 — Demand—Agricultural Supply Chain Loss—Crops (Mt DM/yr) [PART 1/2]

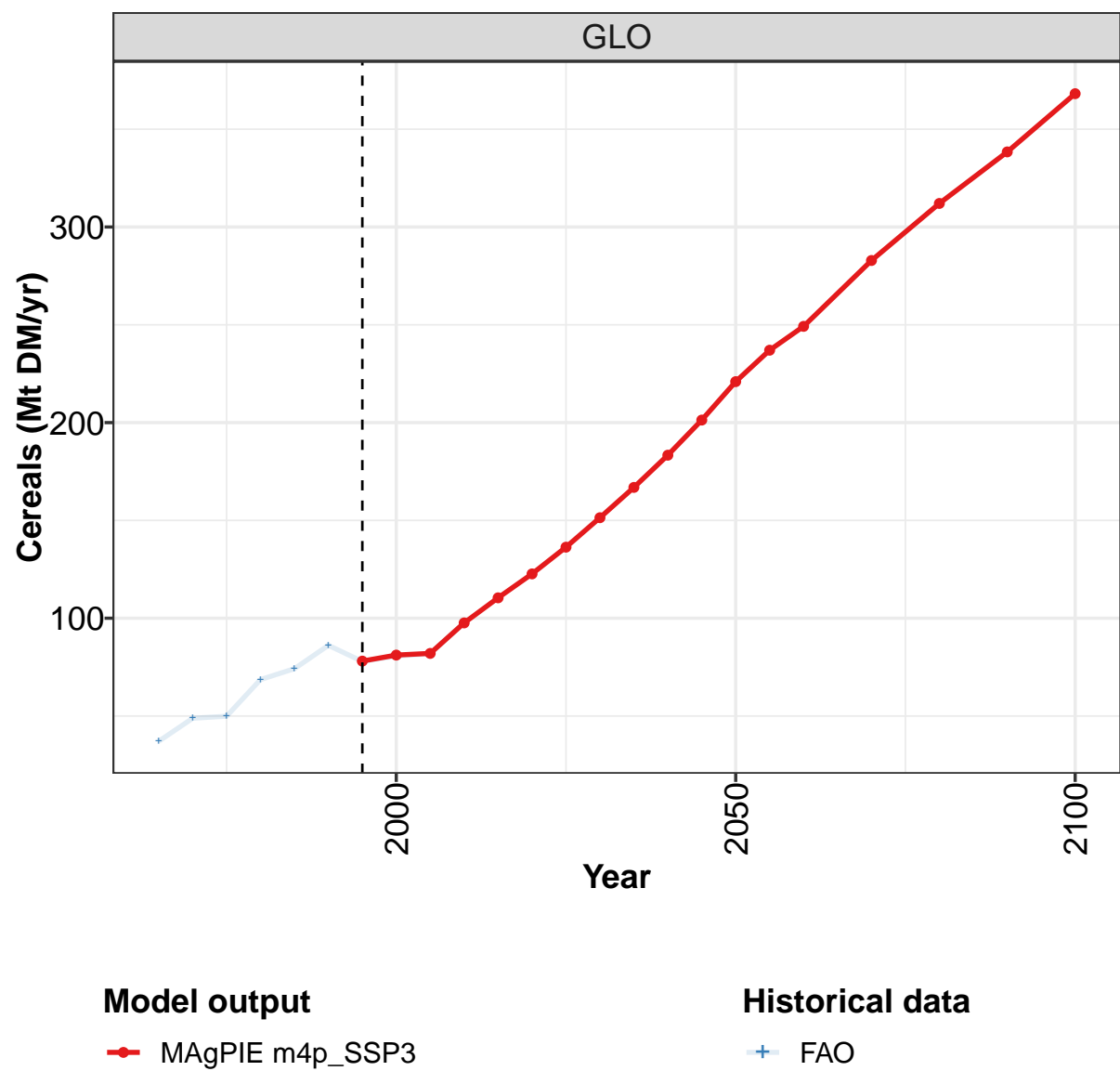
	2050	2055	2060	2070	2080	2090	2100
GLO	393	419	439	494	543	589	640
CAZ	3	3	3	3	3	3	3
CHA	52	52	51	48	45	43	42
EUR	13	13	12	12	12	12	11
IND	52	57	61	71	81	92	104
JPN	1	1	1	1	1	1	1
LAM	86	90	93	101	107	113	120
MEA	24	26	27	30	33	36	39
NEU	8	8	8	9	9	10	10
OAS	64	67	69	76	82	88	95
REF	8	8	8	9	9	10	10
SSA	78	90	101	129	155	178	200
USA	4	5	5	5	5	5	5

Table 8: MAgPIE m4p-SSP3 — Demand—Agricultural Supply Chain Loss—Crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	65	81	83	101	111	133	133	148	141	181
CAZ	0	0	1	1	1	1	1	1	1	1
CHA	12	15	17	21	24	29	34	35	28	34
EUR	8	9	10	11	12	11	9	9	9	9
IND	5	6	7	7	8	10	12	13	15	20
JPN	1	1	1	1	1	1	1	1	1	1
LAM	10	12	10	13	12	19	24	32	18	36
MEA	2	3	3	4	5	6	7	8	10	12
NEU	2	2	3	4	5	6	5	5	5	5
OAS	7	8	10	11	13	15	17	21	25	29
REF	9	14	10	16	17	20	5	4	5	5
SSA	6	8	9	8	10	11	14	16	20	26
USA	2	2	2	2	2	4	4	3	4	2

Table 9: FAO — Demand—Agricultural Supply Chain Loss—Crops (Mt DM/yr)

3.1.1
Cereals



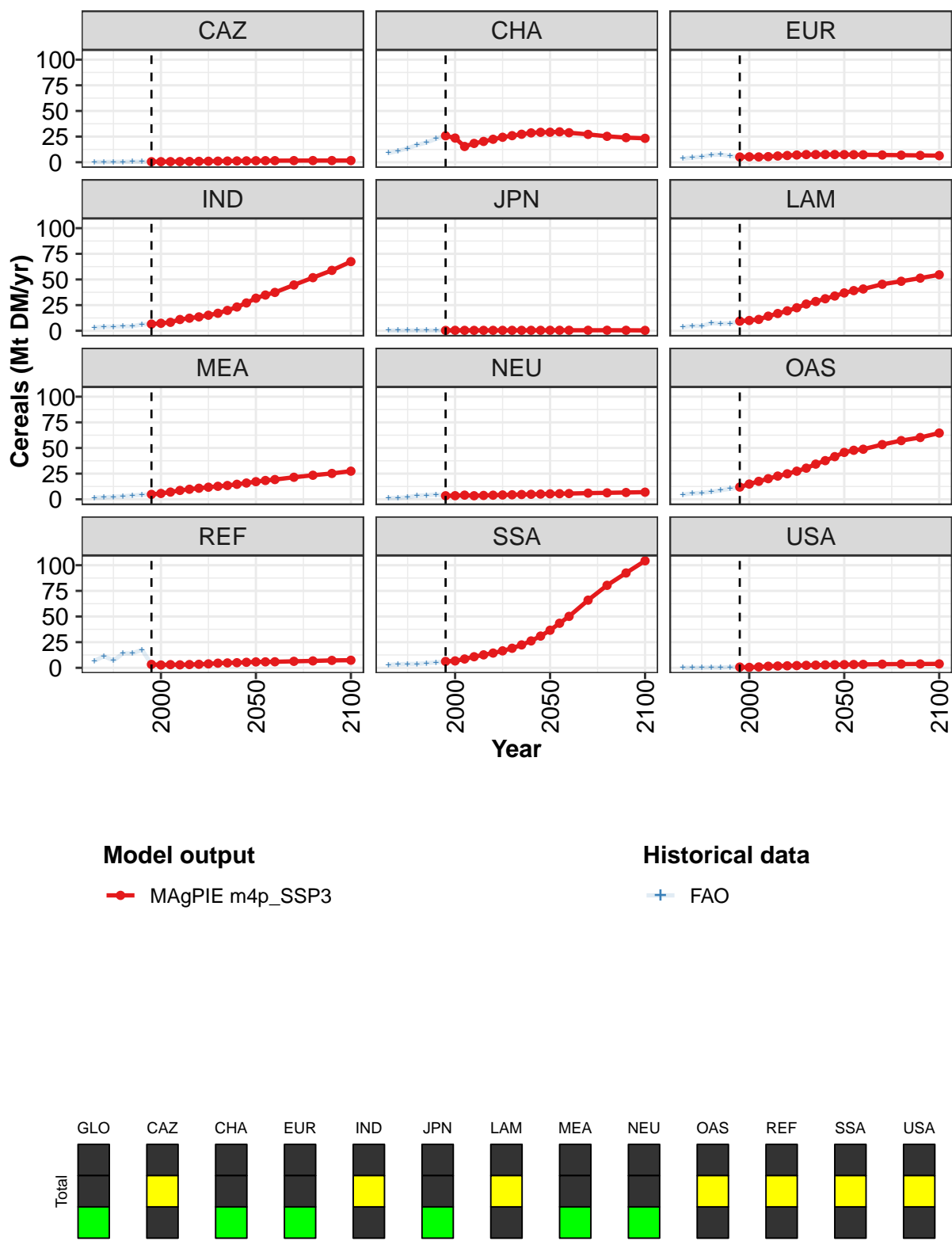


Figure 3: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	78	81	82	98	110	123	136	151	167	183	201
CAZ	1	1	1	1	1	1	1	1	1	1	1
CHA	26	24	15	18	20	22	24	26	27	29	29
EUR	5	5	5	5	6	7	7	7	8	8	8
IND	7	7	8	11	12	14	15	17	20	23	27
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	9	10	11	14	17	19	22	26	29	31	34
MEA	5	6	7	9	10	11	12	13	13	15	16
NEU	3	4	4	3	4	4	4	4	5	5	5
OAS	12	15	18	20	23	25	27	30	34	38	42
REF	3	3	3	3	3	3	4	5	5	5	5
SSA	6	7	9	11	13	14	17	19	22	26	31
USA	1	0	1	2	2	2	2	2	3	3	3

Table 10: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals (Mt DM/yr)
[PART 1/2]

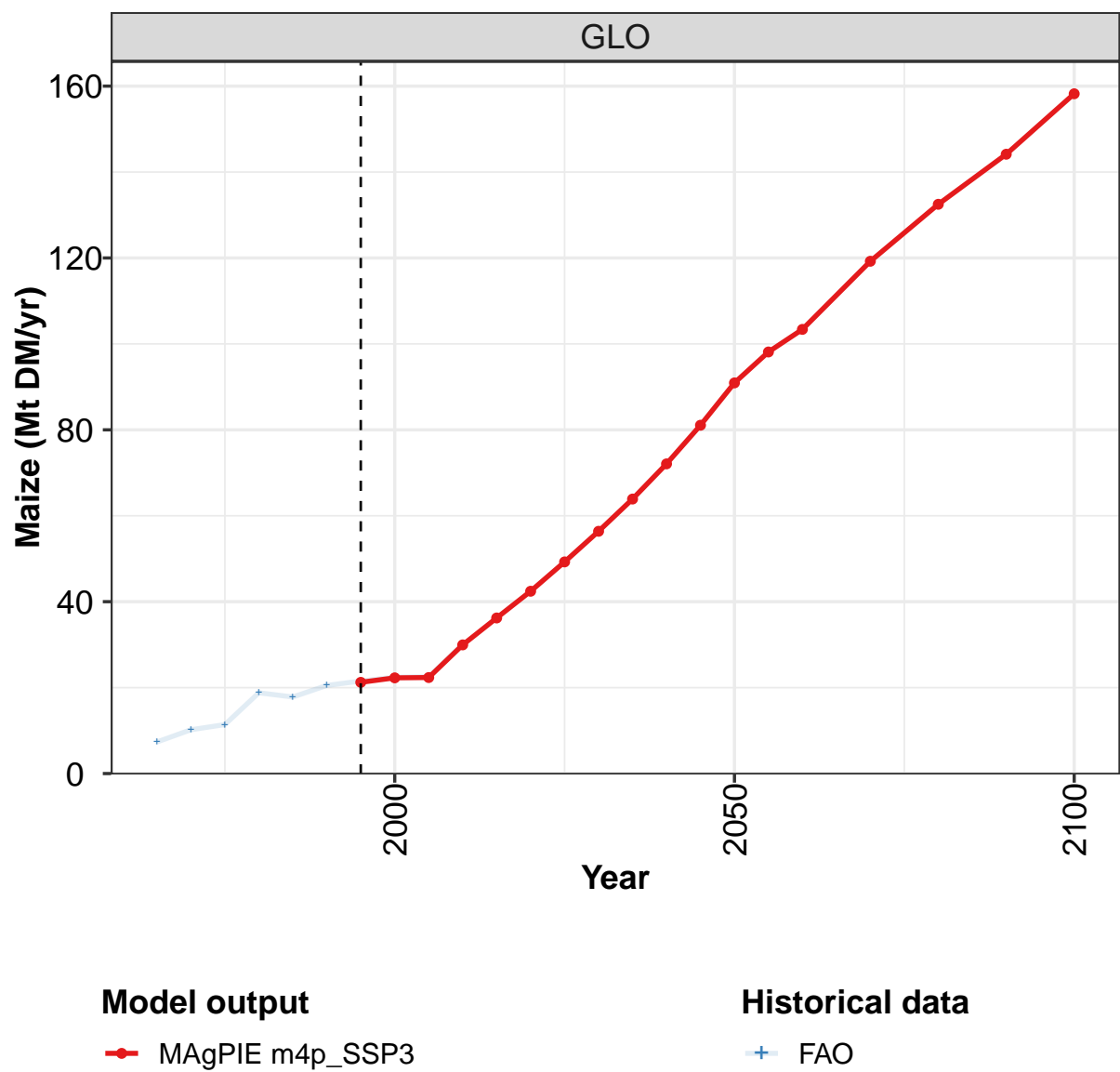
	2050	2055	2060	2070	2080	2090	2100
GLO	221	237	249	283	312	338	368
CAZ	1	2	2	2	2	2	2
CHA	29	30	29	27	25	24	23
EUR	7	7	7	7	7	7	6
IND	32	35	37	45	52	59	67
JPN	0	0	0	0	0	0	0
LAM	37	39	41	45	48	51	55
MEA	17	18	19	21	23	25	27
NEU	5	5	6	6	6	7	7
OAS	46	48	49	53	57	60	65
REF	6	6	6	6	7	7	7
SSA	37	43	50	66	80	92	104
USA	3	3	3	4	4	4	4

Table 11: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	37.1	48.8	49.9	68.6	74.2	86.1	77.9	80.6	81.9	97.7
CAZ	0.2	0.3	0.4	0.4	0.6	0.5	0.5	0.6	0.7	0.7
CHA	9.0	11.1	13.5	16.9	19.3	22.9	26.0	23.7	15.5	18.5
EUR	3.6	4.6	5.3	7.3	7.4	6.2	5.0	5.1	5.0	5.3
IND	3.3	4.0	4.1	4.2	4.4	6.2	6.5	7.3	8.3	11.0
JPN	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
LAM	3.6	4.8	4.6	7.6	7.0	7.1	9.3	10.0	11.2	14.2
MEA	1.6	1.9	2.4	3.0	3.7	4.4	4.9	5.7	7.0	8.7
NEU	1.1	1.3	2.1	3.5	3.9	4.7	3.4	3.4	4.0	3.5
OAS	4.7	5.7	6.3	7.3	8.8	10.3	11.6	14.5	17.3	20.2
REF	6.8	11.4	7.0	14.0	14.1	17.6	3.4	2.8	3.1	2.9
SSA	2.8	3.4	3.8	3.8	4.5	5.3	6.2	6.7	8.6	10.8
USA	0.1	0.1	0.1	0.3	0.1	0.7	0.7	0.5	0.9	1.6

Table 12: FAO — Demand—Agricultural Supply Chain Loss—Crops—Cereals (Mt DM/yr)

3.1.2 Cereals—Maize



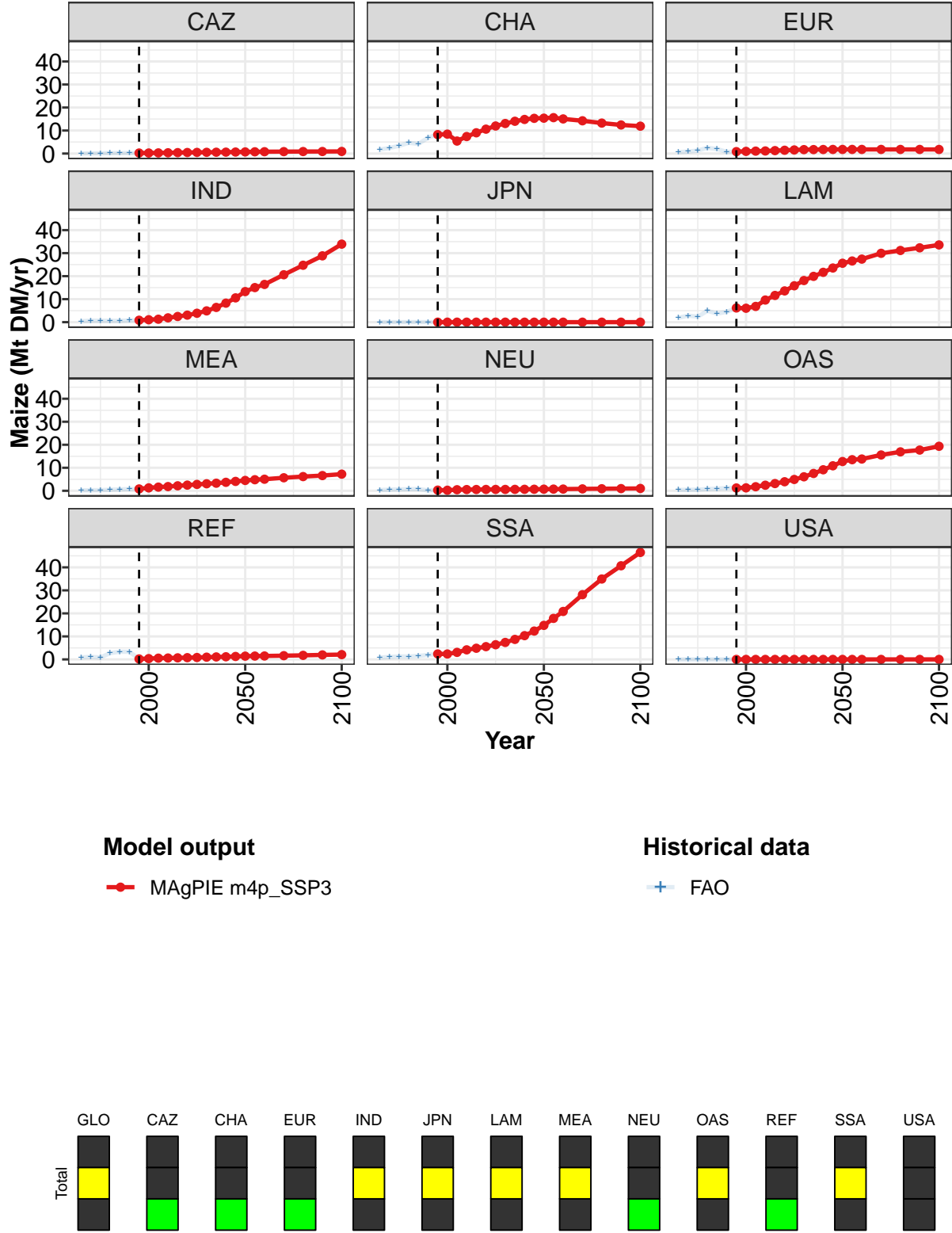


Figure 4: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	21	22	22	30	36	42	49	56	64	72	81
CAZ	0	0	0	0	0	0	0	1	1	1	1
CHA	8	8	5	7	9	11	12	13	14	15	15
EUR	1	1	1	1	1	1	2	2	2	2	2
IND	1	1	1	2	2	3	4	5	6	8	11
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	6	6	7	10	12	14	16	18	20	22	24
MEA	1	1	2	2	2	2	3	3	3	4	4
NEU	0	0	0	1	1	1	1	1	1	1	1
OAS	1	1	2	2	3	4	5	6	8	9	11
REF	0	0	1	1	1	1	1	1	1	1	1
SSA	2	2	3	4	5	6	6	7	9	10	12
USA	0	0	0	0	0	0	0	0	0	0	0

Table 13: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

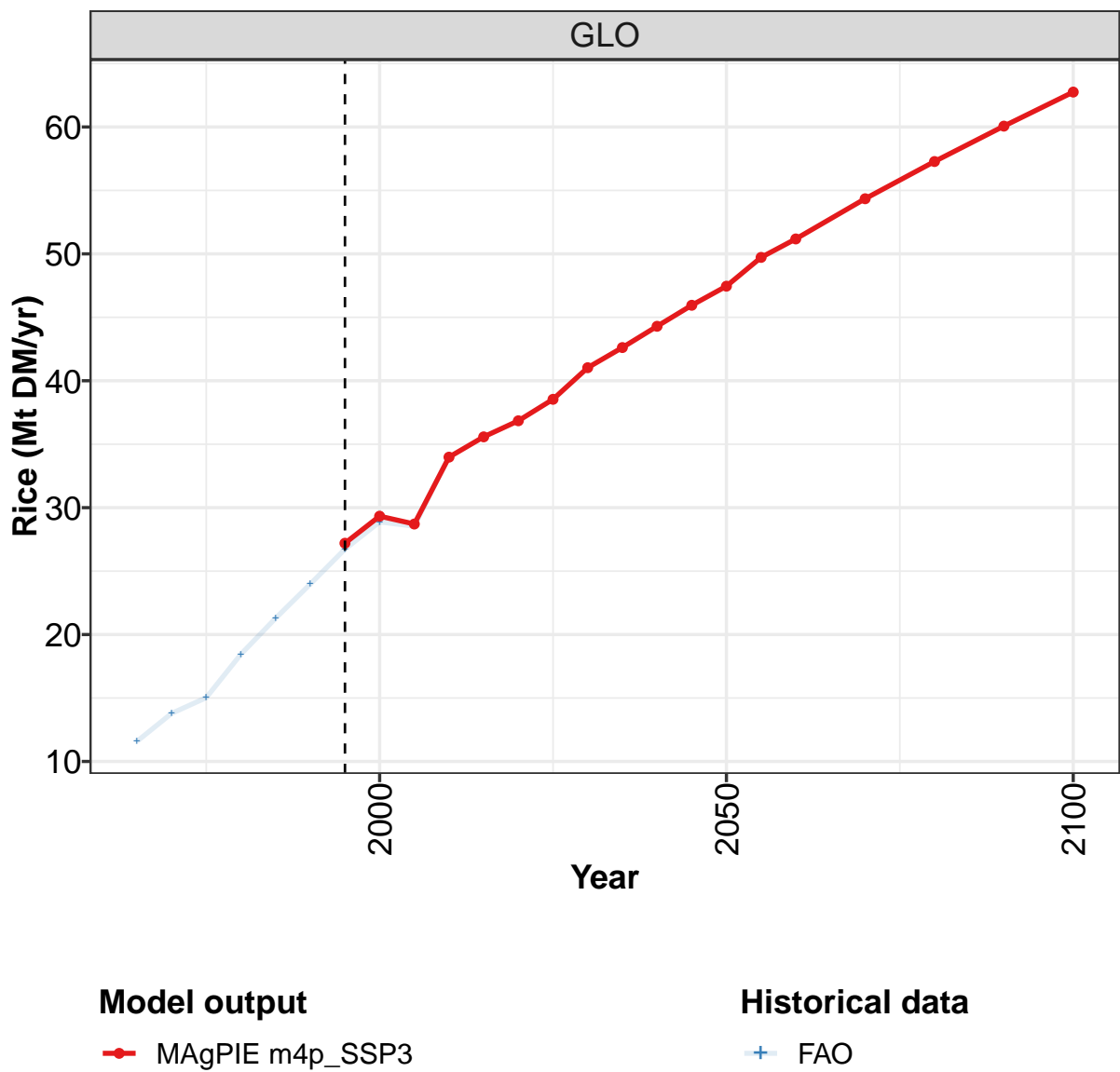
	2050	2055	2060	2070	2080	2090	2100
GLO	91	98	103	119	132	144	158
CAZ	1	1	1	1	1	1	1
CHA	15	16	15	14	13	12	12
EUR	2	2	2	2	2	2	2
IND	13	15	16	21	25	29	34
JPN	0	0	0	0	0	0	0
LAM	26	27	27	30	31	32	34
MEA	4	5	5	6	6	7	7
NEU	1	1	1	1	1	1	1
OAS	13	14	14	16	17	18	19
REF	1	1	1	2	2	2	2
SSA	15	18	21	28	35	41	46
USA	0	0	0	0	0	0	0

Table 14: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Maize (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	7.3	10.2	11.4	18.8	17.8	20.5	21.5	22.4	22.5	30.1
CAZ	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4
CHA	1.7	2.4	3.4	4.7	4.2	6.9	8.4	8.6	5.5	7.5
EUR	0.6	0.9	1.3	2.5	2.0	0.7	0.8	0.9	1.0	1.1
IND	0.4	0.7	0.6	0.6	0.6	0.8	0.8	1.1	1.3	1.9
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.9	2.8	2.4	4.9	3.7	4.5	6.1	6.0	6.9	9.6
MEA	0.2	0.2	0.3	0.4	0.6	0.7	0.8	1.2	1.5	1.9
NEU	0.3	0.5	0.6	0.7	0.7	0.2	0.4	0.3	0.5	0.5
OAS	0.4	0.4	0.5	0.7	0.9	1.2	1.3	1.4	1.8	2.5
REF	0.9	1.1	0.8	2.7	3.3	3.3	0.2	0.4	0.6	0.6
SSA	0.8	1.1	1.3	1.3	1.5	1.9	2.4	2.4	3.1	4.2
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 15: FAO — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Maize (Mt DM/yr)

3.1.3 Cereals—Rice



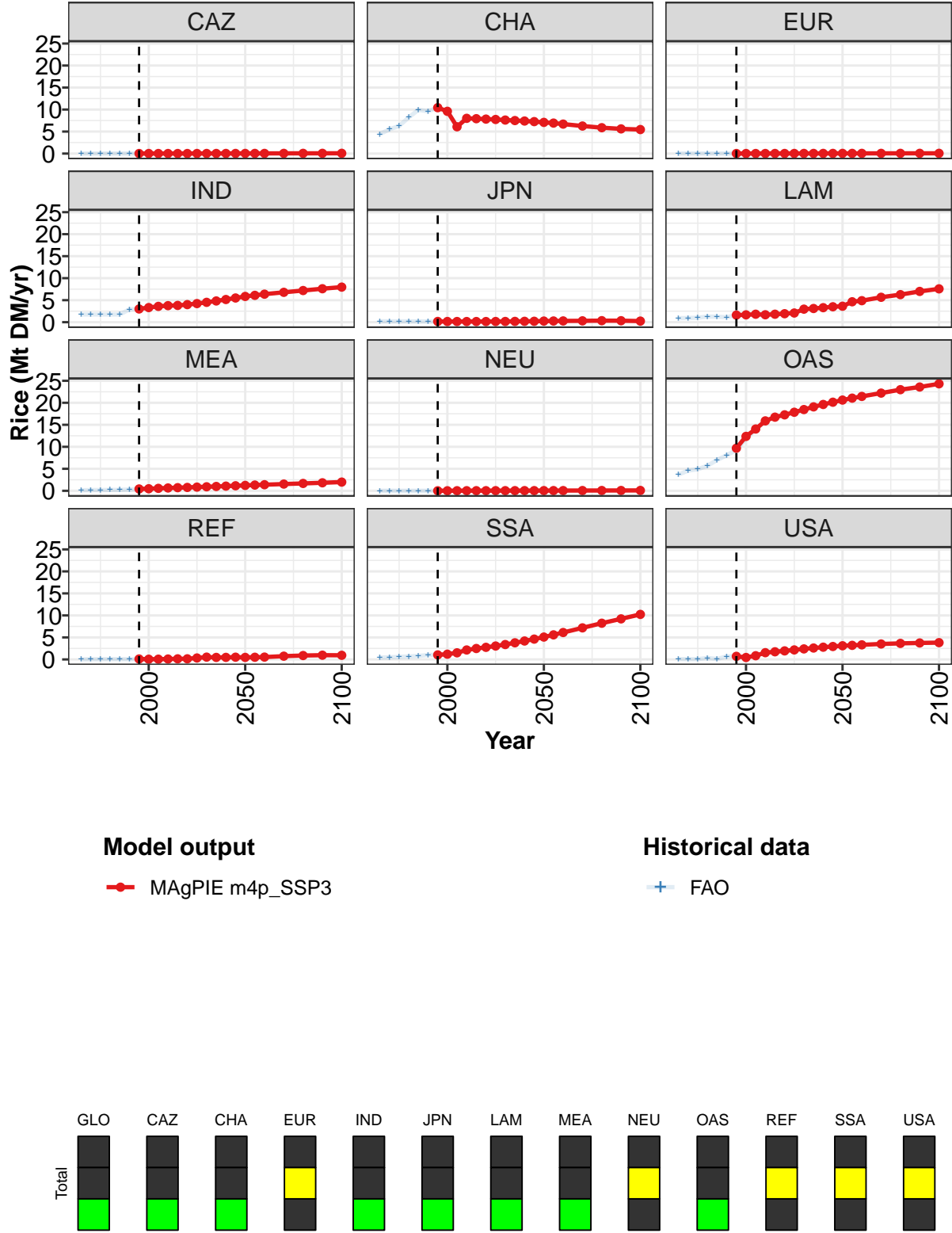


Figure 5: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	27.2	29.3	28.7	34.0	35.6	36.8	38.5	41.0	42.6	44.3	46.0
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	10.4	9.6	6.1	8.0	7.9	7.8	7.7	7.6	7.5	7.4	7.3
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	3.0	3.3	3.6	3.8	3.8	4.0	4.2	4.5	4.8	5.2	5.5
JPN	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	1.6	1.7	1.8	1.7	1.8	1.9	2.1	3.0	3.1	3.3	3.5
MEA	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.1	1.1
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	9.7	12.4	14.0	15.9	16.7	17.3	17.8	18.5	19.1	19.6	20.1
REF	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	0.5	0.5	0.5
SSA	1.0	1.2	1.5	2.1	2.5	2.7	3.0	3.4	3.8	4.2	4.6
USA	0.7	0.4	0.8	1.5	1.7	1.9	2.2	2.4	2.6	2.8	2.9

Table 16: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

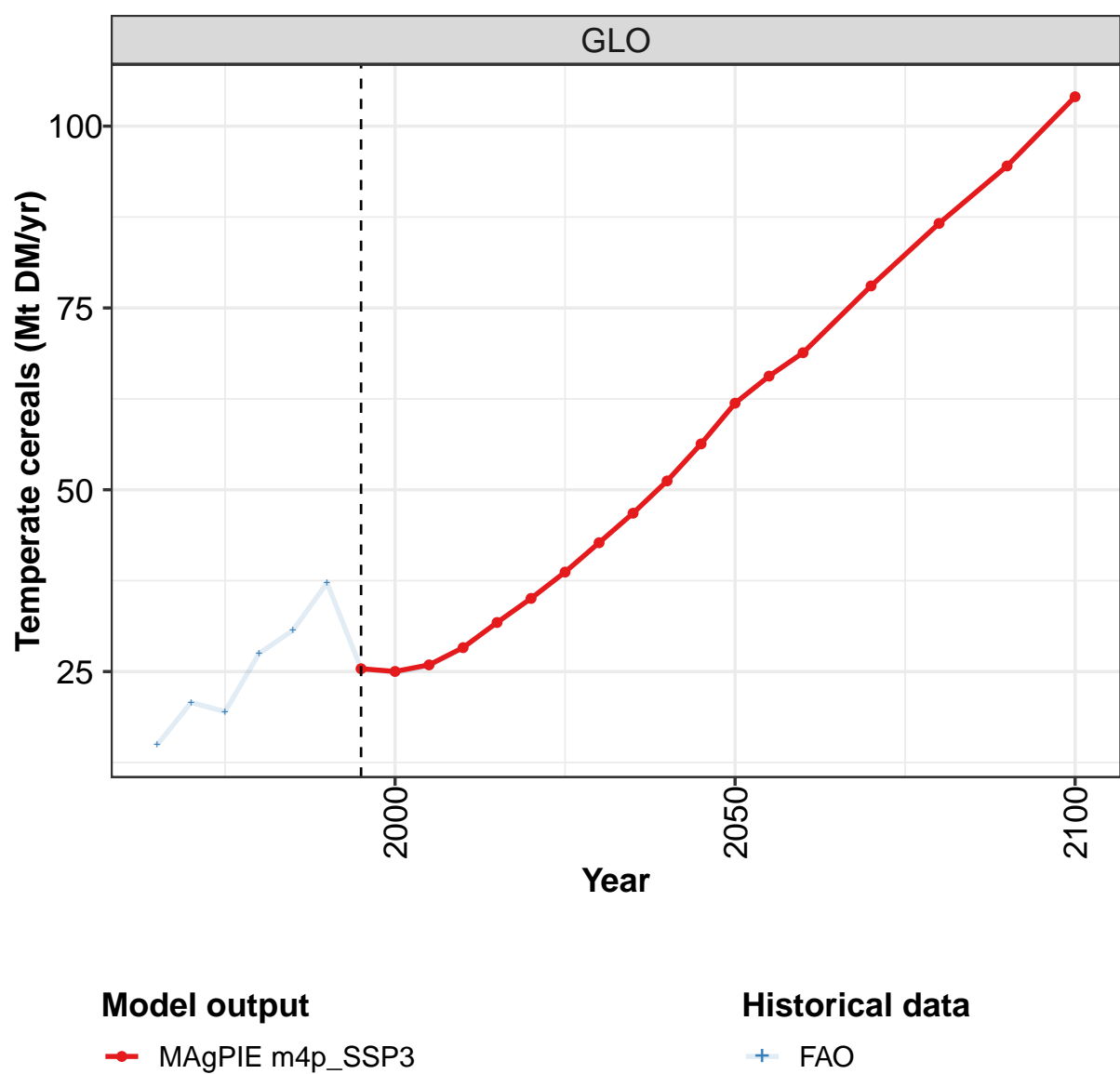
	2050	2055	2060	2070	2080	2090	2100
GLO	47.5	49.7	51.2	54.3	57.3	60.1	62.8
CAZ	0.0	0.0	0.0	0.0	0.1	0.1	0.1
CHA	7.1	6.9	6.7	6.3	5.9	5.6	5.5
EUR	0.0	0.0	0.0	0.0	0.1	0.1	0.1
IND	5.9	6.1	6.4	6.8	7.2	7.6	8.0
JPN	0.3	0.3	0.3	0.3	0.3	0.3	0.2
LAM	3.6	4.6	4.9	5.7	6.3	7.0	7.6
MEA	1.2	1.3	1.4	1.5	1.7	1.8	2.0
NEU	0.0	0.1	0.1	0.1	0.1	0.1	0.1
OAS	20.6	21.1	21.4	22.2	23.0	23.6	24.3
REF	0.5	0.5	0.5	0.7	0.9	1.0	0.9
SSA	5.1	5.6	6.1	7.2	8.2	9.2	10.2
USA	3.1	3.2	3.3	3.5	3.6	3.7	3.8

Table 17: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Rice (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	11.6	13.8	15.0	18.4	21.3	24.0	26.7	28.9	28.5	34.0
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	4.4	5.5	6.3	8.2	9.9	9.6	10.4	9.6	6.1	8.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	1.7	1.7	1.7	1.7	1.7	2.9	3.0	3.3	3.6	3.8
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
LAM	0.9	0.9	1.0	1.3	1.2	1.1	1.6	1.7	1.8	1.7
MEA	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.6	0.6
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	3.7	4.6	4.9	5.7	7.0	8.1	9.3	11.9	13.8	15.9
REF	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
SSA	0.4	0.5	0.6	0.7	0.8	1.0	1.0	1.2	1.5	2.2
USA	0.1	0.1	0.1	0.3	0.1	0.7	0.7	0.4	0.8	1.5

Table 18: FAO — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Rice (Mt DM/yr)

3.1.4
Cereals—Temperate cereals



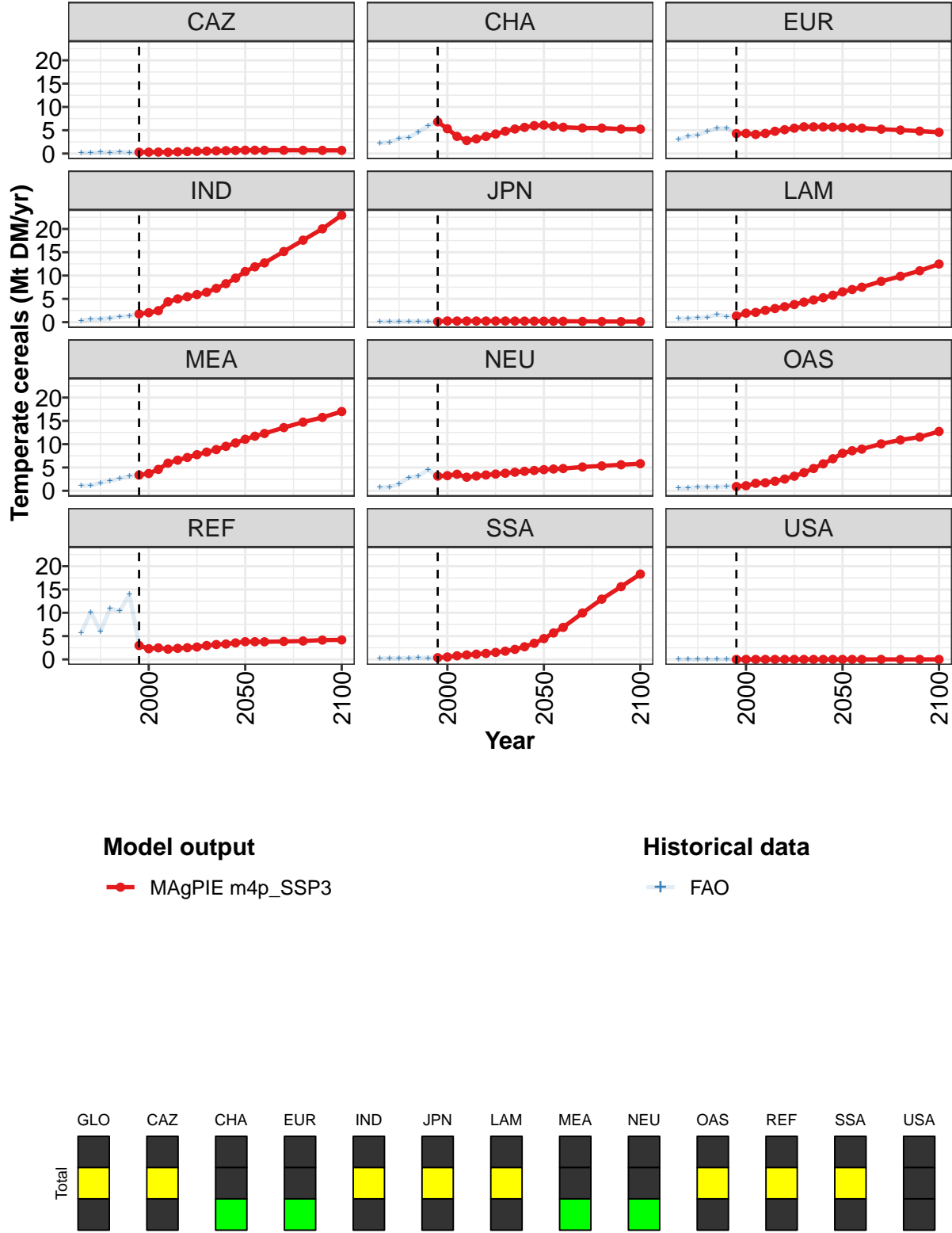


Figure 6: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	25	25	26	28	32	35	39	43	47	51	56
CAZ	0	0	0	0	0	0	0	1	1	1	1
CHA	7	5	4	3	3	4	4	5	5	6	6
EUR	4	4	4	4	5	5	5	6	6	6	6
IND	2	2	2	4	5	5	6	6	7	8	9
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1	2	2	3	3	3	4	4	5	5	6
MEA	3	4	5	6	7	7	8	8	9	10	10
NEU	3	3	4	3	3	3	4	4	4	4	4
OAS	1	1	2	2	2	3	3	4	5	6	7
REF	3	2	2	2	2	3	3	3	3	3	4
SSA	0	1	1	1	1	1	2	2	2	3	3
USA	0	0	0	0	0	0	0	0	0	0	0

Table 19: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 1/2]

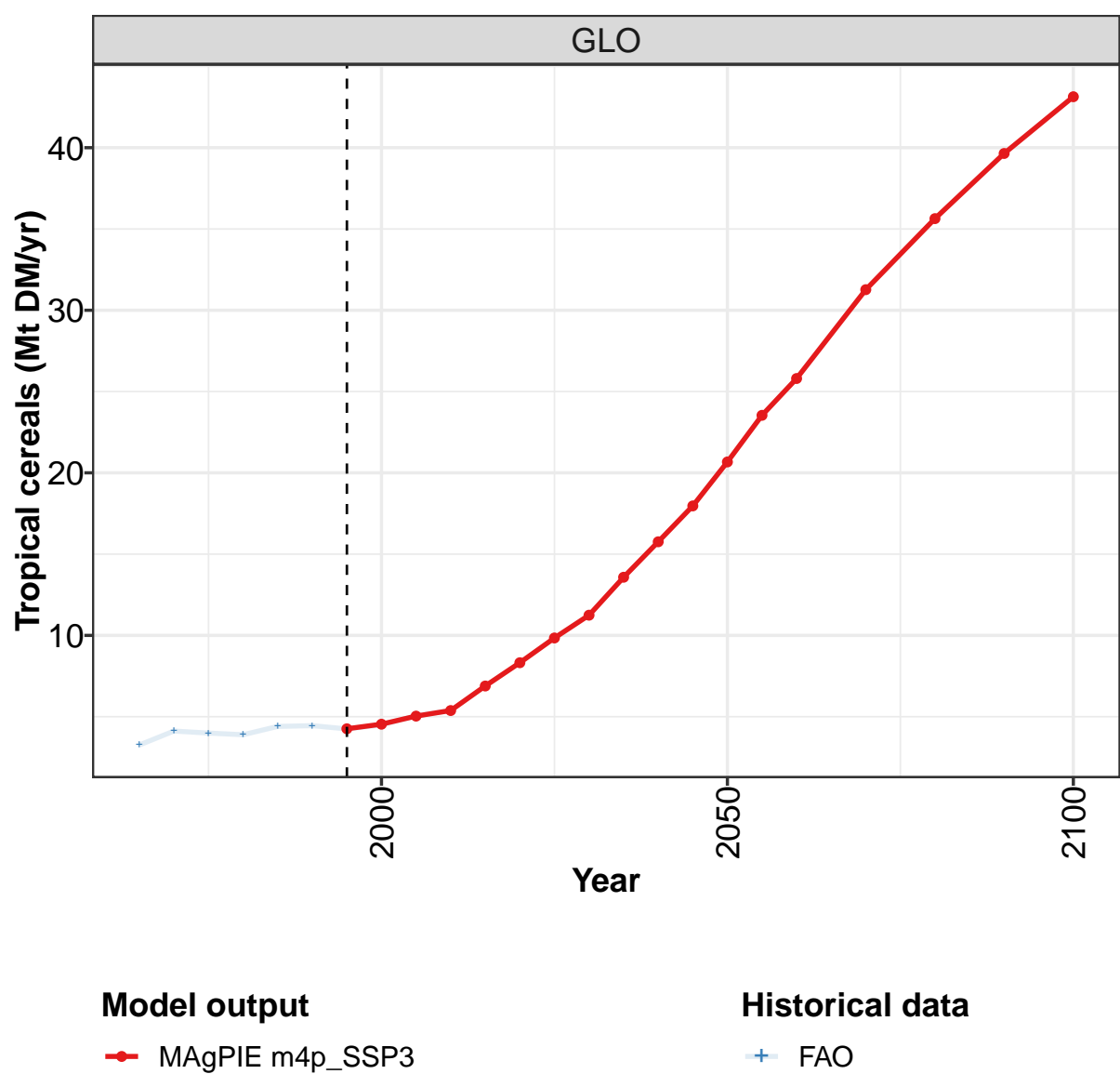
	2050	2055	2060	2070	2080	2090	2100
GLO	62	66	69	78	87	95	104
CAZ	1	1	1	1	1	1	1
CHA	6	6	6	5	5	5	5
EUR	6	6	5	5	5	5	5
IND	11	12	13	15	18	20	23
JPN	0	0	0	0	0	0	0
LAM	7	7	7	9	10	11	12
MEA	11	12	12	14	15	16	17
NEU	5	5	5	5	5	6	6
OAS	8	9	9	10	11	12	13
REF	4	4	4	4	4	4	4
SSA	4	6	7	10	13	16	18
USA	0	0	0	0	0	0	0

Table 20: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	14.9	20.7	19.5	27.5	30.7	37.2	25.4	24.8	25.7	28.2
CAZ	0.2	0.2	0.3	0.2	0.4	0.3	0.3	0.3	0.4	0.3
CHA	2.3	2.4	3.2	3.5	4.6	5.9	6.8	5.3	3.7	2.8
EUR	3.0	3.7	4.0	4.8	5.4	5.4	4.2	4.2	4.0	4.2
IND	0.4	0.6	0.7	0.9	1.2	1.3	1.8	2.0	2.5	4.4
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.2
LAM	0.8	0.8	0.9	1.1	1.6	1.2	1.3	1.9	2.1	2.6
MEA	1.0	1.2	1.7	2.1	2.7	3.1	3.4	3.7	4.6	6.0
NEU	0.8	0.8	1.5	2.8	3.2	4.5	3.0	3.1	3.4	2.9
OAS	0.5	0.6	0.8	0.8	0.8	0.9	0.9	1.1	1.6	1.7
REF	5.7	10.1	6.0	10.9	10.4	13.9	3.1	2.3	2.5	2.2
SSA	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.8	1.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 21: FAO — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Temperate cereals (Mt DM/yr)

3.1.5
Cereals—Tropical cereals



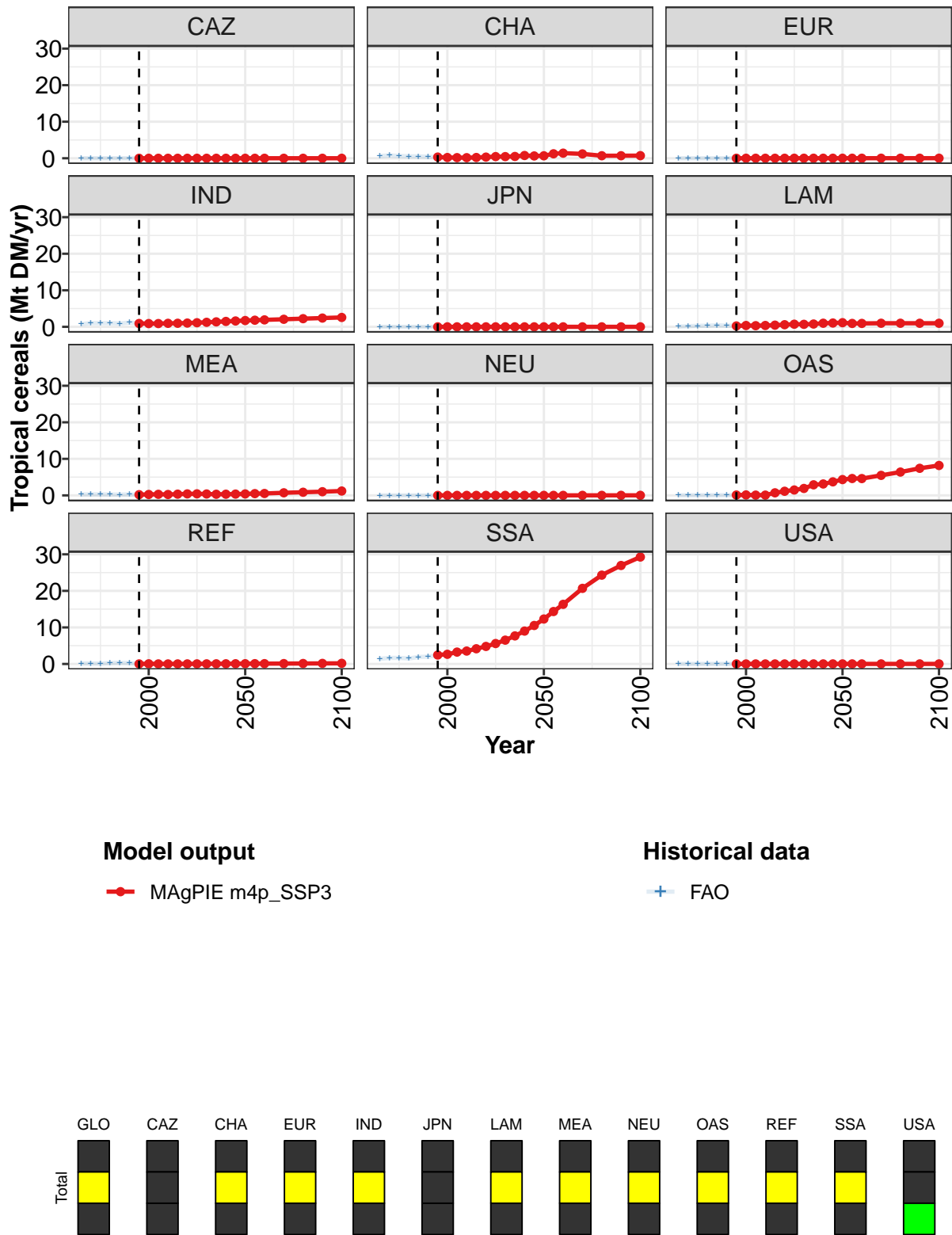


Figure 7: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.3	4.5	5.0	5.4	6.9	8.3	9.8	11.2	13.6	15.8	18.0
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.3	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.5	0.8	0.6
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.2	1.4	1.5	1.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.4	0.3	0.4	0.5	0.6	0.7	0.7	0.8	1.0	1.0
MEA	0.2	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.3	0.3	0.4
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.1	0.1	0.1	0.1	0.7	1.1	1.5	1.9	2.9	3.1	3.7
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
SSA	2.4	2.6	3.3	3.5	4.2	4.8	5.6	6.5	7.7	9.0	10.5
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 22: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

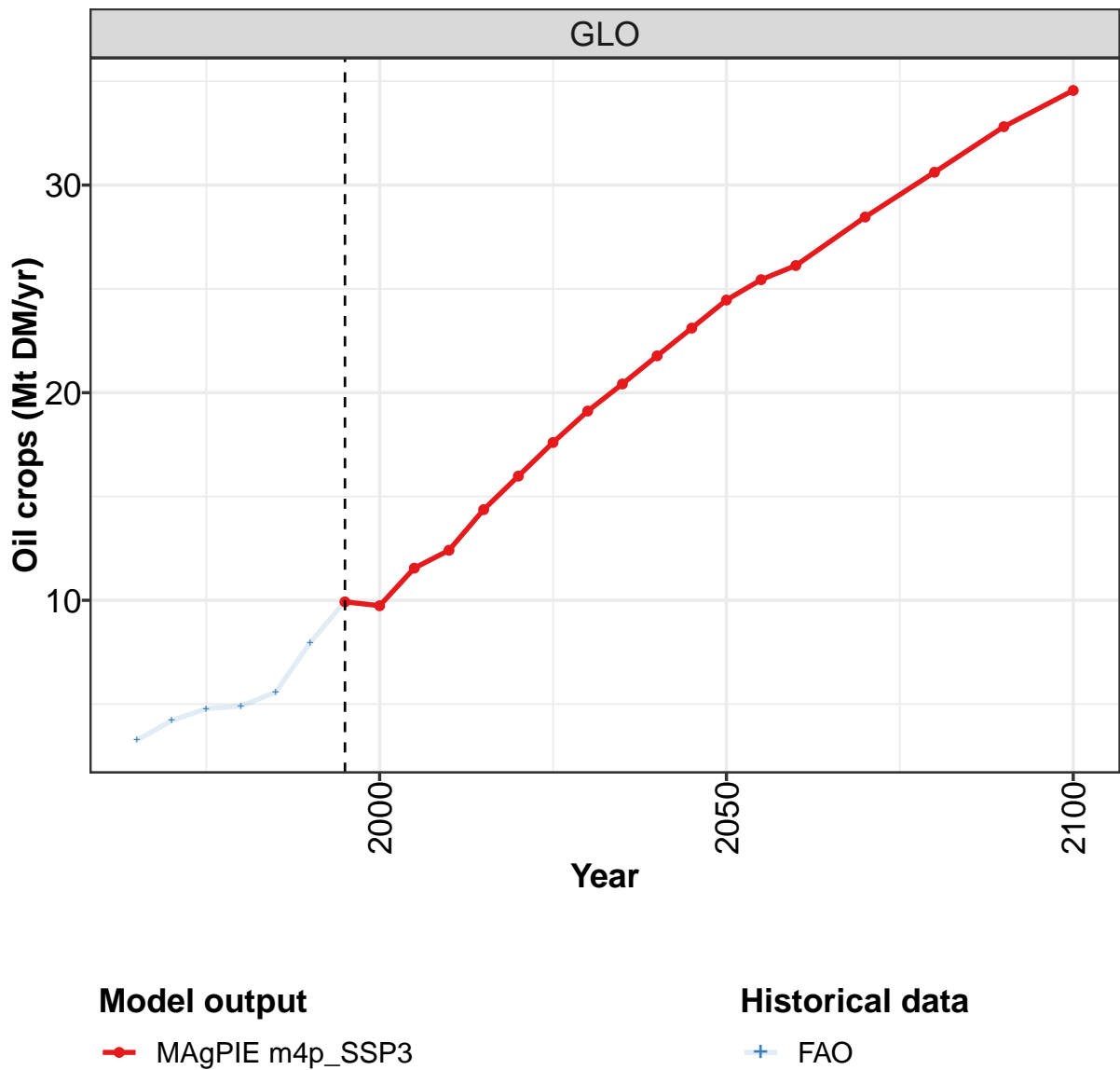
	2050	2055	2060	2070	2080	2090	2100
GLO	20.7	23.5	25.8	31.3	35.6	39.6	43.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.7	1.2	1.4	1.2	0.7	0.7	0.7
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	1.7	1.8	1.9	2.1	2.2	2.4	2.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.1	0.9	0.9	1.0	1.0	1.0	1.0
MEA	0.4	0.5	0.5	0.7	0.9	1.0	1.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	4.3	4.6	4.6	5.5	6.4	7.4	8.2
REF	0.1	0.1	0.1	0.1	0.1	0.2	0.2
SSA	12.3	14.4	16.3	20.7	24.3	26.9	29.3
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 23: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3.26	4.12	3.99	3.89	4.40	4.45	4.25	4.49	5.05	5.39
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.61	0.78	0.63	0.53	0.52	0.42	0.32	0.20	0.17	0.16
EUR	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00
IND	0.72	1.02	0.99	1.01	0.93	1.15	0.92	0.89	0.89	0.97
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.07	0.17	0.27	0.30	0.42	0.31	0.27	0.39	0.32	0.37
MEA	0.25	0.27	0.27	0.25	0.23	0.26	0.20	0.23	0.30	0.25
NEU	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.05	0.06	0.06	0.05	0.07	0.06	0.06	0.07	0.07	0.08
REF	0.16	0.15	0.10	0.26	0.33	0.25	0.02	0.03	0.02	0.01
SSA	1.39	1.66	1.66	1.49	1.90	1.99	2.44	2.65	3.27	3.54
USA	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Table 24: FAO — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Tropical cereals (Mt DM/yr)

3.1.6 Oil crops



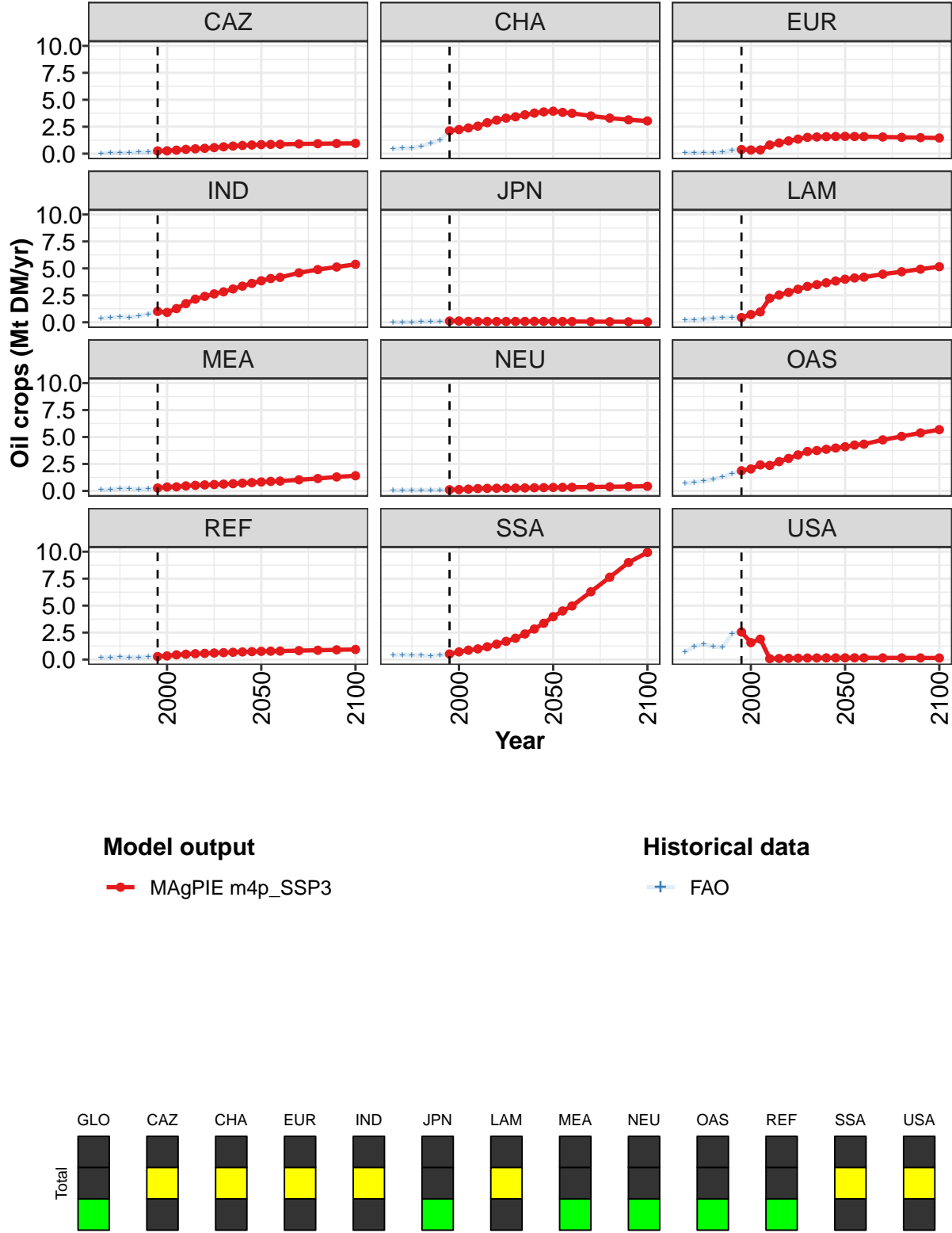


Figure 8: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9.9	9.7	11.5	12.4	14.4	16.0	17.6	19.1	20.4	21.8	23.1
CAZ	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.8
CHA	2.1	2.2	2.4	2.6	2.9	3.1	3.3	3.4	3.6	3.8	3.9
EUR	0.4	0.3	0.3	0.8	1.0	1.2	1.4	1.5	1.5	1.6	1.6
IND	1.0	0.9	1.3	1.7	2.1	2.4	2.6	2.8	3.1	3.4	3.6
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.4	0.7	1.0	2.2	2.5	2.8	3.1	3.3	3.5	3.7	3.8
MEA	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8
NEU	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
OAS	1.9	2.0	2.4	2.4	2.7	3.0	3.3	3.7	3.7	3.9	4.0
REF	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7
SSA	0.5	0.7	0.9	1.0	1.2	1.4	1.7	2.0	2.4	2.8	3.4
USA	2.6	1.6	1.9	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2

Table 25: MAgPIE m4p-SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops (Mt DM/yr)
[PART 1/2]

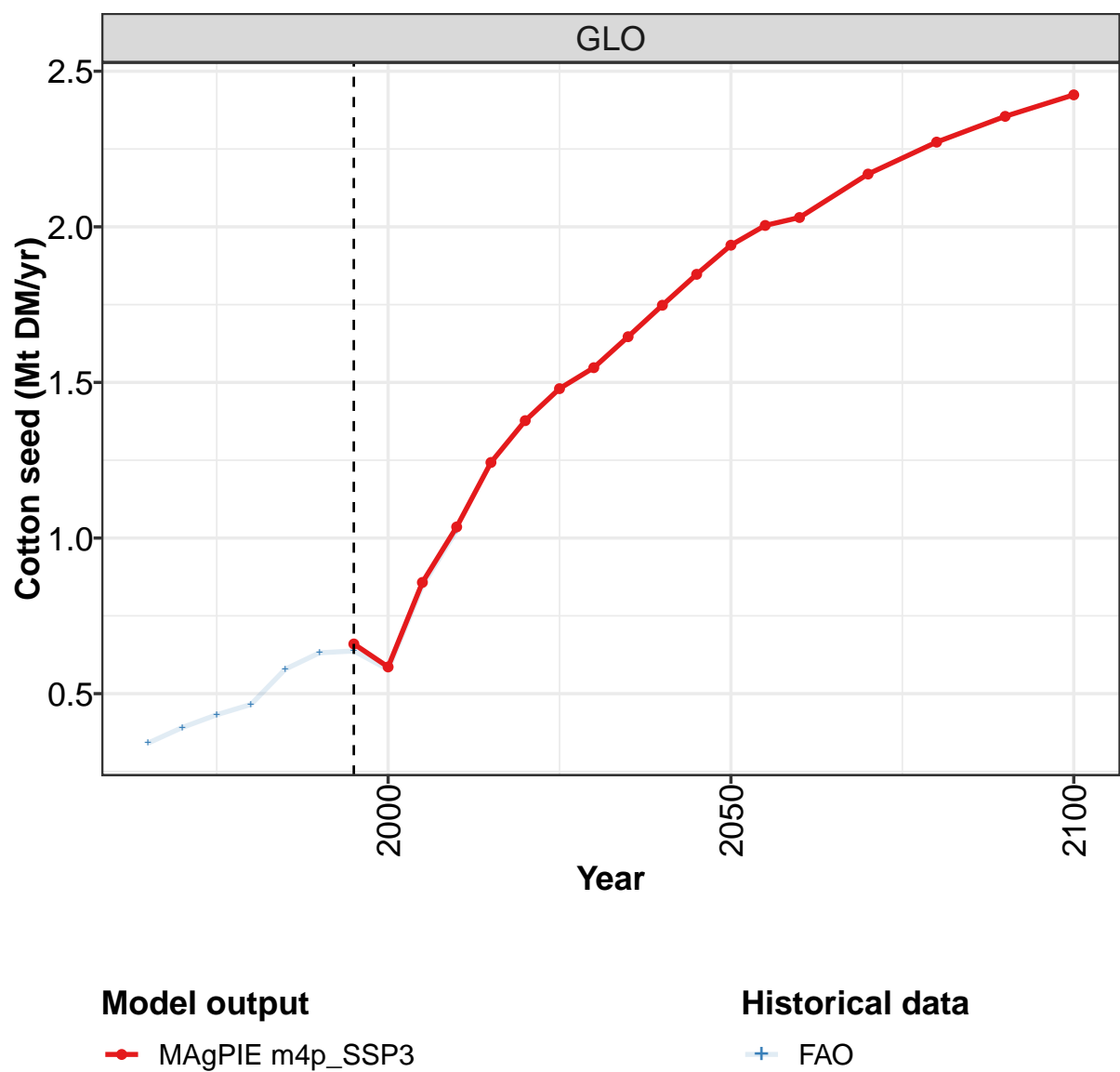
	2050	2055	2060	2070	2080	2090	2100
GLO	24.5	25.4	26.1	28.5	30.6	32.8	34.6
CAZ	0.8	0.9	0.9	0.9	0.9	0.9	1.0
CHA	3.9	3.8	3.7	3.5	3.3	3.1	3.0
EUR	1.6	1.6	1.6	1.5	1.5	1.5	1.5
IND	3.9	4.1	4.2	4.6	4.9	5.1	5.4
JPN	0.1	0.1	0.1	0.1	0.1	0.0	0.0
LAM	4.0	4.1	4.2	4.5	4.7	4.9	5.2
MEA	0.8	0.9	0.9	1.0	1.2	1.3	1.4
NEU	0.3	0.3	0.3	0.4	0.4	0.4	0.4
OAS	4.1	4.3	4.3	4.7	5.1	5.4	5.7
REF	0.8	0.8	0.8	0.8	0.9	0.9	0.9
SSA	4.0	4.5	5.0	6.3	7.6	9.0	9.9
USA	0.2	0.2	0.2	0.2	0.2	0.1	0.1

Table 26: MAgPIE m4p-SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3.3	4.2	4.8	4.9	5.6	8.0	10.0	9.7	11.6	12.3
CAZ	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4
CHA	0.4	0.5	0.5	0.7	0.9	1.3	2.1	2.2	2.4	2.6
EUR	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.3	0.8
IND	0.4	0.5	0.5	0.5	0.6	0.8	1.0	0.9	1.3	1.7
JPN	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.7	1.0	2.1
MEA	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.5
NEU	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2
OAS	0.7	0.8	0.9	1.1	1.3	1.6	1.9	2.0	2.4	2.4
REF	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.5
SSA	0.4	0.4	0.4	0.4	0.3	0.4	0.5	0.7	0.9	1.0
USA	0.7	1.2	1.4	1.2	1.2	2.4	2.7	1.7	2.0	0.1

Table 27: FAO — Demand—Agricultural Supply Chain Loss—Crops—Oil crops (Mt DM/yr)

3.1.7
Oil crops—Cotton seed



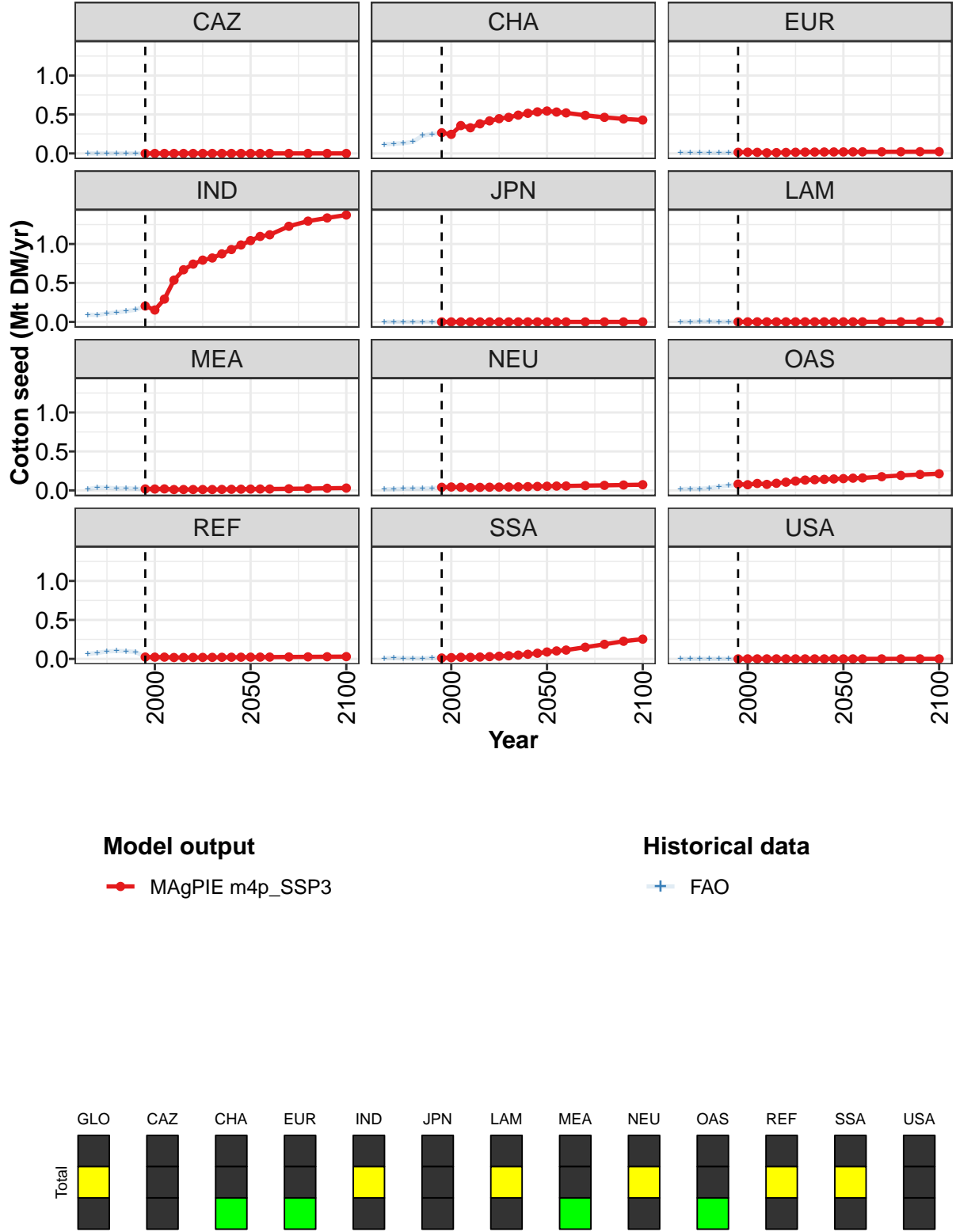


Figure 9: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.66	0.59	0.86	1.04	1.24	1.38	1.48	1.55	1.65	1.75	1.85
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.27	0.24	0.36	0.33	0.38	0.42	0.45	0.46	0.49	0.52	0.53
EUR	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
IND	0.20	0.15	0.29	0.54	0.67	0.74	0.79	0.82	0.87	0.93	0.99
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
NEU	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05
OAS	0.08	0.07	0.09	0.08	0.09	0.11	0.12	0.13	0.14	0.14	0.15
REF	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
SSA	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.07
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 28: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

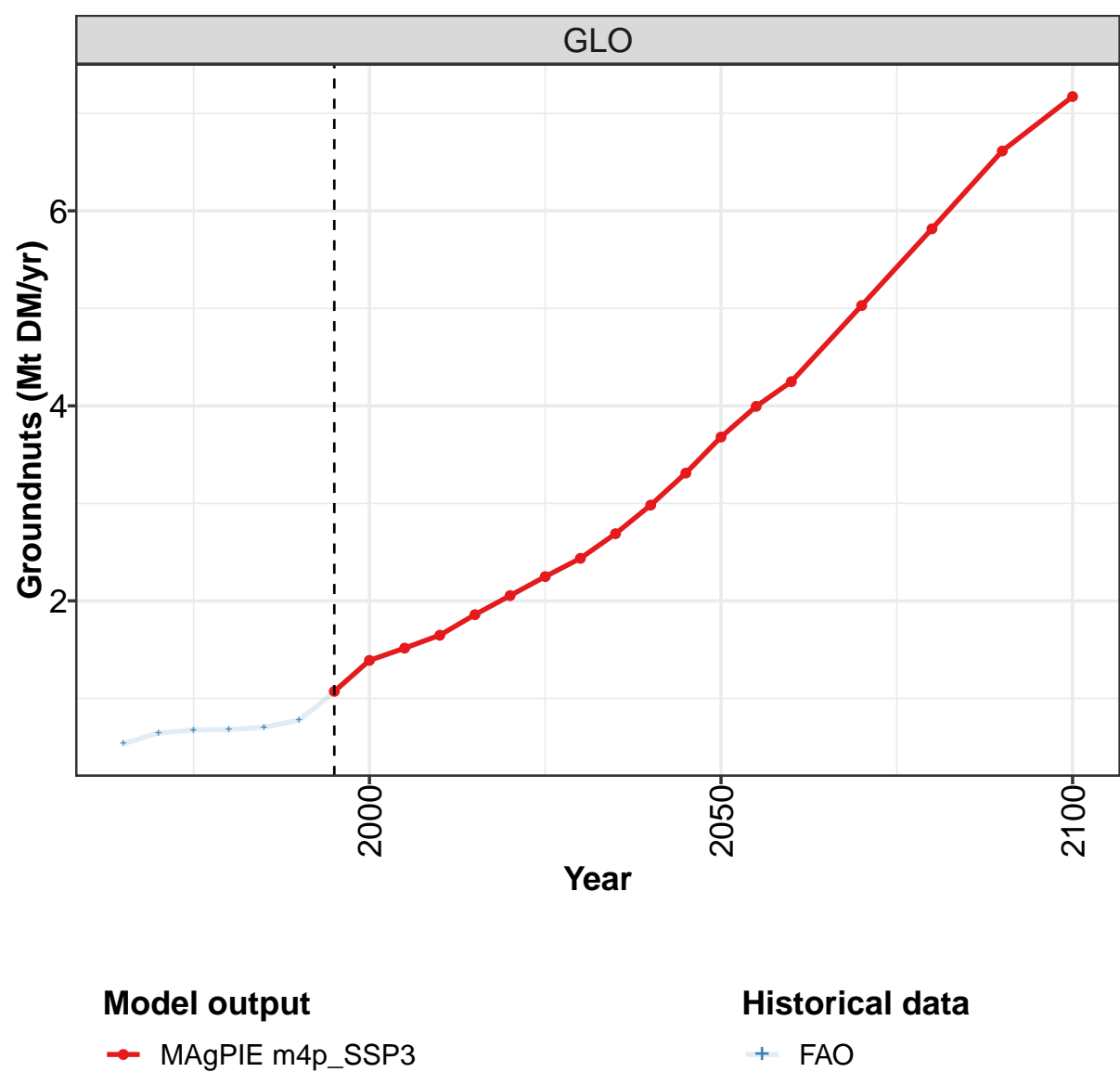
	2050	2055	2060	2070	2080	2090	2100
GLO	1.94	2.00	2.03	2.17	2.27	2.35	2.42
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.54	0.53	0.52	0.49	0.46	0.44	0.43
EUR	0.02	0.02	0.02	0.02	0.02	0.02	0.02
IND	1.04	1.10	1.12	1.23	1.29	1.33	1.37
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.02	0.02	0.02	0.02	0.02	0.03	0.03
NEU	0.05	0.06	0.06	0.06	0.06	0.07	0.07
OAS	0.15	0.16	0.16	0.18	0.19	0.20	0.21
REF	0.02	0.02	0.02	0.02	0.03	0.03	0.03
SSA	0.09	0.10	0.11	0.15	0.19	0.23	0.25
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 29: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.34	0.39	0.43	0.47	0.58	0.63	0.64	0.58	0.85	1.02
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.12	0.13	0.13	0.15	0.23	0.25	0.26	0.24	0.36	0.33
EUR	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01
IND	0.09	0.09	0.11	0.12	0.14	0.16	0.20	0.15	0.29	0.53
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.02	0.04	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.01
NEU	0.01	0.02	0.02	0.02	0.02	0.03	0.04	0.04	0.04	0.04
OAS	0.02	0.02	0.02	0.03	0.05	0.06	0.07	0.07	0.09	0.08
REF	0.06	0.08	0.10	0.10	0.10	0.09	0.02	0.02	0.02	0.02
SSA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 30: FAO — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Cotton seed (Mt DM/yr)

3.1.8
Oil crops—Groundnuts



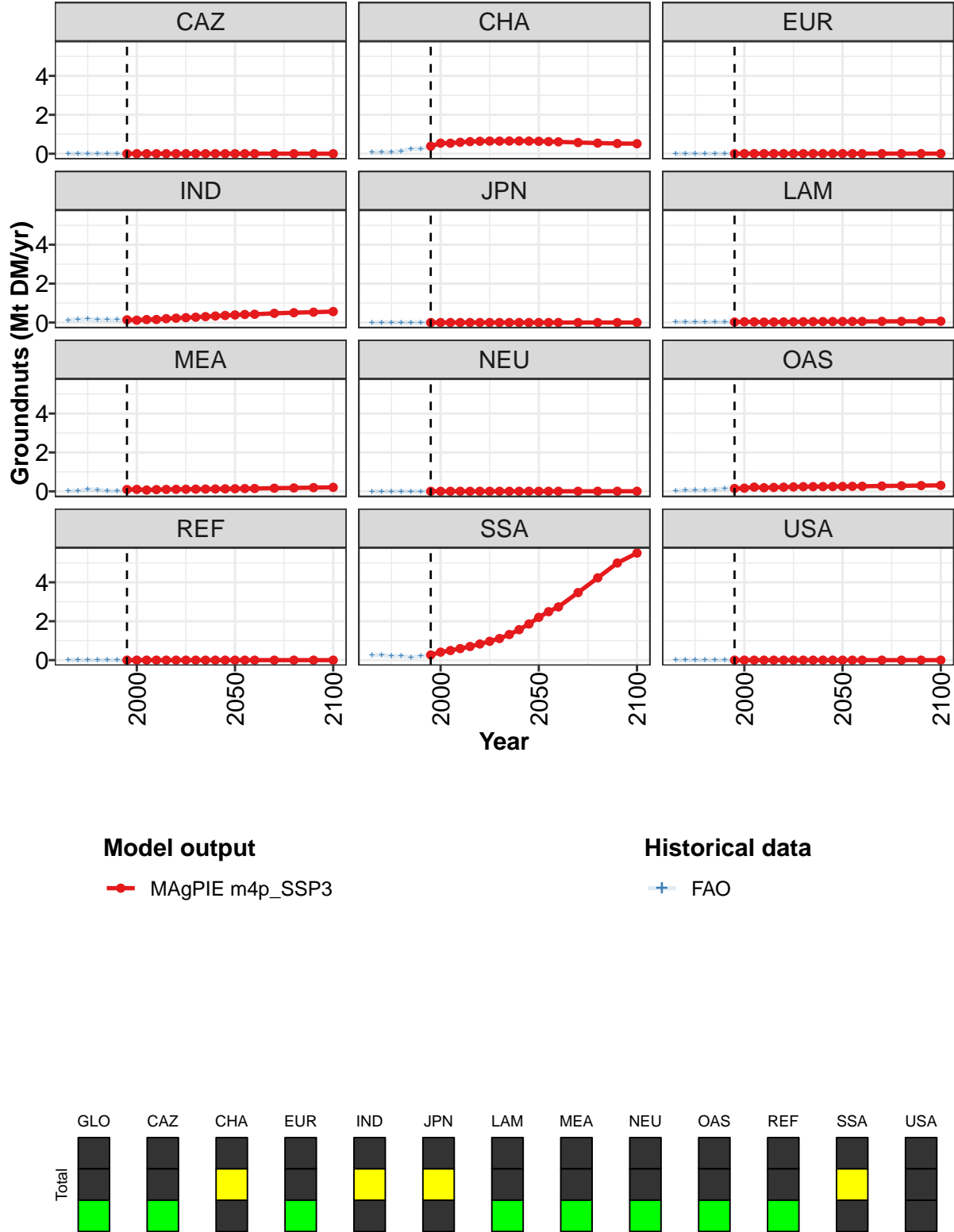


Figure 10: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.07	1.39	1.52	1.65	1.86	2.05	2.25	2.44	2.69	2.98	3.31
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.39	0.54	0.54	0.59	0.62	0.64	0.65	0.65	0.65	0.65	0.65
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
IND	0.14	0.12	0.15	0.16	0.20	0.22	0.25	0.27	0.30	0.33	0.36
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.03	0.04	0.03	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.05
MEA	0.10	0.10	0.07	0.09	0.10	0.10	0.11	0.11	0.12	0.12	0.13
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.15	0.17	0.22	0.19	0.20	0.21	0.23	0.24	0.24	0.24	0.25
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.27	0.41	0.49	0.59	0.70	0.83	0.97	1.11	1.32	1.57	1.86
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 31: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

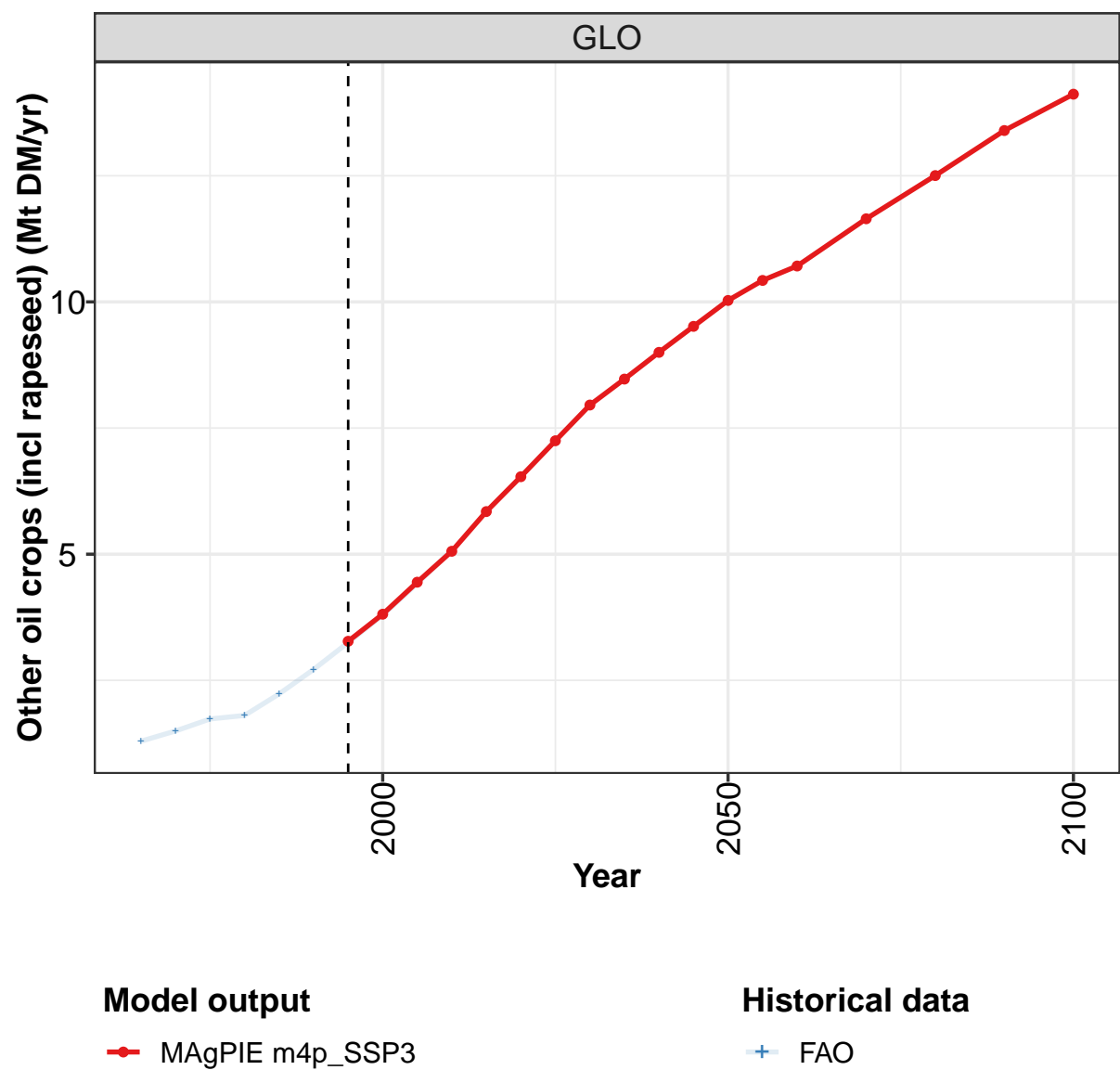
	2050	2055	2060	2070	2080	2090	2100
GLO	3.68	3.99	4.25	5.03	5.82	6.61	7.17
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.64	0.62	0.61	0.58	0.55	0.52	0.51
EUR	0.01	0.01	0.01	0.00	0.00	0.00	0.00
IND	0.39	0.41	0.43	0.47	0.51	0.53	0.56
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.05	0.06	0.06	0.06	0.06	0.07	0.07
MEA	0.14	0.14	0.15	0.16	0.18	0.19	0.21
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.01
OAS	0.25	0.26	0.26	0.27	0.29	0.30	0.31
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	2.20	2.49	2.74	3.47	4.23	4.99	5.50
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 32: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.54	0.64	0.68	0.68	0.70	0.78	1.07	1.39	1.51	1.66
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.07	0.08	0.09	0.14	0.25	0.24	0.39	0.54	0.54	0.59
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.12	0.17	0.19	0.14	0.14	0.14	0.14	0.12	0.15	0.16
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.04
MEA	0.01	0.03	0.10	0.08	0.03	0.02	0.09	0.10	0.07	0.09
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.04	0.05	0.06	0.06	0.08	0.14	0.15	0.17	0.22	0.19
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.25	0.27	0.20	0.22	0.15	0.20	0.26	0.41	0.49	0.59
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 33: FAO — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Groundnuts (Mt DM/yr)

3.1.9
Oil crops—Other oil crops (incl rapeseed)



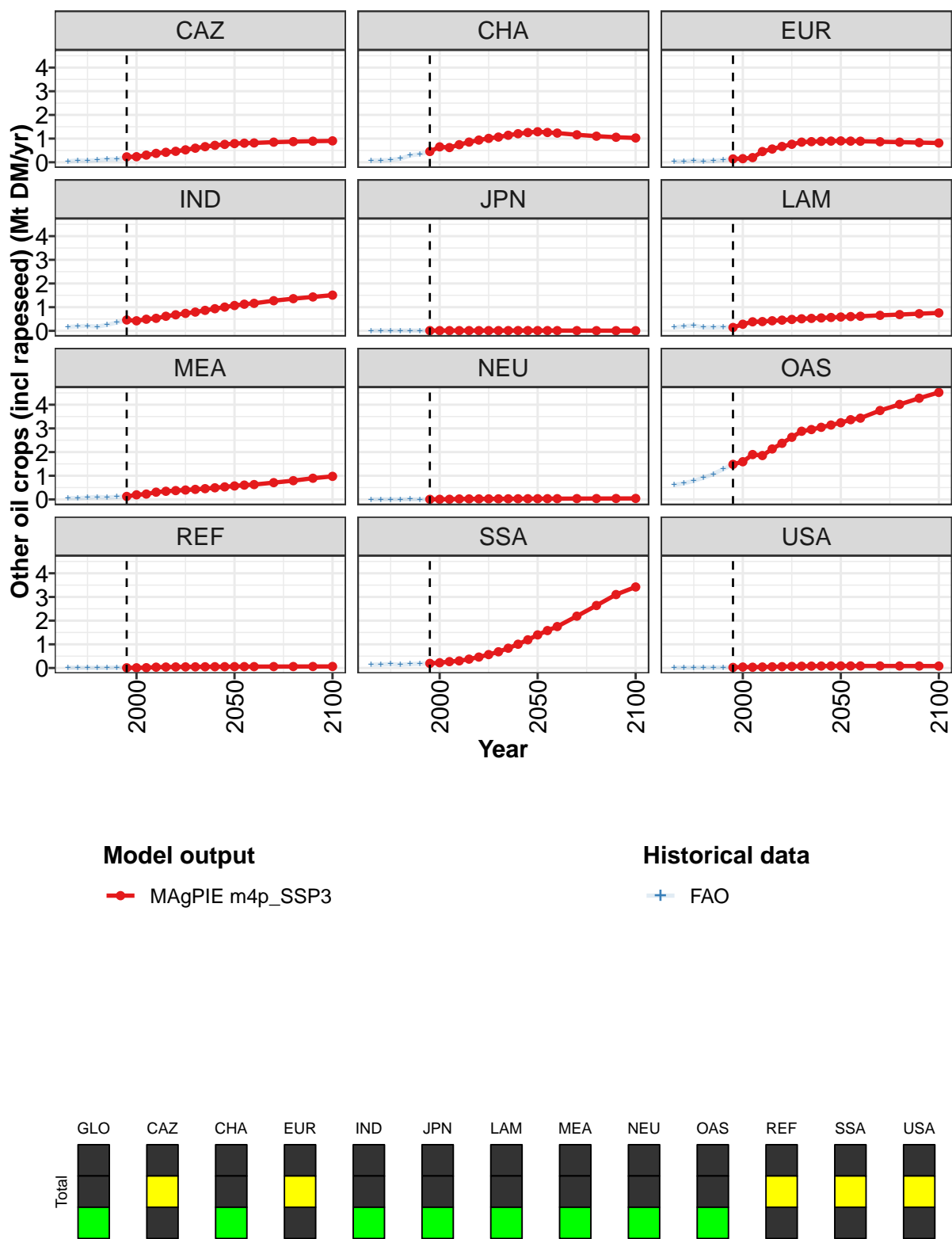


Figure 11: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.3	3.8	4.4	5.1	5.8	6.5	7.2	8.0	8.5	9.0	9.5
CAZ	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8
CHA	0.5	0.7	0.6	0.7	0.9	0.9	1.0	1.1	1.1	1.2	1.3
EUR	0.1	0.2	0.2	0.5	0.6	0.7	0.8	0.8	0.9	0.9	0.9
IND	0.5	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	0.9	1.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6
MEA	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	1.5	1.6	1.9	1.9	2.1	2.4	2.6	2.9	3.0	3.0	3.1
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
SSA	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.2
USA	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 34: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

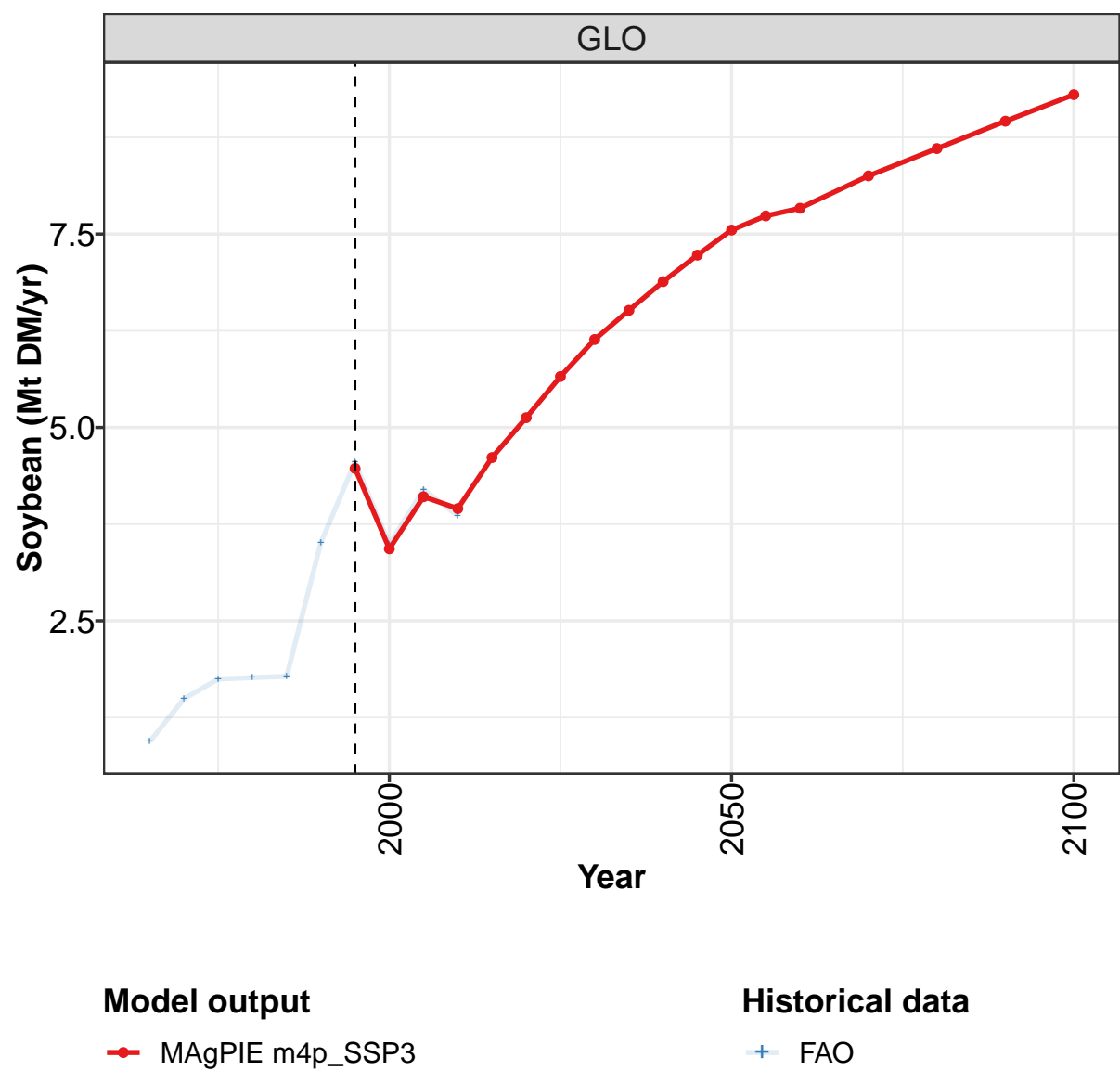
	2050	2055	2060	2070	2080	2090	2100
GLO	10.0	10.4	10.7	11.6	12.5	13.4	14.1
CAZ	0.8	0.8	0.8	0.8	0.9	0.9	0.9
CHA	1.3	1.3	1.2	1.2	1.1	1.1	1.0
EUR	0.9	0.9	0.9	0.9	0.8	0.8	0.8
IND	1.1	1.1	1.2	1.3	1.4	1.4	1.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.6	0.6	0.6	0.7	0.7	0.7	0.8
MEA	0.6	0.6	0.6	0.7	0.8	0.9	1.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	3.2	3.4	3.4	3.8	4.0	4.3	4.5
REF	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SSA	1.4	1.6	1.8	2.2	2.6	3.1	3.4
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 35: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.29	1.50	1.73	1.80	2.23	2.72	3.25	3.79	4.42	5.08
CAZ	0.03	0.08	0.06	0.09	0.12	0.13	0.21	0.23	0.29	0.40
CHA	0.08	0.08	0.10	0.15	0.29	0.35	0.45	0.65	0.62	0.74
EUR	0.03	0.04	0.08	0.04	0.06	0.10	0.14	0.15	0.19	0.45
IND	0.16	0.19	0.21	0.18	0.25	0.35	0.46	0.42	0.49	0.53
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.15	0.19	0.23	0.15	0.15	0.17	0.14	0.27	0.38	0.38
MEA	0.06	0.05	0.08	0.10	0.08	0.11	0.13	0.19	0.22	0.31
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02
OAS	0.61	0.69	0.79	0.92	1.07	1.28	1.48	1.59	1.89	1.87
REF	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.04
SSA	0.14	0.15	0.17	0.14	0.17	0.18	0.19	0.22	0.27	0.30
USA	0.01	0.01	0.02	0.02	0.02	0.03	0.02	0.04	0.04	0.04

Table 36: FAO — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

3.1.10 Oil crops—Soybean



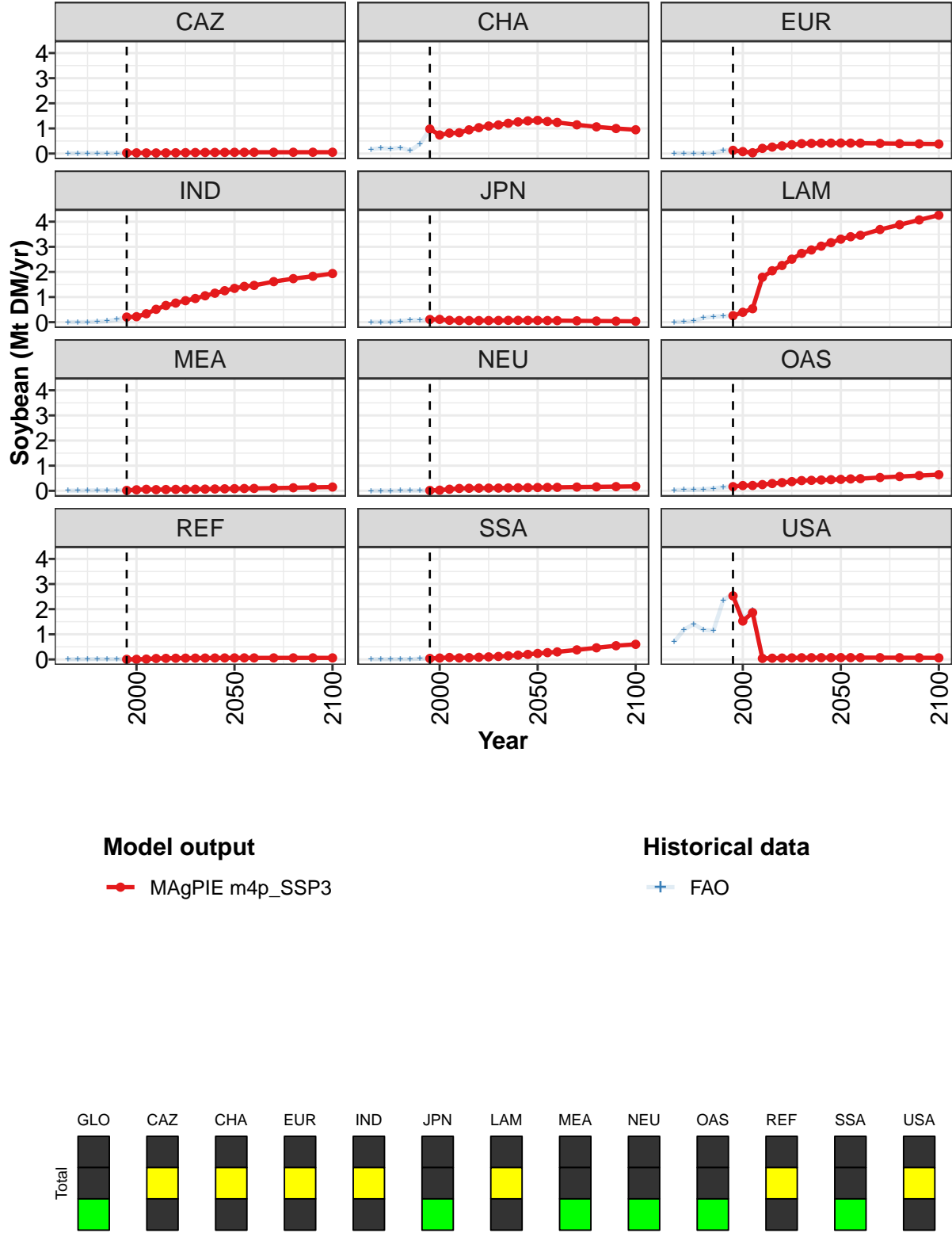


Figure 12: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.47	3.43	4.10	3.95	4.61	5.13	5.66	6.14	6.51	6.89	7.23
CAZ	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05
CHA	0.98	0.74	0.81	0.83	0.94	1.03	1.10	1.14	1.21	1.26	1.30
EUR	0.13	0.08	0.03	0.21	0.26	0.31	0.35	0.39	0.40	0.41	0.42
IND	0.20	0.22	0.34	0.51	0.66	0.76	0.86	0.94	1.05	1.15	1.25
JPN	0.11	0.11	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.07
LAM	0.26	0.39	0.54	1.79	2.05	2.26	2.51	2.74	2.87	3.02	3.16
MEA	0.02	0.04	0.06	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.08
NEU	0.01	0.03	0.06	0.09	0.10	0.11	0.11	0.11	0.11	0.12	0.13
OAS	0.17	0.21	0.21	0.25	0.29	0.33	0.37	0.41	0.42	0.43	0.44
REF	0.00	0.00	0.01	0.04	0.04	0.05	0.05	0.05	0.05	0.06	0.06
SSA	0.04	0.06	0.08	0.06	0.07	0.09	0.10	0.12	0.14	0.17	0.20
USA	2.53	1.53	1.86	0.04	0.05	0.06	0.06	0.07	0.07	0.07	0.07

Table 37: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

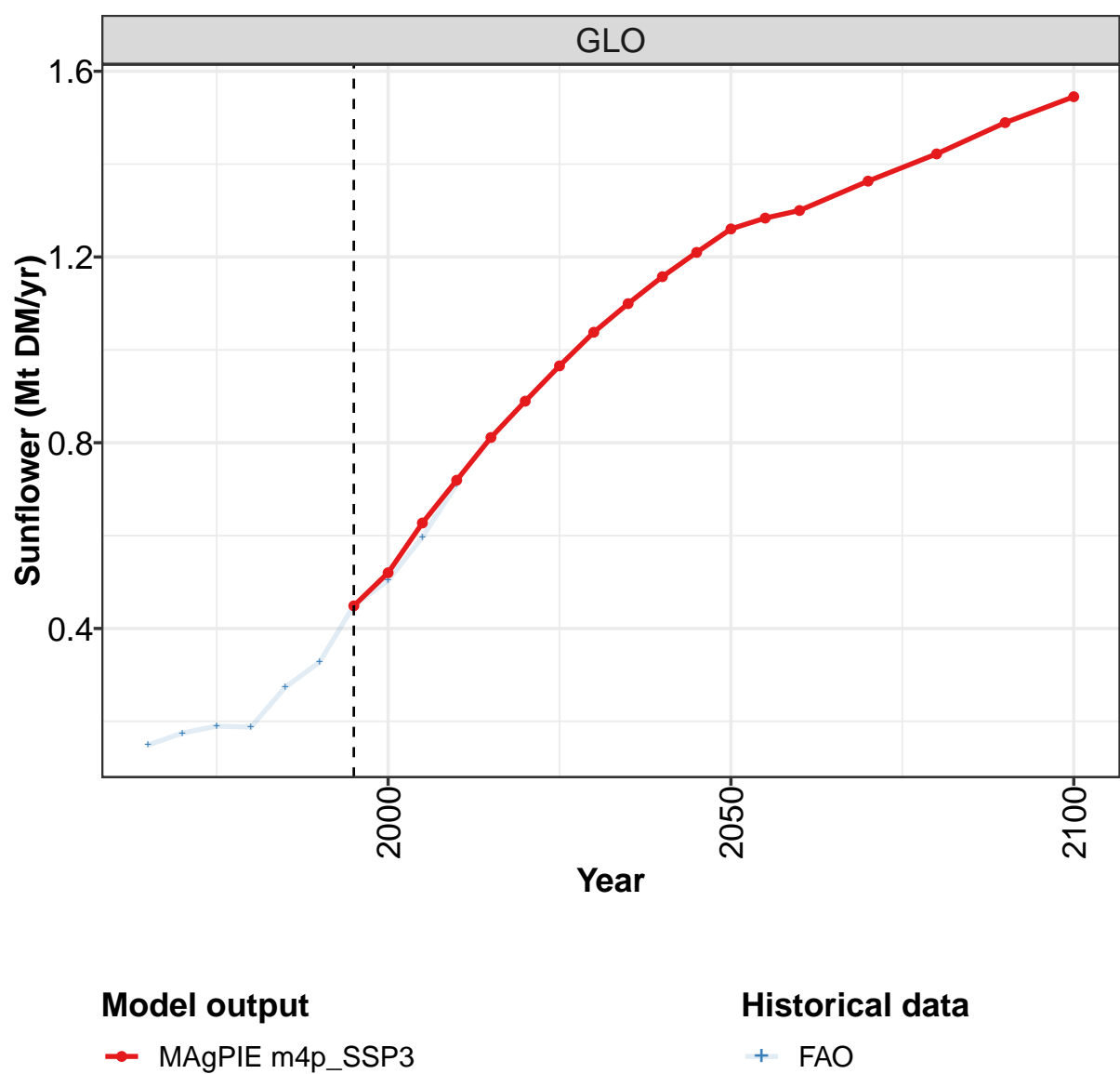
	2050	2055	2060	2070	2080	2090	2100
GLO	7.55	7.73	7.83	8.25	8.60	8.96	9.30
CAZ	0.05	0.05	0.05	0.05	0.05	0.05	0.05
CHA	1.32	1.28	1.24	1.14	1.06	1.00	0.95
EUR	0.42	0.42	0.41	0.40	0.39	0.39	0.38
IND	1.35	1.42	1.46	1.61	1.73	1.83	1.94
JPN	0.07	0.07	0.06	0.05	0.05	0.04	0.03
LAM	3.30	3.40	3.46	3.69	3.88	4.07	4.26
MEA	0.09	0.09	0.09	0.11	0.12	0.14	0.15
NEU	0.13	0.14	0.14	0.15	0.16	0.17	0.18
OAS	0.46	0.47	0.48	0.53	0.57	0.61	0.64
REF	0.06	0.06	0.06	0.06	0.06	0.06	0.06
SSA	0.24	0.27	0.30	0.38	0.46	0.54	0.60
USA	0.07	0.07	0.07	0.07	0.07	0.07	0.06

Table 38: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Soybean (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.94	1.49	1.75	1.77	1.78	3.51	4.55	3.49	4.20	3.86
CAZ	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.03	0.03
CHA	0.16	0.22	0.19	0.23	0.12	0.38	0.97	0.74	0.81	0.83
EUR	0.01	0.01	0.01	0.01	0.01	0.13	0.13	0.08	0.03	0.20
IND	0.00	0.00	0.00	0.02	0.04	0.10	0.20	0.22	0.33	0.51
JPN	0.01	0.01	0.01	0.04	0.09	0.08	0.11	0.11	0.07	0.06
LAM	0.00	0.01	0.05	0.17	0.22	0.24	0.25	0.37	0.53	1.70
MEA	0.01	0.01	0.01	0.02	0.02	0.01	0.02	0.04	0.06	0.05
NEU	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.06	0.09
OAS	0.03	0.04	0.04	0.06	0.09	0.15	0.17	0.21	0.21	0.25
REF	0.00	0.01	0.01	0.02	0.01	0.01	0.00	0.00	0.01	0.04
SSA	0.01	0.01	0.01	0.01	0.01	0.03	0.04	0.06	0.08	0.06
USA	0.70	1.18	1.40	1.17	1.15	2.34	2.63	1.61	1.97	0.04

Table 39: FAO — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Soybean (Mt DM/yr)

3.1.11 Oil crops—Sunflower



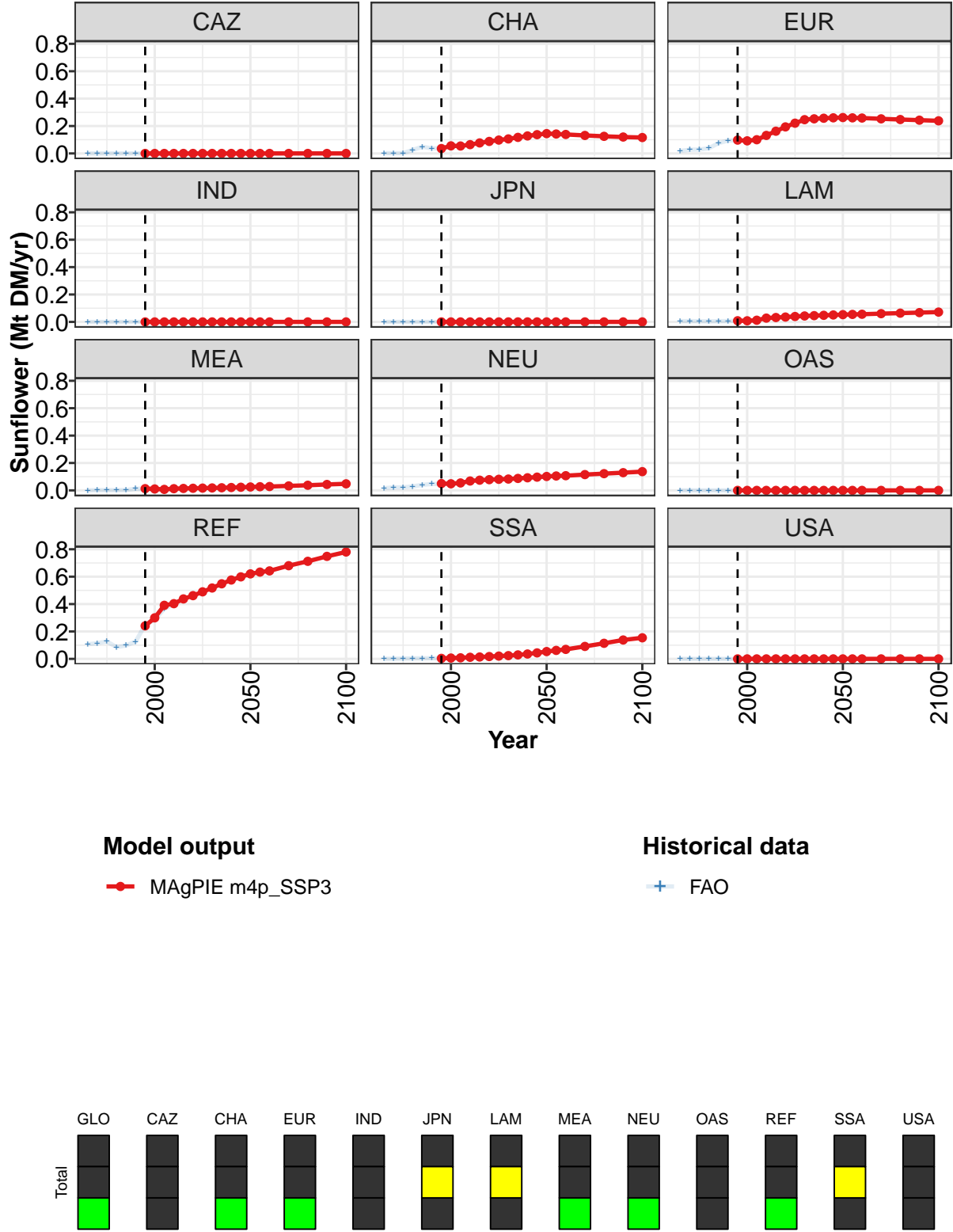


Figure 13: MAGPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.45	0.52	0.63	0.72	0.81	0.89	0.97	1.04	1.10	1.16	1.21
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.04	0.06	0.05	0.06	0.08	0.09	0.10	0.11	0.12	0.13	0.14
EUR	0.10	0.09	0.10	0.13	0.16	0.19	0.22	0.25	0.25	0.26	0.26
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.01	0.01	0.01	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.05
MEA	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
NEU	0.05	0.05	0.05	0.07	0.07	0.08	0.08	0.08	0.09	0.09	0.10
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.24	0.30	0.39	0.40	0.44	0.46	0.49	0.52	0.55	0.58	0.60
SSA	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.04	0.04
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 40: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

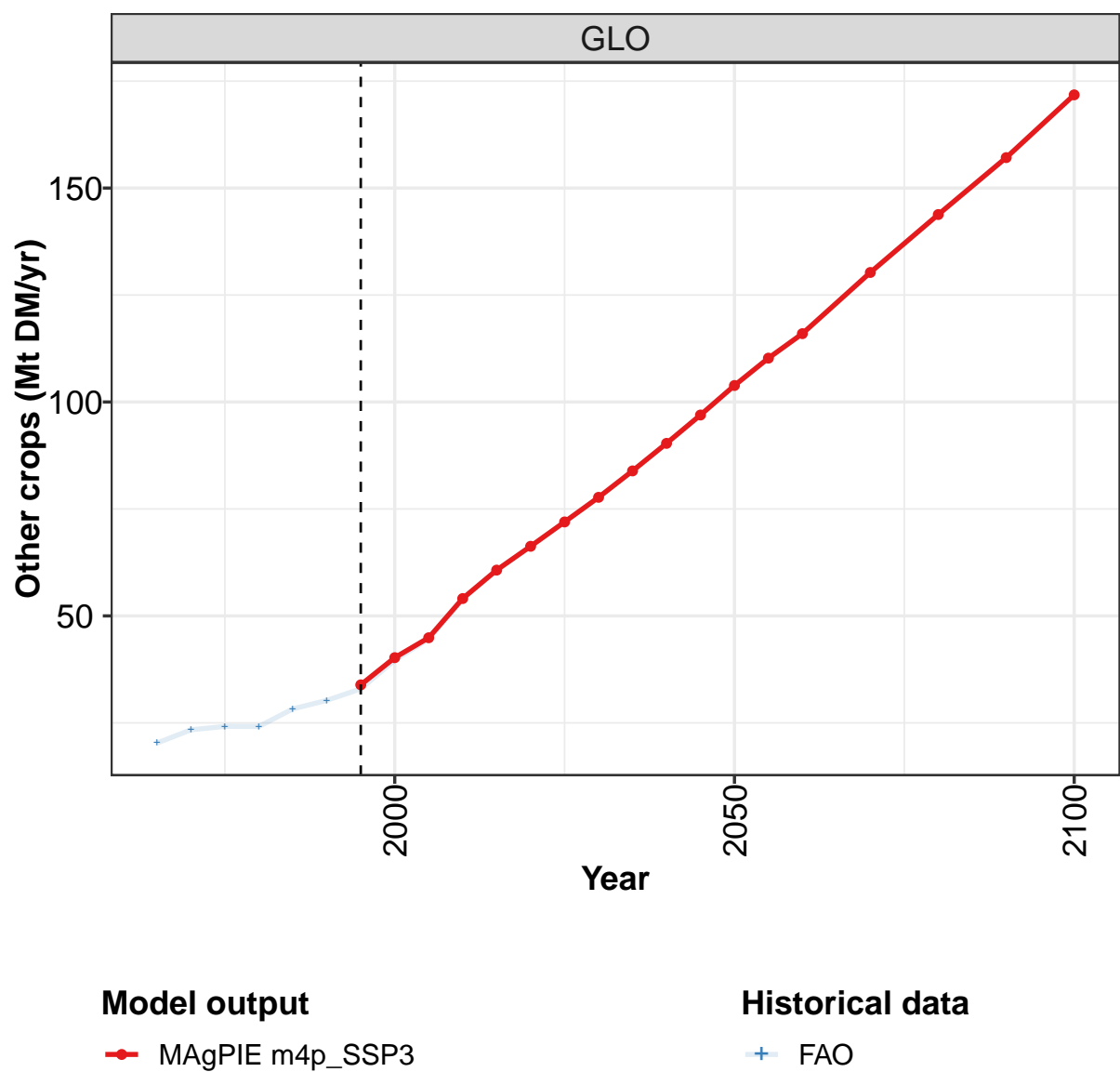
	2050	2055	2060	2070	2080	2090	2100
GLO	1.26	1.28	1.30	1.36	1.42	1.49	1.55
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.14	0.14	0.14	0.13	0.12	0.12	0.12
EUR	0.26	0.26	0.26	0.25	0.25	0.24	0.24
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.05	0.05	0.06	0.06	0.06	0.07	0.07
MEA	0.03	0.03	0.03	0.03	0.04	0.04	0.05
NEU	0.10	0.11	0.11	0.12	0.12	0.13	0.14
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.62	0.63	0.64	0.68	0.71	0.75	0.78
SSA	0.05	0.06	0.07	0.09	0.11	0.14	0.15
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 41: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.149	0.175	0.190	0.188	0.274	0.328	0.449	0.503	0.597	0.710
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.002	0.002	0.002	0.025	0.048	0.037	0.035	0.055	0.054	0.064
EUR	0.018	0.027	0.028	0.038	0.075	0.094	0.096	0.092	0.098	0.129
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.005	0.006	0.005	0.004	0.005	0.006	0.008	0.008	0.012	0.026
MEA	0.000	0.003	0.002	0.002	0.003	0.012	0.013	0.010	0.007	0.013
NEU	0.016	0.022	0.022	0.029	0.040	0.047	0.045	0.047	0.052	0.068
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.107	0.114	0.127	0.086	0.098	0.126	0.248	0.285	0.366	0.398
SSA	0.001	0.001	0.002	0.004	0.004	0.005	0.004	0.006	0.008	0.011
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 42: FAO — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Sunflower (Mt DM/yr)

3.1.12
Other crops



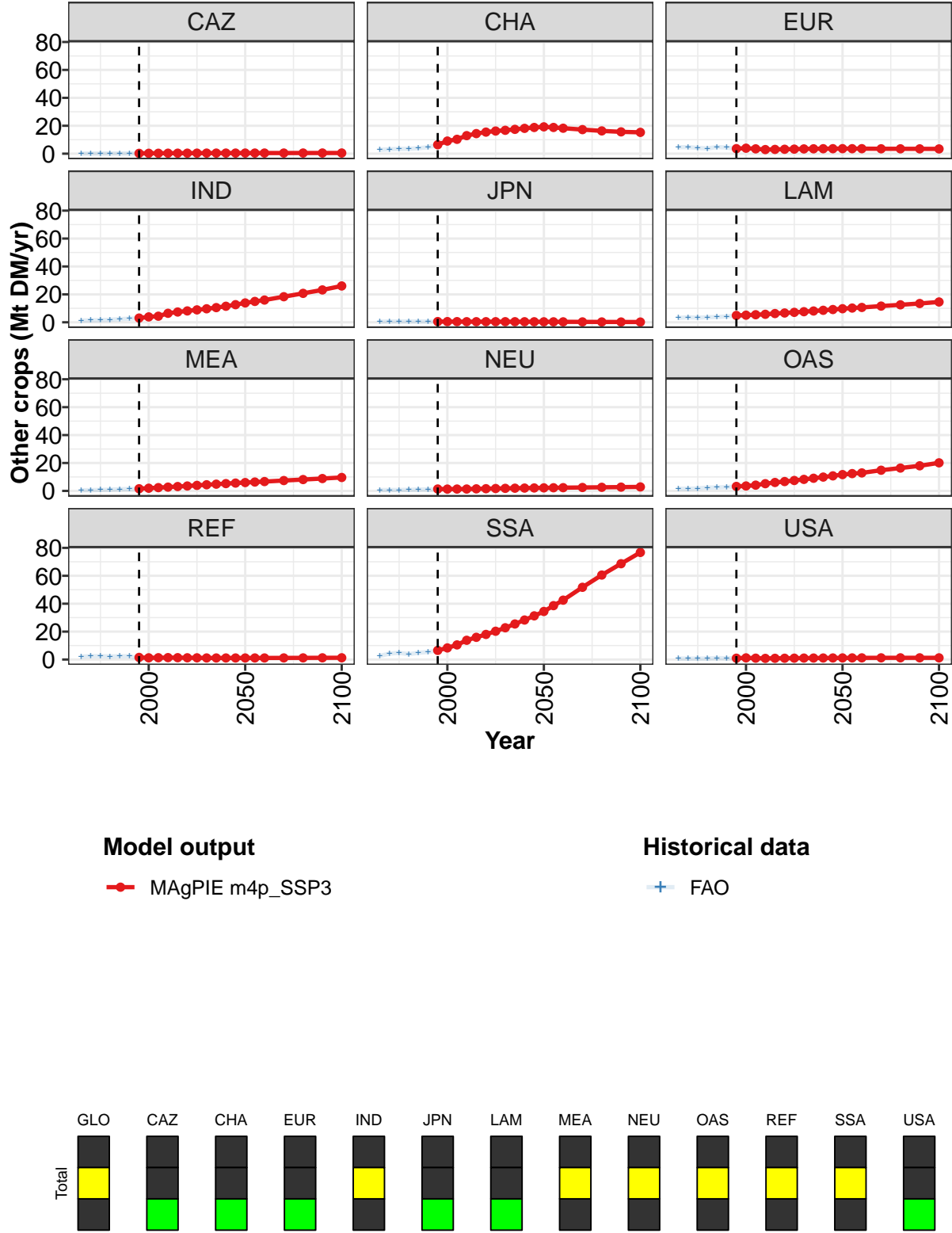


Figure 14: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34	40	45	54	61	66	72	78	84	90	97
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	6	9	10	13	14	15	16	17	17	18	19
EUR	4	4	3	3	3	3	3	3	4	4	4
IND	3	4	4	6	7	8	9	10	11	11	13
JPN	1	1	0	0	0	0	0	0	0	0	0
LAM	5	5	5	6	6	7	7	8	8	9	9
MEA	2	2	2	3	3	4	4	4	5	5	6
NEU	1	1	1	1	1	2	2	2	2	2	2
OAS	3	4	4	5	6	7	7	8	9	10	11
REF	2	1	1	1	1	1	1	1	1	1	1
SSA	7	8	10	14	16	18	20	23	25	28	31
USA	1	1	1	1	1	1	1	1	1	1	1

Table 43: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops (Mt DM/yr)
[PART 1/2]

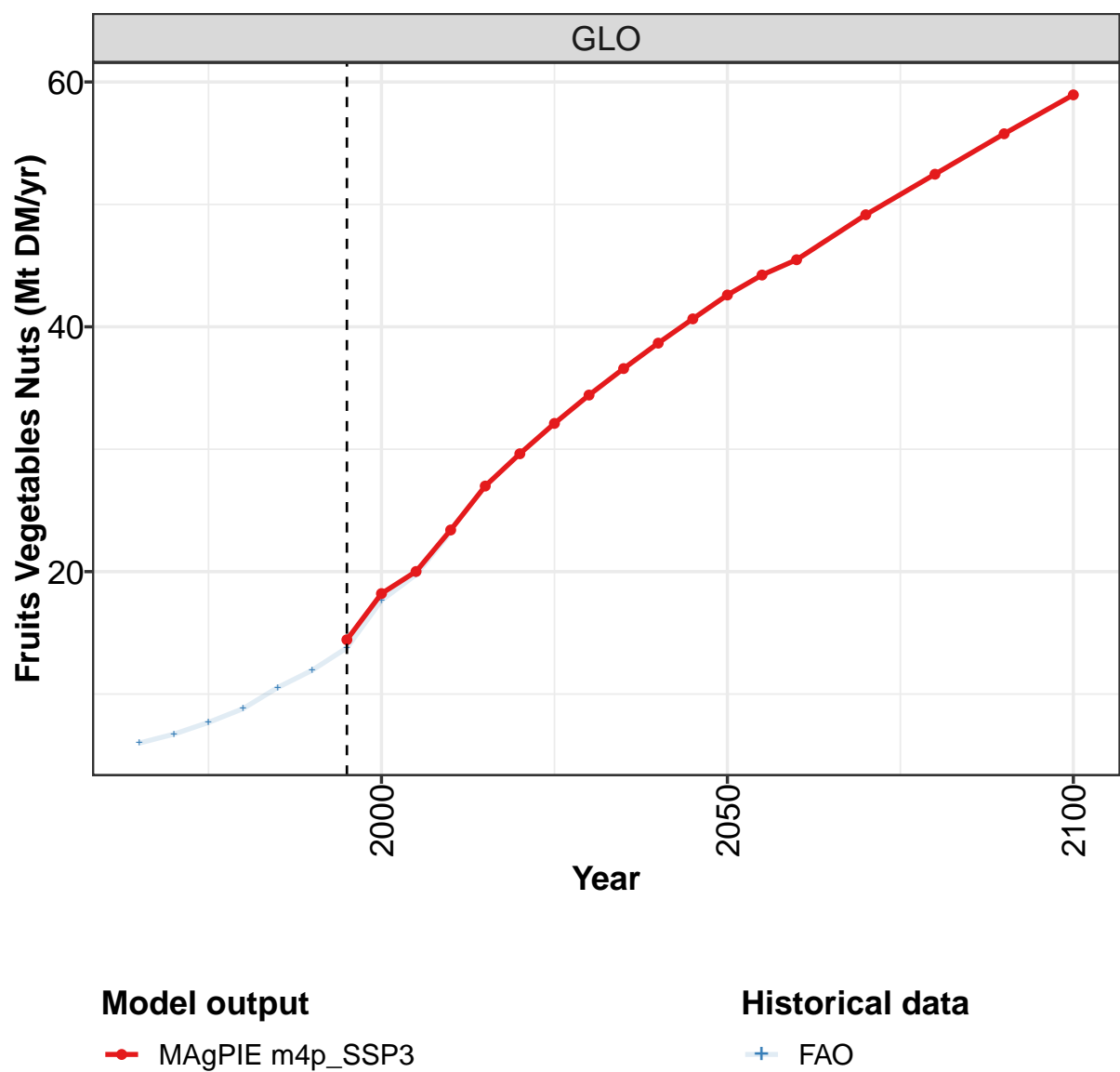
	2050	2055	2060	2070	2080	2090	2100
GLO	104	110	116	130	144	157	172
CAZ	0	0	0	0	0	0	0
CHA	19	19	18	17	16	16	15
EUR	4	4	4	4	3	3	3
IND	14	15	16	18	21	23	26
JPN	0	0	0	0	0	0	0
LAM	10	10	11	12	13	13	15
MEA	6	6	7	7	8	9	10
NEU	2	2	2	2	3	3	3
OAS	12	12	13	15	16	18	20
REF	1	1	1	1	1	1	1
SSA	34	39	43	52	61	69	77
USA	1	1	1	1	1	1	1

Table 44: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	20.3	23.4	24.2	24.2	28.3	30.2	33.0	39.7	44.6	53.8
CAZ	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3
CHA	2.7	3.2	3.4	3.5	3.9	4.6	6.4	9.0	10.3	12.9
EUR	4.6	4.7	4.1	3.7	4.8	4.3	3.6	3.9	3.4	2.9
IND	1.3	1.4	1.6	1.8	2.3	2.6	3.0	3.9	4.4	6.5
JPN	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4
LAM	3.1	3.6	3.3	3.6	3.8	4.2	4.8	5.1	5.4	5.7
MEA	0.5	0.5	0.7	0.9	1.2	1.4	1.6	1.9	2.4	2.7
NEU	0.6	0.6	0.7	0.8	1.0	1.1	1.2	1.3	1.3	1.4
OAS	1.6	1.5	1.8	2.4	2.4	2.8	3.2	3.5	4.1	5.2
REF	2.1	2.4	2.4	2.2	2.3	2.3	0.9	0.7	1.1	1.2
SSA	2.6	4.2	4.8	3.8	4.8	5.4	6.5	8.3	10.5	13.8
USA	0.7	0.6	0.7	0.7	1.1	0.9	1.0	1.2	1.0	0.8

Table 45: FAO — Demand—Agricultural Supply Chain Loss—Crops—Other crops (Mt DM/yr)

3.1.13 Other crops—Fruits Vegetables Nuts



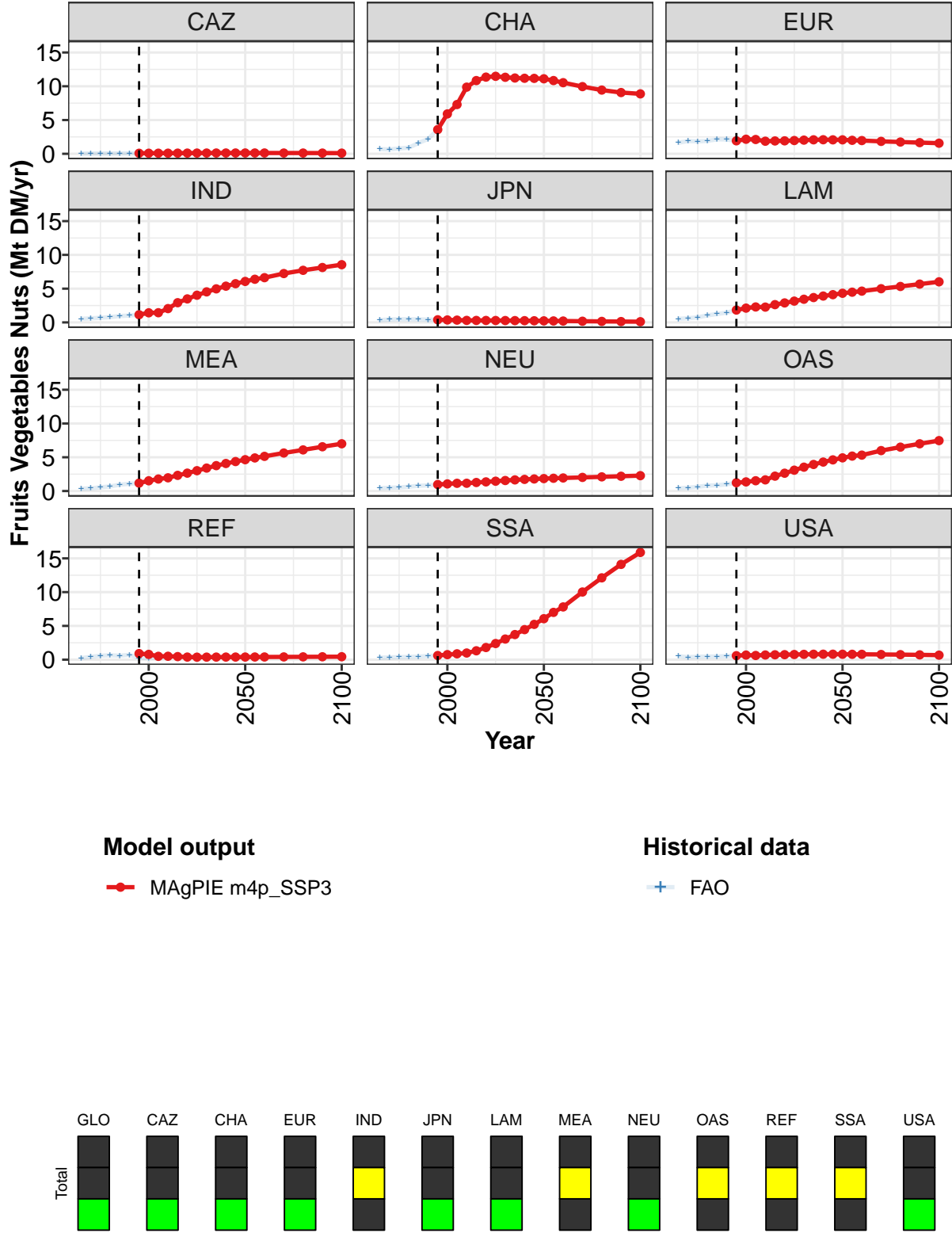


Figure 15: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	14.4	18.2	20.0	23.4	27.0	29.6	32.1	34.4	36.6	38.7	40.6
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	3.6	5.9	7.3	9.9	10.8	11.4	11.5	11.3	11.2	11.2	11.2
EUR	1.9	2.2	2.1	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.1
IND	1.1	1.4	1.4	2.0	2.9	3.5	4.0	4.5	5.0	5.4	5.7
JPN	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
LAM	1.8	2.1	2.3	2.3	2.6	2.9	3.2	3.4	3.7	3.9	4.1
MEA	1.2	1.5	1.8	2.0	2.3	2.7	3.0	3.4	3.8	4.1	4.4
NEU	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.7	1.8
OAS	1.2	1.4	1.5	1.7	2.2	2.6	3.1	3.5	3.9	4.3	4.6
REF	0.9	0.8	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
SSA	0.6	0.7	0.9	1.0	1.3	1.8	2.4	3.1	3.7	4.4	5.2
USA	0.6	0.7	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8

Table 46: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 1/2]

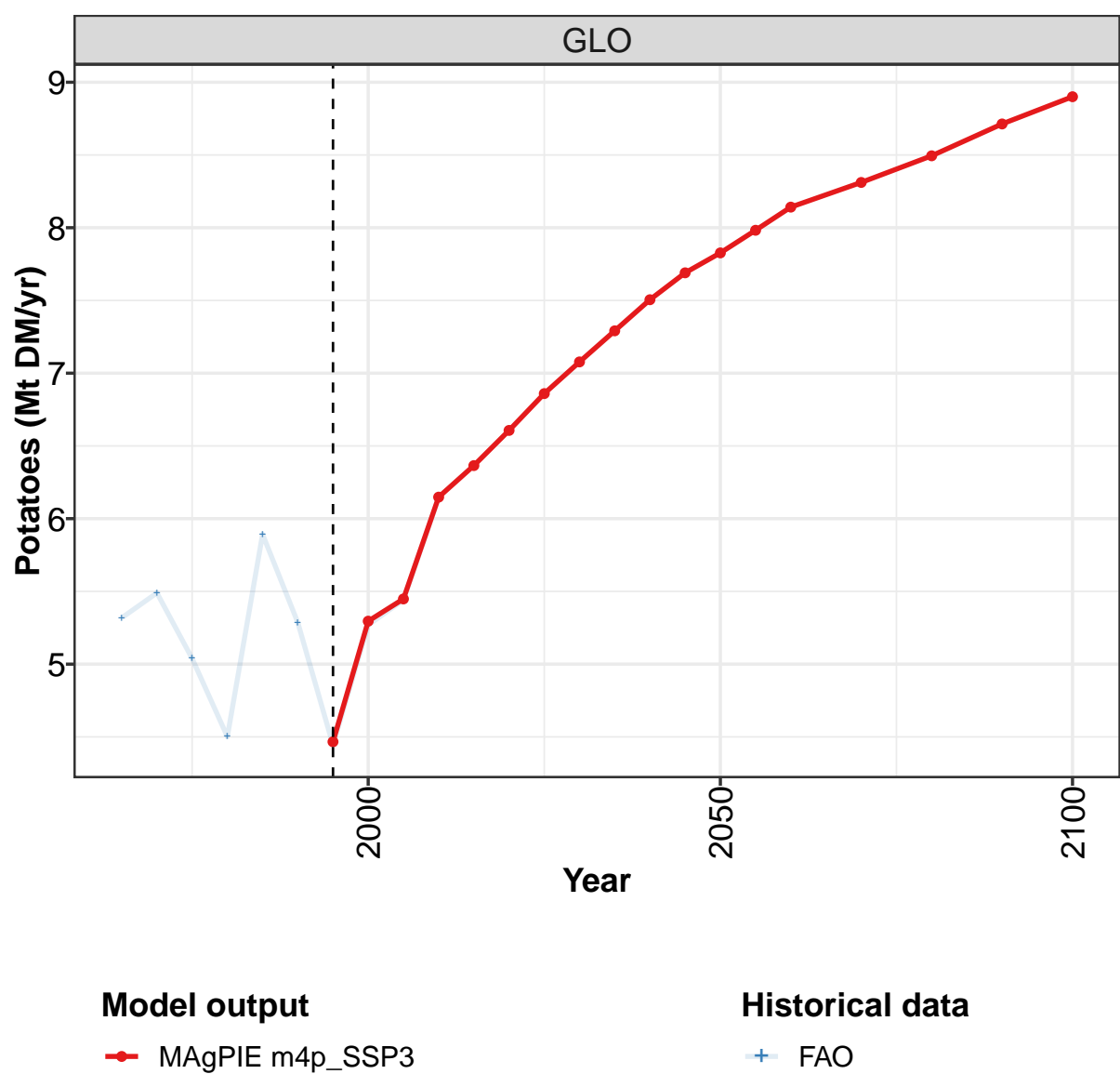
	2050	2055	2060	2070	2080	2090	2100
GLO	42.6	44.2	45.5	49.2	52.5	55.8	58.9
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	11.1	10.8	10.5	9.9	9.4	9.1	8.9
EUR	2.1	2.0	2.0	1.8	1.7	1.7	1.6
IND	6.1	6.4	6.6	7.2	7.7	8.1	8.5
JPN	0.2	0.2	0.2	0.2	0.2	0.1	0.1
LAM	4.3	4.5	4.6	5.0	5.3	5.7	6.0
MEA	4.6	4.9	5.1	5.6	6.1	6.6	7.0
NEU	1.8	1.9	1.9	2.0	2.1	2.2	2.3
OAS	4.9	5.2	5.3	6.0	6.5	7.0	7.5
REF	0.4	0.4	0.4	0.4	0.4	0.4	0.4
SSA	6.1	7.0	7.8	10.0	12.1	14.1	15.9
USA	0.8	0.8	0.8	0.8	0.7	0.7	0.7

Table 47: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	6.0	6.7	7.7	8.8	10.5	11.9	13.8	17.6	19.8	23.2
CAZ	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.7	0.7	0.8	0.9	1.6	2.2	3.6	5.9	7.3	9.9
EUR	1.6	1.9	1.8	1.9	2.1	2.1	1.9	2.2	2.1	1.9
IND	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.4	1.4	2.0
JPN	0.3	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3
LAM	0.5	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.3	2.3
MEA	0.4	0.4	0.6	0.7	0.9	1.1	1.2	1.5	1.8	2.0
NEU	0.4	0.5	0.5	0.6	0.8	0.8	0.9	1.1	1.1	1.2
OAS	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.4	1.5	1.7
REF	0.2	0.4	0.6	0.6	0.6	0.7	0.3	0.2	0.3	0.3
SSA	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.9	1.0
USA	0.5	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.6	0.7

Table 48: FAO — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

3.1.14
Other crops—Potatoes



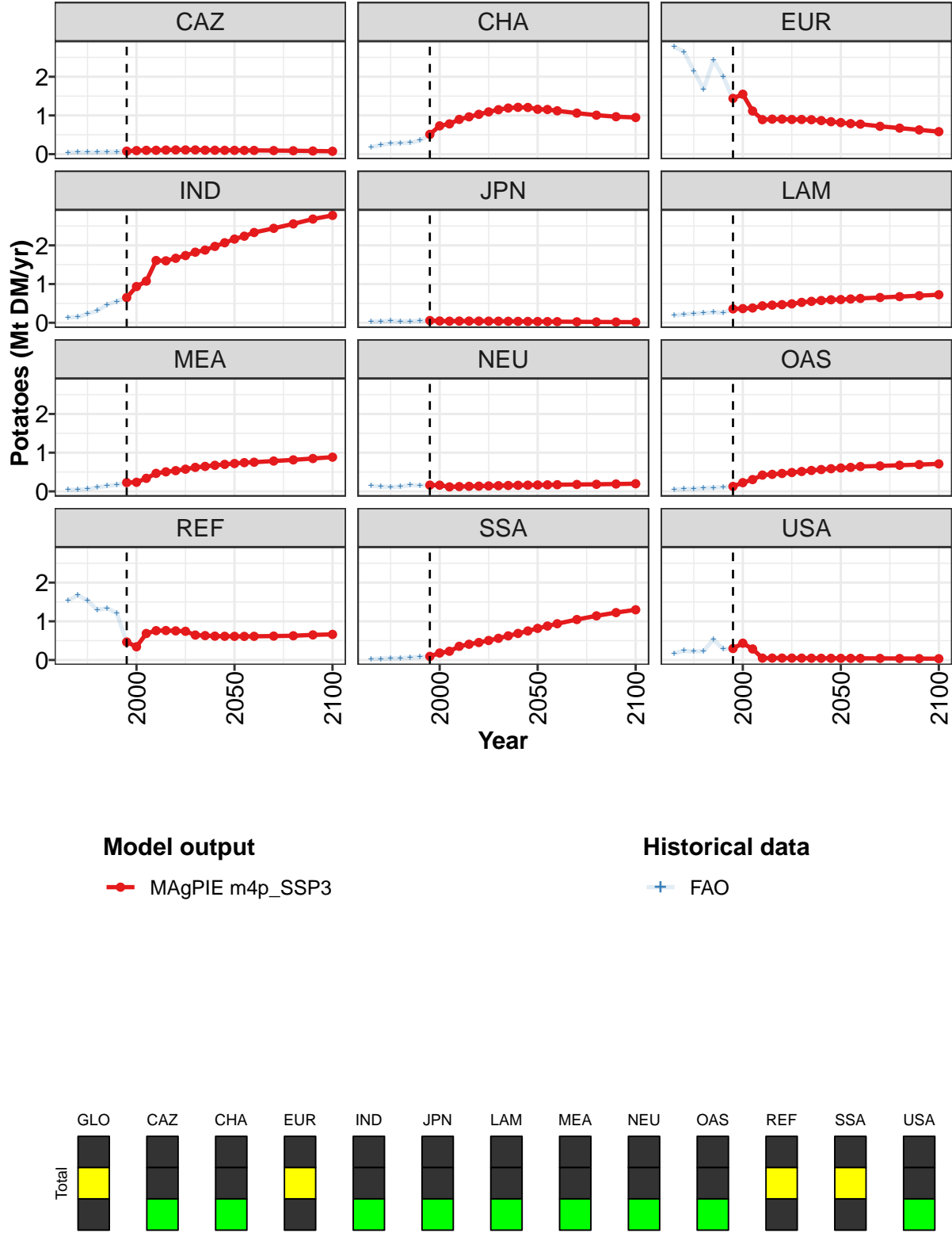


Figure 16: MAGPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.47	5.30	5.45	6.15	6.36	6.61	6.86	7.08	7.29	7.51	7.69
CAZ	0.08	0.09	0.10	0.10	0.11	0.11	0.11	0.11	0.10	0.10	0.10
CHA	0.51	0.73	0.78	0.90	0.96	1.03	1.09	1.15	1.19	1.21	1.21
EUR	1.44	1.55	1.12	0.89	0.90	0.91	0.90	0.90	0.89	0.87	0.84
IND	0.65	0.94	1.08	1.61	1.60	1.67	1.74	1.82	1.88	1.97	2.07
JPN	0.06	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03
LAM	0.36	0.37	0.38	0.44	0.45	0.47	0.49	0.53	0.55	0.58	0.59
MEA	0.23	0.24	0.34	0.47	0.50	0.54	0.57	0.62	0.65	0.67	0.70
NEU	0.16	0.16	0.12	0.12	0.13	0.14	0.14	0.15	0.15	0.16	0.16
OAS	0.13	0.23	0.31	0.42	0.44	0.46	0.49	0.51	0.54	0.56	0.59
REF	0.47	0.34	0.68	0.76	0.76	0.75	0.74	0.64	0.63	0.62	0.61
SSA	0.09	0.18	0.23	0.35	0.41	0.45	0.50	0.56	0.62	0.69	0.75
USA	0.30	0.43	0.28	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04

Table 49: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

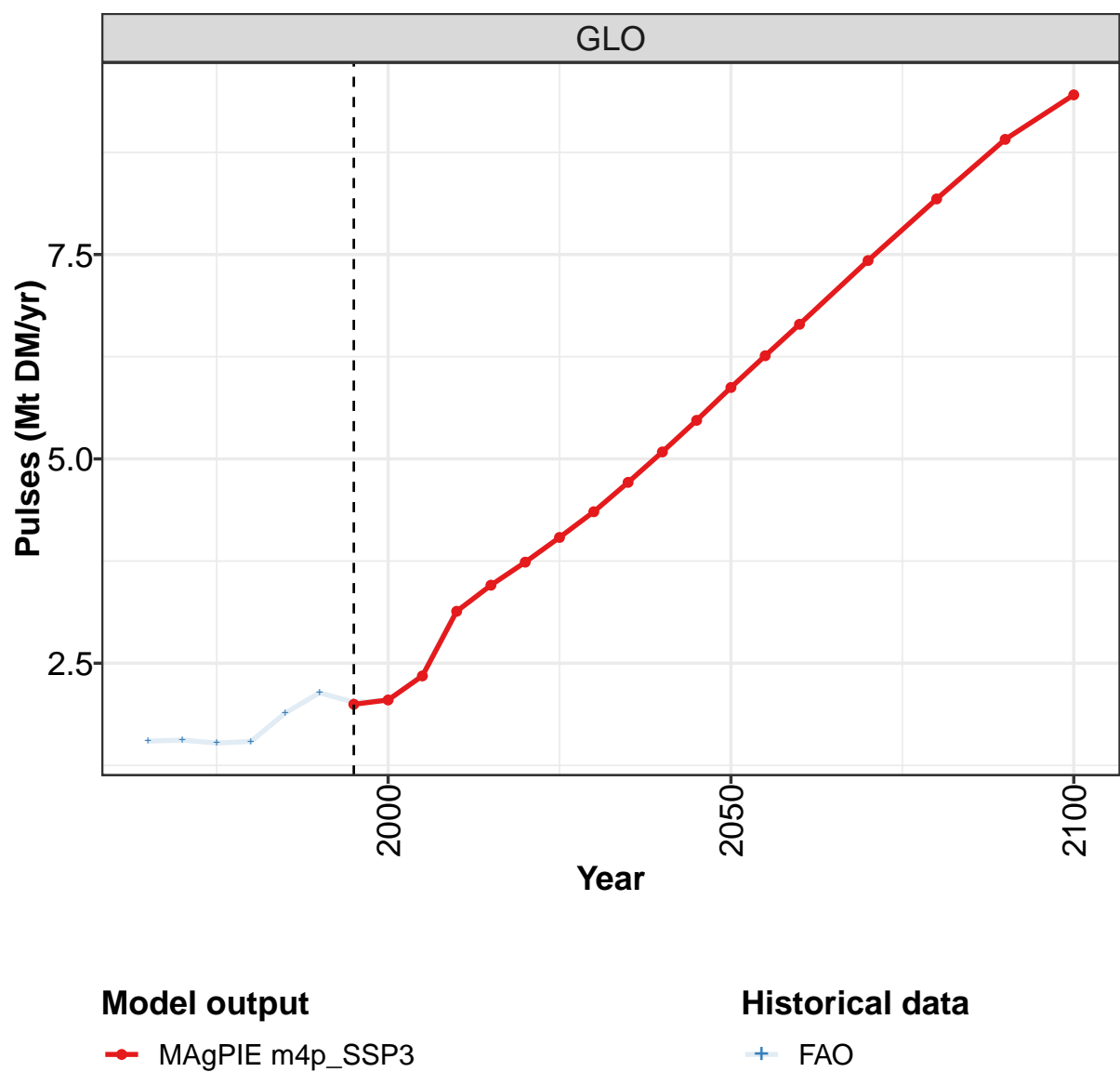
	2050	2055	2060	2070	2080	2090	2100
GLO	7.83	7.98	8.14	8.31	8.49	8.71	8.90
CAZ	0.10	0.10	0.10	0.09	0.09	0.08	0.07
CHA	1.16	1.15	1.12	1.06	1.01	0.97	0.95
EUR	0.81	0.79	0.78	0.72	0.67	0.63	0.58
IND	2.16	2.24	2.33	2.44	2.56	2.68	2.77
JPN	0.03	0.03	0.03	0.02	0.02	0.02	0.02
LAM	0.60	0.61	0.63	0.65	0.68	0.70	0.72
MEA	0.72	0.74	0.75	0.78	0.81	0.85	0.88
NEU	0.16	0.17	0.17	0.18	0.18	0.19	0.20
OAS	0.60	0.62	0.64	0.66	0.67	0.69	0.71
REF	0.61	0.61	0.61	0.62	0.63	0.65	0.66
SSA	0.82	0.88	0.94	1.05	1.14	1.22	1.30
USA	0.04	0.04	0.04	0.04	0.04	0.04	0.03

Table 50: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Potatoes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.32	5.49	5.04	4.50	5.89	5.29	4.44	5.27	5.44	6.14
CAZ	0.04	0.05	0.05	0.05	0.06	0.06	0.08	0.09	0.10	0.10
CHA	0.18	0.24	0.28	0.29	0.30	0.35	0.51	0.73	0.78	0.90
EUR	2.78	2.64	2.15	1.68	2.43	2.01	1.42	1.52	1.11	0.89
IND	0.14	0.15	0.23	0.31	0.47	0.55	0.65	0.94	1.08	1.61
JPN	0.03	0.03	0.05	0.04	0.04	0.05	0.06	0.05	0.04	0.04
LAM	0.19	0.22	0.24	0.25	0.27	0.26	0.36	0.36	0.38	0.44
MEA	0.04	0.04	0.06	0.11	0.14	0.17	0.23	0.24	0.34	0.46
NEU	0.15	0.12	0.12	0.12	0.16	0.15	0.16	0.16	0.12	0.12
OAS	0.05	0.06	0.07	0.08	0.10	0.11	0.13	0.23	0.31	0.42
REF	1.53	1.67	1.53	1.30	1.34	1.20	0.46	0.34	0.68	0.76
SSA	0.02	0.03	0.04	0.05	0.06	0.08	0.09	0.18	0.22	0.35
USA	0.17	0.24	0.22	0.23	0.53	0.28	0.30	0.44	0.29	0.05

Table 51: FAO — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Potatoes (Mt DM/yr)

3.1.15
Other crops—Pulses



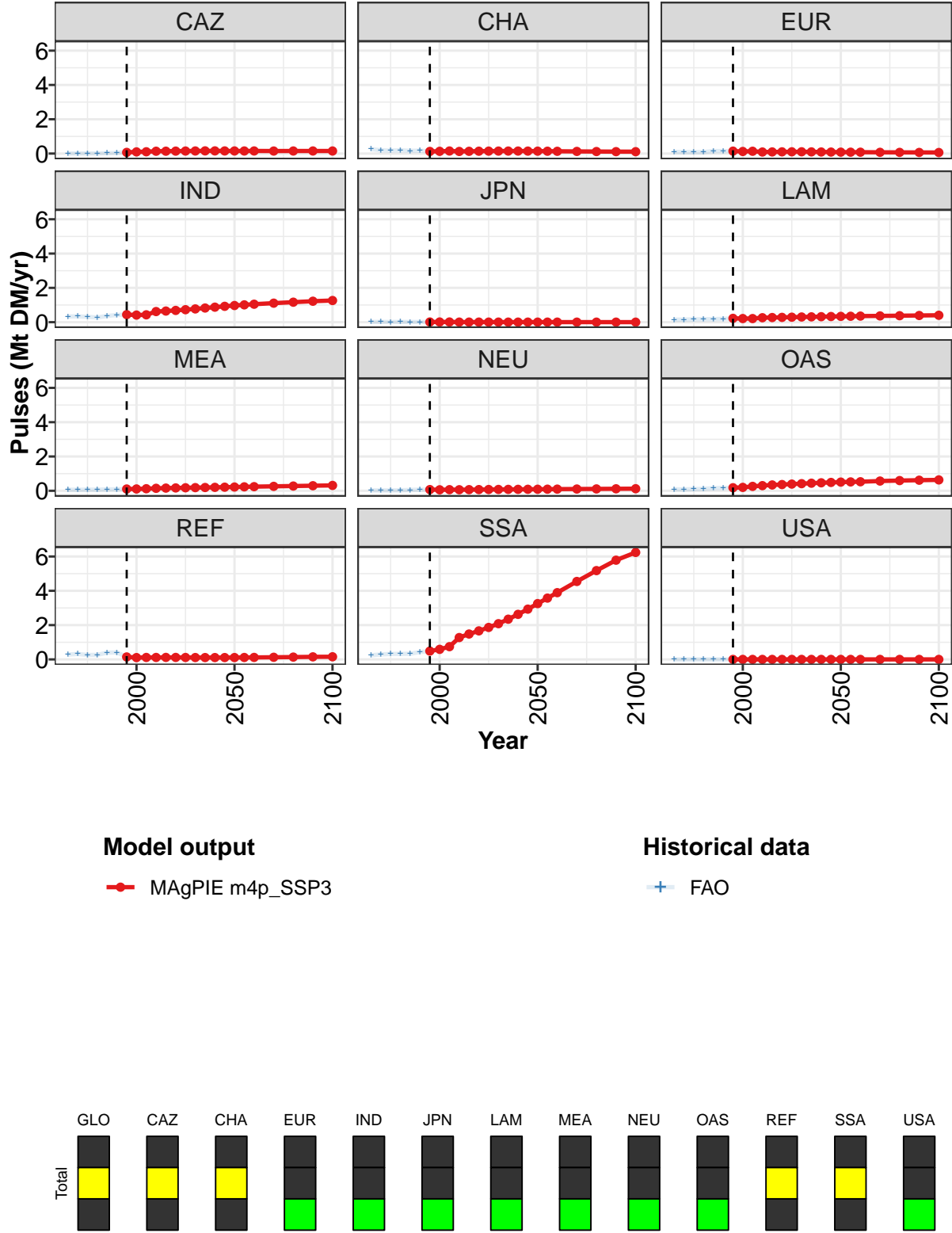


Figure 17: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.00	2.05	2.34	3.14	3.45	3.74	4.04	4.35	4.71	5.09	5.47
CAZ	0.07	0.10	0.10	0.14	0.14	0.14	0.15	0.15	0.16	0.16	0.15
CHA	0.12	0.13	0.15	0.12	0.13	0.14	0.14	0.14	0.15	0.15	0.14
EUR	0.14	0.12	0.13	0.09	0.09	0.10	0.10	0.10	0.10	0.09	0.09
IND	0.44	0.42	0.43	0.62	0.65	0.69	0.73	0.77	0.83	0.88	0.93
JPN	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.22	0.21	0.21	0.26	0.27	0.28	0.29	0.30	0.31	0.32	0.33
MEA	0.11	0.11	0.12	0.15	0.16	0.17	0.18	0.18	0.19	0.20	0.21
NEU	0.07	0.06	0.07	0.06	0.07	0.07	0.08	0.08	0.08	0.09	0.09
OAS	0.18	0.20	0.26	0.30	0.34	0.36	0.39	0.42	0.44	0.47	0.49
REF	0.14	0.11	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.11	0.11
SSA	0.49	0.59	0.74	1.28	1.48	1.66	1.87	2.08	2.35	2.63	2.93
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 52: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

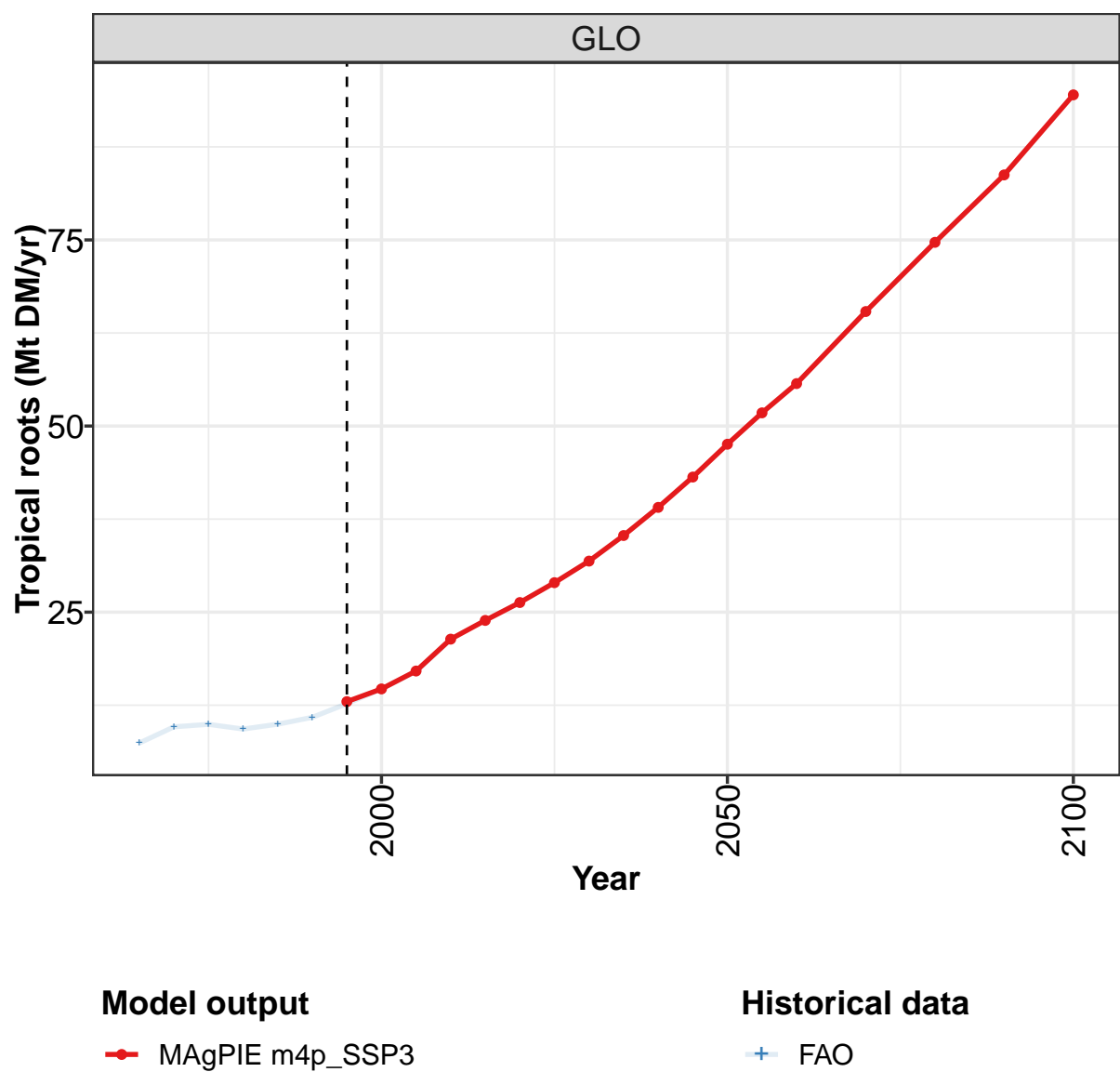
	2050	2055	2060	2070	2080	2090	2100
GLO	5.87	6.26	6.65	7.43	8.18	8.91	9.45
CAZ	0.15	0.15	0.15	0.15	0.15	0.15	0.15
CHA	0.14	0.14	0.13	0.12	0.12	0.11	0.11
EUR	0.08	0.08	0.08	0.07	0.07	0.06	0.06
IND	0.97	1.01	1.05	1.11	1.17	1.22	1.26
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.34	0.35	0.35	0.37	0.38	0.39	0.40
MEA	0.22	0.23	0.24	0.26	0.28	0.30	0.31
NEU	0.09	0.09	0.10	0.10	0.11	0.12	0.12
OAS	0.51	0.52	0.53	0.57	0.60	0.62	0.64
REF	0.11	0.11	0.12	0.13	0.14	0.15	0.15
SSA	3.26	3.58	3.89	4.55	5.18	5.79	6.24
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 53: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Pulses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.55	1.56	1.52	1.54	1.89	2.14	2.02	2.05	2.36	3.15
CAZ	0.00	0.00	0.01	0.01	0.02	0.04	0.09	0.12	0.13	0.14
CHA	0.26	0.19	0.17	0.19	0.16	0.17	0.12	0.13	0.15	0.12
EUR	0.10	0.09	0.09	0.09	0.15	0.14	0.14	0.12	0.13	0.09
IND	0.33	0.34	0.31	0.27	0.36	0.42	0.44	0.42	0.43	0.62
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.14	0.15	0.16	0.18	0.18	0.19	0.22	0.21	0.21	0.26
MEA	0.07	0.06	0.07	0.06	0.08	0.09	0.11	0.11	0.12	0.15
NEU	0.02	0.02	0.02	0.03	0.05	0.07	0.07	0.06	0.07	0.06
OAS	0.08	0.08	0.10	0.11	0.15	0.17	0.17	0.17	0.23	0.30
REF	0.28	0.32	0.26	0.26	0.39	0.41	0.15	0.11	0.12	0.12
SSA	0.24	0.29	0.32	0.32	0.33	0.43	0.49	0.59	0.76	1.29
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 54: FAO — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Pulses (Mt DM/yr)

3.1.16 Other crops—Tropical roots



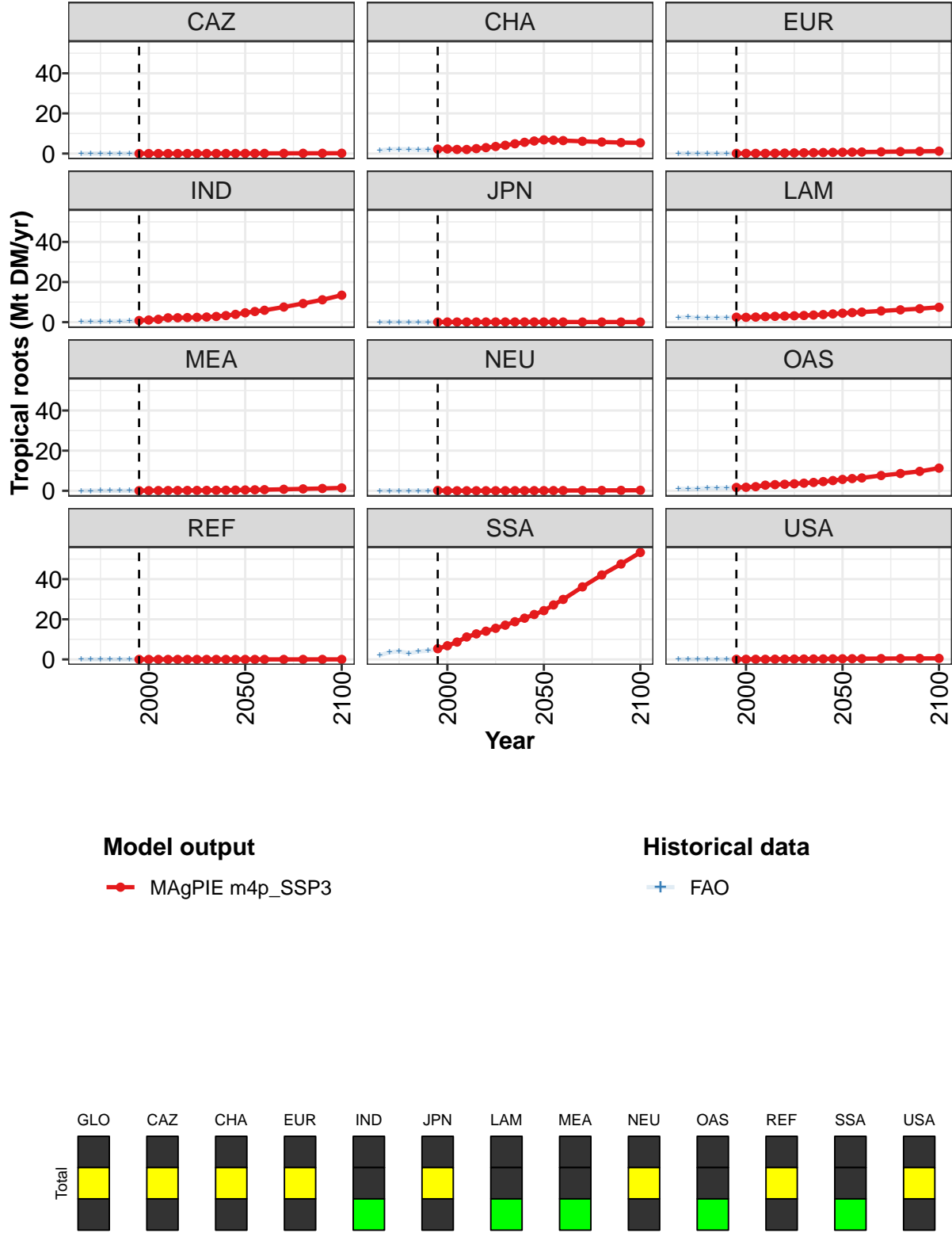


Figure 18: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	13.0	14.7	17.1	21.4	23.9	26.3	29.0	31.9	35.3	39.1	43.2
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
CHA	2.2	2.3	2.1	2.0	2.5	2.9	3.5	4.1	4.9	5.6	6.2
EUR	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.6
IND	0.8	1.1	1.4	2.2	2.2	2.3	2.4	2.6	2.8	3.3	3.9
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	2.5	2.4	2.5	2.8	2.9	3.0	3.2	3.3	3.5	3.8	4.1
MEA	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3
NEU	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
OAS	1.7	1.8	2.1	2.8	3.1	3.3	3.5	3.8	4.2	4.6	5.1
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	5.3	6.8	8.6	11.2	12.7	14.1	15.5	17.1	18.8	20.5	22.4
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3

Table 55: MAgPIE m4p.SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 1/2]

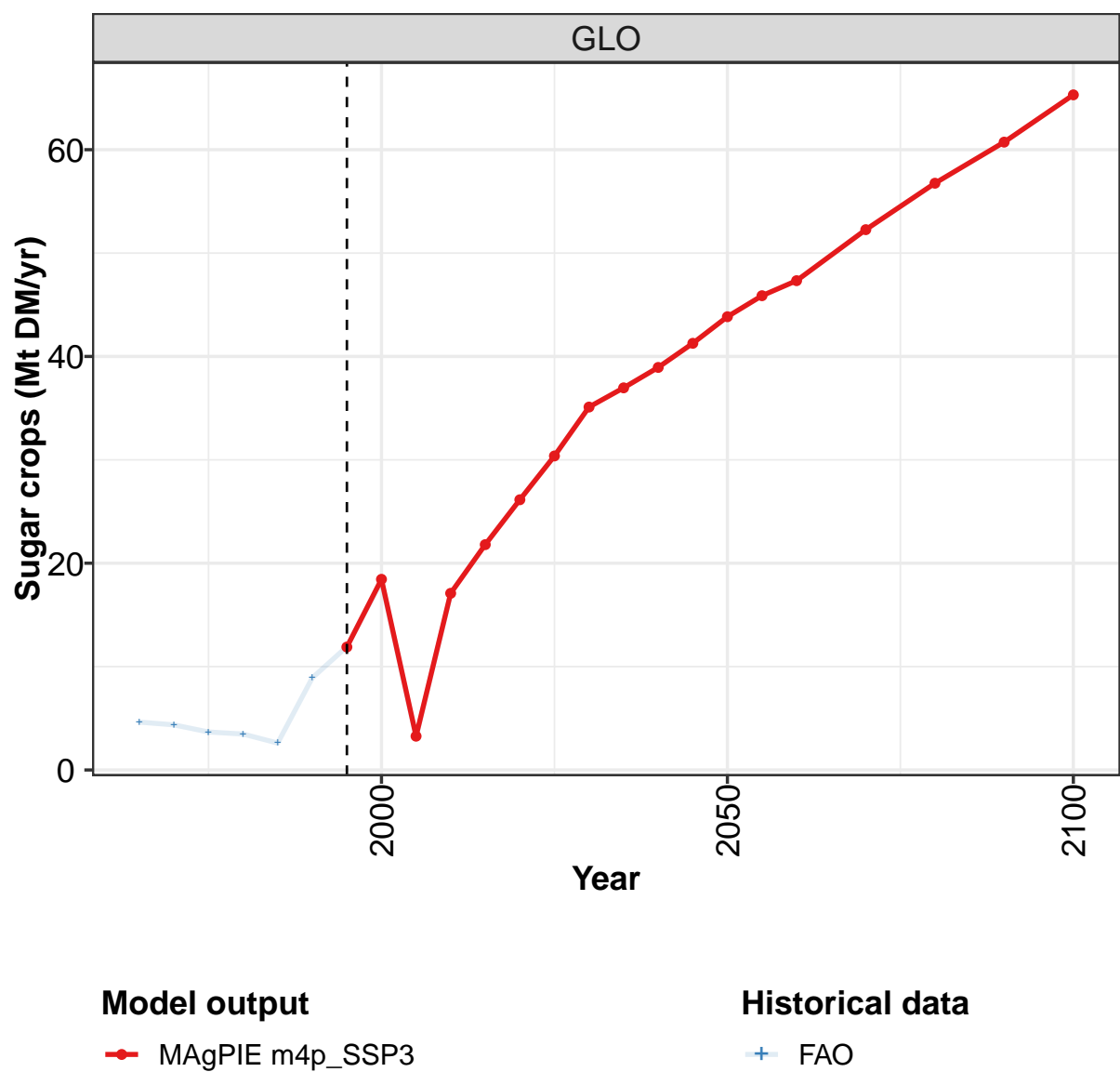
	2050	2055	2060	2070	2080	2090	2100
GLO	47.6	51.8	55.7	65.4	74.7	83.7	94.5
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.2
CHA	6.8	6.7	6.5	6.1	5.8	5.5	5.3
EUR	0.6	0.7	0.8	0.9	1.0	1.1	1.2
IND	4.7	5.3	5.9	7.5	9.3	11.2	13.4
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	4.5	4.8	5.0	5.6	6.1	6.7	7.4
MEA	0.4	0.5	0.6	0.8	1.0	1.2	1.4
NEU	0.1	0.1	0.1	0.2	0.2	0.2	0.3
OAS	5.7	6.1	6.4	7.6	8.6	9.7	11.3
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	24.3	27.1	29.9	36.1	42.1	47.5	53.3
USA	0.3	0.3	0.4	0.4	0.5	0.5	0.5

Table 56: MAgPIE m4p.SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	7.4	9.6	9.9	9.3	9.9	10.9	12.7	14.7	17.0	21.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	1.6	2.1	2.2	2.1	1.9	1.9	2.2	2.3	2.0	2.0
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	0.3	0.3	0.4	0.4	0.5	0.6	0.8	1.1	1.4	2.2
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	2.3	2.6	2.1	2.1	2.1	2.3	2.4	2.4	2.5	2.7
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	1.0	0.8	1.0	1.4	1.3	1.5	1.7	1.7	2.0	2.8
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	2.1	3.6	4.1	3.0	4.0	4.4	5.3	6.8	8.6	11.2
USA	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1

Table 57: FAO — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Tropical roots (Mt DM/yr)

3.1.17
Sugar crops



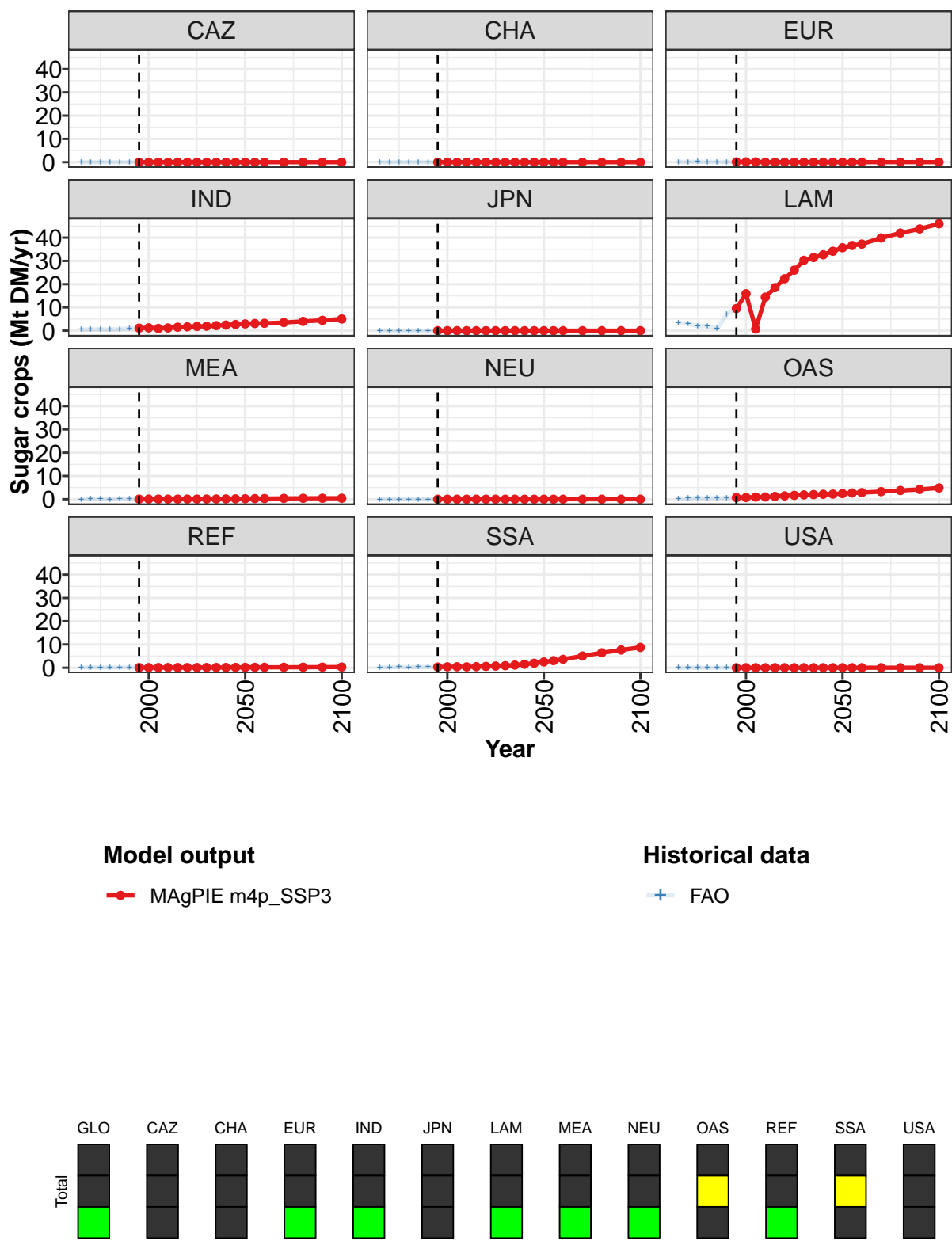


Figure 19: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	11.9	18.4	3.3	17.1	21.8	26.1	30.4	35.1	37.0	38.9	41.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	1.1	1.2	1.0	1.2	1.5	1.7	1.8	1.9	2.2	2.4	2.7
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	9.5	15.9	0.7	14.4	18.5	22.3	26.0	30.3	31.4	32.6	34.2
MEA	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.7	0.8	0.9	1.0	1.2	1.4	1.7	1.9	2.0	2.1	2.2
REF	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SSA	0.3	0.4	0.4	0.4	0.5	0.6	0.7	0.9	1.2	1.5	1.9
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 58: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops (Mt DM/yr)
[PART 1/2]

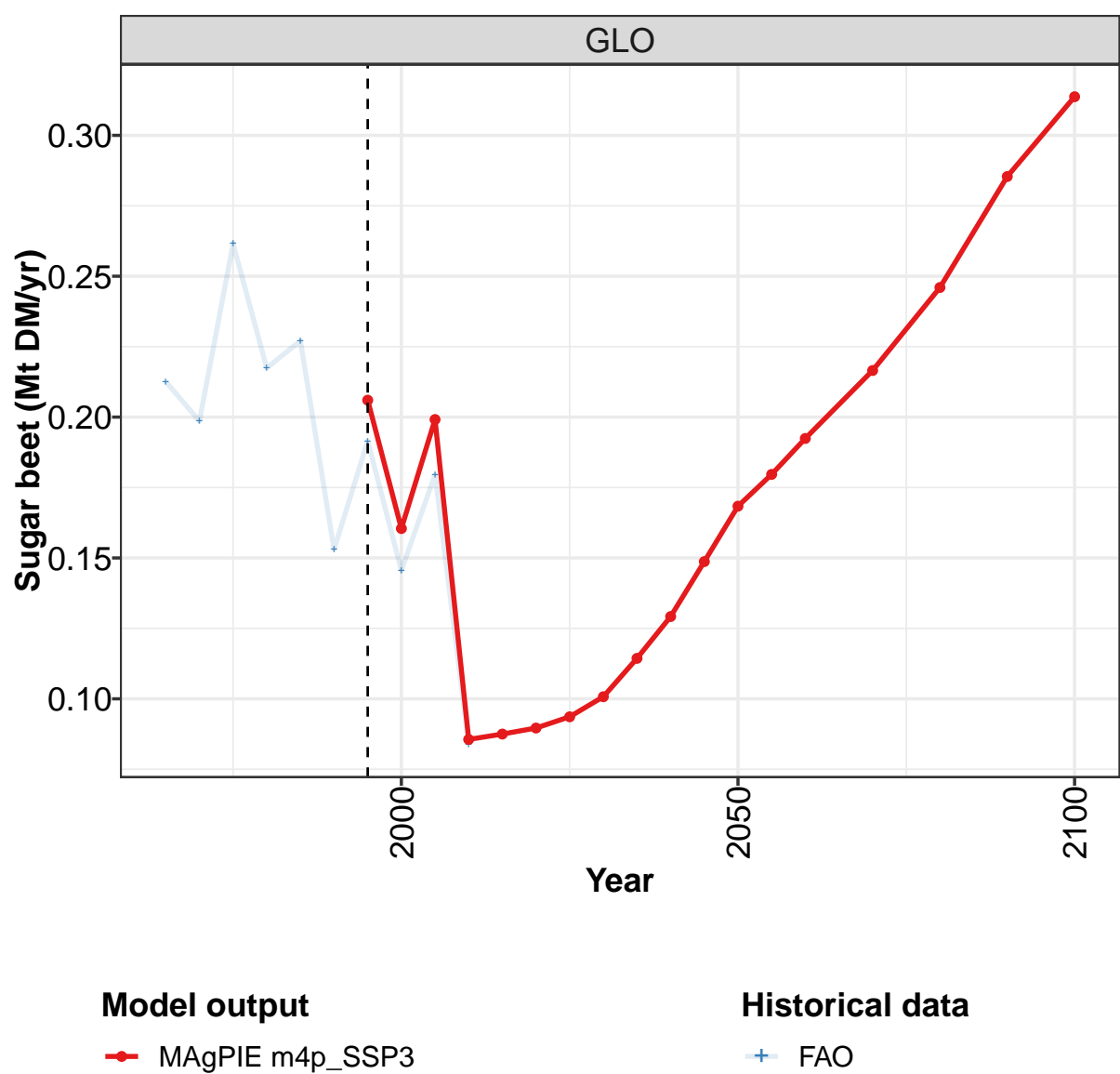
	2050	2055	2060	2070	2080	2090	2100
GLO	43.8	45.9	47.3	52.3	56.8	60.7	65.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	2.9	3.1	3.2	3.5	4.0	4.5	5.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	35.7	36.6	37.2	39.9	42.0	43.7	46.0
MEA	0.2	0.2	0.3	0.4	0.4	0.4	0.4
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	2.4	2.7	2.8	3.3	3.7	4.2	4.8
REF	0.1	0.2	0.2	0.2	0.2	0.3	0.3
SSA	2.5	3.1	3.6	5.1	6.4	7.6	8.8
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 59: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.6	4.4	3.7	3.5	2.6	8.9	11.9	18.2	3.2	17.0
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0
IND	0.5	0.5	0.6	0.5	0.7	0.9	1.1	1.2	1.0	1.2
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.4	3.0	2.0	2.0	0.9	7.0	9.7	15.7	0.7	14.4
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.3	0.4	0.5	0.5	0.5	0.5	0.6	0.8	0.8	0.9
REF	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
SSA	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 60: FAO — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops (Mt DM/yr)

3.1.18
Sugar crops—Sugar beet



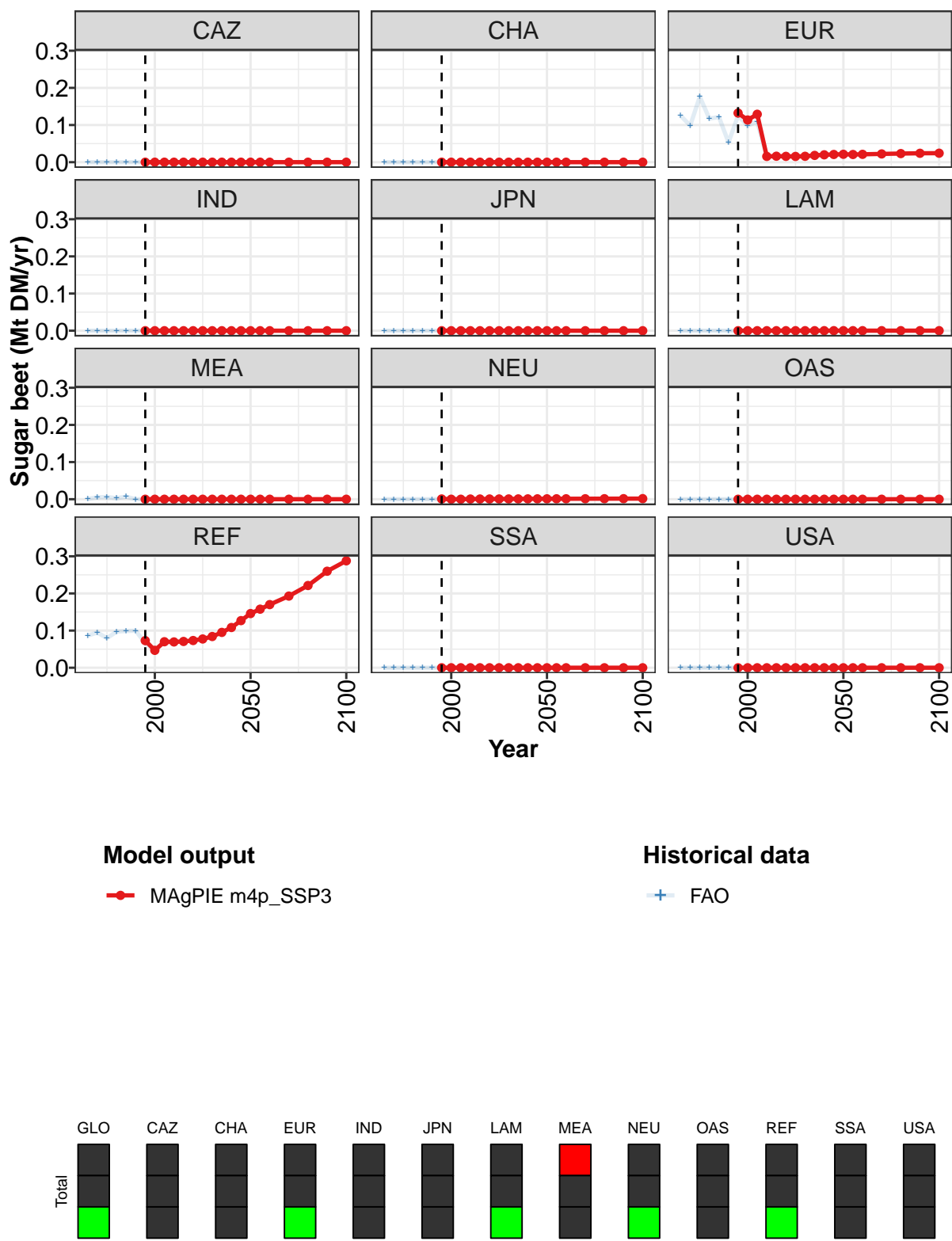


Figure 20: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.206	0.160	0.199	0.086	0.087	0.090	0.094	0.101	0.114	0.129	0.149
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.132	0.114	0.129	0.016	0.016	0.016	0.015	0.016	0.018	0.020	0.021
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.073	0.047	0.070	0.069	0.071	0.073	0.077	0.084	0.095	0.108	0.127
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 61: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

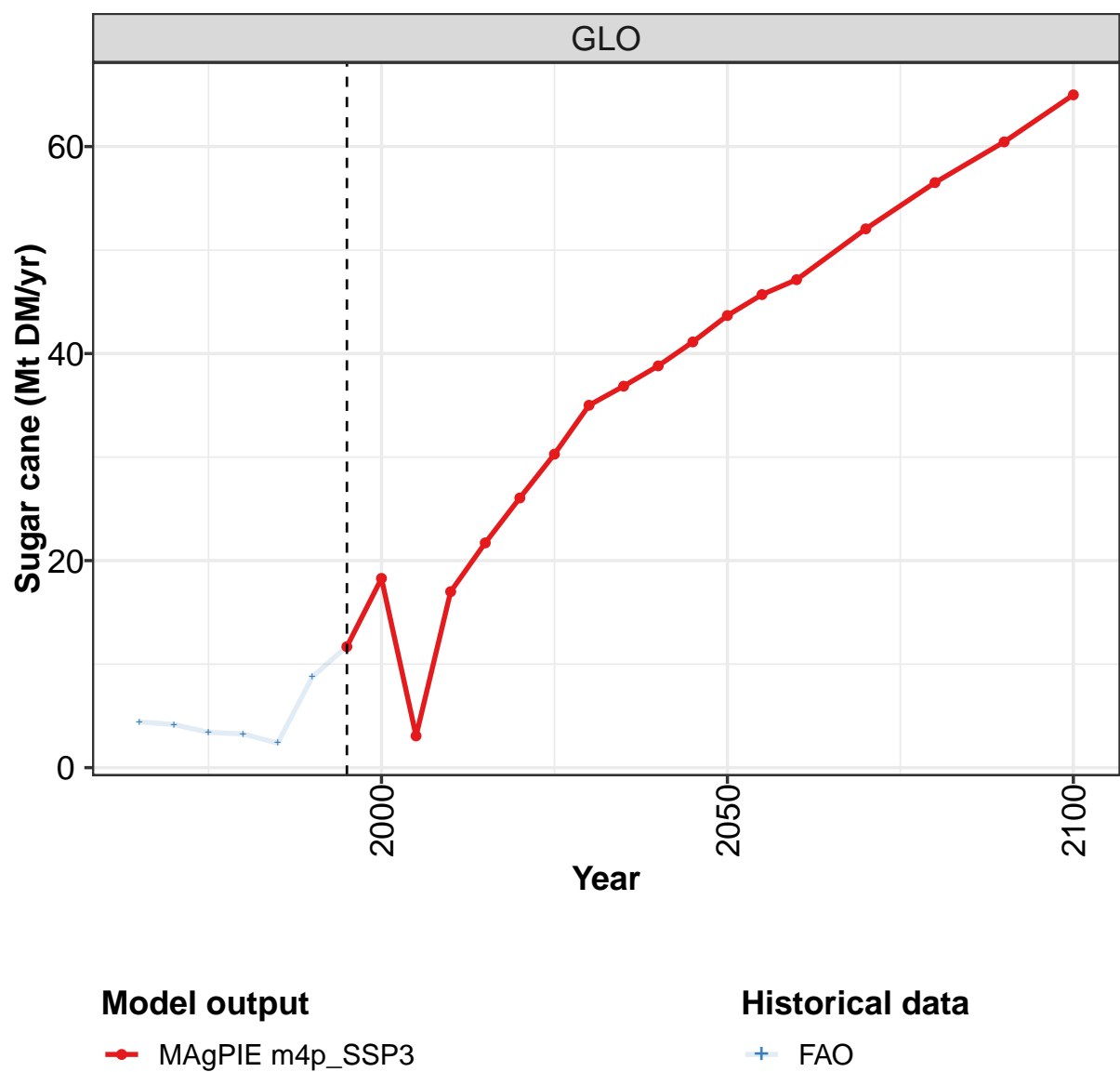
	2050	2055	2060	2070	2080	2090	2100
GLO	0.168	0.180	0.192	0.217	0.246	0.285	0.314
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.021	0.021	0.021	0.022	0.023	0.024	0.024
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.001	0.001	0.001	0.001	0.001	0.001	0.002
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.146	0.158	0.170	0.193	0.221	0.260	0.288
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 62: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.213	0.199	0.262	0.217	0.227	0.153	0.192	0.146	0.180	0.084
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.125	0.099	0.176	0.117	0.121	0.053	0.125	0.099	0.109	0.015
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.001	0.005	0.006	0.003	0.007	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.087	0.095	0.080	0.097	0.099	0.100	0.066	0.047	0.071	0.069
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 63: FAO — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops—Sugar beet (Mt DM/yr)

3.1.19 Sugar crops—Sugar cane



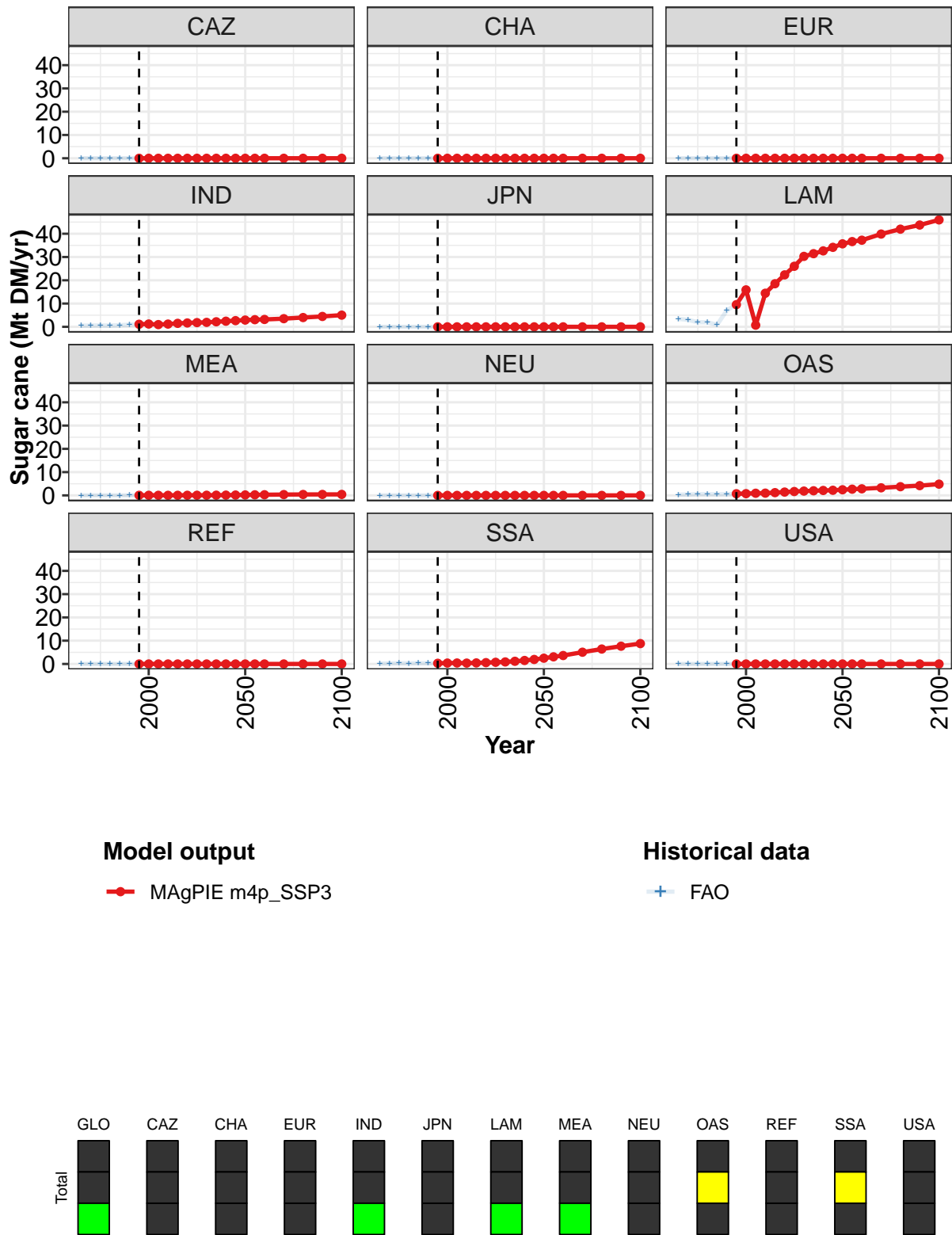


Figure 21: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	11.7	18.3	3.1	17.0	21.7	26.1	30.3	35.0	36.9	38.8	41.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	1.1	1.2	1.0	1.2	1.5	1.7	1.8	1.9	2.2	2.4	2.7
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	9.5	15.9	0.7	14.4	18.5	22.3	26.0	30.3	31.4	32.6	34.2
MEA	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.7	0.8	0.9	1.0	1.2	1.4	1.7	1.9	2.0	2.1	2.2
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.3	0.4	0.4	0.4	0.5	0.6	0.7	0.9	1.2	1.5	1.9
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

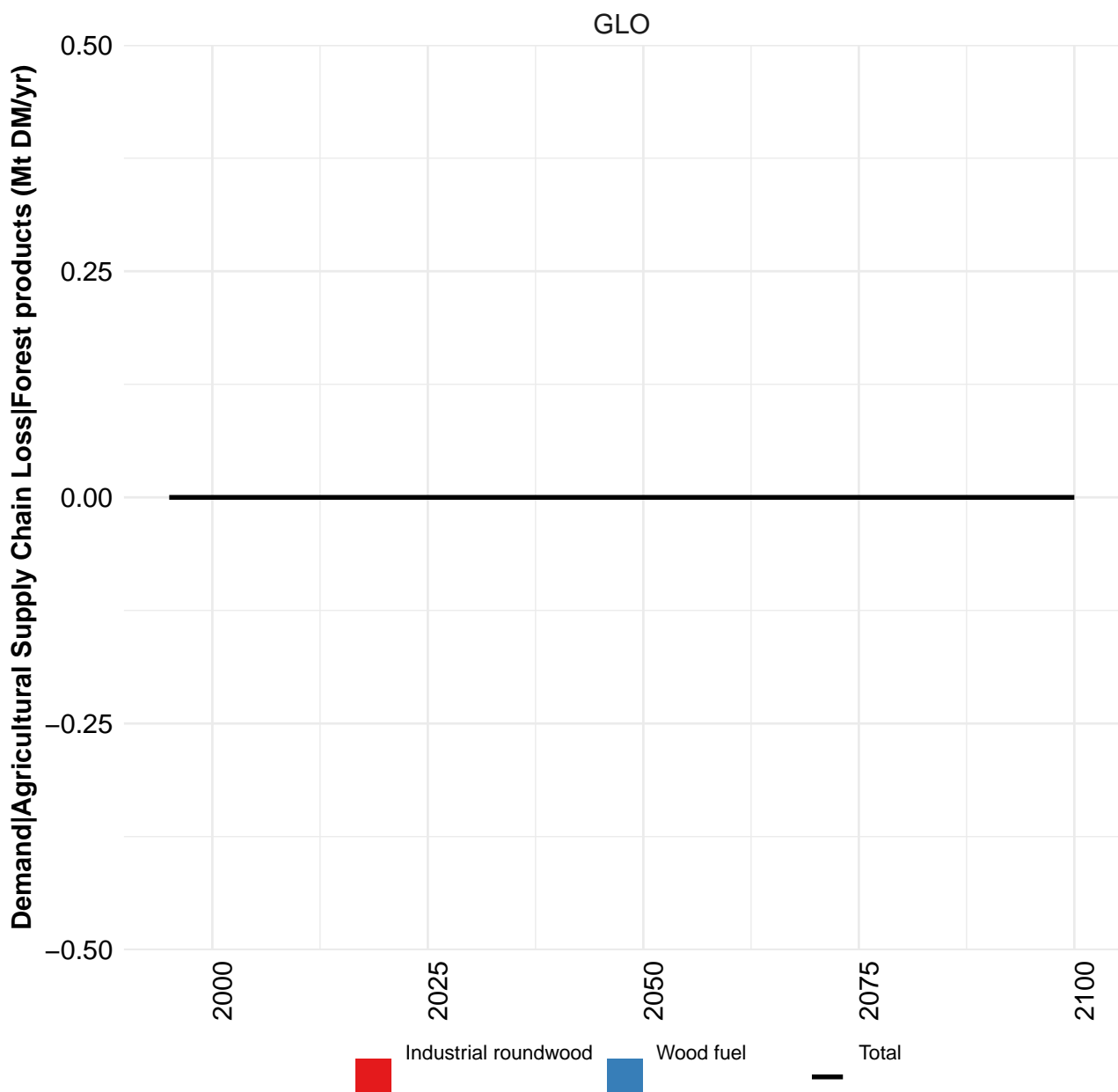
Table 64: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 1/2]

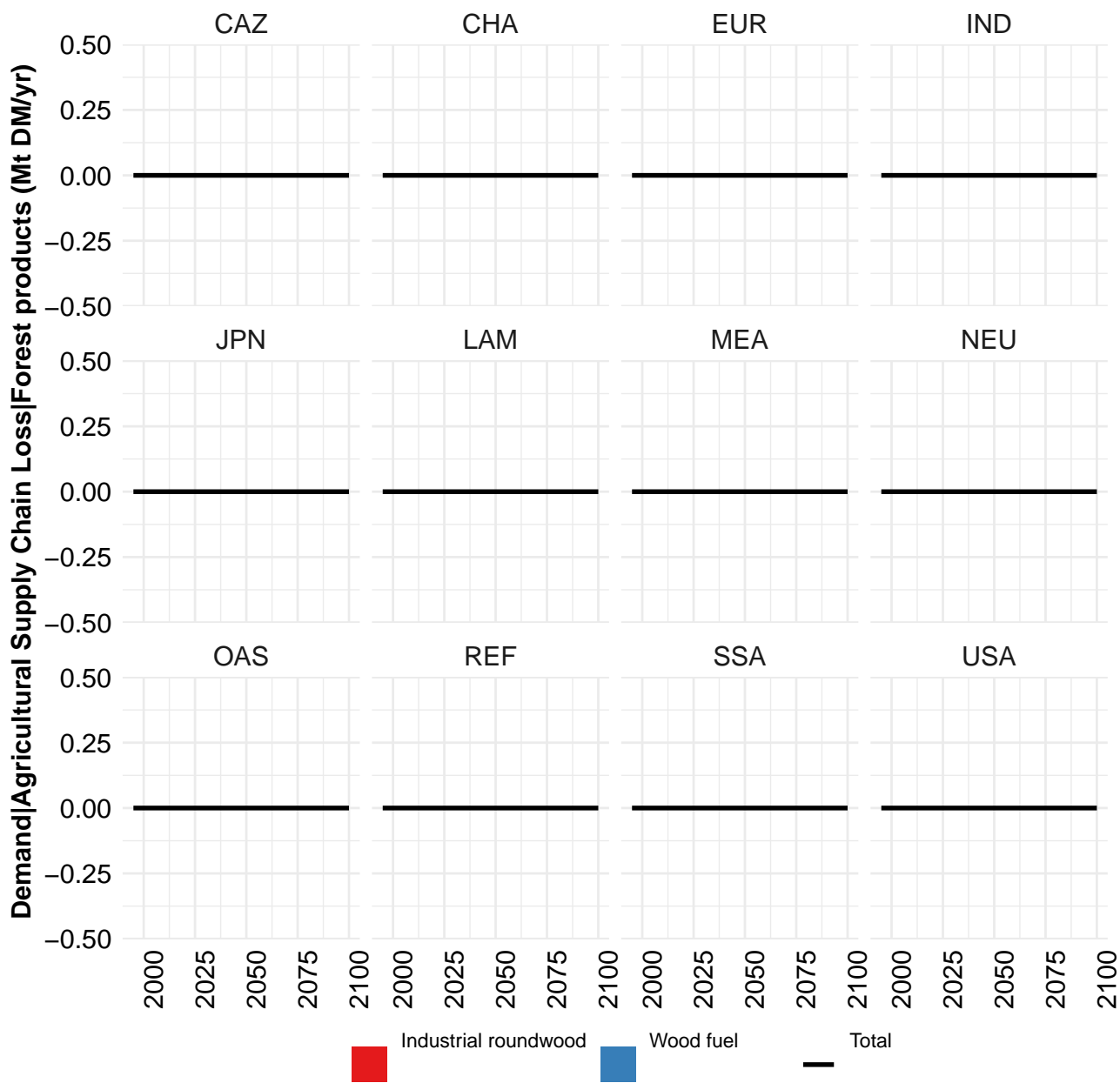
	2050	2055	2060	2070	2080	2090	2100
GLO	43.7	45.7	47.1	52.1	56.5	60.4	65.0
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	2.9	3.1	3.2	3.5	4.0	4.5	5.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	35.7	36.6	37.2	39.9	42.0	43.7	46.0
MEA	0.2	0.2	0.3	0.4	0.4	0.4	0.4
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	2.4	2.7	2.8	3.3	3.7	4.2	4.8
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	2.5	3.1	3.6	5.1	6.4	7.6	8.8
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

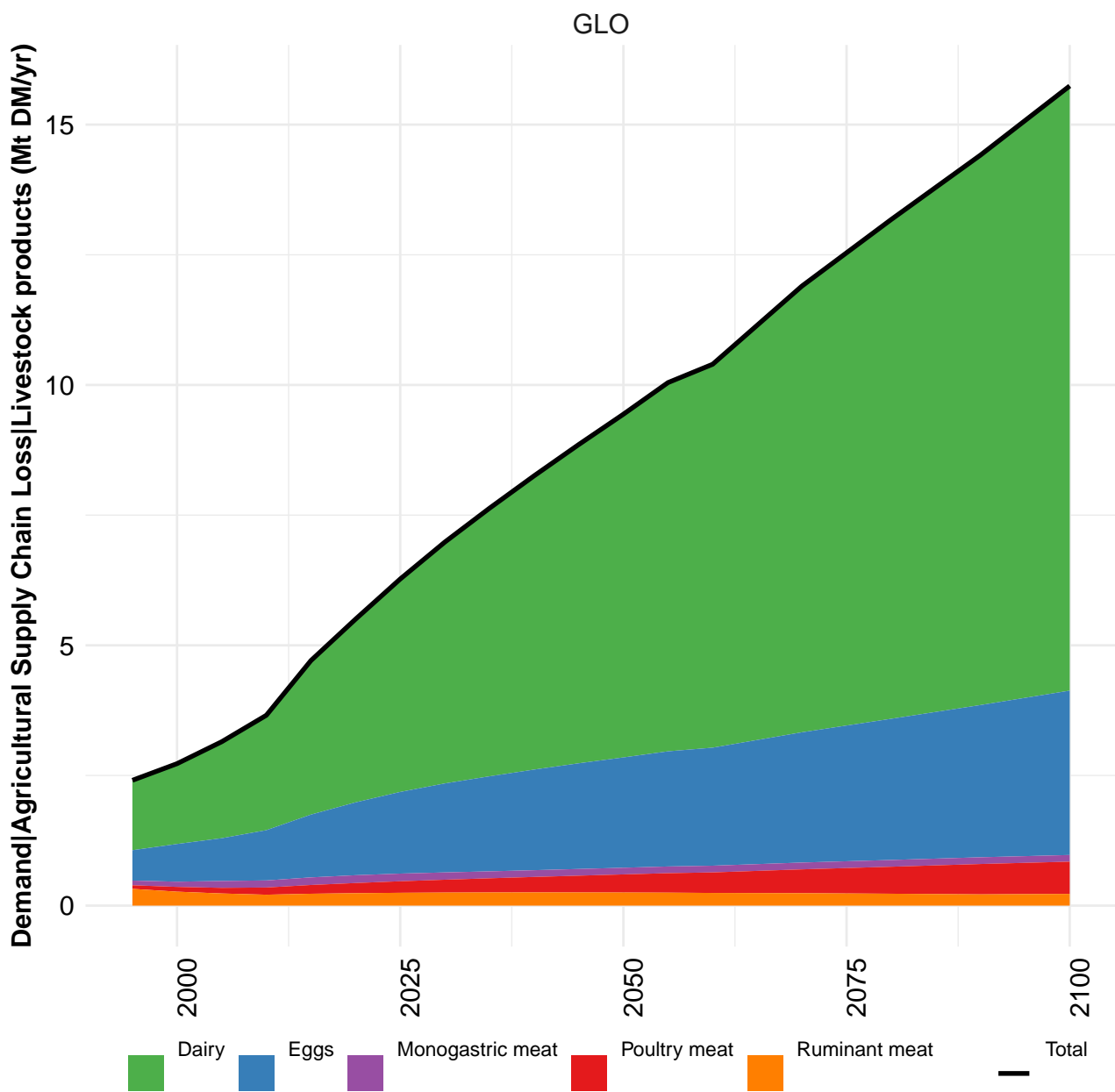
Table 65: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 2/2]

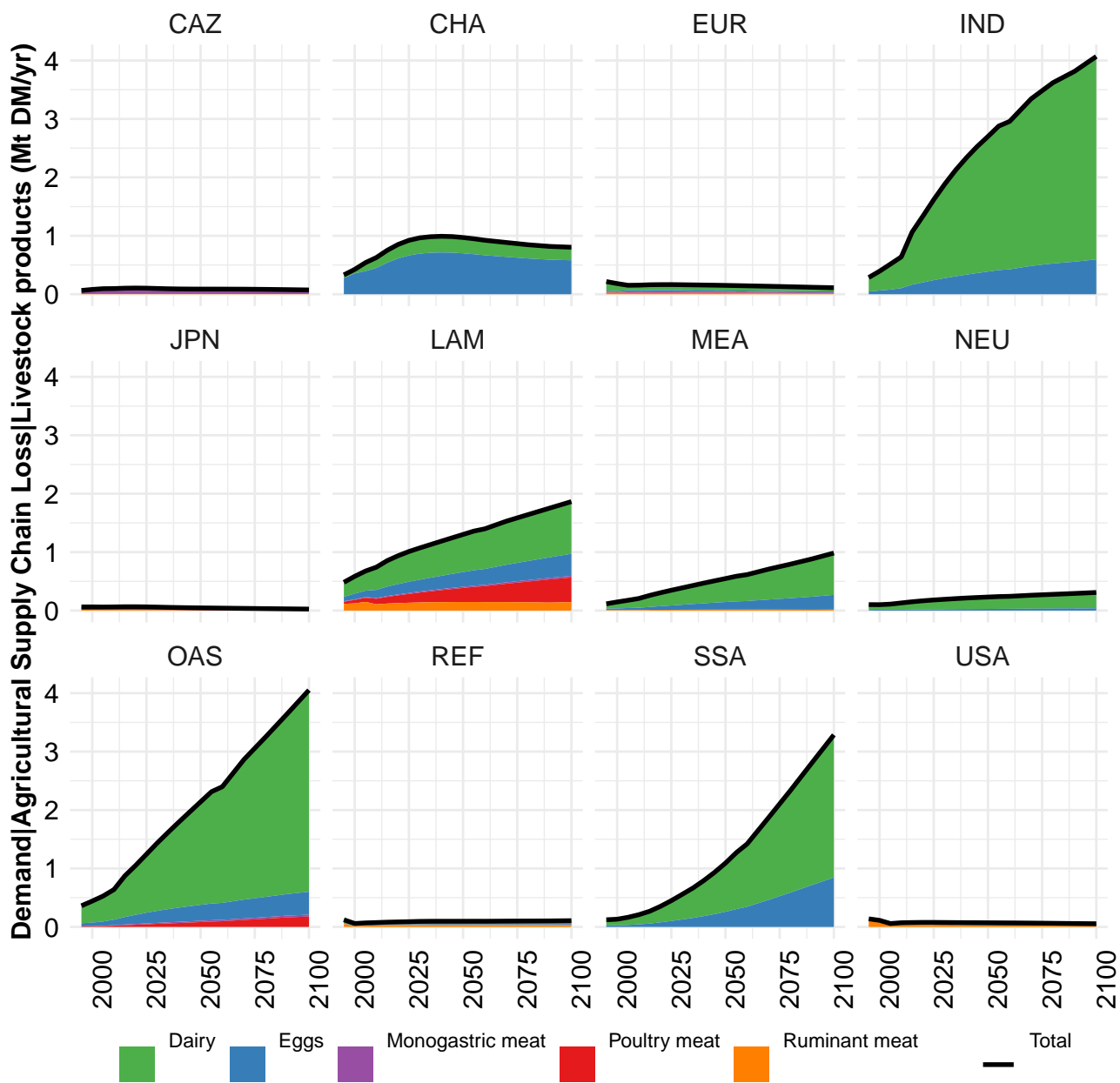
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.4	4.2	3.4	3.3	2.4	8.8	11.7	18.1	3.0	16.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.5	0.5	0.6	0.5	0.7	0.9	1.1	1.2	1.0	1.2
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.4	3.0	2.0	2.0	0.9	7.0	9.7	15.7	0.7	14.4
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.3	0.4	0.5	0.5	0.5	0.5	0.6	0.8	0.8	0.9
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 66: FAO — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops—Sugar cane (Mt DM/yr)

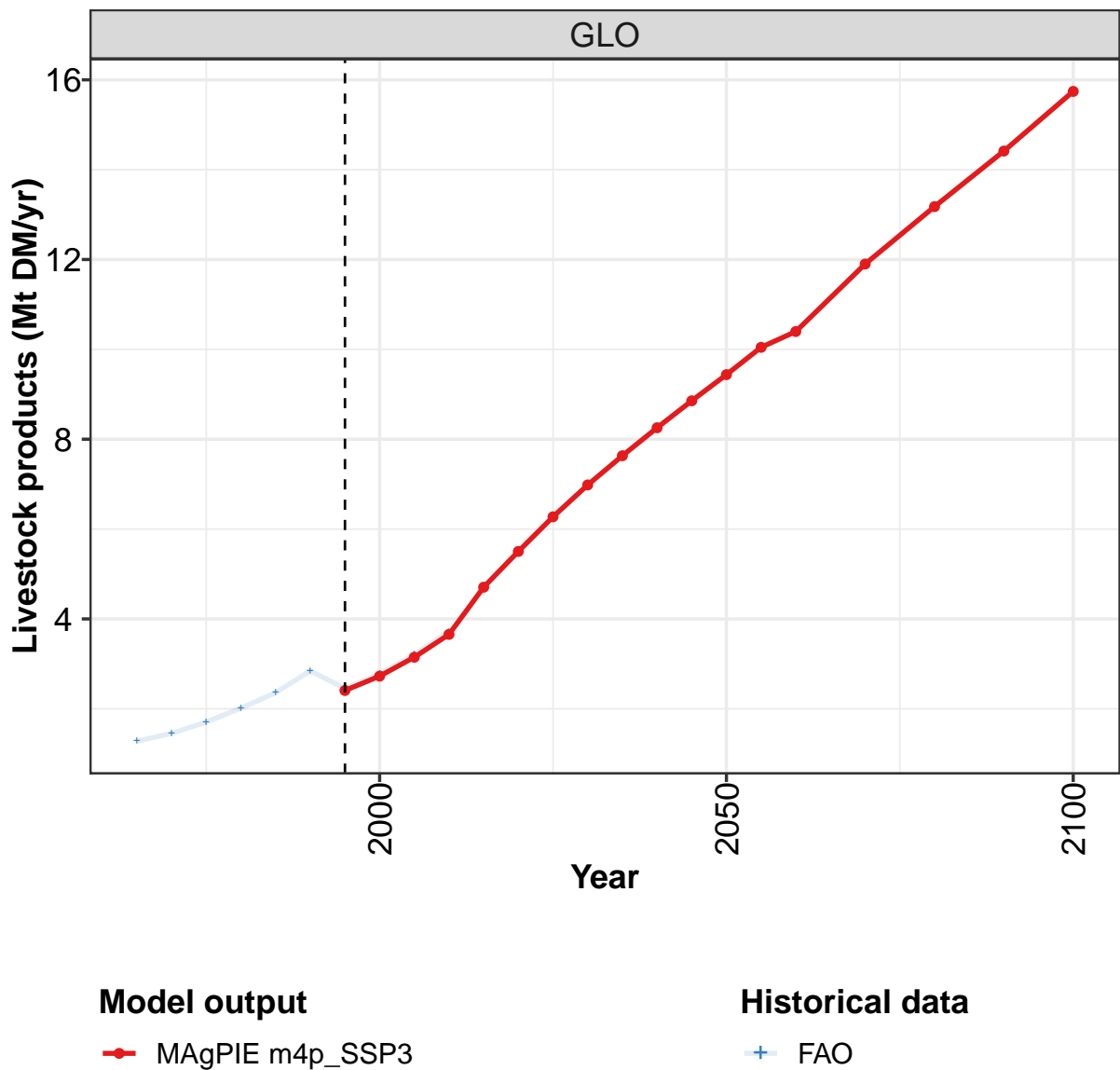








3.2 Livestock products



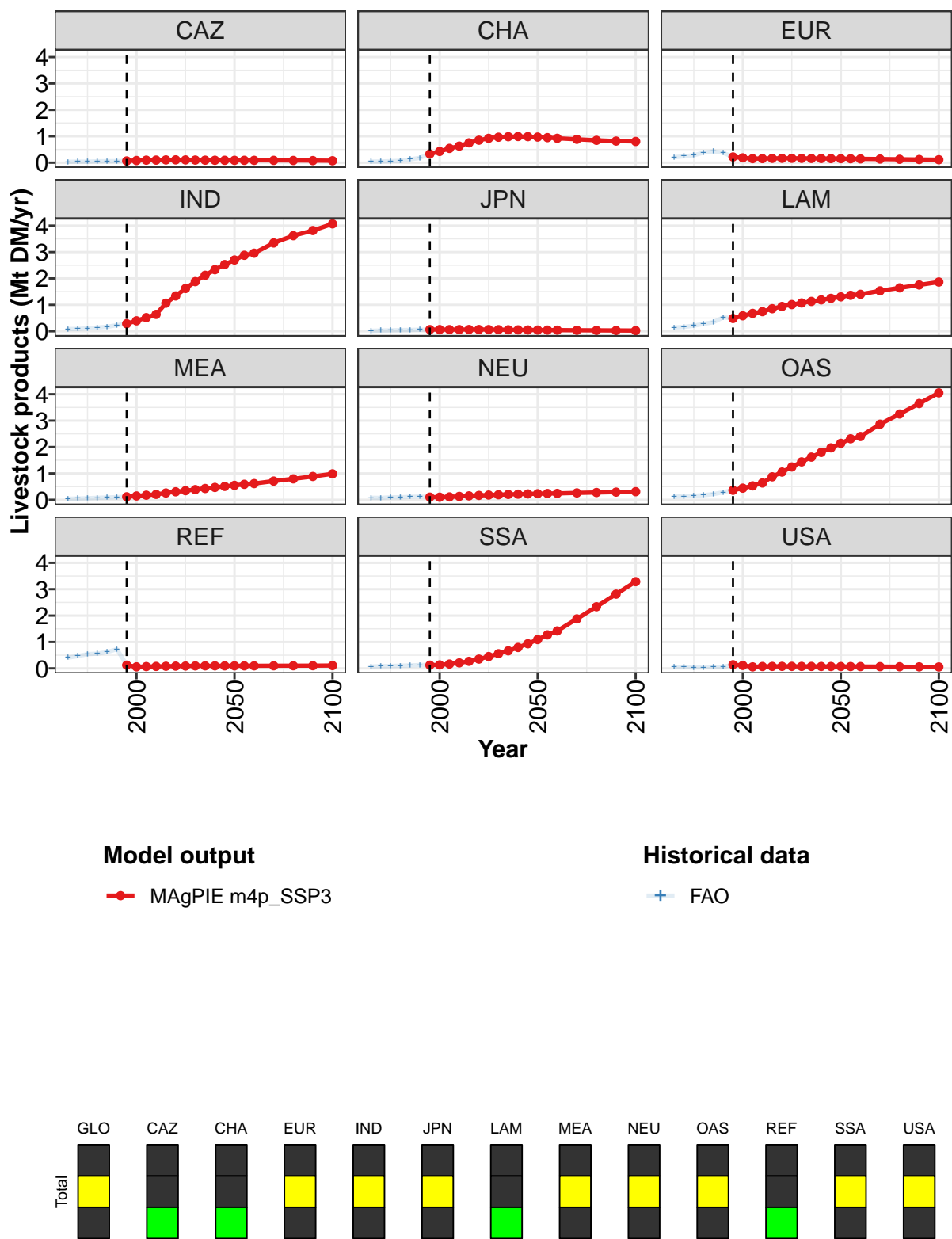


Figure 22: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.4	2.7	3.1	3.7	4.7	5.5	6.3	7.0	7.6	8.3	8.9
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.3	0.4	0.5	0.6	0.8	0.9	0.9	1.0	1.0	1.0	1.0
EUR	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
IND	0.3	0.4	0.5	0.6	1.1	1.3	1.6	1.9	2.1	2.3	2.5
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
LAM	0.5	0.6	0.7	0.7	0.9	0.9	1.0	1.1	1.1	1.2	1.2
MEA	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5
NEU	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.4	0.4	0.5	0.6	0.9	1.1	1.2	1.4	1.6	1.8	2.0
REF	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SSA	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.6	0.7	0.8	0.9
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 67: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products (Mt DM/yr)
[PART 1/2]

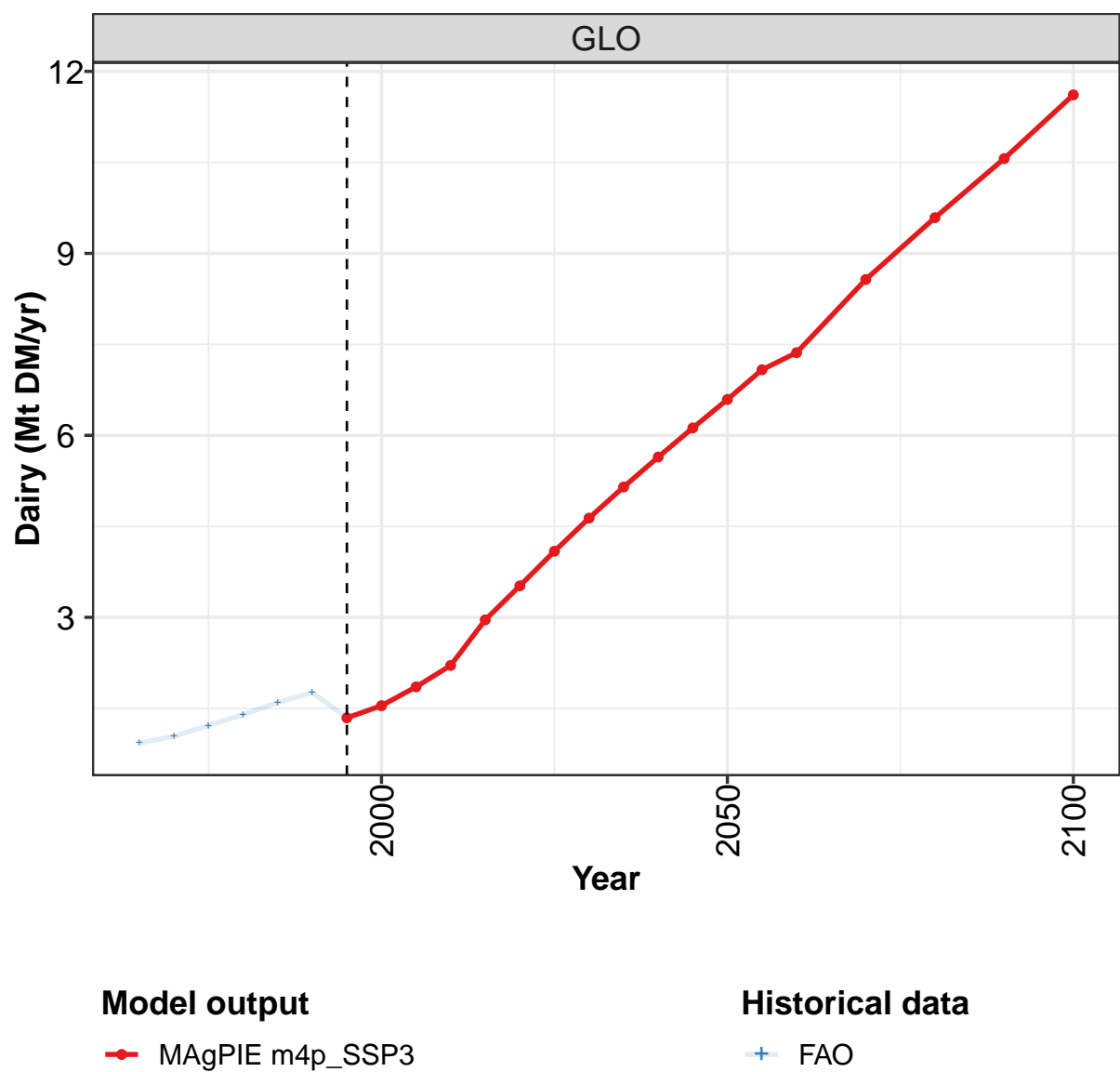
	2050	2055	2060	2070	2080	2090	2100
GLO	9.4	10.0	10.4	11.9	13.2	14.4	15.7
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	1.0	0.9	0.9	0.9	0.8	0.8	0.8
EUR	0.2	0.1	0.1	0.1	0.1	0.1	0.1
IND	2.7	2.9	3.0	3.3	3.6	3.8	4.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.3	1.4	1.4	1.5	1.6	1.8	1.9
MEA	0.5	0.6	0.6	0.7	0.8	0.9	1.0
NEU	0.2	0.2	0.2	0.3	0.3	0.3	0.3
OAS	2.1	2.3	2.4	2.9	3.3	3.6	4.1
REF	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SSA	1.1	1.3	1.4	1.9	2.3	2.8	3.3
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 68: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.28	1.45	1.70	2.01	2.36	2.84	2.45	2.78	3.21	3.72
CAZ	0.03	0.04	0.04	0.05	0.05	0.06	0.06	0.08	0.10	0.10
CHA	0.04	0.04	0.05	0.07	0.13	0.18	0.34	0.44	0.55	0.64
EUR	0.21	0.24	0.28	0.38	0.42	0.38	0.22	0.18	0.15	0.16
IND	0.08	0.09	0.11	0.14	0.17	0.23	0.29	0.40	0.52	0.64
JPN	0.02	0.03	0.03	0.04	0.05	0.06	0.06	0.06	0.06	0.06
LAM	0.14	0.16	0.21	0.28	0.34	0.52	0.49	0.60	0.69	0.76
MEA	0.04	0.05	0.06	0.08	0.09	0.10	0.12	0.15	0.18	0.21
NEU	0.08	0.07	0.10	0.10	0.11	0.12	0.10	0.10	0.11	0.13
OAS	0.12	0.13	0.15	0.18	0.22	0.29	0.37	0.45	0.54	0.65
REF	0.41	0.46	0.54	0.56	0.62	0.73	0.13	0.06	0.07	0.08
SSA	0.07	0.08	0.09	0.10	0.11	0.13	0.13	0.14	0.17	0.21
USA	0.05	0.05	0.04	0.04	0.05	0.06	0.14	0.12	0.06	0.08

Table 69: FAO — Demand—Agricultural Supply Chain Loss—Livestock products (Mt DM/yr)

3.2.1 Dairy



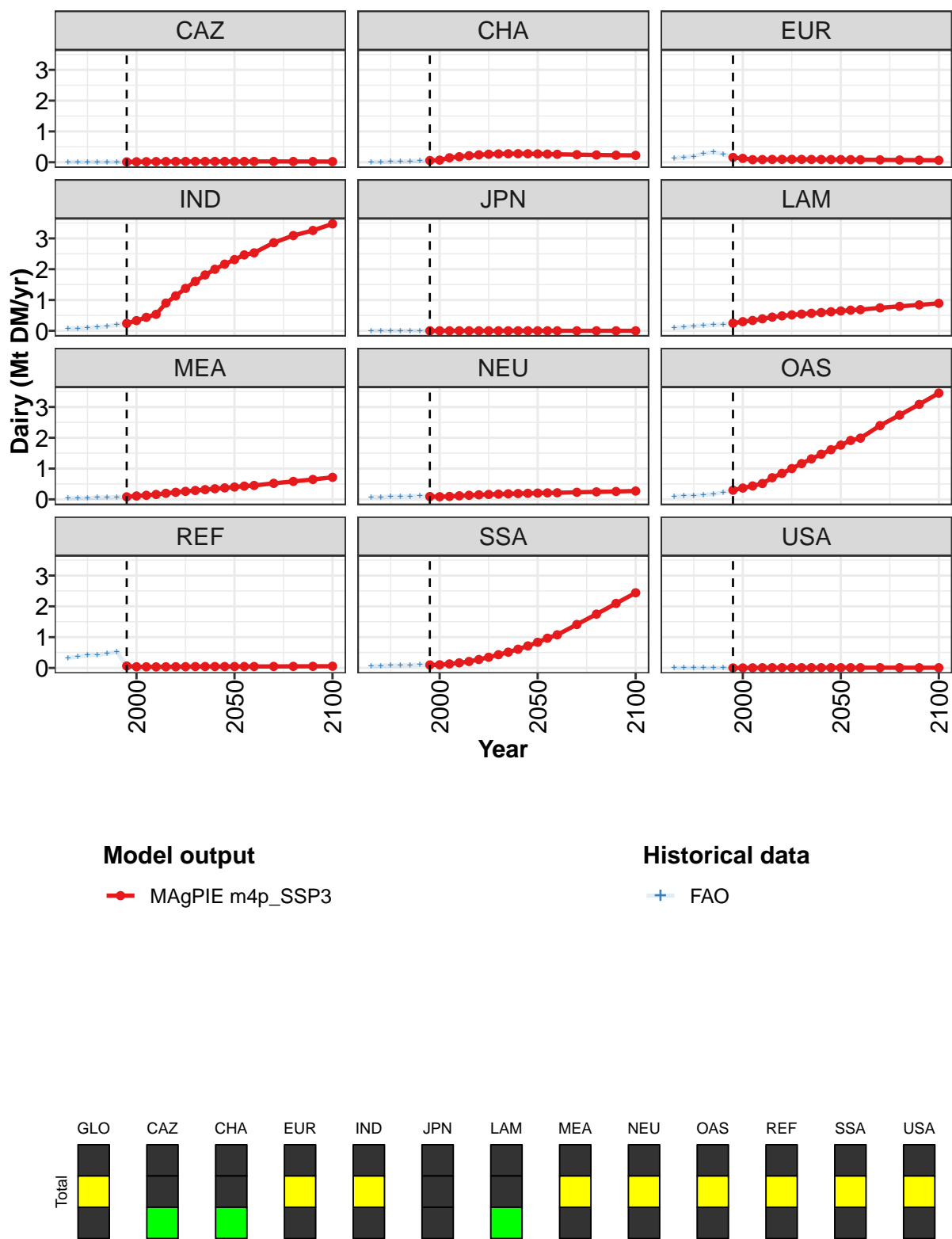


Figure 23: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Dairy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.3	1.5	1.9	2.2	3.0	3.5	4.1	4.6	5.1	5.6	6.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
EUR	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	0.2	0.3	0.4	0.5	0.9	1.1	1.4	1.6	1.8	2.0	2.2
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6
MEA	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
OAS	0.3	0.4	0.4	0.5	0.7	0.8	1.0	1.2	1.3	1.5	1.6
REF	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 70: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Dairy (Mt DM/yr) [PART 1/2]

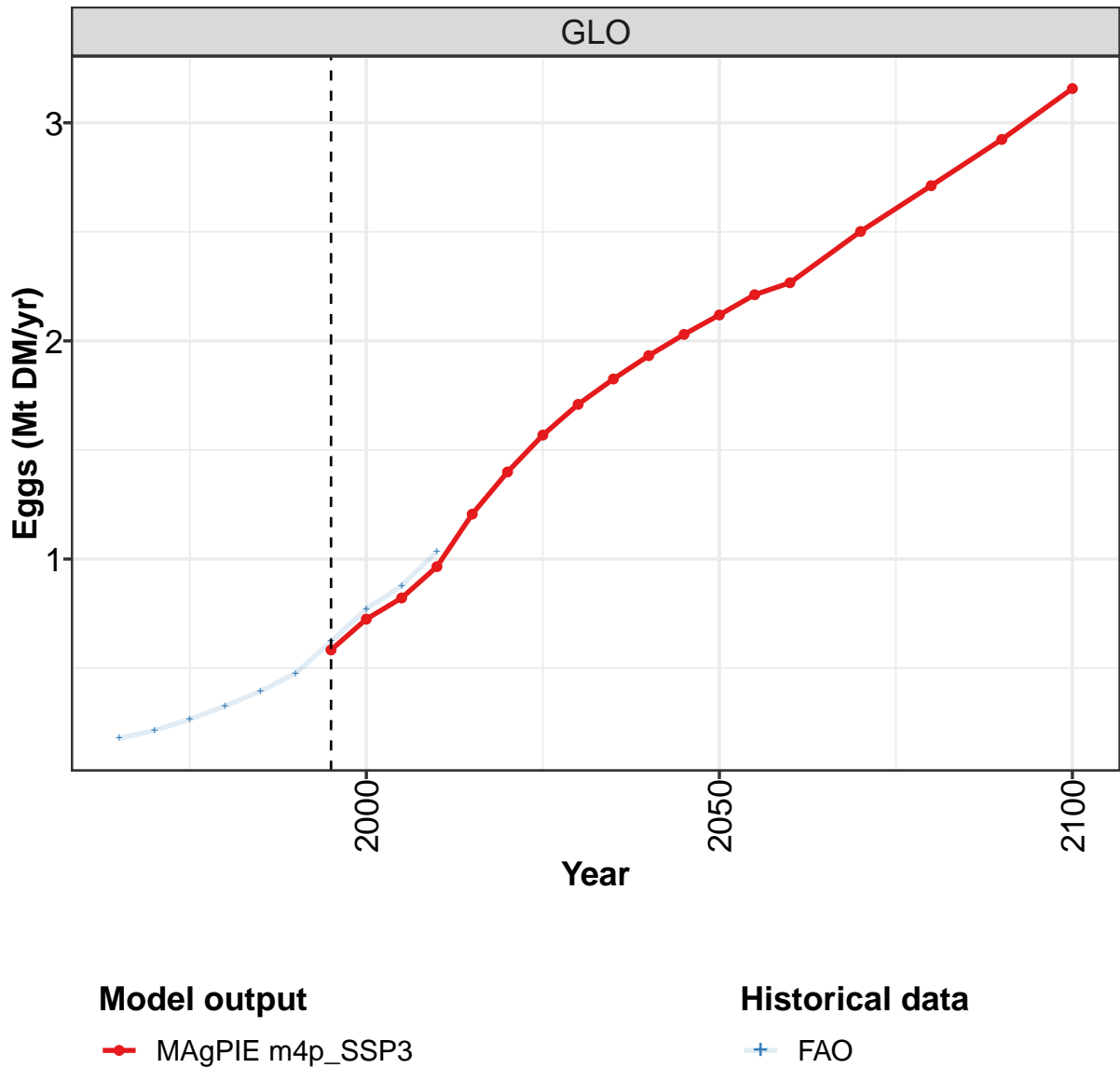
	2050	2055	2060	2070	2080	2090	2100
GLO	6.6	7.1	7.4	8.6	9.6	10.6	11.6
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.3	0.3	0.3	0.2	0.2	0.2	0.2
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	2.3	2.5	2.5	2.9	3.1	3.3	3.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.6	0.7	0.7	0.7	0.8	0.8	0.9
MEA	0.4	0.4	0.5	0.5	0.6	0.6	0.7
NEU	0.2	0.2	0.2	0.2	0.2	0.3	0.3
OAS	1.8	1.9	2.0	2.4	2.7	3.1	3.5
REF	0.0	0.0	0.0	0.0	0.1	0.1	0.1
SSA	0.8	1.0	1.1	1.4	1.7	2.1	2.4
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 71: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Dairy (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.93	1.04	1.22	1.40	1.60	1.76	1.35	1.55	1.86	2.21
CAZ	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
CHA	0.01	0.01	0.02	0.02	0.03	0.04	0.06	0.07	0.14	0.18
EUR	0.13	0.16	0.19	0.28	0.32	0.27	0.15	0.12	0.08	0.09
IND	0.08	0.08	0.10	0.12	0.14	0.19	0.24	0.33	0.44	0.53
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.10	0.12	0.15	0.17	0.19	0.21	0.25	0.30	0.34	0.39
MEA	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.11	0.14	0.16
NEU	0.08	0.07	0.09	0.09	0.10	0.11	0.09	0.09	0.10	0.12
OAS	0.10	0.11	0.13	0.14	0.17	0.23	0.30	0.37	0.44	0.52
REF	0.33	0.36	0.41	0.42	0.47	0.52	0.07	0.04	0.04	0.03
SSA	0.06	0.07	0.07	0.08	0.09	0.10	0.10	0.10	0.13	0.17
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01

Table 72: FAO — Demand—Agricultural Supply Chain Loss—Livestock products—Dairy (Mt DM/yr)

3.2.2 Eggs



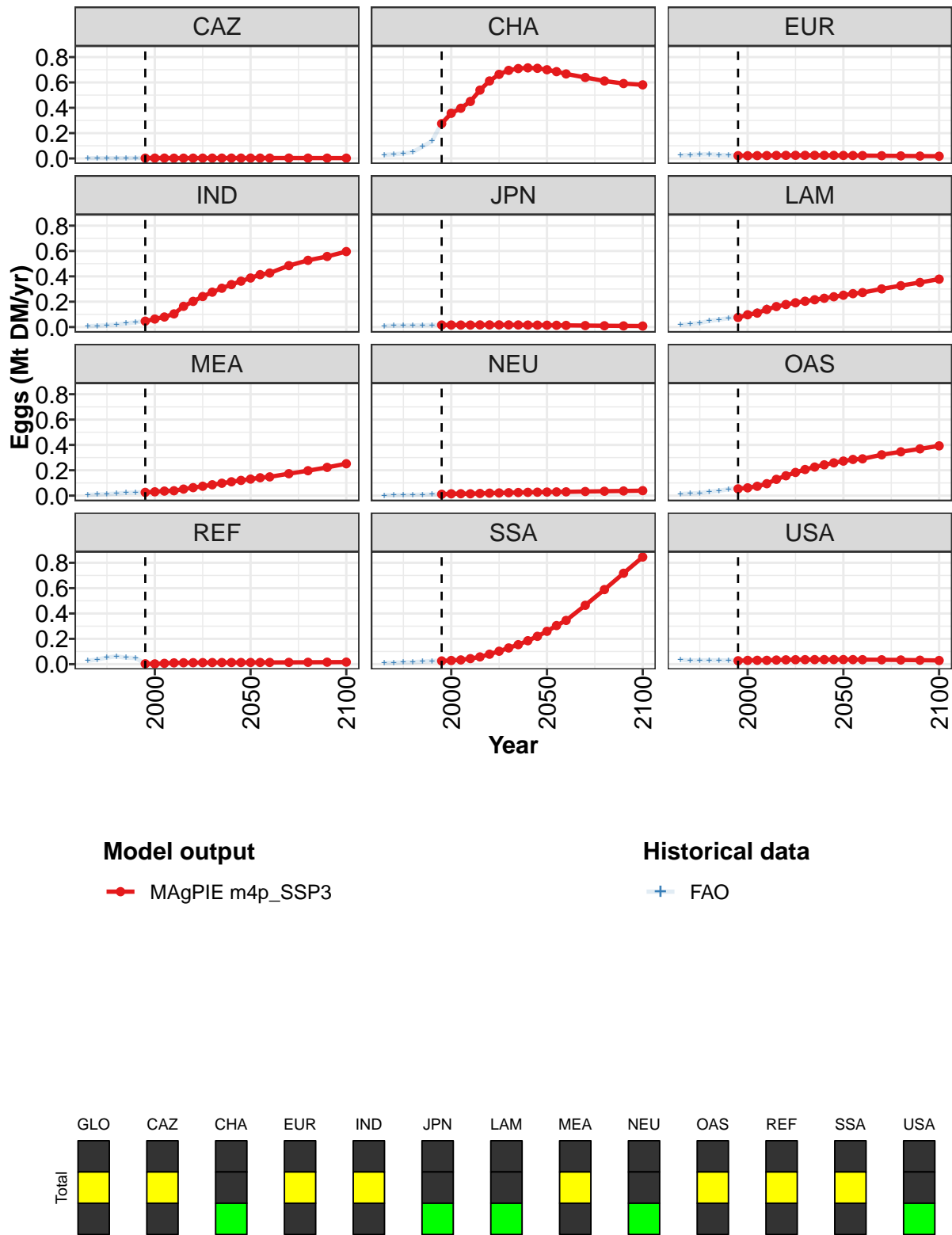


Figure 24: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Eggs (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.58	0.72	0.82	0.97	1.21	1.40	1.57	1.71	1.83	1.93	2.03
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.28	0.36	0.40	0.45	0.54	0.61	0.66	0.70	0.71	0.71	0.71
EUR	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
IND	0.05	0.06	0.08	0.10	0.16	0.20	0.24	0.28	0.31	0.33	0.36
JPN	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LAM	0.08	0.10	0.11	0.14	0.16	0.18	0.19	0.20	0.22	0.23	0.24
MEA	0.03	0.03	0.04	0.04	0.05	0.06	0.07	0.09	0.10	0.11	0.12
NEU	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03
OAS	0.05	0.06	0.07	0.09	0.13	0.16	0.18	0.21	0.23	0.24	0.26
REF	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
SSA	0.03	0.03	0.03	0.04	0.06	0.08	0.10	0.13	0.15	0.19	0.22
USA	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04

Table 73: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Eggs (Mt DM/yr) [PART 1/2]

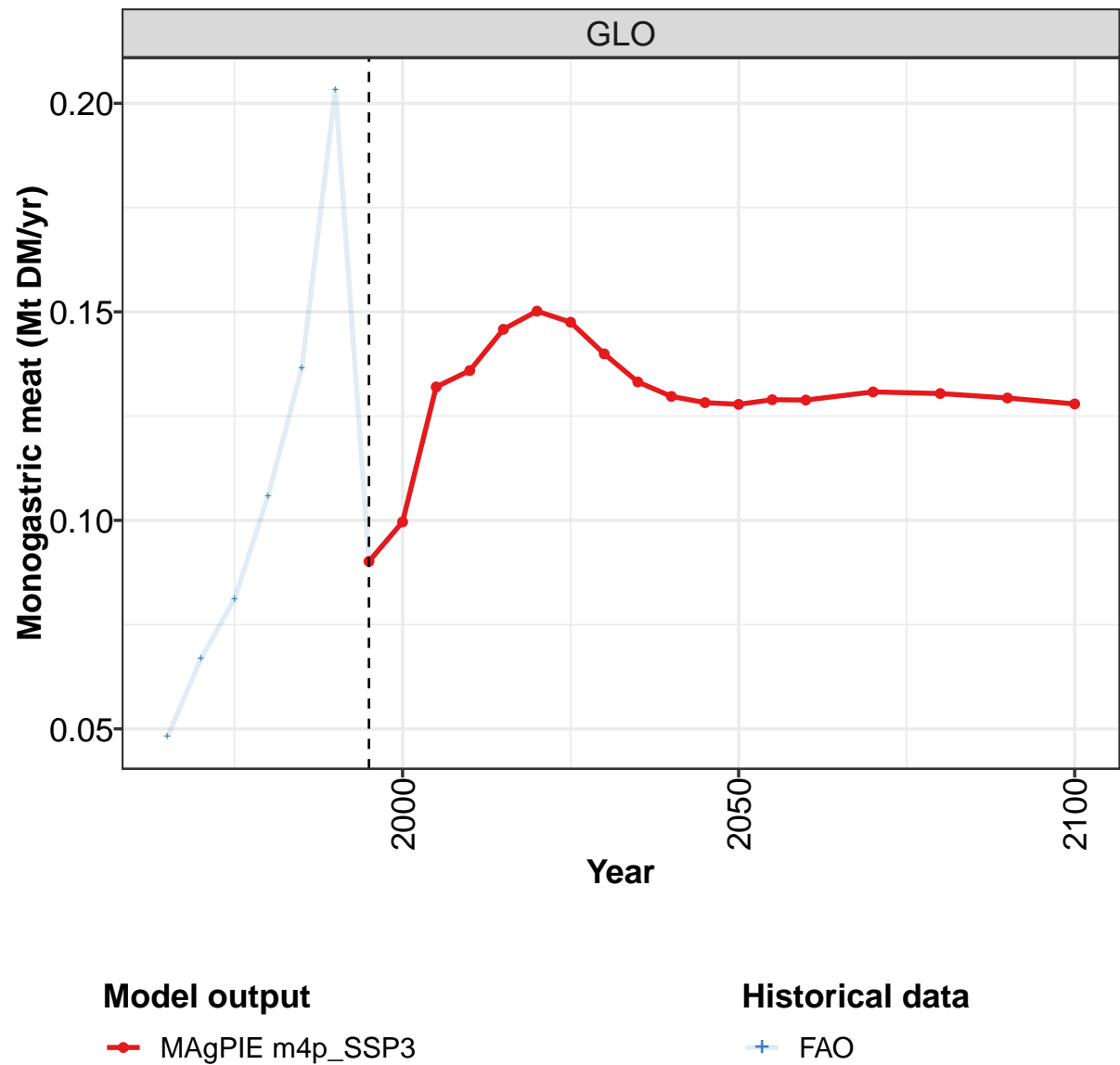
	2050	2055	2060	2070	2080	2090	2100
GLO	2.12	2.21	2.27	2.50	2.71	2.92	3.16
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.70	0.69	0.67	0.64	0.61	0.59	0.58
EUR	0.02	0.02	0.02	0.02	0.02	0.02	0.02
IND	0.39	0.41	0.43	0.48	0.53	0.56	0.60
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.25	0.26	0.27	0.30	0.33	0.35	0.38
MEA	0.13	0.14	0.15	0.17	0.20	0.22	0.25
NEU	0.03	0.03	0.03	0.03	0.03	0.04	0.04
OAS	0.27	0.29	0.29	0.32	0.35	0.37	0.39
REF	0.01	0.01	0.01	0.01	0.01	0.02	0.02
SSA	0.26	0.30	0.35	0.46	0.59	0.72	0.85
USA	0.04	0.04	0.04	0.03	0.03	0.03	0.03

Table 74: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Eggs (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.18	0.21	0.27	0.33	0.39	0.48	0.62	0.77	0.88	1.04
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.03	0.03	0.04	0.05	0.09	0.14	0.28	0.37	0.41	0.46
EUR	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02
IND	0.01	0.01	0.01	0.02	0.03	0.04	0.05	0.07	0.08	0.11
JPN	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
LAM	0.02	0.02	0.03	0.05	0.06	0.07	0.08	0.11	0.12	0.16
MEA	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.05
NEU	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02
OAS	0.01	0.02	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.11
REF	0.03	0.04	0.05	0.06	0.05	0.05	0.00	0.00	0.01	0.01
SSA	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.05
USA	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04

Table 75: FAO — Demand—Agricultural Supply Chain Loss—Livestock products—Eggs (Mt DM/yr)

3.2.3 Monogastric meat



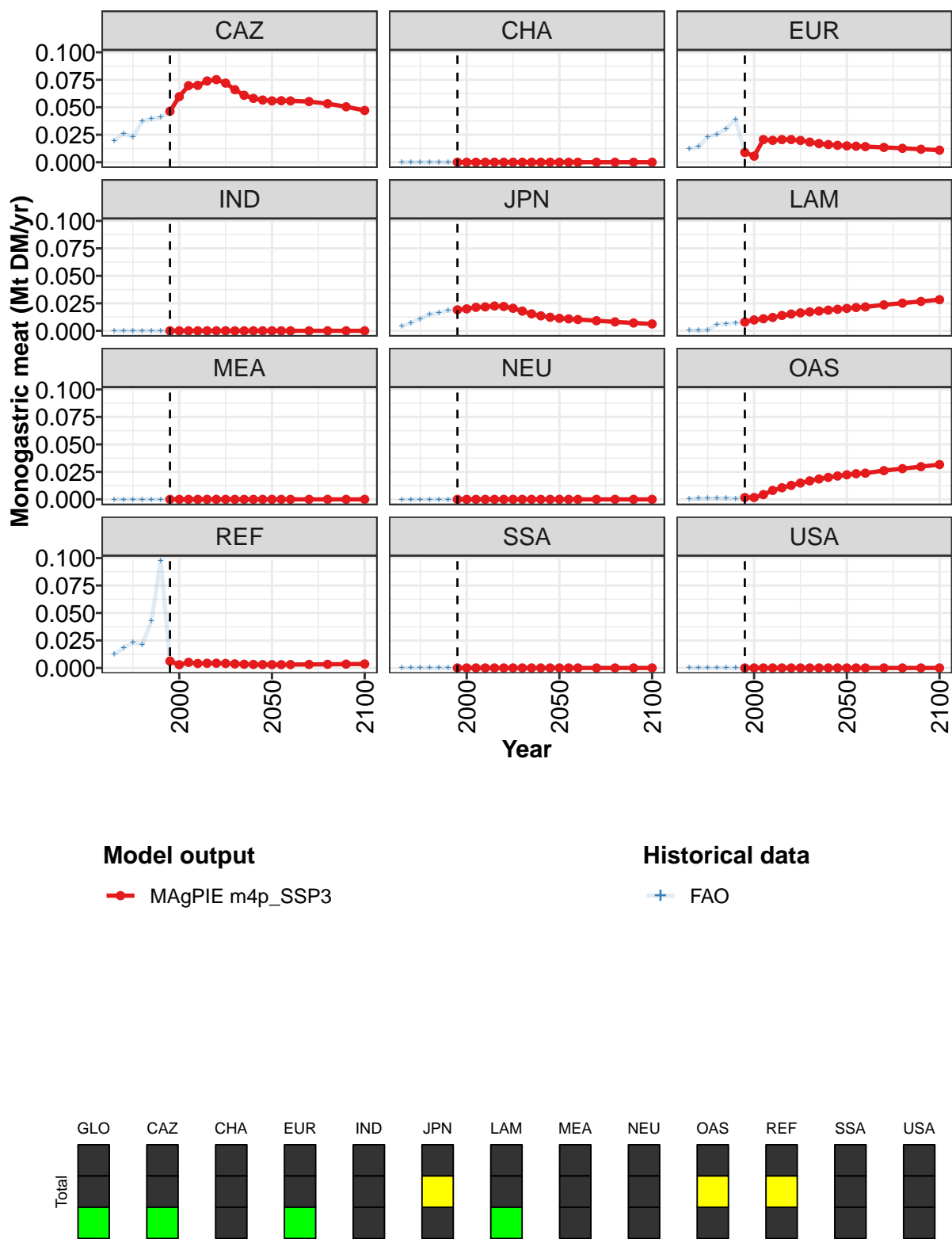


Figure 25: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Monogastric meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.090	0.100	0.132	0.136	0.146	0.150	0.148	0.140	0.133	0.130	0.128
CAZ	0.046	0.060	0.070	0.070	0.074	0.075	0.072	0.066	0.061	0.058	0.057
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.009	0.006	0.021	0.020	0.021	0.021	0.020	0.018	0.017	0.016	0.015
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.019	0.020	0.021	0.022	0.023	0.022	0.021	0.018	0.015	0.014	0.012
LAM	0.008	0.010	0.011	0.012	0.014	0.015	0.016	0.017	0.018	0.019	0.020
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.002	0.002	0.004	0.008	0.011	0.013	0.015	0.017	0.019	0.020	0.021
REF	0.006	0.003	0.005	0.004	0.004	0.004	0.004	0.004	0.003	0.003	0.003
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 76: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Monogastric meat (Mt DM/yr) [PART 1/2]

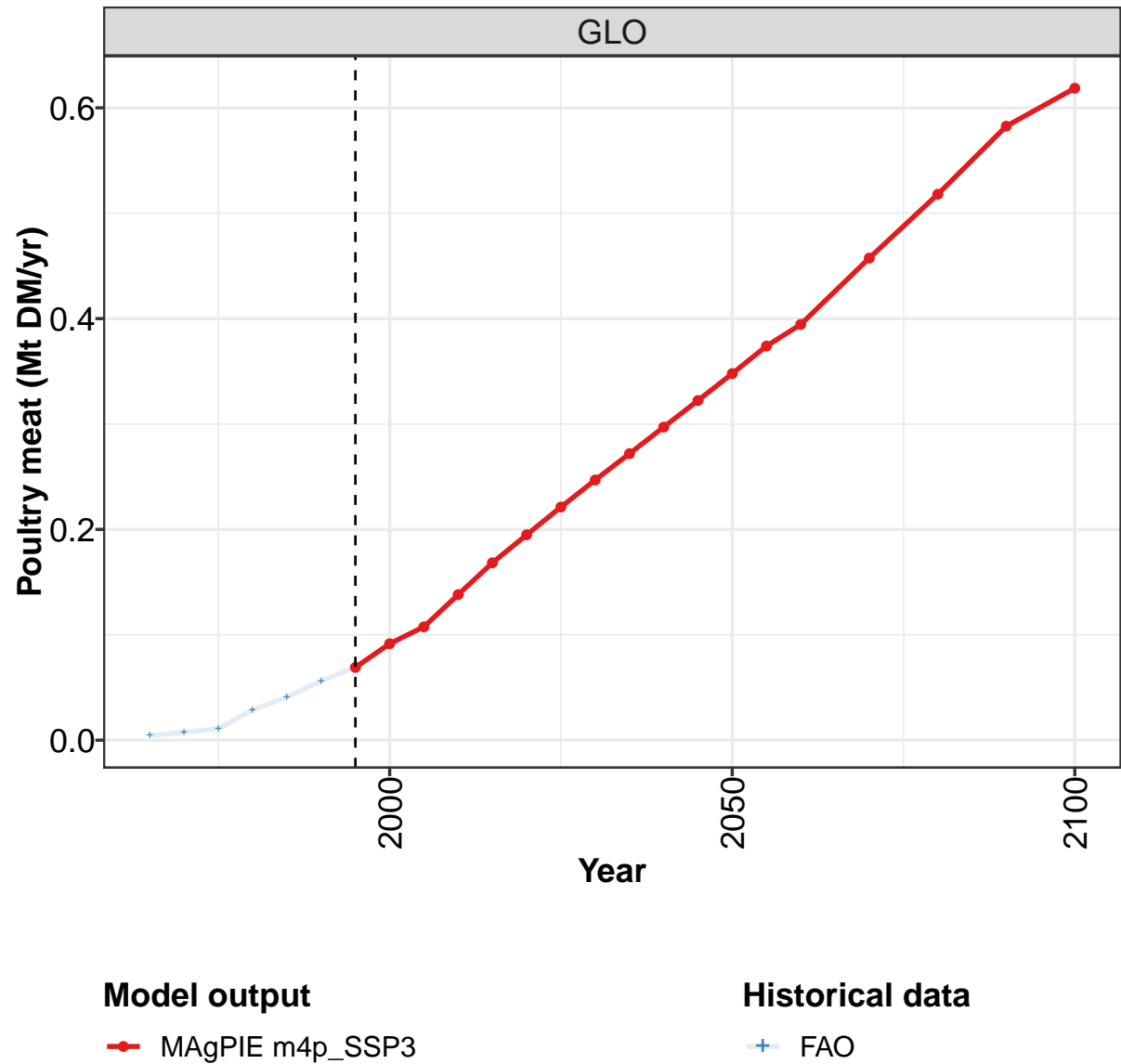
	2050	2055	2060	2070	2080	2090	2100
GLO	0.128	0.129	0.129	0.131	0.130	0.129	0.128
CAZ	0.056	0.056	0.056	0.055	0.053	0.050	0.047
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.015	0.015	0.014	0.013	0.013	0.012	0.011
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.011	0.011	0.010	0.009	0.008	0.007	0.006
LAM	0.020	0.021	0.022	0.024	0.025	0.027	0.028
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.022	0.023	0.024	0.026	0.028	0.030	0.032
REF	0.003	0.003	0.003	0.003	0.003	0.003	0.004
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 77: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Monogastric meat (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.048	0.067	0.081	0.106	0.137	0.203	0.090	0.100	0.132	0.135
CAZ	0.019	0.026	0.023	0.037	0.040	0.041	0.046	0.060	0.070	0.070
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.012	0.014	0.023	0.025	0.031	0.039	0.009	0.005	0.021	0.020
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.004	0.007	0.011	0.015	0.016	0.019	0.019	0.020	0.021	0.022
LAM	0.000	0.000	0.001	0.006	0.006	0.007	0.008	0.010	0.011	0.012
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.004	0.008
REF	0.012	0.018	0.023	0.021	0.043	0.097	0.006	0.003	0.005	0.004
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 78: FAO — Demand—Agricultural Supply Chain Loss—Livestock products—Monogastric meat (Mt DM/yr)

3.2.4 Poultry meat



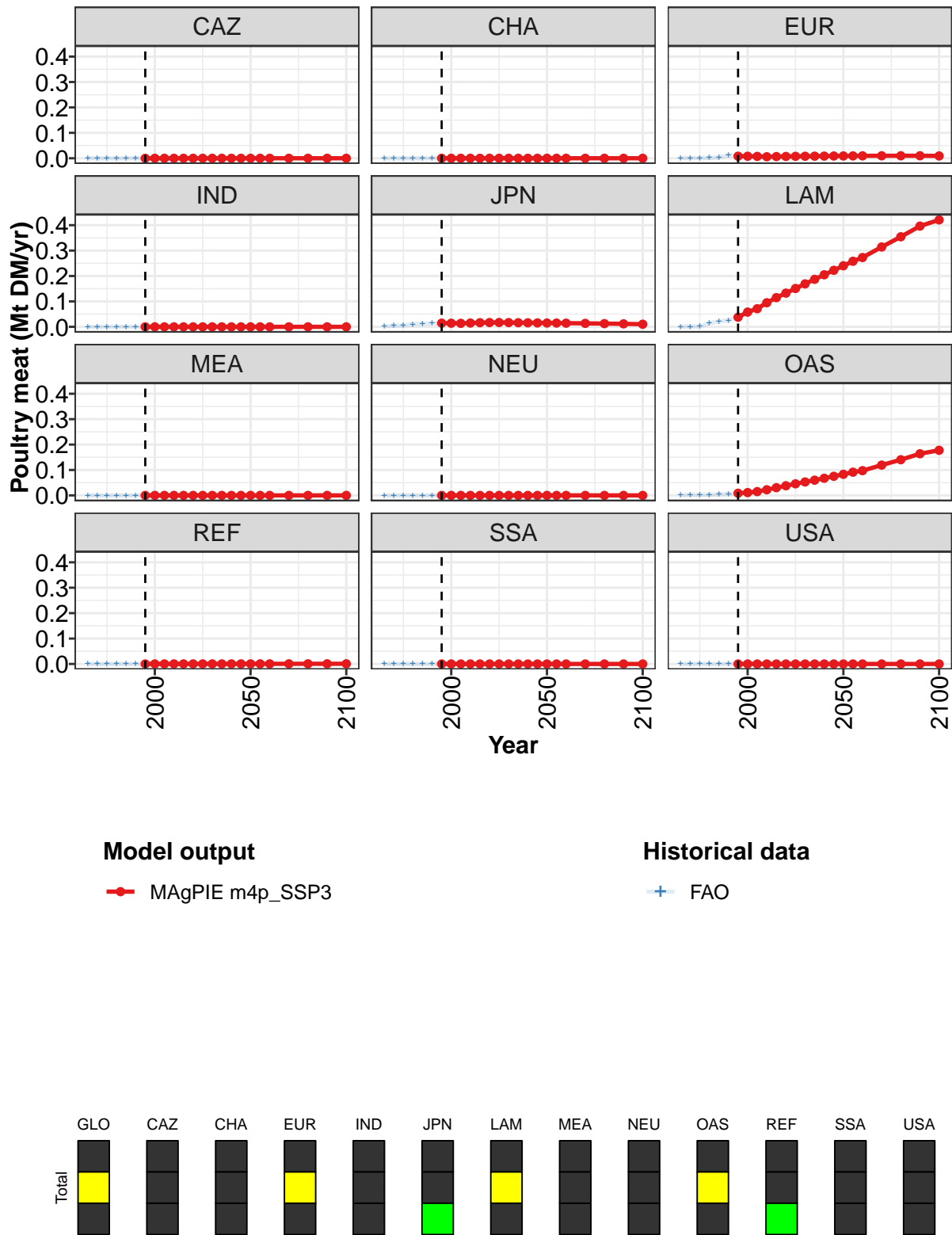


Figure 26: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Poultry meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.069	0.092	0.108	0.138	0.168	0.195	0.221	0.247	0.272	0.297	0.322
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.008	0.008	0.007	0.006	0.007	0.007	0.008	0.008	0.008	0.009	0.009
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.014	0.014	0.014	0.015	0.016	0.017	0.017	0.017	0.016	0.016	0.015
LAM	0.038	0.058	0.071	0.095	0.115	0.133	0.151	0.169	0.187	0.205	0.222
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.009	0.011	0.015	0.022	0.030	0.038	0.046	0.053	0.060	0.067	0.075
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 79: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Poultry meat (Mt DM/yr) [PART 1/2]

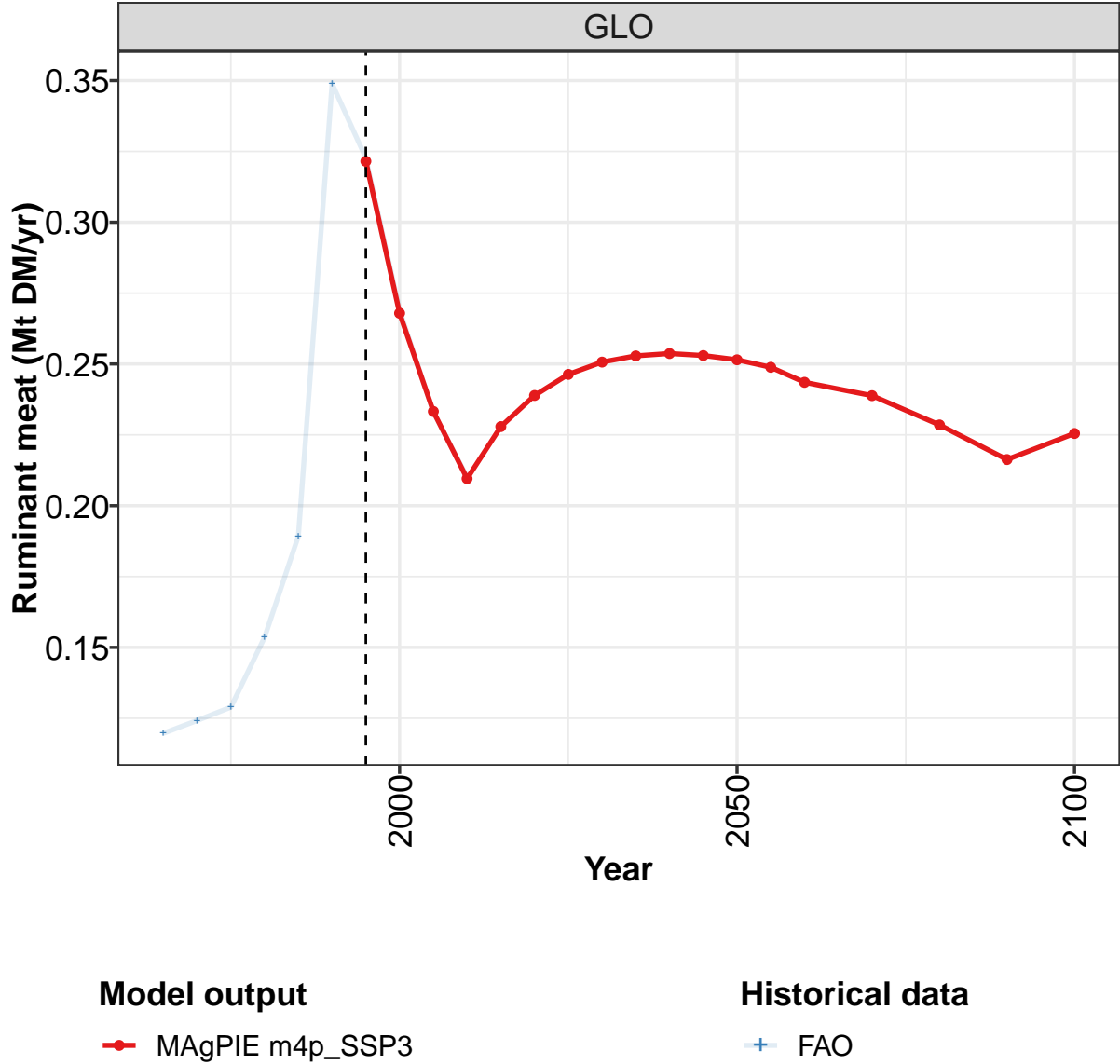
	2050	2055	2060	2070	2080	2090	2100
GLO	0.348	0.374	0.395	0.457	0.518	0.583	0.619
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.009	0.009	0.009	0.010	0.010	0.010	0.009
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.015	0.015	0.014	0.014	0.013	0.012	0.010
LAM	0.240	0.258	0.273	0.314	0.354	0.396	0.421
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.083	0.091	0.097	0.119	0.140	0.164	0.178
REF	0.000	0.000	0.000	0.001	0.001	0.001	0.001
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 80: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Poultry meat (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.004	0.007	0.011	0.029	0.041	0.056	0.069	0.091	0.108	0.138
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.001	0.001	0.001	0.002	0.004	0.012	0.008	0.008	0.007	0.006
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.002	0.004	0.006	0.010	0.012	0.014	0.015	0.014	0.014	0.015
LAM	0.001	0.001	0.002	0.014	0.021	0.025	0.038	0.058	0.071	0.095
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.001	0.002	0.003	0.003	0.004	0.005	0.009	0.011	0.015	0.022
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 81: FAO — Demand—Agricultural Supply Chain Loss—Livestock products—Poultry meat (Mt DM/yr)

3.2.5 Ruminant meat



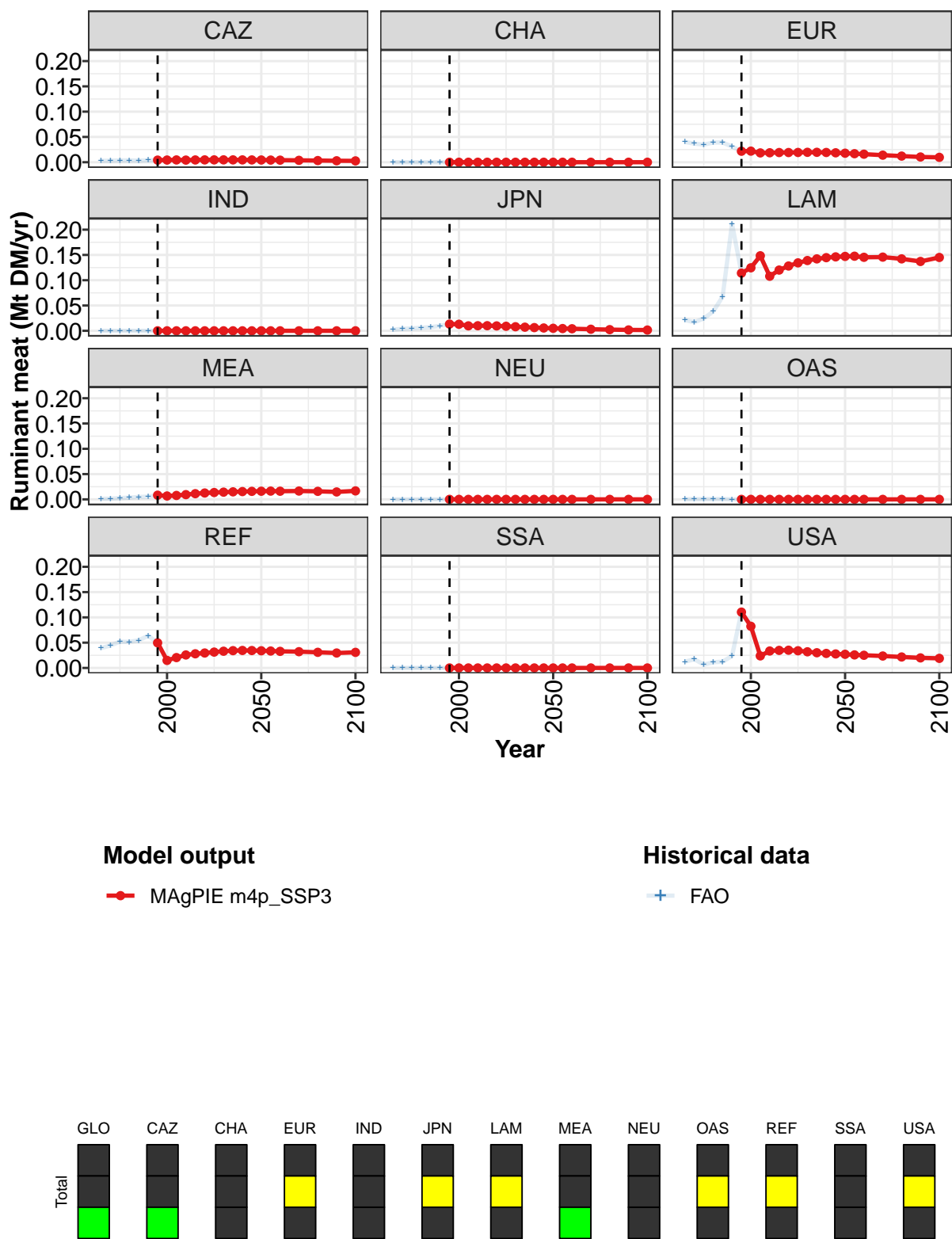


Figure 27: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Ruminant meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.322	0.268	0.233	0.210	0.228	0.239	0.246	0.251	0.253	0.254	0.253
CAZ	0.004	0.004	0.005	0.004	0.005	0.005	0.005	0.005	0.005	0.005	0.005
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.022	0.022	0.018	0.019	0.019	0.019	0.019	0.020	0.020	0.019	0.019
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.013	0.013	0.010	0.010	0.010	0.010	0.009	0.008	0.007	0.006	0.006
LAM	0.114	0.125	0.148	0.108	0.120	0.128	0.134	0.139	0.142	0.145	0.146
MEA	0.008	0.007	0.008	0.009	0.011	0.013	0.014	0.014	0.015	0.015	0.016
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.050	0.015	0.021	0.026	0.028	0.030	0.031	0.033	0.034	0.035	0.034
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.110	0.082	0.024	0.034	0.035	0.035	0.034	0.032	0.030	0.029	0.028

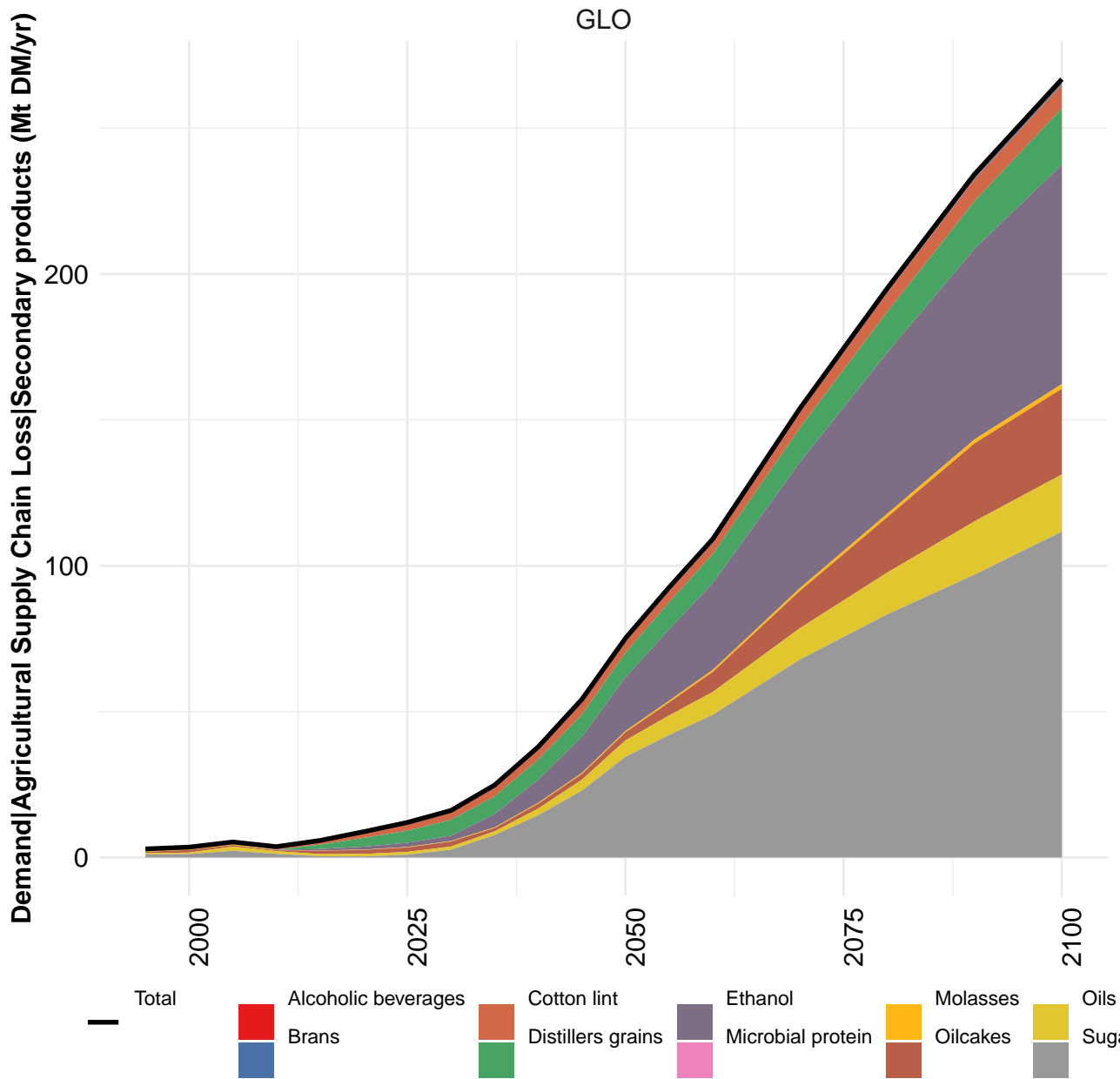
Table 82: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Ruminant meat (Mt DM/yr) [PART 1/2]

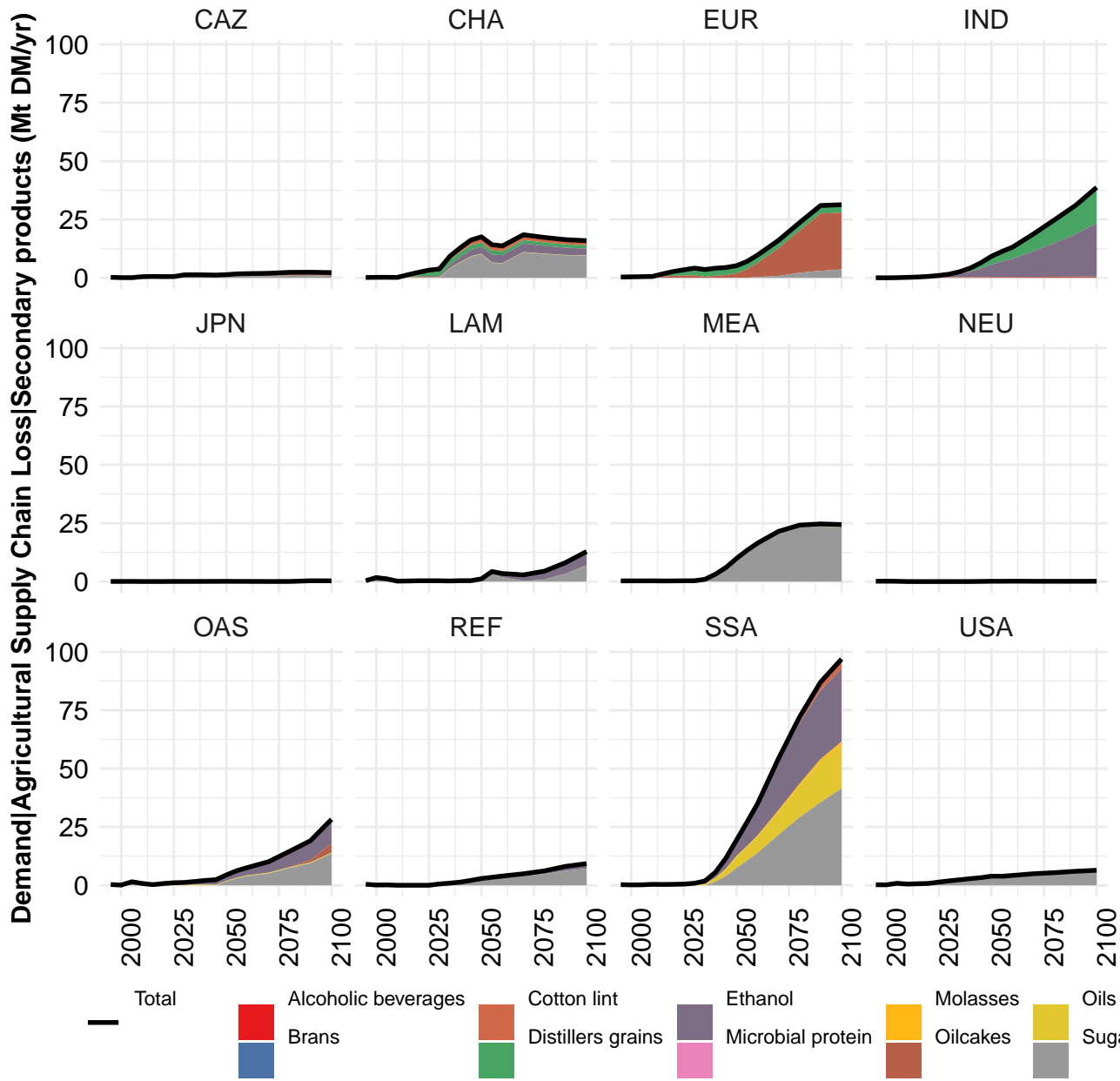
	2050	2055	2060	2070	2080	2090	2100
GLO	0.251	0.249	0.244	0.239	0.229	0.216	0.225
CAZ	0.004	0.004	0.004	0.004	0.003	0.003	0.003
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.018	0.017	0.016	0.014	0.012	0.010	0.010
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.005	0.004	0.004	0.003	0.002	0.002	0.002
LAM	0.147	0.148	0.145	0.146	0.142	0.137	0.145
MEA	0.016	0.016	0.016	0.016	0.016	0.015	0.017
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.034	0.033	0.033	0.032	0.031	0.030	0.031
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.027	0.026	0.025	0.024	0.022	0.020	0.019

Table 83: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Livestock products—Ruminant meat (Mt DM/yr) [PART 2/2]

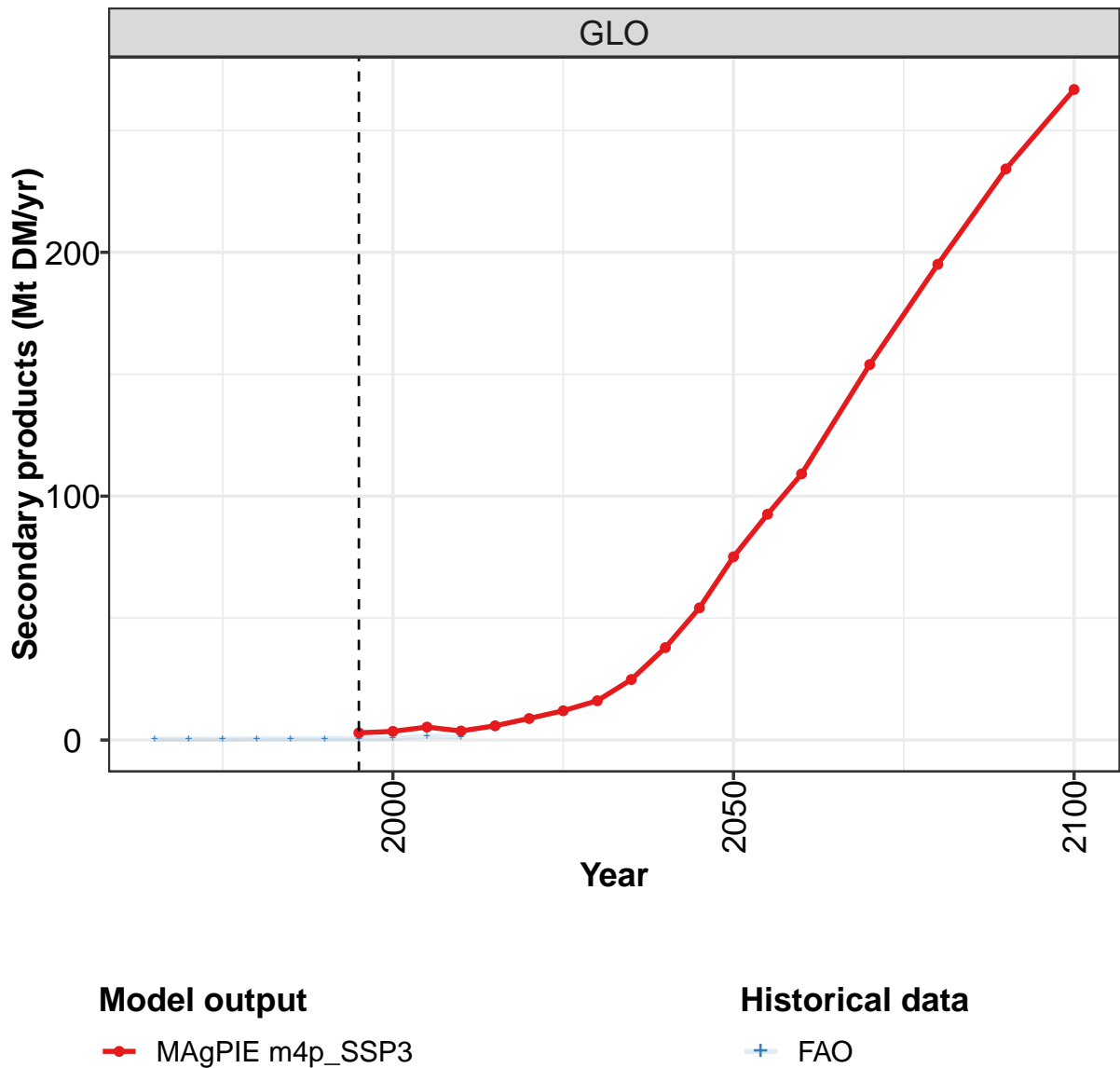
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.120	0.124	0.129	0.154	0.189	0.349	0.323	0.269	0.233	0.210
CAZ	0.003	0.003	0.004	0.004	0.003	0.004	0.004	0.004	0.005	0.004
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.040	0.037	0.035	0.039	0.039	0.031	0.022	0.022	0.018	0.019
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.002	0.004	0.005	0.006	0.007	0.010	0.013	0.013	0.010	0.010
LAM	0.021	0.017	0.024	0.038	0.068	0.211	0.115	0.125	0.148	0.108
MEA	0.001	0.001	0.003	0.003	0.005	0.005	0.008	0.007	0.008	0.009
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000
REF	0.039	0.044	0.052	0.051	0.055	0.064	0.050	0.015	0.021	0.026
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.012	0.017	0.006	0.011	0.012	0.024	0.111	0.083	0.024	0.034

Table 84: FAO — Demand—Agricultural Supply Chain Loss—Livestock products—Ruminant meat (Mt DM/yr)





3.3 Secondary products



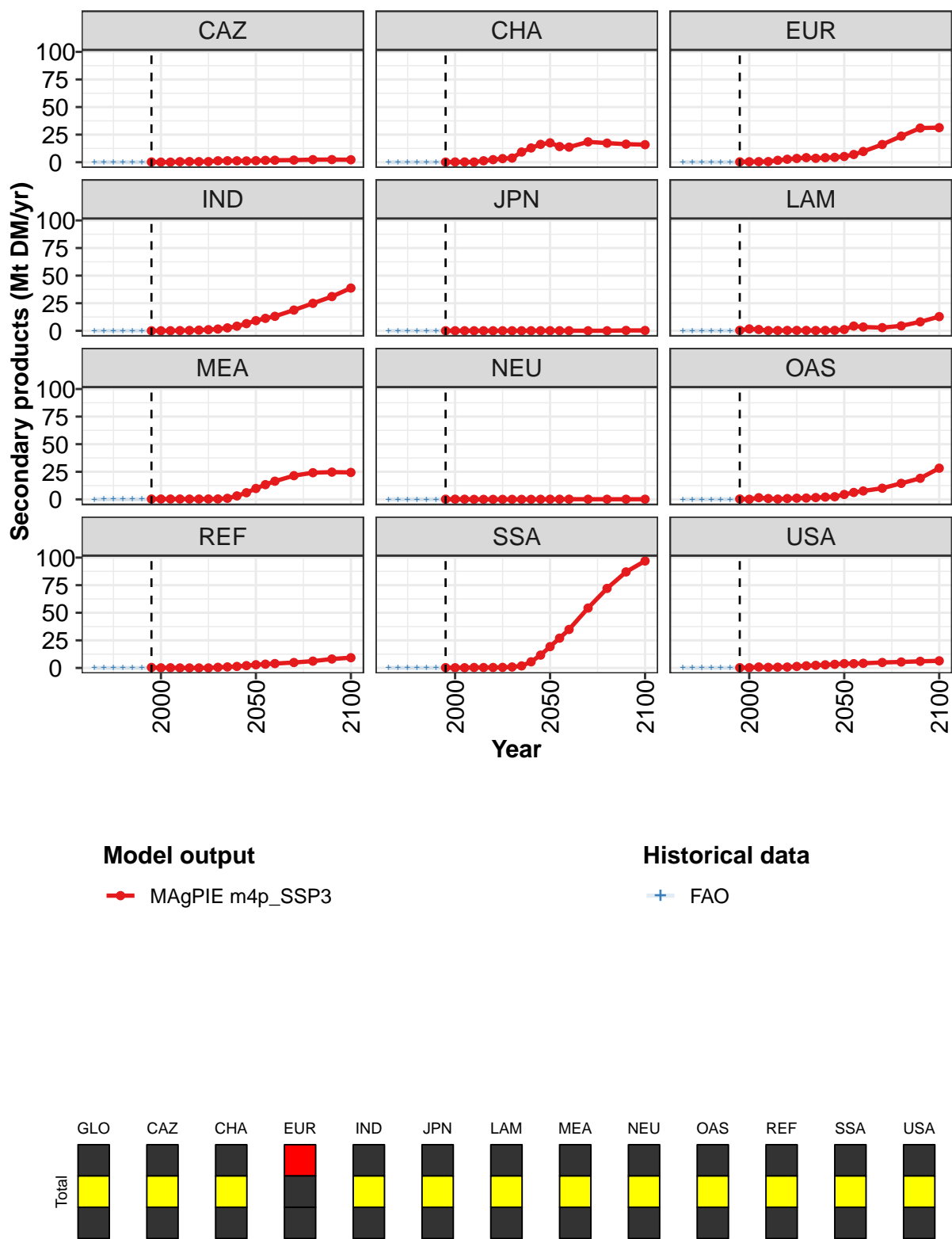


Figure 28: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3	4	5	4	6	9	12	16	25	38	54
CAZ	0	0	0	0	1	1	1	1	1	1	1
CHA	0	0	0	0	1	2	3	4	9	13	16
EUR	0	0	1	1	2	3	3	4	4	4	4
IND	0	0	0	0	0	1	1	2	3	4	6
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	2	1	0	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0	0	1	3	6
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	0	0	2	1	0	1	1	1	2	2	2
REF	0	0	0	0	0	0	0	1	1	1	2
SSA	0	0	0	0	0	0	1	1	2	6	12
USA	0	0	1	1	1	1	1	2	2	3	3

Table 85: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products (Mt DM/yr)
[PART 1/2]

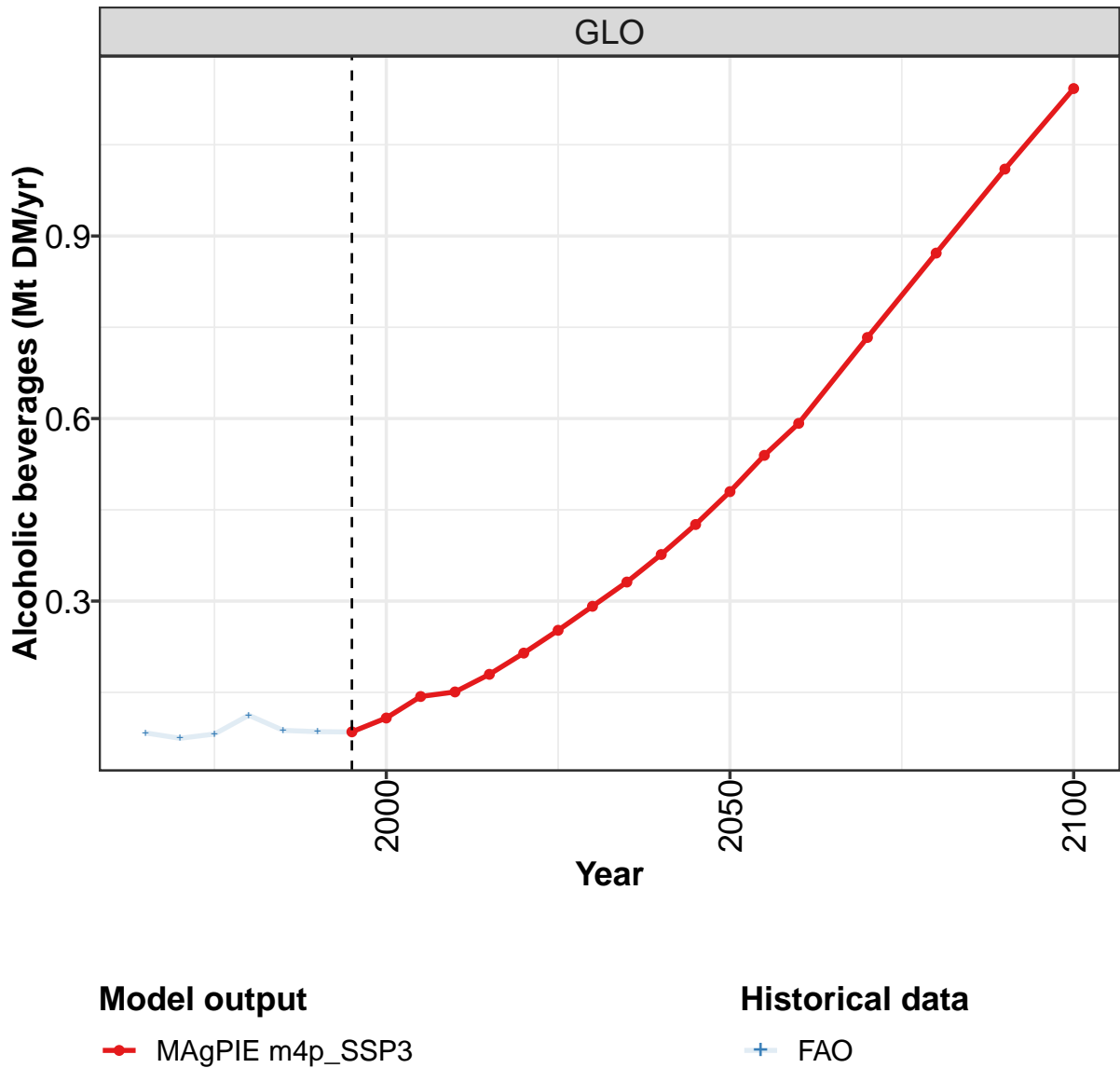
	2050	2055	2060	2070	2080	2090	2100
GLO	75	93	109	154	195	234	267
CAZ	1	2	2	2	2	2	2
CHA	18	14	14	18	17	16	16
EUR	5	7	10	16	24	31	31
IND	9	11	13	19	25	31	39
JPN	0	0	0	0	0	0	0
LAM	1	4	3	3	4	8	13
MEA	10	13	16	21	24	25	24
NEU	0	0	0	0	0	0	0
OAS	4	6	8	10	15	19	28
REF	3	3	4	5	6	8	9
SSA	19	27	35	54	72	87	97
USA	4	4	4	5	5	6	6

Table 86: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.31	0.35	0.38	0.48	0.50	0.53	0.63	0.71	1.63	1.28
CAZ	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.04	0.04
CHA	0.00	0.00	0.00	0.00	0.01	0.03	0.03	0.04	0.10	0.12
EUR	0.07	0.04	0.03	0.05	0.04	0.05	0.03	0.03	0.04	0.03
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
LAM	0.06	0.07	0.09	0.09	0.07	0.06	0.07	0.09	0.11	0.14
MEA	0.05	0.06	0.08	0.10	0.11	0.16	0.20	0.22	0.21	0.22
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.01	0.02	0.03	0.04	0.05	0.07	0.10	0.13
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.01
SSA	0.06	0.07	0.08	0.10	0.10	0.10	0.11	0.13	0.19	0.23
USA	0.04	0.05	0.03	0.07	0.11	0.05	0.06	0.06	0.81	0.34

Table 87: FAO — Demand—Agricultural Supply Chain Loss—Secondary products (Mt DM/yr)

3.3.1 Alcoholic beverages



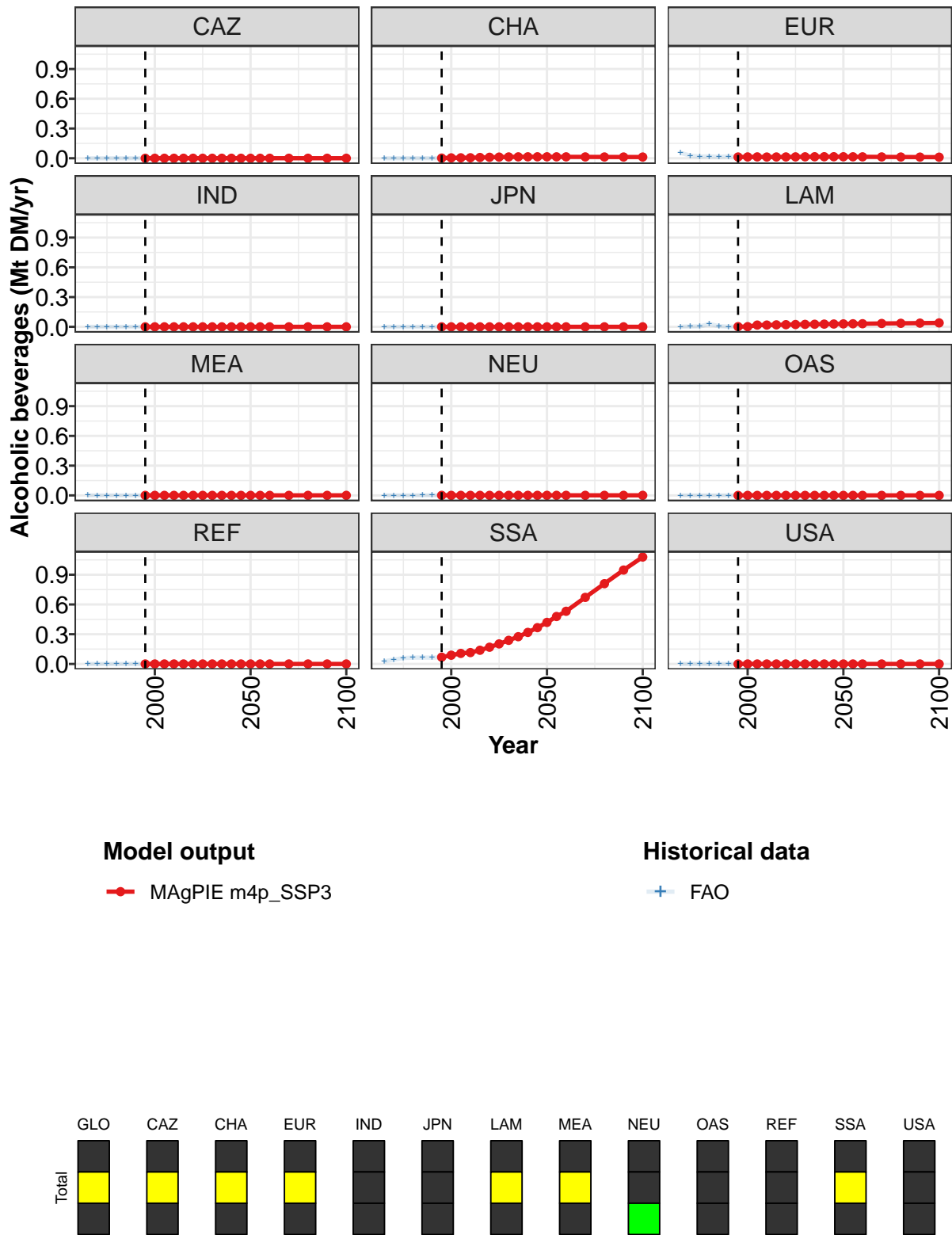


Figure 29: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Alcoholic beverages (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.09	0.11	0.14	0.15	0.18	0.21	0.25	0.29	0.33	0.38	0.43
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
EUR	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.07	0.09	0.11	0.11	0.14	0.17	0.20	0.24	0.28	0.32	0.37
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 88: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Alcoholic beverages (Mt DM/yr) [PART 1/2]

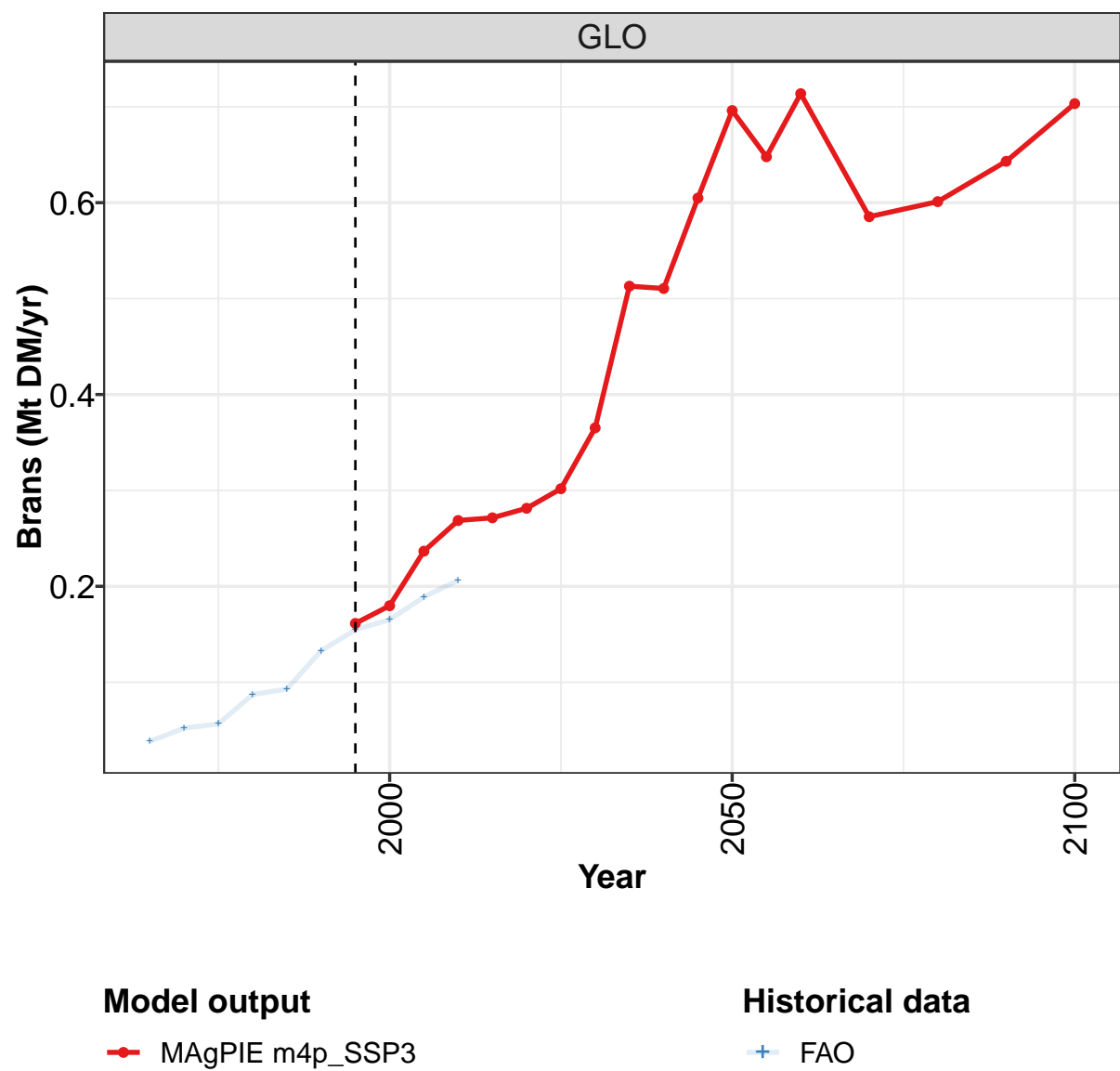
	2050	2055	2060	2070	2080	2090	2100
GLO	0.48	0.54	0.59	0.73	0.87	1.01	1.14
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.01	0.01	0.01	0.01	0.01	0.01	0.01
EUR	0.02	0.01	0.01	0.01	0.01	0.01	0.01
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.03	0.03	0.03	0.03	0.04	0.04	0.04
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.42	0.48	0.53	0.67	0.81	0.95	1.08
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 89: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Alcoholic beverages (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.083	0.074	0.082	0.112	0.087	0.085	0.085	0.108	0.143	0.150
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.004	0.005	0.005
EUR	0.054	0.027	0.017	0.019	0.015	0.019	0.013	0.014	0.014	0.013
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.002	0.003	0.004	0.029	0.007	0.001	0.002	0.002	0.018	0.018
MEA	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.026	0.044	0.060	0.064	0.065	0.063	0.068	0.088	0.107	0.115
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 90: FAO — Demand—Agricultural Supply Chain Loss—Secondary products—Alcoholic beverages (Mt DM/yr)

3.3.2
Brans



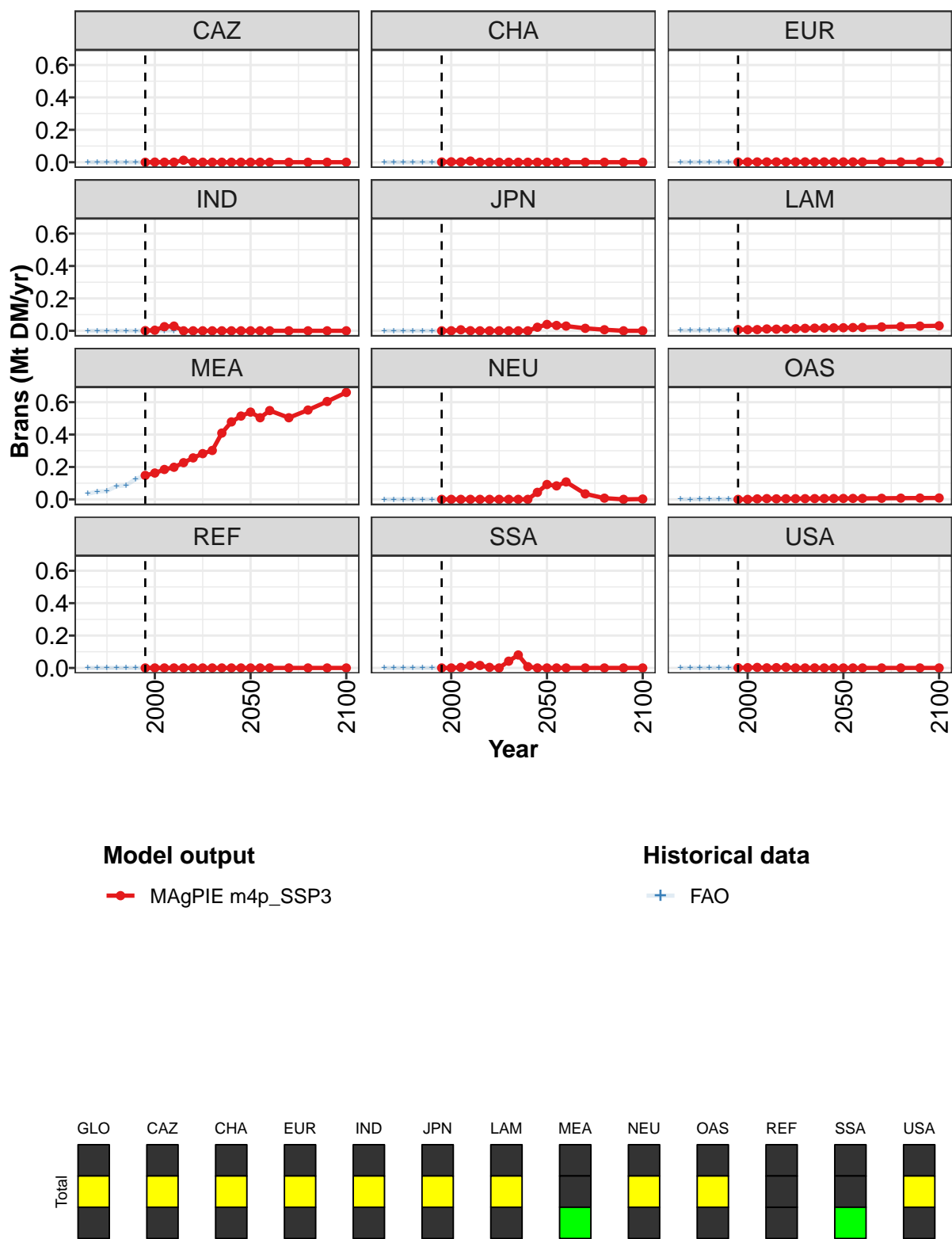


Figure 30: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.161	0.180	0.237	0.269	0.271	0.281	0.302	0.365	0.513	0.511	0.605
CAZ	0.000	0.001	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.001	0.003	0.001	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
IND	0.001	0.004	0.026	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.006	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.022
LAM	0.008	0.007	0.007	0.011	0.010	0.011	0.013	0.015	0.016	0.017	0.018
MEA	0.148	0.163	0.185	0.198	0.227	0.256	0.282	0.302	0.409	0.478	0.514
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.043
OAS	0.000	0.000	0.003	0.005	0.003	0.004	0.004	0.004	0.005	0.005	0.005
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.004	0.015	0.015	0.004	0.000	0.042	0.080	0.008	0.000
USA	0.002	0.002	0.003	0.001	0.002	0.004	0.000	0.000	0.000	0.000	0.000

Table 91: MAGPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Brans (Mt DM/yr) [PART 1/2]

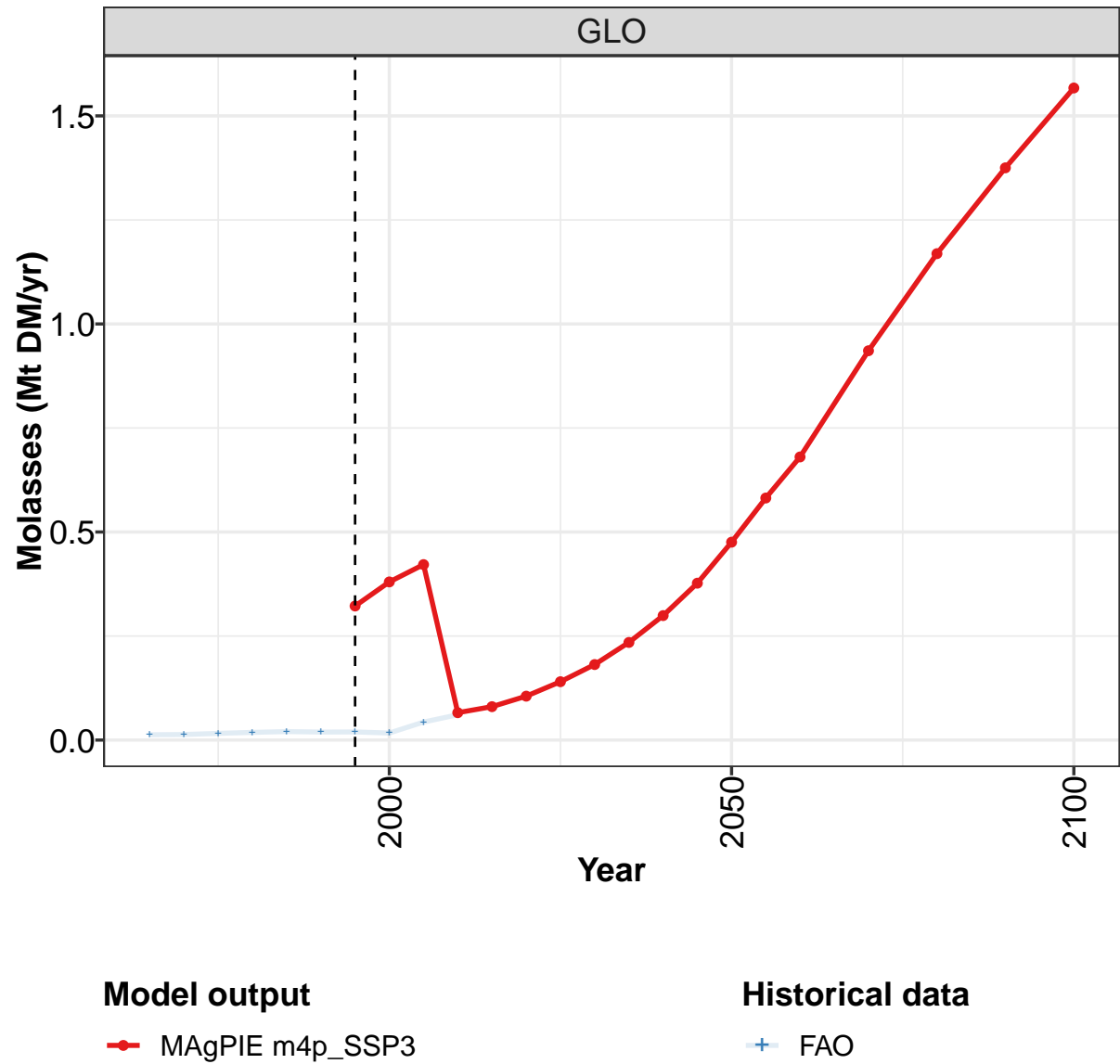
	2050	2055	2060	2070	2080	2090	2100
GLO	0.696	0.648	0.714	0.585	0.601	0.643	0.703
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.002	0.002	0.002	0.002	0.002	0.002	0.001
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.039	0.033	0.029	0.015	0.007	0.000	0.000
LAM	0.019	0.020	0.021	0.024	0.026	0.029	0.031
MEA	0.539	0.504	0.548	0.504	0.552	0.604	0.660
NEU	0.092	0.083	0.108	0.034	0.008	0.000	0.002
OAS	0.006	0.006	0.006	0.007	0.008	0.008	0.009
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 92: MAGPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Brans (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.038	0.052	0.057	0.087	0.093	0.133	0.155	0.165	0.189	0.206
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.002	0.003	0.004	0.004	0.004	0.005	0.006	0.007	0.007	0.009
MEA	0.035	0.048	0.052	0.082	0.086	0.126	0.147	0.157	0.178	0.194
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.001	0.000	0.001	0.001	0.002	0.001	0.001	0.001	0.002	0.003
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 93: FAO — Demand—Agricultural Supply Chain Loss—Secondary products—Brans (Mt DM/yr)

3.3.3
Molasses



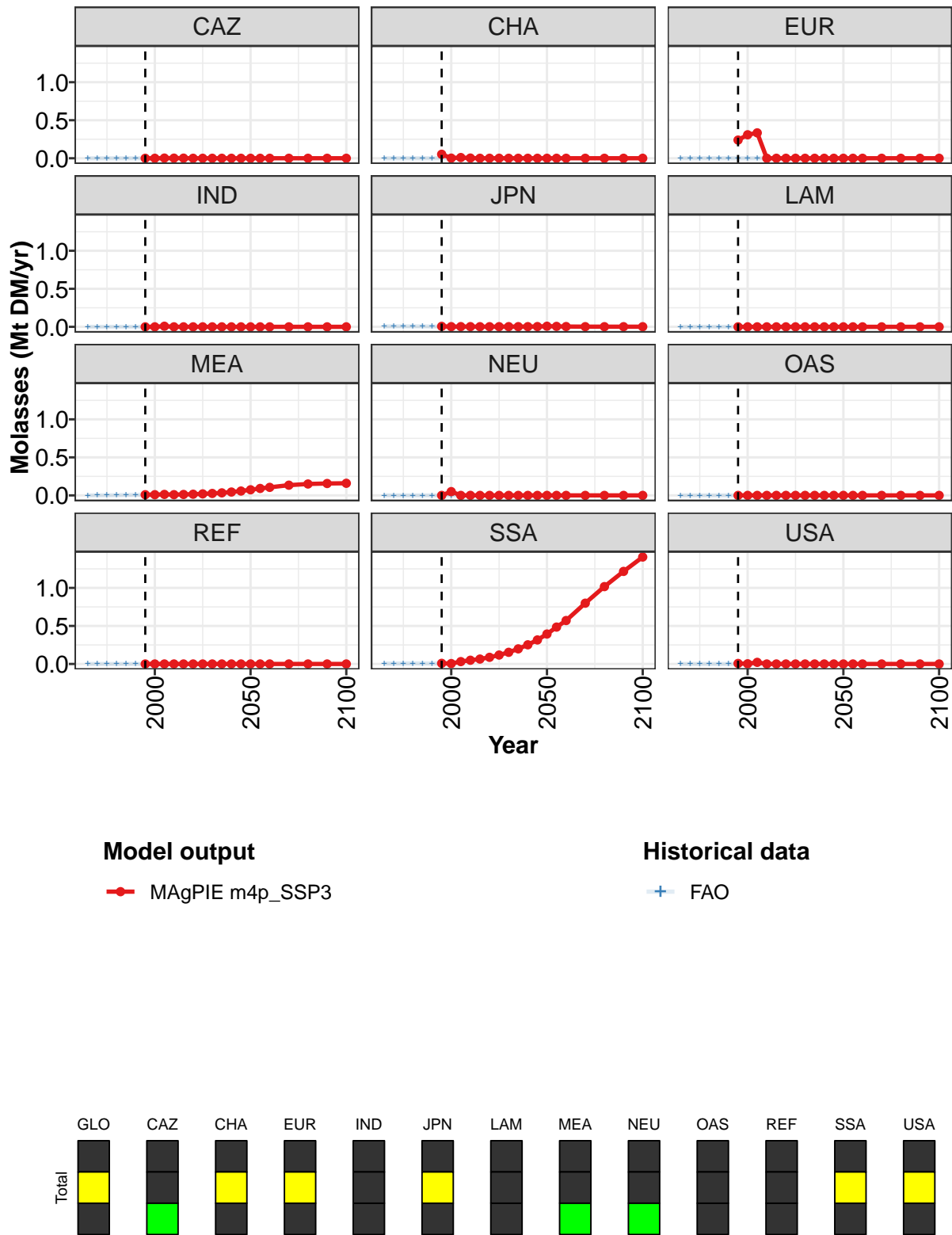


Figure 31: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Molasses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.32	0.38	0.42	0.07	0.08	0.11	0.14	0.18	0.23	0.30	0.38
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.24	0.31	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.06
NEU	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.01	0.01	0.03	0.05	0.06	0.09	0.12	0.15	0.20	0.25	0.32
USA	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 94: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

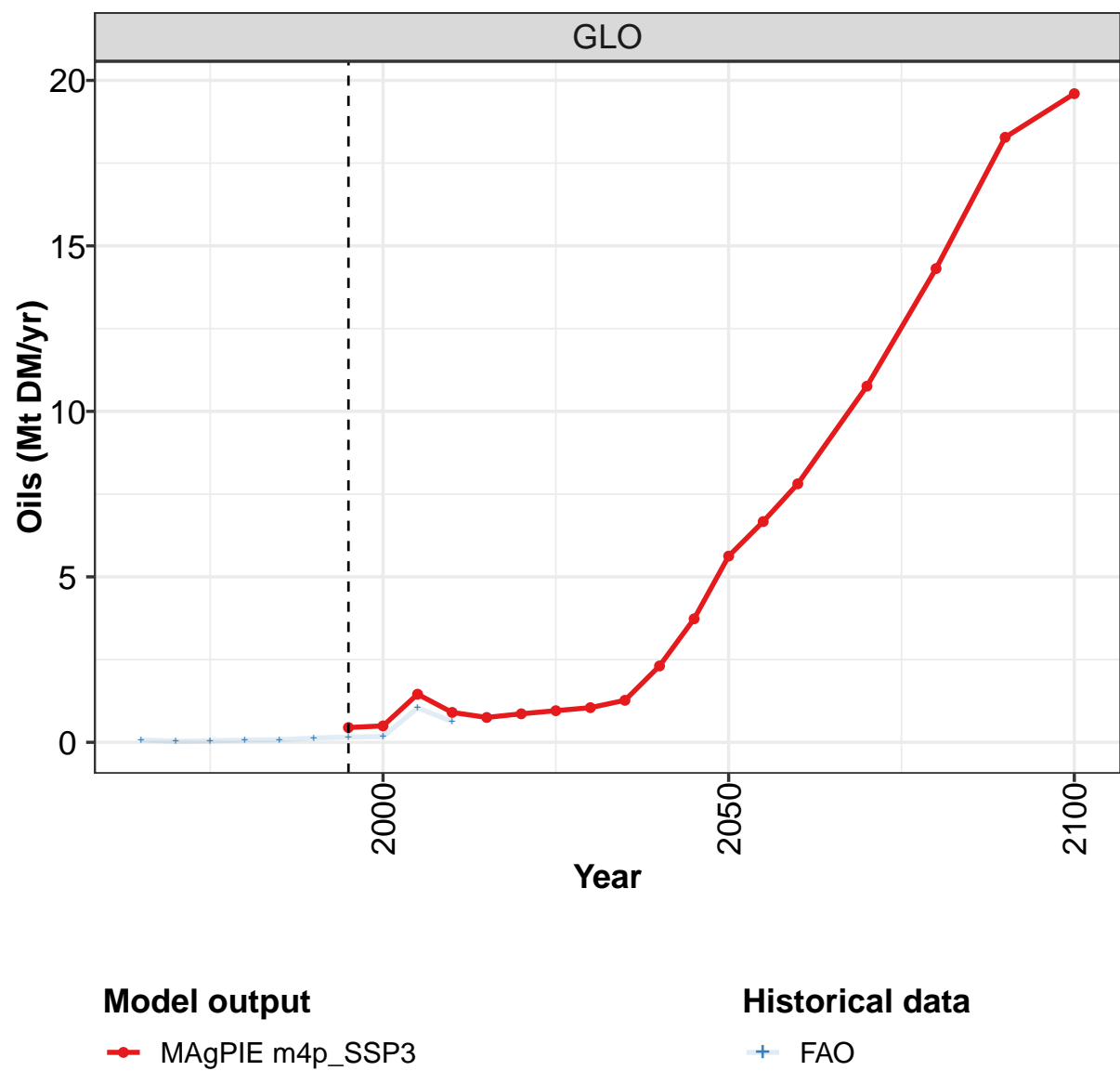
	2050	2055	2060	2070	2080	2090	2100
GLO	0.48	0.58	0.68	0.94	1.17	1.38	1.57
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.01	0.01	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.07	0.09	0.11	0.13	0.15	0.16	0.16
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.39	0.48	0.57	0.80	1.02	1.22	1.41
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 95: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Molasses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0128	0.0133	0.0161	0.0184	0.0204	0.0192	0.0195	0.0169	0.0433	0.0608
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0063	0.0071	0.0073	0.0069	0.0069	0.0045	0.0037	0.0022	0.0020	0.0016
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0002	0.0010	0.0017	0.0028	0.0066	0.0075	0.0087	0.0094	0.0107	0.0098
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0062	0.0051	0.0072	0.0087	0.0069	0.0071	0.0071	0.0054	0.0306	0.0494
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 96: FAO — Demand—Agricultural Supply Chain Loss—Secondary products—Molasses (Mt DM/yr)

3.3.4
Oils



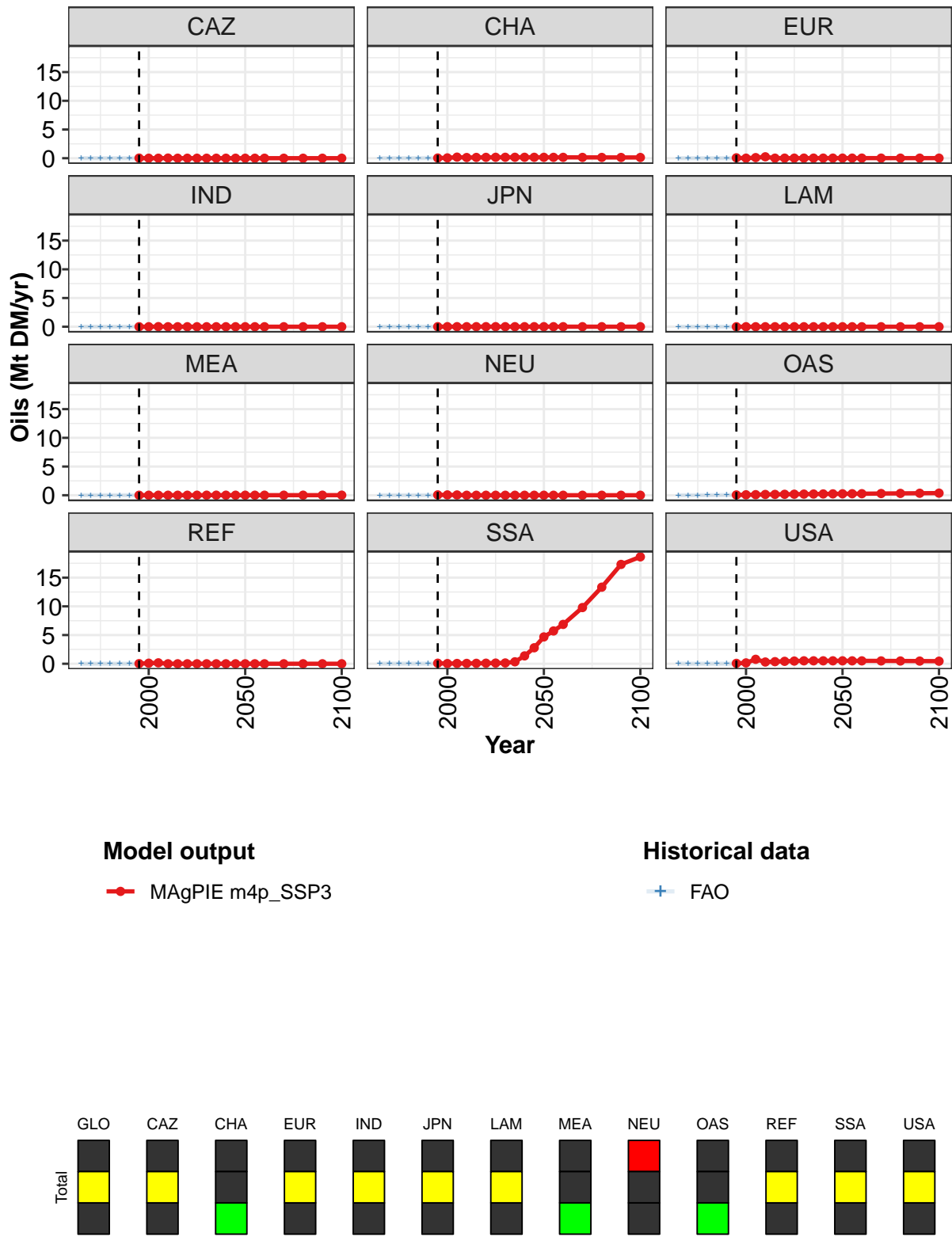


Figure 32: MAGPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.4	0.5	1.5	0.9	0.8	0.9	1.0	1.0	1.3	2.3	3.7
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
EUR	0.1	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
REF	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.3	1.4	2.8
USA	0.1	0.2	0.8	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5

Table 97: MAgPIE m4p-SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Oils (Mt DM/yr) [PART 1/2]

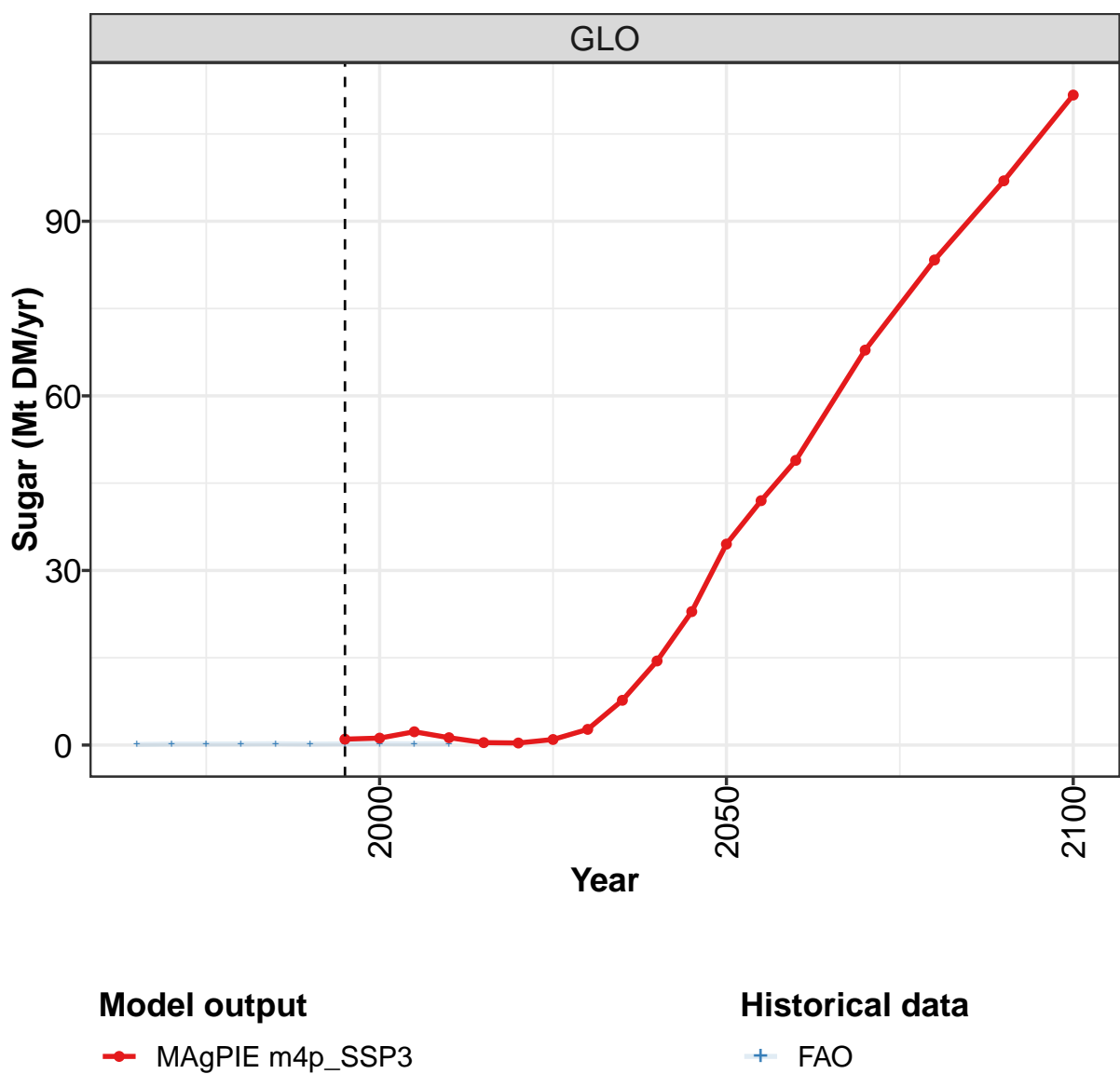
	2050	2055	2060	2070	2080	2090	2100
GLO	5.6	6.7	7.8	10.8	14.3	18.3	19.6
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.2	0.2	0.1	0.1	0.1	0.1	0.1
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.3	0.3	0.3	0.3	0.3	0.3	0.4
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	4.7	5.7	6.9	9.8	13.3	17.3	18.6
USA	0.5	0.5	0.5	0.5	0.5	0.5	0.4

Table 98: MAgPIE m4p-SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Oils (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.07	0.03	0.04	0.07	0.08	0.13	0.16	0.17	1.04	0.63
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.01	0.03	0.03	0.03	0.09	0.12
EUR	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.01	0.02	0.03	0.04	0.05	0.07	0.10	0.12
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.05	0.06
USA	0.04	0.00	0.01	0.01	0.01	0.01	0.03	0.02	0.77	0.30

Table 99: FAO — Demand—Agricultural Supply Chain Loss—Secondary products—Oils (Mt DM/yr)

3.3.5 Sugar



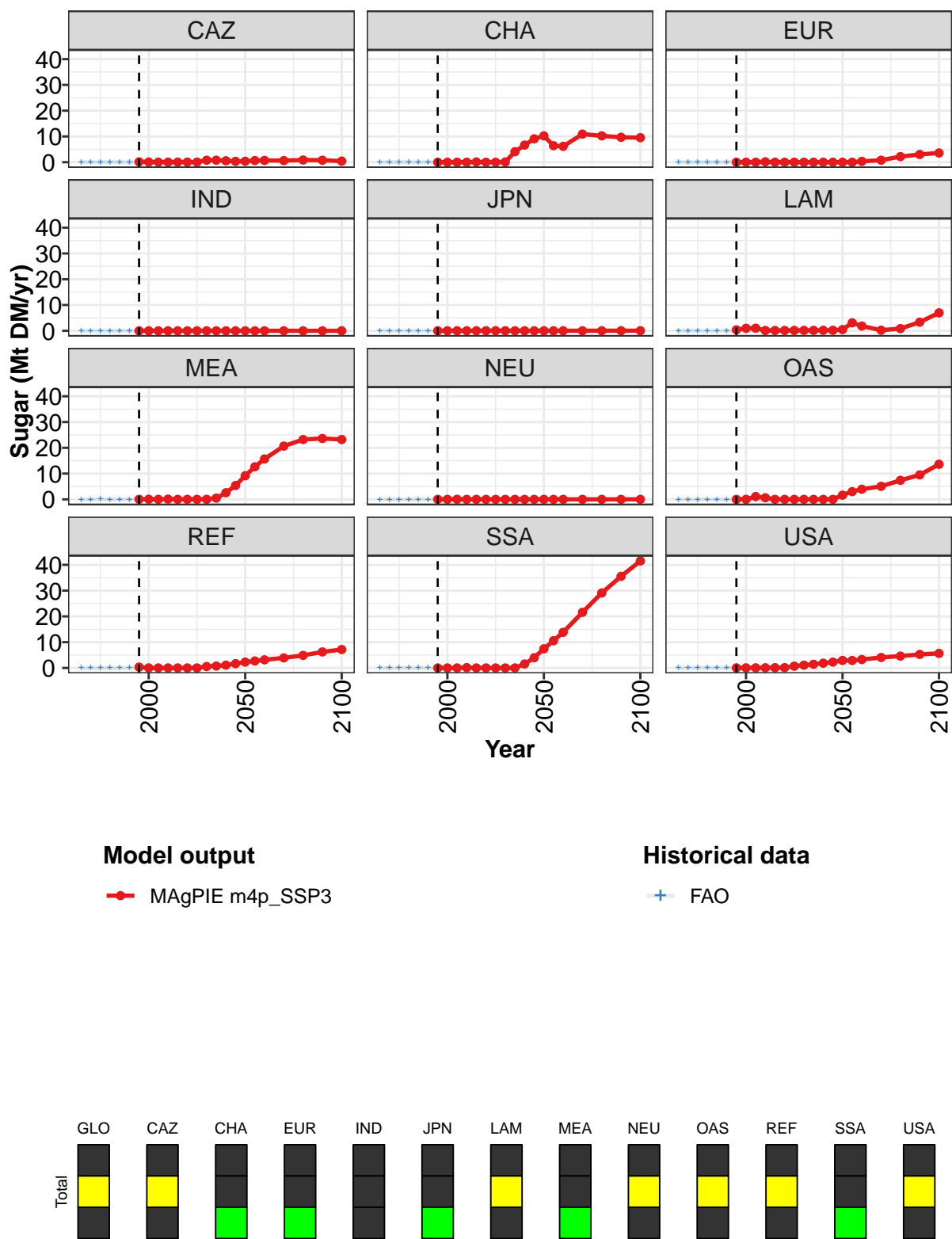


Figure 33: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1	1	2	1	0	0	1	3	8	14	23
CAZ	0	0	0	0	0	0	0	1	1	1	0
CHA	0	0	0	0	0	0	0	0	4	7	9
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	1	1	0	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0	0	0	3	5
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	0	0	1	1	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	1	1	1	2
SSA	0	0	0	0	0	0	0	0	0	2	4
USA	0	0	0	0	0	0	1	1	1	2	2

Table 100: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Sugar (Mt DM/yr) [PART 1/2]

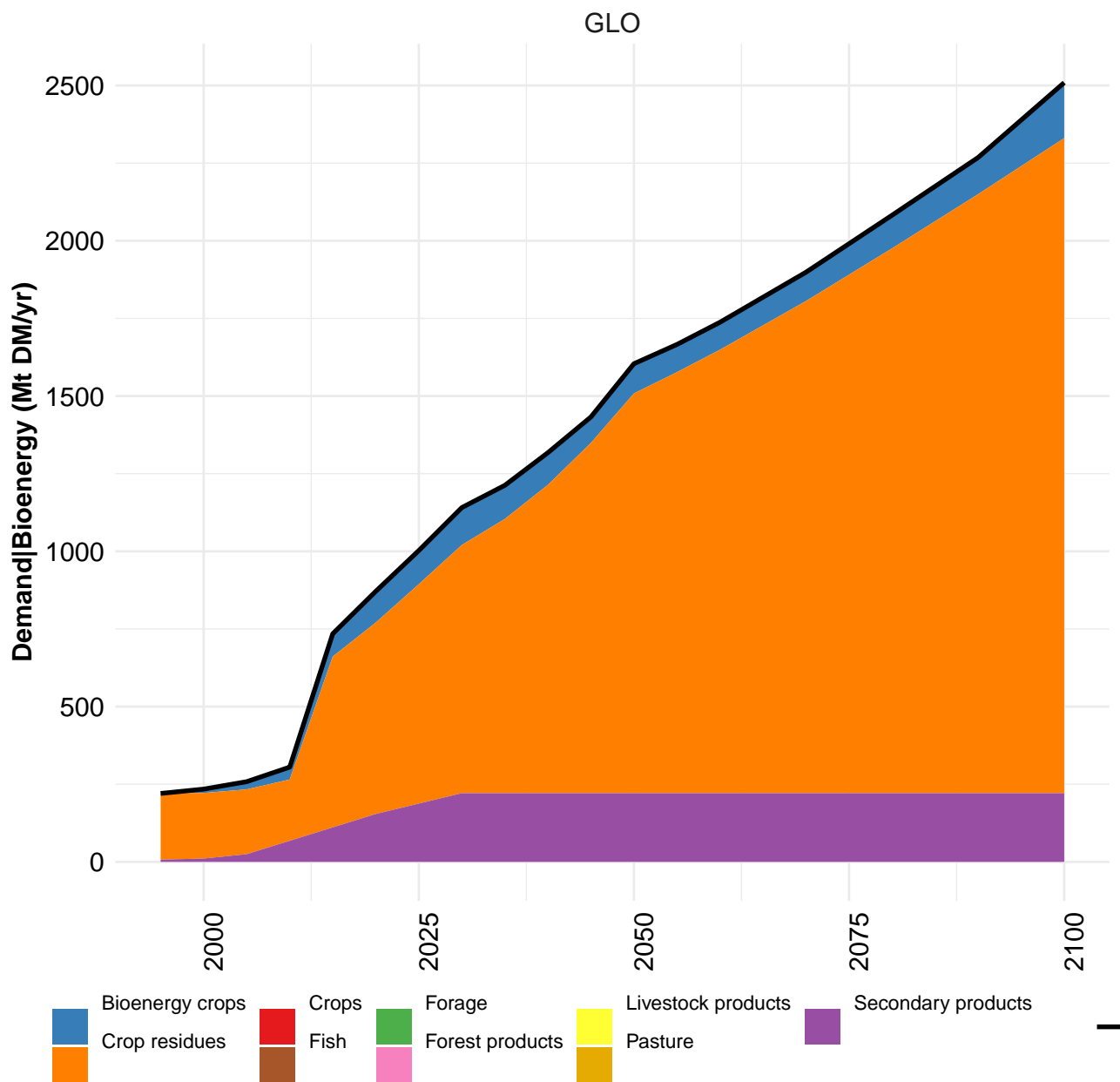
	2050	2055	2060	2070	2080	2090	2100
GLO	35	42	49	68	83	97	112
CAZ	0	1	1	1	1	1	0
CHA	10	6	6	11	10	10	10
EUR	0	0	0	1	2	3	4
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	0	3	2	0	1	3	7
MEA	9	13	16	21	23	24	23
NEU	0	0	0	0	0	0	0
OAS	2	3	4	5	7	9	14
REF	2	3	3	4	5	6	7
SSA	7	11	14	22	29	36	41
USA	3	3	3	4	5	5	6

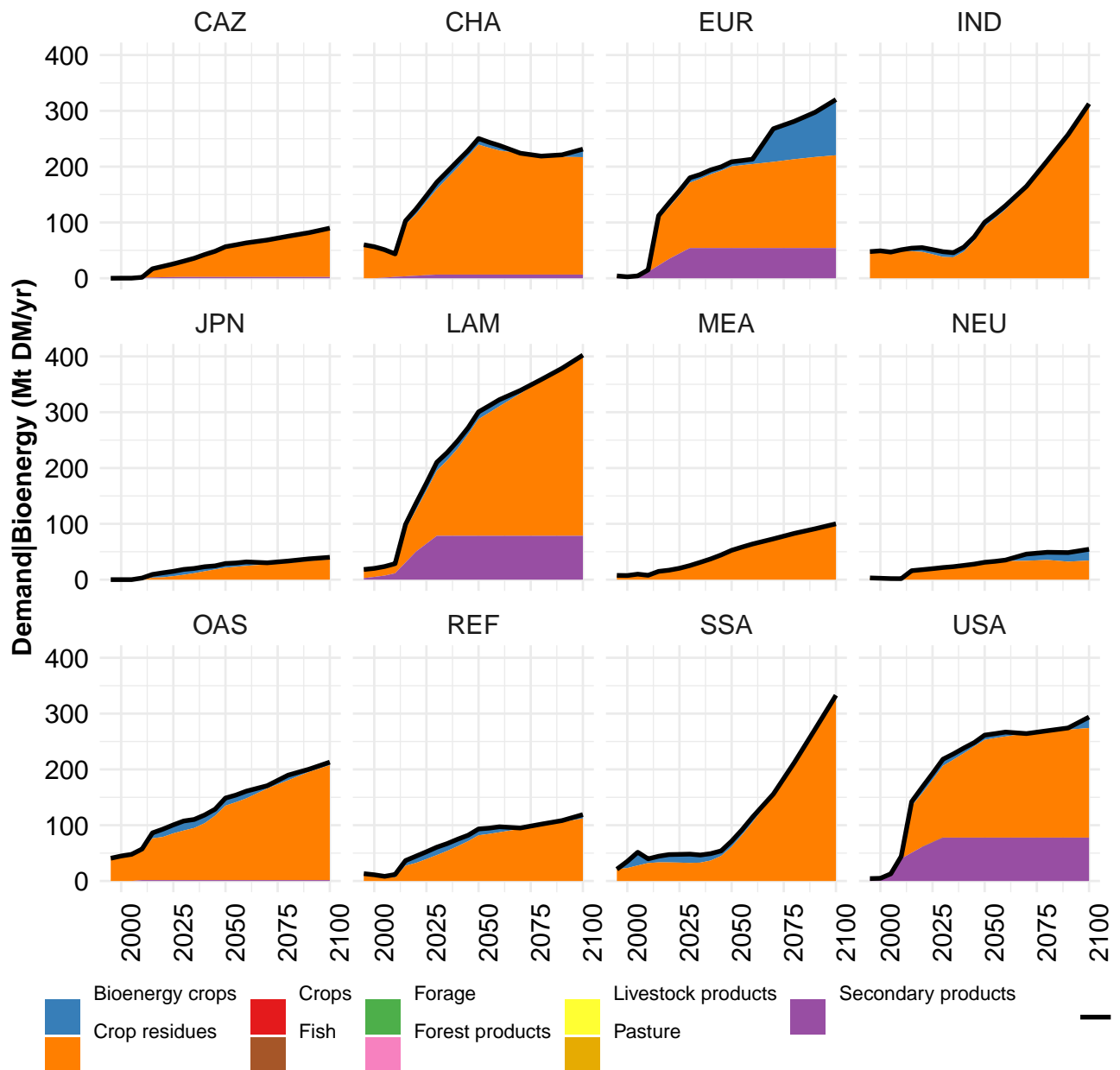
Table 101: MAgPIE m4p_SSP3 — Demand—Agricultural Supply Chain Loss—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

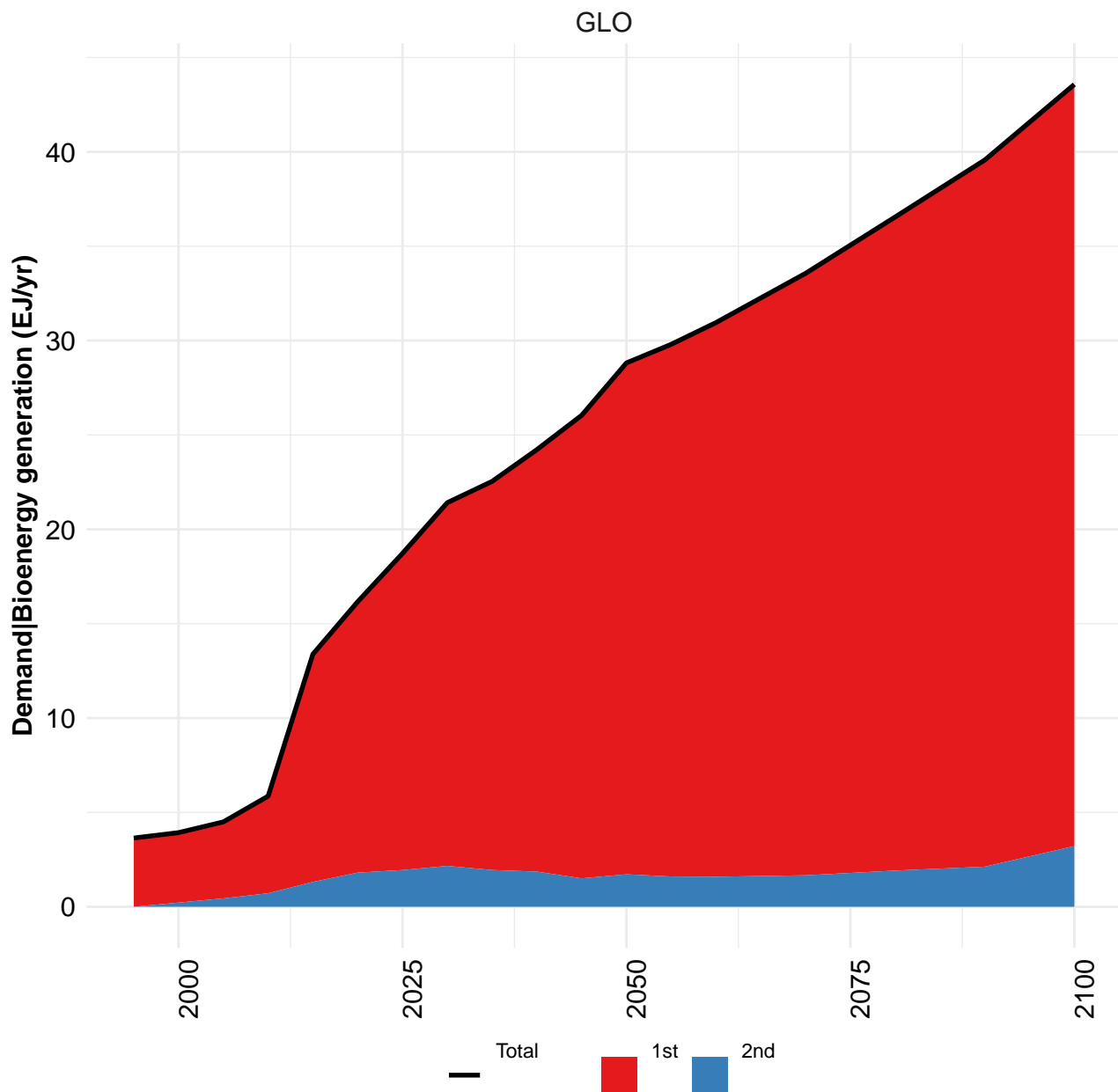
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.104	0.174	0.180	0.196	0.225	0.164	0.208	0.244	0.214	0.230
CAZ	0.014	0.021	0.016	0.021	0.017	0.017	0.020	0.033	0.035	0.038
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
EUR	0.007	0.008	0.011	0.022	0.018	0.014	0.008	0.009	0.010	0.007
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.014	0.022	0.021	0.020	0.020	0.020	0.018	0.019	0.019	0.018
LAM	0.057	0.060	0.083	0.054	0.056	0.055	0.064	0.085	0.089	0.110
MEA	0.011	0.014	0.021	0.015	0.016	0.021	0.042	0.049	0.012	0.008
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.008	0.010	0.008
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.049	0.029	0.064	0.100	0.038	0.035	0.040	0.040	0.040

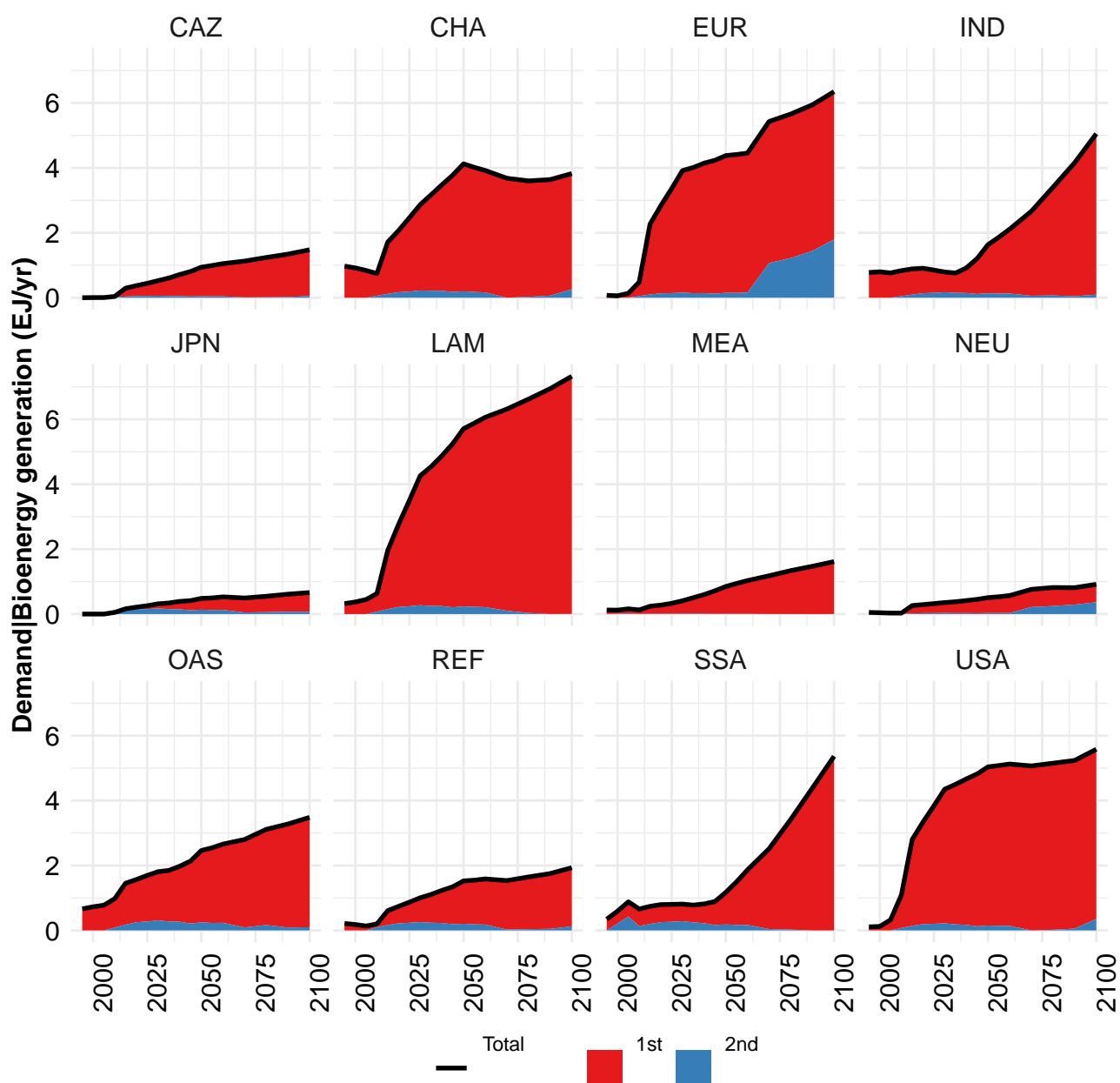
Table 102: FAO — Demand—Agricultural Supply Chain Loss—Secondary products—Sugar (Mt DM/yr)

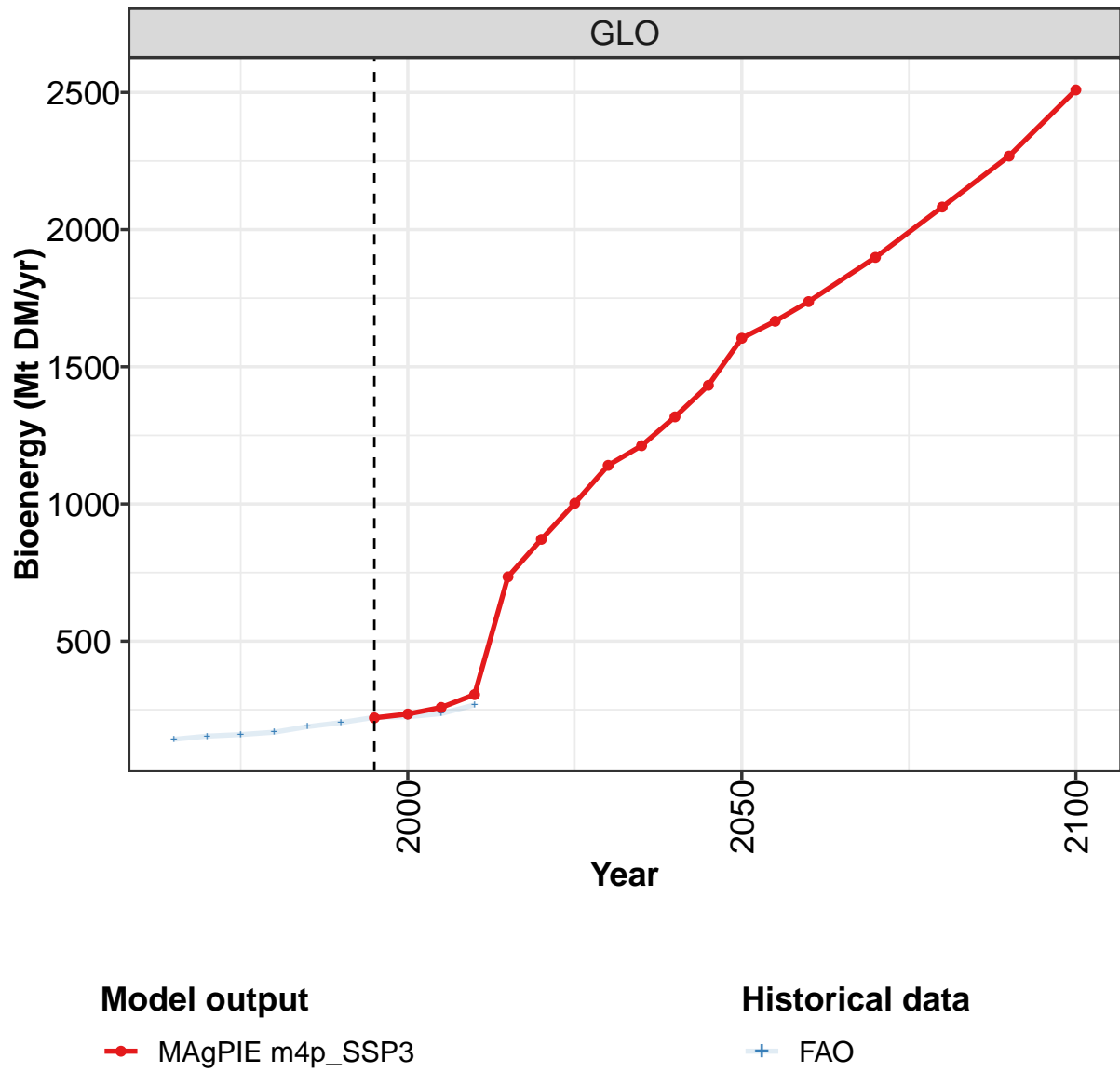
4 Bioenergy











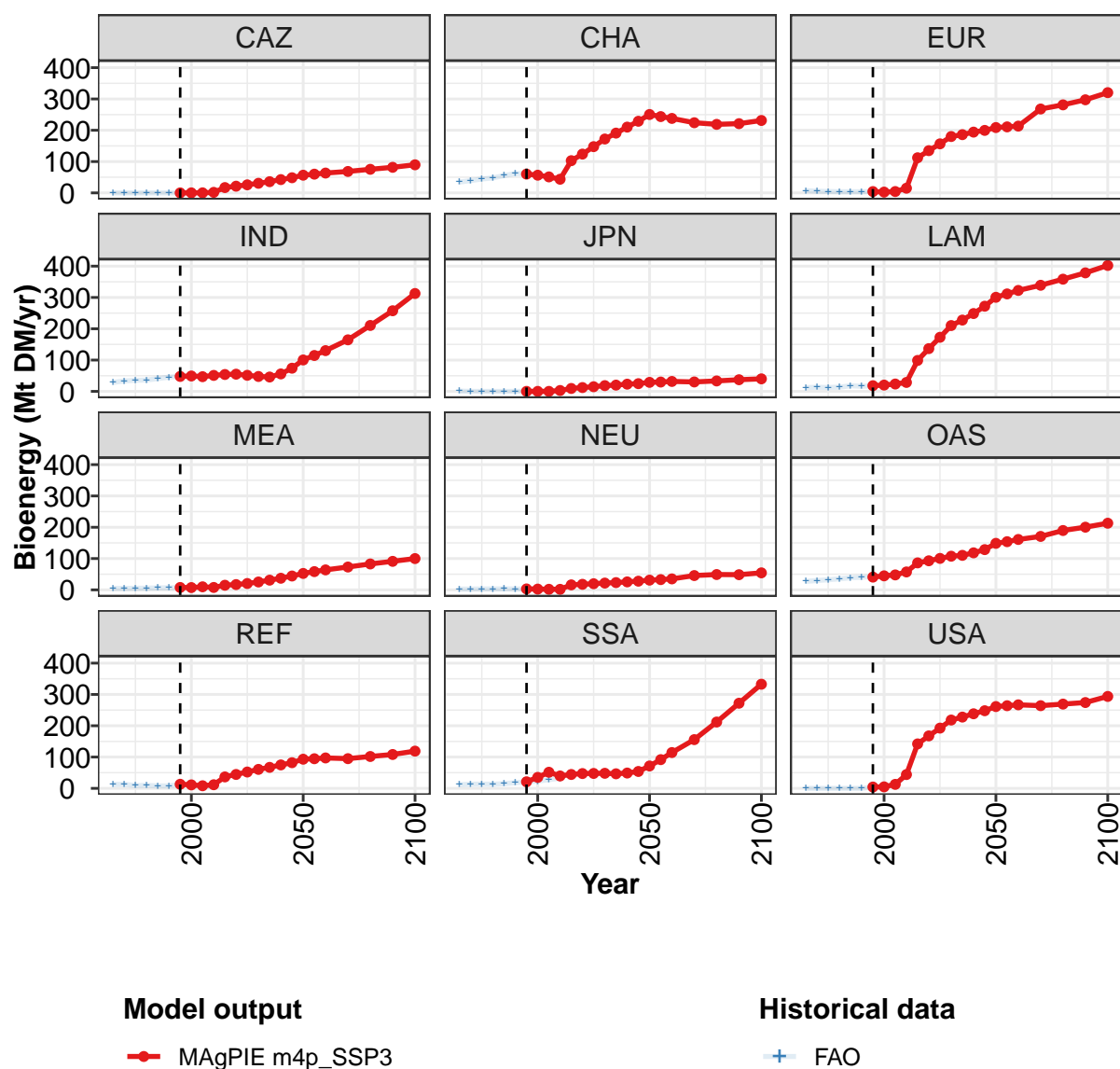


Figure 34: MAgPIE m4p_SSP3 — Demand—Bioenergy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	220	234	258	305	735	871	1002	1141	1212	1317	1433
CAZ	0	0	0	2	17	21	26	31	36	42	48
CHA	60	57	51	44	103	124	148	172	191	210	229
EUR	4	3	4	15	112	135	157	180	186	194	200
IND	48	49	47	51	54	55	51	48	46	56	74
JPN	0	0	0	3	9	12	15	18	20	23	25
LAM	18	20	24	29	99	137	173	210	228	249	272
MEA	8	7	10	8	15	17	20	25	31	37	44
NEU	3	2	2	2	16	18	20	22	23	26	28
OAS	41	45	48	57	86	93	101	108	110	118	129
REF	13	11	8	12	37	44	52	61	67	75	82
SSA	21	35	52	40	44	47	48	48	47	49	54
USA	4	5	13	44	142	168	193	218	228	238	248

Table 103: MAgPIE m4p_SSP3 — Demand—Bioenergy (Mt DM/yr) [PART 1/2]

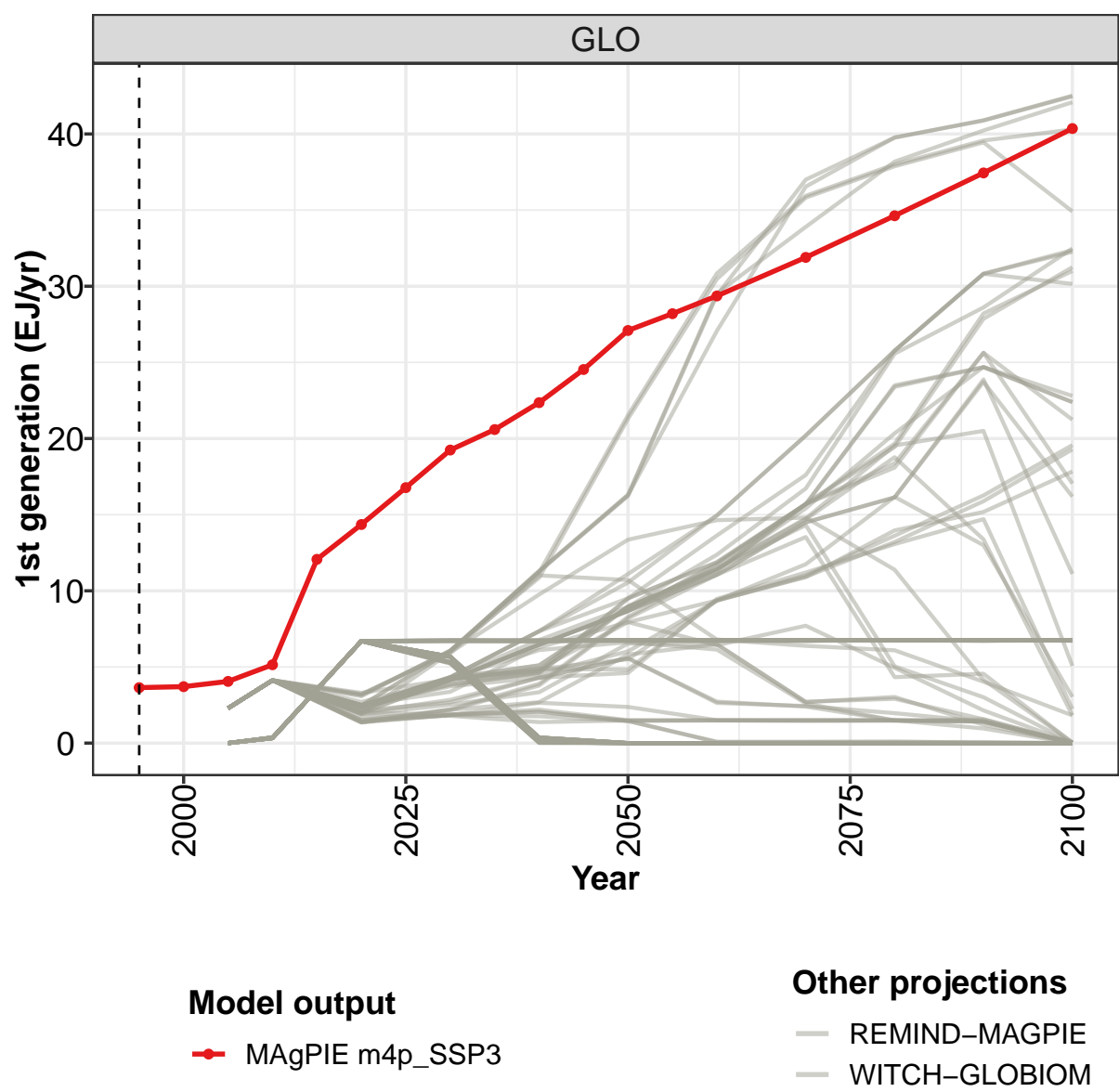
	2050	2055	2060	2070	2080	2090	2100
GLO	1604	1666	1737	1899	2082	2268	2509
CAZ	57	60	63	68	75	82	90
CHA	250	244	238	224	219	221	231
EUR	209	211	213	268	281	297	320
IND	100	115	130	165	211	258	313
JPN	29	30	32	30	33	37	40
LAM	301	311	323	339	358	379	402
MEA	53	58	64	73	83	91	100
NEU	31	33	35	46	49	48	54
OAS	149	154	161	171	190	200	213
REF	93	95	97	95	102	108	119
SSA	71	92	114	156	212	272	333
USA	261	264	267	264	269	274	294

Table 104: MAgPIE m4p_SSP3 — Demand—Bioenergy (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	142	154	160	168	188	203	222	224	236	268
CAZ	0	0	0	0	0	0	0	0	0	1
CHA	35	39	44	48	55	62	61	57	52	40
EUR	7	5	4	4	3	4	4	3	4	12
IND	29	33	35	36	41	45	49	50	48	49
JPN	1	0	0	0	0	0	0	0	0	0
LAM	12	13	13	13	18	16	18	20	23	24
MEA	5	5	5	6	6	7	8	7	9	7
NEU	3	3	3	3	3	3	3	2	2	1
OAS	27	30	32	35	39	40	42	46	50	54
REF	13	13	9	10	8	8	13	11	8	6
SSA	12	13	13	13	15	18	21	23	28	32
USA	0	0	0	0	0	0	4	5	13	40

Table 105: FAO — Demand—Bioenergy (Mt DM/yr)

4.1 1st generation



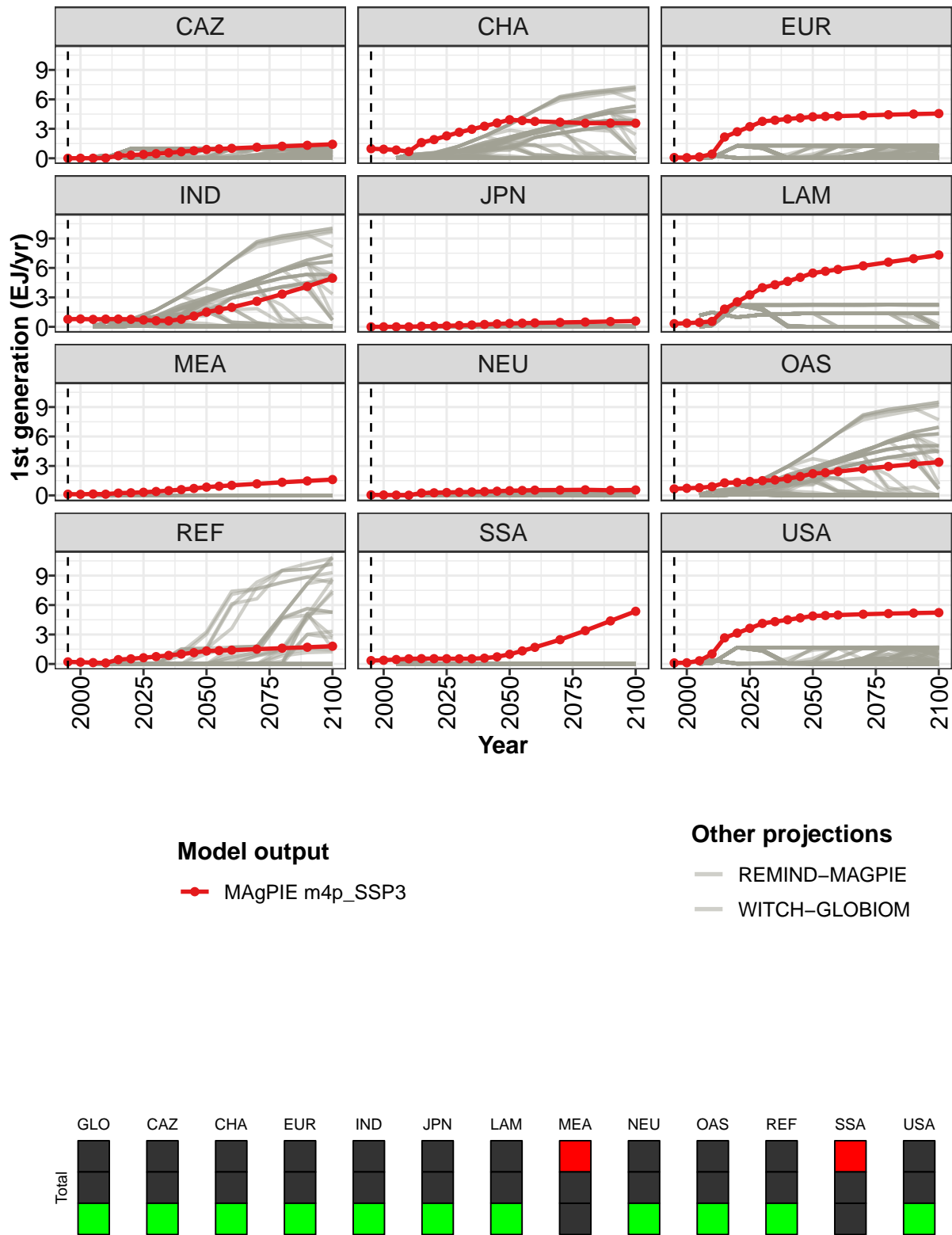


Figure 35: MAgPIE m4p_SSP3 — Demand—Bioenergy—1st generation (EJ/yr)

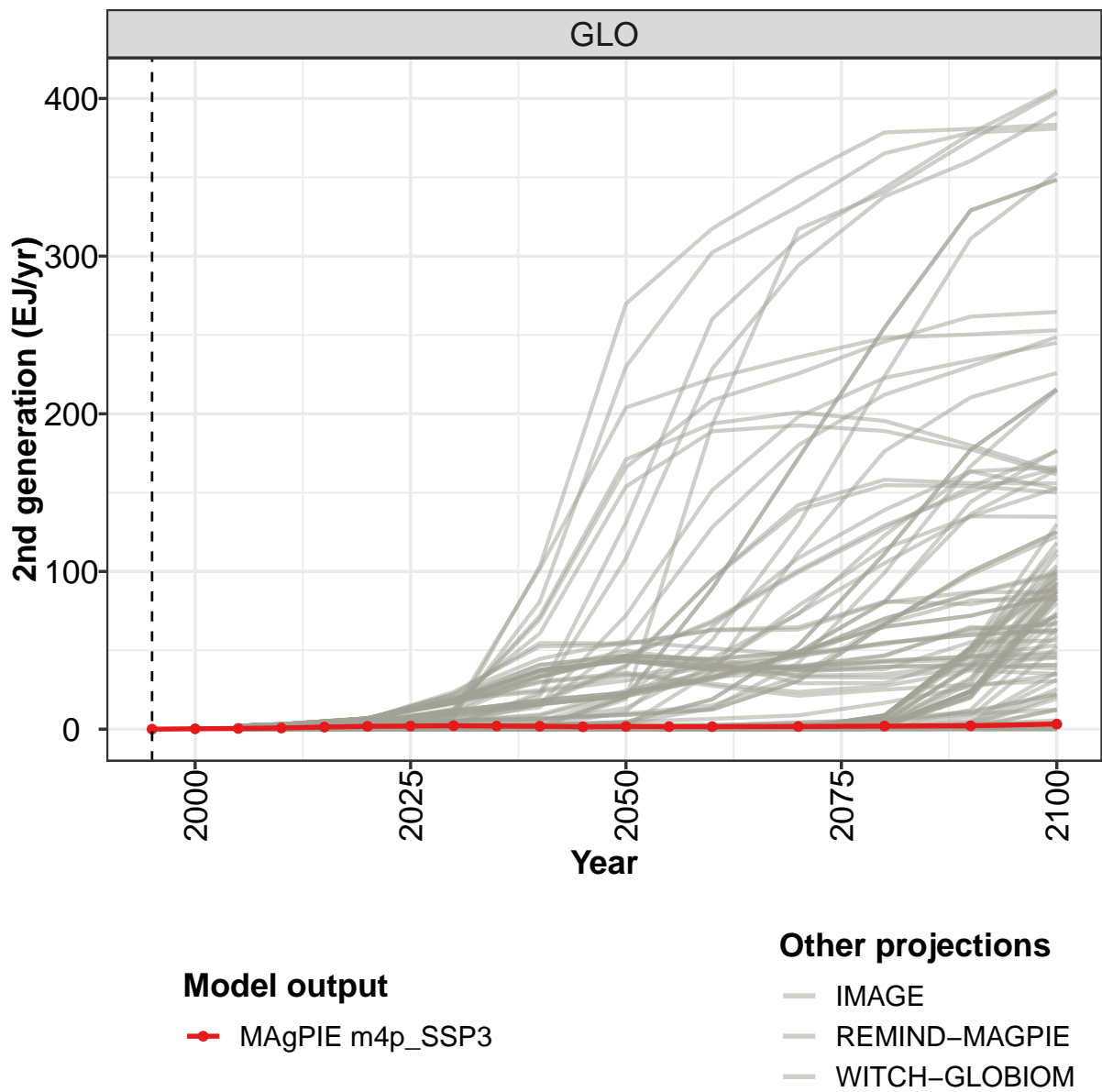
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.6	3.7	4.1	5.1	12.1	14.4	16.8	19.2	20.6	22.4	24.5
CAZ	0.0	0.0	0.0	0.0	0.3	0.3	0.4	0.5	0.6	0.7	0.8
CHA	1.0	0.9	0.8	0.7	1.6	1.9	2.3	2.6	3.0	3.3	3.6
EUR	0.1	0.1	0.1	0.4	2.2	2.7	3.2	3.8	3.9	4.0	4.1
IND	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.6	0.8	1.1
JPN	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3
LAM	0.3	0.4	0.4	0.6	1.8	2.5	3.3	4.0	4.3	4.6	5.0
MEA	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.7
NEU	0.0	0.0	0.0	0.0	0.2	0.3	0.3	0.3	0.4	0.4	0.4
OAS	0.7	0.7	0.8	0.9	1.3	1.3	1.4	1.5	1.6	1.7	1.9
REF	0.2	0.2	0.1	0.1	0.4	0.5	0.6	0.7	0.9	1.0	1.2
SSA	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.7
USA	0.1	0.1	0.3	1.0	2.7	3.1	3.6	4.1	4.3	4.5	4.7

Table 106: MAgPIE m4p-SSP3 — Demand—Bioenergy—1st generation (EJ/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	27.1	28.2	29.4	31.9	34.6	37.4	40.4
CAZ	0.9	1.0	1.0	1.1	1.2	1.3	1.4
CHA	3.9	3.8	3.8	3.7	3.6	3.6	3.6
EUR	4.2	4.3	4.3	4.4	4.4	4.5	4.6
IND	1.5	1.7	2.0	2.6	3.3	4.1	5.0
JPN	0.3	0.4	0.4	0.4	0.5	0.5	0.6
LAM	5.5	5.7	5.8	6.2	6.6	6.9	7.3
MEA	0.8	0.9	1.0	1.2	1.3	1.5	1.6
NEU	0.5	0.5	0.5	0.5	0.6	0.5	0.6
OAS	2.2	2.3	2.4	2.7	2.9	3.2	3.4
REF	1.3	1.4	1.4	1.5	1.6	1.7	1.8
SSA	1.0	1.3	1.7	2.5	3.4	4.4	5.4
USA	4.9	4.9	5.0	5.1	5.1	5.2	5.2

Table 107: MAgPIE m4p-SSP3 — Demand—Bioenergy—1st generation (EJ/yr) [PART 2/2]

4.2 2nd generation



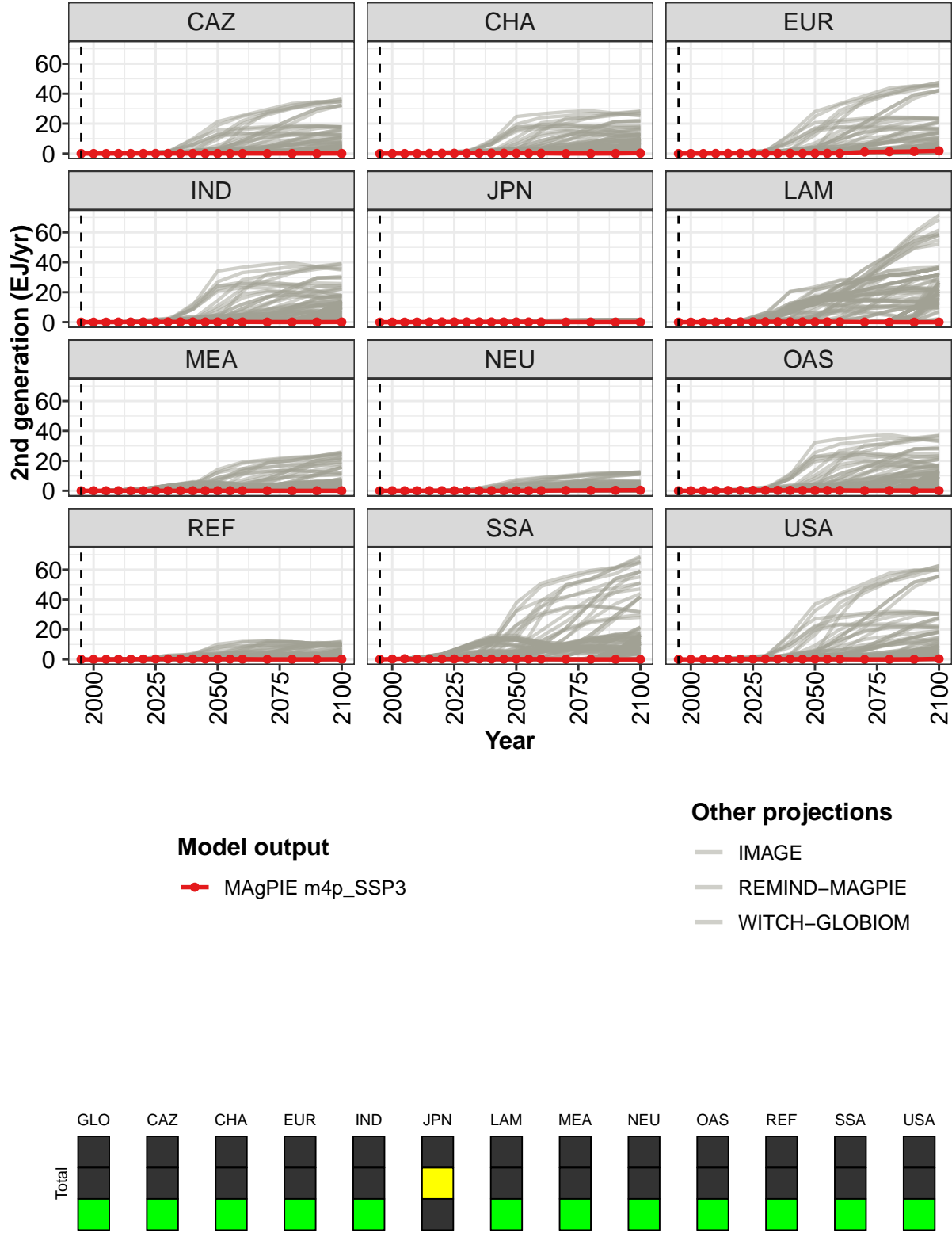


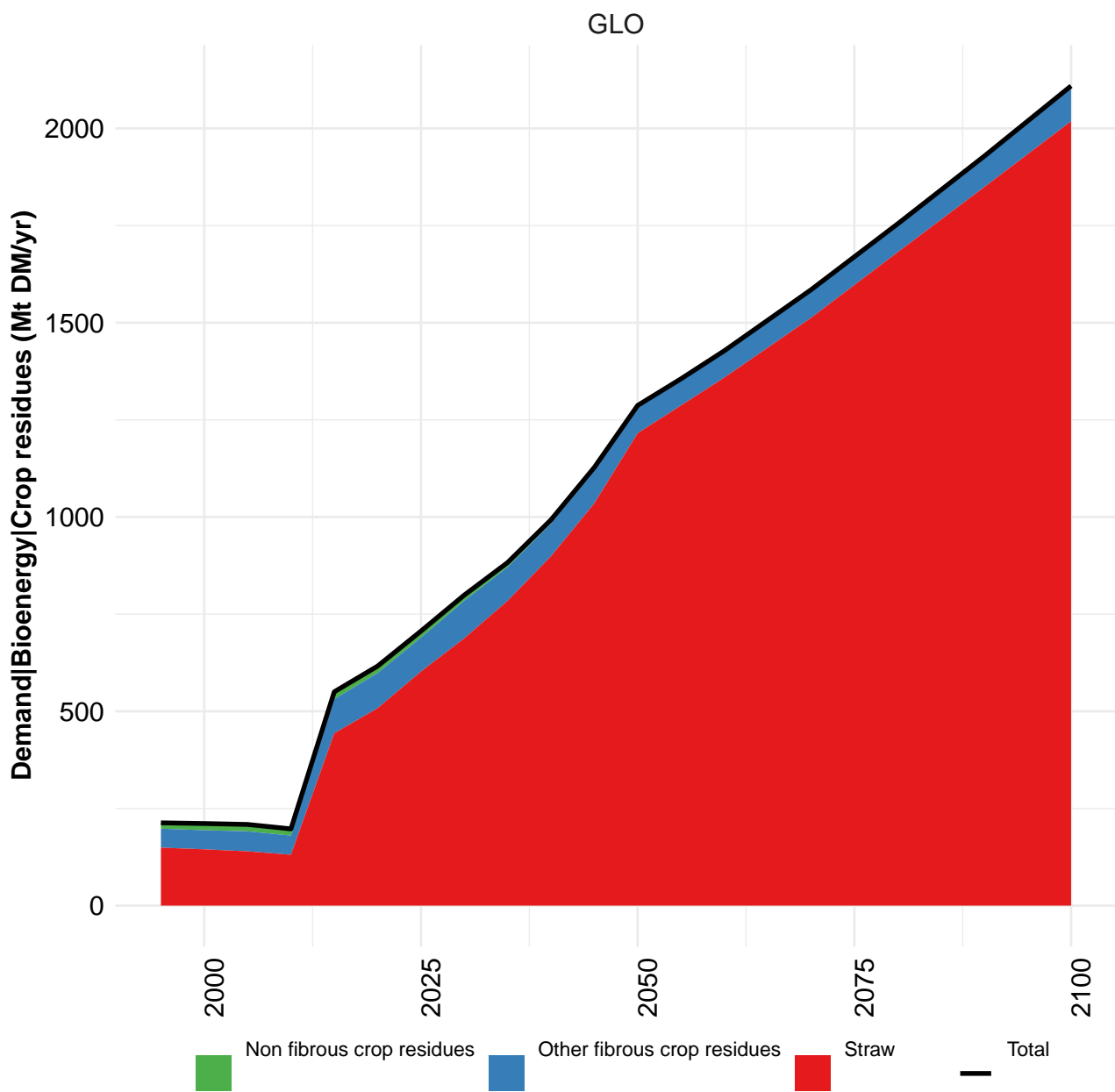
Figure 36: MAgPIE m4p_SSP3 — Demand—Bioenergy—2nd generation (EJ/yr)

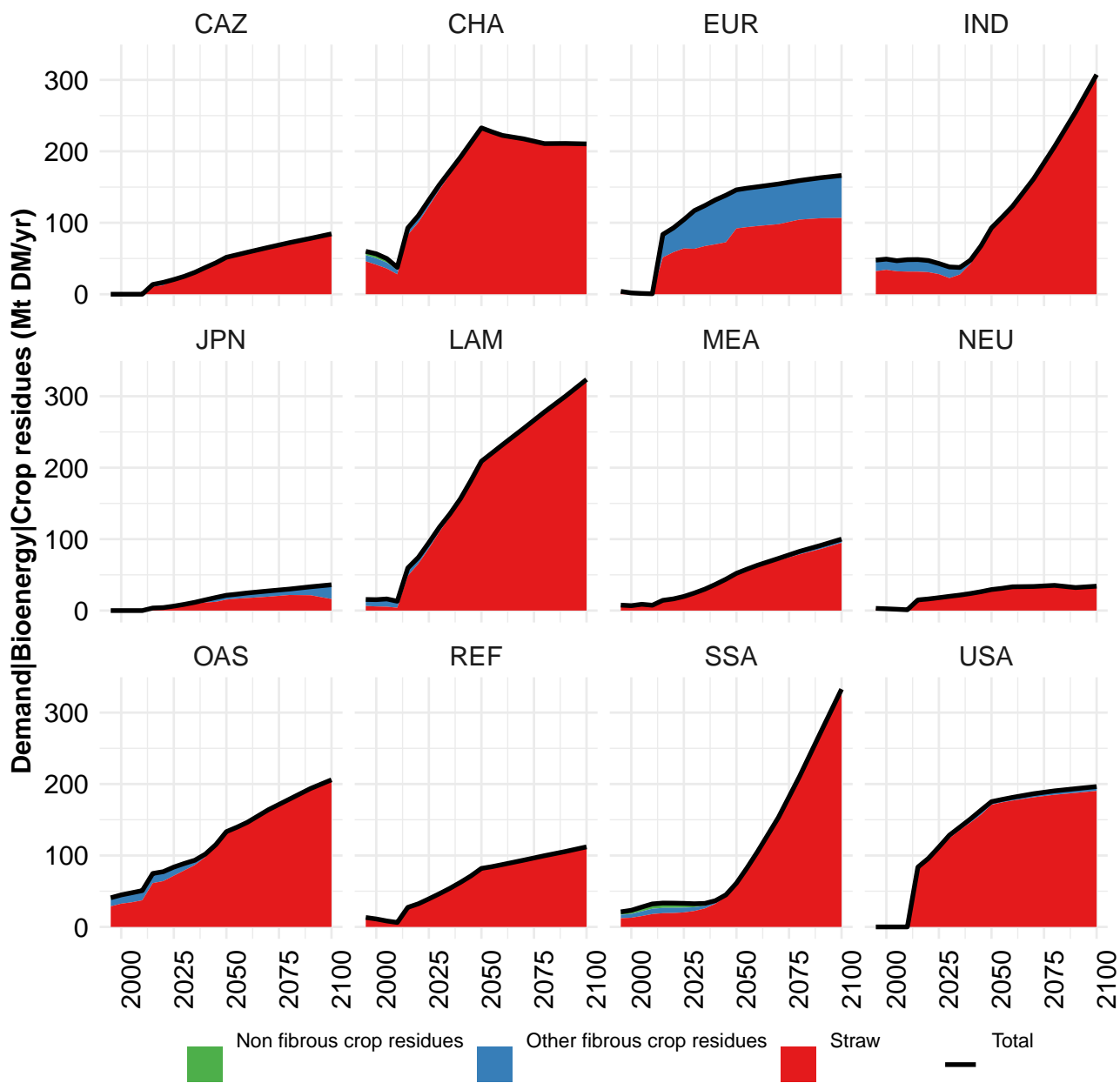
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.00	0.22	0.45	0.72	1.32	1.81	1.95	2.17	1.95	1.86	1.51
CAZ	0.00	0.00	0.00	0.02	0.04	0.05	0.05	0.06	0.05	0.05	0.04
CHA	0.00	0.00	0.00	0.06	0.12	0.17	0.19	0.22	0.22	0.21	0.18
EUR	0.00	0.00	0.00	0.05	0.10	0.14	0.14	0.16	0.14	0.14	0.12
IND	0.00	0.00	0.00	0.05	0.10	0.14	0.15	0.17	0.15	0.15	0.12
JPN	0.00	0.00	0.00	0.05	0.10	0.15	0.16	0.17	0.15	0.15	0.12
LAM	0.00	0.00	0.00	0.08	0.15	0.22	0.24	0.27	0.25	0.25	0.21
MEA	0.00	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01
NEU	0.00	0.00	0.00	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.03
OAS	0.00	0.00	0.00	0.09	0.18	0.25	0.27	0.31	0.28	0.27	0.21
REF	0.00	0.00	0.00	0.10	0.17	0.22	0.23	0.26	0.24	0.23	0.19
SSA	0.00	0.21	0.43	0.13	0.20	0.25	0.27	0.28	0.25	0.22	0.17
USA	0.00	0.00	0.00	0.07	0.14	0.19	0.20	0.22	0.18	0.17	0.13

Table 108: MAgPIE m4p_SSP3 — Demand—Bioenergy—2nd generation (EJ/yr) [PART 1/2]

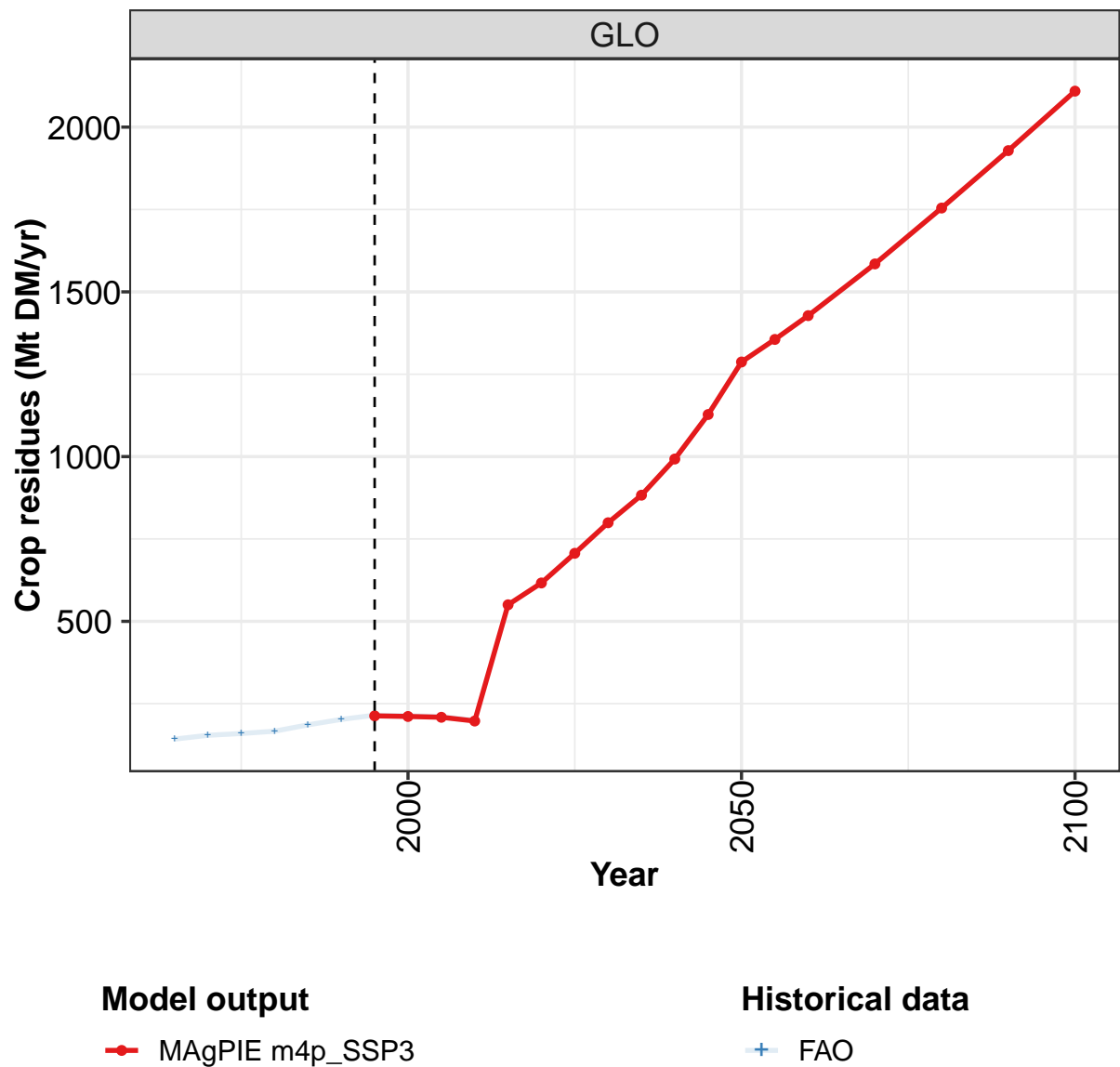
	2050	2055	2060	2070	2080	2090	2100
GLO	1.72	1.61	1.59	1.67	1.92	2.13	3.22
CAZ	0.04	0.04	0.04	0.01	0.01	0.02	0.05
CHA	0.20	0.18	0.16	0.00	0.03	0.06	0.26
EUR	0.15	0.15	0.16	1.07	1.22	1.44	1.80
IND	0.14	0.13	0.13	0.06	0.07	0.04	0.10
JPN	0.13	0.12	0.13	0.05	0.06	0.07	0.07
LAM	0.24	0.22	0.21	0.10	0.03	0.00	0.00
MEA	0.01	0.01	0.01	0.00	0.00	0.00	0.00
NEU	0.03	0.03	0.03	0.22	0.25	0.29	0.36
OAS	0.25	0.23	0.23	0.09	0.16	0.09	0.10
REF	0.20	0.19	0.18	0.03	0.04	0.05	0.12
SSA	0.18	0.17	0.17	0.04	0.02	0.00	0.00
USA	0.15	0.14	0.14	0.00	0.02	0.05	0.35

Table 109: MAgPIE m4p_SSP3 — Demand—Bioenergy—2nd generation (EJ/yr) [PART 2/2]





4.3 Crop residues



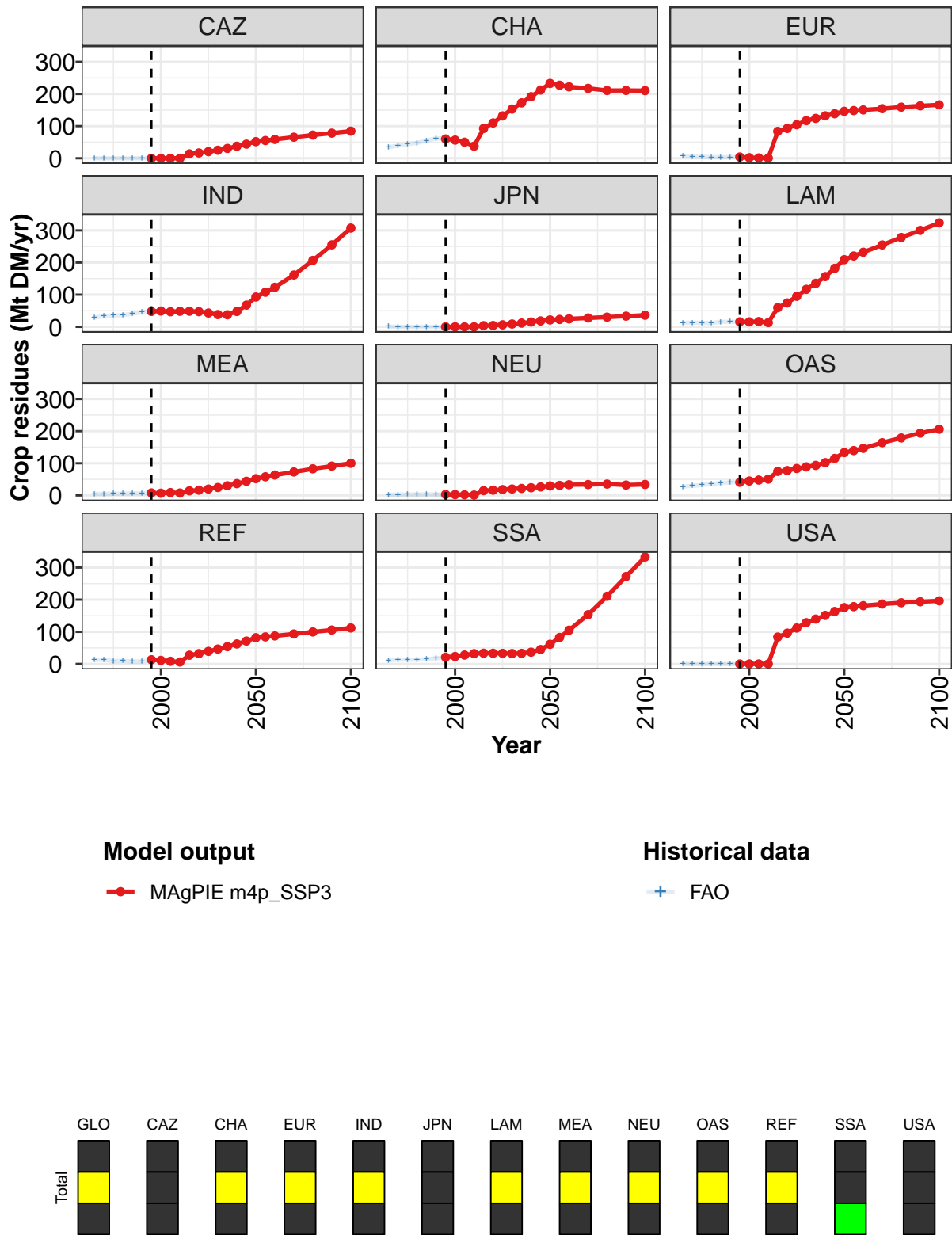


Figure 37: MAgPIE m4p_SSP3 — Demand—Bioenergy—Crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	213	211	209	197	550	616	706	799	883	993	1128
CAZ	0	0	0	0	14	17	21	25	31	37	44
CHA	60	57	50	38	93	110	132	153	172	192	212
EUR	4	2	1	1	84	93	104	117	124	132	139
IND	48	49	47	48	49	47	43	38	37	48	68
JPN	0	0	0	0	4	4	6	9	12	15	18
LAM	16	15	16	13	60	74	95	117	135	156	182
MEA	8	7	9	7	14	16	20	25	30	37	44
NEU	3	2	2	1	15	16	18	20	22	24	26
OAS	41	45	48	51	75	77	84	89	93	102	115
REF	13	11	8	6	27	32	39	46	54	62	71
SSA	21	23	28	32	33	33	33	32	33	37	45
USA	0	0	0	0	84	96	112	128	140	151	163

Table 110: MAgPIE m4p_SSP3 — Demand—Bioenergy—Crop residues (Mt DM/yr) [PART 1/2]

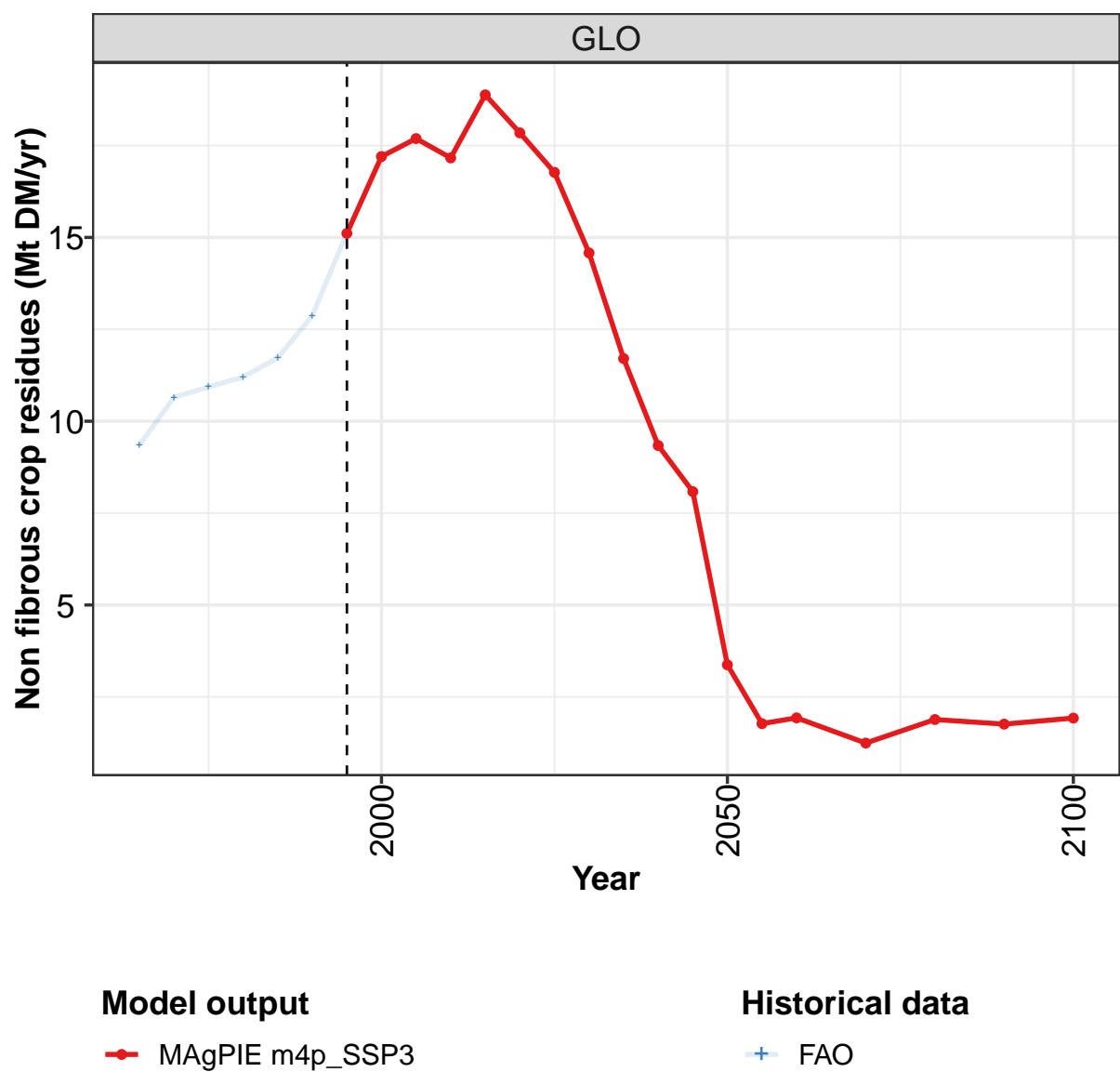
	2050	2055	2060	2070	2080	2090	2100
GLO	1287	1356	1428	1585	1754	1929	2109
CAZ	52	55	59	66	72	78	84
CHA	233	227	222	218	211	211	210
EUR	146	148	150	154	159	163	166
IND	93	108	123	161	207	255	307
JPN	21	23	25	27	30	33	36
LAM	209	220	232	255	278	300	323
MEA	52	58	63	73	83	91	100
NEU	29	31	33	34	35	32	34
OAS	133	140	146	164	179	194	206
REF	82	84	87	93	100	106	112
SSA	61	82	105	153	211	272	333
USA	175	178	181	186	190	193	196

Table 111: MAgPIE m4p_SSP3 — Demand—Bioenergy—Crop residues (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	142	154	159	167	186	202	215	214	211	200
CAZ	0	0	0	0	0	0	0	0	0	0
CHA	35	39	44	48	55	62	61	57	50	38
EUR	7	5	4	4	3	4	4	2	1	1
IND	29	33	35	36	41	45	49	50	48	49
JPN	1	0	0	0	0	0	0	0	0	0
LAM	12	13	12	12	15	16	15	15	16	13
MEA	5	5	5	6	6	7	8	7	9	7
NEU	3	3	3	3	3	3	3	2	2	1
OAS	27	30	32	35	39	40	42	46	49	53
REF	13	13	9	10	8	8	13	11	8	6
SSA	12	13	13	13	15	18	21	23	28	32
USA	0	0	0	0	0	0	0	0	0	0

Table 112: FAO — Demand—Bioenergy—Crop residues (Mt DM/yr)

4.3.1 Non fibrous crop residues



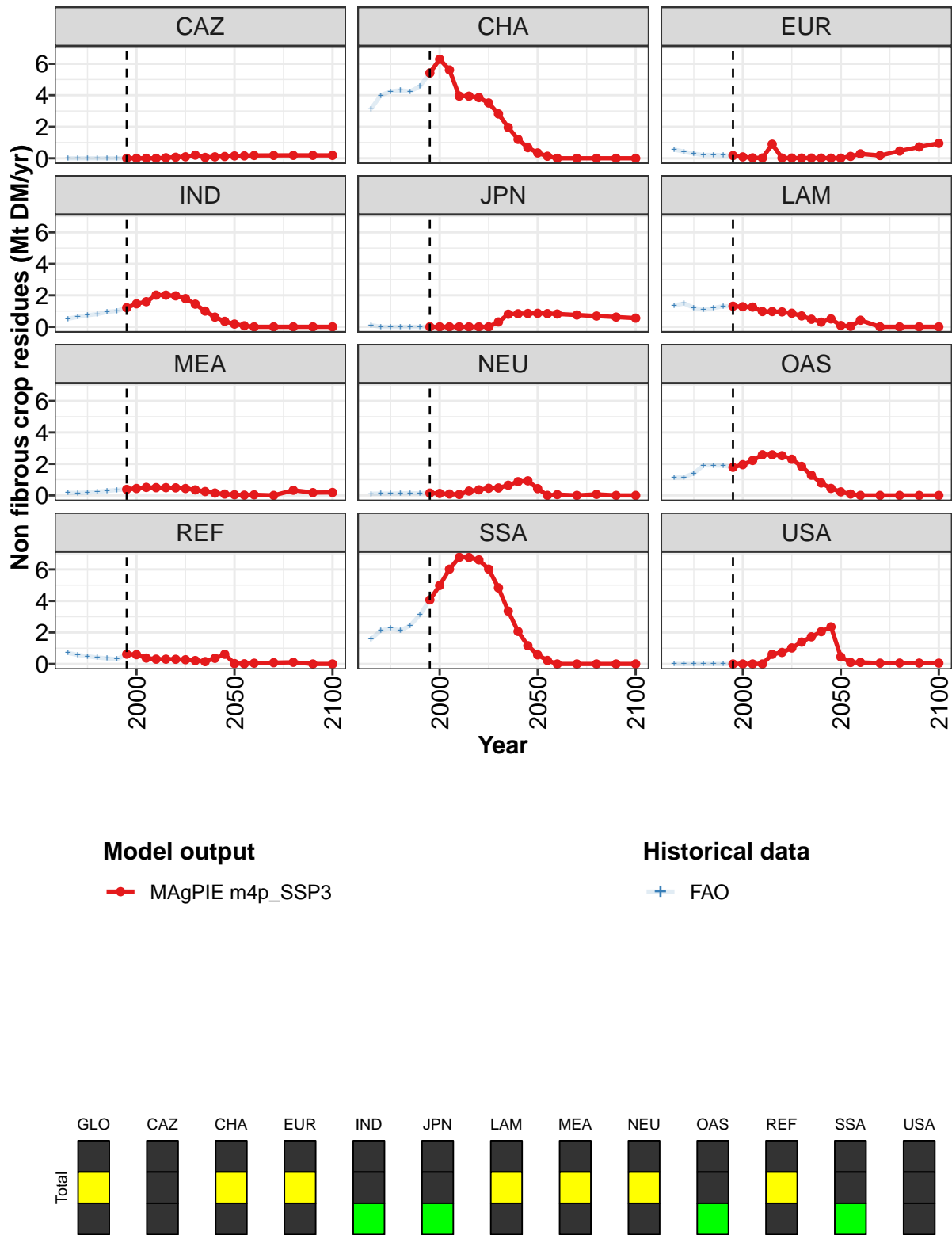


Figure 38: MAgPIE m4p_SSP3 — Demand—Bioenergy—Crop residues—Non fibrous crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	15.1	17.2	17.7	17.2	18.9	17.8	16.8	14.6	11.7	9.3	8.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1
CHA	5.4	6.3	5.6	3.9	3.9	3.9	3.5	2.8	2.0	1.2	0.7
EUR	0.2	0.1	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
IND	1.2	1.5	1.6	2.0	2.0	2.0	1.8	1.4	1.0	0.6	0.3
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	0.8	0.8
LAM	1.3	1.3	1.3	1.0	1.0	0.9	0.9	0.7	0.5	0.3	0.5
MEA	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.2	0.2	0.1
NEU	0.1	0.1	0.1	0.1	0.3	0.4	0.5	0.5	0.6	0.9	0.9
OAS	1.8	1.9	2.2	2.6	2.6	2.5	2.3	1.8	1.3	0.8	0.4
REF	0.6	0.6	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.4	0.6
SSA	4.1	5.0	6.0	6.8	6.8	6.6	6.0	4.8	3.4	2.1	1.2
USA	0.0	0.0	0.0	0.0	0.6	0.7	1.0	1.4	1.7	2.1	2.4

Table 113: MAgPIE m4p_SSP3 — Demand—Bioenergy—Crop residues—Non fibrous crop residues (Mt DM/yr)
[PART 1/2]

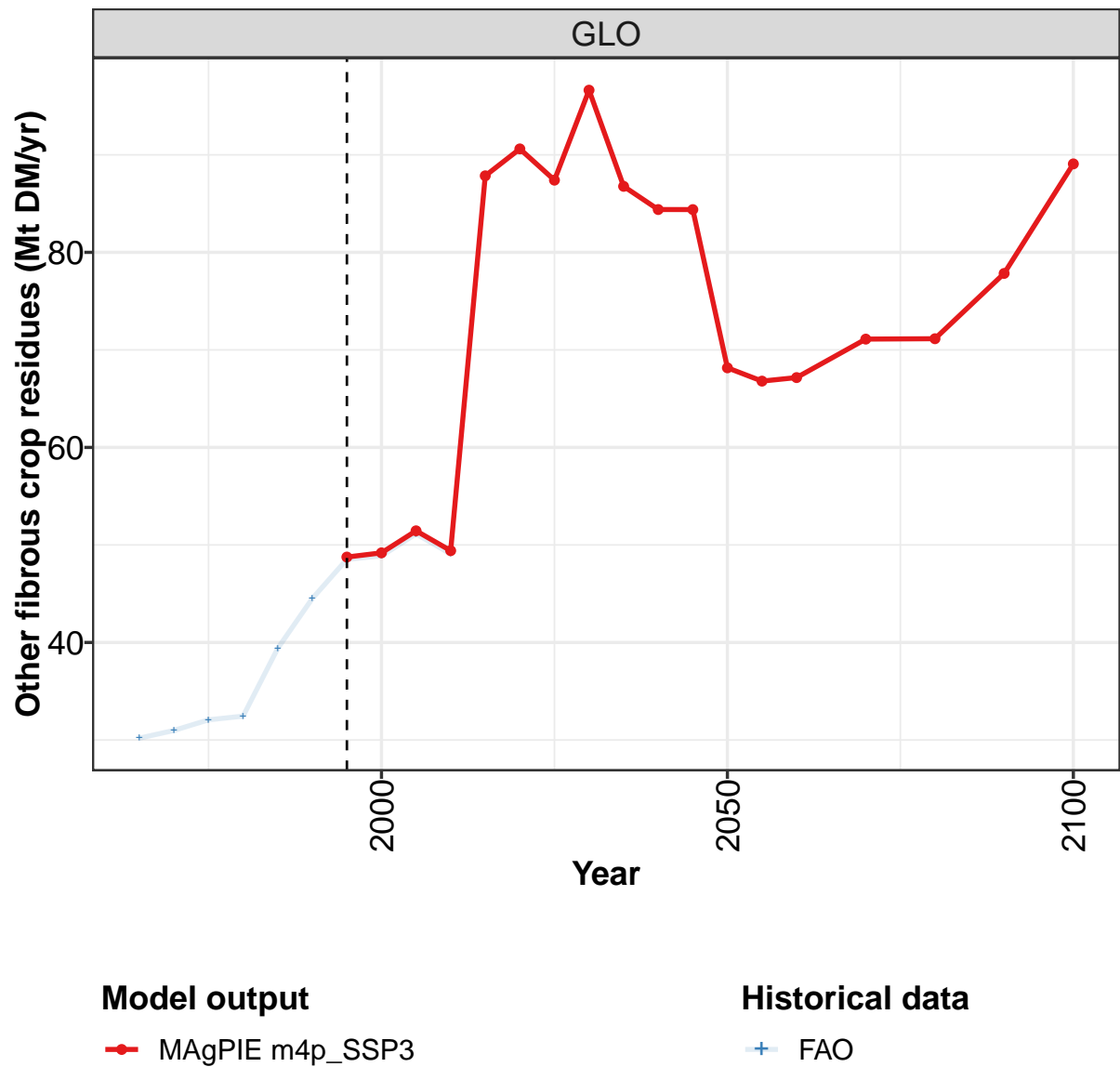
	2050	2055	2060	2070	2080	2090	2100
GLO	3.4	1.8	1.9	1.2	1.9	1.8	1.9
CAZ	0.1	0.2	0.2	0.2	0.2	0.2	0.2
CHA	0.3	0.1	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.1	0.3	0.2	0.5	0.7	0.9
IND	0.2	0.1	0.0	0.0	0.0	0.0	0.0
JPN	0.9	0.8	0.8	0.8	0.7	0.6	0.6
LAM	0.1	0.0	0.4	0.0	0.0	0.0	0.0
MEA	0.0	0.0	0.0	0.0	0.3	0.2	0.2
NEU	0.4	0.0	0.0	0.0	0.1	0.0	0.0
OAS	0.2	0.1	0.0	0.0	0.0	0.0	0.0
REF	0.0	0.0	0.0	0.1	0.1	0.0	0.0
SSA	0.6	0.2	0.0	0.0	0.0	0.0	0.0
USA	0.5	0.1	0.1	0.1	0.1	0.1	0.1

Table 114: MAgPIE m4p_SSP3 — Demand—Bioenergy—Crop residues—Non fibrous crop residues (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	9.3	10.6	10.9	11.2	11.7	12.9	15.1	17.2	17.7	17.2
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	3.1	4.0	4.3	4.3	4.2	4.6	5.4	6.3	5.6	3.9
EUR	0.6	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.0	0.0
IND	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.5	1.6	2.0
JPN	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.4	1.5	1.2	1.1	1.2	1.3	1.3	1.3	1.3	1.0
MEA	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	1.1	1.2	1.4	1.9	1.9	1.9	1.8	2.0	2.2	2.6
REF	0.7	0.6	0.5	0.4	0.4	0.3	0.6	0.6	0.4	0.3
SSA	1.6	2.1	2.3	2.1	2.4	3.1	4.1	5.0	6.0	6.8
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 115: FAO — Demand—Bioenergy—Crop residues—Non fibrous crop residues (Mt DM/yr)

4.3.2 Other fibrous crop residues



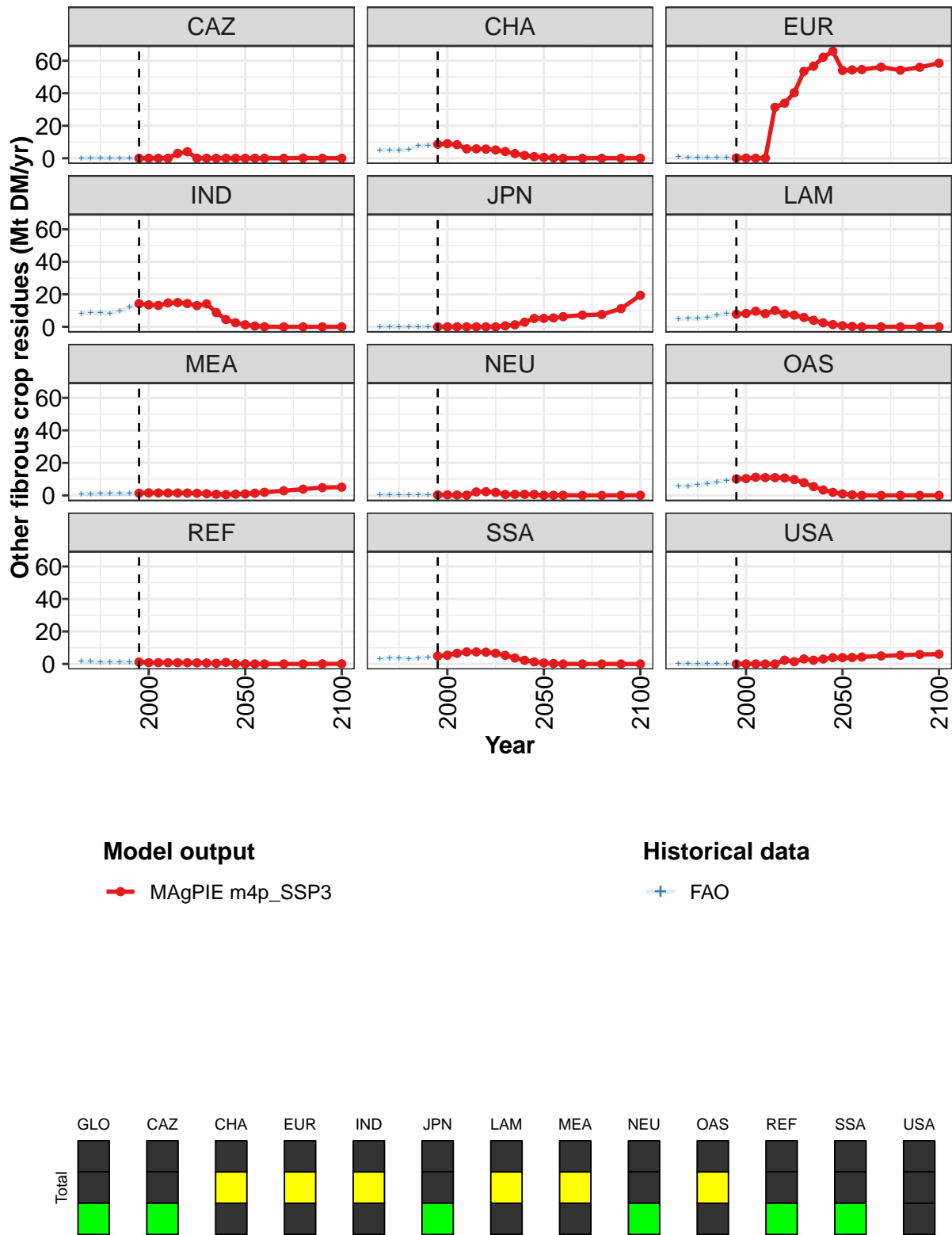


Figure 39: MAgPIE m4p_SSP3 — Demand—Bioenergy—Crop residues—Other fibrous crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	48.8	49.2	51.4	49.4	87.8	90.6	87.4	96.6	86.8	84.4	84.4
CAZ	0.0	0.0	0.0	0.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0
CHA	8.6	9.0	8.4	5.8	5.8	5.7	5.1	4.1	2.9	1.8	1.0
EUR	0.2	0.1	0.0	0.1	31.3	33.9	40.4	53.5	56.7	62.1	65.8
IND	14.3	13.5	13.2	14.7	14.9	14.3	13.1	14.2	8.8	4.5	2.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	2.8	5.2
LAM	7.8	8.2	9.6	8.1	10.0	7.9	7.2	5.8	4.0	2.5	1.4
MEA	1.4	1.5	1.5	1.5	1.5	1.4	1.3	1.1	0.7	0.5	0.8
NEU	0.3	0.3	0.2	0.1	2.2	2.3	1.9	0.6	0.6	0.6	0.6
OAS	10.1	10.3	11.1	10.9	10.9	10.7	9.7	7.8	5.4	3.3	1.9
REF	1.2	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.4	1.0	0.1
SSA	4.9	5.4	6.6	7.4	7.4	7.2	6.6	5.3	3.7	2.3	1.3
USA	0.0	0.0	0.0	0.0	0.0	2.3	1.4	3.1	2.3	3.0	3.9

Table 116: MAgPIE m4p_SSP3 — Demand—Bioenergy—Crop residues—Other fibrous crop residues (Mt DM/yr) [PART 1/2]

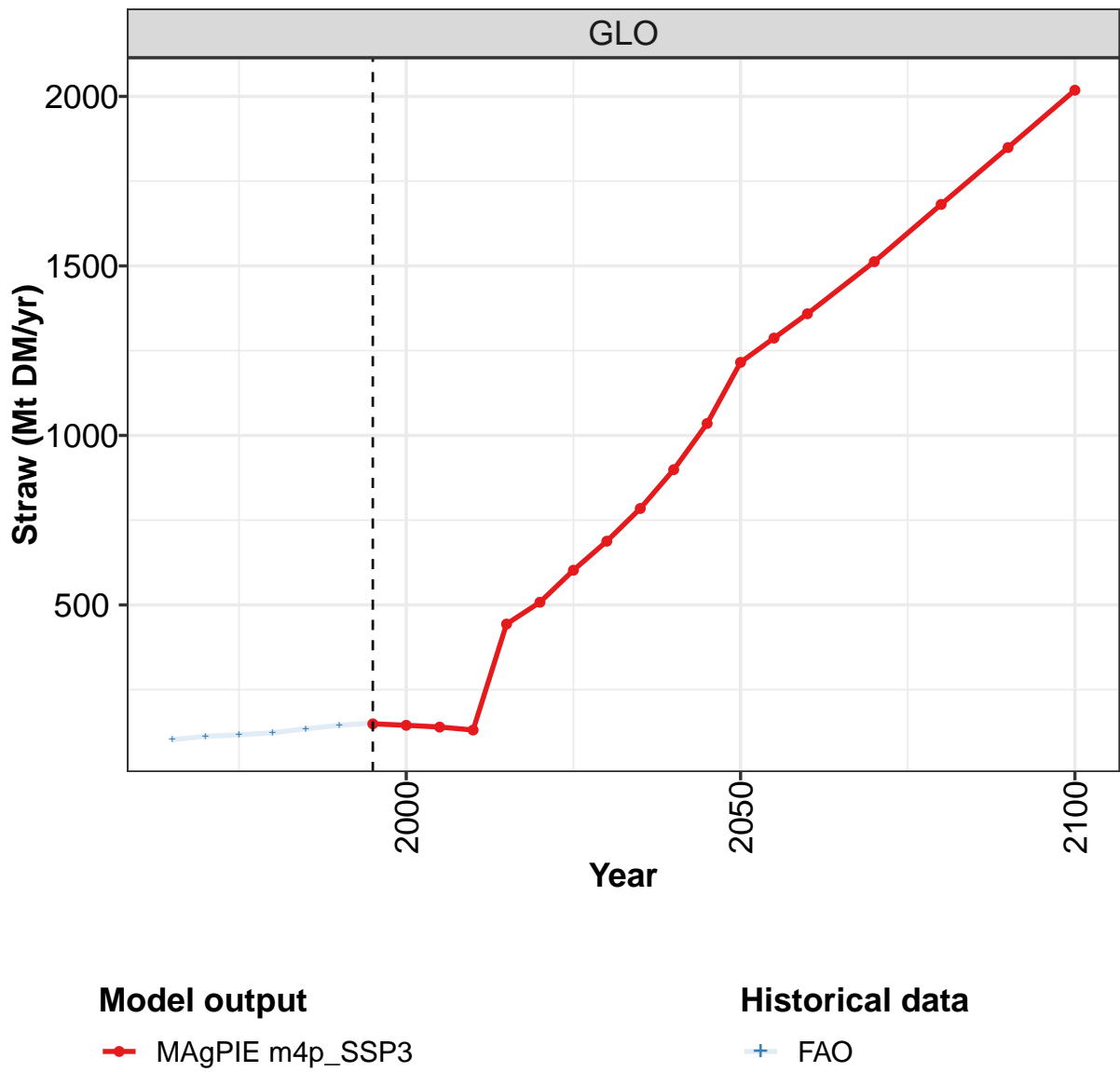
	2050	2055	2060	2070	2080	2090	2100
GLO	68.2	66.8	67.2	71.1	71.1	77.8	89.1
CAZ	0.0	0.0	0.0	0.0	0.1	0.0	0.0
CHA	0.5	0.2	0.0	0.0	0.0	0.0	0.0
EUR	54.0	54.4	54.6	56.1	54.2	56.0	58.5
IND	1.3	0.5	0.0	0.0	0.0	0.0	0.0
JPN	5.2	5.4	6.2	7.2	7.6	11.2	19.4
LAM	0.7	0.3	0.0	0.0	0.0	0.0	0.0
MEA	0.9	1.4	1.9	2.9	3.9	4.8	5.1
NEU	0.1	0.1	0.1	0.0	0.0	0.0	0.0
OAS	0.9	0.4	0.0	0.0	0.0	0.0	0.0
REF	0.1	0.0	0.0	0.0	0.0	0.1	0.1
SSA	0.6	0.2	0.0	0.0	0.0	0.0	0.0
USA	3.9	4.0	4.3	4.9	5.4	5.8	6.0

Table 117: MAgPIE m4p_SSP3 — Demand—Bioenergy—Crop residues—Other fibrous crop residues (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	30.2	31.0	32.1	32.4	39.4	44.5	48.5	48.9	51.1	49.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	5.1	4.9	4.7	5.4	7.6	7.9	8.6	9.0	8.4	5.8
EUR	0.9	0.5	0.4	0.3	0.3	0.3	0.2	0.1	0.0	0.1
IND	8.0	8.5	8.8	8.1	9.9	12.2	14.1	13.4	13.1	14.6
JPN	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	4.7	5.1	5.2	5.6	7.3	8.0	7.7	8.1	9.5	8.0
MEA	0.8	0.9	1.1	1.1	1.1	1.1	1.4	1.6	1.5	1.5
NEU	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.2	0.1
OAS	5.4	5.7	6.8	7.1	8.2	9.3	10.1	10.2	11.1	10.9
REF	1.6	1.4	1.2	1.3	1.2	1.1	1.3	0.9	0.9	0.8
SSA	3.2	3.6	3.6	3.3	3.5	4.1	4.8	5.4	6.5	7.4
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 118: FAO — Demand—Bioenergy—Crop residues—Other fibrous crop residues (Mt DM/yr)

4.3.3 Straw



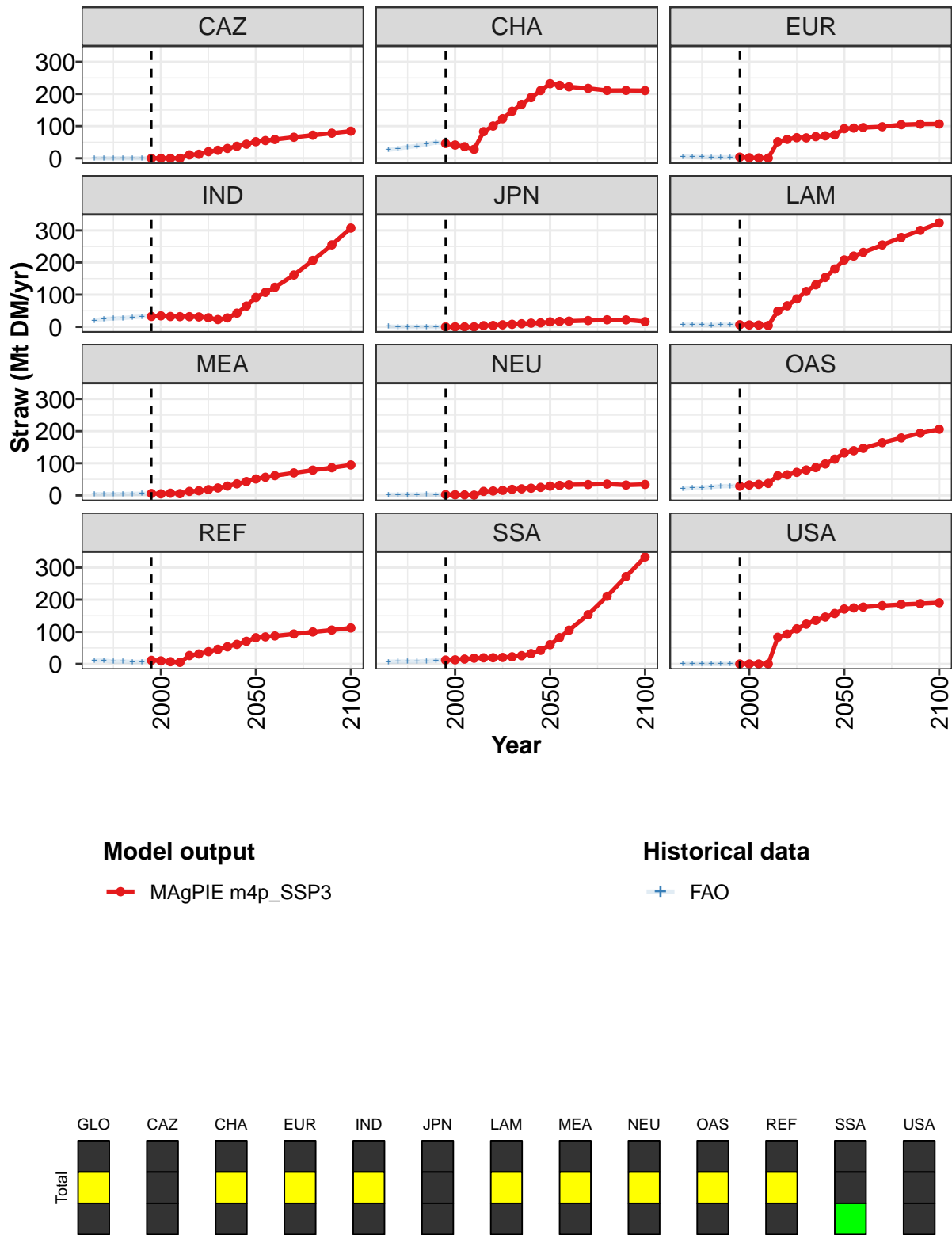


Figure 40: MAgPIE m4p_SSP3 — Demand—Bioenergy—Crop residues—Straw (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	149	145	140	131	444	508	602	688	784	899	1035
CAZ	0	0	0	0	11	13	20	25	31	37	44
CHA	46	41	36	28	83	100	123	146	168	189	211
EUR	4	2	1	1	51	59	64	64	67	70	73
IND	32	34	32	32	32	31	28	23	28	43	65
JPN	0	0	0	0	4	4	6	8	10	11	12
LAM	6	6	5	4	49	65	87	110	131	154	180
MEA	6	5	7	5	12	14	18	23	29	36	43
NEU	3	2	2	1	12	14	16	19	20	22	25
OAS	29	33	34	37	61	64	72	79	87	98	113
REF	11	10	7	5	26	31	38	46	53	61	71
SSA	12	13	15	18	19	19	20	22	26	32	42
USA	0	0	0	0	83	93	109	124	136	146	157

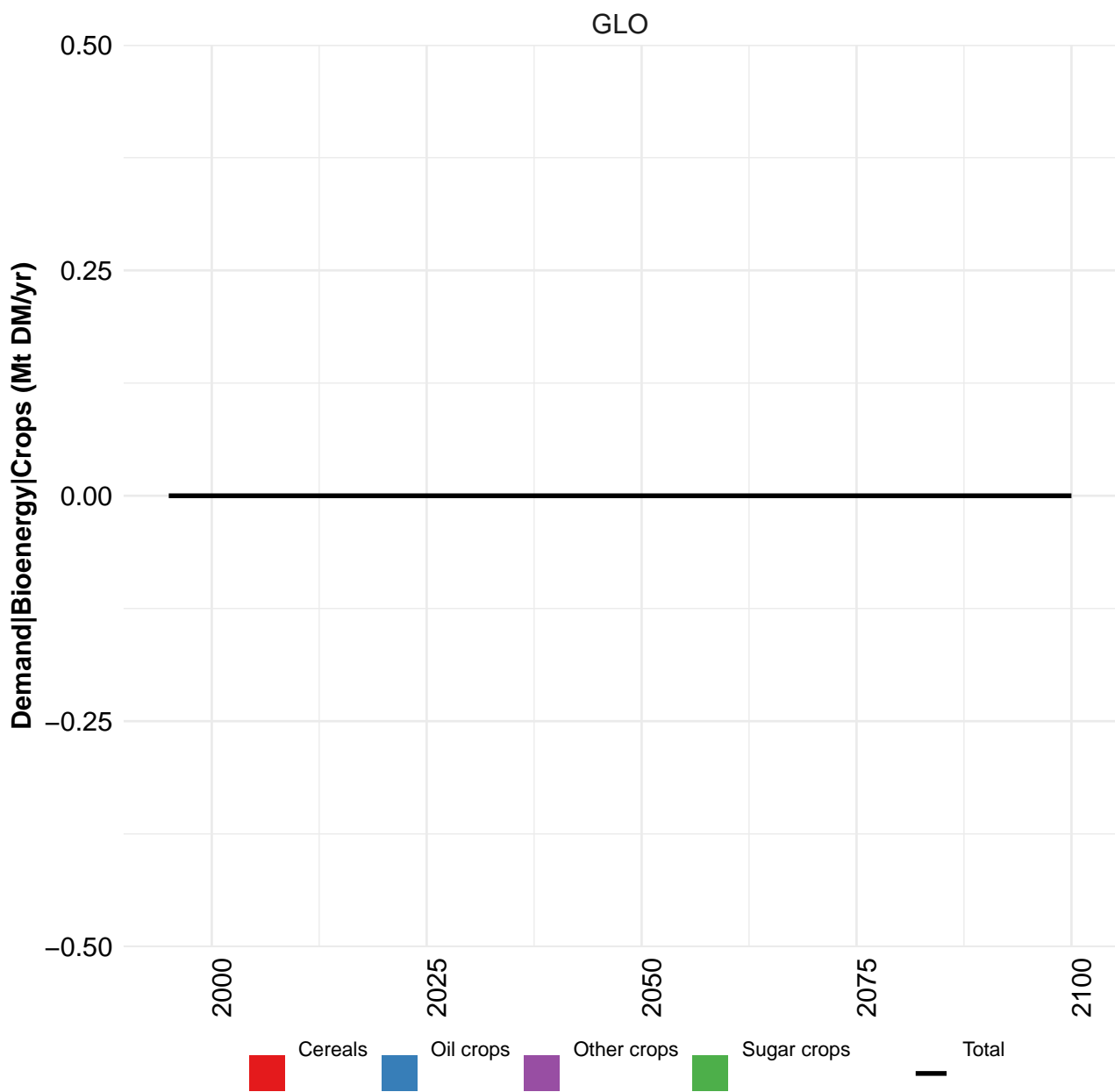
Table 119: MAgPIE m4p_SSP3 — Demand—Bioenergy—Crop residues—Straw (Mt DM/yr) [PART 1/2]

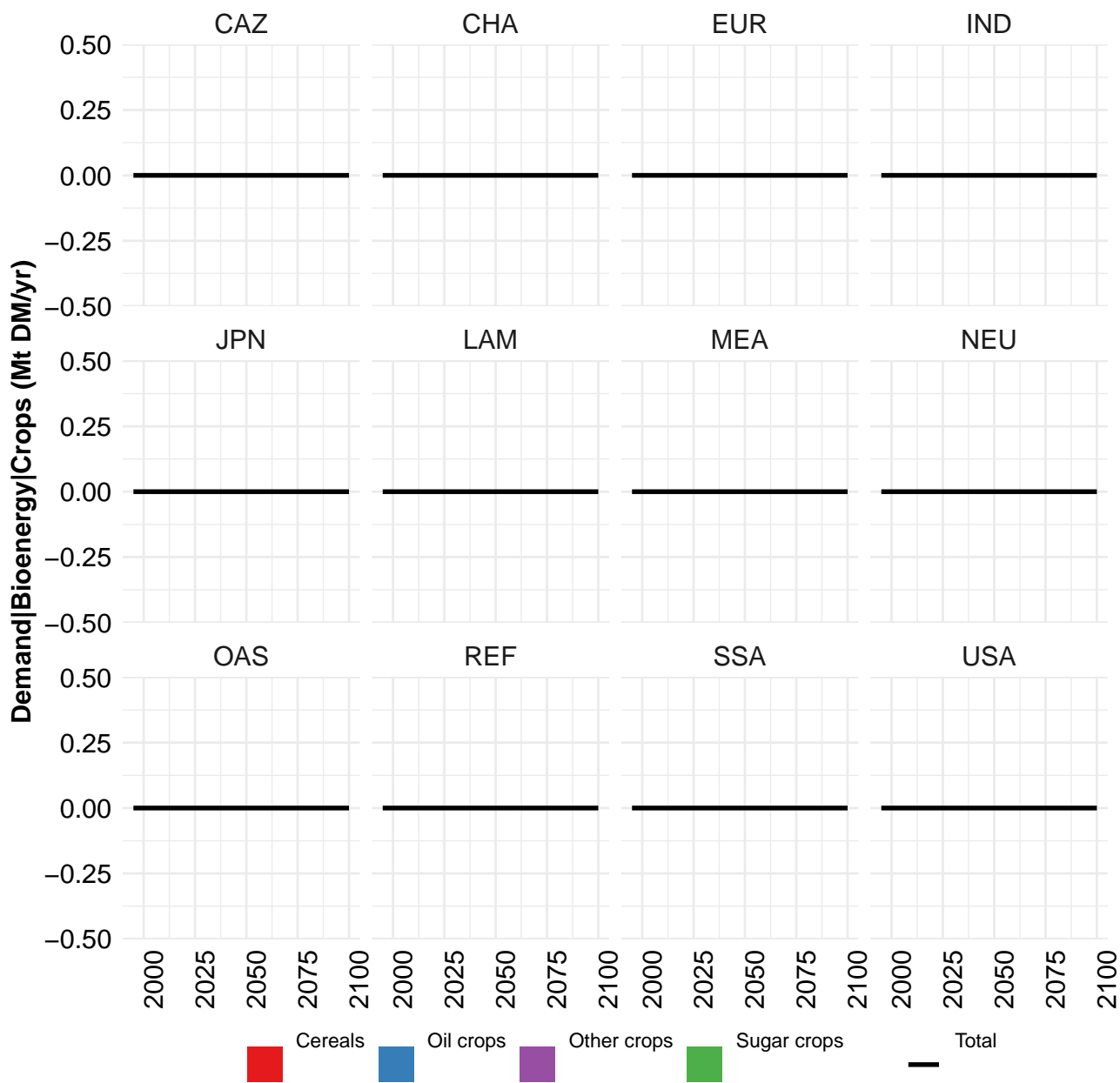
	2050	2055	2060	2070	2080	2090	2100
GLO	1216	1287	1359	1512	1681	1849	2018
CAZ	52	55	59	65	72	78	84
CHA	232	227	222	218	211	211	210
EUR	92	94	95	98	104	106	107
IND	91	107	123	161	207	255	307
JPN	15	17	18	19	22	21	16
LAM	208	220	232	255	278	300	323
MEA	51	57	61	70	79	86	95
NEU	29	31	33	34	35	32	34
OAS	132	139	146	164	179	194	206
REF	82	84	87	93	100	106	112
SSA	60	82	105	153	211	272	333
USA	171	174	177	181	185	188	190

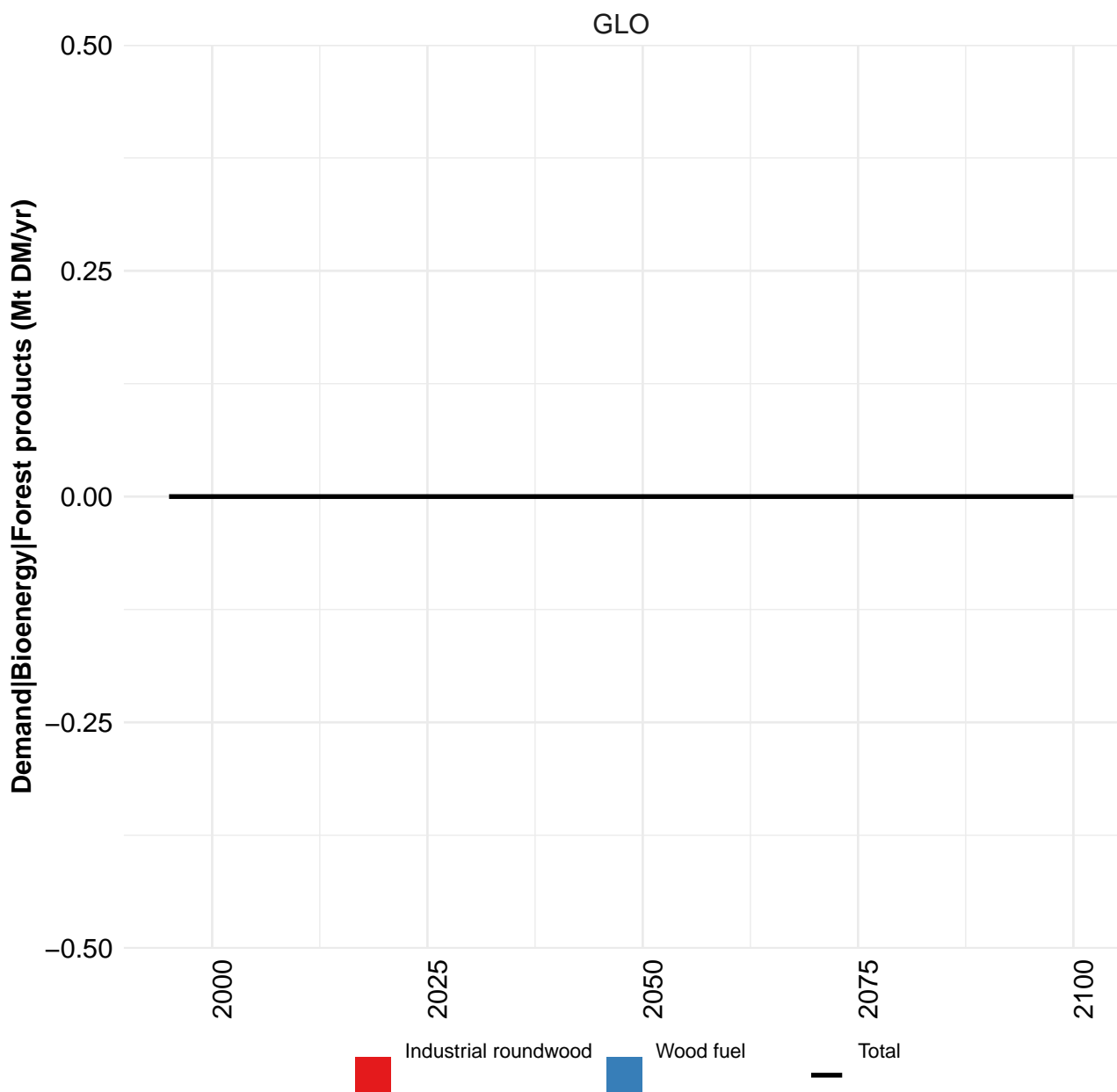
Table 120: MAgPIE m4p_SSP3 — Demand—Bioenergy—Crop residues—Straw (Mt DM/yr) [PART 2/2]

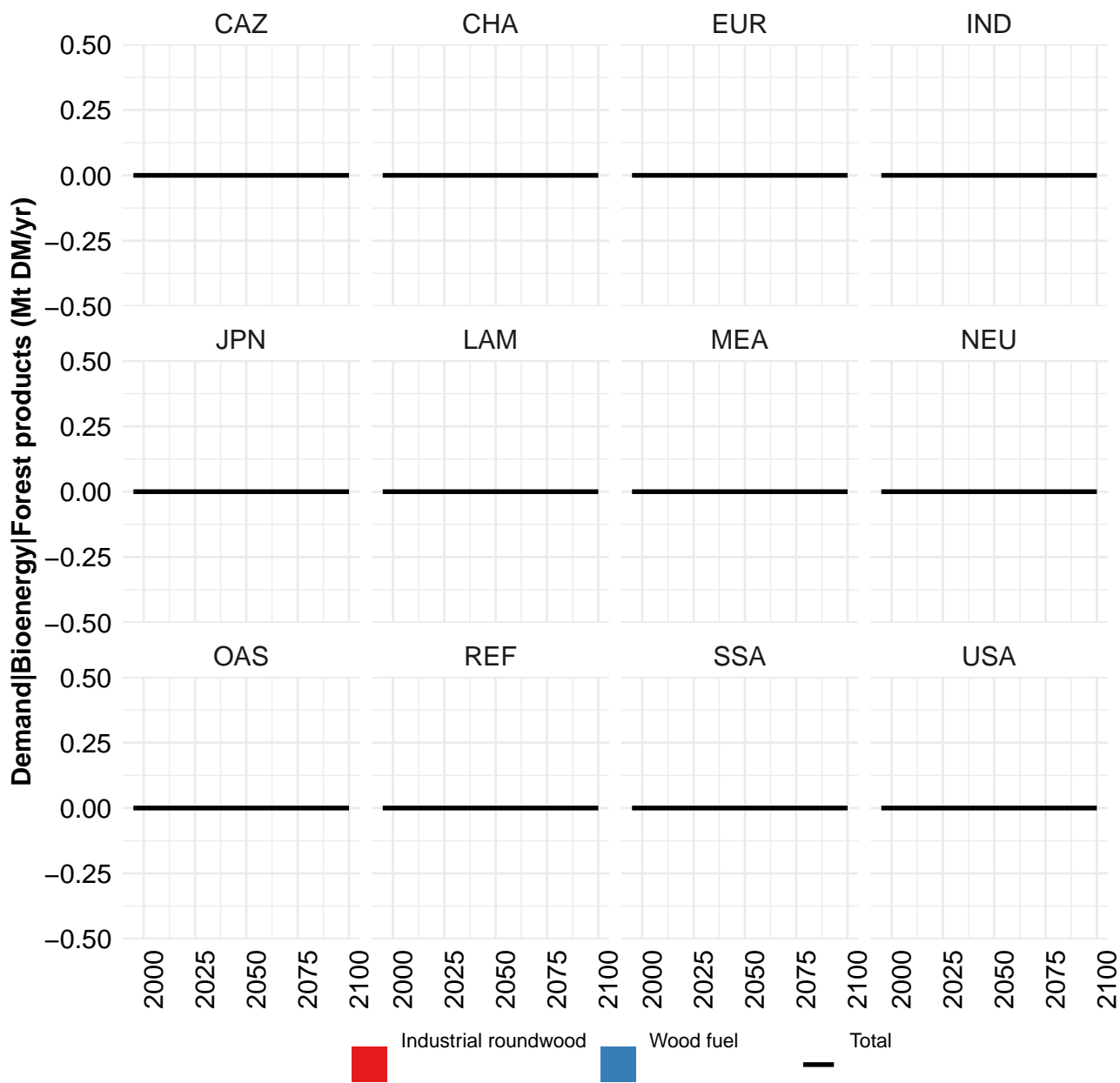
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	103	112	116	123	135	145	151	148	142	133
CAZ	0	0	0	0	0	0	0	0	0	0
CHA	26	30	35	38	43	49	47	42	36	28
EUR	6	4	4	3	3	3	3	2	1	1
IND	20	24	26	27	30	32	33	35	33	32
JPN	1	0	0	0	0	0	0	0	0	0
LAM	6	6	6	5	7	6	6	6	5	4
MEA	4	4	4	4	5	5	6	5	7	5
NEU	2	2	3	3	3	2	3	2	2	1
OAS	21	23	24	26	29	29	30	34	36	39
REF	10	11	7	8	6	6	11	9	7	5
SSA	7	8	8	8	9	11	12	13	15	18
USA	0	0	0	0	0	0	0	0	0	0

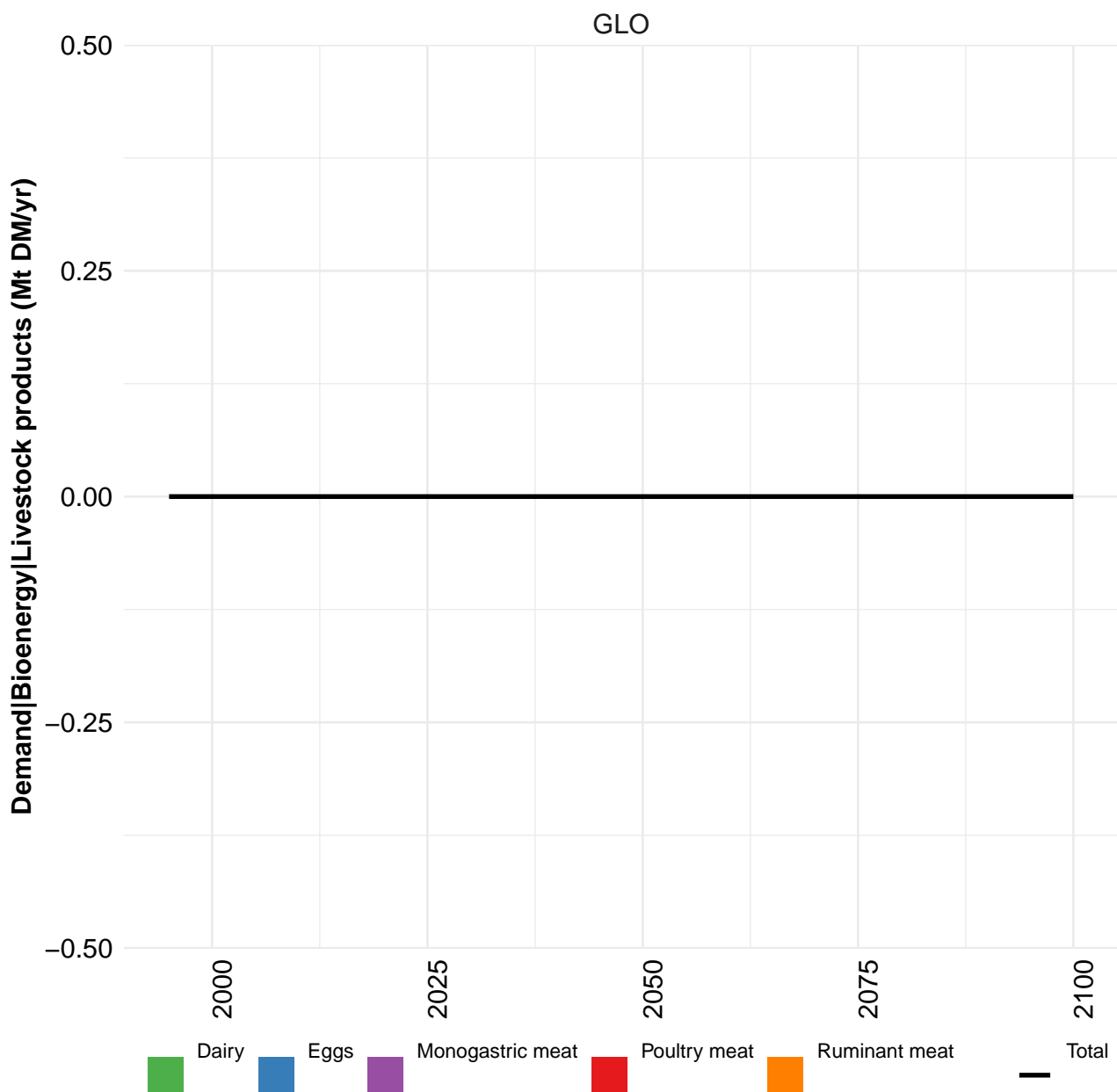
Table 121: FAO — Demand—Bioenergy—Crop residues—Straw (Mt DM/yr)

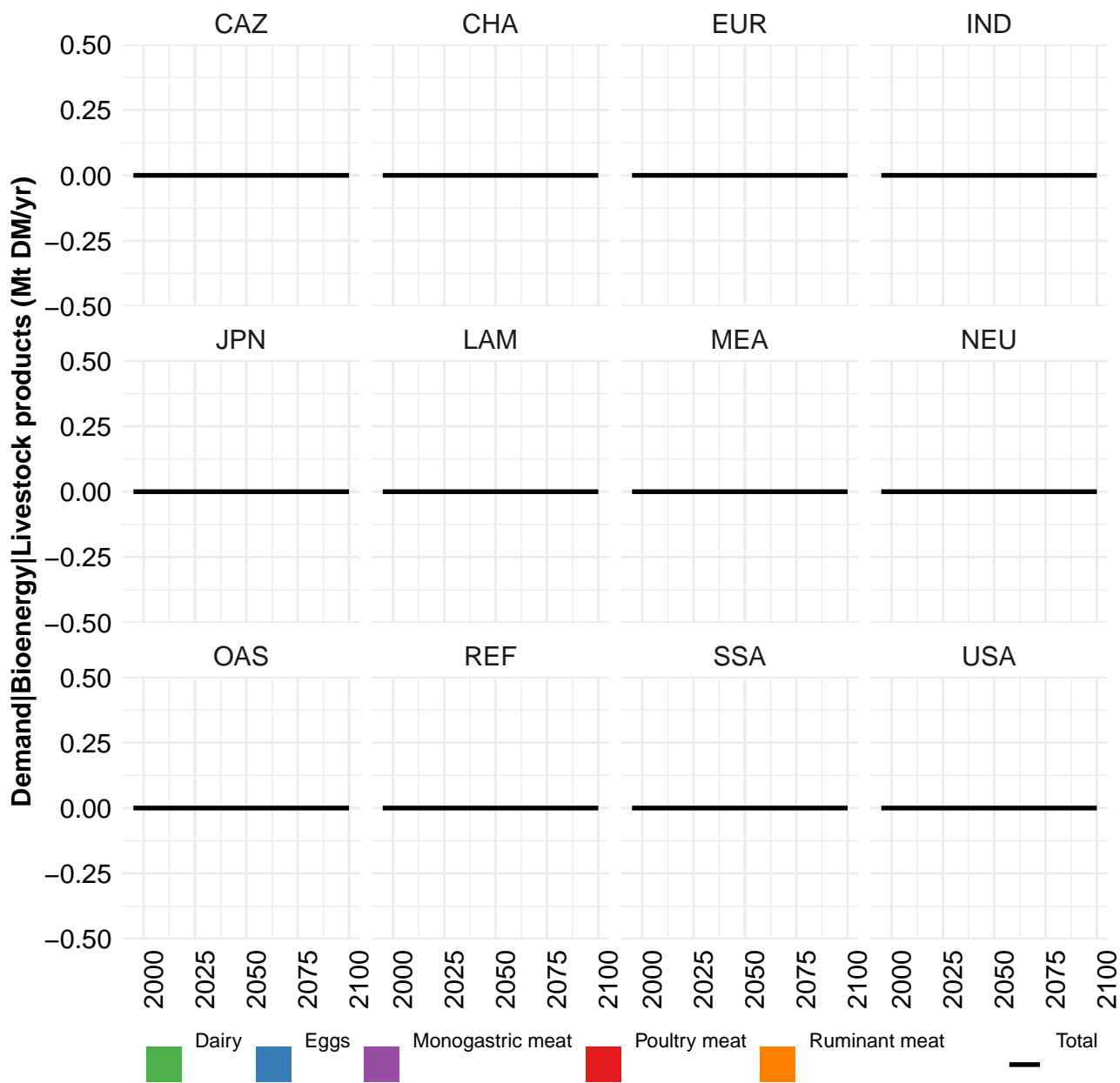


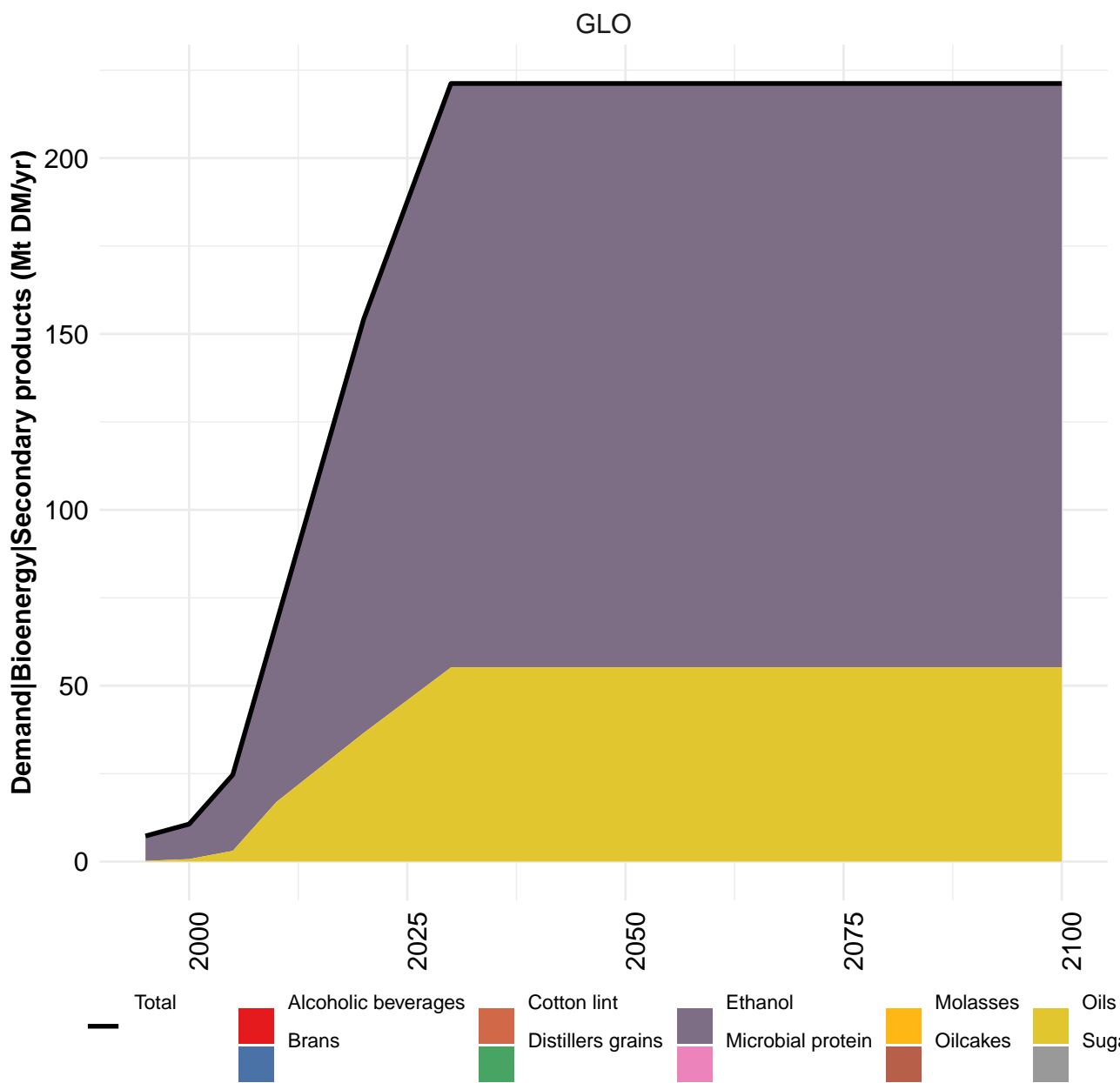


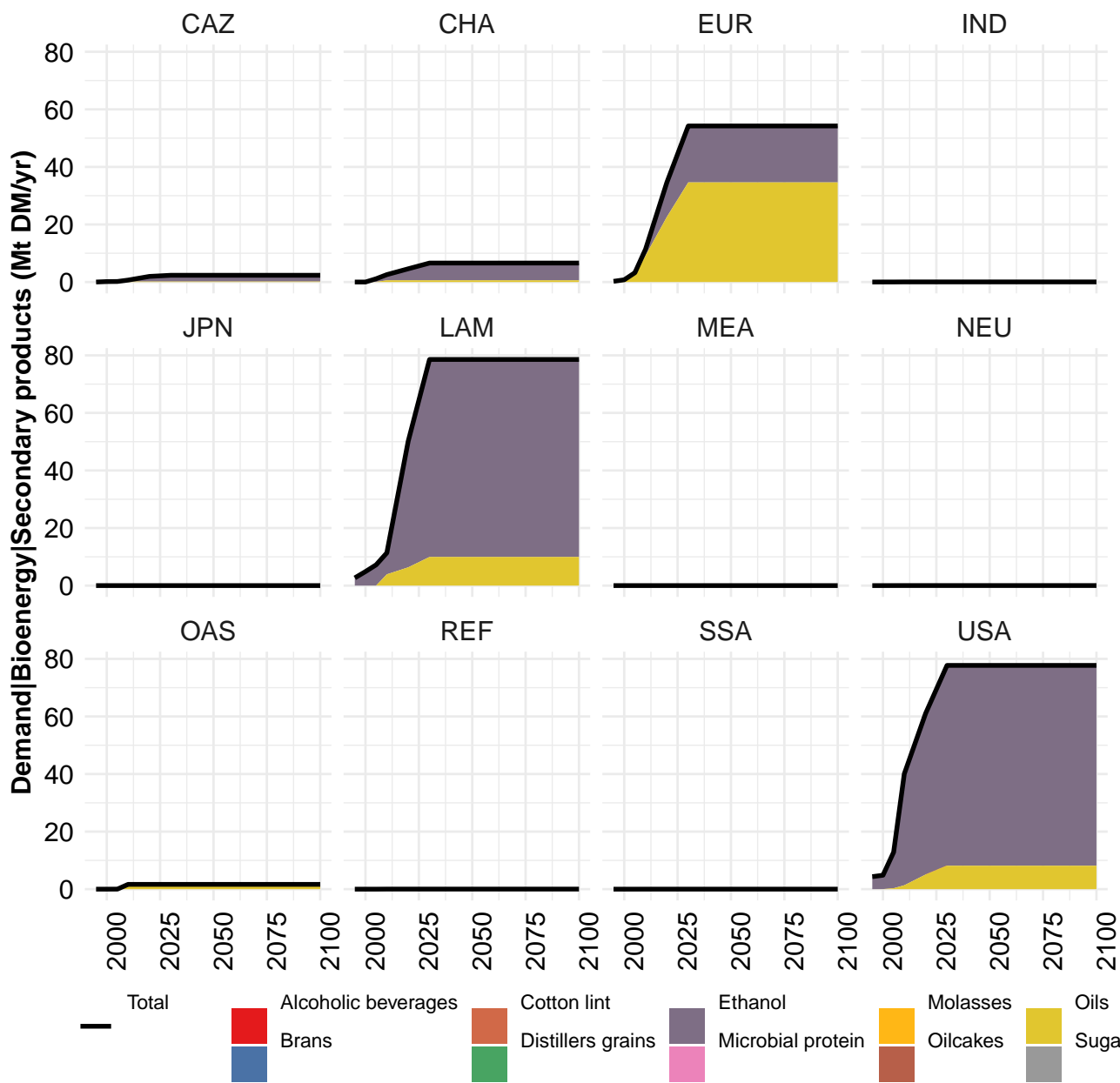




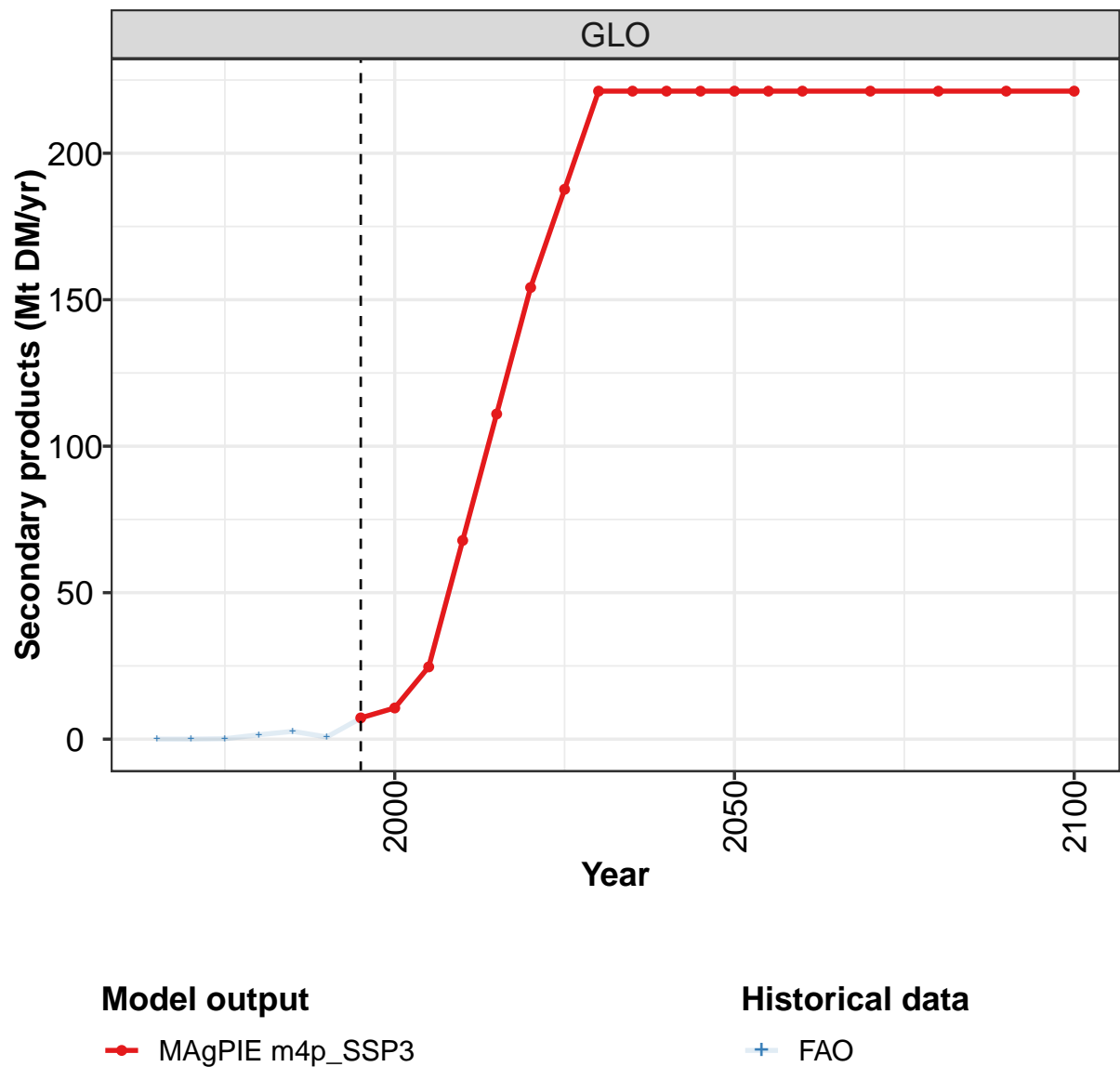








4.4 Secondary products



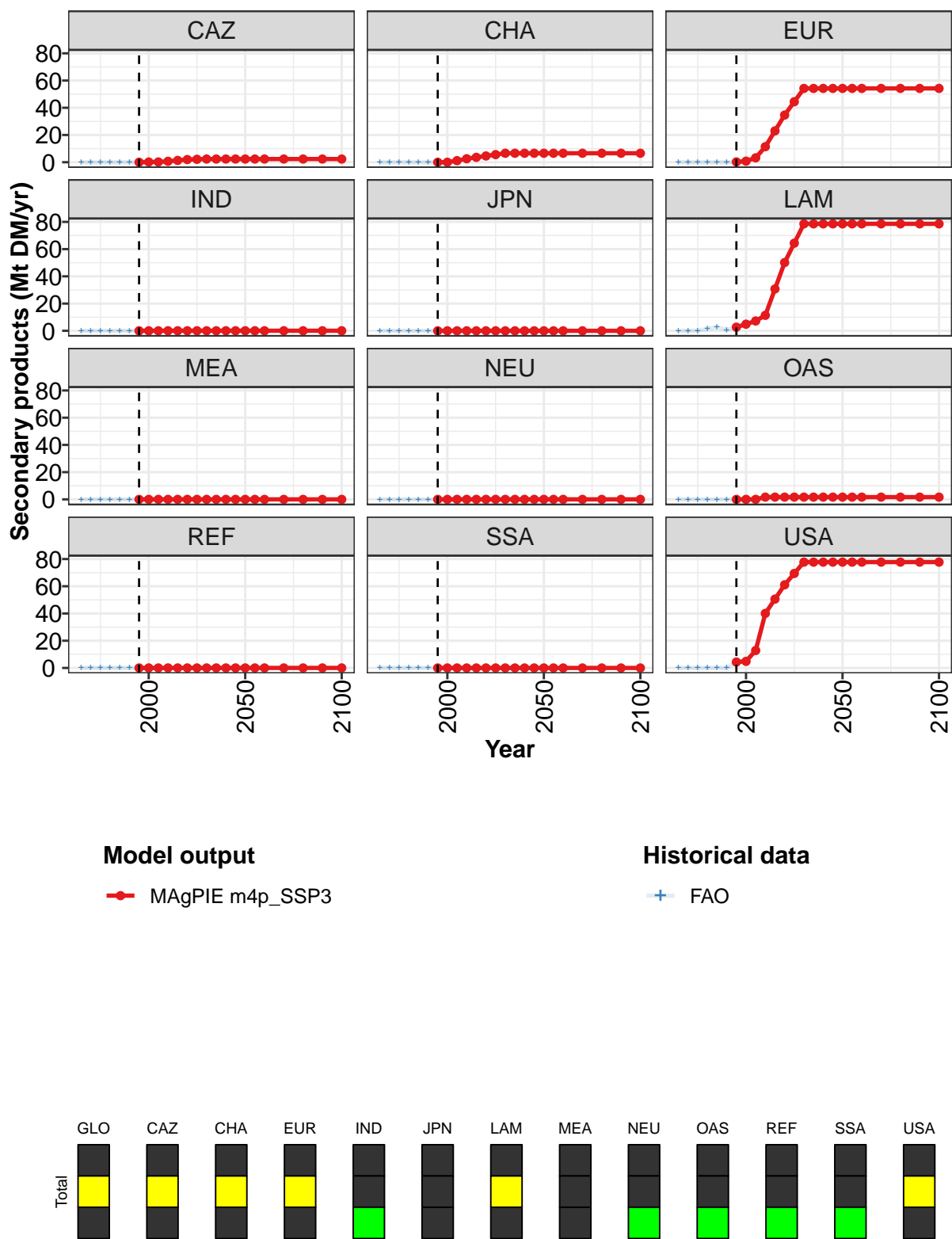


Figure 41: MAgPIE m4p_SSP3 — Demand—Bioenergy—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7	11	25	68	111	154	188	221	221	221	221
CAZ	0	0	0	1	1	2	2	2	2	2	2
CHA	0	0	1	3	4	5	6	7	7	7	7
EUR	0	1	3	11	23	35	44	54	54	54	54
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	3	5	7	11	31	50	64	79	79	79	79
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	0	0	0	2	2	2	2	2	2	2	2
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	4	5	13	40	51	61	69	78	78	78	78

Table 122: MAgPIE m4p-SSP3 — Demand—Bioenergy—Secondary products (Mt DM/yr) [PART 1/2]

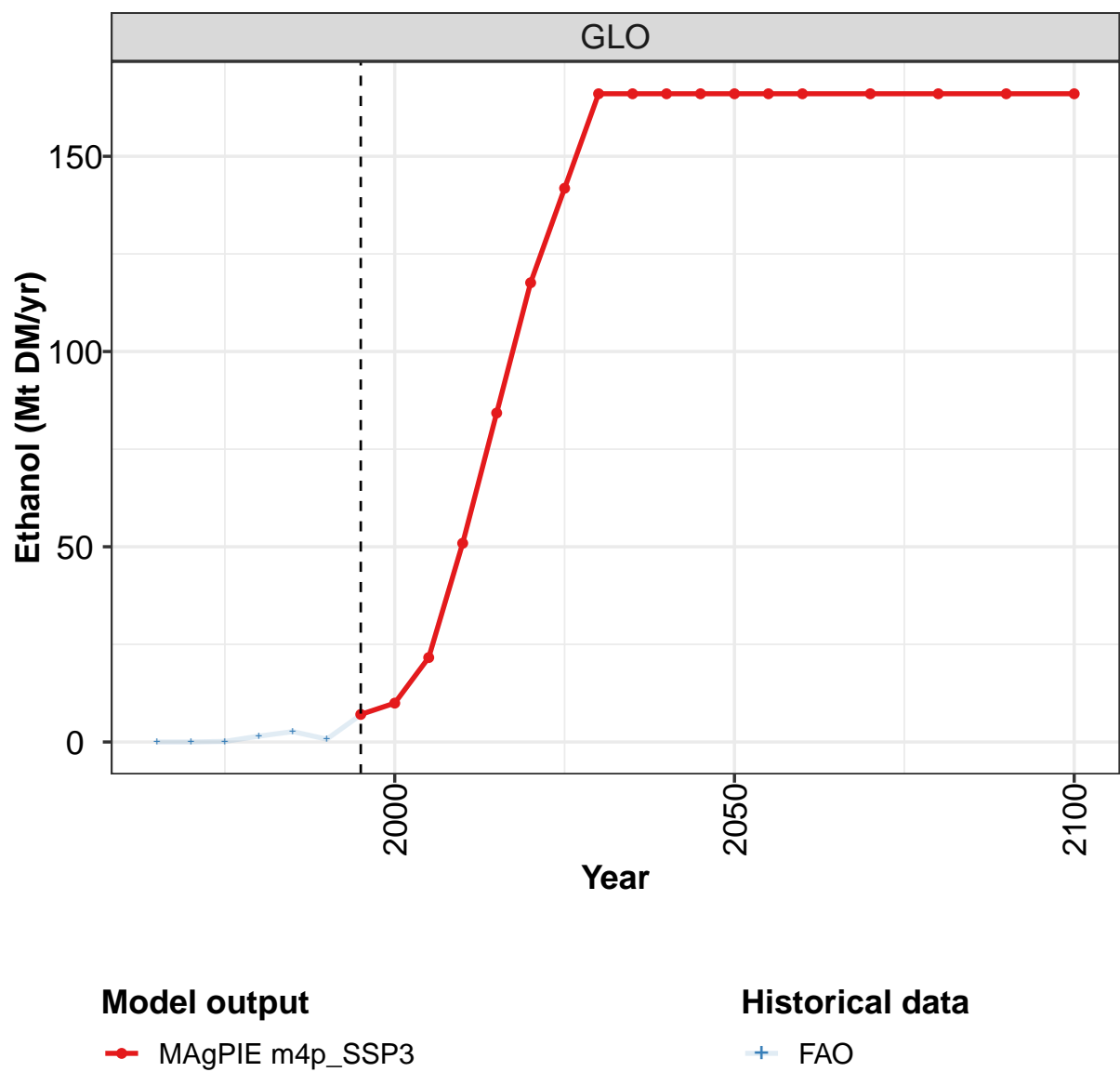
	2050	2055	2060	2070	2080	2090	2100
GLO	221	221	221	221	221	221	221
CAZ	2	2	2	2	2	2	2
CHA	7	7	7	7	7	7	7
EUR	54	54	54	54	54	54	54
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	79	79	79	79	79	79	79
MEA	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0
OAS	2	2	2	2	2	2	2
REF	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0
USA	78	78	78	78	78	78	78

Table 123: MAgPIE m4p-SSP3 — Demand—Bioenergy—Secondary products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.1	1.5	2.7	0.7	7.2	10.6	24.6	67.8
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.7
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.6
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8	3.2	11.4
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.1	1.5	2.7	0.7	2.6	4.8	7.2	11.4
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.8	12.8	40.1

Table 124: FAO — Demand—Bioenergy—Secondary products (Mt DM/yr)

4.4.1 Ethanol



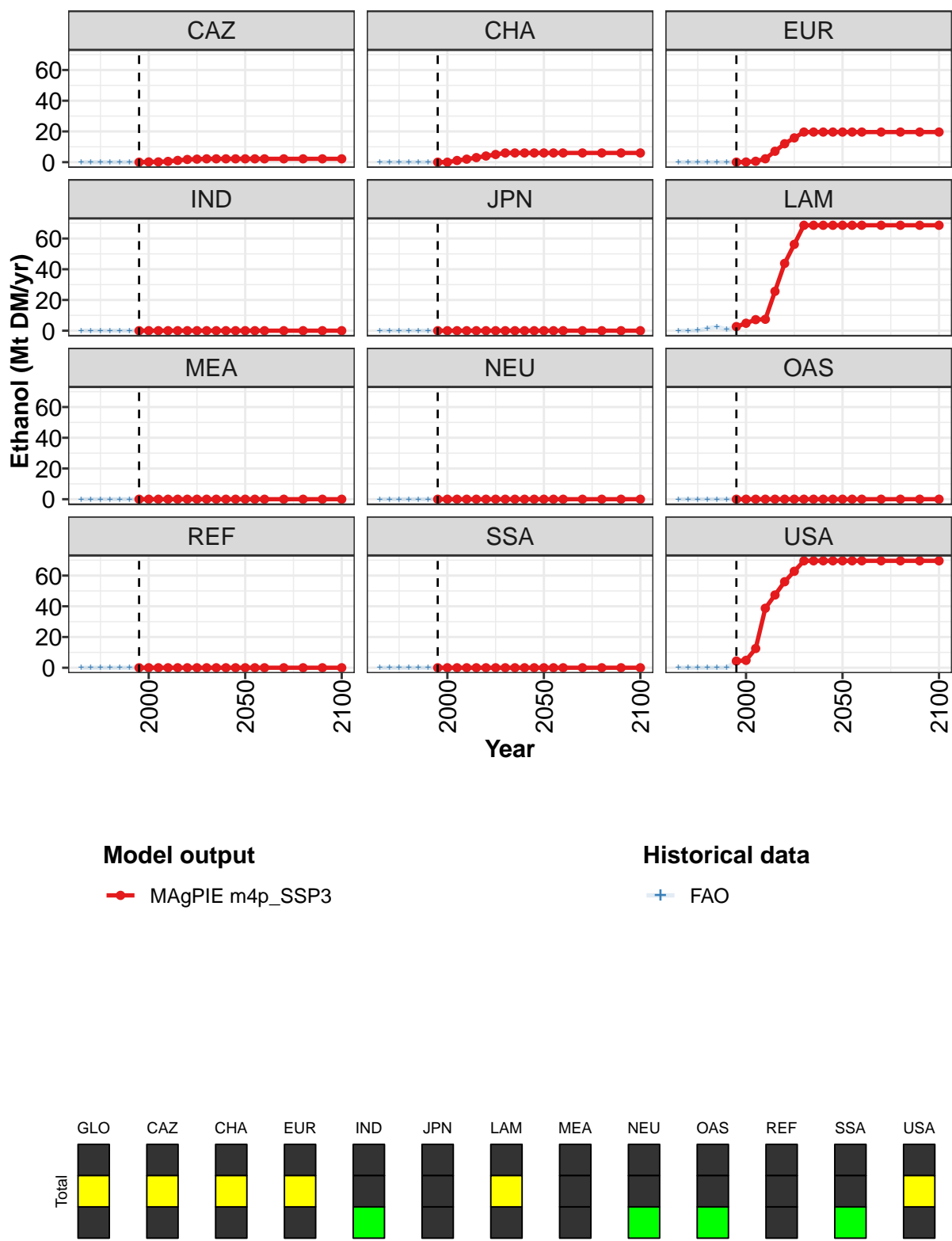


Figure 42: MAgPIE m4p_SSP3 — Demand—Bioenergy—Secondary products—Ethanol (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7	10	22	51	84	118	142	166	166	166	166
CAZ	0	0	0	1	1	2	2	2	2	2	2
CHA	0	0	1	2	3	4	5	6	6	6	6
EUR	0	0	1	2	7	12	16	20	20	20	20
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	3	5	7	7	26	44	56	69	69	69	69
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	4	5	13	39	47	56	63	70	70	70	70

Table 125: MAgPIE m4p-SSP3 — Demand—Bioenergy—Secondary products—Ethanol (Mt DM/yr) [PART 1/2]

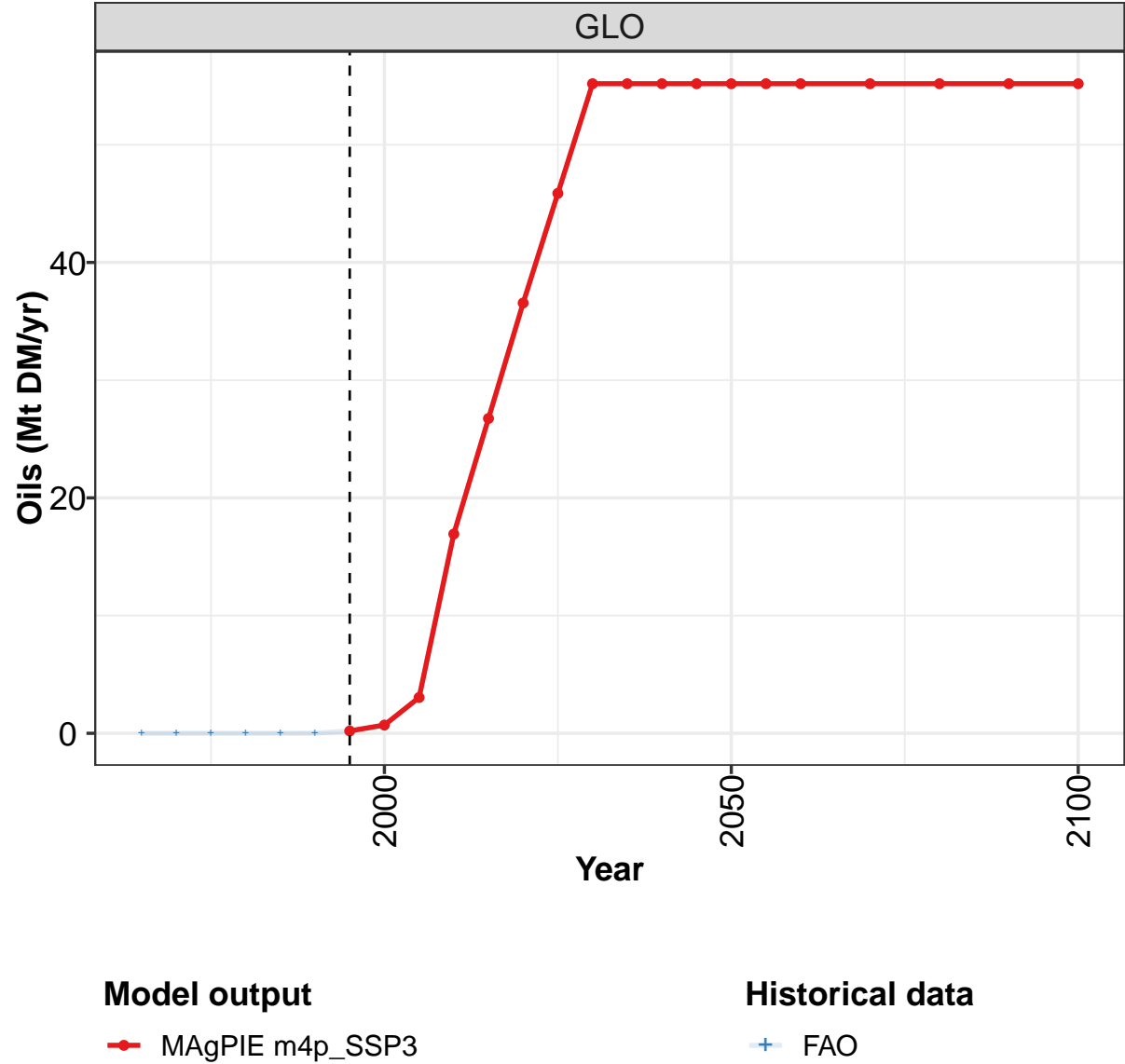
	2050	2055	2060	2070	2080	2090	2100
GLO	166	166	166	166	166	166	166
CAZ	2	2	2	2	2	2	2
CHA	6	6	6	6	6	6	6
EUR	20	20	20	20	20	20	20
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	69	69	69	69	69	69	69
MEA	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0
USA	70	70	70	70	70	70	70

Table 126: MAgPIE m4p-SSP3 — Demand—Bioenergy—Secondary products—Ethanol (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.1	1.5	2.7	0.7	7.0	9.9	21.6	50.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.5
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	2.2
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.1	1.5	2.7	0.7	2.6	4.8	7.2	7.4
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.8	12.5	38.7

Table 127: FAO — Demand—Bioenergy—Secondary products—Ethanol (Mt DM/yr)

4.4.2 Oils



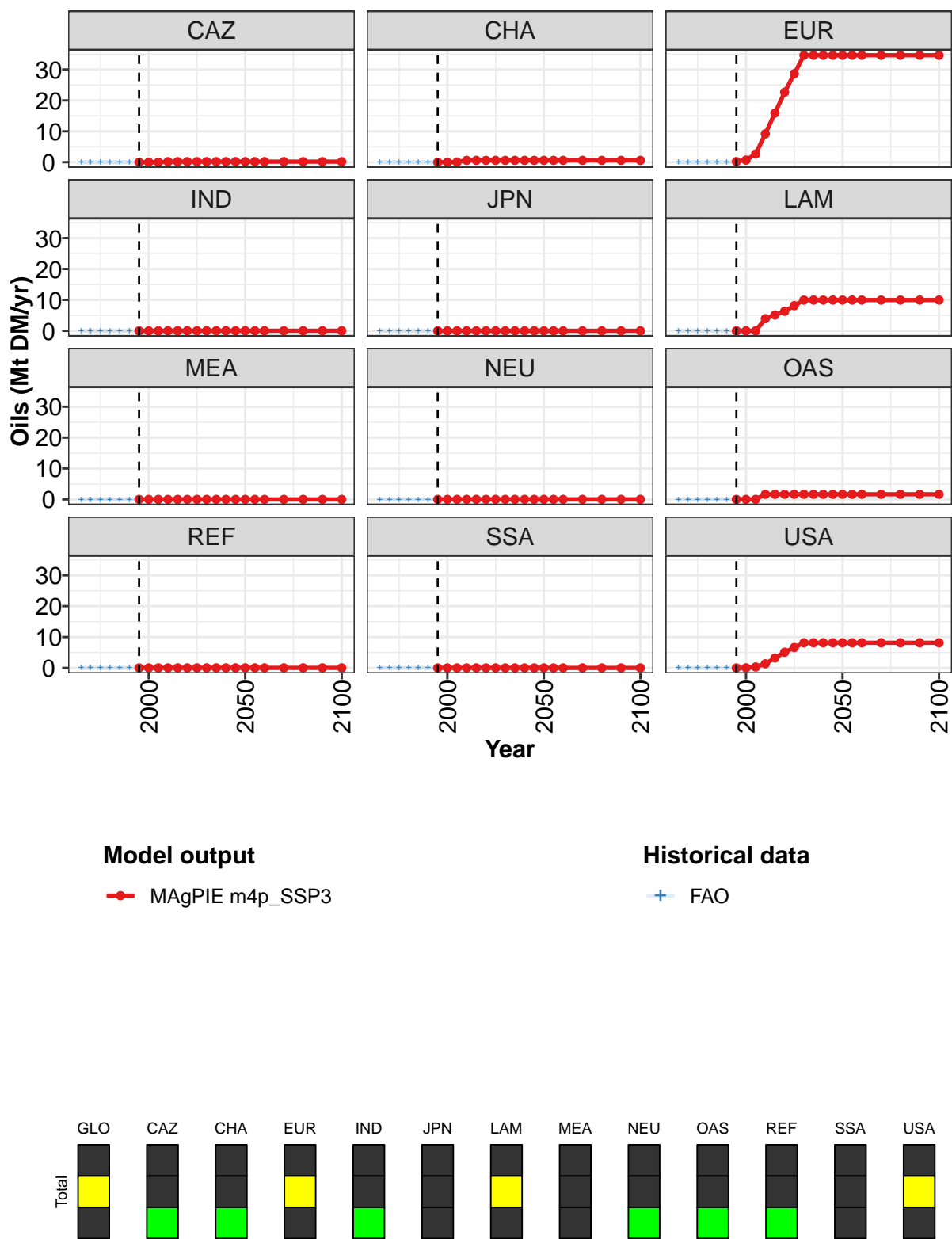


Figure 43: MAgPIE m4p_SSP3 — Demand—Bioenergy—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.2	0.7	3.0	16.9	26.7	36.6	45.9	55.2	55.2	55.2	55.2
CAZ	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EUR	0.2	0.7	2.6	9.2	15.9	22.7	28.6	34.6	34.6	34.6	34.6
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	3.9	5.1	6.3	8.1	10.0	10.0	10.0	10.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.0	0.0	0.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.3	1.3	3.2	5.1	6.6	8.1	8.1	8.1	8.1

Table 128: MAgPIE m4p_SSP3 — Demand—Bioenergy—Secondary products—Oils (Mt DM/yr) [PART 1/2]

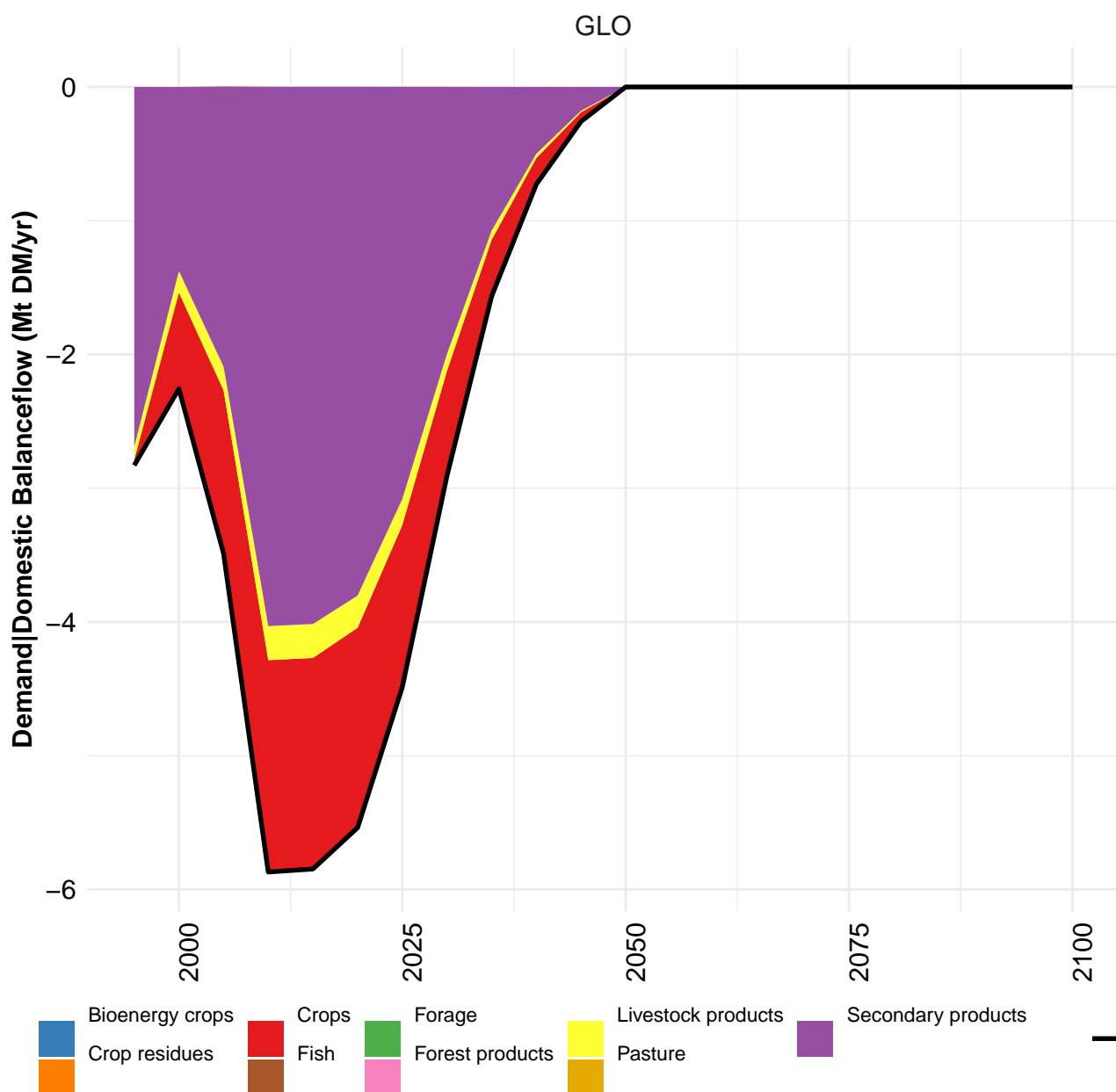
	2050	2055	2060	2070	2080	2090	2100
GLO	55.2	55.2	55.2	55.2	55.2	55.2	55.2
CAZ	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EUR	34.6	34.6	34.6	34.6	34.6	34.6	34.6
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	1.7	1.7	1.7	1.7	1.7	1.7	1.7
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	8.1	8.1	8.1	8.1	8.1	8.1	8.1

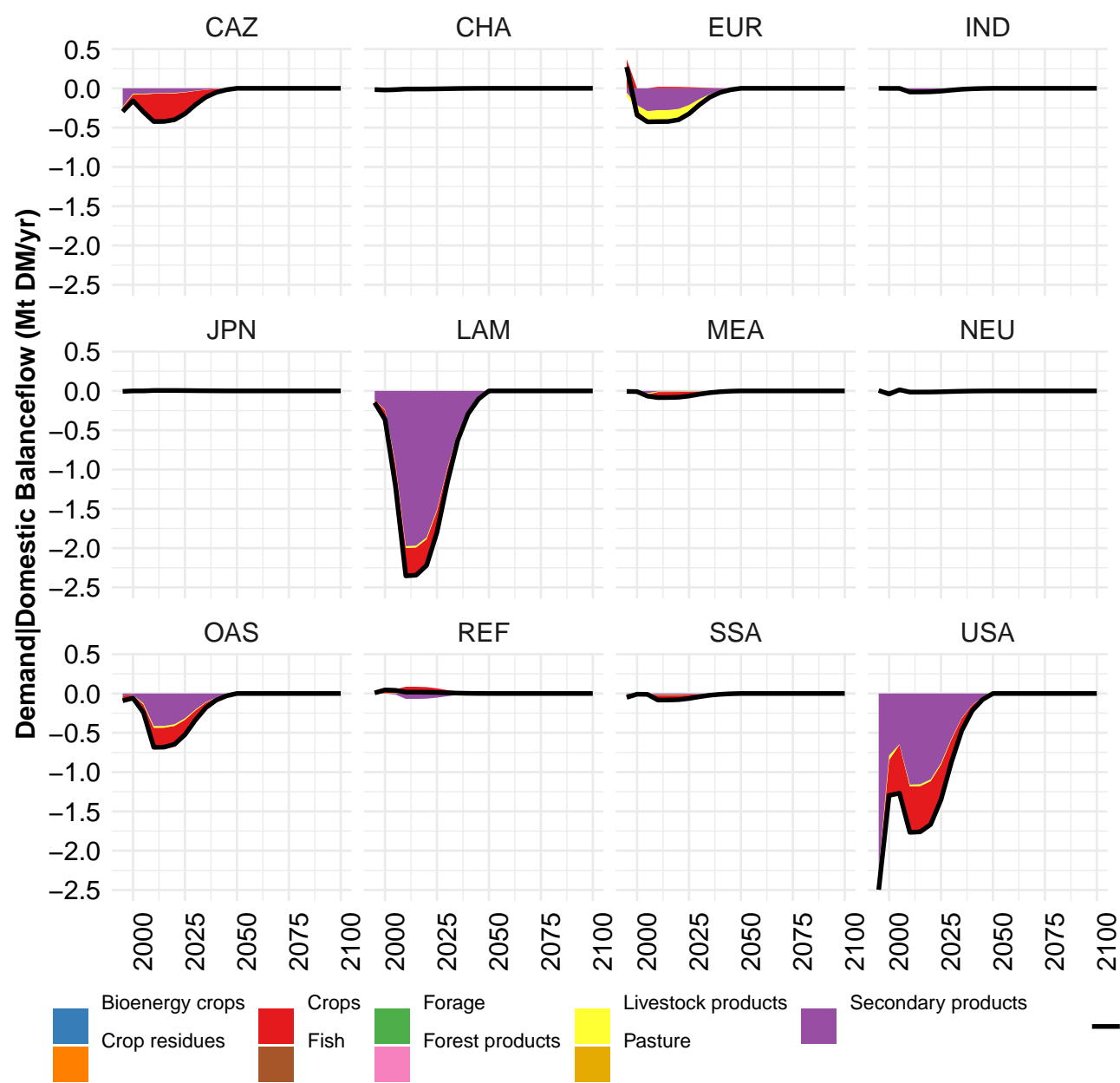
Table 129: MAgPIE m4p_SSP3 — Demand—Bioenergy—Secondary products—Oils (Mt DM/yr) [PART 2/2]

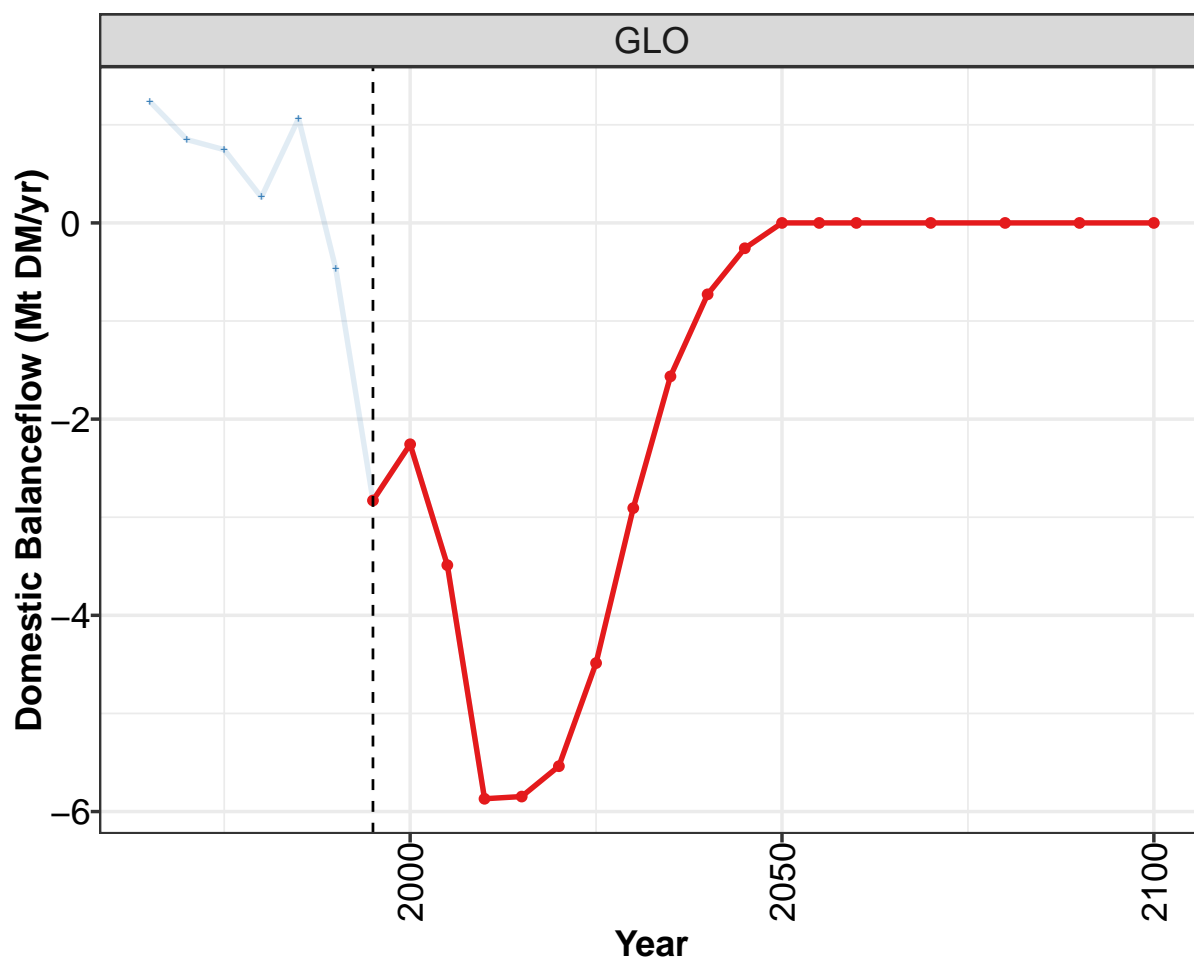
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	3.0	16.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	2.6	9.2
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3

Table 130: FAO — Demand—Bioenergy—Secondary products—Oils (Mt DM/yr)

5 Domestic Balanceflow





**Model output**

—●— MAgPIE m4p_SSP3

Historical data

—+— FAO

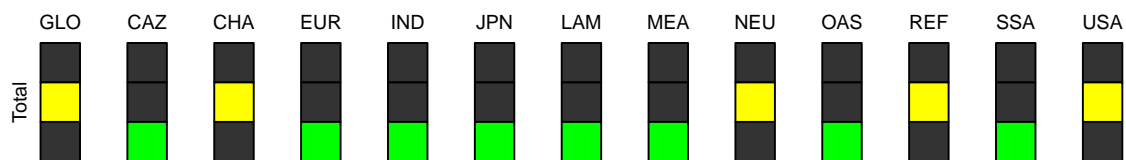
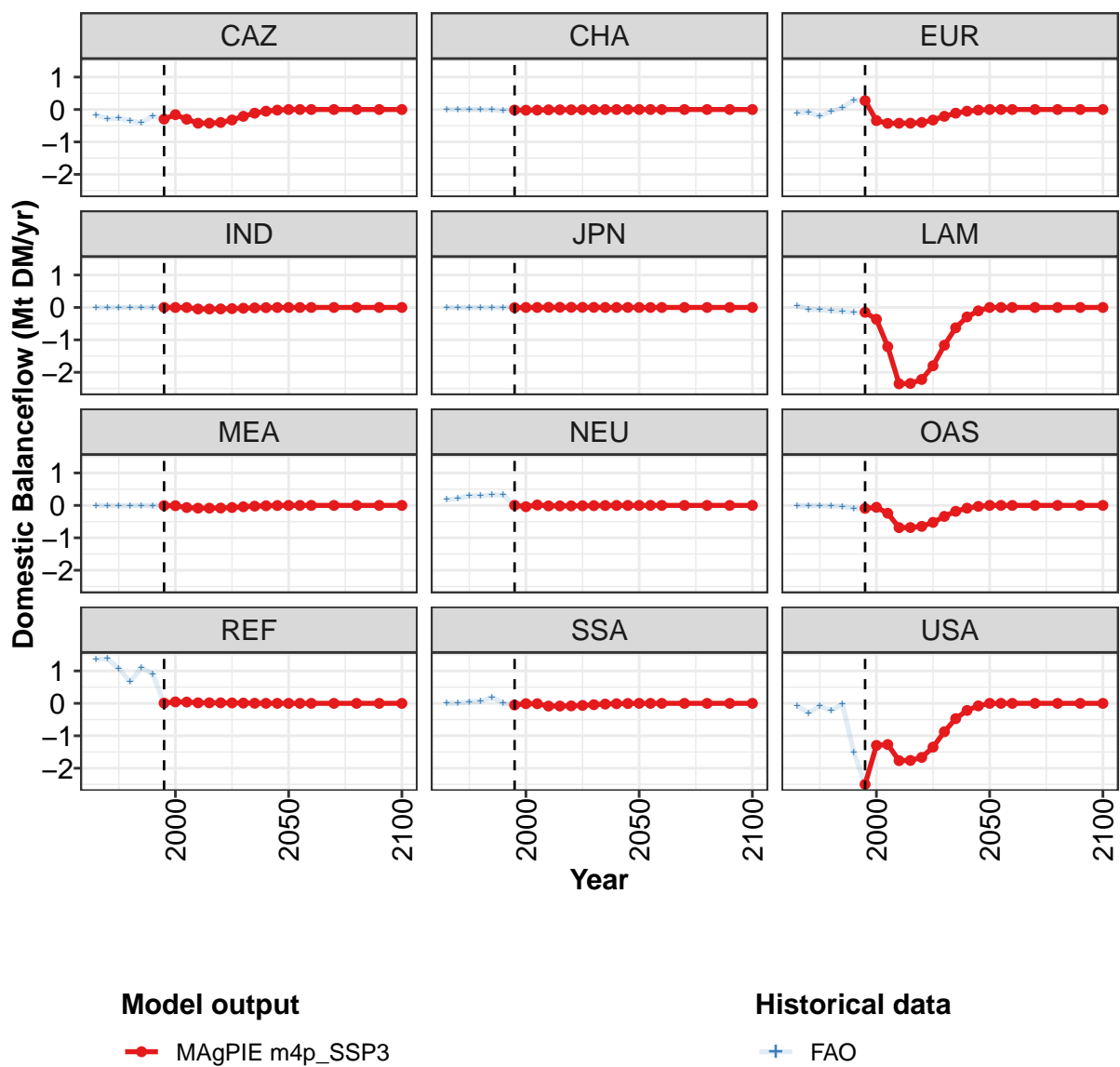


Figure 44: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-2.829	-2.256	-3.488	-5.870	-5.847	-5.538	-4.486	-2.907	-1.564	-0.728	-0.258
CAZ	-0.296	-0.159	-0.300	-0.423	-0.421	-0.399	-0.324	-0.210	-0.113	-0.052	-0.019
CHA	-0.017	-0.021	-0.018	-0.009	-0.009	-0.009	-0.007	-0.004	-0.002	-0.001	-0.000
EUR	0.272	-0.341	-0.427	-0.424	-0.423	-0.400	-0.324	-0.210	-0.113	-0.053	-0.019
IND	0.000	-0.001	-0.001	-0.047	-0.047	-0.044	-0.036	-0.023	-0.013	-0.006	-0.002
JPN	-0.006	-0.000	-0.000	0.005	0.005	0.005	0.004	0.003	0.002	0.001	0.000
LAM	-0.150	-0.365	-1.209	-2.354	-2.345	-2.220	-1.799	-1.166	-0.627	-0.291	-0.104
MEA	-0.006	-0.009	-0.066	-0.085	-0.085	-0.081	-0.065	-0.042	-0.023	-0.011	-0.004
NEU	0.005	-0.040	0.014	-0.015	-0.015	-0.014	-0.011	-0.007	-0.004	-0.002	-0.001
OAS	-0.092	-0.059	-0.242	-0.685	-0.682	-0.646	-0.524	-0.339	-0.183	-0.085	-0.030
REF	0.008	0.045	0.040	0.017	0.017	0.016	0.013	0.009	0.005	0.002	0.001
SSA	-0.050	-0.009	-0.011	-0.083	-0.083	-0.078	-0.064	-0.041	-0.022	-0.010	-0.004
USA	-2.498	-1.297	-1.269	-1.767	-1.760	-1.667	-1.350	-0.875	-0.471	-0.219	-0.078

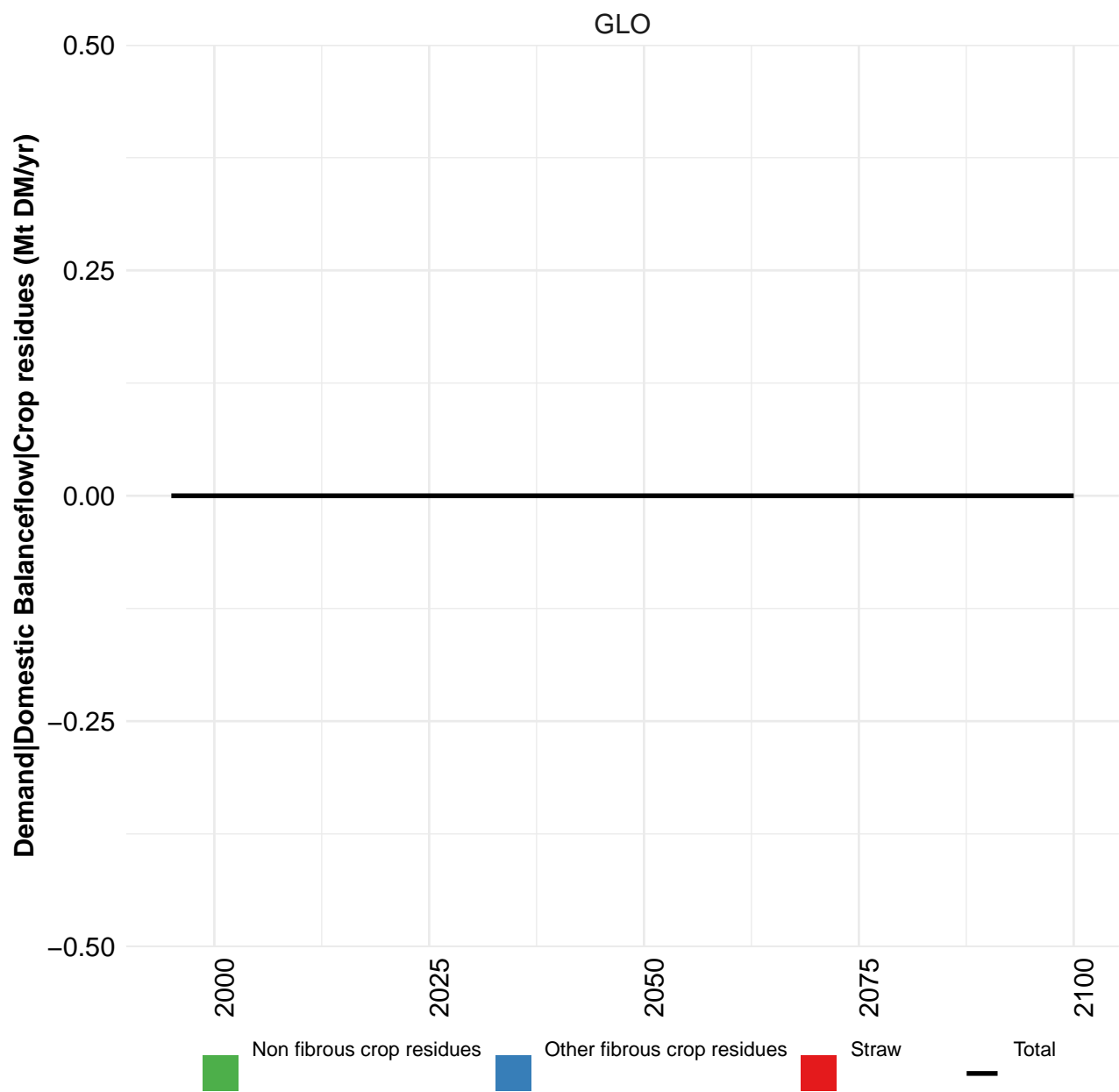
Table 131: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow (Mt DM/yr) [PART 1/2]

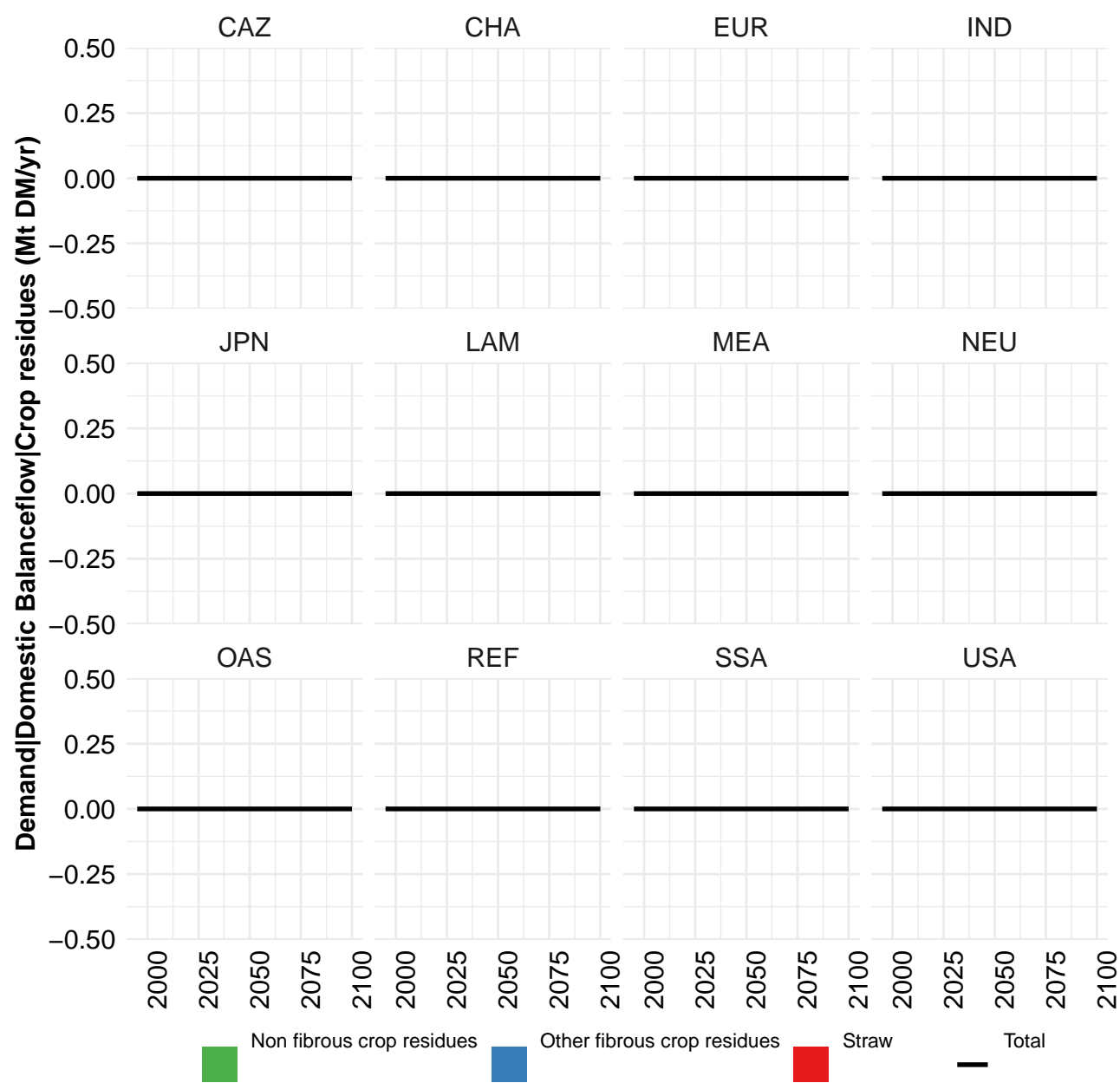
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

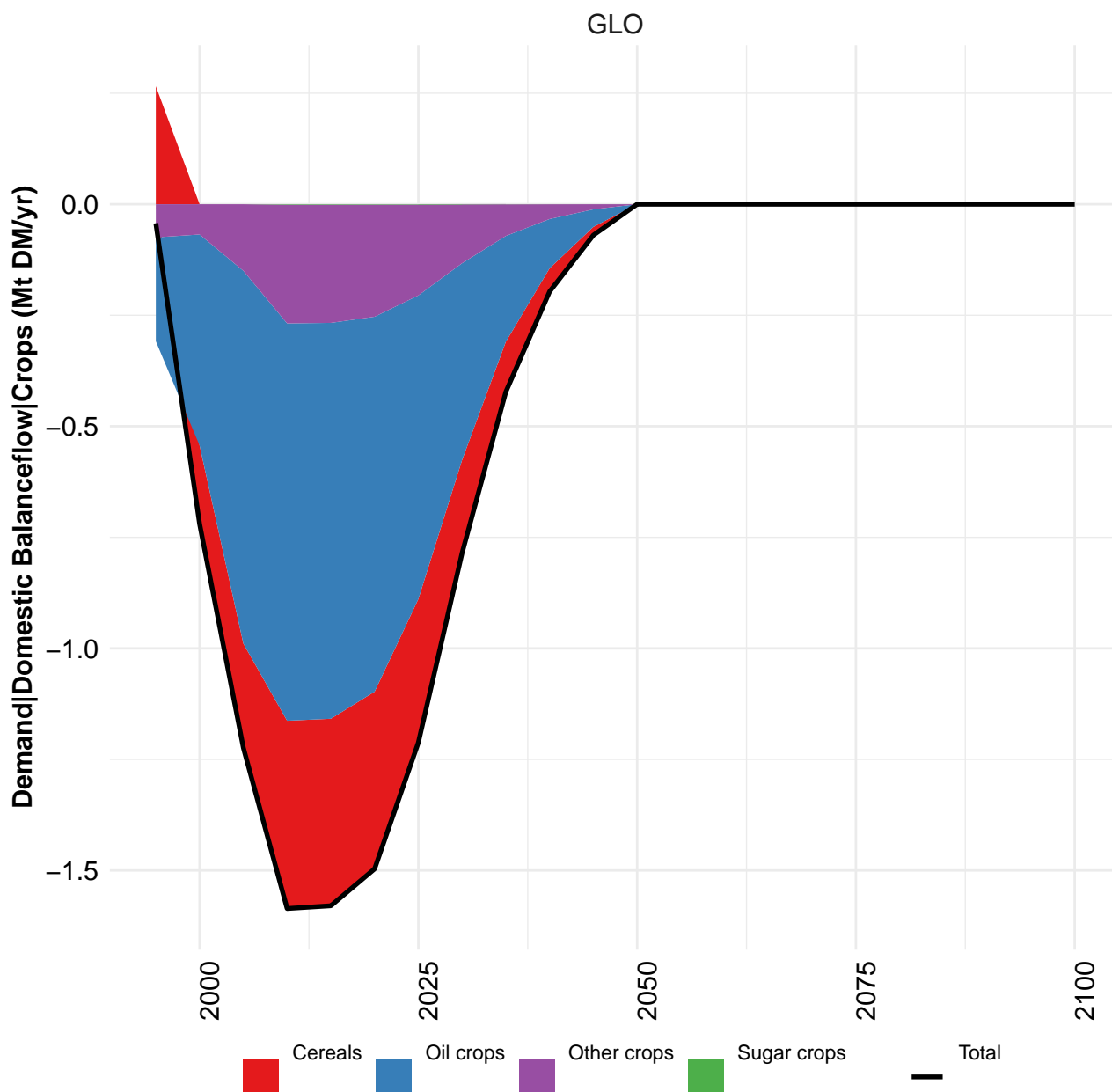
Table 132: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow (Mt DM/yr) [PART 2/2]

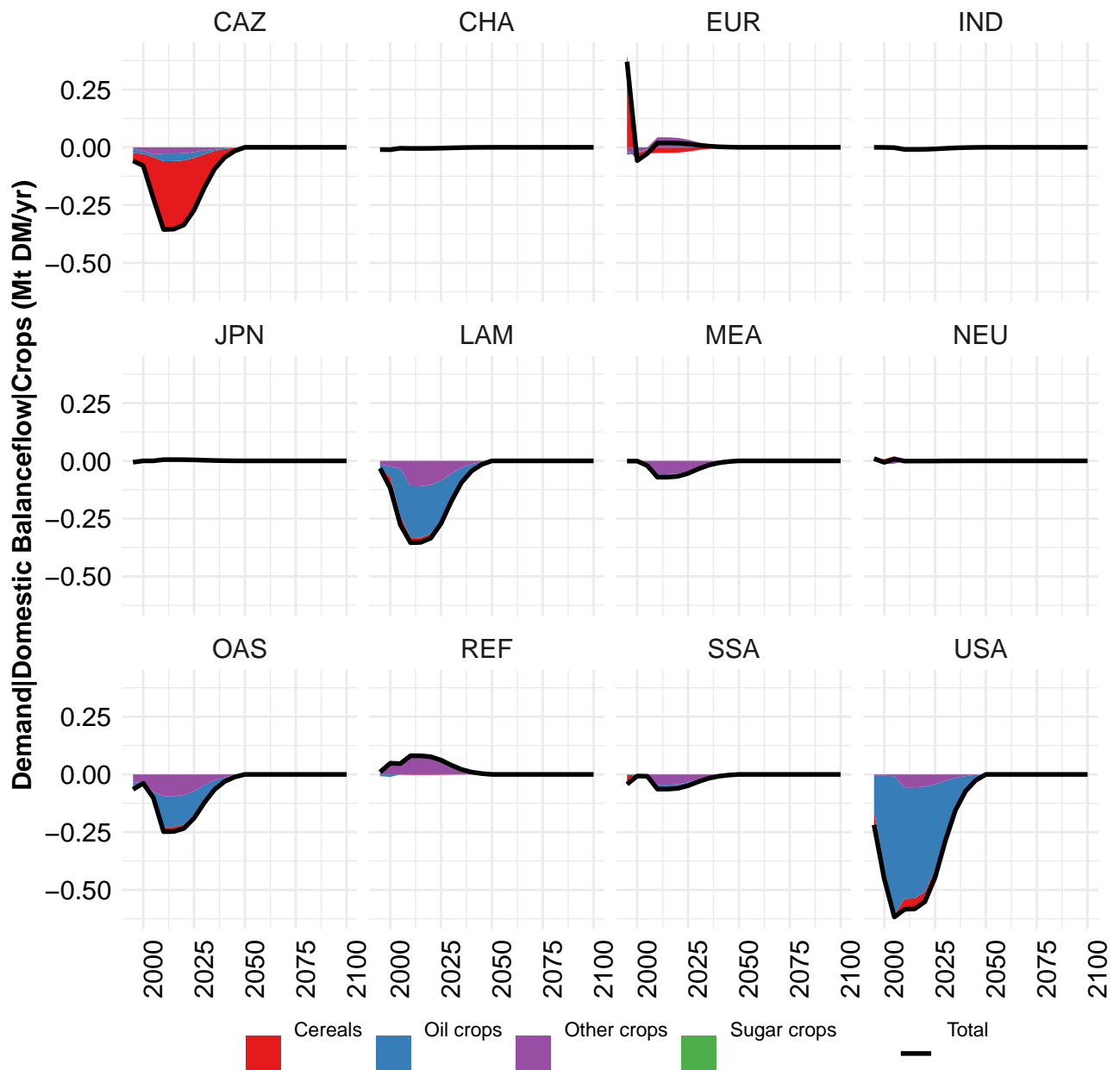
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.24	0.85	0.75	0.26	1.06	-0.47	-2.83	-2.26	-3.49	-5.87
CAZ	-0.17	-0.29	-0.27	-0.35	-0.42	-0.20	-0.30	-0.16	-0.30	-0.42
CHA	-0.00	-0.00	-0.00	-0.00	-0.00	-0.04	-0.02	-0.02	-0.02	-0.01
EUR	-0.10	-0.08	-0.21	-0.06	0.05	0.30	0.27	-0.34	-0.43	-0.42
IND	0.00	0.00	-0.00	-0.00	-0.00	0.00	0.00	-0.00	-0.00	-0.05
JPN	-0.00	-0.01	-0.01	-0.00	-0.01	-0.01	-0.01	-0.00	-0.00	0.01
LAM	0.06	-0.06	-0.07	-0.10	-0.12	-0.15	-0.15	-0.36	-1.21	-2.35
MEA	-0.00	-0.00	-0.02	-0.01	-0.00	-0.01	-0.01	-0.01	-0.07	-0.09
NEU	0.18	0.21	0.30	0.29	0.32	0.32	0.01	-0.04	0.01	-0.01
OAS	-0.00	-0.00	-0.01	-0.02	-0.03	-0.09	-0.09	-0.06	-0.24	-0.69
REF	1.36	1.38	1.07	0.67	1.10	0.91	0.01	0.04	0.04	0.02
SSA	0.00	0.00	0.05	0.06	0.19	0.00	-0.05	-0.01	-0.01	-0.08
USA	-0.08	-0.29	-0.09	-0.22	-0.03	-1.50	-2.50	-1.30	-1.27	-1.77

Table 133: FAO — Demand—Domestic Balanceflow (Mt DM/yr)

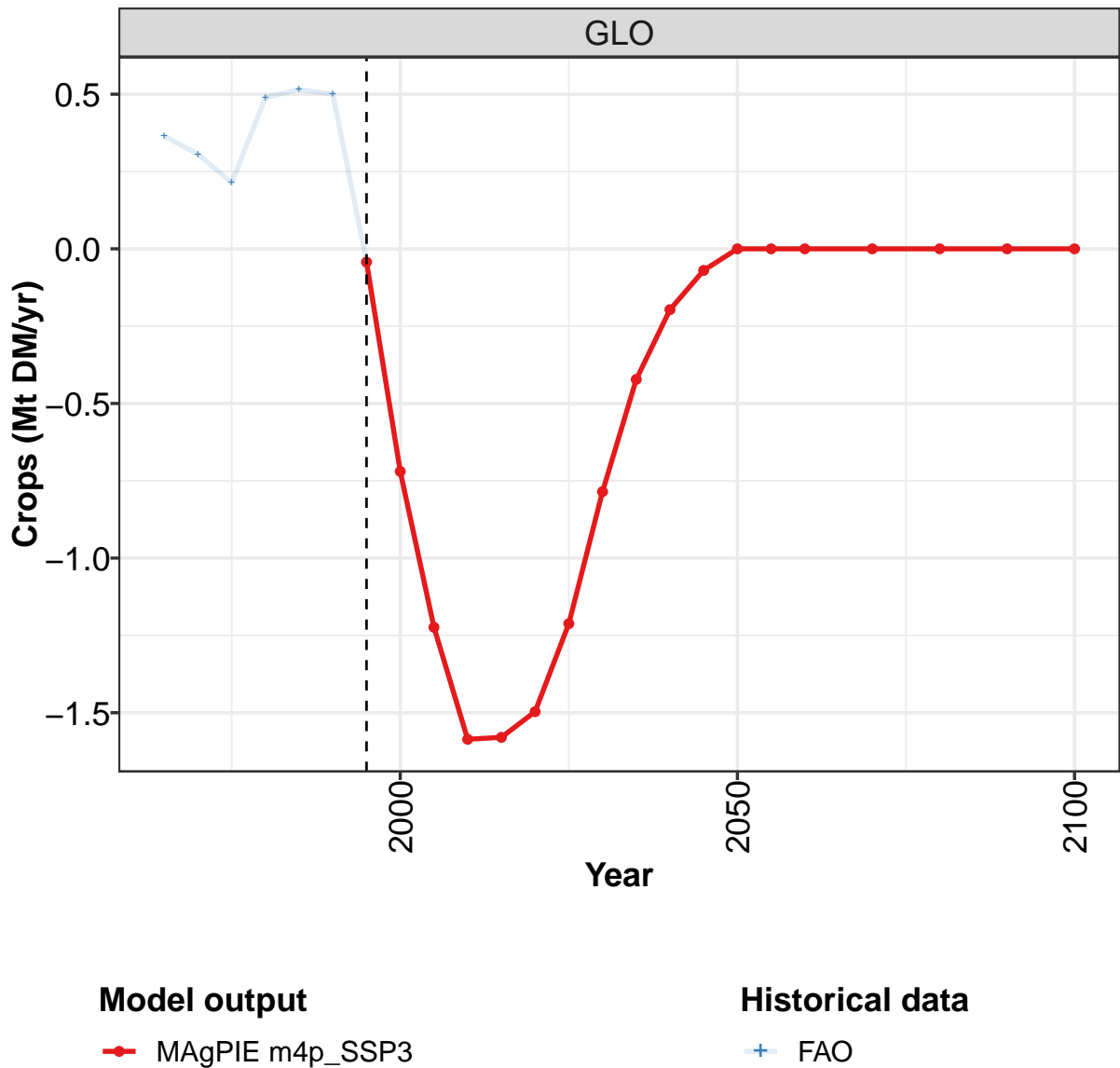








5.1 Crops



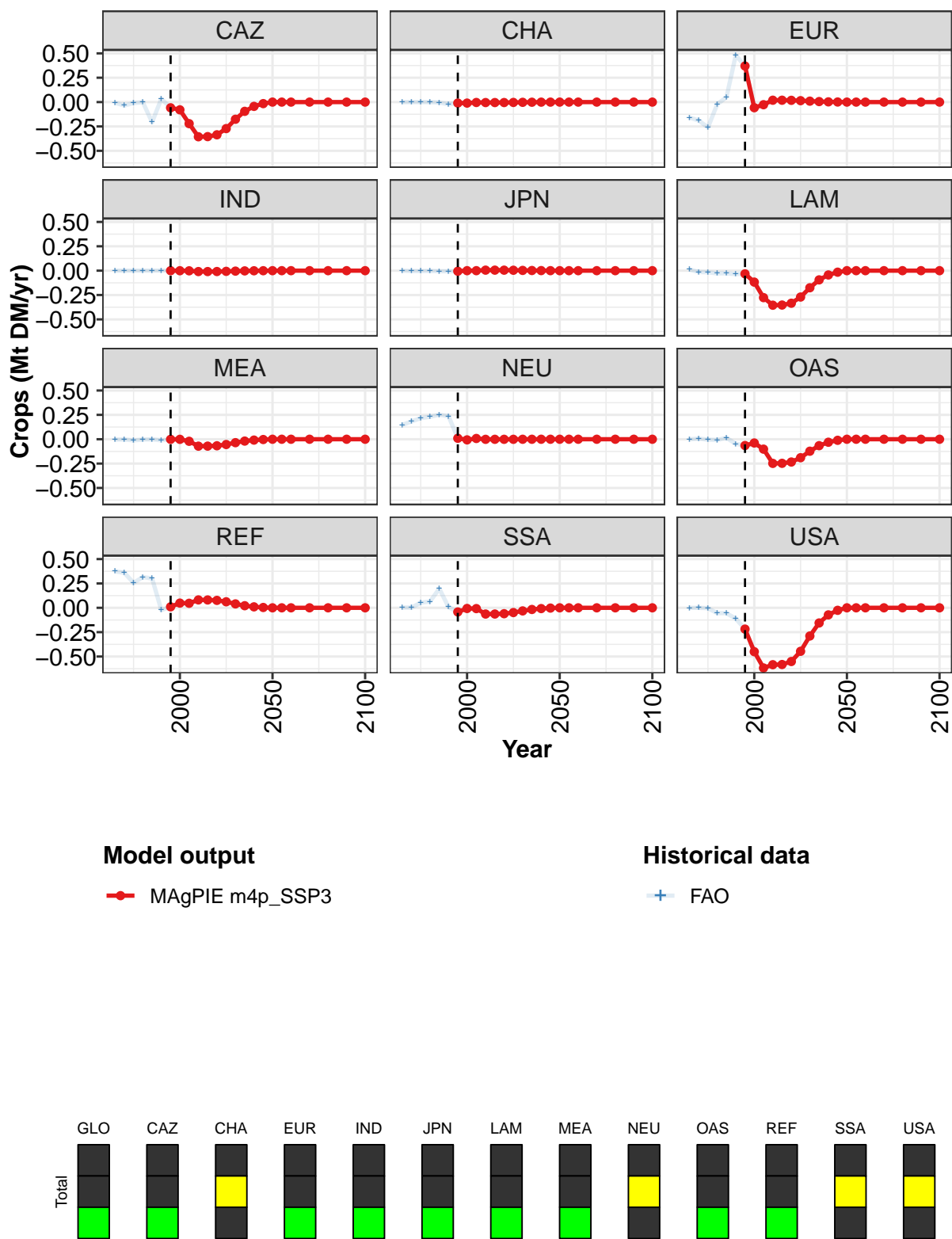


Figure 45: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.043	-0.720	-1.224	-1.586	-1.580	-1.496	-1.212	-0.785	-0.422	-0.197	-0.070
CAZ	-0.059	-0.080	-0.221	-0.356	-0.354	-0.336	-0.272	-0.176	-0.095	-0.044	-0.016
CHA	-0.010	-0.010	-0.004	-0.005	-0.005	-0.005	-0.004	-0.002	-0.001	-0.001	-0.000
EUR	0.370	-0.058	-0.027	0.019	0.019	0.018	0.015	0.010	0.005	0.002	0.001
IND	-0.000	-0.001	-0.002	-0.009	-0.009	-0.009	-0.007	-0.005	-0.002	-0.001	-0.000
JPN	-0.006	0.000	0.000	0.005	0.005	0.005	0.004	0.003	0.002	0.001	0.000
LAM	-0.032	-0.117	-0.277	-0.354	-0.353	-0.334	-0.271	-0.176	-0.094	-0.044	-0.016
MEA	-0.001	-0.001	-0.021	-0.071	-0.071	-0.067	-0.054	-0.035	-0.019	-0.009	-0.003
NEU	0.010	-0.006	0.008	-0.001	-0.001	-0.001	-0.001	-0.000	-0.000	-0.000	0.000
OAS	-0.065	-0.038	-0.102	-0.248	-0.247	-0.234	-0.190	-0.123	-0.066	-0.031	-0.011
REF	0.010	0.048	0.047	0.081	0.081	0.076	0.062	0.040	0.021	0.010	0.004
SSA	-0.043	-0.007	-0.008	-0.064	-0.064	-0.060	-0.049	-0.032	-0.017	-0.008	-0.003
USA	-0.218	-0.450	-0.617	-0.584	-0.582	-0.551	-0.446	-0.289	-0.156	-0.072	-0.026

Table 134: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops (Mt DM/yr) [PART 1/2]

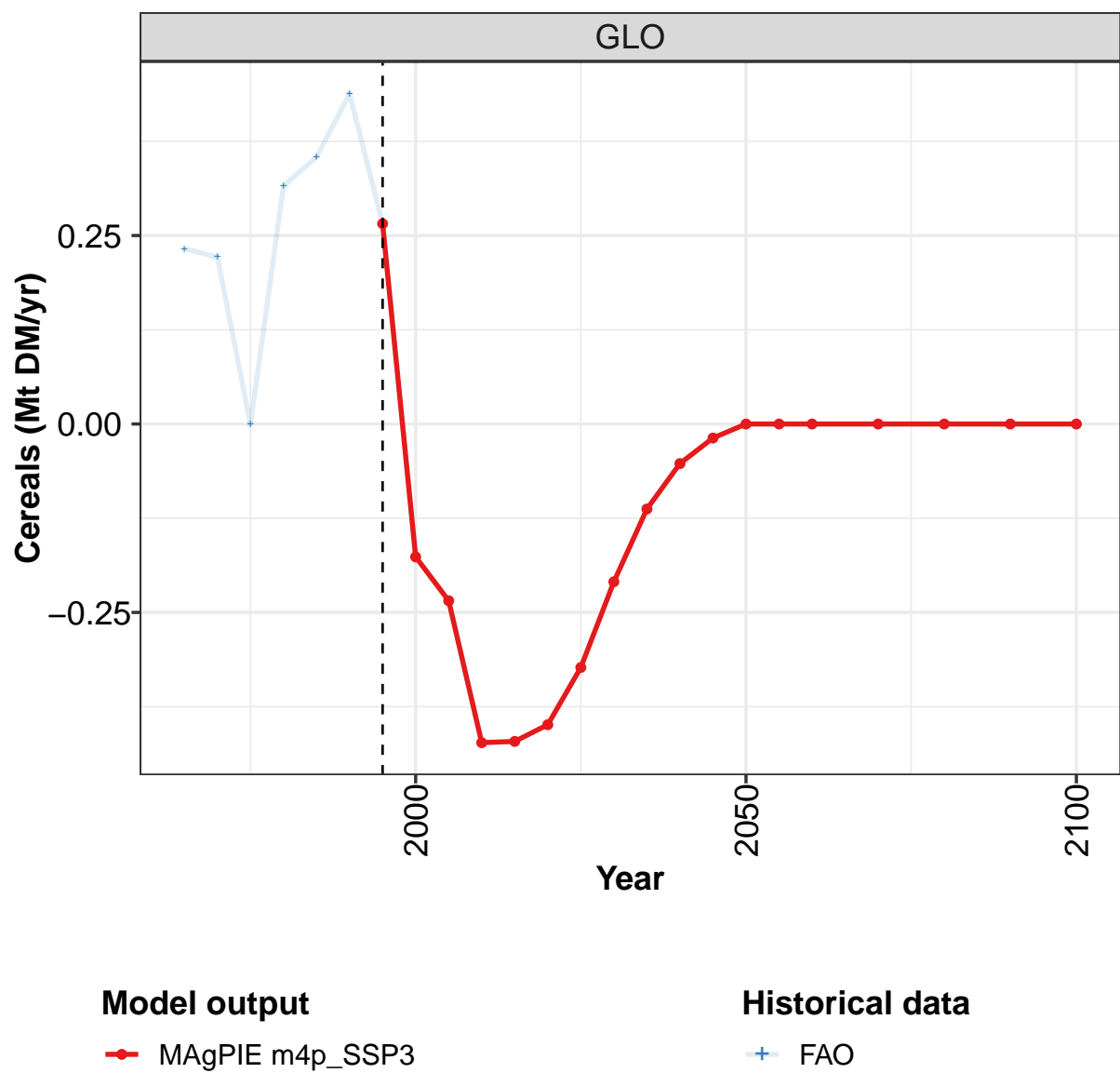
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 135: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.364	0.305	0.214	0.489	0.515	0.500	-0.043	-0.720	-1.224	-1.586
CAZ	-0.007	-0.035	-0.010	-0.001	-0.206	0.033	-0.059	-0.079	-0.221	-0.356
CHA	-0.001	0.000	-0.000	-0.000	-0.004	-0.022	-0.010	-0.010	-0.004	-0.005
EUR	-0.158	-0.189	-0.260	-0.022	0.050	0.480	0.370	-0.058	-0.027	0.019
IND	0.000	0.000	-0.000	0.000	0.000	0.001	-0.000	-0.001	-0.002	-0.009
JPN	0.000	-0.004	-0.004	-0.003	-0.005	-0.006	-0.006	0.000	0.000	0.005
LAM	0.012	-0.014	-0.017	-0.028	-0.028	-0.036	-0.032	-0.117	-0.277	-0.354
MEA	-0.004	-0.003	-0.011	-0.003	-0.001	-0.011	-0.001	-0.001	-0.021	-0.071
NEU	0.146	0.183	0.216	0.230	0.252	0.236	0.010	-0.006	0.008	-0.001
OAS	-0.001	0.006	-0.004	-0.008	0.015	-0.048	-0.065	-0.039	-0.102	-0.248
REF	0.375	0.359	0.256	0.315	0.301	-0.024	0.010	0.048	0.047	0.081
SSA	0.003	0.002	0.052	0.065	0.197	0.008	-0.043	-0.007	-0.008	-0.064
USA	-0.001	-0.000	-0.004	-0.055	-0.055	-0.111	-0.218	-0.450	-0.617	-0.584

Table 136: FAO — Demand—Domestic Balanceflow—Crops (Mt DM/yr)

5.1.1 *Cereals*



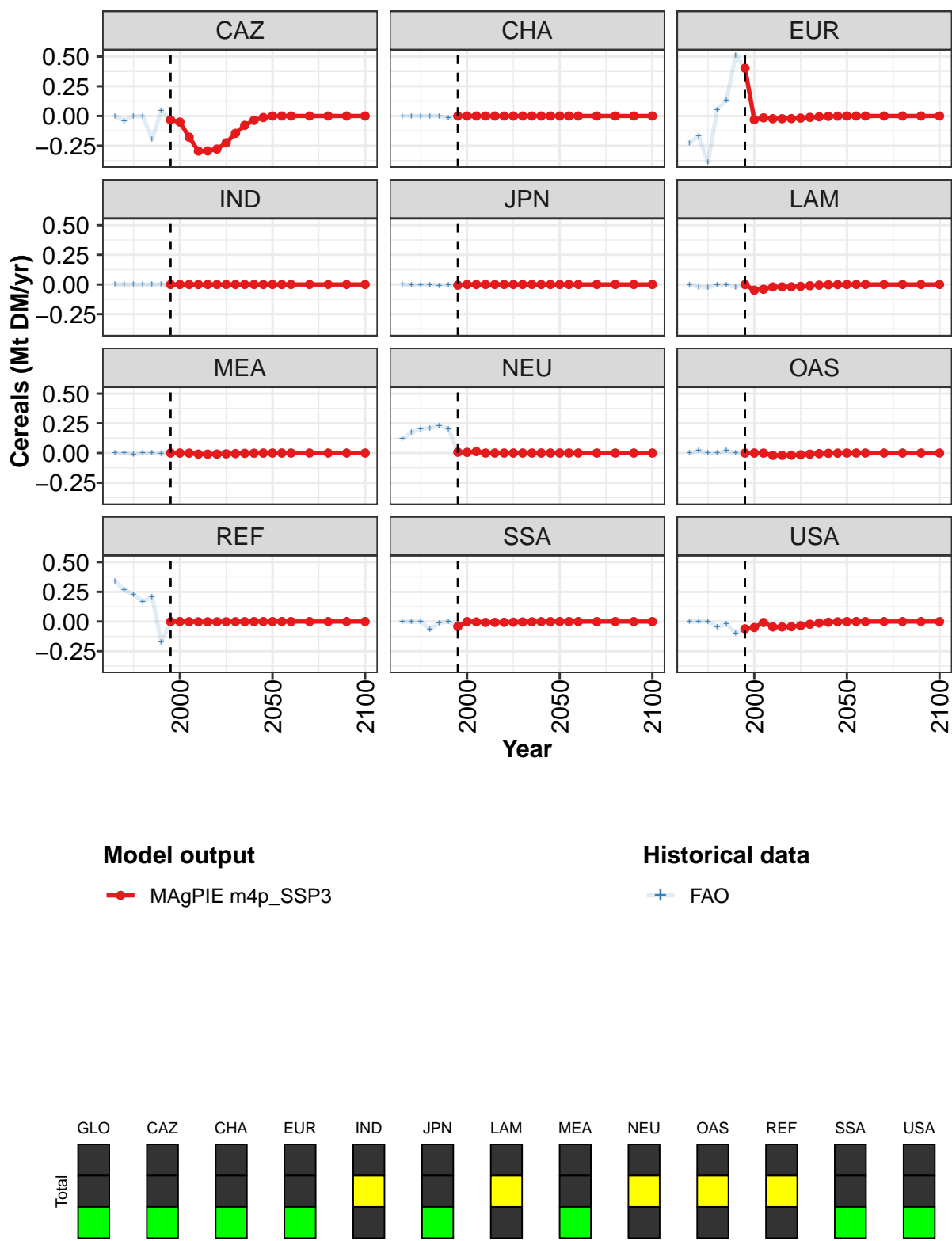


Figure 46: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.266	-0.176	-0.234	-0.423	-0.421	-0.399	-0.323	-0.209	-0.113	-0.052	-0.019
CAZ	-0.033	-0.051	-0.178	-0.295	-0.294	-0.279	-0.226	-0.146	-0.079	-0.037	-0.013
CHA	0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	0.000	0.000
EUR	0.403	-0.032	-0.015	-0.023	-0.023	-0.022	-0.018	-0.011	-0.006	-0.003	-0.001
IND	0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	0.000	0.000	0.000
JPN	-0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	-0.001	-0.048	-0.040	-0.021	-0.020	-0.019	-0.016	-0.010	-0.005	-0.003	-0.001
MEA	0.000	-0.000	-0.001	-0.009	-0.009	-0.009	-0.007	-0.005	-0.003	-0.001	-0.000
NEU	0.007	0.006	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	-0.000	0.000	-0.001	-0.019	-0.019	-0.018	-0.015	-0.010	-0.005	-0.002	-0.001
REF	-0.001	0.000	-0.001	-0.002	-0.002	-0.002	-0.002	-0.001	-0.001	-0.000	-0.000
SSA	-0.042	-0.001	-0.003	-0.007	-0.007	-0.007	-0.005	-0.003	-0.002	-0.001	-0.000
USA	-0.061	-0.051	-0.008	-0.045	-0.045	-0.043	-0.035	-0.023	-0.012	-0.006	-0.002

Table 137: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals (Mt DM/yr) [PART 1/2]

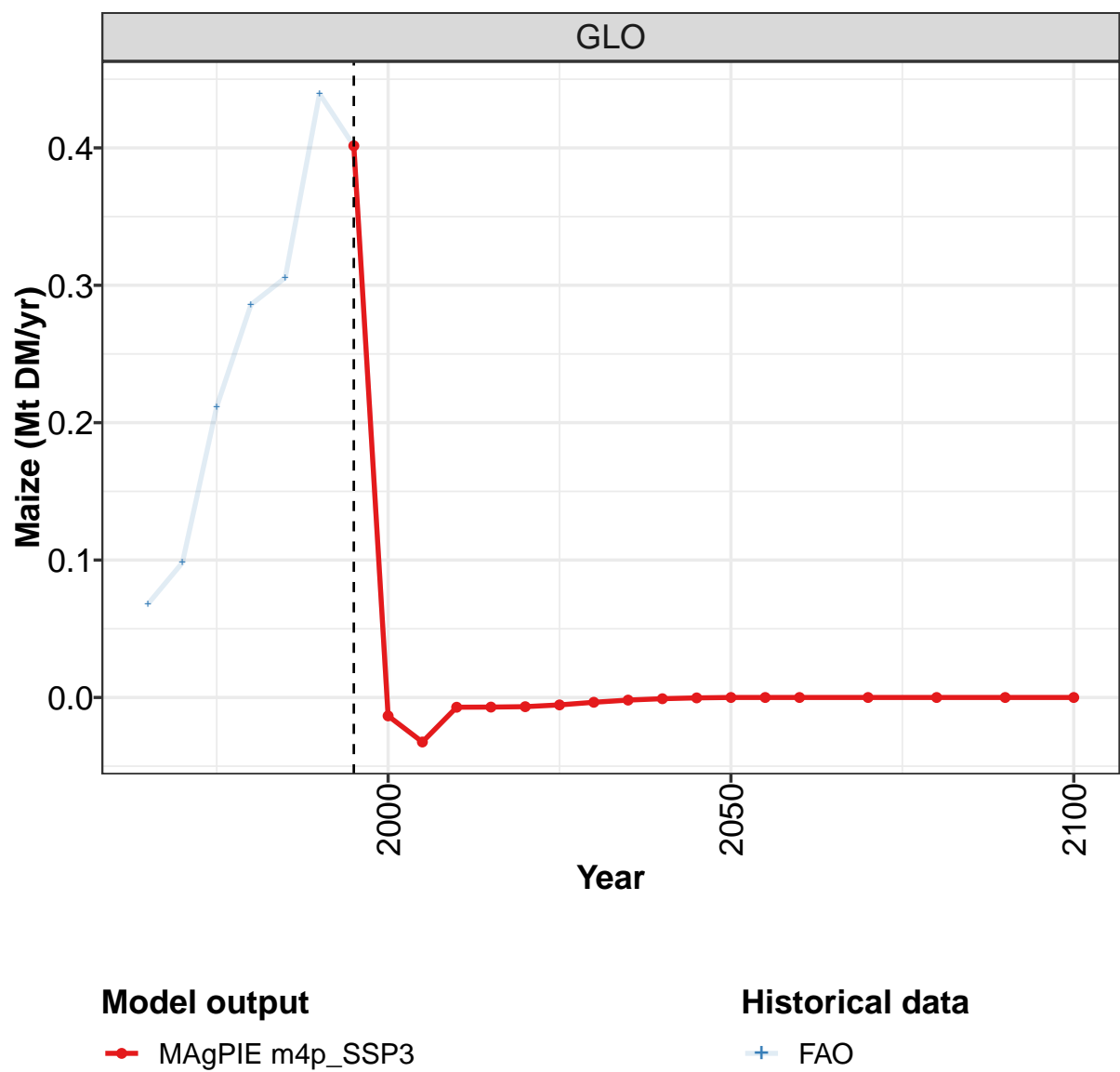
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 138: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.232	0.221	-0.001	0.316	0.354	0.438	0.266	-0.176	-0.234	-0.423
CAZ	0.000	-0.040	-0.001	-0.000	-0.195	0.045	-0.033	-0.051	-0.178	-0.295
CHA	0.000	0.000	0.000	0.000	-0.001	-0.018	0.000	-0.000	0.000	-0.000
EUR	-0.227	-0.169	-0.389	0.054	0.134	0.511	0.403	-0.031	-0.015	-0.023
IND	0.000	0.000	0.000	0.000	0.000	0.001	0.000	-0.000	-0.000	-0.000
JPN	0.000	-0.004	-0.005	-0.003	-0.007	-0.006	-0.006	0.000	0.000	0.000
LAM	-0.000	-0.021	-0.026	-0.003	-0.002	-0.021	-0.001	-0.048	-0.040	-0.021
MEA	-0.002	-0.000	-0.010	-0.001	-0.000	-0.005	0.000	-0.000	-0.001	-0.009
NEU	0.122	0.172	0.201	0.211	0.229	0.205	0.007	0.006	0.013	0.000
OAS	0.000	0.022	0.001	0.000	0.021	-0.000	-0.000	0.000	-0.001	-0.019
REF	0.340	0.265	0.229	0.168	0.209	-0.175	-0.001	0.000	-0.001	-0.002
SSA	-0.000	-0.003	-0.000	-0.067	-0.011	0.000	-0.042	-0.001	-0.003	-0.007
USA	0.000	0.000	0.000	-0.043	-0.021	-0.098	-0.061	-0.051	-0.008	-0.045

Table 139: FAO — Demand—Domestic Balanceflow—Crops—Cereals (Mt DM/yr)

5.1.2 Cereals—Maize



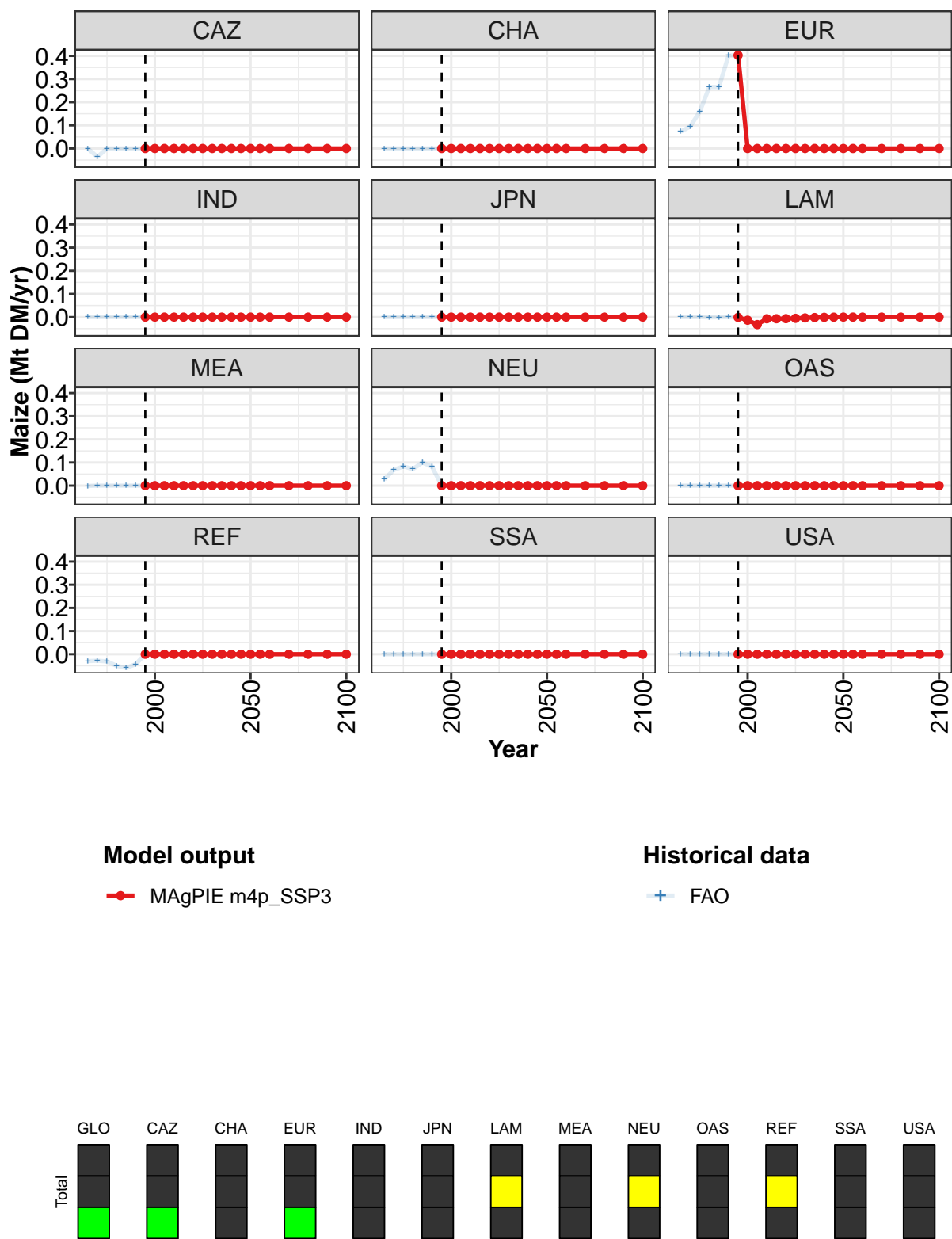


Figure 47: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.402	-0.013	-0.032	-0.007	-0.007	-0.007	-0.005	-0.004	-0.002	-0.001	-0.000
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.403	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	-0.001	-0.013	-0.032	-0.007	-0.007	-0.007	-0.005	-0.004	-0.002	-0.001	-0.000
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 140: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals—Maize (Mt DM/yr)
[PART 1/2]

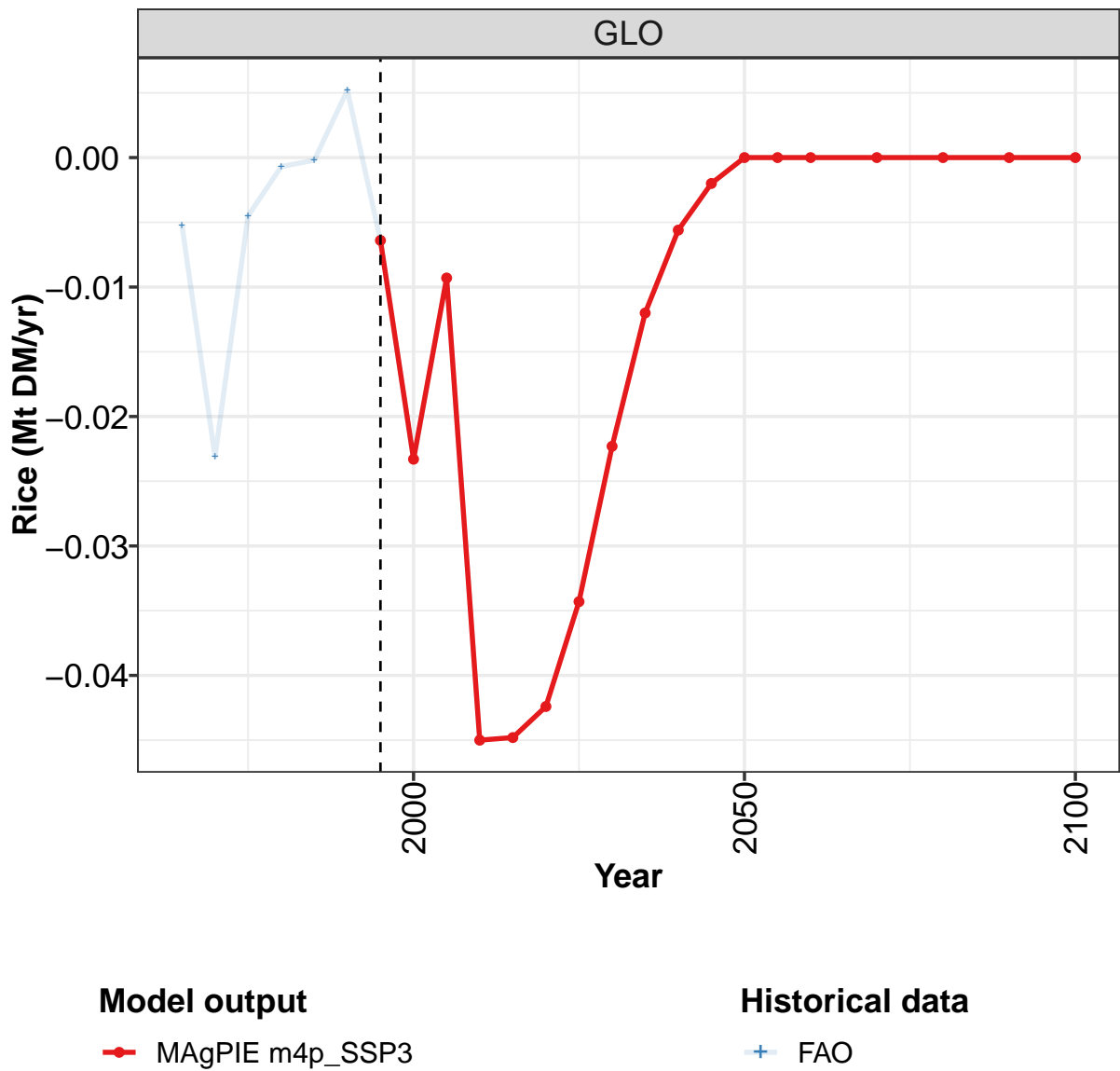
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 141: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals—Maize (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.068	0.098	0.212	0.286	0.305	0.439	0.402	-0.013	-0.032	-0.007
CAZ	0.000	-0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.073	0.095	0.159	0.265	0.266	0.401	0.403	0.000	0.000	0.000
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	-0.000	0.000	-0.001	-0.001	0.000	-0.001	-0.013	-0.032	-0.007
MEA	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.027	0.068	0.083	0.072	0.100	0.081	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	-0.030	-0.028	-0.031	-0.050	-0.059	-0.043	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 142: FAO — Demand—Domestic Balanceflow—Crops—Cereals—Maize (Mt DM/yr)

5.1.3 Cereals—Rice



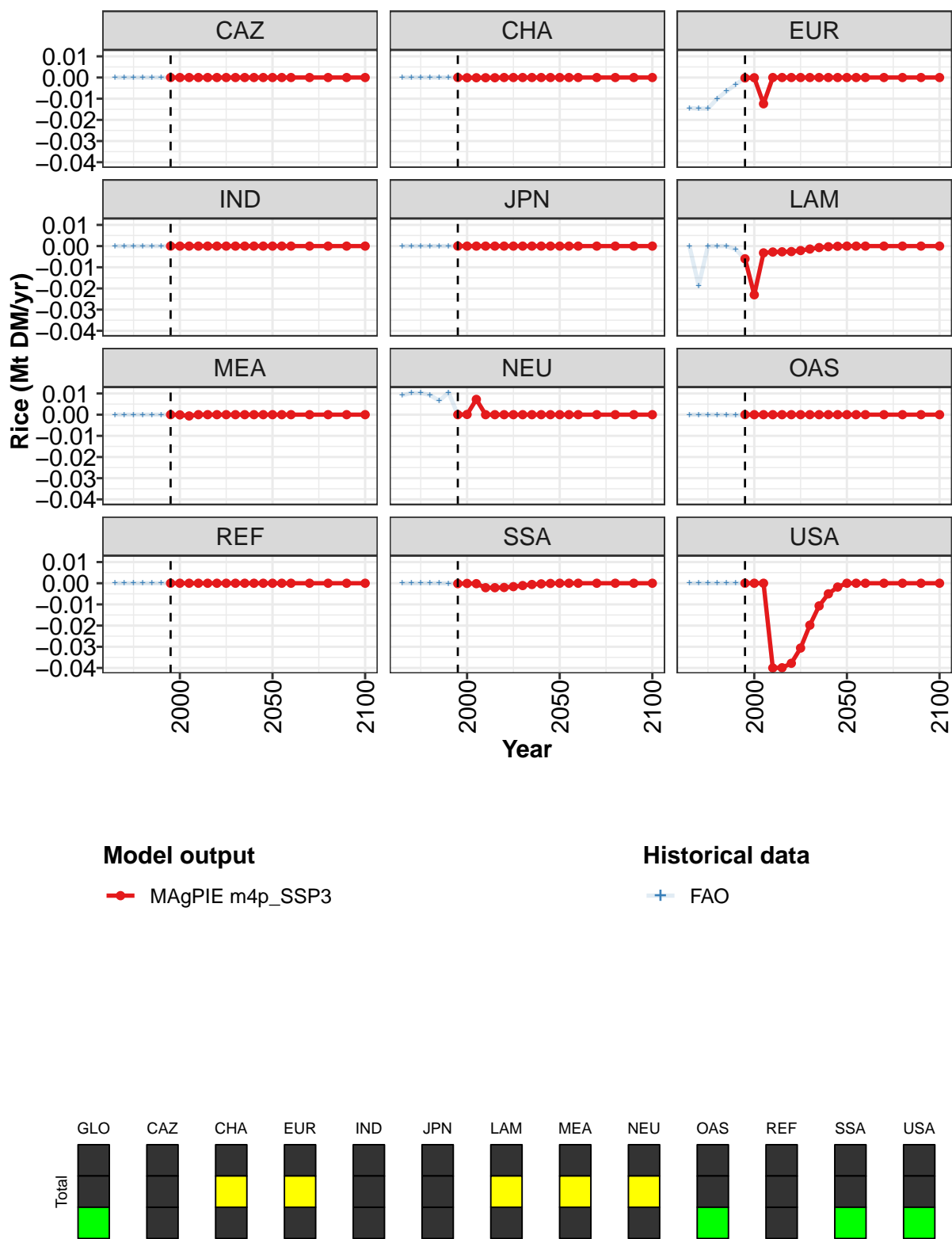


Figure 48: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.00640	-0.02330	-0.00930	-0.04500	-0.04480	-0.04240	-0.03430	-0.02230	-0.01200	-0.00560	-0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	-0.00010	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	-0.00020	-0.00010	-0.01240	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	-0.00600	-0.02300	-0.00320	-0.00280	-0.00270	-0.00260	-0.00210	-0.00140	-0.00070	-0.00030	-0.00000
MEA	0.00000	-0.00010	-0.00060	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00010	0.00720	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	-0.00020	-0.00010	-0.00020	-0.00210	-0.00210	-0.00200	-0.00160	-0.00110	-0.00060	-0.00030	-0.00000
USA	0.00000	0.00000	0.00000	-0.04000	-0.03990	-0.03780	-0.03060	-0.01980	-0.01070	-0.00500	-0.00000

Table 143: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals—Rice (Mt DM/yr)
[PART 1/2]

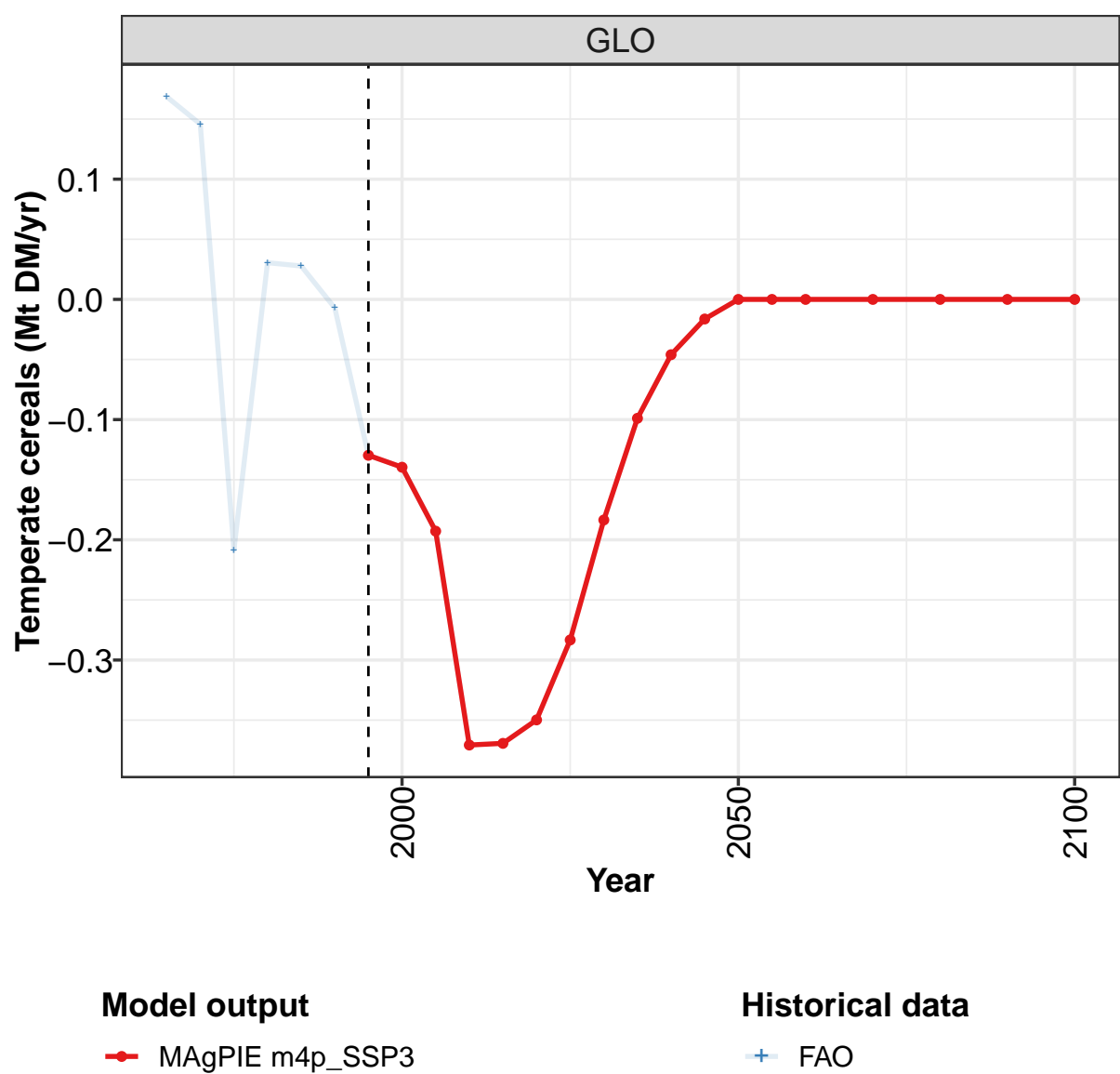
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 144: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals—Rice (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-0.0052	-0.0231	-0.0045	-0.0007	-0.0002	0.0052	-0.0064	-0.0234	-0.0093	-0.0450
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0001	-0.0001
EUR	-0.0144	-0.0147	-0.0147	-0.0100	-0.0065	-0.0033	-0.0002	-0.0001	-0.0124	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	-0.0187	0.0000	0.0000	0.0000	-0.0016	-0.0060	-0.0230	-0.0032	-0.0028
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0006	0.0000
NEU	0.0092	0.0102	0.0102	0.0093	0.0065	0.0105	0.0000	0.0001	0.0072	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0003	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0002	-0.0001	-0.0002	-0.0021
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0400

Table 145: FAO — Demand—Domestic Balanceflow—Crops—Cereals—Rice (Mt DM/yr)

5.1.4
Cereals—Temperate cereals



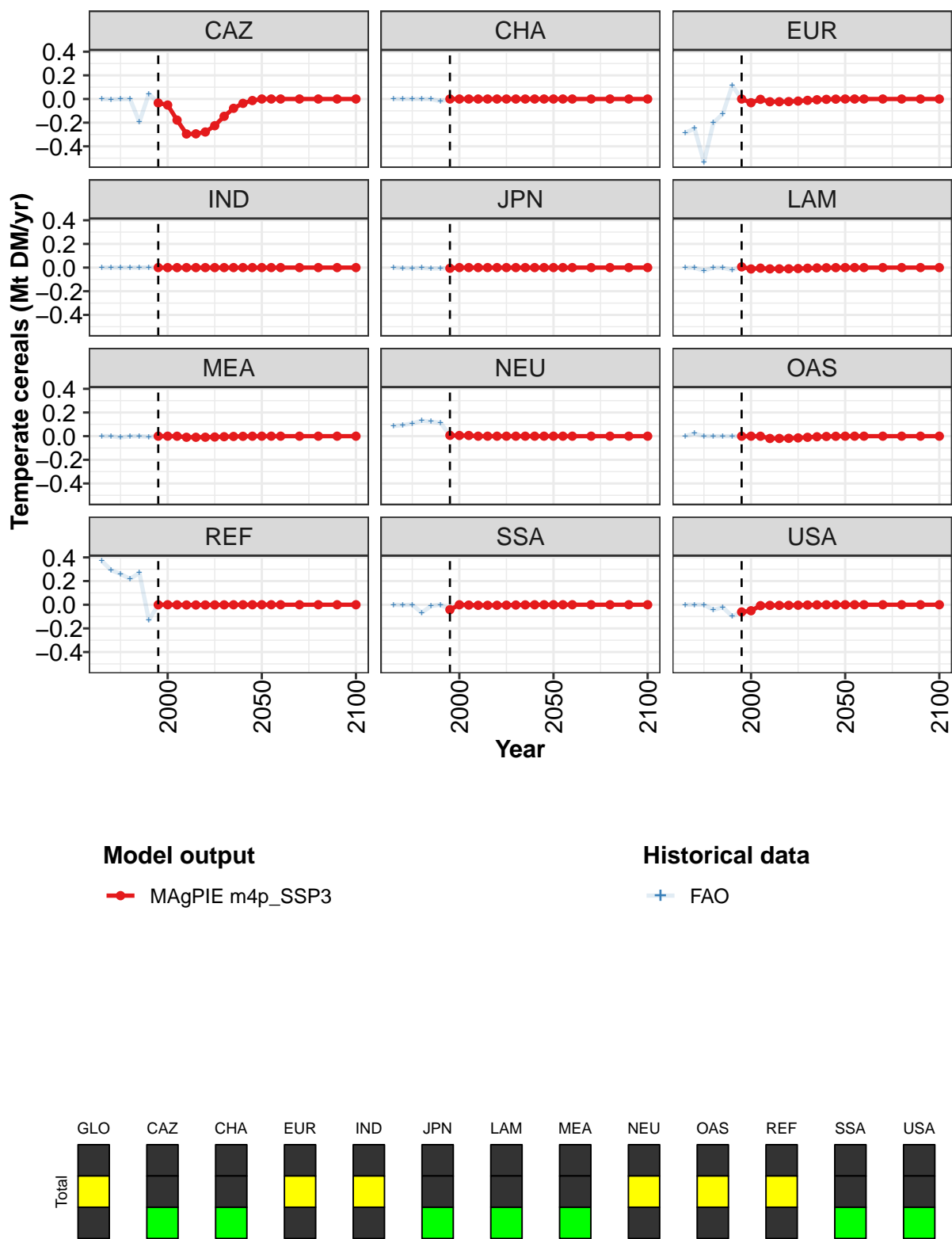


Figure 49: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.12970	-0.13960	-0.19280	-0.37070	-0.36930	-0.34980	-0.28330	-0.18350	-0.09890	-0.04600	-0.00000
CAZ	-0.03320	-0.05090	-0.17820	-0.29550	-0.29440	-0.27880	-0.22580	-0.14630	-0.07870	-0.03660	-0.00000
CHA	0.00000	-0.00010	0.00000	-0.00020	-0.00020	-0.00020	-0.00020	-0.00010	-0.00010	0.00000	0.00000
EUR	0.00000	-0.03140	-0.00290	-0.02310	-0.02300	-0.02180	-0.01760	-0.01140	-0.00620	-0.00290	-0.00000
IND	0.00000	-0.00020	-0.00020	-0.00010	-0.00010	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000
JPN	-0.00590	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00610	-0.01170	-0.00450	-0.01080	-0.01070	-0.01010	-0.00820	-0.00530	-0.00290	-0.00130	-0.00000
MEA	0.00000	0.00000	-0.00040	-0.00930	-0.00930	-0.00880	-0.00710	-0.00460	-0.00250	-0.00120	-0.00000
NEU	0.00690	0.00570	0.00570	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	-0.00040	0.00000	-0.00060	-0.01930	-0.01920	-0.01820	-0.01480	-0.00960	-0.00510	-0.00240	-0.00000
REF	-0.00050	0.00000	-0.00110	-0.00210	-0.00210	-0.00200	-0.00160	-0.00100	-0.00060	-0.00030	-0.00000
SSA	-0.04160	-0.00040	-0.00290	-0.00480	-0.00480	-0.00460	-0.00370	-0.00240	-0.00130	-0.00060	-0.00000
USA	-0.06110	-0.05060	-0.00770	-0.00550	-0.00550	-0.00520	-0.00420	-0.00270	-0.00150	-0.00070	-0.00000

Table 146: MAGPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 1/2]

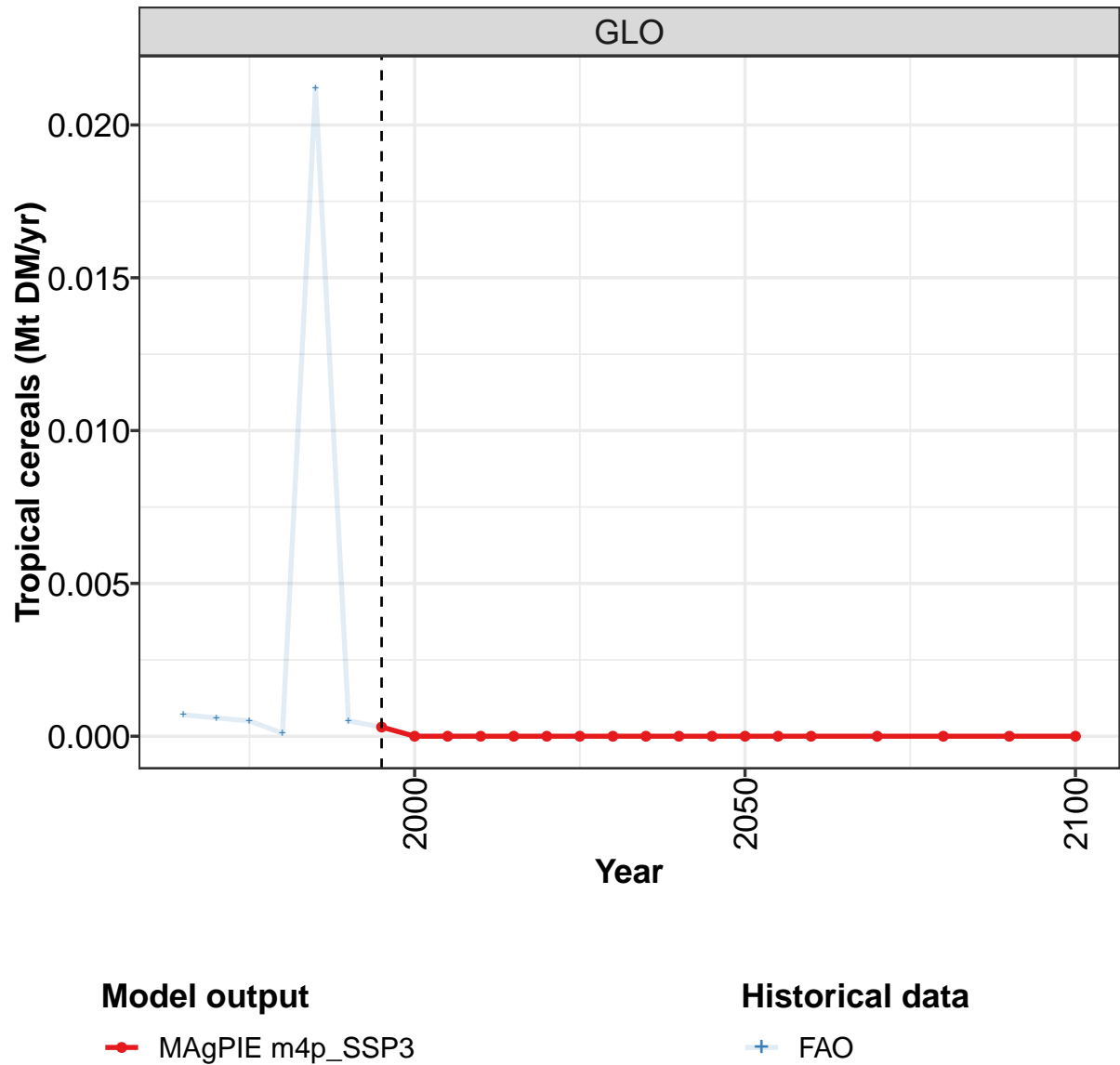
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 147: MAGPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.169	0.146	-0.208	0.030	0.028	-0.007	-0.130	-0.140	-0.193	-0.371
CAZ	0.000	-0.004	-0.001	-0.000	-0.195	0.045	-0.033	-0.051	-0.178	-0.295
CHA	0.000	0.000	0.000	0.000	-0.001	-0.018	0.000	-0.000	0.000	-0.000
EUR	-0.286	-0.250	-0.534	-0.202	-0.126	0.113	0.000	-0.031	-0.003	-0.023
IND	0.000	0.000	0.000	0.000	0.000	0.001	0.000	-0.000	-0.000	-0.000
JPN	0.000	-0.004	-0.005	-0.003	-0.007	-0.006	-0.006	0.000	0.000	0.000
LAM	-0.001	-0.002	-0.026	-0.001	-0.002	-0.019	0.006	-0.012	-0.004	-0.011
MEA	-0.000	-0.000	-0.010	-0.001	-0.000	-0.005	0.000	0.000	-0.000	-0.009
NEU	0.086	0.094	0.107	0.130	0.122	0.113	0.007	0.006	0.006	0.000
OAS	0.000	0.022	0.001	0.000	-0.000	0.000	-0.000	0.000	-0.001	-0.019
REF	0.370	0.293	0.260	0.218	0.269	-0.132	-0.001	0.000	-0.001	-0.002
SSA	-0.000	-0.003	-0.000	-0.067	-0.011	0.000	-0.042	-0.000	-0.003	-0.005
USA	0.000	0.000	0.000	-0.043	-0.021	-0.098	-0.061	-0.051	-0.008	-0.005

Table 148: FAO — Demand—Domestic Balanceflow—Crops—Cereals—Temperate cereals (Mt DM/yr)

5.1.5
Cereals—Tropical cereals



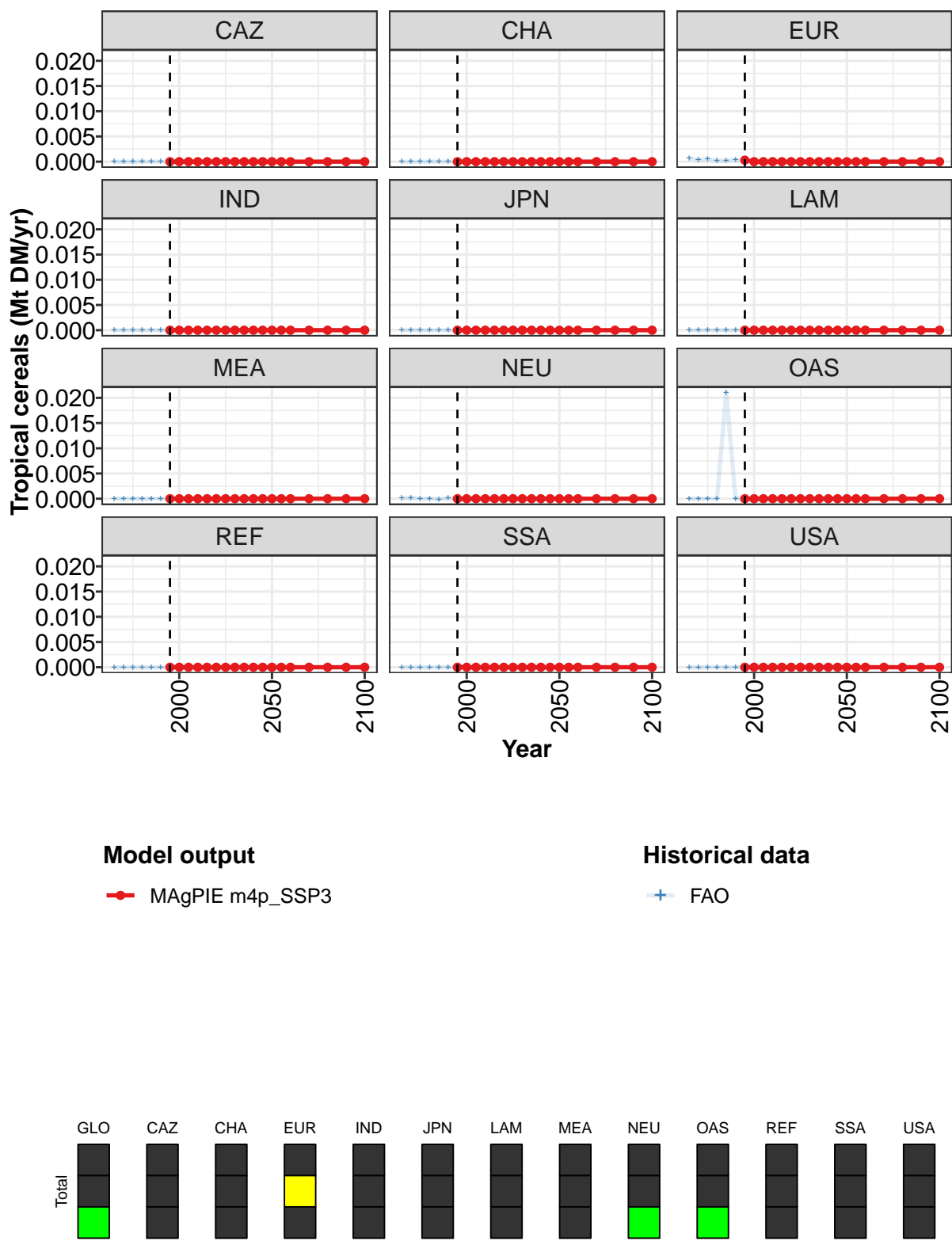


Figure 50: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040
GLO	0.000300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
CAZ	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
CHA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
EUR	0.000300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
IND	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
JPN	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
LAM	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
MEA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
NEU	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
OAS	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
REF	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
SSA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
USA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Table 149: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

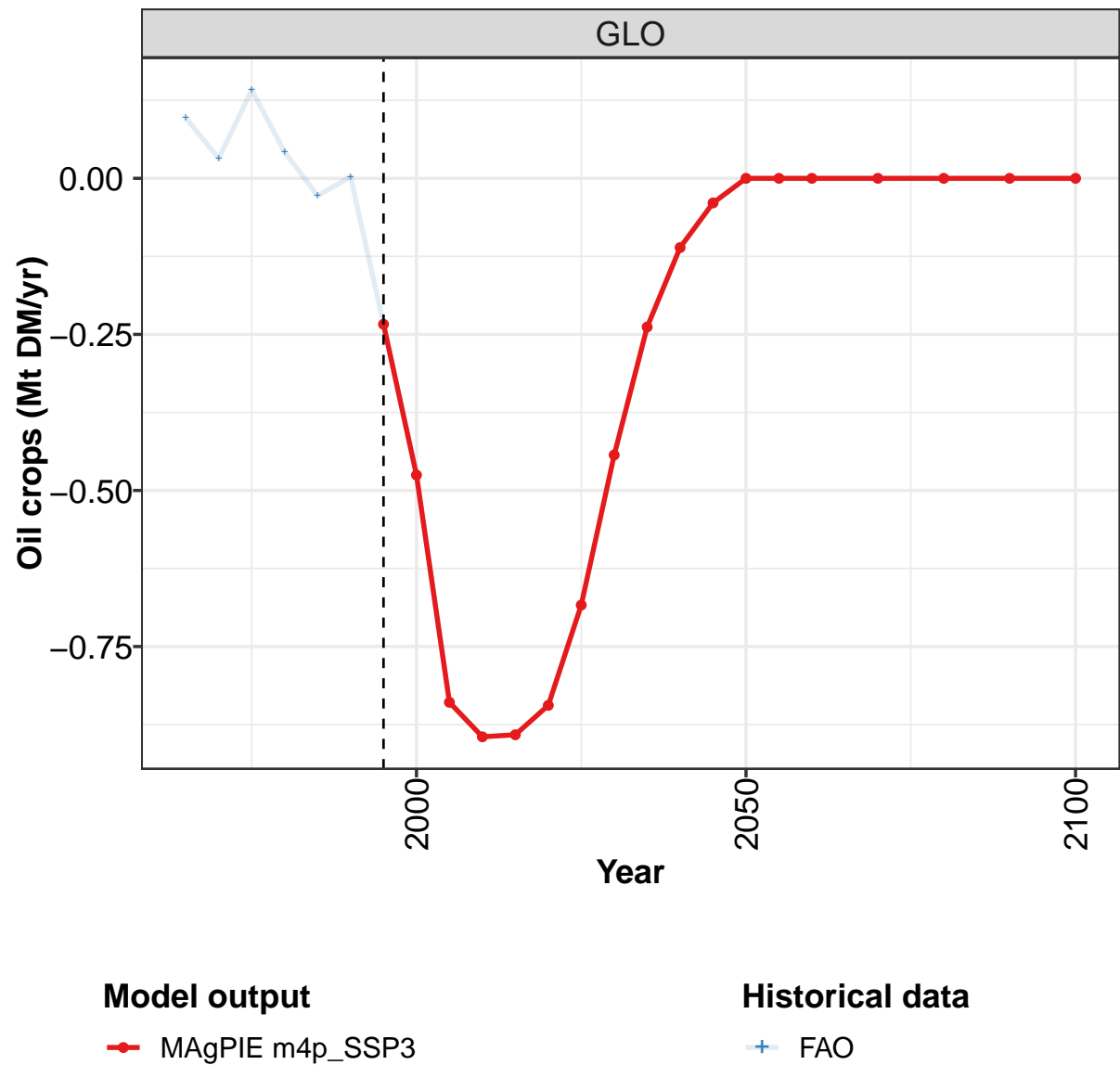
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
CAZ	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
CHA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
EUR	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
IND	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
JPN	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
LAM	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
MEA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
NEU	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
OAS	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
REF	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
SSA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
USA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Table 150: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0007	0.0006	0.0005	0.0001	0.0212	0.0005	0.0003	0.0000	0.0000	0.0000
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0007	0.0004	0.0005	0.0002	0.0002	0.0004	0.0003	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0001	0.0002	0.0000	0.0000	-0.0001	0.0001	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0211	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 151: FAO — Demand—Domestic Balanceflow—Crops—Cereals—Tropical cereals (Mt DM/yr)

5.1.6
Oil crops



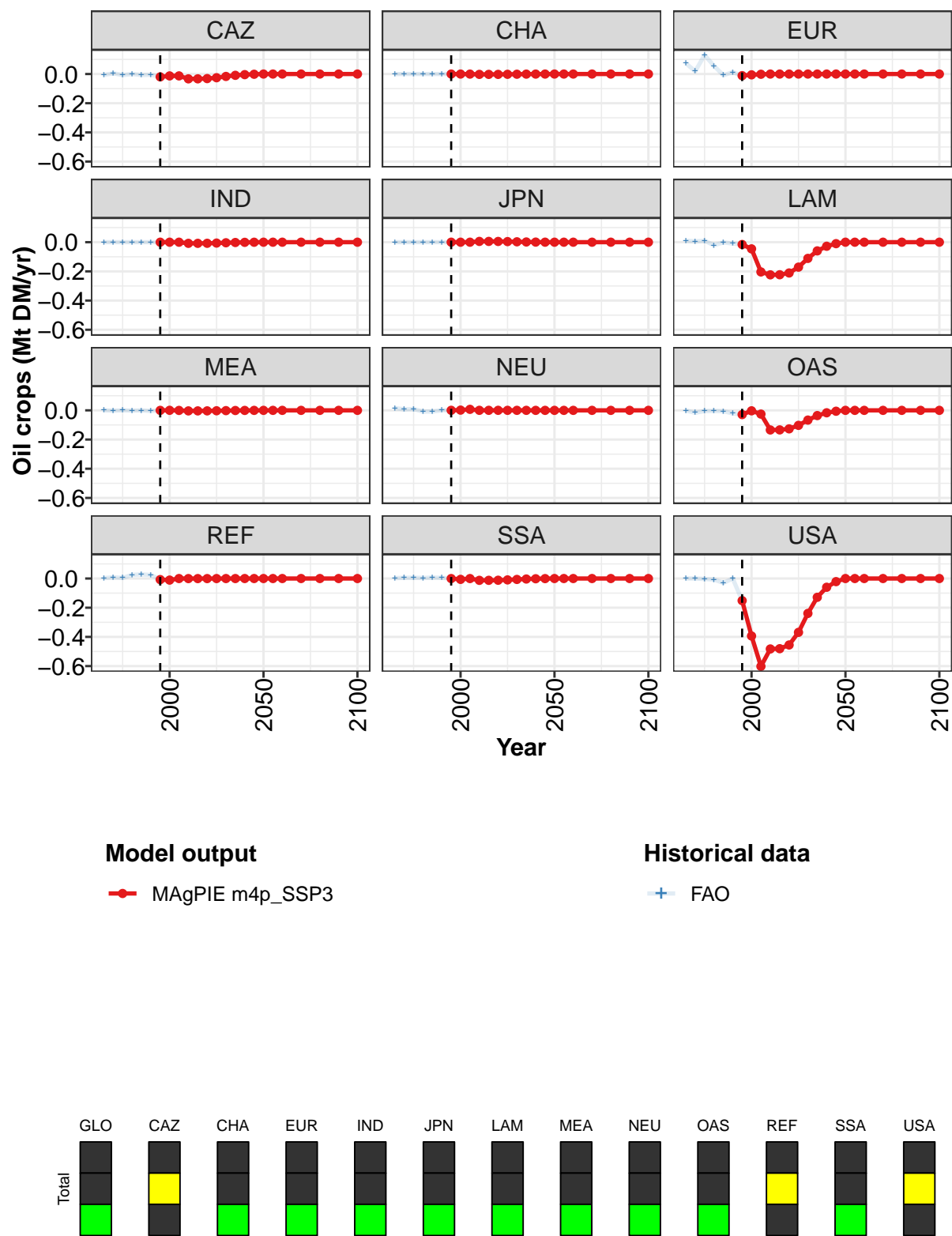


Figure 51: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.23380	-0.47530	-0.83930	-0.89460	-0.89130	-0.84420	-0.68360	-0.44310	-0.23820	-0.11090	-0.03090
CAZ	-0.01950	-0.01280	-0.01270	-0.03300	-0.03290	-0.03120	-0.02530	-0.01640	-0.00880	-0.00410	-0.00190
CHA	0.00000	-0.00010	-0.00040	-0.00240	-0.00240	-0.00230	-0.00180	-0.00120	-0.00060	-0.00030	-0.00010
EUR	-0.01110	-0.00550	-0.00160	-0.00010	-0.00010	-0.00010	0.00000	-0.00000	-0.00000	-0.00010	0.00000
IND	0.00000	0.00000	0.00000	-0.00780	-0.00780	-0.00740	-0.00600	-0.00390	-0.00210	-0.00100	-0.00040
JPN	0.00000	0.00000	0.00000	0.00540	0.00540	0.00510	0.00420	0.00270	0.00150	0.00070	0.00030
LAM	-0.01590	-0.04570	-0.20370	-0.22370	-0.22290	-0.21100	-0.17090	-0.11090	-0.05960	-0.02780	-0.01390
MEA	-0.00010	0.00030	-0.00040	-0.00360	-0.00360	-0.00350	-0.00280	-0.00180	-0.00090	-0.00040	-0.00010
NEU	0.00040	0.00170	0.00700	0.00030	0.00030	0.00030	0.00020	0.00020	0.00010	0.00000	0.00000
OAS	-0.02880	-0.00300	-0.02550	-0.13430	-0.13380	-0.12670	-0.10270	-0.06650	-0.03580	-0.01660	-0.00830
REF	-0.00730	-0.01080	-0.00010	-0.00040	-0.00040	-0.00040	-0.00030	-0.00010	-0.00010	0.00000	0.00000
SSA	-0.00020	-0.00580	-0.00020	-0.01240	-0.01230	-0.01170	-0.00940	-0.00620	-0.00330	-0.00150	-0.00070
USA	-0.15130	-0.39360	-0.60170	-0.48260	-0.48080	-0.45530	-0.36880	-0.23900	-0.12860	-0.05980	-0.02990

Table 152: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops (Mt DM/yr) [PART 1/2]

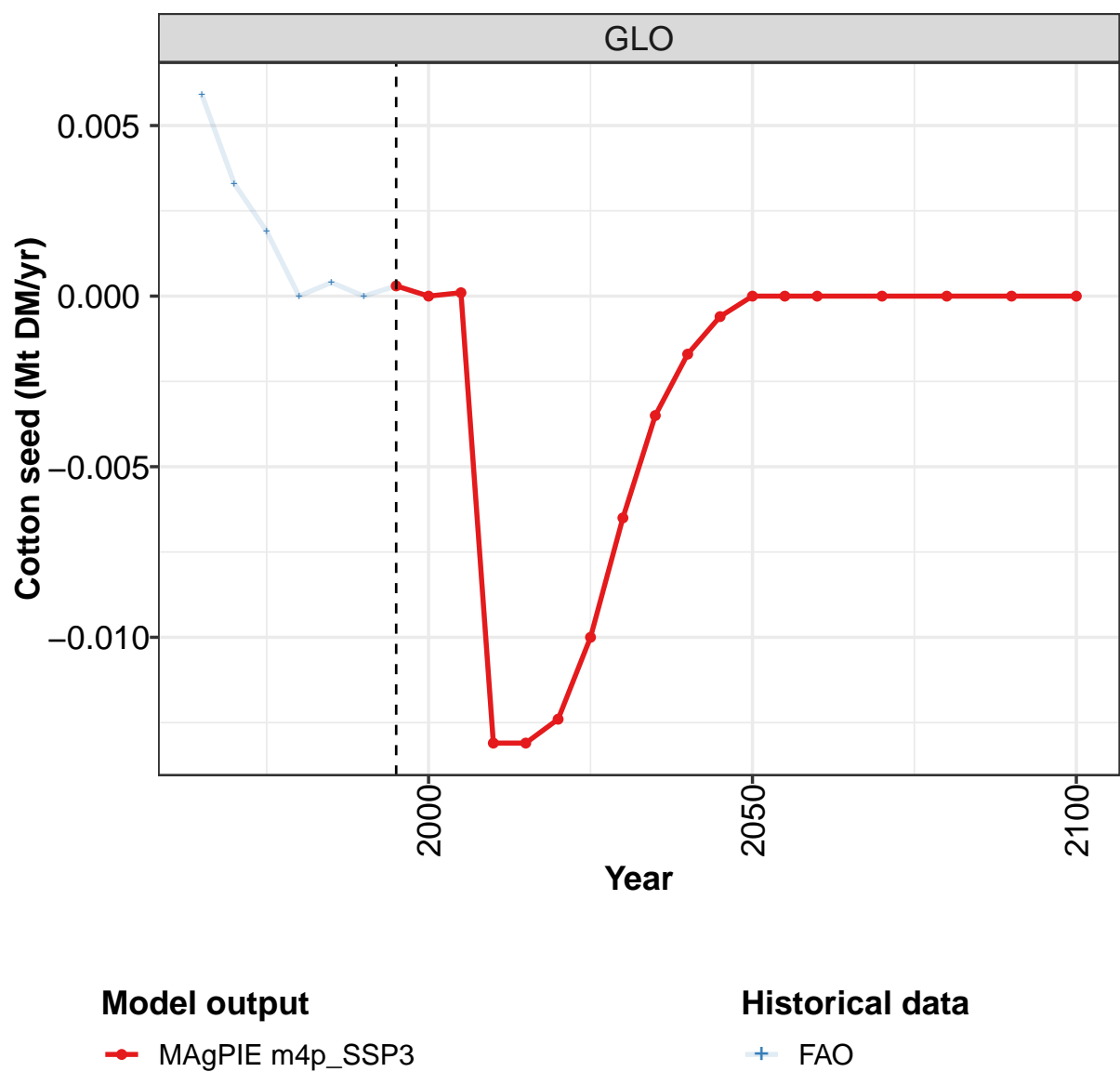
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 153: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.097	0.032	0.141	0.042	-0.028	0.003	-0.234	-0.475	-0.840	-0.895
CAZ	-0.007	0.005	-0.008	0.000	-0.007	-0.005	-0.019	-0.013	-0.013	-0.033
CHA	-0.001	0.000	0.000	0.000	-0.000	0.000	0.000	-0.000	-0.000	-0.002
EUR	0.074	0.019	0.129	0.056	-0.009	0.013	-0.011	-0.005	-0.002	-0.000
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.008
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
LAM	0.010	0.006	0.009	-0.021	-0.002	-0.009	-0.016	-0.046	-0.204	-0.224
MEA	0.000	-0.002	-0.000	-0.002	-0.000	-0.004	-0.000	0.000	-0.000	-0.004
NEU	0.015	0.007	0.009	-0.009	-0.008	0.000	0.000	0.002	0.007	0.000
OAS	-0.001	-0.016	-0.005	-0.004	-0.006	-0.021	-0.029	-0.003	-0.025	-0.134
REF	0.003	0.008	0.004	0.025	0.028	0.024	-0.007	-0.011	-0.000	-0.000
SSA	0.003	0.005	0.005	0.004	0.007	0.005	-0.000	-0.006	-0.000	-0.012
USA	0.000	0.000	-0.003	-0.007	-0.030	0.000	-0.151	-0.394	-0.602	-0.483

Table 154: FAO — Demand—Domestic Balanceflow—Crops—Oil crops (Mt DM/yr)

5.1.7 Oil crops—Cotton seed



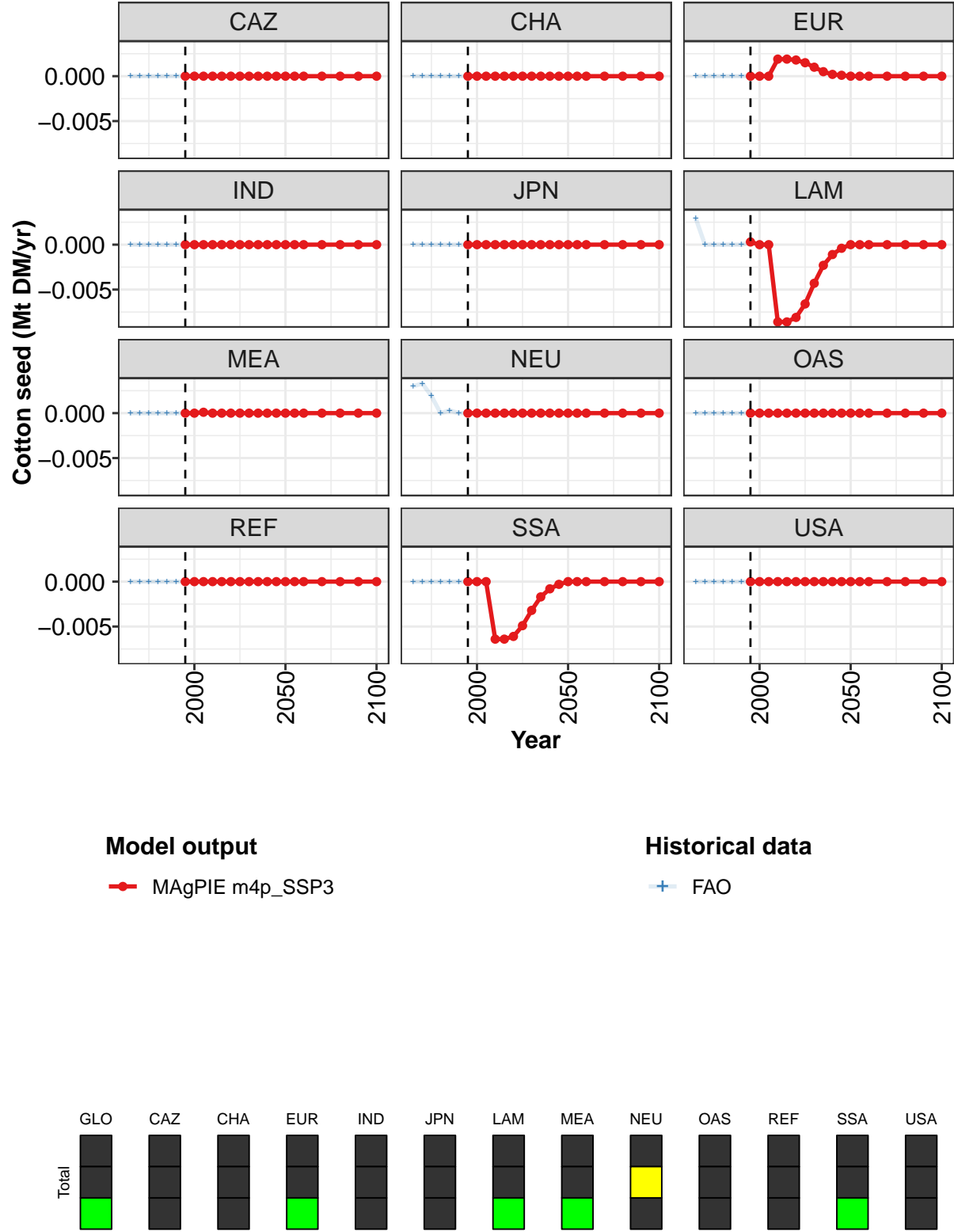


Figure 52: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.00030	0.00000	0.00010	-0.01310	-0.01310	-0.01240	-0.01000	-0.00650	-0.00350	-0.00170	-0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00190	0.00190	0.00180	0.00150	0.00100	0.00050	0.00020	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00030	0.00000	0.00000	-0.00860	-0.00860	-0.00810	-0.00660	-0.00430	-0.00230	-0.00110	-0.00000
MEA	0.00000	0.00000	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	-0.00640	-0.00640	-0.00610	-0.00490	-0.00320	-0.00170	-0.00080	-0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 155: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

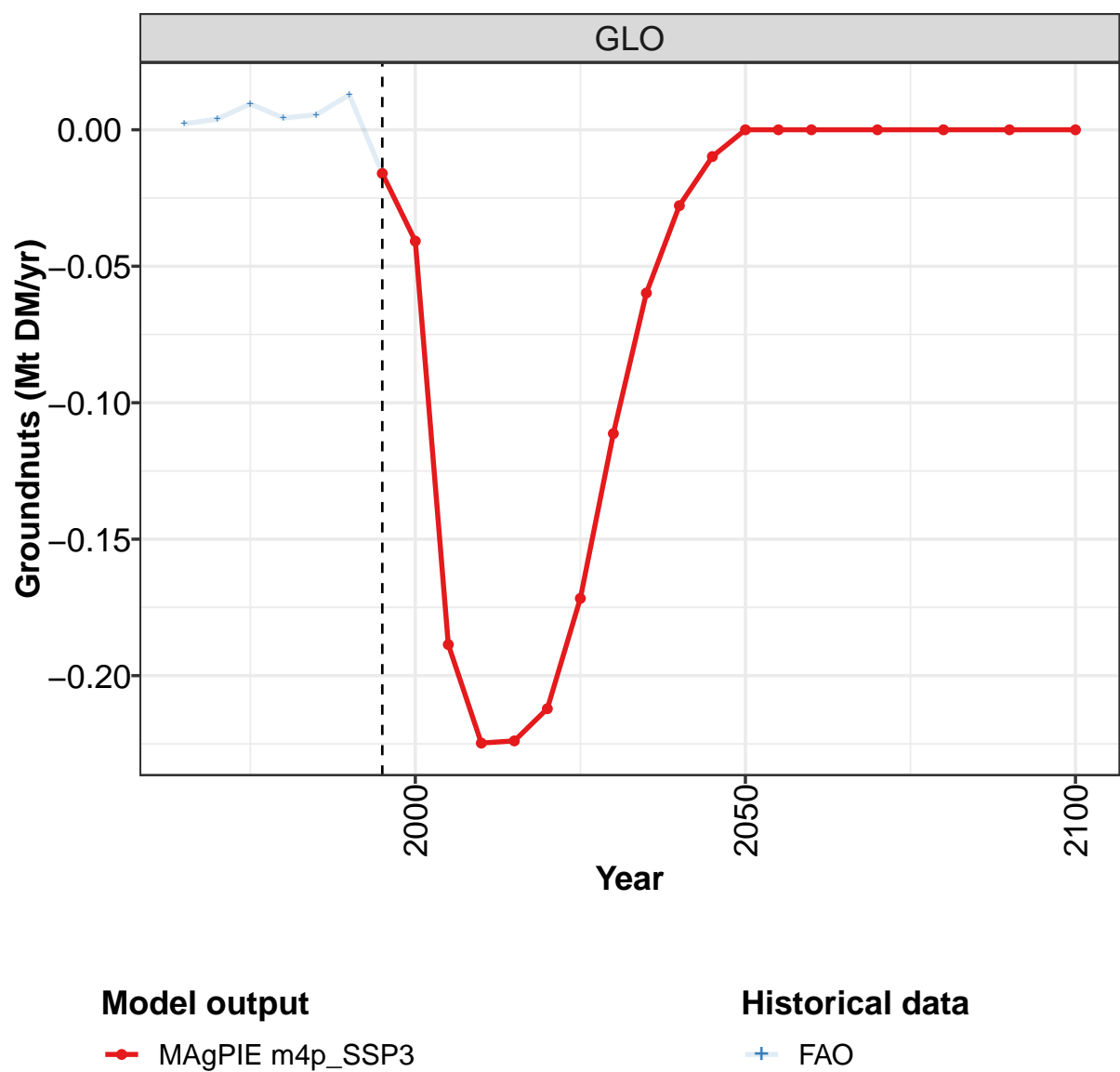
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 156: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00590	0.00330	0.00190	0.00000	0.00040	0.00000	0.00030	0.00000	0.00010	-0.01310
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00190
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00290	0.00000	0.00000	0.00000	0.00000	0.00000	0.00030	0.00000	0.00000	-0.00860
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00000
NEU	0.00300	0.00330	0.00190	0.00000	0.00030	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00640
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 157: FAO — Demand—Domestic Balanceflow—Crops—Oil crops—Cotton seed (Mt DM/yr)

5.1.8 Oil crops—Groundnuts



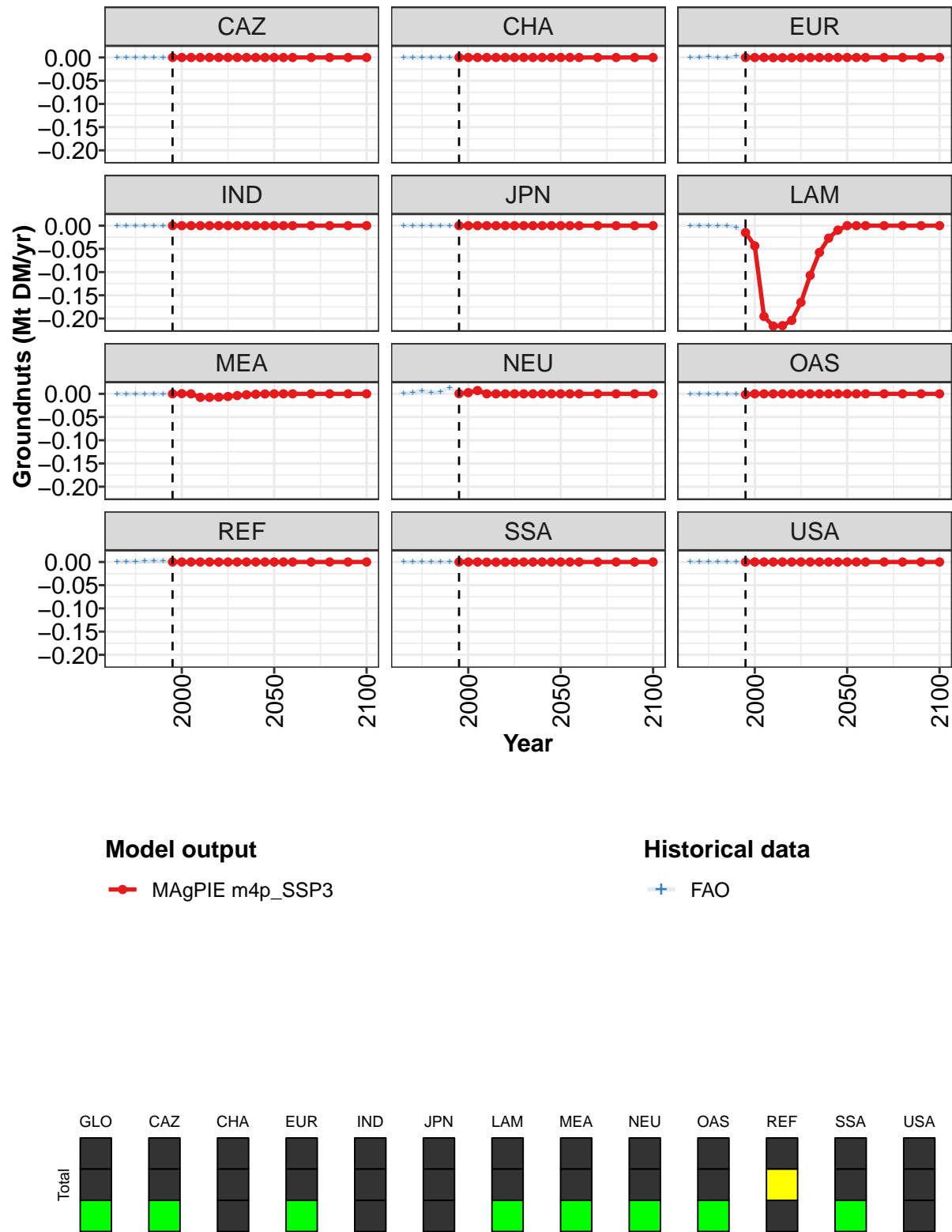


Figure 53: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.01600	-0.04080	-0.18860	-0.22470	-0.22390	-0.21210	-0.17170	-0.11130	-0.05980	-0.02780	-0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	-0.00010	0.00000	-0.00040	-0.00040	-0.00040	-0.00030	-0.00020	-0.00010	-0.00010	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	-0.01490	-0.04350	-0.19560	-0.21620	-0.21540	-0.20400	-0.16520	-0.10710	-0.05760	-0.02680	-0.00000
MEA	0.00000	0.00040	0.00000	-0.00760	-0.00760	-0.00720	-0.00580	-0.00380	-0.00200	-0.00090	-0.00000
NEU	0.00040	0.00250	0.00700	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	-0.00150	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	-0.00010	0.00000	-0.00010	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	-0.00040	-0.00040	-0.00040	-0.00030	-0.00020	-0.00010	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 158: MAGPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

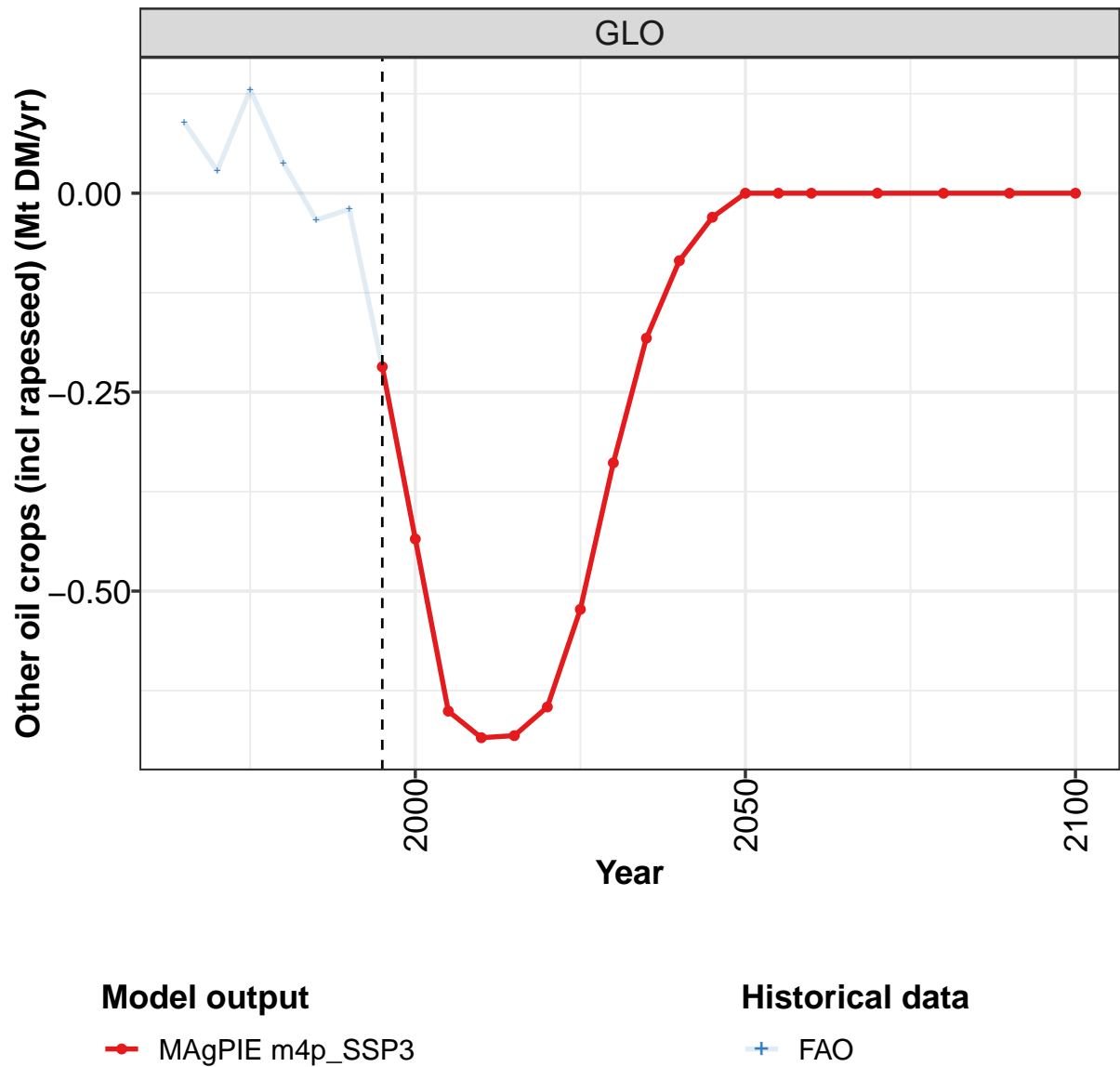
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 159: MAGPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0022	0.0039	0.0095	0.0043	0.0055	0.0128	-0.0160	-0.0408	-0.1887	-0.2247
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0008	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0003	0.0005	0.0018	-0.0003	-0.0008	0.0030	0.0000	-0.0001	0.0000	-0.0004
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0044	-0.0149	-0.0435	-0.1956	-0.2162
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0000	-0.0076
NEU	0.0012	0.0028	0.0068	0.0031	0.0039	0.0136	0.0004	0.0025	0.0070	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0010	-0.0015	0.0000	0.0000	0.0000
REF	0.0007	0.0006	0.0009	0.0015	0.0024	0.0023	0.0000	-0.0001	0.0000	-0.0001
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0004
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 160: FAO — Demand—Domestic Balanceflow—Crops—Oil crops—Groundnuts (Mt DM/yr)

5.1.9 Oil crops—Other oil crops (incl rapeseed)



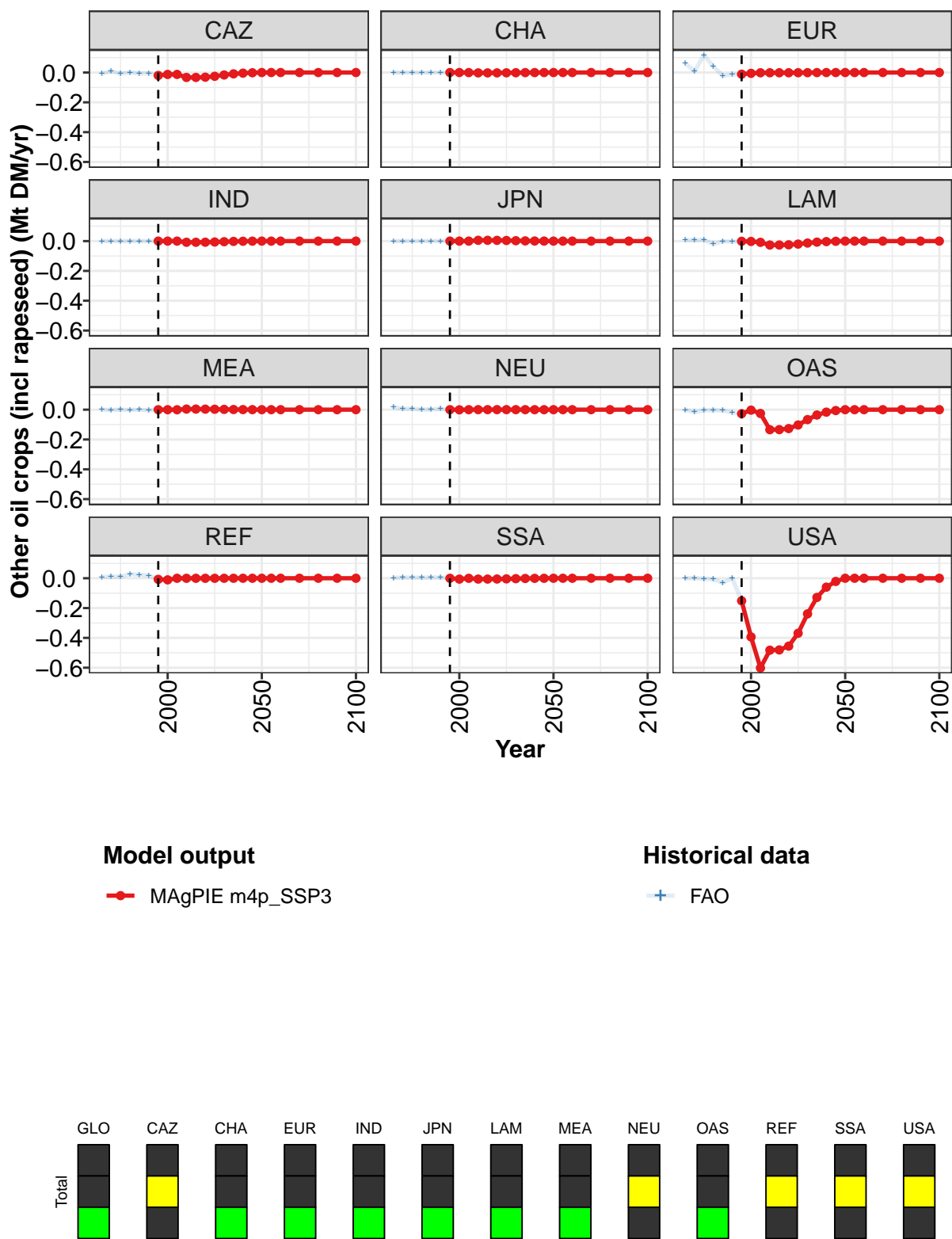


Figure 54: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.21810	-0.43450	-0.65080	-0.68420	-0.68160	-0.64560	-0.52290	-0.33880	-0.18220	-0.08480	-0.03120
CAZ	-0.01950	-0.01280	-0.01270	-0.03300	-0.03290	-0.03120	-0.02530	-0.01640	-0.00880	-0.00410	-0.00190
CHA	0.00000	-0.00010	-0.00040	-0.00240	-0.00240	-0.00230	-0.00180	-0.00120	-0.00060	-0.00030	-0.00010
EUR	-0.01110	-0.00540	-0.00160	-0.00160	-0.00160	-0.00150	-0.00120	-0.00080	-0.00040	-0.00020	-0.00010
IND	0.00000	0.00000	0.00000	-0.00780	-0.00780	-0.00740	-0.00600	-0.00390	-0.00210	-0.00100	-0.00050
JPN	0.00000	0.00000	0.00000	0.00540	0.00540	0.00510	0.00420	0.00270	0.00150	0.00070	0.00030
LAM	-0.00130	-0.00220	-0.00810	-0.02630	-0.02620	-0.02480	-0.02010	-0.01300	-0.00700	-0.00330	-0.00160
MEA	-0.00010	-0.00010	-0.00050	0.00400	0.00400	0.00370	0.00300	0.00200	0.00110	0.00050	0.00020
NEU	0.00000	-0.00080	0.00000	0.00030	0.00030	0.00030	0.00020	0.00020	0.00010	0.00000	0.00000
OAS	-0.02730	-0.00300	-0.02550	-0.13430	-0.13380	-0.12670	-0.10270	-0.06650	-0.03580	-0.01660	-0.00810
REF	-0.00730	-0.01070	-0.00010	-0.00030	-0.00030	-0.00030	-0.00020	-0.00010	-0.00010	0.00000	0.00000
SSA	-0.00020	-0.00580	-0.00020	-0.00560	-0.00550	-0.00520	-0.00420	-0.00280	-0.00150	-0.00070	-0.00030
USA	-0.15130	-0.39360	-0.60170	-0.48260	-0.48080	-0.45530	-0.36880	-0.23900	-0.12860	-0.05980	-0.02940

Table 161: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

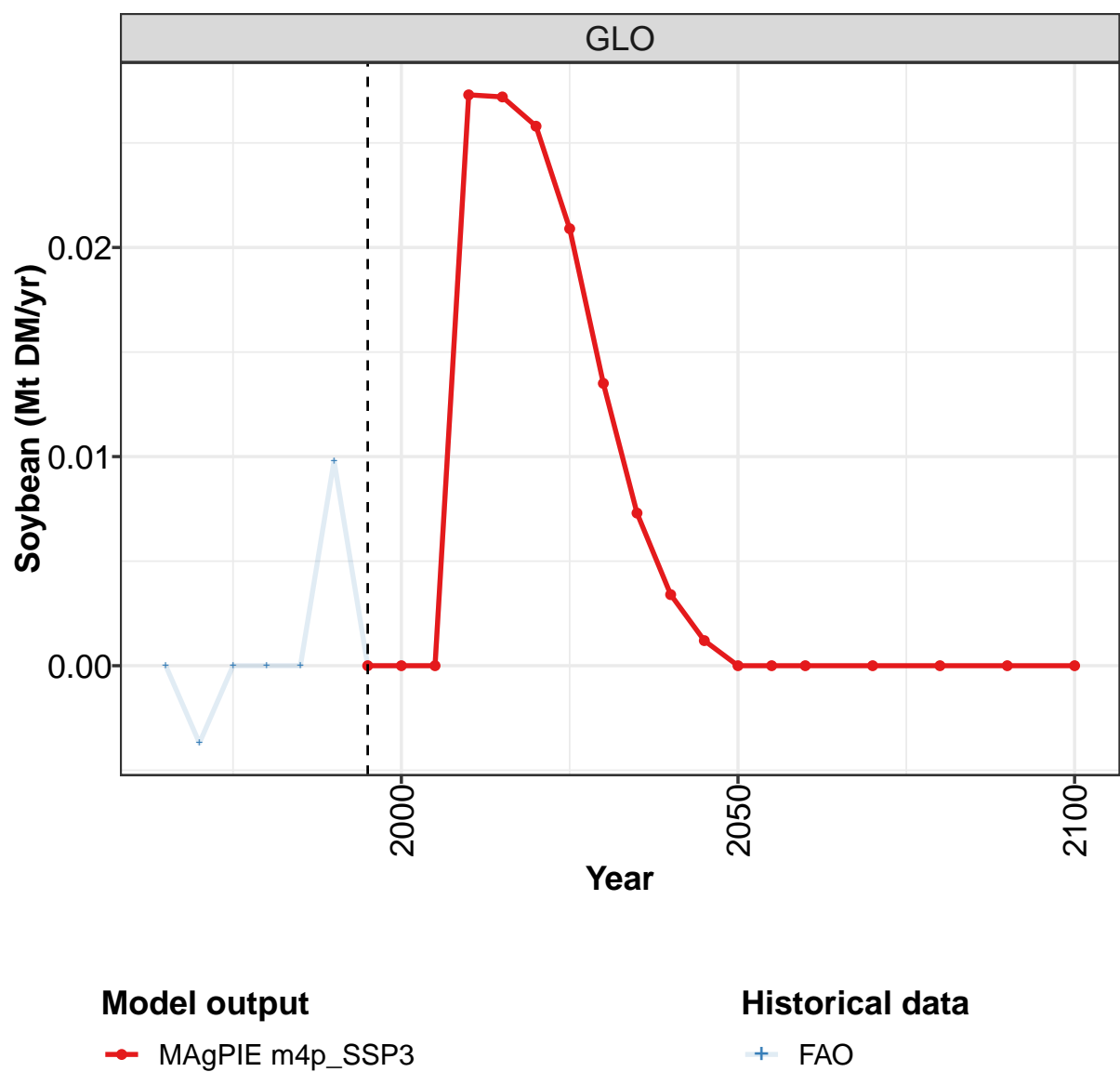
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 162: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.089	0.028	0.130	0.038	-0.034	-0.020	-0.218	-0.434	-0.651	-0.684
CAZ	-0.007	0.009	-0.008	0.000	-0.007	-0.004	-0.019	-0.013	-0.013	-0.033
CHA	-0.001	0.000	0.000	-0.000	-0.000	0.000	0.000	-0.000	-0.000	-0.002
EUR	0.063	0.009	0.116	0.040	-0.021	-0.015	-0.011	-0.005	-0.002	-0.002
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.008
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
LAM	0.007	0.006	0.009	-0.021	-0.002	-0.005	-0.001	-0.002	-0.008	-0.026
MEA	0.000	-0.002	-0.000	-0.002	-0.000	-0.004	-0.000	-0.000	-0.001	0.004
NEU	0.017	0.006	0.006	0.001	0.003	0.005	0.000	-0.001	0.000	0.000
OAS	-0.001	-0.016	-0.005	-0.004	-0.006	-0.020	-0.027	-0.003	-0.025	-0.134
REF	0.007	0.013	0.010	0.028	0.024	0.018	-0.007	-0.011	-0.000	-0.000
SSA	0.003	0.005	0.005	0.004	0.007	0.005	-0.000	-0.006	-0.000	-0.006
USA	0.000	0.000	-0.003	-0.007	-0.030	0.000	-0.151	-0.394	-0.602	-0.483

Table 163: FAO — Demand—Domestic Balanceflow—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

5.1.10 Oil crops—Soybean



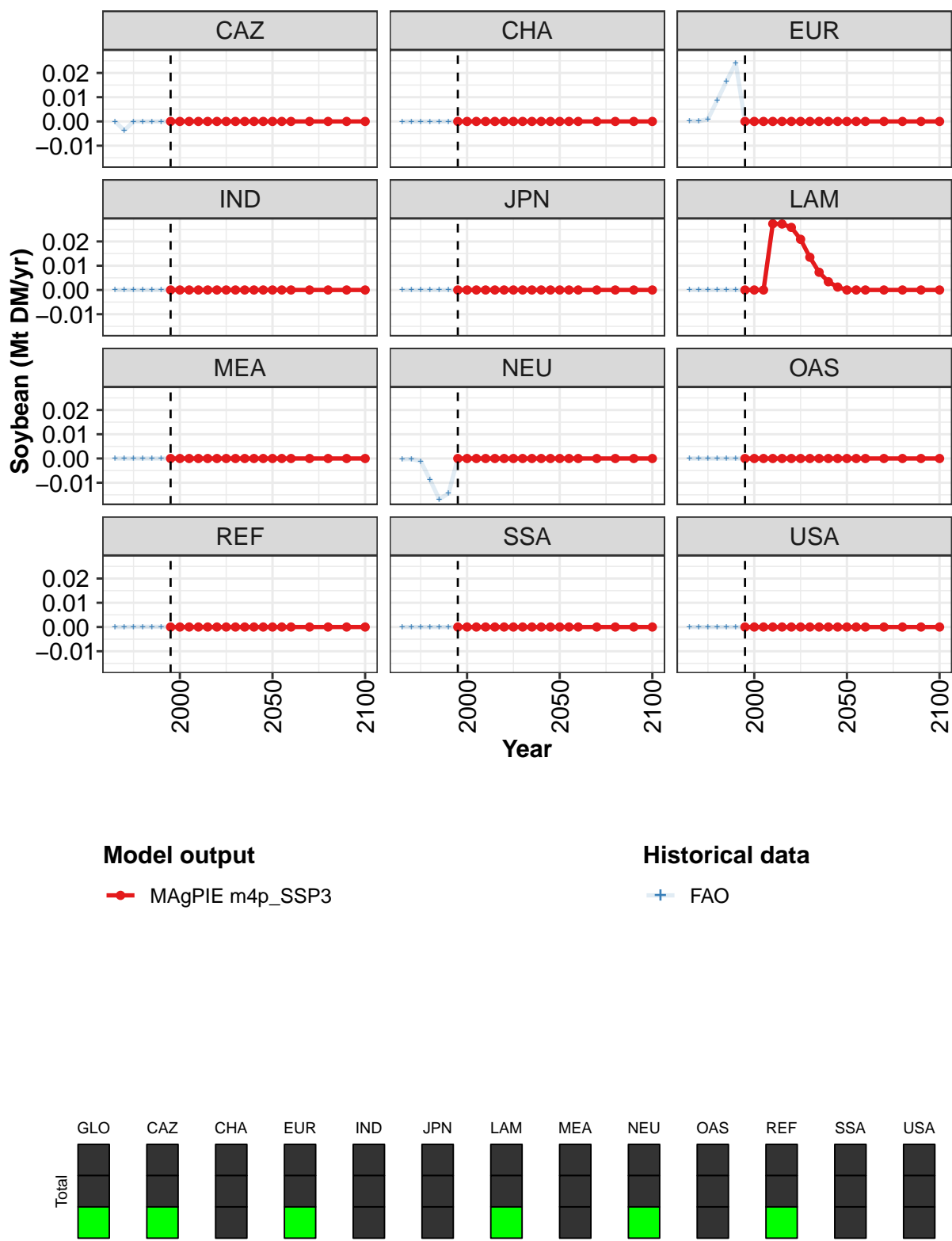


Figure 55: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0000	0.0000	0.0000	0.0273	0.0272	0.0258	0.0209	0.0135	0.0073	0.0034	0.0012
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0273	0.0272	0.0258	0.0209	0.0135	0.0073	0.0034	0.0012
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 164: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Soybean (Mt DM/yr)
[PART 1/2]

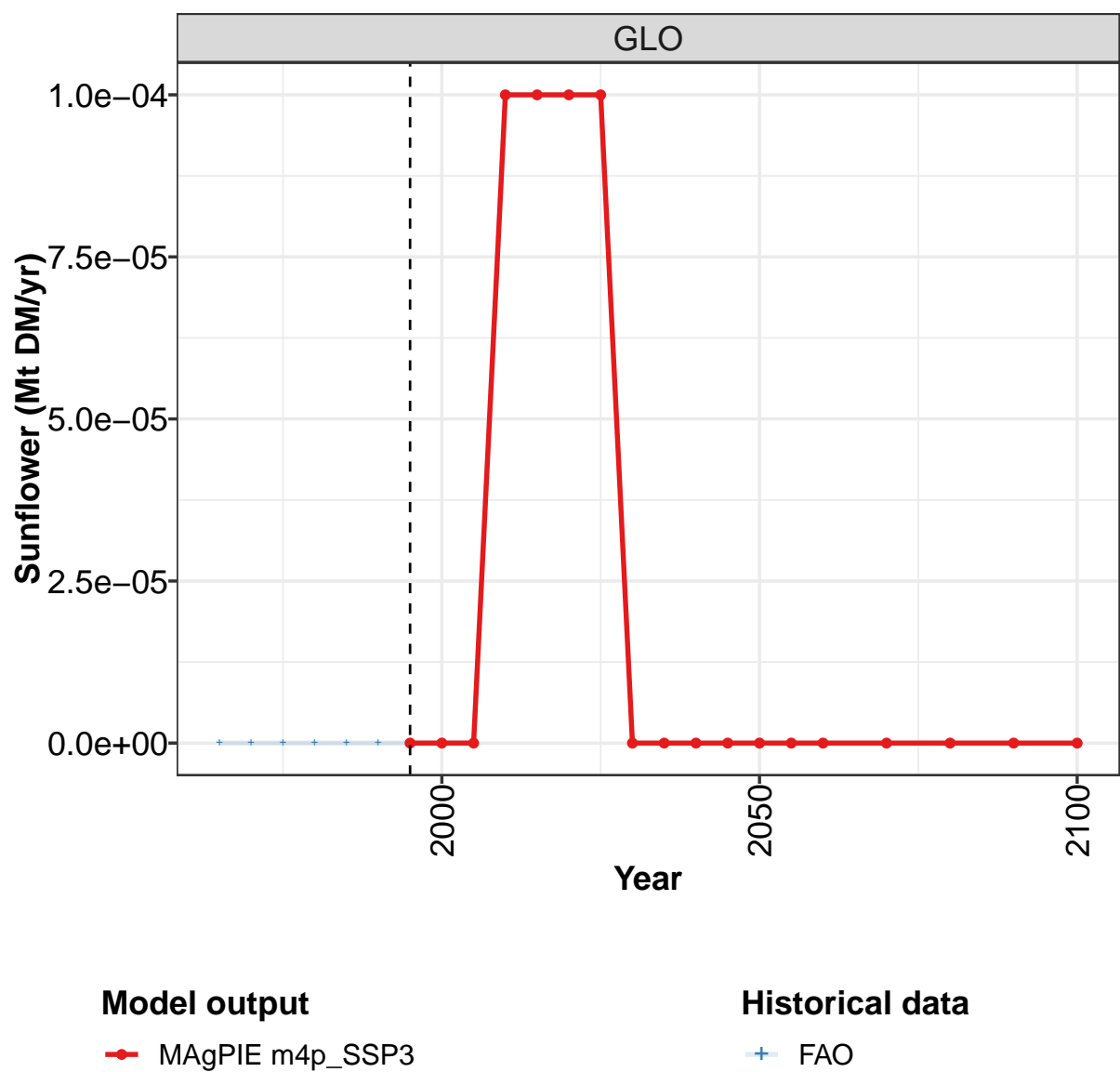
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 165: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Soybean (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0000	-0.0037	0.0000	0.0000	0.0000	0.0098	0.0000	0.0000	0.0000	0.0273
CAZ	0.0000	-0.0037	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0003	0.0001	0.0010	0.0087	0.0166	0.0241	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0273
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	-0.0003	-0.0002	-0.0011	-0.0088	-0.0168	-0.0144	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 166: FAO — Demand—Domestic Balanceflow—Crops—Oil crops—Soybean (Mt DM/yr)

5.1.11 Oil crops—Sunflower



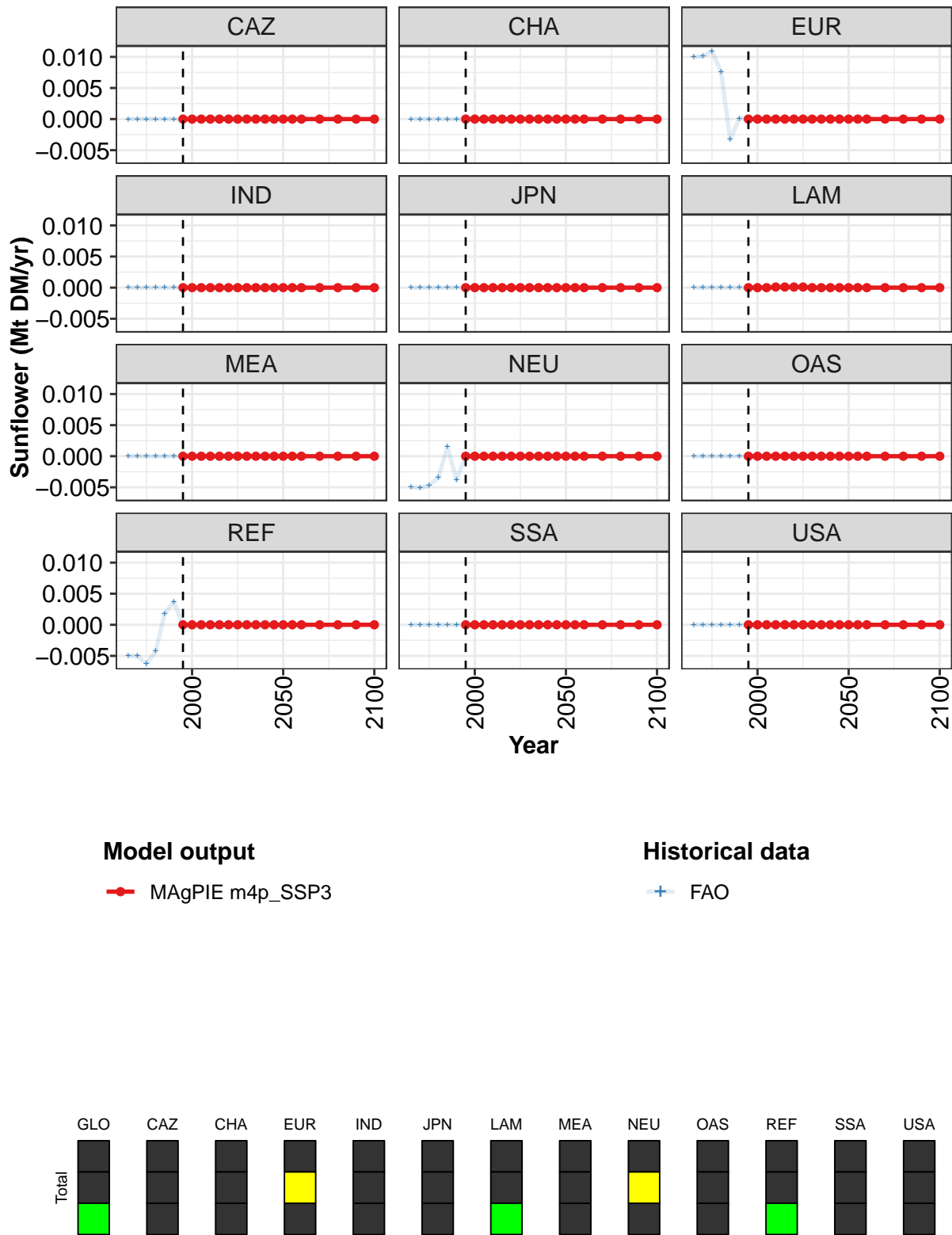


Figure 56: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	
GLO	0.0000000	0.0000000	0.0000000	0.0001000	0.0001000	0.0001000	0.0001000	0.0000000	0.0000000	0.
CAZ	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.
CHA	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.
EUR	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.
IND	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.
JPN	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.
LAM	0.0000000	0.0000000	0.0000000	0.0001000	0.0001000	0.0001000	0.0001000	0.0000000	0.0000000	0.
MEA	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.
NEU	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.
OAS	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.
REF	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.
SSA	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.
USA	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.

Table 167: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Sunflower (Mt DM/yr)
[PART 1/2]

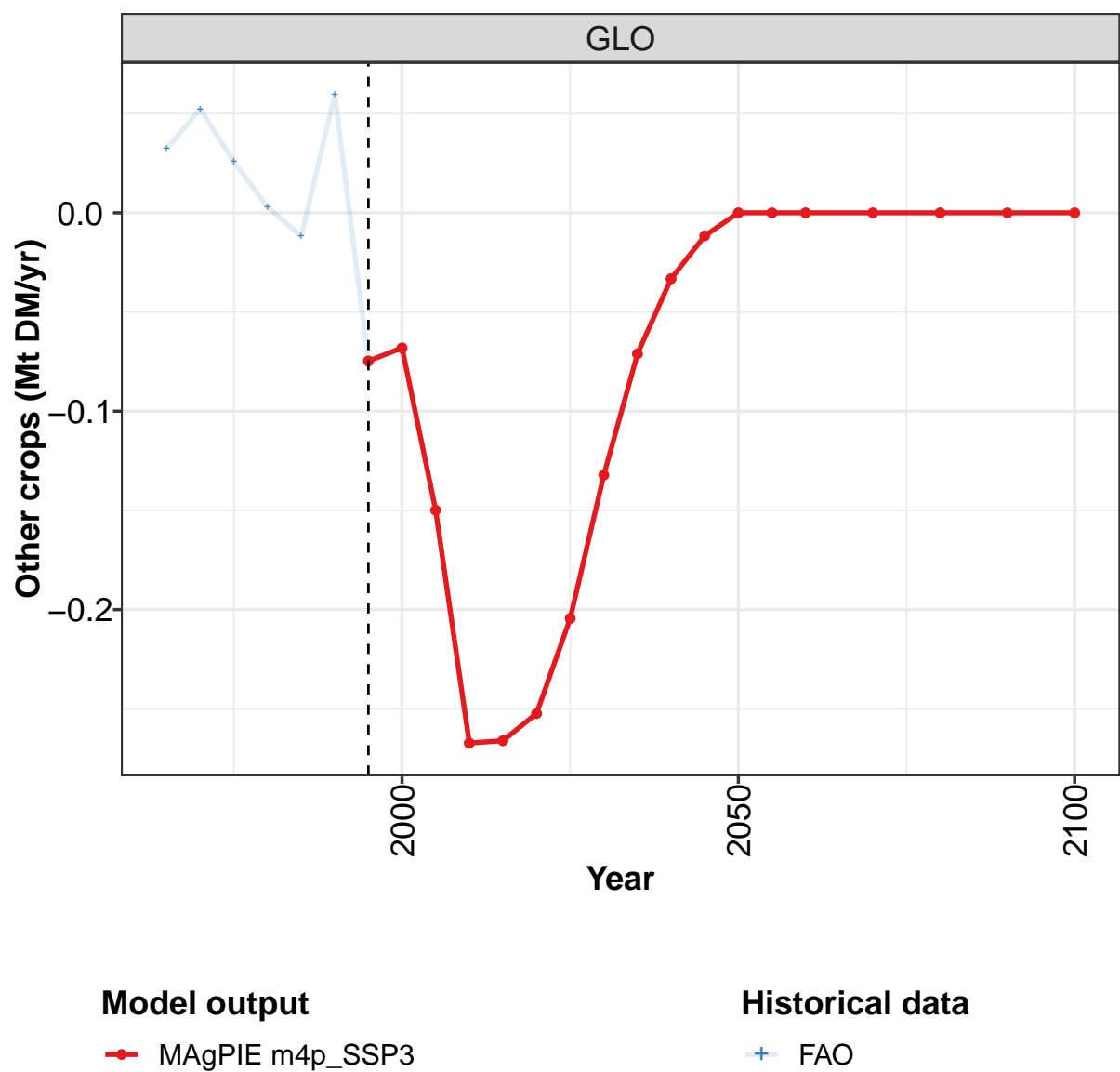
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
CAZ	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
CHA	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
EUR	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
IND	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
JPN	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
LAM	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
MEA	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
NEU	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
OAS	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
REF	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
SSA	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
USA	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Table 168: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Oil crops—Sunflower (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0100	0.0101	0.0109	0.0076	-0.0033	0.0001	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	-0.0050	-0.0051	-0.0047	-0.0034	0.0015	-0.0038	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	-0.0050	-0.0050	-0.0063	-0.0042	0.0018	0.0037	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 169: FAO — Demand—Domestic Balanceflow—Crops—Oil crops—Sunflower (Mt DM/yr)

5.1.12
Other crops



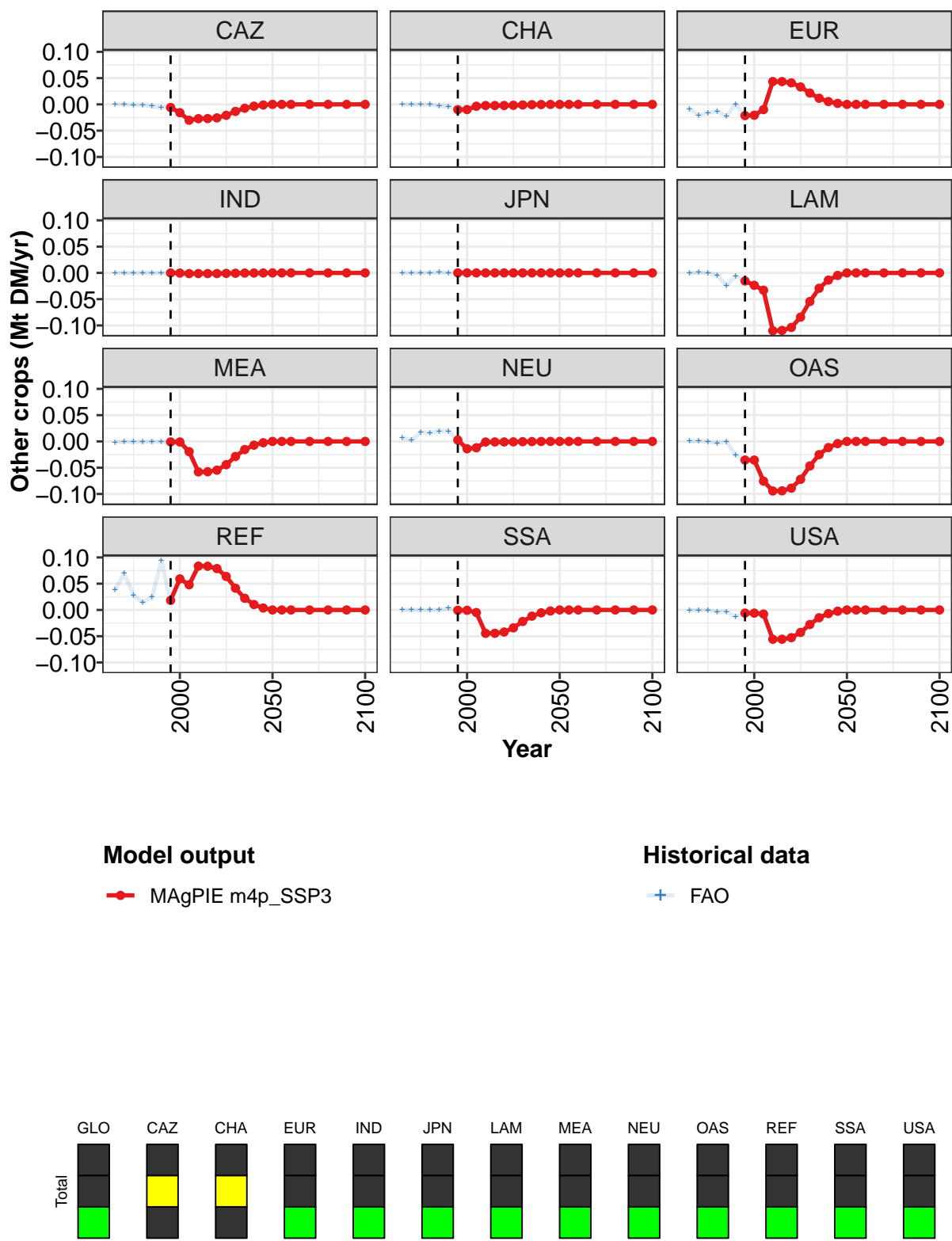


Figure 57: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.0747	-0.0681	-0.1499	-0.2673	-0.2661	-0.2524	-0.2045	-0.1322	-0.0711	-0.0332	-0.0116
CAZ	-0.0059	-0.0158	-0.0302	-0.0272	-0.0270	-0.0257	-0.0208	-0.0134	-0.0073	-0.0034	-0.0012
CHA	-0.0100	-0.0099	-0.0036	-0.0022	-0.0022	-0.0021	-0.0017	-0.0011	-0.0006	-0.0003	-0.0001
EUR	-0.0213	-0.0206	-0.0099	0.0435	0.0434	0.0410	0.0332	0.0216	0.0117	0.0054	0.0019
IND	-0.0001	-0.0003	-0.0013	-0.0012	-0.0012	-0.0012	-0.0009	-0.0006	-0.0003	-0.0002	-0.0001
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	-0.0153	-0.0236	-0.0330	-0.1100	-0.1095	-0.1038	-0.0841	-0.0545	-0.0293	-0.0137	-0.0048
MEA	-0.0009	-0.0010	-0.0195	-0.0580	-0.0577	-0.0547	-0.0443	-0.0287	-0.0155	-0.0071	-0.0025
NEU	0.0026	-0.0140	-0.0121	-0.0011	-0.0010	-0.0010	-0.0008	-0.0005	-0.0003	-0.0001	0.0000
OAS	-0.0354	-0.0355	-0.0755	-0.0943	-0.0940	-0.0889	-0.0721	-0.0467	-0.0251	-0.0117	-0.0041
REF	0.0182	0.0592	0.0479	0.0835	0.0832	0.0788	0.0638	0.0414	0.0222	0.0103	0.0037
SSA	-0.0006	-0.0006	-0.0049	-0.0445	-0.0444	-0.0420	-0.0341	-0.0220	-0.0118	-0.0055	-0.0020
USA	-0.0060	-0.0060	-0.0078	-0.0558	-0.0557	-0.0528	-0.0427	-0.0277	-0.0148	-0.0069	-0.0024

Table 170: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops (Mt DM/yr) [PART 1/2]

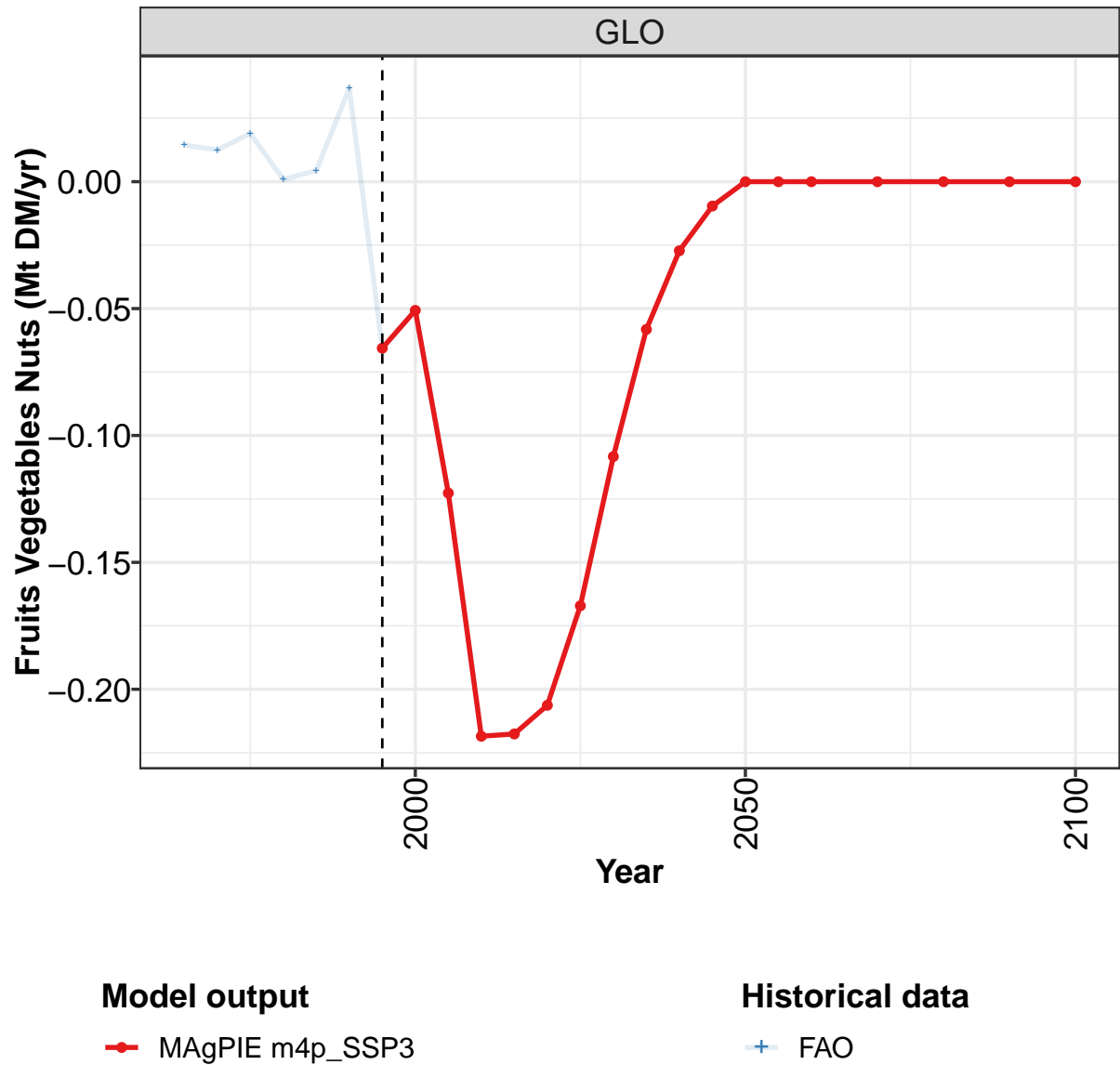
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 171: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0324	0.0523	0.0257	0.0030	-0.0117	0.0595	-0.0748	-0.0681	-0.1500	-0.2672
CAZ	0.0000	-0.0003	-0.0008	-0.0011	-0.0037	-0.0064	-0.0060	-0.0157	-0.0303	-0.0272
CHA	0.0000	0.0000	-0.0002	-0.0001	-0.0029	-0.0042	-0.0100	-0.0099	-0.0036	-0.0022
EUR	-0.0086	-0.0206	-0.0163	-0.0130	-0.0226	0.0004	-0.0213	-0.0205	-0.0099	0.0435
IND	0.0000	0.0000	-0.0001	0.0003	0.0000	-0.0002	-0.0001	-0.0003	-0.0013	-0.0012
JPN	0.0000	0.0000	0.0004	0.0004	0.0018	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	-0.0008	0.0012	-0.0005	-0.0046	-0.0237	-0.0062	-0.0153	-0.0236	-0.0330	-0.1099
MEA	-0.0023	-0.0002	-0.0013	-0.0011	-0.0006	-0.0008	-0.0009	-0.0010	-0.0196	-0.0580
NEU	0.0064	0.0026	0.0173	0.0164	0.0189	0.0196	0.0025	-0.0140	-0.0122	-0.0010
OAS	0.0002	0.0007	-0.0002	-0.0036	-0.0002	-0.0263	-0.0355	-0.0355	-0.0754	-0.0943
REF	0.0380	0.0693	0.0281	0.0138	0.0247	0.0935	0.0182	0.0591	0.0479	0.0835
SSA	0.0000	0.0000	-0.0001	0.0001	0.0000	0.0029	-0.0005	-0.0007	-0.0049	-0.0445
USA	-0.0006	-0.0004	-0.0004	-0.0045	-0.0034	-0.0129	-0.0060	-0.0060	-0.0078	-0.0559

Table 172: FAO — Demand—Domestic Balanceflow—Crops—Other crops (Mt DM/yr)

5.1.13 Other crops—Fruits Vegetables Nuts



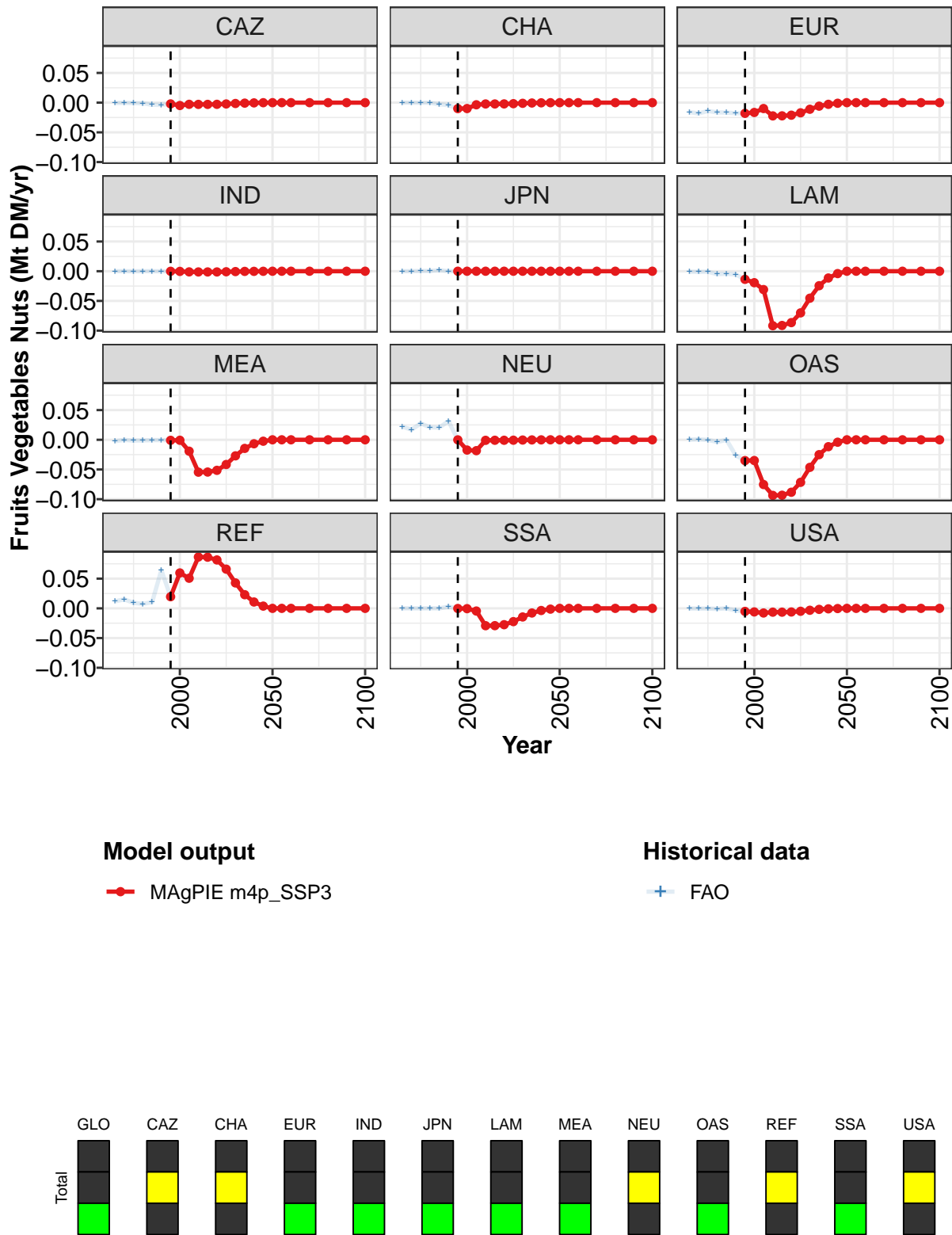


Figure 58: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.0656	-0.0507	-0.1227	-0.2185	-0.2176	-0.2063	-0.1671	-0.1083	-0.0582	-0.0272	-0.0096
CAZ	-0.0021	-0.0048	-0.0028	-0.0029	-0.0029	-0.0028	-0.0022	-0.0014	-0.0008	-0.0004	-0.0001
CHA	-0.0100	-0.0099	-0.0036	-0.0022	-0.0022	-0.0021	-0.0017	-0.0011	-0.0006	-0.0003	-0.0001
EUR	-0.0180	-0.0165	-0.0099	-0.0223	-0.0222	-0.0211	-0.0171	-0.0111	-0.0059	-0.0028	-0.0010
IND	-0.0001	-0.0003	-0.0011	-0.0012	-0.0012	-0.0012	-0.0009	-0.0006	-0.0003	-0.0002	-0.0001
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	-0.0137	-0.0193	-0.0309	-0.0917	-0.0913	-0.0865	-0.0701	-0.0454	-0.0244	-0.0114	-0.0040
MEA	-0.0009	-0.0008	-0.0192	-0.0545	-0.0543	-0.0514	-0.0416	-0.0270	-0.0145	-0.0067	-0.0024
NEU	-0.0001	-0.0173	-0.0183	-0.0009	-0.0008	-0.0008	-0.0007	-0.0004	-0.0002	-0.0001	0.0000
OAS	-0.0350	-0.0349	-0.0753	-0.0936	-0.0933	-0.0883	-0.0716	-0.0464	-0.0250	-0.0116	-0.0041
REF	0.0196	0.0596	0.0507	0.0864	0.0861	0.0815	0.0660	0.0428	0.0230	0.0107	0.0038
SSA	-0.0002	-0.0005	-0.0045	-0.0292	-0.0291	-0.0275	-0.0223	-0.0145	-0.0078	-0.0036	-0.0013
USA	-0.0051	-0.0060	-0.0078	-0.0064	-0.0064	-0.0061	-0.0049	-0.0032	-0.0017	-0.0008	-0.0003

Table 173: MAGPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 1/2]

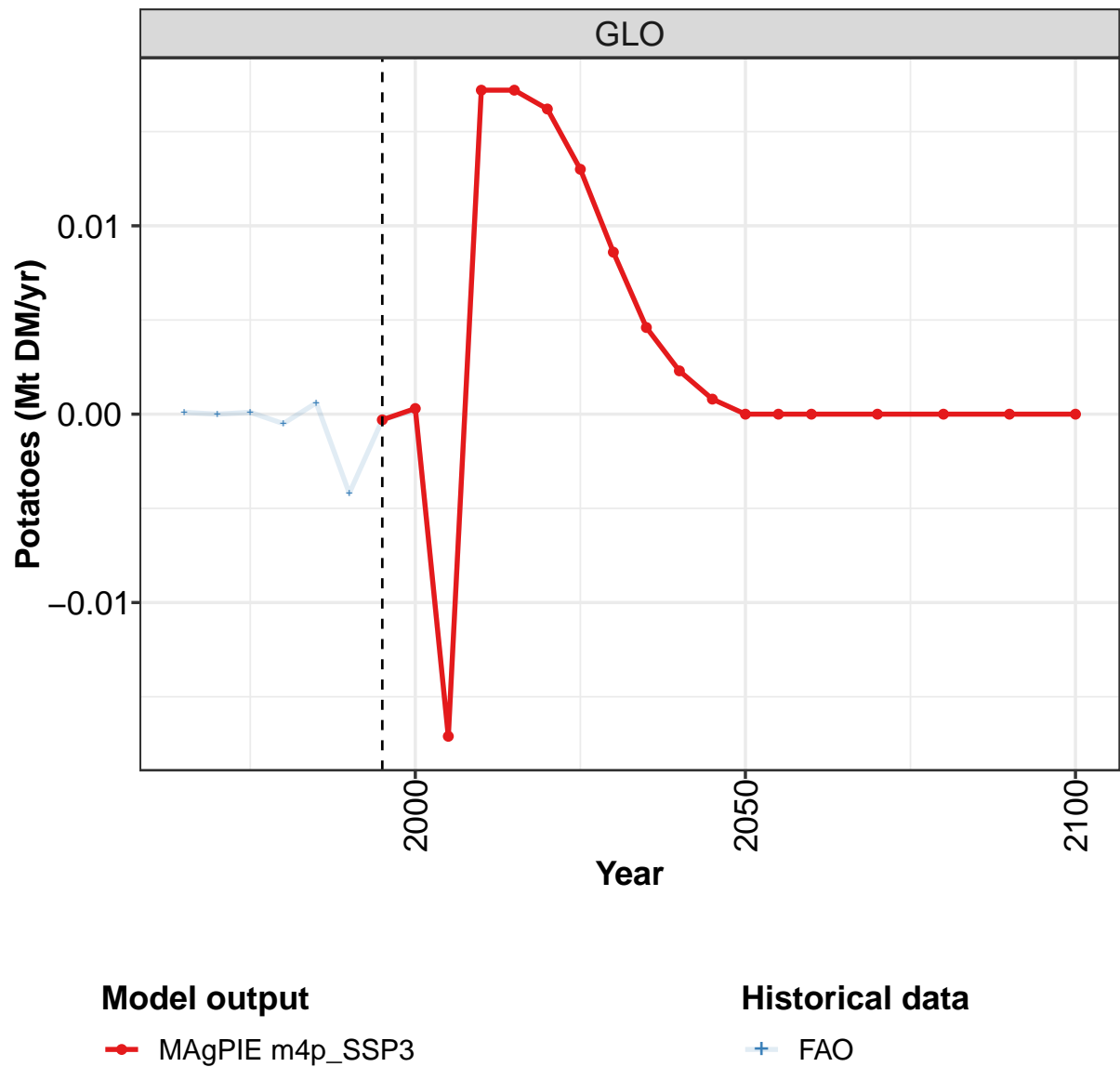
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 174: MAGPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0144	0.0125	0.0190	0.0009	0.0044	0.0368	-0.0656	-0.0508	-0.1227	-0.2185
CAZ	-0.0006	-0.0003	-0.0008	-0.0011	-0.0036	-0.0038	-0.0021	-0.0048	-0.0028	-0.0029
CHA	0.0000	0.0000	-0.0002	-0.0001	-0.0028	-0.0042	-0.0100	-0.0099	-0.0036	-0.0022
EUR	-0.0159	-0.0182	-0.0140	-0.0164	-0.0167	-0.0178	-0.0180	-0.0165	-0.0099	-0.0223
IND	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0002	-0.0001	-0.0003	-0.0011	-0.0012
JPN	0.0000	0.0000	0.0004	0.0004	0.0018	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	-0.0009	-0.0012	-0.0009	-0.0049	-0.0043	-0.0055	-0.0137	-0.0193	-0.0309	-0.0917
MEA	-0.0023	-0.0002	-0.0014	-0.0011	-0.0006	-0.0005	-0.0009	-0.0008	-0.0192	-0.0545
NEU	0.0222	0.0170	0.0275	0.0210	0.0206	0.0313	-0.0001	-0.0173	-0.0183	-0.0009
OAS	0.0002	0.0007	-0.0002	-0.0036	-0.0002	-0.0262	-0.0350	-0.0349	-0.0753	-0.0936
REF	0.0119	0.0151	0.0093	0.0075	0.0103	0.0642	0.0196	0.0596	0.0507	0.0864
SSA	0.0000	0.0000	-0.0001	0.0001	0.0000	0.0029	-0.0002	-0.0005	-0.0045	-0.0292
USA	-0.0002	-0.0004	-0.0004	-0.0009	0.0000	-0.0035	-0.0051	-0.0060	-0.0078	-0.0064

Table 175: FAO — Demand—Domestic Balanceflow—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

5.1.14 Other crops—Potatoes



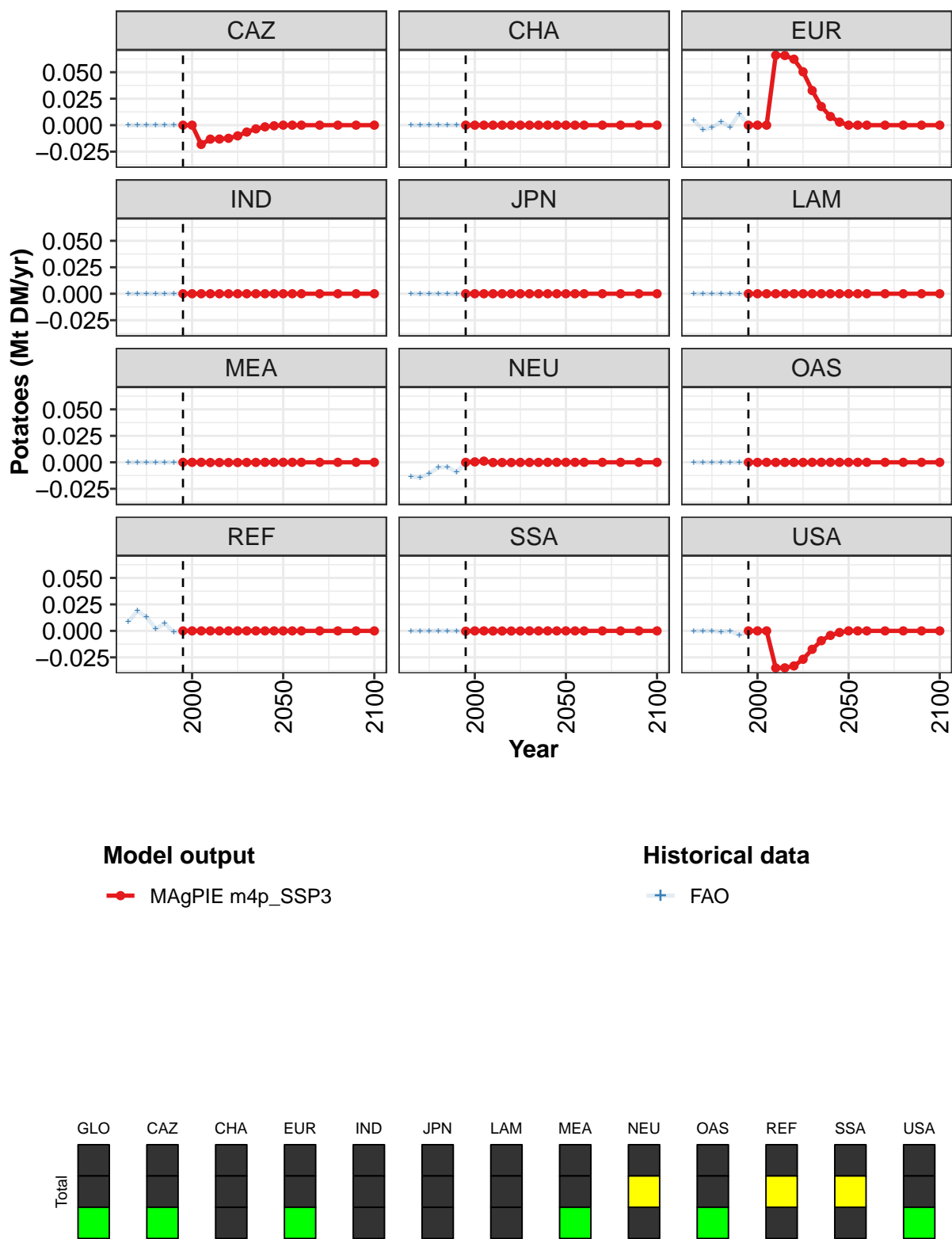


Figure 59: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.0003	0.0003	-0.0171	0.0172	0.0172	0.0162	0.0130	0.0086	0.0046	0.0023	0.0008
CAZ	0.0000	0.0000	-0.0182	-0.0132	-0.0131	-0.0124	-0.0101	-0.0065	-0.0035	-0.0016	-0.0006
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0660	0.0658	0.0623	0.0504	0.0327	0.0176	0.0082	0.0029
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	-0.0002	-0.0002	-0.0002	-0.0002	-0.0001	-0.0001	0.0000	0.0000
NEU	0.0000	0.0004	0.0011	-0.0002	-0.0002	-0.0002	-0.0001	-0.0001	-0.0001	0.0000	0.0000
OAS	0.0000	-0.0001	0.0000	-0.0001	-0.0001	-0.0001	-0.0001	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	-0.0003	0.0000	0.0000	-0.0001	-0.0001	-0.0001	-0.0001	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	-0.0350	-0.0349	-0.0331	-0.0268	-0.0174	-0.0093	-0.0043	-0.0015

Table 176: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

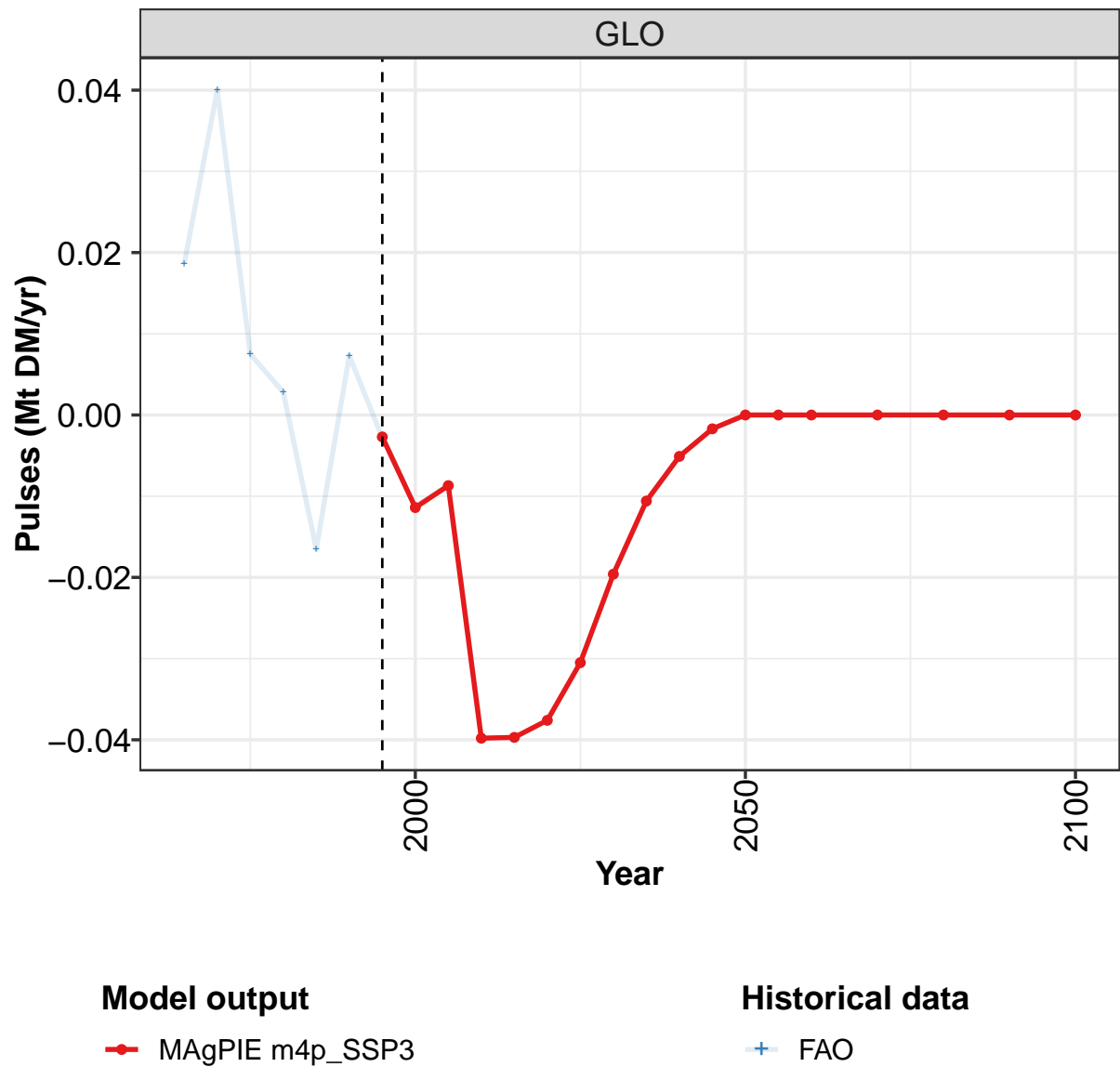
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 177: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops—Potatoes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0001	0.0000	0.0001	-0.0005	0.0006	-0.0042	-0.0003	0.0002	-0.0172	0.0172
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0182	-0.0132
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0049	-0.0042	-0.0024	0.0034	-0.0018	0.0109	0.0000	0.0000	0.0000	0.0660
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0002
NEU	-0.0133	-0.0146	-0.0106	-0.0050	-0.0043	-0.0095	0.0000	0.0004	0.0011	-0.0002
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	0.0000	-0.0001
REF	0.0085	0.0188	0.0131	0.0020	0.0068	-0.0011	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0003	0.0000	0.0000	-0.0001
USA	0.0000	0.0000	0.0000	-0.0009	0.0000	-0.0043	0.0000	0.0000	0.0000	-0.0350

Table 178: FAO — Demand—Domestic Balanceflow—Crops—Other crops—Potatoes (Mt DM/yr)

5.1.15 Other crops—Pulses



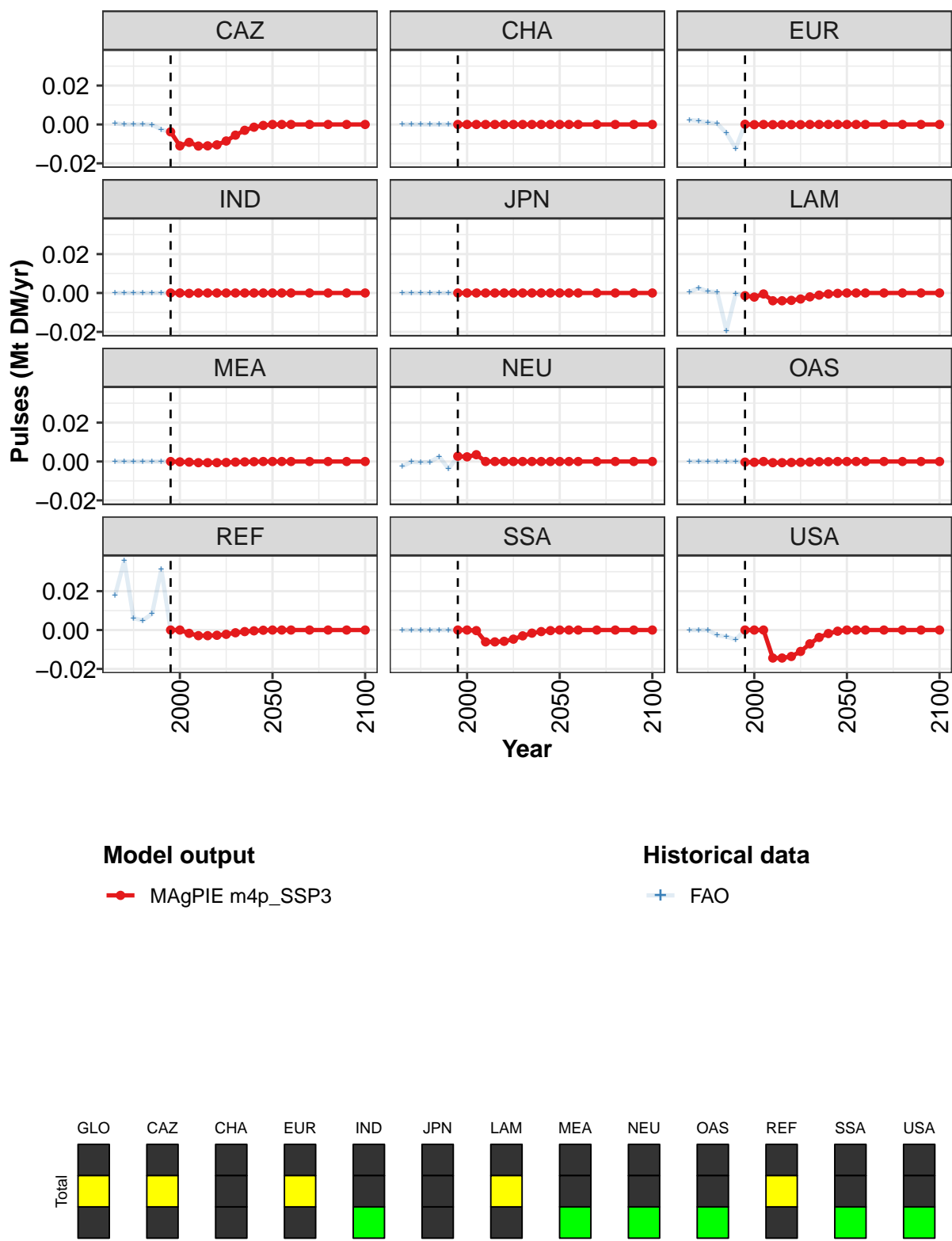


Figure 60: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.00270	-0.01140	-0.00870	-0.03980	-0.03970	-0.03760	-0.03050	-0.01960	-0.01060	-0.00510	-0.00000
CAZ	-0.00380	-0.01100	-0.00920	-0.01110	-0.01100	-0.01050	-0.00850	-0.00550	-0.00300	-0.00140	-0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00010	-0.00010	0.00000	-0.00010	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	-0.00020	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	-0.00140	-0.00210	-0.00050	-0.00400	-0.00400	-0.00380	-0.00310	-0.00200	-0.00110	-0.00050	-0.00000
MEA	0.00000	-0.00020	-0.00030	-0.00060	-0.00060	-0.00060	-0.00050	-0.00030	-0.00020	-0.00010	0.00000
NEU	0.00270	0.00240	0.00350	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	-0.00030	-0.00040	0.00000	-0.00060	-0.00060	-0.00050	-0.00040	-0.00030	-0.00010	-0.00010	0.00000
REF	0.00000	0.00000	-0.00170	-0.00290	-0.00290	-0.00270	-0.00220	-0.00140	-0.00080	-0.00040	-0.00000
SSA	0.00000	0.00000	-0.00030	-0.00610	-0.00610	-0.00580	-0.00470	-0.00300	-0.00160	-0.00080	-0.00000
USA	0.00000	0.00000	0.00000	-0.01440	-0.01440	-0.01360	-0.01100	-0.00710	-0.00380	-0.00180	-0.00000

Table 179: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops—Pulses (Mt DM/yr)
[PART 1/2]

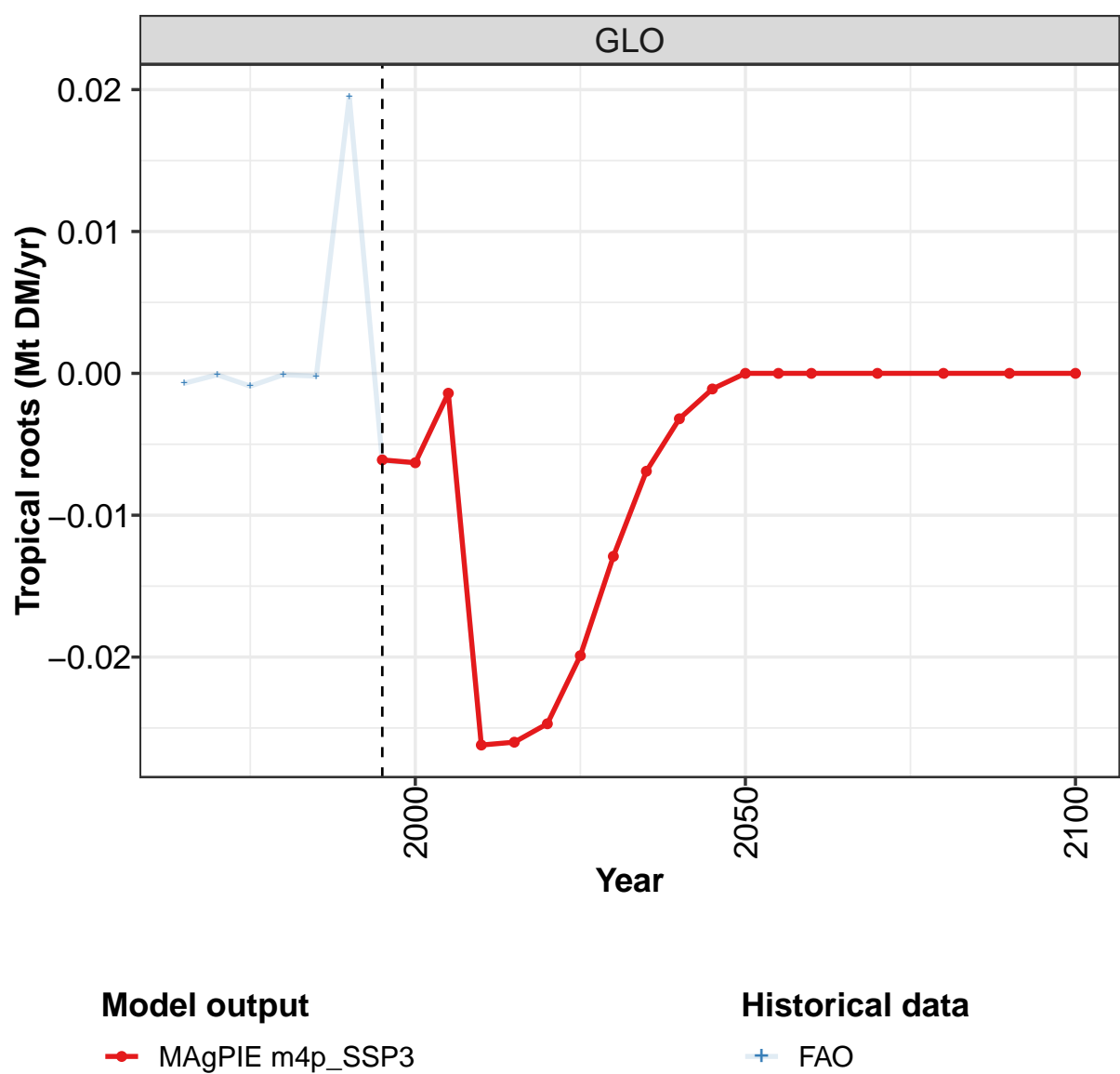
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 180: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops—Pulses (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0186	0.0400	0.0075	0.0028	-0.0165	0.0073	-0.0028	-0.0113	-0.0086	-0.0398
CAZ	0.0006	0.0000	0.0000	0.0000	-0.0001	-0.0026	-0.0038	-0.0110	-0.0092	-0.0111
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0023	0.0019	0.0010	0.0004	-0.0045	-0.0123	0.0001	-0.0001	0.0000	-0.0001
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0002	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0005	0.0026	0.0007	0.0005	-0.0194	-0.0003	-0.0014	-0.0021	-0.0005	-0.0040
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0002	-0.0003	-0.0006
NEU	-0.0025	-0.0002	-0.0004	-0.0003	0.0025	-0.0038	0.0027	0.0024	0.0035	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0003	-0.0004	0.0000	-0.0006
REF	0.0178	0.0356	0.0061	0.0049	0.0084	0.0312	0.0000	0.0000	-0.0017	-0.0029
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0003	-0.0061
USA	0.0000	0.0000	0.0000	-0.0027	-0.0034	-0.0049	0.0000	0.0000	0.0000	-0.0144

Table 181: FAO — Demand—Domestic Balanceflow—Crops—Other crops—Pulses (Mt DM/yr)

5.1.16 Other crops—Tropical roots



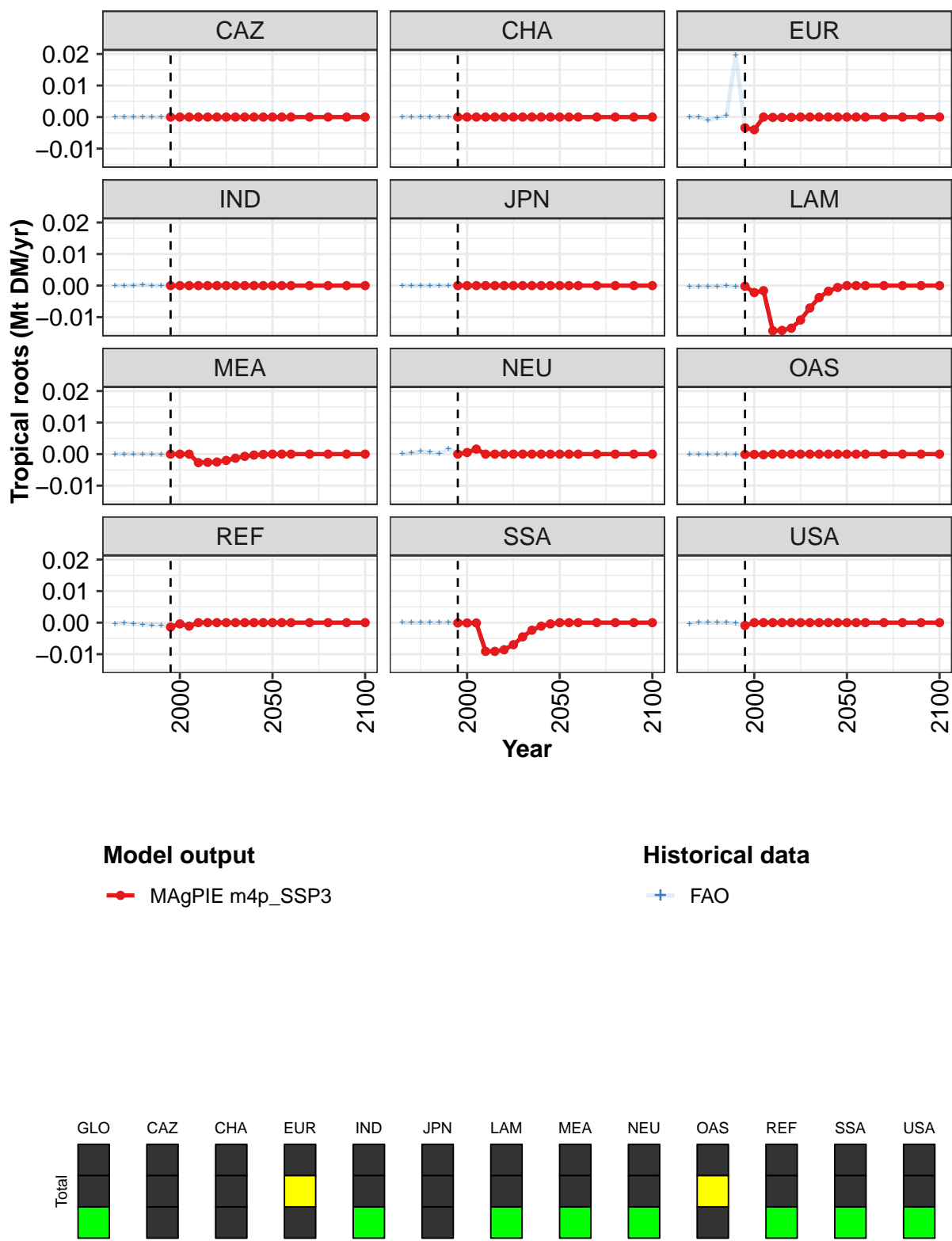


Figure 61: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.00610	-0.00630	-0.00140	-0.02620	-0.02600	-0.02470	-0.01990	-0.01290	-0.00690	-0.00320	-0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	-0.00340	-0.00400	0.00000	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	-0.00020	-0.00220	-0.00160	-0.01430	-0.01420	-0.01350	-0.01090	-0.00710	-0.00380	-0.00180	-0.00000
MEA	0.00000	0.00000	0.00000	-0.00270	-0.00260	-0.00250	-0.00200	-0.00130	-0.00070	-0.00030	-0.00000
NEU	0.00000	0.00050	0.00160	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	-0.00010	-0.00010	-0.00020	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	-0.00140	-0.00040	-0.00110	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	-0.00010	-0.00010	-0.00010	-0.00910	-0.00910	-0.00860	-0.00700	-0.00450	-0.00240	-0.00110	-0.00000
USA	-0.00090	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 182: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 1/2]

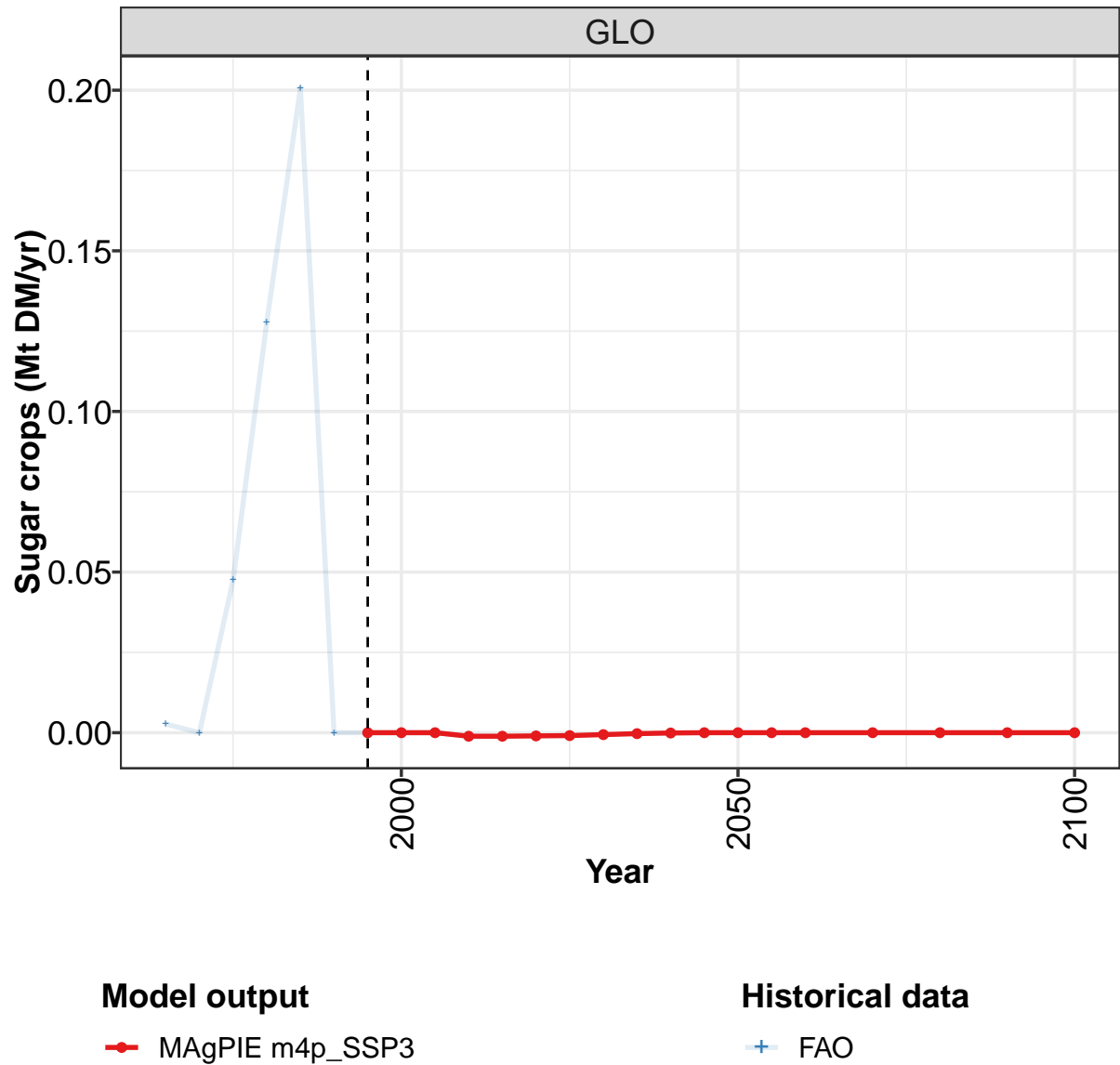
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 183: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-0.0007	-0.0001	-0.0009	-0.0001	-0.0002	0.0195	-0.0062	-0.0063	-0.0014	-0.0261
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0001	0.0000	-0.0010	-0.0003	0.0005	0.0196	-0.0034	-0.0040	0.0000	-0.0001
IND	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	-0.0004	-0.0003	-0.0003	-0.0002	-0.0001	-0.0004	-0.0002	-0.0022	-0.0016	-0.0143
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0002	0.0000	0.0000	0.0000	-0.0027
NEU	0.0001	0.0004	0.0008	0.0007	0.0002	0.0016	0.0000	0.0005	0.0016	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0001	-0.0002	0.0000
REF	-0.0003	-0.0002	-0.0004	-0.0006	-0.0008	-0.0008	-0.0014	-0.0004	-0.0011	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0001	-0.0001	-0.0091
USA	-0.0003	0.0000	0.0000	0.0000	0.0000	-0.0002	-0.0009	0.0000	0.0000	0.0000

Table 184: FAO — Demand—Domestic Balanceflow—Crops—Other crops—Tropical roots (Mt DM/yr)

5.1.17
Sugar crops



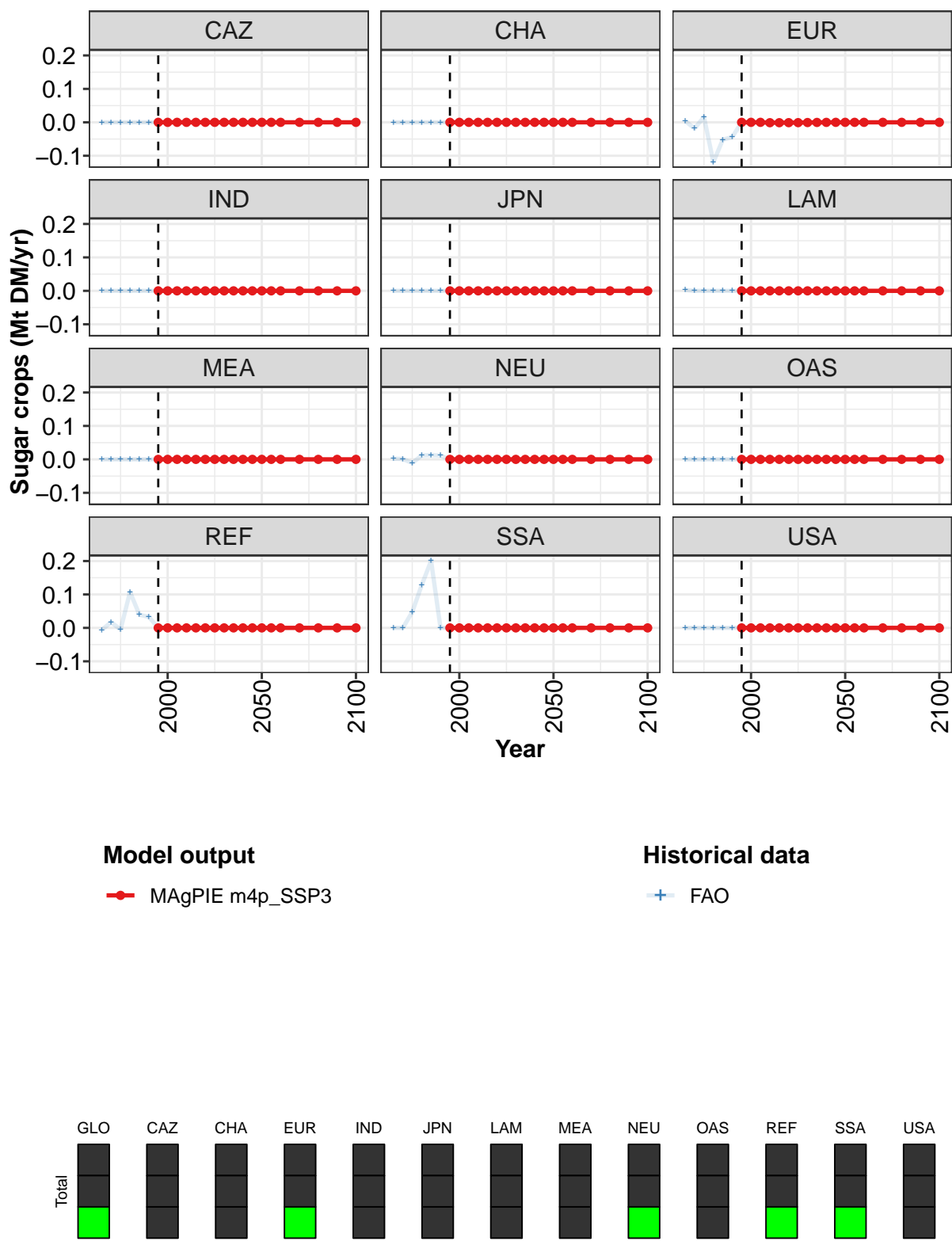


Figure 62: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0	0	0	-0	-0	-0	-0	-0	-0	-0	0
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	-0	-0	-0	-0	-0	-0	-0	0
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0	0

Table 185: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

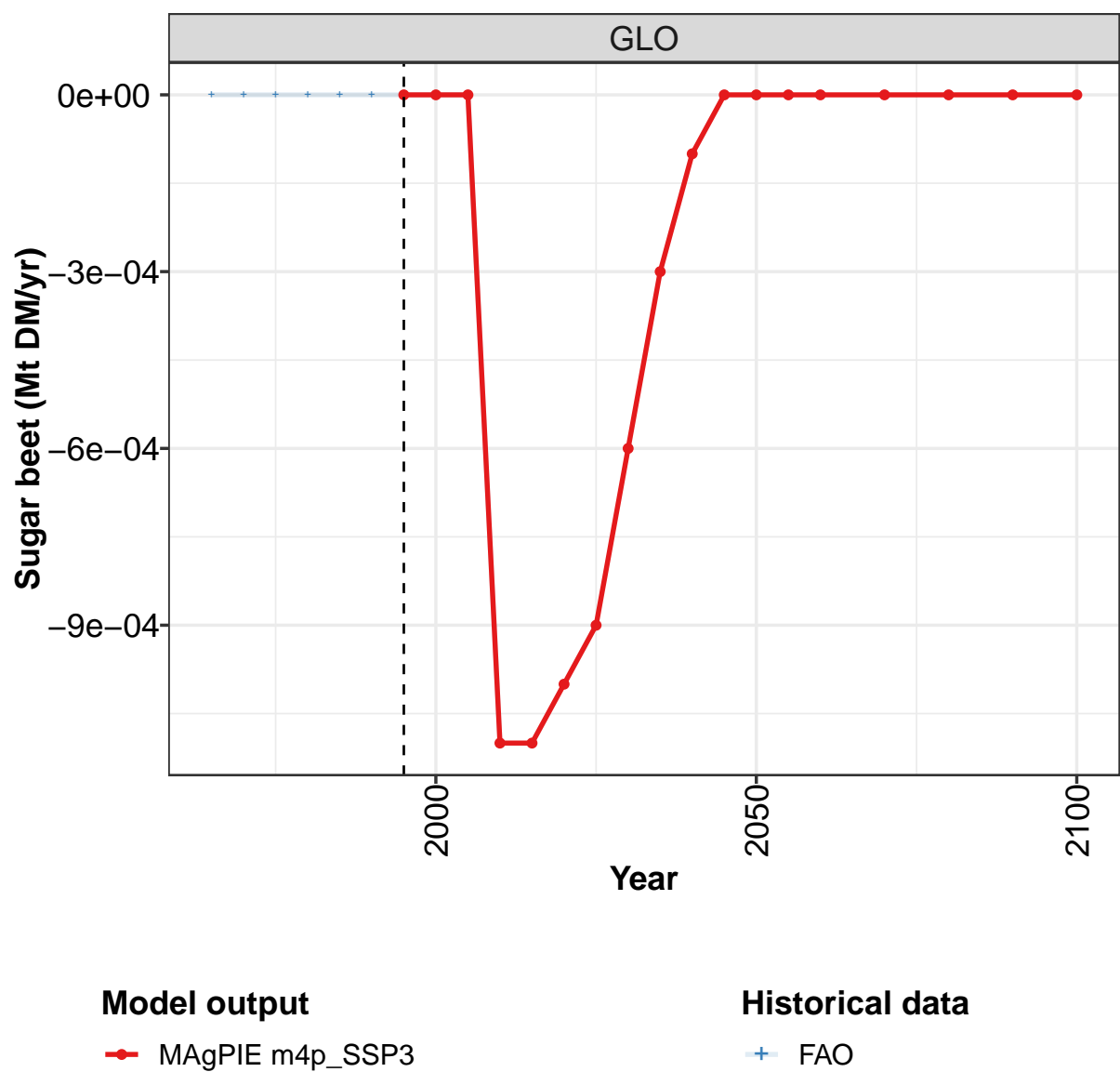
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
CAZ	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 186: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Sugar crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.003	0.000	0.048	0.128	0.201	0.000	0.000	0.000	0.000	-0.001
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.004	-0.018	0.016	-0.119	-0.052	-0.044	0.000	0.000	0.000	-0.001
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.002	0.001	-0.011	0.012	0.013	0.011	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	-0.006	0.017	-0.005	0.107	0.039	0.033	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.048	0.128	0.201	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 187: FAO — Demand—Domestic Balanceflow—Crops—Sugar crops (Mt DM/yr)

5.1.18 Sugar crops—Sugar beet



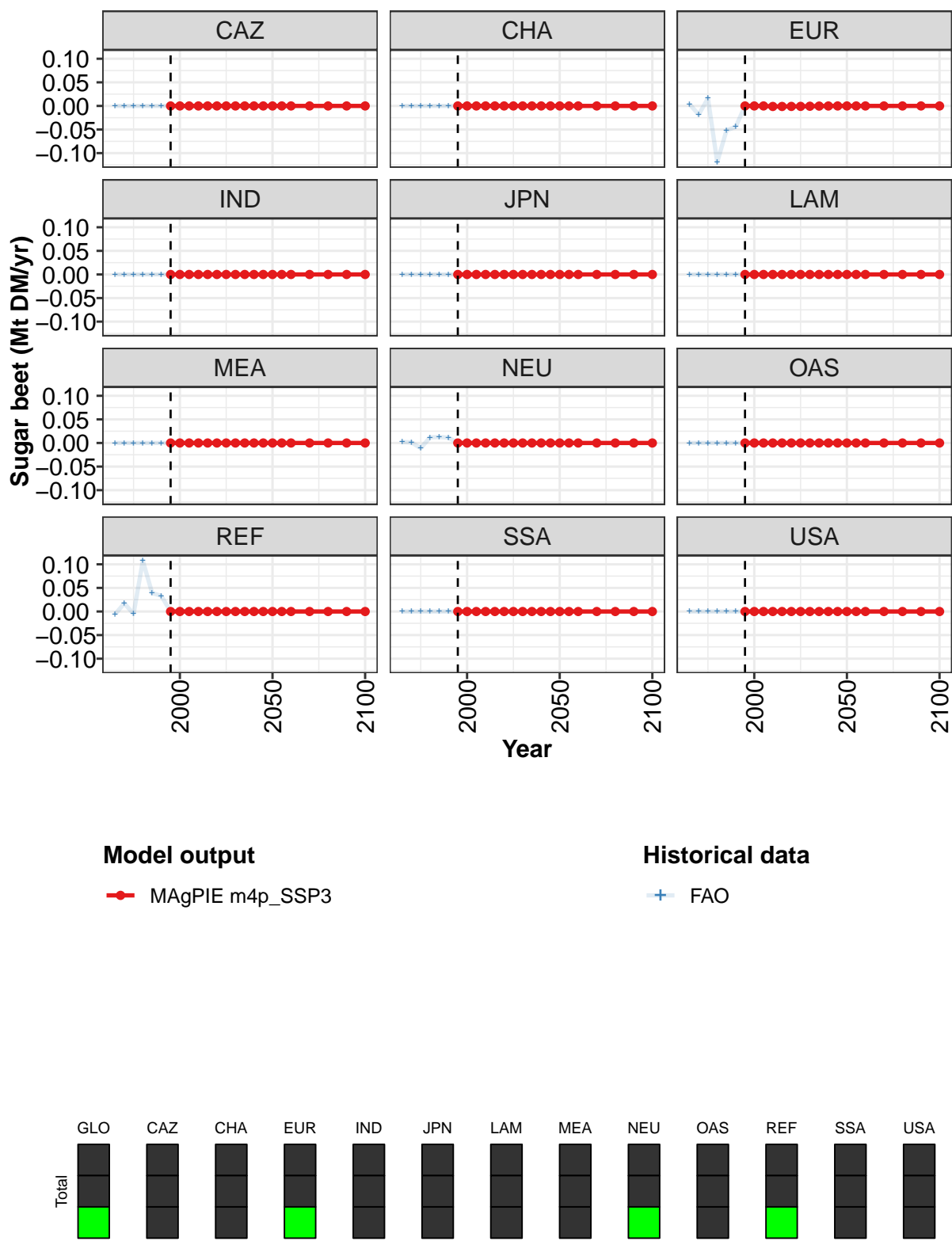


Figure 63: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0	0	0	-0	-0	-0	-0	-0	-0	-0	0
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	-0	-0	-0	-0	-0	-0	-0	0
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0	0

Table 188: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

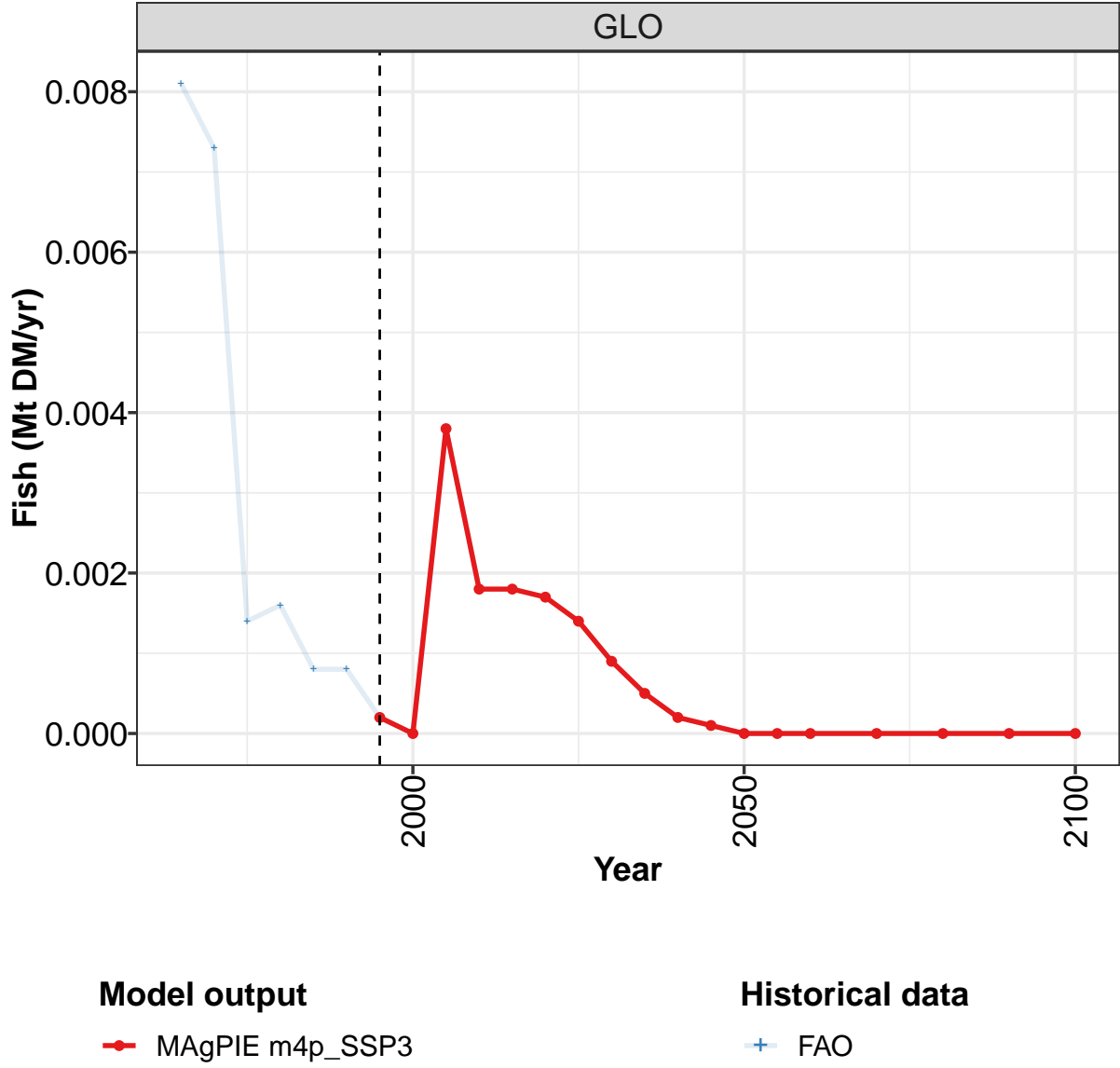
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
CAZ	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

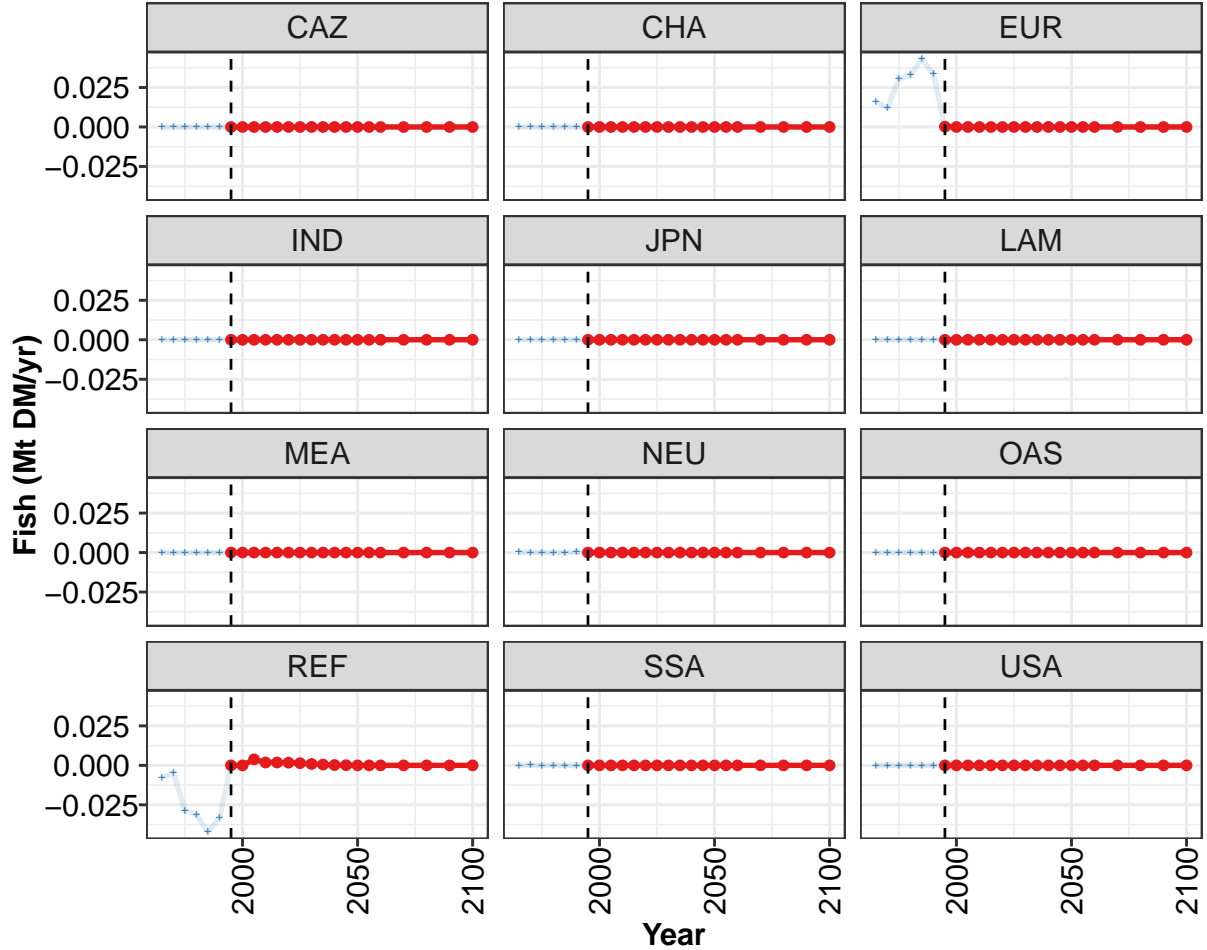
Table 189: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.004	-0.018	0.016	-0.119	-0.052	-0.044	0.000	0.000	0.000	-0.001
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.002	0.001	-0.011	0.012	0.013	0.011	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	-0.006	0.017	-0.005	0.107	0.039	0.033	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 190: FAO — Demand—Domestic Balanceflow—Crops—Sugar crops—Sugar beet (Mt DM/yr)

5.2 Fish





Model output

MAgPIE m4p_SSP3

Historical data

FAO

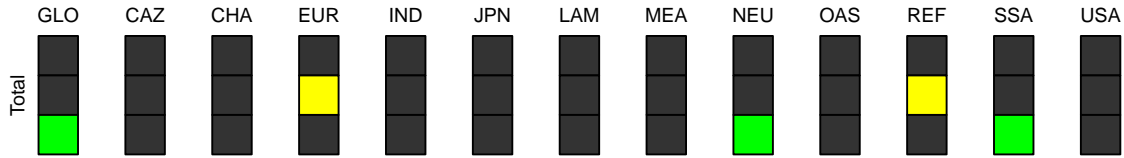


Figure 64: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Fish (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.00020	0.00000	0.00380	0.00180	0.00180	0.00170	0.00140	0.00090	0.00050	0.00020	0.00010
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00020	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00380	0.00180	0.00180	0.00170	0.00140	0.00090	0.00050	0.00020	0.00010
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

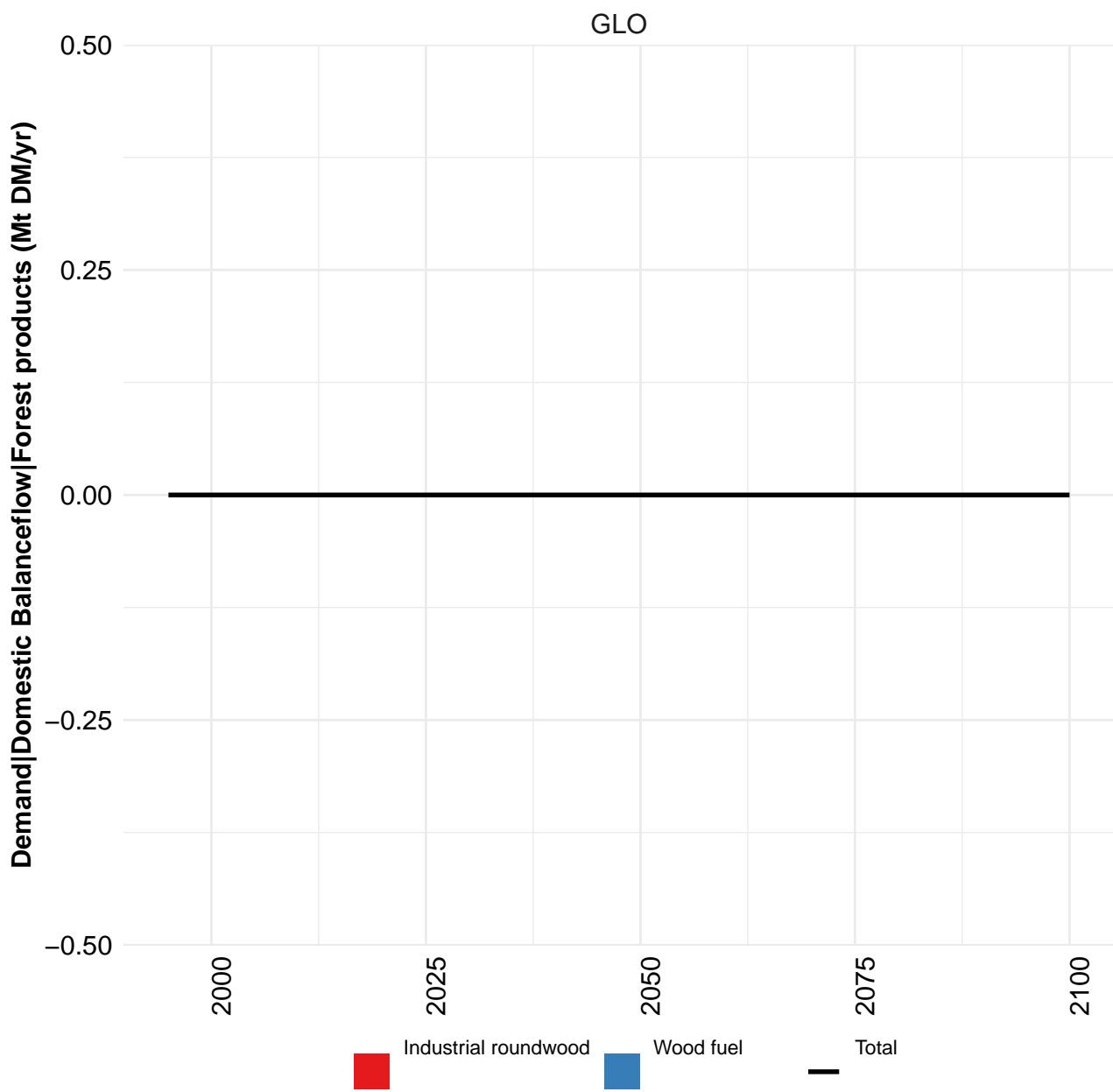
Table 191: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Fish (Mt DM/yr) [PART 1/2]

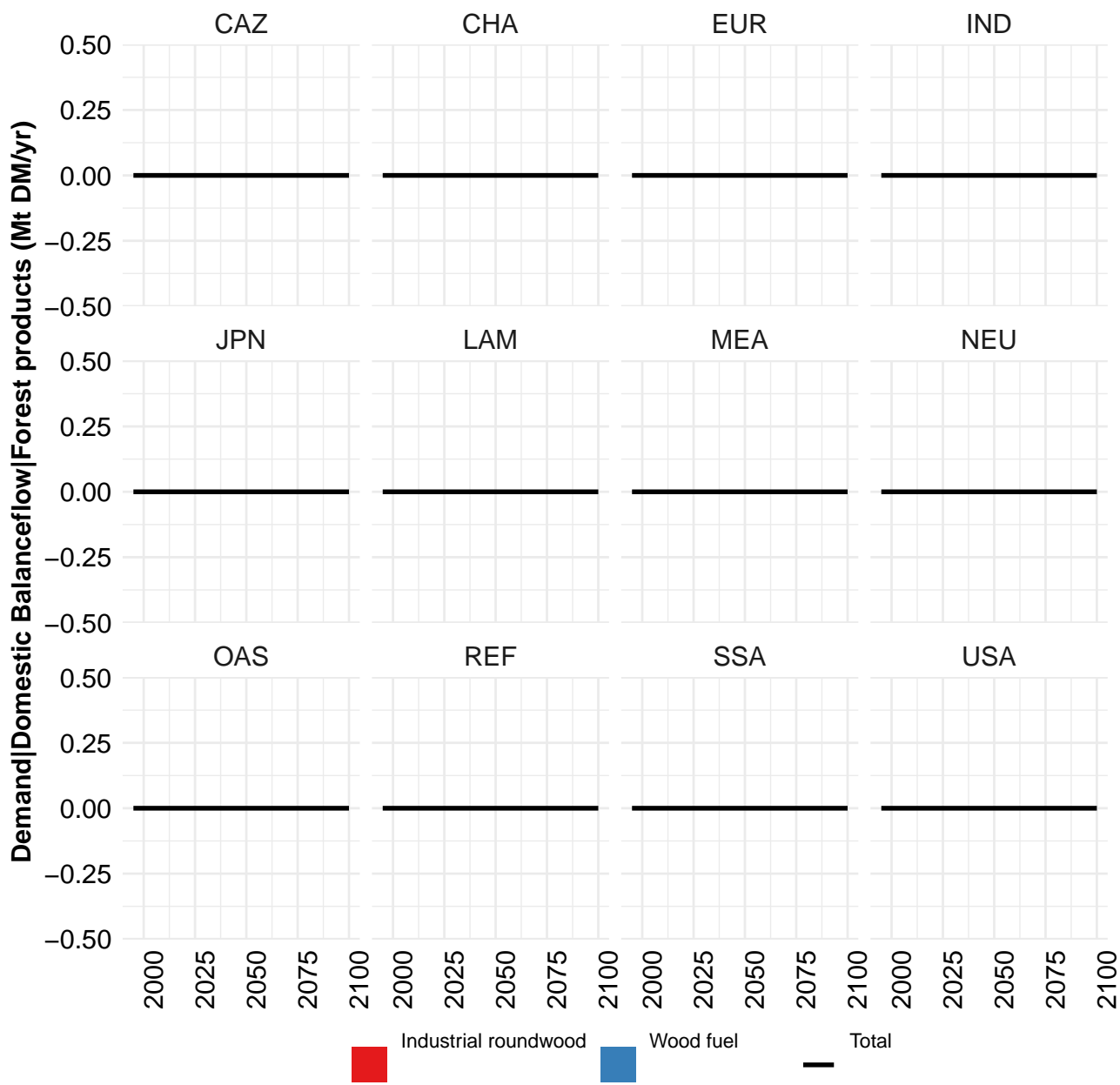
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

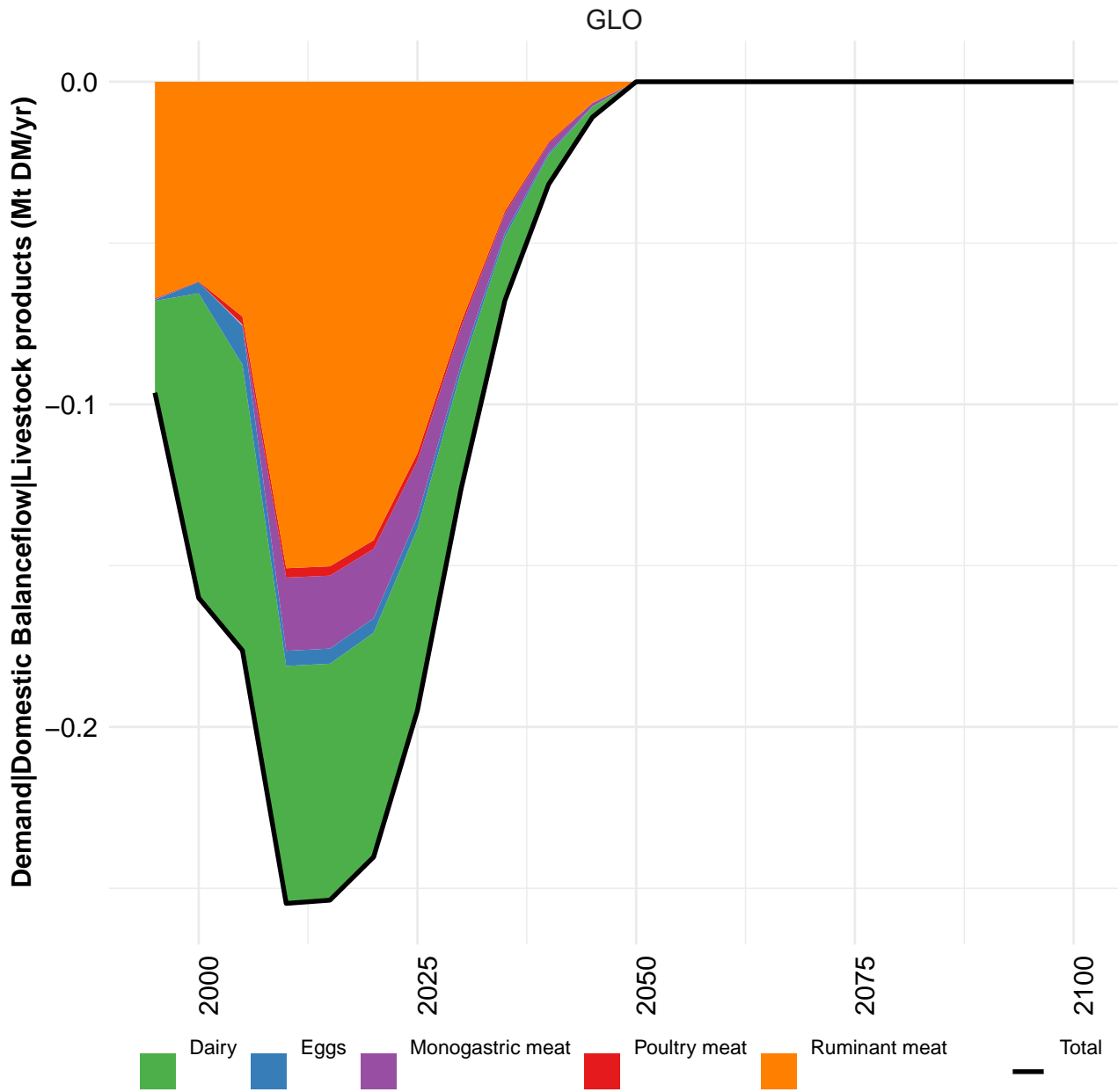
Table 192: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Fish (Mt DM/yr) [PART 2/2]

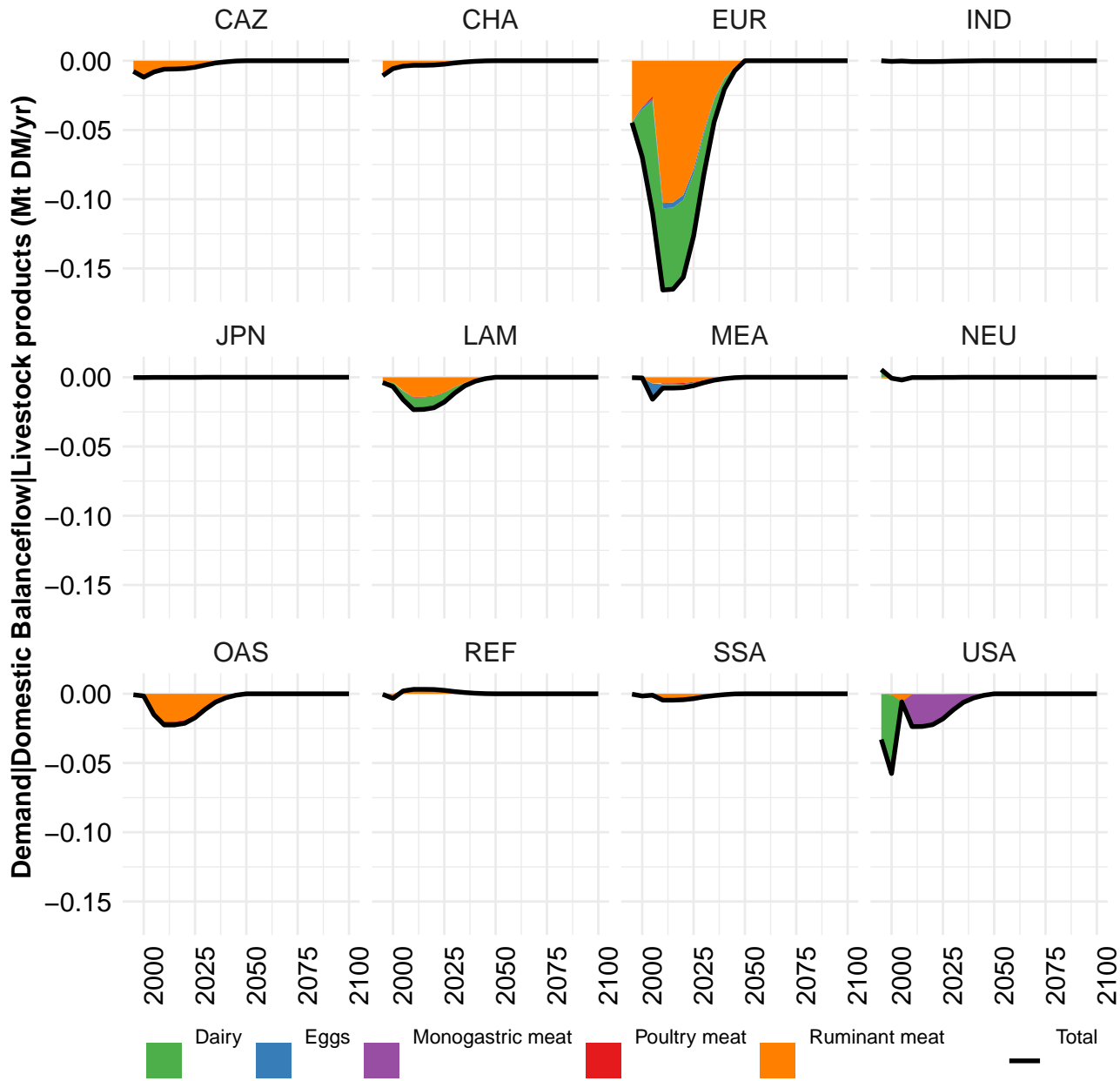
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0081	0.0073	0.0014	0.0016	0.0008	0.0008	0.0002	0.0000	0.0038	0.0018
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0157	0.0120	0.0303	0.0328	0.0432	0.0334	0.0002	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0002	0.0001	0.0000	-0.0001	-0.0001	0.0005	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	-0.0078	-0.0050	-0.0288	-0.0311	-0.0423	-0.0331	0.0000	0.0000	0.0038	0.0018
SSA	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 193: FAO — Demand—Domestic Balanceflow—Fish (Mt DM/yr)

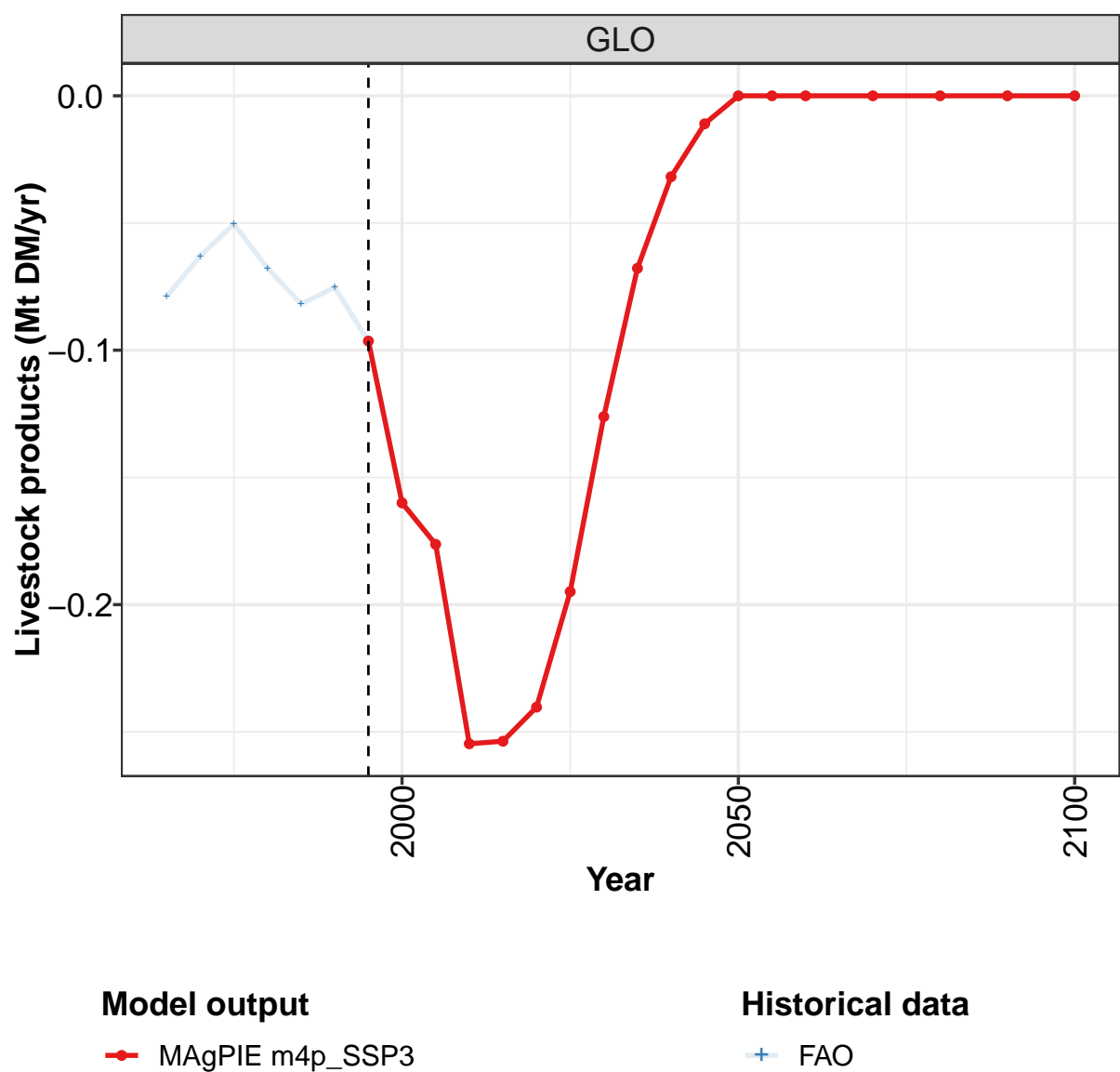








5.3 Livestock products



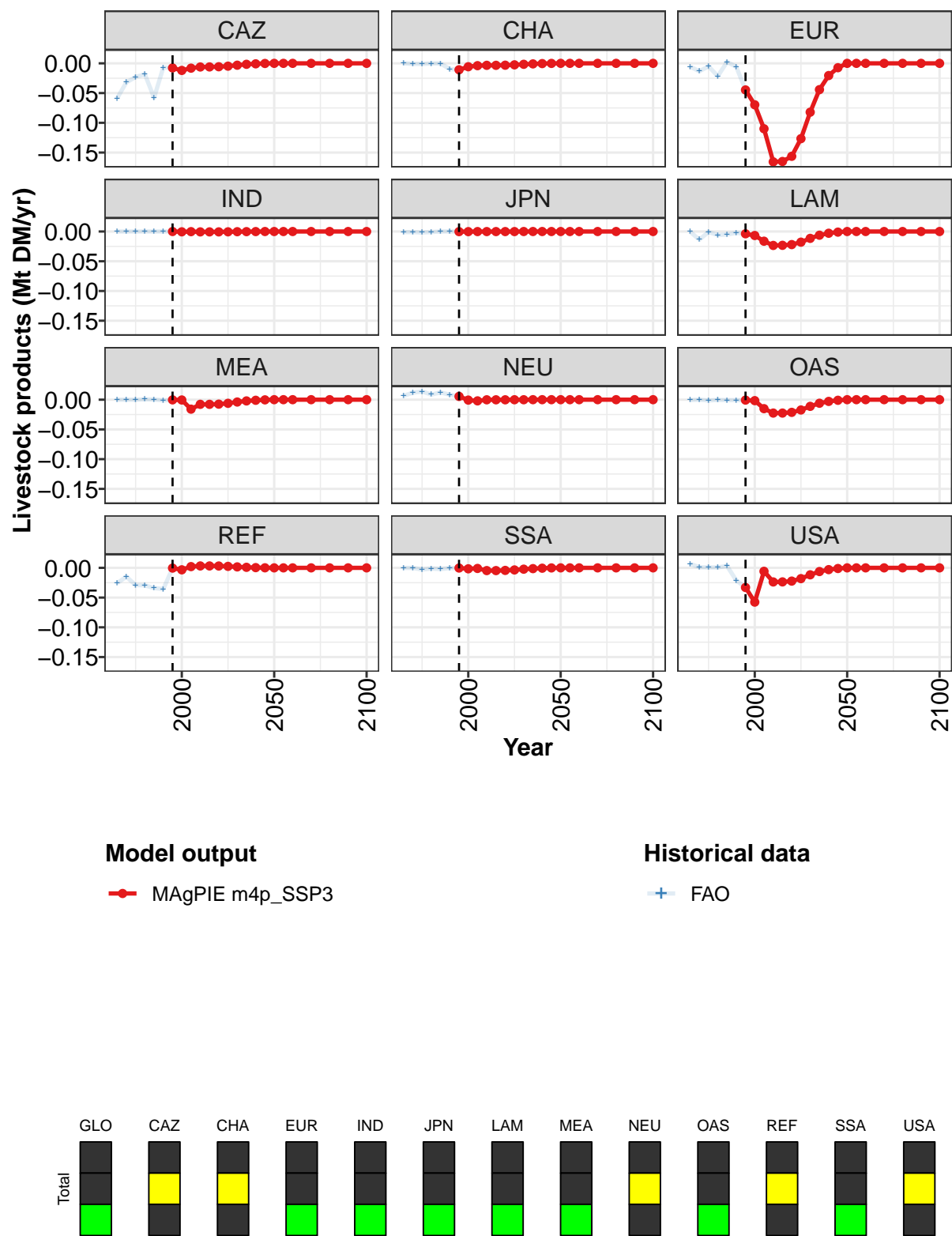


Figure 65: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.09640	-0.16000	-0.17630	-0.25470	-0.25370	-0.24030	-0.19490	-0.12610	-0.06780	-0.03180	-0.00000
CAZ	-0.00770	-0.01190	-0.00810	-0.00610	-0.00600	-0.00570	-0.00470	-0.00310	-0.00160	-0.00080	-0.00000
CHA	-0.01080	-0.00570	-0.00390	-0.00330	-0.00330	-0.00310	-0.00250	-0.00160	-0.00090	-0.00040	-0.00000
EUR	-0.04470	-0.06970	-0.11000	-0.16560	-0.16500	-0.15630	-0.12660	-0.08210	-0.04420	-0.02050	-0.00000
IND	0.00000	-0.00050	-0.00020	-0.00060	-0.00060	-0.00060	-0.00050	-0.00030	-0.00020	-0.00010	0.00000
JPN	-0.00020	-0.00020	-0.00010	-0.00010	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.00000
LAM	-0.00380	-0.00670	-0.01630	-0.02340	-0.02320	-0.02200	-0.01790	-0.01150	-0.00620	-0.00290	-0.00000
MEA	-0.00030	-0.00050	-0.01590	-0.00780	-0.00780	-0.00750	-0.00610	-0.00390	-0.00210	-0.00100	-0.00000
NEU	0.00550	-0.00070	-0.00200	-0.00020	-0.00020	-0.00020	-0.00010	-0.00010	0.00000	0.00000	0.00000
OAS	-0.00070	-0.00160	-0.01510	-0.02250	-0.02250	-0.02130	-0.01730	-0.01120	-0.00600	-0.00290	-0.00000
REF	-0.00040	-0.00330	0.00210	0.00320	0.00320	0.00310	0.00250	0.00160	0.00090	0.00040	0.00000
SSA	-0.00030	-0.00160	-0.00100	-0.00460	-0.00460	-0.00430	-0.00350	-0.00220	-0.00130	-0.00060	-0.00000
USA	-0.03300	-0.05760	-0.00580	-0.02370	-0.02360	-0.02230	-0.01810	-0.01170	-0.00620	-0.00300	-0.00000

Table 194: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products (Mt DM/yr) [PART 1/2]

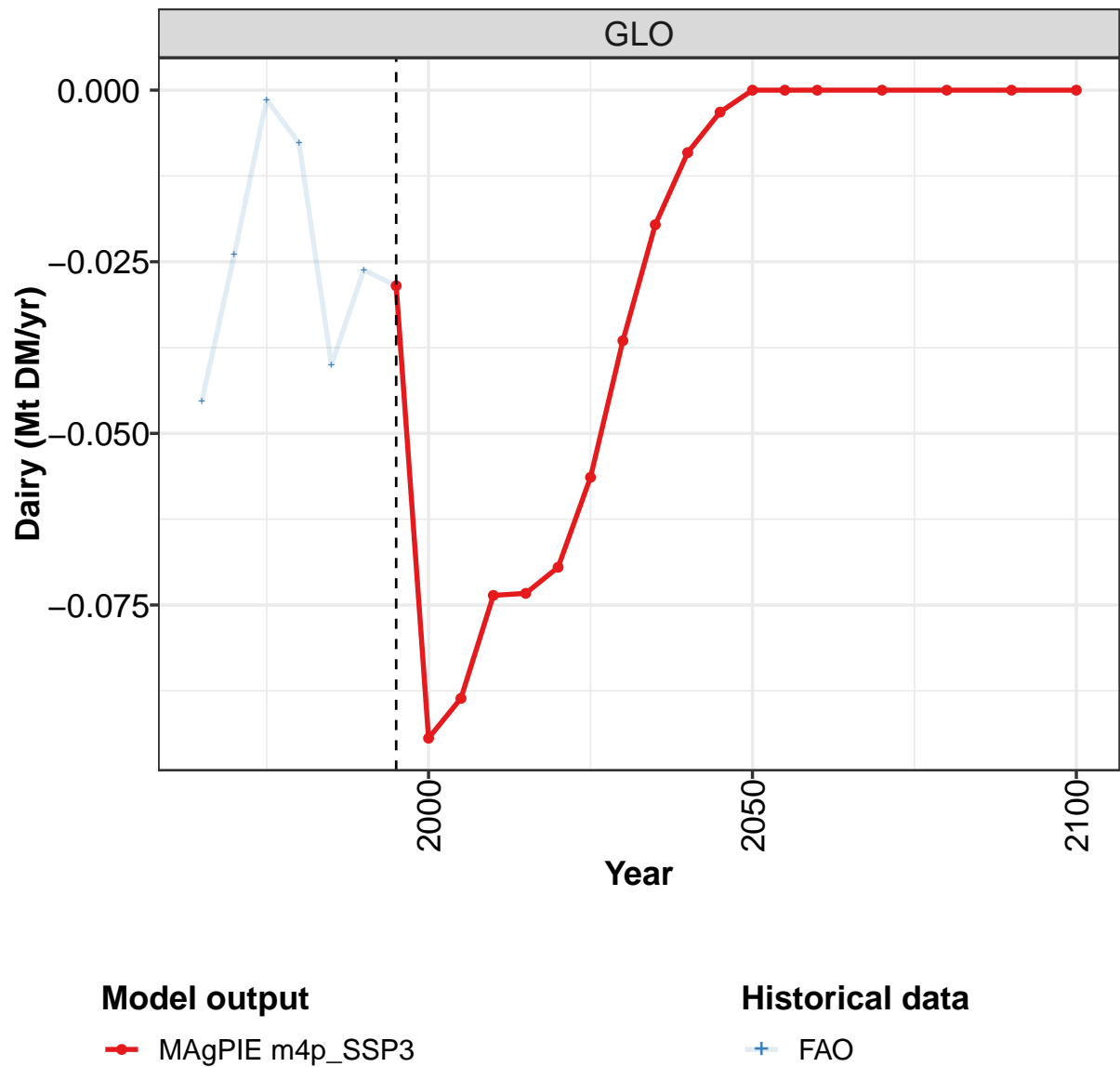
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 195: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-0.0789	-0.0630	-0.0504	-0.0678	-0.0818	-0.0753	-0.0965	-0.1599	-0.1763	-0.2548
CAZ	-0.0588	-0.0320	-0.0230	-0.0183	-0.0577	-0.0069	-0.0077	-0.0119	-0.0080	-0.0061
CHA	0.0000	-0.0009	-0.0011	-0.0002	-0.0002	-0.0096	-0.0108	-0.0057	-0.0038	-0.0033
EUR	-0.0055	-0.0133	-0.0051	-0.0215	0.0023	-0.0058	-0.0448	-0.0696	-0.1100	-0.1656
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0005	-0.0001	-0.0006
JPN	-0.0010	-0.0010	-0.0017	-0.0009	0.0000	0.0001	-0.0002	-0.0002	-0.0001	-0.0001
LAM	-0.0003	-0.0137	-0.0008	-0.0060	-0.0050	-0.0023	-0.0038	-0.0067	-0.0163	-0.0234
MEA	0.0000	0.0000	0.0000	0.0006	0.0004	-0.0012	-0.0002	-0.0005	-0.0160	-0.0079
NEU	0.0065	0.0117	0.0138	0.0086	0.0122	0.0084	0.0055	-0.0007	-0.0020	-0.0002
OAS	-0.0007	0.0000	-0.0013	-0.0004	-0.0008	-0.0008	-0.0008	-0.0015	-0.0151	-0.0226
REF	-0.0258	-0.0149	-0.0290	-0.0294	-0.0340	-0.0356	-0.0005	-0.0033	0.0021	0.0032
SSA	-0.0001	-0.0001	-0.0029	-0.0012	-0.0020	-0.0005	-0.0003	-0.0016	-0.0009	-0.0046
USA	0.0068	0.0011	0.0007	0.0008	0.0030	-0.0211	-0.0330	-0.0575	-0.0058	-0.0236

Table 196: FAO — Demand—Domestic Balanceflow—Livestock products (Mt DM/yr)

5.3.1 Dairy



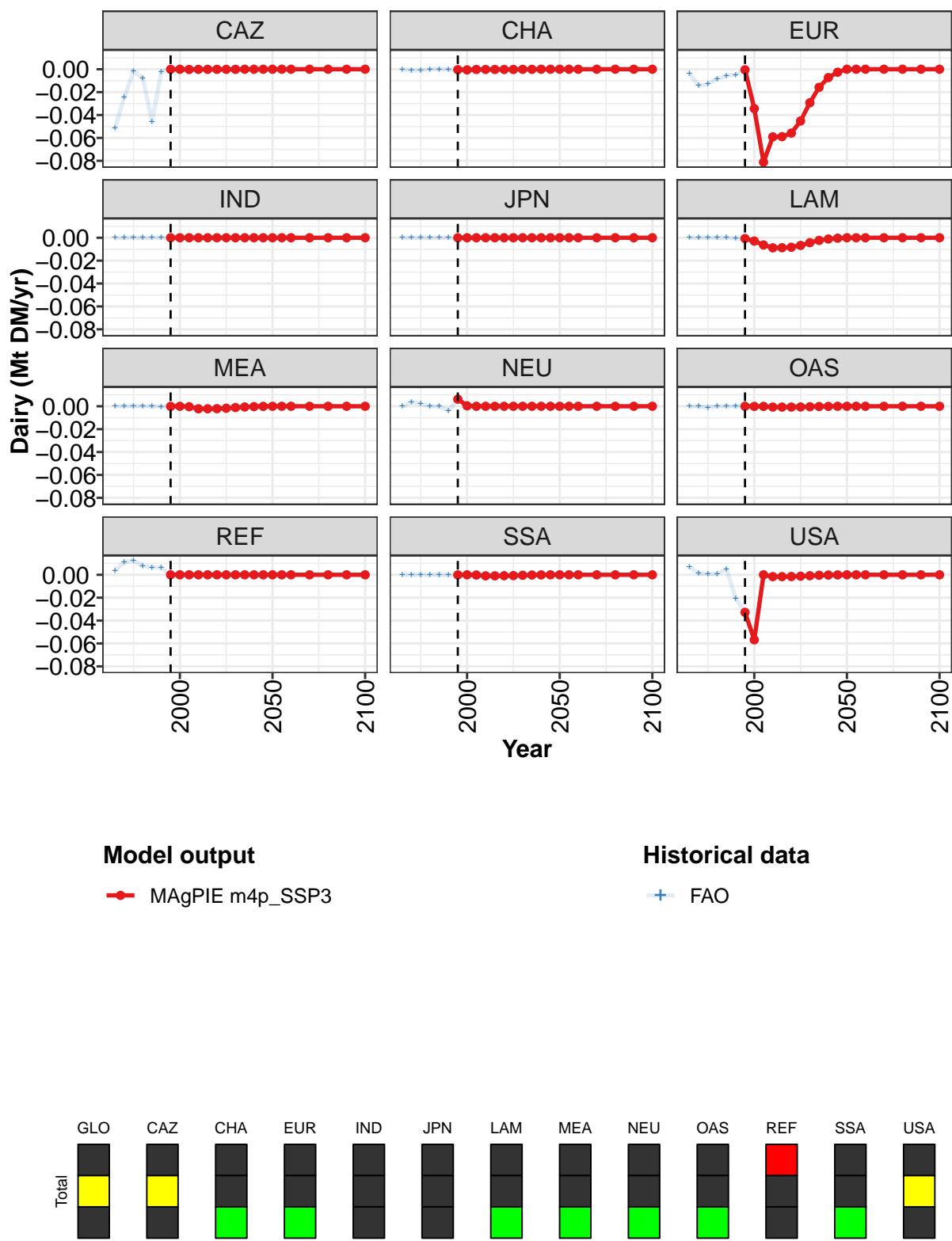


Figure 66: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Dairy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.02850	-0.09440	-0.08860	-0.07360	-0.07330	-0.06950	-0.05640	-0.03650	-0.01960	-0.00910	-0.00000
CAZ	-0.00010	0.00000	-0.00020	-0.00010	-0.00010	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000
CHA	-0.00040	-0.00060	-0.00020	-0.00020	-0.00020	-0.00020	-0.00020	-0.00010	-0.00010	0.00000	0.00000
EUR	-0.00050	-0.03440	-0.08120	-0.05910	-0.05890	-0.05580	-0.04520	-0.02930	-0.01580	-0.00730	-0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	-0.00070	-0.00290	-0.00630	-0.00880	-0.00870	-0.00830	-0.00670	-0.00430	-0.00230	-0.00110	-0.00000
MEA	-0.00010	0.00000	-0.00040	-0.00220	-0.00220	-0.00210	-0.00170	-0.00110	-0.00060	-0.00030	-0.00000
NEU	0.00620	0.00040	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	-0.00010	-0.00010	-0.00070	-0.00070	-0.00070	-0.00060	-0.00040	-0.00020	-0.00010	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	-0.00010	0.00000	-0.00020	-0.00090	-0.00090	-0.00080	-0.00070	-0.00040	-0.00020	-0.00010	0.00000
USA	-0.03280	-0.05680	0.00000	-0.00160	-0.00160	-0.00150	-0.00120	-0.00080	-0.00040	-0.00020	-0.00000

Table 197: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Dairy (Mt DM/yr)
[PART 1/2]

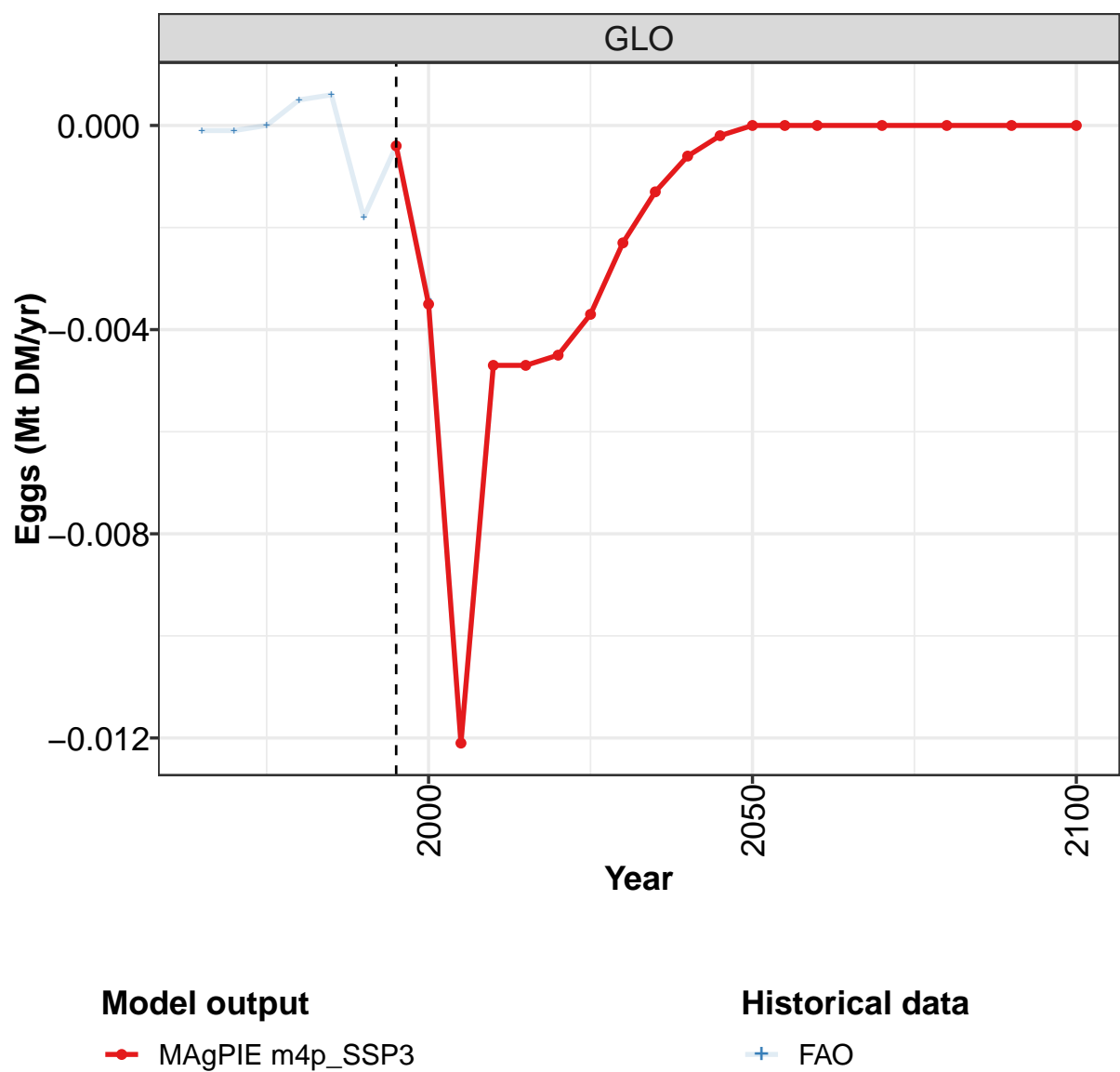
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 198: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Dairy (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-0.0453	-0.0240	-0.0014	-0.0077	-0.0400	-0.0262	-0.0285	-0.0944	-0.0885	-0.0737
CAZ	-0.0514	-0.0246	-0.0017	-0.0079	-0.0457	-0.0020	-0.0001	0.0000	-0.0002	-0.0001
CHA	-0.0003	-0.0011	-0.0010	0.0000	0.0000	-0.0003	-0.0004	-0.0006	-0.0002	-0.0002
EUR	-0.0039	-0.0144	-0.0130	-0.0085	-0.0056	-0.0048	-0.0005	-0.0344	-0.0812	-0.0591
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0006	-0.0007	-0.0029	-0.0063	-0.0088
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0004	-0.0001	0.0000	-0.0004	-0.0022
NEU	-0.0002	0.0038	0.0022	0.0001	-0.0001	-0.0038	0.0062	0.0004	0.0000	0.0000
OAS	0.0000	0.0000	-0.0009	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0001	-0.0007
REF	0.0037	0.0111	0.0122	0.0078	0.0065	0.0063	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0001	0.0000	-0.0002	-0.0009
USA	0.0068	0.0012	0.0009	0.0008	0.0049	-0.0205	-0.0328	-0.0568	0.0000	-0.0016

Table 199: FAO — Demand—Domestic Balanceflow—Livestock products—Dairy (Mt DM/yr)

5.3.2 Eggs



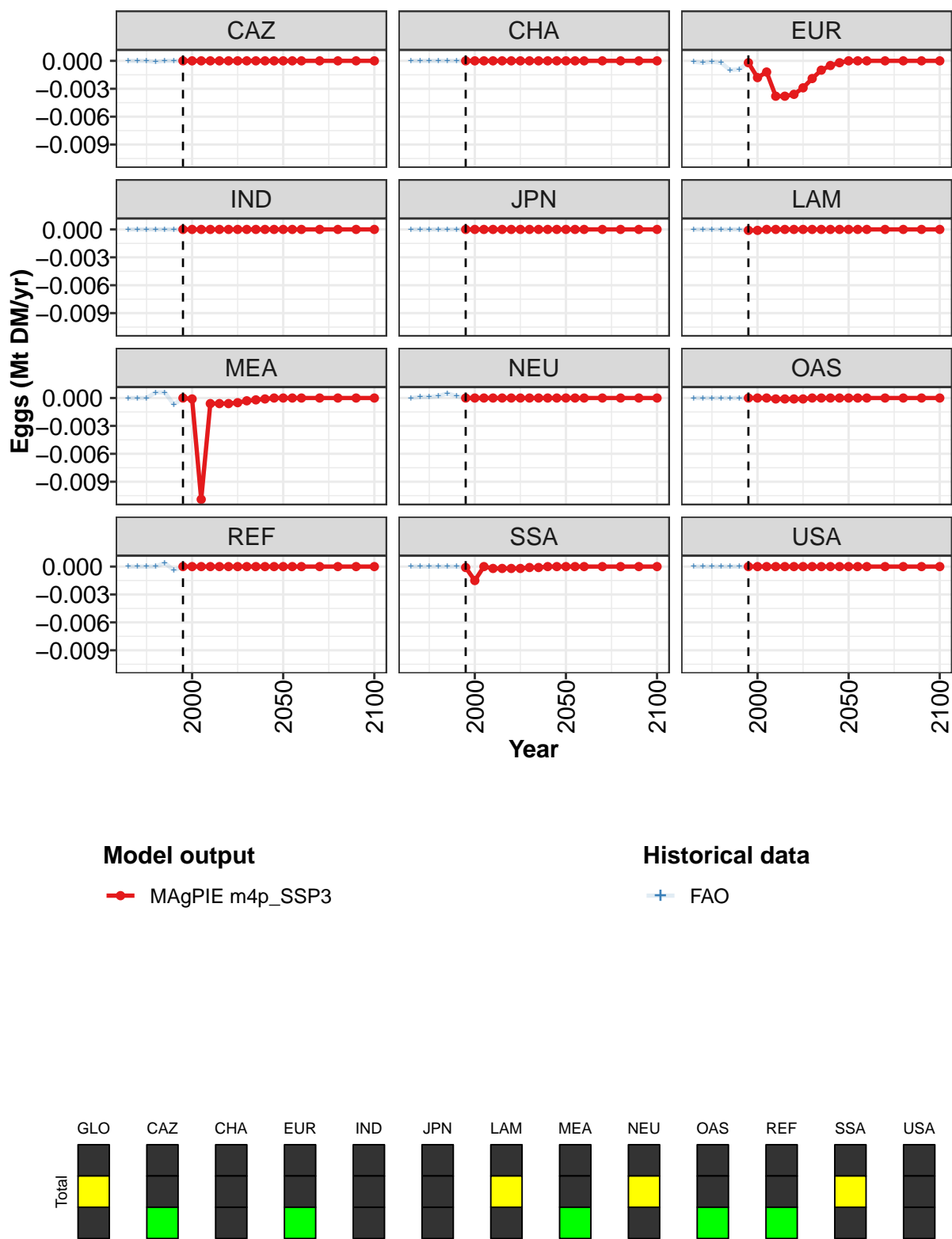


Figure 67: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Eggs (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	-0	-0	0	0	0	0	0	0	0	0	0
MEA	0	-0	-0	-0	-0	-0	-0	-0	-0	-0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	0	0	0	-0	-0	-0	-0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	-0	-0	0	-0	-0	-0	-0	-0	-0	0	0
USA	0	0	0	0	0	0	0	0	0	0	0

Table 200: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Eggs (Mt DM/yr)
[PART 1/2]

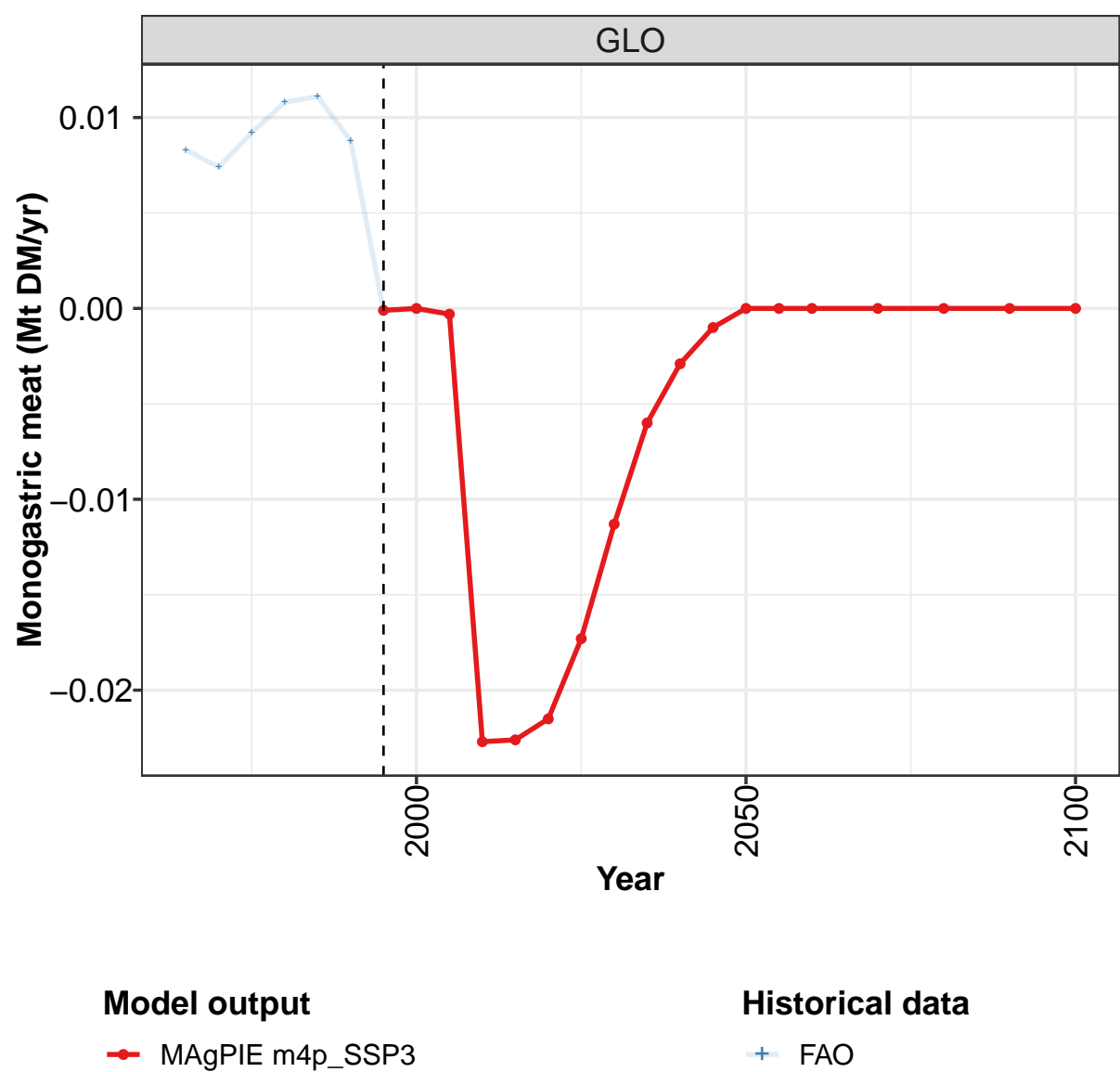
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
CAZ	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 201: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Eggs (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	
GLO	-0.000100	-0.000100	0.000000	0.000500	0.000600	-0.001800	-0.000400	-0.003400	-0.012100	-0.00
CAZ	0.000000	0.000000	0.000000	-0.000100	0.000000	0.000000	0.000000	0.000000	0.000000	0.00
CHA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00
EUR	-0.000100	-0.000200	-0.000100	-0.000200	-0.001000	-0.000900	-0.000200	-0.001800	-0.001200	-0.00
IND	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00
JPN	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00
LAM	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.000100	-0.000100	0.000000	0.00
MEA	0.000000	0.000000	0.000000	0.000600	0.000600	-0.000700	0.000000	-0.000100	-0.010900	-0.00
NEU	0.000000	0.000100	0.000100	0.000200	0.000500	0.000200	0.000000	0.000000	0.000000	0.00
OAS	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.00
REF	0.000000	0.000000	0.000000	0.000000	0.000400	-0.000400	0.000000	0.000000	0.000000	0.00
SSA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.000100	-0.001500	0.000000	-0.00
USA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00

Table 202: FAO — Demand—Domestic Balanceflow—Livestock products—Eggs (Mt DM/yr)

5.3.3 Monogastric meat



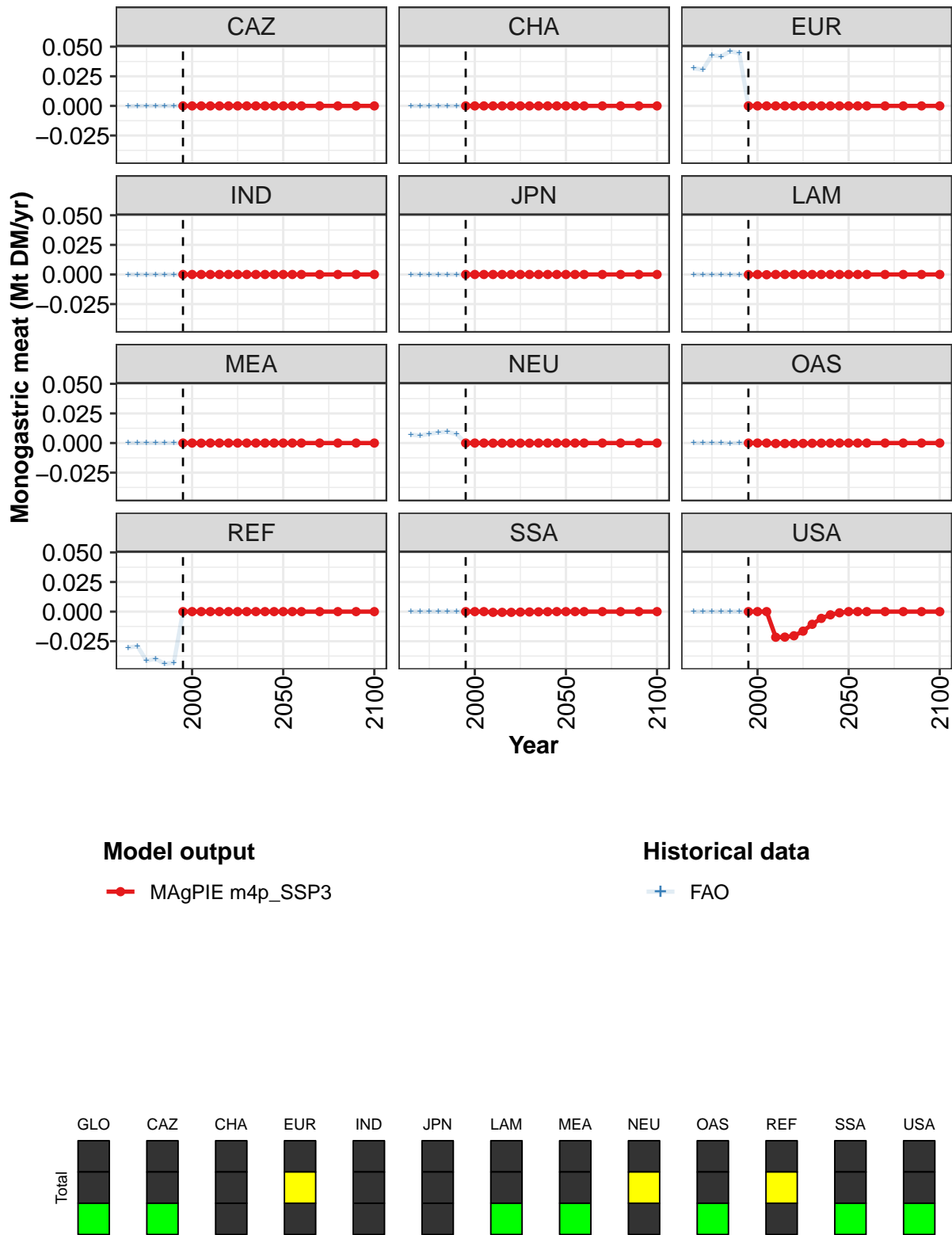


Figure 68: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Monogastric meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0	0	-0	-0	-0	-0	-0	-0	-0	-0	-0
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	-0	0	-0	0	0	0	0	0	0	0	0
MEA	0	0	-0	0	0	0	0	0	0	0	0
NEU	0	0	0	-0	-0	-0	-0	-0	0	0	0
OAS	0	0	0	-0	-0	-0	-0	-0	-0	-0	0
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	-0	-0	-0	-0	-0	-0	-0	0
USA	0	0	0	-0	-0	-0	-0	-0	-0	-0	-0

Table 203: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Monogastric meat (Mt DM/yr) [PART 1/2]

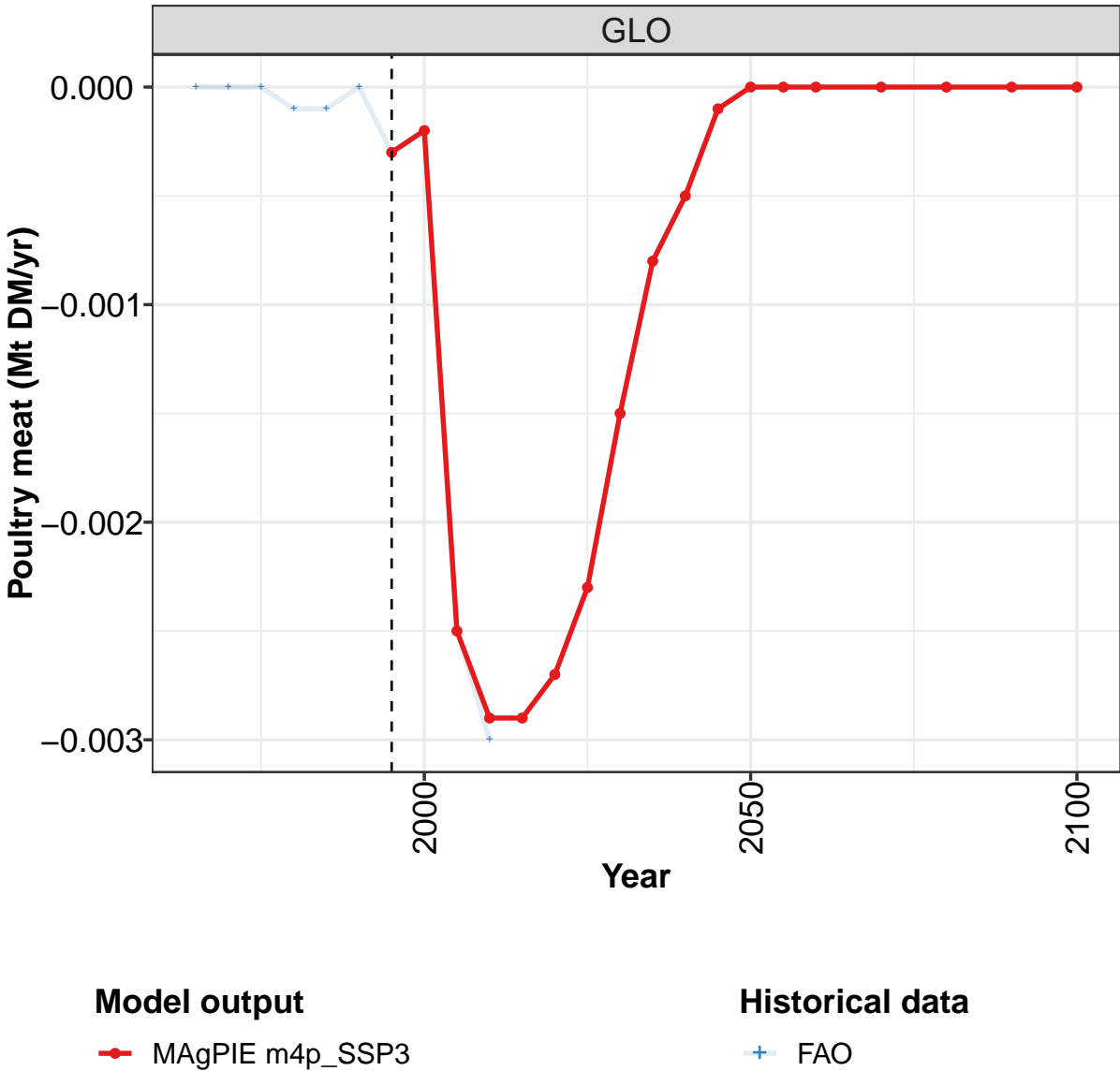
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
CAZ	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 204: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Monogastric meat (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0083	0.0074	0.0092	0.0108	0.0111	0.0088	-0.0001	-0.0001	-0.0003	-0.0228
CAZ	-0.0003	-0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0318	0.0305	0.0430	0.0417	0.0461	0.0446	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	-0.0001	-0.0001	0.0000	-0.0001	-0.0002	-0.0001	0.0000	-0.0002	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	0.0000
NEU	0.0071	0.0063	0.0078	0.0090	0.0094	0.0075	0.0000	0.0000	0.0000	-0.0001
OAS	0.0000	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	0.0000	0.0000	-0.0004
REF	-0.0303	-0.0292	-0.0414	-0.0398	-0.0442	-0.0430	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0006
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0216

Table 205: FAO — Demand—Domestic Balanceflow—Livestock products—Monogastric meat (Mt DM/yr)

5.3.4 Poultry meat



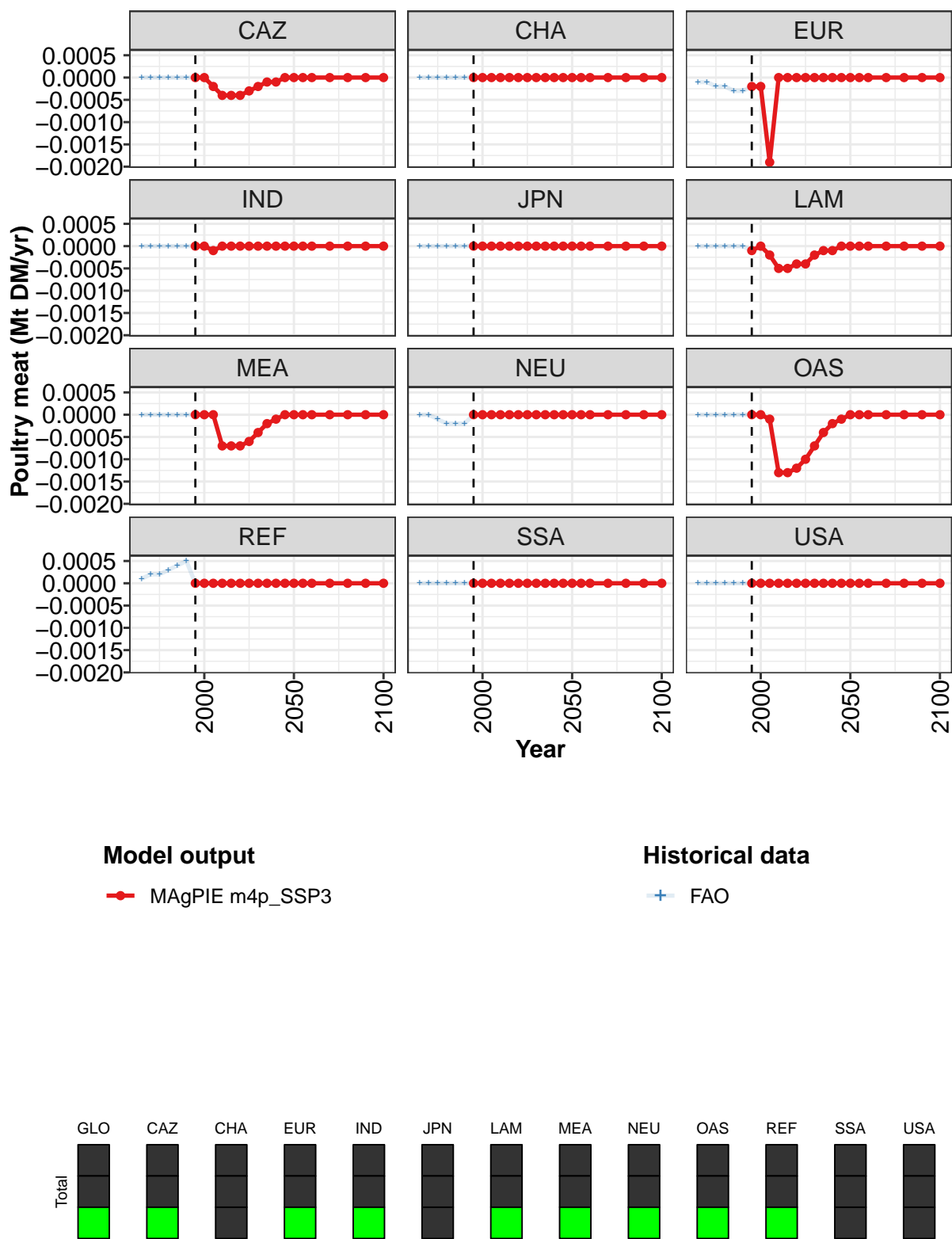


Figure 69: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Poultry meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
CAZ	0	0	-0	-0	-0	-0	-0	-0	-0	-0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	-0	-0	-0	0	0	0	0	0	0	0	0
IND	0	0	-0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	-0	0	-0	-0	-0	-0	-0	-0	-0	-0	0
MEA	0	0	0	-0	-0	-0	-0	-0	-0	-0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	0	0	-0	-0	-0	-0	-0	-0	-0	-0	-0
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0	0

Table 206: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Poultry meat (Mt DM/yr) [PART 1/2]

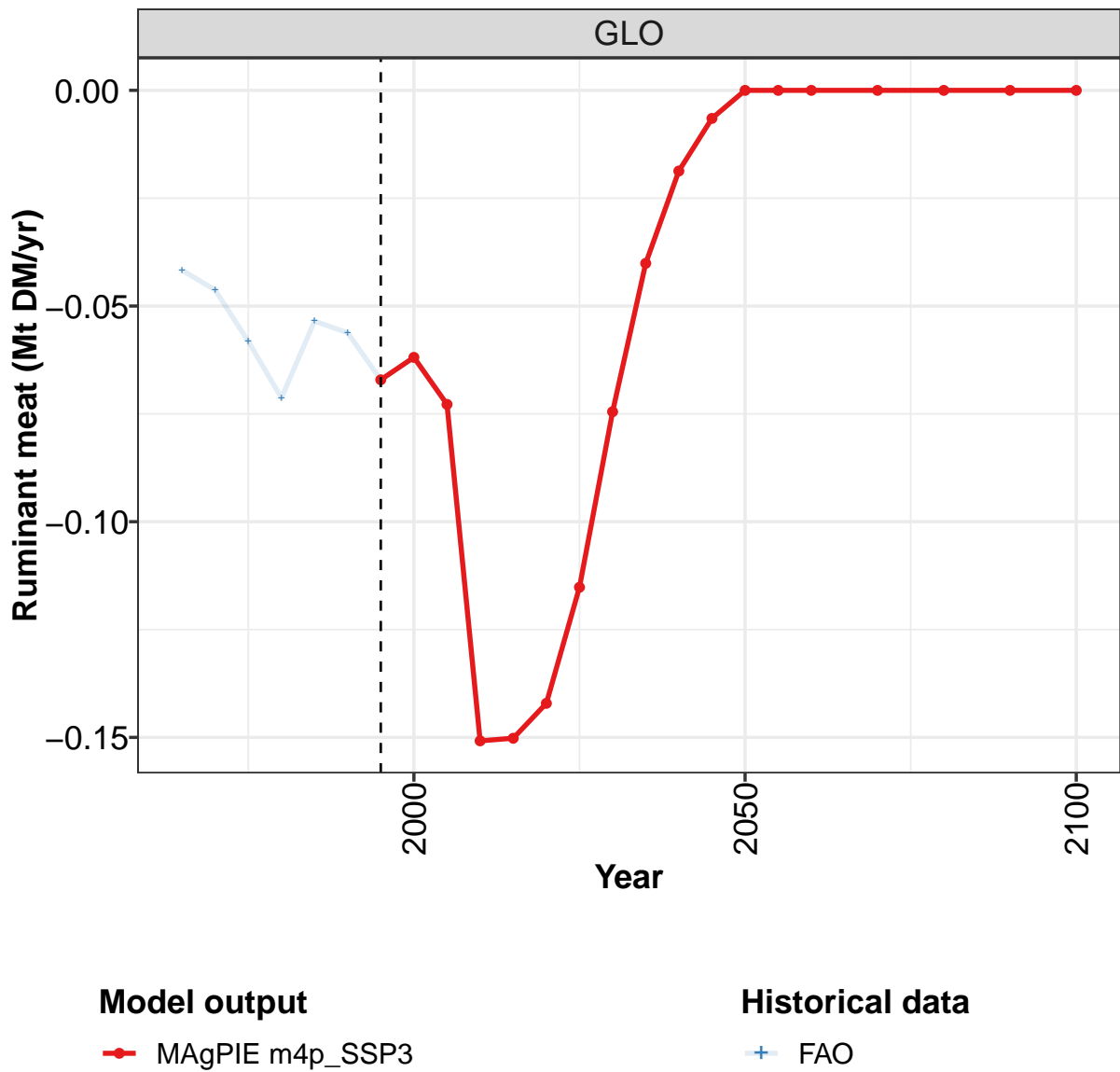
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
CAZ	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 207: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Poultry meat (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	
GLO	0.000000	0.000000	0.000000	-0.000100	-0.000100	0.000000	-0.000300	-0.000200	-0.002500	-0.00
CAZ	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.000200	-0.00
CHA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00
EUR	-0.000100	-0.000100	-0.000200	-0.000200	-0.000300	-0.000300	-0.000200	-0.000200	-0.001900	0.00
IND	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.000100	0.00
JPN	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00
LAM	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.000100	0.000000	-0.000200	-0.00
MEA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.00
NEU	0.000000	0.000000	-0.000100	-0.000200	-0.000200	-0.000200	0.000000	0.000000	0.000000	0.00
OAS	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.000100	-0.00
REF	0.000100	0.000200	0.000200	0.000300	0.000400	0.000500	0.000000	0.000000	0.000000	0.00
SSA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00
USA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00

Table 208: FAO — Demand—Domestic Balanceflow—Livestock products—Poultry meat (Mt DM/yr)

5.3.5 Ruminant meat



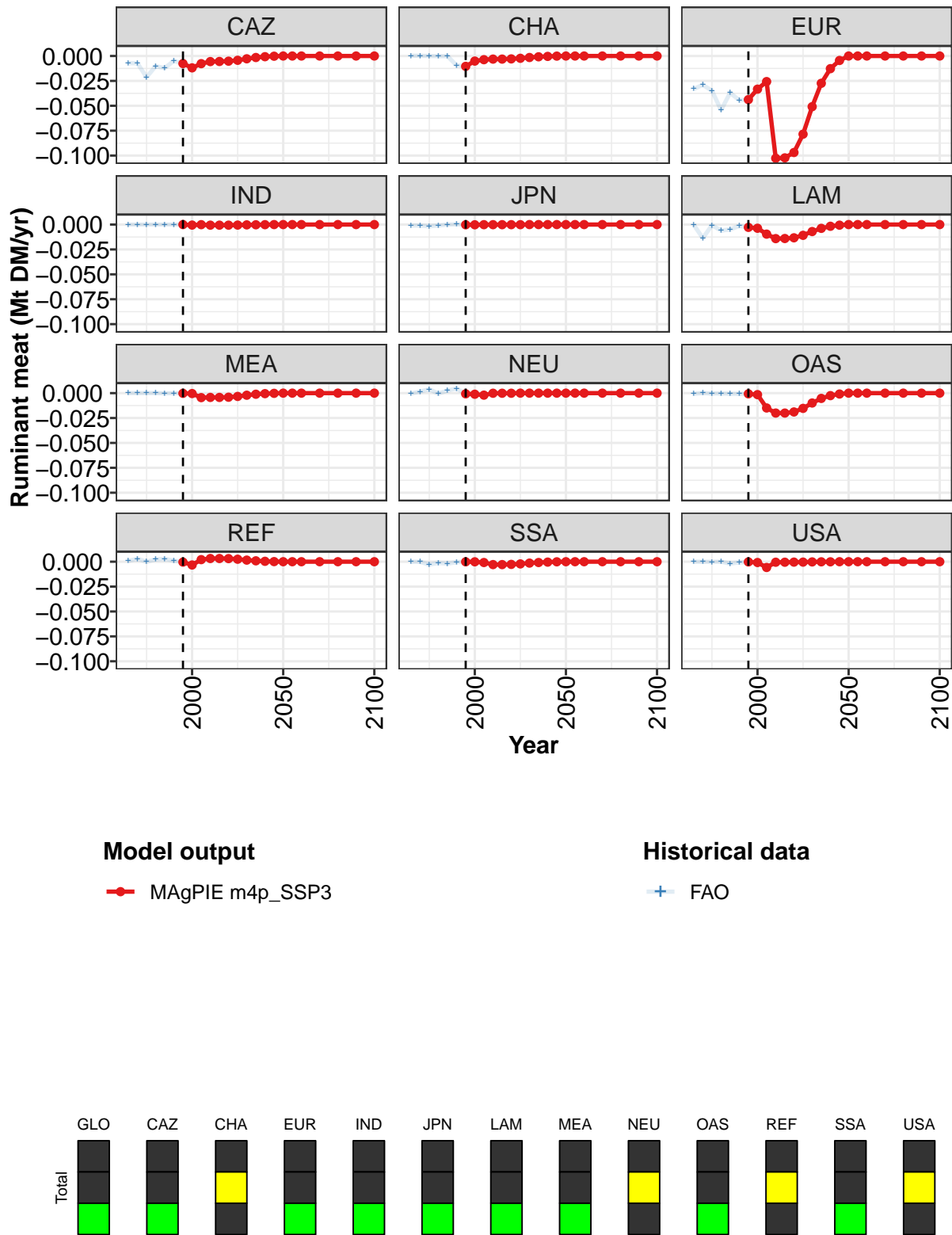


Figure 70: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Ruminant meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.06710	-0.06190	-0.07280	-0.15080	-0.15020	-0.14210	-0.11520	-0.07450	-0.04010	-0.01870	-0.00000
CAZ	-0.00760	-0.01190	-0.00770	-0.00560	-0.00550	-0.00520	-0.00430	-0.00280	-0.00150	-0.00070	-0.00000
CHA	-0.01040	-0.00510	-0.00370	-0.00310	-0.00310	-0.00290	-0.00230	-0.00150	-0.00080	-0.00040	-0.00000
EUR	-0.04380	-0.03330	-0.02570	-0.10270	-0.10230	-0.09690	-0.07850	-0.05090	-0.02740	-0.01270	-0.00000
IND	0.00000	-0.00050	-0.00010	-0.00060	-0.00060	-0.00060	-0.00050	-0.00030	-0.00020	-0.00010	0.00000
JPN	-0.00020	-0.00020	-0.00010	-0.00010	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.00000
LAM	-0.00280	-0.00370	-0.00960	-0.01410	-0.01400	-0.01330	-0.01080	-0.00700	-0.00380	-0.00170	-0.00000
MEA	-0.00020	-0.00040	-0.00450	-0.00430	-0.00430	-0.00410	-0.00330	-0.00210	-0.00110	-0.00050	-0.00000
NEU	-0.00070	-0.00110	-0.00200	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	-0.00070	-0.00150	-0.01490	-0.02000	-0.02000	-0.01890	-0.01530	-0.00990	-0.00530	-0.00250	-0.00000
REF	-0.00040	-0.00330	0.00210	0.00320	0.00320	0.00310	0.00250	0.00160	0.00090	0.00040	0.00000
SSA	-0.00010	-0.00010	-0.00080	-0.00290	-0.00290	-0.00270	-0.00220	-0.00140	-0.00080	-0.00040	-0.00000
USA	-0.00020	-0.00080	-0.00580	-0.00050	-0.00050	-0.00040	-0.00040	-0.00020	-0.00010	-0.00010	0.00000

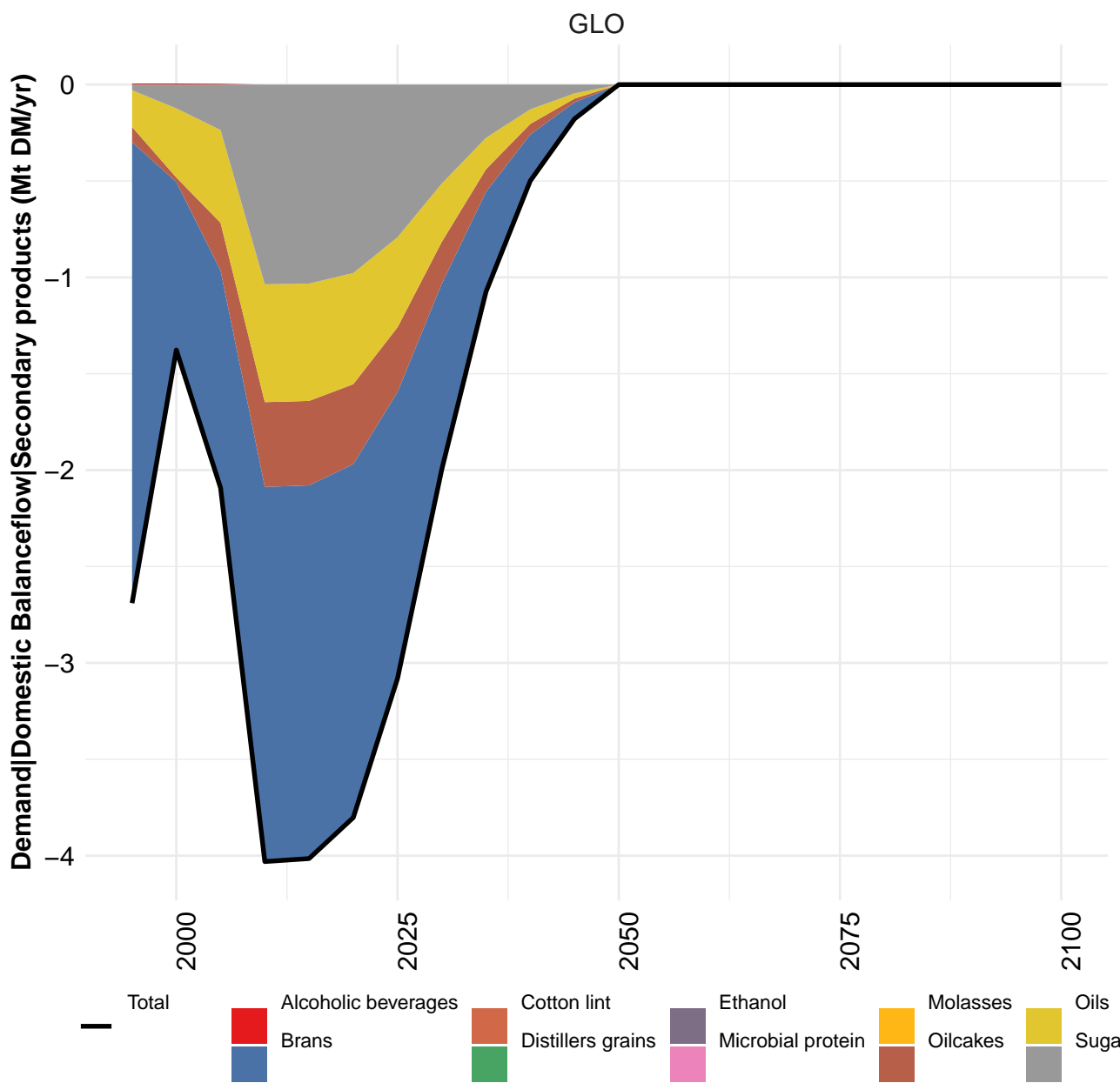
Table 209: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Ruminant meat (Mt DM/yr) [PART 1/2]

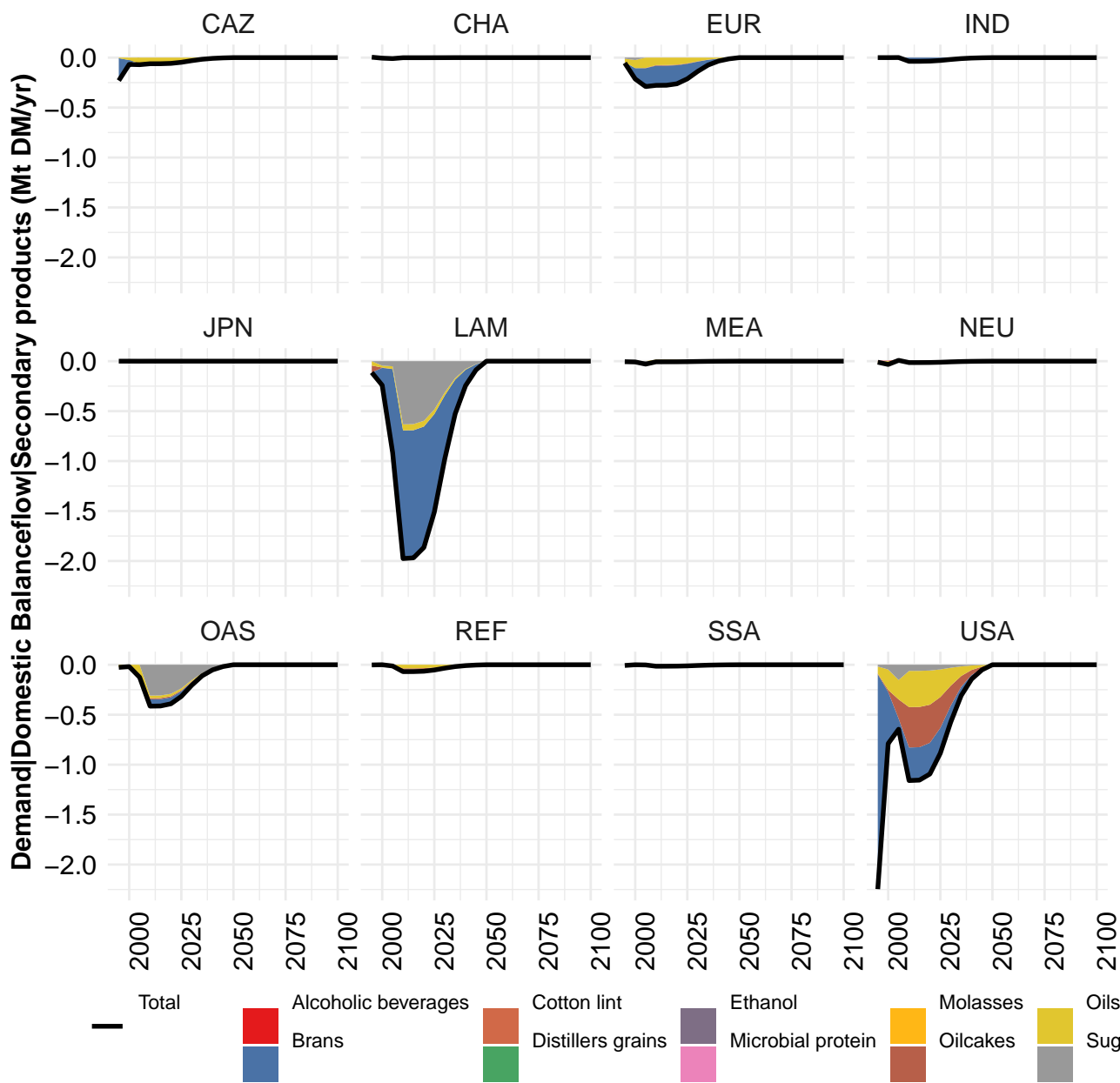
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 210: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Livestock products—Ruminant meat (Mt DM/yr) [PART 2/2]

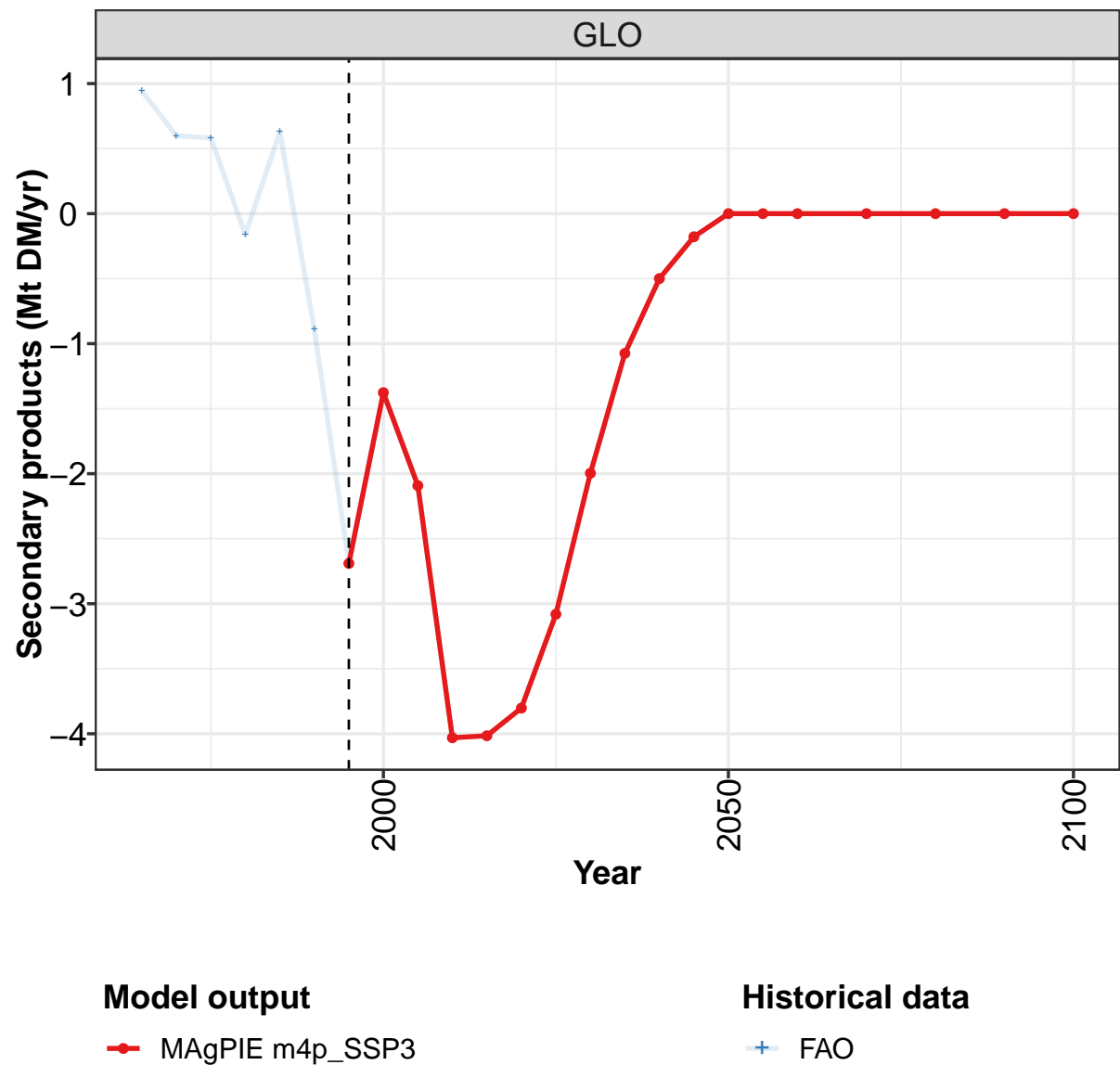
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-0.04170	-0.04630	-0.05820	-0.07130	-0.05350	-0.05620	-0.06710	-0.06190	-0.07280	-0.15060
CAZ	-0.00720	-0.00730	-0.02130	-0.01030	-0.01210	-0.00490	-0.00760	-0.01190	-0.00770	-0.00560
CHA	0.00030	0.00020	0.00000	-0.00020	-0.00020	-0.00940	-0.01040	-0.00510	-0.00370	-0.00310
EUR	-0.03310	-0.02900	-0.03490	-0.05430	-0.03700	-0.04440	-0.04380	-0.03330	-0.02570	-0.10270
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00050	-0.00010	-0.00060
JPN	-0.00100	-0.00100	-0.00170	-0.00090	0.00000	0.00020	-0.00020	-0.00020	-0.00010	-0.00010
LAM	-0.00030	-0.01360	-0.00070	-0.00600	-0.00490	-0.00140	-0.00280	-0.00370	-0.00960	-0.01410
MEA	0.00000	0.00000	0.00000	0.00000	-0.00020	-0.00010	-0.00020	-0.00040	-0.00450	-0.00430
NEU	-0.00040	0.00150	0.00390	-0.00050	0.00260	0.00470	-0.00070	-0.00110	-0.00200	-0.00010
OAS	-0.00070	0.00000	-0.00040	-0.00040	-0.00070	-0.00080	-0.00070	-0.00150	-0.01490	-0.02000
REF	0.00080	0.00300	0.00000	0.00230	0.00290	0.00100	-0.00040	-0.00330	0.00210	0.00320
SSA	-0.00010	-0.00010	-0.00290	-0.00120	-0.00200	-0.00040	-0.00010	-0.00010	-0.00080	-0.00290
USA	0.00000	-0.00010	-0.00020	0.00000	-0.00190	-0.00070	-0.00020	-0.00080	-0.00580	-0.00050

Table 211: FAO — Demand—Domestic Balanceflow—Livestock products—Ruminant meat (Mt DM/yr)





5.4 Secondary products



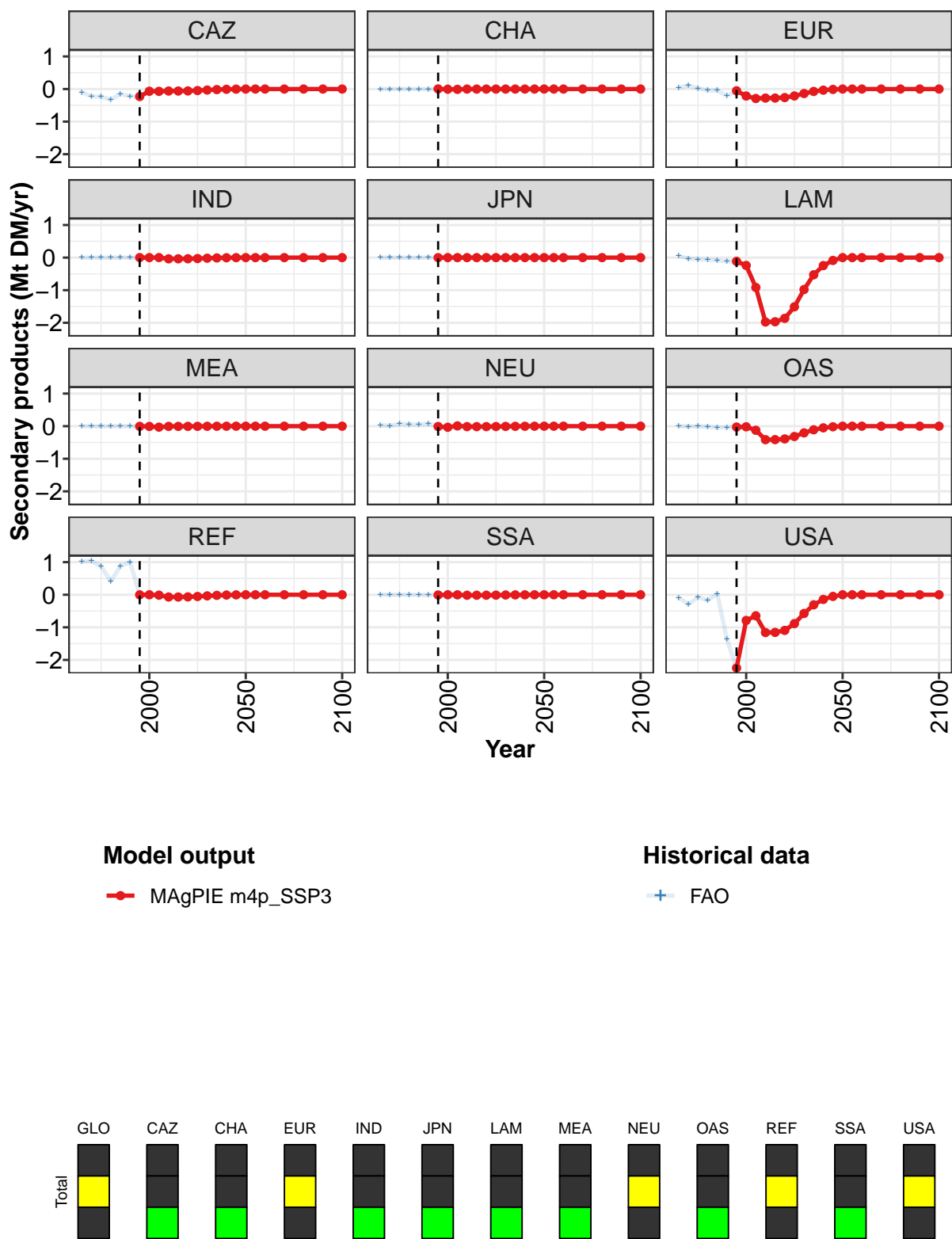


Figure 71: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-2.69000	-1.37650	-2.09200	-4.03080	-4.01540	-3.80250	-3.08080	-1.99630	-1.07450	-0.49940	-0.17450
CAZ	-0.23000	-0.06780	-0.07080	-0.06140	-0.06120	-0.05790	-0.04700	-0.03050	-0.01640	-0.00760	-0.00360
CHA	0.00420	-0.00550	-0.00960	-0.00090	-0.00090	-0.00090	-0.00070	-0.00050	-0.00020	-0.00020	0.00000
EUR	-0.05380	-0.21390	-0.28980	-0.27780	-0.27670	-0.26200	-0.21240	-0.13760	-0.07410	-0.03440	-0.01760
IND	0.00010	-0.00020	0.00090	-0.03720	-0.03710	-0.03510	-0.02850	-0.01850	-0.00990	-0.00460	-0.00230
JPN	0.00000	0.00000	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	-0.11360	-0.24080	-0.91570	-1.97580	-1.96850	-1.86410	-1.51020	-0.97860	-0.52670	-0.24460	-0.08960
MEA	-0.00520	-0.00770	-0.02940	-0.00630	-0.00620	-0.00600	-0.00480	-0.00310	-0.00180	-0.00080	-0.00040
NEU	-0.01010	-0.03280	0.00840	-0.01400	-0.01390	-0.01320	-0.01070	-0.00690	-0.00370	-0.00180	-0.00090
OAS	-0.02640	-0.01880	-0.12560	-0.41450	-0.41280	-0.39090	-0.31680	-0.20530	-0.11060	-0.05130	-0.02560
REF	-0.00200	0.00000	-0.01260	-0.06900	-0.06870	-0.06510	-0.05280	-0.03410	-0.01830	-0.00860	-0.00430
SSA	-0.00700	-0.00010	-0.00200	-0.01480	-0.01460	-0.01380	-0.01120	-0.00720	-0.00390	-0.00190	-0.00090
USA	-2.24620	-0.78890	-0.64570	-1.15910	-1.15480	-1.09350	-0.88570	-0.57400	-0.30890	-0.14360	-0.07180

Table 212: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products (Mt DM/yr) [PART 1/2]

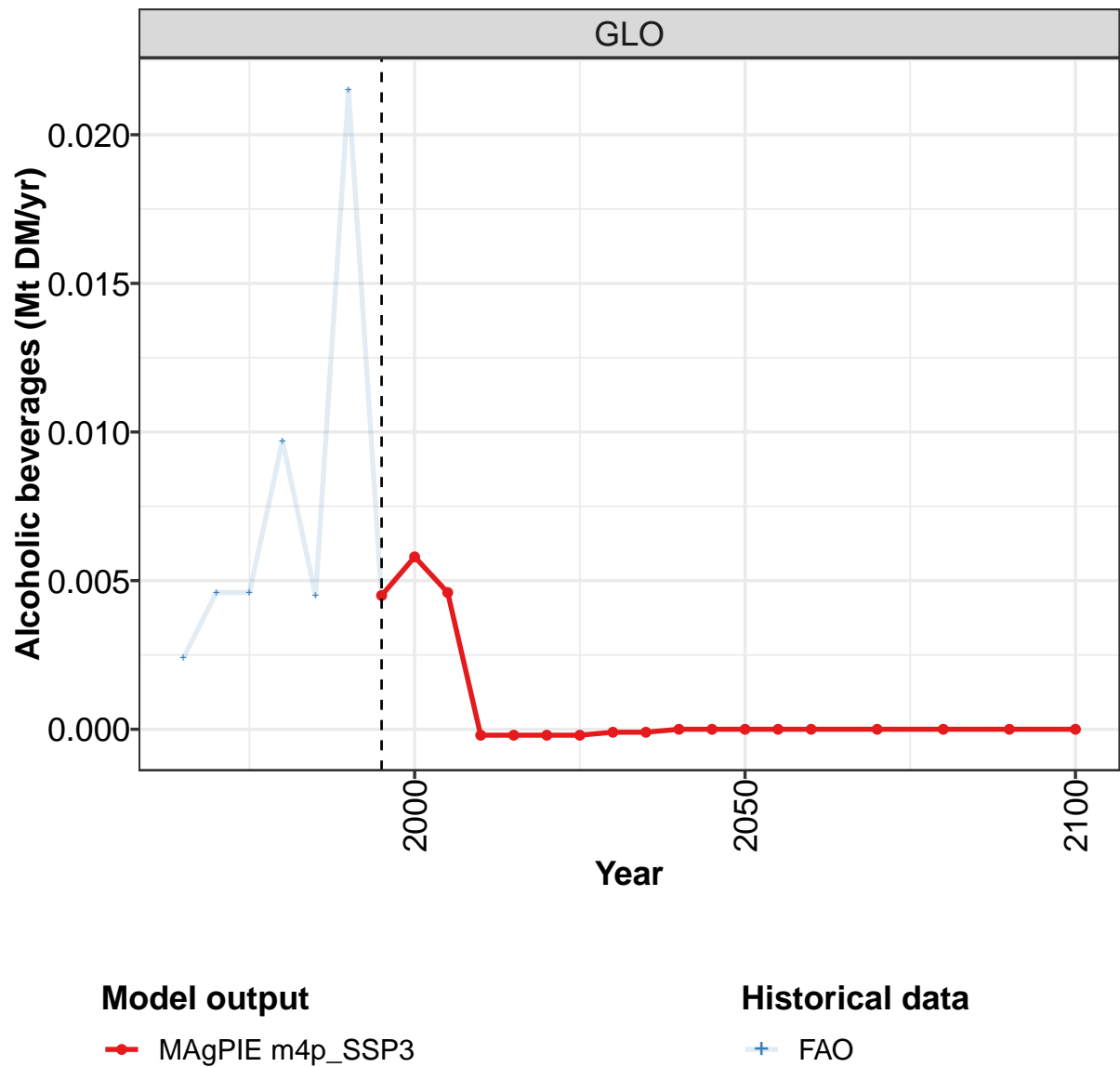
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 213: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.94	0.60	0.58	-0.16	0.63	-0.89	-2.69	-1.38	-2.09	-4.03
CAZ	-0.10	-0.22	-0.24	-0.33	-0.15	-0.22	-0.23	-0.07	-0.07	-0.06
CHA	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	-0.01	-0.01	-0.00
EUR	0.04	0.11	0.02	-0.04	-0.04	-0.21	-0.05	-0.21	-0.29	-0.28
IND	0.00	0.00	-0.00	-0.00	-0.00	-0.00	0.00	-0.00	0.00	-0.04
JPN	-0.00	-0.00	-0.00	-0.00	0.00	0.00	0.00	0.00	-0.00	0.00
LAM	0.05	-0.04	-0.05	-0.07	-0.08	-0.12	-0.11	-0.24	-0.92	-1.98
MEA	0.00	-0.00	-0.00	-0.00	0.00	-0.00	-0.01	-0.01	-0.03	-0.01
NEU	0.03	0.01	0.07	0.06	0.05	0.08	-0.01	-0.03	0.01	-0.01
OAS	-0.00	-0.01	-0.01	-0.01	-0.05	-0.04	-0.03	-0.02	-0.13	-0.41
REF	1.02	1.04	0.88	0.41	0.88	1.00	-0.00	-0.00	-0.01	-0.07
SSA	0.00	0.00	-0.00	-0.00	-0.00	-0.01	-0.01	-0.00	-0.00	-0.01
USA	-0.09	-0.29	-0.08	-0.17	0.03	-1.37	-2.25	-0.79	-0.65	-1.16

Table 214: FAO — Demand—Domestic Balanceflow—Secondary products (Mt DM/yr)

5.4.1 Alcoholic beverages



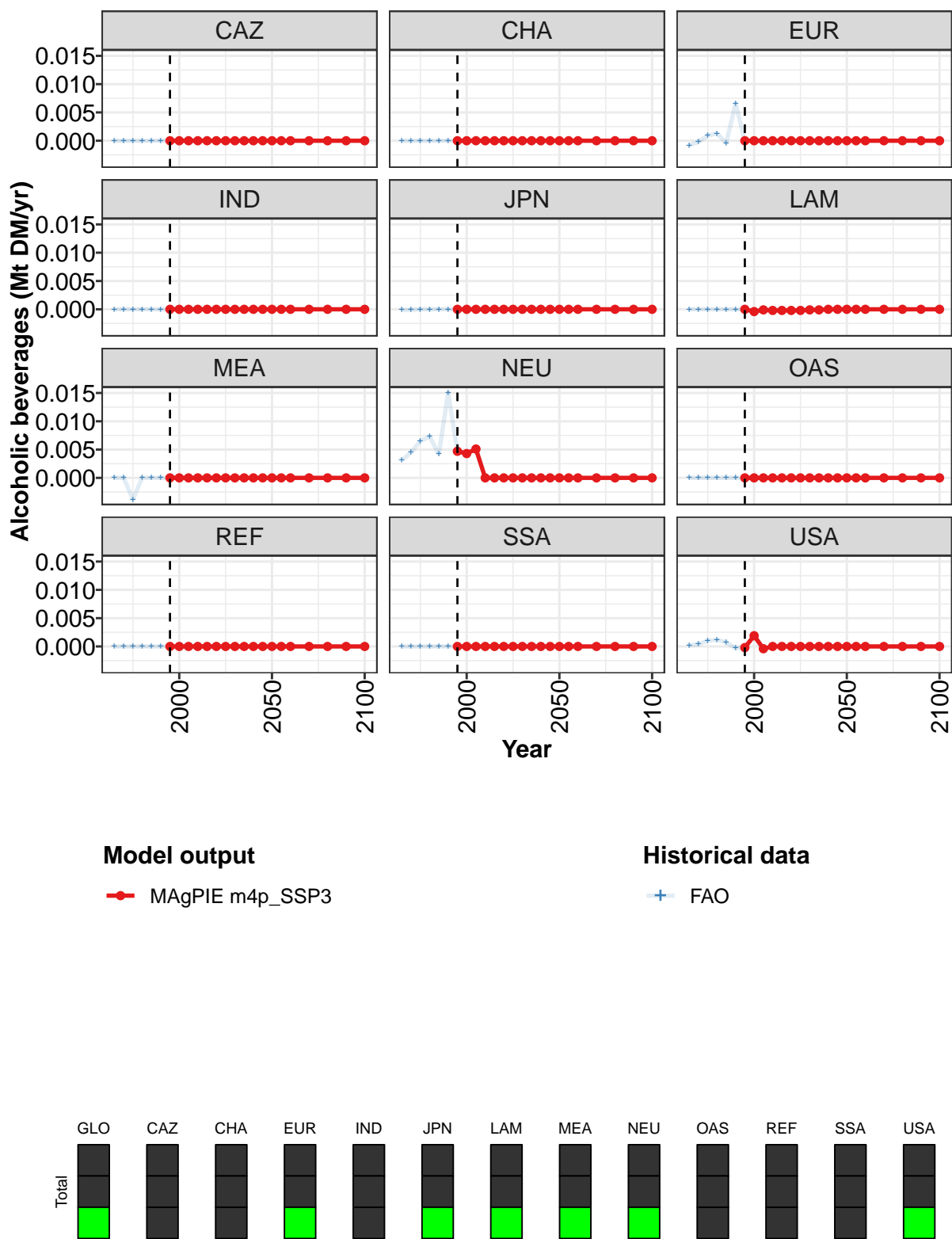


Figure 72: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Alcoholic beverages (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.00450	0.00580	0.00460	-0.00020	-0.00020	-0.00020	-0.00020	-0.00010	-0.00010	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	-0.00040	-0.00010	-0.00020	-0.00020	-0.00020	-0.00020	-0.00010	-0.00010	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00470	0.00430	0.00510	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	-0.00020	0.00190	-0.00040	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 215: MAgPIE m4p.SSP3 — Demand—Domestic Balanceflow—Secondary products—Alcoholic beverages (Mt DM/yr) [PART 1/2]

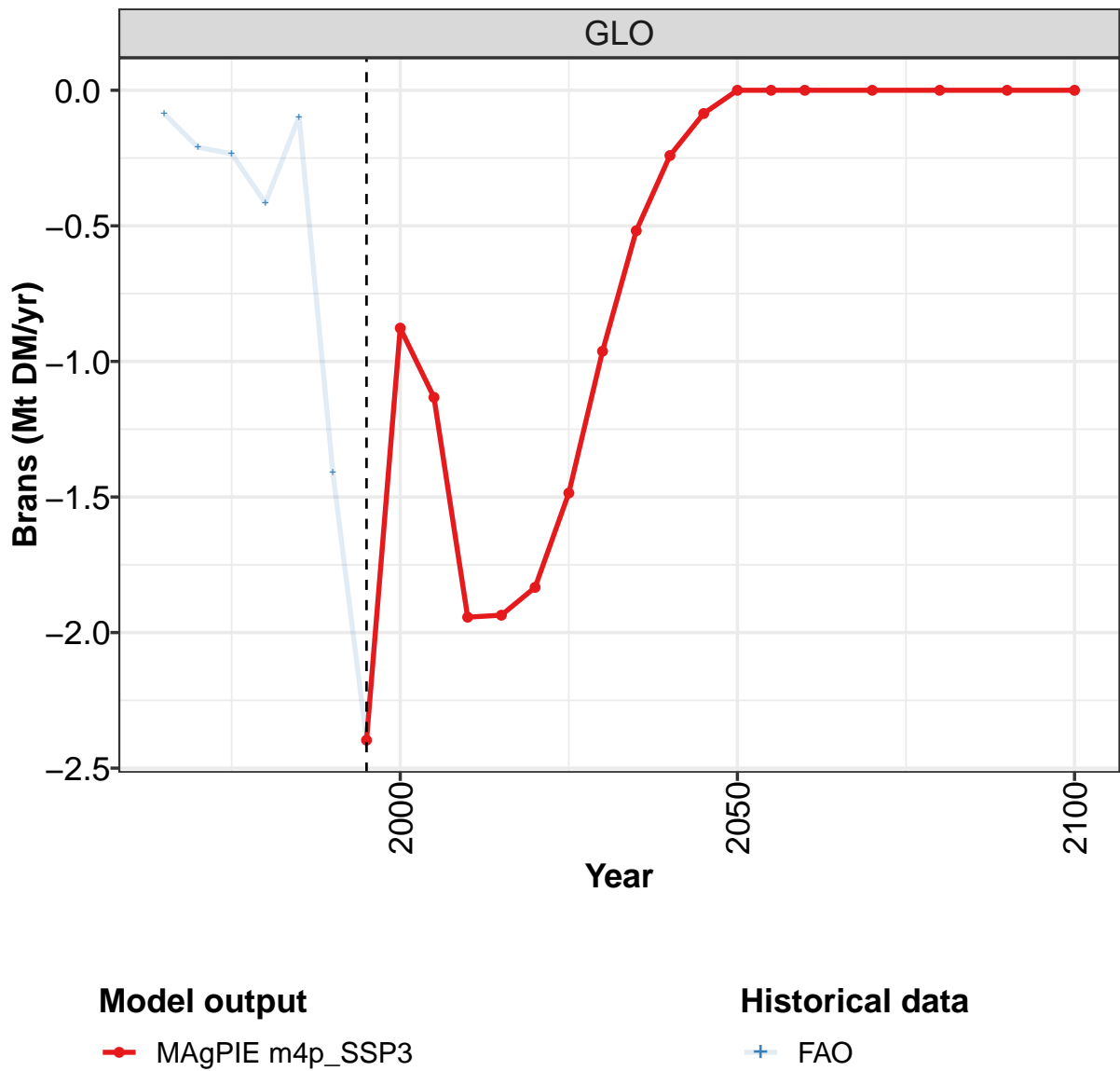
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 216: MAgPIE m4p.SSP3 — Demand—Domestic Balanceflow—Secondary products—Alcoholic beverages (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0024	0.0046	0.0046	0.0097	0.0045	0.0215	0.0044	0.0058	0.0046	-0.0003
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	-0.0008	-0.0002	0.0009	0.0013	-0.0004	0.0066	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	-0.0001	-0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0004	-0.0001	-0.0002
MEA	0.0000	0.0000	-0.0038	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0031	0.0045	0.0065	0.0073	0.0042	0.0151	0.0047	0.0043	0.0051	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0002	0.0004	0.0010	0.0012	0.0007	-0.0003	-0.0002	0.0019	-0.0004	0.0000

Table 217: FAO — Demand—Domestic Balanceflow—Secondary products—Alcoholic beverages (Mt DM/yr)

5.4.2 Brans



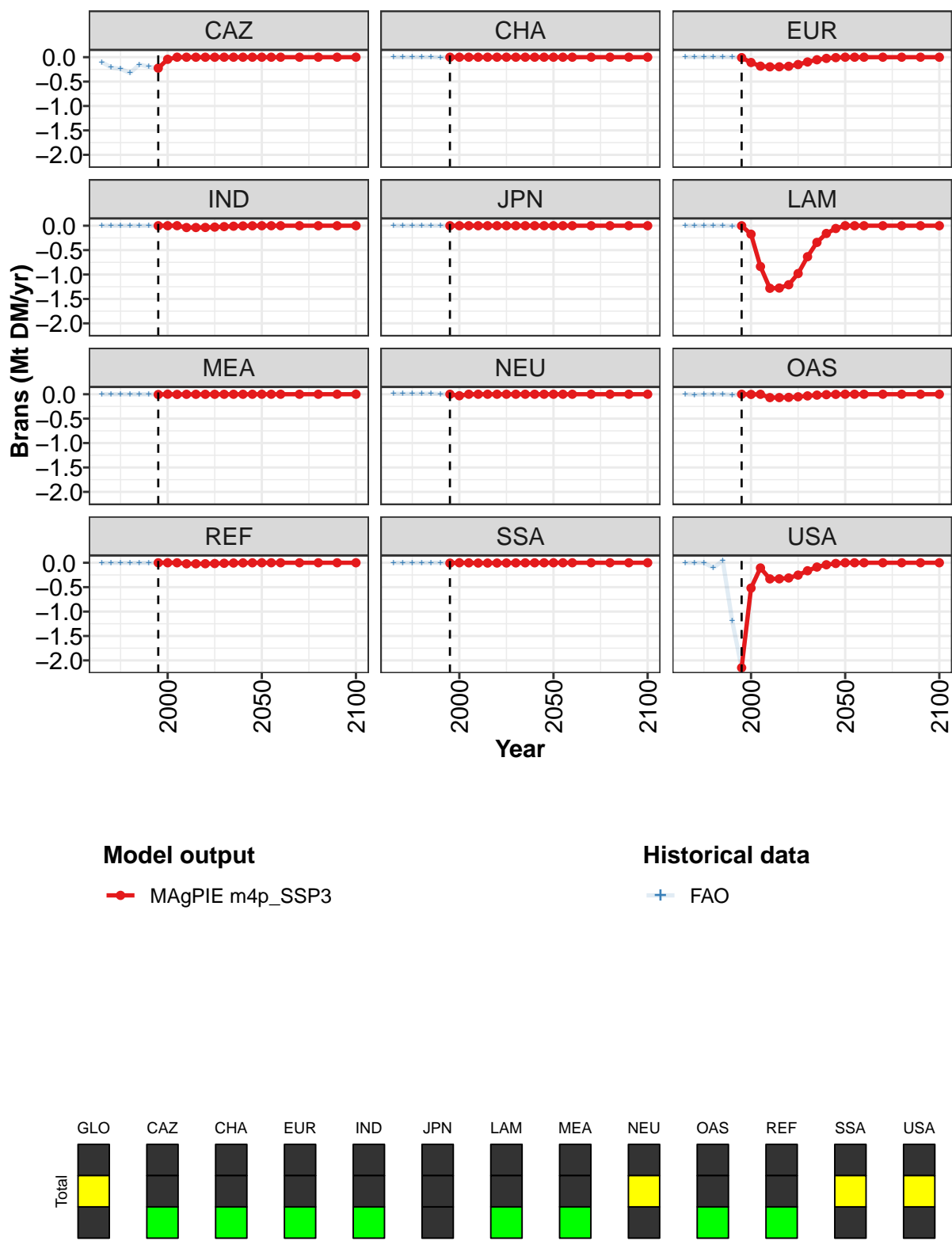


Figure 73: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-2.39680	-0.87720	-1.13240	-1.94330	-1.93590	-1.83330	-1.48540	-0.96250	-0.51800	-0.24070	-0.03000
CAZ	-0.22410	-0.04330	0.00000	-0.00030	-0.00030	-0.00030	-0.00030	-0.00020	-0.00010	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	-0.00900	-0.10850	-0.18400	-0.19730	-0.19650	-0.18610	-0.15080	-0.09770	-0.05260	-0.02440	-0.00000
IND	0.00010	0.00010	0.00100	-0.03710	-0.03700	-0.03500	-0.02840	-0.01840	-0.00990	-0.00460	-0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	-0.00040	-0.17390	-0.83620	-1.28170	-1.27690	-1.20920	-0.97960	-0.63480	-0.34160	-0.15870	-0.03000
MEA	-0.00580	0.00130	-0.00360	-0.00140	-0.00140	-0.00140	-0.00110	-0.00070	-0.00040	-0.00020	-0.00000
NEU	0.00000	-0.03080	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	-0.00380	-0.00120	-0.06850	-0.06820	-0.06460	-0.05240	-0.03390	-0.01830	-0.00850	-0.00000
REF	0.00000	0.00000	-0.00020	-0.02060	-0.02050	-0.01940	-0.01580	-0.01020	-0.00550	-0.00260	-0.00000
SSA	-0.00690	0.00000	-0.00180	-0.00570	-0.00560	-0.00530	-0.00430	-0.00280	-0.00150	-0.00070	-0.00000
USA	-2.15070	-0.51830	-0.10640	-0.33070	-0.32950	-0.31200	-0.25270	-0.16380	-0.08810	-0.04100	-0.00000

Table 218: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Brans (Mt DM/yr)
[PART 1/2]

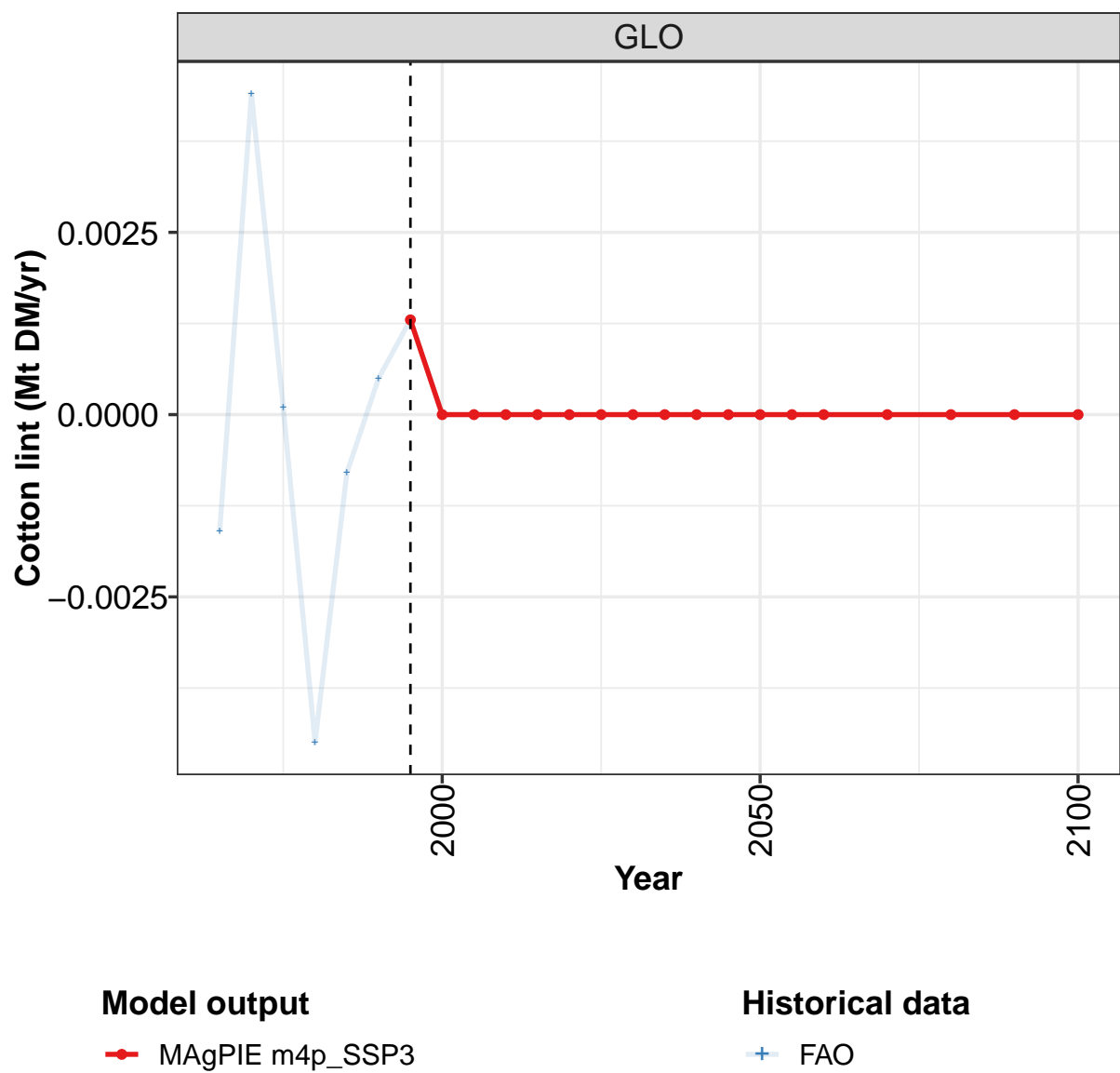
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 219: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Brans (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-0.0867	-0.2104	-0.2342	-0.4157	-0.0979	-1.4087	-2.3967	-0.8771	-1.1324	-1.9433
CAZ	-0.0994	-0.2118	-0.2376	-0.3255	-0.1498	-0.1954	-0.2241	-0.0433	0.0000	-0.0003
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0044	0.0000	0.0000	0.0000	0.0000
EUR	0.0050	0.0047	0.0022	0.0044	0.0042	0.0026	-0.0090	-0.1085	-0.1840	-0.1973
IND	0.0000	0.0000	0.0000	0.0008	-0.0003	-0.0011	0.0001	0.0001	0.0010	-0.0371
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0050	-0.0004	-0.1739	-0.8362	-1.2817
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0058	0.0013	-0.0036	-0.0014
NEU	0.0095	0.0085	0.0087	0.0106	0.0114	0.0036	0.0000	-0.0308	0.0000	0.0000
OAS	0.0000	-0.0098	-0.0059	-0.0018	-0.0014	-0.0136	0.0000	-0.0038	-0.0012	-0.0685
REF	-0.0019	-0.0019	-0.0016	-0.0015	-0.0016	-0.0019	0.0000	0.0000	-0.0002	-0.0206
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0069	0.0000	-0.0018	-0.0057
USA	0.0000	0.0000	0.0000	-0.1026	0.0396	-1.1936	-2.1507	-0.5183	-0.1064	-0.3307

Table 220: FAO — Demand—Domestic Balanceflow—Secondary products—Brans (Mt DM/yr)

5.4.3 Cotton lint



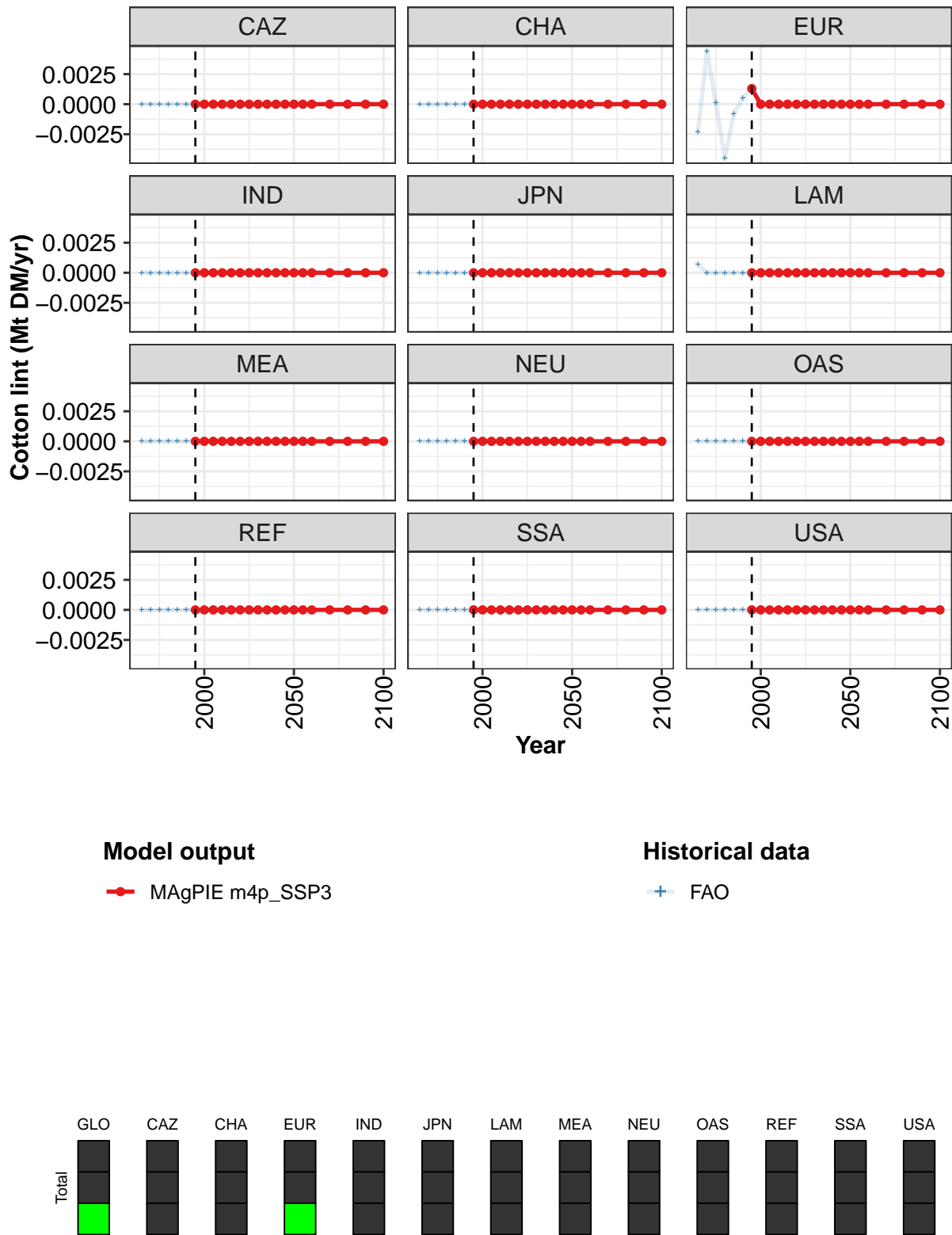


Figure 74: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Cotton lint (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.00130	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00130	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 221: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Cotton lint (Mt DM/yr) [PART 1/2]

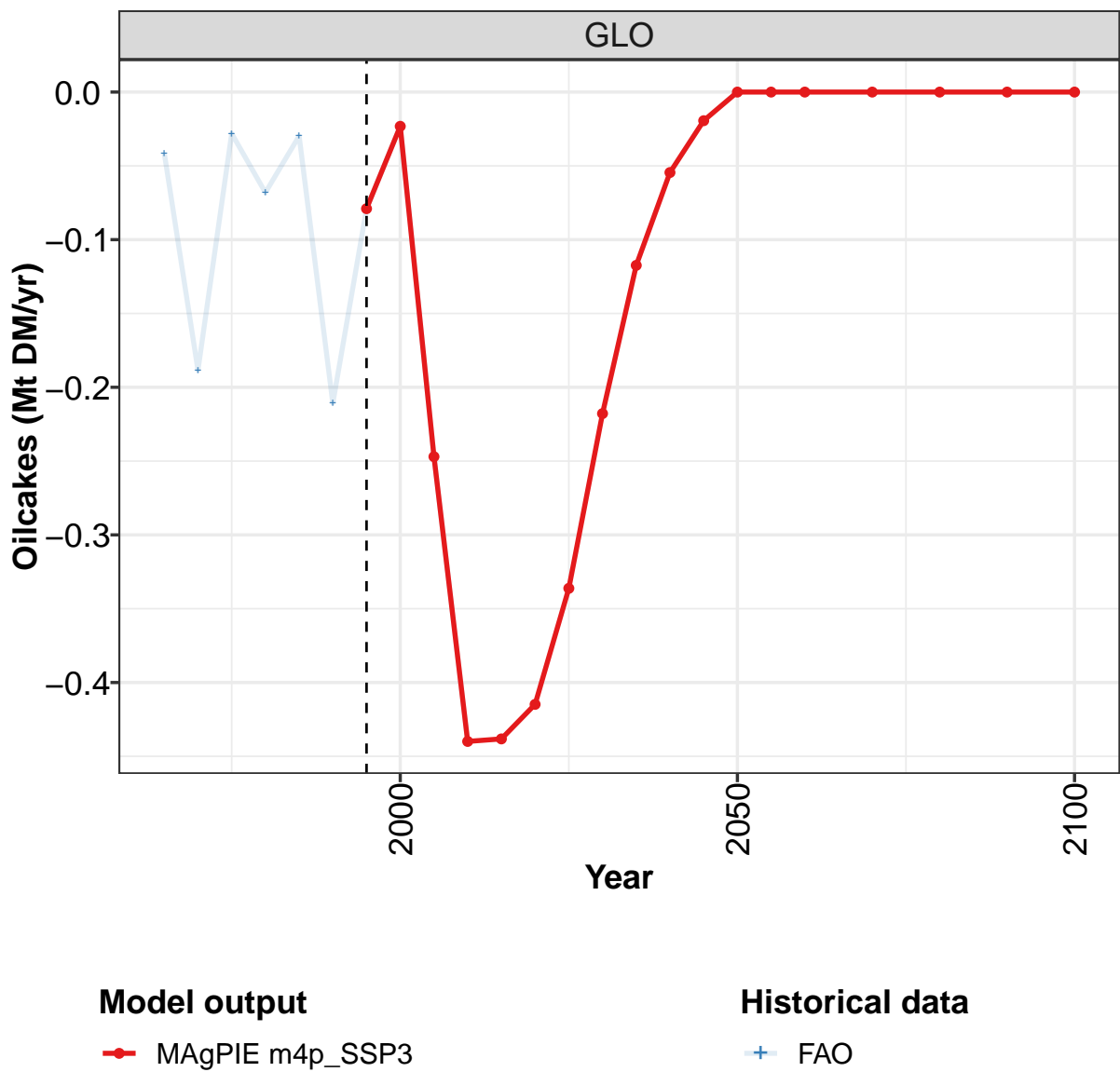
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 222: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Cotton lint (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-0.00160	0.00440	0.00010	-0.00450	-0.00080	0.00050	0.00130	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	-0.00230	0.00440	0.00010	-0.00450	-0.00080	0.00050	0.00130	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00070	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 223: FAO — Demand—Domestic Balanceflow—Secondary products—Cotton lint (Mt DM/yr)

5.4.4 Oilcakes



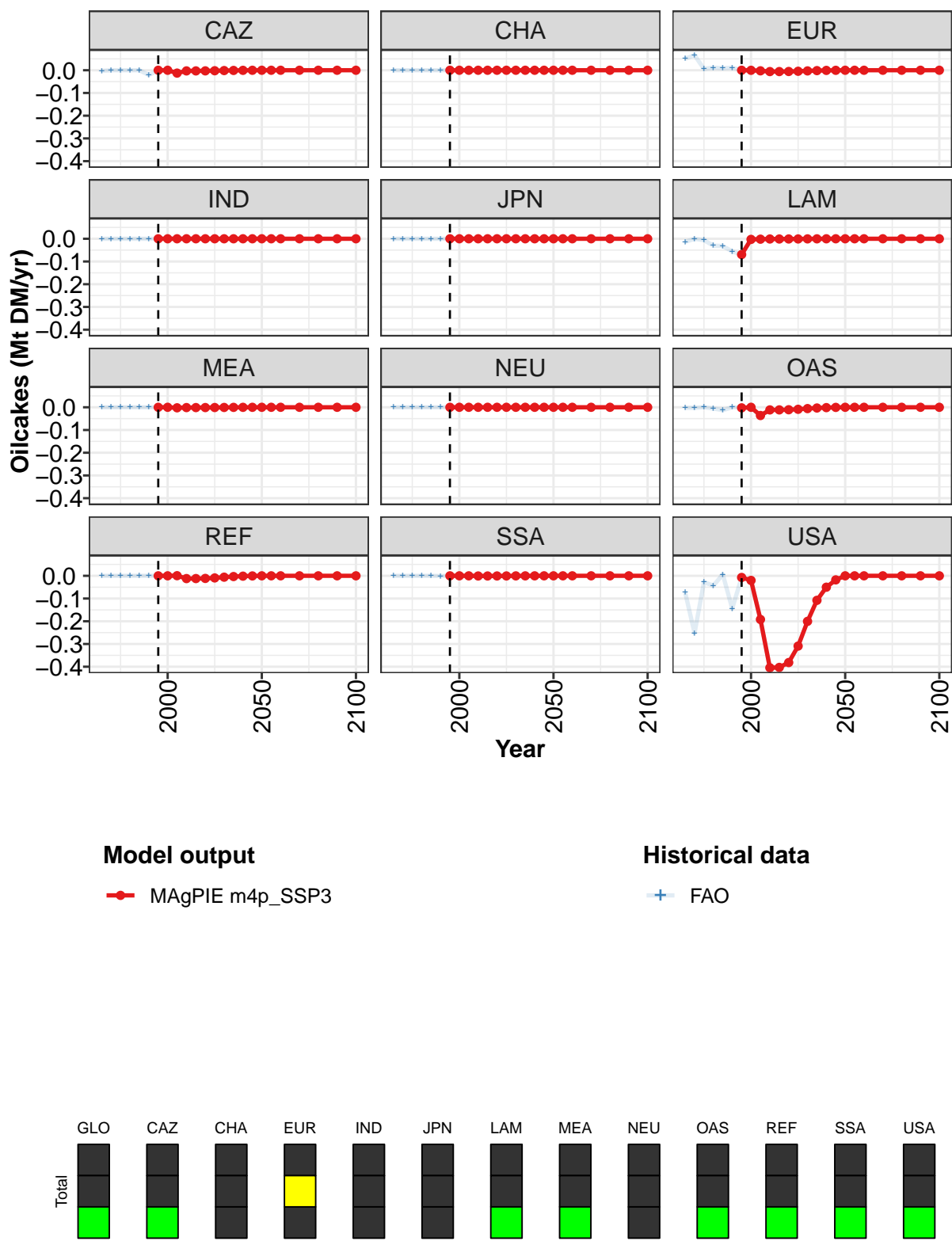


Figure 75: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Oilcakes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	
GLO	-0.079000	-0.023200	-0.247000	-0.439900	-0.438200	-0.414800	-0.336200	-0.217800	-0.117400	-0.05
CAZ	0.000000	0.000000	-0.012600	-0.002900	-0.002900	-0.002700	-0.002200	-0.001400	-0.000800	-0.00
CHA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00
EUR	0.000000	-0.000200	-0.002500	-0.005800	-0.005800	-0.005500	-0.004500	-0.002900	-0.001600	-0.00
IND	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00
JPN	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00
LAM	-0.069400	-0.002800	-0.001800	-0.001000	-0.001000	-0.000900	-0.000800	-0.000500	-0.000300	-0.00
MEA	0.000000	0.000000	-0.002200	-0.001300	-0.001300	-0.001200	-0.001000	-0.000700	-0.000400	-0.00
NEU	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00
OAS	-0.002400	0.000000	-0.036200	-0.011500	-0.011400	-0.010800	-0.008800	-0.005700	-0.003100	-0.00
REF	0.000000	0.000000	0.000500	-0.012200	-0.012100	-0.011500	-0.009300	-0.006000	-0.003200	-0.00
SSA	0.000000	0.000000	-0.000100	-0.000700	-0.000700	-0.000600	-0.000500	-0.000300	-0.000200	-0.00
USA	-0.007200	-0.020200	-0.192100	-0.404500	-0.403000	-0.381600	-0.309100	-0.200300	-0.107800	-0.05

Table 224: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Oilcakes (Mt DM/yr) [PART 1/2]

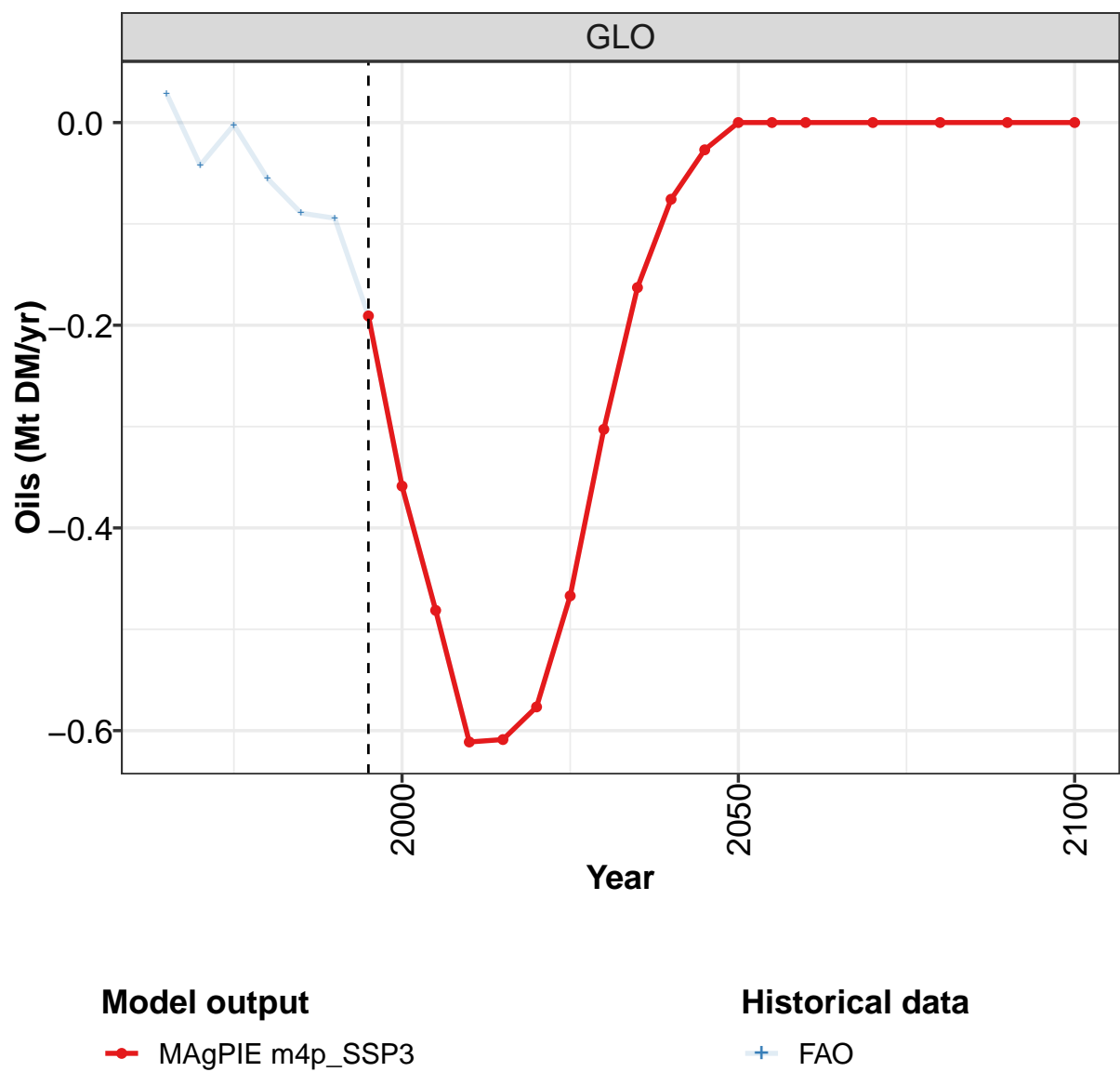
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
CAZ	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
CHA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
EUR	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
IND	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
JPN	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
LAM	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
MEA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
NEU	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
OAS	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
REF	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
SSA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
USA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Table 225: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Oilcakes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-0.0413	-0.1884	-0.0281	-0.0681	-0.0298	-0.2108	-0.0790	-0.0231	-0.2469	-0.4398
CAZ	-0.0030	0.0000	0.0000	0.0000	0.0000	-0.0211	0.0000	0.0000	-0.0126	-0.0029
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0509	0.0659	0.0060	0.0112	0.0088	0.0110	0.0000	-0.0002	-0.0025	-0.0058
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	-0.0138	0.0000	-0.0062	-0.0305	-0.0318	-0.0558	-0.0694	-0.0028	-0.0018	-0.0010
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0022	-0.0013
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	-0.0026	-0.0026	0.0000	-0.0054	-0.0127	0.0000	-0.0024	0.0000	-0.0362	-0.0115
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	-0.0122
SSA	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0011	0.0000	0.0000	-0.0001	-0.0007
USA	-0.0729	-0.2518	-0.0279	-0.0434	0.0061	-0.1438	-0.0072	-0.0202	-0.1921	-0.4045

Table 226: FAO — Demand—Domestic Balanceflow—Secondary products—Oilcakes (Mt DM/yr)

5.4.5 Oils



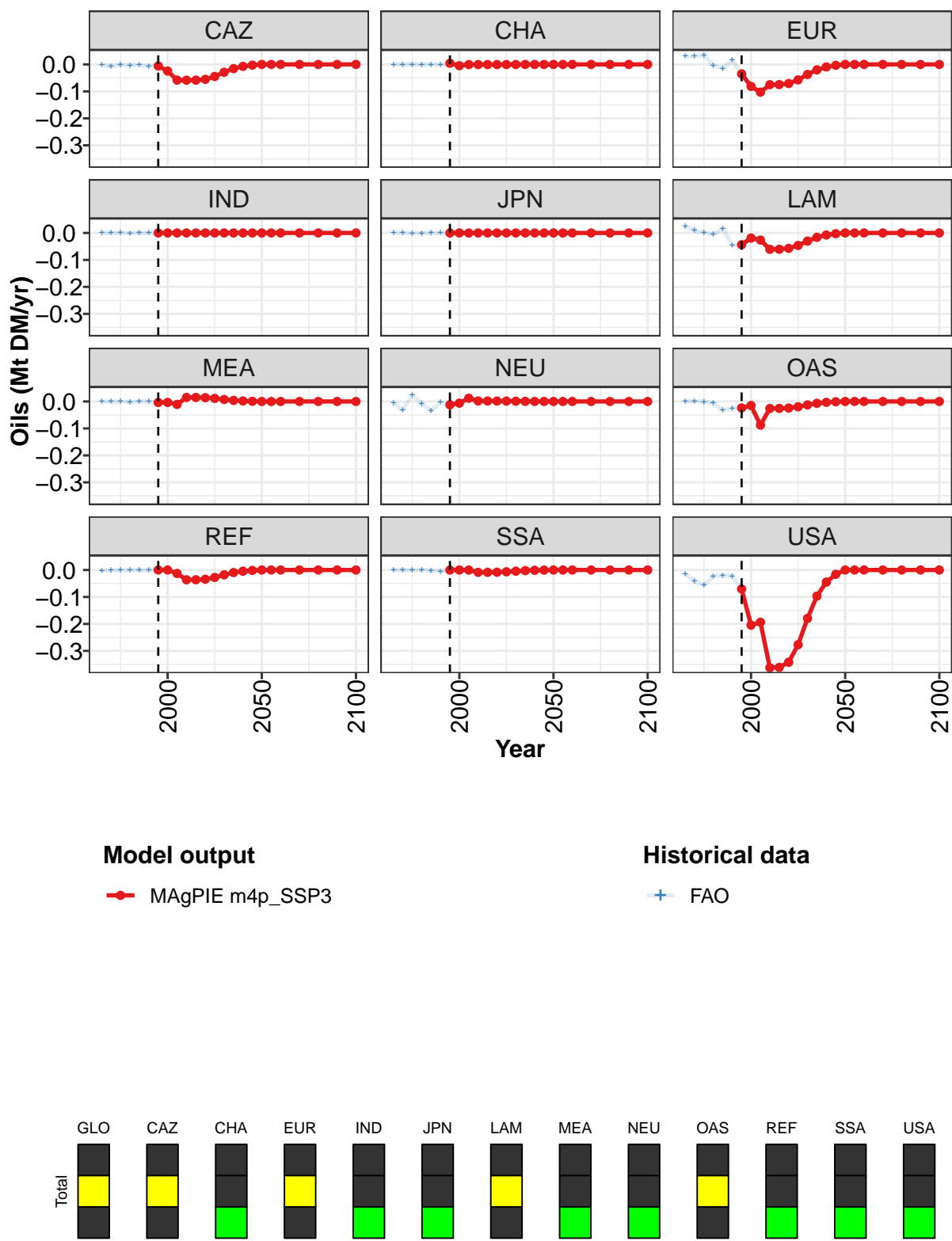


Figure 76: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.1908	-0.3587	-0.4813	-0.6112	-0.6088	-0.5766	-0.4670	-0.3027	-0.1628	-0.0757	-0.0269
CAZ	-0.0058	-0.0245	-0.0582	-0.0585	-0.0583	-0.0552	-0.0447	-0.0290	-0.0156	-0.0072	-0.0026
CHA	0.0044	-0.0047	-0.0005	-0.0005	-0.0005	-0.0005	-0.0004	-0.0003	-0.0001	-0.0001	0.0000
EUR	-0.0351	-0.0814	-0.1029	-0.0751	-0.0748	-0.0708	-0.0574	-0.0372	-0.0200	-0.0093	-0.0033
IND	0.0000	0.0000	-0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	-0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	-0.0436	-0.0188	-0.0263	-0.0607	-0.0605	-0.0573	-0.0464	-0.0301	-0.0162	-0.0075	-0.0027
MEA	-0.0037	-0.0035	-0.0109	0.0150	0.0150	0.0142	0.0115	0.0075	0.0040	0.0019	0.0007
NEU	-0.0124	-0.0063	0.0121	0.0018	0.0018	0.0017	0.0014	0.0009	0.0005	0.0002	0.0001
OAS	-0.0240	-0.0150	-0.0877	-0.0258	-0.0257	-0.0243	-0.0197	-0.0128	-0.0069	-0.0032	-0.0011
REF	0.0000	0.0000	-0.0129	-0.0362	-0.0361	-0.0342	-0.0277	-0.0179	-0.0096	-0.0045	-0.0016
SSA	-0.0001	0.0000	-0.0001	-0.0087	-0.0086	-0.0082	-0.0066	-0.0043	-0.0023	-0.0011	-0.0004
USA	-0.0705	-0.2045	-0.1937	-0.3625	-0.3611	-0.3420	-0.2770	-0.1795	-0.0966	-0.0449	-0.0160

Table 227: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Oils (Mt DM/yr)
[PART 1/2]

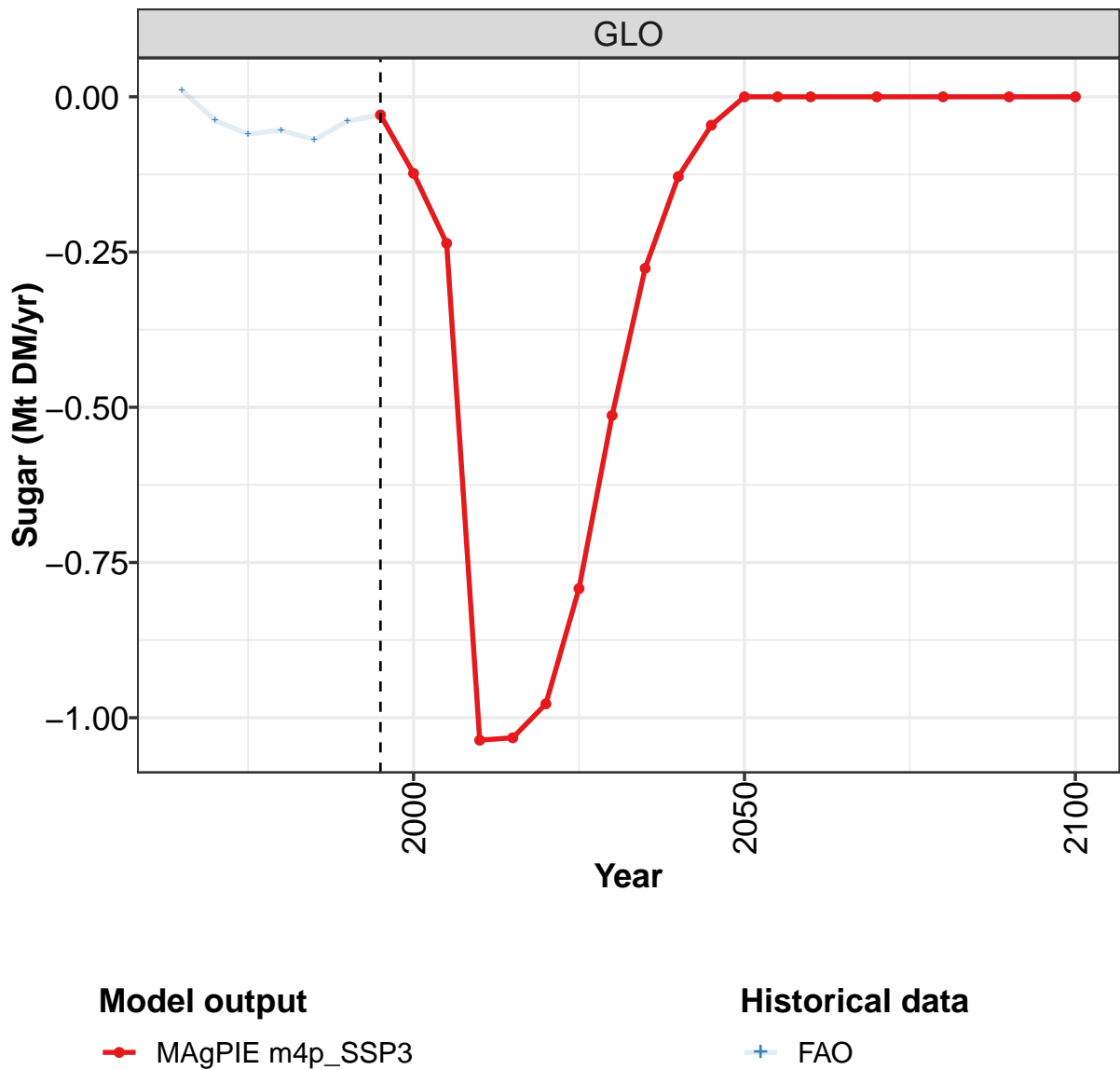
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 228: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Oils (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0284	-0.0421	-0.0023	-0.0553	-0.0894	-0.0944	-0.1906	-0.3589	-0.4814	-0.6111
CAZ	-0.0023	-0.0076	-0.0009	-0.0028	-0.0020	-0.0074	-0.0058	-0.0245	-0.0582	-0.0585
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	0.0044	-0.0047	-0.0005	-0.0005
EUR	0.0296	0.0307	0.0340	-0.0043	-0.0156	0.0163	-0.0351	-0.0814	-0.1029	-0.0751
IND	0.0000	0.0000	-0.0002	-0.0015	0.0000	0.0000	0.0000	0.0000	-0.0001	0.0000
JPN	0.0000	0.0000	-0.0013	-0.0012	0.0000	0.0000	0.0000	0.0000	-0.0001	0.0000
LAM	0.0245	0.0095	0.0012	-0.0055	0.0163	-0.0459	-0.0436	-0.0188	-0.0263	-0.0607
MEA	0.0001	-0.0010	0.0000	-0.0021	0.0003	0.0004	-0.0037	-0.0035	-0.0109	0.0150
NEU	-0.0067	-0.0316	0.0241	-0.0081	-0.0336	-0.0039	-0.0124	-0.0063	0.0121	0.0018
OAS	-0.0006	0.0018	-0.0014	-0.0063	-0.0330	-0.0253	-0.0240	-0.0150	-0.0877	-0.0258
REF	-0.0018	-0.0016	-0.0006	0.0002	-0.0001	-0.0014	0.0000	0.0000	-0.0129	-0.0362
SSA	0.0000	0.0000	-0.0013	-0.0001	-0.0017	-0.0049	-0.0001	0.0000	-0.0001	-0.0087
USA	-0.0143	-0.0423	-0.0559	-0.0236	-0.0199	-0.0223	-0.0705	-0.2045	-0.1937	-0.3625

Table 229: FAO — Demand—Domestic Balanceflow—Secondary products—Oils (Mt DM/yr)

5.4.6 Sugar



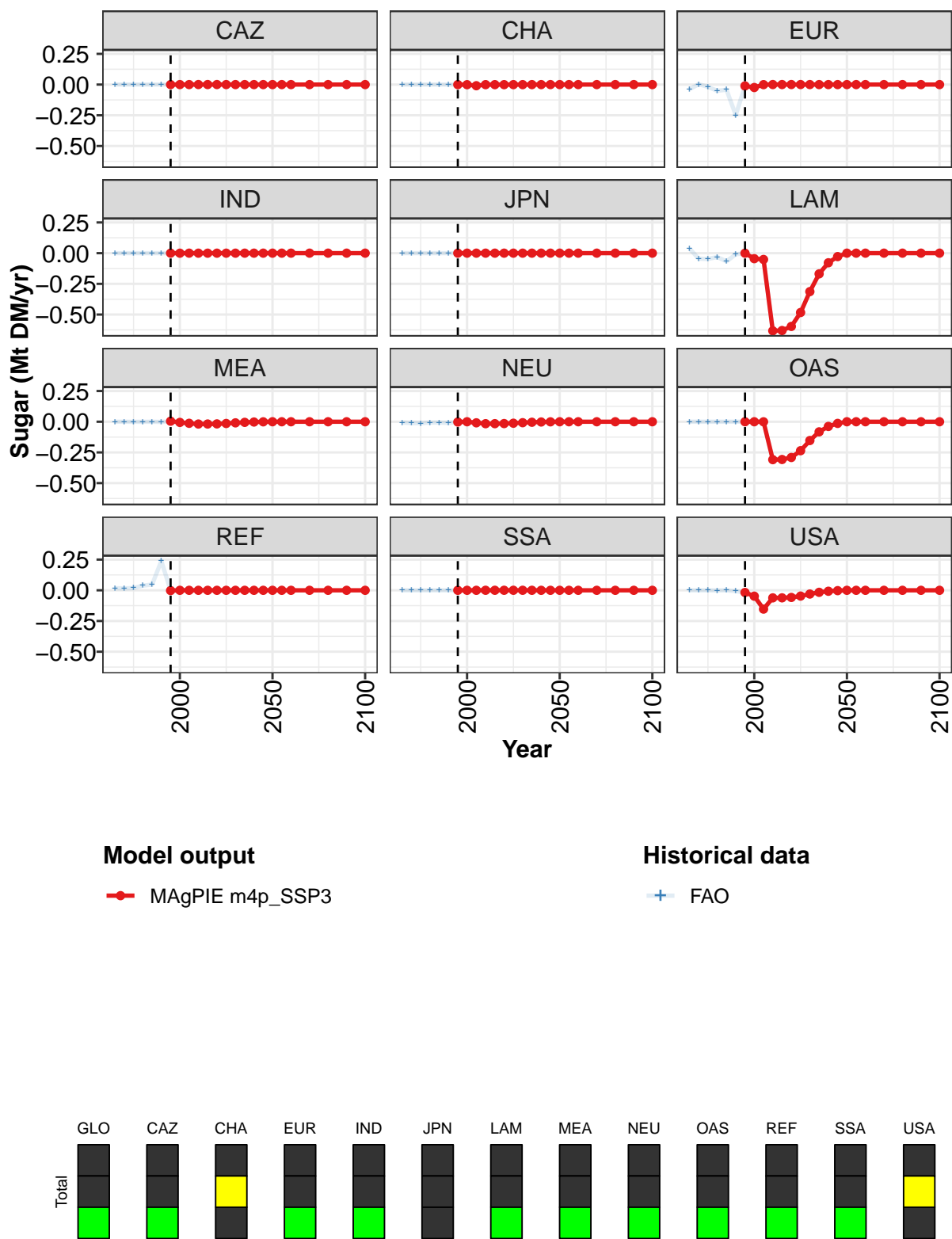


Figure 77: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.02920	-0.12320	-0.23590	-1.03620	-1.03230	-0.97760	-0.79200	-0.51320	-0.27620	-0.12850	-0.02850
CAZ	-0.00010	0.00000	0.00000	0.00030	0.00030	0.00030	0.00020	0.00010	0.00010	0.00000	0.00000
CHA	-0.00020	-0.00080	-0.00910	-0.00040	-0.00040	-0.00040	-0.00030	-0.00020	-0.00010	-0.00010	0.00000
EUR	-0.01100	-0.02380	-0.00040	0.00040	0.00040	0.00040	0.00030	0.00020	0.00010	0.00000	0.00000
IND	0.00000	-0.00030	0.00000	-0.00010	-0.00010	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	-0.00020	-0.04490	-0.05130	-0.63220	-0.62990	-0.59650	-0.48320	-0.31310	-0.16850	-0.07830	-0.02850
MEA	0.00430	-0.00550	-0.01270	-0.01860	-0.01850	-0.01760	-0.01420	-0.00920	-0.00500	-0.00230	-0.00000
NEU	-0.00240	0.00000	-0.00880	-0.01580	-0.01570	-0.01490	-0.01210	-0.00780	-0.00420	-0.00200	-0.00000
OAS	0.00000	0.00000	-0.00050	-0.30870	-0.30750	-0.29120	-0.23590	-0.15290	-0.08230	-0.03820	-0.02850
REF	-0.00200	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	-0.00010	0.00000	0.00030	0.00030	0.00030	0.00020	0.00020	0.00010	0.00000	0.00000
USA	-0.01760	-0.04780	-0.15310	-0.06140	-0.06120	-0.05790	-0.04690	-0.03040	-0.01640	-0.00760	-0.00000

Table 230: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Sugar (Mt DM/yr)
[PART 1/2]

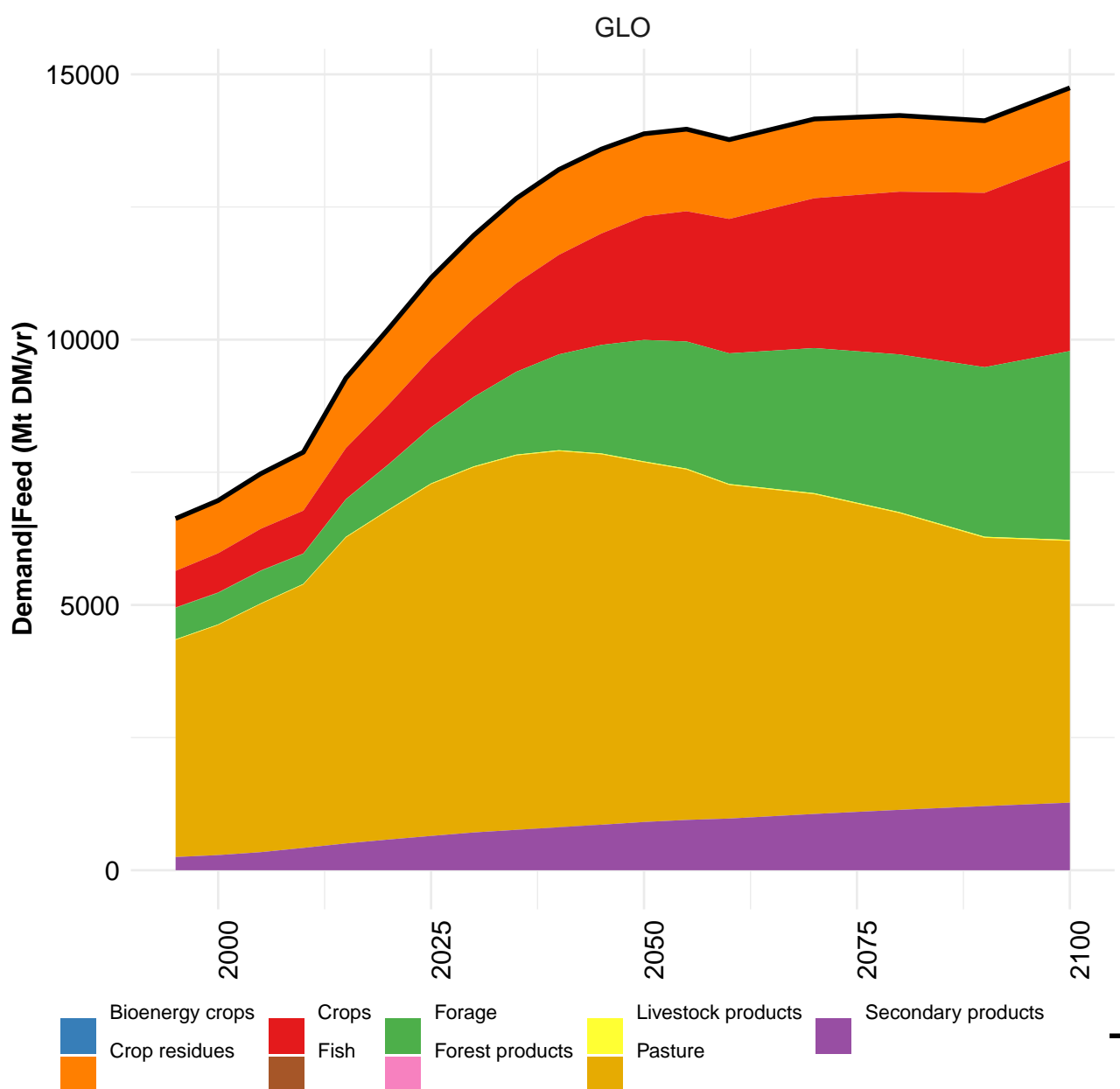
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

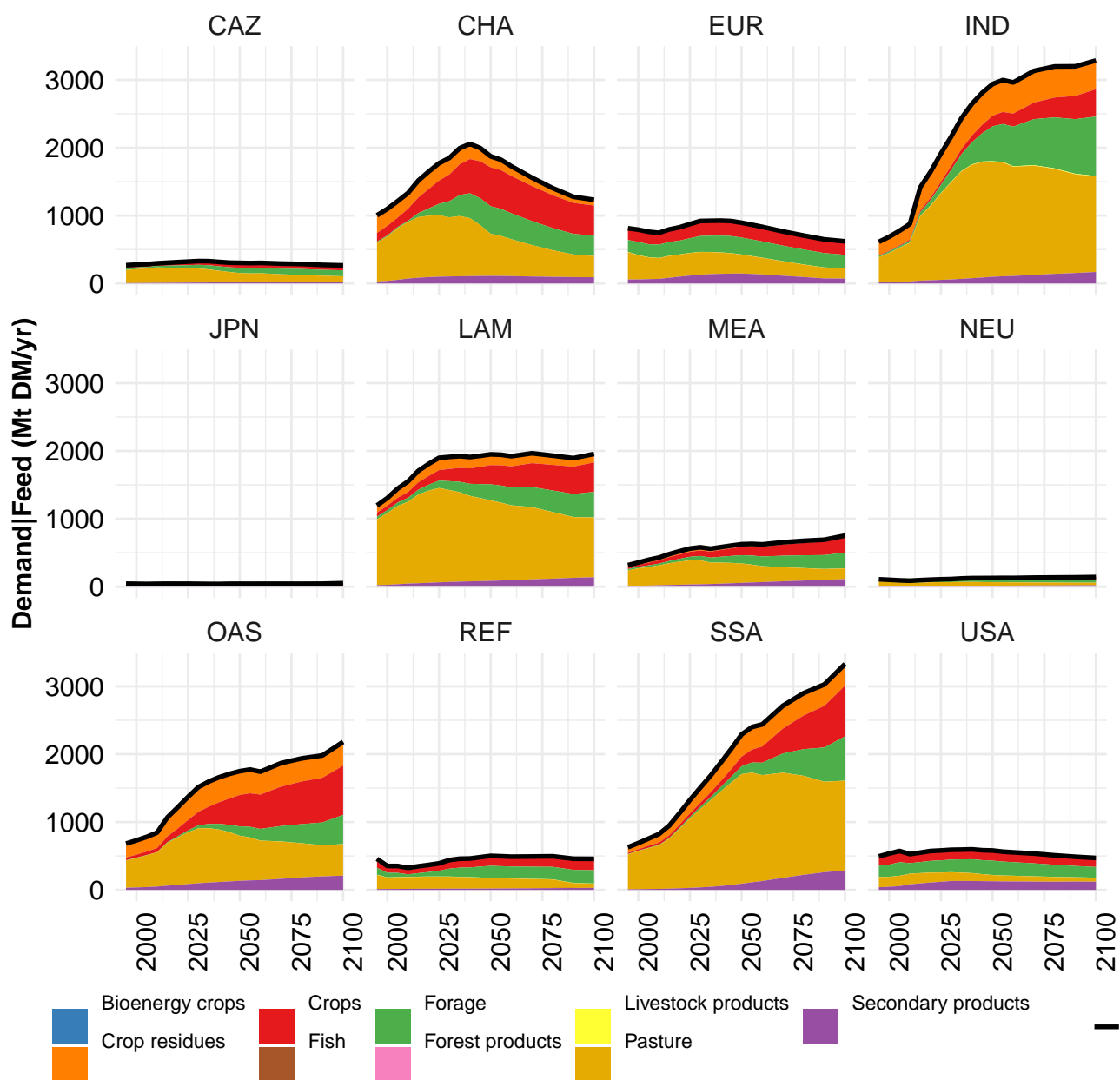
Table 231: MAgPIE m4p_SSP3 — Demand—Domestic Balanceflow—Secondary products—Sugar (Mt DM/yr)
[PART 2/2]

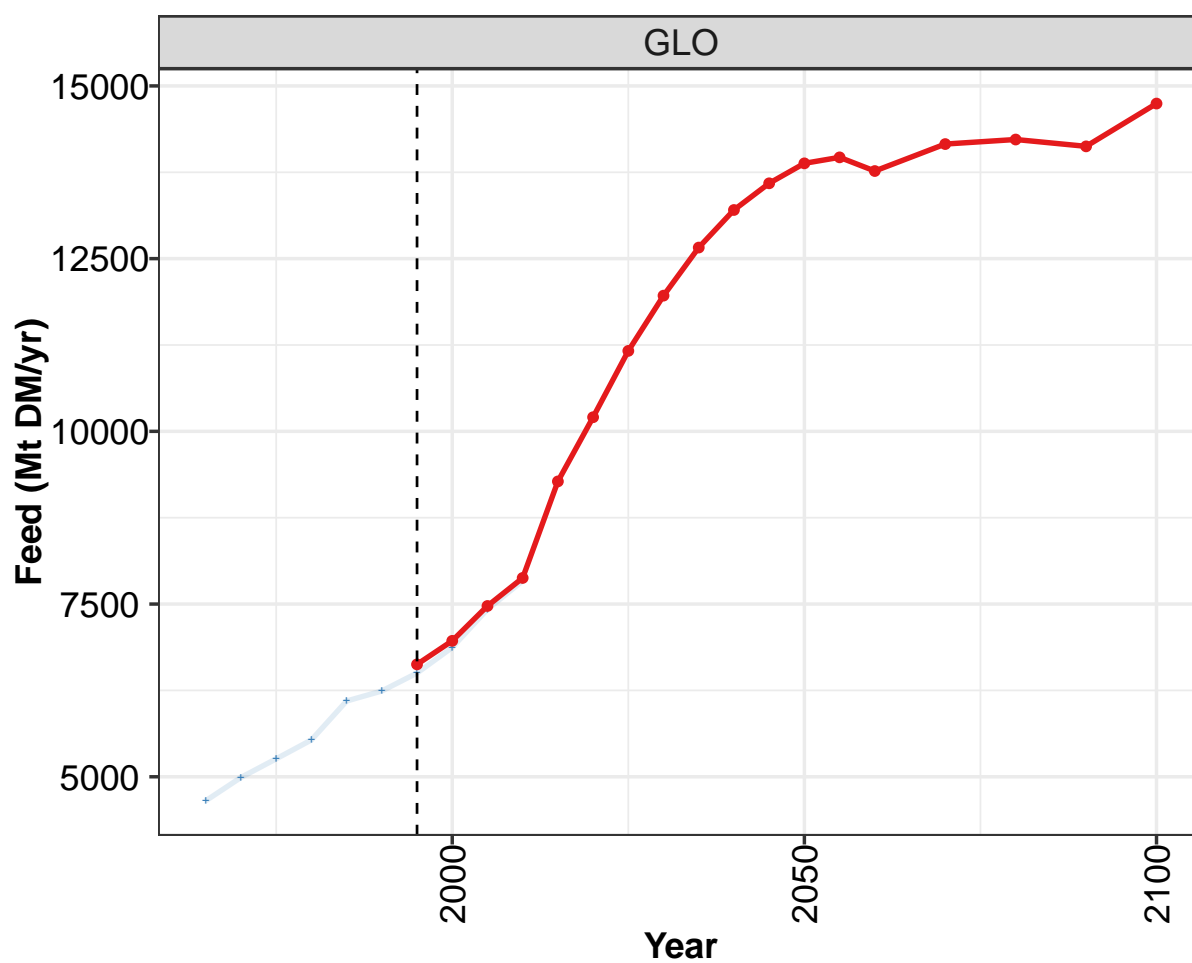
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.010	-0.038	-0.060	-0.054	-0.070	-0.039	-0.029	-0.123	-0.236	-1.036
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	-0.000	-0.000	-0.001	-0.009	-0.000
EUR	-0.038	0.003	-0.018	-0.051	-0.042	-0.249	-0.011	-0.024	-0.000	0.000
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	-0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.038	-0.045	-0.047	-0.032	-0.067	-0.010	-0.000	-0.045	-0.051	-0.632
MEA	0.000	-0.000	-0.001	-0.001	0.000	-0.002	0.004	-0.005	-0.013	-0.019
NEU	-0.006	-0.011	-0.013	-0.007	-0.007	-0.010	-0.002	0.000	-0.009	-0.016
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	-0.309
REF	0.017	0.016	0.018	0.038	0.046	0.239	-0.002	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	0.000
USA	0.000	0.000	0.000	-0.001	0.000	-0.007	-0.018	-0.048	-0.153	-0.061

Table 232: FAO — Demand—Domestic Balanceflow—Secondary products—Sugar (Mt DM/yr)

6 Feed





**Model output**

—●— MAgPIE m4p_SSP3

Historical data

—+— FAO

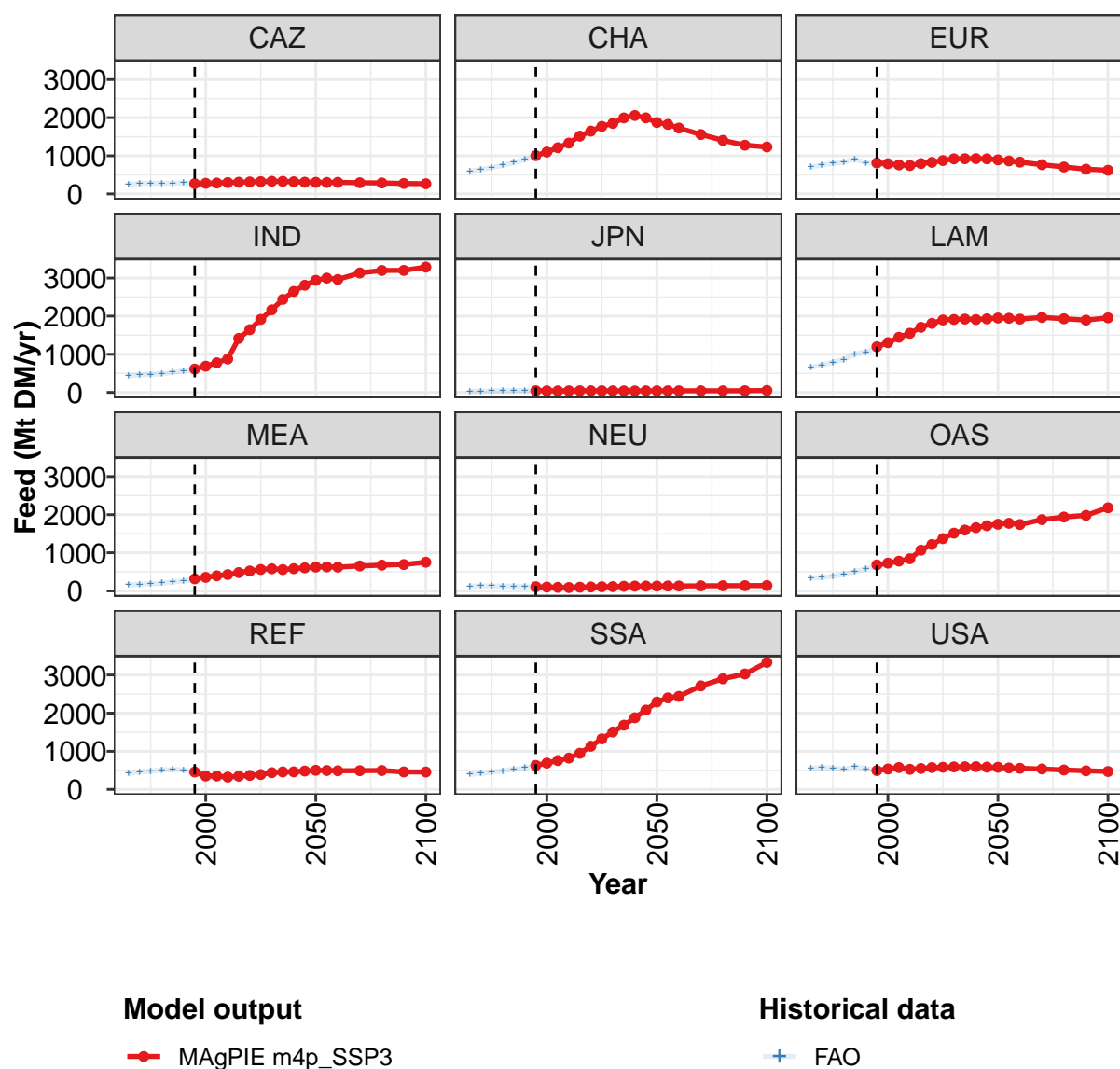


Figure 78: MAgPIE m4p_SSP3 — Demand—Feed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6627	6968	7473	7879	9276	10205	11165	11965	12661	13204	13591
CAZ	269	277	284	297	305	314	322	330	329	317	307
CHA	1004	1099	1213	1333	1517	1648	1771	1850	1994	2057	1995
EUR	813	793	762	746	797	828	876	921	924	926	920
IND	613	688	776	876	1416	1645	1914	2165	2438	2647	2811
JPN	44	42	40	42	44	43	43	42	40	40	43
LAM	1197	1305	1445	1550	1707	1809	1899	1912	1923	1910	1929
MEA	317	355	396	428	480	523	562	581	560	583	605
NEU	109	101	93	88	97	103	109	112	121	126	127
OAS	682	729	781	844	1069	1217	1371	1515	1596	1660	1709
REF	457	353	352	324	348	368	391	439	459	462	482
SSA	628	690	756	822	947	1133	1325	1506	1683	1879	2079
USA	494	535	573	527	549	573	581	591	593	597	584

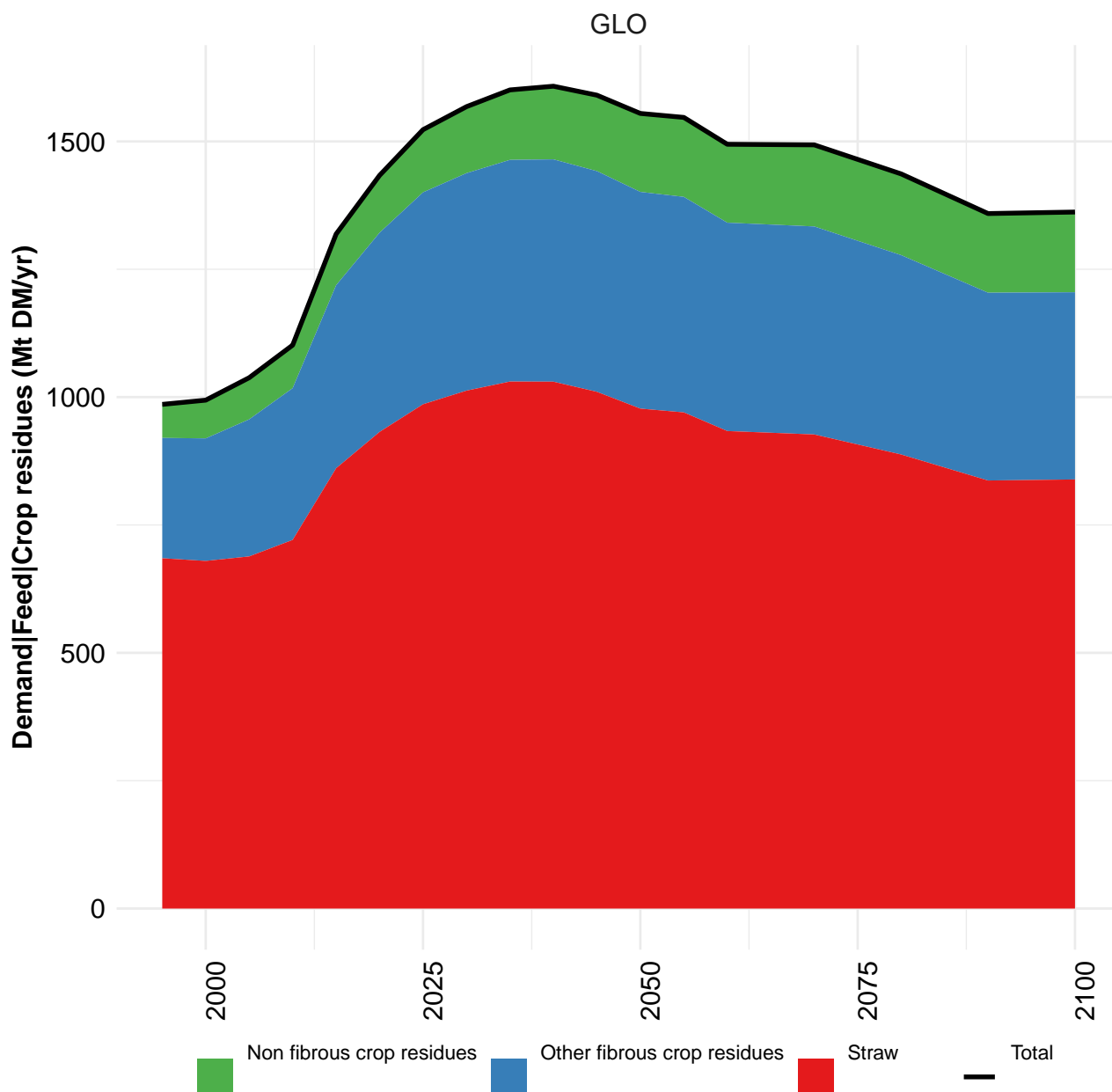
Table 233: MAgPIE m4p-SSP3 — Demand—Feed (Mt DM/yr) [PART 1/2]

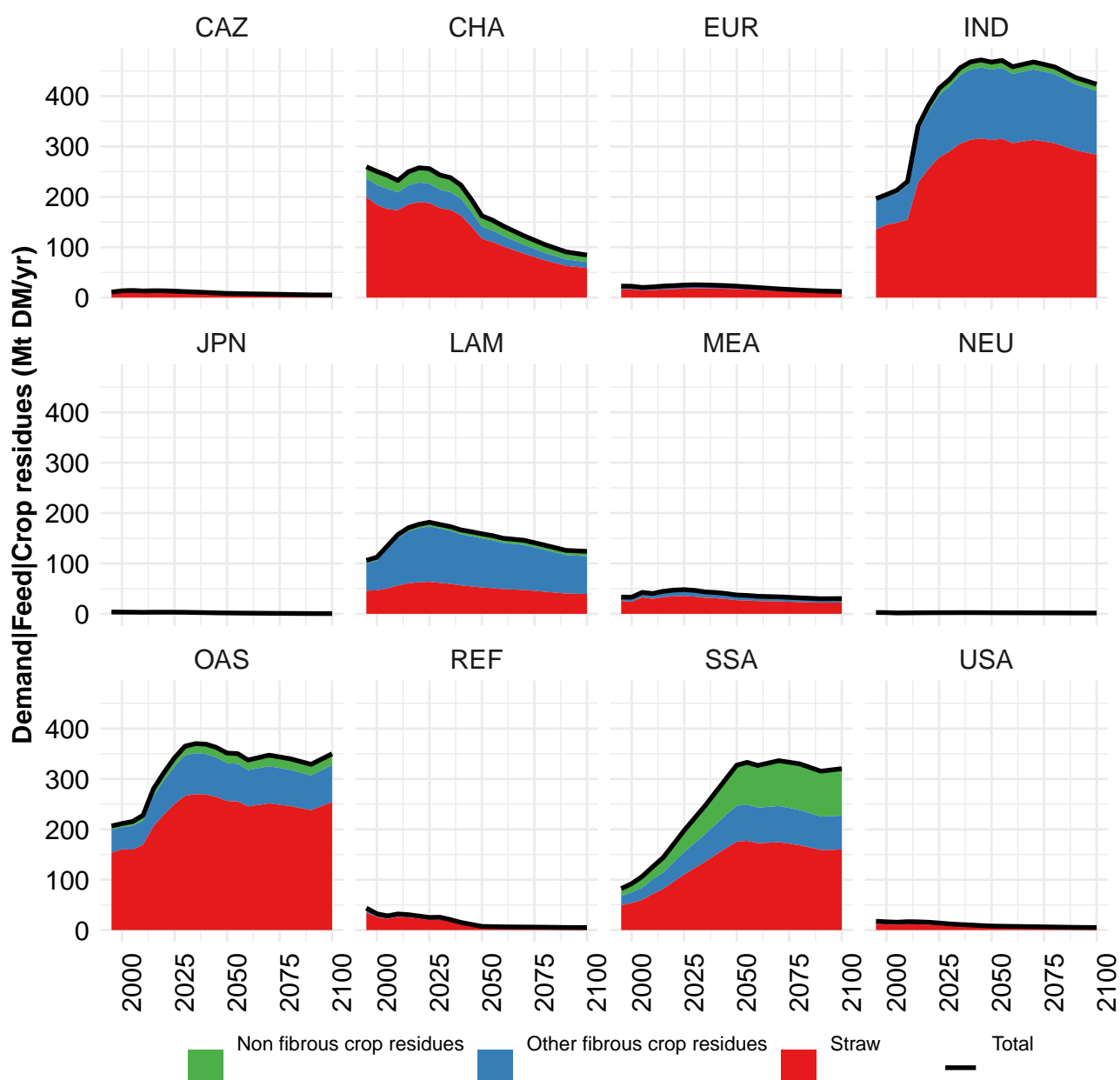
	2050	2055	2060	2070	2080	2090	2100
GLO	13880	13966	13768	14158	14224	14125	14745
CAZ	304	300	303	293	287	273	266
CHA	1874	1824	1727	1559	1405	1278	1232
EUR	895	865	834	767	706	650	621
IND	2939	2998	2962	3133	3198	3200	3286
JPN	43	43	43	43	42	44	51
LAM	1950	1944	1923	1966	1931	1895	1956
MEA	626	630	623	654	676	692	752
NEU	128	129	128	133	135	137	142
OAS	1749	1774	1742	1869	1938	1982	2181
REF	502	496	489	492	495	459	457
SSA	2291	2400	2440	2715	2900	3028	3330
USA	580	563	553	535	510	488	470

Table 234: MAgPIE m4p-SSP3 — Demand—Feed (Mt DM/yr) [PART 2/2]

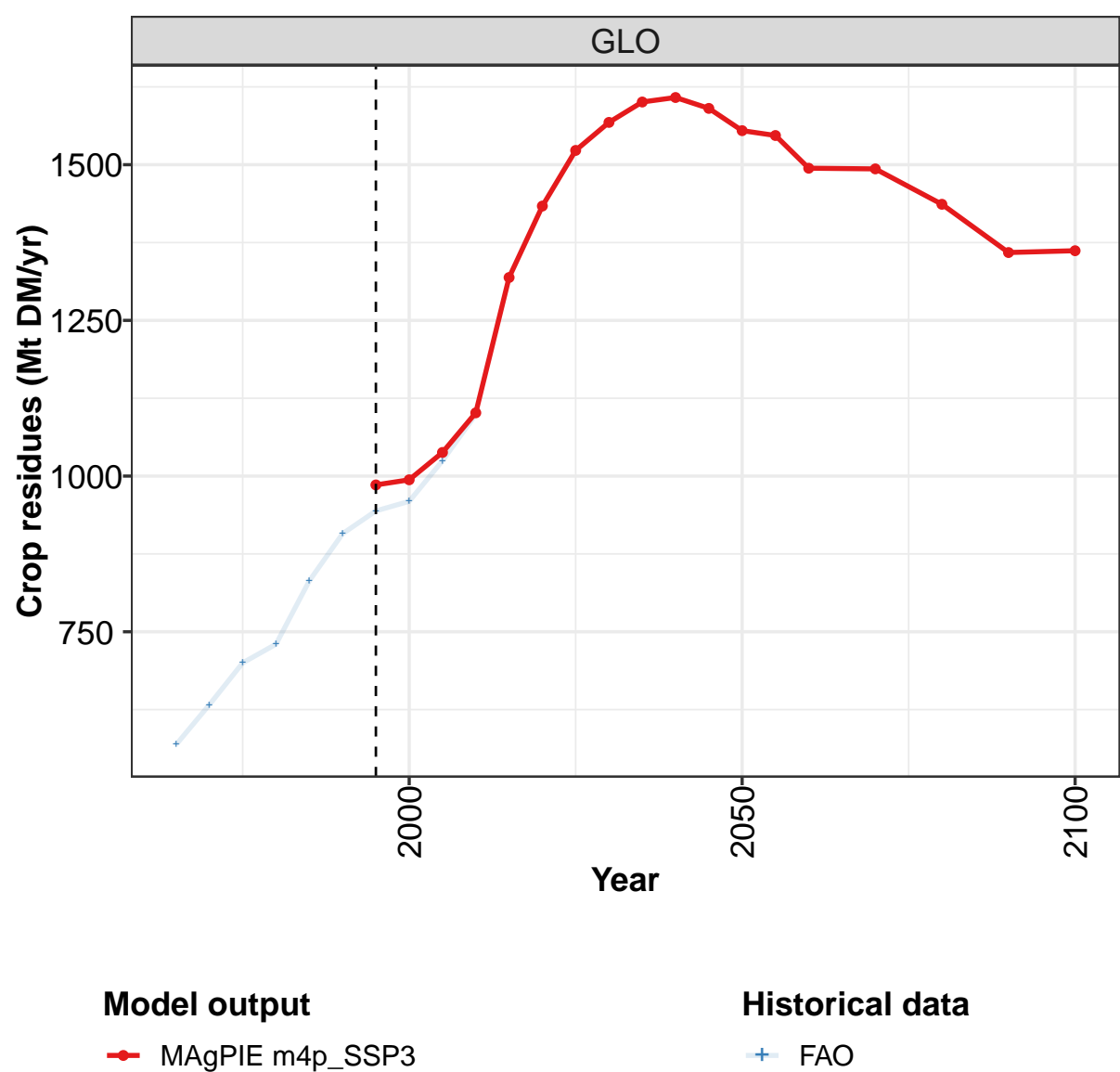
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4653	4990	5260	5533	6096	6242	6502	6872	7424	7836
CAZ	254	270	279	273	283	285	292	304	313	312
CHA	600	638	690	751	824	899	997	1101	1210	1332
EUR	706	757	800	831	902	821	779	756	733	723
IND	432	457	473	493	526	567	615	691	802	903
JPN	28	34	37	44	47	47	45	42	40	42
LAM	657	717	793	865	1008	1057	1168	1288	1402	1490
MEA	156	175	185	201	233	265	312	357	404	428
NEU	124	128	131	126	125	112	103	94	92	87
OAS	333	355	385	432	508	574	648	698	773	845
REF	417	464	473	510	518	513	425	321	322	311
SSA	396	421	453	487	527	568	610	669	753	820
USA	550	576	561	519	597	535	509	549	579	544

Table 235: FAO — Demand—Feed (Mt DM/yr)





6.1 Crop residues



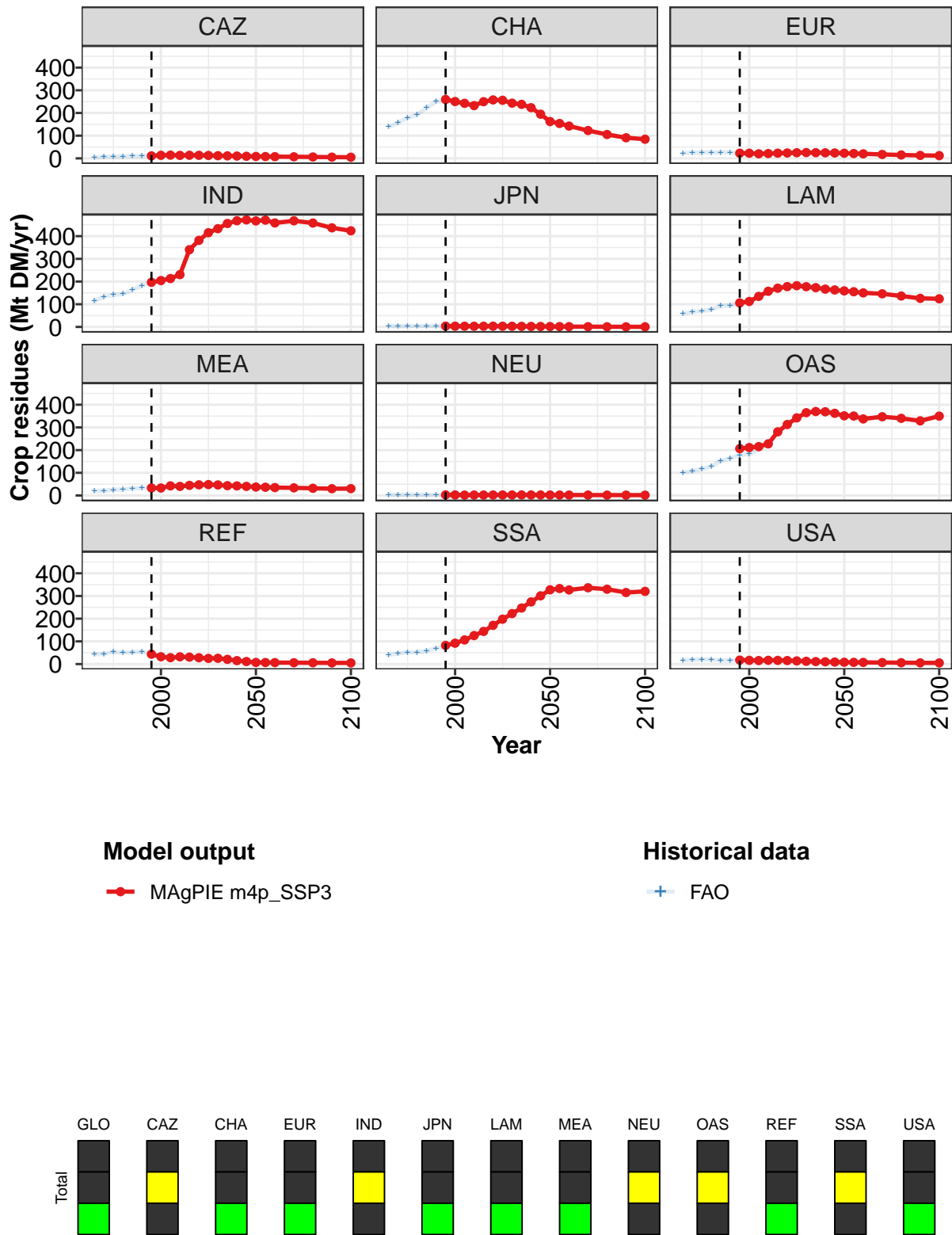


Figure 79: MAgPIE m4p_SSP3 — Demand—Feed—Crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	986	994	1038	1102	1319	1434	1523	1568	1601	1608	1590
CAZ	11	13	14	13	14	14	13	12	11	10	9
CHA	260	251	243	233	250	258	256	243	238	223	195
EUR	23	23	20	21	23	24	25	25	25	24	24
IND	197	204	213	231	340	382	415	433	456	468	472
JPN	4	3	3	3	3	3	3	3	3	2	2
LAM	106	112	135	157	171	178	182	177	173	167	163
MEA	33	33	42	40	45	47	48	47	43	42	40
NEU	3	2	2	2	2	2	2	2	2	2	2
OAS	207	211	215	228	281	313	342	365	370	369	362
REF	44	32	28	32	31	28	25	25	21	15	11
SSA	82	92	106	126	144	171	198	223	247	274	301
USA	18	16	16	17	16	16	14	12	11	10	9

Table 236: MAgPIE m4p_SSP3 — Demand—Feed—Crop residues (Mt DM/yr) [PART 1/2]

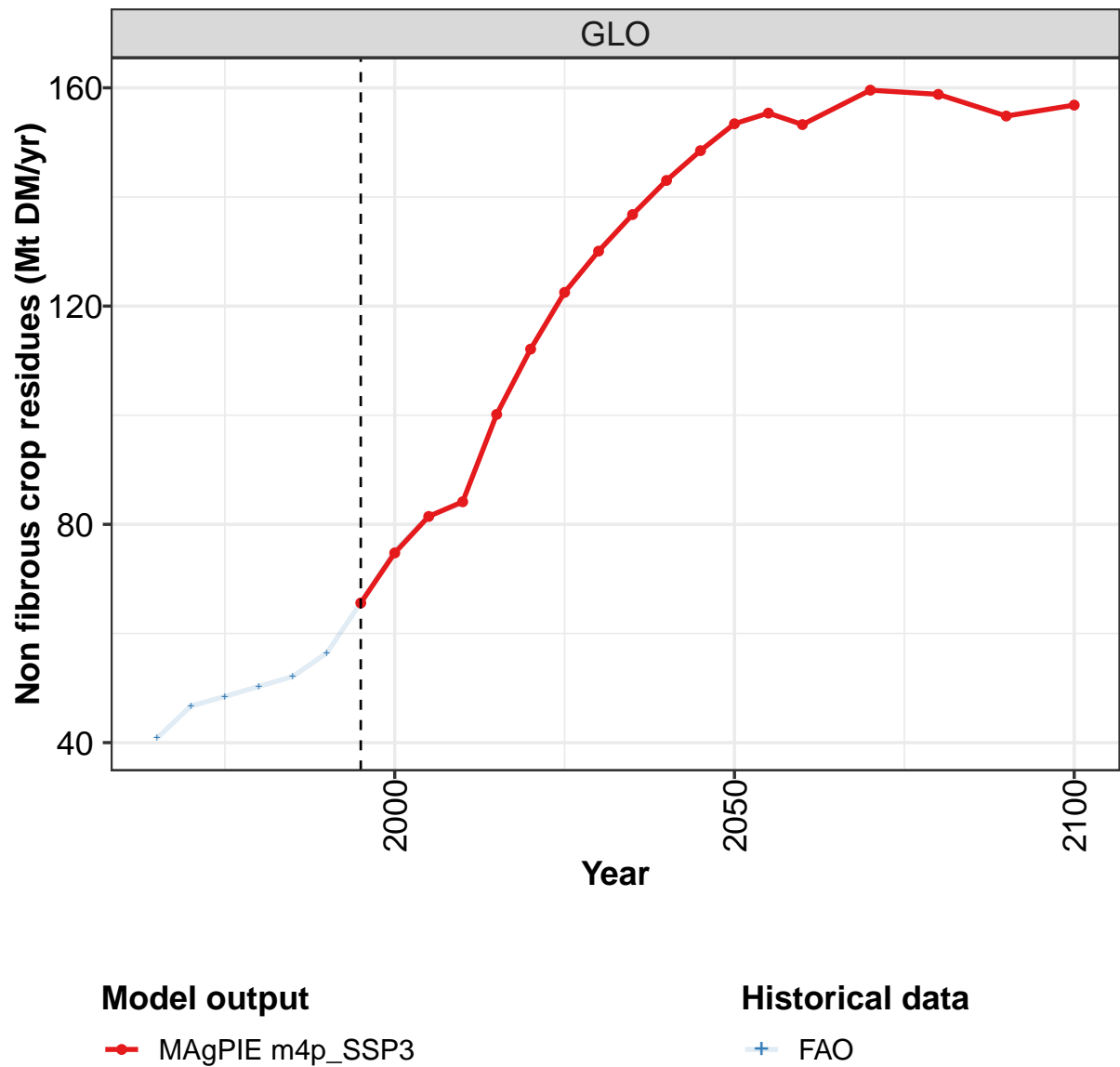
	2050	2055	2060	2070	2080	2090	2100
GLO	1555	1547	1494	1493	1436	1359	1362
CAZ	8	8	8	7	6	5	5
CHA	162	154	142	123	105	91	84
EUR	23	21	20	17	15	13	12
IND	467	471	458	468	458	437	424
JPN	2	2	1	1	1	1	0
LAM	159	155	150	146	136	126	124
MEA	37	37	35	34	32	30	30
NEU	2	2	2	2	2	2	2
OAS	351	350	337	347	340	329	350
REF	7	7	6	6	6	5	5
SSA	327	333	327	336	330	315	320
USA	8	8	7	7	6	5	5

Table 237: MAgPIE m4p_SSP3 — Demand—Feed—Crop residues (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	569	633	700	730	832	907	944	959	1025	1099
CAZ	6	7	9	9	11	10	12	16	17	15
CHA	139	157	178	193	222	250	255	249	241	232
EUR	23	24	26	26	26	26	22	21	19	20
IND	115	133	141	145	163	183	197	205	216	233
JPN	4	4	4	4	4	4	4	3	3	3
LAM	58	66	70	76	93	95	102	110	131	152
MEA	21	21	25	26	30	33	35	33	43	40
NEU	3	3	4	3	3	3	3	2	2	2
OAS	100	108	117	128	152	164	179	182	203	227
REF	44	44	53	50	52	55	42	31	27	32
SSA	40	47	52	52	58	69	77	89	106	125
USA	16	18	20	19	17	15	18	17	16	17

Table 238: FAO — Demand—Feed—Crop residues (Mt DM/yr)

6.1.1 Non fibrous crop residues



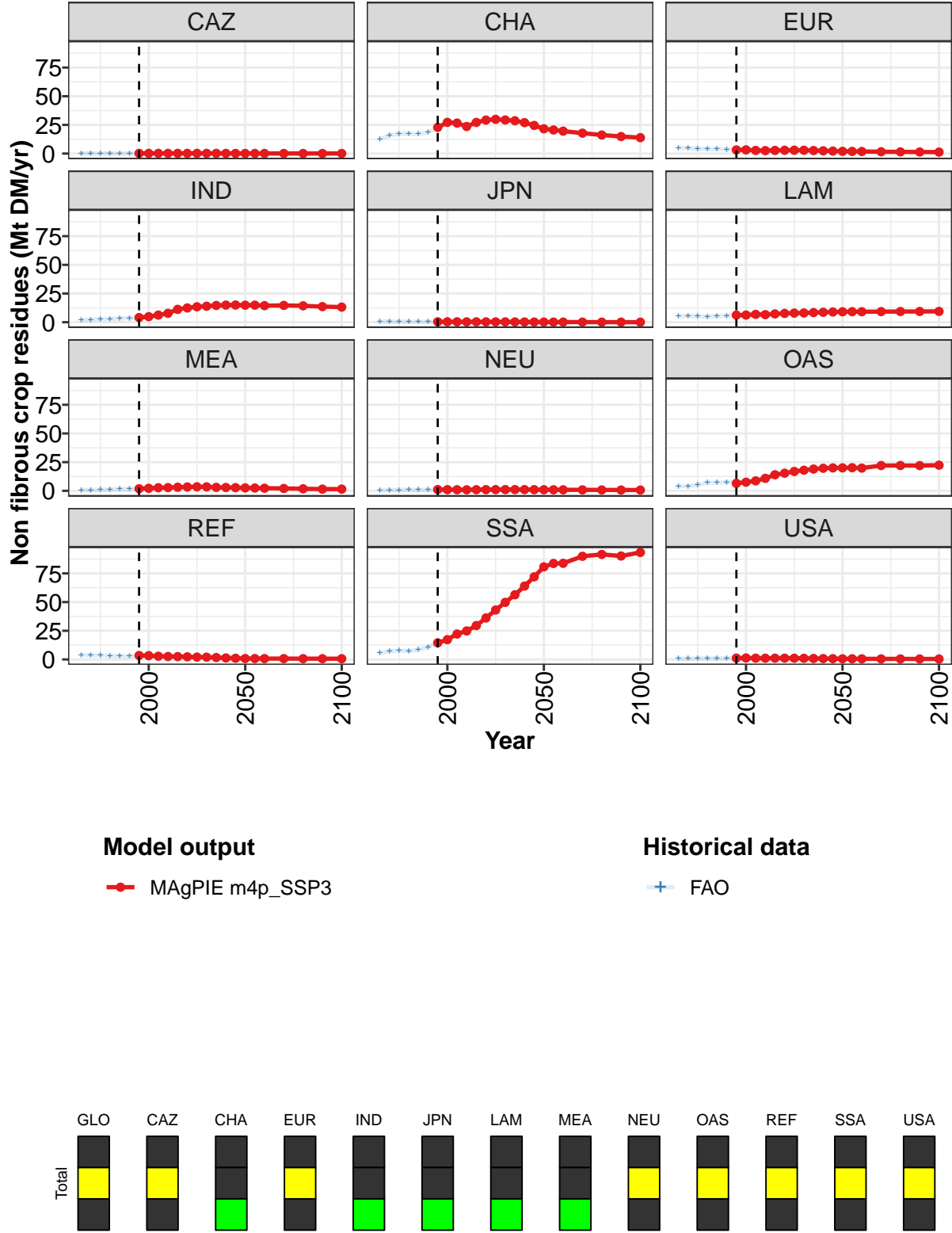


Figure 80: MAgPIE m4p_SSP3 — Demand—Feed—Crop residues—Non fibrous crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	66	75	81	84	100	112	123	130	137	143	148
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	23	27	27	24	27	29	30	29	29	27	25
EUR	3	3	3	3	3	3	3	3	3	2	2
IND	4	5	6	8	11	12	13	14	15	15	15
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	6	6	7	7	7	8	8	8	8	9	9
MEA	2	2	3	3	3	3	4	3	3	3	3
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	7	8	9	11	14	15	17	18	19	20	20
REF	3	3	3	3	2	2	2	2	2	1	1
SSA	15	17	22	25	30	36	43	50	56	64	72
USA	1	1	1	1	1	1	1	1	1	1	1

Table 239: MAgPIE m4p_SSP3 — Demand—Feed—Crop residues—Non fibrous crop residues (Mt DM/yr)
[PART 1/2]

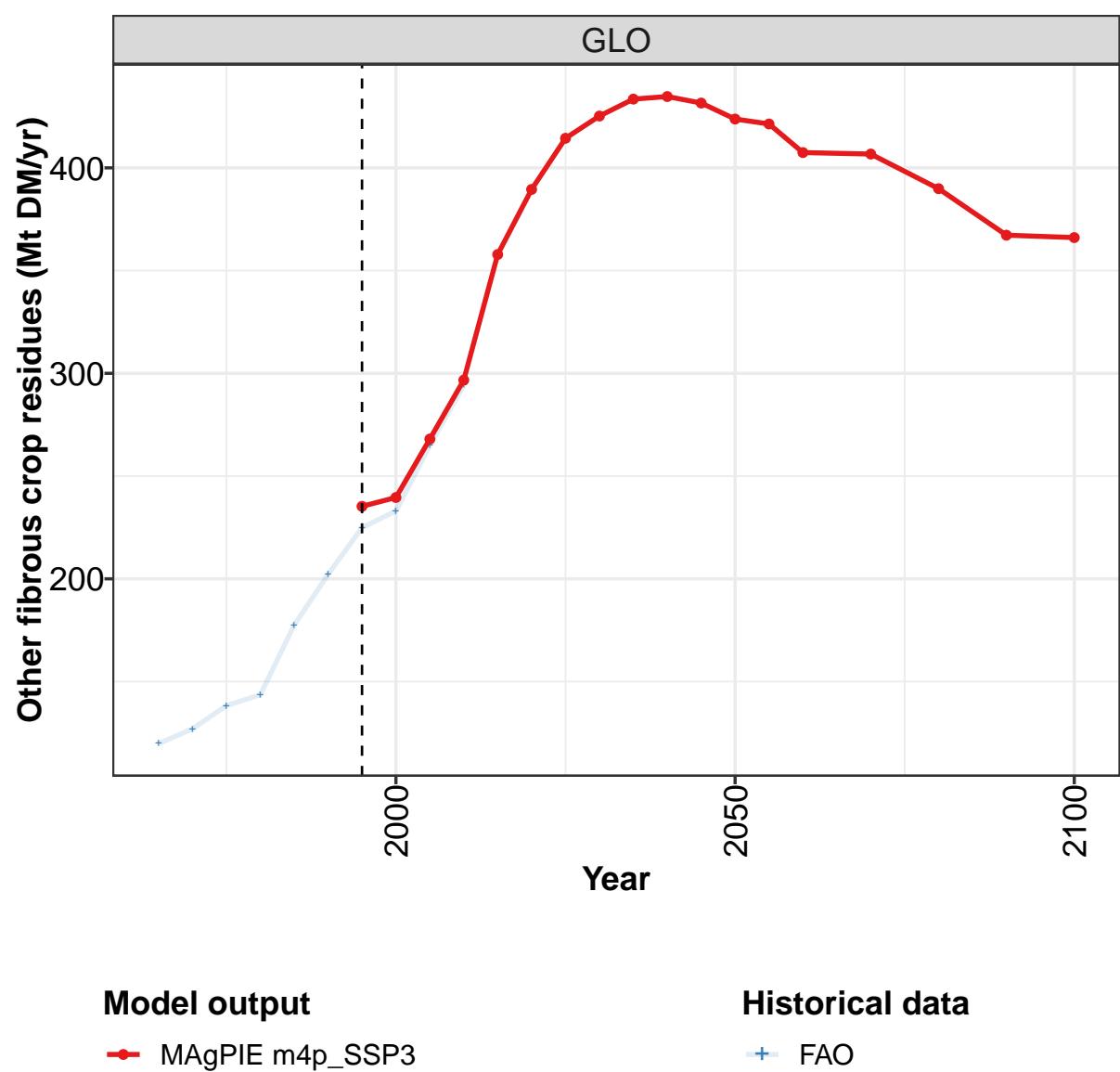
	2050	2055	2060	2070	2080	2090	2100
GLO	153	155	153	160	159	155	157
CAZ	0	0	0	0	0	0	0
CHA	22	21	20	18	16	15	14
EUR	2	2	2	2	1	1	1
IND	15	15	14	15	14	14	13
JPN	0	0	0	0	0	0	0
LAM	9	9	9	9	9	9	9
MEA	3	2	2	2	2	2	2
NEU	1	1	1	1	1	1	1
OAS	20	20	20	22	22	22	22
REF	1	1	1	1	1	1	1
SSA	81	84	84	90	92	90	93
USA	1	1	1	0	0	0	0

Table 240: MAgPIE m4p_SSP3 — Demand—Feed—Crop residues—Non fibrous crop residues (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	40.8	46.7	48.5	50.3	52.1	56.4	65.6	75.2	81.6	83.9
CAZ	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
CHA	12.5	16.0	17.1	17.4	17.0	18.4	22.5	27.1	26.5	23.6
EUR	4.9	4.7	4.2	3.9	4.0	3.7	3.3	3.3	2.7	2.5
IND	1.8	2.3	2.6	2.9	3.3	3.5	4.1	4.9	6.3	7.9
JPN	0.8	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3
LAM	5.1	5.7	5.2	4.9	5.3	5.7	6.0	6.1	6.6	6.2
MEA	0.7	0.7	0.9	1.2	1.5	1.7	1.9	2.3	2.7	2.8
NEU	0.6	0.7	0.7	1.0	0.9	0.9	0.9	0.9	0.9	0.9
OAS	4.1	4.1	5.1	7.0	7.2	7.5	7.2	7.9	9.0	10.9
REF	3.9	3.7	3.5	3.2	3.0	2.7	3.3	3.3	3.0	2.6
SSA	5.5	7.3	7.6	7.3	8.4	10.7	14.6	17.7	22.2	24.8
USA	0.8	0.8	0.9	1.0	1.0	1.0	1.2	1.3	1.1	1.1

Table 241: FAO — Demand—Feed—Crop residues—Non fibrous crop residues (Mt DM/yr)

6.1.2 Other fibrous crop residues



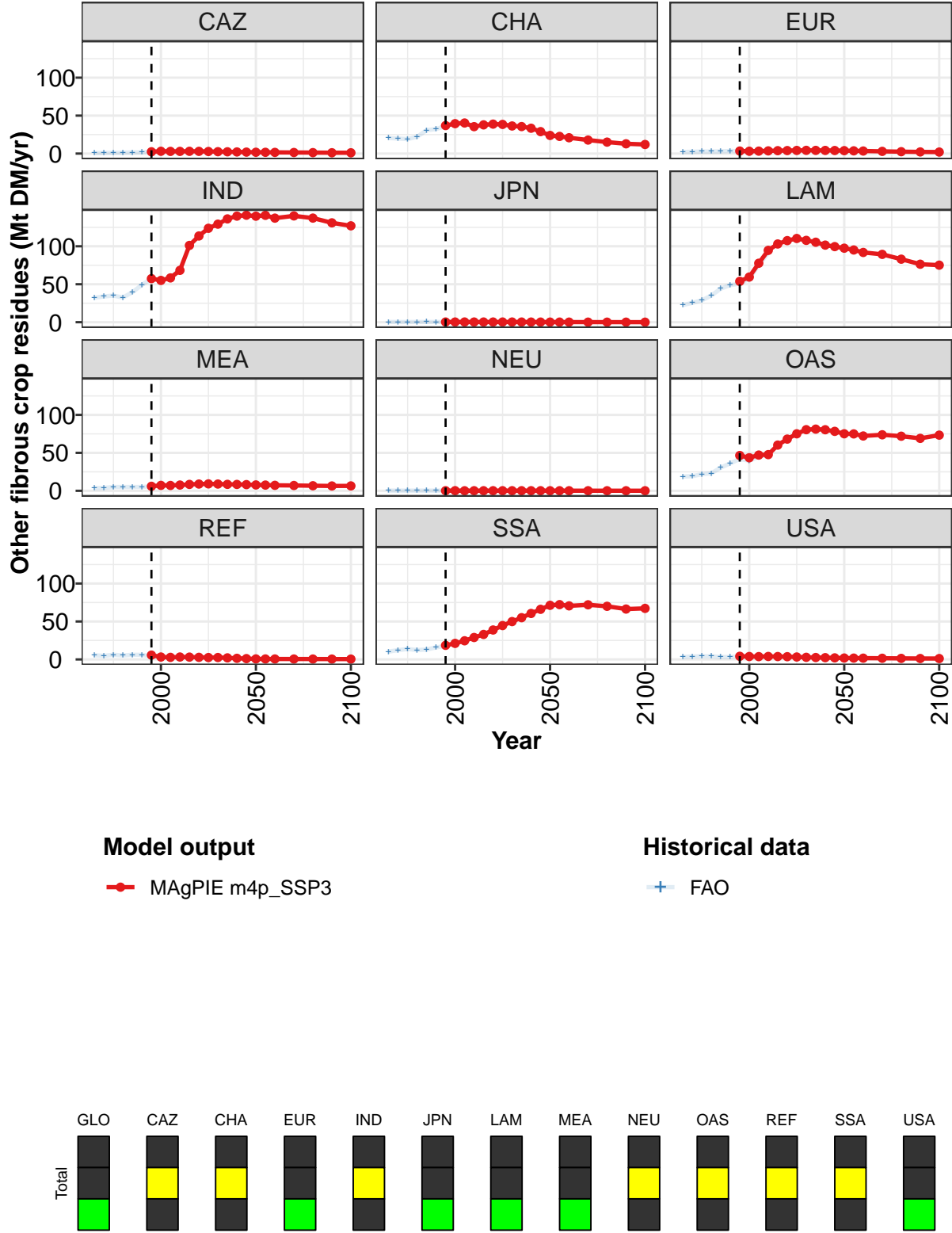


Figure 81: MAgPIE m4p_SSP3 — Demand—Feed—Crop residues—Other fibrous crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	235	240	268	297	358	389	414	425	433	435	432
CAZ	2	3	3	3	3	3	3	3	2	2	2
CHA	37	39	40	35	38	39	38	36	36	33	29
EUR	3	3	3	4	4	4	4	4	4	4	4
IND	57	55	58	68	101	114	124	129	136	140	141
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	54	59	78	95	103	107	110	108	105	102	100
MEA	6	7	7	8	8	9	9	9	9	8	8
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	47	44	47	48	60	68	75	81	81	80	78
REF	6	3	3	3	3	3	3	3	2	2	1
SSA	19	21	25	29	33	39	45	50	55	61	66
USA	4	4	4	4	4	4	3	3	3	2	2

Table 242: MAgPIE m4p_SSP3 — Demand—Feed—Crop residues—Other fibrous crop residues (Mt DM/yr)
[PART 1/2]

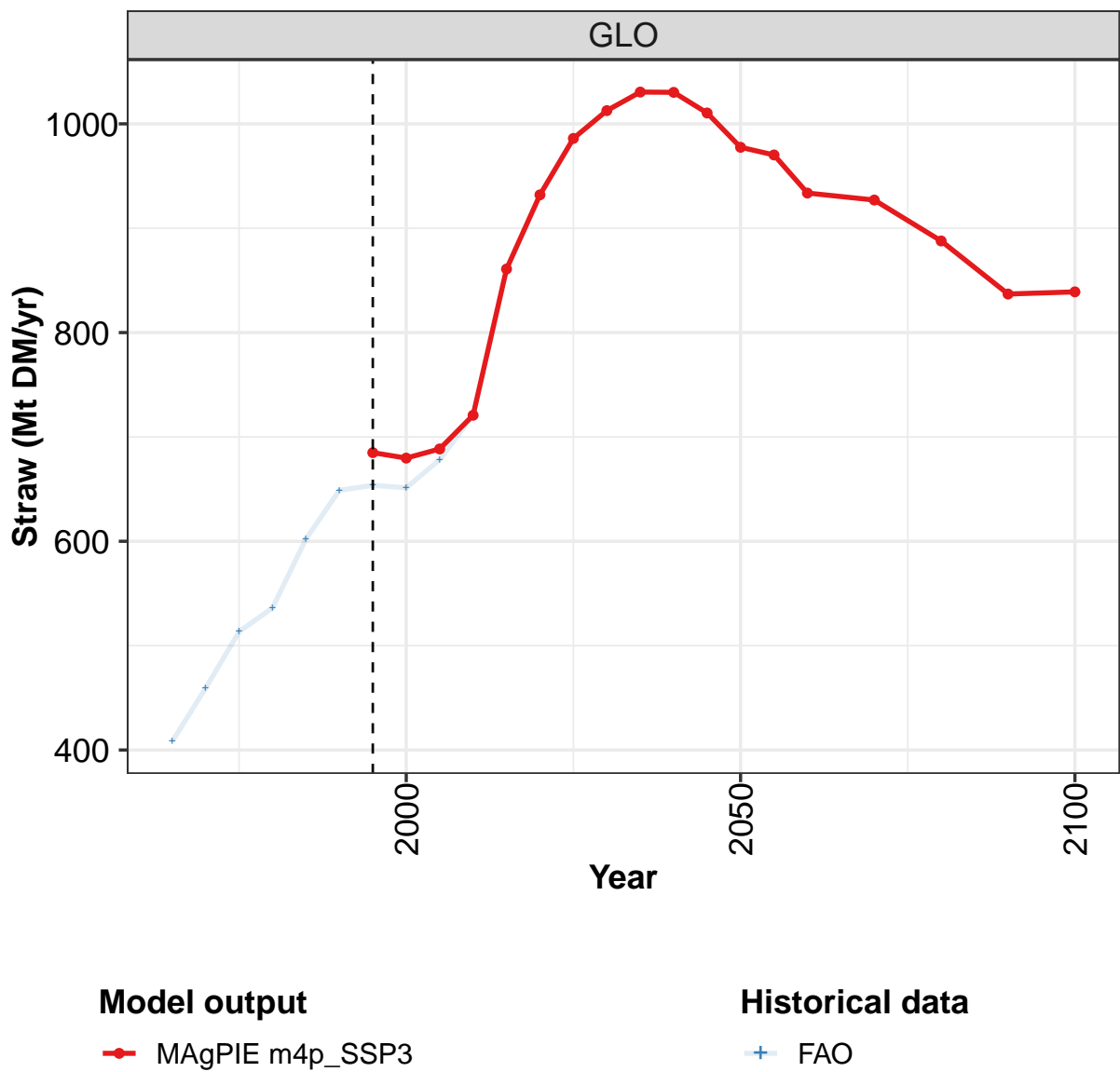
	2050	2055	2060	2070	2080	2090	2100
GLO	424	421	407	407	390	367	366
CAZ	2	2	2	1	1	1	1
CHA	24	23	21	18	15	13	12
EUR	4	4	3	3	3	2	2
IND	140	141	137	140	137	131	127
JPN	0	0	0	0	0	0	0
LAM	98	95	92	89	83	76	75
MEA	8	8	7	7	7	6	6
NEU	0	0	0	0	0	0	0
OAS	75	75	72	74	72	69	73
REF	1	1	1	1	1	0	0
SSA	71	72	71	72	70	66	67
USA	2	2	2	2	1	1	1

Table 243: MAgPIE m4p_SSP3 — Demand—Feed—Crop residues—Other fibrous crop residues (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	120	127	138	144	177	202	225	233	265	294
CAZ	1	1	1	1	2	2	3	4	4	3
CHA	20	20	19	22	31	32	36	39	40	35
EUR	2	2	3	3	3	3	3	3	3	3
IND	32	34	35	32	39	49	57	55	59	69
JPN	0	0	0	0	0	0	0	0	0	0
LAM	23	25	29	35	44	49	51	57	75	91
MEA	4	4	5	5	5	5	6	7	7	8
NEU	0	0	0	0	0	0	0	0	0	0
OAS	19	19	22	23	30	36	42	40	45	48
REF	5	5	6	5	6	6	4	3	2	3
SSA	10	12	14	12	13	16	18	21	25	29
USA	3	4	4	4	3	3	4	4	4	4

Table 244: FAO — Demand—Feed—Crop residues—Other fibrous crop residues (Mt DM/yr)

6.1.3 Straw



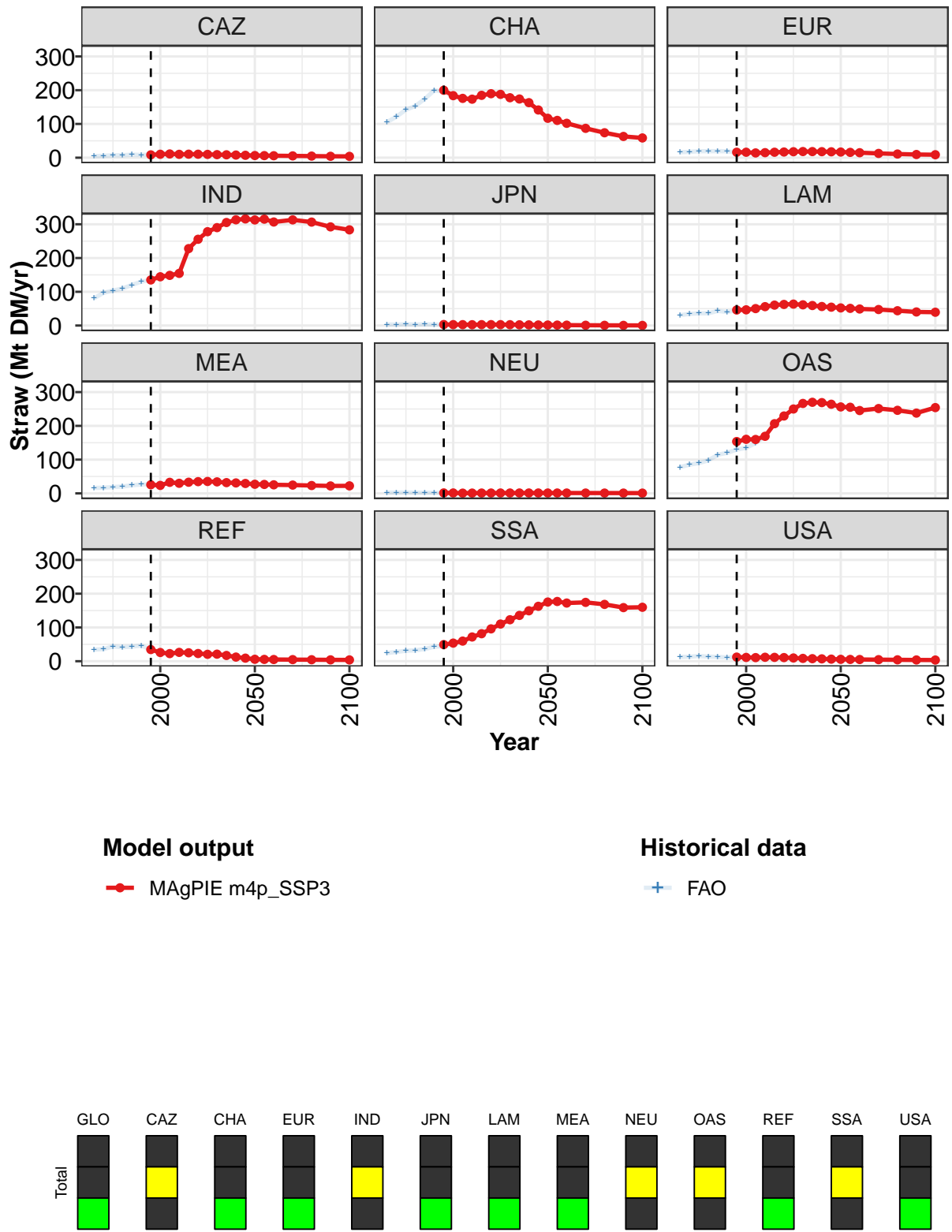


Figure 82: MAgPIE m4p_SSP3 — Demand—Feed—Crop residues—Straw (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	685	680	688	721	861	932	986	1013	1030	1030	1010
CAZ	8	10	11	10	10	10	10	9	9	8	7
CHA	200	184	176	173	185	190	188	178	174	163	141
EUR	16	16	14	15	16	17	18	18	18	18	18
IND	135	144	149	154	228	256	278	290	305	313	316
JPN	3	3	3	2	3	3	3	3	2	2	2
LAM	46	47	50	56	60	63	64	61	59	56	54
MEA	26	24	33	30	33	35	35	34	32	31	29
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	154	160	160	169	206	229	250	266	270	269	264
REF	35	26	23	26	25	23	20	21	17	12	9
SSA	49	54	60	72	81	96	110	123	136	149	163
USA	12	11	11	12	11	11	10	8	8	7	6

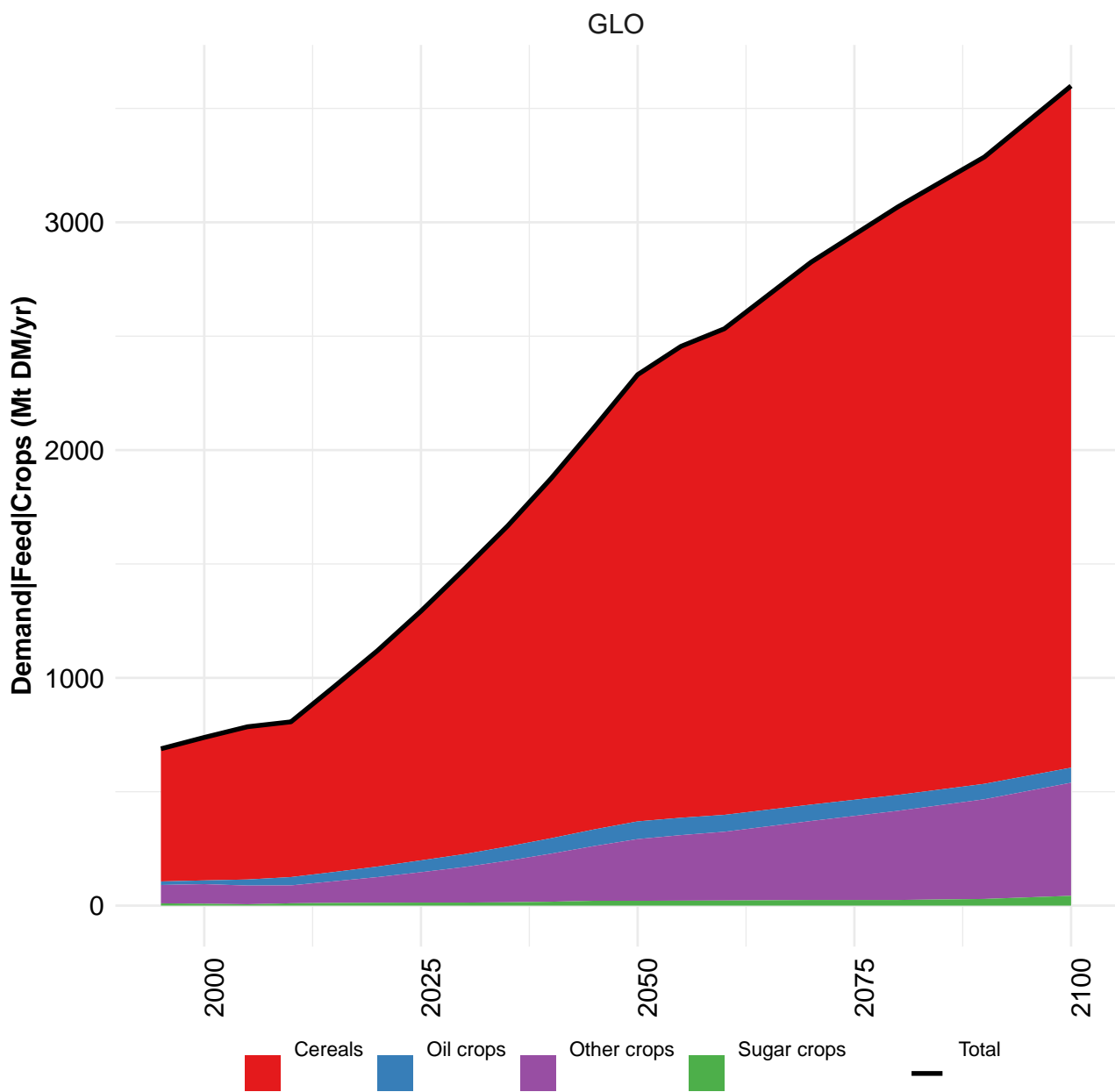
Table 245: MAGPIE m4p_SSP3 — Demand—Feed—Crop residues—Straw (Mt DM/yr) [PART 1/2]

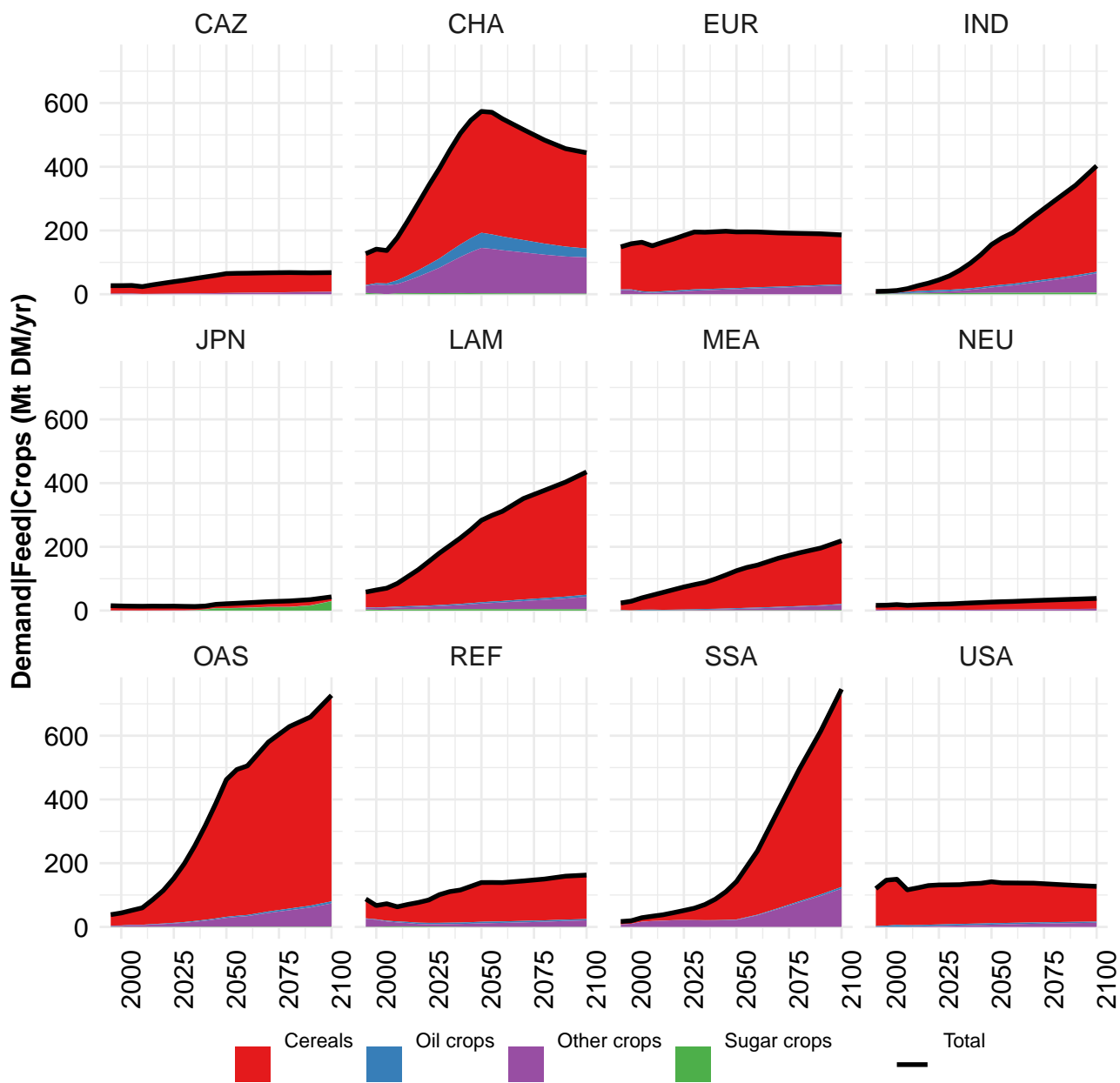
	2050	2055	2060	2070	2080	2090	2100
GLO	978	970	934	927	888	837	839
CAZ	6	6	6	5	5	4	4
CHA	117	111	102	87	74	63	59
EUR	17	16	15	13	11	10	9
IND	313	315	307	313	306	292	283
JPN	1	1	1	1	1	0	0
LAM	52	51	49	47	44	40	39
MEA	27	26	25	25	23	22	22
NEU	1	1	1	1	1	1	1
OAS	256	255	245	251	246	238	254
REF	6	5	5	5	4	4	4
SSA	175	177	172	174	168	159	160
USA	6	5	5	5	4	4	3

Table 246: MAGPIE m4p_SSP3 — Demand—Feed—Crop residues—Straw (Mt DM/yr) [PART 2/2]

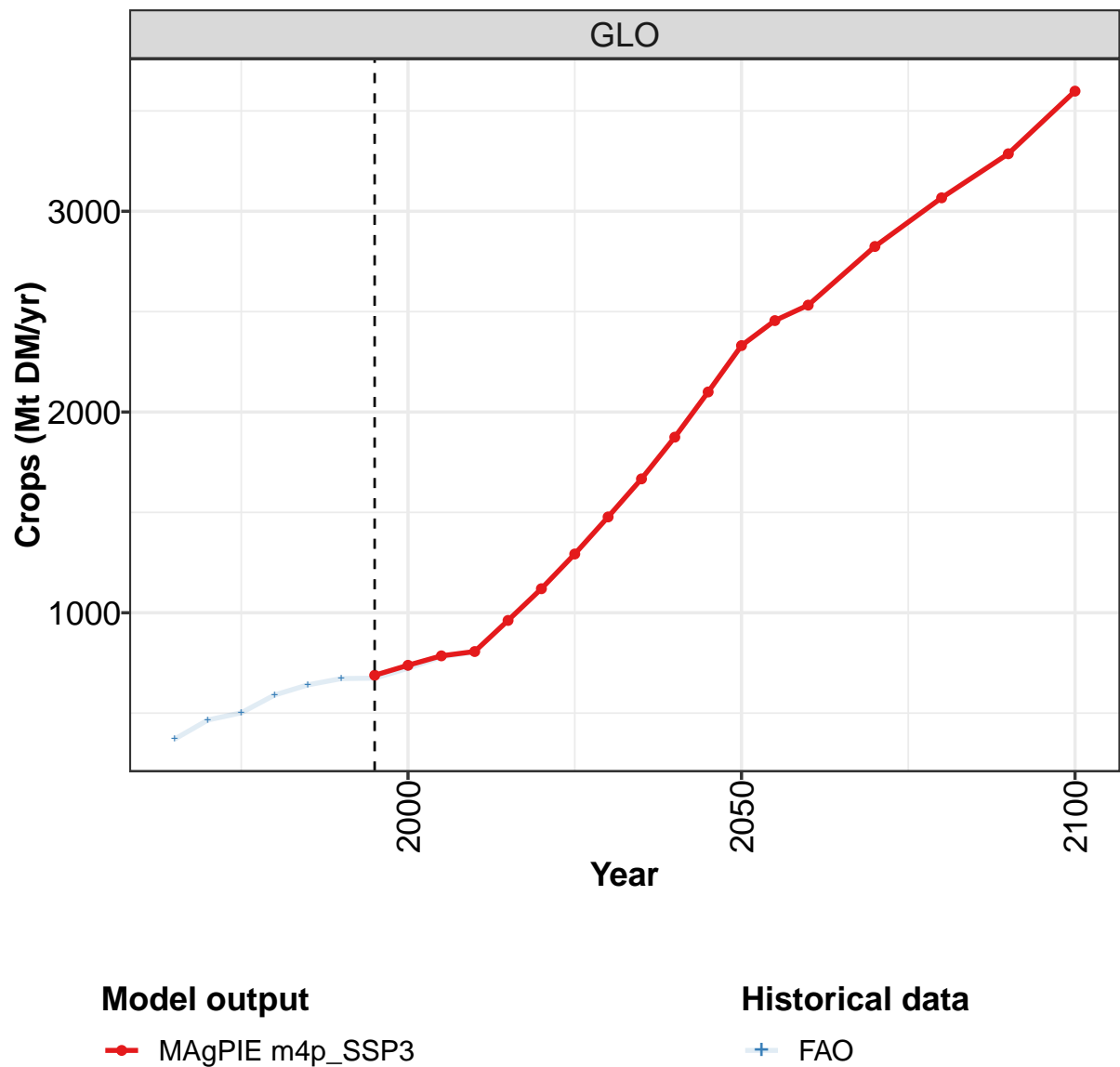
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	408	459	513	536	602	649	654	651	678	721
CAZ	5	6	7	7	9	8	9	12	14	12
CHA	106	121	142	153	174	199	196	183	175	173
EUR	16	17	19	19	19	19	15	15	14	15
IND	81	97	104	110	120	130	135	145	151	156
JPN	3	3	4	3	3	3	3	3	3	2
LAM	31	34	36	36	43	40	45	47	49	54
MEA	16	17	19	20	24	26	27	24	33	30
NEU	2	2	3	2	2	2	1	1	1	1
OAS	78	85	90	98	114	120	130	135	149	169
REF	34	36	44	41	43	46	34	25	22	26
SSA	24	27	31	32	36	43	45	51	59	72
USA	12	13	15	14	13	11	13	12	11	12

Table 247: FAO — Demand—Feed—Crop residues—Straw (Mt DM/yr)





6.2
Crops



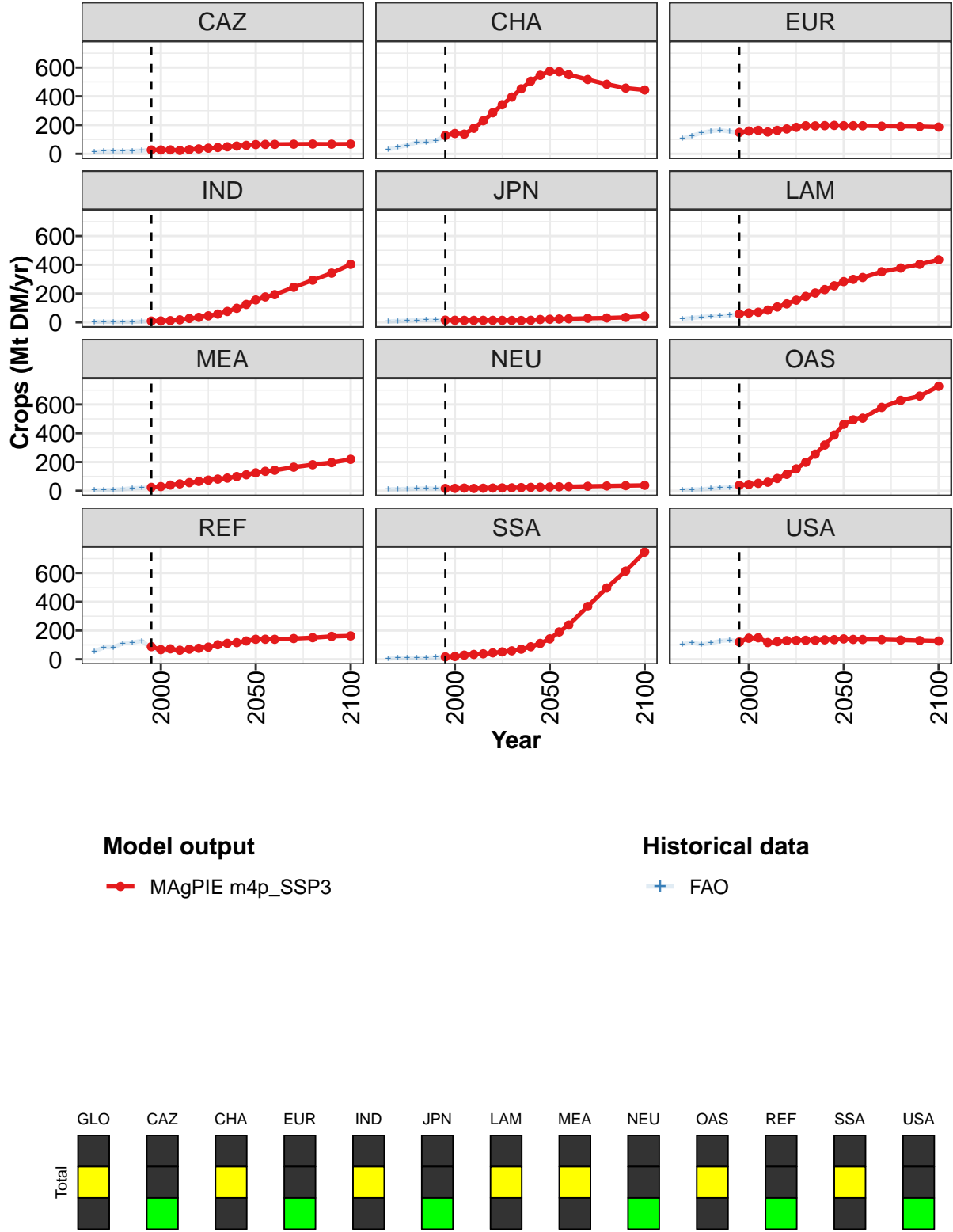


Figure 83: MAgPIE m4p_SSP3 — Demand—Feed—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	689	738	785	807	962	1120	1293	1477	1667	1875	2100
CAZ	27	27	28	24	30	35	39	44	49	54	59
CHA	127	141	137	177	230	285	342	394	452	505	546
EUR	149	158	163	152	163	173	184	195	195	196	198
IND	9	10	12	17	27	35	45	58	75	98	124
JPN	15	14	14	14	14	14	14	13	13	14	20
LAM	58	65	70	85	107	128	154	180	204	228	254
MEA	24	29	40	48	57	66	74	81	88	99	112
NEU	16	17	19	16	18	19	20	21	22	24	25
OAS	38	44	52	60	86	114	153	198	255	318	388
REF	88	67	73	63	70	77	85	101	111	116	127
SSA	17	19	29	34	38	45	51	59	70	87	111
USA	120	147	150	116	123	130	132	132	133	136	137

Table 248: MAgPIE m4p_SSP3 — Demand—Feed—Crops (Mt DM/yr) [PART 1/2]

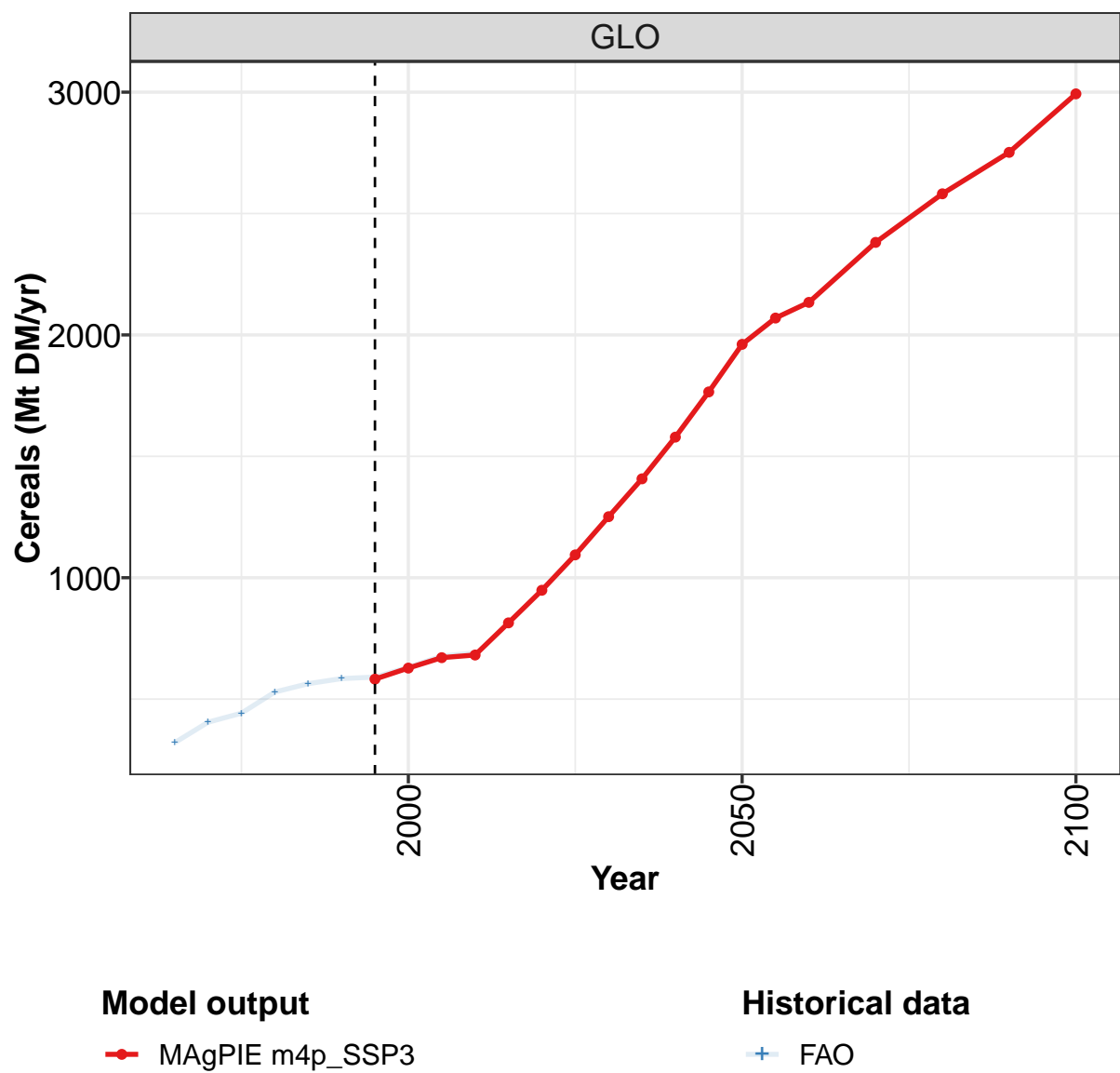
	2050	2055	2060	2070	2080	2090	2100
GLO	2331	2455	2533	2825	3067	3287	3599
CAZ	65	66	66	67	68	67	68
CHA	574	571	550	517	484	457	444
EUR	196	196	195	192	191	190	186
IND	156	177	193	244	293	342	403
JPN	21	23	25	28	30	34	43
LAM	283	299	312	352	377	403	435
MEA	125	135	143	164	181	196	219
NEU	27	28	29	31	34	36	38
OAS	462	494	505	580	629	659	727
REF	139	139	139	144	150	159	163
SSA	142	190	238	368	496	613	746
USA	142	138	138	137	134	130	127

Table 249: MAgPIE m4p_SSP3 — Demand—Feed—Crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	370	466	502	590	641	672	674	723	780	804
CAZ	13	18	18	18	20	22	28	30	33	27
CHA	32	46	60	80	82	90	129	143	139	179
EUR	108	125	146	158	164	155	146	154	159	148
IND	3	3	3	3	3	6	9	10	12	18
JPN	6	9	11	15	16	17	15	14	14	14
LAM	23	30	37	43	45	49	58	65	71	84
MEA	4	5	7	11	18	20	24	29	37	47
NEU	10	12	13	15	17	14	15	16	19	16
OAS	6	8	11	16	20	24	34	40	50	61
REF	54	84	84	111	116	128	76	53	64	56
SSA	5	9	9	8	10	13	17	20	29	34
USA	105	116	103	113	128	134	124	151	153	120

Table 250: FAO — Demand—Feed—Crops (Mt DM/yr)

6.2.1
Cereals



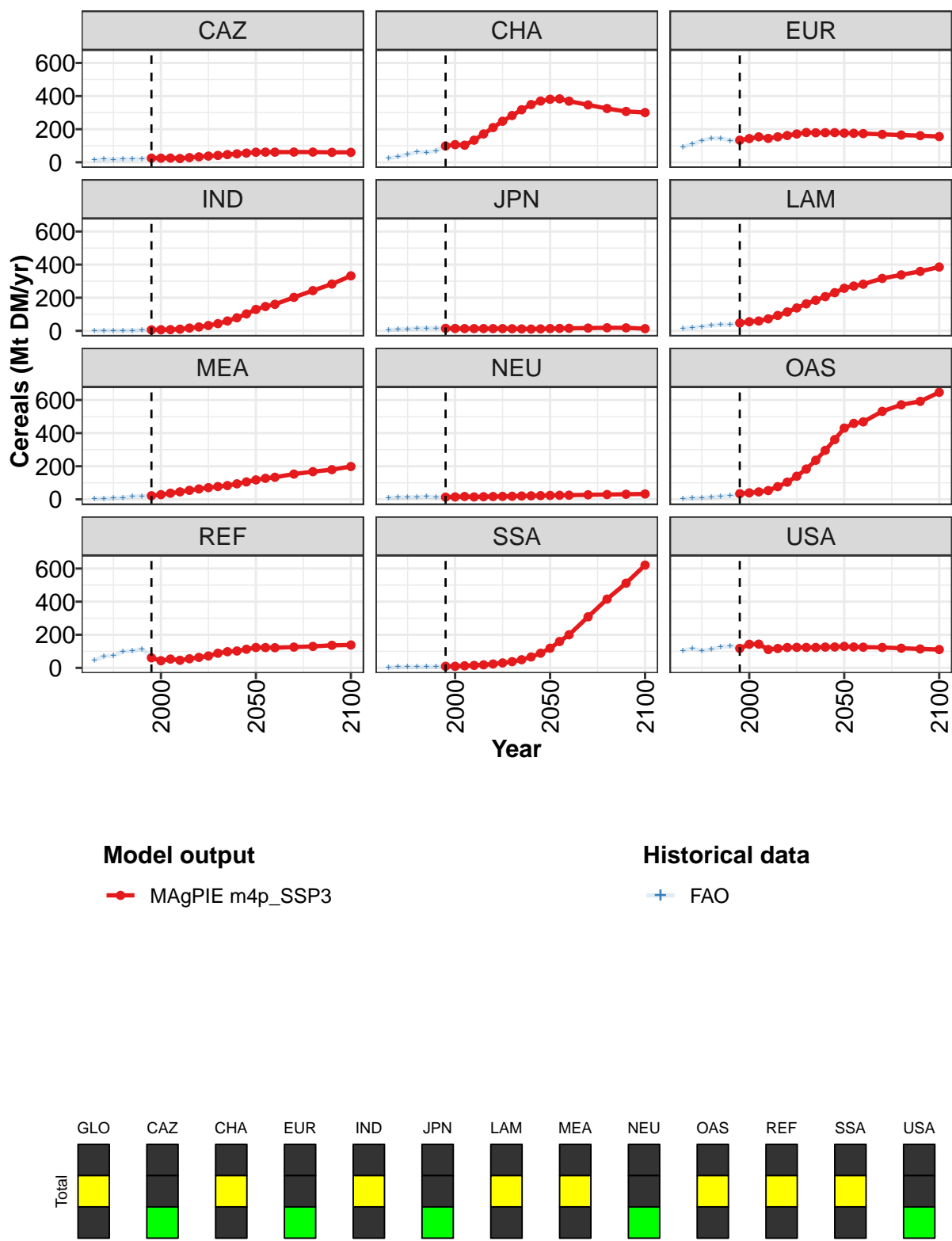


Figure 84: MAGPIE m4p_SSP3 — Demand—Feed—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	582	628	671	682	814	948	1094	1251	1407	1579	1765
CAZ	25	25	25	23	28	33	38	42	47	51	56
CHA	98	107	103	134	171	210	248	282	317	349	370
EUR	134	143	154	144	154	162	171	180	178	179	179
IND	6	7	7	10	17	23	32	43	59	79	102
JPN	15	14	14	13	14	13	13	13	12	11	12
LAM	47	55	59	72	93	114	138	163	185	207	230
MEA	22	28	37	45	54	63	71	77	83	94	105
NEU	13	15	17	15	16	17	18	19	20	21	22
OAS	34	39	45	53	77	104	140	183	236	296	361
REF	61	43	53	46	55	63	72	88	98	102	113
SSA	9	9	12	15	18	23	30	37	49	66	89
USA	118	143	143	111	117	123	124	123	123	126	126

Table 251: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Cereals (Mt DM/yr) [PART 1/2]

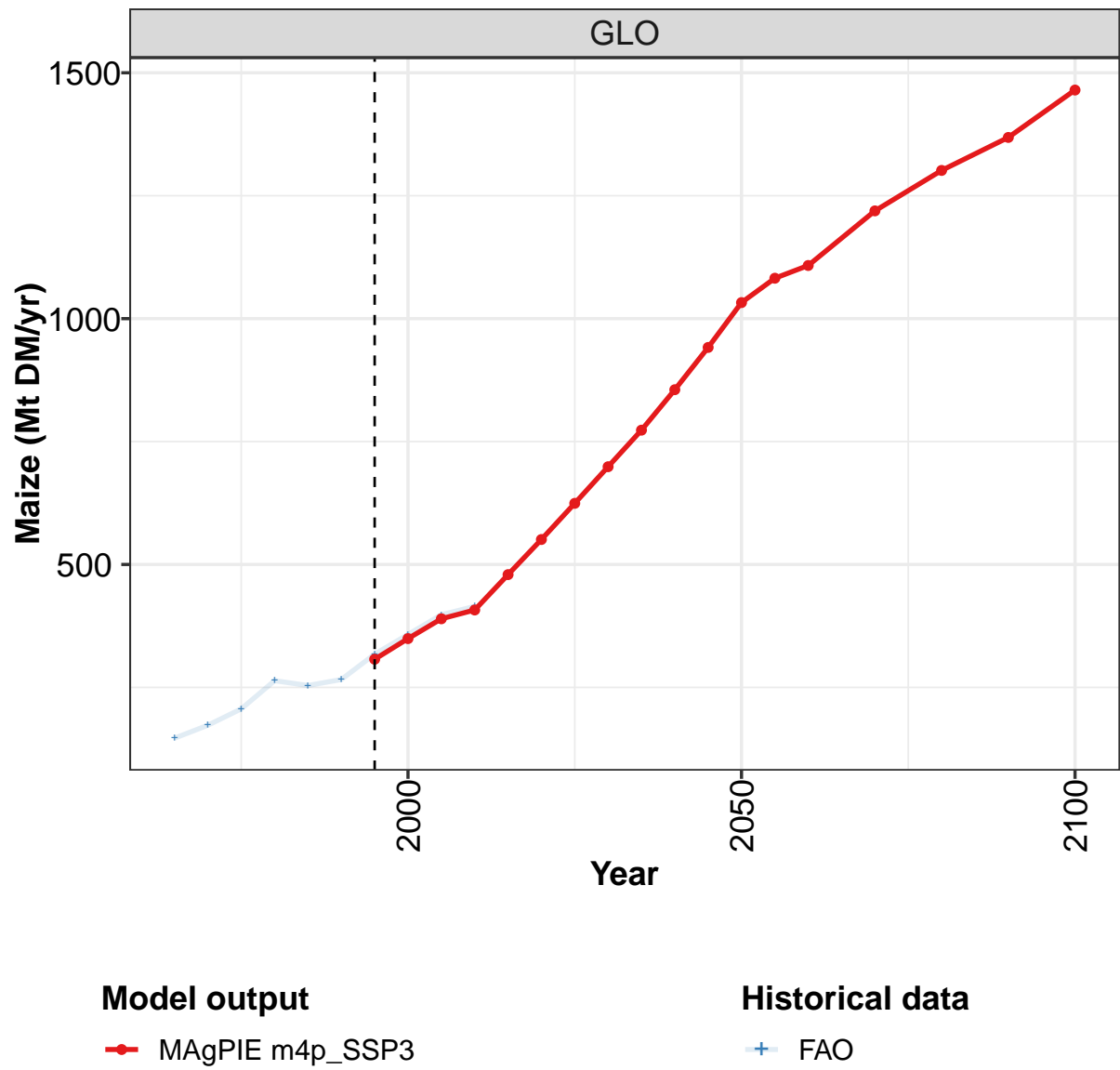
	2050	2055	2060	2070	2080	2090	2100
GLO	1961	2070	2134	2381	2581	2752	2993
CAZ	61	61	61	62	62	60	60
CHA	381	383	369	347	325	307	300
EUR	176	175	173	169	165	161	155
IND	129	147	160	202	243	283	332
JPN	14	15	15	17	18	18	13
LAM	257	270	282	317	338	359	385
MEA	118	127	133	153	167	179	198
NEU	24	25	25	27	29	31	32
OAS	430	459	468	532	571	592	647
REF	123	123	122	125	130	136	138
SSA	119	159	200	308	415	512	621
USA	130	126	125	123	119	114	111

Table 252: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	321	405	442	529	563	585	591	631	677	690
CAZ	13	18	17	18	20	21	25	27	30	26
CHA	24	34	47	63	60	68	100	108	105	136
EUR	93	109	131	144	144	132	131	139	150	141
IND	1	1	1	1	1	3	6	7	7	10
JPN	5	9	11	15	16	16	15	14	14	13
LAM	14	20	26	33	37	37	48	56	61	72
MEA	4	5	7	11	17	19	23	28	37	46
NEU	9	11	12	14	16	13	14	14	17	15
OAS	5	7	9	13	18	21	31	36	44	54
REF	45	71	73	99	102	114	67	45	53	46
SSA	3	5	5	5	7	8	9	10	13	15
USA	105	116	103	112	126	132	121	147	147	116

Table 253: FAO — Demand—Feed—Crops—Cereals (Mt DM/yr)

6.2.2
Cereals—Maize



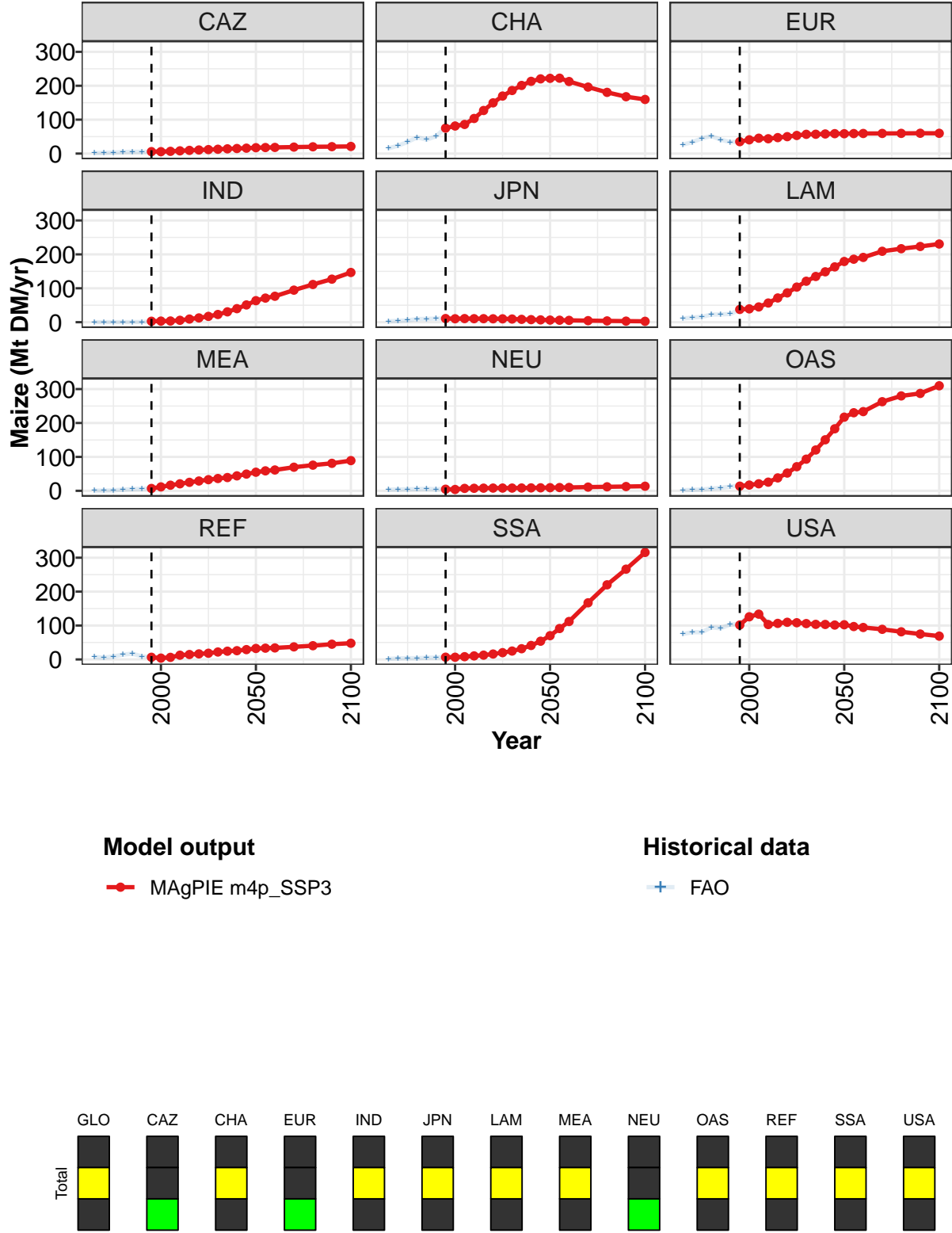


Figure 85: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	307	349	390	407	479	551	624	699	773	855	941
CAZ	6	6	7	8	9	11	12	13	14	15	16
CHA	75	81	86	104	127	150	170	186	201	213	220
EUR	35	41	45	44	47	50	53	57	57	58	59
IND	3	3	4	6	9	13	17	23	31	40	51
JPN	11	10	11	10	10	10	10	9	8	8	7
LAM	38	39	45	57	71	86	104	121	135	149	163
MEA	7	12	17	21	25	29	33	36	39	44	49
NEU	5	4	7	7	8	8	8	8	8	9	9
OAS	14	17	21	26	38	52	71	93	120	151	183
REF	6	4	6	13	15	16	18	22	24	26	29
SSA	7	6	8	10	13	16	20	25	32	41	54
USA	102	126	134	103	106	110	108	106	103	103	101

Table 254: MAGPIE m4p_SSP3 — Demand—Feed—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

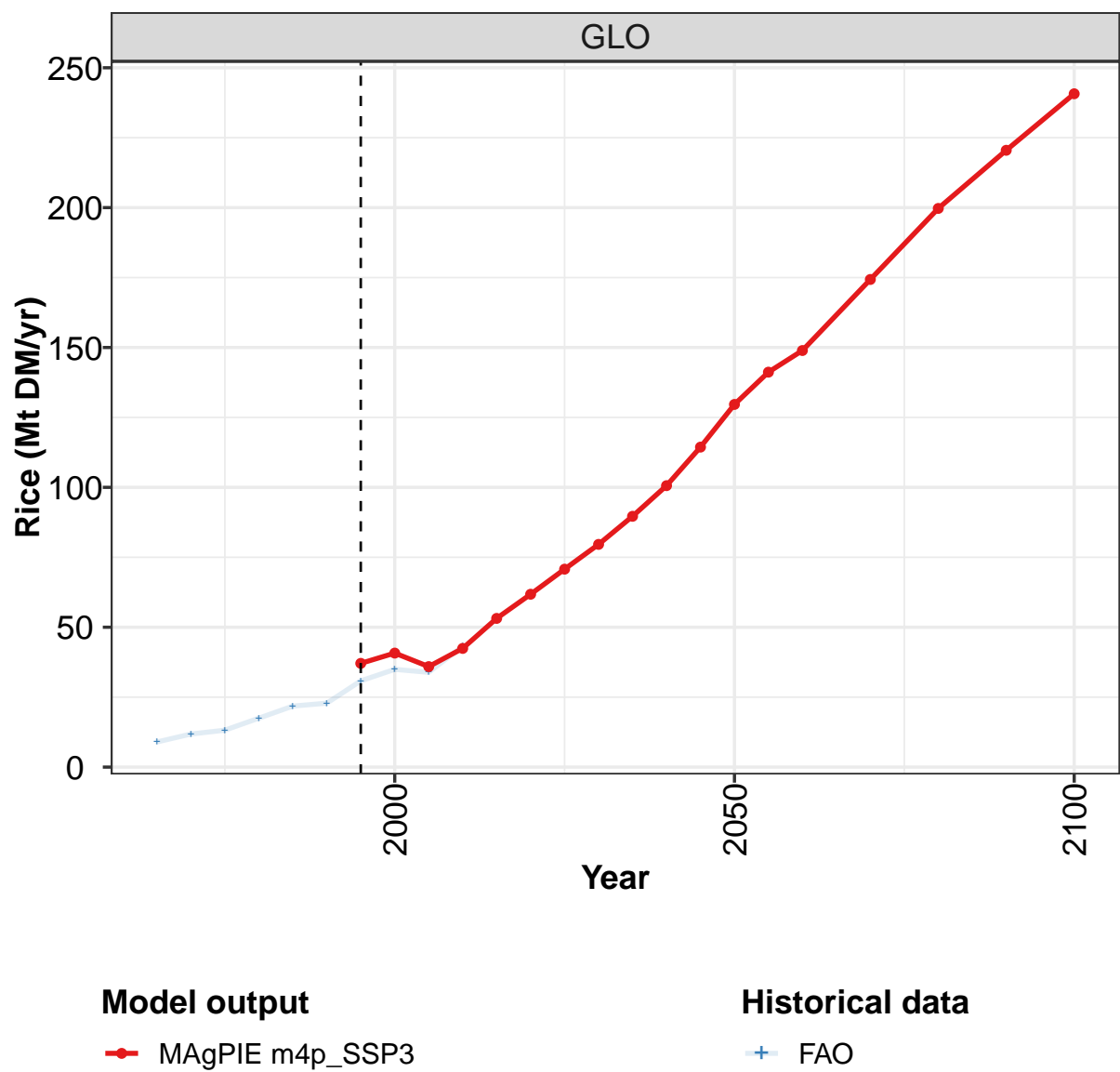
	2050	2055	2060	2070	2080	2090	2100
GLO	1033	1082	1108	1219	1301	1369	1465
CAZ	17	18	18	19	20	20	21
CHA	222	222	212	196	181	168	160
EUR	59	59	59	59	60	60	60
IND	63	71	77	95	111	127	147
JPN	6	6	5	5	4	3	3
LAM	179	186	191	209	217	223	231
MEA	55	59	61	70	76	81	89
NEU	9	10	10	11	12	13	14
OAS	217	230	234	263	280	287	310
REF	32	33	34	37	40	45	48
SSA	70	91	112	167	220	266	316
USA	102	97	94	89	82	75	69

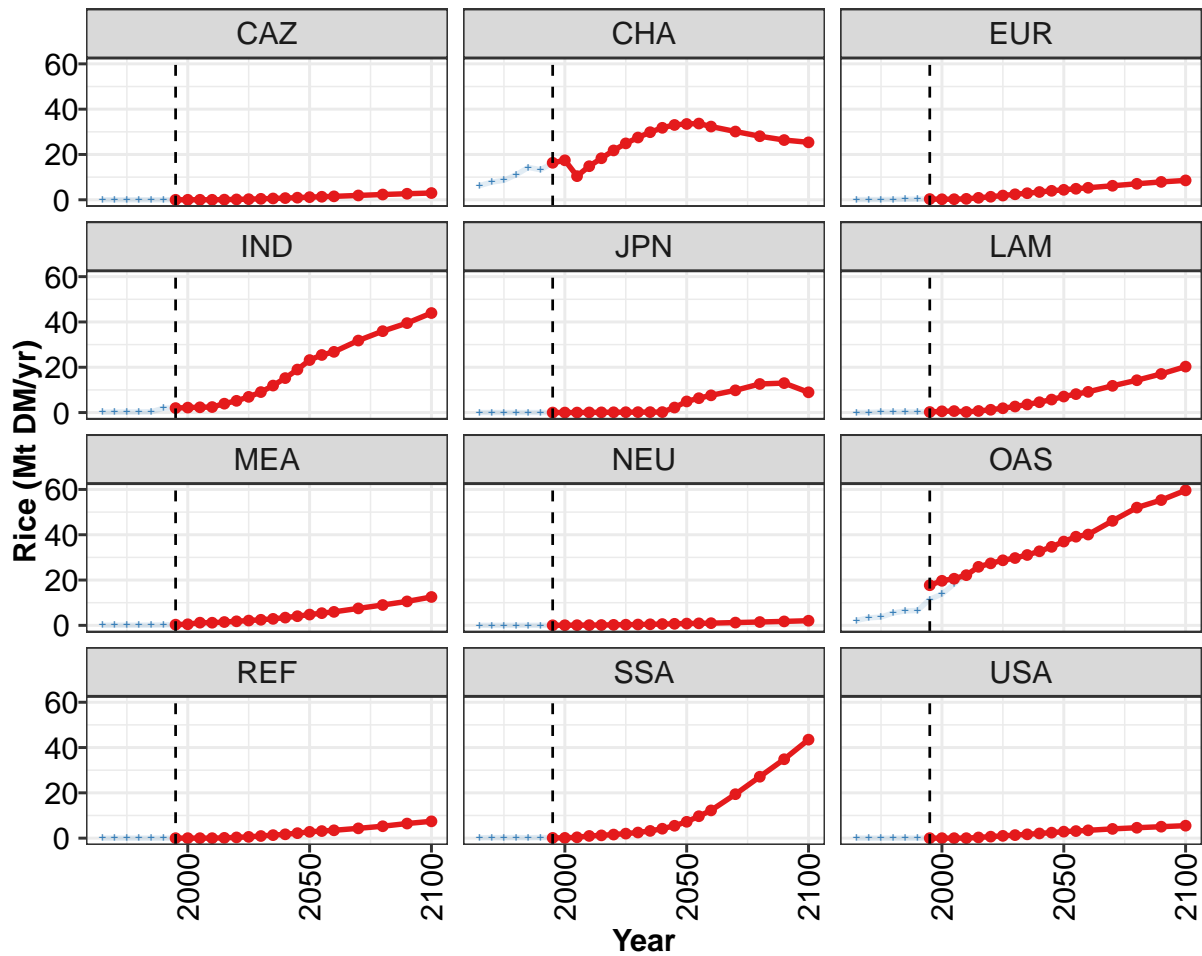
Table 255: MAGPIE m4p_SSP3 — Demand—Feed—Crops—Cereals—Maize (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	147	173	206	264	254	266	318	358	398	415
CAZ	1	2	3	5	5	5	6	6	8	9
CHA	16	23	34	48	41	51	77	83	88	105
EUR	26	34	45	52	41	34	36	40	45	43
IND	0	0	0	0	0	1	3	3	4	6
JPN	3	4	6	9	10	11	11	10	11	10
LAM	11	14	16	22	23	24	37	39	46	57
MEA	1	1	1	4	5	6	7	11	16	21
NEU	3	4	5	5	6	5	6	4	8	8
OAS	2	3	4	6	9	12	16	19	22	26
REF	7	5	9	14	17	9	7	4	6	13
SSA	2	3	4	4	5	6	7	6	8	11
USA	75	80	80	95	92	103	105	130	137	107

Table 256: FAO — Demand—Feed—Crops—Cereals—Maize (Mt DM/yr)

6.2.3
Cereals—Rice





Model output

—●— MAGPIE m4p_SSP3

Historical data

—+— FAO

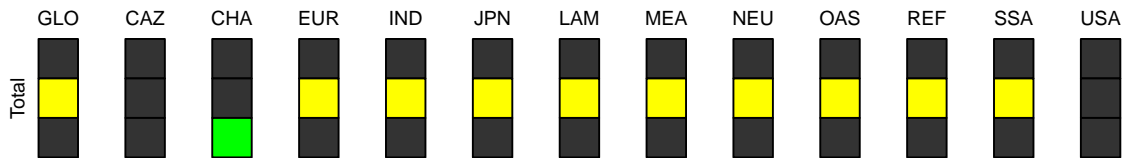


Figure 86: MAGPIE m4p_SSP3 — Demand—Feed—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	37	41	36	42	53	62	71	80	90	101	114
CAZ	0	0	0	0	0	0	0	0	1	1	1
CHA	16	17	10	15	18	22	25	27	30	32	33
EUR	0	0	0	0	1	1	2	2	3	3	4
IND	2	2	2	2	4	5	7	9	12	15	19
JPN	0	0	0	0	0	0	0	0	0	0	2
LAM	0	1	1	0	1	1	2	3	4	5	6
MEA	0	0	1	1	1	2	2	2	3	3	4
NEU	0	0	0	0	0	0	0	0	0	1	1
OAS	18	20	21	22	26	27	29	30	31	33	35
REF	0	0	0	0	0	0	1	1	1	2	2
SSA	0	0	0	1	1	2	2	2	3	4	5
USA	0	0	0	0	0	1	1	1	2	2	2

Table 257: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

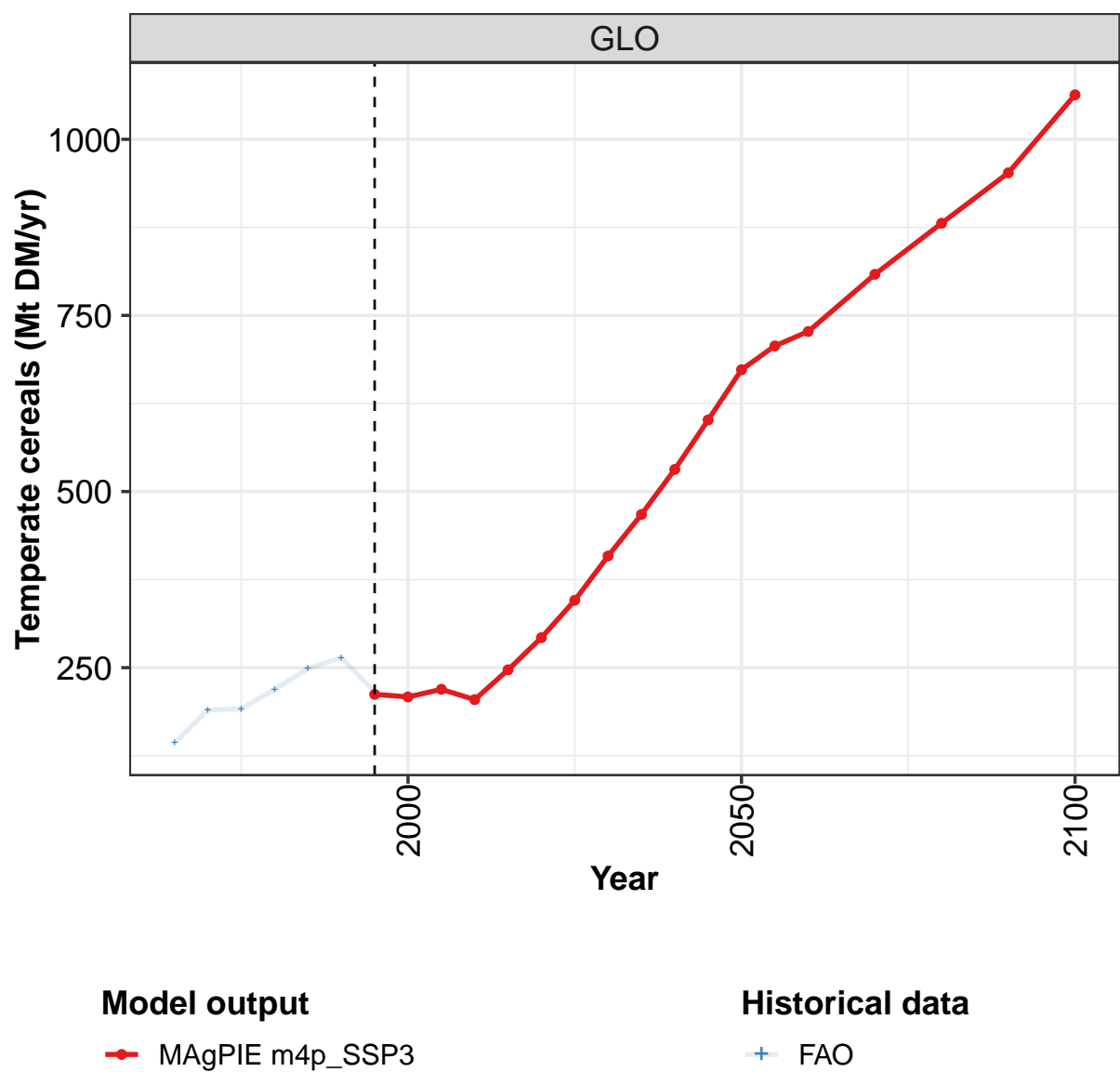
	2050	2055	2060	2070	2080	2090	2100
GLO	130	141	149	174	200	221	241
CAZ	1	1	2	2	2	3	3
CHA	33	34	32	30	28	26	25
EUR	4	5	5	6	7	8	9
IND	23	25	27	32	36	40	44
JPN	5	6	8	10	13	13	9
LAM	7	8	9	12	14	17	20
MEA	5	5	6	7	9	11	13
NEU	1	1	1	1	1	2	2
OAS	37	39	40	46	52	55	60
REF	3	3	3	4	5	6	7
SSA	7	10	12	19	27	35	43
USA	3	3	3	4	5	5	6

Table 258: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Cereals—Rice (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	9.0	11.8	13.2	17.5	21.8	22.9	30.8	34.9	33.9	43.2
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	6.3	7.8	8.6	11.0	14.3	13.3	16.2	17.4	10.5	15.1
EUR	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.4
IND	0.2	0.2	0.3	0.3	0.3	1.9	2.0	2.2	2.4	2.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
LAM	0.0	0.1	0.3	0.2	0.3	0.3	0.3	0.5	0.6	0.3
MEA	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.5	1.2	1.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
OAS	2.2	3.3	3.7	5.5	6.4	6.6	11.5	13.8	18.3	22.7
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.4	1.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 259: FAO — Demand—Feed—Crops—Cereals—Rice (Mt DM/yr)

6.2.4
Cereals—Temperate cereals



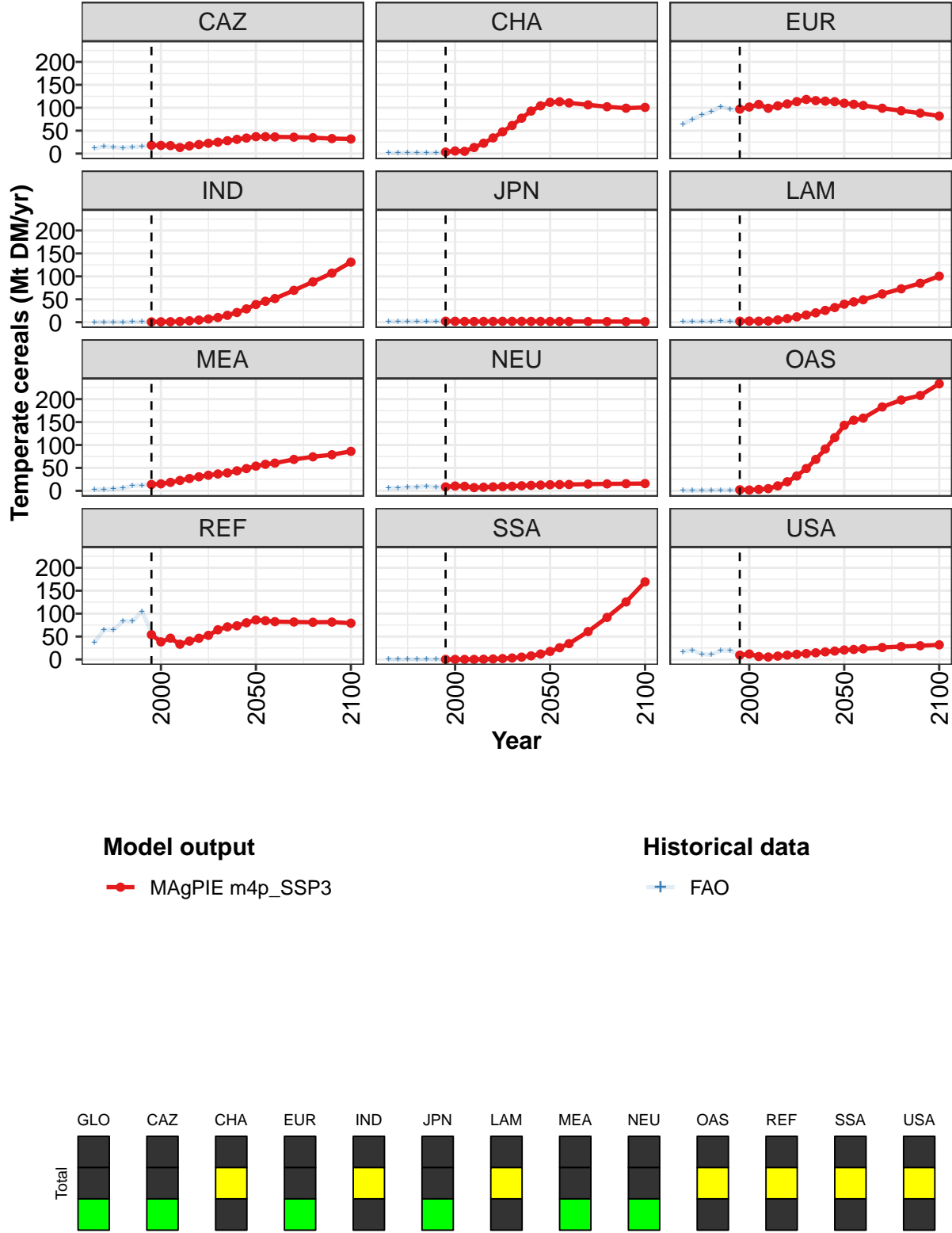


Figure 87: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	212	208	219	205	247	293	346	409	467	531	602
CAZ	18	18	17	13	17	20	23	25	28	31	34
CHA	3	6	5	13	23	34	47	61	77	93	104
EUR	97	102	107	99	104	108	113	118	115	114	113
IND	1	1	1	2	3	5	7	10	15	21	29
JPN	2	2	2	2	2	2	2	2	2	2	2
LAM	2	2	2	3	5	8	12	16	20	26	32
MEA	14	15	18	23	27	31	34	37	39	44	49
NEU	9	11	10	7	8	9	9	10	11	12	13
OAS	2	2	3	5	11	20	32	49	68	91	116
REF	54	38	46	33	40	46	53	65	71	73	80
SSA	0	0	0	0	1	1	2	3	5	8	12
USA	9	12	6	5	7	9	11	13	15	17	18

Table 260: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 1/2]

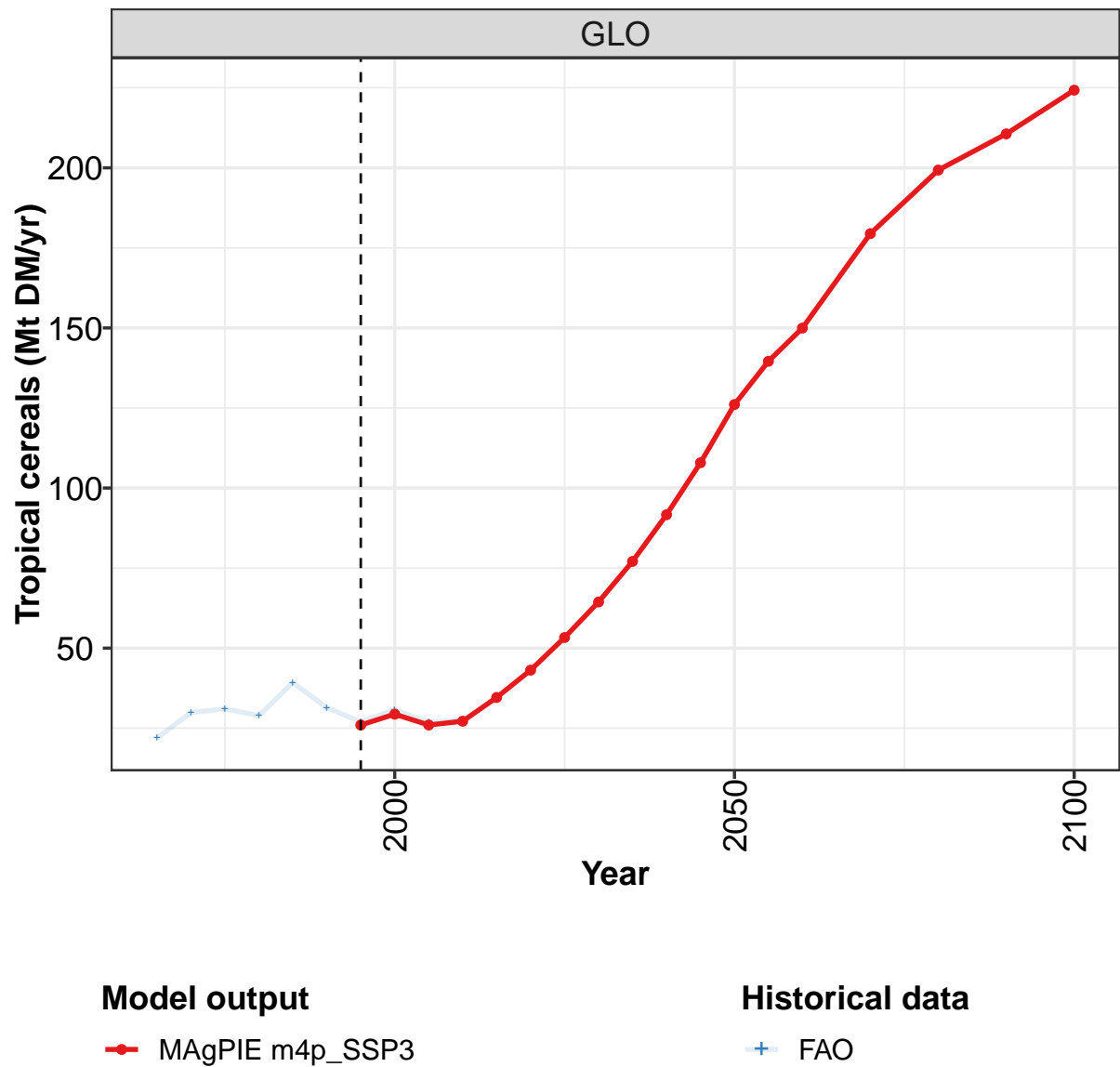
	2050	2055	2060	2070	2080	2090	2100
GLO	673	707	727	808	881	952	1063
CAZ	37	37	36	36	35	33	32
CHA	112	113	111	106	102	99	101
EUR	110	108	105	99	93	88	82
IND	39	46	52	69	88	107	131
JPN	2	2	2	2	1	1	1
LAM	39	44	49	62	73	85	101
MEA	54	58	60	69	74	79	86
NEU	13	14	14	15	15	16	16
OAS	143	154	159	183	198	208	233
REF	86	85	82	82	81	82	79
SSA	18	26	35	61	92	125	169
USA	21	22	23	26	28	30	32

Table 261: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	143	190	191	219	249	264	215	207	219	205
CAZ	11	16	14	13	14	15	19	19	21	15
CHA	1	1	1	1	1	2	3	6	5	14
EUR	64	74	84	91	102	97	93	97	104	96
IND	0	0	1	0	1	1	1	1	1	2
JPN	1	2	2	2	2	2	2	2	2	2
LAM	1	1	2	2	3	2	2	3	2	3
MEA	2	3	4	6	11	12	15	15	18	23
NEU	6	6	7	9	10	8	8	10	9	7
OAS	1	1	1	1	2	1	3	2	3	5
REF	37	65	64	84	83	105	59	40	46	33
SSA	0	0	0	0	0	0	0	0	0	0
USA	17	20	12	10	19	19	10	12	7	6

Table 262: FAO — Demand—Feed—Crops—Cereals—Temperate cereals (Mt DM/yr)

6.2.5
Cereals—Tropical cereals



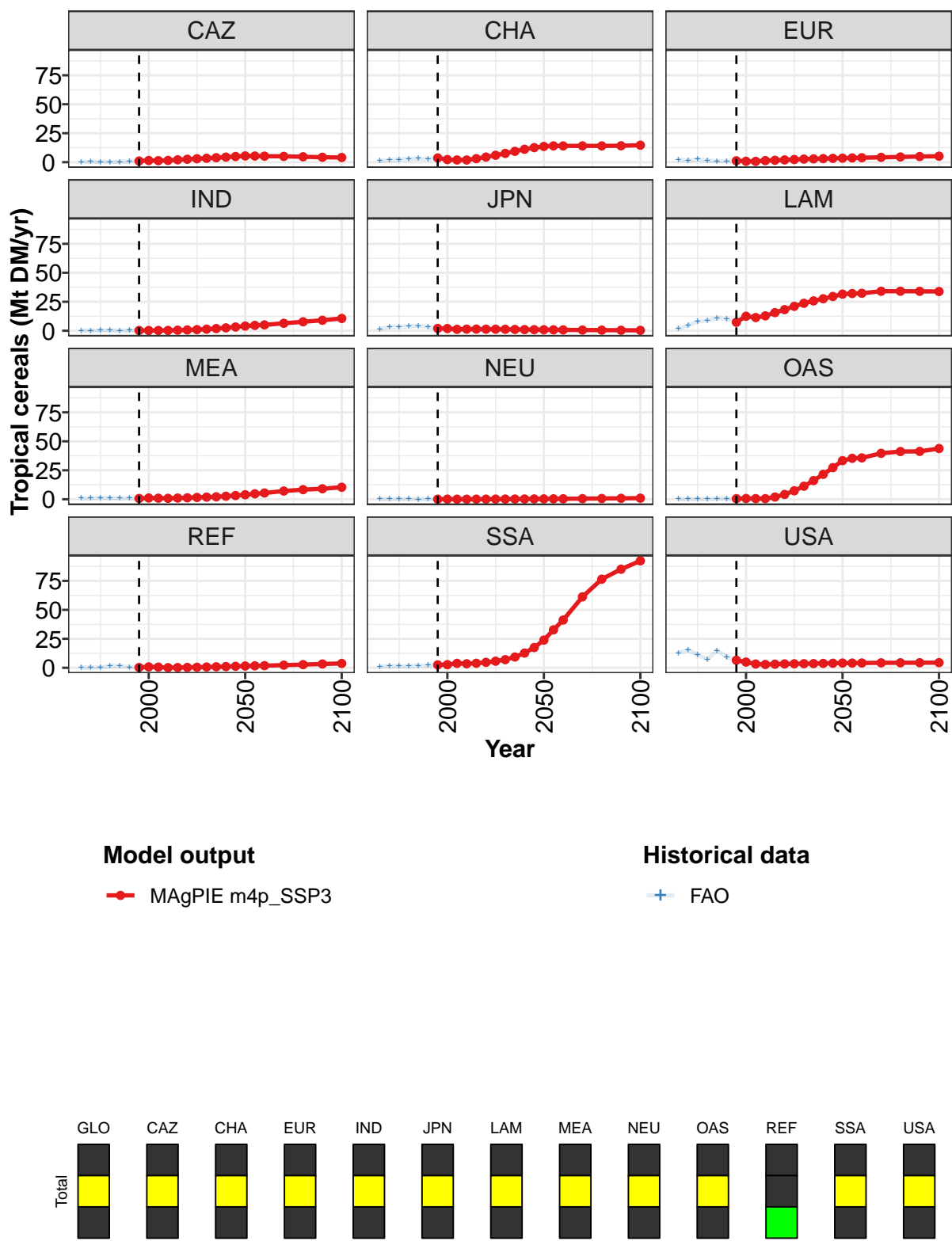


Figure 88: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	26	29	26	27	35	43	53	64	77	92	108
CAZ	1	1	1	2	2	3	3	3	4	4	5
CHA	4	2	2	2	3	4	6	8	9	11	13
EUR	1	1	1	1	2	2	2	3	3	3	3
IND	0	0	0	0	1	1	1	1	2	2	3
JPN	2	2	1	1	1	1	1	1	1	1	1
LAM	7	12	11	13	16	18	21	24	26	28	30
MEA	1	1	1	1	1	1	2	2	2	3	3
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	1	1	1	1	2	4	7	11	16	21	27
REF	0	1	1	0	0	0	0	1	1	1	1
SSA	3	3	4	3	4	5	6	7	9	13	17
USA	6	5	3	3	3	3	3	4	4	4	4

Table 263: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

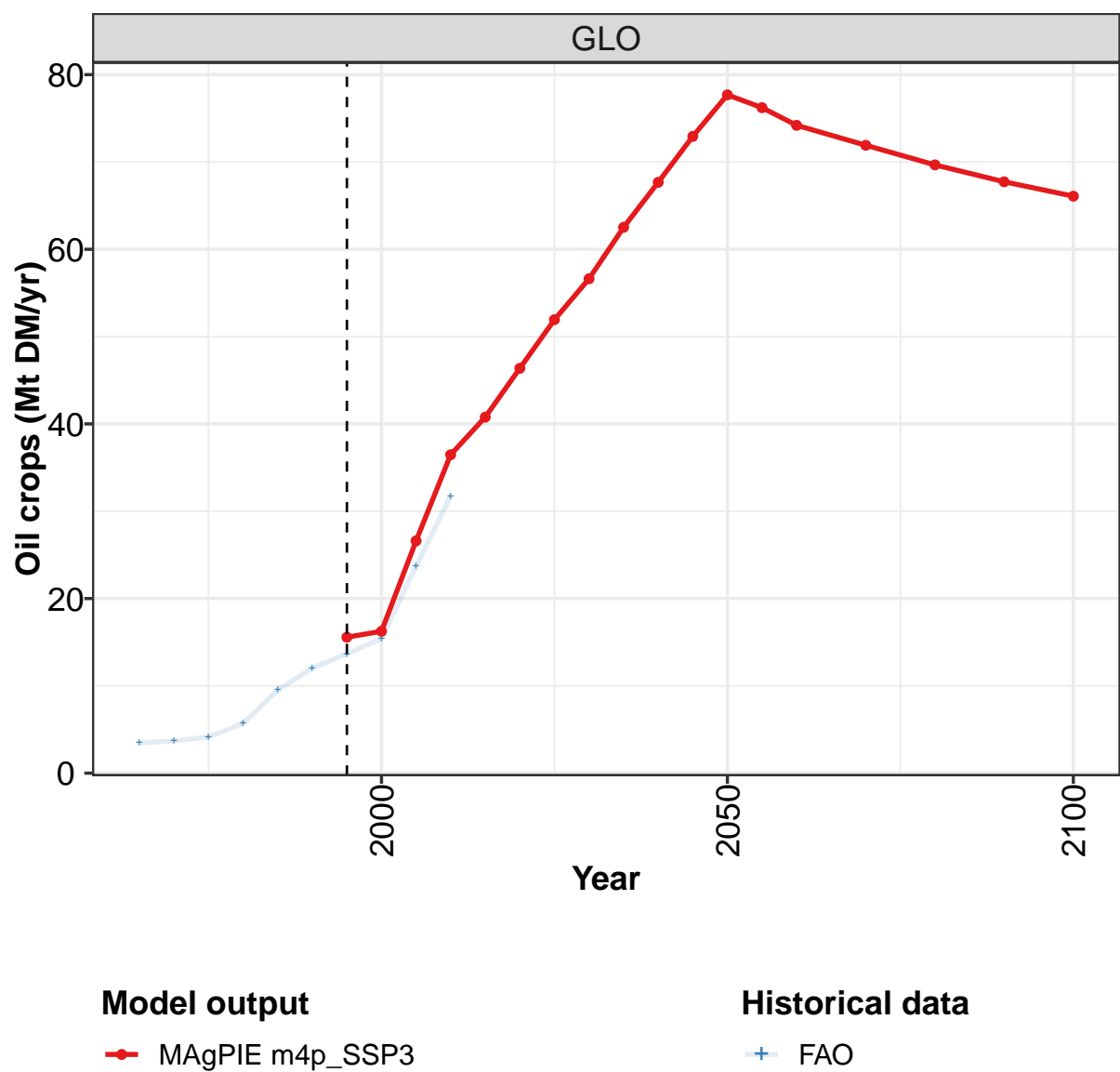
	2050	2055	2060	2070	2080	2090	2100
GLO	126	140	150	179	199	211	224
CAZ	5	5	5	5	5	4	4
CHA	14	14	14	14	14	14	15
EUR	4	4	4	4	5	5	5
IND	4	5	5	6	8	9	11
JPN	1	1	1	1	1	0	0
LAM	32	32	32	34	34	34	34
MEA	4	5	5	7	8	9	10
NEU	0	0	0	1	1	1	1
OAS	33	35	36	40	41	41	44
REF	2	2	2	2	3	3	4
SSA	24	33	41	61	76	85	92
USA	4	4	4	4	4	4	4

Table 264: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	21.9	29.9	31.0	28.9	39.2	31.4	27.0	30.7	26.9	27.6
CAZ	0.1	0.4	0.2	0.2	0.3	0.8	1.1	1.6	1.6	1.7
CHA	1.1	1.9	2.4	2.9	3.1	2.5	3.7	2.3	2.0	2.0
EUR	2.3	1.3	2.4	1.4	0.8	1.0	1.1	0.8	0.7	1.3
IND	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3
JPN	1.3	3.3	3.5	3.7	4.2	3.3	2.0	1.9	1.2	1.4
LAM	1.7	4.6	7.9	9.0	10.8	10.1	8.2	13.6	11.9	12.8
MEA	0.8	1.0	1.1	0.9	0.8	1.0	0.7	1.1	0.9	0.8
NEU	0.1	0.1	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0
OAS	0.1	0.1	0.2	0.2	0.6	0.4	0.4	0.5	0.5	0.5
REF	0.2	0.2	0.3	1.4	1.5	0.6	0.3	0.8	0.6	0.1
SSA	1.2	1.4	1.4	1.3	1.9	2.0	2.5	2.8	4.0	3.5
USA	12.8	15.4	11.1	7.3	14.9	9.3	6.7	5.1	3.3	3.0

Table 265: FAO — Demand—Feed—Crops—Cereals—Tropical cereals (Mt DM/yr)

6.2.6
Oil crops



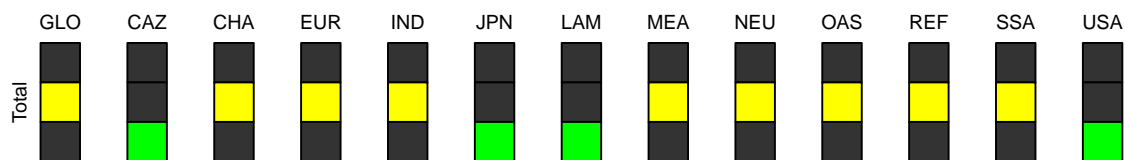
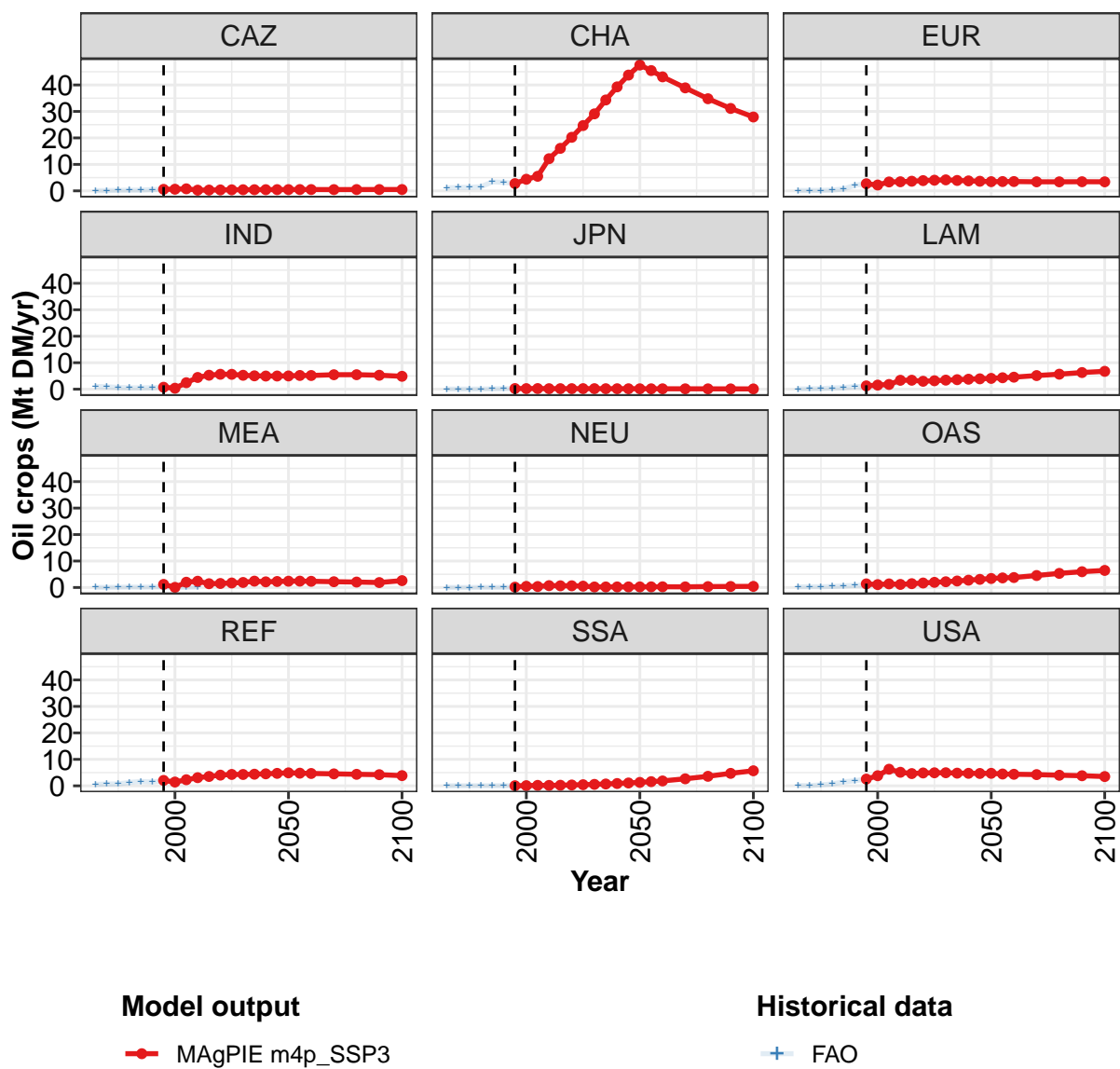


Figure 89: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	15.6	16.2	26.6	36.5	40.8	46.4	51.9	56.6	62.5	67.7	72.9
CAZ	0.6	0.6	0.8	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5
CHA	2.8	4.4	5.5	12.2	16.1	20.2	24.7	29.1	34.3	39.3	43.7
EUR	2.7	2.2	3.4	3.4	3.6	3.9	4.0	4.2	3.9	3.8	3.6
IND	0.7	0.4	2.4	4.4	5.3	5.6	5.6	5.3	5.1	5.0	5.0
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	1.2	1.5	1.8	3.4	3.4	3.0	3.2	3.4	3.6	3.8	3.9
MEA	1.2	0.1	2.0	2.4	1.4	1.5	1.7	1.9	2.4	2.1	2.3
NEU	0.1	0.4	0.4	0.7	0.6	0.6	0.5	0.2	0.2	0.2	0.2
OAS	1.4	1.1	1.4	1.2	1.4	1.7	2.0	2.2	2.5	2.8	3.1
REF	2.0	1.4	2.3	3.1	3.5	4.0	4.3	4.3	4.4	4.5	4.7
SSA	0.0	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.7	0.9	1.1
USA	2.5	3.8	6.3	5.1	4.6	4.9	4.9	4.9	4.8	4.7	4.7

Table 266: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops (Mt DM/yr) [PART 1/2]

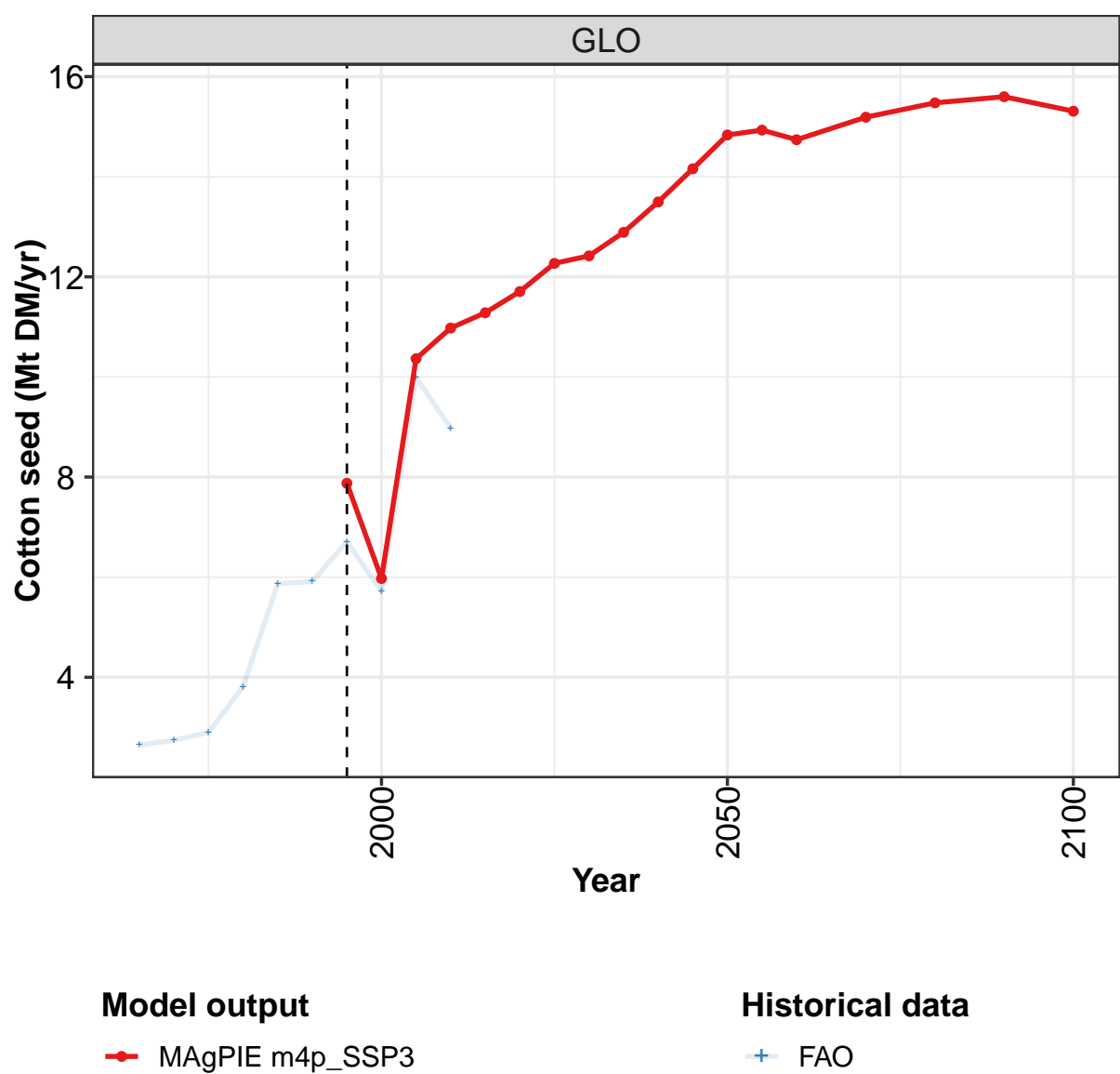
	2050	2055	2060	2070	2080	2090	2100
GLO	77.7	76.2	74.2	71.9	69.7	67.7	66.1
CAZ	0.5	0.5	0.5	0.5	0.5	0.5	0.5
CHA	47.5	45.4	43.1	38.9	34.8	31.1	27.9
EUR	3.5	3.5	3.5	3.4	3.4	3.4	3.4
IND	5.0	5.2	5.2	5.5	5.5	5.3	4.9
JPN	0.2	0.1	0.1	0.1	0.1	0.1	0.1
LAM	4.1	4.3	4.5	5.1	5.7	6.3	6.7
MEA	2.4	2.4	2.4	2.2	2.1	1.9	2.6
NEU	0.2	0.3	0.3	0.2	0.3	0.4	0.4
OAS	3.4	3.6	3.8	4.5	5.3	6.0	6.5
REF	4.9	4.8	4.7	4.5	4.4	4.2	3.9
SSA	1.3	1.6	1.8	2.7	3.6	4.7	5.7
USA	4.7	4.5	4.4	4.2	4.0	3.8	3.5

Table 267: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3.4	3.7	4.1	5.7	9.5	12.0	13.7	15.4	23.7	31.8
CAZ	0.1	0.1	0.2	0.3	0.3	0.5	0.6	0.6	0.9	0.3
CHA	1.1	1.3	1.3	1.5	3.4	3.2	2.7	4.4	5.5	12.2
EUR	0.1	0.2	0.2	0.3	0.7	2.1	2.7	2.2	3.3	3.4
IND	1.0	0.9	0.7	0.5	0.5	0.6	0.7	0.4	2.5	4.3
JPN	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
LAM	0.1	0.1	0.2	0.4	0.6	1.0	0.9	1.6	1.9	2.5
MEA	0.0	0.0	0.1	0.2	0.1	0.2	0.2	0.0	0.0	0.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1
OAS	0.2	0.3	0.3	0.4	0.6	0.8	0.9	1.0	1.3	1.1
REF	0.5	0.7	0.7	1.3	1.6	1.4	2.0	1.3	1.9	2.9
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2
USA	0.1	0.0	0.4	0.7	1.5	1.9	2.6	3.4	5.9	4.4

Table 268: FAO — Demand—Feed—Crops—Oil crops (Mt DM/yr)

6.2.7
Oil crops—Cotton seed



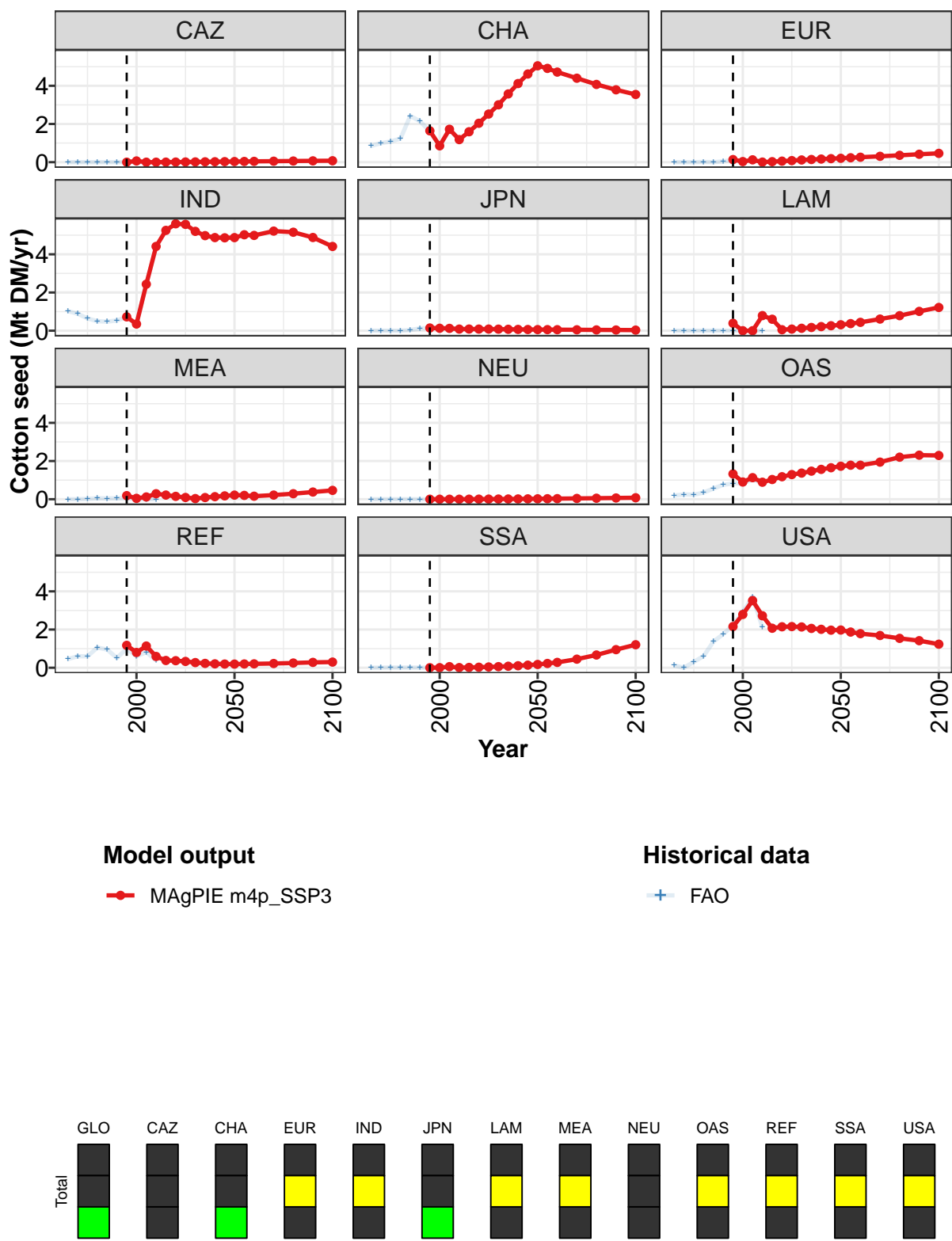


Figure 90: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.9	6.0	10.4	11.0	11.3	11.7	12.3	12.4	12.9	13.5	14.2
CAZ	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	1.6	0.9	1.7	1.2	1.6	2.0	2.5	3.0	3.6	4.1	4.6
EUR	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2
IND	0.7	0.3	2.4	4.4	5.3	5.6	5.6	5.2	5.0	4.9	4.9
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.4	0.0	0.0	0.8	0.6	0.1	0.1	0.1	0.2	0.2	0.3
MEA	0.2	0.0	0.1	0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	1.3	0.9	1.1	0.9	1.0	1.2	1.3	1.4	1.5	1.6	1.6
REF	1.2	0.8	1.1	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.2
SSA	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
USA	2.2	2.8	3.5	2.7	2.1	2.1	2.2	2.1	2.1	2.0	2.0

Table 269: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

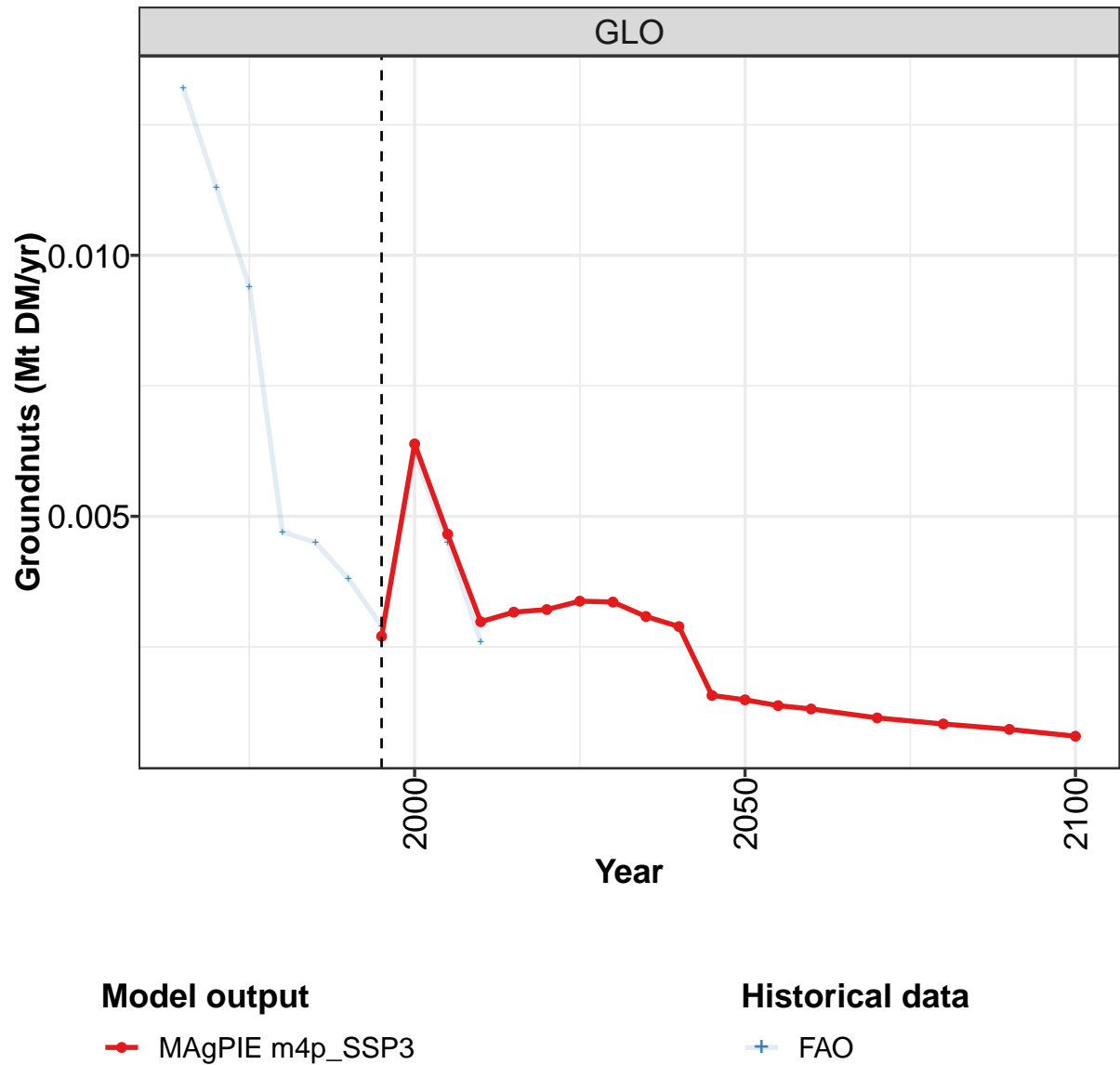
	2050	2055	2060	2070	2080	2090	2100
GLO	14.8	14.9	14.7	15.2	15.5	15.6	15.3
CAZ	0.0	0.0	0.0	0.1	0.1	0.1	0.1
CHA	5.0	4.9	4.7	4.4	4.1	3.8	3.5
EUR	0.2	0.2	0.3	0.3	0.4	0.4	0.5
IND	4.9	5.0	5.0	5.2	5.2	4.9	4.4
JPN	0.1	0.1	0.1	0.0	0.0	0.0	0.0
LAM	0.3	0.4	0.4	0.6	0.8	1.0	1.2
MEA	0.2	0.2	0.2	0.2	0.3	0.4	0.5
NEU	0.0	0.0	0.0	0.0	0.1	0.1	0.1
OAS	1.7	1.8	1.8	1.9	2.2	2.3	2.3
REF	0.2	0.2	0.2	0.2	0.2	0.3	0.3
SSA	0.2	0.2	0.3	0.4	0.7	0.9	1.2
USA	2.0	1.9	1.8	1.7	1.5	1.4	1.2

Table 270: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.65	2.74	2.90	3.82	5.87	5.92	6.71	5.72	9.99	8.98
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.85	1.00	1.08	1.23	2.42	2.14	1.61	0.85	1.71	1.18
EUR	0.00	0.00	0.00	0.01	0.00	0.04	0.12	0.02	0.12	0.01
IND	1.03	0.89	0.64	0.50	0.47	0.53	0.71	0.35	2.47	4.33
JPN	0.00	0.00	0.00	0.00	0.04	0.12	0.14	0.13	0.12	0.09
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.02	0.05	0.04	0.05	0.06	0.01	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.19	0.25	0.24	0.35	0.56	0.75	0.83	0.84	1.02	0.86
REF	0.45	0.60	0.60	1.06	0.95	0.51	1.00	0.60	0.81	0.38
SSA	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.03	0.01
USA	0.12	0.00	0.31	0.61	1.37	1.76	2.23	2.91	3.71	2.11

Table 271: FAO — Demand—Feed—Crops—Oil crops—Cotton seed (Mt DM/yr)

6.2.8
Oil crops—Groundnuts



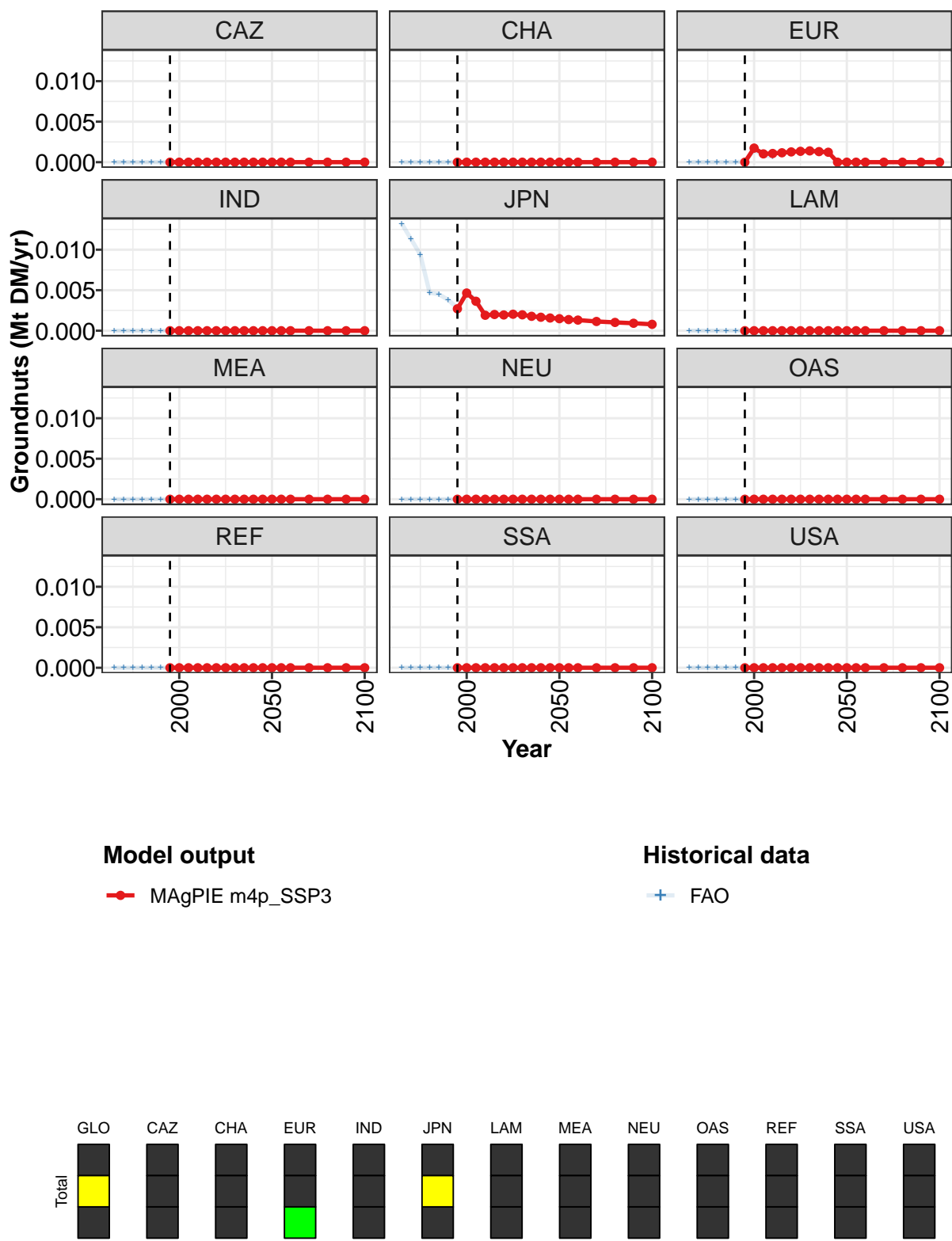


Figure 91: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.00270	0.00639	0.00466	0.00298	0.00316	0.00321	0.00337	0.00336	0.00308	0.00289	0.00157
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00174	0.00103	0.00107	0.00116	0.00127	0.00134	0.00139	0.00130	0.00123	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00270	0.00465	0.00363	0.00191	0.00200	0.00195	0.00203	0.00196	0.00178	0.00166	0.00157
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 272: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

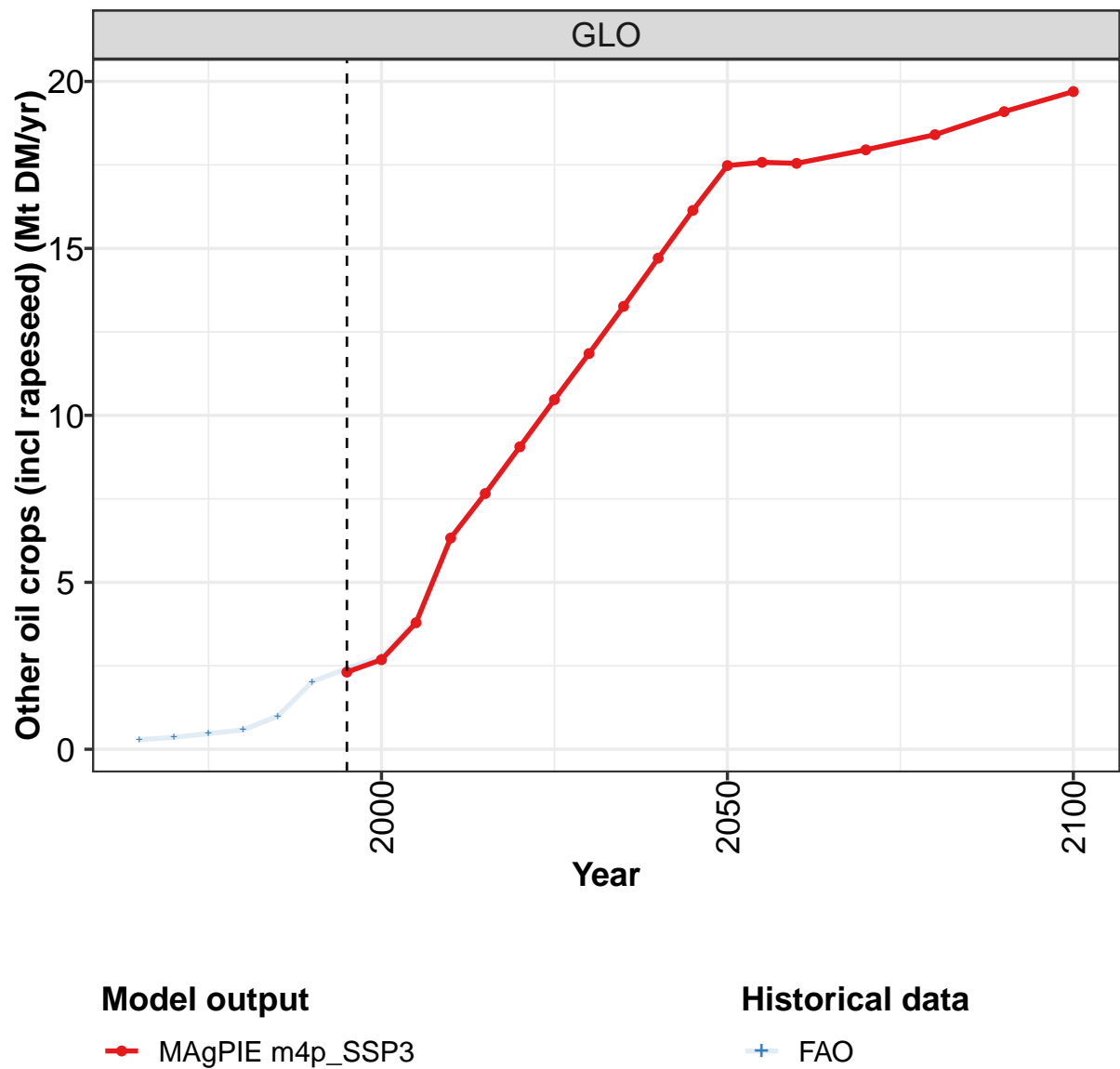
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00148	0.00137	0.00131	0.00114	0.00102	0.00092	0.00079
CAZ	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
IND	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
JPN	0.00148	0.00137	0.00131	0.00114	0.00102	0.00092	0.00079
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
MEA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
NEU	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
OAS	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
REF	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SSA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 273: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0132	0.0113	0.0094	0.0047	0.0045	0.0038	0.0029	0.0062	0.0045	0.0026
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0015	0.0008	0.0007
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0132	0.0113	0.0094	0.0047	0.0045	0.0038	0.0028	0.0047	0.0038	0.0019
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 274: FAO — Demand—Feed—Crops—Oil crops—Groundnuts (Mt DM/yr)

6.2.9 Oil crops—Other oil crops (incl rapeseed)



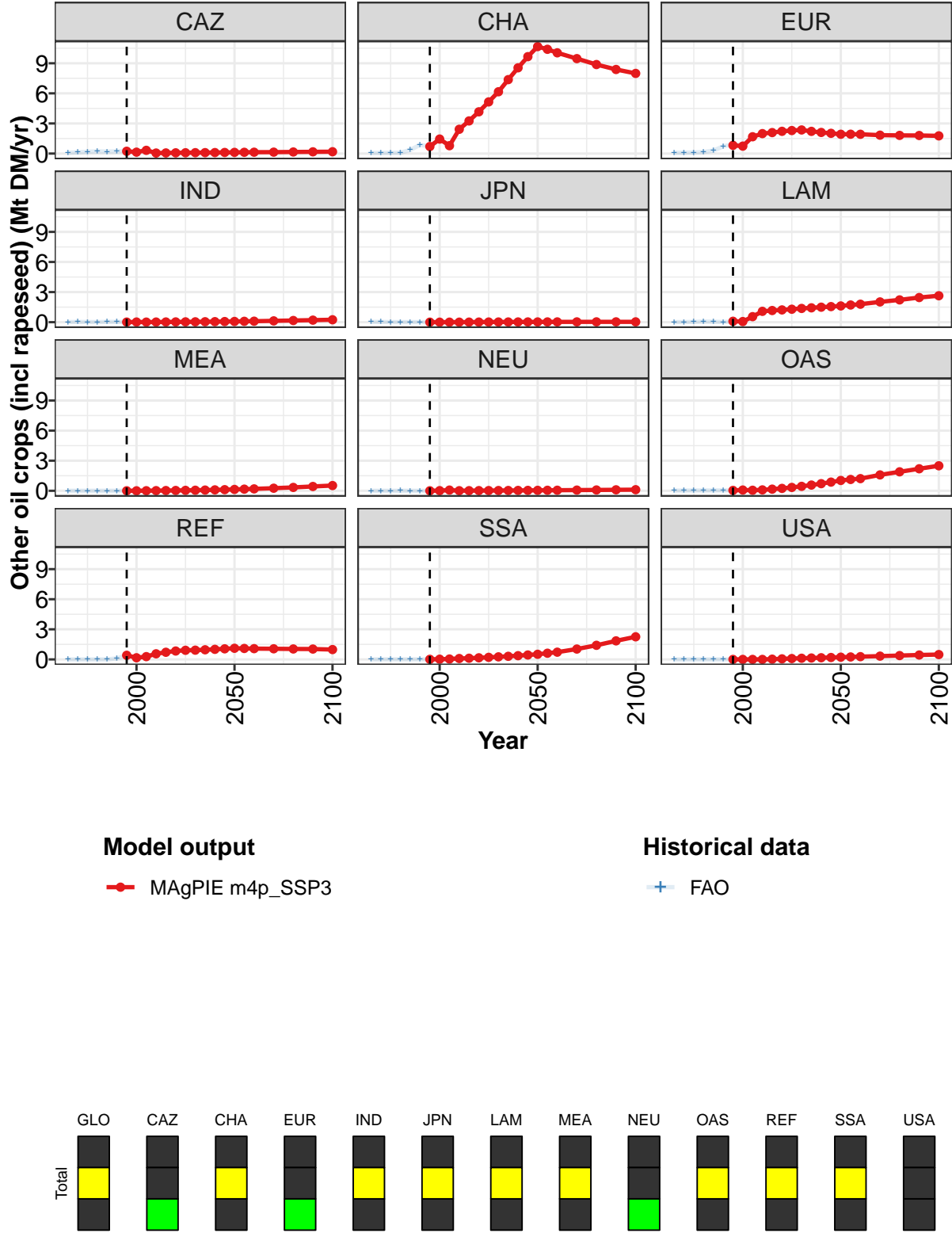


Figure 92: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.3	2.7	3.8	6.3	7.7	9.1	10.5	11.9	13.3	14.7	16.1
CAZ	0.2	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.7	1.4	0.8	2.4	3.3	4.2	5.1	6.2	7.4	8.5	9.7
EUR	0.8	0.7	1.7	2.0	2.1	2.2	2.3	2.4	2.2	2.1	2.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.1	0.6	1.1	1.2	1.2	1.3	1.4	1.4	1.5	1.6
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
NEU	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9
REF	0.4	0.2	0.3	0.6	0.7	0.8	0.9	0.9	1.0	1.0	1.1
SSA	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4
USA	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2

Table 275: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

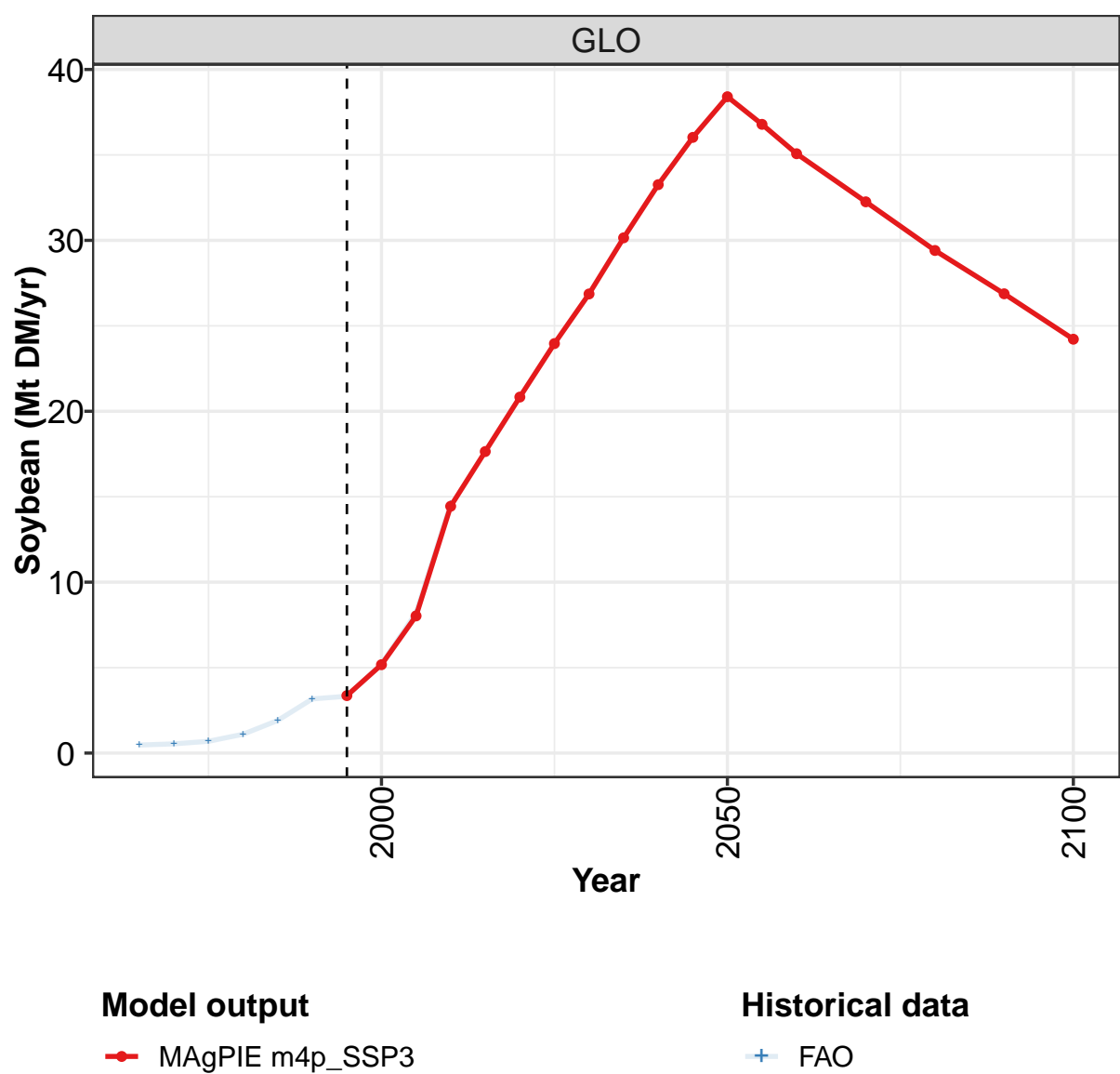
	2050	2055	2060	2070	2080	2090	2100
GLO	17.5	17.6	17.5	18.0	18.4	19.1	19.7
CAZ	0.1	0.1	0.1	0.1	0.2	0.2	0.2
CHA	10.7	10.4	10.0	9.5	8.9	8.4	8.0
EUR	1.9	1.9	1.9	1.8	1.8	1.8	1.8
IND	0.1	0.1	0.1	0.1	0.2	0.2	0.2
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.6	1.7	1.8	2.0	2.2	2.5	2.6
MEA	0.1	0.2	0.2	0.3	0.3	0.4	0.5
NEU	0.0	0.1	0.1	0.1	0.1	0.1	0.1
OAS	1.0	1.1	1.2	1.6	1.9	2.2	2.5
REF	1.1	1.1	1.1	1.1	1.0	1.0	1.0
SSA	0.5	0.6	0.7	1.0	1.4	1.9	2.3
USA	0.2	0.2	0.3	0.3	0.4	0.4	0.5

Table 276: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.29	0.36	0.47	0.58	0.99	2.03	2.42	2.77	3.84	6.27
CAZ	0.08	0.12	0.18	0.22	0.20	0.22	0.24	0.16	0.38	0.06
CHA	0.06	0.06	0.08	0.08	0.36	0.87	0.70	1.44	0.78	2.42
EUR	0.08	0.09	0.11	0.15	0.30	0.71	0.93	0.81	1.69	1.95
IND	0.01	0.02	0.02	0.01	0.03	0.03	0.01	0.02	0.01	0.01
JPN	0.03	0.02	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.01	0.03	0.07	0.05	0.01	0.09	0.06	0.54	1.04
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02
NEU	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.05	0.01
OAS	0.02	0.03	0.04	0.04	0.04	0.05	0.04	0.08	0.06	0.09
REF	0.00	0.00	0.00	0.00	0.00	0.11	0.39	0.16	0.28	0.57
SSA	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.02	0.05	0.09
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 277: FAO — Demand—Feed—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

6.2.10
Oil crops—Soybean



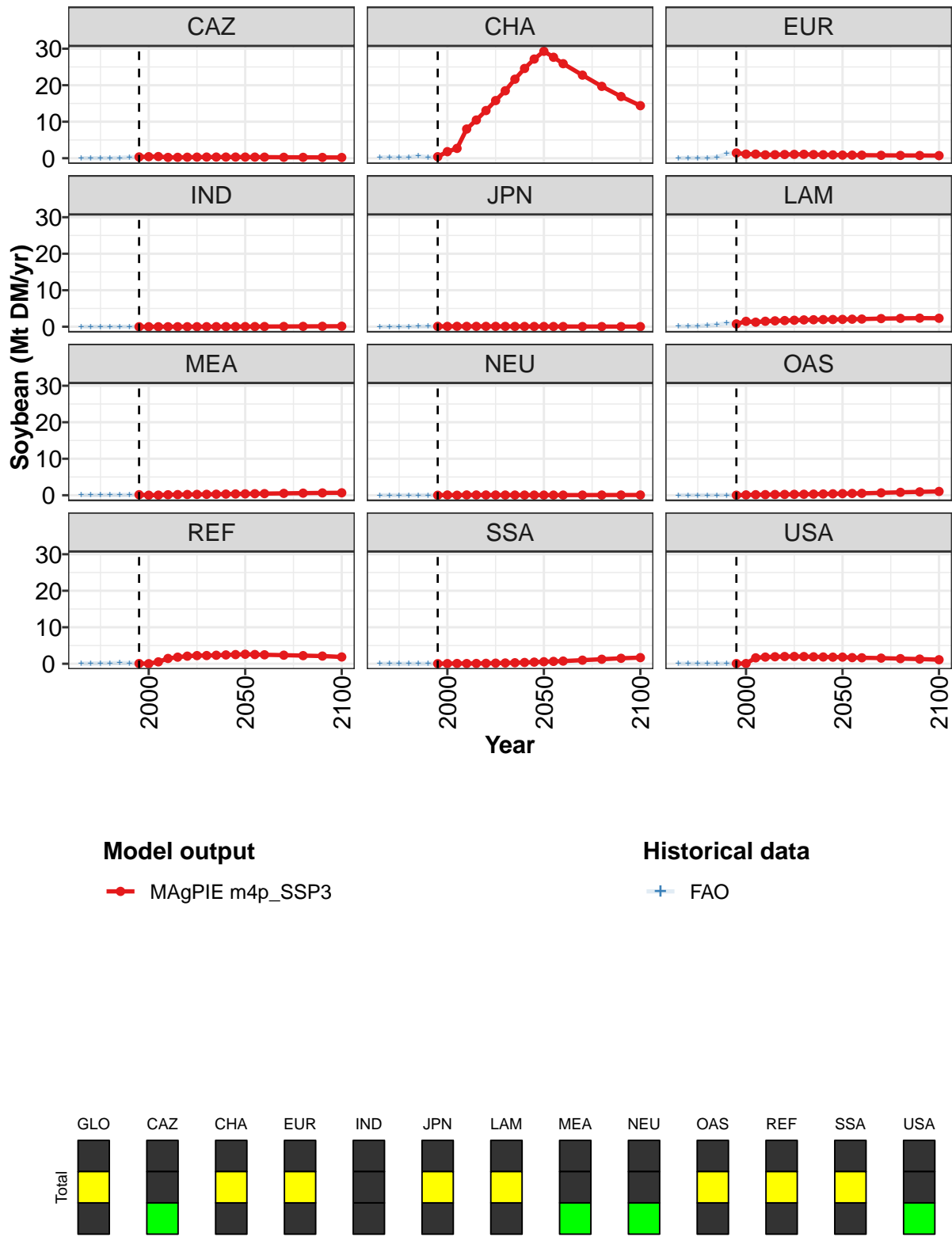


Figure 93: MAGPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.4	5.2	8.0	14.4	17.6	20.8	24.0	26.9	30.1	33.3	36.0
CAZ	0.3	0.4	0.5	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
CHA	0.4	1.8	2.7	8.0	10.5	13.1	15.8	18.5	21.6	24.6	27.2
EUR	1.4	1.1	1.1	0.9	1.0	1.0	1.0	1.1	1.0	0.9	0.9
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.8	1.5	1.2	1.5	1.6	1.7	1.8	1.9	1.9	2.0	2.0
MEA	0.2	0.0	0.0	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4
NEU	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
OAS	0.0	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4
REF	0.1	0.0	0.5	1.5	1.8	2.1	2.2	2.3	2.3	2.4	2.5
SSA	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4
USA	0.1	0.1	1.6	1.8	1.9	2.0	2.0	2.0	1.9	1.9	1.8

Table 278: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

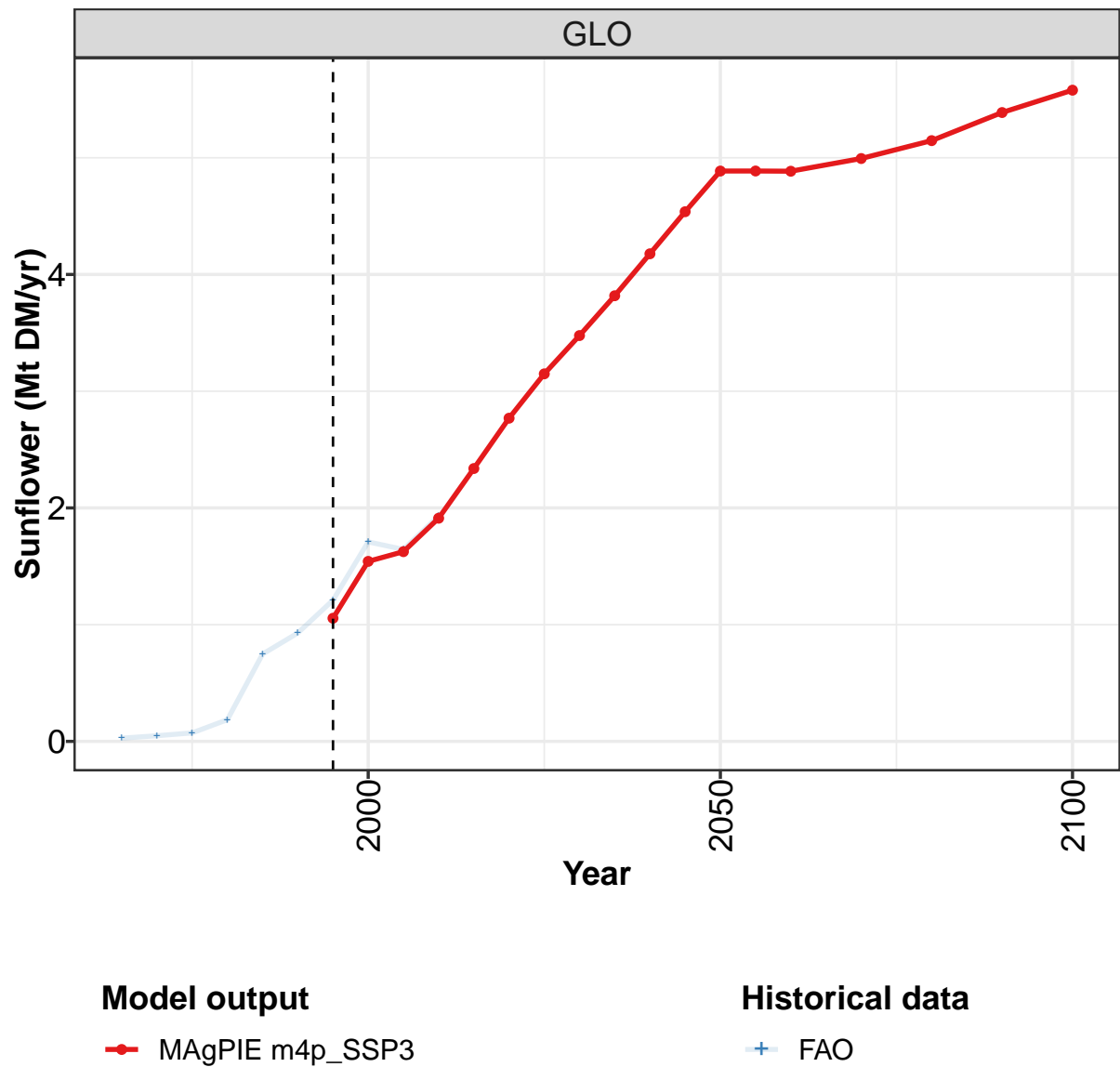
	2050	2055	2060	2070	2080	2090	2100
GLO	38.4	36.8	35.1	32.3	29.4	26.9	24.2
CAZ	0.3	0.3	0.3	0.3	0.2	0.2	0.2
CHA	29.3	27.7	25.9	22.8	19.7	16.9	14.4
EUR	0.9	0.8	0.8	0.8	0.8	0.7	0.7
IND	0.0	0.0	0.1	0.1	0.1	0.1	0.1
JPN	0.1	0.1	0.1	0.0	0.0	0.0	0.0
LAM	2.0	2.1	2.1	2.2	2.3	2.4	2.3
MEA	0.4	0.4	0.4	0.5	0.6	0.6	0.7
NEU	0.0	0.0	0.0	0.0	0.1	0.1	0.1
OAS	0.4	0.5	0.5	0.7	0.8	0.9	1.0
REF	2.6	2.5	2.5	2.4	2.2	2.1	1.9
SSA	0.6	0.6	0.7	1.0	1.2	1.5	1.7
USA	1.8	1.7	1.6	1.5	1.4	1.3	1.1

Table 279: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Soybean (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.5	0.5	0.7	1.1	1.9	3.2	3.3	5.2	8.2	14.6
CAZ	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.5	0.5	0.2
CHA	0.2	0.2	0.2	0.2	0.6	0.2	0.4	1.8	2.7	8.0
EUR	0.0	0.1	0.1	0.1	0.3	1.2	1.4	1.1	1.1	0.9
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.1	0.1	0.2	0.4	0.5	1.0	0.8	1.5	1.4	1.5
MEA	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.0	0.0	0.1
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
OAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2
REF	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.0	0.5	1.5
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.7	2.0

Table 280: FAO — Demand—Feed—Crops—Oil crops—Soybean (Mt DM/yr)

6.2.11
Oil crops—Sunflower



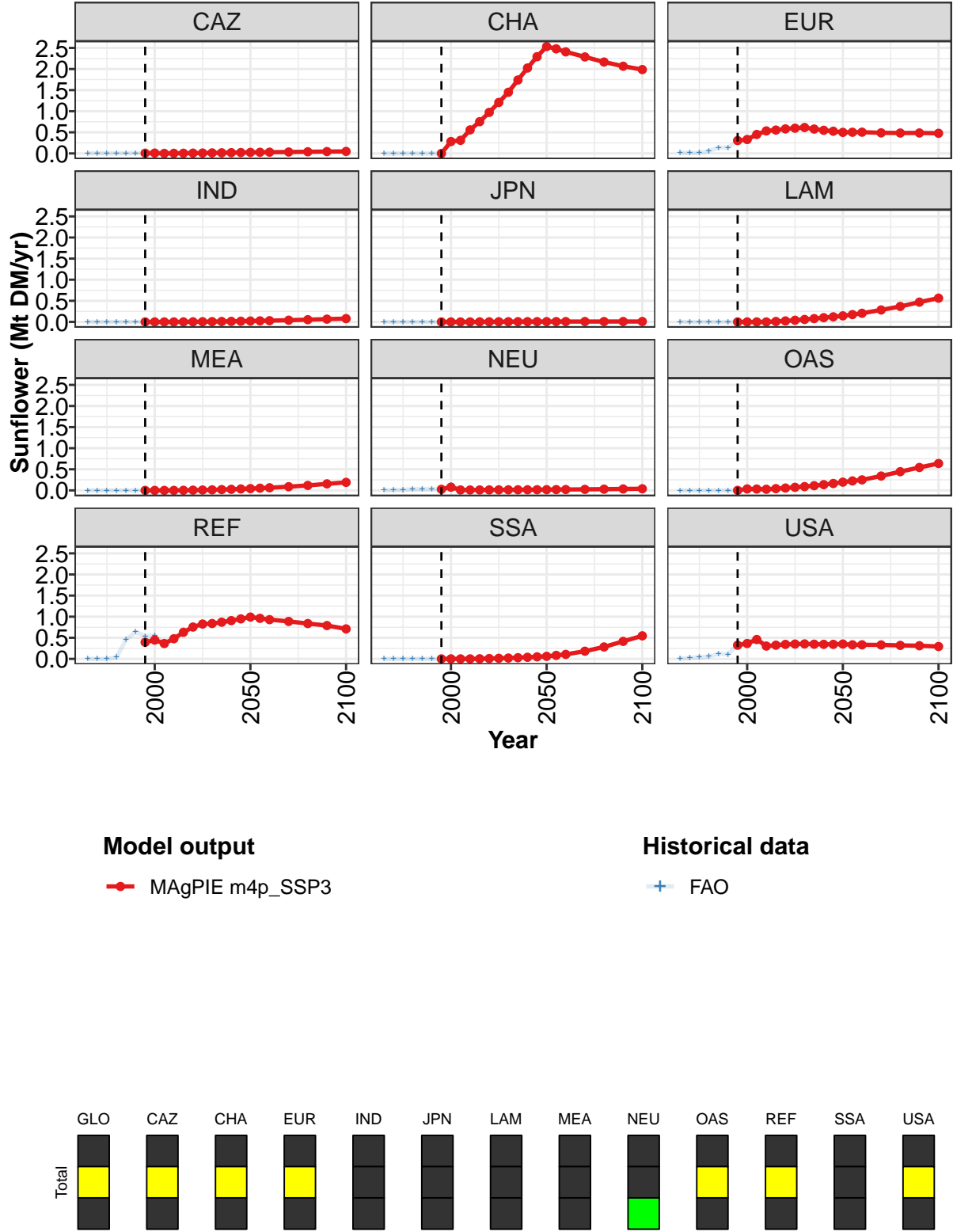


Figure 94: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.06	1.54	1.63	1.91	2.34	2.77	3.15	3.48	3.82	4.18	4.54
CAZ	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02
CHA	0.00	0.28	0.31	0.56	0.75	0.97	1.21	1.45	1.74	2.02	2.29
EUR	0.31	0.33	0.45	0.53	0.55	0.58	0.60	0.61	0.58	0.55	0.53
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
LAM	0.00	0.00	0.00	0.00	0.01	0.02	0.04	0.06	0.08	0.10	0.12
MEA	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.03	0.03
NEU	0.03	0.08	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
OAS	0.00	0.03	0.03	0.03	0.04	0.06	0.07	0.09	0.11	0.14	0.16
REF	0.39	0.45	0.36	0.48	0.63	0.75	0.83	0.84	0.87	0.91	0.95
SSA	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.04	0.05
USA	0.32	0.36	0.46	0.30	0.32	0.34	0.35	0.35	0.35	0.34	0.34

Table 281: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

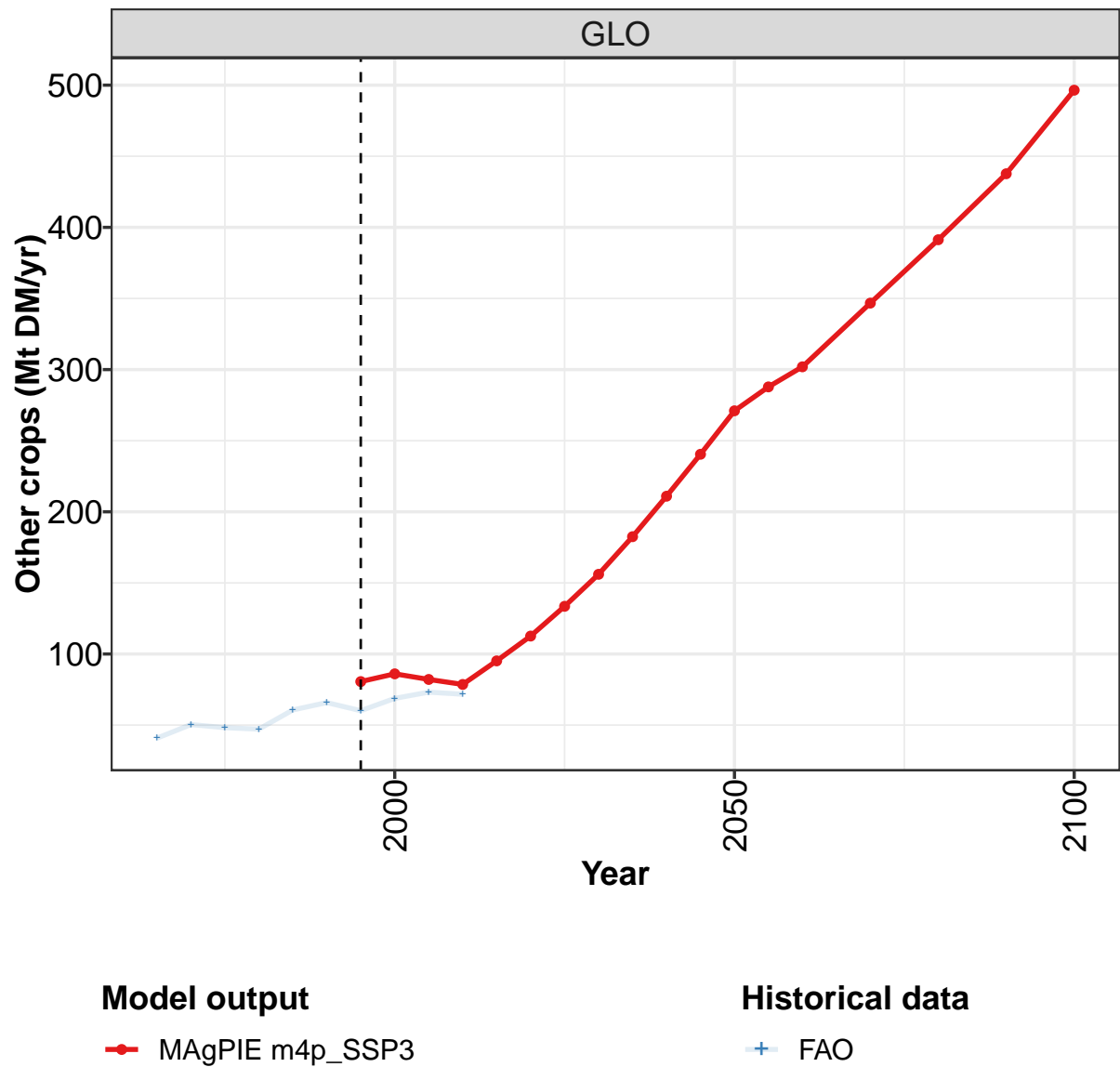
	2050	2055	2060	2070	2080	2090	2100
GLO	4.89	4.89	4.88	4.99	5.15	5.39	5.58
CAZ	0.02	0.03	0.03	0.03	0.04	0.04	0.05
CHA	2.53	2.48	2.41	2.29	2.17	2.07	1.99
EUR	0.50	0.50	0.50	0.49	0.48	0.48	0.48
IND	0.02	0.03	0.03	0.04	0.05	0.07	0.08
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.14	0.17	0.20	0.28	0.37	0.47	0.56
MEA	0.04	0.05	0.06	0.09	0.12	0.15	0.19
NEU	0.02	0.02	0.02	0.02	0.03	0.03	0.04
OAS	0.20	0.22	0.25	0.34	0.44	0.54	0.64
REF	0.99	0.96	0.93	0.89	0.84	0.79	0.71
SSA	0.06	0.08	0.11	0.18	0.28	0.42	0.55
USA	0.35	0.33	0.33	0.33	0.32	0.31	0.29

Table 282: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.03	0.05	0.07	0.19	0.75	0.93	1.21	1.71	1.64	1.93
CAZ	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.31	0.56
EUR	0.02	0.01	0.01	0.06	0.14	0.14	0.29	0.32	0.43	0.52
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.01	0.01	0.03	0.03	0.03	0.03	0.12	0.02	0.01
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.04	0.03
REF	0.00	0.00	0.00	0.04	0.45	0.64	0.54	0.54	0.37	0.48
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.01	0.02	0.04	0.05	0.12	0.11	0.33	0.38	0.48	0.33

Table 283: FAO — Demand—Feed—Crops—Oil crops—Sunflower (Mt DM/yr)

6.2.12
Other crops



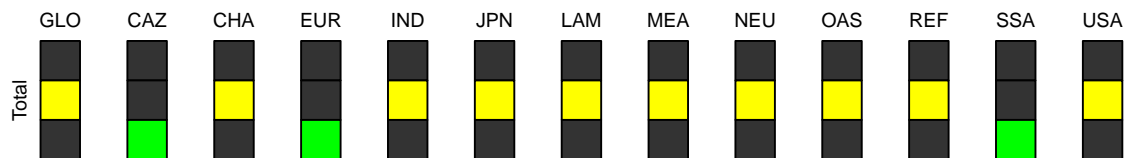
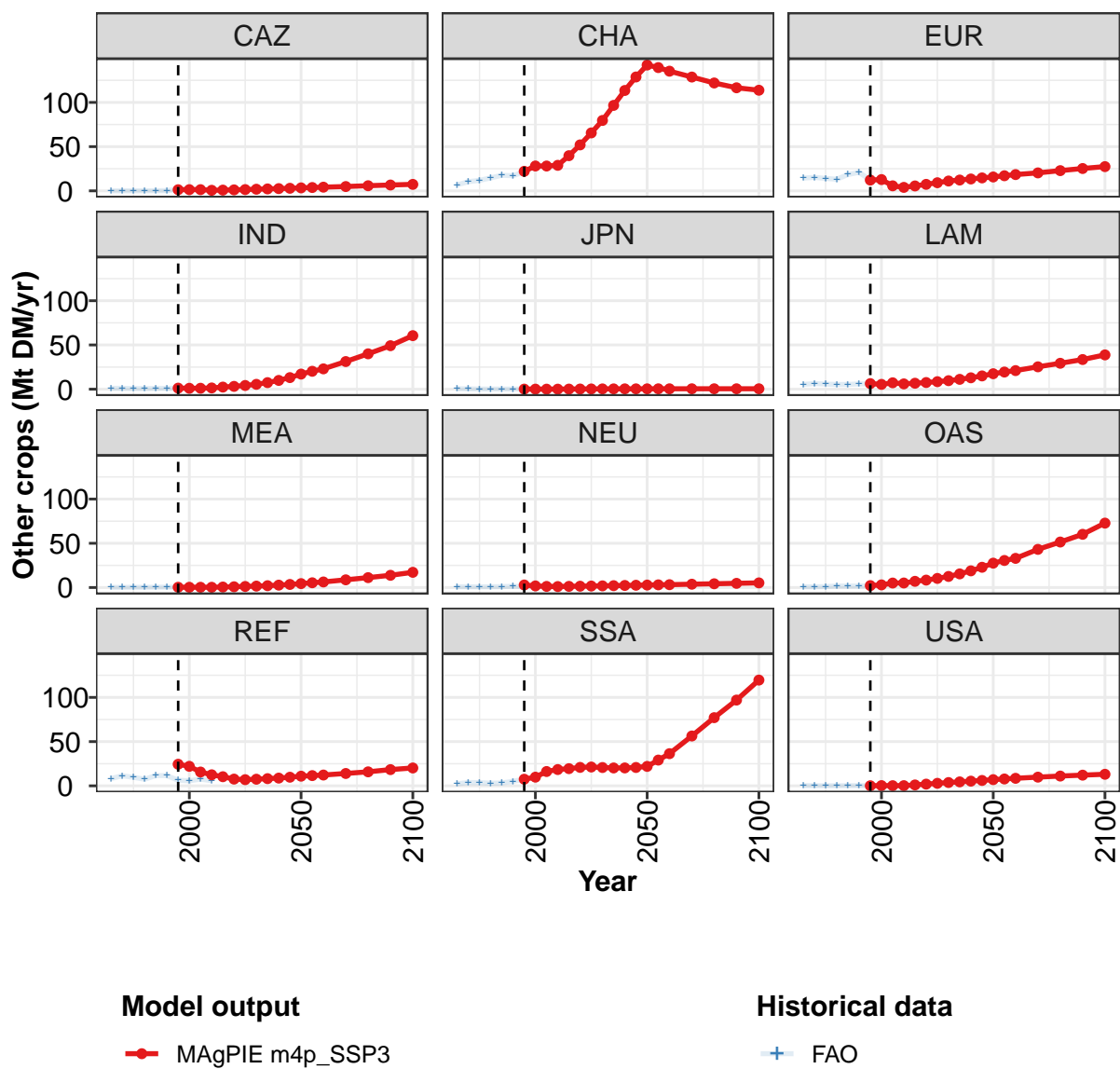


Figure 95: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	81	86	82	79	95	113	134	156	183	211	240
CAZ	1	1	1	1	1	1	1	2	2	3	3
CHA	22	28	28	29	40	52	66	80	97	114	129
EUR	12	13	6	4	6	7	9	11	12	13	15
IND	1	1	1	1	2	3	4	6	7	10	13
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	6	5	7	6	7	8	9	10	11	13	15
MEA	0	0	0	0	1	1	1	2	2	3	3
NEU	3	2	1	1	1	2	2	2	2	2	3
OAS	2	3	5	5	7	8	10	13	15	19	23
REF	24	22	16	12	10	8	7	7	8	9	10
SSA	8	10	16	18	19	21	21	21	20	20	21
USA	0	0	0	0	1	2	3	4	4	5	6

Table 284: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops (Mt DM/yr) [PART 1/2]

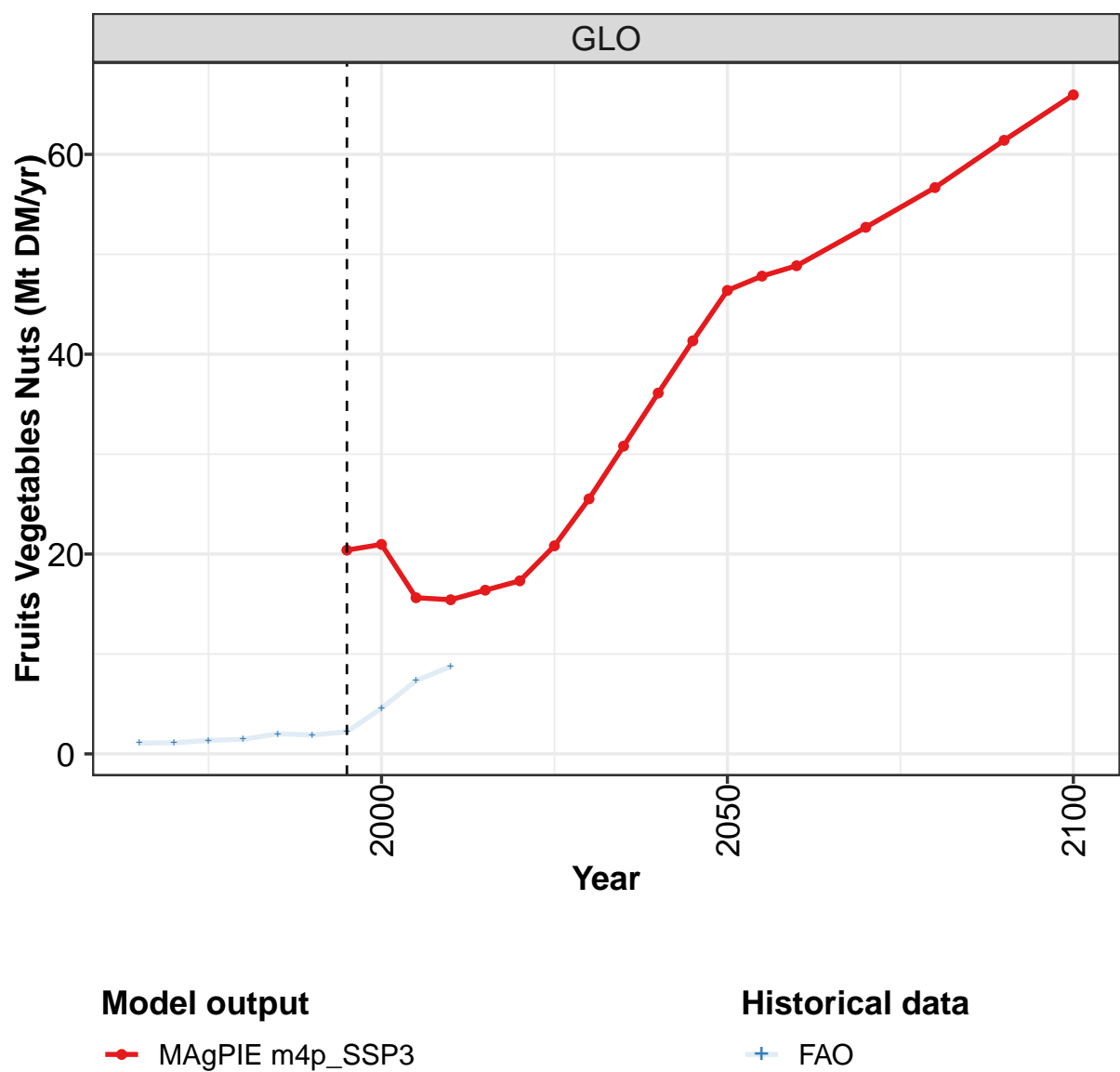
	2050	2055	2060	2070	2080	2090	2100
GLO	271	288	302	347	391	438	496
CAZ	3	4	4	5	6	7	7
CHA	142	139	135	129	122	117	114
EUR	16	17	18	20	23	25	27
IND	17	20	23	31	40	49	61
JPN	0	0	0	0	0	0	0
LAM	17	19	21	25	29	34	39
MEA	4	5	6	9	11	14	17
NEU	3	3	3	4	4	5	5
OAS	28	31	33	43	51	60	73
REF	11	12	12	14	16	18	20
SSA	22	29	36	56	77	97	120
USA	7	8	9	10	11	12	13

Table 285: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	40.8	50.4	48.2	47.2	60.6	65.8	60.1	68.8	73.2	71.7
CAZ	0.0	0.0	0.0	0.1	0.2	0.3	1.8	1.7	1.8	0.7
CHA	6.8	10.4	11.9	14.7	17.6	17.1	21.6	27.9	27.9	28.9
EUR	14.4	15.2	14.1	13.1	18.5	20.9	12.1	12.6	5.6	3.9
IND	1.0	1.0	0.8	0.7	0.9	1.0	1.2	1.1	1.1	1.4
JPN	0.6	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0
LAM	5.4	6.4	5.7	5.3	5.4	6.0	6.0	5.5	6.9	5.7
MEA	0.1	0.1	0.3	0.2	0.4	0.5	0.3	0.3	0.3	0.3
NEU	0.8	0.8	0.7	0.8	1.0	1.4	1.1	1.2	1.2	1.1
OAS	0.8	0.7	1.1	1.7	1.6	1.7	1.9	2.4	4.4	5.2
REF	8.2	11.4	9.6	7.4	11.6	11.5	6.3	5.7	7.6	5.8
SSA	2.3	3.8	3.6	3.0	3.2	5.1	7.6	9.9	16.2	18.4
USA	0.3	0.1	0.1	0.1	0.1	0.3	0.1	0.3	0.2	0.2

Table 286: FAO — Demand—Feed—Crops—Other crops (Mt DM/yr)

6.2.13
Other crops—Fruits Vegetables Nuts



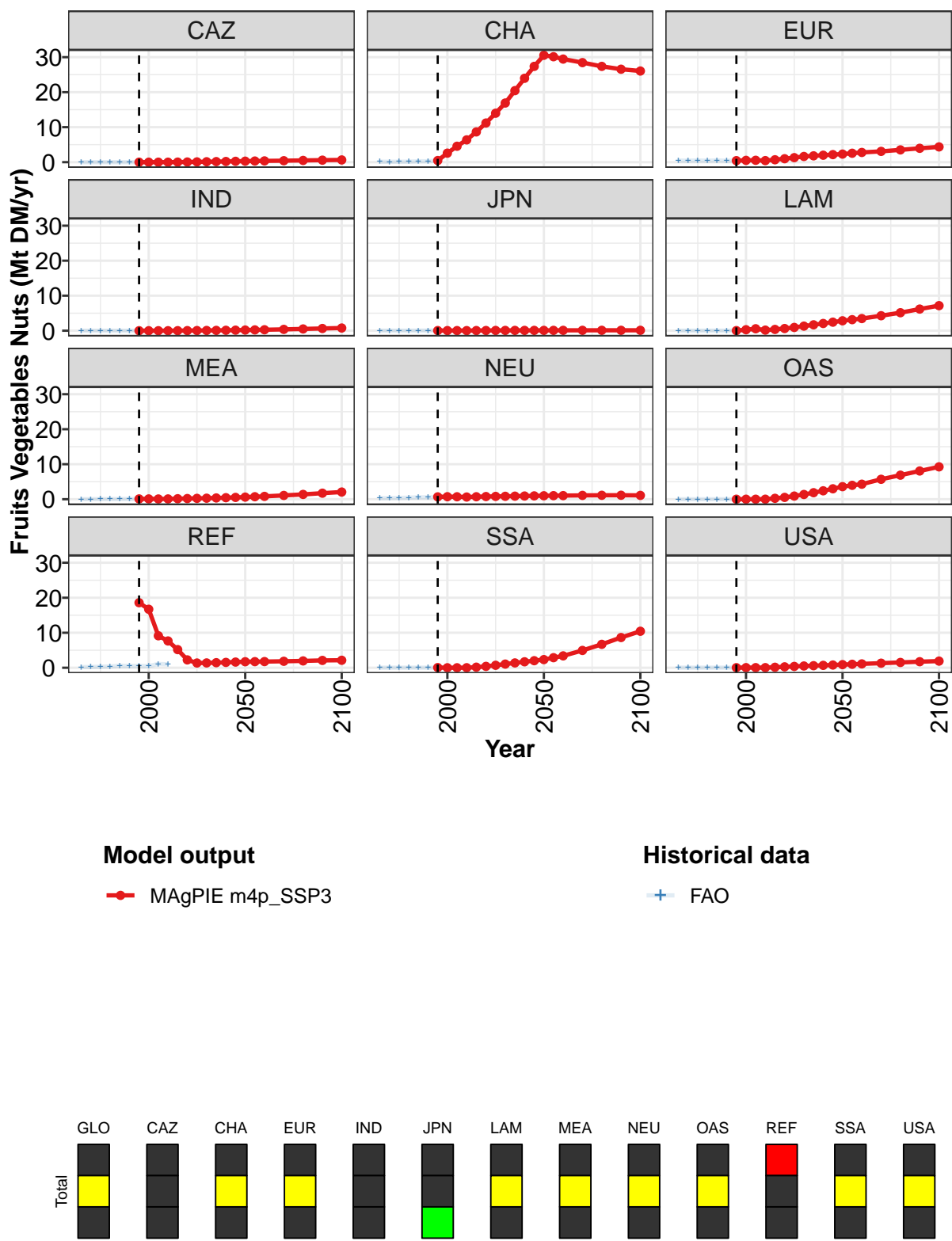


Figure 96: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	20.4	21.0	15.6	15.4	16.4	17.3	20.8	25.5	30.8	36.1	41.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2
CHA	0.5	2.6	4.6	6.4	8.7	11.2	14.0	16.9	20.4	24.0	27.4
EUR	0.4	0.5	0.5	0.5	0.7	1.0	1.3	1.6	1.8	2.0	2.2
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2
JPN	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.0	0.3	0.6	0.2	0.4	0.6	0.9	1.3	1.7	2.1	2.4
MEA	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5
NEU	0.7	0.7	0.7	0.6	0.7	0.8	0.8	0.8	0.9	0.9	1.0
OAS	0.0	0.0	0.0	0.0	0.3	0.5	0.9	1.4	1.9	2.4	3.0
REF	18.6	16.7	9.1	7.7	5.2	2.2	1.4	1.4	1.5	1.5	1.6
SSA	0.1	0.0	0.0	0.0	0.2	0.4	0.7	1.0	1.4	1.7	2.0
USA	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.5	0.6	0.7	0.8

Table 287: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)
[PART 1/2]

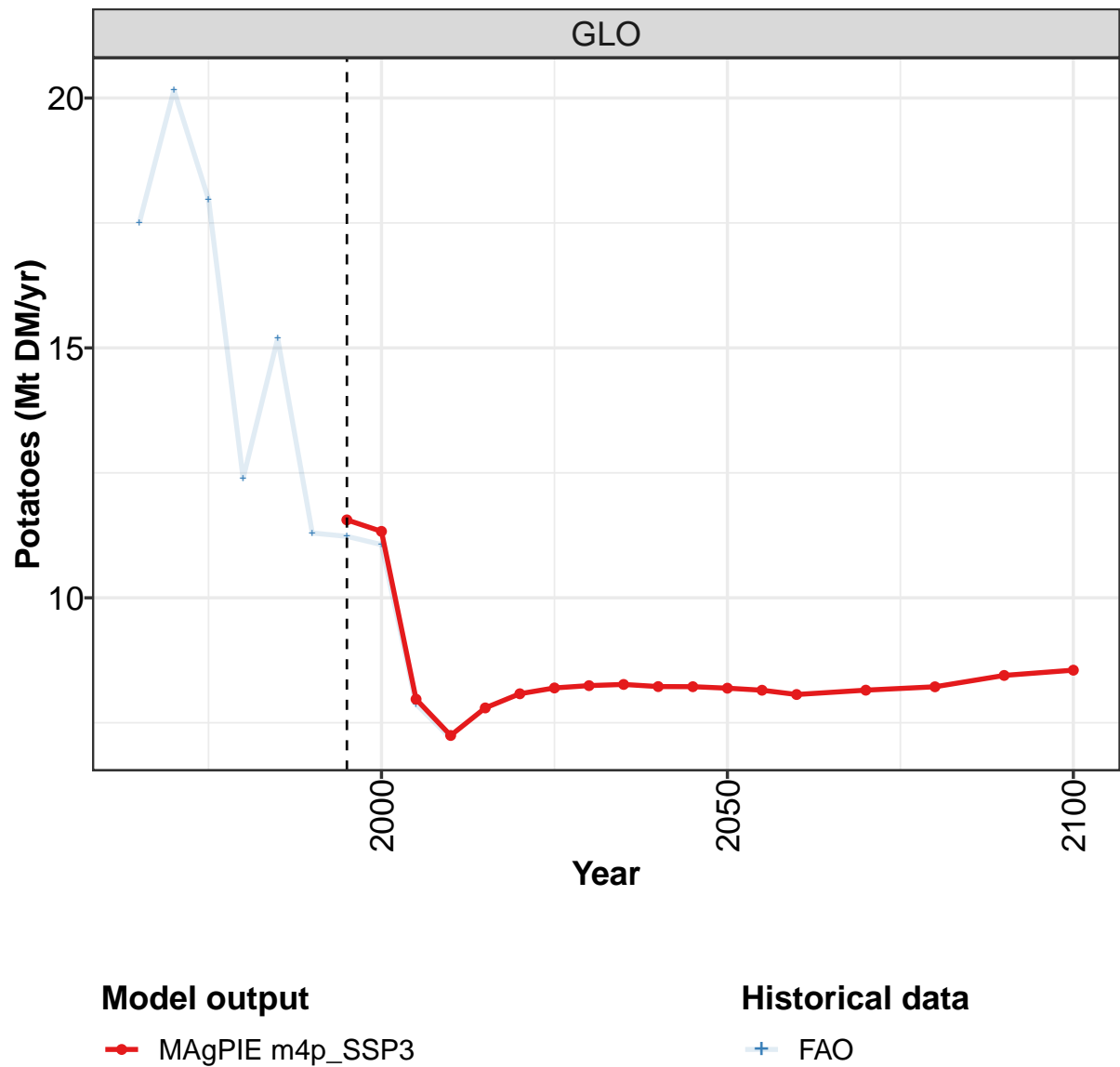
	2050	2055	2060	2070	2080	2090	2100
GLO	46.4	47.8	48.9	52.7	56.7	61.4	66.0
CAZ	0.3	0.3	0.4	0.4	0.5	0.6	0.6
CHA	30.5	30.1	29.5	28.4	27.4	26.6	26.0
EUR	2.3	2.6	2.8	3.1	3.5	4.0	4.4
IND	0.2	0.2	0.3	0.4	0.5	0.6	0.8
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	2.8	3.2	3.5	4.3	5.1	6.2	7.2
MEA	0.6	0.7	0.8	1.1	1.4	1.7	2.1
NEU	1.0	1.0	1.0	1.1	1.1	1.1	1.1
OAS	3.6	4.0	4.3	5.7	6.9	8.1	9.2
REF	1.7	1.7	1.8	1.8	2.0	2.1	2.1
SSA	2.3	2.9	3.4	4.9	6.7	8.6	10.4
USA	0.9	1.0	1.1	1.3	1.5	1.7	1.9

Table 288: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.08	1.11	1.36	1.46	2.01	1.90	2.21	4.57	7.33	8.74
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.13	0.11	0.13	0.14	0.24	0.26	0.45	2.56	4.52	6.38
EUR	0.44	0.43	0.49	0.41	0.51	0.40	0.44	0.52	0.53	0.44
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.01	0.01	0.02	0.02	0.04	0.05	0.04	0.03	0.03	0.03
LAM	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.16	0.35	0.14
MEA	0.01	0.01	0.03	0.04	0.05	0.09	0.11	0.10	0.08	0.09
NEU	0.28	0.32	0.36	0.44	0.54	0.55	0.59	0.66	0.69	0.64
OAS	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
REF	0.18	0.20	0.29	0.35	0.58	0.50	0.50	0.47	1.08	0.97
SSA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
USA	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04

Table 289: FAO — Demand—Feed—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

6.2.14
Other crops—Potatoes



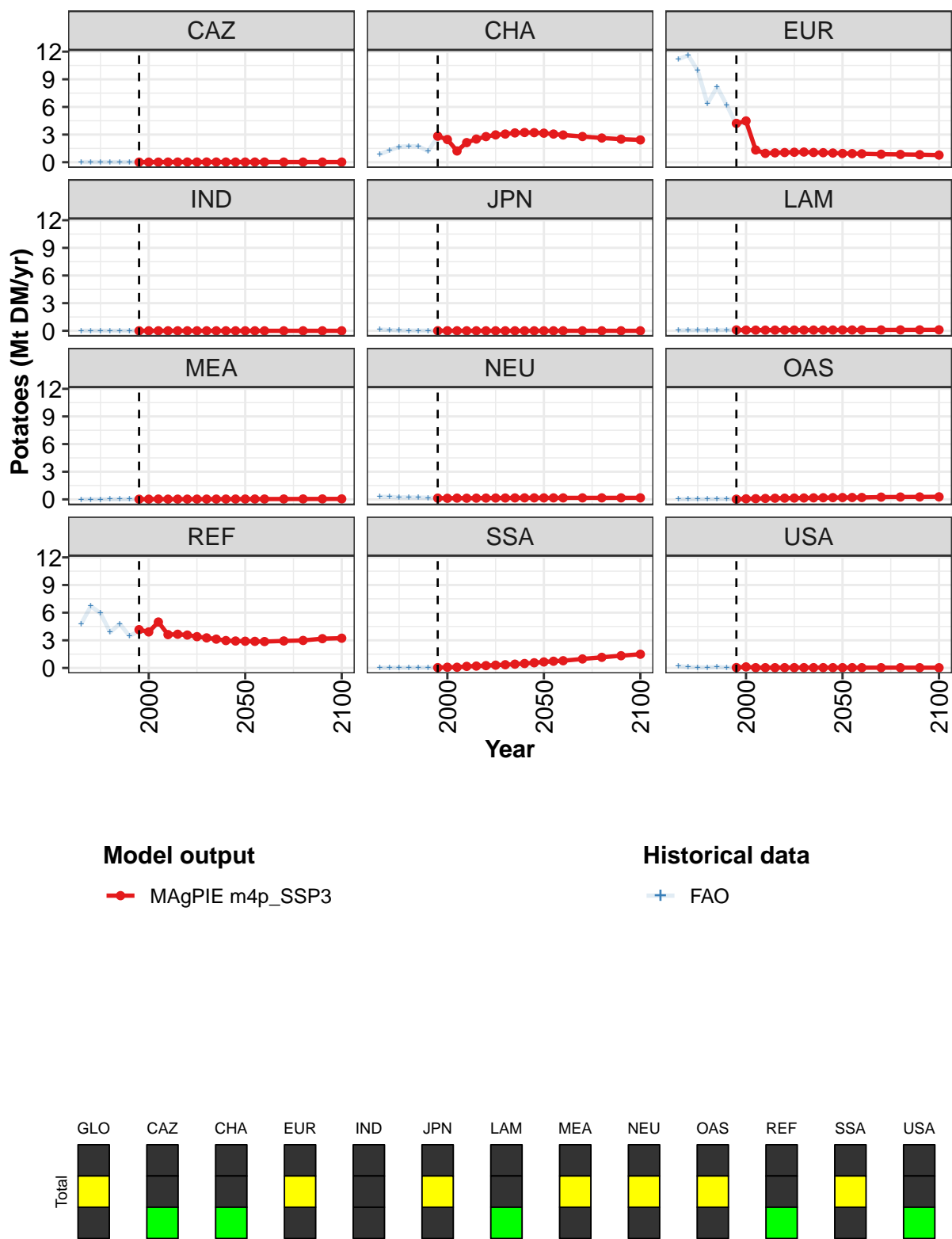


Figure 97: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	11.6	11.3	8.0	7.2	7.8	8.1	8.2	8.2	8.3	8.2	8.2
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	2.8	2.5	1.2	2.1	2.5	2.8	3.0	3.1	3.2	3.2	3.2
EUR	4.2	4.5	1.3	1.0	1.0	1.1	1.1	1.1	1.1	1.0	1.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
OAS	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
REF	4.2	3.9	5.0	3.6	3.7	3.6	3.4	3.3	3.1	3.0	2.9
SSA	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6
USA	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 290: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

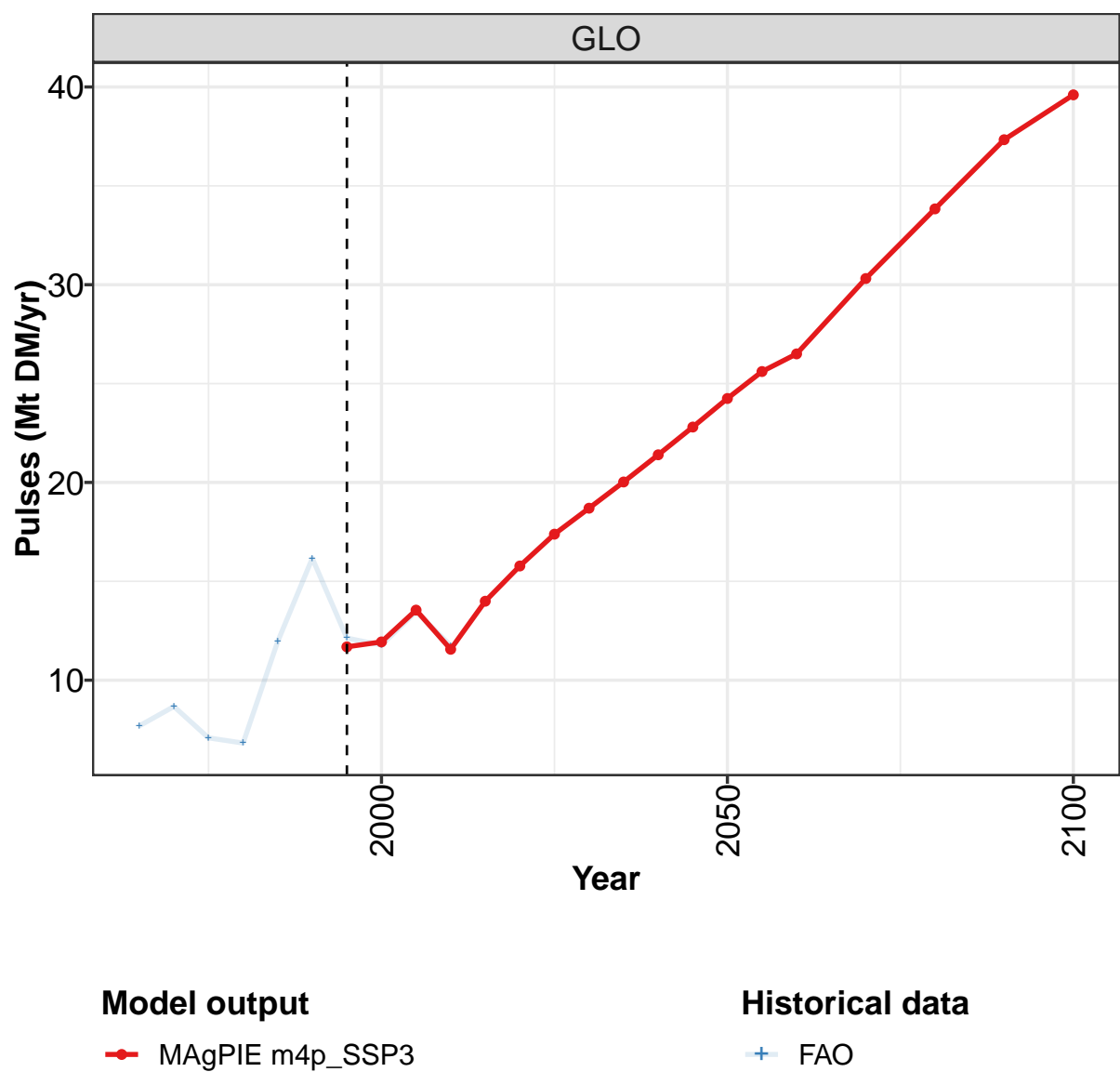
	2050	2055	2060	2070	2080	2090	2100
GLO	8.2	8.2	8.1	8.2	8.2	8.4	8.6
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	3.2	3.1	3.0	2.8	2.6	2.5	2.4
EUR	1.0	0.9	0.9	0.9	0.8	0.8	0.8
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.1	0.1	0.1	0.1	0.1	0.1
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.1
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.2	0.2	0.2	0.2	0.3	0.3	0.3
REF	2.9	2.9	2.9	2.9	3.0	3.2	3.2
SSA	0.7	0.7	0.8	1.0	1.2	1.3	1.5
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 291: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops—Potatoes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	17.5	20.2	18.0	12.4	15.2	11.3	11.2	11.1	7.9	7.2
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.9	1.3	1.7	1.7	1.7	1.2	2.8	2.4	1.2	2.1
EUR	11.2	11.6	9.9	6.4	8.2	6.2	4.1	4.3	1.3	0.9
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
OAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
REF	4.8	6.7	5.9	3.9	4.8	3.5	4.0	3.8	4.9	3.6
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2
USA	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0

Table 292: FAO — Demand—Feed—Crops—Other crops—Potatoes (Mt DM/yr)

6.2.15
Other crops—Pulses



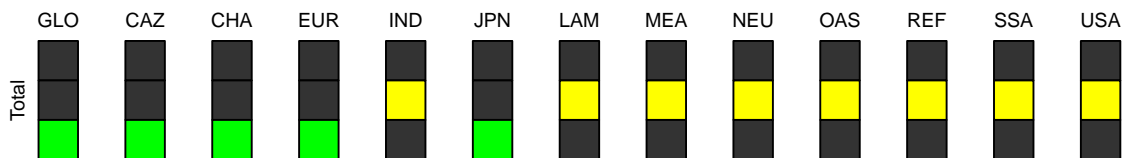
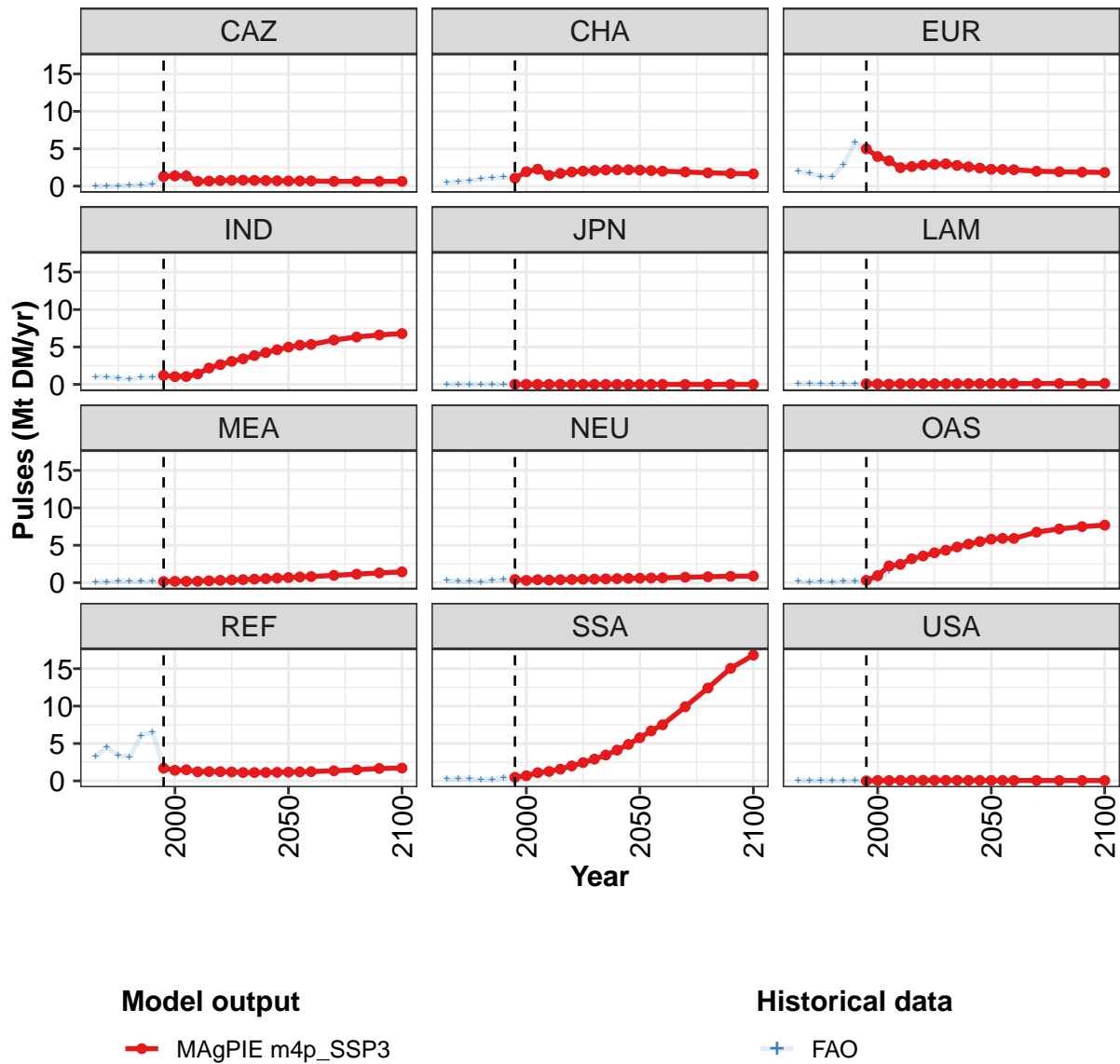


Figure 98: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	11.7	11.9	13.5	11.6	14.0	15.8	17.4	18.7	20.0	21.4	22.8
CAZ	1.3	1.4	1.4	0.6	0.7	0.7	0.8	0.8	0.8	0.7	0.7
CHA	1.1	1.9	2.3	1.4	1.7	1.9	2.0	2.1	2.2	2.2	2.2
EUR	5.0	4.0	3.4	2.5	2.6	2.8	2.9	3.0	2.8	2.6	2.4
IND	1.2	1.0	1.0	1.4	2.2	2.6	3.1	3.4	3.8	4.2	4.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
MEA	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6
NEU	0.4	0.3	0.4	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.6
OAS	0.3	0.9	2.2	2.4	3.2	3.6	4.0	4.3	4.8	5.2	5.5
REF	1.7	1.4	1.5	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1
SSA	0.5	0.7	1.1	1.3	1.6	2.0	2.5	2.9	3.5	4.1	4.9
USA	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 293: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

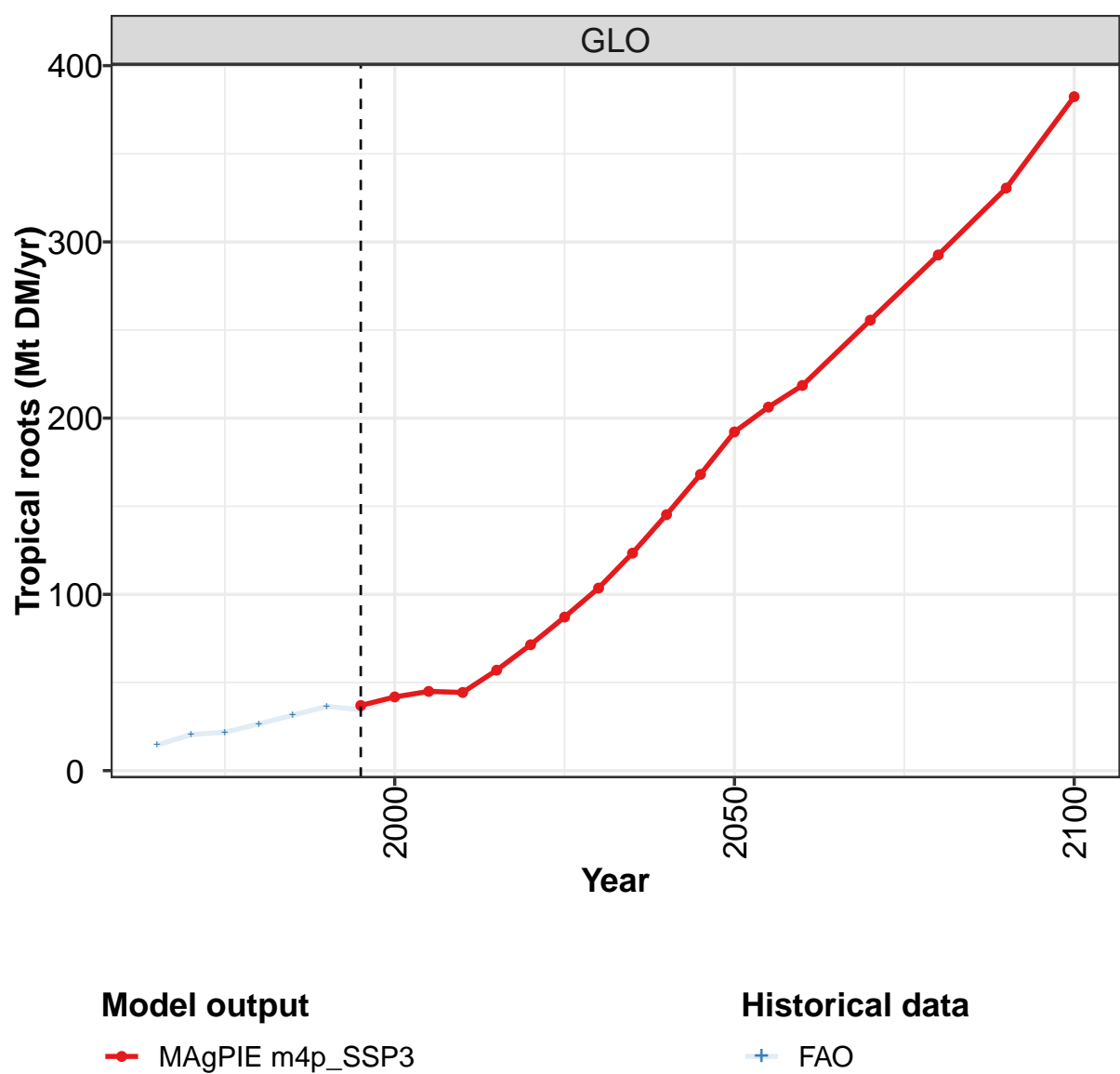
	2050	2055	2060	2070	2080	2090	2100
GLO	24.2	25.6	26.5	30.3	33.8	37.3	39.6
CAZ	0.7	0.7	0.7	0.6	0.6	0.6	0.6
CHA	2.1	2.1	2.0	1.9	1.8	1.7	1.6
EUR	2.3	2.2	2.2	2.0	1.9	1.9	1.8
IND	5.0	5.2	5.3	5.9	6.3	6.6	6.8
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.1	0.1	0.1	0.1	0.1	0.1
MEA	0.7	0.8	0.8	1.0	1.1	1.3	1.4
NEU	0.6	0.6	0.6	0.7	0.8	0.8	0.9
OAS	5.8	5.9	5.9	6.7	7.2	7.5	7.7
REF	1.2	1.2	1.2	1.4	1.5	1.7	1.7
SSA	5.8	6.7	7.5	9.9	12.4	15.1	16.8
USA	0.1	0.1	0.1	0.1	0.1	0.0	0.0

Table 294: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops—Pulses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	7.7	8.7	7.1	6.8	12.0	16.2	12.1	11.8	13.5	11.7
CAZ	0.0	0.0	0.0	0.1	0.1	0.3	1.8	1.7	1.8	0.7
CHA	0.5	0.6	0.7	1.0	1.1	1.2	1.0	1.9	2.3	1.4
EUR	2.0	1.7	1.3	1.3	2.9	5.9	4.8	3.9	3.3	2.4
IND	1.0	1.0	0.8	0.7	0.9	1.0	1.2	1.1	1.1	1.4
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1
MEA	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2
NEU	0.3	0.2	0.2	0.1	0.3	0.4	0.4	0.3	0.4	0.3
OAS	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.4	1.6	2.5
REF	3.3	4.5	3.4	3.2	6.0	6.6	1.8	1.4	1.6	1.2
SSA	0.2	0.3	0.3	0.2	0.2	0.4	0.6	0.7	1.2	1.3
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1

Table 295: FAO — Demand—Feed—Crops—Other crops—Pulses (Mt DM/yr)

6.2.16
Other crops—Tropical roots



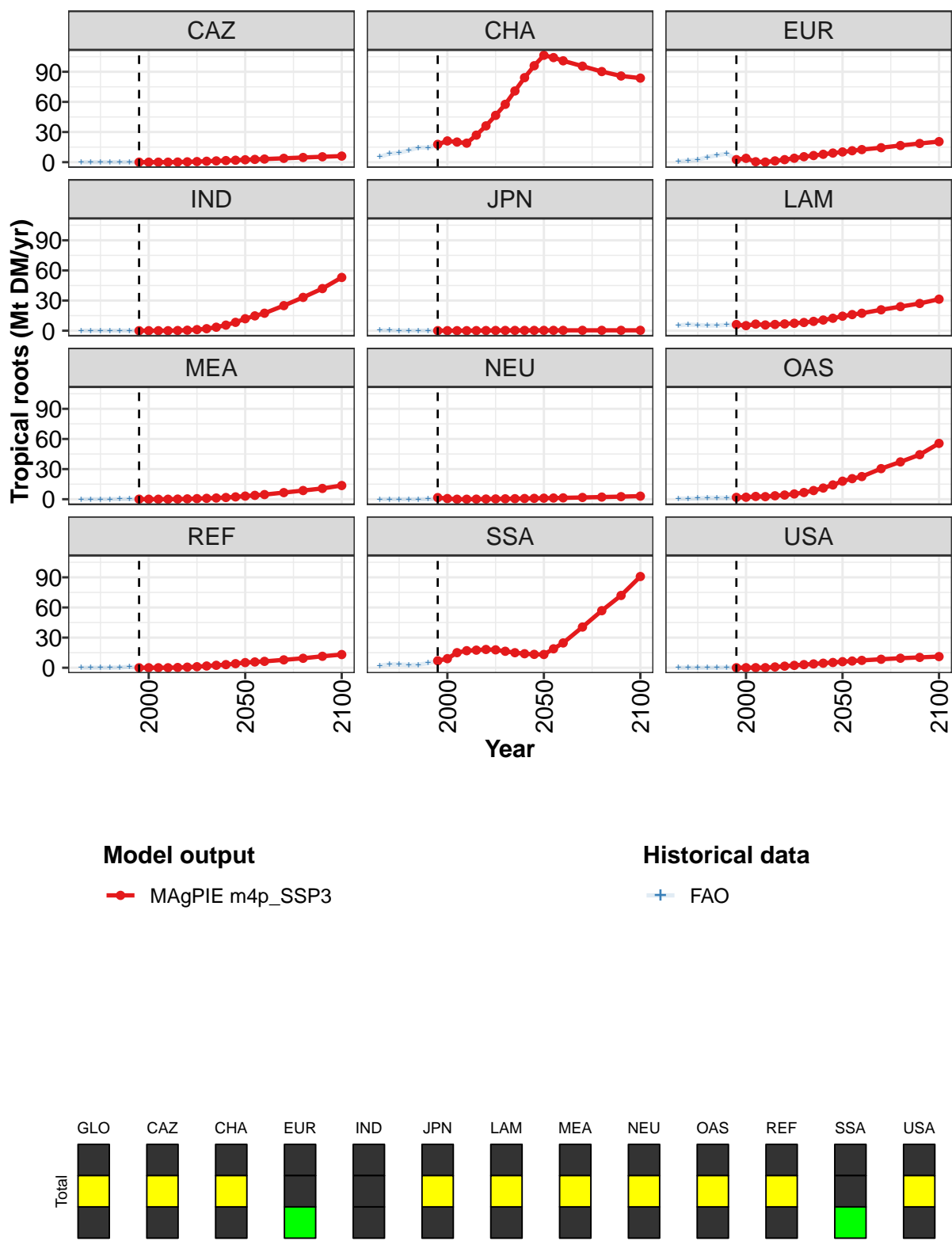


Figure 99: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	37	42	45	44	57	71	87	104	123	145	168
CAZ	0	0	0	0	0	0	1	1	1	2	2
CHA	18	21	20	19	27	36	47	58	71	84	96
EUR	3	4	0	0	1	3	4	5	7	8	9
IND	0	0	0	0	0	1	1	2	3	6	8
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	6	5	7	6	6	7	7	8	9	11	12
MEA	0	0	0	0	0	0	1	1	1	2	2
NEU	2	1	0	0	0	0	0	0	1	1	1
OAS	2	2	3	3	3	4	5	7	9	11	14
REF	0	0	0	0	0	1	1	2	2	3	4
SSA	7	9	15	17	18	18	18	16	15	14	13
USA	0	0	0	0	1	2	2	3	4	5	5

Table 296: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 1/2]

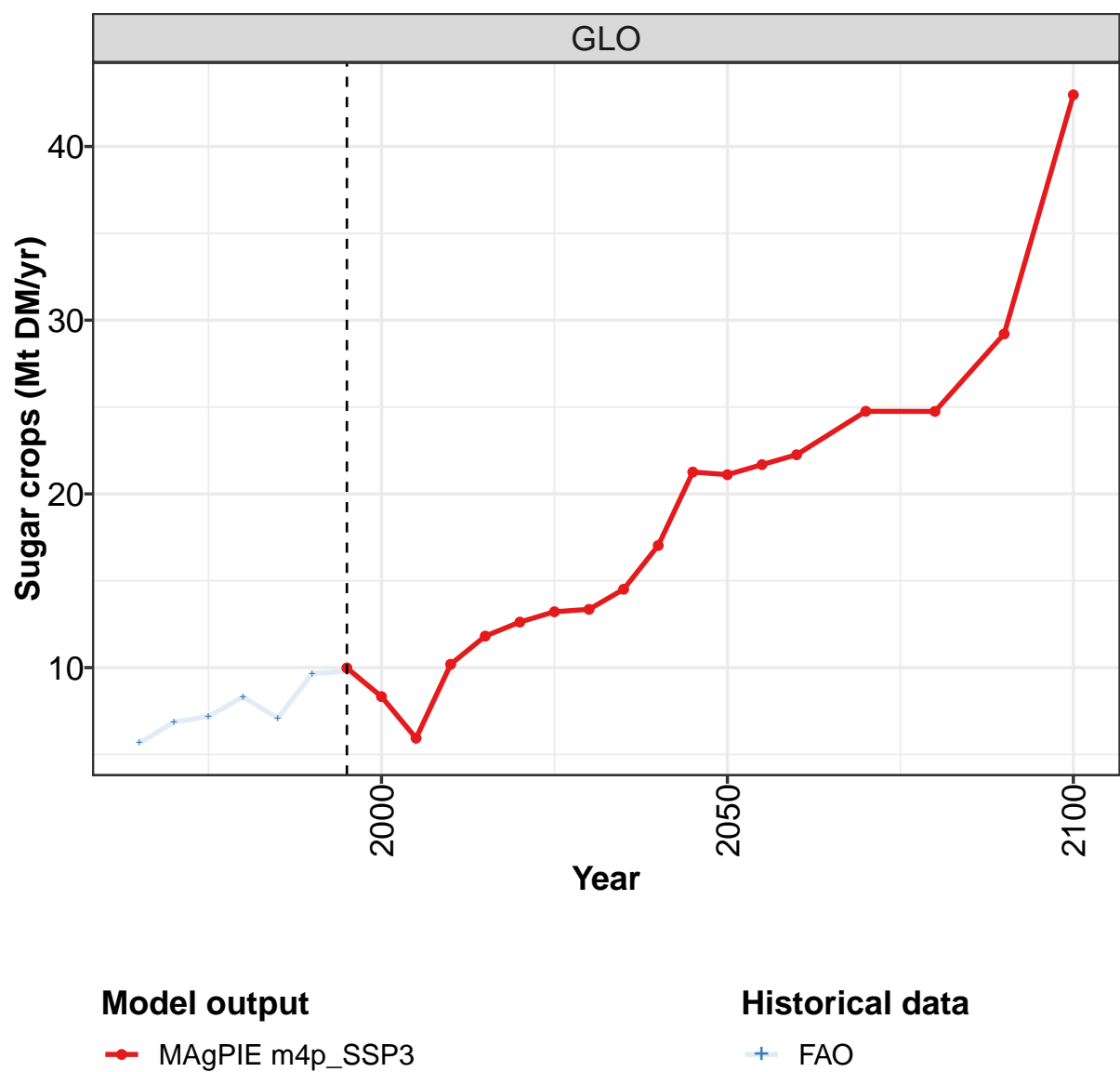
	2050	2055	2060	2070	2080	2090	2100
GLO	192	206	219	256	293	331	382
CAZ	2	3	3	4	5	5	6
CHA	106	104	101	96	90	86	84
EUR	10	11	13	14	17	19	20
IND	12	15	17	25	33	42	53
JPN	0	0	0	0	0	0	0
LAM	14	16	17	21	24	27	31
MEA	3	4	5	7	9	11	14
NEU	1	1	1	2	2	3	3
OAS	18	20	23	30	37	44	56
REF	5	6	6	8	9	11	13
SSA	13	19	25	41	57	72	91
USA	6	7	7	8	9	10	11

Table 297: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	14.5	20.4	21.8	26.5	31.5	36.5	34.5	41.4	44.5	44.0
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	5.3	8.4	9.4	11.8	14.6	14.4	17.4	21.0	19.9	19.0
EUR	0.8	1.5	2.4	5.1	6.9	8.5	2.7	3.9	0.4	0.1
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.4	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
LAM	5.2	6.2	5.6	5.2	5.2	5.9	5.8	5.3	6.5	5.4
MEA	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0
OAS	0.6	0.6	0.9	1.5	1.4	1.4	1.6	1.9	2.7	2.6
REF	0.0	0.0	0.0	0.0	0.2	1.0	0.0	0.0	0.0	0.0
SSA	2.0	3.4	3.3	2.8	3.0	4.6	7.0	9.1	14.9	16.9
USA	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.1	0.1

Table 298: FAO — Demand—Feed—Crops—Other crops—Tropical roots (Mt DM/yr)

6.2.17
Sugar crops



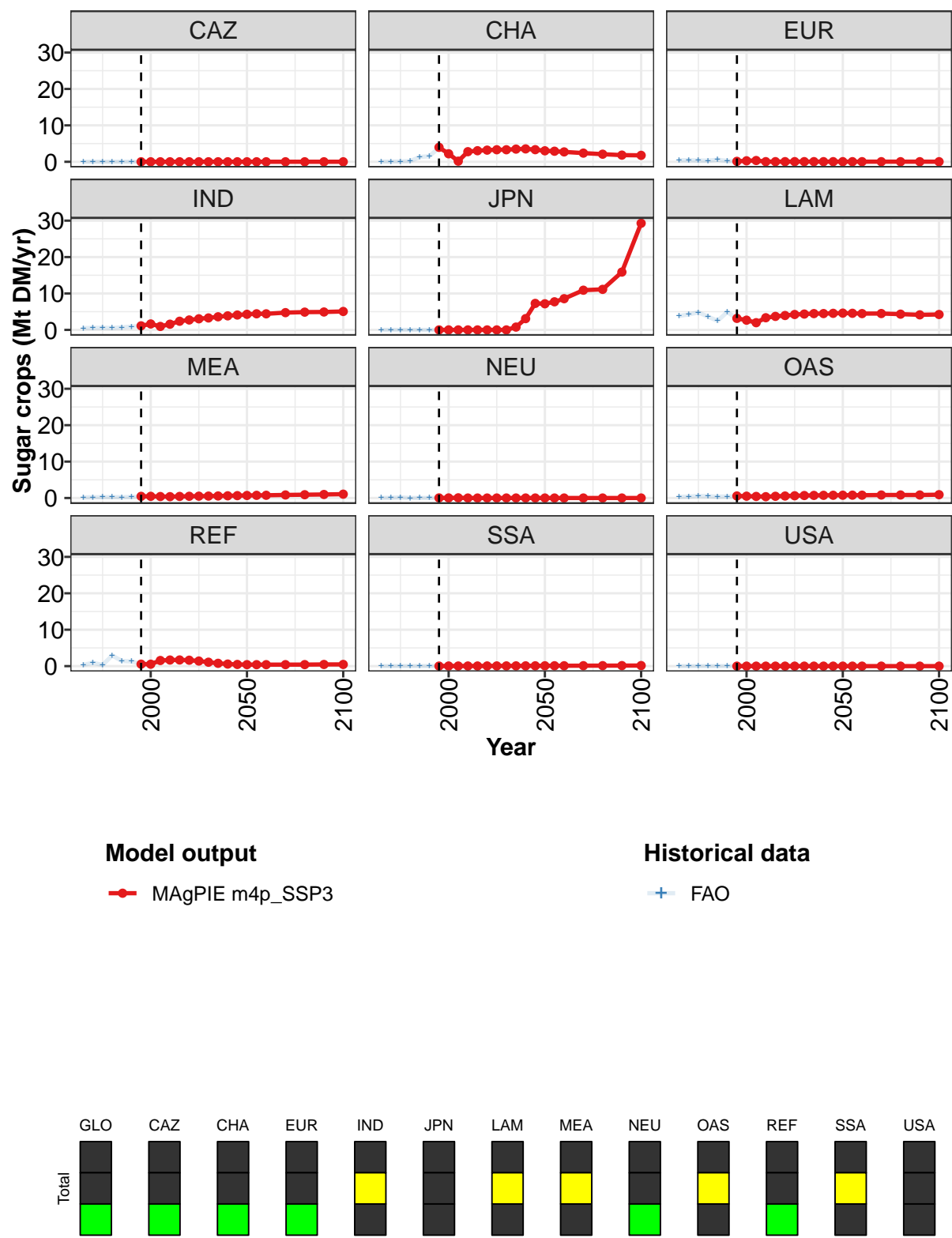


Figure 100: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	10.0	8.3	5.9	10.2	11.8	12.6	13.2	13.4	14.5	17.0	21.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	4.0	2.2	0.2	2.8	3.0	3.2	3.3	3.3	3.5	3.5	3.3
EUR	0.1	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	1.1	1.6	1.0	1.6	2.4	2.7	3.0	3.3	3.6	3.9	4.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	3.1	7.3
LAM	3.2	2.7	2.0	3.3	3.7	4.0	4.2	4.4	4.5	4.5	4.6
MEA	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.7
NEU	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.6	0.5	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.7	0.8
REF	0.5	0.5	1.6	1.7	1.7	1.6	1.4	1.1	0.8	0.6	0.5
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 299: MAgPIE m4p-SSP3 — Demand—Feed—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

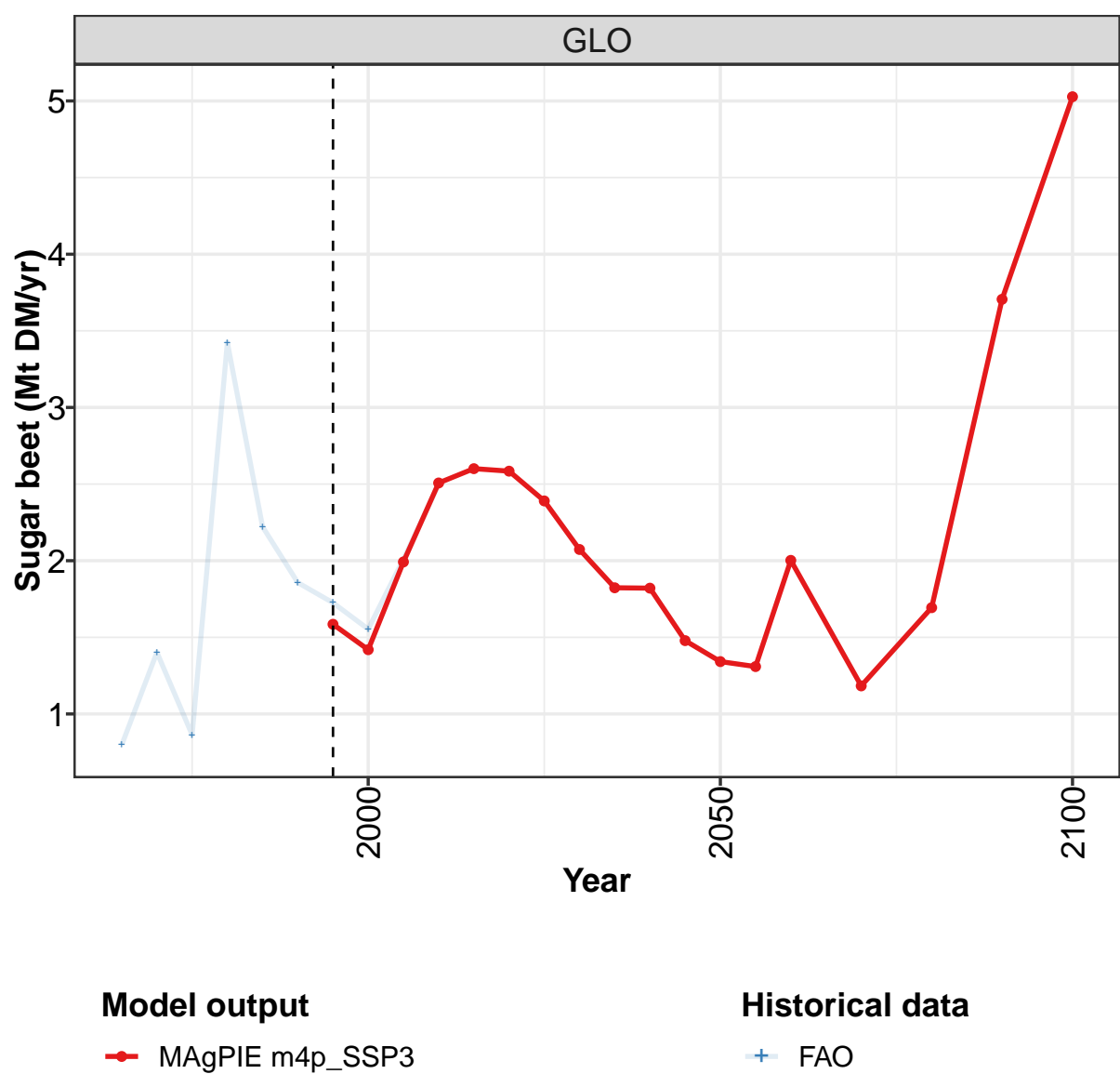
	2050	2055	2060	2070	2080	2090	2100
GLO	21.1	21.7	22.3	24.8	24.7	29.2	43.0
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	3.0	2.9	2.7	2.4	2.1	1.8	1.8
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	4.3	4.4	4.4	4.7	4.9	4.9	5.1
JPN	7.2	7.7	8.6	10.9	11.1	15.9	29.3
LAM	4.6	4.6	4.5	4.5	4.3	4.1	4.2
MEA	0.7	0.7	0.8	0.8	0.9	1.0	1.1
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.8	0.8	0.8	0.8	0.8	0.8	0.9
REF	0.4	0.4	0.4	0.4	0.4	0.5	0.5
SSA	0.1	0.1	0.1	0.1	0.1	0.1	0.2
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 300: MAgPIE m4p-SSP3 — Demand—Feed—Crops—Sugar crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.7	6.9	7.2	8.3	7.1	9.7	9.8	8.3	5.7	10.0
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.0	0.1	0.2	1.3	1.5	3.9	2.2	0.2	2.8
EUR	0.4	0.4	0.4	0.3	0.6	0.3	0.1	0.3	0.4	0.0
IND	0.5	0.5	0.6	0.5	0.7	0.9	1.1	1.6	1.0	1.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.8	4.2	4.8	3.6	2.5	4.9	3.1	2.6	1.8	3.2
MEA	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4
NEU	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0
OAS	0.3	0.4	0.6	0.5	0.4	0.4	0.5	0.5	0.5	0.4
REF	0.3	0.9	0.3	2.9	1.4	1.3	0.7	0.7	1.6	1.7
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 301: FAO — Demand—Feed—Crops—Sugar crops (Mt DM/yr)

6.2.18
Sugar crops—Sugar beet



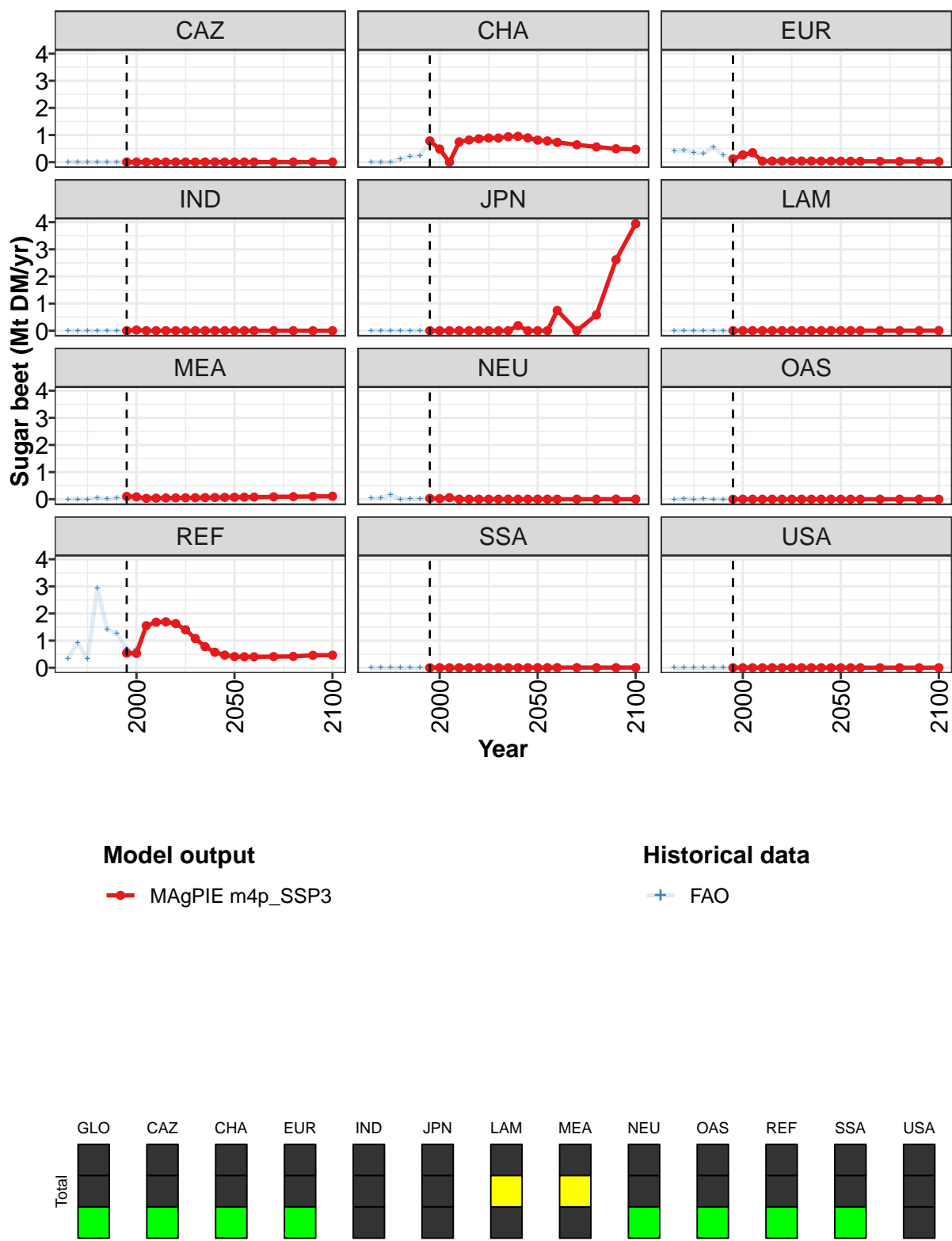


Figure 101: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.59	1.42	1.99	2.51	2.60	2.58	2.39	2.07	1.82	1.82	1.48
CAZ	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.78	0.48	0.00	0.75	0.82	0.86	0.89	0.89	0.94	0.95	0.90
EUR	0.12	0.27	0.35	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
IND	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.10	0.09	0.03	0.04	0.05	0.05	0.05	0.06	0.06	0.06	0.07
NEU	0.03	0.02	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.54	0.53	1.55	1.68	1.69	1.63	1.40	1.08	0.78	0.57	0.47
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 302: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

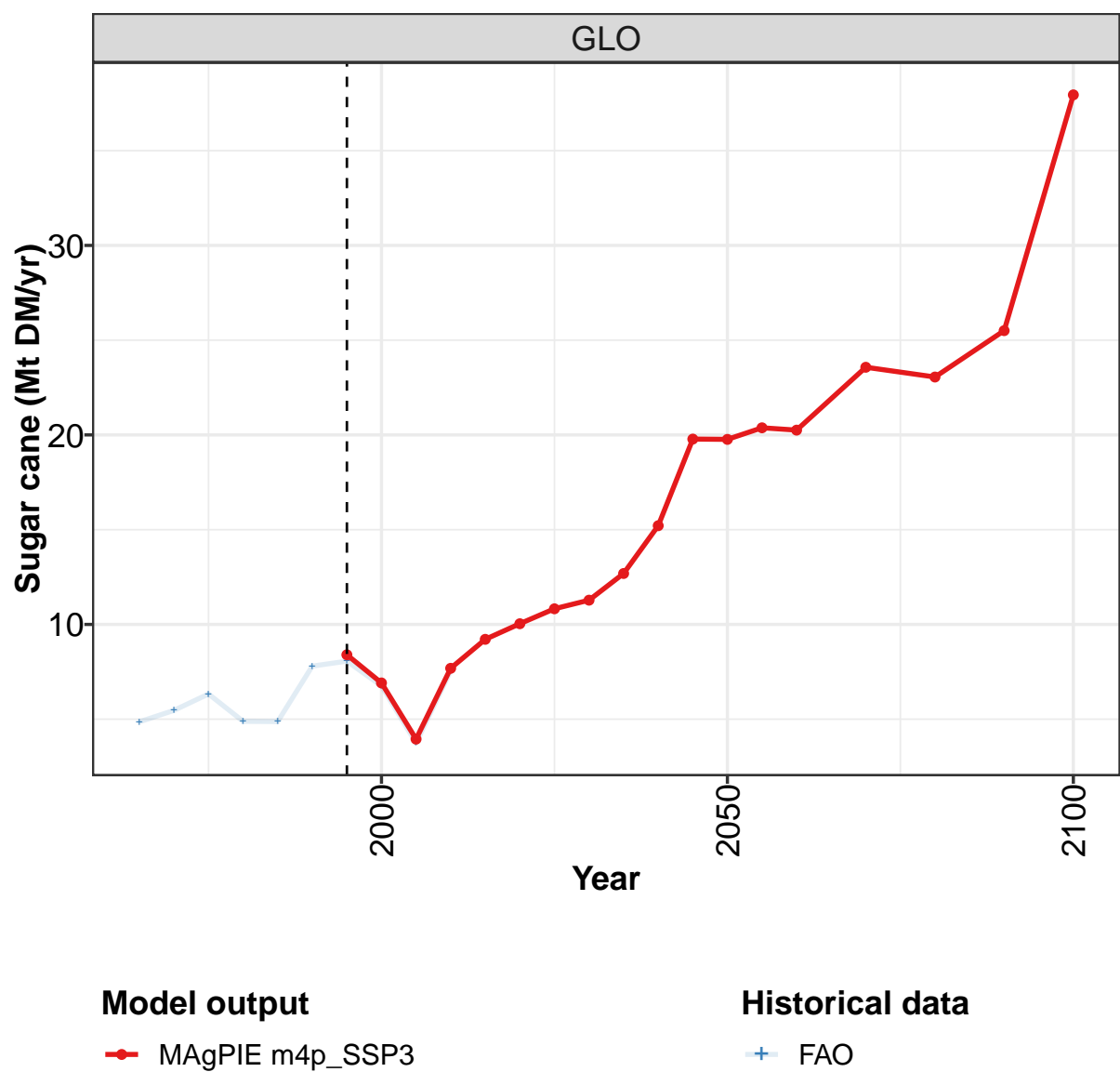
	2050	2055	2060	2070	2080	2090	2100
GLO	1.34	1.31	2.00	1.18	1.69	3.71	5.03
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.81	0.78	0.73	0.64	0.56	0.49	0.48
EUR	0.04	0.03	0.03	0.03	0.03	0.02	0.02
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.75	0.00	0.58	2.62	3.94
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.07	0.08	0.08	0.09	0.09	0.10	0.11
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.41	0.41	0.40	0.41	0.42	0.46	0.46
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 303: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.80	1.40	0.86	3.42	2.22	1.86	1.73	1.55	2.01	2.50
CAZ	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.12	0.22	0.24	0.76	0.48	0.00	0.74
EUR	0.41	0.44	0.36	0.31	0.56	0.25	0.12	0.28	0.35	0.04
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.06	0.01	0.05	0.12	0.09	0.03	0.04
NEU	0.03	0.05	0.17	0.00	0.02	0.02	0.04	0.03	0.07	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.34	0.90	0.33	2.92	1.42	1.28	0.67	0.67	1.55	1.67
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 304: FAO — Demand—Feed—Crops—Sugar crops—Sugar beet (Mt DM/yr)

6.2.19
Sugar crops—Sugar cane



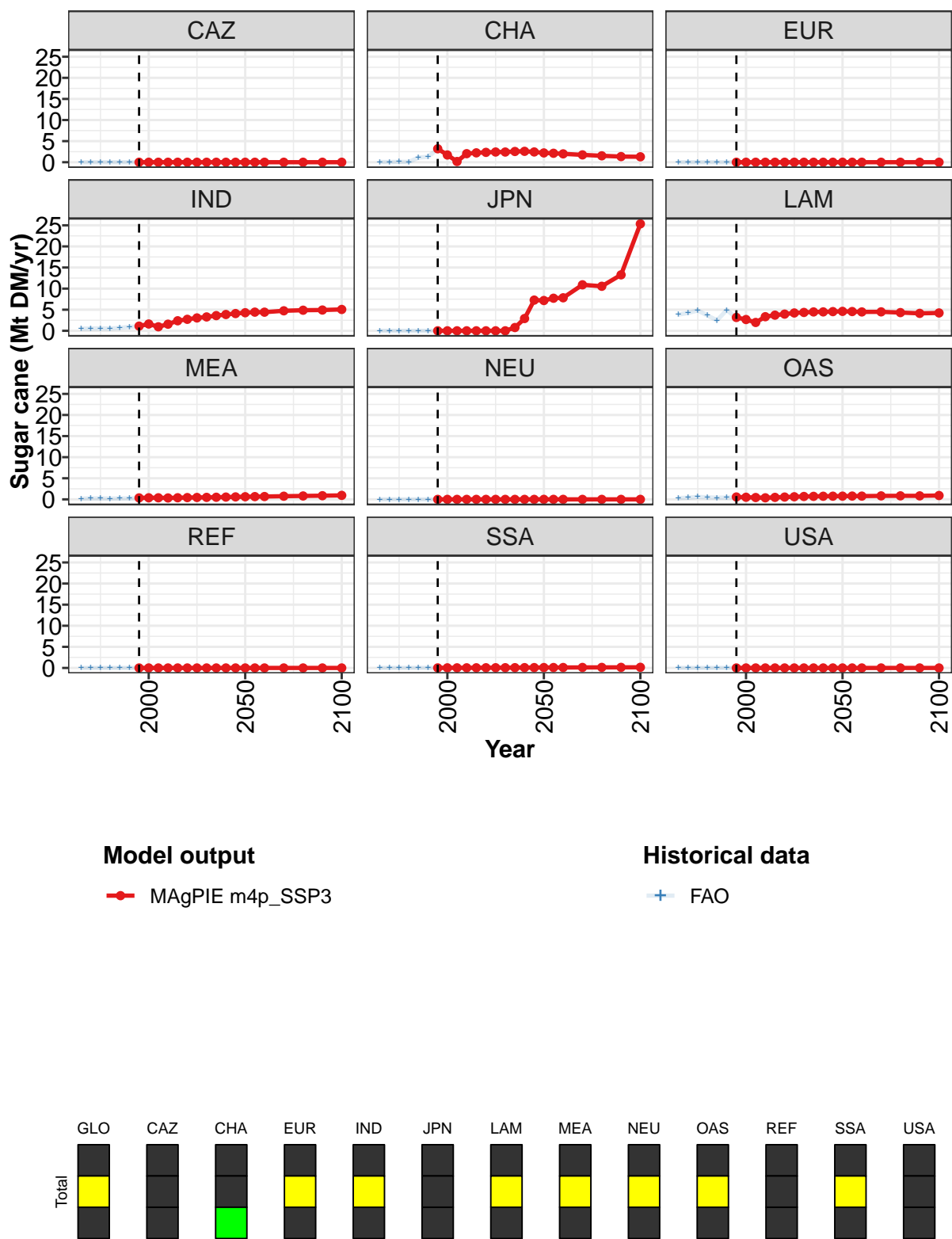


Figure 102: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	8.4	6.9	3.9	7.7	9.2	10.0	10.8	11.3	12.7	15.2	19.8
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	3.2	1.7	0.2	2.0	2.2	2.3	2.4	2.4	2.5	2.6	2.4
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	1.1	1.6	1.0	1.6	2.4	2.7	3.0	3.3	3.6	3.9	4.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.9	7.3
LAM	3.2	2.7	2.0	3.3	3.7	4.0	4.2	4.4	4.5	4.5	4.5
MEA	0.4	0.4	0.4	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.6
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.6	0.5	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.7	0.8
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 305: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 1/2]

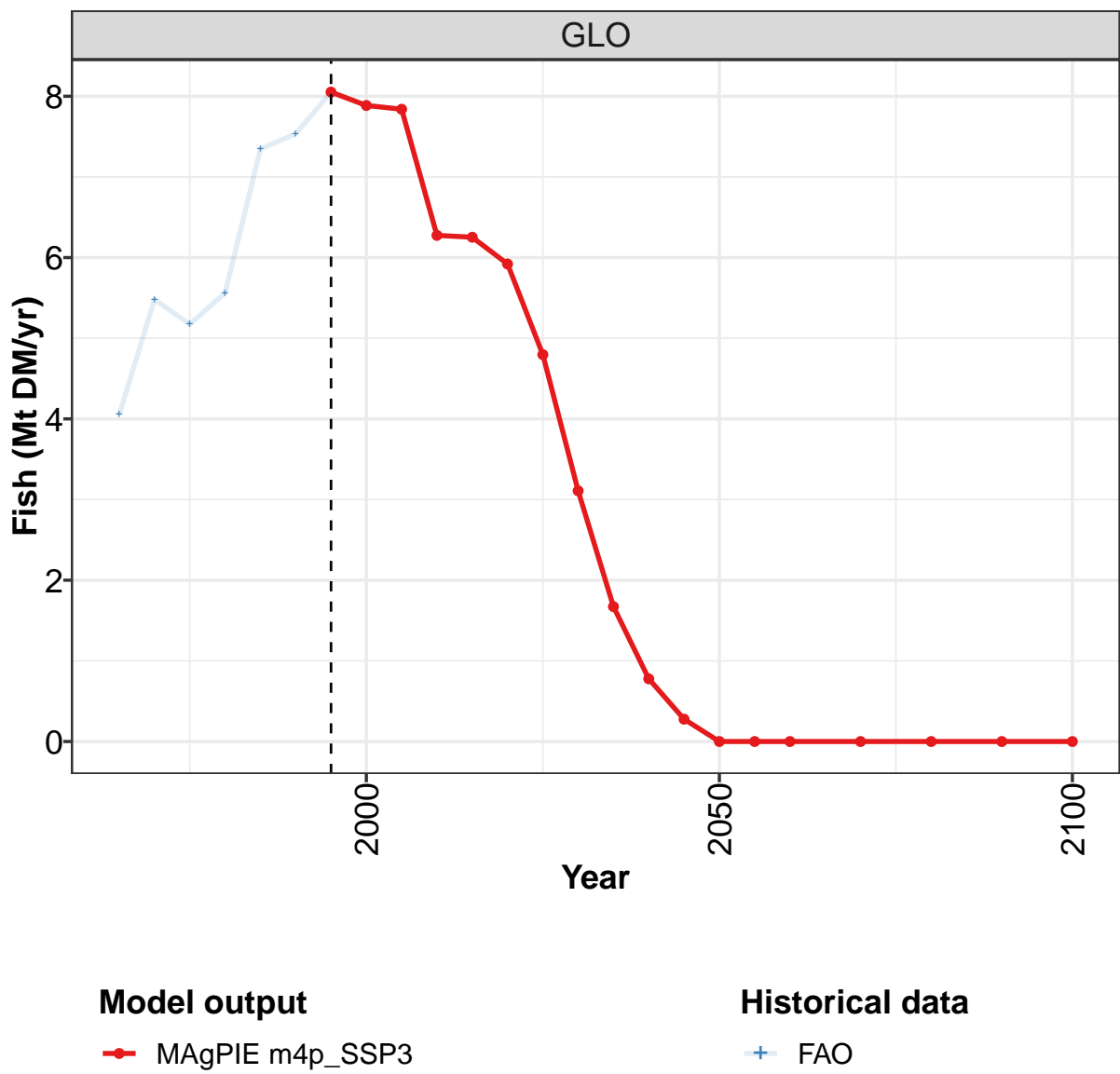
	2050	2055	2060	2070	2080	2090	2100
GLO	19.8	20.4	20.3	23.6	23.1	25.5	37.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	2.2	2.1	2.0	1.7	1.5	1.3	1.3
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	4.3	4.4	4.4	4.7	4.9	4.9	5.1
JPN	7.2	7.7	7.8	10.9	10.6	13.3	25.3
LAM	4.6	4.6	4.5	4.5	4.3	4.1	4.2
MEA	0.6	0.7	0.7	0.8	0.8	0.9	0.9
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.8	0.8	0.8	0.8	0.8	0.8	0.9
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.1	0.1	0.1	0.1	0.1	0.1	0.2
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 306: MAgPIE m4p_SSP3 — Demand—Feed—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.86	5.46	6.33	4.89	4.87	7.80	8.06	6.75	3.74	7.55
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.05	0.04	0.10	0.06	1.09	1.28	3.11	1.71	0.17	2.02
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.49	0.55	0.58	0.52	0.69	0.91	1.12	1.62	0.96	1.58
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	3.83	4.25	4.82	3.62	2.48	4.92	3.06	2.56	1.77	3.20
MEA	0.17	0.22	0.23	0.19	0.21	0.24	0.30	0.34	0.35	0.34
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.30	0.39	0.58	0.49	0.38	0.43	0.46	0.49	0.45	0.37
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 307: FAO — Demand—Feed—Crops—Sugar crops—Sugar cane (Mt DM/yr)

6.3 Fish



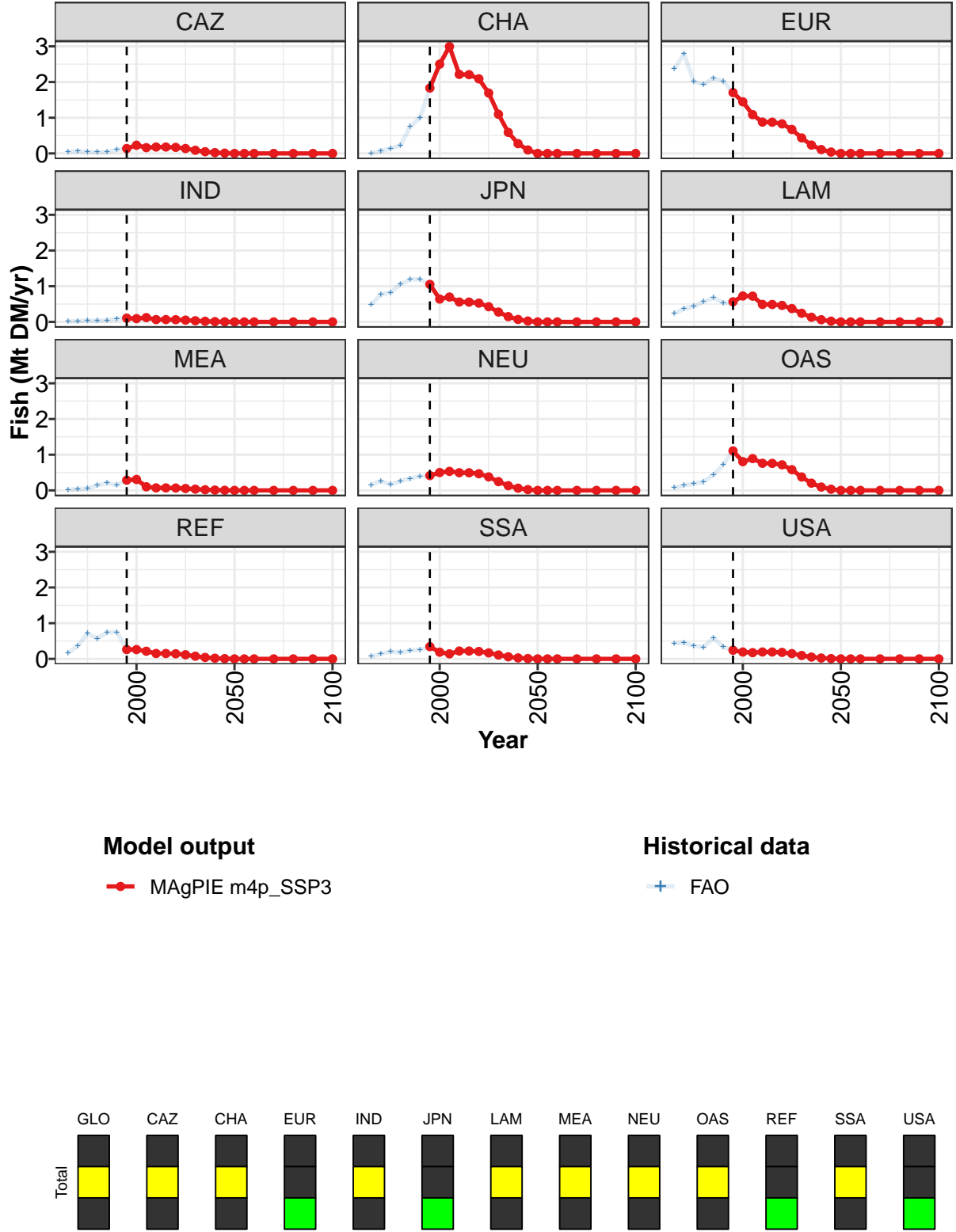


Figure 103: MAgPIE m4p_SSP3 — Demand—Feed—Fish (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	8.05	7.89	7.84	6.28	6.25	5.92	4.80	3.11	1.67	0.78	0.28
CAZ	0.14	0.23	0.16	0.18	0.18	0.17	0.14	0.09	0.05	0.02	0.01
CHA	1.83	2.50	2.99	2.21	2.21	2.09	1.69	1.10	0.59	0.27	0.10
EUR	1.70	1.45	1.09	0.88	0.87	0.83	0.67	0.43	0.23	0.11	0.04
IND	0.11	0.09	0.12	0.07	0.07	0.06	0.05	0.03	0.02	0.01	0.00
JPN	1.05	0.64	0.70	0.56	0.56	0.53	0.43	0.28	0.15	0.07	0.02
LAM	0.56	0.73	0.72	0.49	0.49	0.46	0.37	0.24	0.13	0.06	0.02
MEA	0.29	0.31	0.10	0.07	0.07	0.07	0.05	0.03	0.02	0.01	0.00
NEU	0.41	0.50	0.53	0.50	0.49	0.47	0.38	0.25	0.13	0.06	0.02
OAS	1.11	0.80	0.89	0.76	0.76	0.72	0.58	0.38	0.20	0.09	0.03
REF	0.26	0.26	0.21	0.15	0.15	0.14	0.12	0.07	0.04	0.02	0.01
SSA	0.34	0.19	0.14	0.22	0.22	0.21	0.17	0.11	0.06	0.03	0.01
USA	0.24	0.19	0.18	0.19	0.19	0.18	0.15	0.10	0.05	0.02	0.01

Table 308: MAgPIE m4p_SSP3 — Demand—Feed—Fish (Mt DM/yr) [PART 1/2]

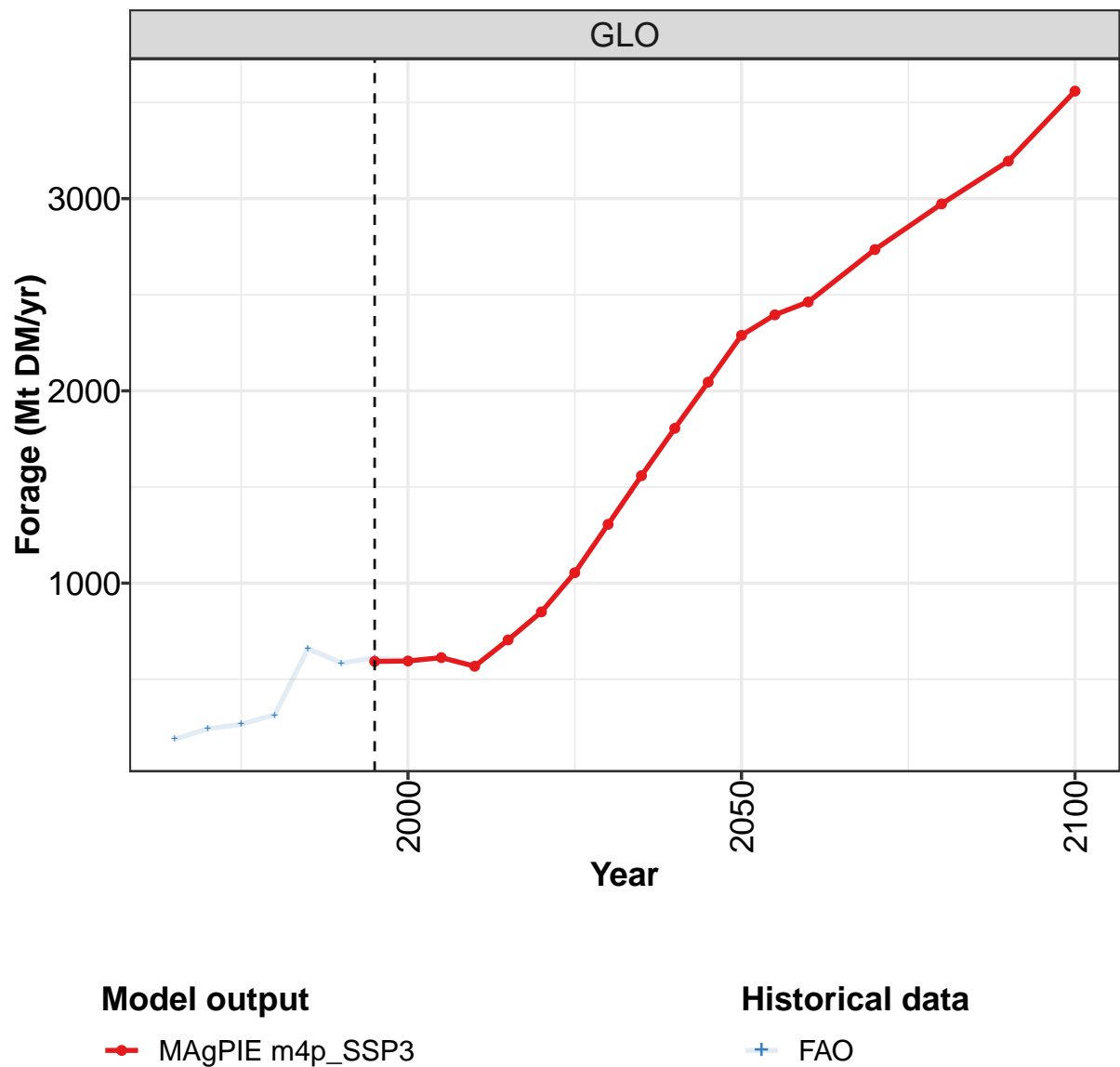
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 309: MAgPIE m4p_SSP3 — Demand—Feed—Fish (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.05	5.48	5.17	5.56	7.35	7.54	8.05	7.89	7.84	6.28
CAZ	0.05	0.07	0.05	0.03	0.04	0.10	0.14	0.23	0.16	0.18
CHA	0.01	0.07	0.14	0.22	0.75	1.00	1.83	2.50	2.99	2.21
EUR	2.37	2.79	2.01	1.93	2.10	2.03	1.70	1.45	1.09	0.88
IND	0.01	0.03	0.04	0.03	0.05	0.09	0.11	0.09	0.12	0.07
JPN	0.48	0.77	0.82	1.05	1.19	1.19	1.05	0.64	0.70	0.56
LAM	0.24	0.36	0.44	0.56	0.68	0.53	0.56	0.73	0.72	0.49
MEA	0.02	0.04	0.05	0.14	0.20	0.15	0.29	0.31	0.10	0.07
NEU	0.15	0.27	0.16	0.26	0.33	0.39	0.41	0.50	0.53	0.50
OAS	0.08	0.14	0.19	0.24	0.44	0.72	1.11	0.80	0.89	0.76
REF	0.16	0.36	0.71	0.57	0.74	0.75	0.26	0.26	0.21	0.15
SSA	0.06	0.14	0.20	0.18	0.23	0.25	0.34	0.19	0.14	0.22
USA	0.43	0.45	0.36	0.33	0.59	0.33	0.24	0.19	0.18	0.19

Table 310: FAO — Demand—Feed—Fish (Mt DM/yr)

6.4 Forage



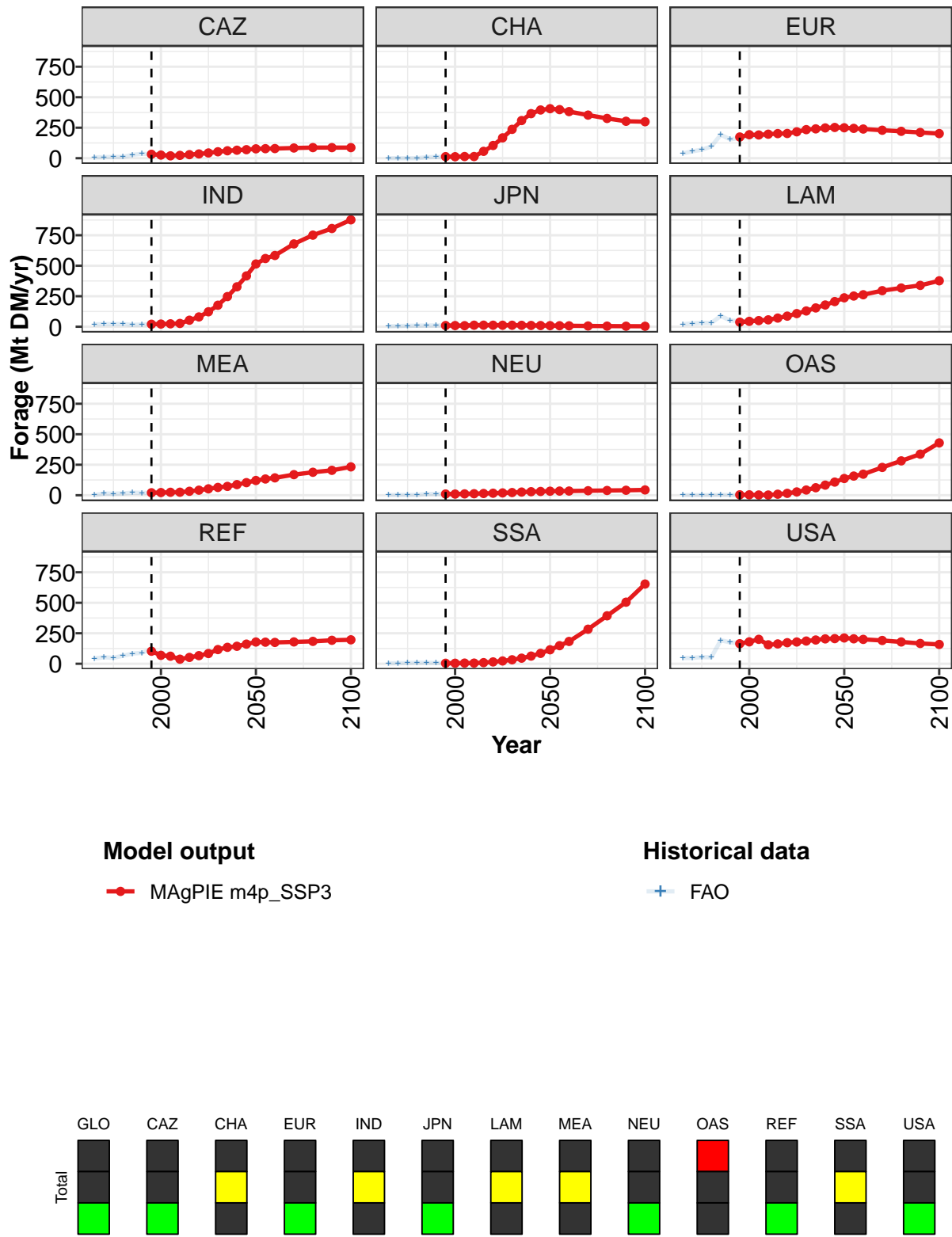


Figure 104: MAgPIE m4p_SSP3 — Demand—Feed—Forage (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	593	595	613	568	705	850	1054	1306	1559	1805	2045
CAZ	32	26	20	23	29	35	43	53	61	66	70
CHA	13	12	14	14	56	104	167	237	309	365	395
EUR	174	193	191	197	202	203	217	234	241	248	252
IND	20	22	24	27	53	81	123	176	247	327	417
JPN	10	10	9	13	13	12	12	12	11	11	10
LAM	37	44	50	56	71	87	108	129	154	178	206
MEA	21	22	24	25	33	41	53	64	73	87	103
NEU	10	10	11	13	15	17	19	22	26	29	31
OAS	4	3	2	2	9	16	27	43	62	83	108
REF	103	69	62	38	52	67	84	116	135	143	161
SSA	4	4	5	5	9	15	23	33	46	63	85
USA	165	180	200	155	163	173	178	186	195	204	206

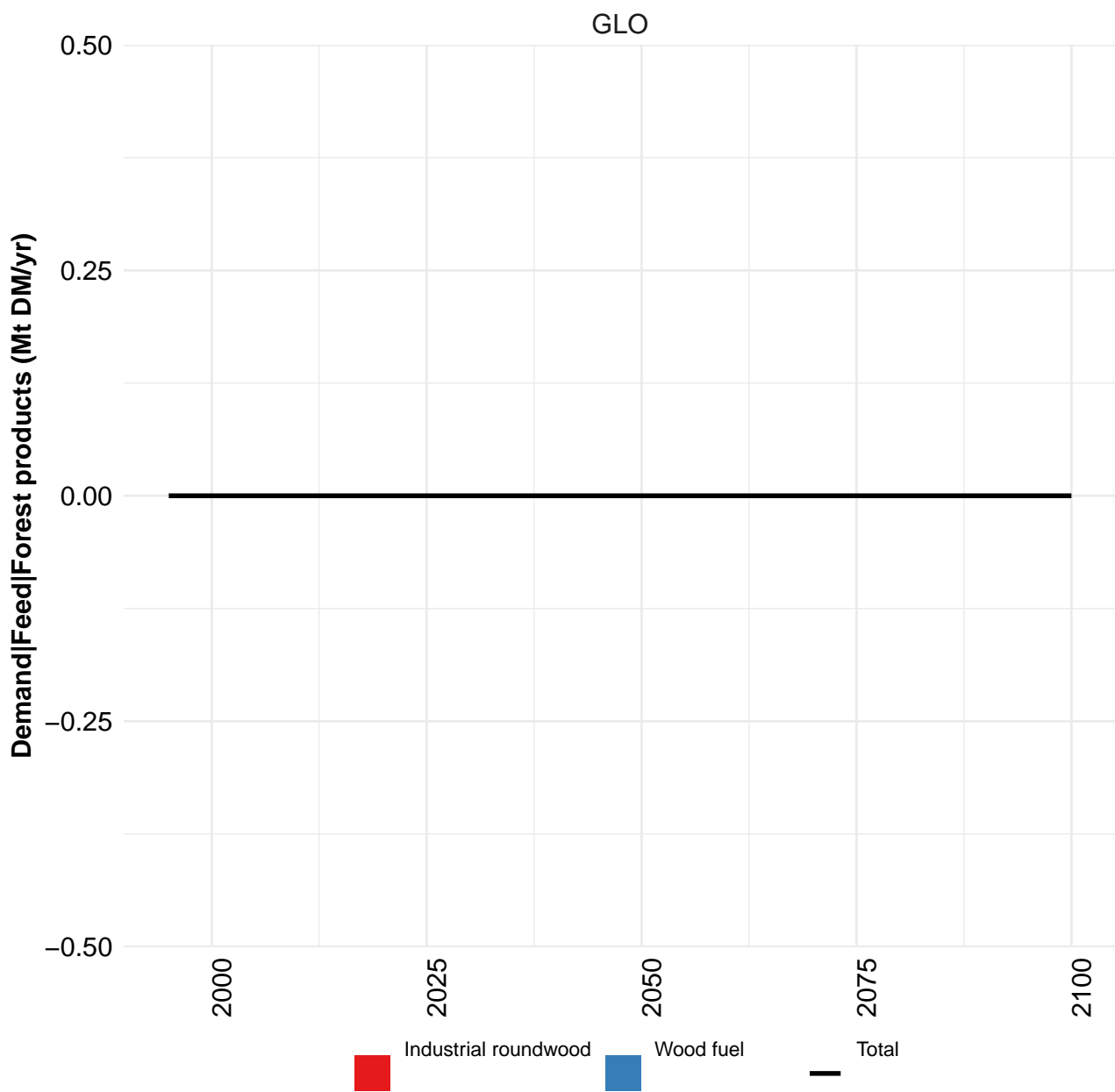
Table 311: MAgPIE m4p_SSP3 — Demand—Feed—Forage (Mt DM/yr) [PART 1/2]

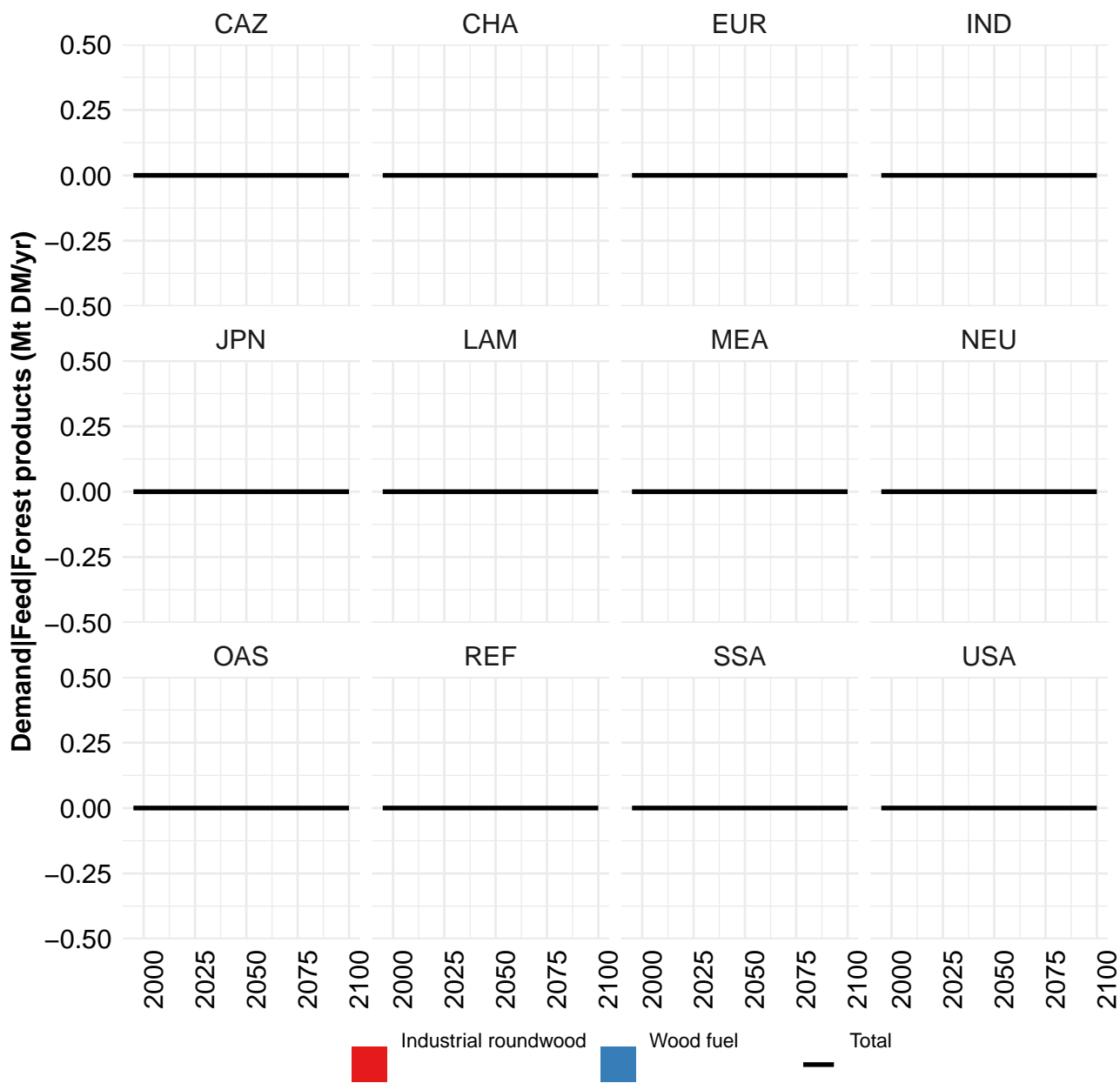
	2050	2055	2060	2070	2080	2090	2100
GLO	2289	2395	2462	2735	2972	3195	3559
CAZ	77	78	79	84	87	87	87
CHA	406	398	382	354	326	303	299
EUR	250	245	239	229	221	211	202
IND	514	559	584	679	751	805	876
JPN	9	8	8	6	5	4	4
LAM	237	252	262	296	318	339	377
MEA	121	133	143	169	188	204	233
NEU	33	34	35	37	39	41	44
OAS	137	157	173	228	282	337	429
REF	178	177	175	179	184	192	196
SSA	115	148	183	283	393	505	654
USA	212	205	200	191	179	166	159

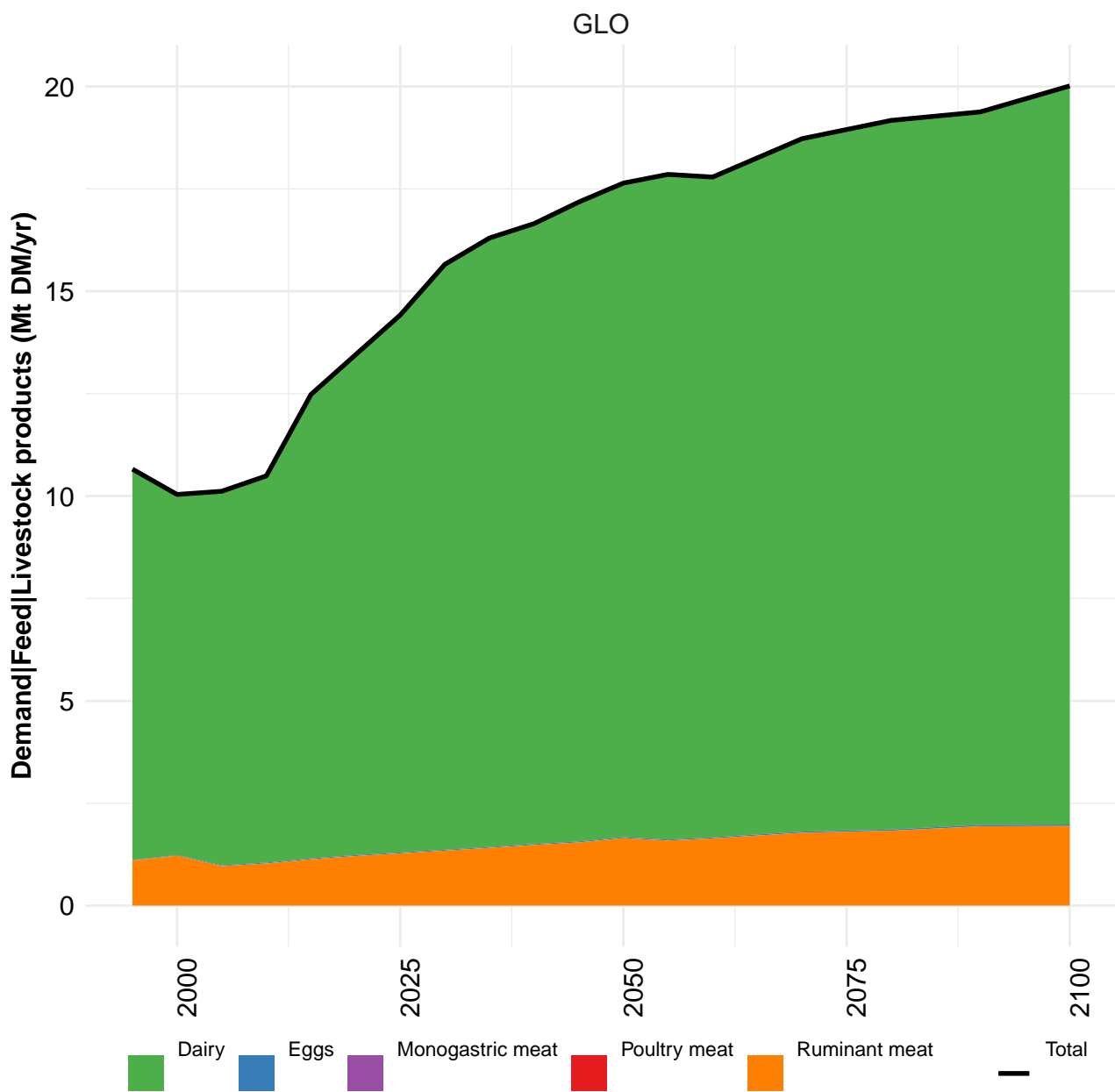
Table 312: MAgPIE m4p_SSP3 — Demand—Feed—Forage (Mt DM/yr) [PART 2/2]

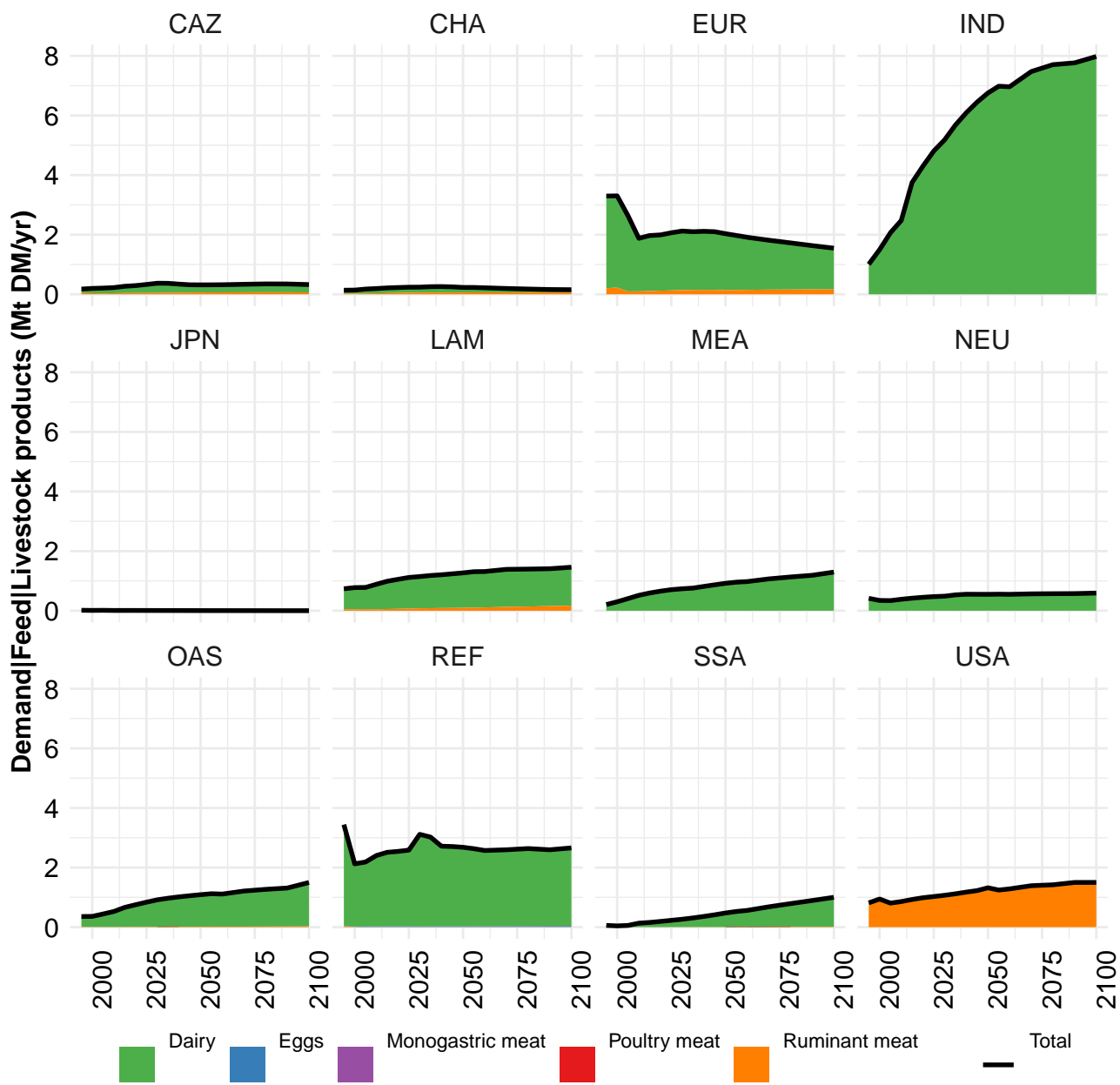
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	189	242	266	314	660	584	611	598	609	570
CAZ	7	9	10	10	28	36	32	30	26	29
CHA	0	0	0	0	8	10	11	12	13	14
EUR	39	56	70	96	192	155	167	178	179	189
IND	19	21	21	22	15	18	20	22	25	28
JPN	3	6	7	9	10	10	10	9	9	13
LAM	21	27	33	31	88	51	46	50	51	54
MEA	2	14	13	15	21	19	20	21	23	25
NEU	2	2	3	3	10	11	11	10	12	13
OAS	1	1	1	1	3	2	2	2	2	2
REF	44	53	49	66	83	90	119	75	63	37
SSA	4	5	6	9	9	7	5	5	5	5
USA	47	48	54	53	192	175	170	185	201	162

Table 313: FAO — Demand—Feed—Forage (Mt DM/yr)

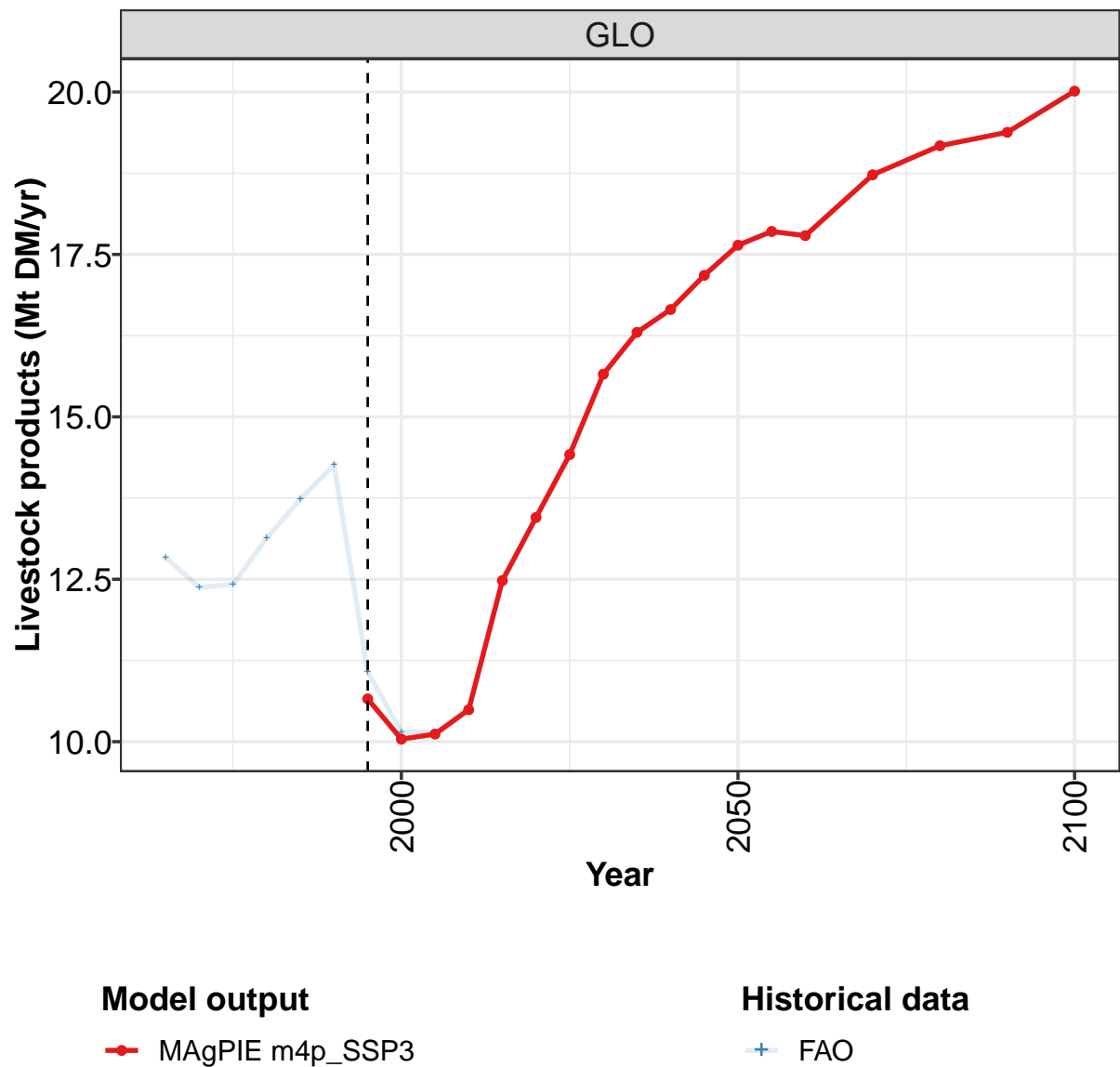








6.5 Livestock products



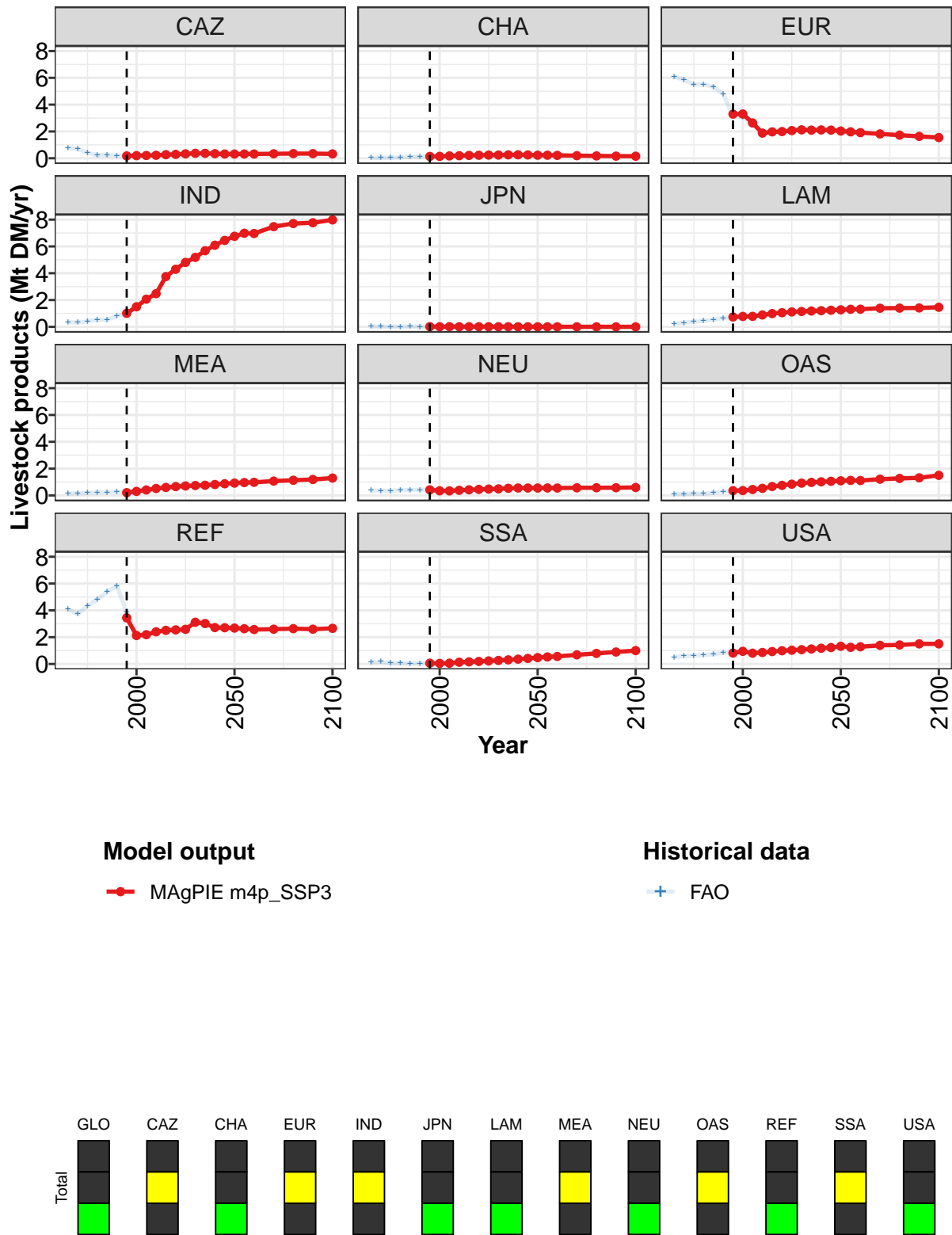


Figure 105: MAgPIE m4p_SSP3 — Demand—Feed—Livestock products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	10.7	10.0	10.1	10.5	12.5	13.5	14.4	15.7	16.3	16.7	17.2
CAZ	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.3	0.3
CHA	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2
EUR	3.3	3.3	2.6	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.1
IND	1.0	1.5	2.1	2.5	3.8	4.3	4.8	5.2	5.7	6.1	6.4
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.7	0.8	0.8	0.9	1.0	1.1	1.1	1.1	1.2	1.2	1.2
MEA	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.8	0.8	0.9
NEU	0.4	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
OAS	0.4	0.4	0.4	0.5	0.7	0.8	0.8	0.9	1.0	1.0	1.1
REF	3.4	2.1	2.2	2.4	2.5	2.5	2.6	3.1	3.0	2.7	2.7
SSA	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4
USA	0.8	0.9	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2

Table 314: MAgPIE m4p-SSP3 — Demand—Feed—Livestock products (Mt DM/yr) [PART 1/2]

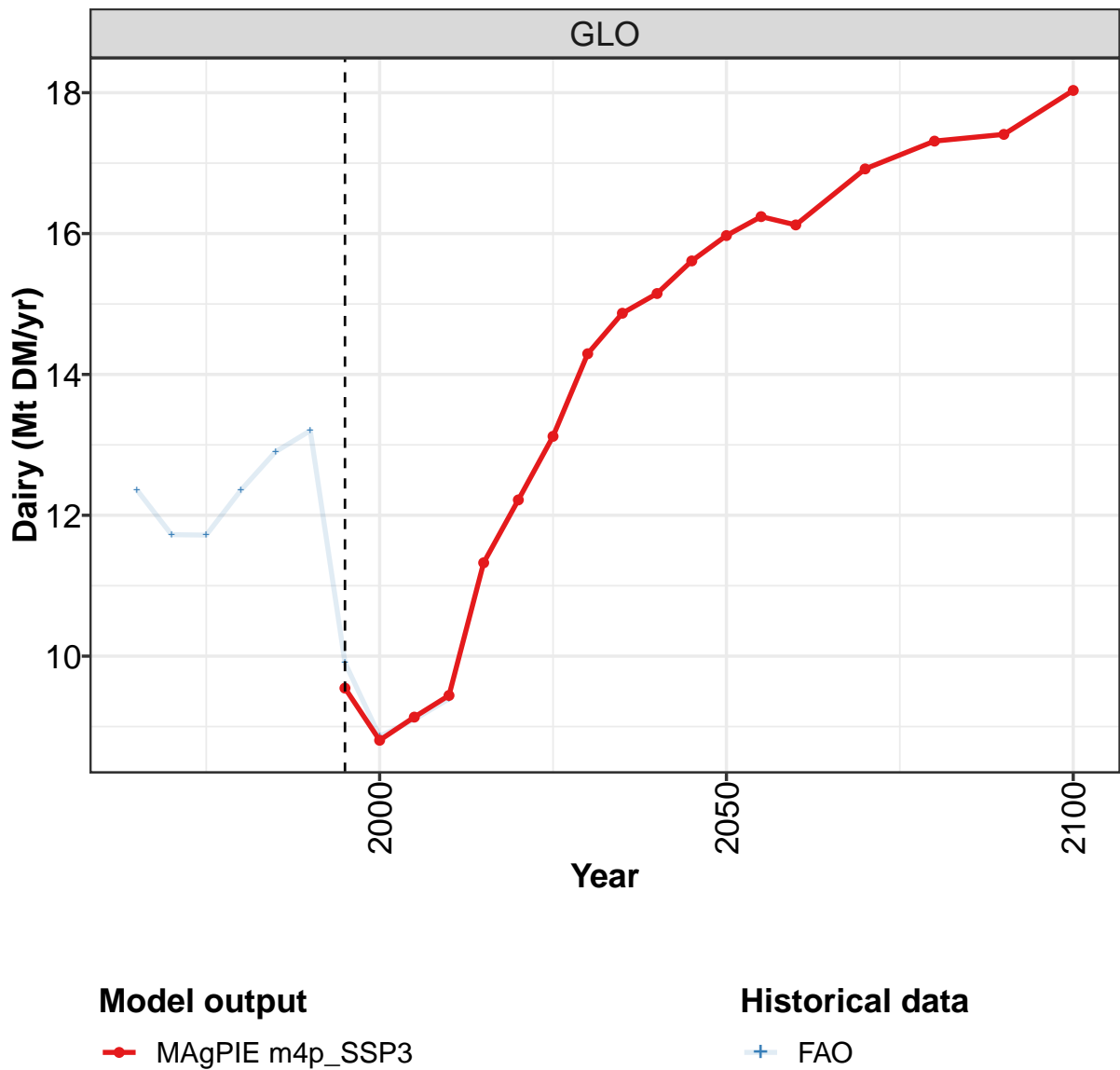
	2050	2055	2060	2070	2080	2090	2100
GLO	17.6	17.9	17.8	18.7	19.2	19.4	20.0
CAZ	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CHA	0.2	0.2	0.2	0.2	0.2	0.2	0.2
EUR	2.0	2.0	1.9	1.8	1.7	1.6	1.5
IND	6.8	7.0	7.0	7.5	7.7	7.8	8.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.3	1.3	1.3	1.4	1.4	1.4	1.5
MEA	0.9	1.0	1.0	1.1	1.1	1.2	1.3
NEU	0.6	0.6	0.6	0.6	0.6	0.6	0.6
OAS	1.1	1.1	1.1	1.2	1.3	1.3	1.5
REF	2.7	2.6	2.6	2.6	2.6	2.6	2.7
SSA	0.5	0.5	0.6	0.7	0.8	0.9	1.0
USA	1.3	1.2	1.3	1.4	1.4	1.5	1.5

Table 315: MAgPIE m4p-SSP3 — Demand—Feed—Livestock products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	12.8	12.4	12.4	13.1	13.7	14.3	11.1	10.2	10.1	10.5
CAZ	0.8	0.7	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.3
CHA	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
EUR	6.1	5.9	5.5	5.5	5.3	4.8	3.1	3.1	2.5	1.8
IND	0.3	0.3	0.4	0.5	0.5	0.8	1.0	1.5	2.1	2.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.3	0.4	0.4	0.5	0.7	0.7	0.8	0.8	0.9
MEA	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5
NEU	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4
OAS	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.5	0.5
REF	4.1	3.7	4.3	4.8	5.4	5.8	3.8	2.2	2.2	2.4
SSA	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
USA	0.5	0.6	0.6	0.7	0.7	0.8	0.9	1.0	0.9	0.9

Table 316: FAO — Demand—Feed—Livestock products (Mt DM/yr)

6.5.1
Dairy



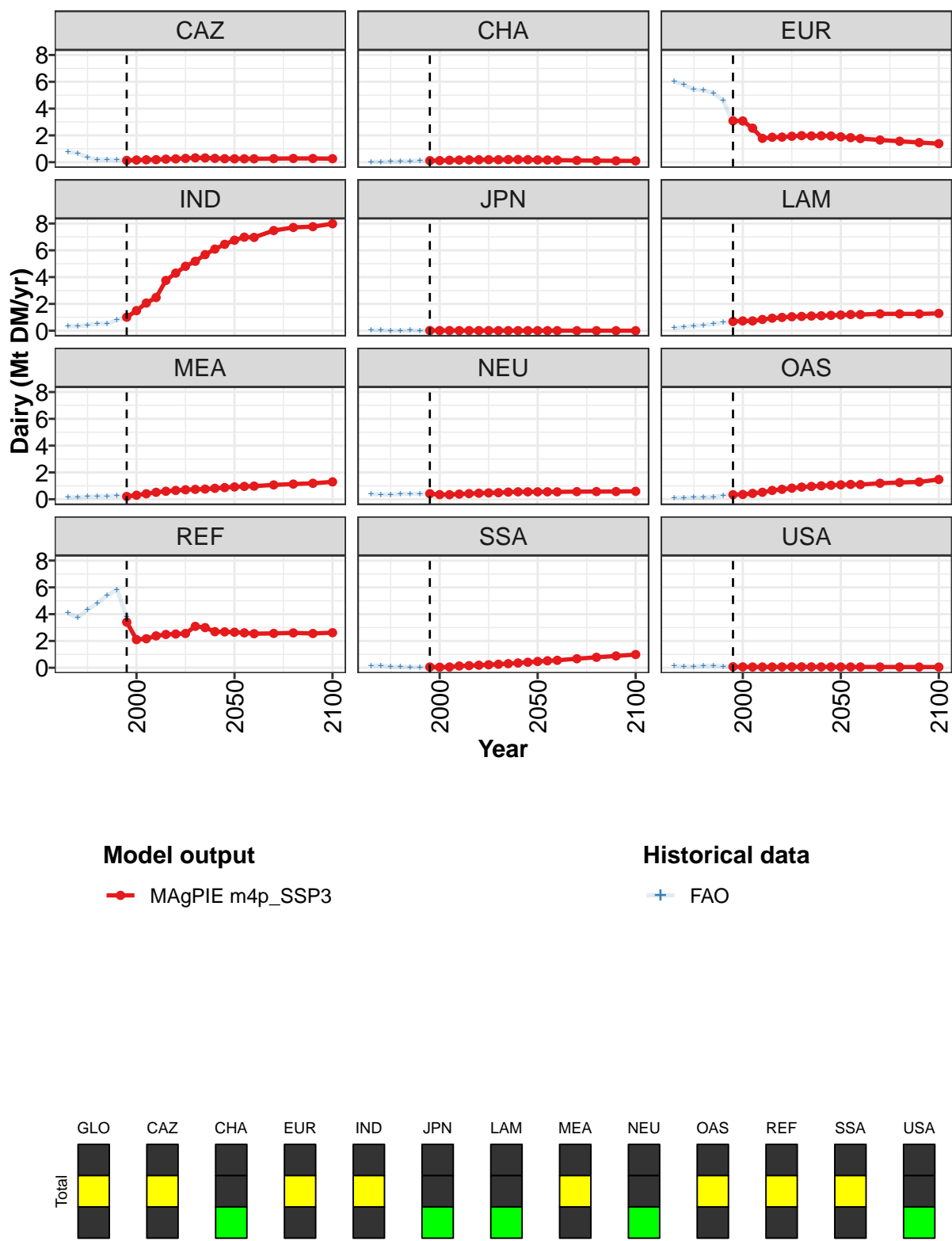


Figure 106: MAgPIE m4p_SSP3 — Demand—Feed—Livestock products—Dairy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9.5	8.8	9.1	9.4	11.3	12.2	13.1	14.3	14.9	15.1	15.6
CAZ	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
CHA	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
EUR	3.1	3.1	2.5	1.8	1.9	1.9	1.9	2.0	2.0	2.0	2.0
IND	1.0	1.5	2.1	2.5	3.8	4.3	4.8	5.2	5.7	6.1	6.4
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.7	0.7	0.7	0.8	0.9	1.0	1.0	1.1	1.1	1.1	1.1
MEA	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.8	0.8	0.9
NEU	0.4	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
OAS	0.3	0.4	0.4	0.5	0.7	0.7	0.8	0.9	1.0	1.0	1.0
REF	3.4	2.1	2.2	2.4	2.5	2.5	2.6	3.1	3.0	2.7	2.7
SSA	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 317: MAgPIE m4p_SSP3 — Demand—Feed—Livestock products—Dairy (Mt DM/yr) [PART 1/2]

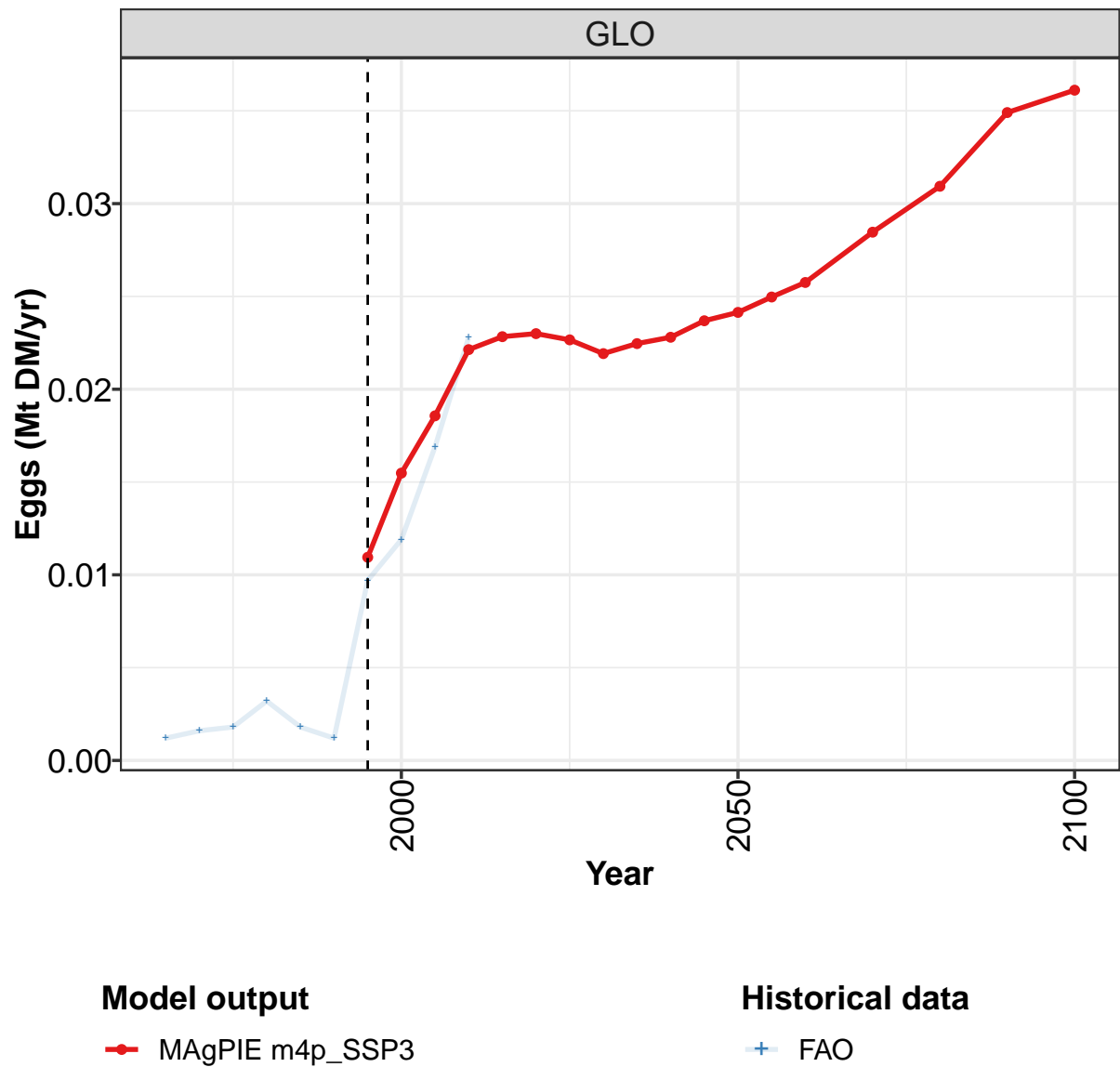
	2050	2055	2060	2070	2080	2090	2100
GLO	16.0	16.2	16.1	16.9	17.3	17.4	18.0
CAZ	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CHA	0.2	0.2	0.2	0.1	0.1	0.1	0.1
EUR	1.9	1.8	1.8	1.7	1.6	1.5	1.4
IND	6.8	7.0	7.0	7.5	7.7	7.8	8.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.2	1.2	1.2	1.3	1.3	1.3	1.3
MEA	0.9	1.0	1.0	1.1	1.1	1.2	1.3
NEU	0.6	0.6	0.6	0.6	0.6	0.6	0.6
OAS	1.1	1.1	1.1	1.2	1.2	1.3	1.5
REF	2.7	2.6	2.5	2.6	2.6	2.6	2.6
SSA	0.5	0.5	0.6	0.7	0.8	0.9	1.0
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 318: MAgPIE m4p_SSP3 — Demand—Feed—Livestock products—Dairy (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	12.4	11.7	11.7	12.4	12.9	13.2	9.9	8.9	9.1	9.4
CAZ	0.8	0.7	0.4	0.2	0.2	0.2	0.1	0.2	0.2	0.2
CHA	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2
EUR	6.0	5.8	5.4	5.4	5.2	4.6	3.0	2.9	2.4	1.7
IND	0.3	0.3	0.4	0.5	0.5	0.8	1.0	1.5	2.1	2.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.7	0.7	0.8
MEA	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5
NEU	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4
OAS	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.5
REF	4.1	3.7	4.3	4.8	5.4	5.8	3.8	2.2	2.2	2.4
SSA	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
USA	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1

Table 319: FAO — Demand—Feed—Livestock products—Dairy (Mt DM/yr)

6.5.2
Eggs



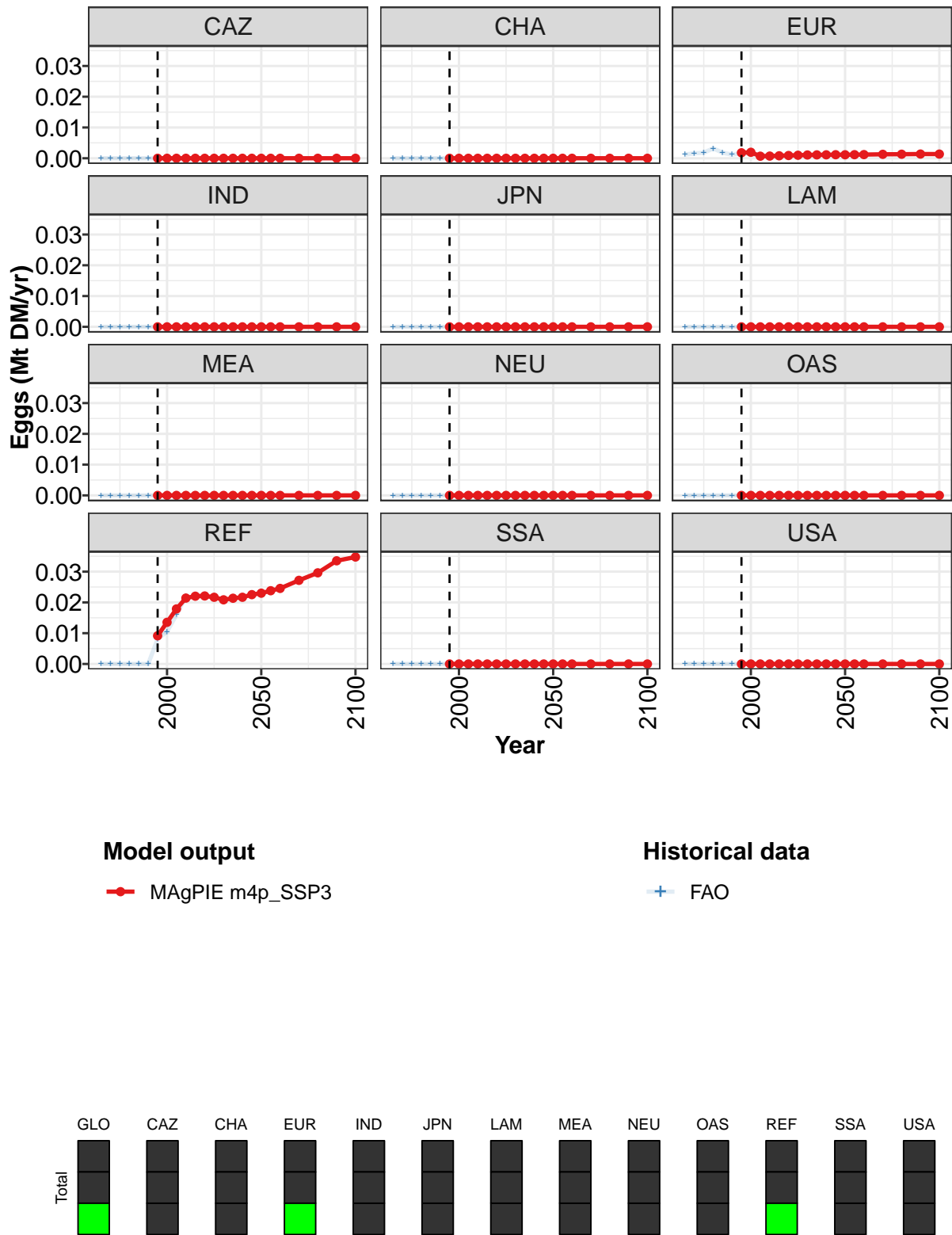


Figure 107: MAgPIE m4p_SSP3 — Demand—Feed—Livestock products—Eggs (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0109	0.0155	0.0186	0.0221	0.0228	0.0230	0.0227	0.0219	0.0225	0.0228	0.0237
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0018	0.0019	0.0007	0.0007	0.0008	0.0009	0.0010	0.0011	0.0011	0.0011	0.0012
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0092	0.0135	0.0179	0.0214	0.0220	0.0221	0.0217	0.0208	0.0214	0.0217	0.0225
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 320: MAgPIE m4p_SSP3 — Demand—Feed—Livestock products—Eggs (Mt DM/yr) [PART 1/2]

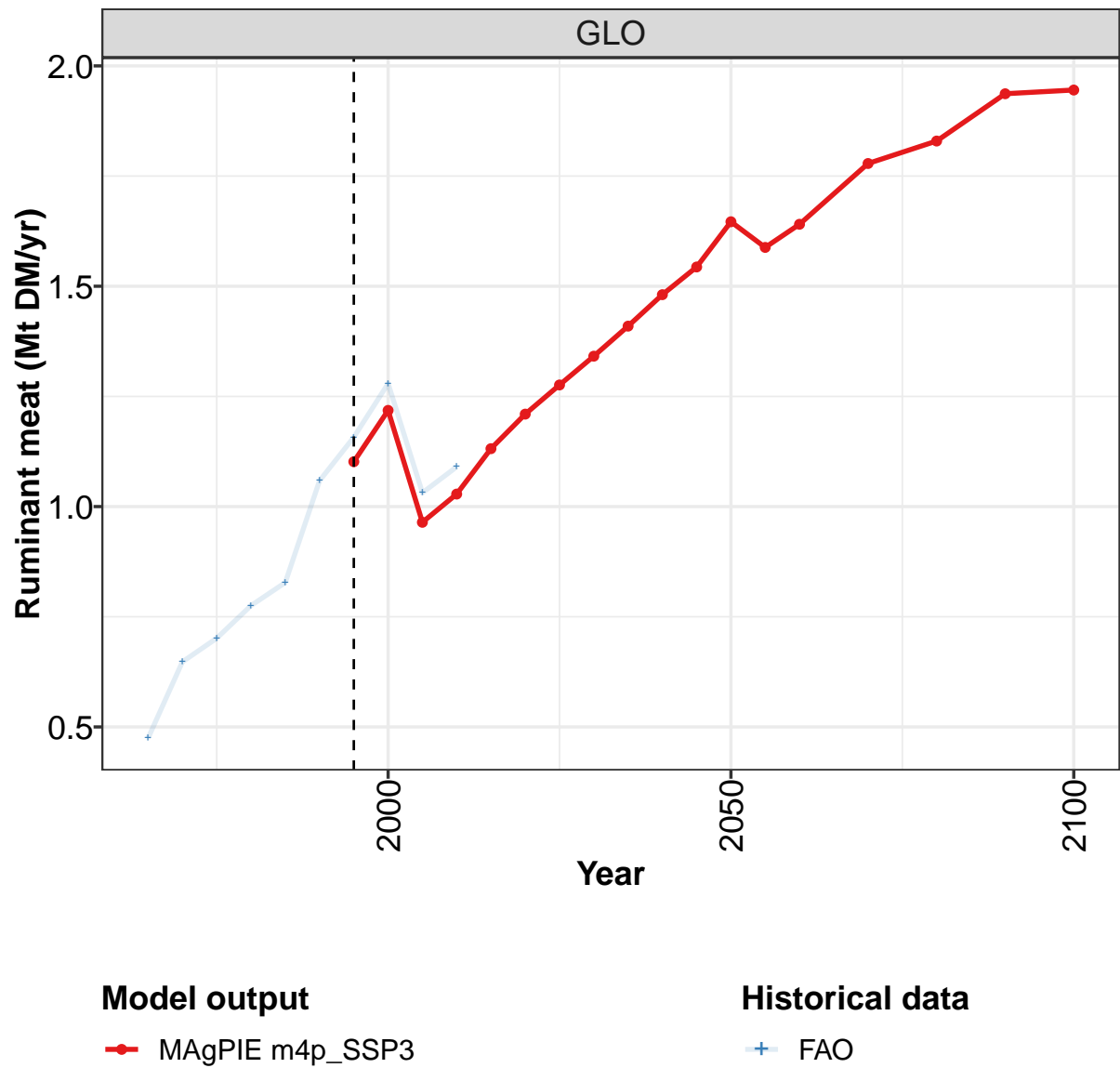
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0241	0.0250	0.0258	0.0285	0.0309	0.0349	0.0361
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0011	0.0012	0.0012	0.0013	0.0013	0.0014	0.0014
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0230	0.0238	0.0246	0.0272	0.0296	0.0335	0.0348
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 321: MAgPIE m4p_SSP3 — Demand—Feed—Livestock products—Eggs (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0012	0.0016	0.0018	0.0032	0.0018	0.0012	0.0097	0.0119	0.0169	0.0228
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0012	0.0016	0.0018	0.0032	0.0018	0.0012	0.0016	0.0014	0.0009	0.0008
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0081	0.0105	0.0160	0.0219
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 322: FAO — Demand—Feed—Livestock products—Eggs (Mt DM/yr)

6.5.3
Ruminant meat



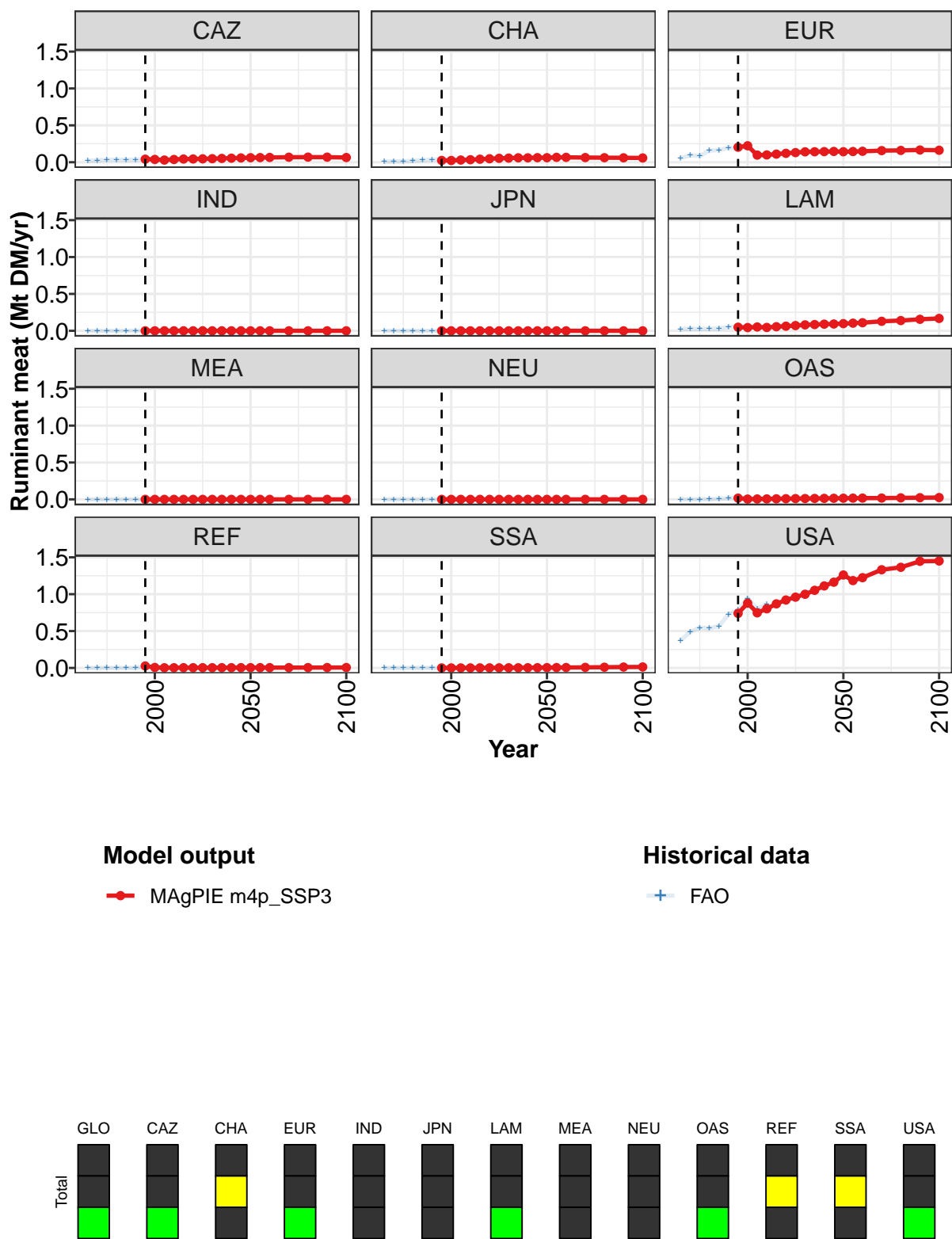


Figure 108: MAgPIE m4p_SSP3 — Demand—Feed—Livestock products—Ruminant meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.10	1.22	0.96	1.03	1.13	1.21	1.28	1.34	1.41	1.48	1.54
CAZ	0.04	0.04	0.03	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.06
CHA	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.06	0.06	0.06
EUR	0.20	0.22	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.14	0.15
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.05	0.04	0.05	0.05	0.06	0.06	0.07	0.08	0.08	0.09	0.09
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.02	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
REF	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.74	0.88	0.75	0.80	0.87	0.92	0.96	1.00	1.05	1.11	1.16

Table 323: MAgPIE m4p_SSP3 — Demand—Feed—Livestock products—Ruminant meat (Mt DM/yr) [PART 1/2]

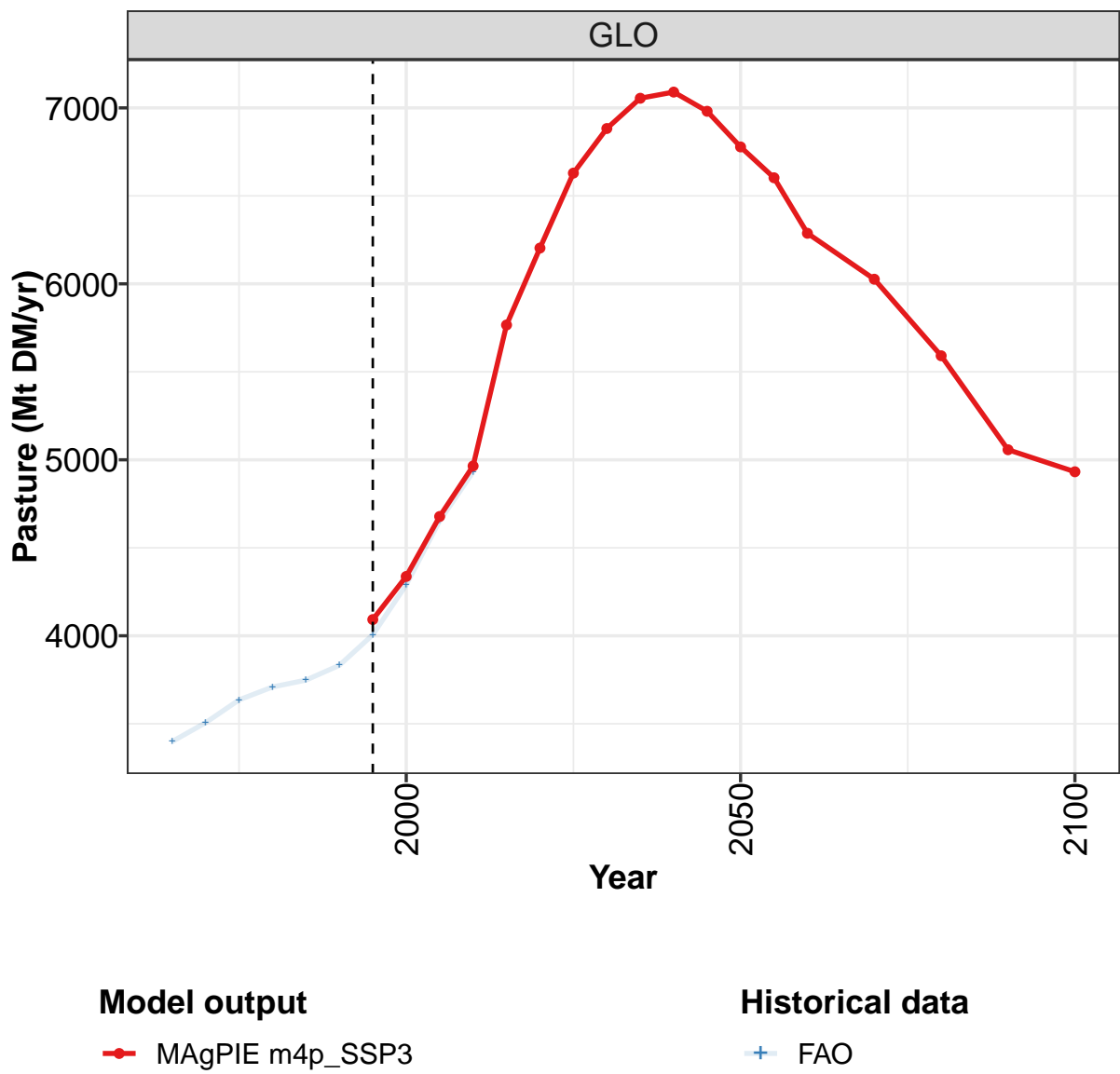
	2050	2055	2060	2070	2080	2090	2100
GLO	1.65	1.59	1.64	1.78	1.83	1.94	1.95
CAZ	0.06	0.06	0.06	0.07	0.07	0.07	0.06
CHA	0.06	0.07	0.07	0.06	0.06	0.06	0.06
EUR	0.14	0.14	0.15	0.16	0.16	0.17	0.16
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.10	0.10	0.11	0.13	0.14	0.16	0.17
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.02	0.02	0.02	0.02	0.02	0.02	0.02
REF	0.00	0.00	0.00	0.00	0.00	0.01	0.01
SSA	0.00	0.01	0.01	0.01	0.01	0.01	0.01
USA	1.26	1.18	1.22	1.33	1.36	1.45	1.45

Table 324: MAgPIE m4p_SSP3 — Demand—Feed—Livestock products—Ruminant meat (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.47	0.65	0.70	0.78	0.83	1.06	1.16	1.28	1.03	1.09
CAZ	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04
CHA	0.01	0.01	0.01	0.02	0.03	0.03	0.04	0.03	0.04	0.03
EUR	0.05	0.09	0.08	0.16	0.16	0.20	0.19	0.20	0.10	0.10
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.02	0.03	0.03	0.03	0.03	0.05	0.05	0.05	0.05	0.05
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.01	0.01	0.01
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.37	0.49	0.55	0.54	0.57	0.73	0.79	0.94	0.80	0.86

Table 325: FAO — Demand—Feed—Livestock products—Ruminant meat (Mt DM/yr)

6.6 Pasture



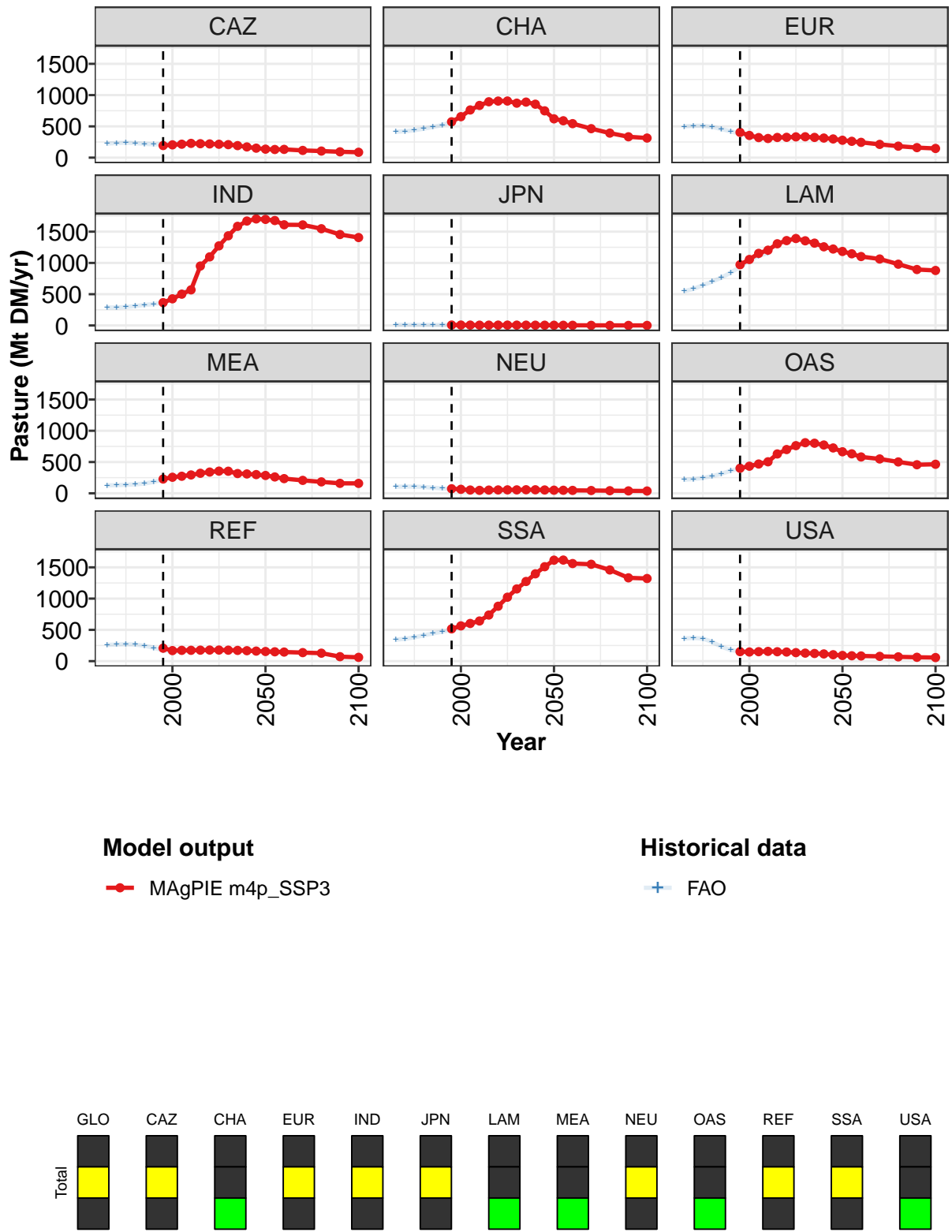


Figure 109: MAgPIE m4p_SSP3 — Demand—Feed—Pasture (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4092	4337	4678	4965	5766	6203	6629	6883	7055	7090	6981
CAZ	193	205	215	228	223	219	214	208	192	171	151
CHA	573	655	762	835	893	905	905	871	888	855	748
EUR	404	355	321	306	322	325	332	334	324	313	299
IND	365	427	501	570	950	1097	1273	1434	1586	1670	1704
JPN	7	7	6	5	6	6	6	6	5	5	4
LAM	972	1056	1153	1204	1306	1357	1390	1354	1317	1258	1222
MEA	228	257	273	294	320	340	355	353	316	309	299
NEU	73	64	52	47	51	54	55	55	57	57	53
OAS	401	434	468	504	630	700	762	809	801	772	725
REF	207	169	173	174	176	177	177	175	172	167	161
SSA	516	564	603	642	737	878	1023	1155	1274	1397	1510
USA	152	146	151	156	151	146	136	129	123	116	103

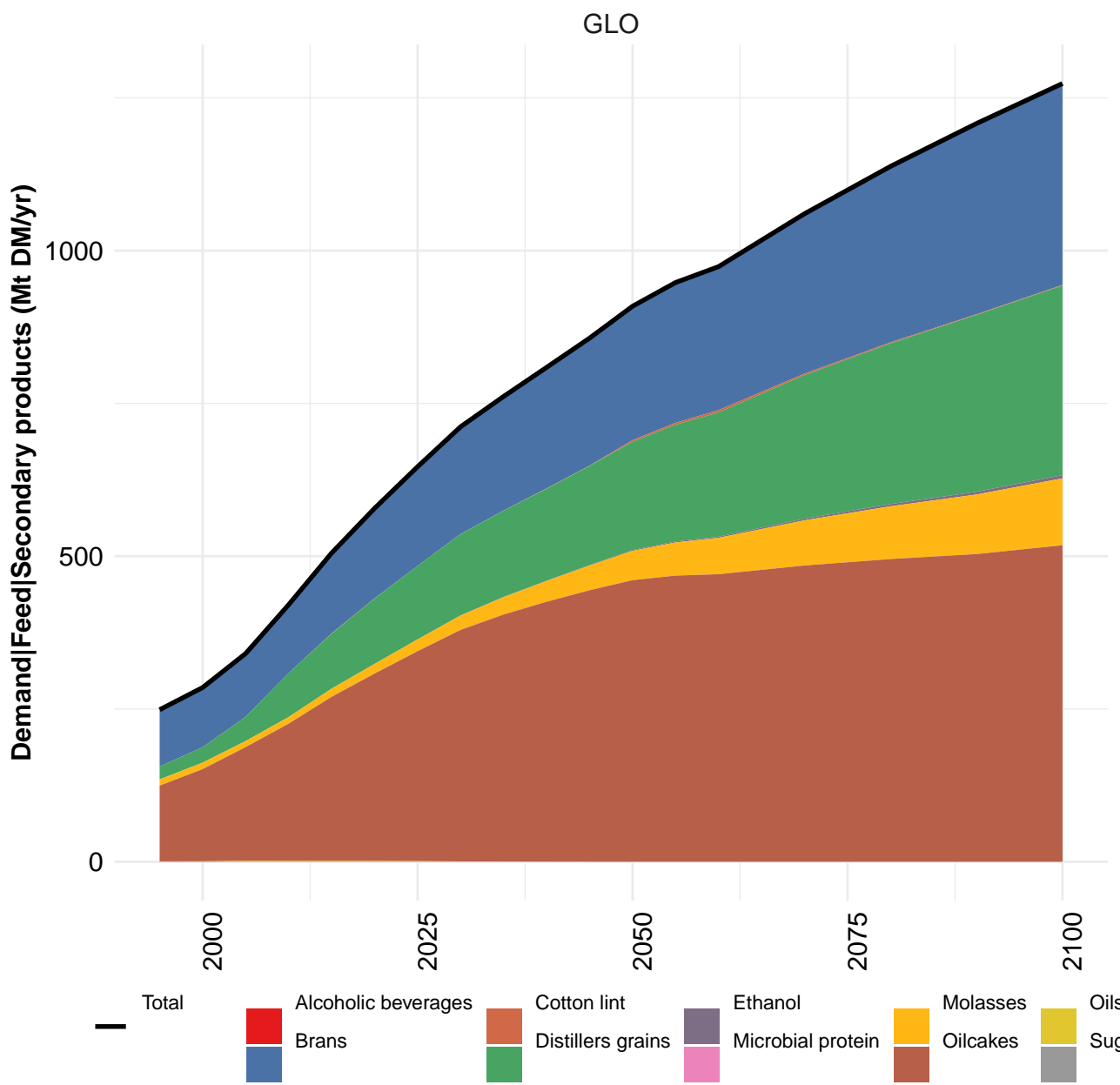
Table 326: MAgPIE m4p_SSP3 — Demand—Feed—Pasture (Mt DM/yr) [PART 1/2]

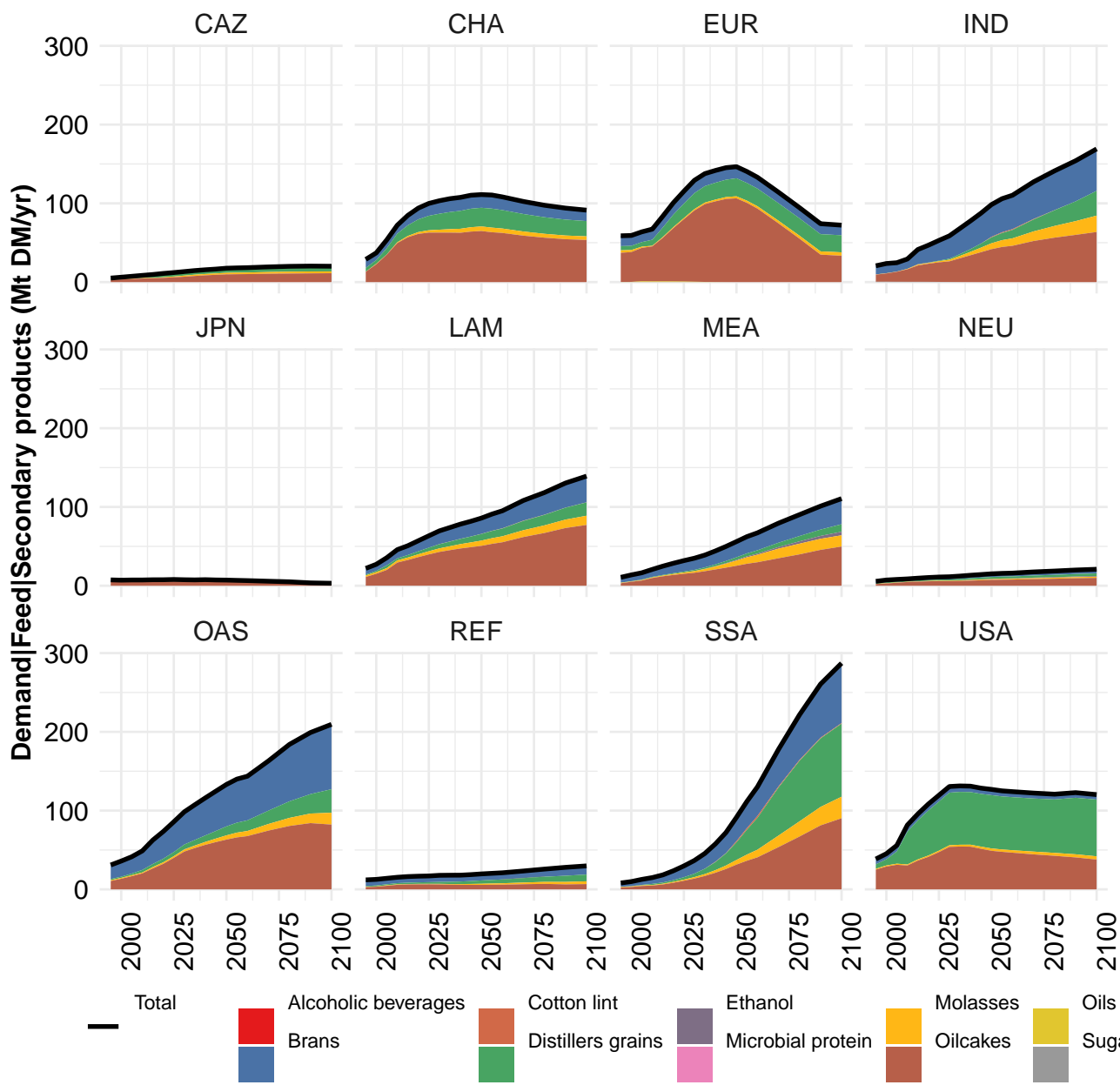
	2050	2055	2060	2070	2080	2090	2100
GLO	6778	6603	6287	6026	5591	5057	4932
CAZ	136	130	132	115	105	93	86
CHA	621	590	544	463	392	333	313
EUR	278	261	244	212	183	160	147
IND	1696	1679	1610	1608	1547	1454	1406
JPN	3	3	3	2	1	1	1
LAM	1184	1146	1103	1063	980	895	879
MEA	285	262	235	207	183	159	159
NEU	50	49	47	45	42	39	37
OAS	664	631	581	550	502	457	464
REF	154	150	145	136	127	72	61
SSA	1615	1617	1561	1549	1458	1332	1321
USA	91	86	83	76	69	62	58

Table 327: MAgPIE m4p_SSP3 — Demand—Feed—Pasture (Mt DM/yr) [PART 2/2]

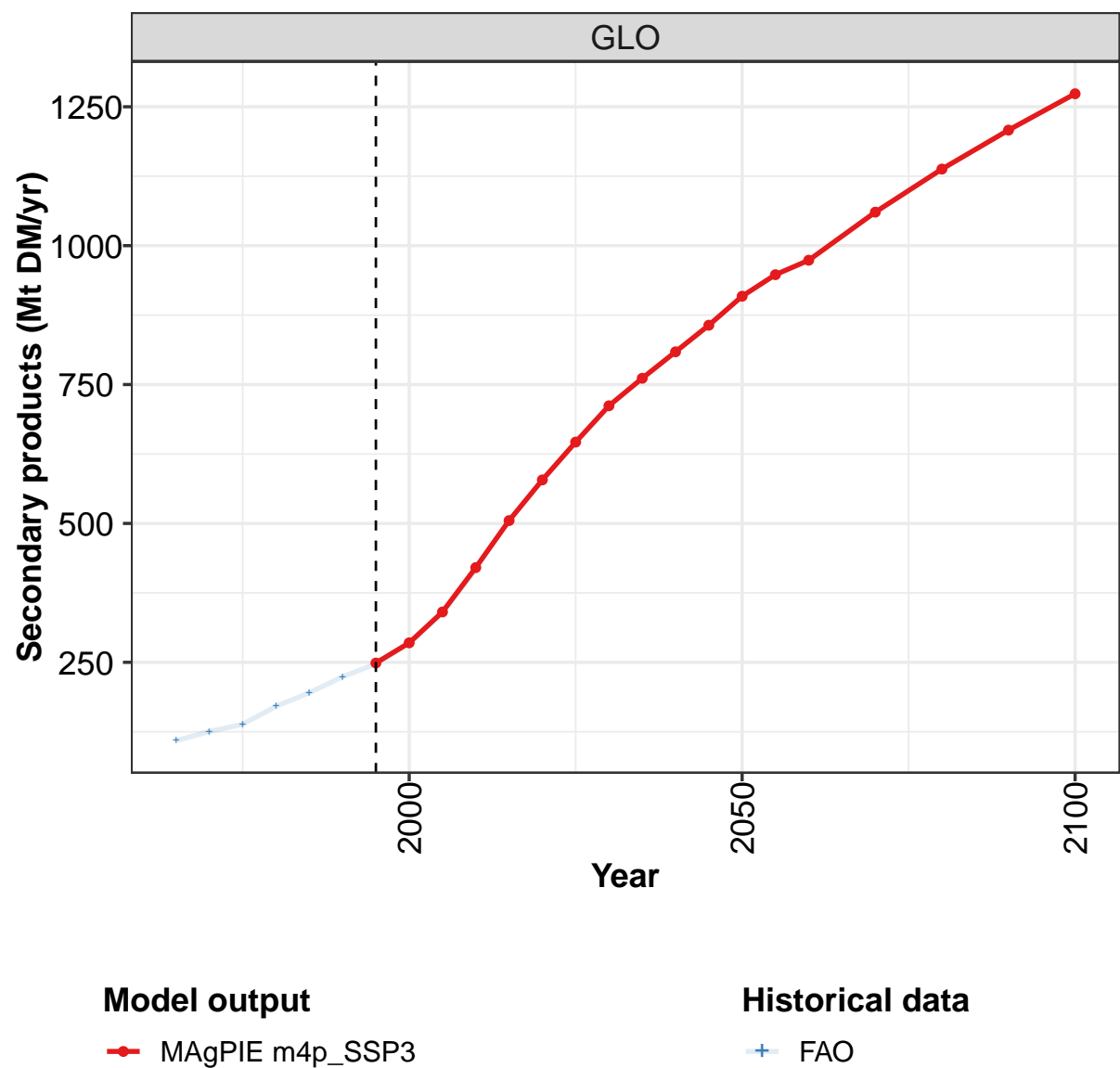
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3399	3506	3636	3709	3748	3832	4006	4290	4653	4931
CAZ	225	234	239	233	220	212	215	223	229	231
CHA	414	422	438	463	490	521	572	657	760	832
EUR	499	509	510	491	457	421	381	339	309	296
IND	287	288	295	311	328	342	367	429	522	594
JPN	10	10	9	9	8	8	7	7	6	5
LAM	548	586	643	702	765	845	939	1034	1113	1157
MEA	127	130	136	142	156	183	222	260	284	294
NEU	105	107	107	101	89	78	68	59	51	47
OAS	218	228	246	273	313	360	402	438	475	503
REF	260	266	270	265	246	213	173	148	152	168
SSA	344	357	381	412	443	471	502	546	600	640
USA	362	371	361	307	230	177	157	149	152	162

Table 328: FAO — Demand—Feed—Pasture (Mt DM/yr)





6.7 Secondary products



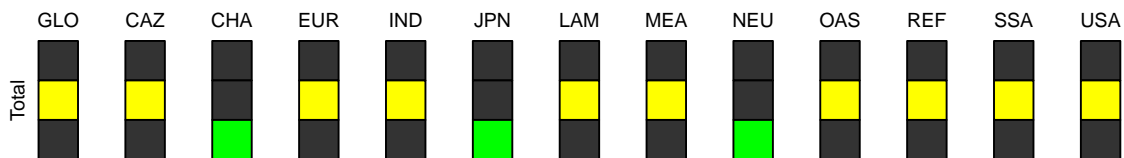
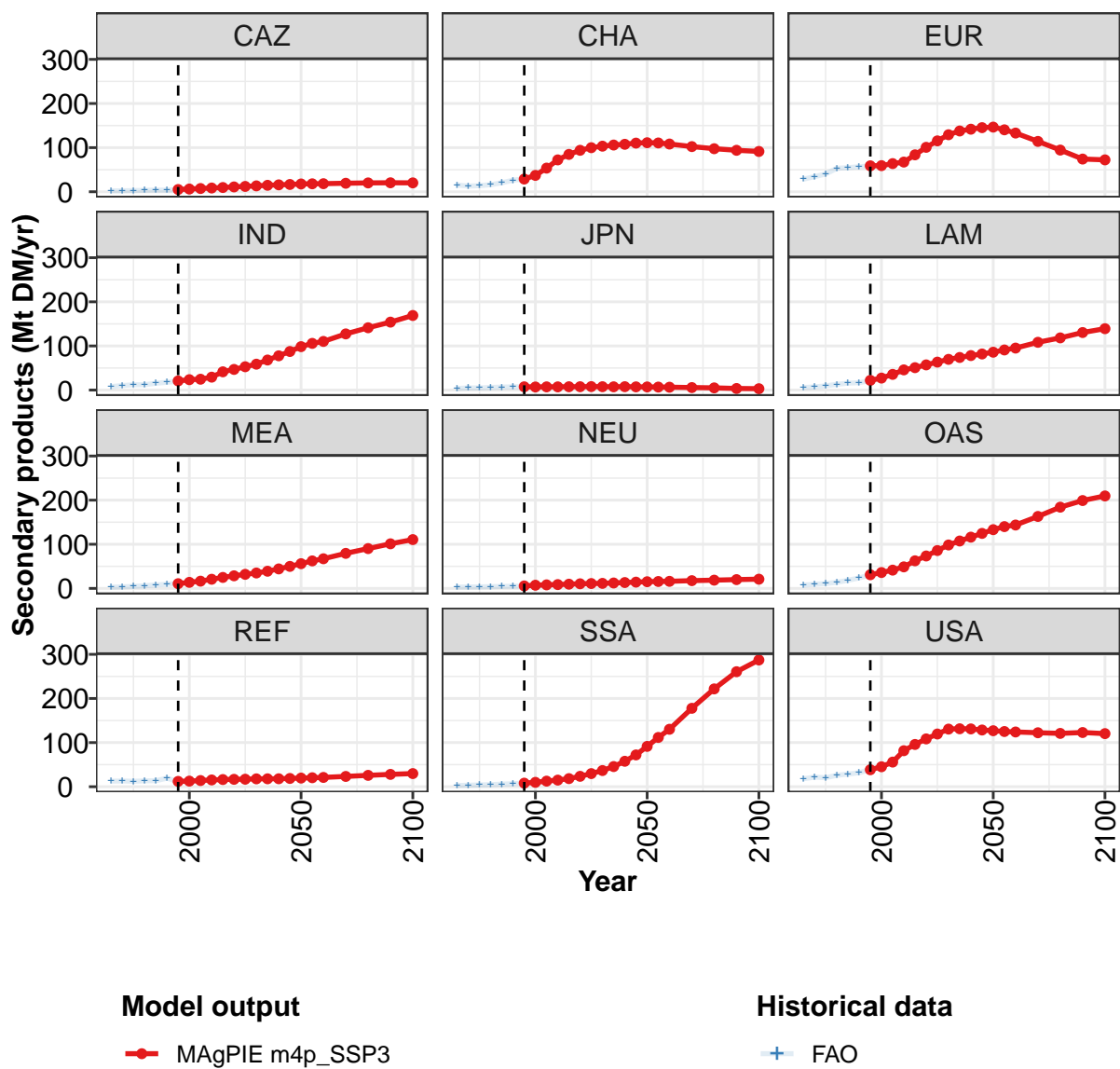


Figure 110: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	249	285	341	421	505	578	646	712	761	809	857
CAZ	5	6	7	9	10	11	12	13	15	16	17
CHA	29	37	54	72	85	94	100	103	106	108	110
EUR	59	59	64	67	84	101	115	129	138	142	145
IND	21	24	25	29	41	47	53	59	68	78	87
JPN	7	7	7	7	8	8	8	8	7	8	7
LAM	22	27	36	46	51	57	63	70	74	78	82
MEA	11	14	16	21	25	29	32	35	39	44	50
NEU	6	7	8	9	10	10	11	11	12	13	14
OAS	31	36	41	49	63	73	86	98	107	116	125
REF	12	13	14	15	16	17	17	18	18	18	19
SSA	8	10	13	15	18	24	30	37	46	58	72
USA	39	45	56	82	96	108	119	131	131	131	129

Table 329: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products (Mt DM/yr) [PART 1/2]

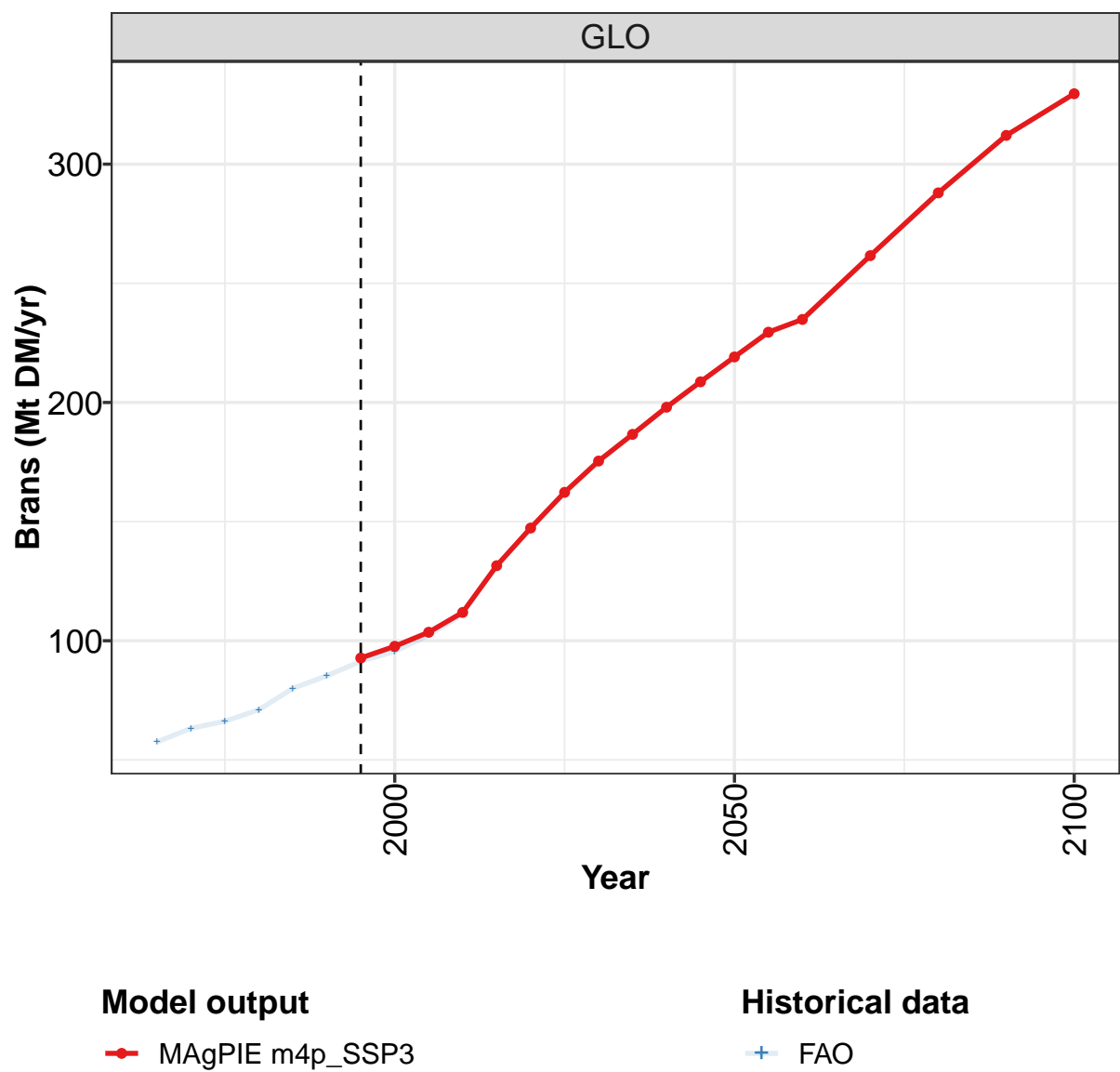
	2050	2055	2060	2070	2080	2090	2100
GLO	909	948	974	1060	1138	1208	1273
CAZ	18	18	18	19	20	20	20
CHA	111	111	108	102	98	94	91
EUR	147	140	133	114	94	74	72
IND	98	106	110	127	141	154	169
JPN	7	7	7	6	5	4	3
LAM	86	91	95	108	118	130	139
MEA	56	62	67	79	90	101	111
NEU	15	16	16	18	19	20	21
OAS	133	140	144	163	184	199	210
REF	20	20	21	23	26	28	30
SSA	91	112	130	178	222	261	287
USA	127	125	124	122	121	123	120

Table 330: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	109	125	139	171	195	224	247	283	339	416
CAZ	2	2	3	3	4	4	5	6	7	9
CHA	15	13	14	16	20	26	29	38	54	72
EUR	28	34	40	53	55	57	58	59	62	66
IND	8	10	12	12	15	18	20	23	25	29
JPN	4	5	5	6	7	7	7	7	7	7
LAM	6	7	10	13	16	17	22	27	35	43
MEA	3	3	5	6	8	9	11	14	16	21
NEU	3	3	3	4	4	5	5	7	8	9
OAS	7	9	11	14	18	24	31	35	42	50
REF	12	13	12	13	14	19	11	12	14	15
SSA	3	3	4	5	6	7	8	10	13	15
USA	18	22	20	26	29	32	39	46	57	81

Table 331: FAO — Demand—Feed—Secondary products (Mt DM/yr)

6.7.1 Brans



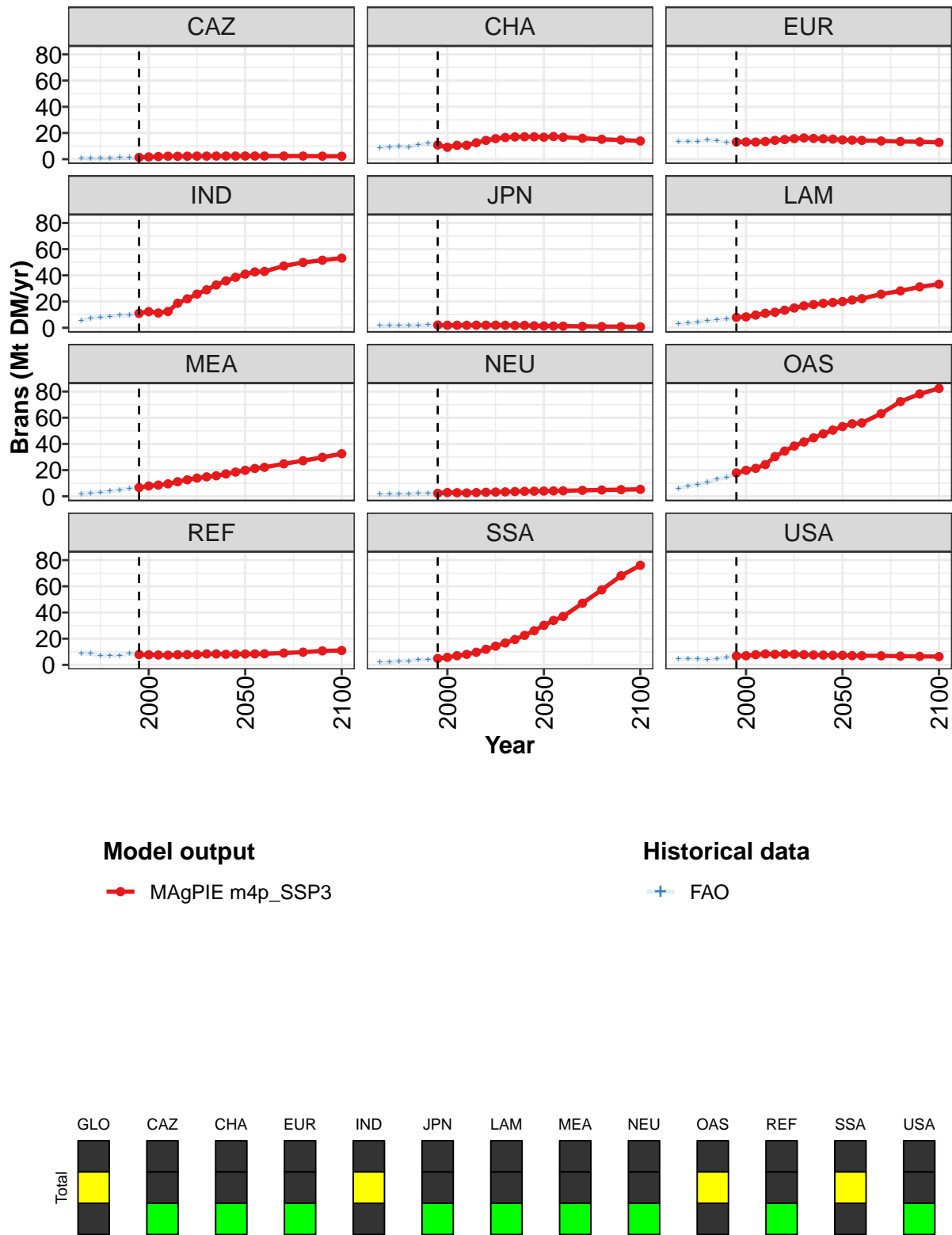


Figure 111: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	93	98	104	112	131	147	162	175	187	198	209
CAZ	1	2	2	2	2	2	2	2	2	2	2
CHA	11	9	11	11	13	14	16	17	17	17	17
EUR	13	13	13	14	14	15	16	16	16	16	15
IND	11	12	11	12	19	22	26	29	33	36	39
JPN	2	2	2	2	2	2	2	2	2	2	1
LAM	8	8	10	11	12	13	15	17	18	19	19
MEA	7	8	9	10	11	13	14	15	16	17	19
NEU	2	3	3	3	3	3	3	3	4	4	4
OAS	18	20	21	24	30	35	38	41	45	48	51
REF	8	8	8	7	8	8	8	8	8	8	8
SSA	5	6	7	8	10	12	14	17	19	23	26
USA	7	7	8	8	8	8	8	8	8	7	7

Table 332: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Brans (Mt DM/yr) [PART 1/2]

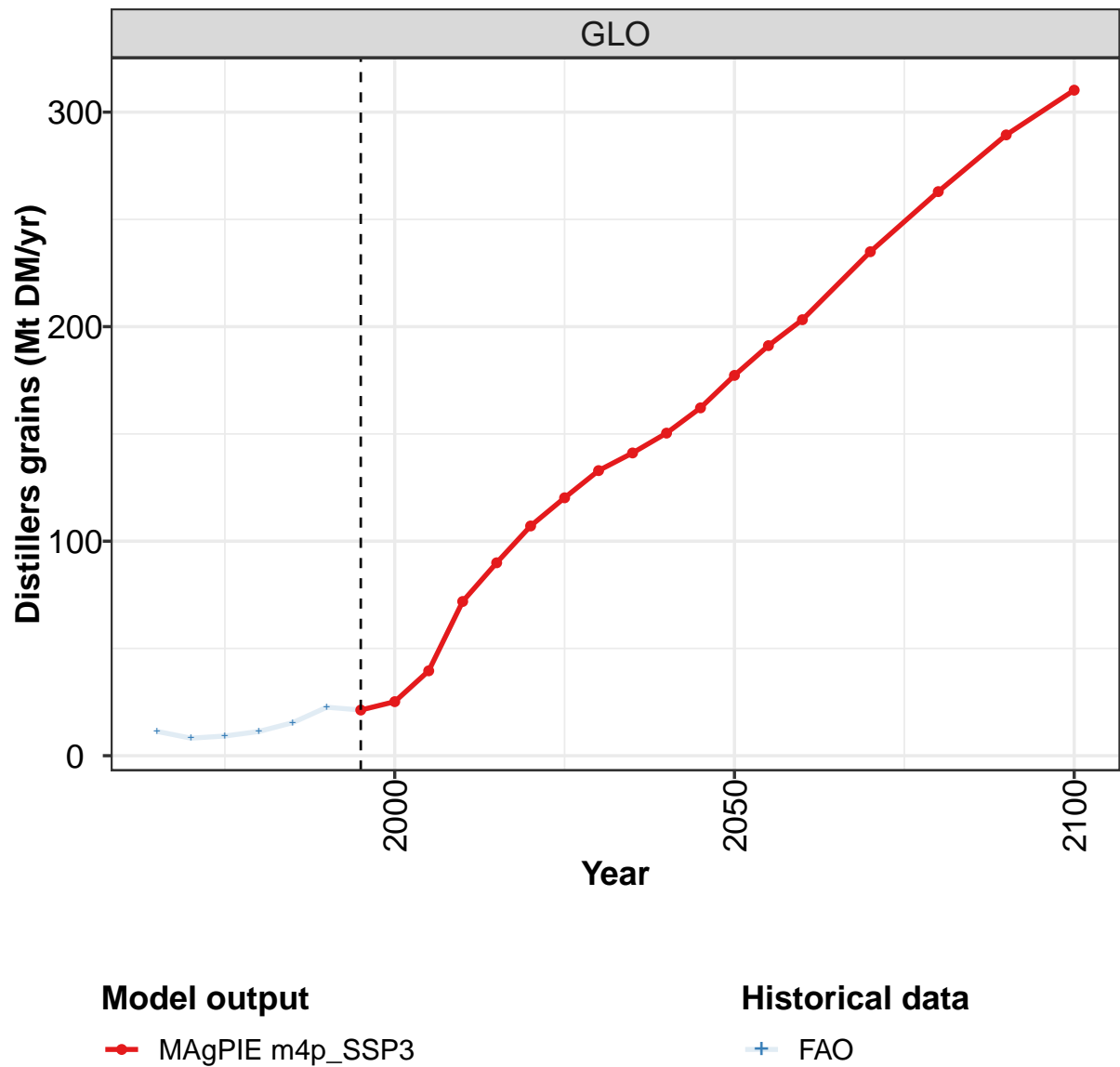
	2050	2055	2060	2070	2080	2090	2100
GLO	219	229	235	262	288	312	330
CAZ	2	2	2	2	2	2	2
CHA	17	17	17	16	15	15	14
EUR	15	15	14	14	14	13	13
IND	41	43	43	47	50	52	53
JPN	1	1	1	1	1	1	1
LAM	20	21	22	26	28	31	33
MEA	20	21	22	25	27	30	33
NEU	4	4	4	5	5	5	5
OAS	53	55	56	63	72	78	82
REF	8	8	9	9	10	11	11
SSA	30	34	37	47	57	68	76
USA	7	7	7	7	7	7	6

Table 333: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Brans (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	58	63	66	71	80	85	91	96	102	111
CAZ	1	1	1	1	1	1	1	2	2	2
CHA	9	9	10	9	11	12	11	9	11	11
EUR	13	14	14	15	14	13	13	13	13	13
IND	5	7	8	9	10	10	11	12	11	12
JPN	2	2	2	2	2	2	2	2	2	2
LAM	3	3	4	5	6	7	8	8	10	10
MEA	2	2	3	4	5	6	7	8	8	10
NEU	1	1	2	2	2	2	2	3	3	3
OAS	6	8	9	11	13	14	17	19	21	25
REF	9	9	7	7	7	9	7	7	7	7
SSA	2	2	3	3	4	4	5	6	7	8
USA	5	5	4	4	5	6	7	6	7	8

Table 334: FAO — Demand—Feed—Secondary products—Brans (Mt DM/yr)

6.7.2
Distillers grains



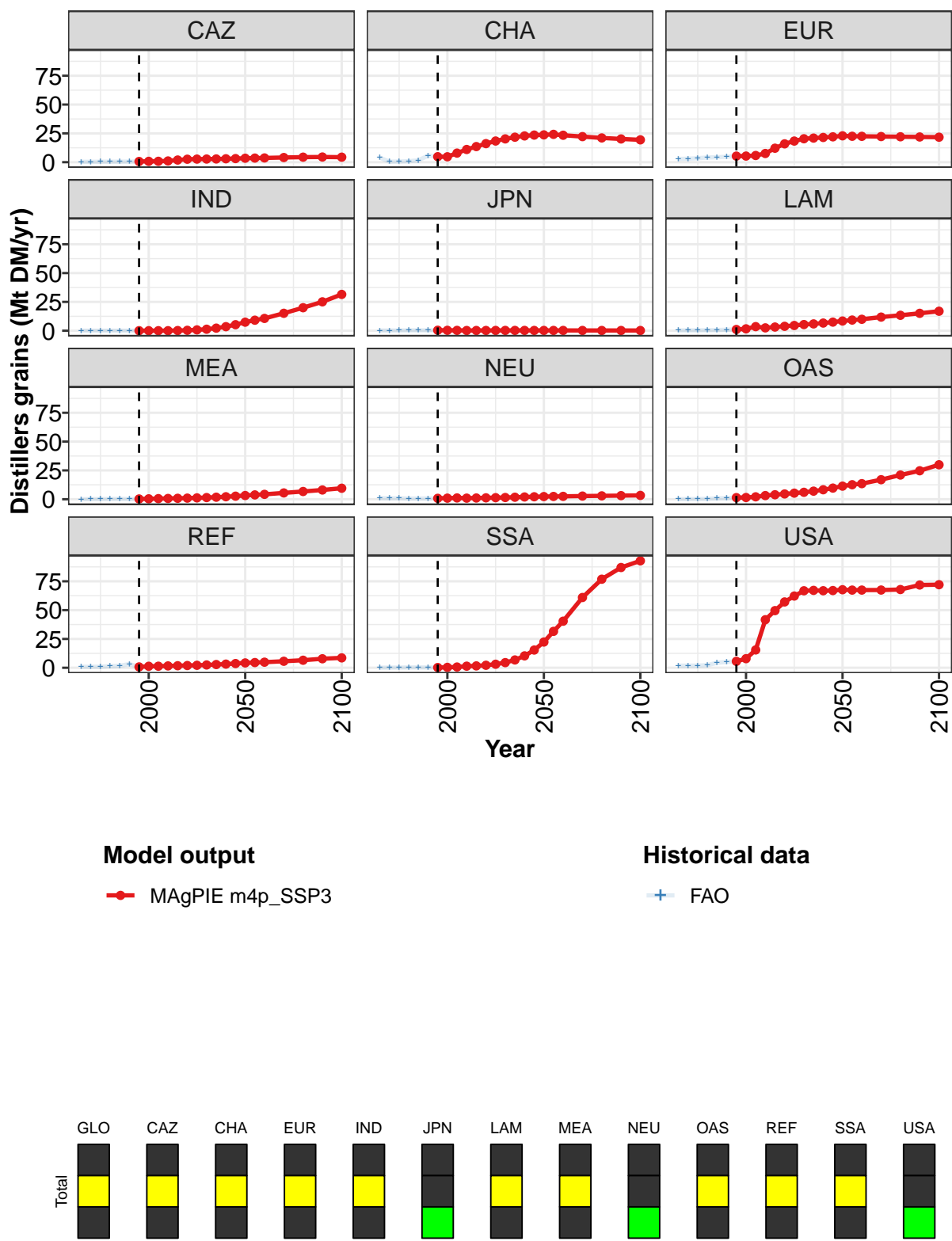


Figure 112: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Distillers grains (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	21	25	40	72	90	107	120	133	141	150	162
CAZ	1	1	1	1	2	3	3	3	3	3	3
CHA	5	5	8	11	14	16	18	20	22	23	24
EUR	5	5	6	8	12	16	18	20	21	21	22
IND	0	0	0	0	0	0	1	1	2	4	5
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1	2	4	2	3	4	5	5	6	7	7
MEA	0	0	1	1	1	1	1	1	2	2	3
NEU	1	1	1	1	1	1	1	2	2	2	2
OAS	1	2	2	3	4	5	5	6	7	8	10
REF	1	1	1	2	2	2	2	2	3	3	4
SSA	0	0	1	1	2	2	3	4	7	10	15
USA	6	8	15	42	50	57	62	67	67	67	67

Table 335: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Distillers grains (Mt DM/yr) [PART 1/2]

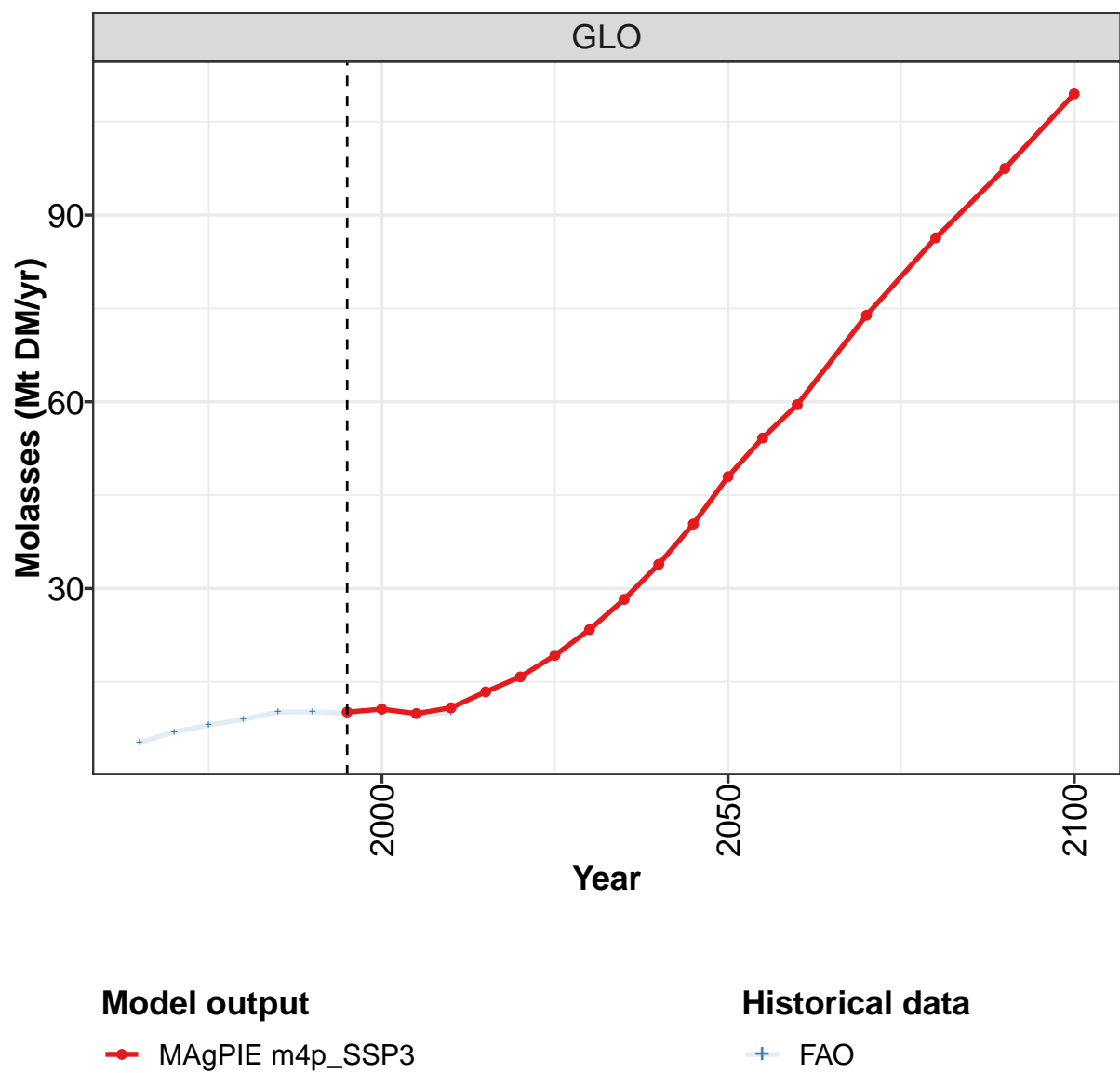
	2050	2055	2060	2070	2080	2090	2100
GLO	177	191	203	235	263	289	310
CAZ	3	4	4	4	4	5	4
CHA	24	24	23	22	21	20	19
EUR	23	22	22	22	22	22	22
IND	7	9	11	15	20	25	32
JPN	0	0	0	0	0	0	0
LAM	8	9	10	12	13	15	17
MEA	3	4	4	5	7	8	10
NEU	2	2	3	3	3	3	3
OAS	11	13	14	17	21	25	30
REF	4	5	5	6	7	8	9
SSA	22	32	40	61	77	87	93
USA	68	67	67	67	68	72	72

Table 336: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Distillers grains (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	11.3	8.2	9.2	11.3	15.4	22.6	21.3	25.0	39.3	71.8
CAZ	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.8	0.7	1.1
CHA	4.0	0.4	0.6	0.8	1.6	5.7	4.8	4.7	7.9	11.1
EUR	2.8	3.0	3.5	4.0	4.3	4.7	5.3	5.2	5.7	7.4
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.3	0.3	0.2
LAM	0.3	0.3	0.4	0.5	0.6	0.9	1.1	1.7	3.6	2.5
MEA	0.0	0.1	0.1	0.2	0.3	0.2	0.3	0.4	0.5	0.7
NEU	0.9	0.8	0.9	0.6	0.6	0.7	0.8	0.9	1.1	1.0
OAS	0.1	0.2	0.2	0.4	0.8	1.0	1.4	1.5	2.1	3.2
REF	0.8	0.8	0.9	1.3	1.7	3.2	0.7	1.3	1.3	1.6
SSA	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.3	0.6	1.4
USA	1.8	1.8	1.9	2.3	4.3	5.0	5.6	7.9	15.5	41.7

Table 337: FAO — Demand—Feed—Secondary products—Distillers grains (Mt DM/yr)

6.7.3
Molasses



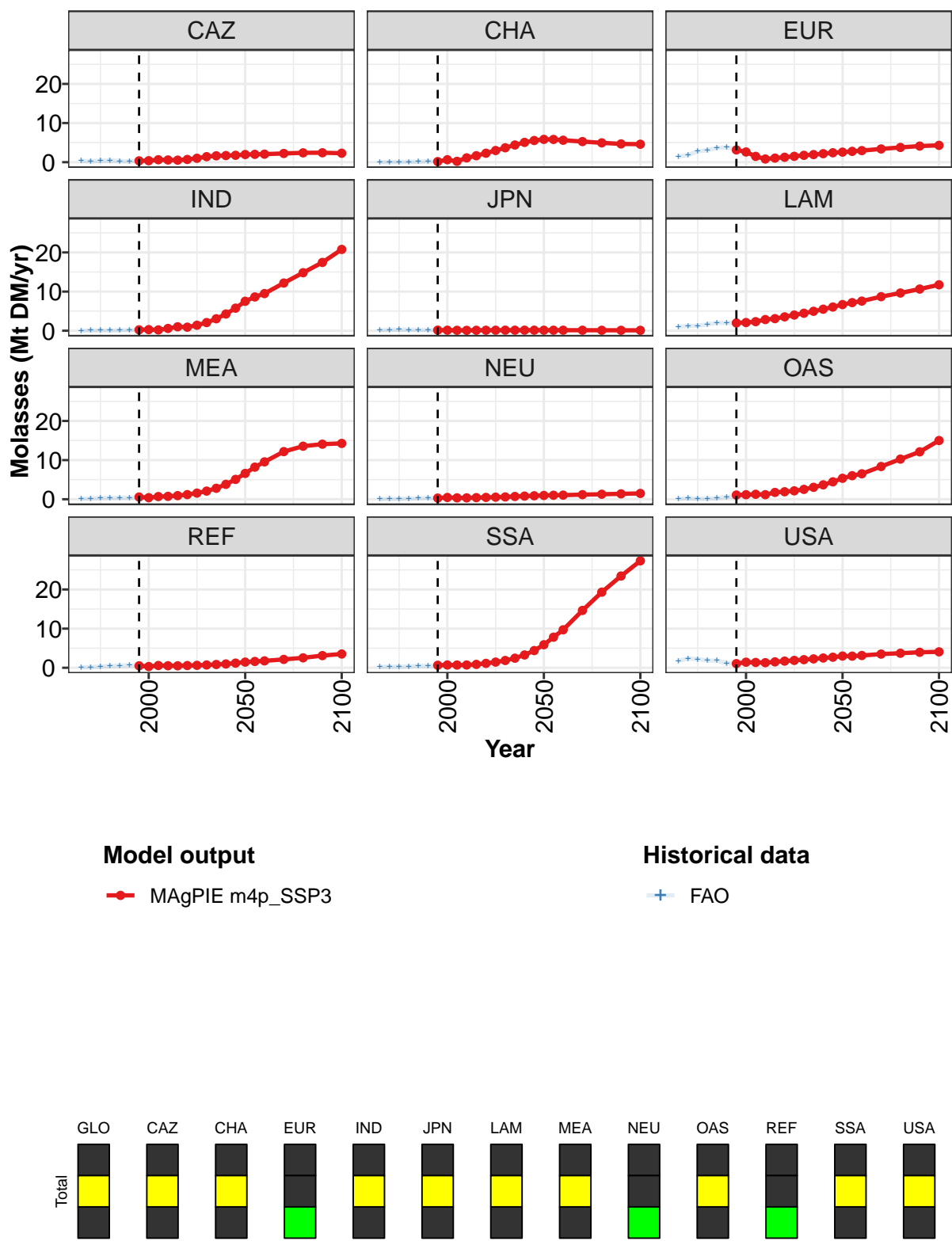


Figure 113: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Molasses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	10	11	10	11	13	16	19	23	28	34	40
CAZ	0	0	1	1	1	1	1	1	2	2	2
CHA	0	1	0	1	2	2	3	4	4	5	6
EUR	3	3	1	1	1	1	2	2	2	2	2
IND	0	0	0	1	1	1	1	2	3	4	6
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	2	2	2	3	3	4	4	4	5	6	6
MEA	1	0	1	1	1	1	2	2	3	4	5
NEU	0	0	0	0	0	0	1	1	1	1	1
OAS	1	1	1	1	2	2	2	3	3	4	4
REF	0	0	1	1	1	1	1	1	1	1	1
SSA	1	1	1	1	1	1	1	2	2	3	4
USA	1	1	1	1	2	2	2	2	2	2	3

Table 338: MAgPIE m4p-SSP3 — Demand—Feed—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

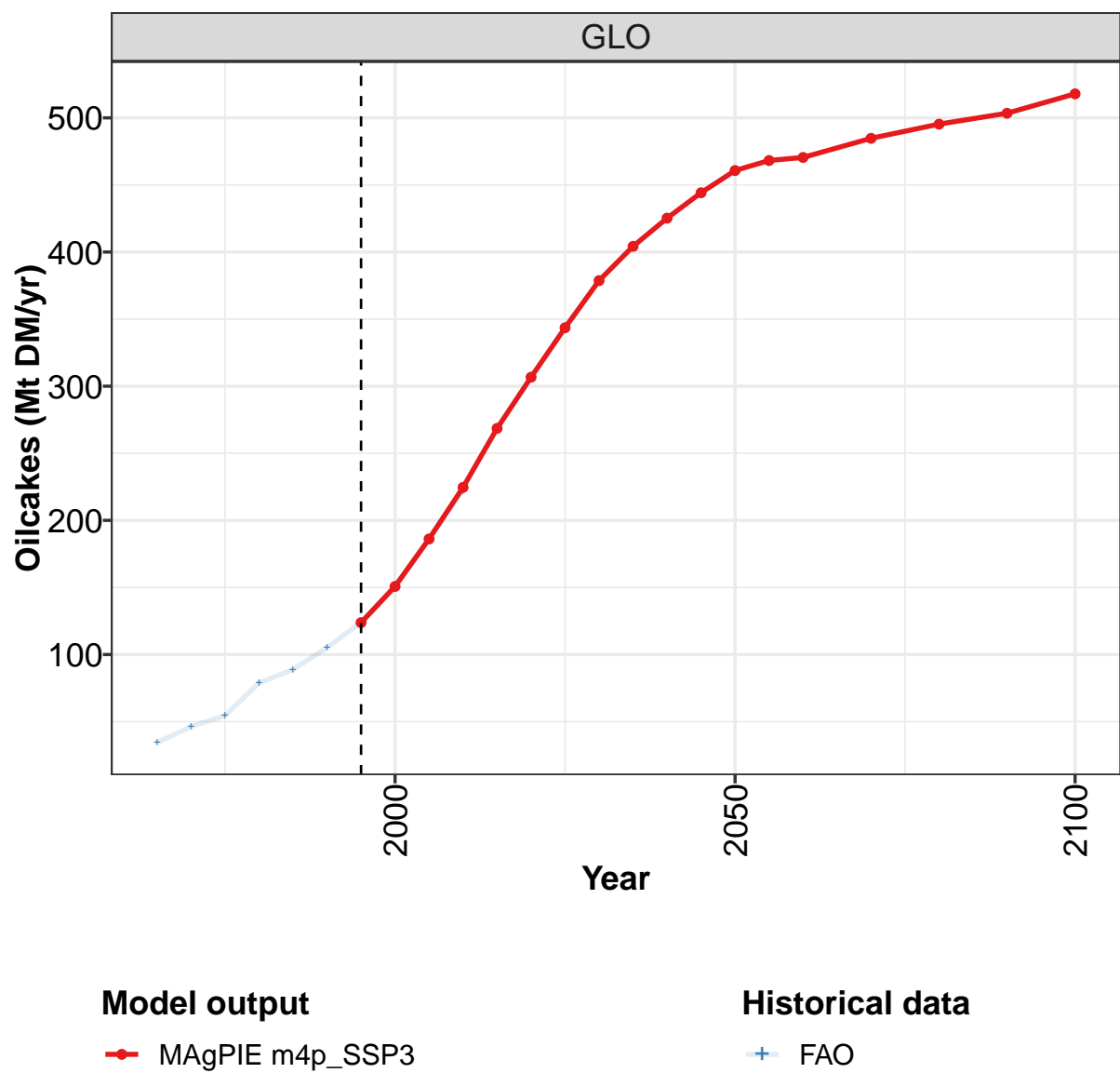
	2050	2055	2060	2070	2080	2090	2100
GLO	48	54	60	74	86	97	109
CAZ	2	2	2	2	2	2	2
CHA	6	6	6	5	5	5	5
EUR	3	3	3	3	4	4	4
IND	8	9	9	12	15	17	21
JPN	0	0	0	0	0	0	0
LAM	7	7	8	9	10	11	12
MEA	7	8	10	12	14	14	14
NEU	1	1	1	1	1	1	1
OAS	5	6	7	8	10	12	15
REF	1	2	2	2	3	3	4
SSA	6	8	10	15	19	23	27
USA	3	3	3	4	4	4	4

Table 339: MAgPIE m4p-SSP3 — Demand—Feed—Secondary products—Molasses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.2	7.0	8.1	9.0	10.1	10.2	9.9	10.6	9.6	10.1
CAZ	0.3	0.3	0.4	0.5	0.3	0.2	0.4	0.5	0.5	0.4
CHA	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.7	0.3	1.1
EUR	1.4	1.9	2.8	3.1	3.7	3.8	3.2	2.6	1.4	0.8
IND	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.3
JPN	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1
LAM	1.0	1.2	1.3	1.6	2.0	2.0	2.1	2.2	2.4	2.5
MEA	0.1	0.2	0.3	0.3	0.4	0.4	0.5	0.4	0.5	0.7
NEU	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.4	0.3	0.4
OAS	0.1	0.2	0.1	0.2	0.3	0.6	0.6	0.9	1.3	1.2
REF	0.1	0.2	0.3	0.5	0.6	0.6	0.5	0.4	0.5	0.4
SSA	0.2	0.3	0.3	0.4	0.5	0.5	0.5	0.7	0.7	0.7
USA	1.8	2.4	2.2	1.9	1.8	1.1	1.1	1.4	1.4	1.4

Table 340: FAO — Demand—Feed—Secondary products—Molasses (Mt DM/yr)

6.7.4
Oilcakes



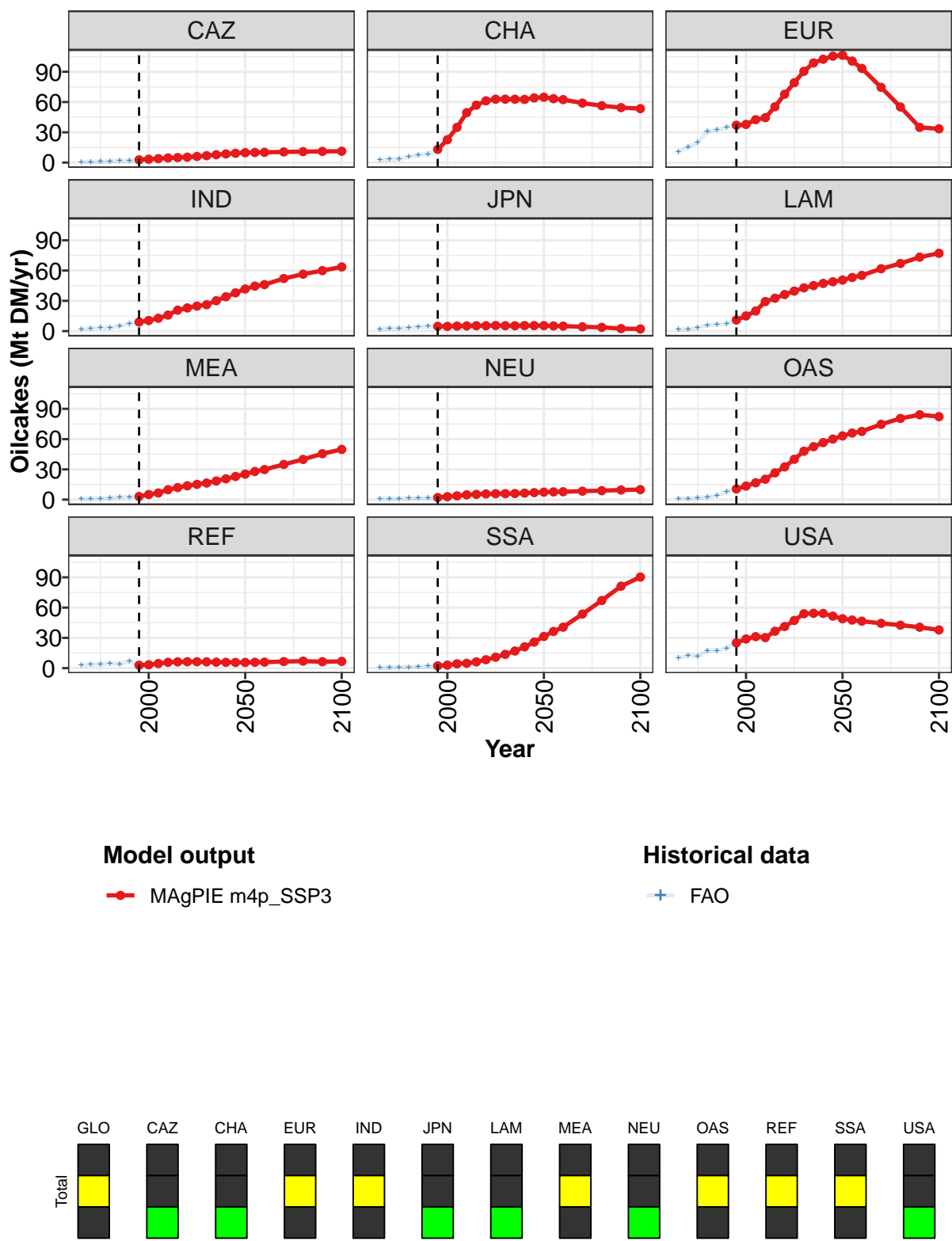


Figure 114: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Oilcakes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	124	151	186	225	269	307	344	379	404	425	444
CAZ	3	3	4	5	5	5	6	7	8	9	9
CHA	13	23	35	49	57	61	63	63	63	63	64
EUR	37	38	43	45	55	68	79	90	99	102	105
IND	9	11	13	16	21	23	25	26	30	34	38
JPN	5	5	5	5	5	5	6	5	5	5	5
LAM	11	15	20	29	33	36	40	43	45	47	49
MEA	3	5	7	10	12	14	15	16	18	21	23
NEU	2	3	4	5	5	6	6	6	6	6	7
OAS	11	13	17	20	27	32	40	48	52	57	60
REF	3	3	5	6	6	6	6	6	6	6	6
SSA	2	3	4	5	6	8	11	14	17	21	26
USA	25	29	31	30	37	41	47	54	54	54	52

Table 341: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Oilcakes (Mt DM/yr) [PART 1/2]

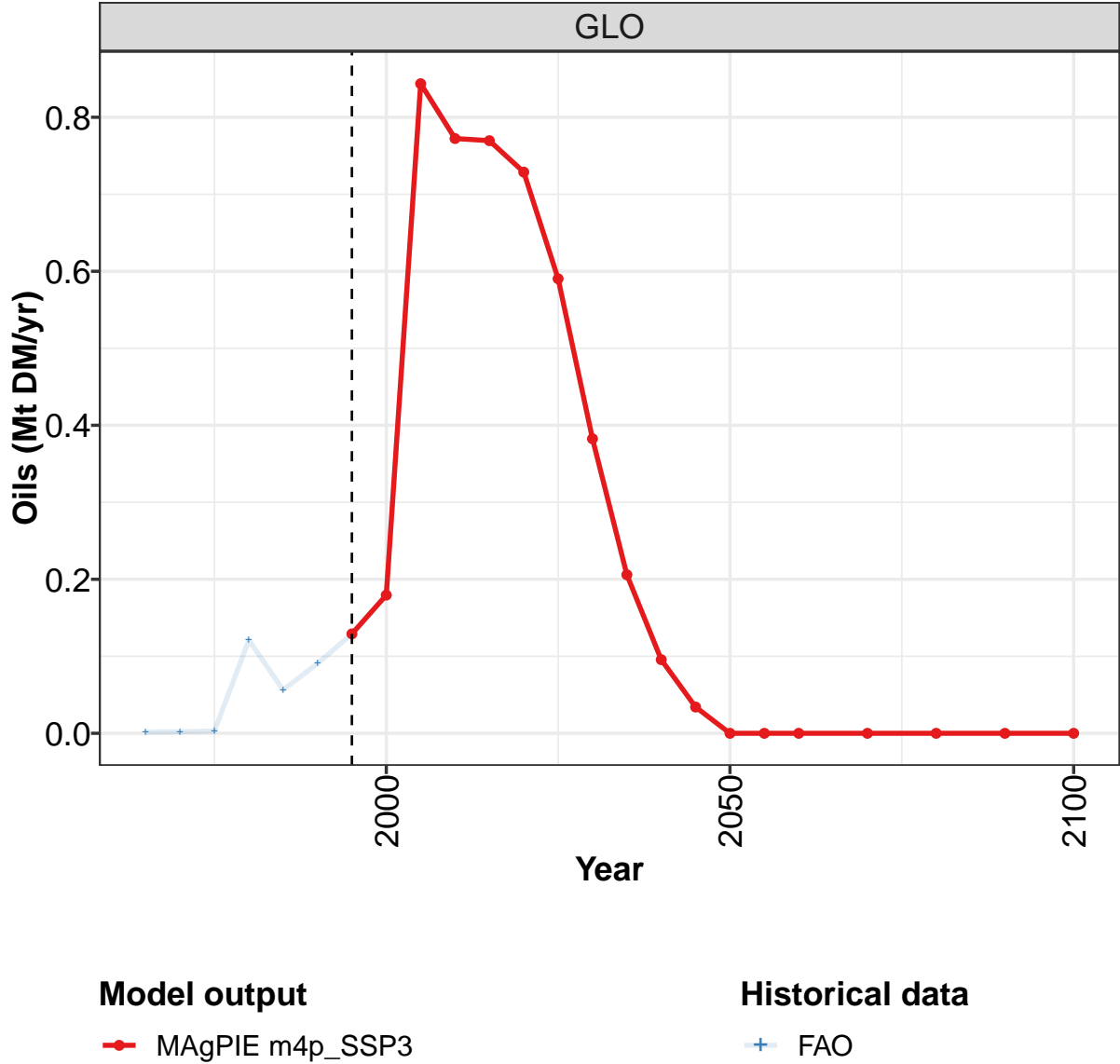
	2050	2055	2060	2070	2080	2090	2100
GLO	461	468	470	485	495	503	518
CAZ	10	10	10	11	11	11	11
CHA	65	63	62	59	56	54	53
EUR	106	101	93	75	55	35	33
IND	42	45	46	52	56	60	64
JPN	5	5	5	4	4	2	2
LAM	51	53	55	62	67	73	77
MEA	25	28	30	35	40	46	50
NEU	7	8	8	8	9	10	10
OAS	63	66	68	75	81	84	82
REF	6	6	6	7	7	6	7
SSA	31	36	41	54	67	81	90
USA	49	48	47	44	43	41	38

Table 342: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Oilcakes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	34	46	55	79	89	105	124	151	187	222
CAZ	0	1	1	1	2	2	3	3	4	5
CHA	2	3	3	6	7	8	13	23	35	49
EUR	11	15	20	31	32	35	37	38	42	44
IND	2	3	3	3	5	7	9	10	13	16
JPN	2	3	3	4	4	5	5	5	5	5
LAM	1	2	3	6	7	7	10	15	19	27
MEA	1	1	1	2	2	3	3	5	7	10
NEU	1	1	1	1	1	2	2	3	4	5
OAS	1	1	2	3	4	8	11	13	17	21
REF	3	3	4	4	4	7	3	3	4	6
SSA	0	1	1	1	1	2	2	3	4	5
USA	10	13	12	17	18	20	26	30	33	30

Table 343: FAO — Demand—Feed—Secondary products—Oilcakes (Mt DM/yr)

6.7.5 Oils



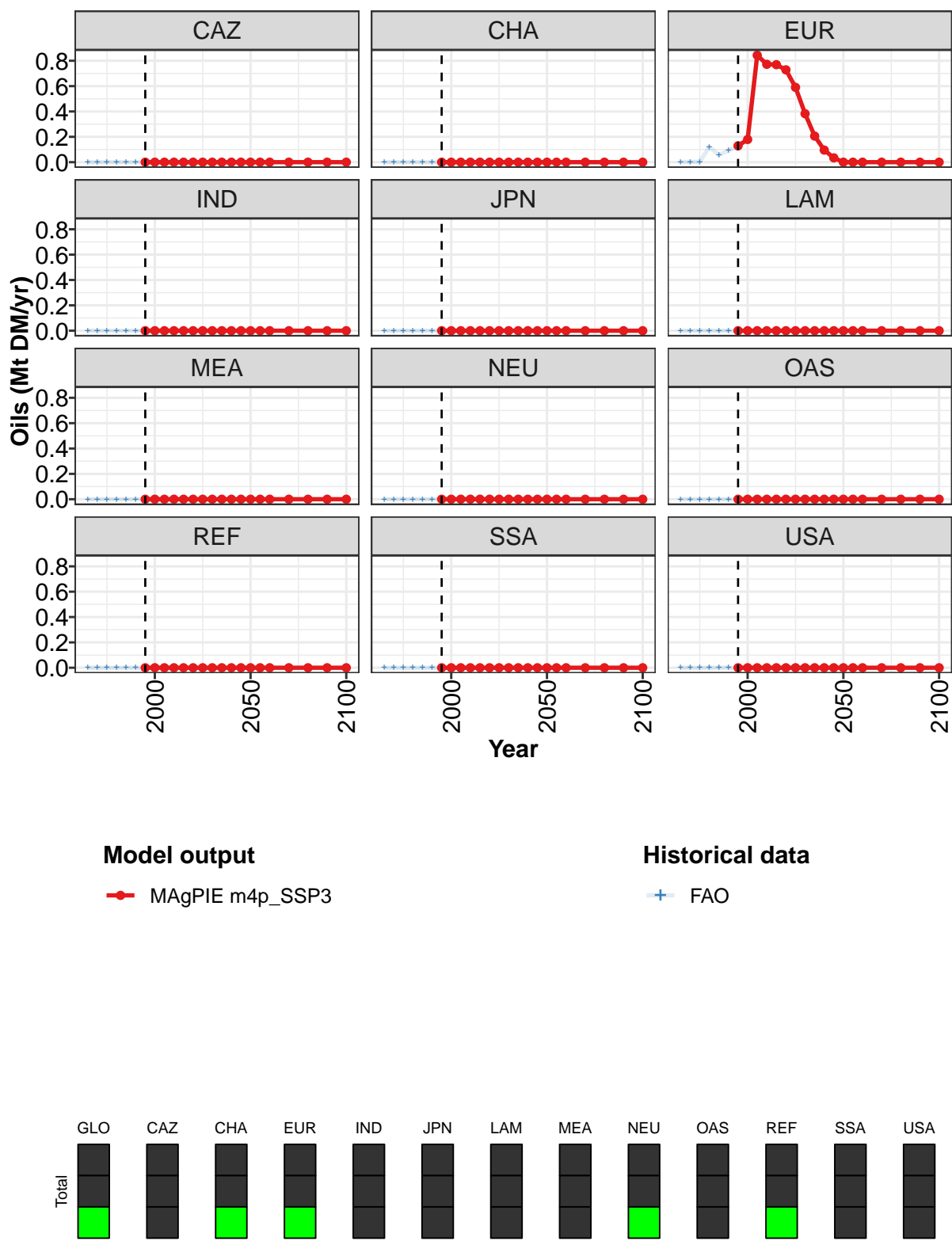


Figure 115: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.129	0.179	0.844	0.772	0.770	0.729	0.590	0.383	0.206	0.096	0.034
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.129	0.179	0.844	0.772	0.769	0.729	0.590	0.382	0.206	0.096	0.034
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 344: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Oils (Mt DM/yr) [PART 1/2]

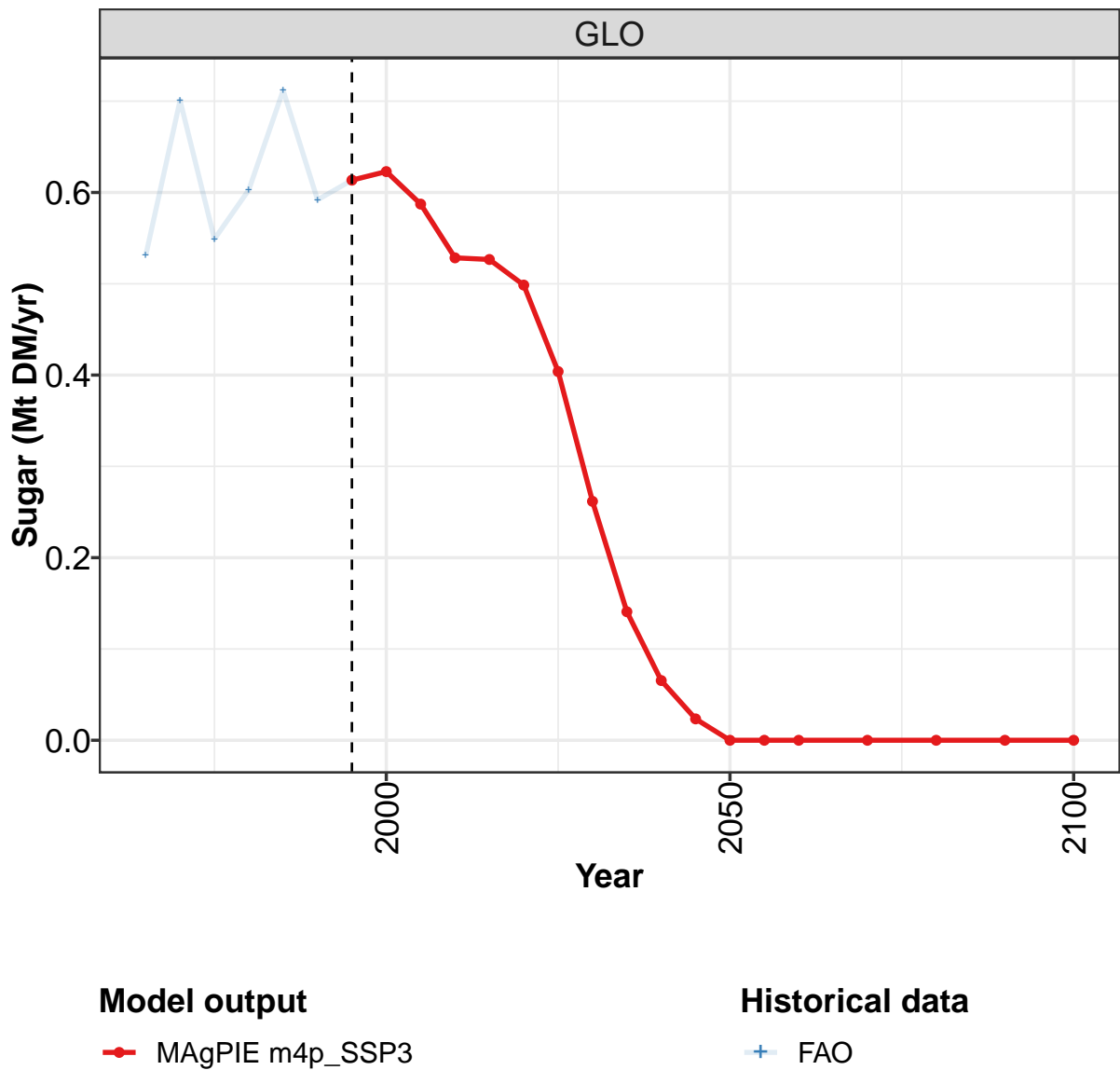
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 345: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Oils (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.002	0.002	0.003	0.121	0.056	0.091	0.129	0.179	0.844	0.772
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.002	0.002	0.003	0.120	0.056	0.091	0.129	0.179	0.844	0.772
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 346: FAO — Demand—Feed—Secondary products—Oils (Mt DM/yr)

6.7.6 Sugar



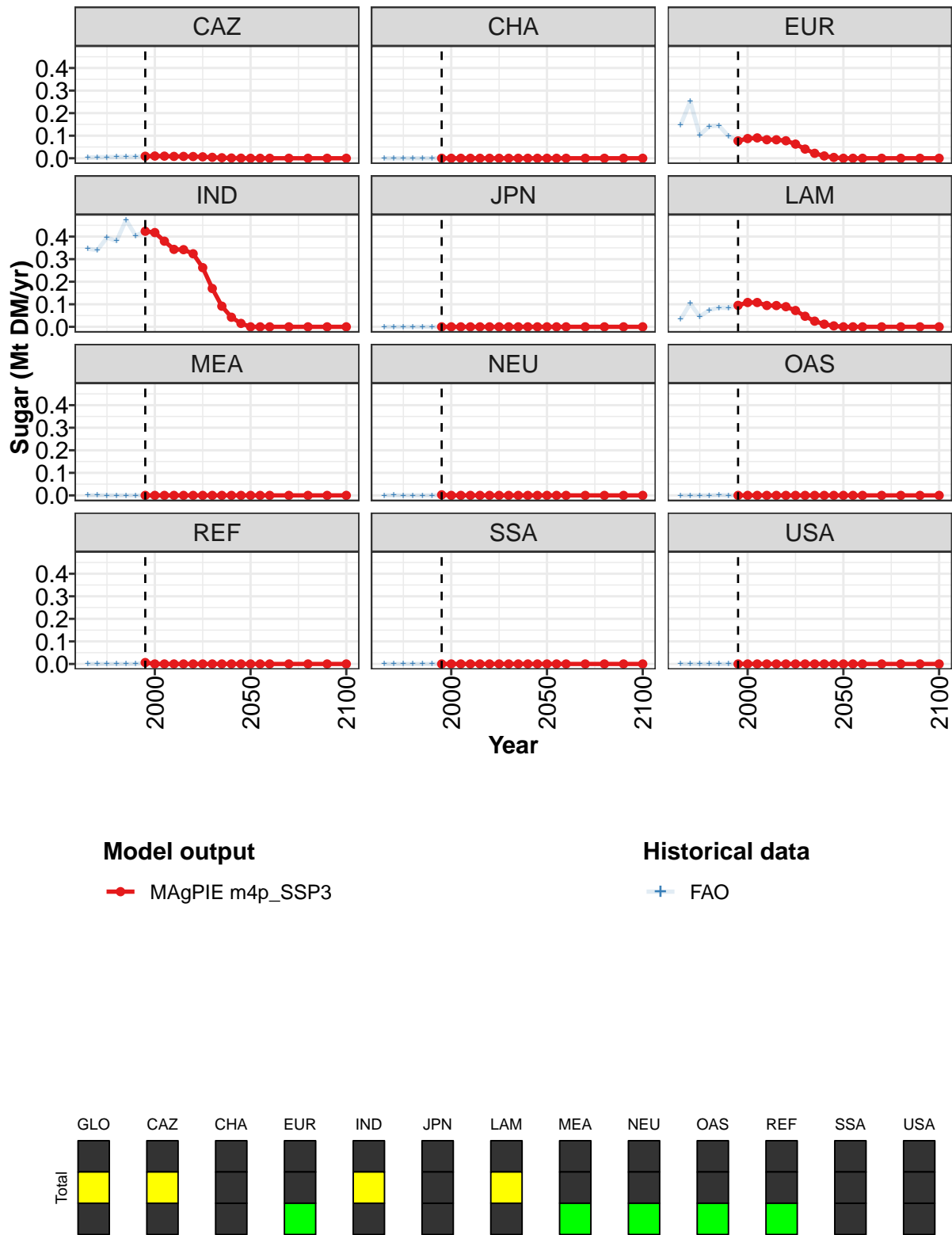


Figure 116: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.613	0.623	0.587	0.528	0.527	0.499	0.404	0.262	0.141	0.065	0.023
CAZ	0.009	0.010	0.009	0.008	0.008	0.008	0.006	0.004	0.002	0.001	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.077	0.087	0.090	0.082	0.082	0.078	0.063	0.041	0.022	0.010	0.004
IND	0.424	0.418	0.380	0.343	0.342	0.324	0.262	0.170	0.091	0.043	0.015
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.095	0.108	0.108	0.095	0.094	0.089	0.072	0.047	0.025	0.012	0.004
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 347: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Sugar (Mt DM/yr) [PART 1/2]

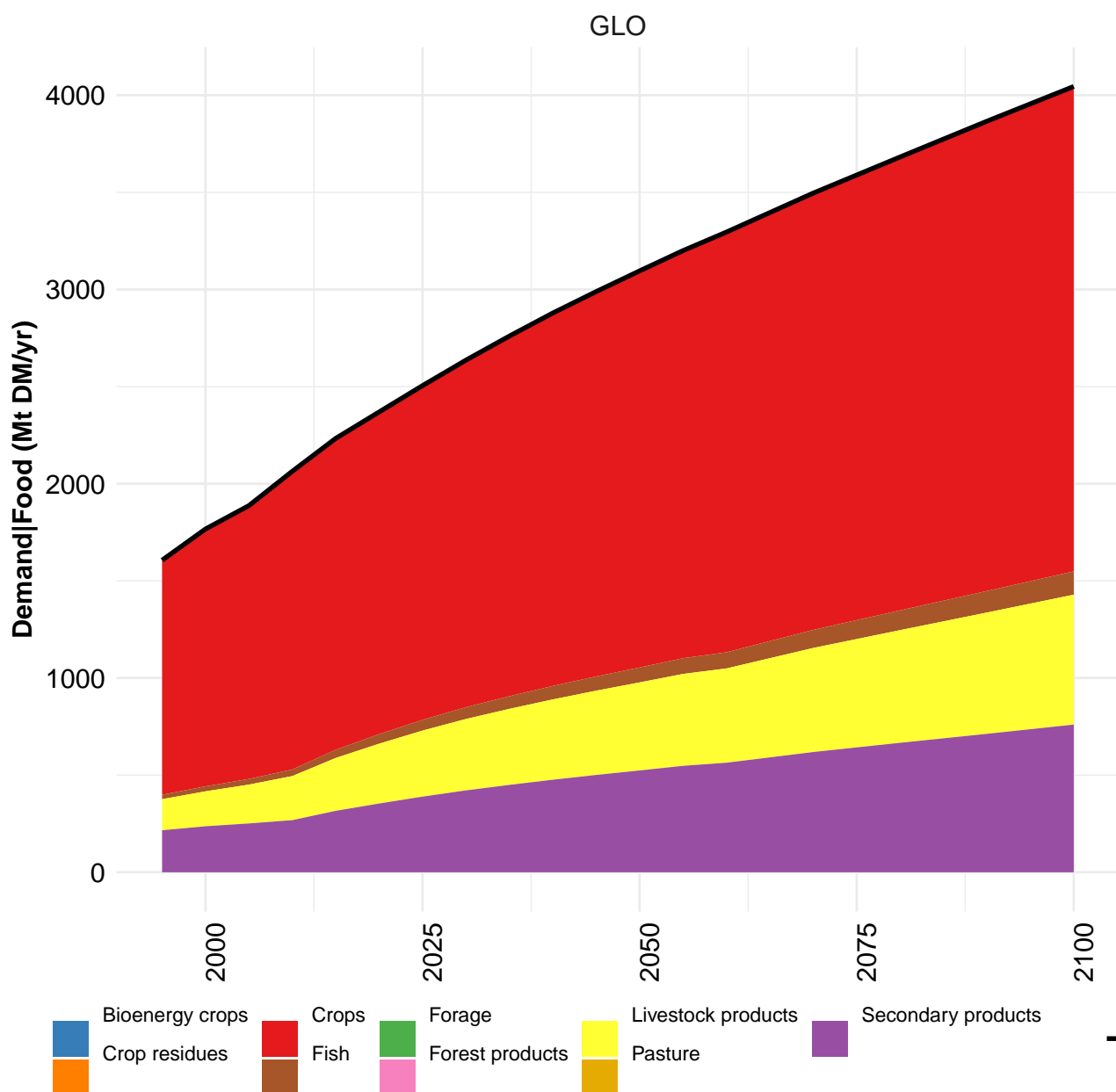
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

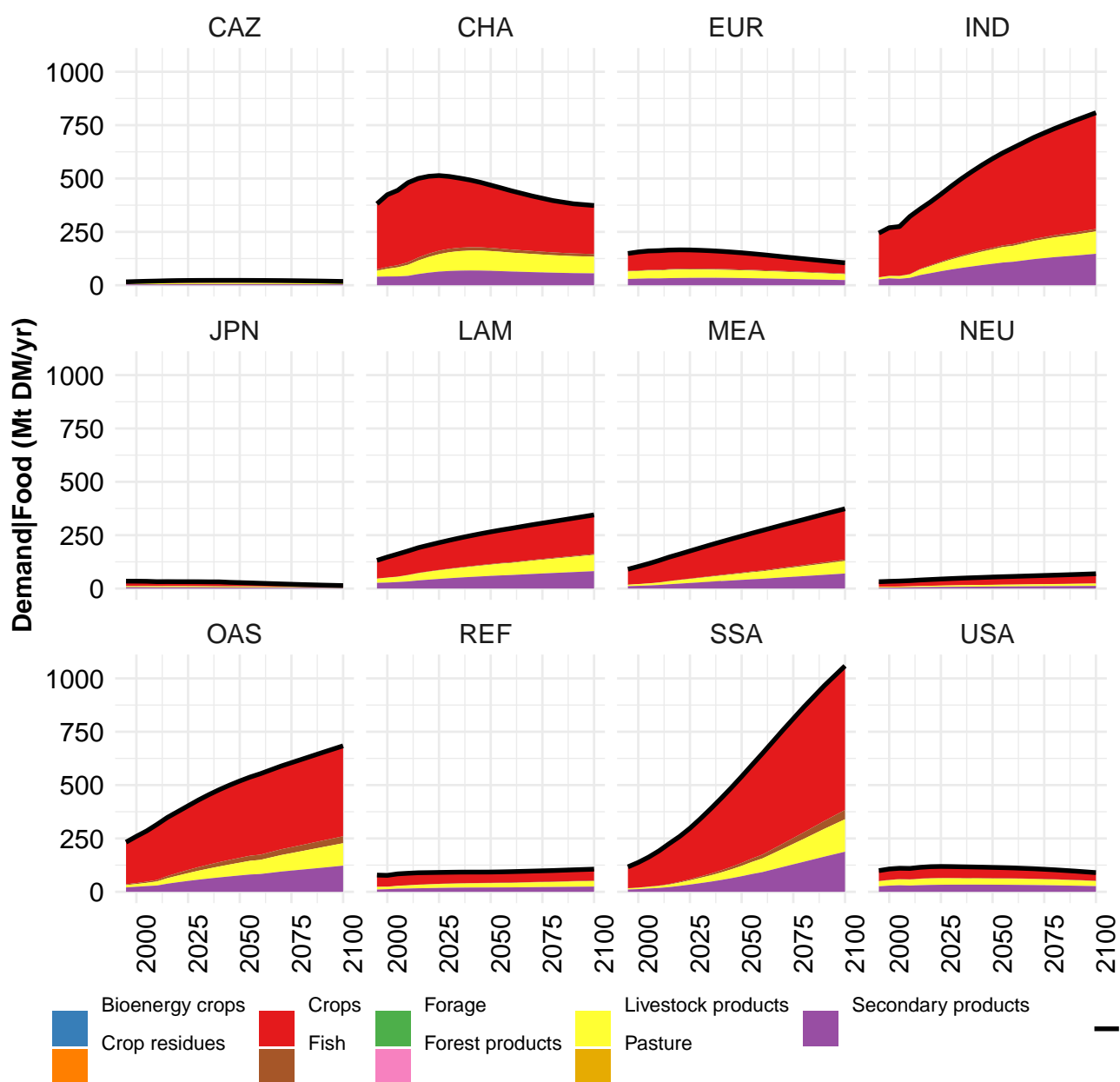
Table 348: MAgPIE m4p_SSP3 — Demand—Feed—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

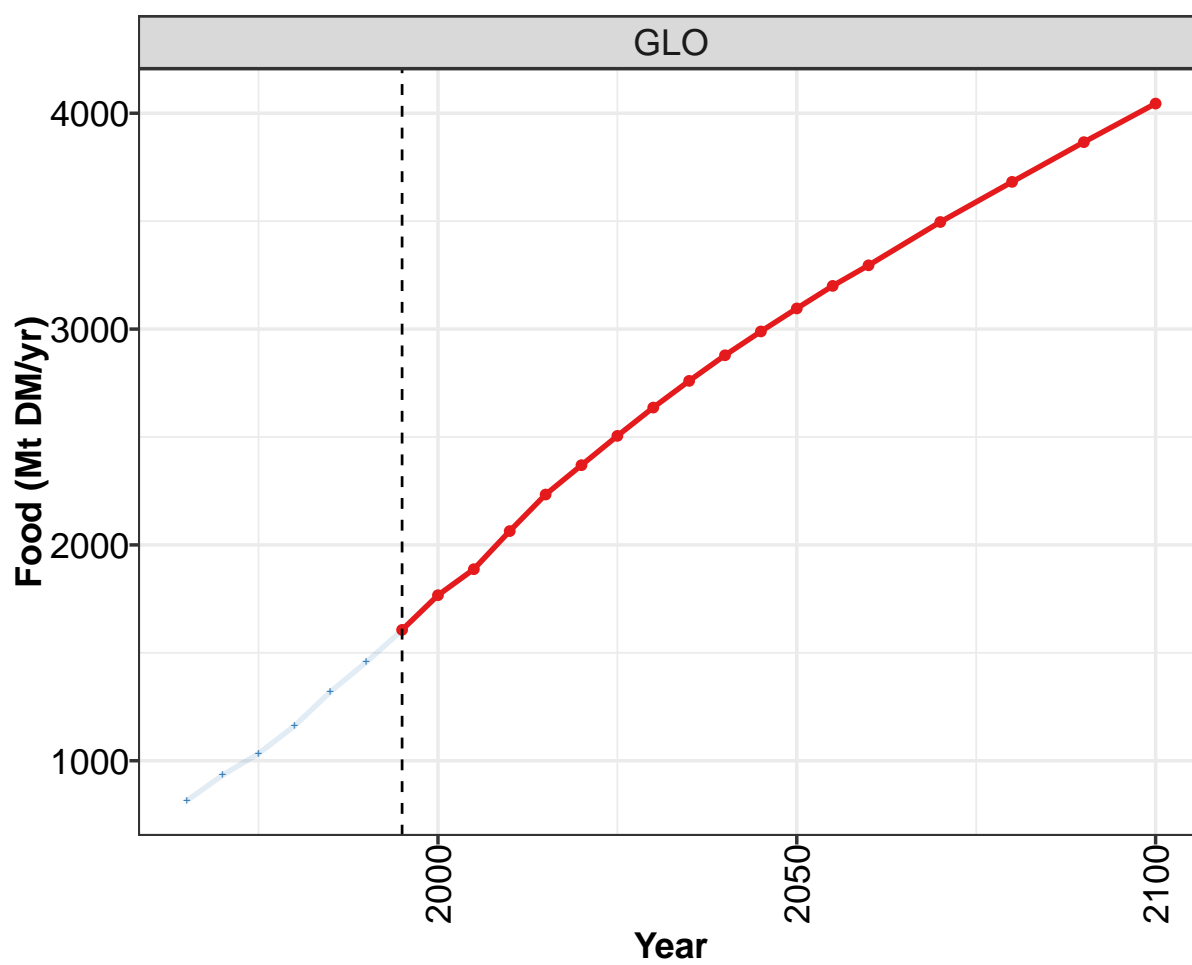
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.531	0.701	0.549	0.603	0.712	0.592	0.614	0.623	0.587	0.528
CAZ	0.004	0.005	0.005	0.006	0.006	0.007	0.009	0.010	0.009	0.008
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.147	0.252	0.103	0.141	0.145	0.098	0.077	0.087	0.090	0.082
IND	0.346	0.340	0.395	0.381	0.474	0.404	0.424	0.418	0.380	0.343
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.033	0.103	0.045	0.075	0.085	0.083	0.095	0.108	0.108	0.095
MEA	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 349: FAO — Demand—Feed—Secondary products—Sugar (Mt DM/yr)

7 Food





**Model output**

—●— MAgPIE m4p_SSP3

Historical data

—+— FAO

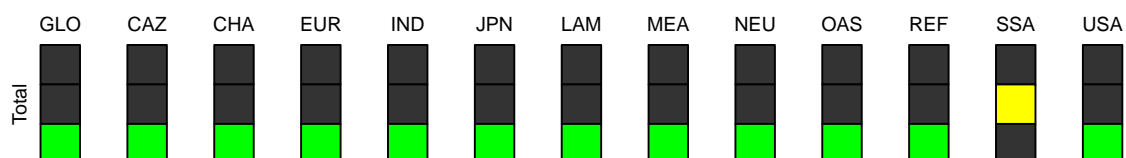
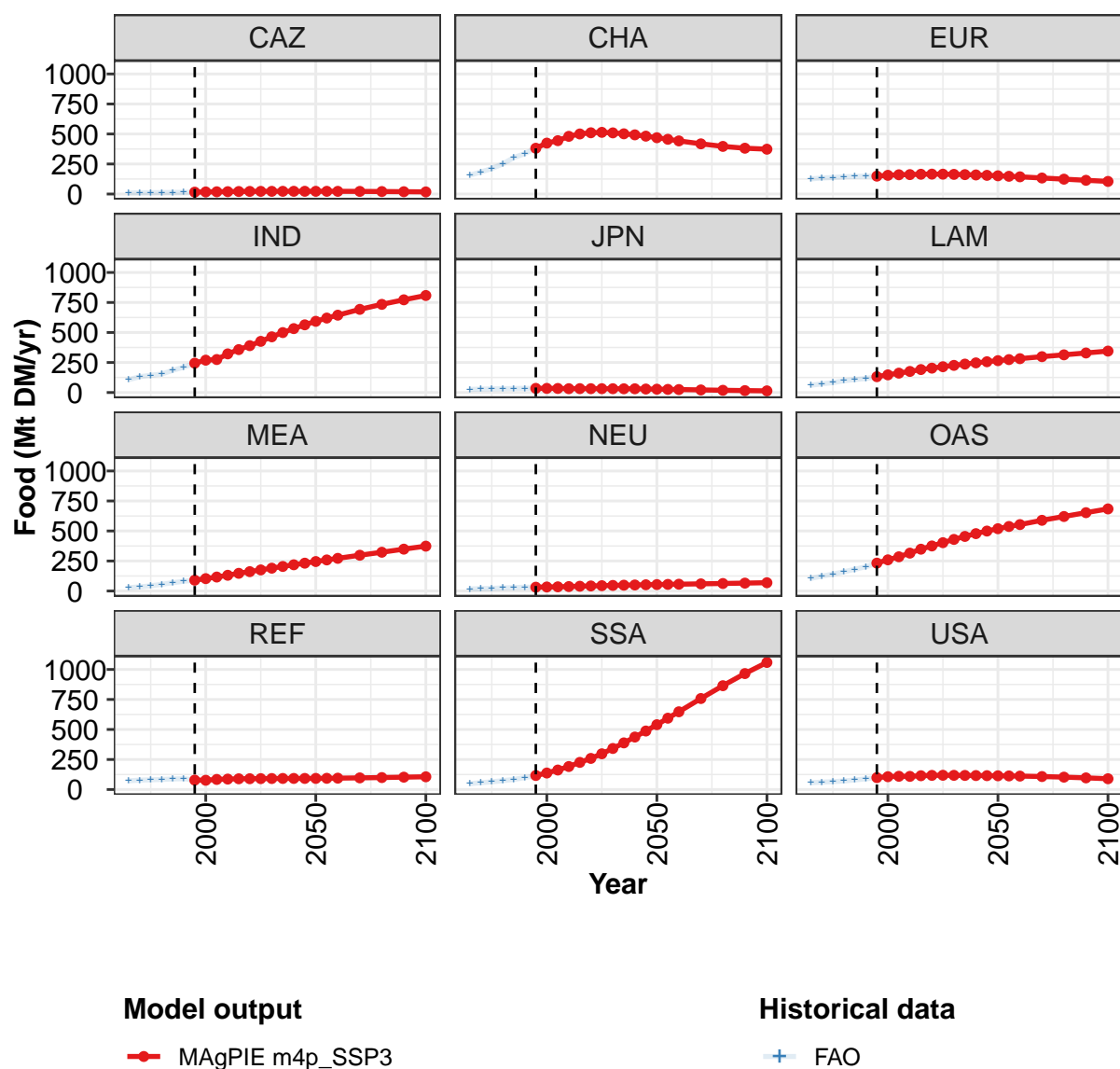


Figure 117: MAgPIE m4p_SSP3 — Demand—Food (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1606	1767	1888	2064	2233	2370	2505	2636	2760	2879	2989
CAZ	16	18	19	20	21	22	22	23	23	23	23
CHA	382	424	444	481	500	510	514	510	502	493	482
EUR	149	156	161	162	165	166	165	164	162	159	156
IND	244	270	275	322	358	390	426	464	499	533	564
JPN	35	34	34	32	32	32	32	32	31	31	29
LAM	132	147	162	176	191	203	215	226	237	247	256
MEA	90	103	117	131	147	161	176	190	205	219	232
NEU	32	34	35	37	40	42	44	47	49	50	52
OAS	233	260	285	316	348	375	403	430	455	478	499
REF	78	77	84	87	89	90	91	92	92	92	92
SSA	117	138	162	192	226	259	298	342	388	437	487
USA	99	107	110	109	115	118	119	118	117	116	115

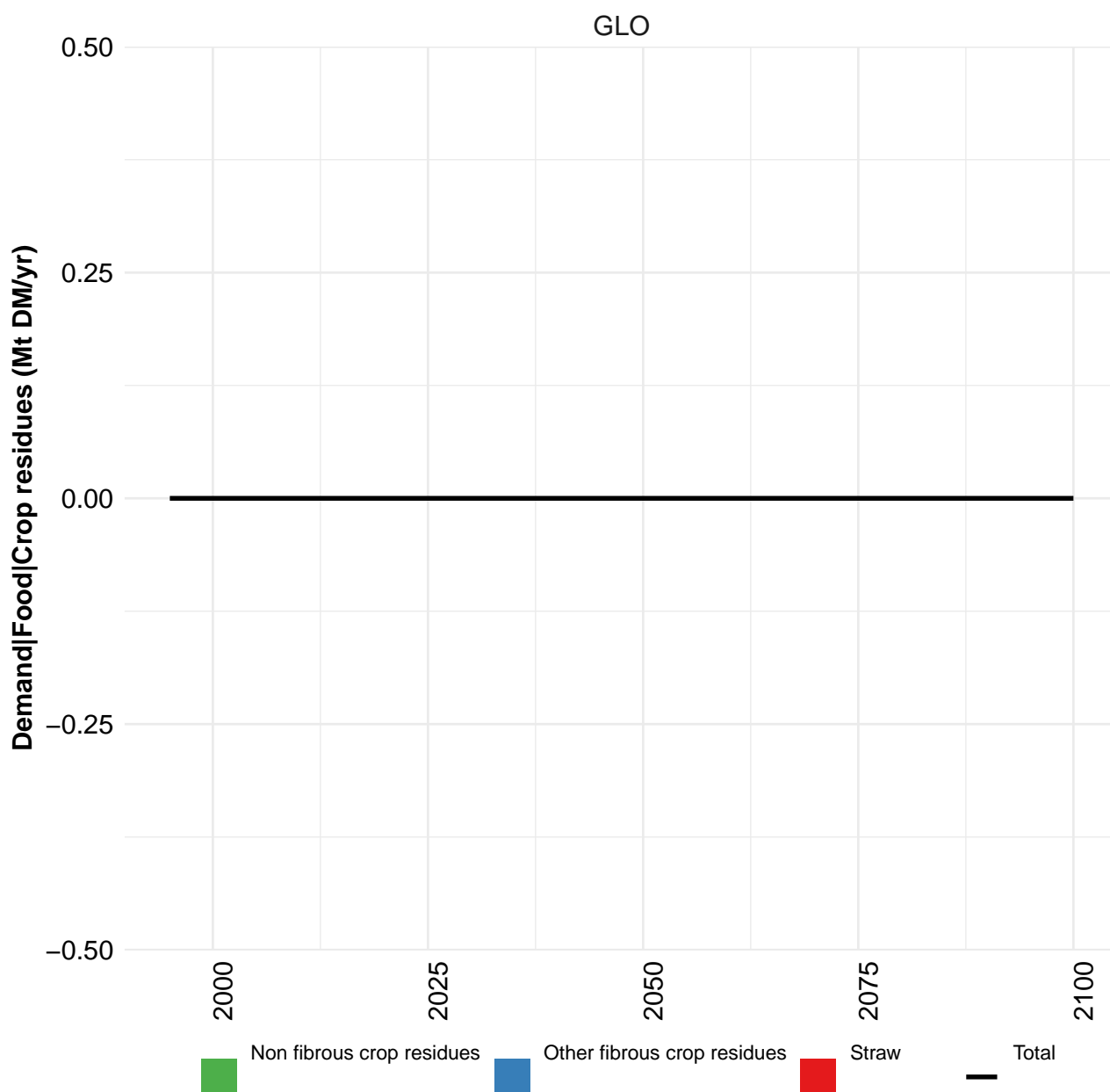
Table 350: MAgPIE m4p-SSP3 — Demand—Food (Mt DM/yr) [PART 1/2]

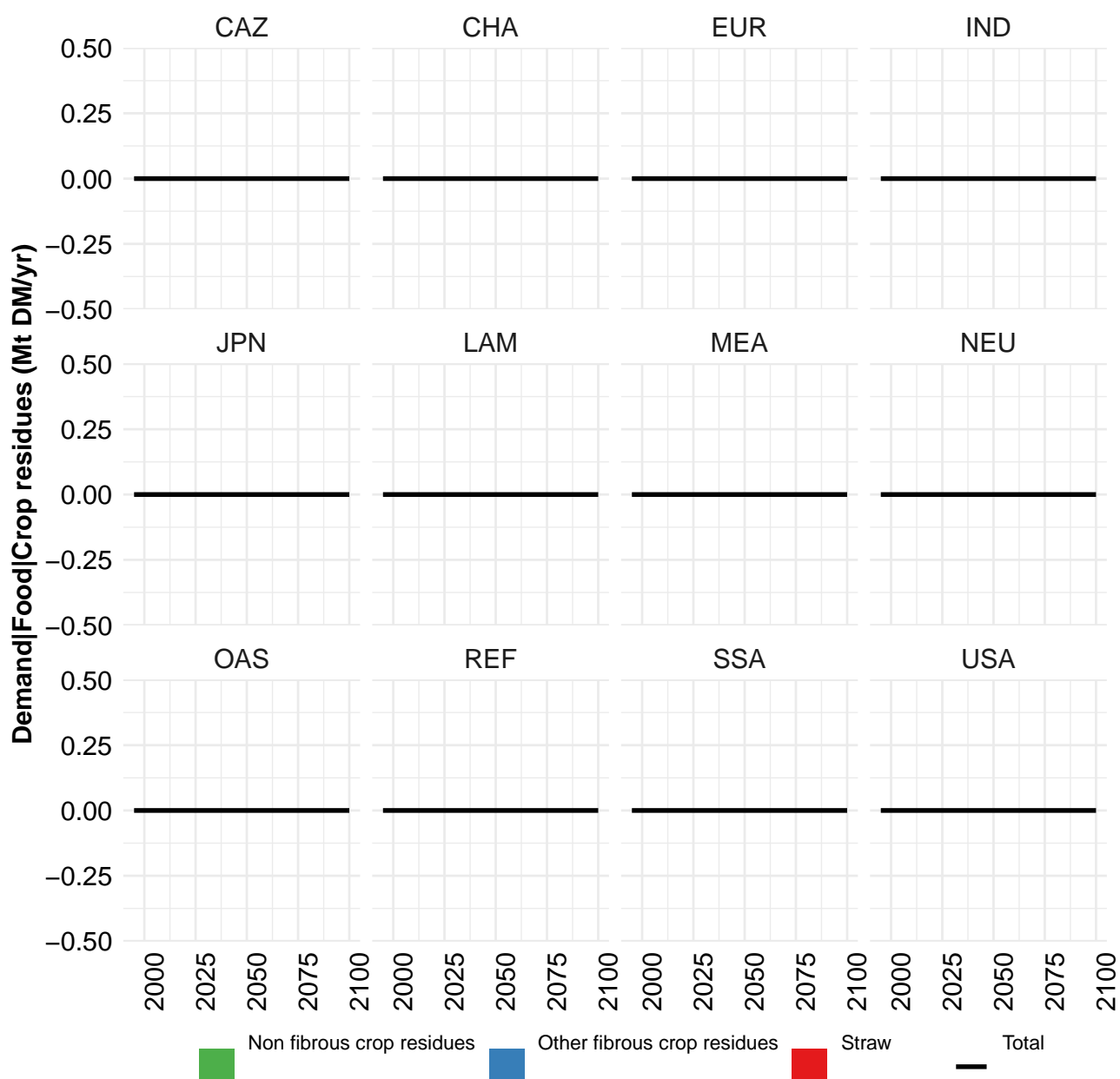
	2050	2055	2060	2070	2080	2090	2100
GLO	3096	3200	3296	3496	3682	3866	4045
CAZ	23	23	22	22	21	19	18
CHA	469	456	443	418	397	382	374
EUR	152	148	143	134	124	114	105
IND	593	620	644	693	734	772	808
JPN	28	26	25	22	19	16	14
LAM	266	274	282	299	314	329	345
MEA	246	259	272	298	323	349	374
NEU	54	55	57	60	63	66	69
OAS	519	538	553	589	621	653	684
REF	93	93	95	97	100	103	106
SSA	540	594	648	758	865	966	1059
USA	114	113	112	108	103	97	90

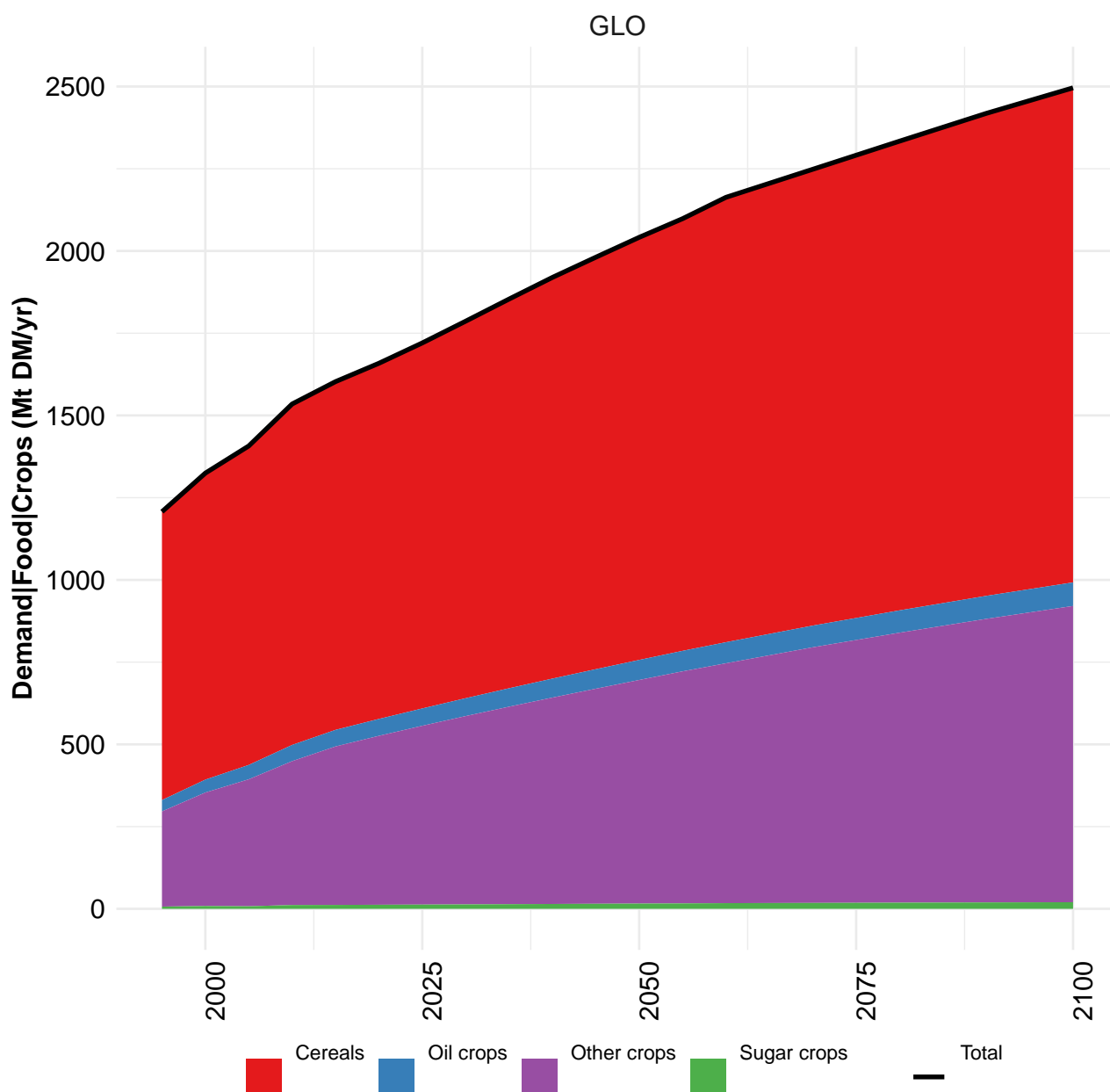
Table 351: MAgPIE m4p-SSP3 — Demand—Food (Mt DM/yr) [PART 2/2]

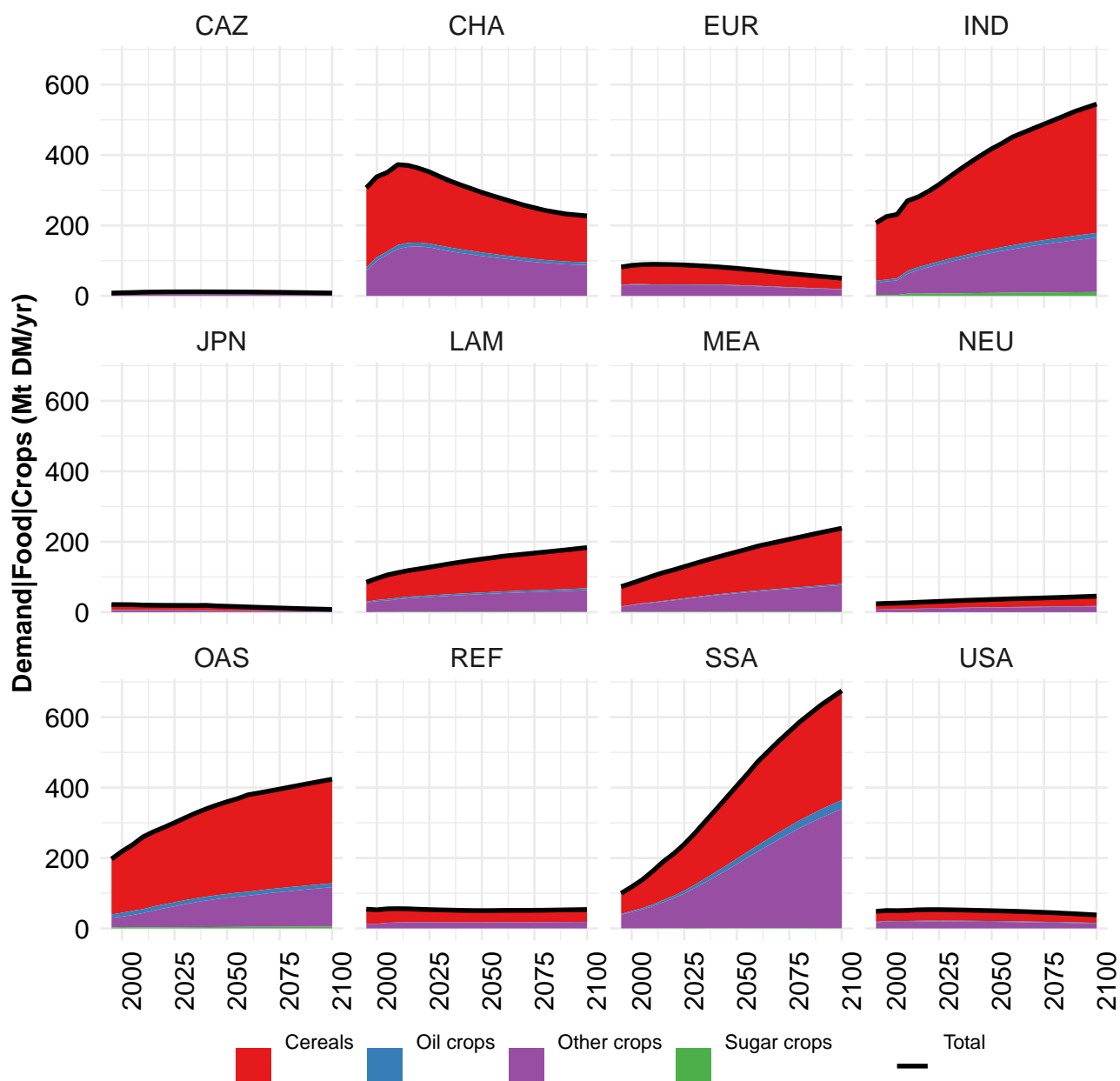
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	815	934	1033	1161	1319	1456	1605	1765	1888	2064
CAZ	10	11	12	12	13	14	16	17	19	20
CHA	156	183	212	251	303	336	381	424	444	481
EUR	126	133	137	143	147	149	149	156	161	162
IND	107	131	143	154	185	211	243	268	275	322
JPN	26	29	30	32	34	35	35	34	34	32
LAM	61	72	83	98	108	117	132	147	162	176
MEA	28	34	43	56	69	81	90	103	117	131
NEU	18	20	22	26	29	32	32	34	35	37
OAS	105	124	141	160	181	202	232	260	285	316
REF	73	78	81	84	87	91	78	77	84	87
SSA	49	57	64	74	84	99	117	138	162	191
USA	56	62	65	71	80	89	99	107	110	110

Table 352: FAO — Demand—Food (Mt DM/yr)

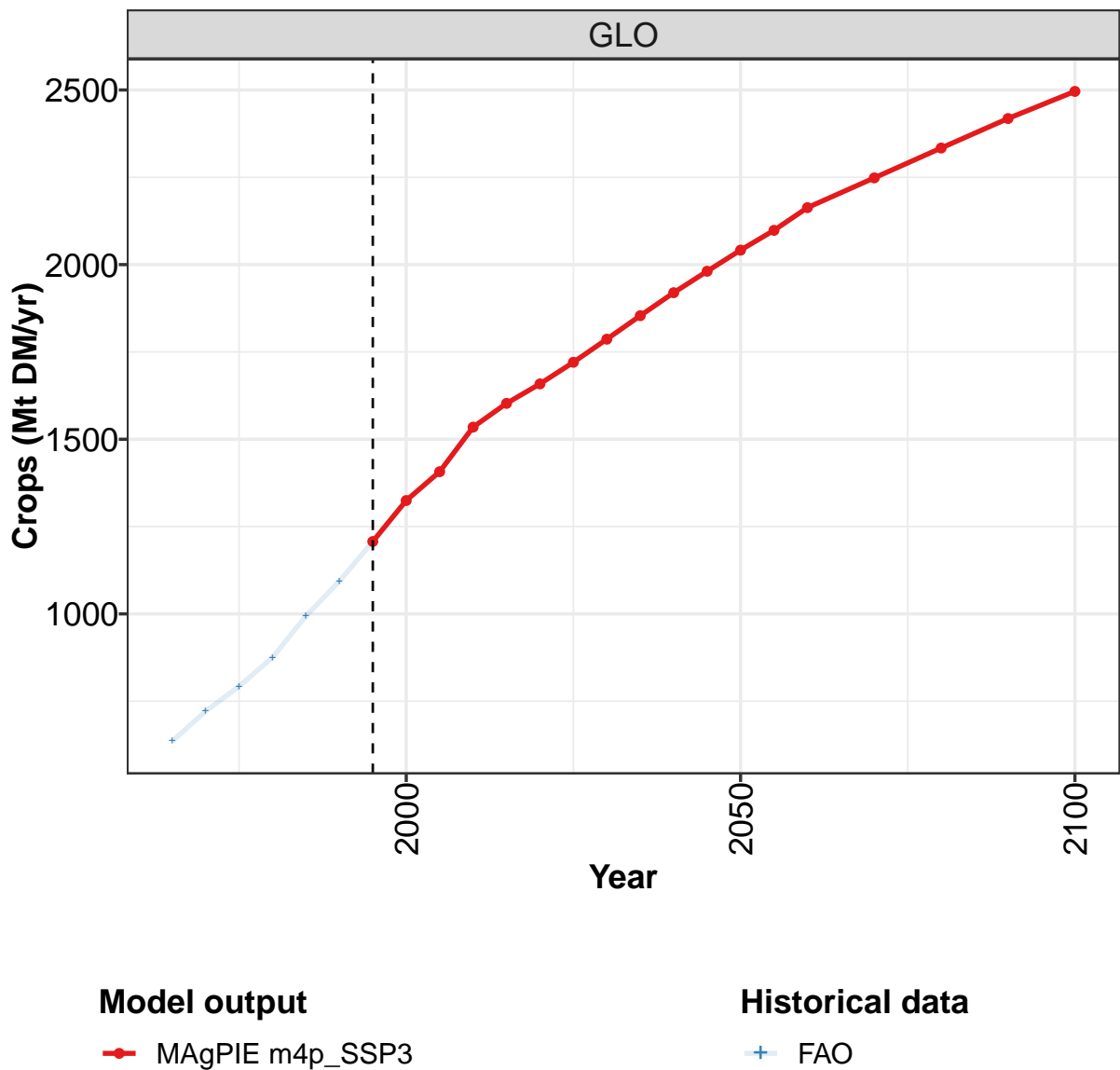








7.1
Crops



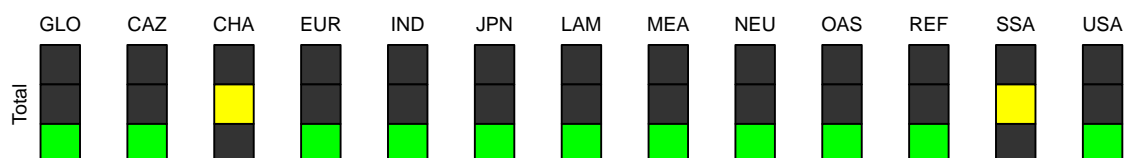
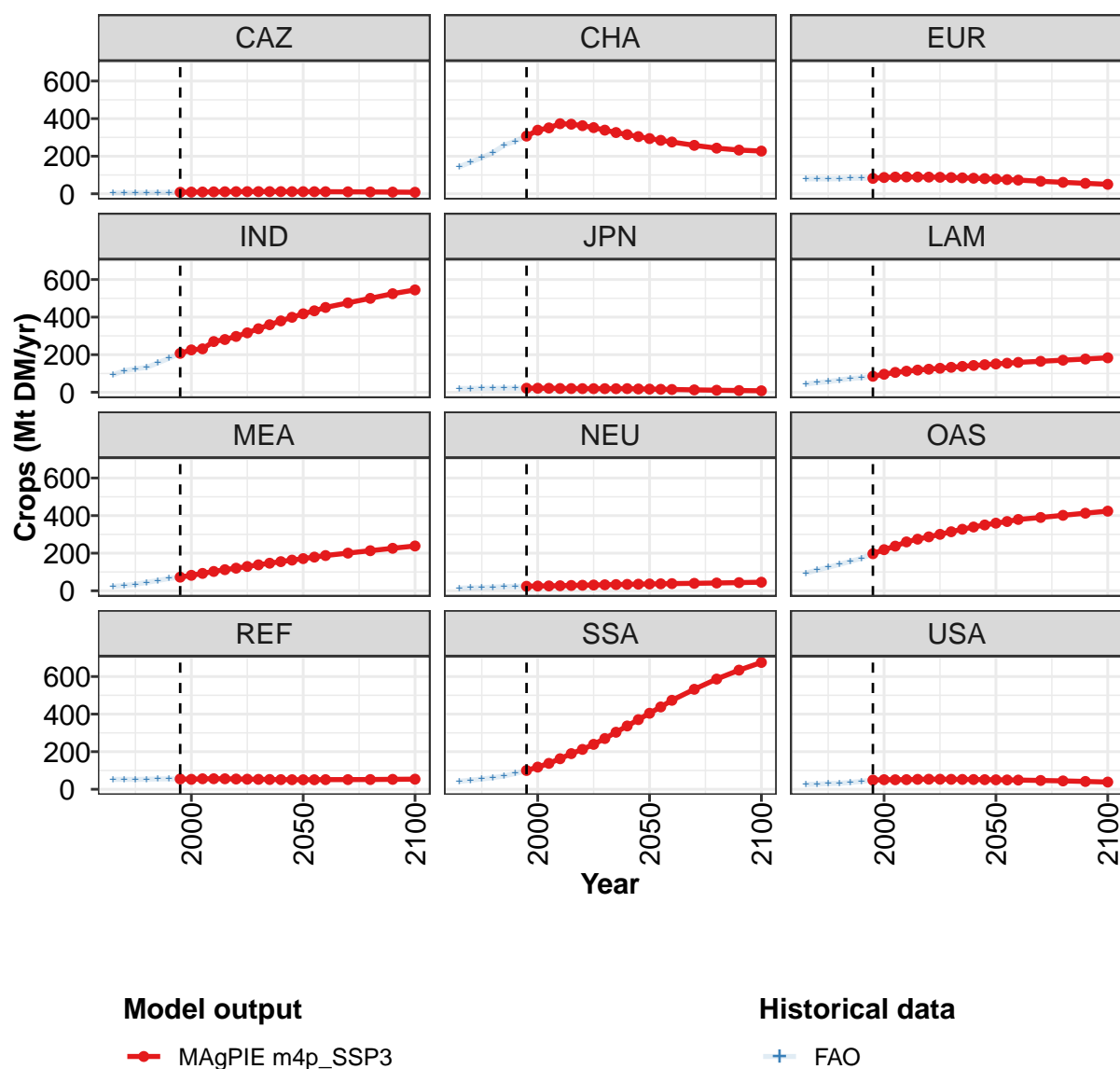


Figure 118: MAgPIE m4p_SSP3 — Demand—Food—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1207	1325	1407	1535	1603	1659	1720	1787	1854	1920	1981
CAZ	8	9	10	10	11	11	11	12	12	12	11
CHA	307	338	351	373	370	362	352	339	326	315	304
EUR	82	87	89	90	89	89	88	86	85	83	81
IND	207	225	231	270	281	297	316	338	360	380	399
JPN	22	21	21	20	20	19	19	19	19	19	18
LAM	85	96	106	112	118	123	128	133	138	142	147
MEA	73	82	92	103	112	120	129	138	147	155	163
NEU	24	25	26	27	28	29	31	32	33	34	35
OAS	197	219	238	260	275	287	300	314	327	339	350
REF	55	53	56	56	56	54	54	53	52	51	51
SSA	100	118	138	163	190	212	239	270	303	337	371
USA	49	51	51	51	53	53	53	53	52	52	51

Table 353: MAgPIE m4p-SSP3 — Demand—Food—Crops (Mt DM/yr) [PART 1/2]

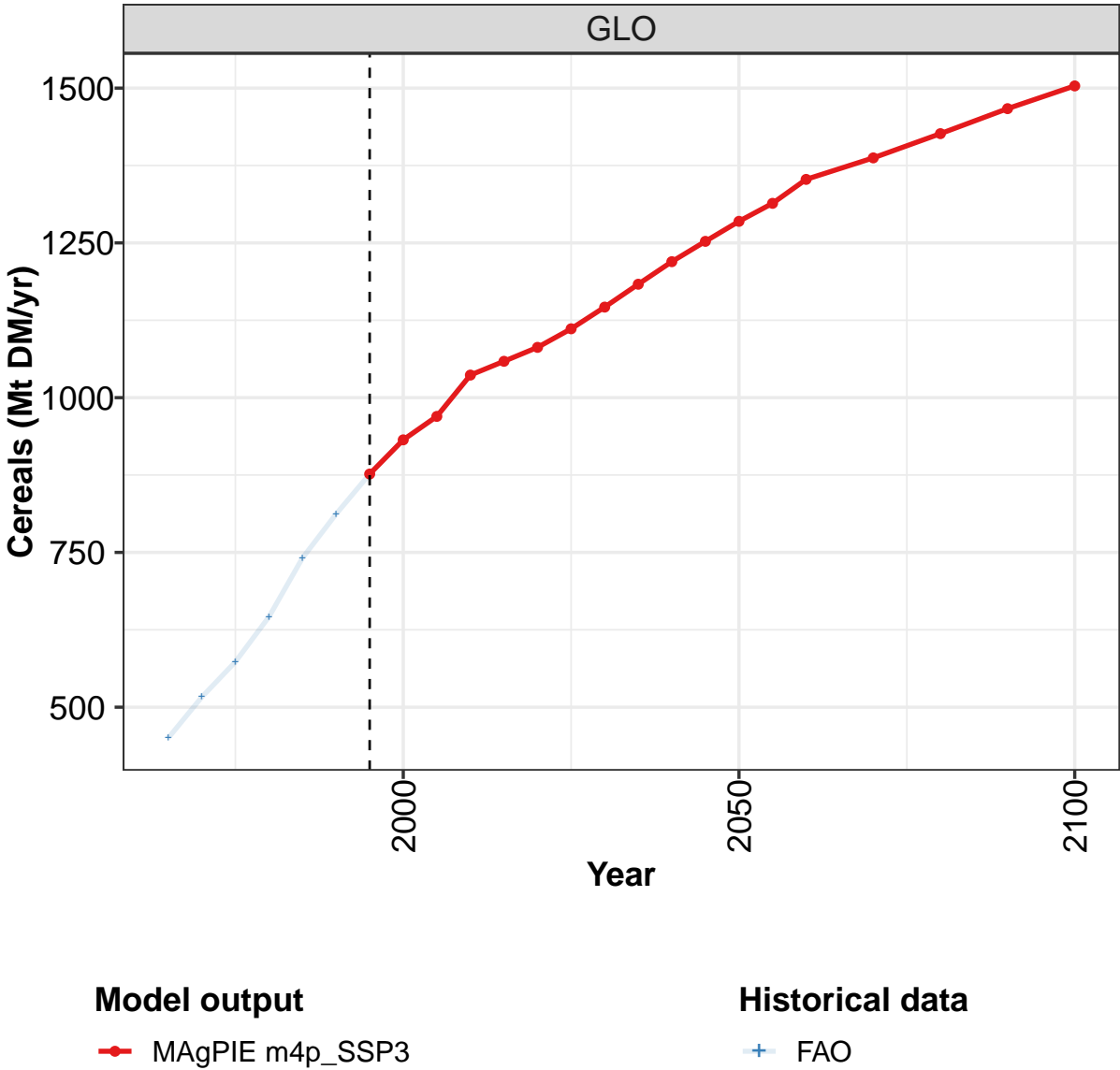
	2050	2055	2060	2070	2080	2090	2100
GLO	2041	2098	2163	2248	2334	2418	2496
CAZ	11	11	11	10	10	9	8
CHA	294	284	275	258	243	233	227
EUR	78	75	73	67	61	55	50
IND	418	433	451	476	500	525	545
JPN	17	16	15	13	11	9	8
LAM	151	155	159	165	171	177	183
MEA	171	179	187	200	213	226	238
NEU	36	37	38	40	41	43	45
OAS	360	369	379	390	402	413	424
REF	51	51	51	51	52	53	54
SSA	405	438	473	532	587	634	675
USA	50	50	49	47	44	41	38

Table 354: MAgPIE m4p-SSP3 — Demand—Food—Crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	635	721	793	875	994	1093	1207	1325	1407	1535
CAZ	5	5	5	6	7	7	8	9	10	10
CHA	144	168	192	219	259	280	307	338	351	373
EUR	79	79	79	80	82	82	82	87	89	90
IND	92	115	125	132	156	181	207	225	231	270
JPN	20	20	21	21	22	22	22	21	21	20
LAM	44	51	57	65	73	77	85	96	106	112
MEA	23	28	35	45	55	65	73	82	92	103
NEU	14	15	17	19	22	24	24	25	26	27
OAS	94	110	125	140	157	173	197	219	238	260
REF	52	53	52	54	55	55	55	53	56	56
SSA	42	49	54	62	71	84	100	118	138	162
USA	26	27	30	32	36	42	49	51	51	51

Table 355: FAO — Demand—Food—Crops (Mt DM/yr)

7.1.1
Cereals



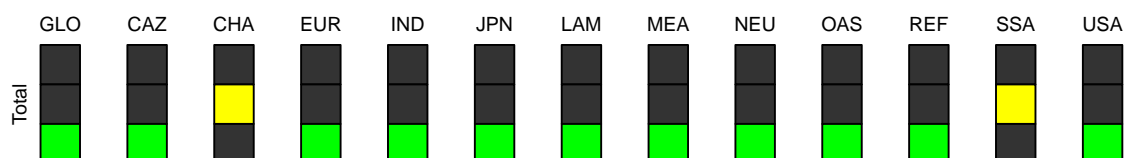
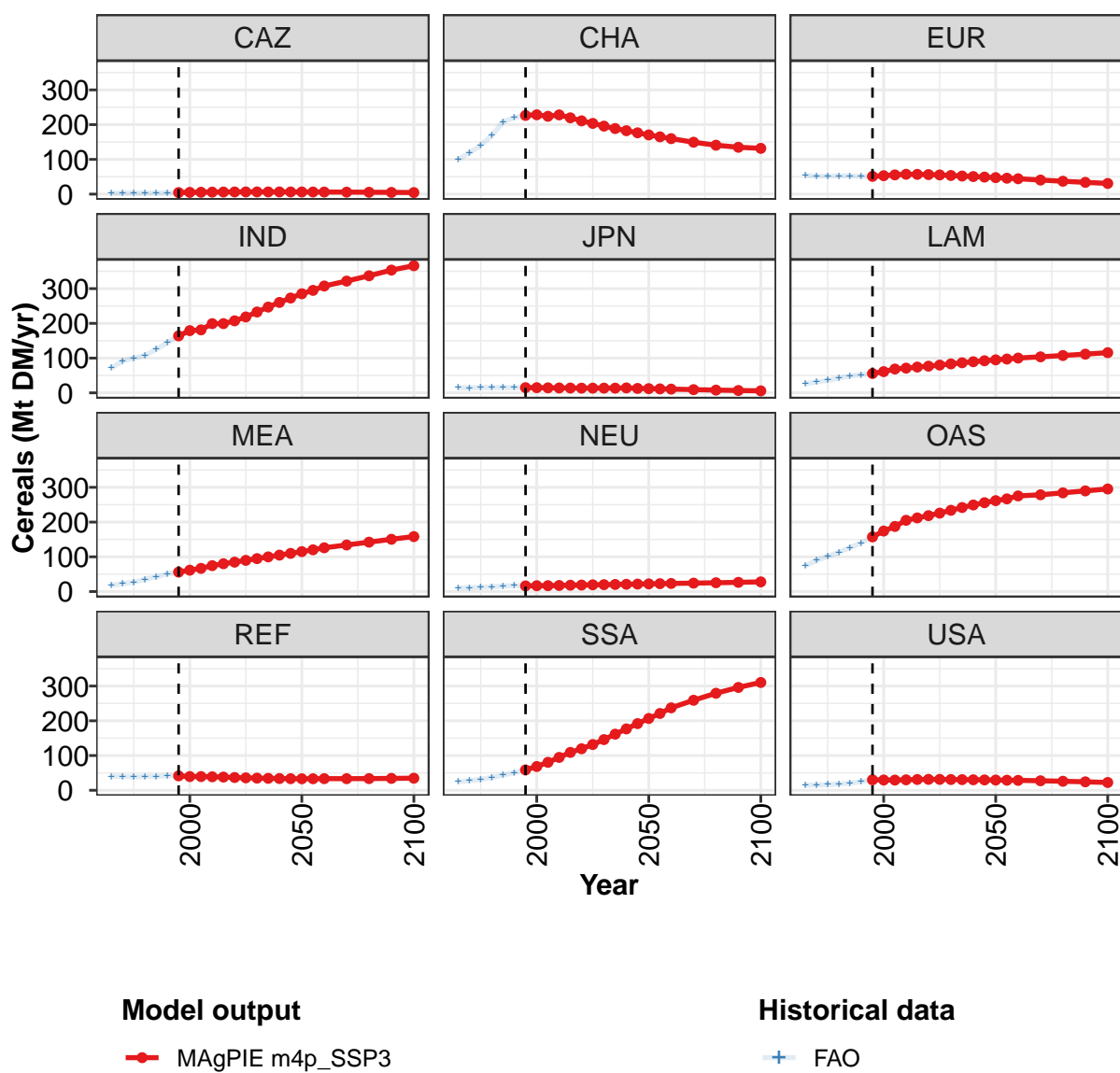


Figure 119: MAGPIE m4p_SSP3 — Demand—Food—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	877	932	970	1036	1059	1081	1111	1146	1183	1220	1252
CAZ	4	5	5	6	6	6	6	6	6	6	6
CHA	227	228	224	228	220	211	204	196	189	183	177
EUR	51	53	55	57	57	56	55	54	52	51	49
IND	164	179	181	199	199	207	218	233	247	260	273
JPN	15	15	14	14	14	14	14	14	14	14	13
LAM	56	61	69	71	74	77	80	83	87	90	92
MEA	56	62	67	75	80	85	90	95	100	105	110
NEU	16	17	17	18	18	19	19	20	20	21	22
OAS	157	174	187	205	212	219	226	234	242	249	256
REF	41	40	40	39	38	37	36	35	34	34	33
SSA	59	68	80	95	109	120	132	146	162	177	192
USA	30	30	29	30	31	31	31	31	31	30	30

Table 356: MAgPIE m4p_SSP3 — Demand—Food—Crops—Cereals (Mt DM/yr) [PART 1/2]

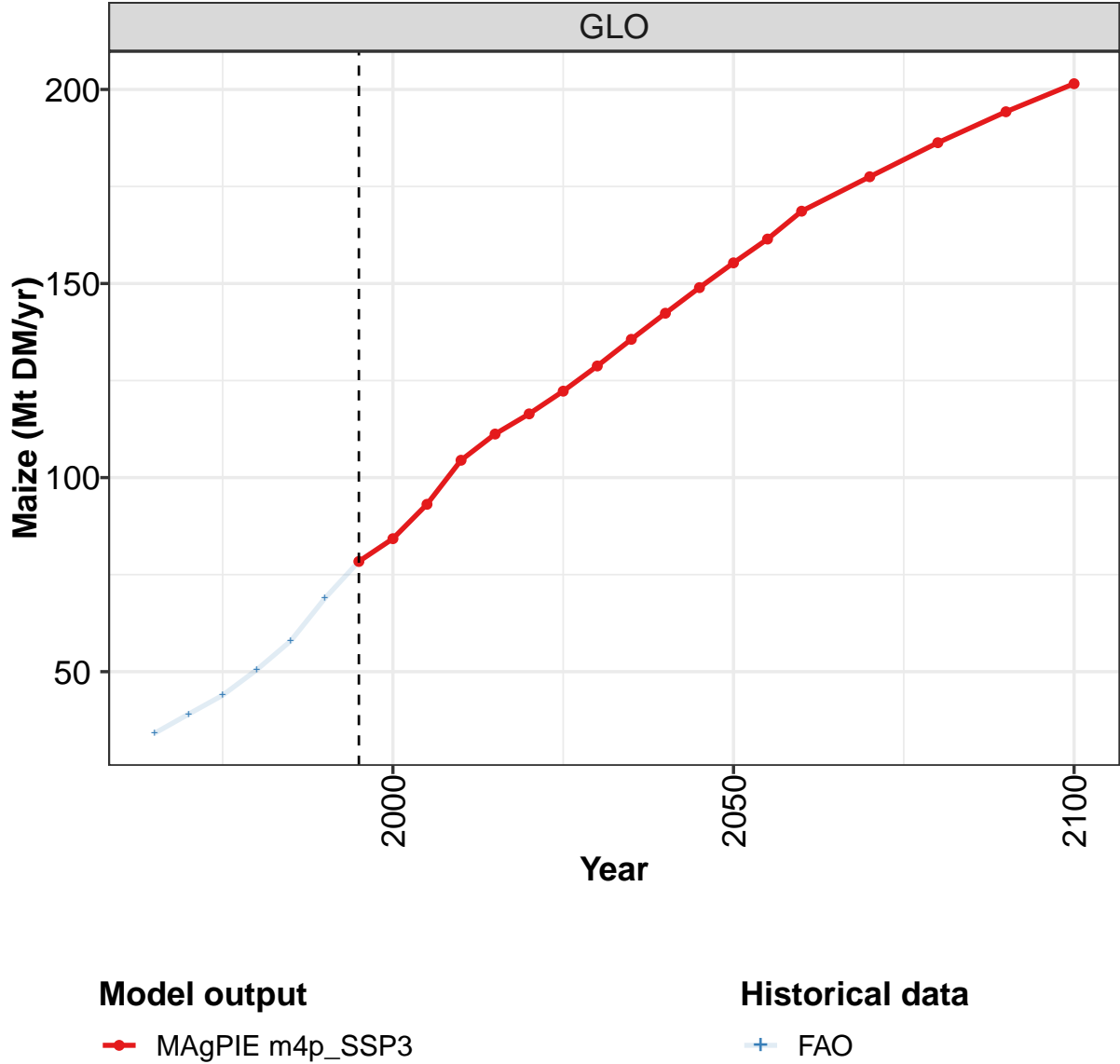
	2050	2055	2060	2070	2080	2090	2100
GLO	1285	1314	1353	1387	1426	1467	1504
CAZ	6	6	6	6	5	5	5
CHA	170	165	160	149	141	135	132
EUR	48	46	44	41	37	34	31
IND	285	295	308	322	337	353	366
JPN	12	11	11	9	8	7	6
LAM	95	97	100	104	107	111	116
MEA	115	120	126	134	142	151	158
NEU	22	23	23	24	25	27	28
OAS	262	267	275	279	284	290	295
REF	33	33	33	33	34	34	35
SSA	207	221	237	259	279	296	310
USA	29	29	29	27	26	24	22

Table 357: MAgPIE m4p_SSP3 — Demand—Food—Crops—Cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	450	516	573	646	741	812	877	932	970	1037
CAZ	3	3	3	3	4	4	4	5	5	6
CHA	100	119	140	169	208	220	227	228	224	228
EUR	54	52	52	52	52	51	51	53	55	57
IND	71	91	100	107	125	144	164	179	181	199
JPN	15	14	15	15	15	15	15	15	14	14
LAM	26	31	36	42	48	52	56	61	69	71
MEA	18	22	27	35	42	51	56	62	67	75
NEU	10	11	12	14	16	17	16	17	17	18
OAS	74	90	101	113	127	140	157	174	187	205
REF	40	40	38	40	40	41	41	40	39	39
SSA	24	28	31	37	44	51	59	68	80	95
USA	15	15	17	18	20	25	30	30	29	30

Table 358: FAO — Demand—Food—Crops—Cereals (Mt DM/yr)

7.1.2 Cereals—Maize



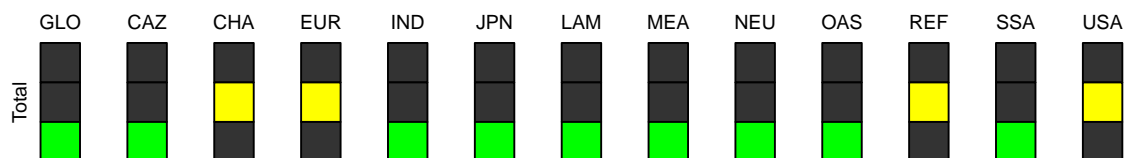
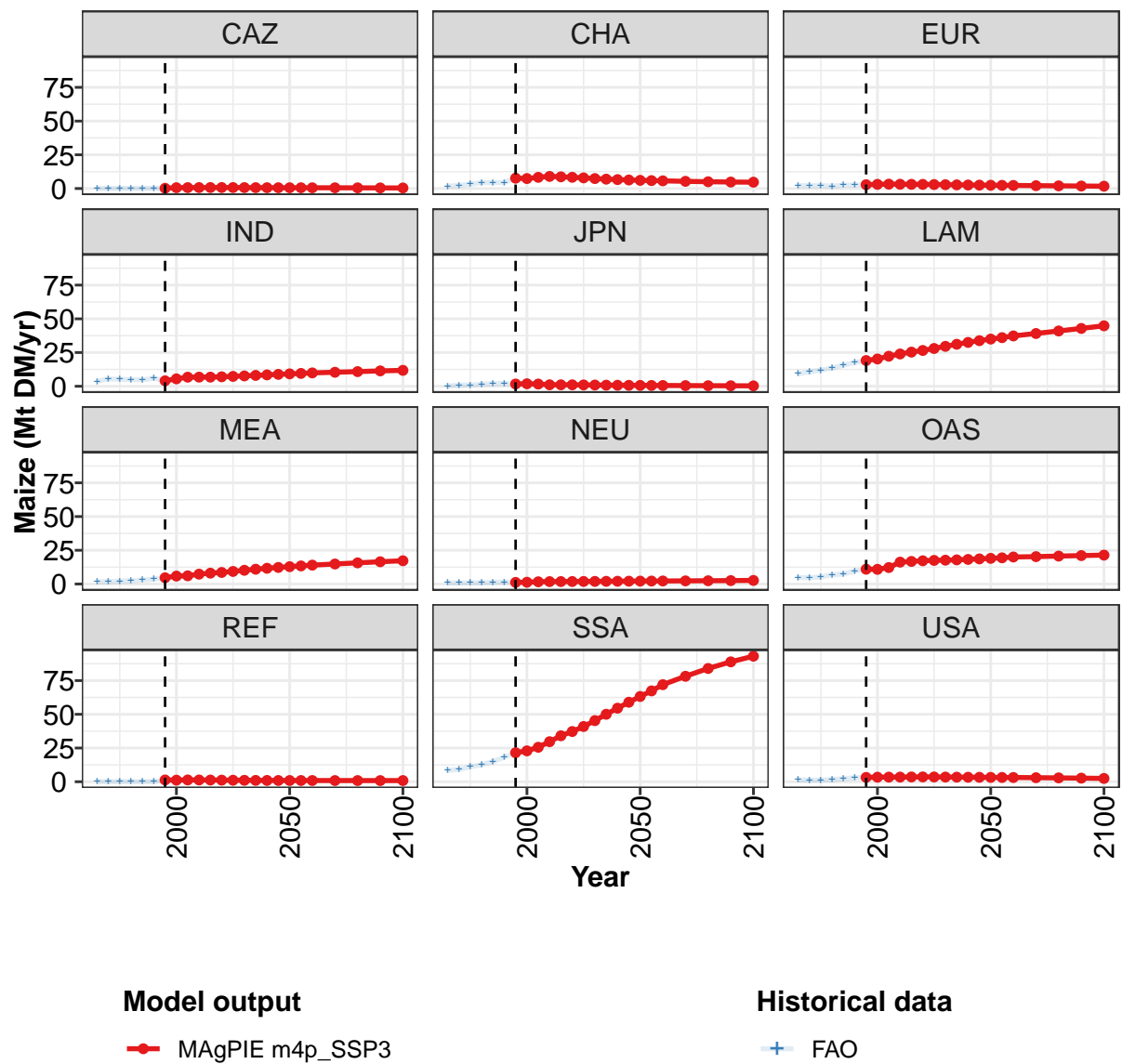


Figure 120: MAgPIE m4p_SSP3 — Demand—Food—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	78	84	93	104	111	116	122	129	136	142	149
CAZ	0	1	1	1	1	1	1	1	1	1	1
CHA	8	7	8	9	9	8	8	7	7	7	6
EUR	3	3	3	3	3	3	3	3	3	3	3
IND	4	6	7	7	7	7	7	8	8	8	9
JPN	2	2	2	1	1	1	1	1	1	1	1
LAM	19	20	22	24	25	27	28	30	31	33	34
MEA	5	6	6	7	8	9	9	10	11	12	12
NEU	1	1	2	2	2	2	2	2	2	2	2
OAS	11	11	12	16	17	17	18	18	18	18	19
REF	1	1	1	1	1	1	1	1	1	1	1
SSA	22	23	26	30	34	37	41	45	50	55	59
USA	3	3	3	3	4	4	4	3	3	3	3

Table 359: MAgPIE m4p_SSP3 — Demand—Food—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

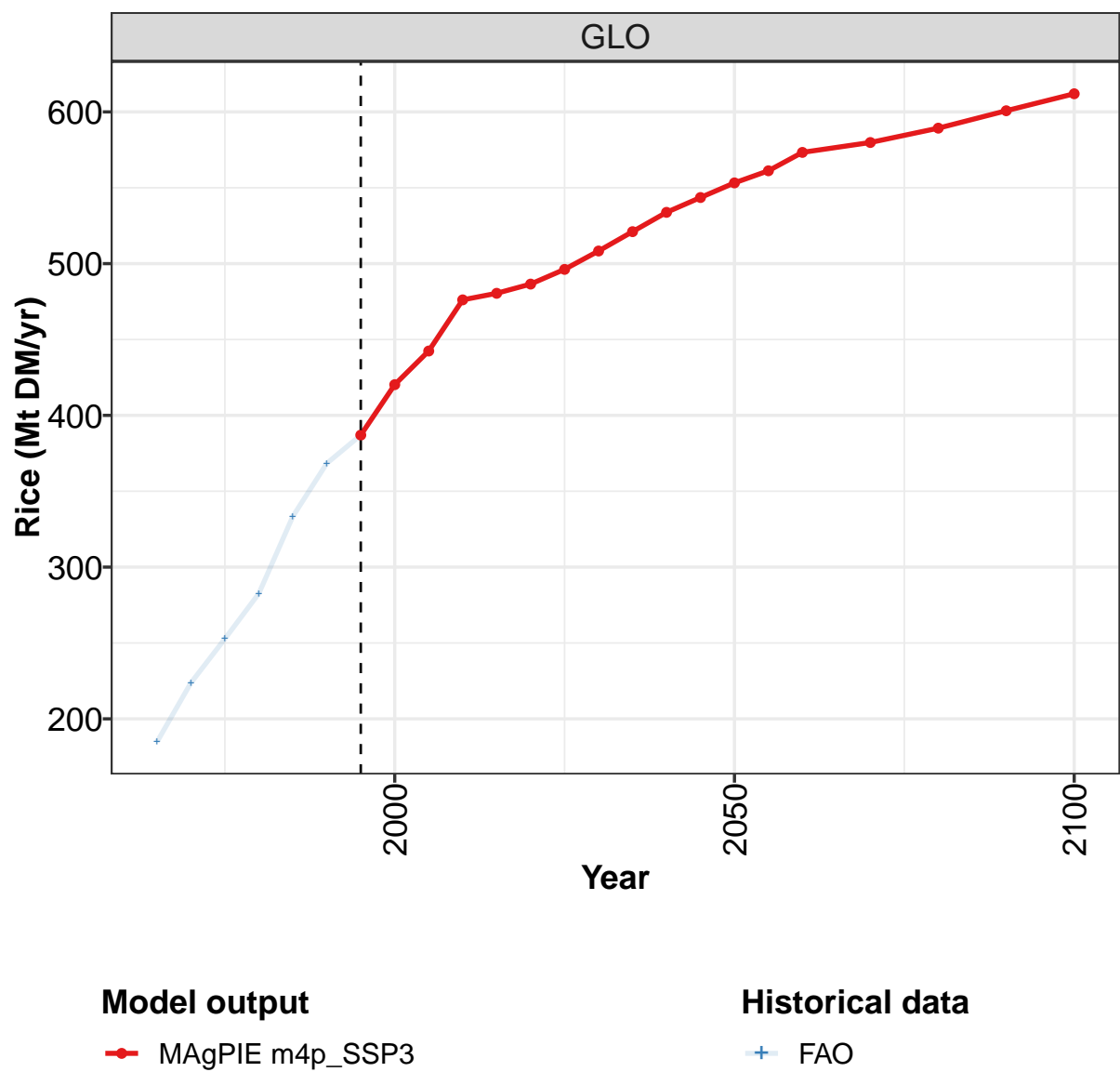
	2050	2055	2060	2070	2080	2090	2100
GLO	155	161	169	178	186	194	201
CAZ	1	1	1	1	0	0	0
CHA	6	6	6	5	5	5	5
EUR	2	2	2	2	2	2	2
IND	9	10	10	10	11	11	12
JPN	1	1	1	0	0	0	0
LAM	35	36	37	39	41	43	45
MEA	13	13	14	15	16	16	17
NEU	2	2	2	2	2	3	3
OAS	19	19	20	20	21	21	21
REF	1	1	1	1	1	1	1
SSA	63	67	72	78	84	89	93
USA	3	3	3	3	3	3	2

Table 360: MAgPIE m4p_SSP3 — Demand—Food—Crops—Cereals—Maize (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	34	39	44	50	58	69	78	84	93	104
CAZ	0	0	0	0	0	0	0	1	1	1
CHA	2	2	3	4	4	5	8	7	8	9
EUR	2	2	2	2	2	3	3	3	3	3
IND	4	5	5	5	5	6	4	6	7	7
JPN	0	1	1	1	2	2	2	2	2	1
LAM	9	11	12	14	16	18	19	20	22	24
MEA	2	2	2	2	3	4	5	6	6	7
NEU	1	1	1	1	1	1	1	1	2	2
OAS	5	5	5	7	7	10	11	11	12	16
REF	0	0	0	0	0	0	1	1	1	1
SSA	8	9	11	13	15	18	22	23	26	30
USA	1	1	1	2	2	3	3	3	3	3

Table 361: FAO — Demand—Food—Crops—Cereals—Maize (Mt DM/yr)

7.1.3
Cereals—Rice



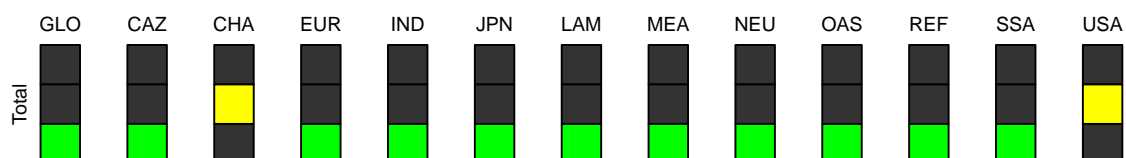
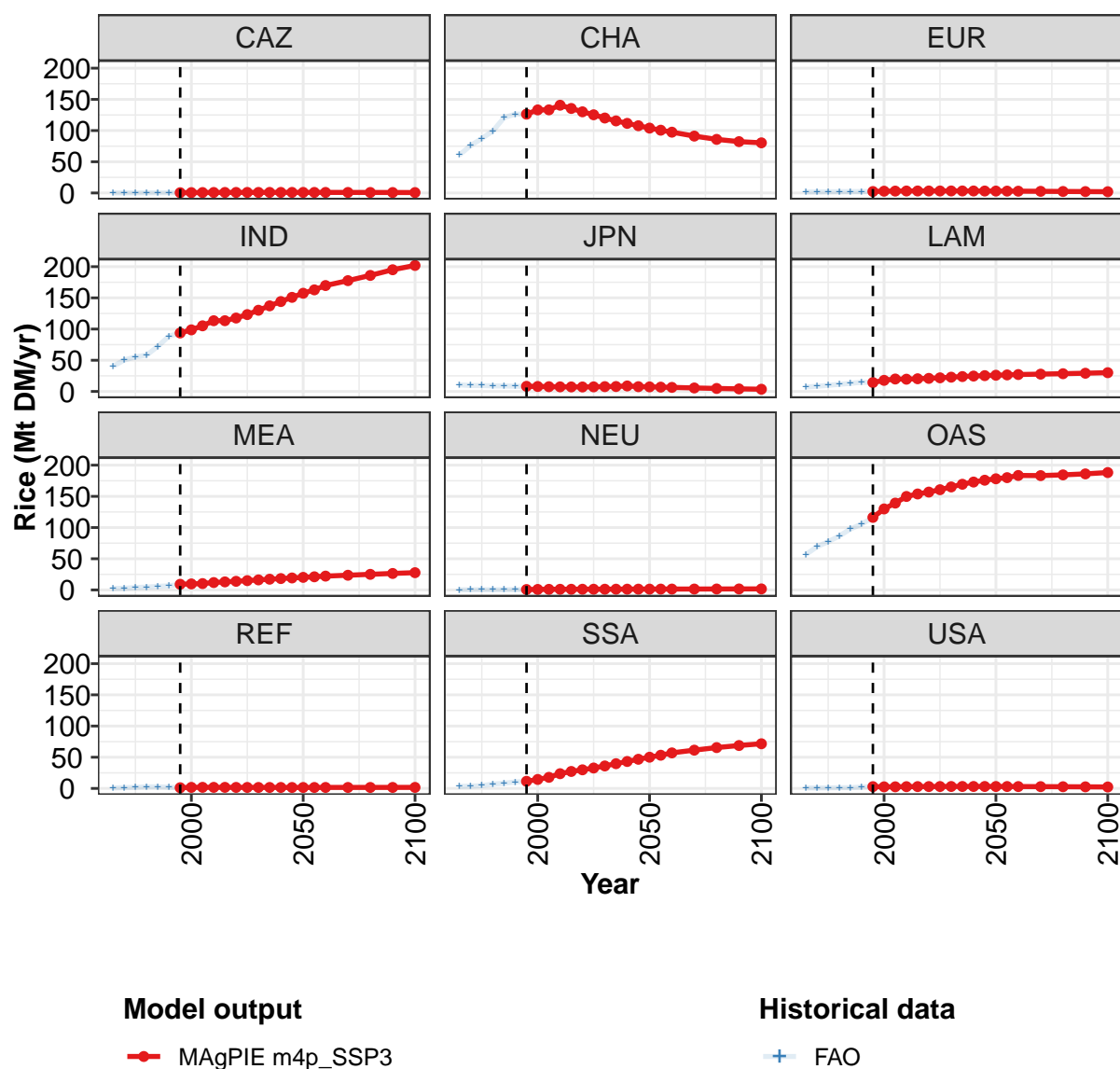


Figure 121: MAgPIE m4p_SSP3 — Demand—Food—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	387	420	442	476	480	487	496	508	521	534	544
CAZ	0	1	1	1	1	1	1	1	1	1	1
CHA	126	133	133	141	135	130	125	120	116	112	108
EUR	2	3	3	3	3	3	3	3	3	3	3
IND	94	99	105	113	113	118	123	130	137	144	151
JPN	8	8	8	7	7	7	7	8	8	9	8
LAM	14	18	20	20	20	21	22	23	24	25	25
MEA	9	10	10	12	13	14	15	16	17	18	19
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	116	130	139	150	154	157	161	165	169	173	176
REF	1	2	2	2	2	2	2	2	2	2	2
SSA	11	14	18	24	27	30	33	36	40	43	47
USA	3	3	3	3	3	3	3	3	3	3	3

Table 362: MAgPIE m4p_SSP3 — Demand—Food—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

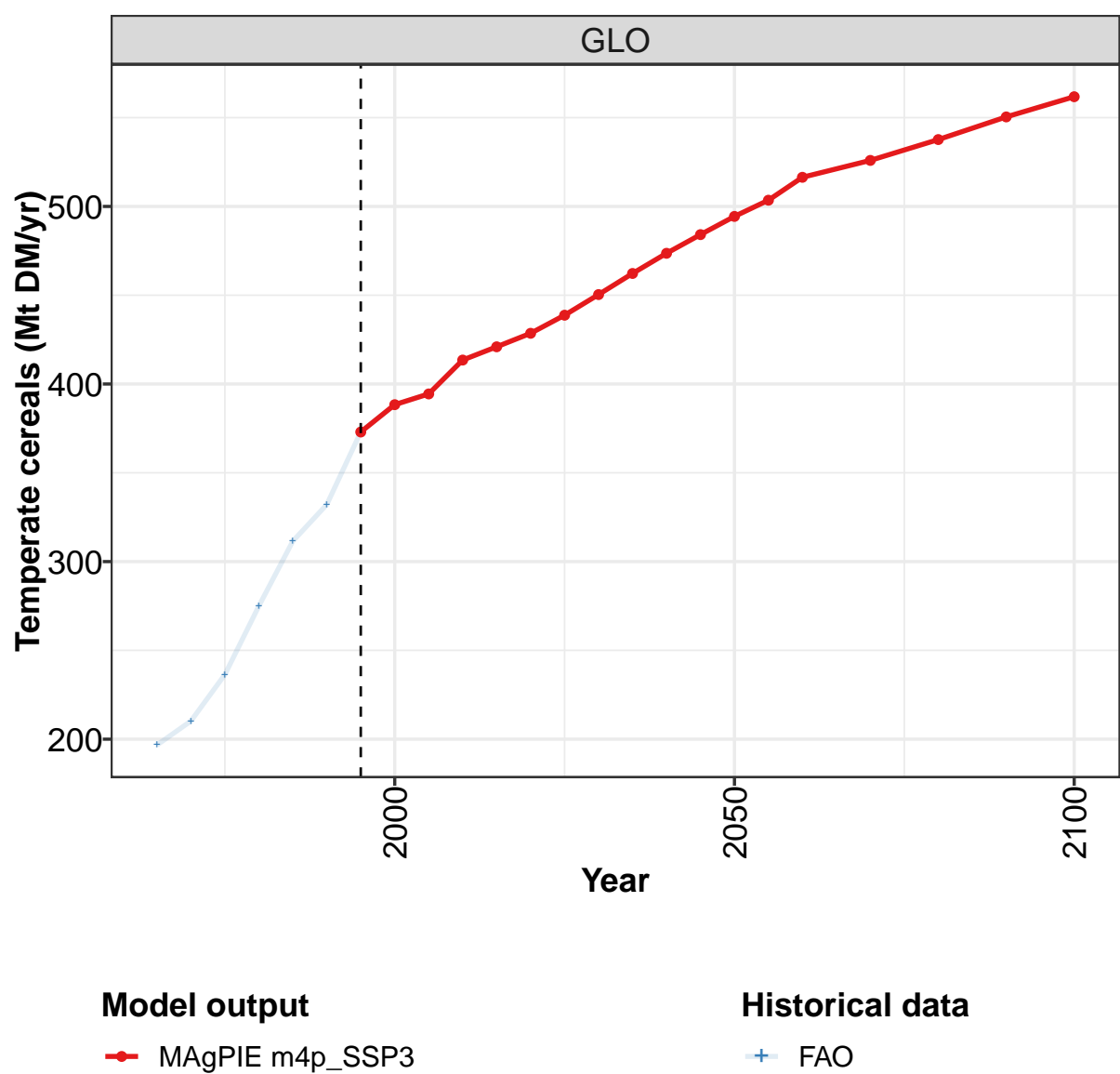
	2050	2055	2060	2070	2080	2090	2100
GLO	553	561	573	580	589	601	612
CAZ	1	1	1	1	1	1	1
CHA	104	101	97	91	86	82	80
EUR	3	3	3	3	2	2	2
IND	157	163	170	178	186	195	202
JPN	7	7	7	6	5	4	4
LAM	26	27	27	28	28	29	30
MEA	20	21	22	24	25	26	28
NEU	1	1	1	1	2	2	2
OAS	178	180	184	183	184	186	188
REF	2	2	2	2	2	2	2
SSA	50	53	57	61	66	69	72
USA	3	3	3	3	3	3	2

Table 363: MAgPIE m4p_SSP3 — Demand—Food—Crops—Cereals—Rice (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	185	224	253	283	333	368	387	420	442	476
CAZ	0	0	0	0	0	0	0	1	1	1
CHA	61	76	87	99	121	126	126	133	133	141
EUR	2	2	2	2	2	2	2	3	3	3
IND	40	50	55	58	72	89	94	99	105	113
JPN	11	10	10	9	9	8	8	8	8	7
LAM	7	8	10	11	13	15	14	18	20	20
MEA	2	3	4	5	6	7	9	10	10	12
NEU	0	0	0	0	0	1	1	1	1	1
OAS	57	69	77	87	98	106	116	130	139	150
REF	1	1	2	3	3	2	1	2	2	2
SSA	3	4	4	7	8	10	11	14	18	24
USA	1	1	1	1	1	2	3	3	3	3

Table 364: FAO — Demand—Food—Crops—Cereals—Rice (Mt DM/yr)

7.1.4
Cereals—Temperate cereals



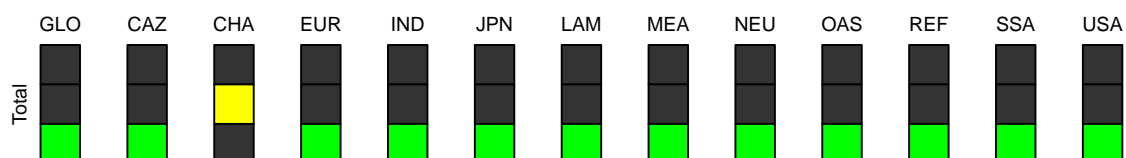
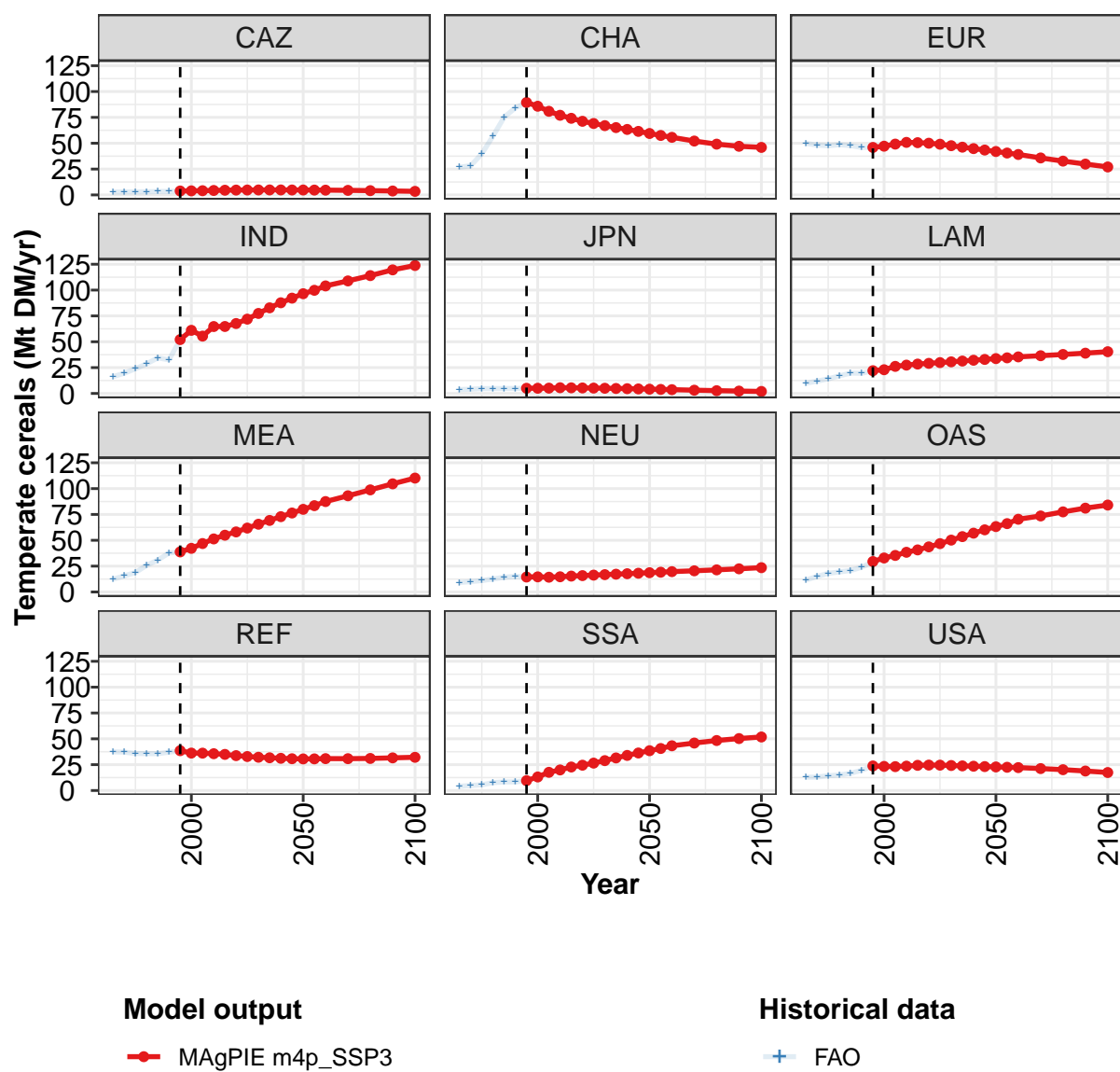


Figure 122: MAgPIE m4p_SSP3 — Demand—Food—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	373	388	394	413	421	429	439	450	462	474	484
CAZ	4	4	4	4	5	5	5	5	5	5	5
CHA	89	86	81	77	74	71	69	67	65	63	61
EUR	46	47	49	51	51	50	49	48	46	45	43
IND	52	61	55	65	65	68	72	77	83	88	92
JPN	5	5	5	6	5	5	5	5	5	5	4
LAM	22	23	26	27	28	29	30	31	31	32	33
MEA	39	42	47	51	55	58	62	66	69	73	76
NEU	14	15	14	15	15	16	16	17	17	18	18
OAS	29	33	35	38	41	44	47	50	54	57	60
REF	39	36	36	36	35	34	33	32	32	31	31
SSA	10	13	18	20	23	25	27	29	32	34	36
USA	24	23	23	24	24	25	25	24	24	24	23

Table 365: MAgPIE m4p_SSP3 — Demand—Food—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 1/2]

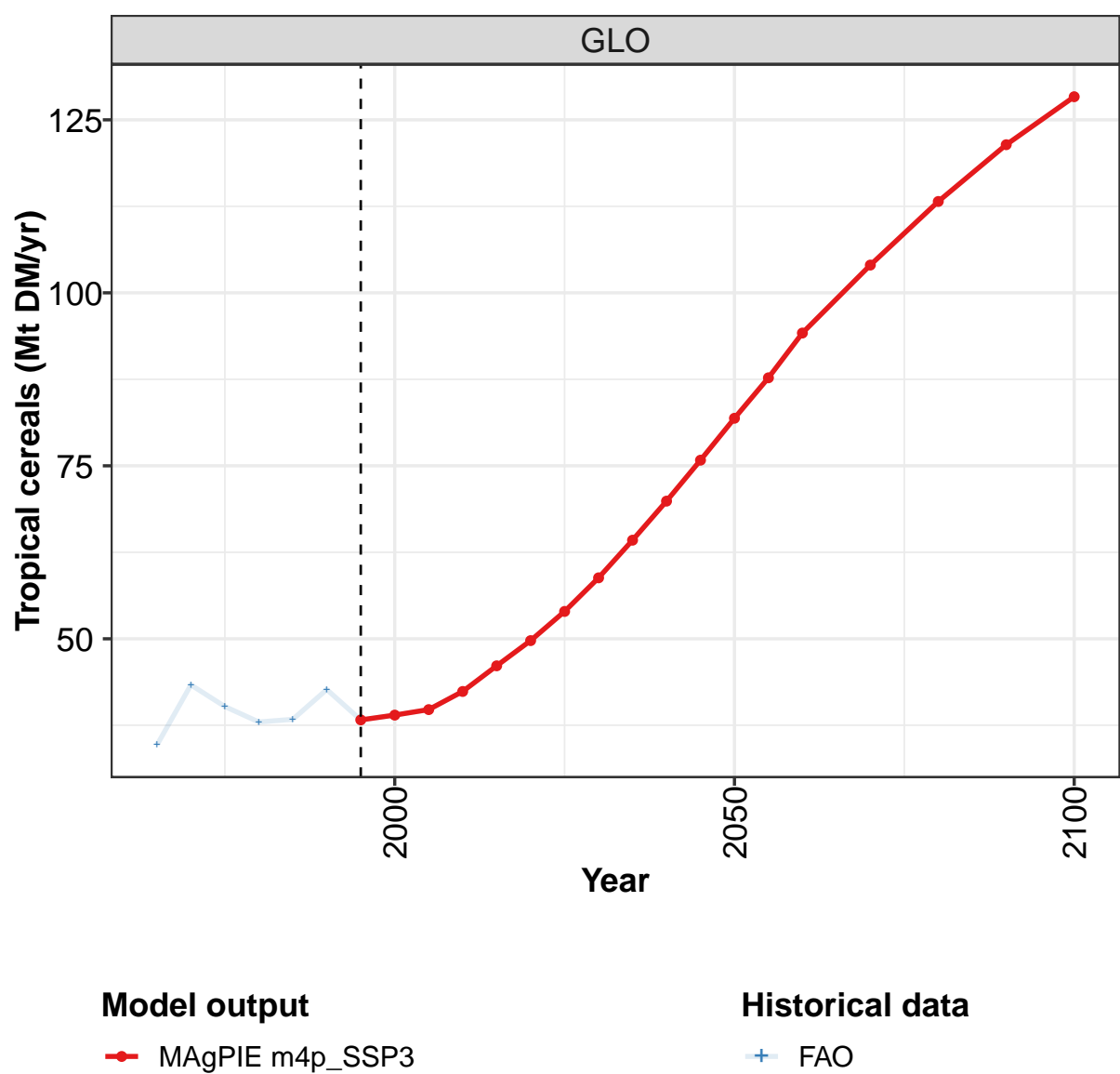
	2050	2055	2060	2070	2080	2090	2100
GLO	494	504	516	526	538	550	562
CAZ	5	5	5	4	4	4	3
CHA	59	58	56	52	49	47	46
EUR	42	41	39	36	33	30	27
IND	96	100	104	109	114	120	124
JPN	4	4	4	3	3	2	2
LAM	34	34	35	37	38	39	40
MEA	80	84	87	93	99	105	110
NEU	19	19	20	20	21	22	24
OAS	63	66	70	74	78	81	84
REF	31	31	31	31	31	32	32
SSA	39	41	43	46	48	50	52
USA	23	22	22	21	20	19	17

Table 366: MAgPIE m4p_SSP3 — Demand—Food—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	197	210	236	275	312	332	373	388	394	414
CAZ	3	3	3	3	3	3	4	4	4	4
CHA	27	28	40	57	75	84	89	86	81	77
EUR	50	48	48	49	48	46	46	47	49	51
IND	16	20	24	29	34	33	52	61	55	65
JPN	4	4	5	5	5	5	5	5	5	6
LAM	10	12	14	17	20	19	22	23	26	27
MEA	12	16	19	26	31	38	39	42	47	51
NEU	9	10	11	13	14	15	14	15	14	15
OAS	11	15	18	19	21	24	29	33	35	38
REF	37	37	36	36	36	37	39	36	36	36
SSA	4	5	5	8	8	8	10	13	18	20
USA	13	13	14	15	17	20	24	23	23	24

Table 367: FAO — Demand—Food—Crops—Cereals—Temperate cereals (Mt DM/yr)

7.1.5
Cereals—Tropical cereals



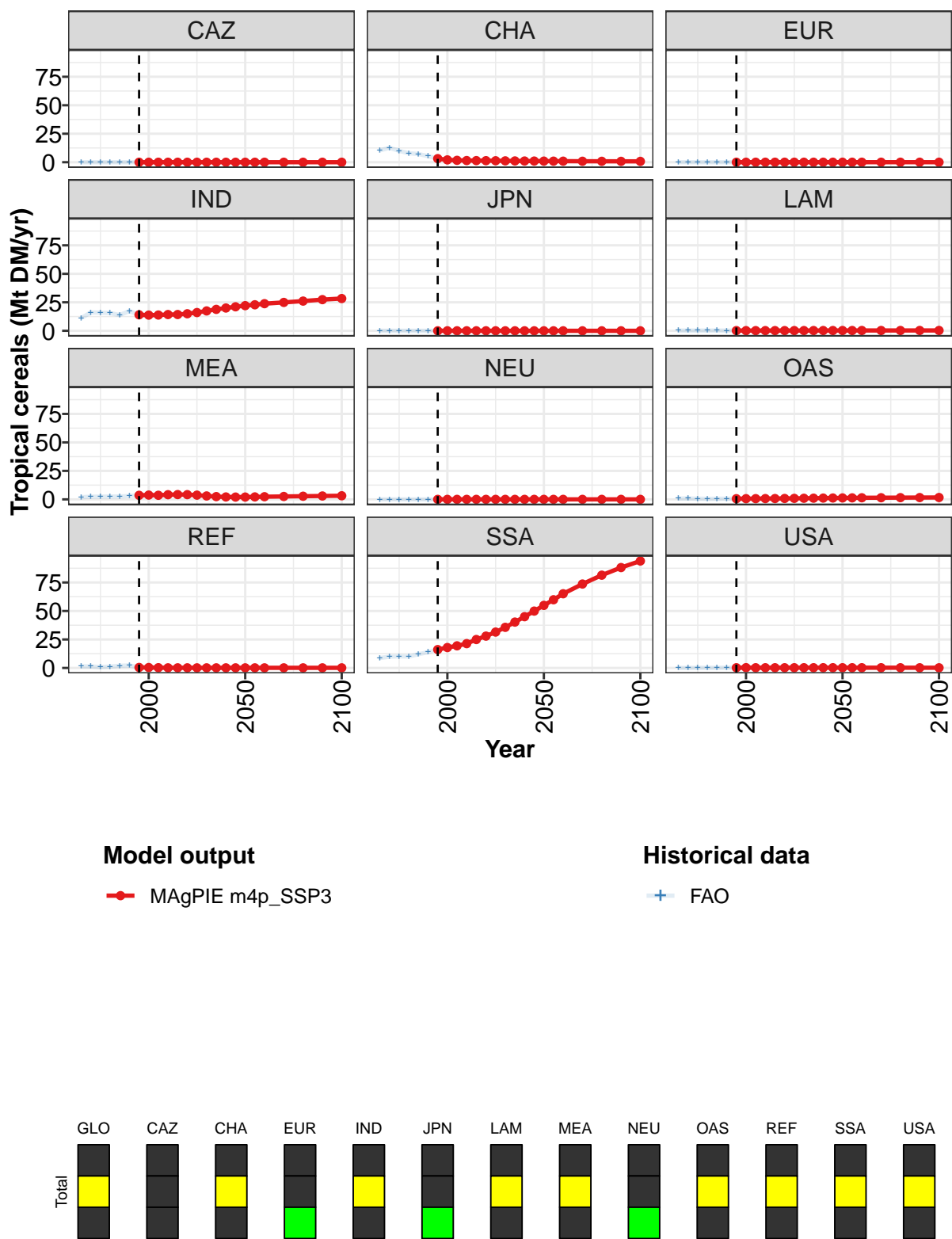


Figure 123: MAGPIE m4p_SSP3 — Demand—Food—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	38	39	40	42	46	50	54	59	64	70	76
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	3	2	2	1	1	1	1	1	1	1	1
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	14	14	14	14	14	15	16	17	19	20	21
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0	0	0	0	0
MEA	4	4	4	4	4	4	4	3	2	2	2
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	1	1	1	1	1	1	1	1	1	1	1
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	16	18	19	21	25	28	32	36	40	45	50
USA	0	0	0	0	0	0	0	0	0	0	0

Table 368: MAgPIE m4p_SSP3 — Demand—Food—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

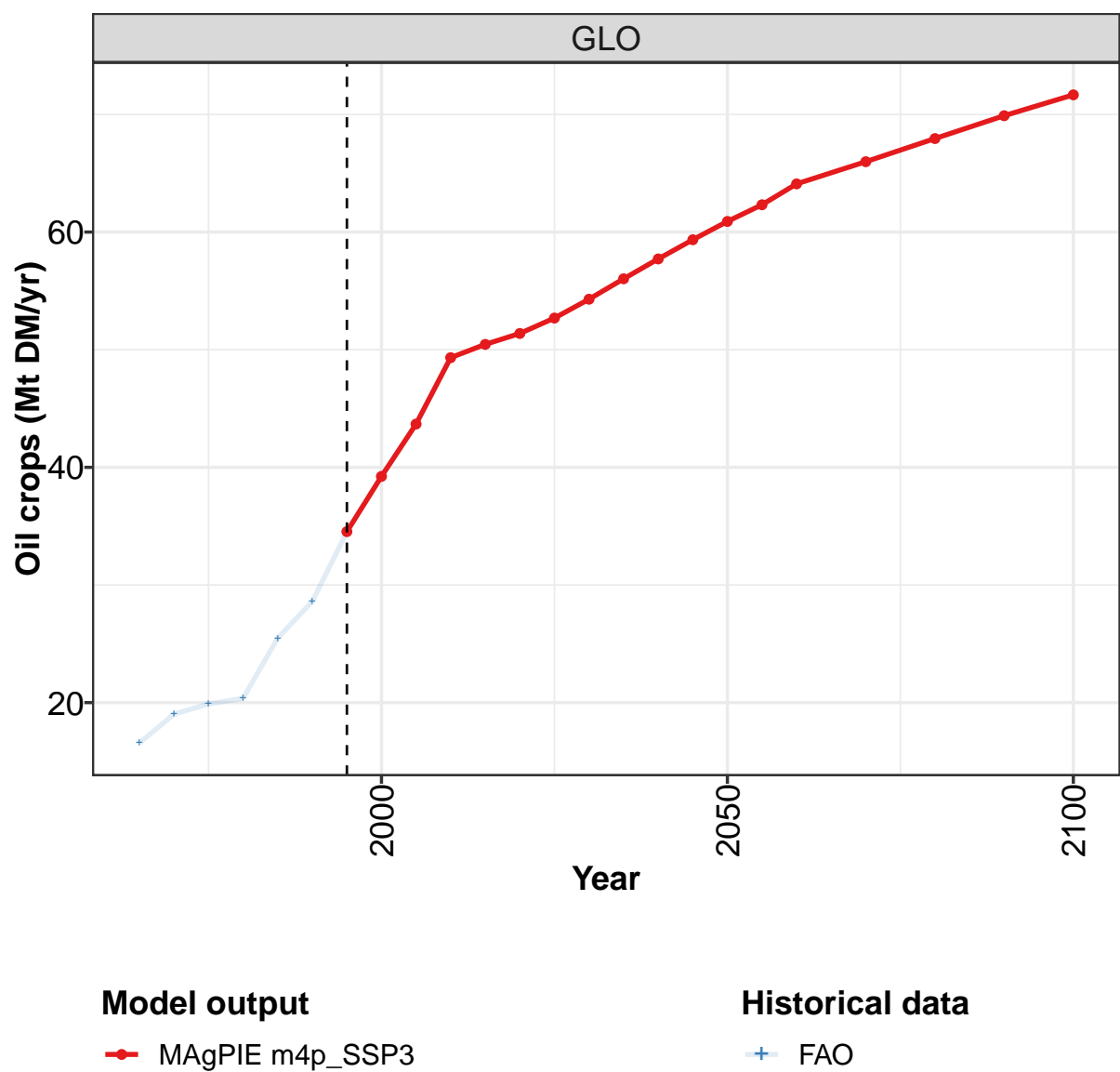
	2050	2055	2060	2070	2080	2090	2100
GLO	82	88	94	104	113	121	128
CAZ	0	0	0	0	0	0	0
CHA	1	1	1	1	1	1	1
EUR	0	0	0	0	0	0	0
IND	22	23	24	25	26	27	28
JPN	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
MEA	2	2	2	3	3	3	3
NEU	0	0	0	0	0	0	0
OAS	1	1	1	1	2	2	2
REF	0	0	0	0	0	0	0
SSA	55	60	65	74	81	88	94
USA	0	0	0	0	0	0	0

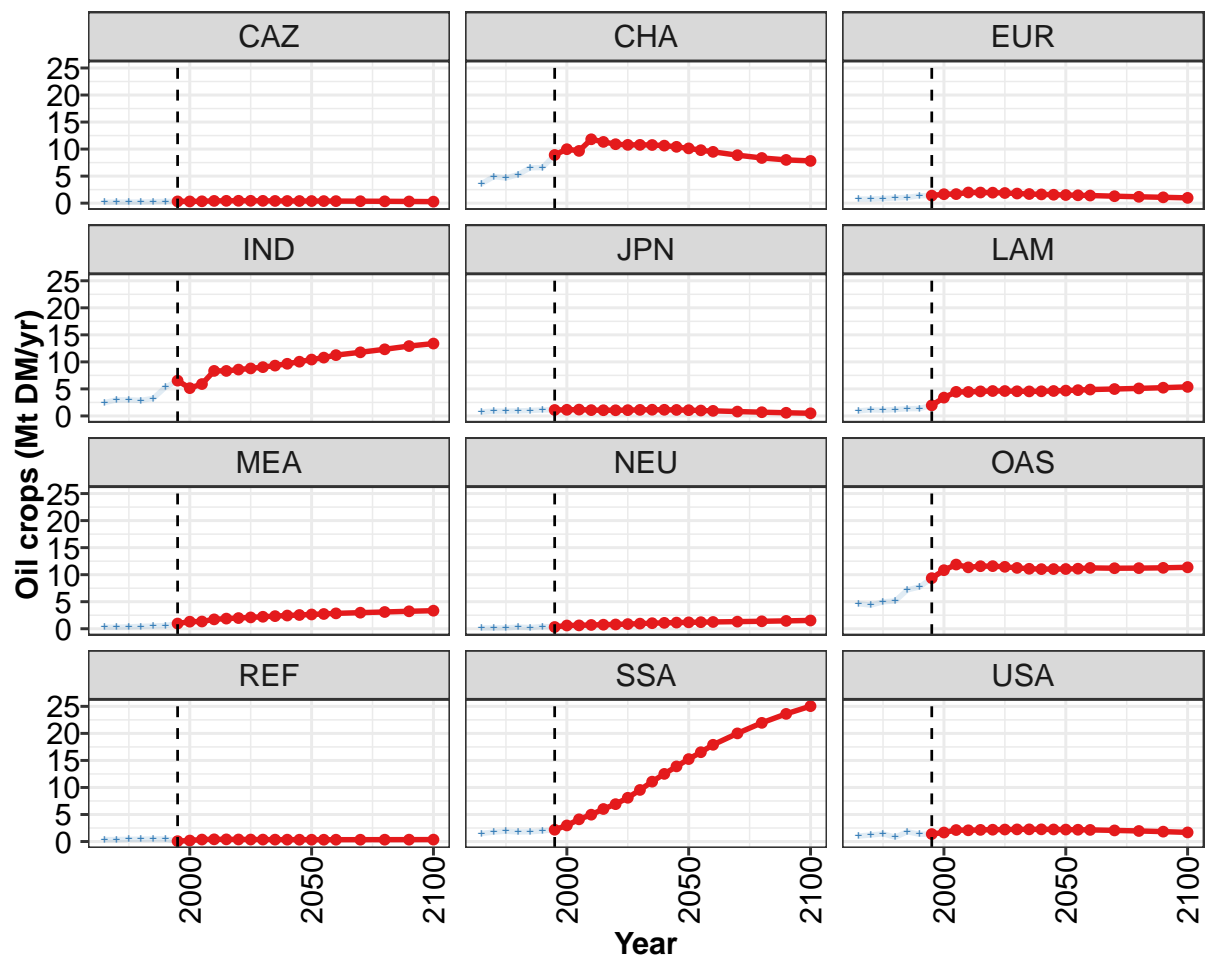
Table 369: MAgPIE m4p_SSP3 — Demand—Food—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	34.6	43.3	40.2	38.0	38.4	42.7	38.3	39.0	39.8	42.4
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	10.4	12.6	10.0	7.9	7.2	5.3	3.2	2.0	1.7	1.5
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	11.2	16.1	15.9	15.6	13.8	17.3	14.0	13.8	13.8	14.3
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
MEA	1.9	2.3	2.4	2.5	2.5	3.0	3.6	3.8	3.6	4.1
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.8	0.8	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.7
REF	1.4	1.3	0.7	1.2	1.9	2.2	0.4	0.4	0.2	0.1
SSA	8.7	9.9	10.2	10.0	12.1	13.8	16.1	17.9	19.4	21.4
USA	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2

Table 370: FAO — Demand—Food—Crops—Cereals—Tropical cereals (Mt DM/yr)

7.1.6
Oil crops





Model output

—●— MAgPIE m4p_SSP3

Historical data

—+— FAO

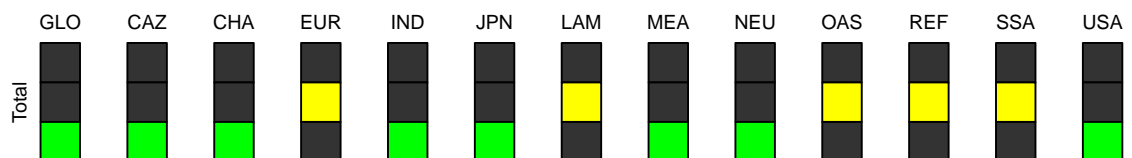


Figure 124: MAgPIE m4p_SSP3 — Demand—Food—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34.5	39.2	43.7	49.3	50.5	51.4	52.7	54.3	56.0	57.7	59.3
CAZ	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
CHA	8.9	10.0	9.7	11.8	11.3	10.9	10.8	10.8	10.8	10.6	10.4
EUR	1.4	1.7	1.7	2.0	2.0	1.9	1.9	1.8	1.7	1.6	1.6
IND	6.5	5.1	5.9	8.3	8.3	8.6	8.8	9.0	9.3	9.7	10.0
JPN	1.1	1.1	1.2	1.1	1.1	1.0	1.1	1.1	1.2	1.1	1.1
LAM	2.0	3.4	4.5	4.4	4.5	4.6	4.6	4.6	4.5	4.6	4.6
MEA	1.0	1.3	1.3	1.7	1.9	2.0	2.1	2.2	2.3	2.4	2.5
NEU	0.3	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.0	1.1	1.1
OAS	9.4	10.8	11.9	11.4	11.6	11.6	11.5	11.3	11.1	11.0	11.0
REF	0.1	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3
SSA	2.2	3.0	4.1	5.0	6.0	6.9	8.1	9.5	11.1	12.5	13.9
USA	1.4	1.7	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.2

Table 371: MAgPIE m4p_SSP3 — Demand—Food—Crops—Oil crops (Mt DM/yr) [PART 1/2]

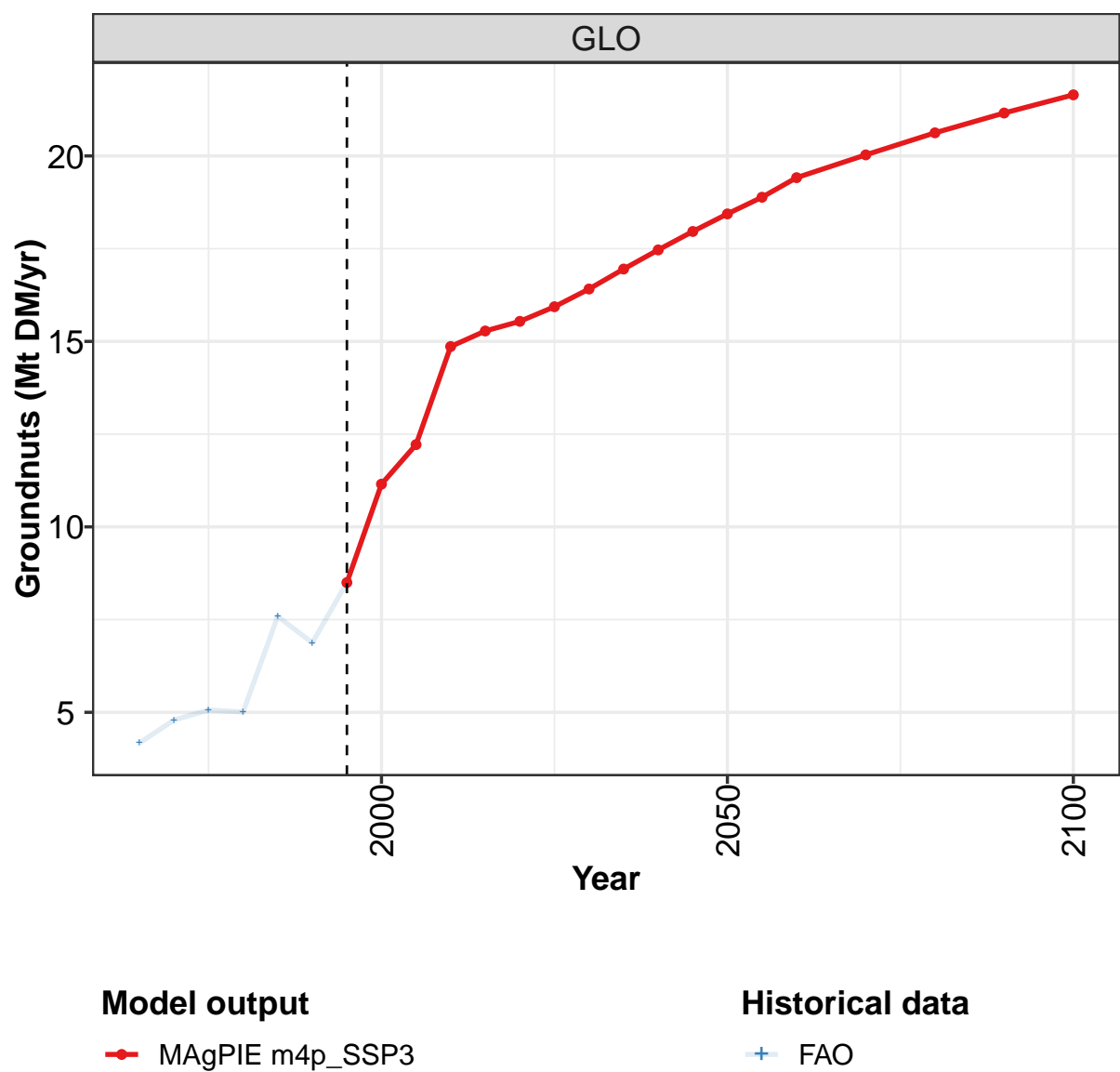
	2050	2055	2060	2070	2080	2090	2100
GLO	60.9	62.3	64.1	66.0	67.9	69.9	71.7
CAZ	0.4	0.4	0.4	0.4	0.3	0.3	0.3
CHA	10.1	9.8	9.5	8.9	8.4	8.0	7.8
EUR	1.5	1.5	1.4	1.3	1.2	1.1	1.0
IND	10.4	10.8	11.3	11.8	12.3	12.9	13.4
JPN	1.1	1.0	0.9	0.8	0.7	0.6	0.5
LAM	4.7	4.8	4.9	5.0	5.1	5.2	5.4
MEA	2.6	2.7	2.8	3.0	3.1	3.2	3.3
NEU	1.2	1.2	1.3	1.3	1.4	1.5	1.5
OAS	11.1	11.1	11.3	11.2	11.2	11.3	11.4
REF	0.3	0.3	0.3	0.3	0.3	0.4	0.4
SSA	15.3	16.5	17.9	20.0	22.0	23.6	25.0
USA	2.2	2.2	2.2	2.1	2.0	1.8	1.7

Table 372: MAgPIE m4p_SSP3 — Demand—Food—Crops—Oil crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	16.6	19.0	19.9	20.4	25.5	28.6	34.5	39.2	43.7	49.3
CAZ	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
CHA	3.6	4.9	4.7	5.3	6.5	6.6	8.9	10.0	9.7	11.8
EUR	0.8	0.8	0.9	1.0	1.1	1.4	1.4	1.7	1.7	2.0
IND	2.5	3.0	3.0	2.9	3.2	5.3	6.5	5.1	5.9	8.3
JPN	0.7	0.9	0.9	0.9	1.0	1.1	1.1	1.1	1.2	1.1
LAM	0.9	1.1	1.1	1.2	1.3	1.4	2.0	3.4	4.5	4.4
MEA	0.3	0.3	0.4	0.4	0.5	0.6	1.0	1.3	1.3	1.7
NEU	0.1	0.1	0.2	0.3	0.2	0.4	0.3	0.6	0.6	0.7
OAS	4.6	4.4	5.0	5.1	7.2	7.7	9.3	10.8	11.9	11.4
REF	0.4	0.4	0.4	0.4	0.5	0.5	0.1	0.2	0.4	0.4
SSA	1.5	1.8	1.9	1.8	1.8	2.0	2.2	3.0	4.1	5.0
USA	1.0	1.2	1.4	0.8	1.8	1.3	1.4	1.7	2.1	2.1

Table 373: FAO — Demand—Food—Crops—Oil crops (Mt DM/yr)

7.1.7
Oil crops—Groundnuts



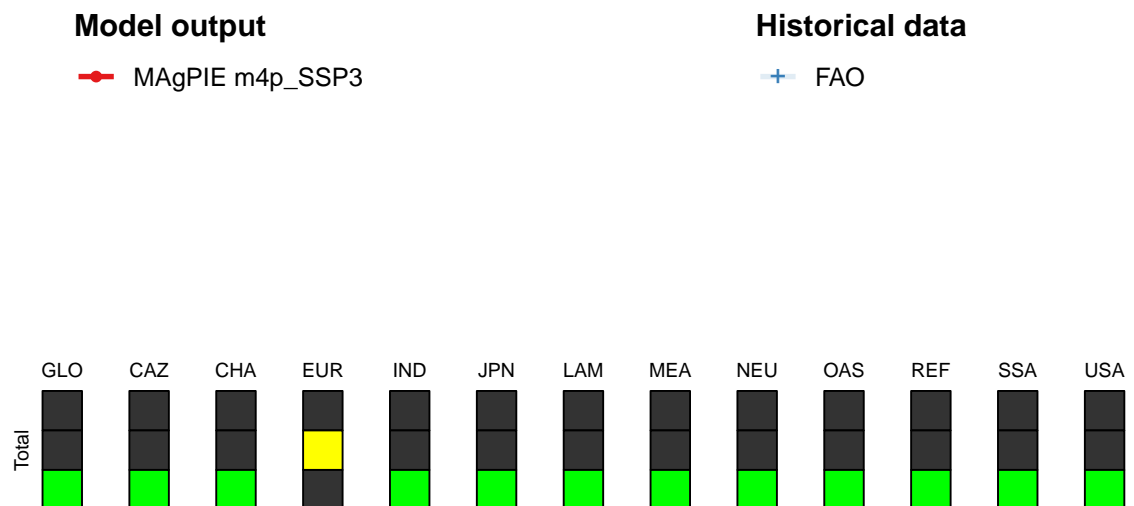
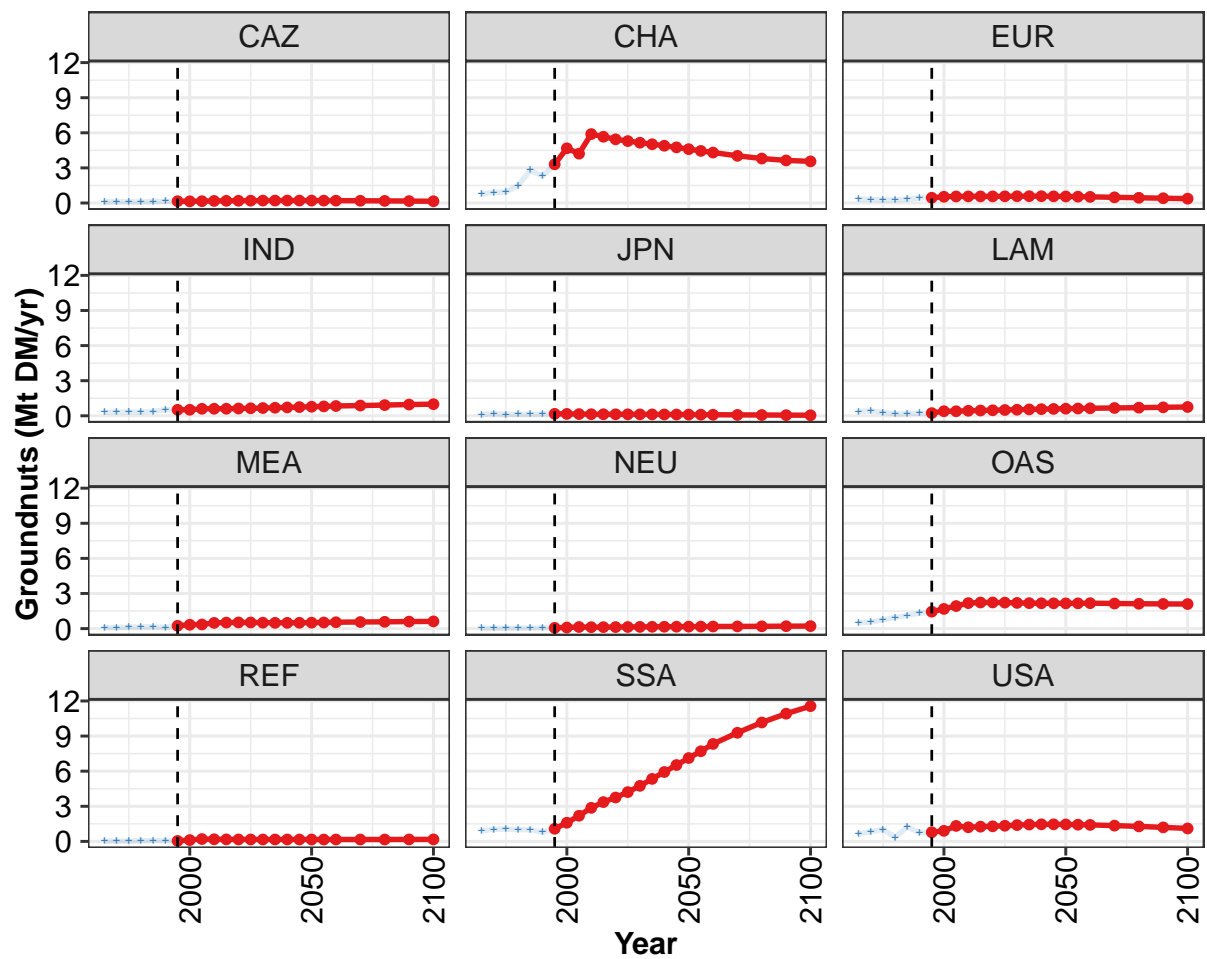


Figure 125: MAgPIE m4p_SSP3 — Demand—Food—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	8.5	11.2	12.2	14.9	15.3	15.5	15.9	16.4	17.0	17.5	18.0
CAZ	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	3.3	4.7	4.2	5.9	5.7	5.4	5.3	5.2	5.0	4.9	4.8
EUR	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
IND	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
JPN	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.2	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6
MEA	0.2	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
OAS	1.4	1.7	1.9	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
REF	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SSA	1.1	1.6	2.2	2.9	3.4	3.8	4.2	4.7	5.3	5.9	6.5
USA	0.8	0.9	1.3	1.2	1.3	1.3	1.3	1.4	1.4	1.5	1.5

Table 374: MAgPIE m4p_SSP3 — Demand—Food—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

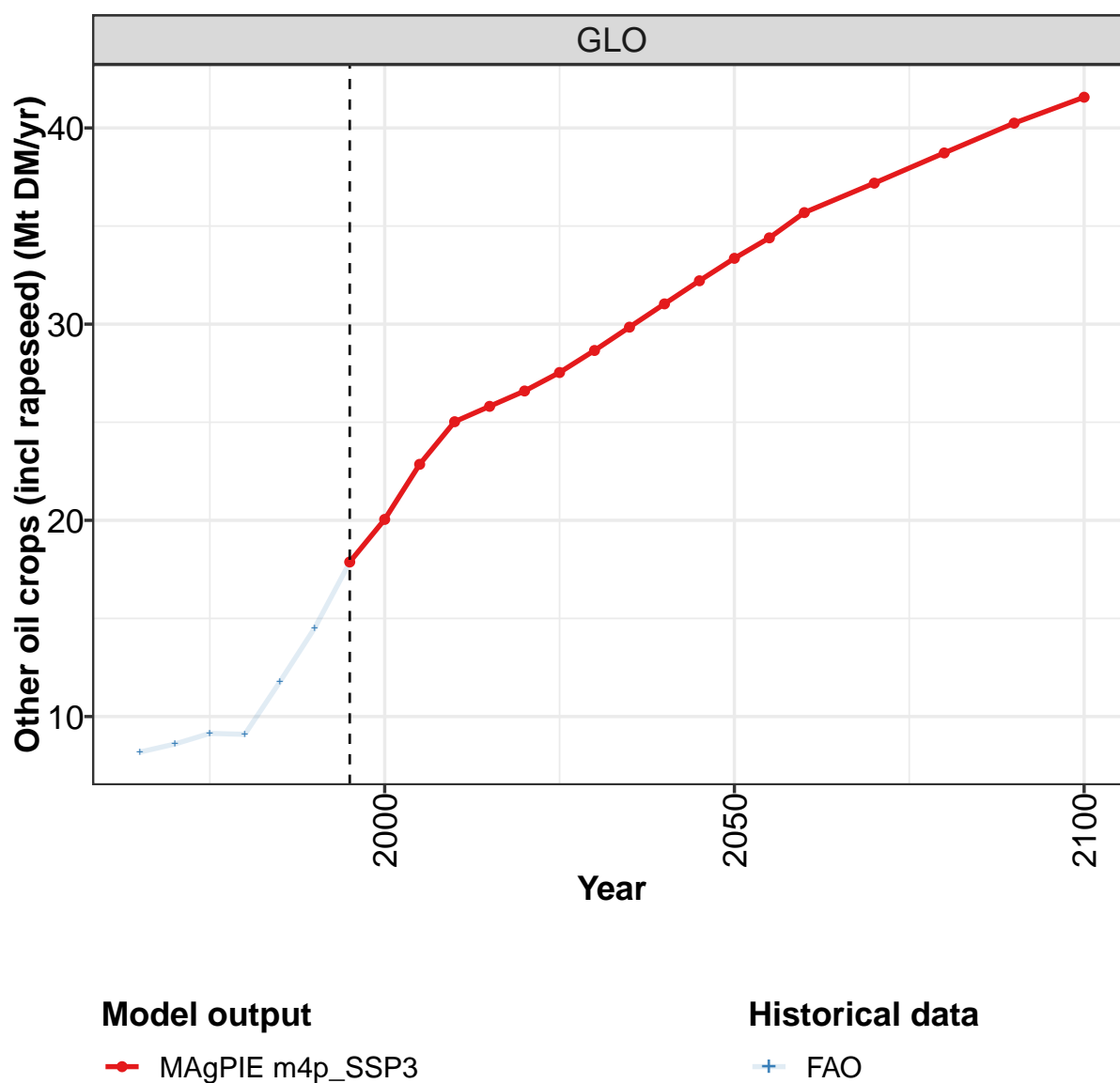
	2050	2055	2060	2070	2080	2090	2100
GLO	18.4	18.9	19.4	20.0	20.6	21.2	21.6
CAZ	0.2	0.2	0.2	0.2	0.2	0.2	0.1
CHA	4.6	4.5	4.3	4.0	3.8	3.6	3.6
EUR	0.6	0.5	0.5	0.5	0.4	0.4	0.4
IND	0.8	0.8	0.8	0.9	0.9	1.0	1.0
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.0
LAM	0.6	0.6	0.6	0.7	0.7	0.7	0.8
MEA	0.5	0.5	0.5	0.6	0.6	0.6	0.6
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	2.2	2.2	2.2	2.1	2.1	2.1	2.1
REF	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SSA	7.1	7.7	8.3	9.3	10.2	10.9	11.6
USA	1.5	1.4	1.4	1.3	1.3	1.2	1.1

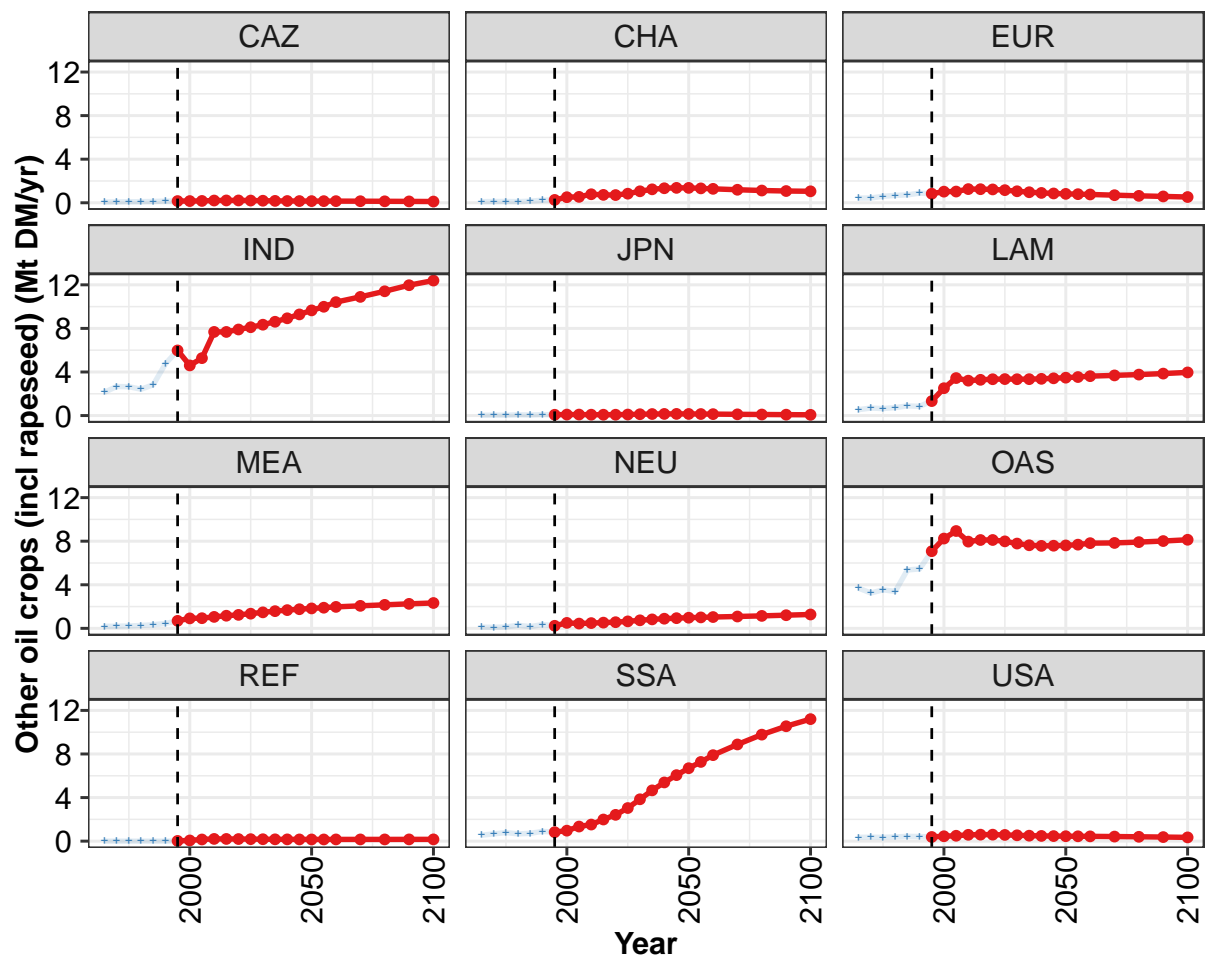
Table 375: MAgPIE m4p_SSP3 — Demand—Food—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.2	4.8	5.1	5.0	7.6	6.9	8.5	11.2	12.2	14.9
CAZ	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2
CHA	0.8	0.9	0.9	1.5	2.8	2.3	3.3	4.7	4.2	5.9
EUR	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.6
IND	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.6	0.6
JPN	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1
LAM	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.4	0.4	0.4
MEA	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.5
NEU	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
OAS	0.5	0.6	0.8	0.9	1.1	1.3	1.4	1.7	1.9	2.2
REF	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.2
SSA	0.9	1.0	1.0	1.0	1.0	0.8	1.1	1.6	2.2	2.9
USA	0.6	0.8	1.0	0.4	1.2	0.8	0.8	0.9	1.3	1.2

Table 376: FAO — Demand—Food—Crops—Oil crops—Groundnuts (Mt DM/yr)

7.1.8 Oil crops—Other oil crops (incl rapeseed)





Model output

—●— MAgPIE m4p_SSP3

Historical data

+— FAO

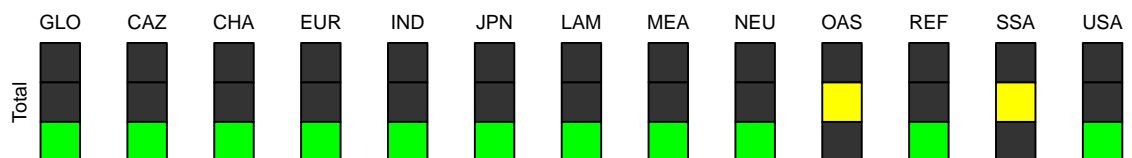


Figure 126: MAgPIE m4p_SSP3 — Demand—Food—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17.9	20.0	22.9	25.0	25.8	26.6	27.5	28.7	29.8	31.0	32.2
CAZ	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	0.3	0.5	0.5	0.8	0.7	0.7	0.8	1.1	1.2	1.3	1.4
EUR	0.8	1.0	1.0	1.3	1.2	1.2	1.2	1.1	1.0	0.9	0.9
IND	6.0	4.6	5.3	7.7	7.7	7.9	8.1	8.3	8.6	8.9	9.3
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
LAM	1.3	2.5	3.4	3.2	3.3	3.3	3.3	3.3	3.3	3.4	3.4
MEA	0.7	0.9	0.9	1.1	1.2	1.2	1.3	1.5	1.6	1.7	1.8
NEU	0.2	0.5	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9	0.9
OAS	7.1	8.2	8.9	8.0	8.1	8.1	8.0	7.8	7.6	7.6	7.6
REF	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SSA	0.8	1.0	1.3	1.5	2.0	2.4	3.0	3.8	4.7	5.4	6.1
USA	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5

Table 377: MAgPIE m4p_SSP3 — Demand—Food—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

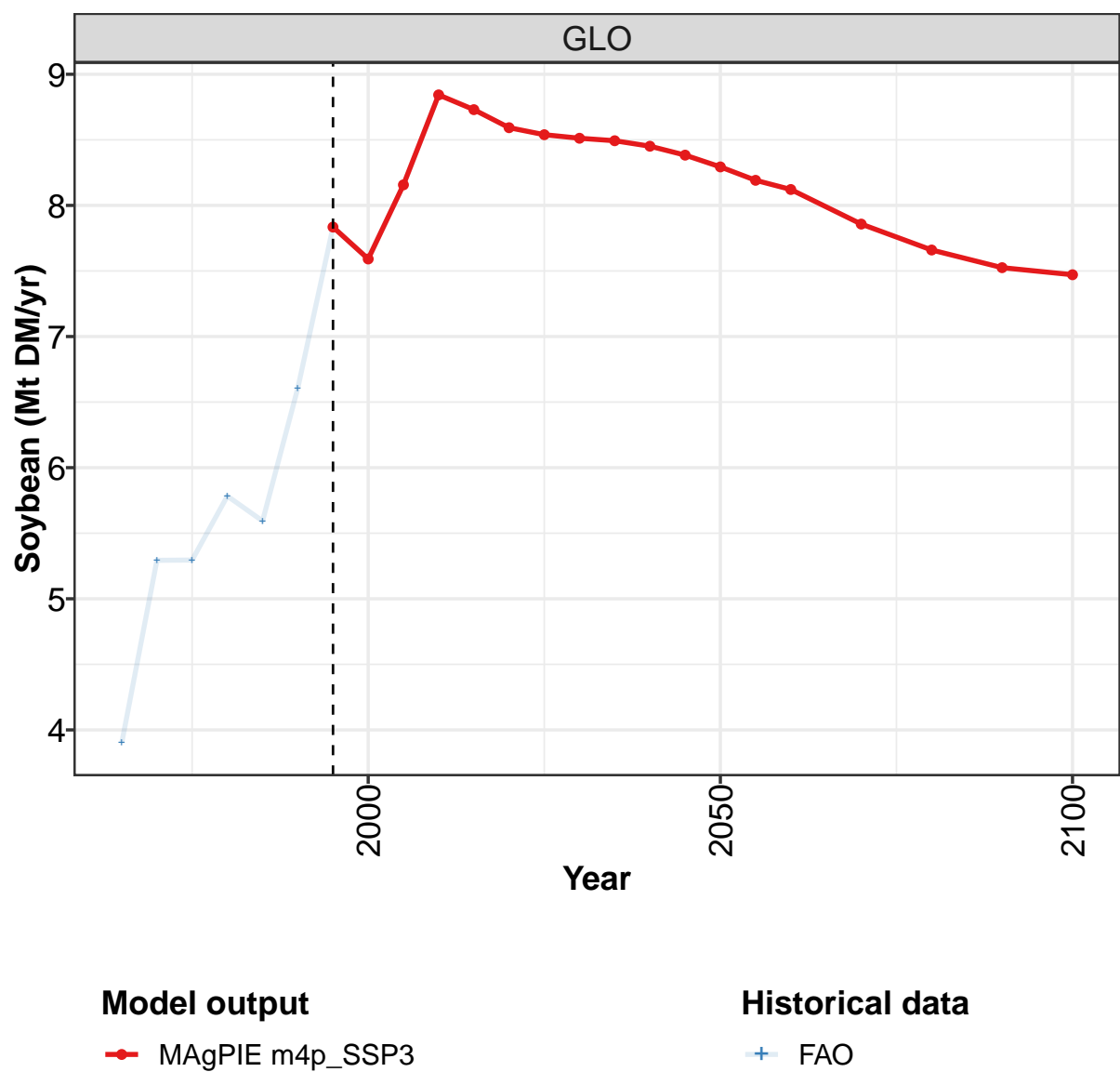
	2050	2055	2060	2070	2080	2090	2100
GLO	33.4	34.4	35.7	37.2	38.7	40.2	41.6
CAZ	0.2	0.2	0.2	0.1	0.1	0.1	0.1
CHA	1.4	1.3	1.3	1.2	1.1	1.1	1.1
EUR	0.8	0.8	0.8	0.7	0.6	0.6	0.5
IND	9.7	10.0	10.4	10.9	11.4	12.0	12.4
JPN	0.2	0.1	0.1	0.1	0.1	0.1	0.1
LAM	3.5	3.5	3.6	3.7	3.8	3.9	4.0
MEA	1.8	1.9	2.0	2.1	2.2	2.3	2.3
NEU	1.0	1.0	1.0	1.1	1.1	1.2	1.3
OAS	7.6	7.7	7.8	7.8	7.9	8.0	8.1
REF	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SSA	6.7	7.3	7.9	8.9	9.8	10.5	11.2
USA	0.5	0.4	0.4	0.4	0.4	0.4	0.3

Table 378: MAgPIE m4p_SSP3 — Demand—Food—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	8.2	8.6	9.1	9.1	11.8	14.5	17.9	20.0	22.9	25.0
CAZ	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
CHA	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.5	0.8
EUR	0.4	0.4	0.6	0.7	0.7	0.9	0.8	1.0	1.0	1.3
IND	2.1	2.7	2.6	2.4	2.8	4.7	6.0	4.6	5.3	7.7
JPN	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.5	0.7	0.6	0.7	0.9	0.8	1.3	2.5	3.4	3.2
MEA	0.2	0.2	0.2	0.3	0.3	0.4	0.7	0.9	0.9	1.1
NEU	0.1	0.1	0.1	0.3	0.2	0.3	0.2	0.5	0.4	0.5
OAS	3.7	3.2	3.5	3.4	5.4	5.5	7.1	8.2	8.9	8.0
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2
SSA	0.5	0.7	0.8	0.7	0.7	0.9	0.8	1.0	1.3	1.5
USA	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.6

Table 379: FAO — Demand—Food—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

7.1.9
Oil crops—Soybean



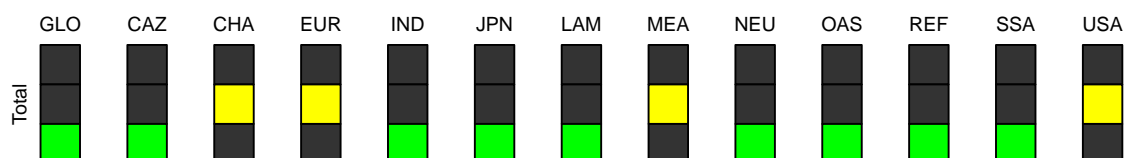
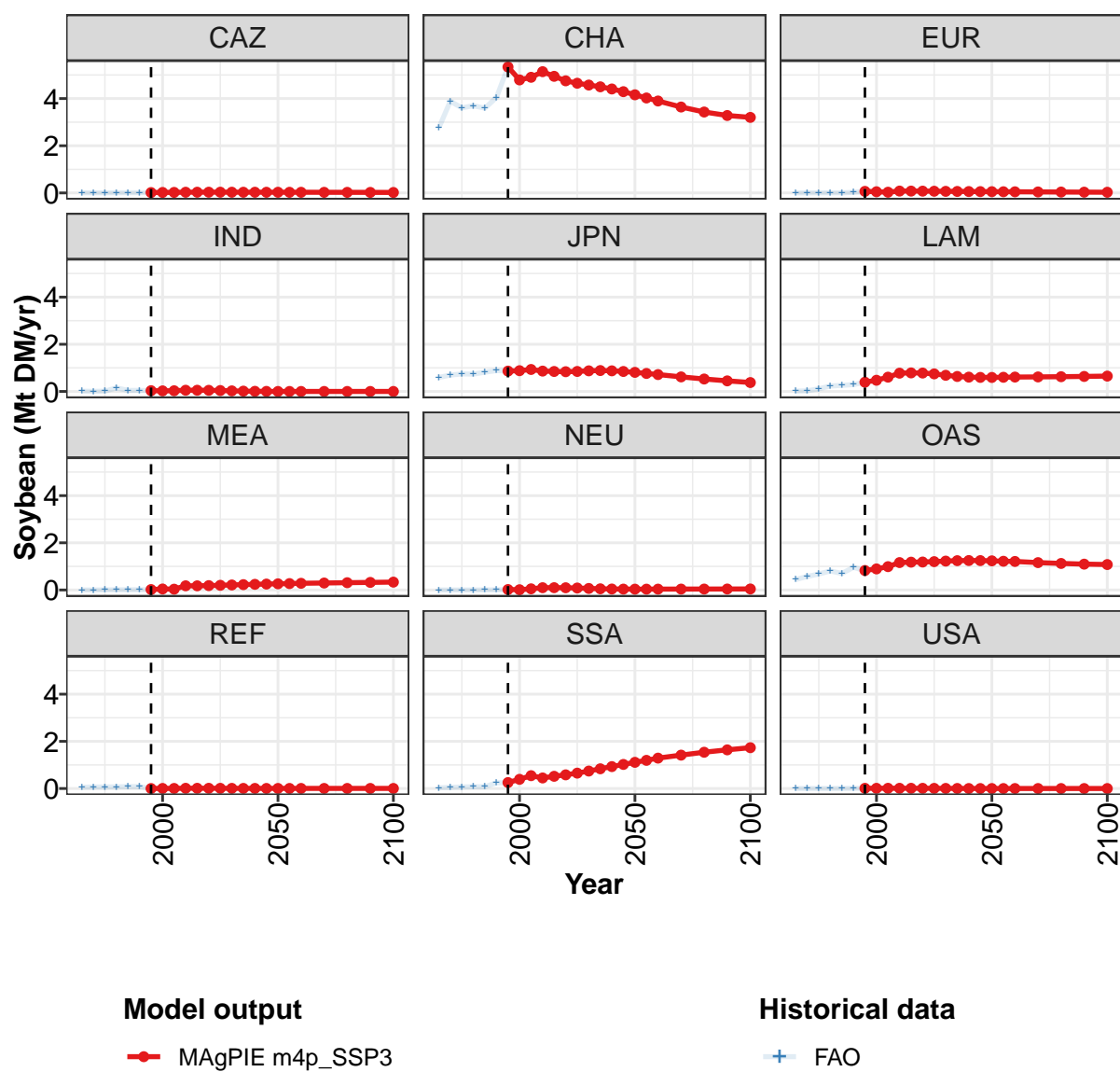


Figure 127: MAGPIE m4p_SSP3 — Demand—Food—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.83	7.59	8.16	8.84	8.73	8.59	8.54	8.51	8.49	8.45	8.38
CAZ	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
CHA	5.34	4.79	4.90	5.14	4.94	4.75	4.65	4.57	4.50	4.41	4.29
EUR	0.07	0.05	0.03	0.08	0.08	0.08	0.07	0.07	0.06	0.06	0.06
IND	0.03	0.02	0.03	0.05	0.05	0.05	0.04	0.03	0.01	0.01	0.00
JPN	0.86	0.88	0.93	0.86	0.85	0.84	0.85	0.87	0.89	0.88	0.85
LAM	0.39	0.47	0.61	0.78	0.79	0.78	0.75	0.68	0.64	0.61	0.60
MEA	0.02	0.04	0.03	0.18	0.18	0.19	0.20	0.21	0.23	0.24	0.25
NEU	0.02	0.01	0.05	0.10	0.10	0.09	0.08	0.07	0.05	0.04	0.04
OAS	0.83	0.89	0.99	1.16	1.18	1.19	1.20	1.23	1.24	1.25	1.25
REF	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
SSA	0.25	0.39	0.54	0.45	0.52	0.58	0.65	0.74	0.84	0.93	1.02
USA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00

Table 380: MAgPIE m4p_SSP3 — Demand—Food—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

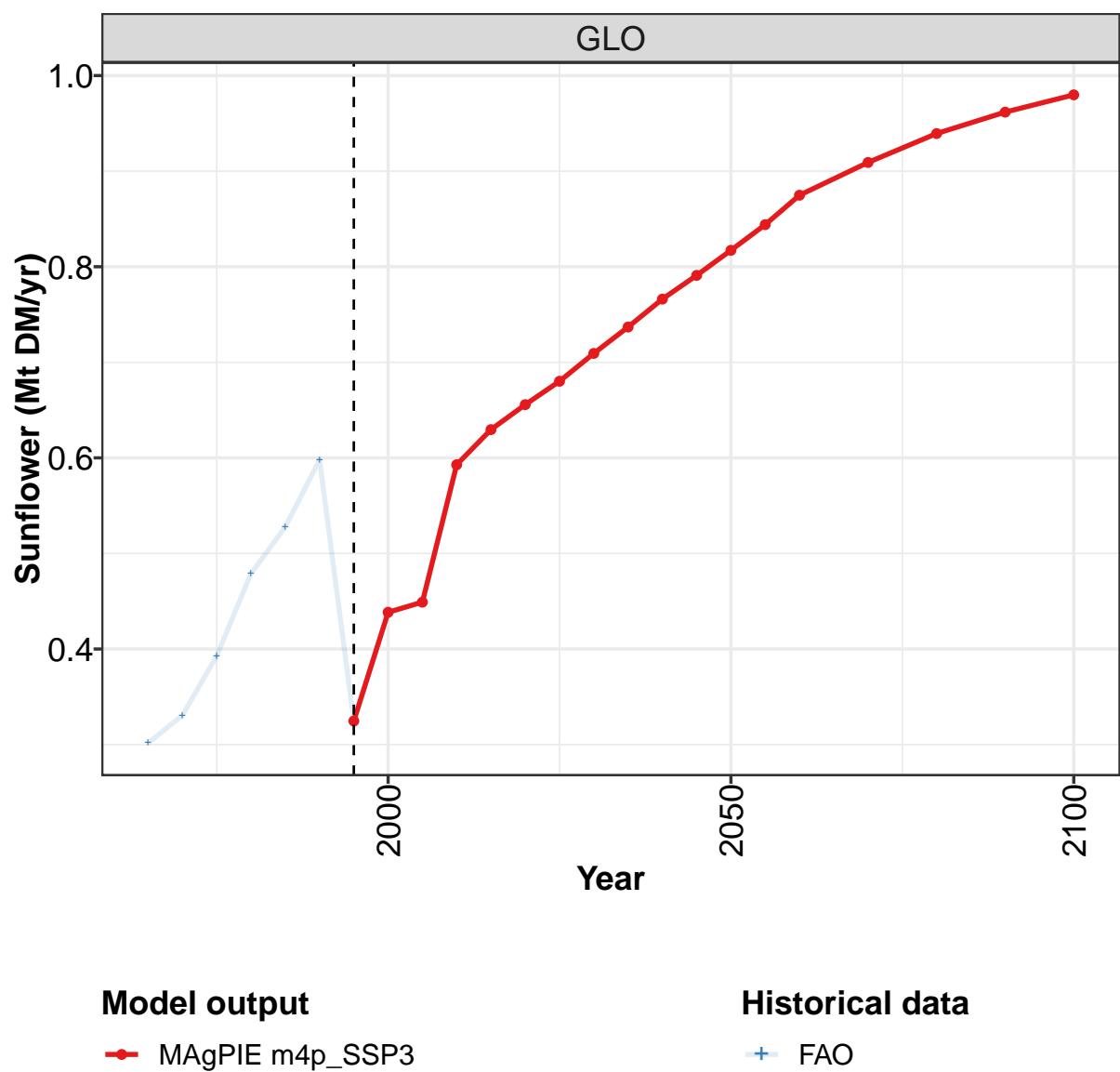
	2050	2055	2060	2070	2080	2090	2100
GLO	8.29	8.19	8.12	7.86	7.66	7.53	7.47
CAZ	0.03	0.03	0.03	0.03	0.02	0.02	0.02
CHA	4.16	4.03	3.90	3.64	3.43	3.28	3.20
EUR	0.05	0.05	0.05	0.04	0.04	0.03	0.03
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.81	0.76	0.72	0.62	0.53	0.45	0.38
LAM	0.59	0.60	0.61	0.62	0.63	0.64	0.65
MEA	0.26	0.27	0.28	0.30	0.31	0.32	0.33
NEU	0.03	0.04	0.04	0.04	0.04	0.04	0.04
OAS	1.24	1.22	1.21	1.16	1.12	1.10	1.08
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	1.11	1.19	1.29	1.42	1.54	1.64	1.73
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 381: MAgPIE m4p_SSP3 — Demand—Food—Crops—Oil crops—Soybean (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3.90	5.29	5.30	5.78	5.59	6.61	7.83	7.59	8.16	8.84
CAZ	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.03
CHA	2.75	3.89	3.61	3.70	3.59	4.05	5.34	4.79	4.90	5.14
EUR	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.05	0.03	0.08
IND	0.01	0.00	0.01	0.15	0.04	0.04	0.03	0.02	0.03	0.05
JPN	0.59	0.69	0.74	0.73	0.82	0.89	0.86	0.88	0.93	0.86
LAM	0.01	0.03	0.11	0.23	0.26	0.29	0.39	0.47	0.61	0.78
MEA	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.04	0.03	0.18
NEU	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.01	0.05	0.10
OAS	0.44	0.57	0.68	0.81	0.70	0.96	0.83	0.89	0.99	1.16
REF	0.05	0.06	0.07	0.07	0.08	0.08	0.00	0.00	0.00	0.01
SSA	0.03	0.05	0.07	0.07	0.07	0.24	0.25	0.39	0.54	0.45
USA	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01

Table 382: FAO — Demand—Food—Crops—Oil crops—Soybean (Mt DM/yr)

7.1.10
Oil crops—Sunflower



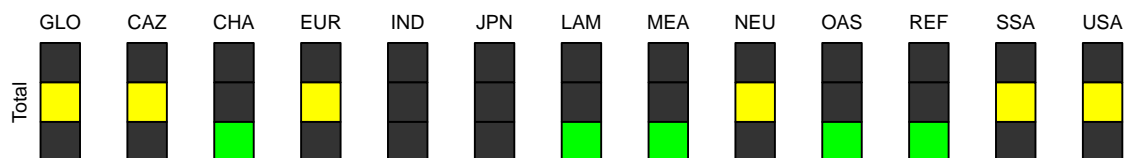
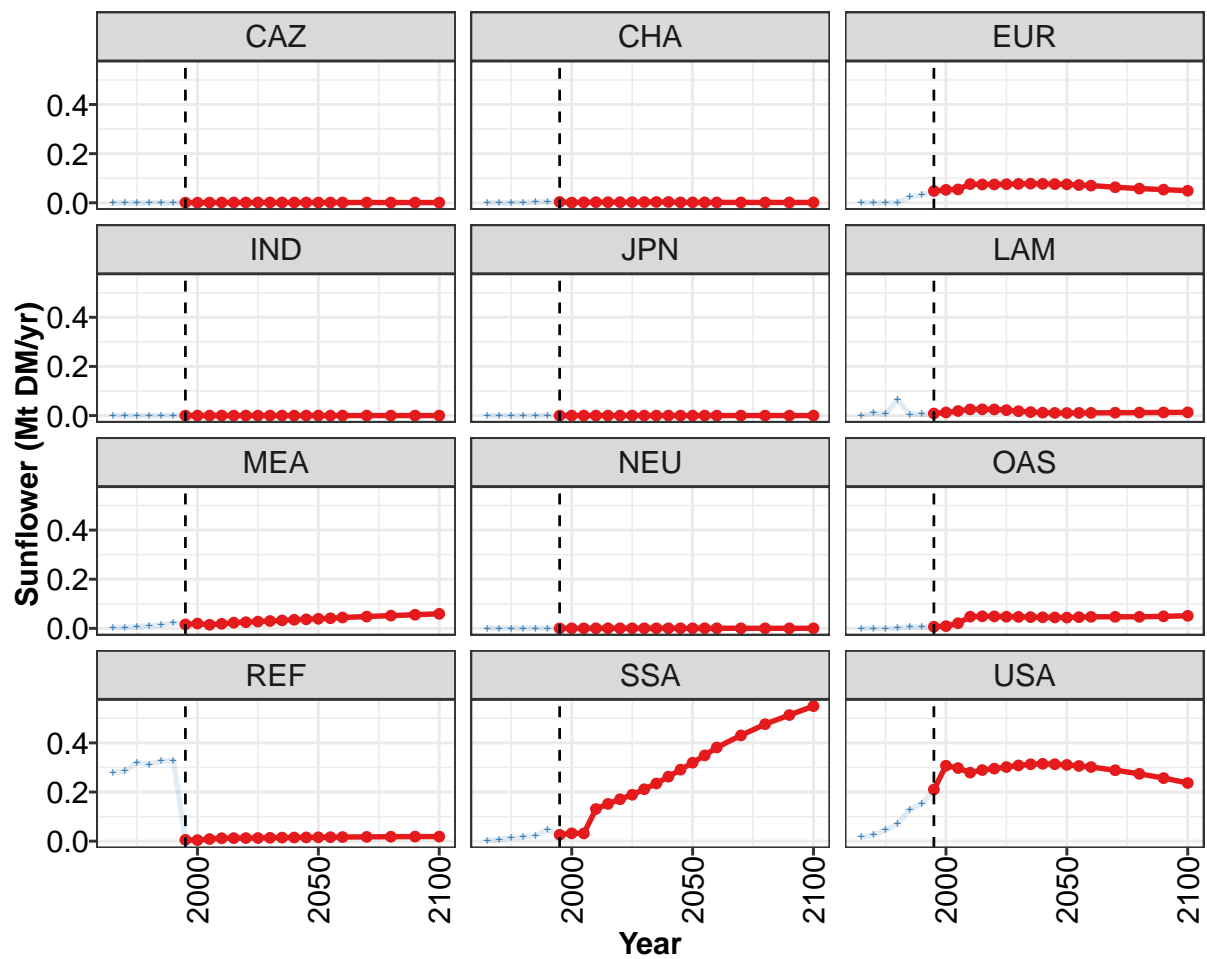


Figure 128: MAGPIE m4p_SSP3 — Demand—Food—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.325	0.438	0.449	0.593	0.630	0.656	0.680	0.709	0.737	0.766	0.791
CAZ	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
CHA	0.003	0.001	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.002
EUR	0.048	0.053	0.054	0.076	0.074	0.074	0.076	0.077	0.078	0.077	0.076
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.008	0.013	0.019	0.025	0.025	0.025	0.022	0.018	0.014	0.012	0.011
MEA	0.016	0.020	0.015	0.019	0.023	0.025	0.028	0.030	0.032	0.035	0.037
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.007	0.009	0.021	0.048	0.049	0.049	0.047	0.047	0.046	0.045	0.045
REF	0.005	0.004	0.009	0.012	0.012	0.013	0.013	0.014	0.015	0.015	0.015
SSA	0.026	0.032	0.031	0.131	0.152	0.171	0.189	0.211	0.235	0.263	0.291
USA	0.210	0.307	0.298	0.279	0.290	0.295	0.302	0.308	0.313	0.315	0.313

Table 383: MAgPIE m4p_SSP3 — Demand—Food—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

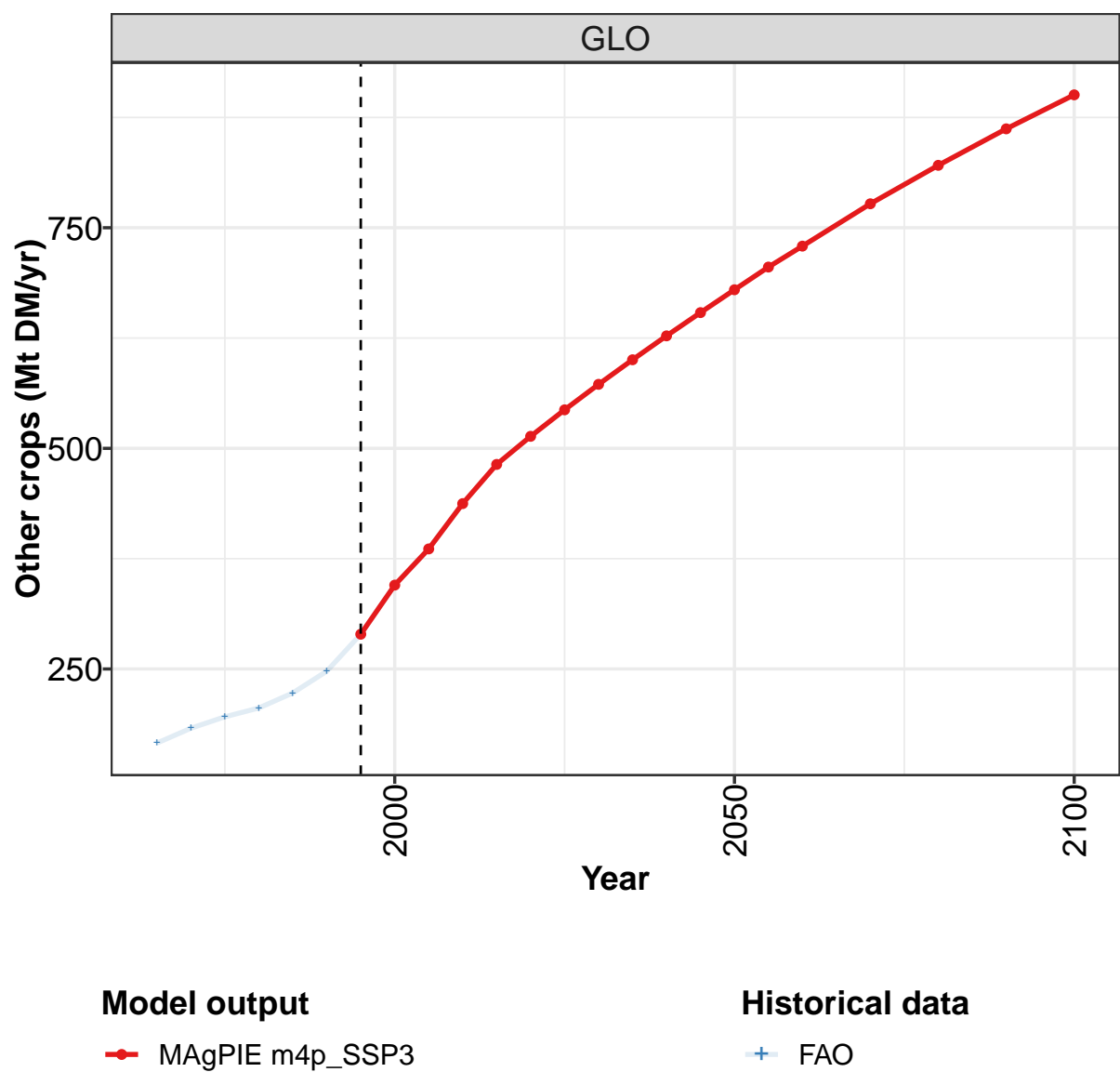
	2050	2055	2060	2070	2080	2090	2100
GLO	0.817	0.844	0.875	0.909	0.939	0.962	0.980
CAZ	0.001	0.001	0.001	0.001	0.001	0.001	0.001
CHA	0.002	0.002	0.002	0.001	0.001	0.001	0.001
EUR	0.075	0.072	0.070	0.063	0.058	0.054	0.049
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.010	0.011	0.011	0.012	0.012	0.013	0.013
MEA	0.039	0.041	0.044	0.048	0.052	0.056	0.059
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.044	0.046	0.047	0.047	0.047	0.049	0.051
REF	0.016	0.016	0.017	0.017	0.018	0.019	0.019
SSA	0.319	0.349	0.381	0.430	0.476	0.513	0.550
USA	0.310	0.306	0.302	0.289	0.274	0.257	0.237

Table 384: MAgPIE m4p_SSP3 — Demand—Food—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.302	0.331	0.393	0.479	0.528	0.598	0.325	0.438	0.450	0.592
CAZ	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001
CHA	0.000	0.000	0.000	0.001	0.003	0.004	0.003	0.001	0.001	0.002
EUR	0.000	0.000	0.000	0.000	0.023	0.033	0.048	0.053	0.054	0.076
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.009	0.006	0.065	0.005	0.005	0.008	0.013	0.019	0.025
MEA	0.004	0.004	0.007	0.011	0.013	0.023	0.016	0.020	0.015	0.019
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.001	0.007	0.005	0.007	0.009	0.021	0.047
REF	0.279	0.285	0.321	0.312	0.326	0.328	0.005	0.004	0.009	0.012
SSA	0.003	0.006	0.013	0.017	0.022	0.047	0.026	0.032	0.032	0.131
USA	0.016	0.026	0.045	0.072	0.128	0.152	0.210	0.307	0.298	0.279

Table 385: FAO — Demand—Food—Crops—Oil crops—Sunflower (Mt DM/yr)

7.1.11
Other crops



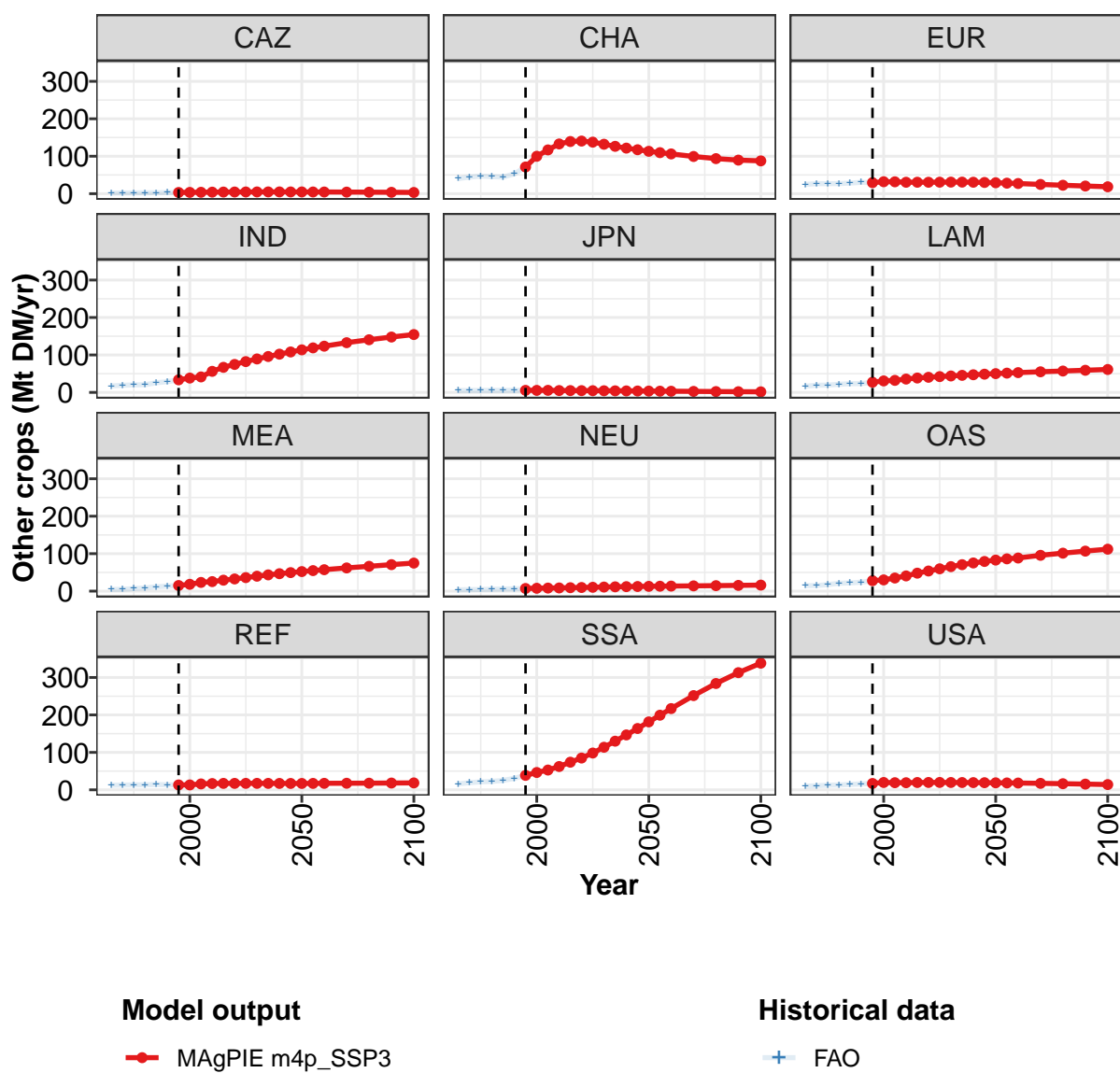


Figure 129: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	289	345	386	437	482	514	544	573	600	627	654
CAZ	3	4	4	4	4	5	5	5	5	5	5
CHA	71	100	117	133	139	141	138	132	126	122	117
EUR	29	32	32	31	31	31	31	31	31	31	30
IND	34	38	41	56	67	75	82	89	96	102	108
JPN	6	5	6	5	5	5	5	4	4	4	4
LAM	27	31	32	36	38	40	42	44	46	47	49
MEA	15	18	23	25	29	33	36	40	43	47	49
NEU	7	8	8	9	9	10	10	11	12	12	12
OAS	28	30	35	41	48	54	60	65	71	75	79
REF	13	13	16	17	17	17	17	17	17	17	17
SSA	39	46	53	62	74	85	98	114	130	147	164
USA	17	20	19	19	20	20	20	20	20	19	19

Table 386: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops (Mt DM/yr) [PART 1/2]

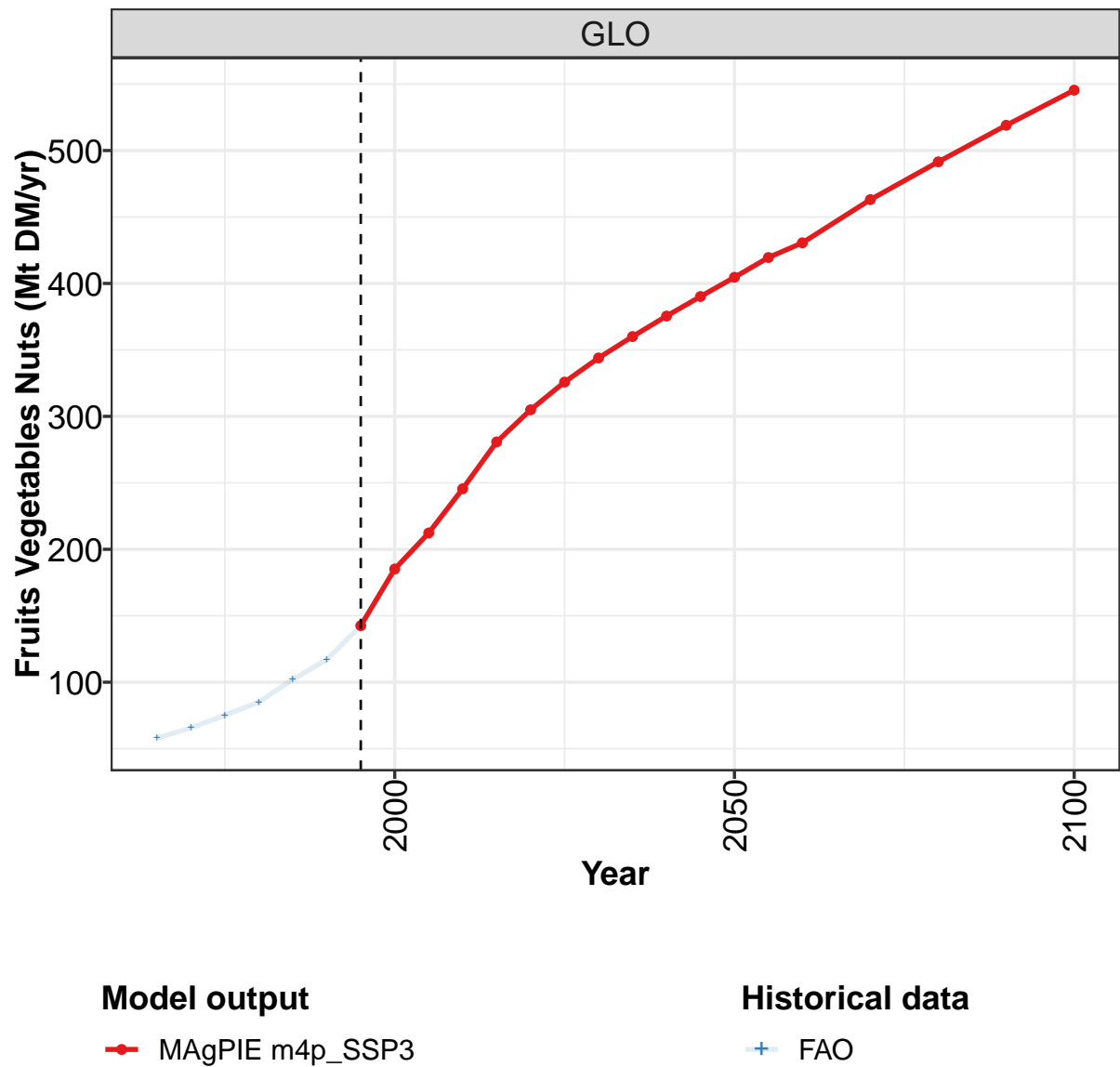
	2050	2055	2060	2070	2080	2090	2100
GLO	680	705	729	777	821	862	901
CAZ	5	5	5	4	4	4	3
CHA	113	110	106	99	94	90	88
EUR	29	28	27	25	23	20	19
IND	114	119	123	133	141	148	155
JPN	4	3	3	3	2	2	2
LAM	50	51	53	55	57	59	61
MEA	52	55	57	62	66	71	75
NEU	13	13	13	14	15	15	16
OAS	83	86	88	96	101	107	112
REF	17	17	17	18	18	18	19
SSA	181	199	217	252	284	313	338
USA	19	18	18	17	16	15	14

Table 387: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	166	183	196	206	223	247	289	345	386	437
CAZ	2	2	2	2	3	3	3	4	4	4
CHA	40	44	47	45	45	53	71	100	117	133
EUR	25	27	27	27	28	30	30	32	32	31
IND	17	19	20	20	26	29	34	38	41	56
JPN	5	5	5	5	5	5	6	5	6	5
LAM	17	19	19	22	23	23	27	31	32	36
MEA	4	5	7	9	12	13	15	18	23	25
NEU	3	4	4	5	6	6	7	8	8	9
OAS	15	15	17	21	22	24	28	30	35	41
REF	12	13	13	14	14	13	13	13	16	17
SSA	16	19	21	23	25	31	39	46	53	62
USA	10	11	12	13	14	16	17	20	19	19

Table 388: FAO — Demand—Food—Crops—Other crops (Mt DM/yr)

7.1.12
Other crops—Fruits Vegetables Nuts



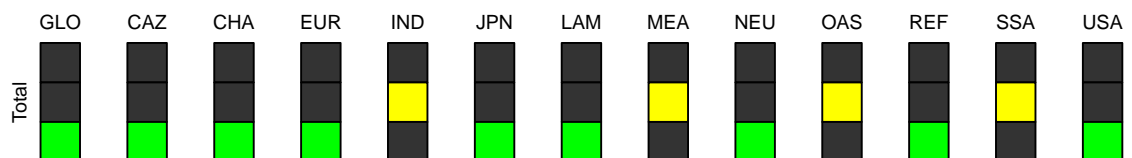
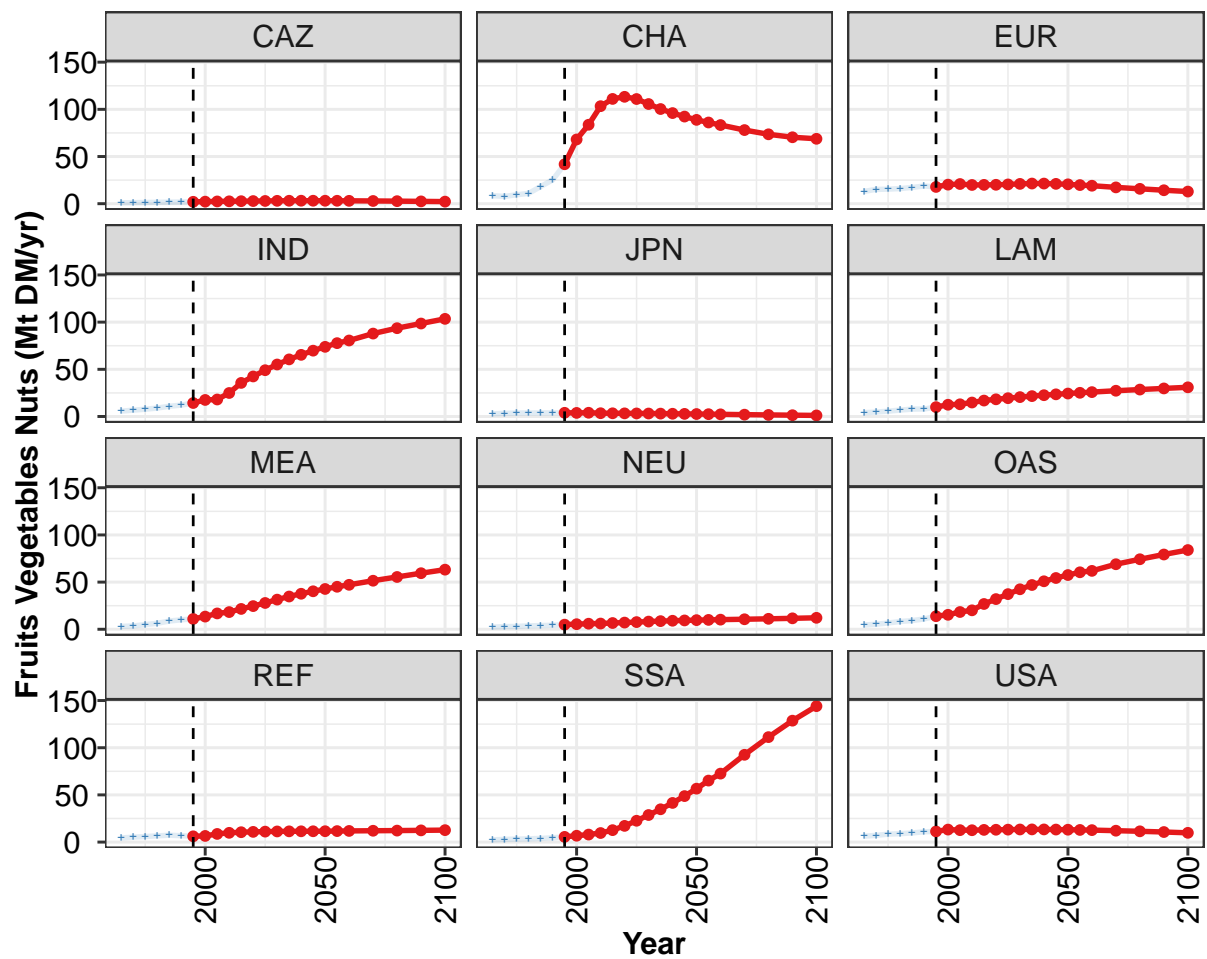


Figure 130: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	143	185	212	246	281	305	326	344	360	375	390
CAZ	2	2	2	3	3	3	3	3	3	3	3
CHA	42	68	84	103	111	113	111	106	100	96	92
EUR	18	20	21	20	20	20	20	21	21	21	21
IND	14	18	18	25	36	42	49	55	61	65	70
JPN	4	4	4	3	3	3	3	3	3	3	3
LAM	10	12	13	15	17	18	19	21	22	23	23
MEA	11	13	17	18	22	25	28	31	35	38	40
NEU	5	5	6	6	7	7	8	8	9	9	9
OAS	14	15	18	20	27	32	37	42	47	51	54
REF	6	7	9	10	10	11	11	11	11	11	11
SSA	6	7	8	10	13	17	23	29	35	42	49
USA	11	13	13	13	13	13	13	13	13	13	13

Table 389: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)
[PART 1/2]

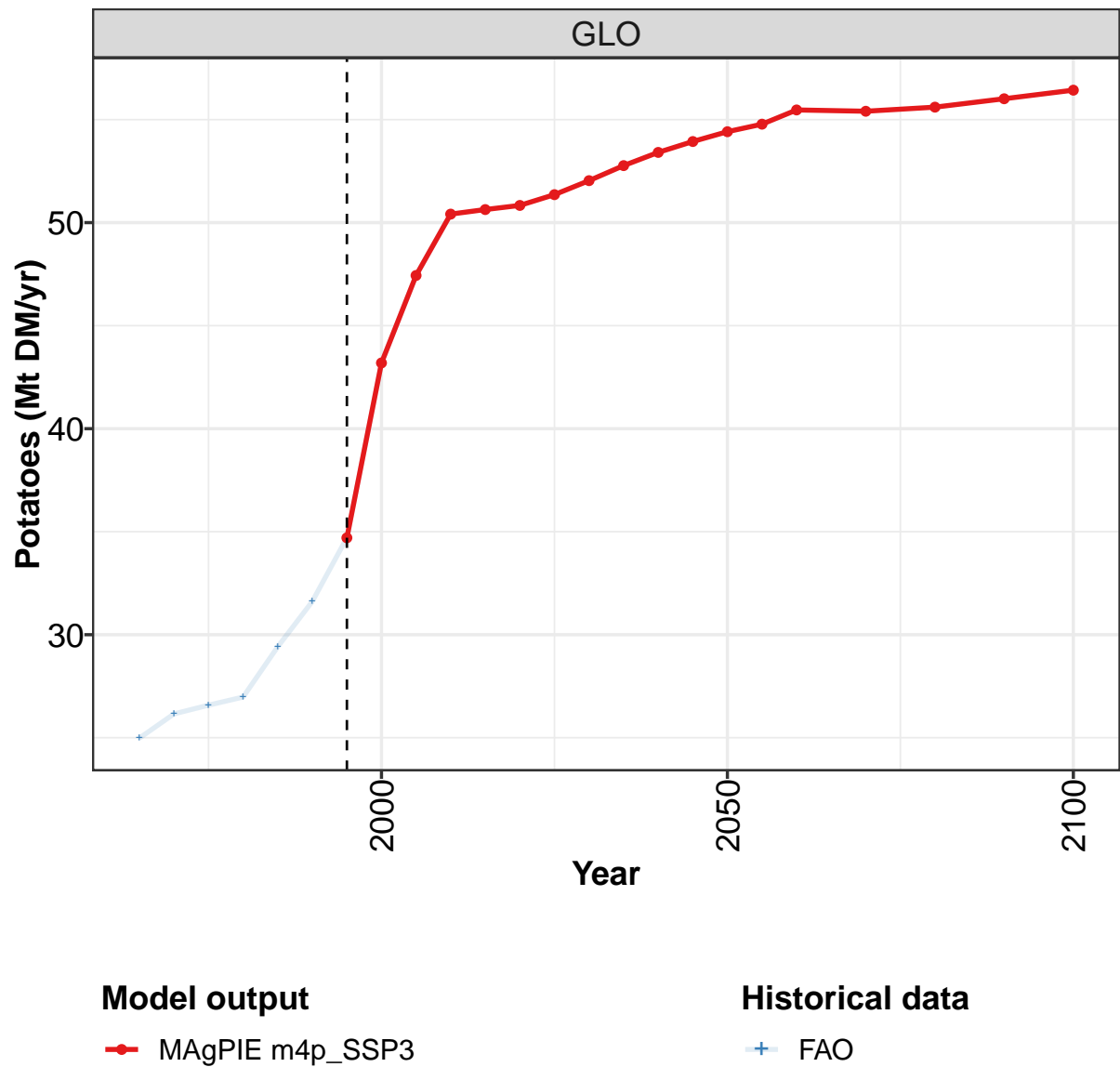
	2050	2055	2060	2070	2080	2090	2100
GLO	405	420	431	463	491	519	545
CAZ	3	3	3	3	3	2	2
CHA	89	86	83	78	74	70	69
EUR	21	20	19	17	16	14	13
IND	74	78	81	88	94	99	103
JPN	3	2	2	2	2	1	1
LAM	24	25	26	27	29	30	31
MEA	43	45	47	51	55	59	63
NEU	10	10	10	11	11	12	12
OAS	58	60	62	69	74	79	84
REF	12	12	12	12	12	12	13
SSA	57	65	73	93	111	129	144
USA	13	13	13	12	11	11	10

Table 390: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	58	66	75	85	102	117	143	185	212	246
CAZ	1	1	1	1	2	2	2	2	2	3
CHA	8	8	9	11	18	25	42	68	84	103
EUR	13	15	15	16	17	19	18	20	21	20
IND	6	7	8	9	11	12	14	18	18	25
JPN	3	3	4	4	4	4	4	4	4	3
LAM	4	5	6	7	8	8	10	12	13	15
MEA	3	4	5	6	9	10	11	13	17	18
NEU	2	3	3	4	4	4	5	5	6	6
OAS	5	5	7	8	9	11	14	15	18	20
REF	4	5	6	7	7	7	6	7	9	10
SSA	2	3	3	3	4	5	6	7	8	10
USA	6	7	8	9	10	11	11	13	13	13

Table 391: FAO — Demand—Food—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

7.1.13
Other crops—Potatoes



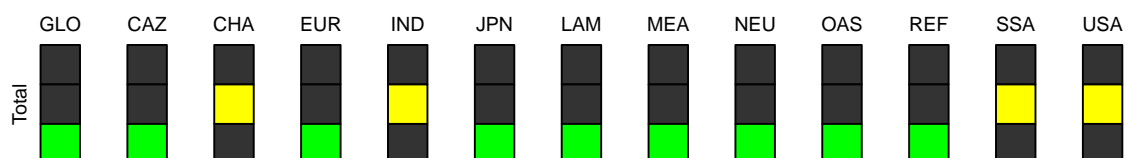
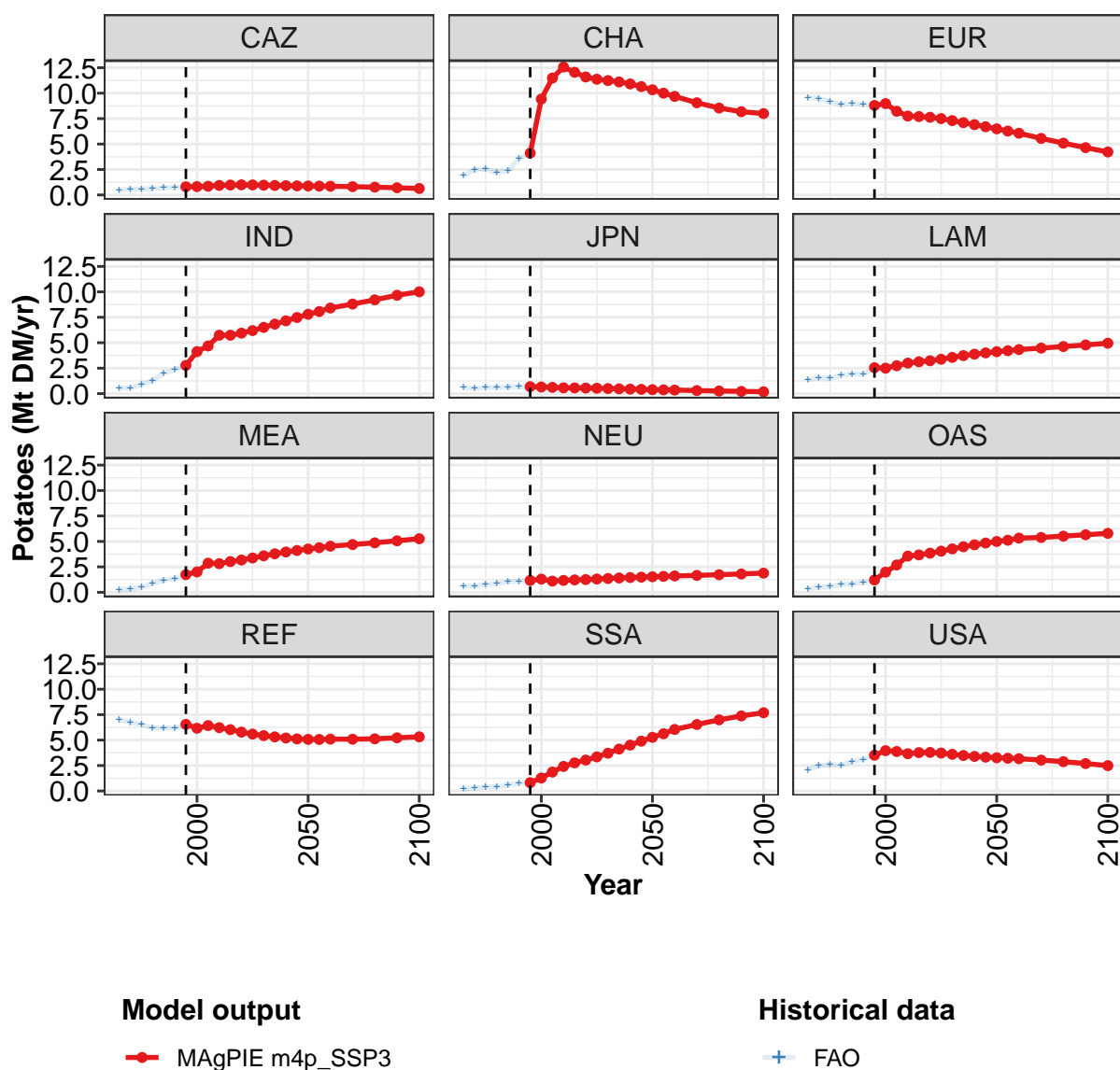


Figure 131: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34.7	43.2	47.4	50.4	50.6	50.8	51.4	52.0	52.8	53.4	53.9
CAZ	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.0	0.9	0.9	0.9
CHA	4.1	9.4	11.5	12.6	12.1	11.6	11.4	11.2	11.1	10.9	10.6
EUR	8.8	9.0	8.2	7.8	7.7	7.6	7.5	7.3	7.1	6.9	6.7
IND	2.8	4.1	4.7	5.7	5.7	5.9	6.2	6.5	6.8	7.2	7.5
JPN	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4
LAM	2.5	2.5	2.7	3.0	3.1	3.2	3.4	3.6	3.7	3.9	4.0
MEA	1.7	2.0	2.9	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.1
NEU	1.2	1.3	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.5
OAS	1.2	2.0	2.7	3.6	3.7	3.8	4.0	4.3	4.5	4.7	4.8
REF	6.5	6.2	6.4	6.2	6.0	5.8	5.6	5.4	5.3	5.2	5.1
SSA	0.8	1.3	1.9	2.4	2.8	3.0	3.4	3.7	4.1	4.5	4.9
USA	3.5	4.0	3.9	3.7	3.8	3.8	3.7	3.6	3.5	3.4	3.3

Table 392: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

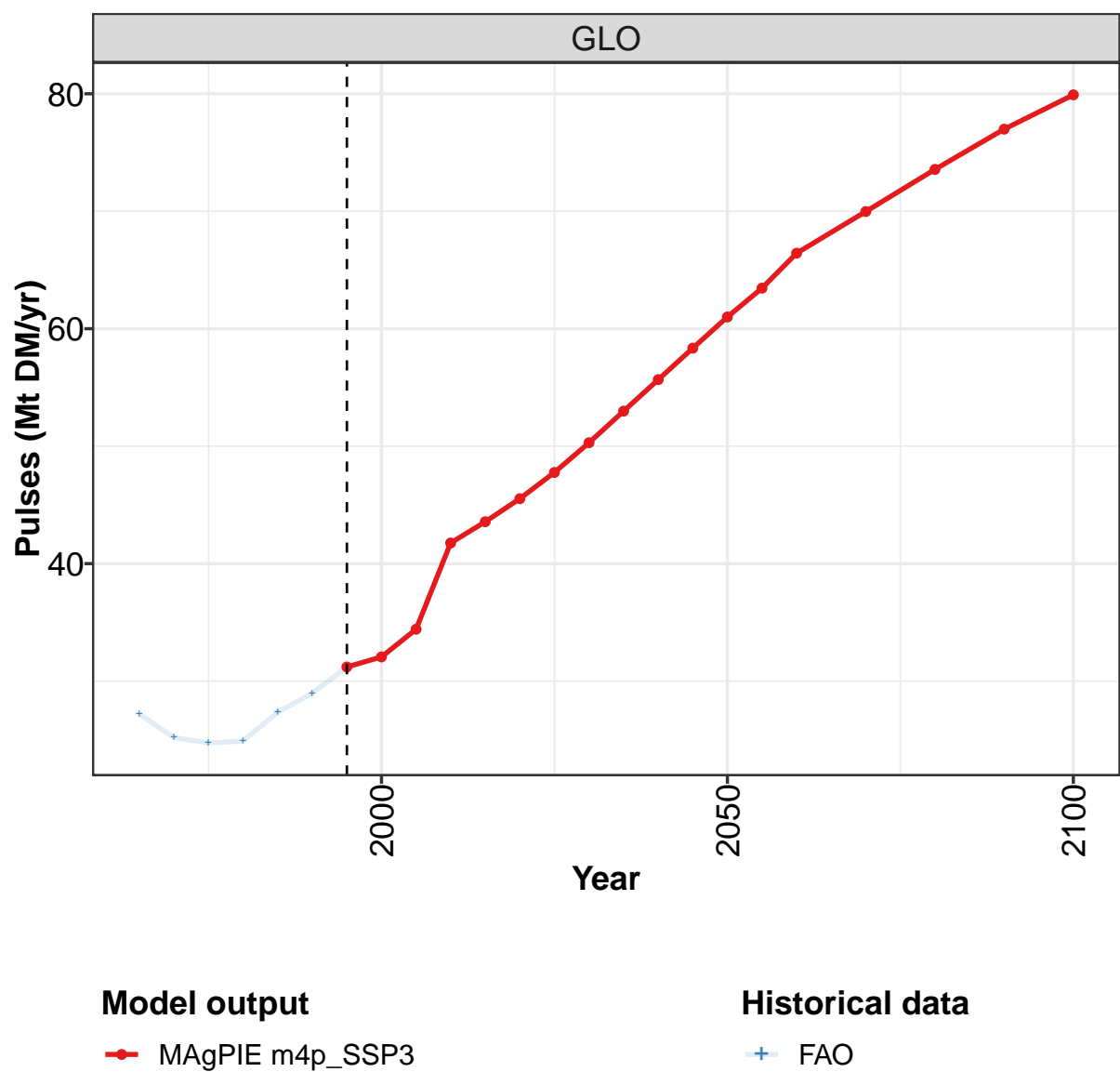
	2050	2055	2060	2070	2080	2090	2100
GLO	54.4	54.8	55.5	55.4	55.6	56.0	56.4
CAZ	0.9	0.9	0.9	0.8	0.8	0.7	0.6
CHA	10.3	10.0	9.7	9.1	8.5	8.2	8.0
EUR	6.5	6.3	6.1	5.6	5.1	4.6	4.2
IND	7.8	8.1	8.4	8.8	9.2	9.7	10.0
JPN	0.4	0.4	0.3	0.3	0.3	0.2	0.2
LAM	4.1	4.2	4.3	4.5	4.6	4.8	5.0
MEA	4.3	4.4	4.5	4.7	4.9	5.1	5.3
NEU	1.5	1.6	1.6	1.7	1.7	1.8	1.9
OAS	5.0	5.1	5.3	5.4	5.5	5.7	5.8
REF	5.1	5.1	5.1	5.1	5.1	5.2	5.3
SSA	5.3	5.6	6.0	6.5	7.0	7.4	7.7
USA	3.3	3.2	3.2	3.0	2.9	2.7	2.5

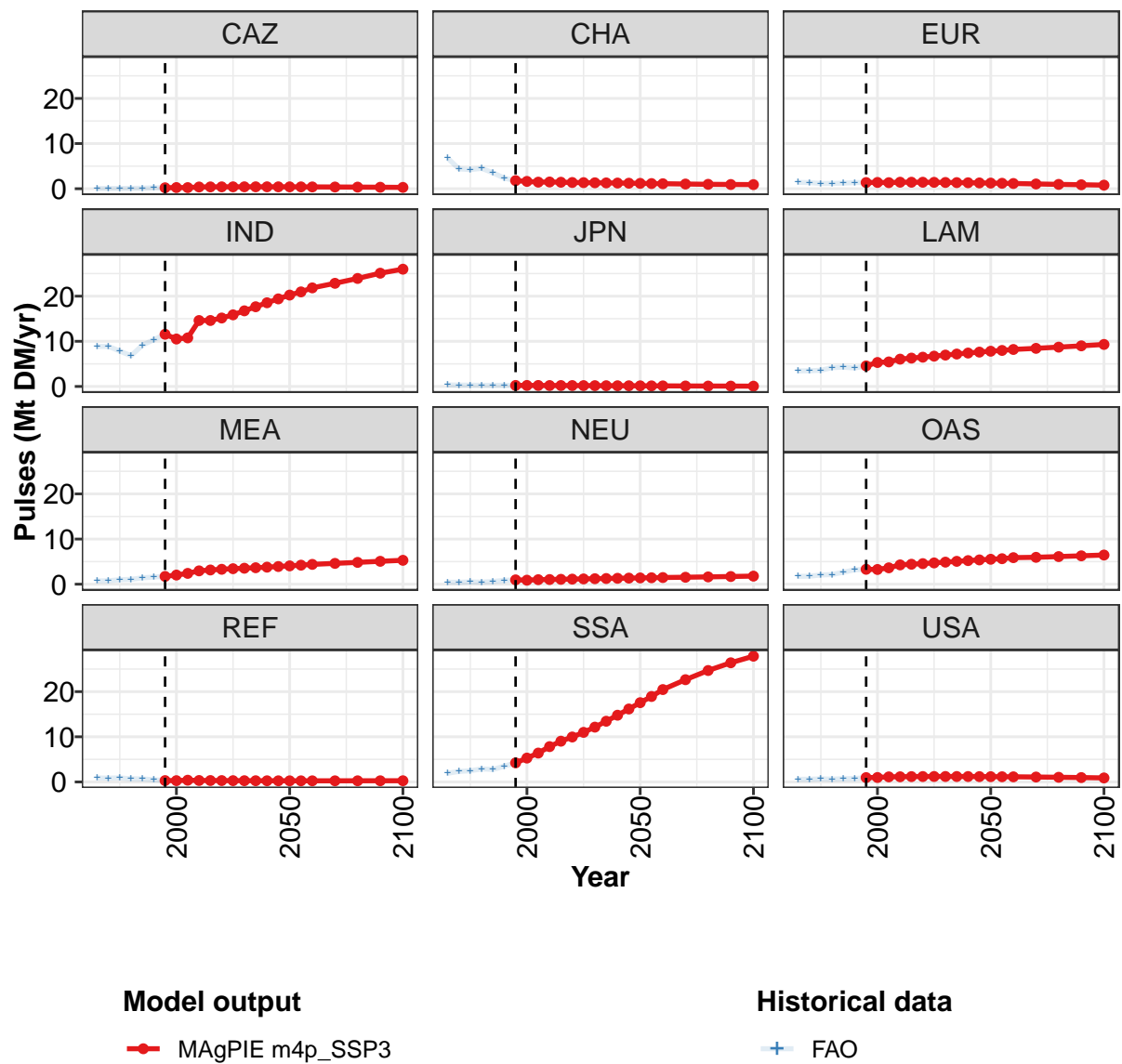
Table 393: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops—Potatoes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	25.0	26.2	26.6	27.0	29.4	31.6	34.7	43.2	47.4	50.4
CAZ	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9
CHA	1.9	2.5	2.5	2.2	2.4	3.6	4.1	9.4	11.5	12.6
EUR	9.6	9.5	9.1	8.9	9.0	8.9	8.8	9.0	8.2	7.8
IND	0.5	0.6	0.9	1.3	2.0	2.4	2.8	4.1	4.7	5.7
JPN	0.6	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.6	0.6
LAM	1.4	1.6	1.5	1.8	1.9	1.9	2.5	2.5	2.7	3.0
MEA	0.3	0.3	0.5	0.9	1.2	1.4	1.7	2.0	2.9	2.8
NEU	0.6	0.6	0.8	0.8	1.0	1.1	1.2	1.3	1.1	1.2
OAS	0.4	0.5	0.6	0.8	0.8	1.0	1.2	2.0	2.7	3.6
REF	7.0	6.7	6.5	6.2	6.2	6.2	6.5	6.2	6.4	6.2
SSA	0.2	0.3	0.4	0.4	0.6	0.7	0.8	1.3	1.9	2.4
USA	2.1	2.5	2.6	2.5	2.9	3.1	3.5	4.0	3.9	3.7

Table 394: FAO — Demand—Food—Crops—Other crops—Potatoes (Mt DM/yr)

7.1.14
Other crops—Pulses





	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	31.2	32.1	34.4	41.8	43.6	45.5	47.8	50.3	53.0	55.7	58.3
CAZ	0.2	0.3	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
CHA	1.8	1.6	1.5	1.5	1.4	1.4	1.3	1.3	1.3	1.3	1.2
EUR	1.4	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3
IND	11.6	10.5	10.8	14.6	14.6	15.2	15.9	16.8	17.7	18.5	19.4
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	4.6	5.3	5.4	6.1	6.3	6.5	6.7	7.0	7.2	7.4	7.6
MEA	1.7	2.0	2.4	3.0	3.2	3.3	3.4	3.5	3.7	3.8	3.9
NEU	1.0	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3
OAS	3.3	3.3	3.6	4.3	4.4	4.6	4.7	4.9	5.1	5.2	5.4
REF	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
SSA	4.2	5.3	6.4	7.8	9.0	10.0	11.0	12.1	13.4	14.8	16.2
USA	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2

Table 395: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

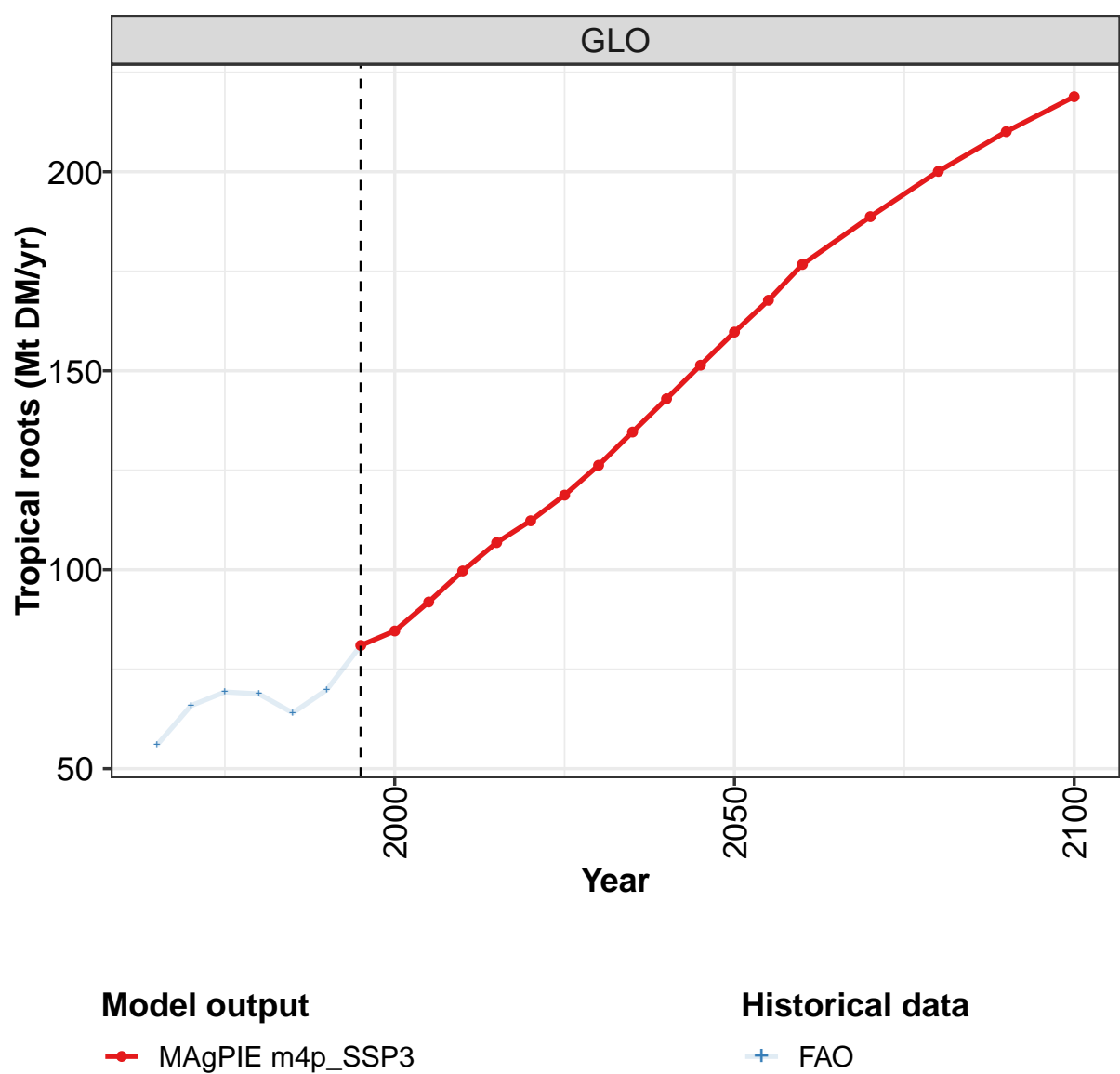
	2050	2055	2060	2070	2080	2090	2100
GLO	61.0	63.5	66.4	70.0	73.6	77.0	79.9
CAZ	0.4	0.4	0.4	0.4	0.4	0.3	0.3
CHA	1.2	1.1	1.1	1.0	1.0	0.9	0.9
EUR	1.3	1.2	1.2	1.1	1.0	0.9	0.8
IND	20.2	20.9	21.8	22.8	23.9	25.1	26.0
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	7.8	8.0	8.2	8.4	8.7	9.0	9.3
MEA	4.1	4.2	4.4	4.6	4.8	5.1	5.3
NEU	1.4	1.4	1.5	1.5	1.6	1.7	1.8
OAS	5.5	5.7	5.9	6.0	6.1	6.3	6.5
REF	0.3	0.3	0.3	0.3	0.3	0.3	0.3
SSA	17.6	18.9	20.5	22.7	24.7	26.4	27.9
USA	1.2	1.2	1.1	1.1	1.0	1.0	0.9

Table 396: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops—Pulses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	27.2	25.2	24.7	24.9	27.3	29.0	31.2	32.1	34.4	41.8
CAZ	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.4
CHA	6.8	4.4	4.2	4.5	3.5	2.3	1.8	1.6	1.5	1.5
EUR	1.4	1.4	1.2	1.2	1.2	1.4	1.4	1.4	1.3	1.4
IND	8.9	8.9	7.8	6.8	9.1	10.3	11.6	10.5	10.8	14.6
JPN	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2
LAM	3.4	3.5	3.6	4.2	4.3	4.1	4.6	5.3	5.4	6.1
MEA	0.7	0.8	1.0	1.1	1.4	1.6	1.7	2.0	2.4	3.0
NEU	0.4	0.4	0.5	0.5	0.6	0.9	1.0	0.9	1.0	1.0
OAS	1.7	1.8	2.0	2.1	2.7	3.2	3.3	3.3	3.6	4.3
REF	0.9	0.8	0.9	0.7	0.7	0.5	0.3	0.3	0.4	0.3
SSA	1.9	2.3	2.5	2.9	2.8	3.5	4.2	5.3	6.4	7.8
USA	0.6	0.6	0.7	0.6	0.7	0.8	1.0	1.0	1.1	1.1

Table 397: FAO — Demand—Food—Crops—Other crops—Pulses (Mt DM/yr)

7.1.15
Other crops—Tropical roots



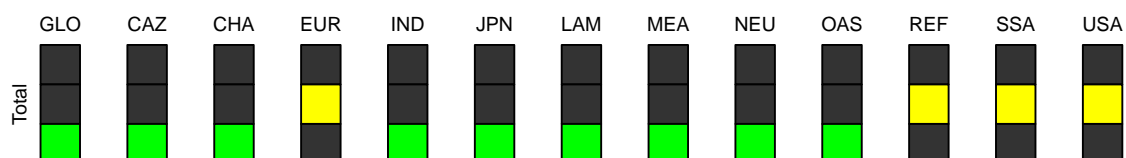
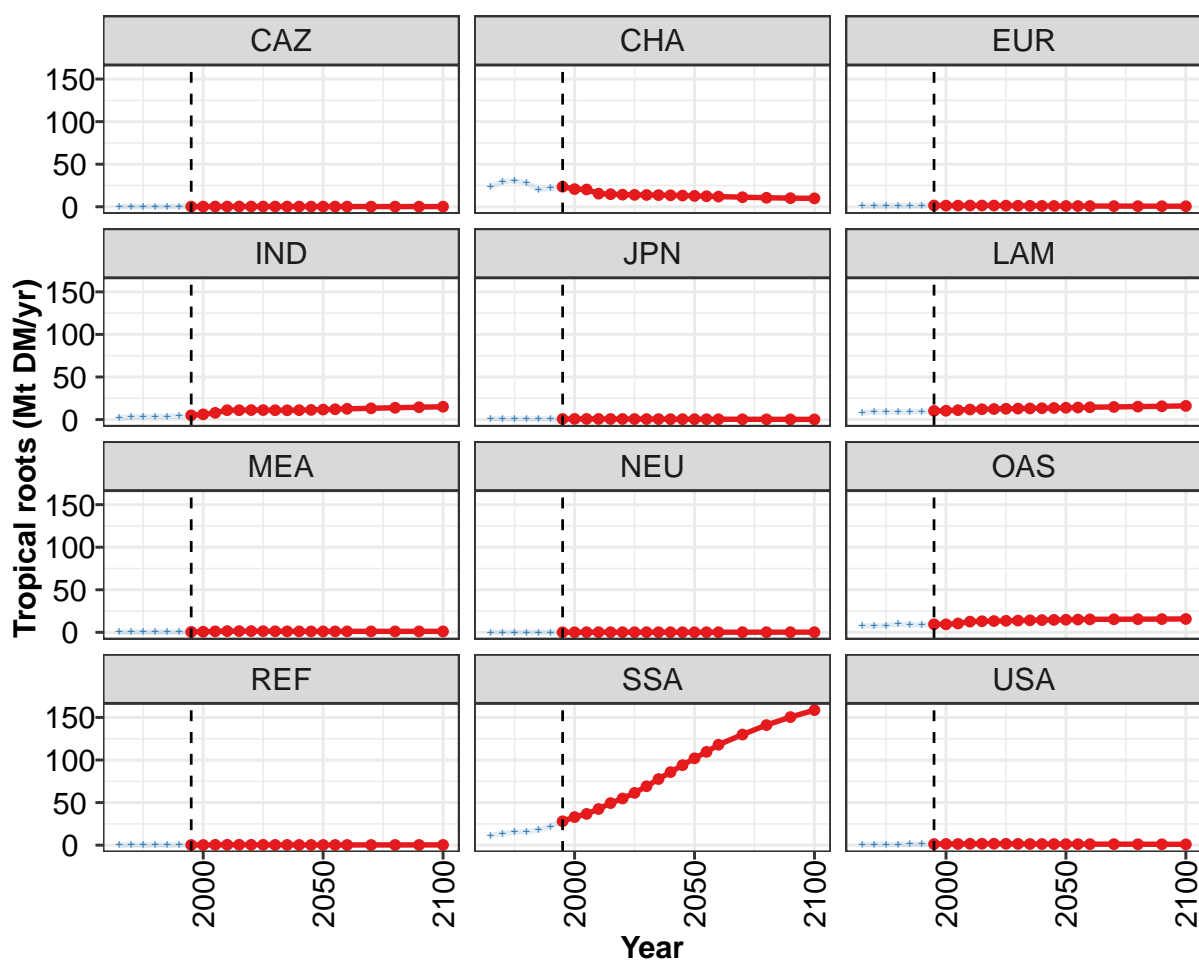


Figure 133: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	81	85	92	100	107	112	119	126	135	143	151
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	24	21	20	15	15	14	14	14	14	13	13
EUR	2	1	1	2	2	1	1	1	1	1	1
IND	5	6	8	11	11	11	11	11	11	11	11
JPN	1	1	1	1	1	1	1	1	1	1	0
LAM	10	10	11	12	12	12	13	13	13	13	14
MEA	1	1	1	1	1	1	1	1	1	1	1
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	10	9	10	13	13	13	14	14	14	14	15
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	28	33	37	42	49	55	61	69	78	86	94
USA	1	1	1	2	2	2	2	1	1	1	1

Table 398: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 1/2]

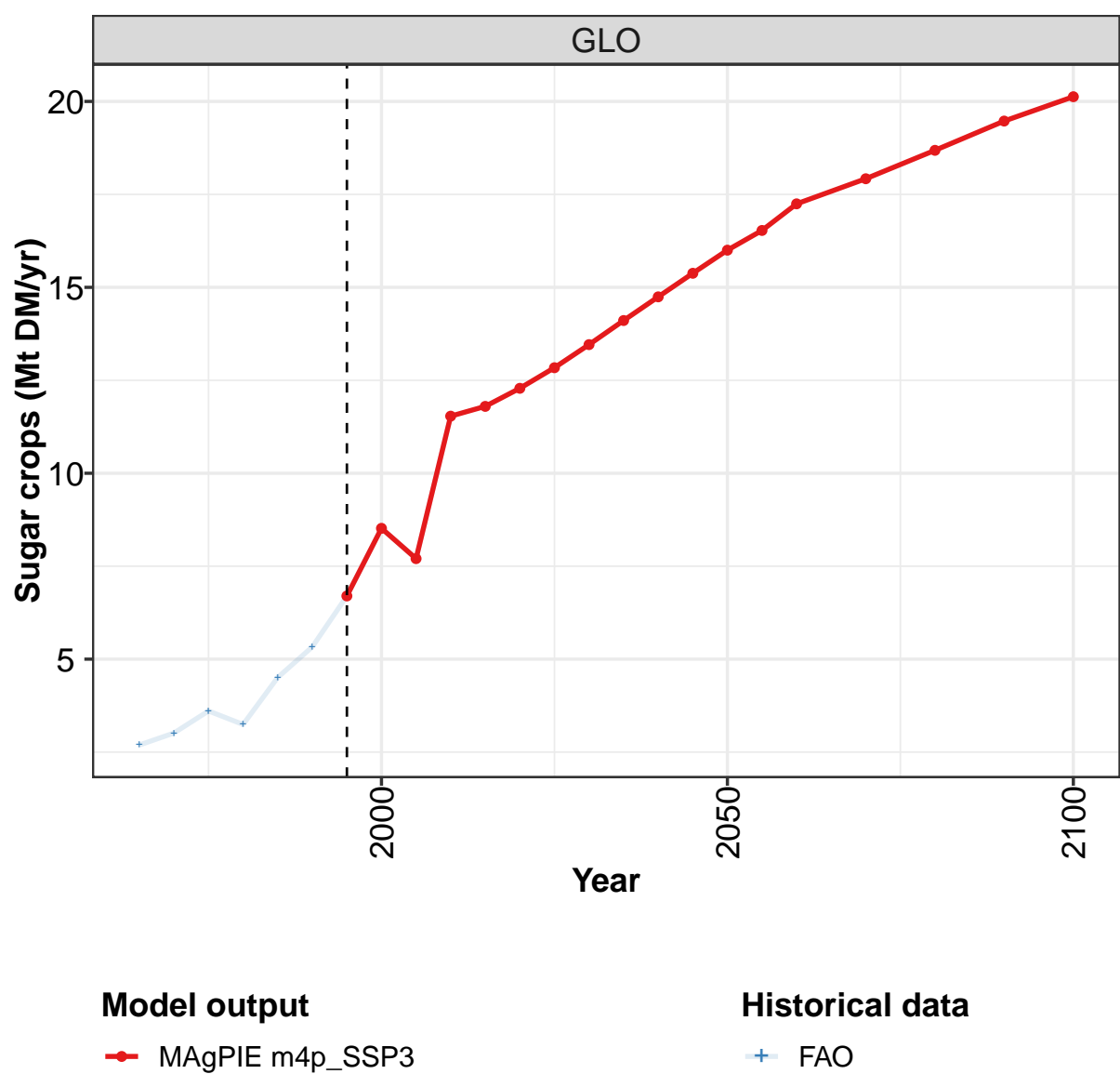
	2050	2055	2060	2070	2080	2090	2100
GLO	160	168	177	189	200	210	219
CAZ	0	0	0	0	0	0	0
CHA	13	12	12	11	11	10	10
EUR	1	1	1	1	1	1	1
IND	12	12	13	13	14	15	15
JPN	0	0	0	0	0	0	0
LAM	14	14	14	15	15	16	16
MEA	1	1	1	1	1	1	1
NEU	0	0	0	0	0	0	0
OAS	15	15	15	15	15	16	16
REF	0	0	0	0	0	0	0
SSA	102	110	118	130	141	150	159
USA	1	1	1	1	1	1	1

Table 399: MAgPIE m4p_SSP3 — Demand—Food—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	55.9	65.8	69.3	68.8	64.0	69.8	80.9	84.6	91.9	99.7
CAZ	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3
CHA	23.2	29.7	30.7	27.7	20.5	21.7	23.6	20.8	20.3	15.4
EUR	0.8	0.8	0.9	0.9	0.9	1.3	1.6	1.4	1.4	1.5
IND	2.2	3.0	3.5	3.5	3.8	3.9	5.0	6.1	7.9	11.0
JPN	1.3	0.9	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7
LAM	7.7	9.4	8.8	8.9	9.3	9.5	10.2	10.4	11.0	11.8
MEA	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.8	1.2	1.4
NEU	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.2
OAS	8.1	7.3	8.0	9.9	9.1	8.8	9.5	9.4	10.4	12.7
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.5
SSA	11.4	13.7	15.3	15.8	18.0	22.1	28.1	33.0	36.7	42.5
USA	0.9	0.8	0.8	0.9	1.2	1.1	1.3	1.4	1.4	1.6

Table 400: FAO — Demand—Food—Crops—Other crops—Tropical roots (Mt DM/yr)

7.1.16
Sugar crops



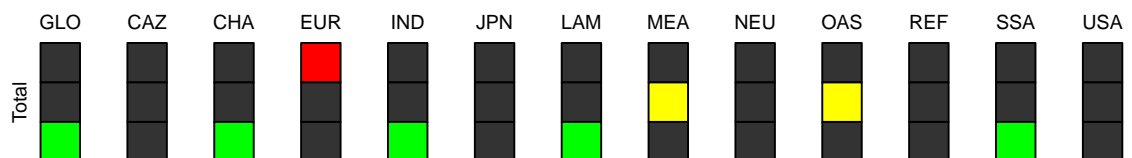
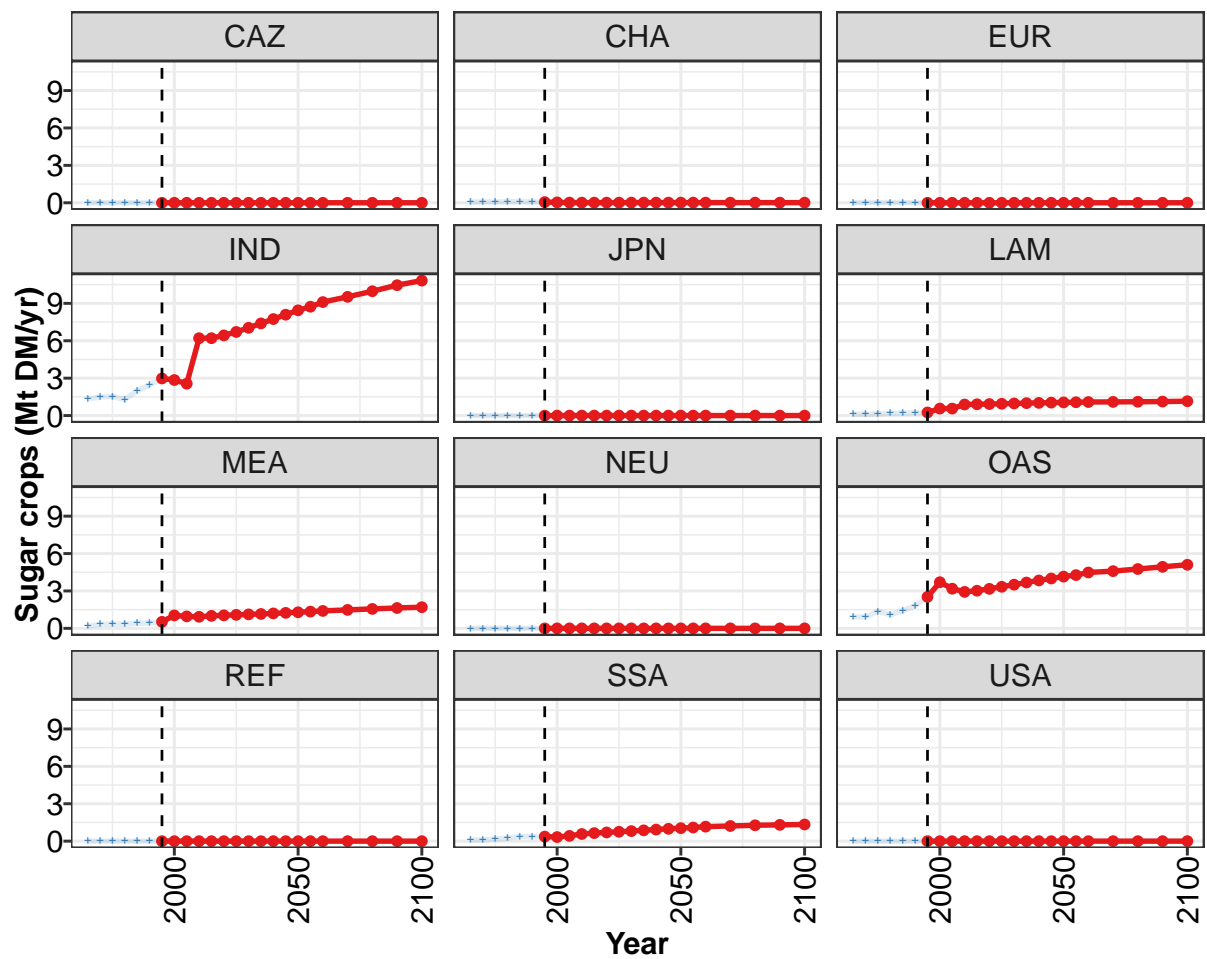


Figure 134: MAgPIE m4p_SSP3 — Demand—Food—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.7	8.5	7.7	11.5	11.8	12.3	12.8	13.5	14.1	14.7	15.4
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	3.0	2.9	2.6	6.2	6.2	6.4	6.7	7.0	7.4	7.7	8.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.6	0.6	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0
MEA	0.5	1.0	1.0	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	2.5	3.7	3.2	2.9	3.0	3.2	3.3	3.5	3.7	3.8	4.0
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.4	0.3	0.4	0.6	0.6	0.7	0.8	0.8	0.9	0.9	1.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 401: MAgPIE m4p_SSP3 — Demand—Food—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

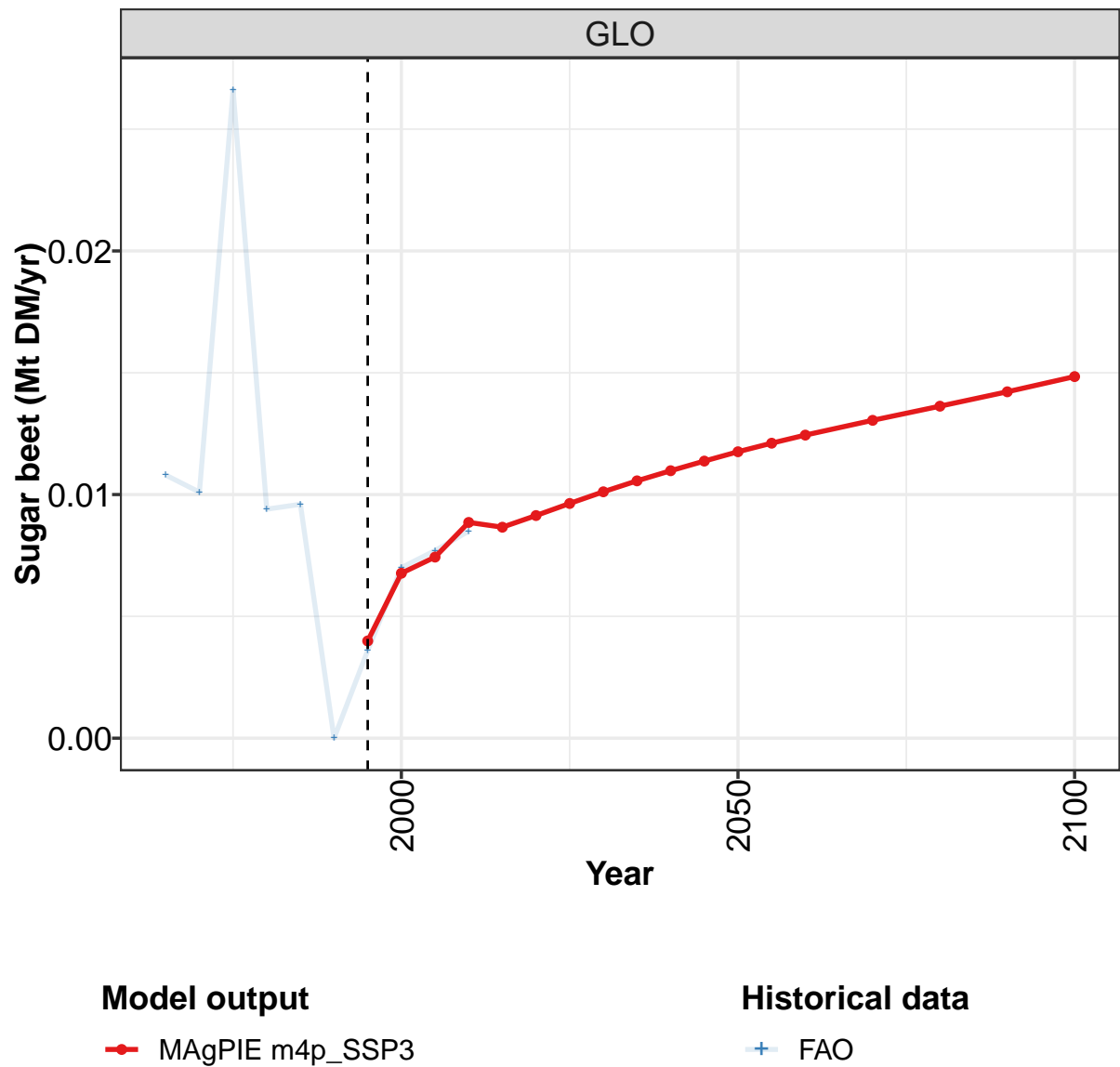
	2050	2055	2060	2070	2080	2090	2100
GLO	16.0	16.5	17.2	17.9	18.7	19.5	20.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	8.4	8.7	9.1	9.5	10.0	10.5	10.8
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.1	1.1	1.1	1.1	1.1	1.1	1.2
MEA	1.3	1.3	1.4	1.5	1.6	1.6	1.7
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	4.2	4.3	4.5	4.6	4.8	4.9	5.1
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	1.0	1.1	1.2	1.2	1.3	1.3	1.3
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 402: MAgPIE m4p_SSP3 — Demand—Food—Crops—Sugar crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.7	3.0	3.6	3.2	4.5	5.3	6.7	8.5	7.7	11.5
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	1.3	1.5	1.5	1.3	2.0	2.4	3.0	2.9	2.6	6.2
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.6	0.6	0.9
MEA	0.2	0.3	0.3	0.3	0.4	0.4	0.5	1.0	1.0	0.9
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.9	0.9	1.4	1.1	1.4	1.8	2.5	3.7	3.2	2.9
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.1	0.1	0.2	0.2	0.4	0.4	0.4	0.3	0.4	0.6
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 403: FAO — Demand—Food—Crops—Sugar crops (Mt DM/yr)

7.1.17
Sugar crops—Sugar beet



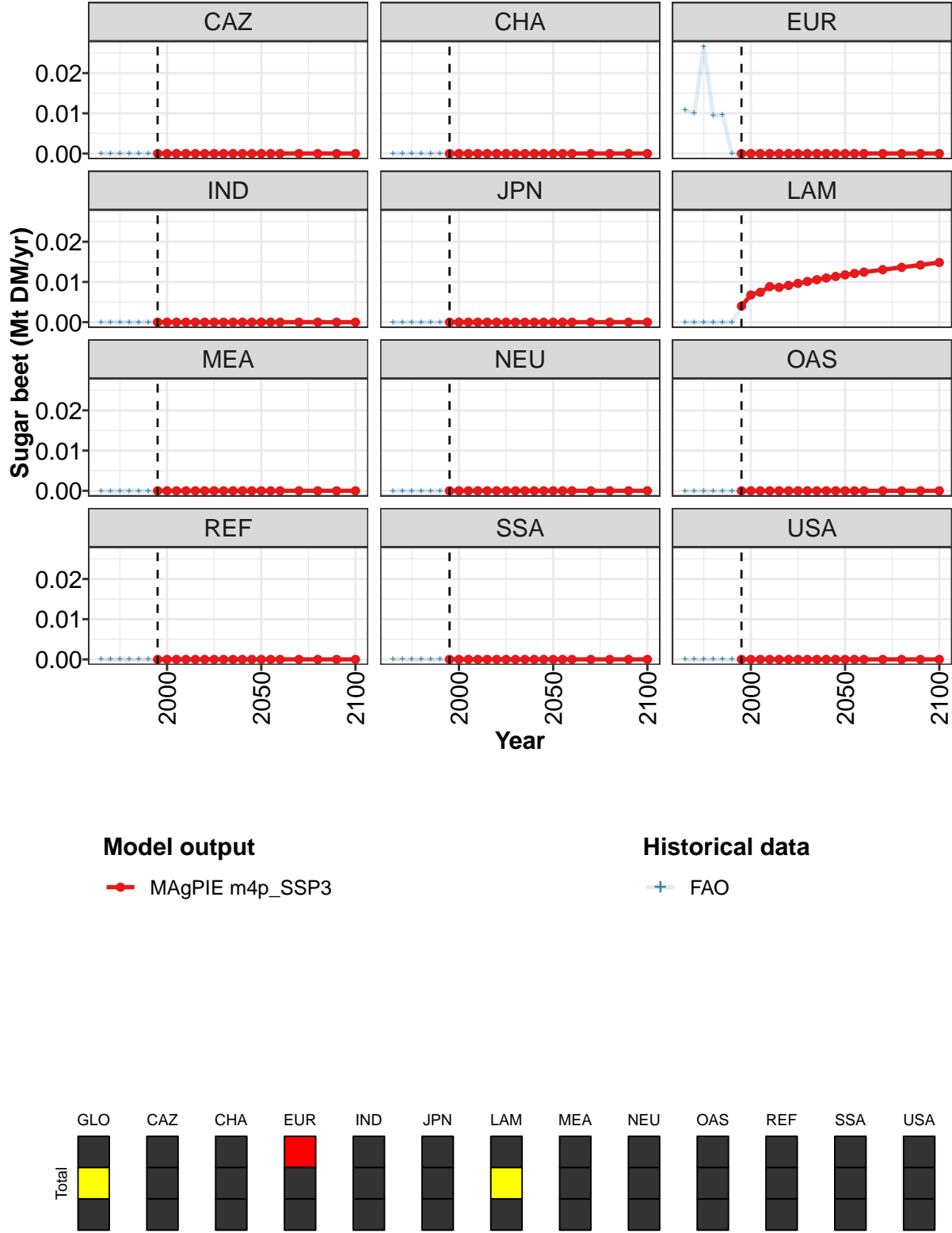


Figure 135: MAgPIE m4p_SSP3 — Demand—Food—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0040	0.0068	0.0074	0.0089	0.0087	0.0091	0.0096	0.0101	0.0106	0.0110	0.0114
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0040	0.0068	0.0074	0.0089	0.0087	0.0091	0.0096	0.0101	0.0106	0.0110	0.0114
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 404: MAgPIE m4p_SSP3 — Demand—Food—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

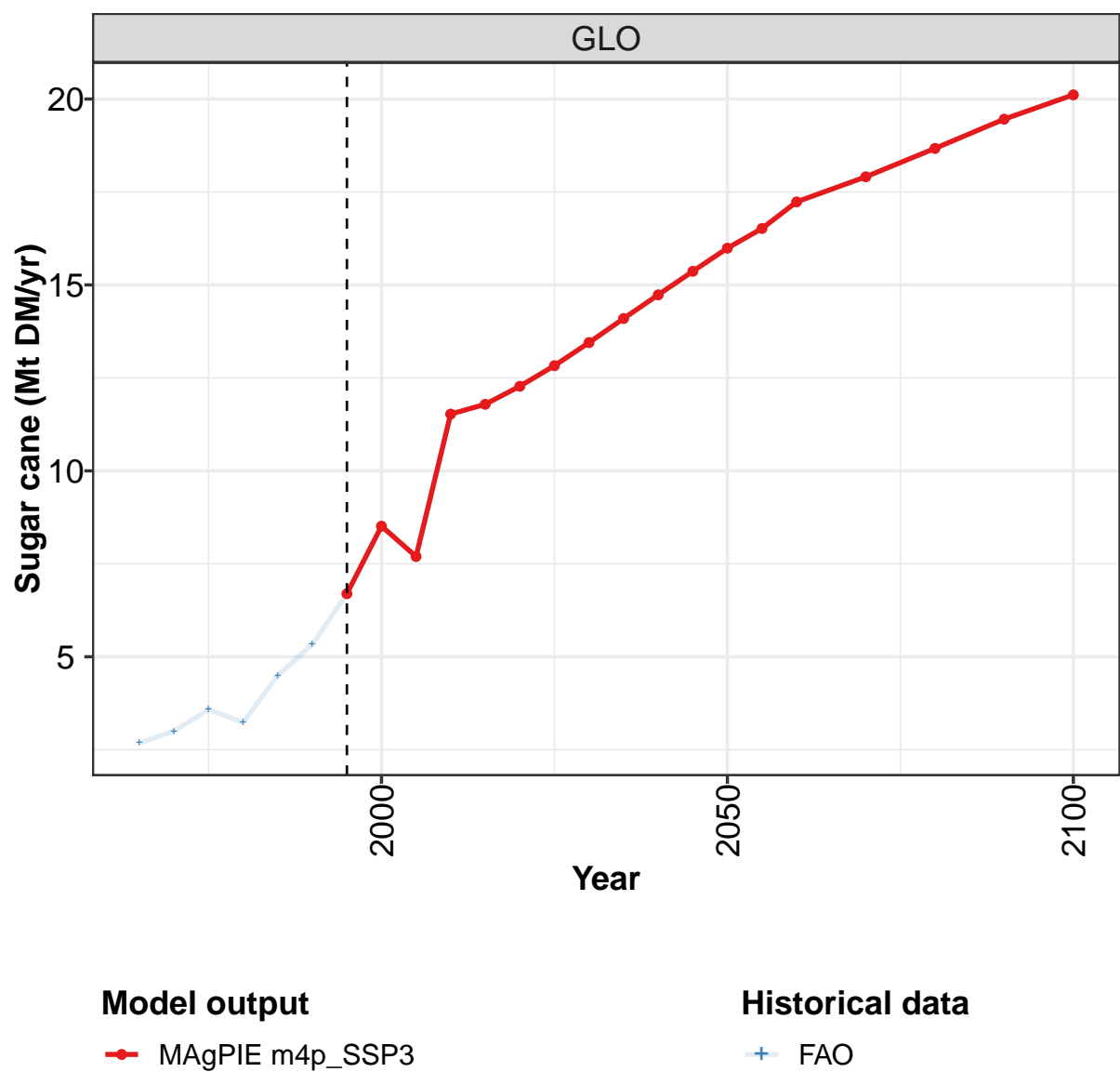
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0118	0.0121	0.0124	0.0130	0.0136	0.0142	0.0148
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0118	0.0121	0.0124	0.0130	0.0136	0.0142	0.0148
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 405: MAgPIE m4p_SSP3 — Demand—Food—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0108	0.0101	0.0266	0.0094	0.0096	0.0000	0.0036	0.0070	0.0077	0.0085
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0108	0.0101	0.0266	0.0094	0.0096	0.0000	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0036	0.0069	0.0077	0.0085
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 406: FAO — Demand—Food—Crops—Sugar crops—Sugar beet (Mt DM/yr)

7.1.18
Sugar crops—Sugar cane



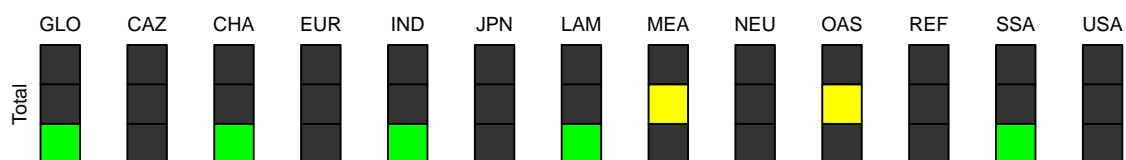
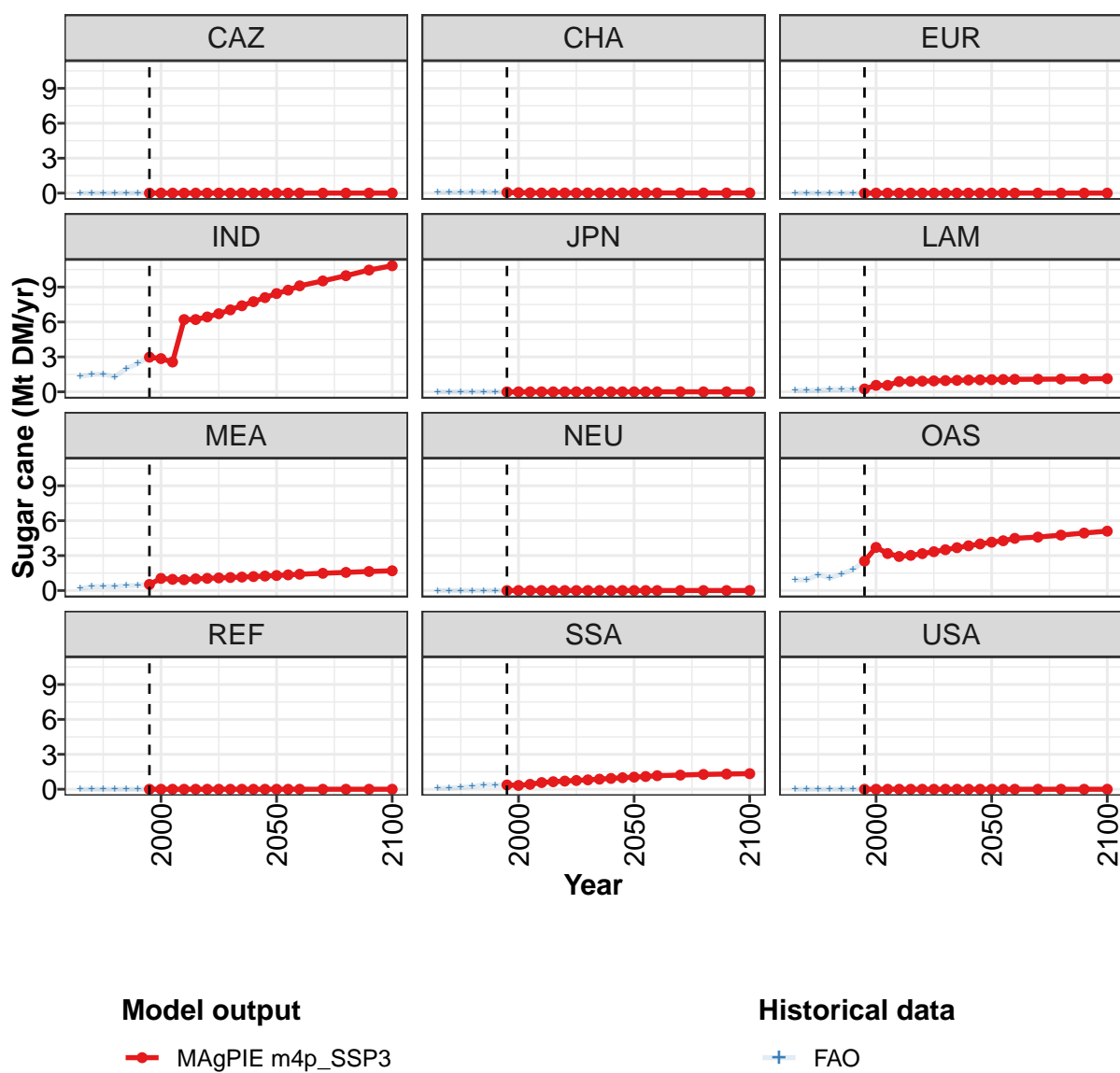


Figure 136: MAGPIE m4p_SSP3 — Demand—Food—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.7	8.5	7.7	11.5	11.8	12.3	12.8	13.4	14.1	14.7	15.4
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	3.0	2.9	2.6	6.2	6.2	6.4	6.7	7.0	7.4	7.7	8.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.6	0.6	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0
MEA	0.5	1.0	1.0	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	2.5	3.7	3.2	2.9	3.0	3.2	3.3	3.5	3.7	3.8	4.0
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.4	0.3	0.4	0.6	0.6	0.7	0.8	0.8	0.9	0.9	1.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 407: MAgPIE m4p_SSP3 — Demand—Food—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 1/2]

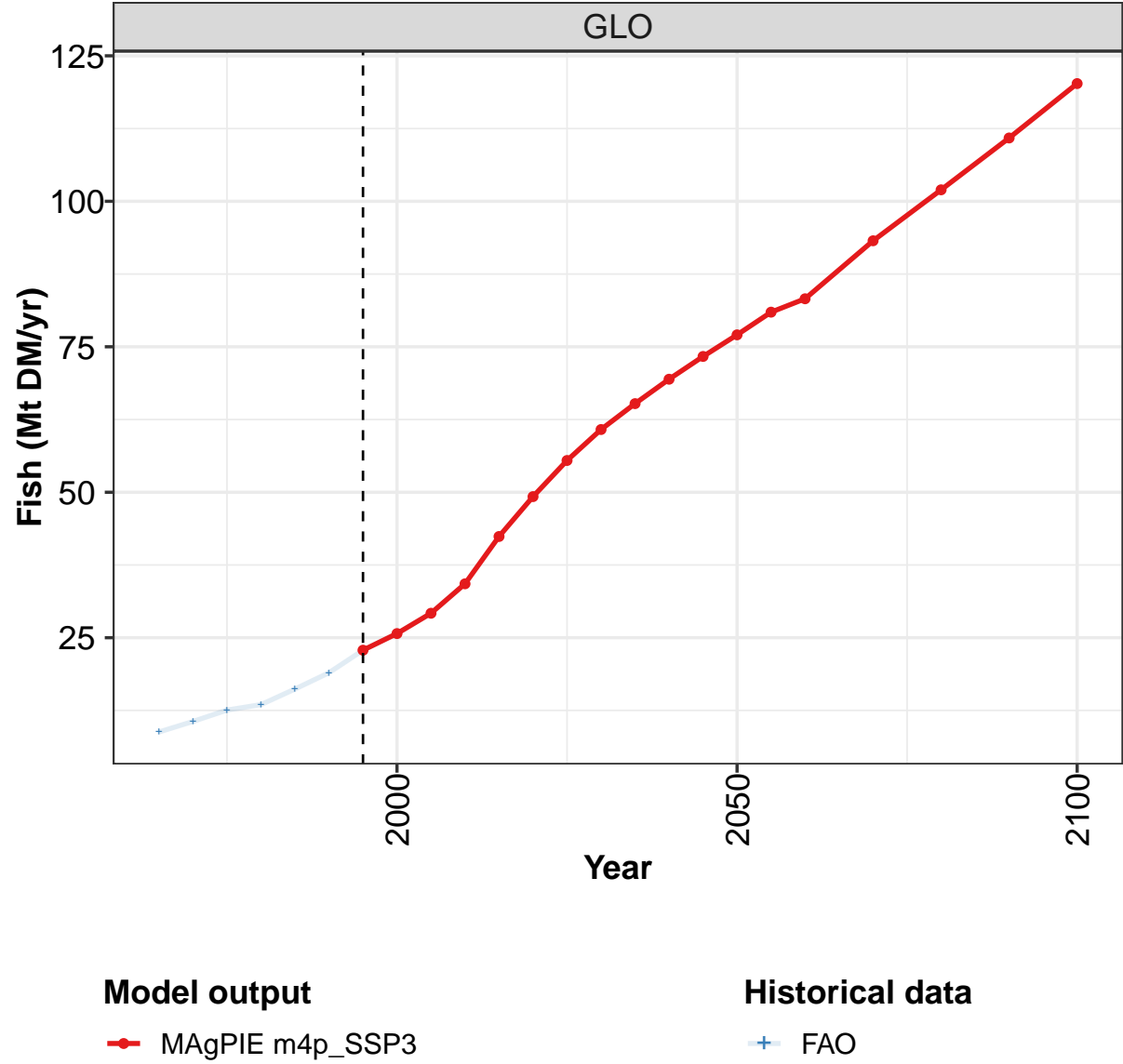
	2050	2055	2060	2070	2080	2090	2100
GLO	16.0	16.5	17.2	17.9	18.7	19.5	20.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	8.4	8.7	9.1	9.5	10.0	10.5	10.8
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.0	1.1	1.1	1.1	1.1	1.1	1.1
MEA	1.3	1.3	1.4	1.5	1.6	1.6	1.7
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	4.2	4.3	4.5	4.6	4.8	4.9	5.1
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	1.0	1.1	1.2	1.2	1.3	1.3	1.3
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 408: MAgPIE m4p_SSP3 — Demand—Food—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.7	3.0	3.6	3.2	4.5	5.3	6.7	8.5	7.7	11.5
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	1.3	1.5	1.5	1.3	2.0	2.4	3.0	2.9	2.6	6.2
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.6	0.6	0.9
MEA	0.2	0.3	0.3	0.3	0.4	0.4	0.5	1.0	1.0	0.9
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.9	0.9	1.4	1.1	1.4	1.8	2.5	3.7	3.2	2.9
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.1	0.1	0.2	0.2	0.4	0.4	0.4	0.3	0.4	0.6
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 409: FAO — Demand—Food—Crops—Sugar crops—Sugar cane (Mt DM/yr)

7.2
Fish



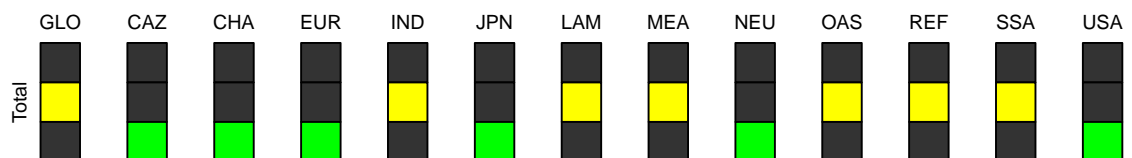
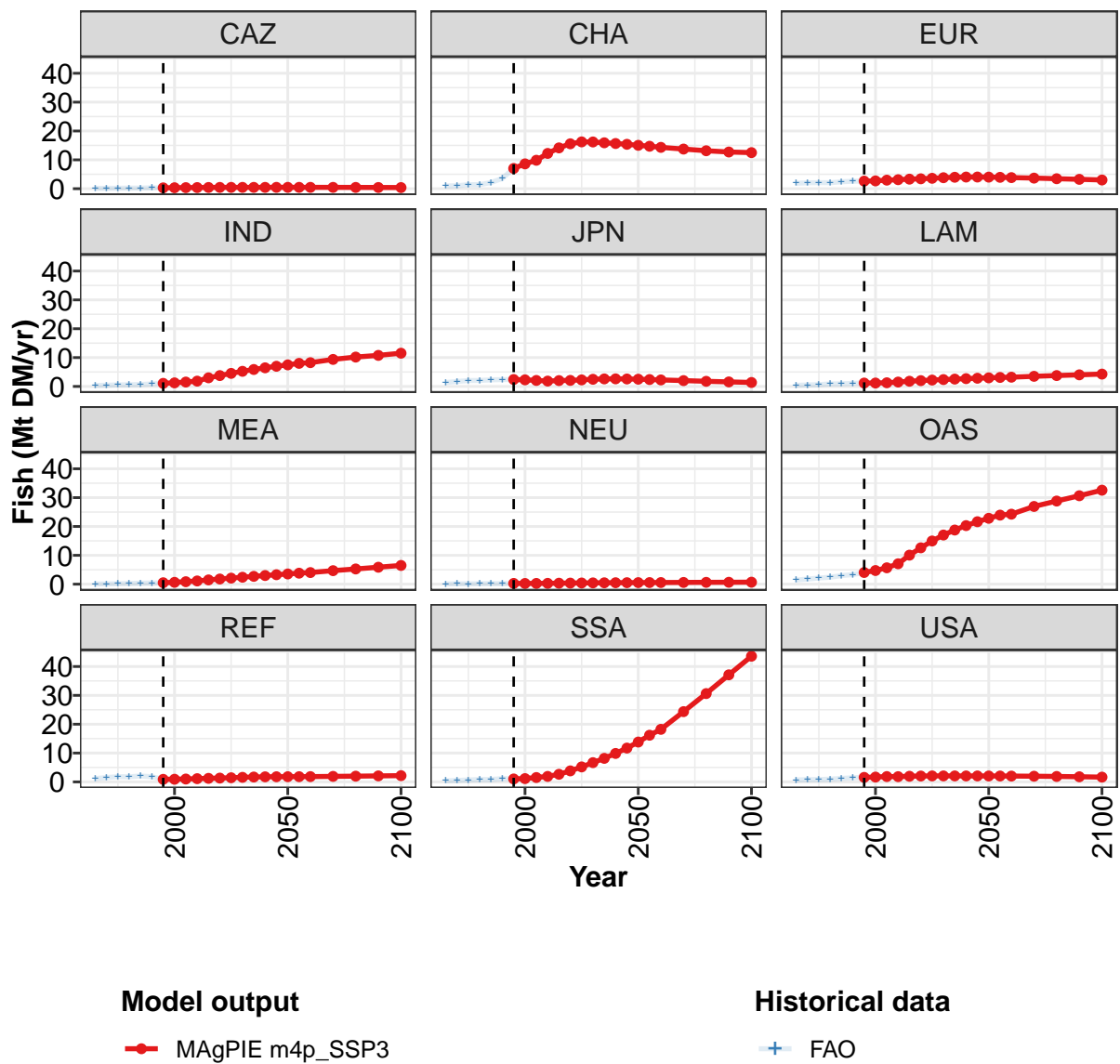


Figure 137: MAgPIE m4p_SSP3 — Demand—Food—Fish (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	23	26	29	34	42	49	55	61	65	69	73
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	7	9	10	12	14	16	16	16	16	16	15
EUR	3	3	3	3	3	3	4	4	4	4	4
IND	1	1	2	2	3	4	5	5	6	6	7
JPN	2	2	2	2	2	2	2	2	3	3	3
LAM	1	1	1	2	2	2	2	2	3	3	3
MEA	0	1	1	1	1	2	2	2	3	3	3
NEU	0	0	0	0	0	0	0	0	0	0	1
OAS	4	5	6	7	10	13	15	17	19	20	22
REF	1	1	1	1	1	1	1	2	2	2	2
SSA	1	1	2	2	3	4	5	7	8	10	12
USA	2	2	2	2	2	2	2	2	2	2	2

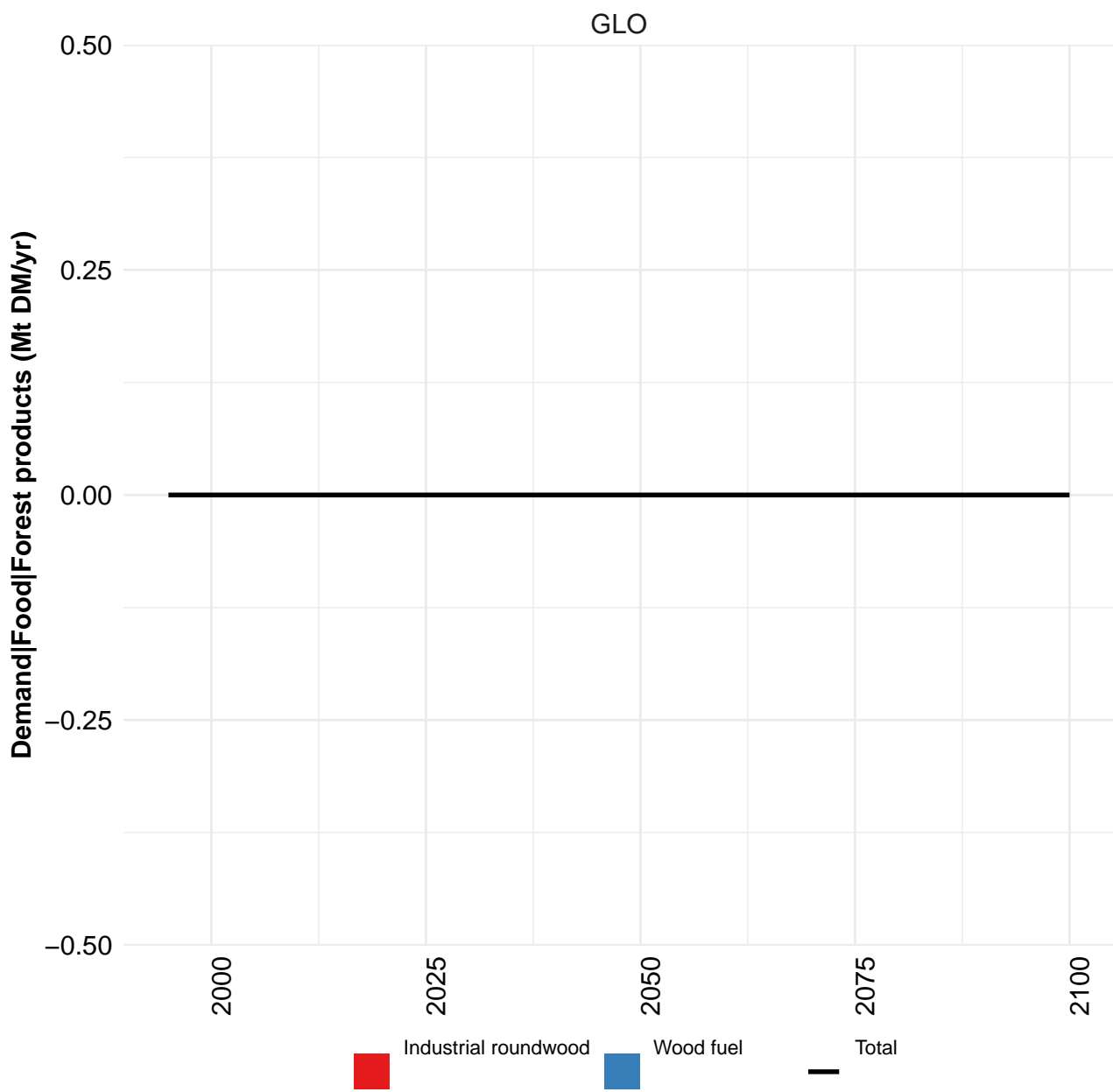
Table 410: MAgPIE m4p_SSP3 — Demand—Food—Fish (Mt DM/yr) [PART 1/2]

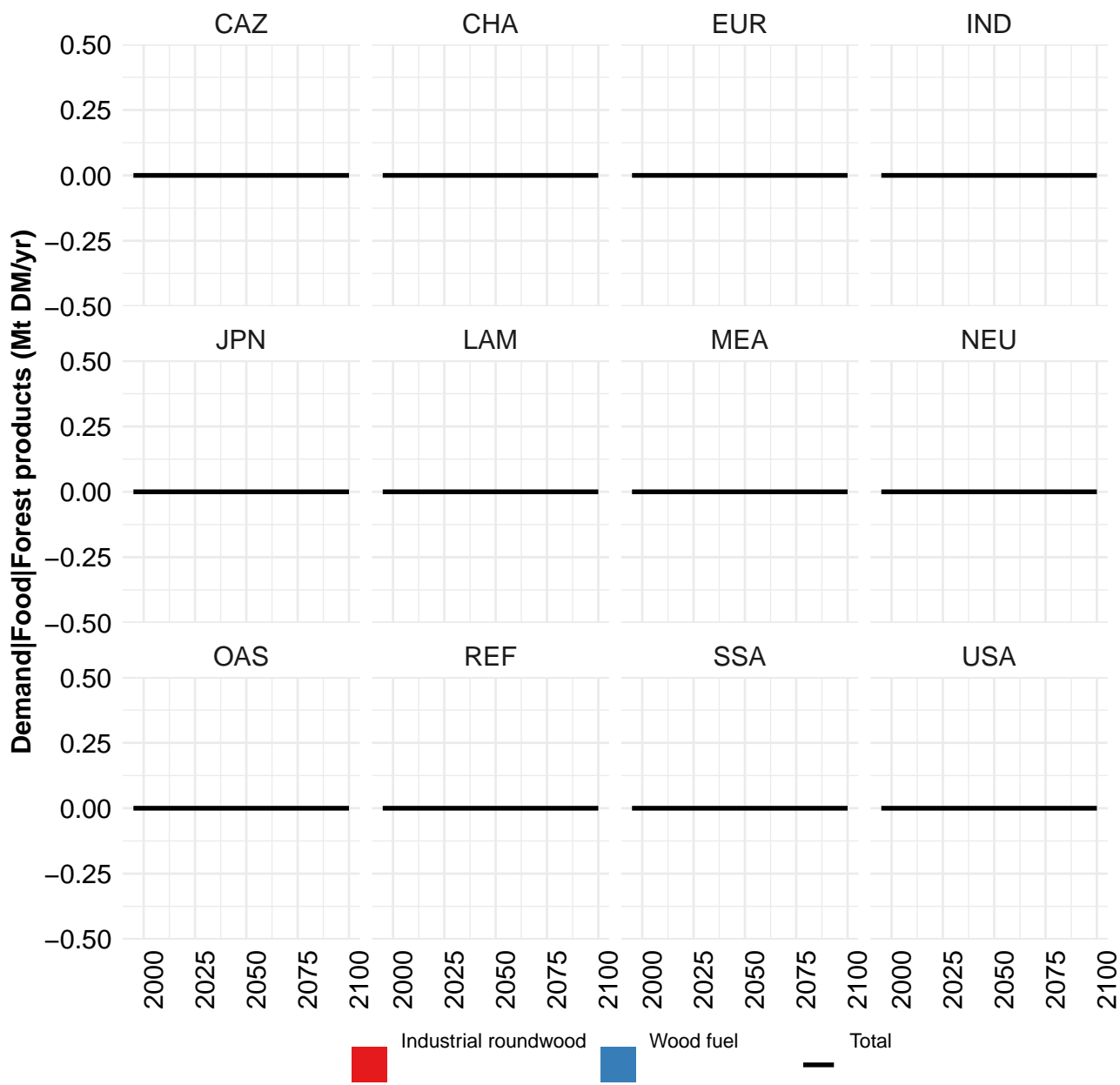
	2050	2055	2060	2070	2080	2090	2100
GLO	77	81	83	93	102	111	120
CAZ	0	0	0	0	0	0	0
CHA	15	15	14	14	13	13	12
EUR	4	4	4	4	3	3	3
IND	7	8	8	9	10	11	12
JPN	3	2	2	2	2	2	1
LAM	3	3	3	4	4	4	4
MEA	4	4	4	5	5	6	6
NEU	1	1	1	1	1	1	1
OAS	23	24	24	27	29	31	33
REF	2	2	2	2	2	2	2
SSA	14	16	18	24	31	37	44
USA	2	2	2	2	2	2	2

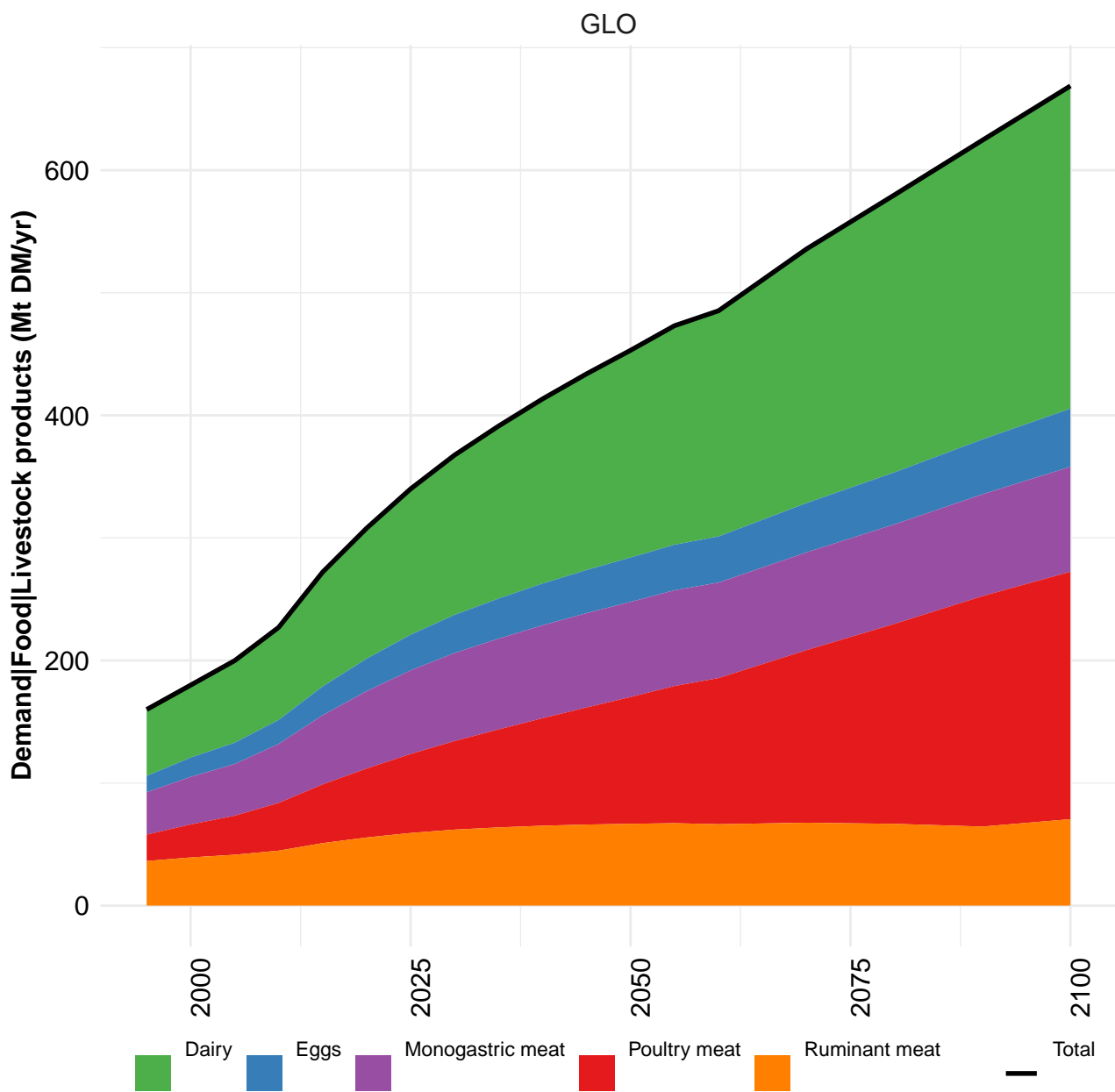
Table 411: MAgPIE m4p_SSP3 — Demand—Food—Fish (Mt DM/yr) [PART 2/2]

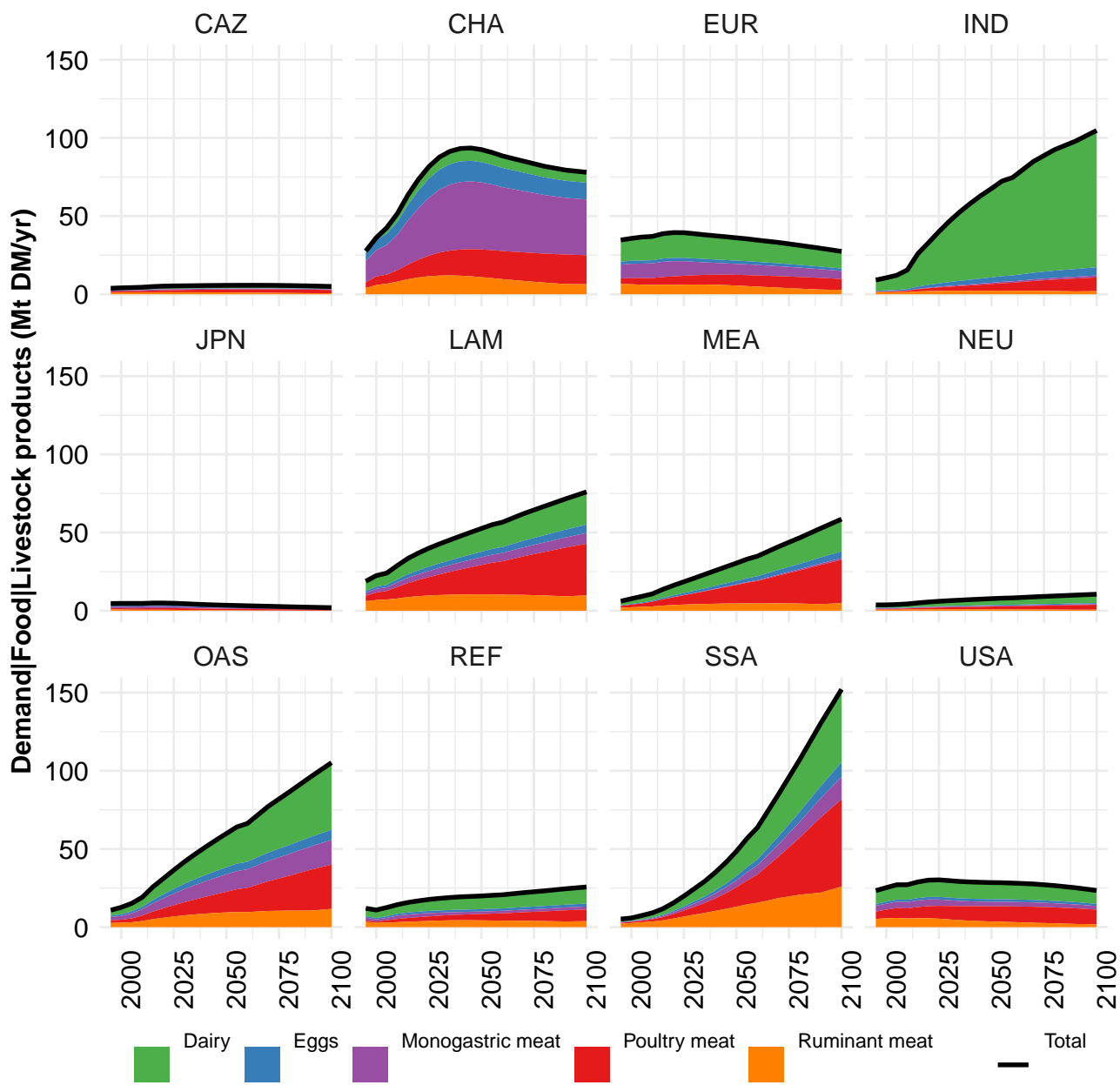
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	8.8	10.6	12.6	13.5	16.2	19.0	22.9	25.7	29.2	34.3
CAZ	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4
CHA	1.0	1.0	1.4	1.4	2.1	3.6	7.0	8.6	9.9	12.2
EUR	1.9	2.0	2.1	2.1	2.4	2.6	2.6	2.7	3.0	3.1
IND	0.3	0.4	0.5	0.6	0.7	0.9	1.1	1.2	1.5	1.8
JPN	1.4	1.7	2.0	2.1	2.3	2.4	2.4	2.3	2.1	1.8
LAM	0.4	0.5	0.6	0.9	0.9	1.1	1.2	1.2	1.3	1.5
MEA	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.9	1.1
NEU	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.3
OAS	1.4	1.7	2.1	2.4	3.0	3.3	4.0	4.7	5.7	7.1
REF	1.1	1.5	1.8	1.8	2.1	1.8	0.9	0.9	1.0	1.1
SSA	0.4	0.5	0.7	0.8	0.8	1.1	1.0	1.2	1.5	1.9
USA	0.7	0.8	0.8	0.9	1.2	1.4	1.6	1.7	1.9	1.8

Table 412: FAO — Demand—Food—Fish (Mt DM/yr)

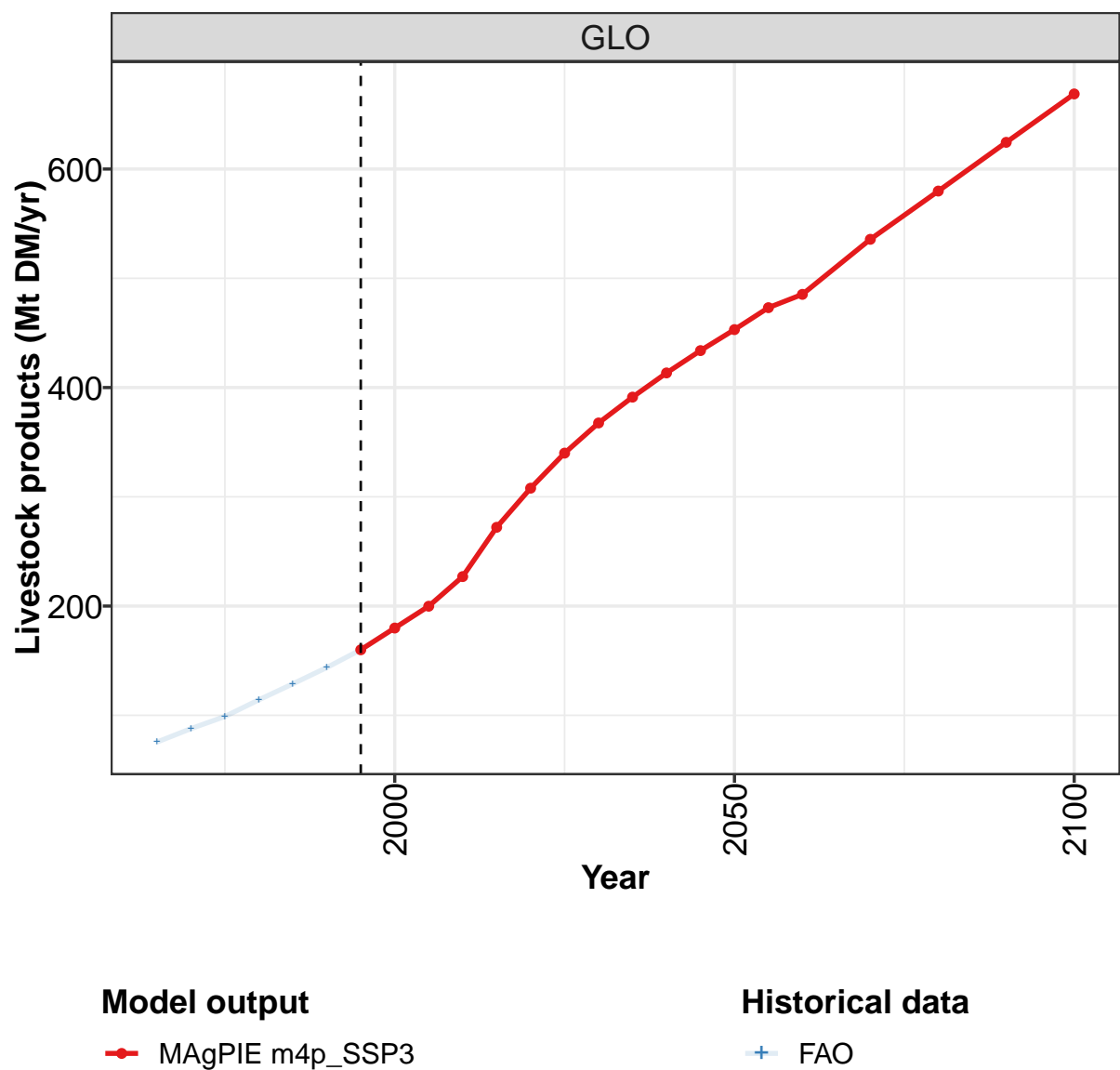








7.3 Livestock products



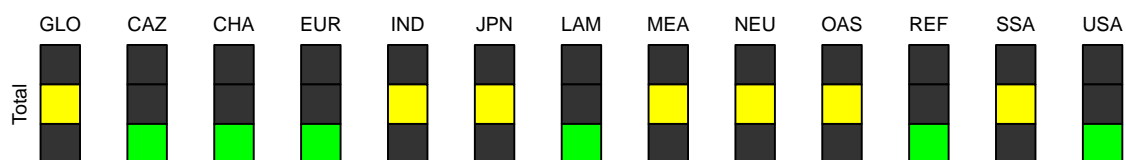
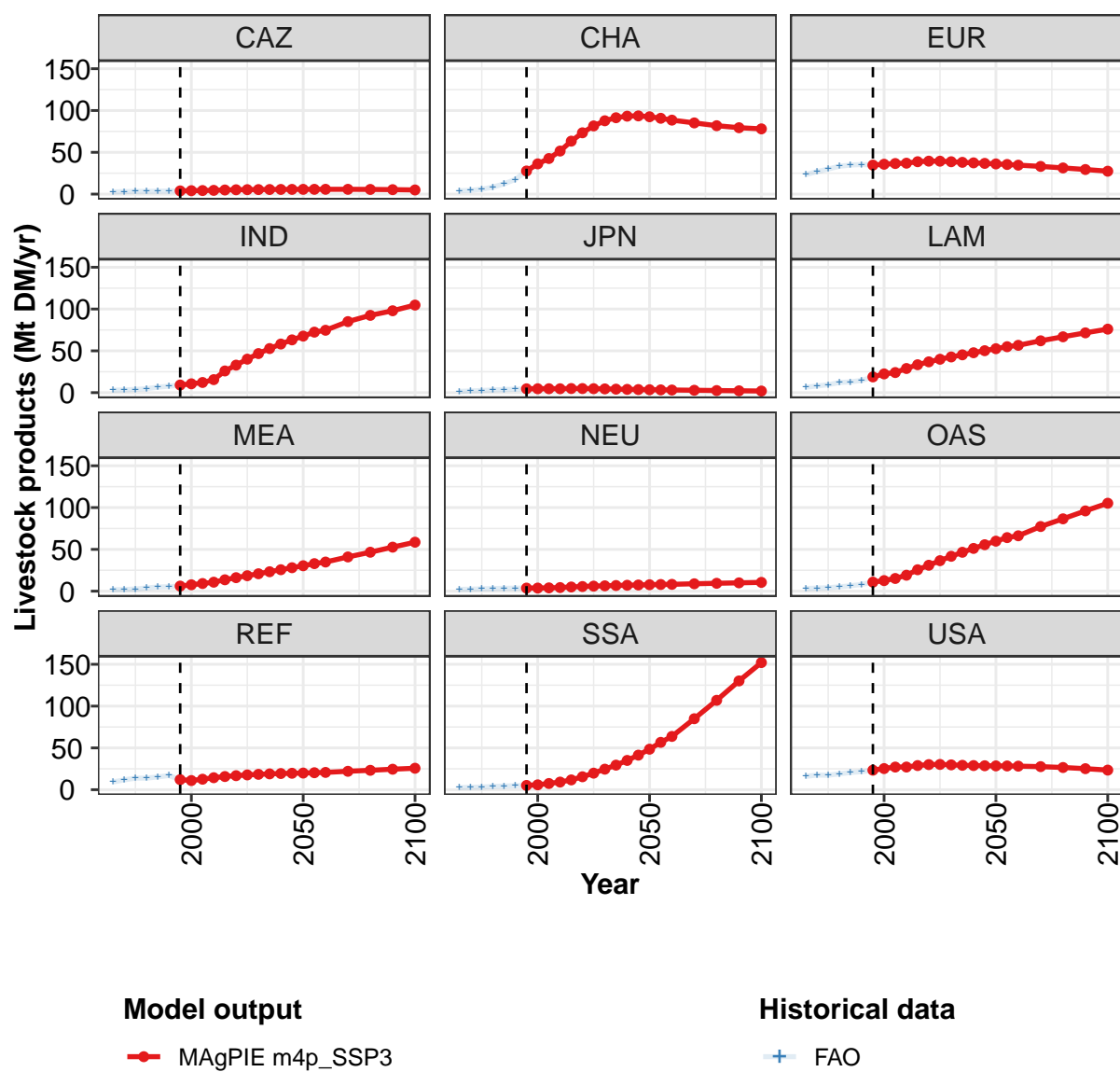


Figure 138: MAgPIE m4p_SSP3 — Demand—Food—Livestock products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	160	180	200	227	272	308	340	368	391	413	434
CAZ	4	4	4	5	5	5	5	5	6	6	6
CHA	28	36	43	52	63	73	82	88	91	93	94
EUR	35	36	37	37	39	39	39	39	38	37	37
IND	9	11	12	16	26	33	40	47	53	58	63
JPN	5	5	5	5	5	5	5	4	4	4	4
LAM	19	22	24	29	33	37	40	43	45	48	50
MEA	6	8	9	11	14	16	19	21	23	26	28
NEU	4	4	4	4	5	6	6	6	7	7	7
OAS	11	13	15	19	26	31	36	42	47	51	56
REF	12	11	13	14	16	17	18	18	19	19	20
SSA	5	6	7	9	12	16	20	25	29	35	41
USA	23	25	27	27	29	30	30	30	29	29	29

Table 413: MAgPIE m4p_SSP3 — Demand—Food—Livestock products (Mt DM/yr) [PART 1/2]

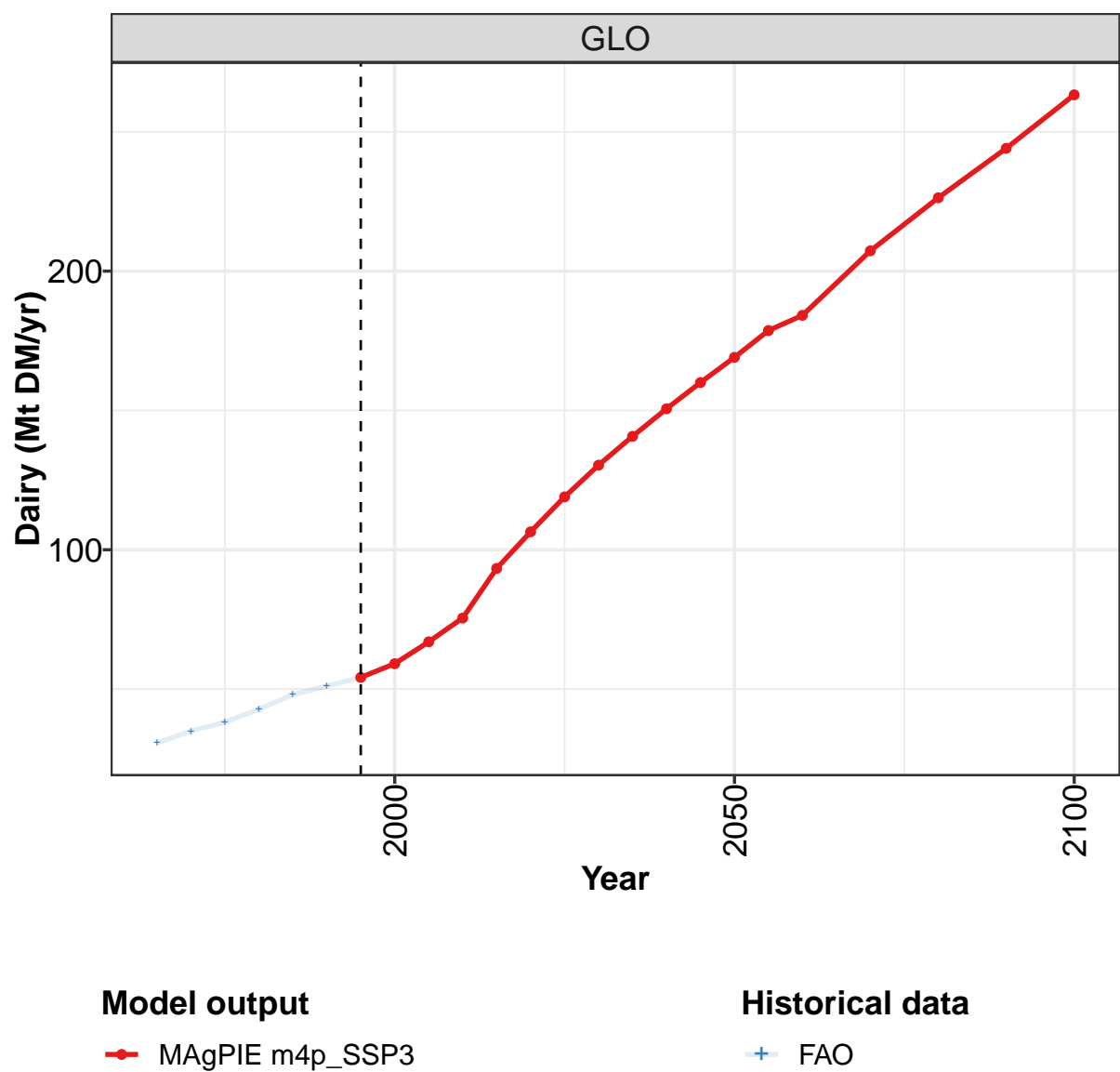
	2050	2055	2060	2070	2080	2090	2100
GLO	453	473	485	536	580	624	669
CAZ	6	6	6	6	6	5	5
CHA	93	91	88	85	82	79	78
EUR	36	35	35	33	31	29	27
IND	68	72	75	85	92	98	105
JPN	3	3	3	3	3	2	2
LAM	53	55	57	62	67	72	76
MEA	30	33	35	41	47	53	59
NEU	8	8	8	9	9	10	11
OAS	60	64	66	77	87	96	105
REF	20	20	21	22	23	25	26
SSA	48	57	64	85	107	130	152
USA	28	28	28	28	27	25	23

Table 414: MAgPIE m4p_SSP3 — Demand—Food—Livestock products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	76	88	99	114	129	144	160	180	200	227
CAZ	3	3	3	3	3	4	4	4	4	5
CHA	4	4	6	8	12	18	28	36	43	52
EUR	23	27	30	33	35	35	35	36	37	37
IND	3	3	4	5	7	8	9	11	12	16
JPN	1	2	3	3	4	4	5	5	5	5
LAM	6	8	10	12	13	15	19	22	24	29
MEA	2	2	3	4	5	5	6	8	9	11
NEU	2	2	3	3	3	4	4	4	4	4
OAS	3	4	4	5	6	8	11	13	15	19
REF	9	12	14	14	15	17	12	11	13	14
SSA	2	3	3	4	4	5	5	6	7	9
USA	16	17	17	19	21	22	23	25	27	27

Table 415: FAO — Demand—Food—Livestock products (Mt DM/yr)

7.3.1
Dairy



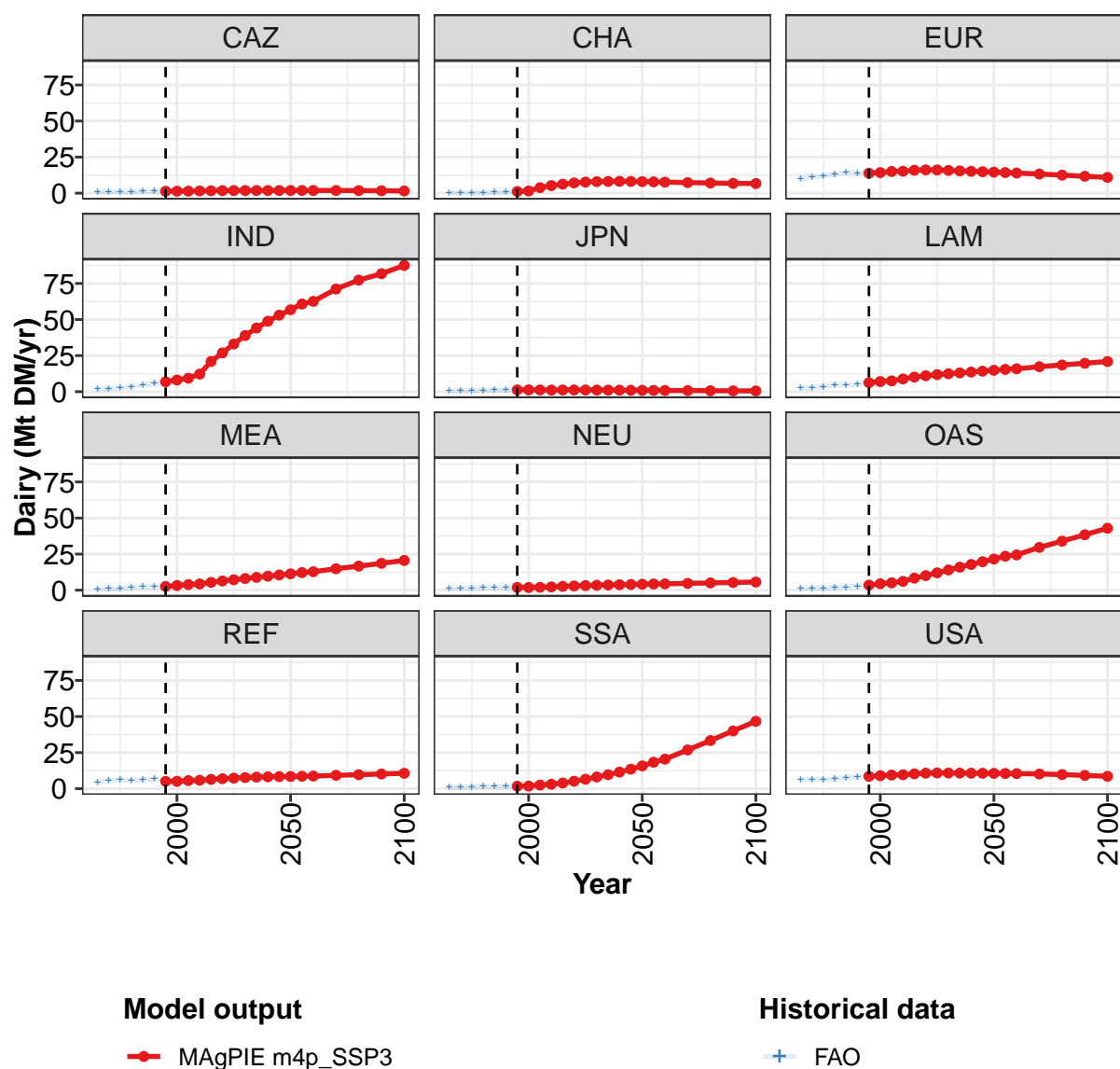


Figure 139: MAgPIE m4p_SSP3 — Demand—Food—Livestock products—Dairy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	54	59	67	75	93	106	119	130	141	151	160
CAZ	1	1	1	2	2	2	2	2	2	2	2
CHA	1	2	4	5	6	7	8	8	8	8	8
EUR	14	14	15	15	16	16	16	16	15	15	15
IND	7	8	9	12	21	27	33	39	44	49	53
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	6	7	8	9	10	11	12	12	13	14	14
MEA	3	3	4	4	5	6	7	8	9	10	11
NEU	2	2	2	2	3	3	3	3	4	4	4
OAS	4	4	5	6	8	10	12	14	16	18	20
REF	5	5	6	6	6	7	7	8	8	8	8
SSA	2	2	3	3	4	5	7	8	10	12	14
USA	9	9	9	10	10	11	11	11	11	11	11

Table 416: MAgPIE m4p_SSP3 — Demand—Food—Livestock products—Dairy (Mt DM/yr) [PART 1/2]

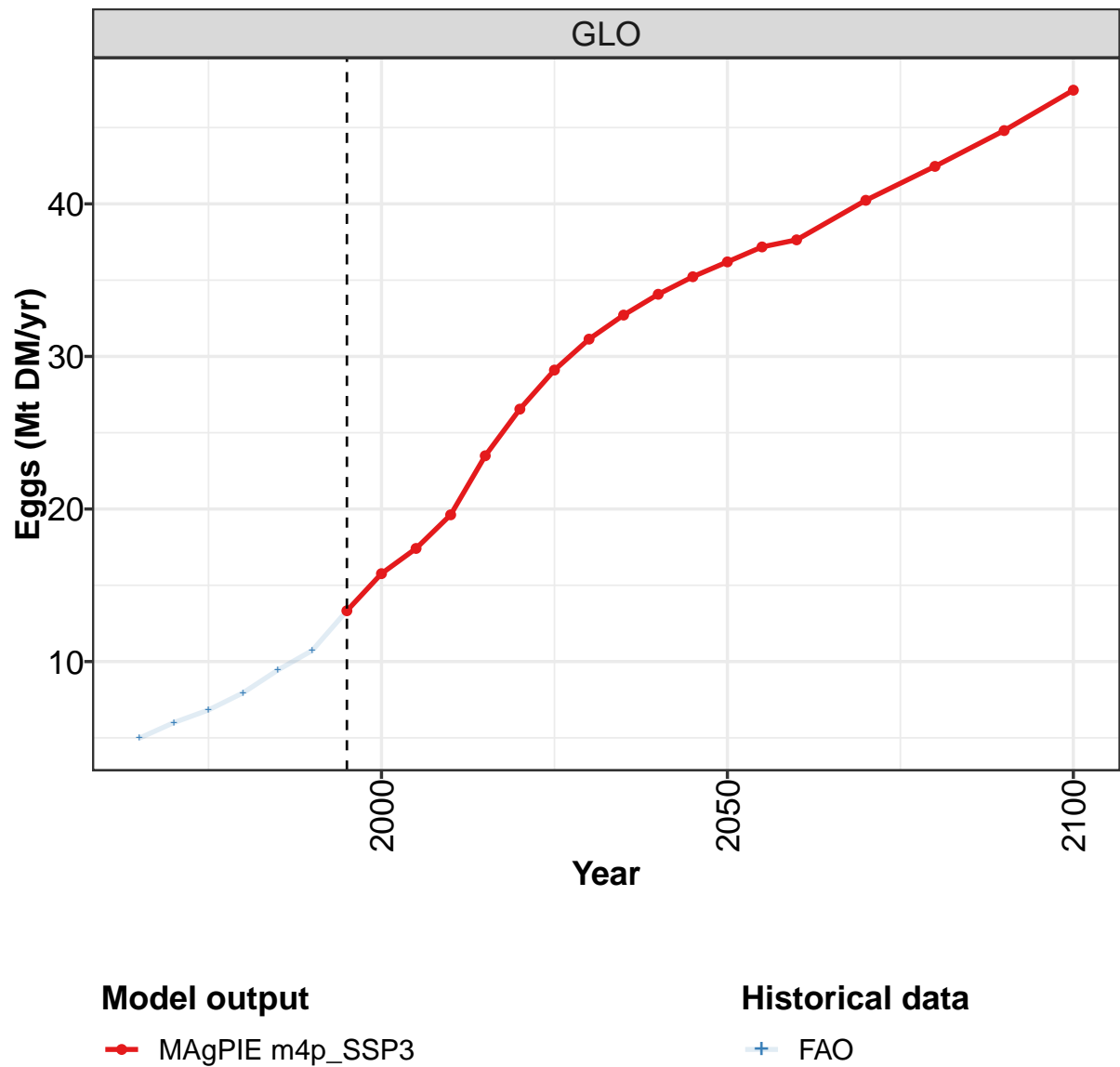
	2050	2055	2060	2070	2080	2090	2100
GLO	169	179	184	207	226	244	263
CAZ	2	2	2	2	2	2	2
CHA	8	8	8	7	7	7	7
EUR	15	14	14	13	13	12	11
IND	57	61	63	71	77	82	87
JPN	1	1	1	1	1	1	1
LAM	15	15	16	17	19	20	21
MEA	11	12	13	15	17	19	21
NEU	4	4	4	5	5	5	6
OAS	22	24	24	30	34	38	43
REF	8	9	9	9	10	10	11
SSA	16	18	20	27	33	40	47
USA	11	11	10	10	10	9	9

Table 417: MAgPIE m4p_SSP3 — Demand—Food—Livestock products—Dairy (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	30.6	34.9	38.1	42.8	48.0	51.1	54.2	59.1	67.0	75.5
CAZ	1.0	1.1	1.1	1.1	1.2	1.4	1.4	1.4	1.4	1.6
CHA	0.2	0.2	0.3	0.4	0.6	0.9	1.2	1.5	3.8	5.3
EUR	10.0	11.1	12.0	13.2	14.3	13.7	13.8	14.3	15.0	15.2
IND	2.0	2.2	2.7	3.3	4.8	5.7	6.9	8.1	9.4	12.2
JPN	0.5	0.7	0.7	1.0	1.1	1.2	1.3	1.3	1.2	1.1
LAM	2.4	2.9	3.6	4.5	4.6	5.0	6.2	7.0	7.5	8.8
MEA	0.8	0.9	1.2	1.8	2.3	2.4	2.6	3.3	3.9	4.3
NEU	1.2	1.3	1.5	1.8	1.8	1.8	1.9	1.8	2.0	2.3
OAS	1.2	1.4	1.5	1.9	2.1	2.7	3.5	4.5	5.1	6.1
REF	4.1	5.7	6.1	5.7	6.0	6.7	5.1	5.1	5.6	5.8
SSA	0.9	1.0	1.2	1.4	1.5	1.6	1.7	1.8	2.5	3.1
USA	6.3	6.3	6.3	6.8	7.6	8.0	8.6	9.0	9.5	9.6

Table 418: FAO — Demand—Food—Livestock products—Dairy (Mt DM/yr)

7.3.2
Eggs



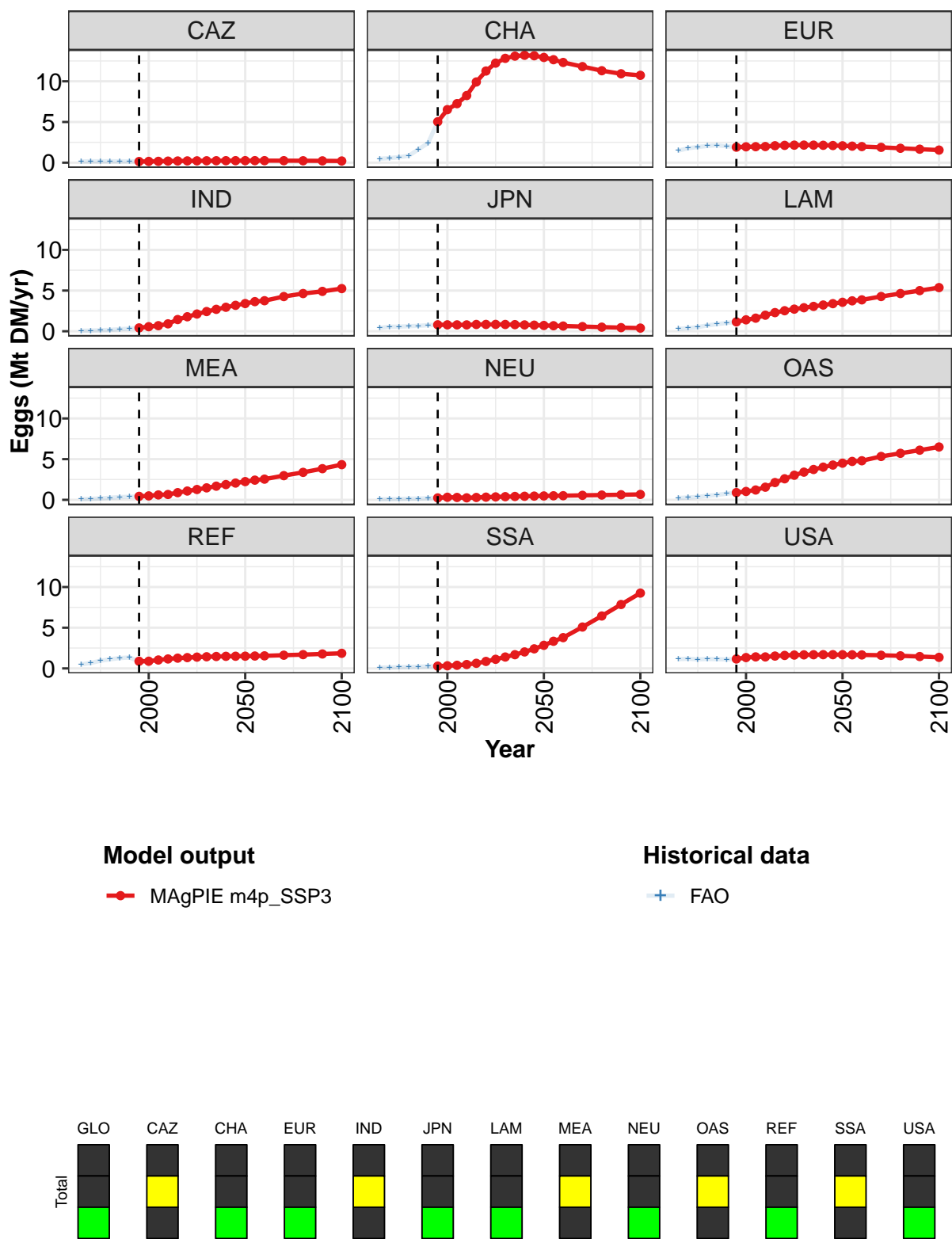


Figure 140: MAgPIE m4p_SSP3 — Demand—Food—Livestock products—Eggs (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	13.3	15.8	17.4	19.6	23.5	26.5	29.1	31.1	32.7	34.1	35.2
CAZ	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	5.0	6.5	7.3	8.3	9.9	11.3	12.2	12.8	13.1	13.2	13.1
EUR	1.9	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.1	2.1
IND	0.4	0.6	0.7	0.9	1.4	1.8	2.1	2.4	2.7	2.9	3.2
JPN	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7
LAM	1.2	1.4	1.6	2.0	2.3	2.5	2.7	2.9	3.1	3.2	3.4
MEA	0.4	0.5	0.6	0.7	0.9	1.1	1.3	1.5	1.7	1.9	2.1
NEU	0.2	0.3	0.3	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.5
OAS	0.9	1.0	1.2	1.6	2.1	2.6	3.0	3.4	3.7	4.0	4.3
REF	0.9	0.9	1.0	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.5
SSA	0.3	0.3	0.4	0.5	0.6	0.9	1.1	1.4	1.7	2.0	2.4
USA	1.2	1.3	1.4	1.4	1.5	1.6	1.6	1.7	1.7	1.7	1.7

Table 419: MAgPIE m4p_SSP3 — Demand—Food—Livestock products—Eggs (Mt DM/yr) [PART 1/2]

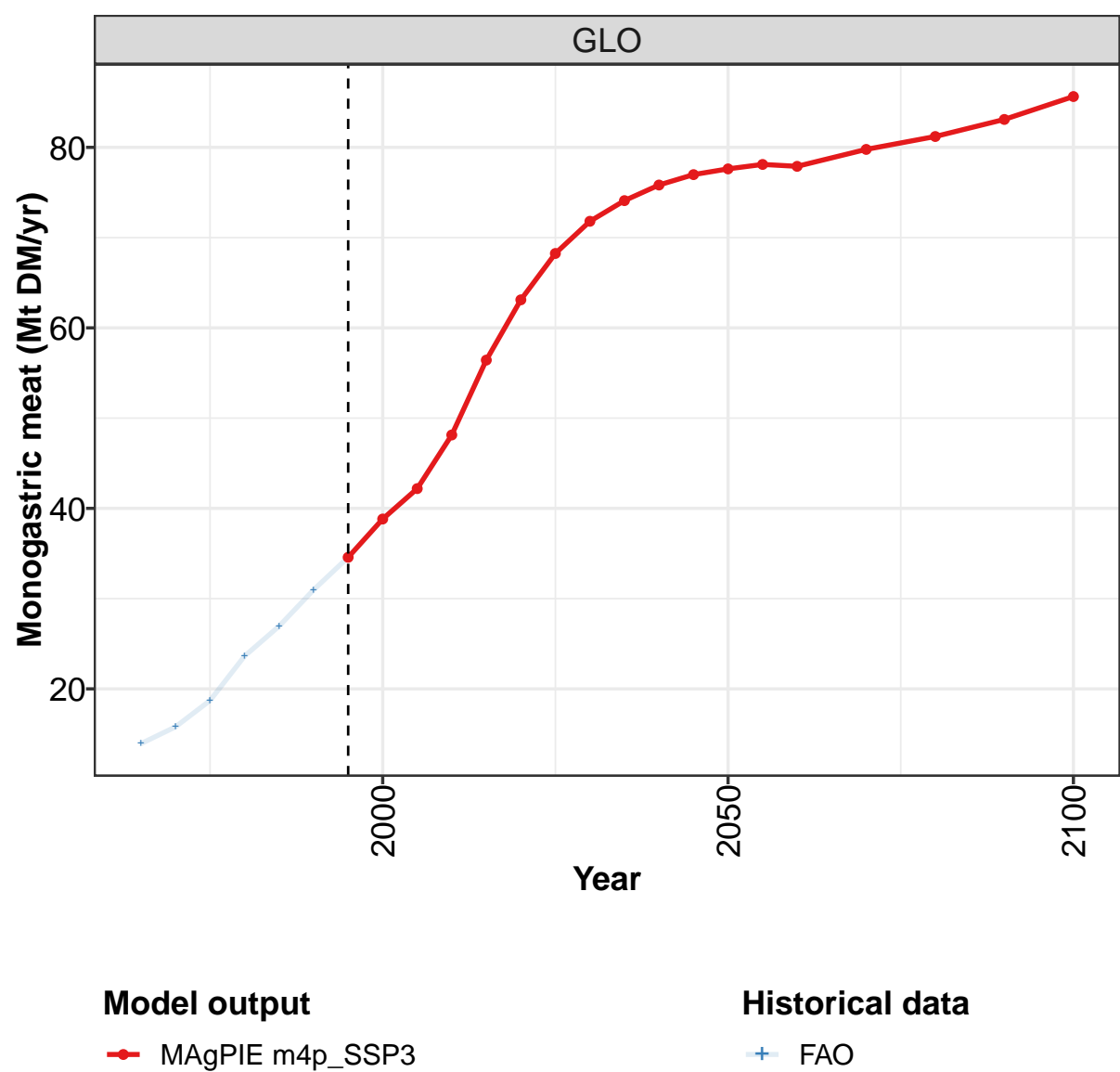
	2050	2055	2060	2070	2080	2090	2100
GLO	36.2	37.2	37.6	40.2	42.5	44.8	47.5
CAZ	0.2	0.3	0.2	0.2	0.2	0.2	0.2
CHA	12.9	12.7	12.3	11.8	11.3	10.9	10.7
EUR	2.1	2.0	2.0	1.9	1.8	1.7	1.5
IND	3.4	3.6	3.8	4.3	4.6	4.9	5.2
JPN	0.7	0.7	0.6	0.6	0.5	0.4	0.4
LAM	3.6	3.7	3.9	4.3	4.6	5.0	5.4
MEA	2.2	2.4	2.5	3.0	3.4	3.8	4.3
NEU	0.5	0.5	0.5	0.6	0.6	0.6	0.7
OAS	4.5	4.7	4.8	5.3	5.7	6.1	6.5
REF	1.5	1.5	1.5	1.6	1.7	1.8	1.9
SSA	2.8	3.3	3.8	5.1	6.4	7.9	9.3
USA	1.7	1.7	1.7	1.6	1.5	1.5	1.4

Table 420: MAgPIE m4p_SSP3 — Demand—Food—Livestock products—Eggs (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.0	6.0	6.8	8.0	9.4	10.7	13.3	15.8	17.4	19.6
CAZ	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
CHA	0.5	0.6	0.7	0.9	1.6	2.4	5.0	6.5	7.3	8.3
EUR	1.5	1.8	1.9	2.1	2.1	2.0	1.9	2.0	2.0	2.0
IND	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.6	0.7	0.9
JPN	0.4	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8
LAM	0.3	0.4	0.5	0.7	0.9	1.0	1.2	1.4	1.6	2.0
MEA	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7
NEU	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2
OAS	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.6
REF	0.5	0.7	0.9	1.1	1.3	1.3	0.9	0.9	1.0	1.2
SSA	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.5
USA	1.1	1.2	1.1	1.2	1.1	1.1	1.2	1.3	1.4	1.4

Table 421: FAO — Demand—Food—Livestock products—Eggs (Mt DM/yr)

7.3.3
Monogastric meat



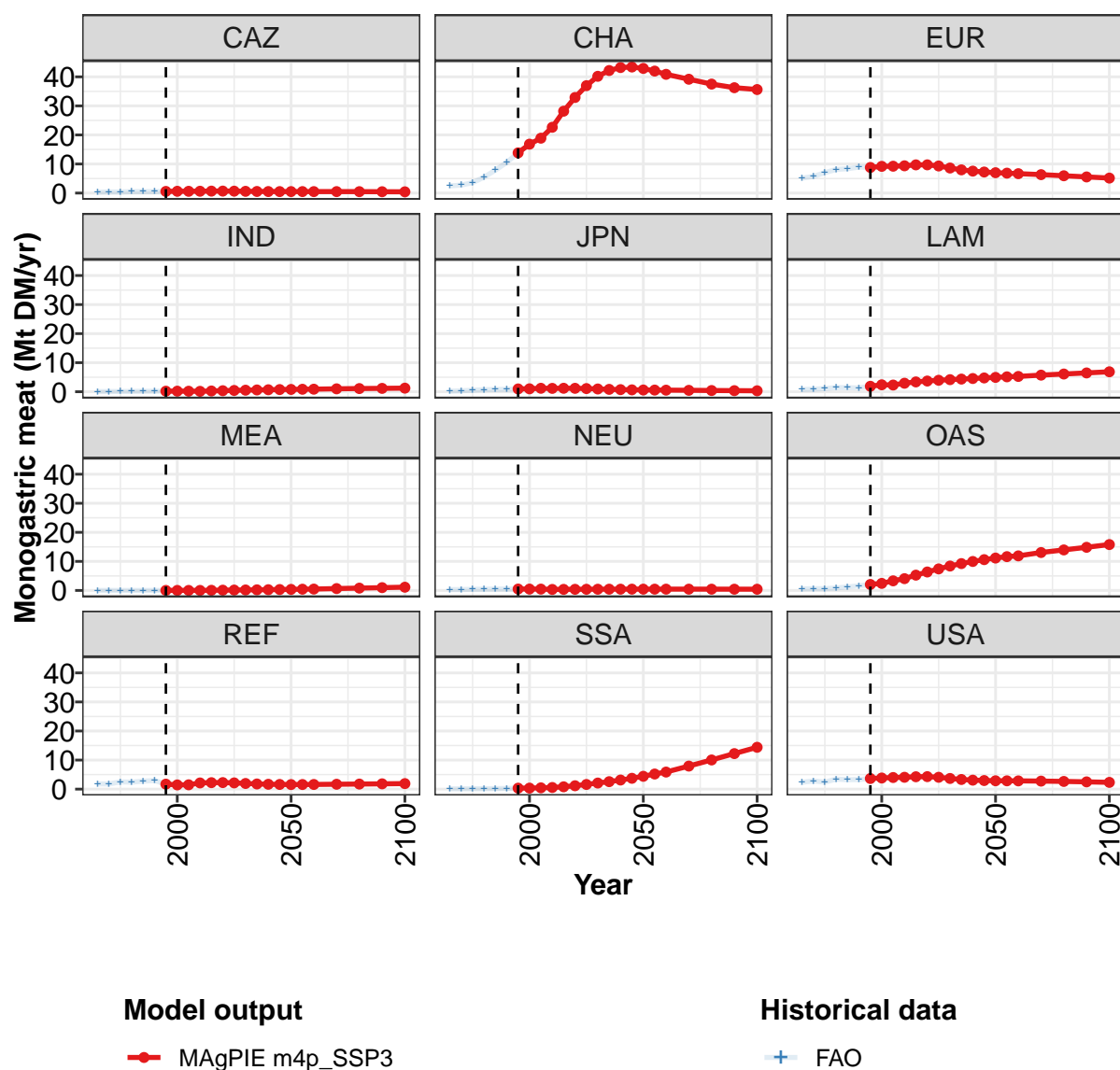


Figure 141: MAGPIE m4p_SSP3 — Demand—Food—Livestock products—Monogastric meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34.6	38.8	42.2	48.1	56.4	63.1	68.2	71.8	74.1	75.8	77.0
CAZ	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.6	0.5	0.5
CHA	13.8	16.8	18.9	22.7	28.2	32.9	37.0	40.2	42.2	43.2	43.4
EUR	8.8	9.2	9.3	9.4	9.7	9.7	9.3	8.6	8.0	7.6	7.3
IND	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8
JPN	1.0	1.0	1.2	1.2	1.2	1.2	1.1	1.0	0.8	0.7	0.7
LAM	1.9	2.4	2.3	2.9	3.4	3.7	4.0	4.2	4.4	4.6	4.8
MEA	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3
NEU	0.5	0.5	0.5	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
OAS	2.1	2.4	3.3	4.1	5.3	6.4	7.4	8.4	9.2	10.0	10.6
REF	1.7	1.5	1.5	2.1	2.2	2.2	2.1	1.9	1.8	1.7	1.6
SSA	0.3	0.3	0.4	0.6	0.8	1.2	1.6	2.1	2.6	3.1	3.7
USA	3.7	3.8	4.0	4.1	4.3	4.3	4.1	3.7	3.3	3.1	3.0

Table 422: MAgPIE m4p_SSP3 — Demand—Food—Livestock products—Monogastric meat (Mt DM/yr)
[PART 1/2]

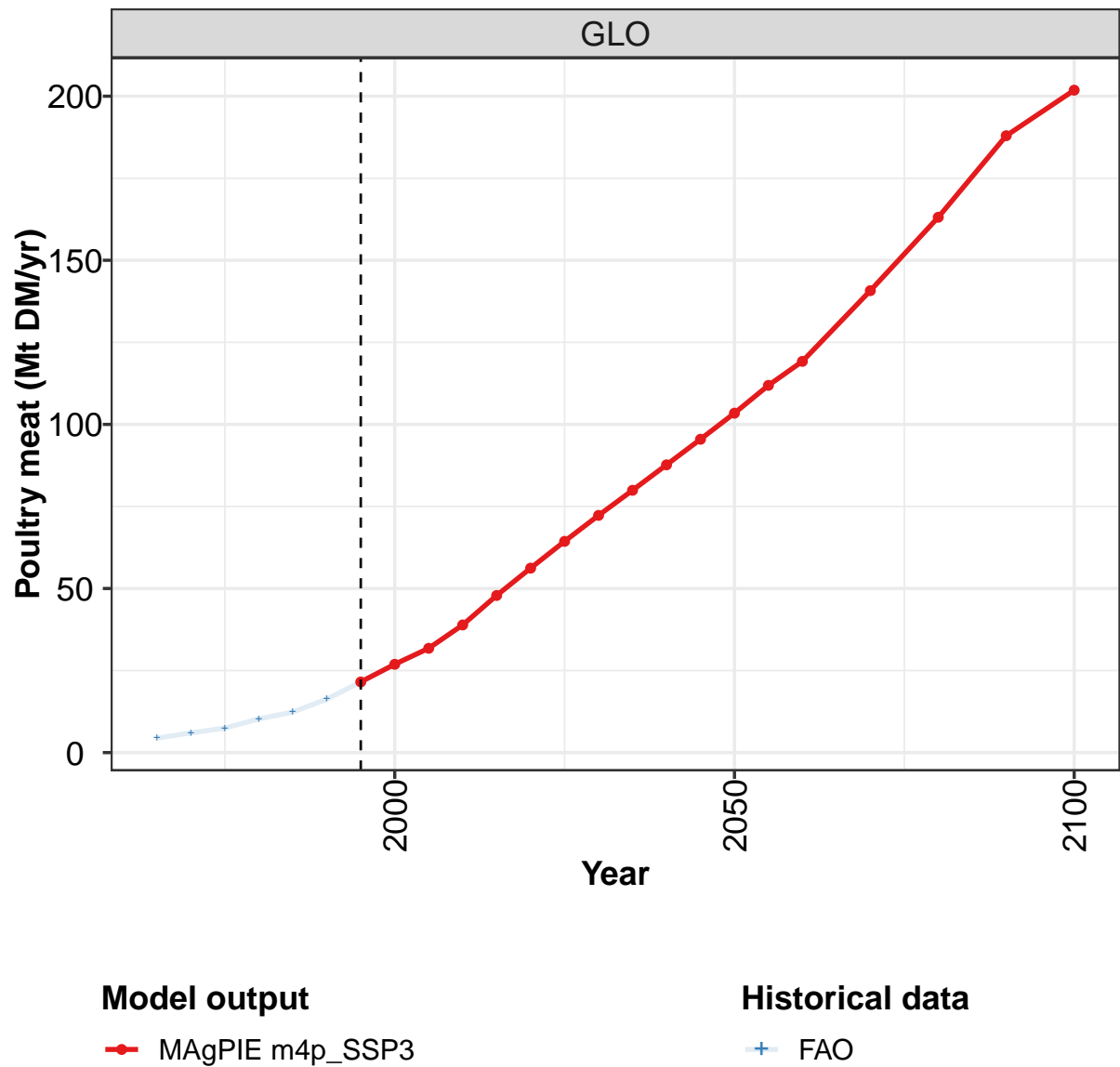
	2050	2055	2060	2070	2080	2090	2100
GLO	77.6	78.1	77.9	79.8	81.2	83.1	85.6
CAZ	0.5	0.5	0.5	0.5	0.5	0.5	0.4
CHA	42.9	42.0	40.9	39.2	37.5	36.3	35.6
EUR	7.0	6.9	6.7	6.3	6.0	5.6	5.2
IND	0.8	0.9	0.9	1.0	1.1	1.2	1.2
JPN	0.6	0.6	0.5	0.5	0.4	0.4	0.3
LAM	4.9	5.1	5.3	5.7	6.1	6.5	6.9
MEA	0.4	0.4	0.5	0.6	0.8	1.0	1.1
NEU	0.4	0.4	0.4	0.4	0.4	0.4	0.4
OAS	11.2	11.6	11.9	13.1	13.9	14.8	15.8
REF	1.6	1.6	1.6	1.7	1.7	1.8	1.9
SSA	4.4	5.2	5.9	7.9	10.0	12.2	14.4
USA	2.9	2.9	2.8	2.8	2.6	2.5	2.3

Table 423: MAgPIE m4p_SSP3 — Demand—Food—Livestock products—Monogastric meat (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	13.9	15.8	18.7	23.6	26.9	31.0	34.6	38.8	42.2	48.1
CAZ	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6
CHA	2.5	2.7	3.6	5.5	7.9	10.6	13.8	16.8	18.9	22.7
EUR	5.1	5.7	7.0	8.1	8.4	8.9	8.8	9.2	9.2	9.4
IND	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
JPN	0.2	0.3	0.5	0.7	0.8	0.9	1.0	1.0	1.2	1.2
LAM	0.7	0.9	1.1	1.4	1.4	1.3	1.9	2.4	2.3	2.9
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.3
OAS	0.5	0.6	0.6	0.8	1.2	1.6	2.1	2.4	3.3	4.1
REF	1.8	1.8	2.5	2.4	2.8	3.0	1.7	1.5	1.5	2.1
SSA	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.6
USA	2.4	2.8	2.4	3.4	3.2	3.3	3.7	3.8	4.0	4.1

Table 424: FAO — Demand—Food—Livestock products—Monogastric meat (Mt DM/yr)

7.3.4
Poultry meat



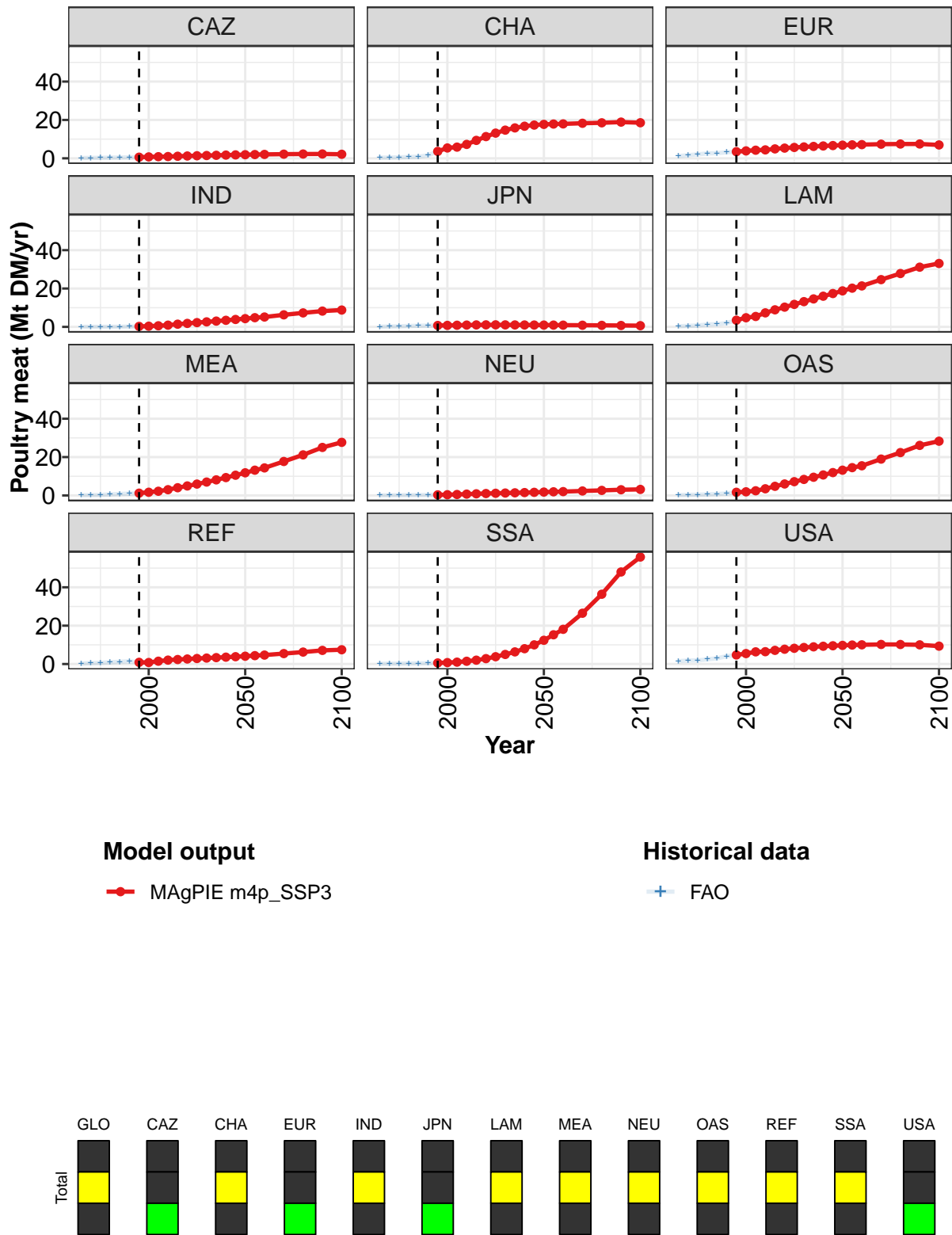


Figure 142: MAgPIE m4p_SSP3 — Demand—Food—Livestock products—Poultry meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	22	27	32	39	48	56	64	72	80	88	95
CAZ	1	1	1	1	1	1	1	1	2	2	2
CHA	4	5	6	7	9	11	13	15	16	17	17
EUR	3	4	4	4	5	5	6	6	6	6	7
IND	0	0	1	1	1	2	2	3	3	3	4
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	3	5	5	7	9	10	12	13	15	16	17
MEA	1	2	2	3	4	5	6	7	8	9	11
NEU	0	0	1	1	1	1	1	1	1	2	2
OAS	2	2	2	3	5	6	7	8	10	11	12
REF	1	1	1	2	2	3	3	3	3	4	4
SSA	1	1	1	1	2	3	4	5	6	8	10
USA	5	5	6	6	7	8	8	9	9	9	10

Table 425: MAgPIE m4p_SSP3 — Demand—Food—Livestock products—Poultry meat (Mt DM/yr) [PART 1/2]

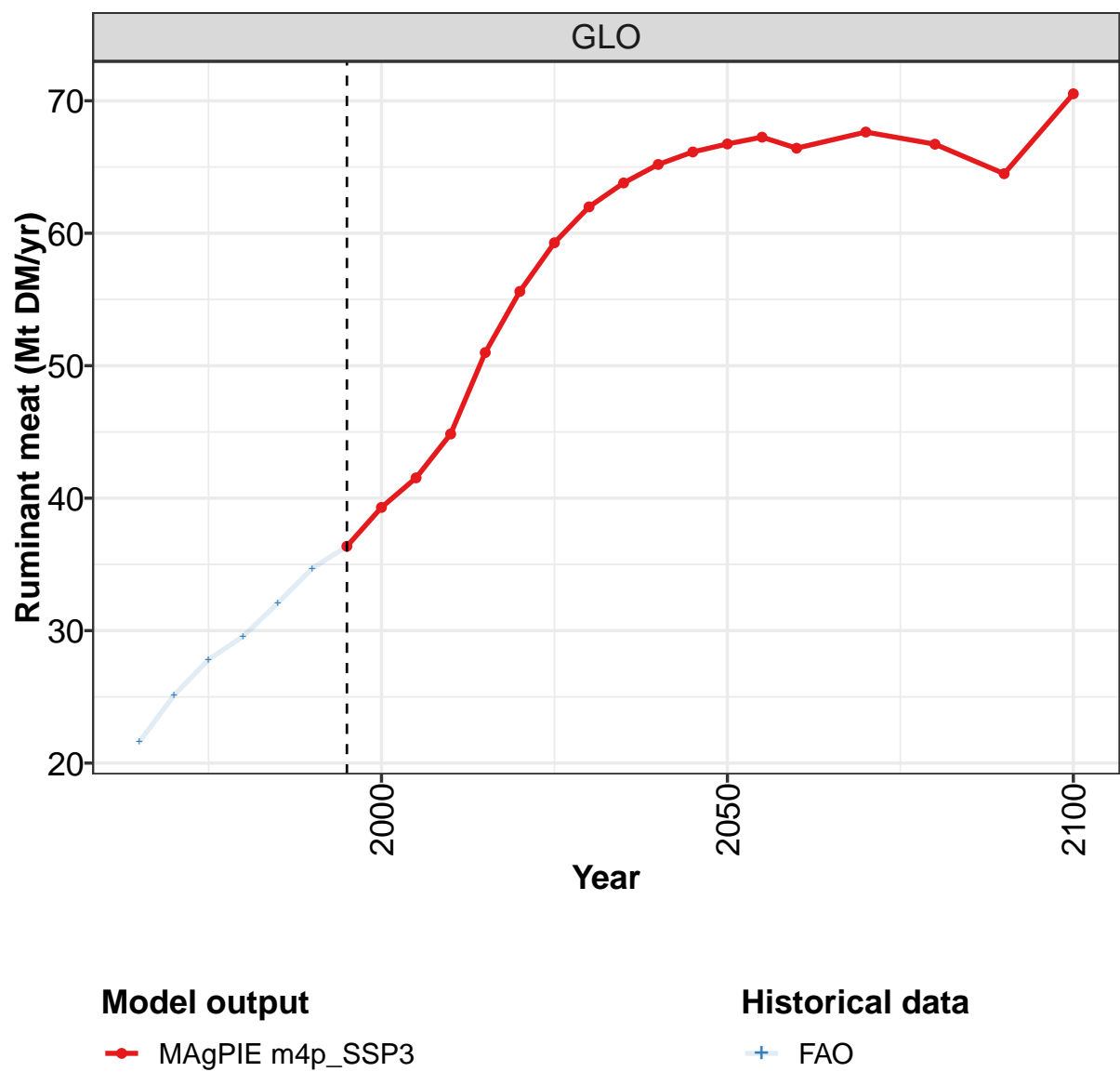
	2050	2055	2060	2070	2080	2090	2100
GLO	103	112	119	141	163	188	202
CAZ	2	2	2	2	2	2	2
CHA	18	18	18	18	19	19	19
EUR	7	7	7	7	7	7	7
IND	4	5	5	6	7	8	9
JPN	1	1	1	1	1	1	1
LAM	19	20	21	25	28	31	33
MEA	12	13	14	18	21	25	28
NEU	2	2	2	2	3	3	3
OAS	13	15	15	19	22	26	28
REF	4	4	5	5	6	7	7
SSA	12	15	18	26	36	48	56
USA	10	10	10	10	10	10	9

Table 426: MAgPIE m4p_SSP3 — Demand—Food—Livestock products—Poultry meat (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.4	6.0	7.5	10.3	12.3	16.3	21.5	26.9	31.8	38.9
CAZ	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.8	0.9
CHA	0.3	0.4	0.5	0.7	0.8	1.6	3.6	5.4	5.8	7.3
EUR	1.2	1.6	2.1	2.5	2.7	3.1	3.5	3.9	4.2	4.4
IND	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.6	0.9
JPN	0.1	0.2	0.3	0.5	0.6	0.7	0.7	0.8	0.9	0.9
LAM	0.3	0.5	0.8	1.2	1.4	2.0	3.5	4.8	5.4	7.3
MEA	0.1	0.2	0.3	0.5	0.8	0.9	1.2	1.7	2.2	3.0
NEU	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.7
OAS	0.2	0.3	0.4	0.5	0.7	1.0	1.7	1.9	2.4	3.5
REF	0.3	0.4	0.6	0.9	1.2	1.4	0.9	0.8	1.5	2.0
SSA	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	1.0	1.4
USA	1.5	1.8	1.9	2.5	3.0	4.1	4.7	5.5	6.4	6.4

Table 427: FAO — Demand—Food—Livestock products—Poultry meat (Mt DM/yr)

7.3.5
Ruminant meat



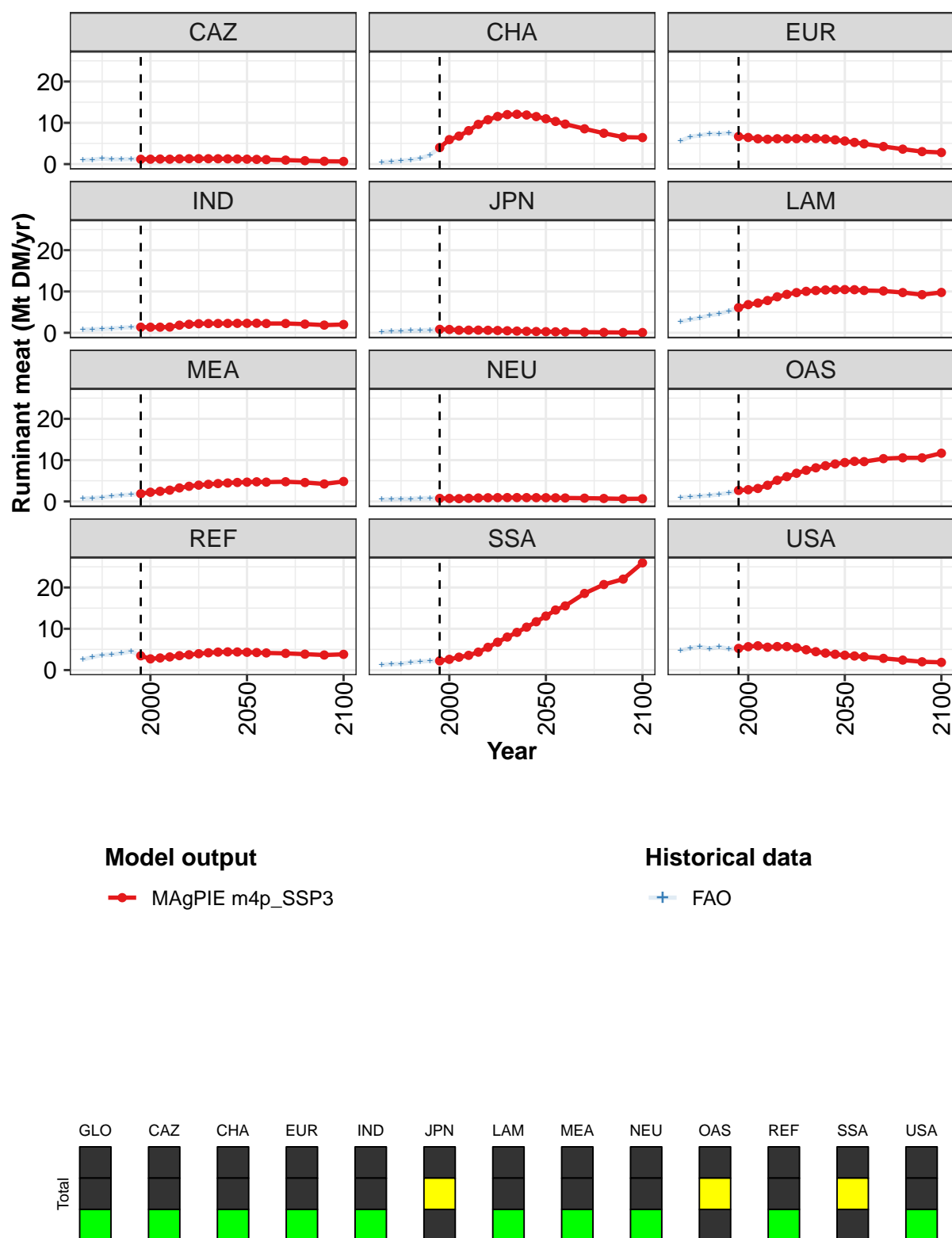


Figure 143: MAGPIE m4p_SSP3 — Demand—Food—Livestock products—Ruminant meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	36.4	39.3	41.5	44.8	51.0	55.6	59.3	62.0	63.8	65.2	66.1
CAZ	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.2
CHA	4.0	5.9	6.8	8.1	9.6	10.7	11.5	12.0	12.1	11.9	11.5
EUR	6.7	6.5	6.1	6.0	6.1	6.1	6.2	6.2	6.2	6.1	5.9
IND	1.4	1.3	1.4	1.4	1.8	2.1	2.2	2.2	2.2	2.3	2.3
JPN	0.8	0.8	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.4	0.3
LAM	6.1	6.8	7.2	7.8	8.7	9.3	9.7	10.0	10.2	10.4	10.4
MEA	1.9	2.2	2.4	2.7	3.3	3.7	3.9	4.1	4.3	4.5	4.6
NEU	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9
OAS	2.7	2.8	3.1	3.9	5.1	6.0	6.8	7.5	8.1	8.6	9.1
REF	3.5	2.7	2.9	3.2	3.5	3.7	4.0	4.2	4.3	4.4	4.4
SSA	2.2	2.6	3.1	3.6	4.3	5.5	6.8	8.0	9.1	10.4	11.7
USA	5.3	5.7	5.9	5.5	5.7	5.7	5.4	4.9	4.5	4.1	3.8

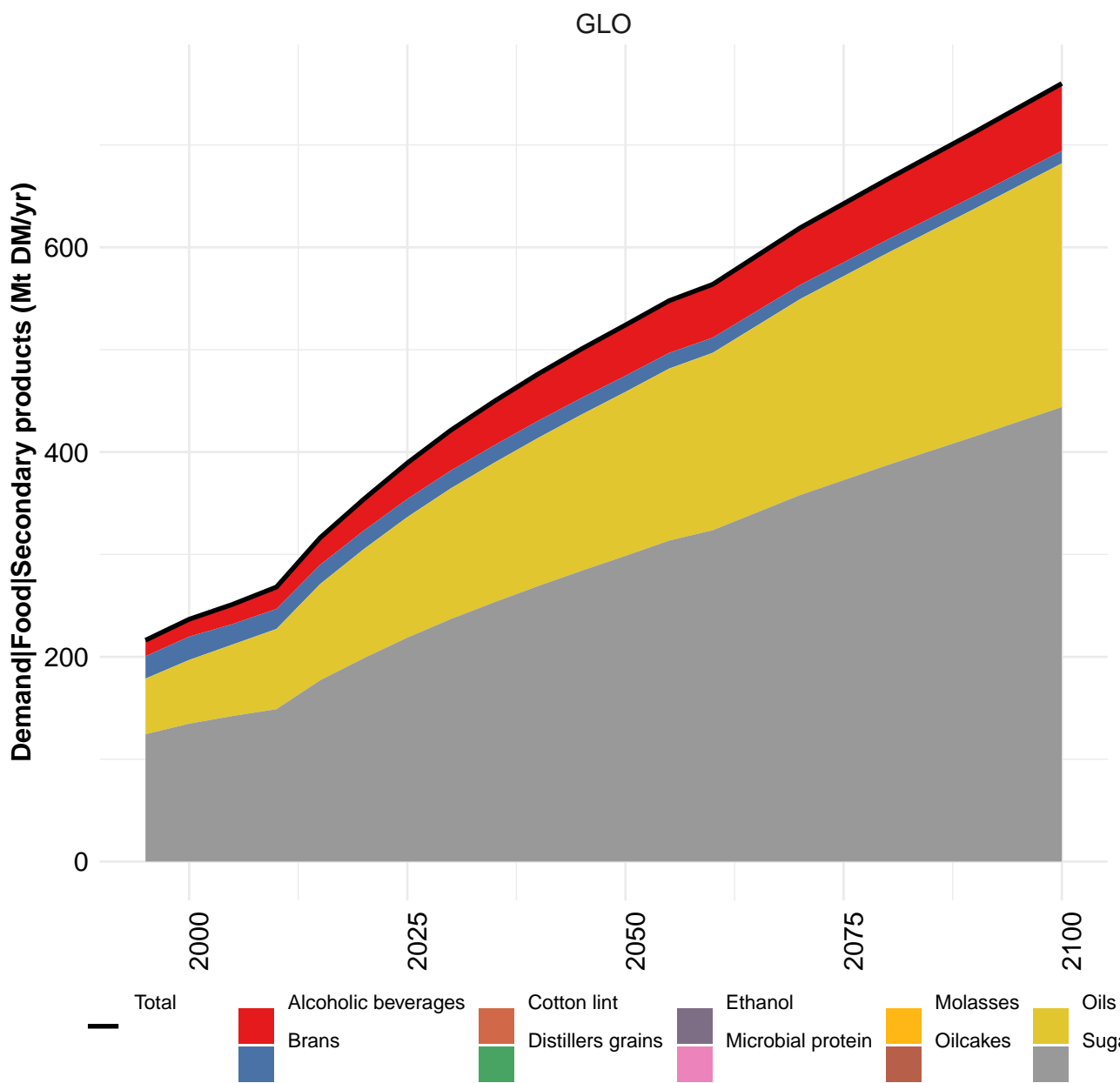
Table 428: MAgPIE m4p_SSP3 — Demand—Food—Livestock products—Ruminant meat (Mt DM/yr) [PART 1/2]

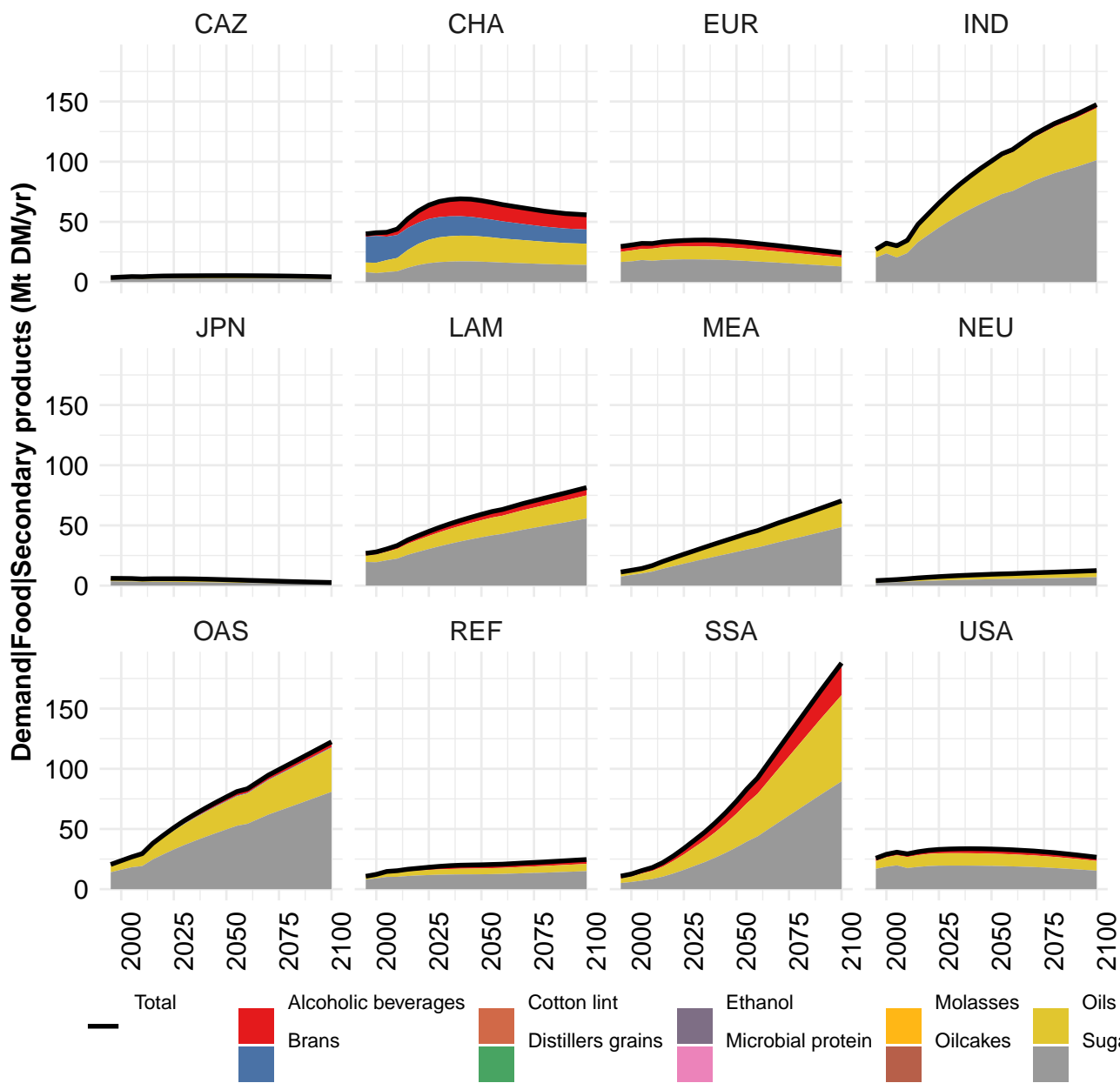
	2050	2055	2060	2070	2080	2090	2100
GLO	66.7	67.3	66.4	67.6	66.7	64.5	70.5
CAZ	1.2	1.1	1.1	1.0	0.8	0.7	0.6
CHA	11.0	10.3	9.7	8.5	7.5	6.5	6.4
EUR	5.6	5.3	4.9	4.3	3.6	3.0	2.8
IND	2.3	2.3	2.2	2.2	2.1	1.9	2.0
JPN	0.3	0.2	0.2	0.1	0.1	0.1	0.1
LAM	10.5	10.4	10.2	10.1	9.7	9.2	9.8
MEA	4.7	4.7	4.7	4.8	4.6	4.2	4.8
NEU	0.9	0.9	0.8	0.8	0.7	0.6	0.7
OAS	9.4	9.7	9.6	10.4	10.6	10.6	11.7
REF	4.3	4.2	4.1	4.0	3.9	3.6	3.8
SSA	13.1	14.5	15.5	18.6	20.7	22.0	26.0
USA	3.6	3.4	3.2	2.8	2.4	2.0	1.9

Table 429: MAgPIE m4p_SSP3 — Demand—Food—Livestock products—Ruminant meat (Mt DM/yr) [PART 2/2]

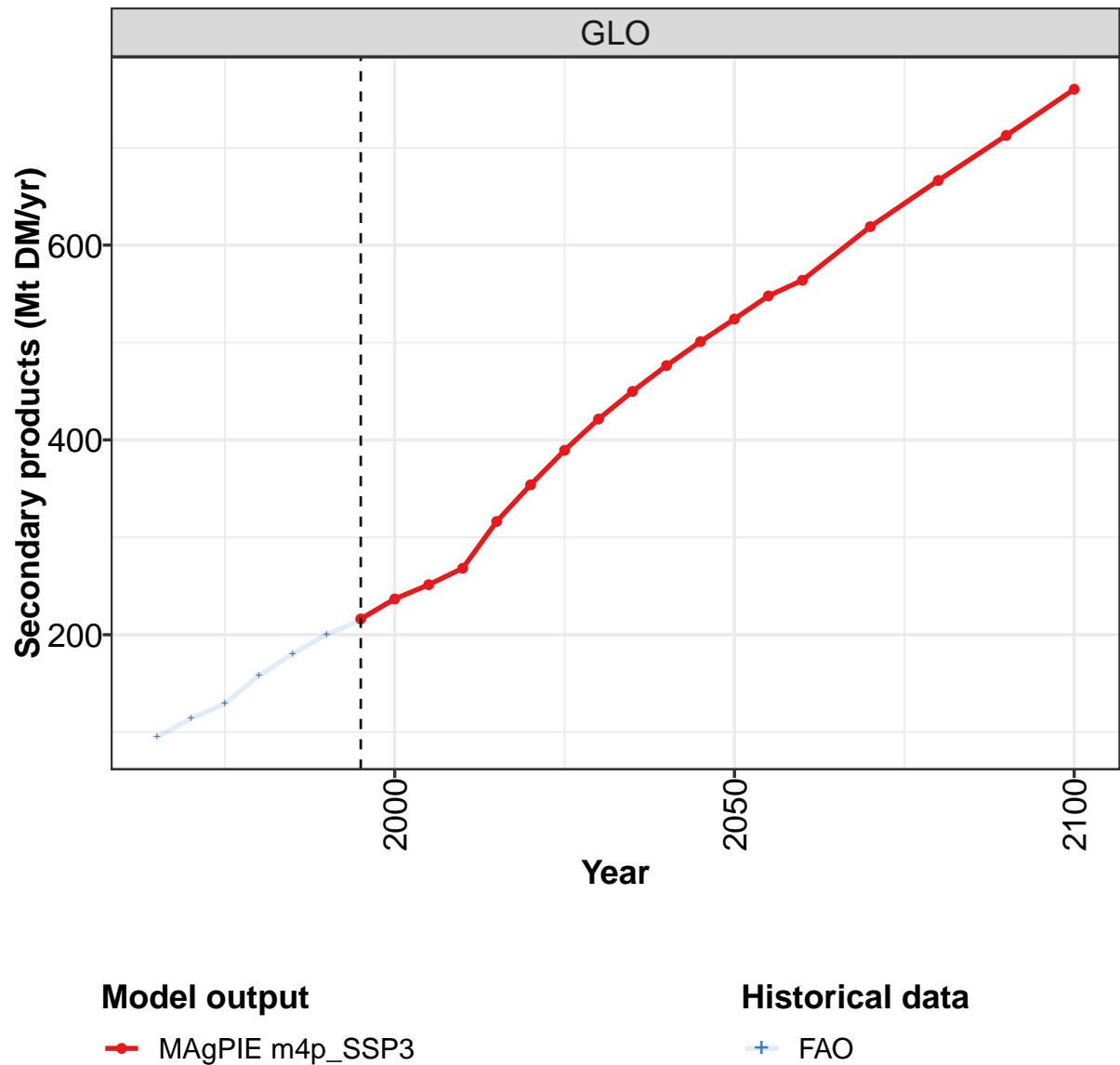
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	21.6	25.1	27.8	29.6	32.1	34.7	36.4	39.3	41.5	44.8
CAZ	1.0	1.1	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2
CHA	0.5	0.6	0.8	1.0	1.4	2.2	4.0	5.9	6.8	8.1
EUR	5.6	6.6	7.0	7.4	7.3	7.6	6.7	6.5	6.1	6.0
IND	0.8	0.8	0.9	1.0	1.2	1.3	1.4	1.3	1.4	1.4
JPN	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.8	0.6	0.6
LAM	2.7	3.2	3.6	4.2	4.6	5.3	6.1	6.8	7.2	7.8
MEA	0.7	0.8	1.0	1.3	1.5	1.6	1.9	2.2	2.4	2.7
NEU	0.5	0.5	0.6	0.6	0.8	0.8	0.7	0.7	0.7	0.8
OAS	1.0	1.1	1.3	1.4	1.7	2.1	2.7	2.8	3.1	3.9
REF	2.6	3.2	3.7	3.8	4.1	4.5	3.5	2.7	2.9	3.2
SSA	1.3	1.5	1.5	1.9	2.1	2.2	2.2	2.6	3.1	3.6
USA	4.7	5.3	5.6	5.2	5.6	5.1	5.3	5.7	5.9	5.5

Table 430: FAO — Demand—Food—Livestock products—Ruminant meat (Mt DM/yr)





7.4 Secondary products



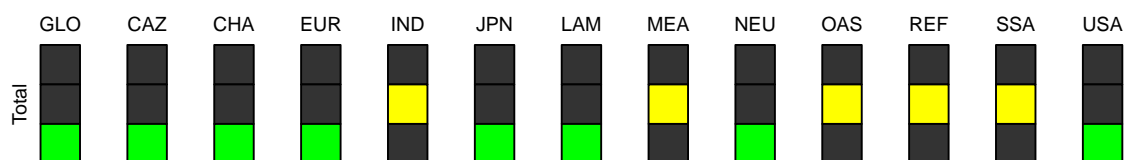
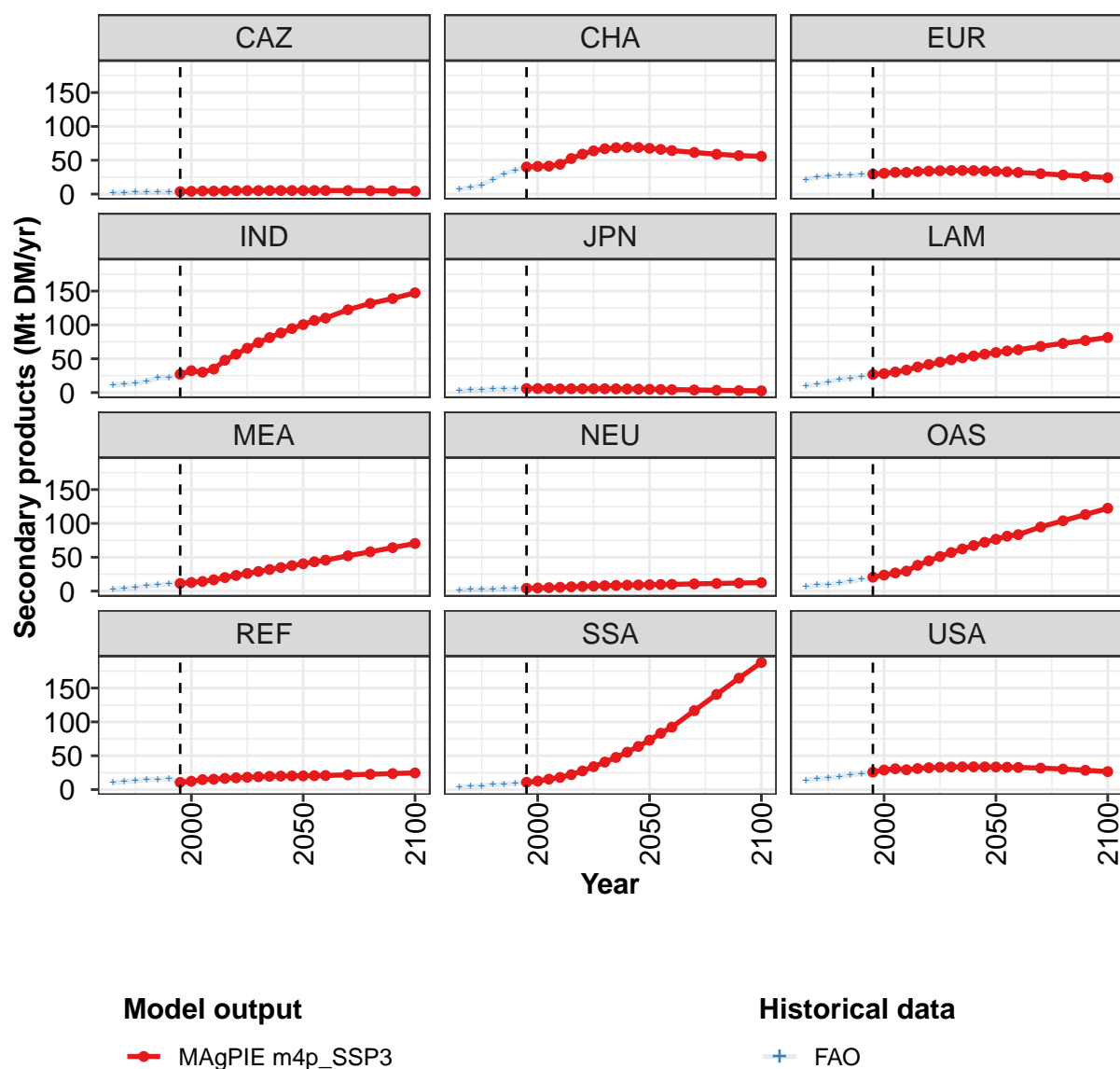


Figure 144: MAgPIE m4p_SSP3 — Demand—Food—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	216	237	251	268	316	354	389	421	450	476	501
CAZ	4	4	5	4	5	5	5	5	5	5	5
CHA	40	41	41	44	53	59	64	67	68	69	69
EUR	30	31	32	32	33	34	35	35	35	35	34
IND	27	32	30	35	48	57	66	74	81	88	95
JPN	6	6	6	5	6	6	6	6	6	5	5
LAM	27	28	30	33	38	42	45	48	51	54	57
MEA	11	13	14	17	20	23	26	29	32	35	38
NEU	4	5	5	6	6	7	7	8	8	9	9
OAS	21	24	27	30	38	45	51	57	62	67	72
REF	11	12	15	15	17	17	18	19	20	20	20
SSA	11	13	15	18	22	28	34	41	47	55	64
USA	26	29	31	29	31	32	33	33	34	34	34

Table 431: MAgPIE m4p_SSP3 — Demand—Food—Secondary products (Mt DM/yr) [PART 1/2]

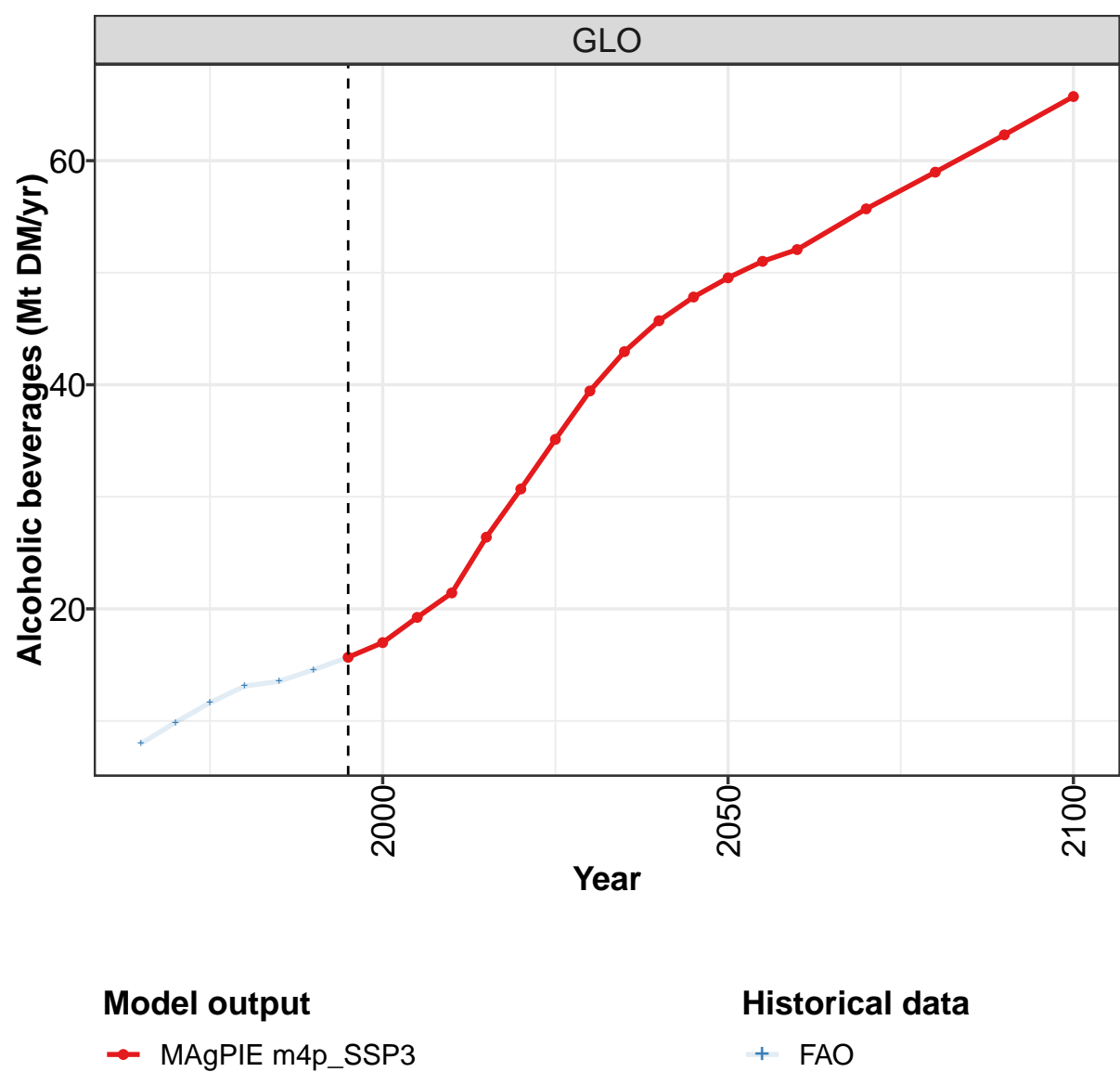
	2050	2055	2060	2070	2080	2090	2100
GLO	524	548	564	619	666	713	760
CAZ	5	5	5	5	5	5	4
CHA	68	66	64	62	59	57	56
EUR	34	33	32	30	28	26	24
IND	100	107	110	122	132	139	147
JPN	5	5	4	4	3	3	3
LAM	59	62	63	68	73	77	81
MEA	40	43	46	52	58	64	70
NEU	9	10	10	11	11	12	12
OAS	77	81	83	95	104	113	122
REF	20	21	21	22	23	24	25
SSA	73	83	92	117	141	165	188
USA	33	33	33	32	30	29	27

Table 432: MAgPIE m4p_SSP3 — Demand—Food—Secondary products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	95	114	129	158	180	200	215	235	251	268
CAZ	2	2	3	3	3	3	4	4	5	4
CHA	7	10	13	22	30	35	40	41	41	44
EUR	22	25	26	28	28	29	30	31	32	32
IND	11	13	14	16	22	22	26	31	30	35
JPN	3	4	4	5	6	6	6	6	6	5
LAM	10	12	16	20	21	24	27	28	30	33
MEA	3	4	5	8	9	10	11	13	14	17
NEU	2	2	3	3	3	4	4	5	5	6
OAS	7	9	9	12	15	17	21	24	27	30
REF	10	12	13	15	15	16	11	12	15	15
SSA	4	5	6	7	8	9	11	13	15	18
USA	14	16	17	19	21	24	26	29	31	29

Table 433: FAO — Demand—Food—Secondary products (Mt DM/yr)

7.4.1 Alcoholic beverages



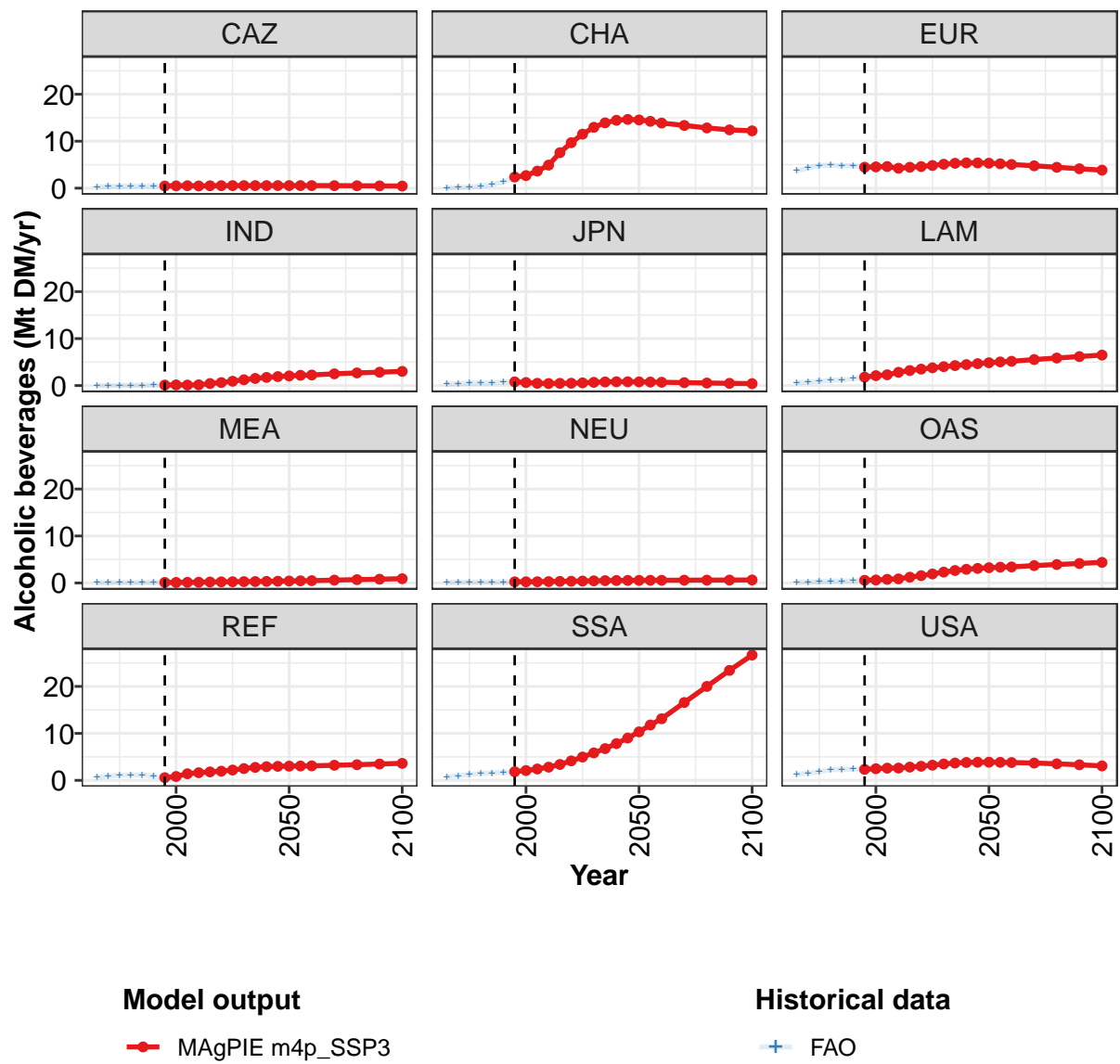


Figure 145: MAgPIE m4p_SSP3 — Demand—Food—Secondary products—Alcoholic beverages (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	15.7	17.0	19.2	21.4	26.4	30.7	35.1	39.4	43.0	45.7	47.8
CAZ	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6
CHA	2.4	2.7	3.6	4.9	7.6	9.7	11.5	13.0	13.9	14.5	14.6
EUR	4.5	4.5	4.6	4.2	4.5	4.6	4.8	5.1	5.3	5.4	5.4
IND	0.1	0.1	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.7	1.9
JPN	0.8	0.6	0.5	0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.8
LAM	1.8	2.1	2.3	2.8	3.2	3.5	3.8	4.0	4.3	4.5	4.7
MEA	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4
NEU	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5
OAS	0.6	0.6	0.8	0.9	1.2	1.5	1.9	2.3	2.7	2.9	3.1
REF	0.6	0.8	1.4	1.6	1.8	1.9	2.2	2.5	2.8	2.9	3.0
SSA	1.8	2.1	2.4	2.8	3.4	4.1	5.0	5.8	6.8	7.8	9.0
USA	2.3	2.5	2.6	2.6	2.8	3.0	3.2	3.5	3.7	3.8	3.9

Table 434: MAgPIE m4p_SSP3 — Demand—Food—Secondary products—Alcoholic beverages (Mt DM/yr)
[PART 1/2]

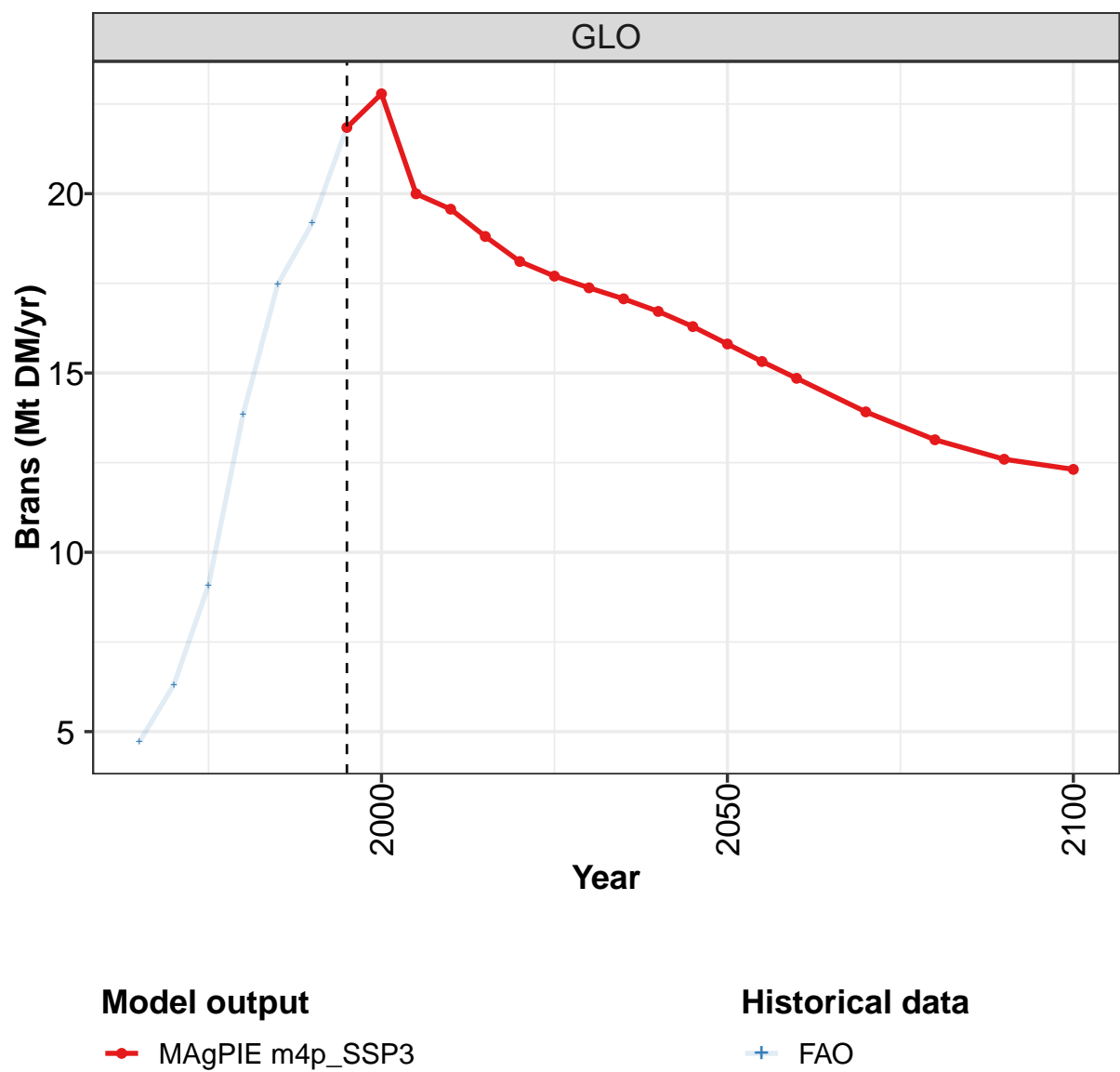
	2050	2055	2060	2070	2080	2090	2100
GLO	49.5	51.0	52.1	55.7	59.0	62.3	65.7
CAZ	0.6	0.6	0.5	0.5	0.5	0.5	0.5
CHA	14.5	14.2	13.9	13.4	12.8	12.4	12.2
EUR	5.3	5.2	5.0	4.8	4.4	4.1	3.8
IND	2.1	2.2	2.3	2.5	2.7	2.8	3.0
JPN	0.8	0.8	0.7	0.6	0.5	0.5	0.4
LAM	4.9	5.0	5.2	5.5	5.9	6.2	6.5
MEA	0.4	0.5	0.5	0.6	0.7	0.8	0.9
NEU	0.6	0.6	0.6	0.6	0.6	0.6	0.6
OAS	3.2	3.4	3.4	3.7	3.9	4.1	4.4
REF	3.0	3.1	3.1	3.2	3.3	3.5	3.6
SSA	10.3	11.8	13.1	16.6	20.0	23.4	26.7
USA	3.9	3.8	3.8	3.7	3.5	3.3	3.1

Table 435: MAgPIE m4p_SSP3 — Demand—Food—Secondary products—Alcoholic beverages (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	8.0	9.9	11.6	13.1	13.5	14.6	15.7	17.0	19.2	21.4
CAZ	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5
CHA	0.1	0.1	0.2	0.4	0.8	1.3	2.4	2.7	3.6	4.9
EUR	3.7	4.3	4.8	4.9	4.7	4.7	4.5	4.5	4.6	4.2
IND	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2
JPN	0.3	0.4	0.5	0.6	0.6	0.8	0.8	0.7	0.5	0.4
LAM	0.6	0.7	0.9	1.1	1.2	1.5	1.8	2.1	2.3	2.8
MEA	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
NEU	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
OAS	0.1	0.2	0.3	0.4	0.4	0.5	0.6	0.6	0.8	0.9
REF	0.7	0.9	1.1	1.2	1.1	0.9	0.6	0.8	1.4	1.6
SSA	0.8	1.0	1.2	1.5	1.6	1.7	1.8	2.1	2.4	2.8
USA	1.2	1.6	1.8	2.3	2.3	2.4	2.3	2.5	2.6	2.6

Table 436: FAO — Demand—Food—Secondary products—Alcoholic beverages (Mt DM/yr)

7.4.2
Brans



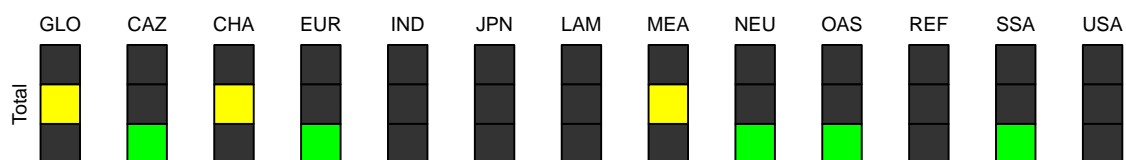
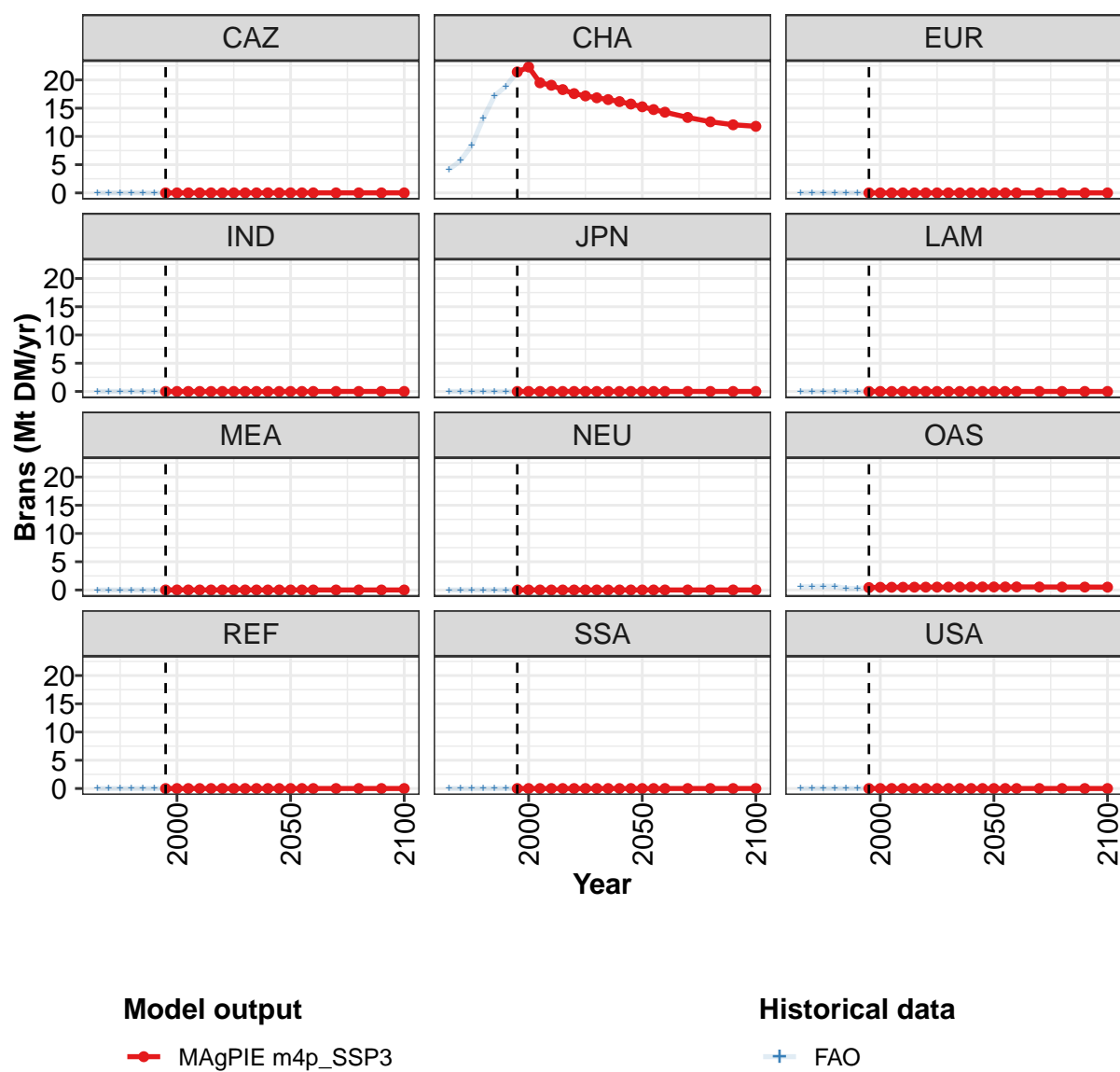


Figure 146: MAGPIE m4p_SSP3 — Demand—Food—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	21.8	22.8	20.0	19.6	18.8	18.1	17.7	17.4	17.1	16.7	16.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	21.4	22.3	19.5	19.1	18.3	17.6	17.2	16.8	16.5	16.2	15.7
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 437: MAgPIE m4p-SSP3 — Demand—Food—Secondary products—Brans (Mt DM/yr) [PART 1/2]

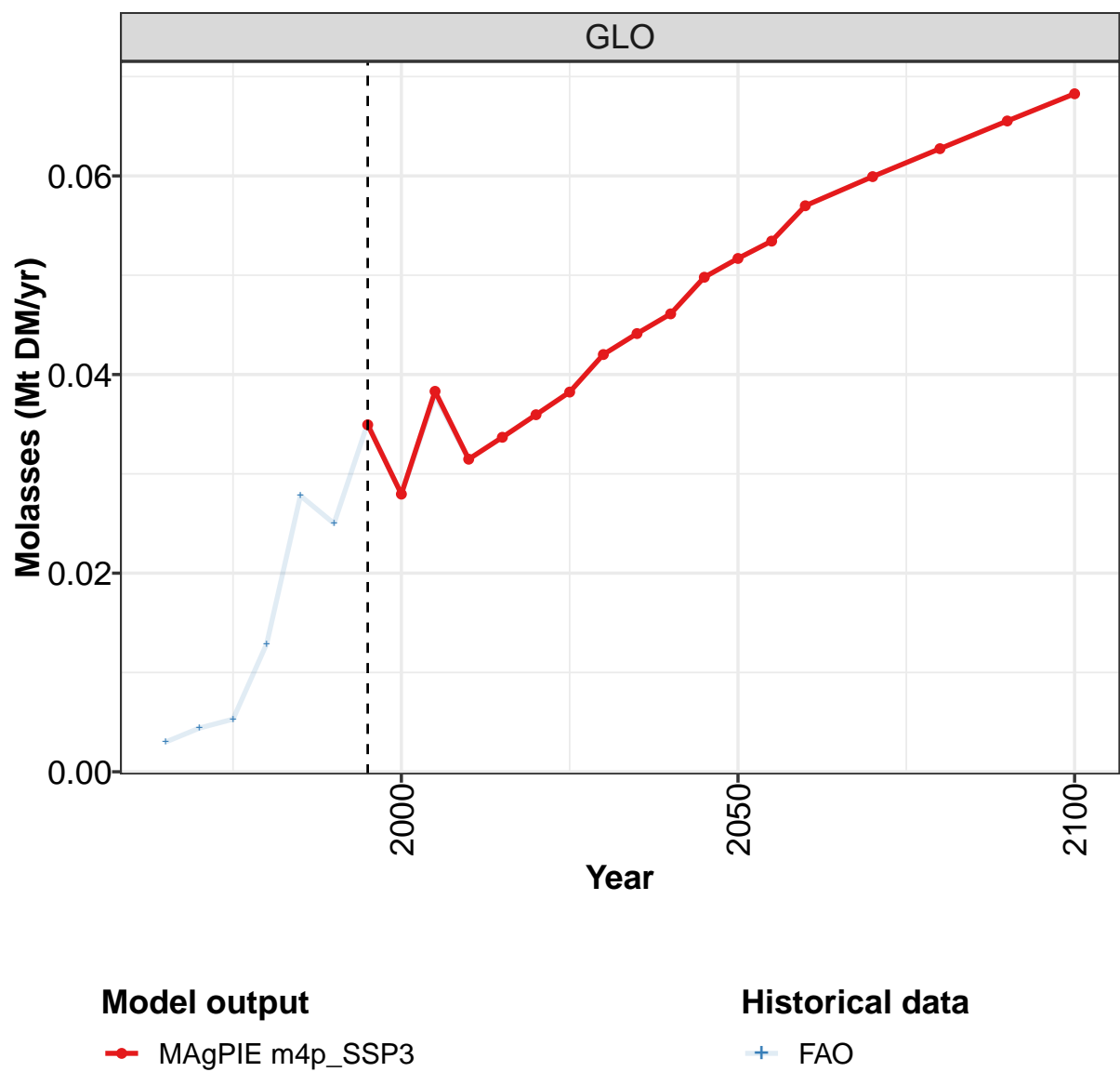
	2050	2055	2060	2070	2080	2090	2100
GLO	15.8	15.3	14.9	13.9	13.1	12.6	12.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	15.2	14.8	14.3	13.4	12.6	12.1	11.8
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.5	0.5	0.5	0.5	0.5	0.5	0.5
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 438: MAgPIE m4p-SSP3 — Demand—Food—Secondary products—Brans (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.7	6.3	9.1	13.9	17.5	19.2	21.8	22.8	20.0	19.6
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	4.2	5.7	8.4	13.2	17.2	18.9	21.4	22.3	19.5	19.1
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.5	0.6	0.7	0.6	0.3	0.3	0.4	0.5	0.5	0.5
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 439: FAO — Demand—Food—Secondary products—Brans (Mt DM/yr)

7.4.3
Molasses



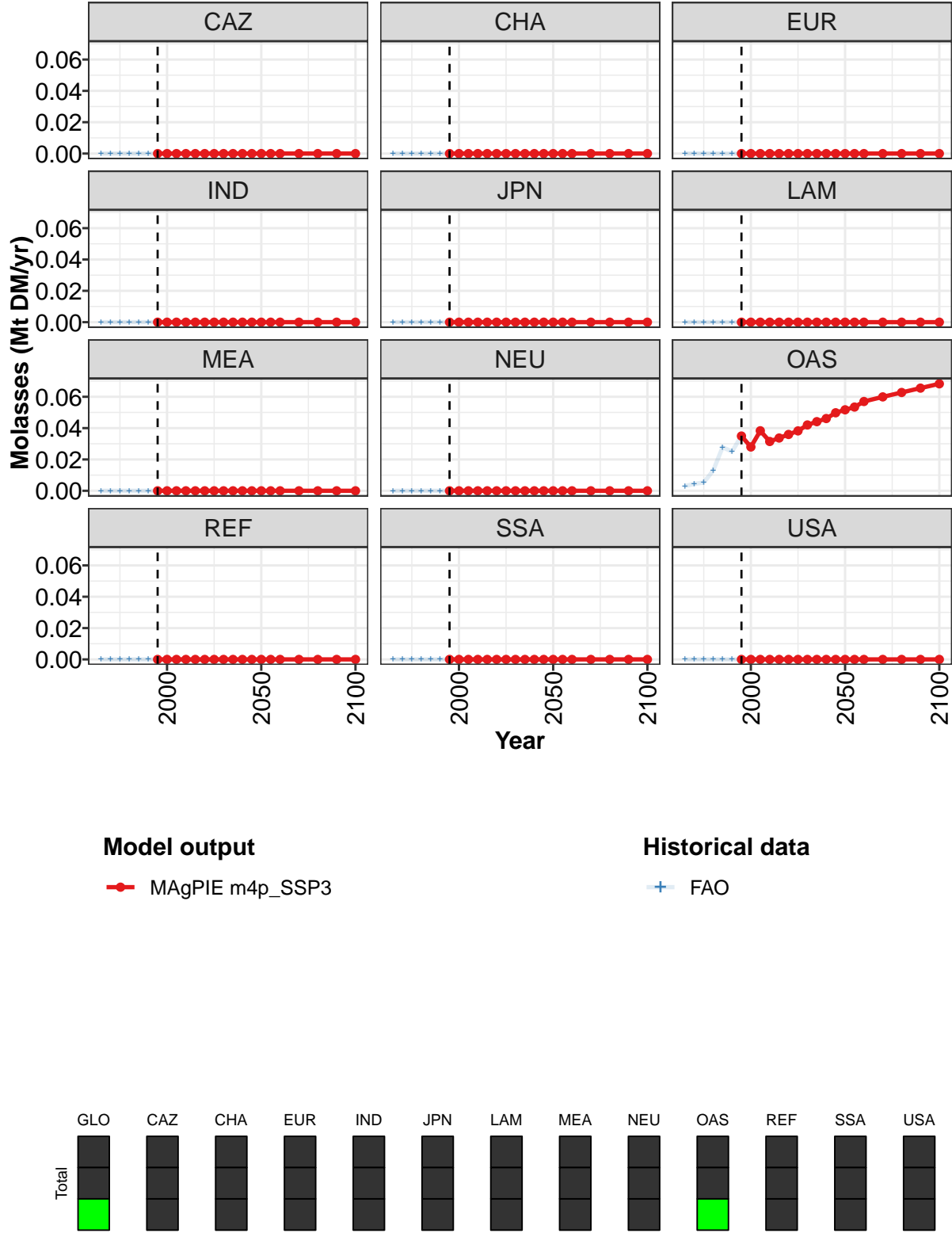


Figure 147: MAgPIE m4p_SSP3 — Demand—Food—Secondary products—Molasses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0349	0.0280	0.0383	0.0315	0.0337	0.0360	0.0382	0.0420	0.0441	0.0461	0.0498
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0349	0.0280	0.0383	0.0315	0.0337	0.0360	0.0382	0.0420	0.0441	0.0461	0.0498
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 440: MAgPIE m4p_SSP3 — Demand—Food—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

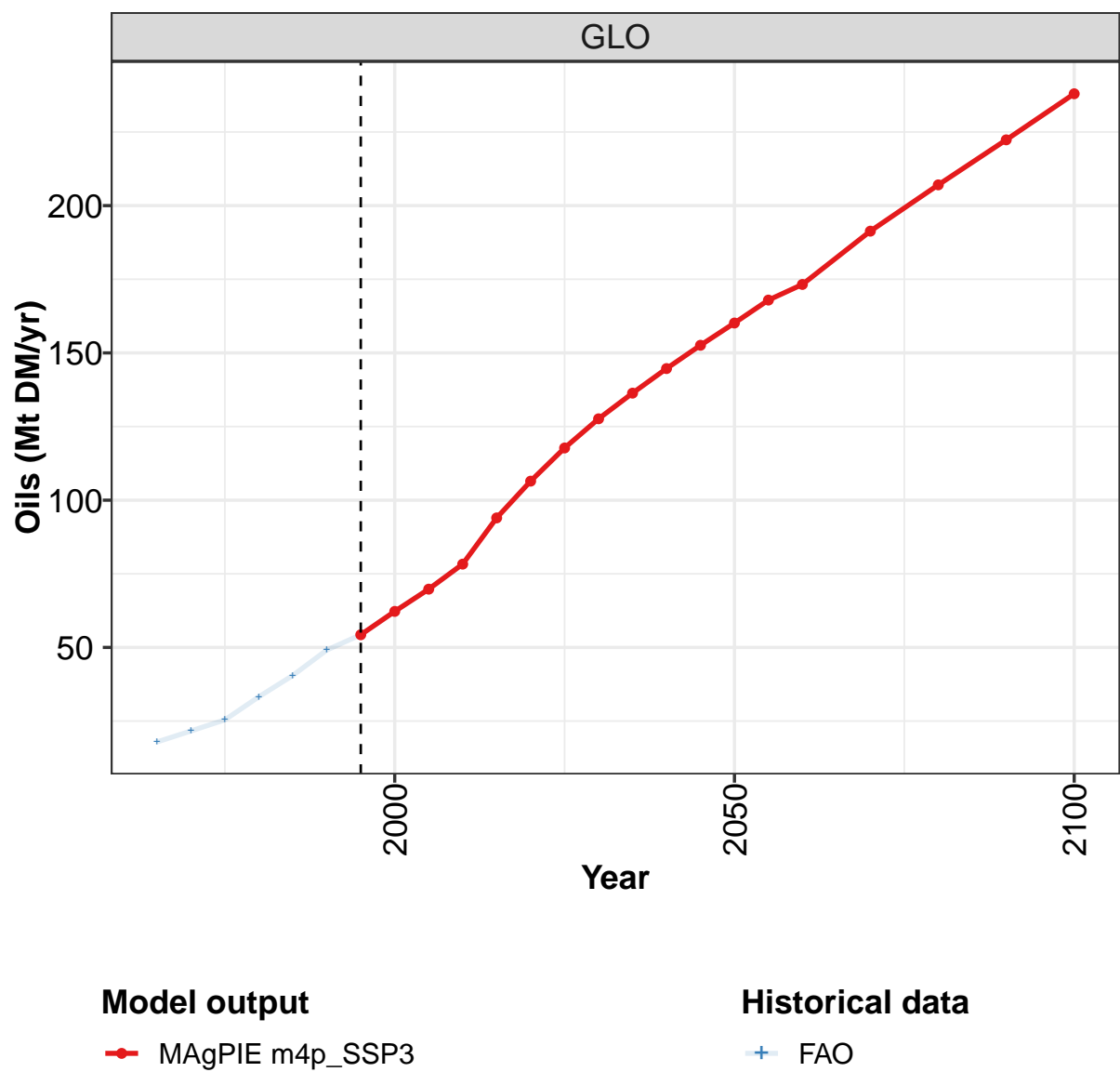
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0517	0.0534	0.0570	0.0599	0.0627	0.0655	0.0683
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0517	0.0534	0.0570	0.0599	0.0627	0.0655	0.0683
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 441: MAgPIE m4p_SSP3 — Demand—Food—Secondary products—Molasses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0030	0.0044	0.0053	0.0129	0.0278	0.0250	0.0351	0.0279	0.0379	0.0314
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0030	0.0044	0.0053	0.0129	0.0278	0.0250	0.0351	0.0279	0.0379	0.0314
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 442: FAO — Demand—Food—Secondary products—Molasses (Mt DM/yr)

7.4.4 Oils



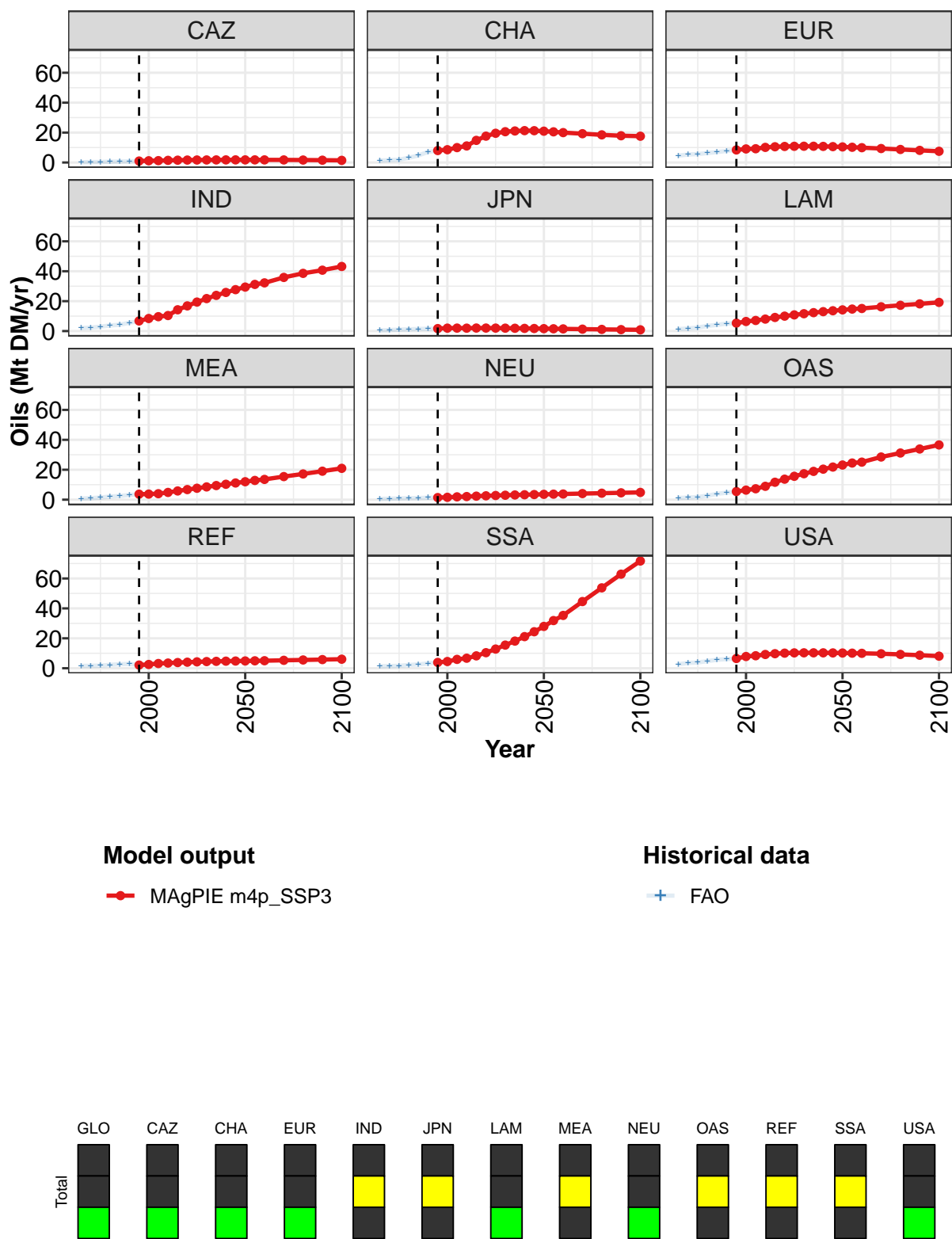


Figure 148: MAgPIE m4p_SSP3 — Demand—Food—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	54	62	70	78	94	106	118	128	136	145	153
CAZ	1	1	1	1	2	2	2	2	2	2	2
CHA	8	9	10	11	15	18	20	21	21	21	21
EUR	8	9	9	10	11	11	11	11	11	11	11
IND	7	8	10	10	14	17	19	22	24	26	28
JPN	2	2	2	2	2	2	2	2	2	2	2
LAM	5	6	7	8	9	10	11	12	12	13	14
MEA	4	4	4	5	6	7	8	9	9	10	11
NEU	1	2	2	2	2	3	3	3	3	3	3
OAS	5	6	7	9	12	14	16	17	19	20	22
REF	2	3	3	3	4	4	4	4	5	5	5
SSA	4	5	6	7	8	10	13	15	18	21	24
USA	7	8	8	9	10	10	10	10	10	10	10

Table 443: MAgPIE m4p_SSP3 — Demand—Food—Secondary products—Oils (Mt DM/yr) [PART 1/2]

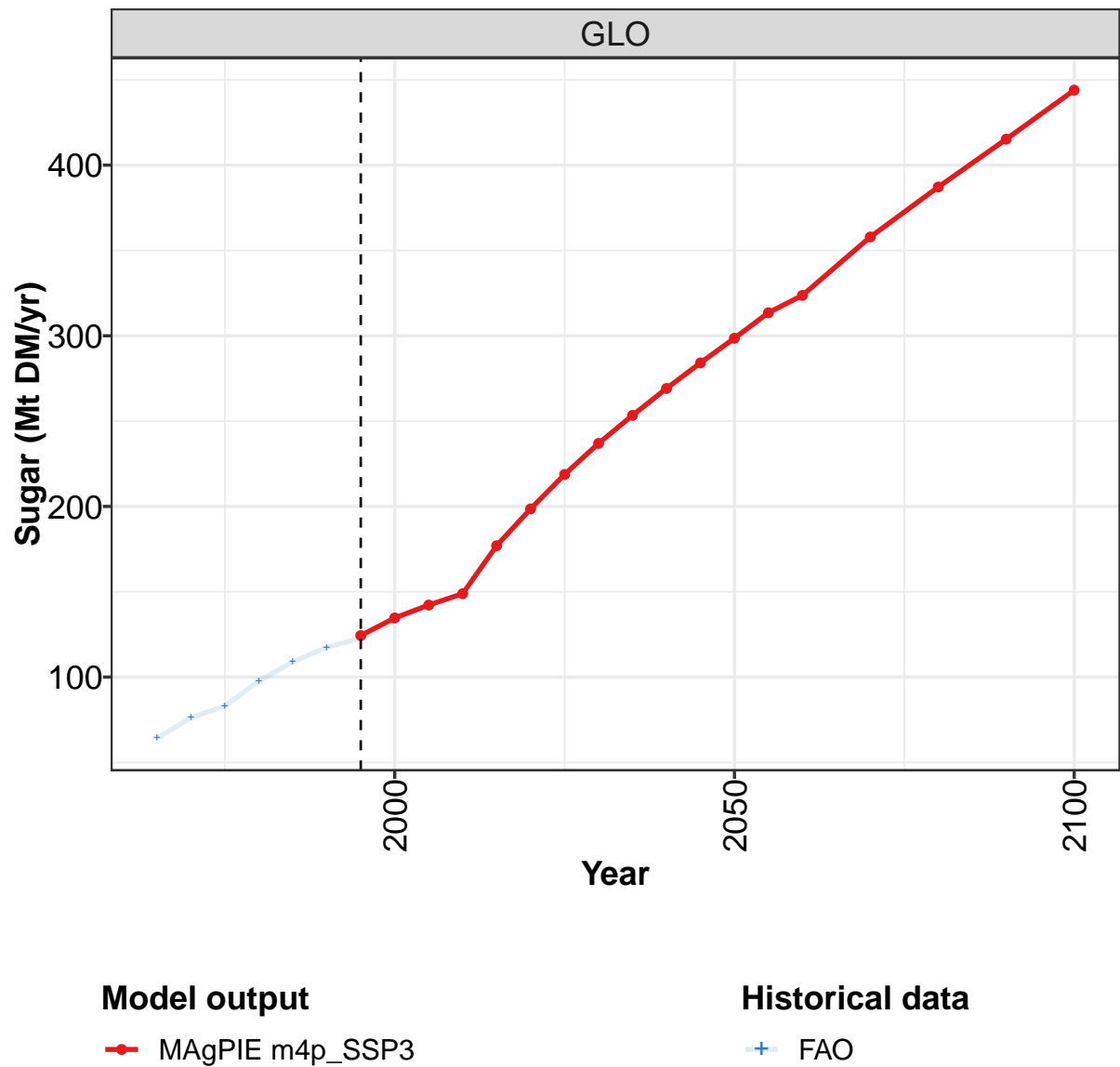
	2050	2055	2060	2070	2080	2090	2100
GLO	160	168	173	191	207	222	238
CAZ	2	2	2	2	2	2	1
CHA	21	21	20	19	18	18	18
EUR	10	10	10	9	9	8	8
IND	29	31	32	36	39	41	43
JPN	2	2	1	1	1	1	1
LAM	14	15	15	16	17	18	19
MEA	12	13	14	15	17	19	21
NEU	4	4	4	4	4	5	5
OAS	23	24	25	29	31	34	37
REF	5	5	5	5	6	6	6
SSA	28	32	35	45	54	63	72
USA	10	10	10	10	9	9	8

Table 444: MAgPIE m4p_SSP3 — Demand—Food—Secondary products—Oils (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	17.9	21.6	25.4	33.2	40.5	49.1	54.3	62.2	69.8	78.3
CAZ	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.2	1.3	1.4
CHA	1.3	1.6	1.9	3.2	4.7	7.1	8.0	8.6	10.0	11.1
EUR	4.6	5.3	5.6	6.3	7.0	7.8	8.4	9.1	9.2	10.1
IND	2.1	2.3	3.0	3.8	4.3	5.6	6.8	8.4	9.6	10.4
JPN	0.5	0.7	1.0	1.2	1.4	1.6	1.7	2.0	2.0	2.0
LAM	1.3	1.7	2.4	3.4	4.2	5.0	5.3	6.4	7.1	8.0
MEA	0.8	1.0	1.4	2.1	2.4	3.1	3.7	3.7	4.0	4.8
NEU	0.5	0.7	0.8	1.0	1.1	1.3	1.4	1.6	1.9	2.1
OAS	1.2	1.4	1.8	2.6	3.9	4.7	5.4	6.3	7.3	8.9
REF	1.6	1.6	1.7	2.2	2.7	2.9	2.1	2.5	3.1	3.5
SSA	1.3	1.4	1.6	2.2	2.5	3.2	3.9	4.5	5.9	6.7
USA	2.7	3.5	3.9	4.7	5.7	6.1	6.5	7.9	8.4	9.2

Table 445: FAO — Demand—Food—Secondary products—Oils (Mt DM/yr)

7.4.5
Sugar



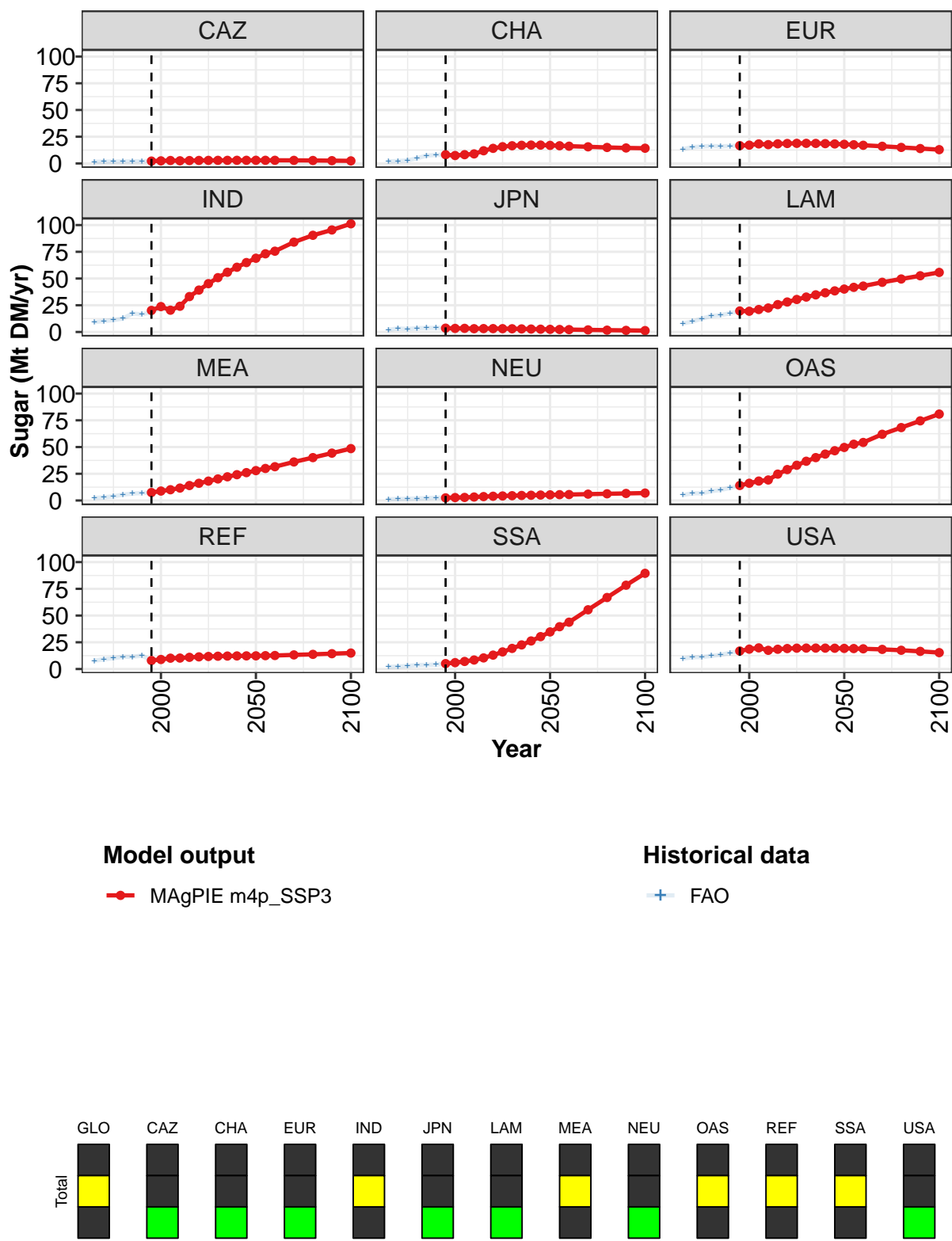


Figure 149: MAGPIE m4p_SSP3 — Demand—Food—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	124	135	142	149	177	199	219	237	253	269	284
CAZ	2	2	3	2	3	3	3	3	3	3	3
CHA	8	7	8	9	12	14	16	17	17	17	17
EUR	17	17	18	18	18	19	19	19	19	19	18
IND	20	24	20	24	33	39	45	51	56	61	65
JPN	4	3	3	3	3	3	3	3	3	3	3
LAM	20	19	21	22	26	28	30	33	35	37	38
MEA	7	9	10	12	14	16	18	20	22	24	26
NEU	2	3	3	3	4	4	4	4	5	5	5
OAS	14	16	18	19	25	29	33	37	40	43	47
REF	8	9	10	10	11	11	12	12	12	12	12
SSA	5	6	7	8	10	13	16	19	23	26	30
USA	17	19	20	17	19	19	20	20	20	20	19

Table 446: MAgPIE m4p-SSP3 — Demand—Food—Secondary products—Sugar (Mt DM/yr) [PART 1/2]

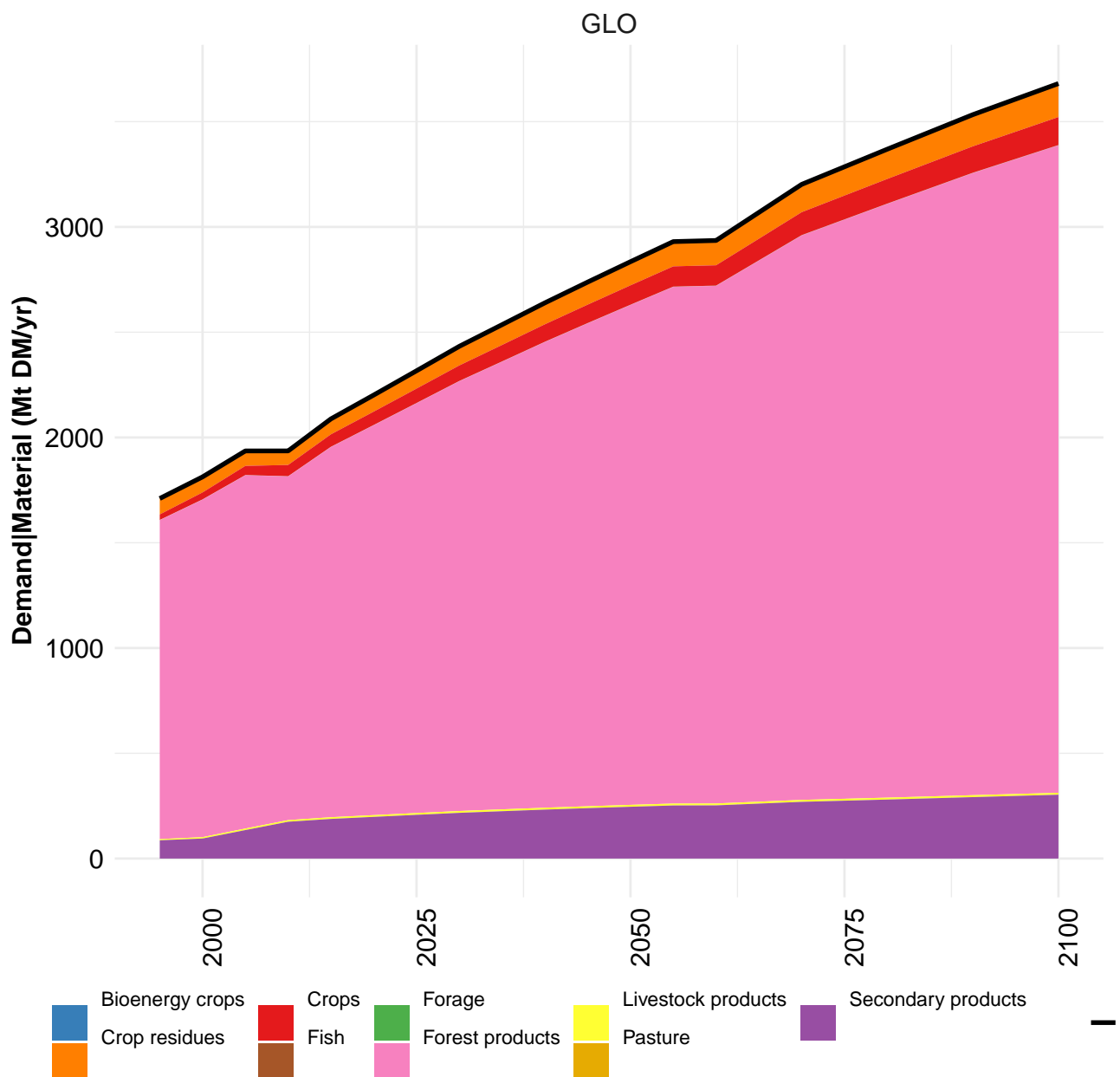
	2050	2055	2060	2070	2080	2090	2100
GLO	299	314	324	358	387	415	444
CAZ	3	3	3	3	3	3	2
CHA	17	17	16	16	15	14	14
EUR	18	17	17	16	15	14	13
IND	69	73	76	84	90	95	101
JPN	2	2	2	2	2	1	1
LAM	40	42	43	46	50	53	56
MEA	28	30	32	36	40	44	49
NEU	5	5	6	6	6	7	7
OAS	50	53	54	62	68	75	81
REF	12	12	13	13	14	14	15
SSA	35	40	44	55	67	78	90
USA	19	19	19	18	18	17	15

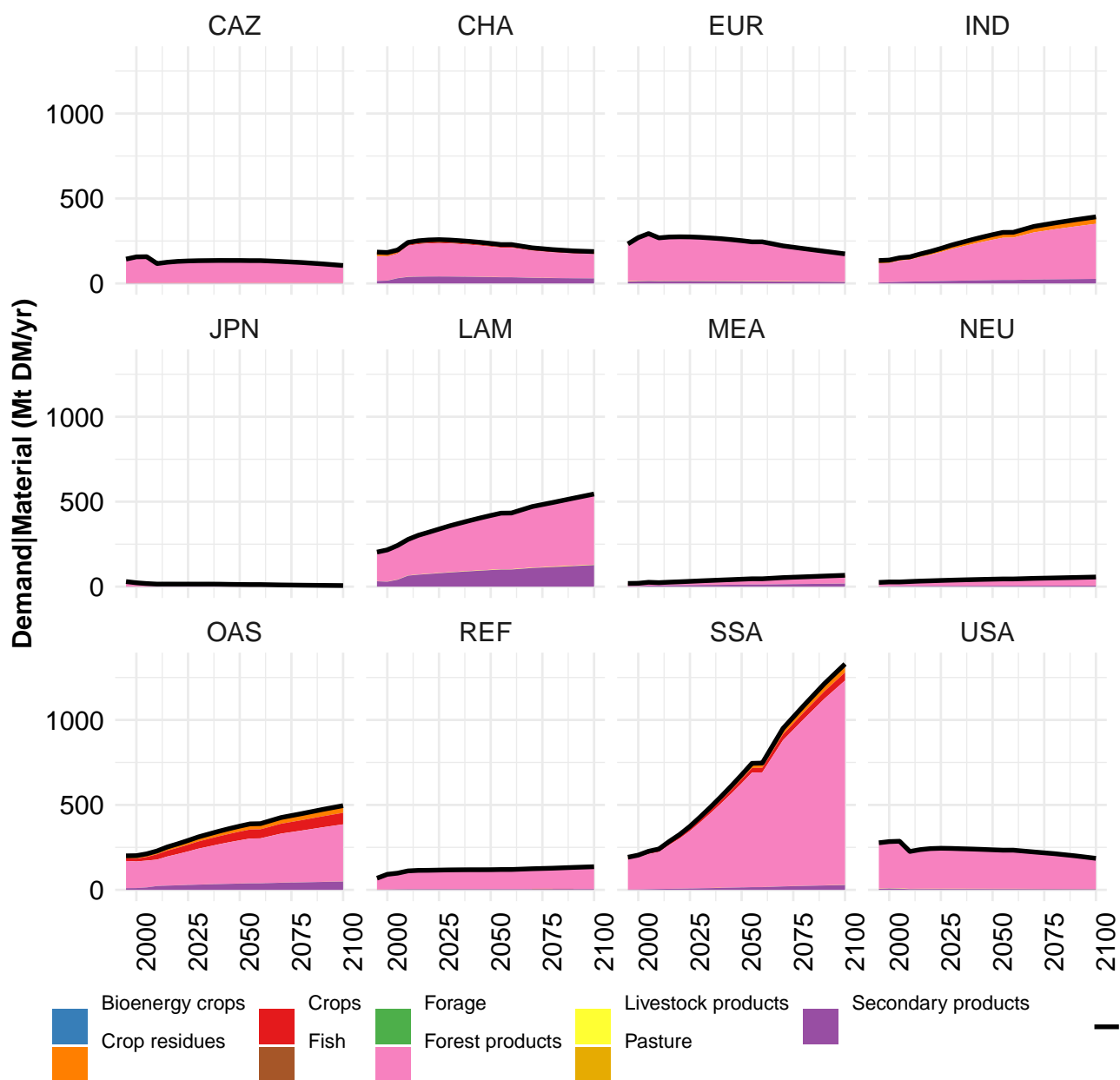
Table 447: MAgPIE m4p-SSP3 — Demand—Food—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

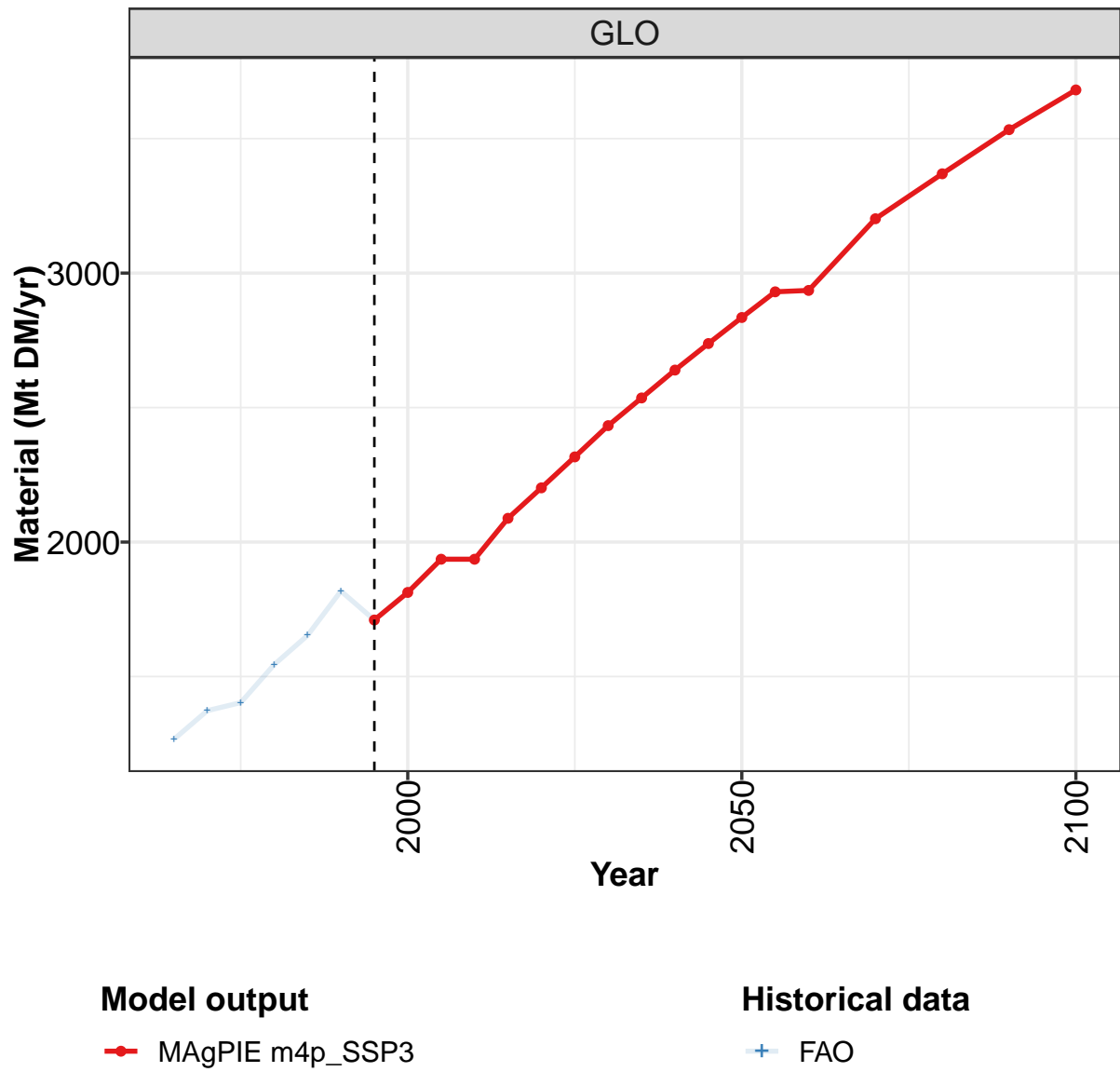
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	64	76	83	98	109	117	123	133	142	149
CAZ	2	2	2	2	2	2	2	2	3	2
CHA	2	2	3	5	7	8	8	7	8	9
EUR	13	15	16	16	16	16	17	17	18	18
IND	9	10	11	13	17	16	19	22	20	24
JPN	2	3	3	4	4	4	4	3	3	3
LAM	8	10	12	15	16	18	20	19	21	22
MEA	2	3	4	5	6	7	7	9	10	12
NEU	1	1	2	2	2	3	2	3	3	3
OAS	5	7	7	9	10	12	14	16	18	19
REF	8	9	10	11	11	13	8	9	10	10
SSA	2	2	3	4	4	4	5	6	7	8
USA	10	11	11	12	13	15	17	19	20	17

Table 448: FAO — Demand—Food—Secondary products—Sugar (Mt DM/yr)

8 Material







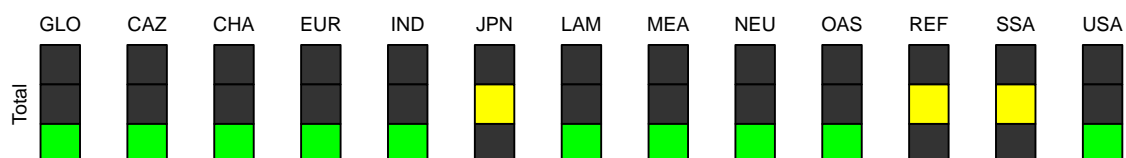
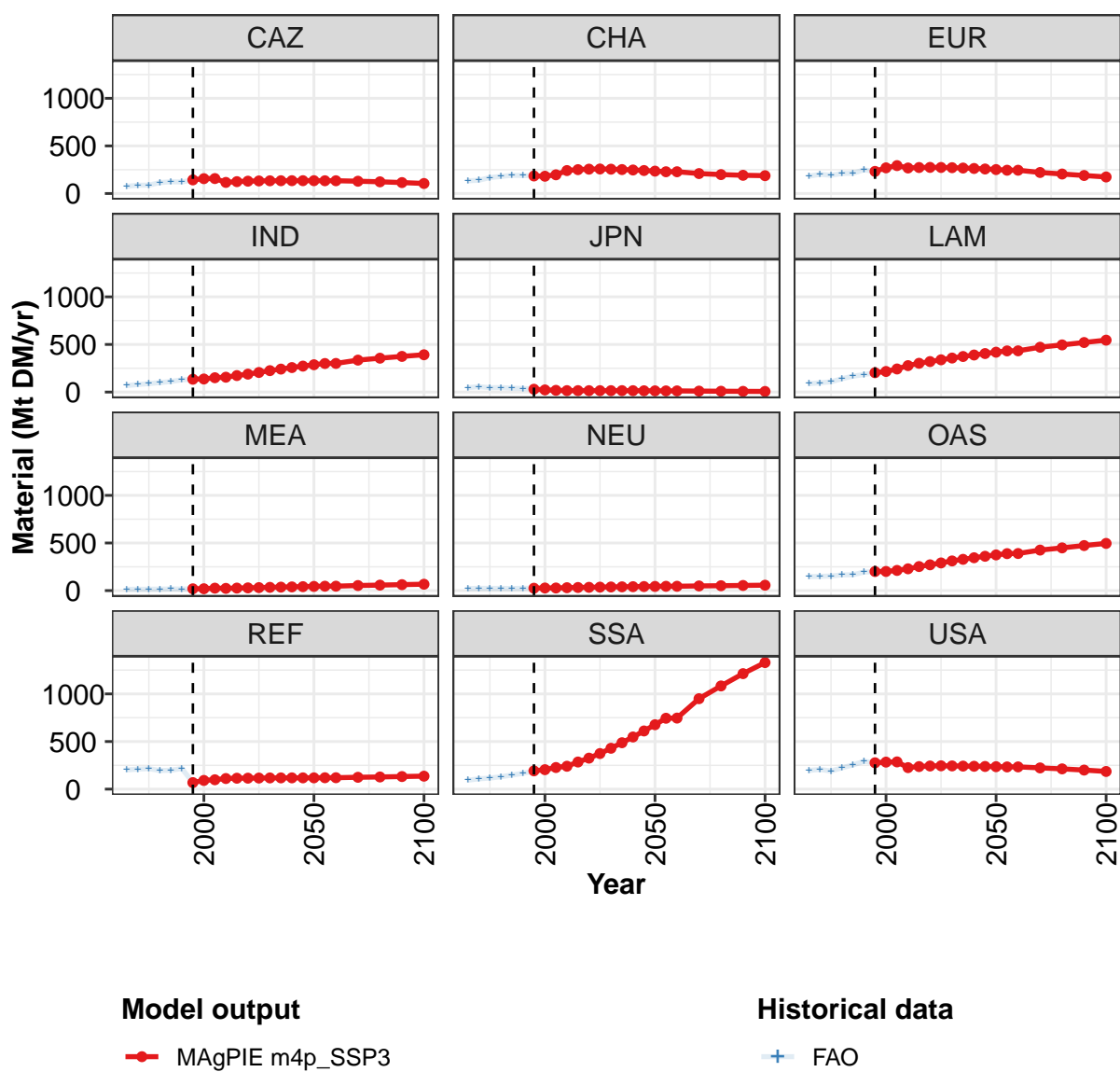


Figure 150: MAgPIE m4p_SSP3 — Demand—Material (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1710	1813	1936	1936	2088	2202	2317	2433	2536	2639	2738
CAZ	143	156	157	117	125	130	132	134	134	135	135
CHA	184	182	197	241	251	256	258	256	252	247	242
EUR	233	270	293	268	273	274	274	271	268	263	258
IND	135	137	151	156	173	188	206	225	241	257	273
JPN	30	23	18	15	15	15	15	15	15	15	14
LAM	203	216	243	278	302	320	339	357	373	389	405
MEA	19	20	26	23	26	29	31	34	36	39	41
NEU	25	27	28	30	33	34	36	38	40	41	43
OAS	200	201	212	229	253	271	291	312	328	345	361
REF	69	91	98	112	115	115	116	118	118	118	118
SSA	192	204	227	241	285	326	374	429	487	548	611
USA	277	284	286	226	237	243	245	244	242	240	238

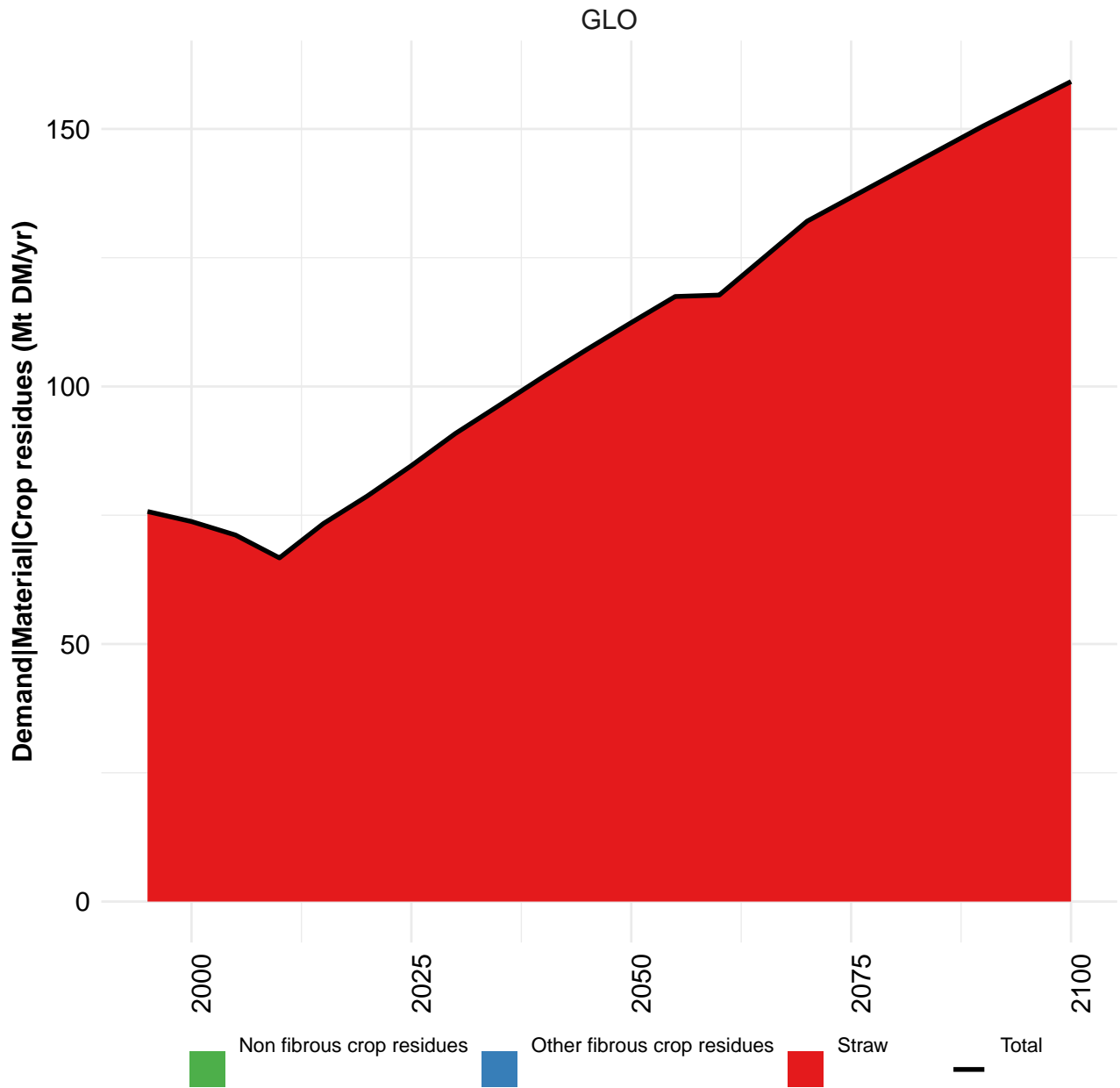
Table 449: MAgPIE m4p_SSP3 — Demand—Material (Mt DM/yr) [PART 1/2]

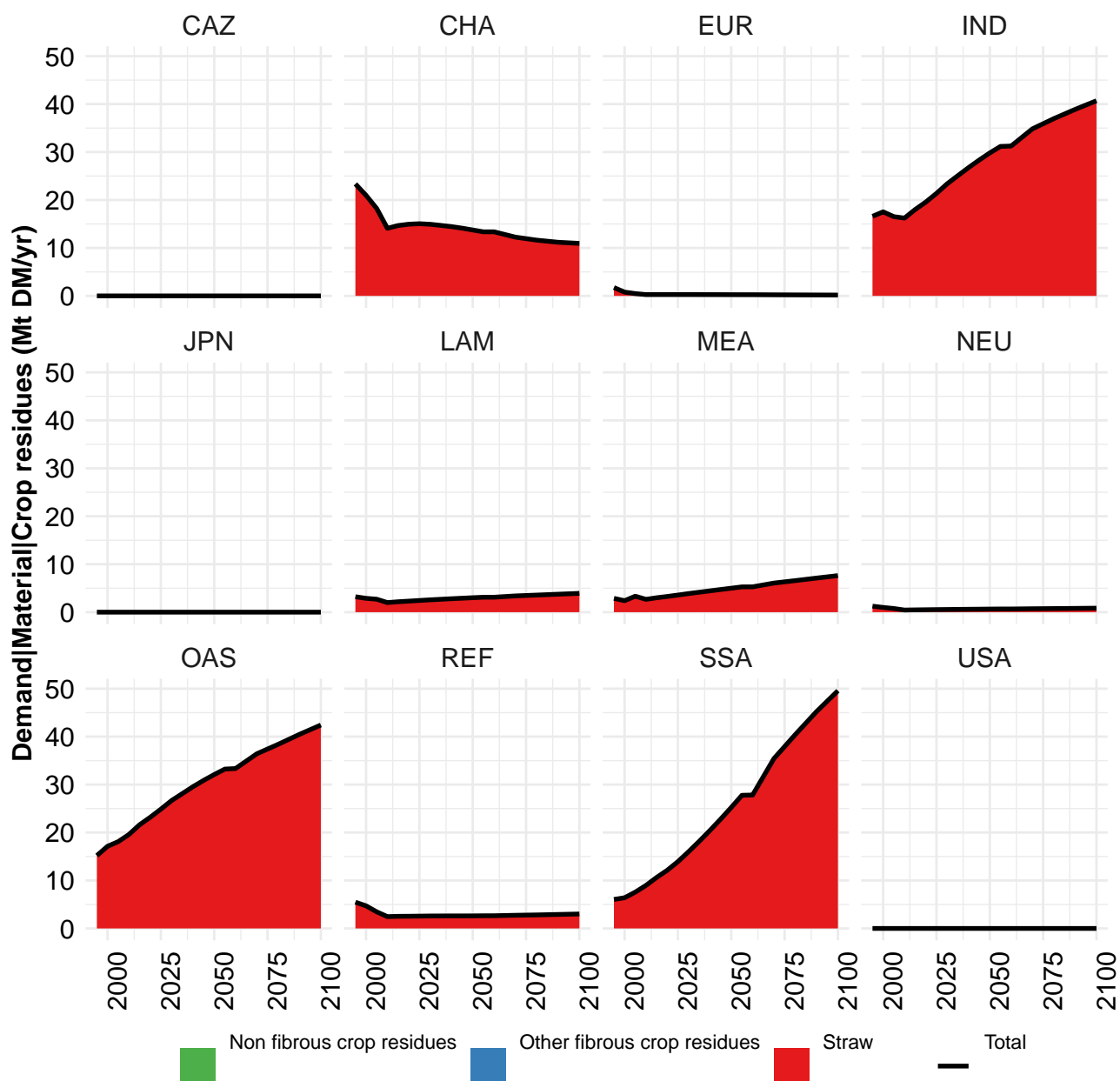
	2050	2055	2060	2070	2080	2090	2100
GLO	2835	2930	2936	3202	3369	3533	3681
CAZ	135	134	134	129	123	115	106
CHA	235	229	229	210	199	192	188
EUR	252	245	245	221	205	189	174
IND	287	300	301	335	356	375	392
JPN	13	12	12	10	9	7	6
LAM	419	433	433	471	495	520	545
MEA	44	46	46	53	58	62	67
NEU	44	45	45	49	51	54	57
OAS	375	388	390	426	449	473	496
REF	119	120	120	124	128	132	136
SSA	677	745	746	950	1084	1213	1329
USA	236	233	234	223	213	200	186

Table 450: MAgPIE m4p_SSP3 — Demand—Material (Mt DM/yr) [PART 2/2]

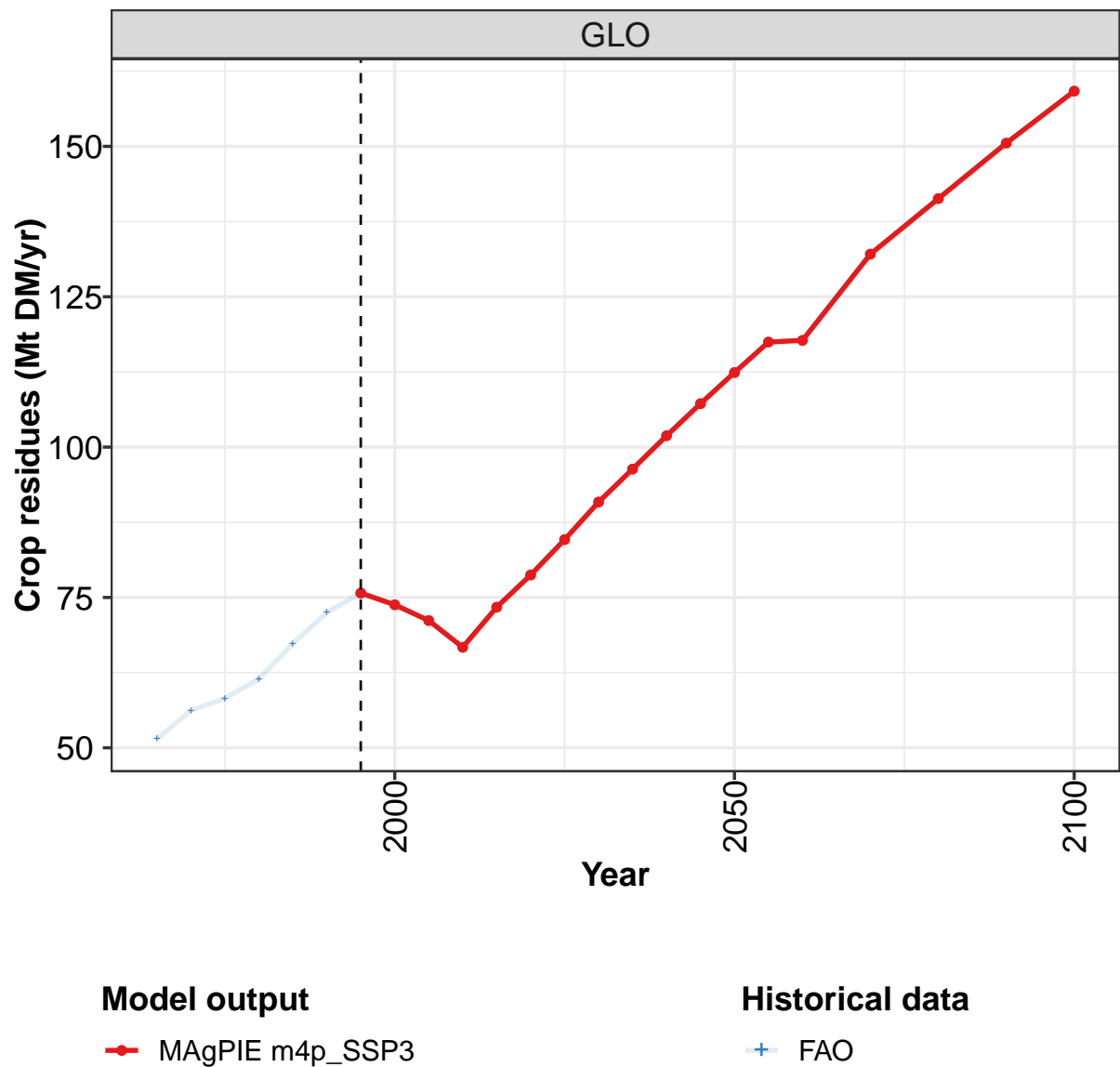
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1267	1373	1403	1544	1653	1818	1710	1813	1936	1936
CAZ	75	87	88	115	124	121	143	156	157	117
CHA	134	140	168	179	191	189	184	182	197	241
EUR	182	202	192	210	213	248	233	270	293	268
IND	68	79	89	99	111	128	135	137	151	156
JPN	46	57	46	47	41	38	30	23	18	15
LAM	88	97	107	141	166	184	203	216	243	278
MEA	13	14	14	16	17	16	19	20	26	23
NEU	21	24	23	23	22	24	25	27	28	30
OAS	147	149	153	164	167	194	200	201	212	229
REF	202	210	216	195	198	216	69	91	98	112
SSA	94	108	116	130	147	166	192	204	227	241
USA	196	207	190	224	254	292	277	284	286	226

Table 451: FAO — Demand—Material (Mt DM/yr)





8.1 Crop residues



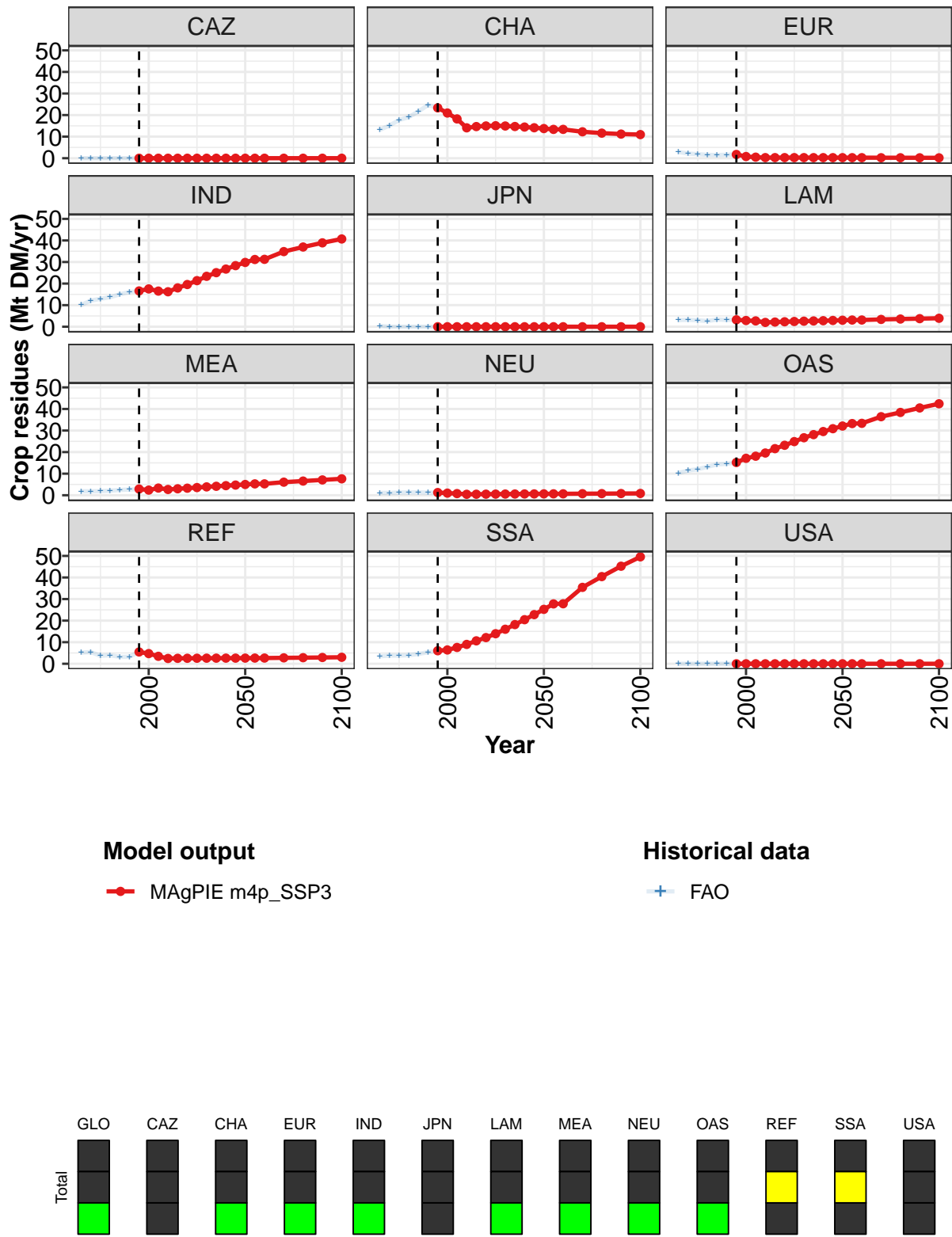


Figure 151: MAgPIE m4p_SSP3 — Demand—Material—Crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	76	74	71	67	73	79	85	91	96	102	107
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	23	21	18	14	15	15	15	15	15	14	14
EUR	2	1	0	0	0	0	0	0	0	0	0
IND	17	18	17	16	18	20	21	23	25	27	28
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	3	3	3	2	2	2	2	3	3	3	3
MEA	3	2	3	3	3	3	4	4	4	4	5
NEU	1	1	1	0	0	1	1	1	1	1	1
OAS	15	17	18	20	22	23	25	27	28	30	31
REF	5	5	3	2	3	3	3	3	3	3	3
SSA	6	6	8	9	11	12	14	16	18	20	23
USA	0	0	0	0	0	0	0	0	0	0	0

Table 452: MAgPIE m4p-SSP3 — Demand—Material—Crop residues (Mt DM/yr) [PART 1/2]

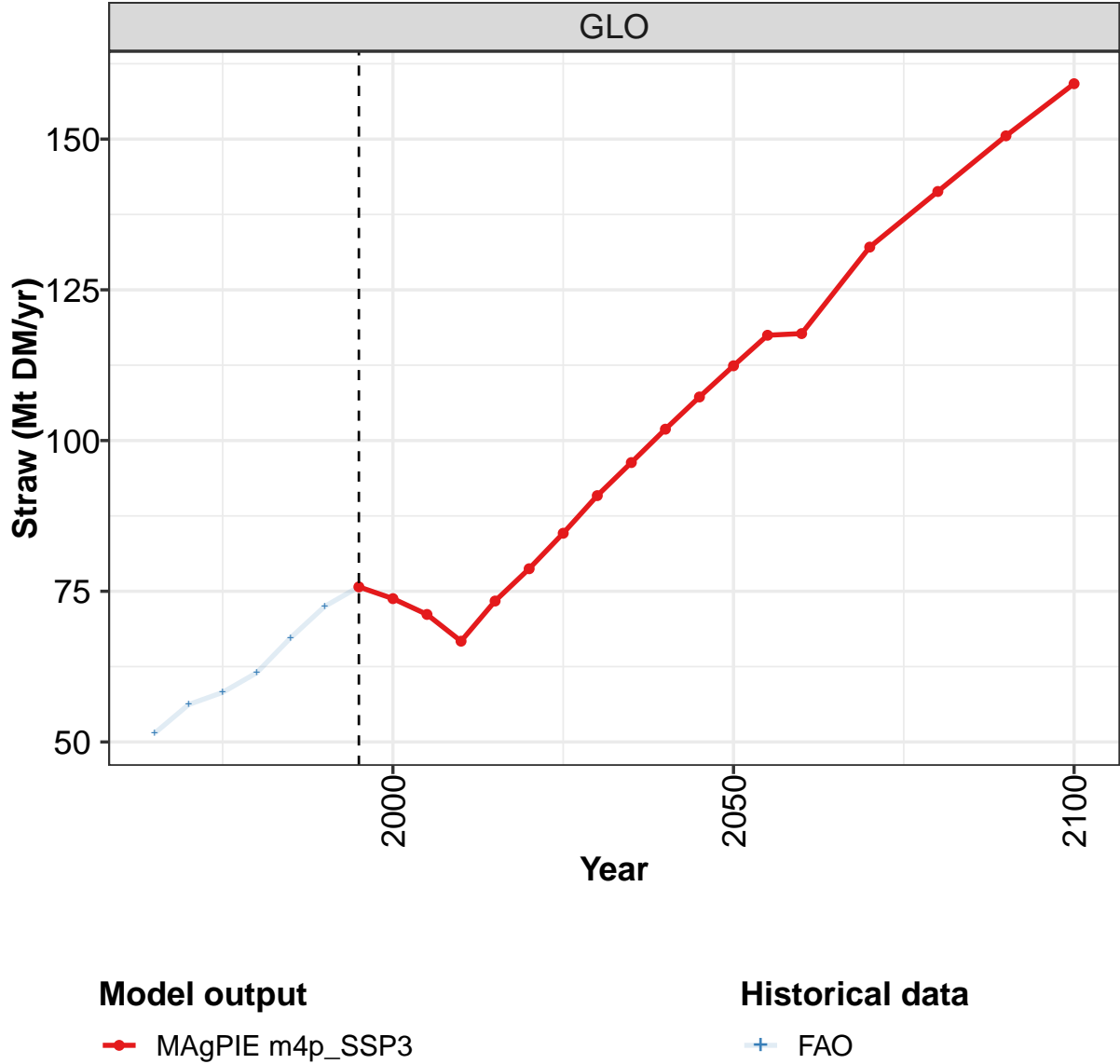
	2050	2055	2060	2070	2080	2090	2100
GLO	112	117	118	132	141	151	159
CAZ	0	0	0	0	0	0	0
CHA	14	13	13	12	12	11	11
EUR	0	0	0	0	0	0	0
IND	30	31	31	35	37	39	41
JPN	0	0	0	0	0	0	0
LAM	3	3	3	3	4	4	4
MEA	5	5	5	6	7	7	8
NEU	1	1	1	1	1	1	1
OAS	32	33	33	36	38	40	42
REF	3	3	3	3	3	3	3
SSA	25	28	28	35	40	45	50
USA	0	0	0	0	0	0	0

Table 453: MAgPIE m4p-SSP3 — Demand—Material—Crop residues (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	51.4	56.2	58.2	61.5	67.3	72.5	75.7	73.8	71.2	66.7
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	13.2	15.1	17.7	19.1	21.7	24.7	23.3	21.0	18.2	14.1
EUR	2.9	2.1	1.9	1.5	1.5	1.6	1.7	0.8	0.5	0.3
IND	10.1	12.1	12.9	13.7	15.0	16.1	16.6	17.5	16.5	16.2
JPN	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.1	3.2	3.0	2.6	3.4	3.1	3.2	2.9	2.7	2.0
MEA	1.8	1.8	1.9	2.1	2.5	2.6	2.9	2.4	3.3	2.7
NEU	1.1	1.1	1.3	1.3	1.3	1.2	1.3	1.0	0.8	0.4
OAS	10.3	11.5	12.1	13.2	14.3	14.6	15.2	17.1	18.1	19.6
REF	5.2	5.4	3.7	4.0	3.2	3.2	5.5	4.7	3.5	2.5
SSA	3.5	3.8	3.8	4.0	4.5	5.4	6.0	6.4	7.6	9.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 454: FAO — Demand—Material—Crop residues (Mt DM/yr)

8.1.1 Straw



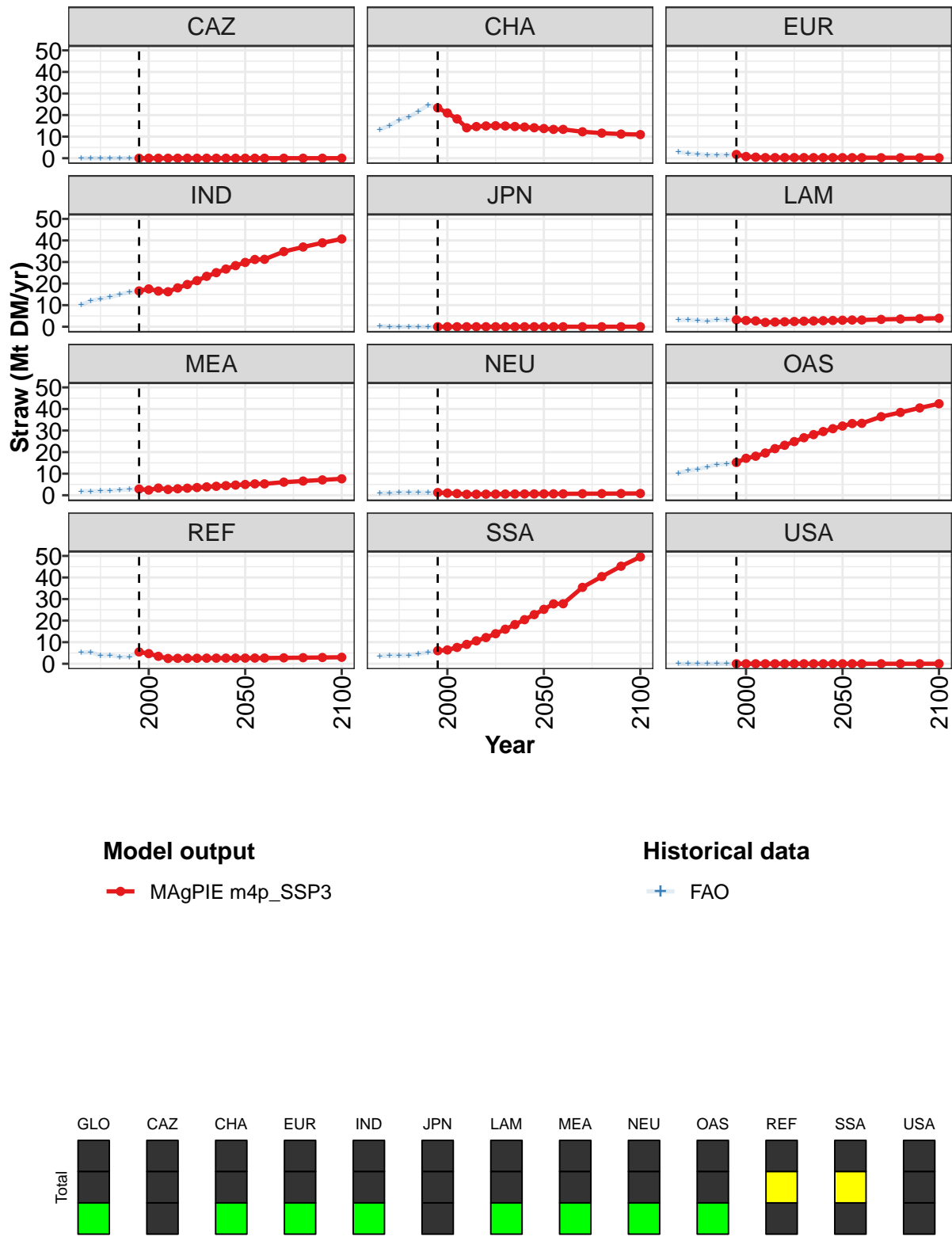


Figure 152: MAgPIE m4p_SSP3 — Demand—Material—Crop residues—Straw (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	76	74	71	67	73	79	85	91	96	102	107
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	23	21	18	14	15	15	15	15	15	14	14
EUR	2	1	0	0	0	0	0	0	0	0	0
IND	17	18	17	16	18	20	21	23	25	27	28
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	3	3	3	2	2	2	2	3	3	3	3
MEA	3	2	3	3	3	3	4	4	4	4	5
NEU	1	1	1	0	0	1	1	1	1	1	1
OAS	15	17	18	20	22	23	25	27	28	30	31
REF	5	5	3	2	3	3	3	3	3	3	3
SSA	6	6	8	9	11	12	14	16	18	20	23
USA	0	0	0	0	0	0	0	0	0	0	0

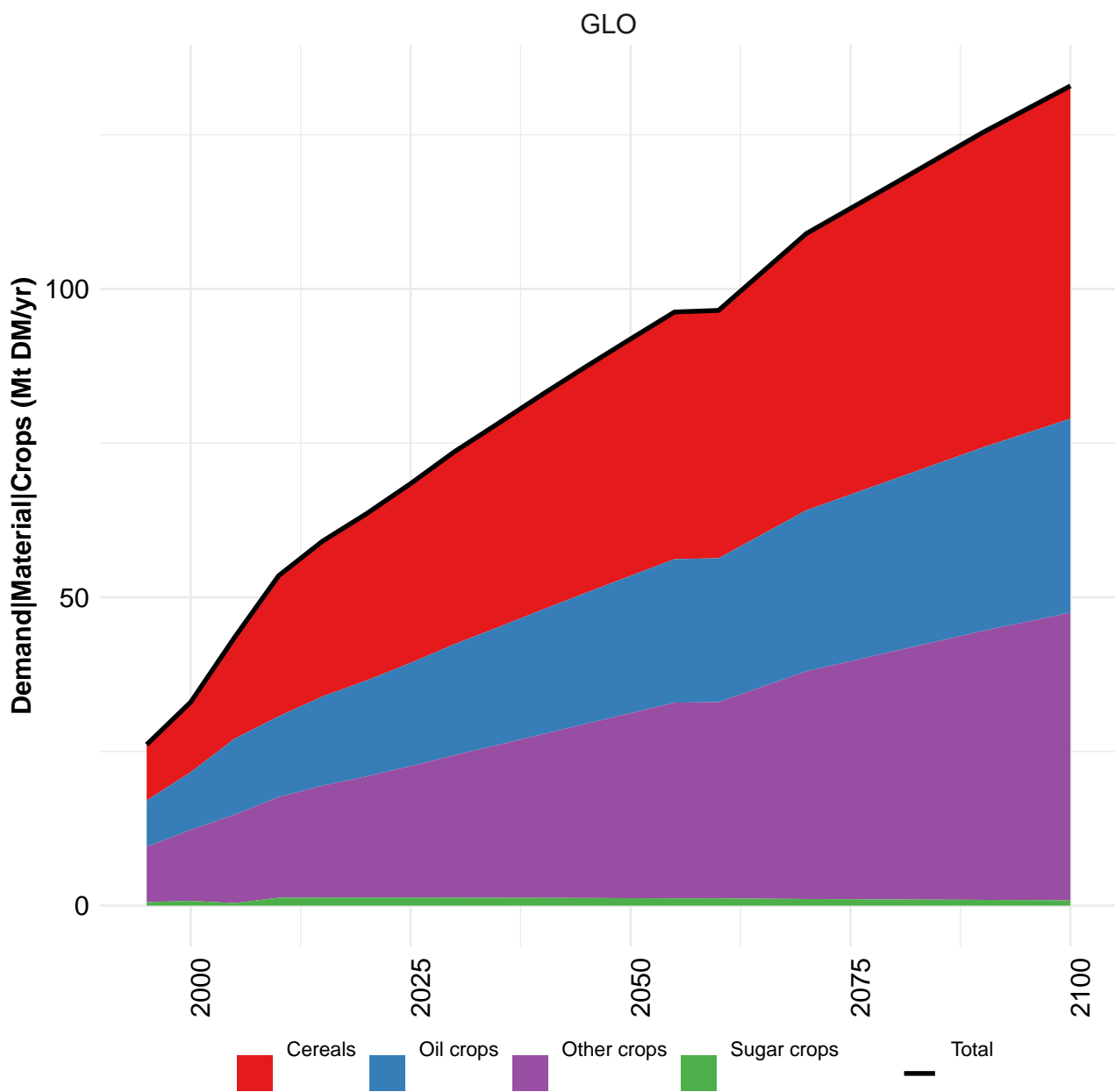
Table 455: MAgPIE m4p-SSP3 — Demand—Material—Crop residues—Straw (Mt DM/yr) [PART 1/2]

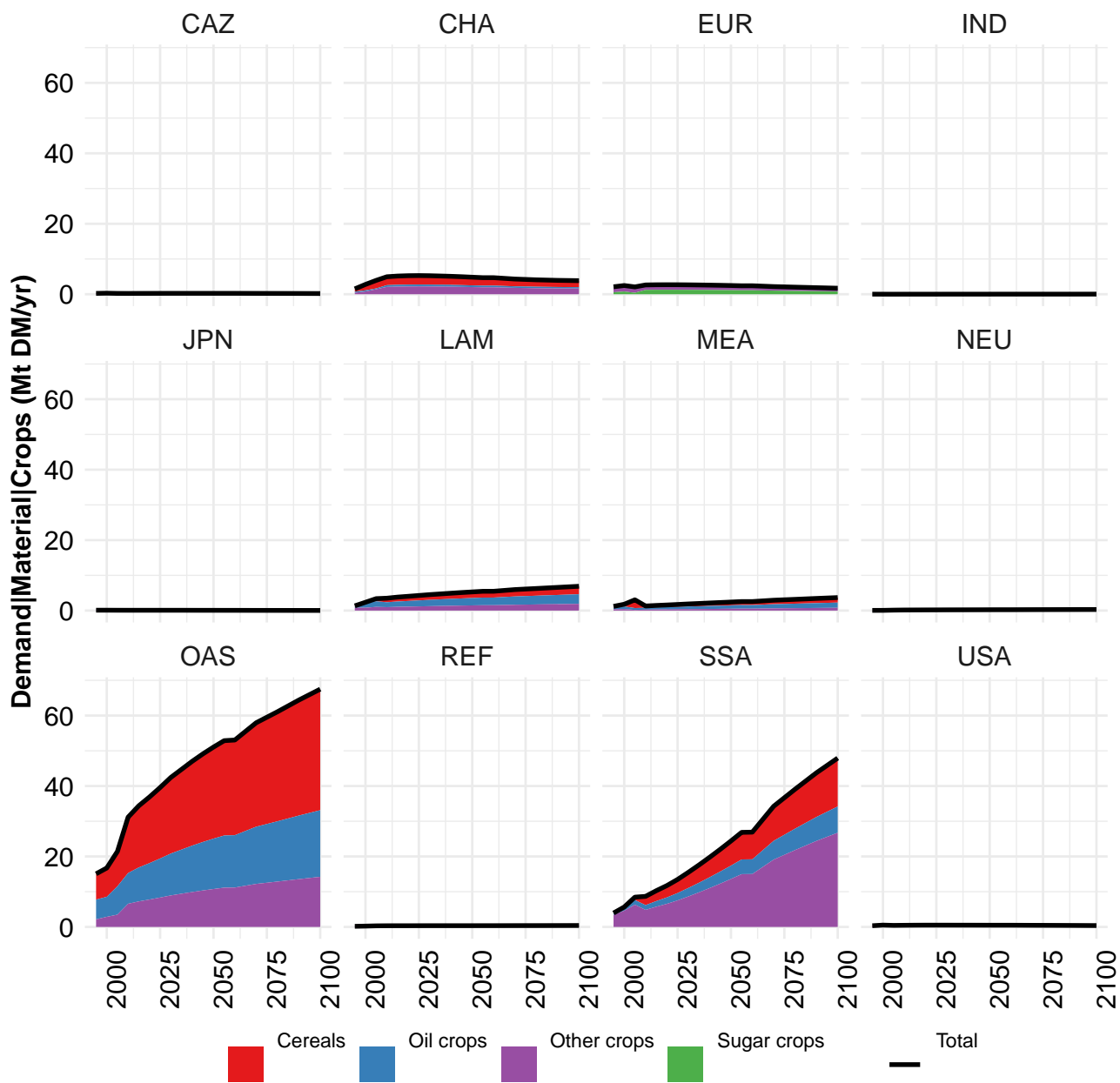
	2050	2055	2060	2070	2080	2090	2100
GLO	112	117	118	132	141	151	159
CAZ	0	0	0	0	0	0	0
CHA	14	13	13	12	12	11	11
EUR	0	0	0	0	0	0	0
IND	30	31	31	35	37	39	41
JPN	0	0	0	0	0	0	0
LAM	3	3	3	3	4	4	4
MEA	5	5	5	6	7	7	8
NEU	1	1	1	1	1	1	1
OAS	32	33	33	36	38	40	42
REF	3	3	3	3	3	3	3
SSA	25	28	28	35	40	45	50
USA	0	0	0	0	0	0	0

Table 456: MAgPIE m4p-SSP3 — Demand—Material—Crop residues—Straw (Mt DM/yr) [PART 2/2]

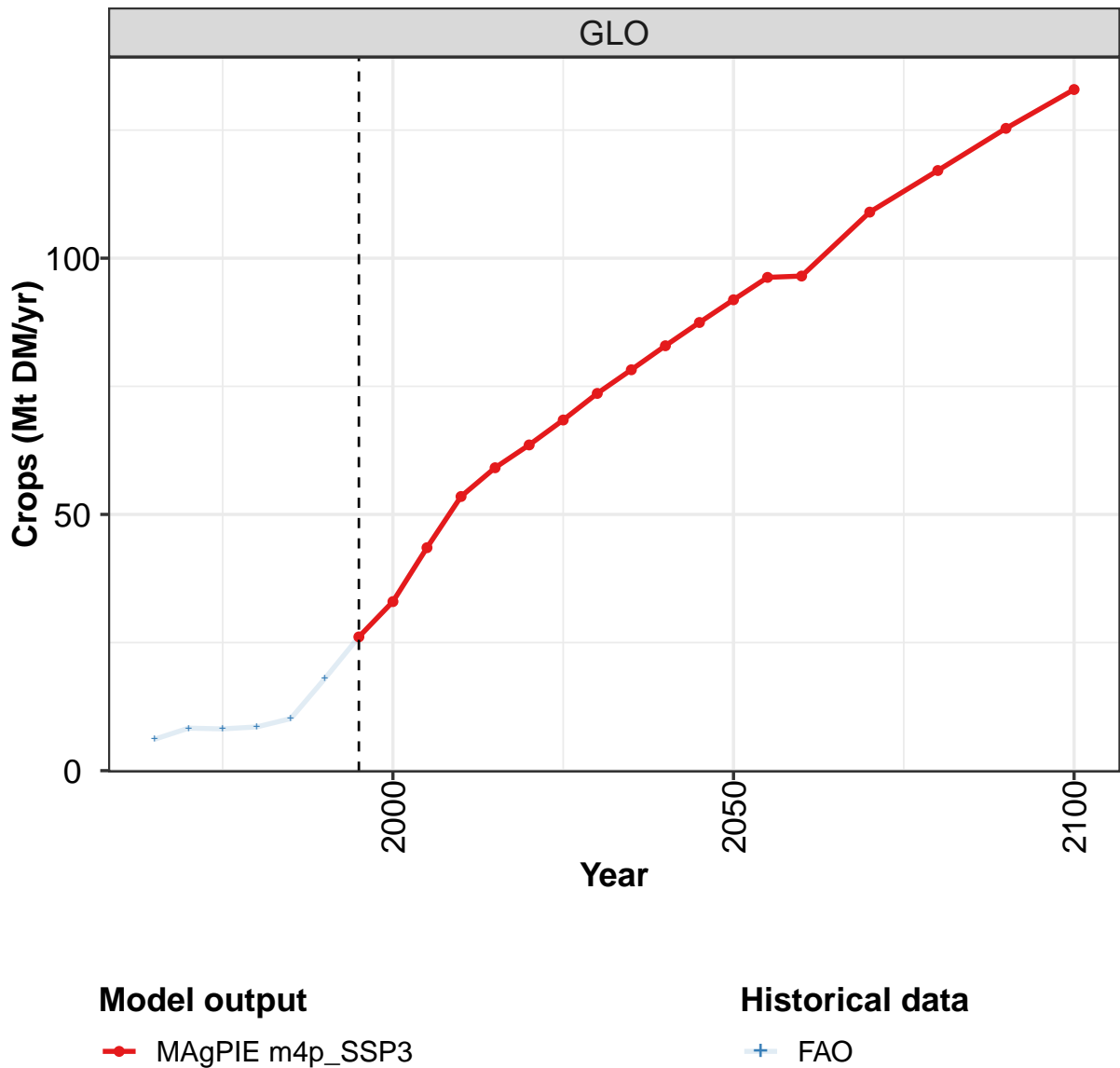
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	51.4	56.2	58.2	61.5	67.3	72.5	75.7	73.8	71.2	66.7
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	13.2	15.1	17.7	19.1	21.7	24.7	23.3	21.0	18.2	14.1
EUR	2.9	2.1	1.9	1.5	1.5	1.6	1.7	0.8	0.5	0.3
IND	10.1	12.1	12.9	13.7	15.0	16.1	16.6	17.5	16.5	16.2
JPN	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.1	3.2	3.0	2.6	3.4	3.1	3.2	2.9	2.7	2.0
MEA	1.8	1.8	1.9	2.1	2.5	2.6	2.9	2.4	3.3	2.7
NEU	1.1	1.1	1.3	1.3	1.3	1.2	1.3	1.0	0.8	0.4
OAS	10.3	11.5	12.1	13.2	14.3	14.6	15.2	17.1	18.1	19.6
REF	5.2	5.4	3.7	4.0	3.2	3.2	5.5	4.7	3.5	2.5
SSA	3.5	3.8	3.8	4.0	4.5	5.4	6.0	6.4	7.6	9.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 457: FAO — Demand—Material—Crop residues—Straw (Mt DM/yr)





8.2 Crops



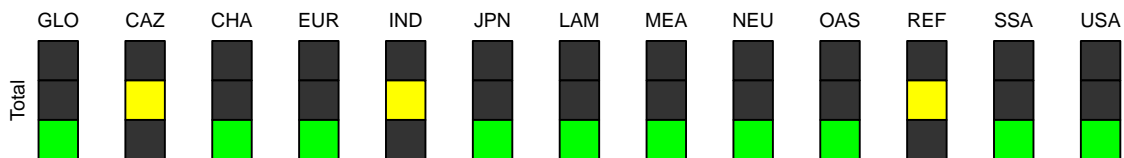
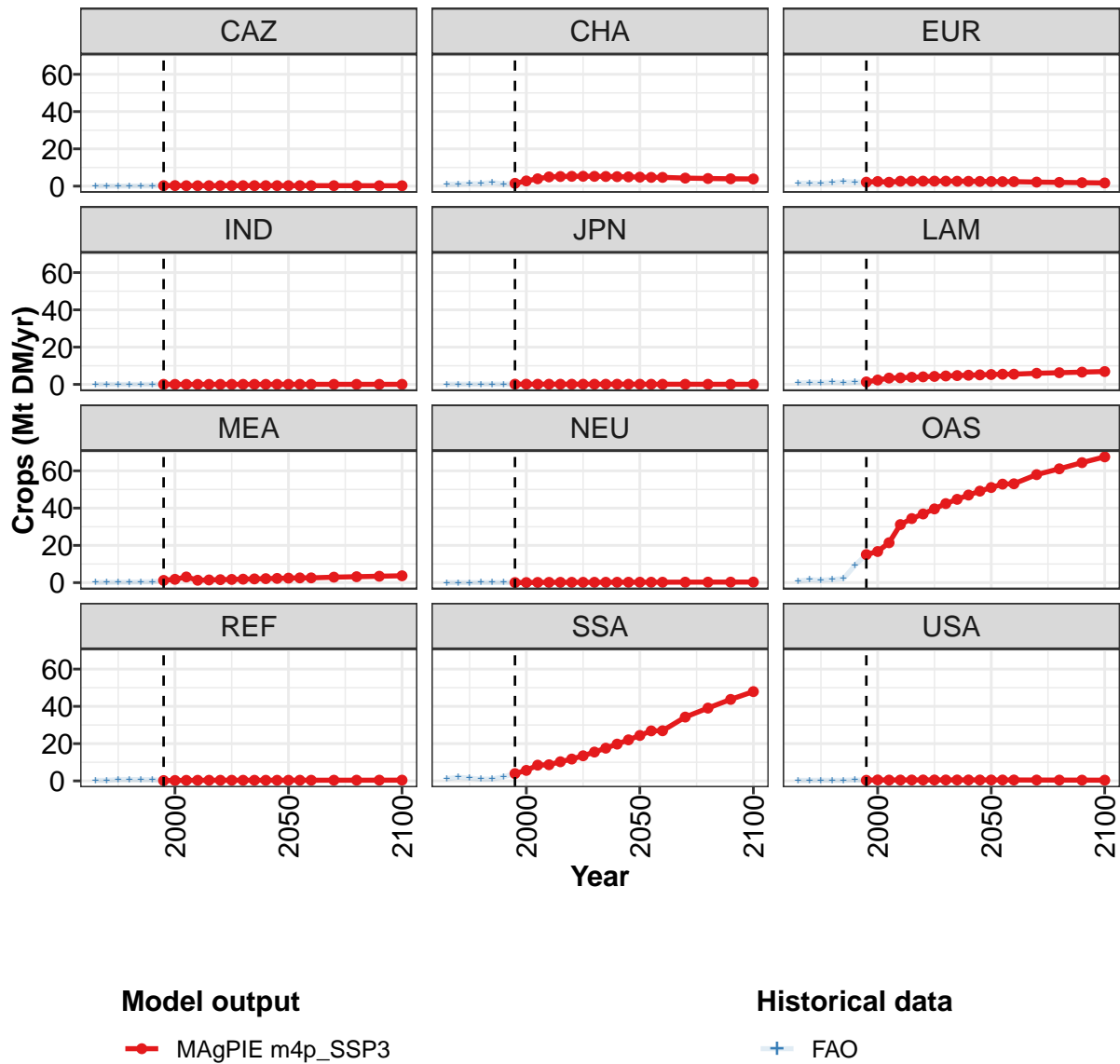


Figure 153: MAGPIE m4p_SSP3 — Demand—Material—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	26	33	44	54	59	64	68	74	78	83	87
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	2	3	4	5	5	5	5	5	5	5	5
EUR	2	2	2	3	3	3	3	3	3	3	3
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1	2	3	4	4	4	4	5	5	5	5
MEA	1	2	3	1	1	2	2	2	2	2	2
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	15	17	21	31	34	37	40	42	45	47	49
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	4	6	8	9	10	12	13	15	18	20	22
USA	0	1	0	0	0	0	1	1	0	0	0

Table 458: MAgPIE m4p_SSP3 — Demand—Material—Crops (Mt DM/yr) [PART 1/2]

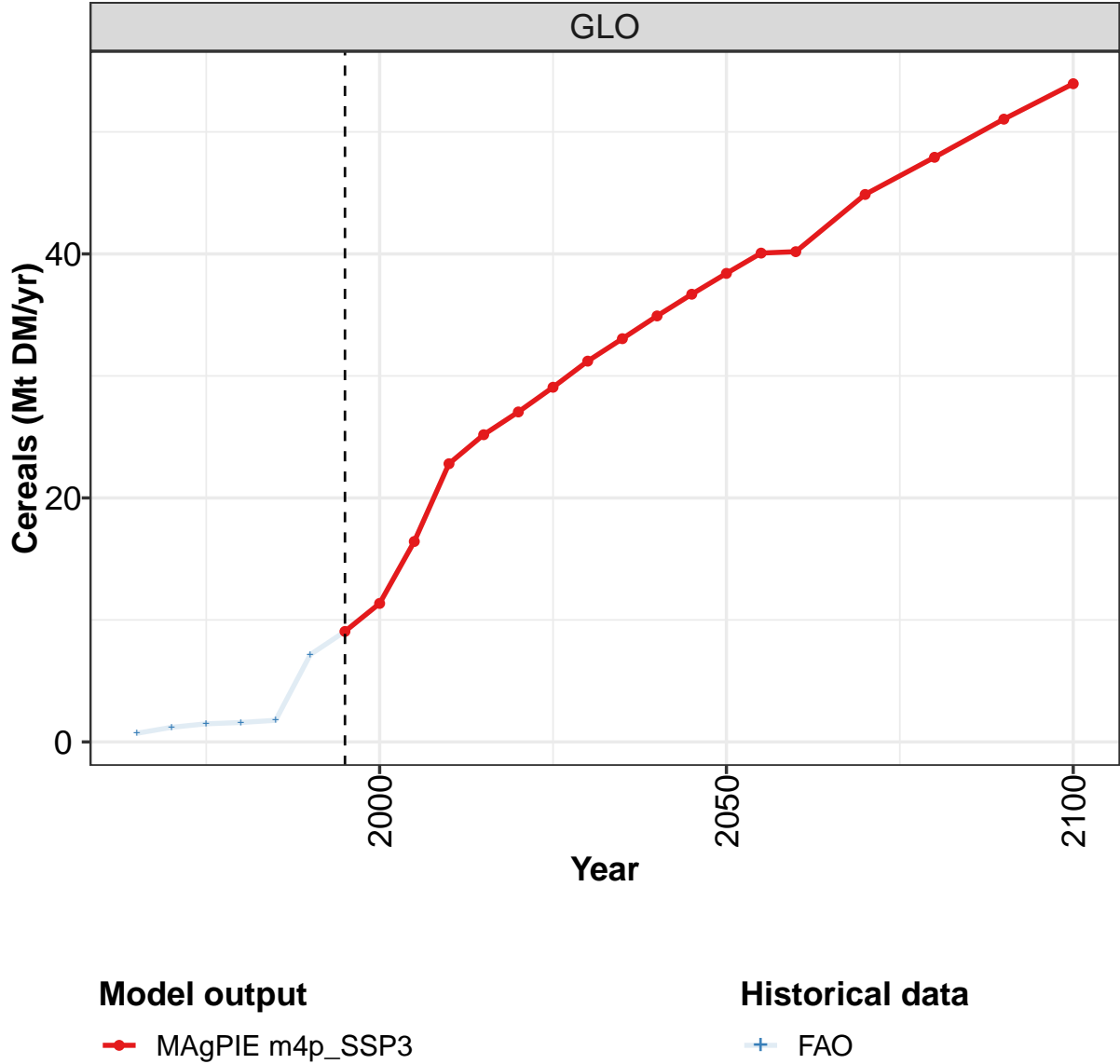
	2050	2055	2060	2070	2080	2090	2100
GLO	92	96	97	109	117	125	133
CAZ	0	0	0	0	0	0	0
CHA	5	5	5	4	4	4	4
EUR	2	2	2	2	2	2	2
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	5	5	5	6	6	7	7
MEA	2	3	3	3	3	3	4
NEU	0	0	0	0	0	0	0
OAS	51	53	53	58	61	64	67
REF	0	0	0	0	0	0	0
SSA	24	27	27	34	39	44	48
USA	0	0	0	0	0	0	0

Table 459: MAgPIE m4p_SSP3 — Demand—Material—Crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	6.1	8.3	8.2	8.5	10.2	18.0	26.1	33.0	43.5	53.5
CAZ	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.2	0.2
CHA	1.0	1.1	1.3	1.4	1.9	1.1	1.5	2.8	3.9	5.0
EUR	1.5	1.6	1.5	1.8	2.5	2.1	2.1	2.5	2.1	2.6
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.7	1.1	1.0	1.2	0.8	1.2	1.3	2.4	3.4	3.5
MEA	0.1	0.1	0.3	0.3	0.4	0.5	1.2	1.8	3.1	1.3
NEU	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.2
OAS	0.8	1.6	1.3	1.7	2.2	9.3	15.1	16.7	21.4	31.2
REF	0.3	0.3	0.7	0.7	0.7	0.7	0.2	0.2	0.3	0.3
SSA	1.2	2.0	1.5	1.0	1.0	2.3	3.9	5.6	8.5	8.7
USA	0.3	0.3	0.4	0.3	0.3	0.6	0.3	0.5	0.4	0.5

Table 460: FAO — Demand—Material—Crops (Mt DM/yr)

8.2.1 Cereals



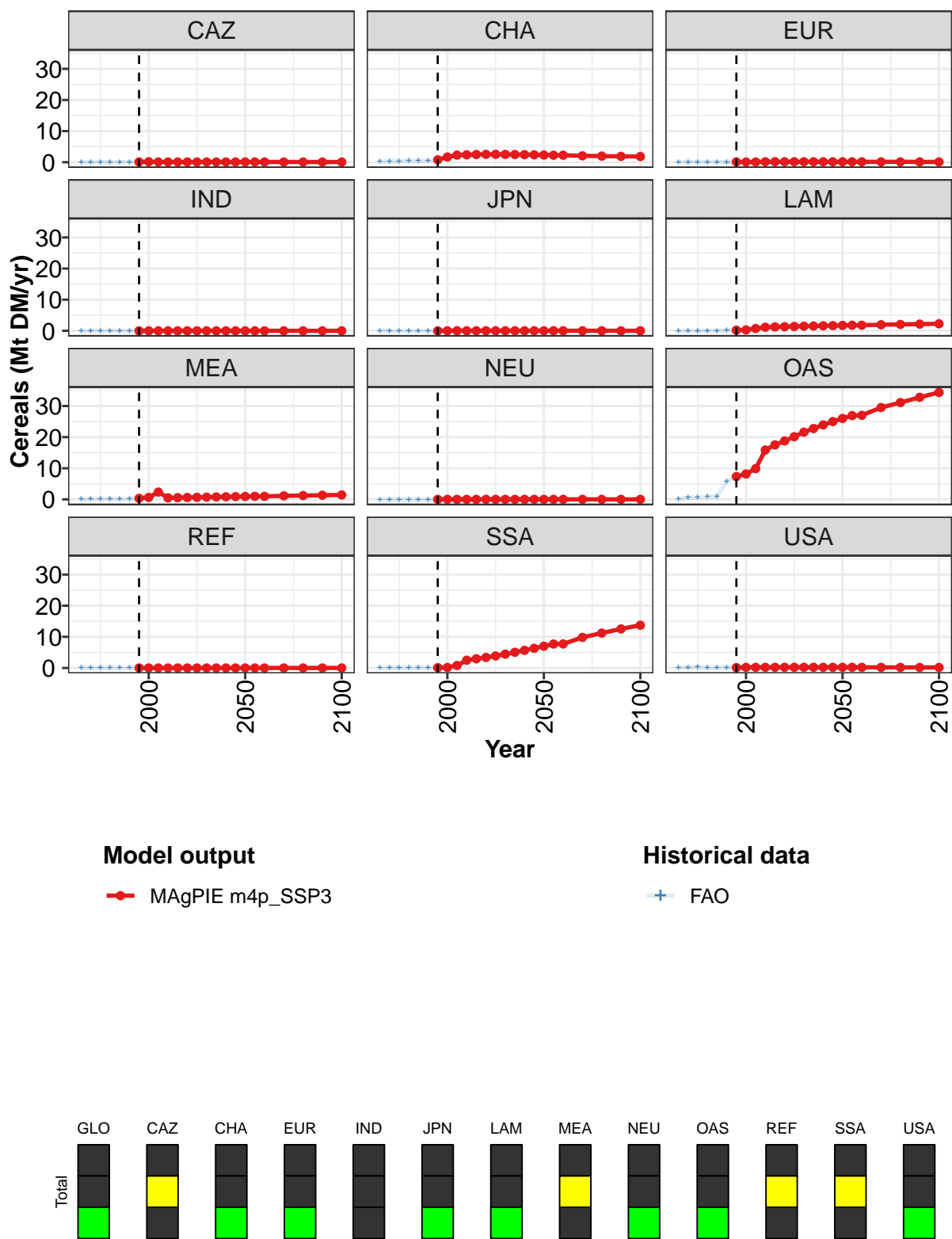


Figure 154: MAgPIE m4p_SSP3 — Demand—Material—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9.1	11.4	16.4	22.8	25.2	27.0	29.1	31.2	33.1	34.9	36.7
CAZ	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.8	1.7	2.3	2.4	2.5	2.5	2.5	2.5	2.5	2.4	2.4
EUR	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.3	0.7	1.1	1.3	1.3	1.4	1.5	1.5	1.6	1.7
MEA	0.3	0.6	2.3	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	7.3	8.2	9.9	15.9	17.5	18.8	20.1	21.6	22.8	23.9	25.0
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.1	0.1	0.8	2.5	2.9	3.4	3.9	4.4	5.0	5.7	6.3
USA	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Table 461: MAgPIE m4p_SSP3 — Demand—Material—Crops—Cereals (Mt DM/yr) [PART 1/2]

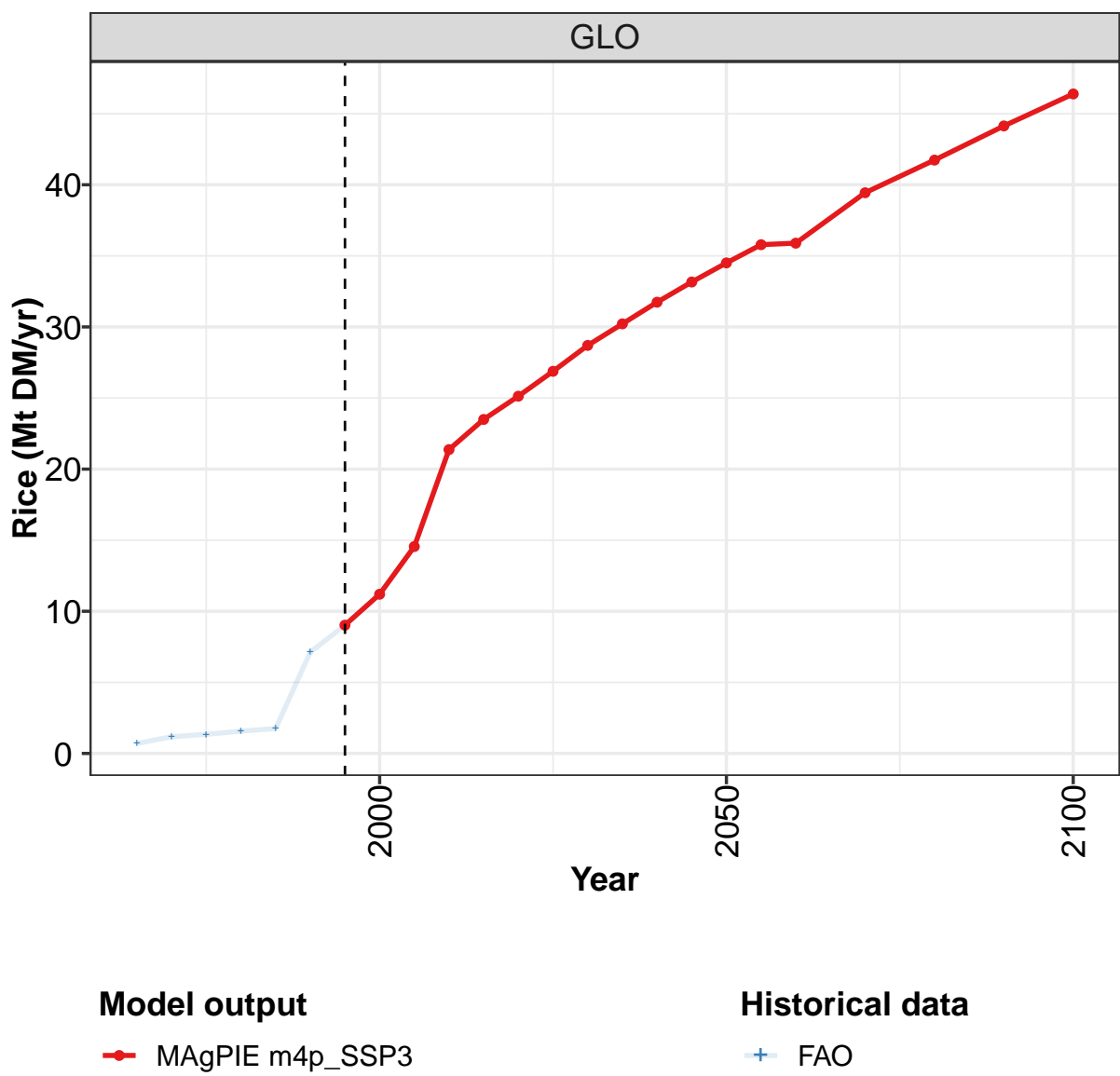
	2050	2055	2060	2070	2080	2090	2100
GLO	38.4	40.1	40.2	44.9	47.9	51.0	54.0
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	2.3	2.3	2.3	2.1	2.0	1.9	1.8
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.7	1.8	1.8	1.9	2.0	2.2	2.3
MEA	0.9	1.0	1.0	1.1	1.2	1.3	1.4
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	26.0	26.9	27.0	29.5	31.1	32.8	34.4
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	7.0	7.7	7.7	9.8	11.2	12.5	13.7
USA	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Table 462: MAgPIE m4p_SSP3 — Demand—Material—Crops—Cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.7	1.2	1.5	1.6	1.8	7.2	9.1	11.4	16.4	22.8
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1
CHA	0.3	0.3	0.4	0.4	0.5	0.5	0.8	1.7	2.3	2.4
EUR	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.7	1.1
MEA	0.1	0.1	0.2	0.2	0.1	0.2	0.3	0.6	2.3	0.5
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.2	0.5	0.6	0.8	0.8	5.9	7.3	8.2	9.9	15.9
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.8	2.5
USA	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2

Table 463: FAO — Demand—Material—Crops—Cereals (Mt DM/yr)

8.2.2 Cereals—Rice



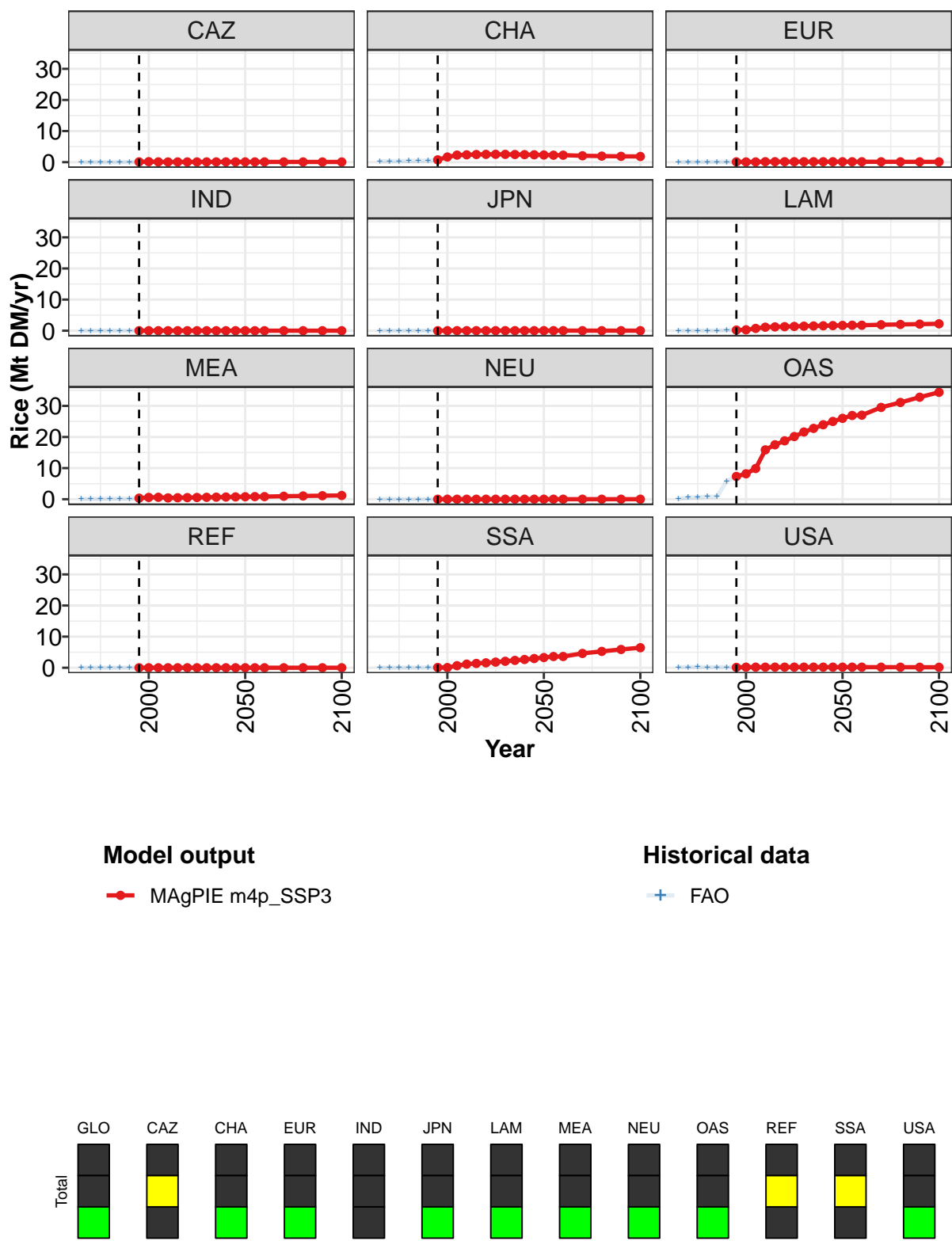


Figure 155: MAgPIE m4p_SSP3 — Demand—Material—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9.0	11.2	14.6	21.4	23.5	25.1	26.9	28.7	30.2	31.7	33.2
CAZ	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.8	1.7	2.3	2.4	2.5	2.5	2.5	2.5	2.5	2.4	2.4
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.3	0.7	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.6
MEA	0.3	0.6	0.6	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.7
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	7.3	8.2	9.9	15.9	17.5	18.8	20.1	21.6	22.8	23.9	25.0
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.1	0.1	0.7	1.2	1.4	1.6	1.8	2.1	2.4	2.7	3.0
USA	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Table 464: MAgPIE m4p_SSP3 — Demand—Material—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

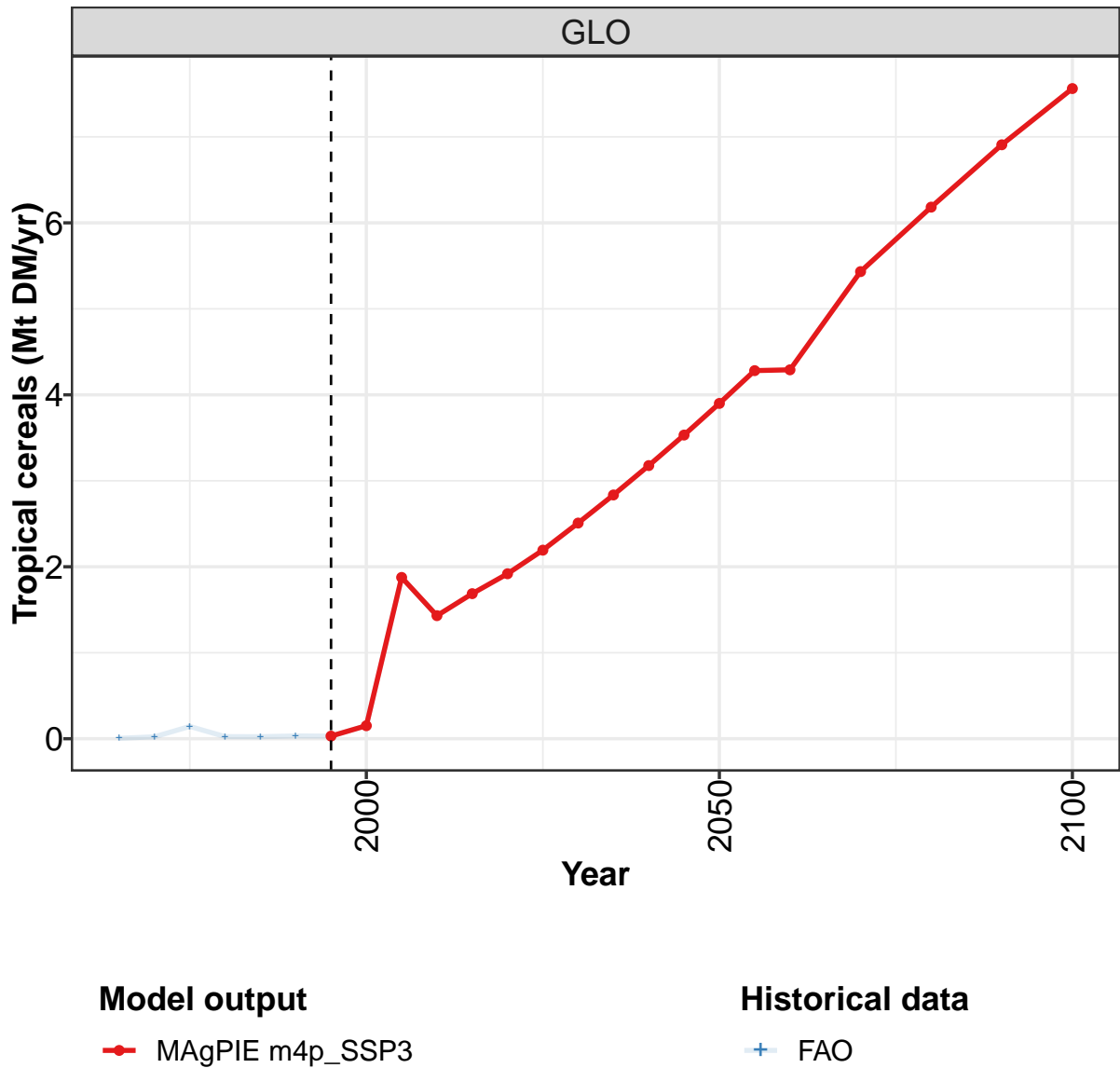
	2050	2055	2060	2070	2080	2090	2100
GLO	34.5	35.8	35.9	39.4	41.7	44.1	46.4
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	2.3	2.2	2.2	2.1	2.0	1.9	1.8
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.7	1.8	1.8	1.9	2.0	2.1	2.2
MEA	0.8	0.8	0.8	1.0	1.0	1.1	1.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	26.0	26.9	27.0	29.5	31.1	32.8	34.4
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	3.3	3.6	3.6	4.6	5.3	5.9	6.4
USA	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Table 465: MAgPIE m4p_SSP3 — Demand—Material—Crops—Cereals—Rice (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.7	1.2	1.3	1.6	1.7	7.1	9.0	11.2	14.6	21.4
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1
CHA	0.3	0.3	0.3	0.4	0.5	0.5	0.8	1.7	2.3	2.4
EUR	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.7	1.1
MEA	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.6	0.6	0.4
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.2	0.5	0.6	0.8	0.8	5.9	7.3	8.2	9.9	15.9
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.7	1.2
USA	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2

Table 466: FAO — Demand—Material—Crops—Cereals—Rice (Mt DM/yr)

8.2.3 Cereals—Tropical cereals



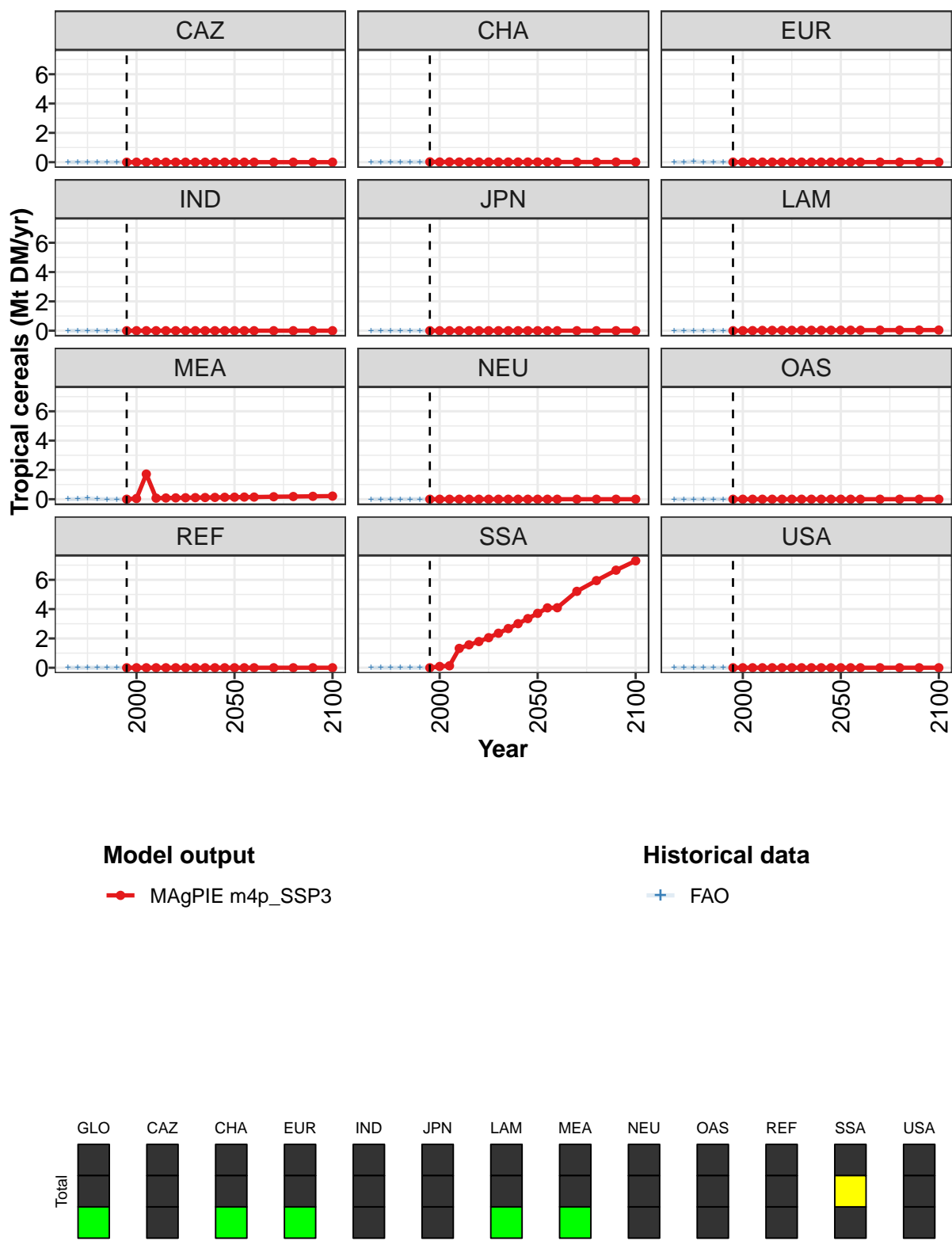


Figure 156: MAgPIE m4p_SSP3 — Demand—Material—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.03	0.15	1.88	1.43	1.69	1.92	2.19	2.51	2.84	3.18	3.53
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
EUR	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03
MEA	0.00	0.05	1.72	0.07	0.08	0.09	0.10	0.11	0.12	0.12	0.13
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.00	0.09	0.13	1.32	1.56	1.79	2.05	2.36	2.67	3.01	3.35
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 467: MAgPIE m4p_SSP3 — Demand—Material—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

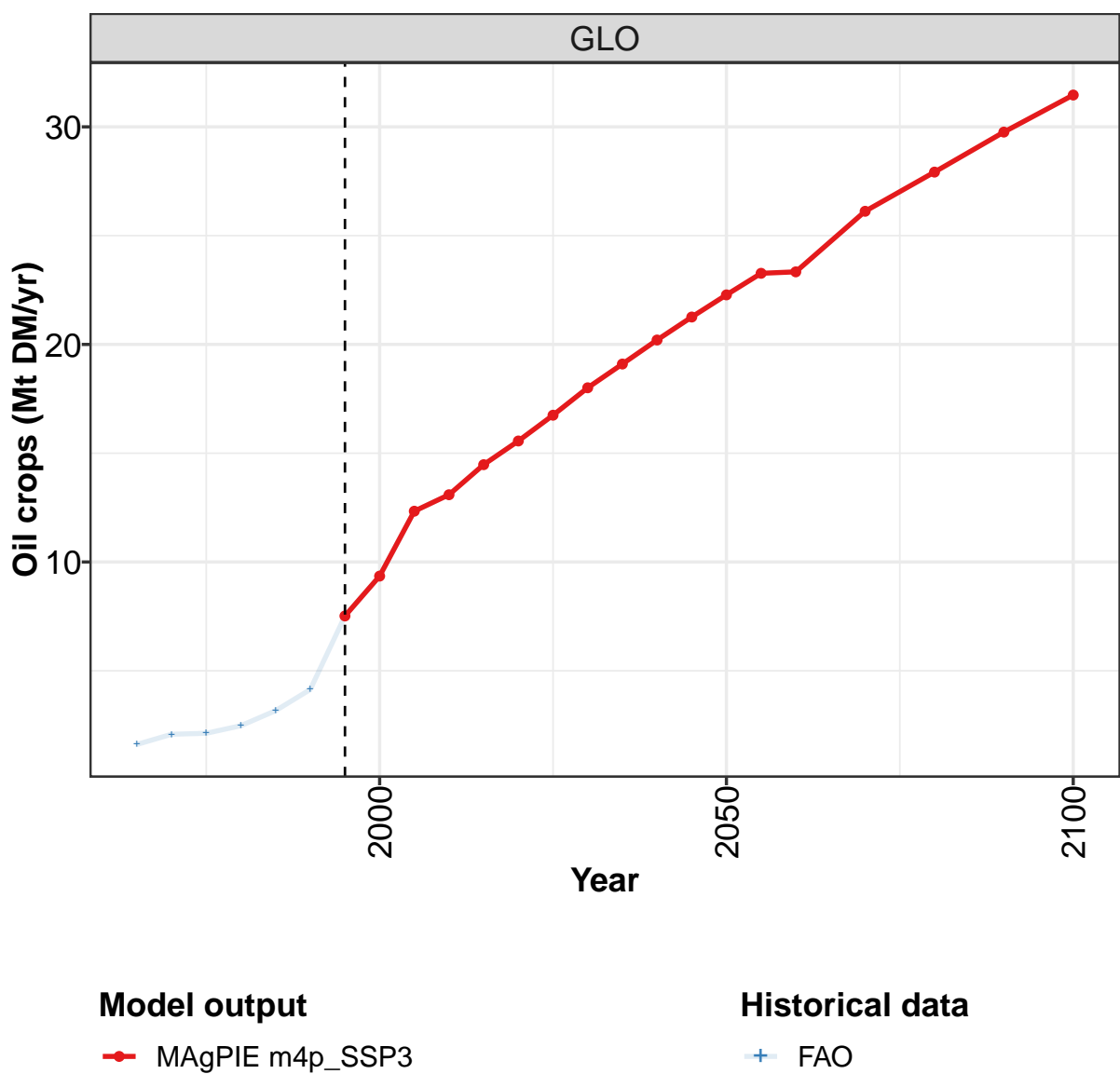
	2050	2055	2060	2070	2080	2090	2100
GLO	3.90	4.28	4.29	5.43	6.18	6.91	7.56
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.01	0.01	0.01	0.01	0.01	0.01	0.01
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.03	0.03	0.03	0.04	0.04	0.04	0.04
MEA	0.14	0.15	0.15	0.17	0.18	0.20	0.21
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	3.71	4.09	4.10	5.21	5.95	6.66	7.30
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 468: MAgPIE m4p_SSP3 — Demand—Material—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.02	0.14	0.02	0.02	0.03	0.03	0.15	1.88	1.43
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.02	0.01	0.02	0.03	0.02	0.01	0.02	0.01
EUR	0.00	0.00	0.06	0.00	0.00	0.01	0.01	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02
MEA	0.00	0.02	0.07	0.01	0.00	0.00	0.00	0.05	1.72	0.07
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.13	1.32
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 469: FAO — Demand—Material—Crops—Cereals—Tropical cereals (Mt DM/yr)

8.2.4 Oil crops



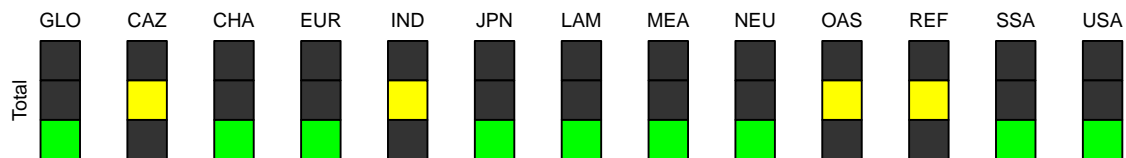
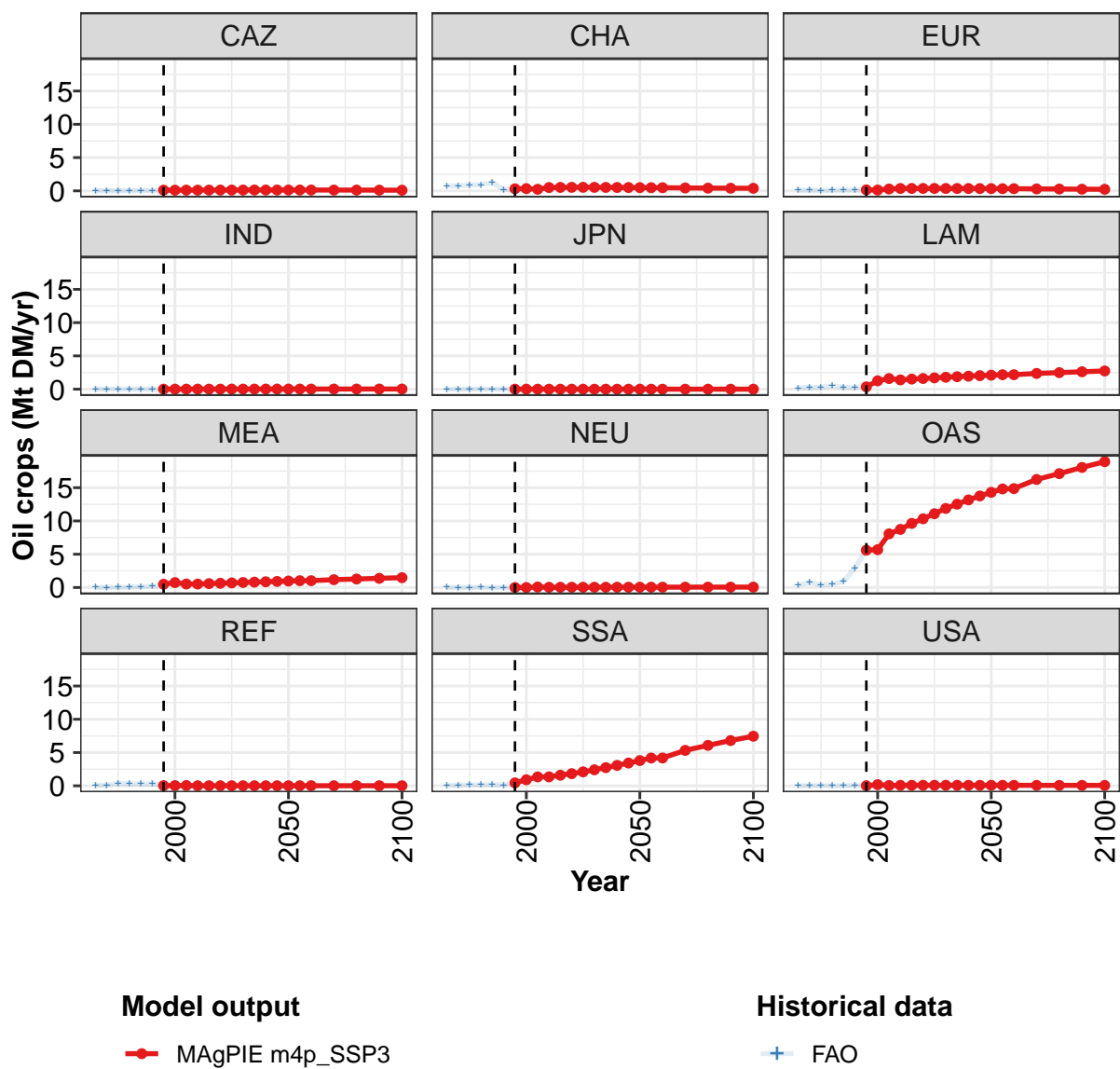


Figure 157: MAGPIE m4p_SSP3 — Demand—Material—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.5	9.4	12.3	13.1	14.5	15.6	16.7	18.0	19.1	20.2	21.3
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.3	0.3	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
EUR	0.2	0.1	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.4	1.3	1.6	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.0
MEA	0.5	0.7	0.5	0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.9
NEU	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	5.6	5.7	8.1	8.7	9.6	10.3	11.1	11.9	12.5	13.2	13.8
REF	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.4	0.9	1.3	1.3	1.6	1.8	2.1	2.4	2.7	3.1	3.4
USA	0.0	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 470: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops (Mt DM/yr) [PART 1/2]

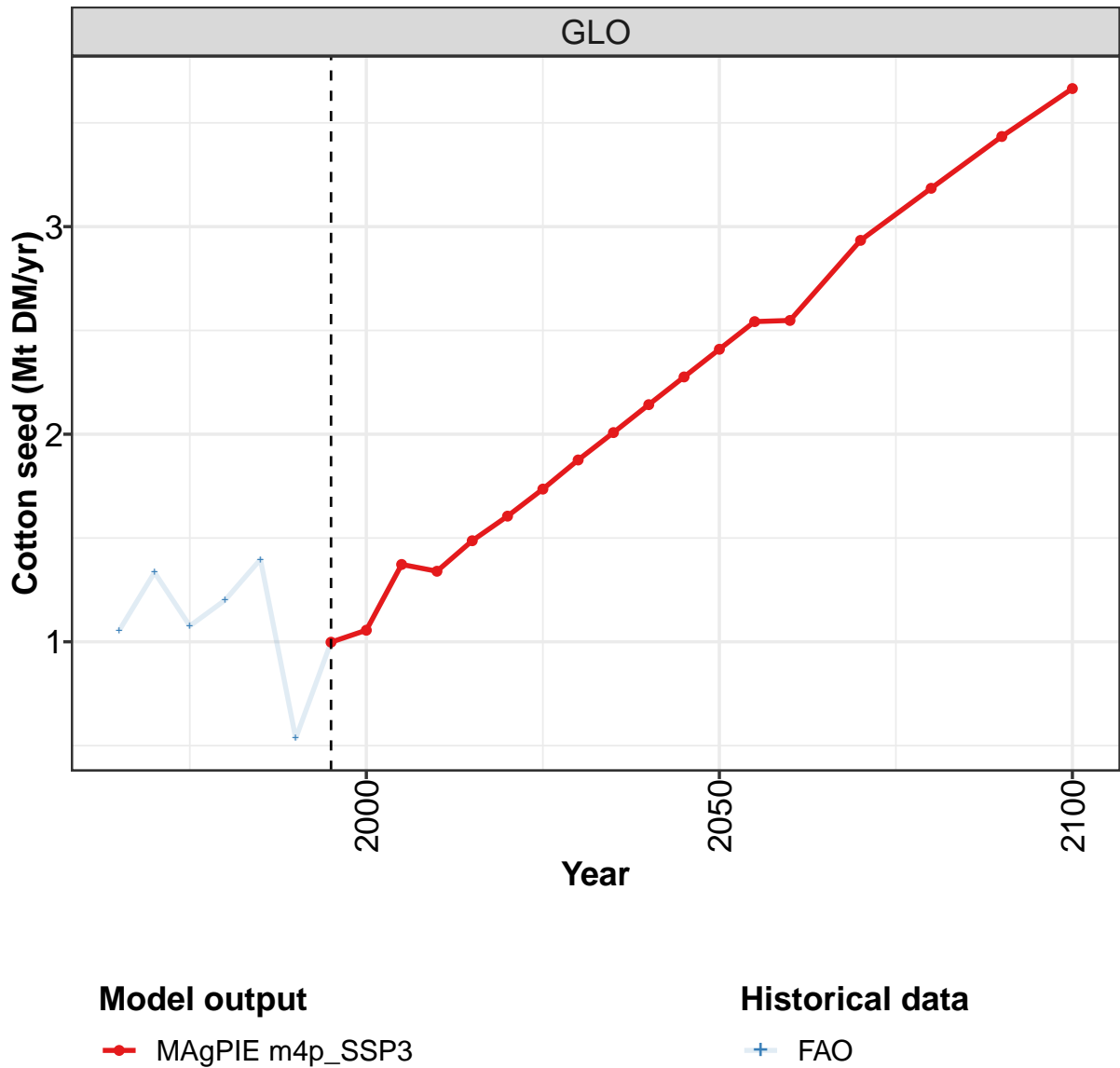
	2050	2055	2060	2070	2080	2090	2100
GLO	22.3	23.3	23.3	26.1	27.9	29.8	31.5
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.5	0.5	0.5	0.4	0.4	0.4	0.4
EUR	0.3	0.3	0.3	0.3	0.3	0.3	0.2
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	2.1	2.2	2.2	2.4	2.5	2.6	2.7
MEA	1.0	1.0	1.0	1.2	1.3	1.4	1.5
NEU	0.0	0.0	0.0	0.1	0.1	0.1	0.1
OAS	14.3	14.8	14.9	16.2	17.1	18.0	18.9
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	3.8	4.2	4.2	5.3	6.1	6.8	7.5
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 471: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.6	2.1	2.1	2.5	3.2	4.1	7.5	9.4	12.3	13.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
CHA	0.7	0.8	0.9	0.9	1.3	0.2	0.3	0.3	0.2	0.5
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.4
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.3	0.3	0.5	0.3	0.3	0.4	1.3	1.6	1.4
MEA	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.7	0.5	0.5
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
OAS	0.4	0.7	0.4	0.5	0.9	2.9	5.6	5.7	8.1	8.7
REF	0.1	0.1	0.4	0.3	0.3	0.3	0.0	0.0	0.1	0.0
SSA	0.1	0.1	0.1	0.1	0.2	0.1	0.4	0.9	1.3	1.3
USA	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.1

Table 472: FAO — Demand—Material—Crops—Oil crops (Mt DM/yr)

8.2.5 Oil crops—Cotton seed



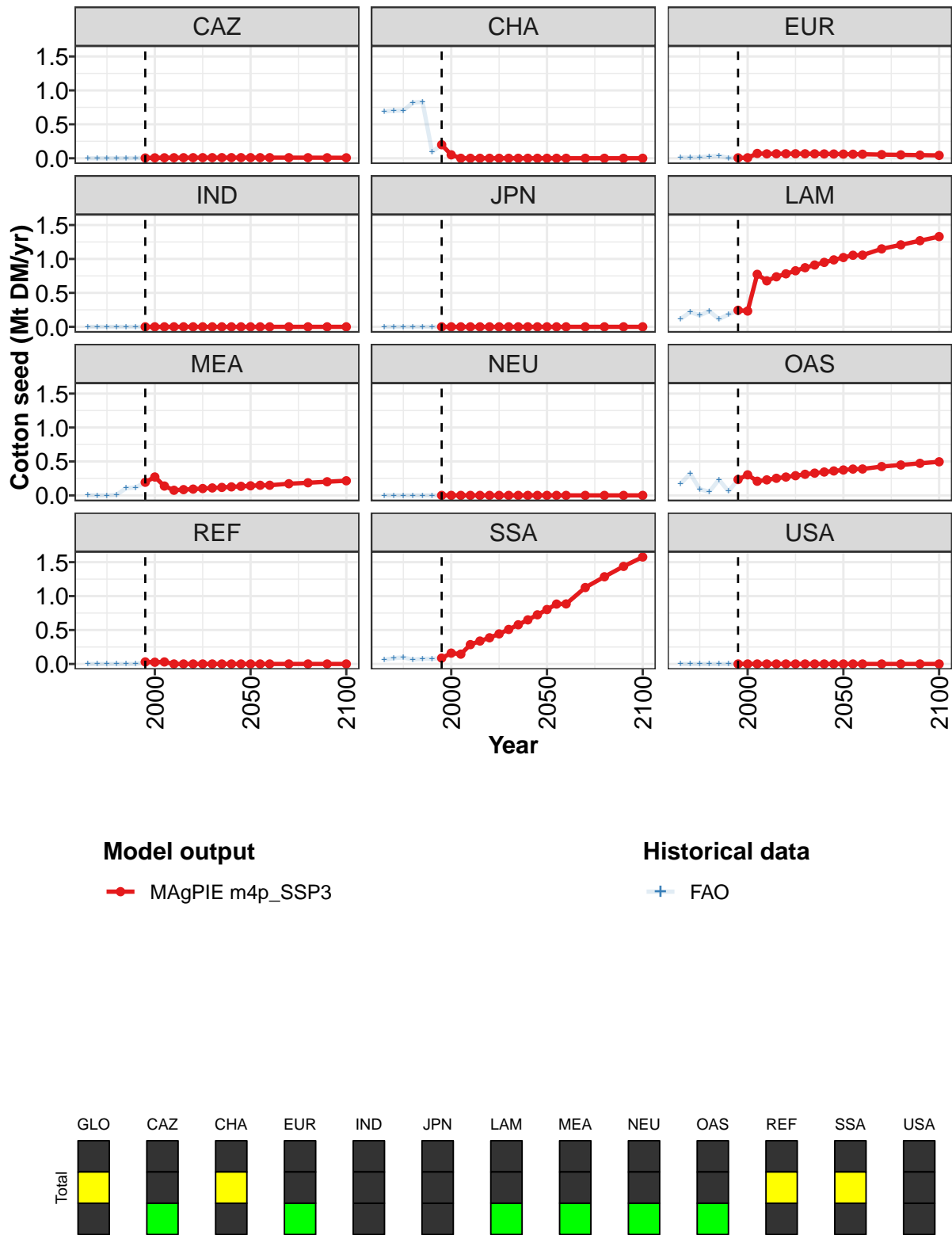


Figure 158: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.00	1.06	1.37	1.34	1.49	1.61	1.74	1.88	2.01	2.14	2.28
CAZ	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CHA	0.20	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.01	0.01	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.24	0.23	0.77	0.68	0.74	0.78	0.83	0.87	0.91	0.95	0.99
MEA	0.19	0.27	0.14	0.08	0.09	0.09	0.10	0.11	0.12	0.13	0.13
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.23	0.30	0.21	0.23	0.25	0.27	0.29	0.31	0.33	0.34	0.36
REF	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.09	0.16	0.14	0.29	0.34	0.39	0.44	0.51	0.58	0.65	0.72
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 473: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

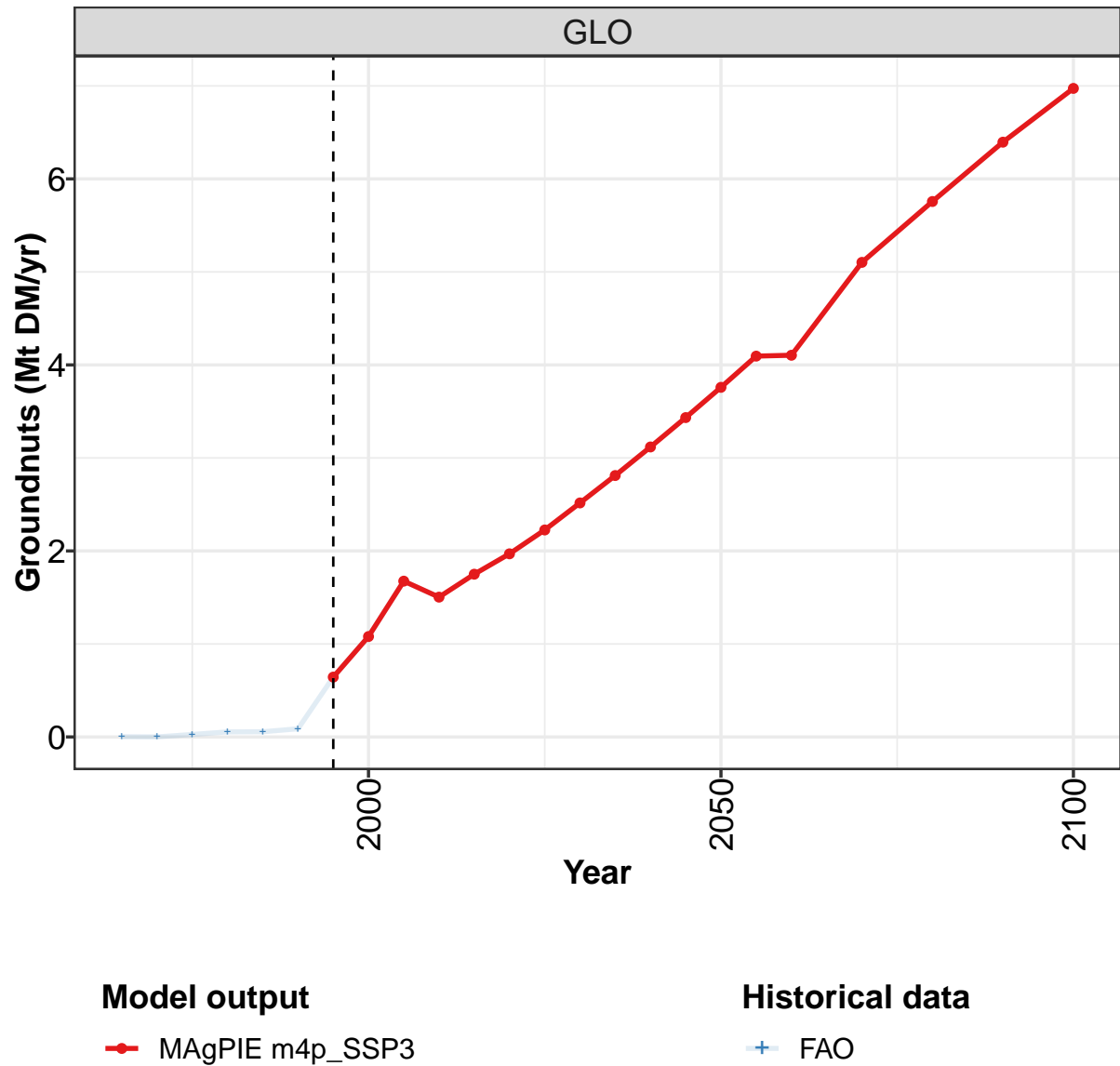
	2050	2055	2060	2070	2080	2090	2100
GLO	2.41	2.54	2.55	2.93	3.18	3.43	3.67
CAZ	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.06	0.06	0.06	0.05	0.05	0.05	0.04
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	1.02	1.05	1.06	1.15	1.21	1.27	1.33
MEA	0.14	0.15	0.15	0.17	0.19	0.20	0.22
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.37	0.39	0.39	0.43	0.45	0.47	0.50
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.80	0.88	0.88	1.13	1.28	1.44	1.58
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 474: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.05	1.33	1.08	1.20	1.40	0.54	1.00	1.06	1.37	1.34
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
CHA	0.69	0.70	0.70	0.82	0.83	0.09	0.20	0.05	0.00	0.00
EUR	0.01	0.01	0.01	0.03	0.04	0.00	0.01	0.01	0.07	0.07
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.12	0.22	0.17	0.23	0.11	0.18	0.24	0.23	0.77	0.68
MEA	0.00	0.00	0.00	0.01	0.11	0.12	0.19	0.27	0.14	0.08
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.17	0.32	0.09	0.05	0.23	0.06	0.23	0.30	0.21	0.23
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.00
SSA	0.06	0.09	0.10	0.06	0.08	0.08	0.09	0.16	0.14	0.29
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 475: FAO — Demand—Material—Crops—Oil crops—Cotton seed (Mt DM/yr)

8.2.6
Oil crops—Groundnuts



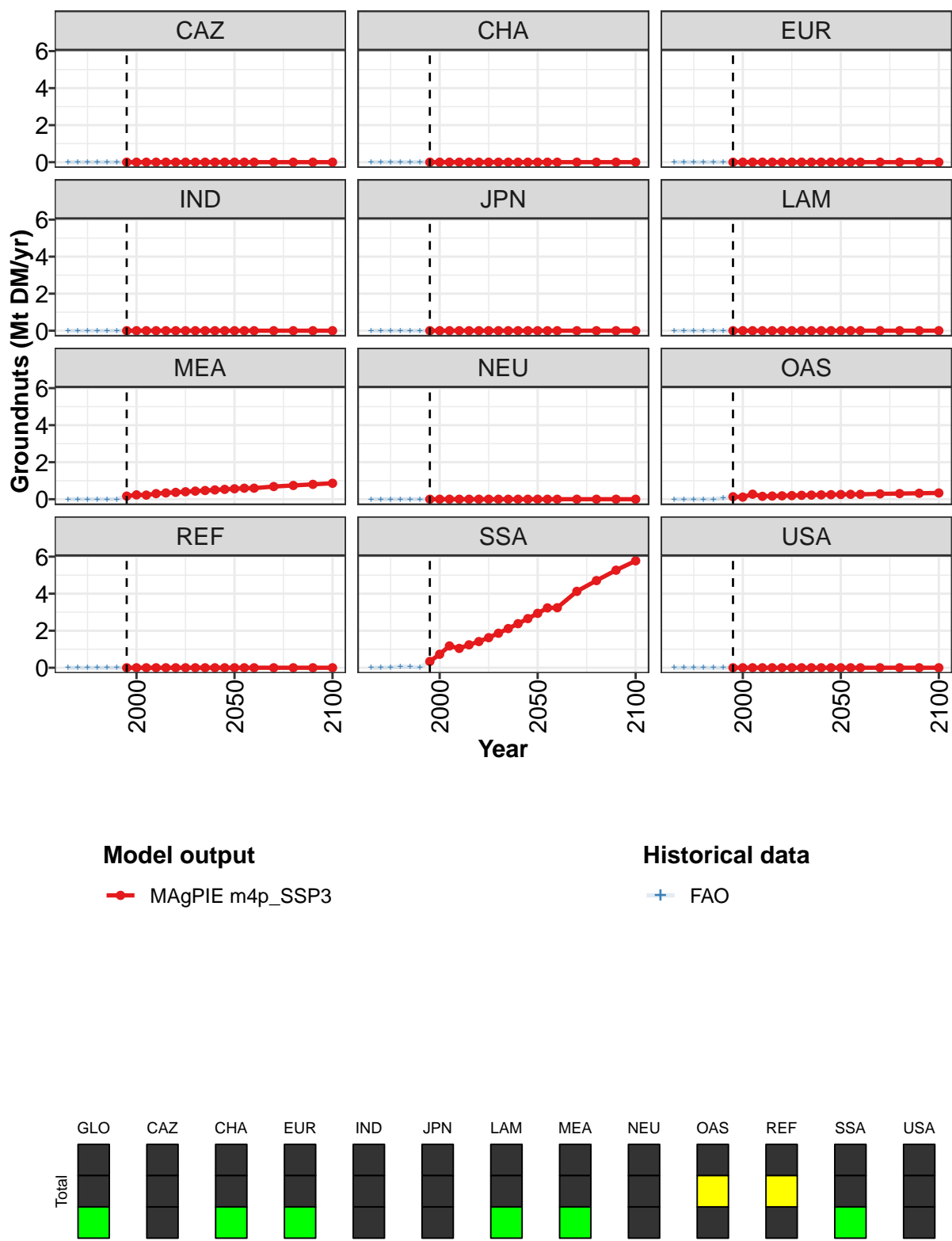


Figure 159: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.64	1.08	1.68	1.50	1.75	1.97	2.23	2.52	2.81	3.12	3.43
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.17	0.24	0.22	0.30	0.34	0.37	0.40	0.44	0.47	0.50	0.53
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.13	0.12	0.27	0.16	0.17	0.18	0.20	0.21	0.22	0.23	0.25
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.34	0.73	1.18	1.04	1.24	1.41	1.62	1.87	2.12	2.38	2.65
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 476: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

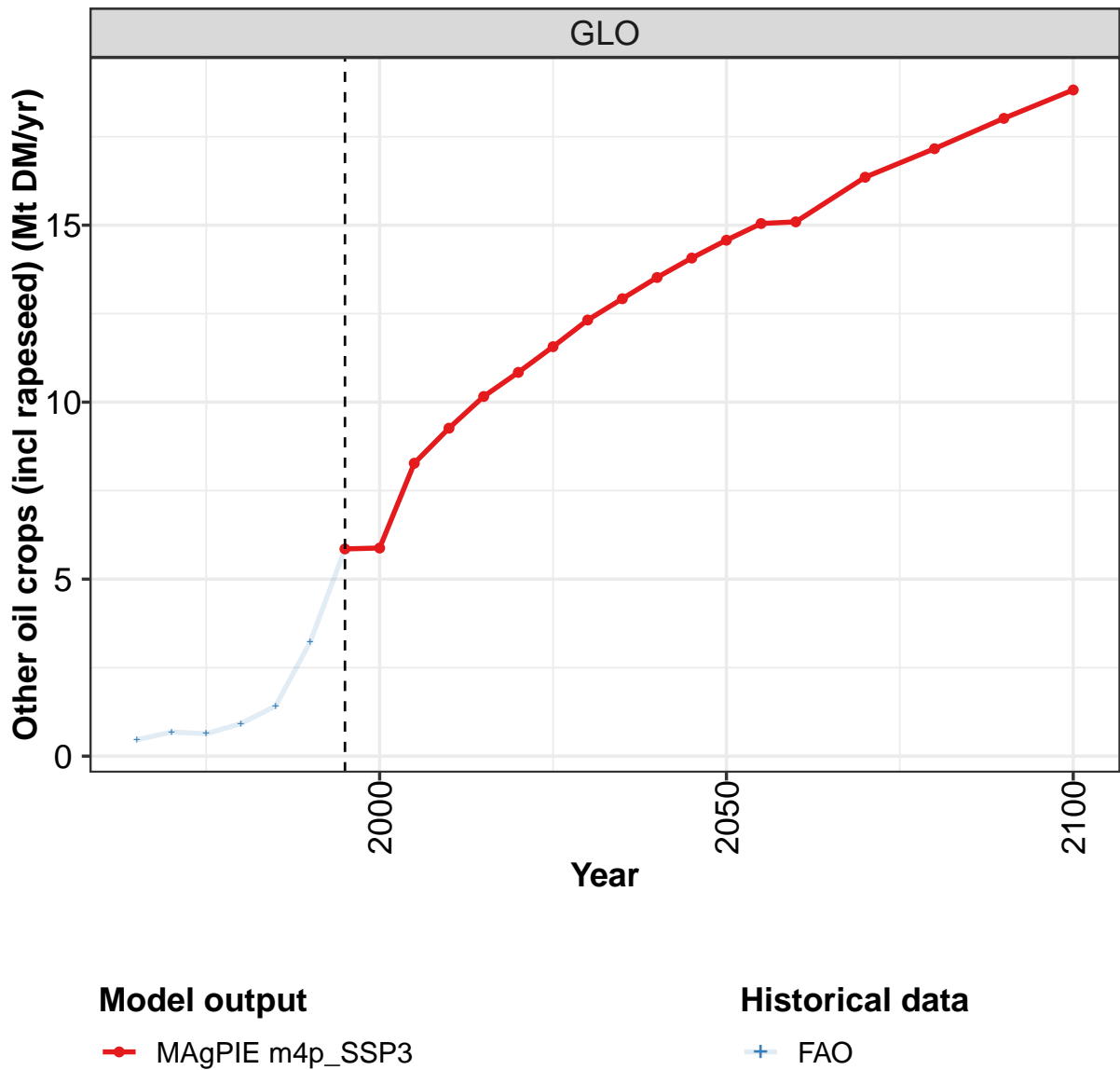
	2050	2055	2060	2070	2080	2090	2100
GLO	3.76	4.09	4.10	5.10	5.76	6.40	6.97
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.56	0.60	0.60	0.69	0.74	0.80	0.86
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.26	0.26	0.27	0.29	0.31	0.32	0.34
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	2.94	3.23	3.24	4.13	4.71	5.27	5.77
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 477: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.03	0.05	0.06	0.09	0.64	1.08	1.68	1.50
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.24	0.22	0.30
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.07	0.13	0.12	0.27	0.16
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.00	0.00	0.03	0.05	0.05	0.02	0.34	0.73	1.18	1.04
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 478: FAO — Demand—Material—Crops—Oil crops—Groundnuts (Mt DM/yr)

8.2.7 Oil crops—Other oil crops (incl rapeseed)



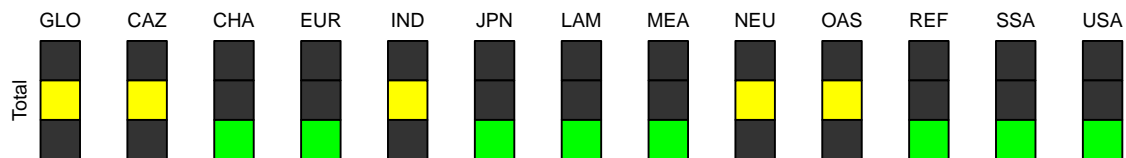
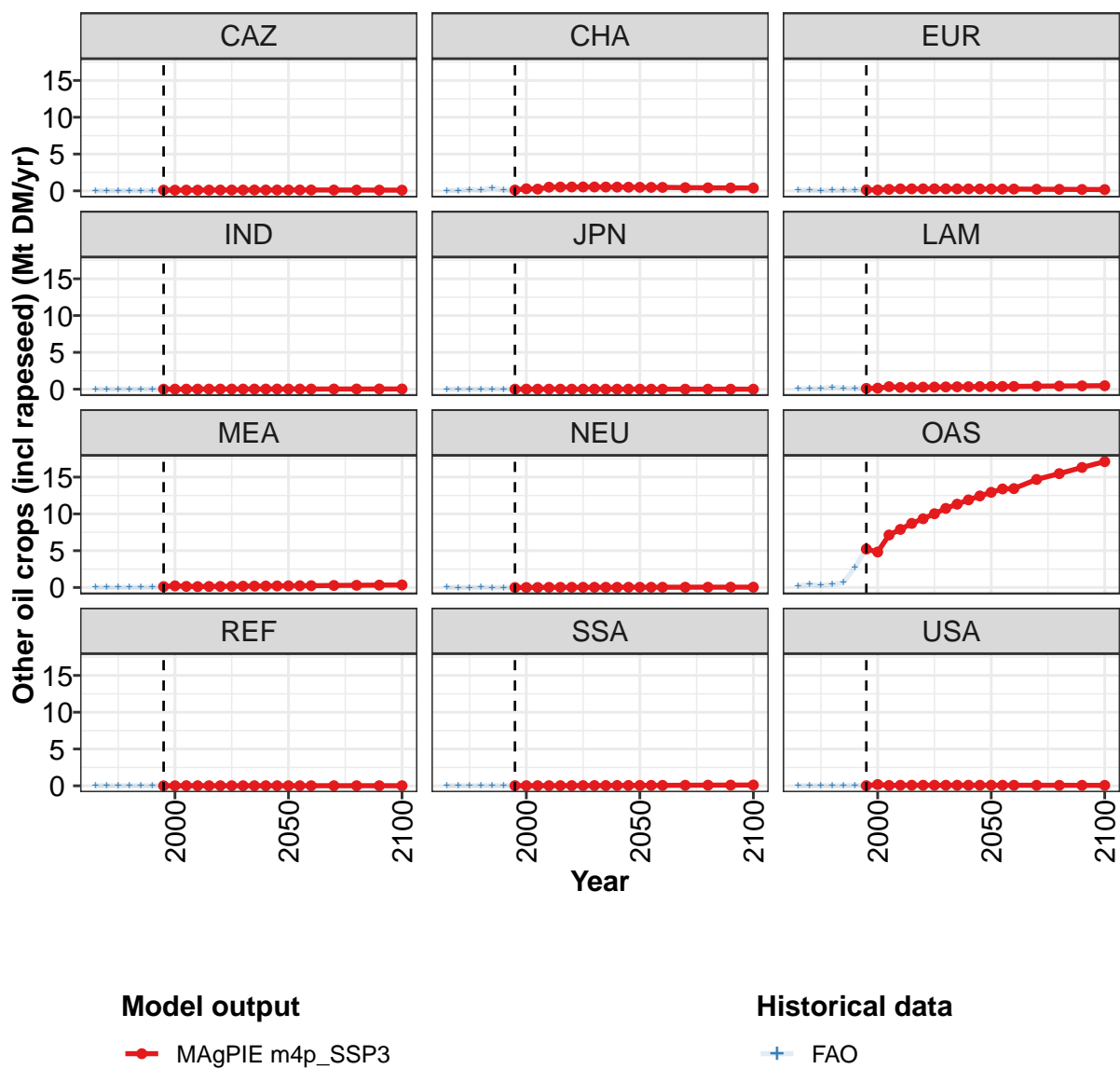


Figure 160: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.9	5.9	8.3	9.3	10.2	10.8	11.6	12.3	12.9	13.5	14.1
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.1	0.3	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
EUR	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.1	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
MEA	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	5.2	4.8	7.1	7.9	8.7	9.3	10.0	10.7	11.3	11.9	12.4
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 479: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

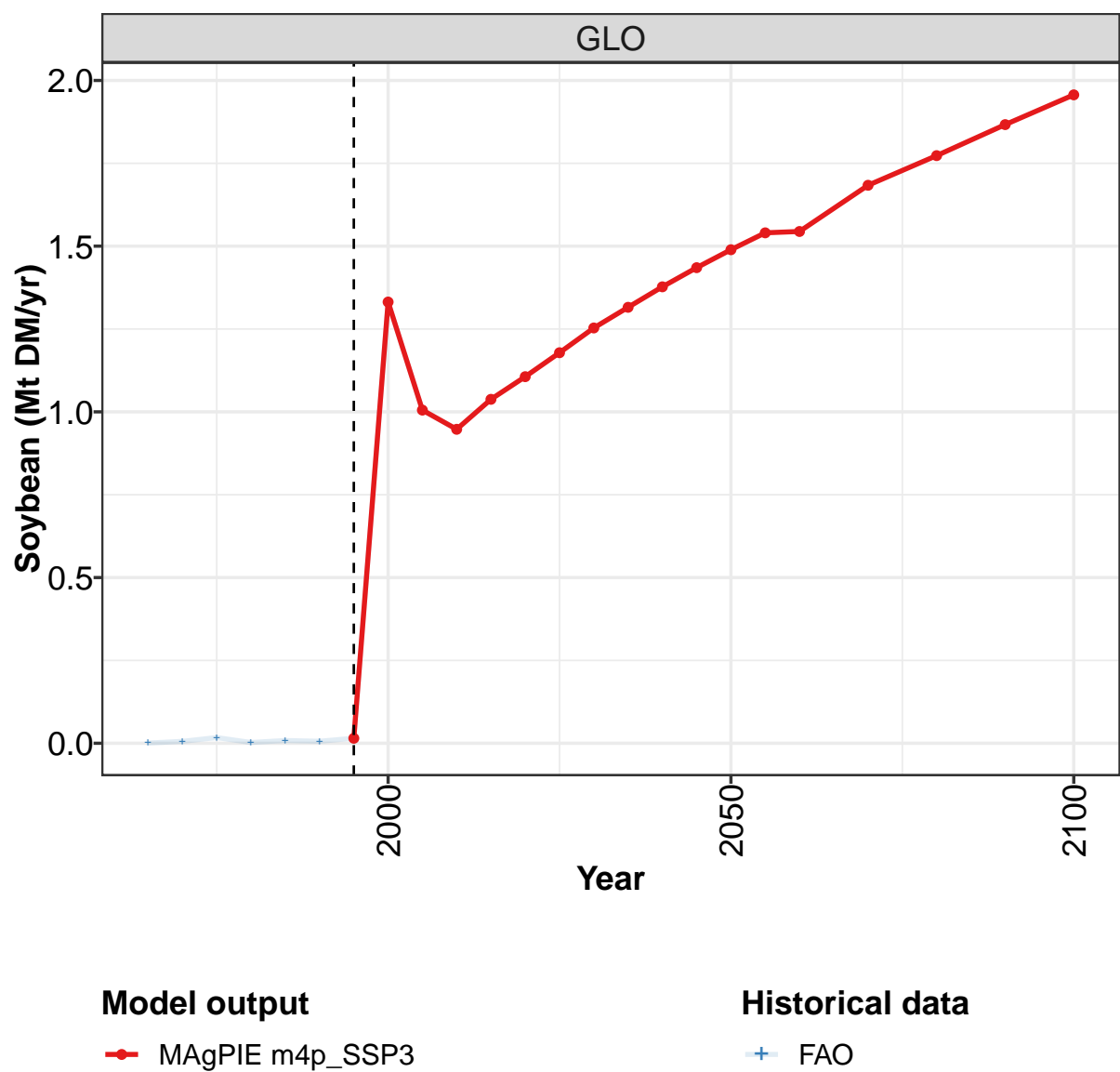
	2050	2055	2060	2070	2080	2090	2100
GLO	14.6	15.0	15.1	16.4	17.2	18.0	18.8
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.5	0.5	0.5	0.4	0.4	0.4	0.4
EUR	0.3	0.2	0.2	0.2	0.2	0.2	0.2
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.4	0.4	0.4	0.4	0.4	0.4	0.5
MEA	0.2	0.2	0.2	0.3	0.3	0.3	0.3
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	12.9	13.4	13.4	14.7	15.5	16.3	17.1
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.1	0.1	0.1	0.1	0.1	0.1	0.1
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 480: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.46	0.68	0.63	0.92	1.42	3.23	5.85	5.88	8.28	9.26
CAZ	0.01	0.01	0.02	0.03	0.03	0.05	0.11	0.10	0.10	0.10
CHA	0.05	0.06	0.18	0.08	0.42	0.10	0.11	0.29	0.24	0.50
EUR	0.09	0.12	0.04	0.06	0.09	0.10	0.14	0.11	0.20	0.27
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.04	0.06	0.09	0.28	0.15	0.08	0.11	0.13	0.34	0.24
MEA	0.02	0.01	0.01	0.02	0.02	0.03	0.12	0.22	0.15	0.12
NEU	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.02
OAS	0.22	0.40	0.26	0.43	0.68	2.78	5.22	4.82	7.13	7.89
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.01
SSA	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
USA	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.18	0.05	0.07

Table 481: FAO — Demand—Material—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

8.2.8 Oil crops—Soybean



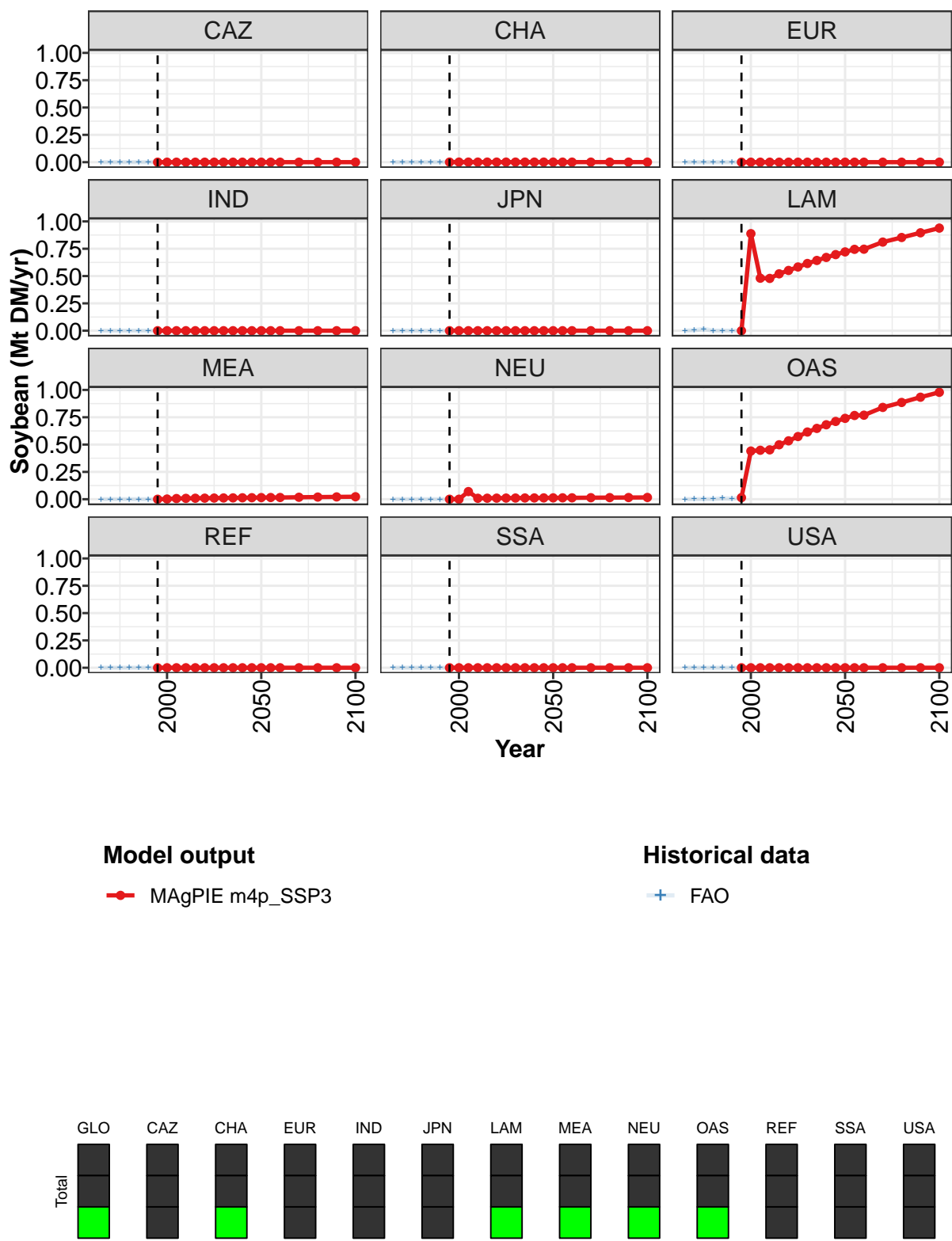


Figure 161: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.02	1.33	1.01	0.95	1.04	1.11	1.18	1.25	1.32	1.38	1.44
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.89	0.48	0.48	0.52	0.55	0.58	0.62	0.64	0.67	0.70
MEA	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NEU	0.00	0.00	0.07	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OAS	0.01	0.44	0.45	0.45	0.50	0.53	0.57	0.61	0.65	0.68	0.71
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 482: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

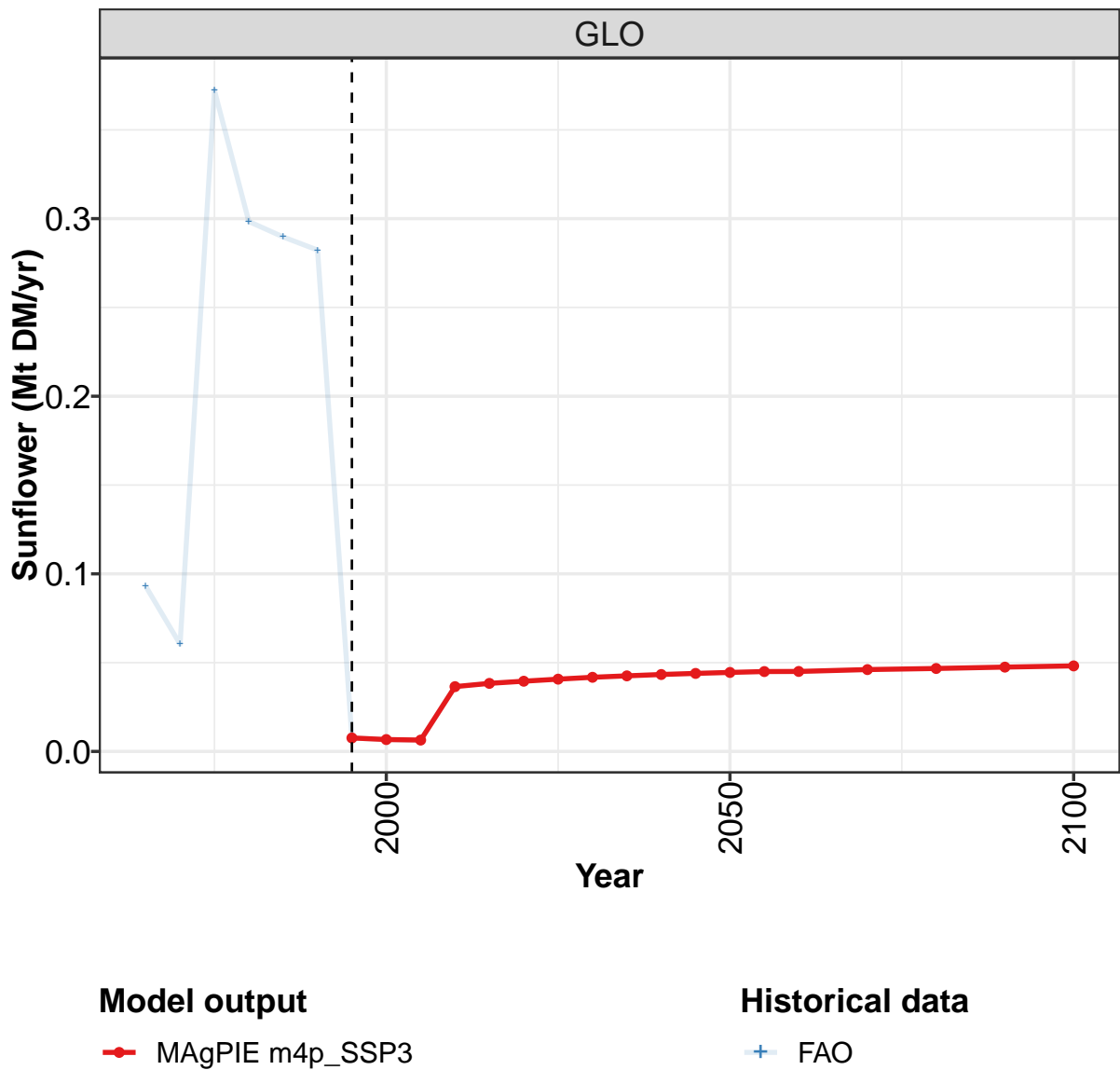
	2050	2055	2060	2070	2080	2090	2100
GLO	1.49	1.54	1.54	1.68	1.77	1.87	1.96
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.72	0.74	0.75	0.81	0.85	0.90	0.94
MEA	0.01	0.02	0.02	0.02	0.02	0.02	0.02
NEU	0.01	0.01	0.01	0.01	0.01	0.02	0.02
OAS	0.74	0.77	0.77	0.84	0.89	0.93	0.98
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 483: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Soybean (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.01	0.02	0.00	0.01	0.01	0.02	1.33	1.01	0.95
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.89	0.48	0.48
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.01
OAS	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.44	0.45	0.45
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 484: FAO — Demand—Material—Crops—Oil crops—Soybean (Mt DM/yr)

8.2.9 Oil crops—Sunflower



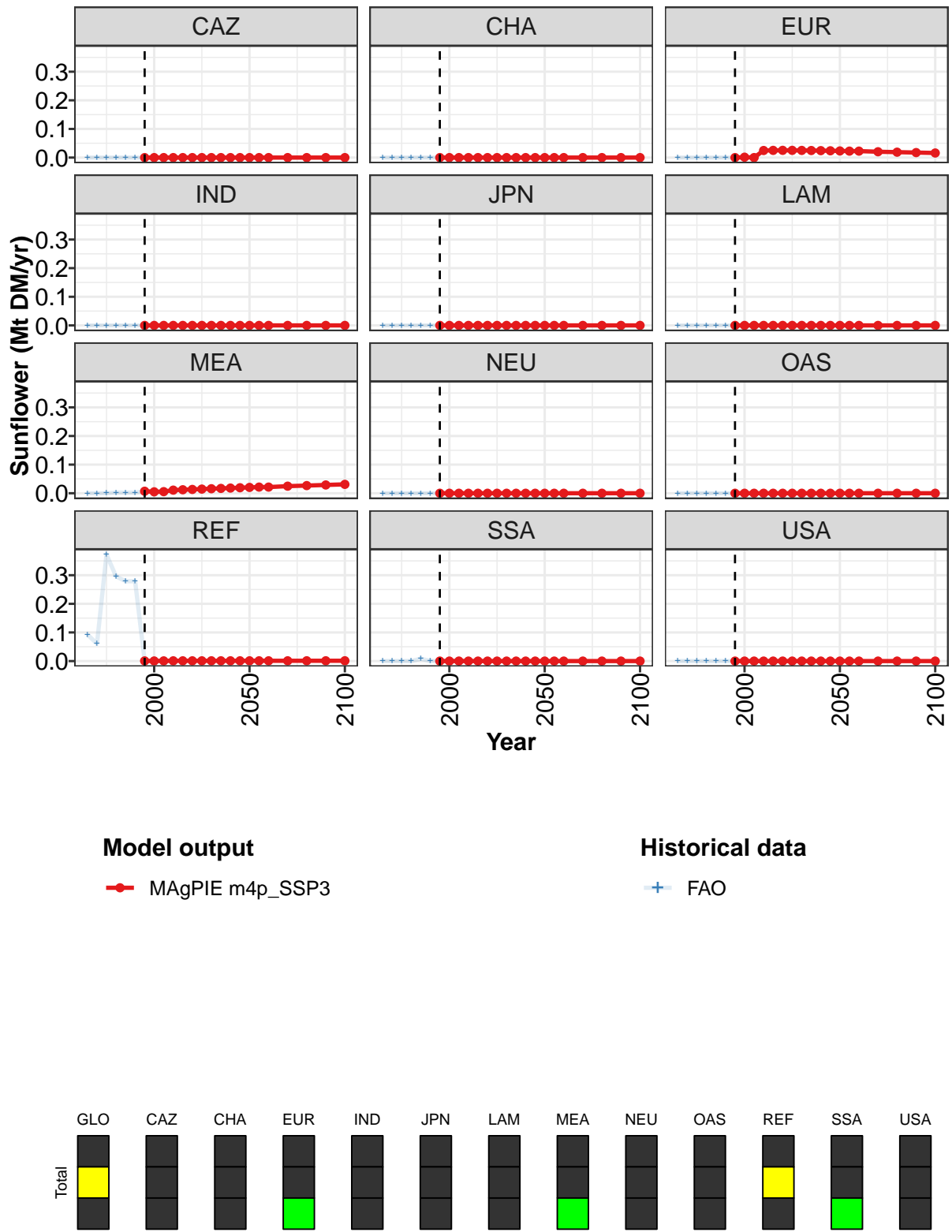


Figure 162: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0076	0.0067	0.0064	0.0365	0.0383	0.0396	0.0407	0.0418	0.0426	0.0433	0.0439
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0013	0.0000	0.0247	0.0252	0.0253	0.0252	0.0250	0.0247	0.0243	0.0238
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0070	0.0050	0.0056	0.0109	0.0122	0.0133	0.0146	0.0158	0.0169	0.0181	0.0192
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0006	0.0004	0.0007	0.0009	0.0009	0.0009	0.0009	0.0009	0.0010	0.0010	0.0010
SSA	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 485: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

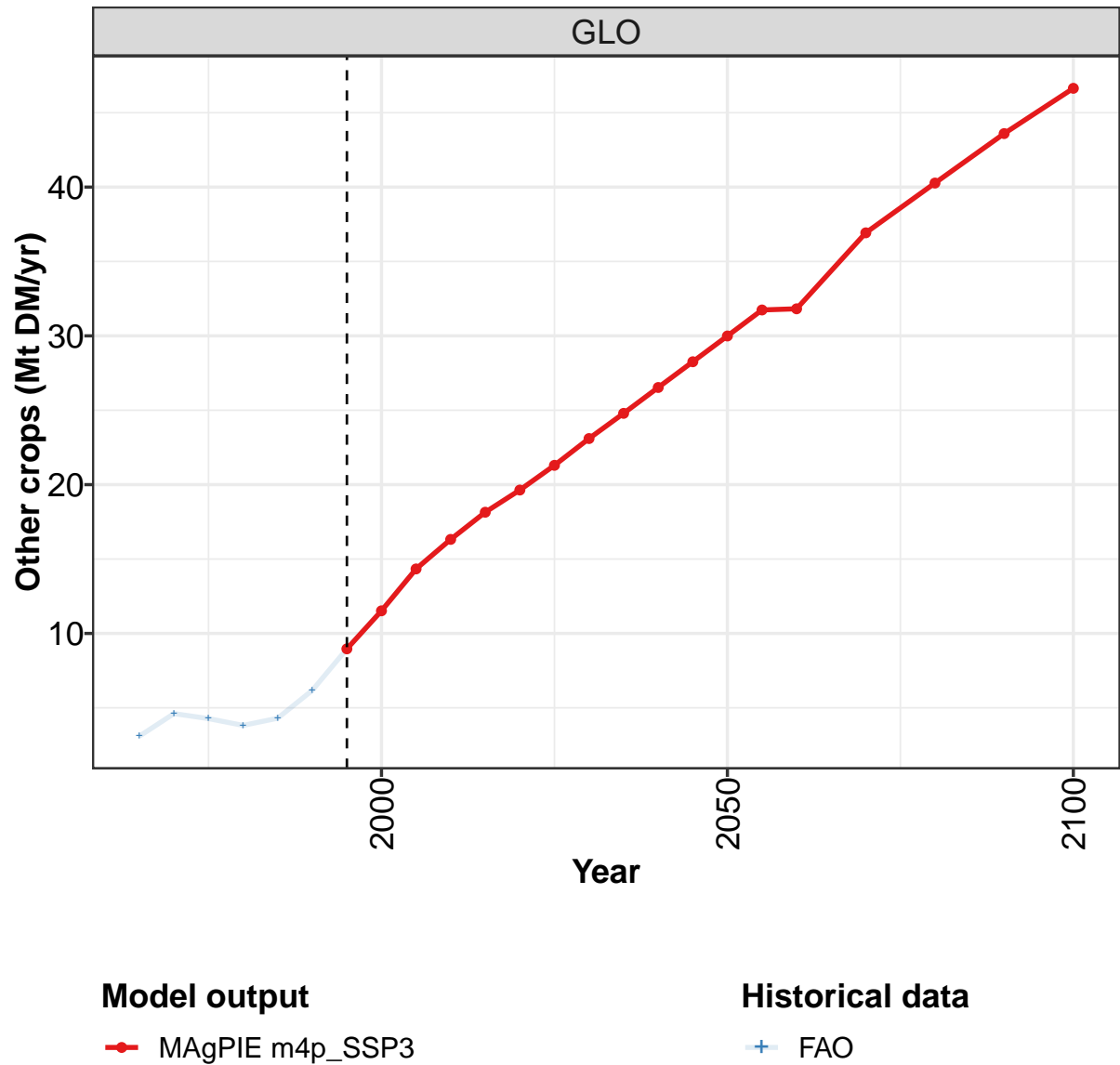
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0445	0.0450	0.0450	0.0461	0.0467	0.0475	0.0482
CAZ	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0232	0.0225	0.0226	0.0204	0.0189	0.0174	0.0160
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MEA	0.0203	0.0215	0.0215	0.0247	0.0268	0.0290	0.0310
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
REF	0.0010	0.0010	0.0010	0.0010	0.0010	0.0011	0.0011
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 486: MAgPIE m4p_SSP3 — Demand—Material—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.093	0.060	0.372	0.298	0.290	0.282	0.008	0.007	0.006	0.037
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.025
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.003	0.003	0.003	0.007	0.005	0.006	0.011
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.093	0.060	0.372	0.296	0.279	0.279	0.001	0.000	0.001	0.001
SSA	0.000	0.000	0.000	0.000	0.008	0.001	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 487: FAO — Demand—Material—Crops—Oil crops—Sunflower (Mt DM/yr)

8.2.10 Other crops



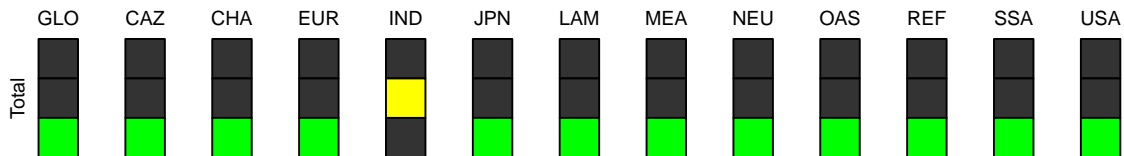
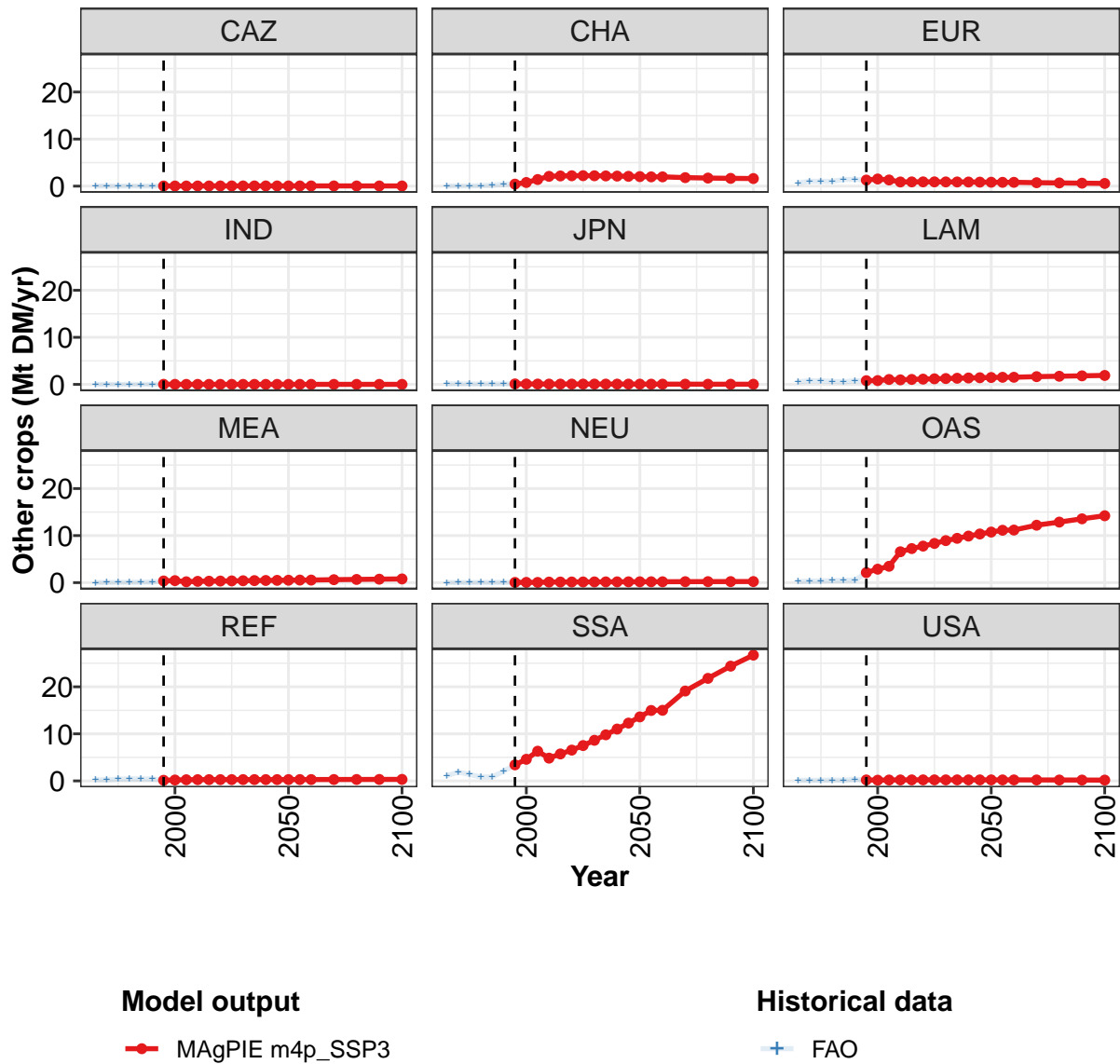


Figure 163: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9.0	11.5	14.3	16.3	18.1	19.6	21.3	23.1	24.8	26.5	28.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.4	0.8	1.4	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1
EUR	1.3	1.5	1.3	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.8	0.8	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.4	1.4
MEA	0.4	0.4	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
OAS	2.1	2.9	3.5	6.6	7.2	7.8	8.3	8.9	9.4	9.9	10.3
REF	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
SSA	3.4	4.6	6.3	4.8	5.7	6.5	7.5	8.6	9.8	11.0	12.3
USA	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Table 488: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops (Mt DM/yr) [PART 1/2]

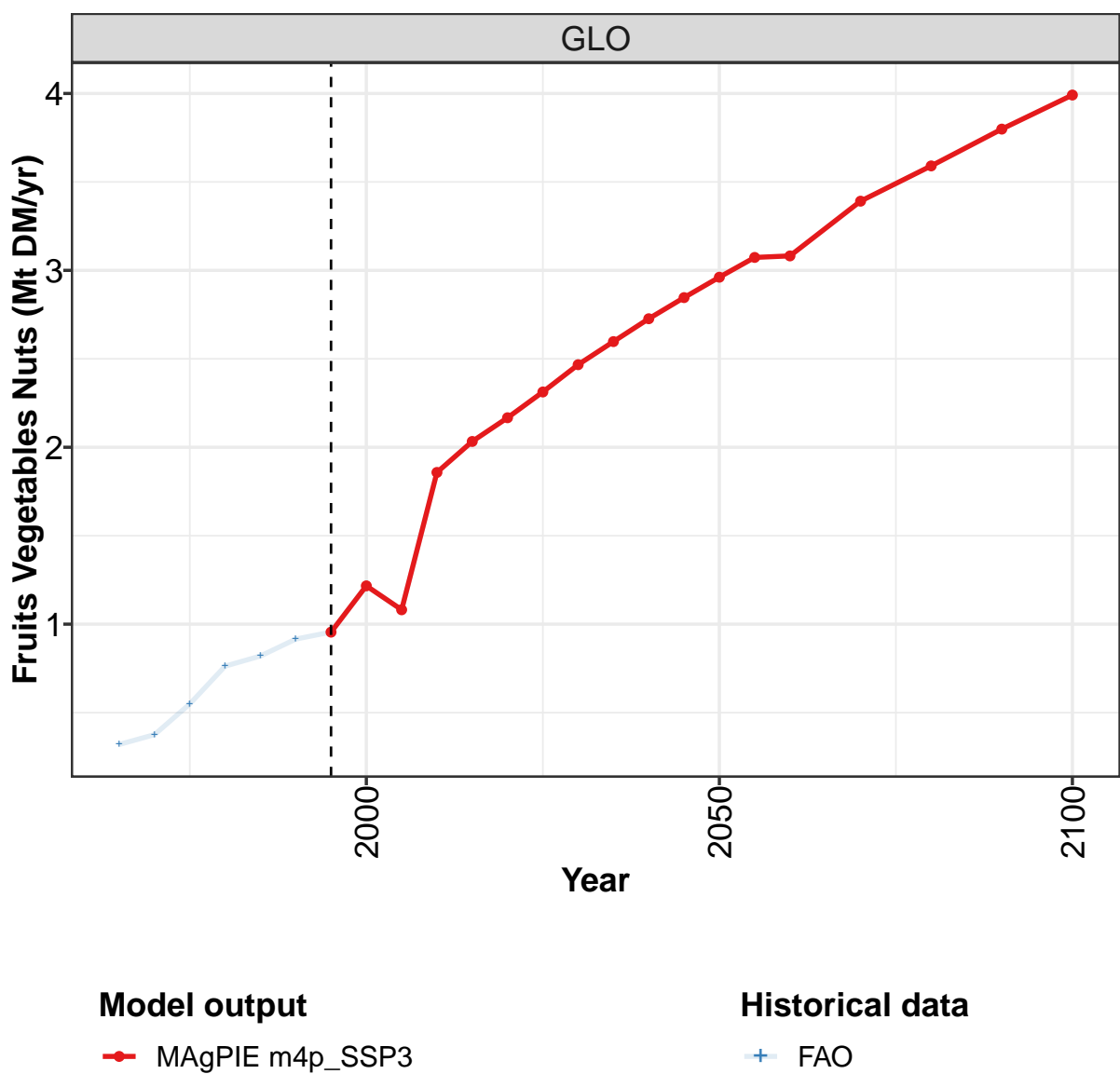
	2050	2055	2060	2070	2080	2090	2100
GLO	30.0	31.7	31.8	36.9	40.3	43.6	46.6
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	2.0	2.0	2.0	1.8	1.7	1.7	1.6
EUR	0.8	0.8	0.8	0.7	0.7	0.6	0.6
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.1	0.1	0.1	0.0	0.0	0.0	0.0
LAM	1.5	1.5	1.5	1.6	1.7	1.8	1.9
MEA	0.5	0.5	0.5	0.6	0.7	0.7	0.8
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	10.8	11.1	11.2	12.2	12.9	13.6	14.2
REF	0.3	0.3	0.3	0.3	0.3	0.3	0.3
SSA	13.6	15.0	15.0	19.1	21.8	24.4	26.7
USA	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Table 489: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3.1	4.6	4.3	3.8	4.3	6.2	9.0	11.5	14.3	16.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.1	0.2	0.4	0.4	0.8	1.4	2.1
EUR	0.7	1.0	1.0	1.0	1.4	1.4	1.3	1.5	1.3	0.9
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.6	0.8	0.8	0.6	0.6	0.8	0.8	0.8	1.0	1.0
MEA	0.0	0.0	0.1	0.1	0.1	0.1	0.4	0.4	0.2	0.3
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
OAS	0.2	0.3	0.4	0.4	0.5	0.5	2.1	2.9	3.5	6.6
REF	0.2	0.2	0.4	0.4	0.4	0.4	0.1	0.2	0.2	0.3
SSA	1.1	1.9	1.4	0.8	0.8	2.1	3.4	4.6	6.3	4.8
USA	0.1	0.1	0.1	0.2	0.1	0.3	0.2	0.1	0.2	0.2

Table 490: FAO — Demand—Material—Crops—Other crops (Mt DM/yr)

8.2.11 Other crops—Fruits Vegetables Nuts



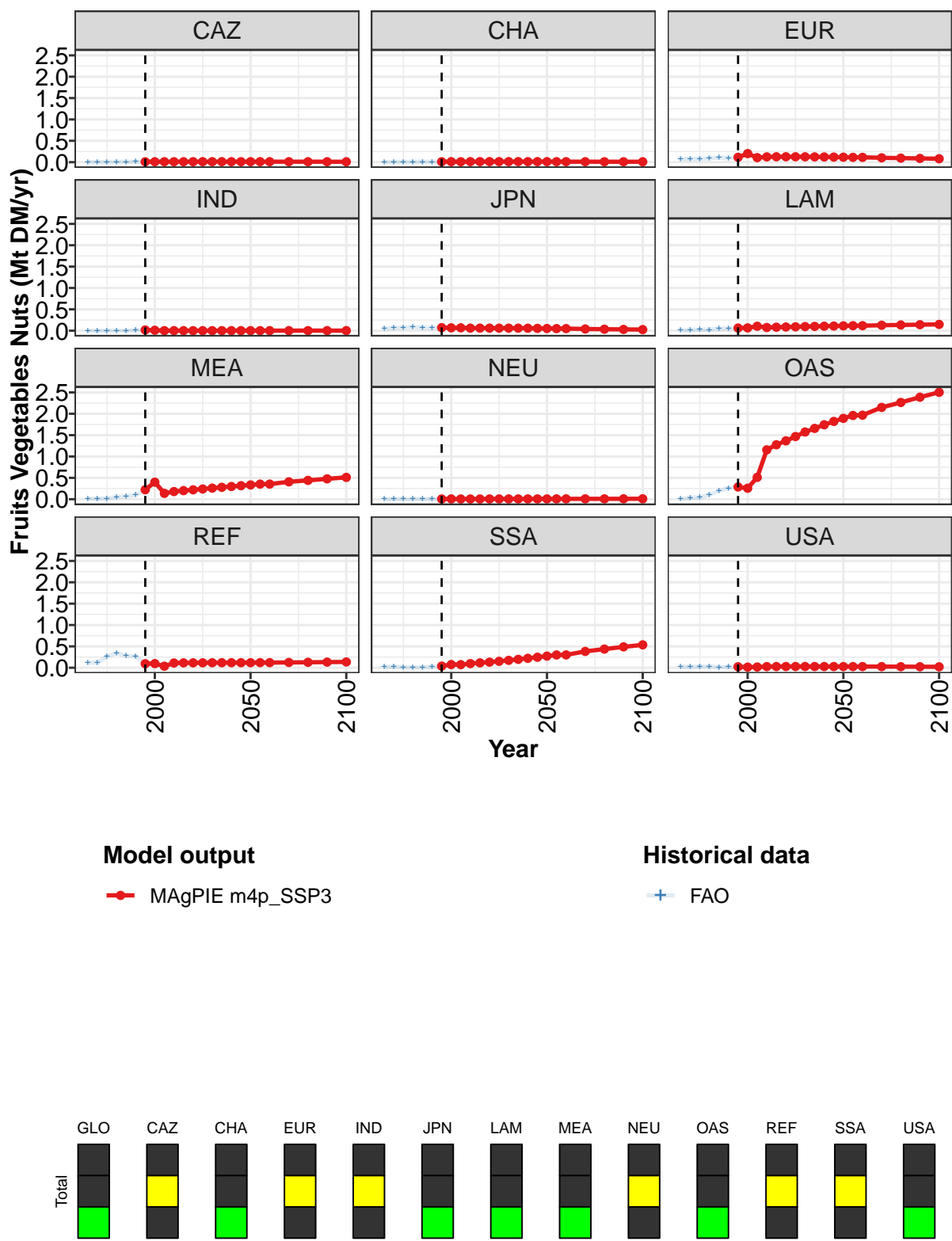


Figure 164: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.95	1.22	1.08	1.86	2.03	2.17	2.31	2.47	2.60	2.73	2.85
CAZ	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CHA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
EUR	0.11	0.20	0.11	0.12	0.13	0.13	0.13	0.13	0.12	0.12	0.12
IND	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05
LAM	0.06	0.07	0.10	0.08	0.08	0.09	0.09	0.10	0.10	0.11	0.11
MEA	0.22	0.40	0.14	0.18	0.20	0.22	0.24	0.26	0.28	0.30	0.32
NEU	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OAS	0.29	0.26	0.51	1.16	1.27	1.37	1.47	1.57	1.66	1.74	1.82
REF	0.09	0.10	0.04	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12
SSA	0.04	0.07	0.07	0.10	0.11	0.13	0.15	0.17	0.20	0.22	0.25
USA	0.02	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

Table 491: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 1/2]

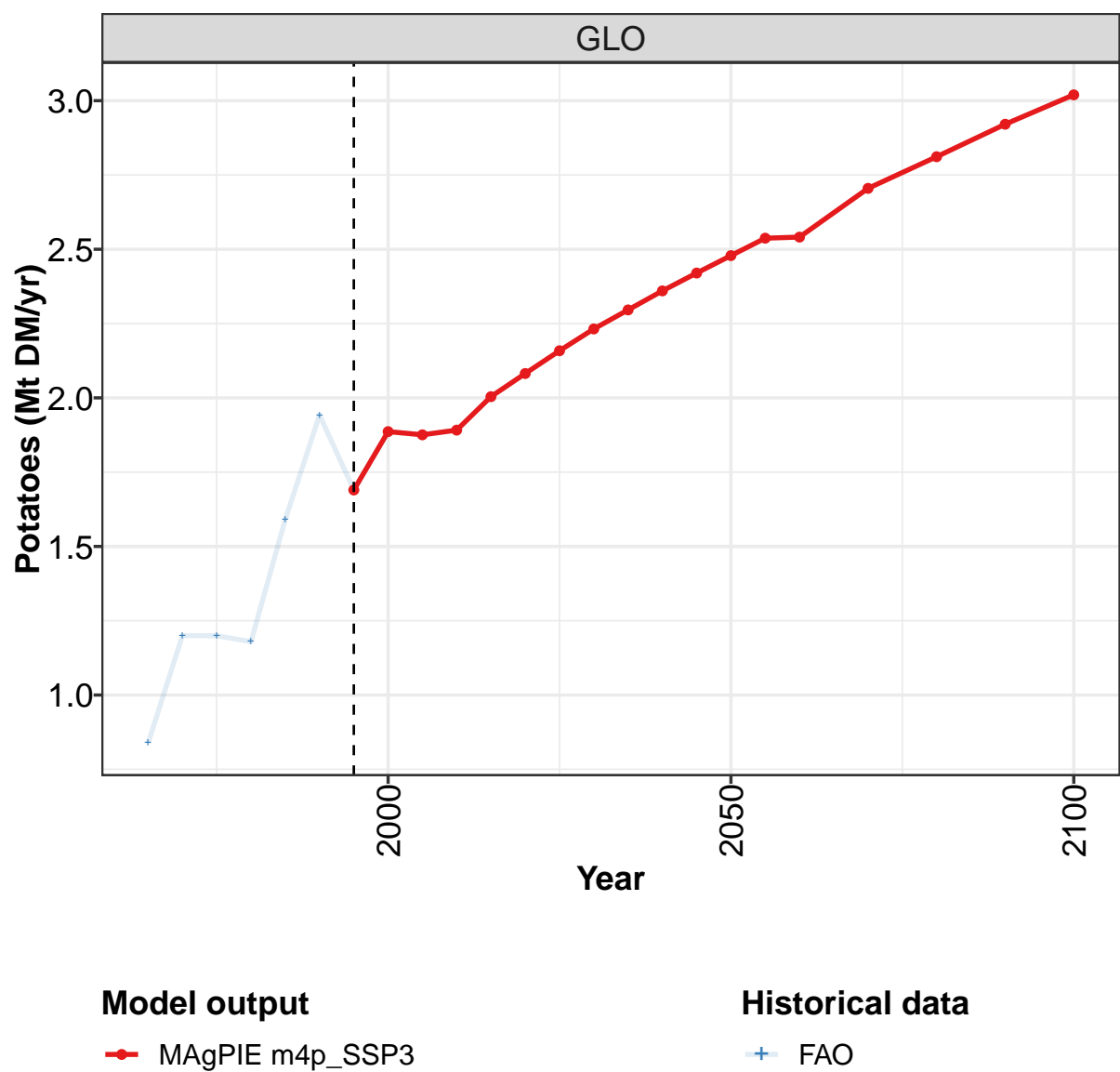
	2050	2055	2060	2070	2080	2090	2100
GLO	2.96	3.07	3.08	3.39	3.59	3.80	3.99
CAZ	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CHA	0.01	0.01	0.01	0.01	0.01	0.01	0.01
EUR	0.12	0.11	0.11	0.10	0.10	0.09	0.08
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.05	0.05	0.05	0.04	0.03	0.03	0.03
LAM	0.11	0.12	0.12	0.13	0.13	0.14	0.15
MEA	0.33	0.35	0.35	0.41	0.44	0.48	0.51
NEU	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OAS	1.89	1.96	1.97	2.15	2.27	2.39	2.50
REF	0.12	0.12	0.12	0.12	0.13	0.13	0.14
SSA	0.27	0.30	0.30	0.38	0.44	0.49	0.54
USA	0.03	0.03	0.03	0.03	0.03	0.02	0.02

Table 492: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.32	0.38	0.55	0.76	0.82	0.92	0.96	1.22	1.08	1.86
CAZ	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CHA	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
EUR	0.07	0.08	0.08	0.10	0.11	0.10	0.11	0.20	0.11	0.12
IND	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.01	0.00	0.00
JPN	0.05	0.06	0.08	0.09	0.07	0.06	0.07	0.07	0.07	0.06
LAM	0.01	0.01	0.02	0.02	0.05	0.05	0.06	0.07	0.10	0.08
MEA	0.01	0.01	0.02	0.05	0.07	0.10	0.22	0.40	0.14	0.18
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
OAS	0.01	0.03	0.05	0.11	0.20	0.26	0.29	0.26	0.51	1.16
REF	0.12	0.12	0.26	0.35	0.28	0.27	0.09	0.10	0.04	0.11
SSA	0.02	0.03	0.01	0.01	0.01	0.02	0.04	0.07	0.07	0.10
USA	0.02	0.02	0.03	0.03	0.01	0.02	0.02	0.01	0.02	0.03

Table 493: FAO — Demand—Material—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

8.2.12
Other crops—Potatoes



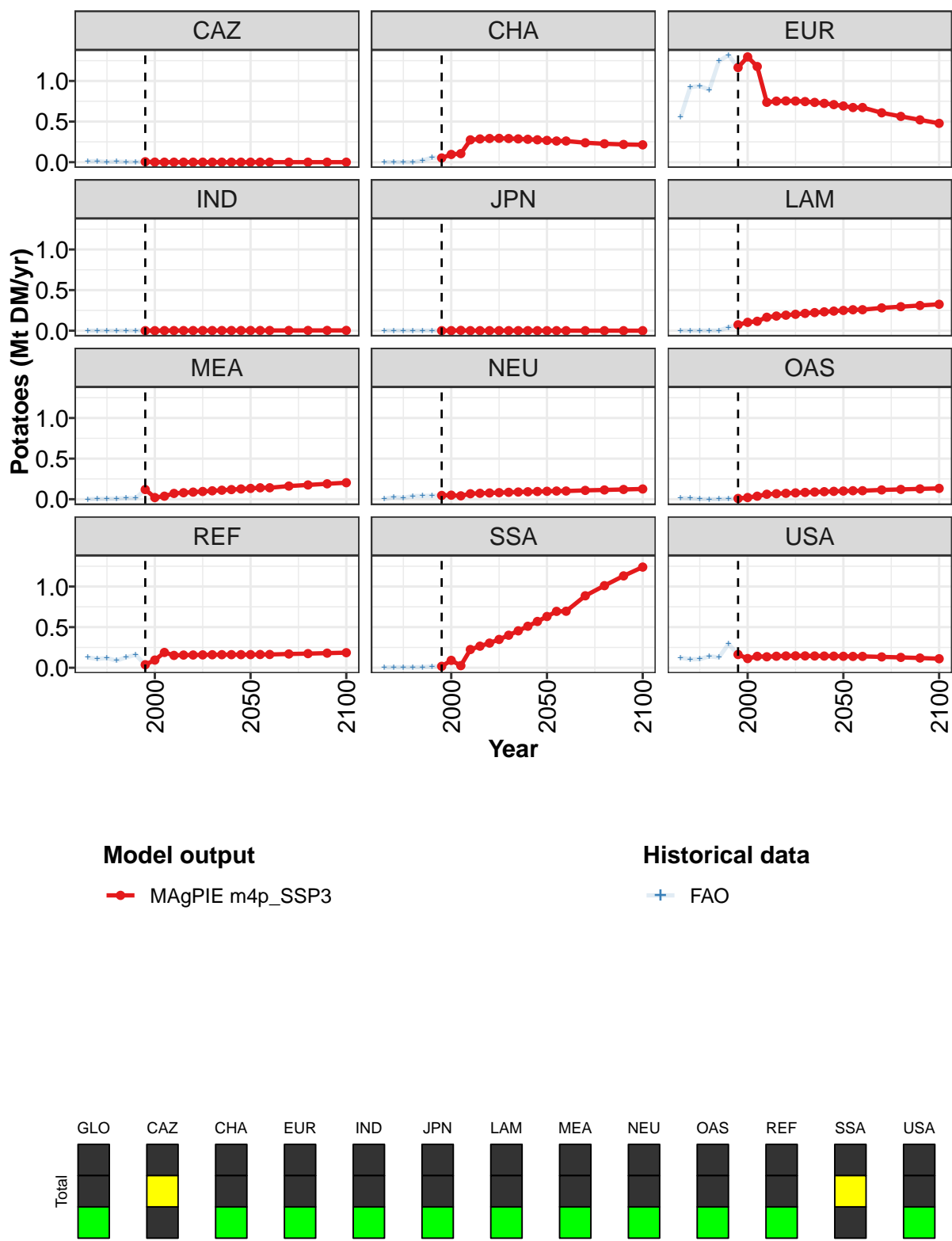


Figure 165: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.69	1.89	1.88	1.89	2.00	2.08	2.16	2.23	2.30	2.36	2.42
CAZ	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.05	0.10	0.11	0.27	0.29	0.29	0.29	0.29	0.29	0.28	0.28
EUR	1.17	1.30	1.18	0.74	0.75	0.75	0.75	0.75	0.74	0.72	0.71
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.07	0.10	0.12	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24
MEA	0.12	0.02	0.04	0.07	0.08	0.09	0.10	0.10	0.11	0.12	0.13
NEU	0.05	0.05	0.04	0.07	0.07	0.08	0.08	0.09	0.09	0.09	0.09
OAS	0.01	0.02	0.04	0.06	0.07	0.07	0.08	0.08	0.09	0.09	0.10
REF	0.04	0.09	0.19	0.15	0.16	0.16	0.16	0.16	0.16	0.16	0.16
SSA	0.02	0.09	0.03	0.22	0.27	0.30	0.35	0.40	0.45	0.51	0.57
USA	0.16	0.11	0.14	0.14	0.14	0.15	0.15	0.15	0.14	0.14	0.14

Table 494: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

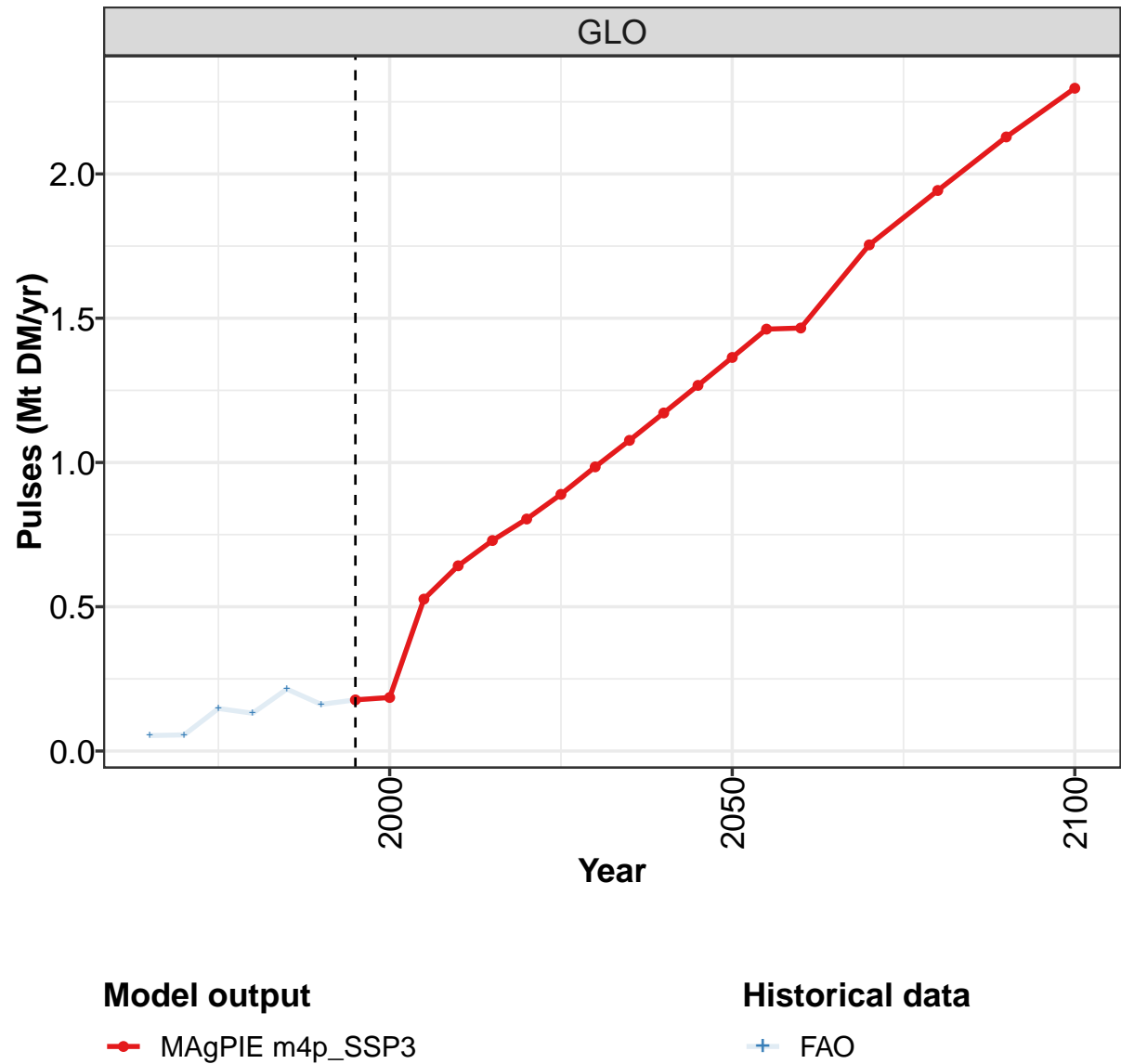
	2050	2055	2060	2070	2080	2090	2100
GLO	2.48	2.54	2.54	2.71	2.81	2.92	3.02
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.27	0.26	0.26	0.24	0.23	0.22	0.21
EUR	0.69	0.67	0.67	0.61	0.56	0.52	0.48
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.25	0.26	0.26	0.28	0.30	0.31	0.33
MEA	0.13	0.14	0.14	0.16	0.18	0.19	0.20
NEU	0.10	0.10	0.10	0.11	0.11	0.12	0.13
OAS	0.10	0.10	0.10	0.11	0.12	0.13	0.13
REF	0.16	0.16	0.16	0.17	0.17	0.18	0.19
SSA	0.63	0.69	0.70	0.89	1.01	1.13	1.24
USA	0.14	0.14	0.14	0.13	0.13	0.12	0.11

Table 495: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops—Potatoes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.84	1.20	1.20	1.18	1.59	1.94	1.69	1.89	1.88	1.89
CAZ	0.01	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.02	0.06	0.05	0.10	0.11	0.27
EUR	0.55	0.92	0.94	0.89	1.25	1.32	1.17	1.30	1.18	0.74
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.04	0.07	0.10	0.12	0.17
MEA	0.00	0.00	0.01	0.01	0.02	0.01	0.12	0.02	0.04	0.07
NEU	0.00	0.03	0.02	0.04	0.04	0.04	0.05	0.05	0.04	0.07
OAS	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.04	0.06
REF	0.13	0.11	0.12	0.09	0.13	0.16	0.04	0.09	0.19	0.15
SSA	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.09	0.03	0.22
USA	0.12	0.10	0.11	0.14	0.13	0.29	0.16	0.11	0.14	0.14

Table 496: FAO — Demand—Material—Crops—Other crops—Potatoes (Mt DM/yr)

8.2.13 Other crops—Pulses



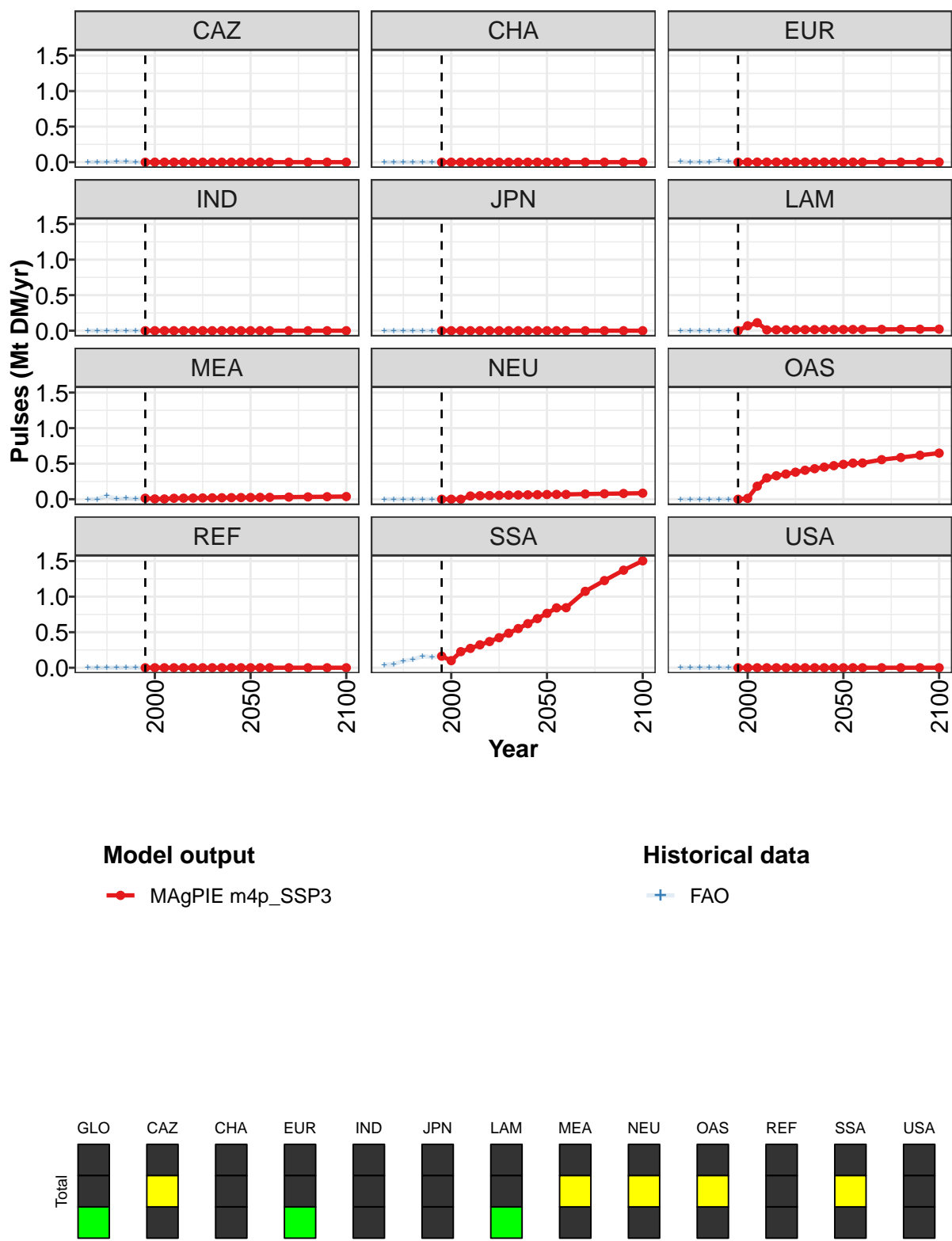


Figure 166: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.18	0.19	0.53	0.64	0.73	0.80	0.89	0.98	1.08	1.17	1.27
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.07	0.11	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
MEA	0.01	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
NEU	0.00	0.00	0.00	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06
OAS	0.00	0.01	0.18	0.30	0.33	0.35	0.38	0.41	0.43	0.45	0.47
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.16	0.10	0.23	0.27	0.32	0.37	0.42	0.49	0.55	0.62	0.69
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 497: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

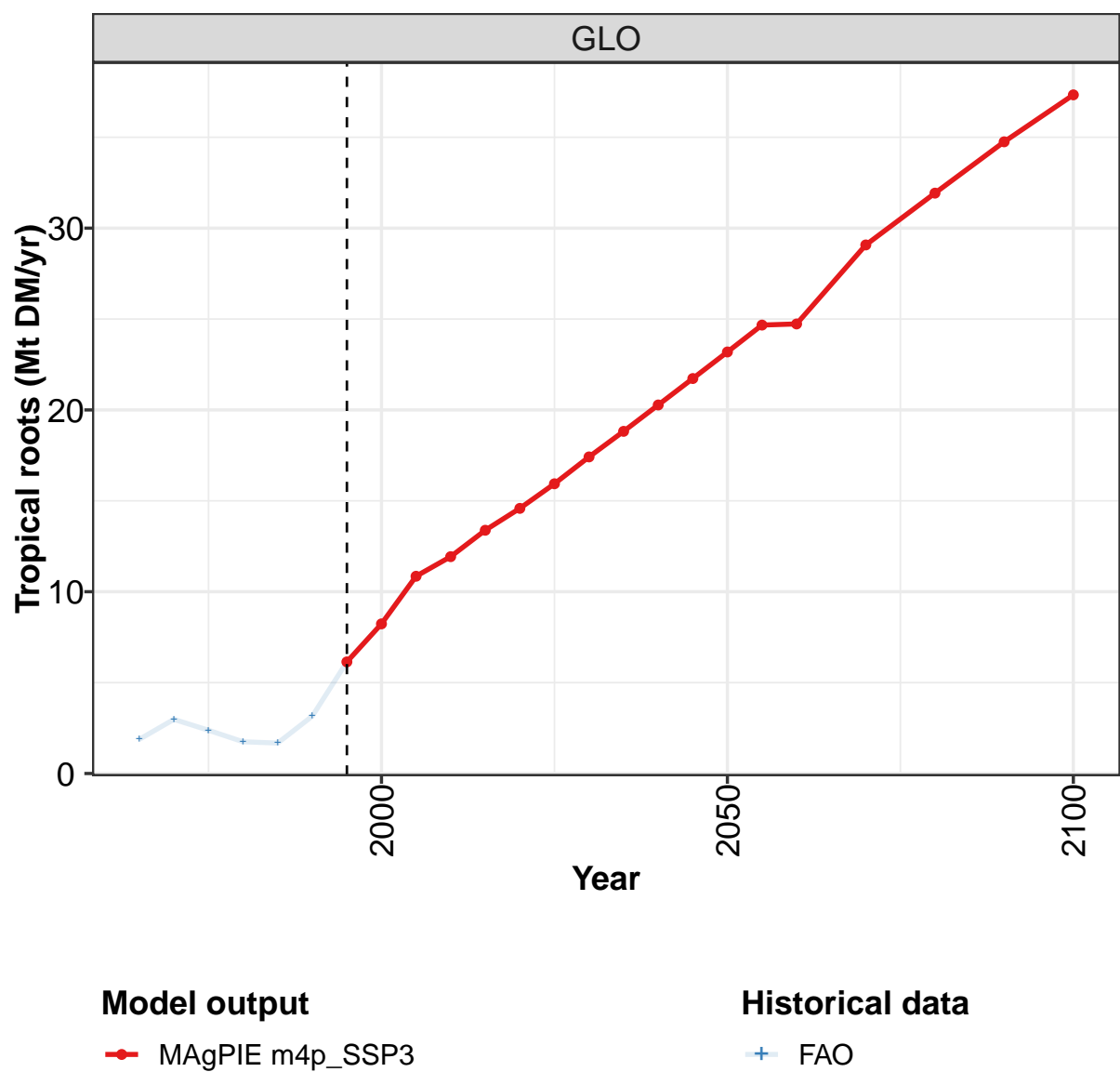
	2050	2055	2060	2070	2080	2090	2100
GLO	1.36	1.46	1.47	1.75	1.94	2.13	2.30
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.02	0.02	0.02	0.02	0.02	0.02	0.02
MEA	0.02	0.03	0.03	0.03	0.03	0.04	0.04
NEU	0.07	0.07	0.07	0.07	0.08	0.08	0.08
OAS	0.49	0.51	0.51	0.56	0.59	0.62	0.65
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.77	0.84	0.84	1.07	1.23	1.37	1.50
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 498: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops—Pulses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.054	0.056	0.147	0.131	0.215	0.162	0.177	0.186	0.526	0.642
CAZ	0.004	0.003	0.004	0.006	0.009	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.007	0.004	0.002	0.005	0.031	0.006	0.001	0.001	0.001	0.001
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.069	0.112	0.011
MEA	0.000	0.000	0.046	0.003	0.012	0.004	0.014	0.004	0.004	0.013
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.045
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.183	0.299
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.043	0.049	0.096	0.117	0.162	0.150	0.163	0.100	0.226	0.272
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 499: FAO — Demand—Material—Crops—Other crops—Pulses (Mt DM/yr)

8.2.14 Other crops—Tropical roots



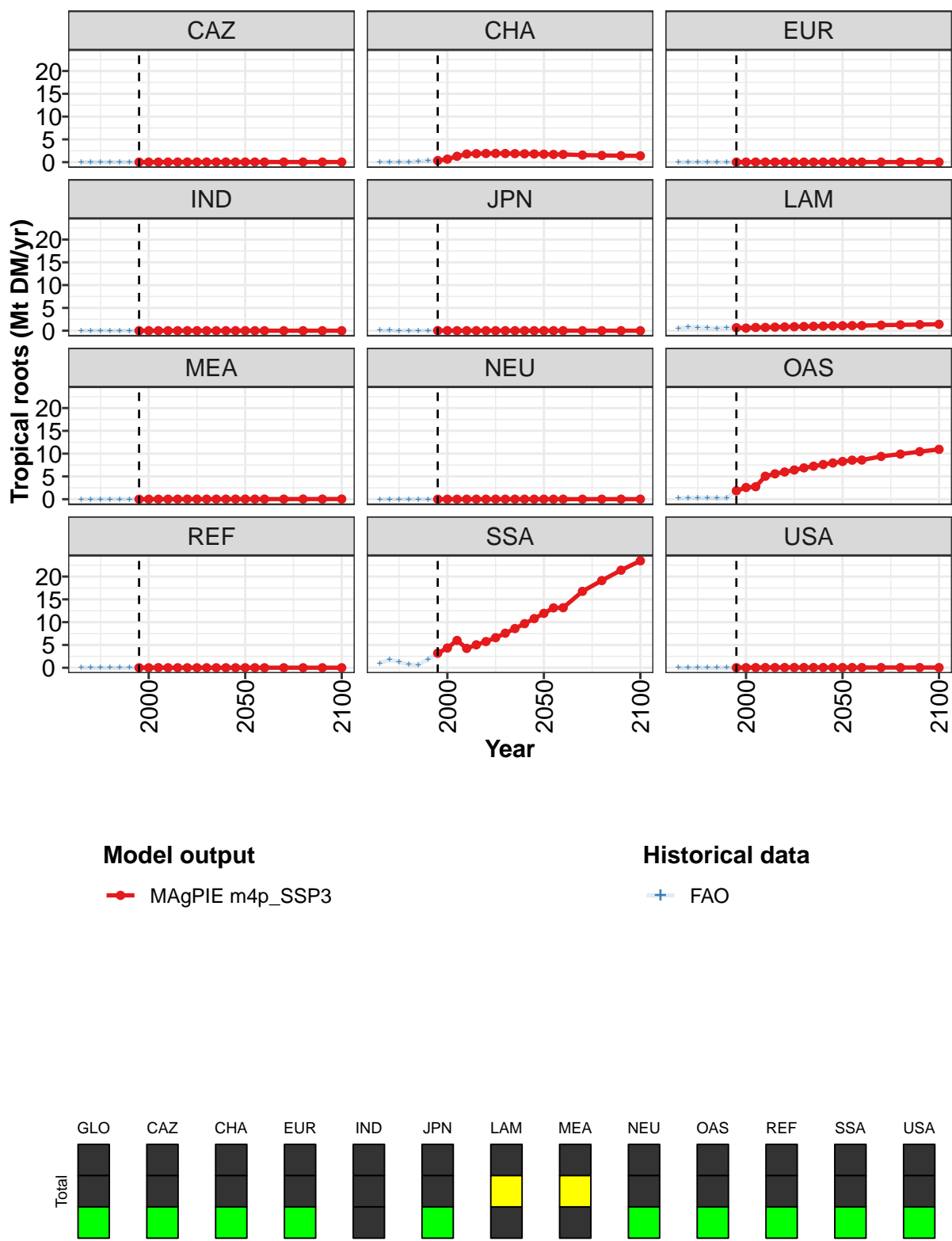


Figure 167: MAGPIE m4p_SSP3 — Demand—Material—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.1	8.2	10.9	11.9	13.4	14.6	15.9	17.4	18.8	20.3	21.7
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.4	0.7	1.3	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.8
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.7	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	1.8	2.6	2.7	5.0	5.6	6.0	6.4	6.9	7.2	7.6	8.0
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	3.2	4.3	6.0	4.2	5.0	5.7	6.6	7.6	8.6	9.7	10.8
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 500: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops—Tropical roots (Mt DM/yr)
[PART 1/2]

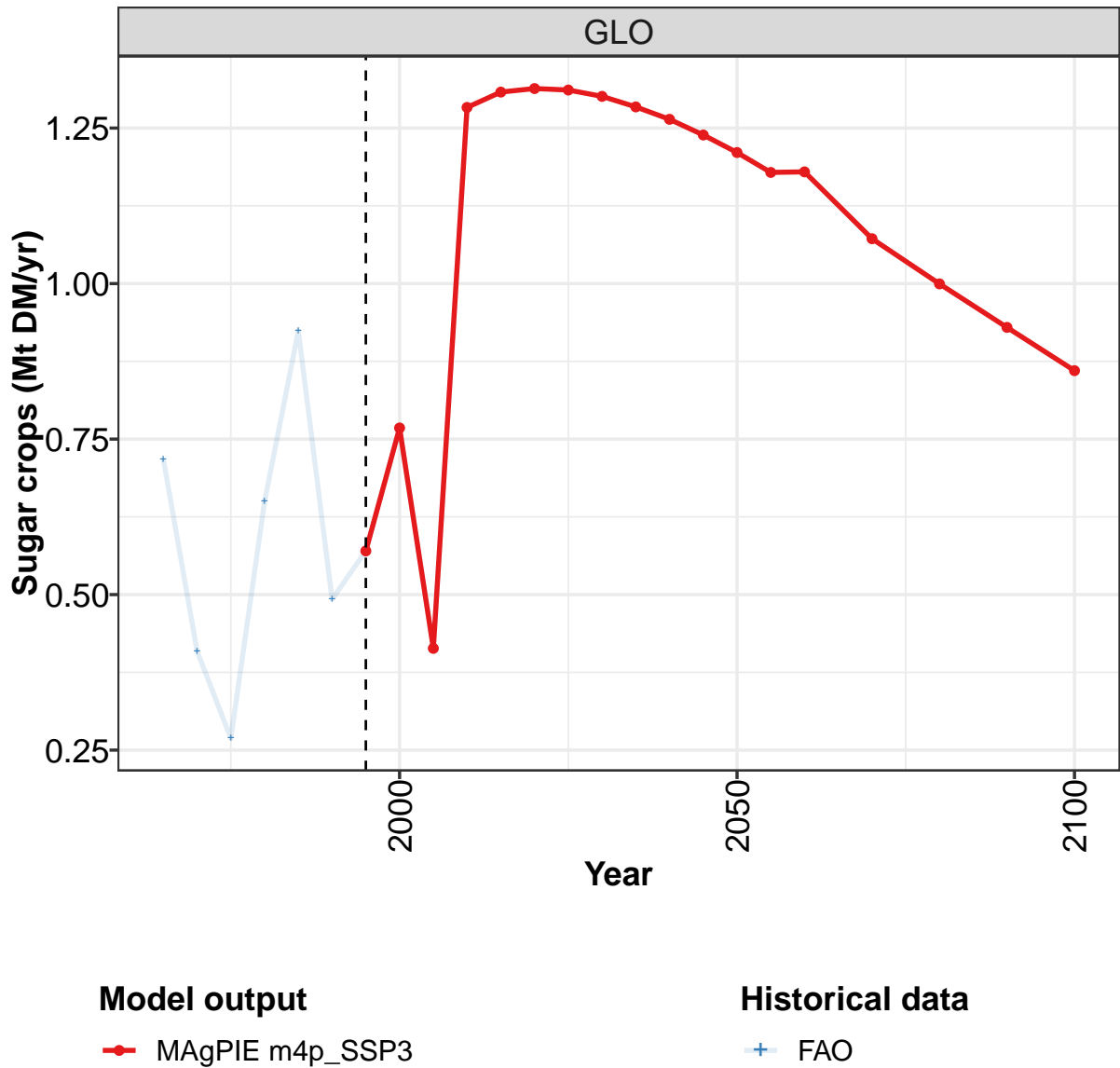
	2050	2055	2060	2070	2080	2090	2100
GLO	23.2	24.7	24.7	29.1	31.9	34.7	37.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	1.7	1.7	1.7	1.6	1.5	1.4	1.4
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.1	1.1	1.1	1.2	1.3	1.3	1.4
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	8.3	8.6	8.6	9.4	9.9	10.4	10.9
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	11.9	13.1	13.2	16.8	19.1	21.4	23.5
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 501: MAgPIE m4p_SSP3 — Demand—Material—Crops—Other crops—Tropical roots (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.9	3.0	2.4	1.7	1.7	3.2	6.1	8.2	10.9	11.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.7	1.3	1.8
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.6	0.8	0.7	0.6	0.5	0.7	0.7	0.6	0.7	0.7
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.2	0.3	0.3	0.3	0.3	0.2	1.8	2.6	2.7	5.0
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	1.0	1.8	1.3	0.7	0.7	1.9	3.2	4.3	6.0	4.2
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 502: FAO — Demand—Material—Crops—Other crops—Tropical roots (Mt DM/yr)

8.2.15 Sugar crops



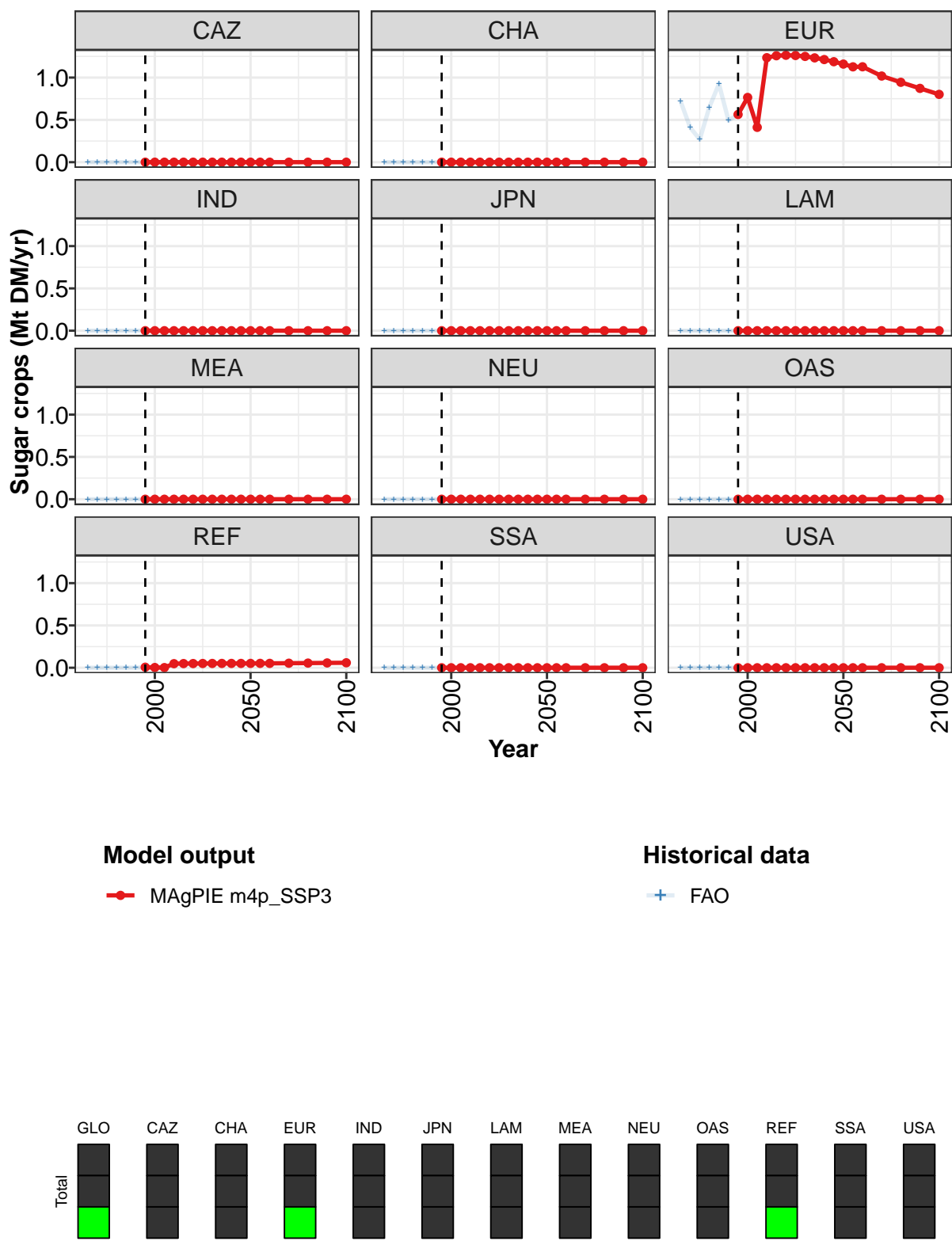


Figure 168: MAGPIE m4p_SSP3 — Demand—Material—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.57	0.77	0.41	1.28	1.31	1.31	1.31	1.30	1.28	1.26	1.24
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.56	0.77	0.41	1.24	1.26	1.26	1.26	1.25	1.23	1.21	1.19
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.01	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 503: MAgPIE m4p_SSP3 — Demand—Material—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

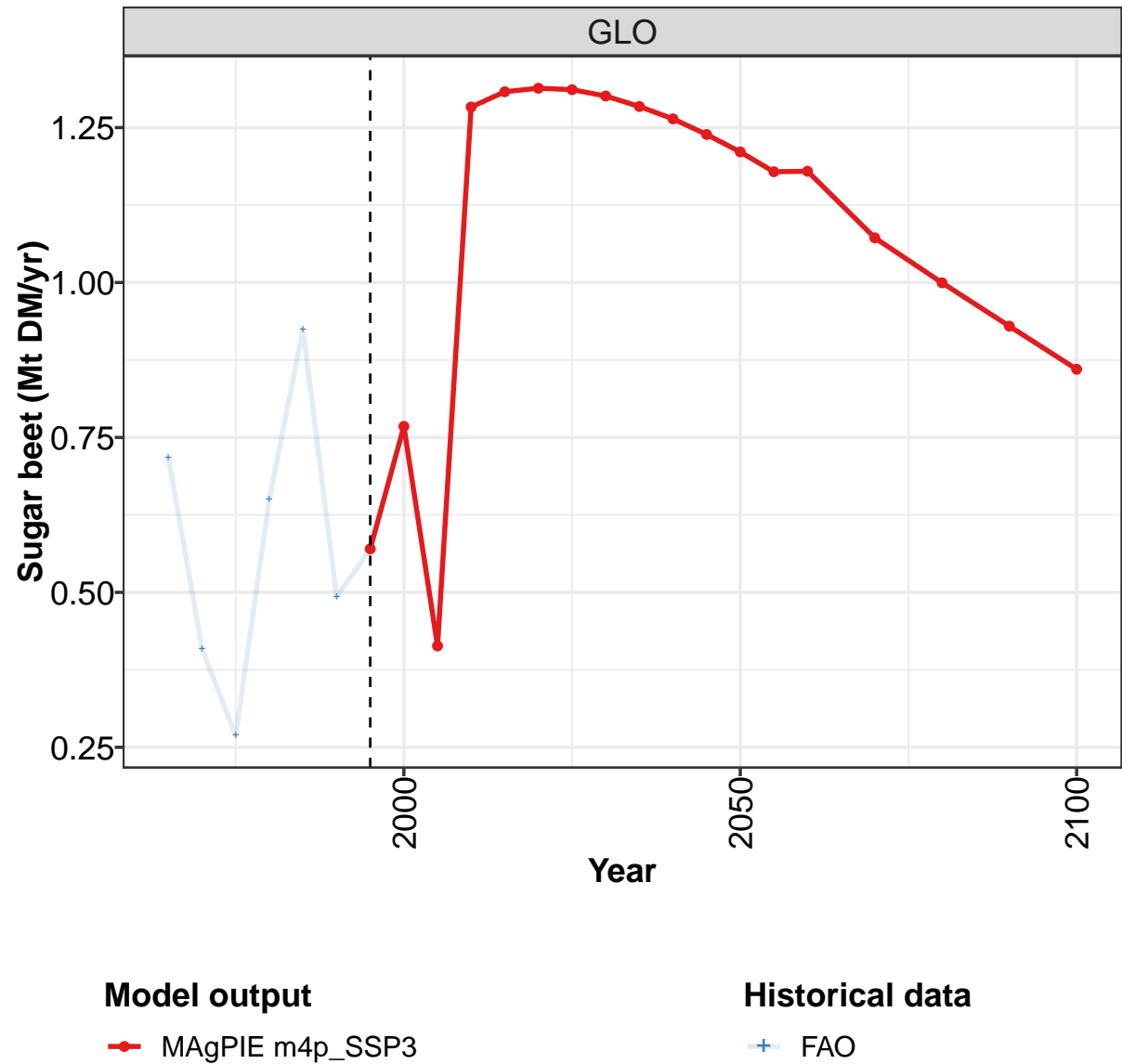
	2050	2055	2060	2070	2080	2090	2100
GLO	1.21	1.18	1.18	1.07	1.00	0.93	0.86
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	1.16	1.13	1.13	1.02	0.94	0.87	0.80
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.05	0.05	0.05	0.05	0.06	0.06	0.06
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 504: MAgPIE m4p_SSP3 — Demand—Material—Crops—Sugar crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.72	0.41	0.27	0.65	0.92	0.49	0.57	0.77	0.41	1.28
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.72	0.41	0.27	0.65	0.92	0.49	0.56	0.77	0.41	1.24
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.05
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 505: FAO — Demand—Material—Crops—Sugar crops (Mt DM/yr)

8.2.16 Sugar crops—Sugar beet



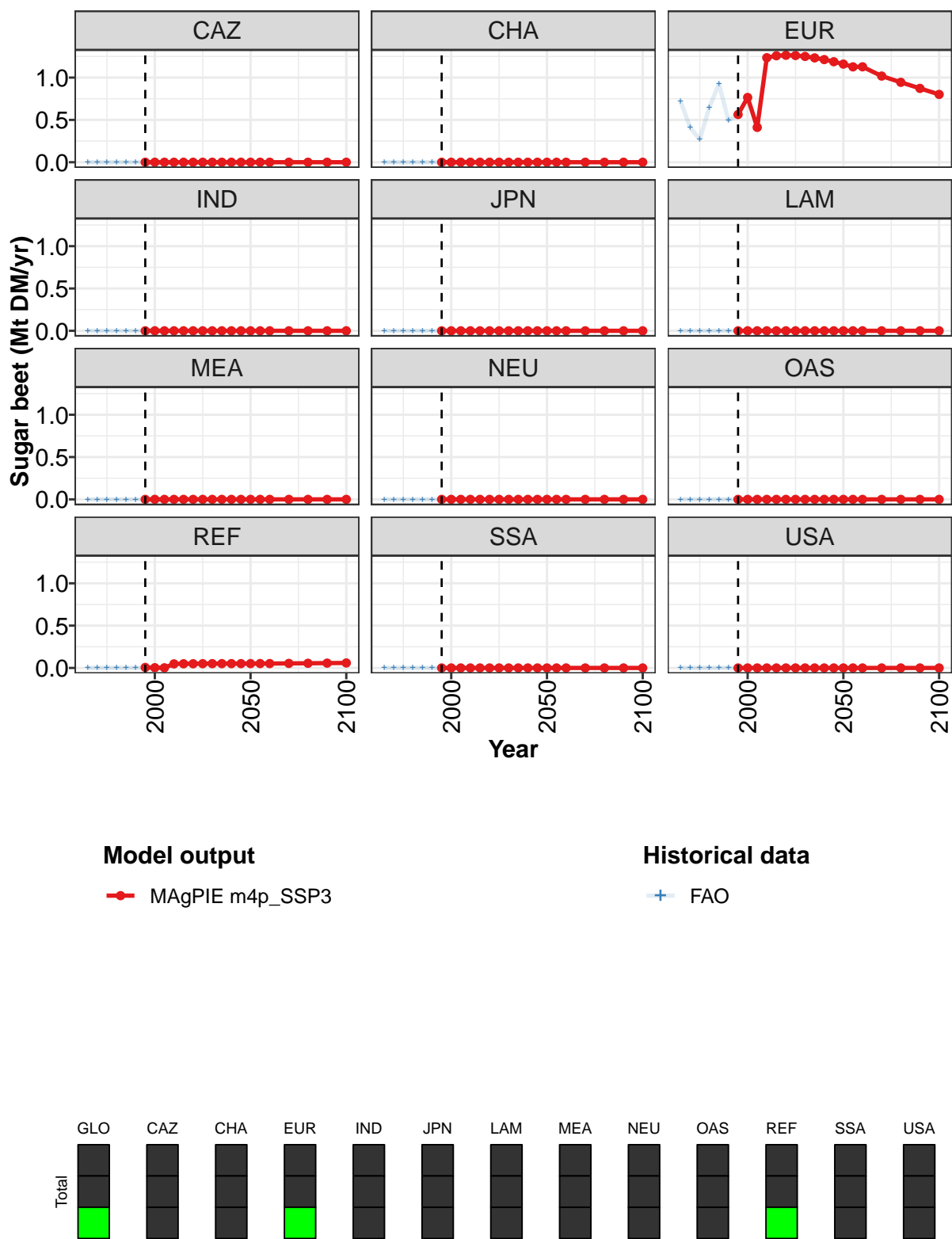


Figure 169: MAgPIE m4p_SSP3 — Demand—Material—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.57	0.77	0.41	1.28	1.31	1.31	1.31	1.30	1.28	1.26	1.24
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.56	0.77	0.41	1.24	1.26	1.26	1.26	1.25	1.23	1.21	1.19
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.01	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 506: MAgPIE m4p_SSP3 — Demand—Material—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

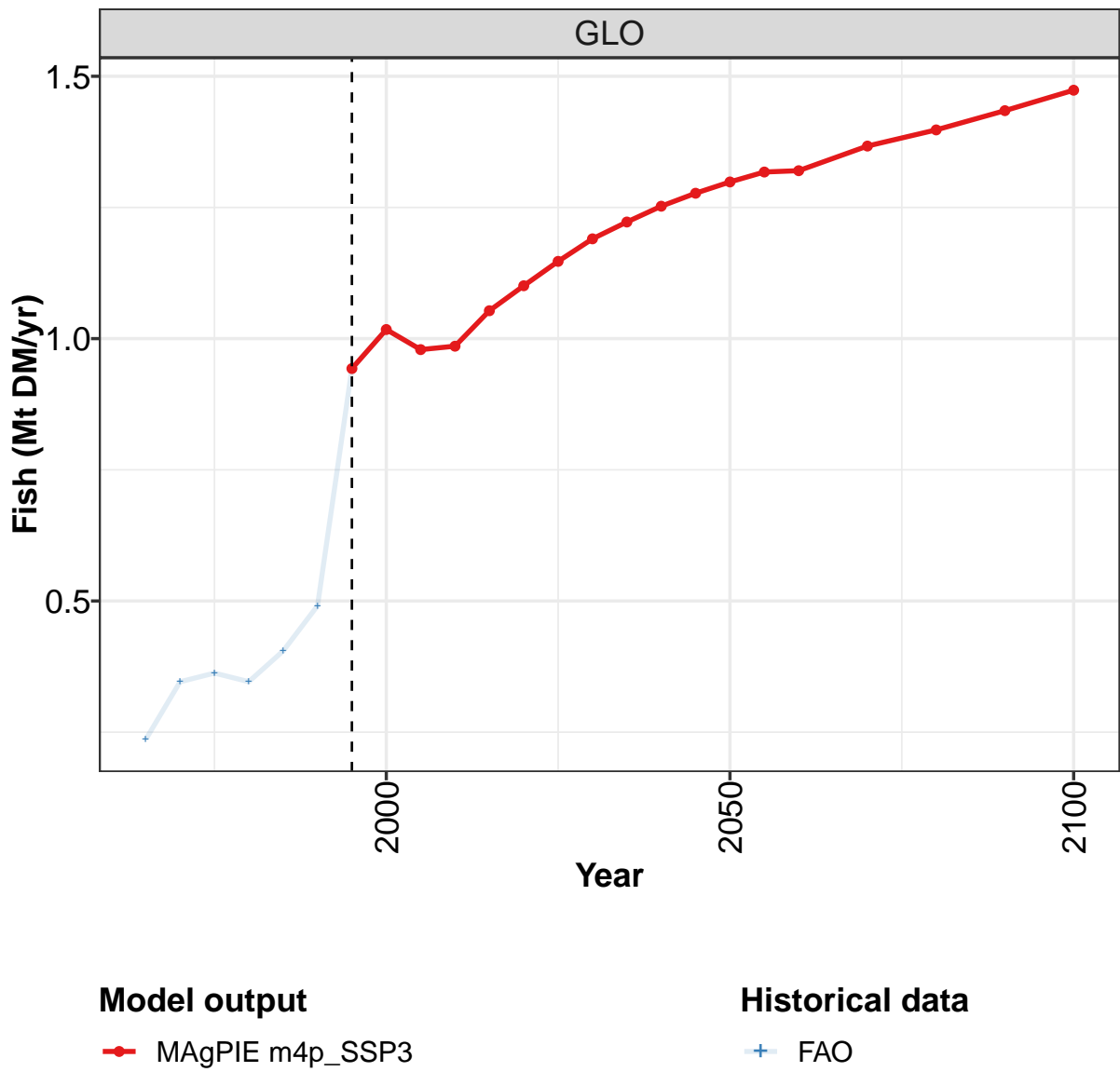
	2050	2055	2060	2070	2080	2090	2100
GLO	1.21	1.18	1.18	1.07	1.00	0.93	0.86
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	1.16	1.13	1.13	1.02	0.94	0.87	0.80
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.05	0.05	0.05	0.05	0.06	0.06	0.06
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

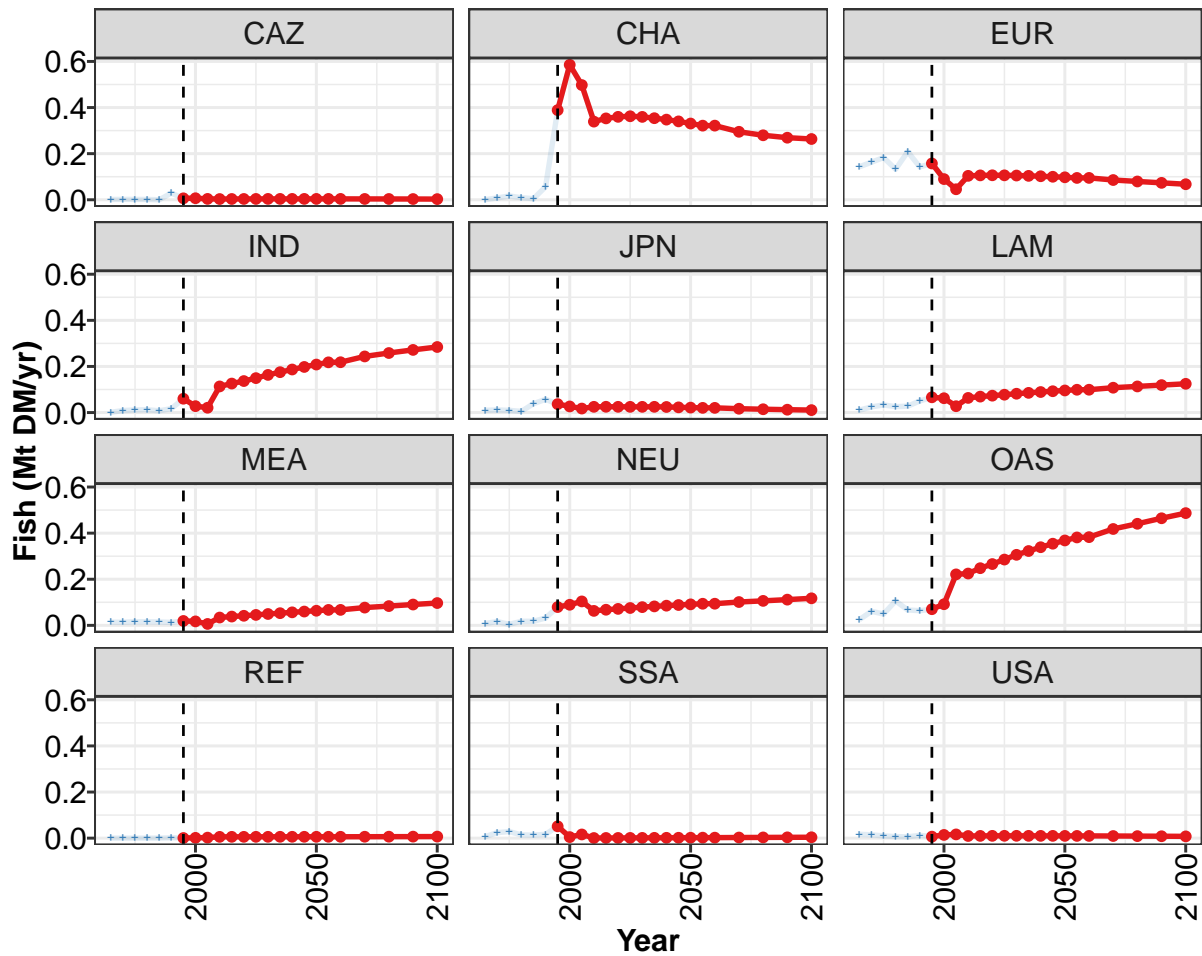
Table 507: MAgPIE m4p_SSP3 — Demand—Material—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.72	0.41	0.27	0.65	0.92	0.49	0.57	0.77	0.41	1.28
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.72	0.41	0.27	0.65	0.92	0.49	0.56	0.77	0.41	1.24
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.05
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 508: FAO — Demand—Material—Crops—Sugar crops—Sugar beet (Mt DM/yr)

8.3 Fish





Model output

MAgPIE m4p_SSP3

Historical data

FAO



Figure 170: MAgPIE m4p_SSP3 — Demand—Material—Fish (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.94	1.02	0.98	0.99	1.05	1.10	1.15	1.19	1.22	1.25	1.28
CAZ	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.39	0.59	0.50	0.34	0.35	0.36	0.36	0.36	0.35	0.35	0.34
EUR	0.16	0.09	0.05	0.10	0.11	0.11	0.11	0.11	0.10	0.10	0.10
IND	0.06	0.03	0.02	0.11	0.13	0.14	0.15	0.16	0.18	0.19	0.20
JPN	0.04	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
LAM	0.07	0.06	0.03	0.06	0.07	0.07	0.08	0.08	0.09	0.09	0.09
MEA	0.02	0.02	0.01	0.03	0.04	0.04	0.05	0.05	0.05	0.06	0.06
NEU	0.08	0.09	0.10	0.06	0.07	0.07	0.08	0.08	0.08	0.09	0.09
OAS	0.07	0.09	0.22	0.22	0.25	0.27	0.29	0.31	0.32	0.34	0.35
REF	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
SSA	0.05	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

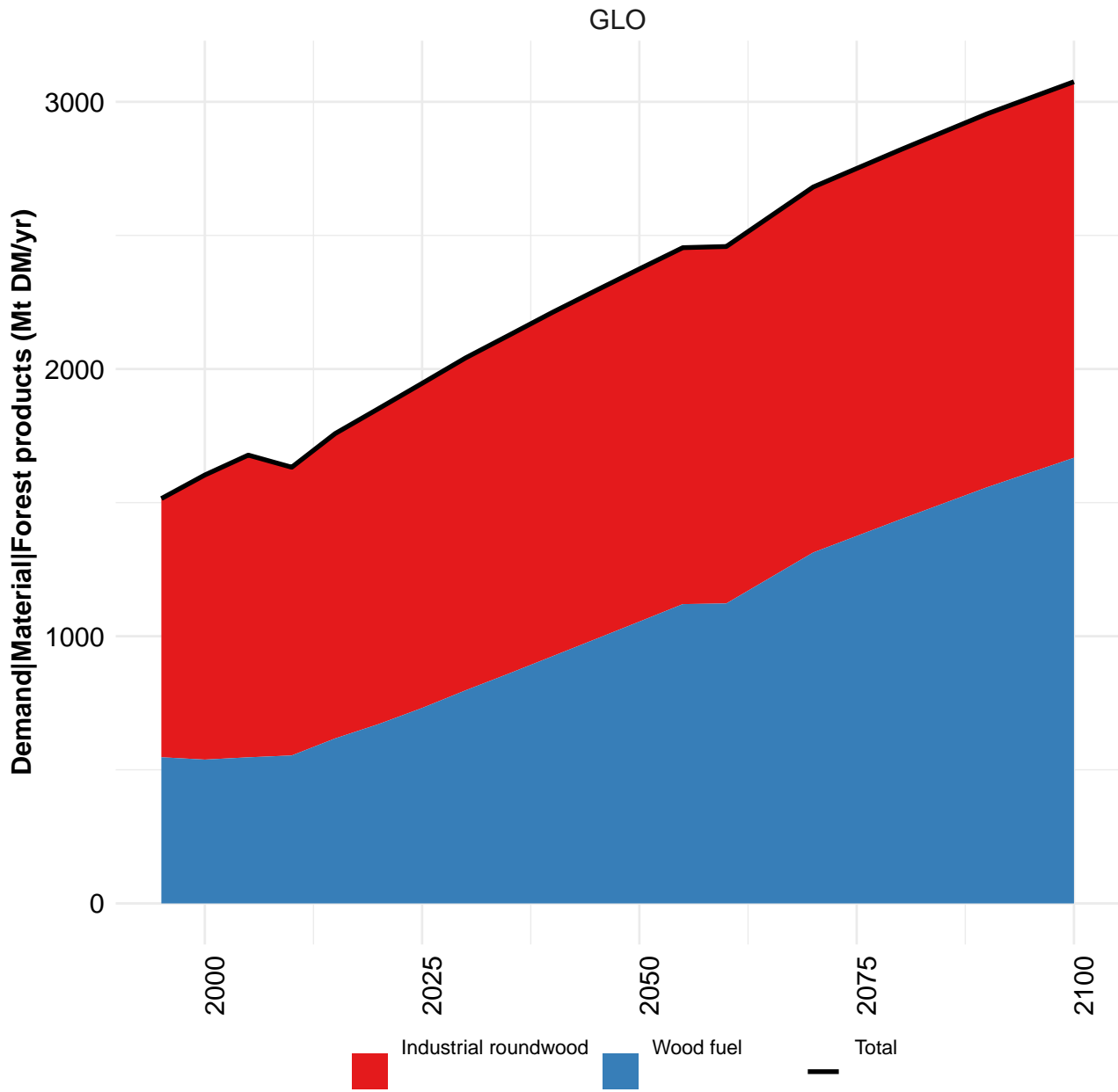
Table 509: MAgPIE m4p-SSP3 — Demand—Material—Fish (Mt DM/yr) [PART 1/2]

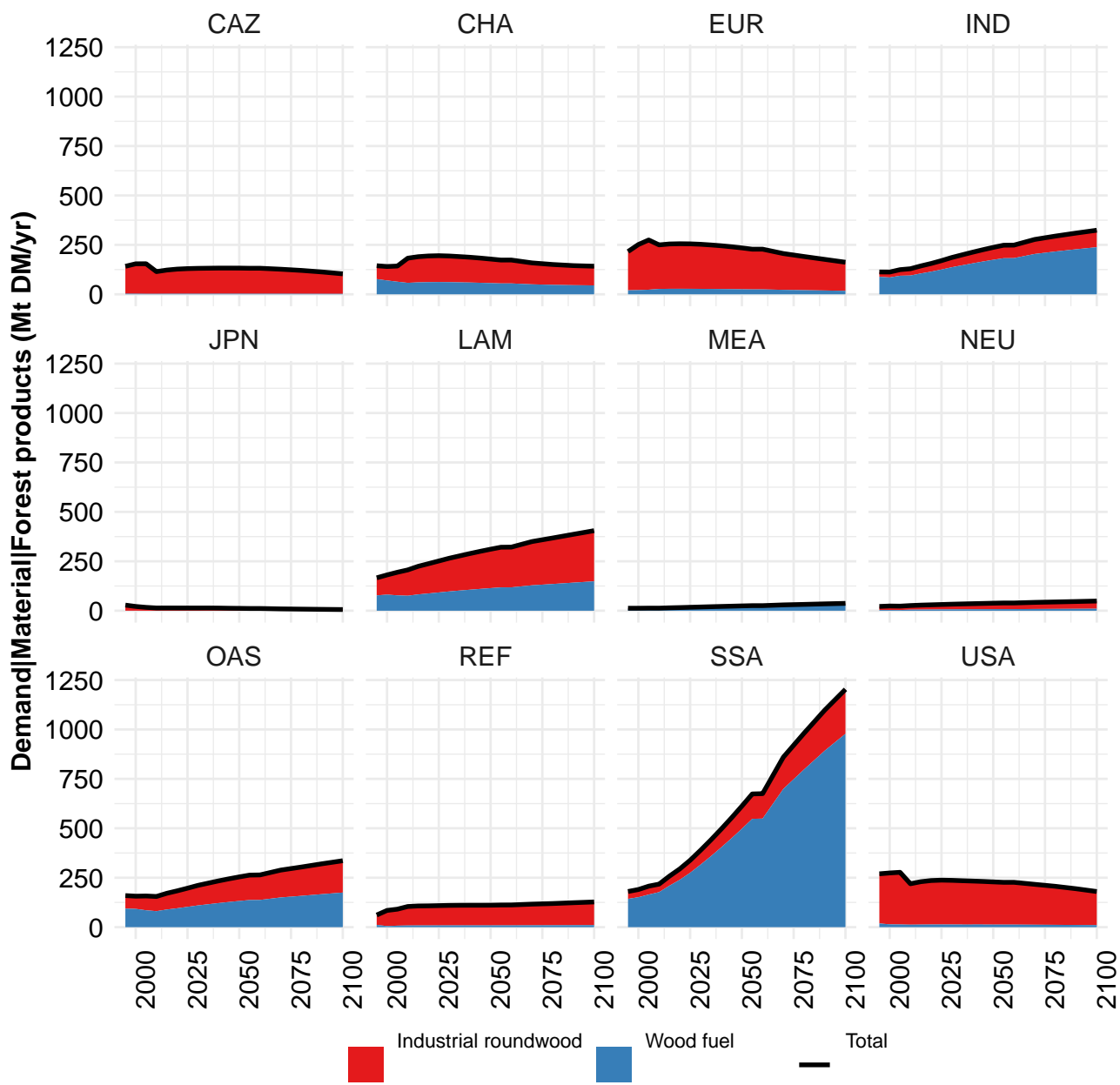
	2050	2055	2060	2070	2080	2090	2100
GLO	1.30	1.32	1.32	1.37	1.40	1.43	1.47
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.33	0.32	0.32	0.29	0.28	0.27	0.26
EUR	0.10	0.09	0.09	0.09	0.08	0.07	0.07
IND	0.21	0.22	0.22	0.24	0.26	0.27	0.28
JPN	0.02	0.02	0.02	0.02	0.01	0.01	0.01
LAM	0.10	0.10	0.10	0.11	0.11	0.12	0.12
MEA	0.06	0.07	0.07	0.08	0.08	0.09	0.10
NEU	0.09	0.09	0.09	0.10	0.11	0.11	0.12
OAS	0.37	0.38	0.38	0.42	0.44	0.46	0.49
REF	0.01	0.01	0.01	0.01	0.01	0.01	0.01
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Table 510: MAgPIE m4p-SSP3 — Demand—Material—Fish (Mt DM/yr) [PART 2/2]

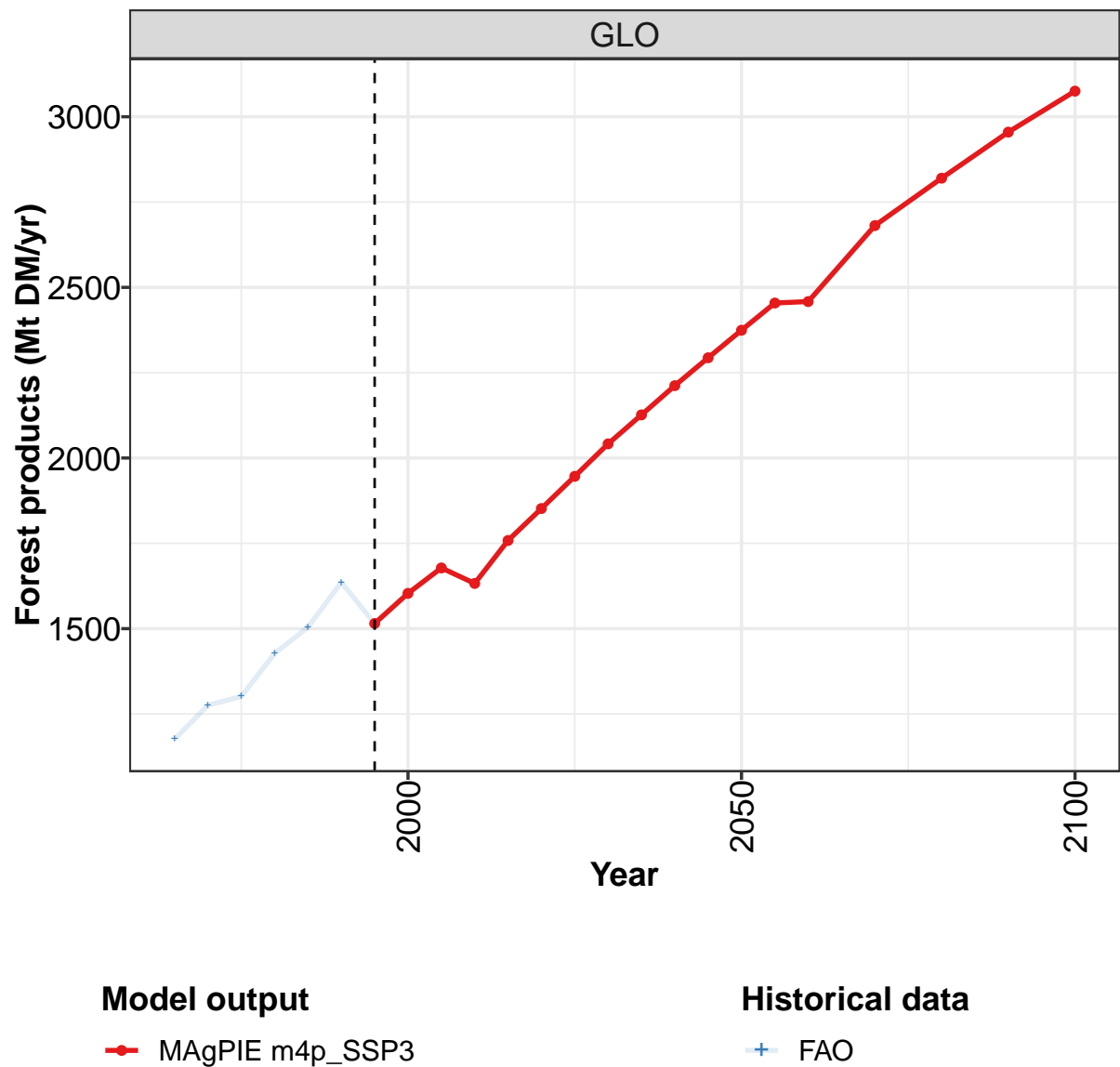
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.24	0.35	0.36	0.35	0.40	0.49	0.94	1.02	0.98	0.99
CAZ	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.01	0.00	0.00
CHA	0.00	0.01	0.02	0.01	0.00	0.06	0.39	0.59	0.50	0.34
EUR	0.14	0.16	0.18	0.13	0.21	0.14	0.16	0.09	0.05	0.10
IND	0.00	0.01	0.01	0.01	0.01	0.02	0.06	0.03	0.02	0.11
JPN	0.01	0.01	0.01	0.01	0.04	0.06	0.04	0.03	0.02	0.03
LAM	0.01	0.02	0.03	0.03	0.03	0.05	0.07	0.06	0.03	0.06
MEA	0.01	0.01	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.03
NEU	0.01	0.02	0.00	0.02	0.02	0.03	0.08	0.09	0.10	0.06
OAS	0.02	0.06	0.05	0.11	0.07	0.06	0.07	0.09	0.22	0.22
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
SSA	0.01	0.02	0.03	0.01	0.01	0.02	0.05	0.00	0.02	0.00
USA	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01

Table 511: FAO — Demand—Material—Fish (Mt DM/yr)





8.4 Forest products



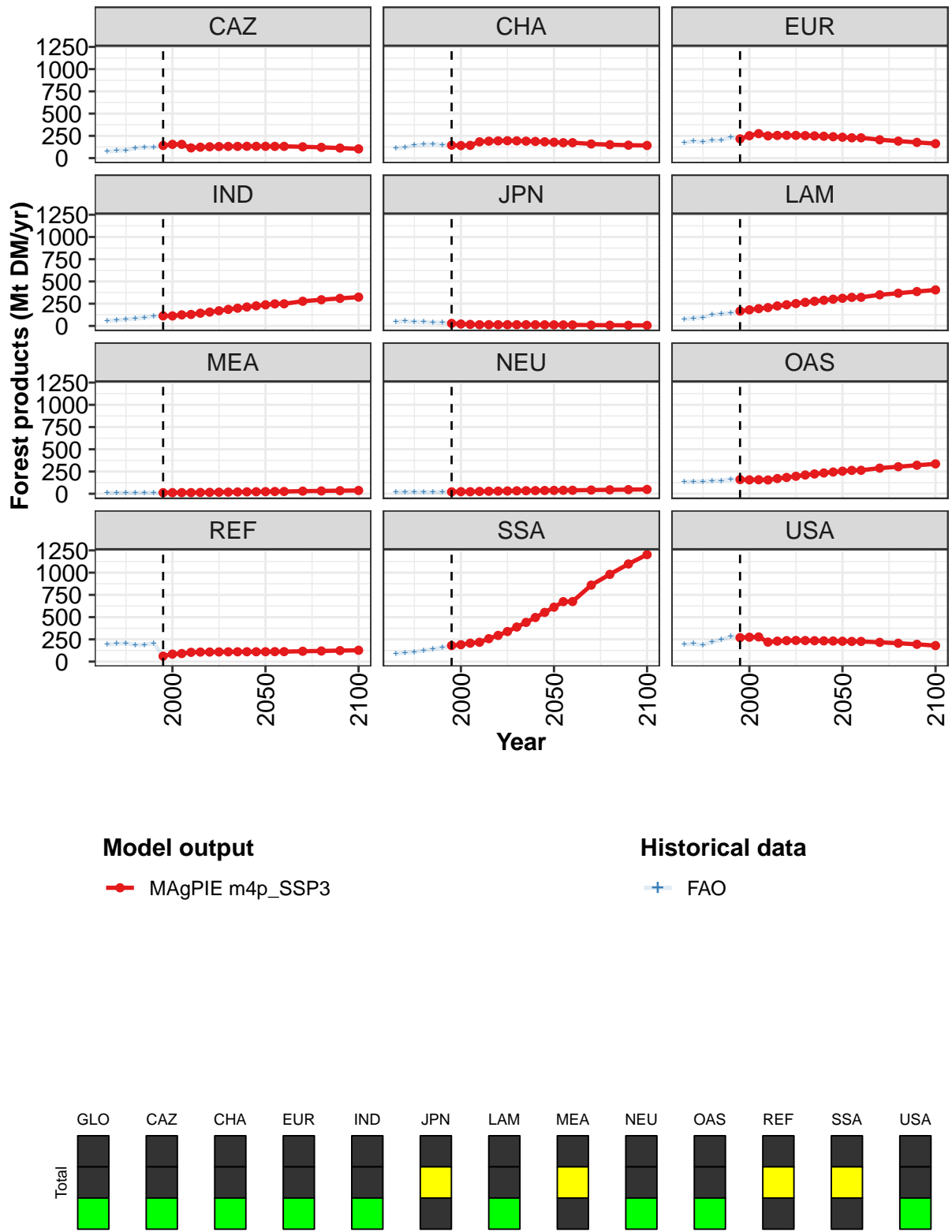


Figure 171: MAgPIE m4p_SSP3 — Demand—Material—Forest products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1515	1603	1678	1632	1758	1852	1946	2042	2126	2212	2294
CAZ	142	154	155	115	123	127	130	131	132	133	133
CHA	144	141	143	183	190	194	195	194	191	187	183
EUR	216	252	275	250	255	256	255	253	250	245	240
IND	113	113	125	129	143	156	170	186	200	213	225
JPN	28	22	17	14	14	14	14	14	14	13	13
LAM	166	181	194	206	225	238	252	265	277	289	300
MEA	13	13	13	13	15	16	17	19	20	22	23
NEU	22	24	23	26	28	30	31	33	34	36	37
OAS	160	157	158	155	171	184	197	211	223	234	244
REF	61	84	91	104	107	108	109	110	110	111	111
SSA	180	190	207	218	258	295	338	389	441	496	553
USA	270	274	277	219	230	236	238	237	235	233	231

Table 512: MAgPIE m4p_SSP3 — Demand—Material—Forest products (Mt DM/yr) [PART 1/2]

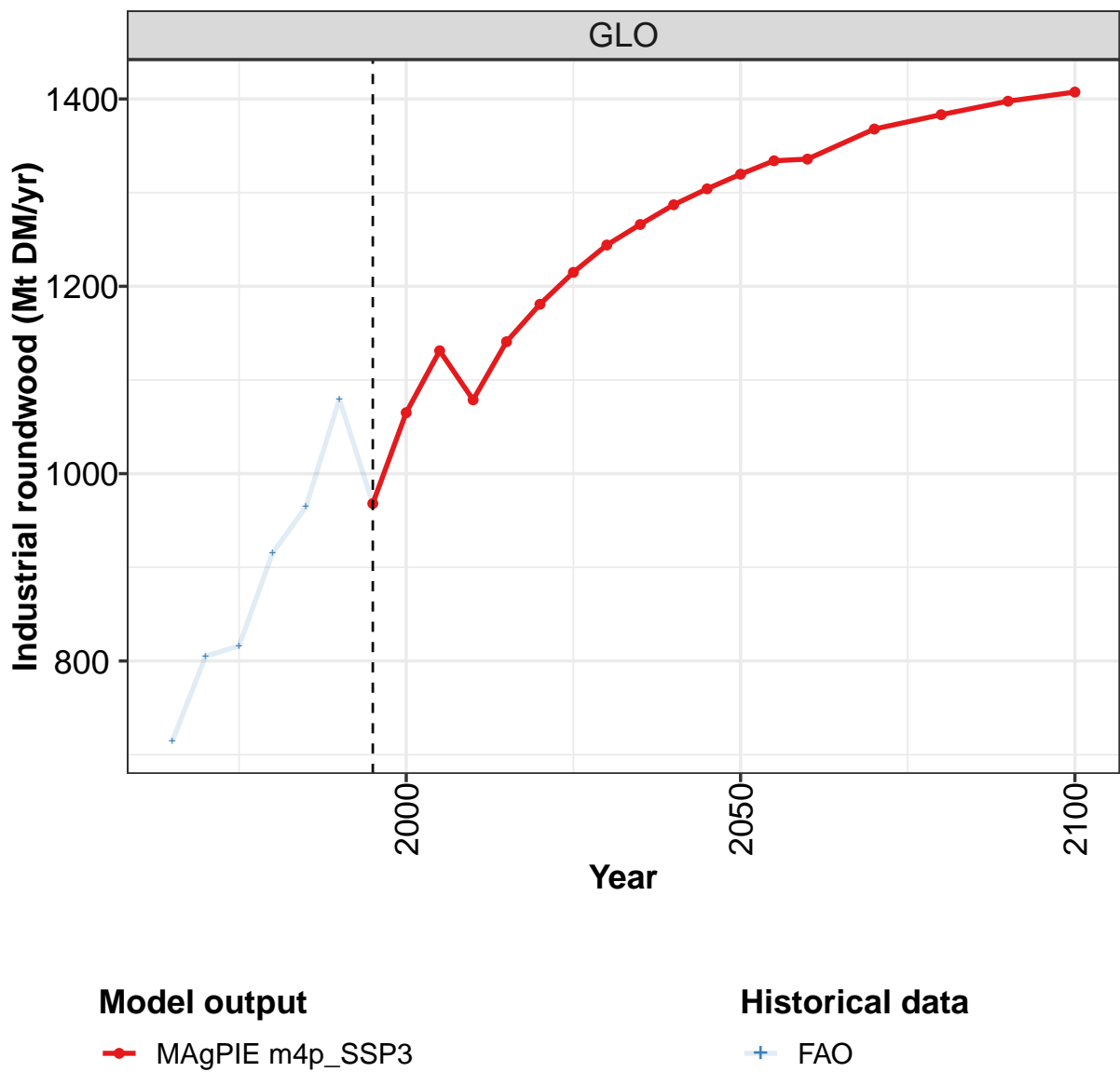
	2050	2055	2060	2070	2080	2090	2100
GLO	2374	2454	2458	2681	2820	2955	3075
CAZ	132	132	132	127	121	113	104
CHA	178	173	173	159	151	145	142
EUR	235	228	228	206	191	177	162
IND	237	248	249	277	294	310	324
JPN	12	11	11	9	8	7	6
LAM	311	321	322	350	368	386	405
MEA	24	26	26	30	32	35	37
NEU	38	39	39	42	44	47	49
OAS	254	263	264	288	304	321	336
REF	111	112	112	116	119	124	127
SSA	612	674	675	860	981	1098	1203
USA	229	227	227	216	207	194	180

Table 513: MAgPIE m4p_SSP3 — Demand—Material—Forest products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1176	1275	1301	1427	1504	1636	1515	1603	1678	1632
CAZ	74	86	87	114	123	120	142	154	155	115
CHA	113	119	144	152	160	150	144	141	143	183
EUR	171	191	180	197	199	233	216	252	275	250
IND	57	66	75	84	94	108	113	113	125	129
JPN	44	55	44	45	39	36	28	22	17	14
LAM	78	86	97	124	134	148	166	181	194	206
MEA	11	11	11	12	13	11	13	13	13	13
NEU	19	22	21	21	20	21	22	24	23	26
OAS	135	135	138	147	146	164	160	157	158	155
REF	193	201	208	187	190	206	61	84	91	104
SSA	89	102	110	124	141	157	180	190	207	218
USA	191	202	186	220	245	282	270	274	277	219

Table 514: FAO — Demand—Material—Forest products (Mt DM/yr)

8.4.1 Industrial roundwood



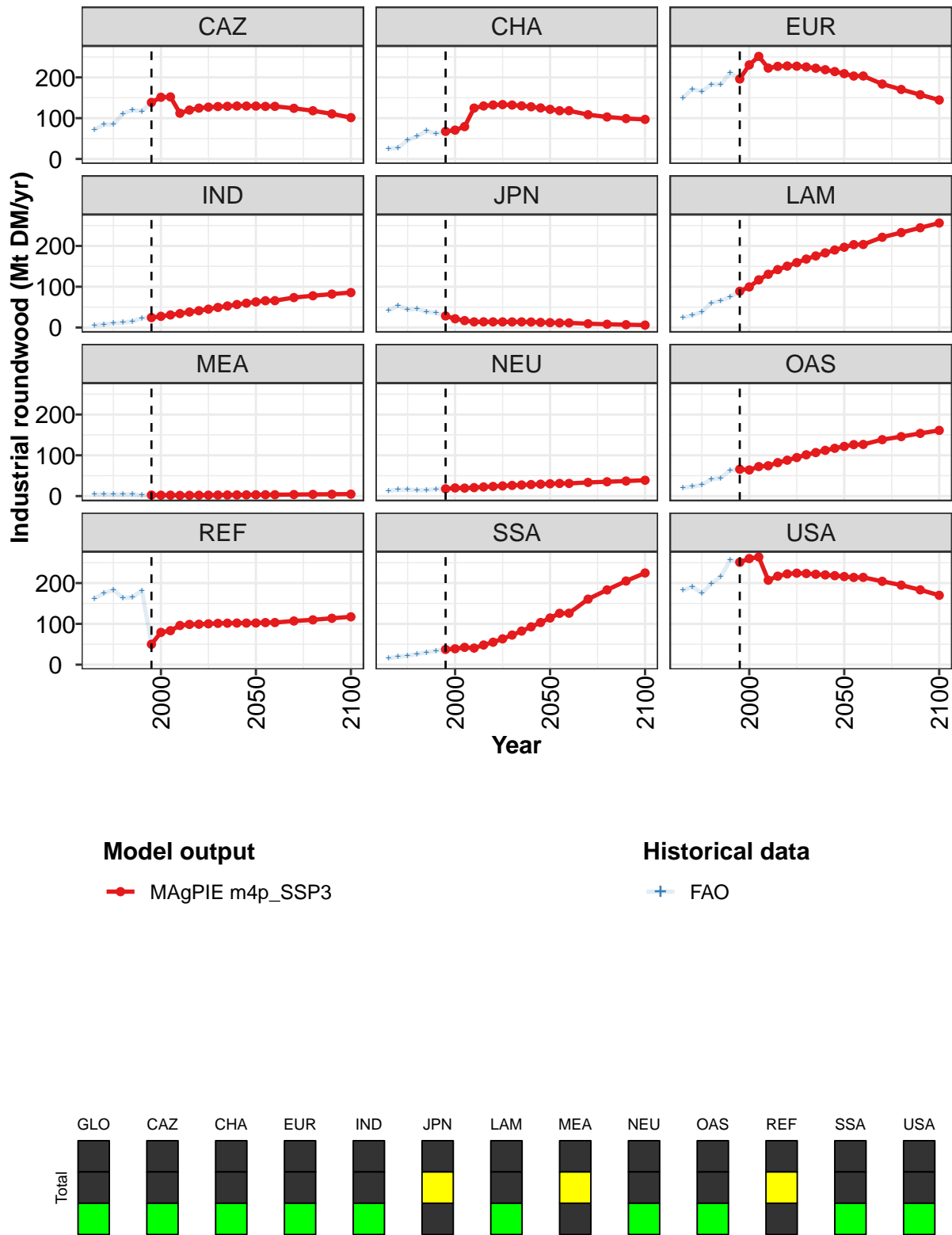


Figure 172: MAgPIE m4p_SSP3 — Demand—Material—Forest products—Industrial roundwood (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	968	1065	1131	1079	1141	1181	1215	1244	1266	1287	1304
CAZ	138	151	152	112	120	125	127	128	129	130	130
CHA	67	71	79	125	130	132	133	132	130	128	125
EUR	196	230	251	223	227	228	227	226	222	219	214
IND	24	27	31	34	38	41	45	49	53	56	60
JPN	28	21	17	14	14	14	14	14	14	13	13
LAM	89	99	117	131	142	150	159	168	175	183	190
MEA	3	2	2	2	2	2	2	2	3	3	3
NEU	18	20	20	21	22	24	25	26	27	28	29
OAS	66	64	72	74	82	88	94	101	107	112	117
REF	50	79	83	96	99	99	100	101	102	102	102
SSA	37	39	42	41	48	55	63	73	82	93	103
USA	251	260	264	207	217	222	224	223	222	220	218

Table 515: MAgPIE m4p_SSP3 — Demand—Material—Forest products—Industrial roundwood (Mt DM/yr)
[PART 1/2]

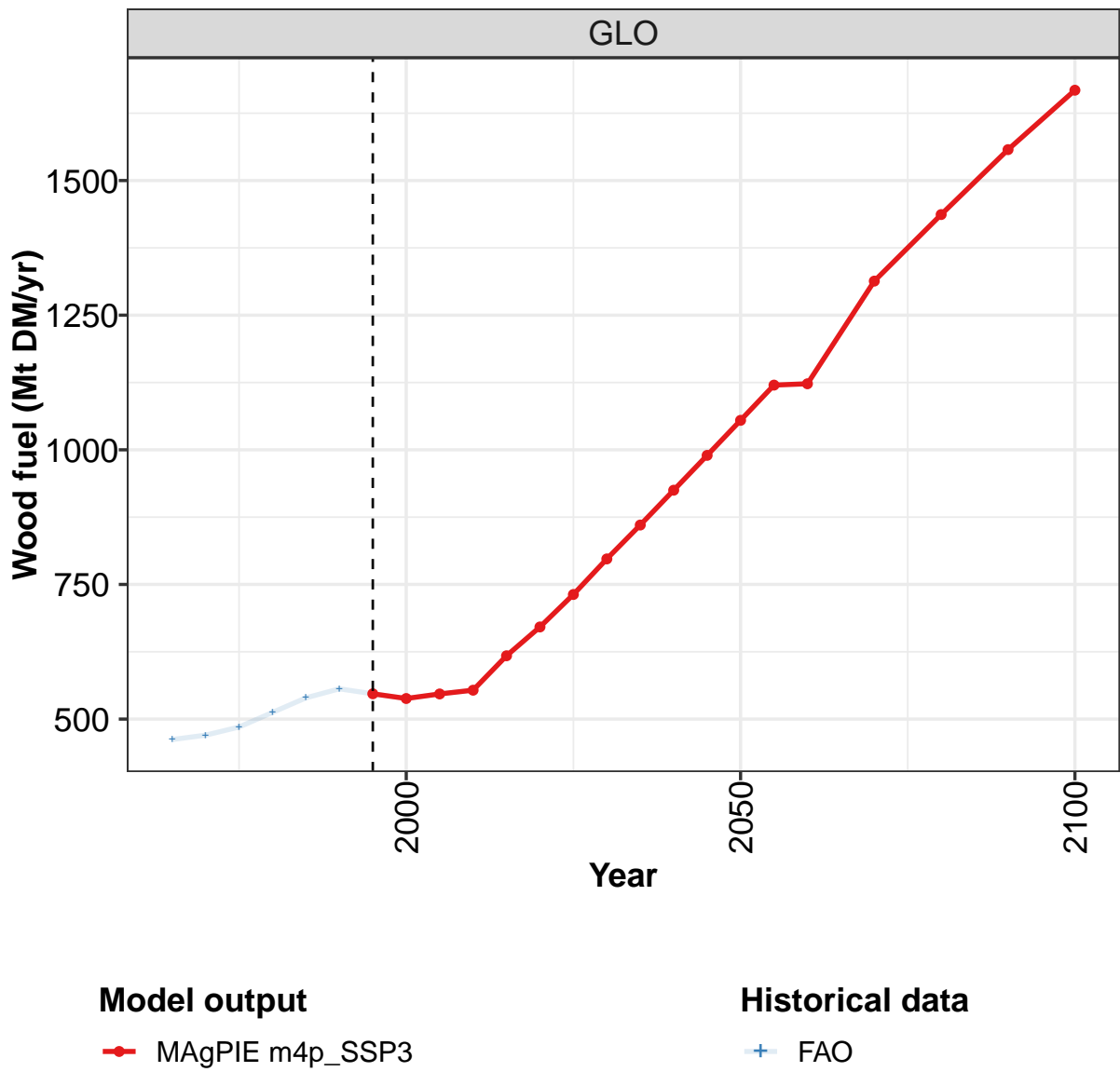
	2050	2055	2060	2070	2080	2090	2100
GLO	1320	1334	1336	1368	1383	1398	1407
CAZ	130	129	129	124	118	110	101
CHA	122	118	118	108	103	99	97
EUR	209	203	203	184	170	157	145
IND	63	66	66	73	78	82	86
JPN	12	11	11	9	8	7	6
LAM	197	203	204	221	233	245	256
MEA	3	3	3	4	4	4	5
NEU	30	31	31	33	35	37	39
OAS	122	126	127	138	146	154	161
REF	102	103	103	107	110	114	117
SSA	114	126	126	161	183	205	225
USA	216	214	214	204	195	183	170

Table 516: MAgPIE m4p_SSP3 — Demand—Material—Forest products—Industrial roundwood (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	714	805	816	915	965	1079	968	1065	1131	1079
CAZ	72	84	85	111	120	117	138	151	152	112
CHA	25	28	46	55	69	62	67	71	79	125
EUR	150	171	166	183	183	212	196	230	251	223
IND	5	8	10	12	15	23	24	27	31	34
JPN	41	54	44	45	39	36	28	21	17	14
LAM	24	31	38	60	66	75	89	99	117	131
MEA	4	4	4	4	5	2	3	2	2	2
NEU	13	15	16	14	15	17	18	20	20	21
OAS	21	24	28	41	45	63	66	64	72	74
REF	162	175	184	163	165	182	50	79	83	96
SSA	15	19	22	26	30	34	37	39	42	41
USA	182	191	175	198	215	257	251	260	264	207

Table 517: FAO — Demand—Material—Forest products—Industrial roundwood (Mt DM/yr)

8.4.2 Wood fuel



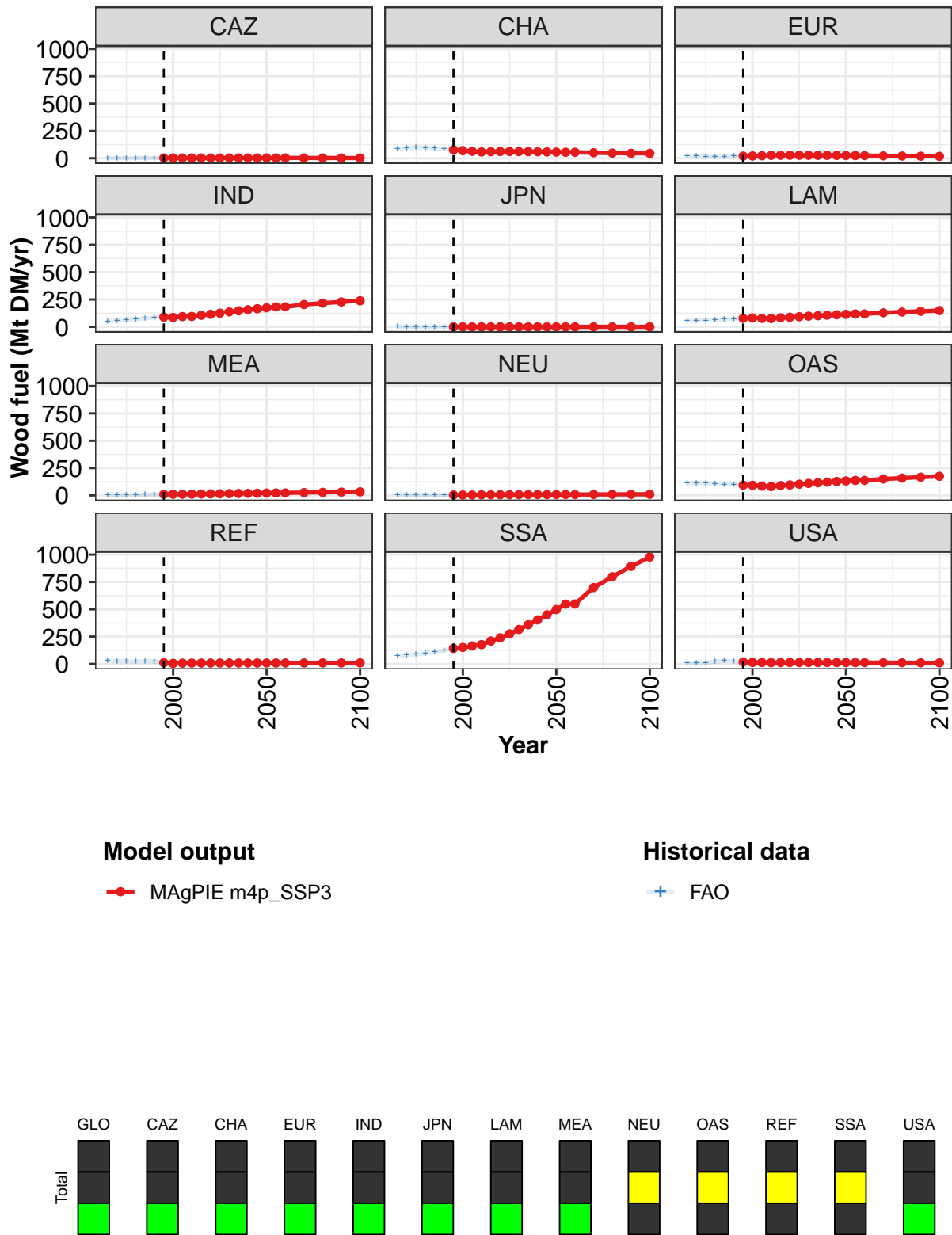


Figure 173: MAgPIE m4p_SSP3 — Demand—Material—Forest products—Wood fuel (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	547	538	547	554	618	671	731	797	860	925	990
CAZ	3	3	3	2	3	3	3	3	3	3	3
CHA	77	70	64	58	60	62	62	61	61	59	58
EUR	20	21	23	27	28	28	28	28	27	27	26
IND	89	85	94	95	105	115	125	137	147	157	166
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	77	82	78	76	82	87	92	97	102	106	110
MEA	10	10	11	11	13	14	15	16	18	19	20
NEU	4	4	4	5	6	6	7	7	7	7	8
OAS	94	92	85	81	89	96	103	110	116	122	127
REF	11	5	7	8	9	9	9	9	9	9	9
SSA	143	151	165	177	210	240	275	316	359	403	450
USA	19	14	13	12	13	13	13	13	13	13	13

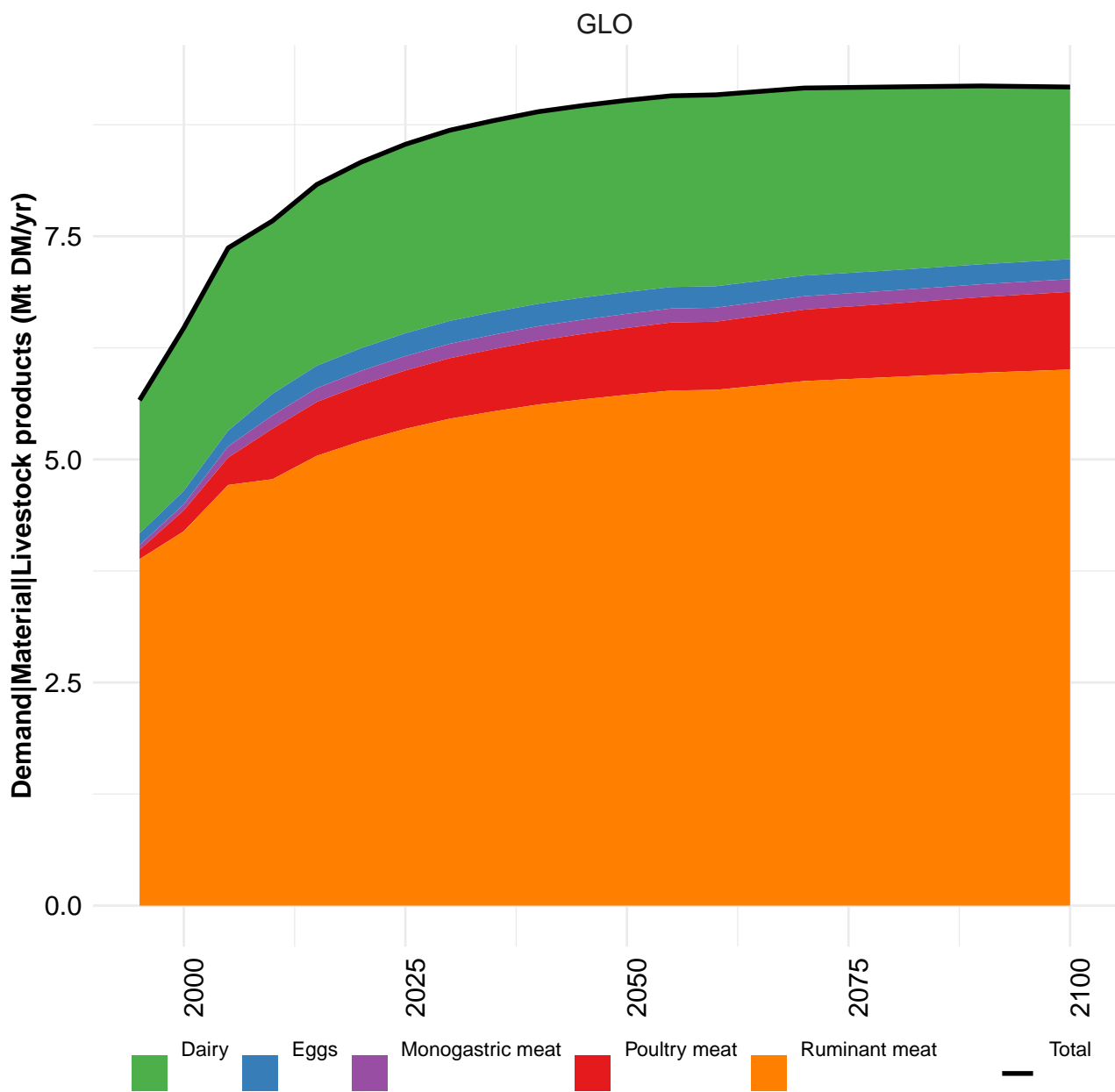
Table 518: MAgPIE m4p_SSP3 — Demand—Material—Forest products—Wood fuel (Mt DM/yr) [PART 1/2]

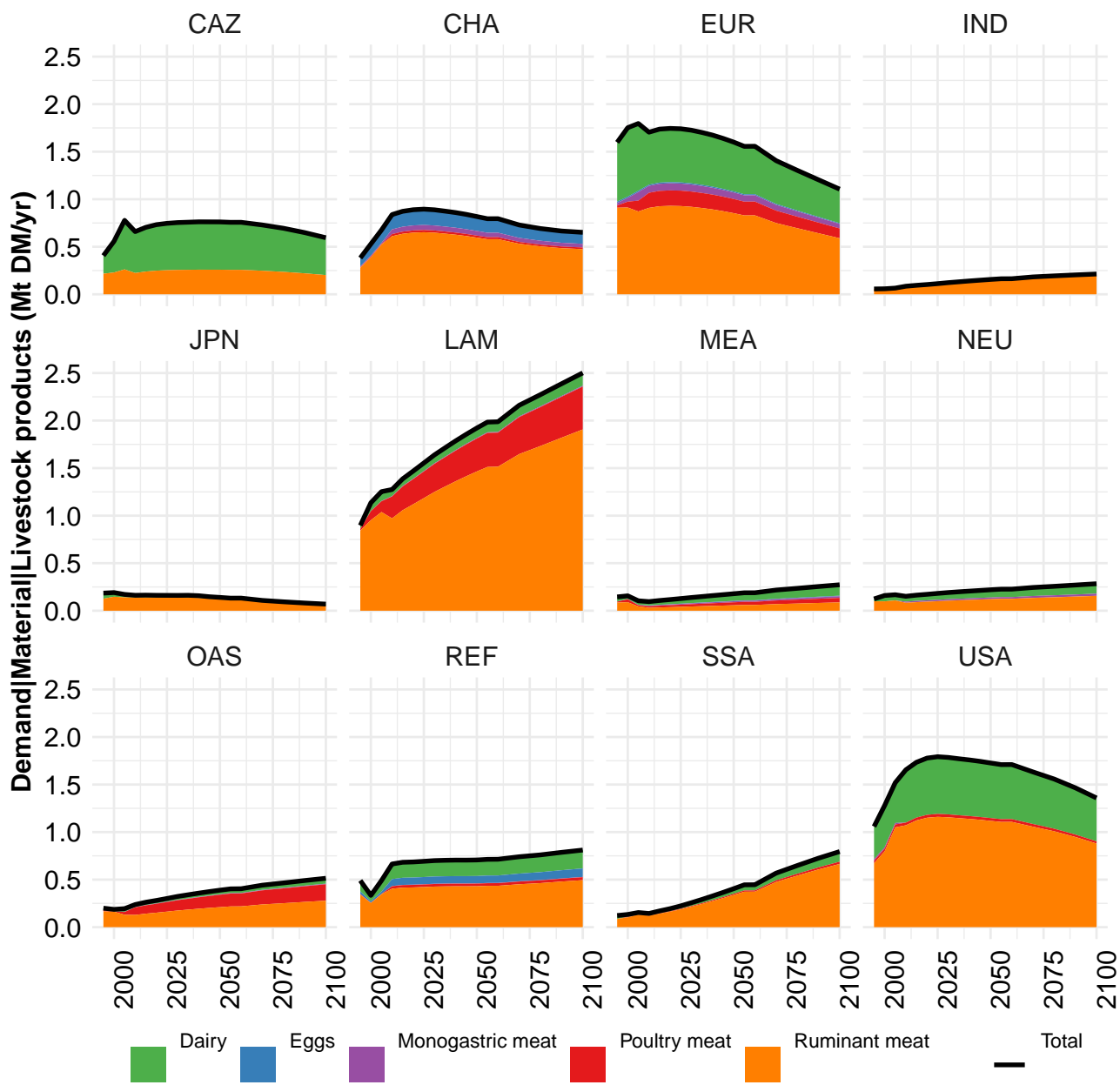
	2050	2055	2060	2070	2080	2090	2100
GLO	1055	1120	1123	1313	1437	1557	1668
CAZ	3	3	3	3	3	2	2
CHA	57	55	55	50	48	46	45
EUR	26	25	25	22	21	19	18
IND	175	183	183	204	216	228	238
JPN	0	0	0	0	0	0	0
LAM	114	118	118	128	135	142	149
MEA	21	22	22	26	28	30	32
NEU	8	8	8	9	9	10	10
OAS	132	137	137	150	158	167	175
REF	9	9	9	9	10	10	10
SSA	498	548	549	699	798	893	978
USA	13	13	13	12	12	11	10

Table 519: MAgPIE m4p_SSP3 — Demand—Material—Forest products—Wood fuel (Mt DM/yr) [PART 2/2]

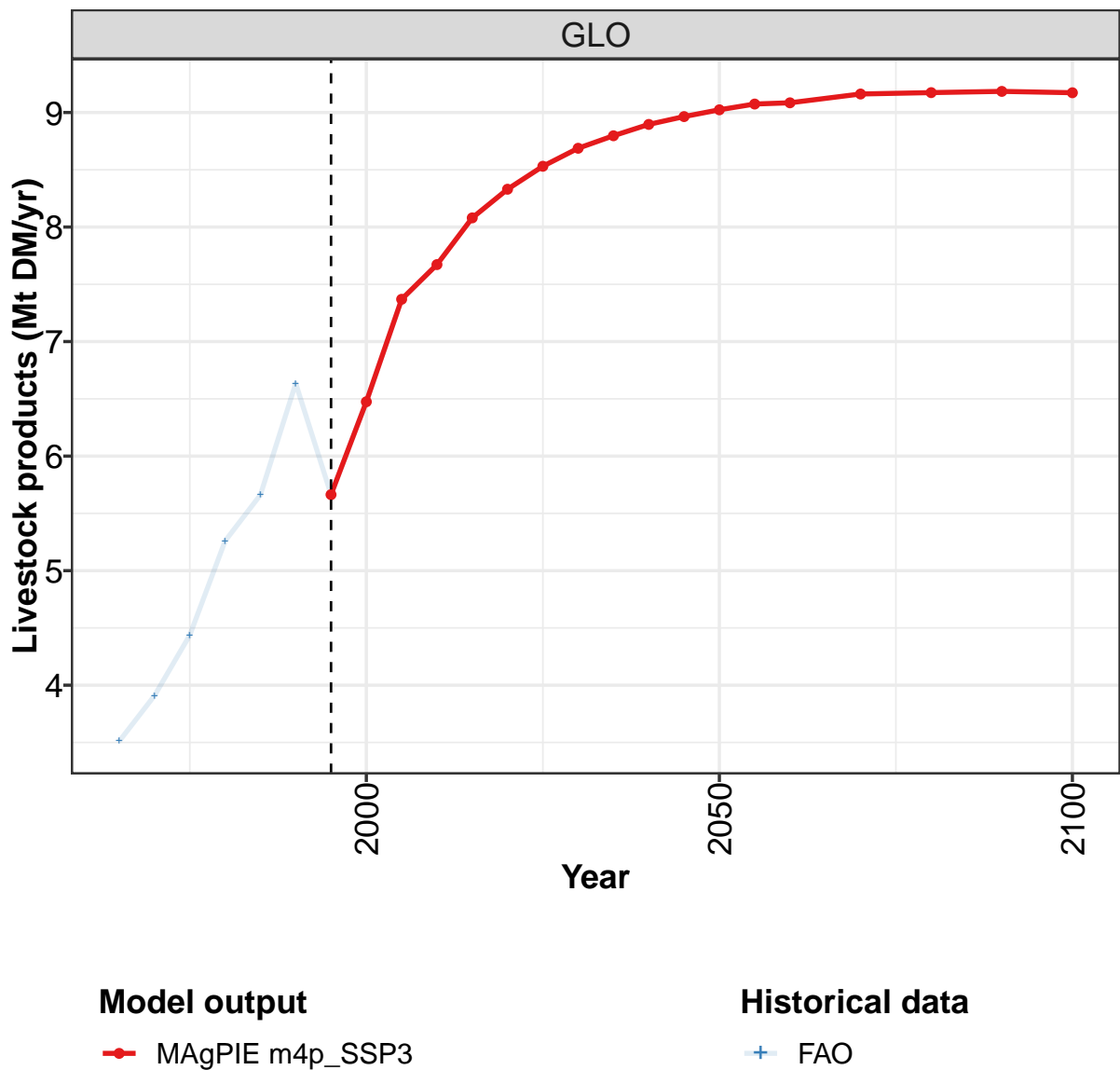
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	462	470	485	512	539	556	547	538	547	554
CAZ	3	2	2	2	3	3	3	3	3	2
CHA	88	91	98	97	91	88	77	70	64	58
EUR	22	19	15	15	17	21	20	21	23	27
IND	52	58	64	71	79	85	89	85	94	95
JPN	3	1	0	0	0	0	0	0	0	0
LAM	54	55	59	64	68	72	77	82	78	76
MEA	7	7	7	8	8	9	10	10	11	11
NEU	6	6	5	7	5	5	4	4	4	5
OAS	114	111	111	106	102	101	94	92	85	81
REF	31	25	24	23	26	24	11	5	7	8
SSA	73	82	88	98	111	123	143	151	165	177
USA	9	11	11	22	30	25	19	14	13	12

Table 520: FAO — Demand—Material—Forest products—Wood fuel (Mt DM/yr)





8.5 Livestock products



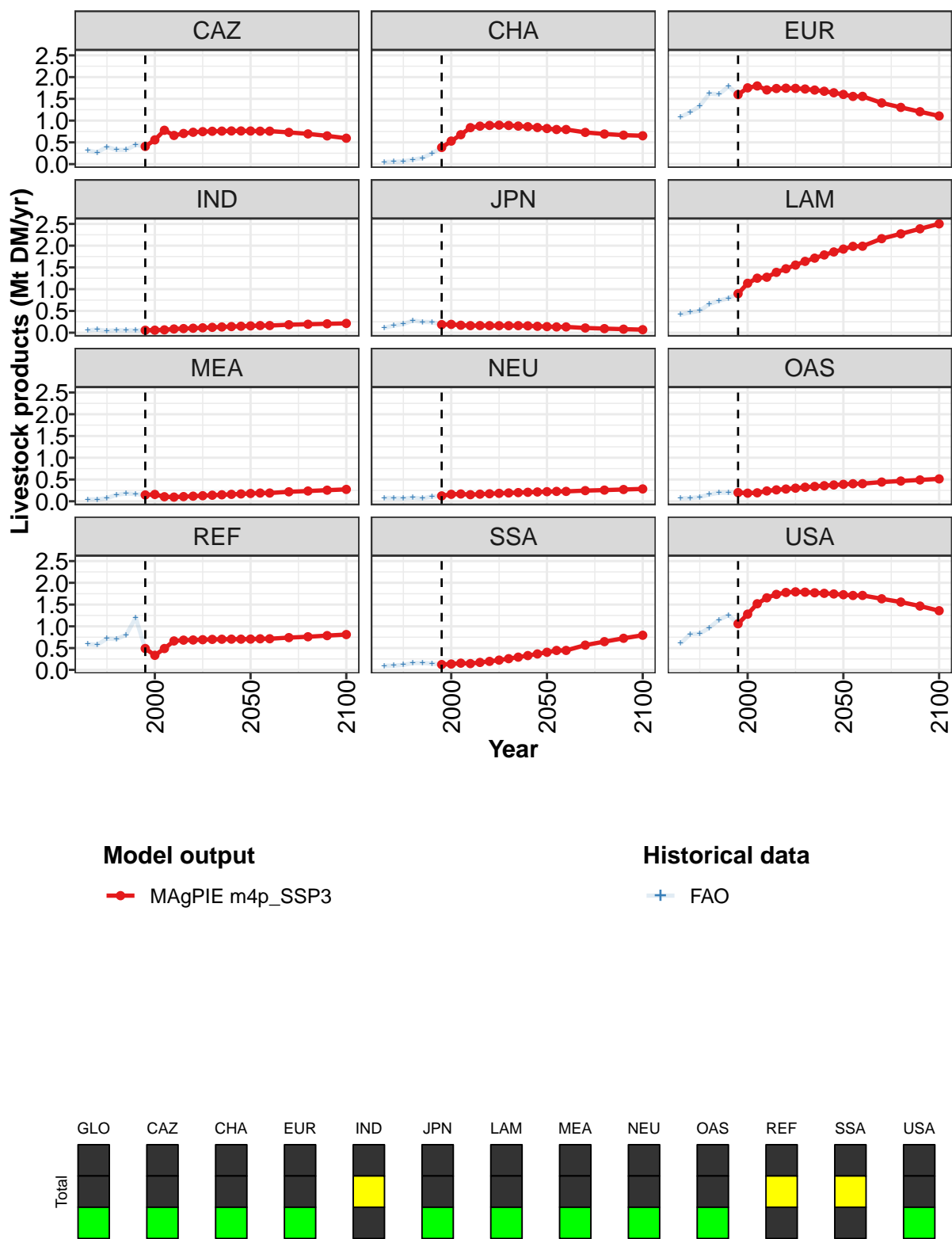


Figure 174: MAGPIE m4p_SSP3 — Demand—Material—Livestock products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.66	6.47	7.37	7.67	8.08	8.33	8.53	8.69	8.80	8.90	8.96
CAZ	0.41	0.56	0.78	0.66	0.70	0.73	0.75	0.75	0.76	0.76	0.76
CHA	0.38	0.53	0.68	0.84	0.87	0.89	0.90	0.89	0.87	0.86	0.84
EUR	1.60	1.75	1.80	1.71	1.74	1.74	1.74	1.73	1.70	1.67	1.64
IND	0.06	0.06	0.07	0.09	0.09	0.10	0.11	0.12	0.13	0.14	0.15
JPN	0.19	0.19	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.15
LAM	0.90	1.14	1.25	1.27	1.39	1.47	1.55	1.64	1.71	1.79	1.86
MEA	0.15	0.16	0.10	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17
NEU	0.12	0.16	0.17	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.21
OAS	0.20	0.19	0.19	0.24	0.26	0.28	0.30	0.32	0.34	0.36	0.37
REF	0.49	0.33	0.49	0.66	0.68	0.69	0.69	0.70	0.70	0.71	0.70
SSA	0.12	0.13	0.15	0.14	0.17	0.19	0.22	0.26	0.29	0.33	0.37
USA	1.06	1.28	1.52	1.65	1.73	1.78	1.79	1.79	1.77	1.76	1.74

Table 521: MAgPIE m4p-SSP3 — Demand—Material—Livestock products (Mt DM/yr) [PART 1/2]

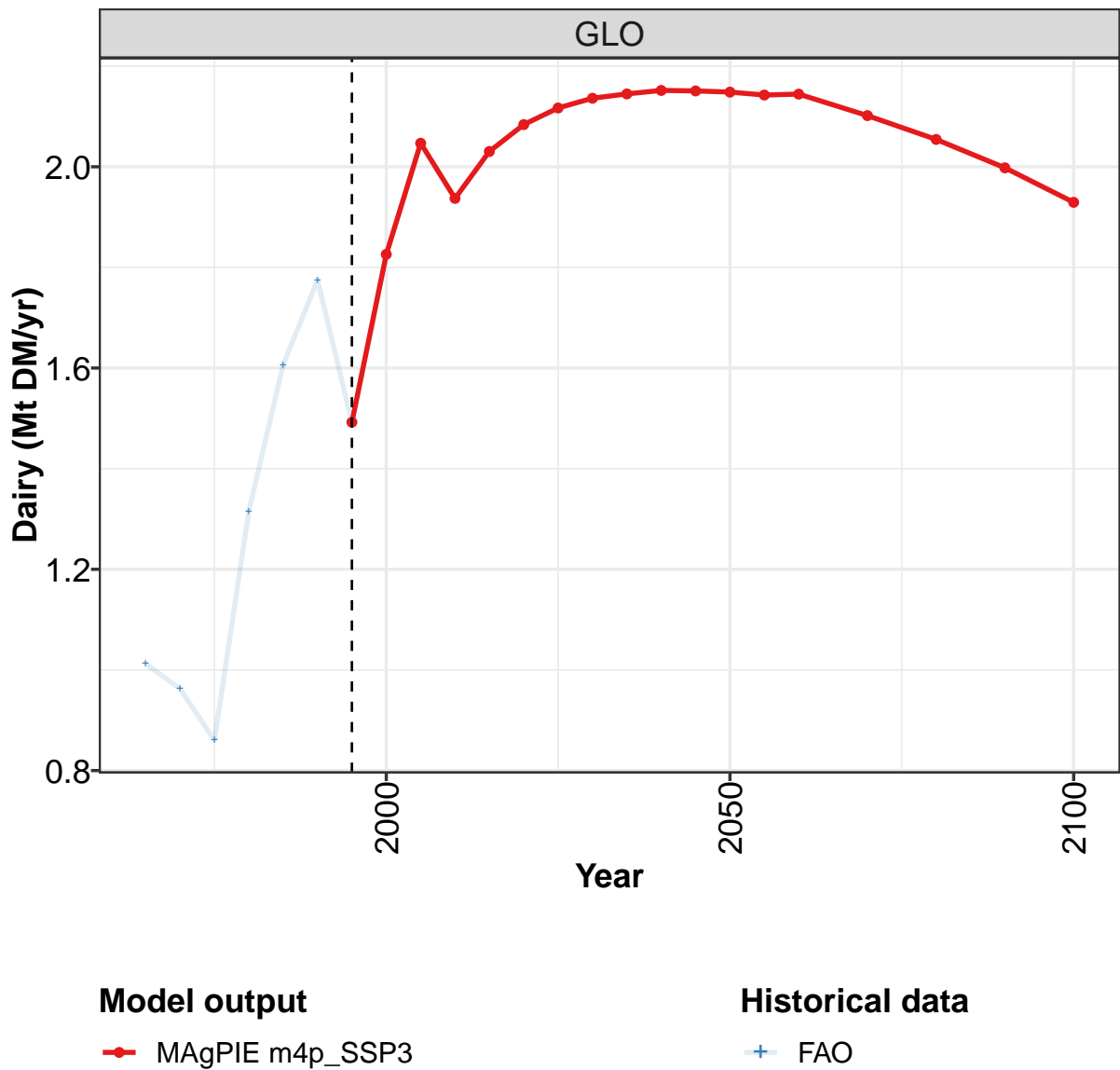
	2050	2055	2060	2070	2080	2090	2100
GLO	9.02	9.07	9.08	9.16	9.17	9.18	9.17
CAZ	0.76	0.76	0.76	0.73	0.69	0.65	0.60
CHA	0.82	0.80	0.80	0.73	0.69	0.67	0.65
EUR	1.60	1.56	1.56	1.41	1.30	1.20	1.11
IND	0.16	0.16	0.16	0.18	0.19	0.20	0.21
JPN	0.14	0.13	0.13	0.11	0.09	0.08	0.07
LAM	1.92	1.98	1.99	2.16	2.27	2.39	2.50
MEA	0.18	0.19	0.19	0.22	0.24	0.25	0.27
NEU	0.22	0.23	0.23	0.24	0.26	0.27	0.28
OAS	0.39	0.40	0.40	0.44	0.47	0.49	0.51
REF	0.71	0.71	0.71	0.74	0.76	0.79	0.81
SSA	0.40	0.45	0.45	0.57	0.65	0.73	0.79
USA	1.73	1.71	1.71	1.63	1.56	1.47	1.36

Table 522: MAgPIE m4p-SSP3 — Demand—Material—Livestock products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3.51	3.91	4.44	5.26	5.66	6.63	5.66	6.47	7.37	7.67
CAZ	0.31	0.27	0.40	0.33	0.33	0.44	0.41	0.56	0.78	0.66
CHA	0.05	0.05	0.06	0.10	0.14	0.25	0.38	0.53	0.68	0.84
EUR	1.08	1.19	1.34	1.62	1.60	1.79	1.60	1.75	1.80	1.71
IND	0.06	0.07	0.04	0.06	0.05	0.06	0.06	0.06	0.07	0.09
JPN	0.11	0.16	0.20	0.28	0.25	0.24	0.19	0.19	0.17	0.16
LAM	0.42	0.47	0.50	0.66	0.73	0.79	0.90	1.14	1.25	1.27
MEA	0.04	0.04	0.07	0.15	0.18	0.16	0.15	0.16	0.10	0.10
NEU	0.08	0.07	0.07	0.08	0.07	0.11	0.12	0.16	0.17	0.15
OAS	0.07	0.07	0.10	0.16	0.20	0.20	0.20	0.19	0.19	0.24
REF	0.59	0.58	0.72	0.71	0.80	1.20	0.49	0.33	0.49	0.66
SSA	0.09	0.10	0.11	0.16	0.16	0.14	0.12	0.13	0.15	0.14
USA	0.61	0.82	0.83	0.97	1.15	1.26	1.06	1.28	1.52	1.65

Table 523: FAO — Demand—Material—Livestock products (Mt DM/yr)

8.5.1 Dairy



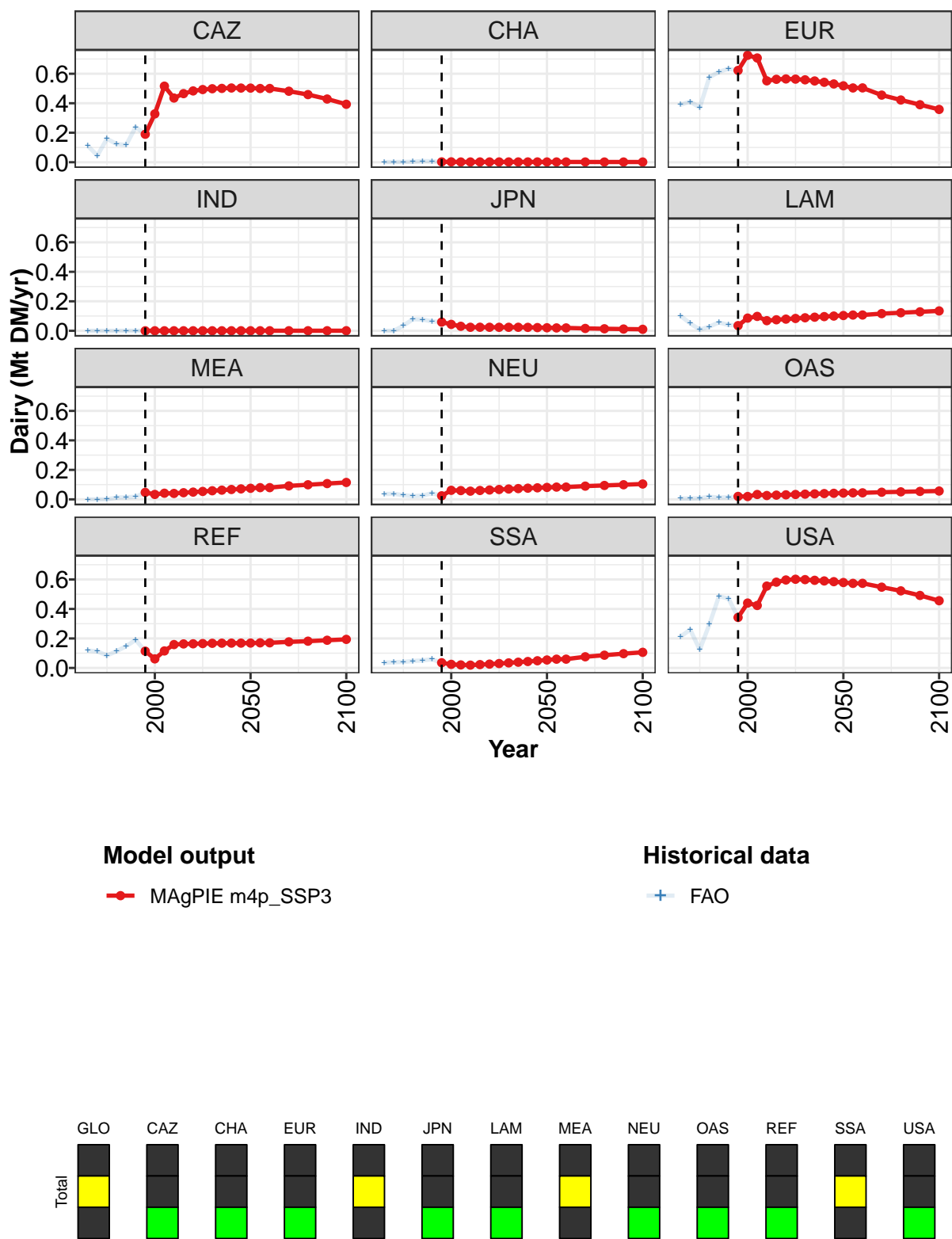


Figure 175: MAGPIE m4p_SSP3 — Demand—Material—Livestock products—Dairy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.49	1.83	2.05	1.94	2.03	2.08	2.12	2.14	2.14	2.15	2.15
CAZ	0.19	0.33	0.52	0.44	0.47	0.48	0.49	0.50	0.50	0.50	0.50
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.62	0.73	0.71	0.55	0.56	0.56	0.56	0.56	0.55	0.54	0.53
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.06	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LAM	0.04	0.09	0.10	0.07	0.07	0.08	0.08	0.09	0.09	0.10	0.10
MEA	0.05	0.03	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.07	0.07
NEU	0.02	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08
OAS	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04
REF	0.11	0.06	0.12	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17
SSA	0.04	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.05
USA	0.34	0.44	0.42	0.56	0.58	0.60	0.60	0.60	0.59	0.59	0.59

Table 524: MAgPIE m4p_SSP3 — Demand—Material—Livestock products—Dairy (Mt DM/yr) [PART 1/2]

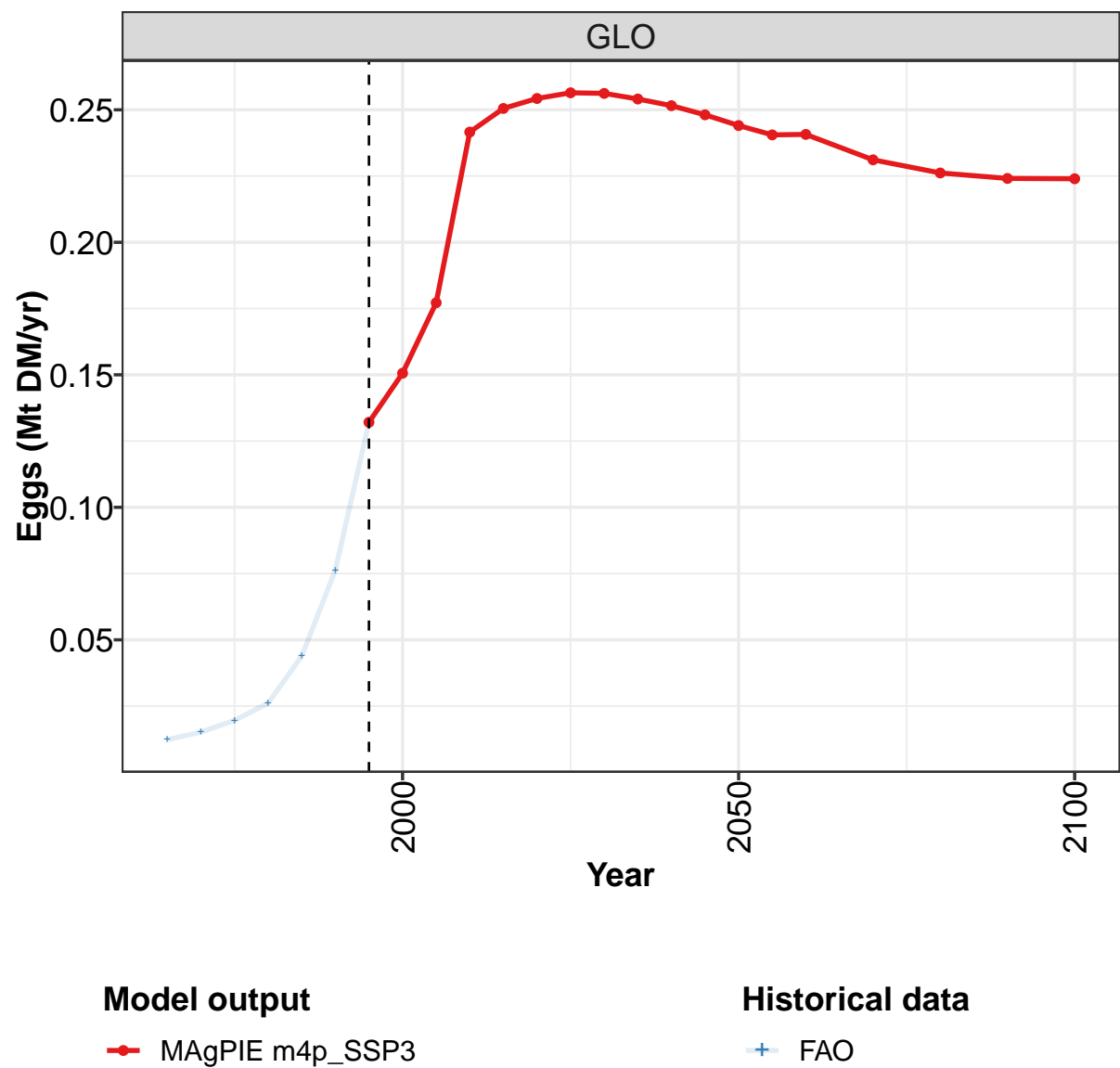
	2050	2055	2060	2070	2080	2090	2100
GLO	2.15	2.14	2.14	2.10	2.05	2.00	1.93
CAZ	0.50	0.50	0.50	0.48	0.46	0.43	0.39
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.52	0.50	0.50	0.46	0.42	0.39	0.36
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.02	0.02	0.02	0.02	0.01	0.01	0.01
LAM	0.10	0.11	0.11	0.12	0.12	0.13	0.13
MEA	0.08	0.08	0.08	0.09	0.10	0.11	0.11
NEU	0.08	0.08	0.08	0.09	0.09	0.10	0.10
OAS	0.04	0.04	0.04	0.05	0.05	0.05	0.06
REF	0.17	0.17	0.17	0.18	0.18	0.19	0.19
SSA	0.05	0.06	0.06	0.08	0.09	0.10	0.11
USA	0.58	0.57	0.57	0.55	0.52	0.49	0.46

Table 525: MAgPIE m4p_SSP3 — Demand—Material—Livestock products—Dairy (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.01	0.96	0.86	1.32	1.61	1.77	1.49	1.83	2.05	1.94
CAZ	0.11	0.05	0.16	0.12	0.12	0.24	0.19	0.33	0.52	0.44
CHA	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00
EUR	0.39	0.41	0.37	0.58	0.61	0.63	0.62	0.73	0.71	0.55
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.03	0.08	0.08	0.06	0.06	0.04	0.03	0.02
LAM	0.10	0.05	0.01	0.03	0.06	0.04	0.04	0.09	0.10	0.07
MEA	0.00	0.00	0.00	0.01	0.01	0.02	0.05	0.03	0.04	0.04
NEU	0.04	0.04	0.03	0.02	0.03	0.04	0.02	0.06	0.06	0.06
OAS	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.02	0.03	0.03
REF	0.12	0.11	0.08	0.11	0.15	0.19	0.11	0.06	0.12	0.16
SSA	0.04	0.04	0.04	0.05	0.05	0.06	0.04	0.02	0.02	0.02
USA	0.21	0.26	0.12	0.30	0.49	0.47	0.34	0.44	0.42	0.56

Table 526: FAO — Demand—Material—Livestock products—Dairy (Mt DM/yr)

8.5.2 Eggs



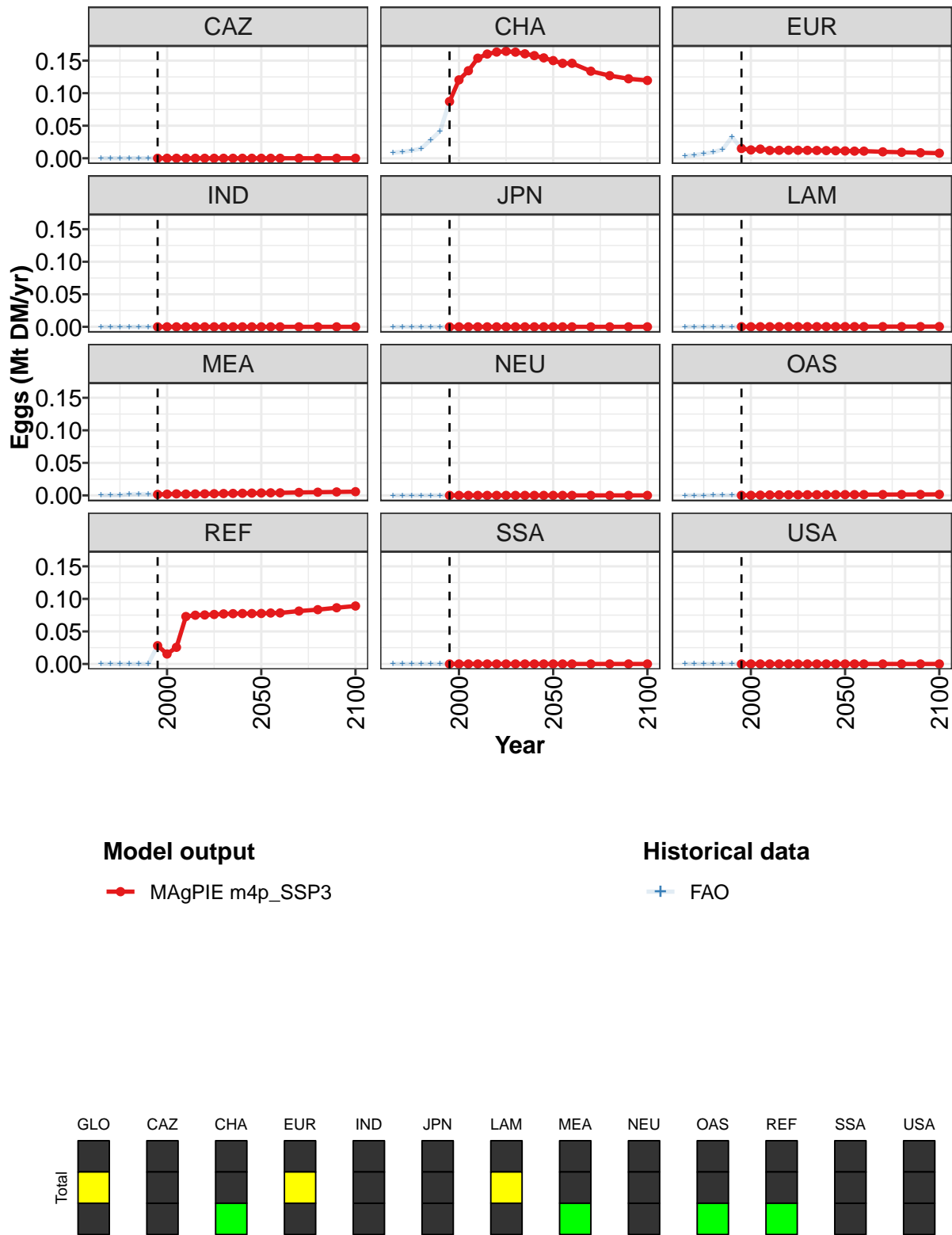


Figure 176: MAgPIE m4p_SSP3 — Demand—Material—Livestock products—Eggs (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.132	0.151	0.177	0.242	0.251	0.254	0.256	0.256	0.254	0.252	0.248
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.087	0.120	0.135	0.154	0.160	0.163	0.164	0.163	0.161	0.158	0.154
EUR	0.015	0.013	0.014	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.004
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
REF	0.028	0.015	0.026	0.073	0.075	0.075	0.076	0.077	0.077	0.077	0.077
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 527: MAgPIE m4p_SSP3 — Demand—Material—Livestock products—Eggs (Mt DM/yr) [PART 1/2]

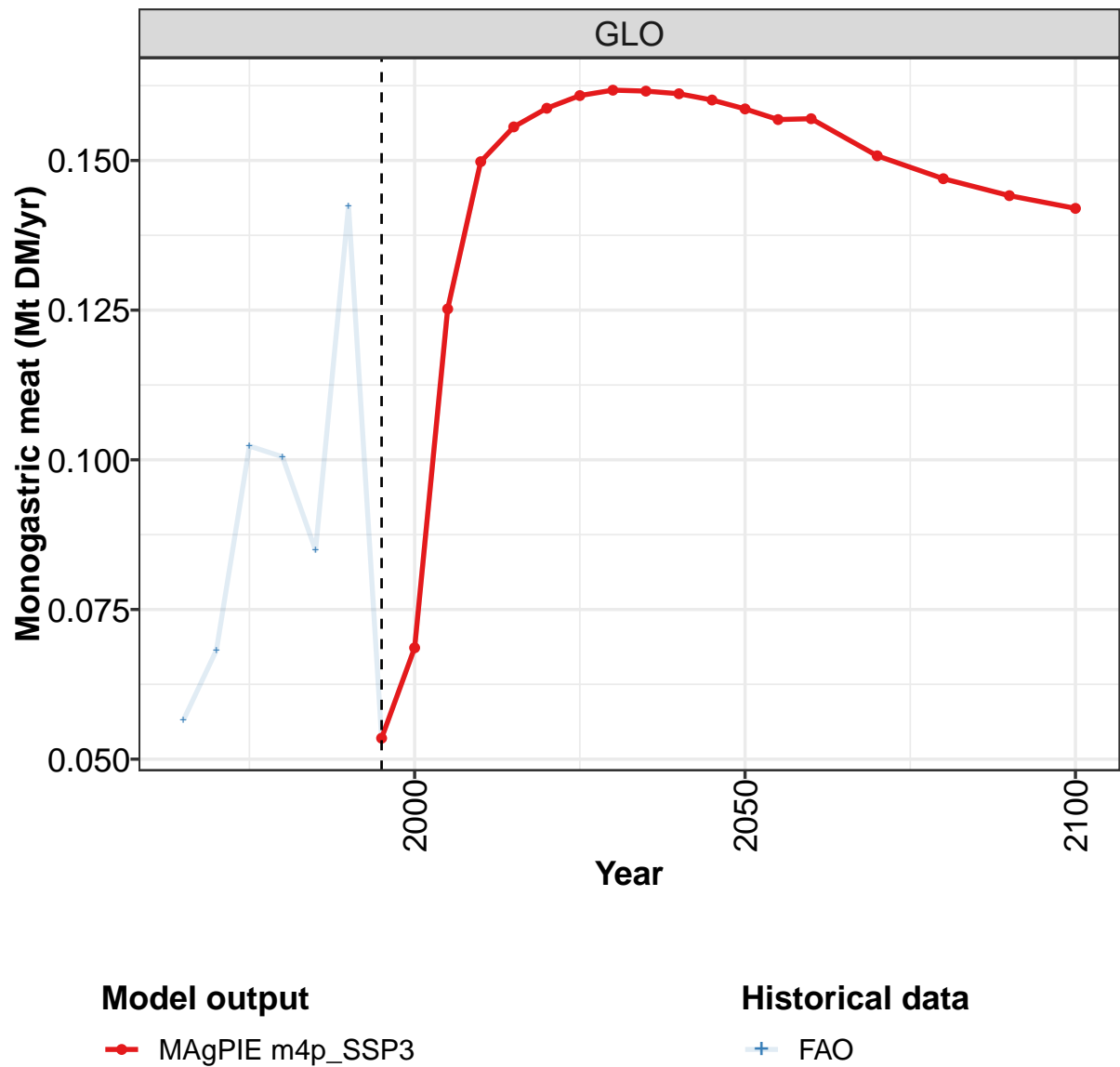
	2050	2055	2060	2070	2080	2090	2100
GLO	0.244	0.241	0.241	0.231	0.226	0.224	0.224
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.150	0.146	0.146	0.134	0.127	0.122	0.120
EUR	0.011	0.011	0.011	0.010	0.009	0.008	0.008
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.004	0.004	0.004	0.005	0.005	0.005	0.006
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.001	0.001	0.001	0.001	0.001	0.001	0.002
REF	0.078	0.078	0.078	0.081	0.083	0.086	0.089
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 528: MAgPIE m4p_SSP3 — Demand—Material—Livestock products—Eggs (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.012	0.015	0.020	0.026	0.044	0.076	0.132	0.151	0.177	0.242
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.009	0.010	0.012	0.015	0.028	0.042	0.087	0.120	0.135	0.154
EUR	0.003	0.005	0.007	0.009	0.014	0.033	0.015	0.013	0.014	0.012
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEA	0.000	0.000	0.000	0.002	0.002	0.002	0.002	0.002	0.002	0.002
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.028	0.015	0.026	0.073
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 529: FAO — Demand—Material—Livestock products—Eggs (Mt DM/yr)

8.5.3 Monogastric meat



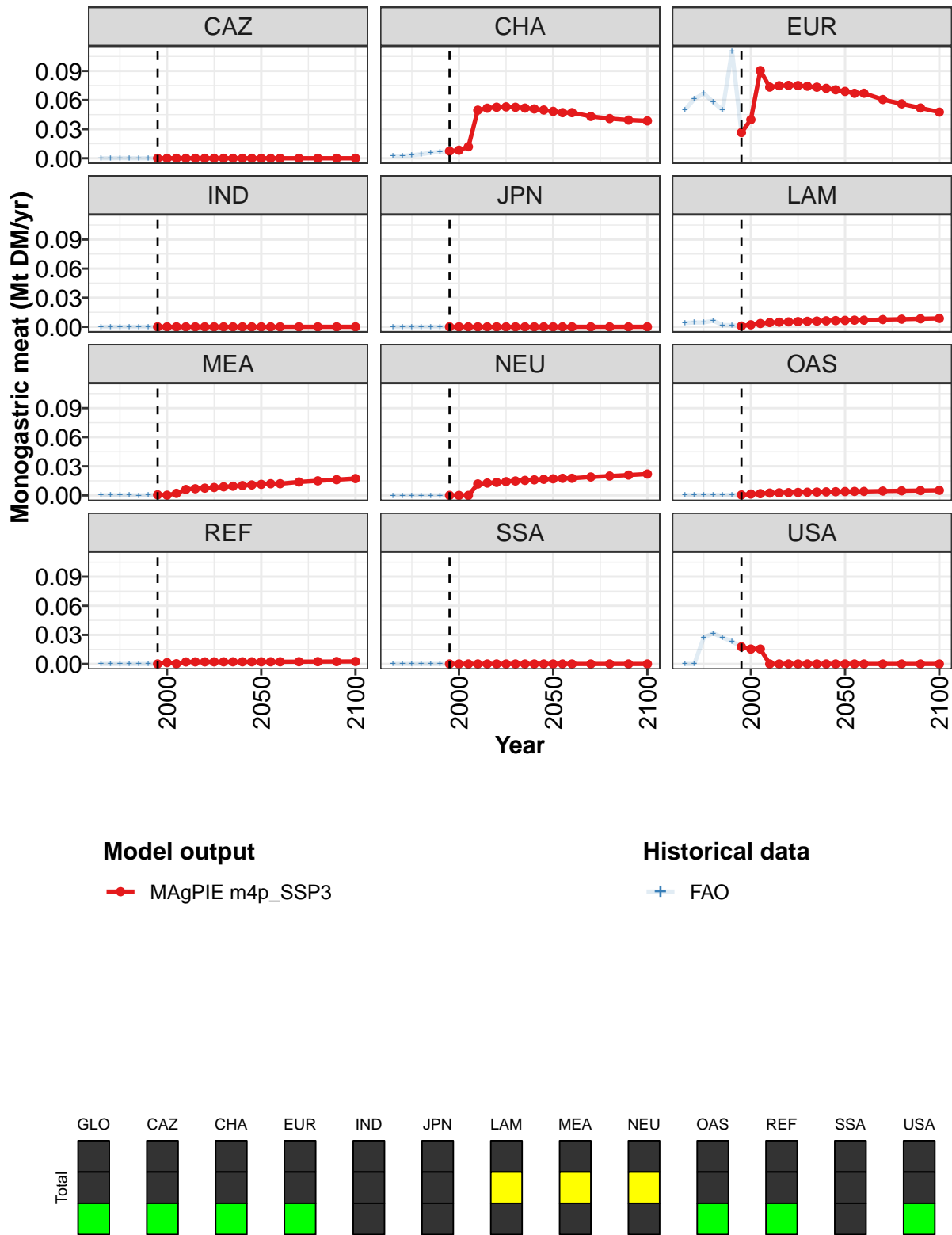


Figure 177: MAgPIE m4p_SSP3 — Demand—Material—Livestock products—Monogastric meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.053	0.069	0.125	0.150	0.156	0.159	0.161	0.162	0.162	0.161	0.160
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.007	0.008	0.012	0.050	0.052	0.053	0.053	0.053	0.052	0.051	0.050
EUR	0.026	0.040	0.090	0.073	0.075	0.075	0.075	0.074	0.073	0.072	0.071
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.001	0.002	0.003	0.004	0.005	0.005	0.005	0.006	0.006	0.006	0.006
MEA	0.001	0.000	0.002	0.006	0.007	0.007	0.008	0.009	0.009	0.010	0.011
NEU	0.000	0.000	0.000	0.012	0.013	0.013	0.014	0.015	0.015	0.016	0.017
OAS	0.001	0.001	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.004	0.004
REF	0.000	0.001	0.000	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.018	0.015	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 530: MAgPIE m4p_SSP3 — Demand—Material—Livestock products—Monogastric meat (Mt DM/yr)
[PART 1/2]

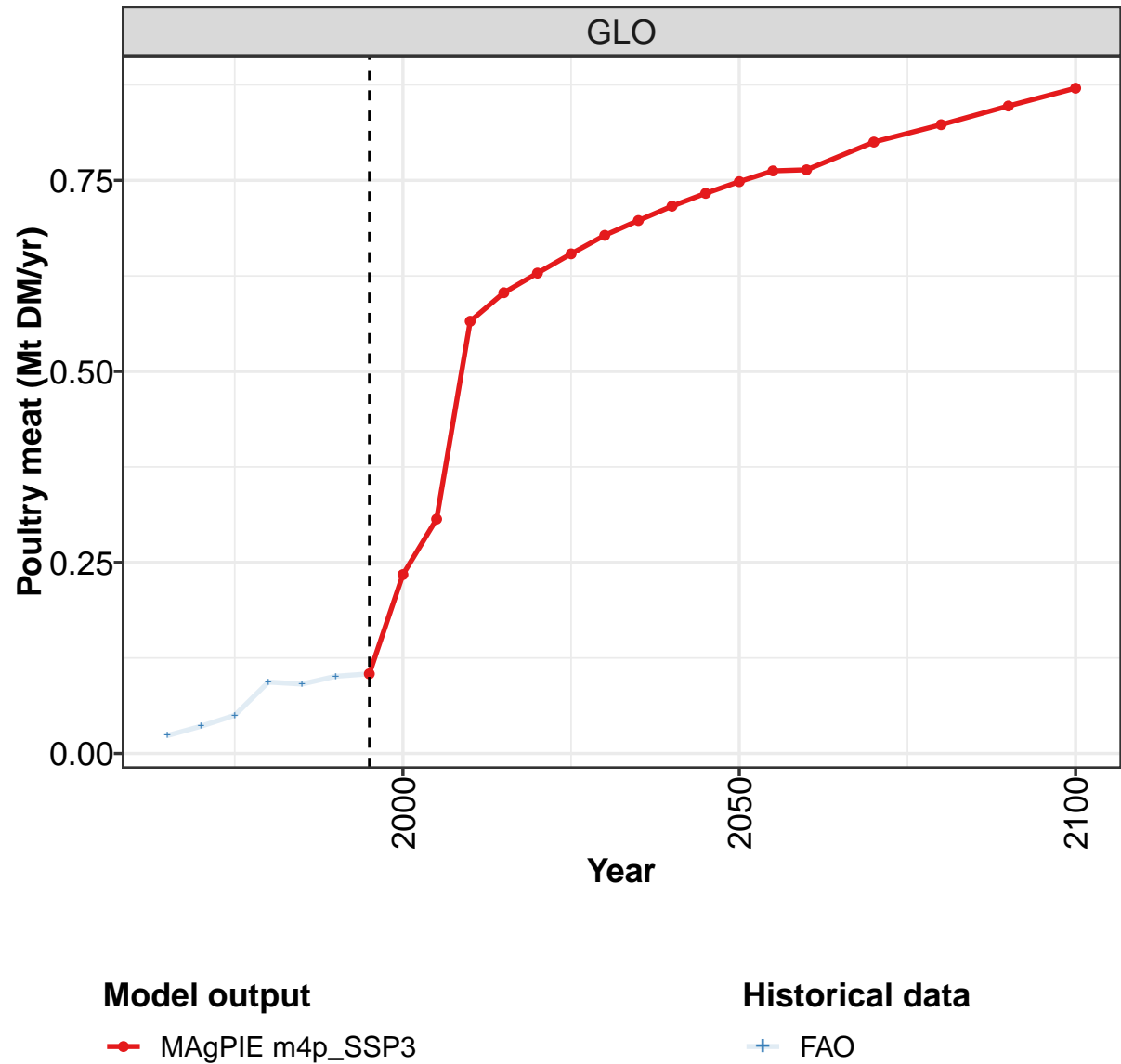
	2050	2055	2060	2070	2080	2090	2100
GLO	0.159	0.157	0.157	0.151	0.147	0.144	0.142
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.048	0.047	0.047	0.043	0.041	0.039	0.039
EUR	0.069	0.067	0.067	0.061	0.056	0.052	0.048
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.007	0.007	0.007	0.007	0.008	0.008	0.009
MEA	0.011	0.012	0.012	0.014	0.015	0.016	0.017
NEU	0.017	0.018	0.018	0.019	0.020	0.021	0.022
OAS	0.004	0.004	0.004	0.004	0.005	0.005	0.005
REF	0.002	0.002	0.002	0.002	0.002	0.002	0.003
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 531: MAgPIE m4p_SSP3 — Demand—Material—Livestock products—Monogastric meat (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.057	0.068	0.102	0.101	0.085	0.142	0.053	0.069	0.125	0.150
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.002	0.003	0.003	0.004	0.006	0.007	0.007	0.008	0.012	0.050
EUR	0.050	0.061	0.067	0.058	0.050	0.110	0.026	0.040	0.090	0.073
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.004	0.004	0.004	0.006	0.002	0.002	0.001	0.002	0.003	0.004
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002	0.006
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012
OAS	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.002
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.027	0.032	0.027	0.023	0.018	0.015	0.015	0.000

Table 532: FAO — Demand—Material—Livestock products—Monogastric meat (Mt DM/yr)

8.5.4 Poultry meat



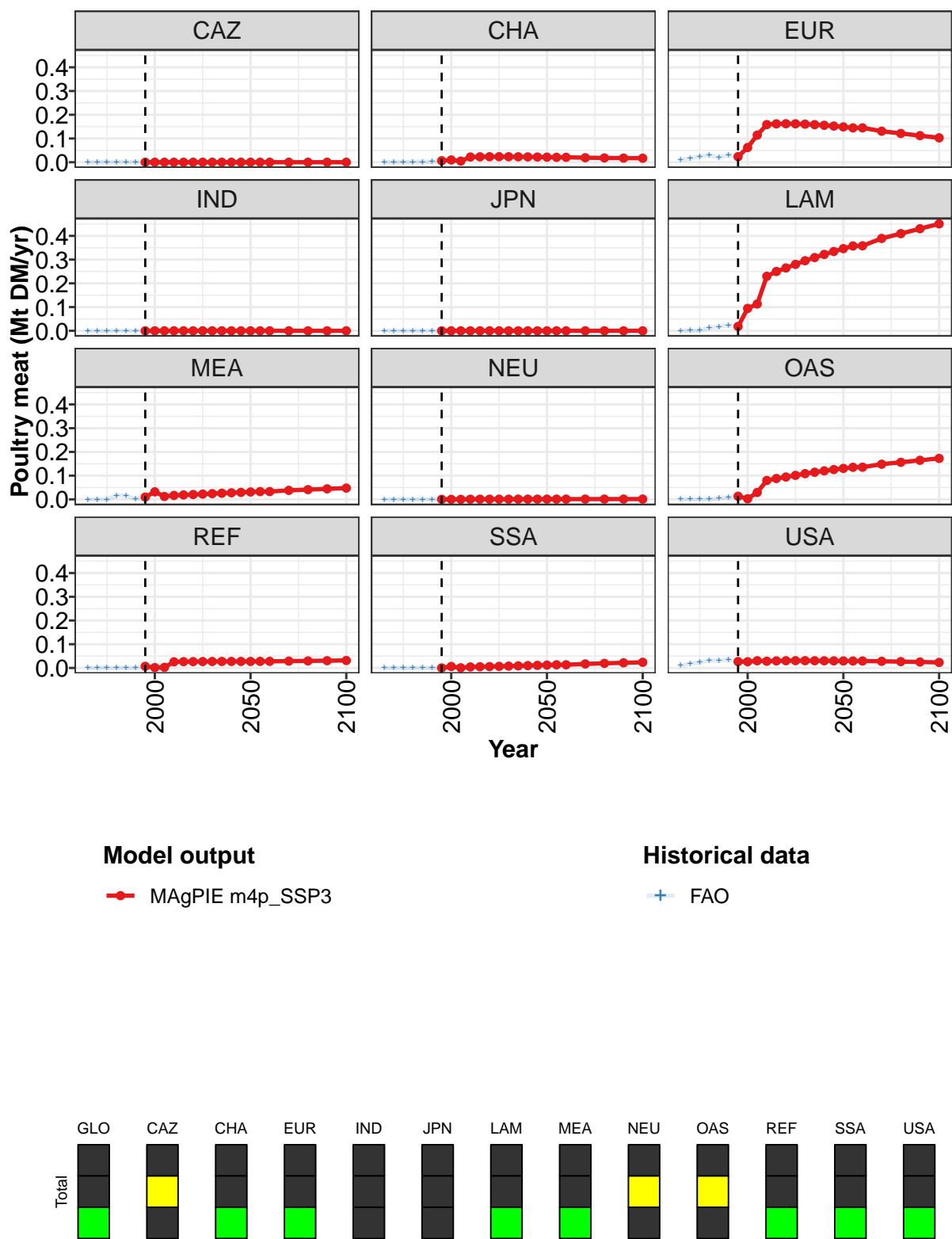


Figure 178: MAgPIE m4p_SSP3 — Demand—Material—Livestock products—Poultry meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.104	0.234	0.307	0.566	0.603	0.629	0.654	0.678	0.697	0.716	0.733
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.006	0.010	0.005	0.022	0.023	0.023	0.023	0.023	0.023	0.022	0.022
EUR	0.023	0.062	0.114	0.159	0.162	0.162	0.162	0.161	0.158	0.156	0.153
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.018	0.094	0.113	0.230	0.250	0.265	0.280	0.295	0.309	0.322	0.334
MEA	0.010	0.032	0.012	0.017	0.019	0.020	0.022	0.024	0.026	0.028	0.029
NEU	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
OAS	0.013	0.003	0.029	0.080	0.088	0.094	0.101	0.108	0.114	0.120	0.126
REF	0.007	0.001	0.003	0.026	0.027	0.027	0.027	0.027	0.027	0.027	0.027
SSA	0.000	0.006	0.001	0.004	0.005	0.006	0.007	0.008	0.009	0.010	0.011
USA	0.027	0.026	0.030	0.028	0.030	0.030	0.031	0.031	0.030	0.030	0.030

Table 533: MAgPIE m4p_SSP3 — Demand—Material—Livestock products—Poultry meat (Mt DM/yr) [PART 1/2]

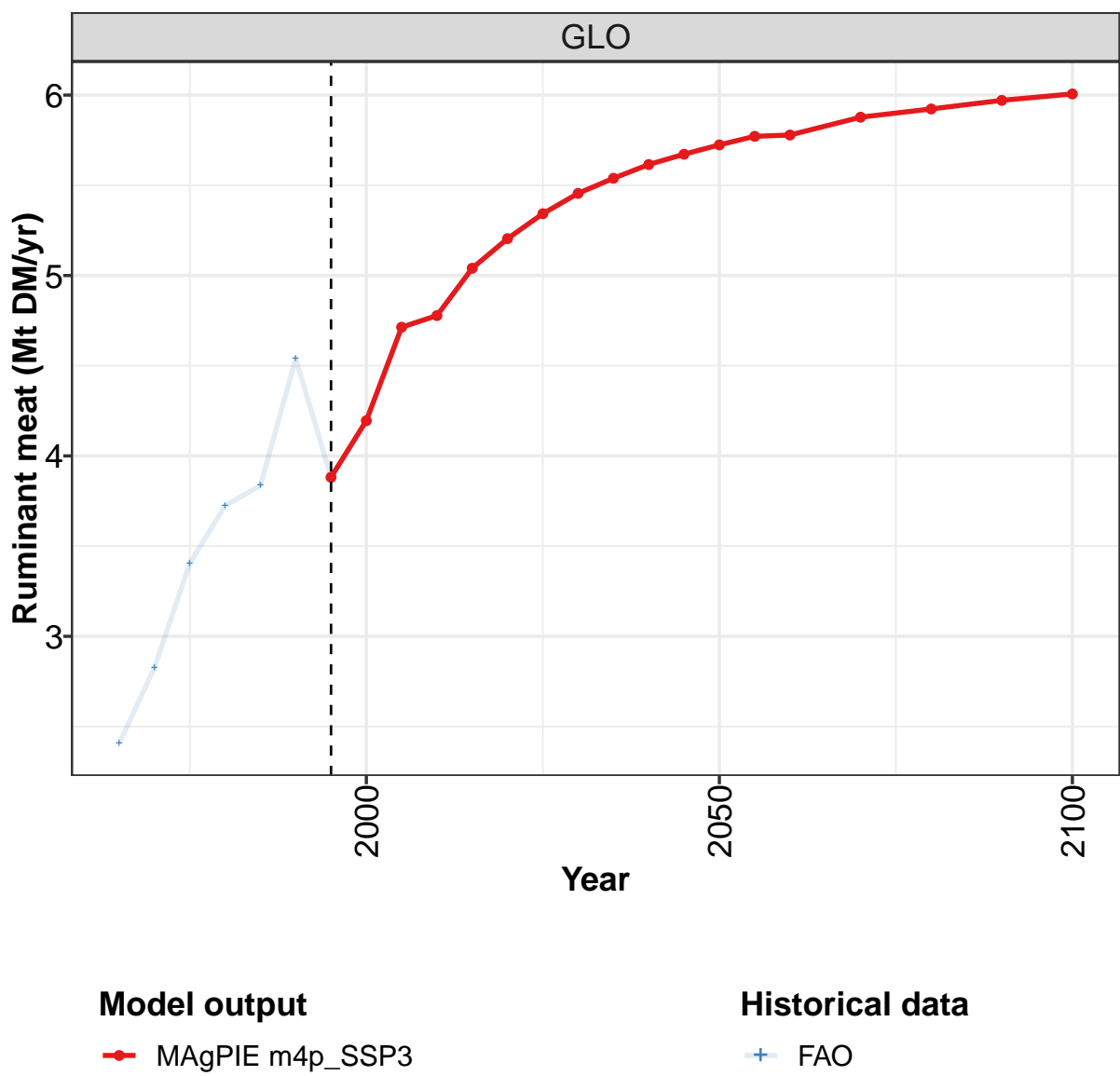
	2050	2055	2060	2070	2080	2090	2100
GLO	0.748	0.762	0.764	0.800	0.823	0.847	0.871
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.021	0.021	0.021	0.019	0.018	0.017	0.017
EUR	0.149	0.145	0.145	0.131	0.121	0.112	0.103
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.346	0.357	0.358	0.389	0.409	0.430	0.451
MEA	0.031	0.033	0.033	0.038	0.041	0.044	0.048
NEU	0.001	0.001	0.001	0.001	0.001	0.001	0.001
OAS	0.131	0.135	0.136	0.148	0.156	0.165	0.173
REF	0.027	0.028	0.028	0.029	0.030	0.031	0.032
SSA	0.012	0.013	0.013	0.017	0.019	0.022	0.024
USA	0.030	0.029	0.029	0.028	0.027	0.025	0.023

Table 534: MAgPIE m4p_SSP3 — Demand—Material—Livestock products—Poultry meat (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.024	0.036	0.050	0.093	0.091	0.101	0.104	0.234	0.307	0.566
CAZ	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.001	0.001	0.001	0.001	0.002	0.006	0.010	0.005	0.022
EUR	0.012	0.015	0.024	0.030	0.019	0.031	0.023	0.062	0.114	0.159
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.001	0.001	0.001	0.013	0.017	0.024	0.018	0.094	0.113	0.230
MEA	0.000	0.000	0.000	0.017	0.017	0.001	0.010	0.032	0.012	0.017
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
OAS	0.000	0.000	0.000	0.000	0.005	0.007	0.013	0.003	0.029	0.080
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.002	0.003	0.026
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.001	0.004
USA	0.011	0.018	0.023	0.032	0.031	0.036	0.027	0.026	0.030	0.028

Table 535: FAO — Demand—Material—Livestock products—Poultry meat (Mt DM/yr)

8.5.5 Ruminant meat



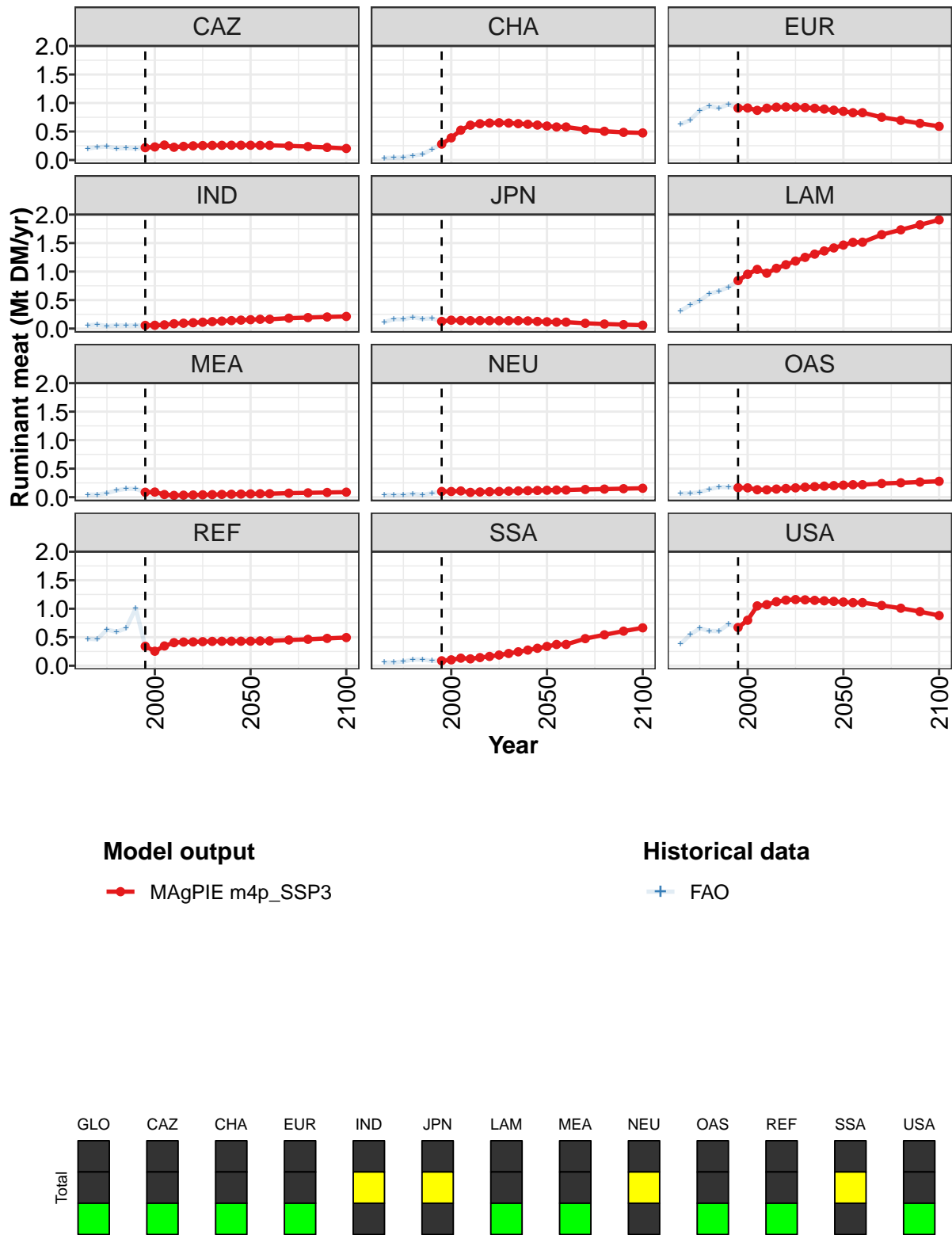


Figure 179: MAGPIE m4p_SSP3 — Demand—Material—Livestock products—Ruminant meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.88	4.20	4.71	4.78	5.04	5.20	5.34	5.46	5.54	5.62	5.67
CAZ	0.22	0.23	0.26	0.22	0.24	0.25	0.25	0.26	0.26	0.26	0.26
CHA	0.28	0.39	0.52	0.61	0.64	0.65	0.65	0.65	0.64	0.63	0.61
EUR	0.91	0.91	0.87	0.91	0.93	0.93	0.93	0.92	0.91	0.89	0.87
IND	0.06	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15
JPN	0.13	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.13	0.13
LAM	0.84	0.95	1.04	0.97	1.06	1.12	1.18	1.25	1.31	1.36	1.41
MEA	0.09	0.09	0.05	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.05
NEU	0.10	0.10	0.11	0.08	0.09	0.10	0.10	0.11	0.11	0.11	0.12
OAS	0.17	0.16	0.13	0.13	0.14	0.15	0.16	0.17	0.18	0.19	0.20
REF	0.34	0.25	0.35	0.40	0.42	0.42	0.42	0.43	0.43	0.43	0.43
SSA	0.09	0.10	0.13	0.12	0.14	0.16	0.19	0.21	0.24	0.27	0.31
USA	0.67	0.80	1.05	1.07	1.12	1.15	1.16	1.16	1.15	1.14	1.13

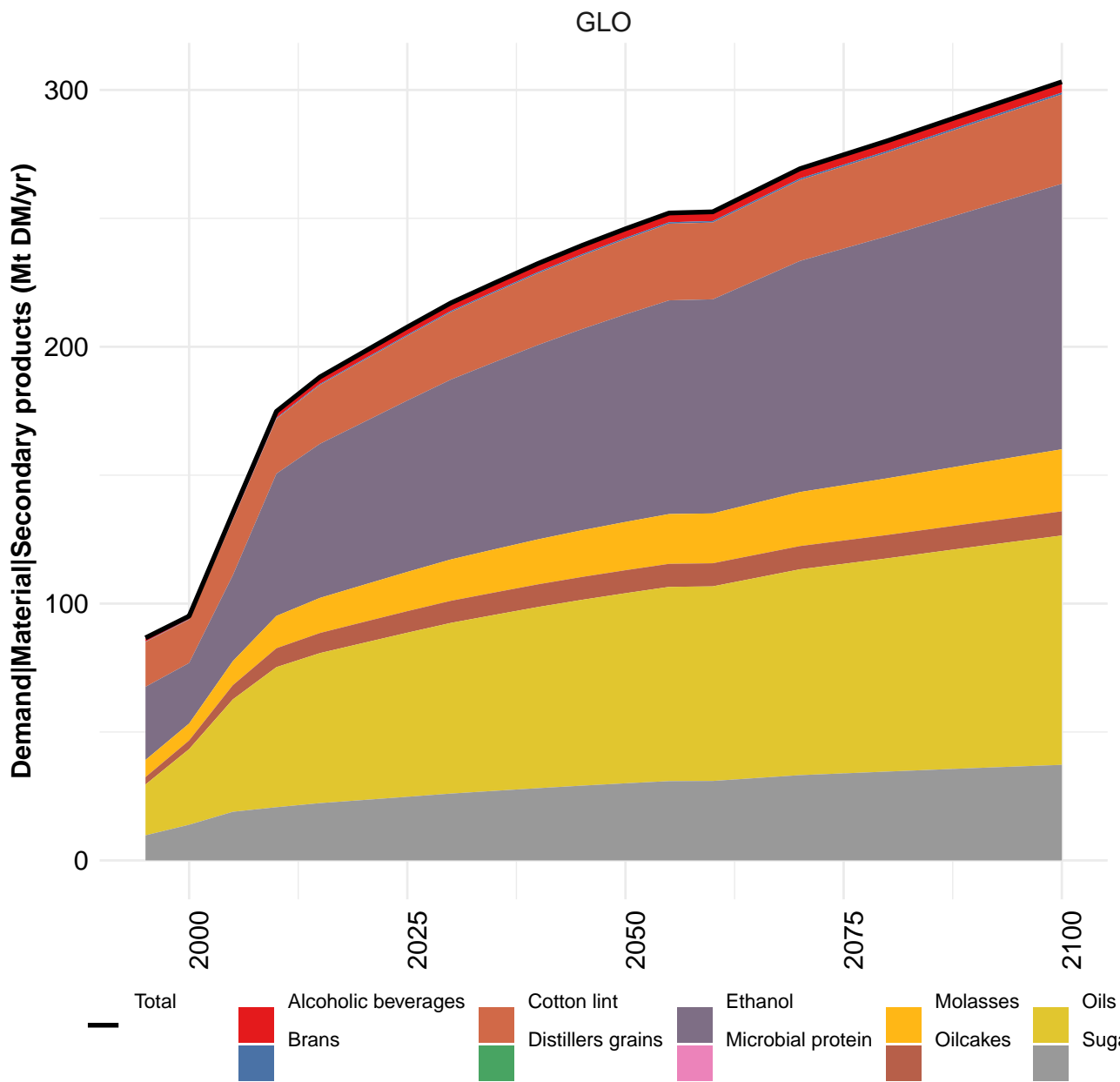
Table 536: MAgPIE m4p_SSP3 — Demand—Material—Livestock products—Ruminant meat (Mt DM/yr)
[PART 1/2]

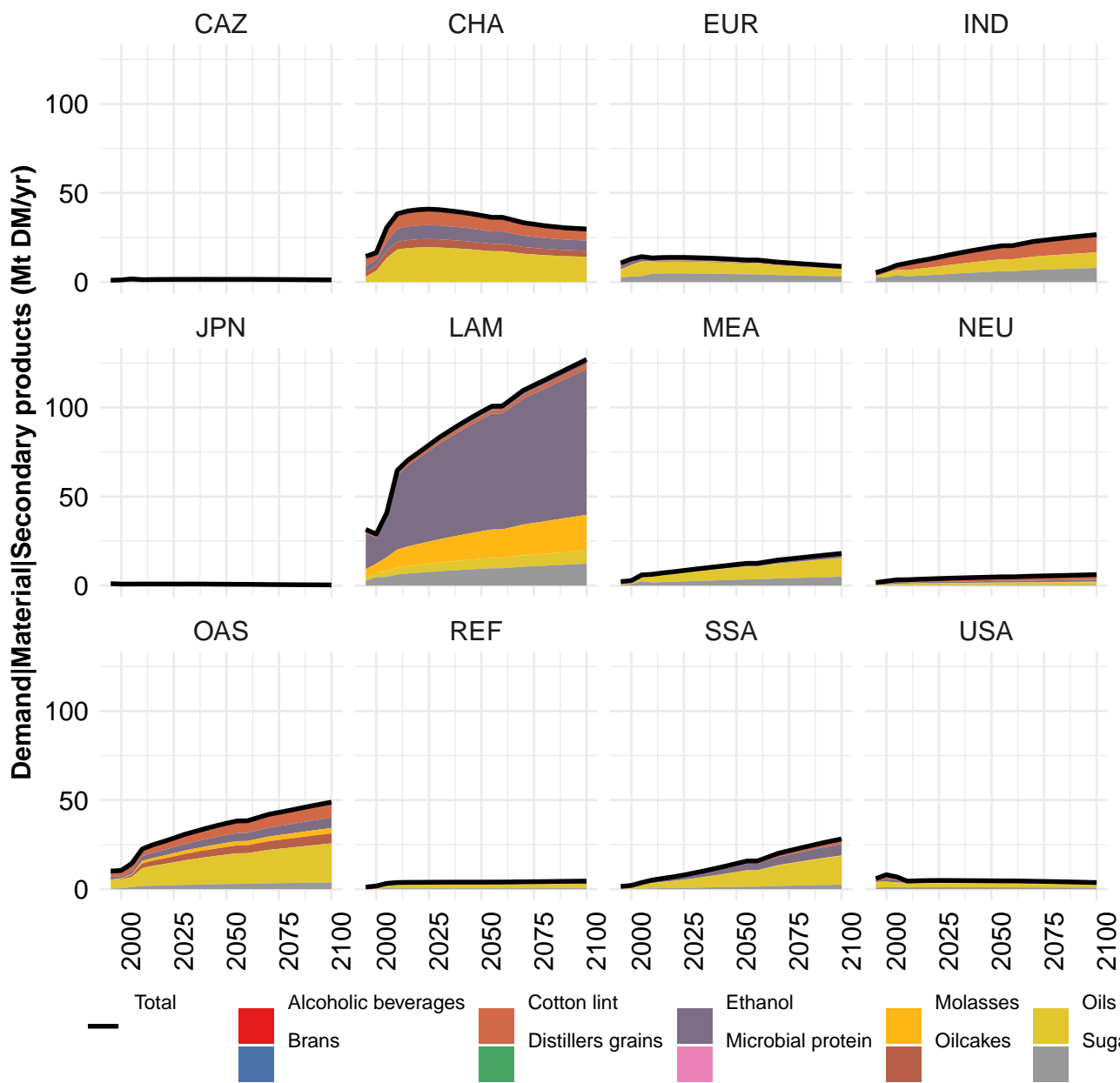
	2050	2055	2060	2070	2080	2090	2100
GLO	5.72	5.77	5.78	5.88	5.92	5.97	6.01
CAZ	0.26	0.26	0.26	0.25	0.24	0.22	0.20
CHA	0.60	0.58	0.58	0.53	0.50	0.49	0.48
EUR	0.85	0.83	0.83	0.75	0.70	0.64	0.59
IND	0.16	0.16	0.16	0.18	0.19	0.20	0.21
JPN	0.12	0.11	0.11	0.09	0.08	0.07	0.06
LAM	1.46	1.51	1.52	1.65	1.73	1.82	1.91
MEA	0.06	0.06	0.06	0.07	0.08	0.08	0.09
NEU	0.12	0.12	0.12	0.13	0.14	0.15	0.16
OAS	0.21	0.22	0.22	0.24	0.25	0.27	0.28
REF	0.43	0.43	0.44	0.45	0.46	0.48	0.49
SSA	0.34	0.37	0.37	0.48	0.54	0.61	0.66
USA	1.12	1.11	1.11	1.06	1.01	0.95	0.88

Table 537: MAgPIE m4p_SSP3 — Demand—Material—Livestock products—Ruminant meat (Mt DM/yr)
[PART 2/2]

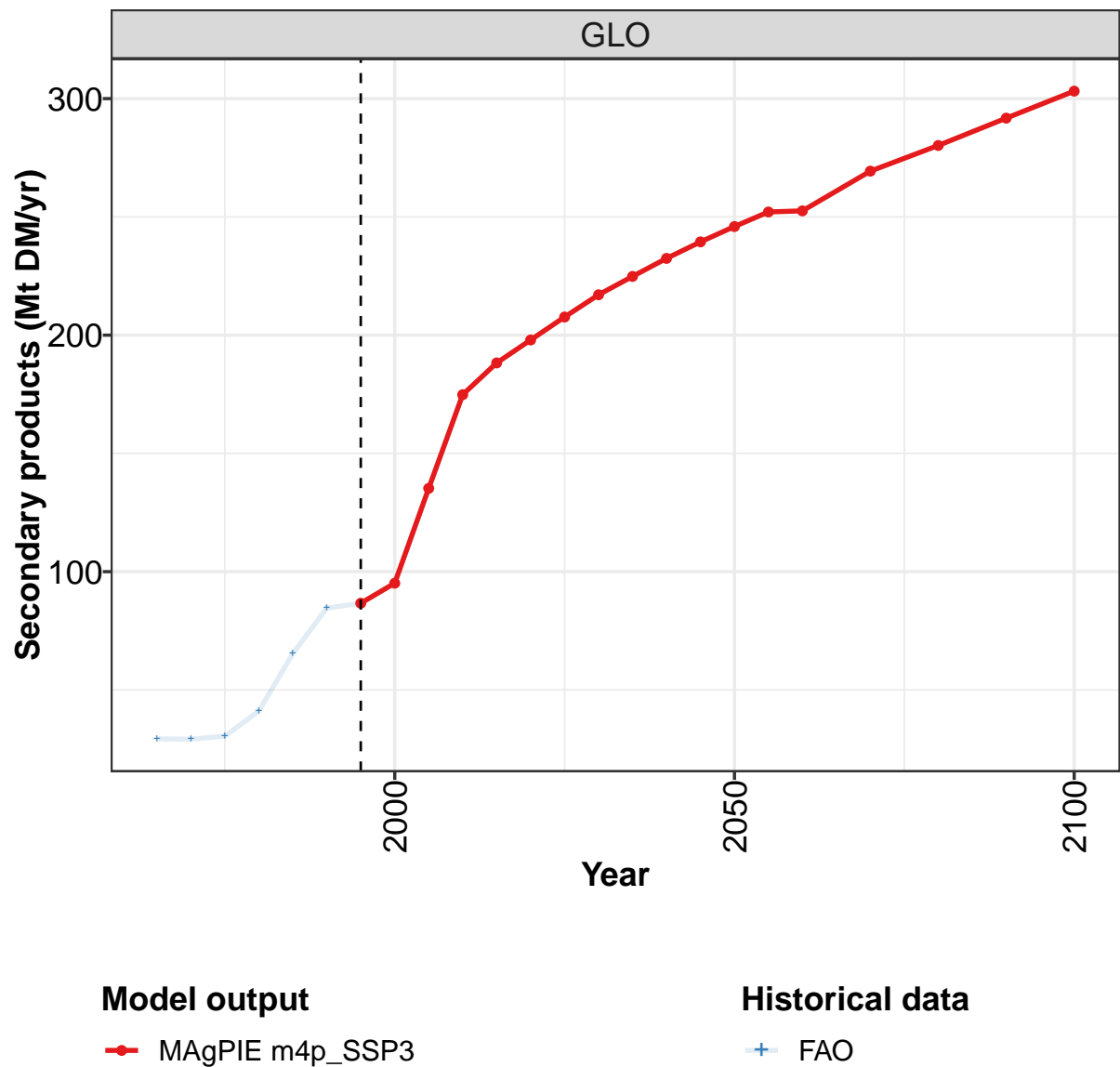
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.41	2.83	3.41	3.72	3.84	4.54	3.88	4.20	4.71	4.78
CAZ	0.20	0.23	0.24	0.20	0.21	0.20	0.22	0.23	0.26	0.22
CHA	0.04	0.04	0.05	0.08	0.10	0.19	0.28	0.39	0.52	0.61
EUR	0.63	0.70	0.87	0.95	0.91	0.98	0.91	0.91	0.87	0.91
IND	0.06	0.07	0.04	0.06	0.05	0.06	0.06	0.06	0.07	0.08
JPN	0.11	0.16	0.16	0.20	0.17	0.18	0.13	0.15	0.14	0.14
LAM	0.31	0.41	0.49	0.61	0.66	0.73	0.84	0.95	1.04	0.97
MEA	0.04	0.04	0.07	0.12	0.15	0.14	0.09	0.09	0.05	0.03
NEU	0.04	0.04	0.04	0.06	0.04	0.07	0.10	0.10	0.11	0.08
OAS	0.06	0.07	0.09	0.14	0.18	0.17	0.17	0.16	0.13	0.13
REF	0.47	0.46	0.63	0.60	0.66	1.01	0.34	0.25	0.35	0.40
SSA	0.06	0.06	0.07	0.11	0.11	0.09	0.09	0.10	0.13	0.12
USA	0.38	0.54	0.66	0.61	0.61	0.73	0.67	0.80	1.05	1.07

Table 538: FAO — Demand—Material—Livestock products—Ruminant meat (Mt DM/yr)





8.6 Secondary products



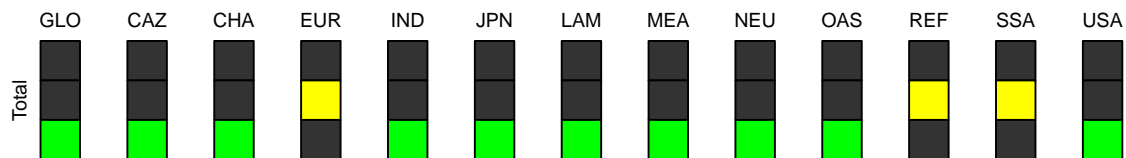
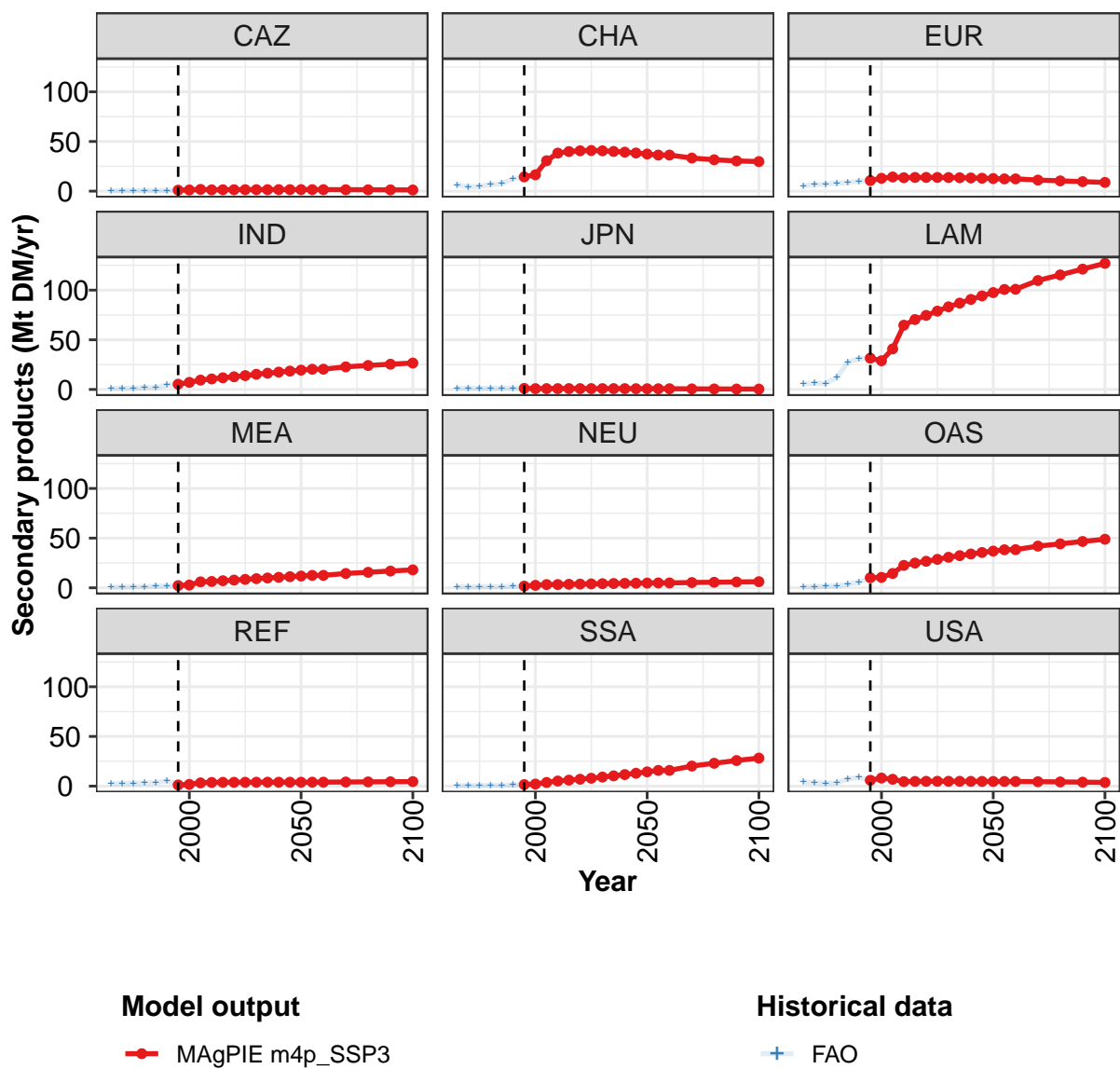


Figure 180: MAgPIE m4p_SSP3 — Demand—Material—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	87	95	135	175	188	198	208	217	225	232	239
CAZ	1	1	2	1	1	1	1	2	2	2	2
CHA	14	16	31	38	40	41	41	41	40	39	38
EUR	11	13	14	14	14	14	14	14	14	13	13
IND	5	7	9	11	12	13	14	15	16	17	19
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	32	29	41	65	70	75	79	83	87	91	94
MEA	2	3	6	6	7	8	8	9	10	11	11
NEU	2	2	3	3	4	4	4	4	4	4	5
OAS	10	11	14	23	25	27	29	31	32	34	36
REF	1	2	3	4	4	4	4	4	4	4	4
SSA	2	2	4	5	6	7	8	9	10	12	13
USA	6	8	7	4	5	5	5	5	5	5	5

Table 539: MAgPIE m4p_SSP3 — Demand—Material—Secondary products (Mt DM/yr) [PART 1/2]

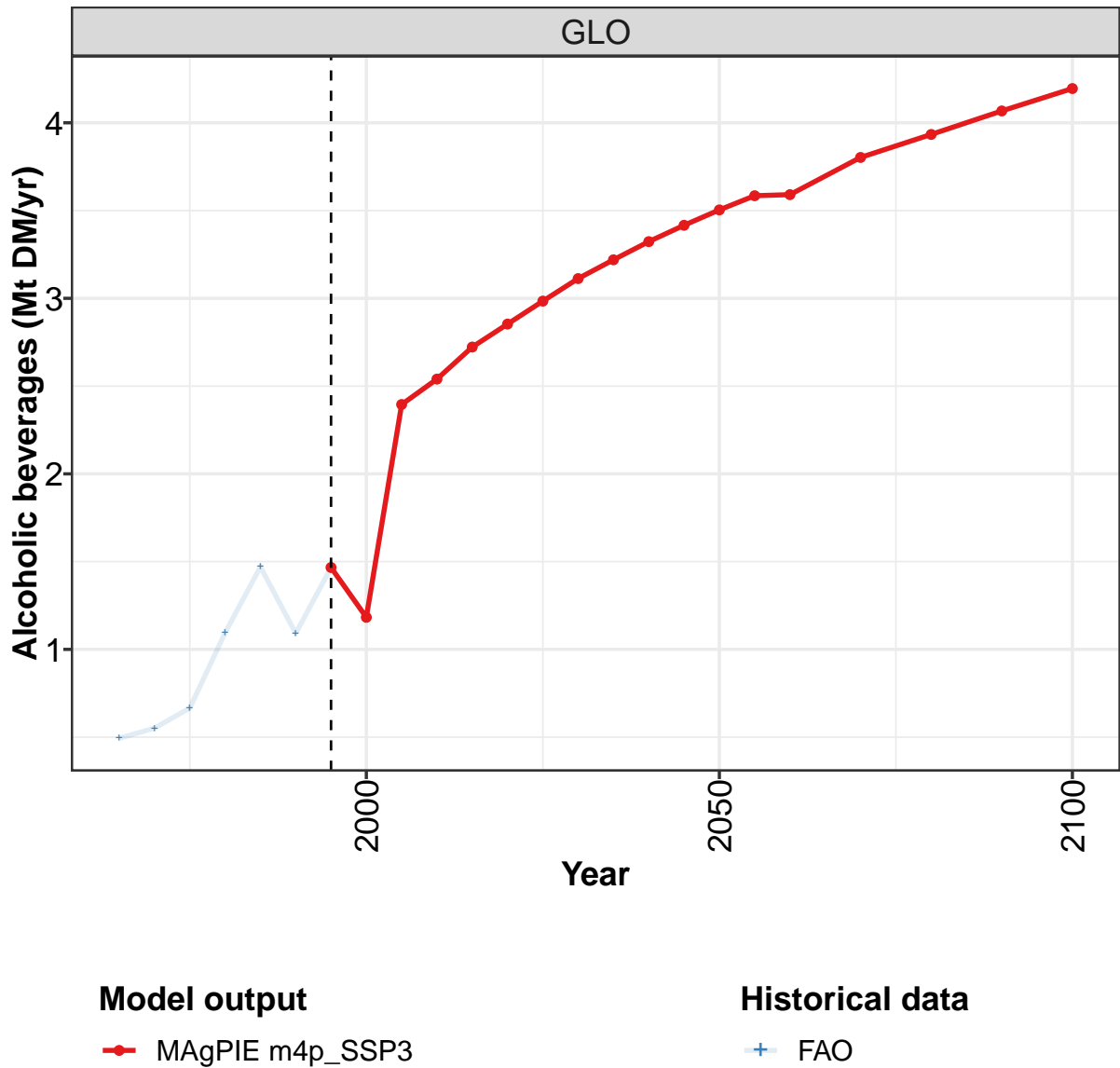
	2050	2055	2060	2070	2080	2090	2100
GLO	246	252	253	269	280	292	303
CAZ	2	2	2	1	1	1	1
CHA	37	36	36	33	32	30	30
EUR	13	12	12	11	10	10	9
IND	19	20	20	23	24	25	27
JPN	1	1	1	1	1	0	0
LAM	98	101	101	110	115	121	127
MEA	12	12	13	14	16	17	18
NEU	5	5	5	5	6	6	6
OAS	37	38	38	42	44	47	49
REF	4	4	4	4	4	4	5
SSA	14	16	16	20	23	26	28
USA	5	5	5	4	4	4	4

Table 540: MAgPIE m4p_SSP3 — Demand—Material—Secondary products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	29	29	30	41	65	85	87	95	135	175
CAZ	0	0	0	1	1	1	1	1	2	1
CHA	6	4	5	6	8	12	14	16	31	38
EUR	5	6	7	8	9	10	11	13	14	14
IND	1	1	1	2	2	4	5	7	9	11
JPN	1	1	1	1	1	1	1	1	1	1
LAM	6	6	6	12	27	31	32	29	41	65
MEA	1	1	1	1	2	2	2	3	6	6
NEU	1	1	1	1	1	1	2	2	3	3
OAS	1	1	1	2	4	6	10	11	14	23
REF	3	3	3	3	3	6	1	2	3	4
SSA	0	1	1	1	1	1	2	2	4	5
USA	4	3	3	3	7	9	6	8	7	4

Table 541: FAO — Demand—Material—Secondary products (Mt DM/yr)

8.6.1 Alcoholic beverages



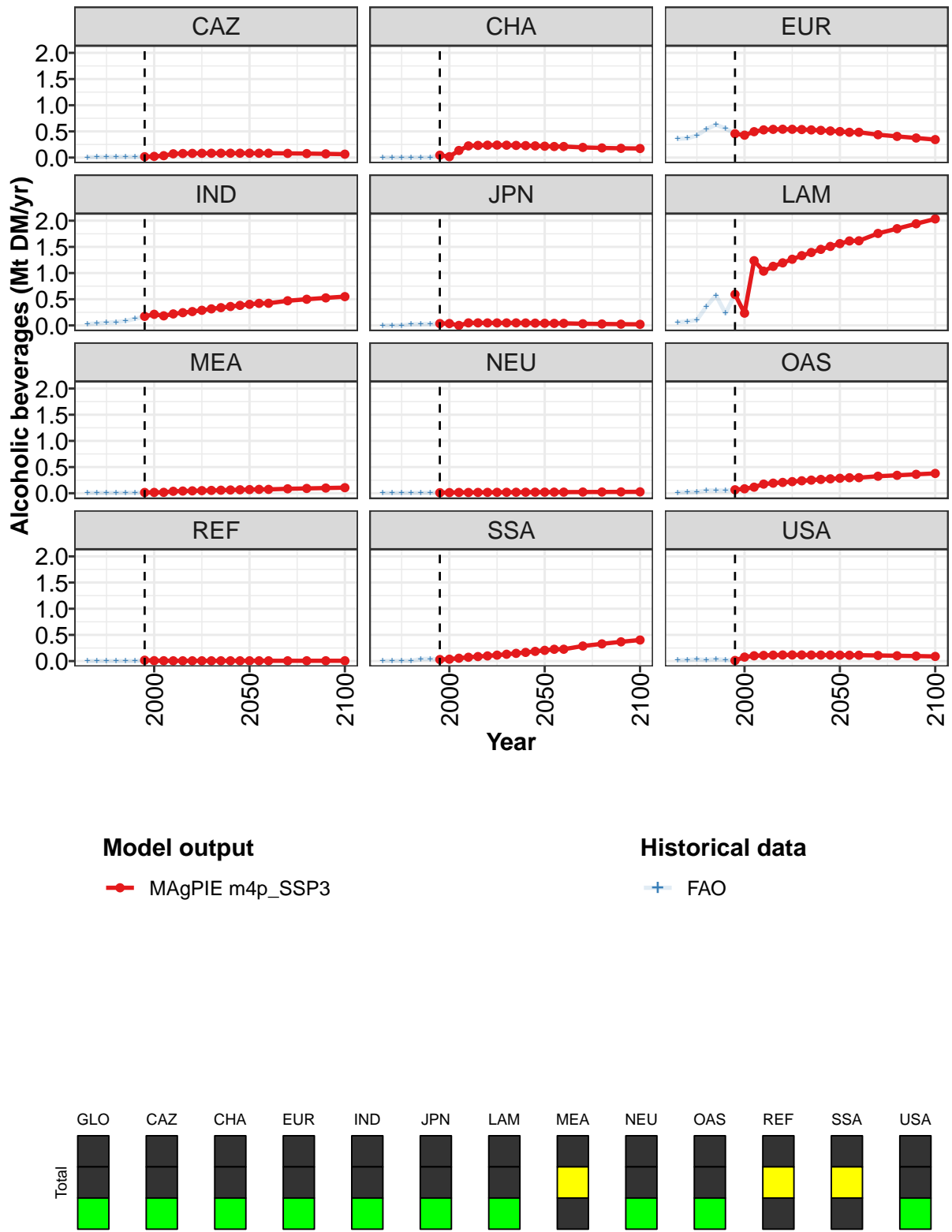


Figure 181: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Alcoholic beverages (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.47	1.18	2.40	2.54	2.72	2.85	2.98	3.11	3.22	3.32	3.42
CAZ	0.02	0.02	0.04	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08
CHA	0.05	0.02	0.14	0.22	0.23	0.24	0.24	0.24	0.23	0.23	0.22
EUR	0.46	0.43	0.49	0.53	0.54	0.54	0.54	0.54	0.53	0.52	0.51
IND	0.17	0.21	0.18	0.22	0.24	0.26	0.29	0.32	0.34	0.36	0.38
JPN	0.04	0.04	0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04
LAM	0.59	0.23	1.24	1.04	1.13	1.19	1.26	1.33	1.39	1.45	1.51
MEA	0.01	0.02	0.02	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.07
NEU	0.01	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02
OAS	0.07	0.08	0.12	0.17	0.19	0.21	0.22	0.24	0.25	0.26	0.28
REF	0.02	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
SSA	0.03	0.04	0.05	0.07	0.09	0.10	0.11	0.13	0.15	0.17	0.19
USA	0.01	0.08	0.10	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.11

Table 542: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Alcoholic beverages (Mt DM/yr)
[PART 1/2]

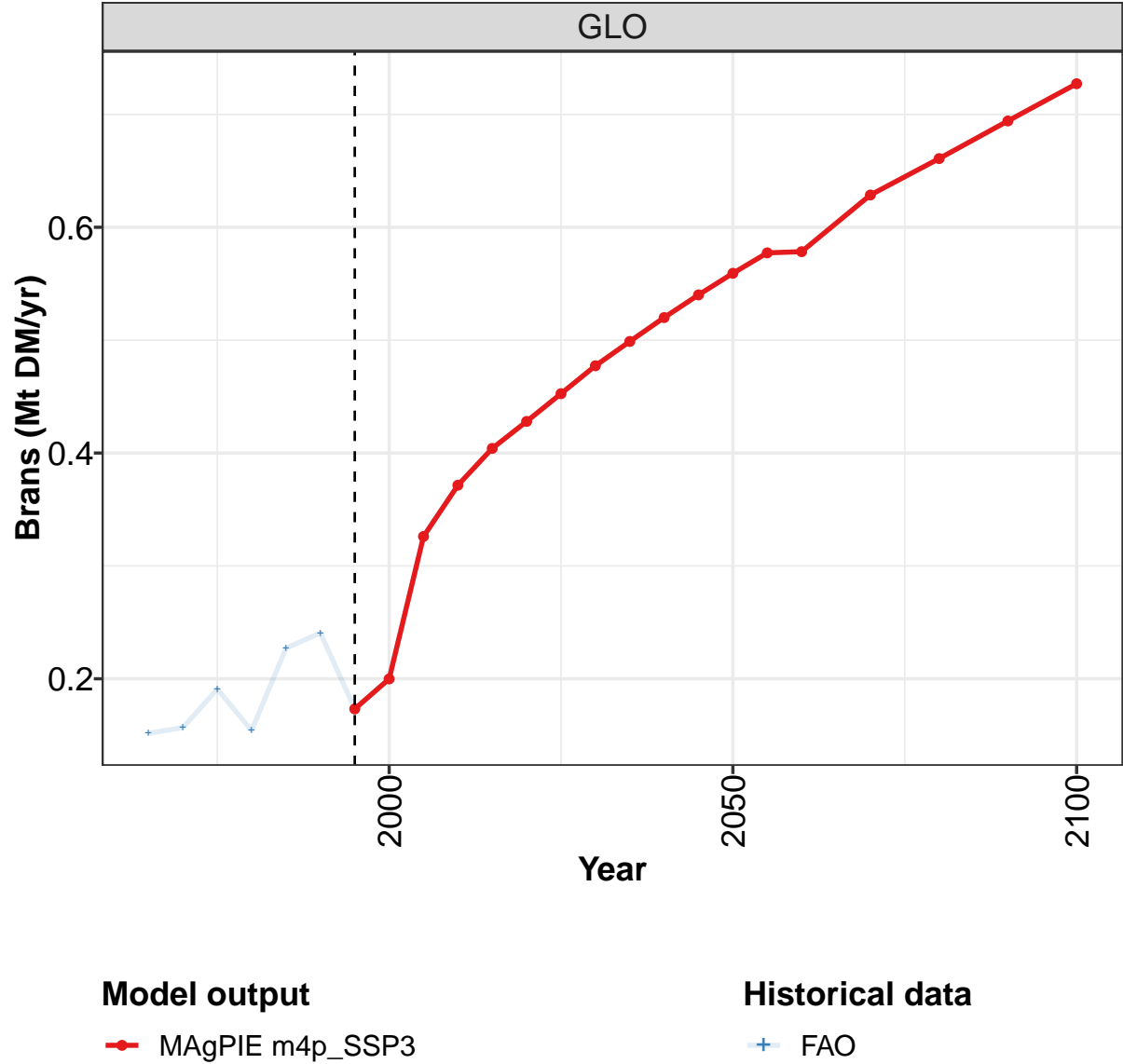
	2050	2055	2060	2070	2080	2090	2100
GLO	3.50	3.58	3.59	3.80	3.93	4.07	4.20
CAZ	0.08	0.08	0.08	0.08	0.08	0.07	0.06
CHA	0.22	0.21	0.21	0.19	0.18	0.18	0.17
EUR	0.50	0.48	0.48	0.44	0.40	0.37	0.34
IND	0.40	0.42	0.42	0.47	0.50	0.53	0.55
JPN	0.04	0.04	0.04	0.03	0.03	0.02	0.02
LAM	1.56	1.61	1.62	1.76	1.85	1.94	2.03
MEA	0.07	0.07	0.07	0.08	0.09	0.10	0.11
NEU	0.02	0.02	0.02	0.02	0.02	0.03	0.03
OAS	0.29	0.30	0.30	0.32	0.34	0.36	0.38
REF	0.01	0.01	0.01	0.01	0.01	0.01	0.01
SSA	0.21	0.23	0.23	0.29	0.33	0.37	0.40
USA	0.11	0.11	0.11	0.11	0.10	0.10	0.09

Table 543: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Alcoholic beverages (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.49	0.55	0.67	1.09	1.47	1.09	1.47	1.18	2.40	2.54
CAZ	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.04	0.07
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.02	0.14	0.22
EUR	0.36	0.37	0.42	0.54	0.63	0.56	0.46	0.43	0.49	0.53
IND	0.03	0.04	0.05	0.06	0.08	0.13	0.17	0.21	0.18	0.22
JPN	0.00	0.00	0.00	0.02	0.02	0.03	0.04	0.04	0.00	0.05
LAM	0.06	0.07	0.10	0.36	0.57	0.23	0.59	0.23	1.24	1.04
MEA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.04
NEU	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01
OAS	0.01	0.02	0.03	0.05	0.05	0.05	0.07	0.08	0.12	0.17
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.00
SSA	0.00	0.00	0.00	0.01	0.04	0.04	0.03	0.04	0.05	0.07
USA	0.02	0.02	0.03	0.02	0.03	0.02	0.01	0.08	0.10	0.11

Table 544: FAO — Demand—Material—Secondary products—Alcoholic beverages (Mt DM/yr)

8.6.2 Brans



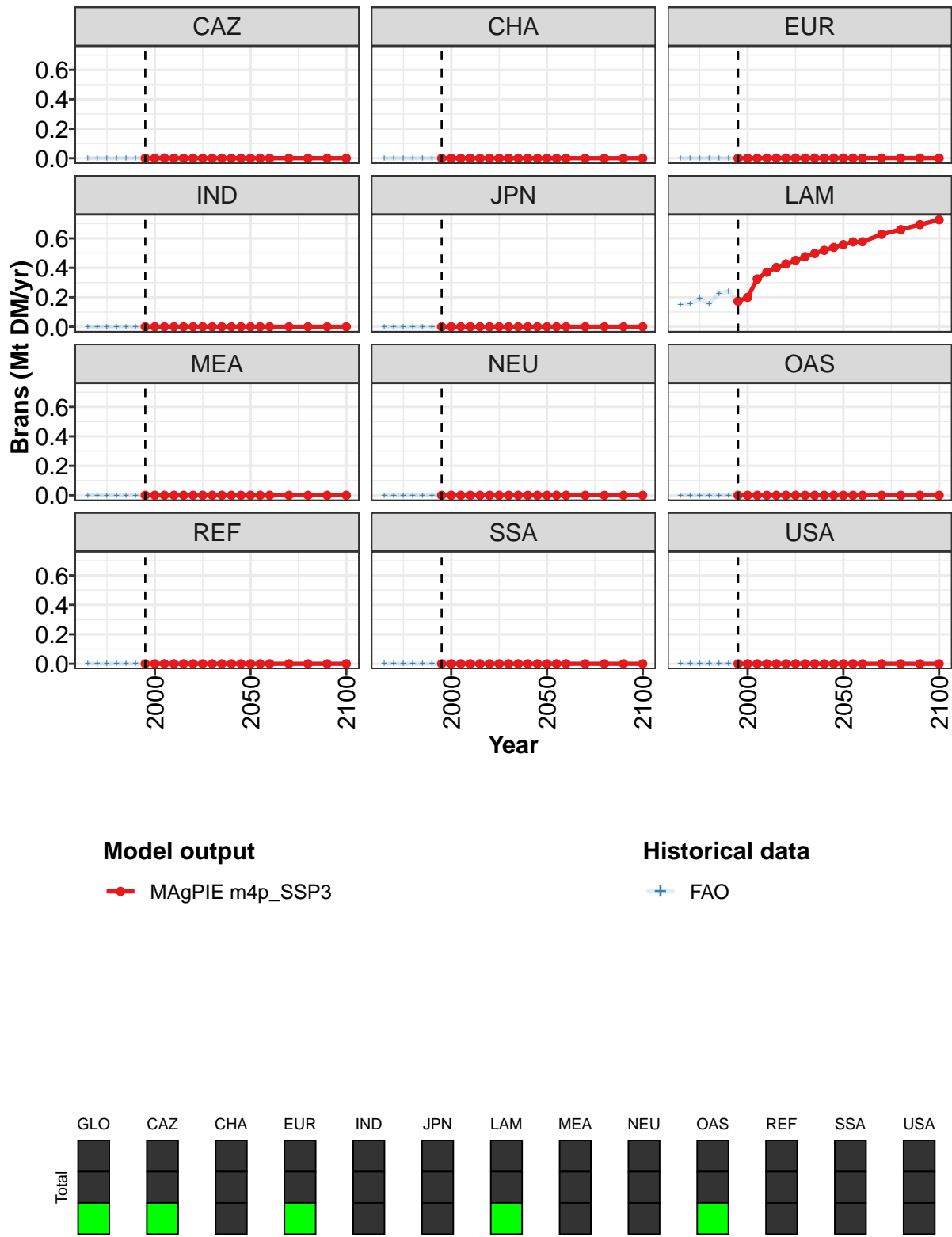


Figure 182: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.173	0.200	0.326	0.371	0.404	0.428	0.453	0.477	0.499	0.520	0.540
CAZ	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.173	0.200	0.325	0.370	0.403	0.427	0.451	0.476	0.497	0.519	0.539
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 545: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Brans (Mt DM/yr) [PART 1/2]

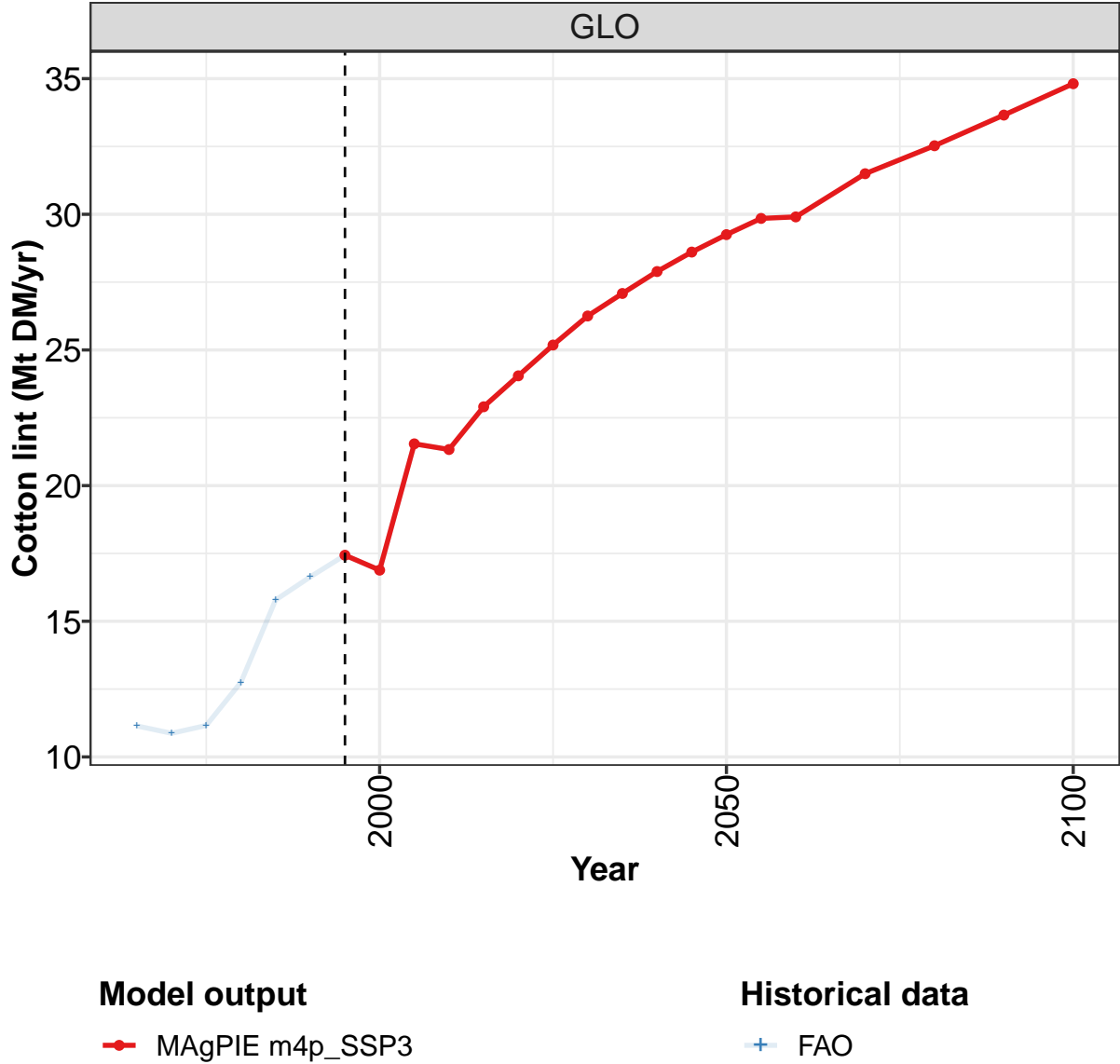
	2050	2055	2060	2070	2080	2090	2100
GLO	0.559	0.577	0.578	0.629	0.661	0.694	0.727
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.001	0.001	0.001	0.001	0.001	0.001	0.001
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.558	0.576	0.577	0.627	0.660	0.693	0.726
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 546: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Brans (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.152	0.157	0.191	0.154	0.227	0.241	0.173	0.200	0.326	0.371
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.152	0.157	0.191	0.154	0.227	0.240	0.173	0.200	0.325	0.370
MEA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 547: FAO — Demand—Material—Secondary products—Brans (Mt DM/yr)

8.6.3 Cotton lint



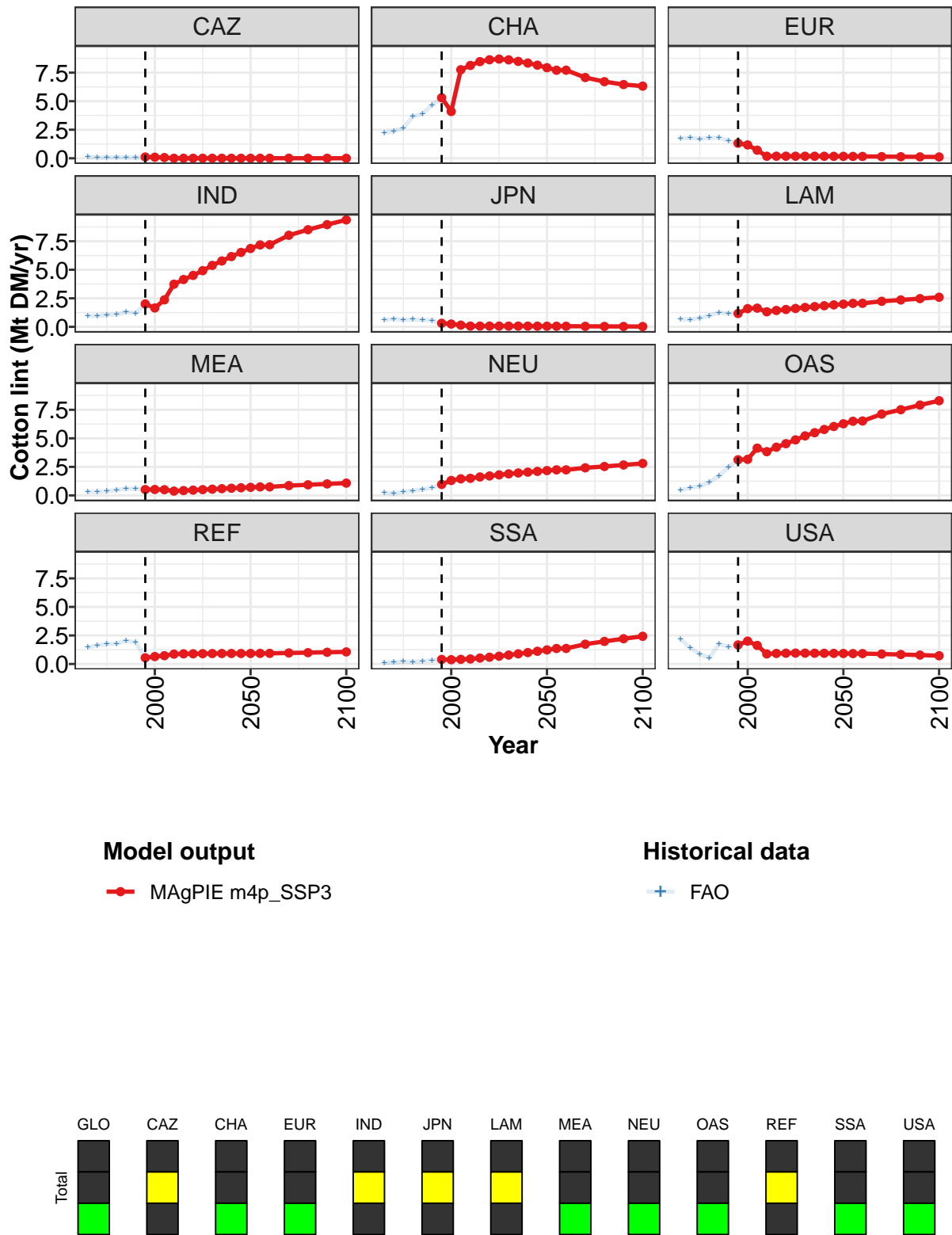


Figure 183: MAGPIE m4p_SSP3 — Demand—Material—Secondary products—Cotton lint (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17.4	16.9	21.5	21.3	22.9	24.0	25.2	26.3	27.1	27.9	28.6
CAZ	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	5.3	4.1	7.8	8.1	8.5	8.6	8.7	8.6	8.5	8.3	8.2
EUR	1.3	1.2	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
IND	2.0	1.7	2.4	3.7	4.1	4.5	4.9	5.4	5.8	6.2	6.5
JPN	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	1.2	1.6	1.6	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.9
MEA	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.7
NEU	1.0	1.3	1.5	1.5	1.6	1.7	1.8	1.9	2.0	2.0	2.1
OAS	3.1	3.2	4.1	3.8	4.2	4.5	4.9	5.2	5.5	5.8	6.0
REF	0.5	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
SSA	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1
USA	1.7	2.0	1.6	0.9	0.9	0.9	1.0	1.0	0.9	0.9	0.9

Table 548: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Cotton lint (Mt DM/yr) [PART 1/2]

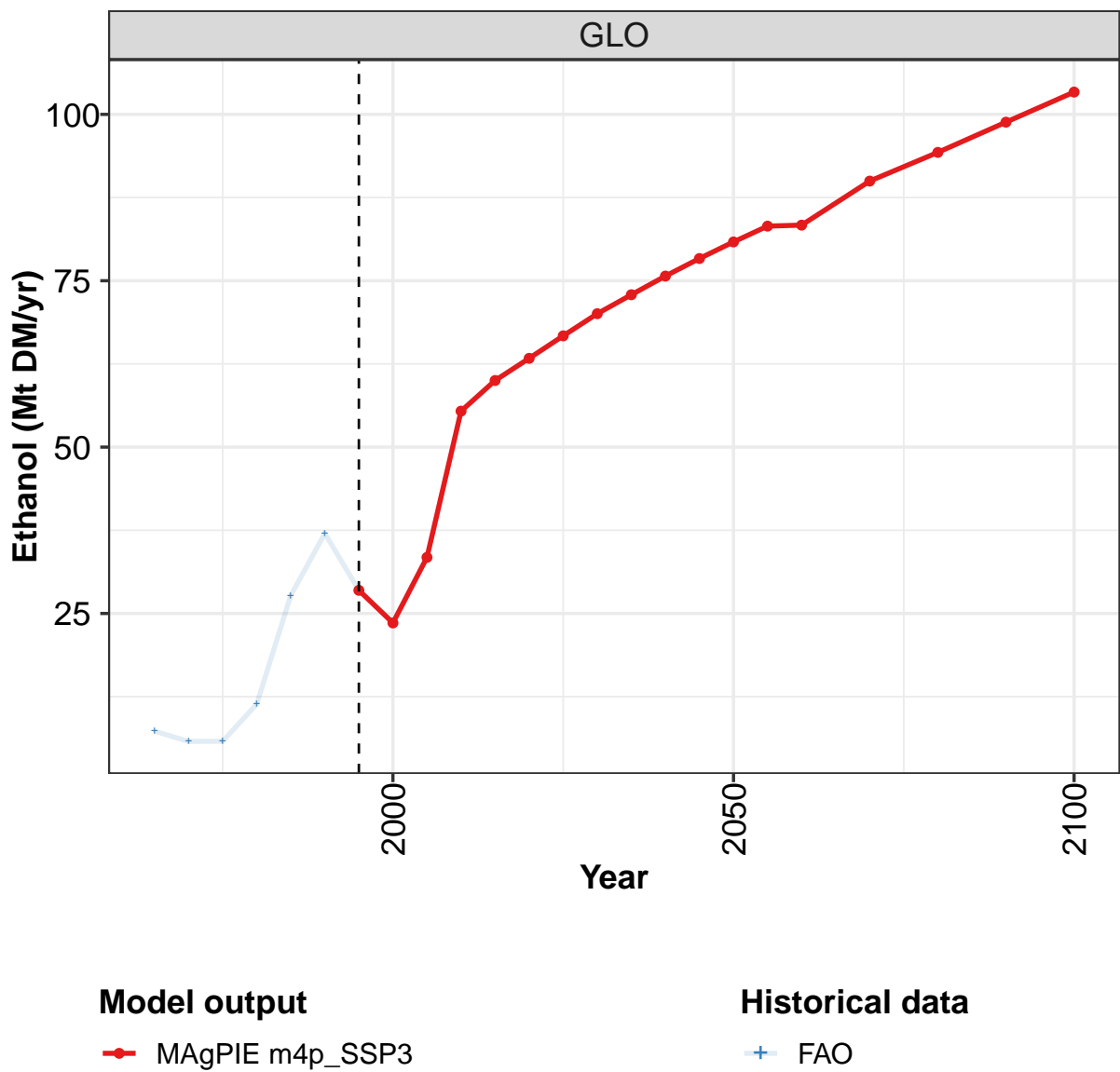
	2050	2055	2060	2070	2080	2090	2100
GLO	29.3	29.8	29.9	31.5	32.5	33.7	34.8
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	7.9	7.7	7.7	7.1	6.7	6.5	6.3
EUR	0.2	0.2	0.2	0.1	0.1	0.1	0.1
IND	6.9	7.2	7.2	8.0	8.5	9.0	9.4
JPN	0.1	0.1	0.1	0.0	0.0	0.0	0.0
LAM	2.0	2.1	2.1	2.2	2.4	2.5	2.6
MEA	0.7	0.7	0.7	0.9	0.9	1.0	1.1
NEU	2.2	2.2	2.2	2.4	2.5	2.7	2.8
OAS	6.3	6.5	6.5	7.1	7.5	7.9	8.3
REF	0.9	0.9	0.9	1.0	1.0	1.0	1.1
SSA	1.2	1.4	1.4	1.7	2.0	2.2	2.4
USA	0.9	0.9	0.9	0.9	0.8	0.8	0.7

Table 549: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Cotton lint (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	11.1	10.9	11.2	12.8	15.8	16.6	17.4	16.9	21.5	21.3
CAZ	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0
CHA	2.2	2.4	2.6	3.7	3.9	4.7	5.3	4.1	7.8	8.1
EUR	1.8	1.8	1.7	1.8	1.8	1.5	1.3	1.2	0.7	0.2
IND	1.0	0.9	1.1	1.1	1.3	1.2	2.0	1.7	2.4	3.7
JPN	0.6	0.7	0.6	0.6	0.6	0.6	0.3	0.2	0.2	0.1
LAM	0.7	0.6	0.8	1.0	1.3	1.1	1.2	1.6	1.6	1.3
MEA	0.3	0.3	0.4	0.5	0.6	0.6	0.5	0.5	0.5	0.4
NEU	0.2	0.2	0.3	0.4	0.5	0.7	1.0	1.3	1.5	1.5
OAS	0.5	0.7	0.8	1.1	1.7	2.5	3.1	3.2	4.1	3.8
REF	1.5	1.6	1.7	1.8	2.0	1.9	0.5	0.7	0.7	0.9
SSA	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4
USA	2.2	1.4	0.9	0.5	1.7	1.5	1.7	2.0	1.6	0.9

Table 550: FAO — Demand—Material—Secondary products—Cotton lint (Mt DM/yr)

8.6.4 Ethanol



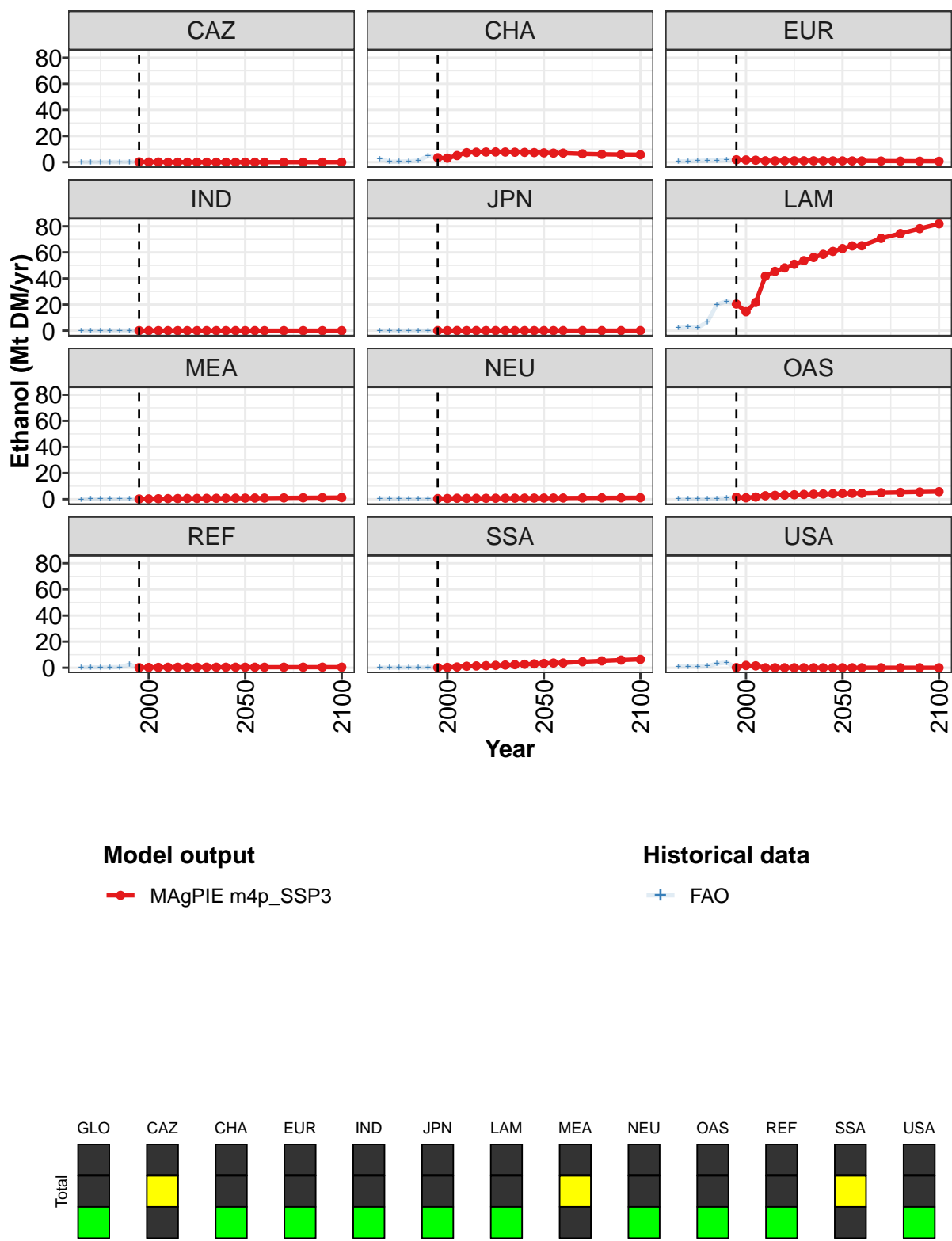


Figure 184: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Ethanol (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	28	24	33	55	60	63	67	70	73	76	78
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	3	3	5	7	8	8	8	8	8	8	7
EUR	2	2	2	1	1	1	1	1	1	1	1
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	20	15	22	42	45	48	51	54	56	58	61
MEA	0	0	0	0	0	1	1	1	1	1	1
NEU	0	1	1	1	1	1	1	1	1	1	1
OAS	2	1	2	3	3	3	3	4	4	4	4
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	1	1	1	2	2	2	2	3	3
USA	0	2	1	0	0	0	0	0	0	0	0

Table 551: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Ethanol (Mt DM/yr) [PART 1/2]

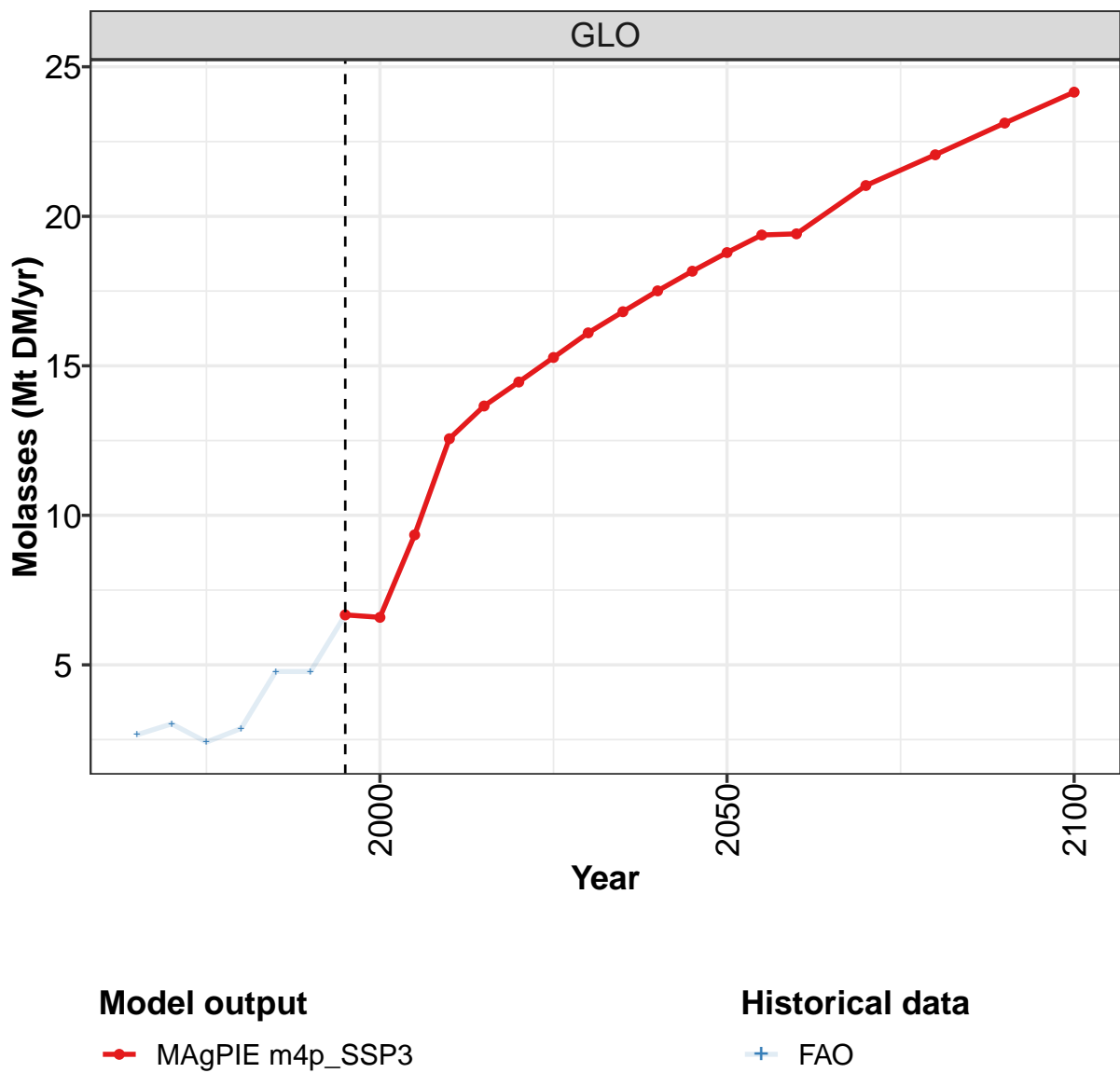
	2050	2055	2060	2070	2080	2090	2100
GLO	81	83	83	90	94	99	103
CAZ	0	0	0	0	0	0	0
CHA	7	7	7	6	6	6	6
EUR	1	1	1	1	1	1	1
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	63	65	65	71	74	78	82
MEA	1	1	1	1	1	1	1
NEU	1	1	1	1	1	1	1
OAS	4	5	5	5	5	6	6
REF	0	0	0	0	0	0	0
SSA	3	4	4	5	5	6	6
USA	0	0	0	0	0	0	0

Table 552: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Ethanol (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	7.3	5.8	5.8	11.4	27.7	37.0	28.5	23.6	33.4	55.4
CAZ	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.1	0.2	0.0
CHA	2.6	0.3	0.5	0.7	1.2	4.8	3.4	3.1	5.1	7.3
EUR	0.5	0.7	1.0	1.2	1.2	1.5	1.8	1.7	1.5	1.1
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
LAM	2.1	2.6	2.2	6.8	20.2	22.6	20.4	14.6	21.7	41.7
MEA	0.0	0.0	0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.4
NEU	0.6	0.5	0.5	0.3	0.4	0.4	0.5	0.5	0.7	0.6
OAS	0.1	0.2	0.2	0.3	0.6	0.9	1.6	1.1	1.7	2.7
REF	0.3	0.3	0.3	0.4	0.5	2.4	0.1	0.2	0.2	0.4
SSA	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.6	1.2
USA	1.0	1.0	1.0	1.2	3.2	4.0	0.2	1.8	1.4	0.0

Table 553: FAO — Demand—Material—Secondary products—Ethanol (Mt DM/yr)

8.6.5 Molasses



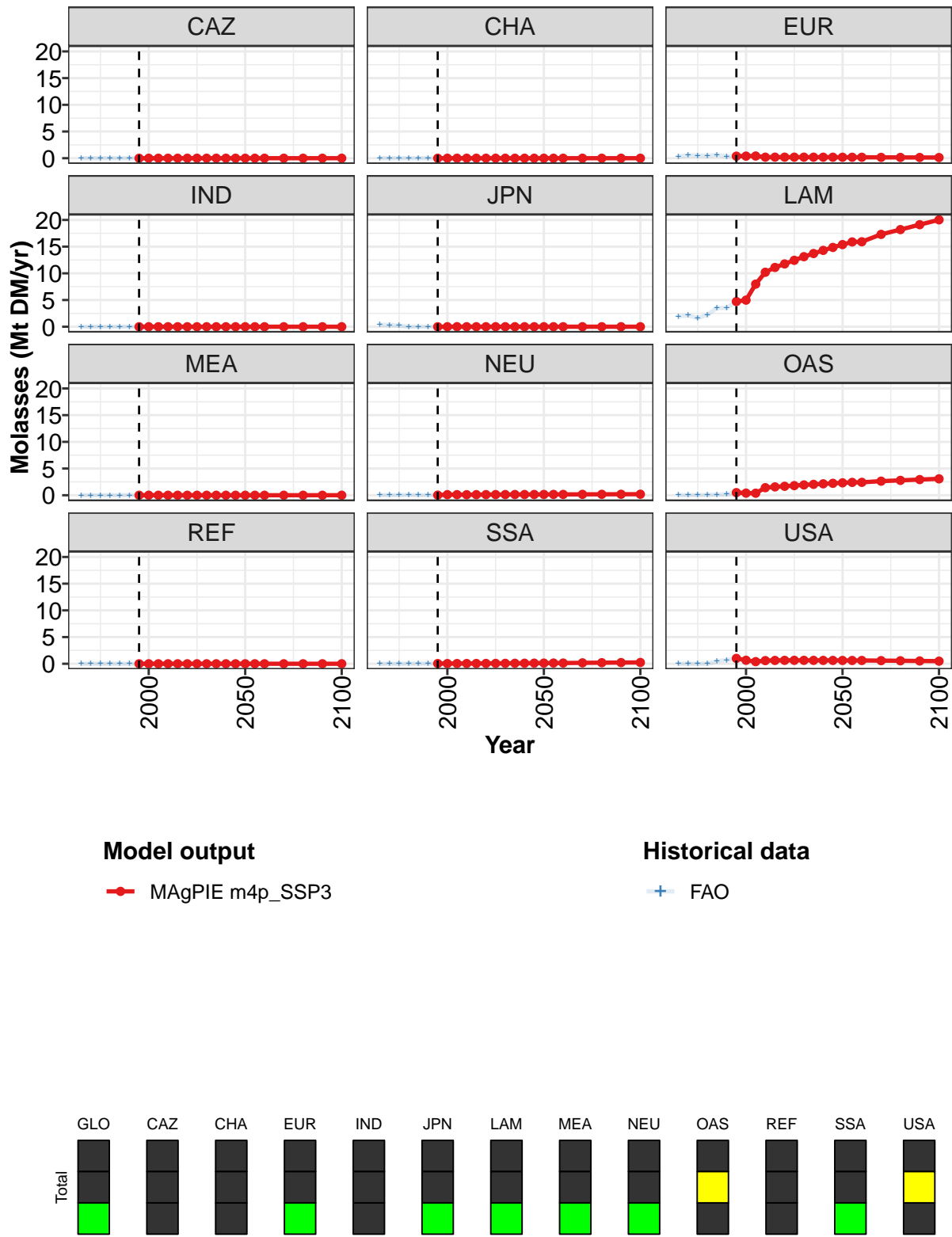


Figure 185: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Molasses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.7	6.6	9.3	12.6	13.7	14.5	15.3	16.1	16.8	17.5	18.2
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	4.7	5.0	8.0	10.2	11.1	11.8	12.4	13.1	13.7	14.3	14.9
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	0.5	0.4	0.4	1.4	1.6	1.7	1.8	1.9	2.0	2.1	2.2
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
USA	1.0	0.7	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

Table 554: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

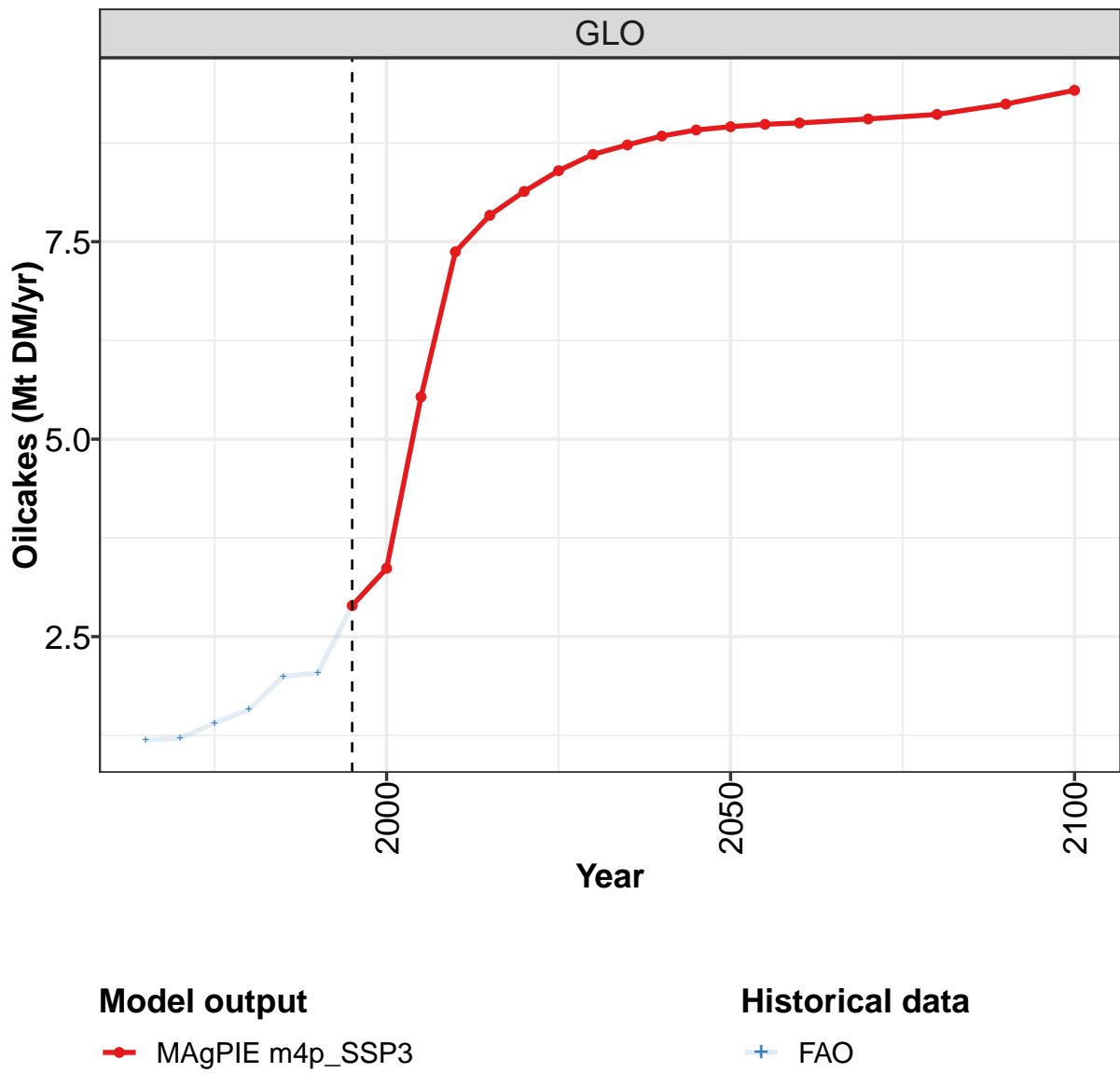
	2050	2055	2060	2070	2080	2090	2100
GLO	18.8	19.4	19.4	21.0	22.1	23.1	24.2
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.2	0.2	0.2	0.2	0.1	0.1	0.1
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	15.4	15.9	15.9	17.3	18.2	19.1	20.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.1	0.2	0.2	0.2	0.2	0.2	0.2
OAS	2.3	2.4	2.4	2.6	2.8	2.9	3.1
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.1	0.1	0.1	0.2	0.2	0.2	0.2
USA	0.6	0.6	0.6	0.6	0.6	0.5	0.5

Table 555: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Molasses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.7	3.0	2.4	2.9	4.8	4.8	6.7	6.6	9.3	12.6
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.3	0.5	0.5	0.5	0.6	0.4	0.4	0.4	0.4	0.2
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.9	2.1	1.6	2.3	3.5	3.5	4.7	5.0	8.0	10.2
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1
OAS	0.0	0.0	0.0	0.1	0.1	0.2	0.5	0.4	0.4	1.4
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.5	0.7	1.0	0.7	0.4	0.6

Table 556: FAO — Demand—Material—Secondary products—Molasses (Mt DM/yr)

8.6.6
Oilcakes



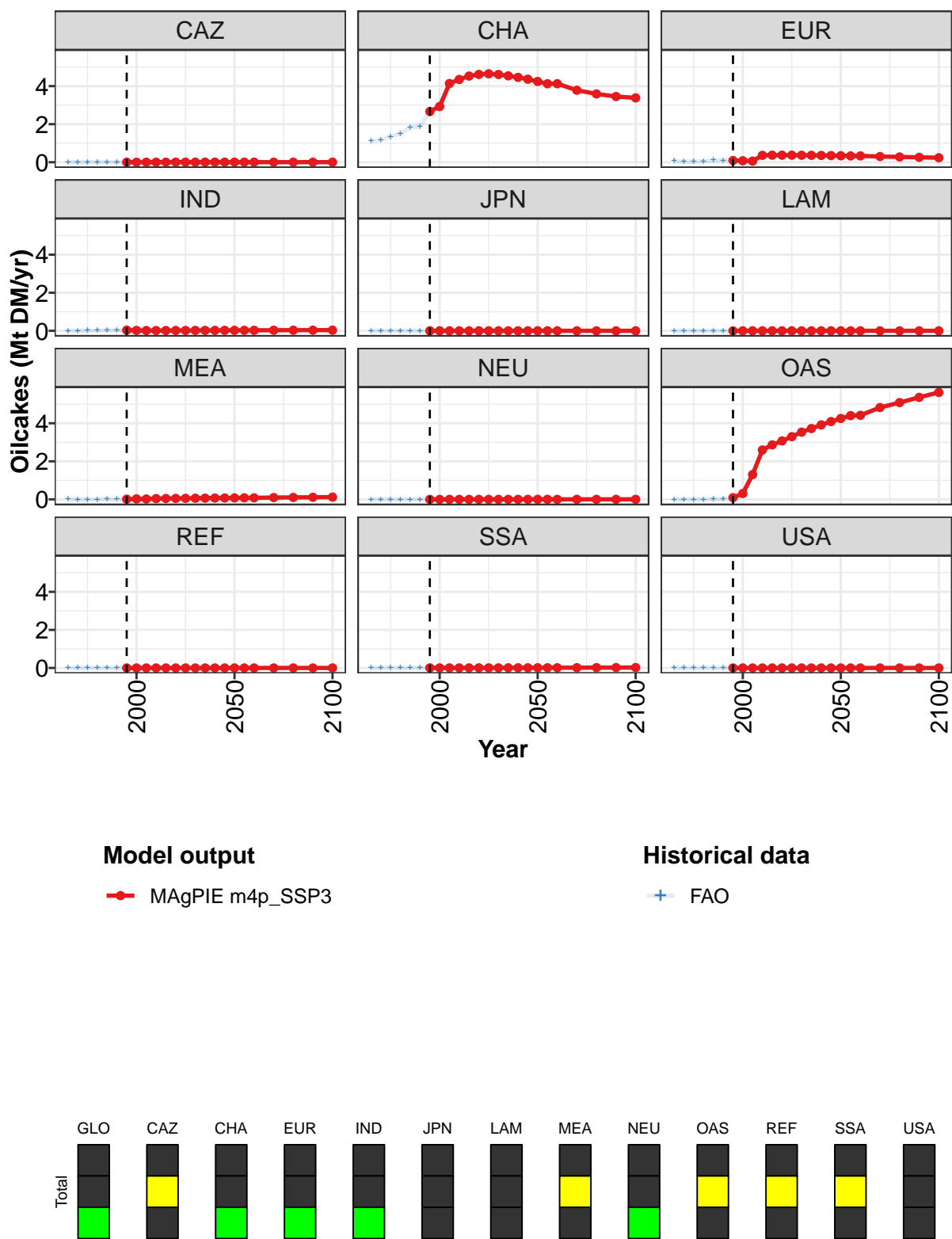


Figure 186: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Oilcakes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.89	3.36	5.54	7.37	7.83	8.14	8.40	8.61	8.73	8.84	8.91
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	2.67	2.93	4.14	4.35	4.53	4.62	4.65	4.61	4.54	4.46	4.36
EUR	0.09	0.07	0.06	0.36	0.37	0.37	0.37	0.37	0.36	0.36	0.35
IND	0.03	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.01	0.03	0.02	0.04	0.05	0.05	0.06	0.06	0.06	0.07	0.07
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.09	0.31	1.30	2.60	2.86	3.07	3.30	3.53	3.72	3.91	4.09
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 557: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Oilcakes (Mt DM/yr) [PART 1/2]

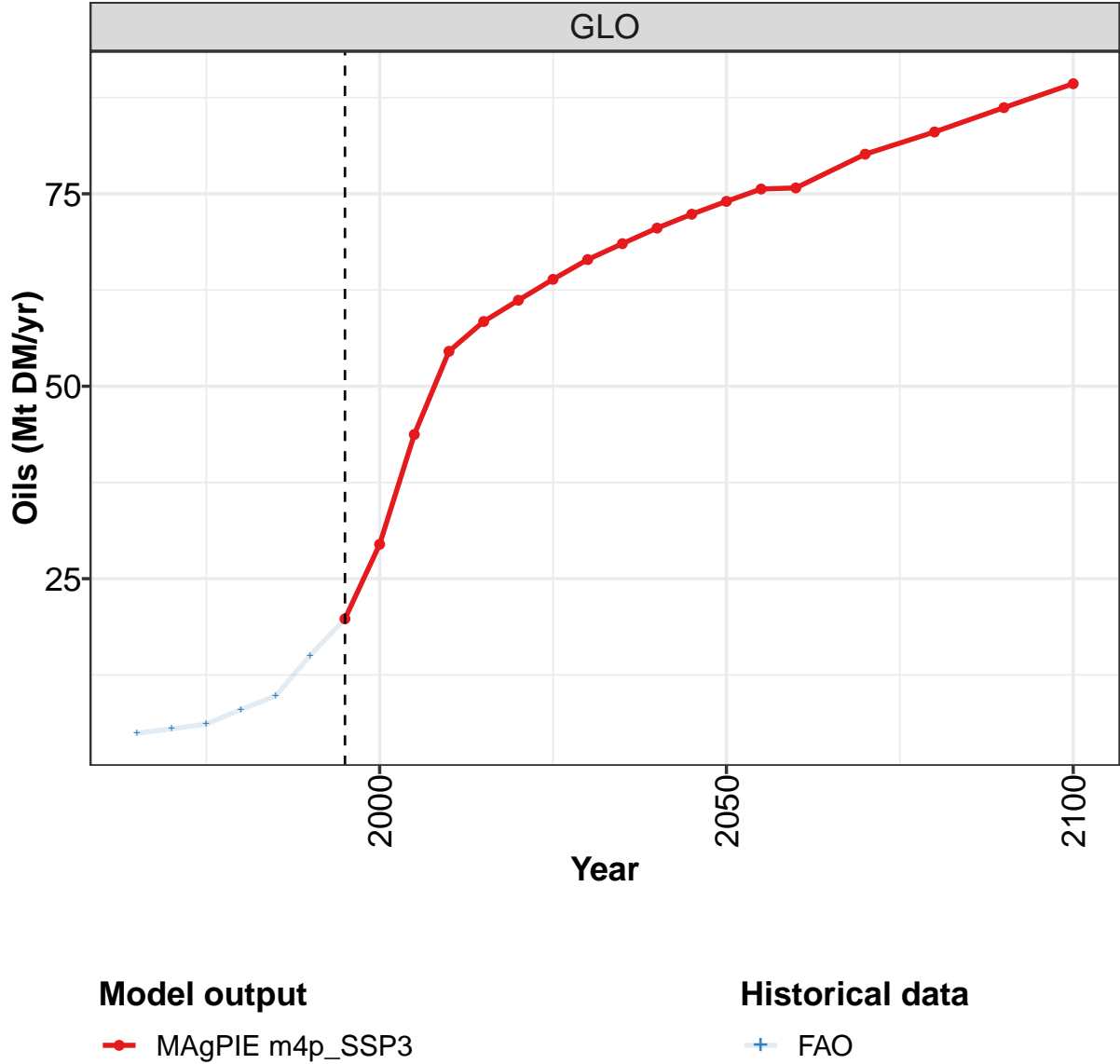
	2050	2055	2060	2070	2080	2090	2100
GLO	8.96	8.99	9.00	9.05	9.11	9.24	9.42
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	4.24	4.13	4.13	3.78	3.59	3.45	3.38
EUR	0.34	0.33	0.33	0.30	0.28	0.26	0.24
IND	0.02	0.03	0.03	0.03	0.03	0.03	0.03
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.08	0.08	0.08	0.09	0.10	0.11	0.12
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	4.25	4.40	4.42	4.83	5.09	5.36	5.62
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.01	0.01	0.01	0.01	0.02	0.02	0.02
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 558: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Oilcakes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.19	1.22	1.41	1.58	2.00	2.04	2.89	3.36	5.54	7.37
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	1.11	1.17	1.35	1.50	1.83	1.88	2.67	2.93	4.14	4.35
EUR	0.07	0.03	0.04	0.05	0.10	0.10	0.09	0.07	0.06	0.36
IND	0.00	0.01	0.02	0.02	0.04	0.04	0.03	0.02	0.01	0.01
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.03	0.02	0.04
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.01	0.01	0.09	0.31	1.30	2.60
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 559: FAO — Demand—Material—Secondary products—Oilcakes (Mt DM/yr)

8.6.7 Oils



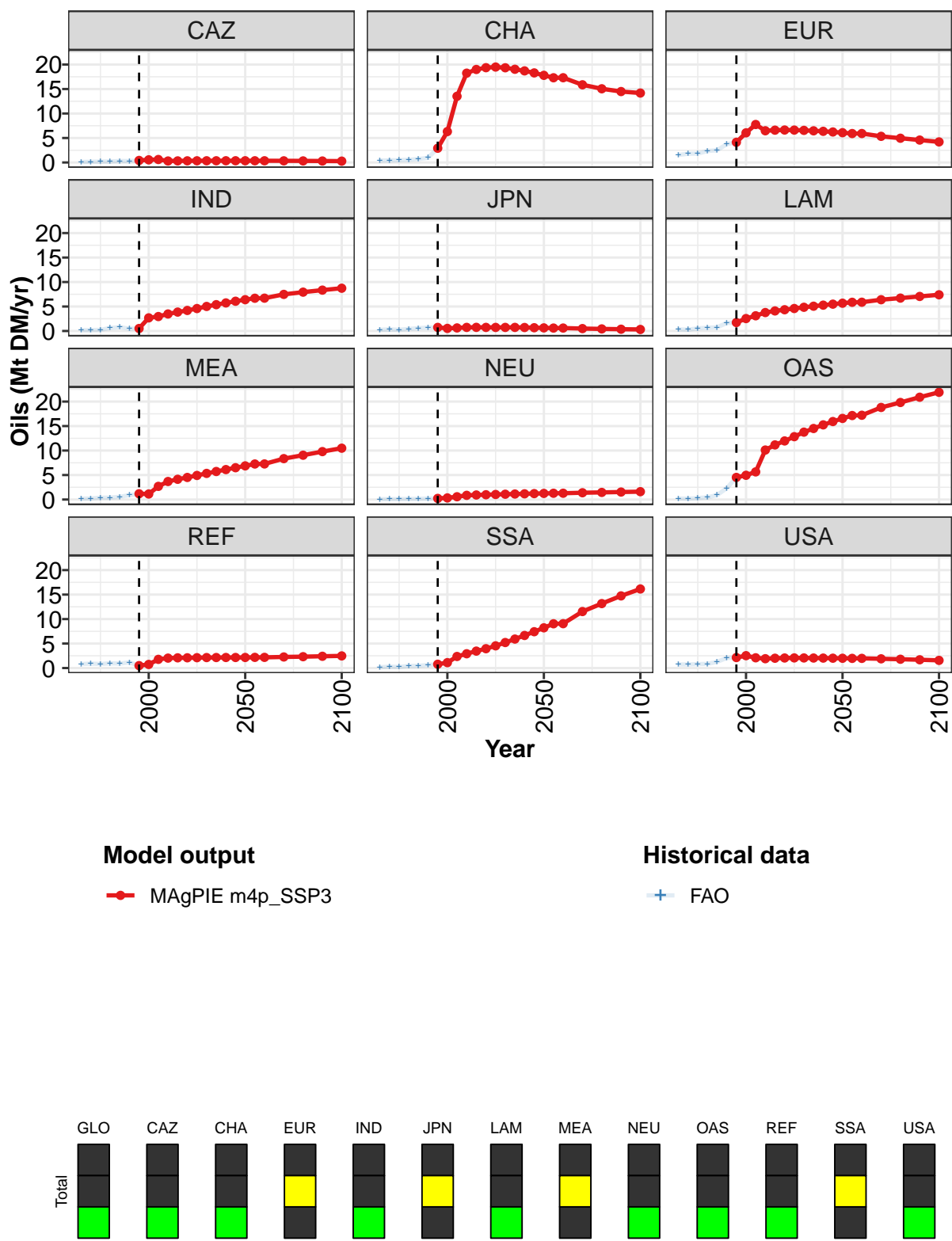


Figure 187: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	19.8	29.5	43.7	54.5	58.4	61.2	63.9	66.5	68.5	70.5	72.3
CAZ	0.4	0.5	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
CHA	2.9	6.3	13.5	18.2	19.0	19.4	19.5	19.3	19.0	18.7	18.3
EUR	4.1	6.1	7.8	6.5	6.6	6.6	6.6	6.6	6.5	6.4	6.2
IND	0.5	2.7	3.0	3.5	3.9	4.2	4.6	5.0	5.4	5.7	6.1
JPN	0.7	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
LAM	1.7	2.5	3.1	3.8	4.1	4.3	4.6	4.8	5.1	5.3	5.5
MEA	1.2	1.1	2.7	3.7	4.1	4.5	4.9	5.3	5.7	6.1	6.5
NEU	0.2	0.3	0.6	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2
OAS	4.5	5.0	5.6	10.1	11.2	12.0	12.8	13.8	14.5	15.2	15.9
REF	0.5	0.7	1.8	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.2
SSA	0.8	1.1	2.4	2.9	3.5	4.0	4.5	5.2	5.9	6.7	7.4
USA	2.1	2.5	2.1	1.9	2.0	2.1	2.1	2.1	2.0	2.0	2.0

Table 560: MAgPIE m4p-SSP3 — Demand—Material—Secondary products—Oils (Mt DM/yr) [PART 1/2]

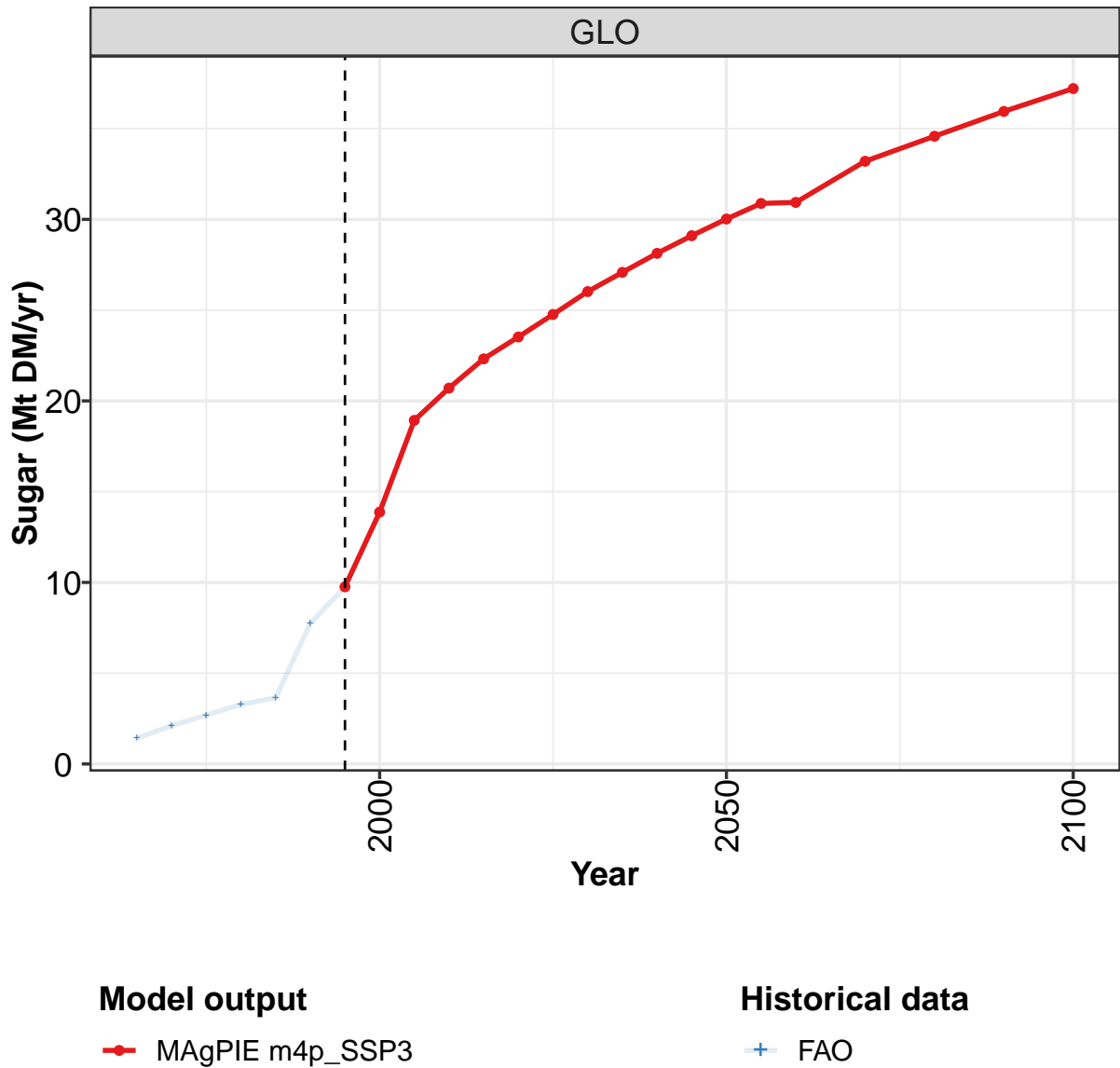
	2050	2055	2060	2070	2080	2090	2100
GLO	74.0	75.6	75.8	80.1	83.0	86.2	89.3
CAZ	0.4	0.4	0.4	0.3	0.3	0.3	0.3
CHA	17.8	17.3	17.3	15.9	15.1	14.5	14.2
EUR	6.1	5.9	5.9	5.3	5.0	4.6	4.2
IND	6.4	6.7	6.7	7.5	7.9	8.3	8.7
JPN	0.6	0.6	0.6	0.5	0.4	0.4	0.3
LAM	5.7	5.9	5.9	6.4	6.7	7.1	7.4
MEA	6.9	7.3	7.3	8.4	9.1	9.8	10.5
NEU	1.2	1.3	1.3	1.4	1.5	1.5	1.6
OAS	16.6	17.2	17.2	18.8	19.8	20.9	21.9
REF	2.2	2.2	2.2	2.3	2.3	2.4	2.5
SSA	8.2	9.0	9.1	11.5	13.2	14.7	16.1
USA	2.0	2.0	2.0	1.9	1.8	1.7	1.6

Table 561: MAgPIE m4p-SSP3 — Demand—Material—Secondary products—Oils (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.9	5.5	6.1	8.0	9.8	15.0	19.8	29.5	43.7	54.5
CAZ	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.3
CHA	0.4	0.4	0.5	0.6	0.7	1.0	2.9	6.3	13.5	18.2
EUR	1.5	1.8	1.8	2.3	2.5	3.7	4.1	6.1	7.8	6.5
IND	0.2	0.2	0.2	0.6	0.8	0.5	0.5	2.7	3.0	3.5
JPN	0.2	0.3	0.3	0.4	0.6	0.7	0.7	0.5	0.6	0.7
LAM	0.3	0.3	0.5	0.7	0.7	1.6	1.7	2.5	3.1	3.8
MEA	0.2	0.2	0.4	0.4	0.6	0.9	1.2	1.1	2.7	3.7
NEU	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.6	0.9
OAS	0.2	0.2	0.3	0.4	0.9	2.3	4.5	5.0	5.6	10.1
REF	0.8	0.9	0.8	1.0	0.9	1.2	0.5	0.7	1.8	2.0
SSA	0.2	0.3	0.2	0.4	0.4	0.6	0.8	1.1	2.4	2.9
USA	0.7	0.7	0.8	0.8	1.3	2.1	2.1	2.5	2.1	1.9

Table 562: FAO — Demand—Material—Secondary products—Oils (Mt DM/yr)

8.6.8 Sugar



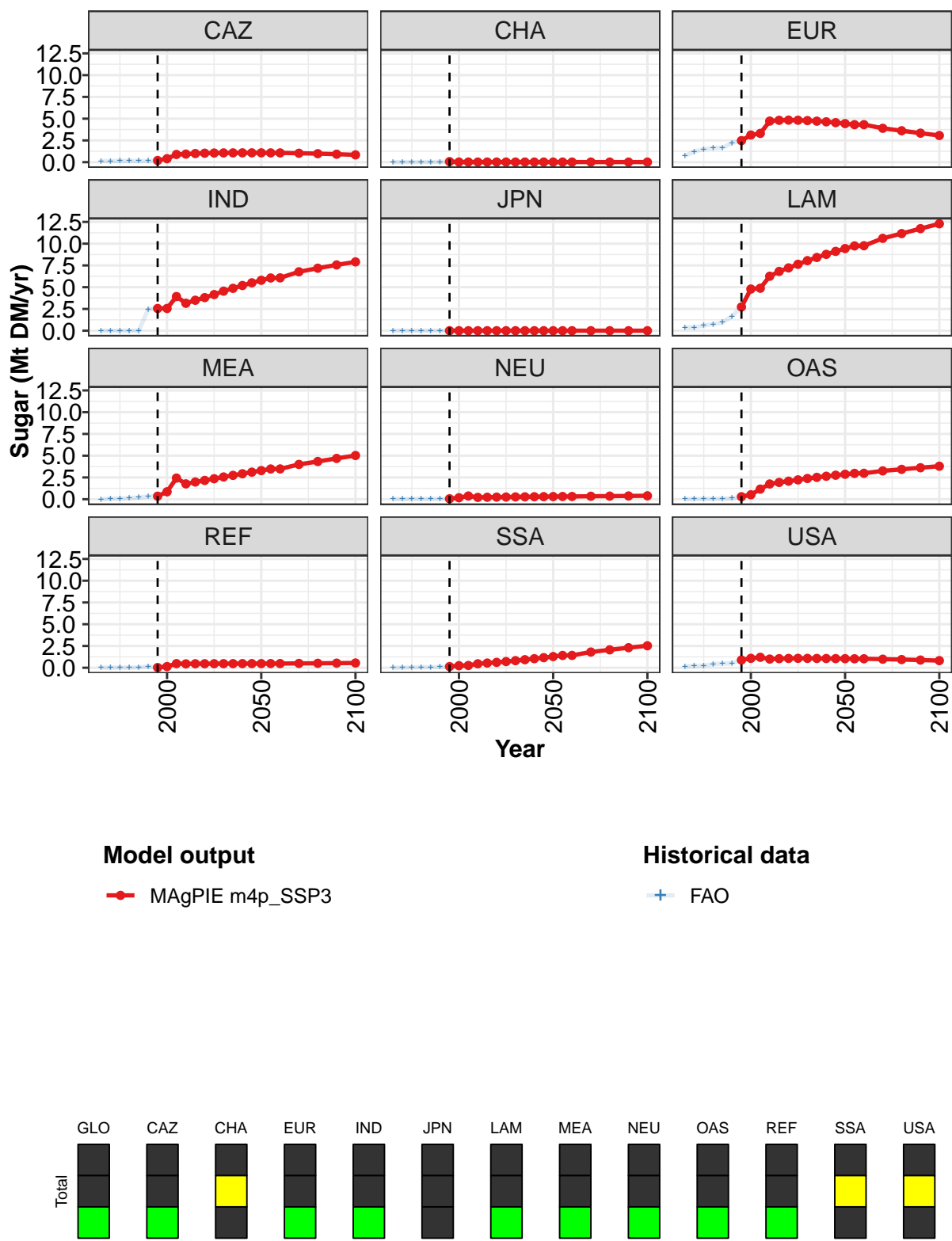


Figure 188: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9.8	13.9	18.9	20.7	22.3	23.5	24.8	26.0	27.1	28.1	29.1
CAZ	0.2	0.4	0.9	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.1
CHA	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	2.5	3.1	3.3	4.7	4.8	4.8	4.8	4.8	4.7	4.6	4.5
IND	2.6	2.6	3.9	3.2	3.5	3.8	4.2	4.5	4.9	5.2	5.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	2.7	4.8	4.9	6.3	6.8	7.2	7.6	8.1	8.4	8.8	9.1
MEA	0.3	0.9	2.4	1.8	2.0	2.2	2.4	2.6	2.7	2.9	3.1
NEU	0.1	0.2	0.4	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
OAS	0.3	0.5	1.2	1.8	1.9	2.1	2.2	2.4	2.5	2.6	2.8
REF	0.0	0.1	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
SSA	0.1	0.2	0.3	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.2
USA	0.9	1.1	1.2	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1

Table 563: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Sugar (Mt DM/yr) [PART 1/2]

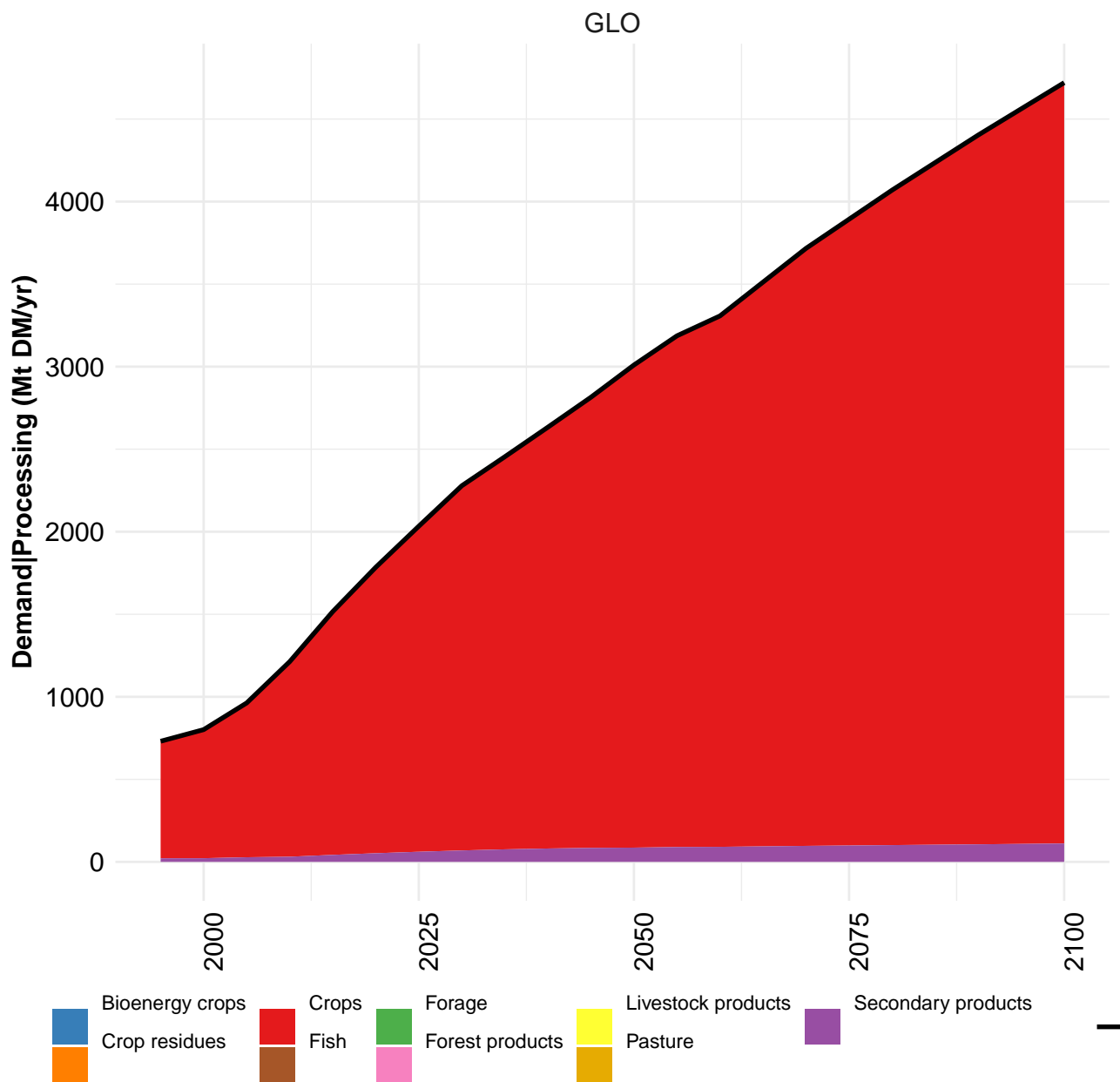
	2050	2055	2060	2070	2080	2090	2100
GLO	30.0	30.9	30.9	33.2	34.6	35.9	37.2
CAZ	1.1	1.1	1.1	1.0	1.0	0.9	0.8
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	4.4	4.3	4.3	3.9	3.6	3.3	3.1
IND	5.8	6.1	6.1	6.8	7.2	7.6	7.9
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	9.4	9.7	9.8	10.6	11.2	11.7	12.3
MEA	3.3	3.5	3.5	4.0	4.3	4.7	5.0
NEU	0.3	0.3	0.3	0.3	0.4	0.4	0.4
OAS	2.9	3.0	3.0	3.3	3.4	3.6	3.8
REF	0.5	0.5	0.5	0.5	0.5	0.5	0.5
SSA	1.3	1.4	1.4	1.8	2.1	2.3	2.5
USA	1.0	1.0	1.0	1.0	0.9	0.9	0.8

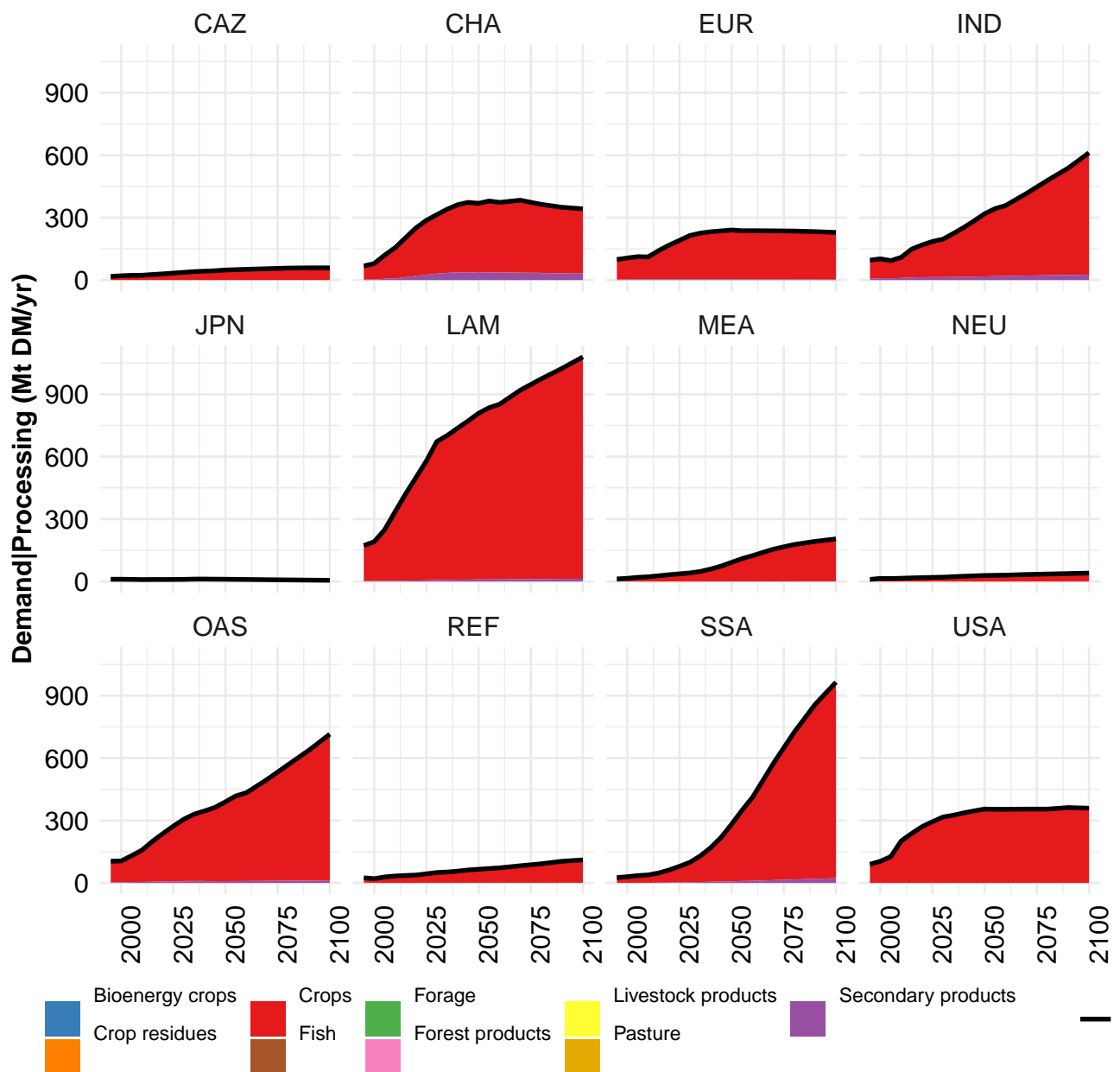
Table 564: MAgPIE m4p_SSP3 — Demand—Material—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

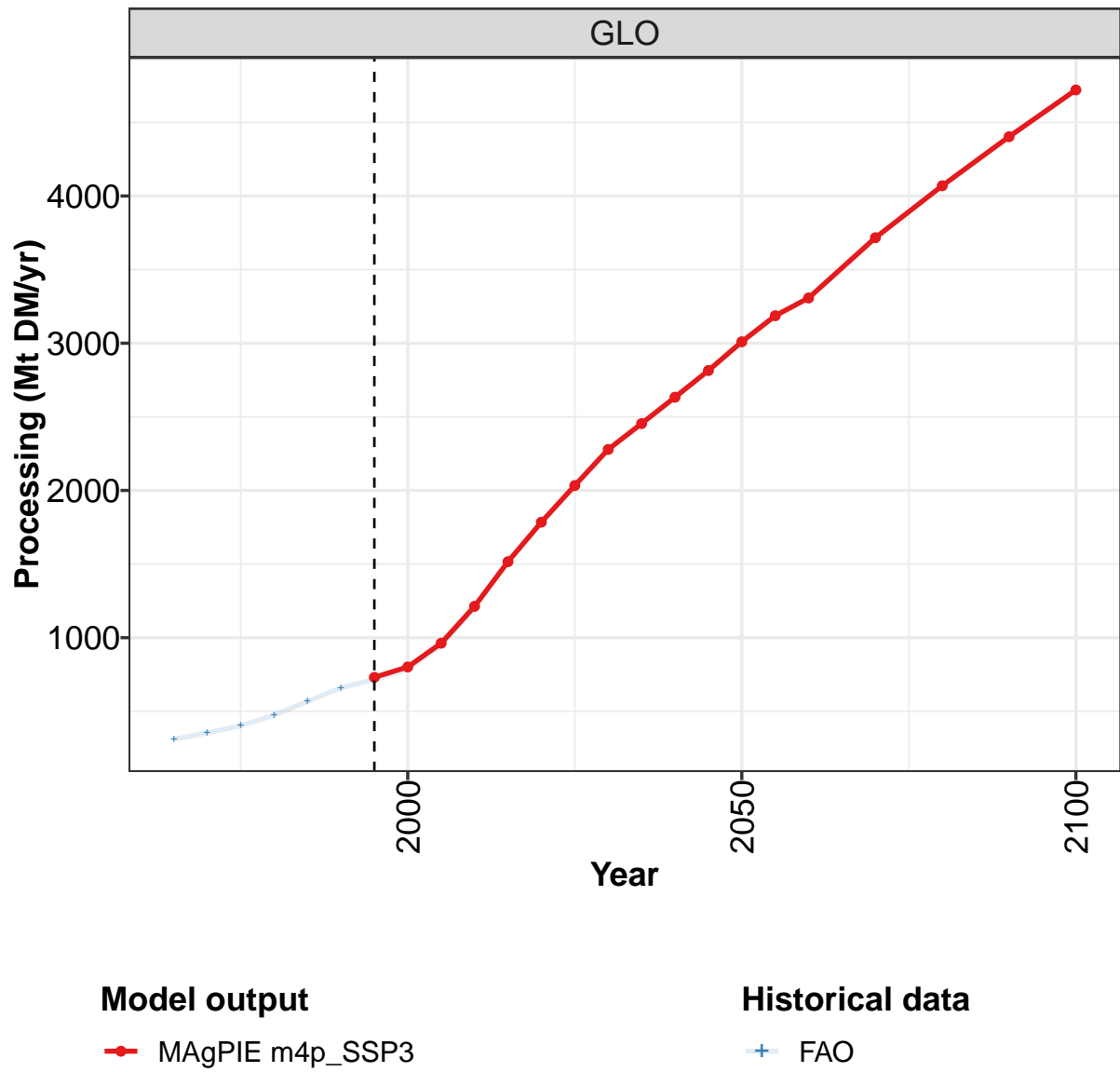
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.4	2.1	2.7	3.3	3.6	7.7	9.8	13.9	18.9	20.7
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.9	0.9
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
EUR	0.7	1.2	1.5	1.6	1.7	2.2	2.5	3.1	3.3	4.7
IND	0.0	0.0	0.0	0.0	0.0	2.5	2.6	2.6	3.9	3.2
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.4	0.4	0.6	0.8	0.9	1.7	2.7	4.8	4.9	6.3
MEA	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.9	2.4	1.8
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.2
OAS	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.5	1.2	1.8
REF	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.5	0.4
SSA	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.5
USA	0.1	0.2	0.2	0.4	0.5	0.5	0.9	1.1	1.2	1.0

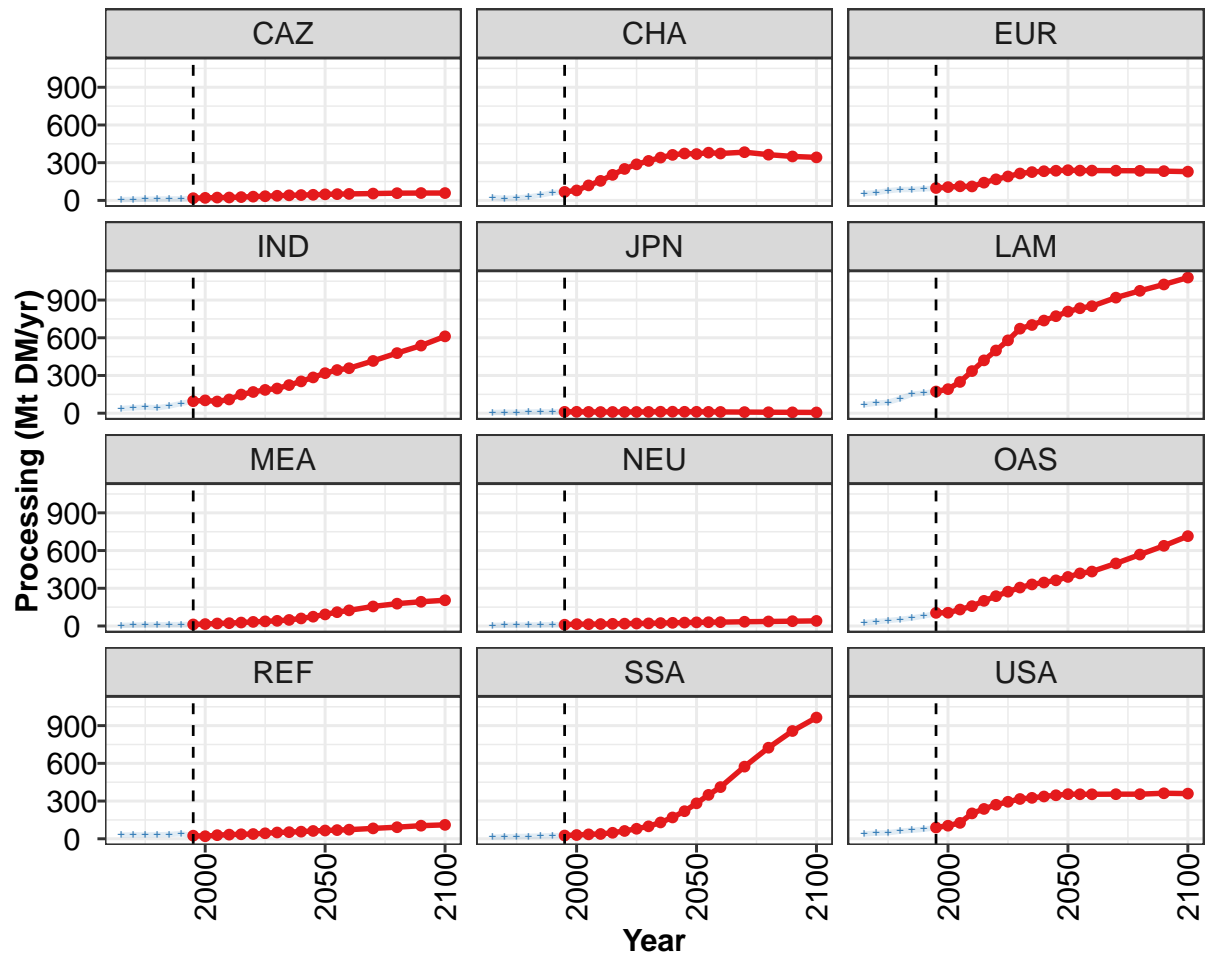
Table 565: FAO — Demand—Material—Secondary products—Sugar (Mt DM/yr)

9 Processing









Model output

—●— MAgPIE m4p_SSP3

Historical data

+— FAO

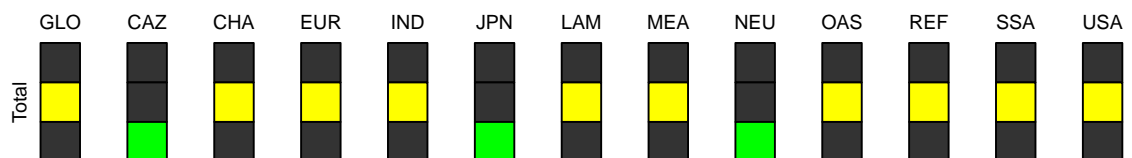


Figure 189: MAgPIE m4p_SSP3 — Demand—Processing (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	731	801	963	1213	1516	1785	2033	2279	2454	2633	2815
CAZ	18	20	23	23	27	30	33	37	41	43	45
CHA	67	79	120	155	203	251	287	314	341	362	373
EUR	99	106	112	111	141	168	191	214	225	232	236
IND	95	102	93	109	149	169	185	197	224	253	285
JPN	11	11	10	9	10	10	10	10	12	12	11
LAM	173	191	249	335	420	499	580	672	702	737	772
MEA	12	15	20	23	27	33	37	41	48	60	74
NEU	10	15	14	16	17	19	20	21	23	25	27
OAS	105	106	131	158	200	237	273	306	331	346	363
REF	25	21	29	33	36	38	44	50	53	57	62
SSA	26	30	35	38	48	62	80	99	130	170	220
USA	90	104	127	202	238	270	294	317	326	337	346

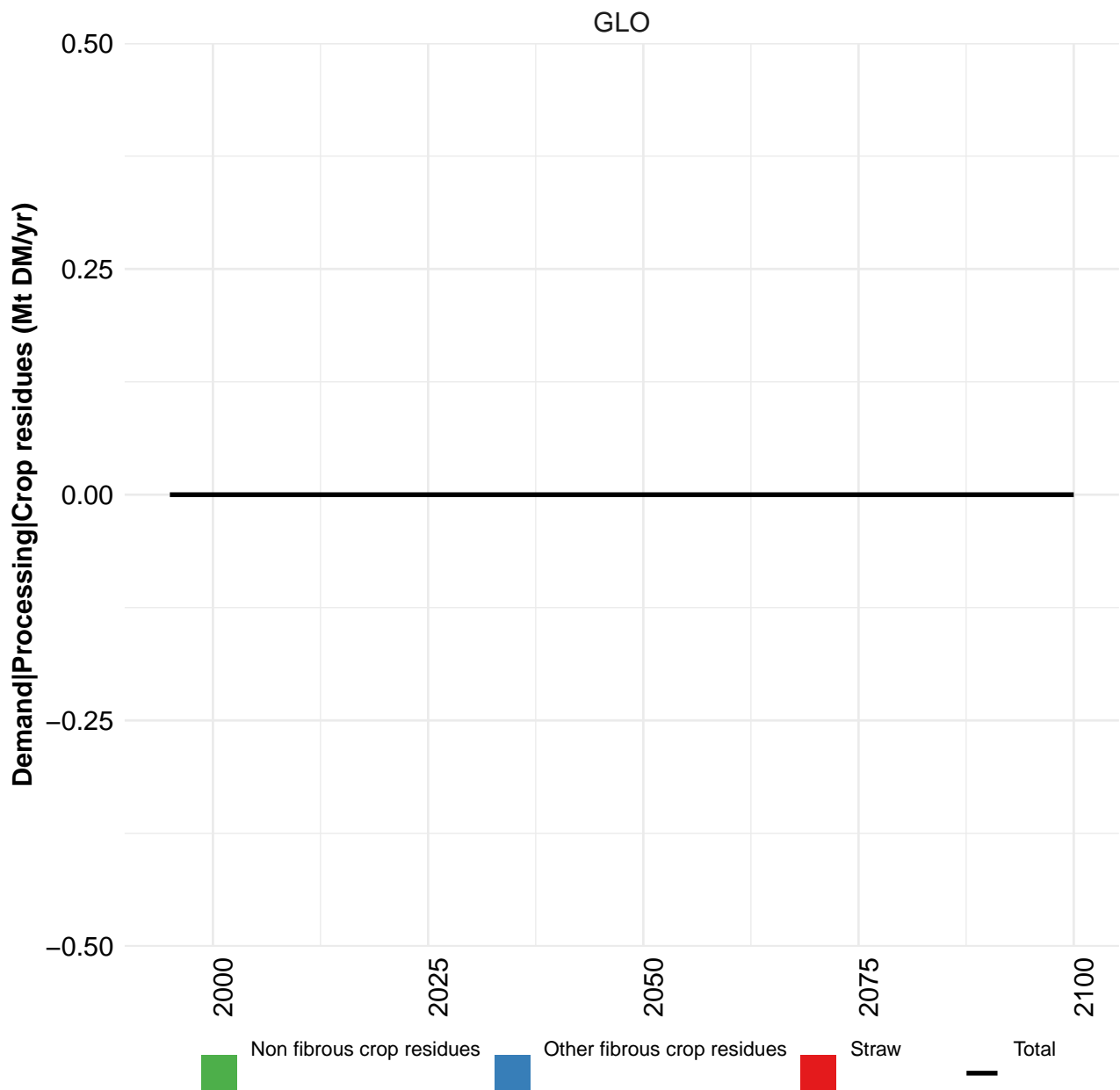
Table 566: MAgPIE m4p_SSP3 — Demand—Processing (Mt DM/yr) [PART 1/2]

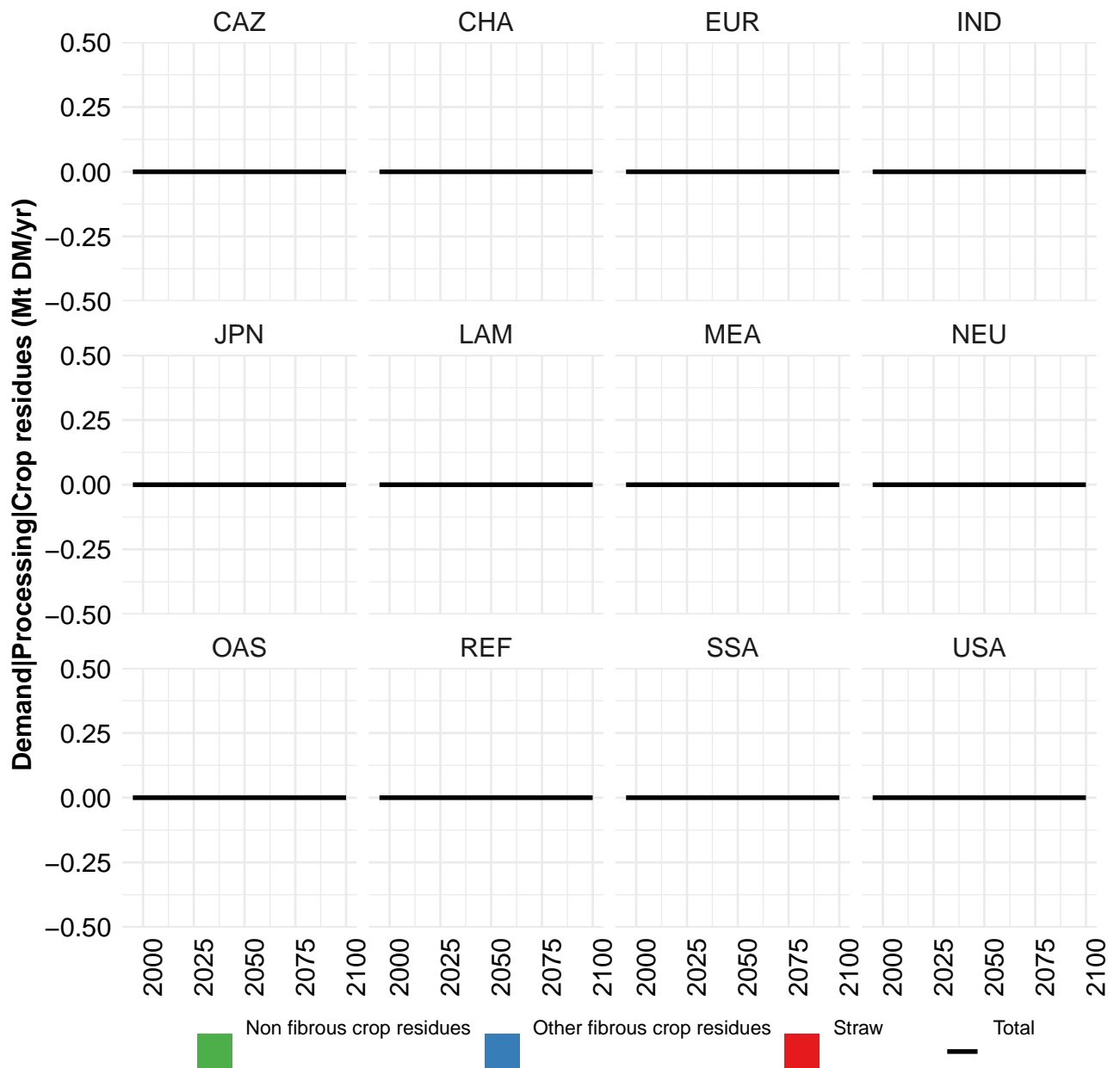
	2050	2055	2060	2070	2080	2090	2100
GLO	3010	3187	3307	3717	4069	4403	4720
CAZ	48	50	52	55	58	59	59
CHA	369	380	373	384	364	350	342
EUR	240	237	237	237	235	233	229
IND	319	343	358	416	478	538	611
JPN	11	10	10	9	8	7	6
LAM	808	835	851	919	974	1024	1079
MEA	92	110	124	155	178	193	205
NEU	29	30	31	34	36	38	41
OAS	390	418	433	498	568	638	715
REF	66	69	73	83	92	104	111
SSA	282	349	411	574	724	858	964
USA	355	354	354	355	355	362	359

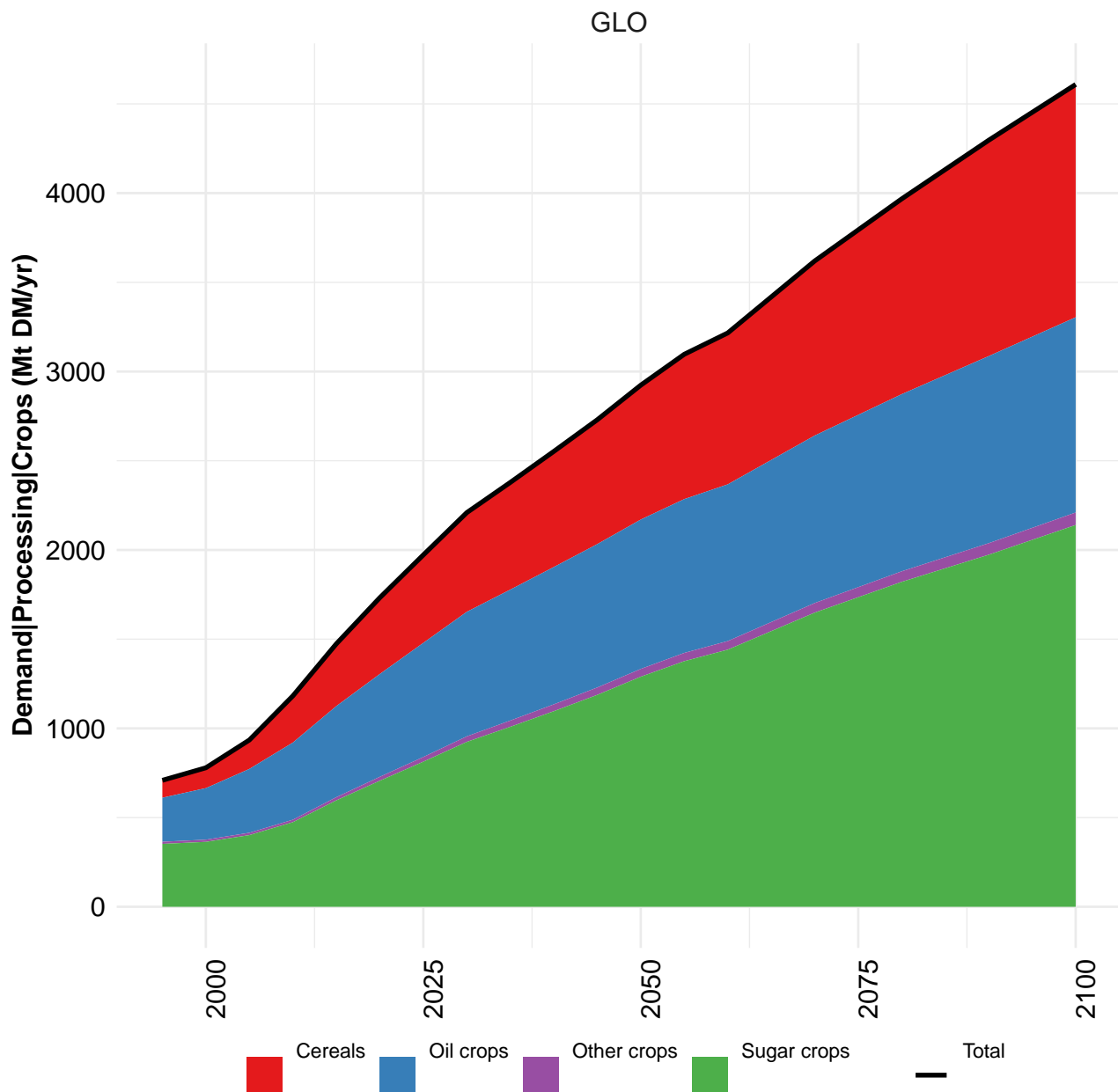
Table 567: MAgPIE m4p_SSP3 — Demand—Processing (Mt DM/yr) [PART 2/2]

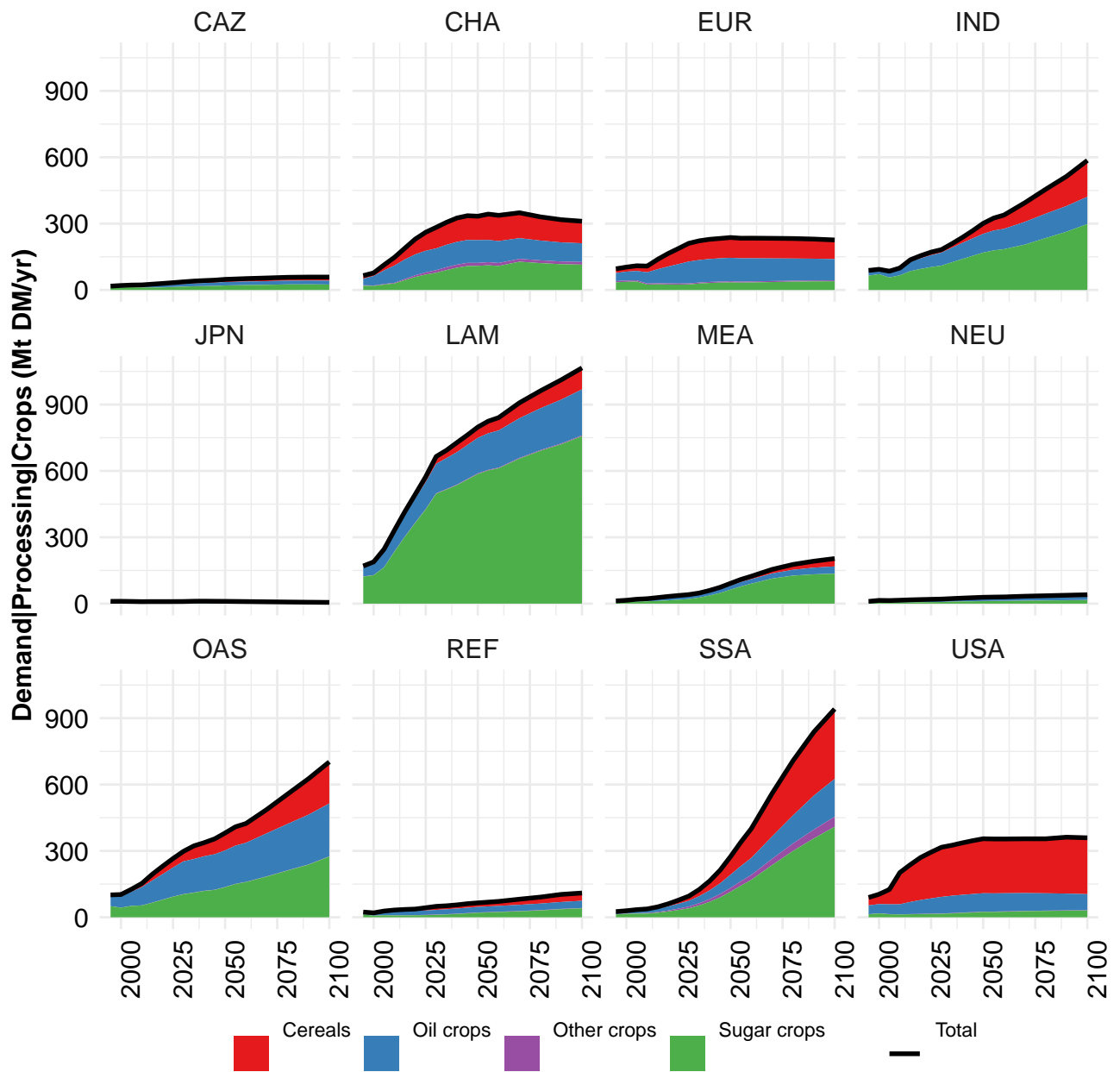
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	310	354	402	474	567	659	716	786	948	1201
CAZ	6	8	10	11	12	12	17	20	20	21
CHA	23	16	19	27	42	62	67	79	119	156
EUR	54	62	77	86	87	93	95	99	103	108
IND	38	43	47	43	57	78	96	102	93	109
JPN	5	7	7	9	11	11	11	11	10	9
LAM	67	80	86	116	152	160	173	186	253	331
MEA	5	7	9	9	11	11	12	15	19	22
NEU	5	6	7	8	9	11	9	13	13	16
OAS	27	34	43	52	64	80	98	105	126	156
REF	29	31	30	31	34	41	22	19	28	33
SSA	12	16	18	20	22	25	25	30	35	38
USA	38	45	48	60	68	76	89	107	129	204

Table 568: FAO — Demand—Processing (Mt DM/yr)

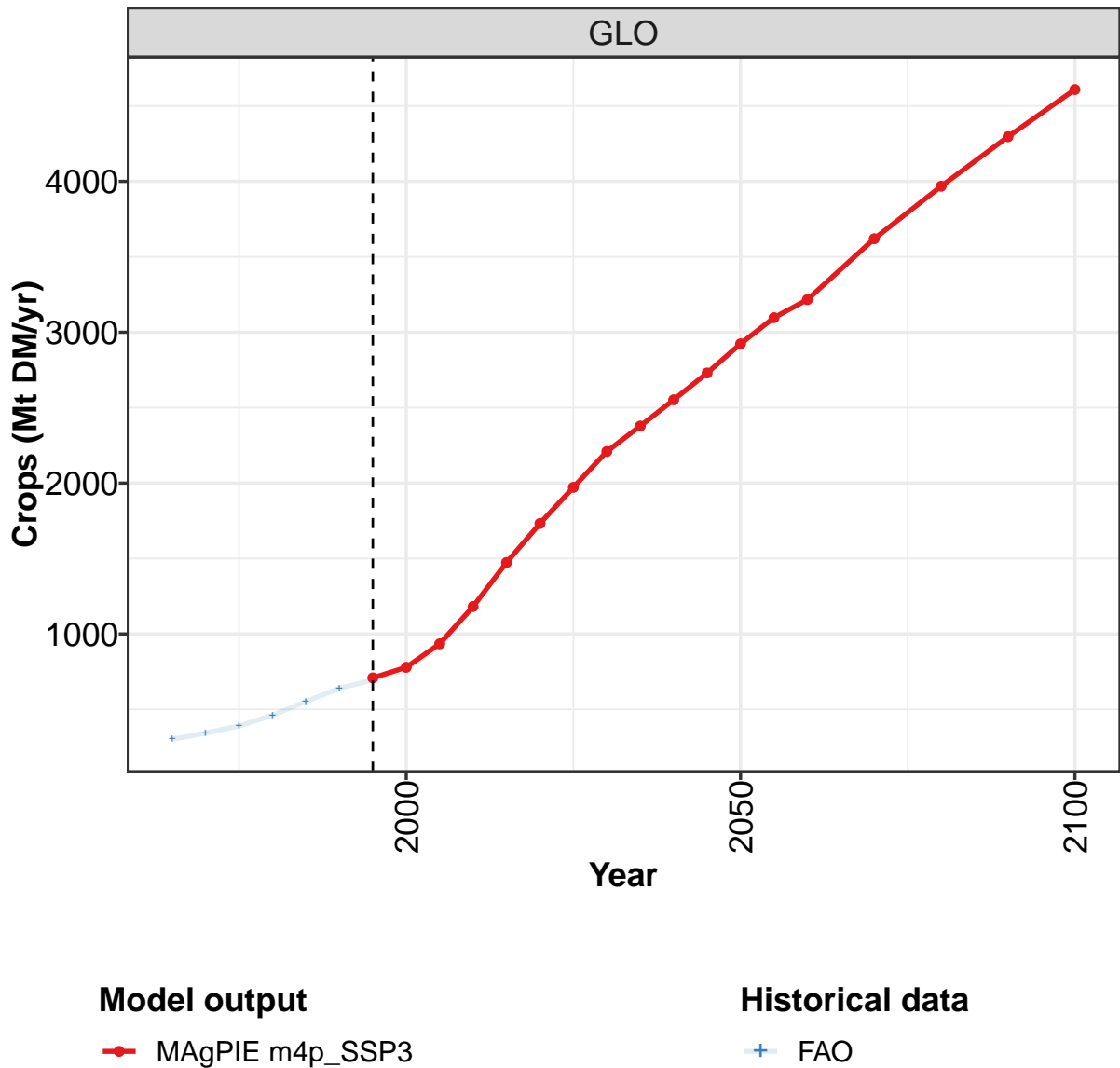








9.1 Crops



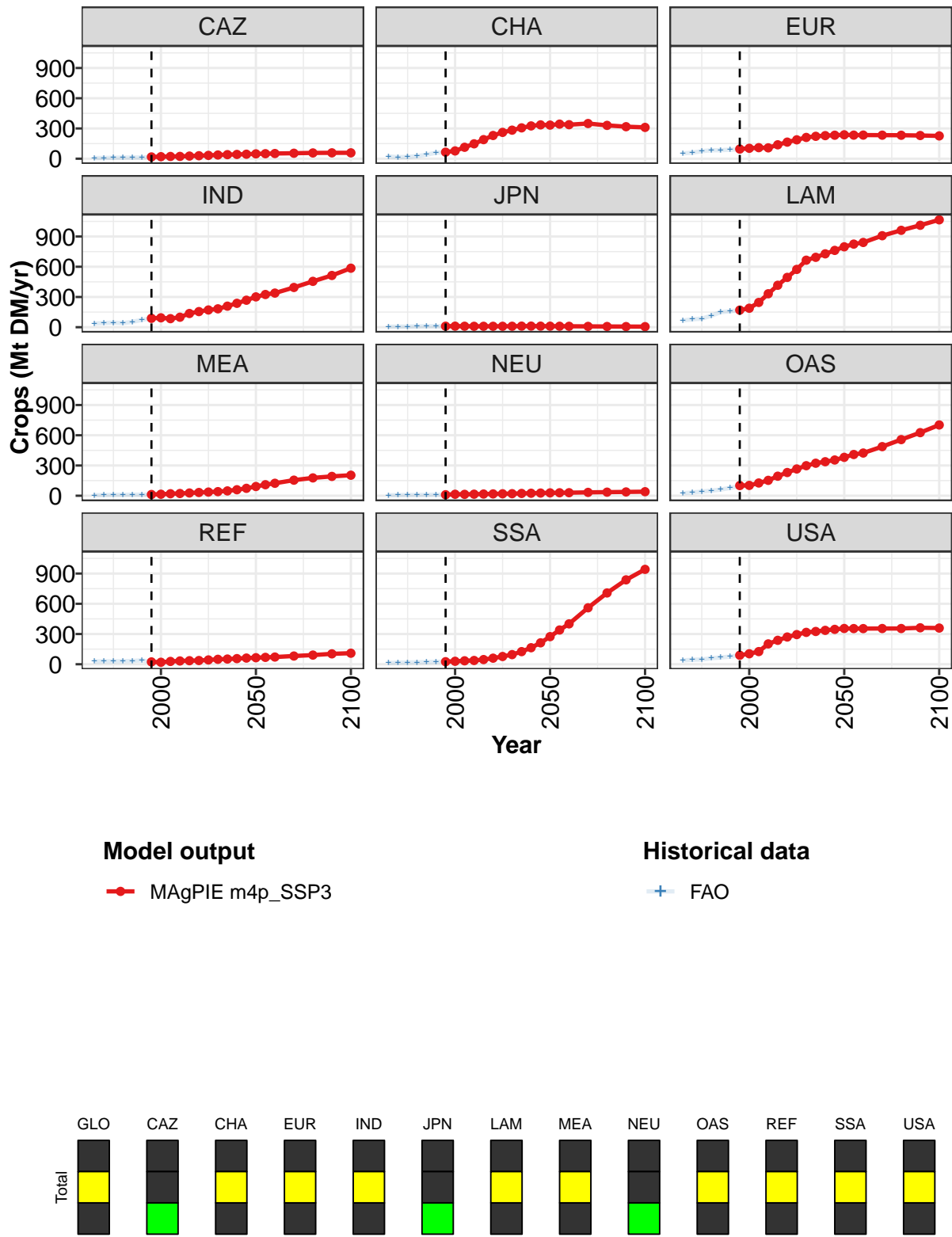


Figure 190: MAgPIE m4p_SSP3 — Demand—Processing—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	709	779	935	1182	1474	1732	1972	2209	2378	2552	2730
CAZ	18	20	22	23	26	30	33	37	40	43	45
CHA	65	77	113	148	189	230	261	283	306	325	336
EUR	96	103	110	108	138	165	187	211	222	229	233
IND	88	93	85	99	136	155	171	183	209	237	268
JPN	10	11	10	9	9	9	9	10	11	11	11
LAM	170	189	246	332	416	494	574	665	694	728	762
MEA	12	15	20	22	27	32	37	41	48	60	74
NEU	10	15	14	15	17	18	20	21	23	25	27
OAS	101	103	126	153	194	231	266	298	323	338	355
REF	23	20	28	33	35	37	43	49	52	56	61
SSA	25	29	34	38	47	60	77	96	125	164	213
USA	90	104	126	202	238	270	294	317	325	336	346

Table 569: MAgPIE m4p-SSP3 — Demand—Processing—Crops (Mt DM/yr) [PART 1/2]

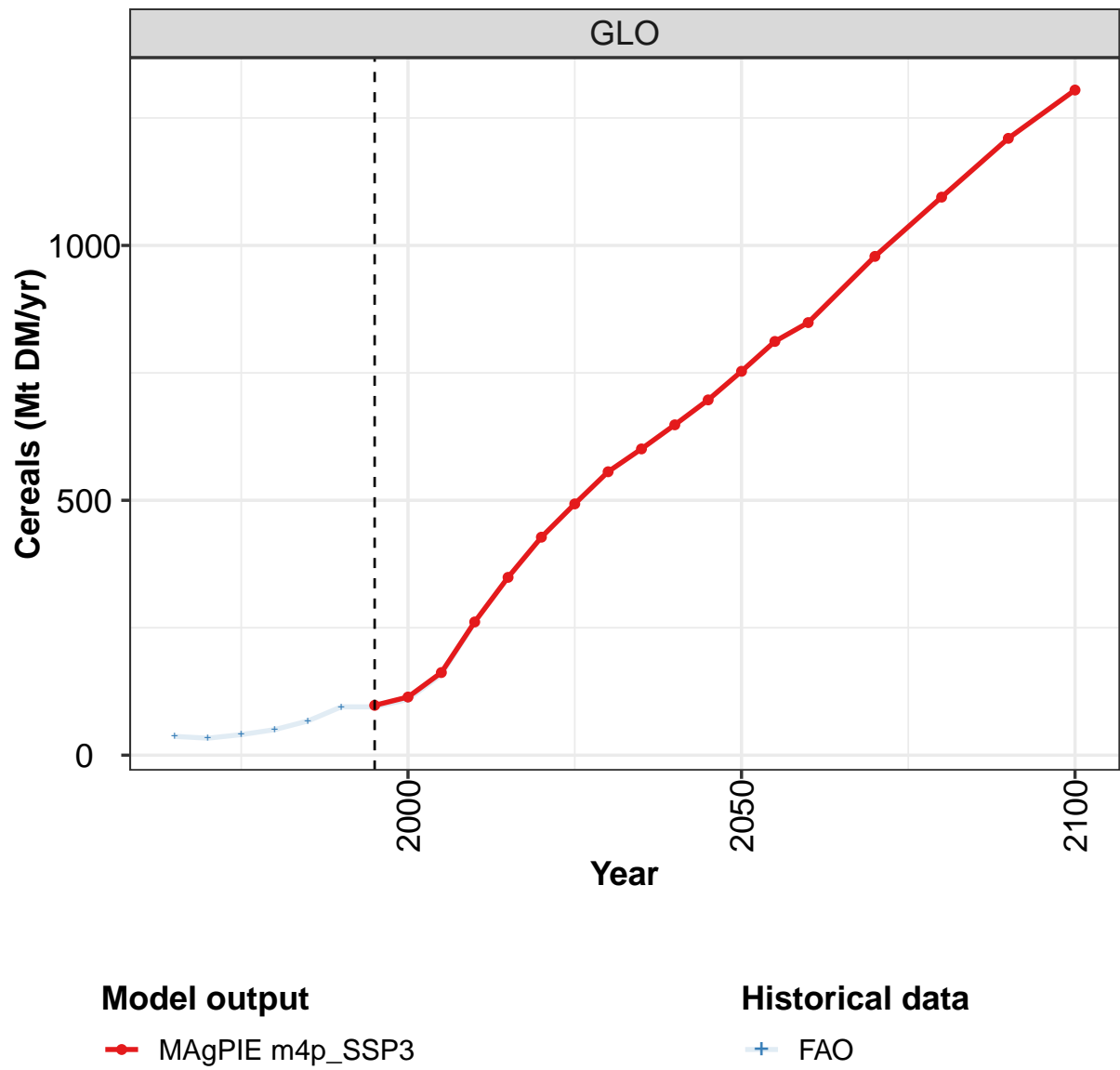
	2050	2055	2060	2070	2080	2090	2100
GLO	2923	3097	3216	3620	3968	4296	4609
CAZ	48	50	51	54	57	58	58
CHA	333	343	337	349	331	318	311
EUR	237	234	234	234	233	230	226
IND	301	325	339	394	455	514	586
JPN	10	10	9	8	7	6	6
LAM	798	825	841	908	962	1011	1066
MEA	92	109	124	155	177	192	204
NEU	29	30	30	33	36	38	40
OAS	381	409	424	487	557	626	702
REF	65	68	72	82	91	103	110
SSA	274	340	401	560	708	838	942
USA	355	354	354	355	355	362	359

Table 570: MAgPIE m4p-SSP3 — Demand—Processing—Crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	302	344	390	460	552	640	694	764	920	1170
CAZ	6	8	9	11	12	12	17	19	20	21
CHA	23	15	18	26	40	59	65	77	113	148
EUR	52	60	75	84	84	90	92	97	100	105
IND	37	42	46	41	53	72	89	93	85	99
JPN	5	6	6	8	10	10	10	11	10	9
LAM	66	79	85	114	150	158	170	184	250	328
MEA	5	7	9	9	10	11	12	14	19	22
NEU	5	6	7	8	9	11	9	13	13	15
OAS	25	32	41	50	62	78	95	102	121	151
REF	28	30	29	30	32	39	21	19	27	32
SSA	12	16	18	19	21	24	25	29	34	37
USA	38	44	47	60	68	76	89	106	128	204

Table 571: FAO — Demand—Processing—Crops (Mt DM/yr)

9.1.1
Cereals



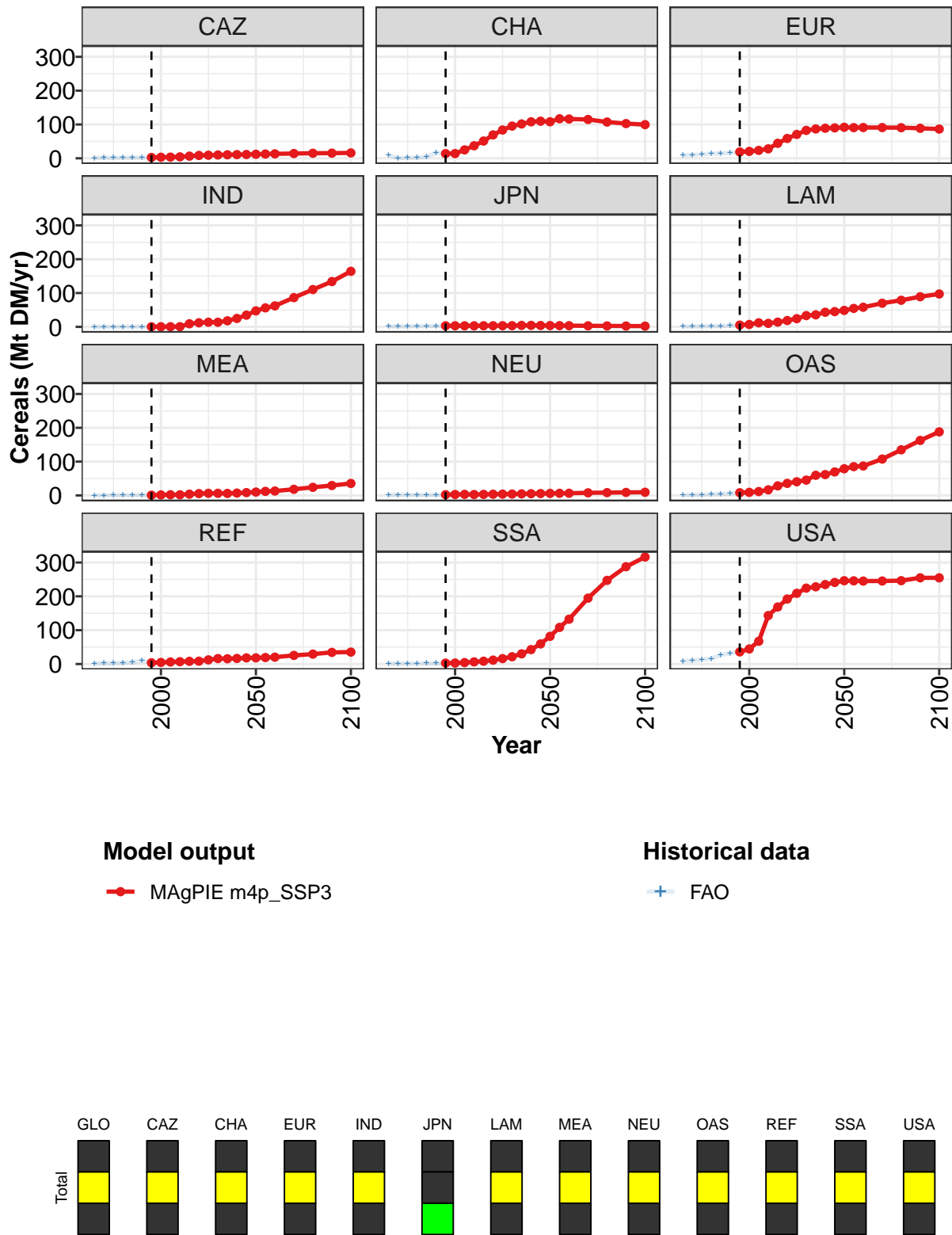


Figure 191: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	98	114	162	261	349	428	493	556	601	648	697
CAZ	3	3	4	4	6	9	9	10	10	11	11
CHA	14	14	25	37	51	69	84	95	102	108	110
EUR	19	20	23	28	44	59	71	83	87	89	90
IND	0	1	1	1	9	12	14	14	18	25	35
JPN	3	3	3	3	3	3	3	4	4	4	4
LAM	5	7	12	10	14	19	24	33	36	43	45
MEA	1	2	2	2	4	6	6	6	6	7	8
NEU	2	3	3	3	3	4	4	4	5	5	6
OAS	8	9	12	17	28	36	40	45	60	62	70
REF	4	5	6	7	8	8	12	16	16	16	18
SSA	3	3	4	6	8	12	16	22	30	43	59
USA	36	44	67	143	169	192	209	224	228	235	241

Table 572: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Cereals (Mt DM/yr) [PART 1/2]

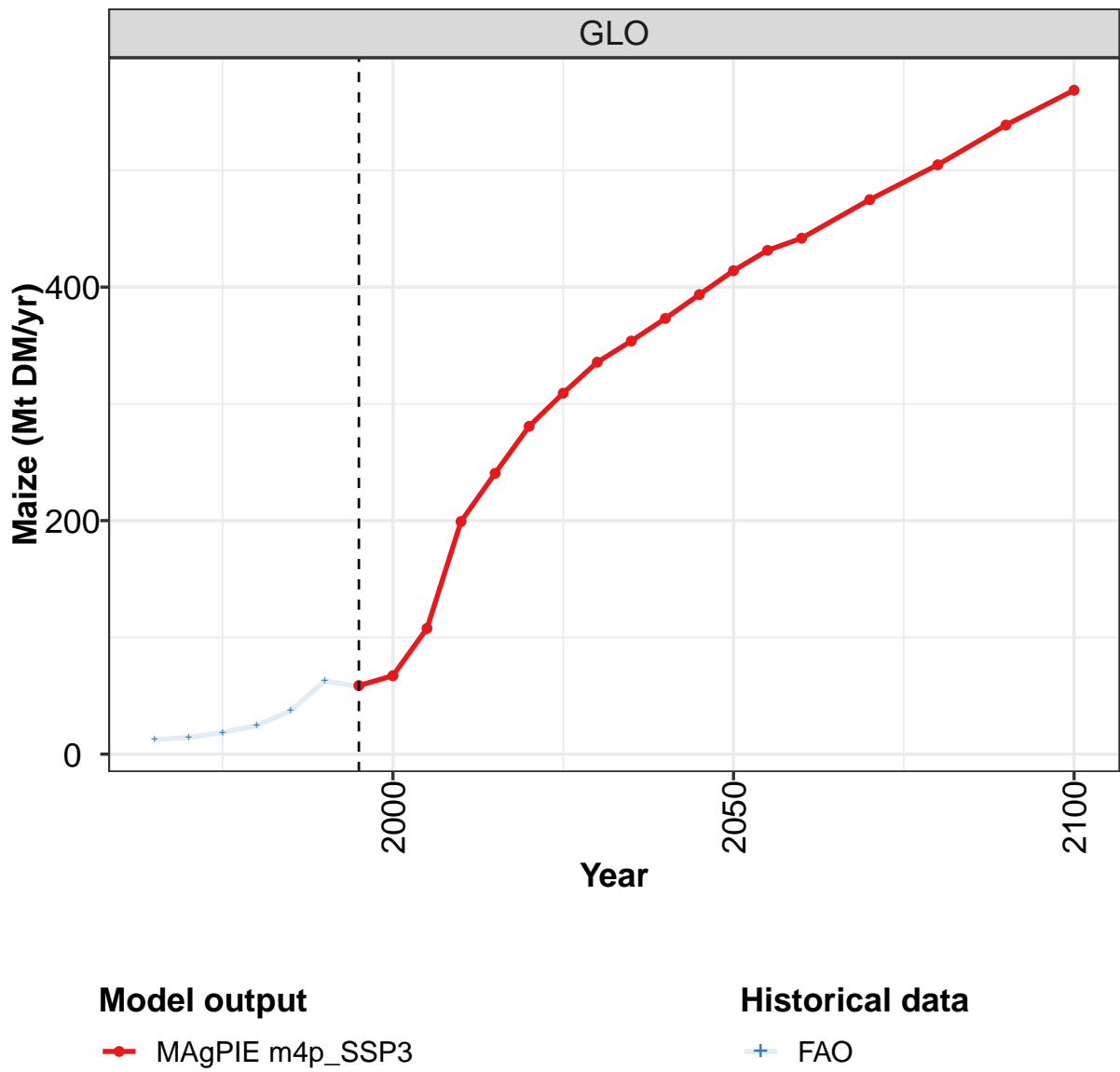
	2050	2055	2060	2070	2080	2090	2100
GLO	753	812	849	979	1095	1210	1305
CAZ	12	13	13	14	15	15	16
CHA	108	117	116	115	107	103	99
EUR	92	91	91	91	91	89	86
IND	47	56	62	87	110	134	164
JPN	4	4	4	3	3	2	2
LAM	49	55	58	70	79	89	97
MEA	10	12	13	18	24	29	36
NEU	6	6	7	8	8	9	9
OAS	79	85	87	108	135	163	188
REF	18	19	20	25	29	34	35
SSA	82	108	132	195	247	288	316
USA	246	246	245	245	246	255	255

Table 573: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	37	33	40	50	67	95	95	109	158	260
CAZ	1	2	2	2	2	2	3	3	3	4
CHA	9	1	2	2	4	17	14	14	25	37
EUR	8	10	12	13	14	16	18	18	21	26
IND	0	0	0	0	0	0	0	1	1	1
JPN	1	1	1	2	2	3	3	3	3	3
LAM	1	1	2	2	3	4	5	7	12	11
MEA	0	0	0	1	1	1	1	1	2	2
NEU	2	2	2	1	2	2	2	2	3	3
OAS	1	2	2	4	5	6	7	8	11	16
REF	2	2	2	4	5	10	2	4	6	7
SSA	1	1	2	2	2	2	3	3	4	6
USA	9	10	13	16	27	32	36	44	67	144

Table 574: FAO — Demand—Processing—Crops—Cereals (Mt DM/yr)

9.1.2 Cereals—Maize



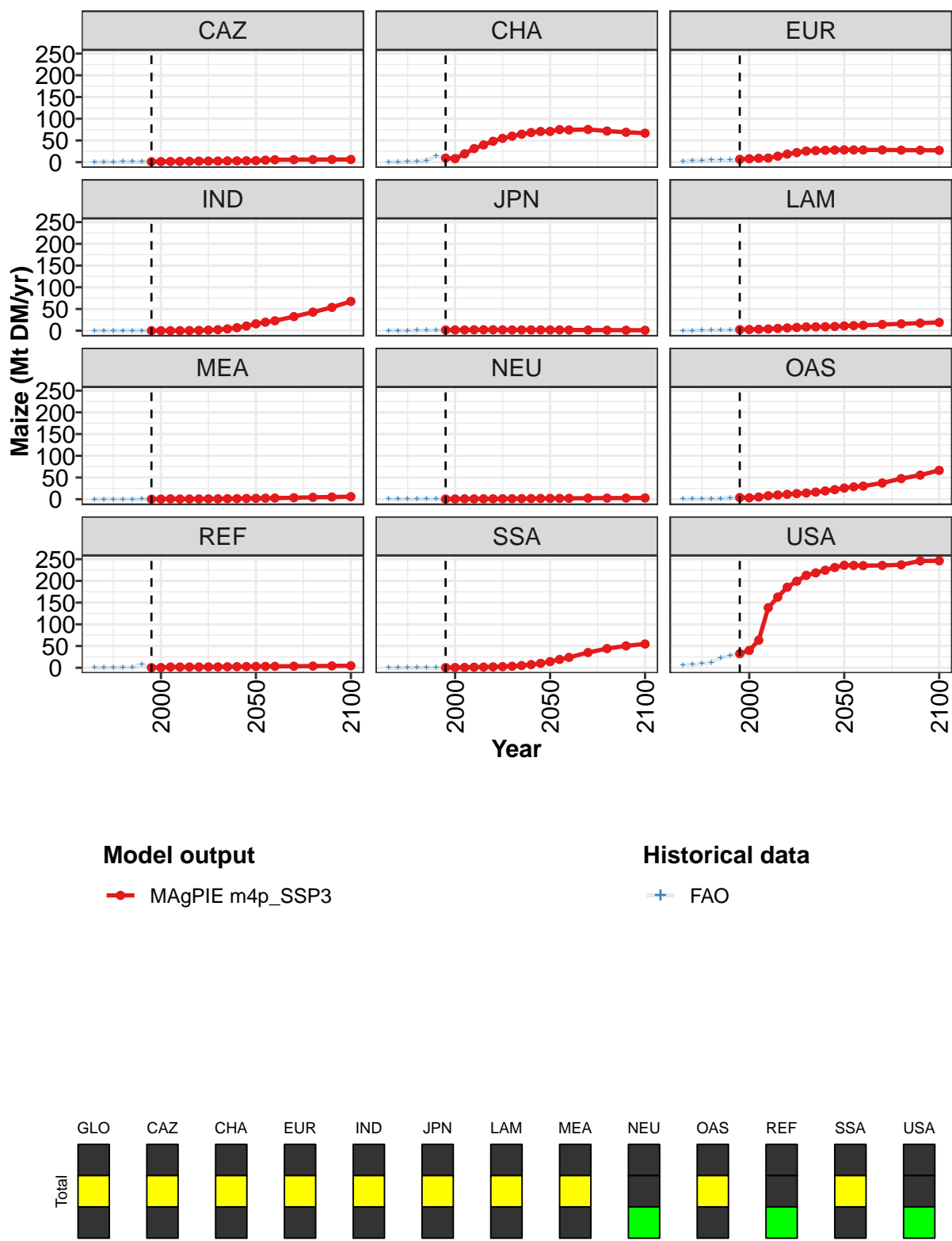


Figure 192: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	59	67	108	199	240	281	309	336	354	373	394
CAZ	1	1	2	2	2	2	3	3	3	3	3
CHA	9	8	19	31	40	48	55	60	64	68	71
EUR	7	8	9	10	14	19	22	26	27	27	28
IND	0	0	0	0	0	1	1	2	4	7	11
JPN	2	2	2	2	2	2	2	2	2	2	2
LAM	2	3	3	4	5	6	7	9	9	9	10
MEA	0	0	1	0	1	1	1	1	1	1	2
NEU	0	1	1	1	1	1	1	1	1	2	2
OAS	4	3	5	8	10	11	13	14	16	19	22
REF	0	0	2	2	2	2	2	2	2	2	3
SSA	0	1	1	1	2	2	3	4	5	7	10
USA	32	40	63	138	163	185	199	213	218	225	231

Table 575: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

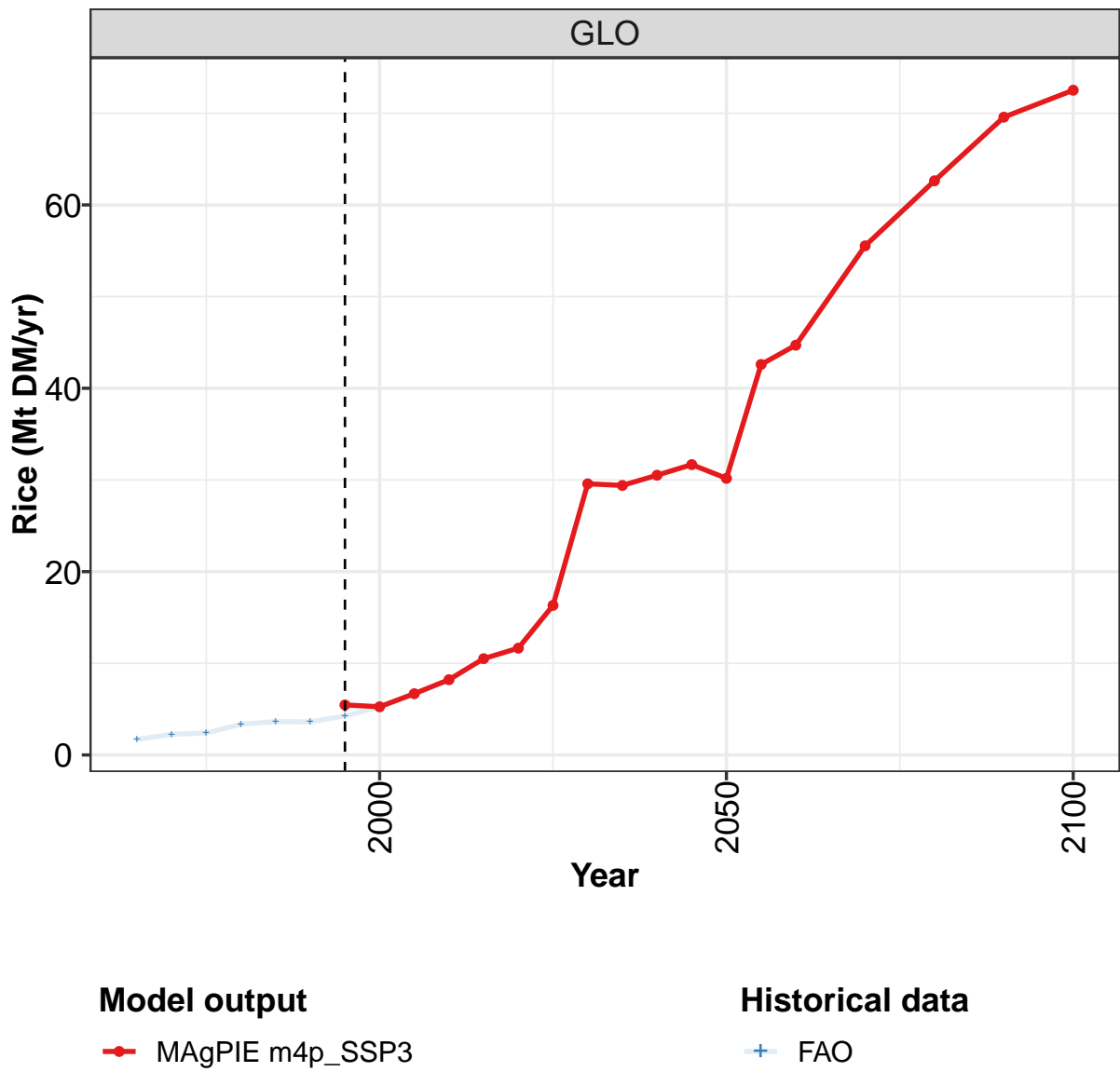
	2050	2055	2060	2070	2080	2090	2100
GLO	414	431	442	475	505	539	569
CAZ	3	5	6	6	6	6	6
CHA	71	75	74	75	72	69	67
EUR	28	28	28	28	28	28	27
IND	16	20	23	32	43	54	68
JPN	2	2	2	1	1	1	1
LAM	11	12	12	14	16	17	19
MEA	2	2	3	3	4	5	6
NEU	2	2	2	2	3	3	3
OAS	26	28	30	37	47	55	66
REF	3	3	3	4	4	4	5
SSA	14	19	24	35	44	50	55
USA	236	236	235	236	237	246	246

Table 576: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Cereals—Maize (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	12	14	19	24	37	63	58	65	105	198
CAZ	0	1	1	1	1	1	1	1	1	1
CHA	1	1	1	2	3	14	9	8	19	31
EUR	2	3	4	5	5	5	6	6	7	8
IND	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	1	1	1	2	2	2	2
LAM	0	0	1	1	1	2	3	3	3	4
MEA	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	1	1	1
OAS	0	1	1	1	2	3	4	3	5	8
REF	0	0	0	1	1	8	0	0	2	2
SSA	0	0	0	0	0	0	0	1	1	1
USA	7	7	10	12	23	28	32	40	63	139

Table 577: FAO — Demand—Processing—Crops—Cereals—Maize (Mt DM/yr)

9.1.3
Cereals—Rice



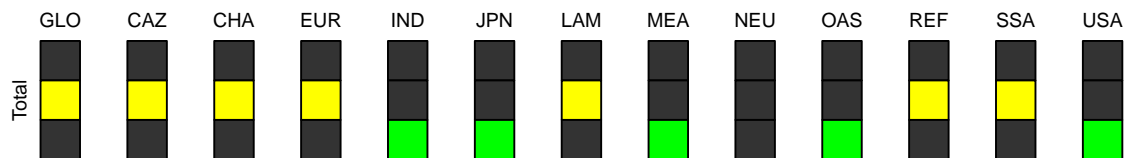
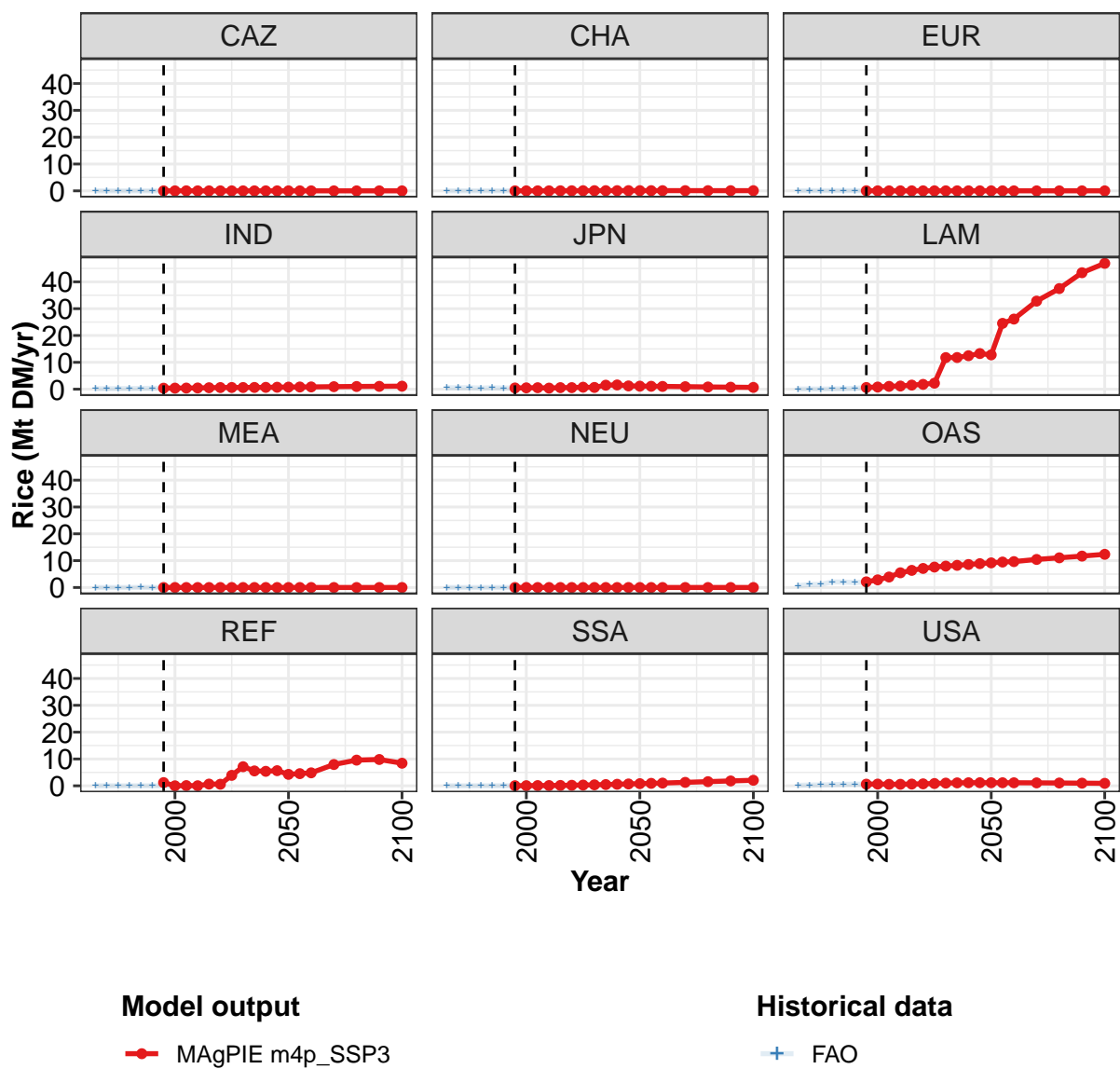


Figure 193: MAGPIE m4p_SSP3 — Demand—Processing—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.5	5.3	6.7	8.2	10.5	11.7	16.3	29.6	29.4	30.5	31.7
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.7	0.7
JPN	0.4	0.5	0.6	0.4	0.6	0.6	0.7	0.6	1.5	1.6	1.2
LAM	0.6	0.8	1.0	1.2	1.5	1.8	2.2	11.8	11.8	12.5	13.3
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	2.1	2.9	3.9	5.5	6.4	7.1	7.6	8.0	8.3	8.6	8.9
REF	1.2	0.0	0.1	0.0	0.6	0.6	3.9	7.1	5.6	5.4	5.6
SSA	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.7
USA	0.6	0.6	0.6	0.6	0.6	0.7	0.9	1.0	1.1	1.1	1.2

Table 578: MAgPIE m4p-SSP3 — Demand—Processing—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

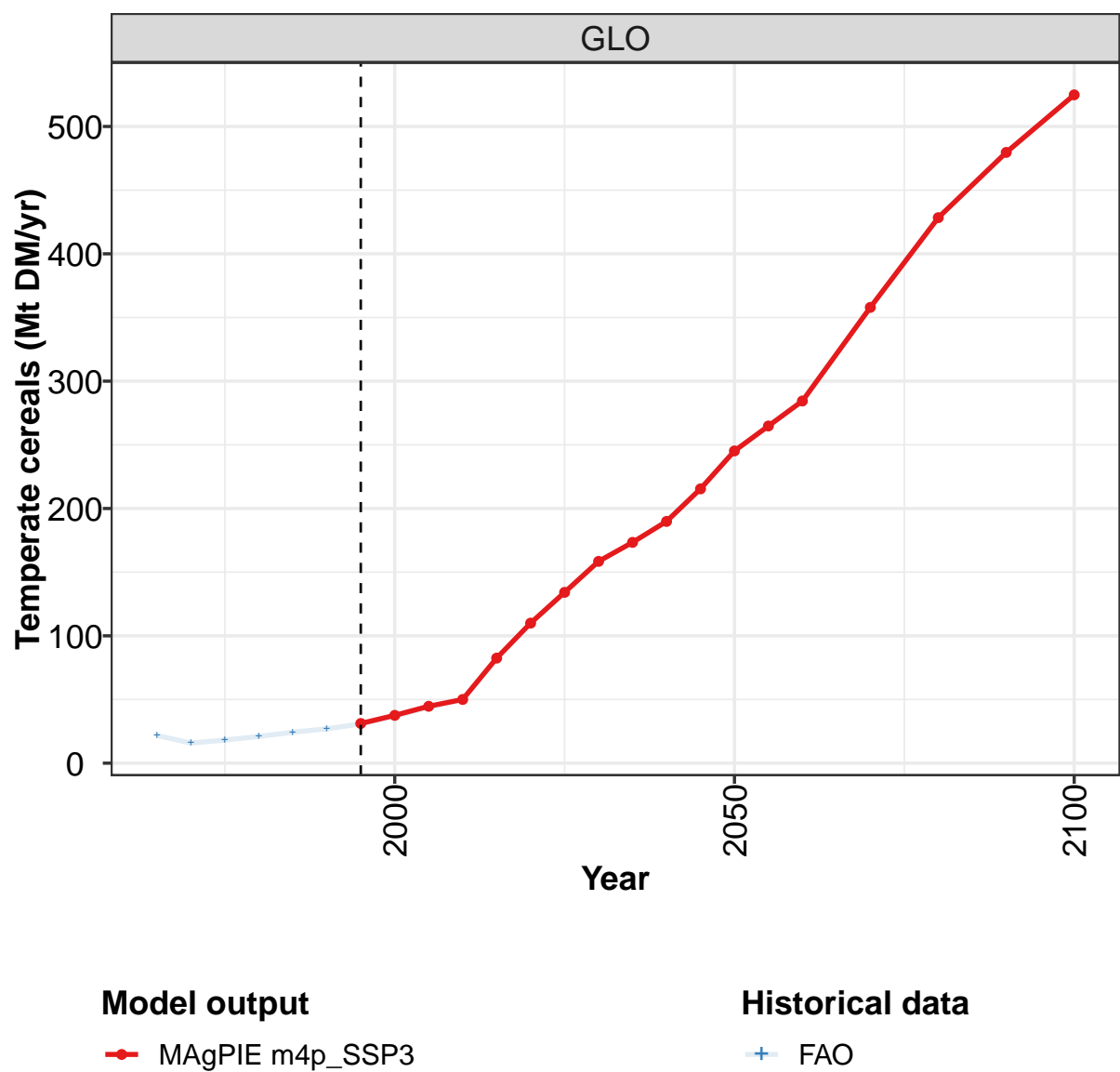
	2050	2055	2060	2070	2080	2090	2100
GLO	30.2	42.6	44.7	55.5	62.6	69.6	72.5
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.8	0.8	0.8	0.9	1.0	1.1	1.1
JPN	1.1	1.1	1.0	0.9	0.8	0.7	0.7
LAM	12.8	24.5	26.1	32.8	37.5	43.4	46.9
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	9.2	9.5	9.6	10.4	11.1	11.7	12.4
REF	4.3	4.5	4.8	7.9	9.6	9.8	8.4
SSA	0.8	0.9	1.0	1.3	1.6	1.8	2.1
USA	1.2	1.1	1.1	1.1	1.0	1.0	0.9

Table 579: MAgPIE m4p-SSP3 — Demand—Processing—Crops—Cereals—Rice (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.68	2.25	2.40	3.35	3.64	3.61	4.26	5.24	6.68	8.17
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
CHA	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02
EUR	0.05	0.06	0.06	0.06	0.07	0.05	0.04	0.02	0.01	0.01
IND	0.15	0.19	0.23	0.24	0.29	0.34	0.36	0.38	0.41	0.45
JPN	0.54	0.52	0.55	0.41	0.49	0.44	0.44	0.49	0.55	0.39
LAM	0.08	0.09	0.06	0.10	0.16	0.31	0.63	0.78	1.09	1.22
MEA	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.68	1.11	1.16	2.08	2.02	1.82	2.11	2.85	3.93	5.40
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.00	0.00	0.00	0.02	0.01	0.03	0.04	0.05	0.08	0.10
USA	0.17	0.28	0.33	0.44	0.56	0.62	0.62	0.65	0.55	0.57

Table 580: FAO — Demand—Processing—Crops—Cereals—Rice (Mt DM/yr)

9.1.4
Cereals—Temperate cereals



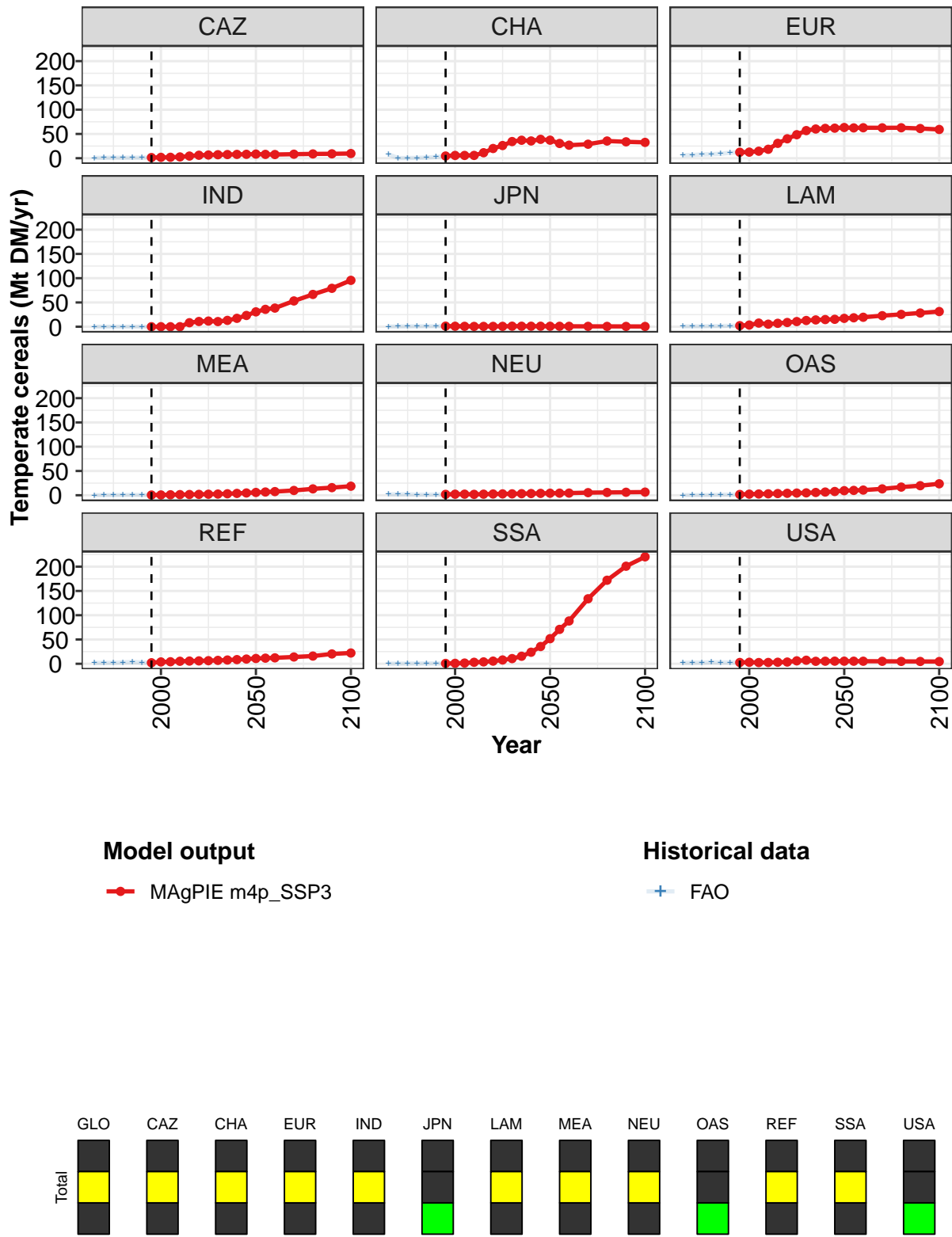


Figure 194: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	31	38	45	50	83	110	134	158	173	190	215
CAZ	1	2	2	3	4	6	7	7	8	8	8
CHA	5	6	6	6	11	20	26	34	37	36	39
EUR	12	13	14	18	31	40	48	57	60	61	62
IND	0	0	0	0	8	11	12	11	13	17	23
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	2	4	8	5	7	9	11	13	14	15	15
MEA	1	1	1	1	2	2	2	3	3	4	5
NEU	2	2	2	2	2	3	3	3	3	4	4
OAS	2	2	3	3	4	4	4	5	6	7	8
REF	2	4	4	5	6	6	6	7	8	9	10
SSA	1	1	1	3	4	5	8	11	16	24	36
USA	3	3	3	3	3	4	6	7	5	5	5

Table 581: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Cereals—Temperate cereals (Mt DM/yr)
[PART 1/2]

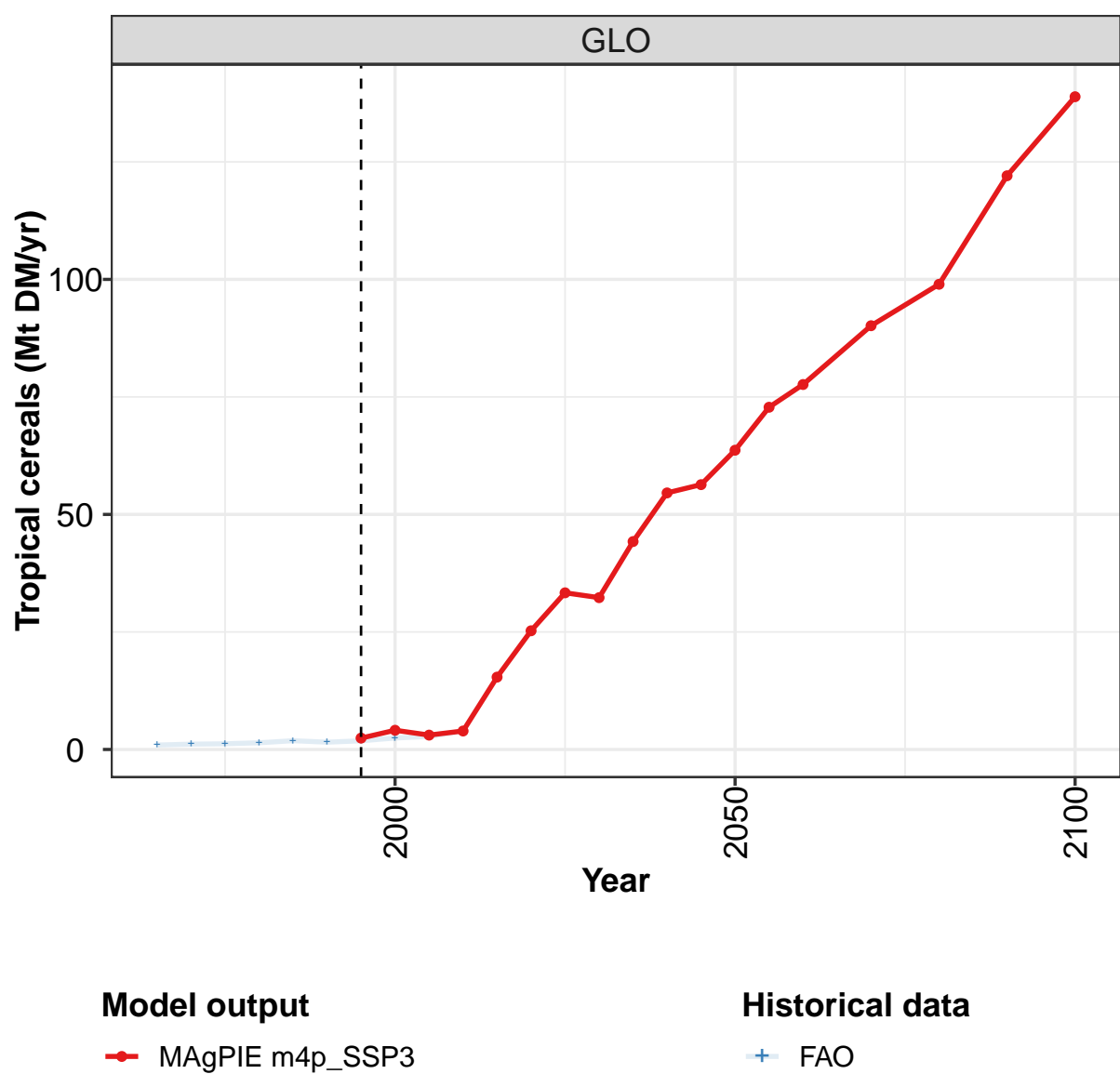
	2050	2055	2060	2070	2080	2090	2100
GLO	245	265	284	358	428	480	525
CAZ	8	8	8	8	9	9	10
CHA	37	30	27	29	35	34	33
EUR	63	62	63	63	63	61	59
IND	31	36	38	53	67	79	96
JPN	1	1	1	1	1	1	1
LAM	17	18	20	23	25	28	31
MEA	6	7	8	10	13	16	19
NEU	4	4	4	5	6	6	6
OAS	9	10	11	13	17	20	24
REF	11	12	12	14	16	20	22
SSA	52	71	88	134	172	201	220
USA	5	5	5	5	5	5	5

Table 582: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Cereals—Temperate cereals (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	21.8	15.8	18.1	21.0	24.3	27.0	30.8	36.6	44.0	49.8
CAZ	0.7	0.9	1.1	1.0	1.0	1.2	1.4	1.8	1.8	2.7
CHA	8.0	0.3	0.4	0.7	1.5	2.5	4.5	5.7	5.7	5.8
EUR	6.0	6.7	7.8	8.3	9.2	11.2	12.3	12.3	14.2	18.1
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
JPN	0.4	0.5	0.7	1.0	1.0	1.1	1.2	1.0	0.9	0.6
LAM	0.7	0.9	0.9	1.3	1.4	1.9	2.2	3.5	7.7	5.3
MEA	0.1	0.2	0.3	0.5	0.7	0.4	0.5	0.6	1.0	1.3
NEU	2.0	1.8	1.8	1.2	1.2	1.4	1.6	1.7	2.0	1.9
OAS	0.1	0.2	0.2	0.5	1.1	1.3	1.7	2.3	2.6	3.0
REF	1.7	1.9	2.0	2.9	3.6	2.6	2.1	3.8	4.1	5.2
SSA	0.2	0.3	0.4	0.6	0.7	0.6	0.6	0.8	1.4	3.0
USA	1.9	2.2	2.5	3.1	2.7	2.7	2.7	3.1	2.5	2.7

Table 583: FAO — Demand—Processing—Crops—Cereals—Temperate cereals (Mt DM/yr)

9.1.5
Cereals—Tropical cereals



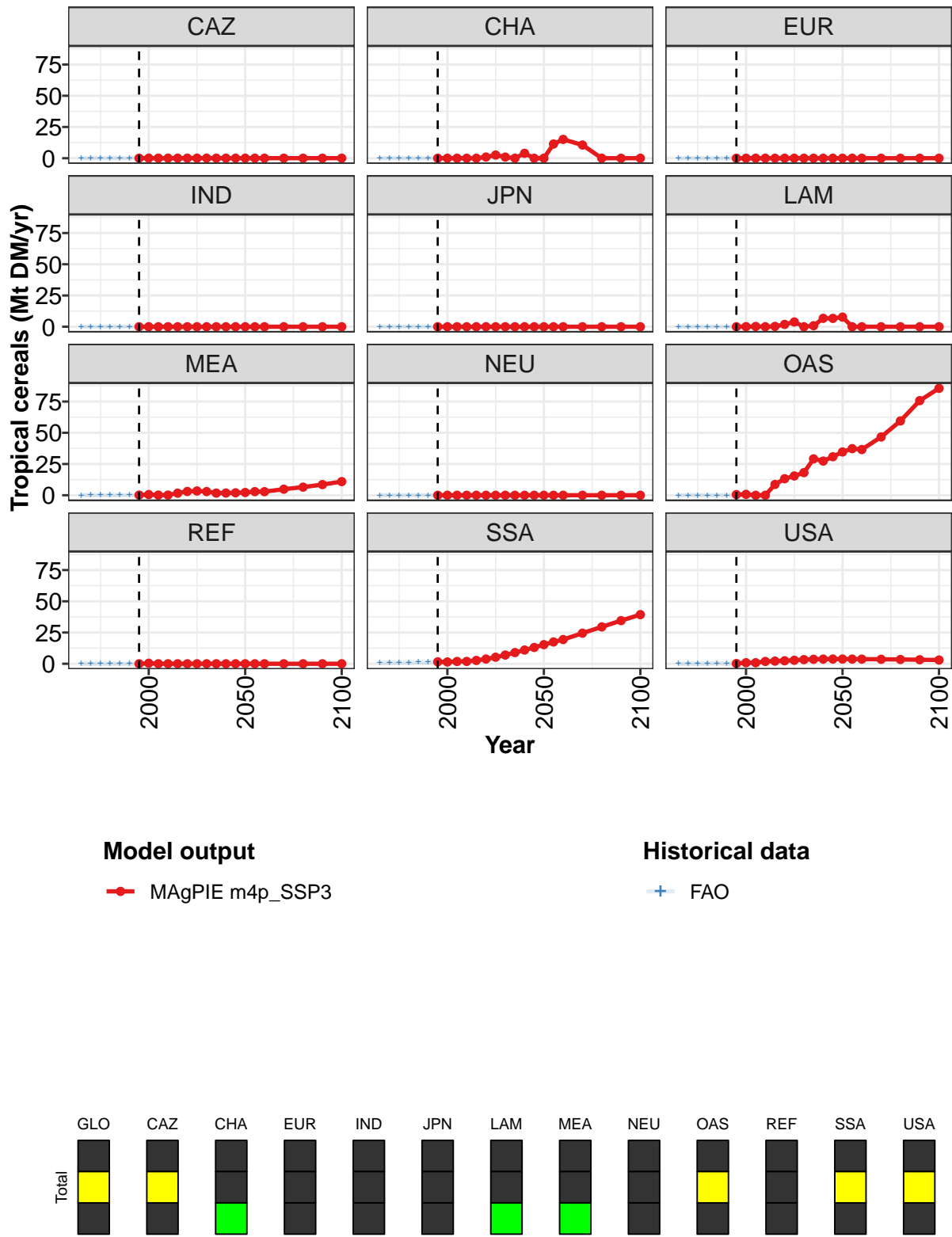


Figure 195: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2	4	3	4	15	25	33	32	44	55	56
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	1	3	1	0	4	0
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	0	0	0	0	2	4	0	1	7	7
MEA	0	1	0	0	2	3	3	3	2	2	2
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	1	1	0	0	9	13	15	18	29	27	31
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	2	1	2	2	3	4	5	7	9	11	13
USA	0	1	1	2	2	2	3	3	4	4	4

Table 584: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Cereals—Tropical cereals (Mt DM/yr)
[PART 1/2]

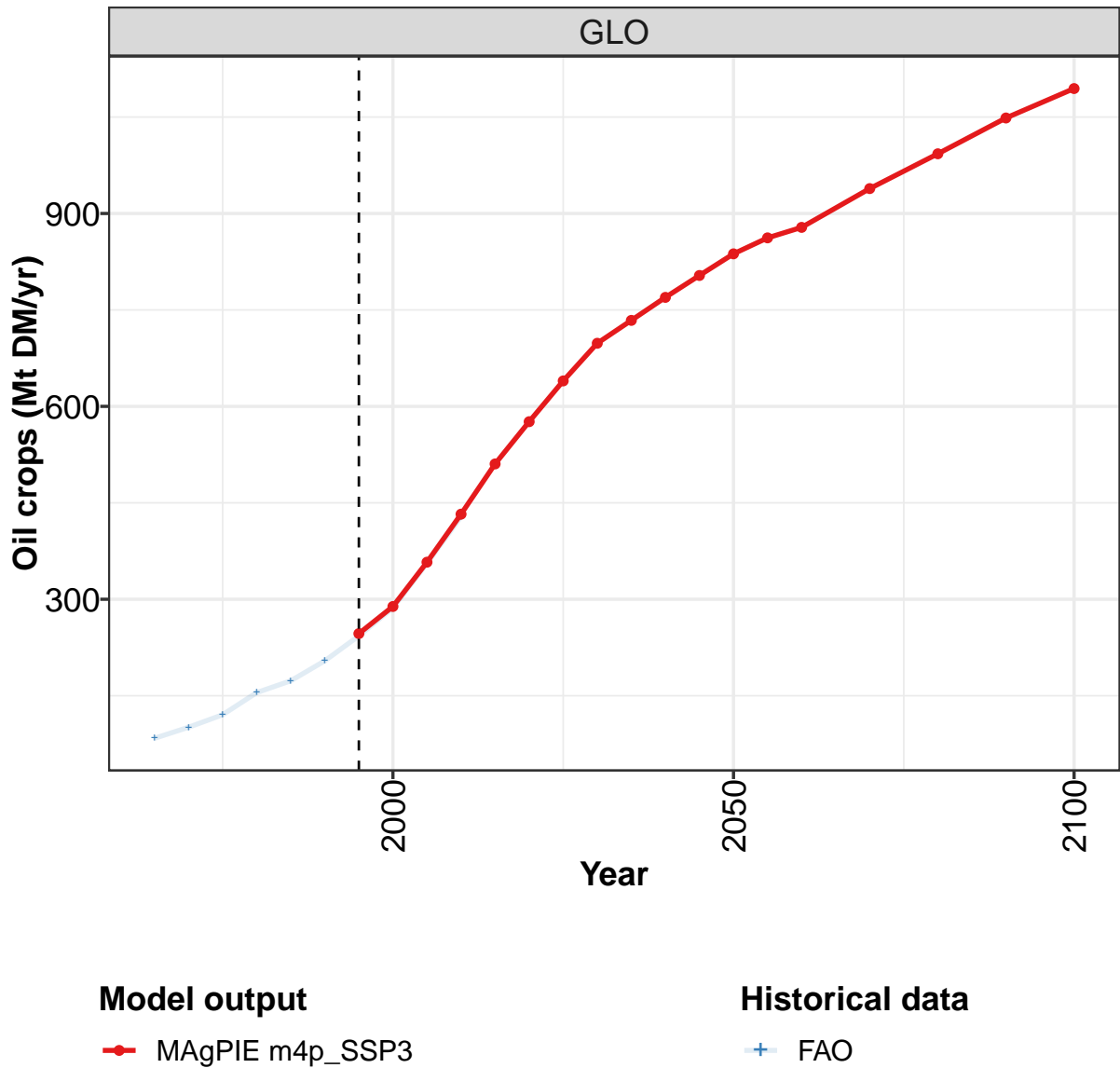
	2050	2055	2060	2070	2080	2090	2100
GLO	64	73	78	90	99	122	139
CAZ	0	0	0	0	0	0	0
CHA	0	11	15	11	0	0	0
EUR	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	8	0	0	0	0	0	0
MEA	2	3	3	5	7	9	11
NEU	0	0	0	0	0	0	0
OAS	35	37	37	47	59	76	86
REF	0	0	0	0	0	0	0
SSA	15	17	19	24	30	35	39
USA	4	4	4	4	3	3	3

Table 585: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Cereals—Tropical cereals (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.94	1.13	1.21	1.42	1.86	1.55	1.84	2.44	2.76	3.94
CAZ	0.03	0.05	0.06	0.11	0.05	0.07	0.03	0.04	0.04	0.04
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.03	0.05	0.06	0.07	0.09	0.10	0.13	0.13	0.12	0.15
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.81	0.94	1.02	1.14	1.23	1.25	1.49	1.44	1.77	1.88
USA	0.07	0.08	0.06	0.09	0.48	0.12	0.19	0.83	0.83	1.88

Table 586: FAO — Demand—Processing—Crops—Cereals—Tropical cereals (Mt DM/yr)

9.1.6
Oil crops



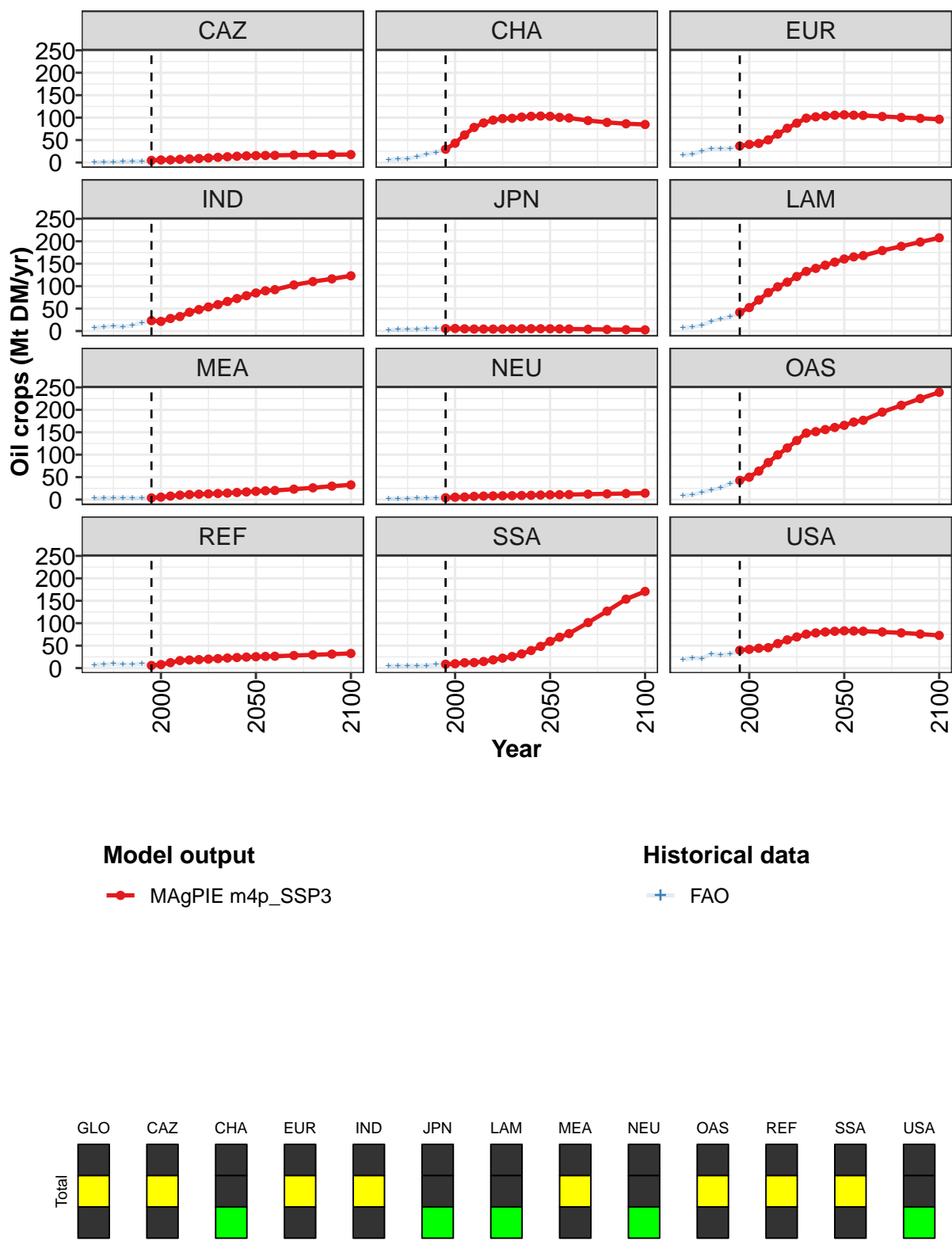


Figure 196: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	247	289	358	432	511	576	640	698	734	770	804
CAZ	5	6	6	7	8	9	10	12	13	14	15
CHA	30	43	61	78	88	95	98	98	101	103	104
EUR	37	40	43	51	63	76	88	99	102	104	105
IND	23	22	28	32	42	48	54	59	66	72	79
JPN	5	6	5	4	4	4	4	5	5	5	5
LAM	42	52	69	86	99	109	121	133	140	147	154
MEA	4	5	8	10	11	12	13	14	14	16	17
NEU	4	5	6	7	8	8	8	9	9	10	10
OAS	43	50	63	83	100	115	132	148	151	156	161
REF	6	8	12	17	18	19	20	21	22	24	24
SSA	9	10	12	12	15	18	22	26	32	39	48
USA	40	42	44	45	55	63	69	76	78	80	82

Table 587: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops (Mt DM/yr) [PART 1/2]

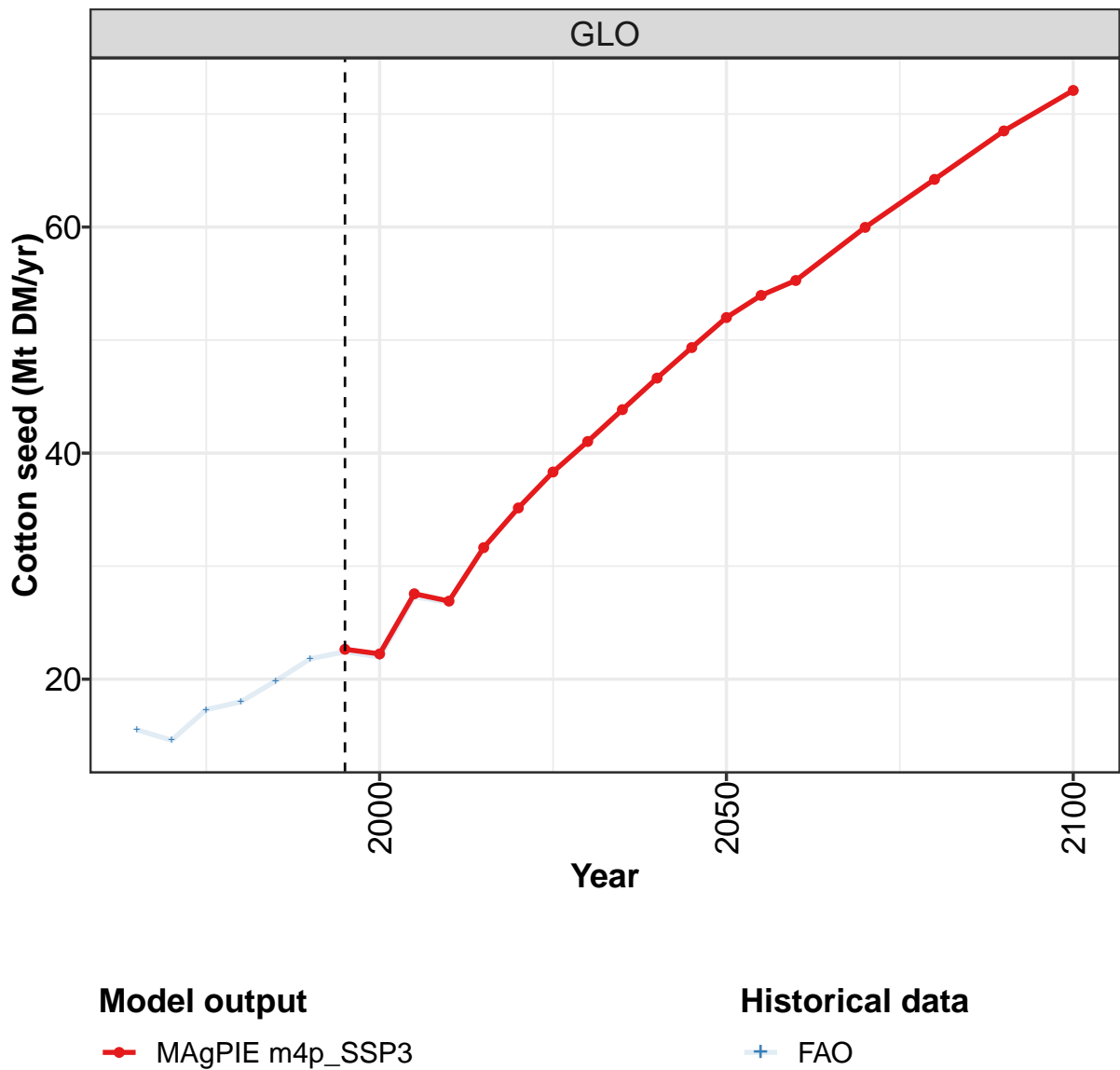
	2050	2055	2060	2070	2080	2090	2100
GLO	837	862	878	939	993	1049	1094
CAZ	15	16	16	17	17	17	18
CHA	103	101	99	94	89	86	85
EUR	106	105	105	103	100	98	96
IND	85	90	92	103	110	116	123
JPN	5	5	5	4	3	3	3
LAM	161	165	168	179	189	198	208
MEA	18	20	20	23	26	30	33
NEU	11	11	11	12	13	13	14
OAS	165	173	177	195	210	225	239
REF	25	26	26	28	30	31	33
SSA	59	69	77	101	127	154	171
USA	83	83	82	81	78	76	73

Table 588: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	84	101	120	155	173	204	243	287	356	428
CAZ	1	1	1	2	3	3	4	5	6	8
CHA	7	8	9	12	19	22	29	43	61	78
EUR	16	19	25	31	31	31	36	41	42	50
IND	8	9	11	10	13	18	23	22	28	32
JPN	2	4	4	5	5	5	5	6	5	4
LAM	8	9	13	21	27	32	41	49	68	81
MEA	3	3	4	4	3	4	4	5	8	10
NEU	2	2	2	3	3	4	4	5	6	7
OAS	8	11	16	21	26	36	43	50	63	84
REF	7	8	9	9	8	10	6	7	11	16
SSA	4	5	5	5	6	8	8	10	12	12
USA	18	23	21	32	29	31	40	44	47	46

Table 589: FAO — Demand—Processing—Crops—Oil crops (Mt DM/yr)

9.1.7
Oil crops—Cotton seed



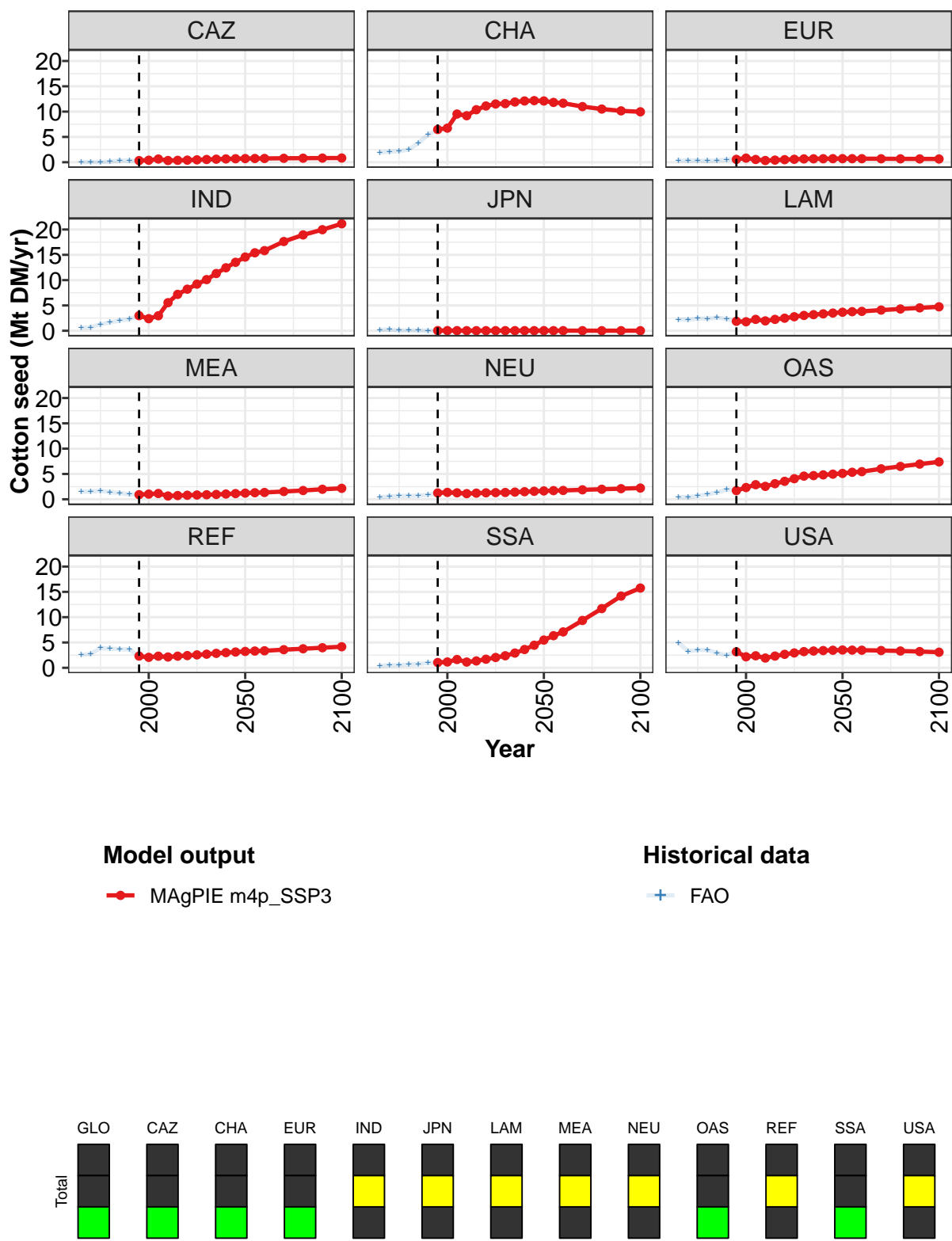


Figure 197: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	22.6	22.2	27.6	26.9	31.6	35.2	38.3	41.0	43.8	46.6	49.3
CAZ	0.3	0.4	0.6	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7
CHA	6.5	6.7	9.5	9.2	10.4	11.1	11.5	11.6	11.9	12.1	12.2
EUR	0.6	0.8	0.5	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.7
IND	3.0	2.4	3.0	5.5	7.2	8.2	9.2	10.1	11.3	12.4	13.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.9	1.8	2.3	2.0	2.2	2.5	2.8	3.0	3.2	3.3	3.5
MEA	0.9	1.0	1.1	0.7	0.7	0.8	0.8	0.9	1.0	1.0	1.1
NEU	1.2	1.4	1.3	1.1	1.2	1.3	1.3	1.3	1.4	1.5	1.6
OAS	1.7	2.3	2.9	2.6	3.1	3.6	4.1	4.6	4.7	4.8	5.0
REF	2.3	2.1	2.3	2.1	2.3	2.4	2.6	2.7	2.9	3.0	3.1
SSA	1.0	1.2	1.6	1.1	1.4	1.7	2.0	2.4	2.9	3.6	4.5
USA	3.2	2.2	2.4	1.9	2.3	2.7	2.9	3.2	3.3	3.4	3.5

Table 590: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

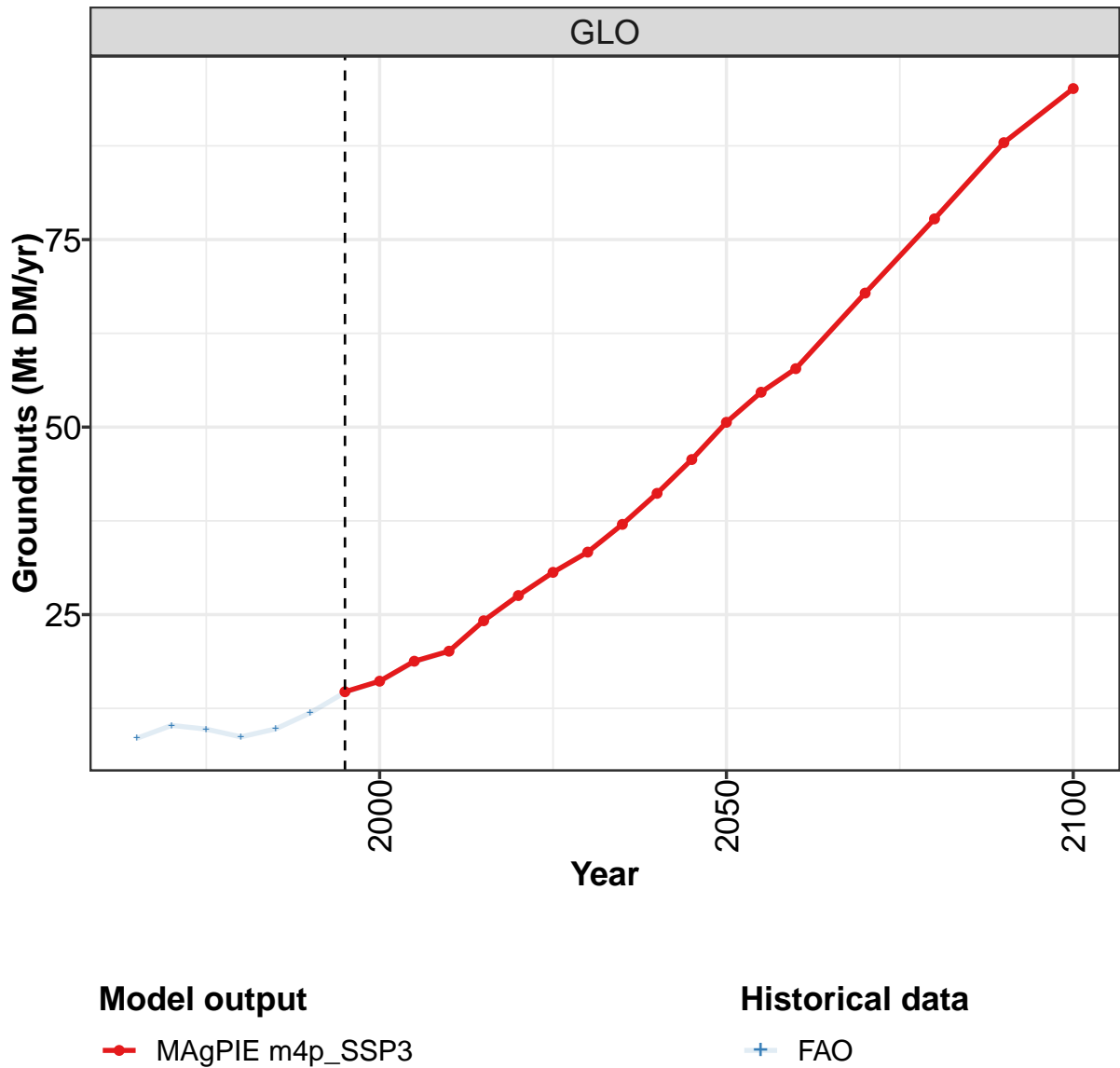
	2050	2055	2060	2070	2080	2090	2100
GLO	52.0	54.0	55.3	60.0	64.2	68.5	72.1
CAZ	0.7	0.7	0.8	0.8	0.8	0.8	0.8
CHA	12.1	11.8	11.7	11.0	10.5	10.2	10.0
EUR	0.7	0.7	0.7	0.7	0.7	0.7	0.6
IND	14.6	15.4	15.8	17.6	18.9	20.0	21.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.7	3.8	3.8	4.1	4.3	4.5	4.7
MEA	1.2	1.3	1.3	1.5	1.7	2.0	2.2
NEU	1.7	1.7	1.7	1.9	2.0	2.1	2.2
OAS	5.1	5.3	5.5	6.0	6.5	7.0	7.4
REF	3.2	3.3	3.4	3.6	3.8	4.0	4.2
SSA	5.5	6.3	7.1	9.4	11.7	14.2	15.8
USA	3.5	3.5	3.5	3.4	3.3	3.2	3.1

Table 591: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	15.5	14.6	17.3	18.0	19.8	21.8	22.4	22.0	27.3	26.8
CAZ	0.0	0.0	0.0	0.1	0.4	0.3	0.3	0.4	0.6	0.4
CHA	1.9	2.1	2.2	2.5	3.8	5.4	6.4	6.7	9.5	9.2
EUR	0.4	0.3	0.4	0.3	0.3	0.5	0.6	0.8	0.5	0.3
IND	0.6	0.7	1.3	1.6	2.0	2.3	3.0	2.4	2.9	5.5
JPN	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
LAM	2.2	2.2	2.4	2.4	2.6	2.4	1.8	1.7	2.2	1.8
MEA	1.5	1.6	1.7	1.4	1.2	1.0	0.9	1.0	1.1	0.7
NEU	0.4	0.5	0.7	0.7	0.7	0.9	1.1	1.3	1.2	1.1
OAS	0.4	0.4	0.7	1.0	1.3	1.9	1.7	2.3	2.9	2.6
REF	2.5	2.7	3.9	3.8	3.7	3.6	2.2	1.9	2.1	2.1
SSA	0.4	0.5	0.5	0.6	0.7	1.0	1.0	1.1	1.6	1.1
USA	4.9	3.3	3.5	3.5	2.9	2.5	3.3	2.3	2.5	1.9

Table 592: FAO — Demand—Processing—Crops—Oil crops—Cotton seed (Mt DM/yr)

9.1.8
Oil crops—Groundnuts



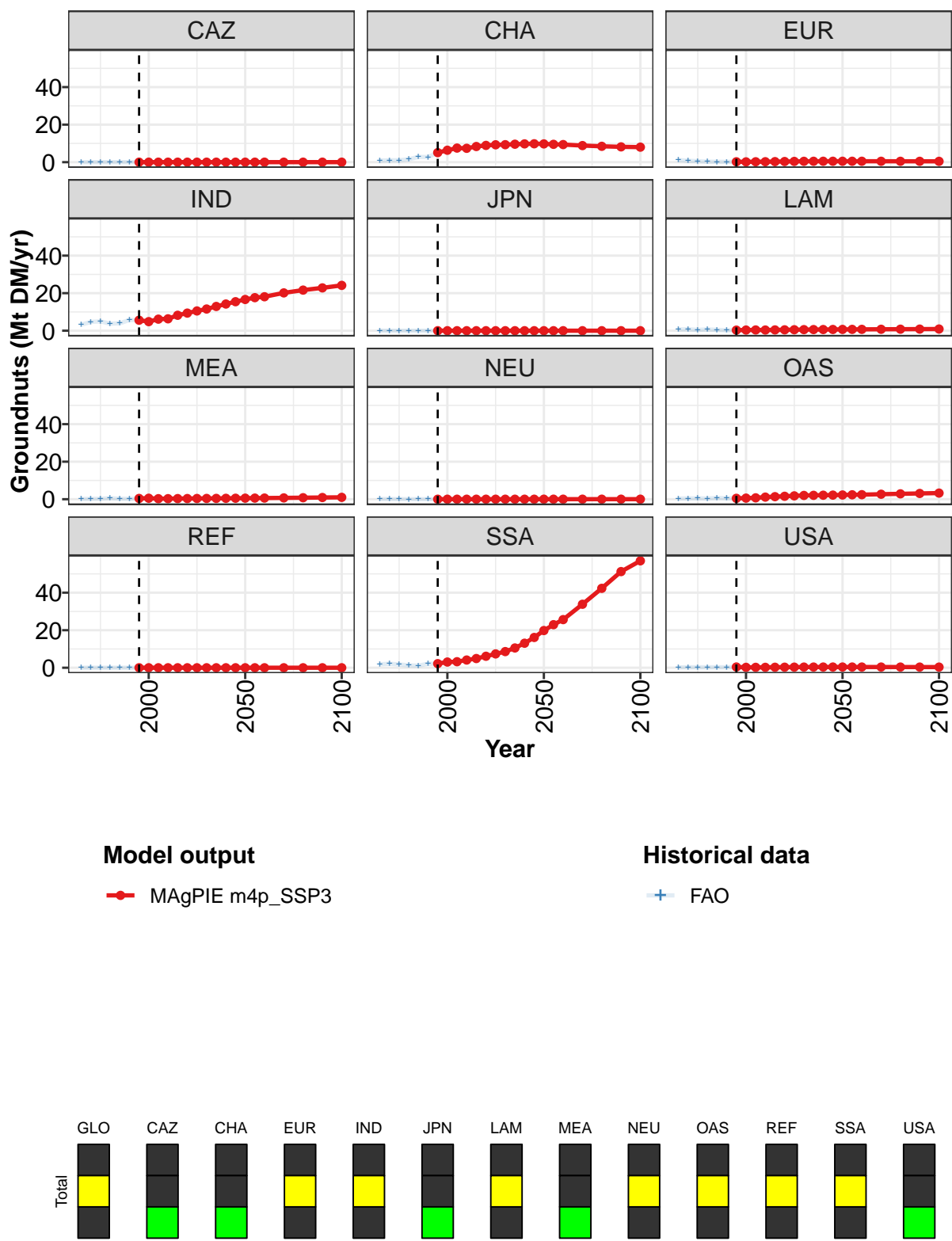


Figure 198: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	14.7	16.1	18.8	20.1	24.2	27.5	30.6	33.3	37.0	41.2	45.7
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	5.1	6.4	7.5	7.4	8.4	8.9	9.3	9.3	9.6	9.7	9.8
EUR	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.5
IND	5.6	4.8	6.2	6.3	8.2	9.4	10.5	11.6	12.9	14.2	15.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7
MEA	0.4	0.5	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.5	0.6	0.7	1.1	1.4	1.6	1.8	2.0	2.1	2.1	2.2
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	2.2	3.0	3.2	4.1	4.9	6.1	7.4	8.6	10.5	13.1	16.1
USA	0.4	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4

Table 593: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

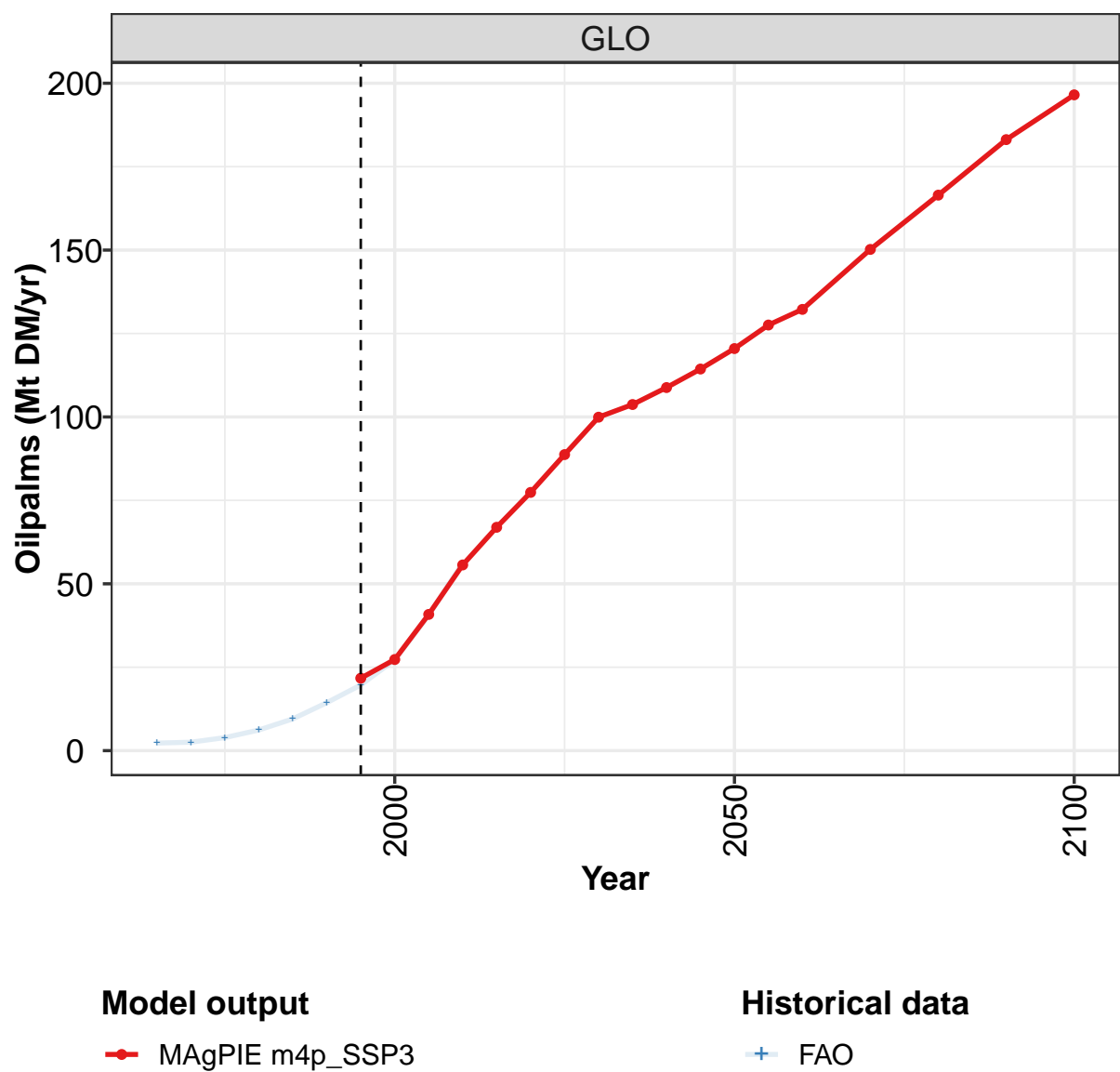
	2050	2055	2060	2070	2080	2090	2100
GLO	50.6	54.7	57.8	67.9	77.8	87.9	95.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	9.7	9.5	9.4	8.8	8.5	8.2	8.0
EUR	0.5	0.5	0.5	0.5	0.5	0.5	0.4
IND	16.6	17.6	18.1	20.1	21.6	22.8	24.2
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.7	0.7	0.7	0.8	0.8	0.8	0.9
MEA	0.6	0.6	0.6	0.7	0.8	0.9	1.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	2.3	2.4	2.4	2.7	2.9	3.1	3.3
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	19.8	22.9	25.7	33.8	42.3	51.2	57.0
USA	0.4	0.4	0.4	0.4	0.4	0.4	0.3

Table 594: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	8.5	10.2	9.7	8.7	9.8	11.9	14.6	16.1	18.7	20.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.8	1.0	1.0	1.5	2.8	2.7	5.1	6.3	7.5	7.4
EUR	1.1	0.7	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2
IND	3.2	4.7	4.9	3.8	3.9	5.7	5.6	4.8	6.1	6.3
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.7	0.8	0.4	0.7	0.5	0.2	0.3	0.3	0.4	0.3
MEA	0.1	0.2	0.2	0.5	0.2	0.2	0.4	0.5	0.3	0.3
NEU	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.3	0.4	0.5	0.4	0.7	0.5	0.5	0.6	0.7	1.1
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	1.8	2.1	1.8	1.3	1.1	2.1	2.1	3.0	3.2	4.1
USA	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.2	0.2	0.2

Table 595: FAO — Demand—Processing—Crops—Oil crops—Groundnuts (Mt DM/yr)

9.1.9
Oil crops—Oilpalms



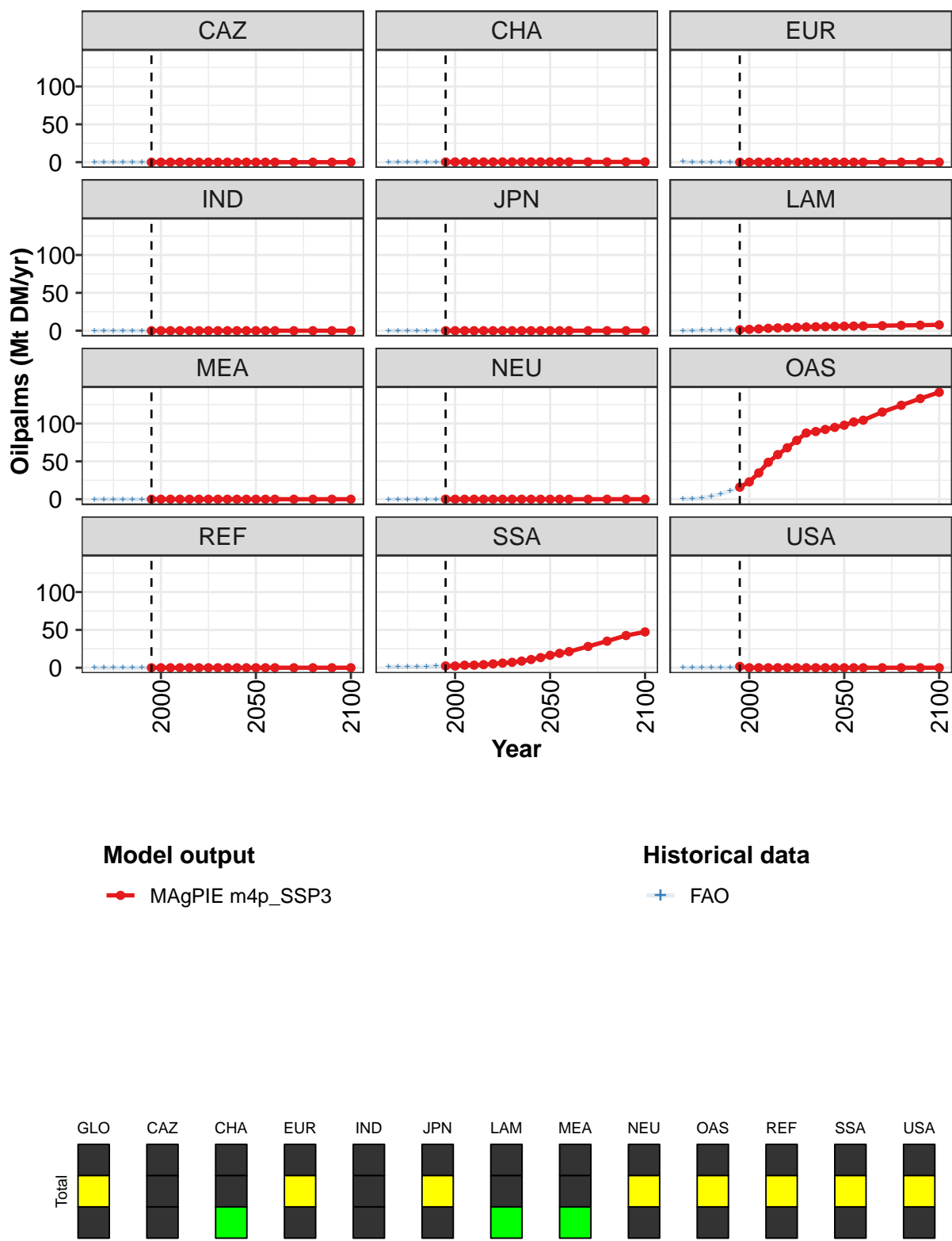


Figure 199: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Oilpalms (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	22	27	41	56	67	77	89	100	104	109	114
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1	2	2	3	4	4	4	5	5	5	6
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	16	23	35	49	59	68	78	88	89	92	95
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	2	2	3	3	4	5	6	7	9	11	13
USA	2	0	0	0	0	0	0	0	0	0	0

Table 596: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Oilpalms (Mt DM/yr) [PART 1/2]

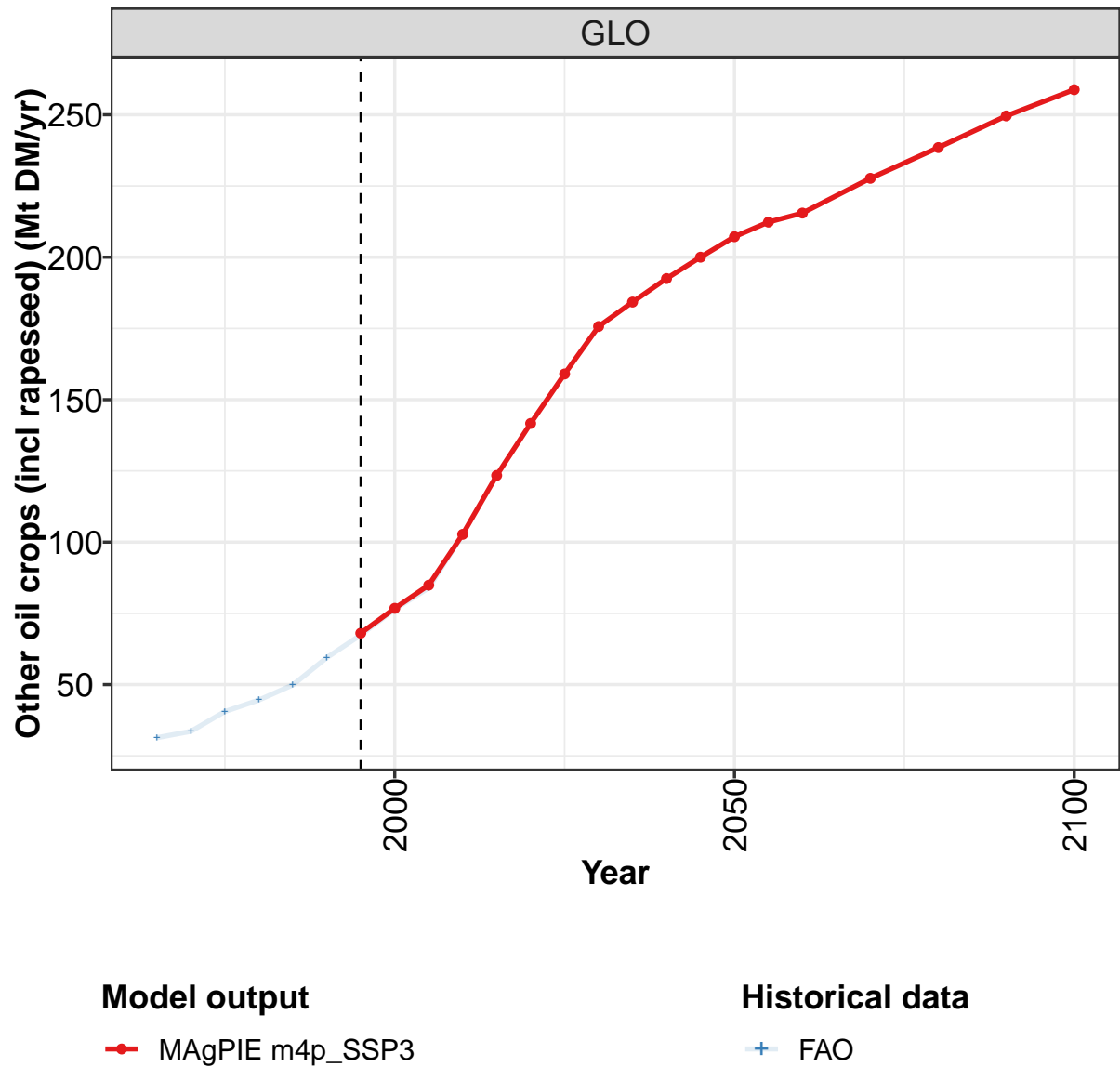
	2050	2055	2060	2070	2080	2090	2100
GLO	120	128	132	150	166	183	197
CAZ	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	6	6	6	7	7	7	8
MEA	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0
OAS	98	102	104	115	124	133	141
REF	0	0	0	0	0	0	0
SSA	16	19	21	28	35	43	47
USA	0	0	0	0	0	0	0

Table 597: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Oilpalms (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.3	2.5	3.9	6.2	9.5	14.4	19.7	27.2	40.6	56.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.1	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3
EUR	0.6	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.3	0.3	0.4	0.7	1.0	1.2	1.7	2.3	3.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.3	0.7	1.9	3.9	6.9	11.2	15.9	23.0	34.6	49.6
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	1.1	1.0	1.2	1.5	1.6	1.9	2.3	2.3	3.4	3.4
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 598: FAO — Demand—Processing—Crops—Oil crops—Oilpalms (Mt DM/yr)

9.1.10
Oil crops—Other oil crops (incl rapeseed)



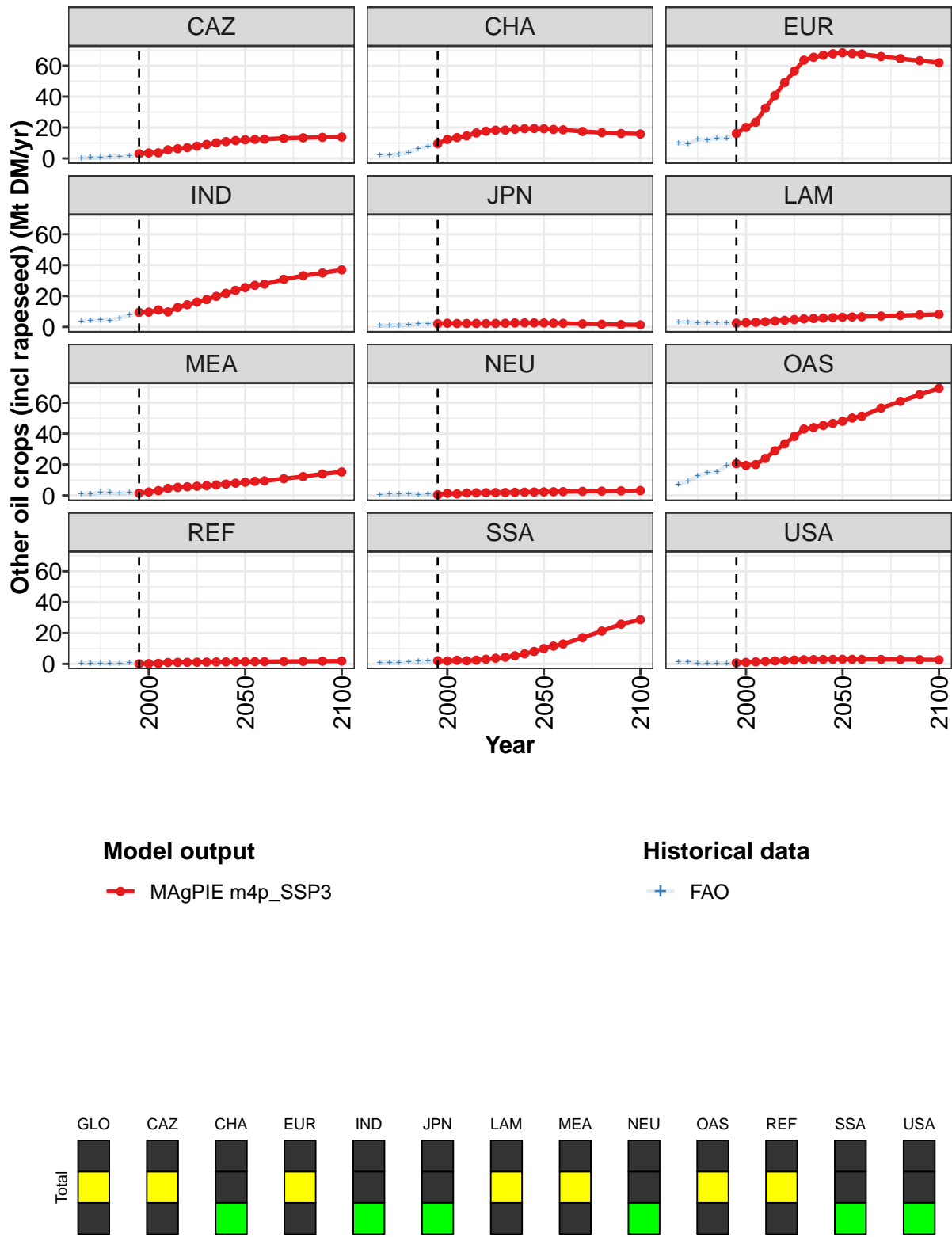


Figure 200: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	68	77	85	103	123	142	159	176	184	193	200
CAZ	3	4	4	6	6	7	8	9	10	11	12
CHA	10	12	13	15	16	18	18	18	19	19	19
EUR	16	20	23	32	41	49	56	64	65	67	68
IND	9	10	11	10	13	14	16	18	20	22	24
JPN	2	2	2	2	2	2	2	2	3	3	3
LAM	2	3	3	3	4	4	5	5	5	6	6
MEA	1	2	3	5	5	6	6	6	7	7	8
NEU	0	1	1	2	2	2	2	2	2	2	2
OAS	21	19	20	24	29	33	38	43	44	45	47
REF	0	0	0	1	1	1	1	1	1	1	1
SSA	2	2	2	2	2	3	4	4	5	7	8
USA	1	1	1	2	2	2	3	3	3	3	3

Table 599: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

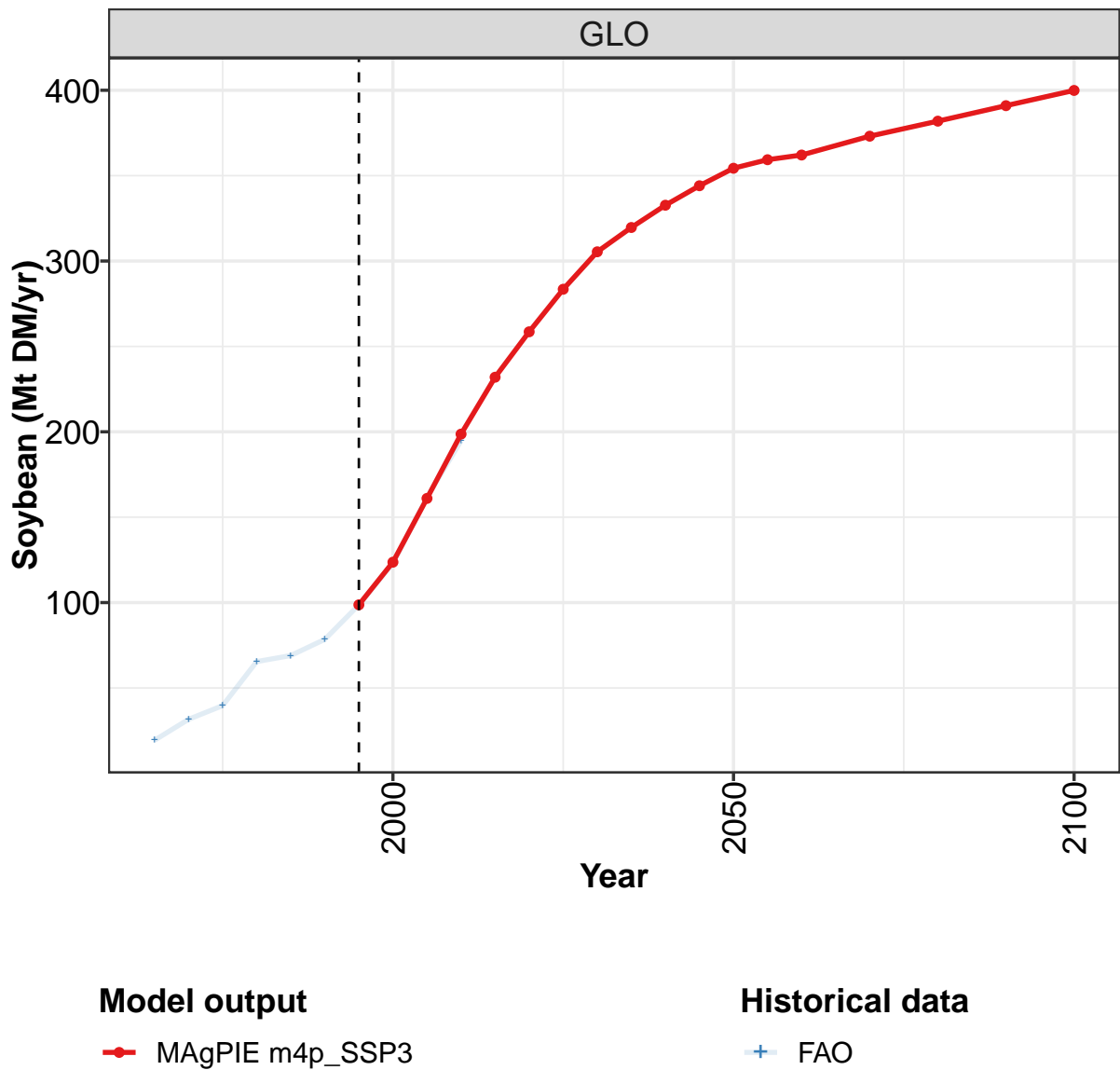
	2050	2055	2060	2070	2080	2090	2100
GLO	207	212	215	228	238	250	259
CAZ	12	12	12	13	13	14	14
CHA	19	19	19	17	17	16	16
EUR	68	68	67	66	65	63	62
IND	25	27	28	31	33	35	37
JPN	3	2	2	2	2	2	1
LAM	6	6	7	7	7	8	8
MEA	9	9	9	11	12	14	15
NEU	2	2	2	3	3	3	3
OAS	48	50	51	57	61	65	69
REF	1	1	2	2	2	2	2
SSA	10	12	13	17	21	26	29
USA	3	3	3	3	3	3	3

Table 600: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	31	34	41	45	50	59	67	76	84	103
CAZ	0	0	0	1	1	1	3	3	3	6
CHA	2	2	3	4	6	8	9	12	13	15
EUR	10	9	12	12	13	13	16	20	23	32
IND	4	4	5	4	6	8	9	10	11	10
JPN	1	1	1	1	2	2	2	2	2	2
LAM	3	3	3	3	2	3	2	3	3	3
MEA	1	1	2	2	1	2	1	2	3	5
NEU	1	1	1	1	1	1	0	1	1	2
OAS	7	9	12	15	15	19	21	19	20	24
REF	0	0	0	0	0	1	0	0	0	1
SSA	1	1	1	1	2	2	2	2	2	2
USA	2	1	0	0	0	0	1	1	1	2

Table 601: FAO — Demand—Processing—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

9.1.11 Oil crops—Soybean



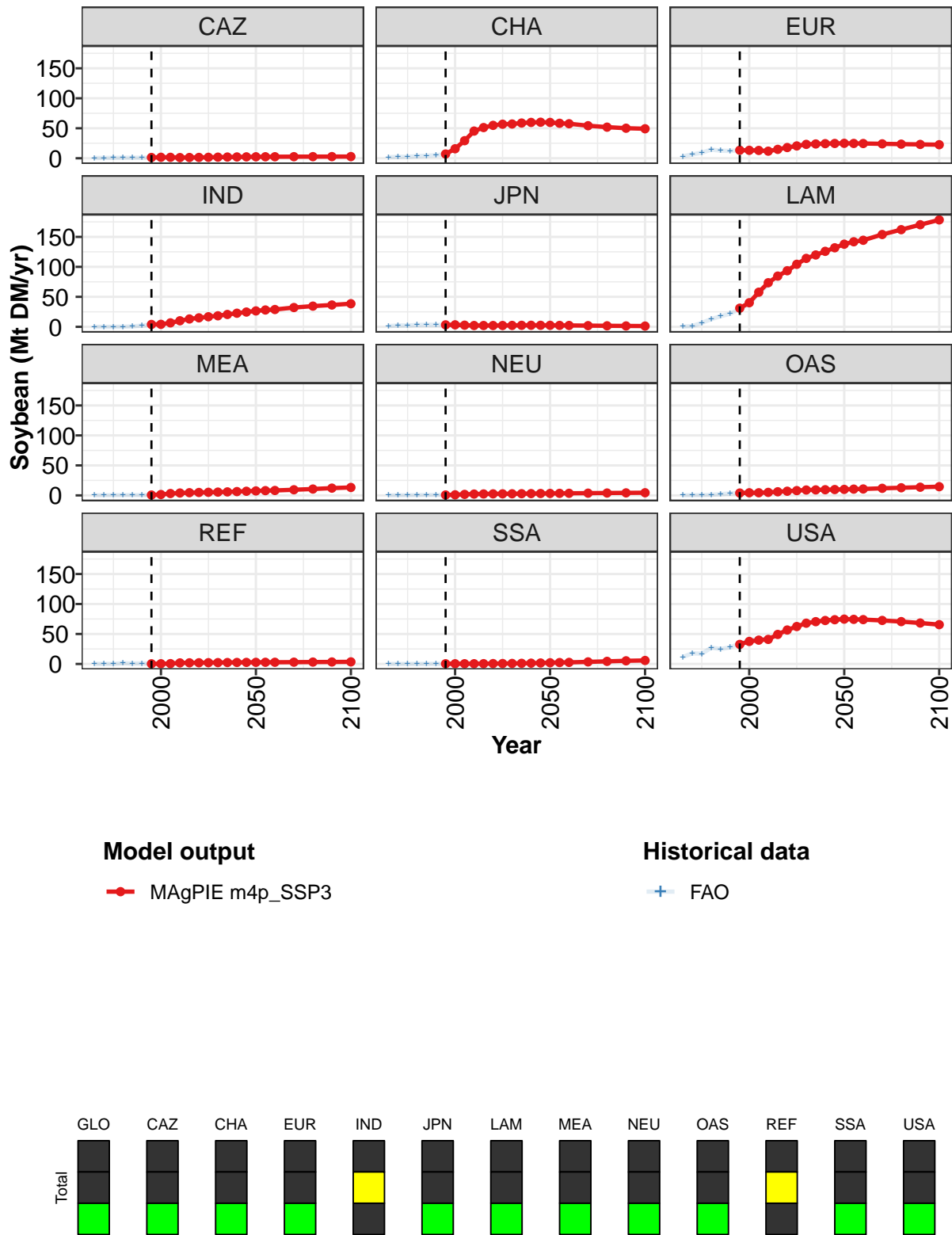


Figure 201: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	99	124	161	199	232	259	283	305	320	333	344
CAZ	1	2	2	1	1	1	2	2	2	2	2
CHA	7	16	29	45	51	55	57	57	59	60	60
EUR	13	13	13	12	15	18	21	23	24	24	25
IND	4	4	7	10	13	15	17	18	21	23	25
JPN	3	3	3	2	2	2	2	2	3	3	3
LAM	31	40	58	74	85	94	104	114	120	126	132
MEA	1	1	3	4	5	5	5	5	6	6	7
NEU	1	1	2	2	2	3	3	3	3	3	3
OAS	4	4	4	5	6	7	8	9	9	9	10
REF	0	0	1	2	2	2	2	2	2	3	3
SSA	0	0	0	0	1	1	1	1	1	1	2
USA	33	38	40	41	49	57	62	68	71	72	74

Table 602: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

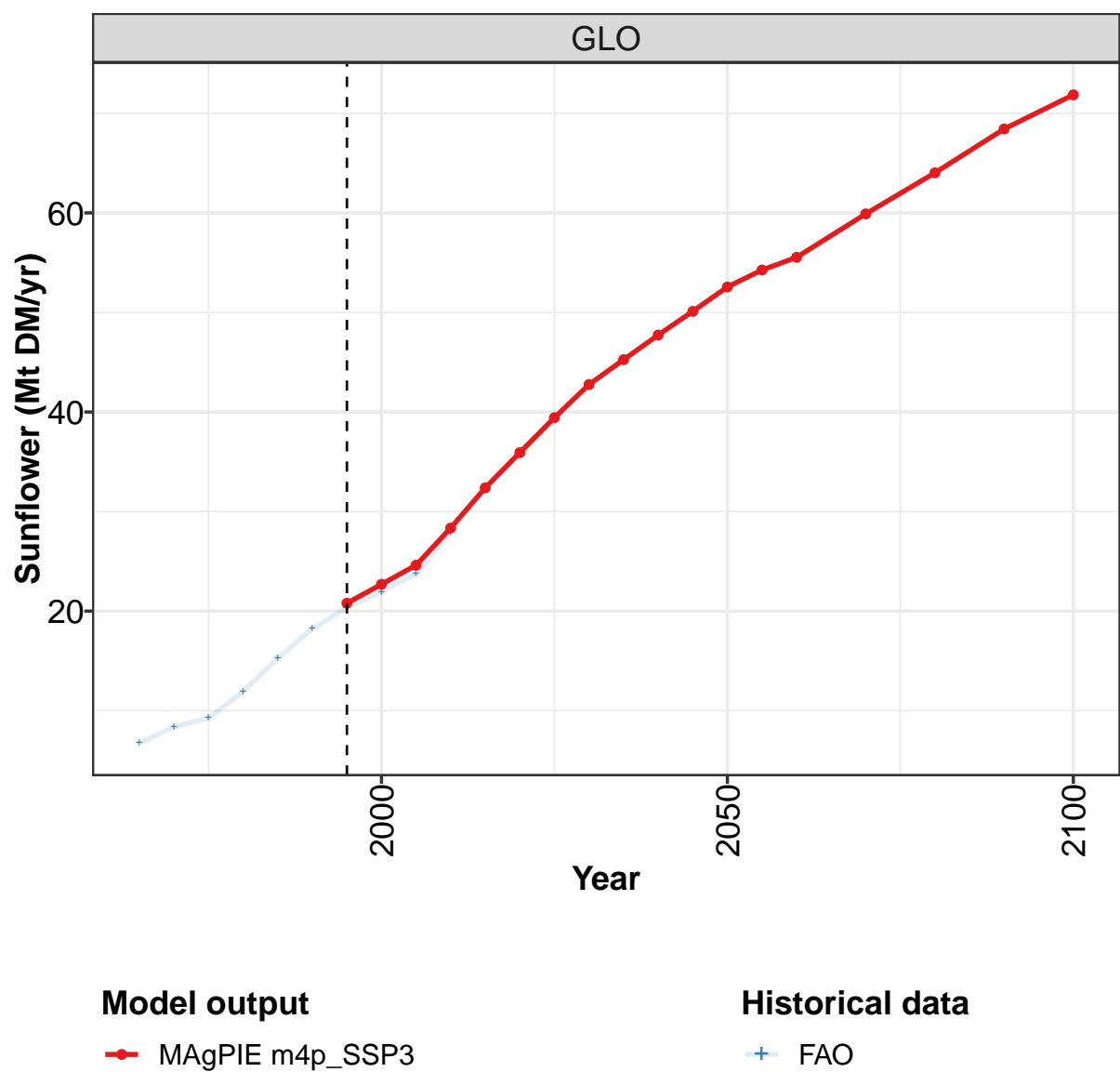
	2050	2055	2060	2070	2080	2090	2100
GLO	354	359	362	373	382	391	400
CAZ	2	3	3	3	3	3	3
CHA	60	58	58	54	52	50	49
EUR	25	25	25	24	24	23	23
IND	27	28	29	32	35	36	39
JPN	3	2	2	2	2	1	1
LAM	138	142	144	154	162	170	178
MEA	7	8	8	9	11	12	13
NEU	3	3	3	4	4	4	4
OAS	10	10	11	12	13	14	15
REF	3	3	3	3	3	3	4
SSA	2	2	3	3	4	5	6
USA	75	74	74	73	71	68	66

Table 603: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Soybean (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	19	32	40	65	69	78	99	123	162	195
CAZ	0	1	1	1	1	1	1	2	2	1
CHA	2	2	3	3	4	5	7	16	29	45
EUR	3	6	9	14	13	12	13	13	13	12
IND	0	0	0	0	1	2	4	4	7	10
JPN	1	2	2	3	3	3	3	3	3	2
LAM	0	1	7	13	18	22	30	38	57	70
MEA	0	0	0	0	1	0	1	1	3	4
NEU	0	0	0	1	1	1	1	1	2	2
OAS	0	0	0	1	2	3	4	4	4	5
REF	0	0	0	1	1	1	0	0	1	2
SSA	0	0	0	0	0	0	0	0	0	0
USA	12	18	17	27	25	28	34	40	42	41

Table 604: FAO — Demand—Processing—Crops—Oil crops—Soybean (Mt DM/yr)

9.1.12
Oil crops—Sunflower



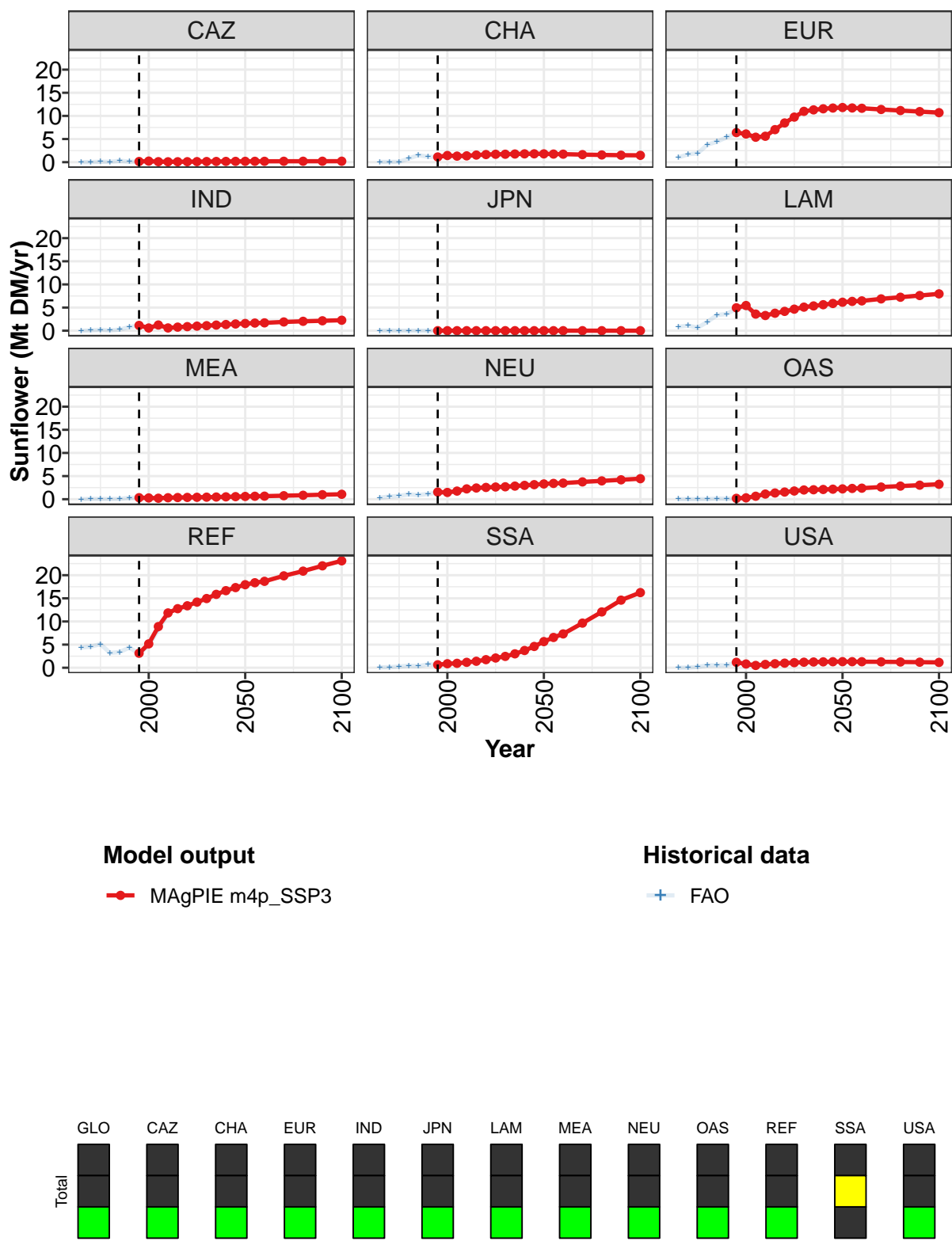


Figure 202: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	20.8	22.7	24.6	28.3	32.4	35.9	39.4	42.8	45.3	47.7	50.1
CAZ	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
CHA	1.1	1.4	1.3	1.4	1.5	1.6	1.7	1.7	1.8	1.8	1.8
EUR	6.4	6.1	5.4	5.6	7.0	8.5	9.7	11.0	11.3	11.5	11.7
IND	1.1	0.6	1.2	0.6	0.8	0.9	1.0	1.1	1.2	1.3	1.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	5.0	5.4	3.6	3.3	3.8	4.2	4.7	5.1	5.4	5.6	5.9
MEA	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.6
NEU	1.5	1.5	1.8	2.2	2.4	2.5	2.6	2.7	2.8	3.0	3.1
OAS	0.2	0.3	0.6	1.1	1.3	1.6	1.8	2.0	2.0	2.1	2.2
REF	3.1	5.2	8.9	11.8	12.8	13.4	14.2	15.0	15.9	16.7	17.3
SSA	0.6	0.9	1.0	1.2	1.4	1.7	2.1	2.5	3.0	3.7	4.6
USA	1.2	0.8	0.5	0.7	0.9	1.0	1.1	1.2	1.2	1.3	1.3

Table 605: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

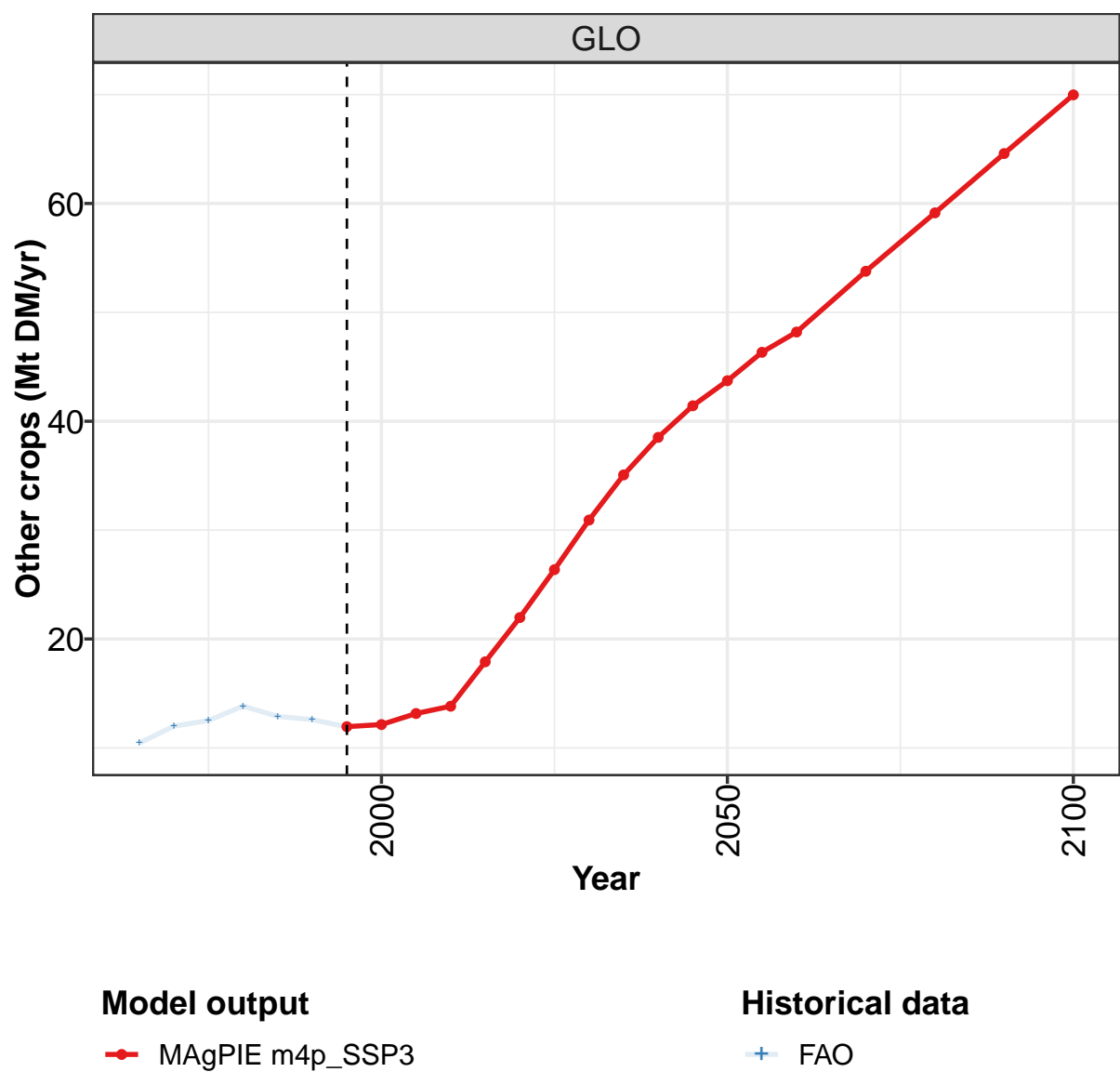
	2050	2055	2060	2070	2080	2090	2100
GLO	52.6	54.3	55.5	59.9	64.0	68.4	71.9
CAZ	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	1.8	1.8	1.7	1.6	1.6	1.5	1.5
EUR	11.8	11.7	11.7	11.4	11.2	10.9	10.7
IND	1.6	1.7	1.7	1.9	2.0	2.1	2.3
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	6.2	6.3	6.4	6.9	7.2	7.6	8.0
MEA	0.6	0.6	0.7	0.8	0.9	1.0	1.1
NEU	3.3	3.4	3.5	3.7	4.0	4.2	4.4
OAS	2.2	2.3	2.4	2.6	2.8	3.0	3.2
REF	17.9	18.4	18.7	19.9	20.9	22.0	23.1
SSA	5.7	6.5	7.3	9.6	12.1	14.6	16.2
USA	1.3	1.3	1.3	1.3	1.2	1.2	1.2

Table 606: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	6.7	8.4	9.3	11.9	15.3	18.2	20.3	22.0	23.8	27.9
CAZ	0.0	0.0	0.1	0.1	0.3	0.1	0.1	0.2	0.1	0.1
CHA	0.1	0.1	0.1	0.8	1.5	1.2	1.1	1.4	1.3	1.4
EUR	1.0	1.7	1.9	3.8	4.4	5.4	6.3	6.1	5.3	5.5
IND	0.0	0.1	0.2	0.1	0.2	0.8	1.1	0.6	1.2	0.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.8	1.1	0.7	1.9	3.4	3.6	4.8	5.1	3.5	3.1
MEA	0.0	0.1	0.1	0.0	0.1	0.3	0.3	0.3	0.2	0.3
NEU	0.3	0.6	0.7	1.1	0.9	1.1	1.4	1.4	1.7	2.2
OAS	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.3	0.6	1.1
REF	4.4	4.6	5.1	3.2	3.4	4.4	3.0	4.8	8.3	11.7
SSA	0.1	0.1	0.3	0.4	0.3	0.7	0.6	0.9	1.0	1.2
USA	0.0	0.0	0.2	0.5	0.5	0.5	1.2	0.9	0.5	0.7

Table 607: FAO — Demand—Processing—Crops—Oil crops—Sunflower (Mt DM/yr)

9.1.13 Other crops



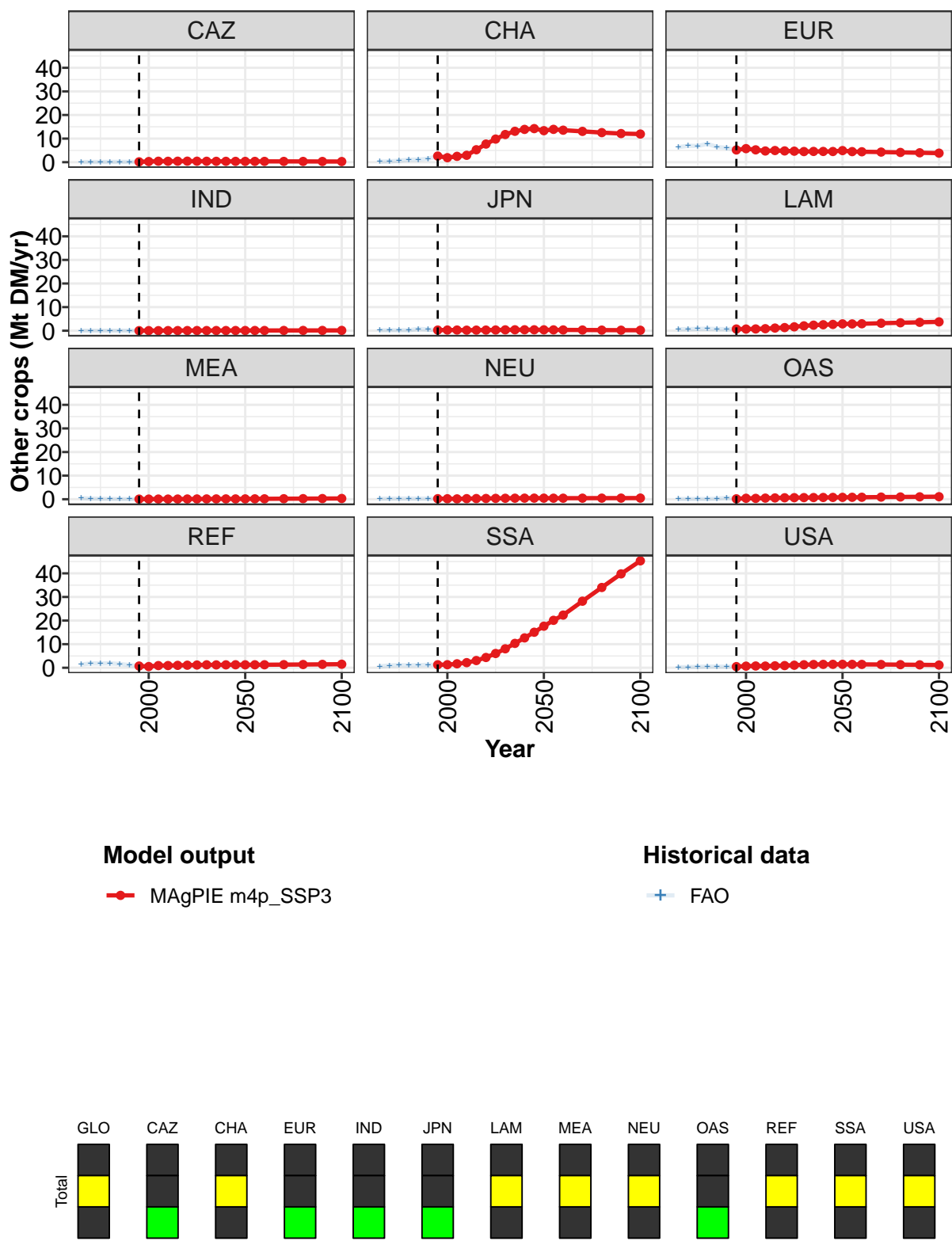


Figure 203: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	11.9	12.1	13.2	13.8	17.9	22.0	26.4	30.9	35.1	38.5	41.4
CAZ	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
CHA	2.6	1.9	2.5	2.9	5.3	7.7	9.8	11.7	13.1	13.9	14.2
EUR	5.2	5.7	5.2	4.8	4.9	4.8	4.7	4.5	4.6	4.6	4.5
IND	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
JPN	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4
LAM	0.7	0.7	0.8	0.9	1.1	1.3	1.7	2.1	2.3	2.5	2.7
MEA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEU	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.5
OAS	0.2	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.8
REF	0.7	0.5	0.9	0.9	1.0	1.1	1.2	1.2	1.2	1.2	1.3
SSA	1.3	1.3	1.7	2.2	3.1	4.4	6.1	8.0	10.3	12.7	15.1
USA	0.5	0.7	0.8	0.7	0.8	0.9	1.1	1.3	1.4	1.4	1.5

Table 608: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Other crops (Mt DM/yr) [PART 1/2]

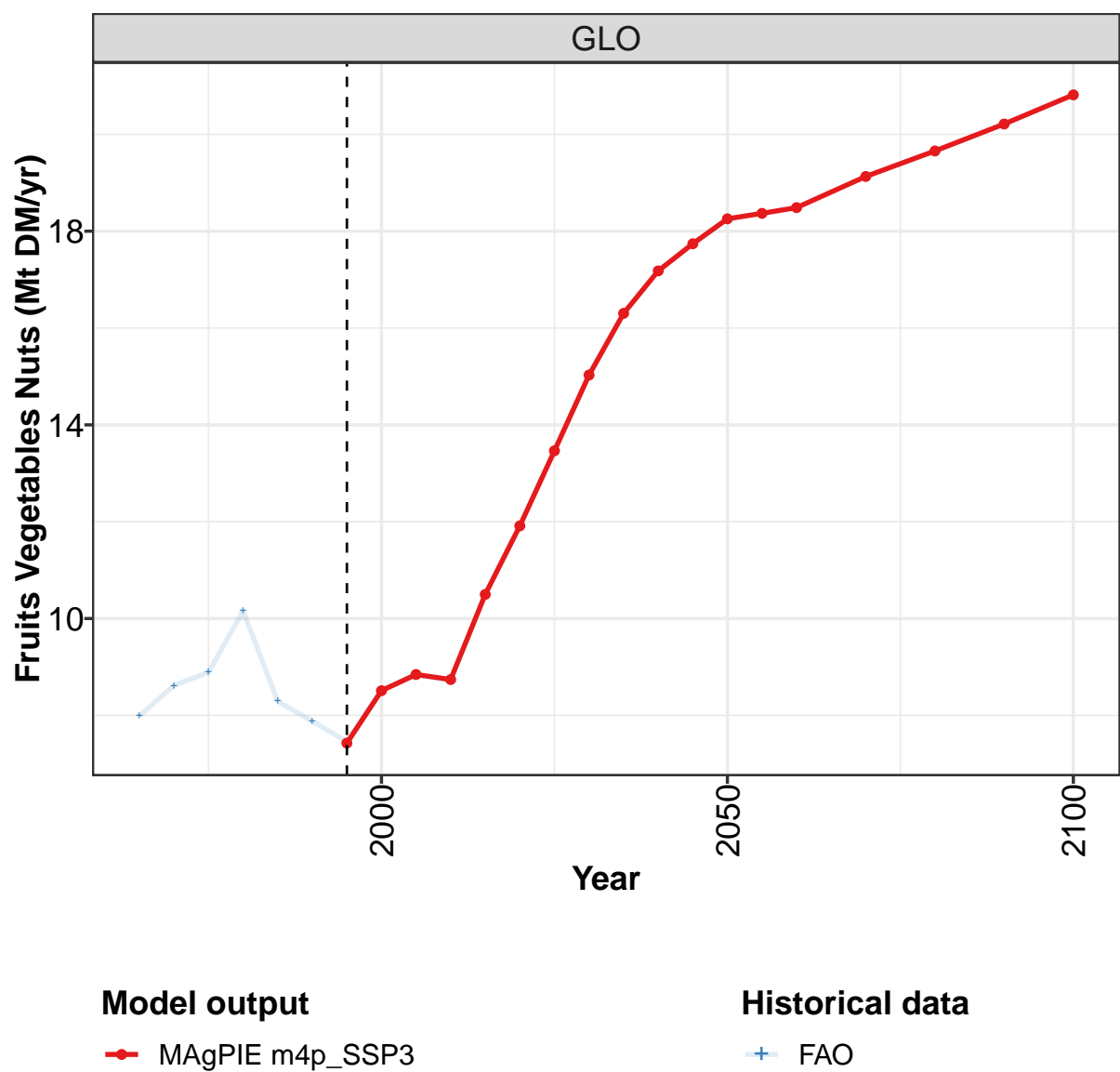
	2050	2055	2060	2070	2080	2090	2100
GLO	43.7	46.3	48.2	53.8	59.1	64.6	70.0
CAZ	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CHA	13.4	13.9	13.6	13.1	12.5	12.1	11.9
EUR	4.9	4.5	4.4	4.3	4.1	4.0	3.8
IND	0.1	0.1	0.1	0.1	0.1	0.1	0.1
JPN	0.4	0.4	0.3	0.3	0.3	0.2	0.2
LAM	2.9	2.9	2.9	3.2	3.4	3.6	3.7
MEA	0.2	0.2	0.2	0.2	0.3	0.3	0.3
NEU	0.5	0.4	0.4	0.5	0.5	0.5	0.5
OAS	0.8	0.8	0.8	0.9	1.0	1.0	1.1
REF	1.3	1.3	1.3	1.3	1.4	1.4	1.5
SSA	17.6	20.1	22.3	28.2	34.0	39.8	45.3
USA	1.5	1.4	1.4	1.4	1.3	1.2	1.2

Table 609: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Other crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	10.4	12.0	12.5	13.8	12.9	12.6	11.9	12.2	13.1	13.8
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4
CHA	0.2	0.3	0.6	1.0	1.1	1.5	2.6	1.9	2.5	3.0
EUR	6.4	6.9	6.8	7.8	6.4	6.1	5.2	5.8	5.2	4.7
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
JPN	0.2	0.2	0.2	0.2	0.8	0.5	0.3	0.3	0.3	0.2
LAM	0.6	0.7	0.8	0.8	0.7	0.6	0.7	0.7	0.8	0.9
MEA	0.5	0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1
NEU	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3
OAS	0.1	0.1	0.1	0.1	0.3	0.6	0.2	0.4	0.4	0.5
REF	1.4	1.9	1.8	1.9	1.6	1.1	0.7	0.5	0.9	0.9
SSA	0.6	1.0	1.1	1.0	1.1	1.2	1.2	1.3	1.6	2.2
USA	0.2	0.3	0.4	0.5	0.5	0.4	0.5	0.7	0.8	0.7

Table 610: FAO — Demand—Processing—Crops—Other crops (Mt DM/yr)

9.1.14
Other crops—Fruits Vegetables Nuts



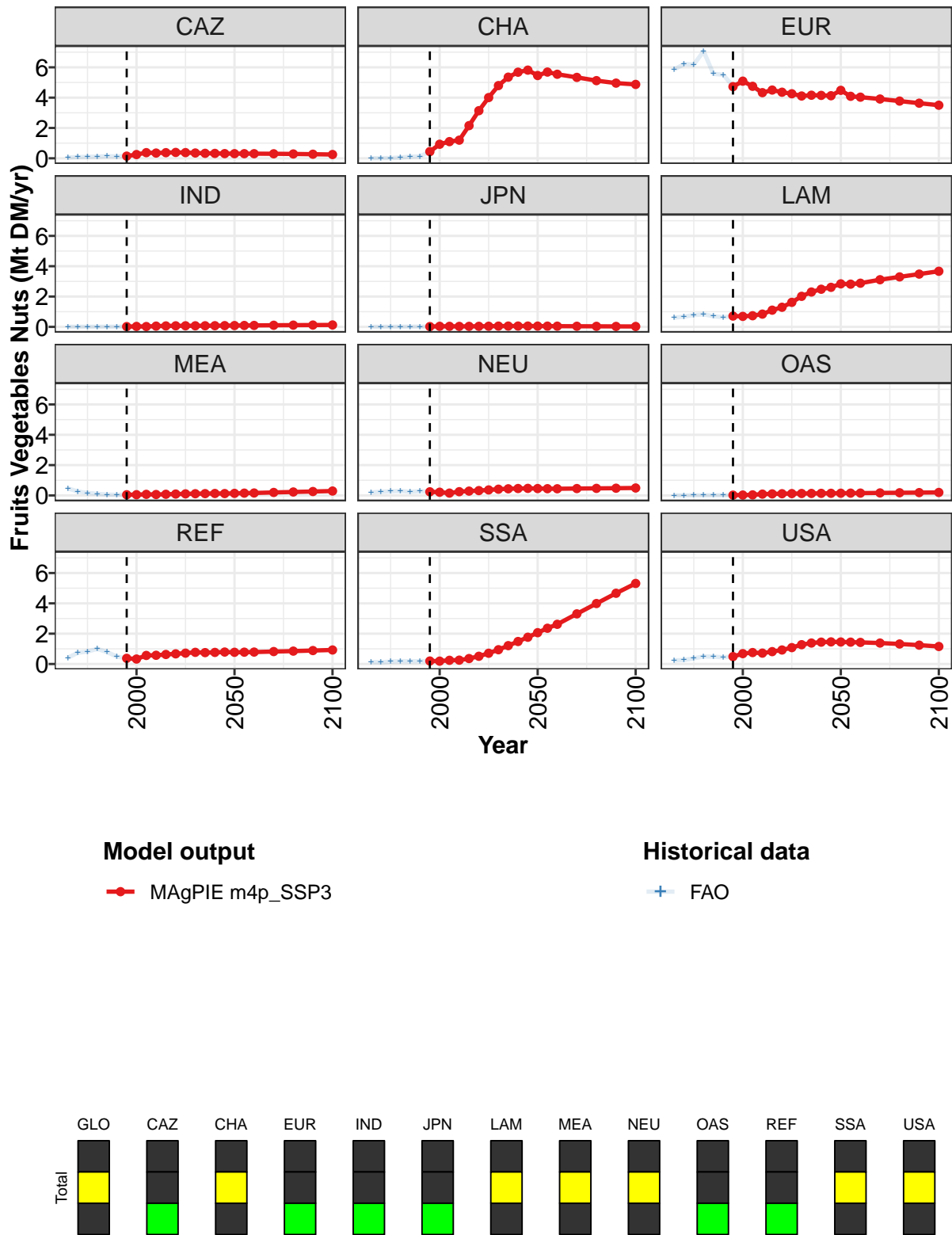


Figure 204: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.4	8.5	8.8	8.7	10.5	11.9	13.5	15.0	16.3	17.2	17.7
CAZ	0.1	0.2	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3
CHA	0.4	0.9	1.1	1.2	2.2	3.1	4.0	4.8	5.4	5.7	5.8
EUR	4.7	5.1	4.7	4.3	4.5	4.4	4.3	4.1	4.2	4.1	4.1
IND	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
LAM	0.7	0.7	0.7	0.8	1.1	1.3	1.6	2.0	2.3	2.5	2.6
MEA	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEU	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.5
OAS	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
REF	0.4	0.3	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8
SSA	0.2	0.2	0.2	0.3	0.4	0.5	0.7	0.9	1.2	1.5	1.8
USA	0.5	0.7	0.8	0.7	0.8	0.9	1.1	1.3	1.4	1.4	1.5

Table 611: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 1/2]

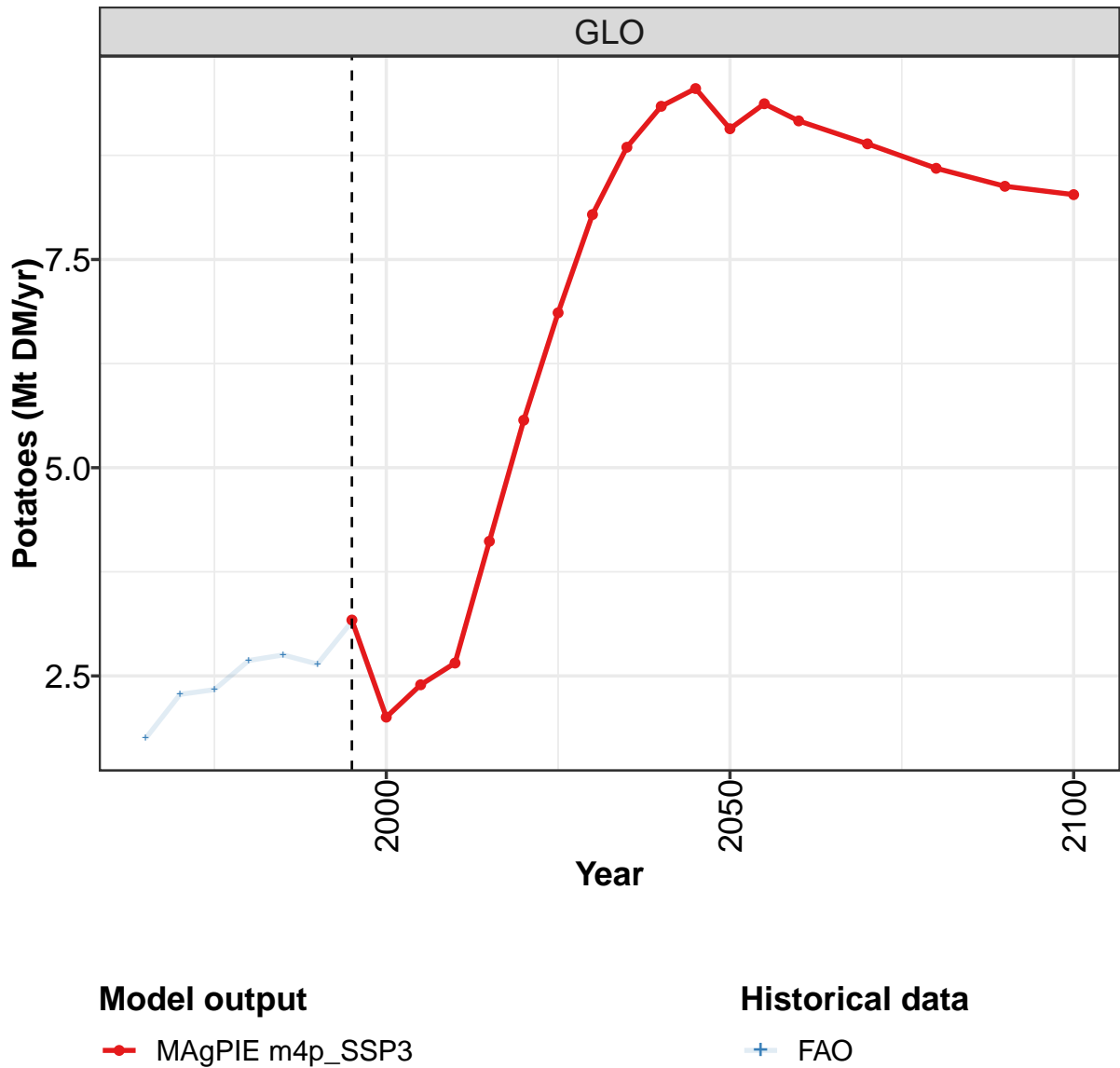
	2050	2055	2060	2070	2080	2090	2100
GLO	18.3	18.4	18.5	19.1	19.7	20.2	20.8
CAZ	0.3	0.3	0.3	0.3	0.3	0.3	0.2
CHA	5.5	5.7	5.5	5.3	5.1	5.0	4.9
EUR	4.5	4.1	4.0	3.9	3.8	3.6	3.5
IND	0.1	0.1	0.1	0.1	0.1	0.1	0.1
JPN	0.1	0.0	0.0	0.0	0.0	0.0	0.0
LAM	2.8	2.8	2.9	3.1	3.3	3.5	3.7
MEA	0.1	0.2	0.2	0.2	0.2	0.3	0.3
NEU	0.5	0.4	0.4	0.5	0.5	0.5	0.5
OAS	0.1	0.2	0.2	0.2	0.2	0.2	0.2
REF	0.8	0.8	0.8	0.8	0.9	0.9	0.9
SSA	2.1	2.4	2.6	3.3	4.0	4.7	5.3
USA	1.5	1.4	1.4	1.4	1.3	1.2	1.2

Table 612: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	8.0	8.6	8.9	10.2	8.3	7.9	7.5	8.5	8.8	8.7
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.3
CHA	0.0	0.0	0.0	0.1	0.1	0.1	0.4	0.9	1.1	1.2
EUR	5.9	6.2	6.2	7.1	5.6	5.5	4.8	5.2	4.7	4.3
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.6	0.7	0.8	0.8	0.7	0.6	0.7	0.7	0.8	0.9
MEA	0.5	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1
NEU	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2
OAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
REF	0.4	0.7	0.8	1.0	0.8	0.5	0.4	0.3	0.6	0.6
SSA	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
USA	0.2	0.3	0.4	0.5	0.5	0.4	0.5	0.7	0.8	0.7

Table 613: FAO — Demand—Processing—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

9.1.15 Other crops—Potatoes



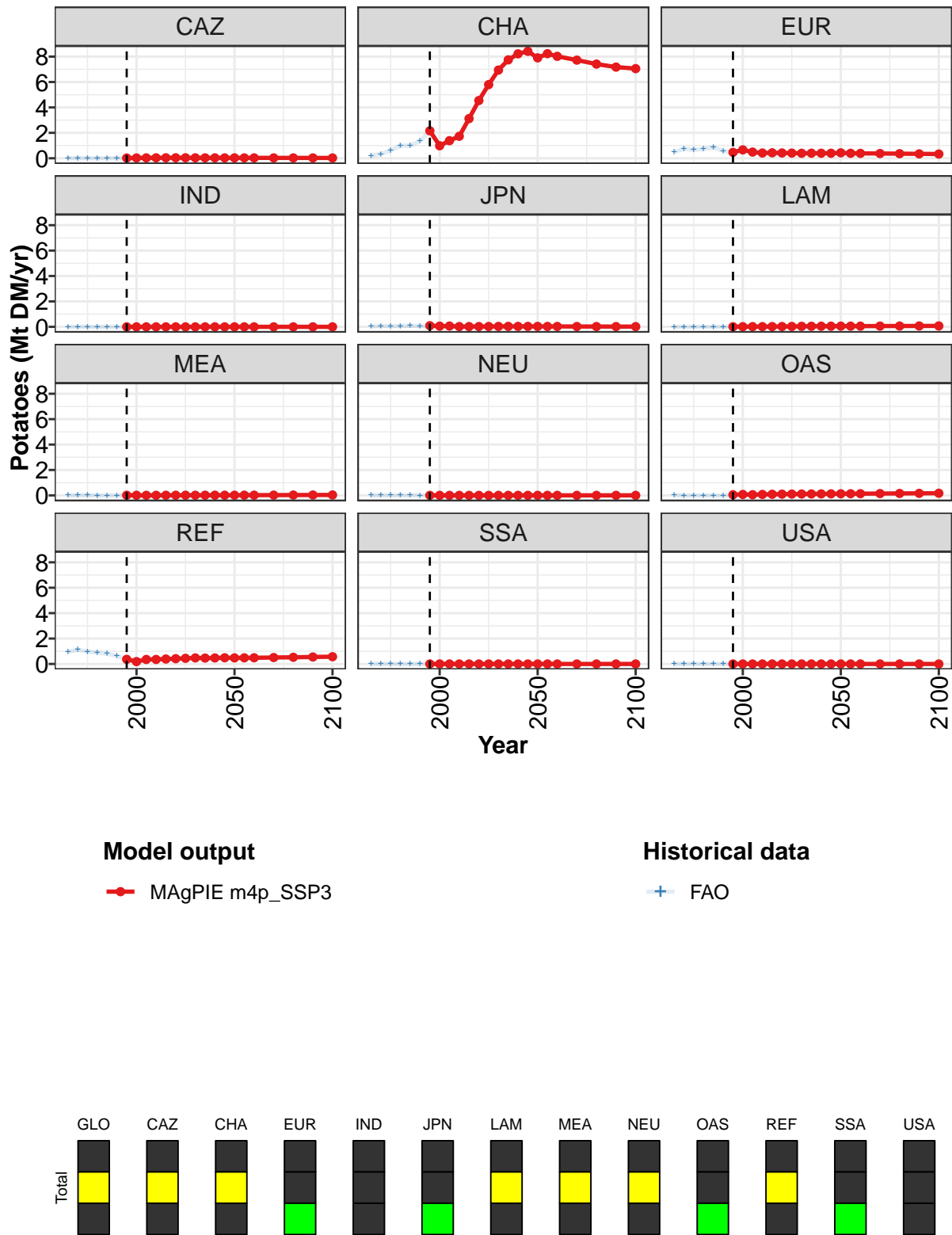


Figure 205: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.17	2.01	2.39	2.65	4.12	5.57	6.86	8.04	8.85	9.34	9.55
CAZ	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.03
CHA	2.16	0.98	1.38	1.73	3.12	4.54	5.80	6.94	7.75	8.22	8.42
EUR	0.46	0.66	0.49	0.41	0.43	0.42	0.41	0.39	0.40	0.40	0.39
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.09	0.05	0.06	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03
LAM	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05
MEA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.05	0.07	0.05	0.08	0.09	0.10	0.11	0.11	0.11	0.12	0.12
REF	0.36	0.19	0.36	0.36	0.39	0.41	0.44	0.48	0.47	0.47	0.49
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 614: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

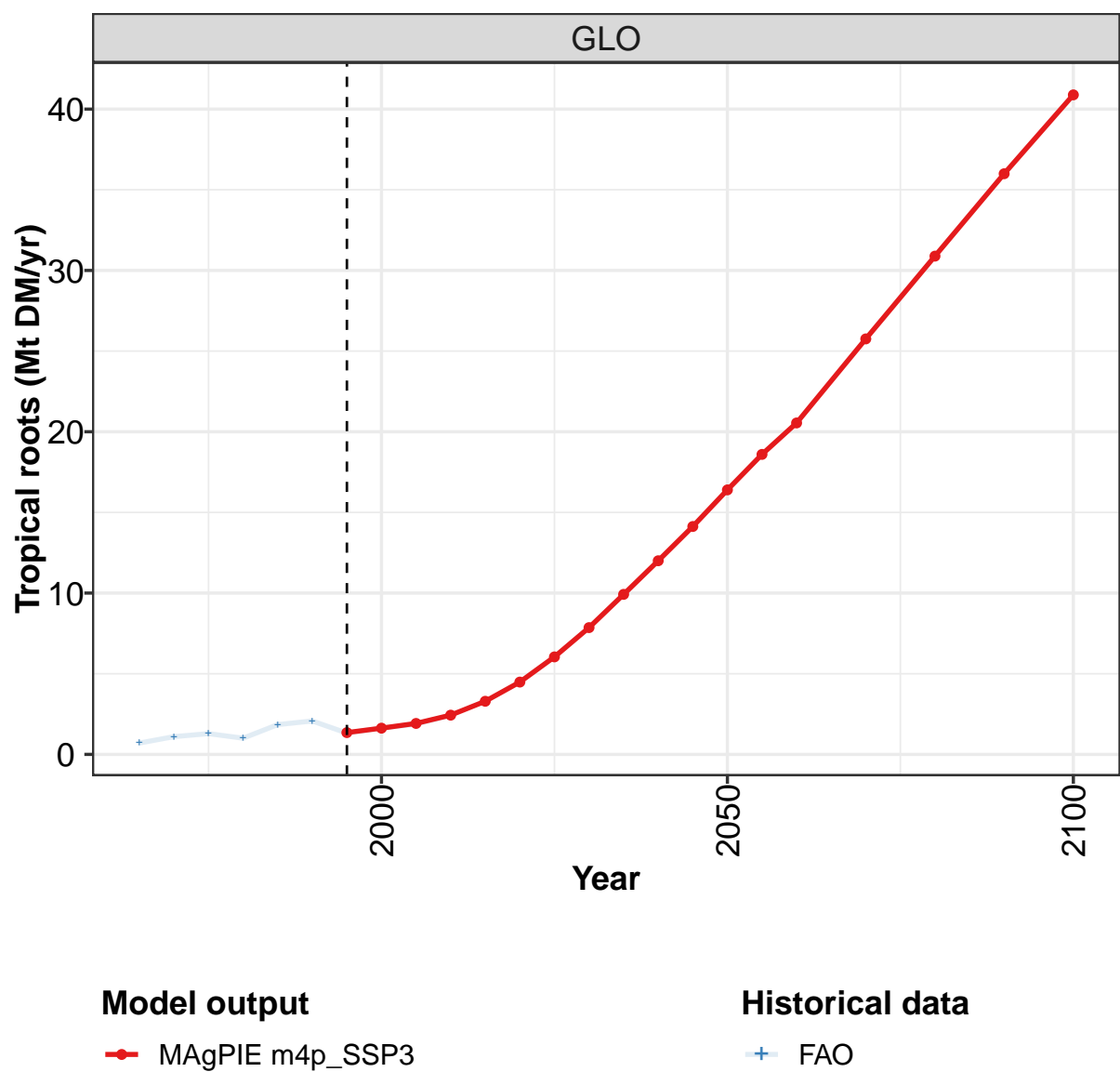
	2050	2055	2060	2070	2080	2090	2100
GLO	9.07	9.37	9.16	8.89	8.59	8.38	8.28
CAZ	0.03	0.03	0.03	0.03	0.03	0.03	0.02
CHA	7.90	8.23	8.02	7.72	7.41	7.18	7.05
EUR	0.43	0.39	0.38	0.37	0.36	0.35	0.33
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.03	0.03	0.03	0.03	0.02	0.02	0.02
LAM	0.06	0.05	0.06	0.06	0.06	0.07	0.07
MEA	0.02	0.02	0.02	0.02	0.03	0.03	0.03
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.13	0.13	0.13	0.14	0.15	0.16	0.17
REF	0.48	0.48	0.49	0.51	0.53	0.55	0.57
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 615: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Other crops—Potatoes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.75	2.28	2.34	2.69	2.75	2.64	3.15	2.00	2.38	2.66
CAZ	0.01	0.01	0.00	0.00	0.01	0.00	0.02	0.02	0.03	0.03
CHA	0.20	0.33	0.60	0.99	0.99	1.34	2.14	0.97	1.37	1.74
EUR	0.51	0.73	0.66	0.72	0.85	0.58	0.47	0.67	0.48	0.41
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.04	0.07	0.05	0.07	0.09	0.07	0.09	0.05	0.06	0.02
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02
MEA	0.01	0.01	0.02	0.00	0.00	0.00	0.01	0.01	0.01	0.01
NEU	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
OAS	0.02	0.00	0.00	0.00	0.00	0.00	0.05	0.07	0.05	0.07
REF	0.95	1.12	0.99	0.88	0.81	0.63	0.36	0.19	0.36	0.36
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 616: FAO — Demand—Processing—Crops—Other crops—Potatoes (Mt DM/yr)

9.1.16
Other crops—Tropical roots



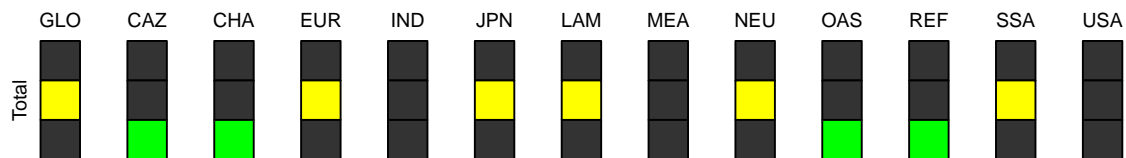
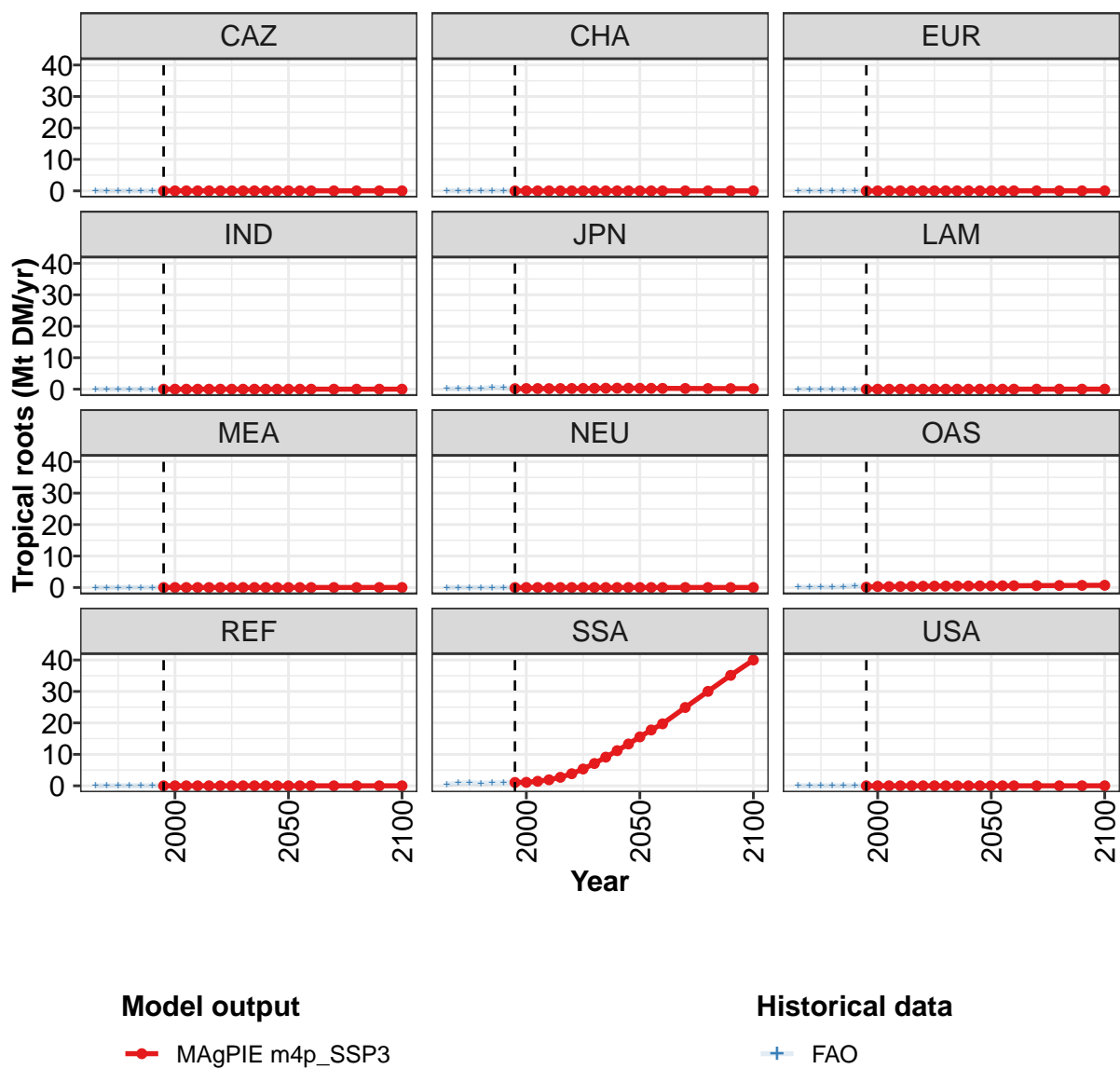


Figure 206: MAGPIE m4p_SSP3 — Demand—Processing—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.4	1.6	1.9	2.4	3.3	4.5	6.0	7.9	9.9	12.0	14.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.1	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	1.1	1.1	1.4	1.9	2.7	3.8	5.3	7.1	9.1	11.2	13.3
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 617: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Other crops—Tropical roots (Mt DM/yr)
[PART 1/2]

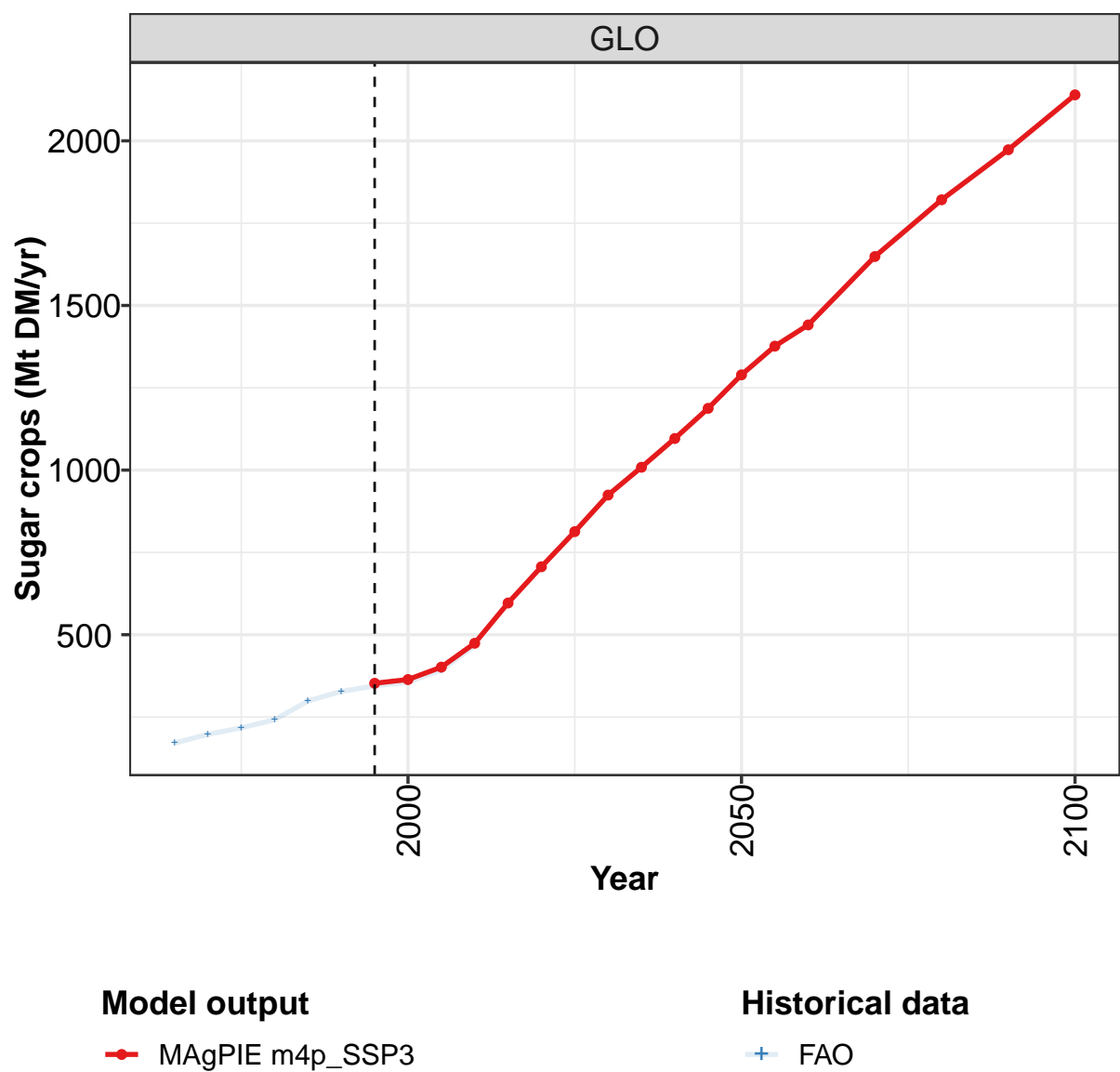
	2050	2055	2060	2070	2080	2090	2100
GLO	16.4	18.6	20.5	25.8	30.9	36.0	40.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.3	0.3	0.3	0.2	0.2	0.2	0.1
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.5	0.5	0.6	0.6	0.6	0.7	0.7
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	15.6	17.8	19.7	24.9	30.0	35.1	40.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 618: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Other crops—Tropical roots (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.70	1.10	1.29	1.00	1.84	2.07	1.32	1.63	1.87	2.43
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.15	0.16	0.18	0.13	0.66	0.43	0.16	0.20	0.19	0.18
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.10	0.09	0.14	0.06	0.25	0.60	0.11	0.31	0.28	0.31
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.46	0.85	0.97	0.81	0.93	1.04	1.04	1.12	1.39	1.91
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 619: FAO — Demand—Processing—Crops—Other crops—Tropical roots (Mt DM/yr)

9.1.17 Sugar crops



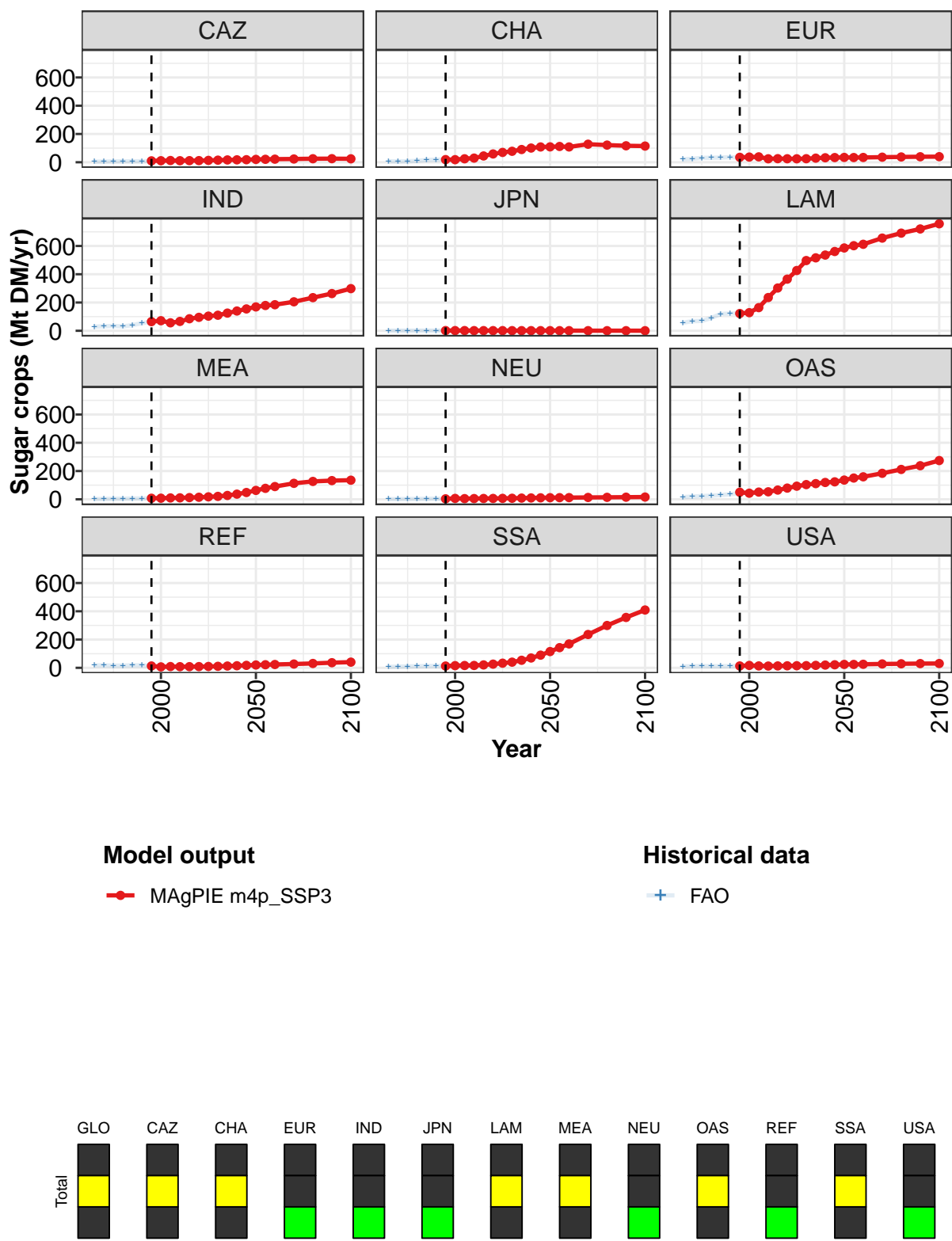


Figure 207: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	353	364	402	474	596	706	813	924	1009	1096	1188
CAZ	10	11	12	11	11	12	13	15	17	17	18
CHA	19	18	25	29	45	59	70	78	90	101	108
EUR	35	37	38	25	25	25	24	25	29	32	33
IND	65	71	56	66	85	95	104	110	125	140	155
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	122	128	164	235	303	365	426	497	516	536	561
MEA	8	8	10	10	12	15	17	21	27	37	48
NEU	3	6	5	5	6	6	7	7	9	10	11
OAS	50	43	51	53	66	79	93	104	111	119	124
REF	13	7	9	8	8	9	10	11	13	15	17
SSA	13	16	17	17	21	26	33	40	53	70	90
USA	13	17	13	13	14	14	15	15	17	20	22

Table 620: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

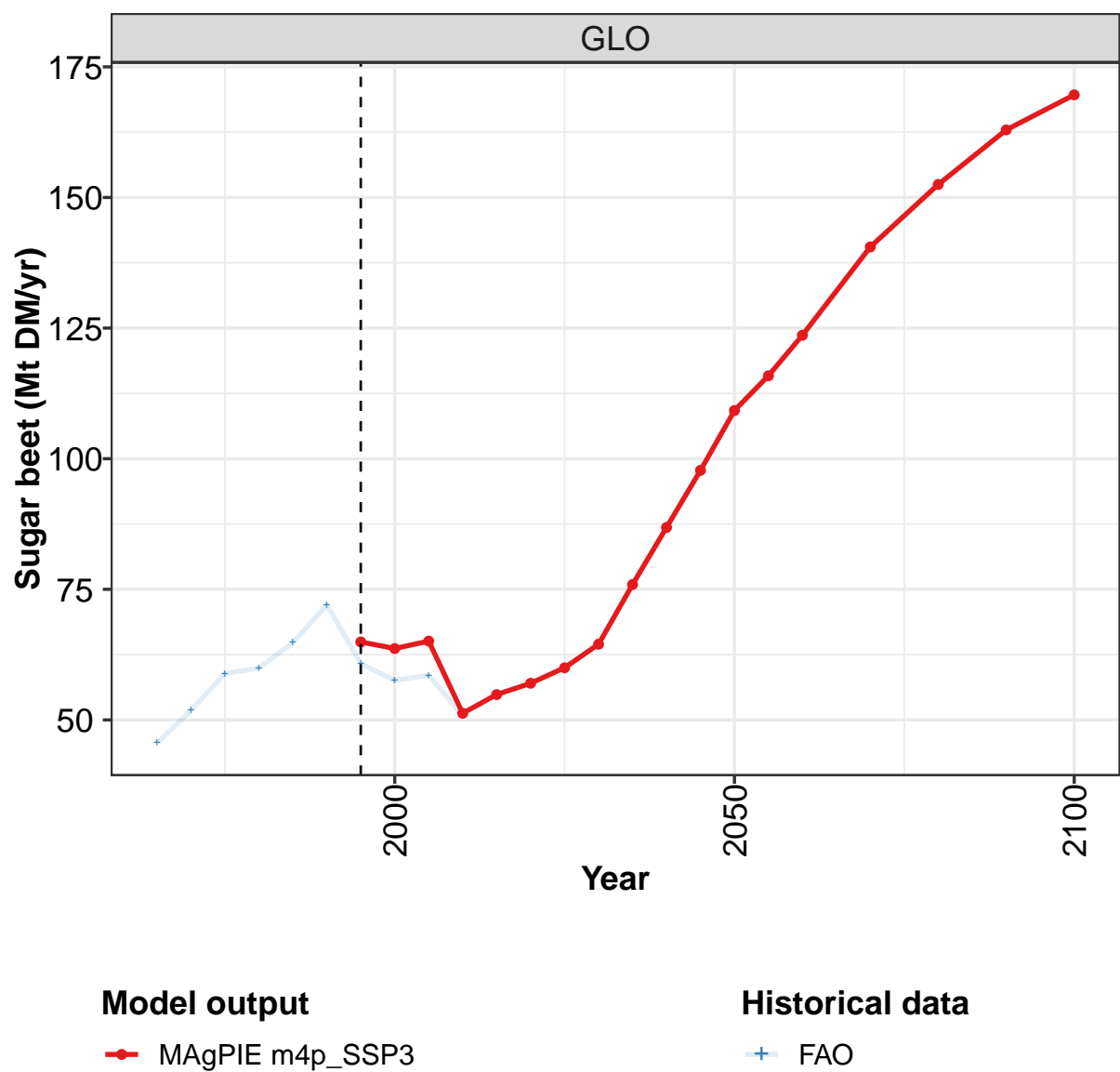
	2050	2055	2060	2070	2080	2090	2100
GLO	1289	1376	1441	1649	1821	1973	2140
CAZ	20	21	22	23	25	25	24
CHA	109	112	108	128	121	117	115
EUR	34	33	34	36	38	39	40
IND	169	179	184	205	235	263	298
JPN	1	1	1	1	1	1	1
LAM	586	602	612	656	691	720	757
MEA	63	78	90	113	127	132	135
NEU	11	12	12	13	14	15	16
OAS	136	150	159	184	211	238	274
REF	20	22	24	27	31	36	40
SSA	115	143	169	236	300	356	409
USA	24	24	25	27	29	30	31

Table 621: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Sugar crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	171	197	217	242	299	328	345	356	393	467
CAZ	4	5	6	7	7	7	10	10	10	9
CHA	7	6	7	10	16	19	19	18	25	30
EUR	21	24	31	32	33	36	32	32	32	24
IND	29	32	34	31	40	54	65	71	56	66
JPN	1	1	1	1	2	1	1	1	1	1
LAM	57	68	70	90	119	121	124	127	169	235
MEA	2	3	4	4	6	6	8	8	10	10
NEU	1	2	2	3	4	5	3	5	5	5
OAS	16	19	23	25	30	35	44	43	46	50
REF	17	18	15	16	18	18	12	7	9	8
SSA	6	9	10	11	13	13	13	16	17	16
USA	10	11	13	11	11	12	13	17	13	13

Table 622: FAO — Demand—Processing—Crops—Sugar crops (Mt DM/yr)

9.1.18
Sugar crops—Sugar beet



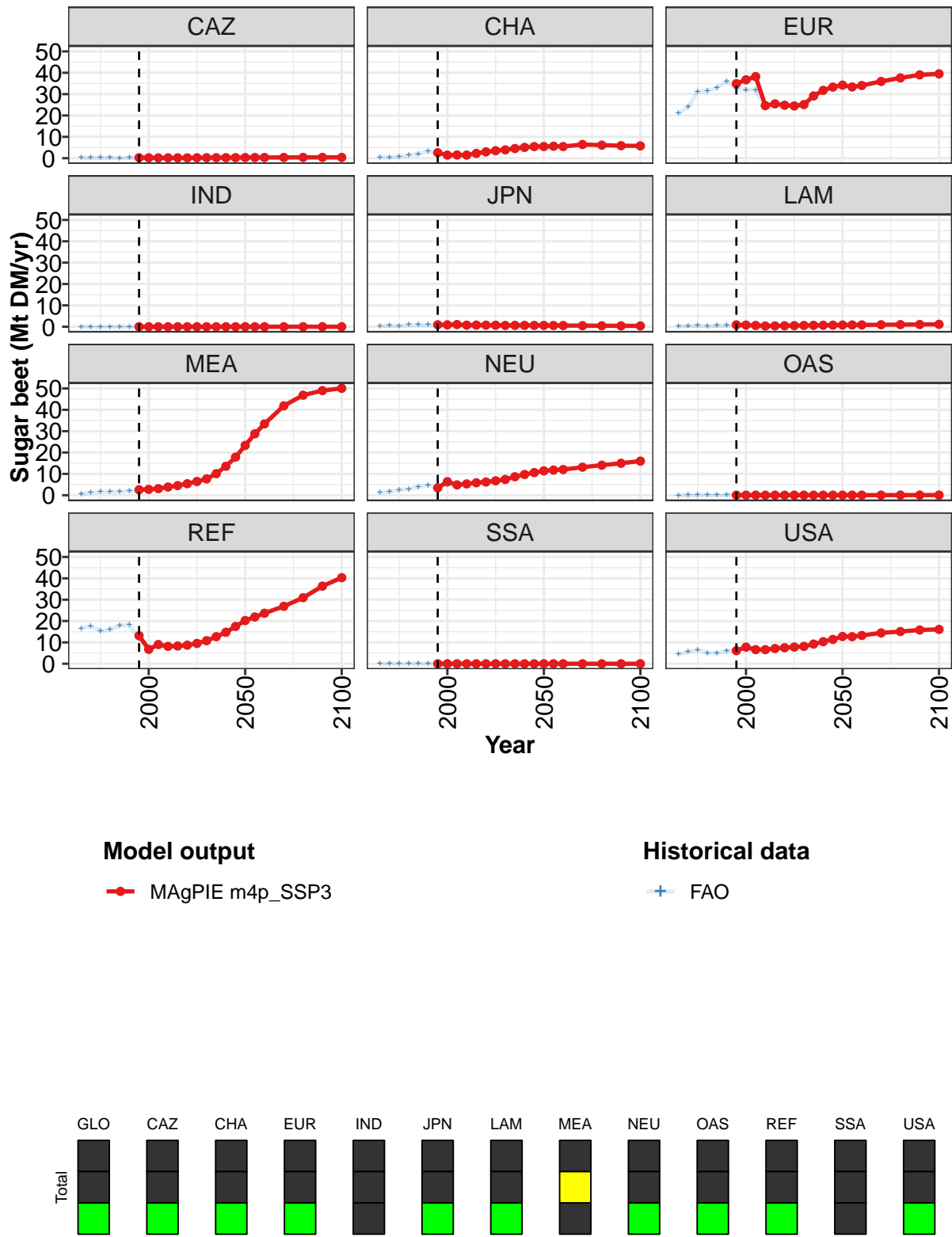


Figure 208: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	65	64	65	51	55	57	60	65	76	87	98
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	3	1	2	1	2	3	4	4	5	5	5
EUR	35	37	38	25	25	25	24	25	29	32	33
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	1	1	1	0	0	0	1	1	1	1	1
MEA	3	3	3	4	5	5	6	8	10	14	18
NEU	3	6	5	5	6	6	7	7	9	10	11
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	13	7	9	8	8	9	10	11	13	15	17
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	6	8	7	7	7	8	8	8	9	10	11

Table 623: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

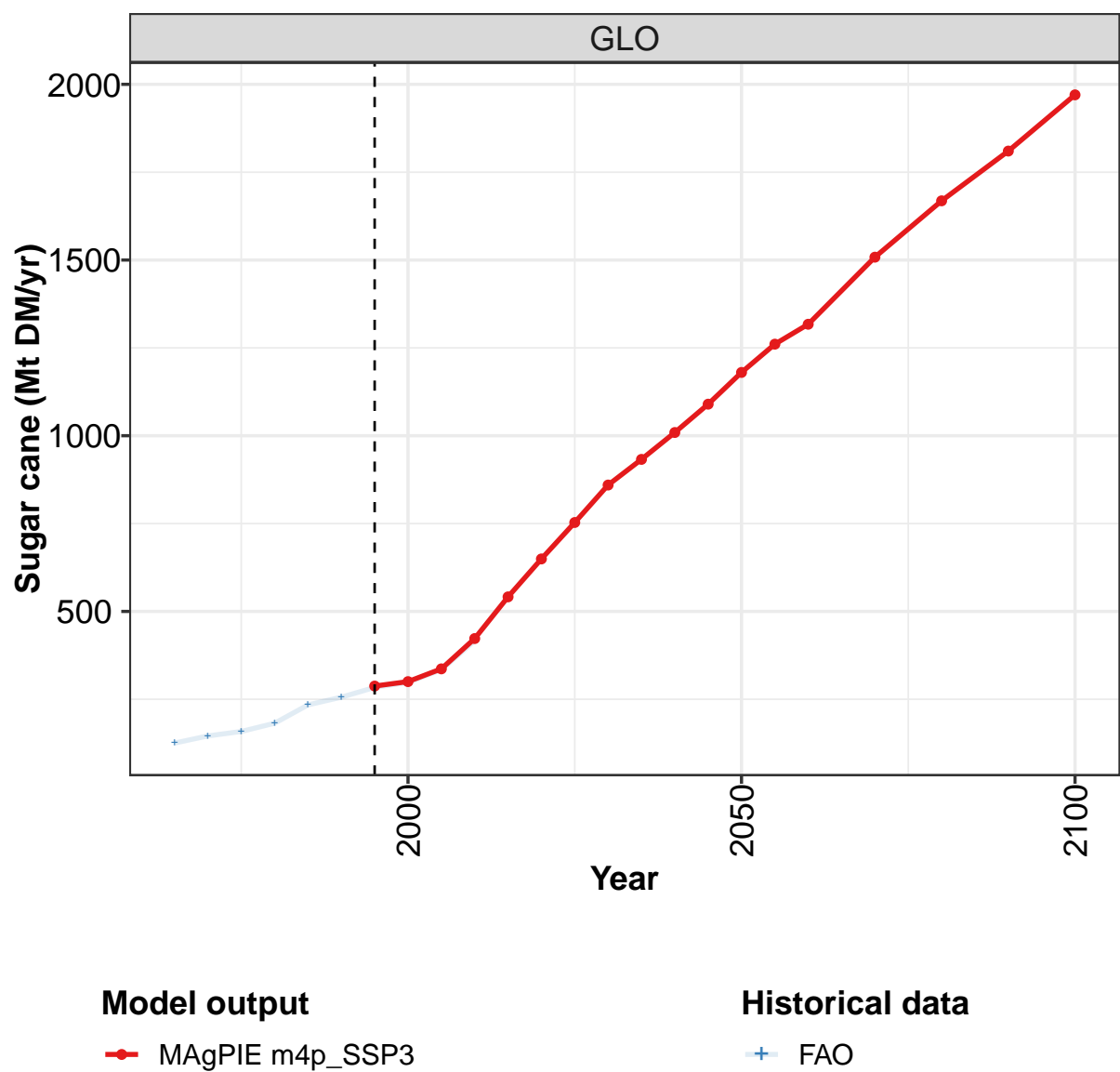
	2050	2055	2060	2070	2080	2090	2100
GLO	109	116	124	141	152	163	170
CAZ	0	0	0	0	0	0	0
CHA	5	6	5	6	6	6	6
EUR	34	33	34	36	38	39	39
IND	0	0	0	0	0	0	0
JPN	1	1	1	1	0	0	0
LAM	1	1	1	1	1	1	1
MEA	23	29	33	42	47	49	50
NEU	11	12	12	13	14	15	16
OAS	0	0	0	0	0	0	0
REF	20	22	24	27	31	36	40
SSA	0	0	0	0	0	0	0
USA	13	13	13	14	15	16	16

Table 624: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	45.6	51.8	58.9	59.9	64.8	72.0	60.8	57.6	58.5	50.9
CAZ	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1
CHA	0.5	0.5	0.6	1.4	1.9	3.2	2.6	1.5	1.5	1.5
EUR	21.1	24.0	31.1	31.7	32.8	36.1	32.4	32.0	31.9	24.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.4	0.6	0.4	0.9	0.9	1.0	0.9	0.9	1.0	0.7
LAM	0.3	0.5	0.5	0.2	0.6	0.6	0.9	0.7	0.6	0.3
MEA	0.5	1.3	1.7	1.5	1.8	1.9	2.5	2.7	3.0	3.8
NEU	1.4	1.7	2.5	2.9	3.8	4.8	3.3	5.1	4.7	5.4
OAS	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0
REF	16.6	17.6	15.2	16.0	17.9	18.2	11.7	6.6	9.1	8.1
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	4.5	5.5	6.5	5.1	4.9	6.0	6.1	7.8	6.6	7.0

Table 625: FAO — Demand—Processing—Crops—Sugar crops—Sugar beet (Mt DM/yr)

9.1.19 Sugar crops—Sugar cane



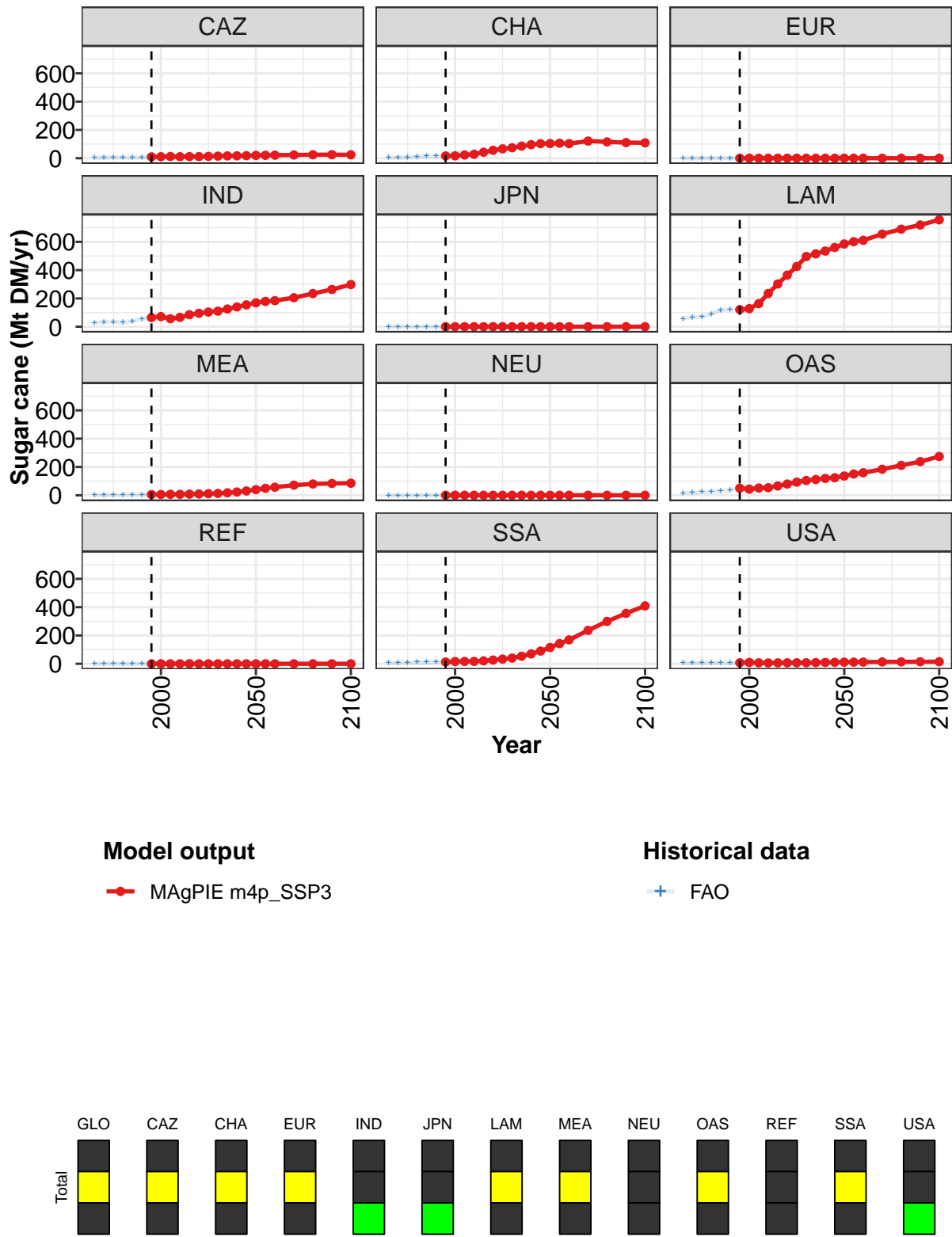


Figure 209: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	288	300	337	423	541	649	753	860	933	1009	1090
CAZ	10	11	12	11	11	12	13	15	16	17	18
CHA	16	17	23	28	42	56	66	74	86	96	103
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	65	71	56	66	85	95	104	110	125	140	155
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	121	128	163	235	302	365	426	496	515	535	560
MEA	5	5	7	7	8	9	11	13	17	23	30
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	50	43	51	53	66	79	93	104	111	119	124
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	13	16	17	17	21	26	33	40	53	70	90
USA	7	9	7	6	6	7	7	7	8	9	10

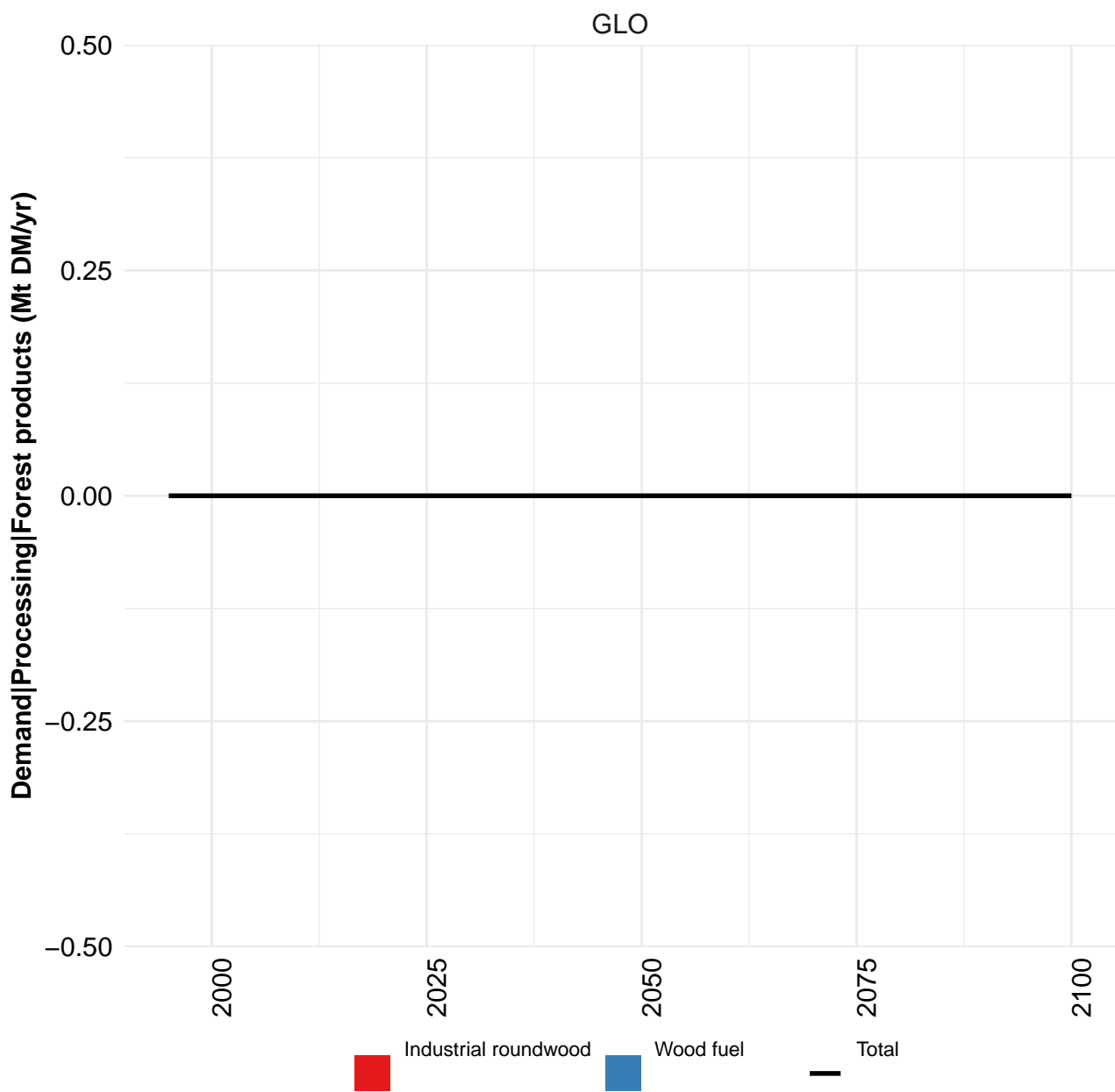
Table 626: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 1/2]

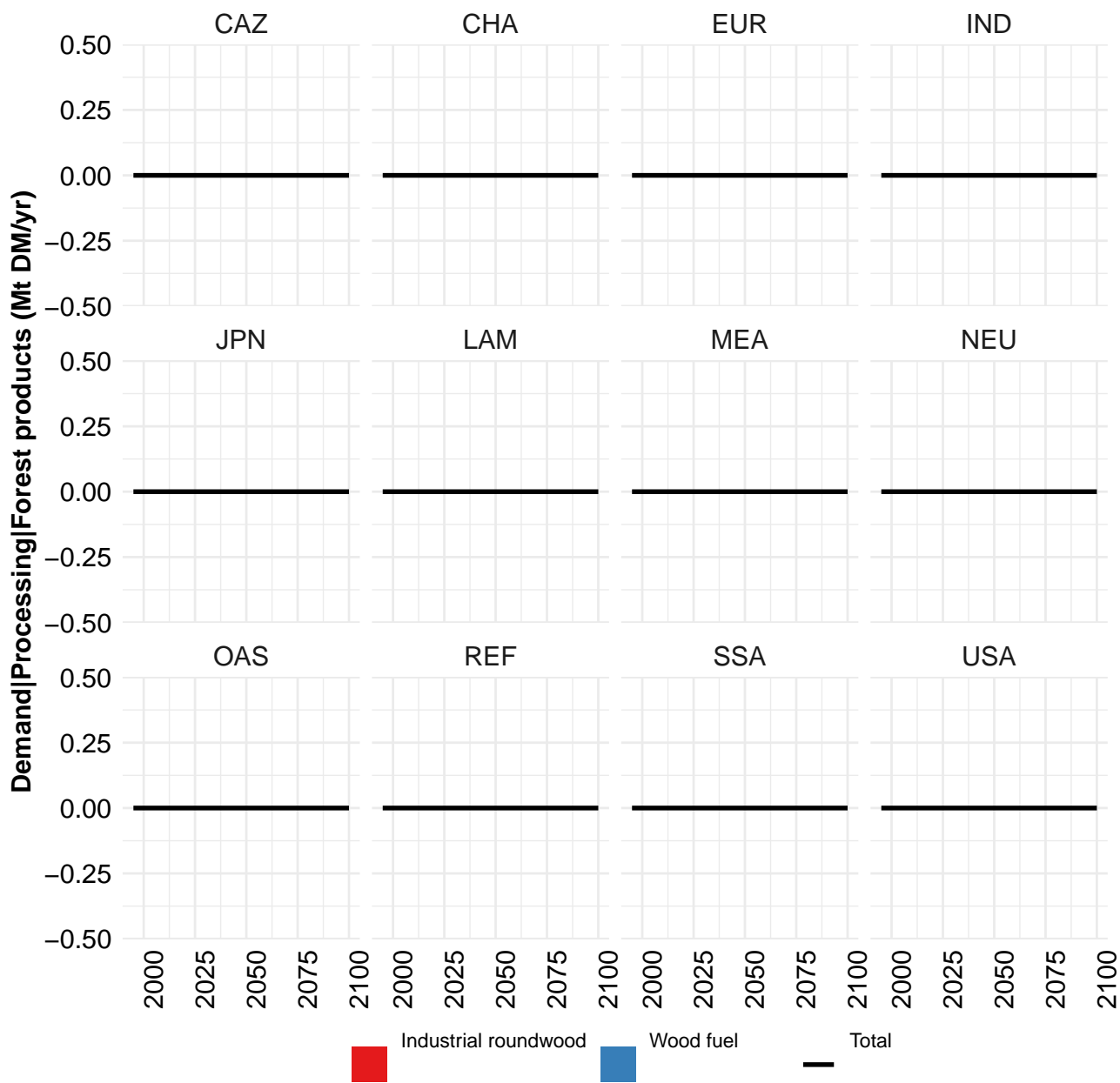
	2050	2055	2060	2070	2080	2090	2100
GLO	1180	1261	1317	1508	1669	1810	1970
CAZ	20	21	22	23	25	25	24
CHA	104	106	103	121	115	111	109
EUR	0	0	0	0	0	0	0
IND	169	179	184	205	235	263	298
JPN	0	0	0	0	0	0	0
LAM	585	601	611	655	690	719	756
MEA	40	49	57	71	80	83	85
NEU	0	0	0	0	0	0	0
OAS	136	150	159	184	211	238	274
REF	0	0	0	0	0	0	0
SSA	115	143	169	236	300	356	409
USA	11	11	12	13	14	14	14

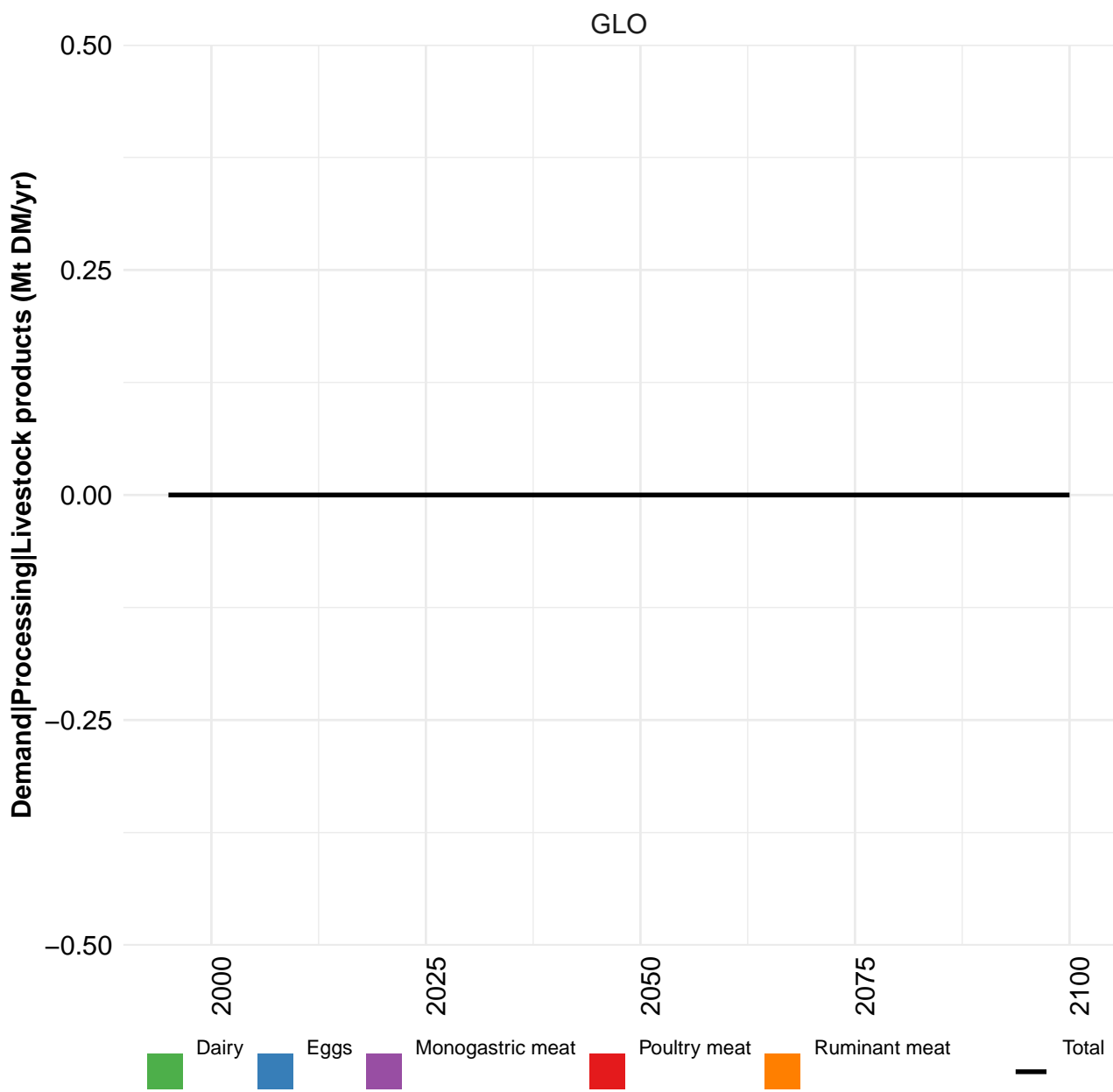
Table 627: MAgPIE m4p_SSP3 — Demand—Processing—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 2/2]

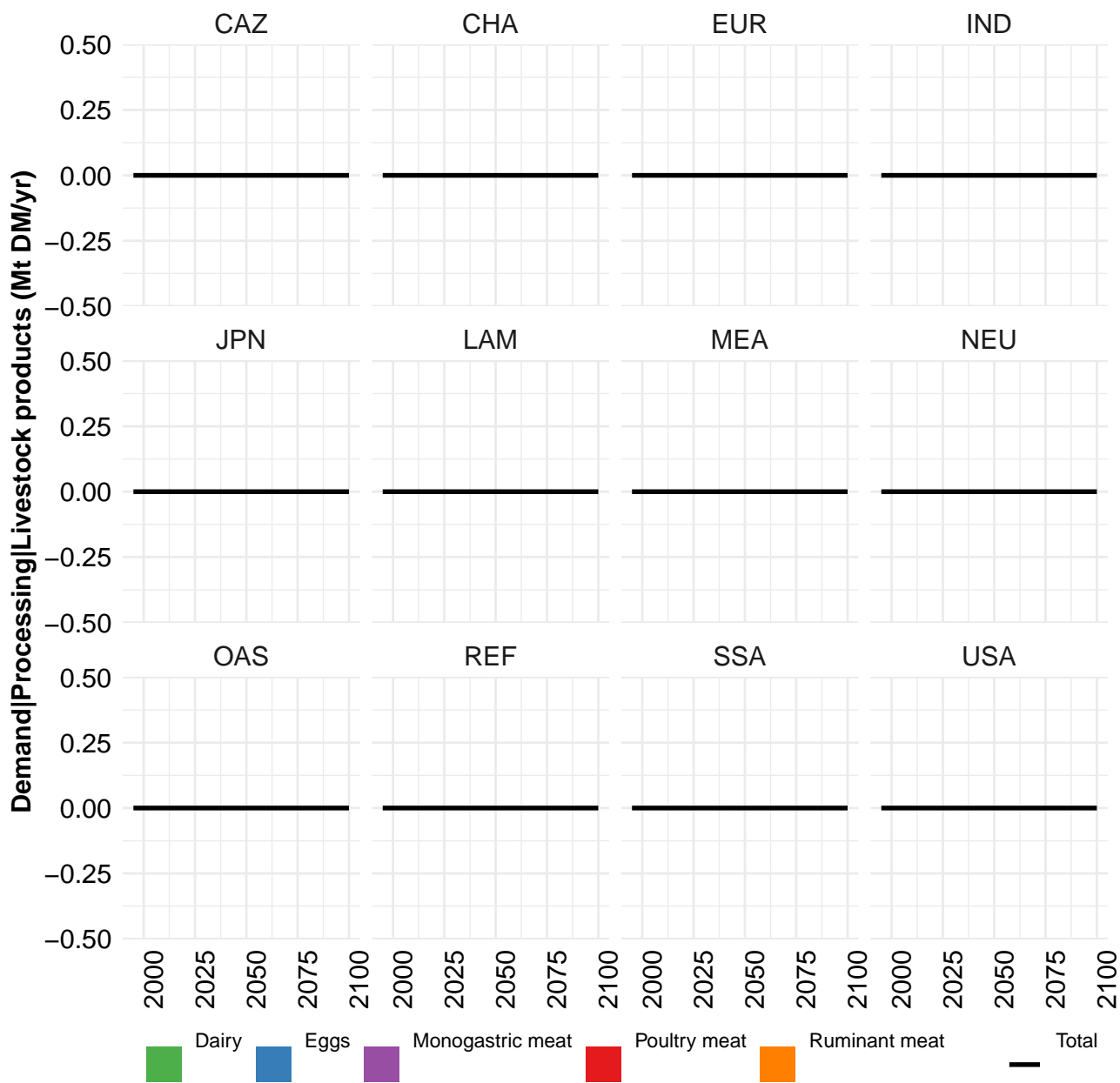
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	125	146	158	182	234	256	284	298	334	417
CAZ	4	5	6	6	7	7	9	10	10	8
CHA	6	5	6	8	14	15	16	17	23	28
EUR	0	0	0	0	0	0	0	0	0	0
IND	29	32	34	31	40	54	65	71	56	66
JPN	1	1	1	1	1	1	0	0	0	0
LAM	56	68	69	90	119	121	123	126	168	235
MEA	1	2	2	3	4	4	5	5	7	6
NEU	0	0	0	0	0	0	0	0	0	0
OAS	16	19	23	25	30	35	44	43	46	50
REF	0	0	0	0	0	0	0	0	0	0
SSA	6	9	10	11	13	13	13	16	17	16
USA	6	6	7	6	7	6	7	9	7	6

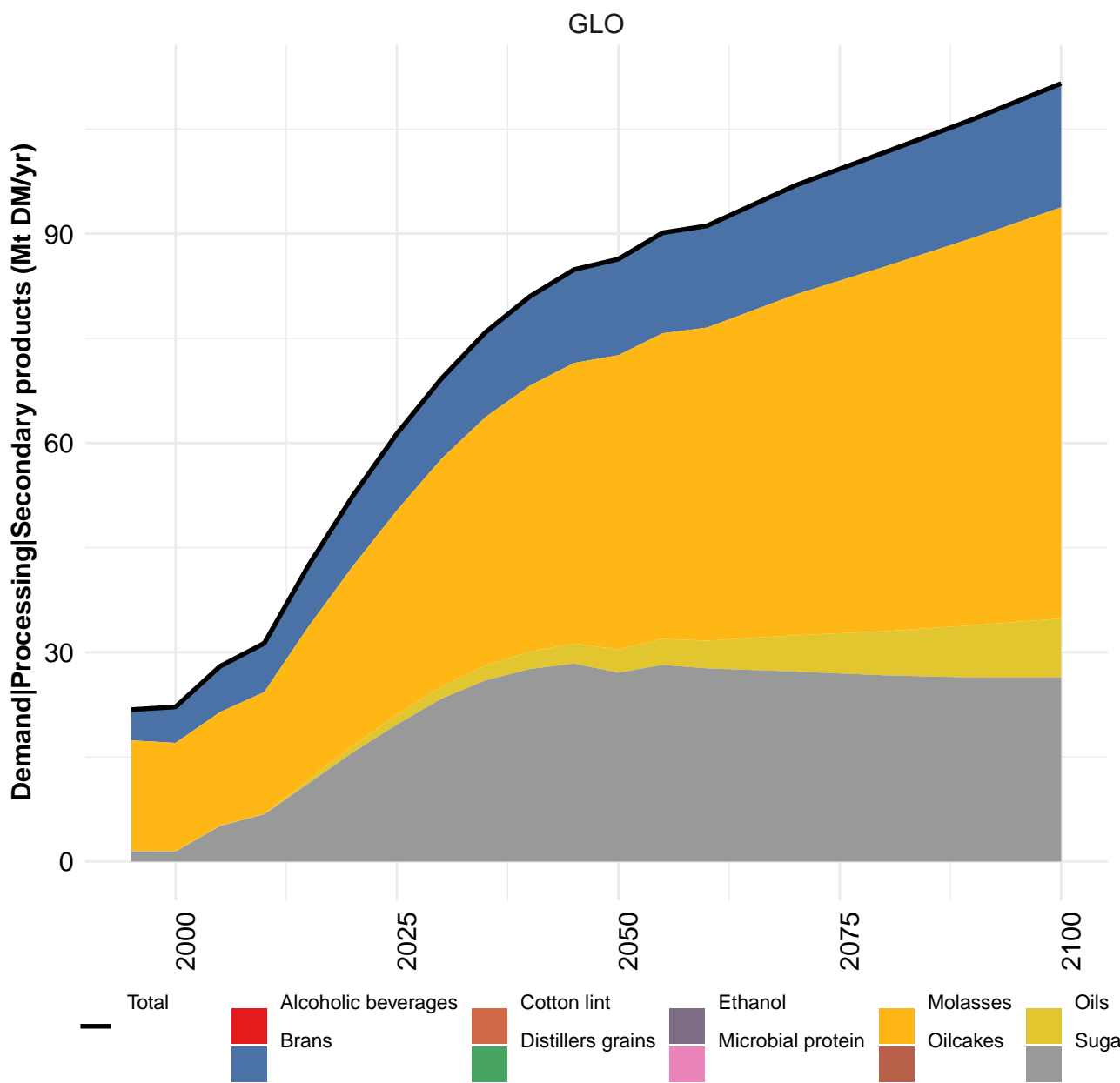
Table 628: FAO — Demand—Processing—Crops—Sugar crops—Sugar cane (Mt DM/yr)

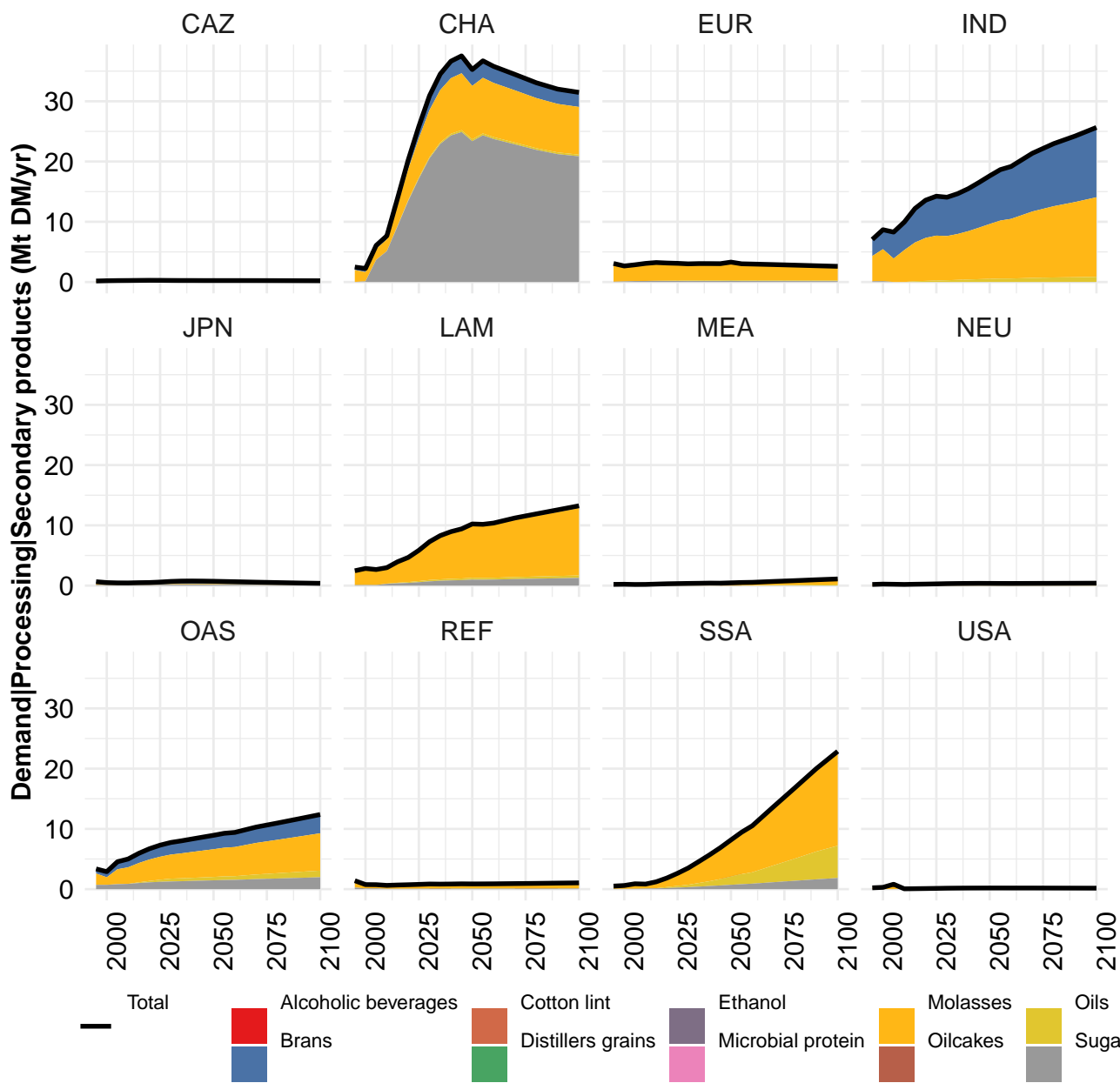




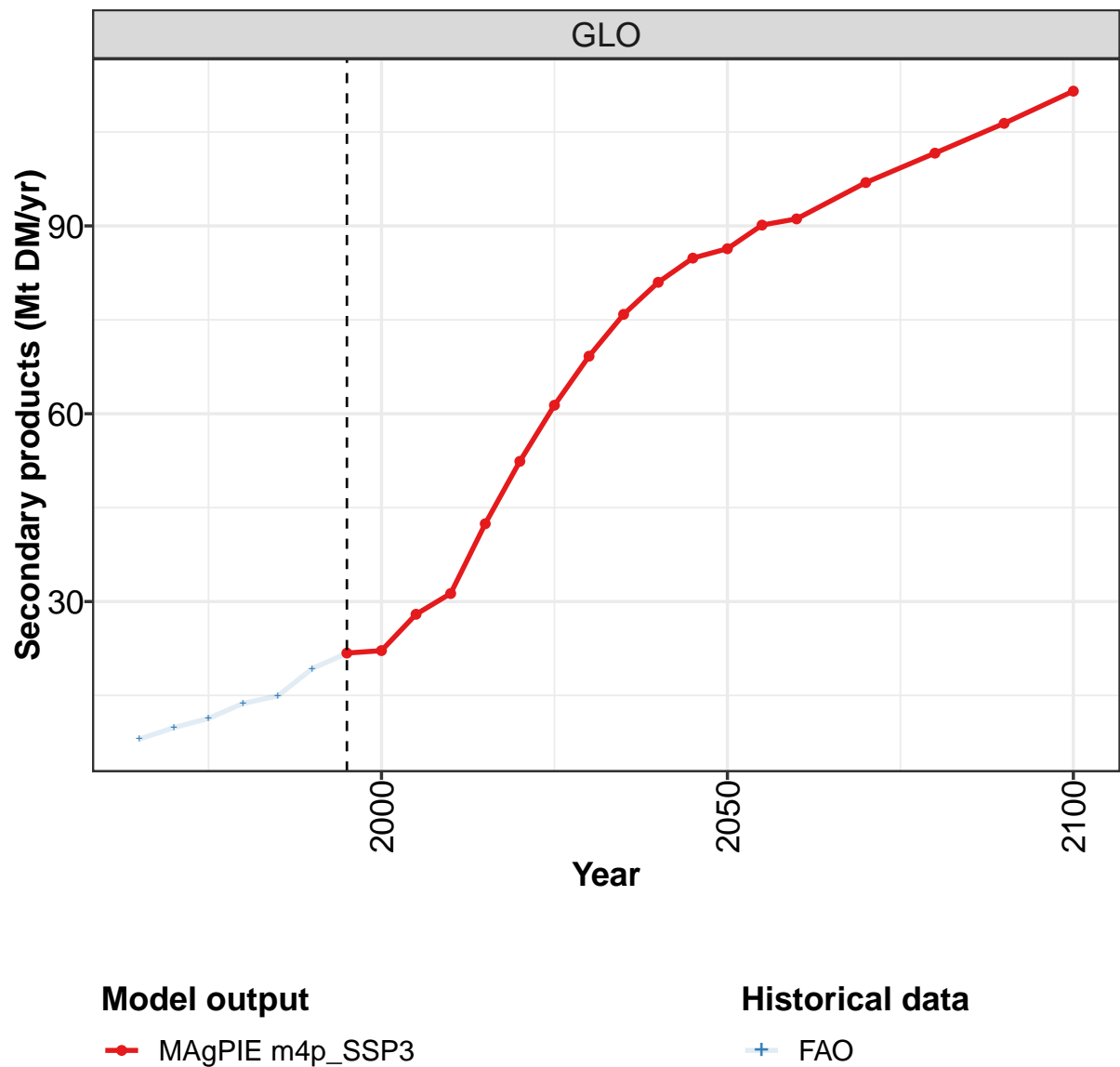








9.2 Secondary products



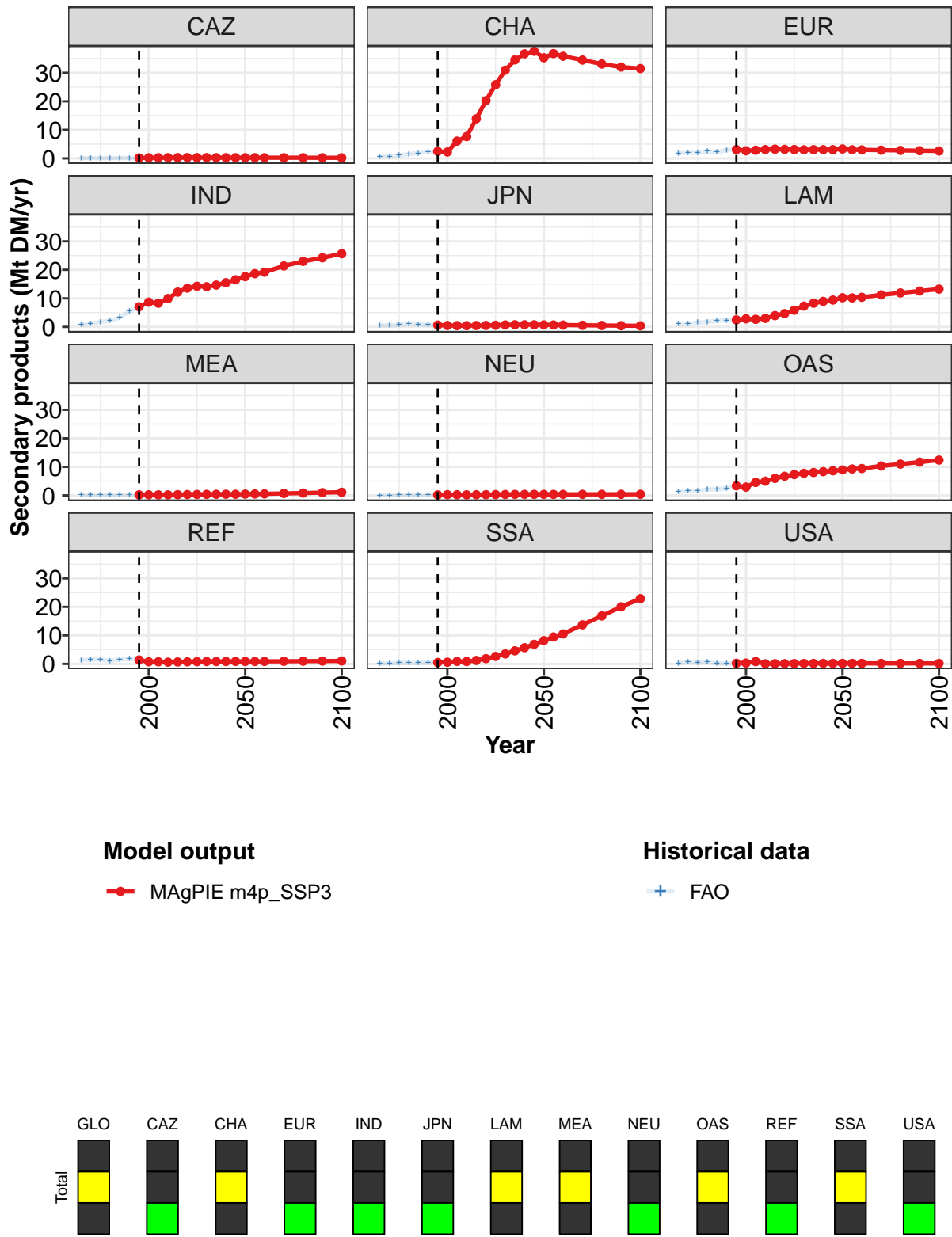


Figure 210: MAgPIE m4p_SSP3 — Demand—Processing—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	22	22	28	31	42	52	61	69	76	81	85
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	2	2	6	8	14	20	26	31	35	37	38
EUR	3	3	3	3	3	3	3	3	3	3	3
IND	7	9	8	10	12	14	14	14	15	15	17
JPN	1	0	0	0	0	1	1	1	1	1	1
LAM	2	3	3	3	4	5	6	7	8	9	9
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	3	3	5	5	6	7	7	8	8	8	9
REF	1	1	1	1	1	1	1	1	1	1	1
SSA	1	1	1	1	1	2	3	4	5	6	7
USA	0	0	1	0	0	0	0	0	0	0	0

Table 629: MAgPIE m4p_SSP3 — Demand—Processing—Secondary products (Mt DM/yr) [PART 1/2]

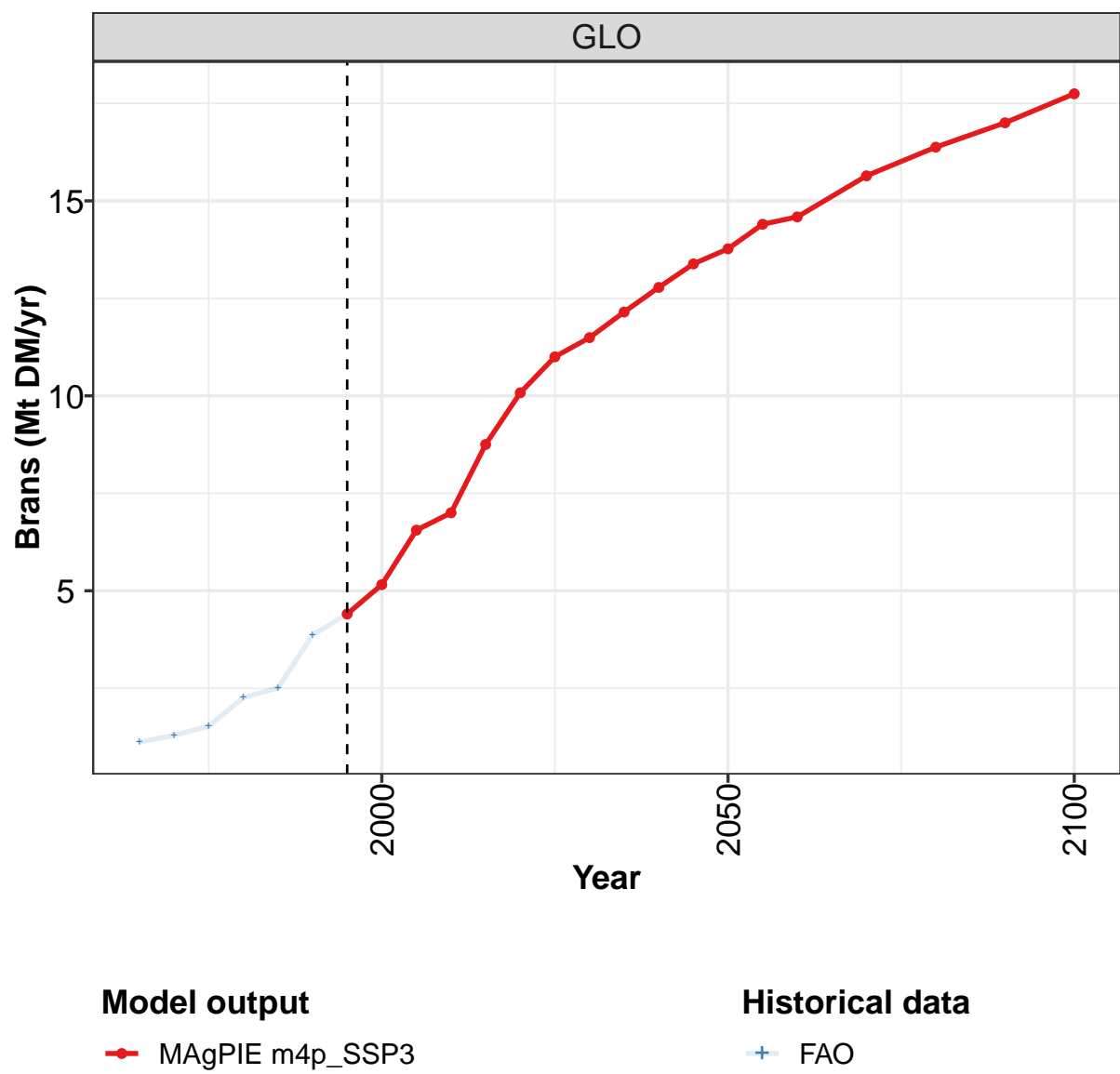
	2050	2055	2060	2070	2080	2090	2100
GLO	86	90	91	97	102	106	112
CAZ	0	0	0	0	0	0	0
CHA	35	37	36	34	33	32	31
EUR	3	3	3	3	3	3	3
IND	18	19	19	21	23	24	26
JPN	1	1	1	1	0	0	0
LAM	10	10	10	11	12	13	13
MEA	0	1	1	1	1	1	1
NEU	0	0	0	0	0	0	0
OAS	9	9	9	10	11	12	12
REF	1	1	1	1	1	1	1
SSA	8	9	11	14	17	20	23
USA	0	0	0	0	0	0	0

Table 630: MAgPIE m4p_SSP3 — Demand—Processing—Secondary products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	8.0	9.9	11.3	13.7	14.9	19.3	21.7	22.1	28.0	31.3
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3
CHA	0.6	0.7	1.0	1.5	1.8	2.3	2.4	2.2	6.0	7.7
EUR	1.8	1.9	1.9	2.6	2.2	3.0	3.1	2.7	2.8	3.0
IND	0.8	1.2	1.7	2.2	3.2	5.5	7.1	8.7	8.3	9.9
JPN	0.5	0.6	0.8	1.0	0.9	0.8	0.6	0.5	0.4	0.4
LAM	1.0	1.1	1.5	1.7	2.2	2.3	2.4	2.7	2.8	3.1
MEA	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2
NEU	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
OAS	1.2	1.6	1.6	2.1	2.2	2.5	3.4	2.9	4.6	4.9
REF	1.3	1.5	1.5	1.1	1.5	1.9	1.4	0.8	0.7	0.6
SSA	0.2	0.2	0.4	0.4	0.3	0.5	0.5	0.6	0.9	0.8
USA	0.3	0.6	0.6	0.7	0.2	0.2	0.2	0.3	0.8	0.1

Table 631: FAO — Demand—Processing—Secondary products (Mt DM/yr)

9.2.1
Brans



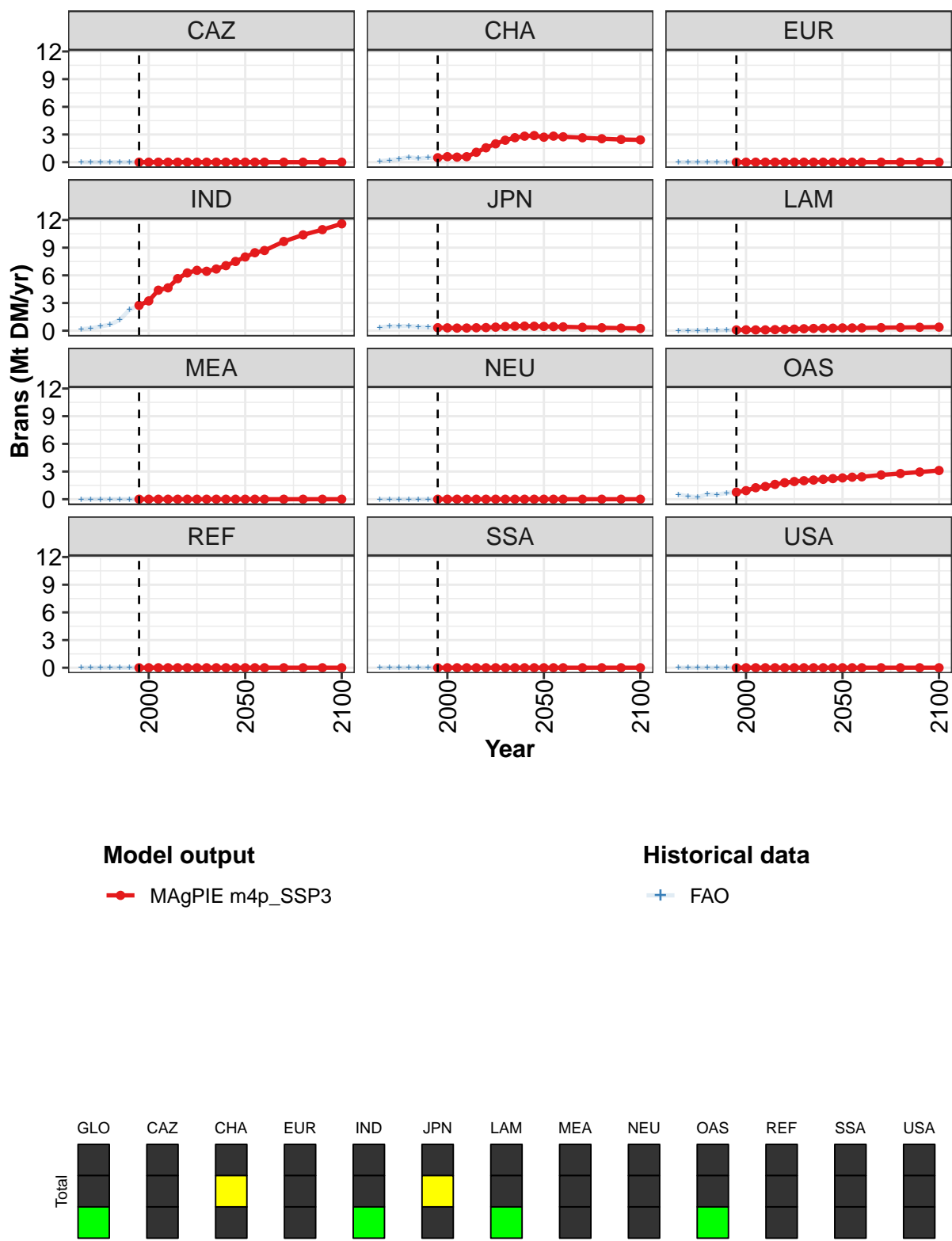


Figure 211: MAgPIE m4p_SSP3 — Demand—Processing—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.4	5.2	6.6	7.0	8.8	10.1	11.0	11.5	12.1	12.8	13.4
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.5	0.6	0.5	0.6	1.1	1.6	2.0	2.4	2.7	2.8	2.9
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	2.7	3.2	4.4	4.6	5.6	6.3	6.5	6.4	6.7	7.0	7.5
JPN	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5
LAM	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.8	0.9	1.2	1.4	1.6	1.8	1.9	2.0	2.1	2.2	2.2
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 632: MAgPIE m4p_SSP3 — Demand—Processing—Secondary products—Brans (Mt DM/yr) [PART 1/2]

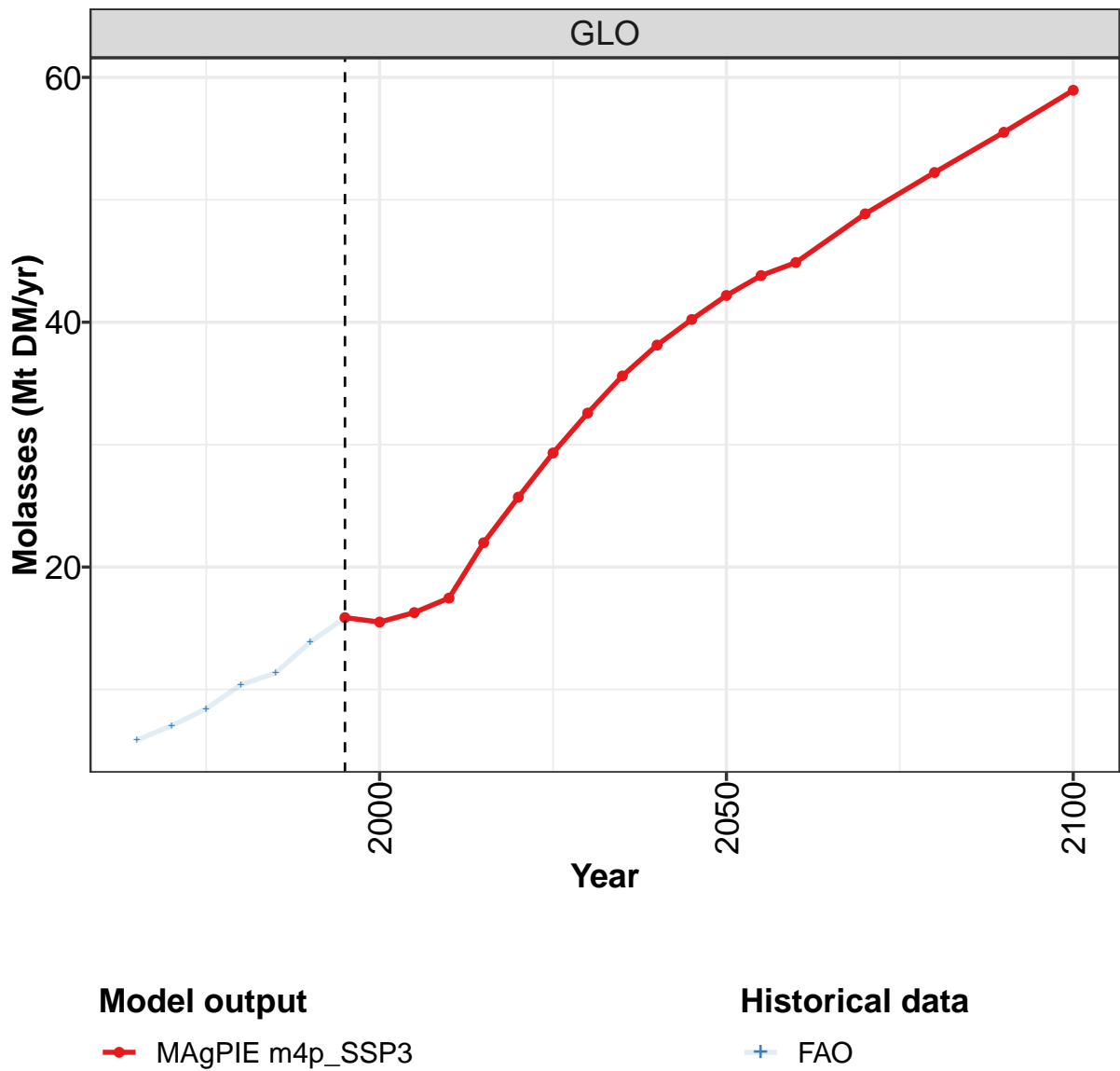
	2050	2055	2060	2070	2080	2090	2100
GLO	13.8	14.4	14.6	15.6	16.4	17.0	17.7
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	2.7	2.8	2.7	2.6	2.5	2.5	2.4
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	8.0	8.5	8.7	9.7	10.4	11.0	11.6
JPN	0.5	0.4	0.4	0.4	0.3	0.3	0.2
LAM	0.3	0.3	0.3	0.3	0.3	0.4	0.4
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	2.3	2.4	2.4	2.6	2.8	2.9	3.1
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 633: MAgPIE m4p_SSP3 — Demand—Processing—Secondary products—Brans (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.12	1.29	1.53	2.26	2.50	3.87	4.40	5.15	6.57	6.99
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.09	0.21	0.34	0.54	0.40	0.48	0.48	0.59	0.54	0.60
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.16	0.27	0.46	0.66	1.17	2.26	2.75	3.23	4.39	4.65
JPN	0.37	0.47	0.48	0.51	0.42	0.38	0.32	0.31	0.29	0.29
LAM	0.00	0.02	0.02	0.02	0.03	0.06	0.08	0.09	0.09	0.09
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.51	0.32	0.22	0.53	0.49	0.69	0.77	0.93	1.25	1.36
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 634: FAO — Demand—Processing—Secondary products—Brans (Mt DM/yr)

9.2.2 Molasses



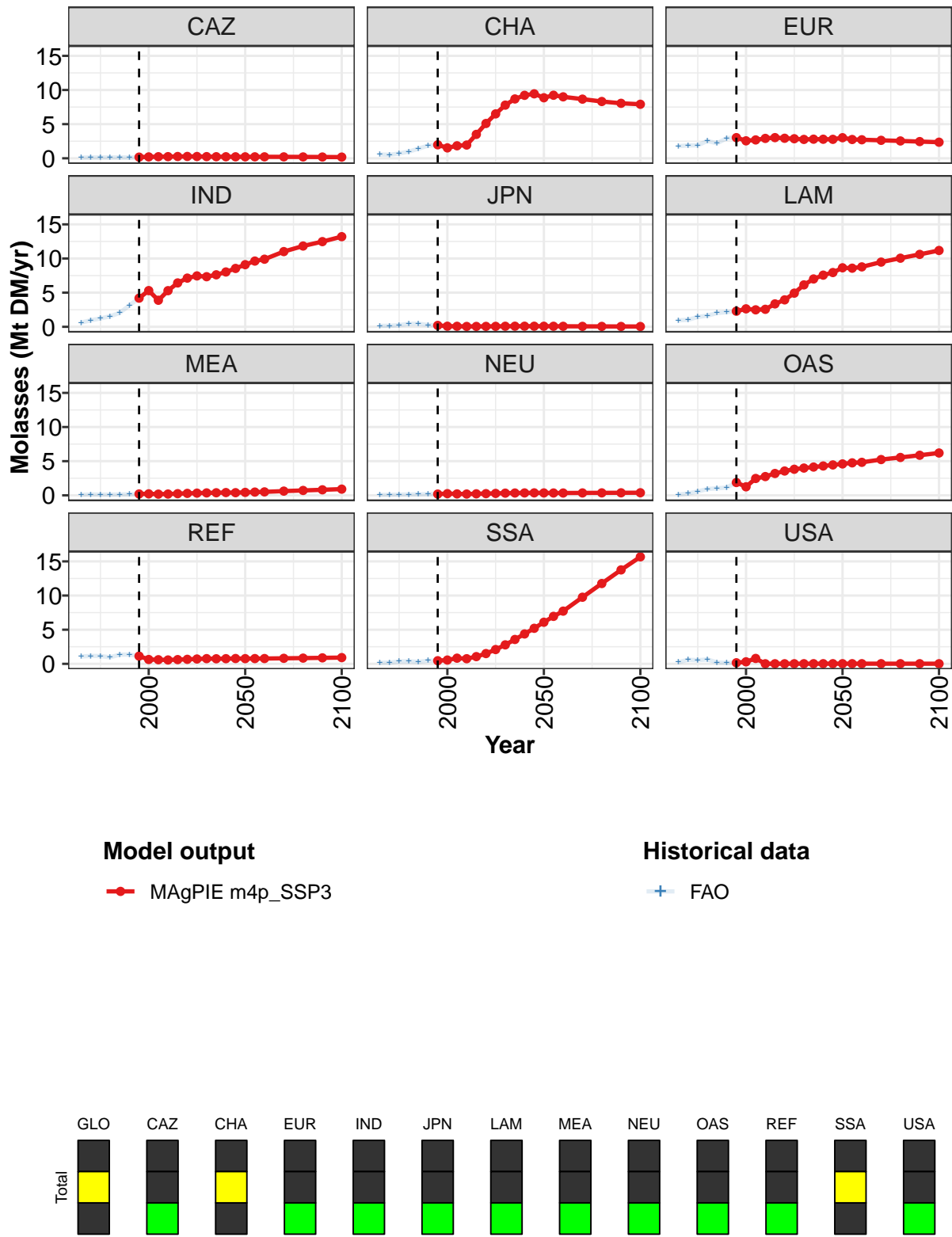


Figure 212: MAgPIE m4p_SSP3 — Demand—Processing—Secondary products—Molasses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	15.9	15.5	16.3	17.5	22.0	25.7	29.3	32.6	35.6	38.1	40.2
CAZ	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2
CHA	2.0	1.5	1.8	1.9	3.5	5.1	6.5	7.8	8.7	9.2	9.4
EUR	3.0	2.6	2.7	2.9	3.0	2.9	2.9	2.8	2.8	2.8	2.8
IND	4.2	5.3	3.9	5.3	6.4	7.1	7.5	7.3	7.6	8.0	8.5
JPN	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	2.3	2.6	2.5	2.6	3.4	3.9	4.9	6.1	7.0	7.6	7.9
MEA	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4
OAS	1.9	1.2	2.5	2.7	3.2	3.6	3.8	4.0	4.1	4.3	4.5
REF	1.1	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.7	0.8	0.8
SSA	0.5	0.6	0.8	0.8	1.1	1.5	2.1	2.8	3.6	4.4	5.2
USA	0.2	0.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 635: MAgPIE m4p_SSP3 — Demand—Processing—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

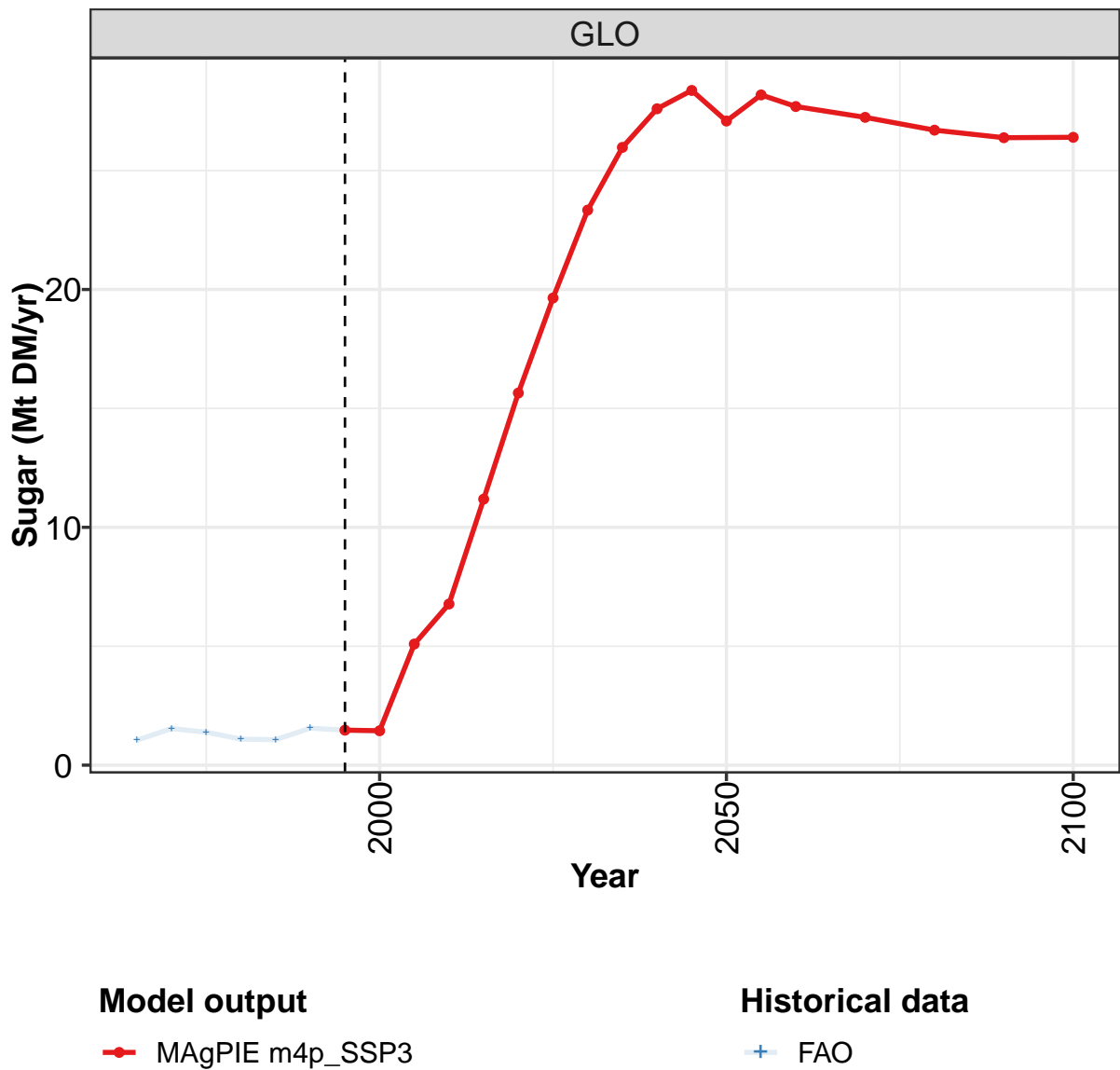
	2050	2055	2060	2070	2080	2090	2100
GLO	42.2	43.8	44.9	48.9	52.2	55.5	58.9
CAZ	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	8.9	9.2	9.0	8.7	8.3	8.0	7.9
EUR	3.0	2.8	2.7	2.6	2.5	2.4	2.4
IND	9.1	9.6	9.9	11.0	11.8	12.5	13.2
JPN	0.1	0.1	0.1	0.1	0.1	0.0	0.0
LAM	8.6	8.6	8.8	9.5	10.0	10.6	11.2
MEA	0.4	0.5	0.5	0.6	0.7	0.8	0.9
NEU	0.4	0.3	0.3	0.3	0.4	0.4	0.4
OAS	4.6	4.8	4.8	5.2	5.5	5.9	6.2
REF	0.8	0.8	0.8	0.8	0.8	0.9	0.9
SSA	6.1	7.0	7.7	9.8	11.8	13.8	15.7
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 636: MAgPIE m4p_SSP3 — Demand—Processing—Secondary products—Molasses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.9	7.0	8.4	10.4	11.3	13.9	15.9	15.5	16.4	17.5
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
CHA	0.6	0.5	0.7	1.0	1.4	1.9	2.0	1.5	1.8	2.0
EUR	1.8	1.9	1.9	2.5	2.2	2.9	3.0	2.6	2.7	2.9
IND	0.6	1.0	1.2	1.5	2.0	3.1	4.2	5.3	3.9	5.3
JPN	0.1	0.1	0.2	0.4	0.5	0.3	0.2	0.1	0.1	0.1
LAM	0.9	1.0	1.4	1.6	2.0	2.1	2.3	2.6	2.6	2.7
MEA	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
NEU	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
OAS	0.1	0.3	0.6	0.9	1.0	1.1	1.9	1.2	2.5	2.7
REF	1.1	1.2	1.1	1.0	1.3	1.4	1.1	0.6	0.6	0.6
SSA	0.2	0.2	0.3	0.4	0.3	0.5	0.4	0.6	0.8	0.7
USA	0.2	0.6	0.5	0.6	0.2	0.1	0.2	0.3	0.8	0.0

Table 637: FAO — Demand—Processing—Secondary products—Molasses (Mt DM/yr)

9.2.3
Sugar



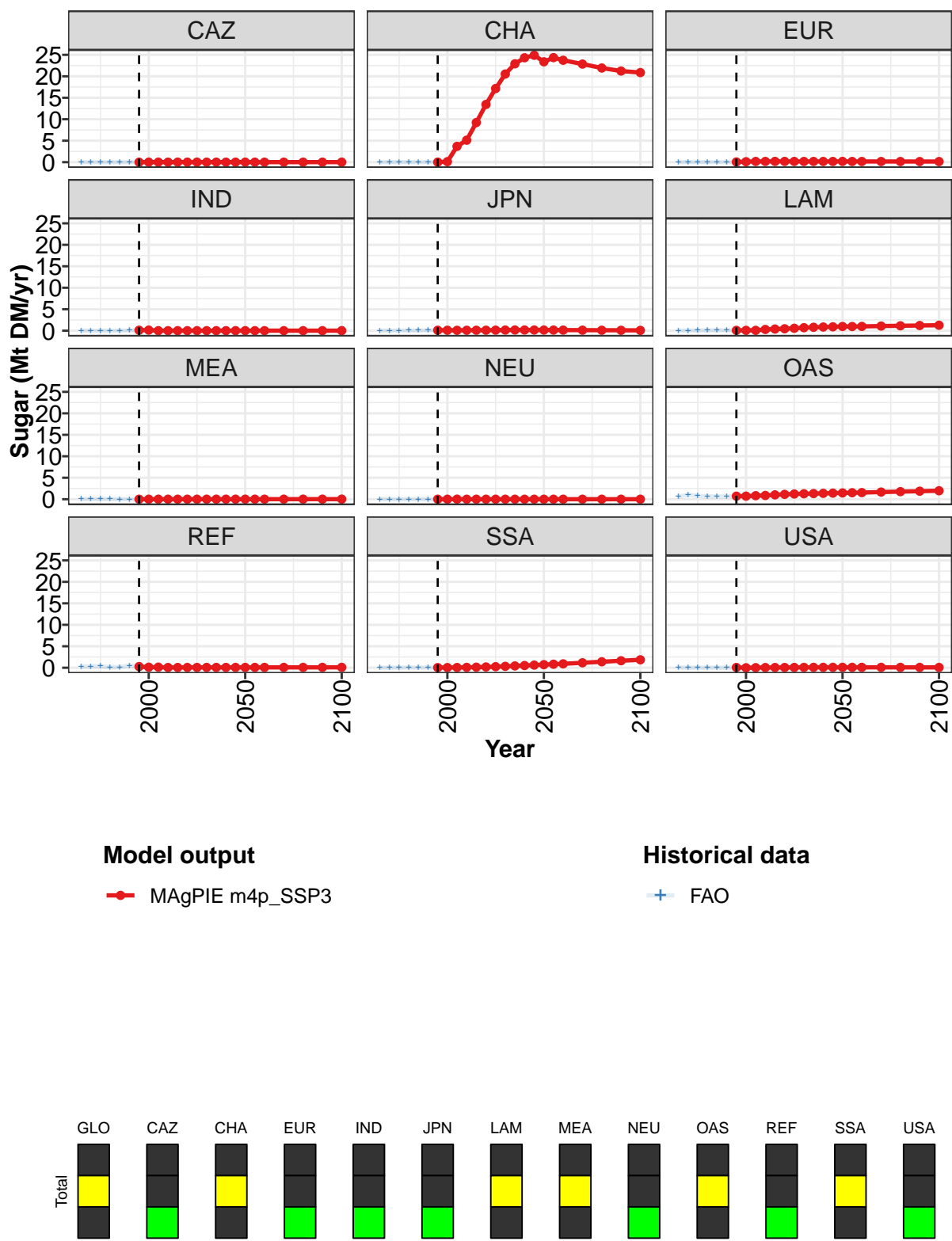


Figure 213: MAgPIE m4p_SSP3 — Demand—Processing—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.5	1.4	5.1	6.8	11.2	15.6	19.6	23.3	26.0	27.6	28.4
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.1	3.7	5.1	9.2	13.4	17.1	20.5	22.9	24.3	24.9
EUR	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
IND	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
LAM	0.1	0.1	0.1	0.3	0.4	0.4	0.6	0.7	0.8	0.9	0.9
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.4
REF	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SSA	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6
USA	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 638: MAgPIE m4p_SSP3 — Demand—Processing—Secondary products—Sugar (Mt DM/yr) [PART 1/2]

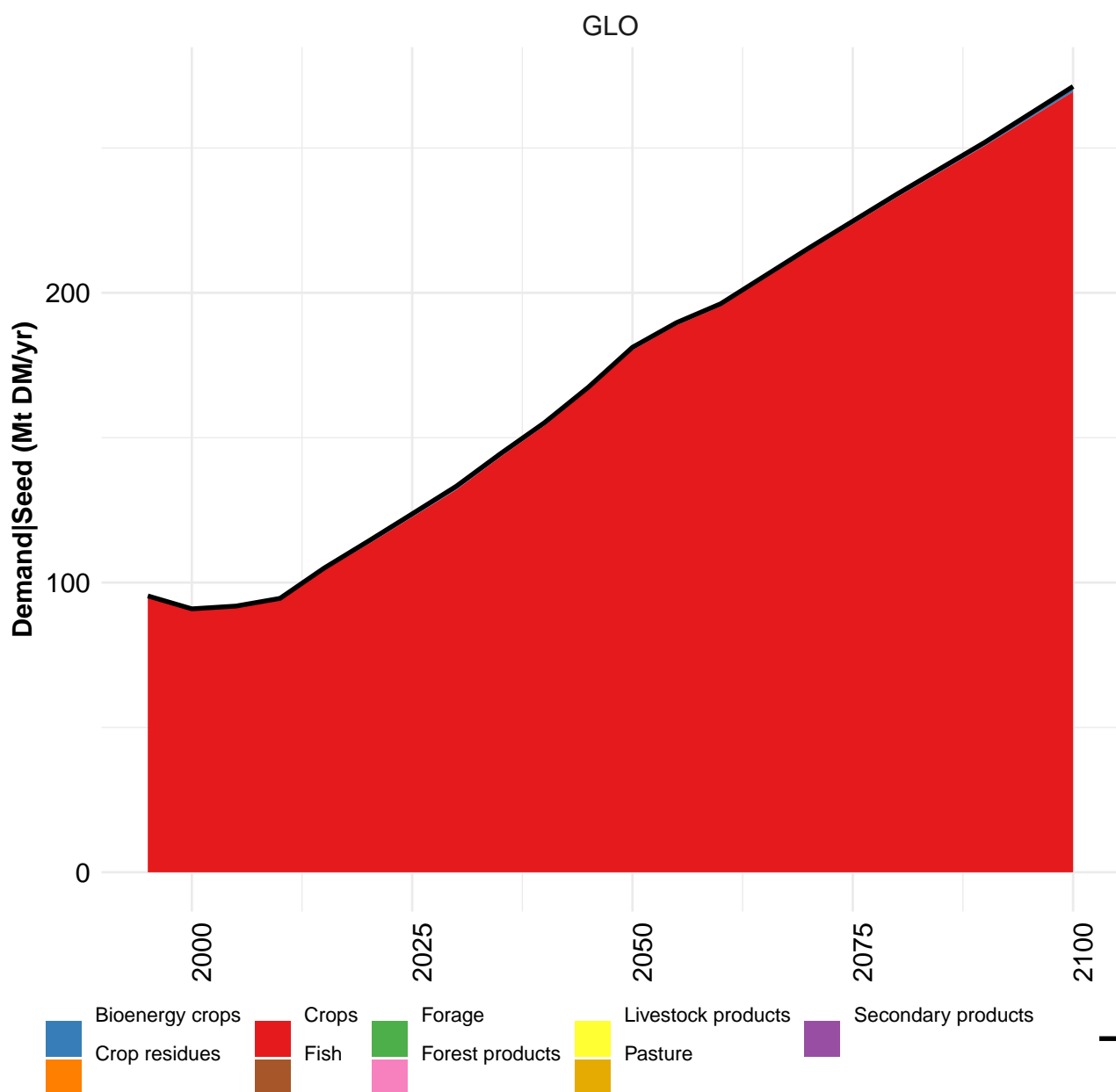
	2050	2055	2060	2070	2080	2090	2100
GLO	27.1	28.2	27.7	27.2	26.7	26.4	26.4
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	23.4	24.3	23.7	22.8	21.9	21.2	20.9
EUR	0.2	0.2	0.2	0.2	0.2	0.1	0.1
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.2	0.1	0.1	0.1	0.1	0.1	0.1
LAM	1.0	1.0	1.0	1.1	1.1	1.2	1.3
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	1.5	1.5	1.5	1.7	1.8	1.9	2.0
REF	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SSA	0.7	0.8	0.9	1.2	1.4	1.6	1.9
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

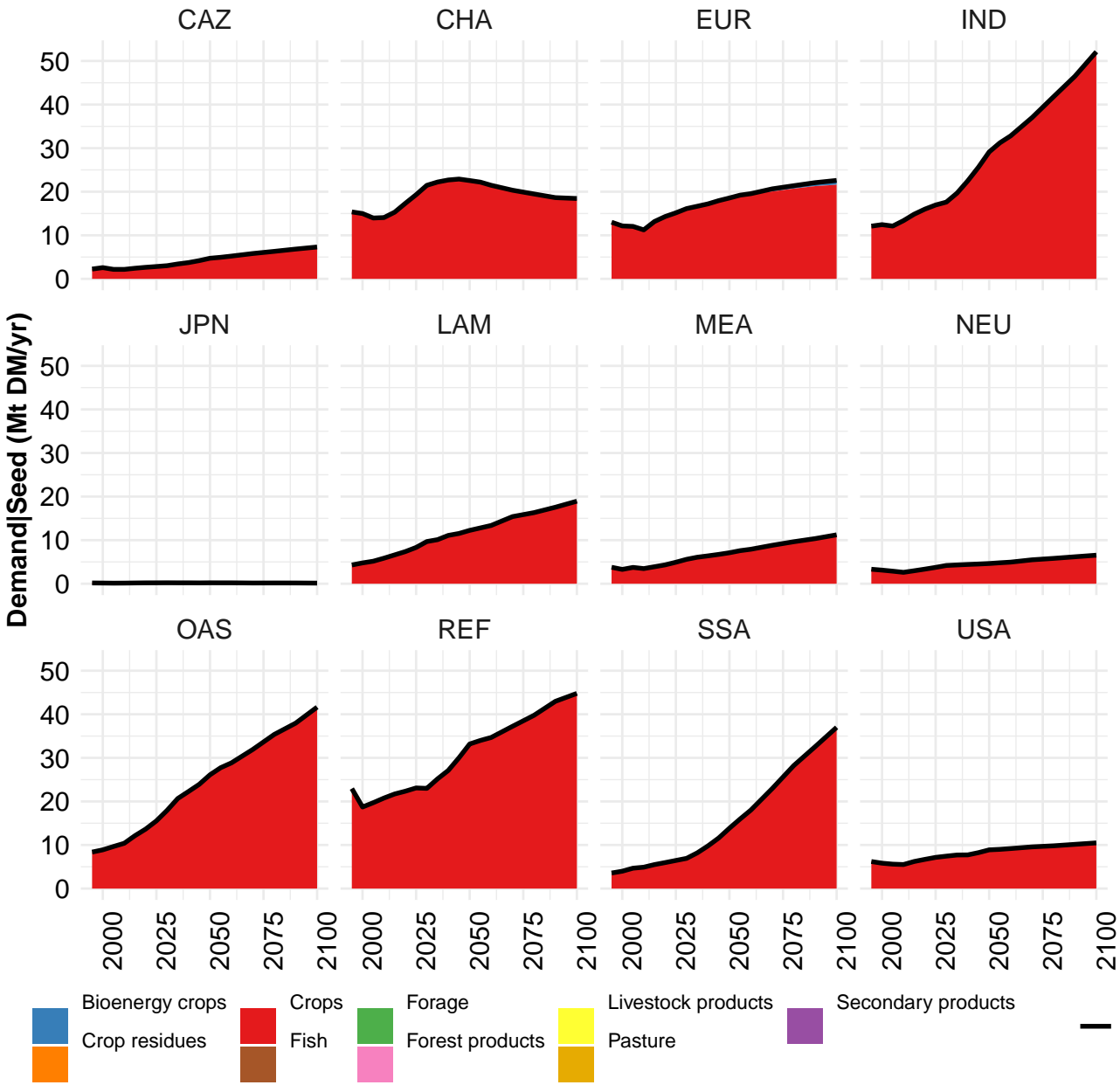
Table 639: MAgPIE m4p_SSP3 — Demand—Processing—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

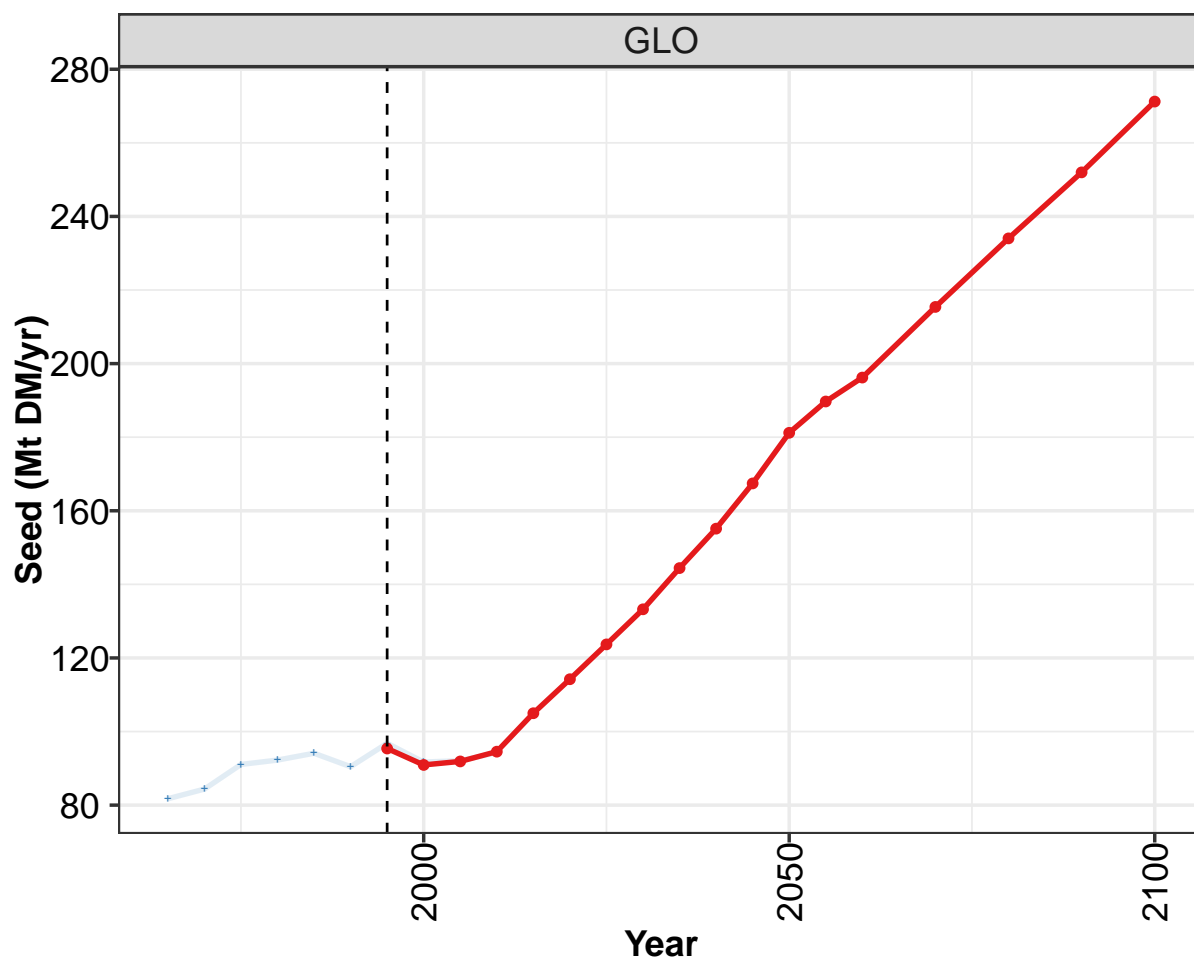
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.05	1.54	1.39	1.09	1.07	1.55	1.47	1.44	5.07	6.81
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
CHA	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.12	3.65	5.16
EUR	0.01	0.04	0.03	0.02	0.03	0.02	0.05	0.11	0.16	0.17
IND	0.00	0.00	0.00	0.00	0.00	0.08	0.12	0.14	0.00	0.00
JPN	0.02	0.03	0.03	0.06	0.06	0.12	0.11	0.10	0.09	0.10
LAM	0.04	0.04	0.06	0.08	0.11	0.11	0.08	0.08	0.09	0.31
MEA	0.03	0.05	0.06	0.07	0.01	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
OAS	0.62	1.03	0.78	0.66	0.65	0.65	0.72	0.71	0.83	0.86
REF	0.27	0.32	0.37	0.14	0.16	0.51	0.27	0.12	0.14	0.06
SSA	0.01	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.06	0.09
USA	0.05	0.02	0.02	0.02	0.01	0.01	0.07	0.00	0.02	0.05

Table 640: FAO — Demand—Processing—Secondary products—Sugar (Mt DM/yr)

10 Seed





**Model output**

—●— MAgPIE m4p_SSP3

Historical data

—+— FAO

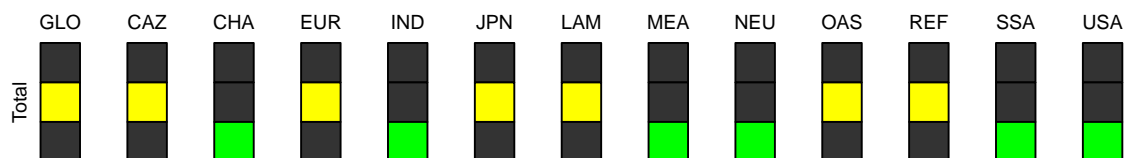
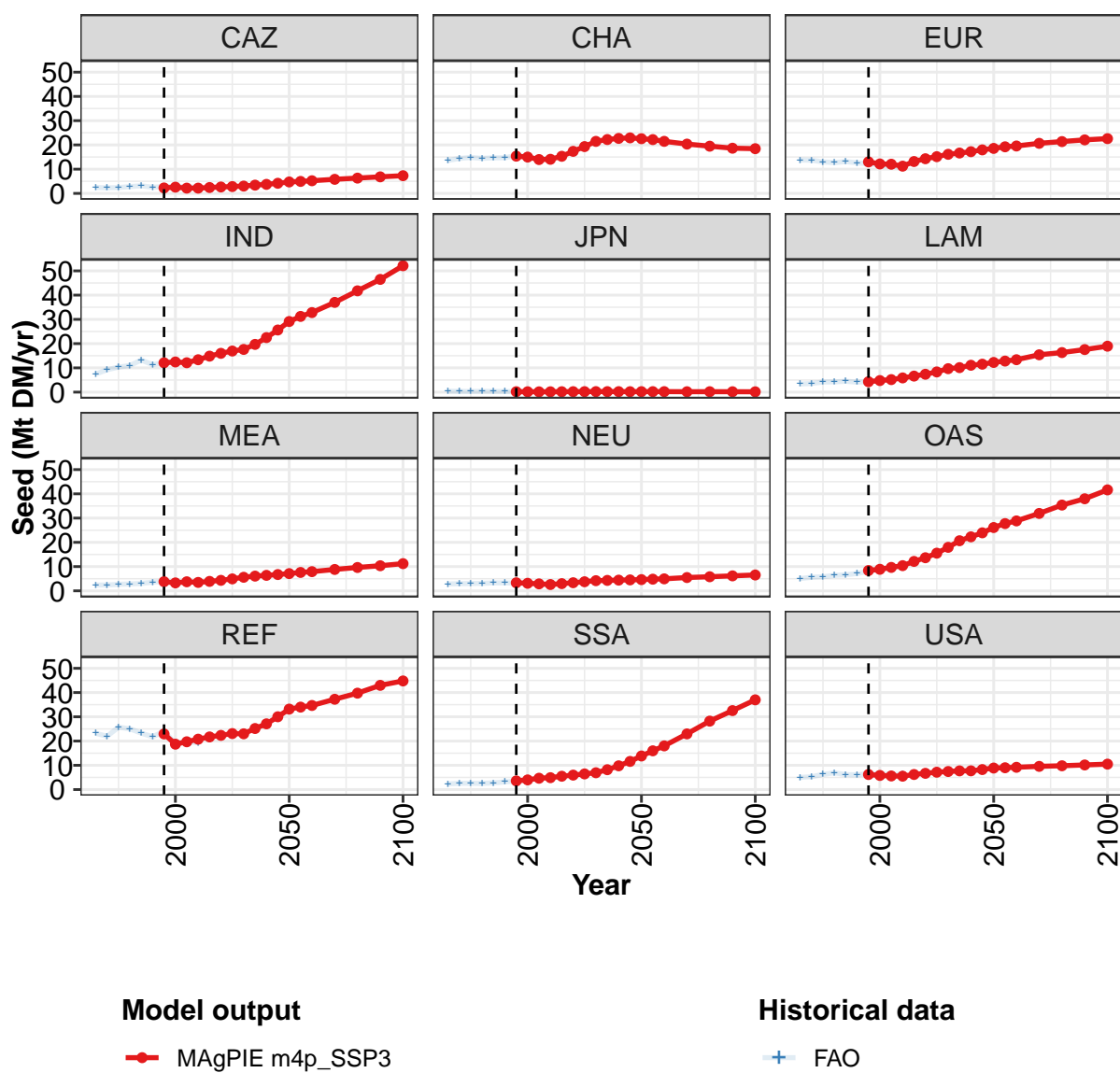


Figure 214: MAgPIE m4p_SSP3 — Demand—Seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	95	91	92	95	105	114	124	133	144	155	167
CAZ	2	3	2	2	2	3	3	3	3	4	4
CHA	15	15	14	14	15	17	19	21	22	23	23
EUR	13	12	12	11	13	14	15	16	17	17	18
IND	12	12	12	13	15	16	17	18	20	22	26
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	4	5	5	6	7	7	8	10	10	11	12
MEA	4	3	4	3	4	4	5	6	6	6	7
NEU	3	3	3	3	3	3	4	4	4	4	5
OAS	8	9	10	10	12	14	16	18	21	22	24
REF	23	19	20	21	22	22	23	23	25	27	30
SSA	4	4	5	5	6	6	6	7	8	10	12
USA	6	6	6	6	6	7	7	7	8	8	8

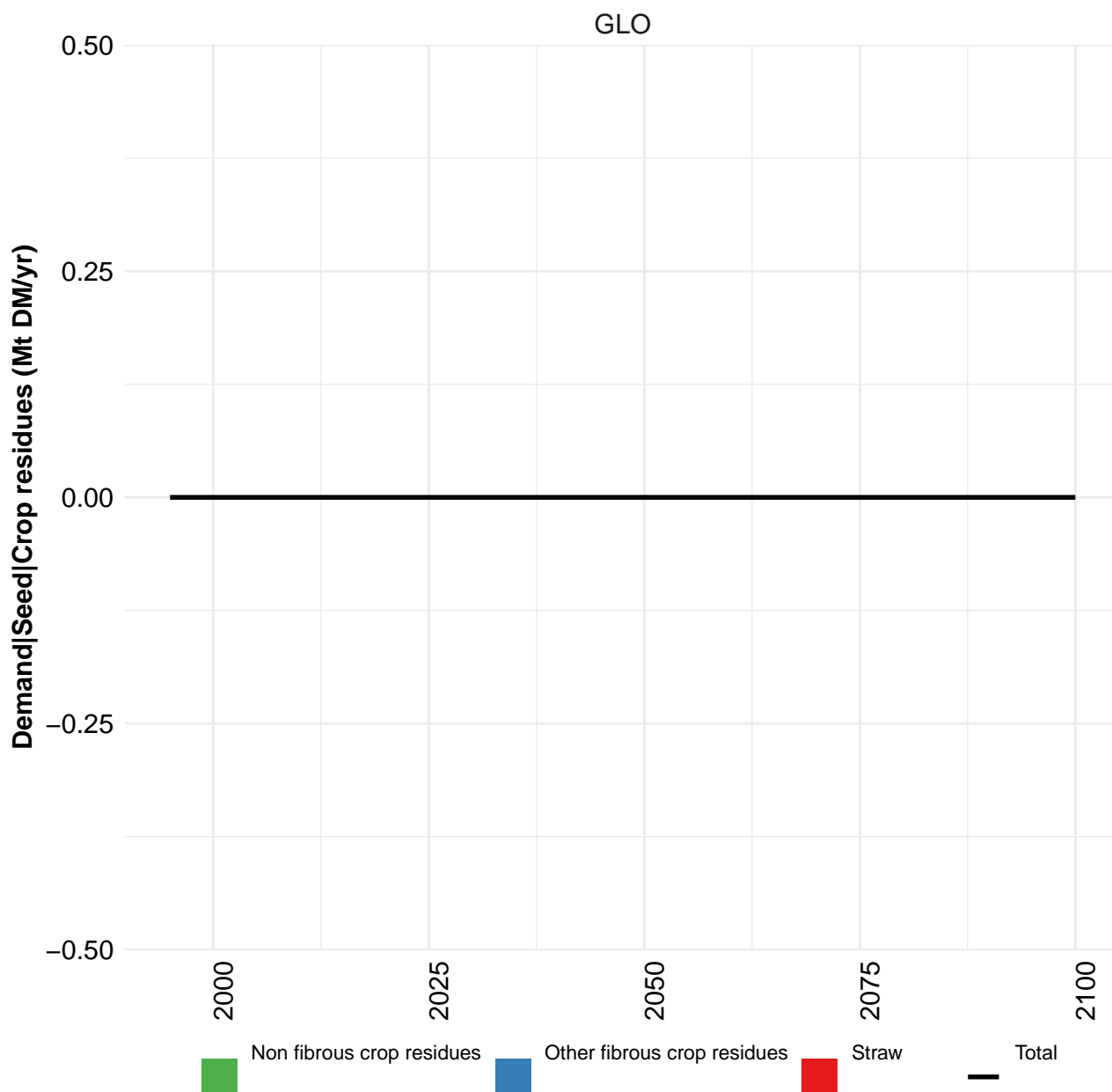
Table 641: MAgPIE m4p-SSP3 — Demand—Seed (Mt DM/yr) [PART 1/2]

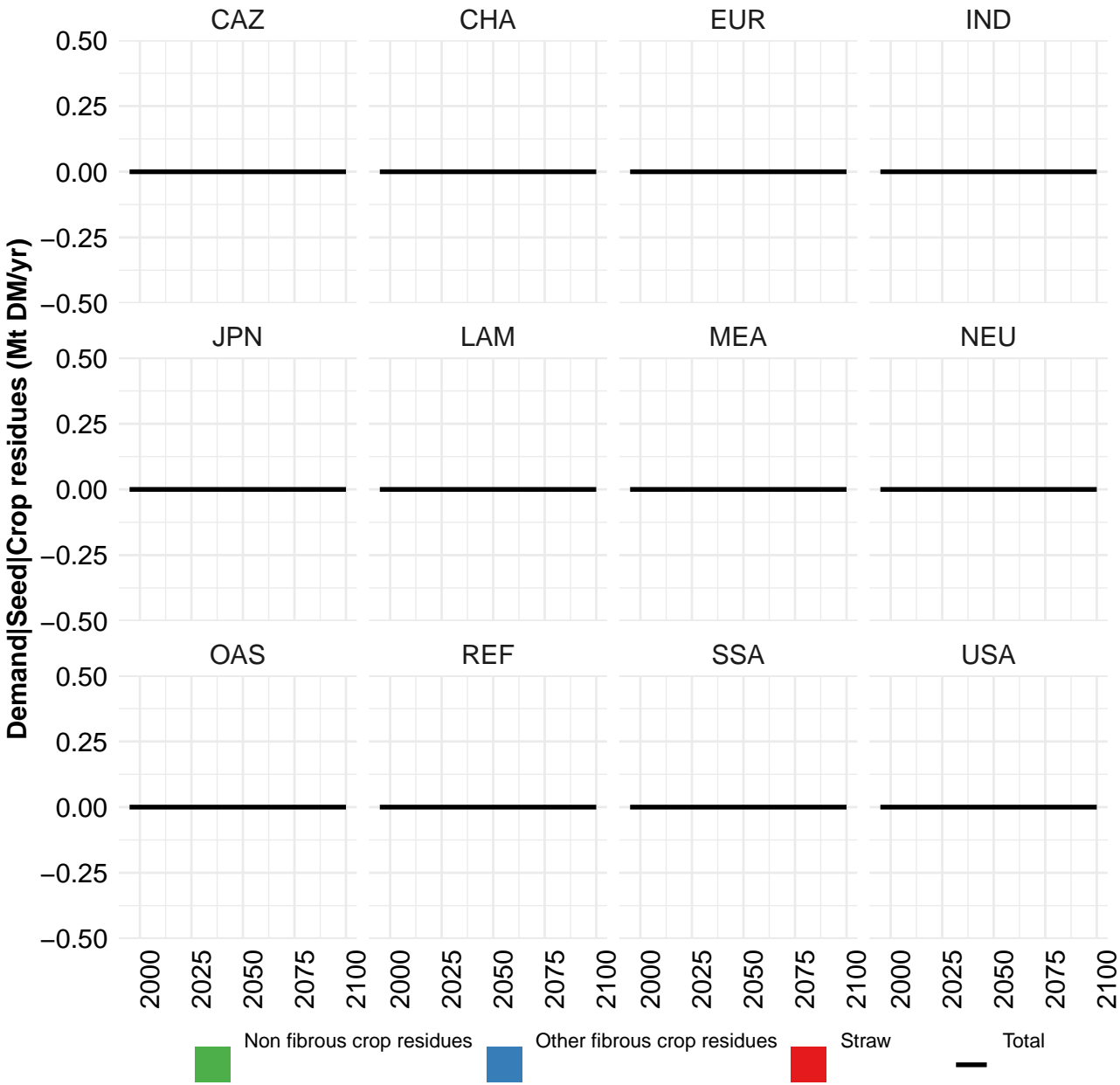
	2050	2055	2060	2070	2080	2090	2100
GLO	181	190	196	215	234	252	271
CAZ	5	5	5	6	6	7	7
CHA	23	22	21	20	19	19	18
EUR	19	19	20	21	21	22	23
IND	29	31	33	37	42	46	52
JPN	0	0	0	0	0	0	0
LAM	12	13	13	15	16	18	19
MEA	7	8	8	9	10	10	11
NEU	5	5	5	5	6	6	7
OAS	26	28	29	32	35	38	42
REF	33	34	35	37	40	43	45
SSA	14	16	18	23	28	33	37
USA	9	9	9	10	10	10	10

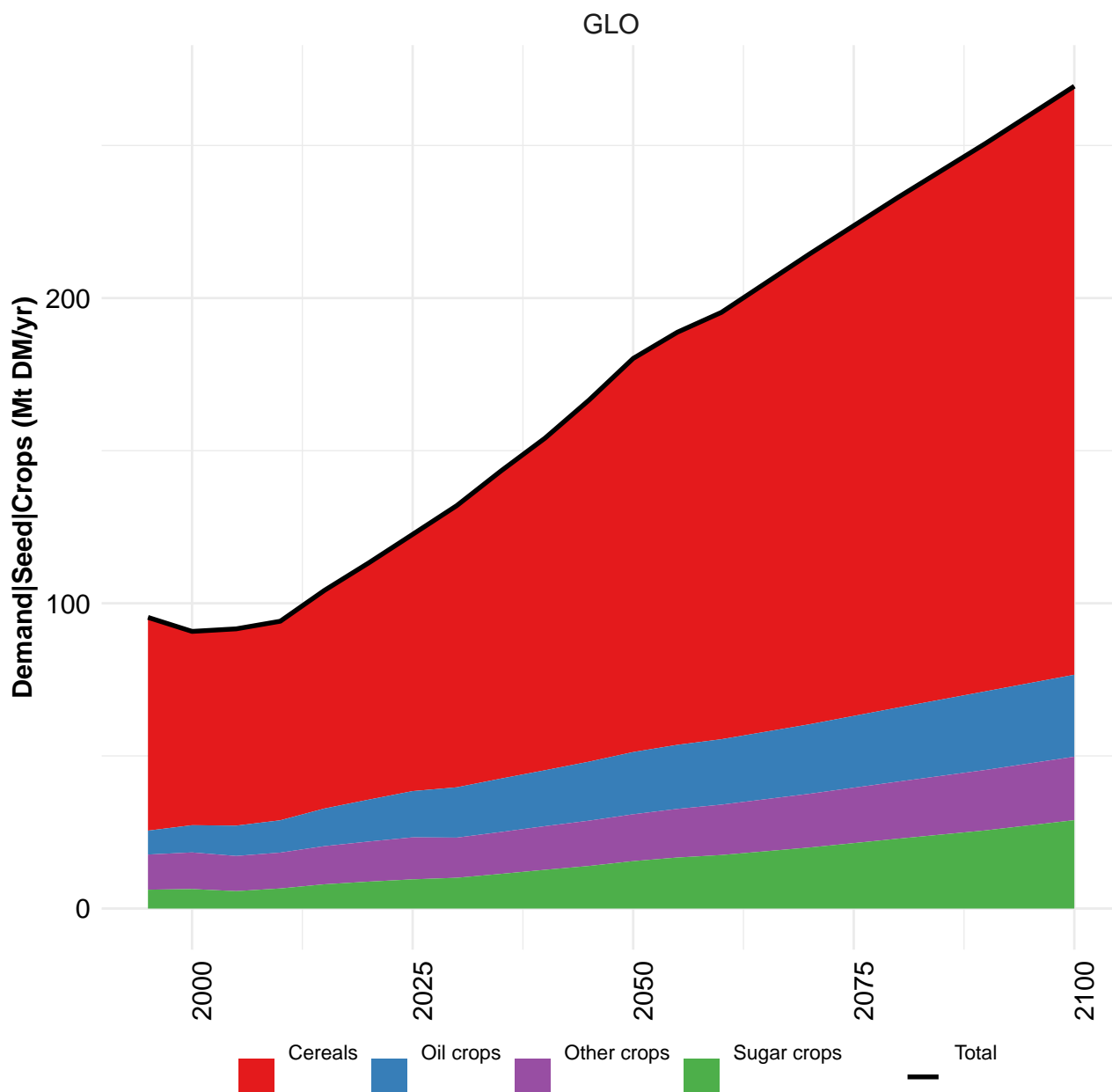
Table 642: MAgPIE m4p-SSP3 — Demand—Seed (Mt DM/yr) [PART 2/2]

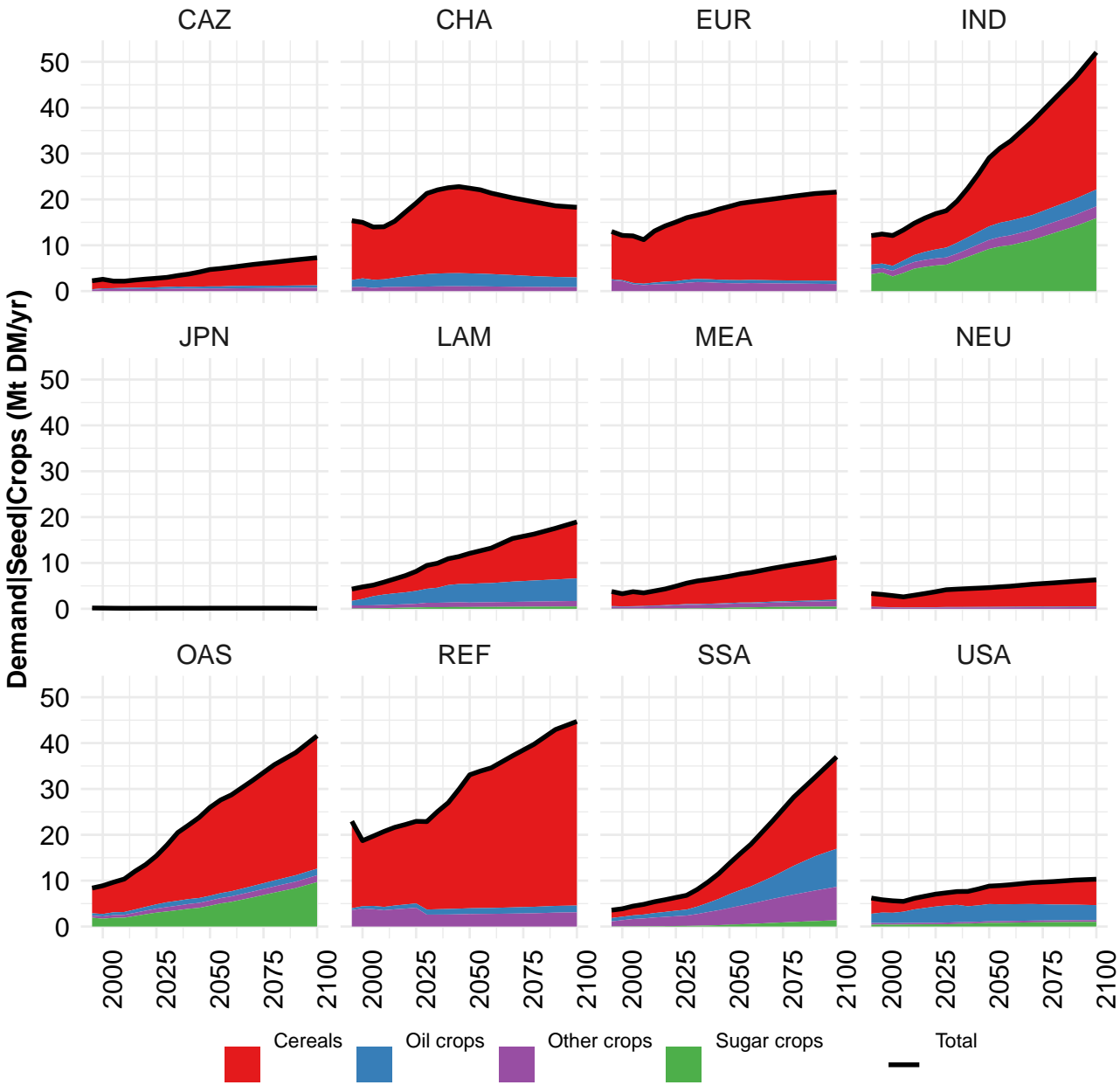
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	81.7	84.4	91.1	92.2	94.1	90.4	96.8	91.7	92.1	94.3
CAZ	2.5	2.3	2.4	2.8	3.1	2.6	2.8	2.9	2.8	2.6
CHA	13.6	14.4	14.8	14.5	14.7	14.7	15.6	15.3	14.1	14.4
EUR	13.8	13.7	13.0	12.7	13.1	12.6	12.2	11.6	11.2	10.6
IND	7.4	9.2	10.3	11.0	13.2	11.3	12.2	12.5	12.1	13.5
JPN	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1
LAM	3.3	3.6	4.2	4.2	4.5	4.1	4.3	4.8	5.3	5.9
MEA	2.4	2.4	2.7	2.8	3.0	3.6	3.9	3.4	3.8	3.6
NEU	2.8	3.0	3.0	3.1	3.3	3.3	3.2	3.0	2.8	2.5
OAS	5.1	5.6	5.8	6.4	6.6	7.2	8.1	8.8	9.5	10.5
REF	23.2	22.0	25.7	25.1	23.3	21.8	24.1	19.1	19.5	19.3
SSA	2.3	2.6	2.6	2.5	2.8	3.2	3.6	3.9	4.5	5.0
USA	5.0	5.3	6.3	6.9	6.2	6.0	6.6	6.4	6.3	6.2

Table 643: FAO — Demand—Seed (Mt DM/yr)

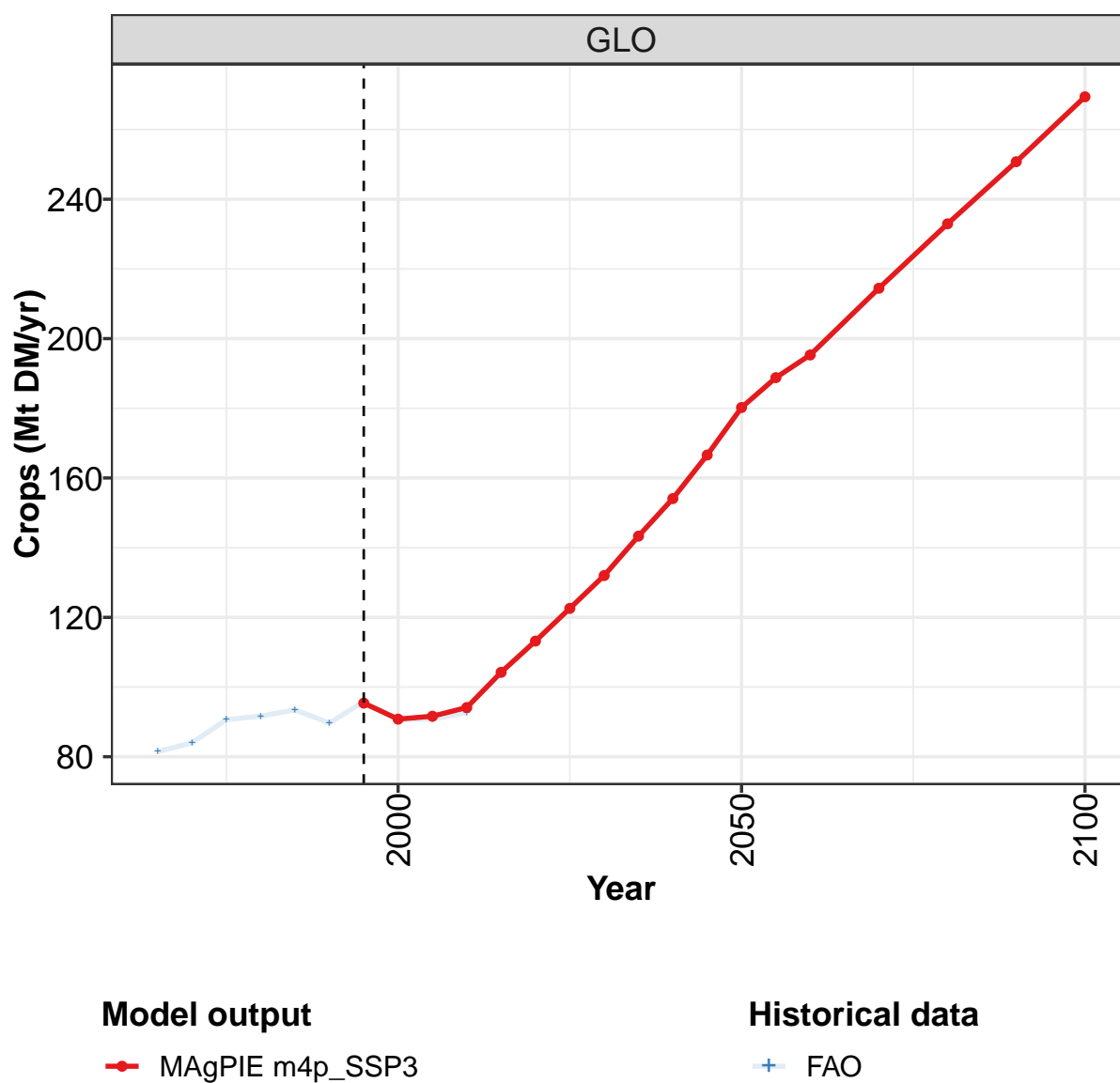








10.1 Crops



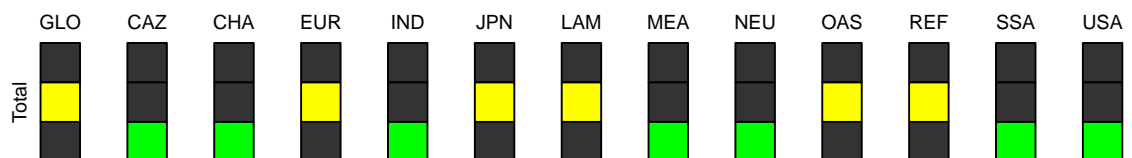
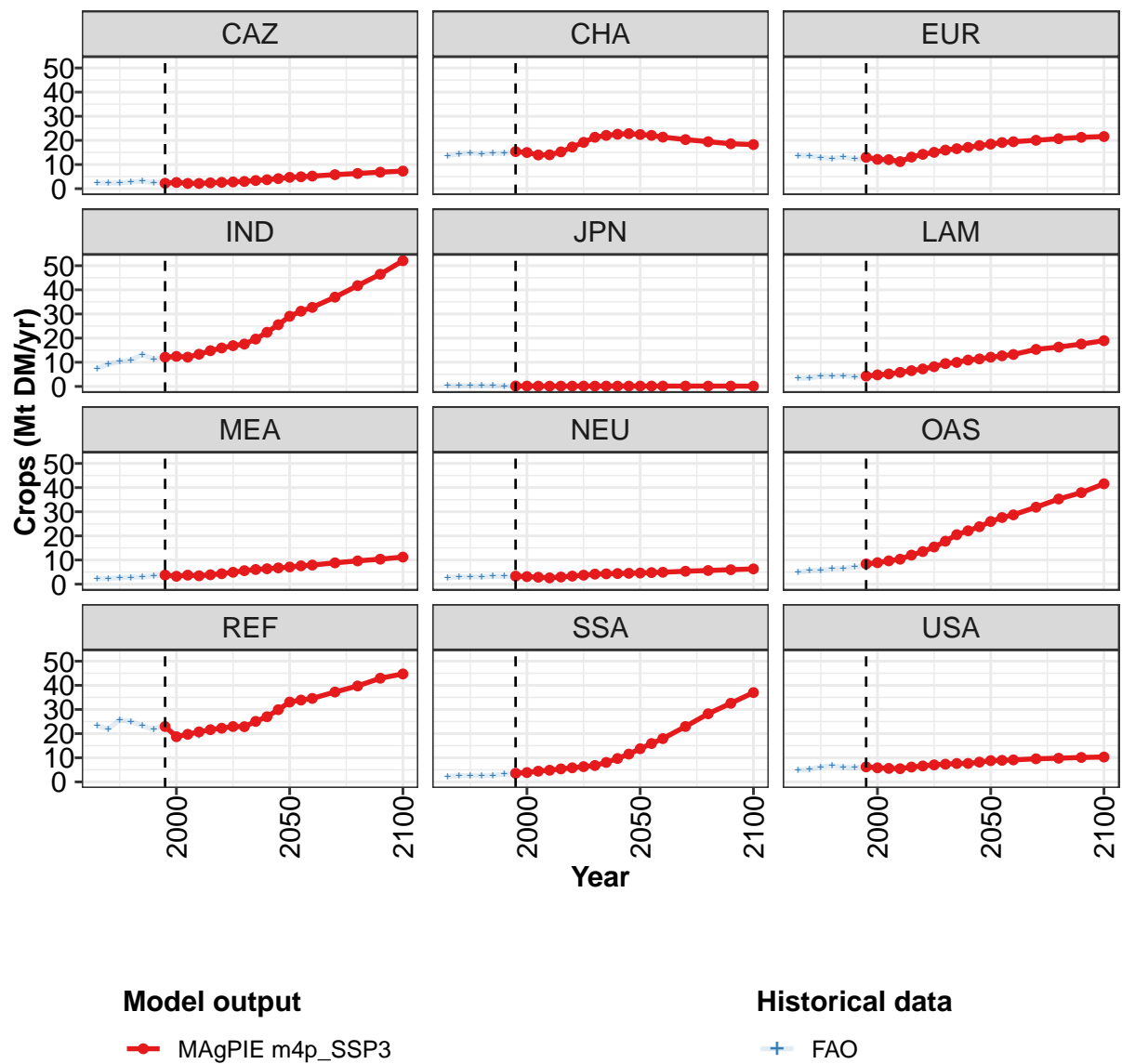


Figure 215: MAgPIE m4p_SSP3 — Demand—Seed—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	95	91	92	94	104	113	123	132	143	154	167
CAZ	2	3	2	2	2	3	3	3	3	4	4
CHA	15	15	14	14	15	17	19	21	22	23	23
EUR	13	12	12	11	13	14	15	16	17	17	18
IND	12	12	12	13	15	16	17	18	20	22	26
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	4	5	5	6	7	7	8	9	10	11	11
MEA	4	3	4	3	4	4	5	6	6	6	7
NEU	3	3	3	3	3	3	4	4	4	4	5
OAS	8	9	10	10	12	13	15	18	20	22	24
REF	23	19	20	21	22	22	23	23	25	27	30
SSA	4	4	4	5	5	6	6	7	8	10	12
USA	6	6	6	5	6	7	7	7	8	8	8

Table 644: MAgPIE m4p.SSP3 — Demand—Seed—Crops (Mt DM/yr) [PART 1/2]

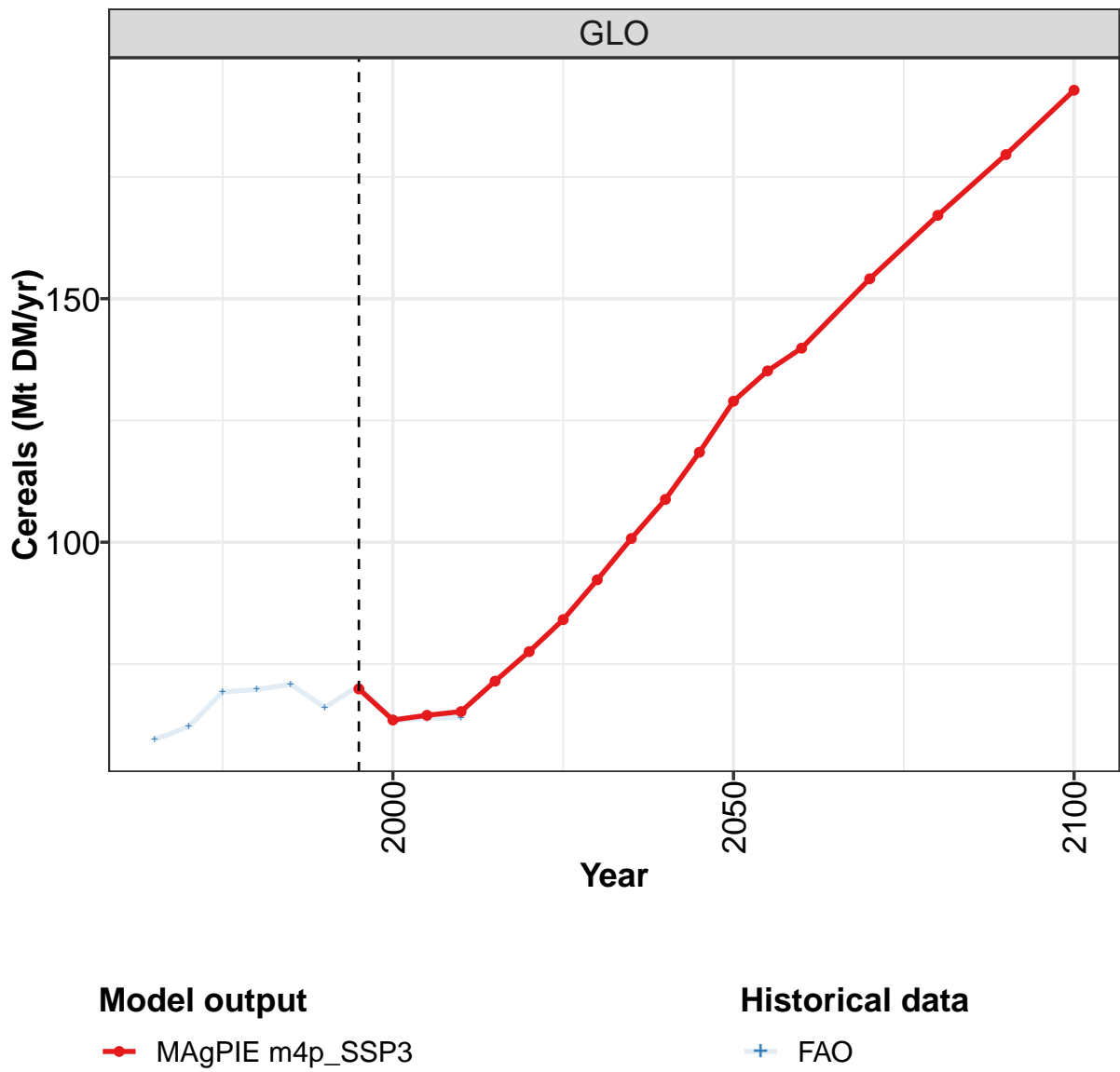
	2050	2055	2060	2070	2080	2090	2100
GLO	180	189	195	214	233	251	269
CAZ	5	5	5	6	6	7	7
CHA	22	22	21	20	19	19	18
EUR	18	19	19	20	21	21	22
IND	29	31	33	37	42	46	52
JPN	0	0	0	0	0	0	0
LAM	12	13	13	15	16	18	19
MEA	7	8	8	9	10	10	11
NEU	5	5	5	5	6	6	6
OAS	26	28	29	32	35	38	42
REF	33	34	35	37	40	43	45
SSA	14	16	18	23	28	33	37
USA	9	9	9	10	10	10	10

Table 645: MAgPIE m4p.SSP3 — Demand—Seed—Crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	81.5	84.0	90.6	91.6	93.5	89.6	95.8	90.6	90.8	92.7
CAZ	2.4	2.3	2.4	2.8	3.1	2.5	2.8	2.8	2.8	2.5
CHA	13.6	14.4	14.8	14.4	14.6	14.7	15.5	15.1	13.9	14.1
EUR	13.7	13.6	12.9	12.6	13.0	12.4	12.1	11.4	11.1	10.4
IND	7.4	9.2	10.3	11.0	13.2	11.3	12.2	12.5	12.1	13.5
JPN	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
LAM	3.3	3.5	4.1	4.2	4.4	4.0	4.2	4.6	5.0	5.7
MEA	2.4	2.4	2.7	2.8	3.0	3.5	3.8	3.3	3.7	3.5
NEU	2.8	3.0	3.0	3.0	3.3	3.2	3.2	3.0	2.7	2.5
OAS	5.1	5.6	5.8	6.3	6.6	7.1	7.9	8.7	9.4	10.3
REF	23.2	22.0	25.7	25.0	23.2	21.7	24.1	19.0	19.5	19.2
SSA	2.3	2.6	2.6	2.5	2.7	3.1	3.5	3.9	4.5	5.0
USA	4.9	5.2	6.2	6.8	6.0	5.9	6.3	6.1	6.0	5.9

Table 646: FAO — Demand—Seed—Crops (Mt DM/yr)

10.1.1 Cereals



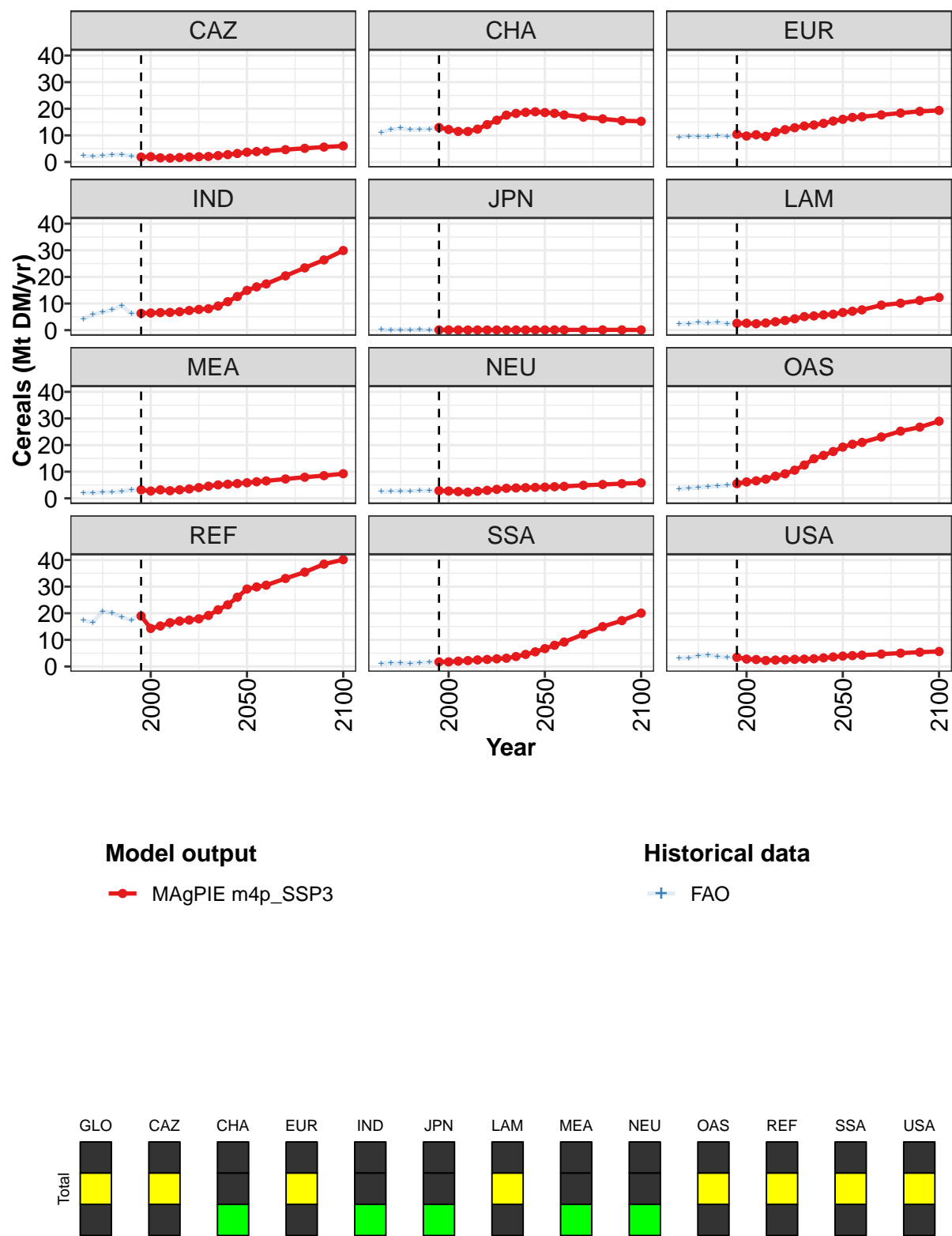


Figure 216: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	70	63	64	65	71	78	84	92	101	109	118
CAZ	2	2	2	1	2	2	2	2	2	3	3
CHA	13	12	11	11	12	14	16	18	18	19	19
EUR	10	10	10	10	11	12	13	14	14	15	15
IND	6	6	7	7	7	7	8	8	9	11	13
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	3	3	2	3	3	4	4	5	5	6	6
MEA	3	3	3	3	3	4	4	5	5	5	6
NEU	3	3	3	2	3	3	3	4	4	4	4
OAS	5	6	7	7	8	9	11	13	15	16	18
REF	19	14	15	16	17	17	18	19	21	23	26
SSA	2	2	2	2	2	3	3	3	4	5	6
USA	3	3	3	2	2	3	3	3	3	3	4

Table 647: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Cereals (Mt DM/yr) [PART 1/2]

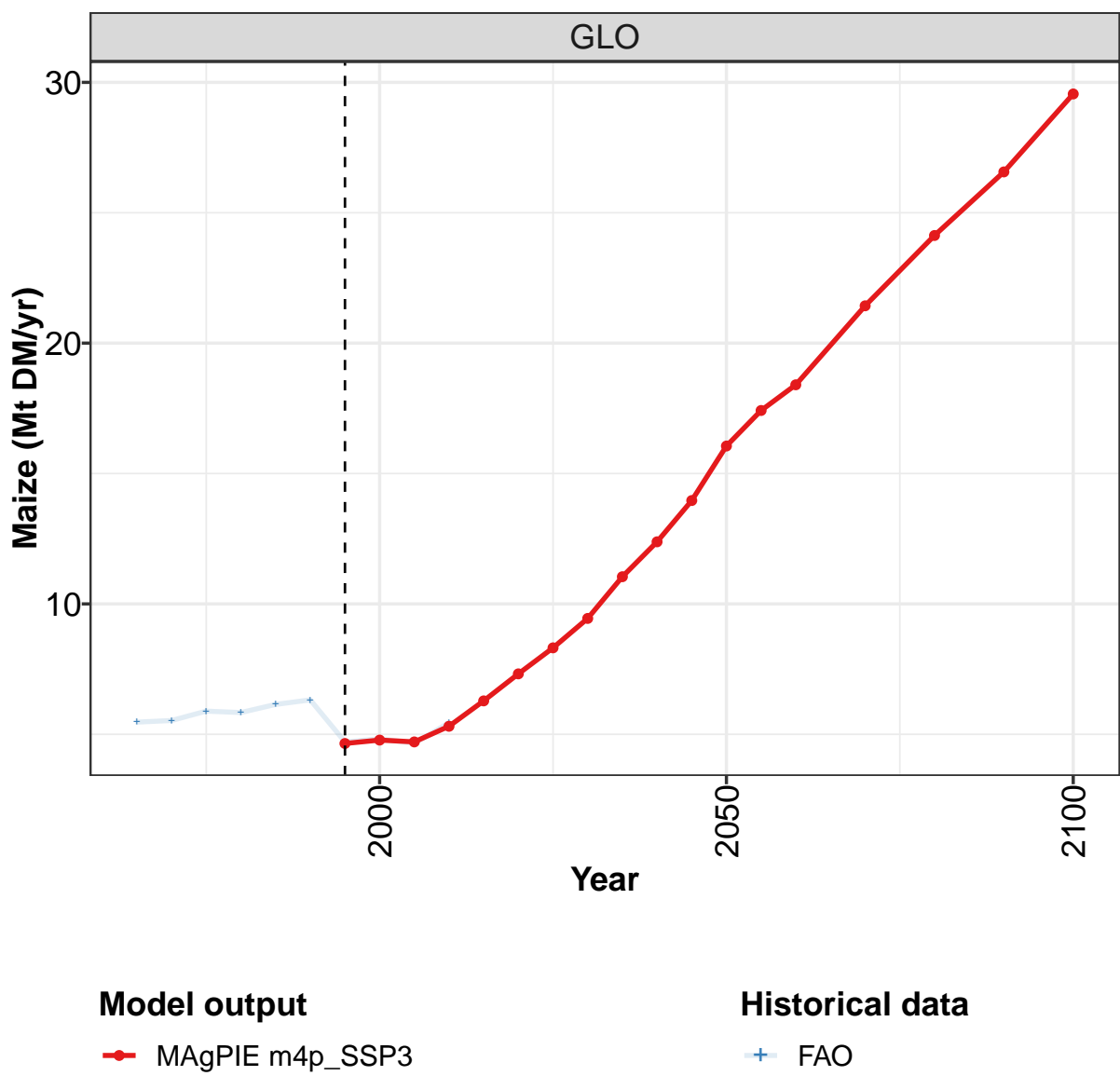
	2050	2055	2060	2070	2080	2090	2100
GLO	129	135	140	154	167	180	193
CAZ	4	4	4	5	5	6	6
CHA	19	18	18	17	16	16	15
EUR	16	17	17	18	18	19	19
IND	15	16	17	20	23	26	30
JPN	0	0	0	0	0	0	0
LAM	7	7	8	9	10	11	12
MEA	6	6	7	7	8	9	9
NEU	4	4	4	5	5	6	6
OAS	19	20	21	23	25	27	29
REF	29	30	31	33	35	38	40
SSA	7	8	9	12	15	17	20
USA	4	4	4	5	5	5	6

Table 648: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	59.5	62.1	69.2	69.8	70.8	66.1	70.6	63.4	63.8	64.0
CAZ	2.3	2.1	2.3	2.6	2.8	2.2	2.3	2.2	2.1	1.9
CHA	11.2	12.2	12.7	12.1	12.2	12.4	13.0	12.3	11.5	11.6
EUR	9.4	9.7	9.5	9.5	9.9	9.7	9.6	9.2	9.3	8.8
IND	4.2	5.8	6.8	7.6	9.2	6.2	6.4	6.5	6.6	6.8
JPN	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	2.3	2.5	2.9	2.6	2.8	2.4	2.6	2.6	2.4	2.6
MEA	2.1	2.1	2.3	2.4	2.6	3.1	3.2	2.8	3.2	2.9
NEU	2.5	2.6	2.7	2.7	2.8	2.8	2.8	2.6	2.4	2.2
OAS	3.6	3.8	4.0	4.4	4.6	4.9	5.3	6.0	6.5	7.2
REF	17.4	16.6	20.7	20.2	18.5	17.4	20.0	14.6	15.0	15.0
SSA	1.1	1.3	1.2	1.2	1.4	1.6	1.7	1.7	2.0	2.3
USA	3.1	3.2	3.9	4.2	3.7	3.4	3.5	2.9	2.8	2.7

Table 649: FAO — Demand—Seed—Crops—Cereals (Mt DM/yr)

10.1.2 Cereals—Maize



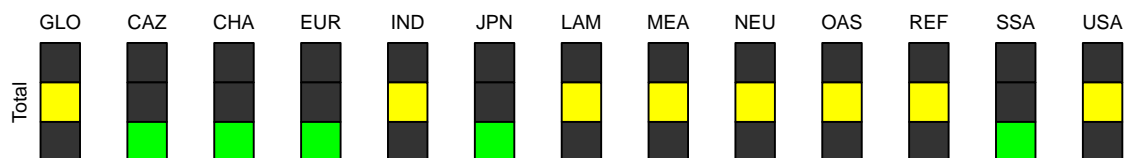
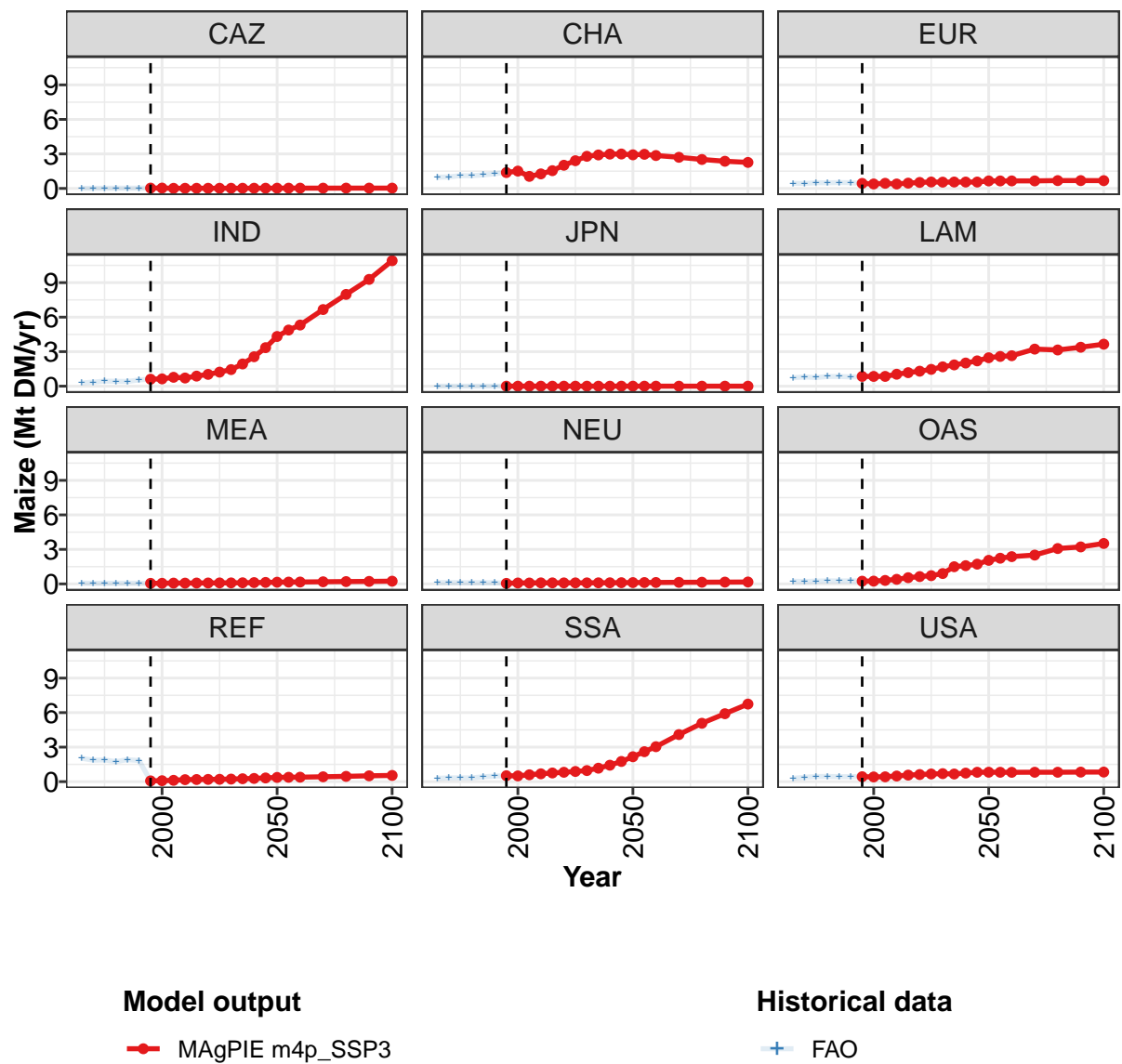


Figure 217: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.6	4.8	4.7	5.3	6.3	7.3	8.3	9.4	11.0	12.4	14.0
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	1.4	1.5	1.0	1.3	1.5	2.0	2.4	2.8	2.9	3.0	3.0
EUR	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.5	0.6	0.6	0.6
IND	0.6	0.6	0.8	0.7	0.9	1.0	1.2	1.4	1.9	2.6	3.3
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.8	0.8	0.8	1.0	1.2	1.3	1.5	1.7	1.8	2.0	2.2
MEA	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEU	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.9	1.5	1.6	1.7
REF	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3
SSA	0.5	0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.2	1.4	1.8
USA	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.8

Table 650: MAGPIE m4p_SSP3 — Demand—Seed—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

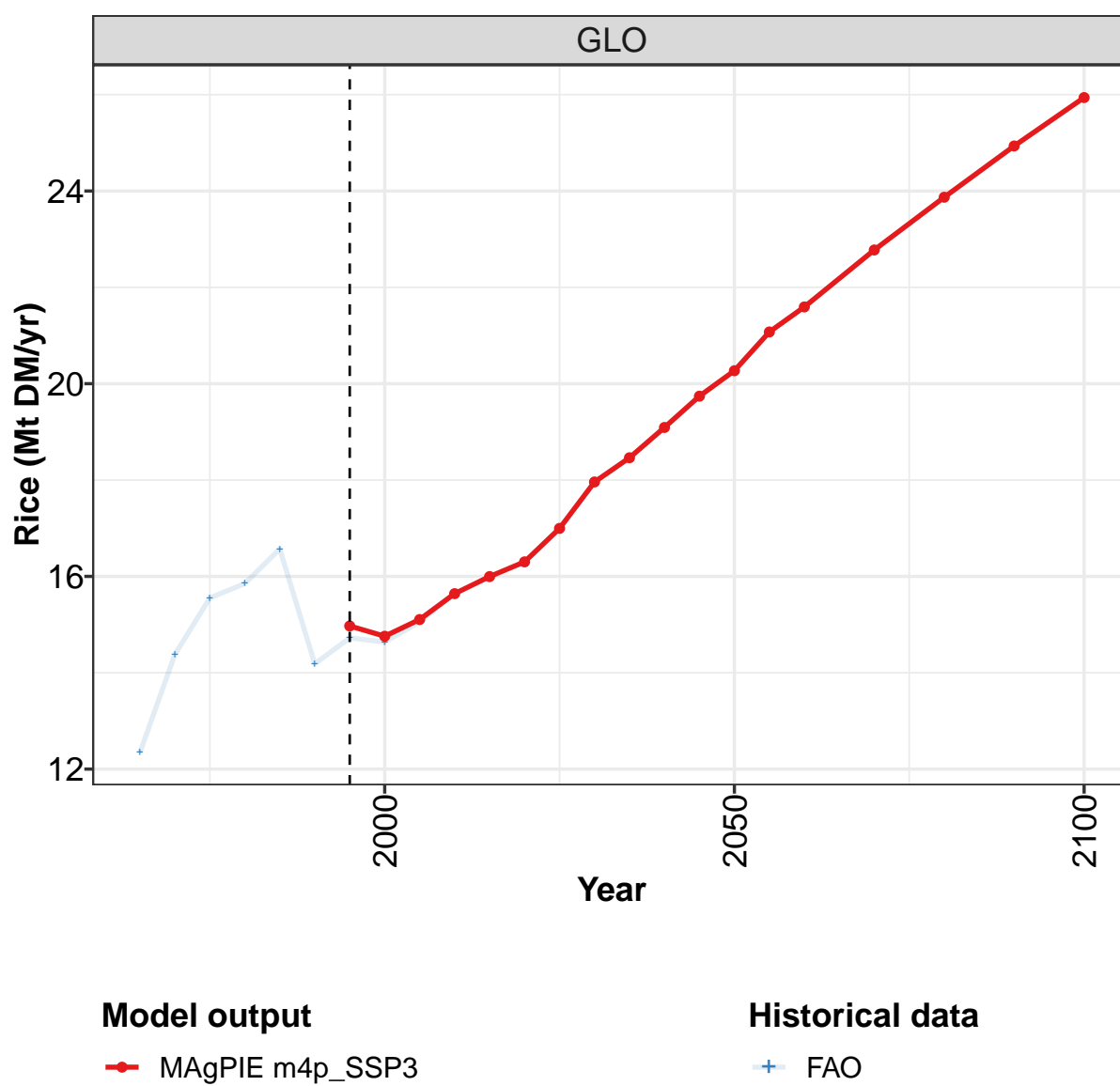
	2050	2055	2060	2070	2080	2090	2100
GLO	16.1	17.4	18.4	21.4	24.1	26.6	29.6
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	2.9	3.0	2.9	2.7	2.5	2.4	2.3
EUR	0.7	0.7	0.7	0.7	0.7	0.7	0.7
IND	4.3	4.9	5.3	6.7	8.0	9.3	10.9
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	2.5	2.6	2.6	3.2	3.1	3.4	3.6
MEA	0.1	0.2	0.2	0.2	0.2	0.2	0.2
NEU	0.1	0.1	0.1	0.1	0.1	0.2	0.2
OAS	2.1	2.2	2.4	2.5	3.1	3.2	3.5
REF	0.4	0.4	0.4	0.4	0.5	0.5	0.5
SSA	2.2	2.6	3.0	4.1	5.1	5.9	6.7
USA	0.8	0.8	0.8	0.8	0.8	0.8	0.8

Table 651: MAGPIE m4p_SSP3 — Demand—Seed—Crops—Cereals—Maize (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.47	5.53	5.89	5.83	6.15	6.32	4.71	4.83	4.65	5.44
CAZ	0.01	0.01	0.02	0.03	0.02	0.02	0.03	0.03	0.01	0.01
CHA	0.97	1.00	1.11	1.11	1.17	1.28	1.41	1.53	1.01	1.29
EUR	0.44	0.43	0.50	0.48	0.51	0.49	0.44	0.38	0.39	0.37
IND	0.28	0.34	0.44	0.42	0.40	0.54	0.61	0.64	0.76	0.84
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.74	0.80	0.75	0.84	0.84	0.81	0.82	0.84	0.87	0.97
MEA	0.07	0.05	0.06	0.06	0.06	0.06	0.05	0.05	0.07	0.07
NEU	0.11	0.11	0.11	0.10	0.11	0.10	0.06	0.08	0.08	0.09
OAS	0.23	0.21	0.24	0.27	0.26	0.27	0.25	0.26	0.31	0.40
REF	2.03	1.86	1.88	1.74	1.91	1.83	0.07	0.09	0.12	0.16
SSA	0.29	0.32	0.33	0.33	0.42	0.48	0.51	0.49	0.60	0.73
USA	0.29	0.38	0.45	0.45	0.44	0.43	0.45	0.43	0.44	0.51

Table 652: FAO — Demand—Seed—Crops—Cereals—Maize (Mt DM/yr)

10.1.3 Cereals—Rice



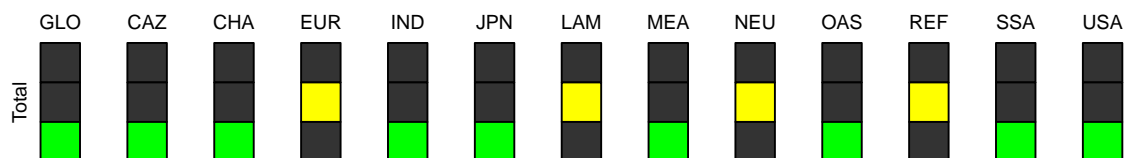
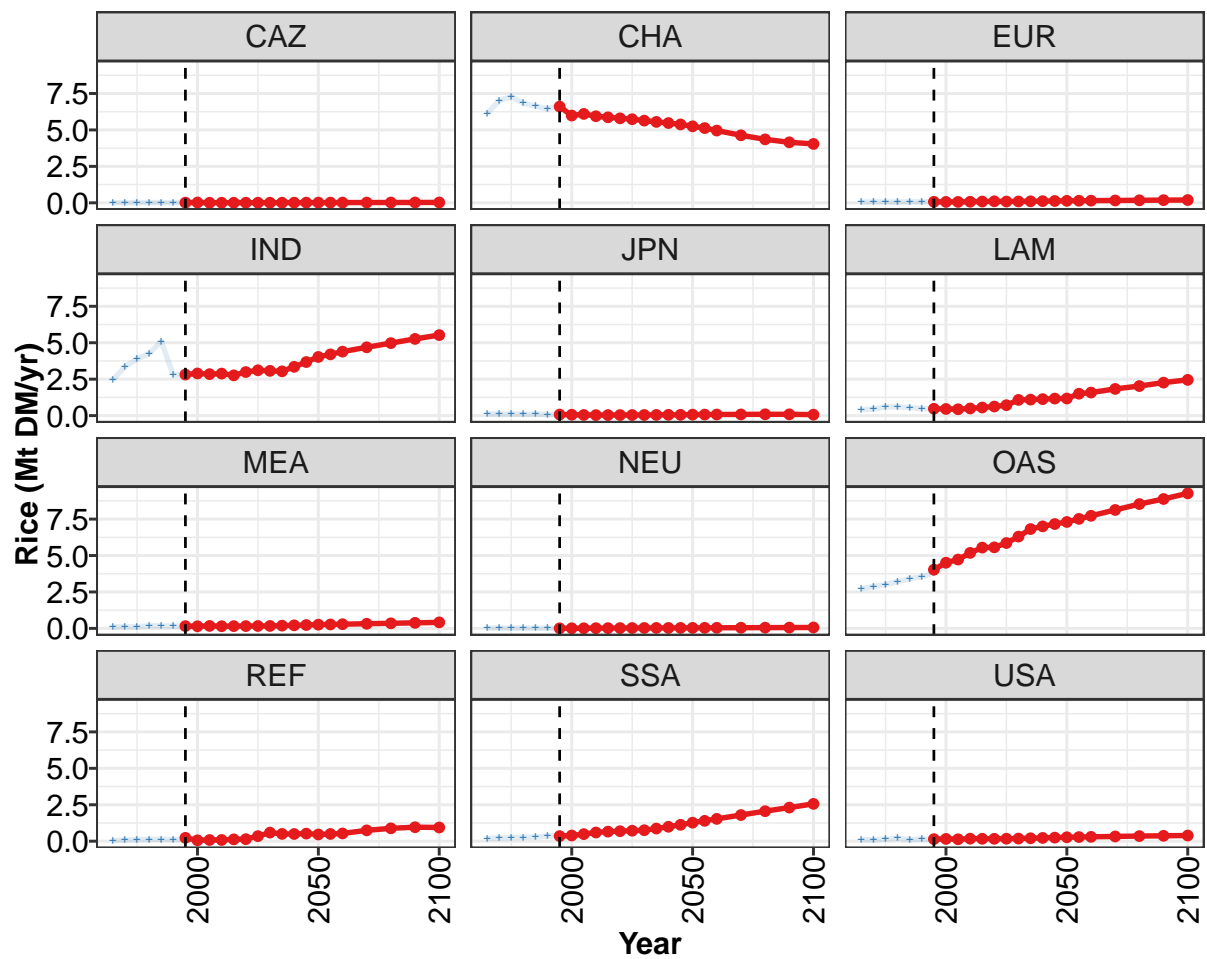


Figure 218: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	15.0	14.8	15.1	15.6	16.0	16.3	17.0	18.0	18.5	19.1	19.7
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	6.6	6.0	6.1	5.9	5.9	5.8	5.7	5.6	5.6	5.5	5.4
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	2.8	2.9	2.8	2.9	2.8	3.0	3.1	3.1	3.0	3.3	3.7
JPN	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
LAM	0.5	0.5	0.4	0.5	0.6	0.6	0.7	1.1	1.1	1.1	1.2
MEA	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	4.0	4.5	4.7	5.2	5.5	5.6	5.9	6.3	6.8	7.0	7.2
REF	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.6	0.5	0.5	0.5
SSA	0.4	0.4	0.5	0.6	0.7	0.7	0.7	0.8	0.9	1.0	1.1
USA	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Table 653: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

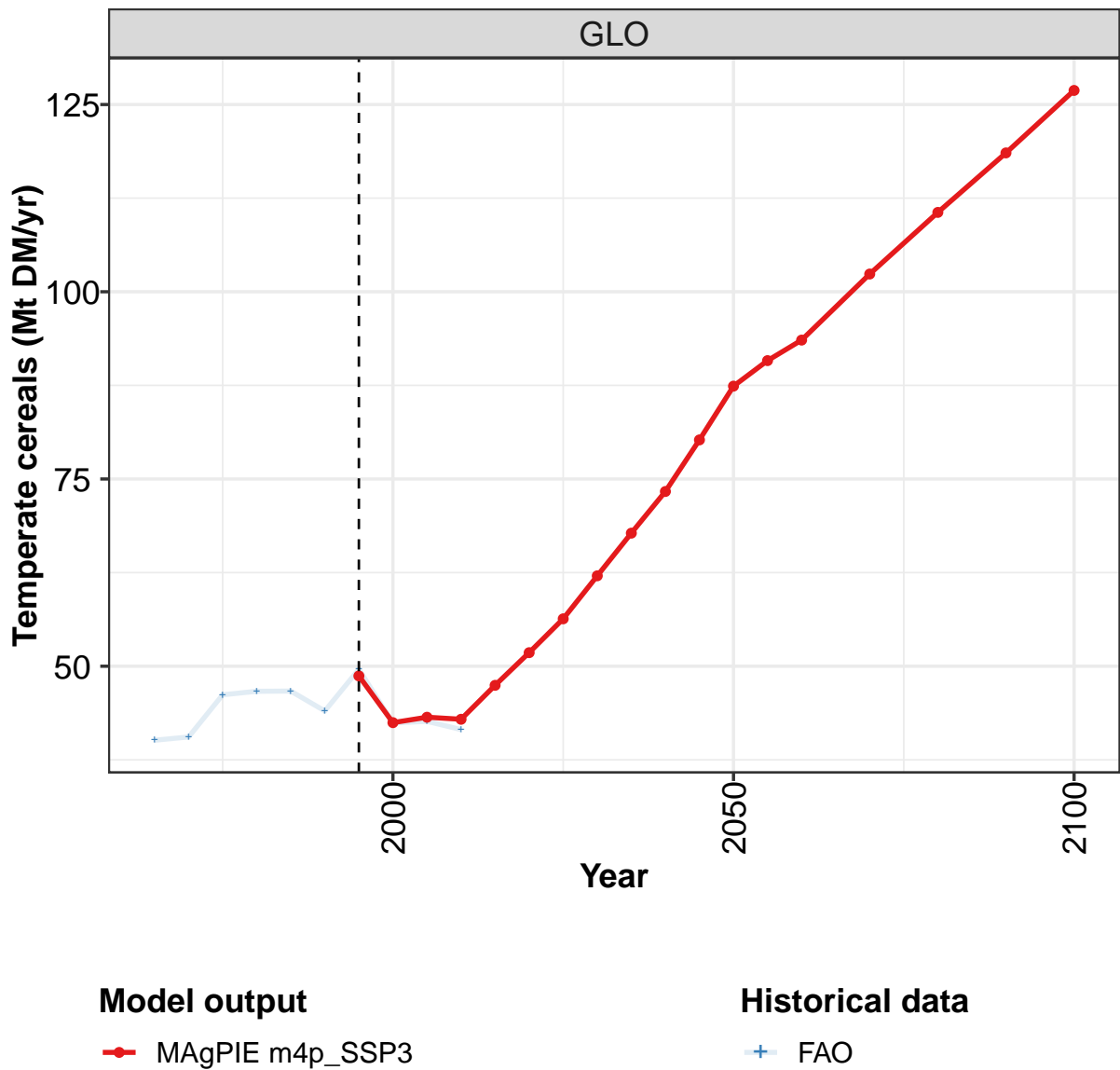
	2050	2055	2060	2070	2080	2090	2100
GLO	20.3	21.1	21.6	22.8	23.9	24.9	25.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	5.2	5.1	5.0	4.6	4.4	4.2	4.0
EUR	0.1	0.1	0.2	0.2	0.2	0.2	0.2
IND	4.0	4.2	4.4	4.7	5.0	5.3	5.5
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	1.2	1.5	1.6	1.8	2.0	2.3	2.5
MEA	0.3	0.3	0.3	0.3	0.3	0.4	0.4
NEU	0.0	0.0	0.0	0.0	0.1	0.1	0.1
OAS	7.3	7.5	7.7	8.1	8.5	8.9	9.3
REF	0.5	0.5	0.5	0.7	0.9	1.0	0.9
SSA	1.3	1.4	1.5	1.8	2.1	2.3	2.6
USA	0.3	0.3	0.3	0.3	0.4	0.4	0.4

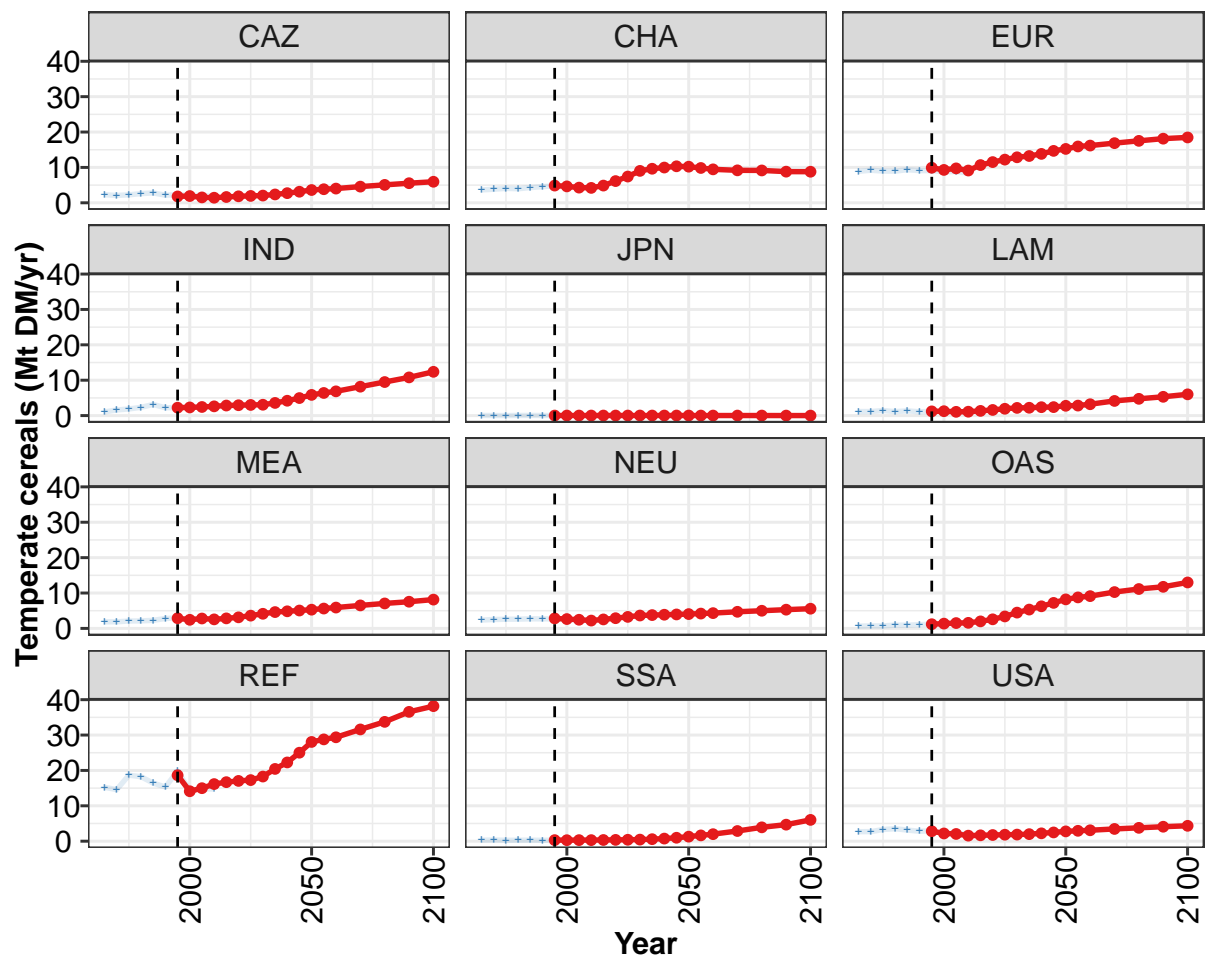
Table 654: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Cereals—Rice (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	12.3	14.4	15.6	15.9	16.6	14.2	14.7	14.6	15.1	15.7
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	6.1	7.0	7.3	6.8	6.6	6.4	6.7	6.0	6.1	5.9
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	2.4	3.4	3.9	4.3	5.1	2.8	2.8	2.9	2.9	2.9
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
LAM	0.4	0.4	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.5
MEA	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	2.7	2.9	3.0	3.2	3.4	3.5	3.8	4.3	4.7	5.2
REF	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SSA	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.6
USA	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2

Table 655: FAO — Demand—Seed—Crops—Cereals—Rice (Mt DM/yr)

10.1.4 **Cereals—Temperate cereals**





Model output

—●— MAGPIE m4p_SSP3

Historical data

+— FAO

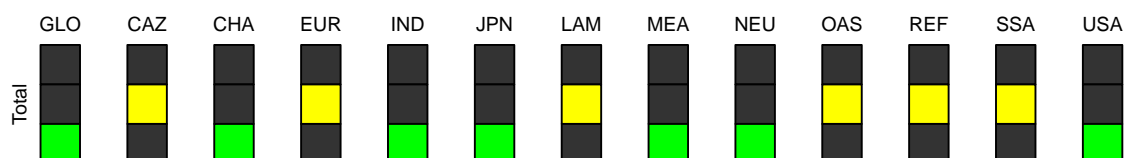


Figure 219: MAGPIE m4p_SSP3 — Demand—Seed—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	49	42	43	43	47	52	56	62	68	73	80
CAZ	2	2	2	1	2	2	2	2	2	3	3
CHA	5	5	4	4	5	6	7	9	10	10	10
EUR	10	9	10	9	11	12	12	13	13	14	15
IND	2	2	2	3	3	3	3	3	4	4	5
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1	1	1	1	1	2	2	2	2	2	2
MEA	3	2	3	3	3	3	4	4	5	5	5
NEU	3	3	2	2	3	3	3	4	4	4	4
OAS	1	1	2	2	2	3	3	4	5	6	7
REF	19	14	15	16	17	17	17	18	20	22	25
SSA	0	0	0	0	0	0	0	0	1	1	1
USA	3	2	2	2	2	2	2	2	2	2	2

Table 656: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 1/2]

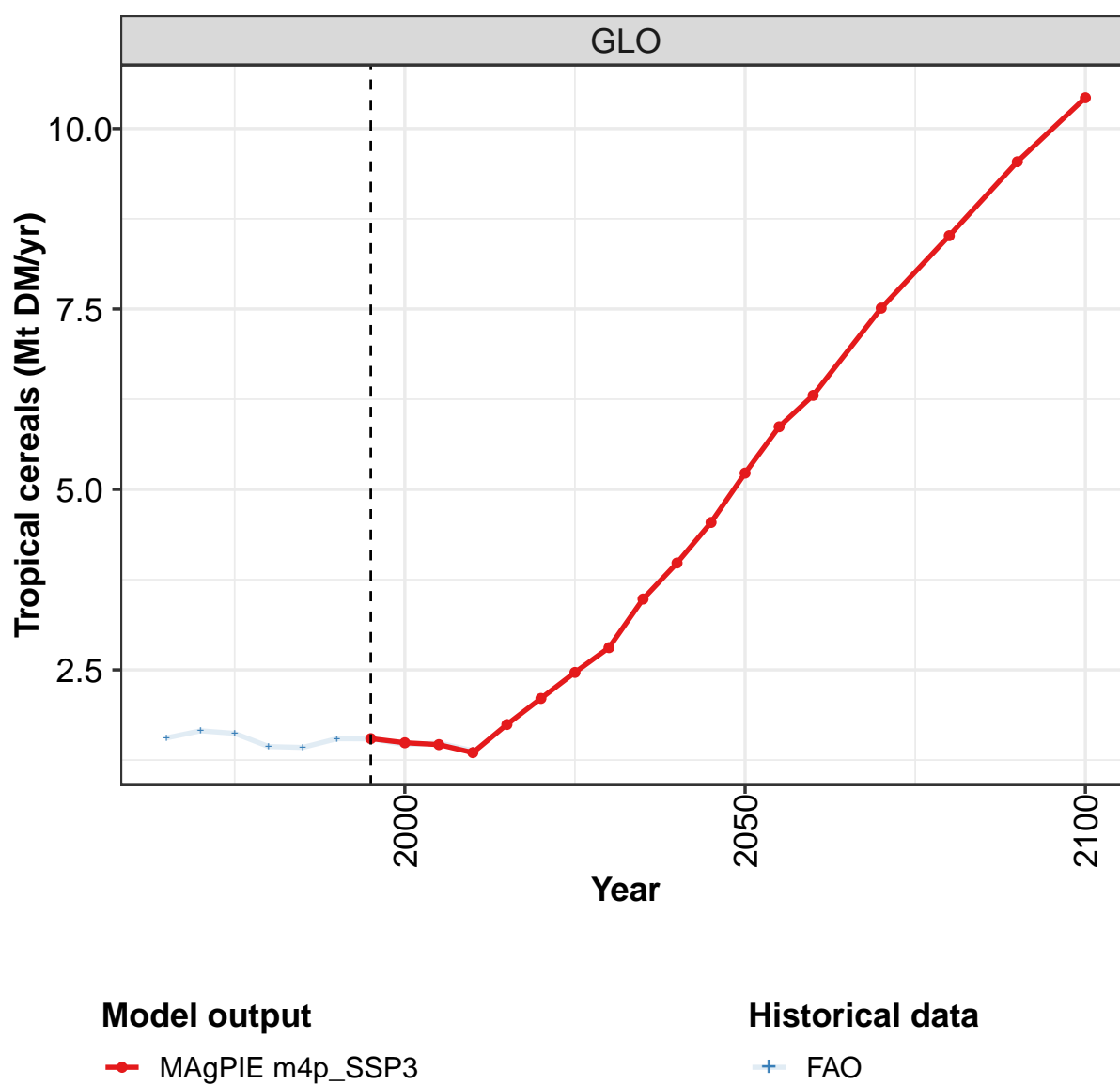
	2050	2055	2060	2070	2080	2090	2100
GLO	87	91	94	102	111	119	127
CAZ	4	4	4	5	5	6	6
CHA	10	10	9	9	9	9	9
EUR	15	16	16	17	18	18	18
IND	6	6	7	8	9	11	12
JPN	0	0	0	0	0	0	0
LAM	3	3	3	4	5	5	6
MEA	5	6	6	6	7	8	8
NEU	4	4	4	5	5	5	6
OAS	8	9	9	10	11	12	13
REF	28	29	29	32	34	37	38
SSA	1	2	2	3	4	5	6
USA	3	3	3	3	4	4	4

Table 657: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	40.1	40.6	46.2	46.7	46.7	44.0	49.6	42.4	42.6	41.5
CAZ	2.3	2.1	2.2	2.6	2.8	2.1	2.3	2.1	2.1	1.8
CHA	3.6	3.8	4.1	4.0	4.3	4.5	4.9	4.7	4.3	4.3
EUR	8.9	9.2	9.0	8.9	9.3	9.1	9.1	8.7	8.9	8.4
IND	1.0	1.6	1.9	2.3	3.1	2.2	2.3	2.3	2.4	2.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.2	1.1	1.4	1.1	1.4	1.1	1.2	1.2	1.1	1.1
MEA	1.9	1.9	2.1	2.1	2.3	2.8	2.9	2.4	2.8	2.6
NEU	2.4	2.5	2.6	2.6	2.7	2.7	2.7	2.5	2.3	2.1
OAS	0.6	0.7	0.7	0.9	0.9	1.1	1.2	1.4	1.5	1.6
REF	15.2	14.6	18.6	18.2	16.4	15.3	19.8	14.4	14.8	14.7
SSA	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3
USA	2.7	2.7	3.3	3.5	3.1	2.8	2.9	2.3	2.2	2.0

Table 658: FAO — Demand—Seed—Crops—Cereals—Temperate cereals (Mt DM/yr)

10.1.5 Cereals—Tropical cereals



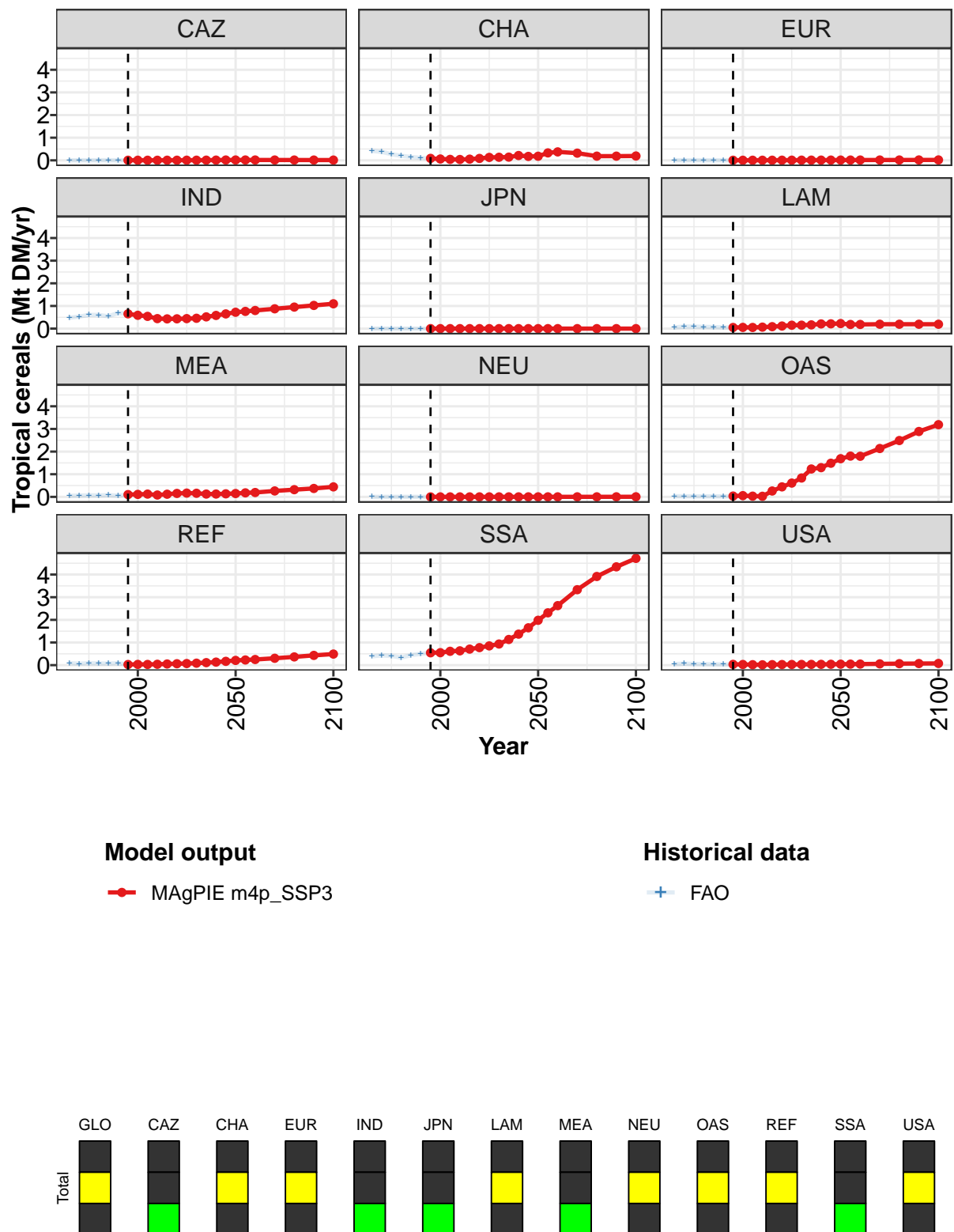


Figure 220: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.5	1.5	1.5	1.4	1.7	2.1	2.5	2.8	3.5	4.0	4.5
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
MEA	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.0	0.1	0.0	0.0	0.3	0.4	0.6	0.8	1.2	1.3	1.5
REF	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2
SSA	0.5	0.6	0.6	0.6	0.7	0.8	0.9	0.9	1.1	1.4	1.6
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 659: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

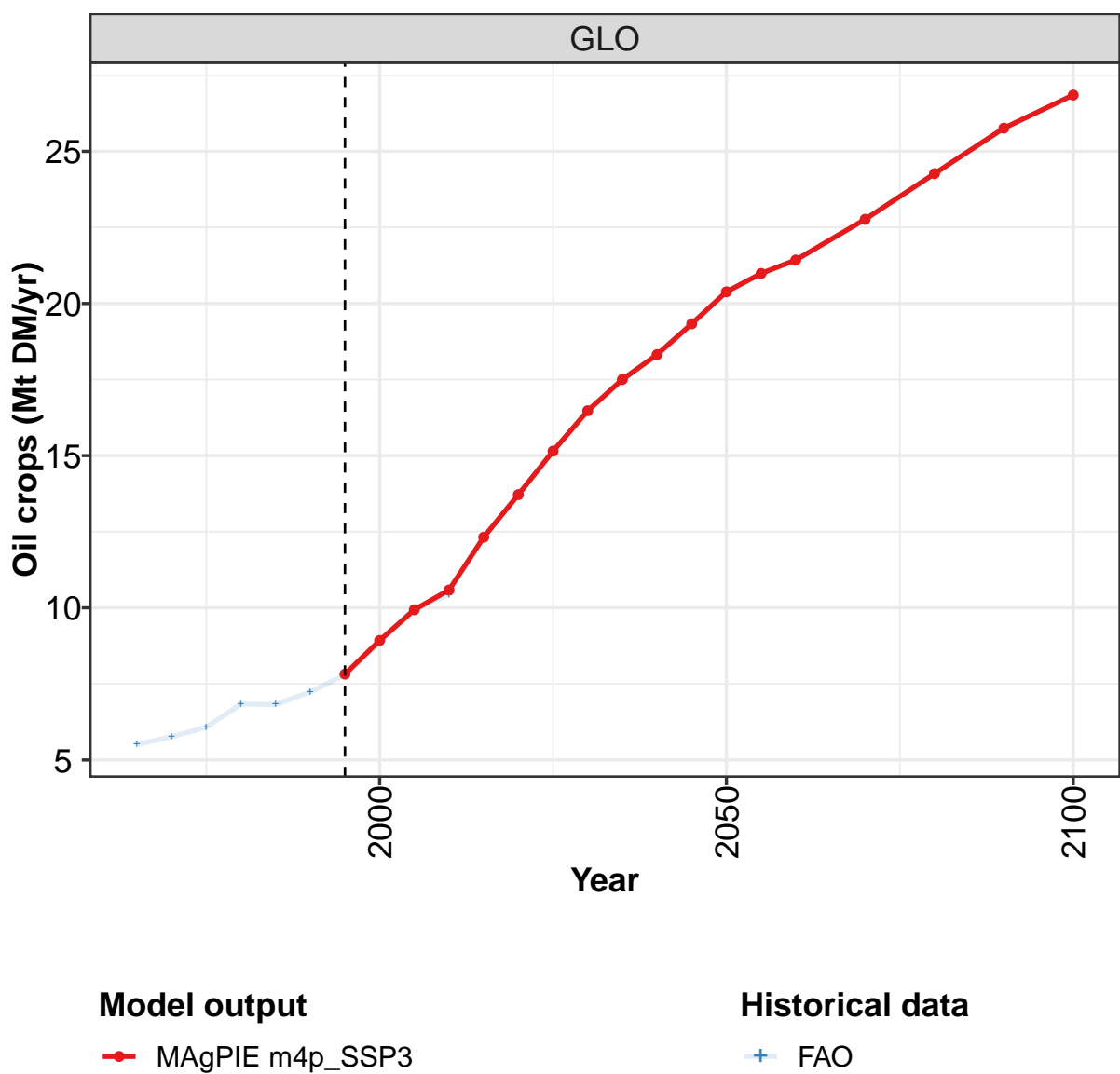
	2050	2055	2060	2070	2080	2090	2100
GLO	5.2	5.9	6.3	7.5	8.5	9.5	10.4
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.2	0.3	0.4	0.3	0.2	0.2	0.2
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.7	0.8	0.8	0.9	1.0	1.0	1.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.2	0.2	0.2	0.2	0.2	0.2
MEA	0.1	0.2	0.2	0.3	0.3	0.4	0.4
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	1.7	1.8	1.8	2.1	2.5	2.9	3.2
REF	0.2	0.2	0.2	0.3	0.4	0.4	0.5
SSA	2.0	2.3	2.6	3.3	3.9	4.3	4.7
USA	0.0	0.0	0.0	0.1	0.1	0.1	0.1

Table 660: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.56	1.66	1.62	1.44	1.42	1.54	1.54	1.46	1.49	1.38
CAZ	0.00	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.00
CHA	0.42	0.38	0.27	0.20	0.15	0.11	0.09	0.06	0.04	0.04
EUR	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
IND	0.48	0.53	0.60	0.60	0.54	0.69	0.65	0.59	0.54	0.48
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.05	0.09	0.09	0.08	0.07	0.05	0.06	0.06	0.05	0.07
MEA	0.05	0.06	0.07	0.07	0.08	0.05	0.10	0.10	0.12	0.08
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.03	0.03	0.03
REF	0.09	0.06	0.08	0.07	0.07	0.08	0.03	0.03	0.03	0.04
SSA	0.39	0.43	0.41	0.34	0.44	0.50	0.55	0.56	0.64	0.63
USA	0.04	0.07	0.05	0.04	0.04	0.03	0.04	0.03	0.02	0.01

Table 661: FAO — Demand—Seed—Crops—Cereals—Tropical cereals (Mt DM/yr)

10.1.6 Oil crops



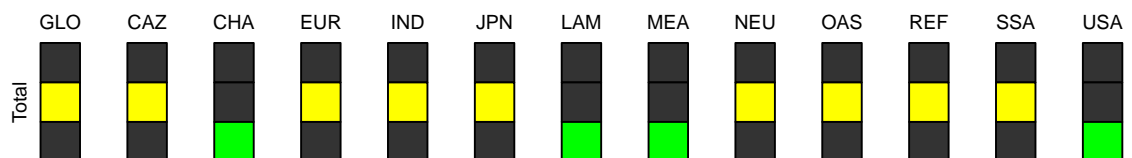
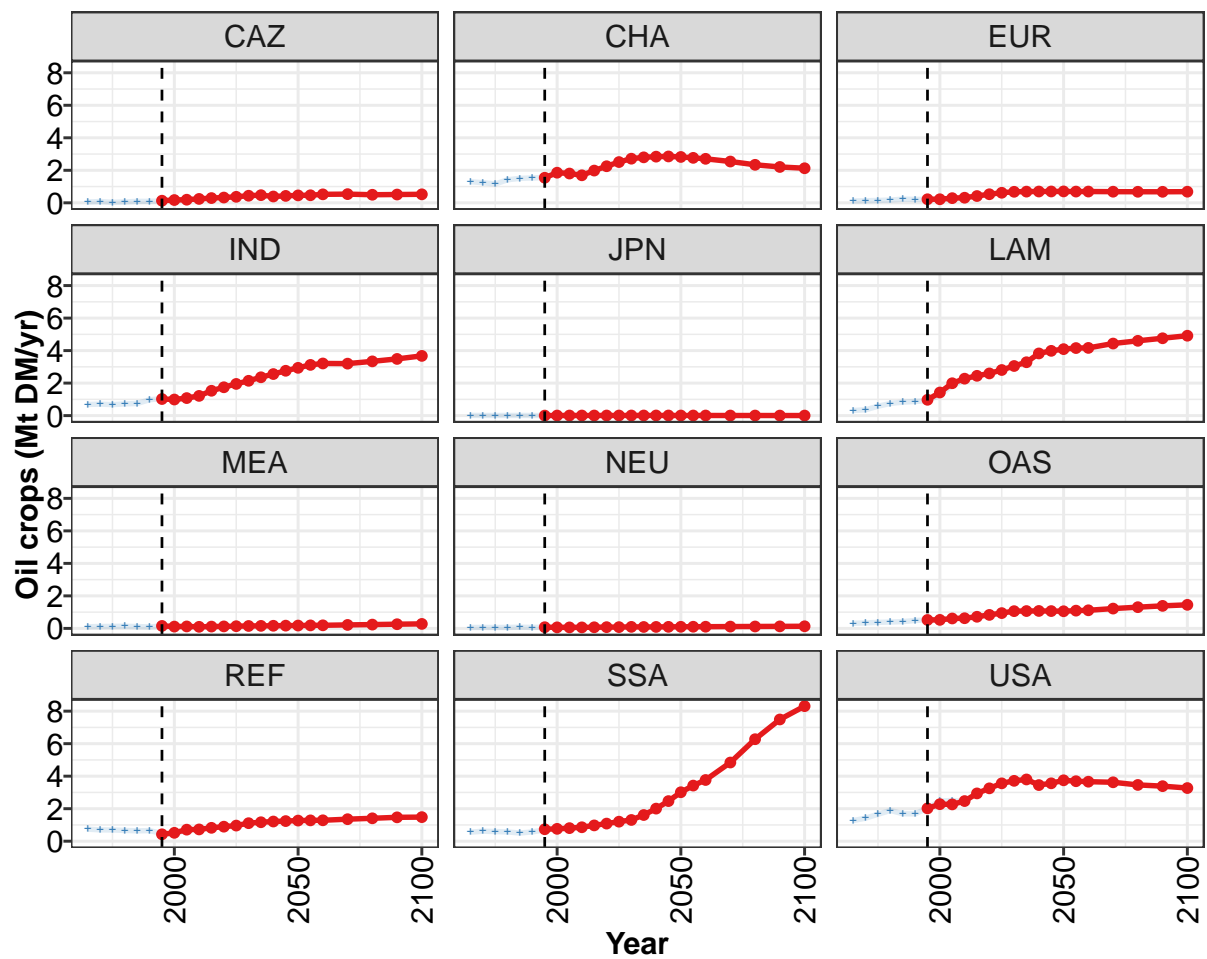


Figure 221: MAGPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.8	8.9	9.9	10.6	12.3	13.7	15.1	16.5	17.5	18.3	19.3
CAZ	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.4	0.4
CHA	1.5	1.9	1.8	1.7	2.0	2.3	2.5	2.7	2.8	2.8	2.9
EUR	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.7
IND	1.0	1.0	1.1	1.2	1.5	1.7	2.0	2.1	2.4	2.6	2.8
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.0	1.4	2.0	2.3	2.4	2.6	2.8	3.1	3.3	3.8	4.0
MEA	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	0.5	0.5	0.6	0.6	0.7	0.8	0.9	1.1	1.1	1.1	1.1
REF	0.4	0.5	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.2	1.2
SSA	0.7	0.8	0.8	0.9	1.0	1.1	1.2	1.3	1.6	2.0	2.5
USA	2.0	2.3	2.3	2.5	2.9	3.3	3.6	3.7	3.8	3.5	3.6

Table 662: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops (Mt DM/yr) [PART 1/2]

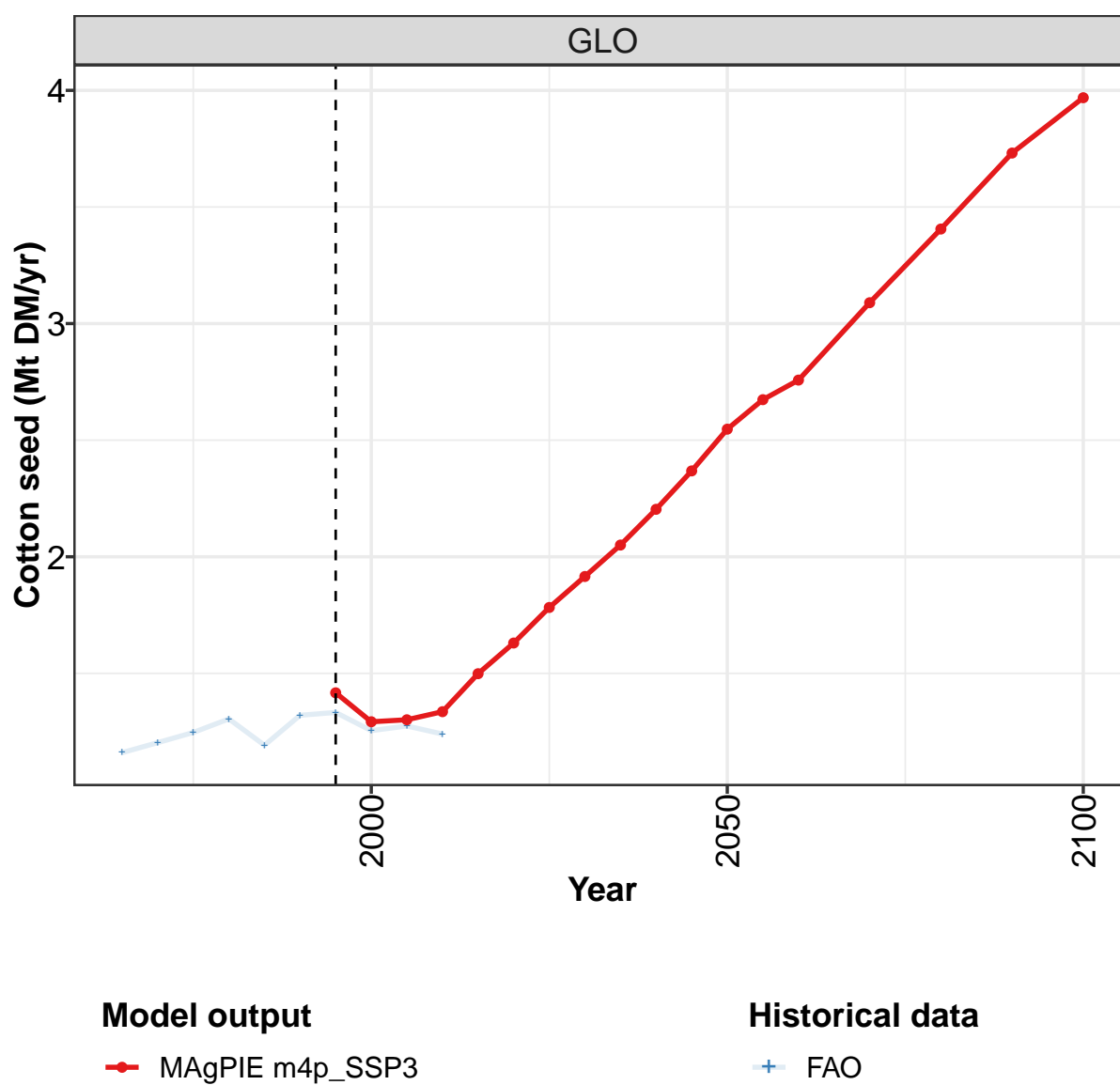
	2050	2055	2060	2070	2080	2090	2100
GLO	20.4	21.0	21.4	22.8	24.3	25.8	26.9
CAZ	0.5	0.5	0.5	0.5	0.5	0.5	0.5
CHA	2.8	2.8	2.7	2.5	2.3	2.2	2.1
EUR	0.7	0.7	0.7	0.7	0.7	0.7	0.7
IND	2.9	3.1	3.2	3.2	3.3	3.5	3.7
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	4.1	4.2	4.2	4.4	4.6	4.8	4.9
MEA	0.2	0.2	0.2	0.2	0.2	0.3	0.3
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	1.1	1.1	1.1	1.2	1.3	1.4	1.5
REF	1.3	1.3	1.3	1.4	1.4	1.5	1.5
SSA	3.0	3.4	3.8	4.8	6.3	7.5	8.3
USA	3.7	3.7	3.7	3.6	3.5	3.4	3.3

Table 663: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.5	5.8	6.1	6.8	6.8	7.2	7.8	8.9	10.0	10.4
CAZ	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2
CHA	1.3	1.2	1.2	1.4	1.5	1.5	1.6	1.9	1.8	1.7
EUR	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3
IND	0.7	0.7	0.7	0.7	0.7	1.0	1.0	1.0	1.1	1.2
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.3	0.4	0.6	0.7	0.8	0.9	0.9	1.3	1.9	2.2
MEA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
REF	0.7	0.7	0.7	0.7	0.6	0.7	0.5	0.4	0.7	0.7
SSA	0.6	0.6	0.6	0.6	0.5	0.6	0.7	0.8	0.8	0.9
USA	1.3	1.4	1.7	1.9	1.7	1.7	2.0	2.5	2.5	2.4

Table 664: FAO — Demand—Seed—Crops—Oil crops (Mt DM/yr)

10.1.7 Oil crops—Cotton seed



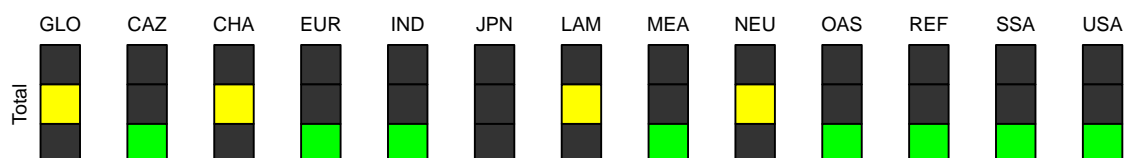
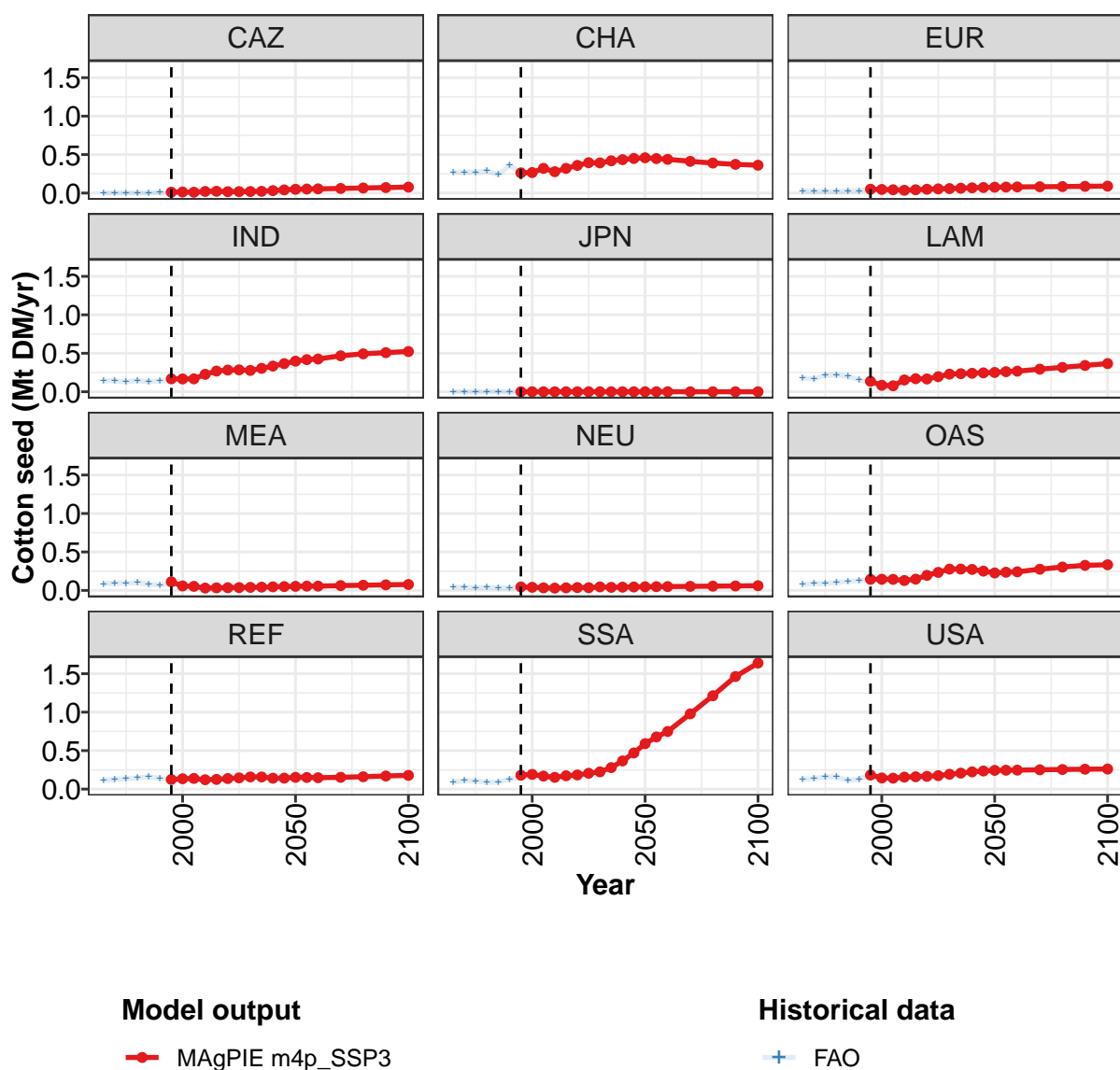


Figure 222: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.42	1.29	1.30	1.34	1.50	1.63	1.78	1.92	2.05	2.20	2.37
CAZ	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.04
CHA	0.26	0.27	0.32	0.28	0.32	0.36	0.39	0.39	0.42	0.43	0.45
EUR	0.05	0.05	0.04	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.07
IND	0.17	0.17	0.17	0.23	0.27	0.28	0.28	0.28	0.30	0.33	0.37
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.14	0.08	0.08	0.15	0.17	0.17	0.20	0.23	0.23	0.24	0.25
MEA	0.11	0.06	0.05	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.05
NEU	0.05	0.04	0.03	0.03	0.03	0.04	0.04	0.05	0.04	0.04	0.05
OAS	0.14	0.15	0.14	0.13	0.15	0.20	0.23	0.28	0.28	0.27	0.25
REF	0.13	0.13	0.14	0.12	0.13	0.14	0.15	0.16	0.16	0.14	0.14
SSA	0.18	0.19	0.17	0.15	0.17	0.18	0.21	0.22	0.28	0.37	0.47
USA	0.18	0.14	0.14	0.16	0.16	0.17	0.17	0.19	0.21	0.22	0.24

Table 665: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

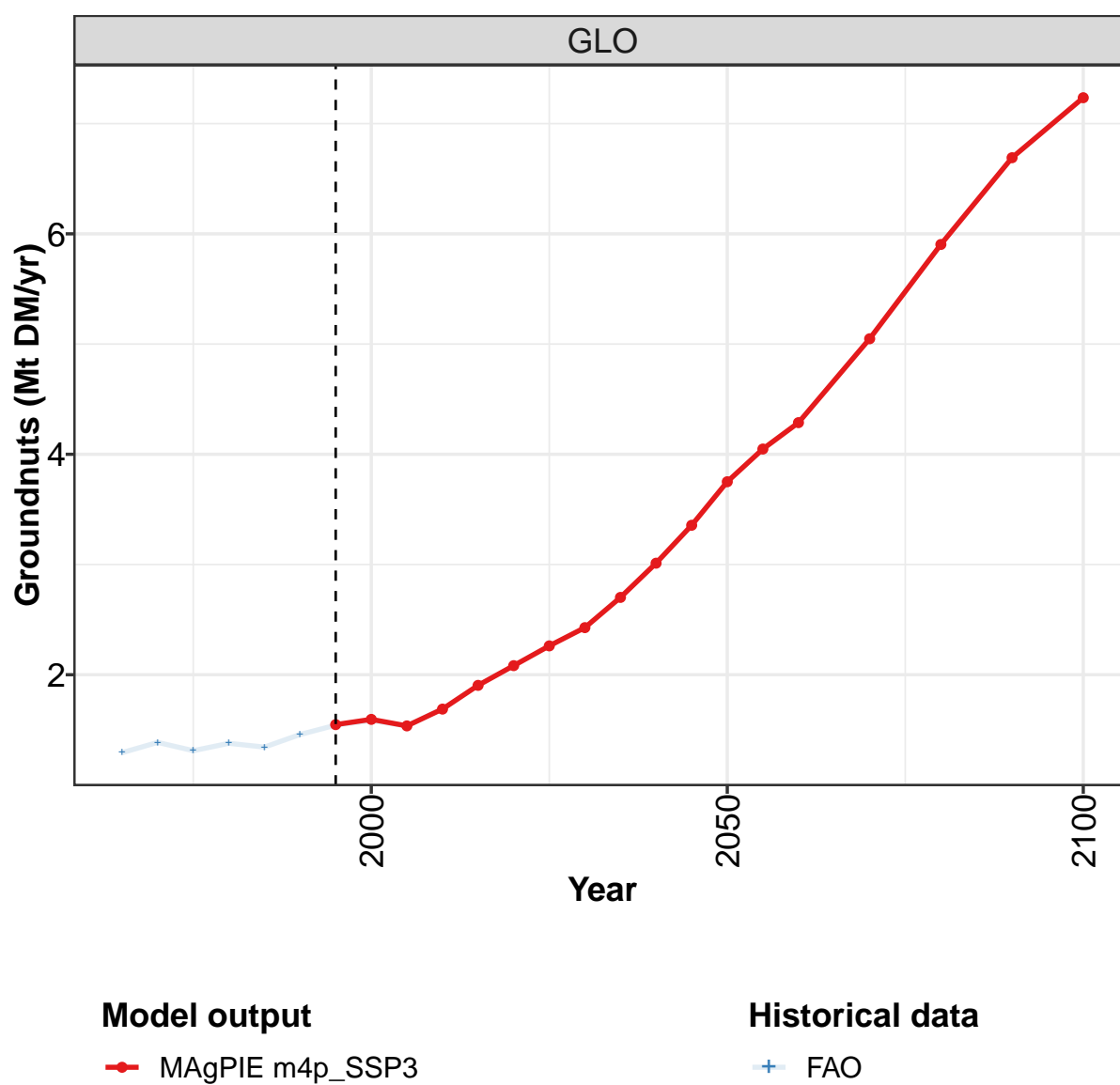
	2050	2055	2060	2070	2080	2090	2100
GLO	2.55	2.67	2.76	3.09	3.41	3.73	3.97
CAZ	0.05	0.05	0.05	0.06	0.07	0.07	0.08
CHA	0.46	0.45	0.44	0.41	0.39	0.37	0.36
EUR	0.08	0.08	0.08	0.08	0.08	0.09	0.09
IND	0.40	0.42	0.43	0.47	0.49	0.51	0.52
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.25	0.26	0.27	0.29	0.32	0.34	0.37
MEA	0.05	0.06	0.06	0.06	0.07	0.07	0.08
NEU	0.05	0.05	0.05	0.05	0.06	0.06	0.06
OAS	0.23	0.24	0.24	0.28	0.30	0.33	0.33
REF	0.15	0.15	0.15	0.15	0.16	0.17	0.18
SSA	0.59	0.68	0.75	0.98	1.21	1.46	1.64
USA	0.24	0.25	0.25	0.25	0.25	0.26	0.26

Table 666: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.16	1.20	1.25	1.30	1.19	1.32	1.33	1.25	1.27	1.24
CAZ	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02
CHA	0.27	0.27	0.27	0.29	0.24	0.36	0.26	0.27	0.32	0.28
EUR	0.03	0.02	0.02	0.02	0.03	0.03	0.05	0.05	0.04	0.04
IND	0.14	0.14	0.13	0.15	0.13	0.14	0.17	0.17	0.17	0.22
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.18	0.17	0.21	0.22	0.20	0.15	0.12	0.08	0.08	0.11
MEA	0.09	0.09	0.09	0.10	0.08	0.07	0.10	0.06	0.05	0.02
NEU	0.04	0.04	0.04	0.04	0.03	0.03	0.04	0.04	0.03	0.03
OAS	0.08	0.09	0.09	0.10	0.12	0.13	0.15	0.14	0.14	0.13
REF	0.11	0.13	0.14	0.15	0.16	0.14	0.12	0.12	0.13	0.11
SSA	0.09	0.11	0.11	0.08	0.09	0.13	0.15	0.18	0.16	0.13
USA	0.13	0.14	0.16	0.16	0.11	0.13	0.18	0.15	0.15	0.15

Table 667: FAO — Demand—Seed—Crops—Oil crops—Cotton seed (Mt DM/yr)

10.1.8 Oil crops—Groundnuts



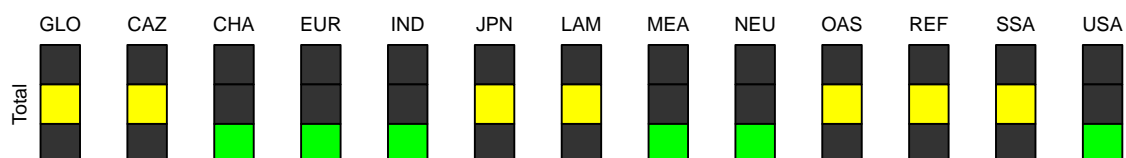
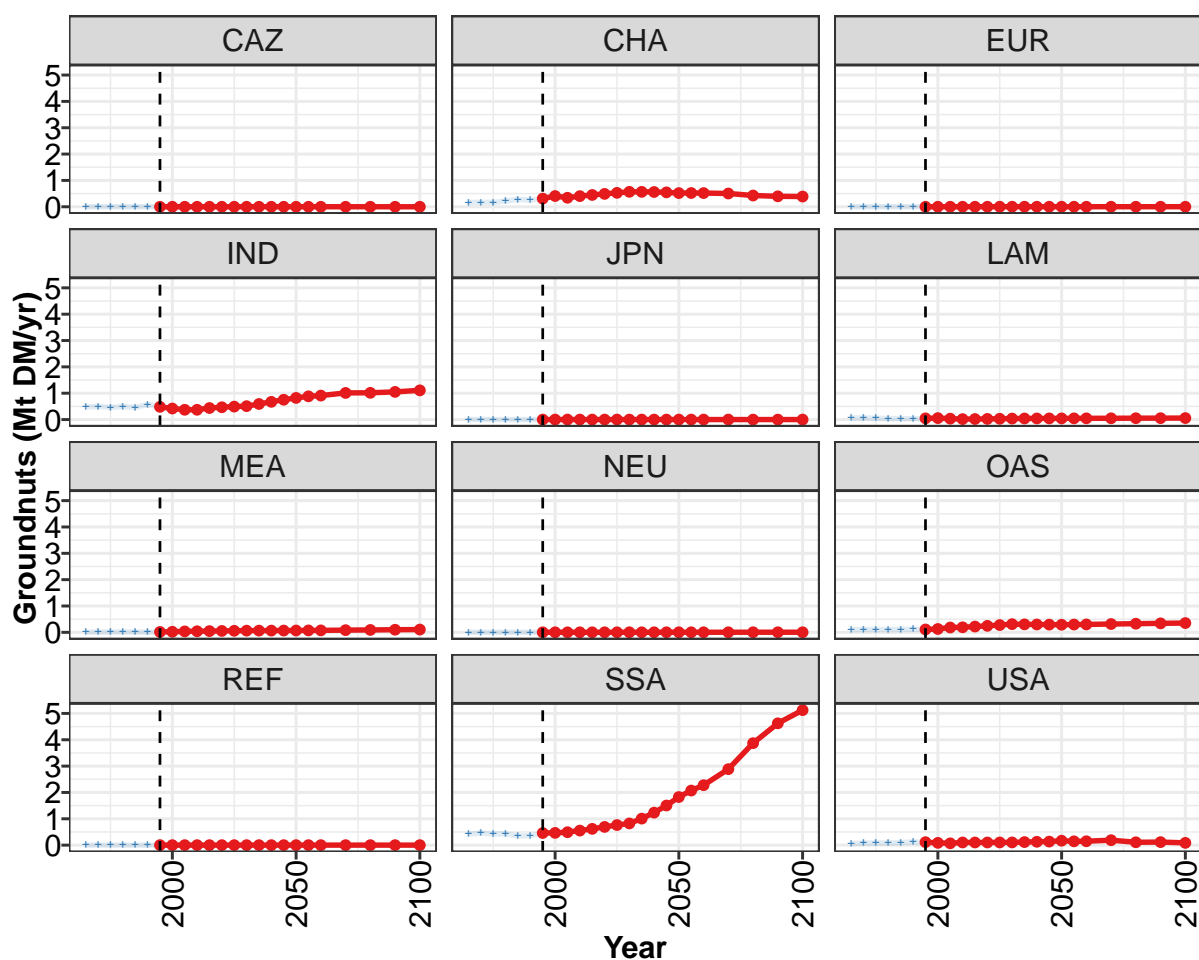


Figure 223: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.55	1.60	1.54	1.69	1.90	2.08	2.26	2.43	2.70	3.01	3.36
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.31	0.41	0.34	0.40	0.45	0.49	0.53	0.57	0.57	0.56	0.55
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.48	0.42	0.37	0.37	0.44	0.47	0.49	0.51	0.59	0.67	0.75
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.05	0.06	0.03	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.04
MEA	0.02	0.02	0.04	0.04	0.05	0.05	0.06	0.07	0.07	0.07	0.07
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.11	0.13	0.19	0.19	0.22	0.25	0.28	0.31	0.30	0.30	0.29
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.46	0.47	0.49	0.55	0.62	0.69	0.76	0.82	1.01	1.23	1.51
USA	0.11	0.09	0.07	0.10	0.10	0.10	0.10	0.10	0.12	0.13	0.14

Table 668: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

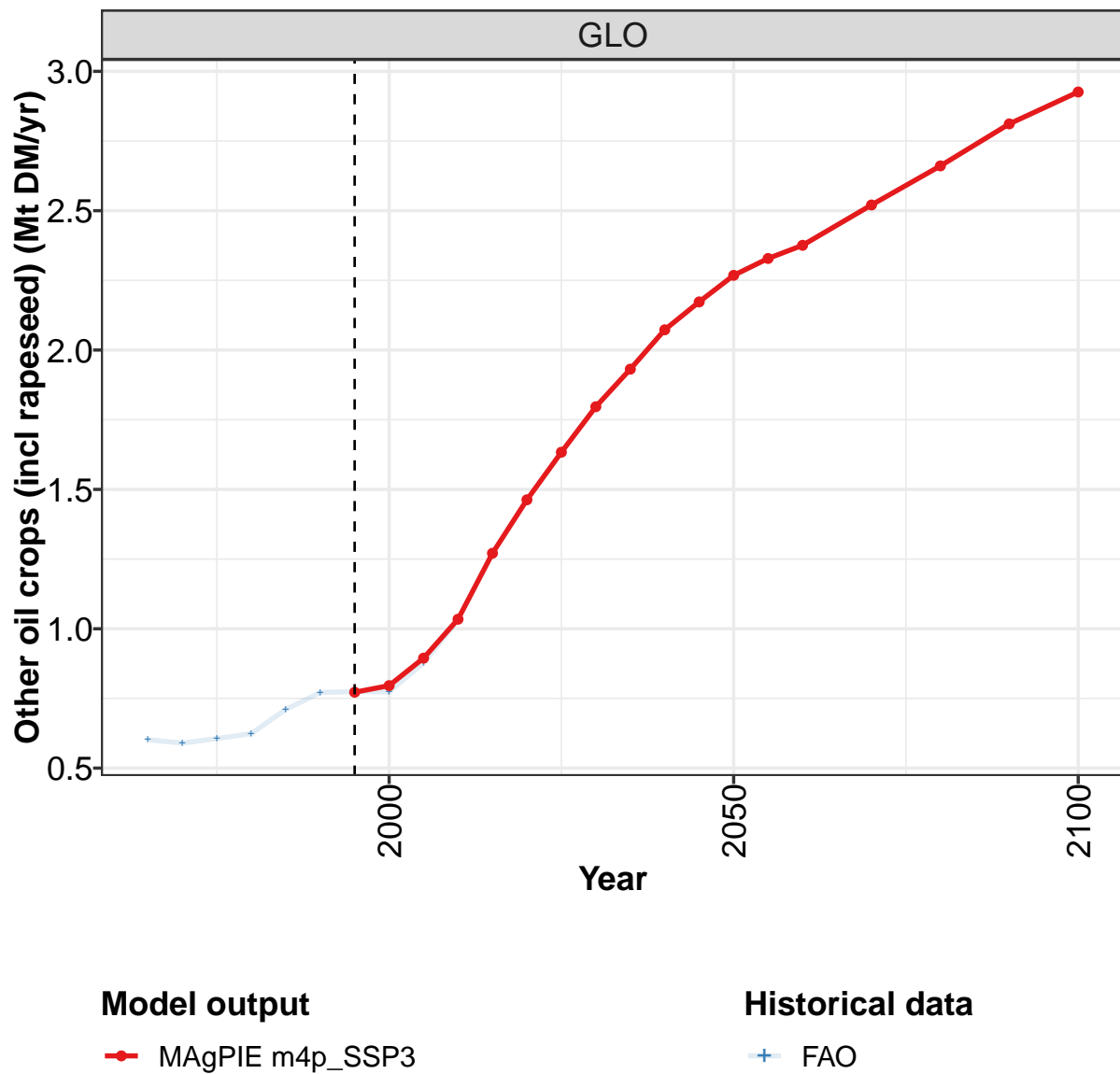
	2050	2055	2060	2070	2080	2090	2100
GLO	3.75	4.05	4.29	5.05	5.90	6.69	7.23
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.52	0.52	0.52	0.50	0.43	0.40	0.39
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.82	0.88	0.91	1.01	1.02	1.05	1.11
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.04	0.05	0.05	0.05	0.05	0.05	0.06
MEA	0.07	0.07	0.08	0.08	0.09	0.10	0.11
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.29	0.30	0.30	0.32	0.33	0.34	0.35
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	1.83	2.07	2.28	2.89	3.87	4.63	5.12
USA	0.17	0.15	0.15	0.19	0.11	0.12	0.09

Table 669: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.29	1.39	1.31	1.38	1.34	1.46	1.54	1.59	1.53	1.69
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.16	0.17	0.16	0.22	0.28	0.25	0.31	0.43	0.34	0.39
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.48	0.49	0.46	0.49	0.46	0.57	0.50	0.41	0.37	0.35
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.06	0.06	0.05	0.04	0.03	0.03	0.03	0.04	0.03	0.04
MEA	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.02	0.04	0.04
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.10	0.11	0.11	0.10	0.11	0.12	0.11	0.13	0.19	0.19
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.42	0.46	0.42	0.43	0.35	0.35	0.46	0.47	0.49	0.58
USA	0.06	0.08	0.08	0.08	0.09	0.12	0.10	0.08	0.08	0.09

Table 670: FAO — Demand—Seed—Crops—Oil crops—Groundnuts (Mt DM/yr)

10.1.9 Oil crops—Other oil crops (incl rapeseed)



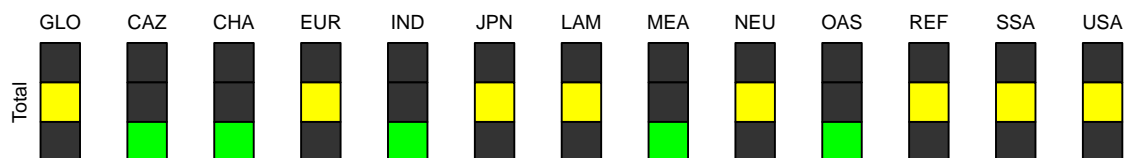
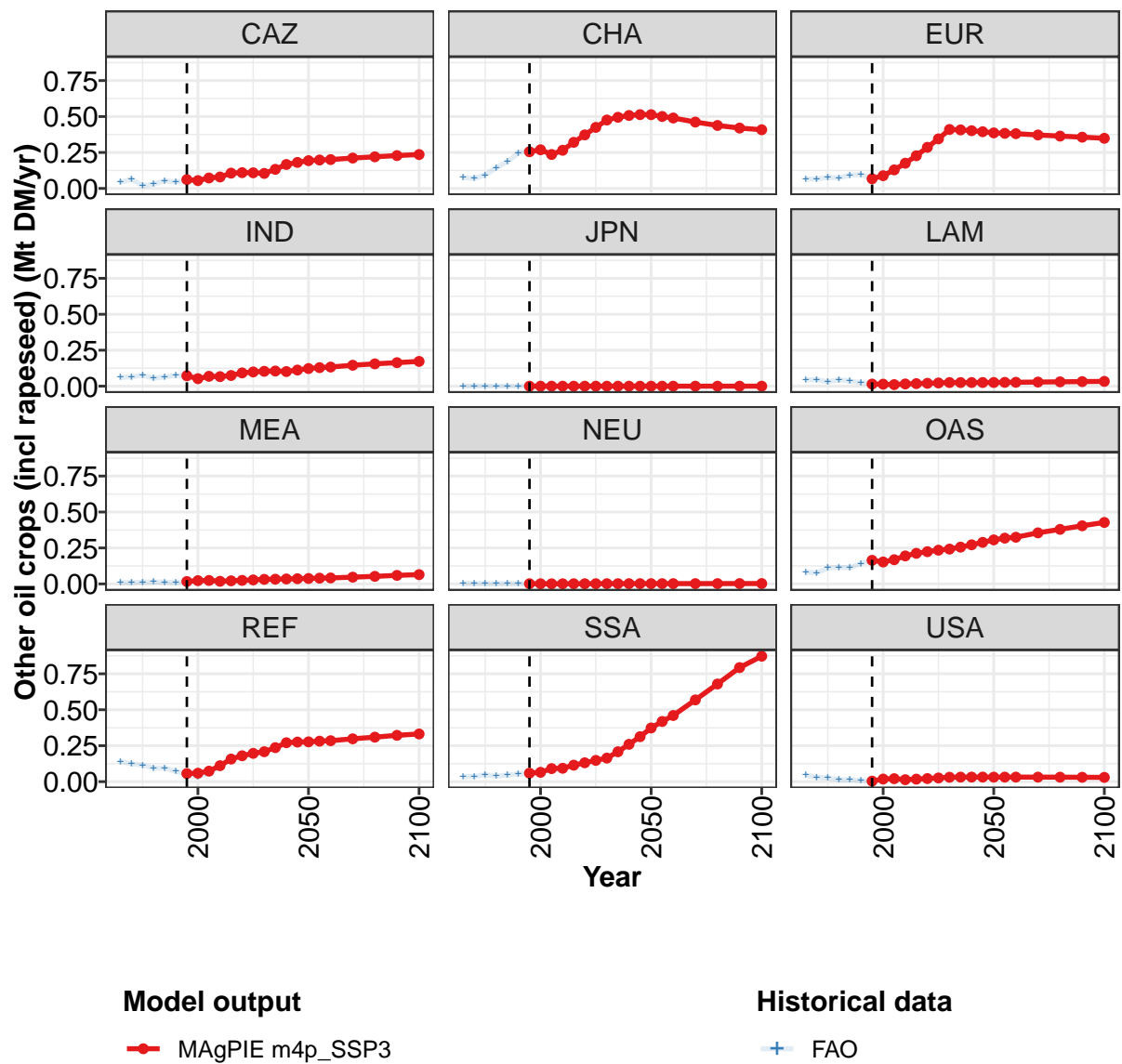


Figure 224: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.77	0.80	0.89	1.03	1.27	1.46	1.63	1.80	1.93	2.07	2.17
CAZ	0.06	0.05	0.07	0.08	0.11	0.11	0.11	0.10	0.13	0.17	0.18
CHA	0.26	0.27	0.24	0.27	0.32	0.37	0.42	0.48	0.49	0.51	0.51
EUR	0.07	0.09	0.13	0.18	0.23	0.29	0.34	0.41	0.41	0.40	0.39
IND	0.07	0.05	0.07	0.07	0.07	0.09	0.10	0.10	0.11	0.10	0.11
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
MEA	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.16	0.15	0.17	0.19	0.21	0.22	0.23	0.24	0.26	0.27	0.29
REF	0.06	0.06	0.07	0.11	0.16	0.18	0.20	0.21	0.24	0.27	0.28
SSA	0.06	0.07	0.09	0.09	0.11	0.13	0.15	0.16	0.21	0.26	0.31
USA	0.00	0.02	0.02	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03

Table 671: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

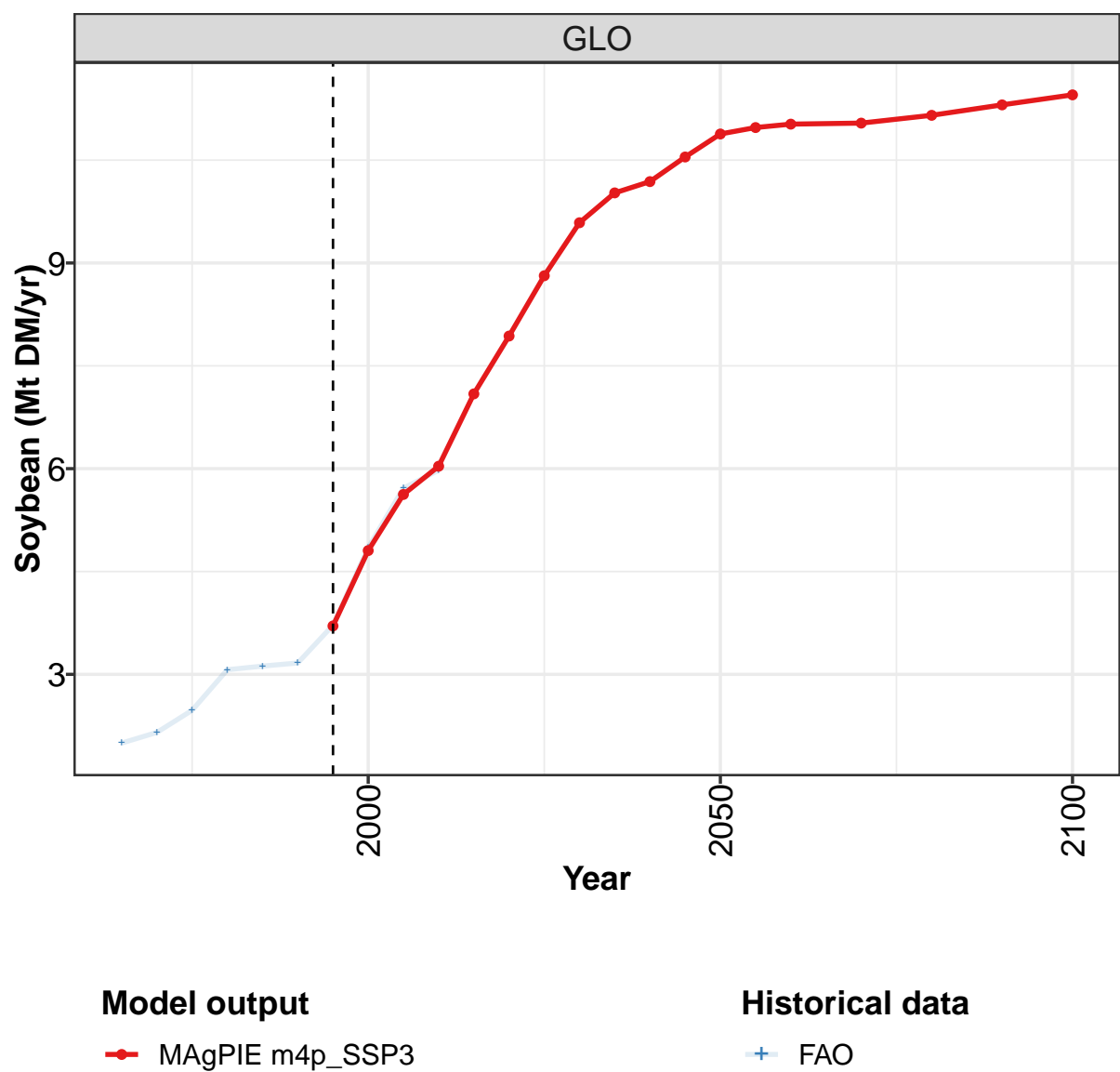
	2050	2055	2060	2070	2080	2090	2100
GLO	2.27	2.33	2.38	2.52	2.66	2.81	2.93
CAZ	0.19	0.20	0.20	0.21	0.22	0.23	0.24
CHA	0.51	0.50	0.49	0.46	0.44	0.42	0.41
EUR	0.39	0.38	0.38	0.37	0.36	0.36	0.35
IND	0.12	0.13	0.13	0.15	0.16	0.16	0.17
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.03	0.03	0.03	0.03	0.03	0.03	0.03
MEA	0.04	0.04	0.04	0.05	0.05	0.06	0.06
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.31	0.32	0.32	0.36	0.38	0.40	0.43
REF	0.28	0.28	0.28	0.30	0.31	0.32	0.33
SSA	0.37	0.42	0.46	0.57	0.68	0.79	0.87
USA	0.03	0.03	0.03	0.03	0.03	0.03	0.03

Table 672: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.60	0.59	0.61	0.62	0.71	0.77	0.77	0.77	0.88	1.03
CAZ	0.04	0.06	0.02	0.03	0.05	0.05	0.05	0.06	0.08	0.08
CHA	0.08	0.07	0.09	0.14	0.19	0.25	0.27	0.27	0.23	0.27
EUR	0.06	0.07	0.08	0.07	0.09	0.10	0.07	0.09	0.13	0.17
IND	0.06	0.07	0.08	0.05	0.07	0.07	0.07	0.05	0.07	0.07
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.04	0.04	0.03	0.04	0.04	0.02	0.01	0.01	0.01	0.02
MEA	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.08	0.08	0.11	0.12	0.11	0.14	0.17	0.15	0.17	0.20
REF	0.14	0.12	0.11	0.09	0.10	0.07	0.05	0.03	0.06	0.11
SSA	0.03	0.04	0.05	0.04	0.04	0.05	0.06	0.07	0.09	0.09
USA	0.05	0.03	0.03	0.01	0.01	0.01	0.00	0.02	0.02	0.01

Table 673: FAO — Demand—Seed—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

10.1.10 Oil crops—Soybean



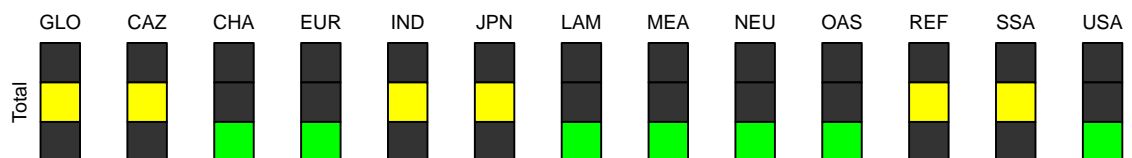
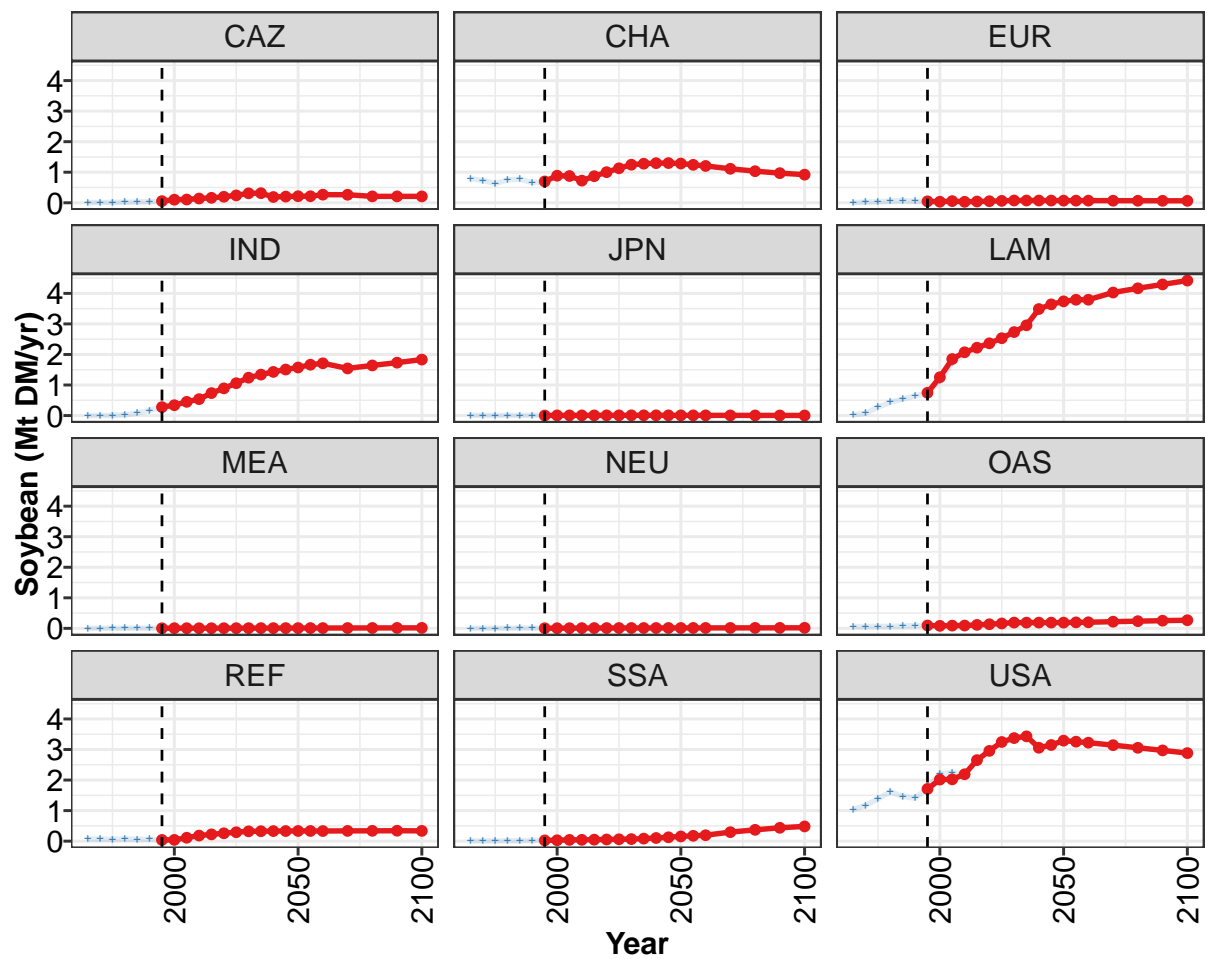


Figure 225: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.7	4.8	5.6	6.0	7.1	7.9	8.8	9.6	10.0	10.2	10.5
CAZ	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2
CHA	0.7	0.9	0.9	0.7	0.9	1.0	1.1	1.2	1.3	1.3	1.3
EUR	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
IND	0.3	0.3	0.4	0.5	0.7	0.9	1.1	1.2	1.3	1.4	1.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.7	1.3	1.9	2.1	2.2	2.4	2.5	2.7	3.0	3.5	3.6
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
REF	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
SSA	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
USA	1.7	2.0	2.0	2.2	2.7	3.0	3.2	3.4	3.4	3.1	3.1

Table 674: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

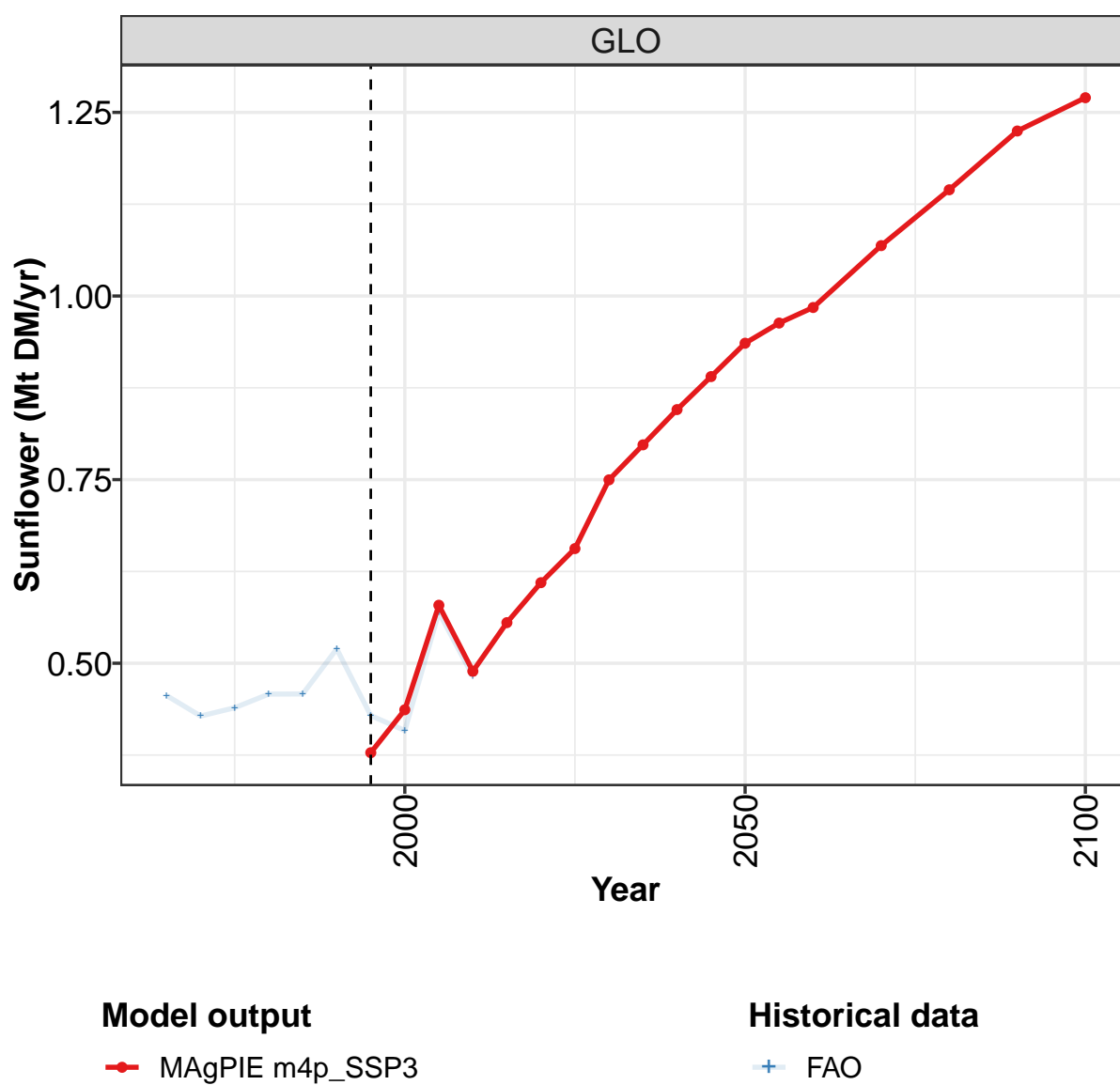
	2050	2055	2060	2070	2080	2090	2100
GLO	10.9	11.0	11.0	11.0	11.2	11.3	11.5
CAZ	0.2	0.2	0.3	0.3	0.2	0.2	0.2
CHA	1.3	1.2	1.2	1.1	1.0	1.0	0.9
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	1.6	1.7	1.7	1.5	1.6	1.7	1.8
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.7	3.8	3.8	4.0	4.2	4.3	4.4
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.2	0.2	0.2	0.2	0.2	0.3	0.3
REF	0.3	0.3	0.3	0.3	0.3	0.3	0.3
SSA	0.2	0.2	0.2	0.3	0.4	0.4	0.5
USA	3.3	3.3	3.2	3.1	3.1	3.0	2.9

Table 675: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Soybean (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.00	2.15	2.48	3.07	3.12	3.17	3.72	4.85	5.72	5.98
CAZ	0.01	0.01	0.01	0.02	0.03	0.04	0.05	0.10	0.11	0.14
CHA	0.79	0.73	0.63	0.75	0.77	0.66	0.70	0.88	0.87	0.74
EUR	0.00	0.02	0.03	0.06	0.07	0.05	0.05	0.04	0.06	0.03
IND	0.00	0.00	0.01	0.03	0.08	0.17	0.28	0.34	0.44	0.54
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01
LAM	0.02	0.08	0.27	0.44	0.54	0.65	0.73	1.12	1.72	2.00
MEA	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.00
NEU	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01
OAS	0.06	0.06	0.07	0.07	0.07	0.09	0.09	0.08	0.09	0.09
REF	0.07	0.07	0.06	0.07	0.06	0.06	0.04	0.04	0.12	0.18
SSA	0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.03	0.04	0.05
USA	1.04	1.17	1.38	1.62	1.46	1.40	1.74	2.20	2.25	2.18

Table 676: FAO — Demand—Seed—Crops—Oil crops—Soybean (Mt DM/yr)

10.1.11 Oil crops—Sunflower



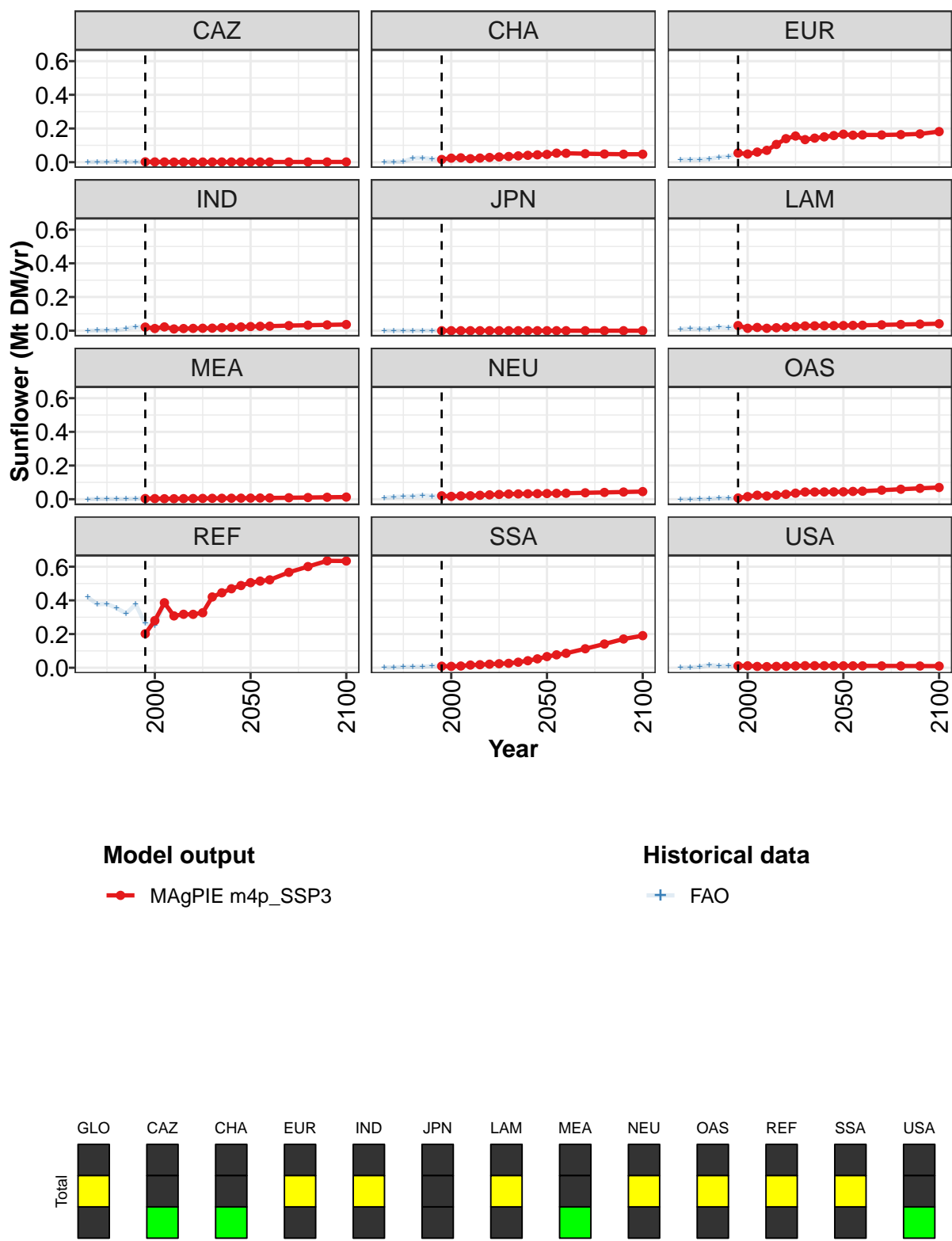


Figure 226: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.38	0.44	0.58	0.49	0.56	0.61	0.66	0.75	0.80	0.85	0.89
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.02	0.02	0.03	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.04
EUR	0.05	0.05	0.06	0.07	0.11	0.14	0.16	0.13	0.14	0.15	0.16
IND	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.03	0.01	0.02	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.03
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
NEU	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03
OAS	0.01	0.02	0.02	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.04
REF	0.20	0.28	0.39	0.31	0.32	0.32	0.33	0.42	0.45	0.47	0.49
SSA	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.05
USA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Table 677: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

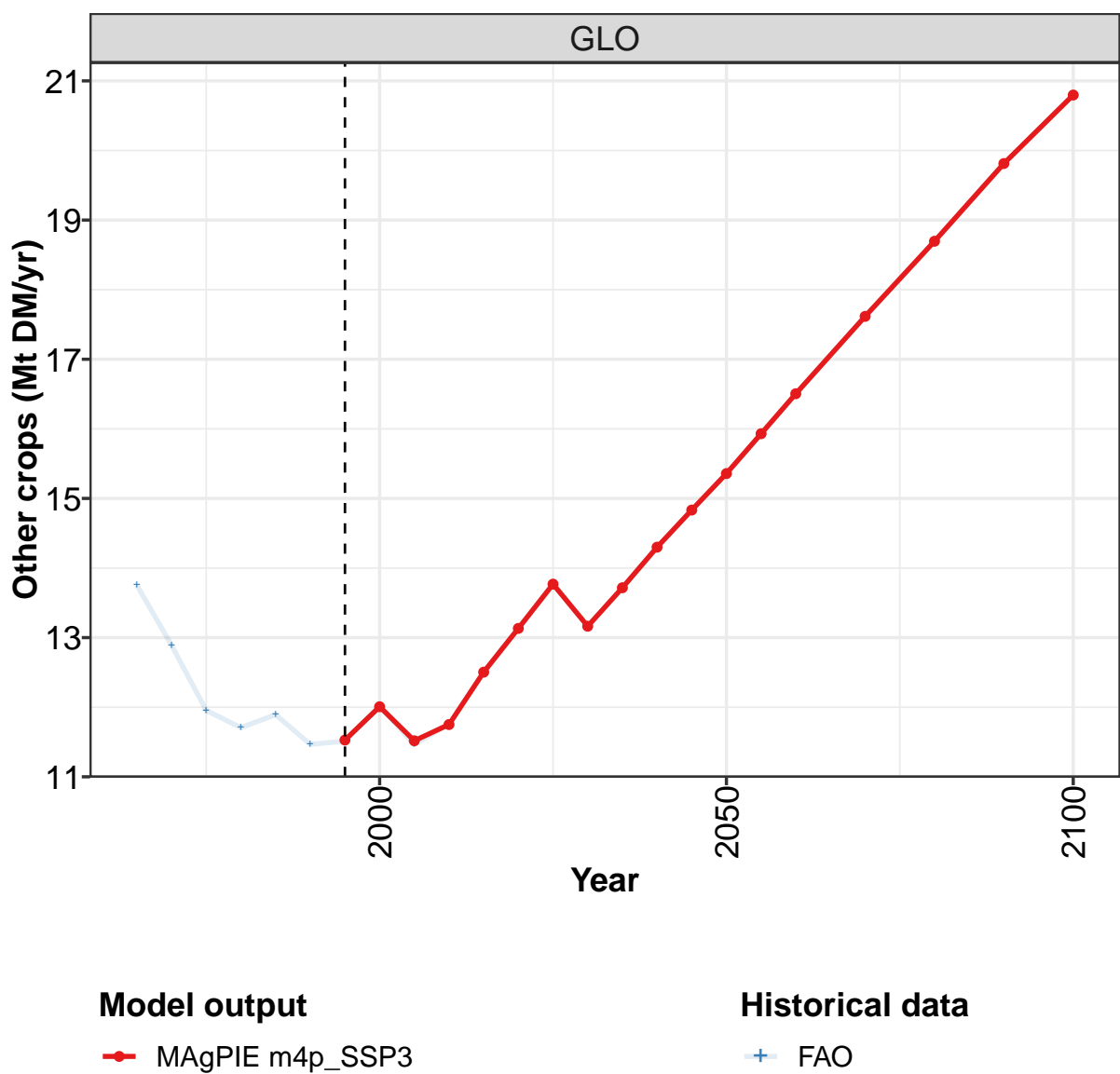
	2050	2055	2060	2070	2080	2090	2100
GLO	0.94	0.96	0.98	1.07	1.14	1.22	1.27
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.05	0.05	0.05	0.05	0.05	0.05	0.05
EUR	0.17	0.16	0.16	0.16	0.16	0.17	0.18
IND	0.02	0.03	0.03	0.03	0.03	0.03	0.04
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.03	0.03	0.03	0.03	0.04	0.04	0.04
MEA	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NEU	0.03	0.03	0.04	0.04	0.04	0.04	0.05
OAS	0.04	0.05	0.05	0.05	0.06	0.06	0.07
REF	0.51	0.51	0.52	0.57	0.60	0.63	0.63
SSA	0.07	0.08	0.09	0.11	0.14	0.17	0.19
USA	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Table 678: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.456	0.428	0.439	0.458	0.458	0.519	0.429	0.408	0.569	0.482
CAZ	0.000	0.002	0.001	0.003	0.002	0.002	0.001	0.001	0.001	0.000
CHA	0.002	0.002	0.003	0.024	0.026	0.018	0.016	0.024	0.023	0.022
EUR	0.015	0.016	0.016	0.020	0.029	0.033	0.053	0.048	0.059	0.068
IND	0.000	0.001	0.003	0.003	0.011	0.024	0.021	0.013	0.024	0.010
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.010	0.012	0.011	0.010	0.022	0.017	0.024	0.015	0.017	0.014
MEA	0.000	0.001	0.002	0.001	0.002	0.004	0.004	0.004	0.003	0.003
NEU	0.008	0.014	0.015	0.017	0.022	0.018	0.018	0.016	0.019	0.020
OAS	0.000	0.000	0.000	0.002	0.007	0.005	0.007	0.016	0.024	0.019
REF	0.419	0.377	0.380	0.354	0.322	0.376	0.263	0.251	0.381	0.302
SSA	0.002	0.002	0.004	0.005	0.006	0.010	0.009	0.008	0.010	0.016
USA	0.000	0.002	0.005	0.018	0.009	0.012	0.011	0.012	0.009	0.007

Table 679: FAO — Demand—Seed—Crops—Oil crops—Sunflower (Mt DM/yr)

10.1.12 Other crops



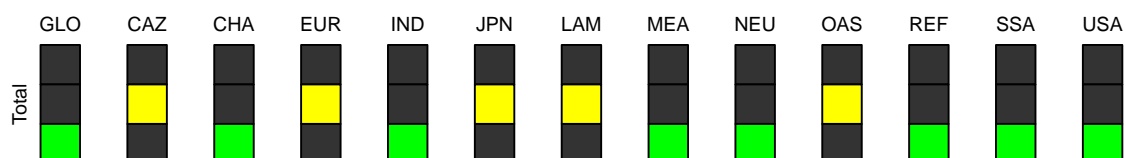
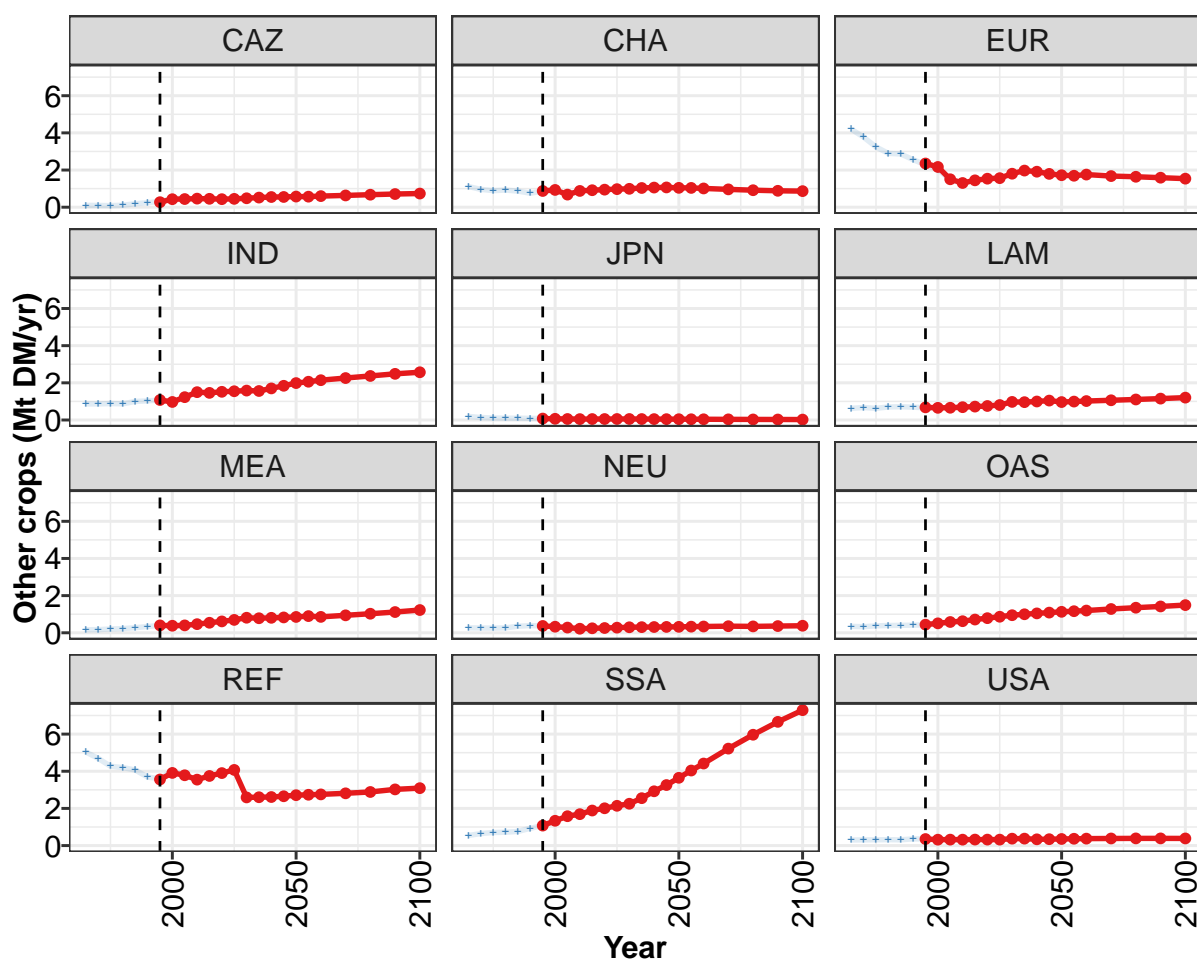


Figure 227: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	11.5	12.0	11.5	11.8	12.5	13.1	13.8	13.2	13.7	14.3	14.8
CAZ	0.3	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.6
CHA	0.9	0.9	0.7	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.1
EUR	2.4	2.2	1.5	1.3	1.4	1.5	1.6	1.8	2.0	1.9	1.8
IND	1.1	1.0	1.2	1.5	1.5	1.5	1.5	1.6	1.6	1.7	1.8
JPN	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0
LAM	0.7	0.7	0.7	0.7	0.7	0.8	0.8	1.0	1.0	1.0	1.0
MEA	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.8	0.8
NEU	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
OAS	0.4	0.5	0.6	0.6	0.7	0.8	0.9	0.9	1.0	1.0	1.1
REF	3.6	3.9	3.8	3.5	3.7	3.9	4.1	2.6	2.6	2.6	2.7
SSA	1.1	1.3	1.6	1.7	1.9	2.0	2.1	2.3	2.6	2.9	3.3
USA	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3

Table 680: MAgPIE m4p-SSP3 — Demand—Seed—Crops—Other crops (Mt DM/yr) [PART 1/2]

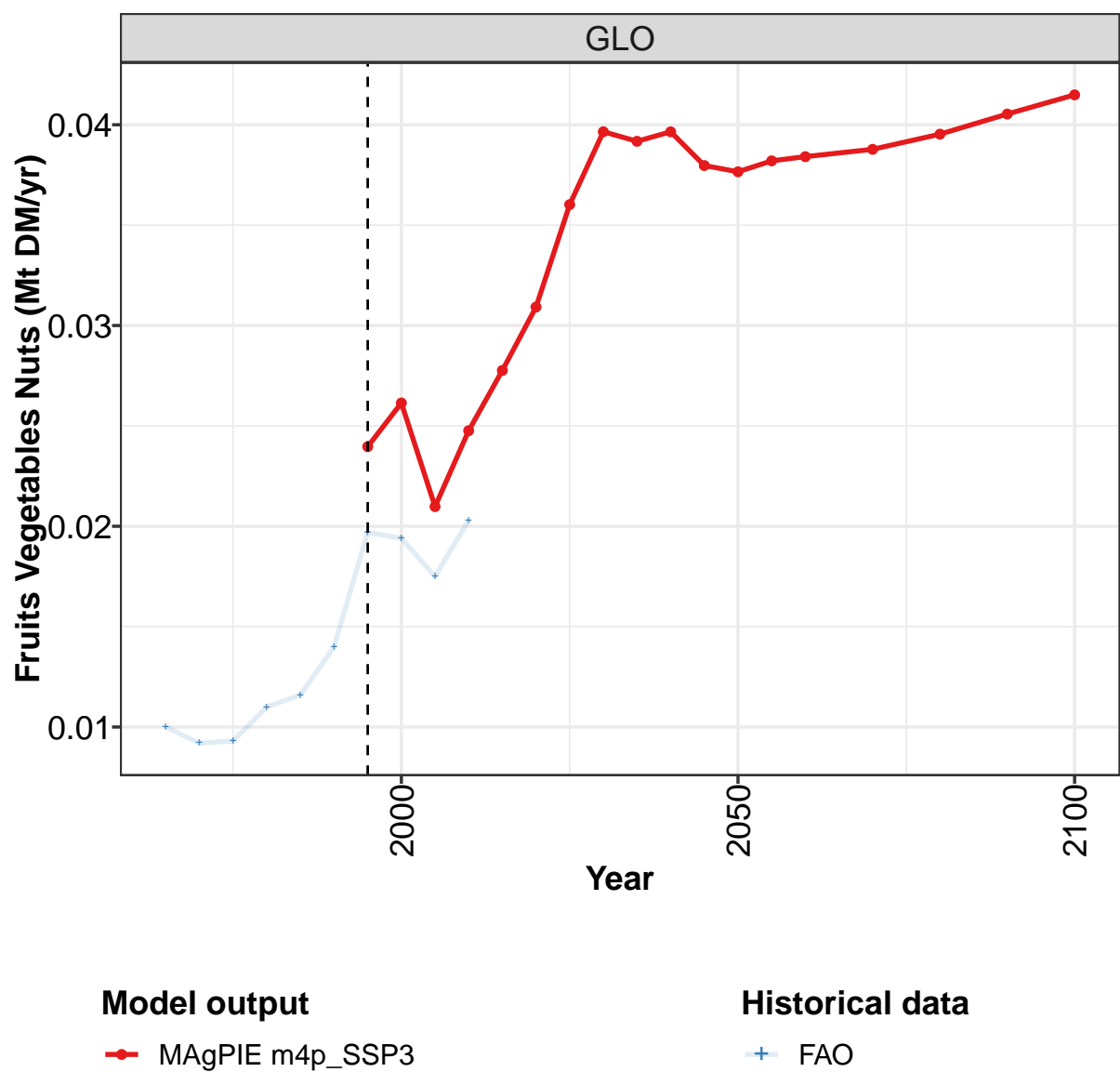
	2050	2055	2060	2070	2080	2090	2100
GLO	15.4	15.9	16.5	17.6	18.7	19.8	20.8
CAZ	0.6	0.6	0.6	0.6	0.7	0.7	0.7
CHA	1.0	1.0	1.0	1.0	0.9	0.9	0.9
EUR	1.7	1.7	1.8	1.7	1.6	1.6	1.5
IND	2.0	2.1	2.1	2.3	2.4	2.5	2.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.0	1.0	1.0	1.1	1.1	1.2	1.2
MEA	0.9	0.9	0.9	0.9	1.0	1.1	1.2
NEU	0.3	0.3	0.3	0.4	0.3	0.4	0.4
OAS	1.1	1.2	1.2	1.3	1.4	1.4	1.5
REF	2.7	2.7	2.8	2.8	2.9	3.0	3.1
SSA	3.6	4.0	4.4	5.2	6.0	6.7	7.3
USA	0.4	0.4	0.4	0.4	0.4	0.4	0.4

Table 681: MAgPIE m4p-SSP3 — Demand—Seed—Crops—Other crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	13.8	12.9	12.0	11.7	11.9	11.5	11.5	12.0	11.5	11.8
CAZ	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.5	0.5	0.4
CHA	1.1	1.0	0.9	0.9	0.9	0.8	0.9	0.9	0.7	0.9
EUR	4.2	3.8	3.2	2.9	2.9	2.6	2.3	2.0	1.5	1.3
IND	0.9	0.9	0.9	0.9	1.0	1.0	1.1	1.0	1.2	1.5
JPN	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
LAM	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
MEA	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5
NEU	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.2
OAS	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.6
REF	5.0	4.7	4.3	4.2	4.1	3.7	3.6	4.0	3.8	3.5
SSA	0.5	0.6	0.7	0.7	0.8	0.9	1.1	1.3	1.6	1.8
USA	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3

Table 682: FAO — Demand—Seed—Crops—Other crops (Mt DM/yr)

10.1.13 Other crops—Fruits Vegetables Nuts



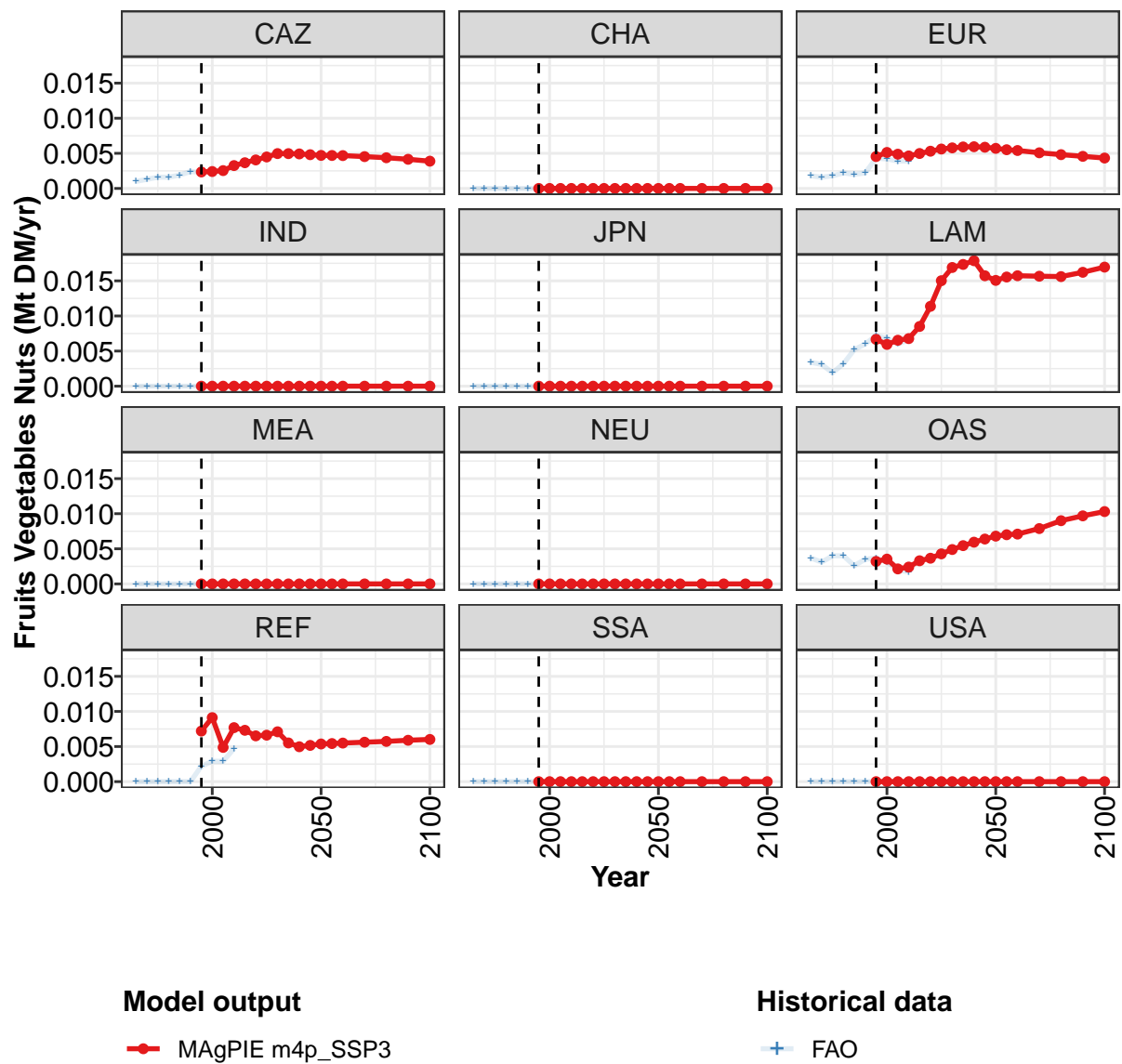


Figure 228: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0240	0.0261	0.0210	0.0248	0.0278	0.0309	0.0360	0.0397	0.0392	0.0397	0.0380
CAZ	0.0023	0.0024	0.0025	0.0033	0.0037	0.0041	0.0045	0.0050	0.0050	0.0049	0.0048
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0045	0.0051	0.0049	0.0046	0.0050	0.0053	0.0056	0.0058	0.0059	0.0059	0.0059
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0067	0.0059	0.0065	0.0068	0.0085	0.0114	0.0150	0.0169	0.0173	0.0179	0.0157
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0032	0.0035	0.0021	0.0024	0.0033	0.0037	0.0043	0.0049	0.0055	0.0059	0.0064
REF	0.0072	0.0091	0.0049	0.0077	0.0073	0.0065	0.0066	0.0071	0.0055	0.0050	0.0052
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 683: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)
[PART 1/2]

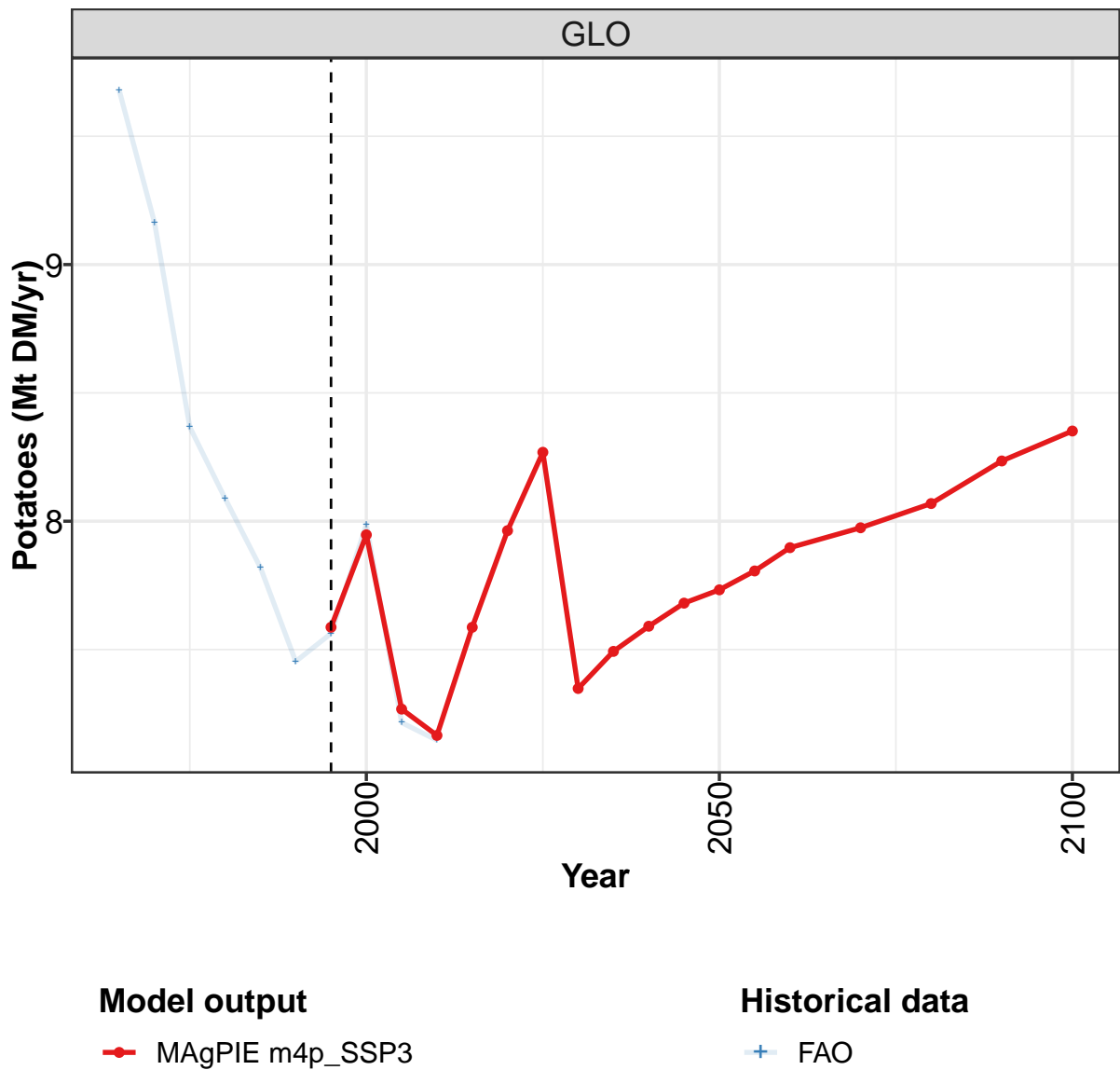
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0377	0.0382	0.0384	0.0388	0.0395	0.0405	0.0415
CAZ	0.0047	0.0047	0.0047	0.0045	0.0044	0.0042	0.0039
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0057	0.0055	0.0054	0.0051	0.0048	0.0046	0.0043
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0151	0.0156	0.0157	0.0157	0.0156	0.0162	0.0170
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0068	0.0070	0.0071	0.0079	0.0090	0.0097	0.0103
REF	0.0054	0.0054	0.0055	0.0056	0.0057	0.0059	0.0060
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 684: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0100	0.0092	0.0093	0.0110	0.0116	0.0140	0.0197	0.0194	0.0175	0.0203
CAZ	0.0010	0.0013	0.0016	0.0016	0.0019	0.0024	0.0023	0.0024	0.0025	0.0033
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0018	0.0016	0.0018	0.0022	0.0020	0.0022	0.0043	0.0042	0.0039	0.0039
IND	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JPN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0034	0.0031	0.0019	0.0032	0.0052	0.0060	0.0072	0.0068	0.0060	0.0066
MEA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001
NEU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OAS	0.0037	0.0031	0.0040	0.0040	0.0026	0.0035	0.0037	0.0031	0.0020	0.0017
REF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0029	0.0029	0.0047
SSA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 685: FAO — Demand—Seed—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

10.1.14 Other crops—Potatoes



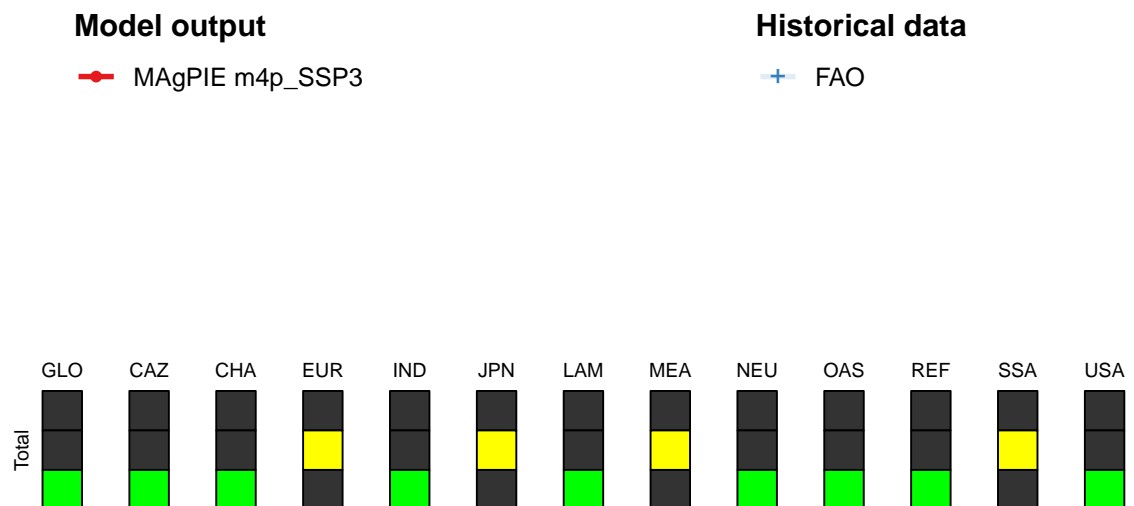
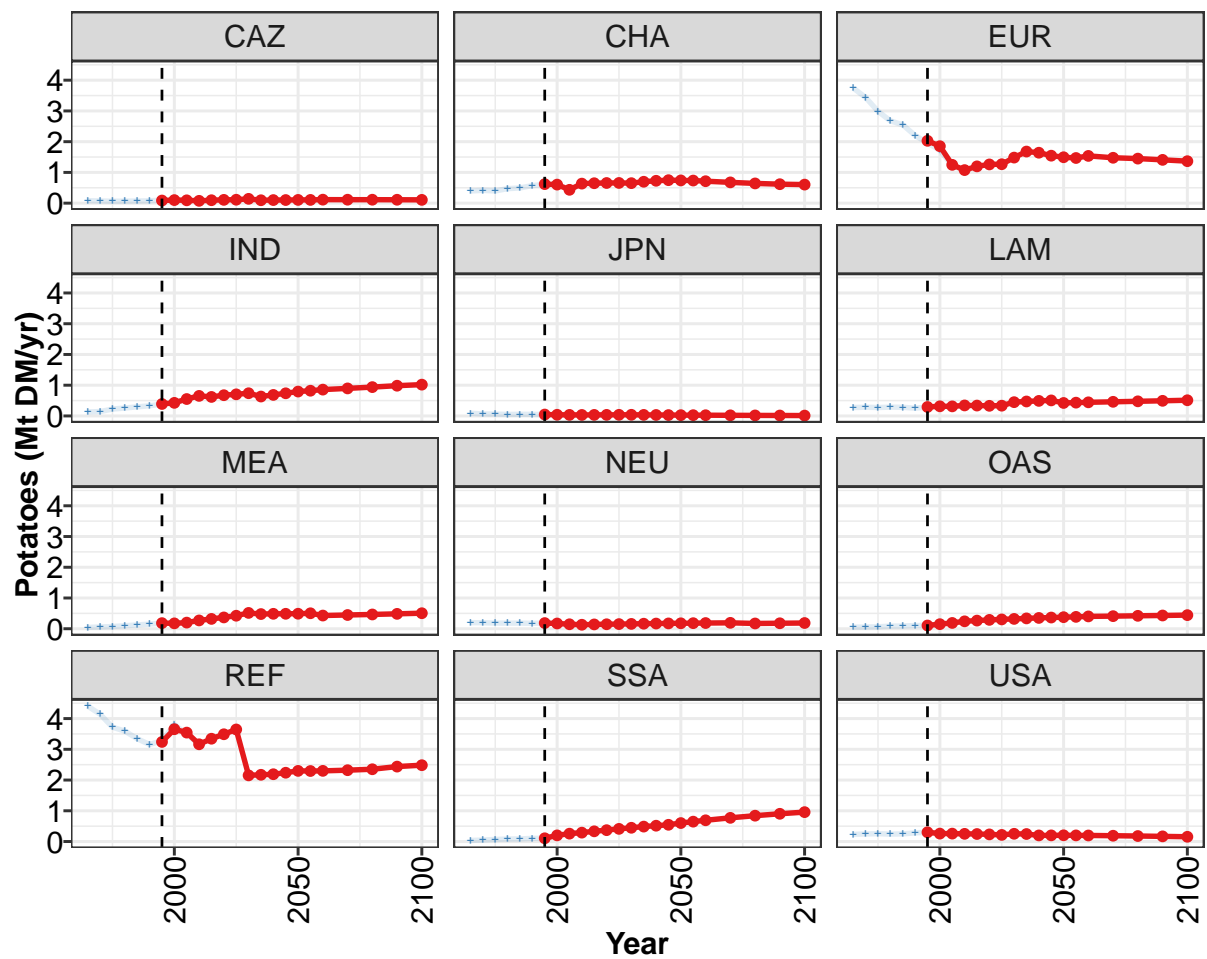


Figure 229: MAGPIE m4p_SSP3 — Demand—Seed—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.59	7.95	7.27	7.17	7.59	7.96	8.27	7.35	7.49	7.59	7.68
CAZ	0.09	0.10	0.09	0.08	0.10	0.11	0.11	0.14	0.10	0.10	0.10
CHA	0.62	0.60	0.43	0.64	0.65	0.66	0.66	0.65	0.70	0.73	0.75
EUR	2.03	1.85	1.25	1.08	1.20	1.26	1.27	1.48	1.68	1.64	1.55
IND	0.39	0.43	0.55	0.65	0.62	0.68	0.70	0.74	0.63	0.68	0.74
JPN	0.05	0.04	0.04	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.03
LAM	0.29	0.31	0.31	0.34	0.34	0.33	0.33	0.45	0.47	0.49	0.51
MEA	0.18	0.18	0.20	0.27	0.32	0.37	0.42	0.52	0.48	0.49	0.49
NEU	0.18	0.17	0.15	0.13	0.14	0.15	0.15	0.16	0.16	0.17	0.17
OAS	0.11	0.15	0.19	0.24	0.27	0.29	0.30	0.32	0.34	0.35	0.37
REF	3.24	3.65	3.54	3.16	3.35	3.49	3.65	2.15	2.17	2.19	2.24
SSA	0.11	0.20	0.26	0.29	0.33	0.37	0.41	0.45	0.49	0.52	0.55
USA	0.30	0.26	0.26	0.25	0.24	0.23	0.22	0.25	0.24	0.20	0.20

Table 686: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

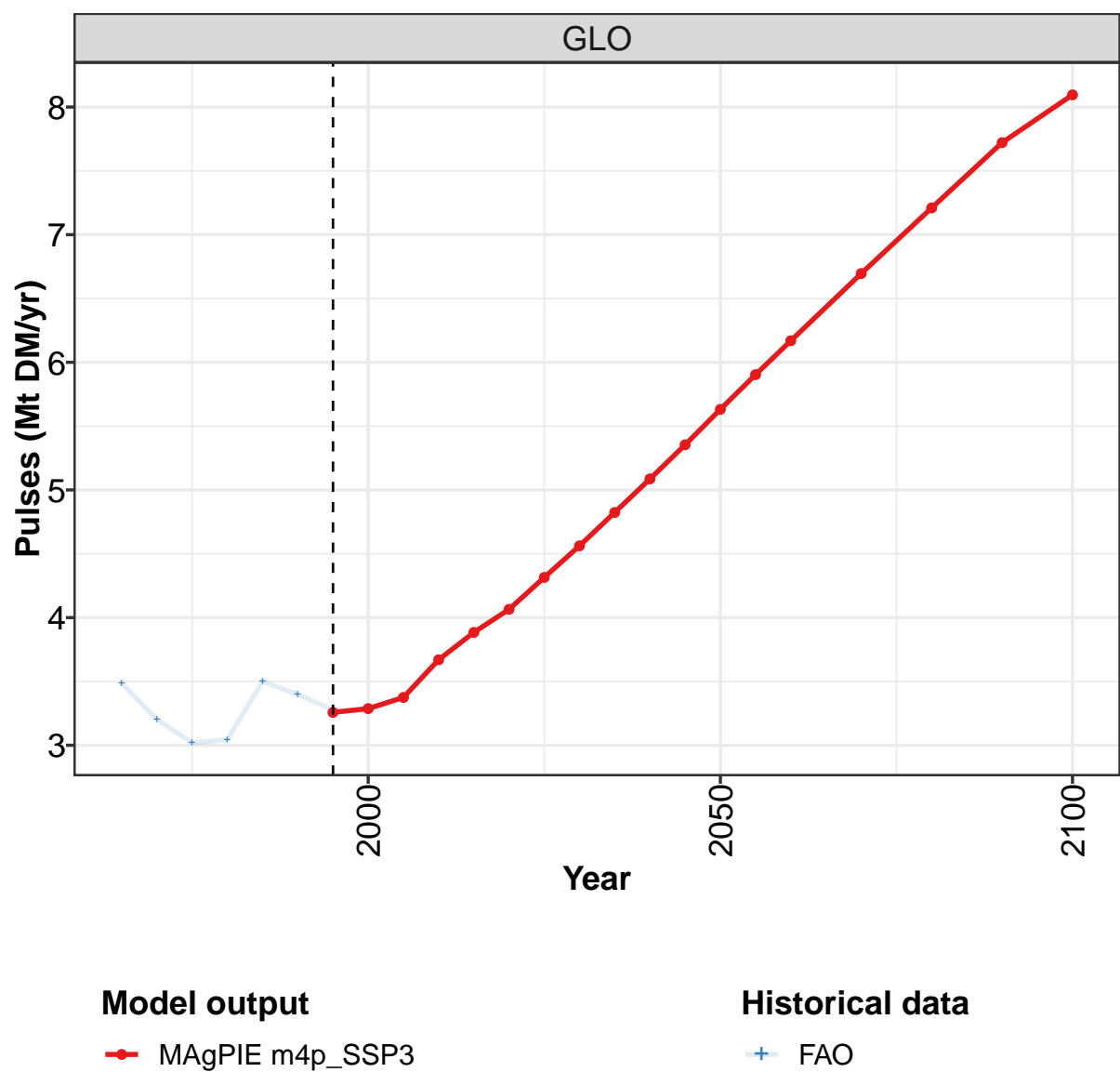
	2050	2055	2060	2070	2080	2090	2100
GLO	7.73	7.81	7.90	7.97	8.07	8.23	8.35
CAZ	0.11	0.11	0.11	0.11	0.11	0.11	0.11
CHA	0.74	0.74	0.71	0.68	0.64	0.62	0.60
EUR	1.49	1.47	1.54	1.48	1.45	1.41	1.37
IND	0.79	0.82	0.86	0.90	0.94	0.98	1.02
JPN	0.03	0.03	0.02	0.02	0.02	0.02	0.01
LAM	0.42	0.43	0.44	0.46	0.48	0.49	0.51
MEA	0.49	0.50	0.43	0.45	0.46	0.48	0.51
NEU	0.18	0.18	0.19	0.19	0.17	0.18	0.19
OAS	0.38	0.39	0.40	0.41	0.42	0.43	0.44
REF	2.30	2.29	2.30	2.32	2.35	2.44	2.48
SSA	0.60	0.65	0.69	0.77	0.84	0.90	0.96
USA	0.20	0.20	0.20	0.19	0.18	0.17	0.16

Table 687: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Other crops—Potatoes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	9.68	9.16	8.37	8.09	7.82	7.45	7.56	7.99	7.22	7.15
CAZ	0.08	0.07	0.06	0.07	0.07	0.08	0.10	0.11	0.10	0.08
CHA	0.40	0.42	0.40	0.47	0.50	0.57	0.62	0.62	0.44	0.64
EUR	3.74	3.44	2.99	2.68	2.55	2.20	1.96	1.72	1.22	1.07
IND	0.13	0.14	0.22	0.26	0.30	0.33	0.39	0.43	0.55	0.66
JPN	0.09	0.07	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.03
LAM	0.27	0.28	0.27	0.29	0.28	0.25	0.29	0.31	0.31	0.34
MEA	0.04	0.06	0.07	0.10	0.12	0.15	0.18	0.17	0.20	0.26
NEU	0.20	0.20	0.18	0.18	0.18	0.18	0.18	0.17	0.15	0.13
OAS	0.05	0.06	0.06	0.09	0.09	0.10	0.11	0.15	0.19	0.24
REF	4.40	4.14	3.72	3.59	3.34	3.16	3.28	3.80	3.50	3.15
SSA	0.04	0.05	0.07	0.08	0.08	0.10	0.11	0.20	0.26	0.29
USA	0.23	0.24	0.26	0.24	0.25	0.28	0.31	0.27	0.26	0.25

Table 688: FAO — Demand—Seed—Crops—Other crops—Potatoes (Mt DM/yr)

10.1.15 Other crops—Pulses



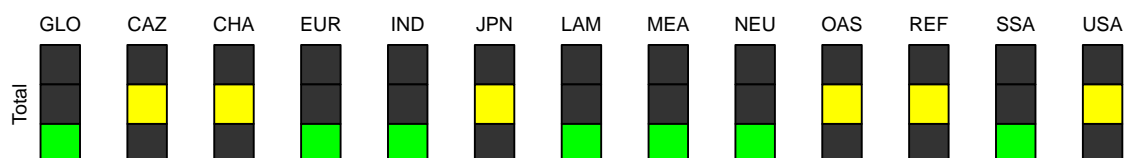
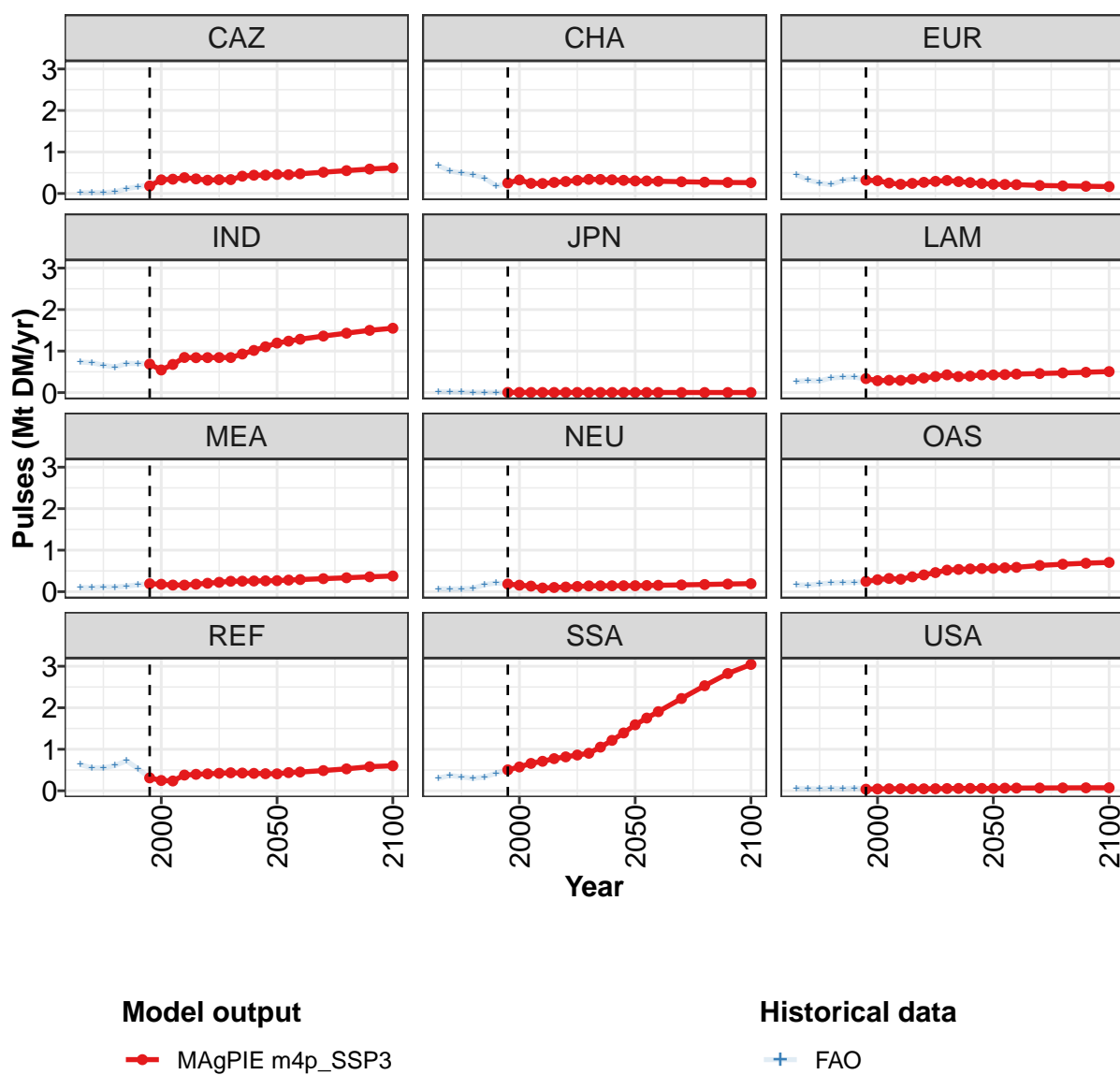


Figure 230: MAGPIE m4p_SSP3 — Demand—Seed—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.26	3.29	3.37	3.67	3.88	4.06	4.32	4.56	4.82	5.09	5.35
CAZ	0.18	0.33	0.34	0.38	0.35	0.32	0.33	0.33	0.42	0.44	0.44
CHA	0.25	0.33	0.24	0.24	0.27	0.29	0.31	0.34	0.34	0.33	0.32
EUR	0.32	0.31	0.25	0.22	0.24	0.27	0.29	0.31	0.29	0.26	0.24
IND	0.69	0.54	0.68	0.85	0.84	0.84	0.84	0.84	0.93	1.02	1.10
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.34	0.29	0.30	0.29	0.32	0.35	0.39	0.43	0.39	0.40	0.43
MEA	0.19	0.18	0.16	0.16	0.18	0.20	0.23	0.25	0.25	0.26	0.26
NEU	0.18	0.16	0.13	0.09	0.10	0.11	0.12	0.14	0.14	0.14	0.14
OAS	0.25	0.29	0.32	0.30	0.36	0.40	0.46	0.52	0.54	0.55	0.56
REF	0.31	0.25	0.24	0.38	0.40	0.41	0.42	0.43	0.43	0.42	0.41
SSA	0.50	0.57	0.66	0.71	0.77	0.82	0.86	0.90	1.05	1.21	1.39
USA	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06

Table 689: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

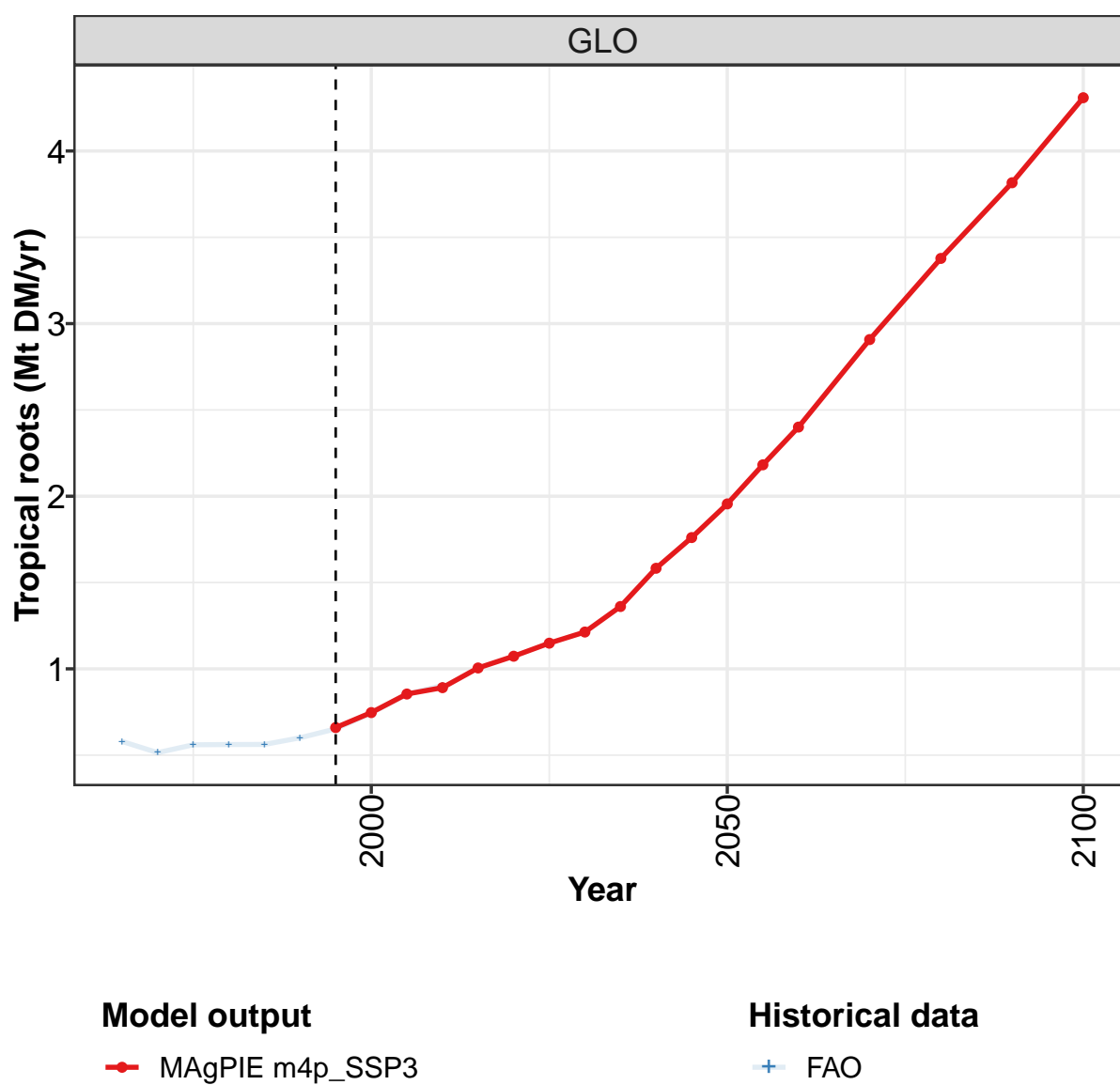
	2050	2055	2060	2070	2080	2090	2100
GLO	5.63	5.90	6.17	6.70	7.21	7.72	8.10
CAZ	0.46	0.45	0.48	0.51	0.55	0.59	0.62
CHA	0.30	0.30	0.30	0.28	0.27	0.27	0.26
EUR	0.22	0.22	0.21	0.19	0.18	0.17	0.17
IND	1.19	1.24	1.29	1.36	1.43	1.50	1.55
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.42	0.43	0.45	0.46	0.47	0.49	0.51
MEA	0.27	0.28	0.29	0.31	0.33	0.36	0.38
NEU	0.14	0.15	0.15	0.16	0.17	0.18	0.19
OAS	0.56	0.58	0.59	0.63	0.66	0.69	0.70
REF	0.41	0.44	0.45	0.49	0.53	0.58	0.60
SSA	1.59	1.75	1.91	2.22	2.53	2.82	3.04
USA	0.06	0.06	0.06	0.07	0.07	0.07	0.07

Table 690: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Other crops—Pulses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3.49	3.20	3.02	3.04	3.50	3.40	3.28	3.27	3.38	3.69
CAZ	0.02	0.02	0.02	0.04	0.12	0.16	0.22	0.36	0.37	0.35
CHA	0.67	0.54	0.49	0.45	0.37	0.18	0.25	0.31	0.24	0.24
EUR	0.45	0.33	0.25	0.22	0.32	0.36	0.31	0.30	0.25	0.22
IND	0.73	0.72	0.66	0.61	0.70	0.70	0.69	0.55	0.68	0.85
JPN	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
LAM	0.27	0.29	0.28	0.35	0.37	0.37	0.33	0.29	0.30	0.29
MEA	0.10	0.10	0.12	0.11	0.13	0.17	0.19	0.18	0.16	0.16
NEU	0.07	0.06	0.07	0.08	0.17	0.21	0.18	0.15	0.12	0.09
OAS	0.16	0.16	0.19	0.21	0.22	0.23	0.24	0.25	0.28	0.30
REF	0.63	0.55	0.55	0.61	0.72	0.53	0.32	0.24	0.25	0.38
SSA	0.30	0.37	0.33	0.30	0.33	0.42	0.51	0.58	0.67	0.75
USA	0.06	0.05	0.04	0.06	0.04	0.06	0.04	0.04	0.05	0.05

Table 691: FAO — Demand—Seed—Crops—Other crops—Pulses (Mt DM/yr)

10.1.16 Other crops—Tropical roots



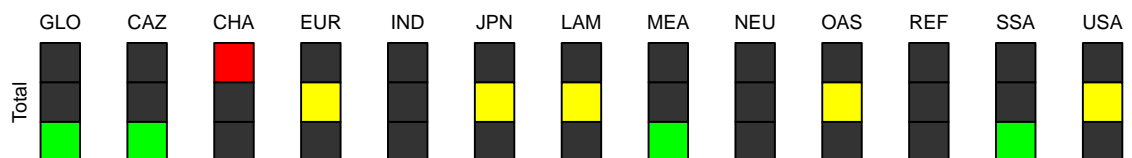
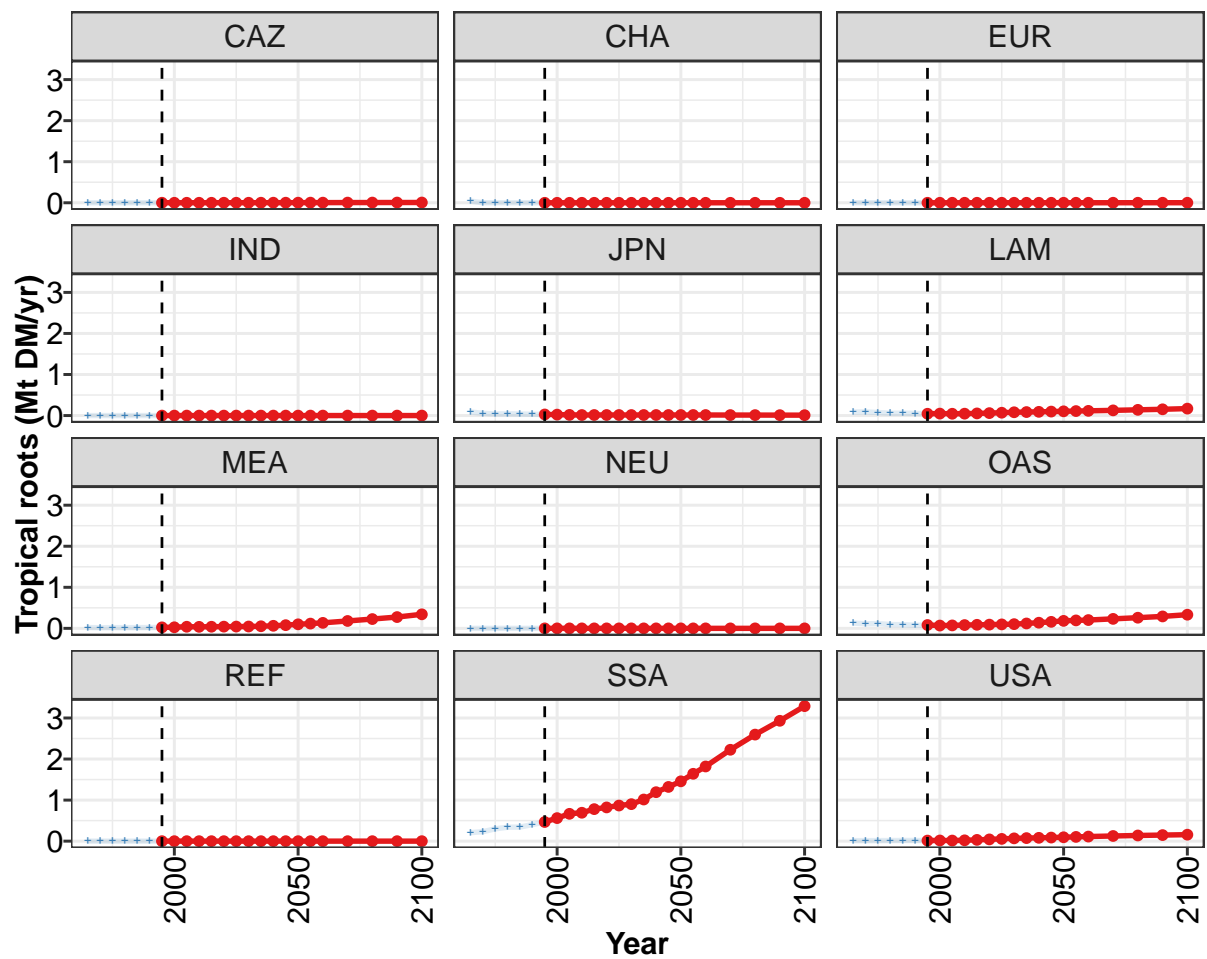


Figure 231: MAGPIE m4p_SSP3 — Demand—Seed—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.66	0.75	0.85	0.89	1.01	1.07	1.15	1.21	1.36	1.58	1.76
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.04	0.05	0.04	0.05	0.05	0.06	0.07	0.08	0.09	0.09	0.10
MEA	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.08
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.08	0.07	0.07	0.08	0.09	0.09	0.10	0.10	0.12	0.14	0.16
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.47	0.56	0.67	0.69	0.78	0.82	0.87	0.90	1.01	1.19	1.32
USA	0.01	0.02	0.02	0.02	0.03	0.04	0.06	0.07	0.07	0.08	0.09

Table 692: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 1/2]

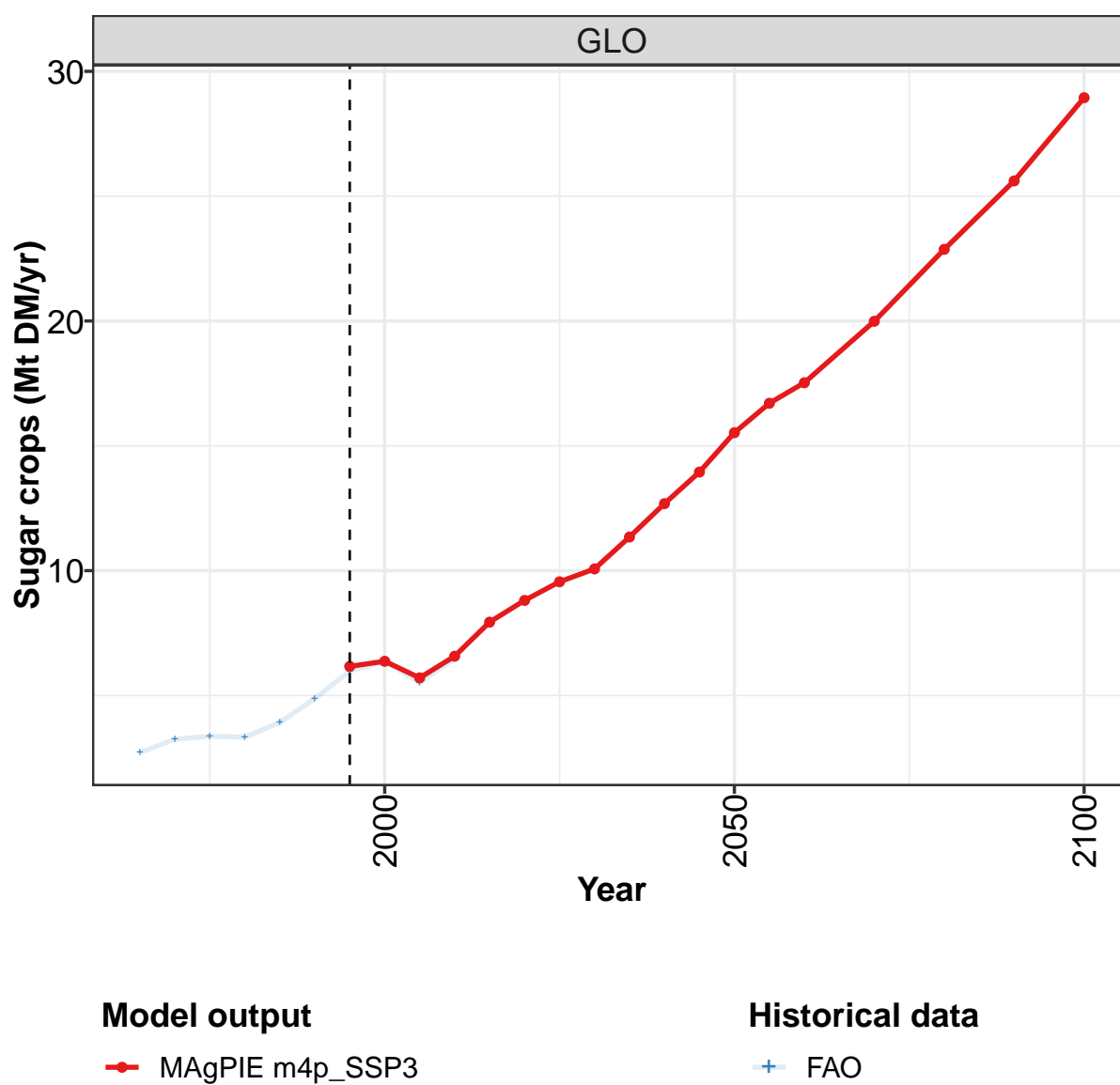
	2050	2055	2060	2070	2080	2090	2100
GLO	1.96	2.18	2.40	2.91	3.38	3.82	4.31
CAZ	0.00	0.00	0.00	0.00	0.01	0.01	0.01
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.10	0.11	0.11	0.13	0.14	0.15	0.17
MEA	0.10	0.12	0.13	0.18	0.23	0.27	0.34
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.18	0.19	0.20	0.23	0.26	0.29	0.33
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	1.46	1.64	1.82	2.23	2.60	2.93	3.29
USA	0.10	0.10	0.11	0.13	0.14	0.15	0.16

Table 693: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.579	0.514	0.560	0.562	0.562	0.601	0.652	0.744	0.853	0.904
CAZ	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.001	0.001
CHA	0.040	0.000	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JPN	0.087	0.055	0.039	0.042	0.038	0.032	0.027	0.024	0.017	0.013
LAM	0.085	0.090	0.073	0.056	0.057	0.054	0.042	0.049	0.044	0.045
MEA	0.019	0.016	0.017	0.018	0.018	0.020	0.023	0.026	0.039	0.037
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.128	0.111	0.116	0.092	0.089	0.076	0.077	0.068	0.071	0.077
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.207	0.230	0.300	0.339	0.343	0.403	0.468	0.561	0.666	0.711
USA	0.012	0.012	0.012	0.014	0.016	0.016	0.014	0.016	0.016	0.021

Table 694: FAO — Demand—Seed—Crops—Other crops—Tropical roots (Mt DM/yr)

10.1.17 Sugar crops



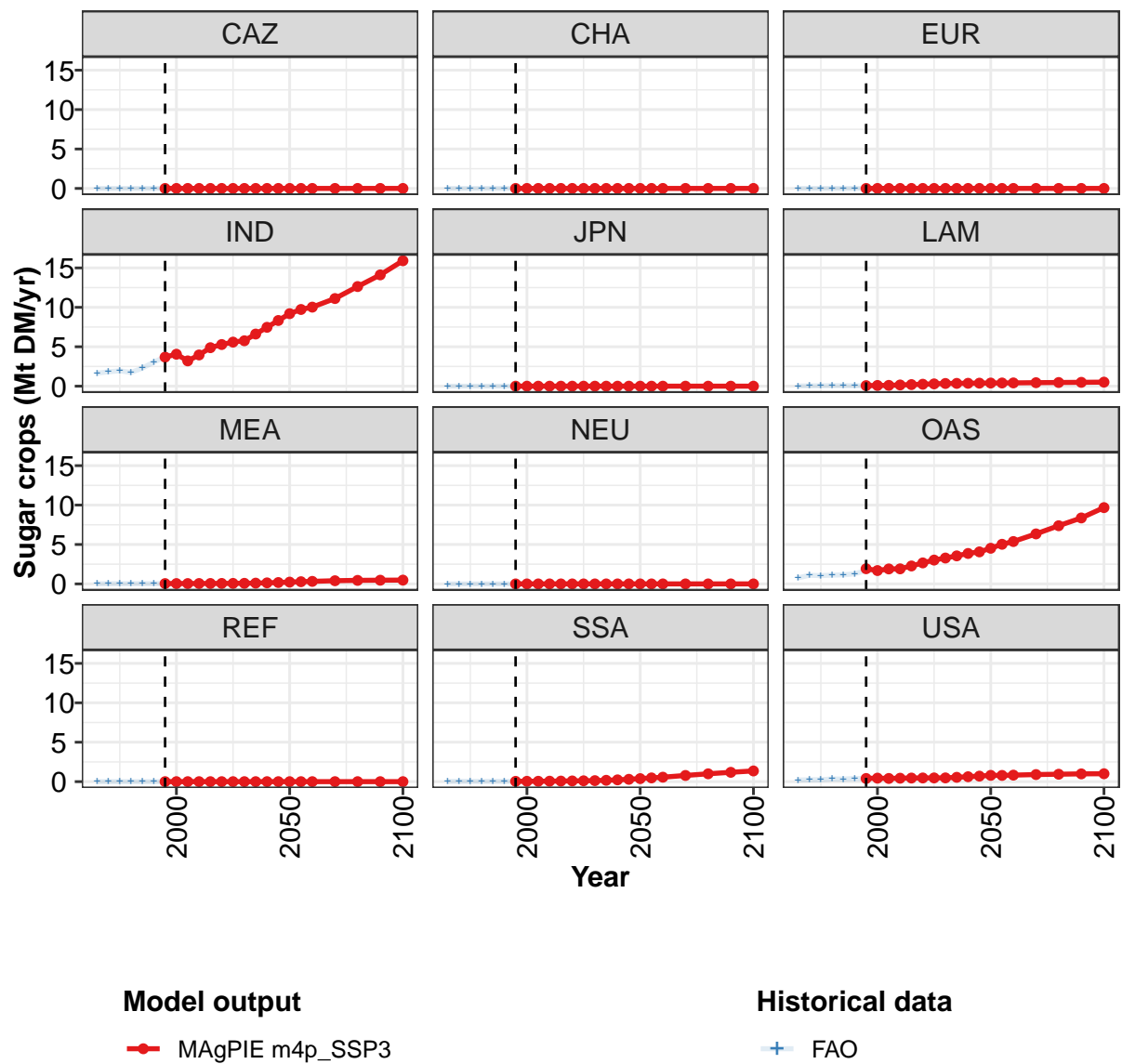


Figure 232: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.2	6.4	5.7	6.6	7.9	8.8	9.6	10.1	11.3	12.7	13.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	3.7	4.1	3.2	4.0	4.9	5.3	5.6	5.8	6.6	7.5	8.3
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4
MEA	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	1.9	1.7	1.9	1.9	2.3	2.7	3.0	3.3	3.6	3.9	4.1
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3
USA	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.7

Table 695: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

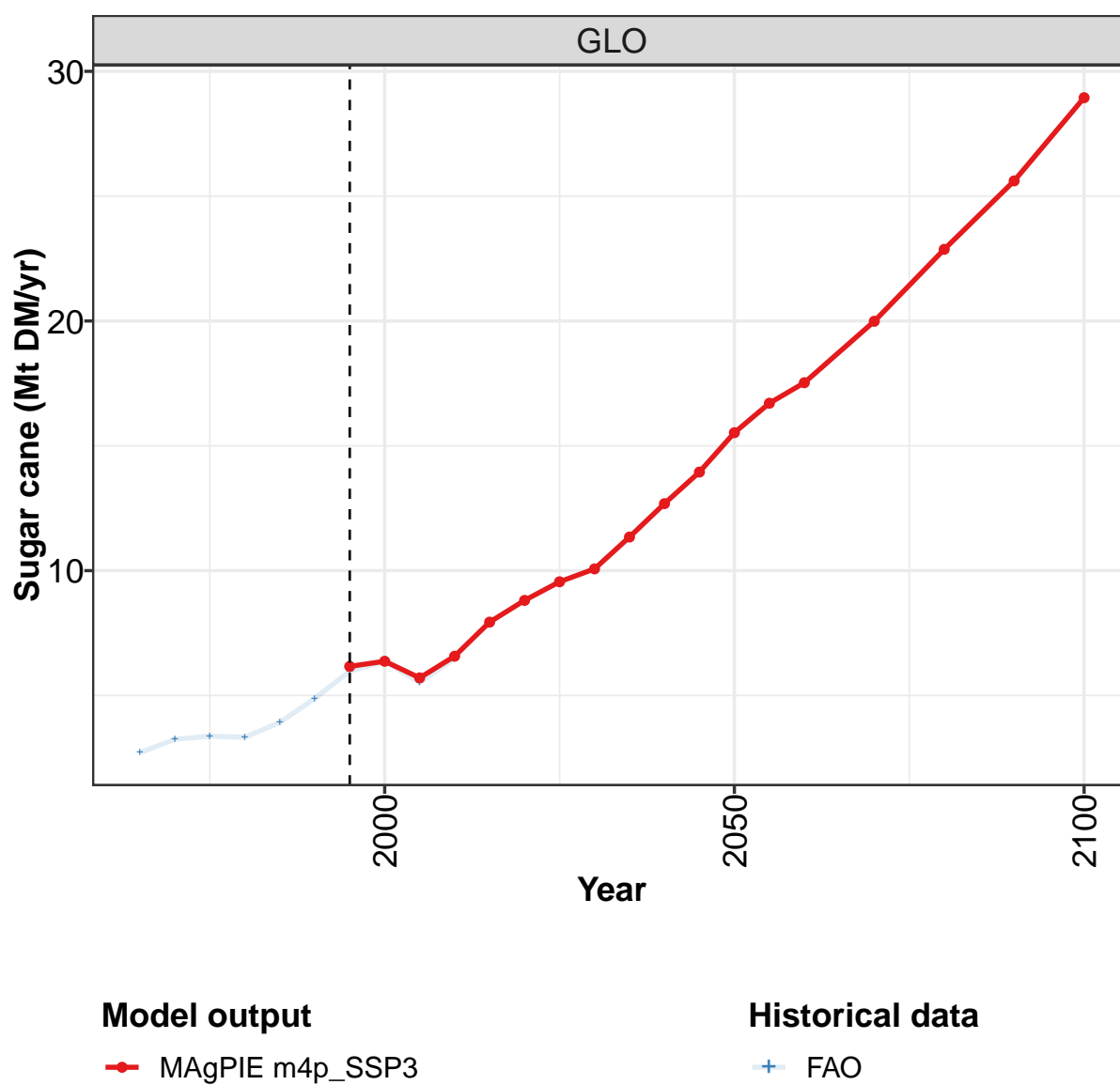
	2050	2055	2060	2070	2080	2090	2100
GLO	15.5	16.7	17.5	20.0	22.9	25.6	28.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	9.2	9.7	10.0	11.1	12.6	14.1	15.9
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.4	0.4	0.4	0.4	0.5	0.5	0.5
MEA	0.2	0.3	0.3	0.4	0.4	0.5	0.5
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	4.5	5.0	5.4	6.3	7.4	8.4	9.7
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.4	0.5	0.6	0.8	1.0	1.2	1.4
USA	0.8	0.8	0.8	0.9	0.9	1.0	1.0

Table 696: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Sugar crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.71	3.25	3.37	3.33	3.92	4.88	5.98	6.36	5.52	6.48
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	1.65	1.82	1.95	1.74	2.30	3.05	3.72	4.04	3.20	3.95
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.03	0.04	0.05	0.08	0.07	0.06	0.06	0.09	0.10	0.15
MEA	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.77	1.09	1.05	1.11	1.15	1.29	1.71	1.70	1.72	1.83
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.03	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.05	0.06
USA	0.22	0.23	0.25	0.34	0.33	0.41	0.40	0.45	0.40	0.46

Table 697: FAO — Demand—Seed—Crops—Sugar crops (Mt DM/yr)

10.1.18 Sugar crops—Sugar cane



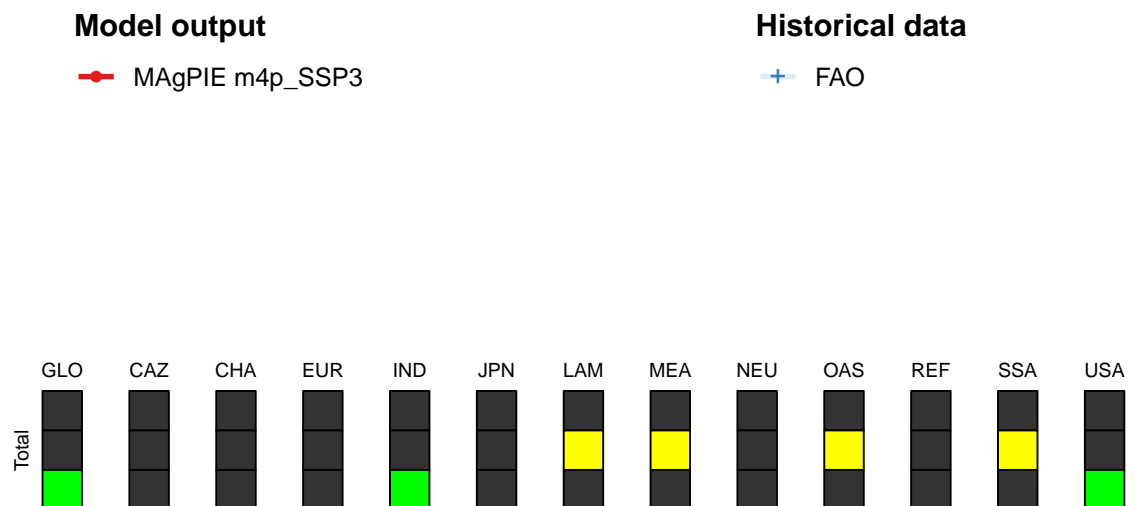
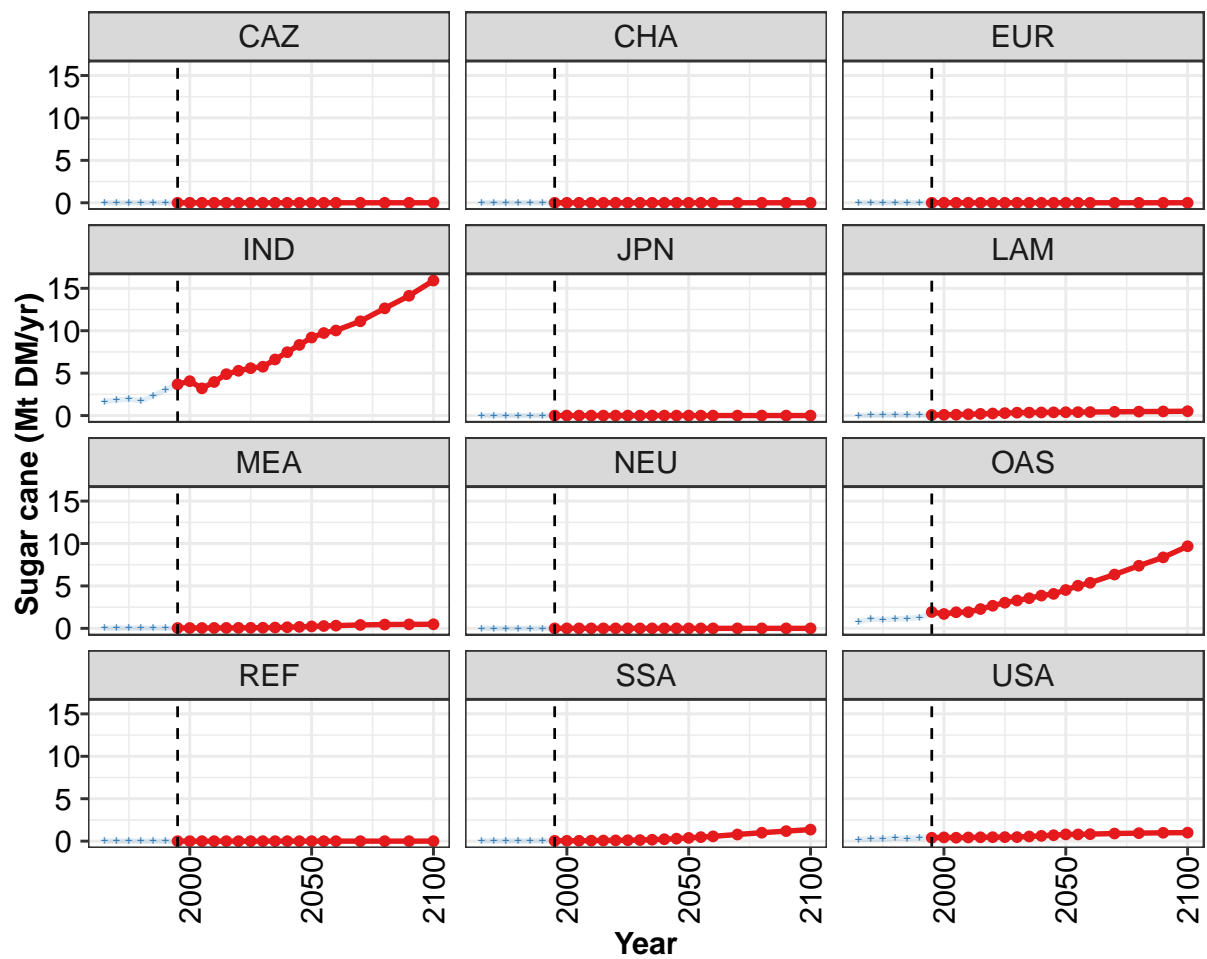


Figure 233: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.2	6.4	5.7	6.6	7.9	8.8	9.6	10.1	11.3	12.7	13.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	3.7	4.1	3.2	4.0	4.9	5.3	5.6	5.8	6.6	7.5	8.3
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4
MEA	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	1.9	1.7	1.9	1.9	2.3	2.7	3.0	3.3	3.6	3.9	4.1
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3
USA	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.7

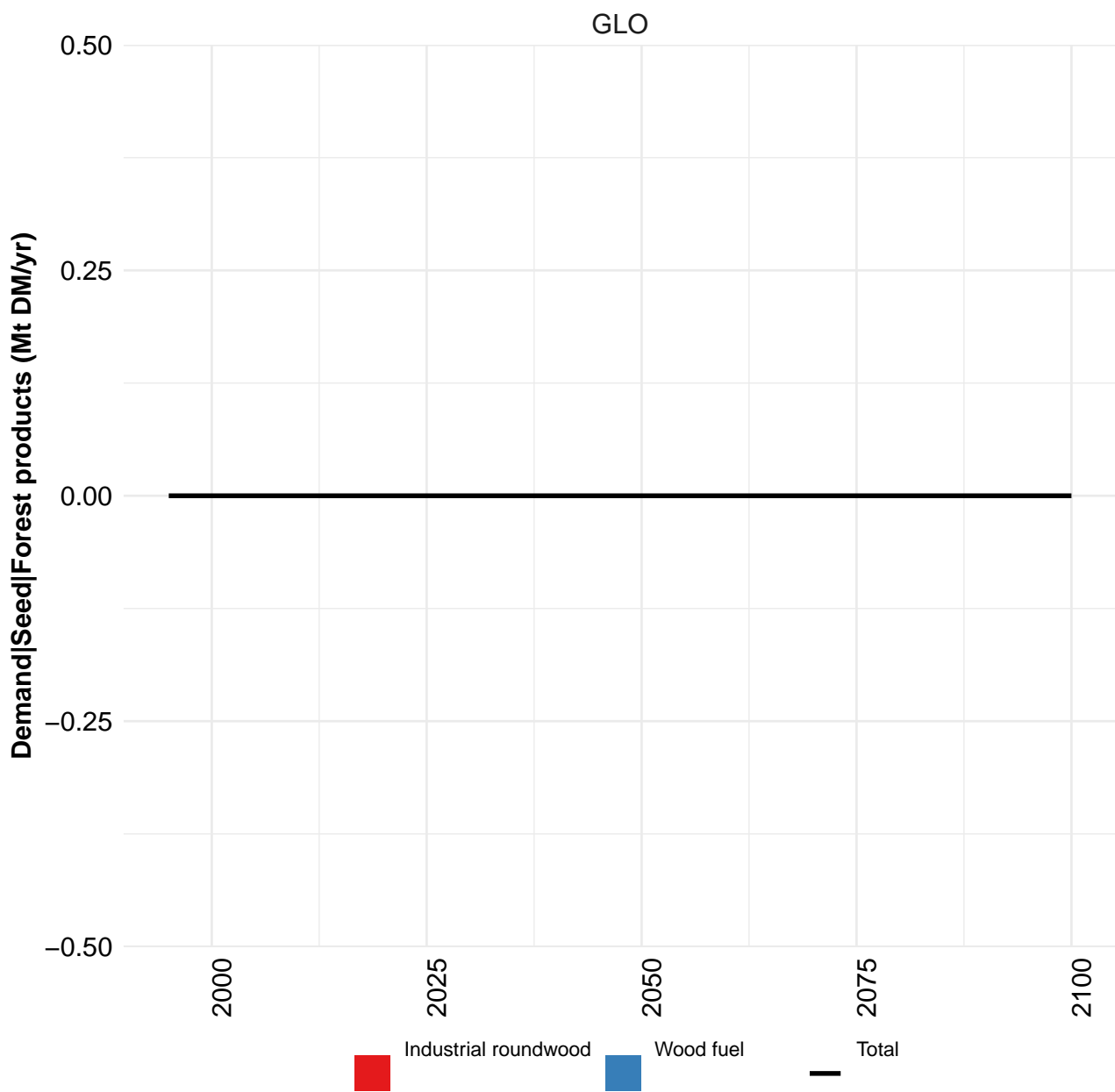
Table 698: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 1/2]

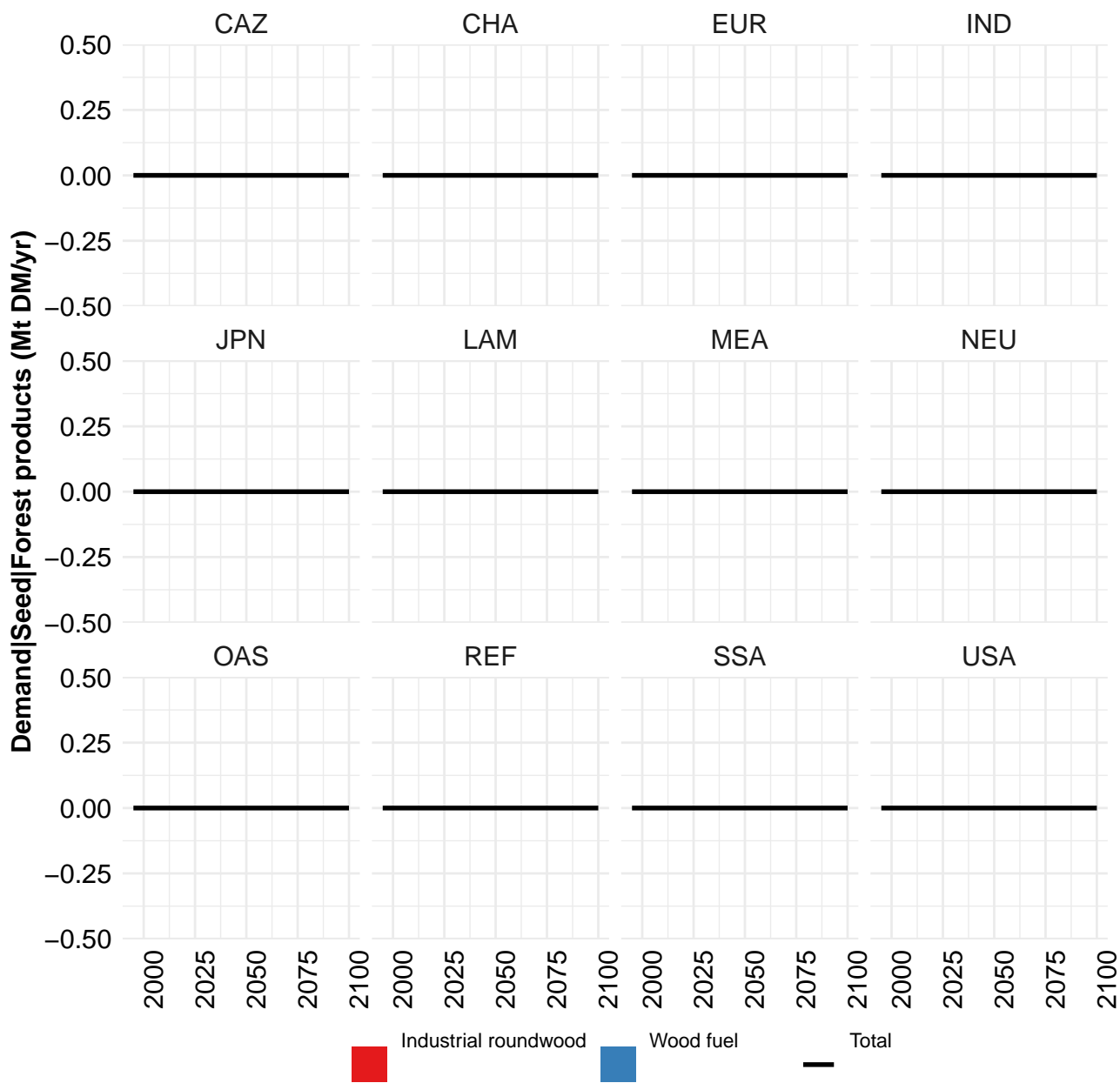
	2050	2055	2060	2070	2080	2090	2100
GLO	15.5	16.7	17.5	20.0	22.9	25.6	28.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	9.2	9.7	10.0	11.1	12.6	14.1	15.9
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.4	0.4	0.4	0.4	0.5	0.5	0.5
MEA	0.2	0.3	0.3	0.4	0.4	0.5	0.5
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	4.5	5.0	5.4	6.3	7.4	8.4	9.7
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.4	0.5	0.6	0.8	1.0	1.2	1.4
USA	0.8	0.8	0.8	0.9	0.9	1.0	1.0

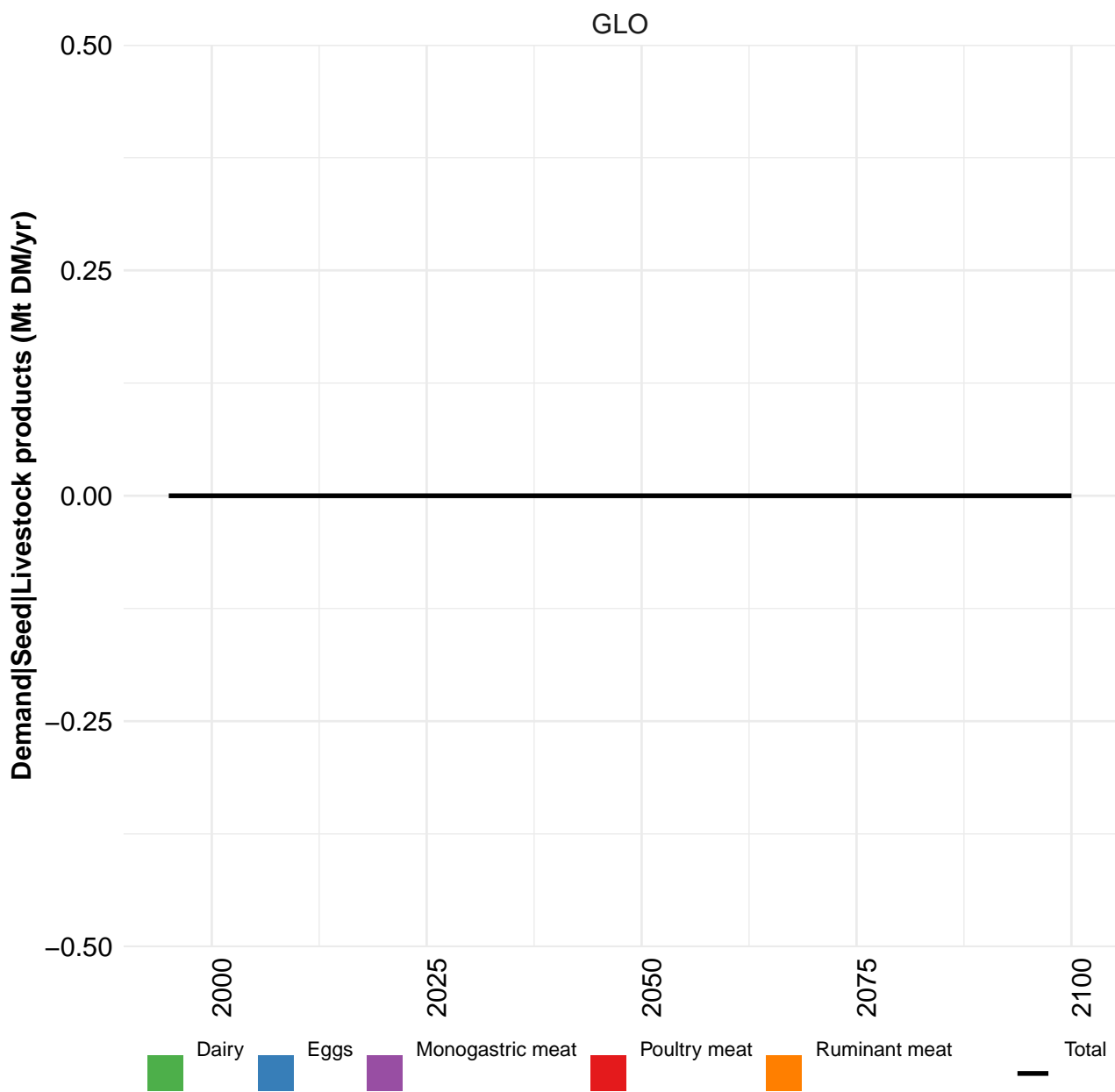
Table 699: MAgPIE m4p_SSP3 — Demand—Seed—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 2/2]

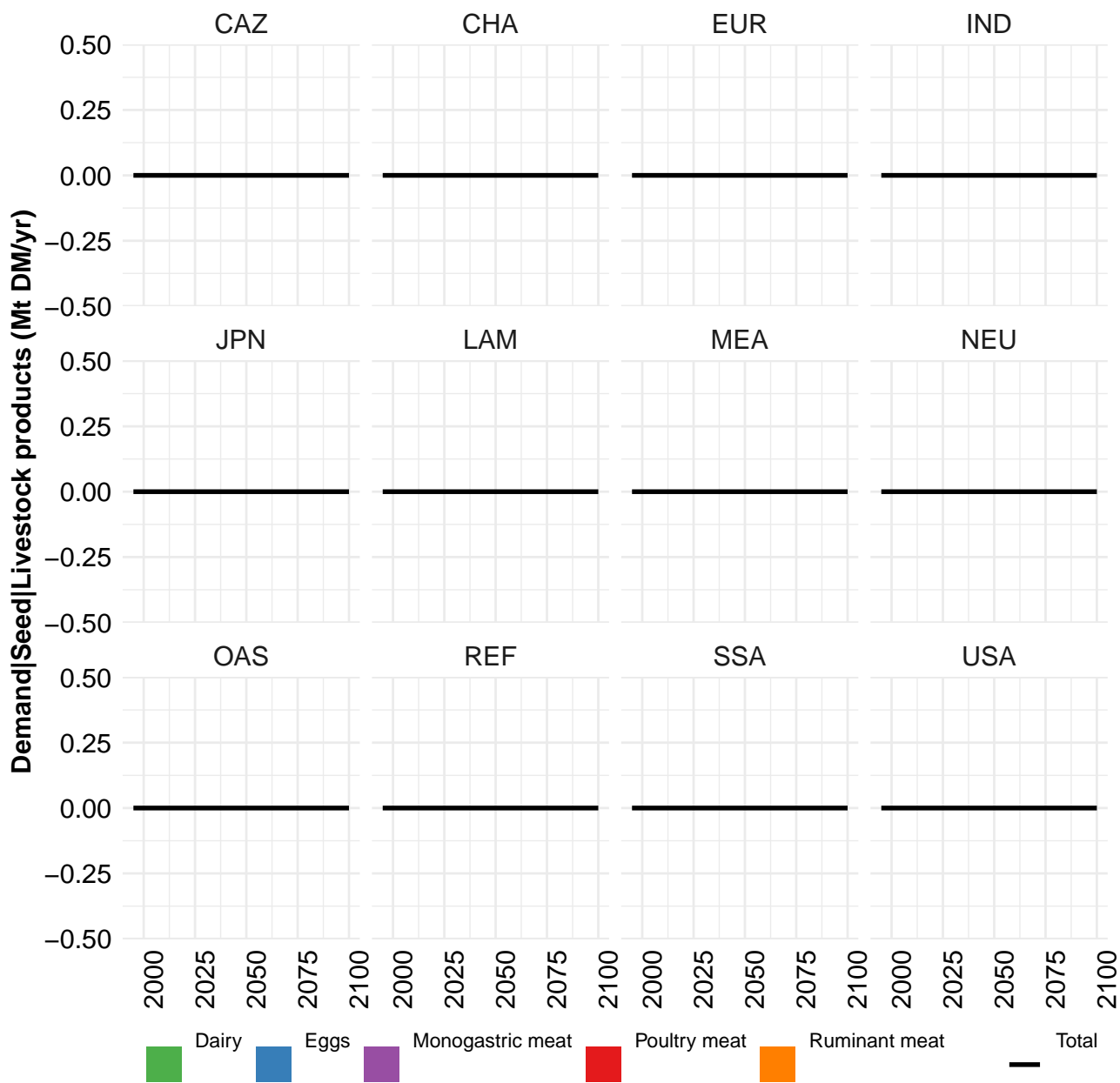
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.71	3.25	3.37	3.33	3.92	4.88	5.98	6.36	5.52	6.48
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	1.65	1.82	1.95	1.74	2.30	3.05	3.72	4.04	3.20	3.95
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.03	0.04	0.05	0.08	0.07	0.06	0.06	0.09	0.10	0.15
MEA	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.77	1.09	1.05	1.11	1.15	1.29	1.71	1.70	1.72	1.83
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.03	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.05	0.06
USA	0.22	0.23	0.25	0.34	0.33	0.41	0.40	0.45	0.40	0.46

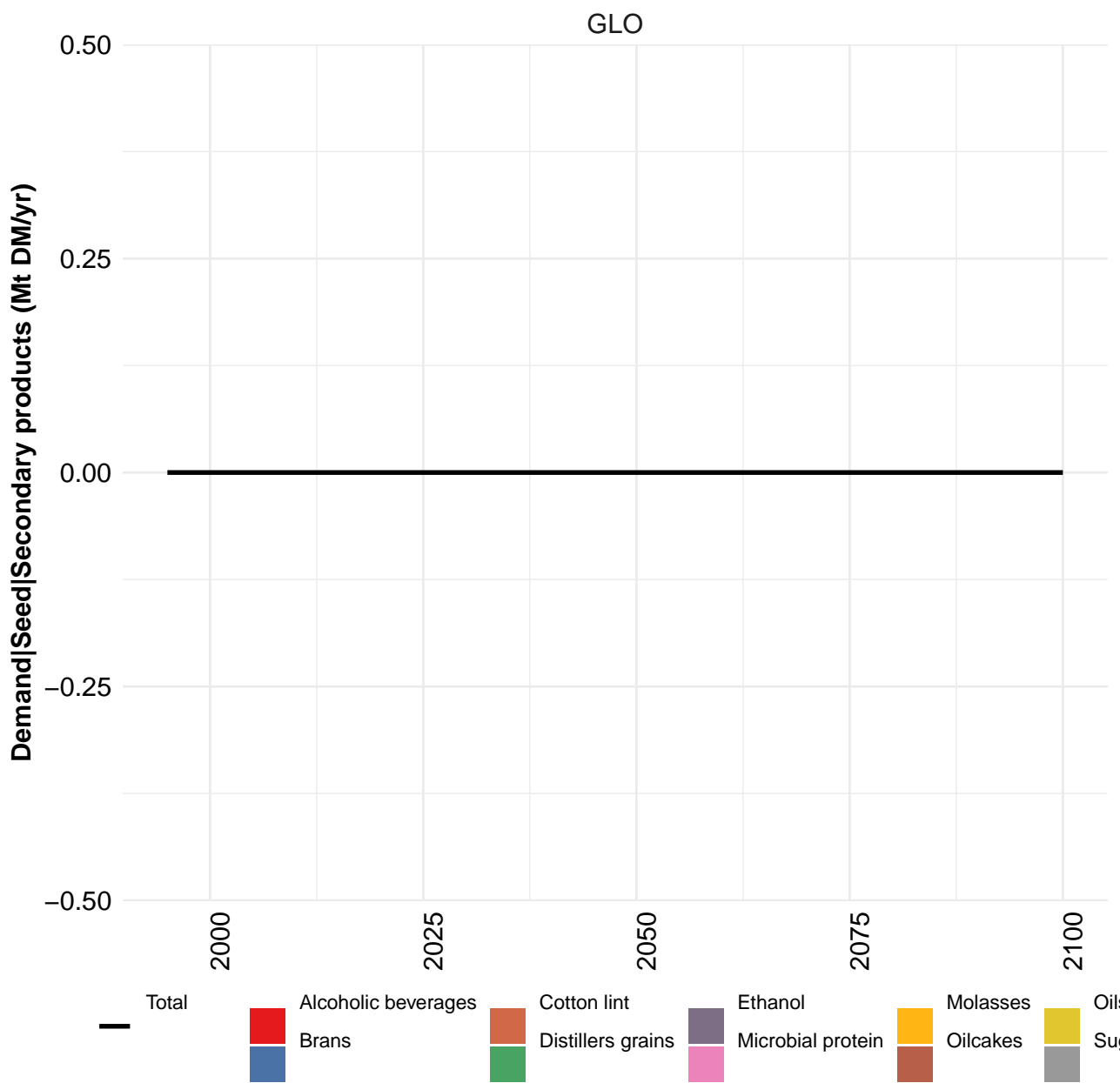
Table 700: FAO — Demand—Seed—Crops—Sugar crops—Sugar cane (Mt DM/yr)

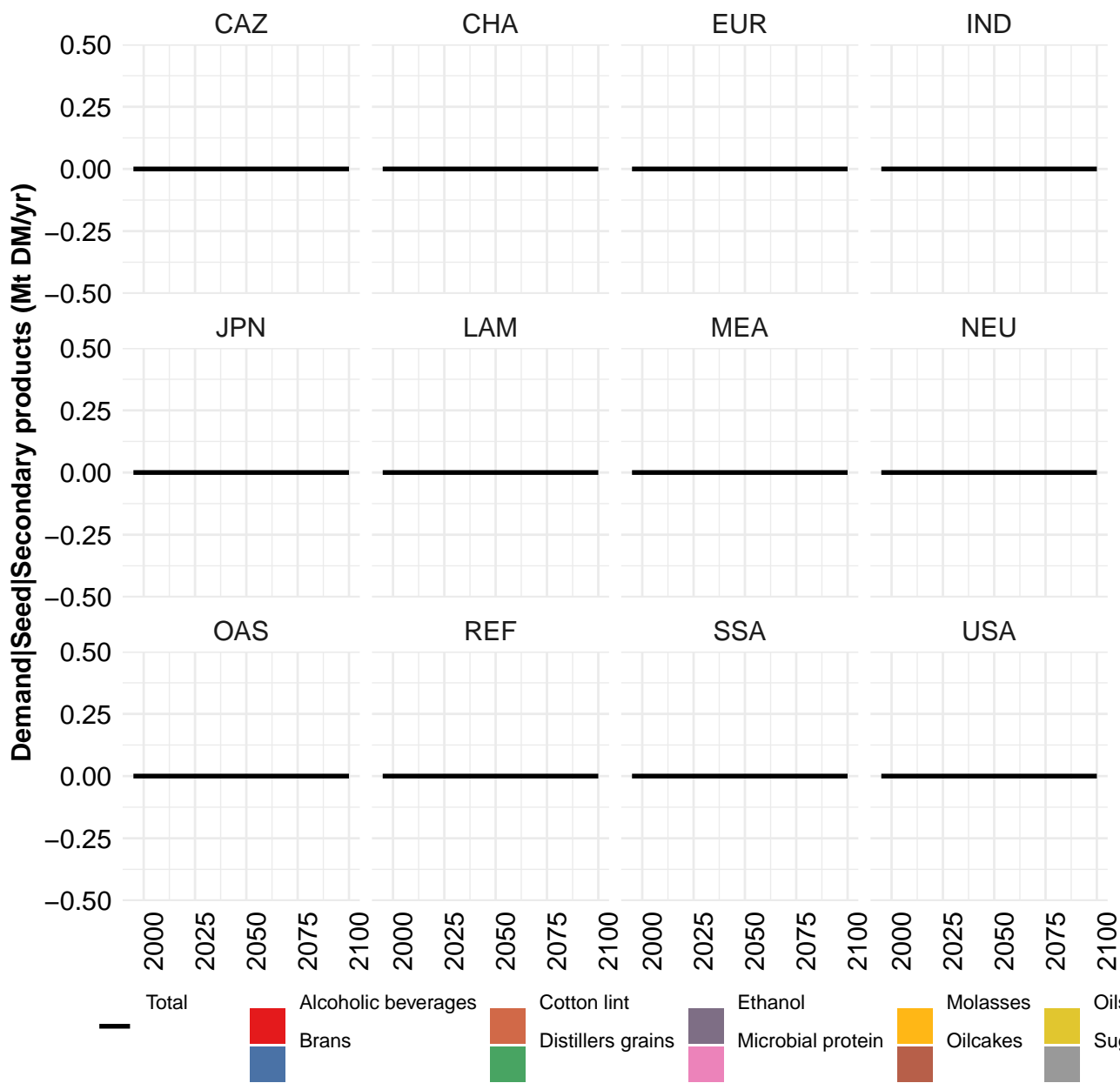






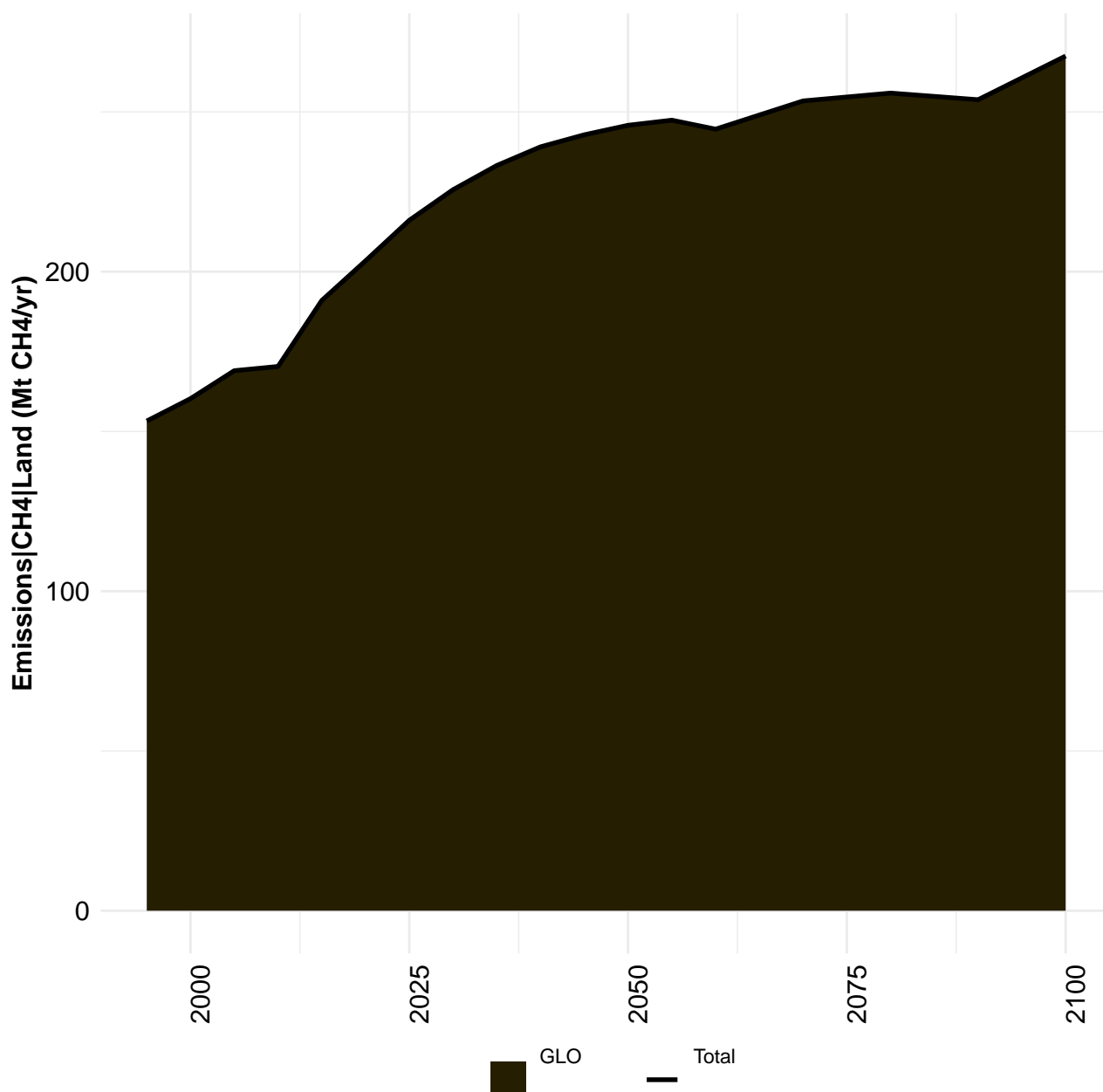


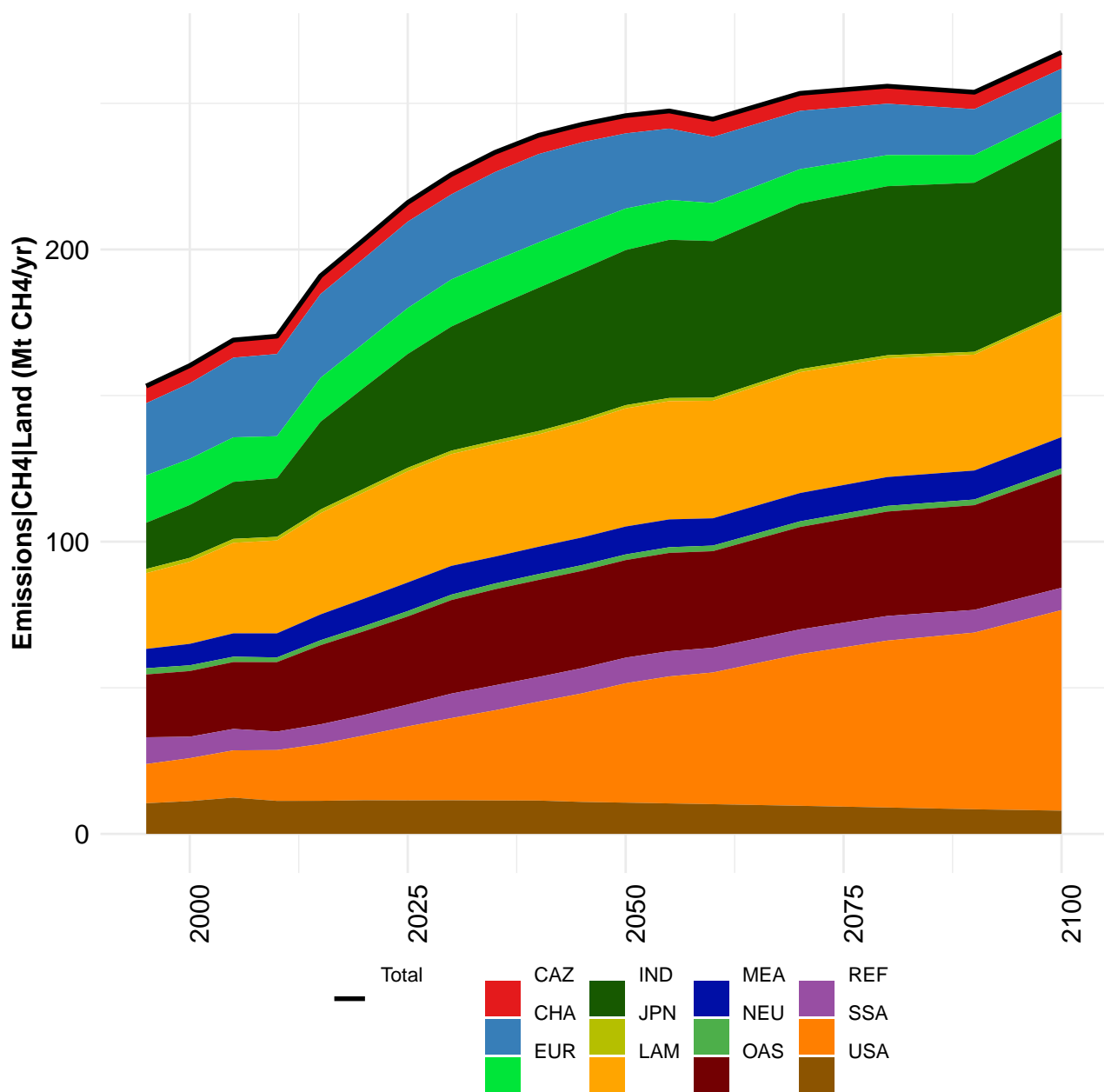




Part IV

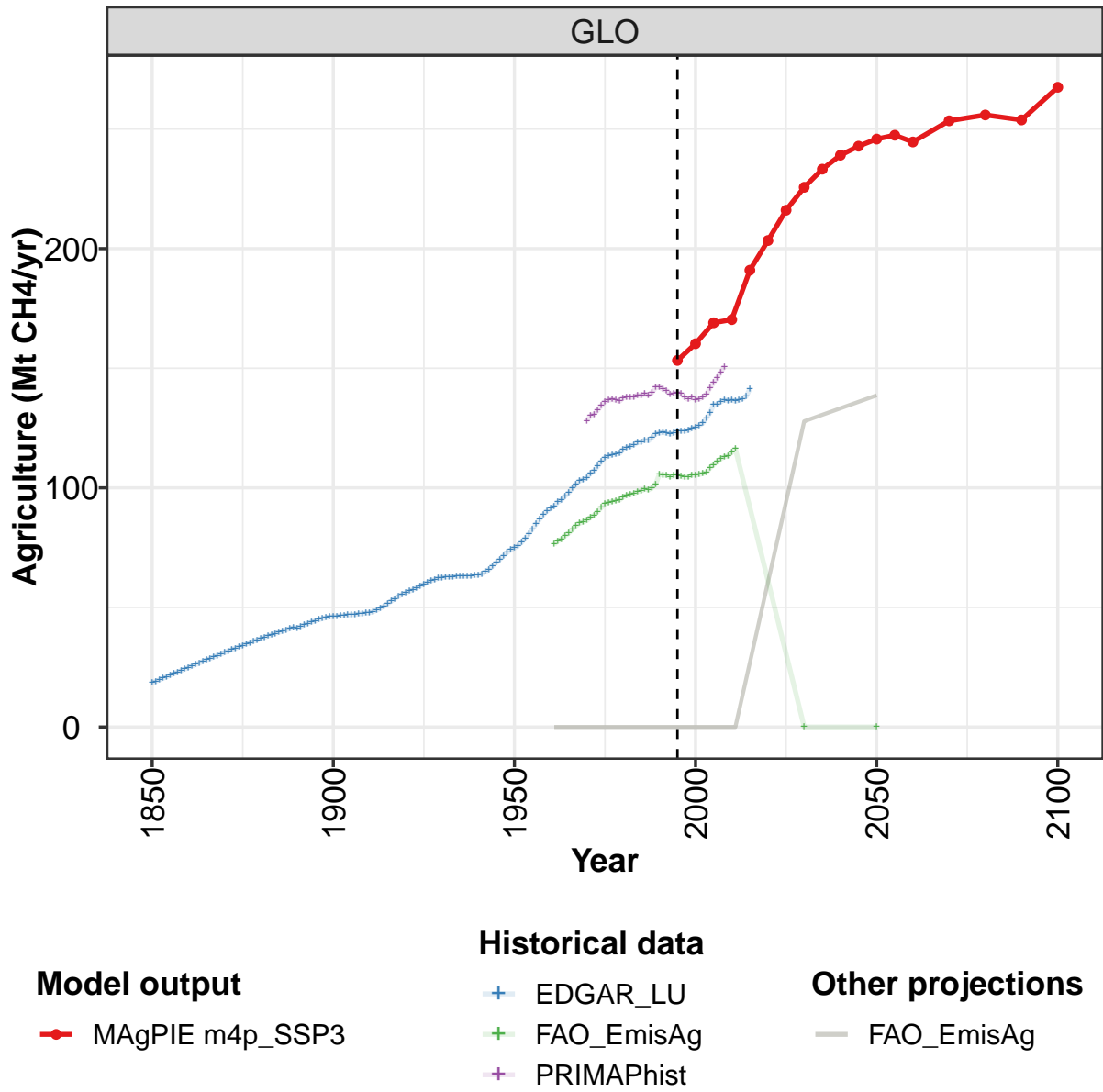
Emissions

11 CH₄



11.1 Land

11.1.1 Agriculture



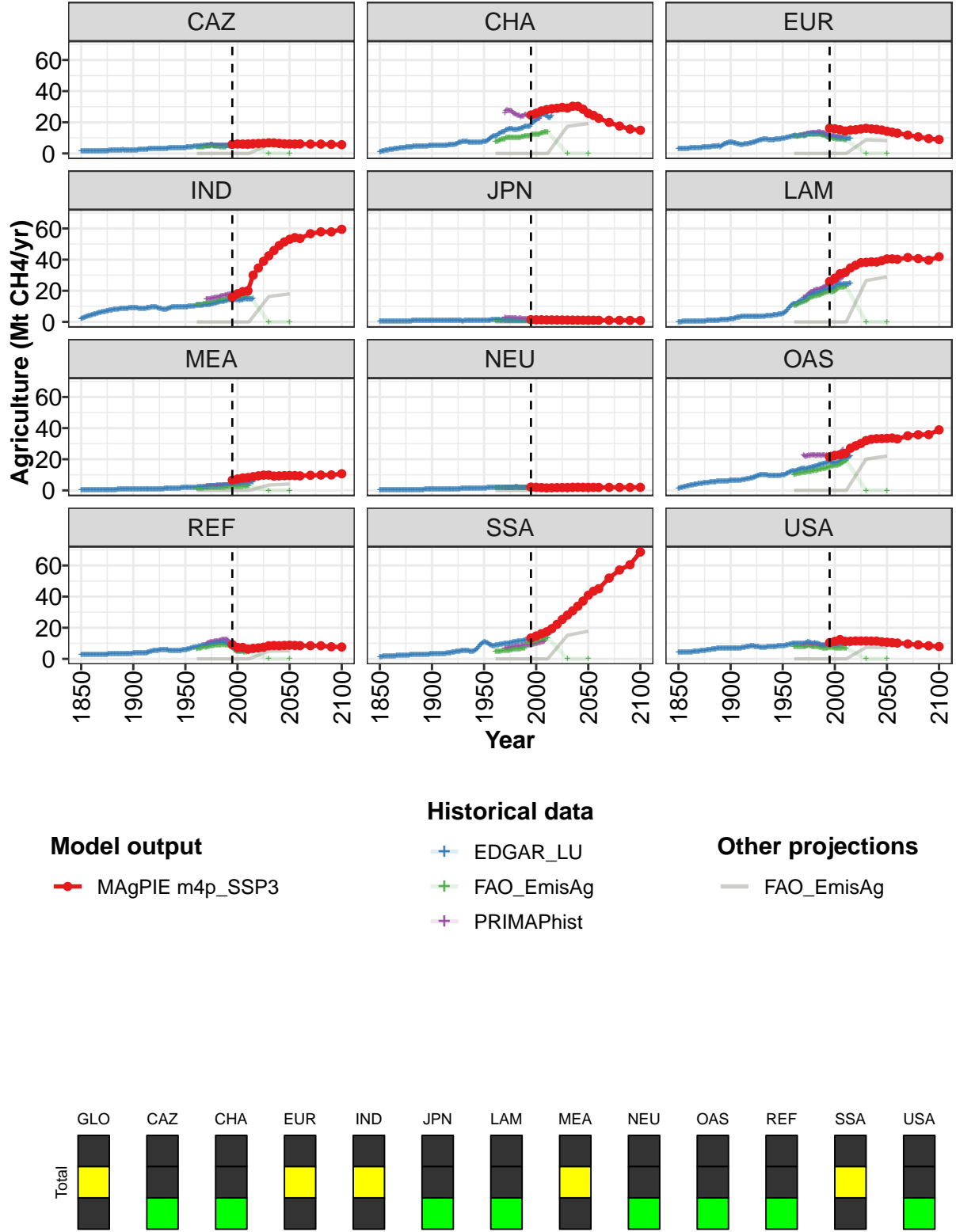


Figure 234: MAgPIE m4p_SSP3 — Emissions—CH₄—Land—Agriculture (Mt CH₄/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	153	160	169	170	191	203	216	226	233	239	243
CAZ	6	6	6	6	6	6	7	7	7	6	6
CHA	25	26	27	28	29	29	30	29	30	30	28
EUR	16	16	15	14	15	15	16	16	16	15	15
IND	16	18	19	20	30	35	39	42	46	49	51
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	26	28	31	32	35	36	38	38	39	38	39
MEA	7	7	8	8	9	9	10	10	9	9	9
NEU	2	2	2	2	2	2	2	2	2	2	2
OAS	22	22	23	24	27	29	30	32	33	33	33
REF	9	7	7	6	7	7	7	8	9	8	9
SSA	13	15	16	17	19	22	25	28	31	34	37
USA	10	11	12	11	11	12	11	12	11	11	11

Table 701: MAgPIE m4p_SSP3 — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	246	247	245	253	256	254	267
CAZ	6	6	6	6	6	6	6
CHA	26	24	23	20	18	16	15
EUR	14	14	13	12	11	10	9
IND	53	54	54	57	58	58	59
JPN	1	1	1	1	1	1	1
LAM	40	40	40	41	41	40	42
MEA	10	10	9	10	10	10	11
NEU	2	2	2	2	2	2	2
OAS	33	34	33	35	36	36	39
REF	9	9	8	8	8	8	8
SSA	41	43	45	52	57	60	69
USA	11	10	10	10	9	8	8

Table 702: MAgPIE m4p_SSP3 — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 2/2]

	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860
GLO	18	19	20	20	21	22	22	23	24	24	25
CAZ	1	1	1	1	1	1	1	1	1	1	1
CHA	1	1	1	2	2	2	2	2	2	2	2
EUR	3	3	3	3	3	3	3	3	3	3	3
IND	2	2	3	3	3	3	3	4	4	4	4
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	1	2	2	2	2	2	2	3	3	3	3
REF	3	3	3	3	3	3	3	3	3	3	3
SSA	1	1	1	1	2	2	2	2	2	2	2
USA	4	4	4	4	4	4	4	4	4	4	4

Table 703: PRIMAPHist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 1/16]

	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871
GLO	26	26	27	27	28	29	29	30	31	31	32
CAZ	1	1	1	1	1	2	2	2	2	2	2
CHA	3	3	3	3	3	3	3	3	3	3	4
EUR	3	3	3	3	3	3	4	4	4	4	4
IND	5	5	5	5	5	6	6	6	6	6	6
JPN	0	0	0	1	1	1	1	1	1	1	1
LAM	0	0	0	0	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	3	3	3	4	4	4	4	4	4	4	4
REF	3	3	3	3	3	3	3	3	3	3	3
SSA	2	2	2	2	2	2	2	2	2	2	2
USA	4	4	4	5	5	5	5	5	5	5	5

Table 704: PRIMAPHist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 2/16]

	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
GLO	32	33	34	34	35	35	36	36	37	38	38
CAZ	2	2	2	2	2	2	2	2	2	2	2
CHA	4	4	4	4	4	4	4	4	4	4	4
EUR	4	4	4	4	4	4	4	4	4	4	4
IND	7	7	7	7	7	7	7	8	8	8	8
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	1	1	1	1	1	1	1	1	1	1	1
MEA	0	0	0	0	0	0	0	1	1	1	1
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	4	5	5	5	5	5	5	5	5	5	5
REF	3	3	3	3	3	3	3	3	3	3	3
SSA	2	2	2	2	2	2	2	2	3	3	3
USA	5	5	5	5	5	6	6	6	6	6	6

Table 705: PRIMAPHist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 3/16]

	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
GLO	39	39	40	40	41	41	42	41	42	43	43
CAZ	2	2	2	2	2	2	2	2	2	2	2
CHA	4	4	4	5	5	5	5	5	5	5	5
EUR	4	5	5	5	5	5	5	4	5	5	6
IND	8	8	8	8	8	8	8	8	9	9	9
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	1	1	1	1	1	1	1	1	1	1	1
MEA	1	1	1	1	1	1	1	1	1	1	1
NEU	0	0	0	0	1	1	1	1	1	1	1
OAS	5	5	6	6	6	6	6	6	6	6	6
REF	3	3	3	3	3	3	3	3	3	3	3
SSA	3	3	3	3	3	3	3	3	3	3	3
USA	6	6	6	6	7	7	7	7	7	7	7

Table 706: PRIMAPHist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 4/16]

	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
GLO	44	44	45	45	46	46	46	46	47	47	47
CAZ	2	2	2	2	2	2	2	2	2	2	2
CHA	5	5	5	5	5	5	5	5	5	5	5
EUR	6	6	7	7	7	7	7	7	7	7	7
IND	9	9	9	9	9	9	9	9	9	9	9
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	1	1	2	2	2	2	2	2	2	2	2
MEA	1	1	1	1	1	1	1	1	1	1	1
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	6	6	6	6	6	6	6	6	6	6	6
REF	3	3	3	3	3	3	3	3	4	4	4
SSA	3	3	3	3	3	3	3	3	3	3	3
USA	7	7	7	7	7	7	7	7	7	7	7

Table 707: PRIMAPHist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 5/16]

	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
GLO	47	47	47	47	48	48	48	49	50	51	52
CAZ	2	2	2	3	3	3	3	3	3	3	3
CHA	5	5	5	5	5	5	5	5	5	5	5
EUR	6	6	6	6	6	6	6	6	6	6	6
IND	9	9	9	9	9	9	9	9	9	9	9
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	3	3	3	3	3	3	3	3	3	3	3
MEA	1	1	1	1	1	1	1	1	1	1	1
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	6	6	6	7	7	7	7	7	7	7	7
REF	4	4	4	4	4	4	4	4	4	4	4
SSA	3	3	3	3	3	3	3	3	3	4	4
USA	7	7	7	7	7	7	7	7	7	7	8

Table 708: PRIMAPHist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 6/16]

	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926
GLO	53	54	55	55	56	57	57	58	59	60	60
CAZ	3	3	3	3	3	3	3	3	3	3	3
CHA	5	5	5	6	6	6	6	6	6	7	7
EUR	6	6	6	7	7	7	7	7	8	8	8
IND	9	9	9	9	10	9	9	9	9	9	9
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	3	3	3	3	3	4	4	4	4	4	4
MEA	1	1	1	1	1	1	1	1	1	1	1
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	7	7	8	8	8	8	8	9	9	9	9
REF	5	5	5	5	5	5	5	5	6	6	6
SSA	4	4	4	4	4	4	4	5	5	5	5
USA	8	8	8	8	8	8	8	8	8	8	8

Table 709: PRIMAPHist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 7/16]

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
GLO	61	62	62	62	63	63	63	63	63	63	63
CAZ	3	3	3	3	3	3	3	3	3	3	3
CHA	7	7	8	8	8	8	7	7	7	7	7
EUR	8	9	9	9	9	9	9	9	9	9	9
IND	8	8	8	8	8	8	8	9	9	9	9
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	4	4	4	4	4	4	4	4	4	4	4
MEA	1	1	1	1	1	1	1	1	1	1	1
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	10	10	10	10	10	10	10	10	10	10	10
REF	6	6	6	6	6	6	6	6	5	5	5
SSA	5	5	5	5	5	5	5	5	5	5	5
USA	8	8	7	7	7	8	8	8	8	8	8

Table 710: PRIMAPhist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 8/16]

	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
GLO	63	63	64	64	65	66	67	69	70	72	73
CAZ	3	3	3	3	3	3	4	4	4	4	4
CHA	7	7	7	7	7	7	7	7	7	7	7
EUR	9	9	9	9	9	9	9	9	9	9	9
IND	10	10	10	10	10	10	10	10	10	10	10
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	4	4	4	4	4	4	5	5	5	5	5
MEA	1	1	1	1	1	1	1	2	2	2	2
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	9	9	9	9	9	9	10	10	10	10	10
REF	5	5	5	5	5	5	5	5	5	6	6
SSA	5	5	5	5	6	6	7	8	9	9	10
USA	8	8	8	8	8	8	8	8	8	8	8

Table 711: PRIMAPhist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 9/16]

	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
GLO	74	75	76	77	79	81	83	85	87	89	90
CAZ	4	4	4	4	4	4	4	4	4	4	4
CHA	7	7	8	8	8	9	9	10	10	11	11
EUR	9	10	10	10	10	10	10	11	11	11	11
IND	10	10	10	10	10	10	10	10	10	10	10
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	5	5	6	6	7	7	8	9	10	10	11
MEA	2	2	2	2	2	2	2	2	2	2	2
NEU	1	1	1	2	2	2	2	2	2	2	2
OAS	10	10	10	10	10	11	11	11	12	12	12
REF	6	6	6	6	6	7	7	7	7	7	8
SSA	11	11	11	10	10	10	9	9	9	8	8
USA	8	8	8	9	9	9	9	9	9	9	10

Table 712: PRIMAPhist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 10/16]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	91	92	94	95	97	98	100	102	103	103	104
CAZ	5	5	5	5	5	5	5	5	5	5	5
CHA	11	11	11	12	12	13	13	14	14	14	14
EUR	11	11	12	11	11	11	12	12	12	12	12
IND	10	10	10	10	11	10	11	11	11	11	11
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	11	11	12	12	12	13	13	13	14	14	14
MEA	2	2	2	2	2	2	2	2	2	3	3
NEU	2	2	2	2	2	2	2	2	2	2	2
OAS	12	12	13	13	13	13	13	13	14	14	14
REF	8	7	8	8	8	8	9	9	9	9	9
SSA	8	9	9	9	9	9	9	9	10	10	10
USA	10	10	10	10	10	10	10	10	10	10	10

Table 713: PRIMAPhist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 11/16]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	106	107	109	111	113	113	114	114	114	116	117
CAZ	5	5	5	5	6	5	5	5	5	5	5
CHA	15	15	15	16	16	16	16	15	15	15	15
EUR	12	12	12	13	13	13	13	13	13	13	13
IND	11	11	11	11	12	12	12	12	12	12	12
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	14	15	15	16	16	17	17	17	18	18	19
MEA	3	3	3	3	3	3	3	3	3	3	3
NEU	2	2	2	2	2	2	2	2	2	2	2
OAS	14	14	14	14	14	14	15	15	15	15	15
REF	9	9	9	10	10	10	10	10	10	10	10
SSA	10	10	10	10	10	10	10	11	11	11	11
USA	10	10	10	11	11	11	10	10	10	10	10

Table 714: PRIMAPhist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 12/16]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	117	118	119	119	120	120	121	123	123	123	123
CAZ	5	5	5	5	5	5	5	5	5	5	5
CHA	15	16	16	16	16	16	17	17	17	17	17
EUR	13	13	13	13	13	12	12	12	12	12	11
IND	12	13	13	13	13	13	14	14	14	14	14
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	19	19	19	19	19	19	20	20	20	21	21
MEA	3	3	3	3	3	3	3	3	3	3	4
NEU	2	2	2	2	2	2	2	2	2	2	2
OAS	15	16	16	16	17	16	17	17	17	17	18
REF	10	10	11	11	11	11	10	10	10	10	9
SSA	11	11	11	11	11	11	12	12	12	12	12
USA	10	10	10	10	9	9	9	9	9	9	9

Table 715: PRIMAPhist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 13/16]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	122	123	124	124	124	124	125	125	126	127	129
CAZ	5	5	5	5	5	5	5	5	5	5	5
CHA	17	17	18	19	20	20	21	21	22	22	23
EUR	11	11	11	11	11	11	11	10	10	10	10
IND	14	14	14	14	14	14	14	14	14	14	14
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	21	21	22	21	21	21	22	22	22	23	24
MEA	4	4	4	4	4	4	4	4	4	4	5
NEU	2	2	2	2	2	2	2	2	1	1	1
OAS	18	18	18	18	18	18	18	18	18	18	18
REF	9	8	7	7	6	6	5	5	5	5	5
SSA	12	12	12	12	13	13	13	13	13	14	14
USA	9	9	10	9	9	9	10	10	10	10	10

Table 716: PRIMAPhist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 14/16]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	131	135	135	136	137	137	137	136	137	137	138
CAZ	5	5	5	5	5	5	4	5	5	5	5
CHA	24	25	25	25	25	25	24	23	23	23	23
EUR	10	10	10	10	10	10	10	10	9	9	10
IND	14	14	14	15	15	15	15	15	15	15	15
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	24	25	24	24	24	24	24	24	24	24	25
MEA	5	5	5	5	5	5	5	5	5	5	5
NEU	1	1	2	2	1	1	2	2	2	2	2
OAS	18	19	19	20	20	20	21	21	21	21	21
REF	5	5	5	5	5	5	5	5	5	5	5
SSA	14	15	15	15	16	16	16	17	17	17	17
USA	9	10	10	10	10	10	10	10	10	10	10

Table 717: PRIMAPhist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 15/16]

	2015
GLO	141
CAZ	4
CHA	24
EUR	10
IND	15
JPN	1
LAM	25
MEA	5
NEU	2
OAS	22
REF	6
SSA	17
USA	10

Table 718: PRIMAPhist — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 16/16]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	76	78	78	80	81	83	84	85	86	86	88
CAZ	4	4	4	4	4	4	4	4	4	4	5
CHA	7	7	8	8	8	9	9	9	9	9	10
EUR	11	11	11	11	11	11	11	11	11	11	11
IND	11	11	11	11	11	11	11	12	12	12	12
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	10	11	11	11	12	12	12	13	13	13	13
MEA	1	1	1	1	1	2	2	2	2	2	2
NEU	2	2	2	2	2	2	2	2	2	2	2
OAS	10	10	10	11	11	11	11	12	12	12	12
REF	6	7	7	7	7	7	8	8	8	7	8
SSA	5	5	5	5	5	5	5	5	5	5	6
USA	8	8	8	8	8	8	8	8	8	8	8

Table 719: FAO_EmisAg — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	89	90	92	93	94	94	95	95	96	97	97
CAZ	5	5	5	5	5	5	4	4	4	4	4
CHA	10	10	10	10	10	10	10	10	10	10	10
EUR	12	12	12	12	12	12	12	12	12	12	12
IND	12	12	12	12	12	12	13	13	13	13	13
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	13	14	14	15	15	16	16	16	17	17	17
MEA	2	2	2	2	2	2	2	2	2	2	2
NEU	2	2	2	2	2	2	2	2	2	2	2
OAS	11	12	12	12	12	12	13	13	13	13	13
REF	8	8	8	8	8	8	9	9	9	9	9
SSA	6	6	6	6	6	6	6	6	6	6	6
USA	8	8	8	9	8	8	8	8	8	8	8

Table 720: FAO_EmisAg — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	98	98	99	99	99	100	102	106	105	105	105
CAZ	4	4	4	4	4	4	4	5	5	5	5
CHA	10	10	10	11	11	11	11	11	11	11	11
EUR	12	12	12	12	12	12	12	12	11	11	10
IND	14	14	14	14	14	14	14	15	15	15	15
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	17	17	17	17	18	18	18	19	19	19	19
MEA	2	2	2	2	2	2	2	2	2	2	2
NEU	2	2	2	2	2	2	2	2	2	2	2
OAS	13	13	13	14	14	14	14	14	14	14	15
REF	9	9	9	9	9	9	9	9	9	9	8
SSA	7	6	6	7	7	7	7	10	10	10	9
USA	8	8	8	7	7	7	7	7	7	7	7

Table 721: FAO_EmisAg — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	105	105	105	104	105	105	105	106	106	106	108
CAZ	5	5	5	5	5	5	6	6	6	5	5
CHA	11	12	12	12	12	12	12	12	12	12	13
EUR	10	10	10	10	10	10	10	9	9	9	9
IND	15	15	15	15	15	15	15	15	15	15	15
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	19	20	19	19	19	20	20	20	21	22	22
MEA	2	2	2	2	2	2	2	2	2	2	3
NEU	2	2	2	1	1	1	1	1	1	1	1
OAS	15	15	15	16	15	16	16	16	16	16	16
REF	8	7	7	6	5	5	5	5	5	5	5
SSA	10	10	10	10	10	10	10	11	11	11	11
USA	7	7	7	7	7	7	7	7	7	7	7

Table 722: FAO.EmisAg — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011	2030	2050
GLO	110	111	112	113	113	115	116	0	0
CAZ	5	5	5	4	4	4	6	0	0
CHA	13	13	13	14	14	14	14	0	0
EUR	9	9	9	9	9	9	9	0	0
IND	16	16	16	17	17	17	17	0	0
JPN	1	1	1	1	1	1	1	0	0
LAM	22	22	22	22	22	23	23	0	0
MEA	3	3	3	3	3	3	3	0	0
NEU	1	1	1	1	1	1	1	0	0
OAS	17	17	18	18	19	19	19	0	0
REF	5	5	4	5	4	5	4	0	0
SSA	12	12	12	13	13	13	14	0	0
USA	7	7	7	7	7	7	7	0	0

Table 723: FAO.EmisAg — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 5/5]

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
GLO	128	130	131	132	134	136	137	137	137	136	138
CAZ	5	5	5	5	5	6	6	5	5	5	5
CHA	26	28	28	27	28	28	28	27	26	25	25
EUR	12	12	12	13	13	13	13	13	13	13	13
IND	15	15	15	15	15	15	15	15	15	15	16
JPN	3	3	3	3	3	3	3	3	2	2	2
LAM	16	16	16	17	17	18	19	19	19	19	20
MEA	3	3	3	3	3	3	3	3	3	3	3
NEU	2	2	2	2	2	2	2	2	2	2	2
OAS	23	22	22	22	22	22	22	22	23	23	23
REF	9	10	10	10	11	11	11	11	11	11	11
SSA	7	7	7	7	7	7	7	7	8	8	8
USA	9	9	9	9	9	9	9	9	9	9	9

Table 724: EDGAR.LU — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 1/4]

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
GLO	138	138	138	139	138	139	139	140	142	142	141
CAZ	5	5	5	5	5	5	5	5	5	5	5
CHA	25	24	24	24	24	24	24	24	25	25	25
EUR	13	13	13	14	14	14	13	13	13	13	13
IND	16	16	16	16	17	17	17	17	17	17	18
JPN	2	2	2	2	2	2	2	2	2	2	2
LAM	20	20	20	21	21	21	21	22	22	22	23
MEA	3	3	3	3	3	3	3	3	4	4	4
NEU	2	2	2	2	2	2	2	2	2	2	2
OAS	23	22	22	23	23	23	22	23	23	22	22
REF	11	12	12	12	12	12	12	12	12	12	12
SSA	8	8	8	8	8	8	8	8	9	9	9
USA	9	9	9	9	9	8	8	8	8	8	8

Table 725: EDGAR.LU — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 2/4]

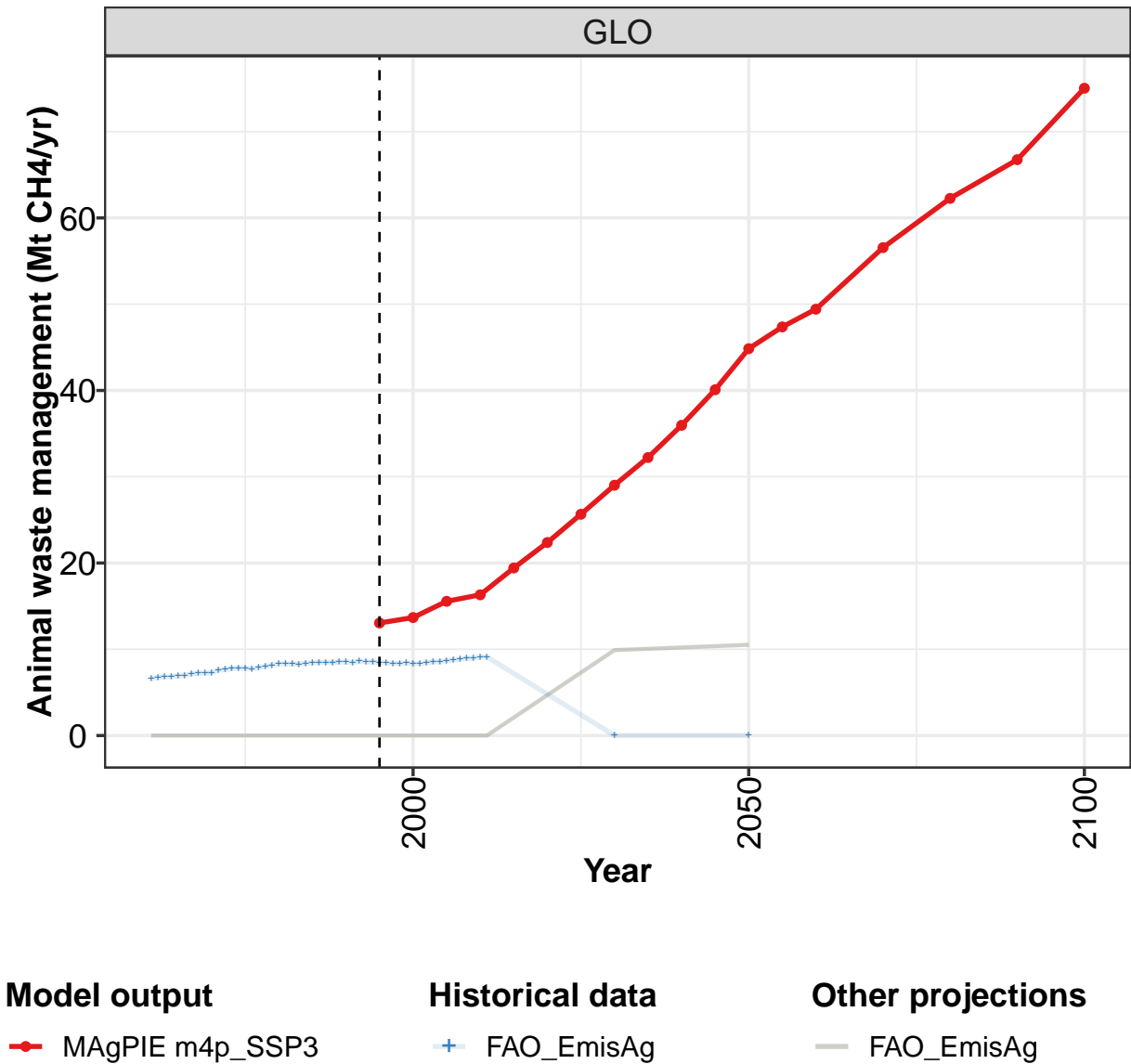
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
GLO	141	139	139	140	139	138	137	138	137	137	138
CAZ	5	5	5	5	5	5	5	5	5	5	5
CHA	24	23	23	24	24	23	24	24	23	23	23
EUR	12	12	11	11	11	11	11	11	11	11	11
IND	18	18	18	18	18	18	18	18	18	18	18
JPN	2	2	2	2	2	2	2	2	2	1	1
LAM	23	24	24	25	24	24	24	24	25	25	26
MEA	4	4	4	4	4	4	4	5	5	5	5
NEU	2	2	2	2	2	2	1	2	2	1	1
OAS	22	22	22	23	23	23	23	23	23	23	23
REF	11	10	10	9	8	7	6	6	6	6	6
SSA	9	9	9	9	9	9	10	10	10	10	10
USA	8	9	9	9	9	9	9	9	9	9	9

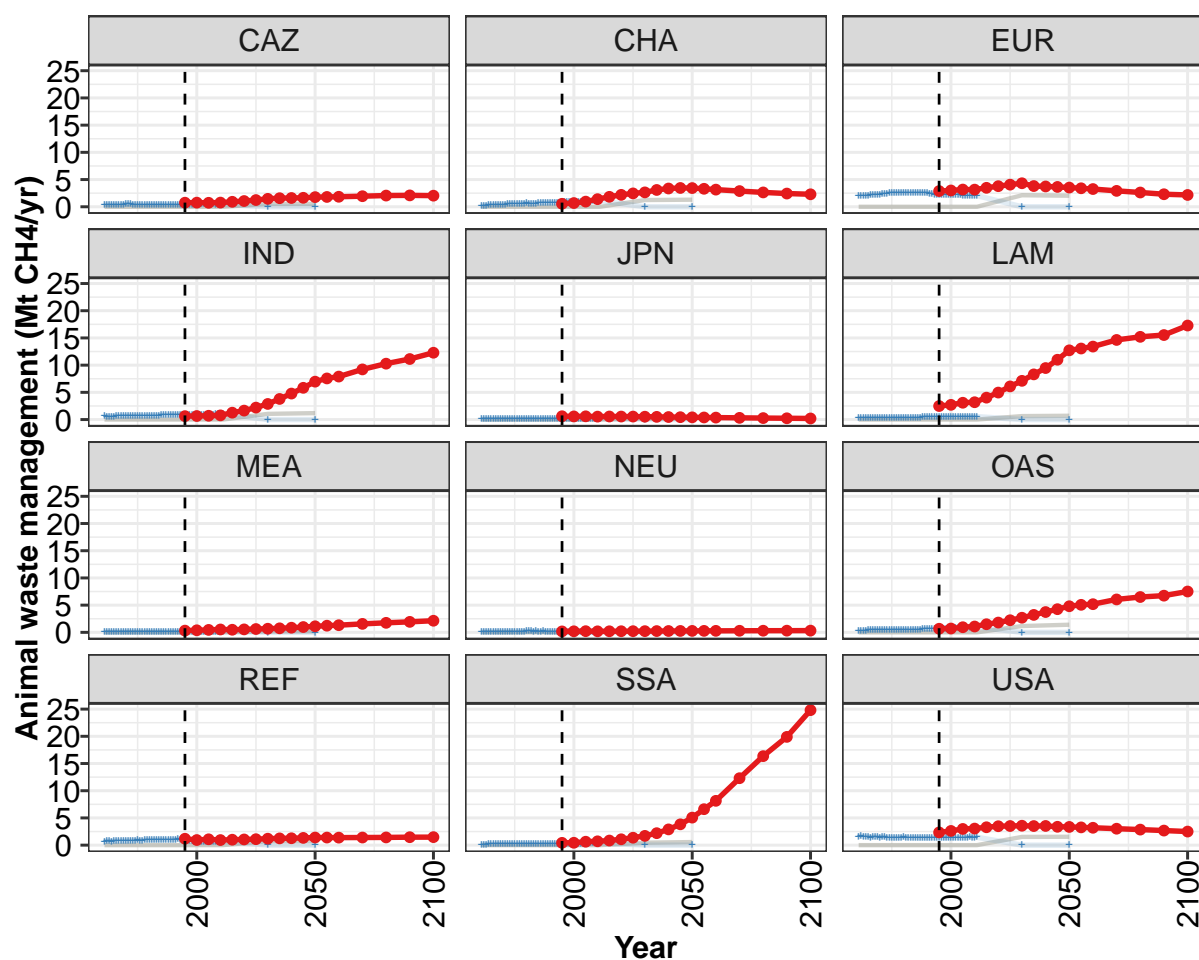
Table 726: EDGAR.LU — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 3/4]

	2003	2004	2005	2006	2007	2008
GLO	139	142	144	146	148	151
CAZ	5	5	5	6	6	6
CHA	23	24	25	26	27	28
EUR	11	10	10	10	10	10
IND	18	18	18	18	18	18
JPN	1	1	1	1	1	1
LAM	27	27	28	28	29	29
MEA	5	5	5	5	5	5
NEU	1	1	1	1	2	2
OAS	23	24	24	25	26	26
REF	6	6	6	6	5	5
SSA	10	10	11	11	11	11
USA	9	9	9	9	9	9

Table 727: EDGAR.LU — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 4/4]

11.1.2 Agriculture—Animal waste management



**Model output**

—●— MAgPIE m4p_SSP3

Historical data

—+— FAO_EmisAg

Other projections

— FAO_EmisAg

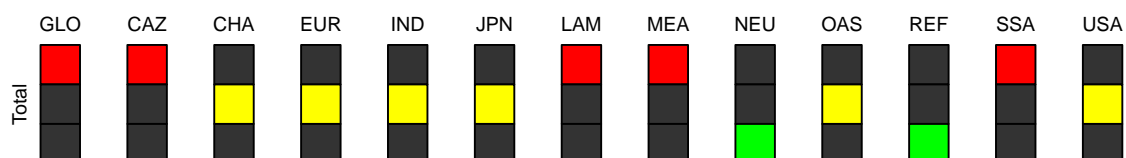


Figure 235: MAgPIE m4p_SSP3 — Emissions—CH₄—Land—Agriculture—Animal waste management (Mt CH₄/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	13.0	13.7	15.6	16.3	19.4	22.4	25.6	29.0	32.2	36.0	40.1
CAZ	0.8	0.8	0.7	0.8	0.9	1.1	1.2	1.5	1.6	1.6	1.7
CHA	0.6	0.7	0.9	1.4	1.8	2.2	2.5	2.6	3.1	3.4	3.5
EUR	2.9	3.0	3.2	3.2	3.5	3.8	4.1	4.3	3.8	3.7	3.7
IND	0.6	0.7	0.7	0.8	1.3	1.6	2.2	2.9	3.8	4.8	5.8
JPN	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.4
LAM	2.5	2.7	3.1	3.2	4.0	5.0	6.1	7.1	8.3	9.5	11.0
MEA	0.3	0.4	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.9	1.0
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
OAS	0.7	0.7	0.9	1.1	1.5	1.8	2.2	2.7	3.2	3.7	4.3
REF	1.2	0.9	1.1	0.9	1.0	1.1	1.1	1.2	1.2	1.3	1.3
SSA	0.4	0.4	0.6	0.7	0.8	1.1	1.4	1.7	2.2	2.9	3.8
USA	2.3	2.6	3.0	3.0	3.3	3.5	3.5	3.6	3.5	3.5	3.4

Table 728: MAgPIE m4p_SSP3 — Emissions—CH4—Land—Agriculture—Animal waste management (Mt CH4/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	44.8	47.4	49.4	56.6	62.3	66.8	75.0
CAZ	1.8	1.8	1.8	1.9	2.1	2.1	2.0
CHA	3.4	3.3	3.2	2.9	2.6	2.4	2.3
EUR	3.5	3.4	3.3	2.9	2.6	2.3	2.2
IND	7.0	7.6	7.9	9.2	10.3	11.1	12.3
JPN	0.4	0.4	0.4	0.3	0.3	0.2	0.2
LAM	12.7	13.1	13.4	14.6	15.2	15.5	17.3
MEA	1.1	1.2	1.3	1.6	1.8	1.9	2.1
NEU	0.3	0.3	0.3	0.3	0.3	0.3	0.3
OAS	4.8	5.1	5.2	6.1	6.5	6.7	7.5
REF	1.4	1.4	1.4	1.4	1.4	1.5	1.5
SSA	5.1	6.6	8.1	12.3	16.4	19.9	24.8
USA	3.4	3.3	3.2	3.0	2.9	2.7	2.5

Table 729: MAgPIE m4p_SSP3 — Emissions—CH4—Land—Agriculture—Animal waste management (Mt CH4/yr) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	6.59	6.75	6.81	6.83	6.90	6.96	7.16	7.22	7.23	7.30	7.56
CAZ	0.43	0.44	0.44	0.44	0.44	0.43	0.44	0.45	0.45	0.46	0.47
CHA	0.22	0.21	0.25	0.31	0.35	0.38	0.42	0.42	0.40	0.39	0.45
EUR	2.02	2.05	2.04	2.06	2.09	2.14	2.19	2.22	2.24	2.29	2.32
IND	0.60	0.60	0.59	0.60	0.60	0.61	0.61	0.62	0.63	0.63	0.64
JPN	0.07	0.09	0.09	0.10	0.11	0.10	0.11	0.12	0.13	0.14	0.15
LAM	0.26	0.26	0.27	0.28	0.29	0.29	0.30	0.31	0.31	0.32	0.32
MEA	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07
NEU	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17
OAS	0.33	0.35	0.36	0.37	0.38	0.39	0.39	0.41	0.41	0.42	0.42
REF	0.68	0.74	0.77	0.69	0.73	0.78	0.80	0.78	0.77	0.78	0.83
SSA	0.15	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.18
USA	1.60	1.64	1.63	1.60	1.52	1.44	1.49	1.48	1.47	1.43	1.52

Table 730: FAO_EmisAg — Emissions—CH4—Land—Agriculture—Animal waste management (Mt CH4/yr) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	7.64	7.75	7.84	7.79	7.74	7.87	8.02	8.15	8.32	8.30	8.29
CAZ	0.46	0.45	0.44	0.43	0.42	0.42	0.41	0.42	0.44	0.43	0.43
CHA	0.53	0.55	0.54	0.55	0.58	0.59	0.60	0.62	0.65	0.63	0.61
EUR	2.34	2.46	2.51	2.50	2.50	2.53	2.57	2.59	2.62	2.60	2.60
IND	0.65	0.65	0.65	0.66	0.67	0.68	0.69	0.71	0.72	0.73	0.75
JPN	0.15	0.15	0.15	0.14	0.15	0.15	0.16	0.16	0.16	0.16	0.16
LAM	0.33	0.34	0.35	0.36	0.37	0.38	0.38	0.38	0.40	0.40	0.40
MEA	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.08
NEU	0.17	0.18	0.18	0.18	0.19	0.19	0.19	0.19	0.20	0.20	0.20
OAS	0.43	0.44	0.44	0.43	0.42	0.43	0.46	0.47	0.46	0.48	0.49
REF	0.86	0.86	0.88	0.90	0.87	0.88	0.92	0.93	0.94	0.94	0.95
SSA	0.18	0.18	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.21	0.22
USA	1.47	1.42	1.42	1.36	1.30	1.35	1.36	1.39	1.46	1.44	1.39

Table 731: FAO_EmisAg — Emissions—CH4—Land—Agriculture—Animal waste management (Mt CH4/yr)
[PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	8.27	8.37	8.40	8.49	8.46	8.47	8.51	8.51	8.44	8.61	8.51
CAZ	0.42	0.43	0.43	0.42	0.41	0.42	0.42	0.42	0.41	0.41	0.41
CHA	0.63	0.63	0.65	0.70	0.72	0.70	0.74	0.75	0.77	0.78	0.79
EUR	2.57	2.60	2.60	2.62	2.57	2.57	2.53	2.50	2.42	2.34	2.26
IND	0.76	0.78	0.79	0.80	0.80	0.81	0.82	0.84	0.85	0.86	0.87
JPN	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.18	0.19
LAM	0.40	0.41	0.41	0.41	0.42	0.42	0.43	0.43	0.44	0.45	0.45
MEA	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.11	0.10	0.11	0.11
NEU	0.19	0.20	0.19	0.19	0.20	0.19	0.19	0.19	0.19	0.18	0.17
OAS	0.51	0.52	0.53	0.55	0.56	0.57	0.59	0.59	0.61	0.63	0.64
REF	0.96	0.98	0.98	0.98	0.99	0.96	0.97	0.96	0.94	1.11	1.05
SSA	0.22	0.21	0.22	0.22	0.22	0.23	0.24	0.24	0.24	0.24	0.24
USA	1.35	1.36	1.34	1.31	1.29	1.31	1.30	1.29	1.29	1.32	1.33

Table 732: FAO_EmisAg — Emissions—CH4—Land—Agriculture—Animal waste management (Mt CH4/yr)
[PART 3/5]

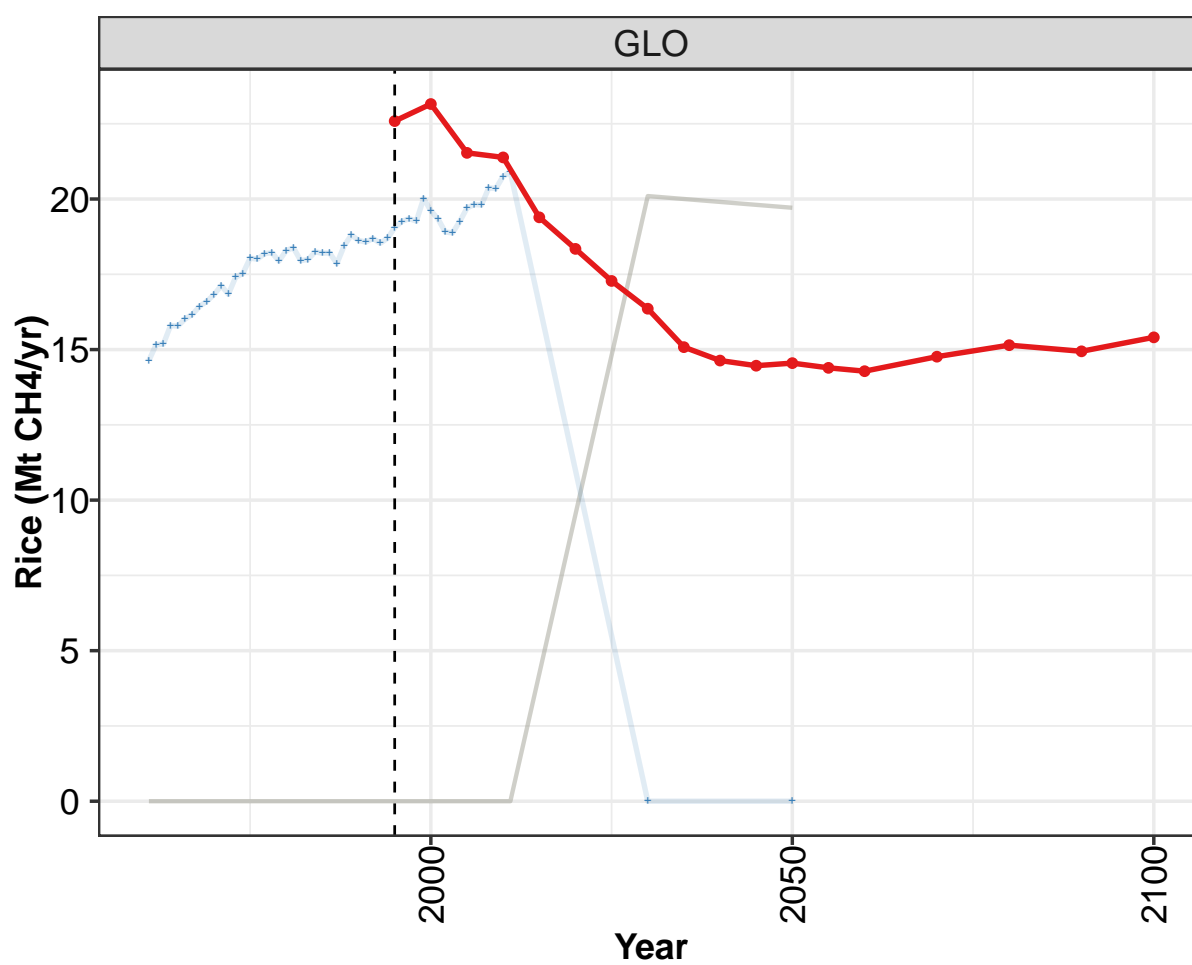
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	8.51	8.47	8.40	8.34	8.34	8.39	8.34	8.35	8.43	8.53	8.57
CAZ	0.42	0.43	0.44	0.44	0.45	0.45	0.45	0.47	0.48	0.48	0.48
CHA	0.80	0.81	0.83	0.83	0.83	0.85	0.87	0.88	0.89	0.90	0.93
EUR	2.25	2.22	2.19	2.19	2.17	2.19	2.17	2.14	2.13	2.12	2.11
IND	0.87	0.88	0.88	0.89	0.89	0.89	0.89	0.90	0.90	0.91	0.92
JPN	0.18	0.18	0.18	0.18	0.18	0.18	0.17	0.17	0.17	0.17	0.17
LAM	0.46	0.46	0.45	0.45	0.45	0.45	0.46	0.47	0.48	0.50	0.51
MEA	0.11	0.11	0.12	0.12	0.13	0.13	0.12	0.12	0.12	0.13	0.13
NEU	0.17	0.18	0.17	0.17	0.17	0.17	0.16	0.16	0.15	0.15	0.14
OAS	0.66	0.68	0.70	0.72	0.71	0.72	0.72	0.74	0.77	0.80	0.82
REF	1.00	0.92	0.85	0.76	0.72	0.69	0.67	0.64	0.65	0.70	0.66
SSA	0.24	0.25	0.25	0.26	0.27	0.28	0.28	0.28	0.29	0.30	0.30
USA	1.34	1.36	1.35	1.33	1.37	1.39	1.37	1.38	1.39	1.38	1.39

Table 733: FAO_EmisAg — Emissions—CH4—Land—Agriculture—Animal waste management (Mt CH4/yr)
[PART 4/5]

	2005	2006	2007	2008	2009	2010	2011	2030	2050
GLO	8.66	8.76	8.86	8.93	8.96	9.08	9.12	0.00	0.00
CAZ	0.48	0.48	0.47	0.45	0.45	0.44	0.45	0.00	0.00
CHA	0.96	0.99	1.01	1.02	1.05	1.10	1.09	0.00	0.00
EUR	2.11	2.09	2.10	2.08	2.06	2.07	2.05	0.00	0.00
IND	0.93	0.94	0.97	0.98	1.00	1.02	1.03	0.00	0.00
JPN	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.00	0.00
LAM	0.52	0.53	0.53	0.53	0.54	0.54	0.54	0.00	0.00
MEA	0.14	0.14	0.14	0.14	0.15	0.15	0.15	0.00	0.00
NEU	0.14	0.14	0.15	0.14	0.14	0.14	0.14	0.00	0.00
OAS	0.84	0.87	0.90	0.91	0.95	0.96	0.98	0.00	0.00
REF	0.66	0.67	0.66	0.67	0.65	0.67	0.69	0.00	0.00
SSA	0.31	0.32	0.34	0.36	0.36	0.37	0.38	0.00	0.00
USA	1.40	1.41	1.42	1.47	1.44	1.44	1.45	0.00	0.00

Table 734: FAO_EmisAg — Emissions—CH4—Land—Agriculture—Animal waste management (Mt CH4/yr)
[PART 5/5]

11.1.3 Agriculture—Rice

**Model output**

—●— MAgPIE m4p_SSP3

Historical data

+— FAO_EmisAg

Other projections

— FAO_EmisAg

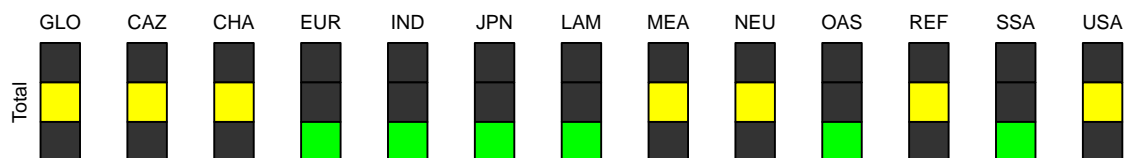
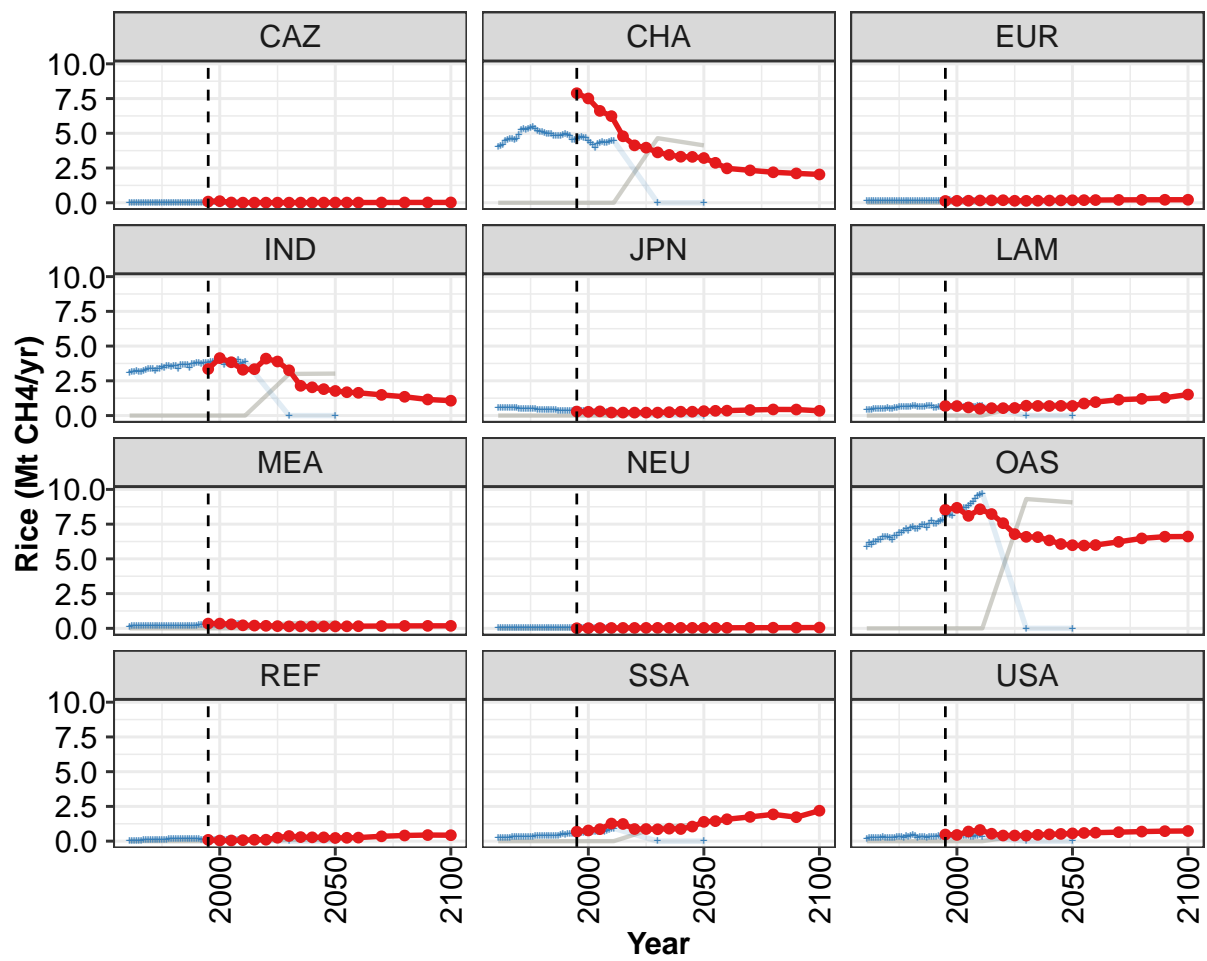


Figure 236: MAgPIE m4p_SSP3 — Emissions—CH4—Land—Agriculture—Rice (Mt CH4/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	22.6	23.2	21.5	21.4	19.4	18.3	17.3	16.4	15.1	14.6	14.5
CAZ	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	7.9	7.5	6.6	6.2	4.8	4.1	4.0	3.6	3.4	3.3	3.3
EUR	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2
IND	3.4	4.1	3.8	3.3	3.3	4.1	3.9	3.3	2.1	2.0	1.9
JPN	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
LAM	0.7	0.7	0.6	0.5	0.5	0.5	0.5	0.7	0.7	0.7	0.7
MEA	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	8.5	8.7	8.1	8.6	8.2	7.6	6.8	6.6	6.6	6.3	6.1
REF	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.4	0.3	0.3	0.3
SSA	0.7	0.8	0.9	1.3	1.2	0.9	0.9	0.9	0.9	0.9	1.0
USA	0.5	0.4	0.7	0.8	0.5	0.4	0.4	0.4	0.5	0.5	0.5

Table 735: MAgPIE m4p_SSP3 — Emissions—CH4—Land—Agriculture—Rice (Mt CH4/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	14.6	14.4	14.3	14.8	15.1	14.9	15.4
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	3.2	2.9	2.5	2.3	2.2	2.1	2.0
EUR	0.2	0.2	0.2	0.2	0.2	0.2	0.2
IND	1.8	1.7	1.6	1.5	1.4	1.2	1.1
JPN	0.3	0.3	0.4	0.4	0.4	0.4	0.3
LAM	0.7	0.9	1.0	1.1	1.2	1.3	1.5
MEA	0.1	0.1	0.2	0.2	0.2	0.2	0.2
NEU	0.0	0.0	0.0	0.0	0.0	0.1	0.1
OAS	6.0	6.0	6.0	6.2	6.5	6.6	6.6
REF	0.2	0.2	0.3	0.3	0.4	0.4	0.4
SSA	1.4	1.4	1.6	1.7	1.9	1.7	2.2
USA	0.6	0.6	0.6	0.6	0.7	0.7	0.7

Table 736: MAgPIE m4p_SSP3 — Emissions—CH4—Land—Agriculture—Rice (Mt CH4/yr) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	14.6	15.2	15.2	15.8	15.8	16.0	16.2	16.4	16.6	16.8	17.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	4.0	4.1	4.2	4.5	4.5	4.6	4.6	4.5	4.6	4.9	5.3
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	3.1	3.2	3.2	3.2	3.1	3.1	3.2	3.3	3.3	3.3	3.3
JPN	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5
LAM	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
MEA	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	5.9	6.1	6.0	6.2	6.2	6.4	6.4	6.6	6.6	6.6	6.5
REF	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SSA	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
USA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2

Table 737: FAO_EmisAg — Emissions—CH4—Land—Agriculture—Rice (Mt CH4/yr) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	16.8	17.4	17.5	18.0	18.0	18.2	18.2	17.9	18.3	18.4	18.0
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	5.3	5.3	5.4	5.4	5.5	5.4	5.2	5.1	5.1	5.0	5.0
EUR	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
IND	3.3	3.4	3.4	3.5	3.4	3.6	3.6	3.5	3.6	3.6	3.4
JPN	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4
LAM	0.5	0.5	0.5	0.6	0.7	0.6	0.6	0.6	0.7	0.7	0.7
MEA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	6.3	6.7	6.7	6.9	6.9	7.0	7.1	7.0	7.2	7.3	7.2
REF	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
SSA	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
USA	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.5	0.4

Table 738: FAO_EmisAg — Emissions—CH4—Land—Agriculture—Rice (Mt CH4/yr) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	18.0	18.2	18.2	18.2	17.9	18.4	18.8	18.6	18.6	18.7	18.5
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	5.0	5.0	4.8	4.8	4.8	4.8	4.9	4.9	4.9	4.8	4.5
EUR	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
IND	3.7	3.6	3.6	3.7	3.4	3.7	3.7	3.8	3.8	3.7	3.8
JPN	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
LAM	0.6	0.7	0.6	0.6	0.7	0.7	0.7	0.6	0.6	0.7	0.6
MEA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	7.2	7.3	7.5	7.4	7.3	7.6	7.7	7.6	7.5	7.7	7.8
REF	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1
SSA	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
USA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3

Table 739: FAO_EmisAg — Emissions—CH4—Land—Agriculture—Rice (Mt CH4/yr) [PART 3/5]

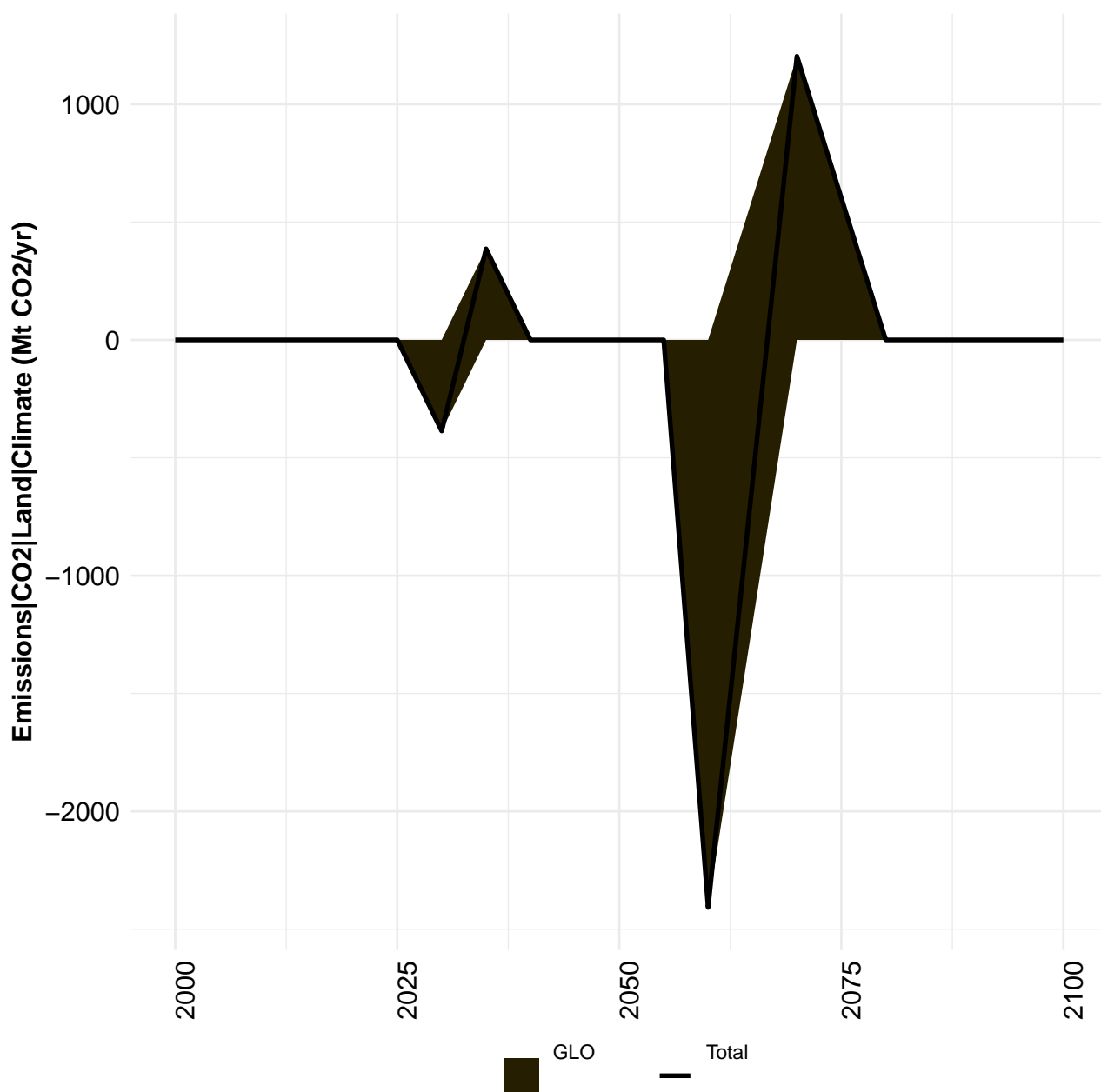
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	18.7	19.0	19.3	19.3	19.3	20.0	19.6	19.3	18.9	18.9	19.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	4.5	4.6	4.7	4.7	4.7	4.7	4.5	4.3	4.2	4.0	4.2
EUR	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
IND	3.8	3.8	3.8	3.9	4.0	4.0	4.0	4.0	3.7	3.8	3.7
JPN	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
LAM	0.7	0.7	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.7
MEA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	7.8	8.1	8.2	8.2	8.1	8.7	8.6	8.6	8.5	8.6	8.7
REF	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SSA	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7
USA	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

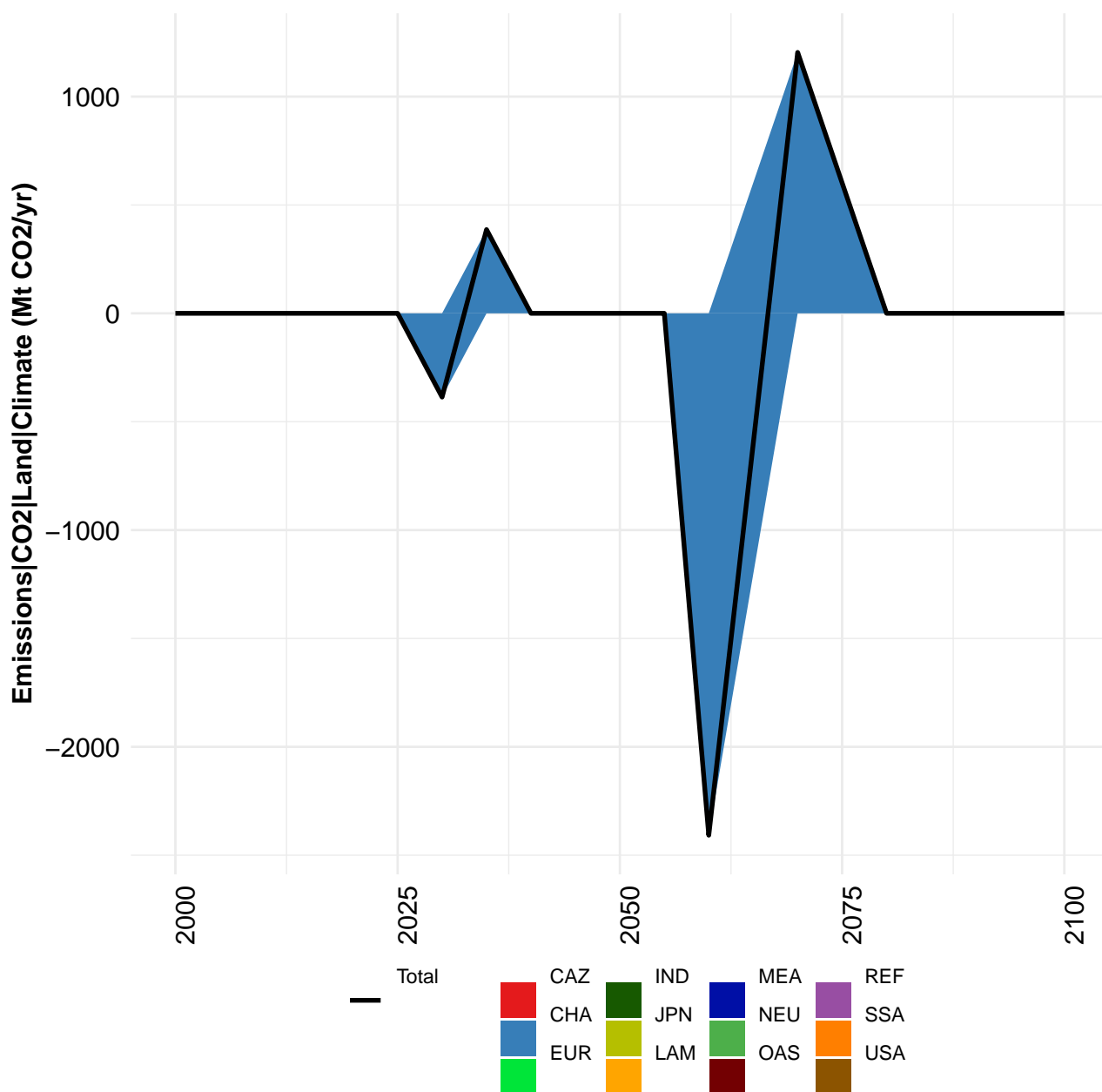
Table 740: FAO_EmisAg — Emissions—CH4—Land—Agriculture—Rice (Mt CH4/yr) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011	2030	2050
GLO	19.7	19.8	19.8	20.4	20.4	20.8	20.9	0.0	0.0
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	4.3	4.4	4.3	4.4	4.4	4.4	4.5	0.0	0.0
EUR	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0
IND	3.9	3.9	3.9	4.0	3.7	3.8	3.9	0.0	0.0
JPN	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.0
LAM	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.0	0.0
MEA	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	8.8	9.0	9.1	9.3	9.5	9.6	9.7	0.0	0.0
REF	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
SSA	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.0	0.0
USA	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.0	0.0

Table 741: FAO_EmisAg — Emissions—CH4—Land—Agriculture—Rice (Mt CH4/yr) [PART 5/5]

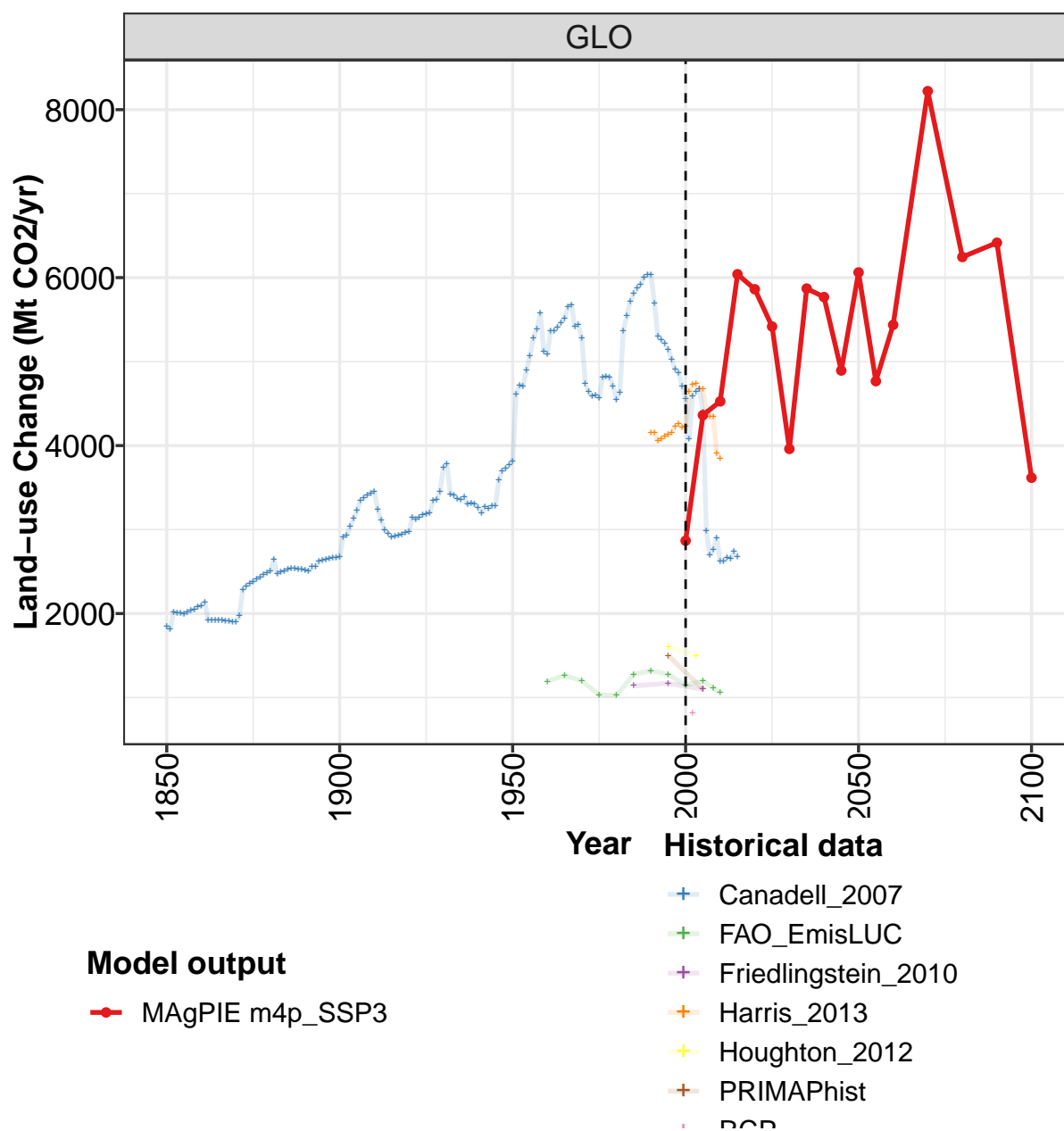
12 CO2





12.1 Land

12.1.1 Land-use Change



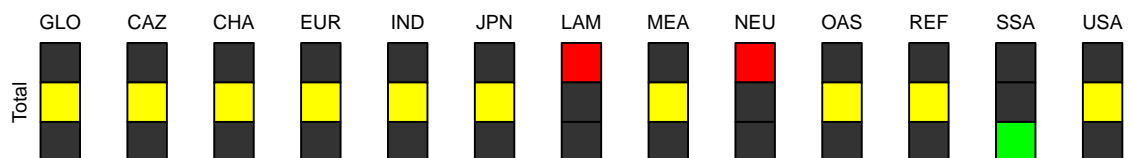
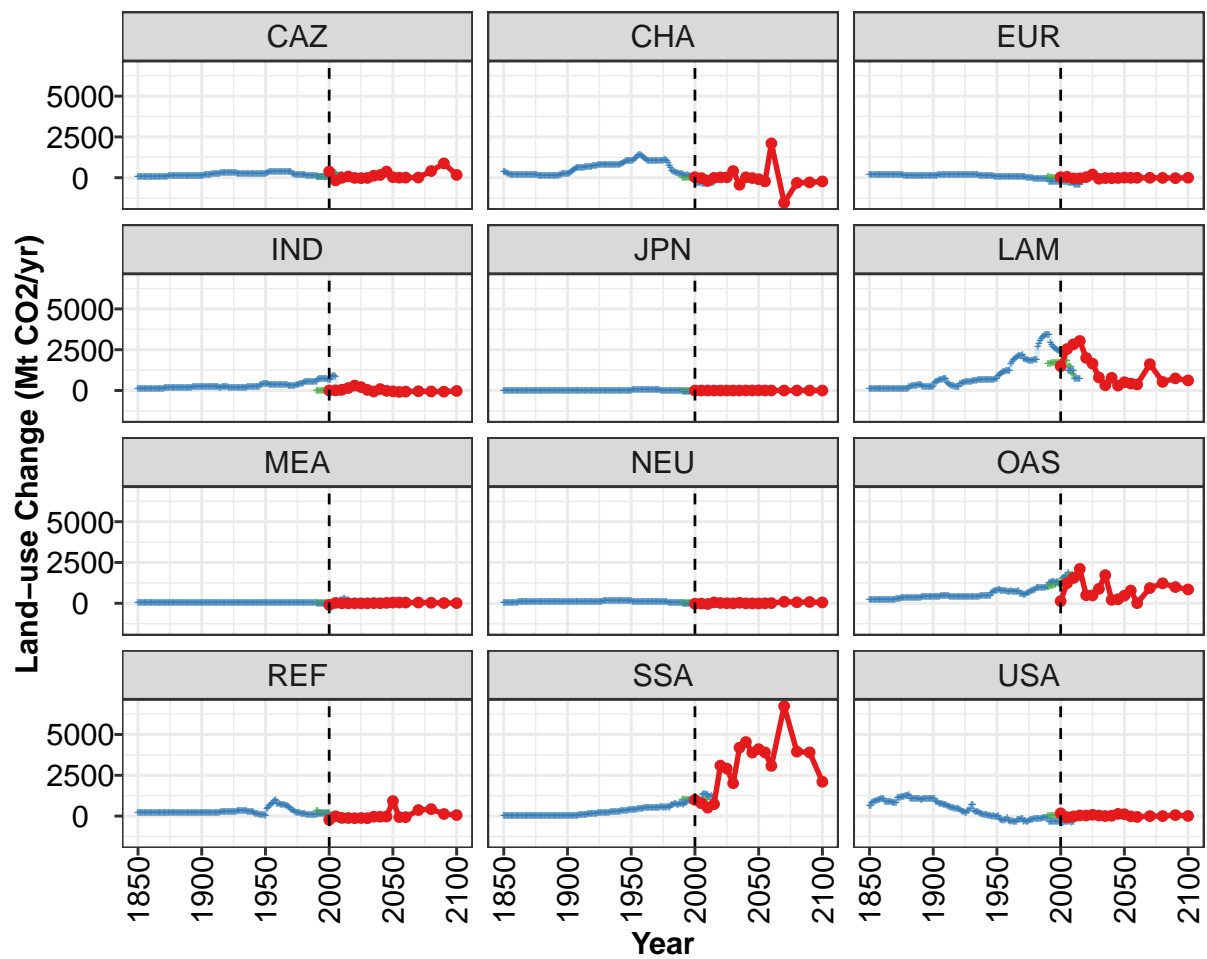


Figure 237: MAgPIE m4p_SSP3 — Emissions—CO₂—Land—Land-use Change (Mt CO₂/yr)

	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
GLO	2867	4363	4526	6040	5862	5417	3961	5870	5769	4894	6062
CAZ	374	-171	-8	77	-11	-27	-14	122	168	377	32
CHA	31	-24	-192	-9	21	24	411	-429	25	-23	-91
EUR	34	54	-42	-36	36	200	-66	-22	-29	-16	7
IND	2	10	50	155	304	208	36	-61	89	-19	-50
JPN	-4	-1	-1	-1	-1	-1	-1	-0	4	4	11
LAM	1492	2540	2830	3037	1996	1648	798	322	777	304	509
MEA	-100	24	-0	0	-0	0	-0	9	4	24	46
NEU	-26	-16	-42	53	19	5	-5	33	-3	-7	-10
OAS	131	1234	1550	2111	497	483	884	1727	211	248	470
REF	-229	-10	-114	-119	-127	-118	-128	-35	-39	-28	922
SSA	991	787	516	730	3093	2914	2010	4196	4539	3893	4104
USA	169	-65	-20	43	36	79	35	7	23	138	114

Table 742: MAgPIE m4p_SSP3 — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 1/2]

	2055	2060	2070	2080	2090	2100
GLO	4767	5437	8221	6246	6416	3617
CAZ	1	5	10	409	876	171
CHA	-226	2103	-1537	-318	-287	-231
EUR	-6	-5	-4	-12	-27	-2
IND	-88	-66	-46	-58	-72	-26
JPN	3	2	0	1	1	0
LAM	428	370	1616	527	744	618
MEA	47	44	46	33	15	12
NEU	1	13	94	60	81	53
OAS	784	9	934	1225	994	850
REF	-65	-66	370	428	128	61
SSA	3903	3079	6738	3952	3902	2105
USA	-15	-51	0	-1	60	7

Table 743: MAgPIE m4p_SSP3 — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 2/2]

	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860
GLO	1841	1812	2018	2010	2003	1992	2014	2034	2051	2079	2095
CAZ	29	28	28	28	28	28	28	28	28	28	27
CHA	368	336	303	268	233	196	191	186	182	179	177
EUR	176	176	176	176	176	176	176	176	176	176	176
IND	106	106	106	106	106	106	106	106	106	107	107
JPN	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
LAM	87	85	85	84	83	82	81	81	80	80	78
MEA	4	4	4	4	4	4	4	4	4	4	4
NEU	48	48	48	48	48	48	48	48	48	48	48
OAS	222	220	219	219	218	218	218	218	218	218	218
REF	208	208	209	210	211	212	214	215	216	218	219
SSA	-5	-4	-4	-4	-4	-4	-4	-4	-5	-6	-7
USA	601	607	845	874	902	929	955	979	1000	1030	1050

Table 744: PRIMAPHist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 1/16]

	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871
GLO	2136	1916	1916	1918	1920	1921	1915	1910	1904	1900	1973
CAZ	28	34	36	38	41	43	45	47	49	52	71
CHA	175	173	169	167	166	165	164	163	162	162	161
EUR	176	176	176	176	177	177	178	178	179	179	161
IND	107	107	107	107	107	107	107	108	108	108	137
JPN	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	1
LAM	81	82	82	82	83	81	79	78	77	77	76
MEA	10	11	12	12	12	13	13	14	14	14	14
NEU	61	63	65	66	67	68	69	70	71	71	69
OAS	219	219	219	220	220	220	220	220	221	221	275
REF	221	191	191	191	191	191	190	189	189	189	189
SSA	-8	-7	-6	-5	-2	-2	-1	-1	-2	-2	-3
USA	1070	871	868	865	862	860	852	845	838	831	821

Table 745: PRIMAPHist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 2/16]

	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
GLO	2286	2326	2353	2382	2410	2434	2459	2485	2507	2646	2469
CAZ	79	85	88	92	95	94	95	96	96	97	97
CHA	160	160	152	150	148	147	146	147	147	147	146
EUR	158	156	153	150	148	146	145	143	142	140	139
IND	144	148	152	155	157	158	160	161	162	163	163
JPN	2	3	3	3	3	3	4	4	4	4	4
LAM	76	75	75	75	75	77	79	80	82	198	232
MEA	15	15	15	15	16	16	16	16	16	16	17
NEU	70	70	70	70	70	70	70	71	71	71	71
OAS	288	297	304	310	313	316	319	321	323	324	325
REF	189	191	192	192	195	196	196	196	196	196	197
SSA	-4	-3	-2	-1	-0	-0	-0	0	-1	-1	-2
USA	1110	1130	1150	1170	1190	1210	1230	1250	1270	1290	1080

Table 746: PRIMAPHist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 3/16]

	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
GLO	2495	2506	2529	2533	2532	2531	2529	2517	2504	2557	2560
CAZ	98	98	99	99	100	100	100	100	101	101	101
CHA	145	144	144	143	143	142	142	142	142	142	142
EUR	137	136	135	136	136	137	138	138	139	140	140
IND	164	164	164	165	165	165	166	166	188	193	197
JPN	4	4	4	5	5	5	5	5	5	5	5
LAM	258	280	298	309	316	323	329	333	269	257	247
MEA	17	17	17	17	17	17	18	18	18	18	18
NEU	71	71	71	72	72	73	73	73	74	74	75
OAS	326	326	328	328	329	329	330	330	370	379	386
REF	197	197	199	199	199	200	200	201	201	201	203
SSA	-3	-2	-1	0	0	-0	-1	-1	-2	-2	-4
USA	1080	1070	1070	1060	1050	1040	1030	1010	999	1050	1050

Table 747: PRIMAPHist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 4/16]

	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
GLO	2618	2638	2647	2655	2664	2664	2671	2914	2926	3033	3130
CAZ	102	102	102	102	103	103	103	104	151	163	173
CHA	198	204	210	216	222	228	233	238	299	363	430
EUR	141	142	142	143	143	144	145	145	146	147	148
IND	200	202	204	205	206	207	208	208	209	209	209
JPN	5	6	6	6	6	6	6	6	6	6	7
LAM	239	234	230	226	224	223	221	447	512	564	608
MEA	18	18	18	19	19	19	19	22	22	23	23
NEU	75	75	76	76	77	77	77	84	85	86	87
OAS	392	396	399	402	403	405	406	408	410	412	414
REF	203	203	204	204	204	204	205	206	206	207	207
SSA	-5	-5	-5	-4	-2	-2	-2	-3	-1	4	10
USA	1050	1060	1060	1060	1060	1050	1050	1050	881	850	815

Table 748: PRIMAPhist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 5/16]

	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
GLO	3229	3342	3374	3409	3434	3456	3243	3109	2996	2956	2913
CAZ	184	194	204	214	222	232	241	250	258	267	276
CHA	498	567	583	597	607	616	624	626	627	641	643
EUR	149	151	152	153	154	155	156	158	159	161	162
IND	210	221	223	225	227	228	229	230	202	196	192
JPN	7	7	7	7	7	7	7	8	8	8	8
LAM	646	664	677	689	698	706	479	413	359	314	273
MEA	23	24	24	24	24	24	24	24	25	25	25
NEU	88	89	89	90	90	91	91	92	92	93	93
OAS	417	437	442	446	449	452	453	455	407	397	390
REF	208	208	208	208	208	208	208	208	226	231	237
SSA	18	27	37	47	57	66	74	83	92	100	108
USA	781	755	728	709	690	671	655	562	541	524	507

Table 749: PRIMAPhist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 6/16]

	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926
GLO	2921	2932	2944	2965	2972	3148	3119	3147	3170	3182	3198
CAZ	284	287	290	292	295	298	300	303	305	308	310
CHA	644	662	681	699	717	736	745	754	763	771	779
EUR	163	165	167	168	170	171	173	174	176	177	176
IND	198	197	197	197	197	196	196	196	196	196	190
JPN	8	8	8	8	8	9	9	9	9	9	9
LAM	259	247	237	228	221	384	430	467	498	526	533
MEA	25	25	25	25	25	25	25	25	25	25	34
NEU	94	94	94	94	95	95	95	95	95	96	117
OAS	401	399	400	400	400	400	399	399	401	401	391
REF	241	246	250	255	260	264	269	274	279	284	289
SSA	116	125	134	142	151	158	165	171	177	182	187
USA	489	476	462	456	434	412	313	280	246	207	182

Table 750: PRIMAPhist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 7/16]

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
GLO	3342	3354	3453	3738	3777	3418	3406	3362	3356	3386	3303
CAZ	274	269	263	258	253	249	245	241	236	232	227
CHA	782	785	791	799	806	809	812	793	792	792	792
EUR	175	173	171	169	166	163	159	155	151	146	141
IND	189	188	188	187	187	187	187	188	188	211	216
JPN	9	9	9	9	9	10	10	10	10	10	10
LAM	539	544	546	550	593	606	614	621	627	634	640
MEA	37	39	39	39	40	41	41	42	42	43	43
NEU	122	126	127	127	128	129	130	130	131	131	132
OAS	388	388	387	386	387	387	387	387	388	428	439
REF	294	295	298	299	302	305	306	301	294	287	280
SSA	192	198	205	211	217	223	231	237	248	254	261
USA	341	341	429	703	688	311	284	257	249	218	120

Table 751: PRIMAPHist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 8/16]

	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
GLO	3313	3307	3260	3196	3274	3254	3277	3282	3589	3700	3729
CAZ	223	220	215	211	212	212	213	213	214	214	214
CHA	792	792	792	792	836	881	929	977	1030	1030	1040
EUR	137	132	127	121	115	110	104	99	94	89	84
IND	221	224	226	230	233	236	240	243	341	366	385
JPN	10	10	10	10	11	11	11	11	11	11	11
LAM	647	652	657	652	650	649	647	647	658	669	681
MEA	44	44	44	45	45	46	46	46	46	46	47
NEU	132	132	132	133	133	132	133	132	132	133	132
OAS	445	451	457	462	469	476	483	490	662	706	738
REF	272	265	253	193	169	145	121	99	85	72	60
SSA	268	277	285	292	300	308	317	325	335	343	357
USA	122	108	60	55	101	48	33	0	-18	22	-19

Table 752: PRIMAPHist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 9/16]

	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
GLO	3768	3815	4613	4714	4703	4901	5064	5277	5390	5576	5123
CAZ	213	214	303	330	352	355	359	360	360	359	359
CHA	1050	1050	1040	1110	1180	1250	1320	1390	1400	1370	1300
EUR	79	74	81	80	79	79	79	80	81	82	75
IND	398	409	417	428	370	365	365	364	365	358	360
JPN	11	11	26	30	33	34	35	35	35	35	35
LAM	694	707	922	991	1048	1095	1136	1159	1180	1197	1211
MEA	47	47	37	36	34	31	29	28	27	27	26
NEU	132	131	109	104	99	93	87	85	84	82	80
OAS	761	781	813	838	741	736	738	738	739	729	728
REF	50	45	452	533	611	686	762	842	920	998	742
SSA	371	386	401	389	400	411	423	435	448	458	469
USA	-39	-42	12	-154	-243	-236	-269	-240	-249	-120	-263

Table 753: PRIMAPHist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 10/16]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	5089	5367	5360	5412	5460	5517	5648	5675	5415	5435	5278
CAZ	358	356	357	356	356	356	355	355	354	352	350
CHA	1240	1160	1070	1030	1030	1020	1020	1020	1010	1010	1010
EUR	75	66	64	63	62	61	60	58	57	56	47
IND	362	367	353	356	350	357	364	371	290	280	273
JPN	35	35	35	35	35	35	35	35	34	34	34
LAM	1224	1647	1774	1877	1958	2029	2066	2097	2125	2148	2169
MEA	25	25	24	23	23	22	23	24	24	24	23
NEU	79	76	74	73	72	70	73	73	74	73	72
OAS	732	740	712	717	707	719	731	743	602	582	571
REF	752	732	720	708	699	687	646	604	563	526	408
SSA	479	487	491	510	517	526	523	527	512	538	513
USA	-274	-324	-315	-337	-348	-365	-247	-232	-229	-188	-193

Table 754: PRIMAPHist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 11/16]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	4738	4639	4585	4596	4567	4810	4820	4815	4709	4548	4635
CAZ	253	219	194	185	177	171	166	161	157	153	159
CHA	1010	1020	1030	1030	1050	1090	1100	1030	894	755	609
EUR	38	28	18	8	-2	-12	-22	-33	-44	-51	-56
IND	265	265	299	324	329	370	399	419	438	450	506
JPN	18	13	9	8	7	6	5	4	3	3	3
LAM	1967	1924	1889	1861	1842	1844	1847	1851	1856	1860	1869
MEA	23	23	23	24	24	24	24	24	24	24	18
NEU	70	69	68	67	66	64	63	61	60	59	46
OAS	538	530	586	628	635	707	757	789	818	835	932
REF	356	303	253	230	208	199	178	159	140	125	118
SSA	525	539	553	568	530	584	523	547	552	531	612
USA	-326	-295	-339	-336	-298	-236	-219	-198	-188	-196	-183

Table 755: PRIMAPHist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 12/16]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	5369	5543	5720	5807	5871	5914	6006	6038	6029	5690	5297
CAZ	145	140	134	127	120	114	108	103	97	57	55
CHA	443	366	339	299	278	257	235	241	221	185	145
EUR	-59	-62	-64	-66	-67	-67	-67	-67	-65	-276	-276
IND	515	522	529	532	529	529	539	549	557	669	696
JPN	3	3	2	1	1	0	-1	-1	-2	-74	-74
LAM	2676	2880	3052	3199	3304	3363	3391	3414	3433	3435	2942
MEA	18	18	19	21	22	23	24	24	25	-13	-13
NEU	44	44	47	52	53	55	56	58	60	-52	-52
OAS	945	953	965	970	961	962	976	995	1007	1232	1279
REF	109	102	96	91	82	79	77	74	71	146	146
SSA	667	717	754	724	710	710	744	724	739	718	786
USA	-137	-140	-153	-142	-123	-111	-76	-77	-114	-336	-336

Table 756: PRIMAPHist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 13/16]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	5259	5212	5142	5025	4904	4869	4710	4555	4082	4586	4645
CAZ	52	49	47	44	43	42	41	40	95	94	97
CHA	144	156	113	100	77	45	19	-45	-339	-340	-339
EUR	-276	-276	-276	-276	-277	-276	-276	-276	-278	-278	-278
IND	717	711	709	705	696	689	670	655	629	834	885
JPN	-74	-74	-74	-74	-74	-74	-74	-74	-39	-39	-39
LAM	2811	2702	2616	2533	2488	2445	2404	2380	2358	2293	2256
MEA	-13	-13	-13	-13	-13	-13	-13	-13	-16	-16	-16
NEU	-52	-52	-52	-52	-52	-52	-52	-52	-57	-57	-56
OAS	1316	1305	1299	1286	1347	1258	1224	1198	1171	1541	1619
REF	146	146	146	158	115	166	129	134	-15	-8	63
SSA	825	895	964	958	909	989	969	958	961	949	828
USA	-336	-336	-336	-343	-354	-349	-331	-349	-389	-388	-375

Table 757: PRIMAPHist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 14/16]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	4670	4397	2979	2697	2766	2899	2622	2622	2666	2649	2742
CAZ	93	94	147	135	141	110	159	-36	-17	27	5
CHA	-340	-340	-396	-396	-395	-395	-396	-312	-312	-312	-312
EUR	-278	-278	-340	-339	-340	-340	-340	-427	-427	-428	-428
IND	923	818	-127	-127	-127	-127	-127	121	121	121	121
JPN	-39	-39	-143	-143	-143	-143	-143	7	7	7	7
LAM	2232	2226	1222	1217	1219	1221	1213	723	731	732	730
MEA	-16	-16	138	120	146	210	146	266	263	200	164
NEU	-57	-57	-163	-163	-163	-163	-163	-90	-90	-90	-90
OAS	1708	1500	1881	1543	1536	1757	1528	1433	1434	1439	1639
REF	-48	-30	-196	-200	-63	-163	-189	-180	-127	-181	-179
SSA	829	878	1327	1348	1337	1286	1308	1186	1163	1218	1156
USA	-338	-359	-372	-298	-383	-354	-373	-70	-80	-83	-72

Table 758: PRIMAPHist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 15/16]

	2015
GLO	2671
CAZ	-5
CHA	-312
EUR	-427
IND	121
JPN	7
LAM	729
MEA	223
NEU	-90
OAS	1488
REF	-167
SSA	1180
USA	-76

Table 759: PRIMAPHist — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 16/16]

	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2008
GLO	1192	1264	1197	1032	1025	1275	1319	1275	1149	1196	1112
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 760: RCP — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 1/2]

	2010
GLO	1057
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 761: RCP — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 2/2]

	1985	1995	2005
GLO	1140	1170	1100
CAZ			
CHA			
EUR			
IND			
JPN			
LAM			
MEA			
NEU			
OAS			
REF			
SSA			
USA			

Table 762: Houghton_2012 — Emissions—CO2—Land—Land-use Change (Mt CO2/yr)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	4151	4151	4054	4080	4106	4132	4149	4229	4258	4215	4227
CAZ	36	36	36	36	36	36	29	22	65	36	22
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	26	26	22	22	22	22	22	22	22	22	23
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1663	1663	1667	1670	1674	1678	1682	1685	1690	1693	1696
MEA	53	53	53	53	53	54	53	54	55	54	55
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	1025	1024	1046	1067	1089	1110	1119	1232	1175	1188	1205
REF	329	329	211	211	211	211	216	190	222	198	202
SSA	1019	1019	1020	1021	1022	1022	1027	1024	1028	1023	1025
USA	0	0	0	0	0	0	0	0	0	0	0

Table 763: FAO_EmisLUC — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 1/2]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
GLO	4644	4724	4733	4670	4675	4399	4347	4348	3903	3843
CAZ	284	317	317	299	302	149	144	149	131	163
CHA	0	0	0	0	0	0	0	0	0	0
EUR	15	16	16	16	16	30	30	30	30	30
IND	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0
LAM	1816	1818	1823	1824	1827	1437	1438	1441	996	944
MEA	13	18	11	15	13	21	19	23	30	23
NEU	2	2	2	2	2	0	0	0	0	0
OAS	1492	1521	1491	1506	1487	1768	1719	1709	1724	1689
REF	37	41	85	17	28	14	14	14	14	14
SSA	983	991	990	992	1001	979	982	982	978	981
USA	0	0	0	0	0	0	0	0	0	0

Table 764: FAO_EmisLUC — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 2/2]

	1995	2003
GLO	1600	1500
CAZ		
CHA		
EUR		
IND		
JPN		
LAM		
MEA		
NEU		
OAS		
REF		
SSA		
USA		

Table 765: Canadell.2007 — Emissions—CO2—Land—Land-use Change (Mt CO2/yr)

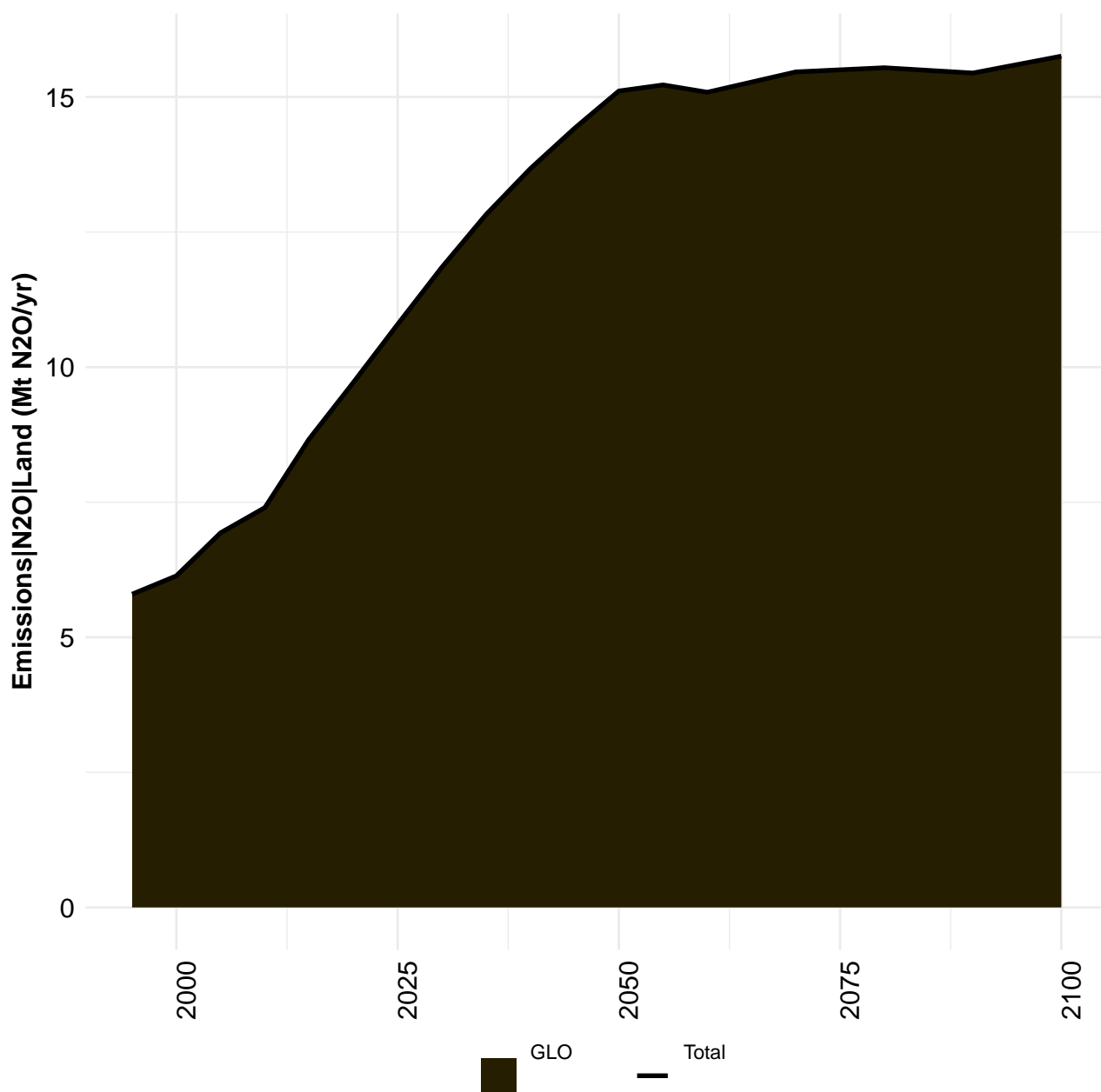
	1995	2005
GLO	1500	1100
CAZ		
CHA		
EUR		
IND		
JPN		
LAM		
MEA		
NEU		
OAS		
REF		
SSA		
USA		

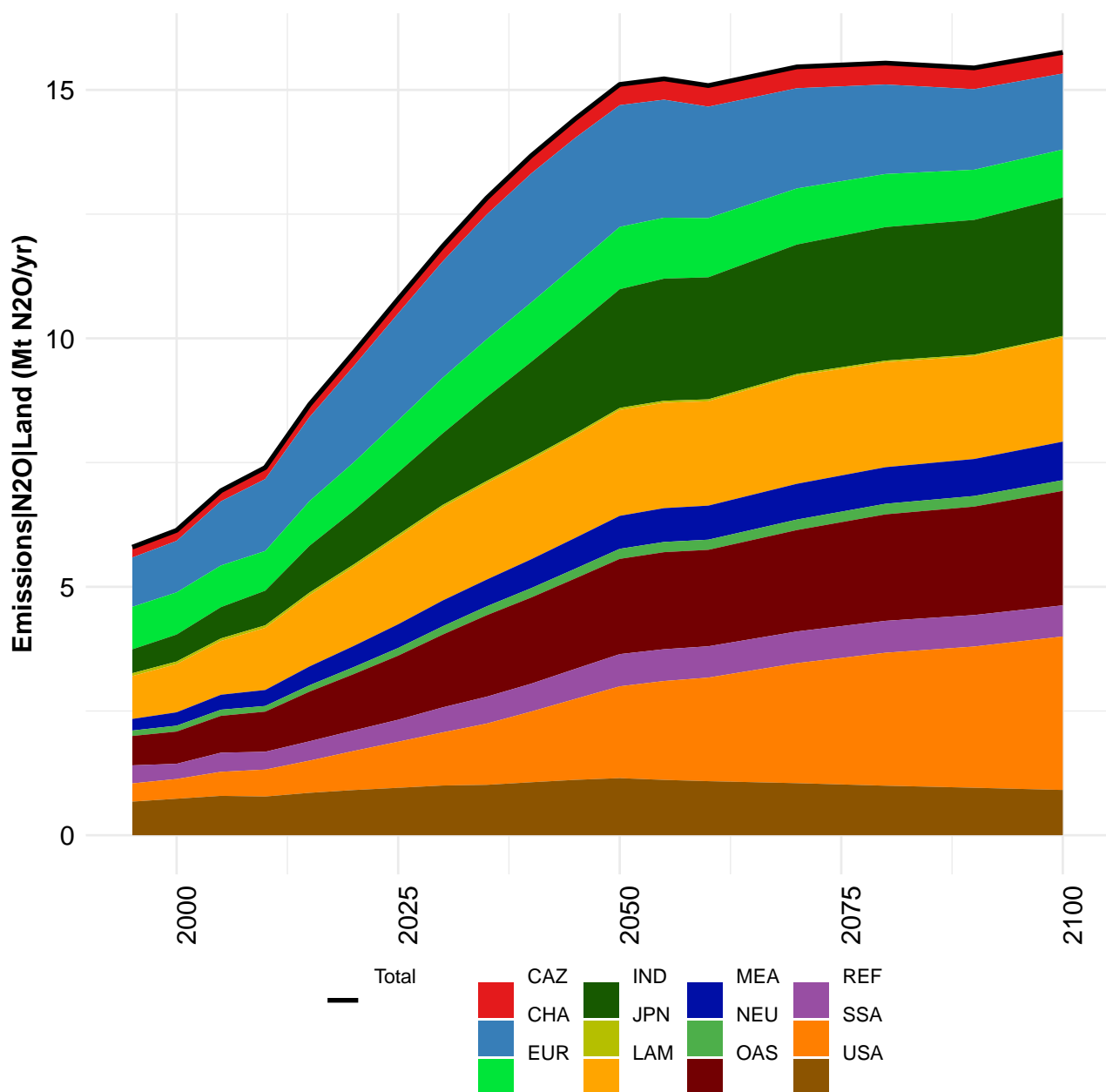
Table 766: Friedlingstein_2010 — Emissions—CO2—Land—Land-use Change (Mt CO2/yr)

	2002
GLO	810
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 767: Harris_2013 — Emissions—CO2—Land—Land-use Change (Mt CO2/yr)

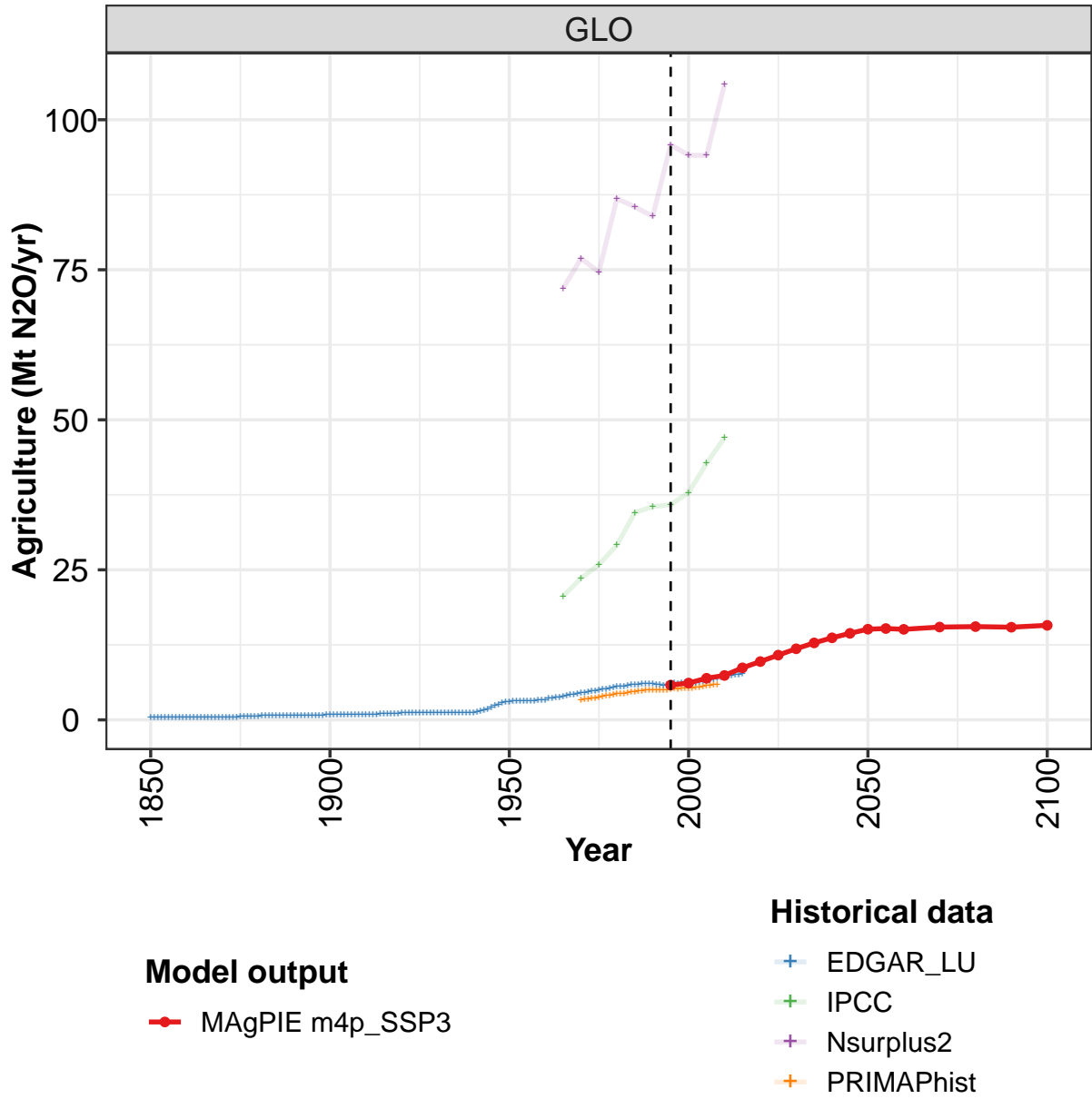
13 N2O





13.1 Land

13.1.1 Agriculture



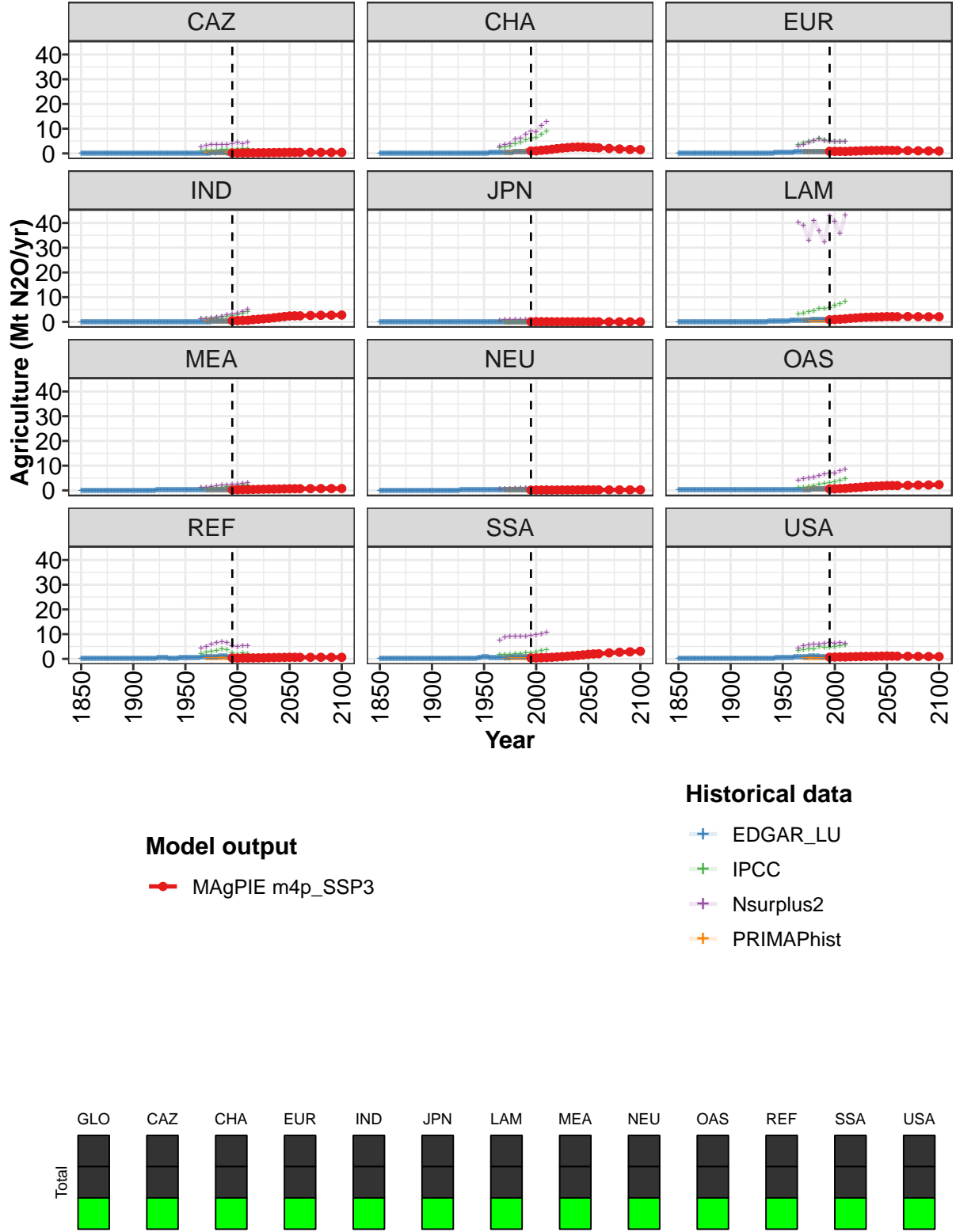


Figure 238: MAgPIE m4p_SSP3 — Emissions—N₂O—Land—Agriculture (Mt N₂O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.8	6.1	6.9	7.4	8.7	9.7	10.8	11.8	12.8	13.7	14.4
CAZ	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4
CHA	1.0	1.0	1.3	1.4	1.7	1.9	2.2	2.3	2.5	2.6	2.6
EUR	0.9	0.8	0.8	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.2
IND	0.5	0.5	0.6	0.7	0.9	1.1	1.3	1.4	1.7	1.9	2.2
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
LAM	0.9	1.0	1.1	1.3	1.4	1.6	1.8	1.9	1.9	2.0	2.1
MEA	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.6
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
OAS	0.6	0.6	0.7	0.8	1.0	1.1	1.3	1.5	1.6	1.7	1.8
REF	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6
SSA	0.4	0.4	0.5	0.5	0.6	0.8	0.9	1.1	1.2	1.4	1.6
USA	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.1	1.1

Table 768: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	15.1	15.2	15.1	15.5	15.5	15.4	15.8
CAZ	0.4	0.4	0.4	0.4	0.4	0.4	0.4
CHA	2.5	2.4	2.2	2.0	1.8	1.6	1.5
EUR	1.3	1.2	1.2	1.1	1.1	1.0	1.0
IND	2.4	2.5	2.5	2.6	2.7	2.7	2.8
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	2.1	2.1	2.1	2.2	2.1	2.1	2.1
MEA	0.7	0.7	0.7	0.7	0.7	0.7	0.8
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	1.9	2.0	1.9	2.0	2.1	2.2	2.3
REF	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SSA	1.8	2.0	2.1	2.4	2.7	2.8	3.1
USA	1.1	1.1	1.1	1.0	1.0	1.0	0.9

Table 769: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 2/2]

	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860
GLO	0.35	0.36	0.36	0.37	0.38	0.38	0.39	0.39	0.39	0.40	0.40
CAZ	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
CHA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
EUR	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
IND	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
MEA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NEU	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OAS	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
REF	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
SSA	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
USA	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11

Table 770: PRIMAPHist — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 1/16]

	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871
GLO	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.41
CAZ	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
CHA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
EUR	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05
IND	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
MEA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NEU	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OAS	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04
REF	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
SSA	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04
USA	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12

Table 771: PRIMAPhist — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 2/16]

	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882
GLO	0.43	0.45	0.48	0.52	0.55	0.58	0.61	0.63	0.65	0.66	0.66
CAZ	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04
CHA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
EUR	0.05	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07
IND	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
MEA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NEU	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OAS	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.06	0.06	0.06
REF	0.10	0.10	0.11	0.12	0.13	0.13	0.14	0.15	0.15	0.15	0.15
SSA	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.06	0.06	0.06
USA	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.18	0.19	0.19	0.19

Table 772: PRIMAPhist — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 3/16]

	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
GLO	0.67	0.67	0.68	0.68	0.68	0.69	0.69	0.72	0.73	0.74	0.75
CAZ	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
CHA	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
EUR	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.07	0.08	0.08	0.09
IND	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
MEA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NEU	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OAS	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
REF	0.15	0.15	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.17
SSA	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
USA	0.19	0.19	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21

Table 773: PRIMAPhist — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 4/16]

	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
GLO	0.76	0.77	0.78	0.79	0.80	0.80	0.81	0.81	0.82	0.83	0.83
CAZ	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
CHA	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
EUR	0.09	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.10	0.10
IND	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.05	0.05
MEA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NEU	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OAS	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
REF	0.17	0.17	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
SSA	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
USA	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21

Table 774: PRIMAPHist — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 5/16]

	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
GLO	0.84	0.85	0.86	0.87	0.87	0.88	0.89	0.91	0.93	0.96	0.98
CAZ	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
CHA	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
EUR	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10
IND	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.06	0.06	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08
MEA	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
NEU	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
OAS	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08
REF	0.18	0.18	0.18	0.18	0.18	0.18	0.19	0.19	0.20	0.21	0.22
SSA	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.10
USA	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.23	0.23

Table 775: PRIMAPHist — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 6/16]

	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926
GLO	1.01	1.04	1.07	1.09	1.11	1.12	1.14	1.16	1.17	1.19	1.20
CAZ	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
CHA	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
EUR	0.10	0.10	0.11	0.11	0.11	0.11	0.12	0.12	0.13	0.13	0.14
IND	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.08	0.08	0.08	0.08	0.09	0.09	0.08	0.08	0.08	0.08	0.08
MEA	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03
NEU	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02
OAS	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10
REF	0.23	0.25	0.26	0.26	0.27	0.27	0.27	0.28	0.28	0.28	0.28
SSA	0.11	0.11	0.12	0.12	0.13	0.13	0.14	0.15	0.15	0.16	0.16
USA	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.23	0.23	0.23

Table 776: PRIMAPHist — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 7/16]

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
GLO	1.21	1.22	1.23	1.24	1.24	1.24	1.24	1.24	1.23	1.23	1.22
CAZ	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
CHA	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06
EUR	0.14	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.14
IND	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09
MEA	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
NEU	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
OAS	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11
REF	0.29	0.29	0.29	0.29	0.29	0.28	0.28	0.27	0.27	0.26	0.25
SSA	0.17	0.17	0.18	0.18	0.18	0.17	0.17	0.17	0.16	0.16	0.16
USA	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22

Table 777: PRIMAPHist — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 8/16]

	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
GLO	1.22	1.22	1.23	1.28	1.41	1.61	1.84	2.10	2.36	2.60	2.81
CAZ	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.08	0.09	0.10	0.10
CHA	0.06	0.07	0.07	0.07	0.08	0.08	0.09	0.10	0.11	0.11	0.12
EUR	0.14	0.14	0.14	0.15	0.17	0.20	0.24	0.28	0.32	0.36	0.40
IND	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06
JPN	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.03	0.03
LAM	0.10	0.10	0.10	0.11	0.12	0.14	0.16	0.19	0.21	0.23	0.25
MEA	0.03	0.03	0.03	0.04	0.04	0.05	0.06	0.07	0.08	0.09	0.10
NEU	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.05	0.05	0.06
OAS	0.11	0.11	0.12	0.12	0.12	0.13	0.15	0.16	0.17	0.18	0.19
REF	0.25	0.25	0.24	0.25	0.26	0.27	0.29	0.31	0.33	0.35	0.37
SSA	0.15	0.15	0.15	0.17	0.21	0.27	0.35	0.43	0.51	0.59	0.65
USA	0.23	0.23	0.23	0.23	0.26	0.29	0.32	0.37	0.41	0.45	0.48

Table 778: PRIMAPHist — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 9/16]

	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
GLO	2.96	3.05	3.08	3.11	3.13	3.15	3.17	3.19	3.21	3.24	3.28
CAZ	0.10	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.13
CHA	0.13	0.13	0.14	0.15	0.15	0.16	0.16	0.17	0.17	0.18	0.19
EUR	0.42	0.43	0.44	0.44	0.44	0.45	0.45	0.46	0.46	0.46	0.47
IND	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
JPN	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
LAM	0.27	0.28	0.29	0.31	0.33	0.36	0.38	0.41	0.43	0.45	0.47
MEA	0.10	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.09	0.09	0.09
NEU	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
OAS	0.20	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.23	0.23	0.23
REF	0.38	0.40	0.41	0.42	0.43	0.44	0.45	0.47	0.48	0.49	0.51
SSA	0.69	0.71	0.71	0.69	0.66	0.62	0.59	0.55	0.51	0.48	0.47
USA	0.50	0.51	0.52	0.52	0.53	0.53	0.54	0.54	0.55	0.55	0.56

Table 779: PRIMAPHist — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 10/16]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	3.33	3.55	3.64	3.71	3.79	3.91	4.06	4.18	4.27	4.33	4.44
CAZ	0.13	0.13	0.13	0.14	0.14	0.14	0.14	0.14	0.14	0.15	0.15
CHA	0.19	0.20	0.21	0.22	0.25	0.27	0.29	0.29	0.30	0.31	0.32
EUR	0.47	0.51	0.53	0.53	0.54	0.55	0.57	0.59	0.61	0.62	0.63
IND	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08
JPN	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
LAM	0.48	0.50	0.51	0.52	0.53	0.55	0.57	0.58	0.59	0.60	0.61
MEA	0.09	0.10	0.10	0.10	0.11	0.11	0.11	0.12	0.13	0.13	0.13
NEU	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09
OAS	0.24	0.25	0.25	0.25	0.26	0.26	0.27	0.28	0.28	0.29	0.30
REF	0.52	0.55	0.58	0.59	0.60	0.61	0.65	0.67	0.69	0.69	0.72
SSA	0.46	0.51	0.52	0.52	0.53	0.54	0.54	0.55	0.56	0.56	0.57
USA	0.57	0.60	0.62	0.65	0.67	0.70	0.72	0.76	0.76	0.78	0.80

Table 780: PRIMAPhist — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 11/16]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	4.56	4.65	4.81	4.84	5.03	5.09	5.17	5.31	5.39	5.51	5.53
CAZ	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
CHA	0.34	0.35	0.37	0.36	0.39	0.39	0.43	0.47	0.51	0.54	0.53
EUR	0.65	0.66	0.68	0.69	0.71	0.71	0.72	0.75	0.76	0.76	0.76
IND	0.08	0.08	0.08	0.08	0.09	0.09	0.10	0.10	0.10	0.11	0.11
JPN	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
LAM	0.62	0.64	0.66	0.68	0.69	0.72	0.74	0.74	0.75	0.77	0.78
MEA	0.14	0.14	0.14	0.14	0.15	0.15	0.15	0.16	0.16	0.17	0.18
NEU	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.11	0.11	0.11
OAS	0.30	0.30	0.31	0.31	0.31	0.32	0.33	0.34	0.35	0.35	0.36
REF	0.76	0.78	0.81	0.83	0.85	0.86	0.86	0.89	0.87	0.90	0.90
SSA	0.58	0.58	0.58	0.58	0.59	0.60	0.61	0.62	0.63	0.64	0.65
USA	0.82	0.84	0.88	0.87	0.95	0.95	0.92	0.93	0.95	0.96	0.96

Table 781: PRIMAPhist — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 12/16]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	5.57	5.70	5.82	5.82	5.88	5.96	6.00	6.06	5.98	5.92	5.86
CAZ	0.16	0.16	0.17	0.17	0.17	0.16	0.16	0.17	0.13	0.13	0.13
CHA	0.55	0.59	0.62	0.60	0.61	0.69	0.72	0.75	0.78	0.79	0.80
EUR	0.77	0.78	0.79	0.79	0.80	0.78	0.78	0.78	0.76	0.72	0.68
IND	0.11	0.12	0.12	0.13	0.14	0.13	0.14	0.14	0.15	0.15	0.16
JPN	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
LAM	0.78	0.78	0.80	0.80	0.82	0.83	0.84	0.85	0.85	0.85	0.87
MEA	0.18	0.19	0.20	0.21	0.21	0.22	0.22	0.23	0.23	0.24	0.26
NEU	0.11	0.11	0.11	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.10
OAS	0.36	0.38	0.38	0.39	0.41	0.41	0.42	0.43	0.42	0.43	0.44
REF	0.93	0.97	0.97	1.00	1.02	1.03	1.01	0.97	0.92	0.88	0.79
SSA	0.65	0.65	0.65	0.66	0.66	0.67	0.68	0.69	0.69	0.69	0.69
USA	0.91	0.92	0.96	0.93	0.90	0.89	0.87	0.90	0.91	0.90	0.91

Table 782: PRIMAPhist — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 13/16]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	5.78	5.91	6.05	6.11	6.10	6.24	6.17	6.14	6.22	6.19	6.35
CAZ	0.13	0.13	0.14	0.14	0.14	0.14	0.15	0.15	0.15	0.14	0.15
CHA	0.76	0.80	0.90	0.94	0.90	0.90	0.93	0.89	0.90	0.89	0.89
EUR	0.67	0.66	0.66	0.66	0.67	0.66	0.66	0.65	0.65	0.64	0.62
IND	0.16	0.15	0.16	0.17	0.18	0.19	0.19	0.19	0.20	0.19	0.20
JPN	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03
LAM	0.88	0.90	0.92	0.91	0.93	0.95	0.95	0.99	1.02	1.03	1.09
MEA	0.26	0.44	0.42	0.41	0.40	0.39	0.37	0.36	0.37	0.36	0.39
NEU	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.10
OAS	0.46	0.45	0.47	0.49	0.50	0.52	0.54	0.55	0.54	0.56	0.58
REF	0.70	0.62	0.59	0.56	0.54	0.55	0.52	0.51	0.50	0.50	0.48
SSA	0.69	0.73	0.74	0.76	0.78	0.84	0.82	0.82	0.84	0.83	0.86
USA	0.93	0.89	0.92	0.93	0.92	0.98	0.91	0.90	0.93	0.93	0.94

Table 783: PRIMAPhist — Emissions—N₂O—Land—Agriculture (Mt N₂O/yr) [PART 14/16]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	6.55	6.51	6.66	6.85	7.00	7.09	7.28	7.34	7.42	7.47	7.53
CAZ	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.16	0.17	0.16
CHA	0.93	0.95	1.03	1.11	1.20	1.28	1.37	1.41	1.49	1.49	1.50
EUR	0.63	0.62	0.61	0.61	0.61	0.60	0.60	0.60	0.60	0.61	0.62
IND	0.21	0.22	0.23	0.25	0.25	0.26	0.27	0.28	0.27	0.27	0.27
JPN	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03
LAM	1.09	1.11	1.14	1.18	1.17	1.15	1.19	1.20	1.21	1.20	1.23
MEA	0.40	0.40	0.40	0.40	0.40	0.39	0.38	0.39	0.41	0.41	0.42
NEU	0.10	0.10	0.11	0.10	0.10	0.11	0.10	0.11	0.12	0.12	0.12
OAS	0.61	0.62	0.63	0.66	0.68	0.73	0.73	0.73	0.74	0.76	0.77
REF	0.49	0.48	0.48	0.47	0.48	0.49	0.50	0.51	0.52	0.52	0.52
SSA	0.87	0.89	0.88	0.90	0.95	0.92	0.96	0.98	0.97	1.00	0.99
USA	1.02	0.93	0.96	0.99	0.97	0.98	1.00	0.96	0.91	0.90	0.90

Table 784: PRIMAPhist — Emissions—N₂O—Land—Agriculture (Mt N₂O/yr) [PART 15/16]

	2015
GLO	7.72
CAZ	0.16
CHA	1.58
EUR	0.62
IND	0.29
JPN	0.03
LAM	1.26
MEA	0.42
NEU	0.12
OAS	0.80
REF	0.51
SSA	1.02
USA	0.90

Table 785: PRIMAPhist — Emissions—N₂O—Land—Agriculture (Mt N₂O/yr) [PART 16/16]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	20.6	23.6	25.9	29.1	34.5	35.5	35.8	37.9	42.7	47.0
CAZ	1.1	1.1	1.1	1.2	1.5	1.6	1.6	1.7	1.8	1.9
CHA	2.2	2.5	2.9	3.8	4.4	5.3	6.0	6.4	7.8	8.8
EUR	3.6	4.2	4.7	5.2	5.9	5.3	5.0	4.9	4.9	5.0
IND	1.1	1.2	1.3	1.5	1.8	2.1	2.5	2.8	3.3	4.0
JPN	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3
LAM	3.2	3.6	4.0	4.4	5.5	5.3	5.8	6.5	7.2	8.2
MEA	0.6	0.7	0.8	0.9	1.2	1.4	1.6	1.8	2.1	2.3
NEU	0.5	0.5	0.6	0.6	0.7	0.7	0.6	0.7	0.7	0.7
OAS	1.2	1.3	1.5	1.8	2.3	2.8	3.1	3.4	4.0	4.6
REF	2.2	2.6	2.9	3.2	3.8	3.7	2.3	1.8	2.2	2.1
SSA	1.6	1.7	1.8	1.9	2.1	2.3	2.4	2.6	3.2	3.6
USA	3.2	3.7	4.0	4.1	4.8	4.6	4.5	4.9	5.3	5.5

Table 786: IPCC — Emissions—N₂O—Land—Agriculture (Mt N₂O/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	72	77	75	87	85	84	96	94	94	106
CAZ	3	3	4	3	4	4	4	4	4	5
CHA	3	3	4	6	6	8	9	9	11	13
EUR	3	4	4	5	6	5	5	5	5	5
IND	1	1	1	2	2	3	3	3	4	5
JPN	1	1	1	1	1	1	1	1	1	1
LAM	40	39	33	41	37	32	43	41	36	43
MEA	1	1	1	2	2	2	3	3	3	3
NEU	1	1	1	1	1	1	1	1	1	1
OAS	4	5	5	5	6	7	7	7	8	9
REF	4	5	6	6	7	7	5	5	5	5
SSA	7	9	9	9	9	9	9	10	10	11
USA	4	5	6	6	6	6	7	6	6	6

Table 787: Nsurplus2 — Emissions—N₂O—Land—Agriculture (Mt N₂O/yr)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
GLO	3.34	3.42	3.52	3.62	3.66	3.82	3.89	4.00	4.11	4.23	4.32
CAZ	0.17	0.18	0.18	0.18	0.18	0.19	0.19	0.18	0.18	0.18	0.18
CHA	0.34	0.35	0.36	0.38	0.37	0.40	0.41	0.45	0.48	0.52	0.55
EUR	0.60	0.62	0.63	0.66	0.66	0.68	0.68	0.69	0.72	0.74	0.73
IND	0.19	0.20	0.20	0.20	0.20	0.21	0.22	0.23	0.24	0.25	0.26
JPN	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
LAM	0.45	0.46	0.48	0.49	0.51	0.53	0.55	0.58	0.57	0.58	0.61
MEA	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.13	0.13	0.14
NEU	0.06	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.09	0.09
OAS	0.32	0.32	0.32	0.33	0.33	0.34	0.34	0.36	0.37	0.38	0.38
REF	0.40	0.42	0.44	0.45	0.47	0.49	0.48	0.49	0.50	0.50	0.52
SSA	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.30	0.31	0.32	0.32
USA	0.40	0.41	0.42	0.45	0.44	0.49	0.48	0.48	0.49	0.51	0.51

Table 788: EDGAR_LU — Emissions—N₂O—Land—Agriculture (Mt N₂O/yr) [PART 1/4]

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
GLO	4.36	4.42	4.54	4.67	4.69	4.75	4.84	4.94	5.00	5.02	4.97
CAZ	0.19	0.19	0.19	0.19	0.19	0.20	0.19	0.19	0.20	0.21	0.21
CHA	0.55	0.57	0.61	0.64	0.62	0.64	0.72	0.77	0.79	0.82	0.83
EUR	0.73	0.75	0.75	0.77	0.77	0.78	0.77	0.78	0.77	0.73	0.69
IND	0.27	0.28	0.30	0.32	0.33	0.35	0.33	0.37	0.37	0.38	0.40
JPN	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
LAM	0.62	0.62	0.62	0.64	0.65	0.66	0.68	0.69	0.70	0.70	0.70
MEA	0.15	0.15	0.16	0.16	0.17	0.17	0.17	0.18	0.19	0.19	0.19
NEU	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
OAS	0.39	0.40	0.42	0.43	0.44	0.44	0.44	0.45	0.46	0.47	0.47
REF	0.52	0.53	0.56	0.57	0.58	0.59	0.60	0.59	0.56	0.54	0.51
SSA	0.32	0.33	0.33	0.32	0.33	0.33	0.33	0.34	0.35	0.36	0.36
USA	0.51	0.49	0.48	0.51	0.49	0.48	0.48	0.45	0.48	0.49	0.49

Table 789: EDGAR_LU — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 2/4]

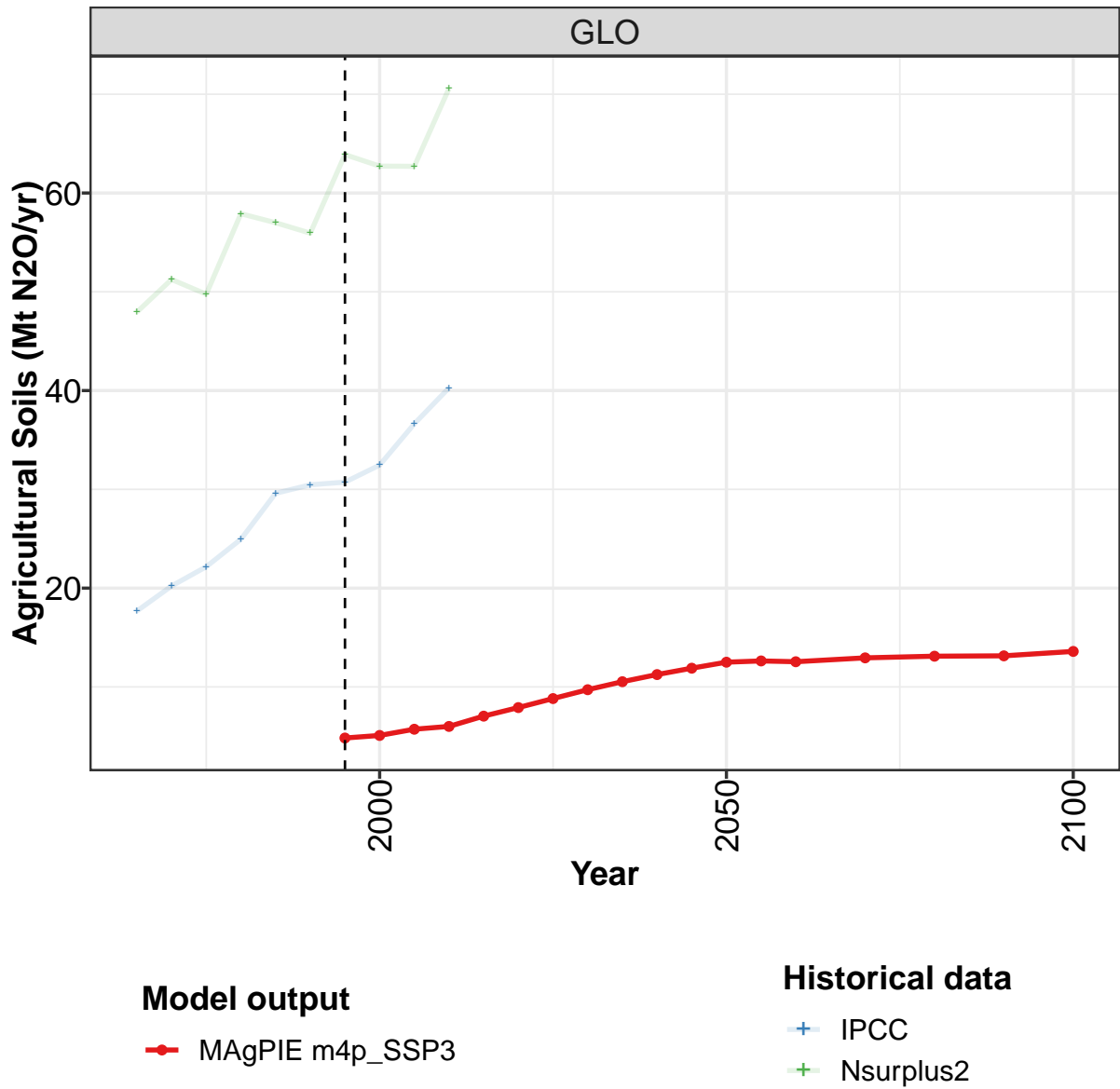
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
GLO	4.96	4.92	4.99	5.10	5.20	5.17	5.23	5.28	5.26	5.32	5.41
CAZ	0.21	0.21	0.22	0.22	0.23	0.23	0.23	0.24	0.24	0.24	0.24
CHA	0.85	0.82	0.86	0.98	1.02	0.94	0.96	1.00	0.98	0.99	1.07
EUR	0.65	0.63	0.64	0.63	0.64	0.65	0.64	0.64	0.62	0.62	0.61
IND	0.41	0.42	0.44	0.45	0.46	0.47	0.48	0.49	0.47	0.48	0.46
JPN	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
LAM	0.72	0.74	0.77	0.78	0.77	0.79	0.80	0.80	0.83	0.85	0.87
MEA	0.20	0.20	0.21	0.21	0.22	0.23	0.24	0.24	0.25	0.26	0.26
NEU	0.09	0.09	0.09	0.08	0.09	0.09	0.09	0.09	0.09	0.08	0.08
OAS	0.48	0.49	0.50	0.50	0.52	0.52	0.53	0.53	0.54	0.53	0.55
REF	0.45	0.41	0.36	0.33	0.30	0.30	0.27	0.26	0.26	0.27	0.27
SSA	0.36	0.36	0.36	0.37	0.37	0.38	0.40	0.41	0.41	0.42	0.43
USA	0.51	0.51	0.54	0.53	0.55	0.56	0.56	0.55	0.54	0.55	0.55

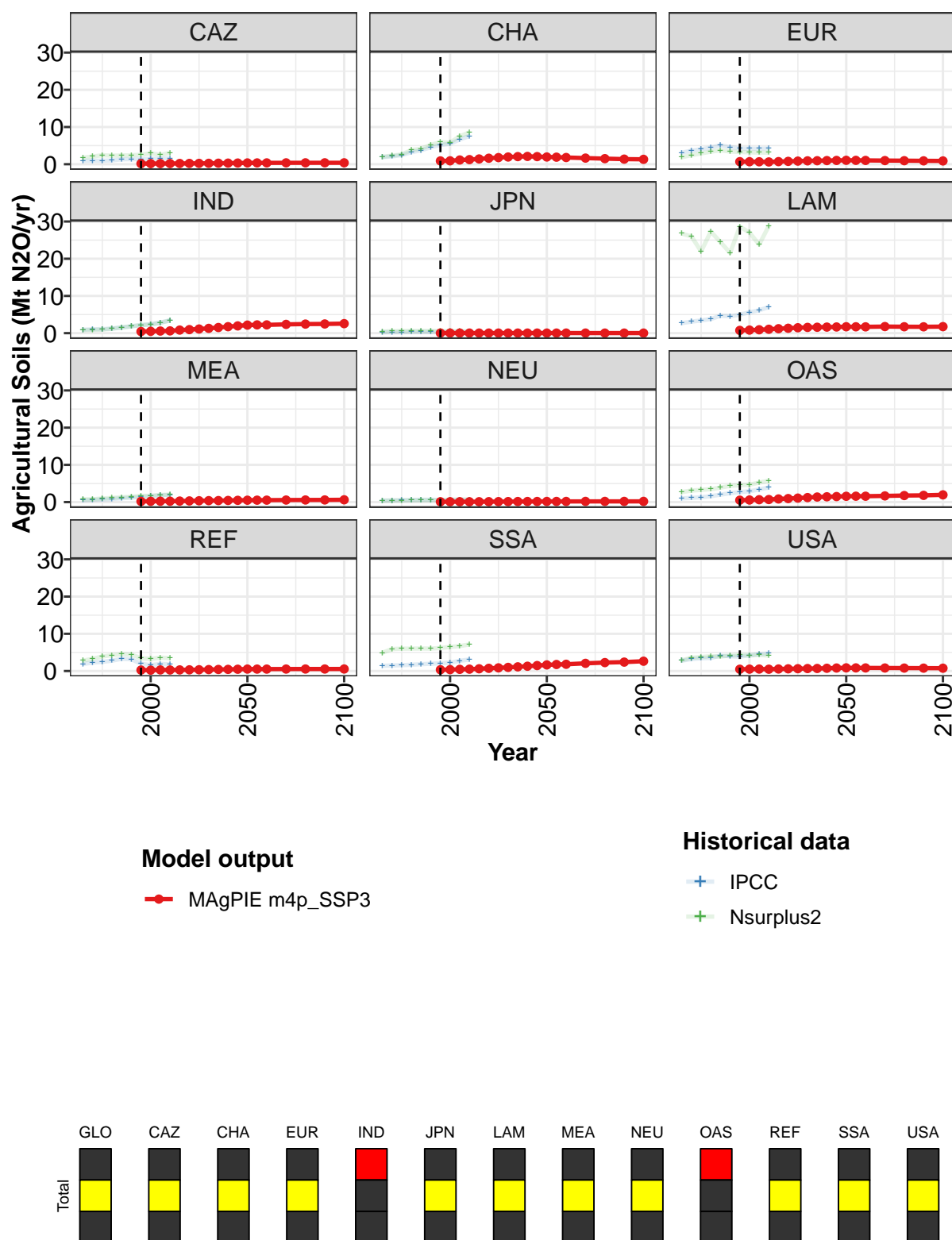
Table 790: EDGAR_LU — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 3/4]

	2003	2004	2005	2006	2007	2008
GLO	5.49	5.64	5.68	5.75	5.82	5.88
CAZ	0.24	0.25	0.25	0.25	0.25	0.25
CHA	1.05	1.11	1.12	1.16	1.18	1.22
EUR	0.61	0.61	0.60	0.59	0.58	0.58
IND	0.48	0.50	0.50	0.50	0.51	0.52
JPN	0.03	0.03	0.03	0.03	0.03	0.03
LAM	0.93	0.95	0.96	0.98	1.01	1.03
MEA	0.26	0.27	0.27	0.28	0.28	0.28
NEU	0.08	0.09	0.09	0.09	0.09	0.09
OAS	0.56	0.57	0.58	0.59	0.60	0.61
REF	0.26	0.27	0.27	0.27	0.26	0.26
SSA	0.43	0.44	0.45	0.45	0.46	0.47
USA	0.56	0.58	0.58	0.57	0.56	0.56

Table 791: EDGAR_LU — Emissions—N2O—Land—Agriculture (Mt N2O/yr) [PART 4/4]

13.1.2 Agriculture—Agricultural Soils



Figure 239: MAGPIE m4p_SSP3 — Emissions—N₂O—Land—Agriculture—Agricultural Soils (Mt N₂O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.8	5.1	5.7	6.0	7.0	7.9	8.8	9.7	10.5	11.3	11.9
CAZ	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3
CHA	0.9	0.9	1.1	1.2	1.4	1.6	1.8	1.9	2.1	2.1	2.1
EUR	0.7	0.7	0.7	0.6	0.7	0.8	0.8	0.9	0.9	1.0	1.0
IND	0.4	0.5	0.6	0.6	0.8	1.0	1.1	1.3	1.5	1.7	2.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.7	0.8	0.9	1.0	1.2	1.3	1.5	1.5	1.6	1.6	1.7
MEA	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.5
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
OAS	0.5	0.6	0.6	0.7	0.8	0.9	1.1	1.2	1.4	1.4	1.5
REF	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5
SSA	0.3	0.4	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.3	1.5
USA	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.8

Table 792: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture—Agricultural Soils (Mt N2O/yr)
[PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	12.5	12.6	12.6	12.9	13.1	13.1	13.6
CAZ	0.3	0.4	0.4	0.4	0.4	0.4	0.4
CHA	1.9	1.9	1.8	1.6	1.5	1.4	1.3
EUR	1.1	1.0	1.0	1.0	0.9	0.9	0.9
IND	2.2	2.2	2.2	2.4	2.4	2.5	2.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.7	1.7	1.7	1.8	1.7	1.7	1.8
MEA	0.5	0.5	0.5	0.5	0.6	0.6	0.6
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	1.6	1.6	1.6	1.7	1.8	1.8	1.9
REF	0.5	0.5	0.5	0.5	0.5	0.5	0.5
SSA	1.6	1.8	1.8	2.1	2.3	2.4	2.6
USA	0.9	0.8	0.8	0.8	0.8	0.8	0.8

Table 793: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture—Agricultural Soils (Mt N2O/yr)
[PART 2/2]

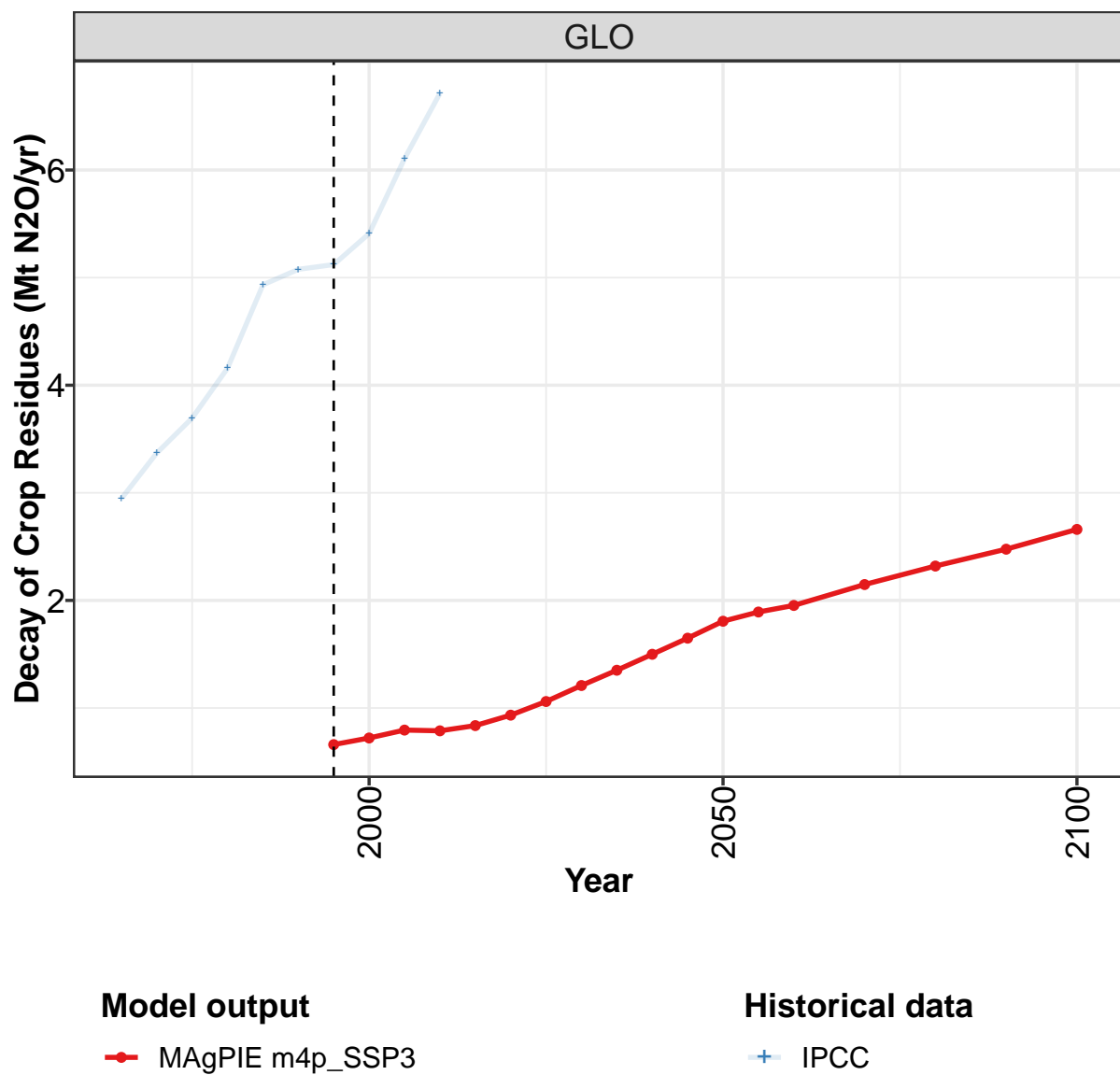
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	17.7	20.2	22.2	24.9	29.6	30.5	30.7	32.5	36.6	40.3
CAZ	0.9	1.0	0.9	1.0	1.3	1.4	1.4	1.4	1.5	1.6
CHA	1.9	2.1	2.4	3.2	3.7	4.6	5.2	5.5	6.7	7.6
EUR	3.1	3.6	4.0	4.5	5.1	4.6	4.2	4.2	4.2	4.3
IND	0.9	1.0	1.1	1.2	1.5	1.8	2.2	2.4	2.8	3.4
JPN	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
LAM	2.7	3.1	3.4	3.8	4.7	4.5	5.0	5.6	6.2	7.0
MEA	0.5	0.6	0.7	0.8	1.0	1.2	1.4	1.6	1.8	1.9
NEU	0.4	0.5	0.5	0.5	0.6	0.6	0.5	0.6	0.6	0.6
OAS	1.0	1.1	1.3	1.6	2.0	2.4	2.7	2.9	3.4	3.9
REF	1.9	2.3	2.5	2.8	3.3	3.2	2.0	1.5	1.9	1.8
SSA	1.4	1.5	1.6	1.7	1.8	2.0	2.1	2.2	2.7	3.1
USA	2.8	3.2	3.4	3.5	4.1	4.0	3.9	4.2	4.6	4.7

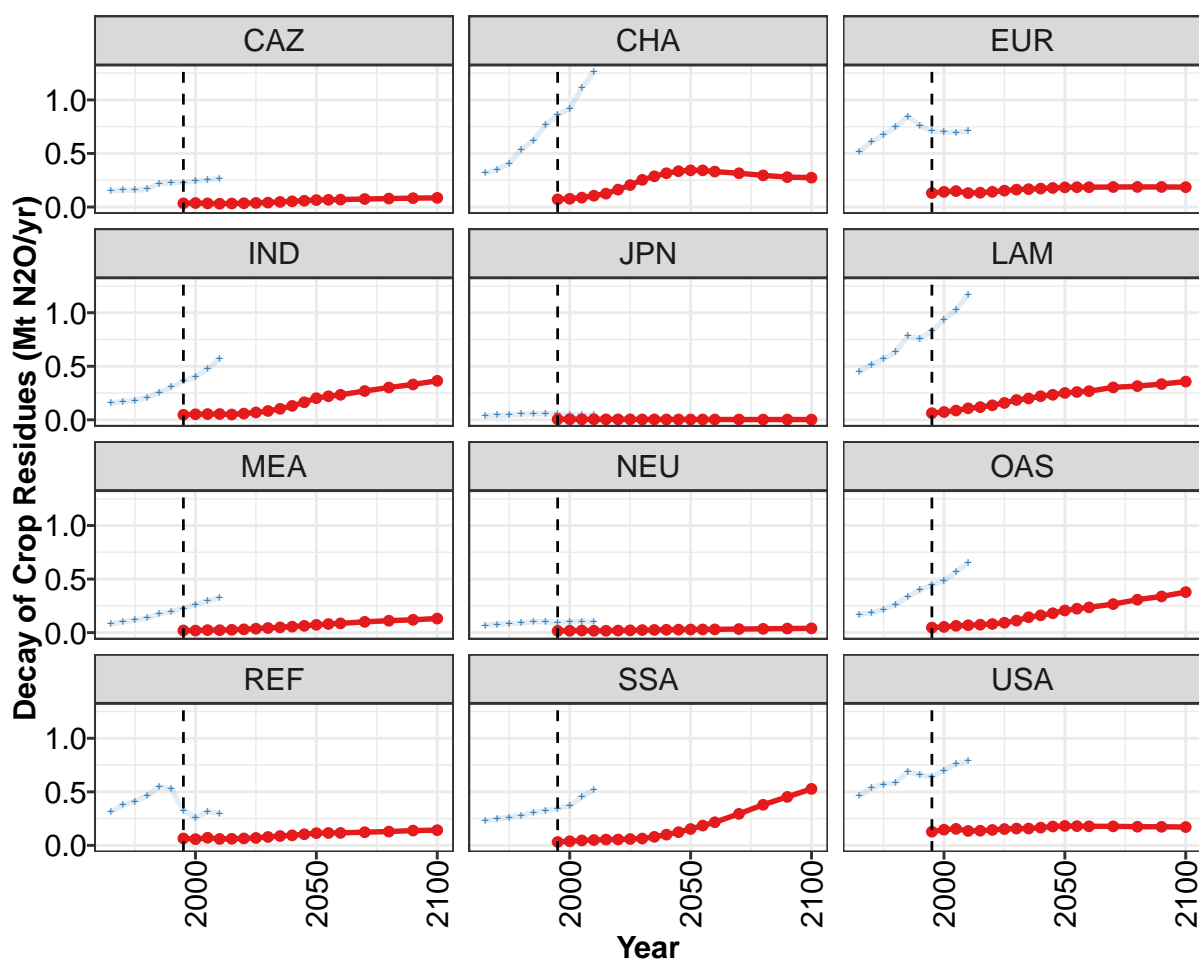
Table 794: IPCC — Emissions—N2O—Land—Agriculture—Agricultural Soils (Mt N2O/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	47.9	51.2	49.8	57.9	57.0	55.9	63.9	62.7	62.7	70.6
CAZ	1.8	2.1	2.4	2.3	2.4	2.4	2.6	2.9	2.5	3.0
CHA	2.0	2.3	2.6	3.8	4.2	5.2	5.9	5.8	7.5	8.6
EUR	1.9	2.5	2.9	3.4	3.7	3.4	3.3	3.2	3.1	3.1
IND	0.8	0.9	0.9	1.2	1.5	1.8	2.2	2.3	2.8	3.4
JPN	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5
LAM	26.8	26.0	22.0	27.3	24.5	21.6	28.6	27.1	23.8	28.8
MEA	0.7	0.7	1.0	1.1	1.3	1.4	1.7	1.7	1.9	2.0
NEU	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.7
OAS	2.7	3.1	3.3	3.5	3.9	4.4	4.5	4.7	5.2	5.8
REF	2.8	3.3	3.9	4.2	4.5	4.4	3.4	3.3	3.6	3.5
SSA	4.9	5.9	6.0	6.0	6.0	6.0	6.2	6.5	6.7	7.1
USA	2.9	3.6	3.7	4.0	3.9	4.2	4.4	4.2	4.3	4.1

Table 795: Nsurplus2 — Emissions—N2O—Land—Agriculture—Agricultural Soils (Mt N2O/yr)

13.1.3 Agriculture—Agricultural Soils—Decay of Crop Residues





Model output

—●— MAGPIE m4p_SSP3

Historical data

+— IPCC

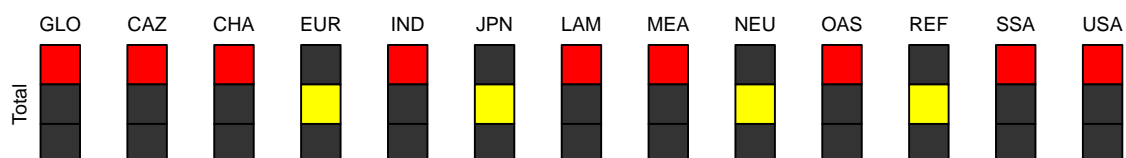


Figure 240: MAGPIE m4p_SSP3 — Emissions—N₂O—Land—Agriculture—Agricultural Soils—Decay of Crop Residues (Mt N₂O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.66	0.72	0.79	0.79	0.84	0.93	1.06	1.21	1.35	1.50	1.65
CAZ	0.03	0.04	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.06
CHA	0.07	0.08	0.09	0.11	0.12	0.16	0.21	0.25	0.29	0.32	0.33
EUR	0.13	0.14	0.15	0.13	0.13	0.14	0.15	0.16	0.17	0.17	0.18
IND	0.05	0.05	0.05	0.05	0.05	0.06	0.07	0.08	0.10	0.13	0.16
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.06	0.07	0.09	0.11	0.12	0.14	0.16	0.19	0.20	0.22	0.23
MEA	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.06	0.06
NEU	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03
OAS	0.05	0.05	0.06	0.07	0.07	0.08	0.09	0.11	0.14	0.16	0.18
REF	0.07	0.06	0.07	0.06	0.06	0.07	0.07	0.08	0.09	0.09	0.10
SSA	0.03	0.04	0.05	0.05	0.05	0.06	0.06	0.06	0.08	0.10	0.12
USA	0.13	0.15	0.15	0.14	0.14	0.14	0.15	0.16	0.16	0.17	0.18

Table 796: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture—Agricultural Soils—Decay of Crop Residues (Mt N2O/yr) [PART 1/2]

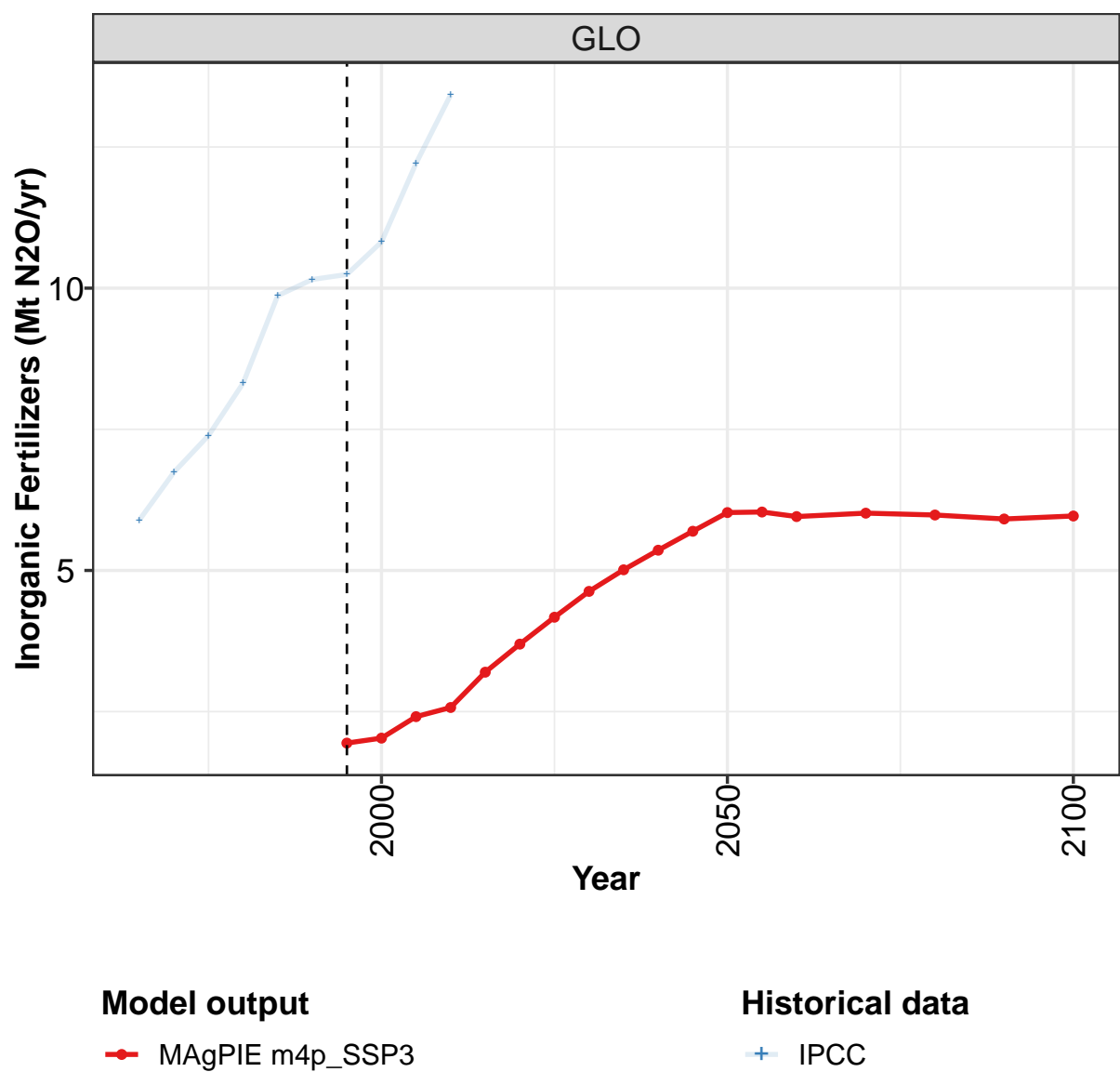
	2050	2055	2060	2070	2080	2090	2100
GLO	1.81	1.89	1.95	2.15	2.32	2.48	2.66
CAZ	0.06	0.07	0.07	0.07	0.08	0.08	0.09
CHA	0.34	0.34	0.33	0.32	0.30	0.28	0.27
EUR	0.18	0.19	0.19	0.19	0.19	0.19	0.19
IND	0.20	0.22	0.23	0.27	0.30	0.33	0.36
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.25	0.26	0.27	0.30	0.32	0.33	0.36
MEA	0.07	0.08	0.09	0.10	0.11	0.12	0.13
NEU	0.03	0.03	0.03	0.03	0.04	0.04	0.04
OAS	0.21	0.22	0.24	0.27	0.31	0.34	0.38
REF	0.11	0.12	0.12	0.12	0.13	0.14	0.14
SSA	0.15	0.19	0.22	0.29	0.38	0.45	0.53
USA	0.18	0.18	0.18	0.18	0.17	0.17	0.17

Table 797: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture—Agricultural Soils—Decay of Crop Residues (Mt N2O/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.95	3.37	3.69	4.16	4.93	5.08	5.12	5.41	6.11	6.71
CAZ	0.15	0.16	0.16	0.17	0.22	0.23	0.23	0.24	0.25	0.27
CHA	0.32	0.35	0.41	0.54	0.62	0.76	0.86	0.92	1.11	1.26
EUR	0.52	0.61	0.67	0.74	0.85	0.76	0.71	0.70	0.70	0.71
IND	0.15	0.17	0.18	0.21	0.26	0.31	0.36	0.40	0.47	0.57
JPN	0.04	0.04	0.04	0.05	0.06	0.06	0.05	0.05	0.05	0.05
LAM	0.45	0.51	0.57	0.63	0.78	0.76	0.83	0.93	1.03	1.17
MEA	0.08	0.10	0.12	0.14	0.17	0.20	0.23	0.26	0.30	0.32
NEU	0.07	0.08	0.09	0.09	0.10	0.10	0.09	0.10	0.10	0.10
OAS	0.17	0.19	0.22	0.26	0.33	0.40	0.44	0.48	0.57	0.65
REF	0.31	0.38	0.41	0.46	0.55	0.53	0.33	0.26	0.32	0.30
SSA	0.23	0.25	0.26	0.28	0.31	0.33	0.34	0.37	0.45	0.52
USA	0.46	0.54	0.57	0.58	0.69	0.66	0.64	0.70	0.76	0.79

Table 798: IPCC — Emissions—N2O—Land—Agriculture—Agricultural Soils—Decay of Crop Residues (Mt N2O/yr)

13.1.4 Agriculture—Agricultural Soils—Inorganic Fertilizers



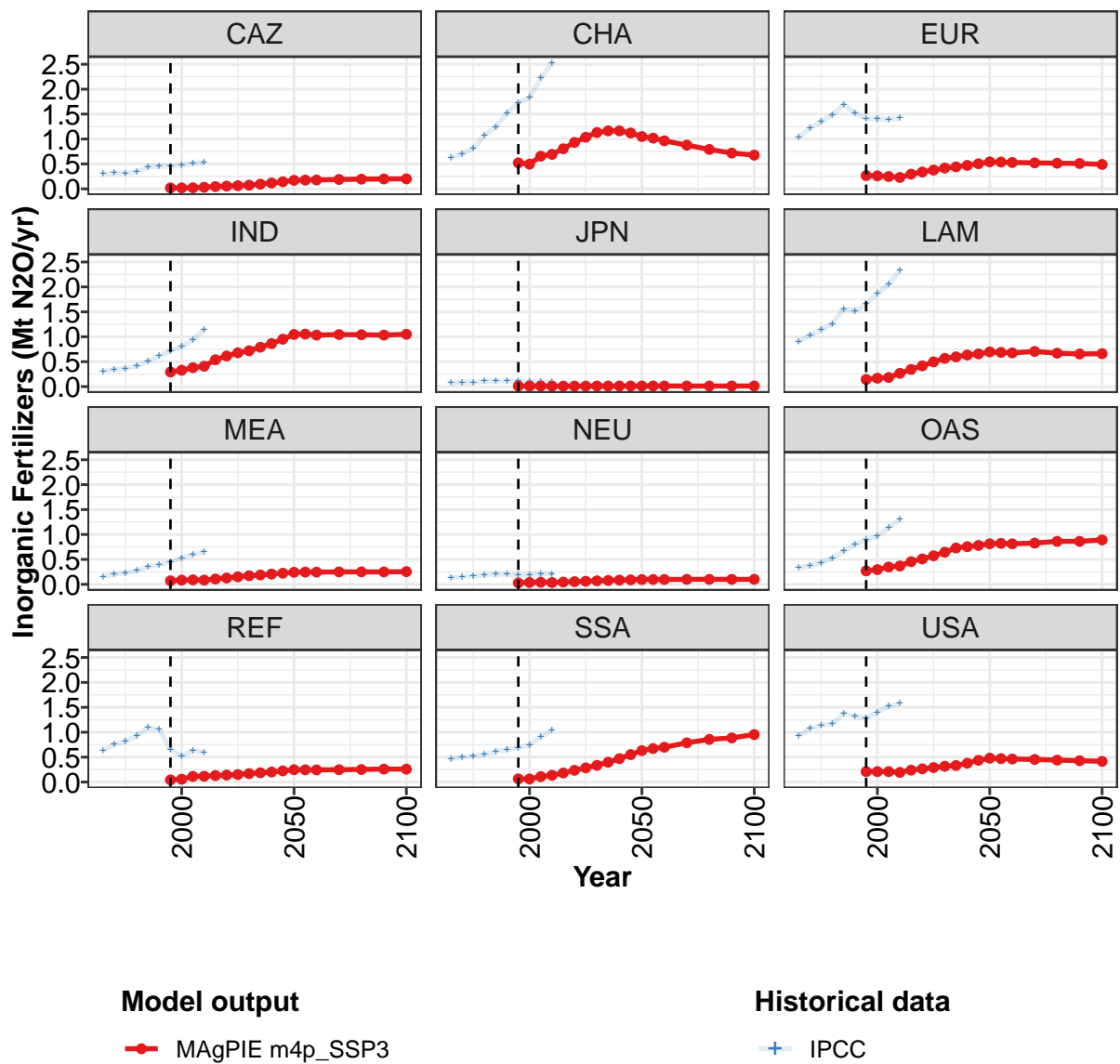


Figure 241: MAgPIE m4p_SSP3 — Emissions—N₂O—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt N₂O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.94	2.03	2.41	2.57	3.20	3.70	4.17	4.63	5.01	5.36	5.69
CAZ	0.02	0.02	0.02	0.03	0.05	0.05	0.06	0.07	0.09	0.12	0.14
CHA	0.52	0.50	0.66	0.69	0.80	0.93	1.04	1.13	1.16	1.16	1.12
EUR	0.27	0.26	0.25	0.23	0.30	0.34	0.38	0.42	0.44	0.47	0.50
IND	0.29	0.33	0.38	0.41	0.54	0.61	0.68	0.72	0.79	0.86	0.95
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.14	0.17	0.18	0.27	0.34	0.42	0.50	0.57	0.60	0.63	0.66
MEA	0.07	0.08	0.09	0.08	0.11	0.13	0.15	0.17	0.19	0.21	0.22
NEU	0.03	0.04	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.08	0.09
OAS	0.27	0.30	0.35	0.37	0.45	0.51	0.57	0.64	0.73	0.76	0.78
REF	0.04	0.06	0.11	0.12	0.13	0.14	0.15	0.17	0.19	0.20	0.22
SSA	0.06	0.06	0.11	0.14	0.18	0.24	0.28	0.34	0.40	0.47	0.55
USA	0.21	0.21	0.21	0.19	0.24	0.27	0.29	0.32	0.33	0.38	0.44

Table 799: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt N2O/yr) [PART 1/2]

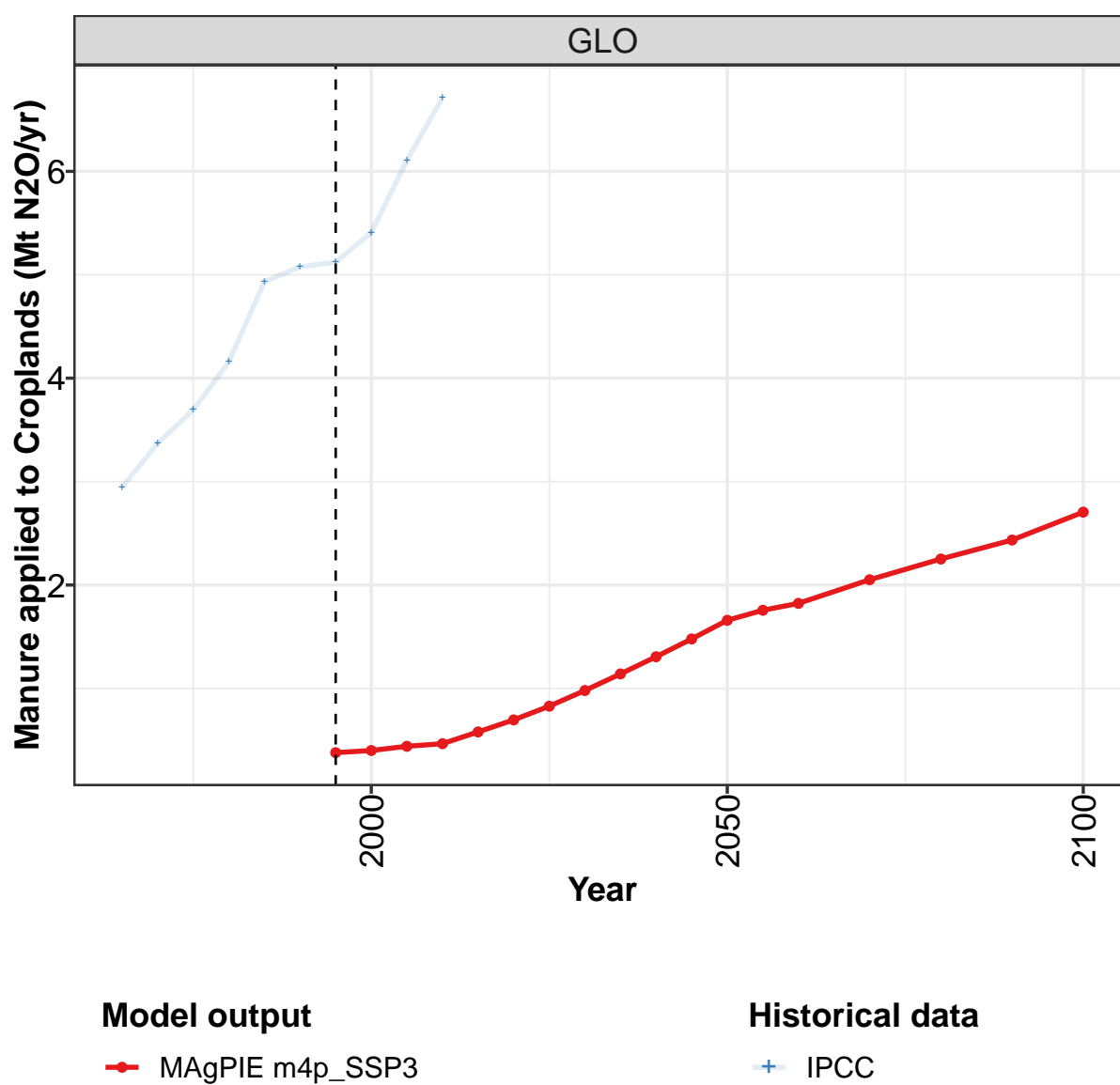
	2050	2055	2060	2070	2080	2090	2100
GLO	6.03	6.03	5.95	6.01	5.98	5.91	5.96
CAZ	0.17	0.18	0.18	0.19	0.19	0.20	0.20
CHA	1.05	1.02	0.96	0.88	0.79	0.72	0.68
EUR	0.54	0.54	0.53	0.52	0.51	0.51	0.49
IND	1.05	1.05	1.03	1.04	1.04	1.03	1.05
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.70	0.69	0.68	0.71	0.67	0.65	0.66
MEA	0.24	0.25	0.24	0.25	0.25	0.25	0.25
NEU	0.10	0.10	0.10	0.10	0.10	0.10	0.10
OAS	0.81	0.82	0.81	0.83	0.86	0.86	0.89
REF	0.25	0.25	0.24	0.25	0.25	0.26	0.26
SSA	0.63	0.67	0.70	0.79	0.86	0.89	0.95
USA	0.48	0.47	0.46	0.45	0.44	0.43	0.42

Table 800: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt N2O/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.9	6.7	7.4	8.3	9.9	10.2	10.2	10.8	12.2	13.4
CAZ	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5
CHA	0.6	0.7	0.8	1.1	1.2	1.5	1.7	1.8	2.2	2.5
EUR	1.0	1.2	1.3	1.5	1.7	1.5	1.4	1.4	1.4	1.4
IND	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.1
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.9	1.0	1.1	1.3	1.6	1.5	1.7	1.9	2.1	2.3
MEA	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.6
NEU	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.3	0.4	0.4	0.5	0.7	0.8	0.9	1.0	1.1	1.3
REF	0.6	0.8	0.8	0.9	1.1	1.1	0.7	0.5	0.6	0.6
SSA	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.9	1.0
USA	0.9	1.1	1.1	1.2	1.4	1.3	1.3	1.4	1.5	1.6

Table 801: IPCC — Emissions—N2O—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt N2O/yr)

13.1.5 Agriculture—Agricultural Soils—Manure applied to Croplands



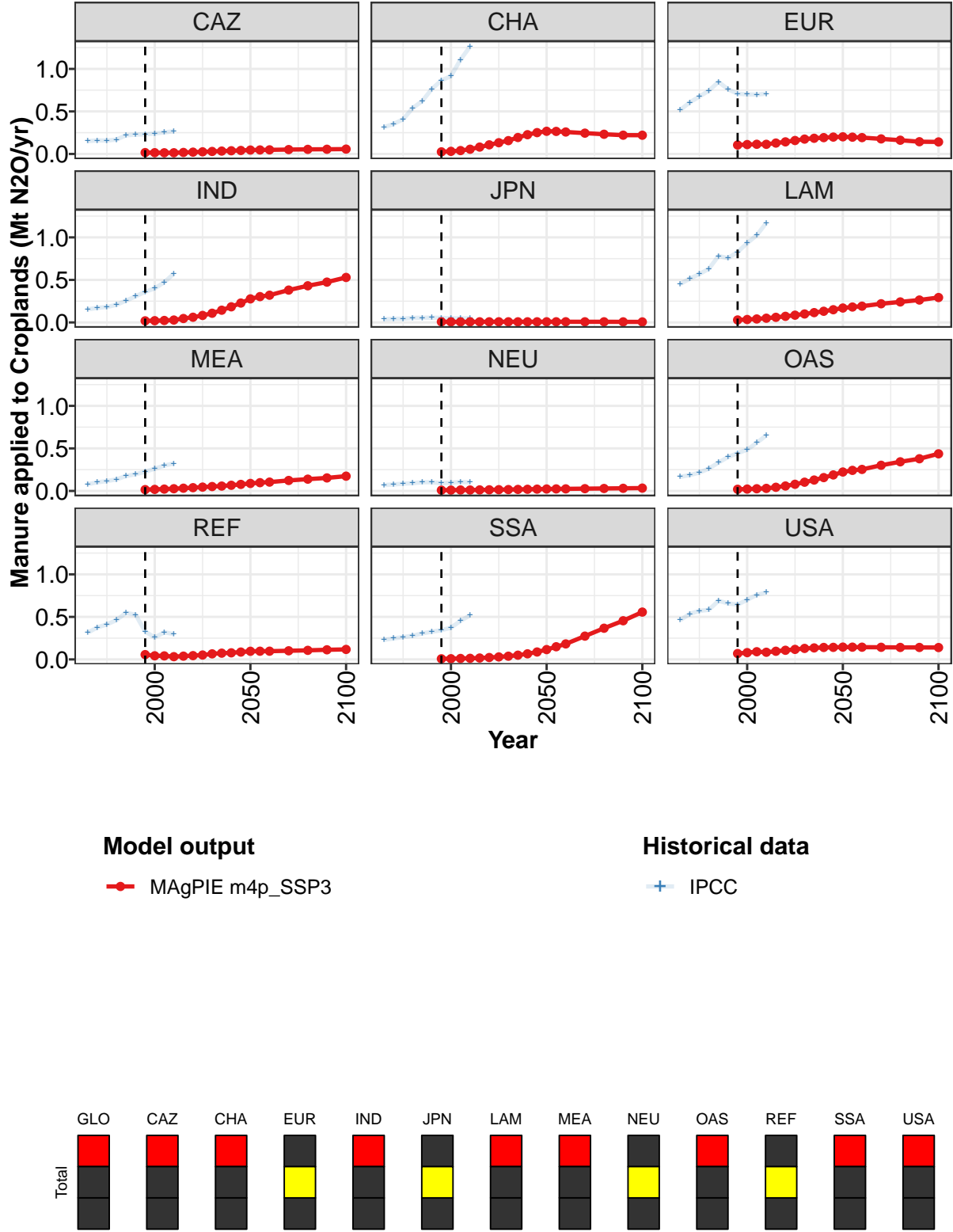


Figure 242: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt N2O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.38	0.40	0.44	0.47	0.58	0.70	0.83	0.98	1.14	1.31	1.48
CAZ	0.02	0.02	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.04	0.04
CHA	0.03	0.03	0.04	0.06	0.08	0.11	0.13	0.16	0.19	0.23	0.25
EUR	0.11	0.11	0.11	0.11	0.13	0.14	0.16	0.17	0.18	0.19	0.20
IND	0.02	0.02	0.02	0.03	0.05	0.06	0.08	0.11	0.14	0.18	0.23
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.03	0.03	0.04	0.05	0.06	0.07	0.09	0.10	0.12	0.13	0.15
MEA	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08
NEU	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
OAS	0.02	0.02	0.03	0.03	0.04	0.06	0.08	0.10	0.13	0.16	0.19
REF	0.06	0.04	0.04	0.03	0.04	0.04	0.05	0.07	0.07	0.08	0.09
SSA	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.05	0.07	0.09
USA	0.07	0.08	0.09	0.08	0.10	0.11	0.12	0.13	0.14	0.14	0.14

Table 802: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt N2O/yr) [PART 1/2]

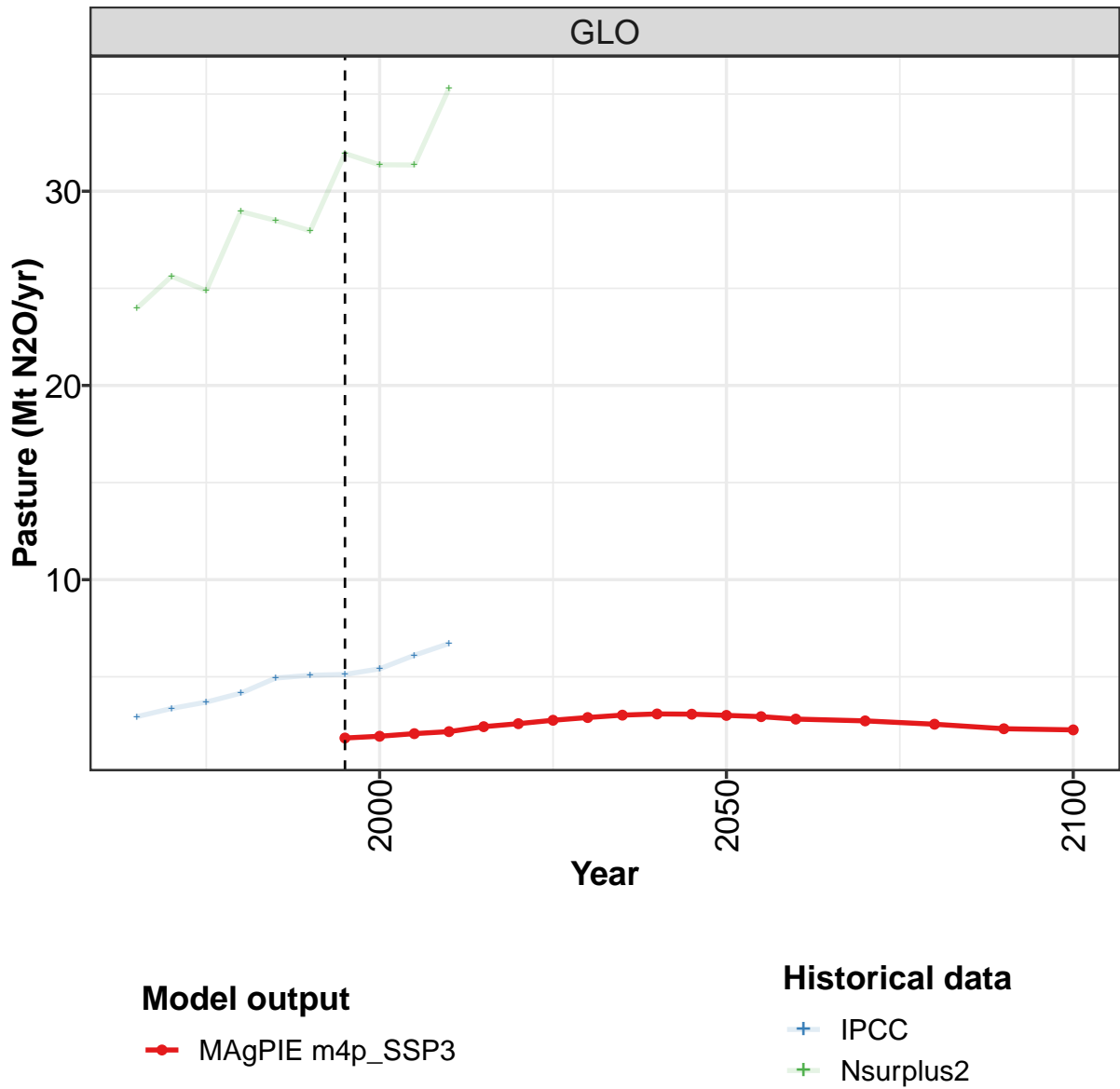
	2050	2055	2060	2070	2080	2090	2100
GLO	1.66	1.76	1.82	2.05	2.25	2.44	2.70
CAZ	0.05	0.05	0.05	0.05	0.05	0.06	0.06
CHA	0.27	0.27	0.26	0.24	0.23	0.22	0.22
EUR	0.20	0.20	0.19	0.18	0.16	0.14	0.14
IND	0.28	0.30	0.32	0.38	0.43	0.47	0.53
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.17	0.18	0.19	0.22	0.24	0.26	0.29
MEA	0.09	0.10	0.10	0.12	0.14	0.15	0.17
NEU	0.02	0.02	0.02	0.03	0.03	0.03	0.03
OAS	0.22	0.24	0.25	0.30	0.34	0.38	0.44
REF	0.10	0.10	0.10	0.10	0.11	0.11	0.12
SSA	0.12	0.15	0.18	0.27	0.37	0.45	0.56
USA	0.14	0.14	0.14	0.14	0.14	0.14	0.14

Table 803: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt N2O/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.95	3.37	3.69	4.16	4.93	5.08	5.12	5.41	6.11	6.71
CAZ	0.15	0.16	0.16	0.17	0.22	0.23	0.23	0.24	0.25	0.27
CHA	0.32	0.35	0.41	0.54	0.62	0.76	0.86	0.92	1.11	1.26
EUR	0.52	0.61	0.67	0.74	0.85	0.76	0.71	0.70	0.70	0.71
IND	0.15	0.17	0.18	0.21	0.26	0.31	0.36	0.40	0.47	0.57
JPN	0.04	0.04	0.04	0.05	0.06	0.06	0.05	0.05	0.05	0.05
LAM	0.45	0.51	0.57	0.63	0.78	0.76	0.83	0.93	1.03	1.17
MEA	0.08	0.10	0.12	0.14	0.17	0.20	0.23	0.26	0.30	0.32
NEU	0.07	0.08	0.09	0.09	0.10	0.10	0.09	0.10	0.10	0.10
OAS	0.17	0.19	0.22	0.26	0.33	0.40	0.44	0.48	0.57	0.65
REF	0.31	0.38	0.41	0.46	0.55	0.53	0.33	0.26	0.32	0.30
SSA	0.23	0.25	0.26	0.28	0.31	0.33	0.34	0.37	0.45	0.52
USA	0.46	0.54	0.57	0.58	0.69	0.66	0.64	0.70	0.76	0.79

Table 804: IPCC — Emissions—N2O—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt N2O/yr)

13.1.6 Agriculture—Agricultural Soils—Pasture



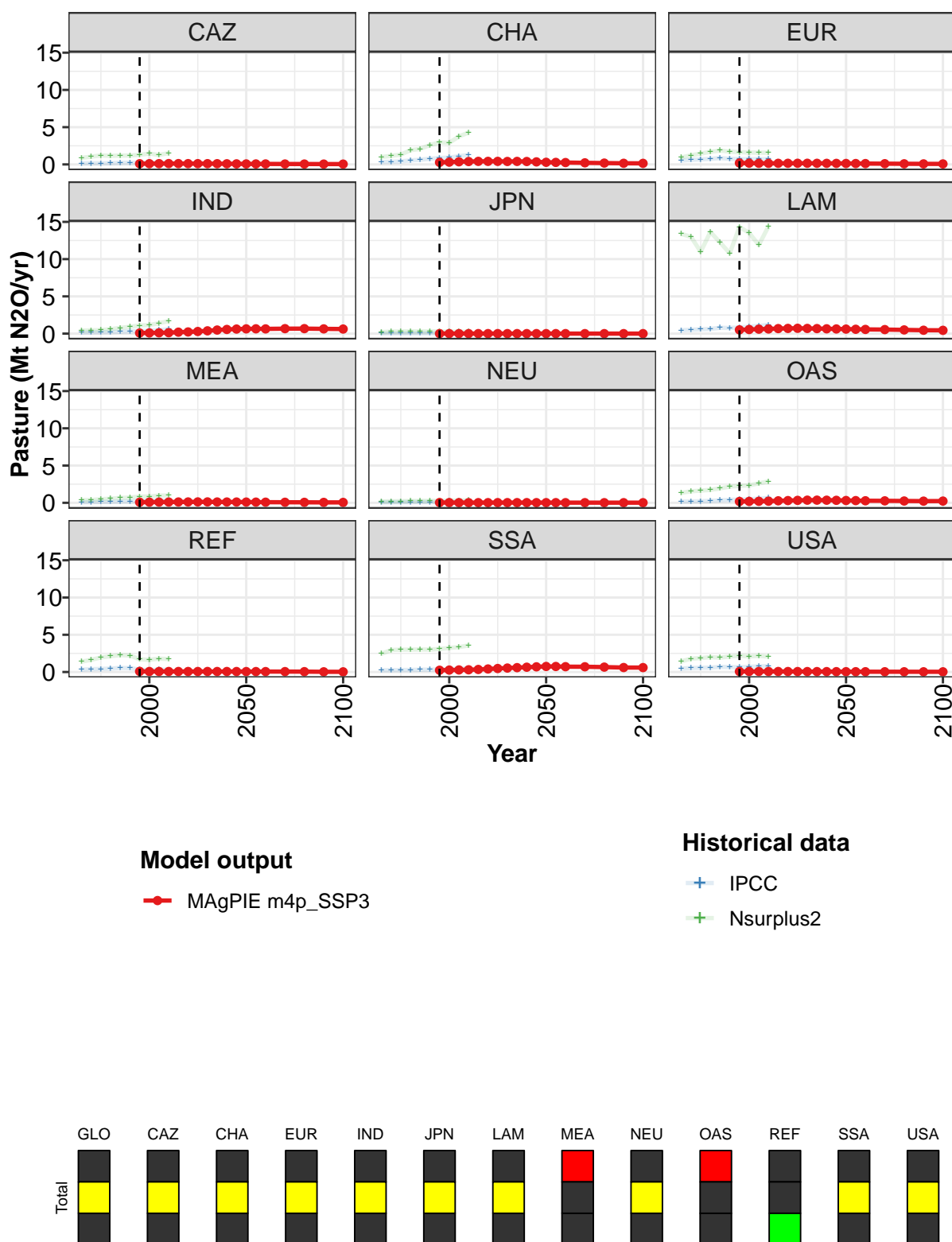


Figure 243: MAgPIE m4p_SSP3 — Emissions—N₂O—Land—Agriculture—Agricultural Soils—Pasture (Mt N₂O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.85	1.94	2.07	2.18	2.43	2.59	2.76	2.90	3.03	3.09	3.07
CAZ	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.09	0.08
CHA	0.28	0.31	0.36	0.39	0.41	0.41	0.41	0.40	0.41	0.39	0.34
EUR	0.19	0.17	0.15	0.14	0.15	0.15	0.15	0.15	0.15	0.14	0.14
IND	0.08	0.09	0.11	0.12	0.19	0.22	0.28	0.38	0.48	0.56	0.61
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.51	0.55	0.60	0.62	0.67	0.70	0.71	0.70	0.68	0.65	0.63
MEA	0.08	0.09	0.10	0.10	0.11	0.12	0.12	0.12	0.11	0.11	0.11
NEU	0.04	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03
OAS	0.18	0.19	0.20	0.22	0.27	0.30	0.33	0.36	0.36	0.35	0.33
REF	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06
SSA	0.24	0.26	0.28	0.30	0.34	0.41	0.47	0.54	0.59	0.65	0.70
USA	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.05

Table 805: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture—Agricultural Soils—Pasture (Mt N2O/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	3.01	2.95	2.82	2.73	2.56	2.32	2.27
CAZ	0.07	0.06	0.07	0.06	0.05	0.05	0.04
CHA	0.28	0.27	0.25	0.21	0.18	0.15	0.14
EUR	0.13	0.12	0.11	0.10	0.08	0.07	0.07
IND	0.64	0.65	0.64	0.67	0.67	0.64	0.62
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.61	0.59	0.56	0.54	0.50	0.45	0.44
MEA	0.10	0.09	0.08	0.07	0.06	0.06	0.06
NEU	0.02	0.02	0.02	0.02	0.02	0.02	0.02
OAS	0.31	0.30	0.28	0.26	0.24	0.23	0.23
REF	0.06	0.06	0.06	0.05	0.05	0.03	0.02
SSA	0.75	0.74	0.72	0.71	0.66	0.60	0.59
USA	0.04	0.04	0.04	0.04	0.03	0.03	0.03

Table 806: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture—Agricultural Soils—Pasture (Mt N2O/yr) [PART 2/2]

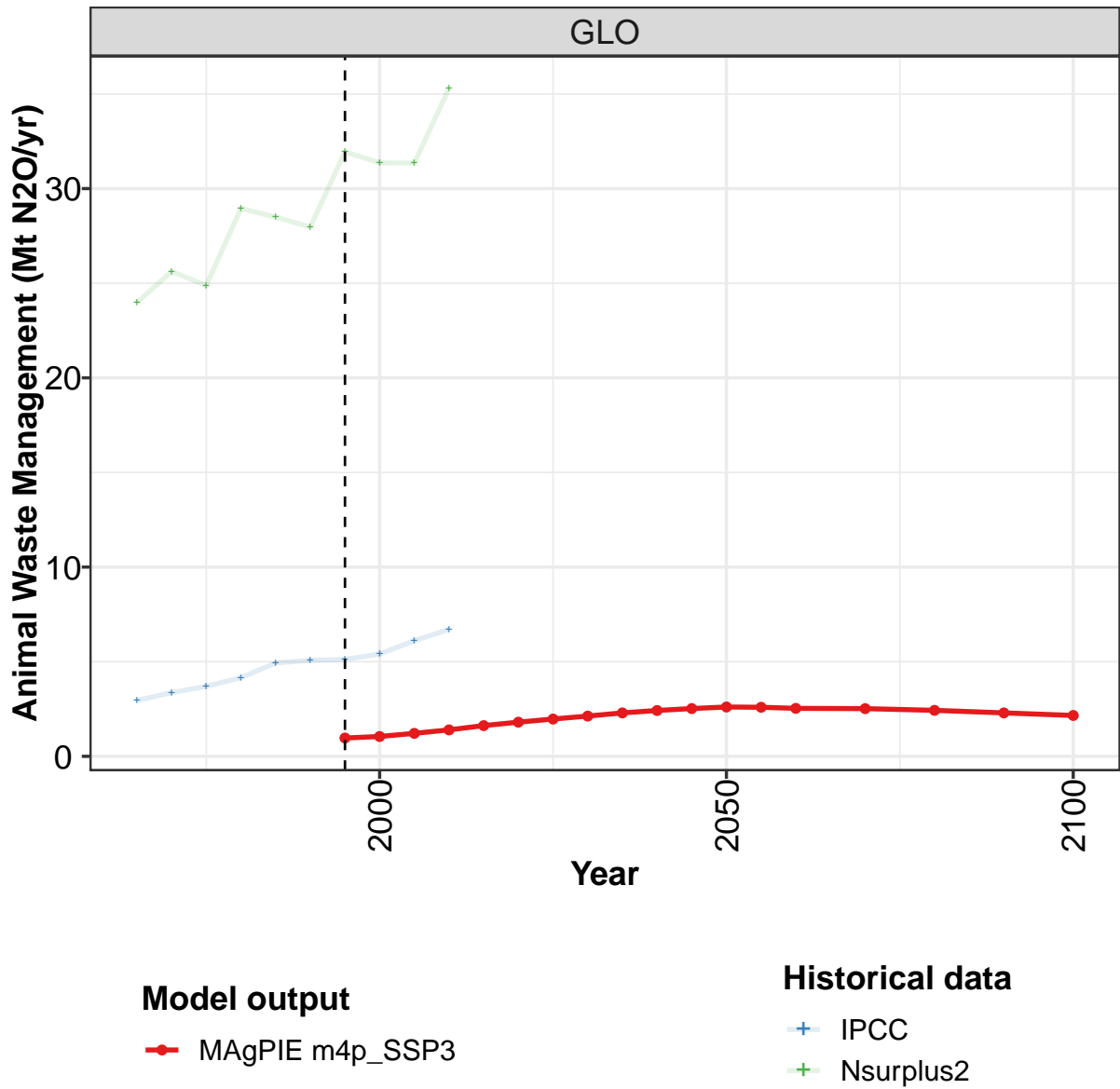
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.95	3.37	3.69	4.16	4.93	5.08	5.12	5.41	6.11	6.71
CAZ	0.15	0.16	0.16	0.17	0.22	0.23	0.23	0.24	0.25	0.27
CHA	0.32	0.35	0.41	0.54	0.62	0.76	0.86	0.92	1.11	1.26
EUR	0.52	0.61	0.67	0.74	0.85	0.76	0.71	0.70	0.70	0.71
IND	0.15	0.17	0.18	0.21	0.26	0.31	0.36	0.40	0.47	0.57
JPN	0.04	0.04	0.04	0.05	0.06	0.06	0.05	0.05	0.05	0.05
LAM	0.45	0.51	0.57	0.63	0.78	0.76	0.83	0.93	1.03	1.17
MEA	0.08	0.10	0.12	0.14	0.17	0.20	0.23	0.26	0.30	0.32
NEU	0.07	0.08	0.09	0.09	0.10	0.10	0.09	0.10	0.10	0.10
OAS	0.17	0.19	0.22	0.26	0.33	0.40	0.44	0.48	0.57	0.65
REF	0.31	0.38	0.41	0.46	0.55	0.53	0.33	0.26	0.32	0.30
SSA	0.23	0.25	0.26	0.28	0.31	0.33	0.34	0.37	0.45	0.52
USA	0.46	0.54	0.57	0.58	0.69	0.66	0.64	0.70	0.76	0.79

Table 807: IPCC — Emissions—N2O—Land—Agriculture—Agricultural Soils—Pasture (Mt N2O/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	24.0	25.6	24.9	29.0	28.5	28.0	31.9	31.4	31.4	35.3
CAZ	0.9	1.0	1.2	1.1	1.2	1.2	1.3	1.5	1.3	1.5
CHA	1.0	1.2	1.3	1.9	2.1	2.6	3.0	2.9	3.8	4.3
EUR	0.9	1.2	1.5	1.7	1.9	1.7	1.6	1.6	1.6	1.6
IND	0.4	0.4	0.5	0.6	0.8	0.9	1.1	1.2	1.4	1.7
JPN	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
LAM	13.4	13.0	11.0	13.6	12.2	10.8	14.3	13.5	11.9	14.4
MEA	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.8	1.0	1.0
NEU	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
OAS	1.3	1.5	1.6	1.7	1.9	2.2	2.3	2.3	2.6	2.9
REF	1.4	1.6	2.0	2.1	2.3	2.2	1.7	1.6	1.8	1.7
SSA	2.4	3.0	3.0	3.0	3.0	3.0	3.1	3.2	3.3	3.6
USA	1.4	1.8	1.9	2.0	1.9	2.1	2.2	2.1	2.2	2.1

Table 808: Nsurplus2 — Emissions—N2O—Land—Agriculture—Agricultural Soils—Pasture (Mt N2O/yr)

13.1.7 Agriculture—Animal Waste Management



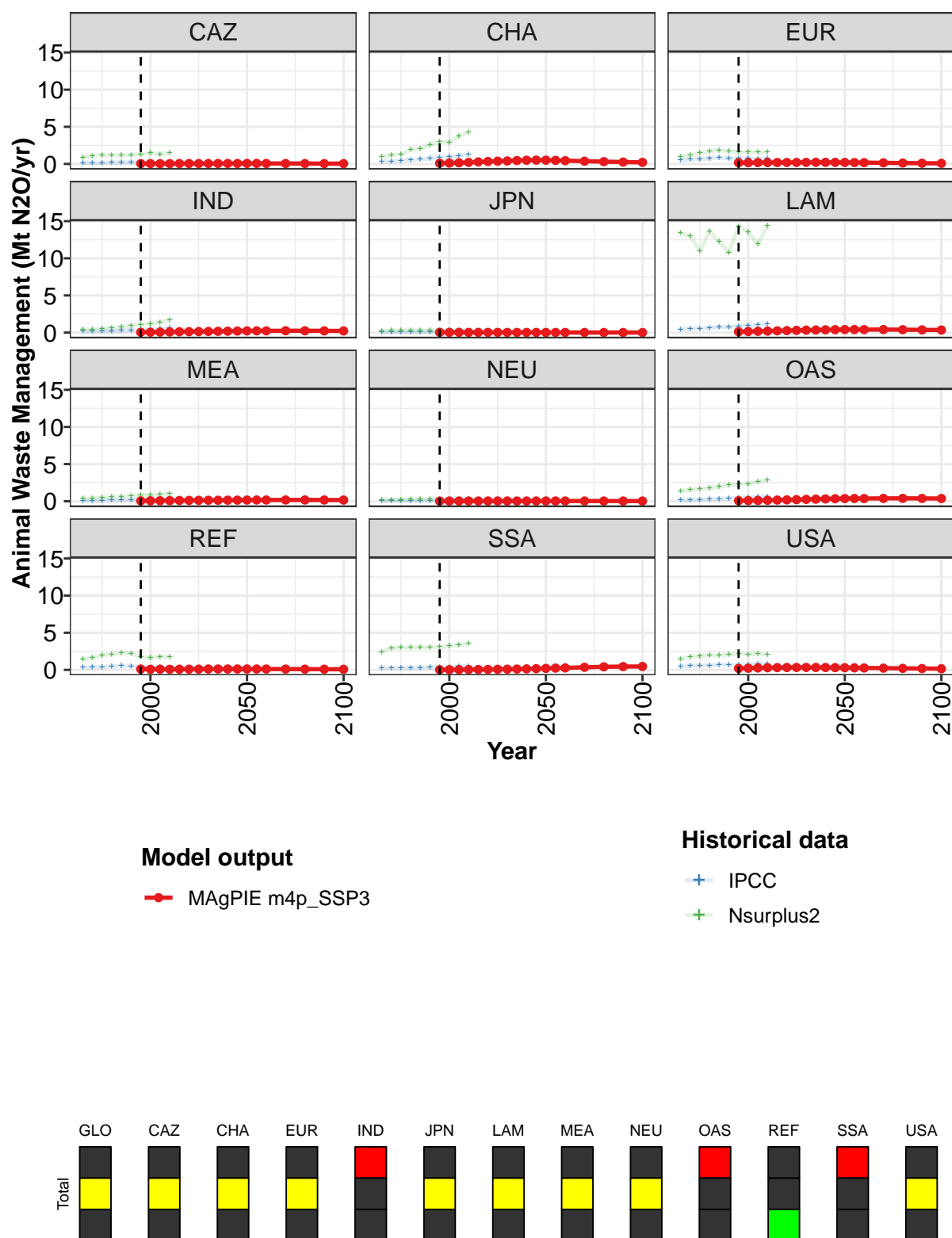


Figure 244: MAGPIE m4p_SSP3 — Emissions—N₂O—Land—Agriculture—Animal Waste Management (Mt N₂O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.97	1.05	1.21	1.40	1.62	1.81	1.97	2.13	2.30	2.42	2.52
CAZ	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.06	0.07
CHA	0.10	0.12	0.15	0.21	0.27	0.33	0.37	0.40	0.46	0.50	0.51
EUR	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.22	0.22	0.21
IND	0.04	0.05	0.06	0.08	0.11	0.13	0.14	0.15	0.17	0.19	0.21
JPN	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02
LAM	0.12	0.15	0.17	0.20	0.24	0.27	0.30	0.33	0.35	0.37	0.39
MEA	0.05	0.06	0.07	0.09	0.10	0.11	0.12	0.13	0.13	0.14	0.15
NEU	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
OAS	0.08	0.09	0.10	0.12	0.16	0.19	0.22	0.25	0.28	0.31	0.34
REF	0.11	0.08	0.09	0.08	0.09	0.10	0.10	0.12	0.12	0.12	0.12
SSA	0.02	0.03	0.03	0.04	0.05	0.06	0.08	0.10	0.12	0.14	0.17
USA	0.20	0.23	0.26	0.29	0.31	0.32	0.33	0.34	0.33	0.33	0.31

Table 809: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture—Animal Waste Management (Mt N2O/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	2.61	2.59	2.54	2.52	2.43	2.30	2.16
CAZ	0.07	0.07	0.06	0.06	0.05	0.04	0.04
CHA	0.51	0.48	0.44	0.37	0.30	0.25	0.21
EUR	0.20	0.19	0.17	0.15	0.12	0.10	0.08
IND	0.23	0.24	0.23	0.25	0.25	0.24	0.23
JPN	0.02	0.02	0.02	0.01	0.01	0.01	0.01
LAM	0.41	0.41	0.40	0.41	0.39	0.36	0.35
MEA	0.16	0.17	0.17	0.17	0.17	0.17	0.16
NEU	0.03	0.03	0.03	0.03	0.03	0.03	0.03
OAS	0.36	0.37	0.36	0.38	0.39	0.38	0.36
REF	0.13	0.12	0.12	0.11	0.10	0.09	0.08
SSA	0.20	0.24	0.27	0.35	0.41	0.45	0.46
USA	0.30	0.28	0.26	0.24	0.21	0.18	0.16

Table 810: MAgPIE m4p_SSP3 — Emissions—N2O—Land—Agriculture—Animal Waste Management (Mt N2O/yr) [PART 2/2]

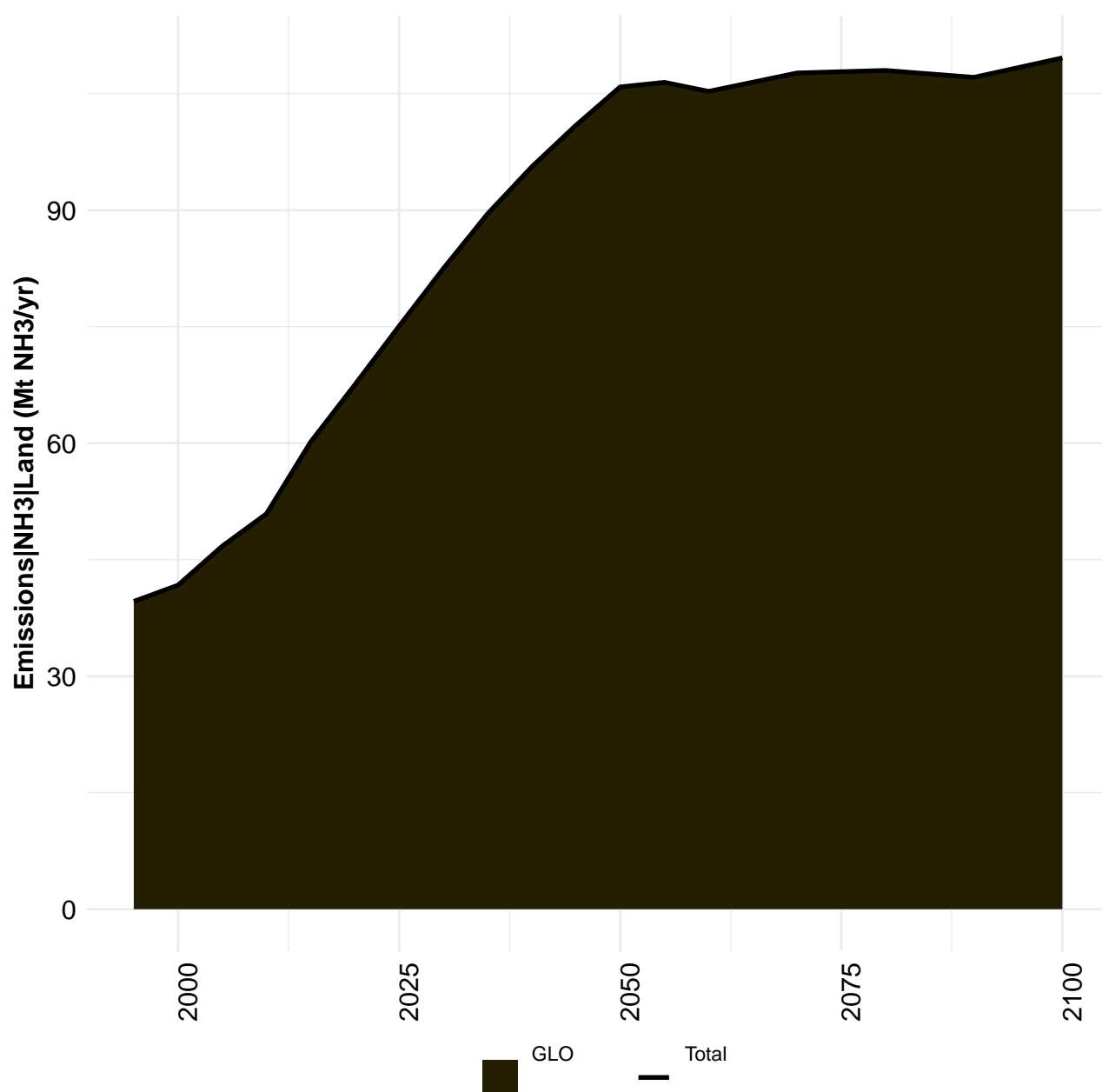
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.95	3.37	3.69	4.16	4.93	5.08	5.12	5.41	6.11	6.71
CAZ	0.15	0.16	0.16	0.17	0.22	0.23	0.23	0.24	0.25	0.27
CHA	0.32	0.35	0.41	0.54	0.62	0.76	0.86	0.92	1.11	1.26
EUR	0.52	0.61	0.67	0.74	0.85	0.76	0.71	0.70	0.70	0.71
IND	0.15	0.17	0.18	0.21	0.26	0.31	0.36	0.40	0.47	0.57
JPN	0.04	0.04	0.04	0.05	0.06	0.06	0.05	0.05	0.05	0.05
LAM	0.45	0.51	0.57	0.63	0.78	0.76	0.83	0.93	1.03	1.17
MEA	0.08	0.10	0.12	0.14	0.17	0.20	0.23	0.26	0.30	0.32
NEU	0.07	0.08	0.09	0.09	0.10	0.10	0.09	0.10	0.10	0.10
OAS	0.17	0.19	0.22	0.26	0.33	0.40	0.44	0.48	0.57	0.65
REF	0.31	0.38	0.41	0.46	0.55	0.53	0.33	0.26	0.32	0.30
SSA	0.23	0.25	0.26	0.28	0.31	0.33	0.34	0.37	0.45	0.52
USA	0.46	0.54	0.57	0.58	0.69	0.66	0.64	0.70	0.76	0.79

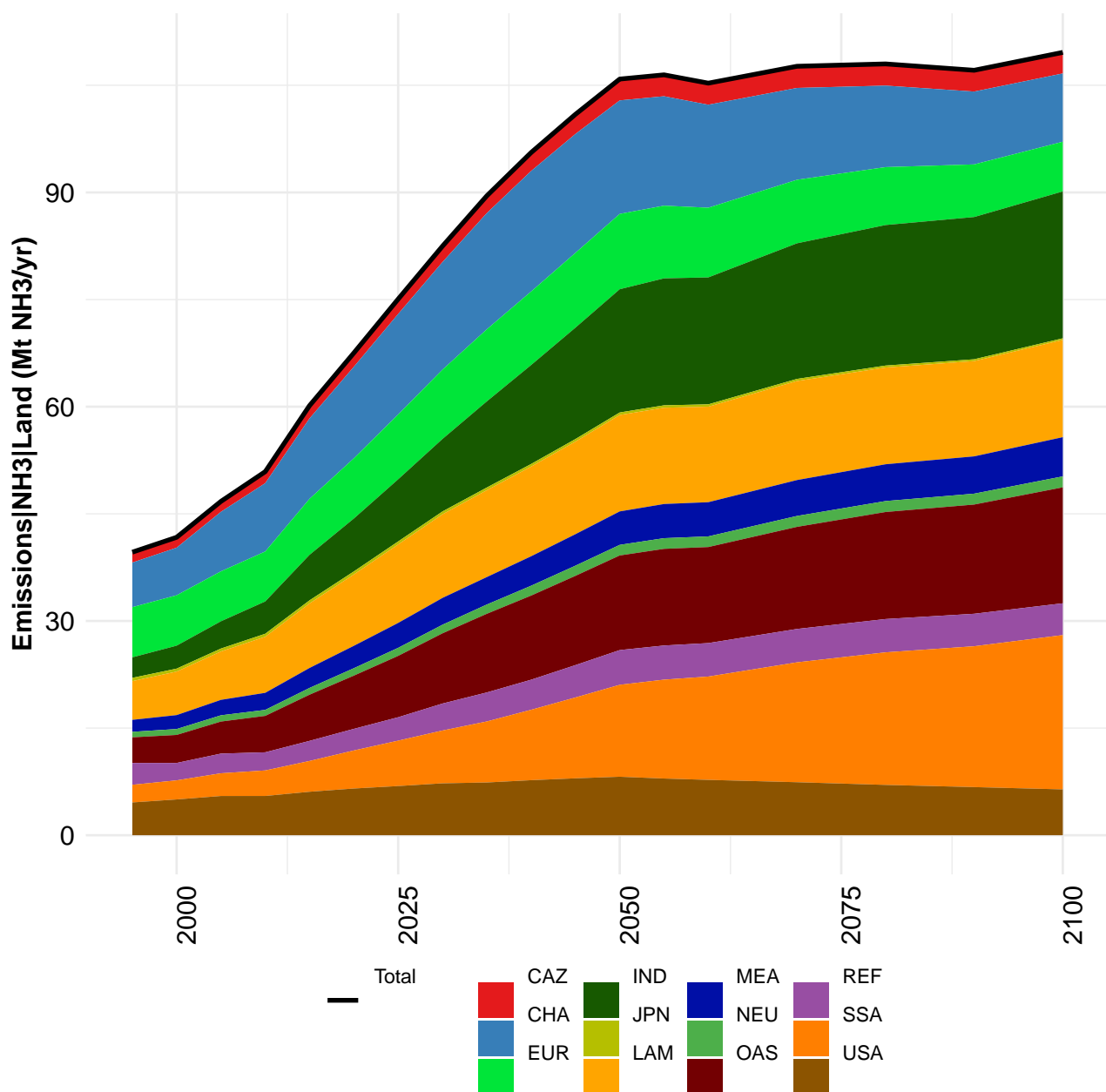
Table 811: IPCC — Emissions—N2O—Land—Agriculture—Animal Waste Management (Mt N2O/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	24.0	25.6	24.9	29.0	28.5	28.0	31.9	31.4	31.4	35.3
CAZ	0.9	1.0	1.2	1.1	1.2	1.2	1.3	1.5	1.3	1.5
CHA	1.0	1.2	1.3	1.9	2.1	2.6	3.0	2.9	3.8	4.3
EUR	0.9	1.2	1.5	1.7	1.9	1.7	1.6	1.6	1.6	1.6
IND	0.4	0.4	0.5	0.6	0.8	0.9	1.1	1.2	1.4	1.7
JPN	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
LAM	13.4	13.0	11.0	13.6	12.2	10.8	14.3	13.5	11.9	14.4
MEA	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.8	1.0	1.0
NEU	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
OAS	1.3	1.5	1.6	1.7	1.9	2.2	2.3	2.3	2.6	2.9
REF	1.4	1.6	2.0	2.1	2.3	2.2	1.7	1.6	1.8	1.7
SSA	2.4	3.0	3.0	3.0	3.0	3.0	3.1	3.2	3.3	3.6
USA	1.4	1.8	1.9	2.0	1.9	2.1	2.2	2.1	2.2	2.1

Table 812: Nsurplus2 — Emissions—N₂O—Land—Agriculture—Animal Waste Management (Mt N₂O/yr)

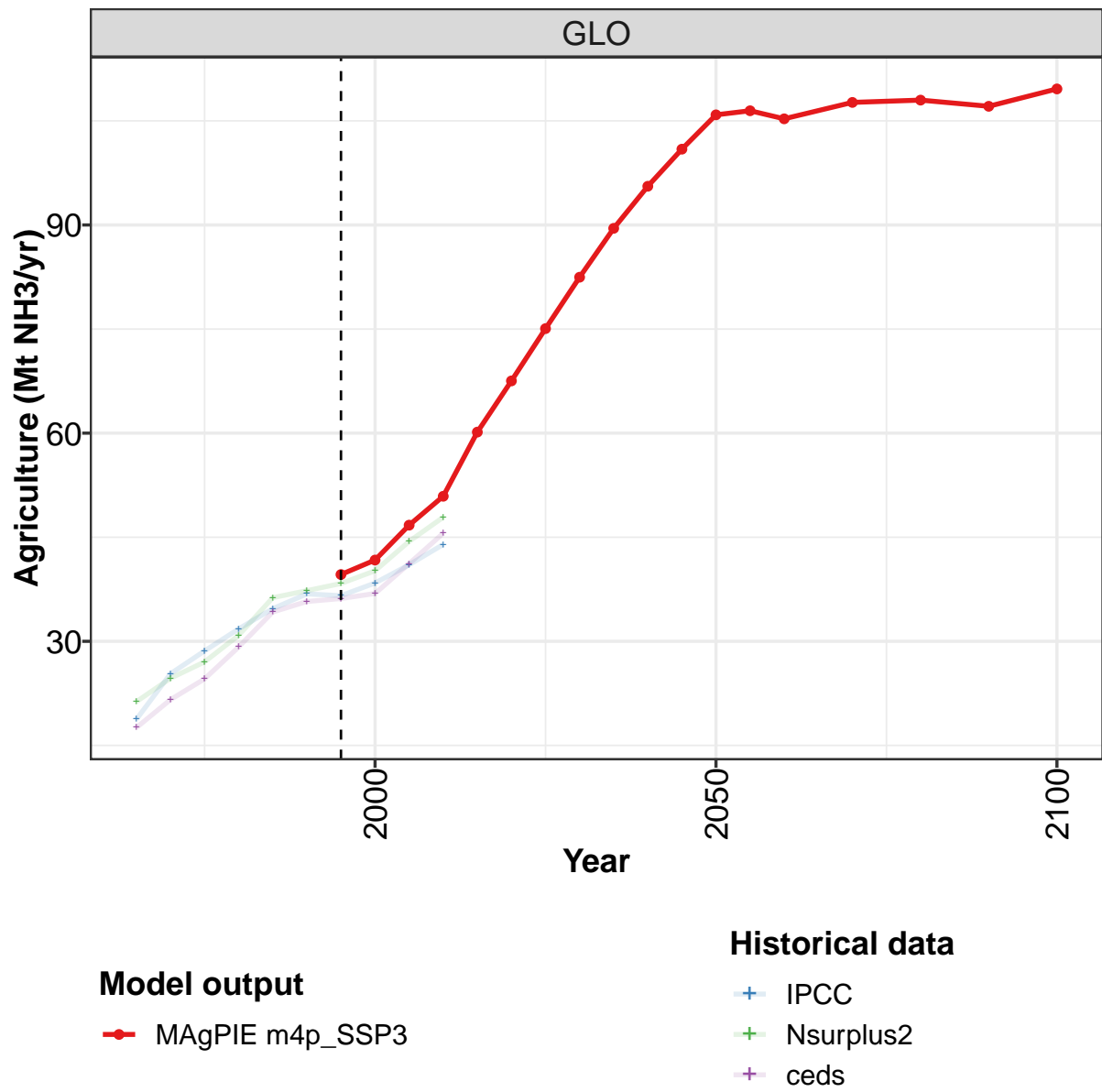
14 NH3





14.1 Land

14.1.1 Agriculture



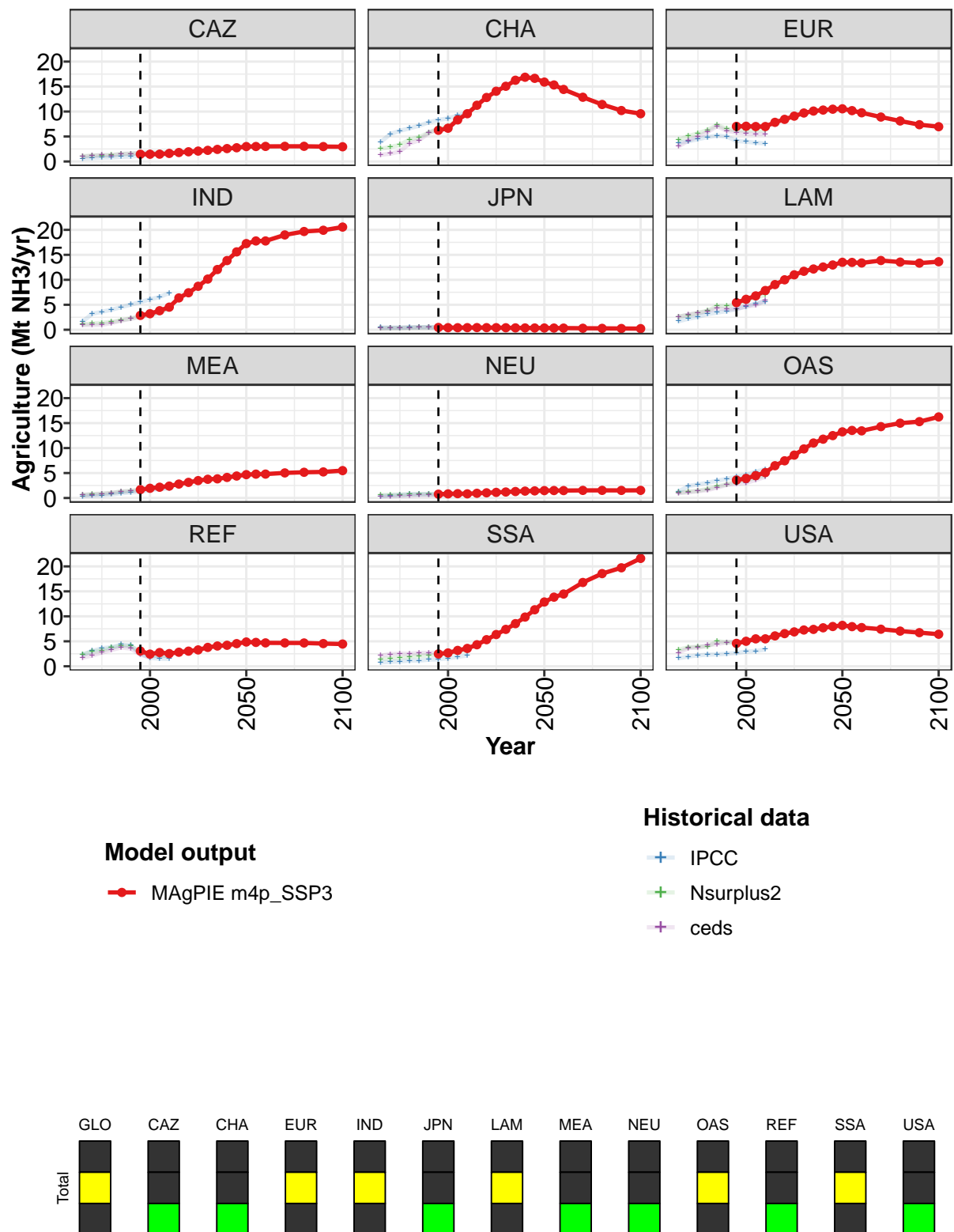


Figure 245: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture (Mt NH3/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	40	42	47	51	60	68	75	82	90	96	101
CAZ	1	1	1	2	2	2	2	2	2	3	3
CHA	6	7	8	10	11	13	14	15	16	17	17
EUR	7	7	7	7	8	8	9	10	10	10	10
IND	3	3	4	5	6	7	9	10	12	14	16
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	5	6	7	8	9	10	11	12	12	13	13
MEA	2	2	2	2	3	3	3	4	4	4	4
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	4	4	4	5	6	7	9	10	11	12	12
REF	3	2	3	3	3	3	3	4	4	4	5
SSA	2	3	3	4	4	5	6	7	9	10	11
USA	5	5	5	5	6	7	7	7	7	8	8

Table 813: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture (Mt NH3/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	106	106	105	108	108	107	110
CAZ	3	3	3	3	3	3	3
CHA	16	15	14	13	11	10	10
EUR	11	10	10	9	8	7	7
IND	17	18	18	19	20	20	21
JPN	0	0	0	0	0	0	0
LAM	14	13	13	14	14	13	14
MEA	5	5	5	5	5	5	5
NEU	1	1	1	2	2	2	2
OAS	13	14	13	14	15	15	16
REF	5	5	5	5	5	5	4
SSA	13	14	14	17	19	20	22
USA	8	8	8	7	7	7	6

Table 814: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture (Mt NH3/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	18.8	25.3	28.6	31.8	34.7	36.8	36.6	38.4	41.0	44.0
CAZ	0.6	0.7	0.8	0.8	0.9	1.0	1.2	1.4	1.5	1.5
CHA	3.9	5.5	6.1	6.6	7.1	7.8	8.3	8.6	9.2	9.8
EUR	3.8	4.0	4.5	4.9	5.2	5.0	4.1	4.0	3.8	3.6
IND	1.6	3.2	3.6	4.0	4.5	5.0	5.5	6.1	6.6	7.4
JPN	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4
LAM	1.7	2.2	2.6	3.1	3.4	3.7	4.1	4.6	5.3	5.6
MEA	0.4	0.5	0.5	0.7	1.0	1.1	1.2	1.6	1.8	2.0
NEU	0.4	0.5	0.6	0.8	0.7	0.8	0.8	0.8	0.9	0.9
OAS	1.3	2.4	2.7	3.1	3.4	3.9	4.3	4.7	5.3	5.8
REF	2.3	3.1	3.6	3.8	4.3	4.2	2.5	1.7	1.5	1.5
SSA	0.8	0.9	1.0	1.1	1.1	1.3	1.4	1.6	1.9	2.2
USA	1.6	1.9	2.2	2.3	2.4	2.5	2.7	2.9	3.0	3.4

Table 815: ceds — Emissions—NH3—Land—Agriculture (Mt NH3/yr)

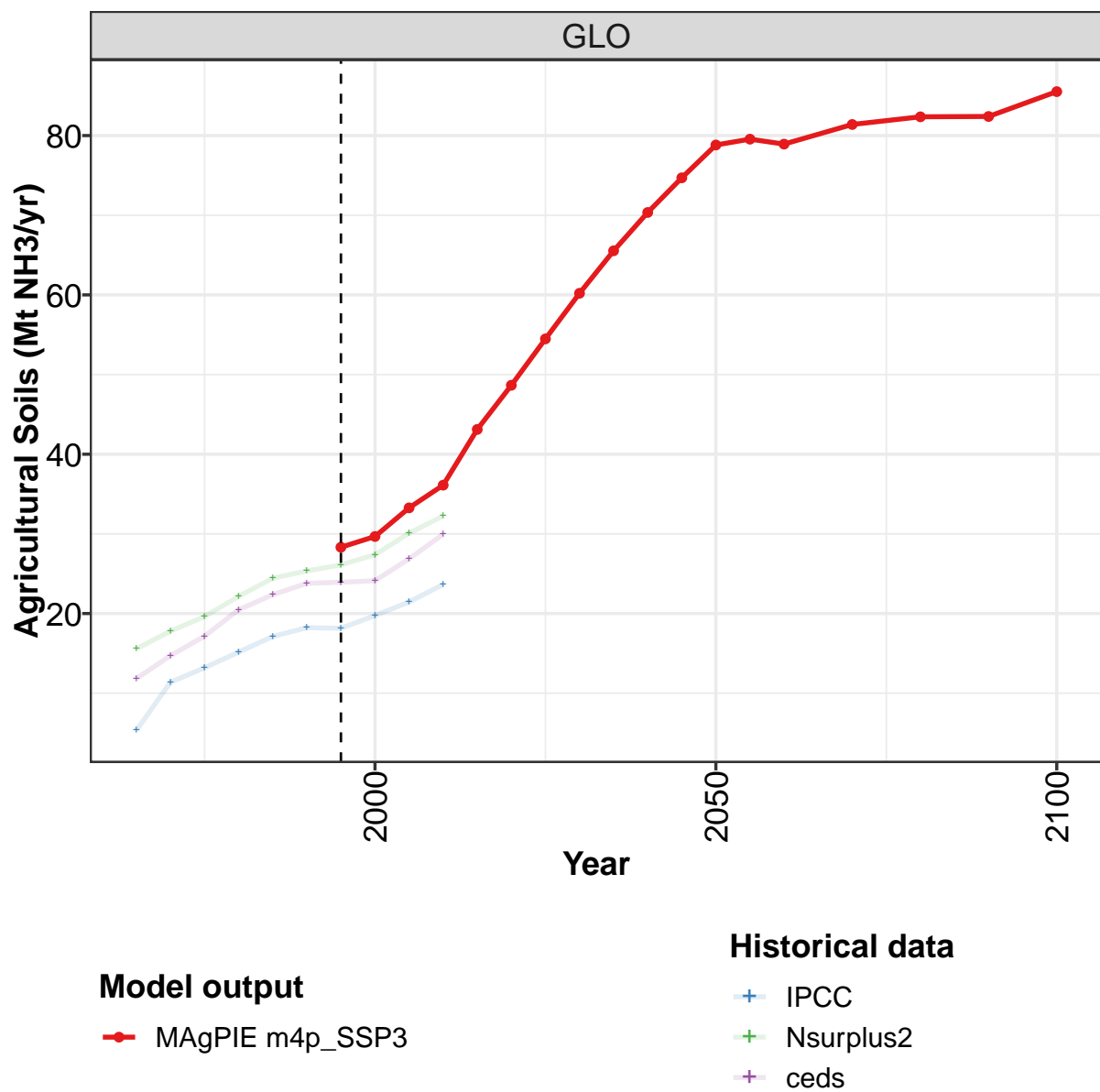
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	21.3	24.7	27.0	30.9	36.3	37.3	38.3	40.2	44.4	47.9
CAZ	1.1	1.2	1.2	1.3	1.5	1.5	1.7	1.8	1.8	1.8
CHA	2.6	2.9	3.3	4.4	4.9	5.8	6.6	7.0	8.4	9.7
EUR	4.3	5.1	5.6	6.3	7.3	6.5	6.2	6.2	6.2	6.2
IND	1.1	1.3	1.4	1.6	1.9	2.3	2.7	2.9	3.5	4.2
JPN	0.3	0.3	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4
LAM	2.6	3.0	3.4	3.8	4.8	4.7	5.2	5.9	6.4	7.0
MEA	0.6	0.8	0.9	1.0	1.3	1.4	1.6	1.9	2.2	2.4
NEU	0.6	0.6	0.7	0.7	0.8	0.8	0.7	0.8	0.8	0.8
OAS	1.1	1.3	1.5	1.8	2.3	2.8	3.3	3.6	4.0	4.5
REF	2.3	3.0	3.1	3.7	4.1	4.0	2.9	2.1	2.2	2.1
SSA	1.4	1.6	1.7	1.9	2.0	2.2	2.3	2.6	2.9	3.2
USA	3.3	3.8	3.9	4.0	5.0	4.8	4.8	5.1	5.6	5.6

Table 816: IPCC — Emissions—NH3—Land—Agriculture (Mt NH3/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	17.6	21.6	24.6	29.2	34.2	35.7	36.2	36.9	41.2	45.6
CAZ	1.0	1.1	1.3	1.2	1.5	1.6	1.7	1.9	1.6	1.9
CHA	1.3	1.6	2.0	3.6	4.3	5.7	6.5	6.4	8.5	9.8
EUR	3.0	4.2	5.0	5.9	7.1	6.1	5.8	5.6	5.5	5.5
IND	0.9	0.9	1.0	1.3	1.8	2.2	2.6	2.9	3.6	4.4
JPN	0.3	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4
LAM	2.6	3.0	3.4	3.7	4.3	4.1	4.2	4.7	4.9	5.9
MEA	0.6	0.7	0.8	1.0	1.3	1.4	1.6	1.8	1.8	2.1
NEU	0.3	0.3	0.4	0.5	0.6	0.6	0.5	0.6	0.7	0.7
OAS	1.0	1.1	1.4	1.6	2.1	2.6	2.8	3.0	3.6	4.2
REF	1.7	2.2	2.7	3.3	3.8	3.5	2.3	1.9	2.2	2.0
SSA	2.1	2.4	2.5	2.5	2.7	2.7	2.7	2.8	3.1	3.6
USA	2.7	3.7	3.8	4.2	4.5	4.8	4.9	5.0	5.3	5.2

Table 817: Nsurplus2 — Emissions—NH3—Land—Agriculture (Mt NH3/yr)

14.1.2 Agriculture—Agricultural Soils



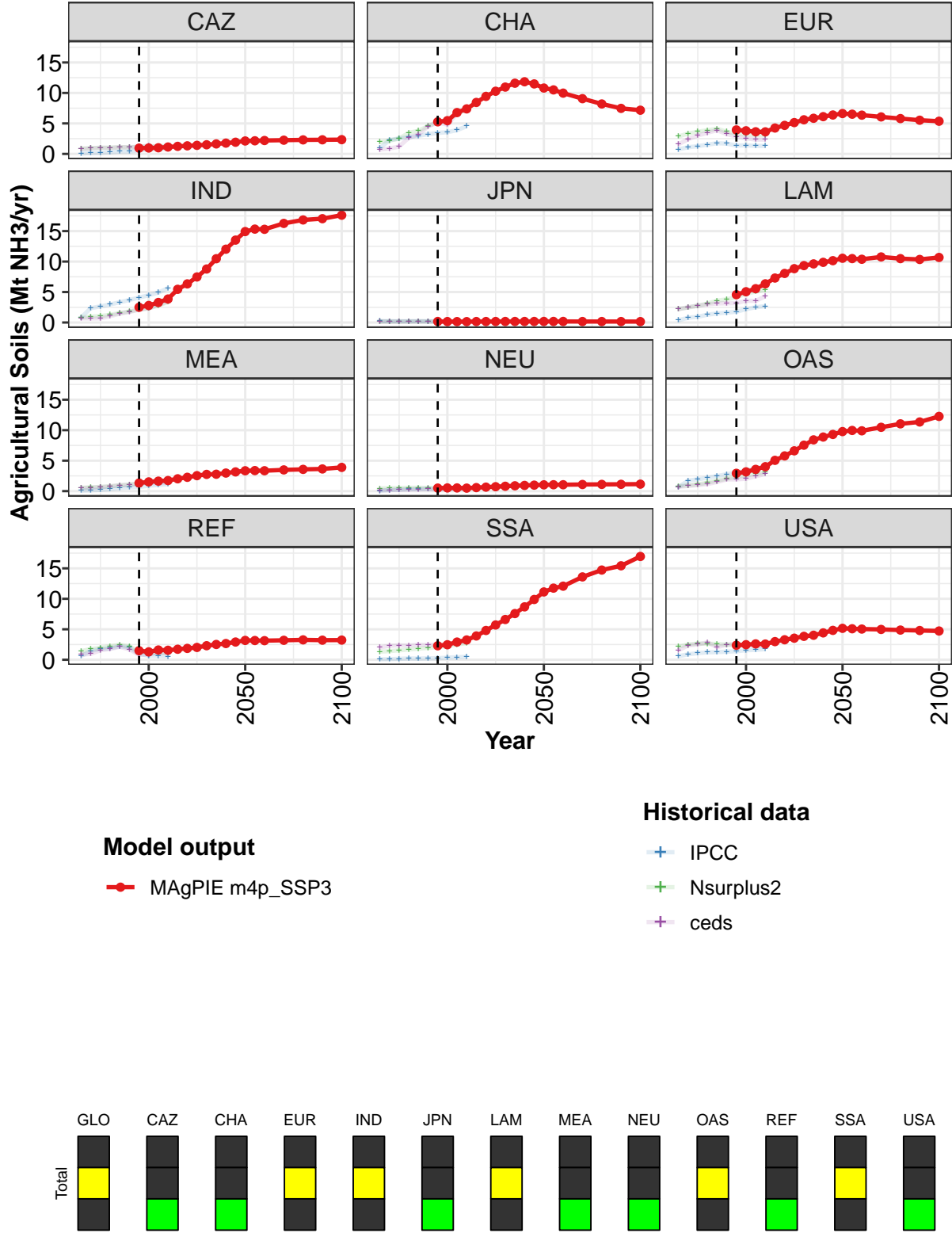


Figure 246: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture—Agricultural Soils (Mt NH3/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	28.3	29.7	33.3	36.1	43.1	48.7	54.5	60.2	65.5	70.3	74.7
CAZ	0.9	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.8	1.9
CHA	5.3	5.5	6.8	7.4	8.4	9.4	10.3	11.0	11.6	11.8	11.5
EUR	3.9	3.8	3.6	3.6	4.2	4.7	5.1	5.6	5.8	6.1	6.4
IND	2.5	2.8	3.3	3.9	5.5	6.3	7.5	8.8	10.5	12.0	13.5
JPN	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	4.6	5.1	5.6	6.3	7.3	8.1	8.8	9.3	9.6	9.9	10.1
MEA	1.3	1.5	1.6	1.7	2.0	2.3	2.5	2.7	2.8	3.0	3.2
NEU	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.9	0.9	1.0
OAS	2.9	3.2	3.6	4.0	5.1	5.8	6.6	7.5	8.4	8.9	9.3
REF	1.5	1.3	1.6	1.6	1.7	1.9	2.0	2.3	2.5	2.7	2.9
SSA	2.3	2.5	2.9	3.2	3.9	4.8	5.7	6.6	7.6	8.7	9.9
USA	2.4	2.5	2.6	2.6	3.0	3.3	3.5	3.8	4.0	4.4	4.8

Table 818: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture—Agricultural Soils (Mt NH3/yr)
[PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	78.8	79.6	78.9	81.4	82.4	82.4	85.5
CAZ	2.1	2.2	2.2	2.3	2.3	2.3	2.3
CHA	10.8	10.5	10.0	9.1	8.2	7.5	7.2
EUR	6.6	6.5	6.4	6.1	5.8	5.5	5.4
IND	14.9	15.3	15.3	16.3	16.8	17.0	17.6
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	10.5	10.5	10.4	10.8	10.5	10.3	10.7
MEA	3.3	3.4	3.3	3.5	3.6	3.6	3.9
NEU	1.0	1.1	1.1	1.1	1.1	1.1	1.1
OAS	9.8	10.0	9.9	10.5	11.0	11.3	12.3
REF	3.2	3.2	3.1	3.2	3.3	3.2	3.2
SSA	11.1	11.8	12.1	13.6	14.7	15.4	16.9
USA	5.2	5.1	5.0	5.0	4.9	4.8	4.7

Table 819: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture—Agricultural Soils (Mt NH3/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.3	11.4	13.2	15.2	17.1	18.2	18.1	19.7	21.5	23.6
CAZ	0.1	0.1	0.2	0.3	0.4	0.4	0.6	0.7	0.8	0.9
CHA	0.9	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.9	4.5
EUR	0.8	1.1	1.3	1.5	1.8	1.7	1.4	1.4	1.3	1.3
IND	0.8	2.4	2.6	3.0	3.3	3.7	4.1	4.5	4.9	5.6
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
LAM	0.4	0.8	0.9	1.3	1.5	1.6	1.8	2.2	2.5	2.7
MEA	0.1	0.2	0.2	0.3	0.5	0.6	0.7	0.9	1.0	1.1
NEU	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.5
OAS	0.7	1.7	1.9	2.2	2.5	2.8	3.1	3.3	3.8	4.1
REF	0.6	1.5	1.8	1.9	2.2	2.0	1.0	0.7	0.6	0.6
SSA	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5
USA	0.6	0.9	1.1	1.2	1.3	1.3	1.4	1.6	1.6	1.7

Table 820: ceds — Emissions—NH3—Land—Agriculture—Agricultural Soils (Mt NH3/yr)

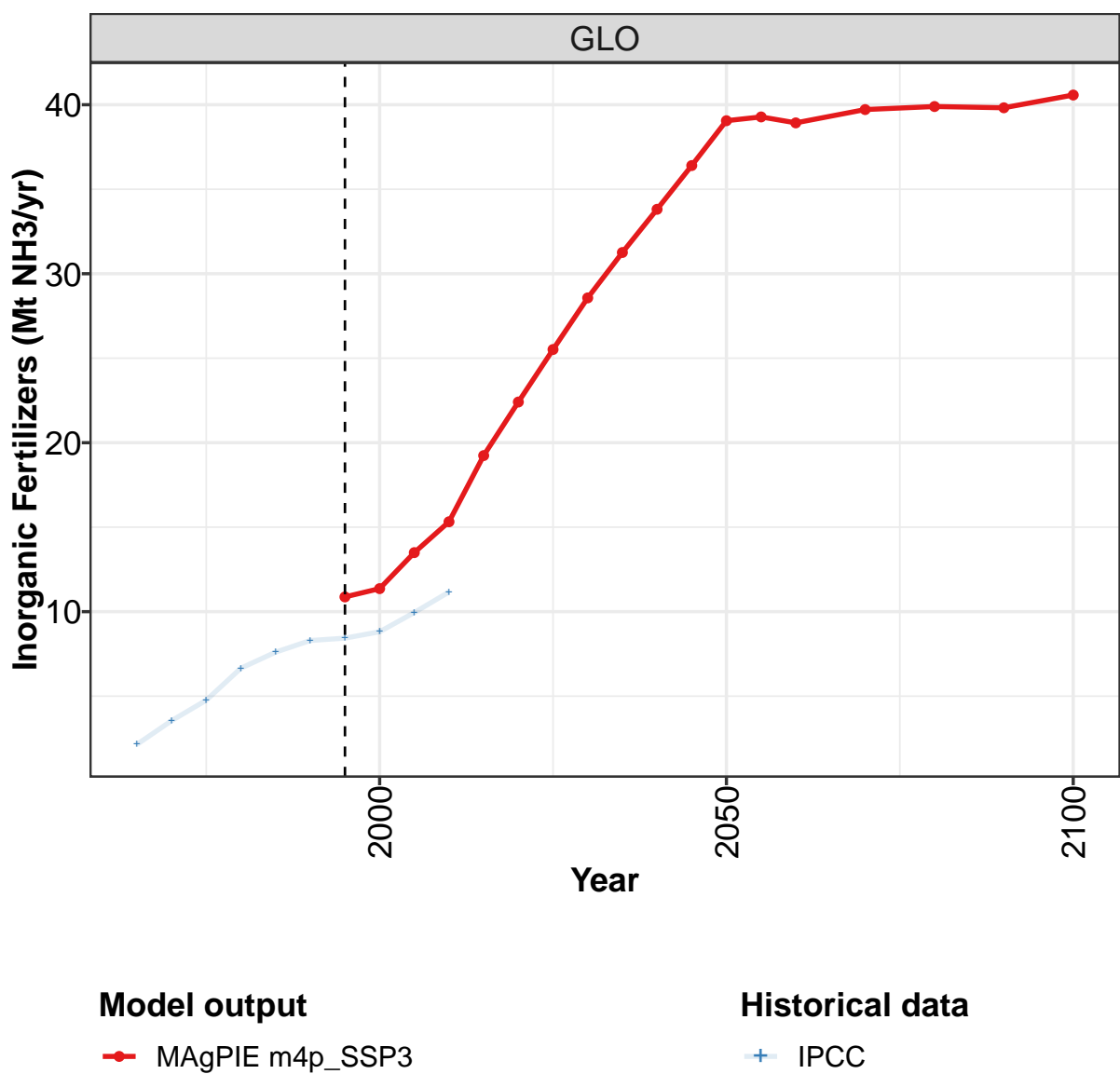
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	15.6	17.8	19.6	22.2	24.4	25.3	26.1	27.4	30.1	32.3
CAZ	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.3
CHA	1.9	2.2	2.5	3.4	3.8	4.6	5.2	5.4	6.6	7.3
EUR	2.9	3.3	3.6	3.9	4.1	3.6	3.3	3.2	3.1	3.1
IND	0.8	1.0	1.1	1.3	1.5	1.8	2.1	2.3	2.8	3.4
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
LAM	2.2	2.5	2.8	3.1	3.6	3.8	4.2	4.7	5.1	5.4
MEA	0.5	0.6	0.7	0.8	0.9	1.1	1.3	1.5	1.6	1.7
NEU	0.4	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.4
OAS	0.8	1.0	1.1	1.4	1.7	2.0	2.3	2.6	2.8	3.1
REF	1.4	1.8	2.0	2.2	2.5	2.2	1.4	1.1	1.1	1.2
SSA	1.3	1.4	1.5	1.7	1.8	1.9	2.1	2.3	2.5	2.7
USA	2.2	2.5	2.7	2.6	2.6	2.5	2.4	2.4	2.6	2.6

Table 821: IPCC — Emissions—NH3—Land—Agriculture—Agricultural Soils (Mt NH3/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	11.8	14.7	17.2	20.5	22.4	23.8	23.9	24.1	26.9	29.9
CAZ	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.4	1.0	1.4
CHA	0.7	0.9	1.2	2.7	3.2	4.5	5.1	4.8	6.6	7.3
EUR	1.6	2.4	3.0	3.5	3.9	3.3	2.8	2.6	2.4	2.4
IND	0.7	0.6	0.7	1.0	1.5	1.7	2.1	2.3	2.9	3.5
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
LAM	2.2	2.5	2.7	3.0	3.1	3.2	3.2	3.6	3.5	4.3
MEA	0.5	0.5	0.7	0.8	1.0	1.0	1.2	1.3	1.3	1.4
NEU	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3
OAS	0.7	0.8	1.0	1.2	1.5	1.9	1.9	2.0	2.4	2.8
REF	0.8	1.0	1.6	1.8	2.1	1.7	0.8	0.9	1.2	1.1
SSA	2.0	2.3	2.4	2.3	2.5	2.4	2.5	2.5	2.7	3.1
USA	1.5	2.4	2.5	2.9	2.1	2.5	2.6	2.3	2.3	2.1

Table 822: Nsurplus2 — Emissions—NH3—Land—Agriculture—Agricultural Soils (Mt NH3/yr)

14.1.3 Agriculture—Agricultural Soils—Inorganic Fertilizers



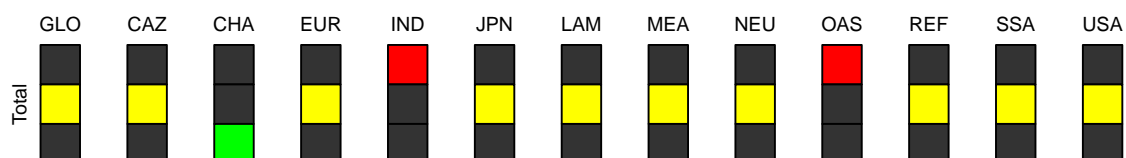
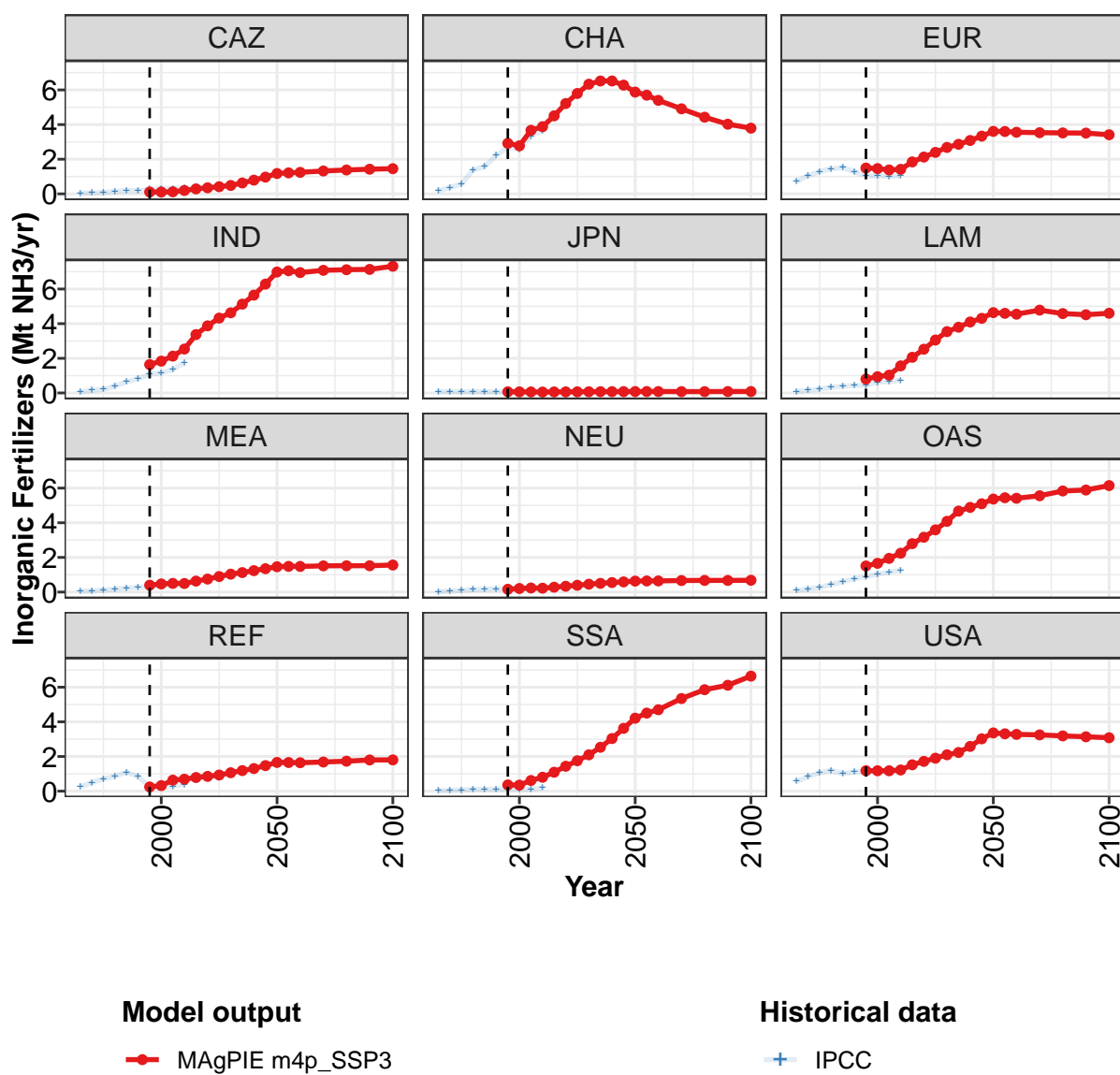


Figure 247: MAgPIE m4p_SSP3 — Emissions—NH₃—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NH₃/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	10.9	11.4	13.5	15.3	19.2	22.4	25.5	28.6	31.3	33.8	36.4
CAZ	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.5	0.6	0.8	1.0
CHA	2.9	2.8	3.7	3.9	4.5	5.2	5.8	6.3	6.5	6.5	6.3
EUR	1.5	1.5	1.4	1.4	1.8	2.1	2.4	2.7	2.9	3.1	3.3
IND	1.6	1.8	2.1	2.5	3.4	3.9	4.3	4.6	5.1	5.6	6.3
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.8	0.9	1.0	1.6	2.1	2.5	3.1	3.5	3.8	4.1	4.3
MEA	0.4	0.5	0.5	0.5	0.6	0.7	0.9	1.0	1.1	1.2	1.3
NEU	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.5	0.6
OAS	1.5	1.7	1.9	2.2	2.8	3.2	3.6	4.1	4.7	4.9	5.1
REF	0.2	0.3	0.6	0.7	0.8	0.9	0.9	1.1	1.2	1.3	1.5
SSA	0.4	0.3	0.6	0.8	1.1	1.4	1.8	2.1	2.5	3.0	3.6
USA	1.2	1.2	1.2	1.2	1.5	1.7	1.9	2.1	2.2	2.6	3.0

Table 823: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NH3/yr) [PART 1/2]

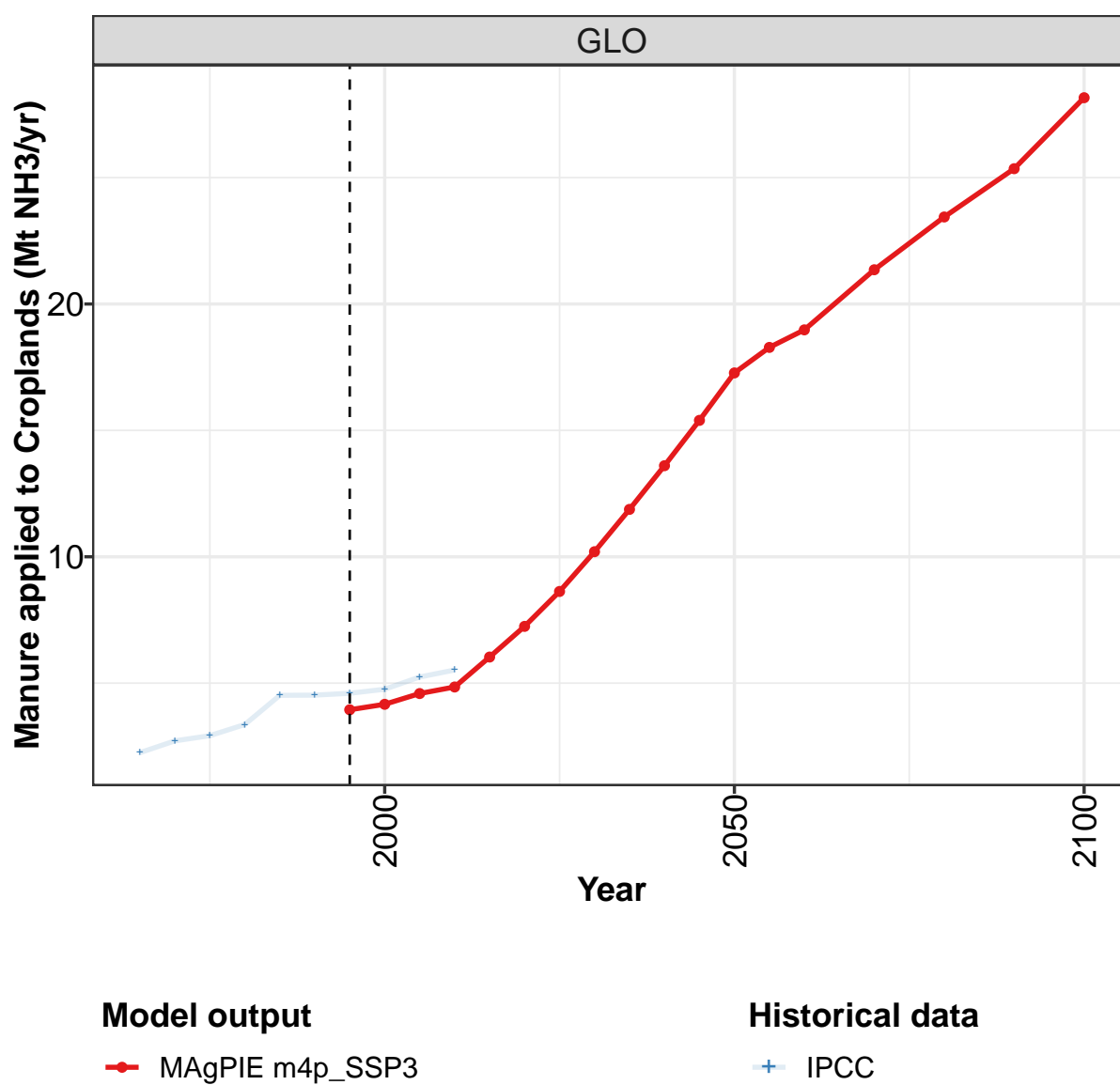
	2050	2055	2060	2070	2080	2090	2100
GLO	39.1	39.3	38.9	39.7	39.9	39.8	40.6
CAZ	1.2	1.2	1.2	1.3	1.4	1.4	1.5
CHA	5.9	5.7	5.4	4.9	4.4	4.0	3.8
EUR	3.6	3.6	3.6	3.5	3.5	3.5	3.4
IND	7.0	7.1	6.9	7.1	7.1	7.1	7.3
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	4.6	4.6	4.5	4.8	4.6	4.5	4.6
MEA	1.5	1.5	1.5	1.5	1.5	1.5	1.6
NEU	0.6	0.6	0.6	0.7	0.7	0.7	0.7
OAS	5.4	5.4	5.4	5.6	5.8	5.9	6.1
REF	1.7	1.7	1.6	1.7	1.7	1.8	1.8
SSA	4.2	4.5	4.7	5.3	5.9	6.1	6.6
USA	3.4	3.3	3.3	3.2	3.2	3.1	3.1

Table 824: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NH3/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.1	3.5	4.8	6.7	7.6	8.3	8.4	8.8	9.9	11.2
CAZ	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4
CHA	0.2	0.4	0.6	1.4	1.6	2.2	2.7	2.6	3.3	3.6
EUR	0.7	1.1	1.3	1.4	1.5	1.3	1.0	1.0	1.0	1.0
IND	0.1	0.1	0.2	0.4	0.6	0.8	1.1	1.2	1.4	1.8
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
LAM	0.1	0.2	0.2	0.3	0.4	0.4	0.4	0.6	0.6	0.7
MEA	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.4
NEU	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.1	0.2	0.3	0.4	0.6	0.8	0.9	1.0	1.2	1.3
REF	0.2	0.5	0.7	0.9	1.1	0.8	0.3	0.3	0.3	0.4
SSA	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
USA	0.6	0.8	1.1	1.2	1.0	1.1	1.2	1.1	1.1	1.2

Table 825: IPCC — Emissions—NH3—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NH3/yr)

14.1.4 Agriculture—Agricultural Soils—Manure applied to Croplands



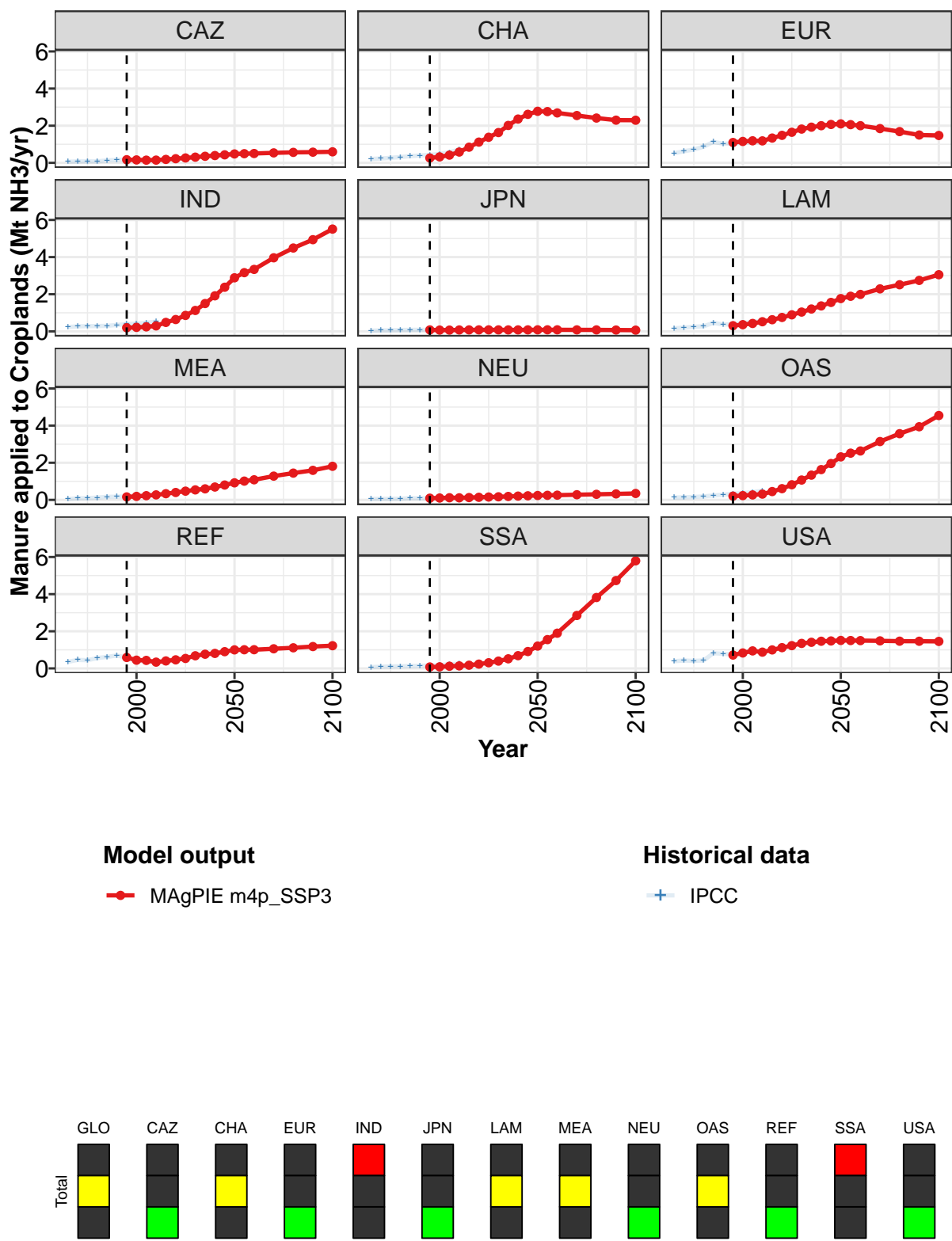


Figure 248: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NH3/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.9	4.2	4.6	4.8	6.0	7.2	8.6	10.2	11.9	13.6	15.4
CAZ	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.4
CHA	0.3	0.3	0.4	0.6	0.8	1.1	1.4	1.6	2.0	2.4	2.6
EUR	1.1	1.2	1.2	1.2	1.3	1.5	1.6	1.8	1.9	2.0	2.1
IND	0.2	0.2	0.2	0.3	0.5	0.6	0.9	1.1	1.5	1.9	2.4
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.3	0.4	0.4	0.5	0.6	0.7	0.9	1.0	1.2	1.4	1.6
MEA	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.8
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
OAS	0.2	0.2	0.3	0.3	0.4	0.6	0.8	1.1	1.3	1.6	2.0
REF	0.6	0.4	0.4	0.3	0.4	0.5	0.5	0.7	0.8	0.8	0.9
SSA	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.7	0.9
USA	0.7	0.8	0.9	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.5

Table 826: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NH3/yr) [PART 1/2]

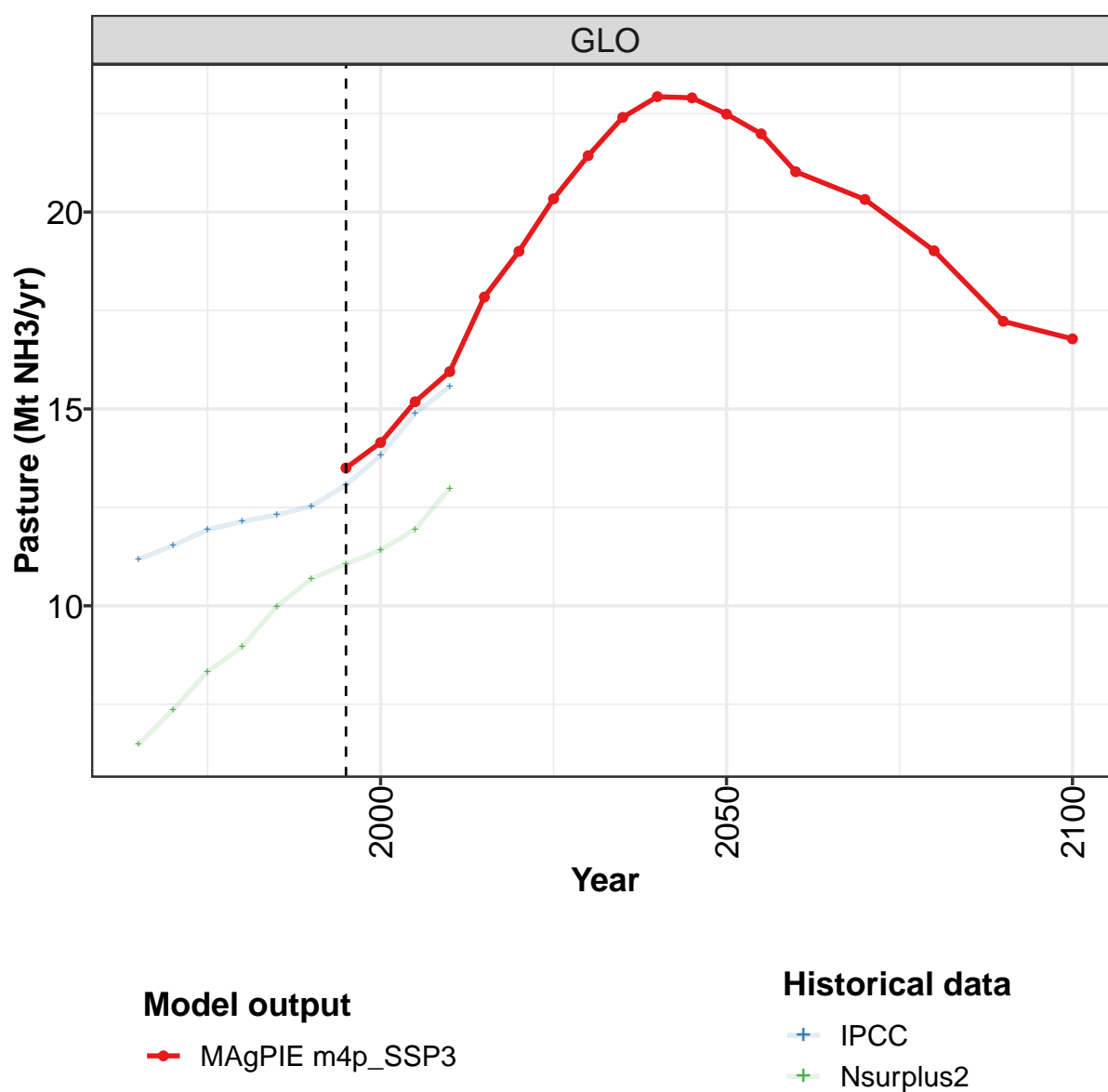
	2050	2055	2060	2070	2080	2090	2100
GLO	17.3	18.3	19.0	21.4	23.4	25.4	28.2
CAZ	0.5	0.5	0.5	0.5	0.6	0.6	0.6
CHA	2.8	2.8	2.7	2.5	2.4	2.3	2.3
EUR	2.1	2.1	2.0	1.8	1.7	1.5	1.5
IND	2.9	3.2	3.3	4.0	4.5	4.9	5.5
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	1.8	1.9	2.0	2.3	2.5	2.7	3.1
MEA	0.9	1.0	1.1	1.3	1.4	1.6	1.8
NEU	0.2	0.2	0.3	0.3	0.3	0.3	0.3
OAS	2.3	2.5	2.6	3.1	3.6	3.9	4.5
REF	1.0	1.0	1.0	1.1	1.1	1.2	1.2
SSA	1.2	1.6	1.9	2.9	3.8	4.7	5.8
USA	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Table 827: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NH3/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.25	2.72	2.92	3.36	4.52	4.52	4.60	4.76	5.24	5.52
CAZ	0.06	0.08	0.08	0.08	0.13	0.16	0.17	0.17	0.17	0.17
CHA	0.21	0.23	0.27	0.31	0.36	0.39	0.43	0.48	0.57	0.73
EUR	0.52	0.63	0.72	0.87	1.13	1.03	1.04	1.07	1.11	1.10
IND	0.23	0.27	0.28	0.28	0.30	0.35	0.39	0.42	0.46	0.53
JPN	0.04	0.05	0.06	0.07	0.08	0.08	0.08	0.07	0.07	0.08
LAM	0.16	0.20	0.25	0.27	0.46	0.37	0.39	0.44	0.50	0.58
MEA	0.05	0.09	0.10	0.12	0.17	0.17	0.19	0.21	0.25	0.29
NEU	0.05	0.05	0.06	0.06	0.09	0.09	0.09	0.09	0.11	0.11
OAS	0.12	0.14	0.16	0.19	0.24	0.28	0.33	0.36	0.42	0.49
REF	0.35	0.46	0.44	0.56	0.62	0.70	0.58	0.40	0.40	0.30
SSA	0.07	0.09	0.11	0.11	0.13	0.14	0.15	0.18	0.22	0.26
USA	0.39	0.42	0.41	0.43	0.82	0.78	0.75	0.87	0.96	0.90

Table 828: IPCC — Emissions—NH3—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NH3/yr)

14.1.5 Agriculture—Agricultural Soils—Pasture



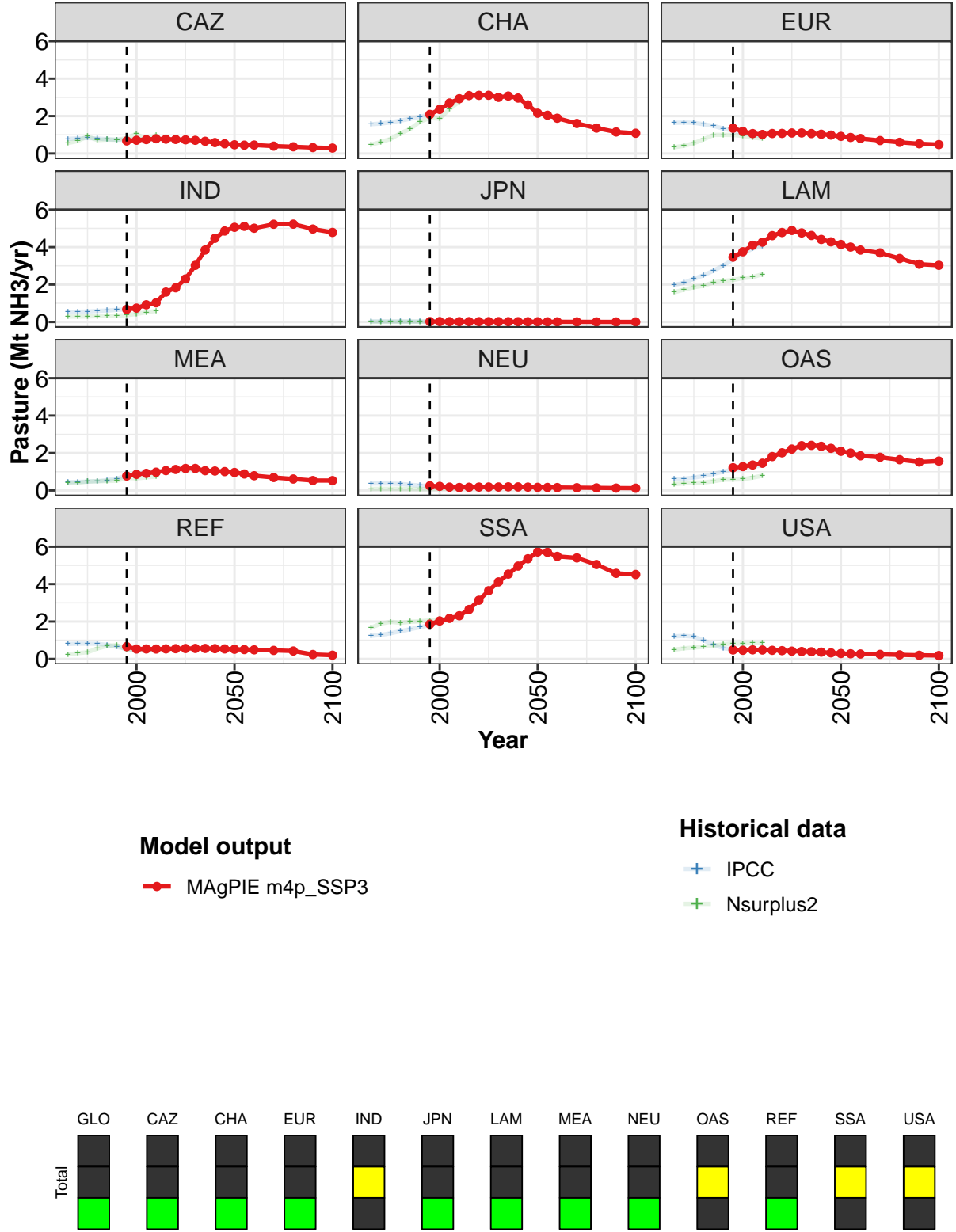


Figure 249: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture—Agricultural Soils—Pasture (Mt NH3/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	13.5	14.1	15.2	15.9	17.8	19.0	20.3	21.4	22.4	22.9	22.9
CAZ	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.5
CHA	2.1	2.4	2.7	2.9	3.1	3.1	3.1	3.0	3.1	3.0	2.6
EUR	1.3	1.2	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.0	1.0
IND	0.7	0.7	0.9	1.0	1.6	1.8	2.3	3.0	3.8	4.5	4.9
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.5	3.8	4.1	4.3	4.6	4.8	4.9	4.8	4.6	4.4	4.3
MEA	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.1	1.0	1.0
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	1.2	1.3	1.4	1.5	1.8	2.0	2.2	2.4	2.4	2.4	2.2
REF	0.7	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.5
SSA	1.9	2.0	2.2	2.3	2.6	3.1	3.6	4.1	4.5	5.0	5.4
USA	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3

Table 829: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture—Agricultural Soils—Pasture (Mt NH3/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	22.5	22.0	21.0	20.3	19.0	17.2	16.8
CAZ	0.5	0.4	0.5	0.4	0.4	0.3	0.3
CHA	2.2	2.0	1.9	1.6	1.4	1.2	1.1
EUR	0.9	0.9	0.8	0.7	0.6	0.5	0.5
IND	5.1	5.1	5.0	5.2	5.2	5.0	4.8
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	4.1	4.0	3.8	3.7	3.4	3.1	3.0
MEA	1.0	0.9	0.8	0.7	0.6	0.5	0.5
NEU	0.2	0.2	0.2	0.1	0.1	0.1	0.1
OAS	2.1	2.0	1.9	1.8	1.6	1.5	1.6
REF	0.5	0.5	0.5	0.5	0.4	0.2	0.2
SSA	5.7	5.7	5.5	5.4	5.0	4.6	4.5
USA	0.3	0.3	0.3	0.2	0.2	0.2	0.2

Table 830: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture—Agricultural Soils—Pasture (Mt NH3/yr) [PART 2/2]

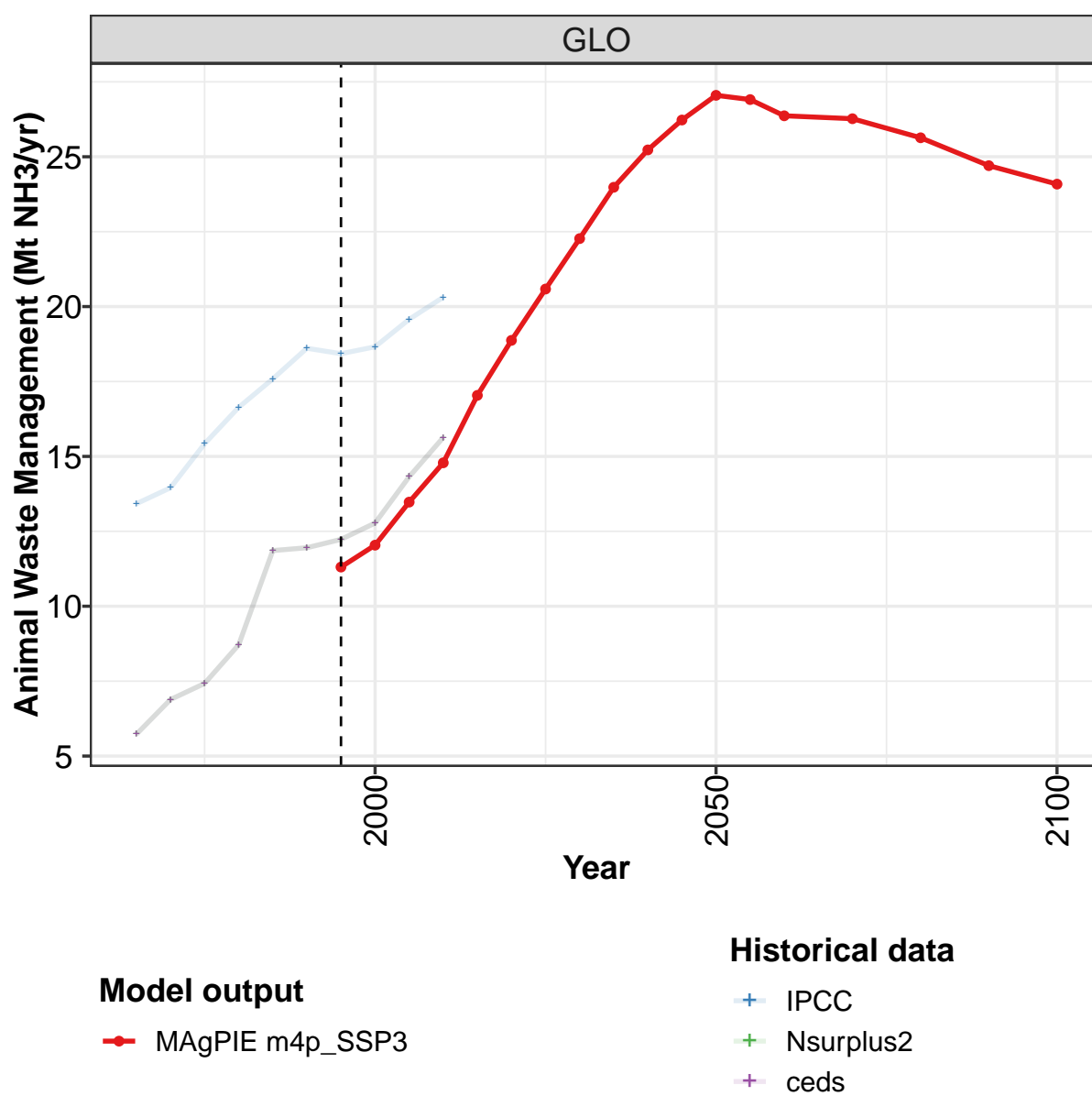
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	11.2	11.5	11.9	12.1	12.3	12.5	13.1	13.8	14.9	15.6
CAZ	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.8
CHA	1.6	1.6	1.7	1.8	1.9	2.0	2.1	2.4	2.7	2.9
EUR	1.6	1.7	1.6	1.6	1.5	1.3	1.2	1.1	1.0	0.9
IND	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	1.0	1.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	2.0	2.1	2.3	2.5	2.7	3.0	3.3	3.7	3.9	4.1
MEA	0.4	0.5	0.5	0.5	0.5	0.6	0.8	0.9	1.0	1.0
NEU	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.1
OAS	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.3
REF	0.8	0.8	0.8	0.8	0.7	0.6	0.5	0.5	0.5	0.5
SSA	1.2	1.3	1.4	1.5	1.6	1.7	1.8	2.0	2.2	2.3
USA	1.2	1.2	1.2	1.0	0.8	0.6	0.5	0.5	0.5	0.5

Table 831: IPCC — Emissions—NH3—Land—Agriculture—Agricultural Soils—Pasture (Mt NH3/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	6.5	7.4	8.3	9.0	10.0	10.7	11.1	11.4	11.9	13.0
CAZ	0.6	0.7	0.9	0.7	0.7	0.7	0.8	1.0	0.8	1.0
CHA	0.5	0.6	0.8	1.1	1.3	1.7	1.9	1.9	2.4	2.8
EUR	0.3	0.4	0.5	0.8	1.0	1.0	1.0	0.9	0.8	0.8
IND	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.6	1.7	1.9	1.9	2.1	2.2	2.2	2.3	2.4	2.6
MEA	0.4	0.4	0.5	0.5	0.5	0.5	0.7	0.6	0.7	0.7
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	0.3	0.4	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.8
REF	0.2	0.3	0.4	0.6	0.7	0.7	0.5	0.5	0.5	0.5
SSA	1.7	1.9	2.0	1.9	2.0	2.0	2.1	2.1	2.2	2.3
USA	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	0.9

Table 832: Nsurplus2 — Emissions—NH3—Land—Agriculture—Agricultural Soils—Pasture (Mt NH3/yr)

14.1.6 Agriculture—Animal Waste Management



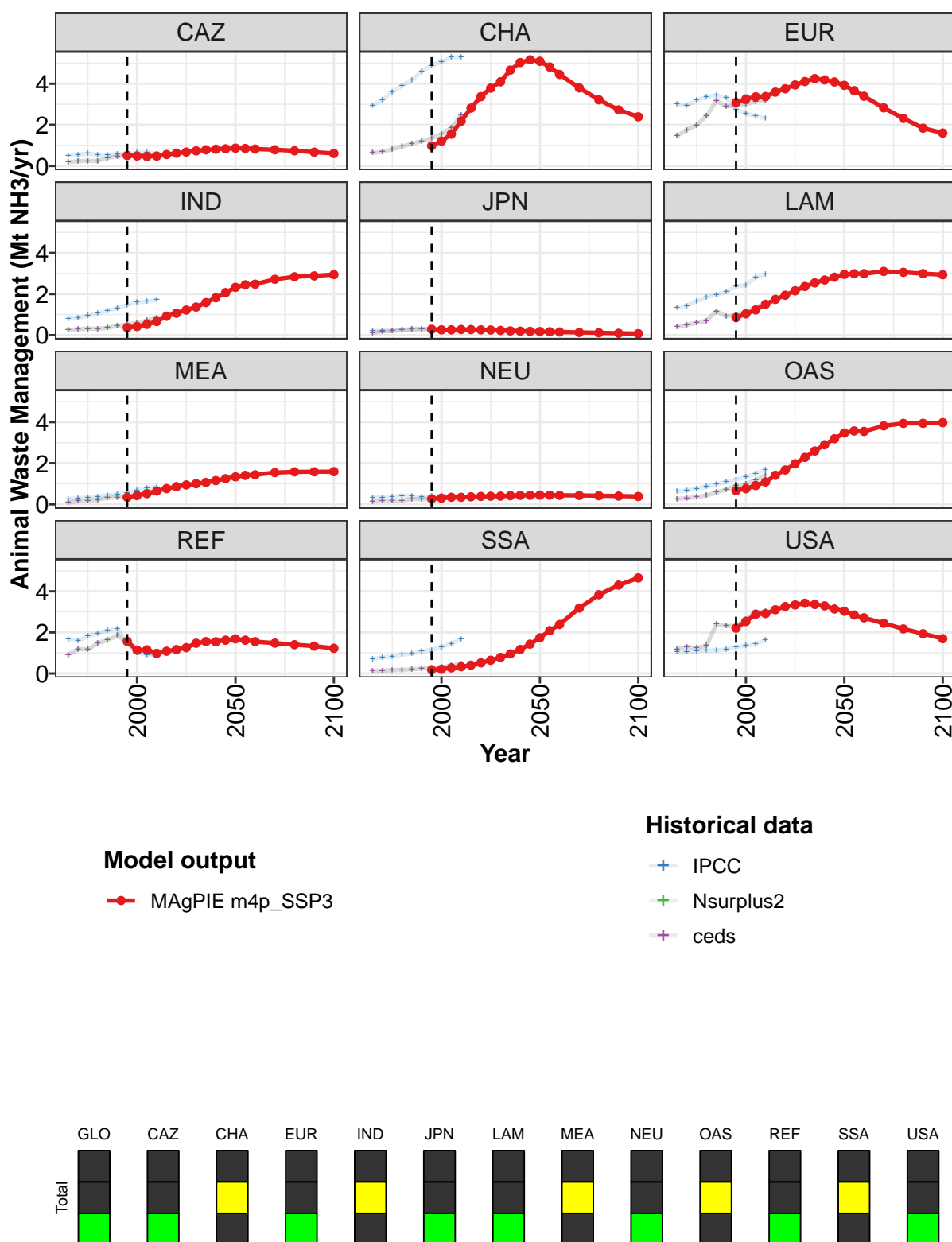


Figure 250: MAgPIE m4p_SSP3 — Emissions—NH₃—Land—Agriculture—Animal Waste Management (Mt NH₃/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	11.3	12.0	13.5	14.8	17.0	18.9	20.6	22.3	24.0	25.2	26.2
CAZ	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8
CHA	1.0	1.2	1.5	2.2	2.8	3.4	3.8	4.1	4.7	5.0	5.2
EUR	3.1	3.3	3.4	3.4	3.6	3.8	3.9	4.1	4.2	4.2	4.1
IND	0.4	0.4	0.5	0.7	0.9	1.1	1.2	1.4	1.6	1.8	2.1
JPN	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
LAM	0.9	1.0	1.2	1.5	1.7	1.9	2.2	2.4	2.5	2.7	2.8
MEA	0.3	0.4	0.5	0.6	0.8	0.9	0.9	1.0	1.1	1.2	1.2
NEU	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
OAS	0.7	0.8	0.9	1.1	1.4	1.7	2.0	2.3	2.6	2.9	3.2
REF	1.6	1.1	1.2	1.0	1.1	1.2	1.3	1.5	1.6	1.5	1.6
SSA	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.4
USA	2.2	2.5	2.9	2.9	3.1	3.3	3.3	3.4	3.4	3.3	3.1

Table 833: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture—Animal Waste Management (Mt NH3/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	27.1	26.9	26.4	26.3	25.6	24.7	24.1
CAZ	0.9	0.8	0.8	0.8	0.7	0.7	0.6
CHA	5.1	4.8	4.5	3.8	3.2	2.7	2.4
EUR	3.9	3.7	3.4	2.8	2.3	1.8	1.6
IND	2.3	2.4	2.5	2.7	2.8	2.9	2.9
JPN	0.2	0.2	0.2	0.1	0.1	0.1	0.1
LAM	3.0	3.0	3.0	3.1	3.1	3.0	2.9
MEA	1.3	1.4	1.4	1.5	1.6	1.6	1.6
NEU	0.4	0.4	0.4	0.4	0.4	0.4	0.4
OAS	3.5	3.6	3.5	3.8	3.9	3.9	4.0
REF	1.7	1.6	1.6	1.5	1.4	1.3	1.2
SSA	1.7	2.1	2.4	3.2	3.8	4.3	4.7
USA	3.0	2.8	2.7	2.4	2.2	1.9	1.7

Table 834: MAgPIE m4p_SSP3 — Emissions—NH3—Land—Agriculture—Animal Waste Management (Mt NH3/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	13.4	14.0	15.4	16.6	17.6	18.6	18.4	18.7	19.6	20.3
CAZ	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.7	0.6
CHA	2.9	3.2	3.6	3.9	4.2	4.6	4.9	5.1	5.3	5.3
EUR	3.0	2.9	3.2	3.4	3.4	3.3	2.7	2.6	2.4	2.3
IND	0.8	0.8	0.9	1.1	1.2	1.3	1.5	1.6	1.6	1.7
JPN	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
LAM	1.3	1.4	1.6	1.9	1.9	2.1	2.4	2.4	2.8	3.0
MEA	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8	0.8
NEU	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
OAS	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.5	1.7
REF	1.7	1.6	1.8	1.9	2.1	2.2	1.5	1.0	0.9	0.9
SSA	0.7	0.8	0.8	0.9	1.0	1.1	1.1	1.3	1.5	1.7
USA	1.0	1.1	1.1	1.1	1.1	1.2	1.3	1.4	1.4	1.6

Table 835: ceds — Emissions—NH3—Land—Agriculture—Animal Waste Management (Mt NH3/yr)

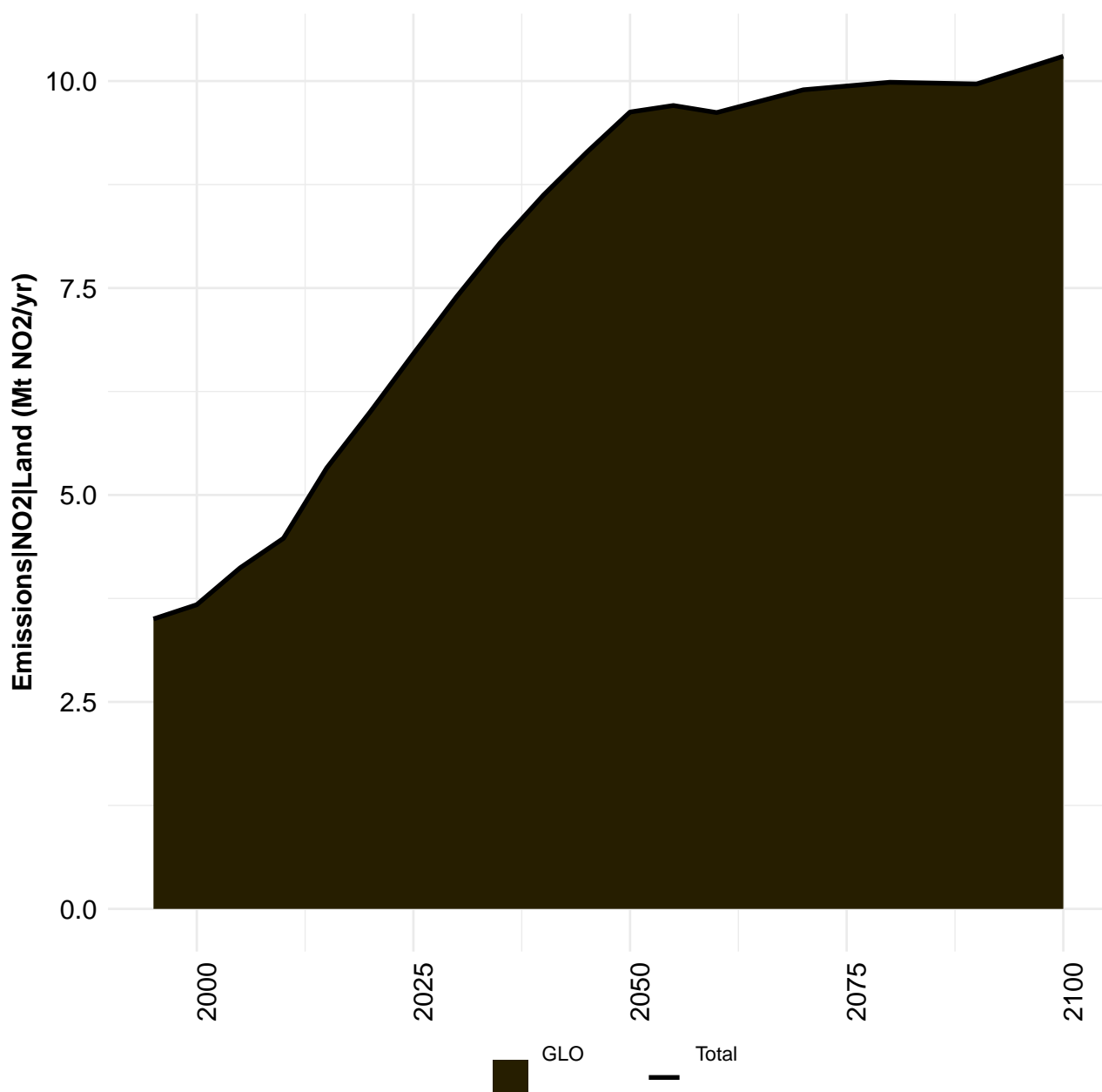
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.7	6.9	7.4	8.7	11.9	12.0	12.2	12.8	14.3	15.6
CAZ	0.2	0.2	0.2	0.2	0.4	0.5	0.5	0.5	0.5	0.5
CHA	0.6	0.7	0.8	0.9	1.1	1.2	1.3	1.6	1.8	2.5
EUR	1.4	1.8	2.0	2.4	3.2	2.9	2.9	3.0	3.1	3.2
IND	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.9
JPN	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
LAM	0.4	0.5	0.6	0.7	1.2	0.9	1.0	1.1	1.3	1.6
MEA	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.7
NEU	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3
OAS	0.3	0.3	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4
REF	0.9	1.2	1.2	1.5	1.6	1.9	1.5	1.0	1.0	0.9
SSA	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5
USA	1.2	1.3	1.2	1.4	2.4	2.3	2.3	2.6	3.0	3.0

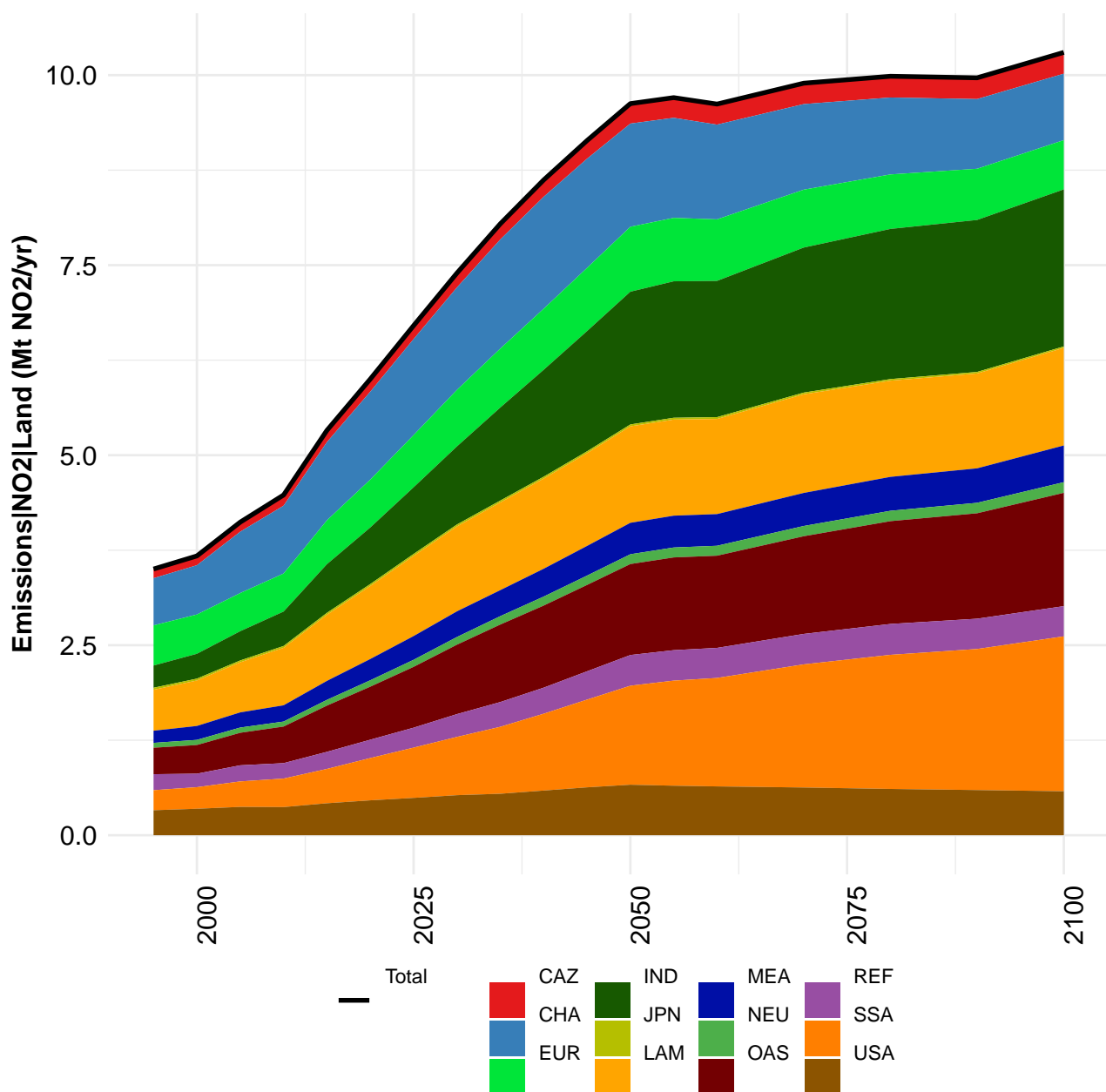
Table 836: IPCC — Emissions—NH3—Land—Agriculture—Animal Waste Management (Mt NH3/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.7	6.9	7.4	8.7	11.9	12.0	12.2	12.8	14.3	15.6
CAZ	0.2	0.2	0.2	0.2	0.4	0.5	0.5	0.5	0.5	0.5
CHA	0.6	0.7	0.8	0.9	1.1	1.2	1.3	1.6	1.8	2.5
EUR	1.4	1.8	2.0	2.4	3.2	2.9	2.9	3.0	3.1	3.2
IND	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.9
JPN	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
LAM	0.4	0.5	0.6	0.7	1.2	0.9	1.0	1.1	1.3	1.6
MEA	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.7
NEU	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3
OAS	0.3	0.3	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4
REF	0.9	1.2	1.2	1.5	1.6	1.9	1.5	1.0	1.0	0.9
SSA	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5
USA	1.2	1.3	1.2	1.4	2.4	2.3	2.3	2.6	3.0	3.0

Table 837: Nsurplus2 — Emissions—NH3—Land—Agriculture—Animal Waste Management (Mt NH3/yr)

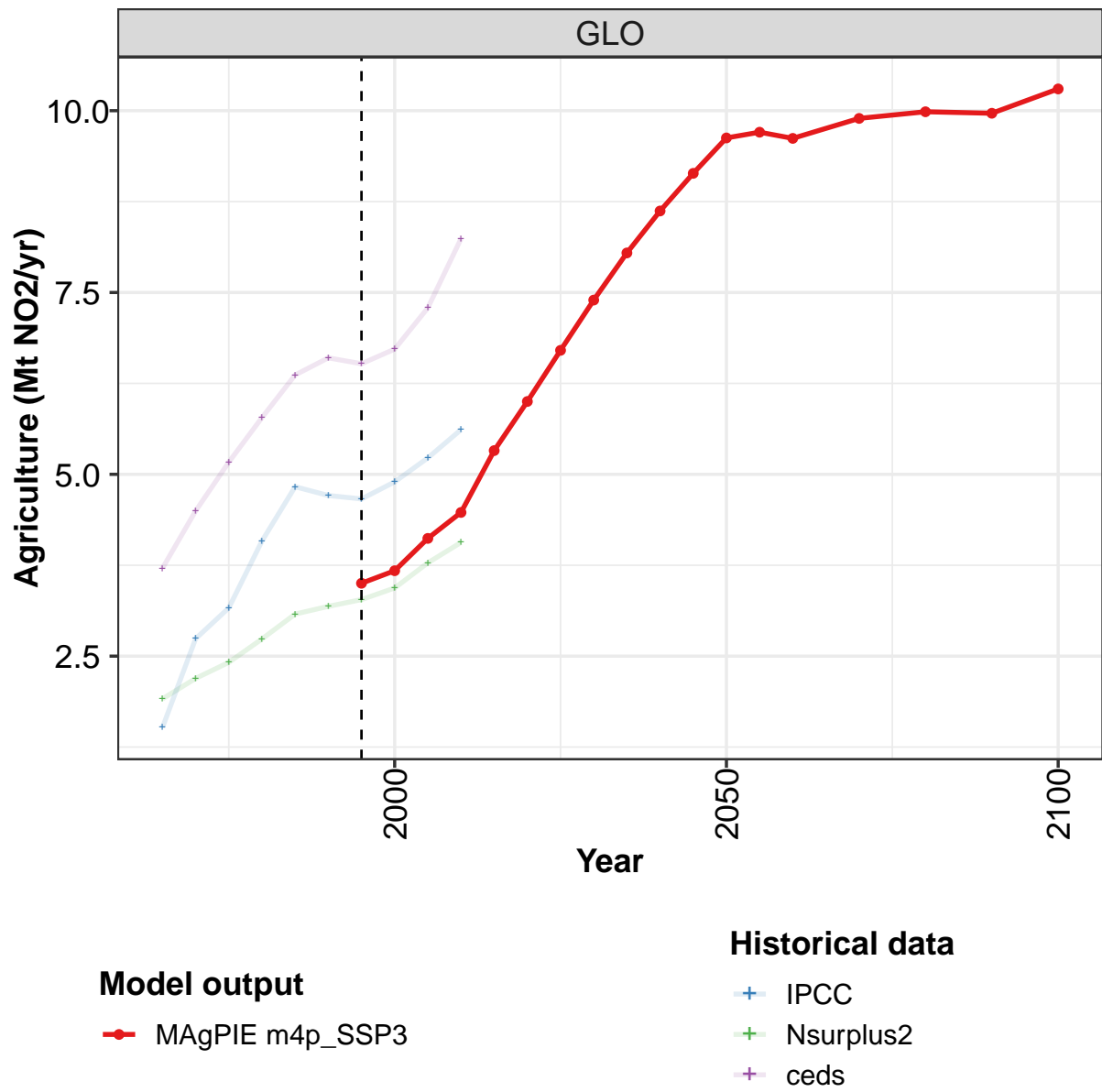
15 NO2

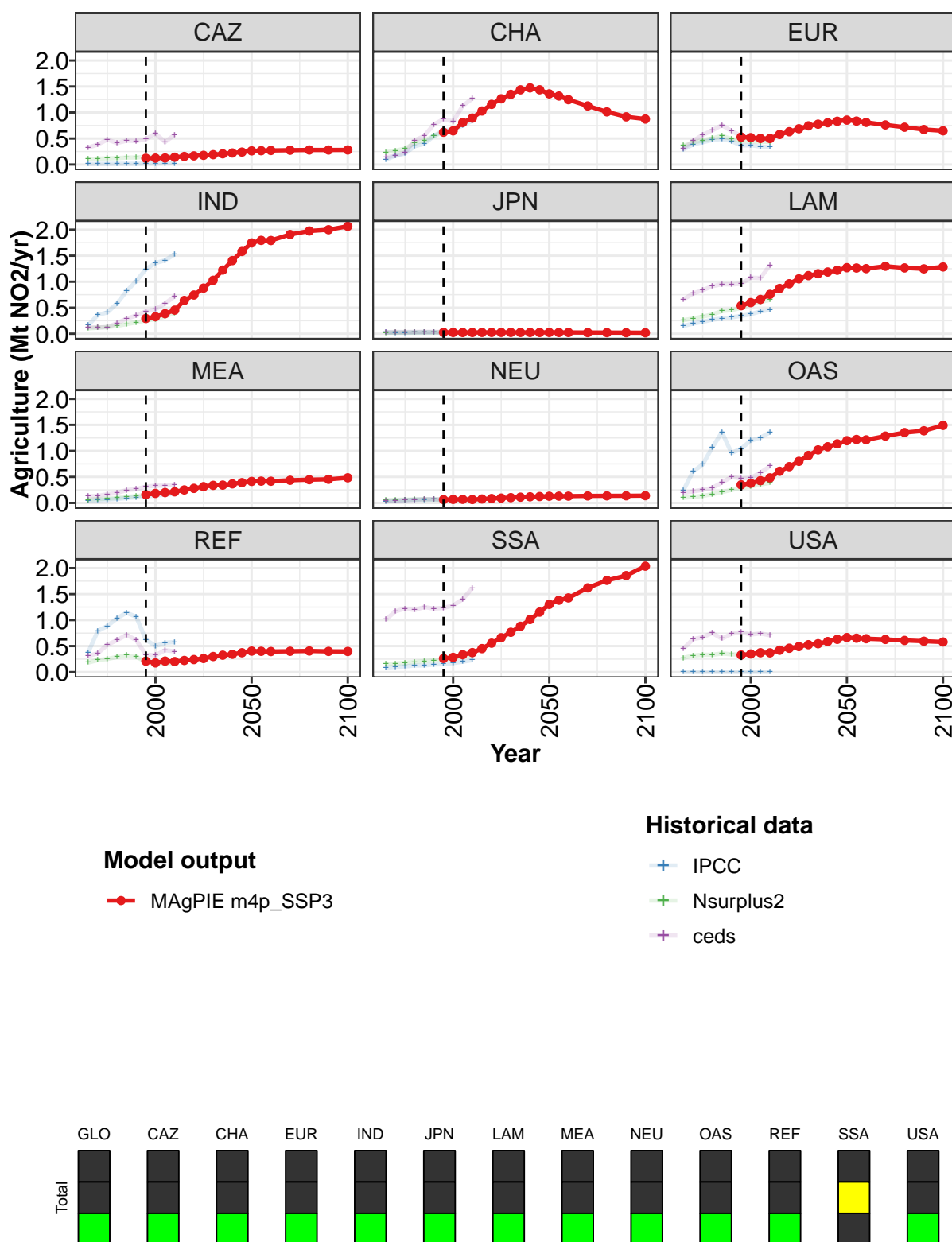




15.1 Land

15.1.1 Agriculture



Figure 251: MAgPIE m4p_SSP3 — Emissions—NO₂—Land—Agriculture (Mt NO₂/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.5	3.7	4.1	4.5	5.3	6.0	6.7	7.4	8.0	8.6	9.1
CAZ	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	0.6	0.6	0.8	0.9	1.0	1.2	1.3	1.3	1.4	1.5	1.4
EUR	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8
IND	0.3	0.3	0.4	0.5	0.6	0.7	0.9	1.0	1.2	1.4	1.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.1	1.2	1.2	1.2
MEA	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	0.3	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.1
REF	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4
SSA	0.3	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2
USA	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6

Table 838: MAgPIE m4p_SSP3 — Emissions—NO2—Land—Agriculture (Mt NO2/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	9.6	9.7	9.6	9.9	10.0	10.0	10.3
CAZ	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CHA	1.4	1.3	1.2	1.1	1.0	0.9	0.9
EUR	0.9	0.8	0.8	0.8	0.7	0.7	0.6
IND	1.7	1.8	1.8	1.9	2.0	2.0	2.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.3	1.3	1.3	1.3	1.3	1.2	1.3
MEA	0.4	0.4	0.4	0.4	0.4	0.5	0.5
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	1.2	1.2	1.2	1.3	1.4	1.4	1.5
REF	0.4	0.4	0.4	0.4	0.4	0.4	0.4
SSA	1.3	1.4	1.4	1.6	1.8	1.9	2.0
USA	0.7	0.7	0.6	0.6	0.6	0.6	0.6

Table 839: MAgPIE m4p_SSP3 — Emissions—NO2—Land—Agriculture (Mt NO2/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.52	2.74	3.16	4.08	4.83	4.71	4.66	4.90	5.23	5.61
CAZ	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
CHA	0.10	0.17	0.21	0.35	0.40	0.55	0.66	0.66	0.75	0.84
EUR	0.29	0.39	0.43	0.47	0.49	0.45	0.37	0.37	0.35	0.33
IND	0.16	0.36	0.41	0.58	0.82	1.01	1.24	1.36	1.41	1.53
JPN	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02
LAM	0.15	0.20	0.23	0.27	0.29	0.31	0.34	0.38	0.43	0.46
MEA	0.04	0.05	0.06	0.08	0.09	0.11	0.12	0.14	0.16	0.18
NEU	0.03	0.04	0.05	0.06	0.06	0.07	0.06	0.06	0.06	0.07
OAS	0.25	0.60	0.74	1.07	1.36	0.96	1.04	1.20	1.25	1.36
REF	0.38	0.79	0.89	1.03	1.14	1.06	0.62	0.50	0.56	0.58
SSA	0.09	0.10	0.11	0.13	0.13	0.15	0.15	0.17	0.20	0.23
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 840: ceds — Emissions—NO2—Land—Agriculture (Mt NO2/yr)

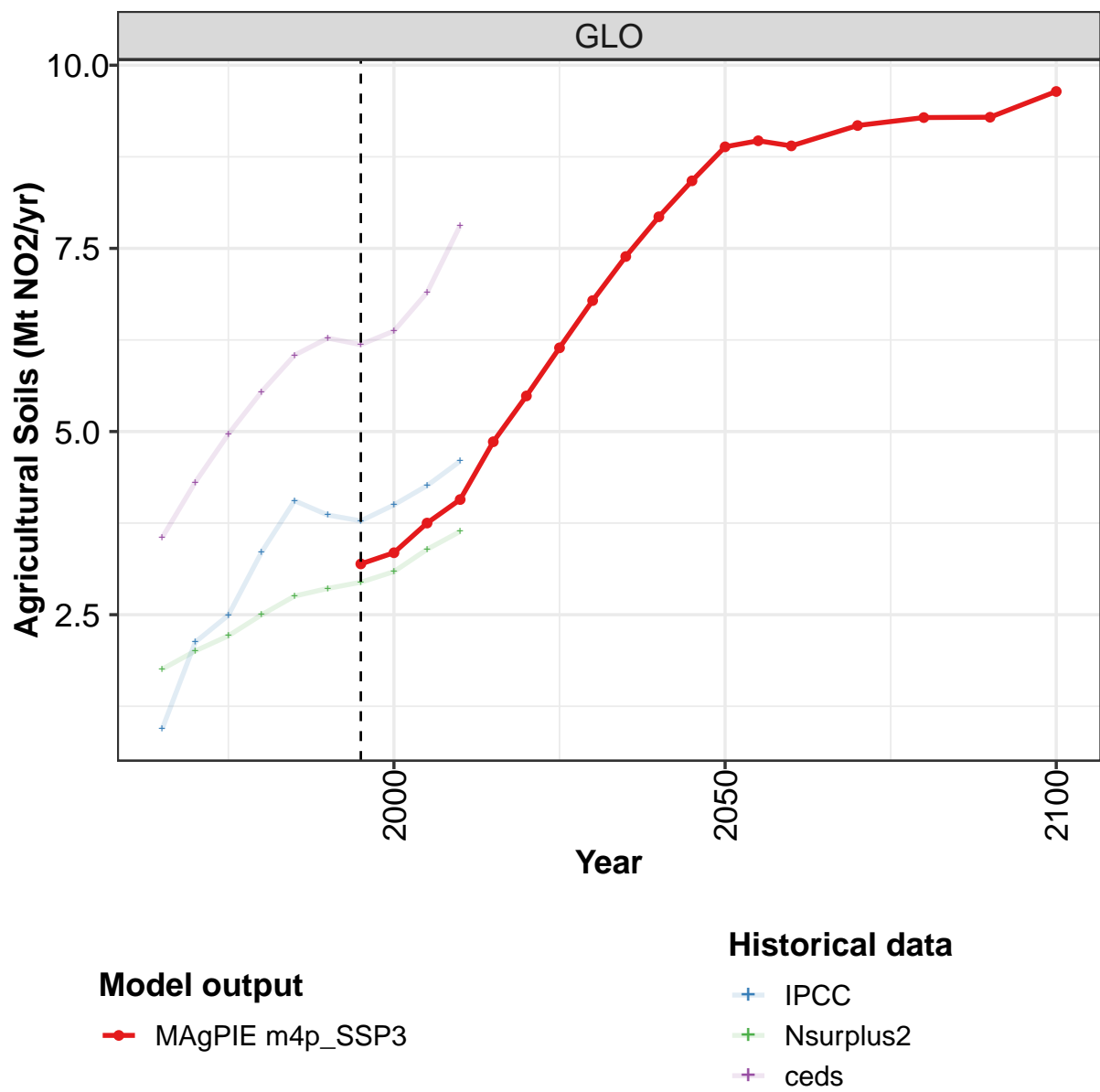
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.91	2.19	2.41	2.74	3.08	3.18	3.28	3.44	3.78	4.06
CAZ	0.10	0.11	0.12	0.12	0.13	0.13	0.15	0.15	0.15	0.16
CHA	0.24	0.27	0.31	0.41	0.46	0.55	0.62	0.66	0.79	0.89
EUR	0.36	0.42	0.46	0.50	0.55	0.49	0.45	0.44	0.43	0.43
IND	0.10	0.12	0.13	0.15	0.18	0.22	0.25	0.28	0.33	0.40
JPN	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.02
LAM	0.26	0.29	0.33	0.37	0.44	0.45	0.50	0.56	0.61	0.65
MEA	0.06	0.07	0.08	0.09	0.12	0.13	0.15	0.18	0.20	0.21
NEU	0.05	0.06	0.06	0.07	0.07	0.07	0.06	0.06	0.06	0.06
OAS	0.10	0.12	0.13	0.17	0.21	0.25	0.29	0.32	0.35	0.39
REF	0.18	0.23	0.25	0.29	0.32	0.30	0.20	0.15	0.16	0.16
SSA	0.15	0.16	0.18	0.20	0.21	0.23	0.24	0.26	0.29	0.32
USA	0.27	0.32	0.33	0.33	0.36	0.34	0.34	0.35	0.37	0.37

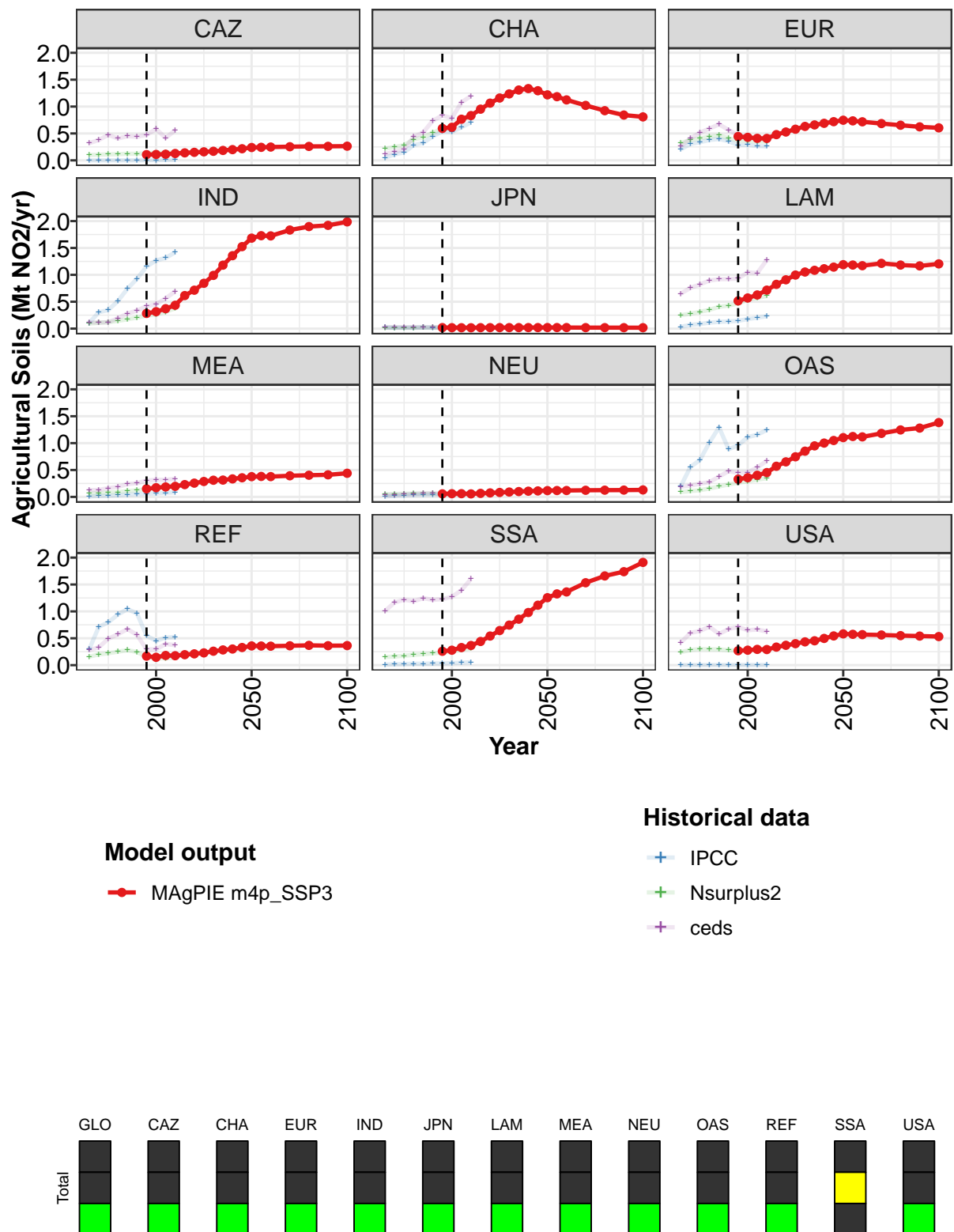
Table 841: IPCC — Emissions—NO2—Land—Agriculture (Mt NO2/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3.71	4.50	5.17	5.78	6.37	6.60	6.52	6.72	7.29	8.24
CAZ	0.32	0.39	0.48	0.41	0.46	0.45	0.49	0.60	0.43	0.57
CHA	0.14	0.17	0.23	0.46	0.55	0.77	0.87	0.83	1.13	1.27
EUR	0.30	0.45	0.57	0.66	0.76	0.64	0.55	0.52	0.48	0.48
IND	0.13	0.12	0.13	0.20	0.29	0.35	0.43	0.47	0.58	0.72
JPN	0.03	0.03	0.03	0.03	0.04	0.04	0.03	0.03	0.03	0.03
LAM	0.66	0.77	0.84	0.91	0.95	0.95	0.96	1.08	1.07	1.32
MEA	0.13	0.13	0.17	0.19	0.25	0.26	0.31	0.33	0.33	0.35
NEU	0.04	0.04	0.05	0.06	0.07	0.07	0.06	0.07	0.08	0.08
OAS	0.19	0.22	0.25	0.29	0.39	0.50	0.47	0.48	0.58	0.71
REF	0.31	0.36	0.52	0.61	0.72	0.61	0.33	0.32	0.42	0.40
SSA	1.01	1.17	1.22	1.19	1.25	1.22	1.23	1.28	1.40	1.62
USA	0.45	0.63	0.67	0.75	0.64	0.74	0.77	0.72	0.74	0.71

Table 842: Nsurplus2 — Emissions—NO2—Land—Agriculture (Mt NO2/yr)

15.1.2 Agriculture—Agricultural Soils



Figure 252: MAgPIE m4p_SSP3 — Emissions—NO₂—Land—Agriculture—Agricultural Soils (Mt NO₂/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.19	3.35	3.75	4.07	4.86	5.49	6.14	6.79	7.39	7.93	8.42
CAZ	0.11	0.11	0.11	0.13	0.14	0.15	0.16	0.17	0.18	0.20	0.22
CHA	0.59	0.61	0.76	0.83	0.95	1.06	1.16	1.24	1.31	1.33	1.30
EUR	0.44	0.43	0.41	0.41	0.48	0.53	0.58	0.63	0.66	0.69	0.72
IND	0.28	0.32	0.37	0.43	0.61	0.71	0.84	0.99	1.18	1.36	1.52
JPN	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LAM	0.52	0.57	0.63	0.72	0.82	0.91	1.00	1.05	1.08	1.11	1.14
MEA	0.15	0.17	0.19	0.20	0.23	0.26	0.29	0.31	0.31	0.33	0.36
NEU	0.06	0.06	0.06	0.06	0.07	0.07	0.08	0.09	0.10	0.11	0.11
OAS	0.33	0.36	0.40	0.45	0.57	0.65	0.75	0.85	0.95	1.00	1.05
REF	0.17	0.15	0.18	0.18	0.19	0.21	0.23	0.26	0.28	0.30	0.33
SSA	0.26	0.28	0.33	0.37	0.44	0.54	0.64	0.74	0.85	0.98	1.11
USA	0.27	0.28	0.29	0.29	0.34	0.37	0.40	0.43	0.45	0.50	0.54

Table 843: MAgPIE m4p_SSP3 — Emissions—NO2—Land—Agriculture—Agricultural Soils (Mt NO2/yr)
[PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	8.89	8.97	8.90	9.18	9.29	9.29	9.64
CAZ	0.24	0.24	0.25	0.25	0.26	0.26	0.26
CHA	1.22	1.18	1.12	1.02	0.92	0.84	0.81
EUR	0.75	0.73	0.72	0.68	0.65	0.62	0.60
IND	1.68	1.73	1.72	1.83	1.90	1.92	1.99
JPN	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LAM	1.19	1.18	1.17	1.21	1.18	1.17	1.20
MEA	0.38	0.38	0.38	0.39	0.40	0.41	0.44
NEU	0.12	0.12	0.12	0.12	0.13	0.13	0.13
OAS	1.10	1.12	1.12	1.18	1.25	1.28	1.38
REF	0.36	0.36	0.35	0.36	0.37	0.36	0.36
SSA	1.25	1.33	1.36	1.53	1.66	1.74	1.91
USA	0.58	0.57	0.57	0.56	0.55	0.54	0.53

Table 844: MAgPIE m4p_SSP3 — Emissions—NO2—Land—Agriculture—Agricultural Soils (Mt NO2/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.94	2.13	2.49	3.35	4.06	3.86	3.78	4.00	4.26	4.60
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
CHA	0.05	0.11	0.15	0.28	0.32	0.45	0.54	0.53	0.62	0.71
EUR	0.20	0.30	0.34	0.38	0.40	0.36	0.28	0.29	0.27	0.26
IND	0.11	0.30	0.35	0.51	0.74	0.93	1.15	1.27	1.32	1.42
JPN	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01
LAM	0.03	0.07	0.09	0.11	0.12	0.13	0.15	0.18	0.20	0.23
MEA	0.01	0.02	0.02	0.03	0.04	0.05	0.06	0.07	0.07	0.09
NEU	0.01	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05
OAS	0.20	0.55	0.69	1.01	1.29	0.89	0.96	1.11	1.16	1.25
REF	0.30	0.71	0.80	0.94	1.04	0.96	0.55	0.45	0.51	0.52
SSA	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.05	0.05
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 845: ceds — Emissions—NO2—Land—Agriculture—Agricultural Soils (Mt NO2/yr)

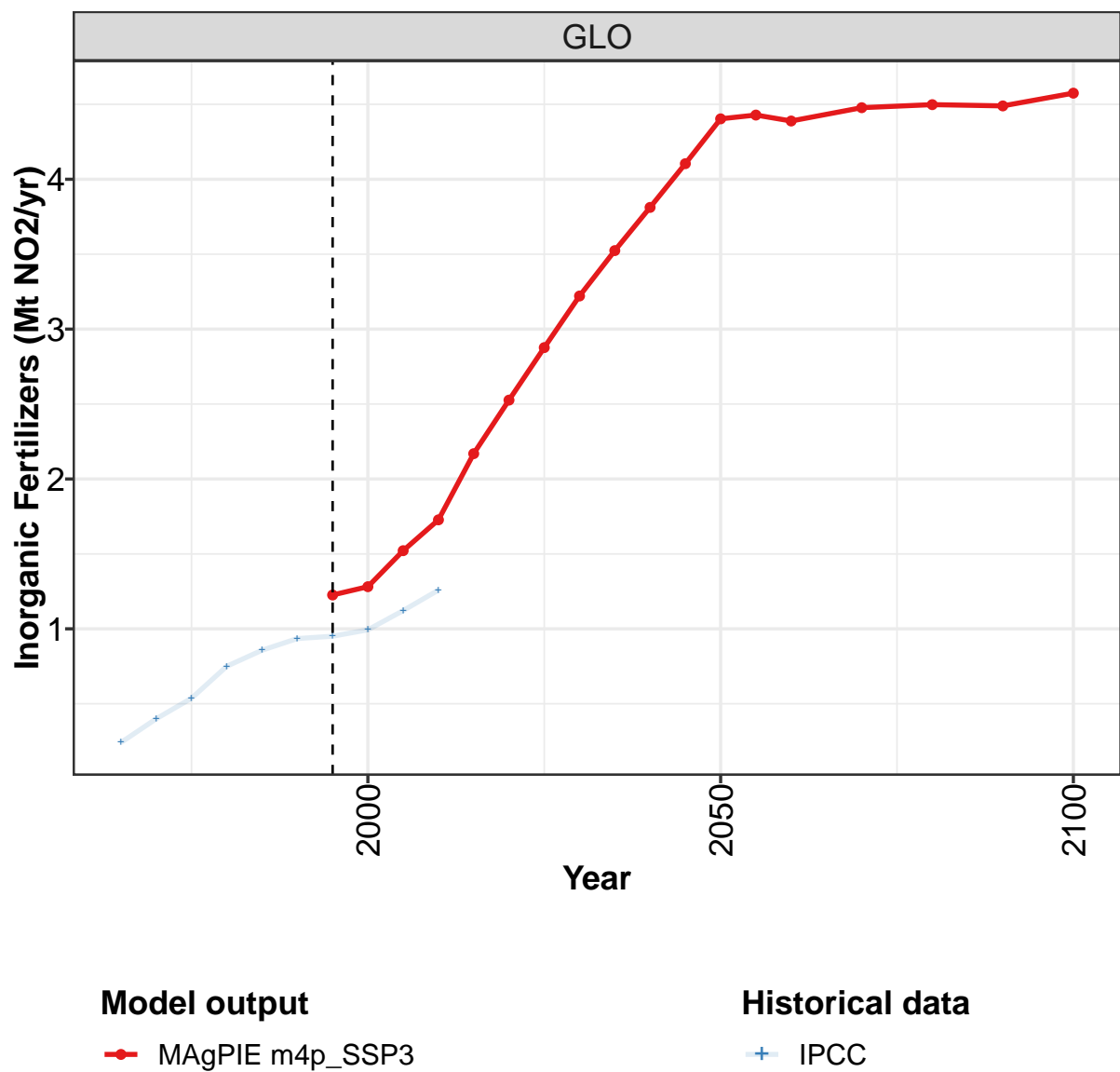
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.76	2.01	2.21	2.50	2.75	2.86	2.94	3.09	3.39	3.64
CAZ	0.10	0.11	0.11	0.12	0.12	0.12	0.13	0.14	0.14	0.15
CHA	0.22	0.25	0.28	0.39	0.43	0.52	0.59	0.61	0.74	0.82
EUR	0.32	0.38	0.41	0.44	0.47	0.41	0.37	0.36	0.35	0.35
IND	0.09	0.11	0.12	0.14	0.17	0.21	0.24	0.26	0.31	0.38
JPN	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
LAM	0.25	0.28	0.31	0.35	0.40	0.43	0.47	0.53	0.57	0.61
MEA	0.06	0.07	0.08	0.09	0.11	0.12	0.14	0.17	0.18	0.19
NEU	0.05	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05
OAS	0.09	0.11	0.12	0.16	0.19	0.23	0.26	0.29	0.32	0.35
REF	0.16	0.20	0.22	0.25	0.28	0.25	0.16	0.13	0.13	0.13
SSA	0.15	0.16	0.17	0.19	0.21	0.22	0.23	0.25	0.28	0.31
USA	0.24	0.28	0.30	0.30	0.29	0.28	0.28	0.28	0.29	0.29

Table 846: IPCC — Emissions—NO2—Land—Agriculture—Agricultural Soils (Mt NO2/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3.55	4.31	4.96	5.54	6.04	6.27	6.19	6.37	6.90	7.81
CAZ	0.32	0.38	0.47	0.41	0.45	0.44	0.47	0.58	0.42	0.56
CHA	0.12	0.16	0.21	0.44	0.52	0.74	0.83	0.79	1.08	1.20
EUR	0.26	0.41	0.52	0.59	0.67	0.56	0.47	0.43	0.40	0.40
IND	0.12	0.11	0.12	0.19	0.28	0.34	0.42	0.45	0.56	0.69
JPN	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02
LAM	0.65	0.76	0.82	0.90	0.92	0.92	0.93	1.05	1.03	1.27
MEA	0.13	0.13	0.16	0.19	0.24	0.25	0.30	0.32	0.32	0.34
NEU	0.03	0.04	0.05	0.06	0.06	0.07	0.05	0.06	0.07	0.07
OAS	0.19	0.21	0.24	0.28	0.38	0.48	0.45	0.45	0.55	0.67
REF	0.28	0.33	0.49	0.57	0.67	0.56	0.29	0.30	0.39	0.37
SSA	1.01	1.17	1.22	1.19	1.25	1.21	1.23	1.27	1.39	1.60
USA	0.42	0.60	0.64	0.72	0.58	0.67	0.71	0.65	0.66	0.63

Table 847: Nsurplus2 — Emissions—NO2—Land—Agriculture—Agricultural Soils (Mt NO2/yr)

15.1.3 Agriculture—Agricultural Soils—Inorganic Fertilizers



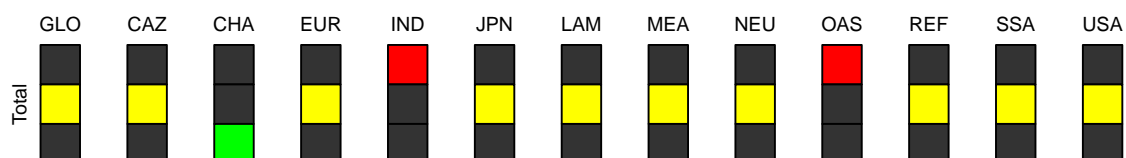
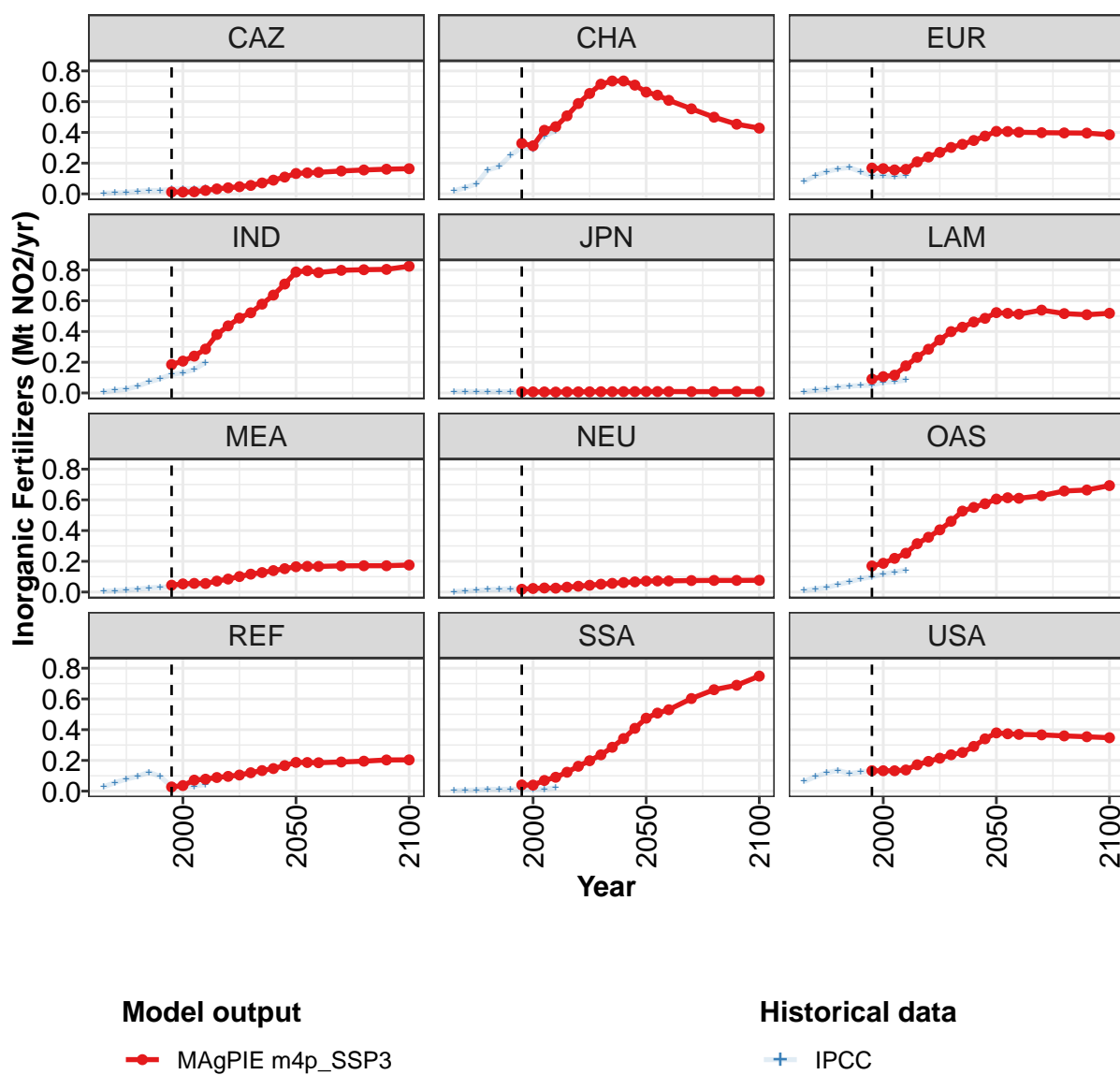


Figure 253: MAgPIE m4p_SSP3 — Emissions—NO₂—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NO₂/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.23	1.28	1.52	1.73	2.17	2.53	2.88	3.22	3.52	3.81	4.10
CAZ	0.01	0.01	0.01	0.02	0.03	0.04	0.05	0.05	0.07	0.09	0.11
CHA	0.33	0.31	0.41	0.44	0.51	0.59	0.65	0.71	0.73	0.73	0.71
EUR	0.17	0.16	0.16	0.16	0.21	0.24	0.27	0.30	0.32	0.35	0.38
IND	0.18	0.21	0.24	0.29	0.38	0.44	0.49	0.52	0.58	0.64	0.71
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.09	0.11	0.12	0.18	0.23	0.28	0.34	0.40	0.43	0.46	0.49
MEA	0.04	0.05	0.06	0.06	0.07	0.08	0.10	0.12	0.13	0.14	0.15
NEU	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.05	0.06	0.06	0.07
OAS	0.17	0.19	0.22	0.25	0.32	0.36	0.40	0.46	0.53	0.55	0.57
REF	0.03	0.04	0.07	0.08	0.09	0.10	0.10	0.12	0.13	0.15	0.17
SSA	0.04	0.04	0.07	0.09	0.12	0.16	0.20	0.24	0.29	0.34	0.41
USA	0.13	0.13	0.13	0.14	0.17	0.19	0.21	0.24	0.25	0.29	0.34

Table 848: MAgPIE m4p_SSP3 — Emissions—NO2—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NO2/yr) [PART 1/2]

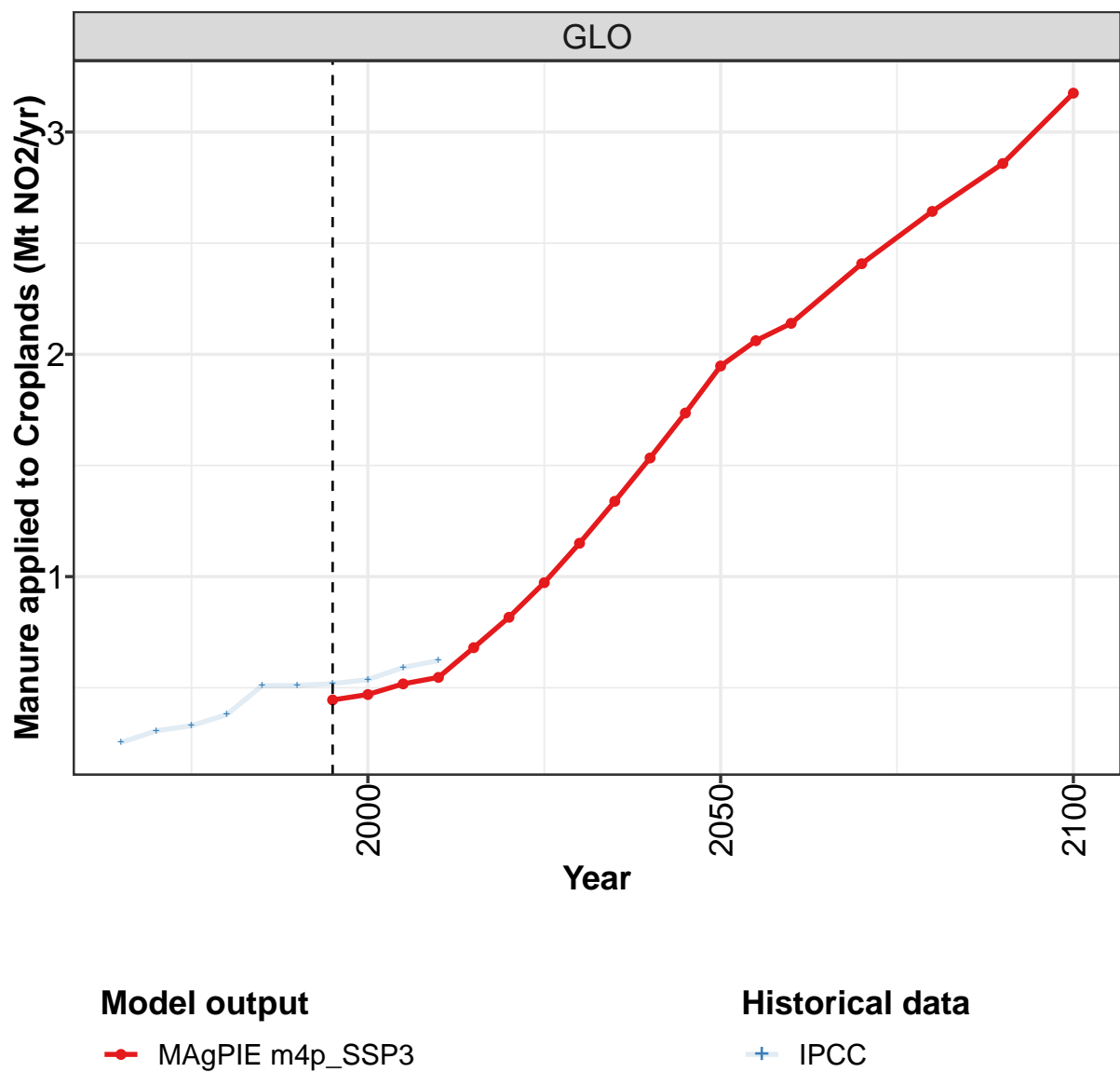
	2050	2055	2060	2070	2080	2090	2100
GLO	4.40	4.43	4.39	4.48	4.50	4.49	4.57
CAZ	0.13	0.14	0.14	0.15	0.16	0.16	0.16
CHA	0.66	0.64	0.61	0.55	0.50	0.45	0.43
EUR	0.41	0.41	0.40	0.40	0.40	0.40	0.38
IND	0.79	0.80	0.78	0.80	0.80	0.80	0.82
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.52	0.52	0.51	0.54	0.52	0.51	0.52
MEA	0.16	0.17	0.17	0.17	0.17	0.17	0.18
NEU	0.07	0.07	0.07	0.07	0.08	0.08	0.08
OAS	0.61	0.61	0.61	0.63	0.66	0.66	0.69
REF	0.19	0.19	0.18	0.19	0.19	0.20	0.20
SSA	0.47	0.51	0.53	0.60	0.66	0.69	0.75
USA	0.38	0.37	0.37	0.37	0.36	0.35	0.35

Table 849: MAgPIE m4p_SSP3 — Emissions—NO2—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NO2/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.24	0.40	0.54	0.75	0.86	0.94	0.95	0.99	1.12	1.26
CAZ	0.00	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.04
CHA	0.02	0.04	0.07	0.16	0.18	0.25	0.30	0.29	0.38	0.41
EUR	0.08	0.12	0.14	0.16	0.17	0.14	0.12	0.12	0.11	0.12
IND	0.01	0.02	0.02	0.04	0.07	0.09	0.12	0.13	0.15	0.20
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
LAM	0.01	0.02	0.02	0.04	0.04	0.05	0.05	0.07	0.07	0.08
MEA	0.01	0.01	0.01	0.02	0.03	0.03	0.03	0.04	0.04	0.04
NEU	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02
OAS	0.01	0.02	0.03	0.05	0.07	0.09	0.10	0.12	0.13	0.14
REF	0.03	0.06	0.08	0.10	0.12	0.09	0.03	0.03	0.03	0.04
SSA	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
USA	0.06	0.09	0.12	0.14	0.11	0.12	0.13	0.12	0.13	0.14

Table 850: IPCC — Emissions—NO2—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NO2/yr)

15.1.4 Agriculture—Agricultural Soils—Manure applied to Croplands



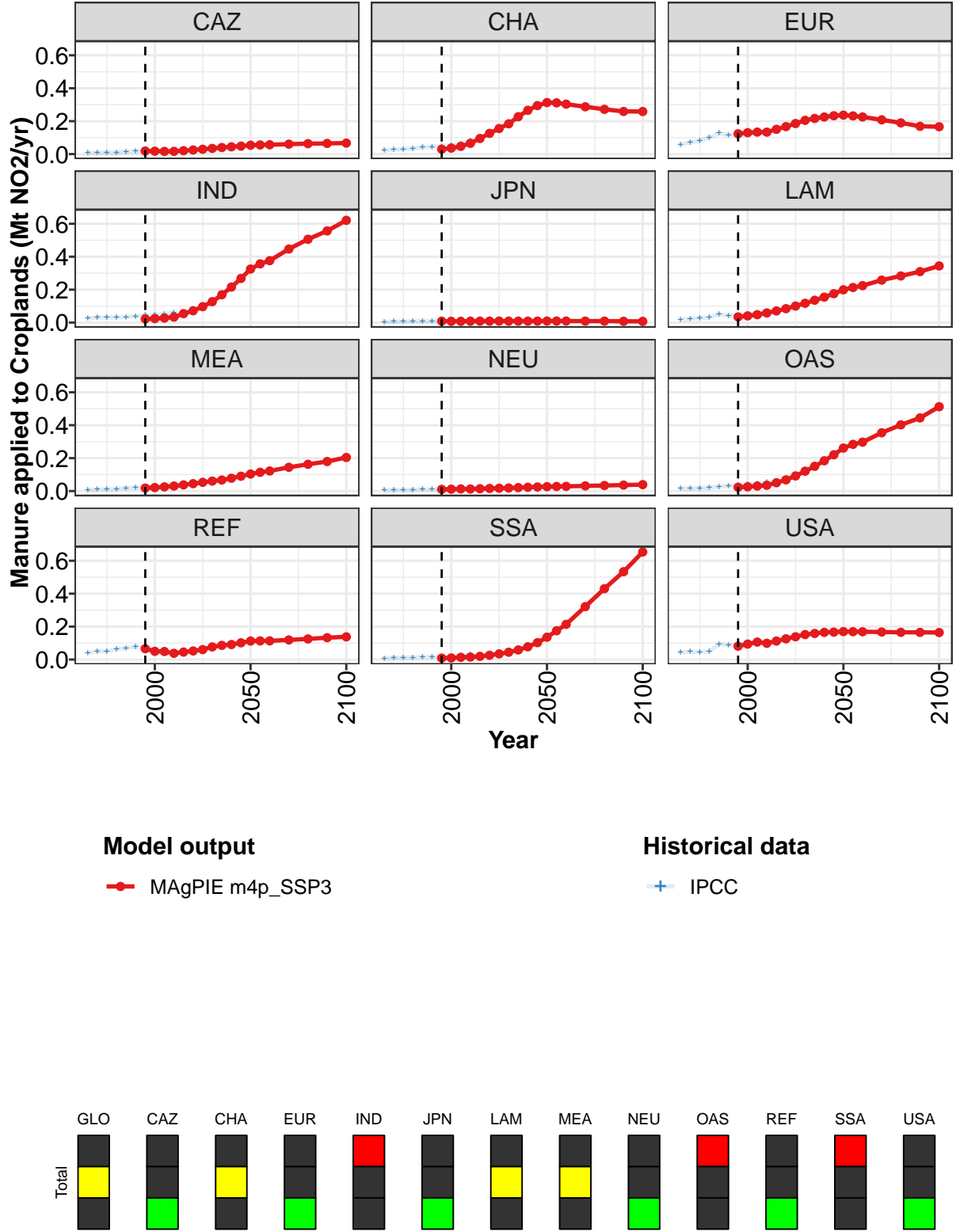


Figure 254: MAgPIE m4p_SSP3 — Emissions—NO₂—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NO₂/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.45	0.47	0.52	0.55	0.68	0.82	0.97	1.15	1.34	1.53	1.74
CAZ	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.05
CHA	0.03	0.04	0.05	0.07	0.09	0.13	0.16	0.18	0.23	0.27	0.29
EUR	0.12	0.13	0.13	0.13	0.15	0.17	0.19	0.21	0.22	0.23	0.23
IND	0.02	0.02	0.03	0.03	0.05	0.07	0.10	0.13	0.17	0.22	0.27
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.03	0.04	0.05	0.06	0.07	0.08	0.10	0.12	0.14	0.15	0.18
MEA	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.09
NEU	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
OAS	0.02	0.03	0.03	0.04	0.05	0.07	0.09	0.12	0.15	0.18	0.22
REF	0.07	0.05	0.05	0.04	0.05	0.05	0.06	0.08	0.09	0.09	0.10
SSA	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.06	0.08	0.10
USA	0.08	0.09	0.11	0.10	0.11	0.13	0.14	0.15	0.16	0.17	0.17

Table 851: MAgPIE m4p_SSP3 — Emissions—NO2—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NO2/yr) [PART 1/2]

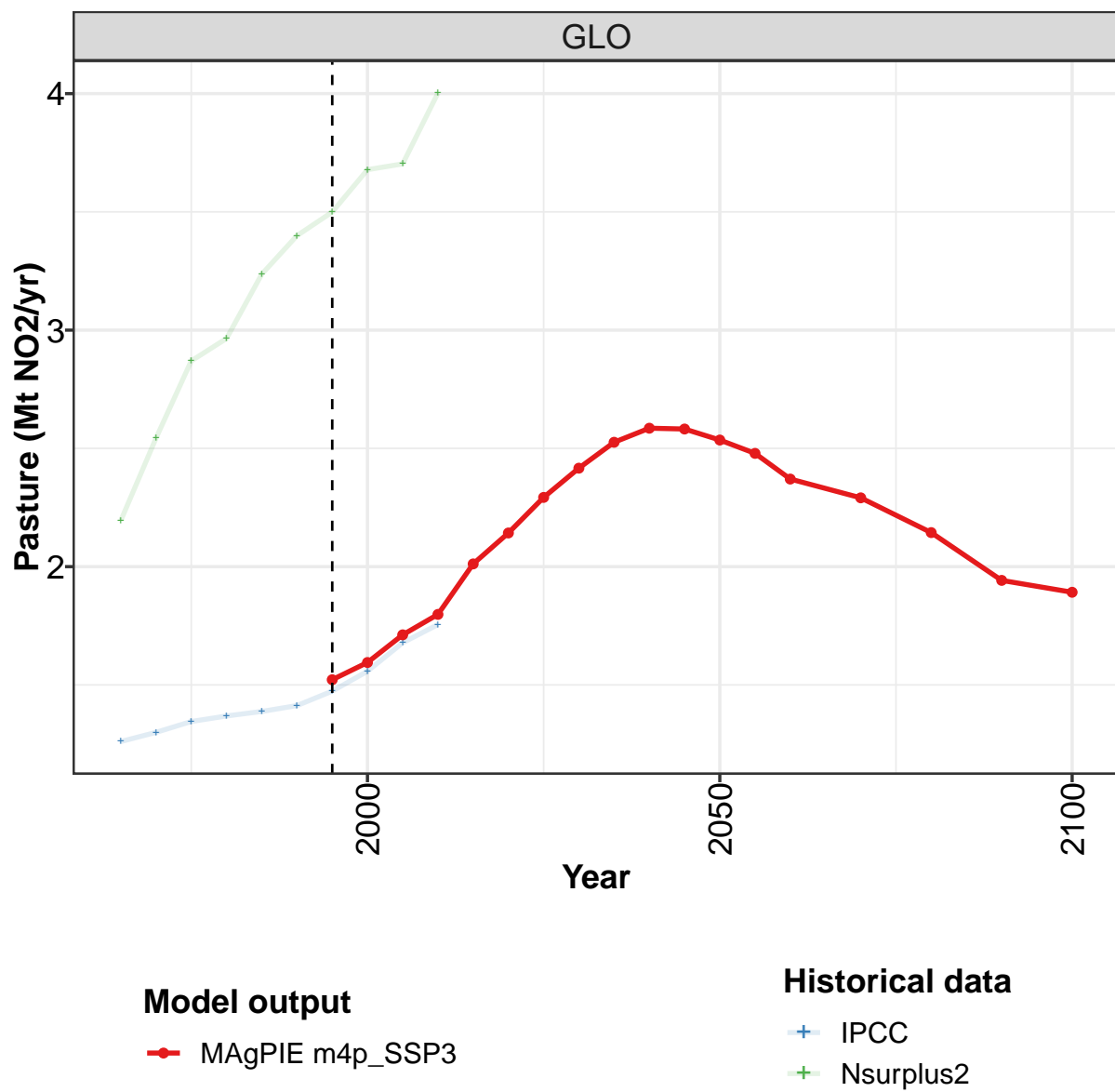
	2050	2055	2060	2070	2080	2090	2100
GLO	1.95	2.06	2.14	2.41	2.64	2.86	3.18
CAZ	0.05	0.06	0.06	0.06	0.06	0.06	0.07
CHA	0.31	0.31	0.30	0.29	0.27	0.26	0.26
EUR	0.24	0.23	0.23	0.21	0.19	0.17	0.17
IND	0.33	0.36	0.38	0.45	0.51	0.56	0.62
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.20	0.21	0.22	0.26	0.28	0.31	0.34
MEA	0.10	0.11	0.12	0.14	0.16	0.18	0.20
NEU	0.03	0.03	0.03	0.03	0.03	0.04	0.04
OAS	0.26	0.28	0.30	0.35	0.40	0.44	0.51
REF	0.11	0.11	0.11	0.12	0.13	0.13	0.14
SSA	0.14	0.17	0.21	0.32	0.43	0.53	0.65
USA	0.17	0.17	0.17	0.17	0.17	0.17	0.16

Table 852: MAgPIE m4p_SSP3 — Emissions—NO2—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NO2/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.254	0.306	0.329	0.379	0.509	0.510	0.518	0.537	0.591	0.622
CAZ	0.007	0.009	0.009	0.009	0.015	0.018	0.019	0.019	0.020	0.019
CHA	0.024	0.026	0.030	0.035	0.040	0.044	0.048	0.054	0.064	0.082
EUR	0.059	0.070	0.081	0.098	0.127	0.116	0.117	0.120	0.125	0.124
IND	0.026	0.030	0.032	0.032	0.034	0.039	0.044	0.047	0.052	0.059
JPN	0.004	0.006	0.007	0.008	0.009	0.009	0.009	0.008	0.008	0.009
LAM	0.018	0.023	0.028	0.031	0.052	0.041	0.044	0.050	0.057	0.066
MEA	0.005	0.010	0.011	0.014	0.019	0.019	0.021	0.023	0.028	0.033
NEU	0.006	0.006	0.006	0.007	0.010	0.010	0.010	0.011	0.013	0.012
OAS	0.014	0.016	0.018	0.021	0.027	0.031	0.038	0.041	0.047	0.055
REF	0.040	0.051	0.050	0.063	0.070	0.078	0.066	0.045	0.045	0.034
SSA	0.008	0.010	0.012	0.013	0.014	0.016	0.017	0.020	0.025	0.029
USA	0.044	0.048	0.046	0.048	0.093	0.088	0.085	0.098	0.109	0.101

Table 853: IPCC — Emissions—NO2—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NO2/yr)

15.1.5 Agriculture—Agricultural Soils—Pasture



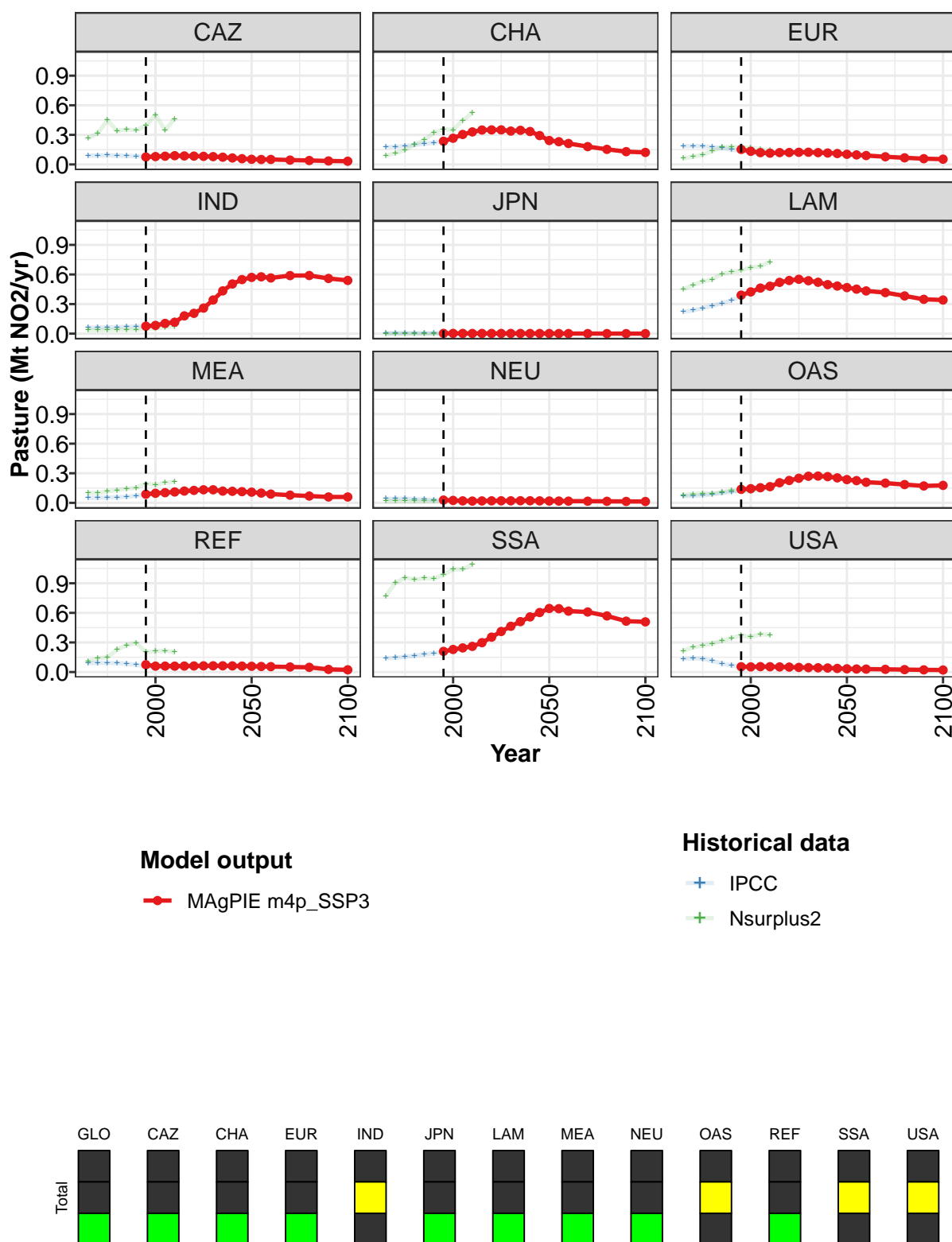


Figure 255: MAgPIE m4p_SSP3 — Emissions—NO₂—Land—Agriculture—Agricultural Soils—Pasture (Mt NO₂/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.52	1.59	1.71	1.80	2.01	2.14	2.29	2.42	2.53	2.59	2.58
CAZ	0.08	0.08	0.08	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.06
CHA	0.24	0.27	0.30	0.33	0.35	0.35	0.35	0.34	0.35	0.33	0.29
EUR	0.15	0.13	0.12	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.11
IND	0.08	0.08	0.10	0.12	0.18	0.21	0.26	0.34	0.43	0.50	0.55
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.39	0.42	0.46	0.48	0.52	0.54	0.55	0.54	0.52	0.50	0.48
MEA	0.09	0.10	0.10	0.11	0.12	0.13	0.13	0.13	0.12	0.12	0.11
NEU	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
OAS	0.14	0.14	0.15	0.16	0.20	0.23	0.25	0.27	0.27	0.27	0.25
REF	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
SSA	0.21	0.23	0.24	0.26	0.30	0.35	0.41	0.46	0.51	0.56	0.60
USA	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04

Table 854: MAgPIE m4p_SSP3 — Emissions—NO2—Land—Agriculture—Agricultural Soils—Pasture (Mt NO2/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	2.54	2.48	2.37	2.29	2.14	1.94	1.89
CAZ	0.05	0.05	0.05	0.04	0.04	0.04	0.03
CHA	0.24	0.23	0.21	0.18	0.15	0.13	0.12
EUR	0.10	0.10	0.09	0.08	0.07	0.06	0.05
IND	0.57	0.58	0.56	0.59	0.59	0.56	0.54
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.47	0.45	0.43	0.42	0.38	0.35	0.34
MEA	0.11	0.10	0.09	0.08	0.07	0.06	0.06
NEU	0.02	0.02	0.02	0.02	0.02	0.01	0.01
OAS	0.24	0.23	0.21	0.20	0.19	0.17	0.18
REF	0.06	0.06	0.05	0.05	0.05	0.03	0.02
SSA	0.64	0.64	0.62	0.61	0.57	0.52	0.51
USA	0.03	0.03	0.03	0.03	0.02	0.02	0.02

Table 855: MAgPIE m4p_SSP3 — Emissions—NO2—Land—Agriculture—Agricultural Soils—Pasture (Mt NO2/yr) [PART 2/2]

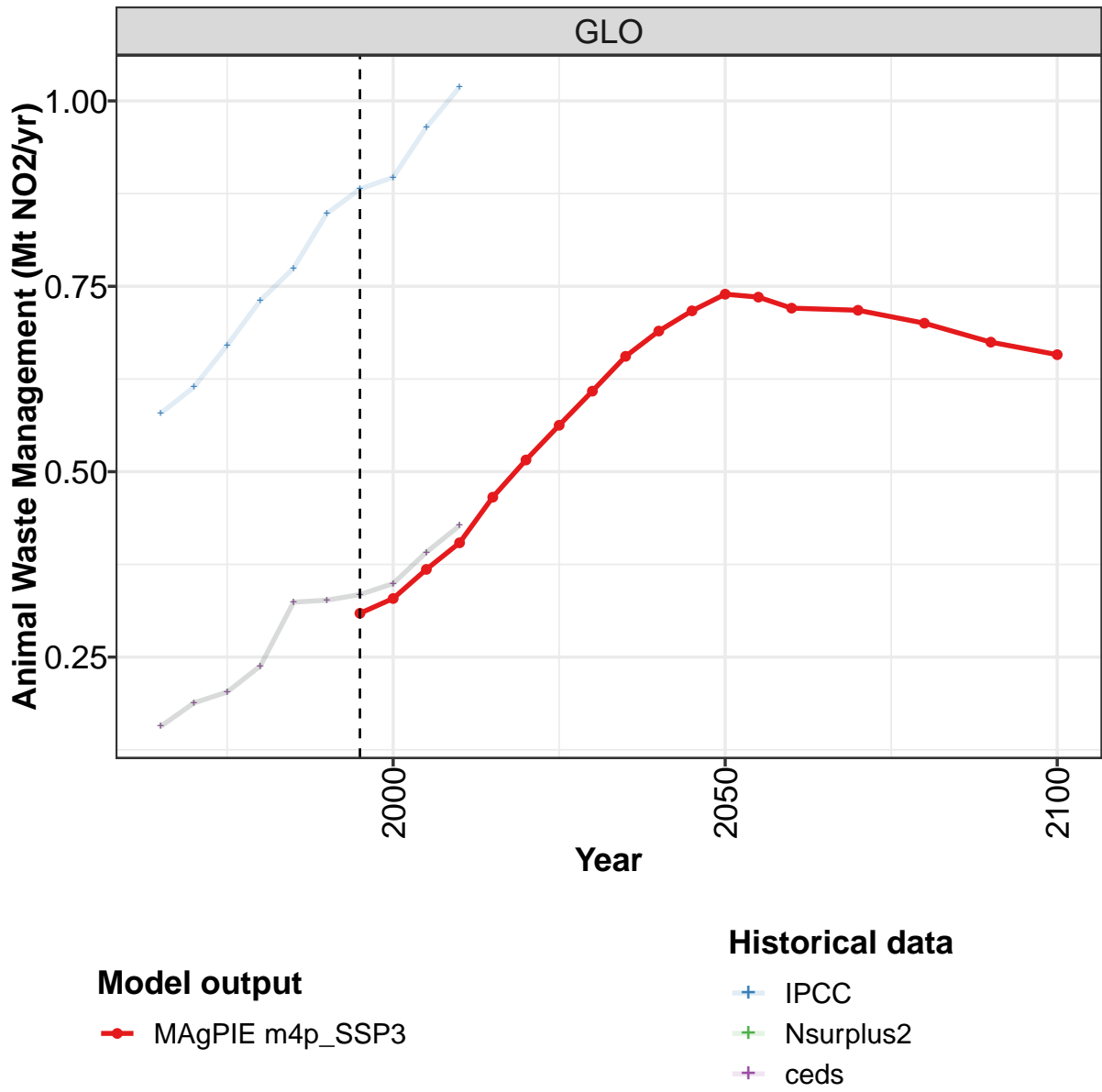
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.26	1.30	1.35	1.37	1.39	1.41	1.47	1.56	1.68	1.76
CAZ	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.09	0.09
CHA	0.18	0.18	0.19	0.20	0.21	0.22	0.24	0.27	0.30	0.33
EUR	0.18	0.19	0.18	0.18	0.17	0.15	0.14	0.12	0.11	0.11
IND	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.11	0.12
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.22	0.24	0.26	0.28	0.31	0.34	0.38	0.41	0.44	0.46
MEA	0.05	0.05	0.05	0.06	0.06	0.07	0.09	0.10	0.11	0.12
NEU	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.02
OAS	0.07	0.07	0.08	0.09	0.10	0.11	0.13	0.13	0.14	0.15
REF	0.09	0.09	0.09	0.09	0.08	0.07	0.06	0.05	0.05	0.06
SSA	0.14	0.14	0.15	0.17	0.18	0.19	0.20	0.22	0.24	0.26
USA	0.14	0.14	0.13	0.11	0.09	0.07	0.06	0.05	0.05	0.06

Table 856: IPCC — Emissions—NO2—Land—Agriculture—Agricultural Soils—Pasture (Mt NO2/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.20	2.54	2.87	2.96	3.24	3.40	3.50	3.68	3.70	4.00
CAZ	0.26	0.32	0.45	0.34	0.35	0.35	0.39	0.50	0.35	0.46
CHA	0.09	0.12	0.15	0.20	0.25	0.32	0.36	0.35	0.45	0.52
EUR	0.06	0.08	0.10	0.14	0.18	0.18	0.17	0.17	0.15	0.15
IND	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.07	0.07
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.45	0.49	0.53	0.55	0.61	0.63	0.64	0.67	0.68	0.73
MEA	0.10	0.10	0.12	0.13	0.14	0.15	0.19	0.18	0.20	0.21
NEU	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
OAS	0.08	0.09	0.10	0.09	0.11	0.13	0.12	0.12	0.14	0.16
REF	0.11	0.14	0.15	0.23	0.27	0.29	0.20	0.21	0.22	0.20
SSA	0.77	0.90	0.96	0.94	0.95	0.95	0.98	1.04	1.04	1.09
USA	0.22	0.25	0.27	0.29	0.32	0.34	0.37	0.36	0.38	0.38

Table 857: Nsurplus2 — Emissions—NO2—Land—Agriculture—Agricultural Soils—Pasture (Mt NO2/yr)

15.1.6 Agriculture—Animal Waste Management



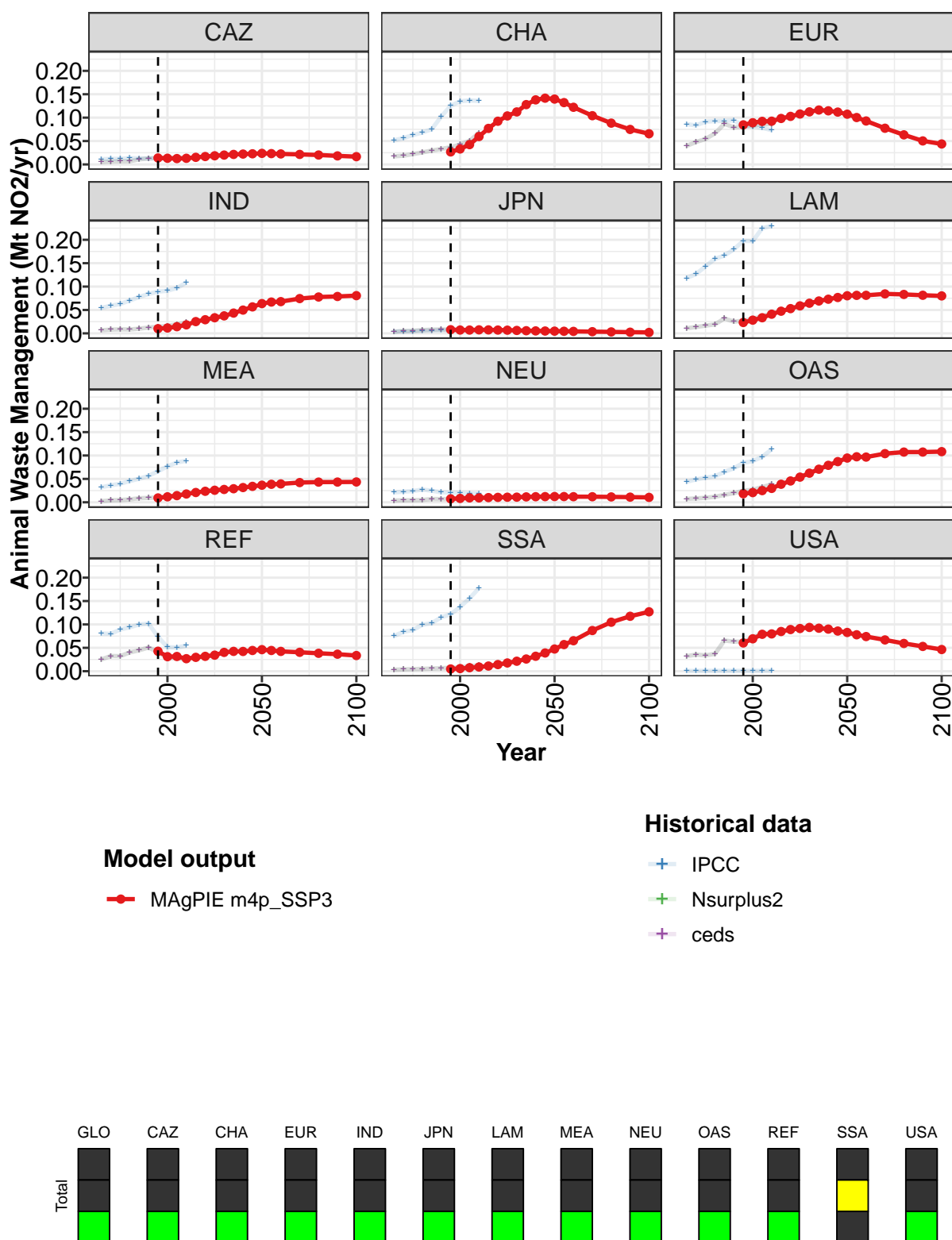


Figure 256: MAgPIE m4p_SSP3 — Emissions—NO₂—Land—Agriculture—Animal Waste Management (Mt NO₂/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.309	0.329	0.368	0.404	0.466	0.516	0.563	0.609	0.656	0.690	0.717
CAZ	0.014	0.013	0.013	0.013	0.015	0.017	0.018	0.020	0.021	0.022	0.023
CHA	0.027	0.033	0.042	0.060	0.077	0.092	0.104	0.112	0.128	0.138	0.142
EUR	0.085	0.089	0.092	0.092	0.098	0.103	0.108	0.112	0.116	0.115	0.112
IND	0.010	0.012	0.014	0.018	0.025	0.029	0.033	0.037	0.043	0.050	0.057
JPN	0.008	0.007	0.007	0.008	0.007	0.007	0.007	0.006	0.006	0.005	0.005
LAM	0.023	0.028	0.033	0.041	0.047	0.053	0.059	0.064	0.069	0.073	0.077
MEA	0.009	0.012	0.014	0.018	0.021	0.024	0.026	0.027	0.029	0.032	0.034
NEU	0.007	0.008	0.009	0.009	0.010	0.011	0.011	0.011	0.012	0.012	0.012
OAS	0.018	0.021	0.025	0.030	0.039	0.046	0.054	0.062	0.071	0.079	0.087
REF	0.043	0.031	0.032	0.027	0.030	0.032	0.034	0.040	0.042	0.042	0.044
SSA	0.005	0.006	0.008	0.009	0.011	0.014	0.018	0.021	0.026	0.032	0.039
USA	0.060	0.069	0.079	0.080	0.085	0.089	0.091	0.094	0.092	0.090	0.086

Table 858: MAgPIE m4p_SSP3 — Emissions—NO2—Land—Agriculture—Animal Waste Management (Mt NO2/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	0.739	0.735	0.721	0.718	0.700	0.675	0.658
CAZ	0.024	0.023	0.022	0.021	0.020	0.018	0.017
CHA	0.140	0.132	0.122	0.104	0.088	0.075	0.066
EUR	0.107	0.100	0.093	0.077	0.063	0.050	0.044
IND	0.064	0.067	0.068	0.074	0.078	0.079	0.081
JPN	0.005	0.004	0.004	0.004	0.003	0.002	0.002
LAM	0.080	0.081	0.081	0.084	0.083	0.081	0.080
MEA	0.037	0.038	0.039	0.042	0.043	0.043	0.043
NEU	0.012	0.012	0.012	0.012	0.011	0.011	0.010
OAS	0.095	0.097	0.097	0.104	0.107	0.107	0.108
REF	0.046	0.044	0.042	0.040	0.038	0.036	0.034
SSA	0.047	0.057	0.065	0.087	0.105	0.117	0.127
USA	0.083	0.078	0.074	0.067	0.059	0.053	0.046

Table 859: MAgPIE m4p_SSP3 — Emissions—NO2—Land—Agriculture—Animal Waste Management (Mt NO2/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.58	0.61	0.67	0.73	0.77	0.85	0.88	0.90	0.96	1.02
CAZ	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CHA	0.05	0.06	0.06	0.07	0.08	0.10	0.13	0.13	0.14	0.14
EUR	0.09	0.08	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.07
IND	0.05	0.06	0.06	0.07	0.08	0.08	0.09	0.09	0.10	0.11
JPN	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.12	0.13	0.14	0.16	0.17	0.18	0.20	0.20	0.22	0.23
MEA	0.03	0.04	0.04	0.05	0.05	0.06	0.07	0.08	0.09	0.09
NEU	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02
OAS	0.04	0.05	0.05	0.06	0.07	0.07	0.08	0.09	0.10	0.11
REF	0.08	0.08	0.09	0.09	0.10	0.10	0.07	0.05	0.05	0.05
SSA	0.08	0.08	0.09	0.10	0.10	0.12	0.12	0.14	0.16	0.18
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 860: ceds — Emissions—NO2—Land—Agriculture—Animal Waste Management (Mt NO2/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.157	0.188	0.203	0.238	0.324	0.327	0.334	0.349	0.391	0.427
CAZ	0.005	0.006	0.007	0.007	0.011	0.013	0.014	0.014	0.015	0.014
CHA	0.017	0.019	0.022	0.026	0.030	0.033	0.037	0.042	0.051	0.068
EUR	0.040	0.048	0.054	0.066	0.087	0.079	0.081	0.083	0.086	0.086
IND	0.007	0.008	0.009	0.008	0.010	0.012	0.014	0.016	0.019	0.023
JPN	0.003	0.005	0.005	0.007	0.008	0.008	0.008	0.007	0.007	0.008
LAM	0.011	0.014	0.017	0.019	0.032	0.025	0.027	0.031	0.037	0.043
MEA	0.002	0.004	0.005	0.006	0.009	0.009	0.011	0.012	0.015	0.019
NEU	0.004	0.004	0.004	0.005	0.007	0.007	0.007	0.008	0.009	0.009
OAS	0.007	0.008	0.010	0.012	0.016	0.019	0.025	0.027	0.033	0.038
REF	0.025	0.033	0.032	0.040	0.045	0.051	0.041	0.028	0.029	0.024
SSA	0.003	0.004	0.004	0.005	0.006	0.006	0.007	0.008	0.011	0.013
USA	0.032	0.035	0.034	0.037	0.066	0.063	0.063	0.072	0.081	0.082

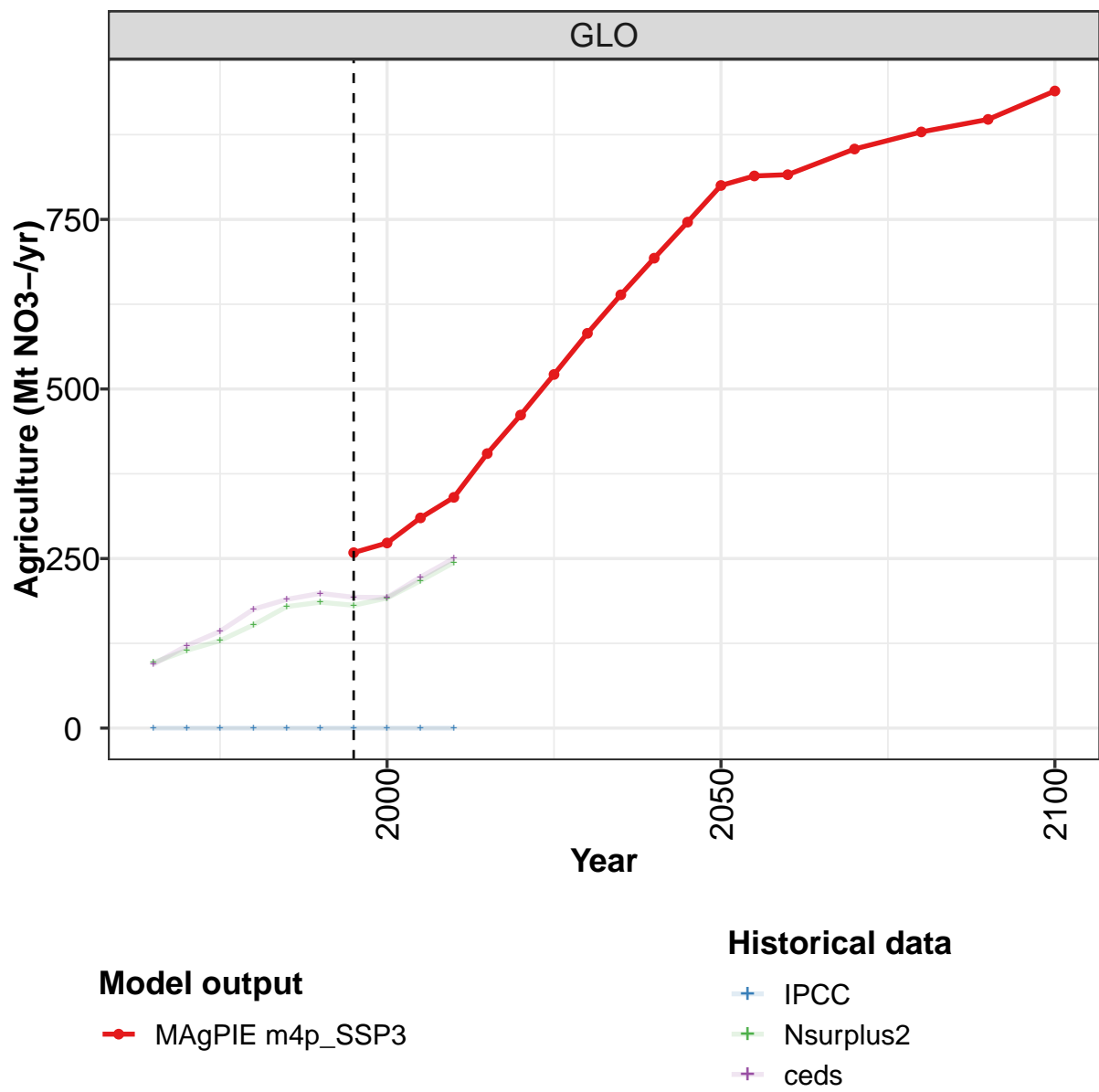
Table 861: IPCC — Emissions—NO2—Land—Agriculture—Animal Waste Management (Mt NO2/yr)

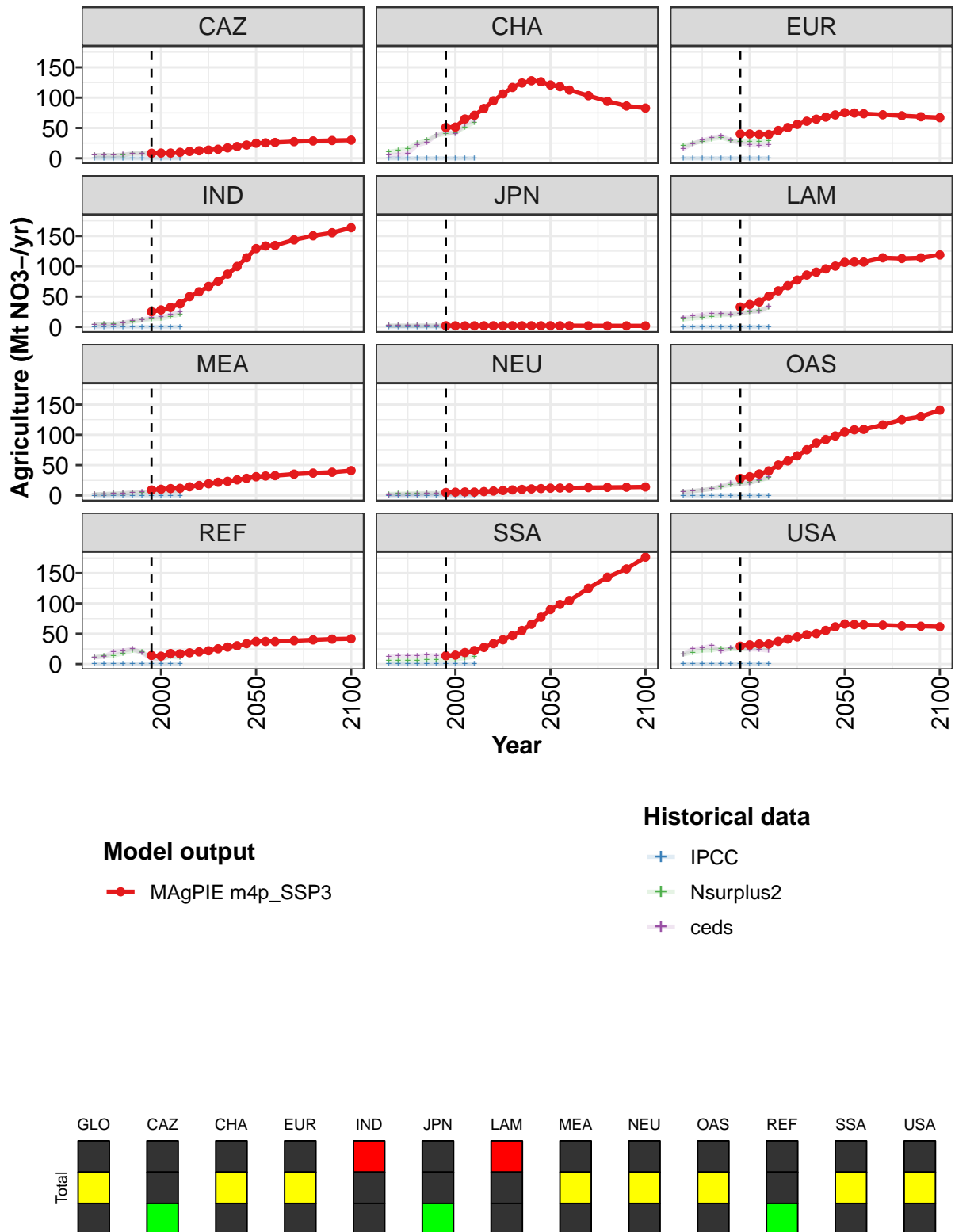
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.157	0.188	0.203	0.238	0.324	0.327	0.334	0.349	0.391	0.427
CAZ	0.005	0.006	0.007	0.007	0.011	0.013	0.014	0.014	0.015	0.014
CHA	0.017	0.019	0.022	0.026	0.030	0.033	0.037	0.042	0.051	0.068
EUR	0.040	0.048	0.054	0.066	0.087	0.079	0.081	0.083	0.086	0.086
IND	0.007	0.008	0.009	0.008	0.010	0.012	0.014	0.016	0.019	0.023
JPN	0.003	0.005	0.005	0.007	0.008	0.008	0.008	0.007	0.007	0.008
LAM	0.011	0.014	0.017	0.019	0.032	0.025	0.027	0.031	0.037	0.043
MEA	0.002	0.004	0.005	0.006	0.009	0.009	0.011	0.012	0.015	0.019
NEU	0.004	0.004	0.004	0.005	0.007	0.007	0.007	0.008	0.009	0.009
OAS	0.007	0.008	0.010	0.012	0.016	0.019	0.025	0.027	0.033	0.038
REF	0.025	0.033	0.032	0.040	0.045	0.051	0.041	0.028	0.029	0.024
SSA	0.003	0.004	0.004	0.005	0.006	0.006	0.007	0.008	0.011	0.013
USA	0.032	0.035	0.034	0.037	0.066	0.063	0.063	0.072	0.081	0.082

Table 862: Nsurplus2 — Emissions—NO2—Land—Agriculture—Animal Waste Management (Mt NO2/yr)

16 NO3Land

16.1 Agriculture



Figure 257: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture (Mt NO₃-/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	259	273	310	340	405	462	521	582	639	693	746
CAZ	8	9	9	10	11	12	14	15	17	19	22
CHA	51	51	65	71	82	95	106	117	124	128	126
EUR	40	40	39	39	46	51	56	61	65	68	72
IND	25	28	32	38	50	58	67	75	87	100	114
JPN	2	2	2	2	2	2	2	2	2	2	2
LAM	33	37	41	50	59	68	77	86	90	96	100
MEA	9	10	11	12	14	17	19	22	23	26	28
NEU	5	5	6	6	6	7	8	9	10	11	11
OAS	28	31	36	41	50	57	65	75	87	92	98
REF	14	13	17	17	19	20	22	25	28	30	34
SSA	14	15	19	22	27	34	40	47	55	66	77
USA	30	32	33	33	38	41	45	48	50	56	61

Table 863: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture (Mt NO3-/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	800	814	816	854	879	897	939
CAZ	25	25	26	27	29	29	30
CHA	121	118	112	103	94	86	83
EUR	75	75	74	72	70	68	67
IND	129	133	134	144	150	155	164
JPN	2	2	2	2	2	2	2
LAM	106	107	107	114	113	114	119
MEA	31	32	33	35	37	38	41
NEU	12	12	12	13	13	14	14
OAS	105	108	109	116	125	130	141
REF	37	37	37	39	40	41	42
SSA	90	98	105	125	143	157	176
USA	66	65	65	64	63	62	62

Table 864: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture (Mt NO3-/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0	0	0	0	0	0	0	0	0	0
CAZ	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0

Table 865: ceds — Emissions—NO3Land—Agriculture (Mt NO3-/yr)

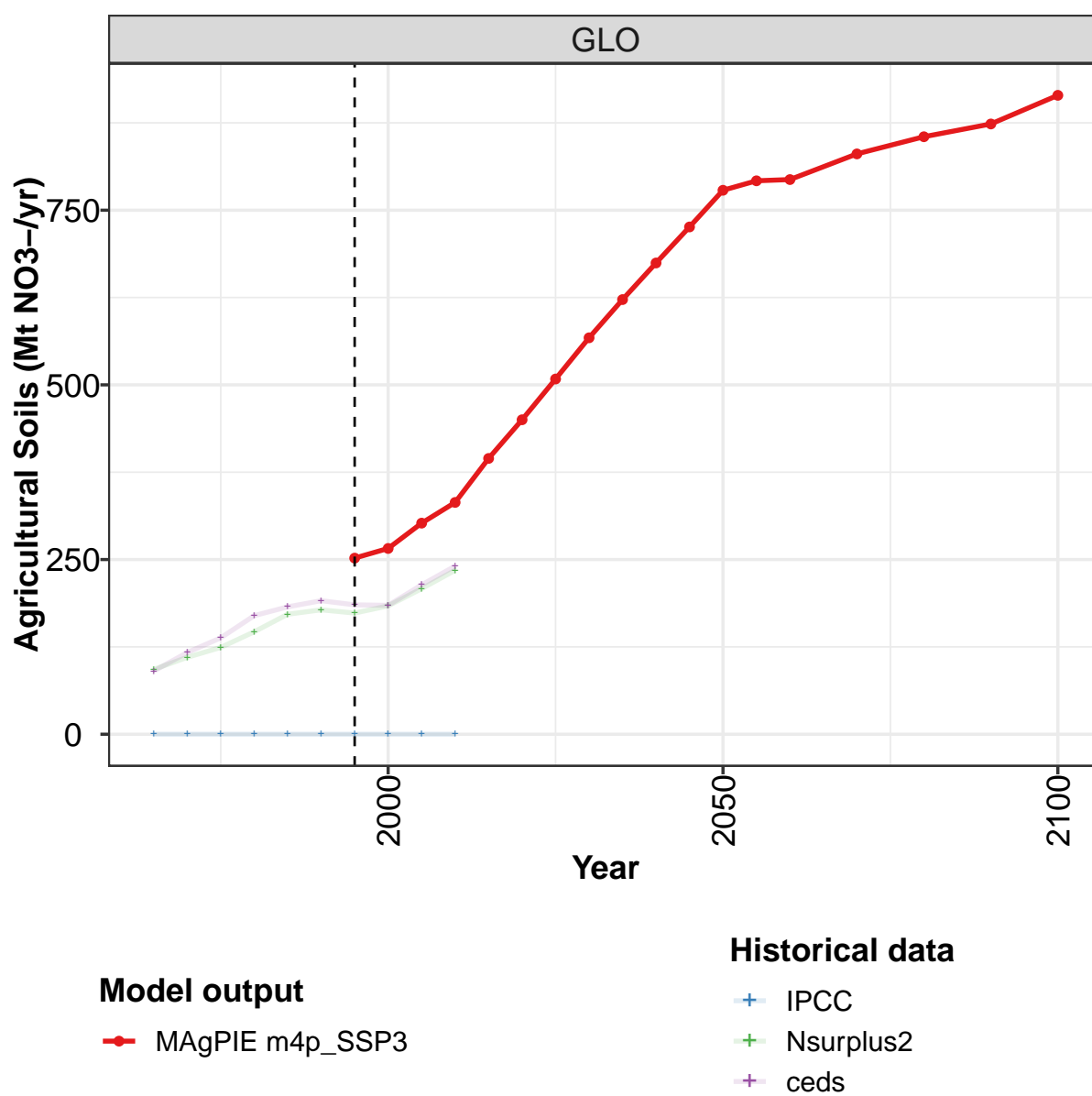
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	97	115	129	152	179	186	181	192	217	244
CAZ	5	5	5	5	8	8	8	8	9	10
CHA	11	13	16	25	29	37	40	42	51	59
EUR	21	24	28	32	34	29	27	28	27	29
IND	4	5	5	6	8	11	13	13	17	21
JPN	2	2	2	2	2	2	2	2	2	2
LAM	12	14	15	17	20	20	21	25	27	33
MEA	2	2	3	4	4	5	6	6	7	7
NEU	2	3	3	4	4	4	3	4	4	4
OAS	6	7	9	11	14	17	19	21	25	29
REF	11	14	14	18	22	20	10	9	12	11
SSA	5	6	6	6	7	7	7	8	10	12
USA	16	19	22	23	26	25	24	26	27	28

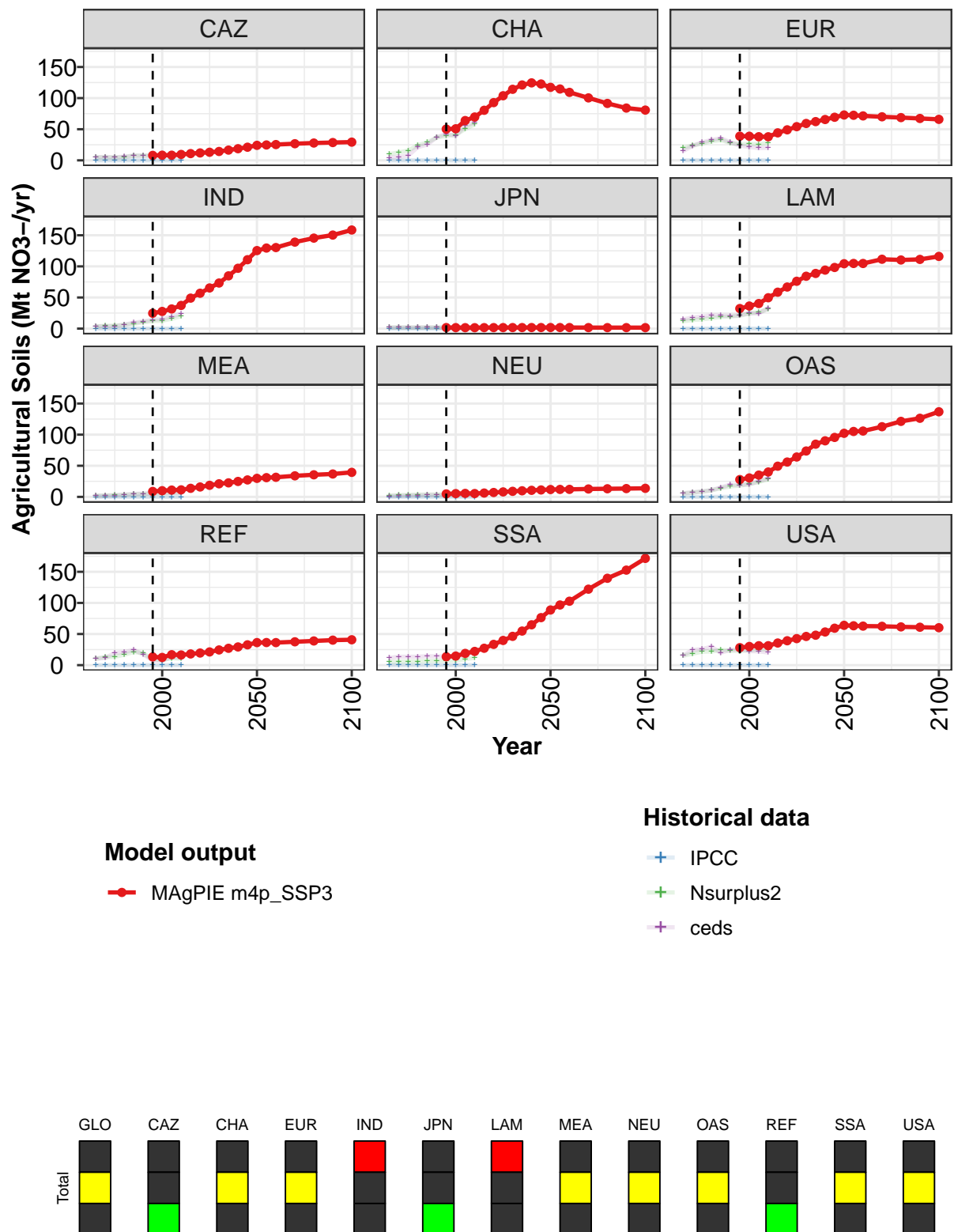
Table 866: IPCC — Emissions—NO3Land—Agriculture (Mt NO3-/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	94	121	143	175	190	199	193	192	223	250
CAZ	5	6	5	6	8	8	8	8	7	9
CHA	5	6	8	22	26	38	43	40	57	62
EUR	16	24	30	34	37	30	25	23	21	22
IND	4	4	4	7	10	12	15	16	20	25
JPN	2	2	2	2	2	2	2	2	2	1
LAM	15	18	20	22	22	21	22	26	25	34
MEA	2	2	3	4	5	5	6	7	7	7
NEU	1	2	2	3	3	3	3	3	3	3
OAS	6	7	9	11	16	20	20	21	26	31
REF	11	12	20	22	25	19	8	8	13	13
SSA	12	14	14	14	15	14	14	14	17	21
USA	16	25	27	30	22	26	27	24	24	22

Table 867: Nsurplus2 — Emissions—NO3Land—Agriculture (Mt NO3-/yr)

16.1.1 Agricultural Soils



Figure 258: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Agricultural Soils (Mt NO₃-/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	252	266	302	332	395	450	508	567	622	674	726
CAZ	8	8	8	9	11	12	13	14	16	19	21
CHA	50	51	64	70	80	93	104	114	121	125	123
EUR	39	39	38	38	44	49	54	59	62	66	69
IND	25	28	32	37	49	57	65	73	85	97	111
JPN	2	2	2	1	2	2	2	2	2	2	2
LAM	32	36	40	50	59	67	76	84	89	94	98
MEA	9	10	11	11	14	16	19	21	23	25	27
NEU	5	5	6	5	6	7	8	9	10	11	11
OAS	28	30	35	40	49	56	64	74	85	90	96
REF	13	12	17	16	18	19	21	24	27	29	33
SSA	14	15	19	22	27	33	40	46	55	65	76
USA	28	30	31	31	36	39	43	46	48	53	59

Table 868: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Agricultural Soils (Mt NO3-/yr)
[PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	779	792	794	831	855	873	914
CAZ	24	25	25	27	28	29	29
CHA	117	115	109	100	91	84	81
EUR	73	72	71	70	69	67	66
IND	125	129	130	139	145	150	158
JPN	2	2	2	2	2	2	2
LAM	104	105	105	111	110	111	116
MEA	30	31	32	34	35	37	39
NEU	12	12	12	13	13	13	14
OAS	102	105	106	113	121	126	137
REF	36	36	36	38	39	40	41
SSA	89	97	103	122	140	153	172
USA	64	63	63	62	61	61	60

Table 869: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Agricultural Soils (Mt NO3-/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0	0	0	0	0	0	0	0	0	0
CAZ	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0

Table 870: ceds — Emissions—NO3Land—Agriculture—Agricultural Soils (Mt NO3-/yr)

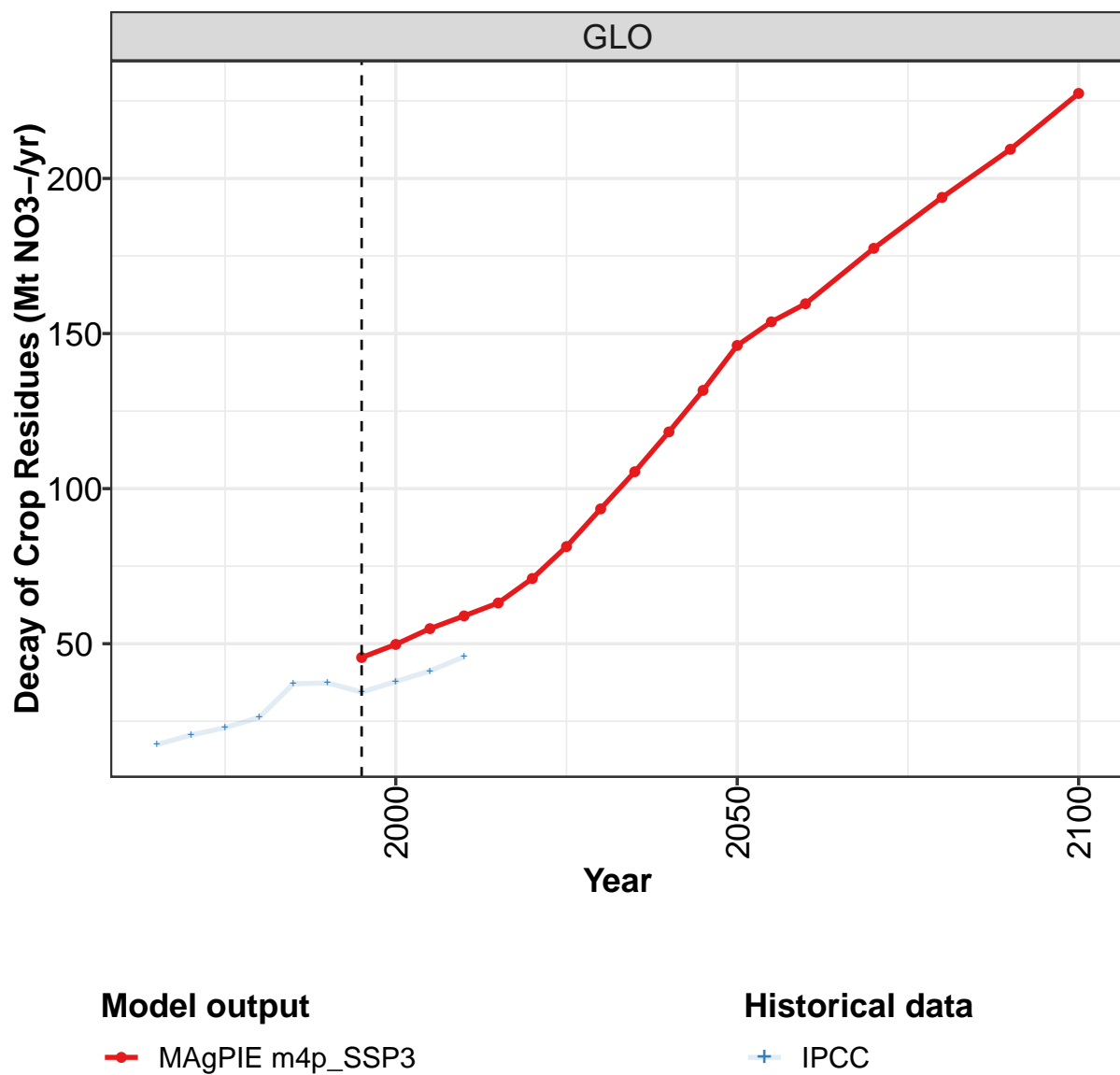
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	93	110	124	147	172	178	173	184	208	235
CAZ	5	5	5	5	7	8	7	8	8	10
CHA	10	13	16	24	29	37	39	41	50	58
EUR	20	24	27	31	33	28	26	26	26	28
IND	4	4	5	6	8	10	12	13	16	20
JPN	2	2	2	2	2	2	2	1	1	1
LAM	12	14	15	17	19	19	21	24	26	32
MEA	2	2	3	3	4	5	5	6	7	7
NEU	2	3	3	3	4	4	3	3	4	4
OAS	6	7	9	11	14	17	18	21	24	28
REF	11	13	13	17	21	19	9	8	11	10
SSA	5	5	6	6	7	7	7	8	10	12
USA	15	18	22	22	24	23	23	24	25	26

Table 871: IPCC — Emissions—NO3Land—Agriculture—Agricultural Soils (Mt NO3-/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	90	117	138	170	182	191	185	184	214	241
CAZ	5	5	5	6	7	7	7	8	6	9
CHA	4	5	8	21	25	37	43	39	56	61
EUR	15	23	29	33	36	29	24	21	20	20
IND	4	3	4	6	9	11	14	16	19	24
JPN	2	2	2	2	2	2	2	1	1	1
LAM	15	18	19	21	21	21	21	25	24	33
MEA	2	2	3	3	5	5	6	7	7	7
NEU	1	1	2	2	3	3	2	3	3	3
OAS	6	7	9	11	15	20	19	20	25	30
REF	10	12	20	21	24	18	7	8	13	12
SSA	12	13	13	13	14	14	14	14	17	21
USA	15	24	26	29	20	24	26	23	22	20

Table 872: Nsurplus2 — Emissions—NO3Land—Agriculture—Agricultural Soils (Mt NO3-/yr)

16.1.2 Agricultural Soils—Decay of Crop Residues



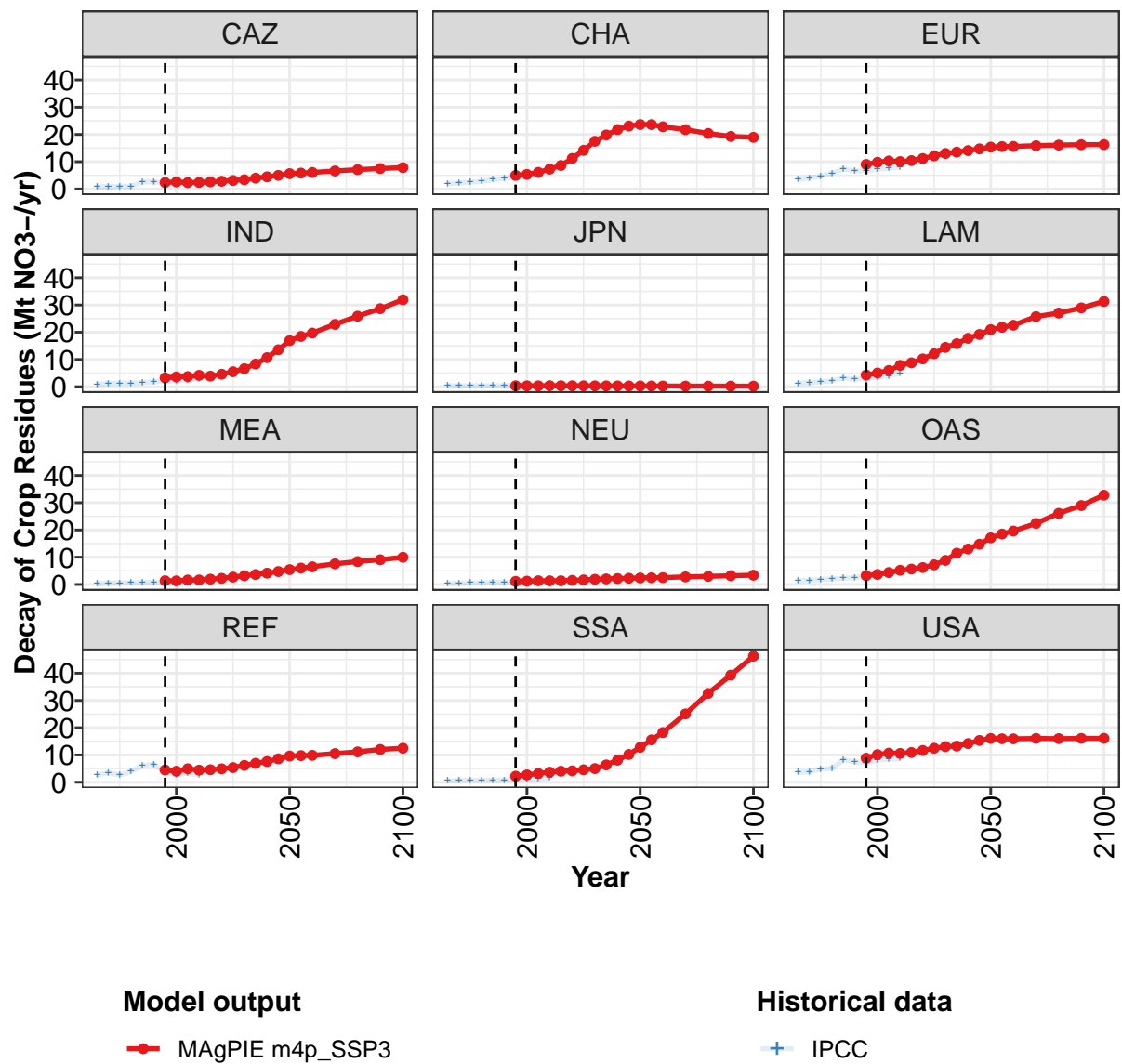


Figure 259: MAgPIE m4p_SSP3 — Emissions—NO₃Land—Agriculture—Agricultural Soils—Decay of Crop Residues (Mt NO₃-/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	46	50	55	59	63	71	81	93	105	118	132
CAZ	2	3	2	2	3	3	3	3	4	4	5
CHA	5	5	6	7	9	11	14	18	20	22	23
EUR	9	10	10	10	10	11	12	13	14	14	15
IND	3	4	4	4	4	5	6	7	8	11	14
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	4	5	6	8	9	10	12	14	16	18	19
MEA	1	1	2	2	2	2	3	3	4	4	5
NEU	1	1	1	1	1	2	2	2	2	2	2
OAS	3	4	4	5	6	6	7	9	11	13	15
REF	5	4	5	4	5	5	5	6	7	8	9
SSA	2	3	3	4	4	4	5	5	6	8	10
USA	9	10	11	11	11	12	12	13	13	14	15

Table 873: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Agricultural Soils—Decay of Crop Residues (Mt NO3-/yr) [PART 1/2]

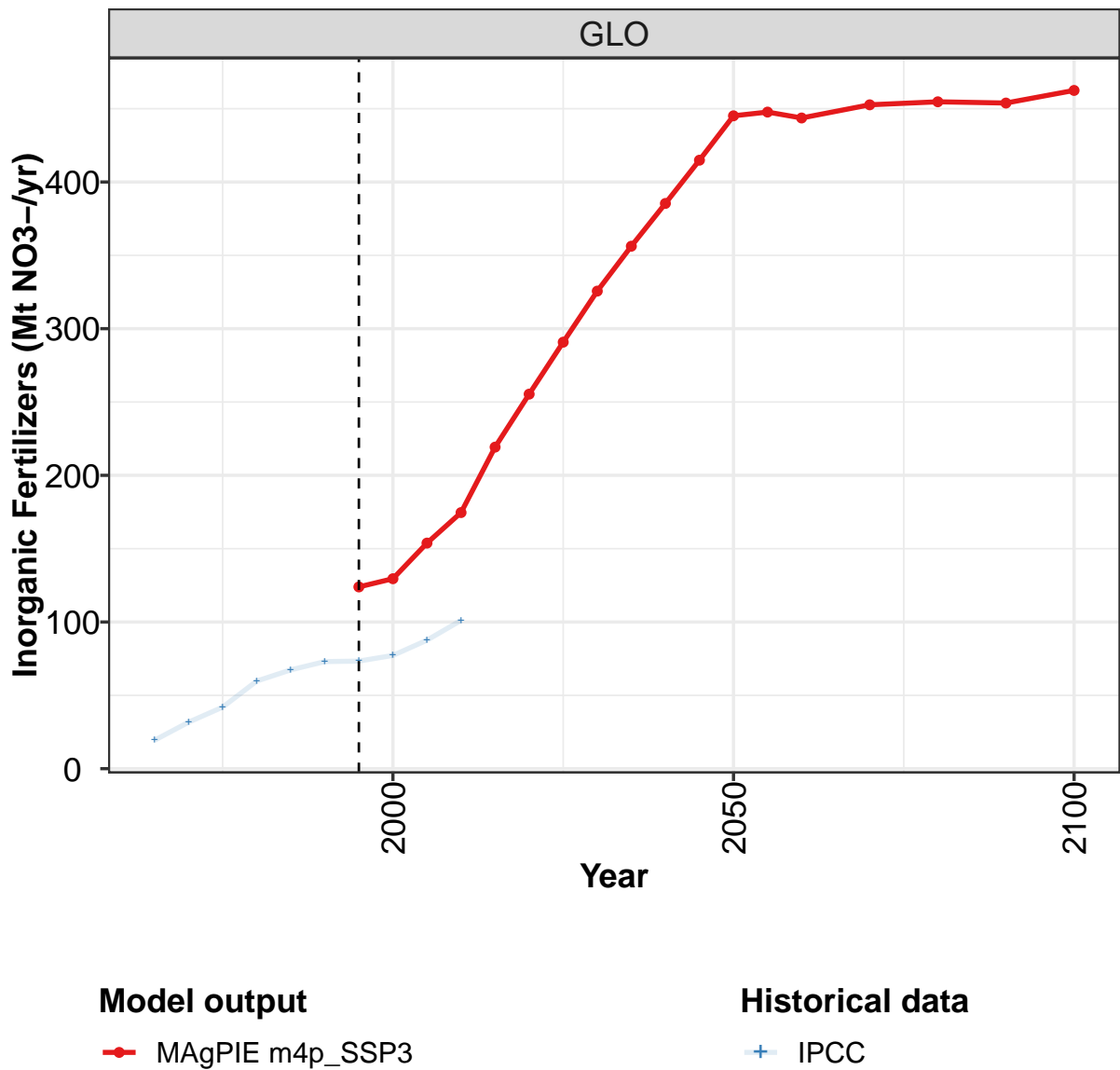
	2050	2055	2060	2070	2080	2090	2100
GLO	146	154	160	177	194	209	227
CAZ	6	6	6	7	7	7	8
CHA	24	24	23	22	20	19	19
EUR	15	16	16	16	16	16	16
IND	17	18	20	23	26	29	32
JPN	0	0	0	0	0	0	0
LAM	21	22	23	26	27	29	31
MEA	5	6	6	8	8	9	10
NEU	2	2	3	3	3	3	3
OAS	17	19	20	22	26	29	33
REF	10	10	10	10	11	12	12
SSA	13	16	18	25	33	39	46
USA	16	16	16	16	16	16	16

Table 874: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Agricultural Soils—Decay of Crop Residues (Mt NO3-/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	17.5	20.5	22.9	26.3	37.1	37.3	34.4	37.8	41.2	45.8
CAZ	0.8	0.8	1.0	1.0	2.5	2.7	2.2	2.5	2.6	2.8
CHA	1.9	2.2	2.5	2.8	3.5	3.9	4.2	4.7	5.2	6.8
EUR	3.6	4.0	4.7	5.8	7.3	6.6	6.7	7.3	7.6	8.0
IND	0.9	1.2	1.3	1.3	1.5	1.9	2.1	2.1	2.4	2.9
JPN	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4
LAM	1.2	1.5	1.9	2.1	3.1	2.8	2.8	3.5	3.9	5.0
MEA	0.3	0.5	0.6	0.6	0.7	0.8	0.9	0.9	1.2	1.2
NEU	0.4	0.4	0.6	0.6	0.8	0.8	0.8	0.8	1.0	0.9
OAS	1.3	1.5	1.8	2.0	2.3	2.6	2.9	3.5	4.0	4.8
REF	2.6	3.6	2.6	3.9	6.0	6.6	3.4	2.9	3.3	2.7
SSA	0.6	0.6	0.7	0.7	0.7	0.8	0.9	1.1	1.3	1.6
USA	3.6	3.8	4.9	5.0	8.3	7.4	7.1	8.1	8.5	8.7

Table 875: IPCC — Emissions—NO3Land—Agriculture—Agricultural Soils—Decay of Crop Residues (Mt NO3-/yr)

16.1.3 Agricultural Soils—Inorganic Fertilizers



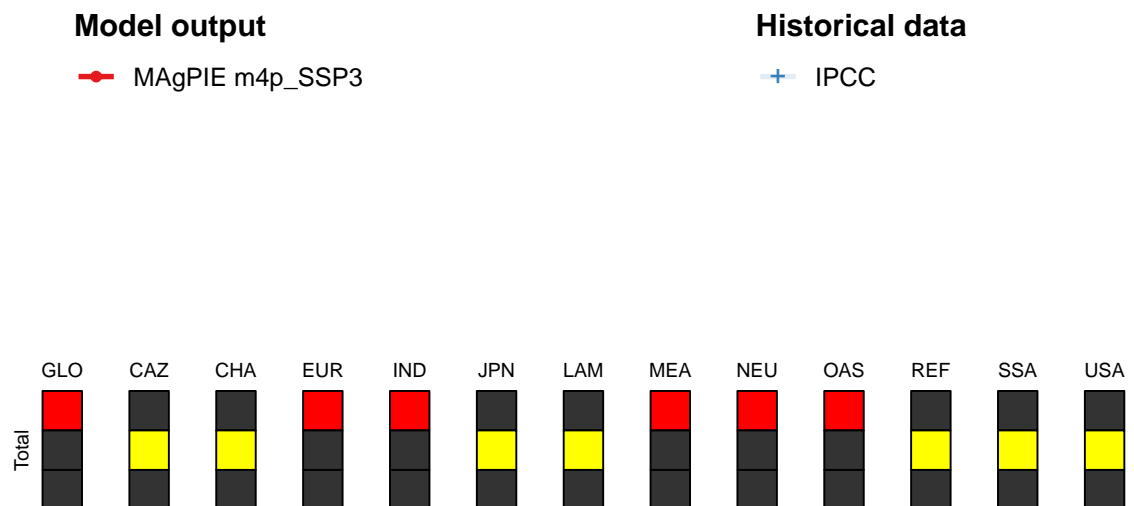
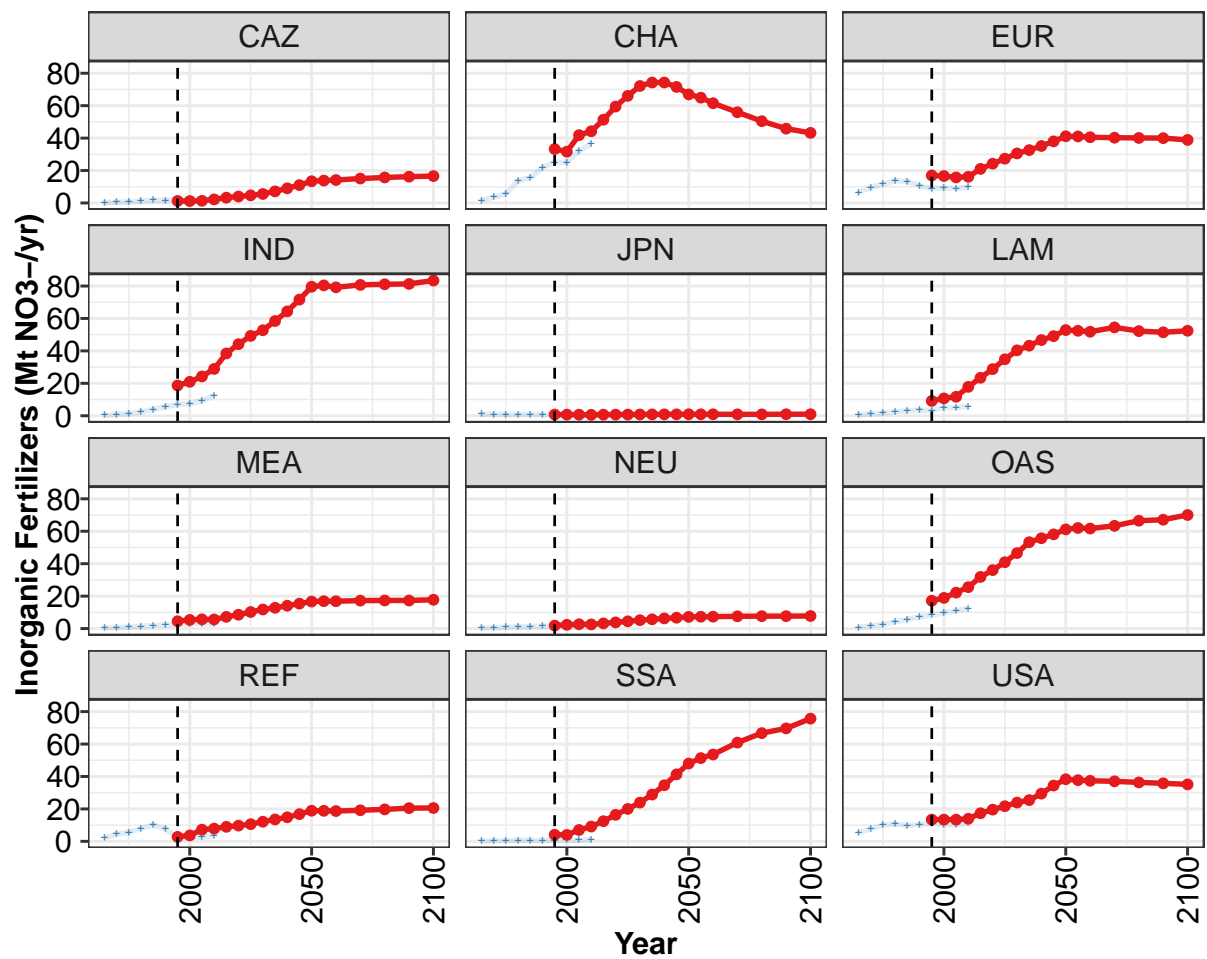


Figure 260: MAGPIE m4p_SSP3 — Emissions—NO₃Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NO₃-/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	124	130	154	175	219	255	291	326	356	385	415
CAZ	1	1	1	2	3	4	5	6	7	9	11
CHA	33	32	42	44	51	59	66	72	74	74	72
EUR	17	17	16	16	21	24	27	31	33	35	38
IND	19	21	24	29	38	44	49	53	58	64	72
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	9	11	12	18	23	29	35	40	43	47	49
MEA	5	5	6	6	7	9	10	12	13	14	15
NEU	2	2	3	3	3	4	4	5	6	6	7
OAS	17	19	22	26	32	36	41	47	53	56	58
REF	3	4	7	8	9	10	11	12	14	15	17
SSA	4	4	7	9	12	16	20	24	29	35	41
USA	13	13	13	14	17	20	22	24	25	29	34

Table 876: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NO3-/yr) [PART 1/2]

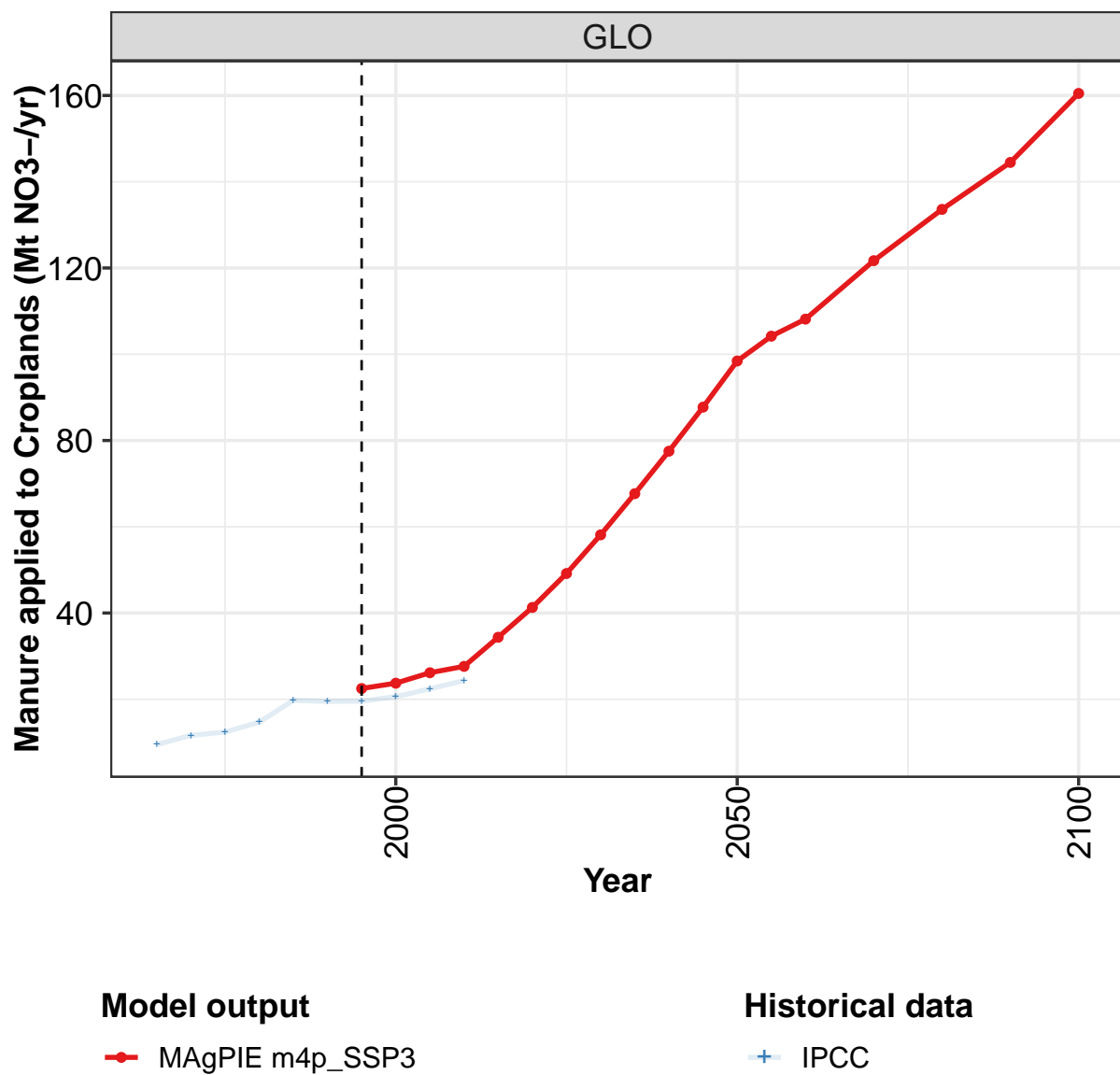
	2050	2055	2060	2070	2080	2090	2100
GLO	445	448	444	453	455	454	462
CAZ	13	14	14	15	16	16	17
CHA	67	65	62	56	50	46	43
EUR	41	41	41	40	40	40	39
IND	80	80	79	81	81	81	83
JPN	1	1	1	1	1	1	1
LAM	53	52	52	55	52	51	52
MEA	17	17	17	17	17	17	18
NEU	7	7	7	8	8	8	8
OAS	61	62	62	63	66	67	70
REF	19	19	19	19	20	21	21
SSA	48	51	54	61	67	70	76
USA	38	38	37	37	36	36	35

Table 877: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NO3-/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	19	32	42	60	67	73	73	77	88	101
CAZ	0	0	1	1	2	2	2	3	3	3
CHA	2	4	6	13	16	22	25	25	32	37
EUR	7	10	12	14	13	11	9	9	9	10
IND	0	1	1	2	4	6	7	7	9	12
JPN	1	1	1	1	1	1	1	0	0	0
LAM	1	1	2	3	3	3	3	5	5	6
MEA	0	1	1	1	2	2	3	3	3	3
NEU	0	1	1	1	1	1	1	1	2	1
OAS	1	2	3	4	6	7	8	10	11	12
REF	2	4	6	8	10	8	2	2	3	3
SSA	0	0	0	1	1	1	1	1	1	1
USA	5	8	10	11	10	10	11	10	10	11

Table 878: IPCC — Emissions—NO3Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NO3-/yr)

16.1.4 Agricultural Soils—Manure applied to Croplands



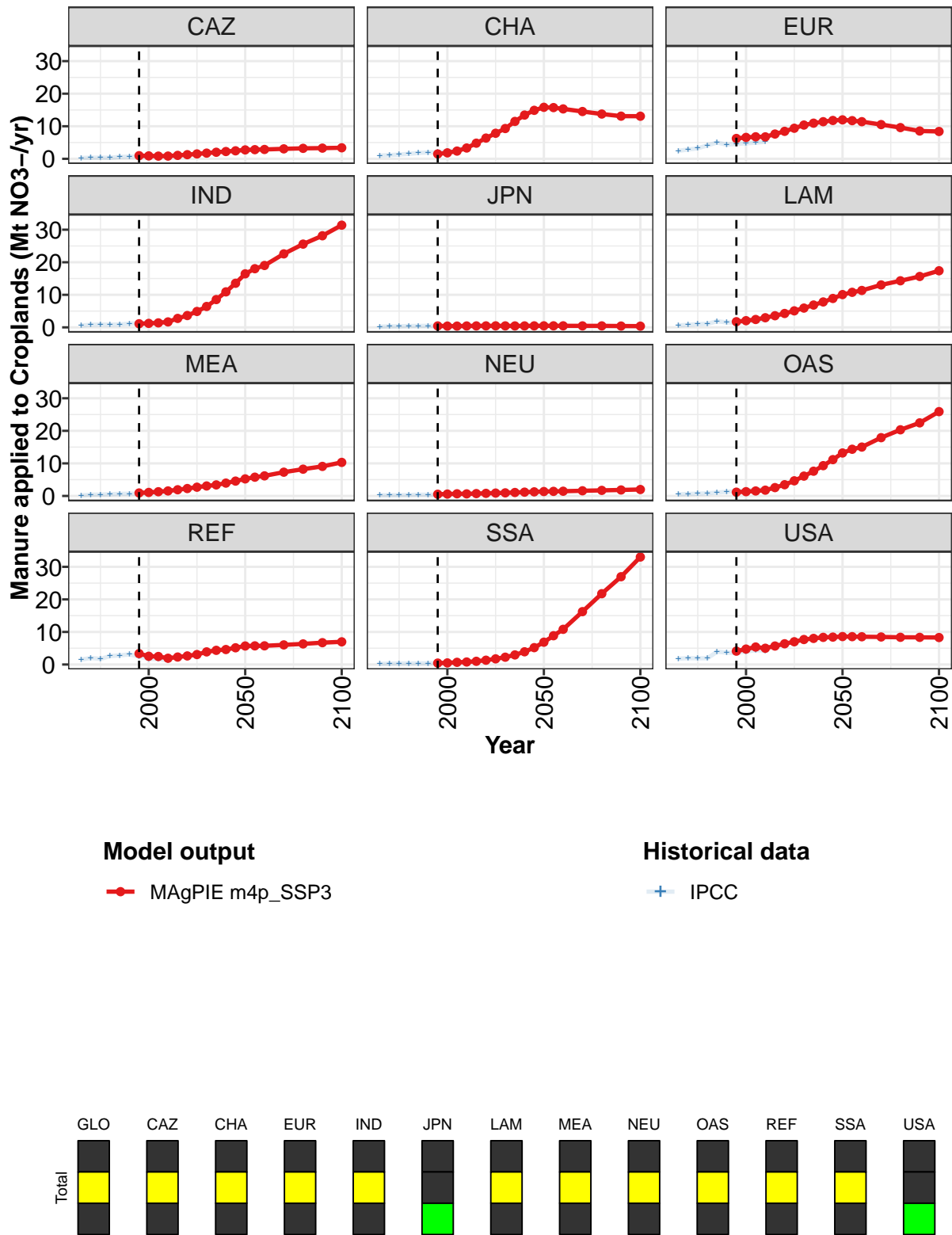


Figure 261: MAGPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NO₃-yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	22	24	26	28	34	41	49	58	68	78	88
CAZ	1	1	1	1	1	1	1	2	2	2	2
CHA	1	2	2	3	5	6	8	9	11	13	15
EUR	6	7	7	7	8	8	9	10	11	11	12
IND	1	1	1	2	3	4	5	6	9	11	14
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	2	2	2	3	4	4	5	6	7	8	9
MEA	1	1	1	2	2	2	3	3	3	4	5
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	1	1	2	2	3	3	5	6	8	9	11
REF	3	3	2	2	2	3	3	4	4	5	5
SSA	0	0	1	1	1	1	2	2	3	4	5
USA	4	5	5	5	6	6	7	8	8	8	8

Table 879: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NO3-/yr) [PART 1/2]

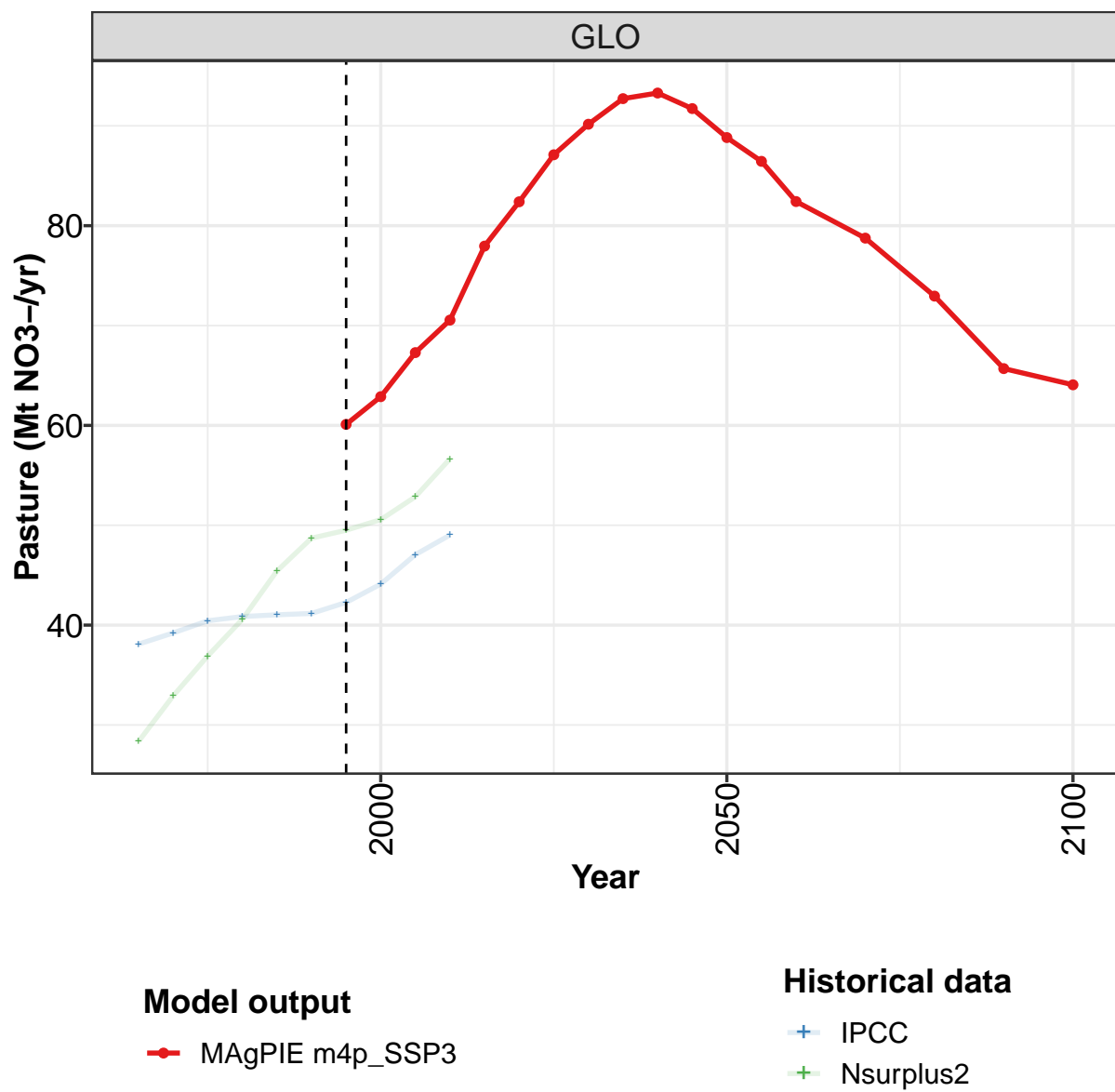
	2050	2055	2060	2070	2080	2090	2100
GLO	98	104	108	122	134	144	160
CAZ	3	3	3	3	3	3	3
CHA	16	16	15	15	14	13	13
EUR	12	12	11	11	10	9	8
IND	16	18	19	23	26	28	31
JPN	0	0	0	0	0	0	0
LAM	10	11	11	13	14	16	17
MEA	5	6	6	7	8	9	10
NEU	1	1	1	2	2	2	2
OAS	13	14	15	18	20	22	26
REF	6	6	6	6	6	7	7
SSA	7	9	11	16	22	27	33
USA	9	9	9	8	8	8	8

Table 880: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NO3-/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	9.5	11.6	12.4	14.7	19.7	19.5	19.6	20.6	22.4	24.3
CAZ	0.3	0.3	0.4	0.3	0.6	0.7	0.7	0.7	0.7	0.8
CHA	1.0	1.1	1.3	1.5	1.8	2.0	2.0	2.3	2.7	3.7
EUR	2.5	2.9	3.2	4.1	5.0	4.3	4.6	4.8	5.0	5.2
IND	0.6	0.8	0.9	0.8	0.9	1.1	1.3	1.3	1.6	1.9
JPN	0.2	0.3	0.3	0.4	0.4	0.5	0.4	0.4	0.4	0.4
LAM	0.6	0.8	1.0	1.1	1.9	1.5	1.5	1.8	2.0	2.2
MEA	0.2	0.4	0.4	0.5	0.6	0.7	0.7	0.8	1.0	1.2
NEU	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5
OAS	0.5	0.6	0.7	0.8	1.1	1.3	1.5	1.7	1.9	2.3
REF	1.5	2.0	1.7	2.6	2.8	3.1	2.4	1.7	1.7	1.3
SSA	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.7
USA	1.8	2.0	1.9	1.9	3.9	3.6	3.6	4.0	4.4	4.2

Table 881: IPCC — Emissions—NO3Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NO3-/yr)

16.1.5 Agricultural Soils—Pasture



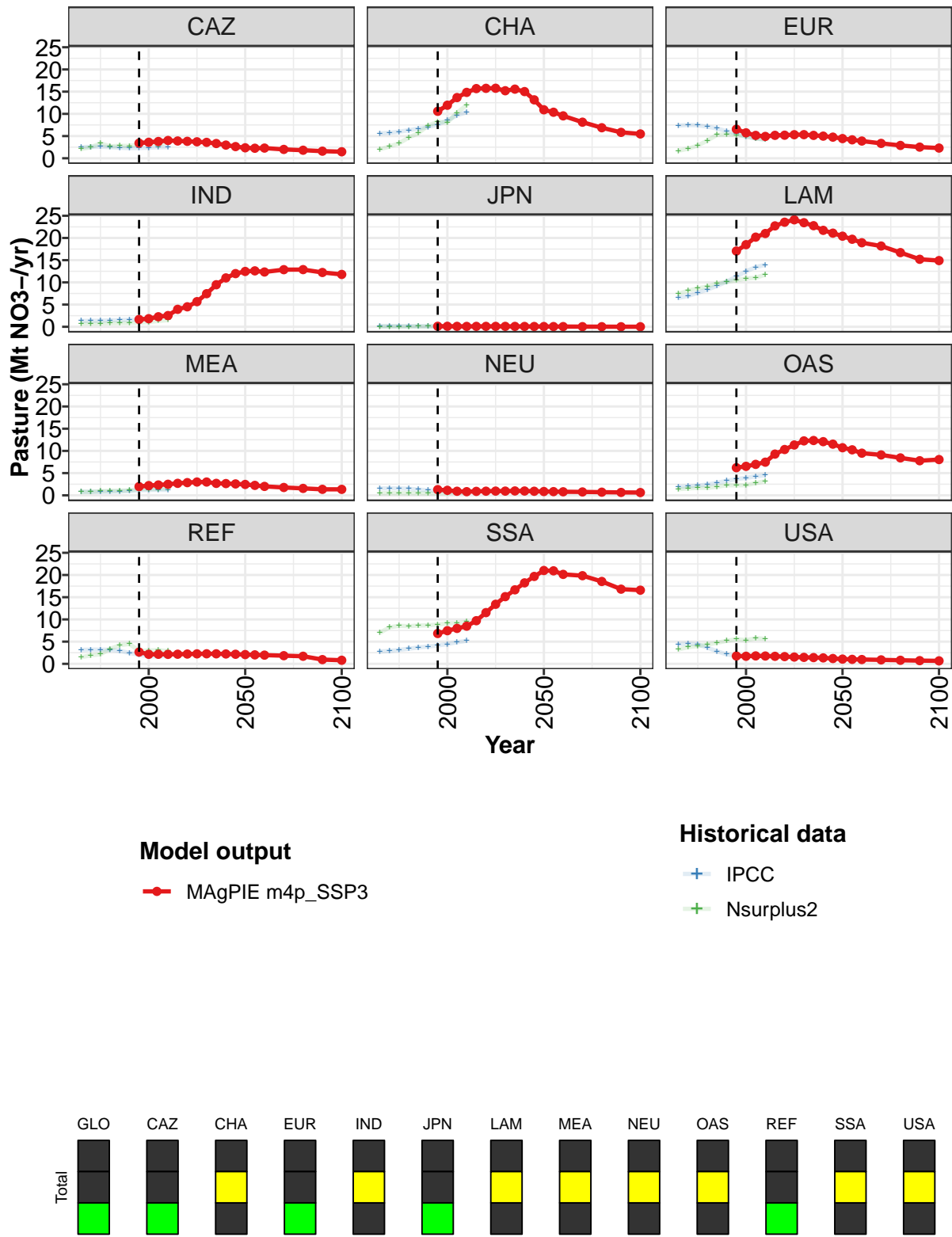


Figure 262: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Agricultural Soils—Pasture (Mt NO₃-/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	60.1	62.9	67.3	70.5	78.0	82.4	87.1	90.2	92.7	93.3	91.7
CAZ	3.4	3.6	3.8	4.0	3.9	3.8	3.7	3.6	3.3	3.0	2.6
CHA	10.6	11.9	13.7	14.8	15.7	15.8	15.8	15.2	15.6	15.0	13.2
EUR	6.5	5.7	5.2	4.9	5.2	5.2	5.3	5.3	5.2	5.0	4.8
IND	1.7	1.8	2.3	2.5	3.9	4.5	5.7	7.5	9.5	11.0	12.0
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	17.1	18.5	20.2	21.0	22.7	23.5	24.1	23.4	22.8	21.7	21.1
MEA	2.0	2.2	2.3	2.5	2.7	2.9	3.0	3.0	2.7	2.6	2.6
NEU	1.3	1.1	0.9	0.8	0.9	0.9	1.0	0.9	1.0	1.0	0.9
OAS	6.2	6.5	7.0	7.5	9.3	10.3	11.3	12.3	12.3	12.1	11.5
REF	2.7	2.1	2.2	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.2
SSA	6.8	7.5	8.0	8.5	9.7	11.5	13.4	15.1	16.7	18.2	19.7
USA	1.8	1.7	1.8	1.8	1.7	1.6	1.5	1.5	1.4	1.3	1.2

Table 882: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Agricultural Soils—Pasture (Mt NO3-/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	88.8	86.4	82.4	78.8	72.9	65.7	64.1
CAZ	2.4	2.3	2.3	2.0	1.8	1.6	1.5
CHA	10.9	10.4	9.6	8.1	6.9	5.8	5.5
EUR	4.4	4.2	3.9	3.4	2.9	2.5	2.3
IND	12.5	12.6	12.3	12.9	12.9	12.2	11.8
JPN	0.1	0.1	0.0	0.0	0.0	0.0	0.0
LAM	20.4	19.7	18.9	18.2	16.7	15.2	14.9
MEA	2.4	2.2	2.0	1.8	1.6	1.4	1.3
NEU	0.9	0.8	0.8	0.8	0.7	0.7	0.6
OAS	10.7	10.2	9.5	9.1	8.4	7.8	8.1
REF	2.1	2.0	2.0	1.8	1.7	1.0	0.8
SSA	21.0	20.9	20.1	19.8	18.5	16.8	16.6
USA	1.1	1.0	1.0	0.9	0.8	0.7	0.7

Table 883: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Agricultural Soils—Pasture (Mt NO3-/yr) [PART 2/2]

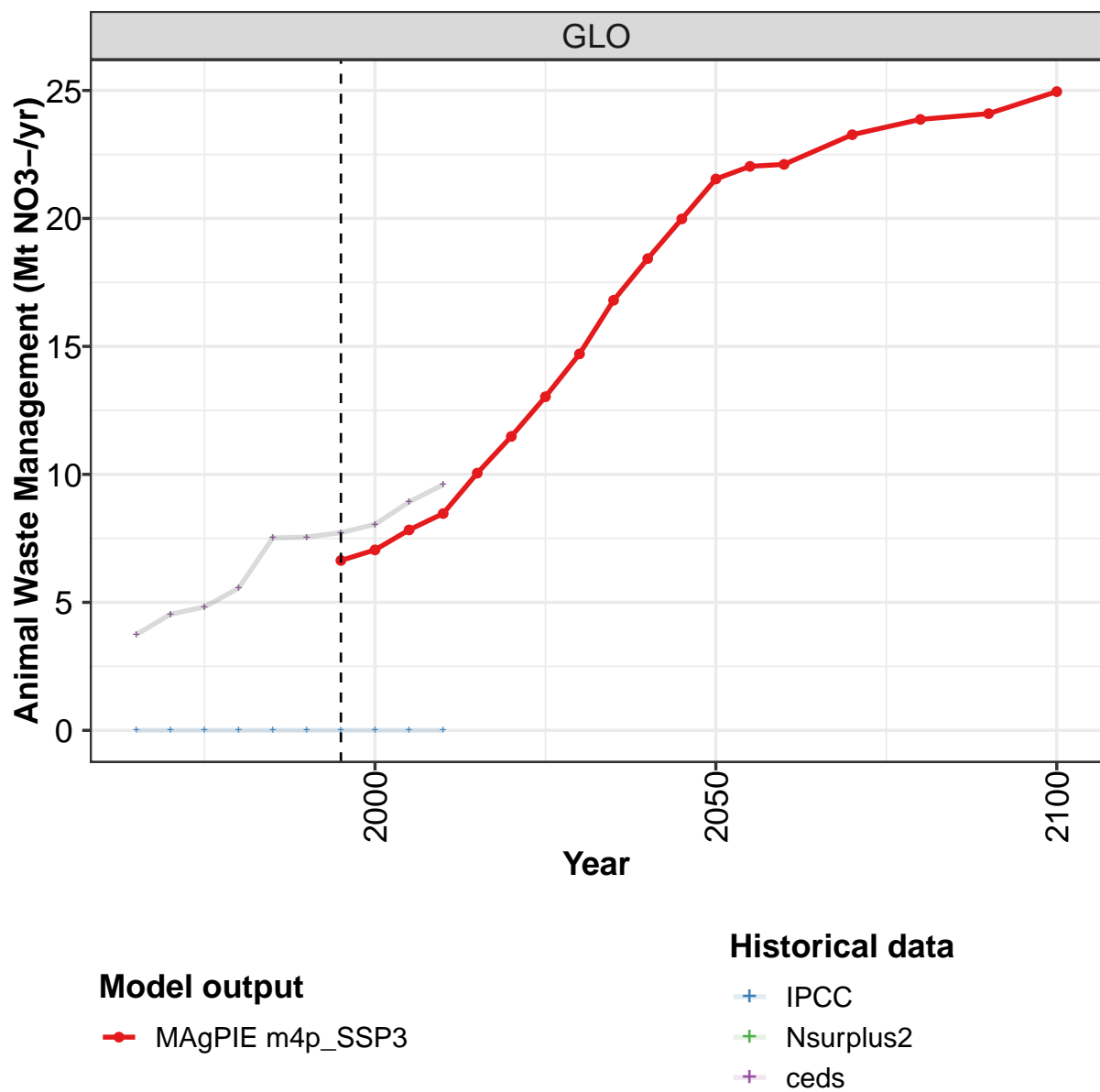
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	38.1	39.2	40.4	40.9	41.0	41.2	42.3	44.1	47.1	49.0
CAZ	2.5	2.6	2.6	2.5	2.4	2.3	2.3	2.4	2.5	2.5
CHA	5.6	5.7	6.0	6.3	6.7	7.1	7.6	8.5	9.7	10.4
EUR	7.4	7.5	7.4	7.1	6.7	6.1	5.5	4.9	4.5	4.2
IND	1.3	1.3	1.4	1.5	1.5	1.6	1.7	1.8	2.4	2.7
JPN	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
LAM	6.5	6.9	7.7	8.4	9.2	10.2	11.3	12.5	13.4	14.0
MEA	0.8	0.8	0.8	0.8	0.9	1.0	1.1	1.2	1.2	1.2
NEU	1.5	1.6	1.6	1.5	1.3	1.1	1.0	0.8	0.7	0.6
OAS	1.9	2.0	2.2	2.4	2.8	3.2	3.7	3.9	4.3	4.5
REF	3.1	3.2	3.2	3.2	2.9	2.5	2.0	1.7	1.7	1.8
SSA	2.8	2.9	3.1	3.4	3.7	3.9	4.1	4.4	4.9	5.2
USA	4.4	4.5	4.4	3.7	2.8	2.1	1.8	1.7	1.8	1.8

Table 884: IPCC — Emissions—NO3Land—Agriculture—Agricultural Soils—Pasture (Mt NO3-/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	28.3	32.9	36.9	40.6	45.4	48.7	49.5	50.6	52.9	56.7
CAZ	2.1	2.5	3.4	2.7	2.8	2.8	3.1	3.9	2.9	3.8
CHA	2.0	2.7	3.4	4.7	5.7	7.4	8.2	8.1	10.3	12.0
EUR	1.7	2.2	2.9	4.0	5.3	5.3	5.2	4.9	4.4	4.2
IND	0.7	0.7	0.7	0.8	0.8	0.9	0.9	1.1	1.3	1.5
JPN	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	7.4	8.1	8.7	9.1	9.8	10.1	10.5	10.9	11.0	11.8
MEA	0.8	0.8	0.9	1.0	1.1	1.1	1.4	1.4	1.4	1.6
NEU	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.5
OAS	1.4	1.5	1.7	1.7	1.9	2.3	2.2	2.3	2.7	3.2
REF	1.5	1.9	2.2	3.4	4.2	4.5	2.9	3.0	3.1	2.9
SSA	7.0	8.2	8.6	8.5	8.6	8.7	8.8	9.1	9.2	9.5
USA	3.2	3.8	4.0	4.3	4.7	5.2	5.5	5.3	5.8	5.6

Table 885: Nsurplus2 — Emissions—NO3Land—Agriculture—Agricultural Soils—Pasture (Mt NO3-/yr)

16.1.6 Animal Waste Management



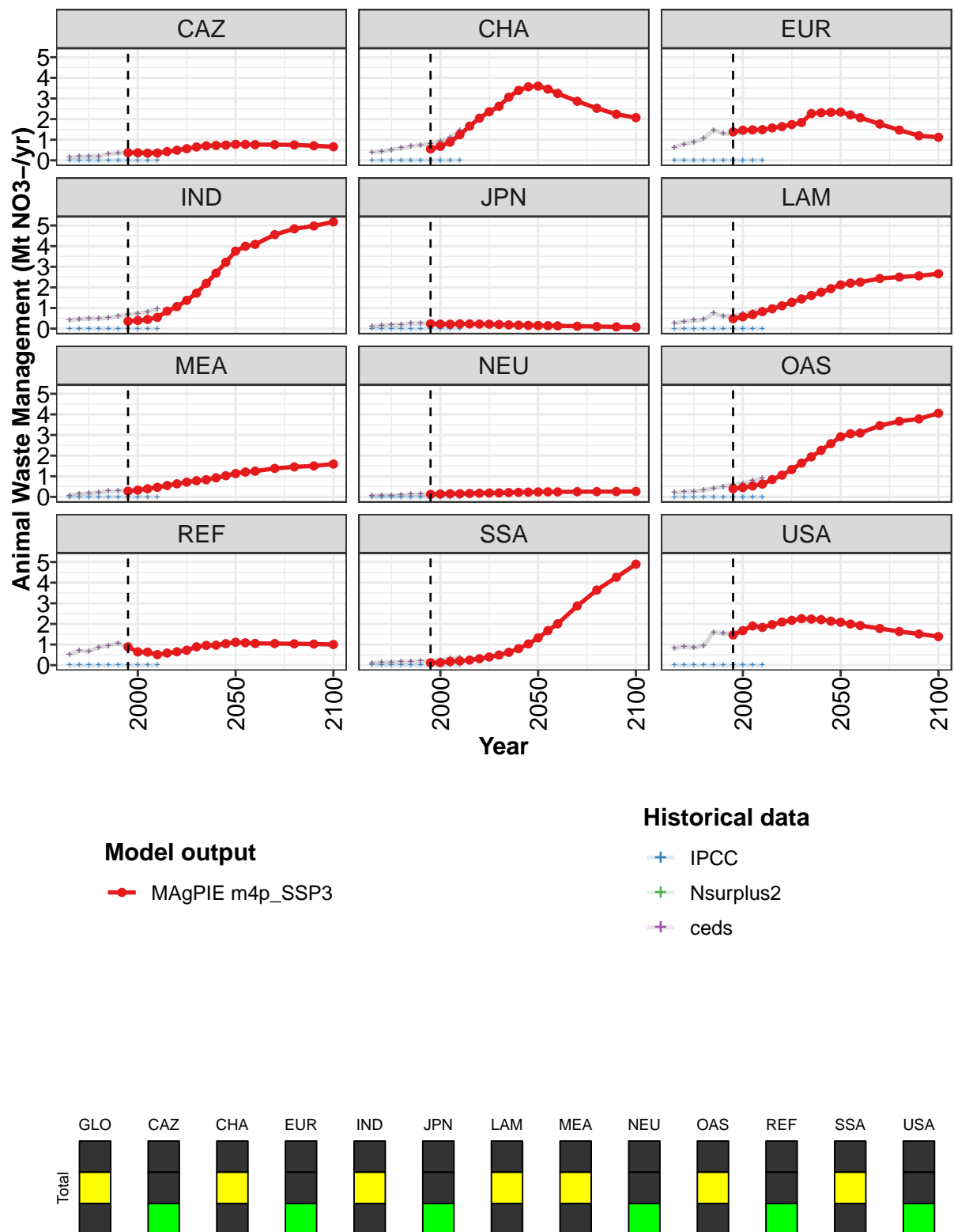


Figure 263: MAgPIE m4p_SSP3 — Emissions—NO₃Land—Agriculture—Animal Waste Management (Mt NO₃-/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.6	7.1	7.8	8.5	10.0	11.5	13.0	14.7	16.8	18.4	20.0
CAZ	0.4	0.4	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.7
CHA	0.5	0.7	0.9	1.2	1.7	2.0	2.4	2.6	3.1	3.4	3.6
EUR	1.4	1.5	1.5	1.5	1.6	1.6	1.7	1.8	2.3	2.3	2.3
IND	0.4	0.4	0.4	0.5	0.8	1.1	1.4	1.7	2.2	2.7	3.2
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	0.5	0.6	0.7	0.8	1.0	1.1	1.3	1.4	1.6	1.8	1.9
MEA	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.0
NEU	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.4	0.4	0.5	0.6	0.8	1.1	1.3	1.6	1.9	2.3	2.6
REF	0.9	0.6	0.6	0.5	0.6	0.6	0.7	0.9	1.0	1.0	1.0
SSA	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.6	0.8	1.0
USA	1.5	1.7	1.9	1.8	2.0	2.1	2.2	2.3	2.2	2.2	2.1

Table 886: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Animal Waste Management (Mt NO3-/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	21.5	22.0	22.1	23.3	23.9	24.1	25.0
CAZ	0.8	0.8	0.8	0.8	0.7	0.7	0.7
CHA	3.6	3.5	3.2	2.9	2.5	2.2	2.1
EUR	2.3	2.2	2.1	1.8	1.5	1.2	1.1
IND	3.8	4.0	4.1	4.6	4.8	5.0	5.2
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	2.1	2.2	2.2	2.4	2.5	2.6	2.7
MEA	1.1	1.2	1.2	1.4	1.5	1.5	1.6
NEU	0.2	0.2	0.2	0.3	0.3	0.3	0.3
OAS	2.9	3.1	3.1	3.5	3.7	3.8	4.1
REF	1.1	1.1	1.1	1.0	1.0	1.0	1.0
SSA	1.3	1.7	2.0	2.9	3.6	4.3	4.9
USA	2.1	2.0	1.9	1.8	1.6	1.5	1.4

Table 887: MAgPIE m4p_SSP3 — Emissions—NO3Land—Agriculture—Animal Waste Management (Mt NO3-/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0	0	0	0	0	0	0	0	0	0
CAZ	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0

Table 888: ceds — Emissions—NO3Land—Agriculture—Animal Waste Management (Mt NO3-/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3.75	4.53	4.82	5.56	7.52	7.55	7.72	8.05	8.92	9.60
CAZ	0.14	0.18	0.19	0.20	0.31	0.35	0.39	0.41	0.41	0.40
CHA	0.39	0.44	0.51	0.60	0.68	0.74	0.80	0.92	1.10	1.45
EUR	0.63	0.78	0.88	1.06	1.47	1.30	1.31	1.35	1.38	1.40
IND	0.40	0.46	0.49	0.49	0.52	0.60	0.68	0.74	0.82	0.93
JPN	0.10	0.16	0.17	0.20	0.24	0.25	0.24	0.23	0.22	0.23
LAM	0.26	0.33	0.40	0.43	0.75	0.59	0.62	0.71	0.81	0.93
MEA	0.08	0.15	0.16	0.21	0.28	0.29	0.32	0.36	0.42	0.50
NEU	0.06	0.07	0.08	0.08	0.13	0.12	0.12	0.13	0.15	0.15
OAS	0.21	0.24	0.27	0.32	0.42	0.49	0.60	0.65	0.77	0.89
REF	0.53	0.69	0.68	0.86	0.95	1.07	0.88	0.59	0.58	0.46
SSA	0.11	0.13	0.15	0.16	0.18	0.19	0.22	0.24	0.31	0.36
USA	0.82	0.90	0.85	0.94	1.60	1.55	1.52	1.74	1.95	1.89

Table 889: IPCC — Emissions—NO3Land—Agriculture—Animal Waste Management (Mt NO3-/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3.75	4.53	4.82	5.56	7.52	7.55	7.72	8.05	8.92	9.60
CAZ	0.14	0.18	0.19	0.20	0.31	0.35	0.39	0.41	0.41	0.40
CHA	0.39	0.44	0.51	0.60	0.68	0.74	0.80	0.92	1.10	1.45
EUR	0.63	0.78	0.88	1.06	1.47	1.30	1.31	1.35	1.38	1.40
IND	0.40	0.46	0.49	0.49	0.52	0.60	0.68	0.74	0.82	0.93
JPN	0.10	0.16	0.17	0.20	0.24	0.25	0.24	0.23	0.22	0.23
LAM	0.26	0.33	0.40	0.43	0.75	0.59	0.62	0.71	0.81	0.93
MEA	0.08	0.15	0.16	0.21	0.28	0.29	0.32	0.36	0.42	0.50
NEU	0.06	0.07	0.08	0.08	0.13	0.12	0.12	0.13	0.15	0.15
OAS	0.21	0.24	0.27	0.32	0.42	0.49	0.60	0.65	0.77	0.89
REF	0.53	0.69	0.68	0.86	0.95	1.07	0.88	0.59	0.58	0.46
SSA	0.11	0.13	0.15	0.16	0.18	0.19	0.22	0.24	0.31	0.36
USA	0.82	0.90	0.85	0.94	1.60	1.55	1.52	1.74	1.95	1.89

Table 890: Nsurplus2 — Emissions—NO3Land—Agriculture—Animal Waste Management (Mt NO3-/yr)

Part V**Food Consumption Value**

- 17 Bioenergy crops**
- 18 Crop residues**
- 19 Crops**
- 20 Fish**
- 21 Forage**
- 22 Livestock products**
- 23 Pasture**
- 24 Secondary products**

Part VI**Food Expenditure Share**

- 25 Bioenergy crops**
- 26 Crop residues**
- 27 Crops**
- 28 Fish**
- 29 Forage**
- 30 Livestock products**
- 31 Pasture**
- 32 Secondary products**

Part VII

Household Expenditure

33 Food

33.1 Expenditure

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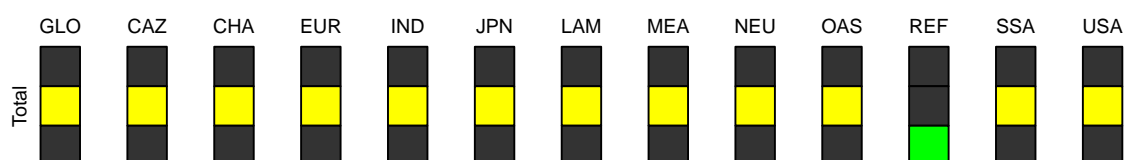


Figure 264: MAGPIE m4p_SSP3 — Household Expenditure—Food—Expenditure (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	549	507	534	558	555	565	568	583	606	629	656
CAZ	715	739	677	664	743	777	822	838	858	917	932
CHA	656	763	879	1019	800	781	790	823	857	872	901
EUR	806	770	747	668	764	775	780	814	802	824	832
IND	239	257	244	327	367	361	369	392	450	505	592
JPN	515	487	470	446	468	465	464	456	453	455	460
LAM	626	616	574	585	592	592	599	617	613	630	633
MEA	553	378	408	457	536	485	495	502	525	567	582
NEU	683	608	620	555	535	554	568	546	581	596	563
OAS	240	267	237	295	330	353	366	376	396	418	439
REF	1104	516	849	576	745	750	743	794	843	882	918
SSA	627	307	360	361	420	575	575	583	614	626	647
USA	734	930	954	817	939	853	853	864	859	864	879

Table 891: MAGPIE m4p_SSP3 — Household Expenditure—Food—Expenditure (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	683	691	680	767	824	952	1000
CAZ	988	997	990	1020	1274	1279	1316
CHA	919	900	879	841	815	797	796
EUR	767	831	768	882	903	920	924
IND	687	673	656	916	1118	1686	1830
JPN	463	465	460	468	477	483	493
LAM	637	643	617	671	671	674	680
MEA	610	630	641	708	764	821	880
NEU	579	608	581	615	636	640	624
OAS	463	478	470	516	536	549	565
REF	961	962	950	967	982	977	988
SSA	664	686	697	772	798	820	856
USA	891	1003	1021	1069	1164	1172	1184

Table 892: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure (USD/capita) [PART 2/2]

33.1.1 Crops

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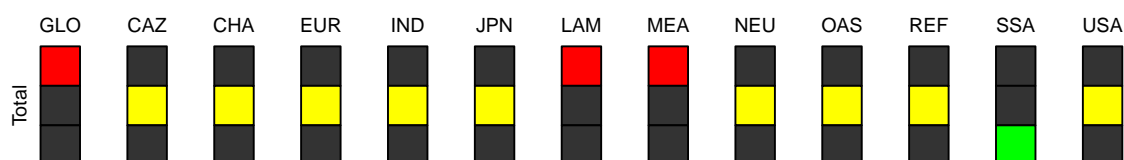


Figure 265: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	154	176	185	199	188	178	177	182	192	195	198
CAZ	131	148	140	156	148	138	135	131	130	129	131
CHA	193	255	281	319	263	245	238	237	238	238	237
EUR	156	163	158	147	155	155	153	158	151	151	150
IND	166	187	176	234	211	175	182	182	216	228	248
JPN	124	120	122	113	105	101	98	97	87	86	87
LAM	120	124	117	123	120	118	115	120	117	117	114
MEA	199	210	209	187	213	208	212	210	213	216	207
NEU	239	219	310	268	216	224	228	206	229	234	233
OAS	106	114	123	128	143	145	143	145	152	153	153
REF	63	37	92	39	79	75	98	178	184	185	185
SSA	162	179	205	206	201	200	196	205	218	216	217
USA	168	197	186	172	170	165	160	160	159	164	164

Table 893: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	202	200	198	213	215	227	229
CAZ	132	132	134	135	134	133	130
CHA	234	230	226	213	206	201	201
EUR	147	146	145	144	142	140	136
IND	270	255	246	300	309	369	369
JPN	88	88	88	87	86	84	83
LAM	114	115	116	119	117	117	116
MEA	212	212	220	233	257	271	280
NEU	241	243	239	245	261	253	267
OAS	153	155	153	157	156	156	156
REF	186	185	185	182	180	178	176
SSA	216	217	218	226	218	213	215
USA	164	163	164	166	166	163	160

Table 894: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops (USD/capita) [PART 2/2]

33.1.2 Crops—Cereals

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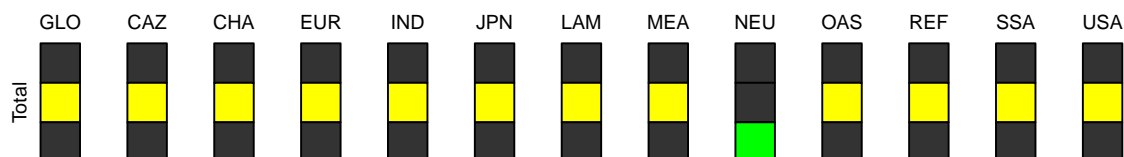



Figure 266: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops—Cereals (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	64	65	69	71	56	46	45	45	50	52	54
CAZ	34	45	33	41	38	29	27	26	26	26	27
CHA	81	85	81	78	44	35	32	32	32	32	32
EUR	30	27	28	23	28	27	27	27	26	27	28
IND	93	106	96	123	85	51	54	52	76	82	93
JPN	42	36	34	35	30	28	27	28	19	17	18
LAM	37	32	30	34	28	27	26	25	24	25	26
MEA	85	74	90	69	66	62	62	65	63	64	63
NEU	36	34	32	38	29	30	32	36	33	34	39
OAS	53	56	61	65	54	50	47	46	43	42	41
REF	57	30	84	28	65	58	49	50	48	46	47
SSA	62	65	87	87	80	73	67	68	73	70	70
USA	32	37	35	30	27	25	23	24	25	30	31

Table 895: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops—Cereals (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	57	55	54	60	60	67	67
CAZ	28	30	34	35	36	36	35
CHA	31	30	29	24	21	19	19
EUR	28	28	28	28	27	27	26
IND	104	96	91	118	122	159	159
JPN	19	19	20	20	20	20	20
LAM	26	26	27	28	28	29	29
MEA	64	64	65	63	63	66	66
NEU	41	48	48	45	44	35	45
OAS	40	40	40	40	38	37	36
REF	47	46	45	44	43	42	41
SSA	66	64	65	63	57	55	54
USA	31	31	32	34	35	35	35

Table 896: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops—Cereals (USD/capita) [PART 2/2]

33.1.3 Crops—Oil crops

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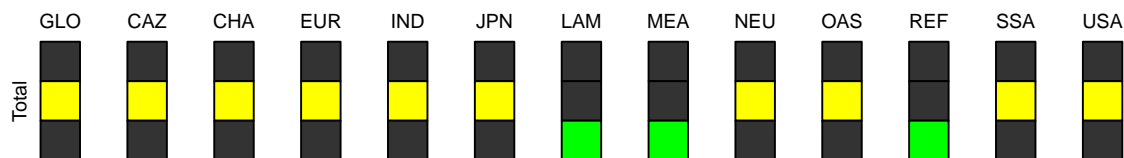


Figure 267: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops—Oil crops (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.5	7.1	8.0	8.5	7.9	7.5	7.3	7.1	7.5	7.6	7.8
CAZ	4.3	4.0	4.1	5.4	5.9	5.8	5.6	5.6	6.1	6.5	6.6
CHA	4.7	6.4	6.3	7.5	5.7	4.9	4.6	4.4	4.3	4.3	4.3
EUR	1.9	2.0	1.9	2.5	2.6	2.5	2.4	2.5	2.4	2.5	2.6
IND	7.9	5.7	6.5	10.1	9.1	7.9	7.6	7.3	8.1	8.5	9.2
JPN	8.8	10.1	10.9	9.9	10.1	10.0	9.8	9.6	9.6	9.7	9.6
LAM	2.9	5.0	6.2	5.5	5.3	4.9	4.5	4.3	4.2	4.1	4.0
MEA	1.1	1.6	1.3	1.9	2.0	1.7	1.4	1.2	1.3	1.4	1.5
NEU	1.7	3.0	3.7	3.9	3.9	3.4	3.0	2.6	2.9	3.3	3.5
OAS	15.5	16.6	16.5	13.8	12.7	11.7	10.8	10.1	9.8	9.5	9.3
REF	0.2	0.4	1.1	0.9	1.0	0.9	0.9	0.7	0.7	0.7	0.7
SSA	9.2	10.4	14.6	14.6	14.5	15.5	15.2	15.0	16.1	15.8	15.3
USA	2.9	3.4	4.3	3.9	4.4	4.3	4.0	3.9	3.9	4.1	4.2

Table 897: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops—Oil crops (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	8.1	7.8	7.6	7.9	7.8	8.2	8.0
CAZ	6.5	6.2	5.6	5.6	5.5	5.7	5.5
CHA	4.2	4.1	4.0	3.6	3.4	3.2	3.3
EUR	2.6	2.5	2.4	2.6	2.6	2.7	2.6
IND	9.9	9.2	8.8	10.8	11.4	14.5	14.5
JPN	9.5	9.3	9.0	9.0	8.7	8.7	8.6
LAM	4.0	4.1	3.9	3.5	3.4	3.3	3.2
MEA	1.6	1.6	1.5	1.5	1.4	1.4	1.4
NEU	3.8	3.7	3.6	3.6	3.7	3.7	3.6
OAS	8.9	8.6	8.2	7.6	7.2	6.8	6.8
REF	0.6	0.6	0.6	0.6	0.7	0.7	0.7
SSA	15.7	15.1	14.1	13.7	12.7	11.8	10.9
USA	4.3	4.2	4.3	4.4	4.4	4.4	4.3

Table 898: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops—Oil crops (USD/capita) [PART 2/2]

33.1.4 Crops—Other crops

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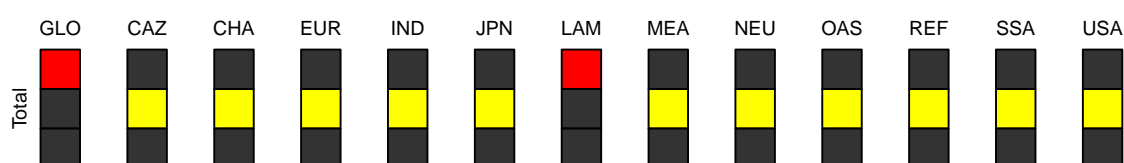


Figure 268: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops—Other crops (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	84	103	108	120	124	123	125	129	134	135	135
CAZ	92	99	103	110	104	103	102	99	98	97	97
CHA	107	163	194	234	214	205	201	201	202	202	201
EUR	124	135	128	121	125	125	124	129	123	121	120
IND	64	75	73	100	116	116	119	122	131	137	145
JPN	73	74	77	69	66	63	61	59	59	59	59
LAM	80	87	80	83	86	86	85	90	89	88	84
MEA	112	134	117	116	145	144	148	144	149	151	142
NEU	202	182	274	226	184	191	193	168	193	197	191
OAS	38	41	45	49	76	83	86	89	98	101	102
REF	6	7	8	10	13	16	48	127	136	139	138
SSA	91	103	103	105	107	111	114	121	129	130	132
USA	133	157	147	138	138	135	132	131	130	130	129

Table 899: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops—Other crops (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	138	137	136	145	147	152	154
CAZ	97	96	95	94	93	92	90
CHA	199	196	193	186	181	179	179
EUR	117	116	115	113	112	110	107
IND	154	150	146	170	175	194	195
JPN	60	59	59	57	57	56	54
LAM	84	85	85	87	85	84	84
MEA	146	146	153	168	192	203	211
NEU	196	192	188	196	212	215	218
OAS	104	105	104	109	111	112	113
REF	139	139	139	137	136	135	134
SSA	134	138	139	150	148	147	150
USA	129	128	128	127	126	124	120

Table 900: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops—Other crops (USD/capita) [PART 2/2]

33.1.5 Crops—Sugar crops

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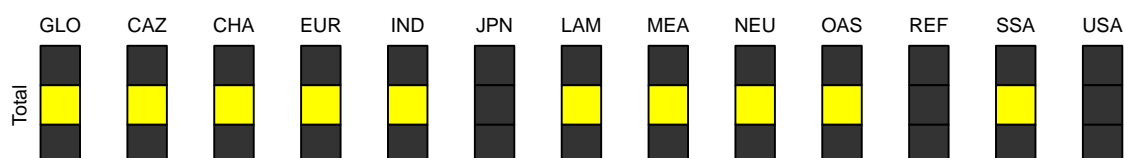


Figure 269: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops—Sugar crops (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.143	0.171	0.144	0.251	0.232	0.214	0.211	0.205	0.217	0.229	0.241
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.007	0.005	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IND	0.472	0.471	0.385	0.973	0.878	0.760	0.726	0.695	0.736	0.764	0.817
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.038	0.090	0.075	0.119	0.114	0.110	0.103	0.098	0.093	0.092	0.089
MEA	0.235	0.389	0.311	0.266	0.251	0.250	0.270	0.283	0.285	0.300	0.294
NEU	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.240	0.326	0.254	0.231	0.216	0.206	0.200	0.200	0.197	0.192	0.187
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.101	0.089	0.106	0.123	0.121	0.126	0.122	0.089	0.100	0.111	0.112
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 901: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops—Sugar crops (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	0.255	0.249	0.244	0.288	0.282	0.298	0.298
CAZ	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.001	0.001	0.001	0.001	0.001	0.001	0.001
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IND	0.875	0.826	0.789	0.931	0.885	0.940	0.937
JPN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.086	0.083	0.084	0.079	0.076	0.073	0.071
MEA	0.290	0.300	0.298	0.453	0.477	0.527	0.530
NEU	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OAS	0.186	0.187	0.188	0.183	0.178	0.175	0.172
REF	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSA	0.110	0.106	0.105	0.096	0.088	0.082	0.077
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 902: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Crops—Sugar crops (USD/capita) [PART 2/2]

33.1.6 Fish

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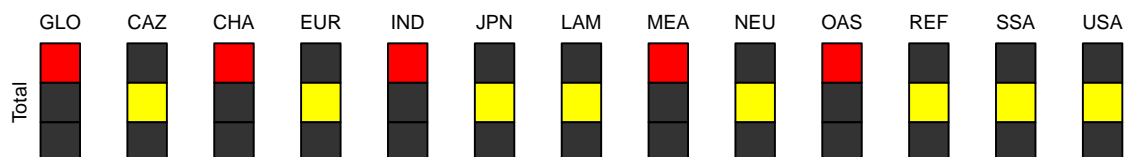


Figure 270: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Fish (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.1	5.4	5.8	6.3	7.3	7.9	8.5	8.8	9.1	9.3	9.5
CAZ	6.3	6.6	6.7	7.1	7.2	7.3	7.4	7.4	7.6	7.7	7.9
CHA	5.2	6.5	6.9	8.7	10.1	11.3	12.1	12.6	12.9	13.2	13.4
EUR	8.0	9.1	10.5	10.7	11.1	11.3	11.4	11.4	11.6	11.8	12.0
IND	1.1	1.4	1.6	2.0	2.9	3.3	3.7	4.0	4.2	4.4	4.4
JPN	42.4	38.1	36.1	30.8	32.9	33.5	34.3	34.5	34.9	35.4	35.8
LAM	3.8	3.4	2.9	3.1	3.5	3.7	3.8	3.9	4.0	4.1	4.2
MEA	2.4	2.7	3.2	3.8	4.5	4.9	5.2	5.4	5.6	5.9	6.0
NEU	4.1	3.8	3.5	3.7	4.0	4.2	4.3	4.3	4.4	4.5	4.5
OAS	6.0	6.3	7.0	8.3	10.8	12.6	13.9	14.9	15.6	16.0	16.4
REF	4.2	4.6	5.9	6.3	6.6	6.8	7.0	7.3	7.4	7.5	7.5
SSA	2.8	2.4	2.8	3.2	3.8	4.7	5.7	6.4	7.0	7.8	8.5
USA	5.9	5.9	7.5	7.3	7.5	7.7	7.8	7.8	7.9	8.1	8.2

Table 903: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Fish (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	9.6	9.8	9.8	10.5	11.0	11.4	11.9
CAZ	8.0	8.1	8.1	8.3	8.5	8.6	8.8
CHA	13.5	13.6	13.6	13.9	14.1	14.2	14.2
EUR	12.2	12.3	12.4	12.8	13.0	13.2	13.5
IND	4.5	4.6	4.6	4.9	5.1	5.1	5.3
JPN	36.2	36.5	36.7	37.7	38.5	39.6	40.9
LAM	4.2	4.3	4.3	4.5	4.6	4.7	4.8
MEA	6.2	6.3	6.3	6.7	7.0	7.3	7.5
NEU	4.5	4.5	4.5	4.6	4.6	4.6	4.6
OAS	16.6	16.9	16.6	17.5	17.9	18.2	18.6
REF	7.5	7.5	7.5	7.7	7.9	8.0	8.1
SSA	9.2	9.9	10.3	12.1	13.6	15.1	16.4
USA	8.2	8.3	8.3	8.4	8.4	8.5	8.5

Table 904: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Fish (USD/capita) [PART 2/2]

33.1.7 Livestock products

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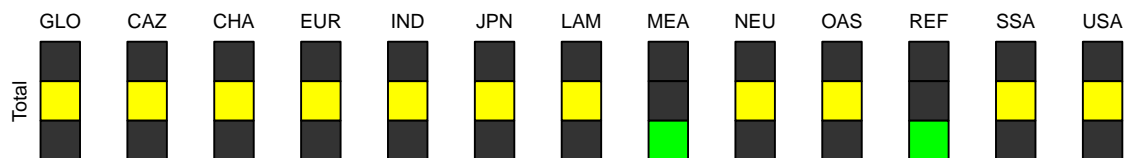


Figure 271: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Livestock products (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	307	246	261	265	250	266	267	278	292	309	332
CAZ	469	401	323	392	361	407	459	482	490	538	547
CHA	359	423	518	578	379	358	360	384	410	418	444
EUR	454	370	397	362	382	391	399	420	417	436	442
IND	40	36	49	47	88	117	117	144	158	195	251
JPN	161	148	143	147	166	164	161	154	160	161	162
LAM	402	379	342	334	338	338	347	364	362	376	385
MEA	306	135	155	235	274	224	231	245	265	301	323
NEU	366	305	242	165	195	204	215	220	231	238	206
OAS	89	123	75	134	133	149	161	172	183	203	222
REF	959	396	628	394	500	510	477	443	482	518	554
SSA	409	59	81	84	143	290	288	283	311	320	335
USA	413	572	470	390	494	407	414	422	416	415	426

Table 905: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Livestock products (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	353	366	358	425	481	592	635
CAZ	604	619	621	654	906	911	948
CHA	463	449	432	407	389	375	374
EUR	378	443	387	496	518	534	541
IND	317	322	319	502	696	1185	1325
JPN	163	165	163	172	181	184	192
LAM	391	396	371	418	420	427	432
MEA	345	364	367	417	451	495	543
NEU	217	244	225	253	259	275	242
OAS	246	260	254	294	313	325	339
REF	595	597	586	600	613	608	618
SSA	347	364	370	424	450	468	493
USA	435	546	560	603	698	718	731

Table 906: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Livestock products (USD/capita) [PART 2/2]

33.1.8 Secondary products

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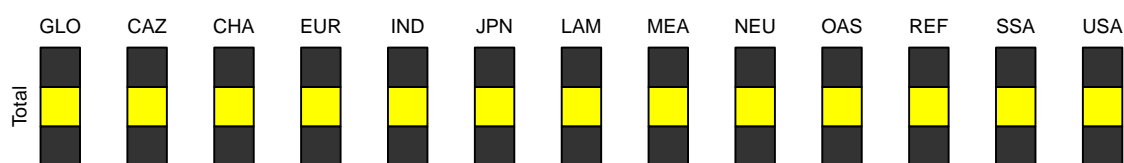


Figure 272: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Secondary products (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	82	80	82	88	110	114	115	114	114	115	117
CAZ	108	184	206	109	227	225	221	217	230	242	246
CHA	100	80	74	114	148	167	180	190	196	203	207
EUR	188	228	183	148	216	218	217	224	222	226	228
IND	32	33	18	44	66	67	66	62	73	78	88
JPN	188	182	169	155	164	166	171	170	171	173	175
LAM	100	109	112	125	130	133	132	129	130	132	130
MEA	45	31	41	31	45	49	47	41	42	44	46
NEU	73	79	65	118	120	122	121	115	117	120	120
OAS	38	23	33	25	43	46	47	45	46	46	47
REF	78	78	123	136	159	158	161	166	169	171	171
SSA	53	67	71	68	73	81	86	89	78	83	87
USA	147	155	292	248	268	273	272	275	276	278	282

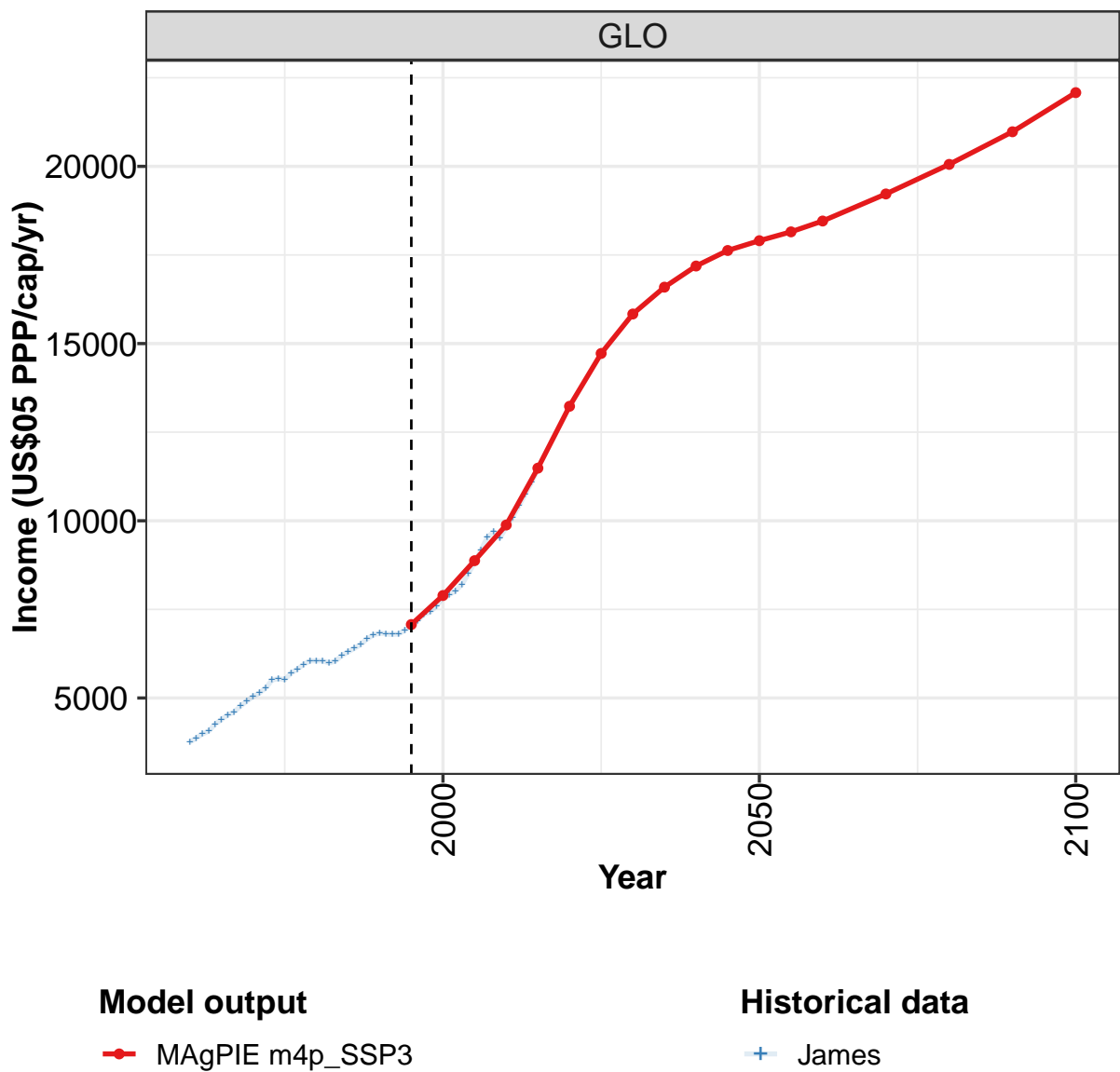
Table 907: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Secondary products (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	118	116	113	119	118	122	124
CAZ	243	238	226	224	225	227	228
CHA	209	208	207	207	207	206	207
EUR	229	229	223	229	231	233	234
IND	96	91	87	108	108	128	130
JPN	176	175	173	171	172	175	177
LAM	127	128	126	130	129	126	127
MEA	47	48	47	51	49	48	50
NEU	117	116	111	112	112	107	110
OAS	47	47	46	48	49	50	51
REF	172	172	173	177	181	183	186
SSA	91	96	99	110	117	124	132
USA	284	285	288	292	292	283	285

Table 908: MAgPIE m4p_SSP3 — Household Expenditure—Food—Expenditure—Secondary products (USD/capita) [PART 2/2]

Part VIII

Income



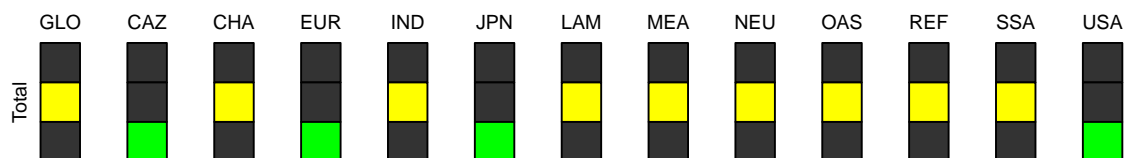
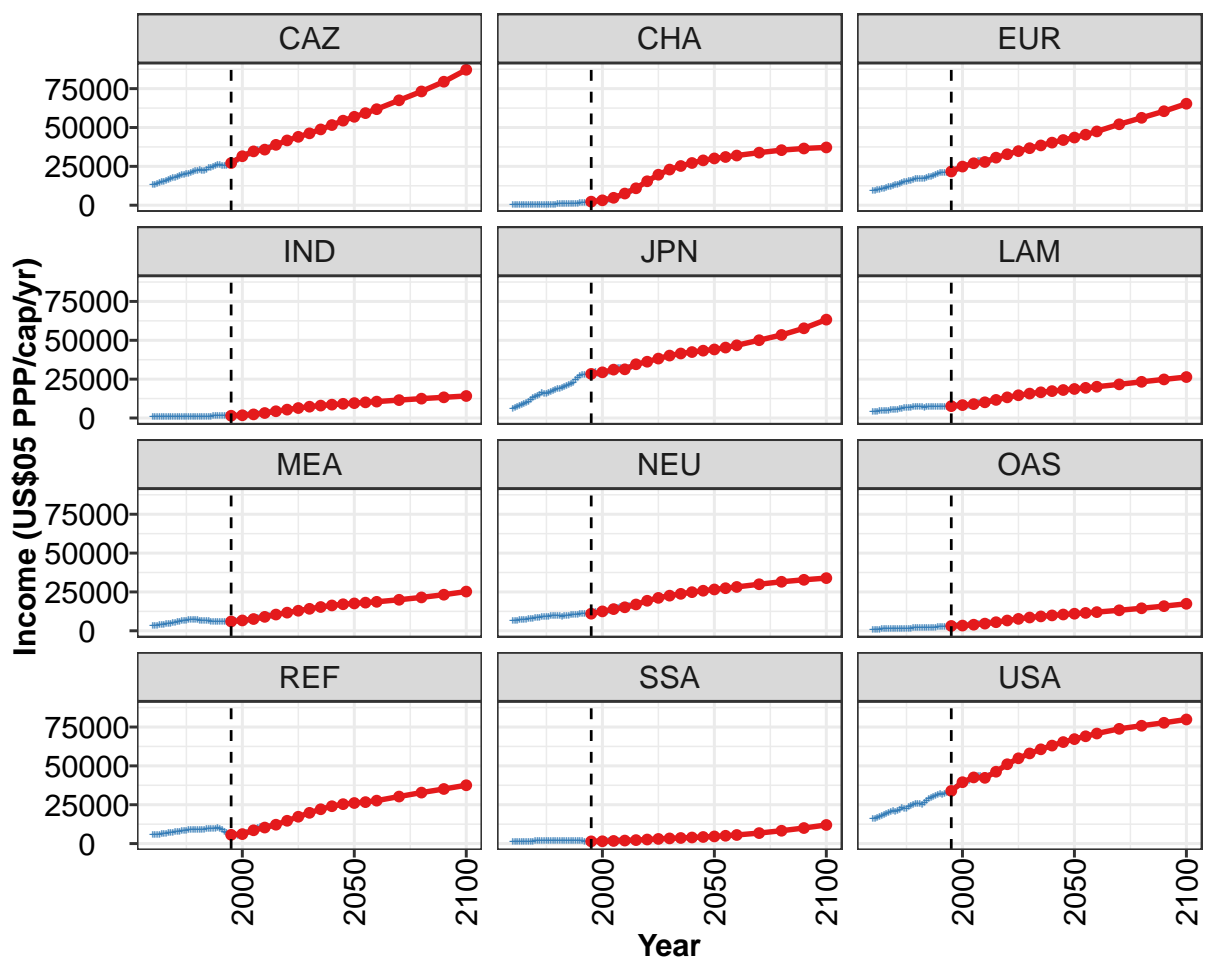


Figure 273: MAgPIE m4p_SSP3 — Income (US\$05 PPP/cap/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7073	7892	8875	9881	11486	13231	14721	15834	16592	17188	17627
CAZ	27123	31531	34642	35772	38839	41692	44007	46249	48784	51589	54407
CHA	2294	3145	4773	7508	10894	15412	19627	22941	25240	27176	28849
EUR	21701	24870	27003	27829	30612	32810	34814	36698	38475	40268	41955
IND	1467	1778	2336	3218	4354	5393	6421	7289	7984	8606	9134
JPN	28385	29396	31129	31329	34576	36217	38240	40181	41509	42437	43337
LAM	7651	8298	8937	10115	11659	13288	14639	15703	16541	17312	18021
MEA	6005	6669	7587	8980	10449	11694	12919	14154	15309	16323	17092
NEU	11011	12490	13974	15139	16938	19336	21195	22623	23786	24866	25786
OAS	3138	3362	3927	4630	5527	6629	7673	8549	9253	9902	10483
REF	5643	6102	8573	10334	12155	14688	17289	19793	22095	24056	25381
SSA	1447	1497	1712	1959	2250	2635	3004	3333	3620	3922	4251
USA	33906	39506	42583	42310	46247	51070	54890	58025	60660	63063	65324

Table 909: MAgPIE m4p_SSP3 — Income (US\$05 PPP/cap/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	17903	18153	18458	19222	20056	20976	22081
CAZ	56884	59268	61788	67500	73201	79470	87147
CHA	30108	31033	31963	33830	35440	36496	37167
EUR	43548	45384	47485	52071	56242	60485	65309
IND	9587	10069	10550	11525	12451	13307	14159
JPN	44113	45328	46778	50055	53446	57723	63310
LAM	18695	19393	20118	21656	23281	24827	26359
MEA	17615	18117	18654	19953	21481	23220	25248
NEU	26607	27405	28212	29950	31553	32810	33909
OAS	10994	11505	12030	13199	14493	15854	17375
REF	26124	26689	27635	30268	32815	35136	37541
SSA	4621	5045	5542	6764	8270	10014	11978
USA	67236	69058	70819	73846	75829	77731	79872

Table 910: MAgPIE m4p_SSP3 — Income (US\$05 PPP/cap/yr) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	3759	3866	3982	4070	4258	4394	4524	4606	4769	4913	5038
CAZ	13146	13232	13762	14252	14879	15382	15934	16158	16724	17373	17666
CHA	348	288	283	303	331	363	382	360	346	373	408
EUR	9030	9404	9730	10077	10531	10892	11245	11562	12046	12580	13054
IND	654	664	671	697	730	733	721	757	772	819	827
JPN	6249	6867	7352	7843	8574	8924	9695	10563	11673	12801	13734
LAM	4102	4223	4296	4352	4536	4652	4738	4835	5017	5168	5373
MEA	3254	3332	3424	3607	3823	4081	4224	4381	4761	5014	5340
NEU	6285	6459	6609	6861	7031	7124	7394	7548	7740	7944	8165
OAS	890	914	930	952	975	999	1030	1035	1088	1137	1194
REF	5379	5582	5643	5449	6044	6304	6528	6739	7054	7091	7551
SSA	1274	1273	1306	1346	1385	1406	1417	1406	1422	1477	1549
USA	15803	15934	16587	17047	17709	18524	19370	19646	20356	20785	20648

Table 911: James — Income (US\$05 PPP/cap/yr) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	5140	5285	5509	5544	5523	5699	5814	5949	6051	6049	6048
CAZ	18166	18697	19514	19771	19946	20509	20823	21346	21836	22085	22509
CHA	425	430	459	461	482	481	506	558	597	633	664
EUR	13434	13938	14645	14956	14925	15519	15896	16335	16829	16982	16880
IND	831	813	826	820	863	873	903	942	896	927	964
JPN	14155	15062	16014	15645	15880	16305	16827	17519	18281	18545	19087
LAM	5571	5801	6113	6353	6427	6657	6806	6957	7215	7457	7387
MEA	5603	6055	6329	6639	6660	7174	7234	7125	7284	6962	6686
NEU	8417	8651	8787	8903	8889	9192	9404	9417	9412	9452	9462
OAS	1240	1268	1348	1392	1418	1492	1565	1639	1692	1716	1778
REF	7680	7658	8209	8372	8332	8644	8779	8931	8835	8792	8814
SSA	1599	1613	1634	1702	1668	1678	1671	1643	1646	1658	1663
USA	21089	21973	22918	22678	22481	23423	24218	25229	25708	25425	25806

Table 912: James — Income (US\$05 PPP/cap/yr) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	5990	6040	6193	6298	6400	6506	6665	6774	6835	6808	6793
CAZ	21899	22109	23118	23945	24316	24938	25679	26038	25789	25102	25144
CHA	714	773	866	955	1021	1117	1208	1229	1267	1359	1514
EUR	16966	17228	17616	17995	18472	18954	19667	20226	20564	20609	20678
IND	976	1009	1036	1070	1094	1121	1194	1238	1284	1268	1301
JPN	19550	19905	20545	21633	22144	22911	24419	25605	26926	27699	27840
LAM	7198	6859	6968	7015	7174	7244	7170	7130	7056	7180	7274
MEA	6548	6452	6389	6269	6010	5944	5808	5762	5913	5946	5895
NEU	9329	9415	9615	9834	10068	10439	10507	10558	10981	10786	10710
OAS	1822	1896	1958	1976	2045	2133	2249	2366	2501	2621	2716
REF	8965	9179	9225	9242	9540	9594	9738	9852	9541	9169	7785
SSA	1624	1575	1564	1552	1516	1488	1516	1527	1519	1485	1426
USA	25105	26034	27677	28572	29291	29965	30894	31680	31898	31381	32016

Table 913: James — Income (US\$05 PPP/cap/yr) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	6805	6912	7032	7185	7361	7433	7595	7842	7913	8025	8203
CAZ	25629	26558	27122	27521	28374	29291	30521	31530	31864	32563	33068
CHA	1725	1909	2077	2250	2388	2524	2689	2882	3092	3350	3669
EUR	20559	21098	21671	22071	22639	23287	23948	24840	25302	25588	25896
IND	1326	1383	1467	1532	1594	1653	1746	1778	1830	1881	1980
JPN	27804	27946	28385	29056	29419	28727	28613	29396	29395	29398	29742
LAM	7421	7646	7596	7733	8036	8106	8021	8246	8194	8131	8170
MEA	5853	5870	6008	6240	6271	6427	6467	6673	6675	6717	6933
NEU	10846	10601	11009	11514	12130	12351	12076	12488	12112	12394	12631
OAS	2823	2969	3131	3273	3341	3079	3194	3355	3392	3517	3621
REF	6912	5983	5643	5433	5511	5310	5582	6102	6470	6838	7383
SSA	1396	1384	1401	1434	1448	1442	1440	1451	1480	1525	1563
USA	32508	33449	33906	34790	35945	37085	38406	39506	39449	39735	40368

Table 914: James — Income (US\$05 PPP/cap/yr) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	8505	8820	9163	9530	9689	9514	9826	10099	10420	10747	11089
CAZ	33819	34642	35231	35829	35817	35105	35771	36421	37097	37696	38276
CHA	4033	4488	5001	5643	6136	6648	7242	7833	8469	9153	9892
EUR	26490	26973	27789	28557	28683	27387	27798	28221	28772	29360	29968
IND	2129	2336	2522	2735	2833	2994	3218	3423	3630	3858	4098
JPN	30532	31129	31764	32515	32109	30449	31329	31861	32565	33243	33908
LAM	8528	8888	9267	9677	9952	9665	10069	10350	10656	10965	11279
MEA	7287	7593	7942	8312	8691	8738	8988	9304	9595	9864	10142
NEU	13332	13972	14606	15122	15205	14584	15137	15444	15792	16160	16546
OAS	3770	3920	4093	4280	4397	4410	4623	4782	4950	5128	5319
REF	8027	8573	9314	10147	10684	10043	10334	10653	11012	11382	11769
SSA	1604	1666	1732	1823	1877	1871	1915	1970	2037	2100	2160
USA	41454	42583	43308	43723	43333	41589	42310	42916	43809	44665	45482

Table 915: James — Income (US\$05 PPP/cap/yr) [PART 5/6]

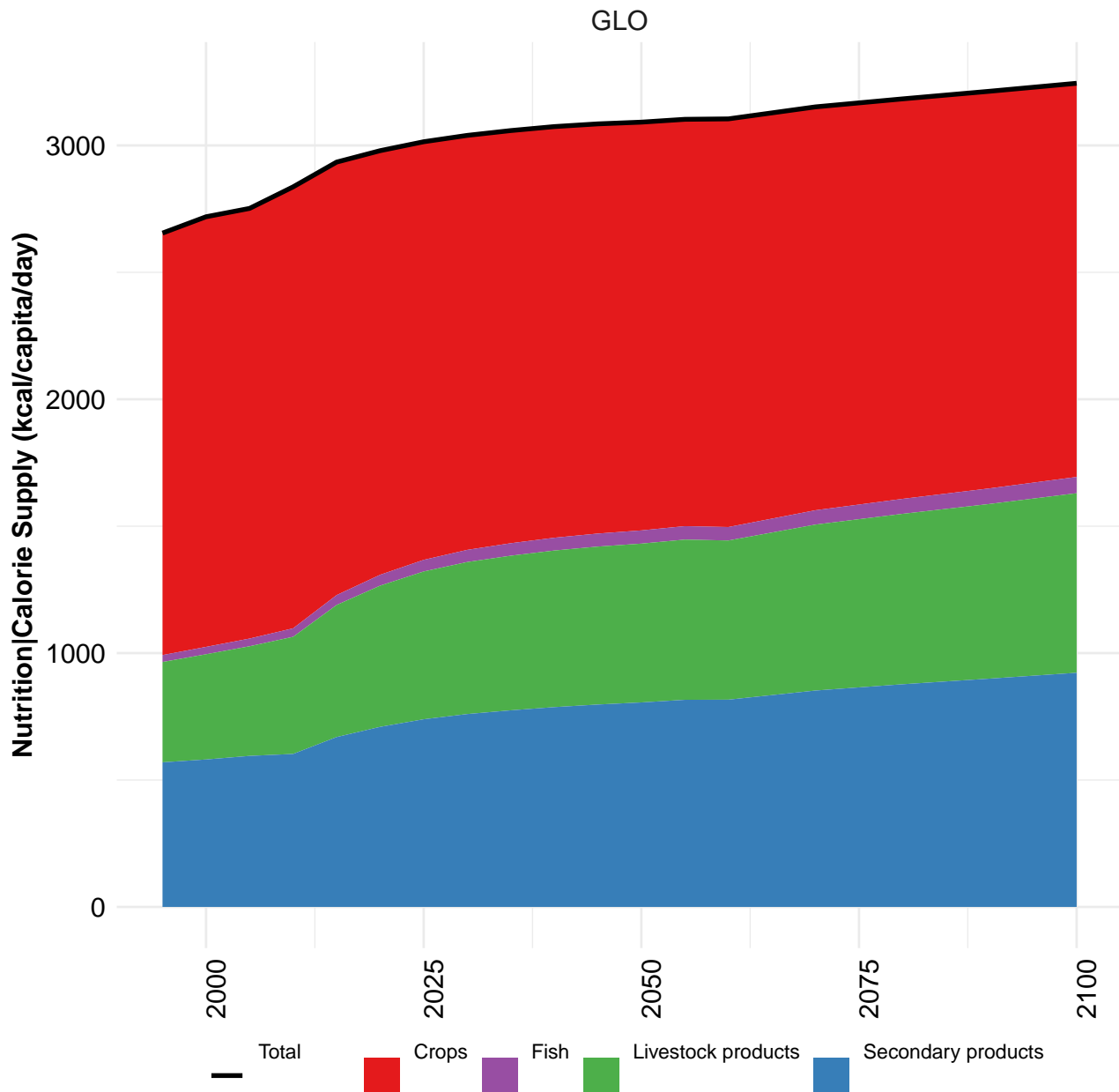
	2015
GLO	11446
CAZ	38838
CHA	10690
EUR	30583
IND	4354
JPN	34576
LAM	11619
MEA	10453
NEU	16937
OAS	5521
REF	12155
SSA	2220
USA	46247

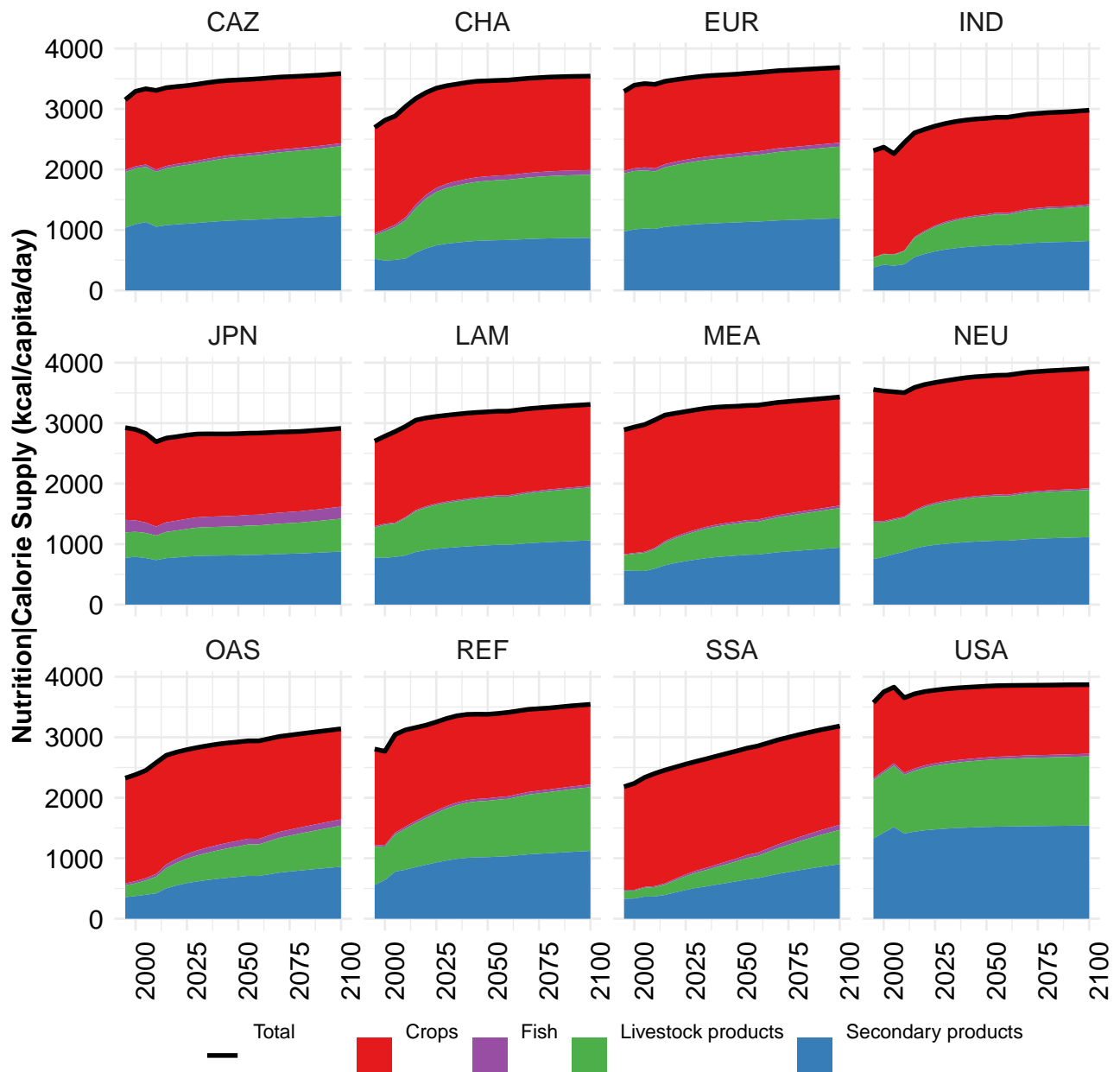
Table 916: James — Income (US\$05 PPP/cap/yr) [PART 6/6]

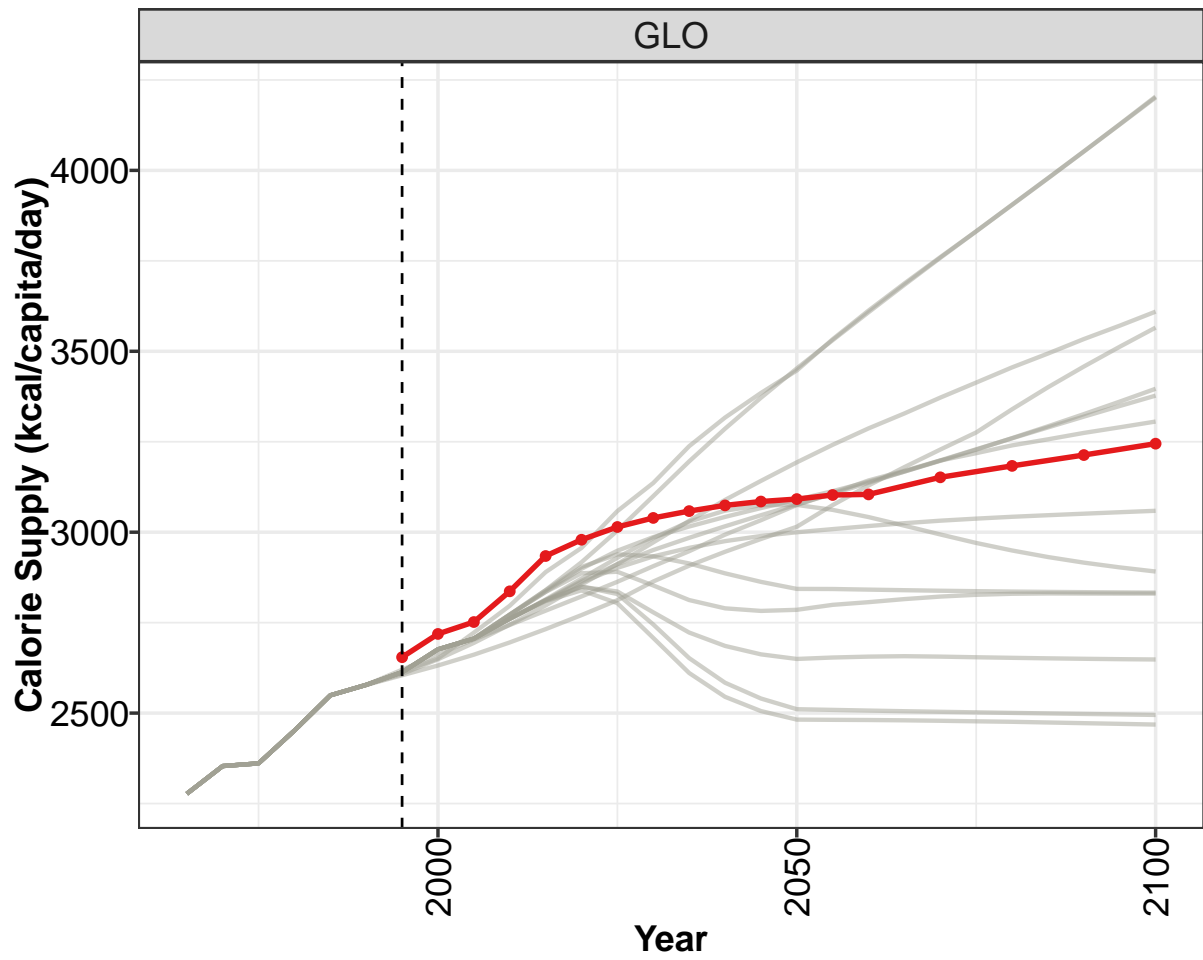
Part IX

Nutrition

34 Calorie Supply



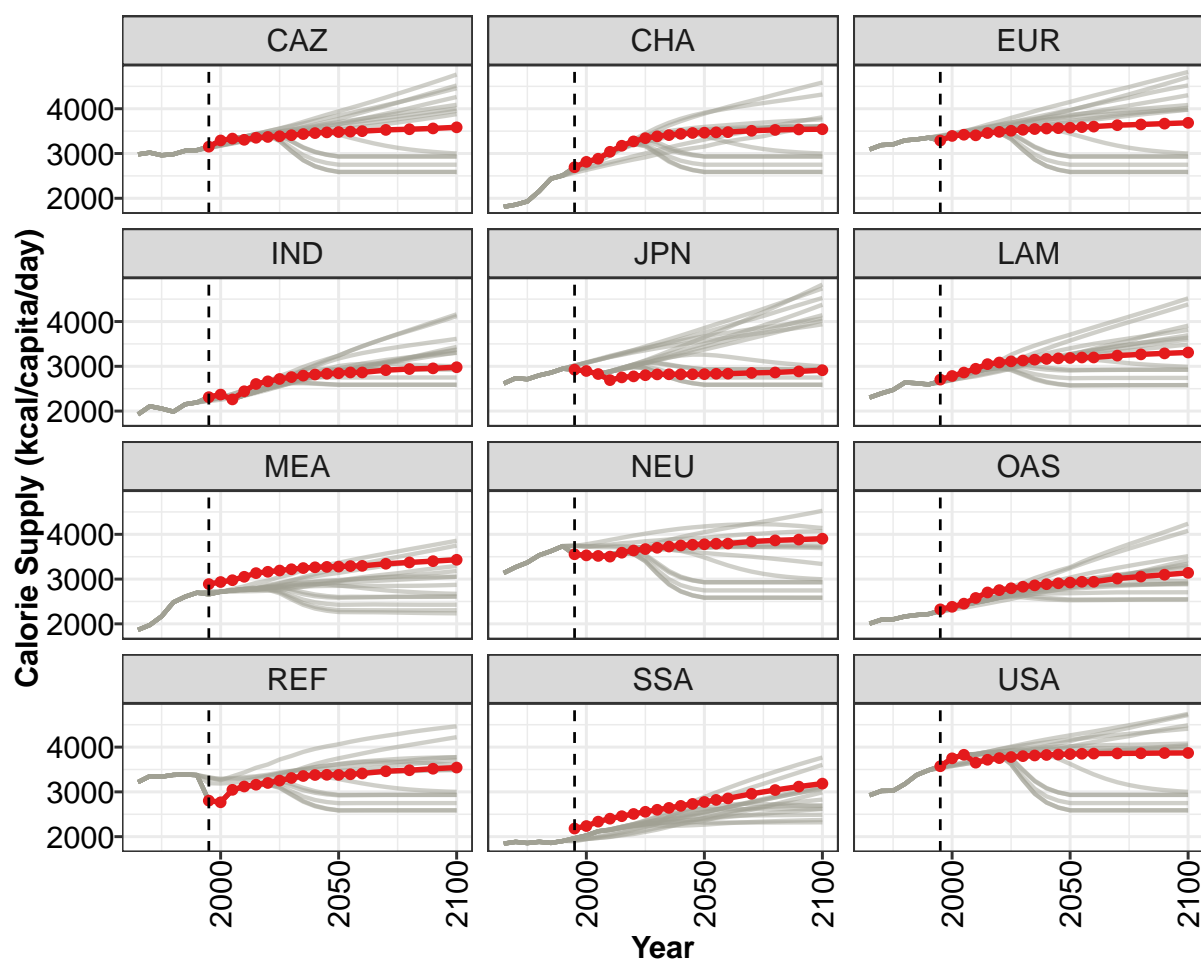


**Model output**

—●— MAgPIE m4p_SSP3

Other projections

— Bodirsky2015

**Model output**

—•— MAgPIE m4p_SSP3

Other projections

— Bodirsky2015

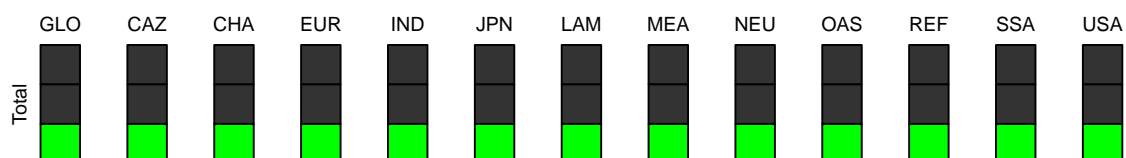


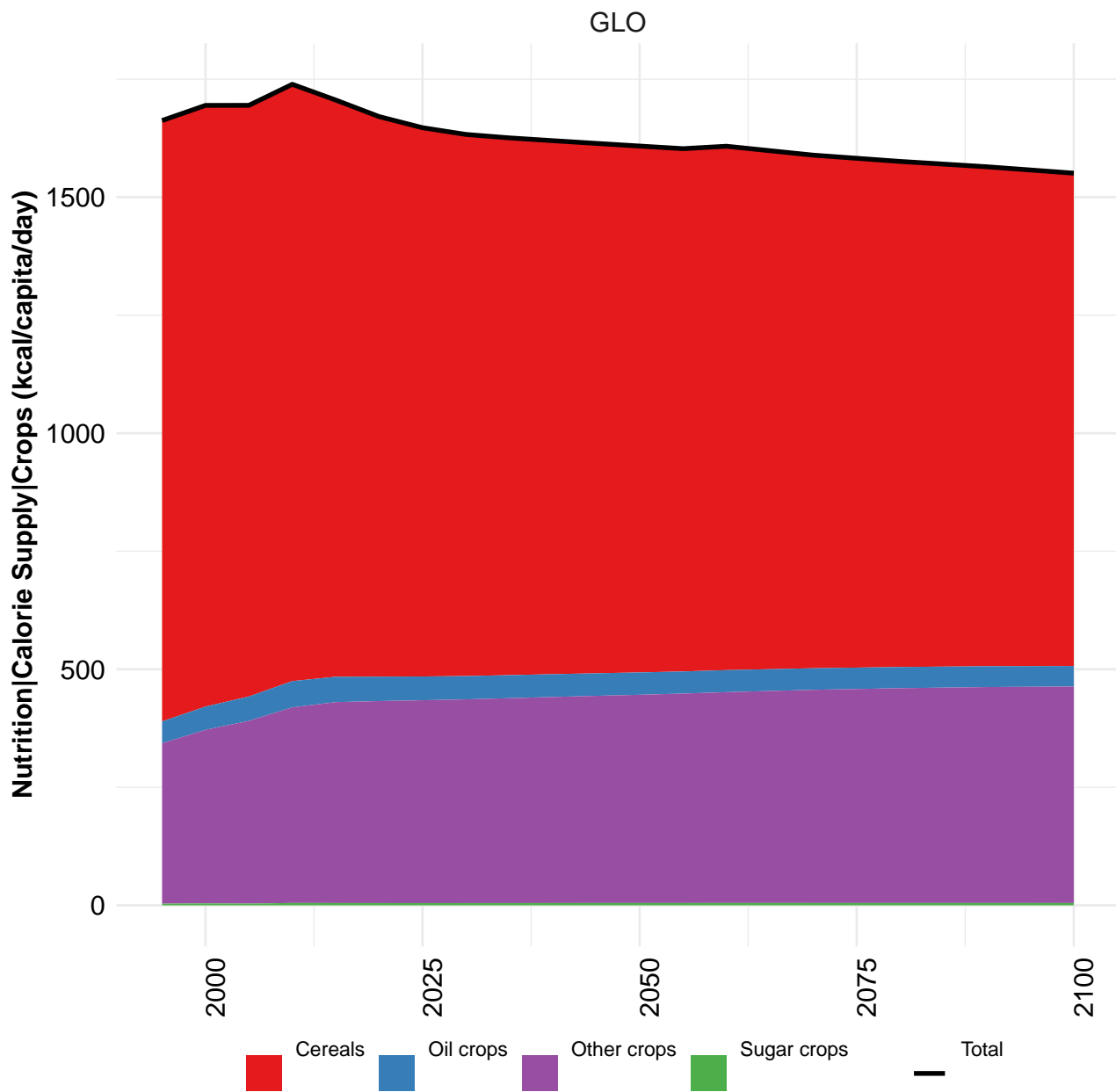
Figure 274: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply (kcal/capita/day)

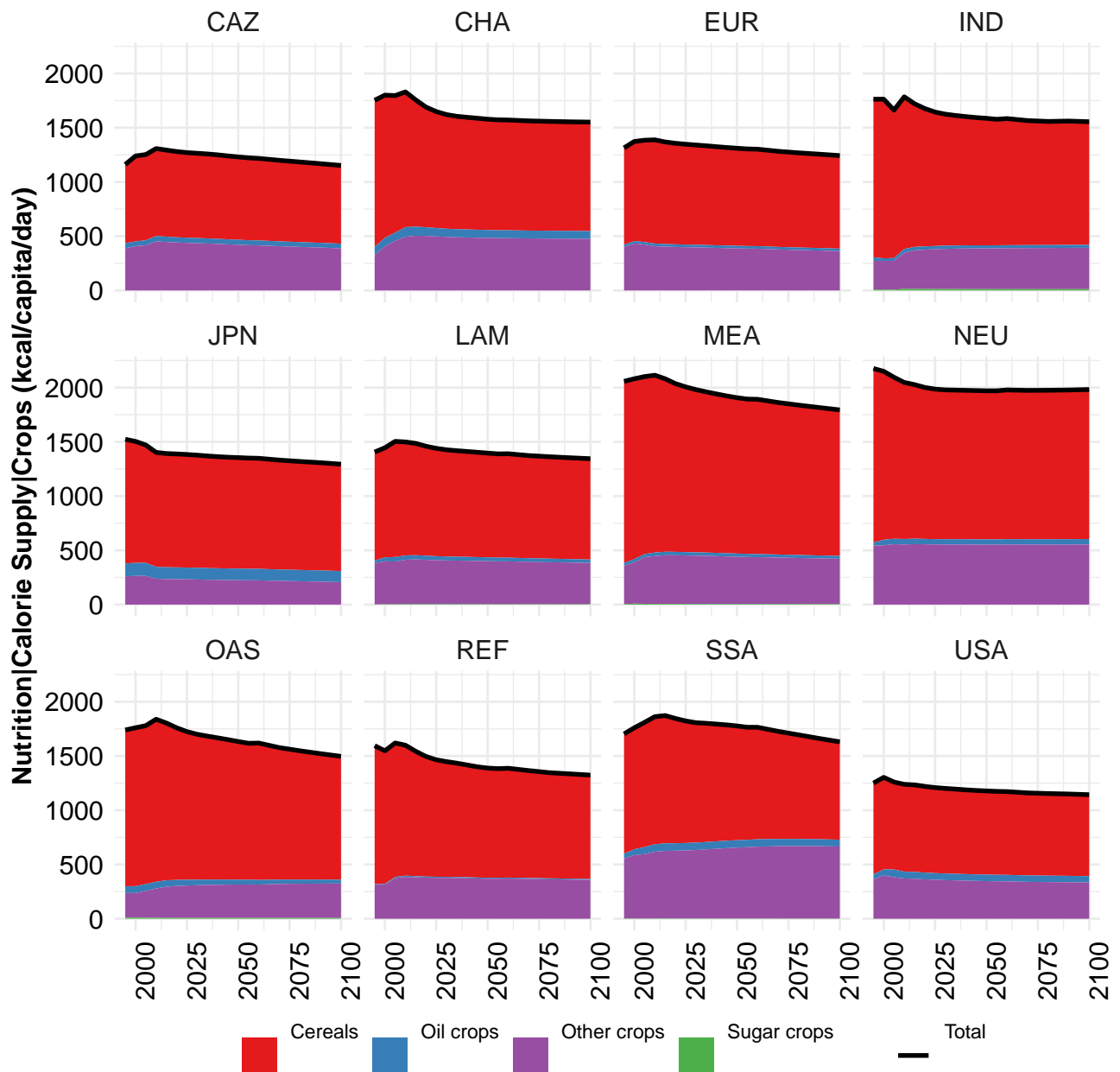
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2655	2719	2752	2837	2934	2979	3014	3039	3058	3074	3085
CAZ	3152	3292	3334	3306	3352	3370	3386	3409	3435	3457	3472
CHA	2694	2813	2883	3039	3174	3271	3344	3384	3411	3439	3459
EUR	3290	3393	3420	3407	3458	3484	3508	3529	3547	3558	3567
IND	2311	2369	2261	2443	2606	2665	2717	2760	2793	2817	2834
JPN	2925	2896	2828	2692	2753	2776	2802	2820	2822	2821	2822
LAM	2703	2784	2861	2945	3049	3085	3110	3130	3148	3165	3177
MEA	2889	2935	2975	3052	3134	3163	3192	3220	3247	3264	3273
NEU	3555	3531	3518	3502	3590	3639	3671	3700	3727	3751	3768
OAS	2325	2382	2452	2579	2702	2754	2795	2830	2860	2887	2907
REF	2805	2768	3046	3121	3161	3200	3252	3310	3355	3378	3382
SSA	2182	2238	2336	2402	2458	2507	2556	2601	2643	2688	2732
USA	3573	3750	3829	3653	3718	3755	3779	3799	3814	3825	3834

Table 917: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply (kcal/capita/day) [PART 1/2]

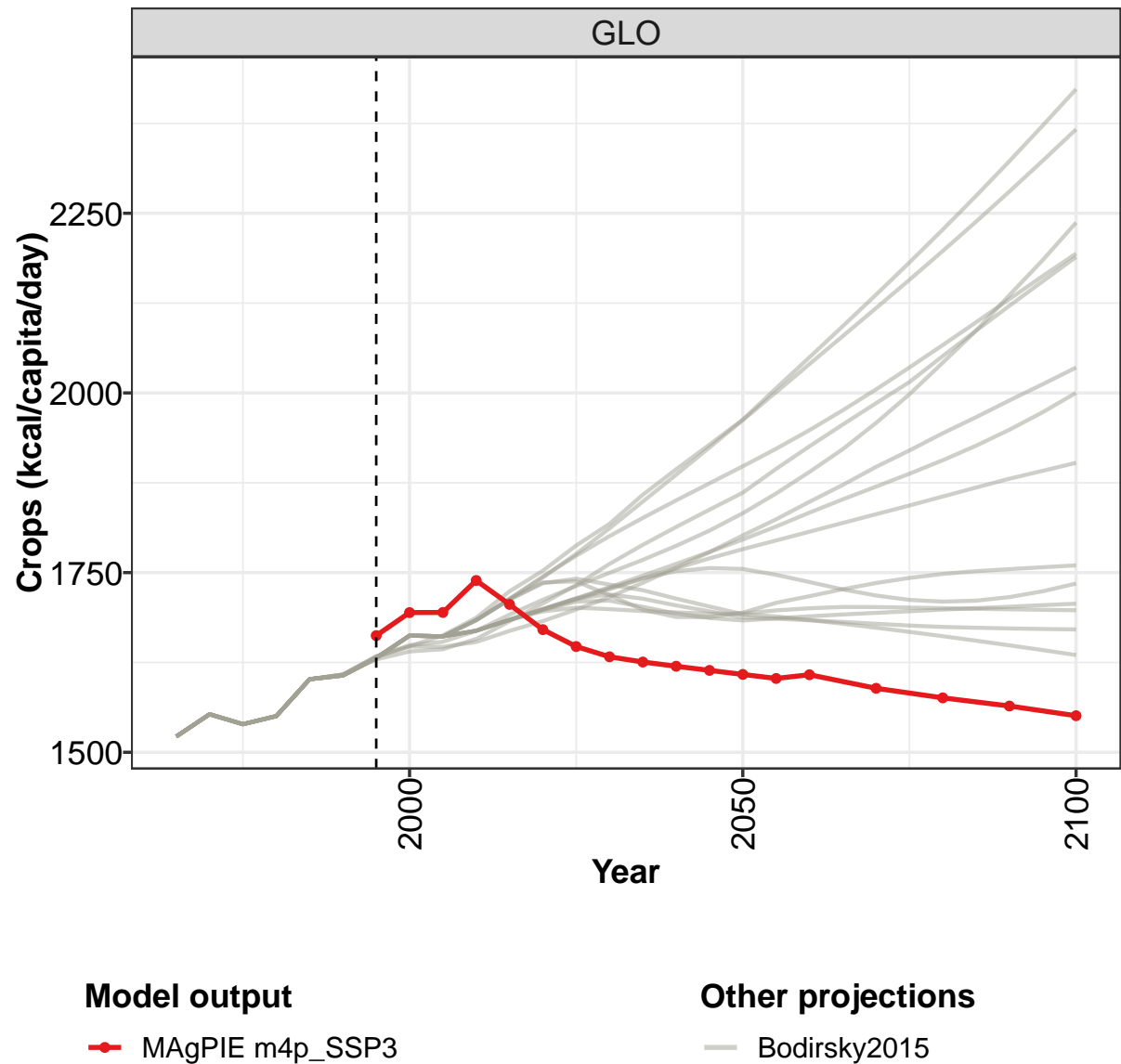
	2050	2055	2060	2070	2080	2090	2100
GLO	3092	3103	3104	3152	3183	3213	3245
CAZ	3480	3489	3500	3527	3542	3561	3585
CHA	3465	3473	3478	3508	3528	3538	3543
EUR	3576	3590	3602	3633	3649	3668	3686
IND	2846	2863	2862	2914	2939	2955	2979
JPN	2826	2834	2835	2852	2862	2886	2913
LAM	3187	3197	3198	3240	3267	3289	3309
MEA	3279	3291	3296	3343	3372	3401	3432
NEU	3778	3791	3793	3840	3865	3883	3903
OAS	2923	2940	2940	3013	3056	3098	3139
REF	3380	3394	3412	3462	3484	3518	3544
SSA	2775	2821	2855	2957	3042	3118	3185
USA	3844	3852	3856	3859	3862	3868	3870

Table 918: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply (kcal/capita/day) [PART 2/2]





34.1
Crops



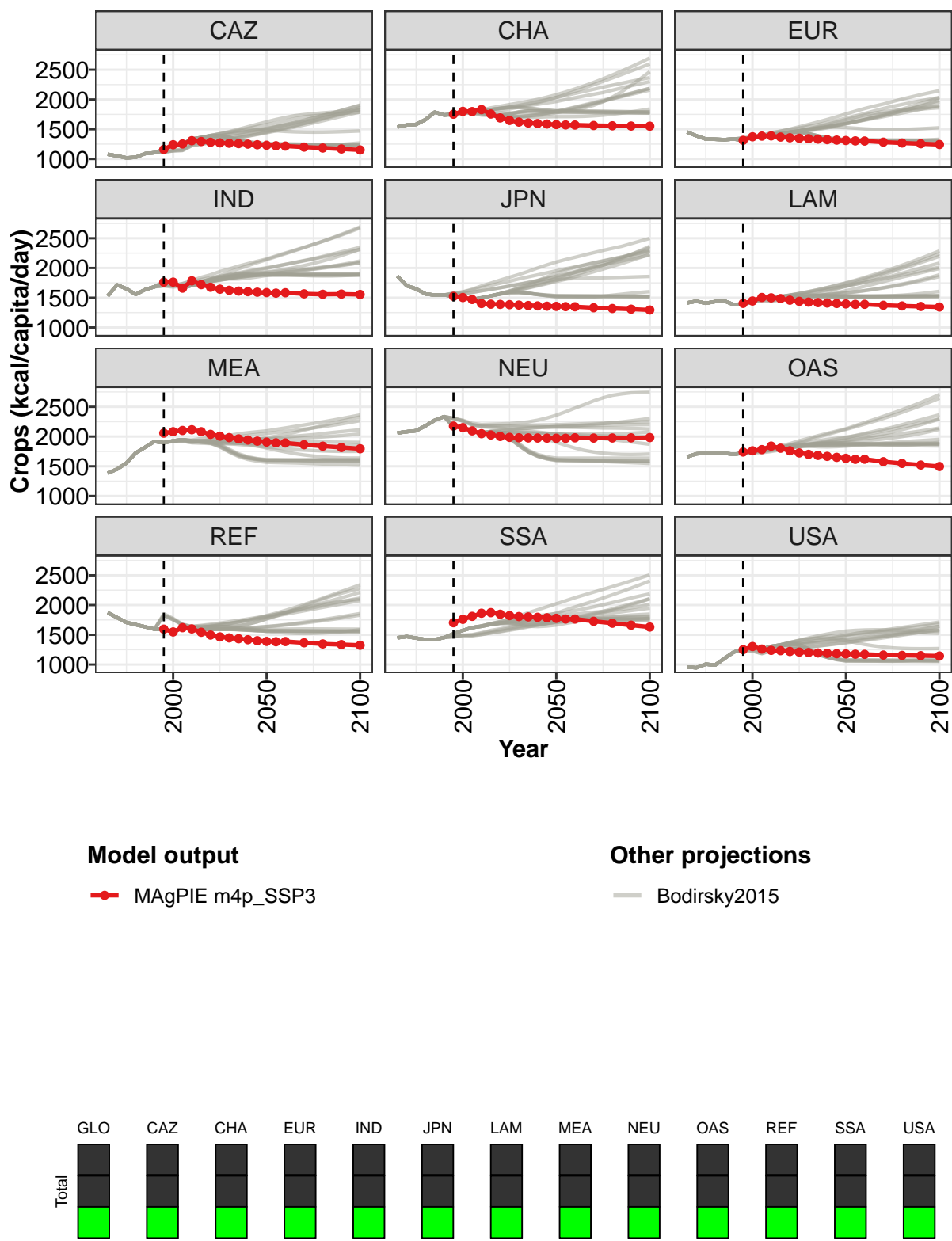


Figure 275: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops (kcal/capita/day)

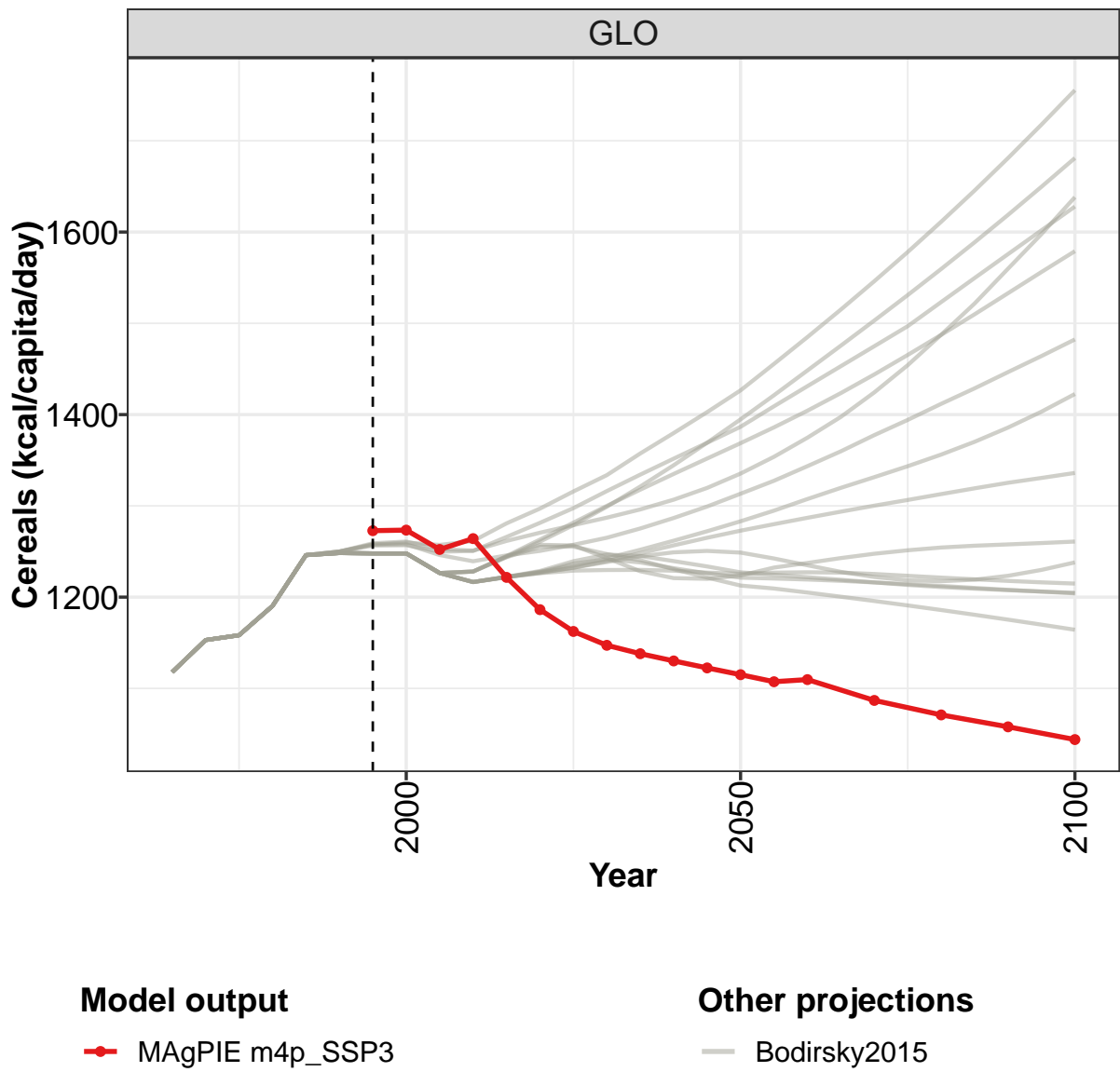
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1662	1694	1695	1739	1706	1671	1647	1633	1626	1620	1614
CAZ	1161	1240	1253	1308	1294	1280	1271	1265	1258	1250	1240
CHA	1753	1800	1796	1830	1756	1690	1649	1621	1605	1596	1587
EUR	1314	1373	1385	1388	1369	1357	1348	1341	1333	1325	1317
IND	1763	1763	1662	1785	1721	1677	1644	1625	1613	1603	1594
JPN	1524	1504	1471	1403	1392	1389	1384	1378	1370	1364	1358
LAM	1406	1445	1505	1499	1486	1460	1440	1427	1418	1411	1404
MEA	2058	2082	2102	2114	2081	2037	2006	1982	1961	1941	1923
NEU	2176	2150	2096	2048	2027	2001	1986	1979	1977	1975	1973
OAS	1740	1760	1780	1839	1804	1760	1725	1700	1683	1667	1651
REF	1595	1548	1620	1599	1543	1496	1465	1448	1434	1417	1400
SSA	1703	1760	1810	1863	1873	1846	1823	1807	1801	1794	1787
USA	1250	1303	1260	1239	1234	1220	1209	1201	1195	1188	1182

Table 919: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1608	1603	1608	1589	1576	1564	1551
CAZ	1231	1222	1217	1200	1184	1168	1152
CHA	1579	1573	1571	1563	1558	1554	1552
EUR	1311	1304	1302	1283	1268	1256	1243
IND	1587	1578	1584	1566	1558	1561	1555
JPN	1355	1351	1348	1332	1319	1308	1294
LAM	1396	1389	1390	1374	1363	1353	1345
MEA	1907	1894	1892	1863	1839	1816	1794
NEU	1971	1971	1979	1975	1976	1978	1982
OAS	1633	1617	1619	1577	1548	1521	1497
REF	1389	1384	1387	1366	1346	1335	1324
SSA	1777	1765	1765	1727	1695	1662	1631
USA	1178	1174	1172	1160	1154	1150	1143

Table 920: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops (kcal/capita/day) [PART 2/2]

34.1.1 Cereals



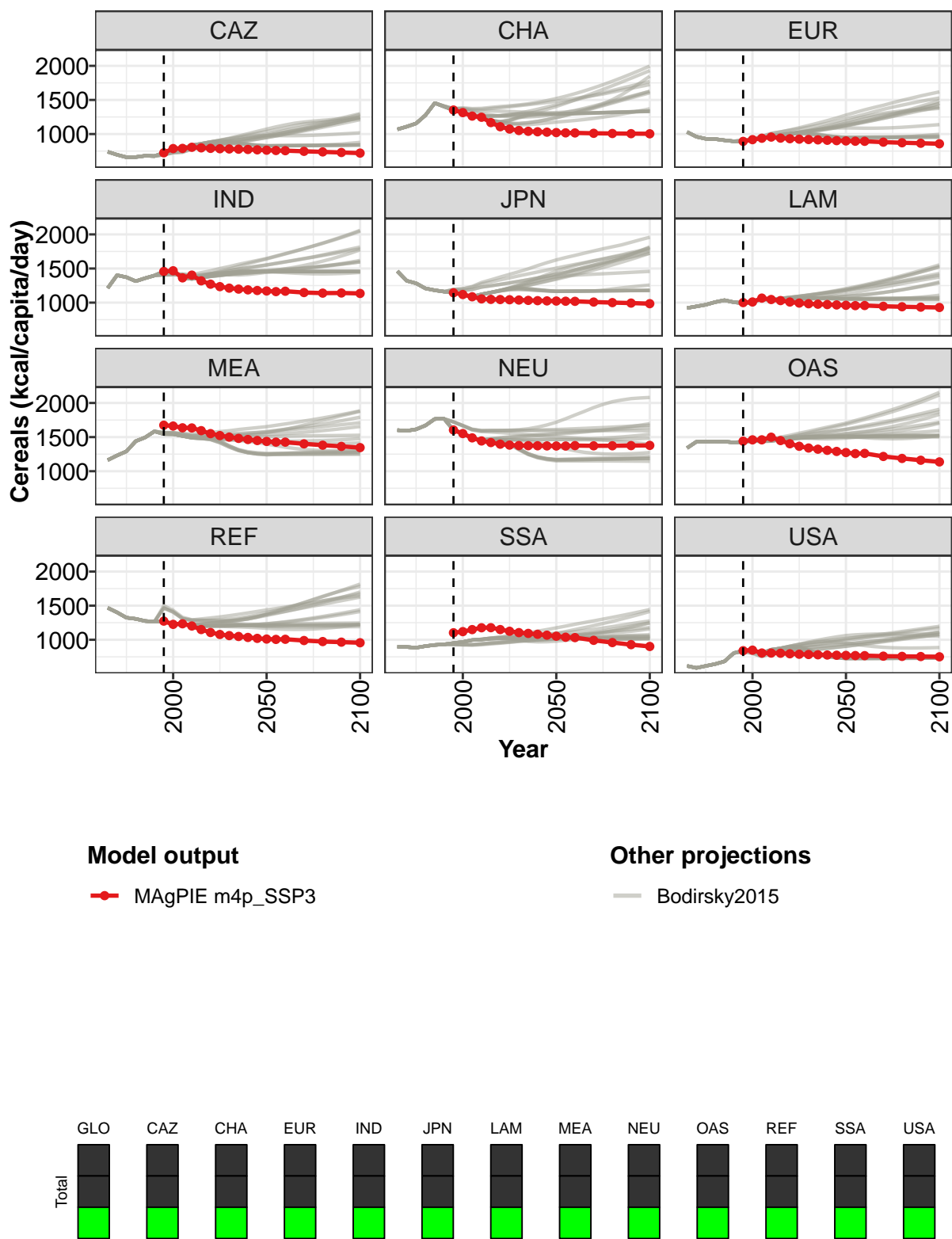


Figure 276: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops—Cereals (kcal/capita/day)

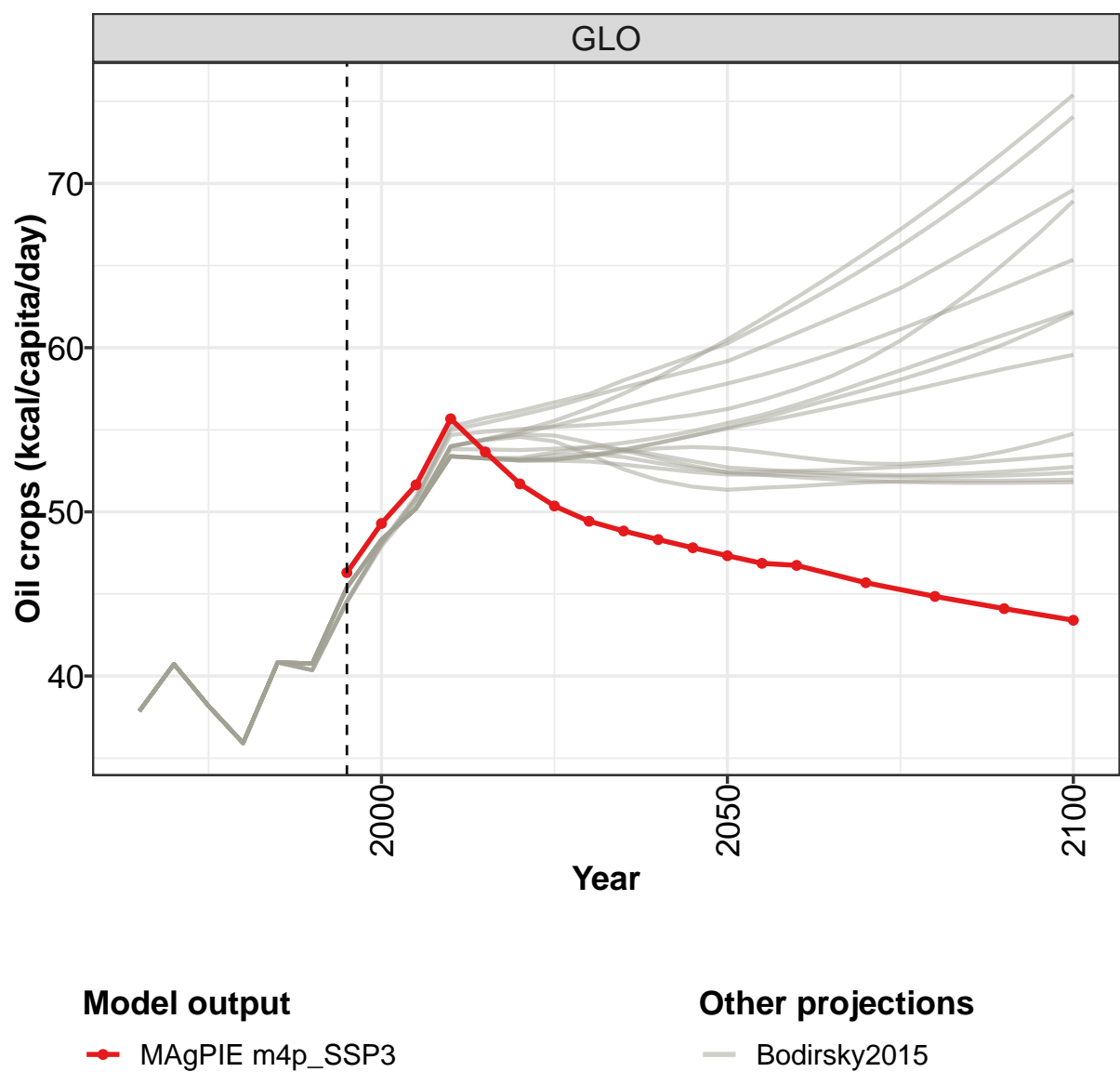
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1273	1273	1252	1264	1222	1186	1162	1147	1138	1130	1122
CAZ	725	787	790	806	798	790	785	782	778	774	769
CHA	1352	1315	1263	1246	1168	1107	1073	1052	1040	1033	1028
EUR	892	918	939	956	941	932	925	920	915	909	904
IND	1457	1467	1363	1403	1319	1271	1234	1213	1198	1187	1178
JPN	1144	1119	1086	1055	1048	1045	1042	1038	1033	1029	1025
LAM	1000	1010	1066	1046	1030	1009	994	983	977	971	966
MEA	1674	1662	1636	1634	1594	1551	1522	1500	1481	1465	1450
NEU	1604	1552	1489	1443	1420	1396	1383	1376	1374	1373	1371
OAS	1440	1460	1460	1498	1449	1402	1365	1340	1322	1306	1290
REF	1274	1226	1235	1202	1150	1107	1078	1061	1048	1034	1021
SSA	1103	1120	1149	1176	1177	1150	1125	1105	1094	1081	1067
USA	840	848	806	805	803	795	788	784	780	777	773

Table 921: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops—Cereals (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1115	1107	1110	1087	1071	1058	1044
CAZ	764	759	756	747	738	730	721
CHA	1022	1018	1016	1011	1008	1006	1004
EUR	899	895	894	881	872	865	858
IND	1171	1162	1167	1148	1139	1141	1135
JPN	1023	1021	1019	1008	1000	993	985
LAM	961	956	958	946	939	934	929
MEA	1437	1426	1426	1401	1381	1363	1346
NEU	1369	1369	1375	1372	1373	1375	1378
OAS	1273	1258	1261	1216	1187	1161	1136
REF	1011	1006	1007	989	974	965	957
SSA	1053	1037	1032	992	959	929	902
USA	771	769	767	760	757	754	751

Table 922: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops—Cereals (kcal/capita/day) [PART 2/2]

34.1.2
Oil crops



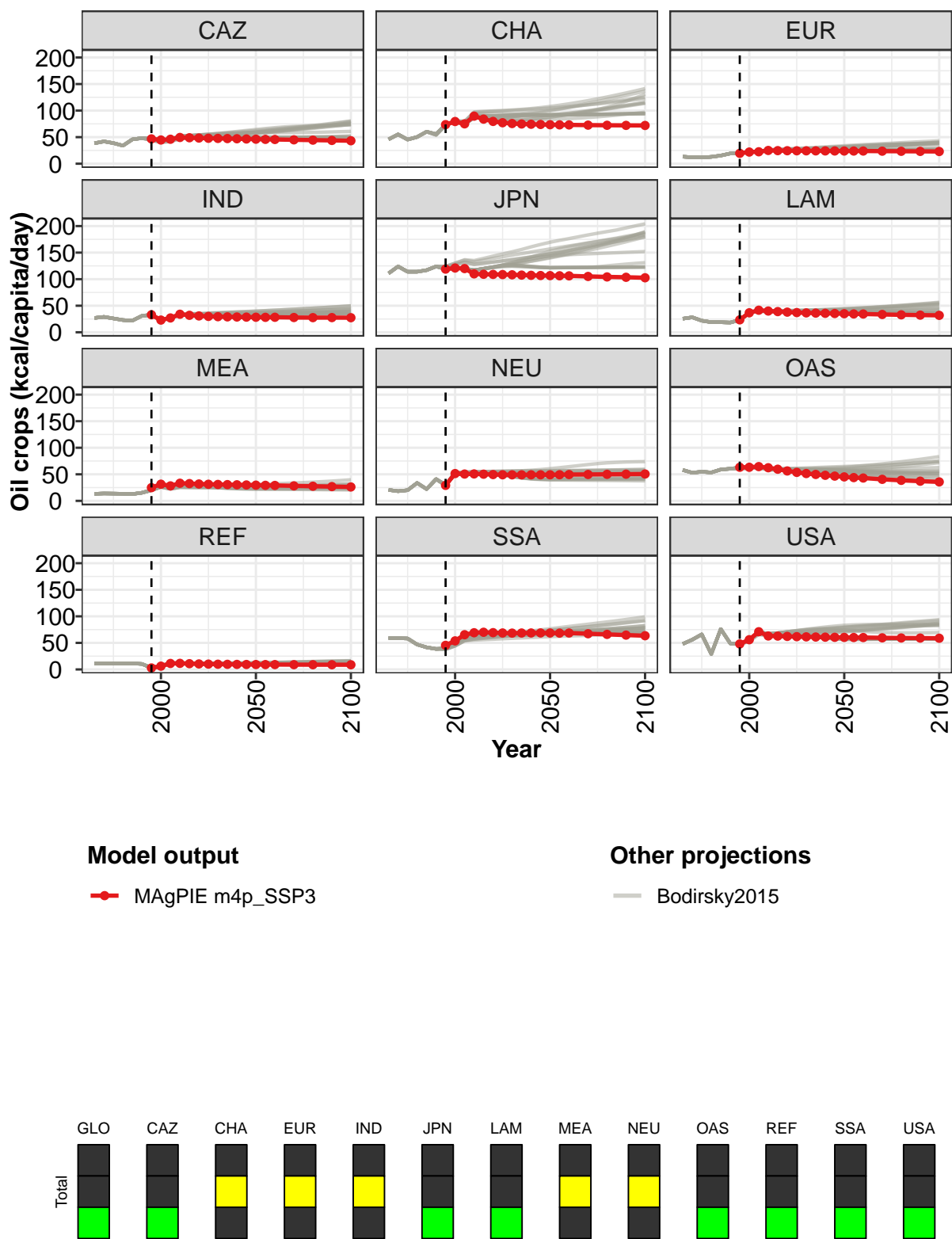


Figure 277: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops—Oil crops (kcal/capita/day)

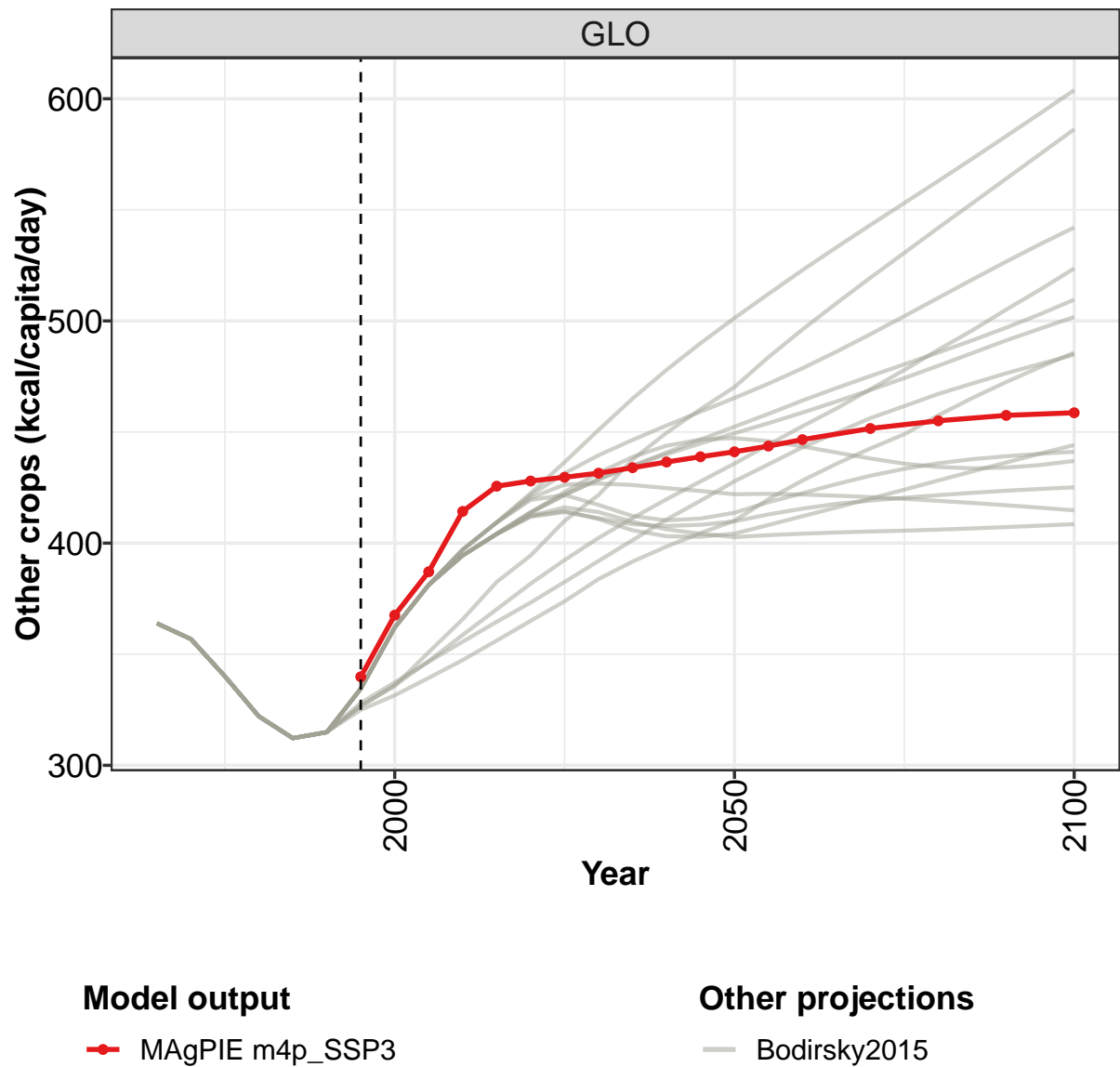
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	46	49	52	56	54	52	50	49	49	48	48
CAZ	47	45	46	49	49	48	48	48	47	47	47
CHA	74	79	75	90	84	80	77	76	75	74	74
EUR	20	22	22	25	25	24	24	24	24	24	24
IND	33	23	27	34	32	31	30	29	29	29	29
JPN	119	121	120	110	109	109	109	108	108	107	107
LAM	23	37	42	40	39	38	37	37	36	36	35
MEA	25	31	28	33	33	32	31	31	31	30	30
NEU	29	51	50	51	50	50	49	49	49	49	49
OAS	63	63	65	62	60	56	54	51	50	48	47
REF	3	6	11	11	11	10	10	10	10	9	9
SSA	45	54	65	69	70	69	69	68	69	69	69
USA	48	56	71	63	63	62	62	61	61	61	61

Table 923: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops—Oil crops (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	47	47	47	46	45	44	43
CAZ	46	46	46	45	44	44	43
CHA	73	73	73	73	72	72	72
EUR	24	24	24	24	23	23	23
IND	28	28	28	28	28	28	27
JPN	107	106	106	105	104	104	103
LAM	35	35	34	34	33	32	32
MEA	30	29	29	28	28	27	26
NEU	49	49	50	50	50	50	51
OAS	45	44	43	41	39	37	36
REF	9	9	9	9	9	9	9
SSA	69	68	69	67	66	65	63
USA	60	60	60	59	59	59	59

Table 924: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops—Oil crops (kcal/capita/day) [PART 2/2]

34.1.3 Other crops



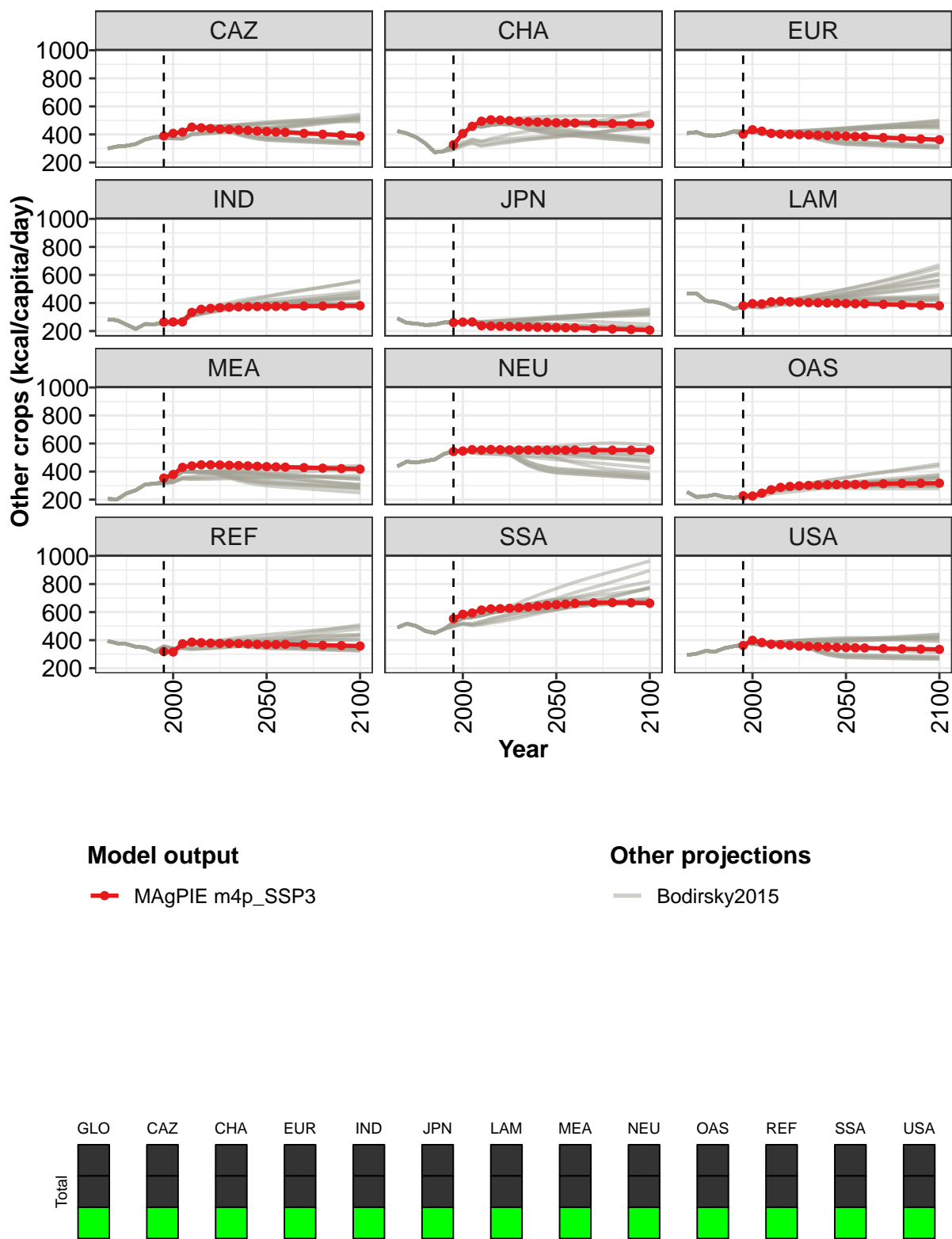


Figure 278: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops—Other crops (kcal/capita/day)

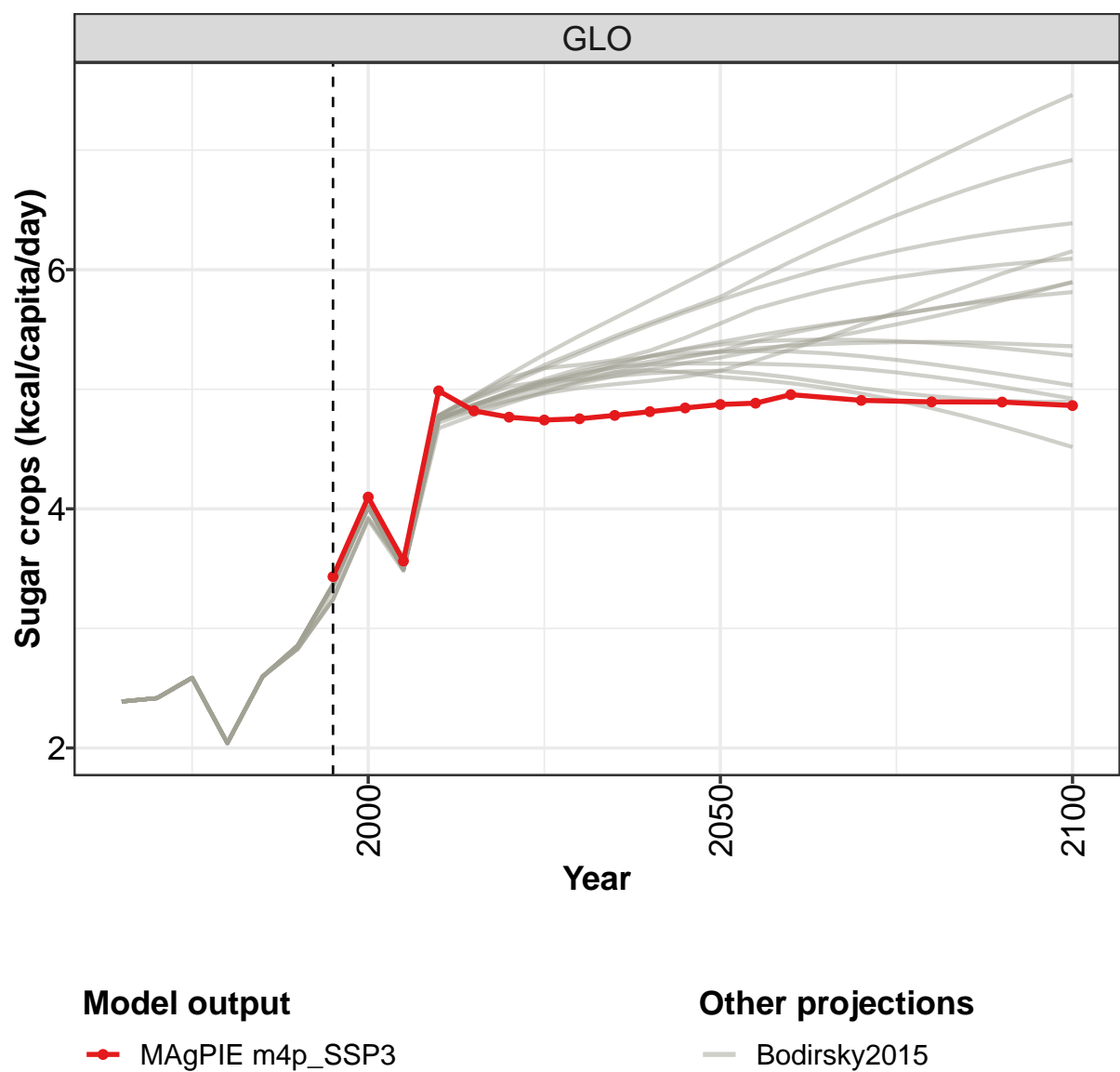
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	340	368	387	414	426	428	430	431	434	436	439
CAZ	389	408	417	452	447	442	438	435	432	429	425
CHA	327	406	458	494	504	503	498	493	490	488	486
EUR	402	433	423	408	403	401	399	397	395	392	390
IND	264	265	265	333	355	362	367	370	373	374	375
JPN	261	264	265	238	235	234	233	231	229	227	226
LAM	381	396	394	409	412	409	405	403	401	400	399
MEA	353	379	430	441	448	448	447	445	443	441	438
NEU	543	547	556	554	557	556	554	554	554	553	553
OAS	228	226	246	270	287	294	298	301	304	306	307
REF	319	316	374	386	382	379	377	377	376	373	371
SSA	553	585	594	615	623	625	627	631	637	643	648
USA	362	399	383	371	368	363	359	356	353	351	349

Table 925: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops—Other crops (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	441	444	447	452	455	458	459
CAZ	421	417	415	408	401	395	388
CHA	484	482	482	479	478	477	476
EUR	388	385	384	378	372	368	362
IND	375	376	376	378	379	380	381
JPN	225	224	223	218	215	211	206
LAM	397	395	395	391	387	384	381
MEA	435	433	432	428	424	421	418
NEU	552	552	554	553	553	553	554
OAS	307	308	307	313	315	317	317
REF	369	369	370	367	363	361	358
SSA	653	657	662	666	668	667	664
USA	347	345	344	340	338	336	334

Table 926: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops—Other crops (kcal/capita/day) [PART 2/2]

34.1.4 Sugar crops



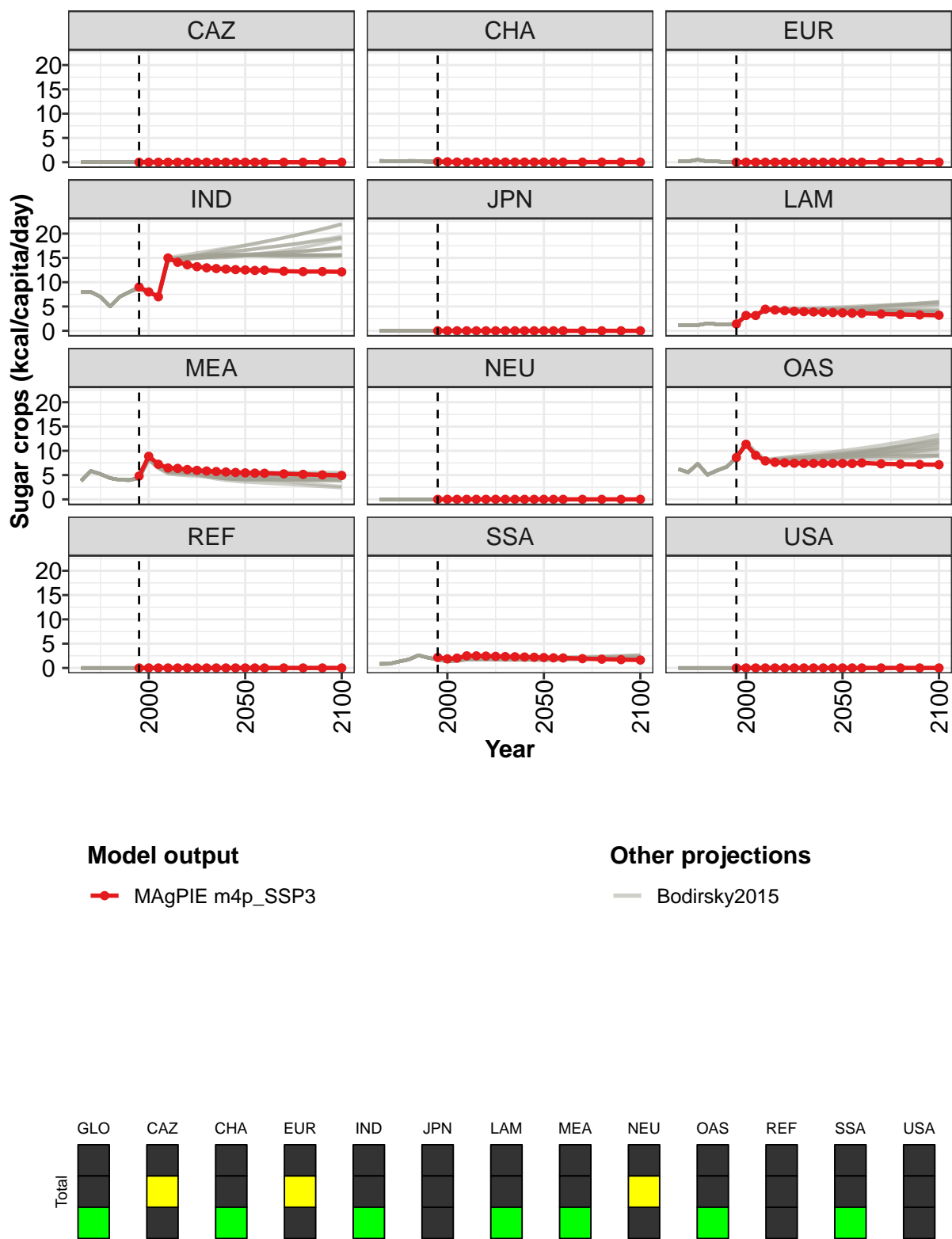


Figure 279: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops—Sugar crops (kcal/capita/day)

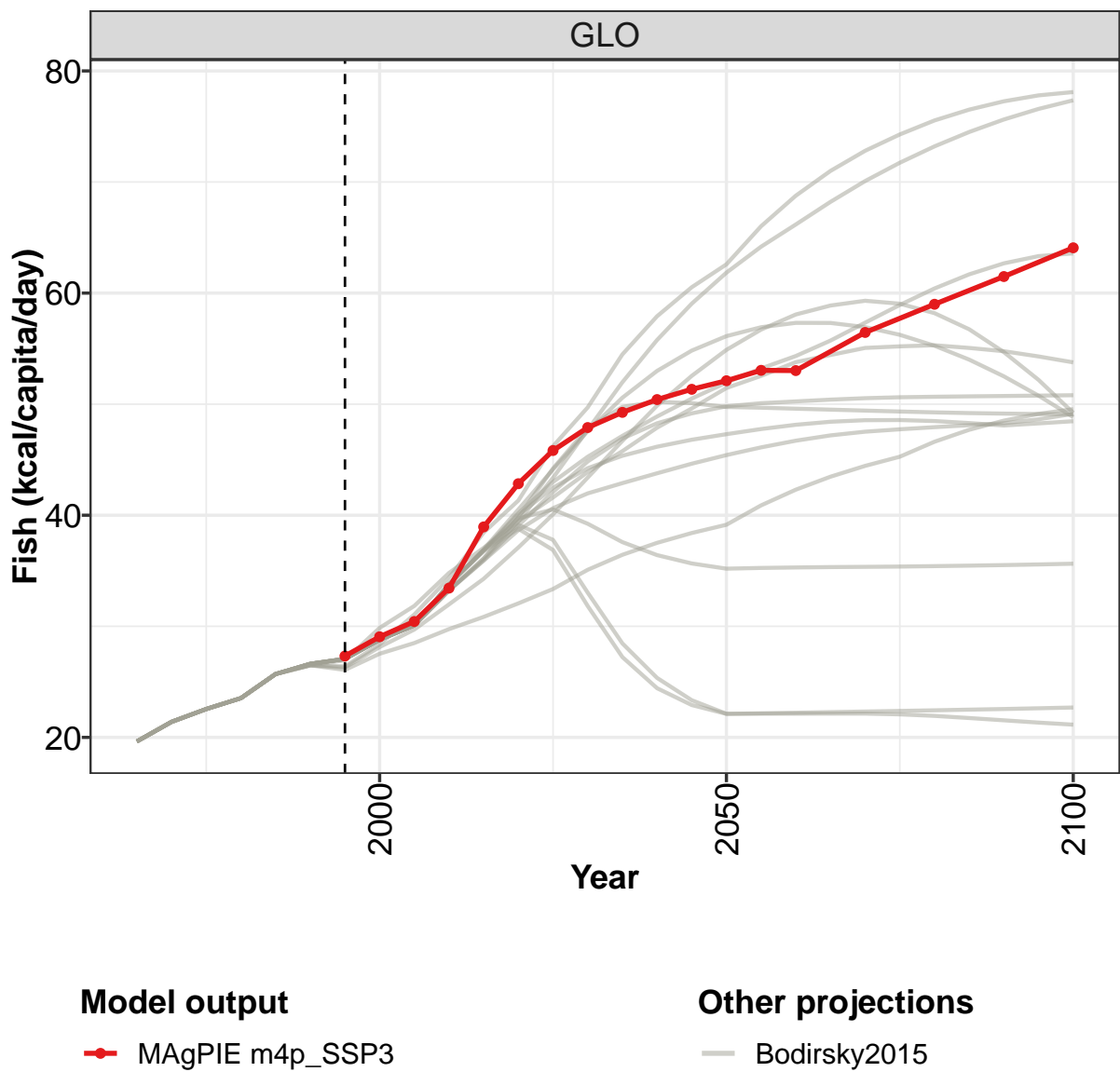
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.4	4.1	3.6	5.0	4.8	4.8	4.7	4.8	4.8	4.8	4.8
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	9.0	8.0	7.0	15.0	14.1	13.6	13.2	13.0	12.8	12.7	12.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.4	3.2	3.1	4.4	4.3	4.1	4.0	3.9	3.9	3.8	3.8
MEA	4.8	8.9	7.2	6.5	6.4	6.1	6.0	5.8	5.7	5.6	5.5
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	8.6	11.3	9.1	7.9	7.6	7.5	7.4	7.4	7.4	7.4	7.4
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	2.2	1.9	2.0	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.2
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

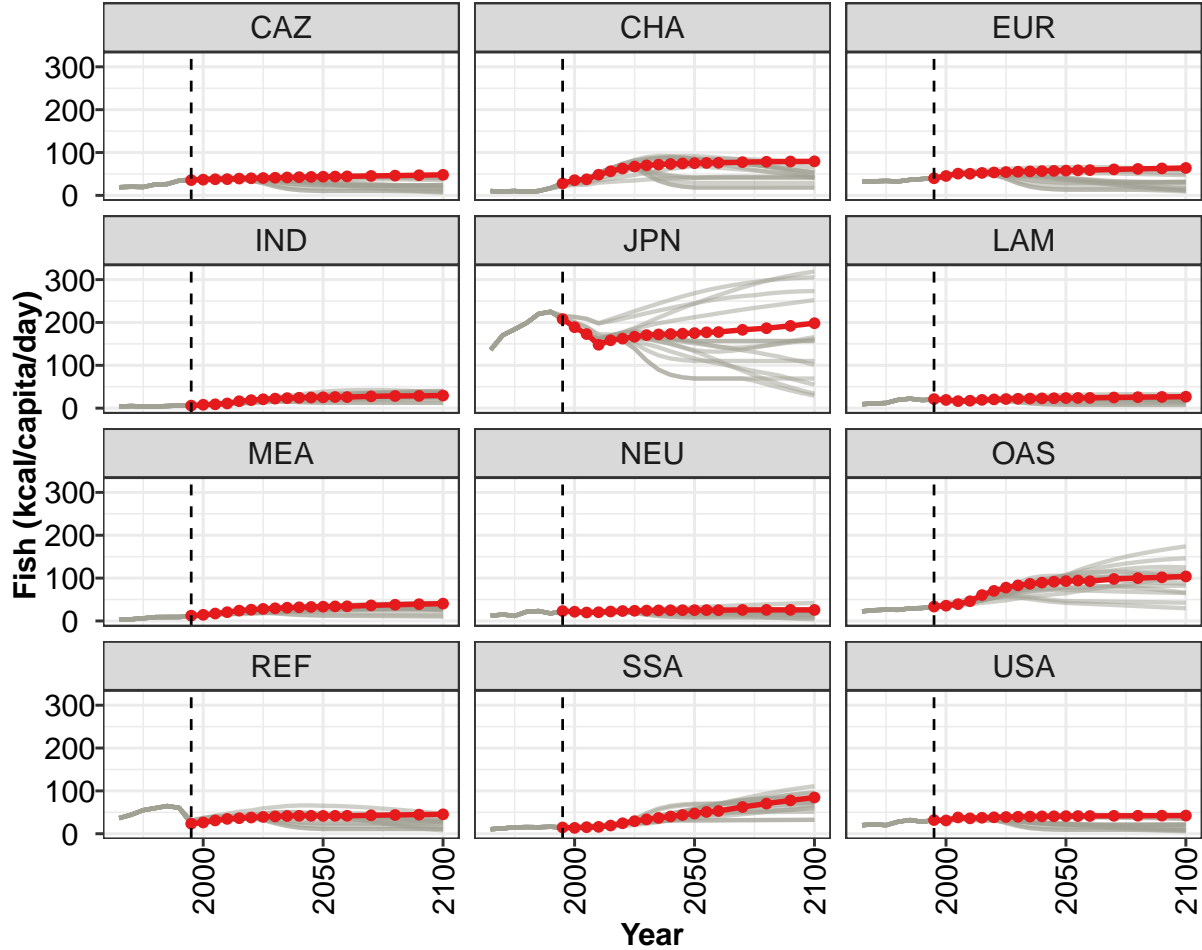
Table 927: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops—Sugar crops (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	4.9	4.9	5.0	4.9	4.9	4.9	4.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	12.5	12.4	12.5	12.3	12.2	12.2	12.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.7	3.6	3.6	3.5	3.4	3.3	3.2
MEA	5.5	5.4	5.4	5.3	5.2	5.0	4.9
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	7.4	7.4	7.5	7.3	7.2	7.2	7.1
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	2.1	2.1	2.1	1.9	1.8	1.7	1.6
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 928: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Crops—Sugar crops (kcal/capita/day) [PART 2/2]

34.2 Fish





Model output

MAgPIE m4p_SSP3

Other projections

Bodirsky2015

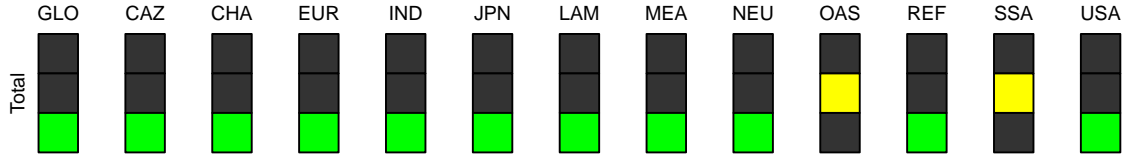


Figure 280: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Fish (kcal/capita/day)

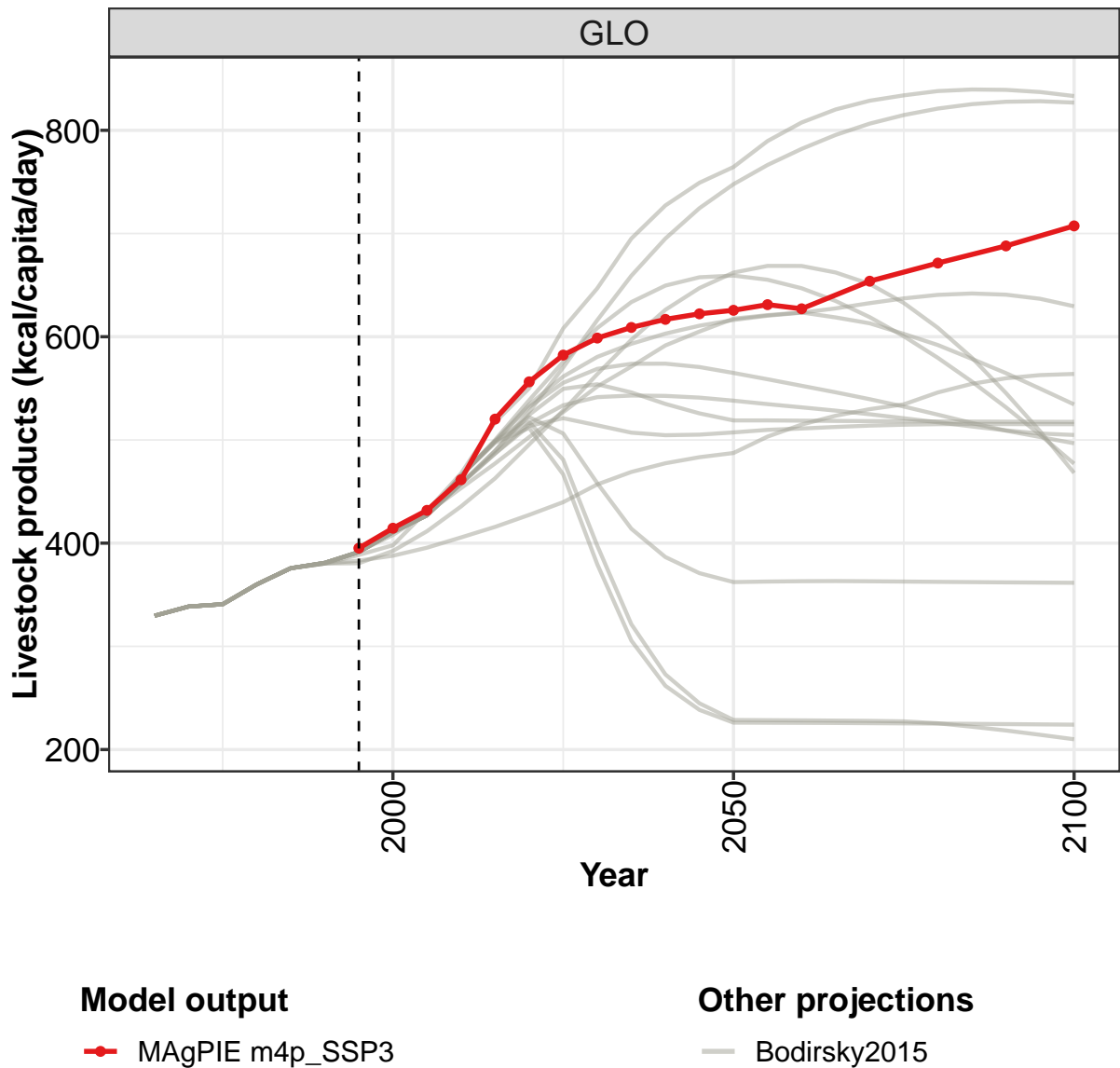
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	27	29	30	33	39	43	46	48	49	50	51
CAZ	36	37	38	38	39	40	41	41	42	43	43
CHA	28	36	38	48	56	63	67	70	72	73	74
EUR	40	45	51	51	52	53	54	55	56	57	57
IND	6	8	9	11	16	19	21	22	23	24	25
JPN	208	189	173	148	158	162	167	171	172	173	174
LAM	21	19	16	17	19	21	21	22	22	23	23
MEA	12	14	17	20	24	26	28	30	31	32	33
NEU	23	22	20	20	22	23	24	24	25	25	25
OAS	34	36	39	46	60	70	78	83	87	90	92
REF	24	26	31	35	36	38	39	41	41	42	42
SSA	15	14	15	16	19	24	29	34	37	40	44
USA	32	31	38	36	37	38	39	40	40	41	41

Table 929: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Fish (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	52	53	53	56	59	61	64
CAZ	44	44	44	45	46	47	48
CHA	75	76	76	78	79	79	79
EUR	58	58	59	61	62	63	64
IND	25	26	26	28	28	29	30
JPN	175	177	178	183	187	192	198
LAM	24	24	24	25	26	26	27
MEA	33	34	34	36	38	39	40
NEU	25	25	25	26	26	26	26
OAS	93	94	93	98	100	102	104
REF	42	42	42	43	44	45	45
SSA	47	51	53	62	70	78	85
USA	41	41	41	42	42	42	42

Table 930: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Fish (kcal/capita/day) [PART 2/2]

34.3 Livestock products



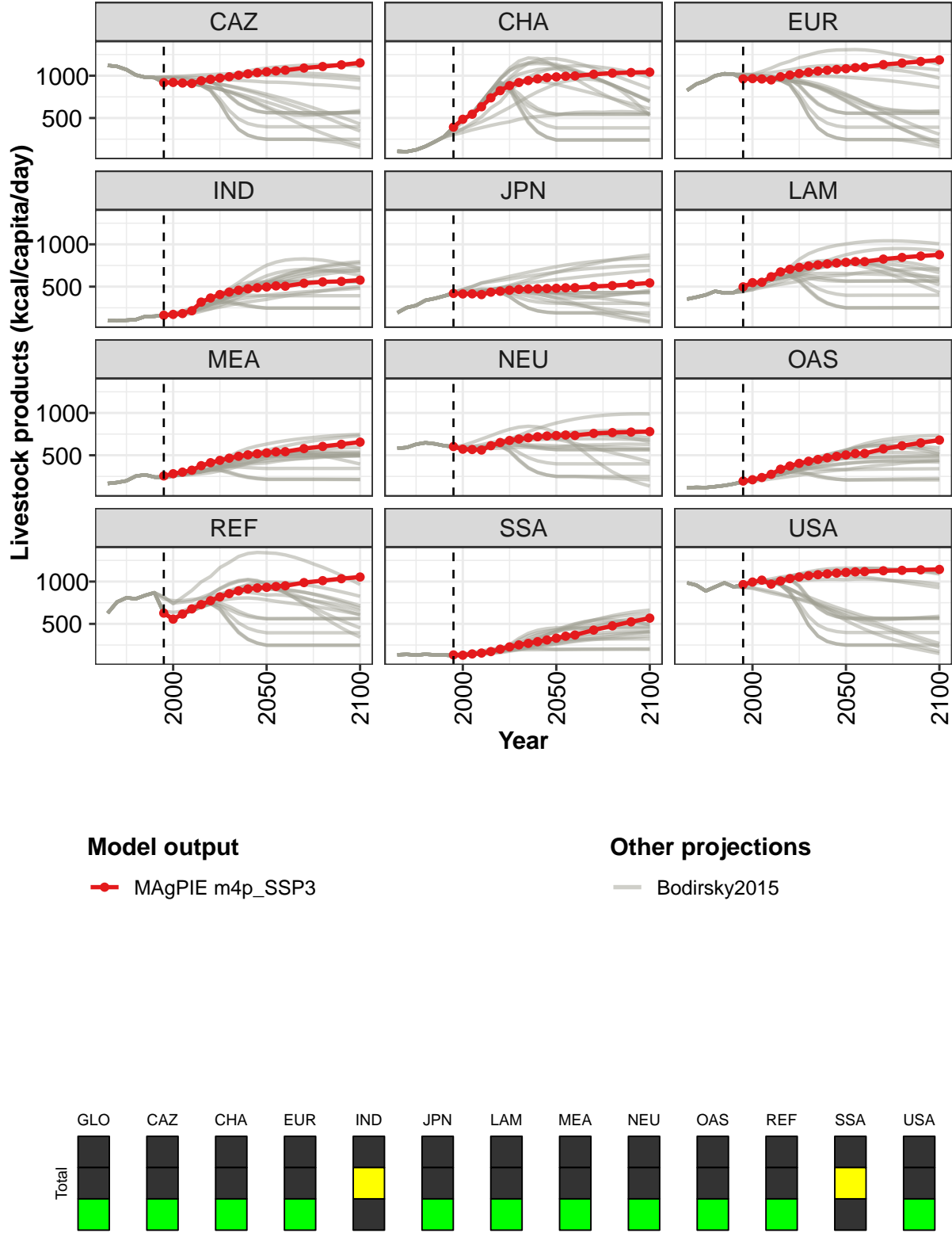


Figure 281: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Livestock products (kcal/capita/day)

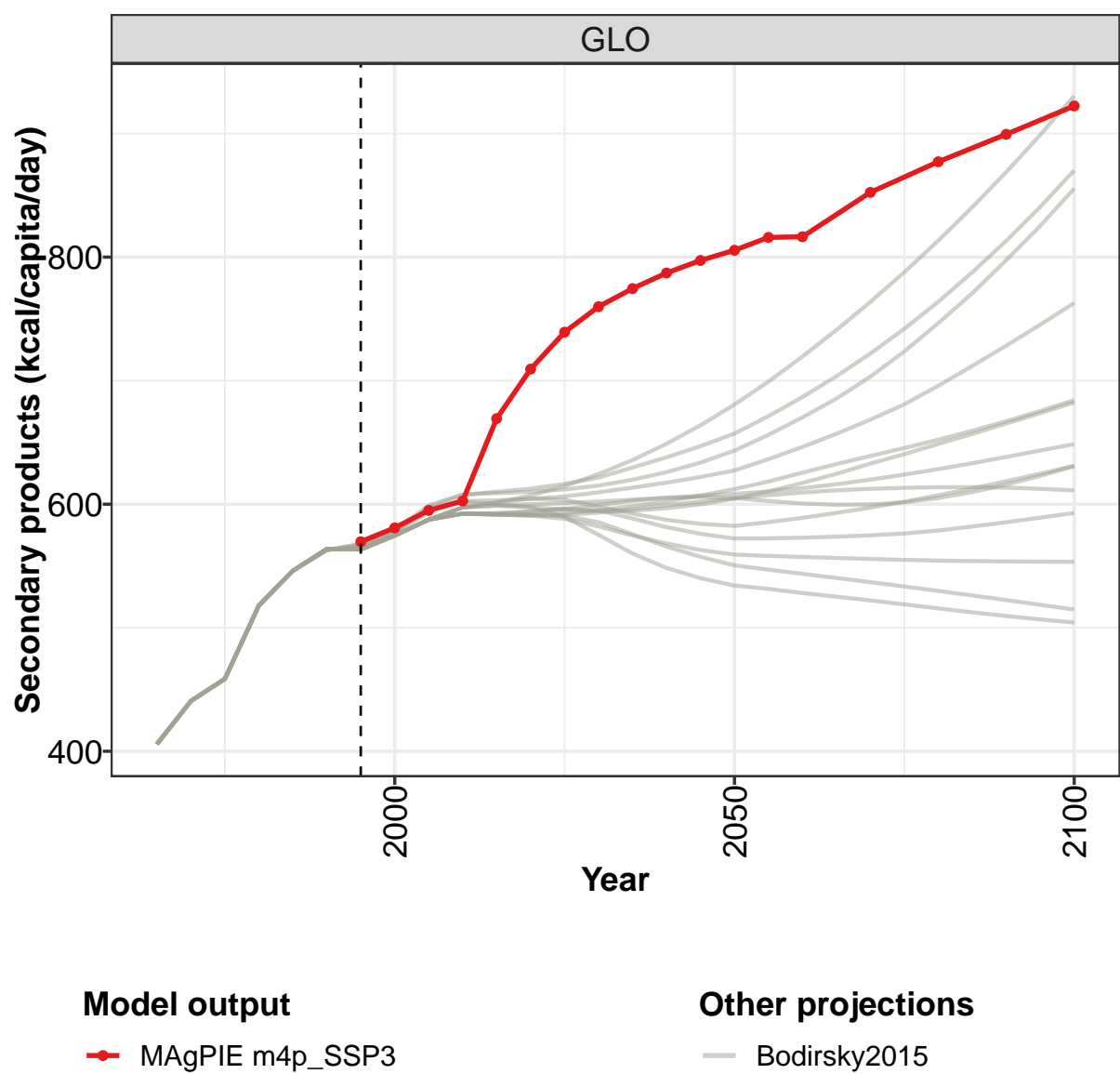
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	395	414	432	461	520	556	582	599	609	617	622
CAZ	919	921	914	908	940	958	972	988	1006	1022	1036
CHA	392	485	545	633	738	824	883	920	943	962	977
EUR	962	966	961	950	988	1008	1026	1041	1054	1065	1074
IND	162	172	182	215	317	366	406	436	458	474	487
JPN	420	414	415	406	435	445	458	468	472	475	477
LAM	497	547	552	617	674	706	728	744	757	769	779
MEA	256	282	300	323	377	412	440	465	488	505	518
NEU	603	572	568	562	613	651	675	692	706	719	728
OAS	195	211	237	275	335	373	404	429	450	470	488
REF	627	556	616	677	728	774	818	858	890	912	925
SSA	133	130	145	155	172	201	228	252	270	290	310
USA	965	994	1017	970	1007	1035	1054	1069	1082	1091	1100

Table 931: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Livestock products (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	626	631	627	654	671	688	707
CAZ	1046	1056	1065	1091	1109	1128	1152
CHA	986	993	997	1017	1030	1038	1042
EUR	1083	1095	1103	1132	1150	1168	1187
IND	496	509	505	540	556	562	577
JPN	480	486	487	502	512	527	544
LAM	788	796	796	826	845	862	876
MEA	528	540	542	579	604	630	655
NEU	734	739	734	758	768	774	780
OAS	504	520	521	575	612	646	680
REF	932	942	950	988	1011	1034	1054
SSA	331	355	368	427	477	524	568
USA	1108	1115	1118	1128	1133	1139	1144

Table 932: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Livestock products (kcal/capita/day) [PART 2/2]

34.4 Secondary products



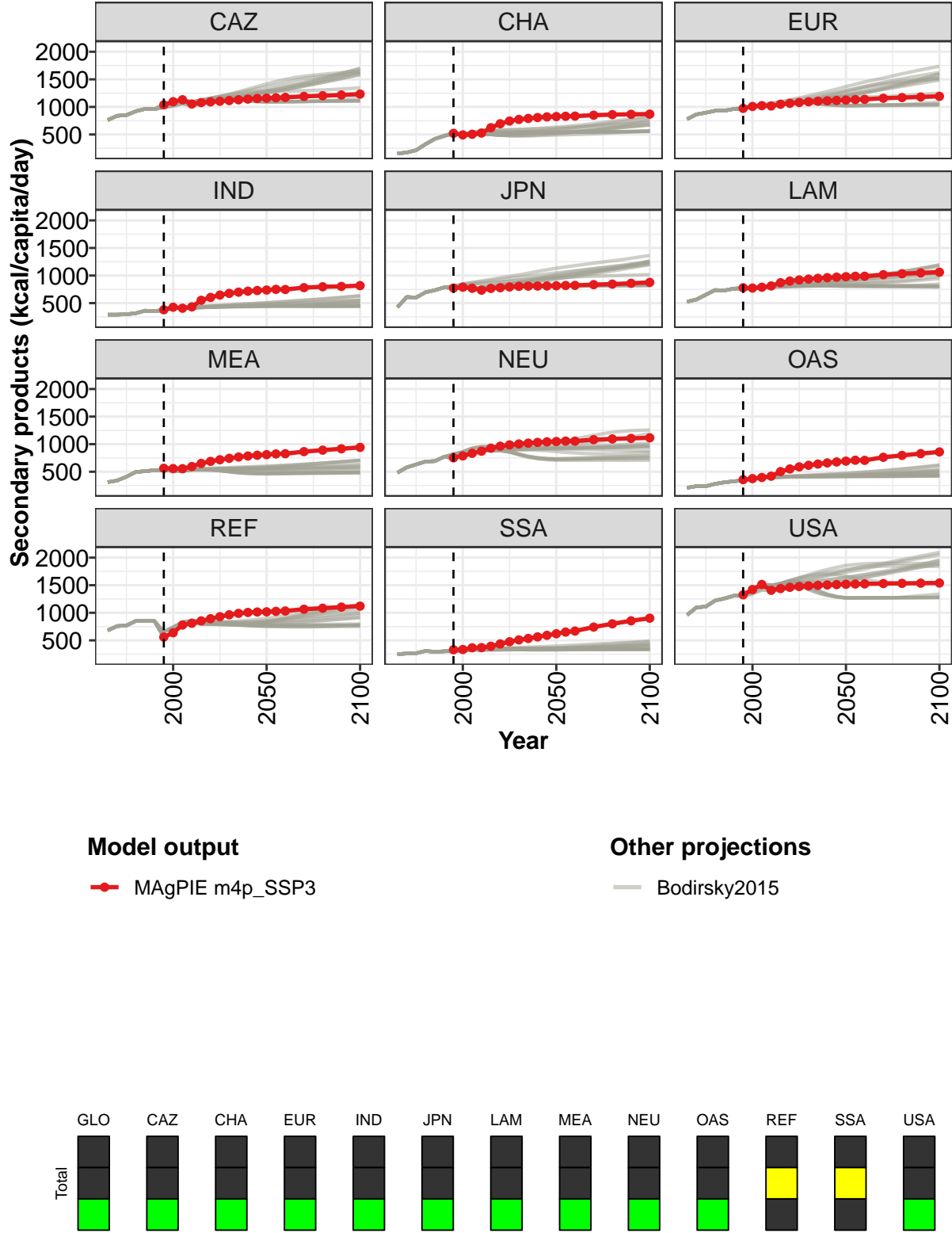


Figure 282: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Secondary products (kcal/capita/day)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	570	581	595	603	669	709	739	760	775	787	797
CAZ	1037	1095	1130	1053	1079	1092	1103	1116	1130	1142	1153
CHA	521	493	504	527	623	695	744	773	791	808	820
EUR	974	1009	1023	1018	1049	1066	1080	1093	1103	1111	1118
IND	380	426	408	432	551	604	646	677	699	716	729
JPN	773	789	769	735	767	779	793	804	808	810	812
LAM	779	773	788	812	870	900	921	937	950	961	971
MEA	563	558	556	594	651	688	717	744	767	785	799
NEU	753	787	834	873	927	963	987	1004	1019	1032	1042
OAS	356	375	396	419	503	551	588	617	640	660	677
REF	560	638	779	810	853	892	930	964	990	1006	1014
SSA	331	334	366	368	393	436	475	509	535	563	591
USA	1326	1422	1514	1408	1440	1462	1477	1488	1497	1505	1511

Table 933: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Secondary products (kcal/capita/day) [PART 1/2]

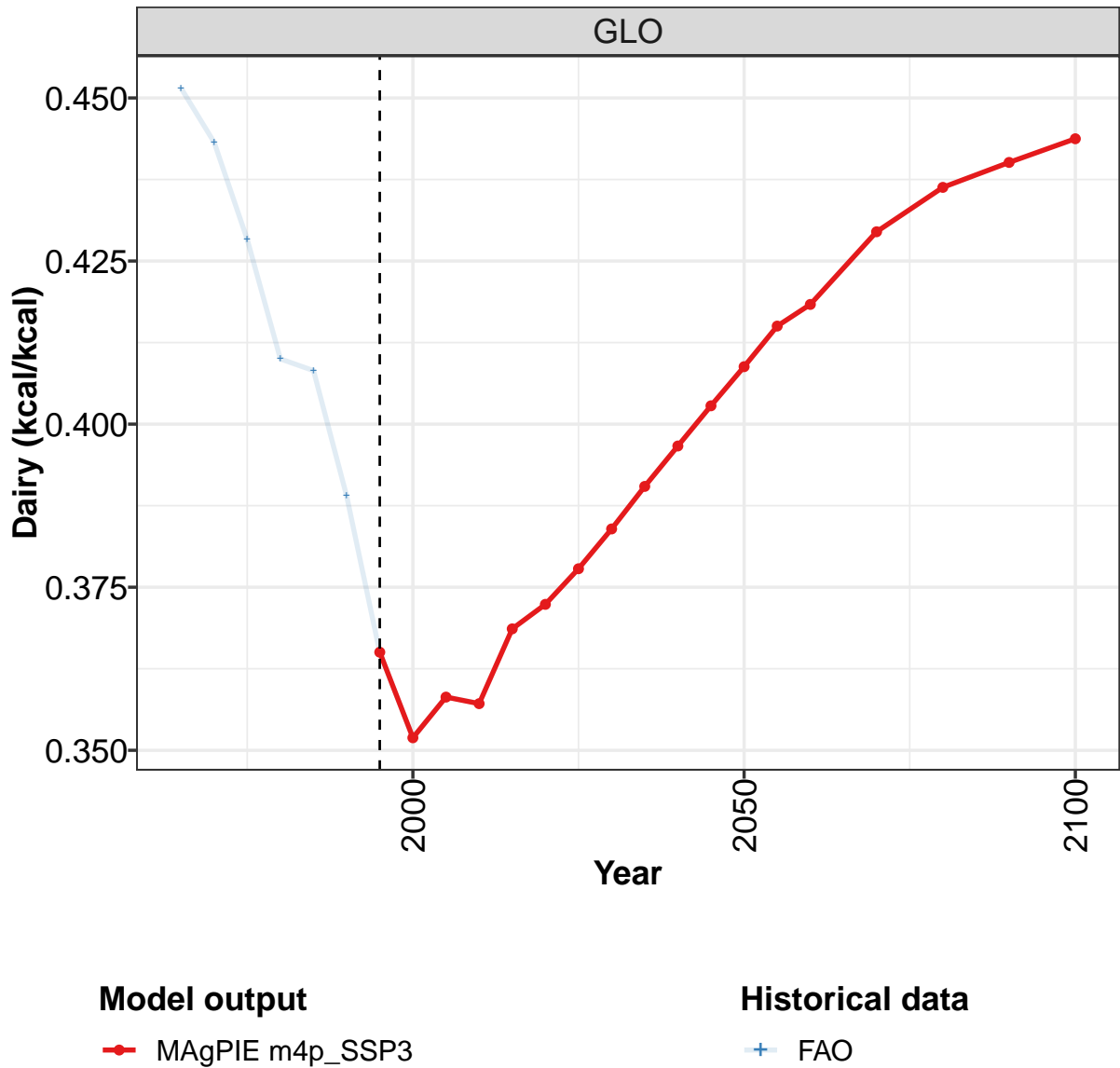
	2050	2055	2060	2070	2080	2090	2100
GLO	806	816	816	852	877	899	922
CAZ	1159	1166	1173	1191	1203	1217	1233
CHA	825	831	834	850	861	866	870
EUR	1124	1132	1138	1158	1169	1181	1192
IND	737	750	747	781	797	803	818
JPN	815	820	822	835	845	859	876
LAM	979	988	988	1015	1033	1048	1061
MEA	810	823	827	865	891	916	942
NEU	1048	1056	1055	1081	1095	1105	1115
OAS	693	709	707	762	796	829	859
REF	1018	1026	1033	1065	1083	1104	1121
SSA	620	651	669	741	800	854	902
USA	1517	1522	1524	1530	1533	1537	1540

Table 934: MAgPIE m4p_SSP3 — Nutrition—Calorie Supply—Secondary products (kcal/capita/day) [PART 2/2]

35 Dietary Composition

35.1 Livestock Demand Structure

35.1.1 Livestock products—Dairy



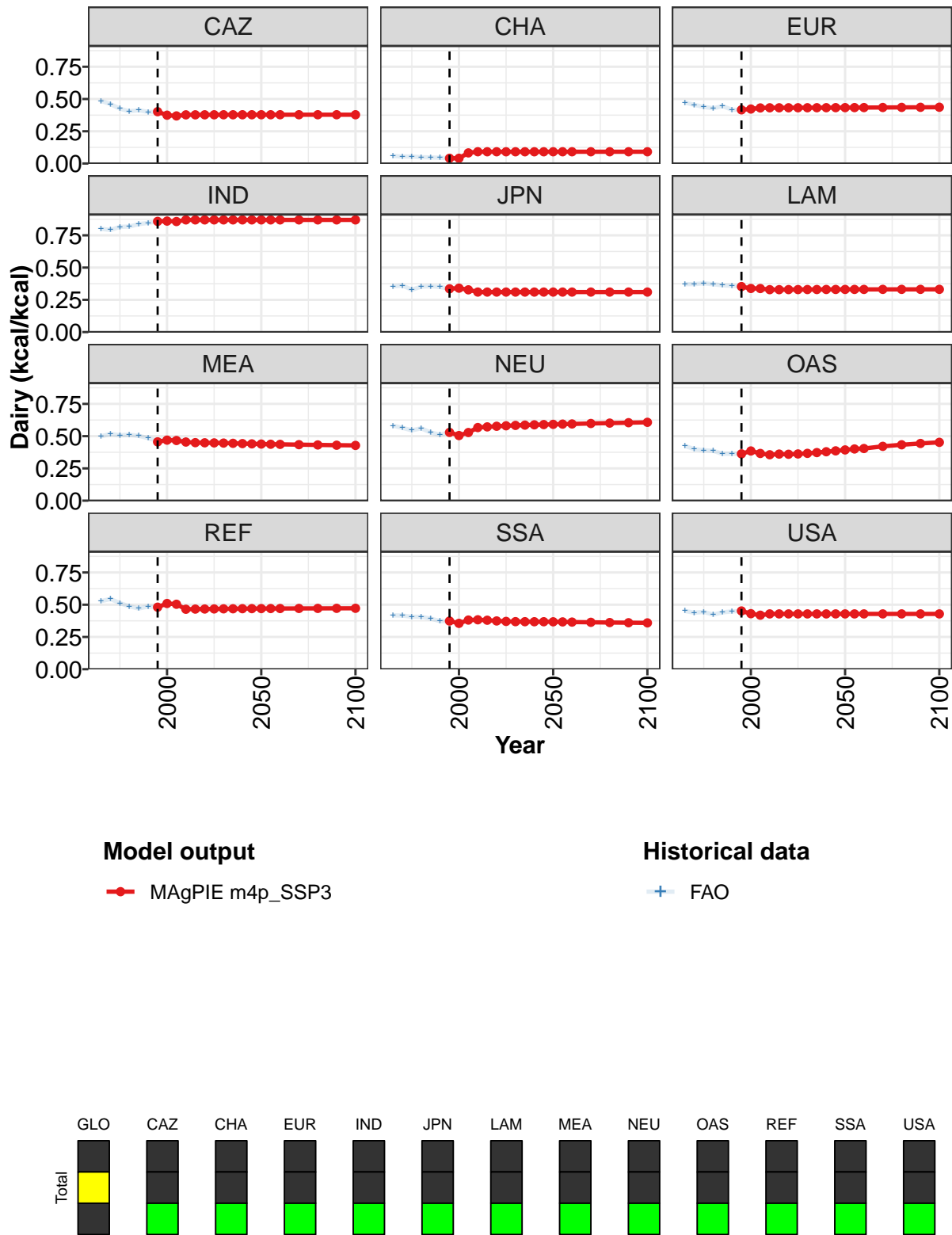


Figure 283: MAgPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Dairy (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.365	0.352	0.358	0.357	0.369	0.372	0.378	0.384	0.390	0.397	0.403
CAZ	0.402	0.375	0.369	0.377	0.378	0.378	0.378	0.378	0.378	0.378	0.378
CHA	0.041	0.041	0.083	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.091
EUR	0.416	0.422	0.431	0.432	0.432	0.432	0.432	0.432	0.433	0.433	0.433
IND	0.858	0.860	0.857	0.870	0.870	0.870	0.870	0.870	0.870	0.870	0.870
JPN	0.336	0.341	0.328	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310
LAM	0.353	0.338	0.338	0.329	0.329	0.329	0.330	0.330	0.330	0.330	0.331
MEA	0.456	0.469	0.466	0.454	0.450	0.449	0.448	0.446	0.445	0.442	0.440
NEU	0.529	0.505	0.528	0.567	0.572	0.577	0.581	0.583	0.586	0.588	0.590
OAS	0.363	0.385	0.366	0.356	0.361	0.360	0.362	0.367	0.373	0.379	0.386
REF	0.481	0.510	0.504	0.465	0.466	0.467	0.468	0.468	0.469	0.469	0.470
SSA	0.374	0.356	0.381	0.383	0.380	0.374	0.371	0.369	0.369	0.368	0.368
USA	0.452	0.431	0.419	0.429	0.429	0.429	0.429	0.429	0.429	0.429	0.429

Table 935: MAGPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Dairy (kcal/kcal) [PART 1/2]

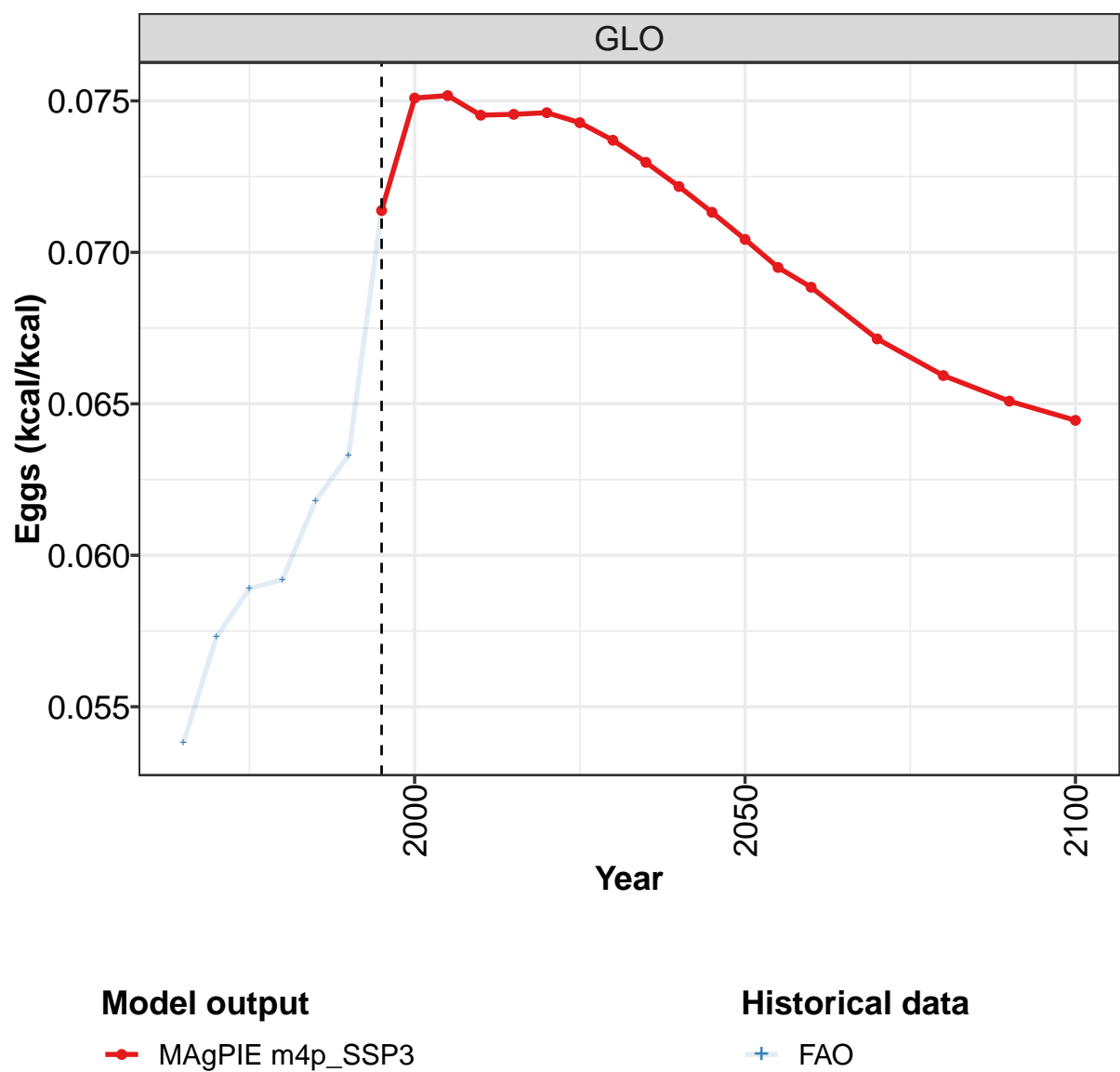
	2050	2055	2060	2070	2080	2090	2100
GLO	0.409	0.415	0.418	0.429	0.436	0.440	0.444
CAZ	0.378	0.378	0.378	0.378	0.378	0.378	0.378
CHA	0.091	0.091	0.091	0.091	0.091	0.091	0.091
EUR	0.433	0.434	0.434	0.434	0.435	0.436	0.436
IND	0.870	0.870	0.870	0.870	0.870	0.870	0.870
JPN	0.310	0.310	0.310	0.310	0.310	0.310	0.310
LAM	0.331	0.331	0.331	0.331	0.331	0.331	0.331
MEA	0.439	0.437	0.436	0.434	0.432	0.430	0.428
NEU	0.592	0.593	0.595	0.598	0.601	0.604	0.607
OAS	0.393	0.401	0.404	0.421	0.433	0.444	0.452
REF	0.470	0.471	0.471	0.471	0.472	0.472	0.472
SSA	0.368	0.367	0.366	0.364	0.362	0.360	0.359
USA	0.429	0.429	0.429	0.429	0.429	0.429	0.429

Table 936: MAGPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Dairy (kcal/kcal) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.452	0.443	0.428	0.410	0.408	0.389	0.365	0.352	0.358	0.357
CAZ	0.486	0.460	0.425	0.405	0.413	0.400	0.402	0.375	0.369	0.377
CHA	0.059	0.054	0.054	0.049	0.047	0.045	0.041	0.041	0.083	0.091
EUR	0.473	0.455	0.439	0.428	0.445	0.416	0.416	0.422	0.431	0.432
IND	0.800	0.792	0.816	0.818	0.837	0.847	0.858	0.861	0.857	0.870
JPN	0.354	0.361	0.329	0.352	0.356	0.350	0.336	0.341	0.328	0.310
LAM	0.372	0.372	0.378	0.371	0.362	0.359	0.353	0.338	0.337	0.329
MEA	0.499	0.517	0.507	0.511	0.502	0.485	0.465	0.480	0.477	0.466
NEU	0.582	0.565	0.545	0.561	0.528	0.511	0.530	0.505	0.529	0.568
OAS	0.424	0.399	0.391	0.386	0.362	0.364	0.363	0.386	0.366	0.356
REF	0.528	0.544	0.513	0.487	0.471	0.486	0.481	0.510	0.504	0.465
SSA	0.418	0.416	0.407	0.406	0.393	0.373	0.374	0.356	0.383	0.385
USA	0.452	0.438	0.444	0.424	0.441	0.448	0.452	0.431	0.419	0.429

Table 937: FAO — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Dairy (kcal/kcal)

35.1.2 Livestock products—Eggs



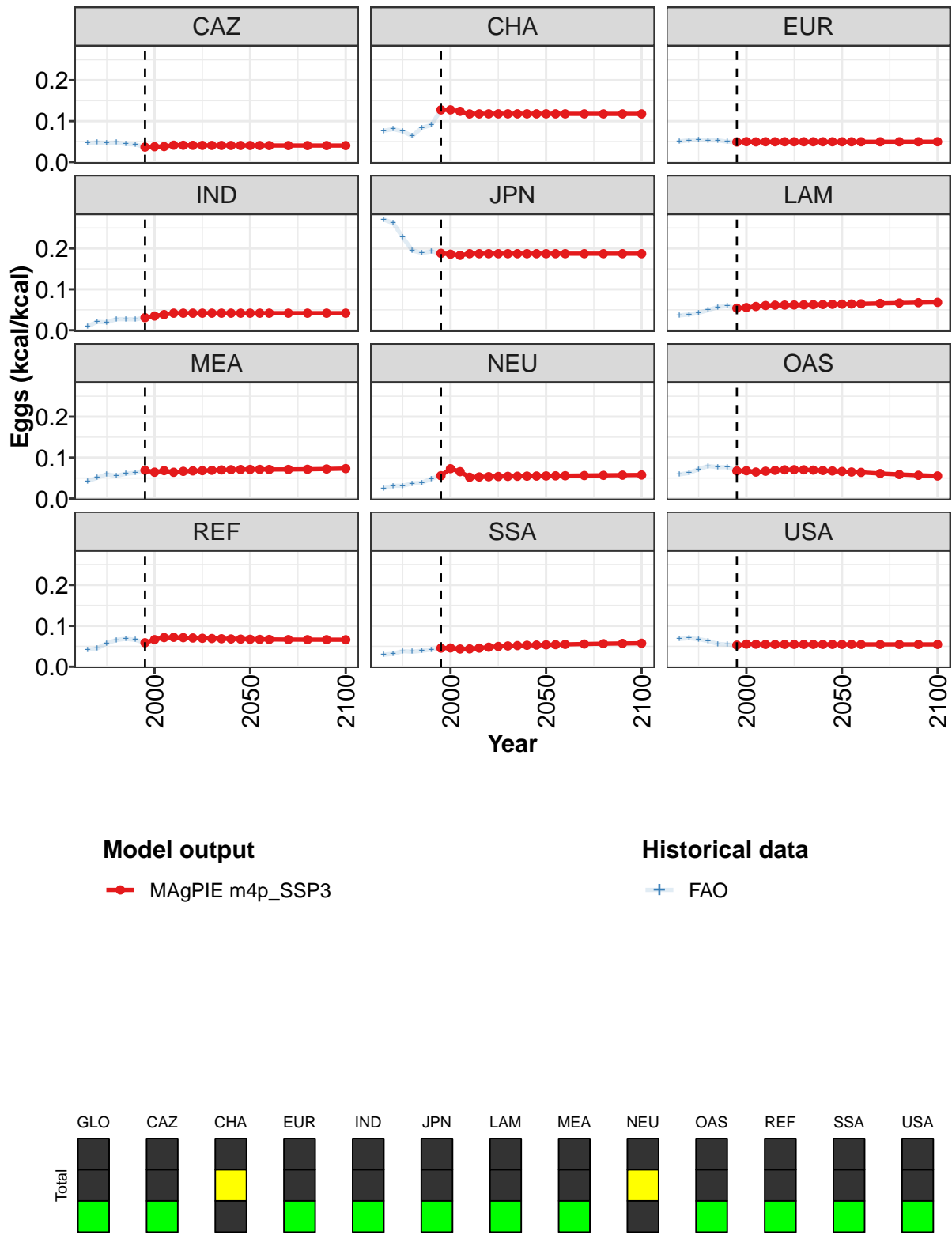


Figure 284: MAgPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Eggs (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.071	0.075	0.075	0.075	0.075	0.075	0.074	0.074	0.073	0.072	0.071
CAZ	0.037	0.037	0.038	0.041	0.041	0.041	0.041	0.041	0.041	0.040	0.040
CHA	0.127	0.127	0.124	0.118	0.118	0.118	0.118	0.118	0.118	0.118	0.118
EUR	0.049	0.050	0.049	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
IND	0.031	0.035	0.038	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042
JPN	0.188	0.186	0.183	0.187	0.187	0.187	0.187	0.187	0.187	0.187	0.187
LAM	0.054	0.056	0.058	0.061	0.061	0.062	0.062	0.062	0.063	0.063	0.063
MEA	0.069	0.064	0.068	0.064	0.066	0.068	0.068	0.069	0.070	0.070	0.071
NEU	0.056	0.073	0.066	0.052	0.053	0.053	0.054	0.054	0.055	0.055	0.055
OAS	0.068	0.068	0.065	0.067	0.069	0.070	0.070	0.070	0.069	0.068	0.067
REF	0.059	0.066	0.071	0.072	0.071	0.070	0.070	0.069	0.068	0.068	0.068
SSA	0.045	0.046	0.043	0.044	0.046	0.048	0.050	0.051	0.052	0.052	0.053
USA	0.053	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055

Table 938: MAGPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Eggs (kcal/kcal) [PART 1/2]

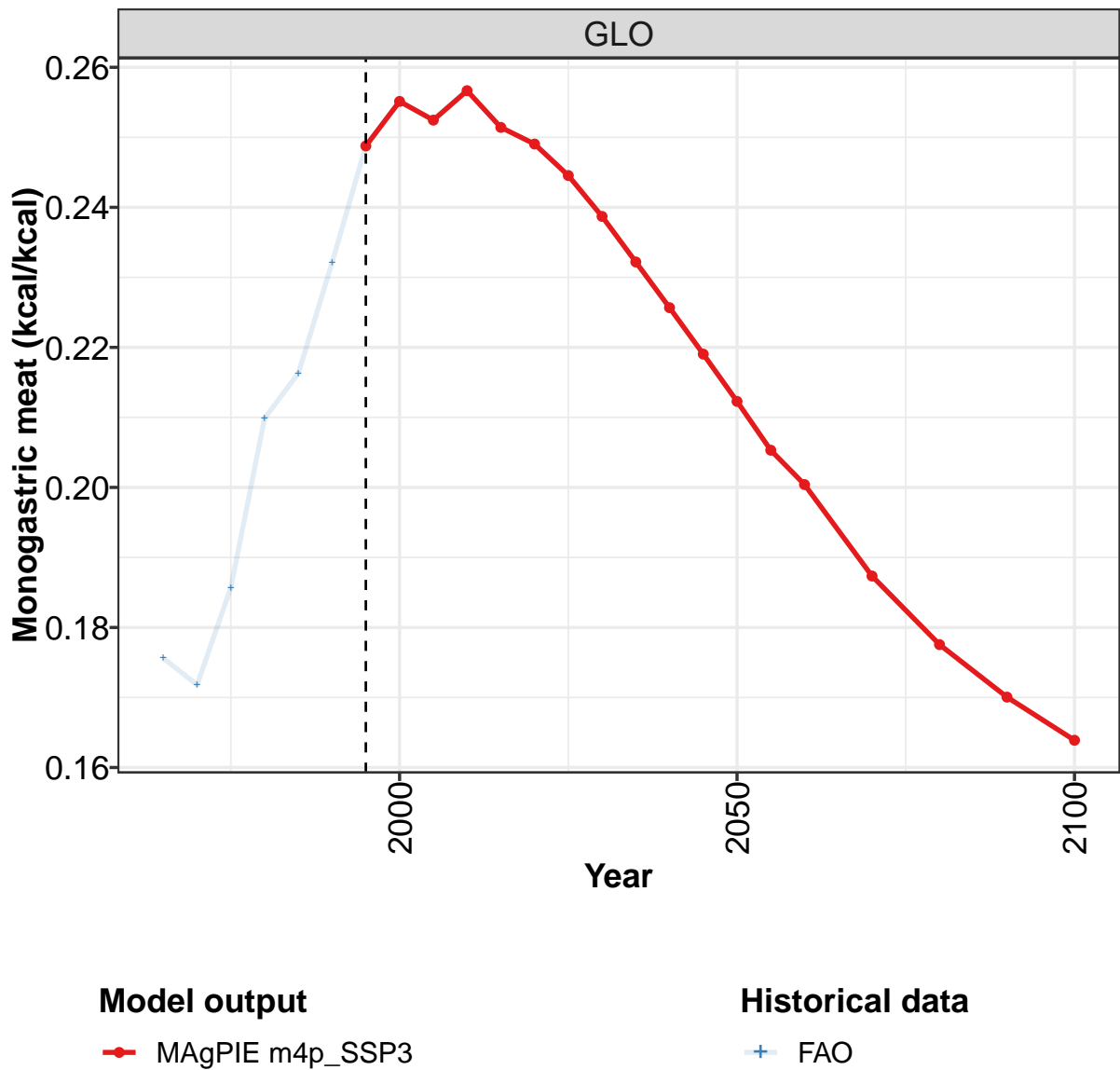
	2050	2055	2060	2070	2080	2090	2100
GLO	0.070	0.070	0.069	0.067	0.066	0.065	0.064
CAZ	0.040	0.040	0.040	0.040	0.040	0.040	0.040
CHA	0.118	0.118	0.118	0.118	0.118	0.118	0.118
EUR	0.050	0.050	0.050	0.049	0.050	0.050	0.050
IND	0.042	0.042	0.042	0.042	0.042	0.042	0.042
JPN	0.187	0.187	0.187	0.187	0.187	0.187	0.187
LAM	0.064	0.064	0.065	0.066	0.067	0.067	0.068
MEA	0.071	0.071	0.071	0.071	0.071	0.072	0.073
NEU	0.055	0.056	0.056	0.056	0.057	0.057	0.057
OAS	0.066	0.065	0.064	0.061	0.059	0.057	0.055
REF	0.067	0.067	0.067	0.066	0.066	0.066	0.066
SSA	0.054	0.054	0.055	0.056	0.056	0.057	0.057
USA	0.055	0.055	0.055	0.055	0.055	0.055	0.055

Table 939: MAGPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Eggs (kcal/kcal) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.054	0.057	0.059	0.059	0.062	0.063	0.071	0.075	0.075	0.074
CAZ	0.046	0.048	0.047	0.048	0.044	0.043	0.036	0.037	0.038	0.041
CHA	0.076	0.081	0.075	0.064	0.084	0.090	0.127	0.128	0.124	0.118
EUR	0.050	0.053	0.054	0.053	0.053	0.050	0.049	0.050	0.049	0.050
IND	0.010	0.021	0.019	0.027	0.027	0.027	0.031	0.035	0.038	0.042
JPN	0.271	0.262	0.227	0.195	0.189	0.193	0.188	0.186	0.183	0.187
LAM	0.036	0.039	0.043	0.049	0.057	0.059	0.054	0.055	0.058	0.060
MEA	0.043	0.051	0.059	0.055	0.060	0.063	0.069	0.063	0.068	0.063
NEU	0.025	0.031	0.031	0.037	0.039	0.049	0.056	0.073	0.066	0.052
OAS	0.059	0.062	0.072	0.079	0.076	0.077	0.067	0.068	0.064	0.067
REF	0.042	0.045	0.057	0.066	0.068	0.066	0.059	0.066	0.071	0.072
SSA	0.029	0.032	0.038	0.037	0.039	0.042	0.044	0.044	0.041	0.042
USA	0.068	0.070	0.068	0.063	0.056	0.054	0.053	0.055	0.055	0.055

Table 940: FAO — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Eggs (kcal/kcal)

35.1.3 Livestock products—Monogastric meat



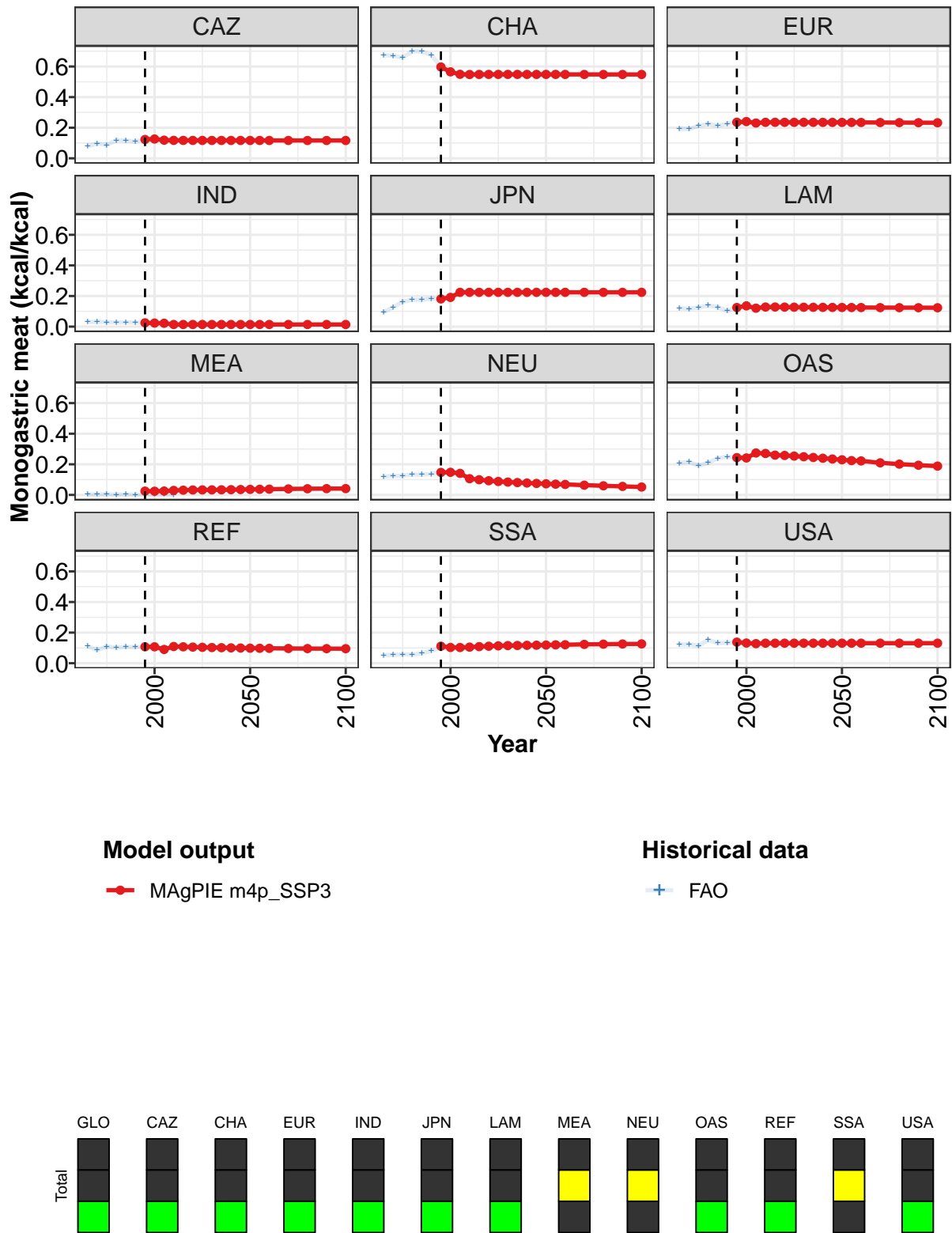


Figure 285: MAgPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Monogastric meat (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.249	0.255	0.252	0.257	0.251	0.249	0.245	0.239	0.232	0.226	0.219
CAZ	0.123	0.126	0.119	0.117	0.117	0.117	0.117	0.117	0.117	0.117	0.117
CHA	0.597	0.565	0.549	0.548	0.548	0.548	0.548	0.549	0.548	0.548	0.548
EUR	0.236	0.240	0.231	0.235	0.235	0.235	0.235	0.235	0.235	0.235	0.235
IND	0.025	0.023	0.022	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014
JPN	0.181	0.191	0.224	0.224	0.224	0.224	0.224	0.224	0.224	0.224	0.224
LAM	0.125	0.136	0.121	0.128	0.128	0.128	0.127	0.127	0.126	0.126	0.125
MEA	0.025	0.024	0.025	0.030	0.031	0.032	0.033	0.033	0.034	0.034	0.035
NEU	0.147	0.148	0.141	0.106	0.099	0.093	0.088	0.084	0.081	0.078	0.075
OAS	0.244	0.242	0.274	0.271	0.260	0.258	0.254	0.250	0.245	0.240	0.235
REF	0.108	0.107	0.090	0.109	0.107	0.105	0.104	0.102	0.101	0.100	0.099
SSA	0.111	0.103	0.103	0.105	0.109	0.111	0.113	0.115	0.116	0.117	0.118
USA	0.138	0.132	0.128	0.131	0.131	0.131	0.131	0.131	0.131	0.131	0.131

Table 941: MAGPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Monogastric meat (kcal/kcal) [PART 1/2]

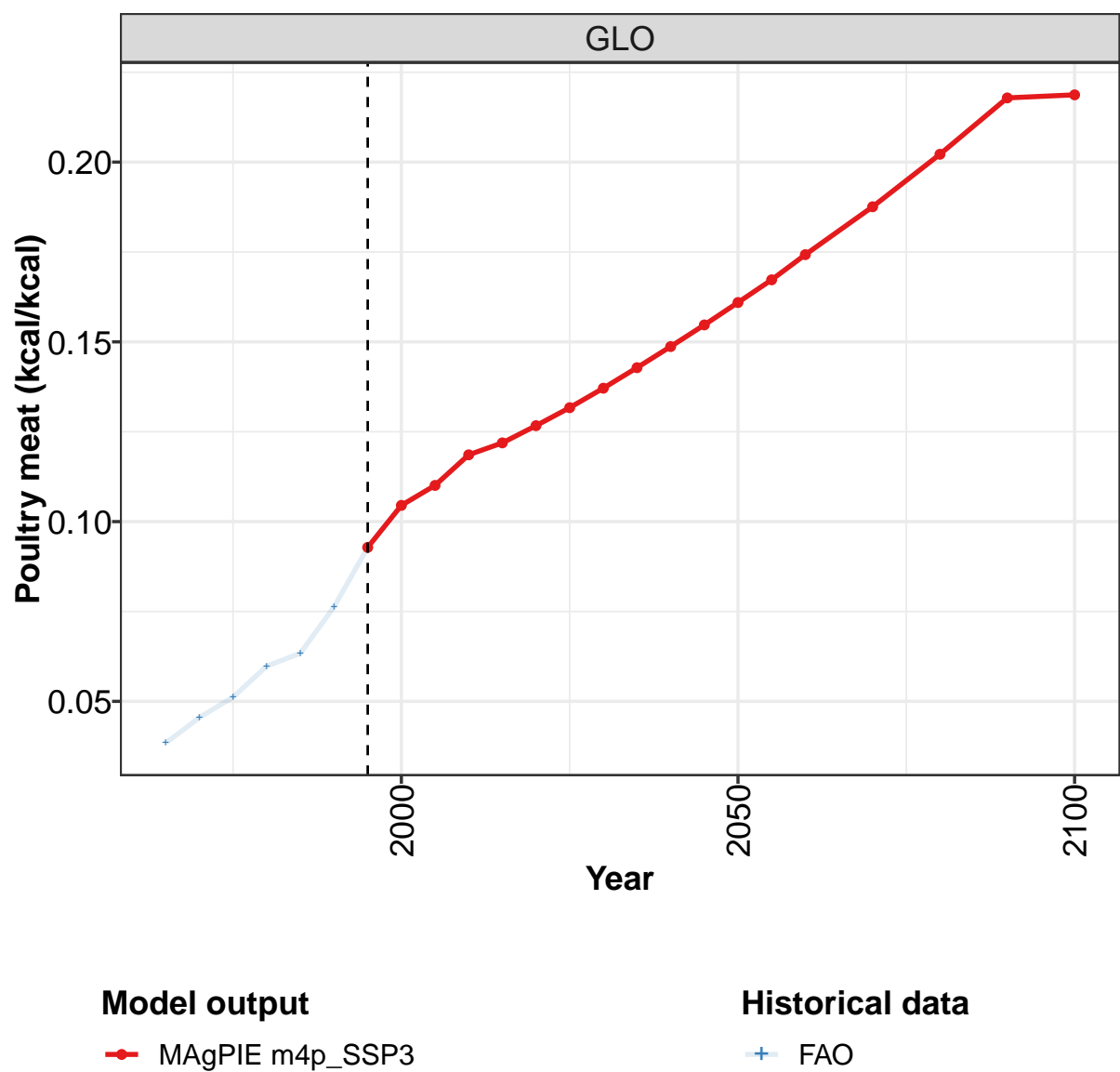
	2050	2055	2060	2070	2080	2090	2100
GLO	0.212	0.205	0.200	0.187	0.178	0.170	0.164
CAZ	0.117	0.117	0.117	0.117	0.117	0.117	0.117
CHA	0.548	0.548	0.548	0.548	0.548	0.548	0.548
EUR	0.235	0.235	0.234	0.234	0.233	0.233	0.232
IND	0.014	0.014	0.014	0.014	0.014	0.014	0.014
JPN	0.224	0.224	0.224	0.224	0.224	0.224	0.224
LAM	0.125	0.125	0.125	0.124	0.124	0.124	0.123
MEA	0.036	0.037	0.038	0.039	0.040	0.041	0.041
NEU	0.073	0.070	0.069	0.064	0.060	0.056	0.052
OAS	0.229	0.224	0.222	0.210	0.201	0.194	0.188
REF	0.098	0.098	0.097	0.096	0.096	0.095	0.095
SSA	0.119	0.120	0.121	0.123	0.124	0.125	0.126
USA	0.131	0.131	0.131	0.131	0.131	0.131	0.131

Table 942: MAGPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Monogastric meat (kcal/kcal) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.176	0.172	0.186	0.210	0.216	0.232	0.249	0.255	0.253	0.257
CAZ	0.079	0.097	0.087	0.118	0.116	0.109	0.123	0.126	0.119	0.117
CHA	0.673	0.671	0.658	0.700	0.698	0.676	0.597	0.565	0.549	0.548
EUR	0.193	0.191	0.212	0.225	0.213	0.227	0.236	0.240	0.231	0.235
IND	0.030	0.031	0.029	0.027	0.027	0.027	0.025	0.023	0.022	0.014
JPN	0.094	0.127	0.163	0.175	0.175	0.182	0.181	0.191	0.224	0.224
LAM	0.120	0.117	0.124	0.138	0.127	0.102	0.123	0.134	0.119	0.127
MEA	0.004	0.003	0.004	0.002	0.003	0.002	0.002	0.003	0.003	0.002
NEU	0.120	0.124	0.125	0.134	0.132	0.137	0.147	0.147	0.141	0.106
OAS	0.209	0.216	0.191	0.209	0.240	0.250	0.244	0.241	0.275	0.271
REF	0.112	0.086	0.109	0.102	0.106	0.106	0.107	0.107	0.090	0.109
SSA	0.052	0.055	0.058	0.056	0.064	0.082	0.101	0.094	0.094	0.096
USA	0.121	0.124	0.114	0.151	0.131	0.133	0.138	0.132	0.128	0.131

Table 943: FAO — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Monogastric meat (kcal/kcal)

35.1.4 Livestock products—Poultry meat



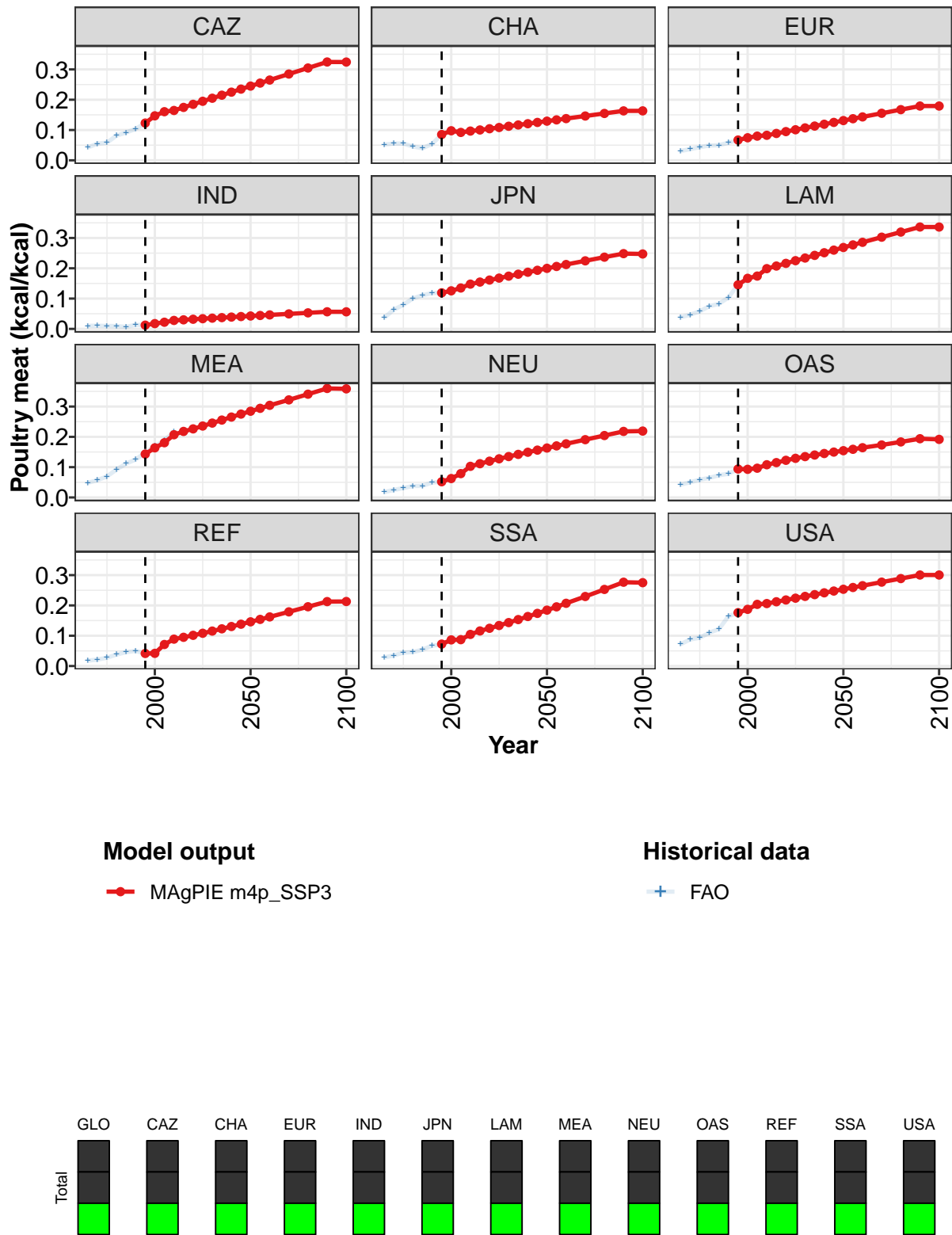


Figure 286: MAgPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Poultry meat (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.093	0.105	0.110	0.119	0.122	0.127	0.132	0.137	0.143	0.149	0.155
CAZ	0.123	0.147	0.161	0.165	0.175	0.185	0.195	0.205	0.215	0.225	0.235
CHA	0.085	0.098	0.092	0.097	0.100	0.104	0.108	0.113	0.117	0.121	0.125
EUR	0.067	0.074	0.080	0.083	0.089	0.095	0.101	0.107	0.113	0.119	0.125
IND	0.012	0.017	0.022	0.028	0.030	0.032	0.034	0.035	0.037	0.039	0.041
JPN	0.119	0.126	0.135	0.148	0.155	0.161	0.168	0.174	0.181	0.187	0.193
LAM	0.145	0.167	0.174	0.199	0.207	0.216	0.225	0.234	0.243	0.251	0.260
MEA	0.143	0.164	0.181	0.207	0.218	0.226	0.236	0.245	0.255	0.265	0.275
NEU	0.052	0.062	0.079	0.103	0.111	0.120	0.128	0.135	0.142	0.149	0.156
OAS	0.094	0.093	0.097	0.108	0.115	0.123	0.129	0.135	0.140	0.145	0.150
REF	0.042	0.042	0.071	0.089	0.095	0.101	0.108	0.115	0.123	0.130	0.138
SSA	0.072	0.086	0.087	0.104	0.116	0.125	0.134	0.143	0.153	0.163	0.174
USA	0.176	0.187	0.204	0.206	0.212	0.218	0.224	0.230	0.236	0.242	0.247

Table 944: MAGPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Poultry meat (kcal/kcal) [PART 1/2]

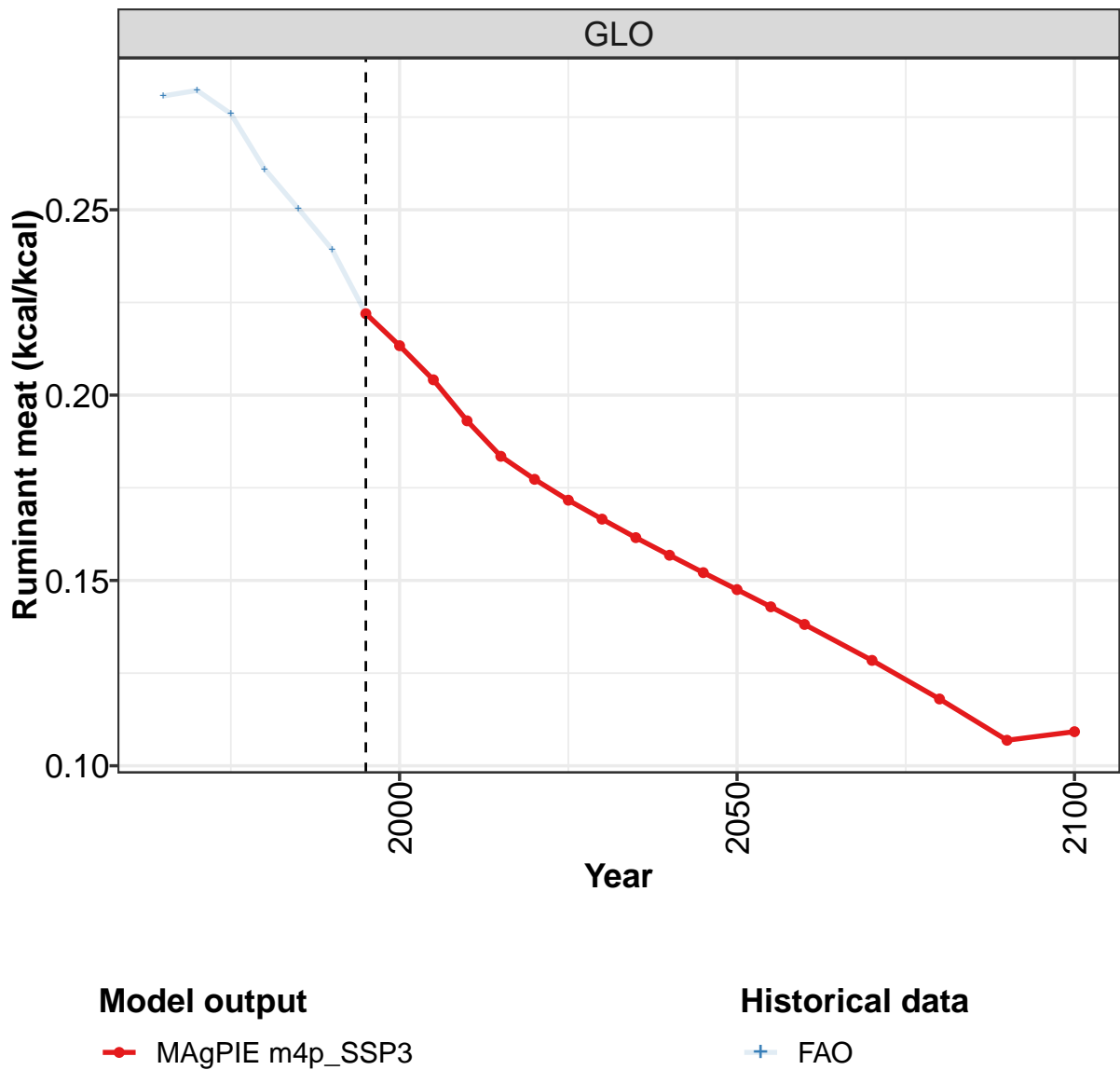
	2050	2055	2060	2070	2080	2090	2100
GLO	0.161	0.167	0.174	0.188	0.202	0.218	0.219
CAZ	0.245	0.255	0.265	0.285	0.305	0.325	0.324
CHA	0.129	0.133	0.138	0.146	0.155	0.163	0.163
EUR	0.131	0.137	0.143	0.155	0.167	0.179	0.179
IND	0.043	0.044	0.046	0.049	0.053	0.056	0.056
JPN	0.200	0.206	0.212	0.225	0.237	0.248	0.247
LAM	0.269	0.277	0.286	0.303	0.320	0.336	0.336
MEA	0.285	0.294	0.304	0.322	0.341	0.360	0.358
NEU	0.163	0.170	0.177	0.191	0.204	0.218	0.219
OAS	0.154	0.159	0.164	0.173	0.183	0.194	0.192
REF	0.146	0.154	0.162	0.179	0.196	0.213	0.213
SSA	0.184	0.195	0.207	0.229	0.253	0.277	0.275
USA	0.253	0.259	0.265	0.277	0.289	0.300	0.300

Table 945: MAGPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Poultry meat (kcal/kcal) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.038	0.045	0.051	0.060	0.063	0.076	0.093	0.104	0.110	0.119
CAZ	0.042	0.055	0.058	0.082	0.092	0.104	0.123	0.147	0.161	0.165
CHA	0.052	0.055	0.055	0.045	0.040	0.054	0.085	0.098	0.092	0.097
EUR	0.031	0.037	0.043	0.049	0.050	0.058	0.067	0.074	0.080	0.083
IND	0.010	0.010	0.010	0.009	0.007	0.013	0.012	0.017	0.022	0.028
JPN	0.036	0.064	0.079	0.101	0.111	0.118	0.119	0.126	0.135	0.148
LAM	0.038	0.047	0.058	0.075	0.083	0.104	0.146	0.168	0.175	0.200
MEA	0.048	0.057	0.069	0.092	0.112	0.125	0.148	0.169	0.188	0.218
NEU	0.018	0.025	0.031	0.038	0.038	0.049	0.052	0.062	0.079	0.103
OAS	0.043	0.050	0.059	0.064	0.073	0.078	0.094	0.093	0.096	0.108
REF	0.018	0.021	0.027	0.038	0.046	0.050	0.042	0.042	0.071	0.089
SSA	0.028	0.035	0.044	0.046	0.054	0.067	0.071	0.085	0.086	0.103
USA	0.072	0.088	0.093	0.110	0.122	0.164	0.176	0.187	0.203	0.206

Table 946: FAO — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Poultry meat (kcal/kcal)

35.1.5 Livestock products—Ruminant meat



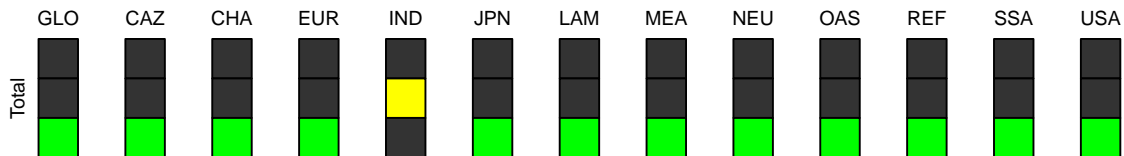
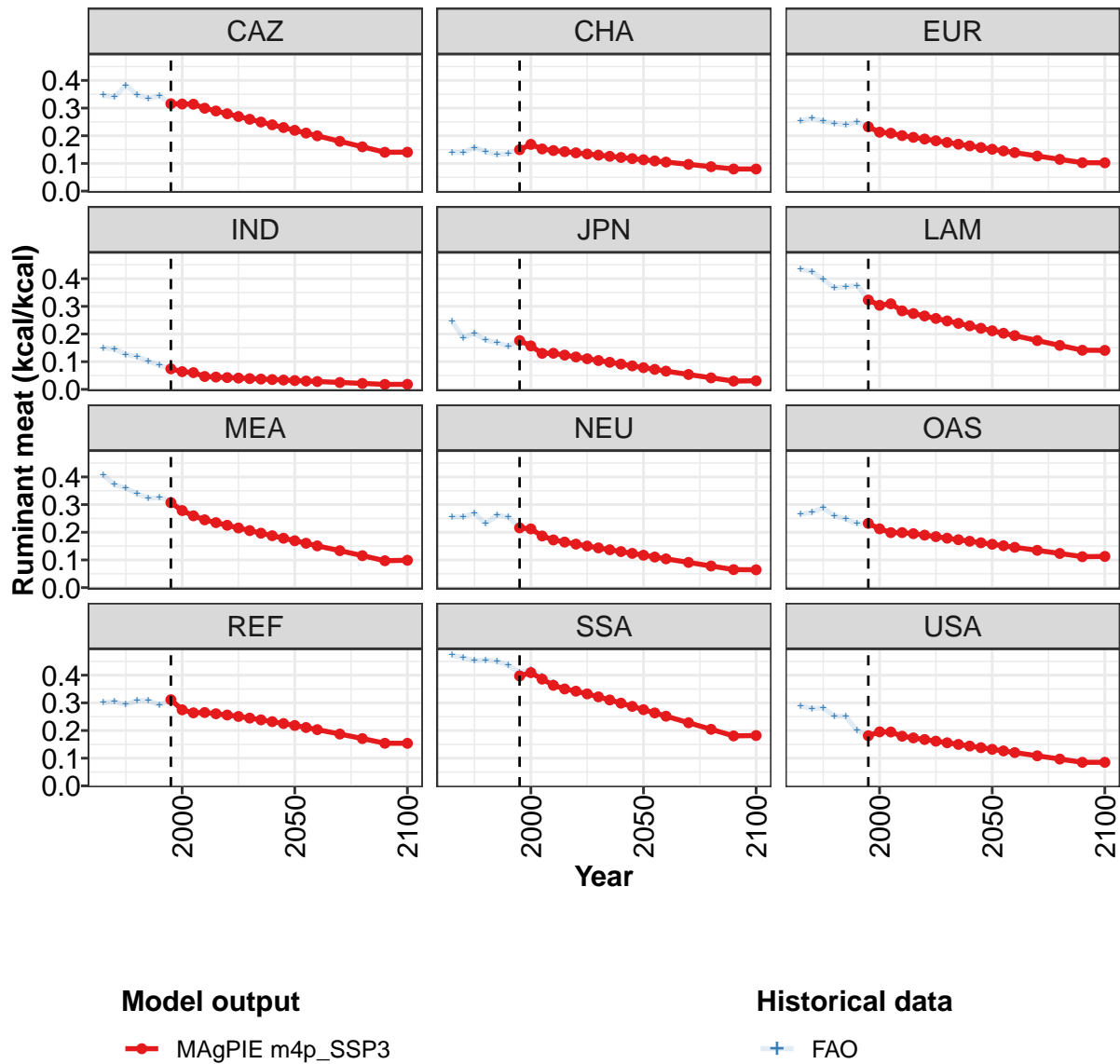


Figure 287: MAgPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Ruminant meat (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.222	0.213	0.204	0.193	0.183	0.177	0.172	0.167	0.162	0.157	0.152
CAZ	0.316	0.315	0.314	0.300	0.290	0.280	0.270	0.260	0.250	0.240	0.230
CHA	0.150	0.169	0.152	0.147	0.143	0.138	0.134	0.130	0.126	0.122	0.117
EUR	0.232	0.213	0.209	0.201	0.194	0.188	0.182	0.176	0.170	0.163	0.157
IND	0.074	0.064	0.060	0.047	0.044	0.043	0.041	0.039	0.037	0.035	0.034
JPN	0.176	0.157	0.130	0.131	0.124	0.117	0.111	0.104	0.098	0.091	0.085
LAM	0.323	0.304	0.309	0.284	0.274	0.265	0.256	0.247	0.238	0.230	0.221
MEA	0.307	0.278	0.260	0.245	0.235	0.225	0.216	0.206	0.197	0.188	0.178
NEU	0.216	0.212	0.187	0.172	0.165	0.157	0.150	0.144	0.137	0.130	0.124
OAS	0.232	0.212	0.199	0.199	0.195	0.190	0.184	0.179	0.173	0.168	0.162
REF	0.311	0.275	0.264	0.265	0.261	0.256	0.251	0.245	0.239	0.232	0.225
SSA	0.397	0.409	0.386	0.363	0.350	0.342	0.332	0.322	0.310	0.299	0.287
USA	0.181	0.195	0.195	0.179	0.173	0.168	0.162	0.156	0.150	0.144	0.138

Table 947: MAGPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Ruminant meat (kcal/kcal) [PART 1/2]

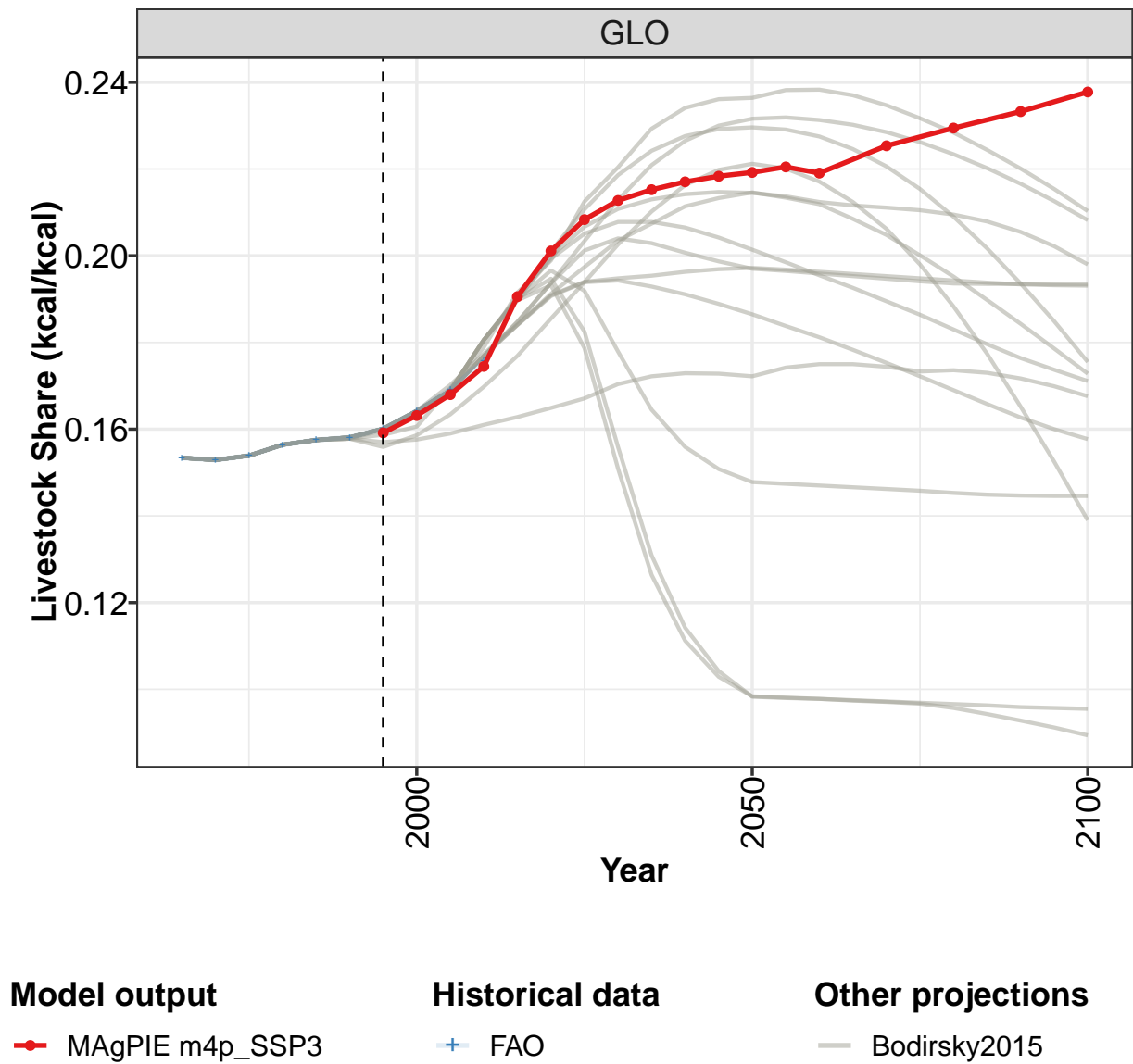
	2050	2055	2060	2070	2080	2090	2100
GLO	0.148	0.143	0.138	0.128	0.118	0.107	0.109
CAZ	0.220	0.210	0.200	0.180	0.160	0.140	0.141
CHA	0.113	0.109	0.105	0.097	0.088	0.080	0.080
EUR	0.151	0.145	0.139	0.127	0.115	0.103	0.102
IND	0.032	0.030	0.028	0.025	0.021	0.018	0.018
JPN	0.079	0.072	0.066	0.054	0.042	0.030	0.031
LAM	0.212	0.203	0.194	0.176	0.159	0.141	0.141
MEA	0.169	0.160	0.151	0.133	0.115	0.097	0.099
NEU	0.117	0.111	0.104	0.091	0.078	0.065	0.064
OAS	0.157	0.151	0.146	0.135	0.123	0.112	0.113
REF	0.218	0.211	0.203	0.187	0.171	0.154	0.154
SSA	0.275	0.264	0.252	0.228	0.204	0.181	0.182
USA	0.132	0.126	0.120	0.109	0.097	0.085	0.085

Table 948: MAGPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Ruminant meat (kcal/kcal) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.281	0.282	0.276	0.261	0.250	0.239	0.222	0.213	0.204	0.193
CAZ	0.346	0.340	0.383	0.347	0.335	0.344	0.316	0.315	0.314	0.300
CHA	0.140	0.139	0.158	0.142	0.132	0.135	0.150	0.169	0.152	0.147
EUR	0.253	0.264	0.252	0.245	0.239	0.249	0.232	0.213	0.209	0.201
IND	0.150	0.146	0.126	0.118	0.102	0.087	0.074	0.064	0.060	0.046
JPN	0.245	0.186	0.202	0.177	0.169	0.157	0.176	0.157	0.130	0.131
LAM	0.433	0.426	0.397	0.366	0.371	0.376	0.325	0.305	0.311	0.285
MEA	0.406	0.372	0.360	0.339	0.323	0.325	0.316	0.284	0.265	0.251
NEU	0.255	0.256	0.268	0.231	0.263	0.255	0.216	0.212	0.187	0.172
OAS	0.266	0.272	0.288	0.261	0.248	0.231	0.232	0.212	0.199	0.199
REF	0.301	0.304	0.294	0.308	0.309	0.292	0.311	0.275	0.264	0.265
SSA	0.472	0.463	0.453	0.455	0.451	0.435	0.410	0.421	0.397	0.374
USA	0.287	0.280	0.281	0.252	0.251	0.200	0.181	0.195	0.195	0.179

Table 949: FAO — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Ruminant meat (kcal/kcal)

35.2 Livestock Share



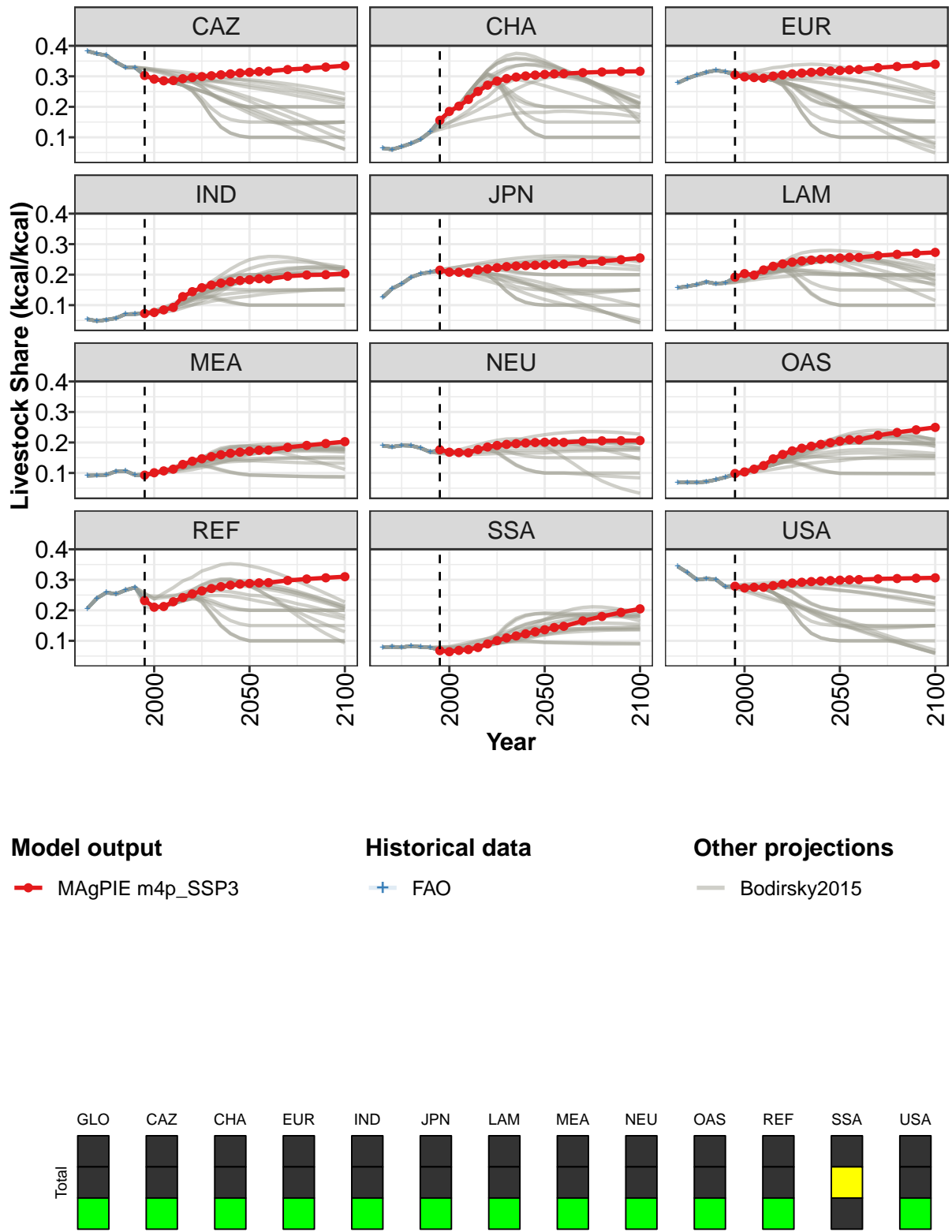


Figure 288: MAgPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Share (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.159	0.163	0.168	0.174	0.191	0.201	0.208	0.213	0.215	0.217	0.218
CAZ	0.303	0.291	0.285	0.286	0.292	0.296	0.299	0.302	0.305	0.308	0.311
CHA	0.156	0.185	0.202	0.224	0.250	0.271	0.284	0.293	0.297	0.301	0.304
EUR	0.305	0.298	0.296	0.294	0.301	0.305	0.308	0.311	0.313	0.315	0.317
IND	0.073	0.076	0.084	0.093	0.128	0.144	0.157	0.166	0.172	0.177	0.181
JPN	0.215	0.208	0.208	0.206	0.215	0.219	0.223	0.226	0.228	0.230	0.231
LAM	0.192	0.203	0.199	0.215	0.227	0.235	0.241	0.245	0.248	0.250	0.253
MEA	0.093	0.101	0.107	0.113	0.128	0.139	0.147	0.154	0.160	0.165	0.168
NEU	0.176	0.168	0.167	0.166	0.177	0.185	0.190	0.194	0.196	0.198	0.200
OAS	0.098	0.103	0.113	0.124	0.146	0.161	0.172	0.181	0.188	0.194	0.199
REF	0.232	0.210	0.212	0.228	0.242	0.254	0.264	0.272	0.278	0.282	0.286
SSA	0.068	0.064	0.069	0.071	0.078	0.090	0.101	0.110	0.116	0.123	0.130
USA	0.279	0.273	0.276	0.275	0.281	0.286	0.289	0.292	0.294	0.296	0.298

Table 950: MAgPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Share (kcal/kcal) [PART 1/2]

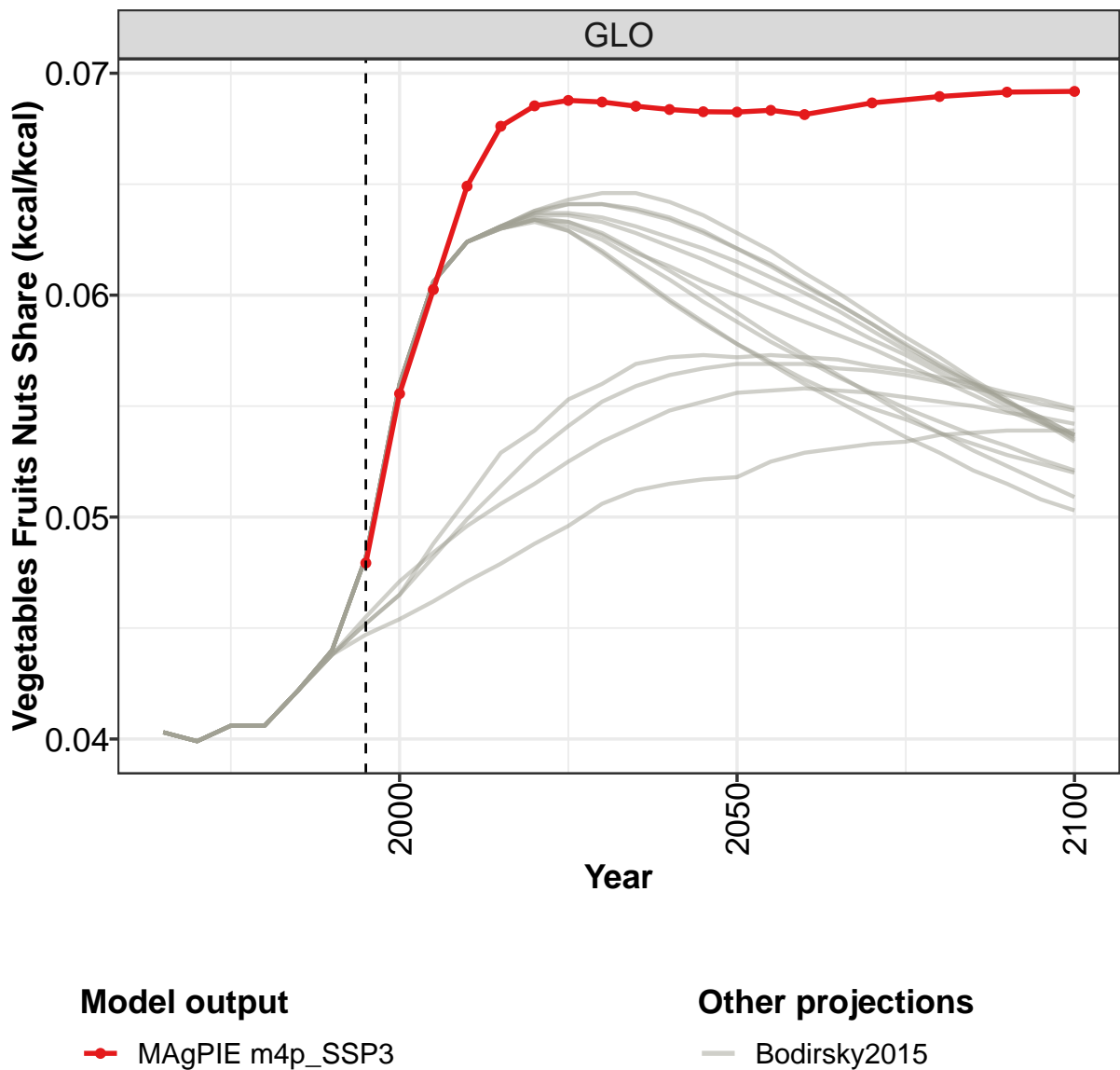
	2050	2055	2060	2070	2080	2090	2100
GLO	0.219	0.220	0.219	0.225	0.229	0.233	0.238
CAZ	0.313	0.315	0.317	0.322	0.326	0.330	0.335
CHA	0.306	0.308	0.309	0.312	0.314	0.316	0.317
EUR	0.319	0.321	0.323	0.328	0.332	0.336	0.339
IND	0.183	0.187	0.186	0.195	0.199	0.200	0.204
JPN	0.232	0.234	0.235	0.240	0.244	0.249	0.255
LAM	0.255	0.257	0.256	0.263	0.267	0.270	0.273
MEA	0.171	0.174	0.175	0.184	0.190	0.197	0.203
NEU	0.201	0.202	0.200	0.204	0.205	0.206	0.206
OAS	0.204	0.209	0.209	0.224	0.233	0.241	0.250
REF	0.288	0.290	0.291	0.298	0.303	0.307	0.310
SSA	0.136	0.144	0.148	0.165	0.180	0.193	0.205
USA	0.299	0.300	0.301	0.303	0.304	0.305	0.307

Table 951: MAgPIE m4p_SSP3 — Nutrition—Dietary Composition—Livestock Share (kcal/kcal) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.153	0.153	0.154	0.156	0.158	0.158	0.160	0.164	0.169	0.176
CAZ	0.383	0.374	0.369	0.346	0.329	0.329	0.303	0.291	0.285	0.286
CHA	0.065	0.060	0.069	0.080	0.094	0.118	0.156	0.185	0.202	0.224
EUR	0.278	0.293	0.304	0.313	0.320	0.315	0.305	0.298	0.296	0.294
IND	0.054	0.048	0.052	0.057	0.071	0.071	0.073	0.076	0.085	0.092
JPN	0.125	0.154	0.170	0.192	0.203	0.208	0.215	0.208	0.208	0.206
LAM	0.157	0.162	0.167	0.176	0.170	0.173	0.191	0.203	0.198	0.215
MEA	0.091	0.092	0.094	0.106	0.107	0.093	0.091	0.100	0.105	0.109
NEU	0.189	0.186	0.190	0.189	0.182	0.169	0.176	0.168	0.167	0.166
OAS	0.069	0.070	0.069	0.072	0.078	0.086	0.097	0.102	0.111	0.123
REF	0.206	0.240	0.258	0.254	0.266	0.275	0.232	0.210	0.212	0.228
SSA	0.079	0.081	0.079	0.083	0.080	0.078	0.070	0.067	0.071	0.074
USA	0.344	0.324	0.300	0.304	0.301	0.277	0.279	0.273	0.276	0.275

Table 952: FAO — Nutrition—Dietary Composition—Livestock Share (kcal/kcal)

35.3 Vegetables Fruits Nuts Share



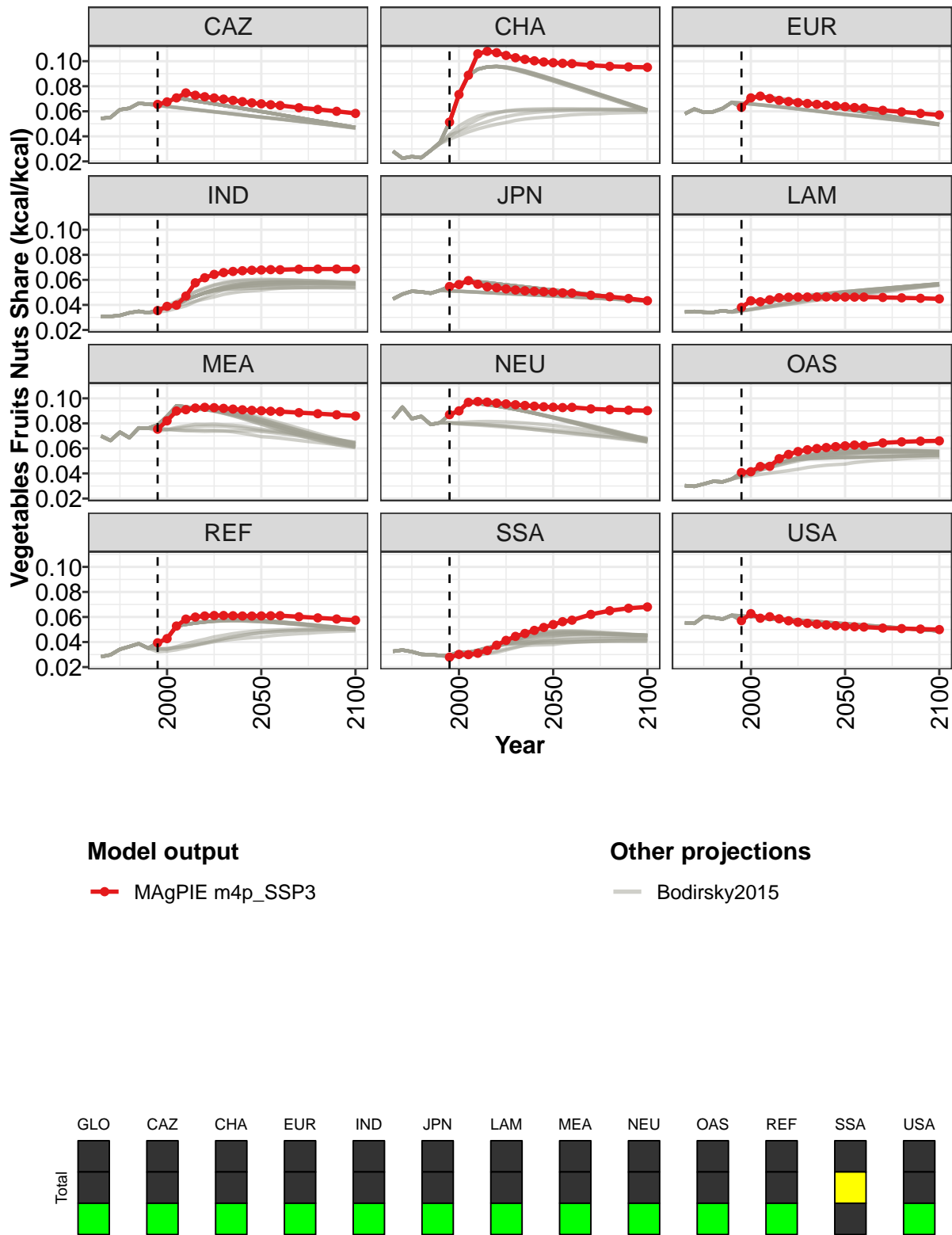


Figure 289: MAgPIE m4p_SSP3 — Nutrition—Dietary Composition—Vegetables Fruits Nuts Share (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.048	0.056	0.060	0.065	0.068	0.069	0.069	0.069	0.069	0.068	0.068
CAZ	0.066	0.067	0.071	0.075	0.073	0.072	0.071	0.070	0.069	0.068	0.067
CHA	0.051	0.073	0.089	0.106	0.108	0.107	0.105	0.103	0.101	0.100	0.099
EUR	0.063	0.071	0.072	0.070	0.069	0.068	0.067	0.066	0.066	0.065	0.064
IND	0.035	0.039	0.040	0.047	0.058	0.062	0.064	0.066	0.067	0.067	0.068
JPN	0.055	0.056	0.059	0.056	0.054	0.054	0.053	0.052	0.051	0.051	0.050
LAM	0.038	0.043	0.043	0.044	0.046	0.046	0.046	0.046	0.046	0.046	0.046
MEA	0.075	0.082	0.090	0.091	0.092	0.093	0.093	0.092	0.091	0.091	0.090
NEU	0.087	0.090	0.097	0.097	0.097	0.096	0.096	0.095	0.094	0.094	0.093
OAS	0.041	0.041	0.046	0.046	0.052	0.055	0.057	0.059	0.060	0.061	0.061
REF	0.039	0.043	0.053	0.058	0.060	0.061	0.061	0.061	0.061	0.061	0.061
SSA	0.028	0.030	0.030	0.031	0.033	0.037	0.041	0.045	0.047	0.049	0.052
USA	0.057	0.063	0.059	0.060	0.059	0.057	0.056	0.055	0.054	0.054	0.053

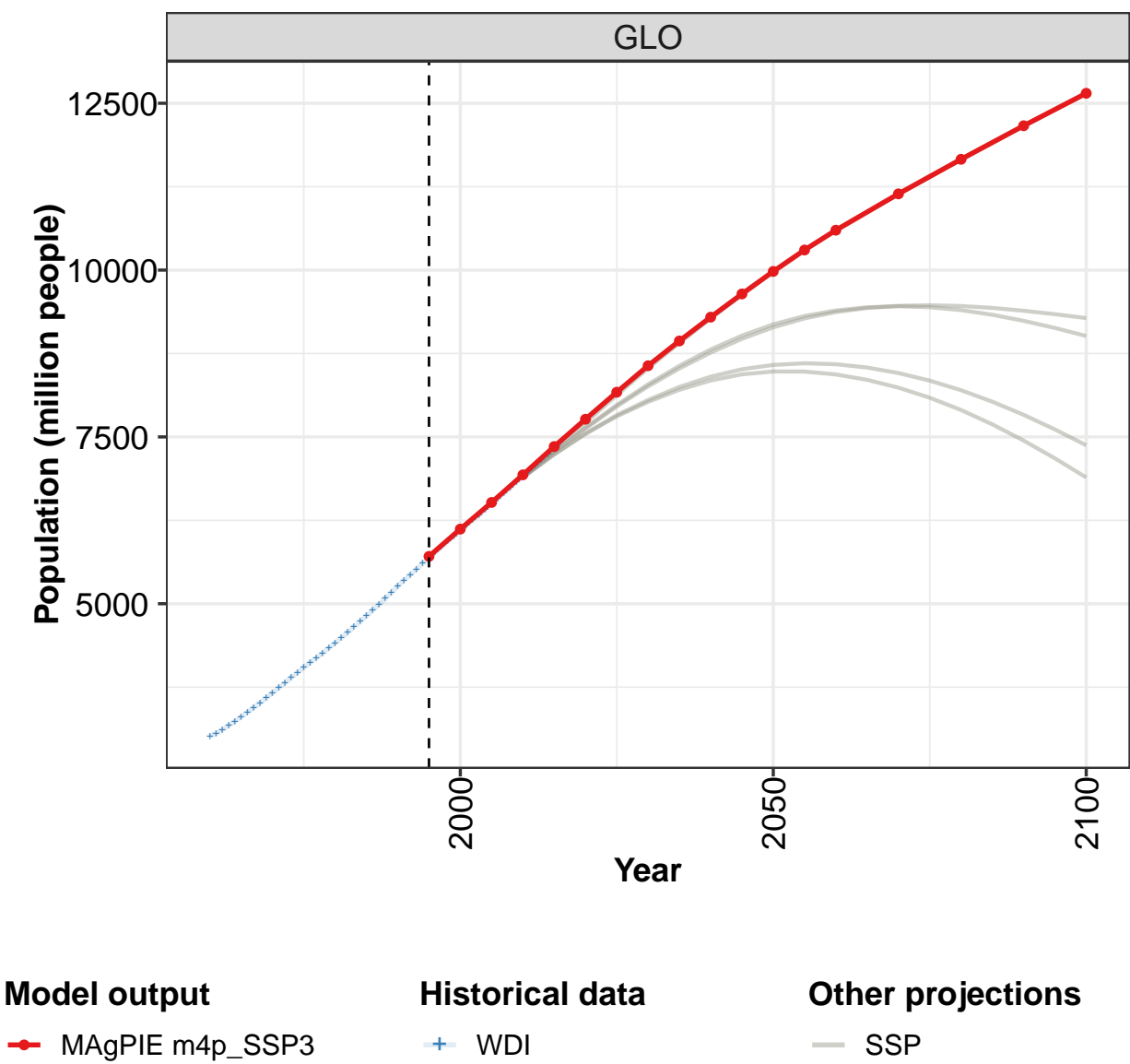
Table 953: MAgPIE m4p_SSP3 — Nutrition—Dietary Composition—Vegetables Fruits Nuts Share (kcal/kcal)
[PART 1/2]

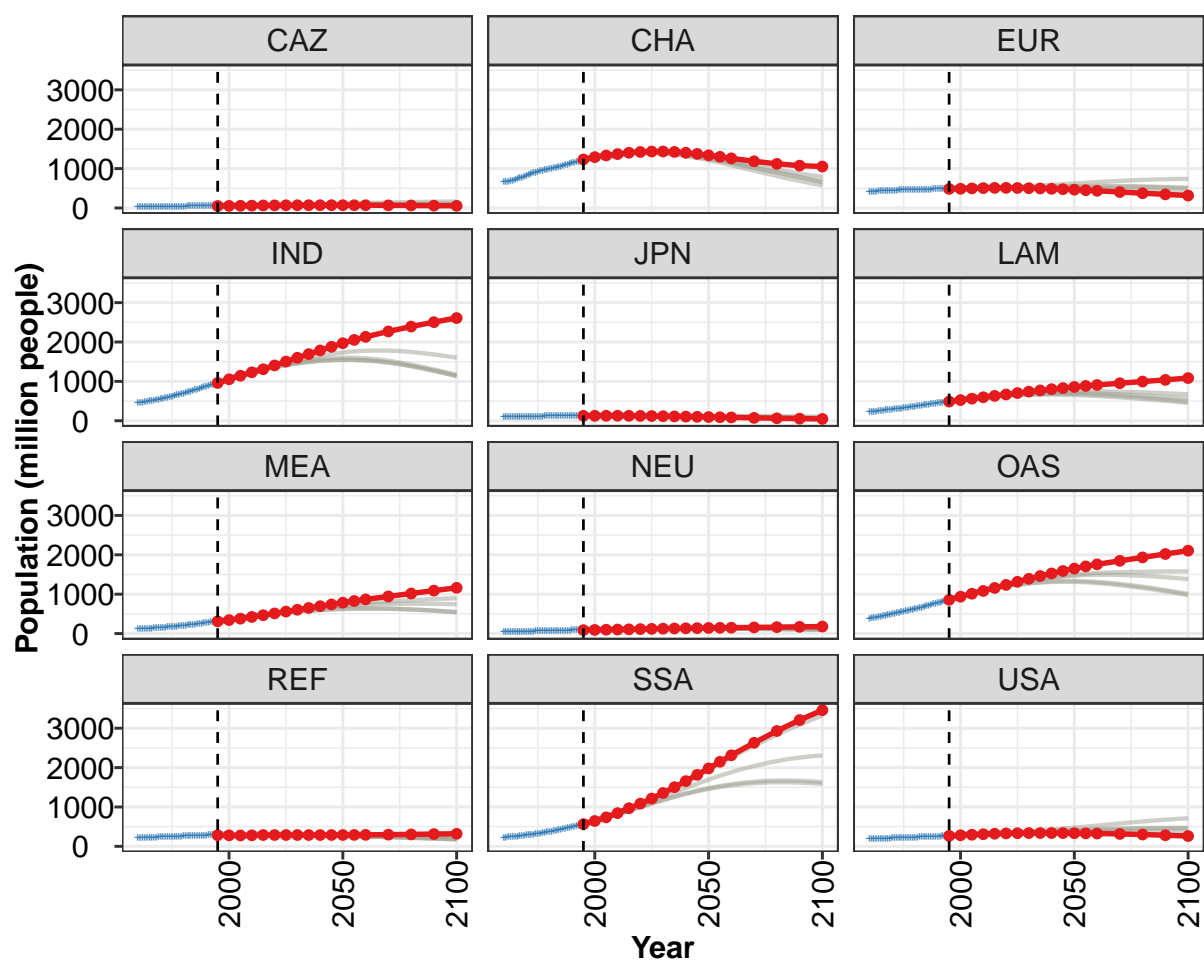
	2050	2055	2060	2070	2080	2090	2100
GLO	0.068	0.068	0.068	0.069	0.069	0.069	0.069
CAZ	0.066	0.065	0.065	0.063	0.061	0.060	0.058
CHA	0.099	0.098	0.098	0.097	0.096	0.095	0.095
EUR	0.064	0.063	0.063	0.061	0.060	0.058	0.057
IND	0.068	0.068	0.068	0.069	0.069	0.069	0.069
JPN	0.050	0.050	0.049	0.048	0.047	0.045	0.043
LAM	0.046	0.046	0.046	0.046	0.046	0.045	0.045
MEA	0.090	0.090	0.089	0.089	0.088	0.087	0.086
NEU	0.093	0.093	0.093	0.092	0.091	0.091	0.090
OAS	0.062	0.063	0.062	0.064	0.065	0.066	0.066
REF	0.061	0.061	0.061	0.060	0.059	0.058	0.057
SSA	0.054	0.056	0.057	0.062	0.065	0.067	0.068
USA	0.053	0.052	0.052	0.051	0.051	0.050	0.050

Table 954: MAgPIE m4p_SSP3 — Nutrition—Dietary Composition—Vegetables Fruits Nuts Share (kcal/kcal)
[PART 2/2]

Part X

Population





Model output

—●— MAgPIE m4p_SSP3

Historical data

+ WDI

Other projections

— SSP

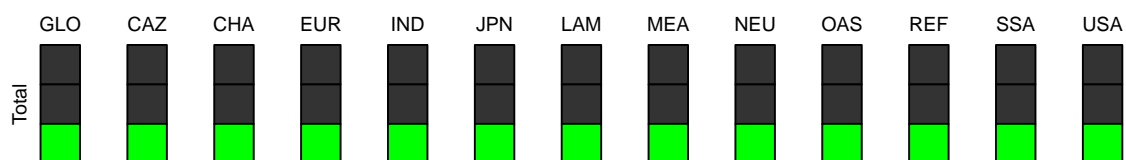


Figure 290: MAgPIE m4p_SSP3 — Population (million people)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5710	6118	6518	6932	7356	7765	8170	8567	8938	9295	9643
CAZ	51	54	57	60	64	67	69	70	71	71	71
CHA	1233	1292	1334	1368	1402	1422	1433	1434	1424	1402	1373
EUR	485	489	496	505	510	511	508	503	496	487	477
IND	960	1053	1144	1231	1309	1406	1503	1600	1693	1786	1879
JPN	125	127	128	128	127	125	121	116	111	106	101
LAM	487	526	562	598	632	668	704	740	772	802	831
MEA	310	344	379	422	467	512	559	605	650	695	740
NEU	88	92	97	102	109	114	120	125	130	134	138
OAS	858	936	1012	1083	1158	1236	1315	1392	1462	1527	1590
REF	283	280	278	281	287	289	289	288	288	288	288
SSA	564	644	736	845	969	1086	1215	1356	1503	1657	1816
USA	266	282	296	309	321	329	334	338	339	339	337

Table 955: MAgPIE m4p_SSP3 — Population (million people) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	9980	10301	10598	11143	11661	12163	12650
CAZ	71	70	70	67	64	60	55
CHA	1338	1300	1261	1185	1121	1076	1053
EUR	465	451	436	405	374	345	316
IND	1971	2055	2131	2268	2393	2505	2609
JPN	96	90	85	74	64	55	46
LAM	859	885	909	954	996	1039	1085
MEA	785	827	868	943	1017	1091	1162
NEU	143	146	150	156	163	171	178
OAS	1650	1707	1757	1848	1935	2021	2105
REF	289	291	293	297	304	312	320
SSA	1980	2148	2313	2630	2930	3208	3459
USA	334	330	326	315	301	282	262

Table 956: MAgPIE m4p_SSP3 — Population (million people) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	3016	3056	3109	3173	3238	3304	3374	3443	3513	3587	3662
CAZ	31	31	32	32	33	34	34	35	36	36	37
CHA	670	664	669	686	702	719	739	758	779	800	823
EUR	410	413	417	421	424	428	431	434	437	440	442
IND	449	458	468	478	487	498	508	519	530	542	554
JPN	93	95	96	97	98	99	100	101	101	103	104
LAM	220	227	233	239	246	253	260	266	273	280	287
MEA	113	116	119	122	126	129	133	137	141	145	149
NEU	43	44	45	46	47	48	49	50	51	52	53
OAS	378	388	398	409	420	431	442	454	466	479	491
REF	207	210	213	216	220	223	225	228	230	232	234
SSA	221	226	232	237	243	249	255	262	268	275	282
USA	181	184	187	189	192	194	197	199	201	203	205

Table 957: WDI — Population (million people) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	3739	3815	3891	3967	4042	4114	4186	4260	4335	4411	4489
CAZ	37	38	39	40	40	41	41	42	42	42	43
CHA	845	866	886	905	921	935	948	961	974	987	999
EUR	445	447	450	453	455	457	459	461	463	465	466
IND	566	579	593	607	621	636	650	666	681	697	713
JPN	106	107	108	110	112	113	114	115	116	117	118
LAM	295	302	310	317	325	332	340	348	356	364	372
MEA	153	157	162	166	171	176	182	187	193	200	206
NEU	54	56	57	58	59	60	61	62	63	64	65
OAS	503	516	528	541	554	567	580	594	608	622	636
REF	237	239	241	243	245	248	250	252	254	257	259
SSA	290	298	306	314	323	332	341	351	361	371	382
USA	208	210	212	214	216	218	220	223	225	227	229

Table 958: WDI — Population (million people) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	4569	4651	4732	4815	4900	4988	5076	5165	5263	5350	5433
CAZ	44	44	44	45	45	46	47	47	48	49	50
CHA	1014	1029	1042	1057	1073	1090	1108	1125	1141	1157	1171
EUR	468	469	470	471	472	473	475	477	478	479	481
IND	730	747	764	782	799	817	834	852	870	888	906
JPN	118	119	120	121	121	122	123	123	124	124	124
LAM	380	388	396	404	412	421	429	437	445	453	462
MEA	213	221	228	236	243	251	258	266	275	283	288
NEU	67	68	69	70	71	72	74	75	83	84	85
OAS	651	666	681	696	712	728	744	760	777	793	809
REF	261	263	266	268	271	273	276	278	280	281	282
SSA	393	404	416	428	440	452	465	478	492	506	520
USA	232	234	236	238	240	242	244	247	250	253	257

Table 959: WDI — Population (million people) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	5518	5602	5686	5769	5852	5933	6014	6094	6173	6253	6332
CAZ	50	51	51	52	52	53	53	54	54	55	56
CHA	1185	1198	1211	1224	1237	1249	1260	1270	1279	1288	1296
EUR	482	483	484	485	486	487	488	488	489	491	492
IND	924	942	960	979	997	1016	1035	1053	1071	1090	1108
JPN	125	125	125	126	126	126	127	127	127	127	128
LAM	470	478	486	494	502	510	517	525	532	539	547
MEA	295	302	310	317	323	330	337	343	350	357	364
NEU	86	87	88	89	89	90	91	92	93	94	95
OAS	825	842	858	874	890	905	921	936	952	967	982
REF	283	283	283	282	282	281	281	280	279	279	278
SSA	534	548	563	579	594	610	626	643	660	678	696
USA	260	263	266	269	273	276	279	282	285	288	290

Table 960: WDI — Population (million people) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	6412	6492	6574	6656	6739	6822	6906	6988	7068	7153	7239
CAZ	56	57	57	58	59	60	60	61	62	63	64
CHA	1303	1311	1318	1325	1332	1339	1345	1352	1358	1365	1372
EUR	494	496	498	500	502	503	505	504	505	507	508
IND	1126	1144	1162	1180	1197	1214	1231	1247	1263	1279	1294
JPN	128	128	128	128	128	128	128	128	128	127	127
LAM	554	561	568	575	582	589	597	604	611	618	624
MEA	371	379	387	395	404	413	421	430	439	448	457
NEU	96	97	98	99	100	101	102	103	105	106	107
OAS	997	1012	1026	1040	1054	1068	1083	1097	1113	1128	1143
REF	278	278	277	278	278	279	281	282	283	285	286
SSA	715	735	755	776	798	820	843	867	887	912	937
USA	293	296	298	301	304	307	309	312	314	316	319

Table 961: WDI — Population (million people) [PART 5/6]

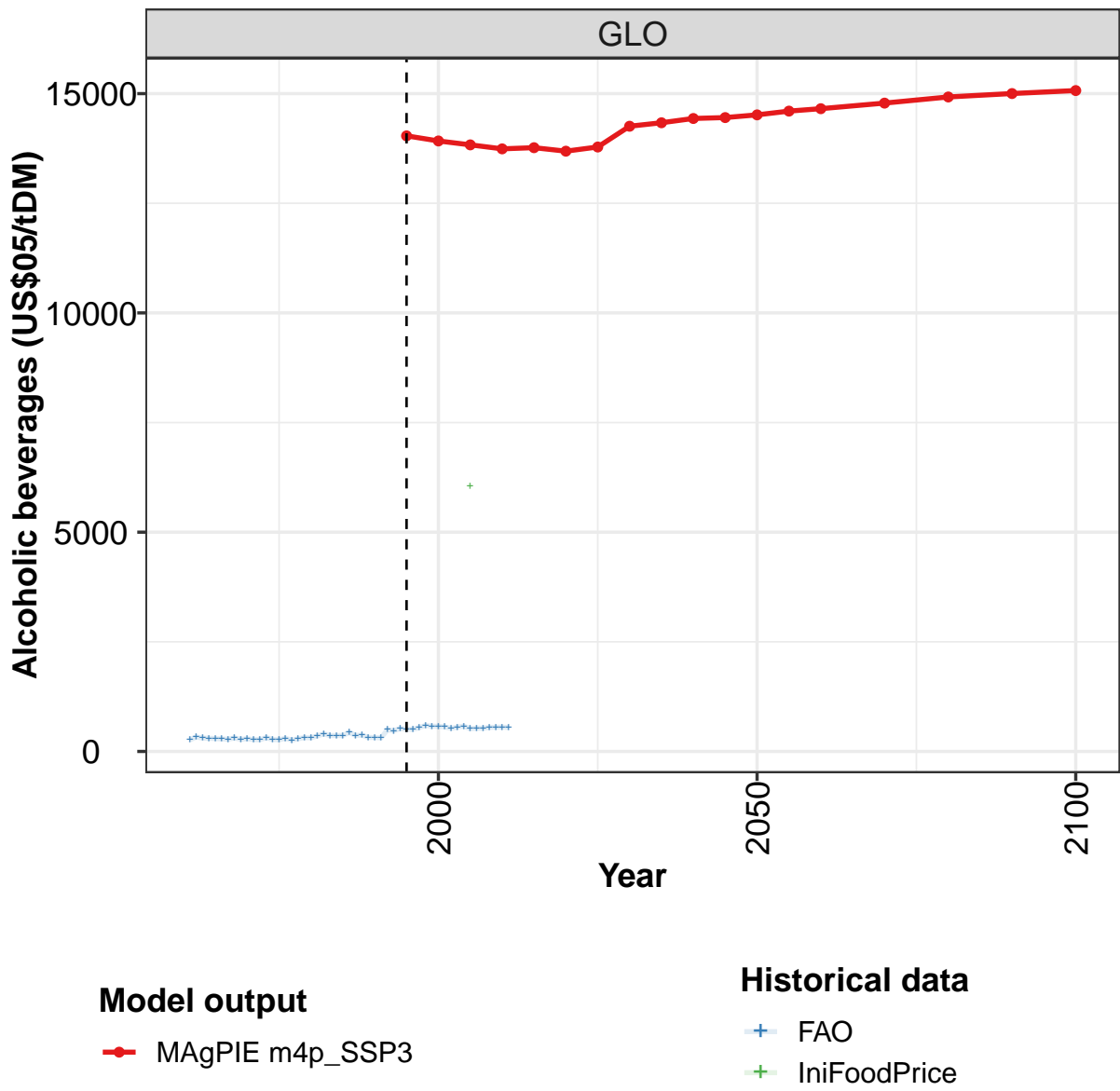
	2015	2016
GLO	7325	7412
CAZ	64	65
CHA	1379	1387
EUR	510	512
IND	1309	1324
JPN	127	127
LAM	631	638
MEA	466	475
NEU	109	110
OAS	1158	1173
REF	287	289
SSA	963	990
USA	321	323

Table 962: WDI — Population (million people) [PART 6/6]

Part XI
Prices

36 Agriculture

36.1 Alcoholic beverages



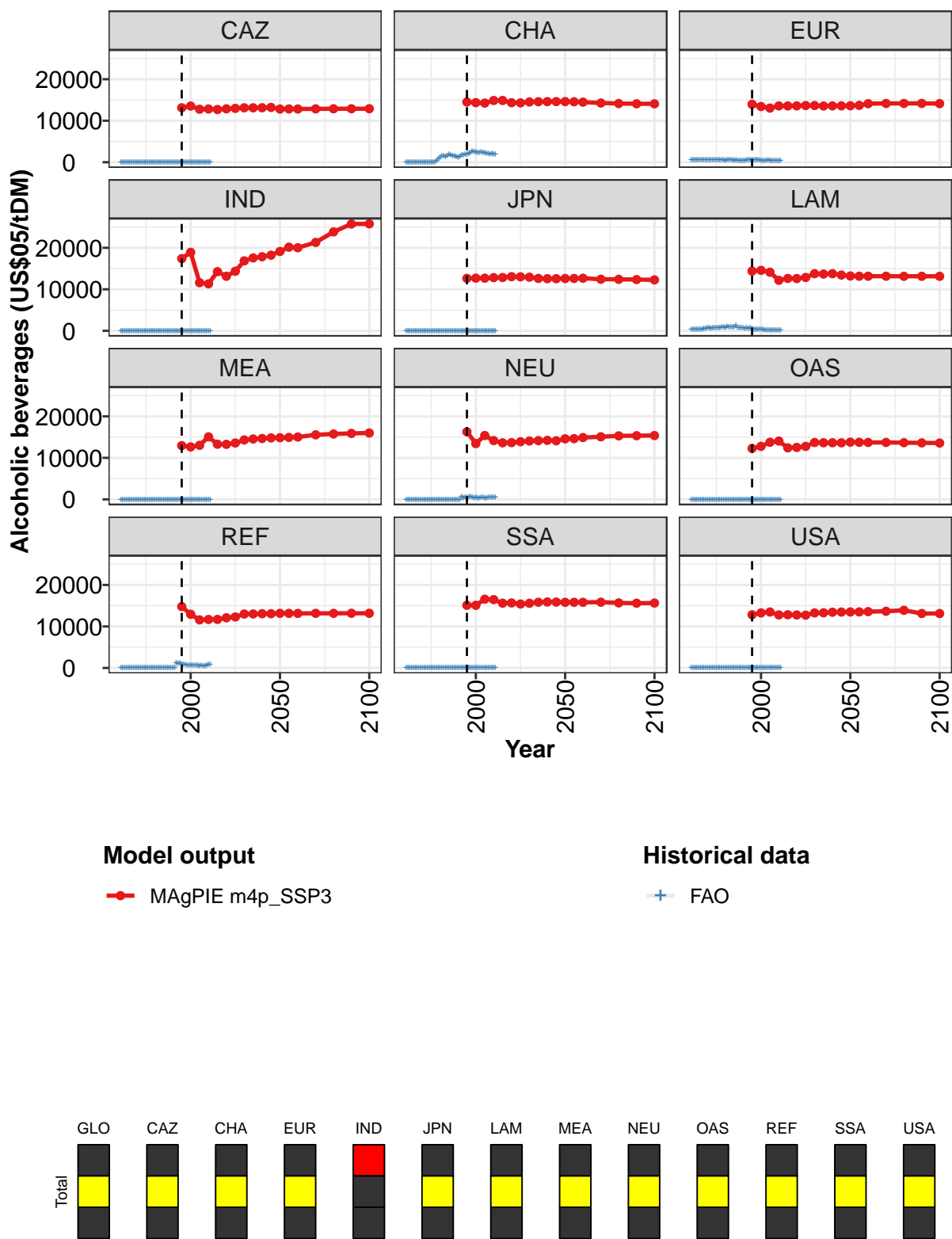


Figure 291: MAgPIE m4p_SSP3 — Prices—Agriculture—Alcoholic beverages (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	14037	13921	13832	13741	13767	13688	13783	14257	14336	14433	14454
CAZ	13121	13538	12771	12834	12700	12869	12976	13113	13110	13125	13216
CHA	14517	14366	14255	14874	14887	14349	14301	14528	14576	14607	14611
EUR	13963	13425	13049	13571	13568	13580	13664	13669	13551	13579	13591
IND	17384	18912	11600	11321	14250	13141	14353	16859	17558	17849	18231
JPN	12639	12687	12685	12810	12840	13051	13005	12924	12619	12565	12552
LAM	14386	14568	14114	12171	12623	12586	12855	13765	13679	13772	13440
MEA	12953	12639	13029	15071	13295	13263	13592	14319	14559	14673	14811
NEU	16289	13446	15390	14170	13628	13679	13892	14067	14161	14218	14121
OAS	12280	12777	13759	14051	12413	12518	12768	13707	13642	13643	13631
REF	14795	12932	11584	11685	11692	12088	12286	12997	13017	13074	13075
SSA	15101	15101	16565	16471	15612	15668	15408	15587	15834	15894	15879
USA	12827	13267	13485	12780	12817	12763	12726	13262	13293	13432	13472

Table 963: MAgPIE m4p_SSP3 — Prices—Agriculture—Alcoholic beverages (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	14516	14602	14657	14784	14924	15002	15070
CAZ	12821	12845	12831	12860	12879	12887	12887
CHA	14609	14567	14480	14267	14144	14082	14077
EUR	13609	13705	14115	14158	14169	14173	14127
IND	19115	20155	20015	21299	23843	25746	25772
JPN	12601	12616	12667	12424	12407	12346	12267
LAM	13212	13153	13159	13152	13142	13131	13132
MEA	14858	14924	15027	15552	15757	15900	15998
NEU	14592	14632	14897	15087	15304	15345	15383
OAS	13790	13751	13719	13719	13656	13618	13580
REF	13164	13156	13139	13160	13161	13176	13170
SSA	15811	15817	15815	15850	15678	15604	15643
USA	13500	13509	13574	13658	13887	13126	13112

Table 964: MAgPIE m4p_SSP3 — Prices—Agriculture—Alcoholic beverages (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	264	330	304	302	294	286	278	309	276	290	270
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	509	614	579	553	537	530	525	590	524	523	498
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	348	355	384	408	430	425	377	451	473	663	629
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0	0

Table 965: FAO — Prices—Agriculture—Alcoholic beverages (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	268	317	271	266	301	258	290	316	310	353	401
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	328	702	1159	1601	1498
EUR	494	580	484	483	561	481	478	516	472	484	621
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	625	658	677	708	709	669	915	937	802	1039	922
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0	0

Table 966: FAO — Prices—Agriculture—Alcoholic beverages (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	362	363	363	434	366	370	321	317	309	495	470
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	1392	1532	1898	1698	1559	1532	1412	1230	1311	1731	1678
EUR	514	518	426	526	445	435	376	405	348	483	483
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	909	817	903	1231	816	805	652	677	557	760	553
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	655	386
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	1308	1094
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0	0

Table 967: FAO — Prices—Agriculture—Alcoholic beverages (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	525	505	505	546	594	576	573	560	527	558	577
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	1875	1841	2023	2245	2672	2530	2474	2260	2328	2437	2310
EUR	483	502	517	500	482	481	461	465	437	420	494
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	696	452	352	373	350	378	307	314	190	226	154
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	532	512	555	616	549	386	448	378	275	405	431
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	1133	836	826	804	695	658	687	660	582	572	554
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0	0

Table 968: FAO — Prices—Agriculture—Alcoholic beverages (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	519	532	529	549	553	558	545
CAZ	0	0	0	0	0	0	0
CHA	2271	2101	2007	1996	2046	1982	1872
EUR	352	375	363	370	367	312	340
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	77	100	110	111	79	59	66
MEA	0	0	0	0	0	0	0
NEU	331	328	458	412	489	478	435
OAS	0	0	0	0	0	0	0
REF	433	561	541	529	556	845	791
SSA	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 969: FAO — Prices—Agriculture—Alcoholic beverages (US\$05/tDM) [PART 5/5]

	2005
GLO	6054
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 970: IniFoodPrice — Prices—Agriculture—Alcoholic beverages (US\$05/tDM)

36.2 Brans

geom_path: Each group consists of only one observation. Do you need to adjust the group## aesthetic?

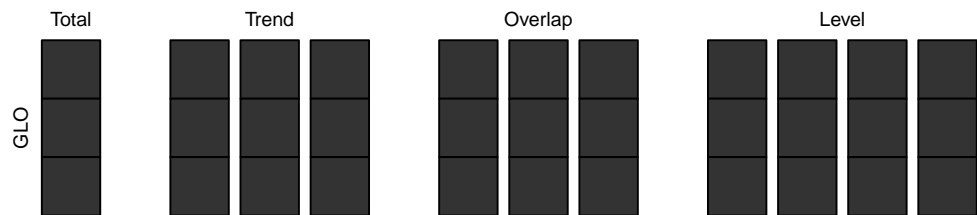
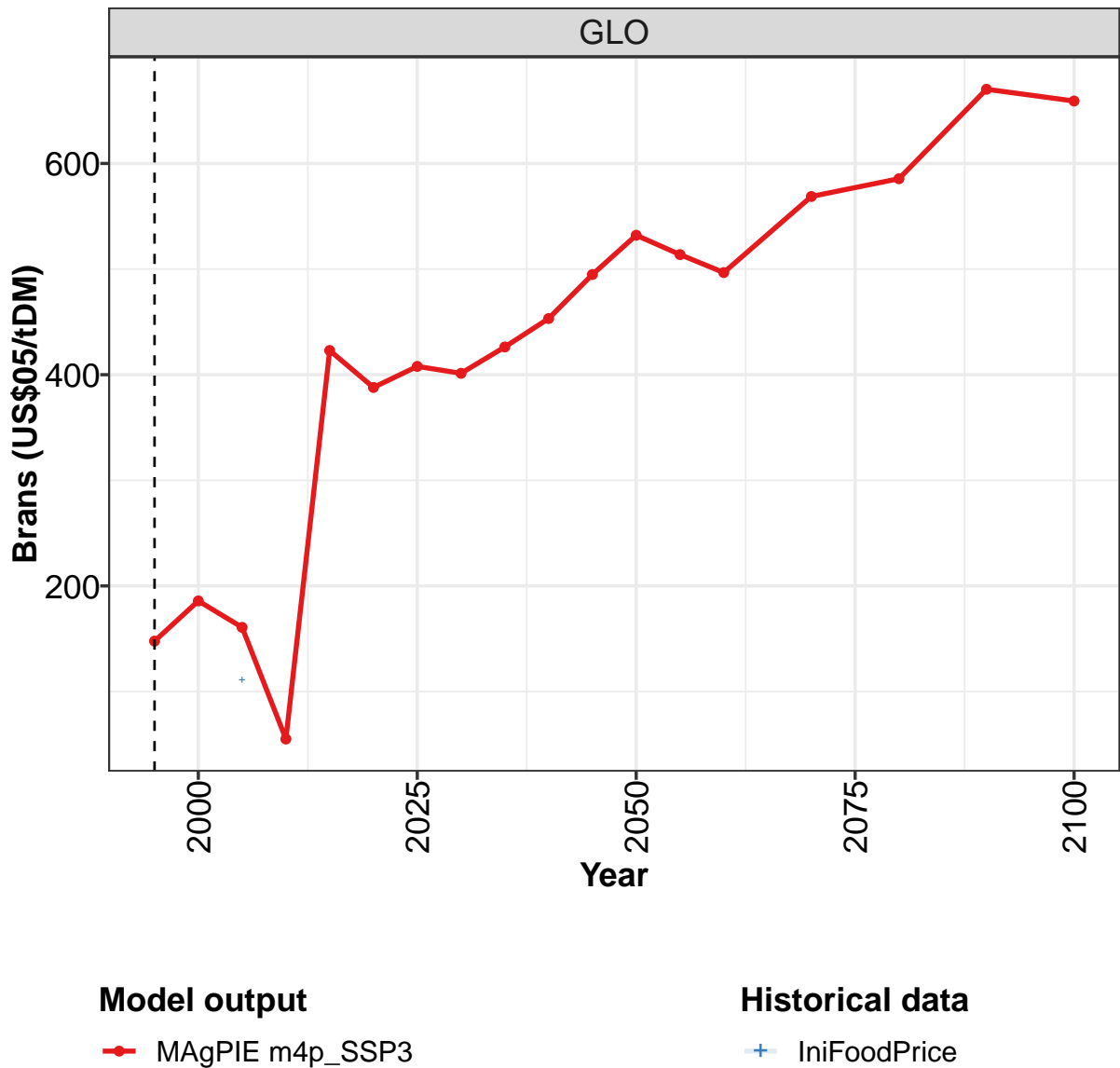


Figure 292: MAgPIE m4p_SSP3 — Prices—Agriculture—Brans (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	148	186	161	55	423	388	408	401	426	453	495

Table 971: MAgPIE m4p_SSP3 — Prices—Agriculture—Brans (US\$05/tDM) [PART 1/2]

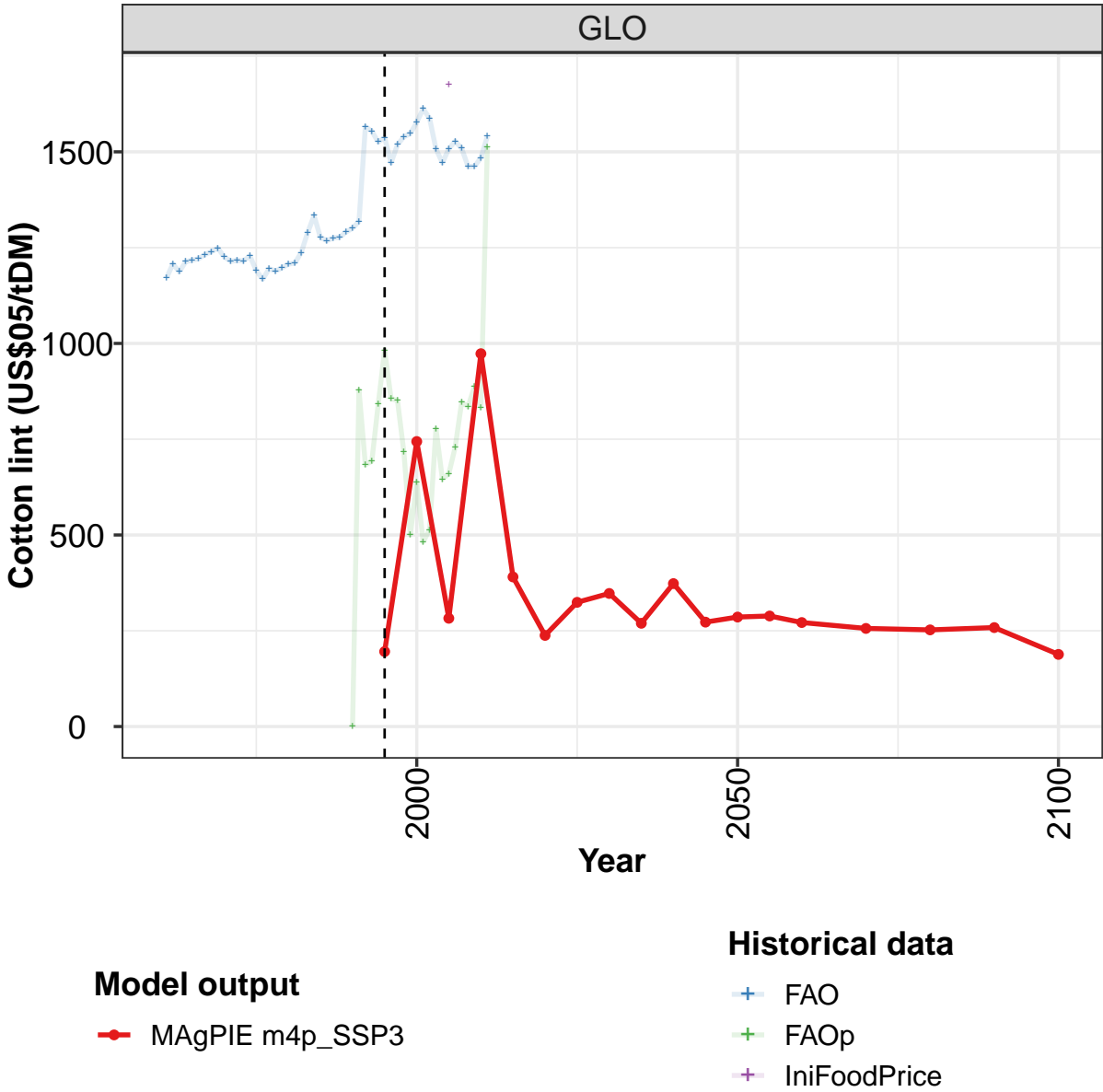
	2050	2055	2060	2070	2080	2090	2100
GLO	532	514	497	569	586	670	659

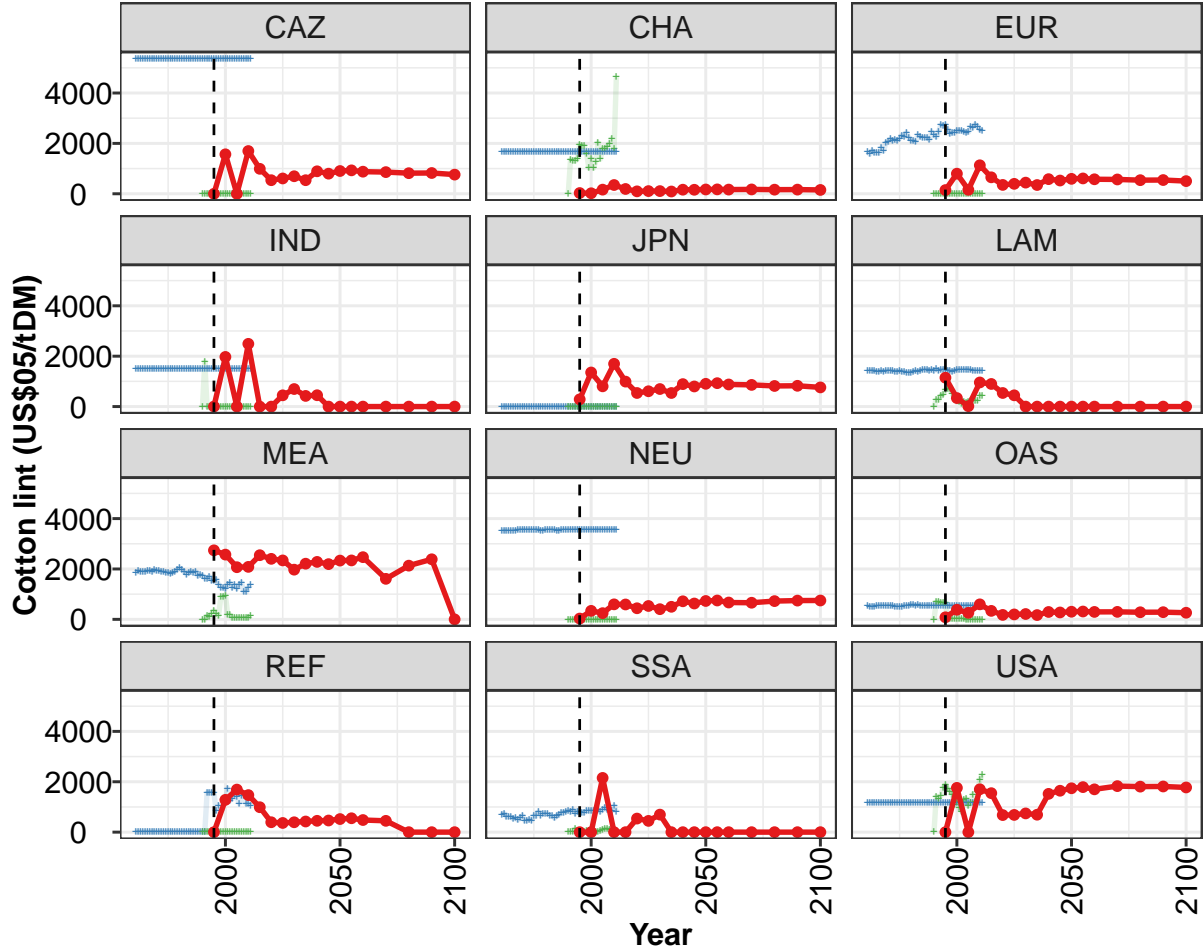
Table 972: MAgPIE m4p_SSP3 — Prices—Agriculture—Brans (US\$05/tDM) [PART 2/2]

	2005
GLO	111

Table 973: IniFoodPrice — Prices—Agriculture—Brans (US\$05/tDM)

36.3 Cotton lint





Model output

MAgPIE m4p_SSP3

Historical data

FAO
FAOp

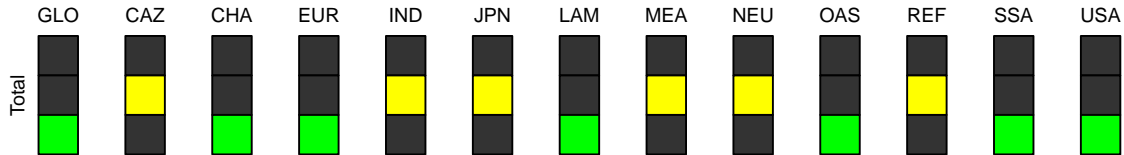


Figure 293: MAgPIE m4p_SSP3 — Prices—Agriculture—Cotton lint (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	196	744	283	973	390	238	324	347	270	373	273
CAZ	0	1567	0	1698	991	540	608	697	540	892	799
CHA	30	21	165	348	191	97	107	107	91	163	159
EUR	148	799	159	1132	654	352	394	443	348	581	527
IND	3	1971	0	2490	0	0	447	697	423	450	0
JPN	287	1354	804	1698	991	540	608	697	540	892	799
LAM	1146	338	16	958	897	540	447	0	0	0	0
MEA	2741	2571	2070	2084	2548	2402	2340	1973	2210	2281	2193
NEU	32	338	247	596	592	441	531	405	499	718	629
OAS	83	382	261	596	337	177	197	212	171	294	275
REF	0	1283	1691	1472	991	394	365	393	423	450	463
SSA	0	0	2154	0	0	540	447	697	0	0	0
USA	0	1759	0	1702	1549	678	685	745	693	1521	1645

Table 974: MAgPIE m4p_SSP3 — Prices—Agriculture—Cotton lint (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	286	289	272	256	252	258	188
CAZ	904	930	877	860	818	825	762
CHA	171	175	167	173	164	166	153
EUR	593	610	576	569	540	545	503
IND	0	0	0	0	0	0	0
JPN	904	930	877	860	818	825	762
LAM	0	0	0	0	0	0	0
MEA	2334	2340	2470	1609	2133	2386	0
NEU	730	749	669	660	725	745	750
OAS	304	312	296	297	282	285	263
REF	521	552	482	449	0	0	0
SSA	0	0	0	0	0	0	0
USA	1743	1788	1701	1828	1808	1813	1775

Table 975: MAgPIE m4p_SSP3 — Prices—Agriculture—Cotton lint (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	1171	1207	1187	1213	1217	1221	1232	1239	1248	1226	1214
CAZ	5358	5358	5357	5359	5359	5359	5359	5359	5359	5359	5359
CHA	1651	1650	1651	1651	1651	1651	1651	1651	1651	1651	1651
EUR	1675	1570	1706	1632	1635	1613	1825	1701	2010	2046	2166
IND	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1436	1438	1410	1404	1397	1395	1410	1398	1410	1416	1415
MEA	1863	1909	1887	1878	1876	1922	1934	1880	1952	1925	1914
NEU	3513	3521	3512	3524	3512	3521	3528	3550	3543	3543	3552
OAS	536	511	506	517	521	547	544	557	526	519	530
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	697	741	621	617	600	531	560	479	565	656	461
USA	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180

Table 976: FAO — Prices—Agriculture—Cotton lint (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	1217	1215	1228	1190	1168	1195	1189	1197	1207	1210	1237
CAZ	5359	5359	5359	5359	5359	5359	5359	5359	5359	5359	5359
CHA	1652	1652	1652	1652	1652	1652	1652	1652	1652	1652	1652
EUR	2093	2156	2115	2202	2317	2261	2418	2217	2122	2098	2079
IND	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1400	1388	1376	1406	1386	1363	1348	1335	1332	1388	1408
MEA	1907	1885	1865	1854	1823	1853	1905	1968	2037	1977	1894
NEU	3548	3542	3546	3538	3537	3542	3535	3532	3547	3538	3538
OAS	533	512	514	491	486	533	520	554	584	577	559
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	459	501	469	638	638	798	667	744	735	724	666
USA	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180

Table 977: FAO — Prices—Agriculture—Cotton lint (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	1289	1334	1277	1268	1276	1277	1291	1301	1318	1566	1554
CAZ	5359	5359	5359	5359	5359	5359	5359	5359	5359	5359	5359
CHA	1652	1652	1652	1652	1652	1652	1652	1652	1652	1652	1652
EUR	2330	2267	2230	2230	2228	2154	2455	2326	2253	2460	2730
IND	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1389	1416	1446	1460	1454	1435	1461	1425	1481	1440	1467
MEA	1789	1854	1876	1856	1893	1721	1751	1748	1629	1593	1709
NEU	3549	3546	3532	3533	3538	3555	3550	3558	3572	3572	3573
OAS	564	540	542	538	547	553	553	554	552	558	549
REF	0	0	0	0	0	0	0	0	0	1562	1562
SSA	640	557	637	687	754	760	807	844	793	892	747
USA	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180

Table 978: FAO — Prices—Agriculture—Cotton lint (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	1526	1537	1471	1519	1539	1548	1577	1612	1588	1507	1471
CAZ	5359	5359	5359	5359	5359	5359	5359	5359	5359	5359	5359
CHA	1652	1652	1652	1652	1652	1652	1652	1652	1652	1652	1652
EUR	2692	2738	2524	2382	2427	2412	2513	2501	2496	2456	2419
IND	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483	1483
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1453	1442	1440	1420	1396	1433	1456	1446	1461	1466	1455
MEA	1548	1534	1578	1380	1261	1266	1221	1381	1438	1252	1363
NEU	3573	3573	3573	3573	3573	3573	3573	3573	3573	3573	3573
OAS	546	544	534	529	527	530	528	532	527	526	531
REF	1564	1552	840	1065	859	1284	1328	1735	1264	1322	1467
SSA	801	800	763	774	848	857	849	829	847	892	809
USA	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180	1180

Table 979: FAO — Prices—Agriculture—Cotton lint (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	1508	1528	1509	1462	1462	1485	1540
CAZ	5359	5359	5359	5359	5359	5359	5359
CHA	1652	1652	1652	1652	1652	1652	1652
EUR	2445	2650	2635	2756	2675	2538	2484
IND	1483	1483	1483	1483	1483	1483	1483
JPN	0	0	0	0	0	0	0
LAM	1446	1454	1439	1425	1426	1421	1407
MEA	1229	1382	1460	1108	1079	1260	1379
NEU	3573	3573	3573	3573	3573	3573	3573
OAS	530	527	524	524	521	507	505
REF	1395	1143	1446	1426	1129	1146	1039
SSA	875	980	893	836	840	1042	793
USA	1180	1180	1180	1180	1180	1180	1180

Table 980: FAO — Prices—Agriculture—Cotton lint (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	878	683	692	842	982	856	851	716	501	637
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	1351	1327	1292	1385	1959	1923	1890	1594	1024	1389
EUR	0	0	3	2	2	5	4	3	2	2	1
IND	0	1774	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	263	259	428	484	669	688	703	508	320	228
MEA	0	0	130	100	203	343	239	148	879	895	943
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	0	687	712	660	676	654	4	4	6	5	6
REF	0	0	0	33	70	64	76	0	0	0	0
SSA	0	32	34	115	21	19	20	19	61	62	42
USA	0	1423	1344	1430	1763	1874	1726	1621	1474	1102	1220

Table 981: FAOp — Prices—Agriculture—Cotton lint (US\$05/tDM) [PART 1/3]

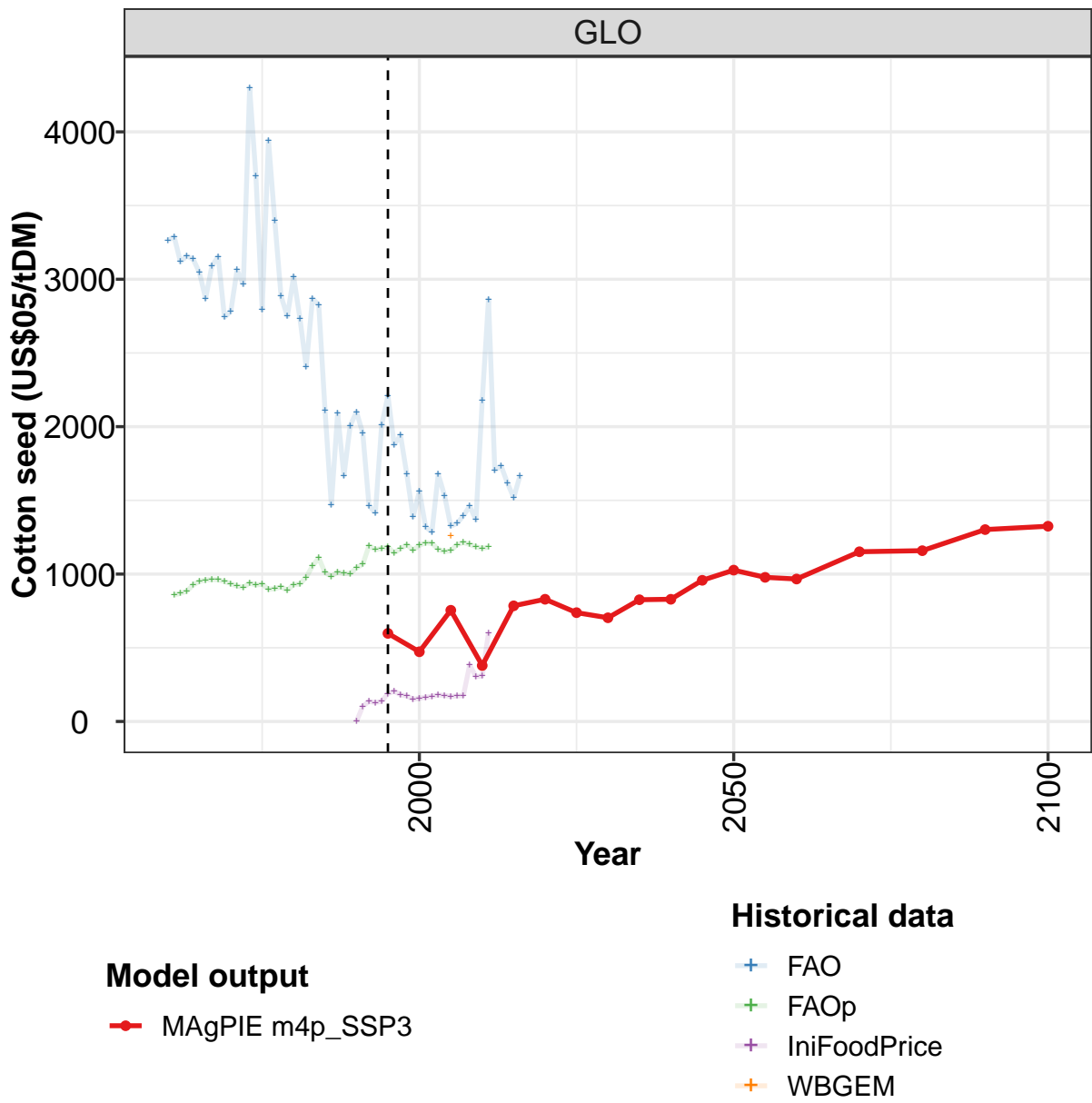
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	482	514	777	646	660	730	847	835	888	833	1512
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	1016	1284	2021	1377	1781	1798	1879	1981	2188	1805	4630
EUR	2	1	1	1	0	0	0	0	0	1	0
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	187	128	176	165	188	215	210	232	244	420	425
MEA	192	177	48	49	48	71	75	53	46	65	154
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	11	8	8	1	2	2	1	1	1	1	2
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	38	19	25	40	111	114	148	105	17	18	41
USA	953	823	1267	1330	1045	1163	1501	1202	1588	2072	2290

Table 982: FAOp — Prices—Agriculture—Cotton lint (US\$05/tDM) [PART 2/3]

	2005
GLO	1676
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 983: IniFoodPrice — Prices—Agriculture—Cotton lint (US\$05/tDM)

36.4 Cotton seed



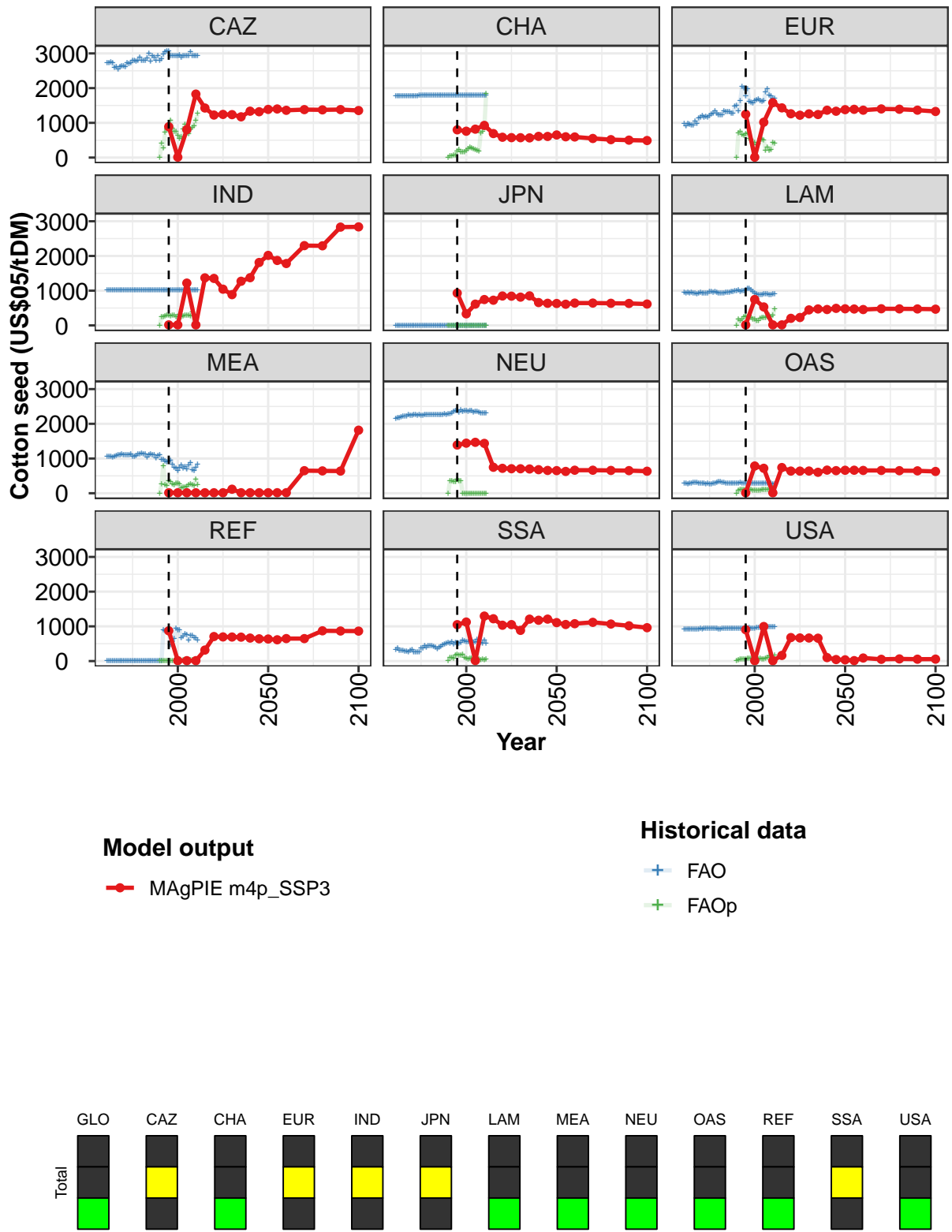


Figure 294: MAGPIE m4p_SSP3 — Prices—Agriculture—Cotton seed (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	598	473	754	380	785	829	738	703	826	829	958
CAZ	889	12	806	1828	1427	1225	1243	1236	1174	1336	1321
CHA	799	759	818	927	692	585	574	572	567	610	609
EUR	1247	11	1019	1581	1432	1262	1220	1259	1240	1365	1335
IND	15	15	1219	15	1370	1353	1044	887	1272	1375	1813
JPN	930	333	613	745	726	847	842	814	851	659	638
LAM	16	747	532	16	16	204	228	447	474	458	491
MEA	14	14	14	14	14	14	14	116	15	15	15
NEU	1389	1443	1467	1436	748	718	707	705	699	679	657
OAS	14	784	719	14	741	639	638	640	604	666	650
REF	872	13	12	12	318	707	696	693	689	663	641
SSA	1049	1124	15	1296	1219	1033	1050	885	1208	1176	1209
USA	904	11	996	11	163	677	666	665	659	101	44

Table 984: MAgPIE m4p_SSP3 — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1027	978	966	1151	1159	1302	1325
CAZ	1388	1400	1362	1381	1374	1383	1355
CHA	651	599	594	551	516	502	491
EUR	1380	1390	1365	1401	1392	1366	1328
IND	2016	1871	1783	2298	2293	2831	2838
JPN	632	610	644	644	637	632	615
LAM	479	473	457	480	477	474	467
MEA	15	15	15	650	644	639	1816
NEU	651	629	664	664	657	652	634
OAS	661	664	657	657	650	645	628
REF	636	614	648	648	872	866	863
SSA	1108	1054	1077	1116	1067	1017	962
USA	36	13	89	51	62	55	56

Table 985: MAgPIE m4p_SSP3 — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	3264	3288	3118	3158	3137	3048	2870	3090	3154	2742	2781
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 986: WBGEM — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	3062	2964	4298	3699	2792	3942	3399	2885	2748	3018	2735
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 987: WBGEM — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	2407	2869	2825	2108	1469	2092	1667	2007	2100	1955	1462
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 988: WBGEM — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	1416	2010	2210	1877	1942	1678	1387	1562	1319	1286	1677
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 989: WBGEM — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	1533	1325	1344	1396	1461	1368	2180	2863	1704	1734	1619
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 990: WBGEM — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	1518	1666
CAZ		
CHA		
EUR		
IND		
JPN		
LAM		
MEA		
NEU		
OAS		
REF		
SSA		
USA		

Table 991: WBGEM — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 6/6]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	858	870	884	925	950	960	963	962	949	935	919
CAZ	2736	2735	2739	2719	2595	2604	2533	2622	2644	2631	2611
CHA	1782	1781	1782	1782	1782	1783	1783	1782	1783	1782	1783
EUR	967	908	986	946	937	931	1034	980	1127	1155	1203
IND	1016	1016	1016	1017	1017	1017	1017	1017	1017	1016	1017
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	946	934	939	937	952	924	924	904	922	942	924
MEA	1047	1066	1052	1038	1052	1090	1110	1100	1119	1111	1099
NEU	2154	2177	2178	2204	2205	2225	2223	2253	2242	2235	2255
OAS	291	277	274	281	285	302	298	310	283	277	283
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	337	371	315	313	306	274	285	264	298	332	252
USA	916	919	925	920	924	919	907	911	924	930	925

Table 992: FAO — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	910	939	926	931	897	901	914	889	929	932	979
CAZ	2731	2707	2722	2787	2789	2770	2789	2888	2788	2788	2791
CHA	1783	1783	1783	1783	1783	1783	1783	1783	1783	1783	1783
EUR	1150	1188	1159	1214	1254	1265	1341	1261	1237	1215	1223
IND	1017	1017	1017	1017	1016	1016	1017	1017	1017	1016	1016
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	927	915	928	962	966	945	962	939	922	931	935
MEA	1094	1095	1125	1058	1058	1088	1121	1121	1154	1137	1119
NEU	2256	2248	2255	2247	2247	2257	2251	2252	2267	2258	2257
OAS	286	273	277	262	260	292	285	306	328	322	305
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	253	261	262	368	361	441	395	442	437	433	410
USA	934	939	936	939	937	942	934	933	927	922	932

Table 993: FAO — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	1055	1109	1010	985	1014	1004	1003	1042	1066	1193	1166
CAZ	2851	2991	2778	2924	2880	2797	2922	2799	2849	2987	3042
CHA	1783	1783	1783	1783	1783	1783	1783	1783	1783	1783	1783
EUR	1333	1317	1326	1328	1275	1261	1479	1502	1336	1642	2034
IND	1017	1017	1016	1017	1016	1017	1016	1017	1017	1016	1016
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	934	954	948	949	970	962	989	987	1011	977	986
MEA	1046	1103	1136	1097	1103	1006	1074	1103	959	967	930
NEU	2268	2264	2252	2253	2259	2277	2272	2281	2294	2305	2353
OAS	314	290	291	285	291	296	295	295	294	297	292
REF	0	0	0	0	0	0	0	0	0	888	864
SSA	390	357	404	424	452	474	503	526	511	553	485
USA	932	931	934	936	936	934	942	941	934	941	934

Table 994: FAO — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	1174	1184	1144	1172	1199	1162	1195	1213	1208	1169	1153
CAZ	3063	3067	2937	2939	2935	2922	2936	2953	2874	2938	2935
CHA	1783	1783	1783	1783	1783	1783	1783	1783	1783	1783	1783
EUR	2005	1760	1978	1611	1580	1558	1645	1659	1684	1625	1619
IND	1017	1016	1016	1017	1017	1017	1017	1017	1017	1016	1017
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	990	1018	1065	1053	1016	981	932	913	883	882	889
MEA	902	913	949	824	750	706	653	738	804	724	760
NEU	2386	2386	2320	2389	2343	2372	2367	2362	2365	2377	2341
OAS	291	289	284	280	278	279	278	281	275	275	277
REF	857	874	472	562	655	931	897	884	672	722	779
SSA	526	534	508	528	588	571	545	558	559	597	523
USA	939	943	947	954	940	949	950	956	963	958	972

Table 995: FAO — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	1158	1199	1214	1201	1185	1174	1183
CAZ	2935	2935	3044	2935	2936	2935	2920
CHA	1786	1783	1783	1783	1783	1783	1783
EUR	1633	1881	1966	1795	1767	1696	1696
IND	1017	1016	1016	1016	1017	1016	1016
JPN	0	0	0	0	0	0	0
LAM	899	908	896	875	871	911	894
MEA	686	809	879	663	649	743	827
NEU	2358	2348	2338	2297	2297	2297	2297
OAS	277	282	280	280	278	271	269
REF	753	609	734	724	672	664	590
SSA	555	619	537	524	514	608	502
USA	998	971	980	987	982	985	977

Table 996: FAO — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	103	137	128	137	189	206	181	173	151	158
CAZ	0	400	275	737	827	931	1073	833	745	748	640
CHA	0	45	52	57	64	180	233	159	159	161	198
EUR	0	706	745	655	629	671	703	550	519	438	429
IND	0	252	238	261	301	299	265	282	288	251	239
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	180	142	178	233	268	236	256	227	167	181
MEA	0	259	795	236	210	344	323	267	229	291	282
NEU	0	351	345	340	320	402	344	349	0	0	0
OAS	0	81	102	111	110	107	108	103	104	92	92
REF	0	0	0	3	6	8	10	4	4	2	2
SSA	3	101	95	82	165	183	163	170	184	102	88
USA	0	39	53	61	55	58	76	72	77	53	63

Table 997: FAOp — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 1/3]

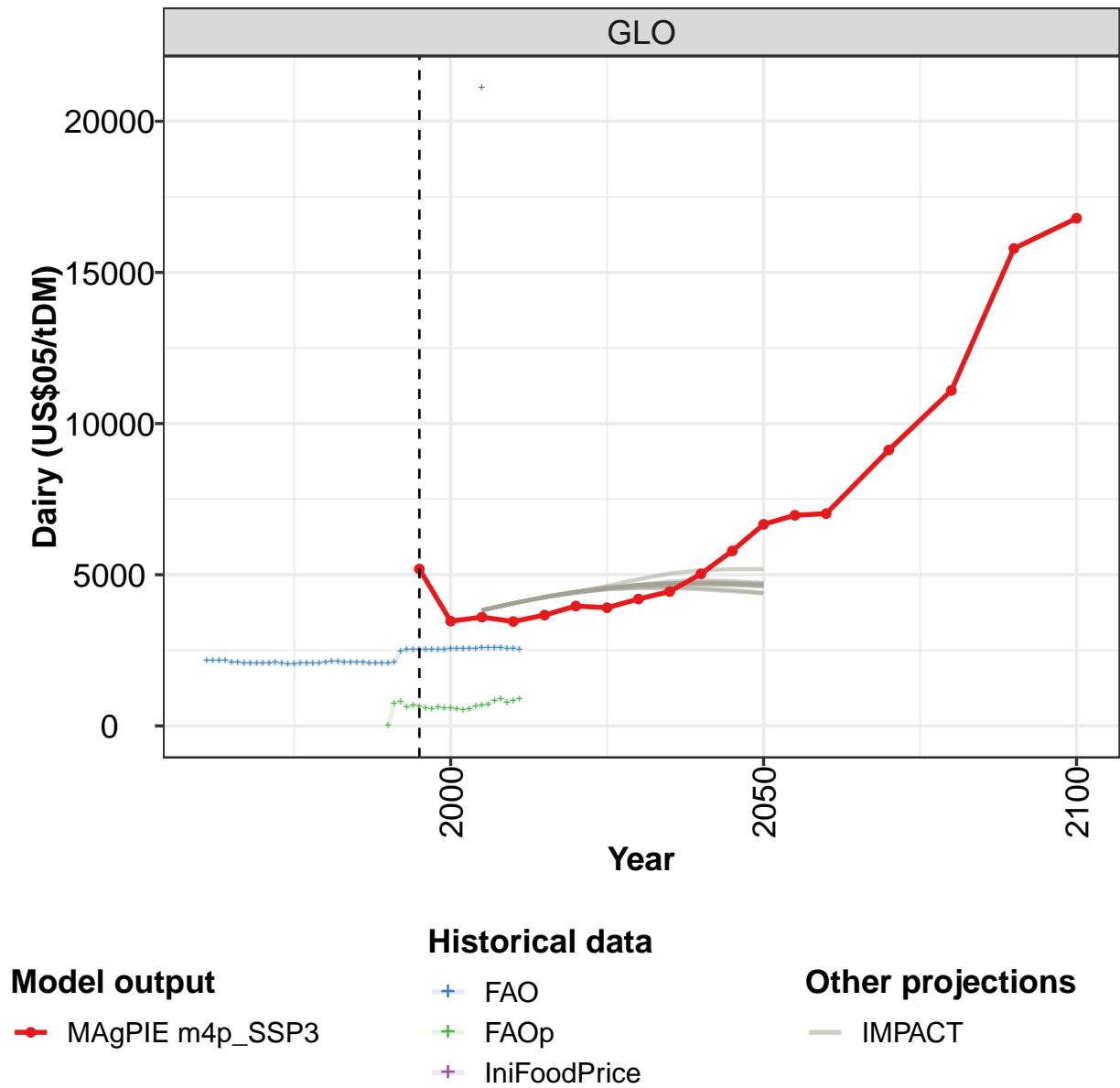
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	164	171	180	177	170	172	176	382	304	308	602
CAZ	552	582	826	950	698	685	821	872	911	1068	1262
CHA	244	290	267	244	224	206	191	711	739	852	1839
EUR	367	380	554	515	496	211	301	202	224	429	407
IND	306	242	265	293	279	292	270	375	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	137	129	196	220	212	218	252	299	253	296	469
MEA	263	154	162	175	188	238	270	233	210	394	249
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	75	89	92	93	93	96	105	100	121	146	0
REF	3	2	21	20	18	17	27	23	28	37	47
SSA	64	70	83	78	78	75	48	39	51	36	56
USA	54	60	70	64	58	66	97	134	95	96	156

Table 998: FAOp — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 2/3]

	2005
GLO	1260
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 999: IniFoodPrice — Prices—Agriculture—Cotton seed (US\$05/tDM)

36.5 Dairy



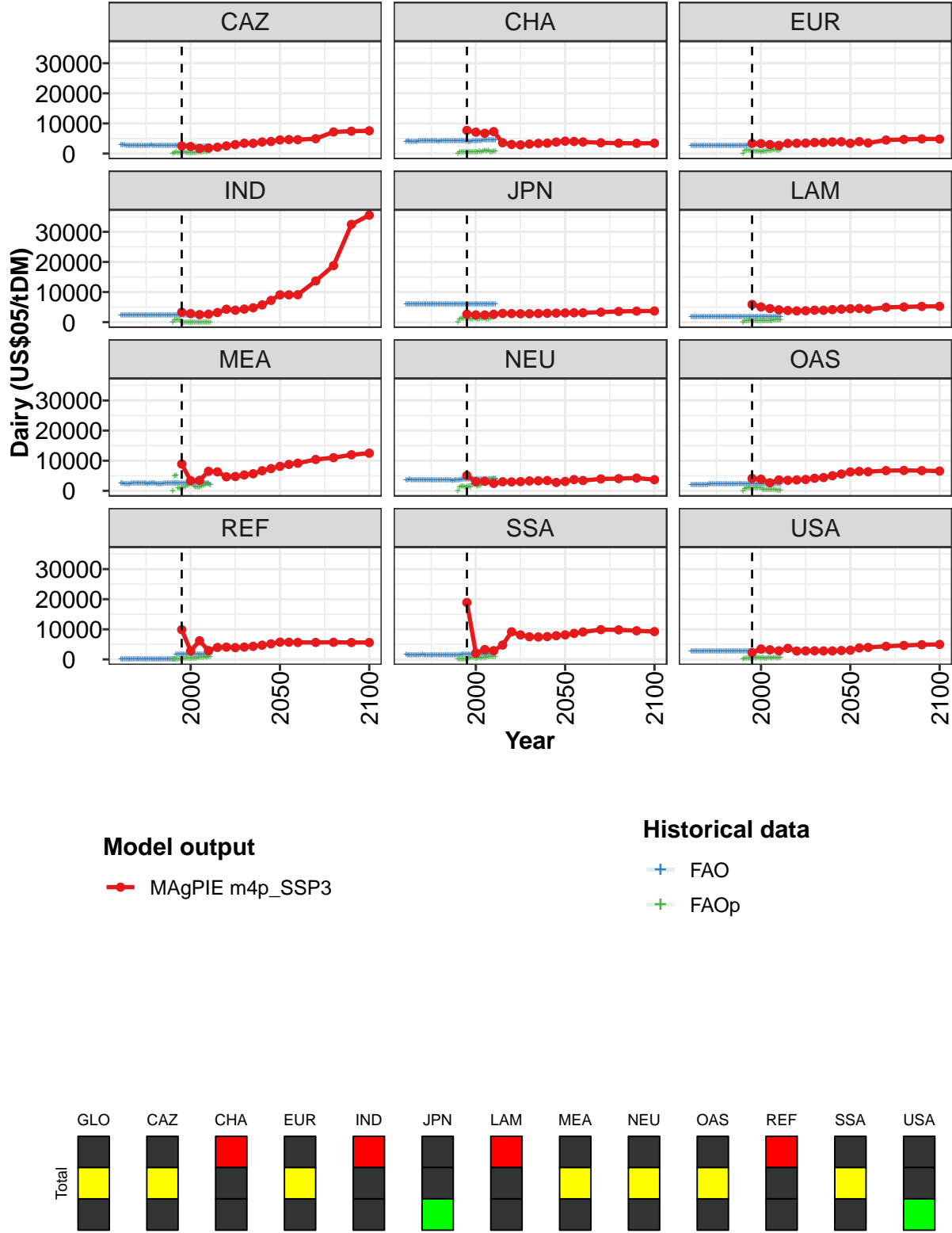


Figure 295: MAgPIE m4p_SSP3 — Prices—Agriculture—Dairy (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5188	3464	3597	3452	3664	3965	3907	4197	4444	5028	5787
CAZ	2525	2329	1695	1846	2108	2540	2972	3424	3387	3853	4000
CHA	7704	7099	6745	7288	3593	3031	2879	3170	3368	3451	3818
EUR	3398	3306	2985	2721	3365	3414	3465	3670	3655	3865	3919
IND	3303	2860	2524	2666	3192	4296	3974	4349	4772	5723	7234
JPN	2655	2410	2396	2627	2925	2850	2800	2796	2876	2959	3004
LAM	5886	5052	4527	4093	3876	3742	3798	3986	3954	4164	4322
MEA	8904	3369	3468	6467	6291	4649	4741	5256	5661	6657	7380
NEU	5066	3046	3148	2466	3002	2963	3047	3266	3309	3402	2776
OAS	4093	3842	2664	3614	3492	3614	3757	4159	4396	5010	5580
REF	9890	2838	6193	2937	3976	4089	3919	4103	4350	4727	5172
SSA	18916	2086	3275	2905	4776	9164	8135	7527	7452	7572	7871
USA	2249	3455	3197	2865	3674	2792	2827	2857	2825	2834	2960

Table 1000: MAgPIE m4p_SSP3 — Prices—Agriculture—Dairy (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	6667	6966	7021	9124	11095	15792	16790
CAZ	4524	4647	4610	4924	7166	7431	7556
CHA	4111	4007	3849	3585	3443	3391	3435
EUR	3397	3966	3515	4478	4686	4865	4818
IND	9070	9083	9113	13691	18805	32461	35533
JPN	3072	3113	3128	3325	3561	3679	3713
LAM	4455	4566	4318	4916	5046	5231	5267
MEA	8138	8760	9156	10401	10996	11954	12494
NEU	3107	3719	3406	3943	4032	4234	3683
OAS	6259	6447	6340	6700	6763	6692	6556
REF	5741	5714	5641	5632	5681	5613	5606
SSA	8154	8641	9126	9883	9808	9514	9236
USA	3070	3814	3983	4367	4641	4883	4984

Table 1001: MAgPIE m4p_SSP3 — Prices—Agriculture—Dairy (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	2162	2158	2175	2165	2117	2105	2084	2078	2085	2079	2080
CAZ	2805	2782	2773	2761	2739	2723	2702	2732	2724	2707	2698
CHA	4077	4080	4075	4061	4053	4038	4029	4112	4110	4108	4110
EUR	2662	2662	2666	2663	2654	2654	2637	2631	2629	2626	2624
IND	2286	2299	2309	2319	2324	2324	2286	2289	2293	2291	2294
JPN	5931	5923	5920	5923	5924	5924	5928	5920	5913	5914	5909
LAM	1798	1799	1791	1780	1796	1827	1840	1834	1844	1857	1857
MEA	2433	2427	2360	2377	2370	2366	2397	2413	2409	2423	2444
NEU	3695	3702	3710	3695	3688	3653	3648	3649	3642	3653	3658
OAS	2093	2099	2089	2116	2101	2098	2084	2065	2087	2124	2147
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	1551	1538	1531	1495	1536	1535	1539	1538	1519	1558	1539
USA	2631	2626	2629	2631	2633	2638	2637	2639	2640	2641	2642

Table 1002: FAO — Prices—Agriculture—Dairy (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	2091	2063	2047	2055	2074	2061	2073	2086	2108	2123	2121
CAZ	2701	2690	2716	2716	2707	2733	2763	2702	2727	2745	2760
CHA	4107	4093	4088	4084	4080	4079	4110	4051	4139	4102	4126
EUR	2626	2616	2609	2613	2618	2613	2613	2619	2622	2627	2626
IND	2294	2294	2297	2289	2291	2293	2291	2296	2291	2293	2296
JPN	5915	5917	5920	5920	5919	5912	5908	5904	5909	5911	5912
LAM	1876	1883	1883	1880	1878	1902	1906	1902	1898	1897	1911
MEA	2424	2443	2413	2407	2388	2413	2401	2401	2398	2383	2381
NEU	3631	3597	3548	3530	3514	3493	3493	3488	3487	3473	3450
OAS	2148	2131	2129	2134	2130	2159	2157	2161	2185	2176	2169
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	1527	1523	1512	1497	1500	1477	1447	1451	1471	1466	1473
USA	2644	2647	2646	2646	2647	2646	2648	2648	2646	2645	2645

Table 1003: FAO — Prices—Agriculture—Dairy (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	2105	2103	2105	2096	2083	2075	2070	2078	2117	2481	2513
CAZ	2712	2679	2656	2647	2682	2686	2709	2695	2667	2637	2582
CHA	4115	4121	4143	4141	4128	4121	4119	4113	4126	4136	4106
EUR	2615	2611	2607	2602	2602	2599	2592	2600	2631	2737	2836
IND	2311	2313	2315	2314	2303	2295	2300	2285	2278	2275	2274
JPN	5905	5903	5897	5898	5912	5914	5910	5913	5913	5902	5894
LAM	1898	1898	1903	1891	1863	1868	1847	1855	1880	1882	1892
MEA	2376	2386	2396	2406	2414	2389	2402	2405	2428	2474	2497
NEU	3444	3456	3449	3455	3438	3454	3454	3467	3506	3829	3836
OAS	2162	2170	2220	2279	2294	2307	2336	2310	2307	2309	2300
REF	0	0	0	0	0	0	0	0	0	1679	1695
SSA	1467	1455	1412	1409	1437	1439	1442	1496	1529	1549	1698
USA	2645	2648	2646	2647	2649	2647	2645	2645	2645	2644	2645

Table 1004: FAO — Prices—Agriculture—Dairy (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	2516	2523	2528	2524	2521	2523	2546	2545	2544	2562	2568
CAZ	2553	2572	2536	2514	2511	2502	2462	2448	2414	2410	2416
CHA	4082	4058	4071	4054	4126	4138	4176	4211	4256	4315	4366
EUR	2843	2847	2850	2851	2848	2851	2921	2918	2918	2917	2915
IND	2276	2287	2286	2284	2280	2275	2274	2268	2268	2271	2269
JPN	5911	5911	5909	5908	5906	5908	5907	5911	5909	5911	5911
LAM	1872	1861	1853	1859	1866	1866	1878	1880	1884	1881	1883
MEA	2488	2468	2456	2458	2446	2467	2471	2491	2492	2546	2488
NEU	3818	3807	3798	3785	3761	3792	3792	3794	3792	3790	3786
OAS	2287	2279	2272	2253	2252	2246	2277	2319	2283	2279	2266
REF	1698	1703	1711	1711	1708	1718	1725	1743	1754	1753	1733
SSA	1678	1707	1697	1691	1685	1705	1708	1700	1737	1737	1754
USA	2645	2647	2649	2650	2650	2649	2649	2649	2648	2650	2650

Table 1005: FAO — Prices—Agriculture—Dairy (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	2575	2574	2586	2582	2571	2565	2534
CAZ	2416	2422	2428	2440	2423	2423	2417
CHA	4391	4410	4423	4423	4393	4386	4398
EUR	2913	2911	2907	2910	2905	2906	2902
IND	2265	2265	2256	2250	2250	2250	2259
JPN	5908	5909	5912	5914	5907	5911	5918
LAM	1869	1877	1878	1882	1872	1861	1852
MEA	2492	2483	2491	2546	2535	2517	1934
NEU	3782	3779	3771	3778	3782	3794	3790
OAS	2272	2277	2270	2270	2264	2258	2253
REF	1755	1675	1756	1747	1741	1732	1718
SSA	1739	1764	1855	1892	1897	1921	1909
USA	2649	2648	2647	2646	2647	2647	2644

Table 1006: FAO — Prices—Agriculture—Dairy (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	735	795	626	688	651	599	569	615	590	586
CAZ	0	388	394	388	384	402	446	413	352	355	329
CHA	0	436	457	434	408	436	458	566	402	548	645
EUR	0	971	1042	947	974	1127	815	733	742	693	636
IND	0	770	782	681	751	0	0	0	0	0	0
JPN	0	1081	1152	1284	1376	1476	1243	1115	1034	1182	1240
LAM	0	356	379	397	787	435	460	456	438	384	422
MEA	0	5009	5128	843	800	931	1162	1144	1707	1903	2399
NEU	0	1232	1493	1444	1253	1526	1432	1314	2164	2057	1943
OAS	0	794	815	851	931	991	1005	963	952	910	868
REF	0	0	12	45	103	216	329	378	325	273	293
SSA	8	152	172	148	181	214	354	566	558	512	468
USA	0	446	479	467	475	467	533	484	561	520	448

Table 1007: FAOp — Prices—Agriculture—Dairy (US\$05/tDM) [PART 1/3]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	564	520	563	660	694	700	830	894	767	840	907
CAZ	344	376	382	455	524	512	597	797	609	726	903
CHA	570	686	495	876	919	908	1146	592	619	744	802
EUR	659	674	784	952	992	981	1193	1378	1111	1141	1288
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	1109	1075	1176	1254	1209	1118	1099	1316	1572	1650	1836
LAM	422	386	403	424	490	499	609	703	613	723	763
MEA	2396	1349	1305	1271	1284	1393	1663	1908	2307	2306	1998
NEU	1498	1624	2071	2390	2587	2796	3202	3916	3661	4222	3991
OAS	473	483	440	445	447	516	524	496	185	194	175
REF	329	390	419	510	611	643	628	781	618	753	941
SSA	477	508	482	566	636	712	889	787	853	768	794
USA	543	441	454	584	549	469	695	667	467	590	731

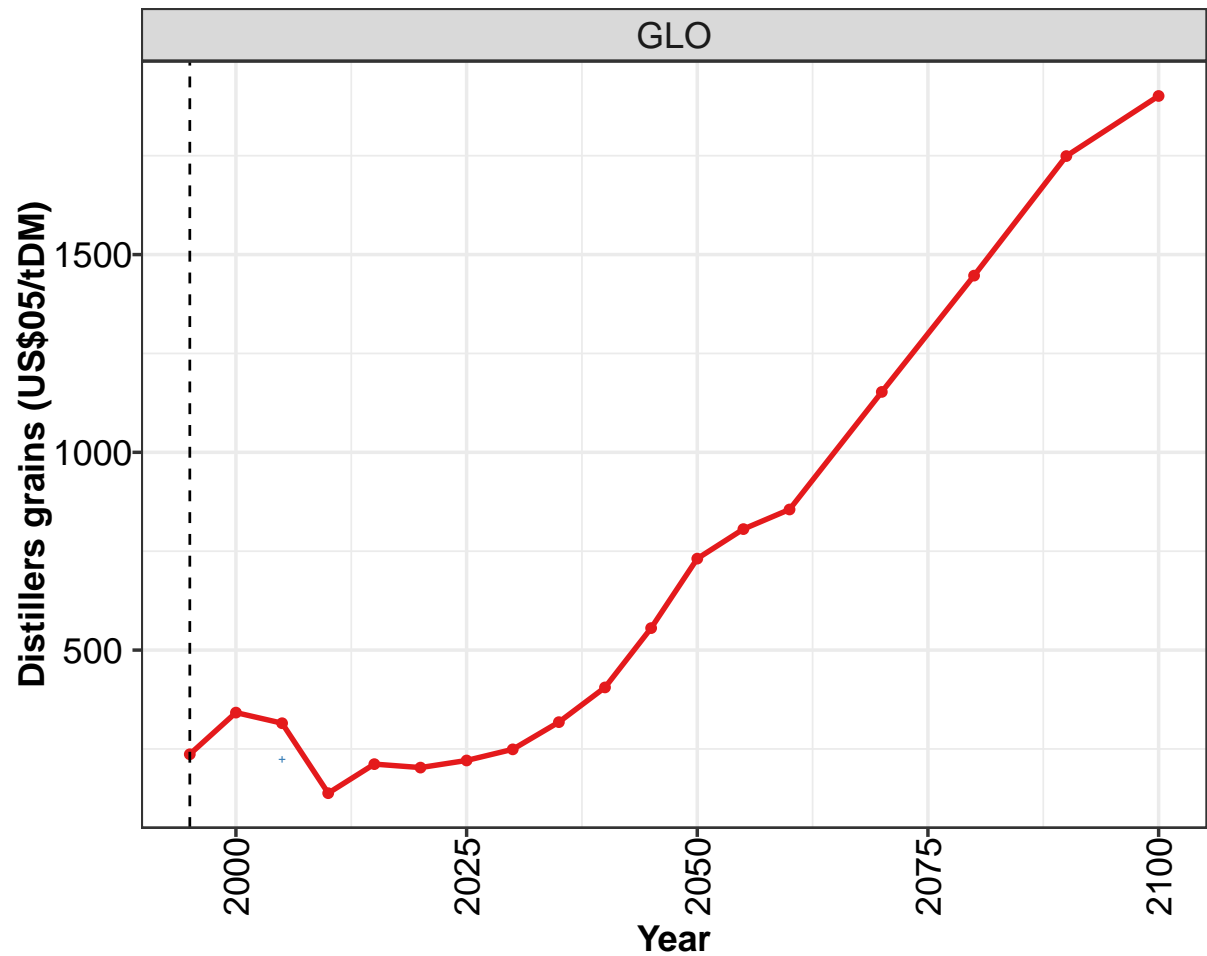
Table 1008: FAOp — Prices—Agriculture—Dairy (US\$05/tDM) [PART 2/3]

	2005
GLO	21104
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1009: IniFoodPrice — Prices—Agriculture—Dairy (US\$05/tDM)

36.6 Distillers grains

geom_path: Each group consists of only one observation. Do you need to adjust the group## aesthetic?



Model output

—•— MAGPIE m4p_SSP3

Historical data

+ IniFoodPrice

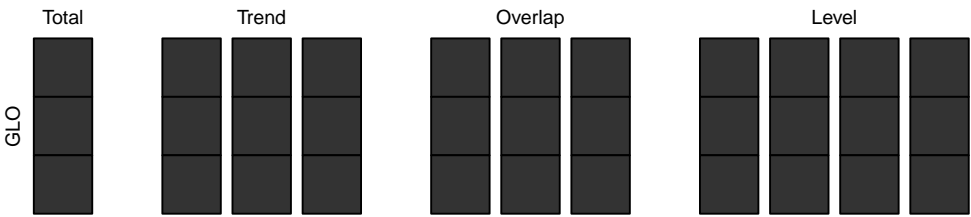


Figure 296: MAGPIE m4p_SSP3 — Prices—Agriculture—Distillers grains (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	237	342	315	138	212	203	221	249	318	406	556

Table 1010: MAgPIE m4p_SSP3 — Prices—Agriculture—Distillers grains (US\$05/tDM) [PART 1/2]

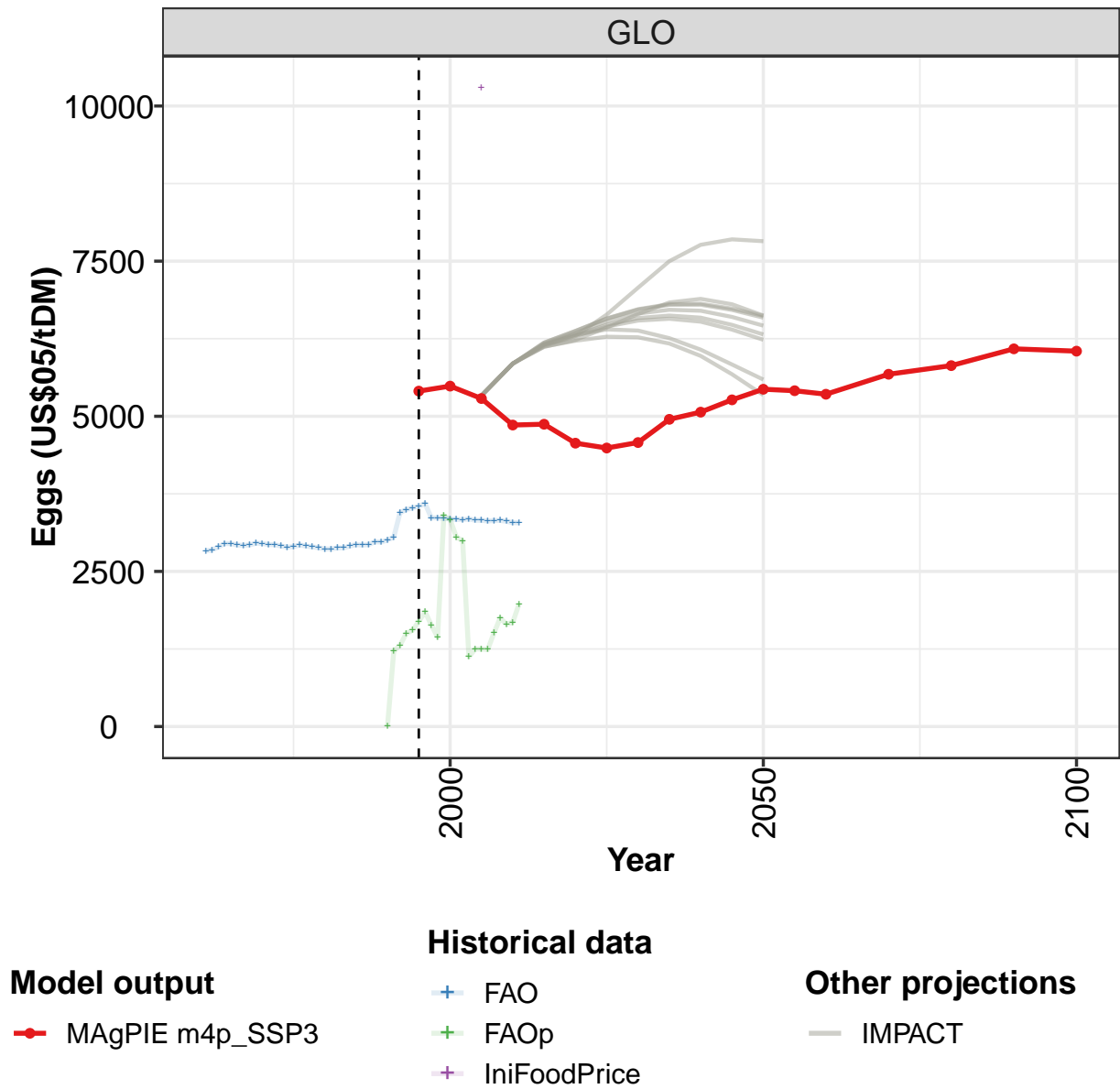
	2050	2055	2060	2070	2080	2090	2100
GLO	731	806	856	1153	1447	1749	1901

Table 1011: MAgPIE m4p_SSP3 — Prices—Agriculture—Distillers grains (US\$05/tDM) [PART 2/2]

	2005
GLO	223

Table 1012: IniFoodPrice — Prices—Agriculture—Distillers grains (US\$05/tDM)

36.7 Eggs



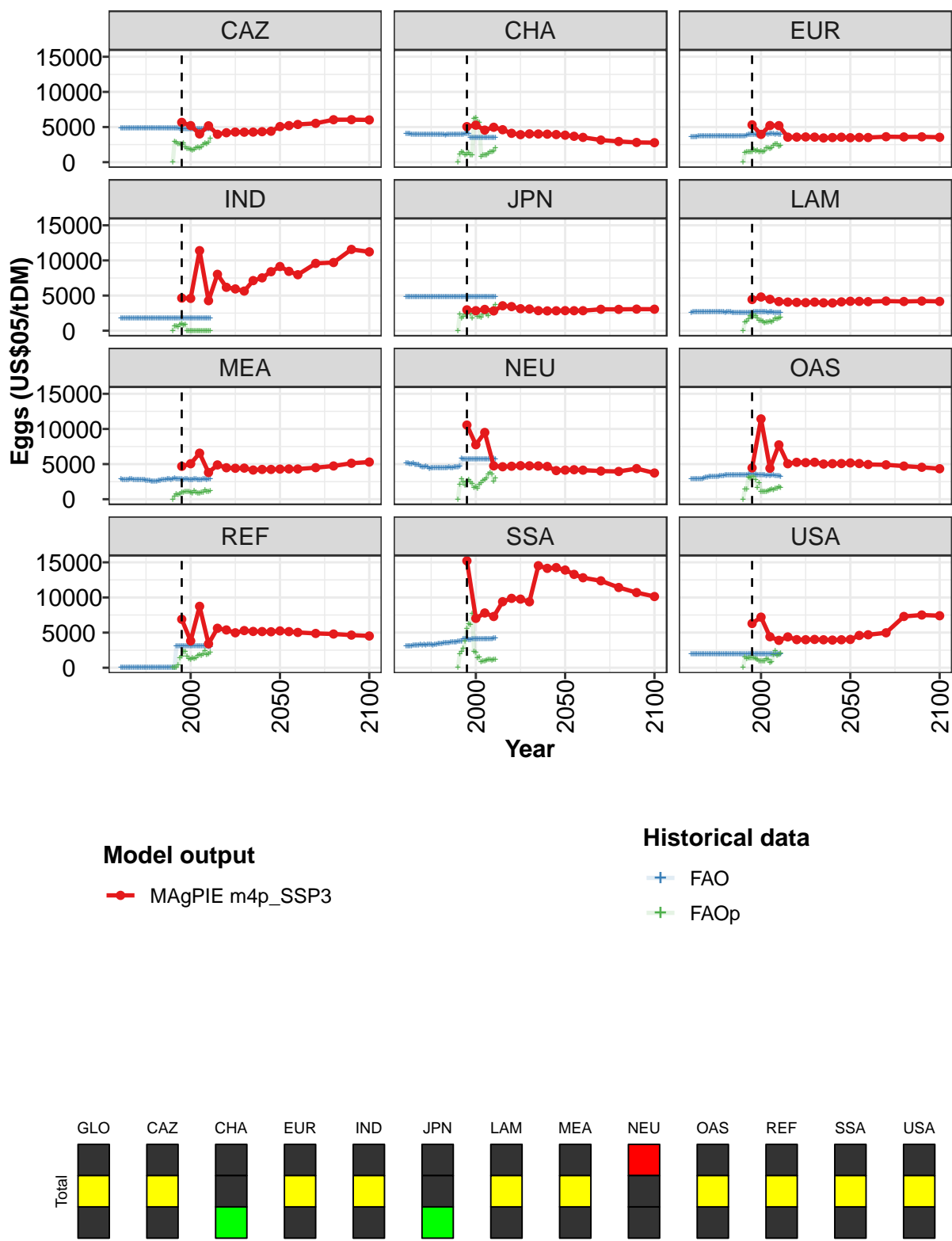


Figure 297: MAgPIE m4p_SSP3 — Prices—Agriculture—Eggs (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5406	5486	5287	4859	4872	4567	4488	4577	4951	5067	5265
CAZ	5665	5202	4021	5173	3973	4191	4290	4269	4282	4339	4401
CHA	5060	5264	4565	4970	4616	4106	3918	4025	4011	3987	3932
EUR	5314	3955	5215	5199	3559	3566	3590	3566	3448	3503	3554
IND	4642	4600	11396	4271	8023	6173	5946	5641	7128	7520	8398
JPN	2968	2848	3028	2815	3547	3432	3127	3090	2853	2816	2834
LAM	4436	4795	4468	4144	4074	4027	3993	4068	3967	3943	4102
MEA	4682	5051	6555	3802	4880	4477	4405	4426	4155	4241	4241
NEU	10552	7759	9502	4743	4623	4693	4775	4755	4741	4662	4072
OAS	4456	11426	4409	7733	5052	5254	5209	5259	5006	5059	5081
REF	6895	3814	8739	3404	5620	5380	4977	5289	5169	5149	5121
SSA	15215	7029	7798	7293	9397	9874	9765	9387	14525	14145	14256
USA	6295	7201	4409	3900	4388	3998	3986	4030	3979	3937	3982

Table 1013: MAgPIE m4p_SSP3 — Prices—Agriculture—Eggs (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	5436	5412	5355	5678	5817	6087	6050
CAZ	5068	5202	5367	5527	6042	6049	6009
CHA	3843	3684	3530	3151	2945	2808	2776
EUR	3479	3520	3509	3623	3590	3606	3543
IND	9134	8447	7965	9577	9702	11567	11221
JPN	2855	2845	2846	3047	3035	3068	3059
LAM	4188	4175	4134	4220	4154	4218	4167
MEA	4286	4308	4301	4487	4732	5119	5288
NEU	4145	4200	4136	4005	3949	4360	3731
OAS	5159	5079	4943	4895	4718	4545	4342
REF	5241	5142	5027	4882	4801	4647	4520
SSA	13903	13287	12806	12371	11419	10696	10134
USA	4027	4598	4690	4974	7299	7506	7401

Table 1014: MAgPIE m4p_SSP3 — Prices—Agriculture—Eggs (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	2832	2846	2893	2949	2947	2926	2920	2928	2954	2951	2933
CAZ	4798	4799	4806	4794	4819	4840	4837	4853	4842	4836	4855
CHA	4018	4013	4008	4000	3968	3965	3991	3957	3934	3930	3965
EUR	3566	3587	3646	3659	3684	3711	3708	3703	3698	3704	3711
IND	1790	1790	1790	1790	1790	1790	1790	1790	1790	1790	1790
JPN	4869	4869	4869	4869	4869	4869	4869	4869	4869	4869	4869
LAM	2580	2628	2625	2631	2628	2631	2629	2626	2641	2631	2659
MEA	2832	2805	2807	2817	2793	2852	2829	2805	2774	2799	2786
NEU	5138	5157	5030	4972	5129	4962	4941	4875	4740	4619	4600
OAS	2878	2888	2911	2908	2917	2890	2896	2963	3147	3126	3171
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	3087	3097	3131	3134	3204	3215	3216	3233	3278	3247	3256
USA	1902	1902	1902	1902	1902	1902	1902	1902	1902	1902	1902

Table 1015: FAO — Prices—Agriculture—Eggs (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	2931	2910	2891	2900	2928	2908	2897	2882	2863	2862	2880
CAZ	4882	4879	4868	4887	4885	4882	4894	4880	4852	4871	4871
CHA	3942	3969	3952	3954	3948	3906	3951	3888	3893	3900	3907
EUR	3729	3712	3721	3746	3768	3751	3735	3740	3700	3711	3709
IND	1790	1790	1790	1790	1790	1790	1790	1790	1790	1790	1790
JPN	4869	4869	4869	4869	4869	4869	4869	4869	4869	4869	4869
LAM	2668	2704	2682	2682	2692	2700	2711	2690	2621	2647	2658
MEA	2779	2777	2758	2710	2693	2684	2589	2558	2544	2562	2633
NEU	4657	4589	4383	4442	4442	4467	4516	4482	4409	4442	4441
OAS	3207	3198	3250	3271	3261	3351	3324	3334	3413	3396	3397
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	3250	3284	3306	3322	3234	3317	3361	3388	3396	3417	3480
USA	1902	1902	1902	1902	1902	1902	1902	1902	1902	1902	1902

Table 1016: FAO — Prices—Agriculture—Eggs (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	2880	2909	2932	2923	2932	2978	2972	3007	3051	3446	3496
CAZ	4866	4864	4845	4845	4829	4824	4842	4891	4849	4813	4815
CHA	3866	3904	3935	3941	3941	3967	3961	3966	3986	3979	3988
EUR	3720	3713	3695	3707	3693	3736	3719	3718	3714	3799	3928
IND	1790	1790	1790	1790	1790	1790	1790	1790	1790	1790	1790
JPN	4869	4869	4869	4869	4869	4869	4869	4869	4869	4869	4869
LAM	2647	2604	2597	2577	2580	2600	2563	2542	2538	2562	2590
MEA	2703	2745	2774	2742	2835	2867	2792	2851	2960	2869	2844
NEU	4501	4510	4520	4495	4490	4626	4573	4559	4697	5804	5739
OAS	3407	3409	3393	3422	3436	3477	3472	3434	3444	3485	3521
REF	0	0	0	0	0	0	0	0	0	3058	3056
SSA	3527	3558	3572	3637	3678	3645	3608	3765	3773	3800	4065
USA	1902	1902	1902	1902	1902	1902	1902	1902	1902	1902	1902

Table 1017: FAO — Prices—Agriculture—Eggs (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	3524	3549	3594	3364	3365	3354	3346	3340	3334	3346	3325
CAZ	4757	4747	4739	4737	4752	4739	4712	4698	4694	4678	4699
CHA	4003	4005	4058	3496	3499	3502	3504	3504	3487	3510	3511
EUR	3900	3904	3908	3894	3864	3887	3957	3966	4000	4054	3986
IND	1790	1790	1790	1790	1790	1790	1790	1790	1790	1790	1790
JPN	4869	4869	4869	4869	4869	4869	4869	4869	4869	4869	4869
LAM	2598	2605	2639	2637	2662	2646	2641	2670	2635	2631	2616
MEA	2843	2889	2803	2845	2854	2773	2766	2765	2844	2839	2759
NEU	5743	5696	5710	5683	5688	5691	5690	5731	5739	5725	5732
OAS	3518	3547	3512	3505	3408	3405	3398	3431	3410	3378	3415
REF	3073	3077	3084	3092	3092	3092	3109	3112	3097	3099	3083
SSA	4092	4052	4019	3979	4103	4106	4094	4096	4087	4098	4103
USA	1902	1902	1902	1902	1902	1902	1902	1902	1902	1902	1902

Table 1018: FAO — Prices—Agriculture—Eggs (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	3324	3312	3321	3321	3308	3286	3283
CAZ	4697	4750	4728	4720	4714	4728	4767
CHA	3517	3515	3516	3521	3522	3513	3522
EUR	4019	4019	4019	3998	4012	3944	3983
IND	1790	1790	1790	1790	1790	1790	1790
JPN	4869	4869	4869	4869	4869	4869	4869
LAM	2627	2626	2615	2607	2581	2570	2561
MEA	2796	2780	2855	2900	2819	2911	2875
NEU	5721	5709	5698	5721	5734	5755	5739
OAS	3366	3408	3416	3368	3335	3285	3227
REF	3083	3043	3070	3052	3042	3023	2998
SSA	4120	4132	4149	4133	4148	4155	4173
USA	1902	1902	1902	1902	1902	1902	1902

Table 1019: FAO — Prices—Agriculture—Eggs (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	1213	1311	1499	1551	1694	1849	1637	1441	3399	3333
CAZ	0	2912	2763	2620	2639	2429	2748	2114	1962	1929	1800
CHA	0	1179	1423	1303	1019	1179	1359	1055	993	6215	6286
EUR	0	1363	1491	1487	1490	1501	1783	1581	1644	1427	1544
IND	0	696	611	519	854	1022	718	933	0	0	0
JPN	0	2314	1786	2013	2290	2714	2648	2372	1833	2414	2525
LAM	0	1160	1309	1662	2062	1924	2169	2111	1737	1390	1423
MEA	0	393	698	649	785	969	987	1027	1030	1070	962
NEU	0	2095	2861	2433	1947	2540	2762	2472	2194	1674	1810
OAS	0	1388	1435	3149	3021	3262	3224	2751	1681	2313	1072
REF	0	0	78	355	1423	1605	2322	2294	1652	1258	1207
SSA	0	1962	2296	2716	3728	5580	6284	6073	7691	2346	2137
USA	0	1472	1255	1381	1339	1362	1404	1283	1148	988	975

Table 1020: FAOp — Prices—Agriculture—Eggs (US\$05/tDM) [PART 1/3]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	3054	2992	1123	1249	1251	1240	1508	1751	1647	1680	1973
CAZ	1732	1797	2026	2108	2042	2125	2431	2742	2603	2769	3422
CHA	5765	5662	784	987	1030	976	1290	1447	1477	1535	2056
EUR	1482	1538	2040	2013	1910	2064	2315	2574	2540	2210	2381
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	1990	1991	1865	2319	2699	2285	2168	2835	2768	3200	3725
LAM	1359	1063	1170	1245	1291	1228	1422	1757	1612	1792	1922
MEA	868	1194	912	803	803	979	921	1262	1134	1087	1189
NEU	1518	2063	2359	2630	2815	2956	3534	3810	3519	2523	2940
OAS	1090	1038	1077	1197	1351	1409	1358	1484	1526	1729	1592
REF	1395	1306	1365	1683	1816	1714	1912	2454	1869	1942	2148
SSA	1393	1473	831	950	967	1038	1207	1131	1029	1137	1207
USA	993	898	1255	1218	758	878	1862	2385	1782	1867	2082

Table 1021: FAOp — Prices—Agriculture—Eggs (US\$05/tDM) [PART 2/3]

	2005
GLO	10291
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1022: IniFoodPrice — Prices—Agriculture—Eggs (US\$05/tDM)

36.8 Ethanol

geom_path: Each group consists of only one observation. Do you need to adjust the group## aesthetic?

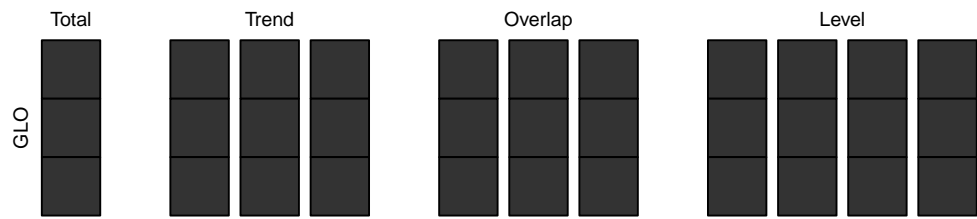
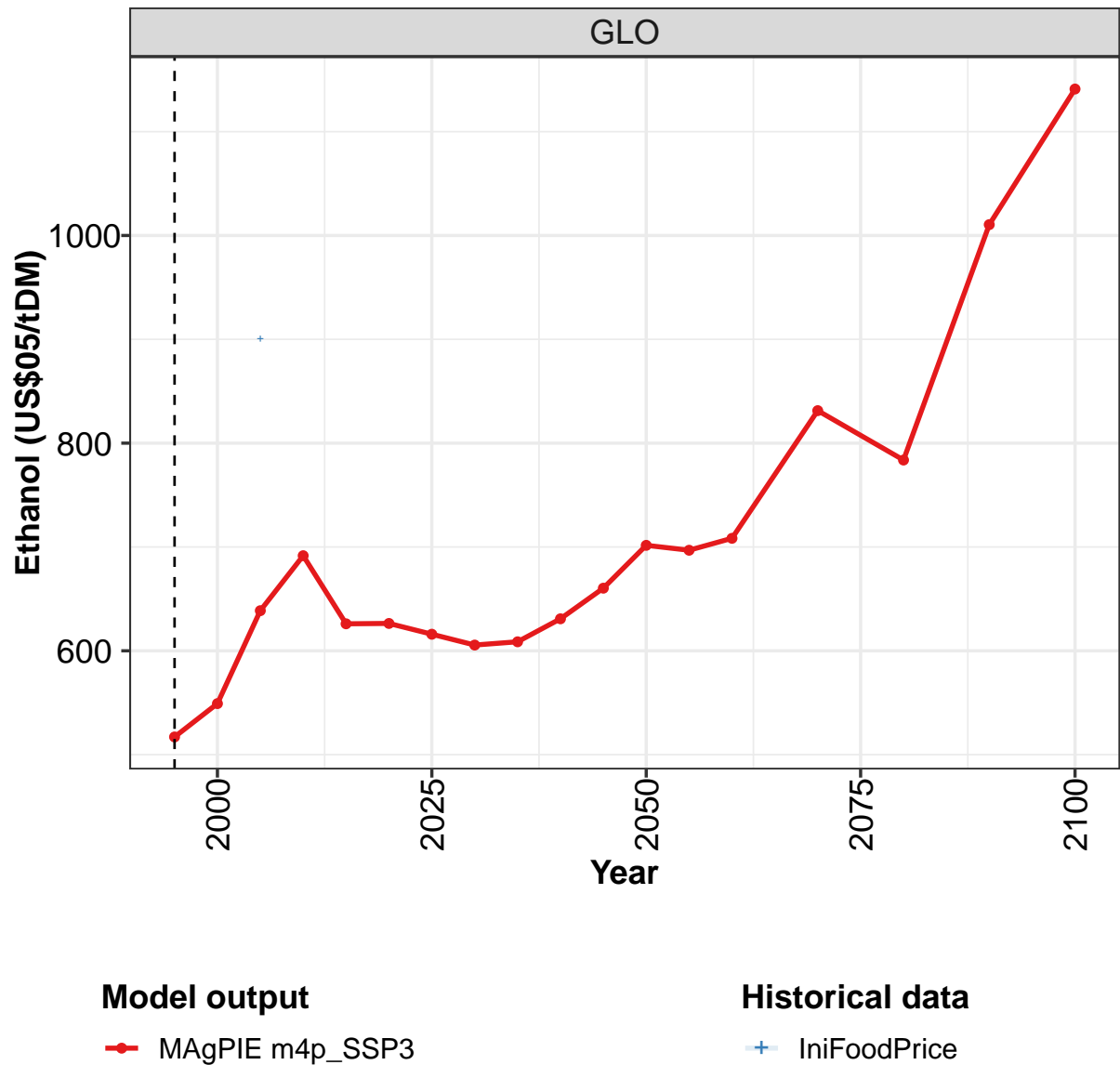


Figure 298: MAgPIE m4p_SSP3 — Prices—Agriculture—Ethanol (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	517	549	639	692	626	626	616	606	609	631	660

Table 1023: MAgPIE m4p_SSP3 — Prices—Agriculture—Ethanol (US\$05/tDM) [PART 1/2]

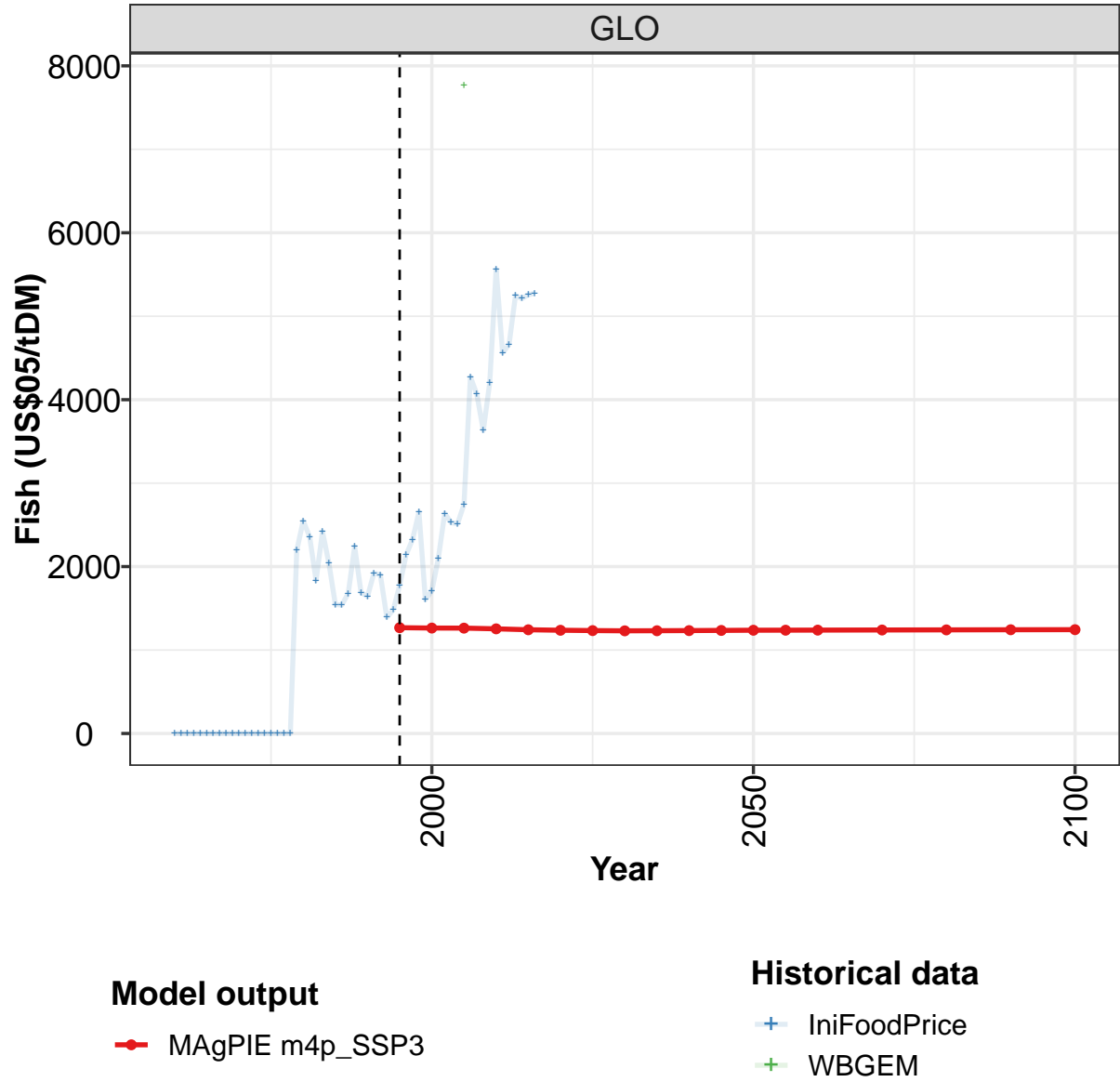
	2050	2055	2060	2070	2080	2090	2100
GLO	702	697	708	831	784	1010	1141

Table 1024: MAgPIE m4p_SSP3 — Prices—Agriculture—Ethanol (US\$05/tDM) [PART 2/2]

	2005
GLO	900

Table 1025: IniFoodPrice — Prices—Agriculture—Ethanol (US\$05/tDM)

36.9 Fish



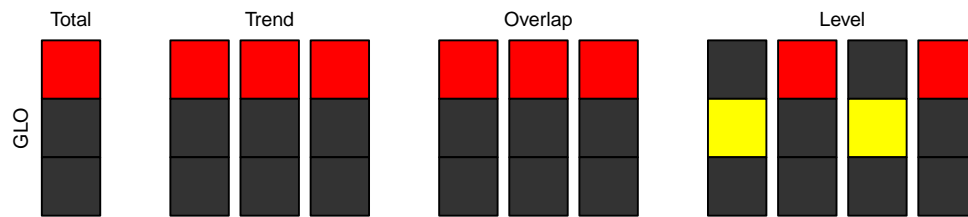


Figure 299: MAgPIE m4p_SSP3 — Prices—Agriculture—Fish (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1268	1263	1263	1254	1243	1237	1233	1230	1231	1233	1235

Table 1026: MAgPIE m4p_SSP3 — Prices—Agriculture—Fish (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1237	1238	1239	1240	1242	1243	1244

Table 1027: MAgPIE m4p_SSP3 — Prices—Agriculture—Fish (US\$05/tDM) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	0	0	0	0	0	0	0	0	0	0	0

Table 1028: WBGEM — Prices—Agriculture—Fish (US\$05/tDM) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	0	0	0	0	0	0	0	0	2194	2548	2358

Table 1029: WBGEM — Prices—Agriculture—Fish (US\$05/tDM) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	1835	2417	2038	1546	1538	1679	2239	1689	1642	1922	1901

Table 1030: WBGEM — Prices—Agriculture—Fish (US\$05/tDM) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	1392	1481	1774	2141	2324	2654	1604	1710	2094	2637	2527

Table 1031: WBGEM — Prices—Agriculture—Fish (US\$05/tDM) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	2513	2745	4273	4064	3630	4201	5559	4564	4659	5245	5211

Table 1032: WBGEM — Prices—Agriculture—Fish (US\$05/tDM) [PART 5/6]

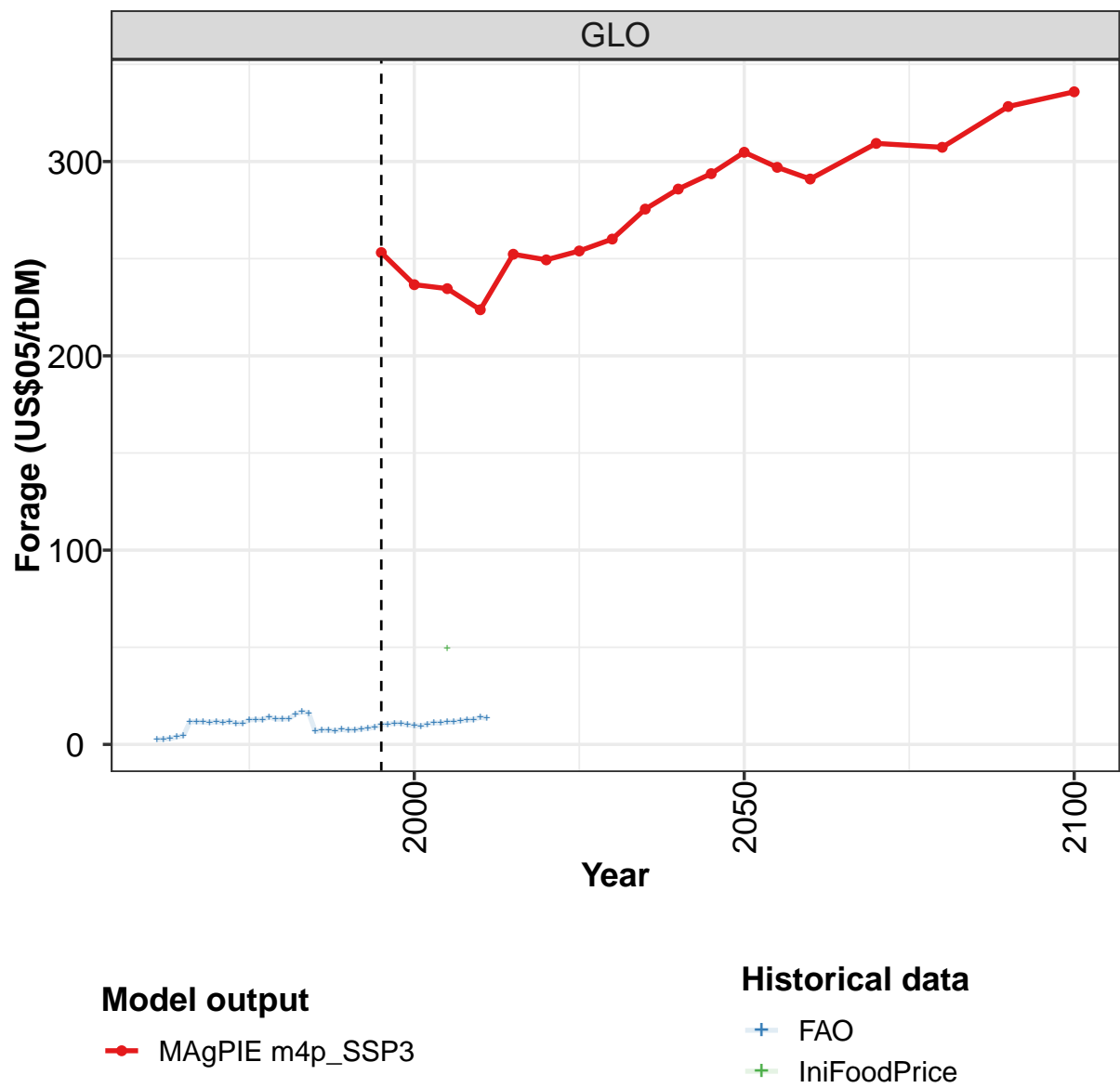
	2015	2016
GLO	5256	5275

Table 1033: WBGEM — Prices—Agriculture—Fish (US\$05/tDM) [PART 6/6]

	2005
GLO	7766

Table 1034: IniFoodPrice — Prices—Agriculture—Fish (US\$05/tDM)

36.10 Forage



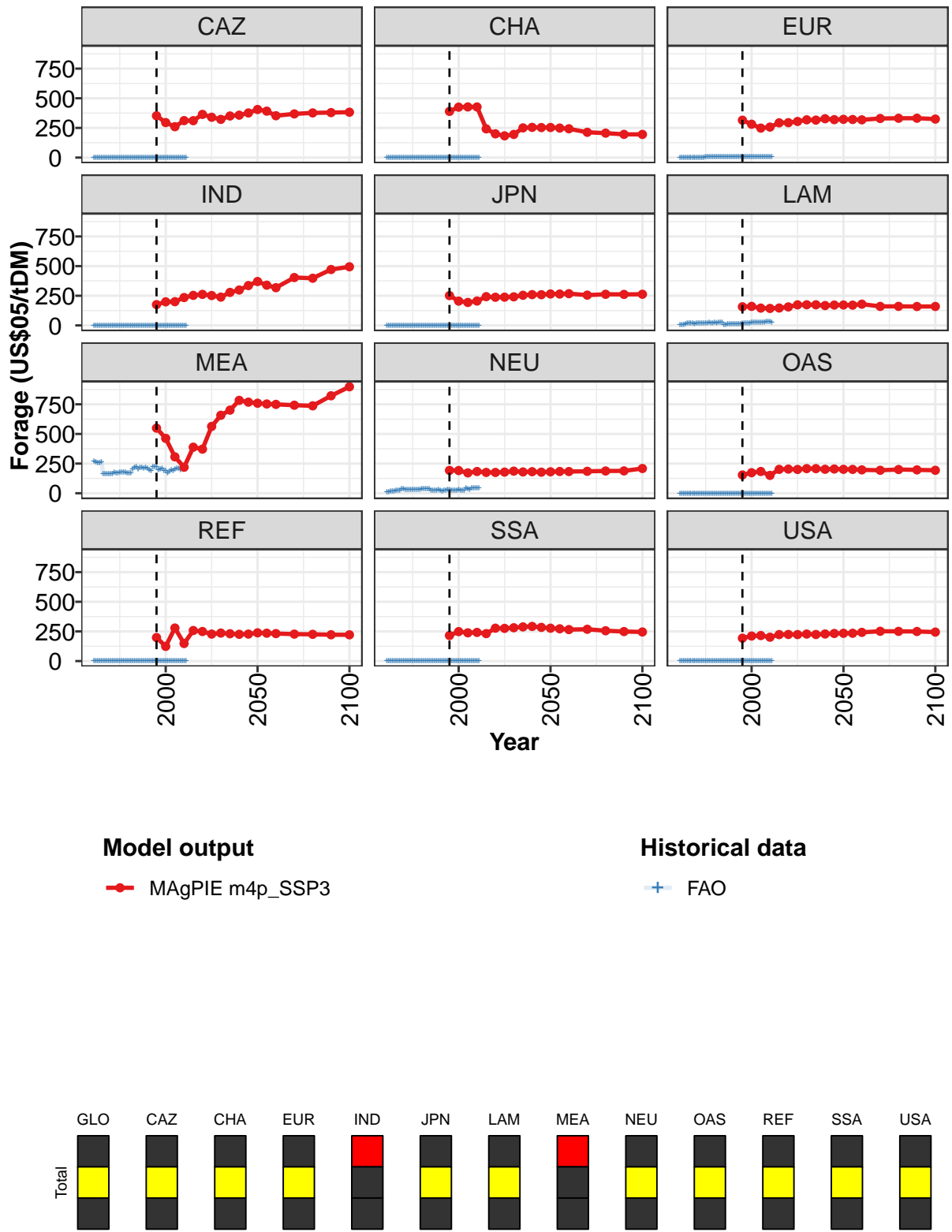


Figure 300: MAgPIE m4p_SSP3 — Prices—Agriculture—Forage (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	253	237	235	224	252	249	254	260	276	286	294
CAZ	353	295	260	312	311	364	340	322	351	358	376
CHA	389	425	427	427	242	200	183	195	250	255	253
EUR	315	281	248	257	293	294	304	318	316	328	320
IND	175	199	200	235	253	262	252	239	278	298	336
JPN	251	205	194	206	242	237	238	241	254	260	259
LAM	157	161	146	143	147	156	173	174	174	167	172
MEA	549	463	307	219	388	372	563	657	701	783	768
NEU	193	192	172	183	176	175	178	186	180	182	178
OAS	154	173	184	151	201	204	201	208	208	202	204
REF	199	124	279	148	258	249	228	236	231	226	228
SSA	216	248	239	242	231	277	276	281	288	292	284
USA	193	211	215	201	223	225	224	228	224	228	233

Table 1035: MAgPIE m4p_SSP3 — Prices—Agriculture—Forage (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	305	297	291	309	307	328	336
CAZ	405	392	353	368	377	379	383
CHA	254	249	243	213	206	196	195
EUR	322	321	318	330	331	332	325
IND	370	339	318	404	398	471	494
JPN	265	265	268	255	262	261	263
LAM	172	171	179	160	161	159	160
MEA	759	753	749	742	737	822	898
NEU	181	184	183	185	188	189	209
OAS	202	201	197	194	200	197	194
REF	238	235	232	227	226	222	221
SSA	277	272	266	268	256	249	245
USA	234	235	242	251	251	250	244

Table 1036: MAgPIE m4p_SSP3 — Prices—Agriculture—Forage (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	2	3	3	4	4	12	12	11	11	12	11
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	6	6	7	15	19	16	18	16	15	18	17
MEA	269	264	257	254	266	164	165	163	163	163	165
NEU	8	12	14	15	19	23	24	24	36	37	29
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1037: FAO — Prices—Agriculture—Forage (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	12	11	11	13	13	13	14	13	13	13	16
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	7	6	7	7	7	8	9	9
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	18	18	19	20	20	22	22	20	24	21	23
MEA	174	170	168	174	175	179	174	172	171	173	204
NEU	29	29	29	31	33	33	33	33	37	37	35
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1038: FAO — Prices—Agriculture—Forage (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	17	16	7	7	7	7	8	7	7	8	8
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	9	8	5	7	6	7	8	7	7	9	9
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	24	25	7	8	9	9	12	14	13	11	12
MEA	217	223	202	215	220	209	216	209	195	192	220
NEU	34	35	25	26	26	23	28	22	19	25	26
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1039: FAO — Prices—Agriculture—Forage (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	9	10	10	11	11	10	10	10	10	11	11
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	8	7	8	10	8	9	7	7	8	8	8
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	14	18	18	17	18	18	22	24	26	27	27
MEA	224	224	198	201	207	191	187	172	186	194	189
NEU	28	28	26	27	26	26	27	25	24	24	40
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1040: FAO — Prices—Agriculture—Forage (US\$05/tDM) [PART 4/5]

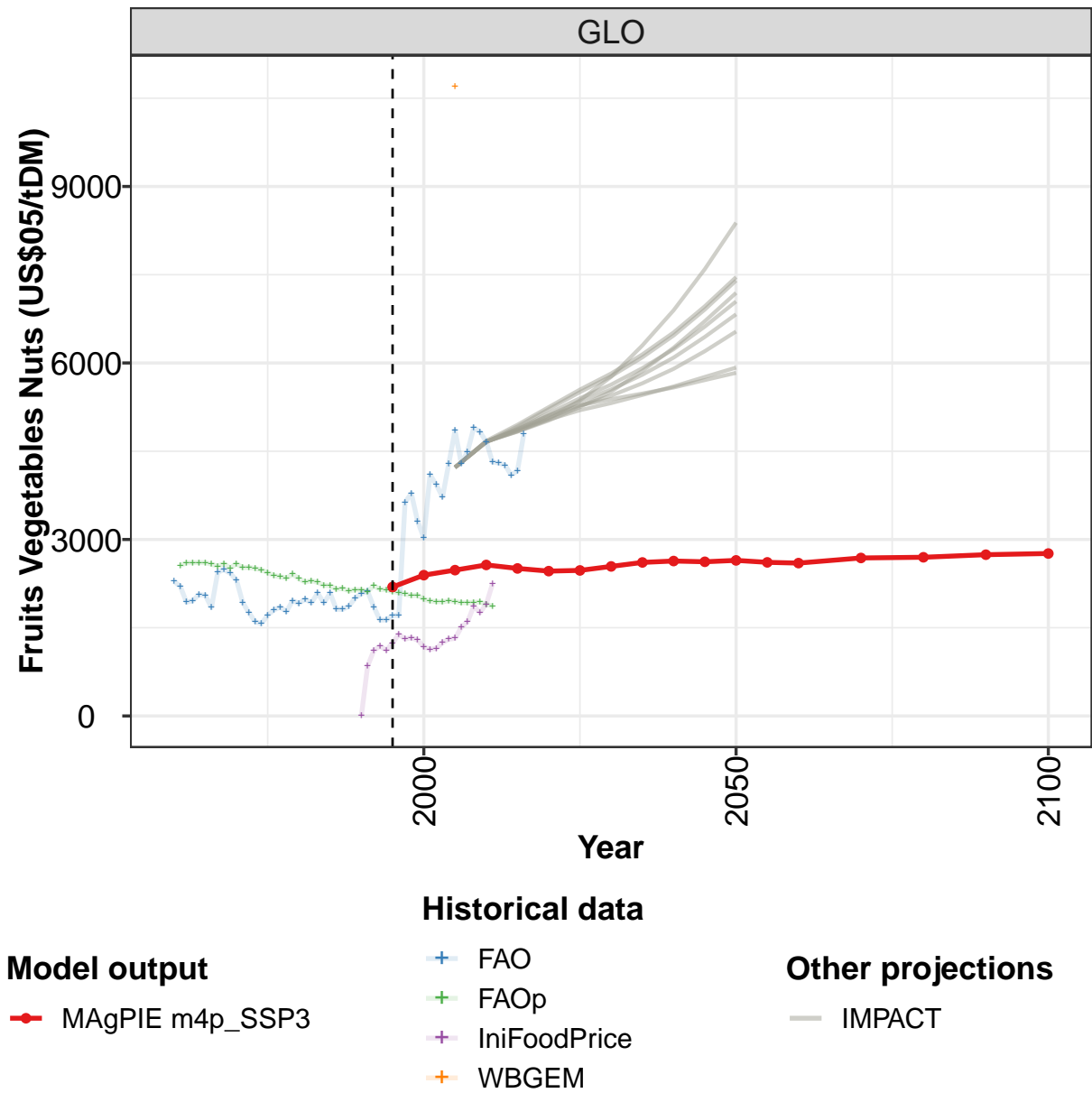
	2005	2006	2007	2008	2009	2010	2011
GLO	12	12	12	13	13	14	14
CAZ	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	8	7	8	9	8	8	7
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	26	28	28	30	28	29	28
MEA	201	207	208	198	207	214	215
NEU	36	33	41	42	43	44	43
OAS	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 1041: FAO — Prices—Agriculture—Forage (US\$05/tDM) [PART 5/5]

	2005
GLO	50
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1042: IniFoodPrice — Prices—Agriculture—Forage (US\$05/tDM)

36.11
Fruits Vegetables Nuts



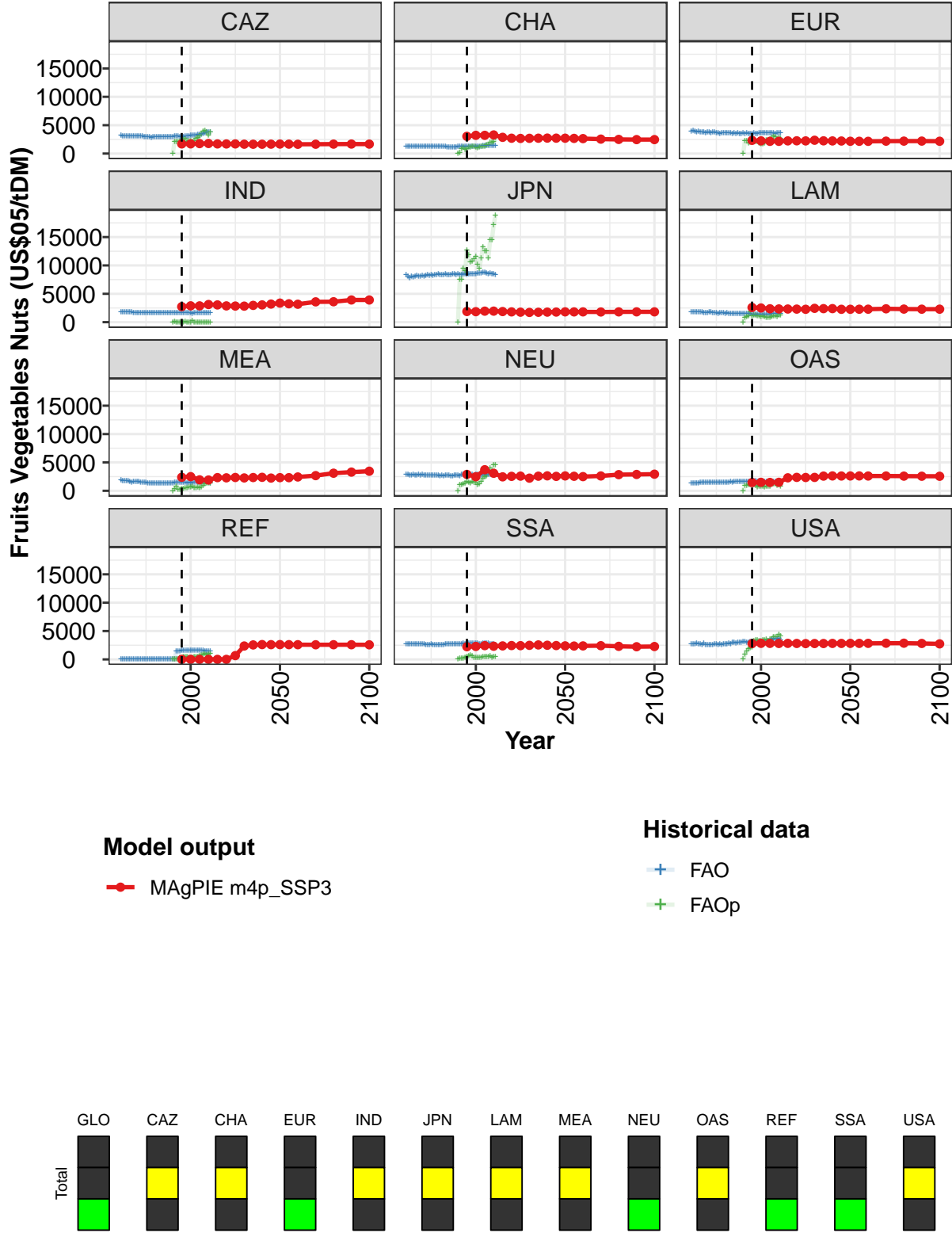


Figure 301: MAgPIE m4p_SSP3 — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2192	2393	2479	2567	2508	2462	2474	2542	2610	2633	2621
CAZ	1699	1705	1750	1772	1698	1690	1699	1648	1641	1640	1654
CHA	3040	3213	3214	3281	2859	2704	2666	2686	2706	2725	2716
EUR	2329	2237	2154	2154	2233	2246	2229	2347	2243	2227	2211
IND	2735	2882	2876	3113	3043	2870	2843	2827	2959	3047	3192
JPN	1880	1851	1945	1948	1875	1815	1762	1720	1744	1774	1785
LAM	2588	2503	2362	2334	2319	2306	2272	2441	2388	2392	2268
MEA	2387	2494	1932	1902	2327	2287	2346	2268	2339	2377	2244
NEU	2889	2477	3715	3092	2461	2547	2587	2231	2575	2637	2544
OAS	1456	1489	1476	1498	2291	2366	2349	2361	2589	2622	2610
REF	9	9	9	9	9	9	668	2365	2554	2614	2600
SSA	2239	2287	2428	2327	2383	2443	2428	2484	2555	2498	2444
USA	2786	2833	2826	2813	2834	2814	2789	2799	2803	2822	2817

Table 1043: MAgPIE m4p_SSP3 — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	2645	2611	2598	2686	2697	2741	2761
CAZ	1672	1661	1634	1644	1663	1673	1667
CHA	2707	2673	2634	2545	2492	2460	2460
EUR	2165	2162	2154	2186	2193	2197	2168
IND	3362	3243	3164	3585	3601	3916	3911
JPN	1819	1814	1815	1800	1816	1823	1823
LAM	2271	2284	2290	2359	2310	2291	2290
MEA	2318	2316	2435	2674	3105	3295	3454
NEU	2621	2561	2501	2616	2849	2884	2929
OAS	2614	2621	2607	2606	2586	2570	2563
REF	2613	2602	2593	2585	2589	2590	2576
SSA	2392	2360	2382	2420	2305	2239	2273
USA	2829	2826	2834	2855	2861	2816	2742

Table 1044: MAgPIE m4p_SSP3 — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	2288	2204	1933	1959	2064	2052	1843	2440	2488	2424	2311
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1045: WBGEM — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	1928	1755	1601	1569	1712	1800	1852	1774	1960	1914	1984
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1046: WBGEM — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	1923	2088	1921	2088	1813	1812	1867	2000	2081	2117	1851
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1047: WBGEM — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	1628	1632	1706	1711	3632	3784	3312	3026	4101	3930	3722
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1048: WBGEM — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	4294	4851	4291	4491	4901	4828	4662	4316	4300	4263	4093
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1049: WBGEM — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	4170	4788
CAZ		
CHA		
EUR		
IND		
JPN		
LAM		
MEA		
NEU		
OAS		
REF		
SSA		
USA		

Table 1050: WBGEM — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 6/6]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	2556	2603	2606	2607	2607	2579	2546	2590	2513	2588	2520
CAZ	3160	3053	3126	3129	3018	3083	3054	3030	3048	3053	3088
CHA	1308	1254	1280	1294	1292	1290	1287	1273	1278	1275	1259
EUR	3876	4000	3864	3835	3919	3773	3756	3816	3653	3831	3763
IND	1788	1774	1769	1757	1732	1728	1731	1715	1707	1713	1711
JPN	8312	8009	7733	8134	7981	8034	8193	8070	8096	8172	8101
LAM	1846	1827	1803	1750	1804	1742	1767	1705	1705	1705	1738
MEA	1847	1716	1729	1693	1736	1554	1524	1629	1553	1583	1606
NEU	2808	2850	2779	2799	2814	2781	2787	2822	2679	2858	2781
OAS	1343	1375	1373	1400	1404	1426	1420	1448	1452	1459	1456
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	2712	2672	2710	2728	2697	2697	2645	2653	2659	2726	2709
USA	2689	2659	2746	2785	2709	2664	2590	2797	2616	2596	2627

Table 1051: FAO — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	2527	2508	2484	2437	2388	2368	2342	2409	2332	2276	2300
CAZ	3074	3077	2981	2966	2919	2905	2847	2902	2925	2901	2905
CHA	1295	1300	1295	1284	1283	1271	1263	1257	1256	1249	1234
EUR	3694	3755	3749	3636	3674	3554	3587	3700	3631	3566	3608
IND	1695	1702	1693	1691	1683	1682	1685	1690	1693	1687	1691
JPN	8166	8294	8195	8321	8242	8302	8378	8464	8348	8319	8357
LAM	1717	1616	1680	1636	1568	1628	1651	1655	1562	1589	1558
MEA	1508	1535	1498	1428	1366	1342	1343	1361	1309	1314	1279
NEU	2760	2766	2739	2773	2686	2717	2729	2681	2641	2676	2656
OAS	1487	1490	1489	1439	1457	1514	1470	1542	1468	1481	1496
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	2632	2630	2574	2642	2616	2599	2573	2620	2620	2599	2596
USA	2599	2618	2681	2717	2625	2688	2613	2767	2638	2710	2849

Table 1052: FAO — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	2270	2222	2215	2153	2168	2123	2147	2145	2116	2213	2149
CAZ	2934	2891	2978	2994	2984	2995	2949	2939	3024	3035	3037
CHA	1219	1177	1167	1126	1142	1138	1152	1192	1225	1213	1223
EUR	3593	3554	3592	3522	3592	3455	3529	3566	3470	3569	3529
IND	1692	1685	1701	1697	1691	1651	1677	1668	1651	1670	1641
JPN	8446	8329	8357	8332	8431	8440	8368	8501	8403	8407	8461
LAM	1558	1535	1523	1509	1527	1494	1451	1462	1456	1450	1444
MEA	1305	1305	1278	1285	1310	1343	1397	1341	1444	1414	1462
NEU	2732	2702	2666	2631	2618	2721	2775	2702	2620	2917	2884
OAS	1557	1498	1554	1568	1583	1617	1634	1611	1645	1668	1647
REF	0	0	0	0	0	0	0	0	0	1406	1443
SSA	2666	2685	2697	2673	2667	2720	2731	2696	2684	2679	2776
USA	2764	3020	2974	2909	3022	2994	2988	3156	3122	3007	2947

Table 1053: FAO — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	2147	2114	2100	2075	2044	2054	1986	1954	1943	1938	1959
CAZ	2988	2988	2983	3072	3098	3109	3166	3227	3246	3277	3282
CHA	1256	1284	1291	1290	1315	1316	1248	1244	1256	1290	1325
EUR	3539	3558	3584	3551	3546	3586	3694	3634	3682	3591	3580
IND	1683	1672	1699	1700	1616	1597	1598	1576	1604	1602	1657
JPN	8480	8411	8443	8529	8466	8471	8524	8568	8585	8639	8719
LAM	1469	1430	1404	1379	1430	1389	1380	1432	1409	1416	1405
MEA	1446	1447	1446	1462	1399	1425	1381	1459	1443	1495	1483
NEU	2893	2812	2810	2830	2807	2770	2807	2806	2757	2780	2704
OAS	1659	1753	1723	1710	1682	1728	1699	1674	1678	1672	1673
REF	1481	1531	1545	1519	1586	1562	1613	1604	1638	1603	1597
SSA	2769	2779	2777	2803	2831	2832	2856	2818	2770	2768	2842
USA	3055	2926	2957	2959	2842	3195	3021	3040	3179	3158	3207

Table 1054: FAO — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	1948	1927	1924	1932	1936	1898	1867
CAZ	3385	3410	3544	3570	3706	3734	3829
CHA	1338	1341	1365	1412	1426	1408	1423
EUR	3616	3597	3578	3528	3594	3579	3605
IND	1617	1601	1593	1604	1602	1581	1580
JPN	8738	8571	8552	8625	8512	8510	8412
LAM	1420	1451	1444	1462	1445	1459	1472
MEA	1482	1513	1499	1569	1568	1557	1366
NEU	2799	2837	2822	2882	2840	2877	2823
OAS	1671	1642	1648	1633	1603	1553	1537
REF	1615	1556	1530	1452	1458	1423	1385
SSA	2824	2787	2783	2769	2731	2656	2618
USA	3305	3368	3636	3562	3610	3737	3452

Table 1055: FAO — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	848	1112	1187	1117	1242	1387	1308	1332	1291	1178
CAZ	0	2083	2075	2030	2135	2313	2310	2595	2111	2265	2203
CHA	0	100	870	1085	735	807	1164	1057	1258	1260	1055
EUR	0	2264	2191	1880	2015	2286	2198	2143	2125	1871	1688
IND	0	131	29	30	32	31	37	38	34	30	29
JPN	0	7476	7502	9520	8980	12627	11838	10565	10749	11113	11550
LAM	0	864	964	1096	1775	1085	1194	1184	1142	1031	1009
MEA	0	341	758	247	284	401	418	459	533	643	701
NEU	0	1128	1116	1212	1269	1586	1494	1403	1676	1441	1454
OAS	0	874	950	1034	994	1132	1095	895	705	750	801
REF	0	0	19	99	311	271	406	523	479	380	334
SSA	2	131	144	176	295	456	613	699	616	310	265
USA	0	874	1386	1929	2062	2213	3280	3395	3413	3312	3261

Table 1056: FAOp — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 1/3]

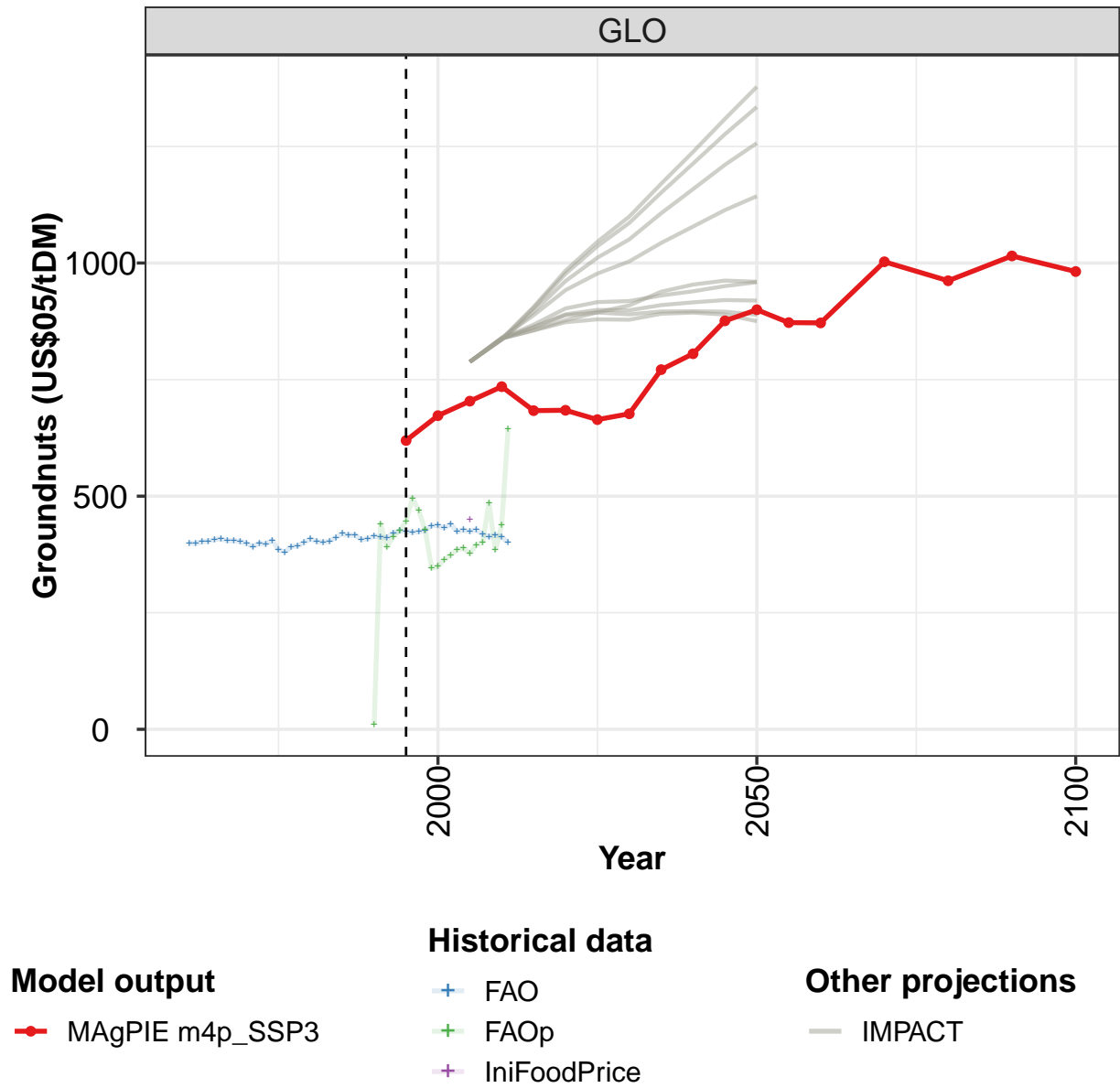
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	1133	1150	1247	1304	1320	1505	1601	1867	1757	1901	2245
CAZ	2146	2247	2699	2758	3027	3442	3941	4023	3796	3242	3770
CHA	1011	1129	1186	1206	1224	1470	1571	1993	1909	2050	2744
EUR	1724	1809	2379	2364	2541	2664	3088	2965	2575	2735	2713
IND	210	4	6	8	7	8	0	0	0	0	0
JPN	10151	9511	11282	13285	12554	12582	11323	14460	14496	17195	18859
LAM	1034	936	817	841	856	916	1031	1094	1011	1271	1290
MEA	777	559	558	590	564	696	987	1256	1303	1316	1371
NEU	1083	1235	1641	2128	2469	2662	3297	3935	3406	4556	4619
OAS	756	681	755	741	725	1345	1161	1131	975	1104	708
REF	371	411	462	539	581	705	891	960	741	842	1026
SSA	270	291	370	404	431	476	493	570	390	451	488
USA	3393	3400	3541	3310	3486	3494	3983	3988	4007	4343	4106

Table 1057: FAOp — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 2/3]

	2005
GLO	10696
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1058: IniFoodPrice — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM)

36.12 Groundnuts



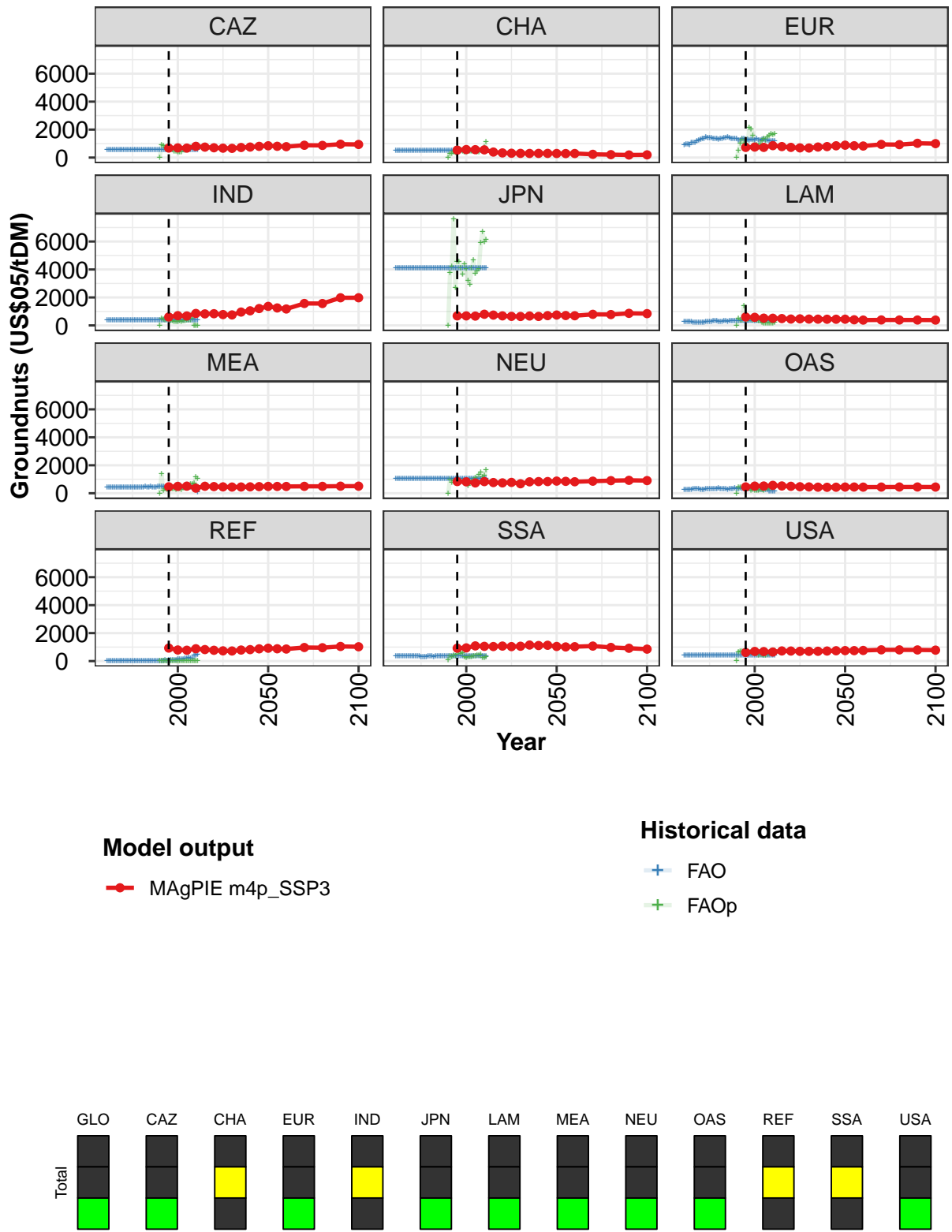


Figure 302: MAGPIE m4p_SSP3 — Prices—Agriculture—Groundnuts (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	619	673	704	735	683	684	664	677	771	805	876
CAZ	682	695	679	803	747	702	673	661	720	752	802
CHA	533	572	565	552	396	333	310	301	295	299	299
EUR	728	752	730	853	787	729	694	684	753	785	843
IND	604	697	676	854	824	838	775	751	955	1044	1206
JPN	684	682	668	799	737	683	649	638	673	643	700
LAM	604	577	519	512	489	455	469	453	447	441	442
MEA	460	492	508	365	499	475	456	444	447	458	474
NEU	837	817	738	832	765	742	775	679	817	833	836
OAS	455	509	517	563	521	496	466	453	435	426	431
REF	931	794	776	882	823	772	733	722	789	820	877
SSA	922	943	1086	1055	1040	1074	1036	1061	1147	1112	1130
USA	616	691	680	649	725	718	700	698	701	719	740

Table 1059: MAgPIE m4p_SSP3 — Prices—Agriculture—Groundnuts (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	900	872	872	1003	962	1015	982
CAZ	844	807	779	882	870	954	937
CHA	292	287	290	233	209	185	195
EUR	886	846	826	942	925	1021	999
IND	1361	1249	1176	1569	1564	1977	1978
JPN	742	707	691	792	776	863	843
LAM	444	403	381	391	388	386	382
MEA	489	486	485	493	492	505	507
NEU	870	850	821	863	901	924	905
OAS	443	444	437	442	445	447	443
REF	920	881	862	971	955	1046	1025
SSA	1046	1013	1028	1073	976	917	855
USA	748	746	760	804	801	796	783

Table 1060: MAgPIE m4p_SSP3 — Prices—Agriculture—Groundnuts (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	399	398	402	404	407	408	405	405	403	398	392
CAZ	543	544	544	544	543	543	543	544	543	543	543
CHA	481	487	497	496	497	504	498	501	502	501	507
EUR	899	974	953	915	1084	1058	1073	1170	1219	1271	1354
IND	359	359	359	359	359	359	359	359	359	359	359
JPN	4082	4082	4082	4082	4082	4082	4082	4082	4082	4082	4082
LAM	246	254	248	278	243	231	233	229	227	219	236
MEA	427	421	419	409	418	412	410	408	409	425	424
NEU	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
OAS	265	262	245	281	282	317	320	308	295	284	269
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	361	366	371	369	374	367	366	373	374	367	359
USA	421	421	421	421	421	421	421	421	421	421	421

Table 1061: FAO — Prices—Agriculture—Groundnuts (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	399	397	406	385	380	392	393	400	408	403	401
CAZ	543	543	543	543	543	543	544	543	543	543	543
CHA	506	506	509	509	505	509	509	513	517	518	518
EUR	1360	1456	1431	1401	1395	1358	1327	1344	1323	1341	1349
IND	359	359	359	359	359	359	359	359	359	359	359
JPN	4082	4082	4082	4082	4082	4082	4082	4082	4082	4082	4082
LAM	222	271	290	291	265	322	327	297	268	284	288
MEA	412	407	411	417	418	412	425	421	428	438	457
NEU	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
OAS	274	298	300	308	306	320	318	335	346	325	298
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	365	346	376	316	305	325	330	332	348	337	325
USA	421	421	421	421	421	421	421	421	421	421	421

Table 1062: FAO — Prices—Agriculture—Groundnuts (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	403	412	420	416	417	407	408	415	412	411	421
CAZ	543	543	543	543	543	543	543	543	543	544	543
CHA	521	520	522	522	520	521	523	524	522	522	524
EUR	1391	1435	1490	1422	1367	1377	1377	1342	1239	1253	1340
IND	359	359	359	359	359	359	359	359	359	359	359
JPN	4082	4082	4082	4082	4082	4082	4082	4082	4083	4082	4082
LAM	310	316	296	326	333	347	345	335	339	323	317
MEA	448	452	461	448	445	450	461	485	474	458	452
NEU	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
OAS	306	308	286	319	314	328	344	333	328	353	328
REF	0	0	0	0	0	0	0	0	0	39	50
SSA	337	343	340	347	339	353	339	339	338	343	349
USA	421	421	421	421	421	421	421	421	421	421	421

Table 1063: FAO — Prices—Agriculture—Groundnuts (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	426	424	423	424	426	436	437	431	440	424	428
CAZ	543	544	544	543	543	543	543	544	543	543	544
CHA	525	524	525	525	526	526	526	527	526	526	527
EUR	1342	1222	1278	1246	1302	1283	1260	1331	1264	1253	1273
IND	359	359	359	359	359	359	359	359	359	359	359
JPN	4082	4082	4082	4082	4082	4082	4082	4083	4082	4083	4082
LAM	309	307	335	339	336	339	336	332	311	313	310
MEA	433	425	423	429	439	425	430	435	424	431	442
NEU	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030	1030
OAS	322	308	302	300	300	301	291	278	273	268	260
REF	45	60	53	85	87	77	134	111	143	109	218
SSA	355	349	375	368	369	374	375	360	373	363	368
USA	421	421	421	421	421	421	421	421	421	421	421

Table 1064: FAO — Prices—Agriculture—Groundnuts (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	424	428	418	413	416	413	400
CAZ	544	543	543	543	543	544	543
CHA	527	526	527	527	527	527	527
EUR	1278	1259	1235	1167	1185	1187	1165
IND	359	359	359	359	359	359	359
JPN	4082	4082	4083	4082	4082	4082	4082
LAM	299	304	320	314	326	324	320
MEA	448	448	450	433	430	435	105
NEU	1030	1030	1030	1030	1030	1030	1030
OAS	250	253	242	152	145	150	146
REF	176	269	204	188	402	424	457
SSA	373	385	369	365	366	368	343
USA	421	421	421	421	421	421	421

Table 1065: FAO — Prices—Agriculture—Groundnuts (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	10	440	391	413	426	446	495	469	427	346	350
CAZ	0	908	828	735	586	587	608	584	448	453	413
CHA	0	309	307	384	359	418	539	541	463	379	401
EUR	0	481	1024	1294	1031	1297	859	2168	2006	1594	729
IND	0	488	419	376	420	424	354	330	268	285	289
JPN	0	3787	4235	7615	2717	4545	4565	4091	3646	4382	4029
LAM	0	480	370	390	1416	436	450	462	449	395	418
MEA	0	1363	201	289	257	278	301	290	329	258	398
NEU	0	982	792	870	741	863	881	826	900	774	860
OAS	0	400	404	407	439	435	445	395	210	262	219
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	59	348	277	407	342	475	618	519	610	286	247
USA	0	664	703	713	678	687	687	658	666	596	643

Table 1066: FAOp — Prices—Agriculture—Groundnuts (US\$05/tDM) [PART 1/3]

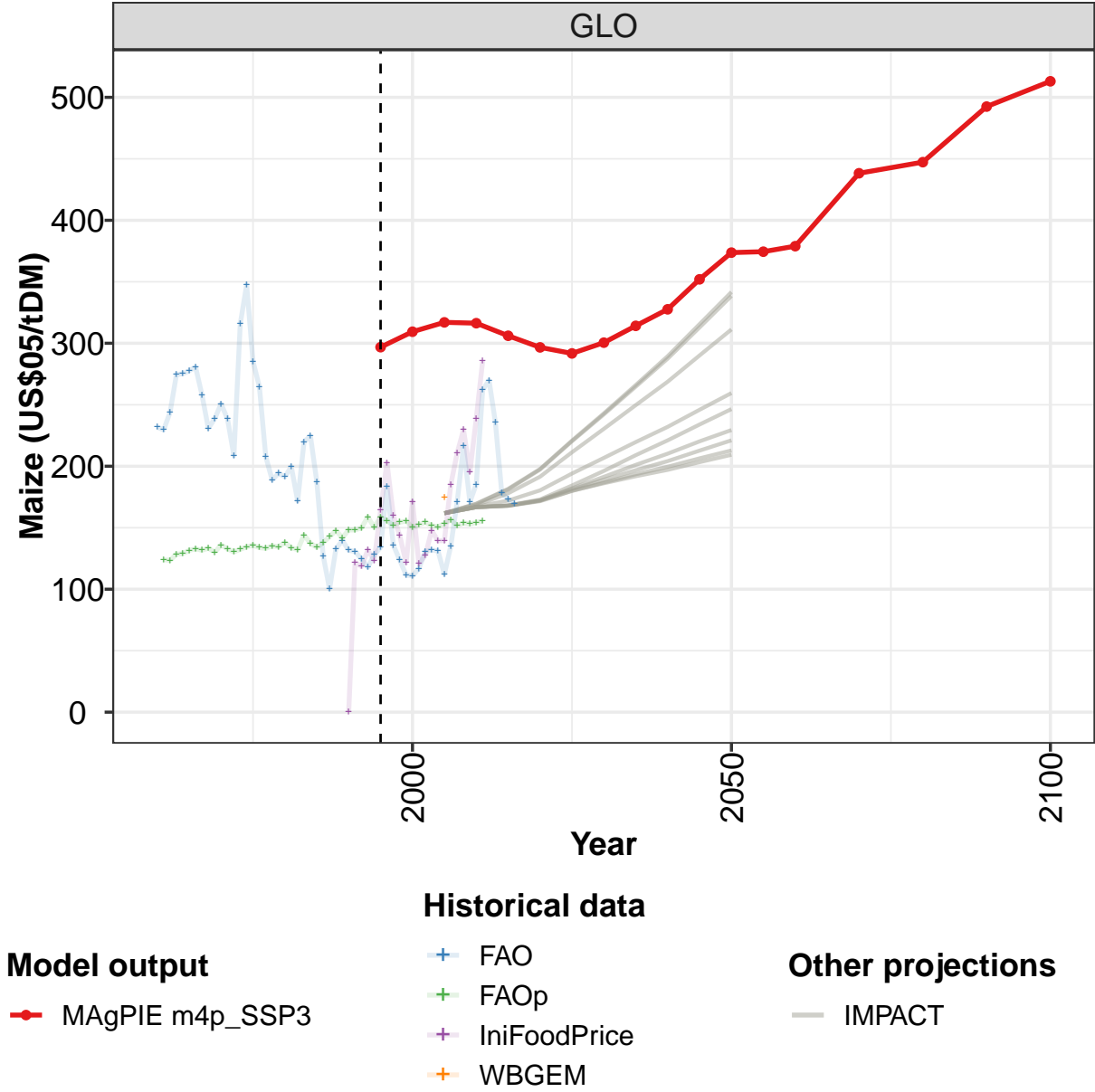
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	364	373	386	388	377	395	401	486	385	438	644
CAZ	391	405	545	533	536	561	714	763	768	849	910
CHA	440	455	473	446	422	404	394	519	590	751	1115
EUR	906	826	986	1203	1379	1218	1451	1557	1681	1662	1682
IND	302	297	320	352	367	357	399	513	0	0	0
JPN	3204	2944	4077	4647	3702	3898	4042	5894	6673	5970	6117
LAM	363	320	317	189	151	179	133	158	147	172	206
MEA	300	250	364	387	425	479	638	659	704	1132	1045
NEU	556	710	800	959	1085	1046	1336	1471	1147	1277	1690
OAS	199	220	267	254	229	297	340	363	352	499	530
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	283	314	325	357	367	438	415	447	231	219	304
USA	549	427	452	444	405	415	481	539	508	528	746

Table 1067: FAOp — Prices—Agriculture—Groundnuts (US\$05/tDM) [PART 2/3]

	2005
GLO	451
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1068: IniFoodPrice — Prices—Agriculture—Groundnuts (US\$05/tDM)

36.13 Maize



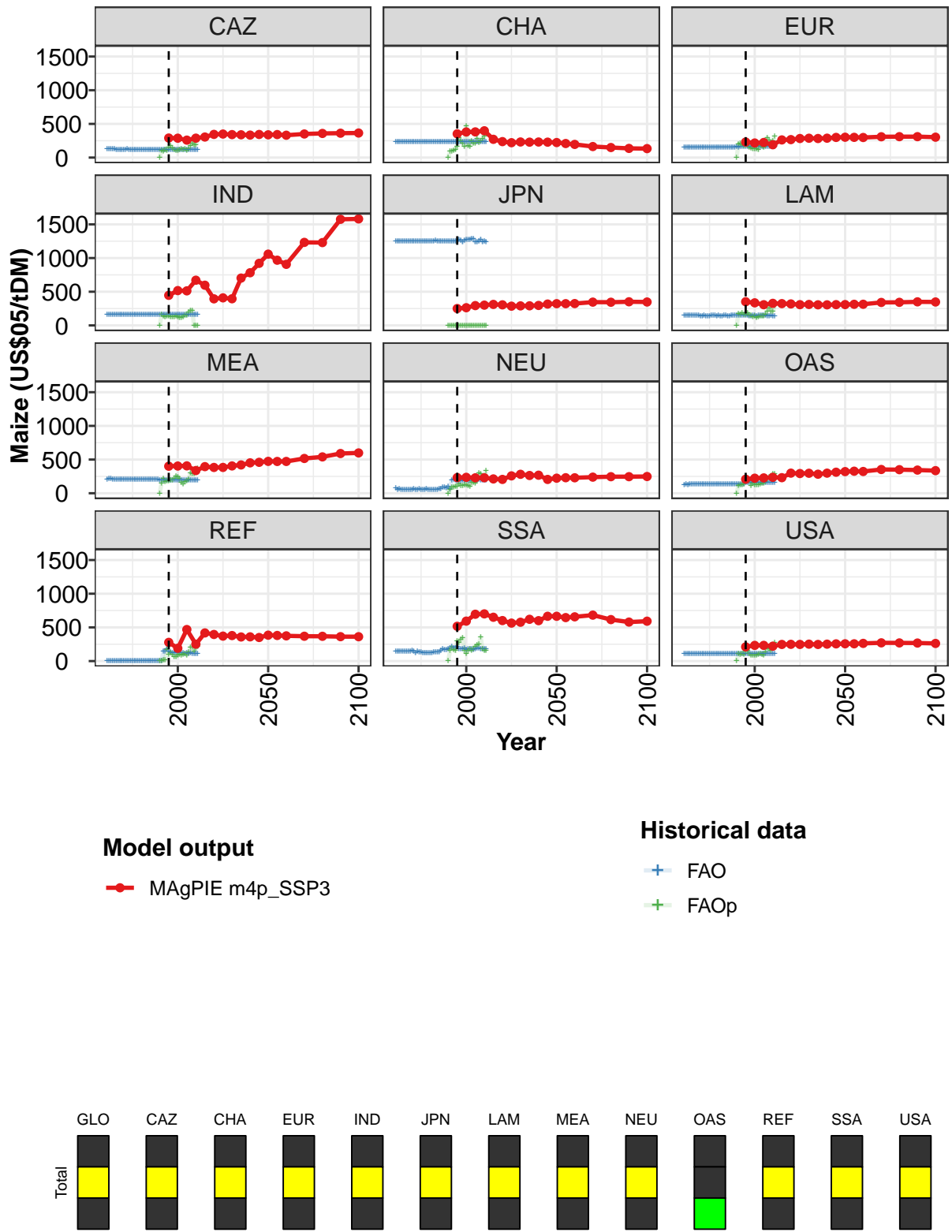


Figure 303: MAGPIE m4p_SSP3 — Prices—Agriculture—Maize (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	297	309	317	316	306	297	292	301	314	328	352
CAZ	290	288	259	288	305	344	349	341	338	334	343
CHA	353	380	381	398	271	237	221	232	229	231	229
EUR	231	216	224	191	262	267	283	287	283	288	299
IND	447	517	513	671	597	395	409	396	703	782	922
JPN	250	263	294	301	312	306	286	290	291	297	317
LAM	352	335	307	328	323	319	308	311	306	305	308
MEA	401	404	407	337	395	383	383	406	420	451	459
NEU	233	236	229	230	213	205	258	281	264	268	205
OAS	208	223	228	237	231	299	293	297	283	299	312
REF	278	191	468	251	418	395	371	379	358	360	350
SSA	517	593	695	701	651	601	564	577	620	600	665
USA	211	233	233	221	247	249	247	252	247	252	256

Table 1069: MAgPIE m4p_SSP3 — Prices—Agriculture—Maize (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	374	374	379	438	447	492	513
CAZ	338	342	332	350	358	362	365
CHA	223	209	196	164	149	136	133
EUR	302	300	298	309	310	311	303
IND	1058	968	907	1233	1230	1575	1581
JPN	323	323	324	346	344	351	348
LAM	309	314	314	341	343	350	348
MEA	473	472	472	516	540	590	599
NEU	224	231	230	239	246	246	248
OAS	321	327	323	353	350	344	336
REF	385	380	375	369	368	363	362
SSA	665	646	657	682	616	579	592
USA	257	257	263	271	270	268	262

Table 1070: MAgPIE m4p_SSP3 — Prices—Agriculture—Maize (US\$05/tDM) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	232	230	244	275	275	278	280	258	231	239	251
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1071: WBGEM — Prices—Agriculture—Maize (US\$05/tDM) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	238	209	316	347	285	265	208	189	194	191	200
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1072: WBGEM — Prices—Agriculture—Maize (US\$05/tDM) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	172	220	225	187	127	100	133	140	132	131	125
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1073: WBGEM — Prices—Agriculture—Maize (US\$05/tDM) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	118	128	134	183	136	124	112	111	117	131	132
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1074: WBGEM — Prices—Agriculture—Maize (US\$05/tDM) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	131	112	135	171	216	171	185	262	270	236	178
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1075: WBGEM — Prices—Agriculture—Maize (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	173	169
CAZ		
CHA		
EUR		
IND		
JPN		
LAM		
MEA		
NEU		
OAS		
REF		
SSA		
USA		

Table 1076: WBGEM — Prices—Agriculture—Maize (US\$05/tDM) [PART 6/6]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	124	123	129	129	132	133	132	133	130	136	133
CAZ	127	127	127	123	123	121	122	122	122	122	122
CHA	239	238	239	239	239	239	239	239	239	239	239
EUR	156	151	153	152	152	151	152	154	152	154	154
IND	162	162	162	162	162	162	162	162	162	162	162
JPN	1252	1252	1252	1252	1252	1252	1252	1252	1252	1252	1252
LAM	146	146	148	149	149	147	144	147	146	143	143
MEA	208	212	213	212	210	207	209	209	210	208	210
NEU	74	55	66	53	58	49	57	56	51	59	60
OAS	129	133	127	134	131	135	132	137	132	136	134
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	142	143	147	146	145	141	139	148	142	154	140
USA	106	106	106	106	106	106	106	106	106	106	106

Table 1077: FAO — Prices—Agriculture—Maize (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	130	132	134	136	134	133	135	134	138	134	132
CAZ	124	122	121	121	122	122	121	120	120	119	120
CHA	238	238	238	238	238	239	239	239	239	239	239
EUR	154	152	153	150	154	153	155	152	155	154	152
IND	162	162	162	162	162	162	162	162	162	162	162
JPN	1252	1251	1252	1252	1252	1251	1252	1252	1253	1252	1253
LAM	146	141	140	144	145	144	144	142	147	141	141
MEA	208	208	210	209	206	201	204	205	204	203	207
NEU	53	55	60	54	58	54	68	57	54	53	53
OAS	132	136	134	134	131	132	136	135	135	136	131
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	126	139	129	135	127	126	125	124	125	126	132
USA	106	106	106	106	106	106	106	106	106	106	106

Table 1078: FAO — Prices—Agriculture—Maize (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	144	137	134	138	143	148	142	148	148	150	159
CAZ	119	120	120	121	120	120	119	120	119	122	119
CHA	238	238	238	238	238	238	238	238	238	238	238
EUR	153	153	156	153	155	157	154	160	154	164	166
IND	162	162	162	162	162	162	162	162	162	162	162
JPN	1257	1252	1253	1250	1250	1250	1250	1253	1245	1250	1250
LAM	145	145	144	144	145	145	149	153	149	145	147
MEA	206	205	207	207	206	205	204	199	194	193	191
NEU	58	54	69	67	87	88	78	98	66	194	201
OAS	134	135	135	137	136	139	138	138	135	141	137
REF	0	0	0	0	0	0	0	0	0	150	150
SSA	133	135	138	160	177	171	164	178	189	214	191
USA	106	106	106	106	106	106	106	106	106	106	106

Table 1079: FAO — Prices—Agriculture—Maize (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	150	159	156	152	154	155	150	152	155	152	151
CAZ	119	120	121	121	119	120	121	120	120	119	120
CHA	238	238	238	238	239	239	239	239	239	239	239
EUR	167	167	168	167	167	166	168	167	167	169	167
IND	162	162	162	162	162	162	162	162	162	162	162
JPN	1245	1250	1273	1263	1235	1263	1269	1270	1278	1280	1288
LAM	147	146	147	143	140	144	144	144	145	145	147
MEA	196	195	195	195	195	196	198	192	192	192	189
NEU	189	183	187	180	191	186	210	186	186	205	190
OAS	139	154	159	159	154	158	159	155	154	155	156
REF	178	144	131	116	122	128	116	116	119	116	113
SSA	196	213	176	182	184	186	169	177	175	181	171
USA	106	106	106	106	106	106	106	106	106	106	106

Table 1080: FAO — Prices—Agriculture—Maize (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	153	157	152	154	153	154	155
CAZ	120	120	118	120	120	119	119
CHA	239	239	239	239	239	239	239
EUR	165	165	168	164	164	164	165
IND	162	162	162	162	162	162	162
JPN	1238	1237	1246	1278	1240	1255	1240
LAM	144	147	143	142	145	141	139
MEA	190	192	192	193	196	196	190
NEU	198	193	207	196	195	192	195
OAS	157	156	158	159	158	158	158
REF	116	114	117	114	112	109	109
SSA	182	190	189	178	182	174	181
USA	106	106	106	106	106	106	106

Table 1081: FAO — Prices—Agriculture—Maize (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	122	118	132	123	164	203	160	144	122	171
CAZ	0	109	97	118	100	147	177	145	119	109	103
CHA	0	91	96	110	111	162	293	240	212	166	466
EUR	0	200	206	186	173	192	197	153	138	133	127
IND	0	158	140	123	137	137	125	129	127	135	126
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	171	160	180	164	156	183	151	146	130	142
MEA	0	150	220	168	179	183	197	198	217	256	244
NEU	0	48	84	93	103	100	130	113	107	122	120
OAS	0	116	129	124	141	186	208	179	111	142	129
REF	0	0	20	18	167	95	125	102	66	66	84
SSA	1	152	194	167	151	298	268	318	350	154	114
USA	0	106	92	111	101	145	159	109	86	82	83

Table 1082: FAOp — Prices—Agriculture—Maize (US\$05/tDM) [PART 1/3]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	121	127	148	139	139	185	211	230	196	239	286
CAZ	111	132	119	128	107	125	171	215	187	193	275
CHA	177	166	243	215	215	286	220	248	276	310	365
EUR	124	118	174	174	147	174	296	263	195	247	311
IND	113	120	123	150	145	192	221	219	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	118	129	135	136	140	161	205	250	203	213	286
MEA	220	156	139	175	187	200	300	292	283	353	373
NEU	109	102	154	160	151	193	298	286	222	258	331
OAS	122	125	137	151	147	167	202	242	240	285	289
REF	96	85	99	104	87	129	207	201	148	186	214
SSA	152	176	161	180	213	236	252	351	179	155	152
USA	89	103	108	92	90	136	188	182	159	232	278

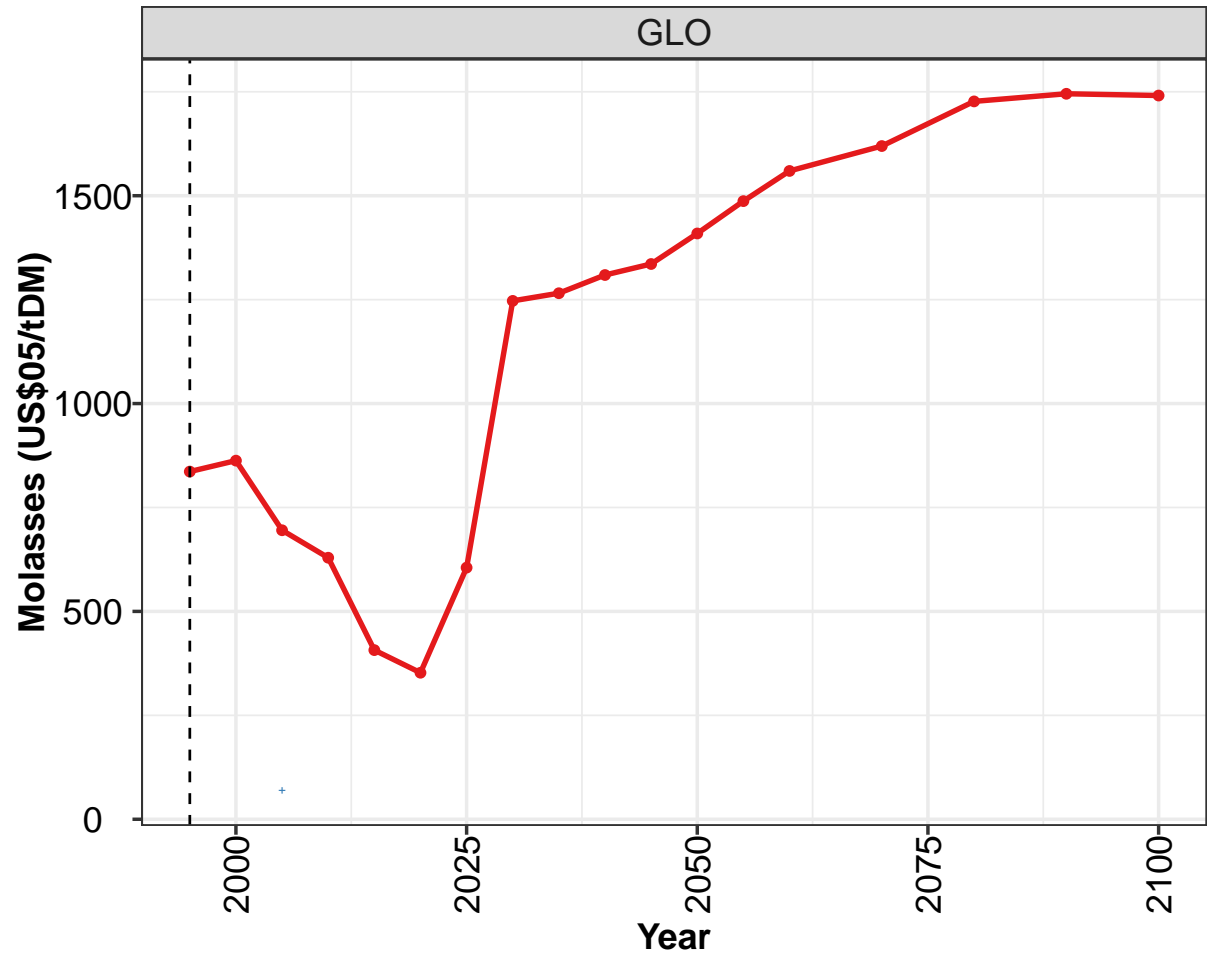
Table 1083: FAOp — Prices—Agriculture—Maize (US\$05/tDM) [PART 2/3]

	2005
GLO	174
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1084: IniFoodPrice — Prices—Agriculture—Maize (US\$05/tDM)

36.14 Molasses

geom_path: Each group consists of only one observation. Do you need to adjust the group## aesthetic?



Model output

—●— MAgPIE m4p_SSP3

Historical data

+ IniFoodPrice

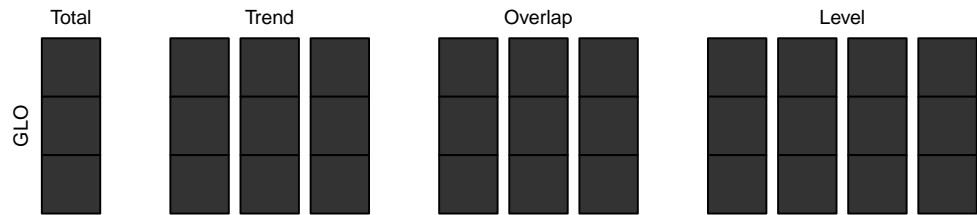


Figure 304: MAgPIE m4p_SSP3 — Prices—Agriculture—Molasses (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	836	863	695	629	407	353	605	1247	1265	1309	1336

Table 1085: MAgPIE m4p_SSP3 — Prices—Agriculture—Molasses (US\$05/tDM) [PART 1/2]

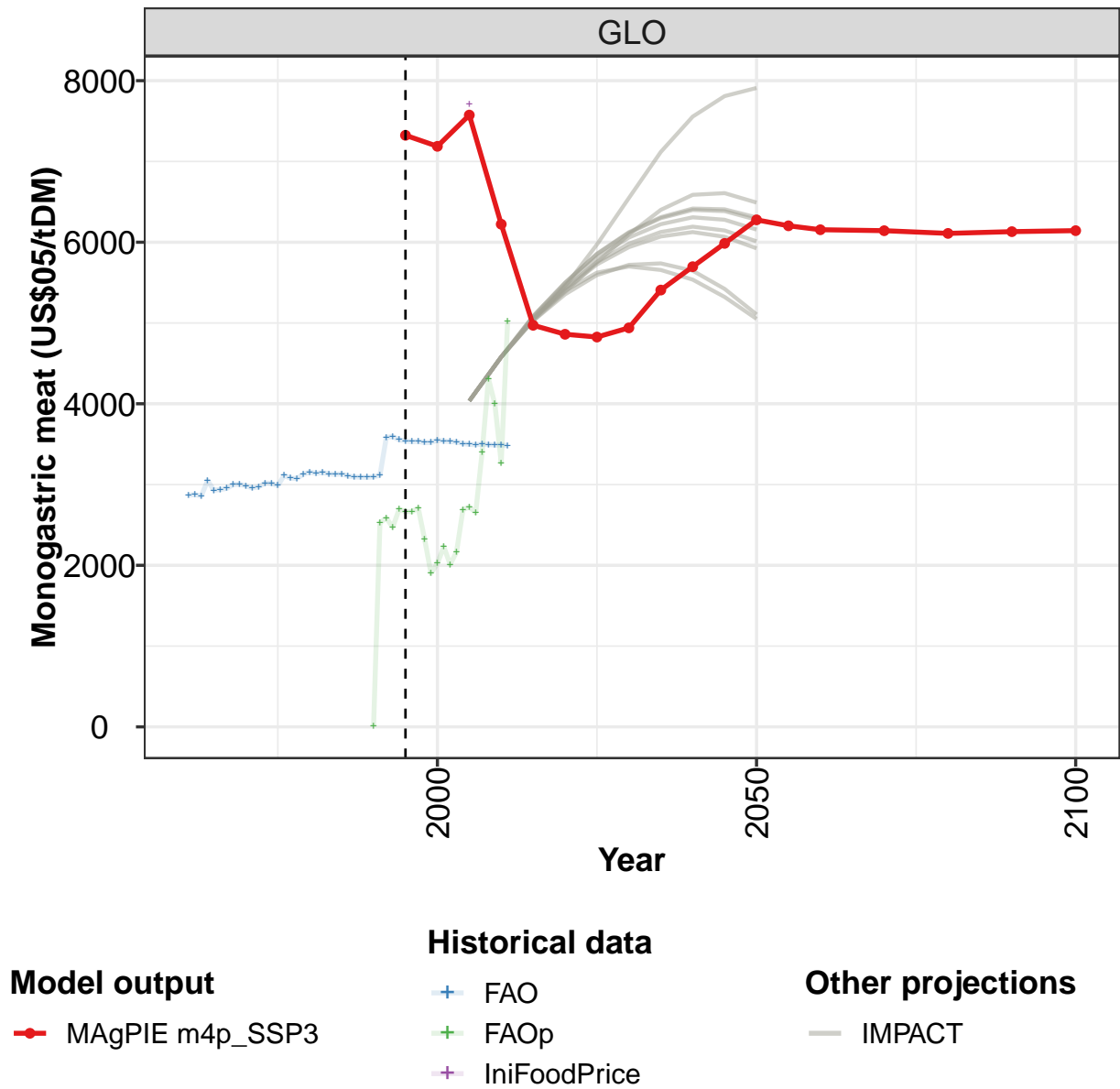
	2050	2055	2060	2070	2080	2090	2100
GLO	1409	1487	1560	1619	1727	1745	1741

Table 1086: MAgPIE m4p_SSP3 — Prices—Agriculture—Molasses (US\$05/tDM) [PART 2/2]

	2005
GLO	68.0

Table 1087: IniFoodPrice — Prices—Agriculture—Molasses (US\$05/tDM)

36.15 Monogastric meat



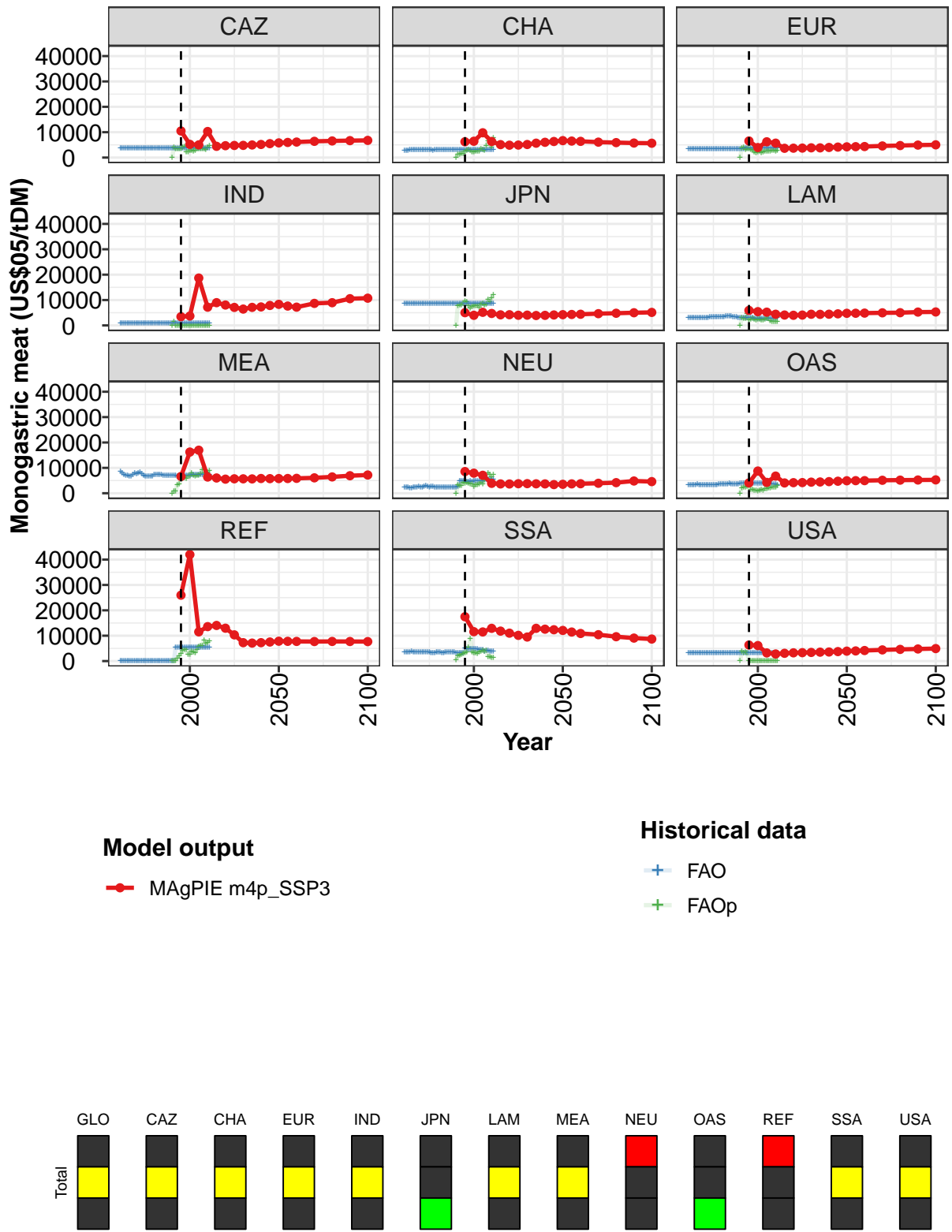


Figure 305: MAGPIE m4p_SSP3 — Prices—Agriculture—Monogastric meat (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7324	7187	7574	6223	4972	4861	4826	4940	5408	5697	5986
CAZ	10477	5205	5006	10276	4439	4685	4780	4814	4972	5164	5493
CHA	6237	6437	9776	6327	5105	4884	4931	5154	5677	6020	6341
EUR	6546	3946	6219	5678	3661	3698	3740	3840	3830	3983	4130
IND	3449	3708	18661	7187	8968	8040	7094	6447	7108	7282	7867
JPN	5015	3983	5161	4709	4165	4215	4001	4049	3899	3962	4111
LAM	5915	5419	5220	4399	4091	3995	4076	4403	4362	4416	4565
MEA	6608	16241	16964	6390	6018	5553	5690	5687	5655	5813	5758
NEU	8543	7919	7069	3903	3681	3654	3760	3788	3718	3689	3418
OAS	4071	8751	4270	6764	4056	4167	4204	4377	4449	4584	4740
REF	25979	41965	11512	13580	14039	12953	10329	7253	7090	7253	7519
SSA	17475	11586	11481	12910	11814	11008	10138	9483	12907	12573	12352
USA	6325	6117	3218	2800	3065	3248	3317	3411	3518	3585	3746

Table 1088: MAgPIE m4p_SSP3 — Prices—Agriculture—Monogastric meat (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	6277	6203	6154	6143	6109	6131	6143
CAZ	5796	5964	6120	6404	6556	6683	6779
CHA	6678	6508	6396	6086	5895	5732	5656
EUR	4233	4298	4351	4581	4738	4923	5026
IND	8308	7623	7194	8684	8948	10534	10735
JPN	4233	4312	4397	4629	4792	4994	5129
LAM	4770	4796	4855	4958	5012	5251	5305
MEA	5786	5810	5872	6071	6440	6906	7181
NEU	3529	3691	3748	3931	4175	4826	4587
OAS	4921	4966	4972	5114	5170	5223	5268
REF	7835	7789	7748	7702	7737	7714	7682
SSA	12080	11450	10878	10404	9608	9066	8685
USA	3916	4007	4161	4411	4606	4770	4925

Table 1089: MAgPIE m4p_SSP3 — Prices—Agriculture—Monogastric meat (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	2868	2876	2858	3049	2929	2940	2952	2998	3005	2983	2959
CAZ	3701	3702	3705	3706	3707	3699	3687	3690	3692	3685	3686
CHA	2741	2801	2942	2998	3016	3009	3005	2995	2978	2951	2969
EUR	3436	3441	3431	3485	3449	3446	3433	3449	3465	3441	3435
IND	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005
JPN	8612	8612	8612	8612	8612	8612	8612	8612	8612	8612	8612
LAM	3134	3111	3120	3119	3069	3011	3040	3040	3046	3036	3015
MEA	8461	8075	7201	7107	7060	6668	6838	7311	7880	7563	8039
NEU	2225	2365	2375	2161	2029	2421	2405	2491	2758	2478	2385
OAS	3361	3281	3347	3382	3432	3482	3364	3370	3410	3397	3362
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	3512	3537	3558	3573	3745	3577	3550	3648	3550	3542	3627
USA	3317	3317	3317	3317	3317	3317	3317	3317	3317	3317	3317

Table 1090: FAO — Prices—Agriculture—Monogastric meat (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	2971	3018	3014	2987	3113	3077	3076	3126	3155	3138	3148
CAZ	3685	3684	3681	3687	3686	3693	3686	3675	3669	3669	3675
CHA	2980	2955	2969	2999	2951	2926	2949	2962	3007	3014	3022
EUR	3436	3445	3440	3440	3490	3481	3465	3491	3492	3491	3508
IND	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005
JPN	8612	8612	8612	8612	8612	8612	8612	8612	8612	8612	8612
LAM	3126	3222	3283	3338	3386	3387	3468	3455	3469	3502	3589
MEA	8148	7674	7002	6699	6643	6810	6754	6827	7466	7445	7478
NEU	2636	2879	2520	2478	2626	2520	2245	2375	2504	2424	2470
OAS	3357	3384	3379	3369	3371	3405	3490	3695	3729	3579	3609
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	3653	3651	3681	3526	3320	3315	3322	3385	3395	3379	3371
USA	3317	3317	3317	3317	3317	3317	3317	3317	3317	3317	3317

Table 1091: FAO — Prices—Agriculture—Monogastric meat (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	3132	3126	3133	3105	3095	3091	3088	3096	3116	3583	3595
CAZ	3674	3677	3679	3679	3676	3675	3676	3677	3678	3677	3678
CHA	3020	3022	3028	3026	3026	3044	3052	3050	3048	3058	3065
EUR	3500	3497	3492	3488	3485	3474	3464	3484	3484	3560	3703
IND	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005
JPN	8612	8612	8612	8612	8612	8612	8612	8612	8612	8612	8612
LAM	3646	3695	3604	3392	3280	3215	3156	3130	3117	3112	2996
MEA	7456	7356	7087	7001	6932	6966	6940	6952	6943	6891	6733
NEU	2486	2244	2394	2499	2375	2407	2448	2434	2590	4811	4896
OAS	3682	3776	3740	3529	3599	3663	3734	3831	3808	4034	4037
REF	0	0	0	0	0	0	0	0	0	5446	5457
SSA	3327	3388	3477	3521	3439	3525	3448	3301	3257	3318	3307
USA	3317	3317	3317	3317	3317	3317	3317	3317	3317	3317	3317

Table 1092: FAO — Prices—Agriculture—Monogastric meat (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	3554	3540	3531	3534	3519	3521	3549	3540	3532	3528	3507
CAZ	3678	3678	3678	3677	3674	3668	3666	3664	3663	3663	3663
CHA	3067	3069	3066	3095	3114	3122	3119	3116	3122	3130	3129
EUR	3700	3666	3659	3671	3660	3674	3856	3853	3829	3827	3822
IND	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005	1005
JPN	8612	8612	8612	8612	8612	8612	8612	8612	8612	8612	8612
LAM	2945	2964	2941	2954	2864	2877	2860	2873	2851	2799	2796
MEA	6788	6910	6988	7168	6993	7085	7163	7219	7266	7345	7360
NEU	4817	4744	4633	4664	4714	4676	4691	4818	4745	4795	4860
OAS	3995	4005	4056	4035	4023	4001	3919	3887	3843	3875	3689
REF	5460	5442	5414	5392	5359	5346	5378	5368	5399	5410	5397
SSA	3247	4982	4875	4877	4910	4901	4839	4715	4624	4323	4373
USA	3317	3317	3317	3317	3317	3317	3317	3317	3317	3317	3317

Table 1093: FAO — Prices—Agriculture—Monogastric meat (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	3497	3493	3499	3496	3488	3491	3484
CAZ	3663	3663	3663	3661	3658	3659	3660
CHA	3132	3134	3137	3145	3148	3151	3150
EUR	3827	3830	3830	3829	3838	3833	3834
IND	1005	1005	1005	1005	1005	1005	1005
JPN	8612	8612	8612	8612	8612	8612	8612
LAM	2865	2877	2847	2841	2836	2835	2885
MEA	7369	7374	7378	7391	7437	7470	7464
NEU	4848	5427	5330	5398	5455	5429	5404
OAS	3562	3578	3561	3524	3450	3458	3297
REF	5365	5370	5388	5430	5448	5449	5438
SSA	4439	3974	4028	4098	3885	3924	3901
USA	3317	3317	3317	3317	3317	3317	3317

Table 1094: FAO — Prices—Agriculture—Monogastric meat (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	4	2526	2586	2472	2693	2666	2663	2708	2323	1900	2024
CAZ	0	3904	3399	3563	3344	3377	4119	4206	2303	2274	2887
CHA	0	1304	1353	1486	1544	2568	2719	3105	2813	2196	2296
EUR	0	3780	4100	3211	3473	3308	3140	2642	2048	1819	2059
IND	0	1368	0	0	0	0	0	0	0	0	0
JPN	0	7848	7998	8071	8748	9564	9159	7849	6740	7524	7697
LAM	0	2889	2807	2580	4706	2239	2299	2738	2300	1979	2303
MEA	0	683	723	3435	3709	5858	5847	5969	5710	6553	6781
NEU	0	3420	3114	3010	4077	3942	4135	3896	3711	3460	2557
OAS	0	2175	2361	2407	2582	2960	1410	1488	989	1108	949
REF	0	0	187	1088	2104	3016	4231	4442	4387	2634	2524
SSA	523	2127	2162	2472	2951	3164	3559	5271	8817	3562	3190
USA	0	3813	3271	3548	3130	0	0	0	0	0	0

Table 1095: FAOp — Prices—Agriculture—Monogastric meat (US\$05/tDM) [PART 1/3]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	2230	2010	2166	2687	2724	2652	3395	4310	3997	3269	5020
CAZ	2927	2489	2735	3428	3510	3293	3484	3377	3215	4076	4731
CHA	2475	2327	2566	3325	3187	2945	4761	6384	5843	4162	7642
EUR	2376	1862	2097	2378	2460	2534	2495	2935	2706	2511	2827
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	7598	7741	6936	8400	8518	7945	8246	10142	9138	10850	12018
LAM	2289	1984	2009	2333	2810	2723	1697	1551	1364	1569	1416
MEA	7851	7090	6796	6985	7105	7754	9337	7874	6592	8148	8985
NEU	3146	3391	3691	4235	3740	5150	5935	7981	7209	6407	7252
OAS	1169	1297	1206	1613	1722	2074	2003	2269	2277	2356	2870
REF	3704	3428	3280	4375	5844	5958	5988	8232	7062	7228	8013
SSA	3123	3064	3532	3913	4099	3729	4255	1804	1704	1428	1502
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1096: FAOp — Prices—Agriculture—Monogastric meat (US\$05/tDM) [PART 2/3]

	2005
GLO	7703
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1097: IniFoodPrice — Prices—Agriculture—Monogastric meat (US\$05/tDM)

36.16
Non fibrous crop residues

geom_path: Each group consists of only one observation. Do you need to adjust the group## aesthetic?

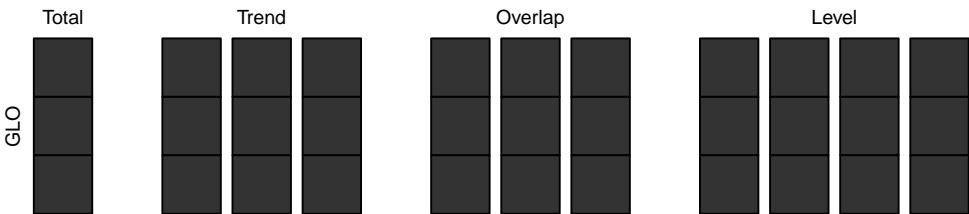
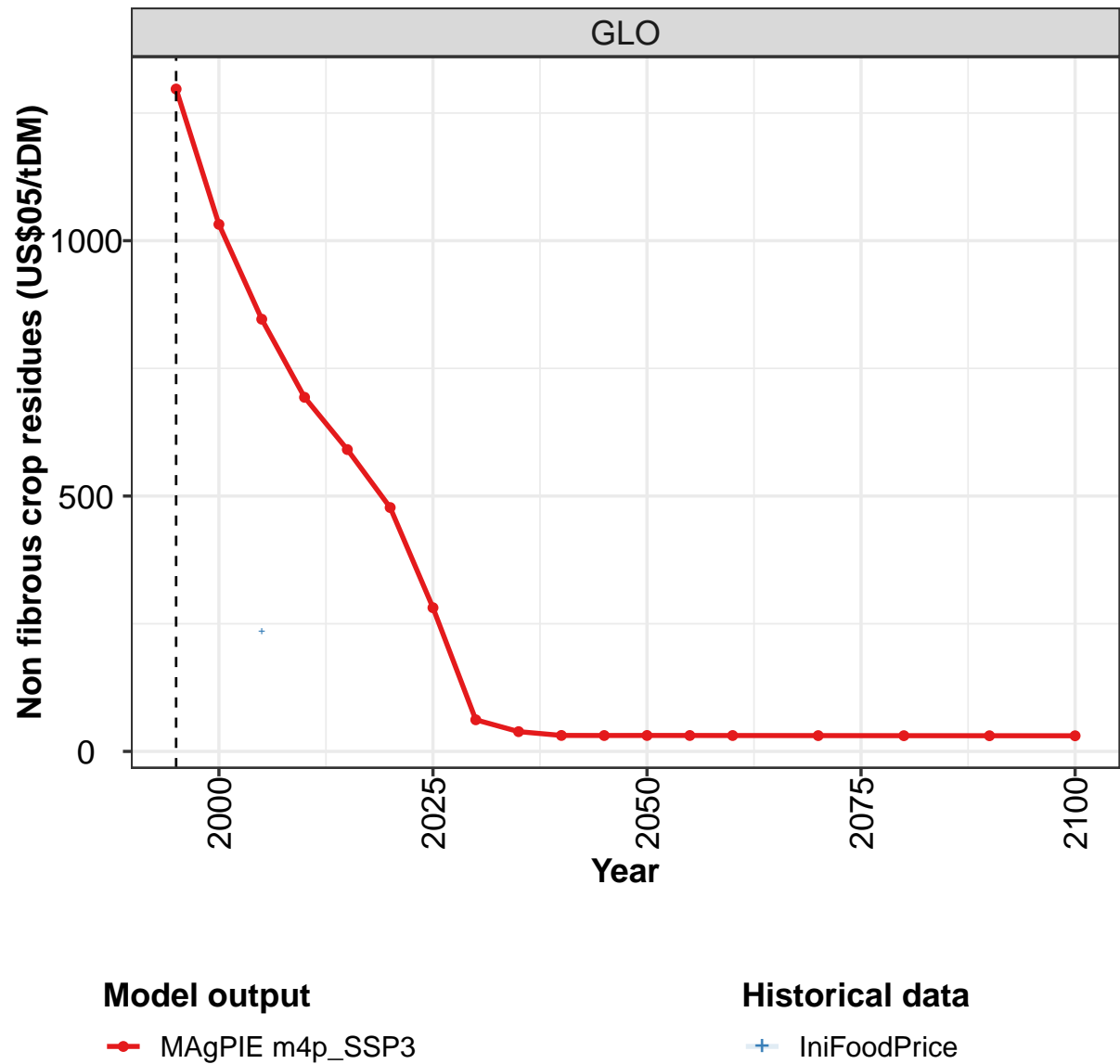


Figure 306: MAgPIE m4p_SSP3 — Prices—Agriculture—Non fibrous crop residues (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1297	1032	846	693	591	478	281	62	39	31	31

Table 1098: MAgPIE m4p_SSP3 — Prices—Agriculture—Non fibrous crop residues (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	31	31	31	31	31	31	31

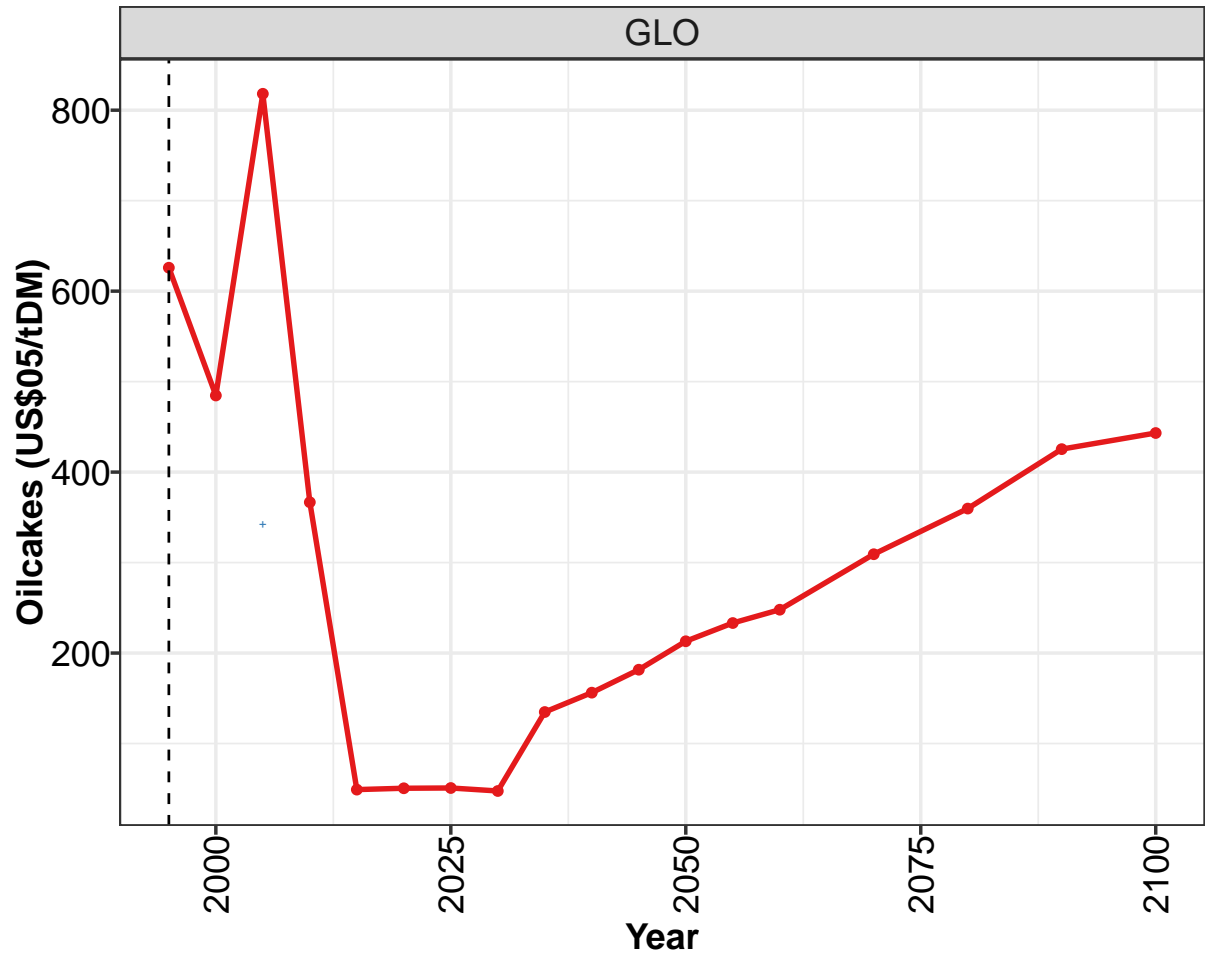
Table 1099: MAgPIE m4p_SSP3 — Prices—Agriculture—Non fibrous crop residues (US\$05/tDM) [PART 2/2]

	2005
GLO	234

Table 1100: IniFoodPrice — Prices—Agriculture—Non fibrous crop residues (US\$05/tDM)

36.17 Oilcakes

geom_path: Each group consists of only one observation. Do you need to adjust the group## aesthetic?



Model output

MAgPIE m4p_SSP3

Historical data

IniFoodPrice

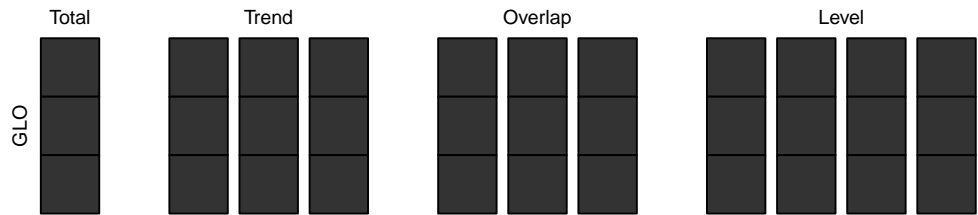


Figure 307: MAgPIE m4p_SSP3 — Prices—Agriculture—Oilcakes (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	626	485	818	367	49	51	51	48	135	156	182

Table 1101: MAGPIE m4p_SSP3 — Prices—Agriculture—Oilkakes (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	213	233	248	309	360	425	443

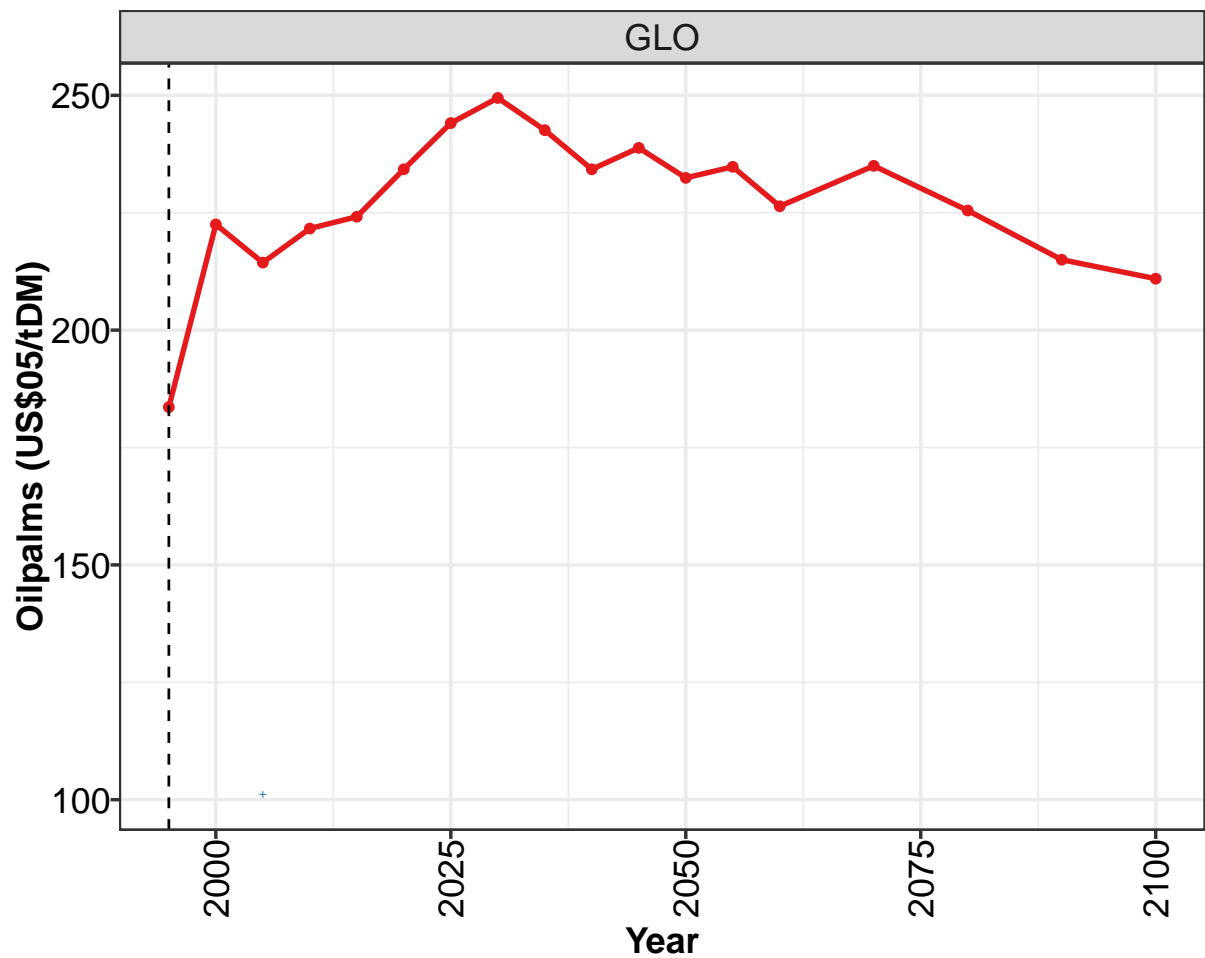
Table 1102: MAGPIE m4p_SSP3 — Prices—Agriculture—Oilkakes (US\$05/tDM) [PART 2/2]

	2005
GLO	341

Table 1103: IniFoodPrice — Prices—Agriculture—Oilkakes (US\$05/tDM)

36.18 Oilpalms

geom_path: Each group consists of only one observation. Do you need to adjust the group## aesthetic?



Model output

— MAgPIE m4p_SSP3

Historical data

+ IniFoodPrice

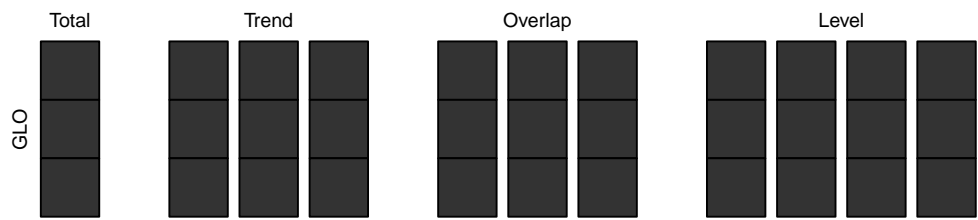


Figure 308: MAgPIE m4p_SSP3 — Prices—Agriculture—Oilpalms (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	184	223	214	222	224	234	244	249	243	234	239

Table 1104: MAgPIE m4p_SSP3 — Prices—Agriculture—Oilpalms (US\$05/tDM) [PART 1/2]

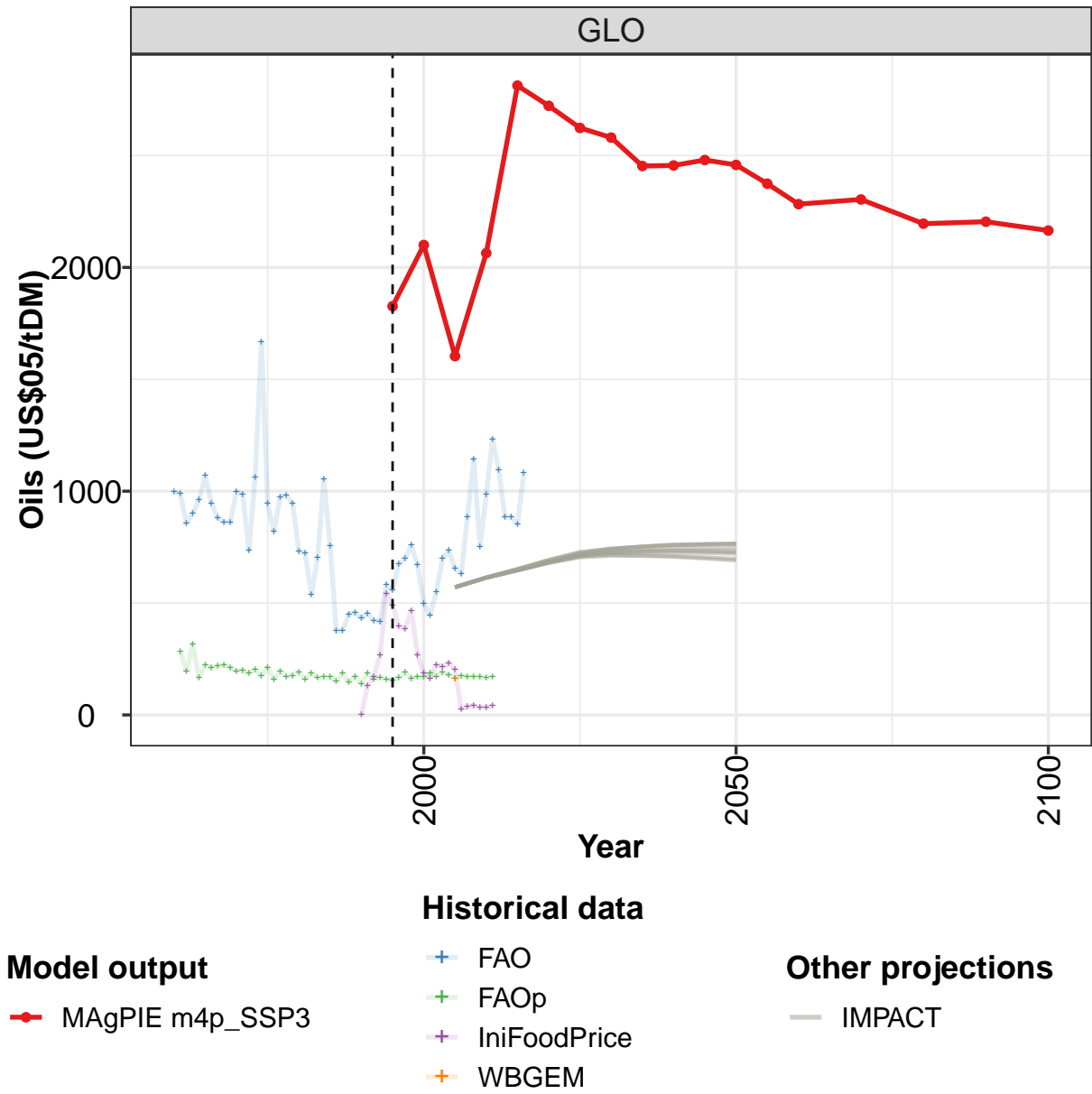
	2050	2055	2060	2070	2080	2090	2100
GLO	232	235	226	235	225	215	211

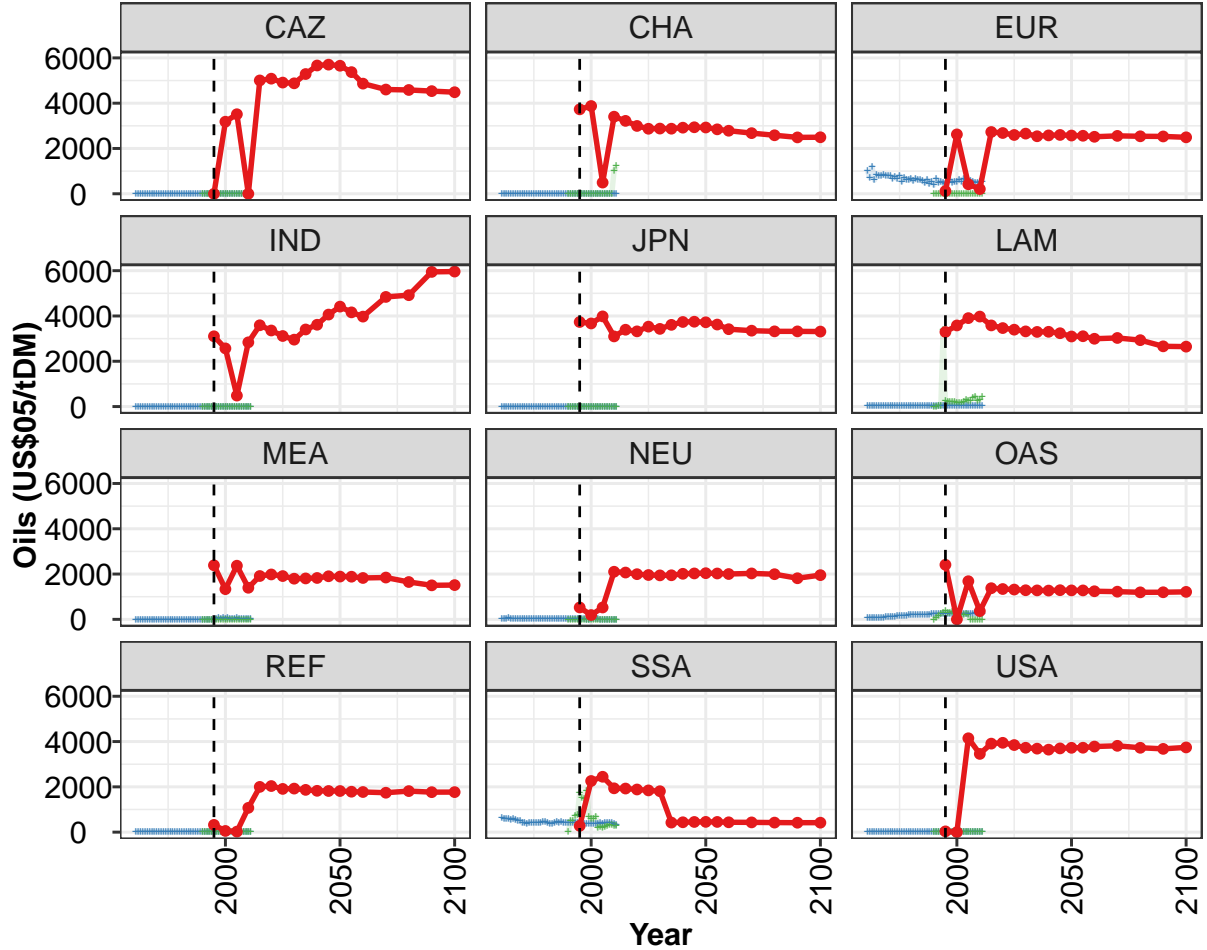
Table 1105: MAgPIE m4p_SSP3 — Prices—Agriculture—Oilpalms (US\$05/tDM) [PART 2/2]

	2005
GLO	101

Table 1106: IniFoodPrice — Prices—Agriculture—Oilpalms (US\$05/tDM)

36.19 Oils





Model output

MAgPIE m4p_SSP3

Historical data

FAO
FAOp

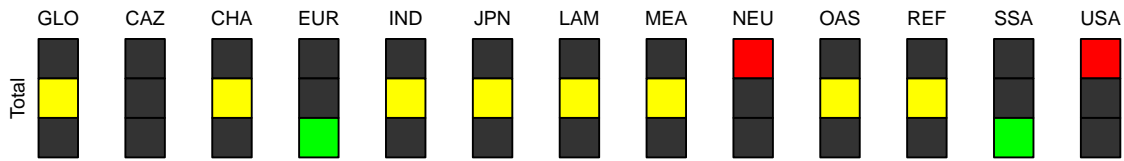


Figure 309: MAgPIE m4p_SSP3 — Prices—Agriculture—Oils (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1827	2100	1604	2064	2813	2722	2623	2580	2453	2456	2480
CAZ	0	3183	3513	2	5005	5083	4910	4878	5288	5665	5703
CHA	3729	3876	496	3405	3220	2995	2872	2880	2874	2920	2937
EUR	119	2623	419	209	2729	2684	2597	2657	2540	2578	2598
IND	3104	2569	485	2838	3591	3359	3116	2956	3405	3613	4063
JPN	3735	3670	3983	3098	3394	3322	3529	3431	3608	3736	3748
LAM	3295	3582	3906	3975	3584	3467	3396	3320	3297	3303	3239
MEA	2387	1335	2370	1395	1915	1984	1913	1796	1808	1829	1904
NEU	526	191	525	2103	2067	1996	1959	1943	1947	2013	2028
OAS	2412	0	1685	364	1376	1340	1316	1286	1279	1272	1289
REF	323	54	24	1073	2000	2036	1910	1924	1868	1826	1818
SSA	280	2260	2446	1937	1927	1884	1844	1807	423	437	450
USA	35	0	4146	3456	3910	3946	3847	3727	3688	3644	3698

Table 1107: MAgPIE m4p-SSP3 — Prices—Agriculture—Oils (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	2458	2374	2283	2304	2196	2204	2165
CAZ	5654	5373	4865	4603	4584	4533	4486
CHA	2927	2846	2785	2678	2584	2490	2496
EUR	2573	2562	2517	2556	2539	2532	2494
IND	4414	4161	3972	4842	4919	5947	5962
JPN	3723	3622	3417	3351	3321	3321	3312
LAM	3095	3106	2995	3029	2933	2660	2647
MEA	1890	1885	1828	1847	1650	1502	1514
NEU	2040	2027	2002	2029	1994	1815	1953
OAS	1279	1279	1241	1224	1194	1197	1214
REF	1817	1787	1773	1741	1813	1766	1768
SSA	454	452	436	432	423	417	420
USA	3725	3728	3781	3813	3726	3678	3742

Table 1108: MAgPIE m4p-SSP3 — Prices—Agriculture—Oils (US\$05/tDM) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	997	988	855	900	961	1068	946	881	861	861	999
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1109: WBGEM — Prices—Agriculture—Oils (US\$05/tDM) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	985	736	1064	1666	943	819	974	980	943	730	723
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1110: WBGEM — Prices—Agriculture—Oils (US\$05/tDM) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	538	702	1054	755	374	377	450	457	432	454	423
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1111: WBGEM — Prices—Agriculture—Oils (US\$05/tDM) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	416	581	556	673	700	758	671	497	446	549	698
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1112: WBGEM — Prices—Agriculture—Oils (US\$05/tDM) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	734	654	631	886	1141	753	985	1231	1096	883	884
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1113: WBGEM — Prices—Agriculture—Oils (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	851	1081
CAZ		
CHA		
EUR		
IND		
JPN		
LAM		
MEA		
NEU		
OAS		
REF		
SSA		
USA		

Table 1114: WBGEM — Prices—Agriculture—Oils (US\$05/tDM) [PART 6/6]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	284	196	316	167	223	211	218	222	211	195	201
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	8	7	6	6	5	7	8	10	11	12	13
EUR	1016	715	1177	597	842	782	805	829	802	793	787
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	15	15	17	18	16	16	20	23	19	18	22
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	22	44	34	64	36	28	33	26	27	10	29
OAS	60	49	53	56	60	65	75	82	93	96	105
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	637	596	584	596	552	584	524	502	489	401	427
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1115: FAO — Prices—Agriculture—Oils (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	186	201	174	210	158	195	170	173	192	160	187
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	15	15	15	14	16	15	13	12	10	9	8
EUR	679	751	651	792	549	714	624	599	667	569	664
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	23	22	18	15	14	15	14	15	15	18	21
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	24	42	32	38	32	45	25	27	21	20	12
OAS	115	131	147	150	142	161	159	181	191	190	208
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	384	417	400	415	412	396	423	452	465	404	390
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1116: FAO — Prices—Agriculture—Oils (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	166	169	169	151	185	146	172	139	186	160	168
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	8	7	9	10	8	8	8	6	6	6	6
EUR	608	604	575	478	610	430	544	381	644	493	549
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	22	25	24	29	30	33	36	37	40	39	42
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	37	15	20	9	18	13	15	5	18	8	16
OAS	195	219	214	204	210	220	236	225	232	235	241
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	382	404	439	427	438	396	414	398	402	424	425
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1117: FAO — Prices—Agriculture—Oils (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	159	154	168	190	162	170	169	188	170	189	177
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	6	6	5	5	4	4	4	4	3	3	3
EUR	473	451	534	630	505	516	542	632	545	682	611
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	43	39	39	44	41	38	43	46	42	39	44
MEA	0	0	29	66	19	88	13	74	24	45	13
NEU	14	17	9	11	3	2	4	6	5	4	3
OAS	243	238	247	250	246	261	254	256	259	262	259
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	419	420	386	380	389	388	389	360	363	376	393
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1118: FAO — Prices—Agriculture—Oils (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	164	174	170	172	170	165	170
CAZ	0	0	0	0	0	0	0
CHA	3	3	3	3	3	2	2
EUR	518	553	532	479	470	516	539
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	46	47	46	48	52	47	48
MEA	60	14	15	27	7	31	27
NEU	2	2	2	2	2	2	2
OAS	262	267	263	268	267	250	260
REF	0	0	0	0	0	0	0
SSA	390	417	426	418	394	357	341
USA	0	0	0	0	0	0	0

Table 1119: FAO — Prices—Agriculture—Oils (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	132	170	268	544	491	397	384	466	267	187
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	6	15	35	3375	235	224	198	221	207	153
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	0	85	137	229	304	360	289	292	341	234	154
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	502	481	705	747	1752	1512	1461	1846	681	610
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1120: FAOp — Prices—Agriculture—Oils (US\$05/tDM) [PART 1/3]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	164	224	216	232	202	26	36	42	32	33	40
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	1012	1228
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	150	174	202	287	270	277	373	432	270	300	422
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	132	192	219	230	199	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	605	697	211	241	211	216	286	339	333	268	284
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1121: FAOp — Prices—Agriculture—Oils (US\$05/tDM) [PART 2/3]

	2005
GLO	164
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1122: IniFoodPrice — Prices—Agriculture—Oils (US\$05/tDM)

36.20 Other fibrous crop residues

geom_path: Each group consists of only one observation. Do you need to adjust the group## aesthetic?

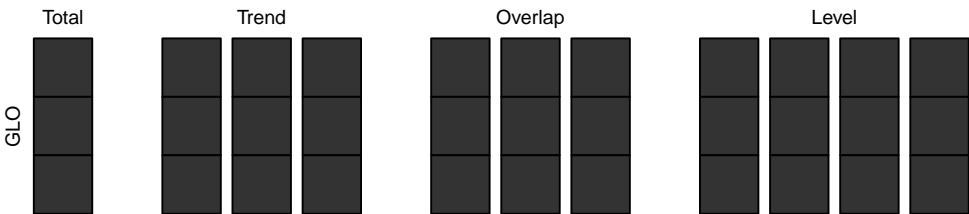
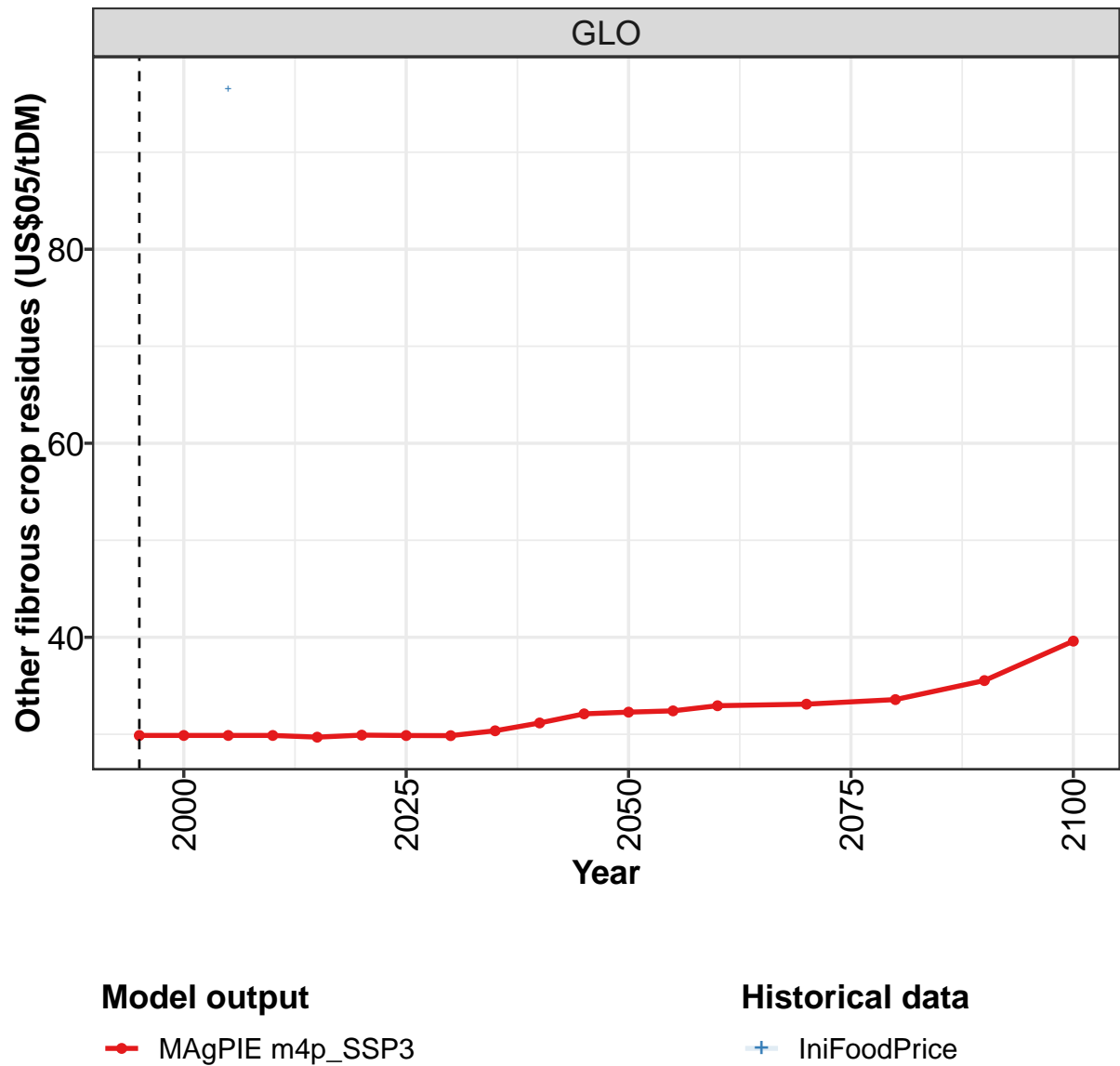


Figure 310: MAgPIE m4p_SSP3 — Prices—Agriculture—Other fibrous crop residues (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	29.9	29.9	29.9	29.9	29.7	29.9	29.9	29.9	30.4	31.2	32.1

Table 1123: MAgPIE m4p_SSP3 — Prices—Agriculture—Other fibrous crop residues (US\$05/tDM) [PART 1/2]

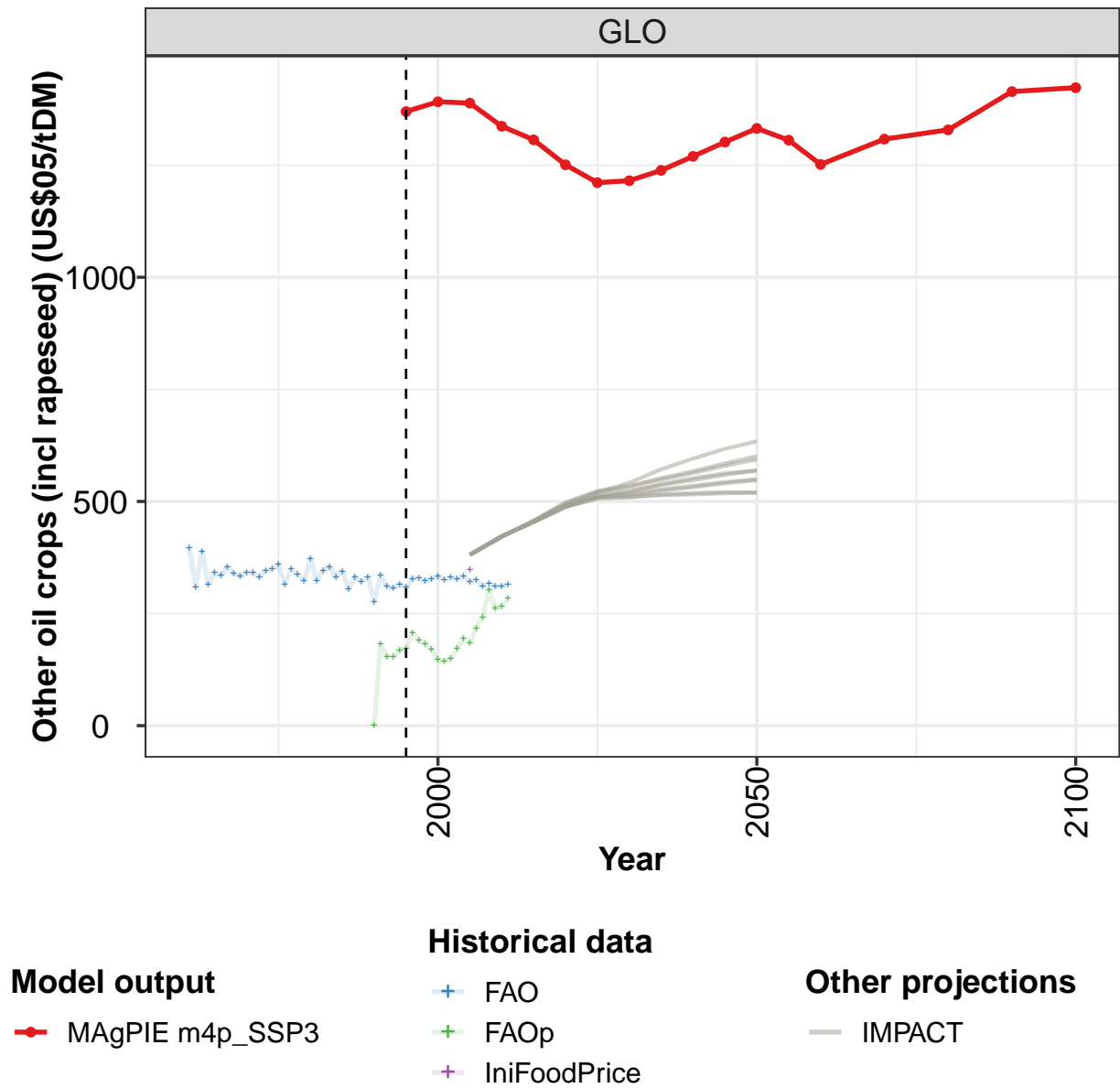
	2050	2055	2060	2070	2080	2090	2100
GLO	32.3	32.4	32.9	33.1	33.6	35.5	39.6

Table 1124: MAgPIE m4p_SSP3 — Prices—Agriculture—Other fibrous crop residues (US\$05/tDM) [PART 2/2]

	2005
GLO	96.5

Table 1125: IniFoodPrice — Prices—Agriculture—Other fibrous crop residues (US\$05/tDM)

36.21 Other oil crops (incl rapeseed)



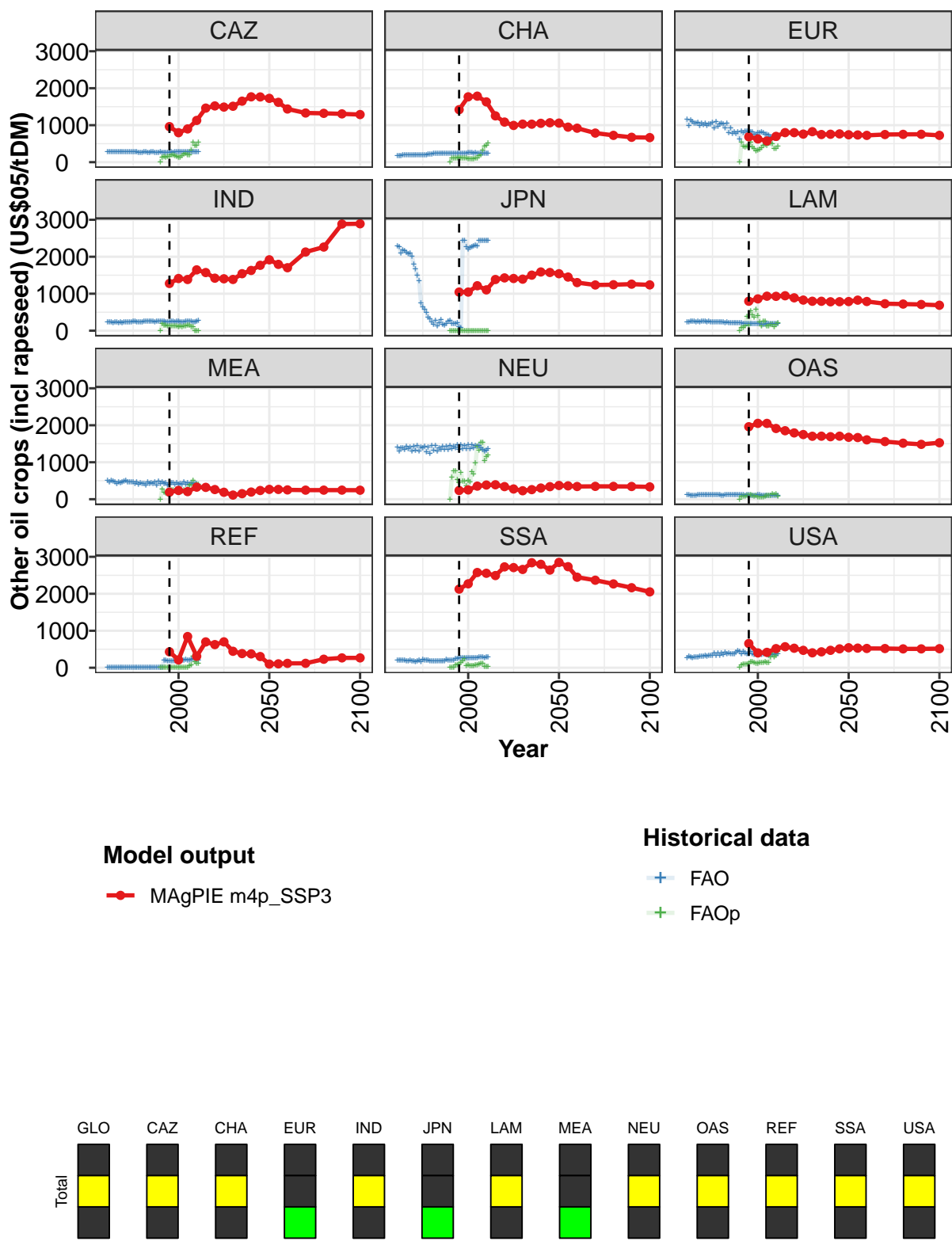


Figure 311: MAgPIE m4p_SSP3 — Prices—Agriculture—Other oil crops (incl rapeseed) (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1370	1391	1388	1337	1307	1251	1211	1215	1238	1270	1302
CAZ	961	798	900	1129	1462	1521	1490	1513	1650	1767	1764
CHA	1420	1767	1786	1630	1253	1085	993	1029	1028	1051	1066
EUR	687	627	574	697	799	798	759	824	748	756	764
IND	1277	1412	1385	1646	1573	1420	1404	1386	1541	1630	1769
JPN	1045	1045	1216	1104	1385	1428	1412	1394	1502	1588	1575
LAM	797	861	933	929	945	889	828	796	796	782	784
MEA	191	237	206	327	321	262	189	112	150	194	236
NEU	237	252	354	384	391	341	277	229	259	303	340
OAS	1960	2052	2051	1913	1853	1793	1749	1703	1705	1691	1705
REF	431	212	844	310	699	626	700	445	383	375	303
SSA	2126	2270	2576	2555	2494	2729	2709	2658	2840	2798	2642
USA	654	401	416	517	568	528	471	404	431	471	511

Table 1126: MAgPIE m4p_SSP3 — Prices—Agriculture—Other oil crops (incl rapeseed) (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1332	1306	1252	1308	1329	1414	1423
CAZ	1726	1618	1438	1330	1321	1306	1288
CHA	1057	947	919	787	725	673	665
EUR	741	736	725	748	752	754	726
IND	1917	1794	1703	2128	2262	2885	2891
JPN	1541	1451	1301	1236	1243	1259	1239
LAM	788	826	790	729	721	709	688
MEA	267	265	252	246	246	246	244
NEU	372	361	344	348	347	344	334
OAS	1675	1668	1606	1559	1516	1484	1527
REF	99	105	118	120	230	267	266
SSA	2849	2733	2449	2367	2267	2165	2052
USA	541	531	522	519	510	510	516

Table 1127: MAgPIE m4p_SSP3 — Prices—Agriculture—Other oil crops (incl rapeseed) (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	397	308	388	314	341	334	354	339	333	341	341
CAZ	280	283	284	280	281	280	275	285	278	274	269
CHA	161	175	174	190	196	195	196	187	185	189	196
EUR	1161	977	1130	1091	1052	1041	1067	984	1056	1012	1050
IND	236	235	234	216	235	221	216	228	215	230	235
JPN	2277	2262	2092	2173	2158	2115	2082	2088	1999	1799	1667
LAM	240	242	249	248	248	237	242	236	255	259	255
MEA	511	459	509	490	469	418	453	436	460	475	505
NEU	1411	1295	1388	1391	1341	1422	1353	1410	1304	1425	1308
OAS	110	109	107	108	108	107	111	114	116	117	115
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	197	201	201	201	204	189	182	194	173	178	166
USA	271	297	286	272	291	288	279	307	302	303	319

Table 1128: FAO — Prices—Agriculture—Other oil crops (incl rapeseed) (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	331	345	349	360	315	349	336	322	373	324	345
CAZ	271	273	273	268	272	270	267	267	266	269	269
CHA	196	195	192	192	189	187	204	215	209	229	230
EUR	992	1029	1017	1067	920	1094	966	1025	1051	1030	929
IND	221	236	230	251	244	240	240	239	224	261	251
JPN	1484	1346	752	641	569	495	350	317	226	168	269
LAM	237	259	241	237	232	241	237	239	232	223	212
MEA	453	466	459	454	423	465	407	434	419	413	382
NEU	1441	1306	1415	1377	1431	1266	1410	1244	1437	1308	1447
OAS	113	115	119	118	119	116	117	115	105	108	113
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	178	210	168	215	210	204	191	188	183	172	170
USA	301	331	332	333	387	321	395	338	402	348	410

Table 1129: FAO — Prices—Agriculture—Other oil crops (incl rapeseed) (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	354	331	344	304	332	321	330	277	335	310	307
CAZ	266	267	268	269	266	264	266	269	266	265	266
CHA	227	229	239	239	245	236	236	243	243	244	243
EUR	1041	794	930	773	804	776	809	616	834	802	837
IND	255	250	256	248	239	248	254	252	256	253	233
JPN	123	199	289	167	149	192	259	280	182	186	192
LAM	221	214	210	212	211	207	205	206	206	192	189
MEA	454	416	442	411	465	386	485	418	467	419	434
NEU	1290	1372	1348	1416	1349	1428	1335	1442	1371	1429	1392
OAS	122	128	122	120	118	126	122	114	110	110	104
REF	0	0	0	0	0	0	0	0	0	203	193
SSA	185	185	183	188	185	217	202	198	202	207	246
USA	369	387	382	375	362	425	447	440	367	442	397

Table 1130: FAO — Prices—Agriculture—Other oil crops (incl rapeseed) (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	315	308	328	329	322	327	332	325	330	326	333
CAZ	265	267	268	267	268	269	268	270	268	269	268
CHA	241	245	244	242	243	245	247	247	247	244	247
EUR	828	808	810	814	739	749	791	783	804	795	752
IND	234	239	243	254	231	243	249	227	228	227	255
JPN	203	101	89	2427	2427	2275	2206	2236	2272	2287	2318
LAM	183	187	190	179	178	178	180	178	171	171	177
MEA	385	393	446	438	408	449	403	429	395	458	403
NEU	1464	1332	1464	1357	1455	1358	1463	1358	1461	1389	1438
OAS	109	109	108	108	107	108	110	109	104	101	105
REF	182	185	177	187	190	204	195	200	196	197	221
SSA	247	254	262	260	260	261	261	262	264	270	266
USA	378	375	429	378	357	368	350	363	356	362	363

Table 1131: FAO — Prices—Agriculture—Other oil crops (incl rapeseed) (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	321	325	312	317	311	310	314
CAZ	268	268	270	269	269	270	270
CHA	245	243	241	244	244	243	243
EUR	744	720	681	691	648	633	653
IND	263	254	246	236	241	243	264
JPN	2283	2427	2427	2427	2427	2429	2428
LAM	179	179	179	179	181	182	182
MEA	440	403	442	420	413	417	364
NEU	1436	1442	1379	1350	1296	1326	1354
OAS	105	101	102	103	100	99	99
REF	206	211	219	242	236	227	208
SSA	275	295	284	289	274	295	279
USA	356	332	379	354	345	380	365

Table 1132: FAO — Prices—Agriculture—Other oil crops (incl rapeseed) (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	181	155	153	168	172	207	191	182	170	147
CAZ	0	137	147	133	147	151	200	195	165	157	131
CHA	0	99	101	104	108	122	110	104	114	113	95
EUR	0	532	423	400	437	435	535	416	367	306	328
IND	0	178	150	135	129	132	117	131	123	118	111
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	83	91	134	389	146	526	425	366	574	402
MEA	0	273	190	165	140	213	238	248	221	261	253
NEU	0	592	755	761	520	448	724	493	478	362	507
OAS	0	75	86	84	91	102	112	94	79	94	60
REF	0	0	0	0	1	6	5	6	11	11	9
SSA	0	4	4	69	77	92	145	190	242	60	63
USA	0	73	98	89	100	121	163	162	140	113	118

Table 1133: FAOp — Prices—Agriculture—Other oil crops (incl rapeseed) (US\$05/tDM) [PART 1/3]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	143	149	171	193	183	217	241	303	261	265	284
CAZ	139	180	219	239	191	187	315	525	441	439	527
CHA	94	84	80	97	100	164	193	311	427	447	506
EUR	336	385	447	469	448	503	519	483	371	371	431
IND	114	102	118	134	143	143	112	101	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	226	114	256	248	113	119	157	161	95	160	213
MEA	246	212	242	218	270	368	389	508	383	393	388
NEU	471	742	684	969	1426	1325	1536	1539	1032	1143	1190
OAS	57	61	65	71	93	94	104	132	113	134	87
REF	7	5	4	9	8	45	78	310	163	119	108
SSA	59	53	56	64	65	92	116	122	38	35	39
USA	140	138	147	162	129	145	291	374	291	330	446

Table 1134: FAOp — Prices—Agriculture—Other oil crops (incl rapeseed) (US\$05/tDM) [PART 2/3]

	2005
GLO	348
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1135: IniFoodPrice — Prices—Agriculture—Other oil crops (incl rapeseed) (US\$05/tDM)

36.22 Pasture

geom_path: Each group consists of only one observation. Do you need to adjust the group## aesthetic?

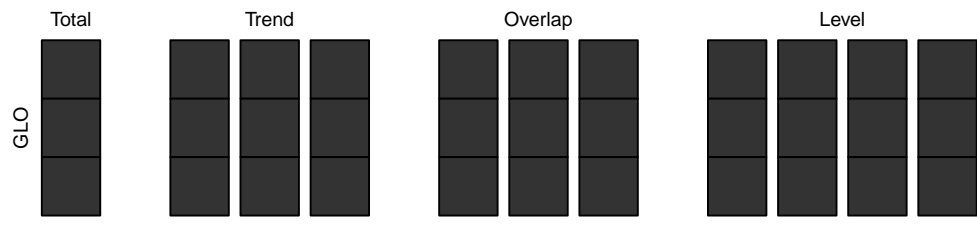
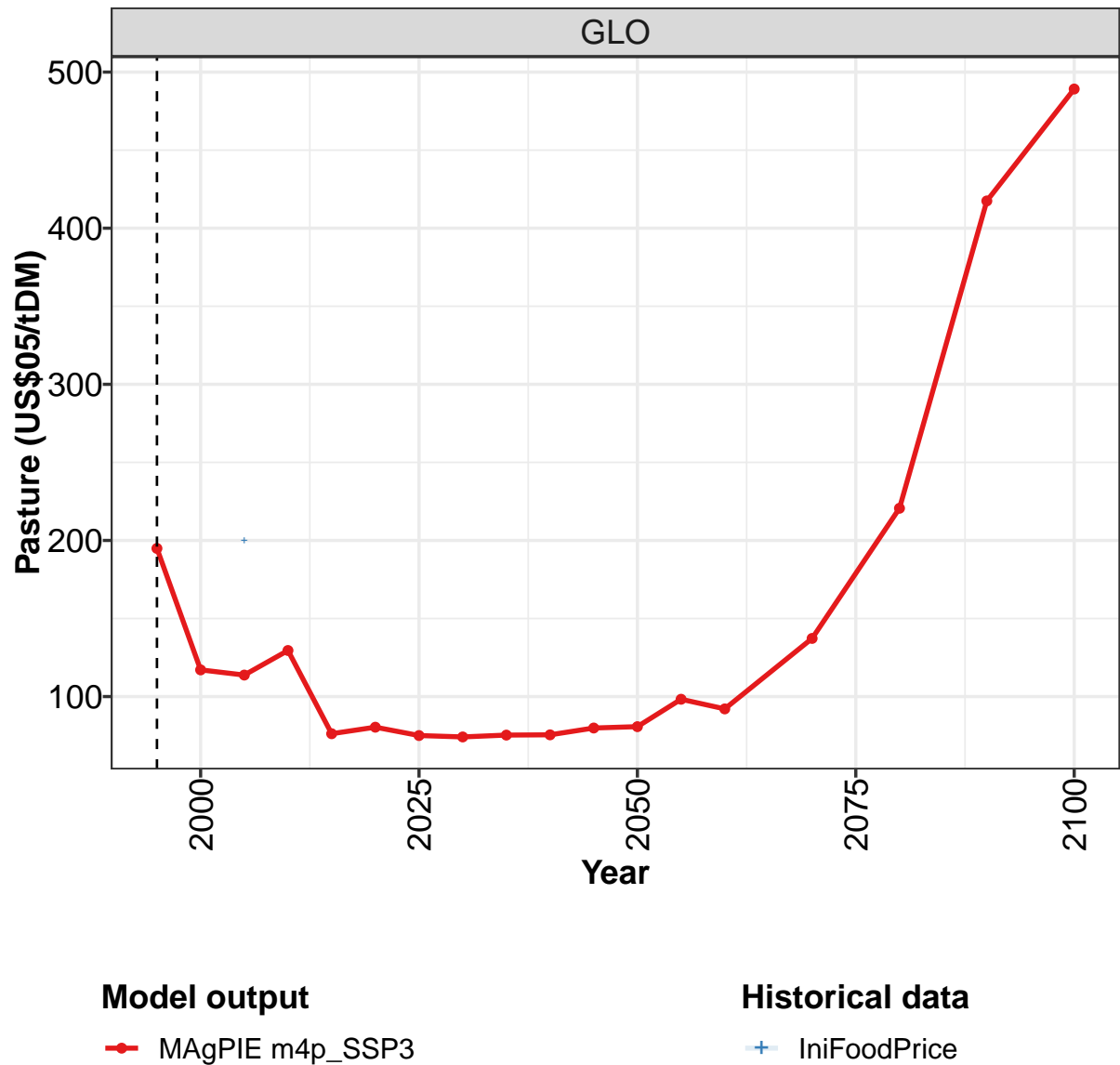


Figure 312: MAgPIE m4p_SSP3 — Prices—Agriculture—Pasture (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	195	117	114	130	76	80	75	74	75	75	80

Table 1136: MAgPIE m4p_SSP3 — Prices—Agriculture—Pasture (US\$05/tDM) [PART 1/2]

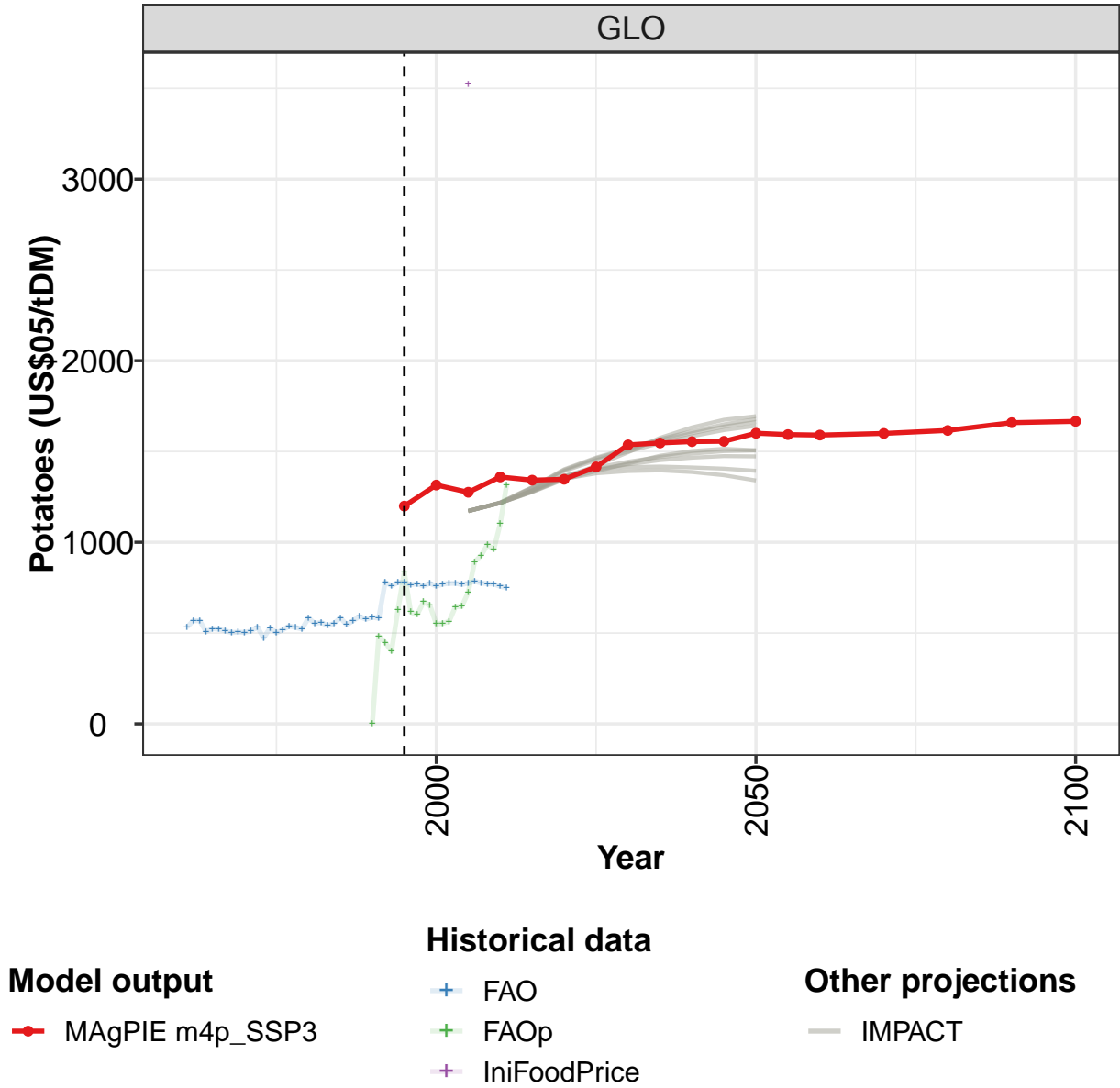
	2050	2055	2060	2070	2080	2090	2100
GLO	81	98	92	137	221	417	489

Table 1137: MAgPIE m4p_SSP3 — Prices—Agriculture—Pasture (US\$05/tDM) [PART 2/2]

	2005
GLO	200

Table 1138: IniFoodPrice — Prices—Agriculture—Pasture (US\$05/tDM)

36.23 Potatoes



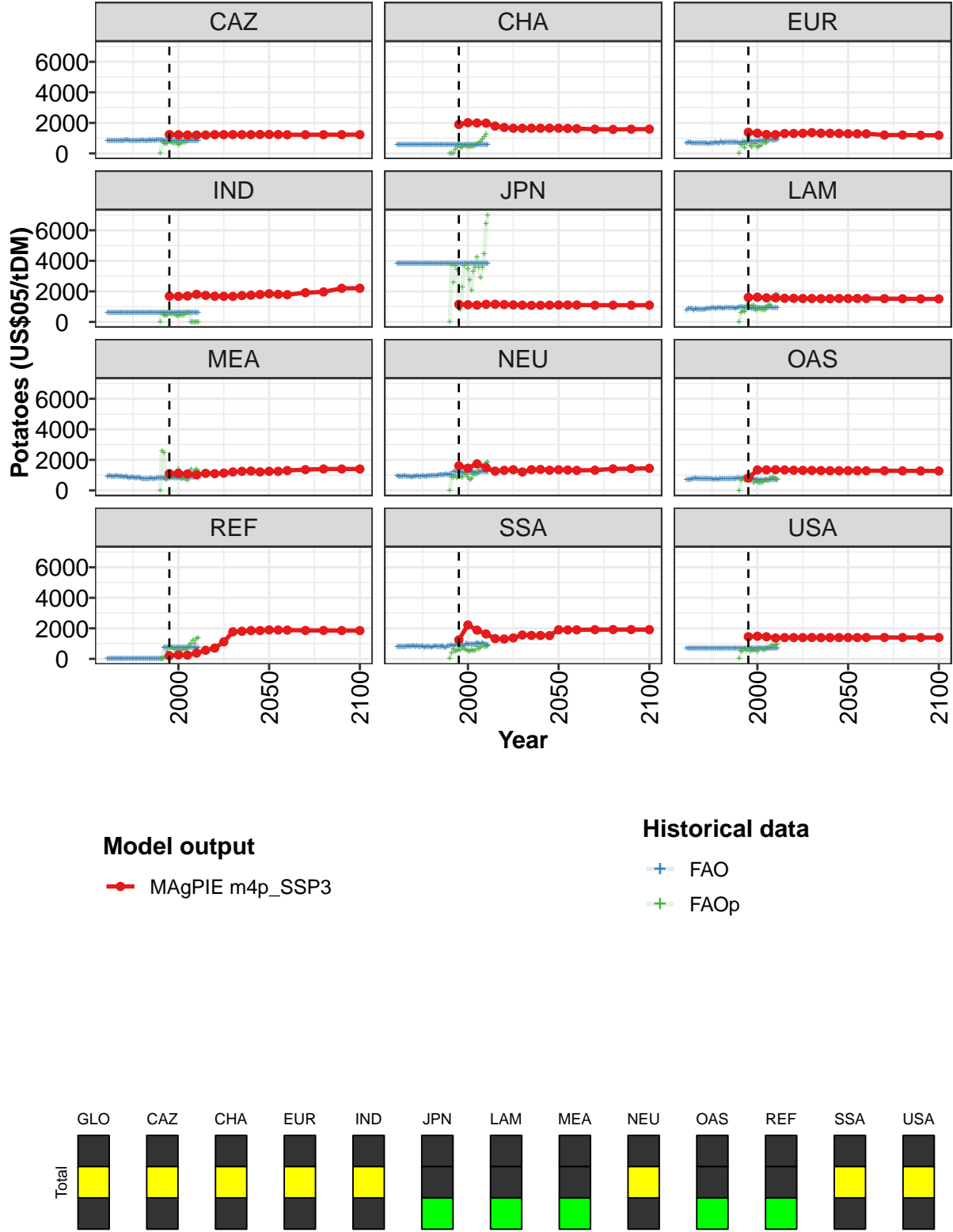


Figure 313: MAgPIE m4p_SSP3 — Prices—Agriculture—Potatoes (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1199	1315	1275	1360	1342	1347	1415	1537	1547	1554	1556
CAZ	1237	1222	1205	1200	1204	1233	1230	1235	1231	1230	1240
CHA	1897	2014	1992	1985	1790	1701	1650	1648	1654	1650	1654
EUR	1382	1323	1240	1234	1304	1309	1318	1361	1324	1318	1312
IND	1686	1674	1697	1806	1736	1681	1677	1671	1726	1749	1795
JPN	1147	1126	1099	1150	1154	1135	1117	1097	1082	1088	1098
LAM	1602	1619	1576	1579	1551	1547	1533	1532	1525	1524	1535
MEA	1102	1109	1078	1023	1116	1096	1132	1209	1249	1269	1212
NEU	1606	1454	1738	1488	1262	1315	1354	1206	1353	1372	1324
OAS	804	1340	1343	1356	1340	1321	1313	1311	1301	1291	1288
REF	208	258	247	381	565	708	1115	1770	1809	1854	1854
SSA	1246	2221	1883	1632	1325	1302	1370	1564	1536	1532	1525
USA	1452	1484	1449	1367	1394	1394	1393	1398	1392	1393	1396

Table 1139: MAgPIE m4p_SSP3 — Prices—Agriculture—Potatoes (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1601	1593	1590	1599	1616	1659	1666
CAZ	1244	1239	1223	1224	1228	1229	1230
CHA	1653	1638	1622	1587	1572	1589	1590
EUR	1290	1288	1286	1204	1208	1191	1189
IND	1843	1806	1781	1914	1964	2201	2202
JPN	1108	1108	1108	1093	1095	1093	1093
LAM	1531	1535	1534	1524	1516	1507	1506
MEA	1250	1250	1302	1361	1402	1402	1401
NEU	1351	1335	1310	1324	1412	1422	1443
OAS	1290	1292	1287	1287	1281	1276	1274
REF	1895	1890	1885	1862	1860	1853	1852
SSA	1906	1896	1903	1911	1920	1920	1913
USA	1397	1397	1401	1402	1401	1399	1395

Table 1140: MAgPIE m4p_SSP3 — Prices—Agriculture—Potatoes (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	532	568	567	508	524	521	512	503	505	504	511
CAZ	822	829	849	833	826	832	845	836	853	843	861
CHA	590	590	590	590	590	590	590	590	590	590	590
EUR	691	708	705	665	692	682	676	669	668	665	691
IND	586	586	586	586	586	586	586	586	586	586	586
JPN	3803	3803	3803	3803	3803	3803	3803	3803	3803	3803	3803
LAM	782	873	856	853	784	848	832	833	811	816	834
MEA	907	938	905	895	907	938	912	892	891	884	917
NEU	948	926	923	922	954	886	922	922	884	899	918
OAS	710	701	694	764	762	790	756	759	760	754	761
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	793	785	801	798	794	820	826	819	826	828	818
USA	668	668	668	668	668	668	668	668	668	668	668

Table 1141: FAO — Prices—Agriculture—Potatoes (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	533	473	529	501	518	539	531	523	583	553	559
CAZ	875	854	833	853	842	840	846	842	857	852	853
CHA	590	590	590	590	589	590	590	590	590	590	590
EUR	666	643	673	654	660	700	680	675	753	687	722
IND	586	586	586	586	586	586	586	586	586	586	586
JPN	3803	3803	3803	3803	3803	3803	3803	3803	3803	3803	3803
LAM	890	882	857	909	898	886	923	937	943	878	925
MEA	855	832	852	871	832	824	840	811	772	757	743
NEU	945	895	901	963	926	904	975	946	986	970	974
OAS	742	759	737	755	708	771	716	737	751	746	733
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	830	812	819	834	759	801	785	814	751	819	846
USA	668	668	668	668	668	668	668	668	668	668	668

Table 1142: FAO — Prices—Agriculture—Potatoes (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	540	553	583	545	569	591	576	587	582	780	760
CAZ	853	860	852	856	853	868	861	868	870	849	852
CHA	590	590	590	590	590	590	590	590	590	590	590
EUR	722	719	728	700	706	700	712	690	693	766	737
IND	586	586	586	586	586	586	586	586	586	586	586
JPN	3803	3803	3803	3803	3803	3803	3803	3803	3803	3803	3803
LAM	918	928	897	898	913	875	918	981	957	976	933
MEA	763	771	804	771	767	809	808	791	809	829	814
NEU	954	997	1024	991	1036	1081	1024	1045	1022	1212	1228
OAS	733	744	753	774	758	749	808	785	769	807	871
REF	0	0	0	0	0	0	0	0	0	737	723
SSA	791	772	818	837	743	747	859	869	890	829	881
USA	668	668	668	668	668	668	668	668	668	668	668

Table 1143: FAO — Prices—Agriculture—Potatoes (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	779	780	767	771	760	774	759	770	773	774	768
CAZ	848	840	848	845	847	845	832	844	838	826	830
CHA	590	590	590	590	590	590	590	590	590	590	590
EUR	780	777	771	787	773	800	789	820	844	851	849
IND	586	586	586	586	586	586	586	586	586	586	586
JPN	3803	3803	3803	3803	3803	3803	3803	3803	3803	3803	3803
LAM	920	917	916	894	886	908	912	927	915	930	921
MEA	817	823	822	843	809	820	853	814	830	850	869
NEU	1197	1183	1204	1185	1184	1196	1217	1177	1178	1198	1167
OAS	836	875	880	796	753	719	698	647	690	670	680
REF	735	741	728	743	733	739	732	744	745	744	736
SSA	901	904	895	897	869	999	938	935	944	946	934
USA	668	668	668	668	668	668	668	668	668	668	668

Table 1144: FAO — Prices—Agriculture—Potatoes (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	775	785	777	772	770	757	751
CAZ	840	828	827	842	830	839	834
CHA	590	590	590	590	590	590	590
EUR	869	890	858	860	875	866	872
IND	586	586	586	586	586	586	586
JPN	3803	3803	3803	3803	3803	3803	3803
LAM	940	931	957	942	926	926	914
MEA	855	857	851	852	886	902	797
NEU	1151	1195	1212	1200	1199	1198	1197
OAS	680	663	679	689	708	683	683
REF	747	745	745	730	740	718	738
SSA	1043	1025	970	1072	961	945	924
USA	668	668	668	668	668	668	668

Table 1145: FAO — Prices—Agriculture—Potatoes (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	484	448	401	629	836	615	601	671	653	550
CAZ	0	771	658	631	697	764	730	683	668	689	596
CHA	0	0	0	262	405	612	385	419	532	483	477
EUR	0	586	558	371	699	1026	538	439	623	620	404
IND	0	584	436	421	458	533	518	522	530	396	427
JPN	0	3698	2588	3650	3429	886	811	2292	3688	3803	3438
LAM	0	586	728	678	1095	984	977	1036	1100	780	831
MEA	0	2583	2483	717	770	1090	905	856	1097	1188	1404
NEU	0	833	833	944	825	1215	922	848	1124	993	860
OAS	0	629	740	676	730	968	1026	735	498	584	544
REF	0	0	51	140	465	777	745	704	587	661	504
SSA	0	372	645	470	562	614	566	753	658	607	537
USA	0	495	555	618	559	677	491	564	559	577	509

Table 1146: FAOp — Prices—Agriculture—Potatoes (US\$05/tDM) [PART 1/3]

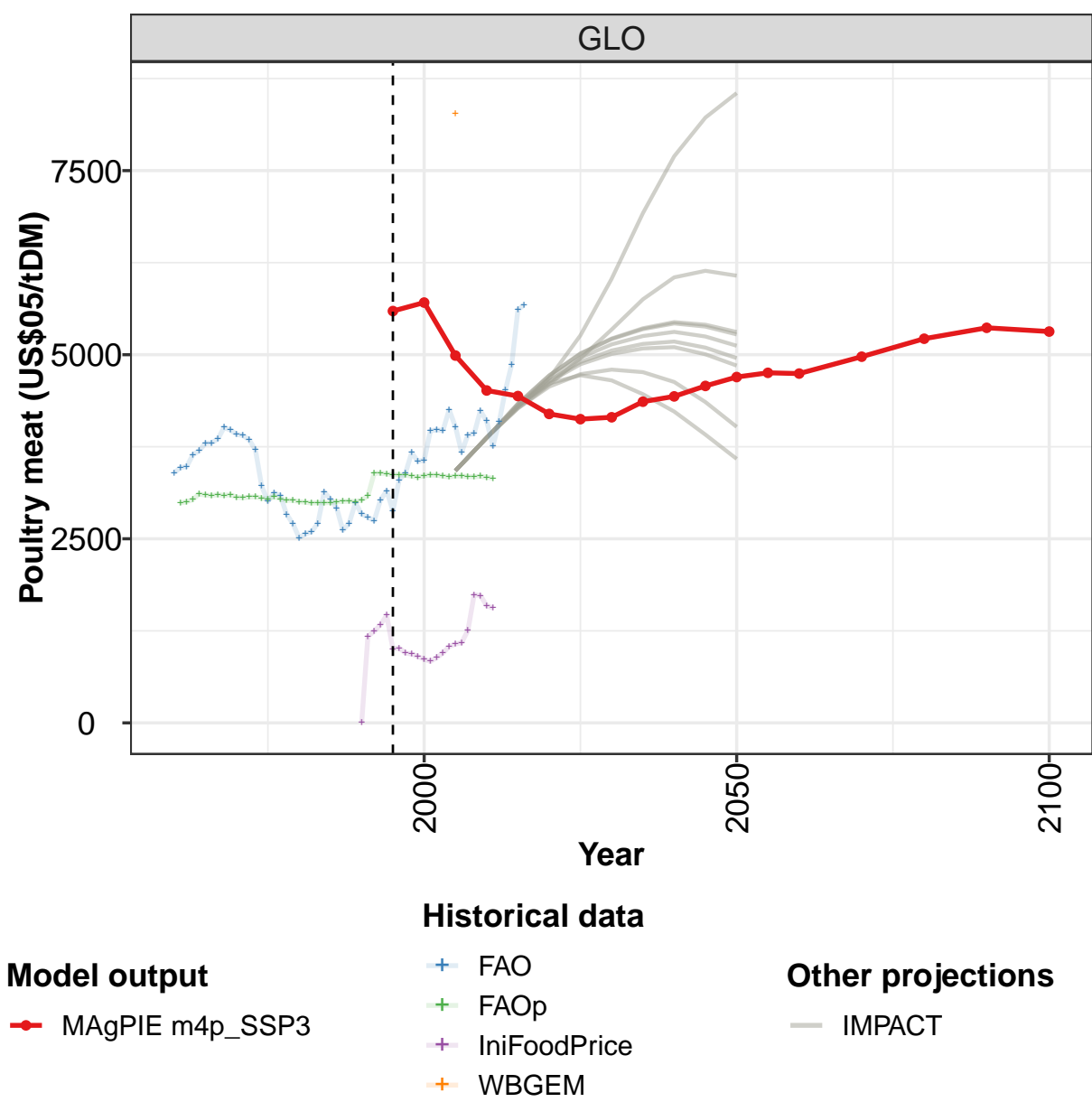
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	553	564	645	648	725	893	926	987	960	1102	1317
CAZ	615	713	733	746	809	943	1008	1214	1186	1206	1311
CHA	434	450	461	494	599	678	782	915	1104	1248	2014
EUR	483	494	713	728	698	1158	1184	1068	890	1062	1163
IND	464	434	434	571	595	591	0	0	0	0	0
JPN	2715	2045	3313	3582	4240	3589	2909	3562	4465	6392	7000
LAM	877	816	797	744	984	1065	1150	1521	1643	1779	1817
MEA	1020	766	795	733	676	987	1369	1135	1298	1381	1277
NEU	728	769	1033	1051	1090	1303	1625	1650	1534	1787	1868
OAS	493	498	529	653	662	640	820	828	861	745	690
REF	484	582	659	580	709	901	1005	1202	1000	1317	1382
SSA	484	584	530	549	806	632	753	974	789	777	857
USA	700	668	591	568	705	732	755	909	827	923	941

Table 1147: FAOp — Prices—Agriculture—Potatoes (US\$05/tDM) [PART 2/3]

	2005
GLO	3522
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1148: IniFoodPrice — Prices—Agriculture—Potatoes (US\$05/tDM)

36.24
Poultry meat



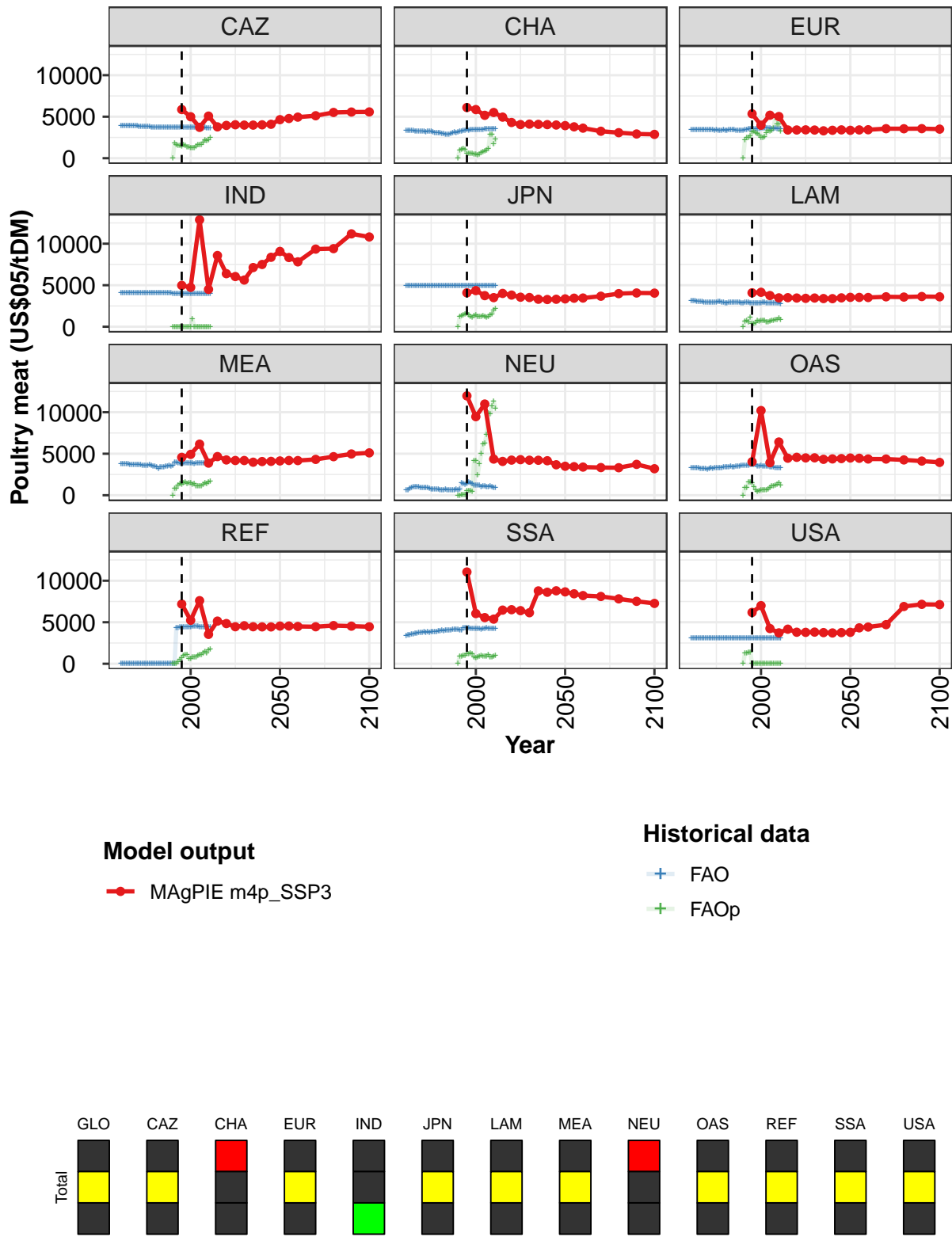


Figure 314: MAGPIE m4p_SSP3 — Prices—Agriculture—Poultry meat (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5593	5708	4989	4514	4439	4196	4125	4150	4362	4434	4576
CAZ	5861	4995	3719	5071	3776	3951	4029	3988	3987	4020	4088
CHA	6104	5858	5166	5507	4949	4304	4052	4105	4077	4045	3998
EUR	5350	3975	5178	5021	3400	3401	3414	3392	3300	3363	3412
IND	4981	4739	12876	4495	8577	6390	6044	5621	7129	7497	8363
JPN	4085	4354	3744	3504	4012	3812	3559	3520	3310	3277	3309
LAM	4084	4147	3755	3478	3497	3456	3420	3458	3392	3381	3479
MEA	4563	4924	6153	3871	4657	4252	4186	4185	3980	4061	4082
NEU	11968	9461	10985	4356	4074	4234	4286	4220	4215	4158	3671
OAS	4029	10201	3925	6410	4464	4569	4498	4507	4327	4377	4415
REF	7187	5237	7600	3539	5138	4840	4462	4580	4462	4444	4441
SSA	11052	6049	5559	5377	6461	6512	6398	6151	8775	8616	8788
USA	6182	6999	4243	3724	4165	3797	3783	3812	3755	3714	3755

Table 1149: MAgPIE m4p_SSP3 — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	4697	4754	4744	4973	5217	5365	5314
CAZ	4645	4782	4947	5116	5511	5561	5572
CHA	3925	3781	3622	3249	3074	2918	2871
EUR	3361	3408	3429	3556	3549	3561	3503
IND	9067	8334	7815	9349	9406	11185	10812
JPN	3354	3437	3456	3676	3988	4065	4047
LAM	3540	3532	3519	3604	3574	3637	3606
MEA	4134	4186	4178	4318	4647	4972	5105
NEU	3493	3442	3393	3333	3317	3716	3193
OAS	4486	4455	4366	4358	4255	4117	3956
REF	4542	4544	4492	4459	4599	4530	4458
SSA	8660	8428	8213	8105	7819	7521	7269
USA	3789	4325	4425	4710	6897	7158	7123

Table 1150: MAgPIE m4p_SSP3 — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	3395	3465	3481	3640	3695	3796	3801	3857	4013	3976	3918
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1151: WBGEM — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	3903	3843	3709	3216	3008	3123	3086	2832	2704	2514	2567
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1152: WBGEM — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	2597	2711	3137	3040	2919	2615	2711	2990	2834	2792	2744
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1153: WBGEM — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	3024	3152	2882	3299	3389	3669	3552	3567	3967	3979	3970
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1154: WBGEM — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	4251	4023	3675	3911	3928	4238	4098	3759	4086	4518	4867
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1155: WBGEM — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	5608	5678
CAZ		
CHA		
EUR		
IND		
JPN		
LAM		
MEA		
NEU		
OAS		
REF		
SSA		
USA		

Table 1156: WBGEM — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 6/6]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	2989	3002	3034	3108	3093	3088	3097	3091	3098	3066	3057
CAZ	3954	3953	3954	3948	3935	3953	3917	3893	3885	3877	3841
CHA	3302	3312	3318	3314	3290	3282	3269	3252	3250	3255	3231
EUR	3407	3412	3425	3429	3442	3433	3427	3417	3417	3391	3391
IND	4065	4075	4085	4093	4101	4108	4103	4097	4091	4086	4081
JPN	4982	4982	4982	4982	4982	4982	4982	4982	4982	4982	4982
LAM	3158	3145	3098	3075	3010	2989	2985	2967	2949	2926	2932
MEA	3806	3778	3773	3767	3742	3723	3715	3715	3713	3708	3678
NEU	589	635	777	876	965	998	1004	968	919	867	890
OAS	3332	3309	3311	3291	3273	3218	3189	3237	3208	3154	3214
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	3410	3438	3507	3564	3596	3632	3680	3715	3765	3776	3804
USA	3105	3103	3103	3103	3103	3103	3104	3102	3101	3101	3102

Table 1157: FAO — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	3067	3072	3052	3038	3075	3042	3022	3023	3005	2996	2985
CAZ	3829	3839	3805	3777	3789	3770	3747	3753	3722	3731	3743
CHA	3177	3202	3211	3195	3171	3060	3026	3028	3005	2948	2940
EUR	3401	3400	3379	3387	3380	3375	3384	3390	3369	3376	3386
IND	4077	4078	4079	4079	4079	4082	4097	4102	4102	4107	4111
JPN	4982	4982	4982	4982	4982	4982	4982	4982	4982	4982	4982
LAM	2928	2921	2942	2982	3000	2987	2949	2897	2859	2870	2903
MEA	3634	3606	3605	3572	3596	3641	3579	3503	3476	3380	3210
NEU	906	896	844	726	715	743	705	717	671	640	620
OAS	3270	3234	3292	3269	3290	3306	3273	3361	3417	3403	3420
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	3765	3819	3789	3845	3848	3833	3886	3907	3926	4002	3954
USA	3102	3102	3102	3101	3102	3101	3101	3101	3101	3101	3101

Table 1158: FAO — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	2990	2987	2993	3002	3007	3014	3005	3026	3081	3389	3392
CAZ	3727	3745	3726	3725	3722	3722	3712	3717	3713	3701	3703
CHA	2875	2895	2908	2982	3007	3105	3082	3113	3210	3242	3298
EUR	3398	3389	3394	3380	3374	3375	3380	3374	3387	3469	3543
IND	4111	4107	4105	4096	4050	4046	4035	4021	3998	3995	3993
JPN	4982	4982	4982	4982	4982	4982	4982	4982	4982	4982	4982
LAM	2893	2939	2943	2967	2950	2942	2874	2880	2917	2906	2890
MEA	3373	3357	3372	3489	3517	3554	3461	3565	3977	3925	3911
NEU	682	623	662	625	599	624	678	634	685	1444	1343
OAS	3465	3436	3431	3475	3507	3494	3562	3612	3605	3597	3598
REF	0	0	0	0	0	0	0	0	0	4350	4357
SSA	4004	3994	4018	4063	4102	4094	4114	4130	4066	4051	4294
USA	3101	3101	3101	3102	3103	3103	3103	3103	3103	3102	3102

Table 1159: FAO — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	3381	3372	3371	3363	3350	3337	3357	3366	3363	3351	3340
CAZ	3715	3716	3714	3687	3682	3696	3695	3713	3693	3684	3684
CHA	3336	3402	3383	3396	3427	3441	3451	3461	3460	3472	3480
EUR	3527	3525	3511	3499	3484	3486	3591	3583	3582	3619	3593
IND	3996	3999	4002	4003	3996	3991	3984	3981	3974	3969	3966
JPN	4982	4982	4982	4982	4982	4982	4982	4982	4982	4982	4982
LAM	2884	2882	2883	2886	2870	2864	2878	2904	2902	2861	2836
MEA	3871	3819	3860	3878	3906	3851	3848	3834	3812	3865	3858
NEU	1295	1367	1556	1509	1406	1223	1193	1223	1205	1026	1112
OAS	3655	3653	3673	3645	3525	3523	3543	3523	3533	3470	3495
REF	4395	4422	4385	4407	4421	4435	4458	4474	4502	4491	4483
SSA	4314	4289	4296	4278	4277	4246	4208	4209	4223	4177	4210
USA	3101	3101	3101	3101	3100	3100	3100	3100	3100	3100	3099

Table 1160: FAO — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	3352	3352	3346	3341	3350	3337	3324
CAZ	3676	3668	3656	3671	3660	3648	3623
CHA	3501	3502	3515	3533	3537	3541	3537
EUR	3580	3568	3567	3576	3559	3550	3547
IND	3963	3960	3956	3955	3953	3952	3953
JPN	4982	4982	4982	4982	4982	4982	4982
LAM	2880	2880	2861	2830	2826	2795	2778
MEA	3881	3872	3838	3883	3927	3934	3872
NEU	1059	1017	996	1088	961	910	882
OAS	3424	3394	3348	3308	3308	3303	3312
REF	4454	4434	4453	4433	4433	4424	4430
SSA	4212	4285	4279	4279	4275	4262	4248
USA	3099	3099	3099	3099	3099	3098	3098

Table 1161: FAO — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	1174	1243	1332	1460	1005	1018	948	936	901	864
CAZ	0	1790	1602	1535	1485	1475	1623	1538	1379	1332	1284
CHA	0	1000	1049	1137	1026	556	587	541	526	492	457
EUR	0	2212	2448	2511	2626	3131	3241	3078	2939	2746	2499
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	1194	1276	1432	1545	1597	1377	1230	1143	1311	1375
LAM	0	689	714	504	1101	375	405	459	730	669	711
MEA	0	807	801	1215	1359	1290	1514	1614	1386	1454	1442
NEU	0	0	98	67	71	513	537	529	477	4127	4136
OAS	0	879	924	1571	1554	1516	1040	650	446	511	621
REF	0	0	33	254	515	710	962	1088	1082	612	631
SSA	16	931	852	999	999	1198	1221	1226	1177	797	744
USA	0	1267	1272	1338	1381	0	0	0	0	0	0

Table 1162: FAOp — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 1/3]

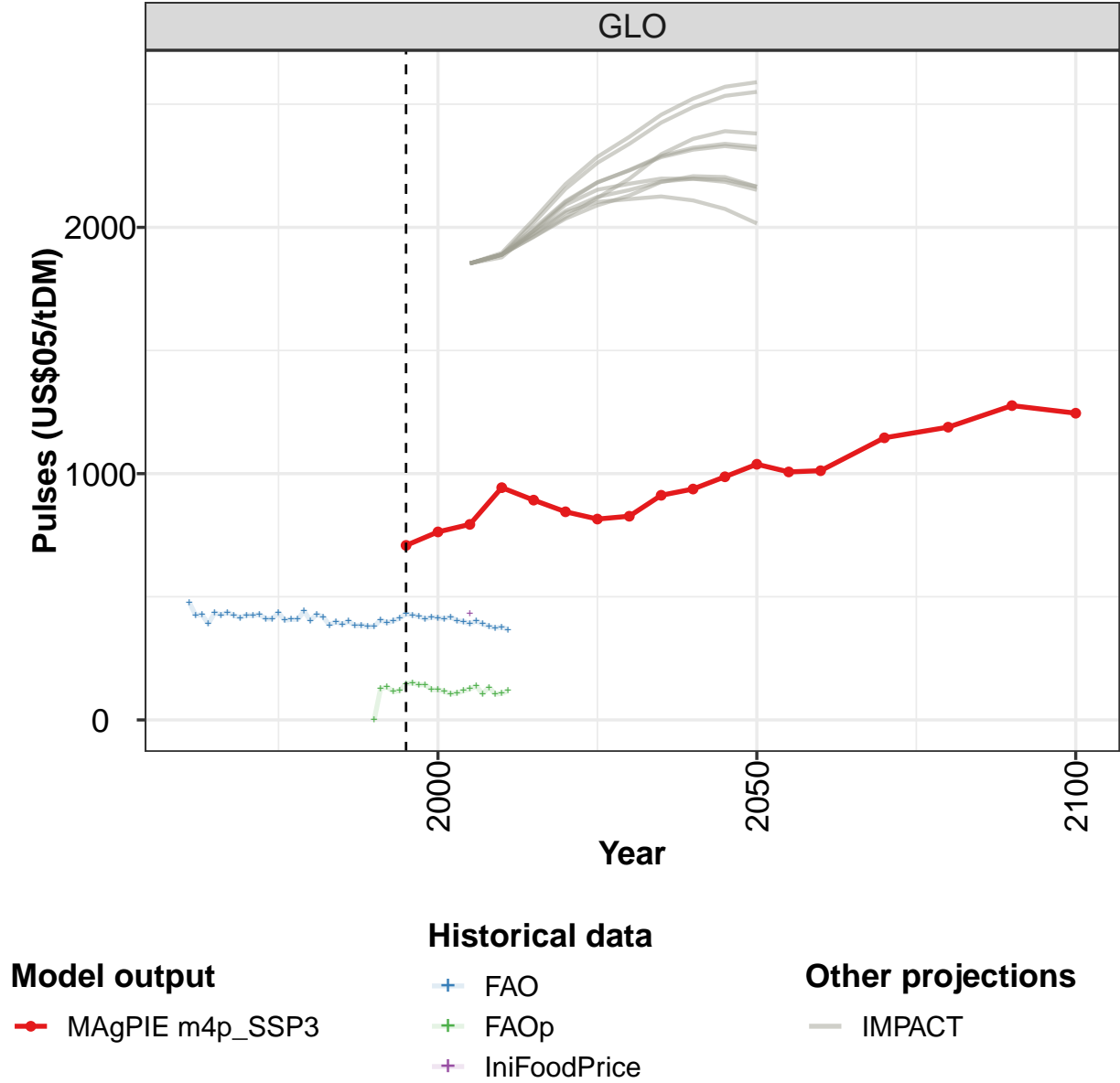
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	835	885	948	1037	1070	1089	1256	1742	1728	1594	1559
CAZ	1263	1223	1418	1609	1633	1637	1899	2206	2102	2217	2454
CHA	352	481	643	806	849	908	1115	2842	2902	1691	2266
EUR	2450	2579	3007	3292	3260	3310	3637	4876	4133	4067	3250
IND	890	0	0	0	0	0	0	0	0	0	0
JPN	1220	1183	1259	1309	1208	1127	1174	1435	1552	1978	2194
LAM	768	711	594	584	682	712	782	875	878	990	869
MEA	1318	1419	1113	1128	1143	1116	1267	1457	1351	1544	1697
NEU	2403	3774	4976	6117	6261	7279	9892	9759	10714	11289	10466
OAS	601	655	642	748	954	1073	1103	1181	1326	1509	1177
REF	785	749	778	950	1094	1047	1233	1498	1308	1644	1710
SSA	794	852	957	931	939	939	1083	771	840	895	949
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1163: FAOp — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 2/3]

	2005
GLO	8277
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1164: IniFoodPrice — Prices—Agriculture—Poultry meat (US\$05/tDM)

36.25 Pulses



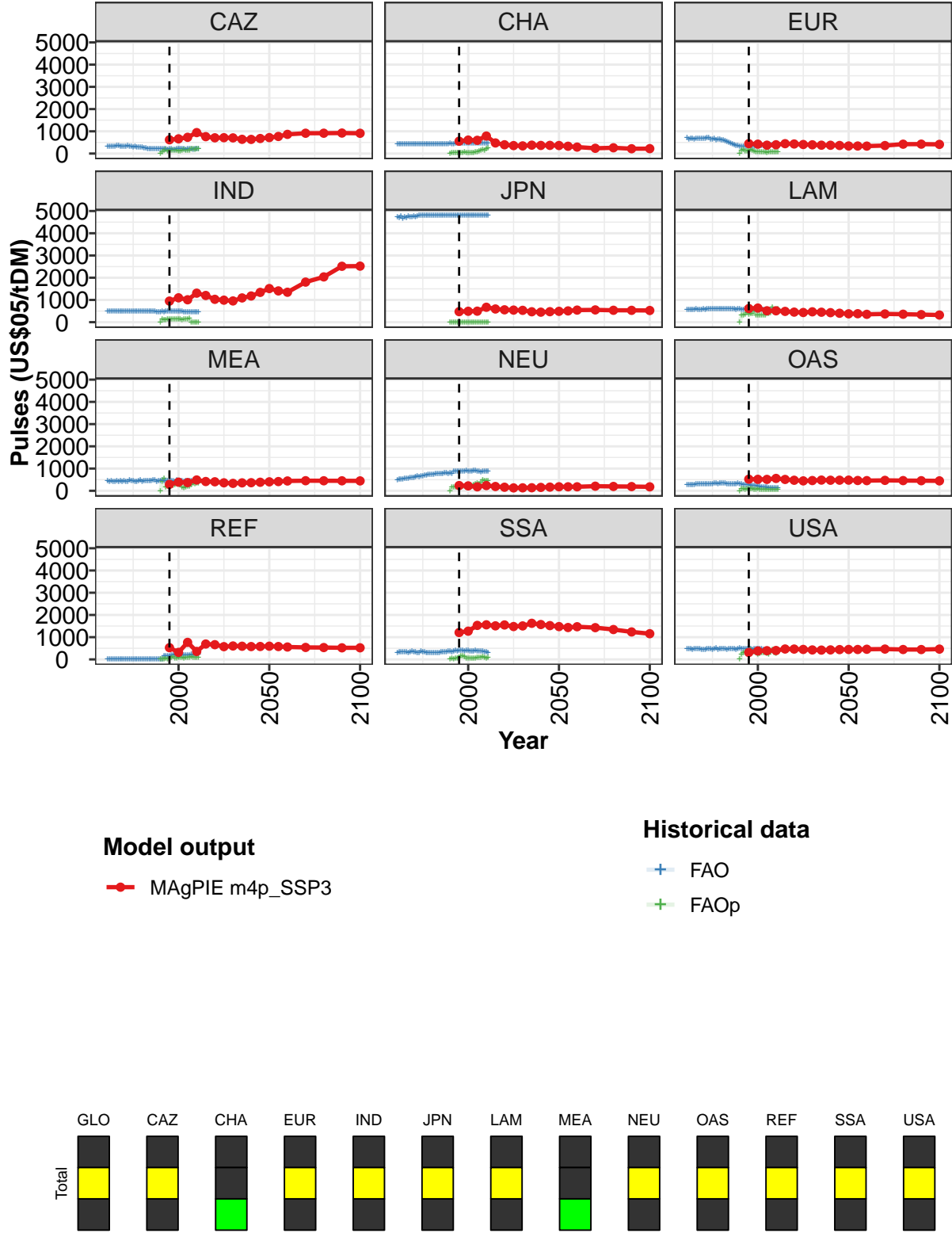


Figure 315: MAgPIE m4p_SSP3 — Prices—Agriculture—Pulses (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	709	763	794	943	893	845	816	827	912	937	987
CAZ	619	662	730	943	761	709	714	706	641	637	677
CHA	556	606	596	788	477	395	359	345	378	365	368
EUR	446	423	377	395	444	430	407	393	376	373	363
IND	949	1096	1008	1305	1201	1028	991	955	1091	1178	1341
JPN	473	491	496	671	594	556	543	533	469	451	472
LAM	613	635	512	512	485	453	435	466	448	428	402
MEA	290	388	368	486	417	405	359	335	358	365	384
NEU	236	221	179	235	193	160	130	134	138	153	166
OAS	523	515	513	557	511	475	447	461	482	476	478
REF	528	316	766	359	693	663	575	605	593	578	582
SSA	1209	1271	1530	1556	1510	1550	1480	1507	1625	1570	1521
USA	312	381	392	401	468	465	449	427	419	429	442

Table 1165: MAgPIE m4p_SSP3 — Prices—Agriculture—Pulses (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1038	1007	1012	1145	1189	1276	1245
CAZ	718	769	864	914	915	923	912
CHA	363	329	291	237	260	217	220
EUR	342	340	335	360	422	423	412
IND	1512	1407	1347	1803	2037	2515	2521
JPN	488	507	544	552	535	533	526
LAM	377	381	354	370	358	341	322
MEA	403	415	442	454	451	449	445
NEU	180	180	180	207	195	190	178
OAS	480	464	457	469	459	454	447
REF	595	579	559	539	534	522	523
SSA	1477	1434	1470	1430	1344	1237	1156
USA	447	446	457	466	446	444	464

Table 1166: MAgPIE m4p_SSP3 — Prices—Agriculture—Pulses (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	477	425	427	391	435	426	437	425	415	426	424
CAZ	304	317	326	320	330	351	358	321	331	312	303
CHA	433	435	433	431	432	434	434	435	437	438	434
EUR	703	653	681	674	651	689	675	670	662	674	678
IND	496	491	496	508	497	486	488	480	483	485	491
JPN	4720	4690	4771	4673	4716	4696	4755	4744	4750	4764	4750
LAM	579	577	571	578	573	582	578	576	579	582	580
MEA	437	416	432	414	421	448	402	452	404	460	420
NEU	495	508	525	526	550	538	563	577	589	590	626
OAS	287	280	271	269	280	288	291	315	297	303	303
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	314	320	328	331	338	329	314	318	355	342	335
USA	489	459	469	455	466	480	467	462	447	458	439

Table 1167: FAO — Prices—Agriculture—Pulses (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	429	410	411	435	404	408	408	441	404	429	418
CAZ	339	318	303	296	332	289	284	275	273	239	231
CHA	436	437	437	437	434	436	432	431	432	434	437
EUR	698	706	641	643	669	621	628	639	600	616	567
IND	498	479	496	487	493	479	491	495	481	479	477
JPN	4785	4790	4793	4791	4791	4793	4794	4793	4791	4787	4800
LAM	584	590	597	593	590	596	593	607	587	588	584
MEA	422	471	460	460	426	406	433	471	428	436	464
NEU	669	631	655	669	702	695	724	720	742	732	752
OAS	299	304	315	318	343	339	321	329	327	332	333
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	280	313	373	348	337	293	307	312	290	299	309
USA	478	476	460	458	476	500	452	476	474	494	484

Table 1168: FAO — Prices—Agriculture—Pulses (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	385	399	388	401	382	385	379	380	406	394	403
CAZ	214	206	210	202	213	202	205	218	213	209	197
CHA	439	439	443	441	439	444	443	447	437	441	454
EUR	523	493	462	427	394	366	364	327	330	327	326
IND	474	489	475	475	474	466	466	458	491	451	476
JPN	4793	4803	4803	4803	4804	4804	4806	4807	4807	4808	4807
LAM	606	603	582	591	586	575	581	587	578	574	581
MEA	440	458	463	476	467	411	463	451	479	455	458
NEU	759	770	771	774	800	811	769	811	783	876	866
OAS	303	295	295	293	308	306	328	301	293	270	263
REF	0	0	0	0	0	0	0	0	0	146	146
SSA	287	285	324	335	329	341	355	361	333	352	397
USA	455	484	491	467	472	452	459	496	482	480	462

Table 1169: FAO — Prices—Agriculture—Pulses (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	413	431	425	421	410	418	415	411	419	402	400
CAZ	192	196	198	189	188	204	210	224	230	206	188
CHA	451	457	456	456	456	465	465	465	460	463	466
EUR	330	342	336	328	324	330	338	350	347	343	347
IND	483	486	475	482	476	476	477	488	476	452	465
JPN	4810	4811	4810	4811	4811	4811	4811	4810	4812	4812	4812
LAM	575	585	583	574	572	566	558	570	570	562	555
MEA	457	436	447	443	429	478	463	432	443	430	456
NEU	870	879	875	881	888	902	892	892	892	895	895
OAS	256	254	241	238	228	219	208	195	175	172	163
REF	151	166	188	206	220	208	213	196	204	199	195
SSA	374	396	394	399	369	391	389	375	356	374	390
USA	489	464	488	455	460	473	481	466	477	455	381

Table 1170: FAO — Prices—Agriculture—Pulses (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	391	402	390	380	373	378	367
CAZ	202	208	202	192	200	214	220
CHA	464	462	460	463	463	461	458
EUR	350	368	384	388	368	352	369
IND	458	462	453	460	463	452	457
JPN	4812	4812	4812	4812	4812	4812	4812
LAM	553	560	549	557	546	542	526
MEA	440	451	465	462	446	478	401
NEU	878	863	858	869	869	886	889
OAS	153	138	136	114	113	112	113
REF	200	189	217	209	216	234	214
SSA	383	382	361	352	341	346	307
USA	398	401	386	413	384	410	445

Table 1171: FAO — Prices—Agriculture—Pulses (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	127	134	115	119	146	151	143	143	123	123
CAZ	0	53	137	181	123	148	149	147	138	128	109
CHA	0	27	28	32	24	37	51	51	63	40	45
EUR	0	148	175	116	119	150	162	126	110	85	80
IND	0	130	107	109	122	138	123	127	132	126	118
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	319	296	360	421	340	370	374	485	320	301
MEA	0	403	562	174	204	308	262	244	262	362	385
NEU	0	163	162	172	157	264	219	185	195	207	241
OAS	0	76	74	64	78	99	98	74	71	73	76
REF	0	0	20	31	25	27	93	111	66	62	88
SSA	0	39	30	51	60	90	144	139	121	54	57
USA	0	234	305	320	332	310	445	332	341	281	226

Table 1172: FAOp — Prices—Agriculture—Pulses (US\$05/tDM) [PART 1/3]

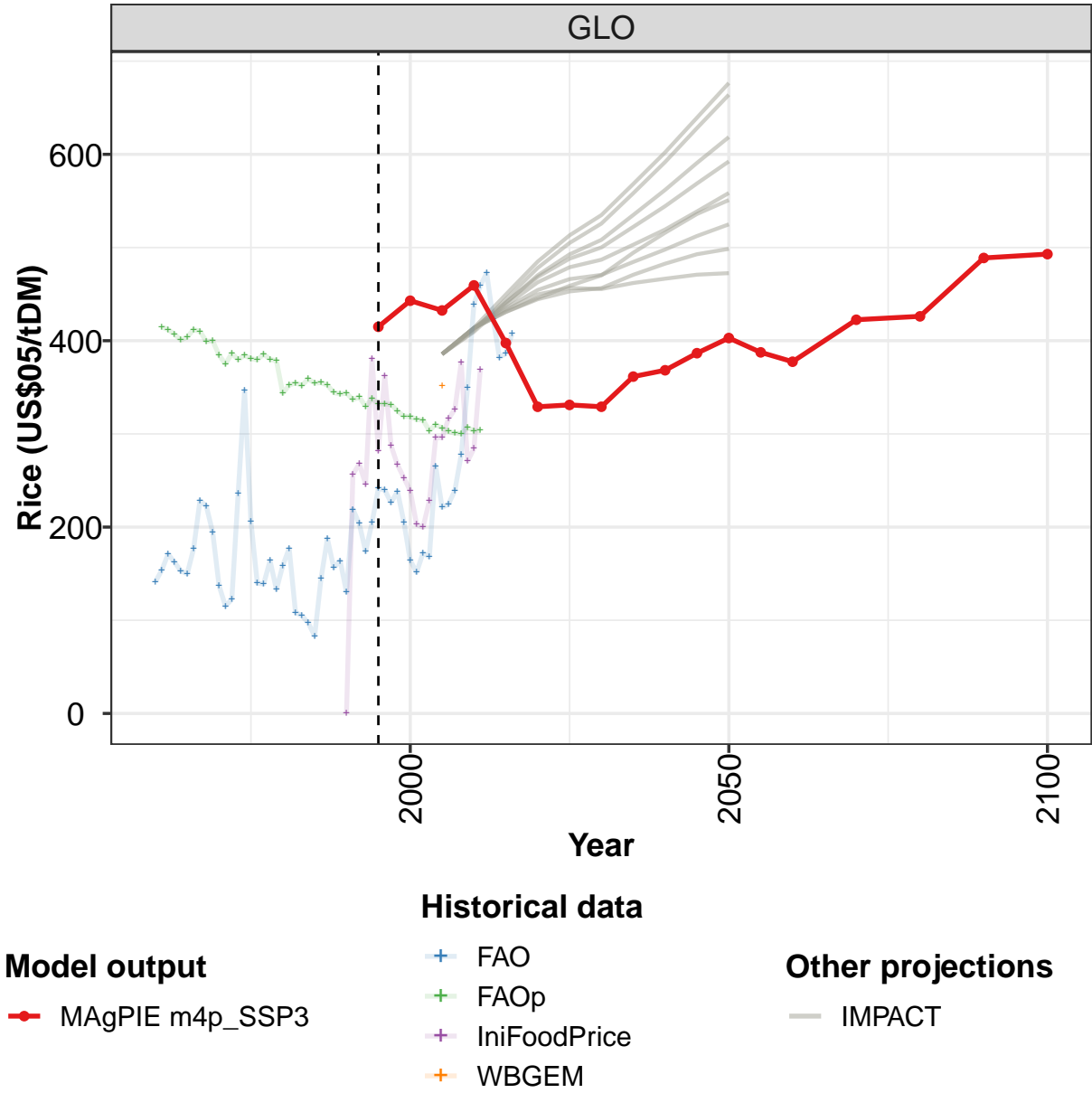
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	116	106	109	118	126	137	106	133	105	107	118
CAZ	123	129	168	137	147	131	200	223	192	197	216
CHA	48	52	53	59	61	117	141	182	145	204	254
EUR	71	69	63	66	48	57	74	74	60	68	78
IND	119	117	119	132	138	153	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	306	309	317	304	368	370	412	683	524	541	593
MEA	279	150	141	167	182	207	258	330	314	329	345
NEU	177	210	253	296	331	318	385	492	442	449	447
OAS	64	52	53	58	59	46	49	50	44	51	52
REF	89	72	65	80	74	90	133	90	73	83	101
SSA	59	53	55	63	78	80	93	131	68	61	84
USA	267	291	290	284	255	238	337	436	285	270	367

Table 1173: FAOp — Prices—Agriculture—Pulses (US\$05/tDM) [PART 2/3]

	2005
GLO	431
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1174: IniFoodPrice — Prices—Agriculture—Pulses (US\$05/tDM)

36.26 Rice



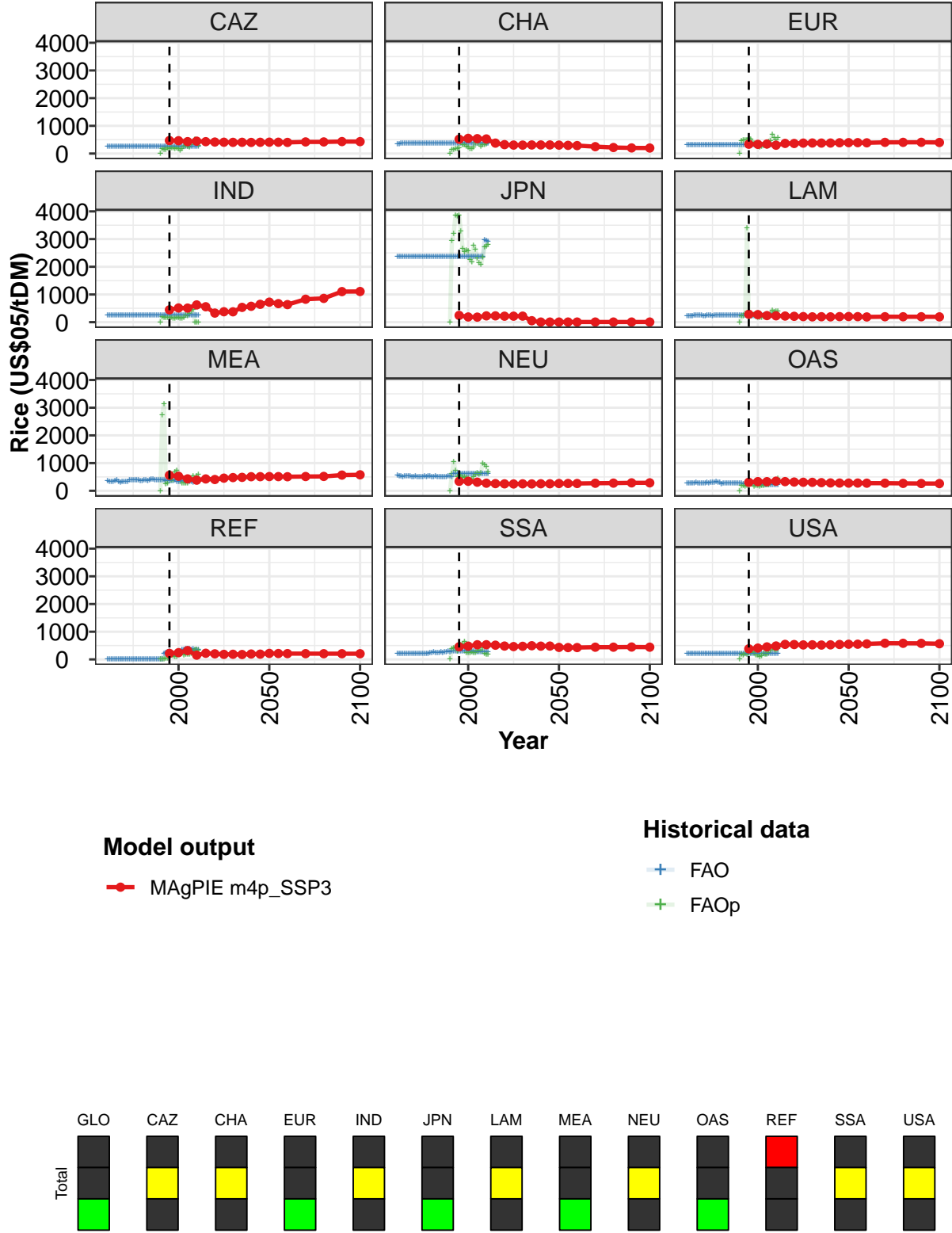


Figure 316: MAgPIE m4p_SSP3 — Prices—Agriculture—Rice (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	415	443	432	459	398	329	331	329	361	368	387
CAZ	469	463	430	447	429	416	409	405	407	402	407
CHA	518	548	537	528	377	322	306	305	310	311	310
EUR	337	333	344	302	367	364	377	381	378	380	391
IND	446	513	509	623	558	329	377	375	534	573	645
JPN	244	188	182	227	228	216	216	218	53	4	4
LAM	286	273	238	230	221	212	201	193	197	193	200
MEA	559	525	430	385	428	408	456	477	485	508	510
NEU	341	343	311	274	259	251	246	252	248	254	253
OAS	307	331	329	347	332	317	308	306	294	284	280
REF	218	244	318	153	223	202	183	186	177	195	190
SSA	456	479	529	530	514	482	463	473	494	479	483
USA	383	409	452	486	543	537	523	527	519	526	540

Table 1175: MAgPIE m4p-SSP3 — Prices—Agriculture—Rice (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	403	388	377	423	426	489	493
CAZ	411	409	403	420	420	433	431
CHA	305	296	288	248	218	203	200
EUR	394	393	388	404	405	406	400
IND	723	670	634	829	859	1104	1107
JPN	5	5	5	5	5	5	5
LAM	204	199	189	197	195	196	191
MEA	514	512	508	515	519	567	577
NEU	262	265	263	273	277	287	288
OAS	277	279	275	274	268	263	260
REF	217	213	210	208	207	206	205
SSA	434	427	428	442	442	447	443
USA	548	550	561	584	582	580	566

Table 1176: MAgPIE m4p-SSP3 — Prices—Agriculture—Rice (US\$05/tDM) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	141	154	171	162	153	150	177	228	223	194	137
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1177: WBGEM — Prices—Agriculture—Rice (US\$05/tDM) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	115	122	236	346	206	140	139	164	133	159	177
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1178: WBGEM — Prices—Agriculture—Rice (US\$05/tDM) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	108	105	97	83	145	187	156	164	130	219	204
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1179: WBGEM — Prices—Agriculture—Rice (US\$05/tDM) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	174	205	242	240	226	238	206	164	151	172	168
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1180: WBGEM — Prices—Agriculture—Rice (US\$05/tDM) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	265	221	225	239	278	350	439	459	473	424	382
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1181: WBGEM — Prices—Agriculture—Rice (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	386	408
CAZ		
CHA		
EUR		
IND		
JPN		
LAM		
MEA		
NEU		
OAS		
REF		
SSA		
USA		

Table 1182: WBGEM — Prices—Agriculture—Rice (US\$05/tDM) [PART 6/6]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	415	412	407	401	404	412	410	399	400	384	375
CAZ	257	257	257	257	257	257	257	257	257	257	257
CHA	353	355	357	358	358	359	359	358	359	360	361
EUR	308	306	308	308	308	310	312	312	314	313	316
IND	257	257	257	257	257	257	257	257	257	257	257
JPN	2365	2365	2365	2365	2365	2365	2365	2365	2365	2365	2365
LAM	234	234	235	237	240	241	240	242	238	235	236
MEA	365	341	332	342	365	380	324	313	322	335	325
NEU	546	546	524	502	519	532	531	525	503	513	520
OAS	287	269	286	288	281	300	282	265	285	278	284
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	203	214	200	204	206	200	219	220	213	214	215
USA	211	211	211	211	211	211	211	211	211	211	211

Table 1183: FAO — Prices—Agriculture—Rice (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	386	380	384	381	379	386	380	378	344	352	355
CAZ	257	257	257	257	257	257	257	257	257	257	257
CHA	360	362	361	361	360	361	362	362	363	363	363
EUR	314	316	318	318	318	315	318	319	316	317	317
IND	257	257	257	257	257	257	257	257	257	257	257
JPN	2365	2365	2365	2365	2365	2365	2365	2365	2365	2365	2365
LAM	238	239	237	235	240	238	241	243	242	242	241
MEA	344	376	384	386	393	378	387	359	368	401	390
NEU	498	512	514	501	529	509	522	532	490	516	522
OAS	288	282	290	288	301	317	313	303	251	274	276
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	220	220	224	221	199	214	220	237	248	258	248
USA	211	211	211	211	211	211	211	211	211	211	211

Table 1184: FAO — Prices—Agriculture—Rice (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	352	359	354	355	352	344	343	344	337	340	329
CAZ	257	257	257	257	257	257	257	257	257	257	257
CHA	363	364	364	365	365	365	365	366	366	366	366
EUR	323	322	323	323	320	321	320	317	315	317	319
IND	257	257	257	257	257	257	257	257	257	257	257
JPN	2365	2365	2365	2365	2365	2365	2365	2365	2365	2365	2365
LAM	245	241	241	239	243	241	241	244	244	244	242
MEA	362	395	409	404	403	391	391	382	397	384	372
NEU	516	513	512	497	495	516	544	524	503	618	606
OAS	277	280	276	276	275	280	272	269	260	256	244
REF	0	0	0	0	0	0	0	0	0	219	247
SSA	251	251	258	249	259	269	296	278	306	311	302
USA	211	211	211	211	211	211	211	211	211	211	211

Table 1185: FAO — Prices—Agriculture—Rice (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	338	332	332	331	325	319	319	315	315	304	310
CAZ	257	257	257	257	257	257	257	257	257	257	257
CHA	366	366	367	366	367	367	366	367	366	366	367
EUR	316	315	313	312	312	312	311	311	312	312	312
IND	257	257	257	257	257	257	257	257	257	257	257
JPN	2365	2365	2365	2365	2365	2365	2365	2365	2365	2365	2365
LAM	238	237	233	232	236	234	240	242	243	239	239
MEA	353	353	371	346	382	344	328	339	358	365	341
NEU	607	606	611	612	610	608	608	605	605	606	606
OAS	248	242	249	252	243	238	236	237	230	222	227
REF	269	294	209	210	187	212	260	297	350	353	394
SSA	286	301	297	303	295	301	302	288	286	283	285
USA	211	211	211	211	211	211	211	211	211	211	211

Table 1186: FAO — Prices—Agriculture—Rice (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	306	303	301	300	307	303	304
CAZ	257	257	257	257	257	257	257
CHA	367	367	368	367	367	367	367
EUR	313	314	315	314	315	313	312
IND	257	257	257	257	257	257	257
JPN	2365	2365	2365	2365	2957	2932	2899
LAM	242	241	243	244	241	247	247
MEA	350	334	334	315	345	404	359
NEU	605	605	605	605	606	606	606
OAS	220	216	213	216	217	209	213
REF	393	379	350	370	327	346	362
SSA	279	281	267	279	267	259	264
USA	211	211	211	211	211	211	211

Table 1187: FAO — Prices—Agriculture—Rice (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	257	268	246	381	282	362	287	267	253	239
CAZ	0	158	138	134	203	181	210	211	186	197	178
CHA	0	140	136	170	168	209	438	302	316	268	234
EUR	0	466	477	486	487	541	529	412	375	341	243
IND	0	184	176	162	162	173	178	137	138	166	152
JPN	0	2949	3202	3862	3837	3849	3270	2642	2545	2595	2565
LAM	0	230	215	294	3399	220	235	242	268	192	179
MEA	0	2744	3129	251	268	465	388	374	670	743	453
NEU	0	631	1038	741	494	512	565	479	498	460	449
OAS	0	188	185	166	187	213	248	232	158	183	195
REF	0	0	12	28	38	95	139	137	95	105	175
SSA	7	386	403	448	296	352	537	543	637	246	244
USA	0	192	149	202	171	232	244	254	225	151	143

Table 1188: FAOp — Prices—Agriculture—Rice (US\$05/tDM) [PART 1/3]

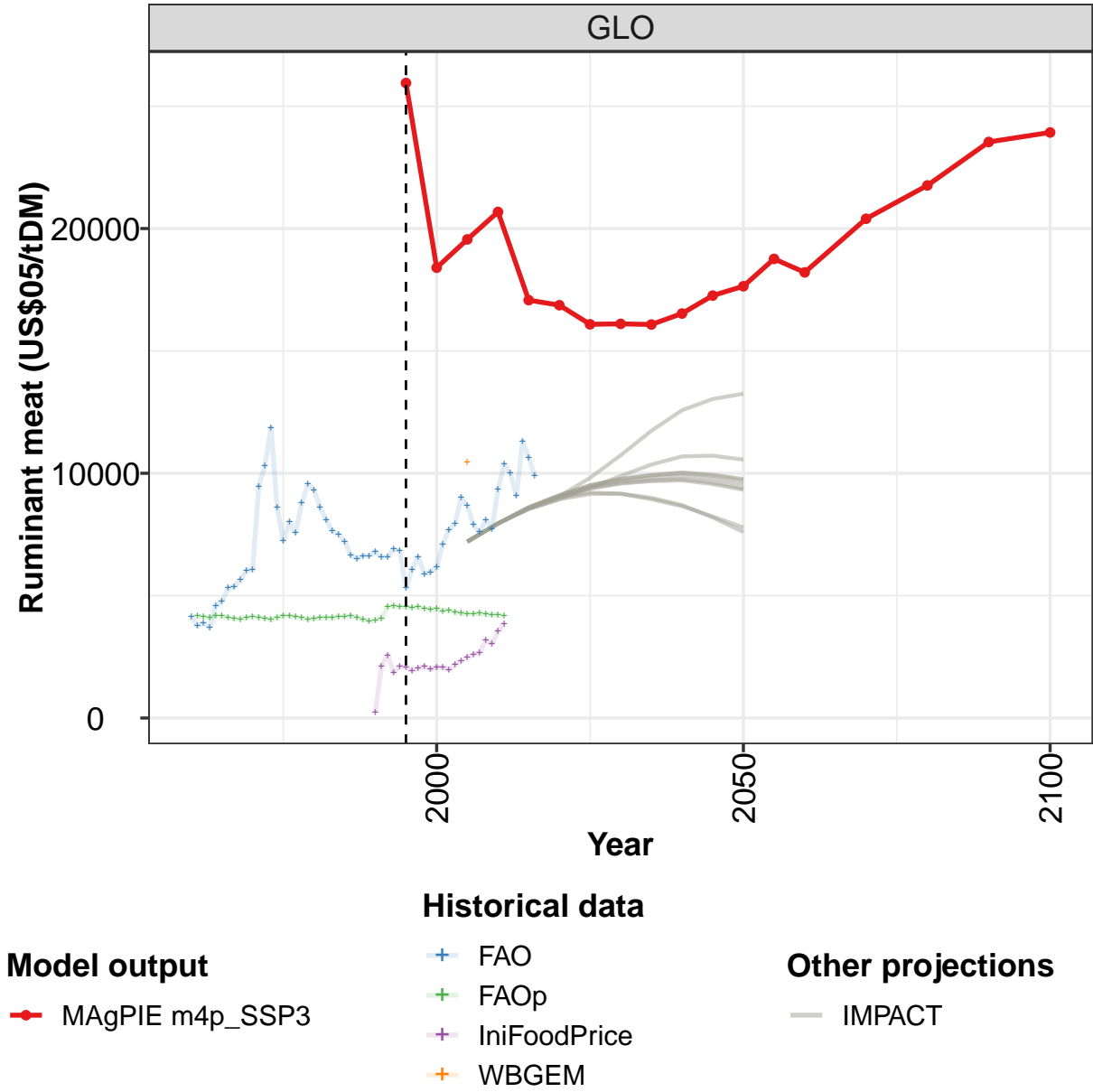
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	203	200	228	296	296	316	326	376	271	284	369
CAZ	127	171	259	275	261	236	326	400	516	482	284
CHA	173	160	236	358	366	377	259	317	324	338	460
EUR	242	244	285	272	245	417	467	676	571	483	569
IND	143	143	154	239	234	298	397	443	0	0	0
JPN	2265	2171	2758	2634	2318	2144	2083	2352	2700	2751	2801
LAM	177	170	202	245	238	239	317	433	378	402	402
MEA	542	270	271	284	274	453	402	537	445	544	580
NEU	350	427	512	592	632	593	659	987	921	883	662
OAS	173	180	178	204	212	220	271	298	270	302	438
REF	228	266	142	177	183	175	219	299	356	345	336
SSA	232	257	241	232	308	317	335	399	214	168	179
USA	108	114	205	186	194	253	324	425	364	322	368

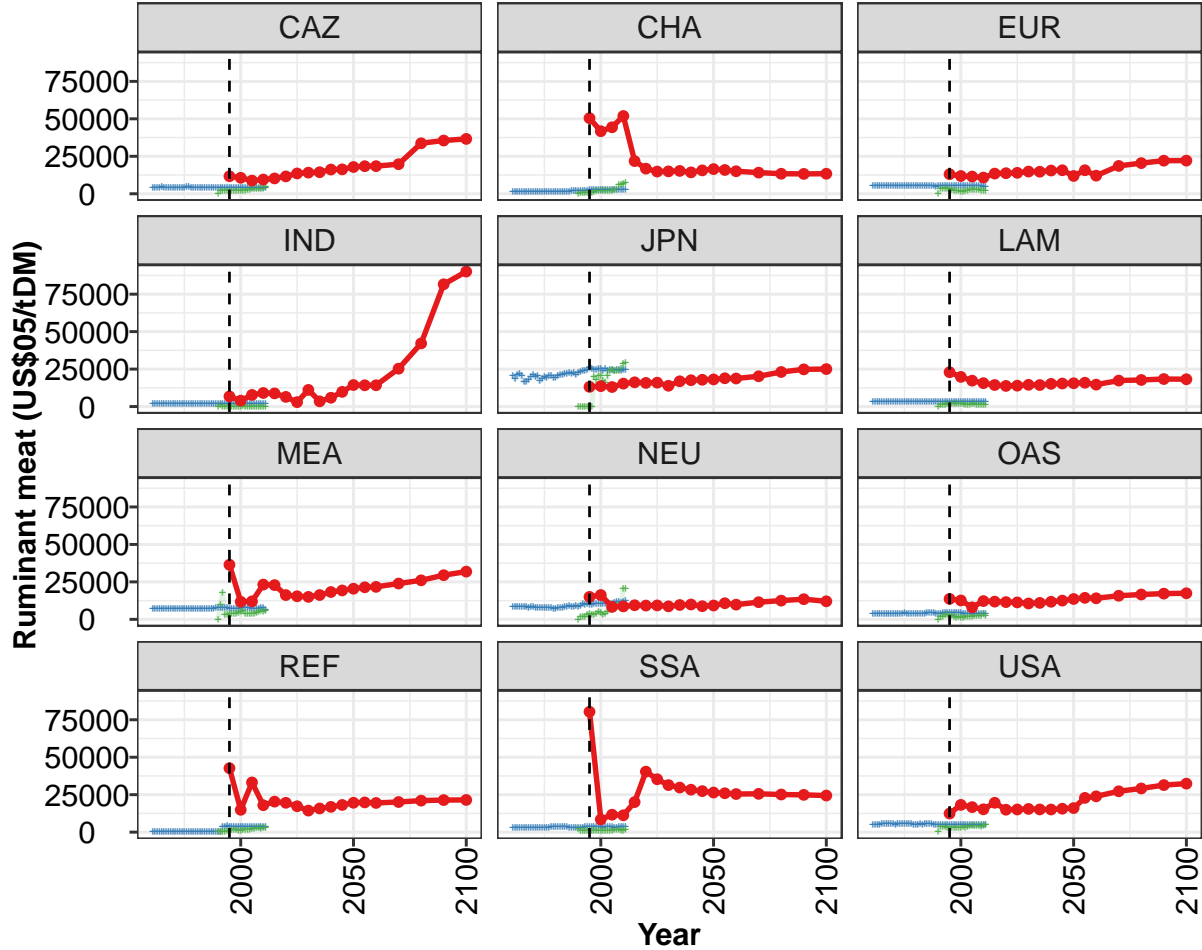
Table 1189: FAOp — Prices—Agriculture—Rice (US\$05/tDM) [PART 2/3]

	2005
GLO	352
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1190: IniFoodPrice — Prices—Agriculture—Rice (US\$05/tDM)

36.27 Ruminant meat





Model output

—•— MAgPIE m4p_SSP3

Historical data

+ FAO
+ FAOp

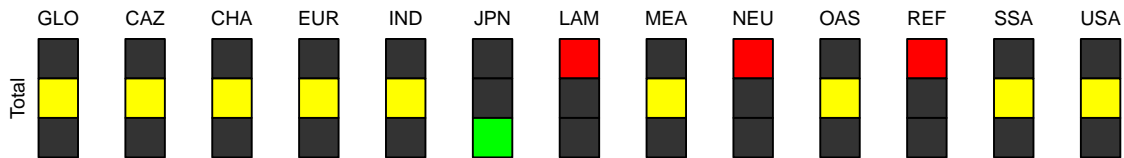


Figure 317: MAgPIE m4p_SSP3 — Prices—Agriculture—Ruminant meat (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	25949	18400	19557	20680	17075	16868	16087	16106	16079	16528	17261
CAZ	11723	10666	8793	9515	10246	11602	13556	14106	14396	16189	16299
CHA	50463	41739	44382	51902	21821	16794	14829	14948	15259	14287	15614
EUR	13071	11852	11510	10814	13467	13725	13977	14843	14714	15497	15711
IND	6788	3969	7777	9072	8795	6472	2963	11131	3493	5889	9824
JPN	13151	13612	13054	15320	16190	15786	15964	13889	16882	17578	17888
LAM	22946	19801	17295	15638	14404	13781	13953	14509	14378	15169	15385
MEA	36458	11776	12019	23190	22851	16219	15425	15007	16246	18255	19304
NEU	15007	16235	8343	8650	9425	9201	9309	8702	9575	9916	8785
OAS	13643	12620	8036	12196	11841	11527	11317	10610	10987	11747	12533
REF	42668	14910	33190	17979	20377	19607	17294	14396	15817	16889	18146
SSA	80340	8478	11643	11271	20064	40394	35311	31397	29778	28336	27380
USA	12425	18188	16717	15257	19611	14984	15132	15508	15165	15121	15638

Table 1191: MAgPIE m4p_SSP3 — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	17642	18760	18209	20400	21762	23538	23927
CAZ	17872	18406	18446	19740	33700	35531	36601
CHA	16473	15891	15047	14118	13376	13269	13372
EUR	11886	15699	12102	18586	20463	22095	22133
IND	14374	14212	14221	25289	42163	81612	90087
JPN	18122	18882	18730	20212	23081	24831	25012
LAM	15578	15916	14646	17341	17744	18384	18221
MEA	20468	21387	21689	23915	26050	29481	31857
NEU	9235	10771	9826	11456	12516	13460	12046
OAS	13602	14363	14081	15753	16596	17176	17410
REF	19632	19855	19490	20120	21034	21414	21505
SSA	26450	25956	25452	25572	25116	24877	24435
USA	16074	22877	23892	27274	29152	31403	32376

Table 1192: MAgPIE m4p_SSP3 — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	4146	3765	3871	3679	4579	4755	5317	5368	5644	6037	6054
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1193: WBGEM — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	9456	10310	11867	8604	7229	8013	7554	8781	9548	9316	8602
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1194: WBGEM — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	8106	7636	7492	7218	6663	6514	6628	6616	6803	6570	6593
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1195: WBGEM — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	6896	6830	5307	6070	6582	5869	5954	6163	7093	7699	7935
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1196: WBGEM — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	9012	8668	7888	7590	8092	7722	9337	10362	10006	9080	11309
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1197: WBGEM — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	10644	9909
CAZ		
CHA		
EUR		
IND		
JPN		
LAM		
MEA		
NEU		
OAS		
REF		
SSA		
USA		

Table 1198: WBGEM — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 6/6]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	4174	4129	4100	4194	4158	4106	4048	4040	4096	4142	4116
CAZ	4242	4248	4268	4291	4349	4328	4287	4287	4274	4219	4214
CHA	1581	1498	1319	1226	1219	1259	1281	1302	1341	1338	1326
EUR	5307	5305	5311	5171	5143	5238	5240	5214	5252	5307	5246
IND	1744	1782	1782	1768	1754	1743	1721	1698	1679	1657	1630
JPN	20734	18239	21150	21882	20687	16476	16576	17592	19984	20982	19738
LAM	3166	3168	3161	3165	3174	3180	3177	3151	3152	3138	3156
MEA	7250	7163	7103	7115	7128	7158	7157	7236	7234	7151	7198
NEU	8522	8429	8605	8469	8282	8399	8157	7811	8113	8165	7976
OAS	3457	3539	3598	3759	3619	3427	3437	3414	3391	3518	3513
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	3097	3053	3086	3127	3133	3088	3101	3154	3243	3163	3224
USA	5102	5083	5088	5143	5309	5340	5268	5252	5269	5271	5175

Table 1199: FAO — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	4072	4010	4107	4172	4164	4135	4094	4021	4054	4093	4109
CAZ	4236	4252	4270	4328	4344	4348	4329	4279	4224	4226	4244
CHA	1304	1366	1429	1481	1404	1423	1473	1456	1536	1537	1548
EUR	5056	5044	5121	5098	5114	5085	5045	5084	5143	5114	5088
IND	1613	1602	1589	1593	1585	1580	1588	1589	1595	1601	1603
JPN	20517	16869	18739	20010	18910	20448	20695	19243	19328	20860	21176
LAM	3122	3125	3145	3158	3155	3144	3140	3137	3142	3153	3154
MEA	7237	7283	7237	7217	7164	7056	6956	6866	6791	6871	6957
NEU	7889	7917	7672	7743	7657	7732	7455	7191	7271	7521	7557
OAS	3577	3707	3844	4093	3970	3858	3870	3941	3956	3956	3910
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	3235	3127	3154	3168	3183	3192	3253	3291	3408	3344	3350
USA	5284	5292	5316	5538	5537	5446	5391	5124	5053	5139	5252

Table 1200: FAO — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	4094	4154	4153	4178	4110	4023	3963	3996	4063	4543	4567
CAZ	4231	4205	4194	4208	4170	4176	4152	4187	4183	4150	4144
CHA	1575	1583	1548	1603	1757	1844	1945	1970	2067	2097	2226
EUR	5105	5136	5130	5192	5114	4997	4946	5053	5168	5244	5273
IND	1603	1602	1592	1595	1629	1630	1630	1634	1633	1632	1640
JPN	21337	22099	22073	22458	22187	22213	21519	22531	23319	23743	23734
LAM	3164	3158	3153	3211	3203	3201	3193	3290	3281	3282	3270
MEA	6964	6904	7056	7140	7293	7365	7535	7551	7609	7580	7557
NEU	7595	8543	8491	9103	8583	8599	8811	8668	9111	10074	9945
OAS	3844	3993	4281	4560	4483	4242	3903	3873	3867	4087	4258
REF	0	0	0	0	0	0	0	0	0	3816	3882
SSA	3379	3390	3366	3124	3182	3138	3092	3029	3046	3076	3368
USA	5220	5250	5253	5344	5290	5197	5149	5164	5126	5050	5050

Table 1201: FAO — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	4553	4528	4517	4527	4477	4441	4458	4378	4398	4320	4299
CAZ	4140	4106	4127	4149	4169	4172	4157	4136	4104	4068	4126
CHA	2231	2343	2429	2570	2620	2616	2663	2650	2653	2679	2708
EUR	5245	5264	5217	5188	5050	5019	5180	5170	5185	5110	5136
IND	1649	1658	1665	1675	1677	1679	1680	1682	1684	1686	1700
JPN	24219	25985	25448	24821	24797	25110	25083	23732	25235	24184	24651
LAM	3275	3274	3253	3269	3252	3220	3210	3204	3206	3205	3198
MEA	7393	7311	7344	7286	7236	7325	7396	7388	7511	7408	7401
NEU	10160	9974	9917	10396	10296	10507	10457	10574	10512	10344	10636
OAS	4223	4182	4224	4578	4683	4478	4340	4004	3833	3733	3718
REF	3940	3815	3878	3823	3783	3709	3718	3731	3737	3677	3673
SSA	3389	3295	3326	3336	3296	3283	3275	3238	3254	3255	3284
USA	5074	5115	5165	5158	5062	5086	5159	5129	5152	5096	4988

Table 1202: FAO — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	4259	4267	4270	4237	4208	4219	4164
CAZ	4139	4121	4110	4089	4083	4096	4071
CHA	2705	2700	2749	2730	2727	2706	2703
EUR	5096	5079	5052	5012	5000	4937	4886
IND	1712	1726	1739	1749	1756	1759	1770
JPN	24378	24194	24351	24688	24201	24293	24257
LAM	3220	3261	3301	3210	3201	3235	3246
MEA	7382	7368	7359	7382	7441	7512	6365
NEU	10528	11350	11576	11448	11242	11982	12159
OAS	3652	3668	3623	3692	3767	3607	3736
REF	3647	3590	3611	3631	3599	3550	3417
SSA	3270	3196	3243	3286	3264	3275	3273
USA	4972	5069	5049	4966	4959	4972	4965

Table 1203: FAO — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	217	2114	2565	1864	2123	2071	1926	2026	2108	1986	2066
CAZ	0	1891	1794	1746	1889	1802	1723	1865	1765	1883	1937
CHA	0	629	640	703	639	851	891	1116	1971	1748	1863
EUR	0	3323	3515	3259	3393	3169	2430	2147	2108	1708	1582
IND	0	959	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	19687	18165	20234	20698
LAM	0	893	1014	960	2183	1792	1688	1778	1819	1534	1661
MEA	0	9618	17971	2917	3029	3474	3901	3512	4018	4525	5144
NEU	0	1630	1762	1548	3364	3797	3057	2975	3510	4949	4283
OAS	0	1458	1874	2983	2866	3023	2482	1740	1346	1404	1328
REF	0	0	80	391	705	1005	1434	1443	1508	1038	1058
SSA	2412	608	581	730	827	1022	1074	1183	1229	657	628
USA	0	3306	3252	3339	3095	2837	2732	2911	2746	2918	3161

Table 1204: FAOp — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 1/3]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	2071	1974	2184	2314	2490	2605	2650	3169	3017	3536	3838
CAZ	2024	2319	2353	2663	3045	3050	3283	3149	3130	3661	4777
CHA	1834	1866	1952	1979	2122	2353	2835	5672	5837	6521	7271
EUR	1601	1831	2244	2433	2537	2677	2752	2780	2173	2088	2222
IND	480	0	0	0	0	0	0	0	0	0	0
JPN	16997	15646	20502	24020	24475	23534	23604	24141	25013	28420	29262
LAM	1558	1341	1428	1499	1724	1800	1096	1075	987	1272	1394
MEA	5451	3685	3616	3465	3687	3934	4143	4926	5480	5351	5409
NEU	3244	3828	5389	6508	6670	7605	9189	9693	8961	20711	20180
OAS	1332	1738	1748	1750	2031	2136	2310	2083	2687	3484	2109
REF	1399	1388	1295	1687	2115	2281	2640	2822	2455	2615	3098
SSA	679	769	926	984	1102	1381	1698	1858	1199	1231	1409
USA	3281	3060	3657	3944	4114	4004	4124	4085	3674	4228	5180

Table 1205: FAOp — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 2/3]

	2005
GLO	10464
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1206: IniFoodPrice — Prices—Agriculture—Ruminant meat (US\$05/tDM)

36.28 Short rotation grasses

geom_path: Each group consists of only one observation. Do you need to adjust the group## aesthetic?

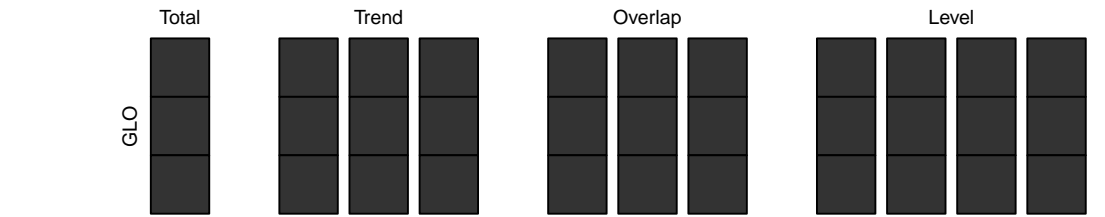
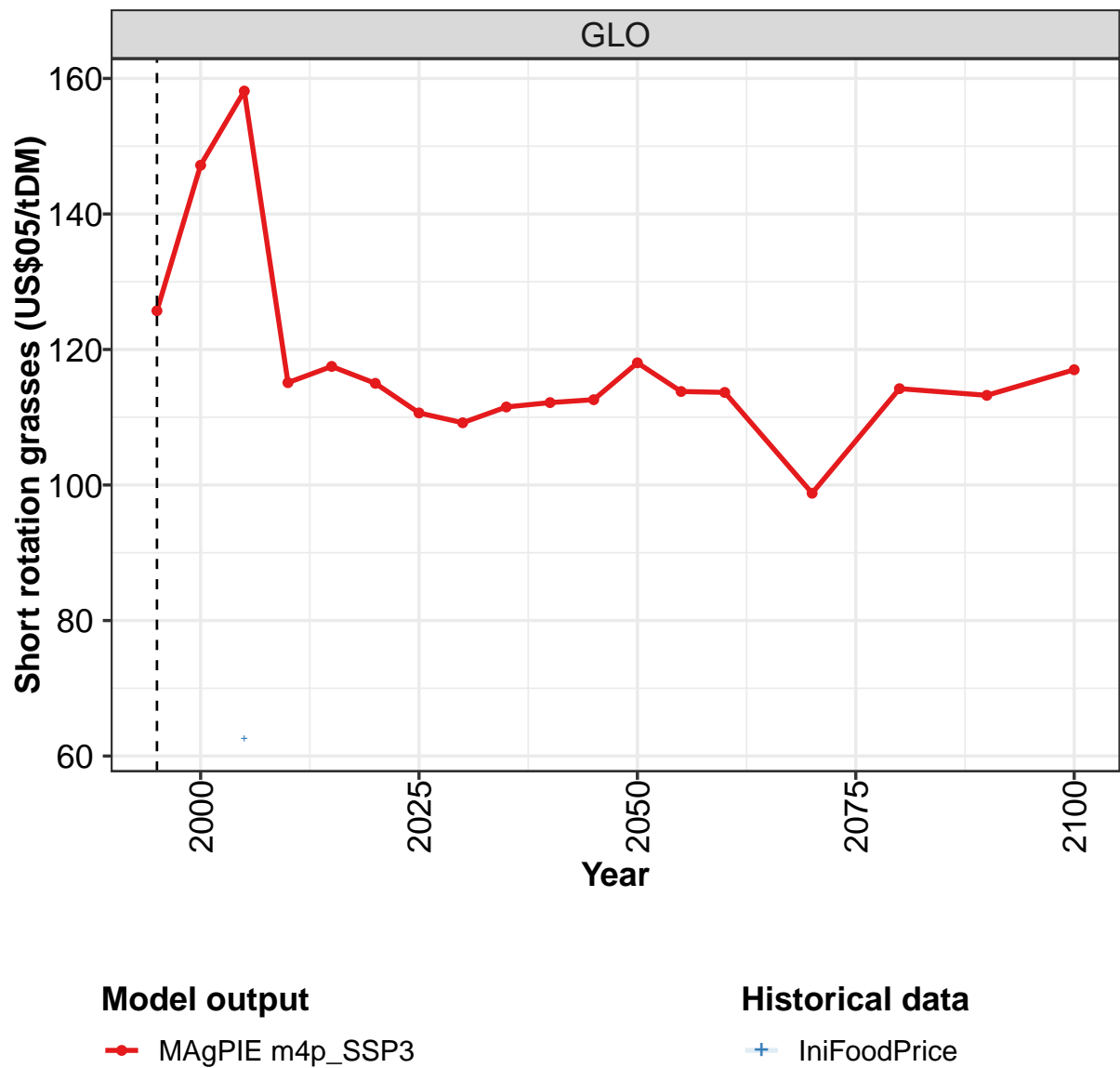


Figure 318: MAgPIE m4p_SSP3 — Prices—Agriculture—Short rotation grasses (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	126	147	158	115	118	115	111	109	112	112	113

Table 1207: MAgPIE m4p_SSP3 — Prices—Agriculture—Short rotation grasses (US\$05/tDM) [PART 1/2]

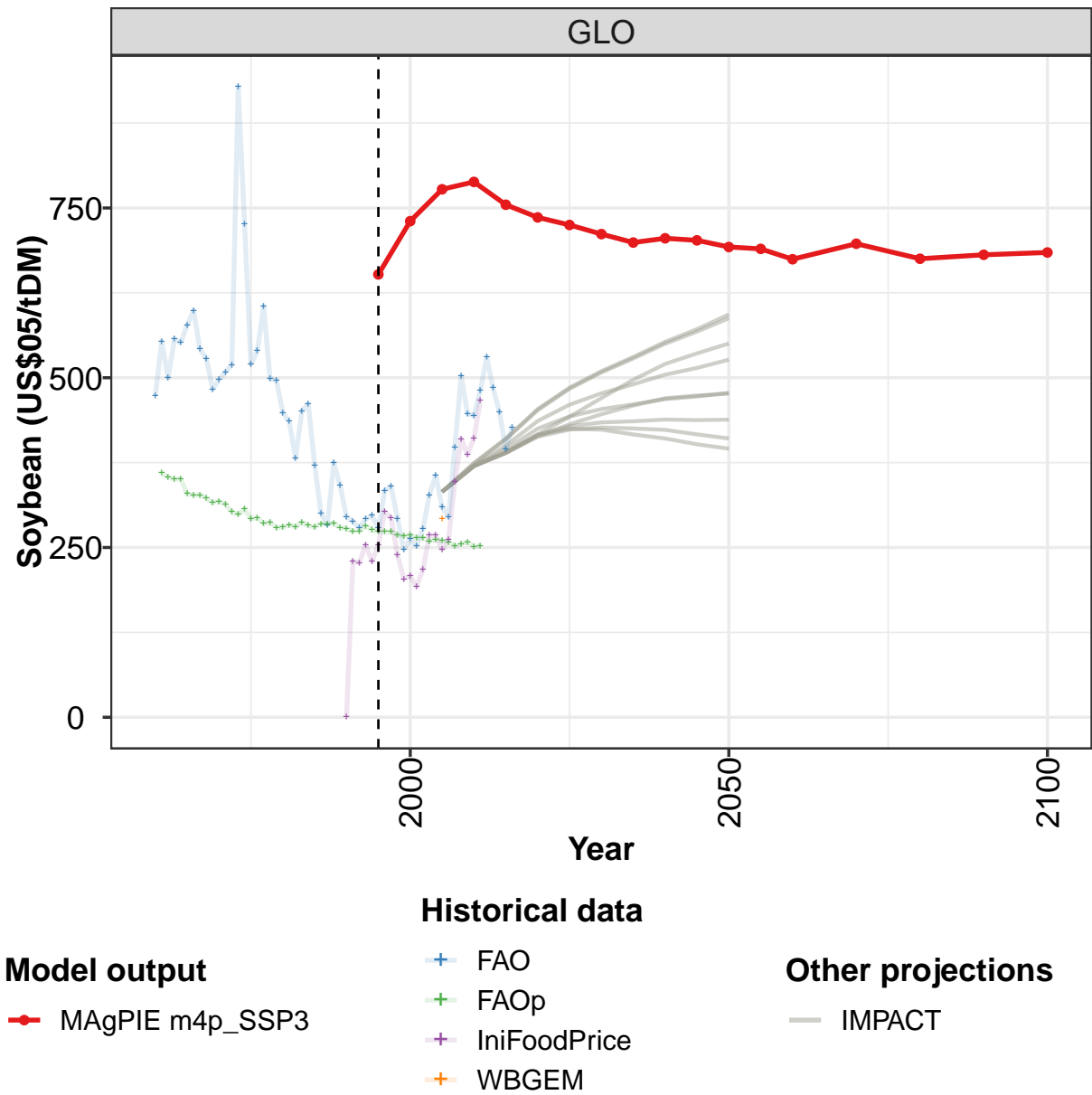
	2050	2055	2060	2070	2080	2090	2100
GLO	118	114	114	99	114	113	117

Table 1208: MAgPIE m4p_SSP3 — Prices—Agriculture—Short rotation grasses (US\$05/tDM) [PART 2/2]

	2005
GLO	62.5

Table 1209: IniFoodPrice — Prices—Agriculture—Short rotation grasses (US\$05/tDM)

36.29 Soybean



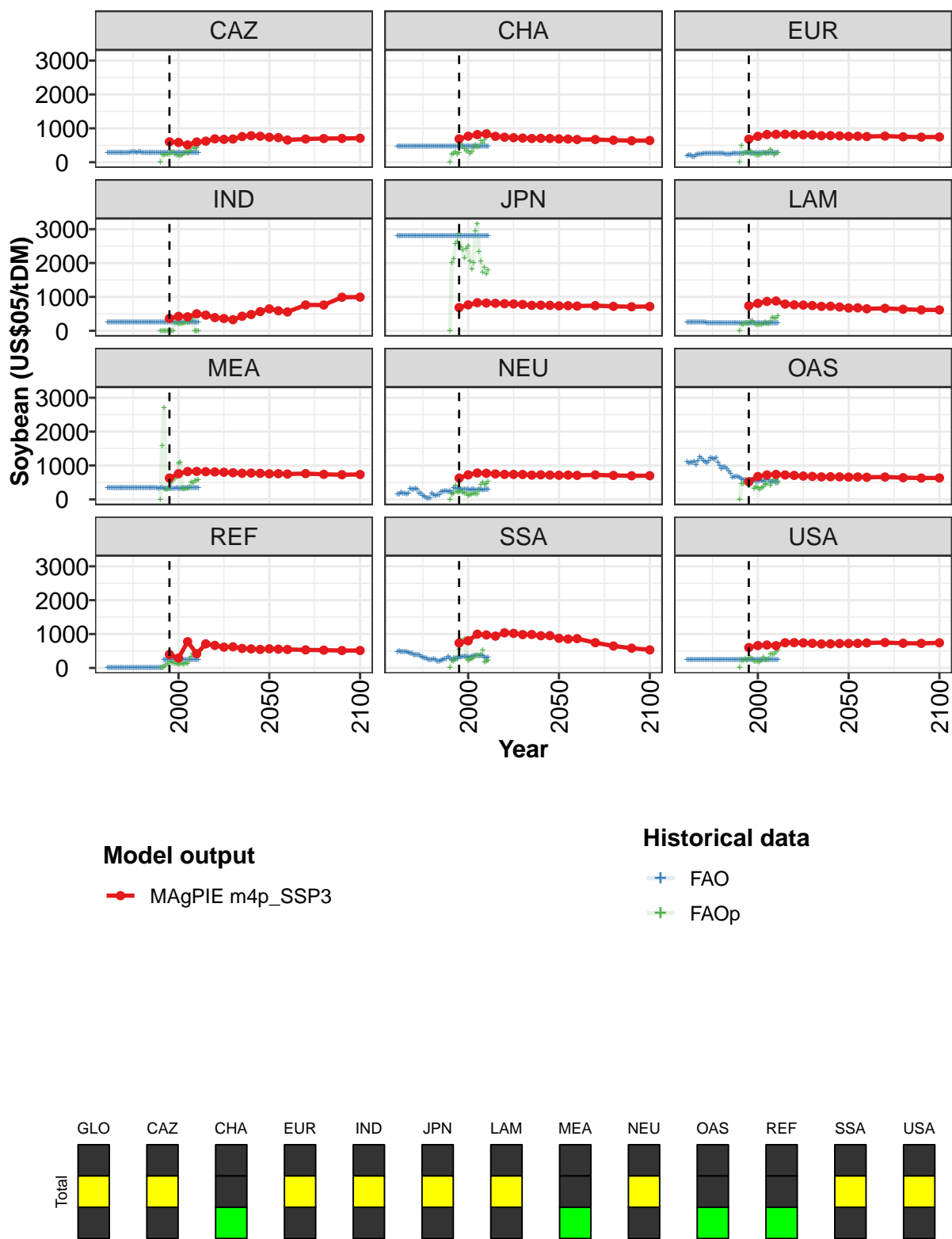


Figure 319: MAgPIE m4p_SSP3 — Prices—Agriculture—Soybean (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	652	731	778	788	755	736	725	712	699	705	702
CAZ	602	585	511	598	621	690	675	685	757	782	767
CHA	688	769	816	836	764	739	724	713	701	704	701
EUR	681	764	818	823	824	816	811	805	783	787	778
IND	366	426	413	502	462	390	362	328	429	480	567
JPN	686	765	829	819	812	801	792	777	750	757	750
LAM	738	810	866	879	788	766	759	744	720	725	702
MEA	630	757	822	825	817	809	800	786	771	776	769
NEU	628	723	779	770	751	738	737	734	716	725	717
OAS	522	674	722	737	721	708	688	678	665	668	665
REF	399	290	776	420	710	666	614	624	577	563	546
SSA	737	801	996	974	941	1037	1020	985	987	951	953
USA	602	660	677	659	744	746	740	726	708	713	721

Table 1210: MAgPIE m4p_SSP3 — Prices—Agriculture—Soybean (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	693	690	675	697	675	681	684
CAZ	737	726	656	685	699	702	708
CHA	688	685	671	670	650	636	641
EUR	765	768	758	772	751	741	746
IND	648	591	557	763	761	990	993
JPN	737	740	730	743	721	710	717
LAM	673	678	649	663	637	617	616
MEA	755	758	748	761	739	727	735
NEU	711	717	709	722	707	696	698
OAS	658	661	653	660	641	630	632
REF	565	555	545	533	525	513	515
SSA	876	853	864	745	648	583	533
USA	722	725	738	751	729	725	742

Table 1211: MAgPIE m4p_SSP3 — Prices—Agriculture—Soybean (US\$05/tDM) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	474	553	499	557	552	578	599	542	528	483	497
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1212: WBGEM — Prices—Agriculture—Soybean (US\$05/tDM) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	508	519	928	727	520	540	605	499	496	449	436
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1213: WBGEM — Prices—Agriculture—Soybean (US\$05/tDM) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	381	451	462	371	300	283	374	341	295	289	279
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1214: WBGEM — Prices—Agriculture—Soybean (US\$05/tDM) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	292	297	279	334	340	292	247	263	253	278	327
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1215: WBGEM — Prices—Agriculture—Soybean (US\$05/tDM) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	356	309	295	397	502	447	444	481	530	485	450
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1216: WBGEM — Prices—Agriculture—Soybean (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	395	427
CAZ		
CHA		
EUR		
IND		
JPN		
LAM		
MEA		
NEU		
OAS		
REF		
SSA		
USA		

Table 1217: WBGEM — Prices—Agriculture—Soybean (US\$05/tDM) [PART 6/6]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	360	353	351	351	329	327	327	322	316	318	314
CAZ	286	286	286	286	286	286	286	286	286	287	288
CHA	472	472	472	472	471	472	471	471	472	472	472
EUR	179	214	204	156	156	214	232	243	240	251	253
IND	254	254	253	253	253	253	253	253	253	253	253
JPN	2812	2812	2812	2812	2812	2812	2812	2812	2812	2812	2812
LAM	245	244	246	251	246	246	249	254	249	246	240
MEA	338	338	338	338	338	332	332	332	332	334	332
NEU	156	165	208	168	167	151	185	314	289	304	307
OAS	1103	1067	1096	1081	1111	1023	1130	1254	1216	1135	1105
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	481	491	482	471	470	475	459	439	437	379	394
USA	246	246	246	246	246	246	246	246	246	246	246

Table 1218: FAO — Prices—Agriculture—Soybean (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	302	298	307	292	294	285	287	279	280	284	280
CAZ	290	290	294	294	294	290	293	293	291	291	290
CHA	471	472	471	472	472	472	473	474	474	475	475
EUR	251	256	260	265	263	258	262	262	261	255	242
IND	253	254	253	253	253	253	253	253	253	253	253
JPN	2812	2812	2812	2812	2812	2812	2812	2812	2812	2812	2812
LAM	239	236	234	235	232	231	229	228	229	228	227
MEA	335	337	334	333	333	335	340	343	345	347	346
NEU	297	178	184	96	79	42	28	26	177	129	111
OAS	1076	1130	1226	1195	1185	1236	1084	1003	908	951	950
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	373	382	335	312	287	281	244	241	239	255	244
USA	246	246	246	246	246	246	246	246	246	246	246

Table 1219: FAO — Prices—Agriculture—Soybean (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	287	282	280	285	285	286	279	277	274	274	281
CAZ	289	290	291	291	289	289	291	289	288	288	287
CHA	475	475	475	475	475	475	475	475	475	475	475
EUR	237	239	245	250	255	258	258	259	254	263	269
IND	253	253	253	253	253	253	253	253	253	253	253
JPN	2812	2812	2812	2812	2812	2812	2812	2812	2812	2812	2812
LAM	228	225	226	224	226	223	227	223	222	222	223
MEA	345	345	345	346	351	340	323	335	352	322	322
NEU	119	131	217	234	243	239	231	252	193	333	324
OAS	892	832	764	654	663	678	676	649	595	575	573
REF	0	0	0	0	0	0	0	0	0	251	251
SSA	191	188	216	237	254	272	341	293	245	300	261
USA	246	246	246	246	246	246	246	246	246	246	246

Table 1220: FAO — Prices—Agriculture—Soybean (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	276	274	273	273	268	267	268	264	264	259	261
CAZ	288	287	287	287	287	288	288	287	287	286	287
CHA	475	475	475	476	476	476	476	476	476	476	476
EUR	270	270	268	267	268	271	268	271	272	270	268
IND	253	253	253	253	253	253	253	253	253	253	253
JPN	2812	2812	2812	2812	2812	2812	2812	2812	2812	2812	2812
LAM	223	222	221	223	221	220	220	220	220	220	220
MEA	325	321	315	324	324	330	328	328	328	331	333
NEU	324	317	293	292	301	285	286	279	289	295	277
OAS	554	561	573	585	567	525	528	549	542	521	571
REF	252	252	253	253	251	249	250	251	249	248	247
SSA	262	338	317	344	346	339	322	315	342	353	364
USA	246	246	246	246	246	246	246	246	246	246	246

Table 1221: FAO — Prices—Agriculture—Soybean (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	260	258	252	255	258	251	252
CAZ	287	287	287	286	287	287	286
CHA	476	476	476	476	476	476	476
EUR	269	269	270	273	272	273	273
IND	253	253	253	253	253	253	253
JPN	2812	2812	2812	2812	2812	2812	2812
LAM	219	219	219	219	221	219	221
MEA	333	331	333	335	333	334	334
NEU	266	283	283	282	283	286	293
OAS	620	583	509	534	532	472	520
REF	247	246	248	247	249	247	250
SSA	352	355	353	352	308	285	317
USA	246	246	246	246	246	246	246

Table 1222: FAO — Prices—Agriculture—Soybean (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	229	227	254	230	253	303	293	239	204	208
CAZ	0	222	220	242	241	238	288	297	239	203	200
CHA	0	226	268	315	238	278	539	475	408	320	324
EUR	0	480	252	282	272	265	319	287	262	208	199
IND	0	0	0	0	0	0	0	0	217	221	217
JPN	0	2001	2134	2564	2637	2861	2464	2372	2157	2435	2508
LAM	0	194	192	222	226	210	271	290	224	170	187
MEA	0	1581	2706	305	285	328	488	605	601	776	1056
NEU	0	152	181	408	230	208	238	205	180	183	114
OAS	0	464	461	493	511	540	564	499	312	374	329
REF	0	0	38	71	122	186	162	140	121	116	93
SSA	0	208	206	296	286	538	810	797	860	283	217
USA	0	231	230	265	226	278	278	268	204	191	188

Table 1223: FAOp — Prices—Agriculture—Soybean (US\$05/tDM) [PART 1/3]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	193	218	268	268	247	261	347	410	387	411	466
CAZ	190	211	263	302	257	302	321	440	409	421	503
CHA	268	301	411	510	452	465	622	564	656	832	905
EUR	213	231	288	285	257	251	374	281	213	263	285
IND	211	205	225	249	258	254	293	360	0	0	0
JPN	2048	1814	2007	2946	3156	2334	2042	1734	1860	1681	1806
LAM	175	182	216	241	210	209	272	384	372	362	433
MEA	1086	350	300	314	323	353	505	480	560	557	583
NEU	133	152	182	155	154	277	444	496	432	447	527
OAS	295	334	370	442	456	723	410	534	572	577	471
REF	118	124	103	137	122	236	340	429	381	376	418
SSA	249	263	302	358	377	368	391	526	172	200	227
USA	181	229	304	238	234	266	418	412	396	467	517

Table 1224: FAOp — Prices—Agriculture—Soybean (US\$05/tDM) [PART 2/3]

	2005
GLO	293
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1225: IniFoodPrice — Prices—Agriculture—Soybean (US\$05/tDM)

36.30 Straw

geom_path: Each group consists of only one observation. Do you need to adjust the group## aesthetic?

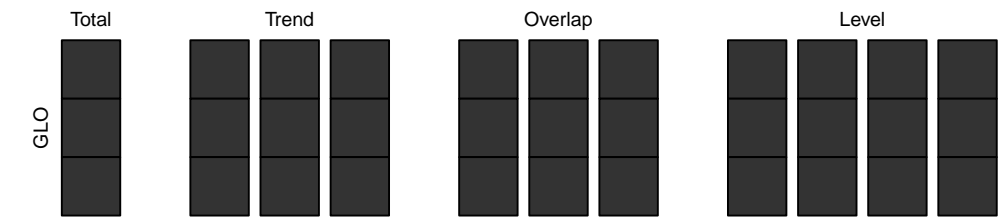
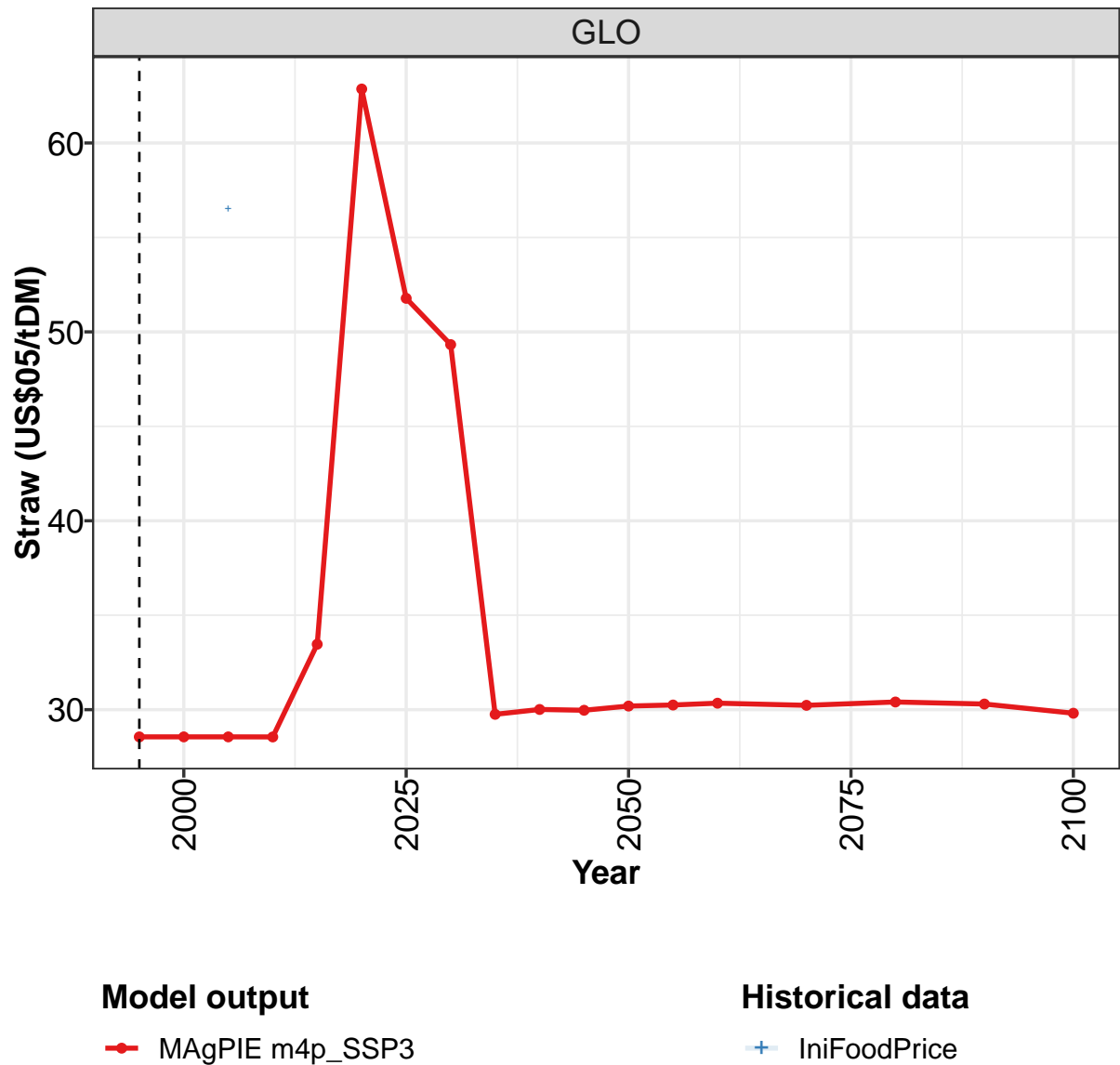


Figure 320: MAgPIE m4p_SSP3 — Prices—Agriculture—Straw (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	28.6	28.6	28.6	28.6	33.5	62.9	51.8	49.3	29.8	30.0	30.0

Table 1226: MAgPIE m4p_SSP3 — Prices—Agriculture—Straw (US\$05/tDM) [PART 1/2]

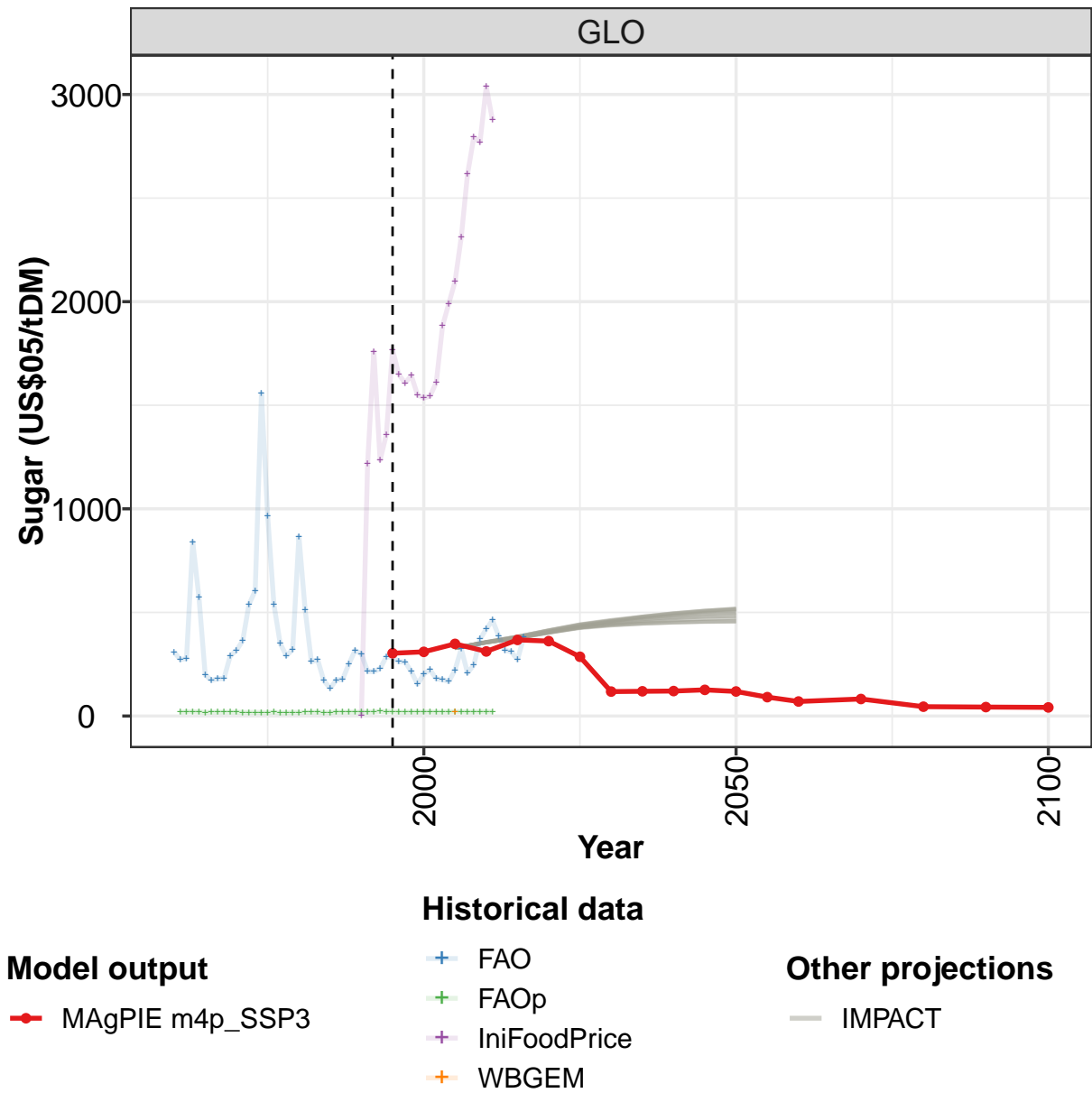
	2050	2055	2060	2070	2080	2090	2100
GLO	30.2	30.2	30.3	30.2	30.4	30.3	29.8

Table 1227: MAgPIE m4p_SSP3 — Prices—Agriculture—Straw (US\$05/tDM) [PART 2/2]

	2005
GLO	56.5

Table 1228: IniFoodPrice — Prices—Agriculture—Straw (US\$05/tDM)

36.31 Sugar



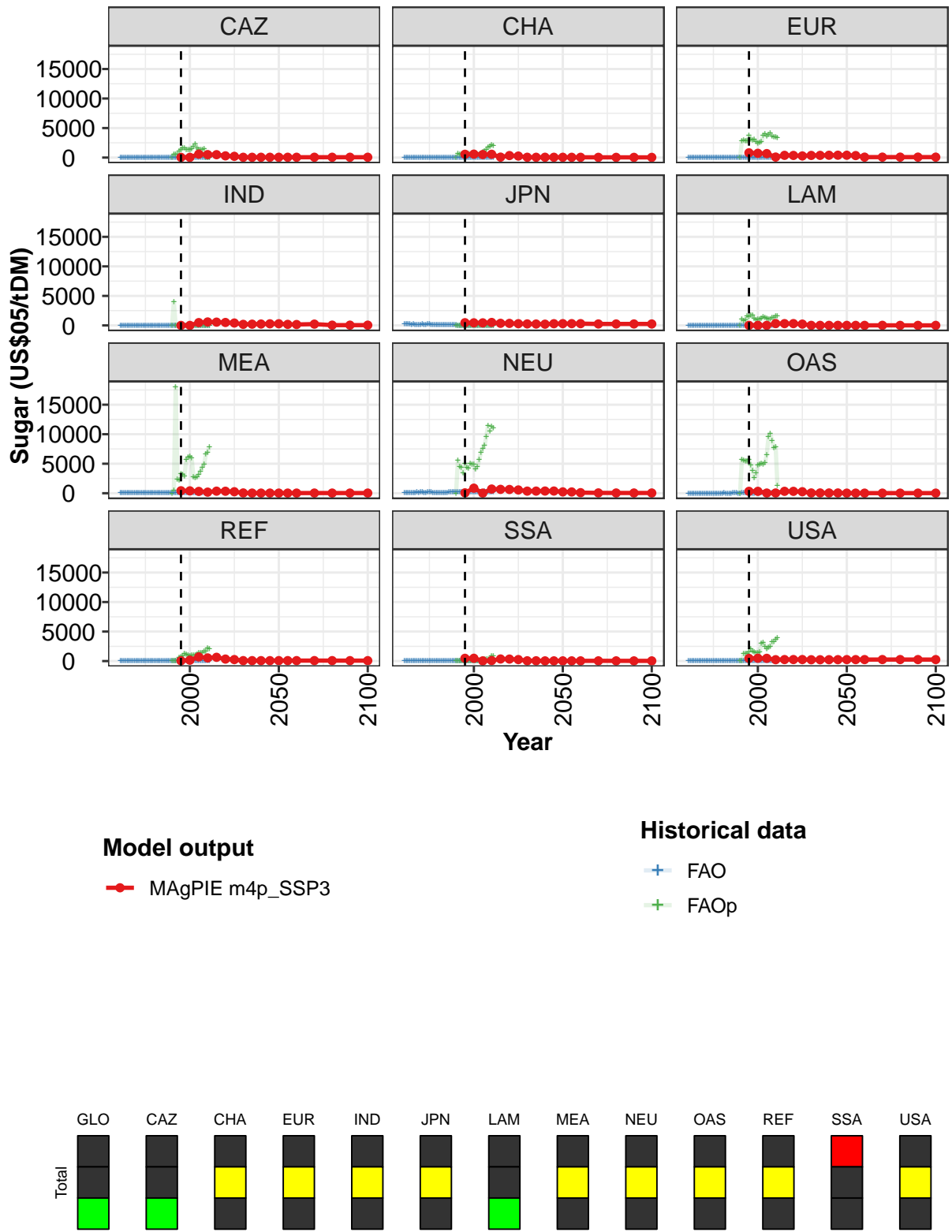


Figure 321: MAgPIE m4p_SSP3 — Prices—Agriculture—Sugar (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	303	310	348	312	367	361	286	118	119	120	126
CAZ	35	41	581	501	490	293	209	51	52	52	54
CHA	556	581	514	556	77	341	257	52	51	52	51
EUR	806	724	674	87	376	362	278	364	375	394	402
IND	0	0	478	586	555	498	403	180	212	233	272
JPN	461	437	434	499	357	343	294	254	235	211	288
LAM	10	9	7	313	303	304	220	10	9	10	9
MEA	421	405	314	189	355	341	257	52	28	29	29
NEU	67	863	25	713	661	642	560	362	363	376	374
OAS	324	322	32	45	326	324	257	51	51	48	48
REF	59	152	704	534	640	341	257	78	75	76	75
SSA	469	476	37	94	355	341	257	52	51	35	39
USA	454	484	465	235	257	259	257	227	228	236	243

Table 1229: MAgPIE m4p_SSP3 — Prices—Agriculture—Sugar (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	118	91	70	82	45	43	41
CAZ	54	54	53	56	57	57	57
CHA	50	48	45	40	37	35	34
EUR	397	338	74	77	76	76	75
IND	284	177	153	222	45	45	45
JPN	297	299	299	248	244	248	246
LAM	6	6	6	15	7	7	7
MEA	28	28	28	32	29	30	30
NEU	230	223	100	56	45	45	45
OAS	19	19	19	21	20	20	20
REF	80	79	78	80	77	76	76
SSA	39	38	38	40	36	35	35
USA	249	248	253	261	259	257	253

Table 1230: MAgPIE m4p_SSP3 — Prices—Agriculture—Sugar (US\$05/tDM) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	309	273	278	840	571	198	172	180	181	289	317
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1231: WBGEM — Prices—Agriculture—Sugar (US\$05/tDM) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	363	538	604	1556	965	539	350	290	321	866	512
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1232: WBGEM — Prices—Agriculture—Sugar (US\$05/tDM) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	262	271	170	134	174	177	251	317	299	216	214
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1233: WBGEM — Prices—Agriculture—Sugar (US\$05/tDM) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	229	285	285	261	261	214	153	203	222	179	176
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1234: WBGEM — Prices—Agriculture—Sugar (US\$05/tDM) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	166	222	324	208	245	371	420	462	386	318	311
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1235: WBGEM — Prices—Agriculture—Sugar (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	271	380
CAZ		
CHA		
EUR		
IND		
JPN		
LAM		
MEA		
NEU		
OAS		
REF		
SSA		
USA		

Table 1236: WBGEM — Prices—Agriculture—Sugar (US\$05/tDM) [PART 6/6]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	18	21	21	19	17	18	19	19	18	18	17
CAZ	58	38	52	42	46	39	36	29	45	42	36
CHA	19	24	21	15	12	12	14	15	18	18	18
EUR	26	31	33	31	32	32	35	35	31	37	31
IND	4	5	5	4	5	6	7	7	6	6	6
JPN	203	295	213	178	141	174	165	170	154	157	185
LAM	7	9	9	9	8	9	8	8	8	7	7
MEA	67	68	63	62	56	48	48	39	36	38	39
NEU	124	130	135	133	110	107	107	156	115	206	143
OAS	2	1	1	1	1	1	1	1	1	1	1
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	10	9	8	8	9	7	6	7	6	7	6
USA	58	55	52	47	41	40	35	28	43	35	29

Table 1237: FAO — Prices—Agriculture—Sugar (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	17	17	17	16	19	15	16	17	17	18	18
CAZ	36	40	34	36	33	32	43	43	40	39	38
CHA	19	15	13	15	14	12	12	16	17	14	14
EUR	27	28	30	26	37	25	24	25	25	24	31
IND	7	7	7	6	6	6	5	6	8	6	6
JPN	135	165	218	177	150	139	113	90	63	59	65
LAM	8	8	8	8	8	8	9	9	9	10	7
MEA	52	42	42	39	38	38	47	45	48	43	39
NEU	135	129	153	154	175	112	113	132	138	136	139
OAS	1	2	1	2	2	3	4	4	4	14	6
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	6	6	6	7	6	6	6	6	6	5	5
USA	29	33	26	23	23	22	28	28	22	19	23

Table 1238: FAO — Prices—Agriculture—Sugar (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	18	17	16	19	19	19	19	18	18	20	22
CAZ	43	43	45	42	44	38	29	36	35	39	29
CHA	16	14	13	14	20	17	15	14	12	11	13
EUR	37	31	26	32	33	34	39	30	31	32	35
IND	6	6	6	7	6	6	6	5	5	5	5
JPN	63	57	61	45	49	39	41	39	33	32	31
LAM	9	7	8	10	10	10	10	10	10	10	11
MEA	38	39	40	38	45	44	50	47	46	46	51
NEU	116	123	135	170	142	184	164	180	188	225	244
OAS	6	7	8	12	9	11	9	9	11	9	9
REF	0	0	0	0	0	0	0	0	0	42	40
SSA	7	5	6	6	7	7	8	8	8	11	22
USA	20	15	12	16	17	16	13	14	15	14	15

Table 1239: FAO — Prices—Agriculture—Sugar (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	21	22	19	18	19	19	20	20	19	19	20
CAZ	35	25	26	26	29	28	24	32	25	26	25
CHA	14	13	13	12	11	16	18	14	12	14	16
EUR	34	38	27	26	29	30	31	38	30	39	36
IND	5	5	4	4	4	4	4	4	4	4	5
JPN	30	27	27	26	25	29	30	27	28	28	28
LAM	10	9	8	8	8	9	9	8	8	7	7
MEA	56	54	66	56	57	52	50	47	45	34	48
NEU	219	363	209	188	190	233	181	213	238	270	250
OAS	9	10	8	8	8	10	17	20	18	15	13
REF	50	45	58	75	78	76	65	63	56	48	42
SSA	19	19	18	15	16	16	16	18	18	17	17
USA	13	13	12	11	12	11	12	10	9	10	10

Table 1240: FAO — Prices—Agriculture—Sugar (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	21	21	19	20	21	21	20
CAZ	26	33	25	27	29	30	33
CHA	16	14	12	15	18	18	17
EUR	35	44	39	43	40	45	40
IND	5	4	3	4	5	5	4
JPN	27	26	27	27	22	23	23
LAM	8	8	7	7	6	6	7
MEA	56	58	66	69	75	63	64
NEU	249	280	251	232	206	221	259
OAS	23	22	23	20	23	22	16
REF	41	37	37	41	44	48	26
SSA	17	19	16	16	14	17	15
USA	9	8	8	9	8	9	8

Table 1241: FAO — Prices—Agriculture—Sugar (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	1218	1758	1235	1359	1769	1648	1608	1643	1549	1535
CAZ	0	488	496	491	1125	1328	1566	1611	1289	1272	1271
CHA	0	599	532	596	544	763	608	675	567	715	729
EUR	0	2743	2955	2758	2786	3685	3110	2913	3018	2705	2401
IND	0	3989	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	1081	829	862	1523	1477	1716	1738	1164	966	999
MEA	0	507	18037	2325	2153	3252	3175	2819	5746	6031	6165
NEU	0	5510	4515	4404	3399	4972	4332	4178	4998	4891	4826
OAS	0	5691	5523	5434	5391	5647	4727	3870	2564	3396	4736
REF	0	0	0	10	630	691	789	1298	1174	994	843
SSA	2	2	59	57	19	28	27	26	31	30	30
USA	0	0	1237	1212	1187	1540	1997	1691	1484	1349	1342

Table 1242: FAOp — Prices—Agriculture—Sugar (US\$05/tDM) [PART 1/3]

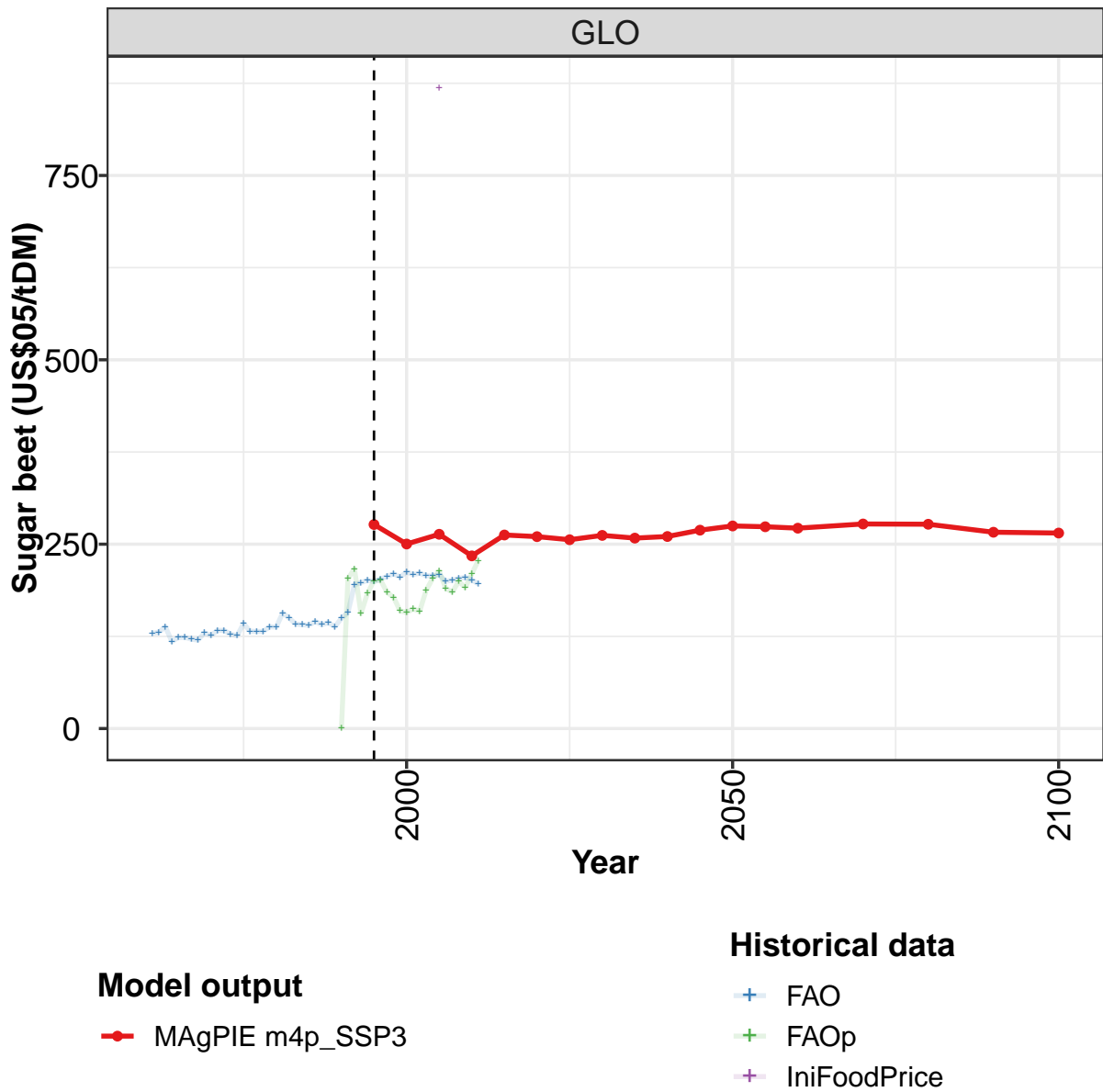
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	1544	1611	1884	1991	2097	2312	2615	2793	2770	3038	2875
CAZ	1403	1879	2323	1648	1279	1311	1371	1535	0	0	0
CHA	608	543	520	711	905	1132	1401	1745	1813	2097	1998
EUR	2599	2731	3741	3982	3641	3893	4088	3625	3534	3486	3354
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1002	1205	1387	1296	1209	1032	1090	1338	1367	1584	1606
MEA	5941	2707	2607	2681	3119	3665	4393	4828	6560	6930	7879
NEU	4019	4435	5714	6947	7587	8031	9603	11423	10523	11284	10996
OAS	4898	5074	4924	5161	6543	9543	10082	8874	7659	7806	1330
REF	960	932	1005	1121	1329	1324	1409	1705	1590	2187	2105
SSA	29	24	31	17	22	288	295	262	173	882	796
USA	1583	2985	3119	2447	2074	2260	2421	3196	3312	3640	3969

Table 1243: FAOp — Prices—Agriculture—Sugar (US\$05/tDM) [PART 2/3]

	2005
GLO	22
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1244: IniFoodPrice — Prices—Agriculture—Sugar (US\$05/tDM)

36.32
Sugar beet



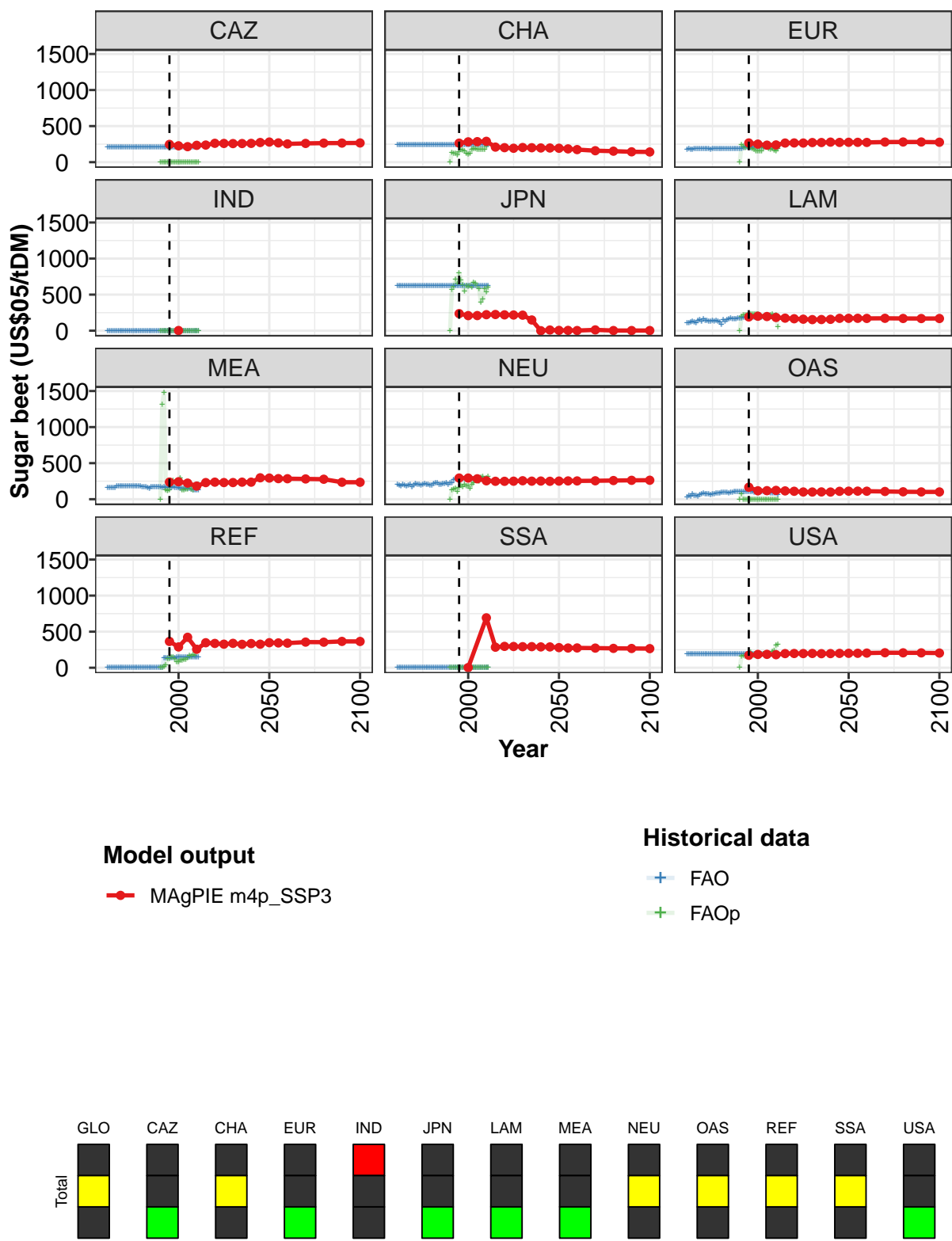


Figure 322: MAgPIE m4p_SSP3 — Prices—Agriculture—Sugar beet (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	277	250	263	234	262	260	256	262	258	260	269
CAZ	246	227	215	234	237	262	260	258	259	261	273
CHA	264	282	285	289	209	201	193	203	201	197	196
EUR	267	251	236	239	265	267	265	272	272	278	274
IND		2									
JPN	237	209	210	222	225	220	218	215	149	0	10
LAM	191	201	197	183	174	166	160	154	155	158	171
MEA	238	242	223	182	231	237	231	231	237	237	297
NEU	294	293	283	255	249	248	250	256	250	252	249
OAS	166	117	119	123	115	110	101	100	101	100	110
REF	364	288	422	257	347	337	327	338	325	335	327
SSA		2		692	285	296	295	292	293	289	289
USA	173	185	186	181	196	198	197	198	195	196	199

Table 1245: MAgPIE m4p_SSP3 — Prices—Agriculture—Sugar beet (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	275	274	272	277	277	266	265
CAZ	279	267	253	260	264	265	267
CHA	193	184	174	159	153	144	142
EUR	276	275	274	279	280	280	277
IND							
JPN	4	4	2	11	2	2	2
LAM	172	172	170	172	170	169	169
MEA	293	286	284	281	277	235	235
NEU	252	254	254	256	259	262	263
OAS	112	112	111	107	103	101	101
REF	347	344	341	356	354	365	365
SSA	279	274	275	272	268	267	265
USA	200	201	203	208	207	206	204

Table 1246: MAgPIE m4p_SSP3 — Prices—Agriculture—Sugar beet (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	129	131	138	118	123	124	121	120	130	126	133
CAZ	207	207	207	207	207	207	207	207	207	207	207
CHA	239	239	239	239	239	239	239	239	239	239	239
EUR	180	183	181	180	186	181	183	182	185	184	184
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	619	619	619	619	619	619	619	619	619	619	619
LAM	109	107	118	131	117	106	136	155	126	157	138
MEA	155	165	165	159	162	179	180	183	180	178	178
NEU	205	194	185	205	189	177	195	205	167	196	217
OAS	33	45	44	72	46	56	41	61	76	81	74
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	192	192	192	192	192	192	192	192	192	192	192

Table 1247: FAO — Prices—Agriculture—Sugar beet (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	133	128	126	142	132	132	132	138	138	157	150
CAZ	207	207	207	207	207	207	207	207	207	207	207
CHA	239	239	239	239	239	239	239	239	239	239	239
EUR	183	184	179	186	192	186	186	183	186	189	185
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	619	619	619	619	619	619	619	619	619	619	619
LAM	143	128	129	135	134	144	127	119	87	148	132
MEA	182	185	183	180	181	177	179	176	172	169	168
NEU	209	202	191	203	215	205	206	198	190	210	222
OAS	77	67	59	69	76	81	82	83	91	97	96
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	192	192	192	192	192	192	192	192	192	192	192

Table 1248: FAO — Prices—Agriculture—Sugar beet (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	142	141	140	145	141	144	138	150	157	195	198
CAZ	207	207	207	207	207	207	207	207	207	207	207
CHA	239	239	239	239	239	239	239	239	239	239	239
EUR	189	186	184	188	189	191	189	190	189	196	203
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	619	619	619	619	619	619	619	619	619	619	619
LAM	148	163	169	165	167	166	174	168	171	179	185
MEA	156	148	168	171	170	171	167	168	165	166	165
NEU	222	204	201	213	216	230	203	224	226	272	285
OAS	94	88	96	97	100	100	100	100	101	101	100
REF	0	0	0	0	0	0	0	0	0	140	139
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	192	192	192	192	192	192	192	192	192	192	192

Table 1249: FAO — Prices—Agriculture—Sugar beet (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	201	199	203	206	210	205	212	209	211	207	207
CAZ	207	207	207	207	207	207	207	207	207	207	207
CHA	239	239	239	239	239	239	239	239	239	239	239
EUR	204	203	203	203	205	204	213	212	212	211	211
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	619	619	619	619	619	619	619	619	619	619	619
LAM	187	188	189	188	188	188	188	188	188	190	190
MEA	163	164	164	167	161	160	155	146	148	152	150
NEU	276	279	278	284	286	280	292	281	283	283	276
OAS	100	100	100	100	99	100	100	100	101	100	99
REF	138	139	139	138	138	142	145	144	145	146	145
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	192	192	192	192	192	192	192	192	192	192	192

Table 1250: FAO — Prices—Agriculture—Sugar beet (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	208	200	201	203	205	202	196
CAZ	207	207	207	207	207	207	207
CHA	239	239	239	239	239	239	239
EUR	213	208	207	206	206	206	205
IND	0	0	0	0	0	0	0
JPN	619	619	619	619	619	619	619
LAM	191	193	196	197	201	197	193
MEA	149	149	139	123	127	126	125
NEU	274	276	275	285	283	279	282
OAS	99	98	87	83	86	78	59
REF	145	144	146	146	148	146	146
SSA	0	0	0	0	0	0	0
USA	192	192	192	192	192	192	192

Table 1251: FAO — Prices—Agriculture—Sugar beet (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	203	216	156	183	200	201	185	178	160	157
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	129	119	124	98	144	171	167	150	121	107
EUR	0	237	220	199	219	239	211	182	175	156	152
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	571	609	712	657	801	705	632	545	620	612
LAM	0	194	213	219	215	215	227	232	234	233	233
MEA	0	1310	1482	131	119	130	191	254	238	230	248
NEU	0	127	143	146	104	157	193	171	201	183	184
OAS	0	75	0	0	0	0	0	0	0	0	0
REF	0	0	11	40	125	120	148	148	125	77	86
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	0	163	171	163	163	158	208	179	167	171	158

Table 1252: FAOp — Prices—Agriculture—Sugar beet (US\$05/tDM) [PART 1/3]

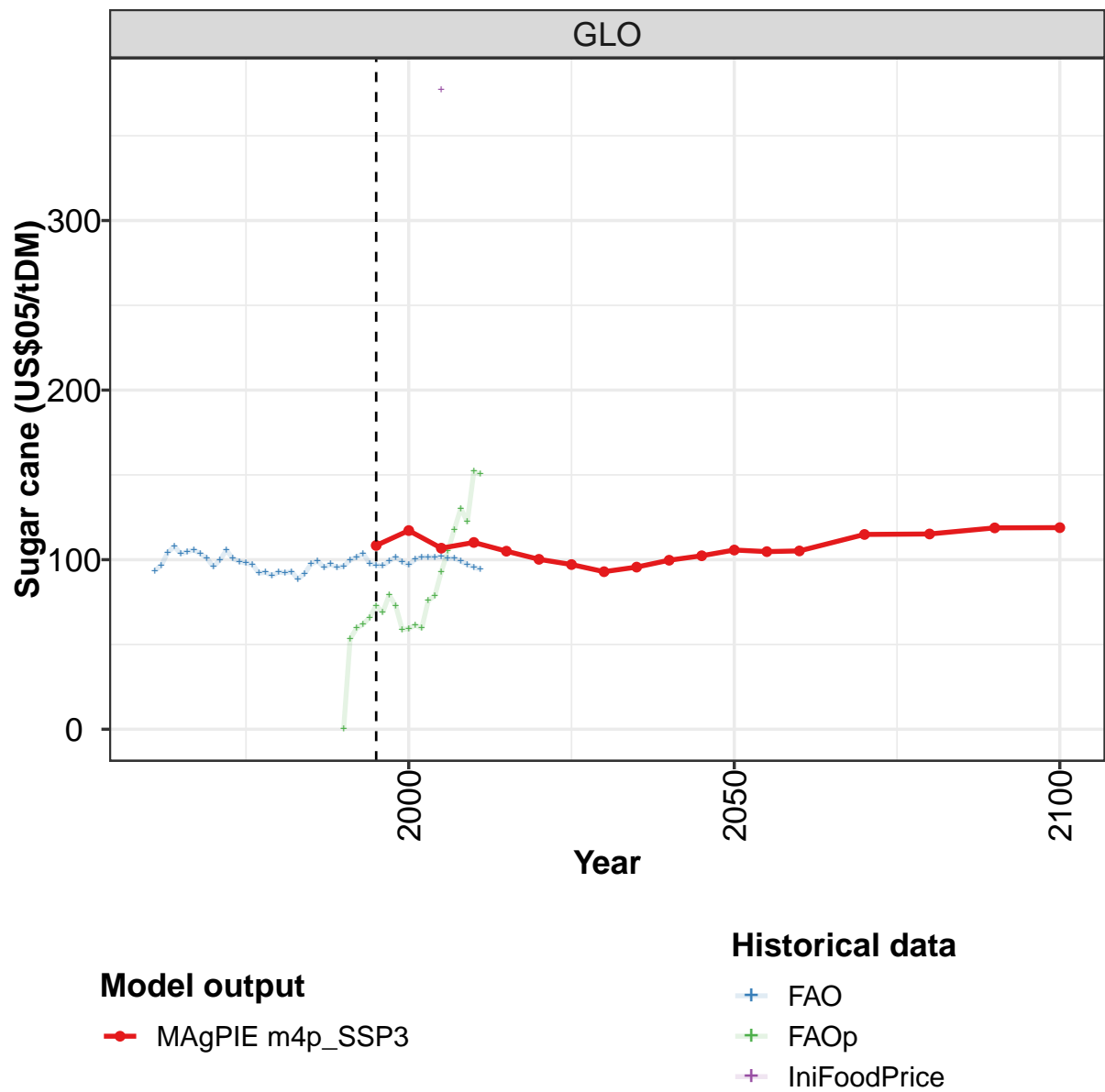
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	162	159	188	203	213	190	185	200	191	210	228
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	125	176	192	183	177	173	172	178	171	215	271
EUR	152	151	196	222	227	181	180	182	164	156	181
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	619	604	666	658	620	577	393	433	575	538	607
LAM	213	198	191	190	189	197	216	230	204	212	50
MEA	295	127	125	135	143	169	136	126	169	180	205
NEU	153	205	228	283	274	249	298	308	276	290	310
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	100	98	113	116	141	165	155	184	173	224	239
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	183	183	192	171	200	204	192	221	233	308	321

Table 1253: FAOp — Prices—Agriculture—Sugar beet (US\$05/tDM) [PART 2/3]

	2005
GLO	868
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1254: IniFoodPrice — Prices—Agriculture—Sugar beet (US\$05/tDM)

36.33 Sugar cane



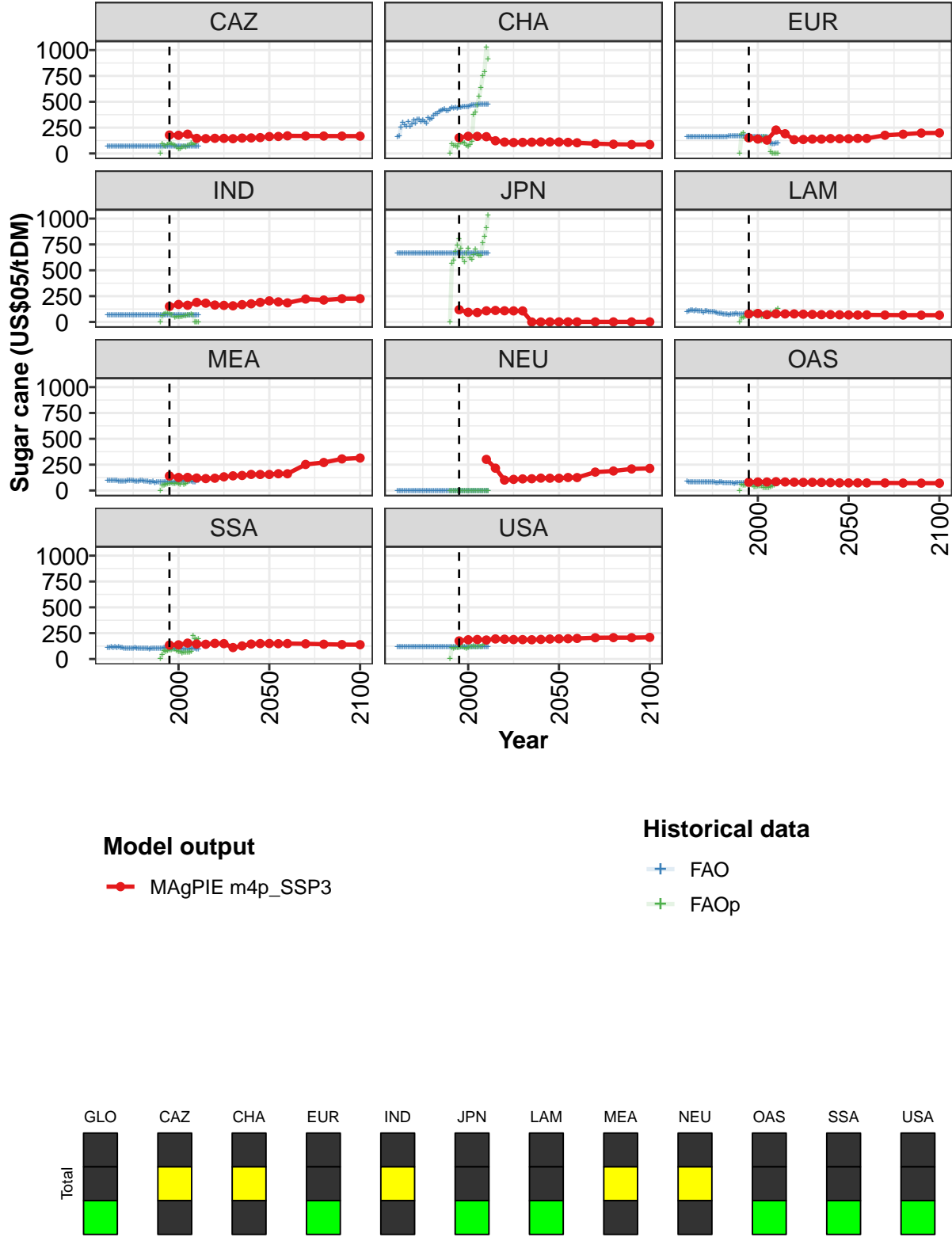


Figure 323: MAgPIE m4p_SSP3 — Prices—Agriculture—Sugar cane (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	108	117	107	110	105	100	97	93	96	100	102
CAZ	178	176	187	146	143	146	146	143	149	150	153
CHA	151	166	165	162	123	110	105	107	109	111	111
EUR	150	140	129	227	191	133	135	139	139	144	143
IND	150	169	162	189	182	164	161	157	168	176	189
JPN	119	94	91	108	111	108	107	107	0	0	1
LAM	78	82	71	79	78	78	75	73	71	71	69
MEA	140	126	127	121	115	119	132	142	145	156	155
NEU				301	216	101	108	112	113	120	119
OAS	80	83	82	85	82	80	78	79	78	76	74
SSA	135	137	154	145	143	151	149	111	127	145	149
USA	175	186	189	184	194	192	188	188	186	190	193

Table 1255: MAgPIE m4p_SSP3 — Prices—Agriculture—Sugar cane (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	106	105	105	115	115	119	119
CAZ	164	165	170	169	168	168	168
CHA	111	107	103	95	89	86	86
EUR	142	146	146	176	186	197	199
IND	204	194	185	222	212	225	226
JPN	1	1	1	1	1	1	1
LAM	68	67	69	67	67	66	66
MEA	155	162	162	252	271	306	314
NEU	118	126	125	178	189	209	214
OAS	73	74	73	73	72	71	71
SSA	150	148	149	147	143	140	138
USA	196	196	199	206	207	207	210

Table 1256: MAgPIE m4p_SSP3 — Prices—Agriculture—Sugar cane (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	94	97	104	108	104	105	106	103	101	96	100
CAZ	71	71	71	71	71	71	71	71	71	71	71
CHA	163	166	255	302	275	263	306	260	281	325	293
EUR	162	157	158	158	160	159	159	159	160	159	160
IND	63	63	63	63	63	63	63	63	63	63	63
JPN	667	667	667	667	667	667	667	667	667	667	667
LAM	100	107	114	113	106	115	107	107	106	93	104
MEA	96	96	96	96	99	97	91	89	91	91	92
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	85	84	82	84	82	79	80	83	80	80	81
SSA	113	108	114	107	117	107	115	112	111	105	104
USA	119	119	119	119	119	119	119	119	119	119	119

Table 1257: FAO — Prices—Agriculture—Sugar cane (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	106	101	99	98	97	92	93	91	93	92	93
CAZ	71	71	71	71	71	71	71	71	71	71	71
CHA	328	326	305	322	309	290	341	328	339	367	385
EUR	158	161	158	160	160	159	160	162	163	161	163
IND	63	63	63	63	63	63	63	63	63	63	63
JPN	667	667	667	667	667	667	667	667	667	667	667
LAM	108	99	100	97	96	87	85	79	80	76	75
MEA	94	95	94	93	89	89	88	97	95	90	89
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	81	81	81	83	80	77	77	79	80	77	75
SSA	104	105	105	101	108	104	104	104	100	99	104
USA	119	119	119	119	119	119	119	119	119	119	119

Table 1258: FAO — Prices—Agriculture—Sugar cane (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	89	92	97	99	95	97	95	96	100	102	103
CAZ	71	71	71	71	71	71	71	71	71	71	71
CHA	383	404	417	423	426	416	417	432	444	440	442
EUR	164	165	165	165	165	165	165	166	165	165	165
IND	63	63	63	63	63	63	63	63	63	63	63
JPN	667	667	667	667	667	667	667	667	667	667	667
LAM	72	71	73	77	76	79	76	73	74	76	82
MEA	85	82	83	85	76	83	83	82	79	82	84
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	74	76	73	74	69	72	72	73	72	72	73
SSA	99	98	101	99	100	100	99	100	100	108	112
USA	119	119	119	119	119	119	119	119	119	119	119

Table 1259: FAO — Prices—Agriculture—Sugar cane (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	98	97	96	99	102	99	97	100	102	102	101
CAZ	71	71	71	71	71	71	71	71	71	71	71
CHA	436	442	446	452	455	455	455	461	464	466	469
EUR	165	164	162	163	164	165	164	164	164	164	163
IND	63	63	63	63	63	63	63	63	63	63	63
JPN	667	667	667	667	667	667	667	667	667	667	667
LAM	76	76	76	74	77	79	78	79	76	77	75
MEA	84	83	81	80	80	83	85	87	88	92	94
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	72	69	69	69	69	68	69	69	69	67	68
SSA	99	100	101	99	100	95	100	101	97	96	97
USA	119	119	119	119	119	119	119	119	119	119	119

Table 1260: FAO — Prices—Agriculture—Sugar cane (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	102	101	101	99	97	96	94
CAZ	71	71	71	71	71	71	71
CHA	470	472	472	472	473	472	472
EUR	161	150	99	94	93	97	98
IND	63	63	63	63	63	63	63
JPN	667	667	667	667	667	667	667
LAM	76	75	73	69	67	67	67
MEA	92	90	90	81	79	93	96
NEU	0	0	0	0	0	0	0
OAS	70	70	67	65	67	66	65
SSA	98	97	102	103	100	98	97
USA	119	119	119	119	119	119	119

Table 1261: FAO — Prices—Agriculture—Sugar cane (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	53	60	62	66	73	69	79	73	59	59
CAZ	0	92	76	71	81	99	93	88	74	65	49
CHA	0	92	80	74	61	91	109	108	98	78	69
EUR	0	186	198	147	148	169	163	146	146	144	124
IND	0	61	76	79	80	85	66	69	47	48	49
JPN	0	563	597	680	740	805	708	618	579	666	709
LAM	0	38	44	49	57	60	61	83	87	62	63
MEA	0	47	49	55	62	68	70	67	68	70	69
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	0	56	52	51	55	62	59	54	38	38	44
SSA	1	43	82	72	80	88	87	96	96	78	72
USA	0	107	104	107	107	111	115	115	111	104	107

Table 1262: FAOp — Prices—Agriculture—Sugar cane (US\$05/tDM) [PART 1/3]

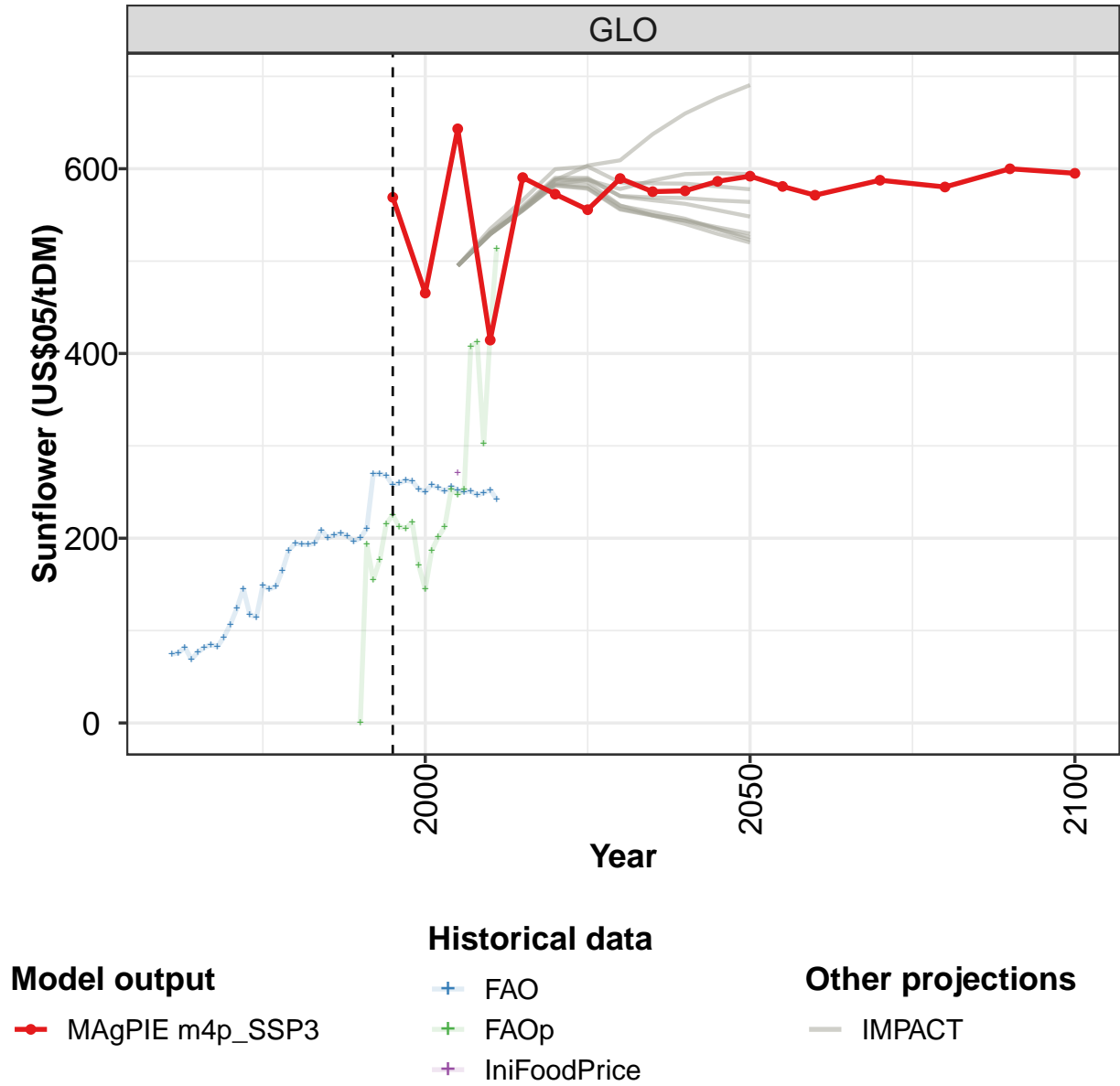
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	61	60	76	79	93	105	118	130	122	152	150
CAZ	44	62	67	63	74	78	102	81	94	150	145
CHA	83	117	373	397	465	549	634	752	793	1027	912
EUR	130	119	160	156	152	130	17	0	0	0	0
IND	49	53	58	61	64	66	73	69	0	0	0
JPN	621	604	649	702	655	644	641	765	828	911	1034
LAM	66	54	56	57	75	86	90	83	86	111	127
MEA	57	90	56	65	84	94	102	118	128	131	116
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	44	40	28	26	27	29	36	45	53	71	79
SSA	71	59	64	65	66	65	71	225	195	183	194
USA	119	115	122	115	115	126	119	122	141	170	193

Table 1263: FAOp — Prices—Agriculture—Sugar cane (US\$05/tDM) [PART 2/3]

	2005
GLO	377
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
SSA	
USA	

Table 1264: IniFoodPrice — Prices—Agriculture—Sugar cane (US\$05/tDM)

36.34 Sunflower



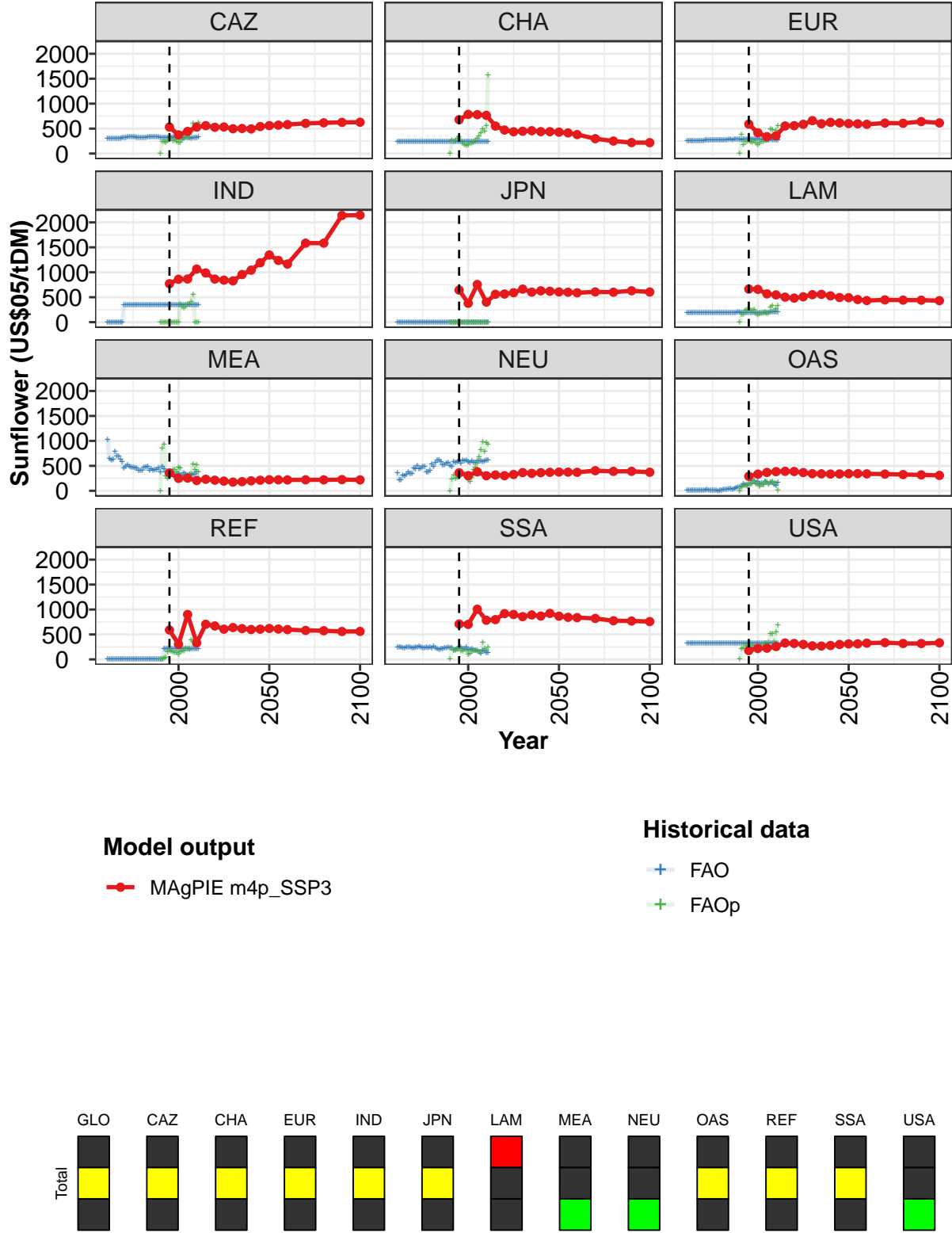


Figure 324: MAGPIE m4p_SSP3 — Prices—Agriculture—Sunflower (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	569	465	643	415	590	572	556	589	575	576	586
CAZ	531	374	444	530	558	527	533	497	503	493	541
CHA	680	785	780	766	552	471	436	448	458	440	439
EUR	589	416	338	356	553	559	585	659	598	625	615
IND	771	860	865	1064	986	864	843	827	955	1043	1191
JPN	643	379	755	403	560	565	591	662	602	629	620
LAM	663	658	567	547	502	482	508	551	557	528	494
MEA	359	250	255	206	231	213	194	174	183	200	212
NEU	361	304	379	302	317	303	326	365	349	363	370
OAS	290	333	368	385	390	387	365	344	340	335	338
REF	590	304	900	331	705	671	606	638	617	599	606
SSA	709	702	1007	785	798	917	901	858	892	869	922
USA	177	220	225	258	329	320	301	272	268	279	299

Table 1265: MAgPIE m4p-SSP3 — Prices—Agriculture—Sunflower (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	592	581	571	588	580	600	595
CAZ	560	570	581	605	616	624	627
CHA	429	413	381	298	251	220	218
EUR	601	596	586	611	607	641	614
IND	1346	1238	1165	1584	1584	2139	2144
JPN	606	600	589	607	601	629	605
LAM	491	454	433	446	442	441	431
MEA	221	220	218	221	219	224	219
NEU	376	374	371	403	389	390	372
OAS	343	345	340	335	325	319	309
REF	621	609	597	581	575	560	561
SSA	867	844	838	821	775	770	758
USA	311	313	326	336	319	318	332

Table 1266: MAgPIE m4p-SSP3 — Prices—Agriculture—Sunflower (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	75	76	82	69	76	82	85	83	93	107	124
CAZ	304	303	303	302	302	305	301	307	310	313	317
CHA	245	245	245	245	245	245	245	245	245	245	245
EUR	256	255	254	254	253	255	254	254	254	261	262
IND	0	0	0	0	0	0	0	0	0	347	347
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	193	192	195	195	192	194	191	191	191	191	195
MEA	1022	649	616	625	783	685	690	632	576	457	486
NEU	352	221	221	305	296	325	373	336	347	449	438
OAS	4	4	5	5	6	5	6	7	8	10	14
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	244	244	244	236	235	245	243	237	231	227	247
USA	319	318	319	319	319	319	319	319	319	319	319

Table 1267: FAO — Prices—Agriculture—Sunflower (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	145	117	114	149	145	148	165	187	194	194	193
CAZ	328	331	341	335	334	320	324	319	319	323	323
CHA	245	245	245	245	245	245	245	245	245	245	245
EUR	263	263	266	269	266	265	266	267	273	269	276
IND	347	347	347	347	347	347	347	347	347	347	347
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	193	192	190	192	192	191	191	191	191	191	190
MEA	511	489	468	468	454	459	407	411	403	468	464
NEU	505	432	449	489	483	381	371	410	536	485	560
OAS	21	11	5	6	5	4	0	3	4	23	22
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	239	253	250	229	226	241	236	243	232	252	224
USA	319	319	319	319	319	319	319	319	319	319	319

Table 1268: FAO — Prices—Agriculture—Sunflower (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	195	209	201	203	205	203	196	200	210	269	270
CAZ	329	329	336	338	332	336	331	316	322	324	315
CHA	245	245	245	245	245	245	245	245	245	245	245
EUR	277	280	281	278	280	281	279	282	278	280	285
IND	347	347	347	347	347	347	347	347	347	347	347
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	189	190	190	190	192	194	197	197	192	191	192
MEA	490	408	431	411	421	424	458	381	490	432	372
NEU	618	609	578	511	522	552	559	508	479	579	559
OAS	23	36	36	25	42	53	67	66	83	131	125
REF	0	0	0	0	0	0	0	0	0	212	212
SSA	211	194	205	215	236	229	236	233	232	186	204
USA	319	319	319	319	319	319	319	319	319	319	319

Table 1269: FAO — Prices—Agriculture—Sunflower (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	268	258	260	263	262	253	250	258	255	251	256
CAZ	319	327	323	330	319	327	325	317	311	304	322
CHA	245	245	245	245	245	245	245	245	245	245	245
EUR	282	279	283	285	282	279	283	282	279	277	276
IND	347	347	347	347	347	347	347	347	347	347	347
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	190	190	191	190	191	190	191	191	191	191	192
MEA	331	351	353	378	333	306	337	311	315	359	332
NEU	578	596	553	610	599	611	582	560	600	571	561
OAS	119	140	136	192	194	149	181	113	145	123	181
REF	212	212	211	213	213	214	212	214	213	213	213
SSA	213	238	237	213	217	244	201	204	217	188	181
USA	319	319	319	319	319	319	319	319	319	319	319

Table 1270: FAO — Prices—Agriculture—Sunflower (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	252	250	251	247	249	252	242
CAZ	317	315	303	315	313	315	330
CHA	245	245	245	245	245	245	245
EUR	275	275	281	276	277	272	273
IND	347	347	347	347	347	347	347
JPN	0	0	0	0	0	0	0
LAM	192	192	198	198	203	211	198
MEA	310	324	308	325	327	378	247
NEU	592	603	604	576	600	619	609
OAS	165	138	160	165	126	107	161
REF	213	213	213	212	212	212	212
SSA	175	156	121	181	169	131	129
USA	319	319	319	319	319	319	319

Table 1271: FAO — Prices—Agriculture—Sunflower (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	193	155	176	216	225	212	211	217	171	145
CAZ	0	234	237	220	261	296	297	257	264	243	224
CHA	0	262	234	255	306	334	250	200	177	162	170
EUR	0	377	181	242	245	260	241	229	249	198	177
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	150	158	235	250	230	230	242	258	173	146
MEA	0	852	934	293	254	310	353	421	423	376	470
NEU	0	231	303	250	256	322	307	342	344	279	211
OAS	0	67	112	107	94	138	129	160	195	139	147
REF	0	0	26	42	146	183	161	144	138	132	107
SSA	0	222	178	182	189	229	172	168	195	184	97
USA	0	206	231	305	254	273	273	275	252	178	163

Table 1272: FAOp — Prices—Agriculture—Sunflower (US\$05/tDM) [PART 1/3]

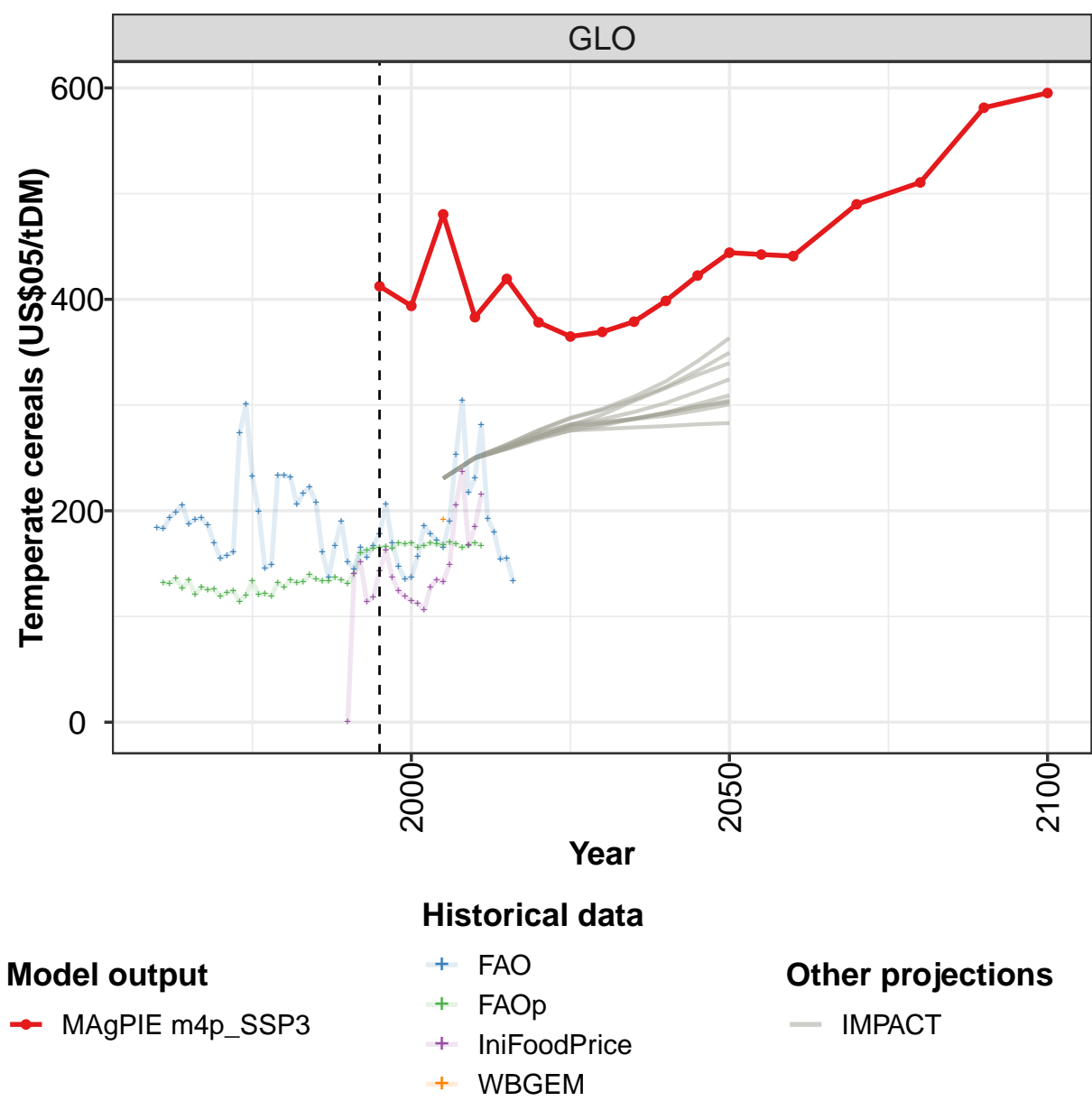
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	187	201	212	253	247	253	408	412	302	422	514
CAZ	218	274	340	331	314	319	424	610	564	499	627
CHA	200	207	217	257	300	349	409	495	441	556	1575
EUR	212	237	240	271	271	273	489	472	317	461	558
IND	357	311	289	318	366	356	414	547	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	175	172	182	196	170	181	302	324	219	274	337
MEA	461	222	262	293	286	318	340	528	423	523	381
NEU	186	259	424	468	552	680	823	970	784	959	924
OAS	83	124	118	178	167	139	171	182	158	150	14
REF	145	165	169	223	209	198	392	350	272	390	426
SSA	111	168	178	185	157	154	151	335	204	183	237
USA	228	287	287	325	287	344	514	517	358	553	690

Table 1273: FAOp — Prices—Agriculture—Sunflower (US\$05/tDM) [PART 2/3]

	2005
GLO	271
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1274: IniFoodPrice — Prices—Agriculture—Sunflower (US\$05/tDM)

36.35 Temperate cereals



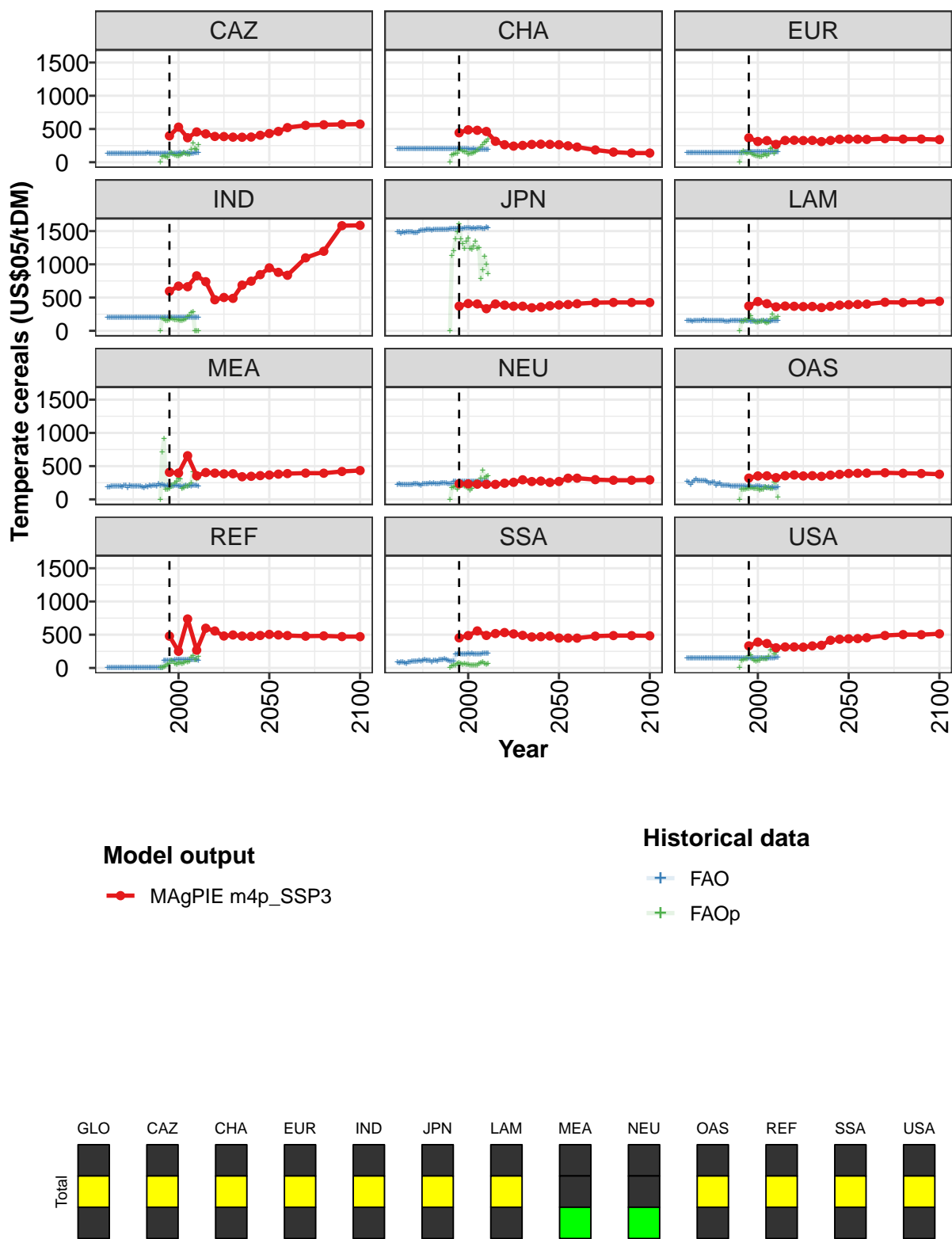


Figure 325: MAGPIE m4p_SSP3 — Prices—Agriculture—Temperate cereals (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	412	394	480	383	419	378	365	369	379	399	423
CAZ	397	528	368	456	427	388	386	377	376	379	405
CHA	443	487	480	463	315	263	242	253	268	271	269
EUR	366	312	325	268	328	331	326	328	310	328	346
IND	596	672	663	827	739	467	501	488	687	746	845
JPN	371	410	404	333	404	386	370	370	346	358	376
LAM	373	440	408	360	372	369	364	366	350	367	387
MEA	407	396	657	356	404	395	383	385	341	347	358
NEU	234	233	229	227	226	243	257	295	268	276	255
OAS	320	352	354	327	355	367	352	357	346	365	376
REF	478	250	737	267	598	556	481	496	480	475	489
SSA	453	487	557	489	517	533	512	490	466	471	480
USA	332	389	367	303	316	316	313	331	340	417	432

Table 1275: MAgPIE m4p-SSP3 — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	444	442	441	490	511	581	595
CAZ	432	463	521	555	564	569	573
CHA	264	247	228	185	152	138	138
EUR	349	347	343	355	348	349	340
IND	947	879	835	1097	1197	1581	1586
JPN	388	395	407	424	427	426	426
LAM	392	397	401	430	425	433	444
MEA	366	380	388	395	394	420	434
NEU	270	319	319	297	288	288	293
OAS	389	393	395	400	393	388	378
REF	505	496	487	478	483	472	471
SSA	451	449	449	479	487	487	483
USA	439	441	455	488	502	500	514

Table 1276: MAgPIE m4p-SSP3 — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	184	183	193	199	205	187	192	193	186	169	155
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1277: WBGEM — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	158	160	273	301	232	199	146	149	233	234	232
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1278: WBGEM — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	206	217	222	208	161	137	167	190	151	145	165
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1279: WBGEM — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	156	167	178	206	169	148	135	137	156	186	178
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1280: WBGEM — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	172	165	190	253	304	217	231	281	192	180	154
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1281: WBGEM — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	155	134
CAZ		
CHA		
EUR		
IND		
JPN		
LAM		
MEA		
NEU		
OAS		
REF		
SSA		
USA		

Table 1282: WBGEM — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 6/6]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	132	131	136	126	135	121	128	125	126	119	123
CAZ	136	132	131	134	129	133	131	136	131	129	127
CHA	204	201	201	201	201	203	202	202	204	204	203
EUR	138	141	140	140	142	141	141	140	140	140	140
IND	202	202	203	203	203	203	203	203	204	204	204
JPN	1483	1483	1467	1482	1480	1483	1483	1484	1487	1478	1480
LAM	153	155	148	146	154	154	151	155	153	161	156
MEA	182	181	193	192	193	198	193	201	190	205	213
NEU	222	229	226	225	226	219	221	225	223	231	228
OAS	264	252	225	262	277	303	286	283	279	276	278
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	84	75	83	89	76	69	89	93	94	95	96
USA	145	145	145	146	146	146	147	147	146	146	147

Table 1283: FAO — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	124	114	120	133	121	121	119	132	128	134	132
CAZ	126	132	133	132	130	128	136	137	130	132	126
CHA	203	203	203	203	202	201	202	201	201	201	200
EUR	140	138	139	141	139	138	139	141	142	141	141
IND	204	204	204	204	204	204	204	205	205	205	205
JPN	1481	1499	1506	1505	1508	1517	1518	1518	1514	1520	1522
LAM	149	151	155	150	147	156	150	150	151	149	143
MEA	179	210	193	202	193	203	195	203	185	177	197
NEU	230	221	214	236	232	234	237	243	237	243	239
OAS	270	249	243	258	256	210	237	244	212	214	213
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	97	107	104	117	128	112	114	113	91	111	116
USA	148	148	149	149	150	149	149	150	151	150	151

Table 1284: FAO — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	133	139	136	133	134	137	135	131	141	160	163
CAZ	137	137	133	131	129	134	131	131	129	132	132
CHA	200	200	199	198	199	198	198	198	198	199	198
EUR	140	142	141	142	142	142	141	140	142	146	153
IND	205	205	205	205	205	205	205	205	205	205	205
JPN	1520	1522	1524	1526	1526	1527	1528	1529	1531	1533	1532
LAM	145	146	154	155	156	155	154	151	152	150	150
MEA	190	214	199	206	212	194	227	205	218	204	194
NEU	236	238	242	244	242	240	237	239	238	269	267
OAS	215	213	203	199	197	203	202	200	197	198	195
REF	0	0	0	0	0	0	0	0	0	110	111
SSA	97	121	118	124	133	126	107	103	103	104	210
USA	150	150	150	150	150	152	151	152	151	151	152

Table 1285: FAO — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	165	166	166	164	169	168	169	165	167	170	168
CAZ	128	133	135	134	136	137	136	139	133	139	136
CHA	197	197	197	197	197	197	198	196	196	197	196
EUR	153	152	153	152	152	152	155	153	154	155	154
IND	205	205	205	205	205	205	205	205	205	205	205
JPN	1534	1537	1540	1539	1541	1541	1545	1543	1540	1543	1538
LAM	148	149	144	145	147	143	143	145	148	148	146
MEA	205	187	204	199	205	208	202	193	189	202	209
NEU	263	264	271	264	265	267	270	266	267	271	265
OAS	190	195	193	186	187	192	200	202	188	182	190
REF	111	113	111	112	119	120	122	118	121	127	124
SSA	208	219	211	210	210	211	215	212	215	212	212
USA	152	152	152	152	152	153	152	153	152	153	153

Table 1286: FAO — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	168	170	168	165	167	170	167
CAZ	138	130	132	136	138	140	142
CHA	195	195	196	196	196	195	196
EUR	153	155	155	155	153	154	154
IND	205	205	205	205	205	205	205
JPN	1547	1550	1543	1540	1536	1554	1552
LAM	149	145	144	154	153	147	147
MEA	199	205	201	214	212	204	201
NEU	269	269	269	270	270	271	270
OAS	178	180	175	185	172	173	183
REF	125	128	125	119	123	121	115
SSA	211	212	209	219	216	221	223
USA	153	153	153	153	153	153	153

Table 1287: FAO — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	140	151	114	118	143	163	137	124	119	114
CAZ	0	88	91	81	75	120	144	116	106	100	96
CHA	0	111	124	128	127	175	190	169	150	152	119
EUR	0	149	167	139	131	139	146	118	104	97	91
IND	0	192	171	153	155	166	185	173	163	168	168
JPN	0	1125	1198	1377	1490	1609	1378	1313	1231	1339	1389
LAM	0	136	144	160	154	181	224	163	141	132	134
MEA	0	708	908	147	145	161	207	210	241	273	318
NEU	0	170	190	192	152	204	244	211	200	183	169
OAS	0	151	155	152	156	159	173	174	157	158	163
REF	0	0	13	28	50	64	112	103	63	57	75
SSA	0	33	35	37	65	71	63	50	60	47	48
USA	0	117	129	131	137	182	192	138	108	103	108

Table 1288: FAOp — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 1/3]

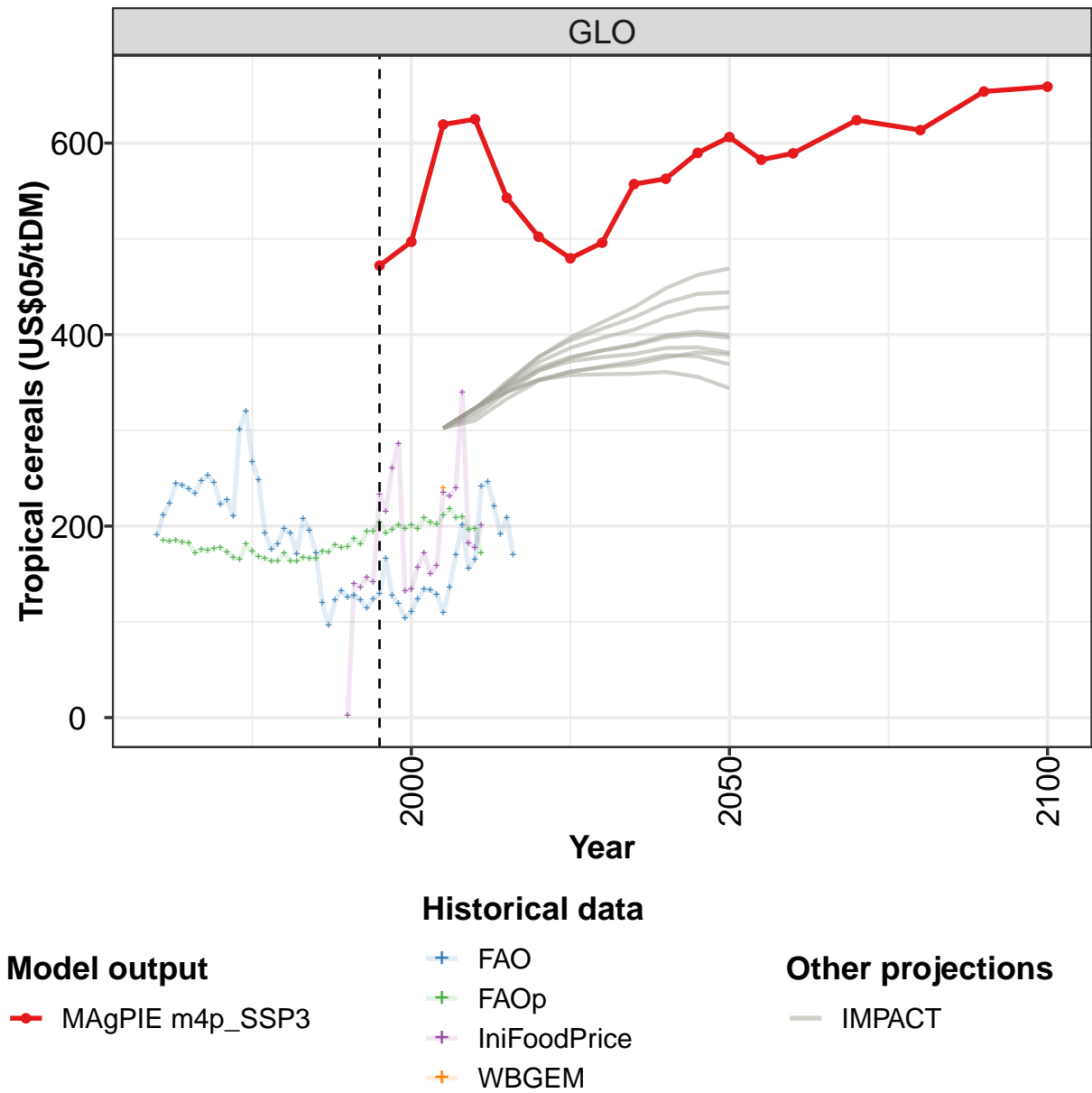
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	112	106	128	135	132	149	205	237	168	184	216
CAZ	106	124	144	129	119	121	189	288	203	185	257
CHA	129	127	137	159	179	193	225	260	298	310	346
EUR	86	82	106	114	99	122	198	211	125	168	227
IND	158	158	170	178	214	223	275	282	0	0	0
JPN	1237	1221	1274	1345	1239	1249	780	919	1123	1004	852
LAM	138	142	149	130	119	130	176	247	191	187	209
MEA	308	163	175	198	200	209	250	414	335	302	322
NEU	136	167	225	251	269	248	321	432	318	341	355
OAS	139	145	154	182	176	170	167	161	258	259	29
REF	75	58	74	96	87	101	154	185	127	128	177
SSA	45	42	45	45	41	59	79	91	66	55	59
USA	115	147	141	139	141	174	263	280	204	233	298

Table 1289: FAOp — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 2/3]

	2005
GLO	191
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1290: IniFoodPrice — Prices—Agriculture—Temperate cereals (US\$05/tDM)

36.36 Tropical cereals



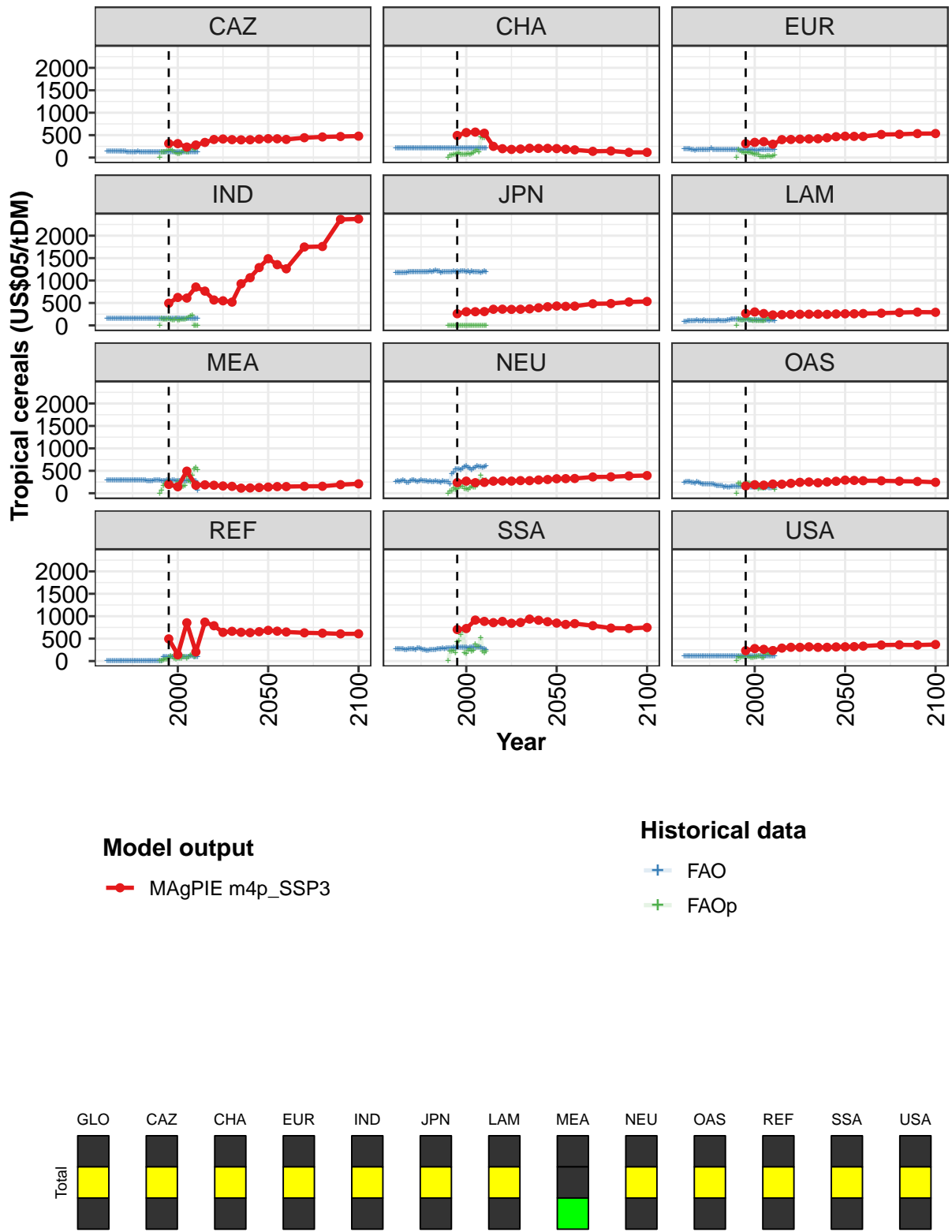


Figure 326: MAGPIE m4p_SSP3 — Prices—Agriculture—Tropical cereals (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	472	497	619	625	543	502	480	496	557	563	590
CAZ	313	311	234	280	338	403	414	400	395	397	411
CHA	492	558	568	543	250	198	182	190	208	204	206
EUR	311	338	355	298	400	403	411	416	419	440	465
IND	495	623	609	856	765	566	548	519	928	1063	1289
JPN	260	305	305	309	359	361	357	360	369	393	416
LAM	267	300	265	234	239	243	248	250	251	245	255
MEA	197	144	492	179	188	178	162	154	114	118	126
NEU	237	269	236	241	270	273	271	282	280	296	306
OAS	163	190	181	205	201	220	243	251	233	253	267
REF	495	141	854	204	868	787	641	664	642	634	655
SSA	703	726	914	885	856	885	842	860	935	910	878
USA	233	279	262	234	289	307	307	318	307	307	316

Table 1291: MAgPIE m4p_SSP3 — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	606	583	589	624	614	654	659
CAZ	421	418	404	442	460	469	478
CHA	200	186	171	139	147	116	116
EUR	476	473	471	515	519	534	536
IND	1487	1354	1262	1748	1759	2362	2374
JPN	432	424	430	482	487	522	534
LAM	259	259	265	272	286	297	292
MEA	138	148	148	155	155	191	210
NEU	323	326	329	362	366	386	394
OAS	292	286	279	278	269	262	244
REF	685	667	649	630	621	607	608
SSA	847	817	835	789	735	728	748
USA	319	322	334	357	362	357	369

Table 1292: MAgPIE m4p_SSP3 — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 2/2]

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GLO	190	212	224	244	243	239	234	248	253	246	222
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1293: WBGEM — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 1/6]

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
GLO	228	210	301	320	267	248	193	176	182	197	193
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1294: WBGEM — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 2/6]

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
GLO	171	208	195	172	120	96	122	133	125	128	123
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1295: WBGEM — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 3/6]

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
GLO	114	124	129	166	127	119	104	110	124	134	133
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1296: WBGEM — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 4/6]

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
GLO	129	109	136	170	201	156	165	241	246	221	191
CAZ											
CHA											
EUR											
IND											
JPN											
LAM											
MEA											
NEU											
OAS											
REF											
SSA											
USA											

Table 1297: WBGEM — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	209	170
CAZ		
CHA		
EUR		
IND		
JPN		
LAM		
MEA		
NEU		
OAS		
REF		
SSA		
USA		

Table 1298: WBGEM — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 6/6]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	185	184	185	183	182	172	175	175	176	178	173
CAZ	146	148	147	145	145	143	141	137	136	135	132
CHA	217	214	215	215	214	216	216	216	216	217	216
EUR	194	194	187	193	181	170	166	171	175	180	174
IND	153	154	153	153	153	153	153	154	153	151	152
JPN	1171	1169	1172	1172	1175	1181	1177	1186	1198	1198	1198
LAM	89	89	94	96	105	101	110	111	108	103	101
MEA	291	294	295	293	290	293	287	291	293	293	294
NEU	257	272	259	270	285	279	245	234	281	285	292
OAS	247	248	251	258	241	233	221	251	239	220	208
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	275	278	271	274	275	252	258	264	267	269	266
USA	104	104	104	104	104	104	104	104	104	104	104

Table 1299: FAO — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	167	165	181	174	168	166	163	164	172	164	163
CAZ	128	129	130	128	128	128	132	130	127	128	129
CHA	214	213	214	212	210	213	213	213	213	214	215
EUR	174	174	174	184	208	178	184	181	180	177	177
IND	152	152	154	152	153	154	153	154	153	153	154
JPN	1199	1198	1199	1200	1200	1198	1198	1198	1201	1199	1201
LAM	112	103	100	108	108	105	106	109	122	110	106
MEA	285	285	288	295	291	291	291	294	289	288	287
NEU	281	249	272	287	282	267	274	256	270	254	253
OAS	207	209	198	201	198	196	180	171	166	171	167
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	246	284	295	269	257	260	239	242	244	249	257
USA	104	104	104	104	104	104	104	104	104	104	104

Table 1300: FAO — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	168	167	166	174	173	180	178	178	187	181	195
CAZ	130	128	127	128	129	130	127	132	129	129	129
CHA	214	214	215	212	211	210	212	211	209	209	210
EUR	176	178	174	177	176	174	174	169	169	164	165
IND	153	153	154	153	155	152	153	153	153	153	154
JPN	1225	1201	1202	1176	1190	1199	1196	1198	1193	1195	1201
LAM	107	110	115	123	129	130	138	134	133	130	122
MEA	278	278	279	282	287	285	290	286	277	282	282
NEU	275	255	253	239	274	261	265	256	202	439	467
OAS	136	150	140	139	143	152	153	154	151	148	144
REF	0	0	0	0	0	0	0	0	0	95	93
SSA	255	279	272	278	279	271	280	282	281	293	296
USA	104	104	104	104	104	104	104	104	104	104	104

Table 1301: FAO — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	195	204	193	197	201	197	201	197	209	204	202
CAZ	130	130	127	128	129	128	129	129	129	128	128
CHA	207	208	209	208	211	211	212	211	210	210	212
EUR	172	169	167	166	169	168	166	166	165	169	177
IND	152	153	153	151	152	153	151	151	153	150	151
JPN	1194	1205	1200	1212	1212	1212	1198	1212	1182	1201	1198
LAM	129	134	131	125	118	118	118	121	119	116	116
MEA	289	286	282	285	283	282	281	281	280	278	275
NEU	529	542	529	523	548	587	599	570	551	526	558
OAS	156	152	150	135	136	129	135	131	128	129	126
REF	93	91	92	91	88	94	98	95	99	95	95
SSA	291	302	299	307	304	304	311	295	301	303	307
USA	104	104	104	104	104	105	104	105	104	105	105

Table 1302: FAO — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	211	218	209	210	196	197	171
CAZ	126	127	129	126	127	128	128
CHA	211	211	213	211	212	210	212
EUR	169	167	168	176	172	176	181
IND	151	151	150	151	152	150	150
JPN	1192	1184	1194	1182	1191	1207	1191
LAM	112	114	112	109	112	112	106
MEA	280	283	283	280	275	276	60
NEU	577	610	592	592	575	593	607
OAS	120	124	128	123	124	126	122
REF	100	100	105	109	93	95	102
SSA	303	304	303	308	273	274	260
USA	105	105	105	105	104	105	105

Table 1303: FAO — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	2	139	136	146	141	233	216	260	286	132	134
CAZ	0	119	118	121	139	165	181	155	125	113	83
CHA	0	56	57	66	64	92	98	77	78	70	67
EUR	0	167	159	119	101	104	117	110	97	88	70
IND	0	155	134	129	141	147	143	115	117	146	122
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	137	128	112	123	136	162	126	115	104	112
MEA	0	66	172	204	251	178	147	210	153	137	249
NEU	0	49	53	121	79	106	130	156	155	100	96
OAS	0	221	213	165	205	229	222	219	203	171	193
REF	0	0	21	37	47	80	120	101	60	43	60
SSA	7	210	223	230	186	426	441	586	682	184	173
USA	0	100	83	102	94	140	103	97	73	71	86

Table 1304: FAOp — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 1/3]

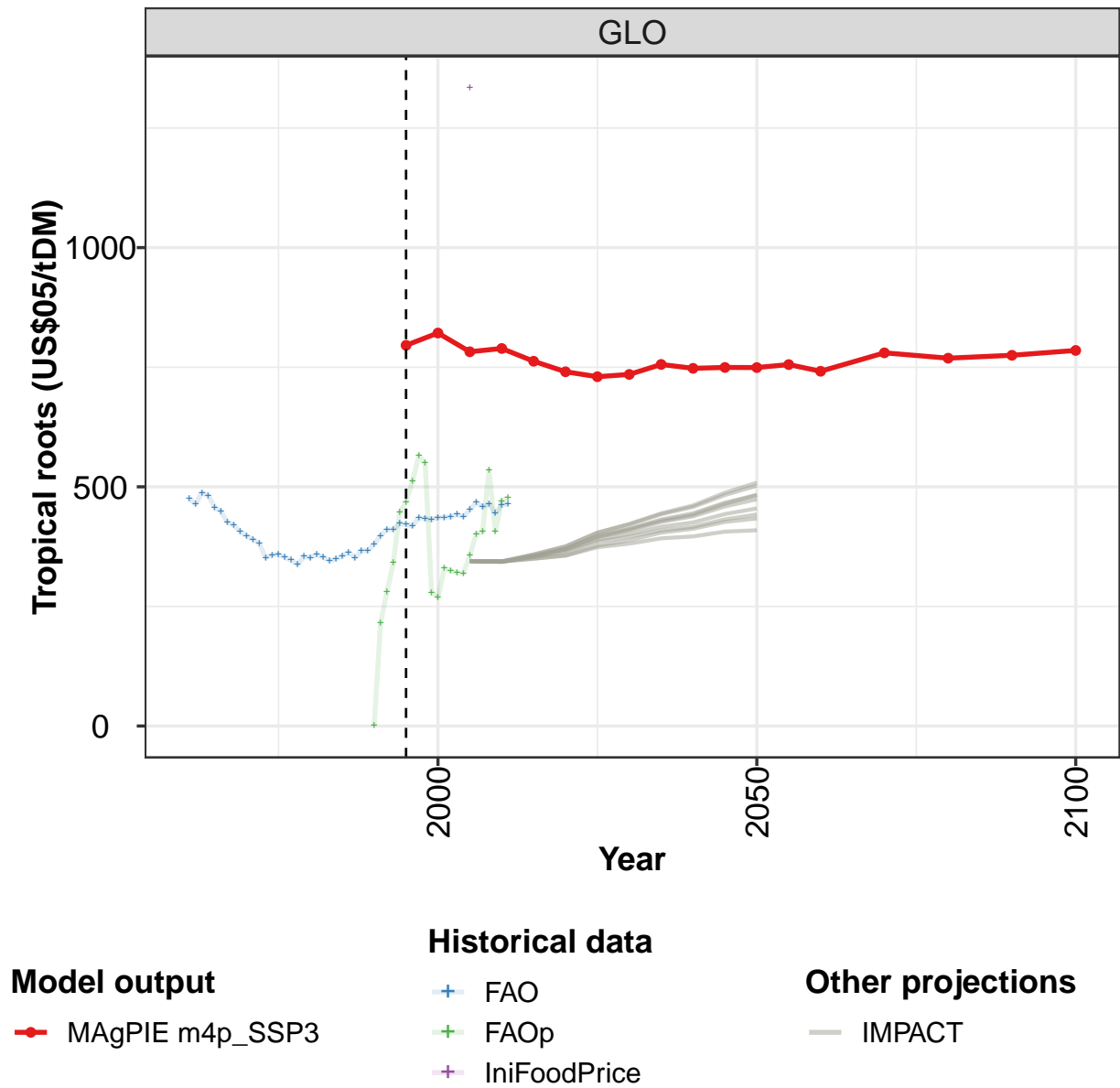
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	157	172	150	158	235	231	240	340	182	177	201
CAZ	89	110	157	138	119	120	197	244	182	200	244
CHA	84	63	90	112	147	180	126	458	447	446	498
EUR	73	76	22	24	20	17	32	33	22	34	44
IND	123	129	128	128	147	178	213	222	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	107	110	107	106	95	123	154	175	142	159	223
MEA	217	146	157	176	357	273	248	395	530	574	514
NEU	81	108	152	134	134	178	249	389	293	266	284
OAS	172	99	114	113	108	139	168	175	184	202	82
REF	59	52	100	86	64	91	134	138	103	105	168
SSA	241	273	211	240	376	320	323	522	210	189	209
USA	87	105	108	81	85	149	183	143	144	225	269

Table 1305: FAOp — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 2/3]

	2005
GLO	240
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1306: IniFoodPrice — Prices—Agriculture—Tropical cereals (US\$05/tDM)

36.37 Tropical roots



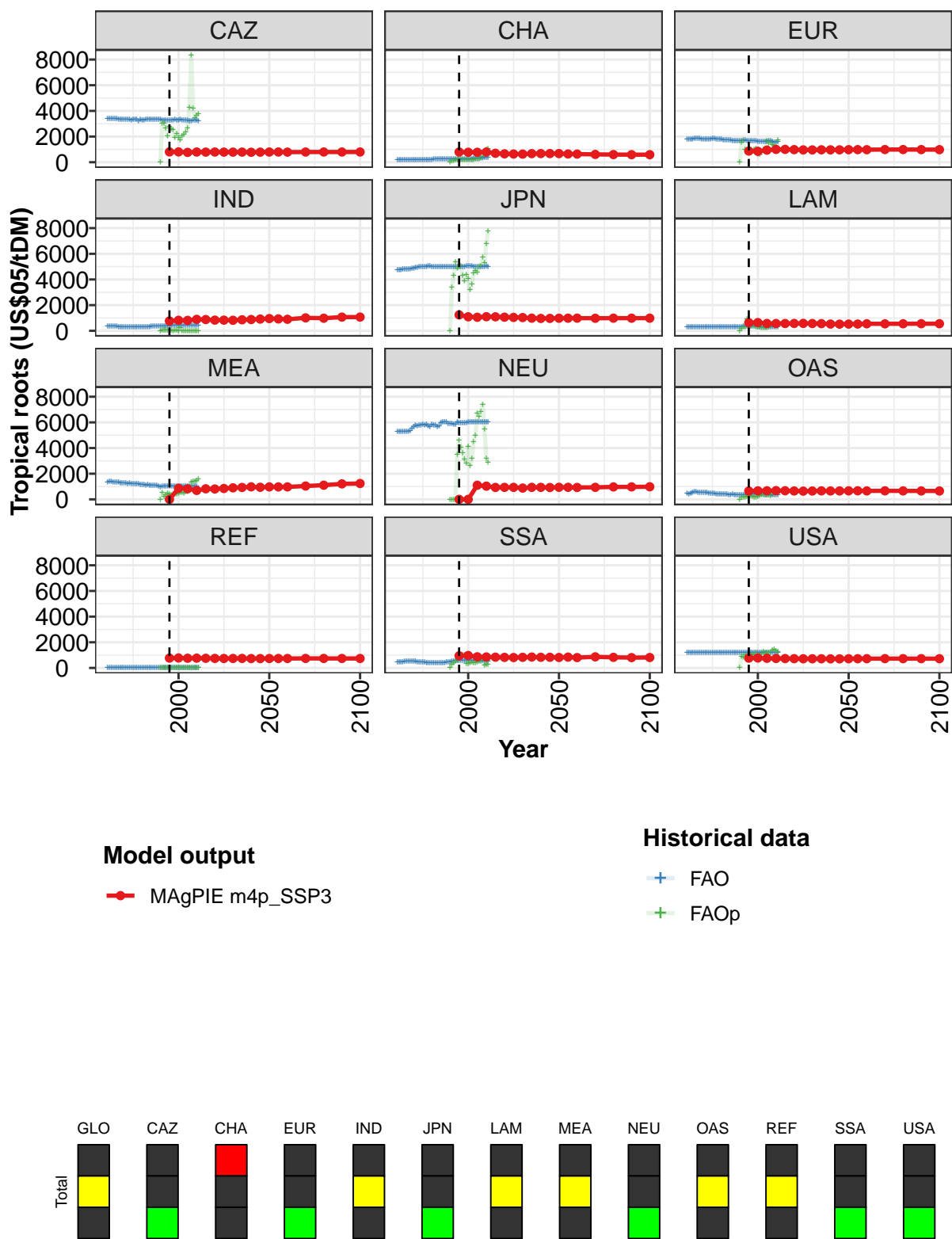


Figure 327: MAgPIE m4p_SSP3 — Prices—Agriculture—Tropical roots (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	796	821	782	789	762	741	730	735	756	748	750
CAZ	805	804	766	794	789	795	788	786	790	776	785
CHA	795	775	776	794	698	655	640	634	670	675	675
EUR	868	850	944	999	1000	981	961	959	968	965	966
IND	765	817	811	891	876	832	831	820	860	879	914
JPN	1239	1093	1055	1099	1091	1063	1043	1033	985	963	967
LAM	636	643	571	568	569	572	578	566	557	525	519
MEA	0	862	825	697	823	809	851	900	929	978	941
NEU	0	2	1100	1031	931	936	936	882	937	937	924
OAS	652	665	670	683	673	655	642	652	662	656	657
REF	768	779	757	763	753	743	737	740	743	730	729
SSA	948	970	867	856	840	823	811	828	850	832	832
USA	764	777	752	738	733	723	715	715	717	709	711

Table 1307: MAgPIE m4p_SSP3 — Prices—Agriculture—Tropical roots (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	749	756	742	780	769	775	785
CAZ	794	796	786	795	797	797	798
CHA	675	642	635	609	596	588	588
EUR	977	980	978	988	987	984	981
IND	952	926	899	1009	981	1067	1069
JPN	981	984	986	978	985	984	986
LAM	525	526	546	543	548	553	553
MEA	971	972	971	1041	1106	1208	1237
NEU	942	939	929	938	969	973	982
OAS	665	669	659	666	661	657	656
REF	735	738	738	742	740	739	739
SSA	816	846	808	864	827	807	814
USA	718	720	721	726	725	724	722

Table 1308: MAgPIE m4p_SSP3 — Prices—Agriculture—Tropical roots (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	476	463	488	481	457	448	426	419	406	398	390
CAZ	3390	3384	3384	3385	3374	3379	3358	3356	3343	3339	3353
CHA	185	185	188	189	187	183	184	188	188	188	192
EUR	1792	1794	1795	1787	1820	1835	1842	1821	1786	1788	1795
IND	334	349	359	329	337	332	318	301	300	288	300
JPN	4760	4766	4769	4782	4791	4800	4816	4819	4848	4857	4910
LAM	306	303	298	295	295	300	299	295	298	304	310
MEA	1344	1386	1366	1359	1357	1347	1352	1284	1256	1279	1265
NEU	5281	5278	5270	5263	5285	5282	5314	5315	5547	5637	5779
OAS	438	437	466	502	580	595	550	545	545	545	537
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	451	452	467	479	503	520	521	521	539	533	507
USA	1194	1189	1191	1197	1190	1194	1192	1192	1190	1190	1193

Table 1309: FAO — Prices—Agriculture—Tropical roots (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	381	352	357	359	352	346	337	354	352	359	352
CAZ	3335	3305	3298	3316	3336	3342	3221	3316	3252	3301	3339
CHA	196	189	194	195	199	199	200	208	213	223	223
EUR	1817	1784	1807	1827	1842	1800	1803	1801	1773	1708	1742
IND	285	281	283	286	290	302	316	306	312	314	315
JPN	4930	4990	5003	4989	5004	4992	5019	5026	5008	4986	4986
LAM	312	320	320	317	315	314	317	318	320	316	311
MEA	1231	1276	1203	1224	1189	1189	1191	1146	1170	1164	1113
NEU	5728	5782	5766	5810	5800	5840	5702	5675	5820	5786	5750
OAS	528	498	473	485	452	436	396	425	396	395	386
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	459	458	449	452	424	414	409	423	423	410	402
USA	1192	1193	1192	1190	1187	1192	1189	1186	1189	1187	1184

Table 1310: FAO — Prices—Agriculture—Tropical roots (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	345	349	356	363	352	366	367	380	398	410	411
CAZ	3346	3337	3335	3336	3327	3329	3340	3317	3280	3269	3279
CHA	222	226	230	237	231	235	230	230	236	242	239
EUR	1742	1709	1738	1690	1665	1683	1686	1671	1691	1676	1701
IND	322	325	330	347	350	344	358	365	367	369	387
JPN	5004	5005	4980	4987	4992	5003	4984	4994	5006	4981	4972
LAM	317	321	314	311	316	319	313	317	325	333	336
MEA	1138	1100	1068	1065	1111	1057	1031	989	1020	1046	1025
NEU	5682	5719	5986	6004	6017	6014	5869	5917	5926	5842	5817
OAS	385	372	373	400	370	357	345	362	365	361	361
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	385	392	390	393	393	437	451	478	518	543	562
USA	1185	1191	1188	1193	1198	1203	1200	1194	1199	1199	1199

Table 1311: FAO — Prices—Agriculture—Tropical roots (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	423	421	418	435	434	431	436	436	437	442	438
CAZ	3257	3247	3254	3269	3304	3276	3280	3319	3300	3266	3247
CHA	246	245	235	252	248	246	258	264	268	277	277
EUR	1693	1688	1686	1642	1669	1663	1618	1621	1626	1605	1581
IND	385	383	390	407	406	422	408	400	397	413	420
JPN	5005	5009	4997	4993	4998	5034	5020	5018	5018	5005	4991
LAM	331	331	349	338	338	332	325	323	316	316	310
MEA	1046	1036	1021	1027	1032	1033	1021	1006	1042	1007	1035
NEU	6021	5954	5945	5938	5953	5981	6011	6031	6039	6040	6042
OAS	376	401	382	384	404	409	407	402	410	382	341
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	570	566	569	571	569	573	570	560	555	566	563
USA	1196	1198	1195	1195	1209	1217	1217	1213	1207	1200	1193

Table 1312: FAO — Prices—Agriculture—Tropical roots (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	452	468	458	464	445	462	464
CAZ	3258	3200	3222	3248	3280	3284	3236
CHA	285	321	341	337	351	363	365
EUR	1599	1677	1687	1589	1551	1568	1577
IND	414	419	425	425	422	441	438
JPN	4992	4987	4991	4994	4986	5019	5006
LAM	308	312	307	313	316	316	319
MEA	1010	1024	1003	1026	1016	1040	677
NEU	6042	6038	6042	6041	6023	6024	6024
OAS	373	358	358	346	333	355	370
REF	0	0	0	0	0	0	0
SSA	576	582	556	571	529	542	544
USA	1197	1192	1198	1190	1189	1184	1182

Table 1313: FAO — Prices—Agriculture—Tropical roots (US\$05/tDM) [PART 5/5]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	0	215	280	342	447	469	512	565	550	279	269
CAZ	0	3026	3015	2656	2020	2783	2575	2514	1941	2237	1897
CHA	0	107	143	189	172	271	196	215	186	185	175
EUR	0	1528	1715	984	892	985	959	860	965	1058	617
IND	0	29	24	18	19	21	25	16	17	17	14
JPN	0	3366	4301	5377	4889	4994	5058	4288	3881	4341	4061
LAM	0	178	281	293	882	415	366	395	403	288	285
MEA	0	518	208	338	461	413	341	382	429	412	480
NEU	0	0	0	0	3495	4587	4067	3590	3135	2799	4108
OAS	0	159	164	162	196	267	252	233	151	179	209
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	1	296	391	528	553	717	933	1015	1021	358	325
USA	0	883	814	998	928	1051	953	1042	1017	1167	1024

Table 1314: FAOp — Prices—Agriculture—Tropical roots (US\$05/tDM) [PART 1/3]

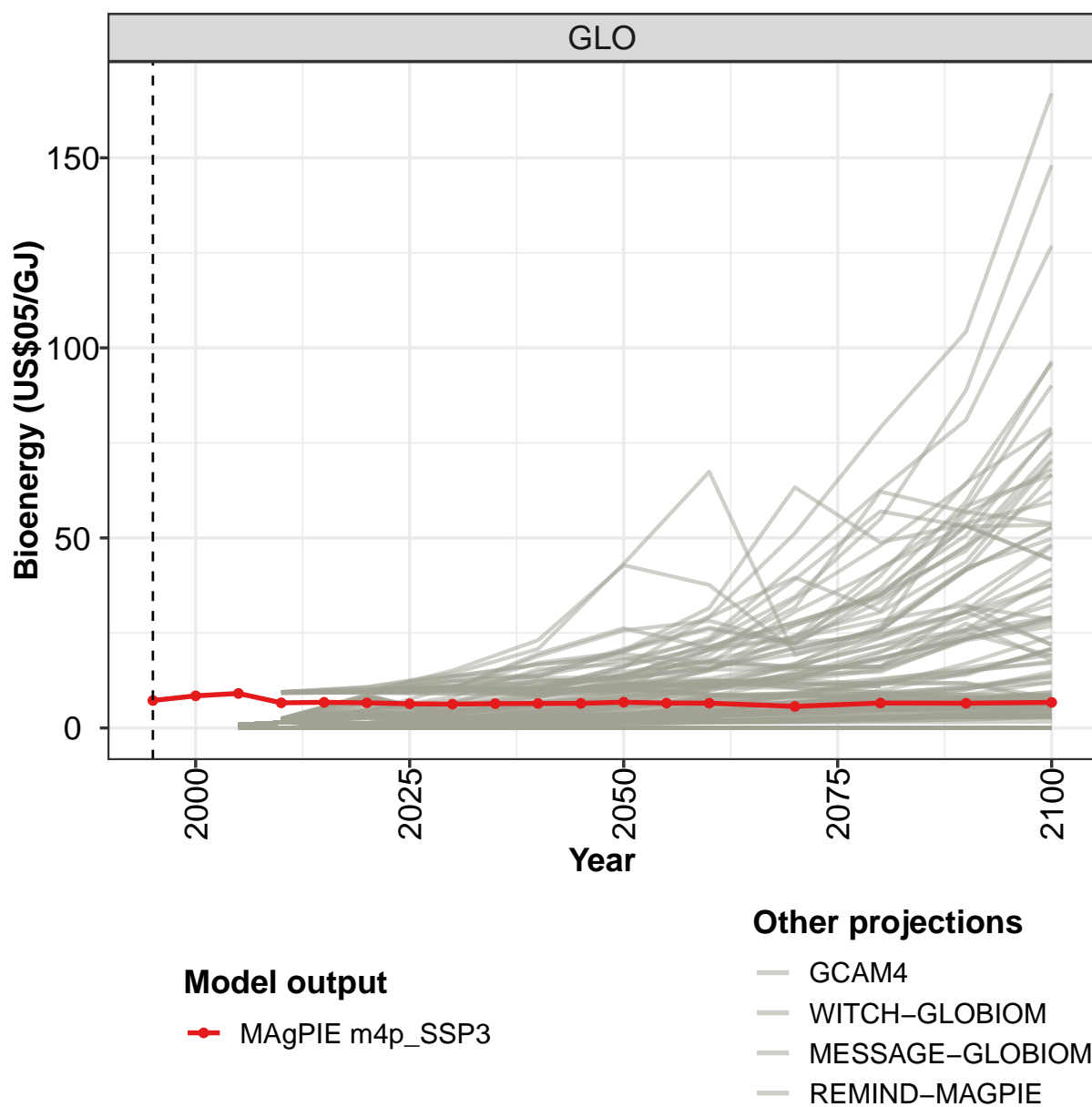
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	329	325	320	320	357	401	406	534	407	471	478
CAZ	1753	2037	2170	2333	2637	4246	8334	4220	3446	3653	3737
CHA	209	189	197	223	227	266	328	434	836	1008	1076
EUR	631	734	970	863	1693	1460	1587	1369	1314	997	1717
IND	256	0	0	0	0	0	0	0	0	0	0
JPN	3184	3624	4476	4661	4528	5006	5073	5704	5324	6787	7787
LAM	270	217	236	244	262	285	333	420	438	491	545
MEA	517	555	475	564	599	906	1311	1387	1413	1433	1581
NEU	2642	3214	4502	4943	6711	6437	6833	7382	5483	3174	2870
OAS	297	338	346	313	365	328	263	417	393	512	467
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	409	433	392	382	442	510	502	664	225	257	251
USA	1024	1118	1267	1160	1199	1204	1210	1392	1439	1309	1241

Table 1315: FAOp — Prices—Agriculture—Tropical roots (US\$05/tDM) [PART 2/3]

	2005
GLO	1334
CAZ	
CHA	
EUR	
IND	
JPN	
LAM	
MEA	
NEU	
OAS	
REF	
SSA	
USA	

Table 1316: IniFoodPrice — Prices—Agriculture—Tropical roots (US\$05/tDM)

37 Bioenergy



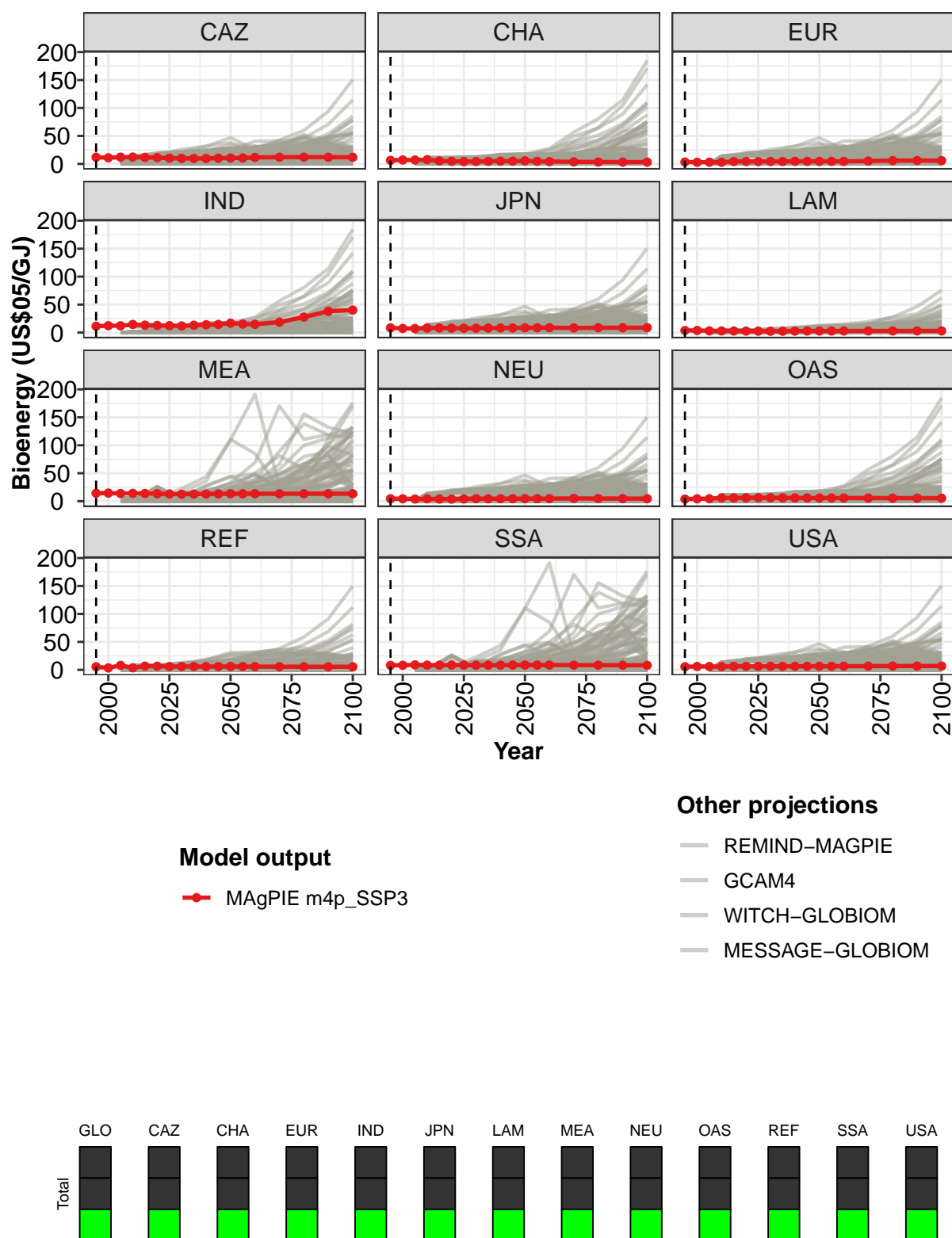


Figure 328: MAgPIE m4p_SSP3 — Prices—Bioenergy (US\$05/GJ)

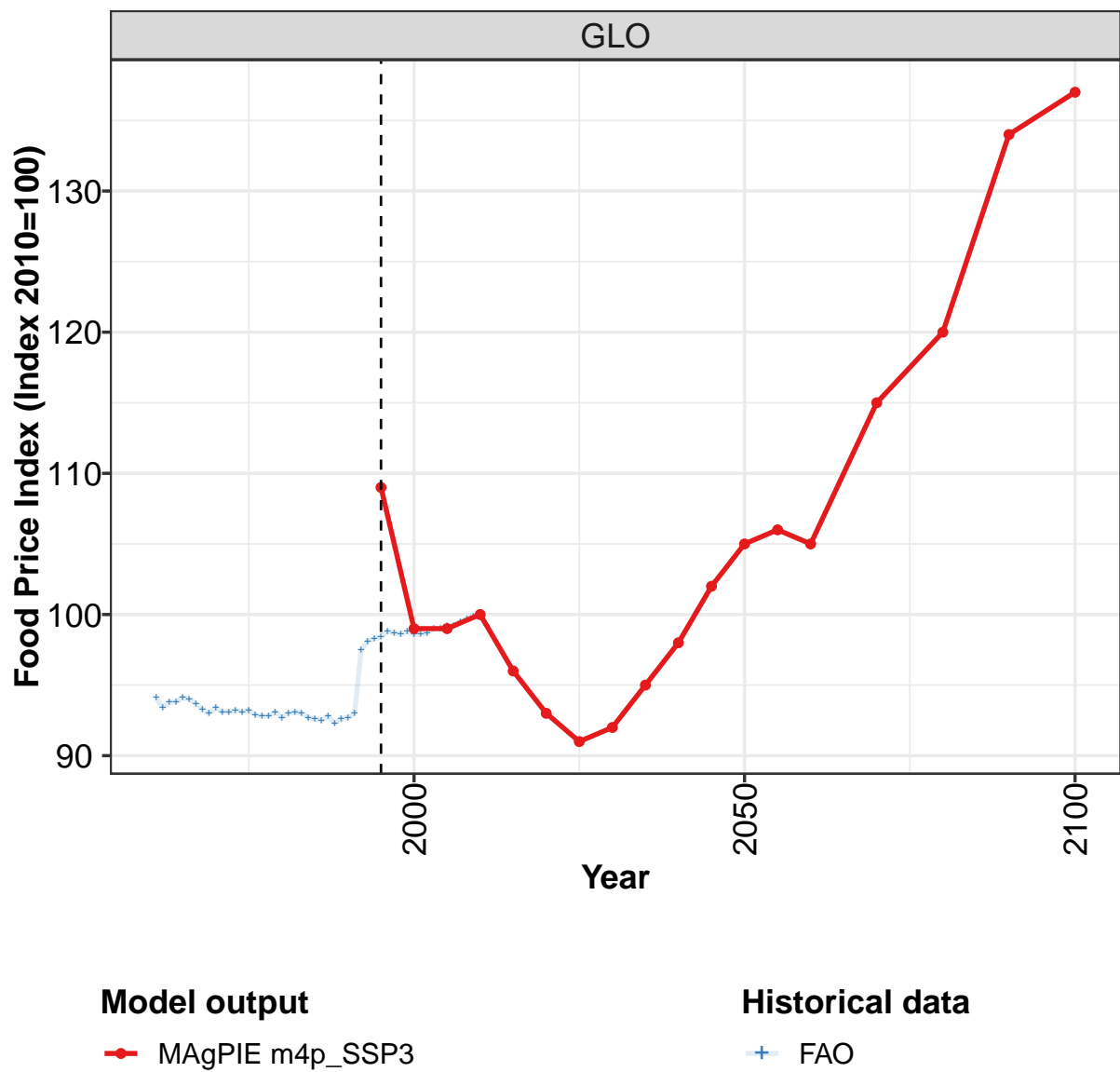
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.2	8.5	9.1	6.6	6.8	6.6	6.4	6.3	6.4	6.4	6.5
CAZ	12.0	10.9	12.0	12.2	11.6	11.1	10.2	9.9	9.7	9.7	10.2
CHA	6.3	7.0	7.0	7.5	5.3	4.6	4.1	4.2	4.5	4.8	4.9
EUR	3.3	2.9	3.0	2.9	4.2	4.3	4.1	4.3	4.3	4.6	4.5
IND	11.3	12.2	12.1	14.4	13.3	12.8	12.3	11.8	13.1	13.9	14.5
JPN	8.5	7.3	7.2	8.0	8.1	7.9	7.8	7.7	8.0	8.2	8.2
LAM	3.7	3.8	3.0	2.9	2.8	2.6	2.5	2.3	2.4	2.5	2.7
MEA	14.2	14.5	13.9	14.0	13.8	13.4	13.0	12.5	12.8	12.9	13.2
NEU	4.4	4.3	3.9	4.2	3.8	3.7	4.0	4.5	4.4	4.4	4.5
OAS	3.7	4.2	4.5	6.0	5.8	5.9	6.1	6.1	5.9	5.8	5.7
REF	5.6	3.5	8.0	3.7	6.7	6.5	5.9	6.1	6.0	5.8	5.9
SSA	8.1	8.2	8.9	8.5	8.4	8.7	8.5	8.2	8.4	8.3	8.6
USA	5.6	6.0	6.0	5.8	6.2	6.3	6.2	6.3	6.2	6.3	6.3

Table 1317: MAgPIE m4p_SSP3 — Prices—Bioenergy (US\$05/GJ) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	6.8	6.5	6.5	5.7	6.6	6.5	6.7
CAZ	10.5	10.6	11.5	11.9	12.0	11.9	11.8
CHA	5.4	4.5	4.1	3.7	3.3	3.1	3.1
EUR	4.5	4.5	4.4	5.1	5.9	6.0	5.8
IND	16.8	15.2	14.7	18.7	27.5	38.0	40.3
JPN	8.5	8.6	8.7	8.2	8.6	8.6	8.7
LAM	2.8	2.8	2.8	2.9	2.9	2.9	2.9
MEA	13.4	13.4	13.4	13.3	13.4	13.4	13.4
NEU	4.5	4.5	4.5	5.0	4.7	4.6	4.5
OAS	5.7	5.7	5.6	5.6	5.5	5.4	5.4
REF	6.0	5.9	5.8	5.6	5.6	5.5	5.5
SSA	8.6	8.5	8.6	8.4	8.4	8.2	8.2
USA	6.4	6.4	6.5	6.6	6.8	6.8	6.8

Table 1318: MAgPIE m4p_SSP3 — Prices—Bioenergy (US\$05/GJ) [PART 2/2]

38 Food Price Index



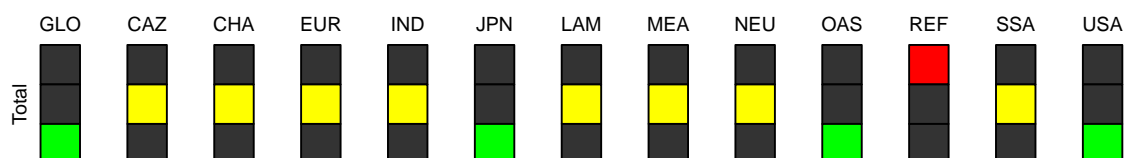
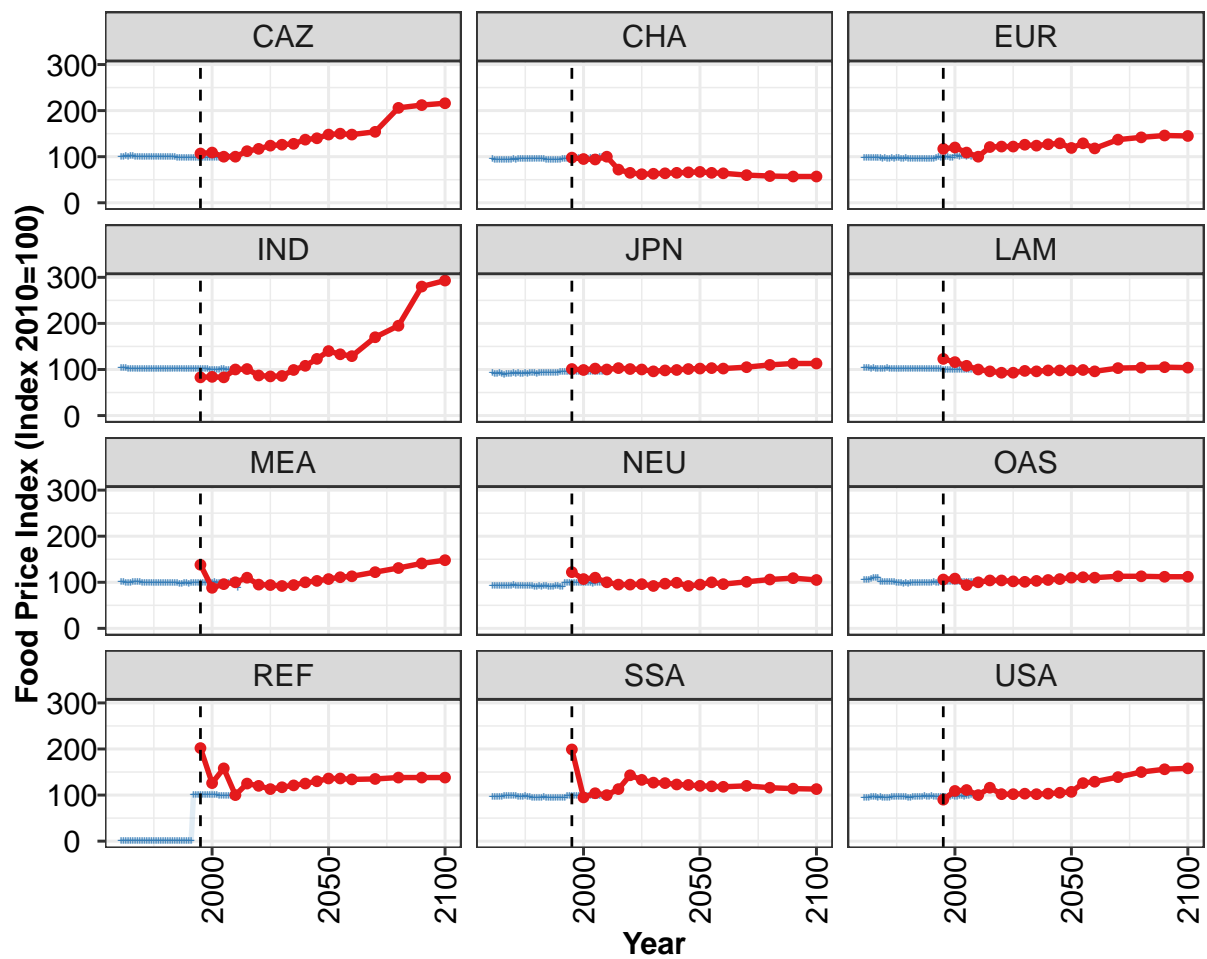


Figure 329: MAgPIE m4p_SSP3 — Prices—Food Price Index (Index 2010=100)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	109	99	99	100	96	93	91	92	95	98	102
CAZ	107	109	100	100	112	117	124	126	128	137	140
CHA	98	95	94	100	72	65	62	63	64	65	66
EUR	117	120	109	100	121	122	122	126	124	127	129
IND	83	84	83	100	101	87	85	86	99	108	123
JPN	101	99	102	100	103	101	100	96	98	99	101
LAM	123	116	108	100	96	93	93	97	96	98	98
MEA	138	88	96	100	110	95	94	92	94	100	103
NEU	122	107	110	100	95	95	96	92	97	99	92
OAS	106	108	94	100	104	104	102	101	103	105	107
REF	202	126	158	100	125	120	113	117	121	125	130
SSA	199	95	104	100	113	143	133	127	126	123	122
USA	90	109	111	100	116	102	102	103	102	103	105

Table 1319: MAgPIE m4p_SSP3 — Prices—Food Price Index (Index 2010=100) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	105	106	105	115	120	134	137
CAZ	148	150	148	154	206	212	216
CHA	67	65	64	60	58	57	57
EUR	119	129	118	137	142	146	145
IND	140	133	129	170	195	280	293
JPN	102	103	102	105	110	113	113
LAM	98	99	96	103	104	105	104
MEA	107	111	113	122	131	141	148
NEU	95	100	96	101	106	109	105
OAS	110	111	110	113	113	112	112
REF	136	136	134	135	138	138	138
SSA	120	119	118	120	116	114	113
USA	107	126	129	139	150	156	158

Table 1320: MAgPIE m4p_SSP3 — Prices—Food Price Index (Index 2010=100) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	94	93	94	94	94	94	94	93	93	93	93
CAZ	101	100	101	101	101	102	101	100	100	100	100
CHA	95	93	94	94	94	94	94	94	94	95	94
EUR	99	98	98	97	98	97	97	97	96	97	96
IND	103	103	103	102	102	102	102	101	101	101	101
JPN	92	90	91	92	91	89	90	90	91	92	91
LAM	104	103	103	102	103	102	102	102	102	102	103
MEA	100	100	99	99	99	100	100	100	100	100	99
NEU	93	93	92	93	92	92	92	93	92	94	92
OAS	105	105	106	108	110	109	109	102	101	101	102
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	96	96	96	97	97	98	98	98	98	99	99
USA	95	95	95	96	96	96	95	96	95	95	95

Table 1321: FAO — Prices—Food Price Index (Index 2010=100) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	93	93	93	93	93	93	93	93	93	93	93
CAZ	100	100	100	100	101	100	100	100	100	99	100
CHA	95	95	95	95	95	95	95	96	96	96	96
EUR	96	97	96	97	97	96	96	97	96	96	96
IND	101	101	101	101	101	101	101	101	101	101	101
JPN	92	90	91	92	91	92	92	92	91	92	93
LAM	102	102	102	102	101	101	102	102	101	102	102
MEA	100	100	99	98	98	98	99	98	98	99	98
NEU	92	93	93	92	92	93	92	91	91	92	91
OAS	101	101	100	99	98	98	98	98	98	98	98
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	96	97	96	98	96	96	95	94	95	95	94
USA	95	96	96	97	97	96	96	96	95	95	97

Table 1322: FAO — Prices—Food Price Index (Index 2010=100) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	93	93	93	92	93	92	93	93	93	98	98
CAZ	99	99	98	98	98	98	98	98	98	98	98
CHA	95	94	94	93	94	93	94	94	95	95	96
EUR	96	96	96	96	96	95	96	96	96	98	99
IND	102	102	102	102	102	101	101	101	101	101	101
JPN	93	93	93	93	93	93	93	94	94	94	94
LAM	102	102	102	102	101	101	101	101	101	101	100
MEA	99	98	98	98	97	98	99	98	98	98	99
NEU	92	92	90	91	91	92	93	91	91	99	99
OAS	98	98	99	100	100	100	99	99	100	100	99
REF	0	0	0	0	0	0	0	0	0	100	100
SSA	96	94	94	94	93	95	95	95	94	94	99
USA	96	97	97	97	98	97	97	98	97	97	96

Table 1323: FAO — Prices—Food Price Index (Index 2010=100) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	98	98	99	99	99	99	99	99	99	99	99
CAZ	98	98	98	98	98	99	98	99	99	98	98
CHA	96	97	98	97	98	98	96	96	96	97	98
EUR	99	98	99	99	98	98	101	101	101	101	101
IND	101	101	102	102	101	100	100	100	100	100	101
JPN	95	95	95	95	95	95	95	95	95	95	96
LAM	101	100	100	100	100	100	100	100	100	100	100
MEA	99	99	100	100	99	100	100	100	100	100	99
NEU	99	100	98	99	98	98	98	99	98	98	98
OAS	100	101	100	101	101	102	101	101	102	101	101
REF	101	100	101	100	100	100	100	100	100	99	99
SSA	99	99	99	99	98	99	99	98	98	99	98
USA	97	96	97	97	96	98	97	97	98	98	97

Table 1324: FAO — Prices—Food Price Index (Index 2010=100) [PART 4/5]

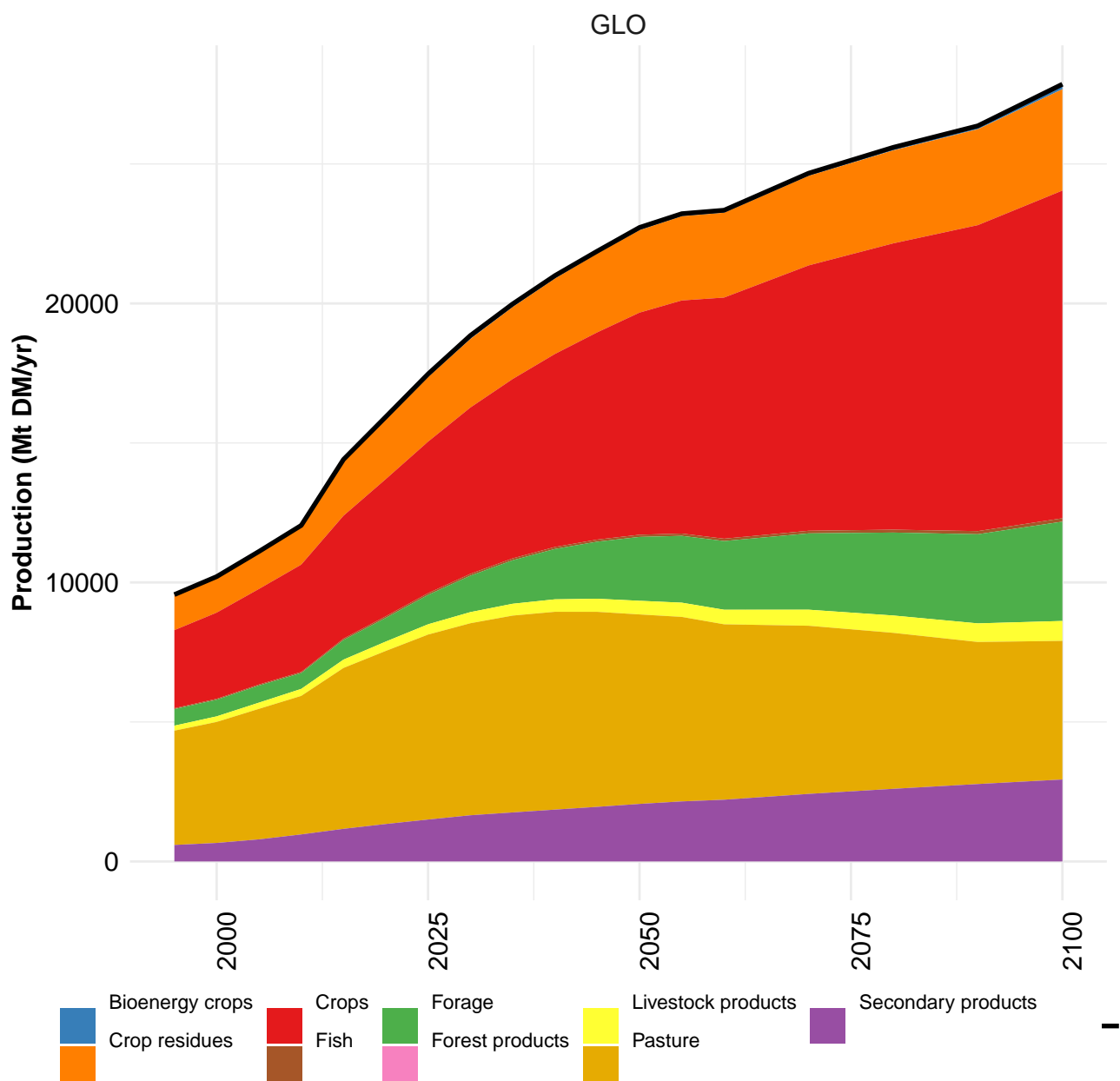
	2005	2006	2007	2008	2009	2010	2011
GLO	99	99	100	100	100	100	99
CAZ	99	99	99	99	100	100	101
CHA	98	98	99	100	100	100	100
EUR	101	101	100	100	100	100	100
IND	101	100	100	100	100	100	100
JPN	96	95	95	95	100	100	99
LAM	100	100	100	100	100	100	100
MEA	100	100	100	101	101	100	88
NEU	99	100	99	100	99	100	99
OAS	101	101	101	101	100	100	100
REF	99	99	99	99	100	100	99
SSA	98	99	98	99	99	98	98
USA	98	98	100	99	99	100	99

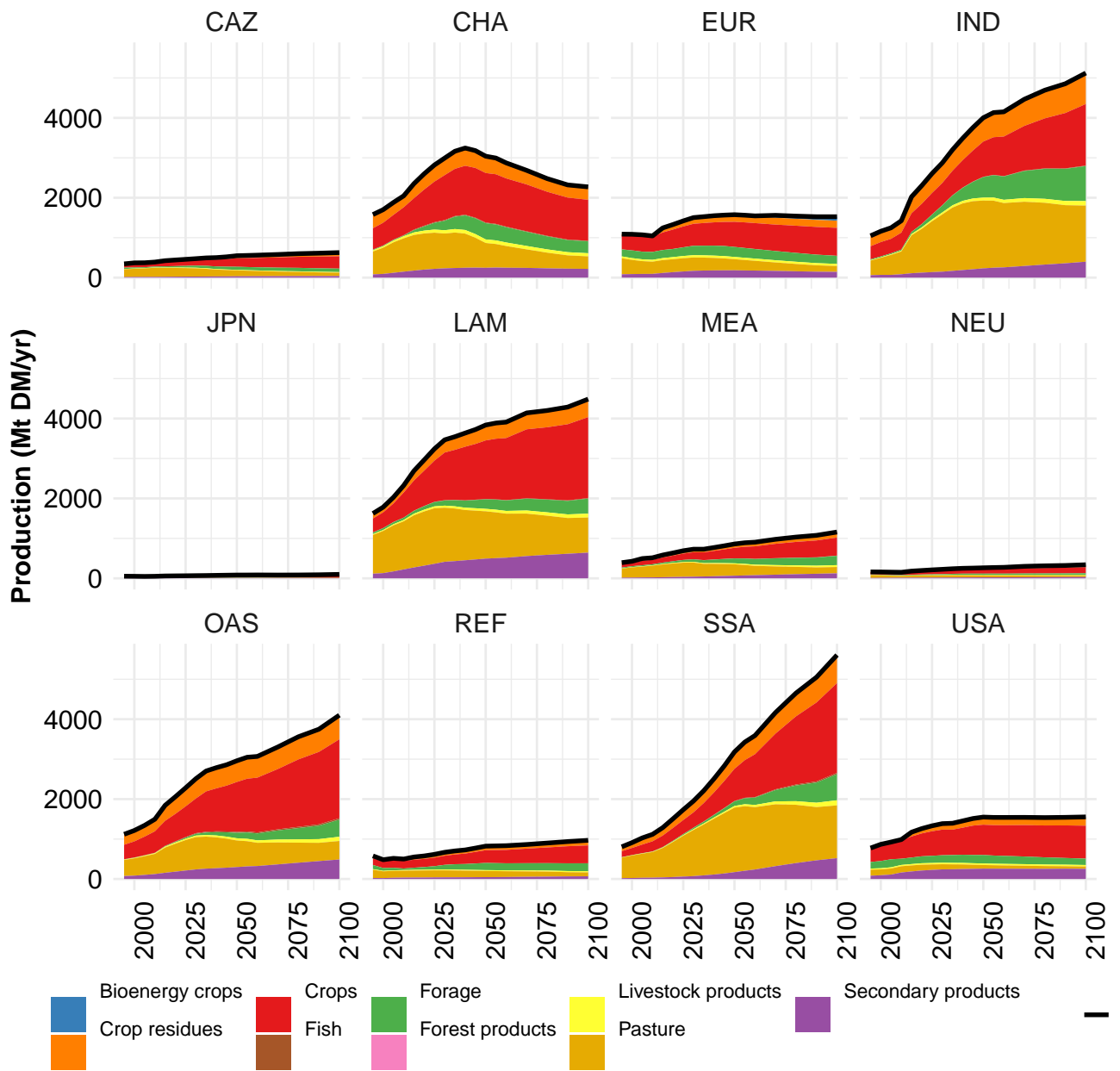
Table 1325: FAO — Prices—Food Price Index (Index 2010=100) [PART 5/5]

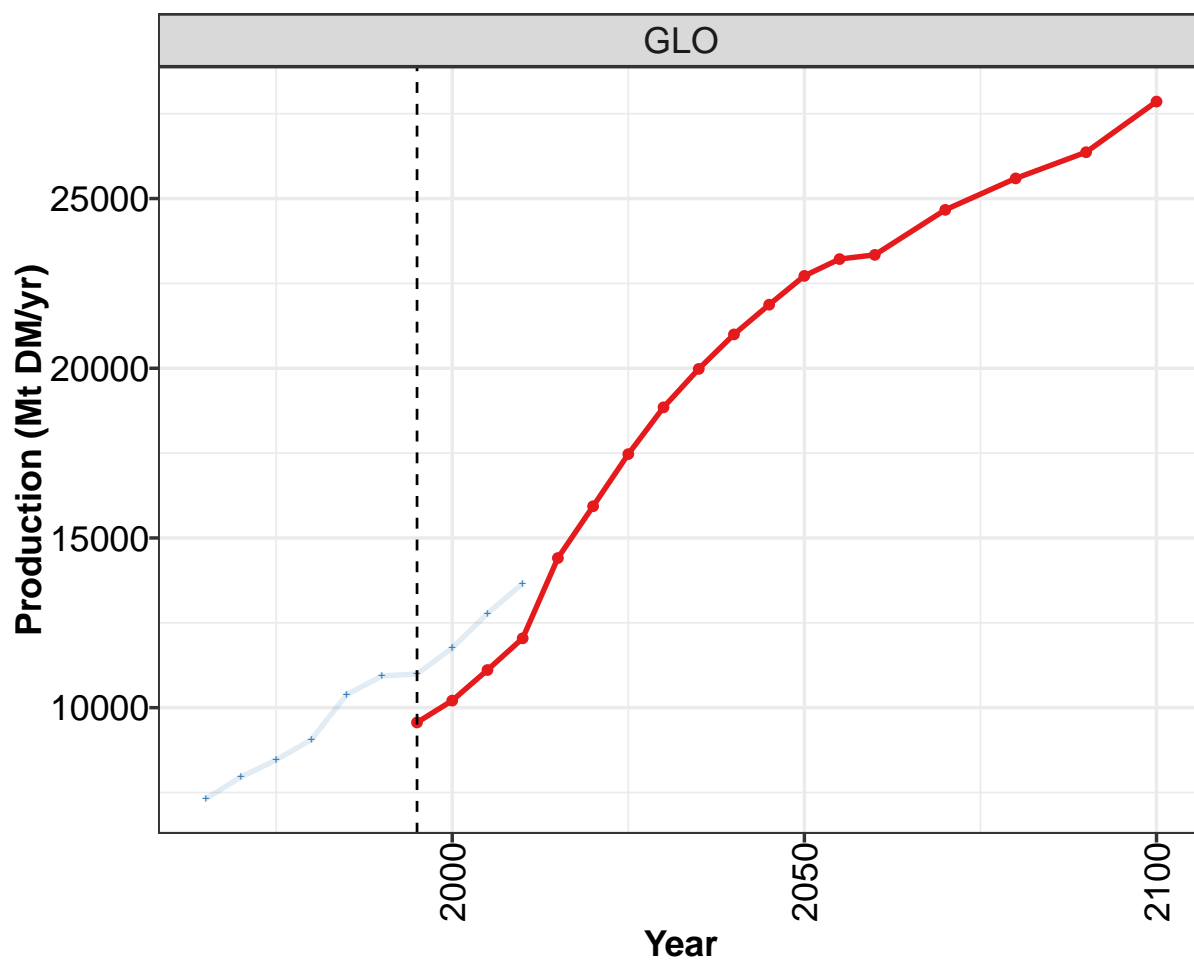
39 GHG Emission**40 Land****41 Water**

Part XII

Production





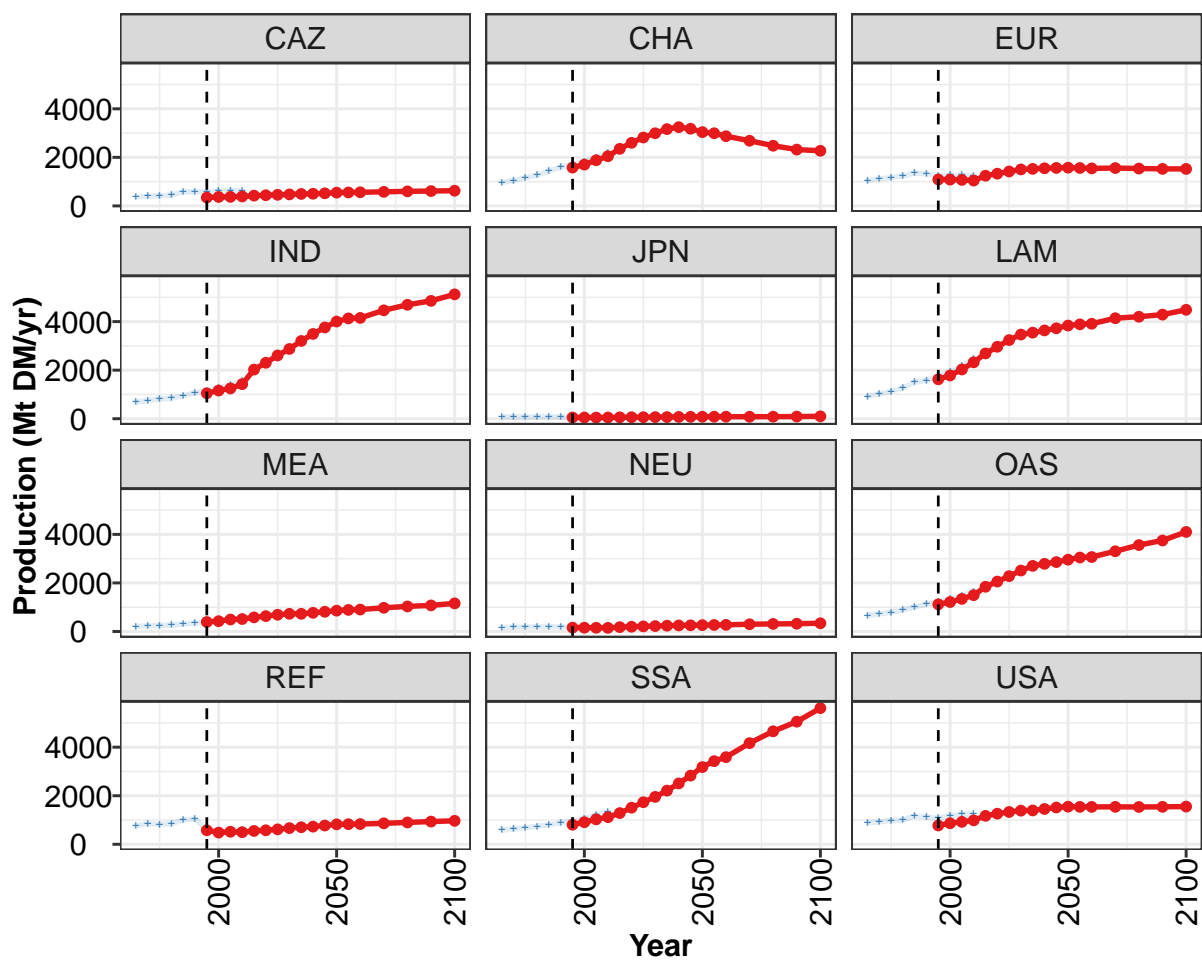


Model output

—●— MAgPIE m4p_SSP3

Historical data

—+— FAO



Model output

—●— MAgPIE m4p_SSP3

Historical data

—+— FAO



Figure 330: MAgPIE m4p_SSP3 — Production (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9564	10209	11110	12044	14409	15935	17471	18850	19982	20997	21874
CAZ	344	369	372	390	424	441	458	475	494	501	521
CHA	1579	1702	1882	2047	2352	2599	2819	2993	3164	3244	3179
EUR	1088	1085	1072	1044	1244	1329	1420	1503	1526	1550	1565
IND	1047	1161	1248	1423	2024	2305	2606	2873	3203	3492	3759
JPN	53	50	47	51	59	61	64	67	70	74	78
LAM	1623	1781	2028	2324	2690	2964	3240	3467	3545	3637	3725
MEA	392	426	495	514	582	635	690	729	729	770	813
NEU	161	158	155	151	181	196	211	225	239	250	256
OAS	1119	1215	1343	1496	1844	2058	2281	2511	2703	2787	2859
REF	578	483	517	500	551	577	616	668	703	728	773
SSA	805	910	1028	1118	1286	1508	1733	1953	2210	2508	2830
USA	775	868	925	987	1172	1262	1331	1386	1395	1455	1515

Table 1326: MAgPIE m4p-SSP3 — Production (Mt DM/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	22723	23217	23341	24668	25594	26366	27859
CAZ	548	555	562	580	600	612	627
CHA	3040	2994	2872	2685	2479	2321	2271
EUR	1575	1563	1546	1560	1540	1525	1525
IND	4003	4132	4151	4465	4692	4854	5123
JPN	82	82	84	82	84	89	99
LAM	3838	3888	3911	4141	4201	4287	4486
MEA	859	890	905	977	1032	1076	1158
NEU	263	270	274	300	313	321	339
OAS	2960	3048	3069	3305	3561	3749	4101
REF	822	829	834	864	900	937	968
SSA	3182	3426	3592	4167	4654	5052	5608
USA	1550	1542	1541	1543	1537	1543	1554

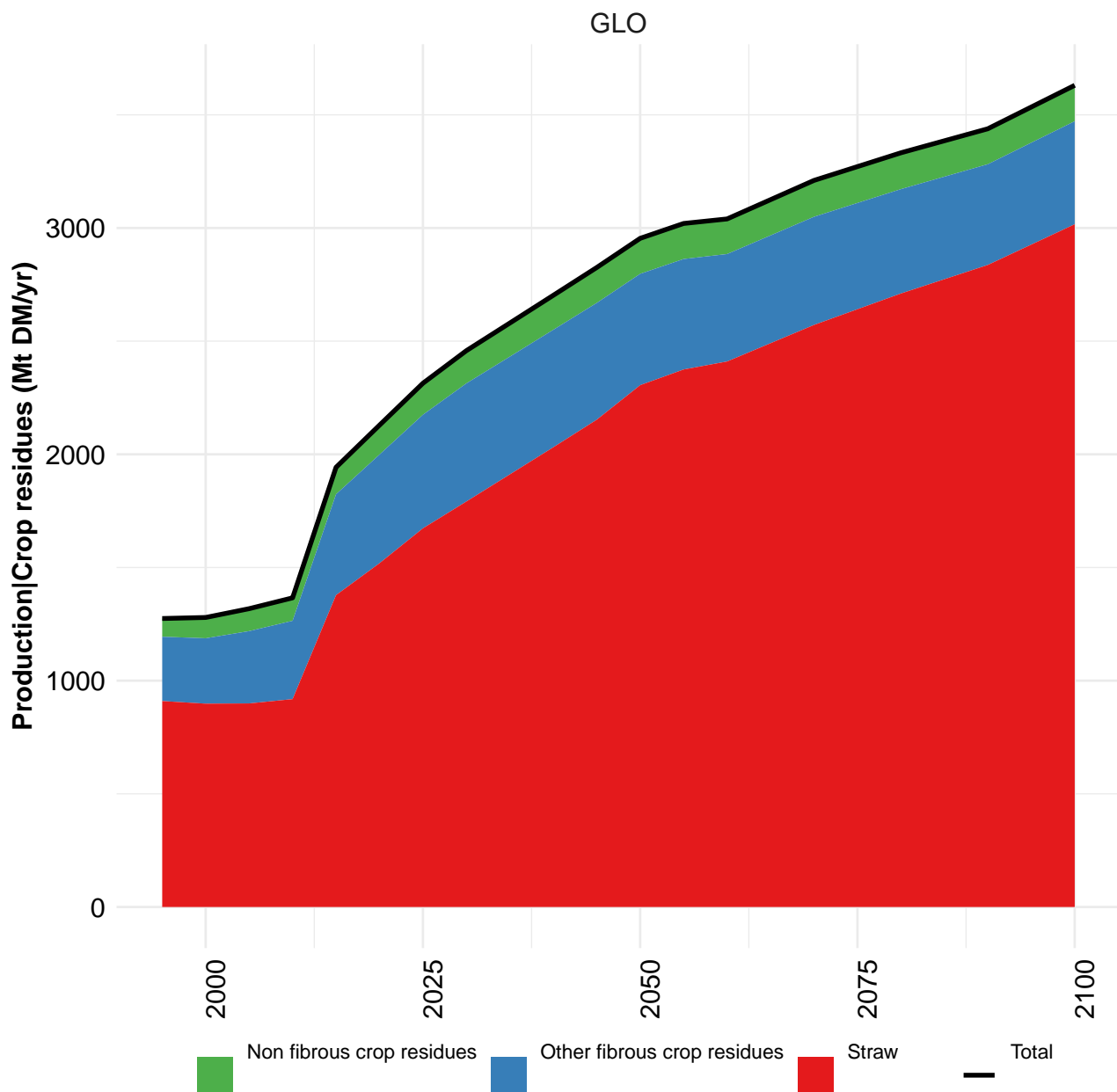
Table 1327: MAgPIE m4p-SSP3 — Production (Mt DM/yr) [PART 2/2]

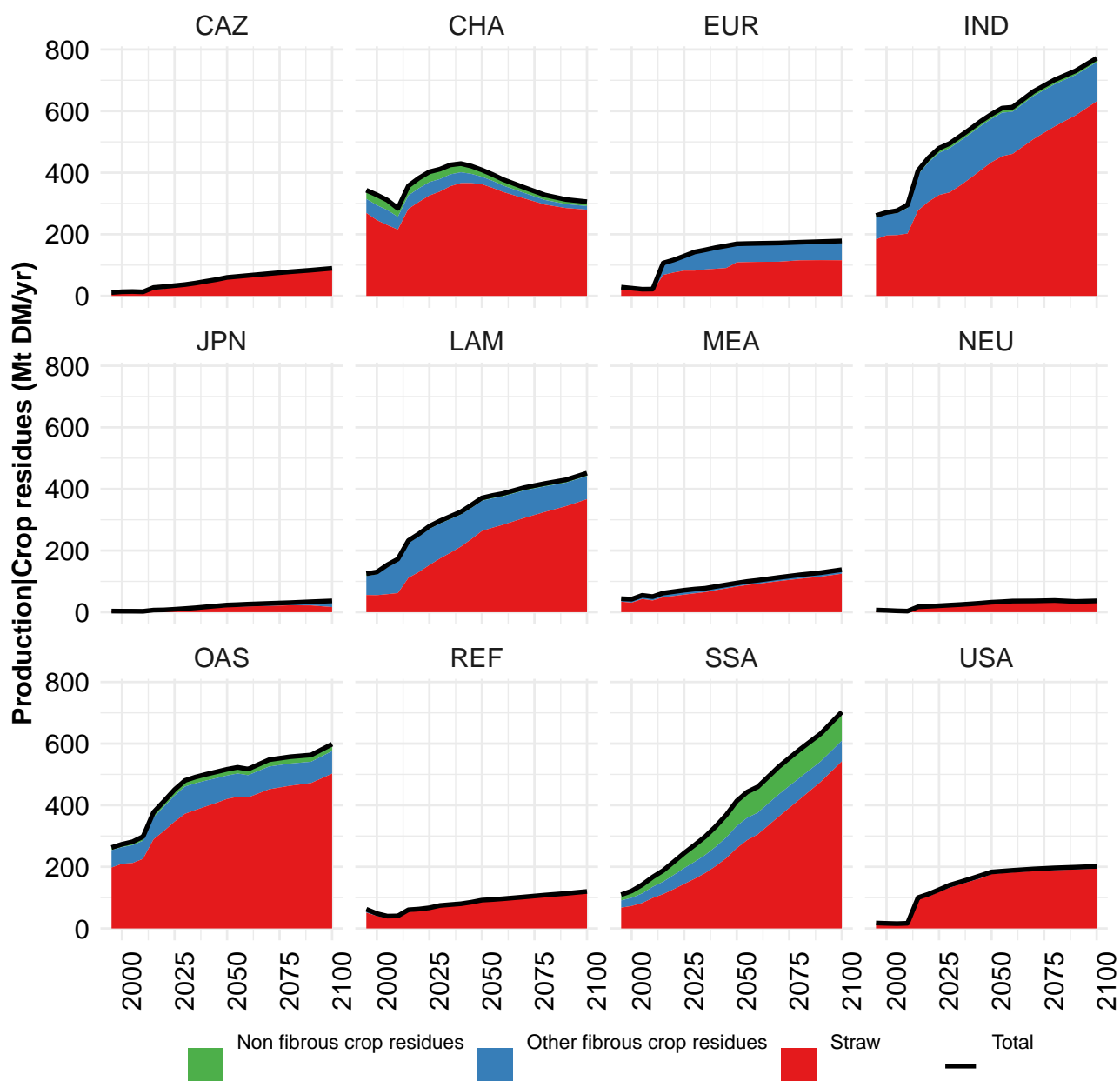
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	7317	7958	8459	9061	10381	10933	10993	11756	12774	13658
CAZ	368	397	417	445	578	583	570	621	643	603
CHA	961	1042	1160	1264	1439	1599	1716	1836	1998	2207
EUR	1041	1114	1167	1236	1355	1327	1243	1271	1271	1247
IND	678	759	808	843	942	1062	1168	1278	1395	1577
JPN	83	80	73	75	80	75	67	61	57	59
LAM	921	1020	1118	1269	1505	1582	1760	1936	2181	2454
MEA	208	231	249	266	304	343	397	438	513	524
NEU	170	178	191	193	193	189	174	172	173	173
OAS	664	726	791	887	1004	1124	1234	1339	1486	1651
REF	759	849	820	846	1002	1044	622	558	612	591
SSA	580	635	684	737	806	887	969	1071	1210	1333
USA	882	927	980	1000	1172	1117	1072	1174	1237	1241

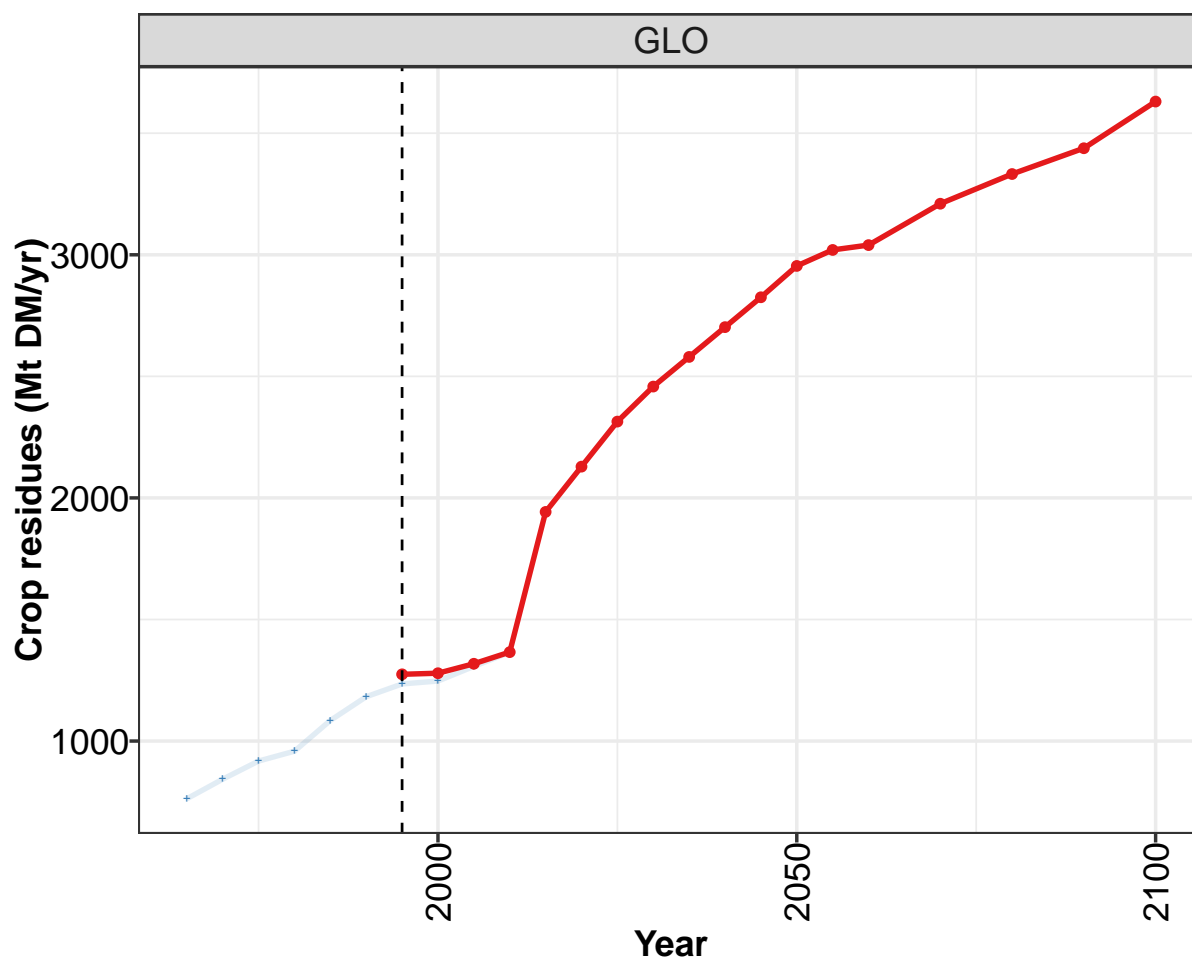
Table 1328: FAO — Production (Mt DM/yr)

42 Bioenergy crops

43 Crop residues





**Model output**

—●— MAgPIE m4p_SSP3

Historical data

—+— FAO

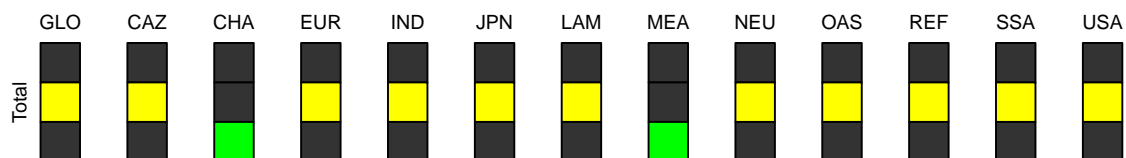
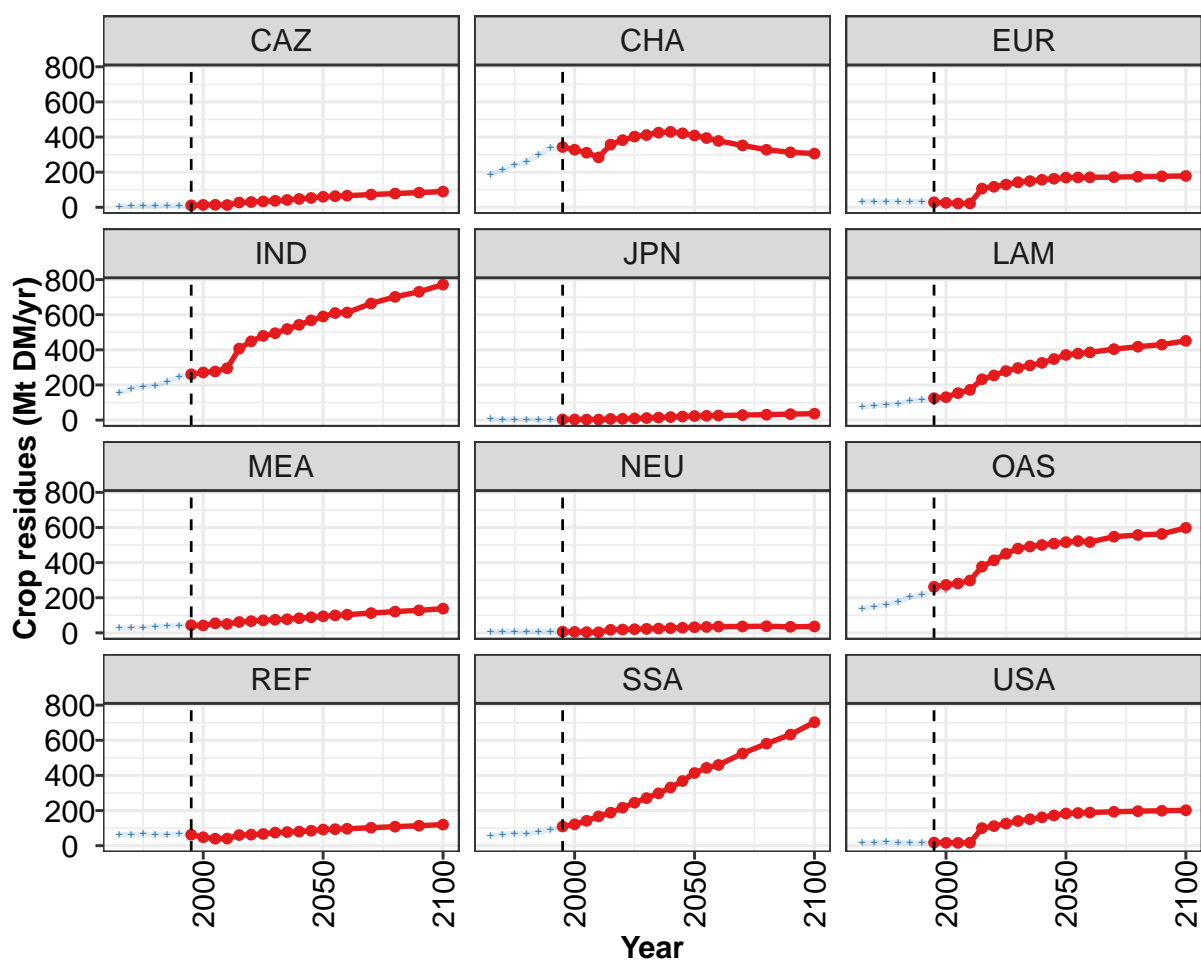


Figure 331: MAgPIE m4p_SSP3 — Production—Crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1275	1279	1318	1366	1943	2129	2314	2458	2580	2703	2825
CAZ	11	13	14	13	27	30	33	37	42	48	53
CHA	343	328	311	284	357	382	403	411	425	430	421
EUR	29	25	22	22	107	117	130	143	149	157	163
IND	261	271	277	295	407	448	480	495	518	542	568
JPN	4	3	3	3	7	7	9	12	14	17	20
LAM	125	130	154	172	233	254	279	296	311	326	348
MEA	44	42	55	50	62	67	71	75	78	83	89
NEU	7	6	4	3	17	19	21	23	25	27	29
OAS	263	273	281	298	377	413	451	480	492	500	508
REF	62	48	40	41	60	63	67	74	77	80	85
SSA	109	122	142	167	188	216	245	271	298	331	368
USA	18	16	16	17	100	111	126	141	151	161	172

Table 1329: MAgPIE m4p_SSP3 — Production—Crop residues (Mt DM/yr) [PART 1/2]

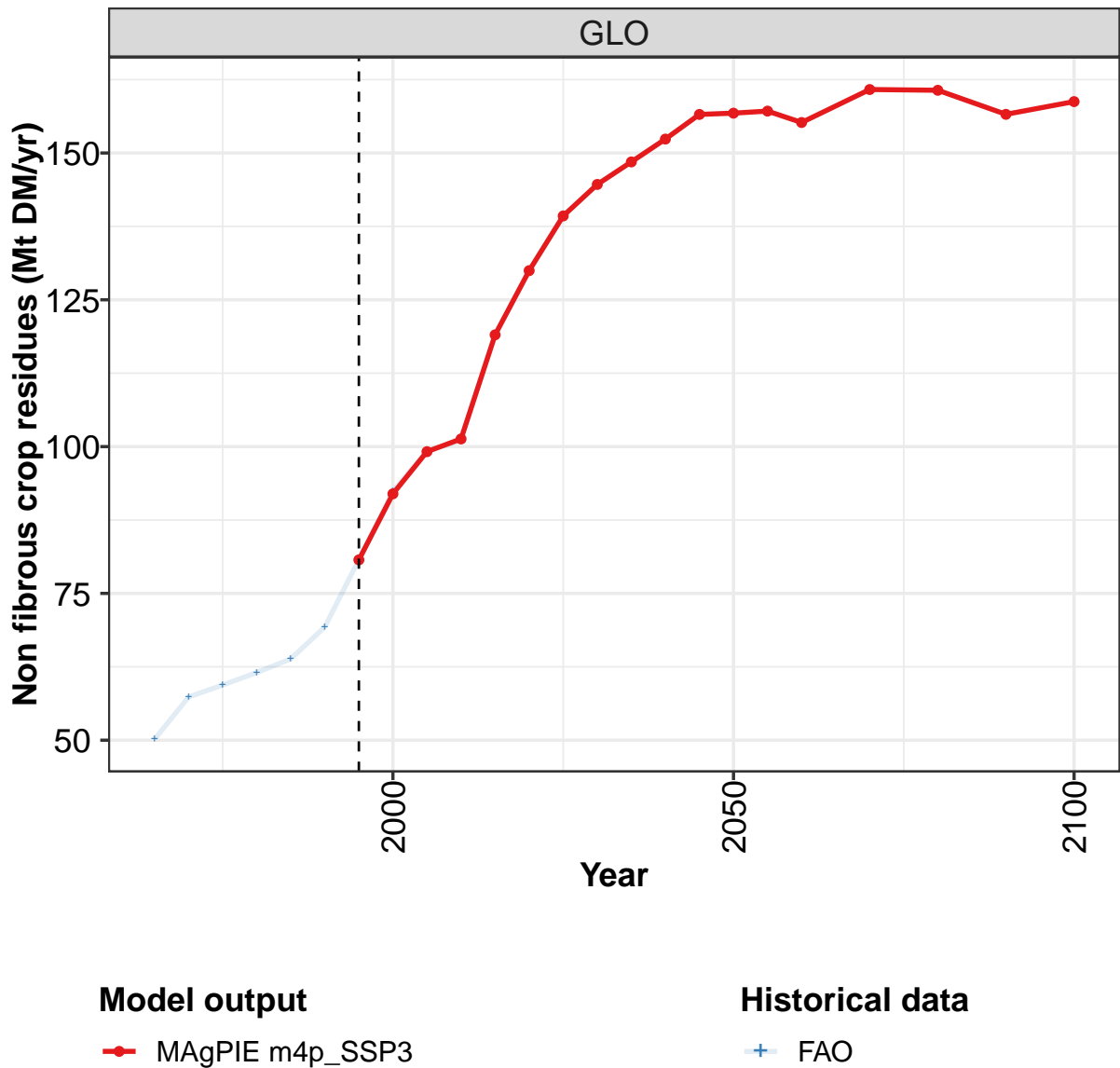
	2050	2055	2060	2070	2080	2090	2100
GLO	2954	3020	3040	3210	3332	3438	3630
CAZ	60	63	66	72	78	84	90
CHA	409	394	378	352	328	313	306
EUR	169	170	171	172	174	176	178
IND	590	610	612	664	702	731	772
JPN	23	24	26	28	31	34	37
LAM	371	379	385	404	418	430	451
MEA	94	100	104	113	121	128	138
NEU	32	34	36	36	38	35	37
OAS	517	523	517	548	557	563	598
REF	92	94	96	102	108	114	120
SSA	414	443	460	525	581	633	703
USA	183	186	189	193	196	199	201

Table 1330: MAgPIE m4p_SSP3 — Production—Crop residues (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	763	843	918	958	1085	1182	1235	1247	1307	1365
CAZ	6	7	9	9	11	10	12	16	17	15
CHA	186	212	240	260	299	337	339	327	310	284
EUR	33	32	32	31	31	32	27	24	21	21
IND	153	179	190	195	219	244	262	272	280	298
JPN	6	4	4	4	4	4	4	3	3	3
LAM	74	82	85	91	111	113	121	128	150	167
MEA	27	28	32	34	39	42	45	42	55	50
NEU	7	7	8	8	8	7	7	6	4	3
OAS	138	150	161	176	205	219	236	246	271	299
REF	61	63	66	63	63	66	60	46	39	40
SSA	55	64	70	69	77	93	104	119	141	167
USA	16	18	20	19	17	15	18	17	16	17

Table 1331: FAO — Production—Crop residues (Mt DM/yr)

43.1 Non fibrous crop residues



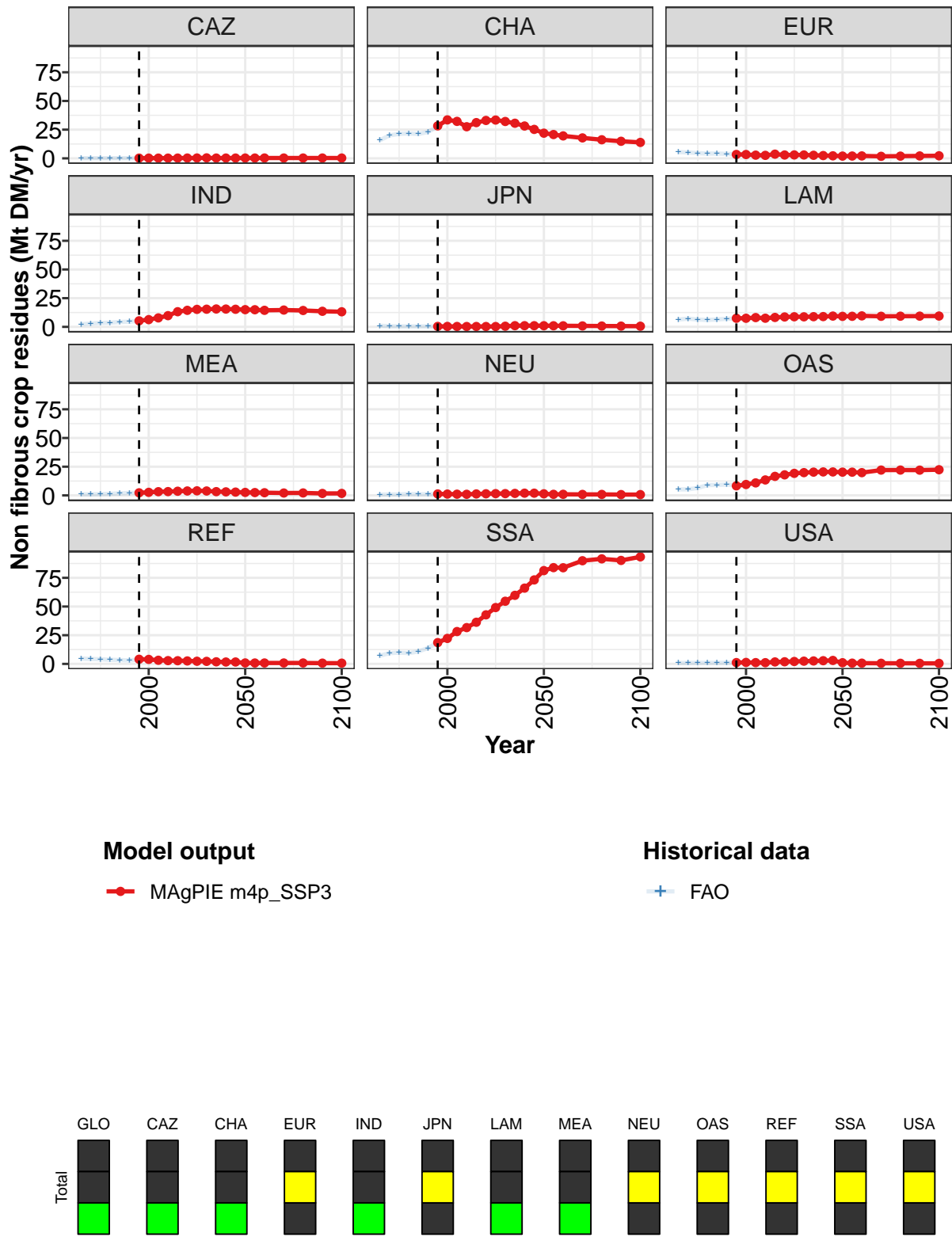


Figure 332: MAgPIE m4p_SSP3 — Production—Crop residues—Non fibrous crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	81	92	99	101	119	130	139	145	148	152	157
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	28	34	32	28	31	33	33	32	31	28	25
EUR	3	3	3	3	4	3	3	3	3	2	2
IND	5	6	8	10	13	14	15	15	16	16	15
JPN	0	0	0	0	0	0	0	1	1	1	1
LAM	8	8	8	8	8	9	9	9	9	9	9
MEA	2	3	3	3	4	4	4	4	3	3	3
NEU	1	1	1	1	1	1	2	2	2	2	2
OAS	8	9	11	13	17	18	19	20	20	20	20
REF	4	4	3	3	3	3	2	2	2	2	2
SSA	19	22	28	32	36	43	49	55	60	66	73
USA	1	1	1	1	2	2	2	2	3	3	3

Table 1332: MAgPIE m4p_SSP3 — Production—Crop residues—Non fibrous crop residues (Mt DM/yr) [PART 1/2]

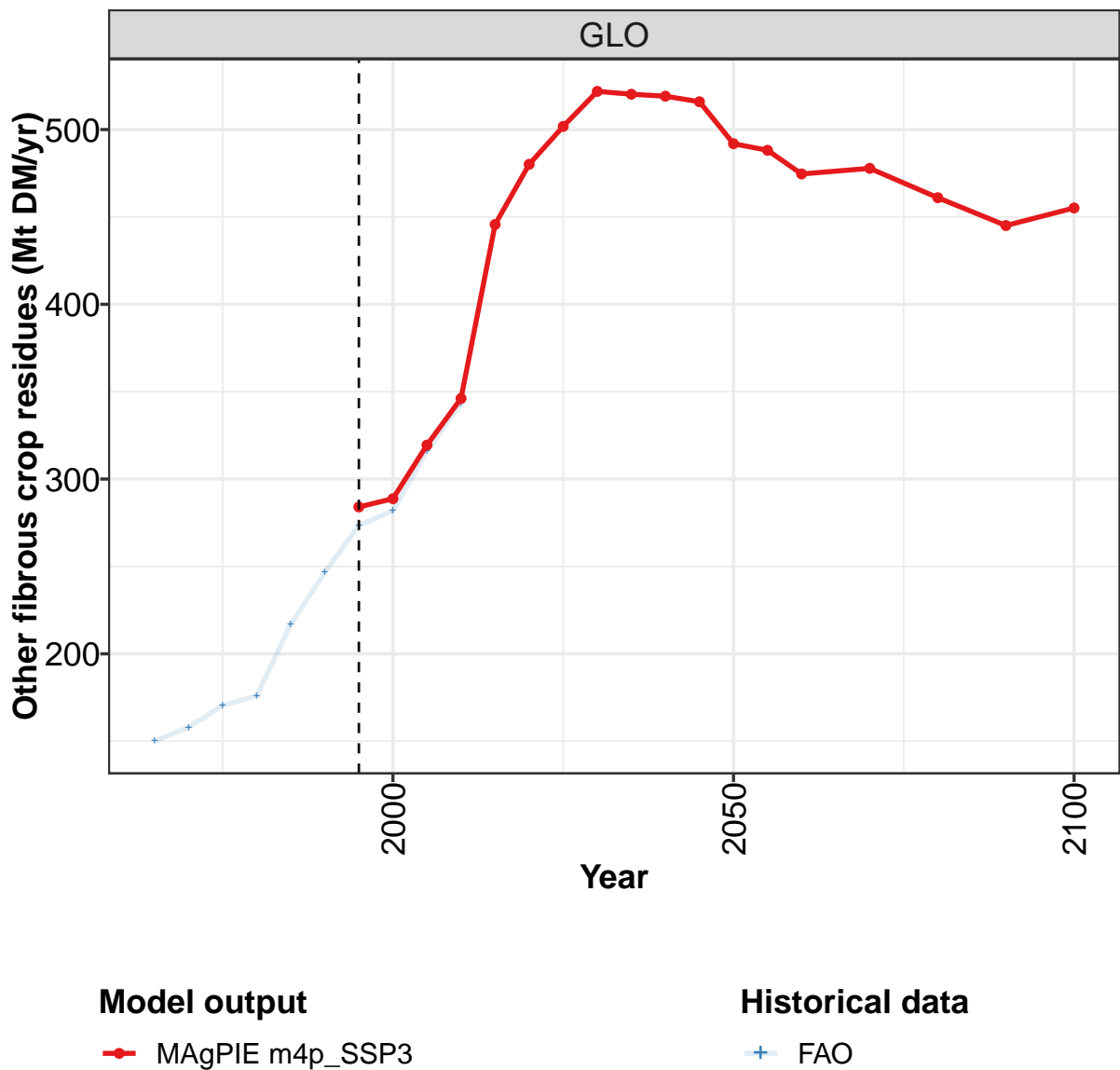
	2050	2055	2060	2070	2080	2090	2100
GLO	157	157	155	161	161	157	159
CAZ	0	0	0	0	0	0	0
CHA	22	21	20	18	16	15	14
EUR	2	2	2	2	2	2	2
IND	15	15	14	15	14	14	13
JPN	1	1	1	1	1	1	1
LAM	9	9	10	9	9	9	9
MEA	3	2	2	2	2	2	2
NEU	1	1	1	1	1	1	1
OAS	20	20	20	22	22	22	22
REF	1	1	1	1	1	1	1
SSA	81	84	84	90	92	90	93
USA	1	1	1	1	1	0	0

Table 1333: MAgPIE m4p_SSP3 — Production—Crop residues—Non fibrous crop residues (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	50	57	59	62	64	69	81	92	99	101
CAZ	0	0	0	0	0	0	0	0	0	0
CHA	16	20	21	22	21	23	28	33	32	28
EUR	5	5	5	4	4	4	3	3	3	3
IND	2	3	3	4	4	4	5	6	8	10
JPN	1	1	0	0	0	0	0	0	0	0
LAM	6	7	6	6	6	7	7	7	8	7
MEA	1	1	1	1	2	2	2	3	3	3
NEU	1	1	1	1	1	1	1	1	1	1
OAS	5	5	6	9	9	9	9	10	11	13
REF	5	4	4	4	3	3	4	4	3	3
SSA	7	9	10	9	11	14	19	23	28	32
USA	1	1	1	1	1	1	1	1	1	1

Table 1334: FAO — Production—Crop residues—Non fibrous crop residues (Mt DM/yr)

43.2 Other fibrous crop residues



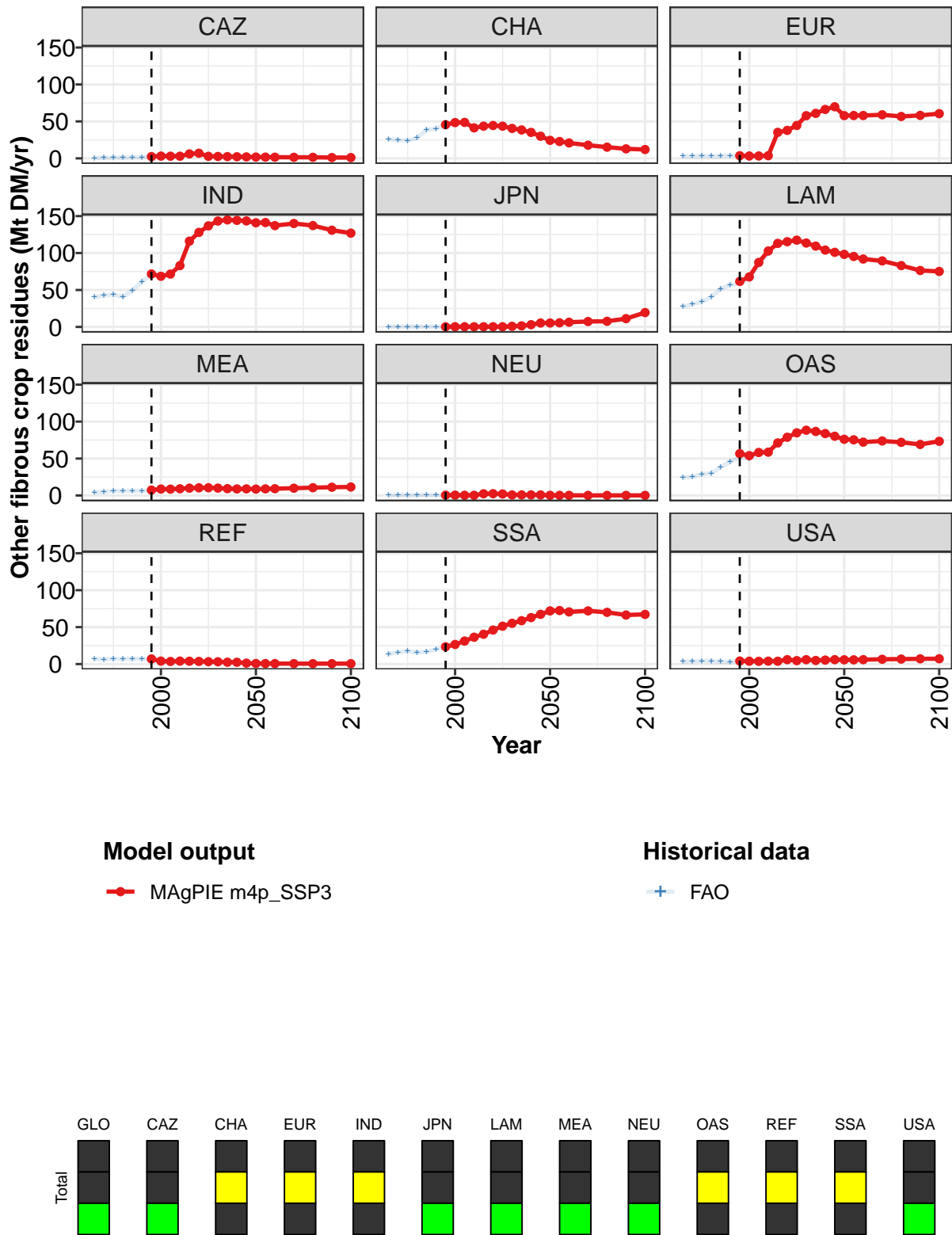


Figure 333: MAgPIE m4p_SSP3 — Production—Crop residues—Other fibrous crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	284	289	319	346	446	480	502	522	520	519	516
CAZ	2	3	3	3	6	7	3	3	2	2	2
CHA	46	48	49	41	44	44	44	41	38	35	30
EUR	4	3	3	4	35	38	45	58	61	66	70
IND	72	69	72	83	116	128	137	143	145	144	143
JPN	0	0	0	0	0	0	0	1	1	3	5
LAM	62	68	87	103	113	115	117	114	109	104	101
MEA	7	9	9	9	10	10	10	10	9	9	9
NEU	0	1	0	0	2	2	2	1	1	1	1
OAS	57	54	58	59	71	79	85	88	87	84	80
REF	7	4	4	4	4	4	3	3	2	2	1
SSA	23	27	31	36	40	46	51	55	59	63	67
USA	4	4	4	4	4	6	5	6	5	5	6

Table 1335: MAgPIE m4p_SSP3 — Production—Crop residues—Other fibrous crop residues (Mt DM/yr)
[PART 1/2]

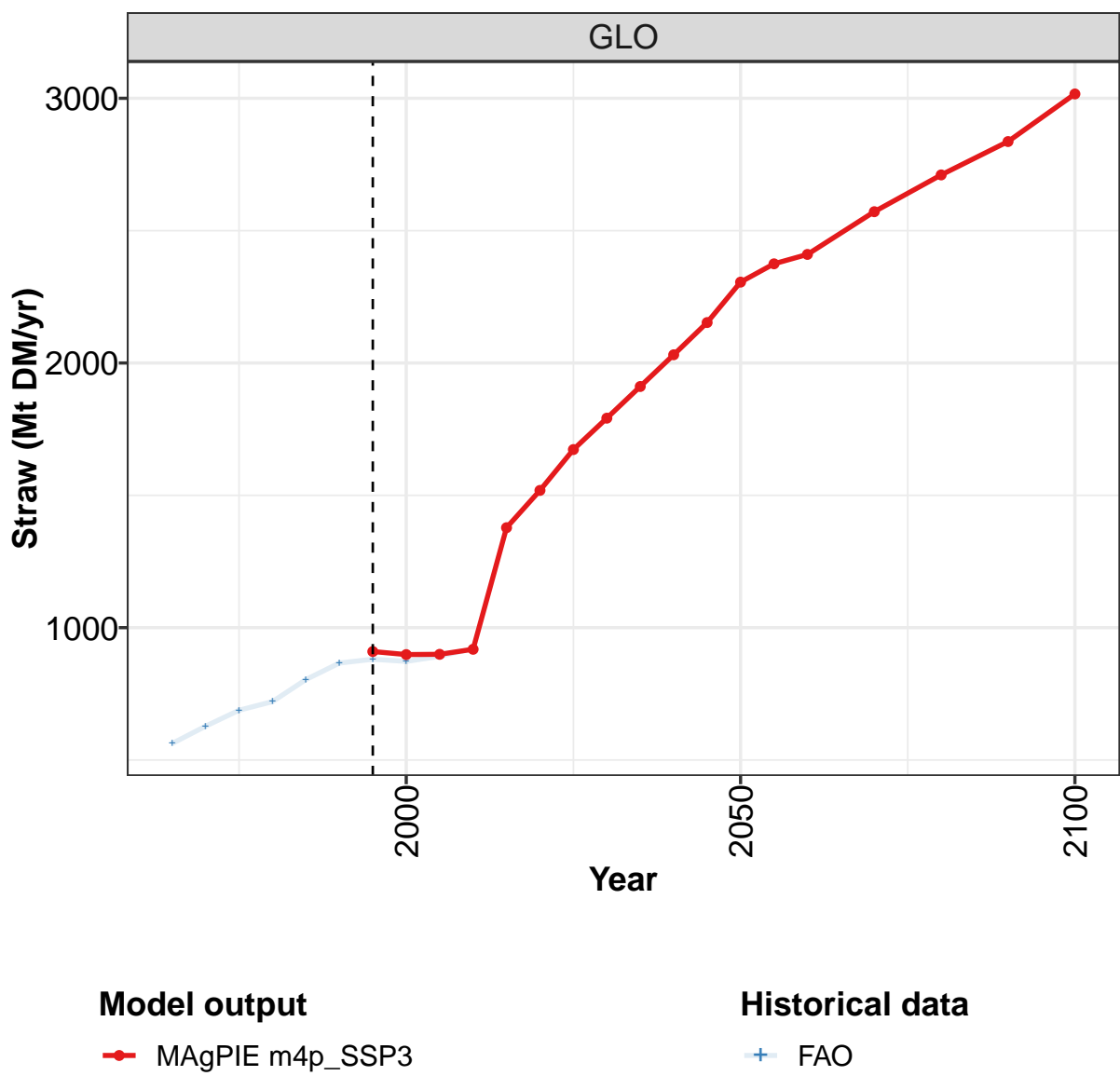
	2050	2055	2060	2070	2080	2090	2100
GLO	492	488	475	478	461	445	455
CAZ	2	2	2	1	1	1	1
CHA	24	23	21	18	15	13	12
EUR	58	58	58	59	57	58	61
IND	141	141	137	140	137	131	127
JPN	5	6	6	7	8	11	19
LAM	98	95	92	89	83	76	75
MEA	9	9	9	10	11	11	12
NEU	0	0	0	0	0	0	0
OAS	76	75	72	74	72	69	73
REF	1	1	1	1	1	1	1
SSA	72	72	71	72	70	66	67
USA	6	6	6	6	7	7	7

Table 1336: MAgPIE m4p_SSP3 — Production—Crop residues—Other fibrous crop residues (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	150	158	170	176	217	247	273	282	316	343
CAZ	1	1	1	1	2	2	3	4	4	3
CHA	26	25	24	28	38	40	45	48	48	41
EUR	3	3	3	3	3	4	3	3	3	4
IND	40	42	44	41	49	61	72	69	72	83
JPN	0	0	0	0	0	0	0	0	0	0
LAM	27	31	34	41	52	57	58	65	85	99
MEA	4	5	6	6	6	6	7	9	9	9
NEU	1	1	1	1	1	1	1	1	0	0
OAS	24	25	29	30	39	46	52	50	56	58
REF	7	6	7	6	7	7	5	3	3	4
SSA	14	16	17	16	17	20	23	26	31	36
USA	3	4	4	4	3	3	4	4	4	4

Table 1337: FAO — Production—Crop residues—Other fibrous crop residues (Mt DM/yr)

43.3 Straw



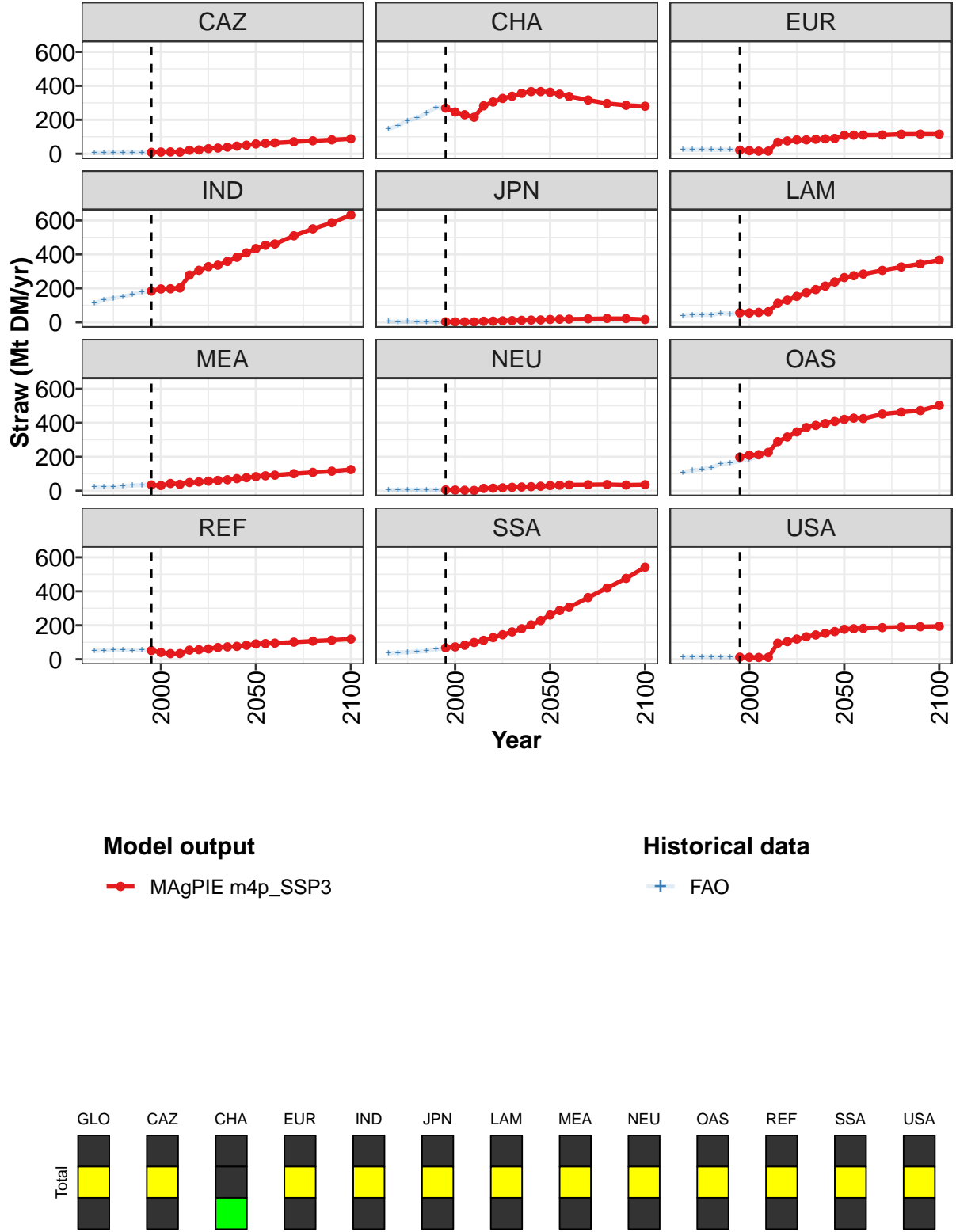


Figure 334: MAgPIE m4p_SSP3 — Production—Crop residues—Straw (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	910	898	899	918	1378	1519	1673	1792	1911	2031	2153
CAZ	8	10	11	10	21	23	30	34	39	45	51
CHA	269	246	230	215	282	305	326	339	356	366	366
EUR	22	19	16	16	68	76	82	82	86	88	91
IND	184	196	197	202	278	306	328	336	358	383	409
JPN	3	3	3	2	6	7	9	10	12	13	14
LAM	56	55	58	62	111	130	153	174	193	213	237
MEA	34	31	43	38	48	52	57	61	65	71	77
NEU	5	4	3	2	14	15	17	21	22	24	27
OAS	198	210	212	226	289	317	347	372	385	396	408
REF	51	40	33	34	54	57	61	69	73	76	82
SSA	67	73	82	99	111	127	144	161	180	202	228
USA	12	11	11	12	94	104	119	132	143	153	163

Table 1338: MAgPIE m4p_SSP3 — Production—Crop residues—Straw (Mt DM/yr) [PART 1/2]

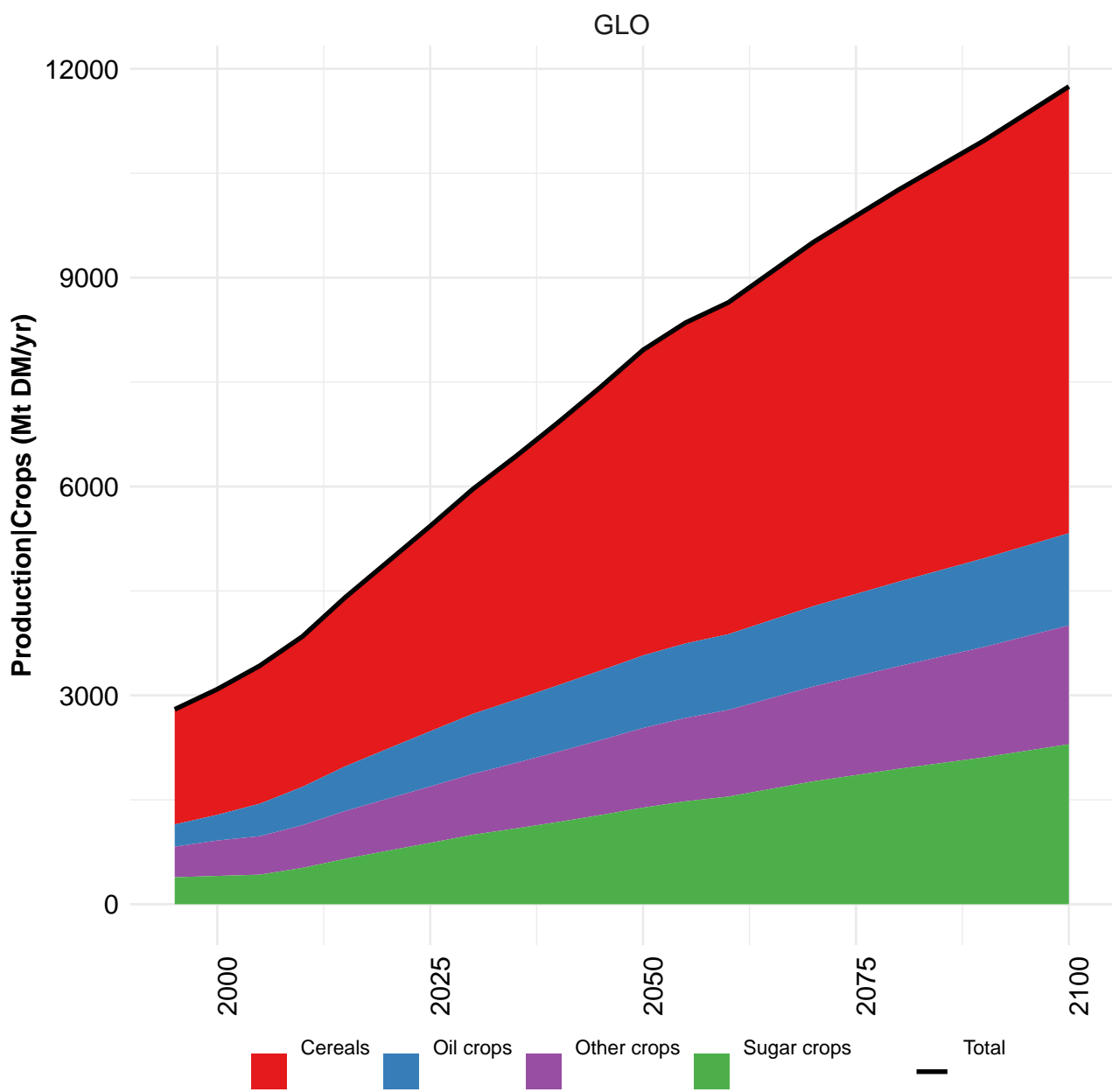
	2050	2055	2060	2070	2080	2090	2100
GLO	2306	2375	2410	2572	2711	2837	3016
CAZ	58	61	64	71	77	82	88
CHA	363	351	338	317	296	285	280
EUR	109	110	111	111	116	116	116
IND	434	453	461	509	550	586	632
JPN	17	18	19	20	22	22	17
LAM	263	274	284	306	325	344	367
MEA	83	88	92	101	108	115	125
NEU	31	33	35	35	37	34	36
OAS	420	427	425	452	463	472	502
REF	90	92	95	101	107	112	119
SSA	261	287	305	363	419	476	542
USA	177	180	182	186	189	191	194

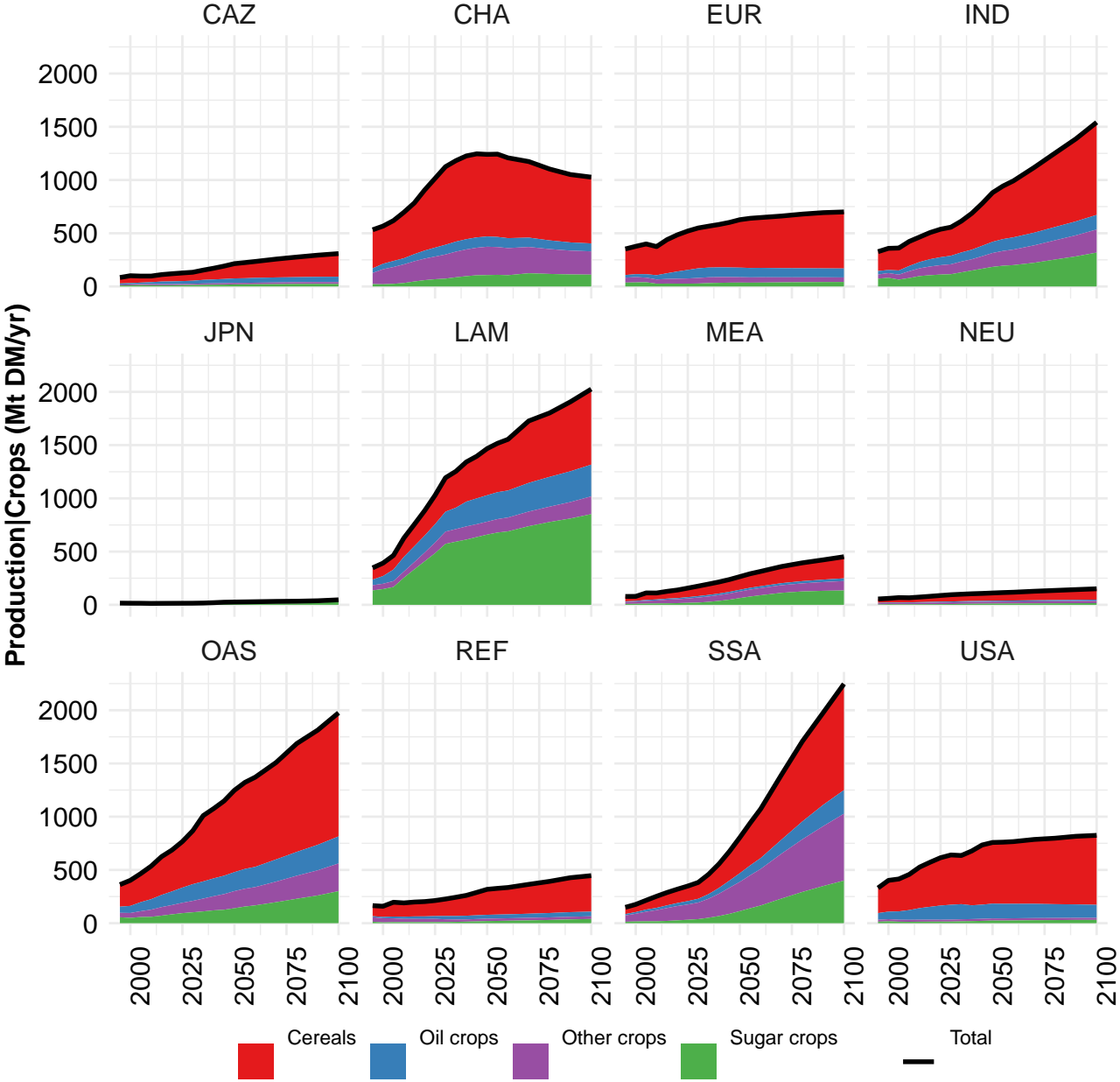
Table 1339: MAgPIE m4p_SSP3 — Production—Crop residues—Straw (Mt DM/yr) [PART 2/2]

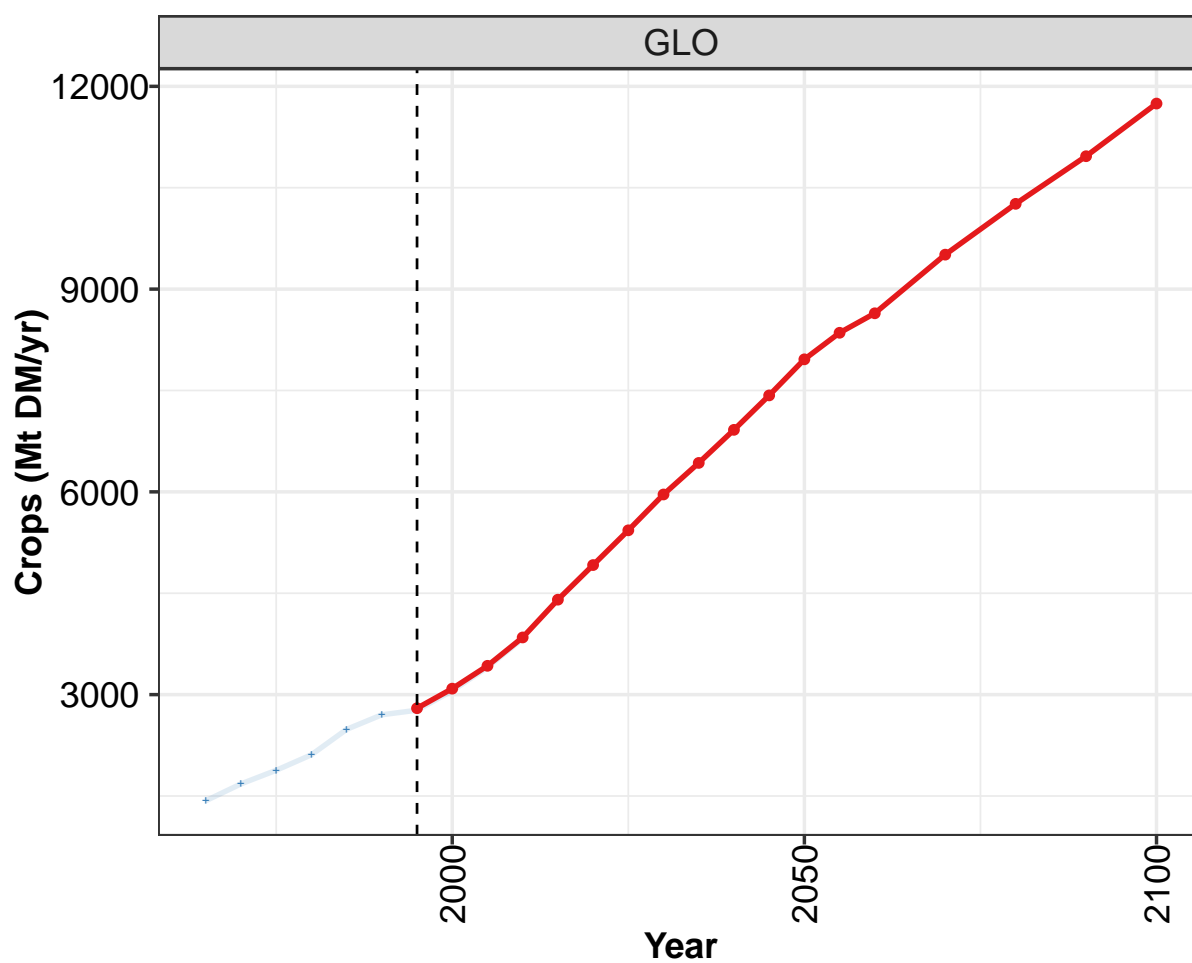
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	563	628	688	721	804	866	881	873	892	921
CAZ	5	6	7	7	9	8	9	12	14	12
CHA	145	167	195	210	239	274	266	246	230	215
EUR	25	24	25	24	24	24	21	18	15	15
IND	111	133	142	151	165	178	185	198	200	205
JPN	4	3	4	3	3	3	3	3	3	2
LAM	40	44	45	44	53	50	55	56	57	60
MEA	22	22	25	27	31	34	35	31	43	38
NEU	6	6	7	6	6	6	5	4	3	2
OAS	108	119	126	137	157	164	175	186	204	227
REF	50	52	55	53	53	56	51	39	32	33
SSA	35	39	42	44	50	59	63	70	81	99
USA	12	13	15	14	13	11	13	12	11	12

Table 1340: FAO — Production—Crop residues—Straw (Mt DM/yr)

44 Crops



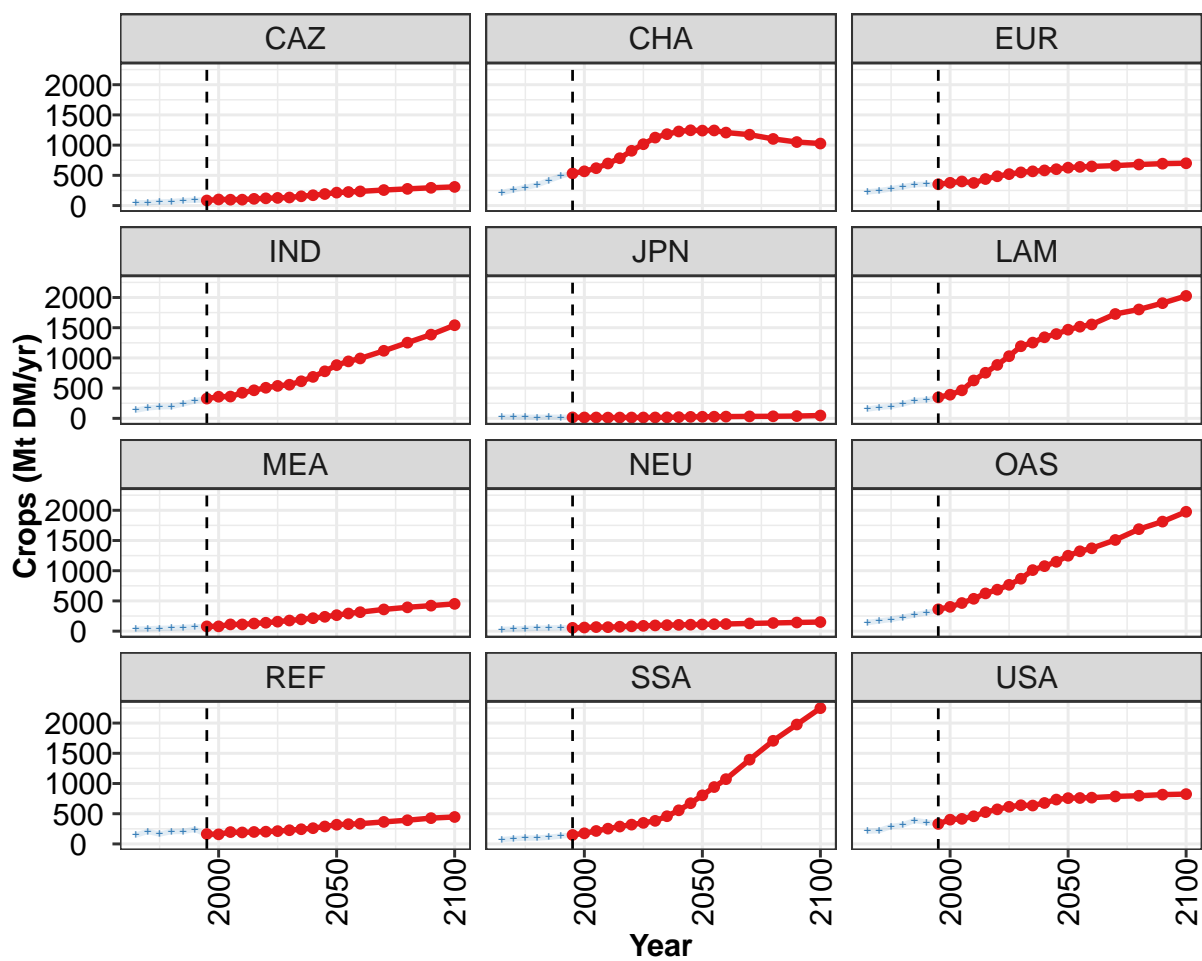


**Model output**

—●— MAgPIE m4p_SSP3

Historical data

—+— FAO



Model output

MAgPIE m4p_SSP3

Historical data

FAO

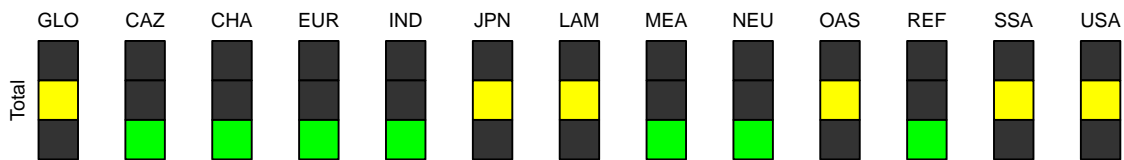


Figure 335: MAgPIE m4p_SSP3 — Production—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2799	3088	3426	3846	4405	4917	5431	5961	6428	6918	7427
CAZ	84	101	97	98	111	120	127	134	153	171	191
CHA	532	567	618	696	784	907	1015	1125	1182	1226	1246
EUR	352	377	399	375	439	485	521	549	566	582	602
IND	327	358	361	423	464	507	537	557	614	686	779
JPN	16	15	15	13	14	14	15	15	17	20	25
LAM	347	392	464	627	755	885	1029	1194	1254	1342	1395
MEA	79	79	112	111	126	139	157	176	195	215	238
NEU	55	60	68	66	73	80	88	95	100	104	107
OAS	362	402	466	536	625	687	767	868	1010	1076	1148
REF	165	159	197	190	199	203	213	227	243	261	289
SSA	149	176	215	253	288	319	349	382	459	557	674
USA	331	402	415	458	527	572	615	641	636	678	734

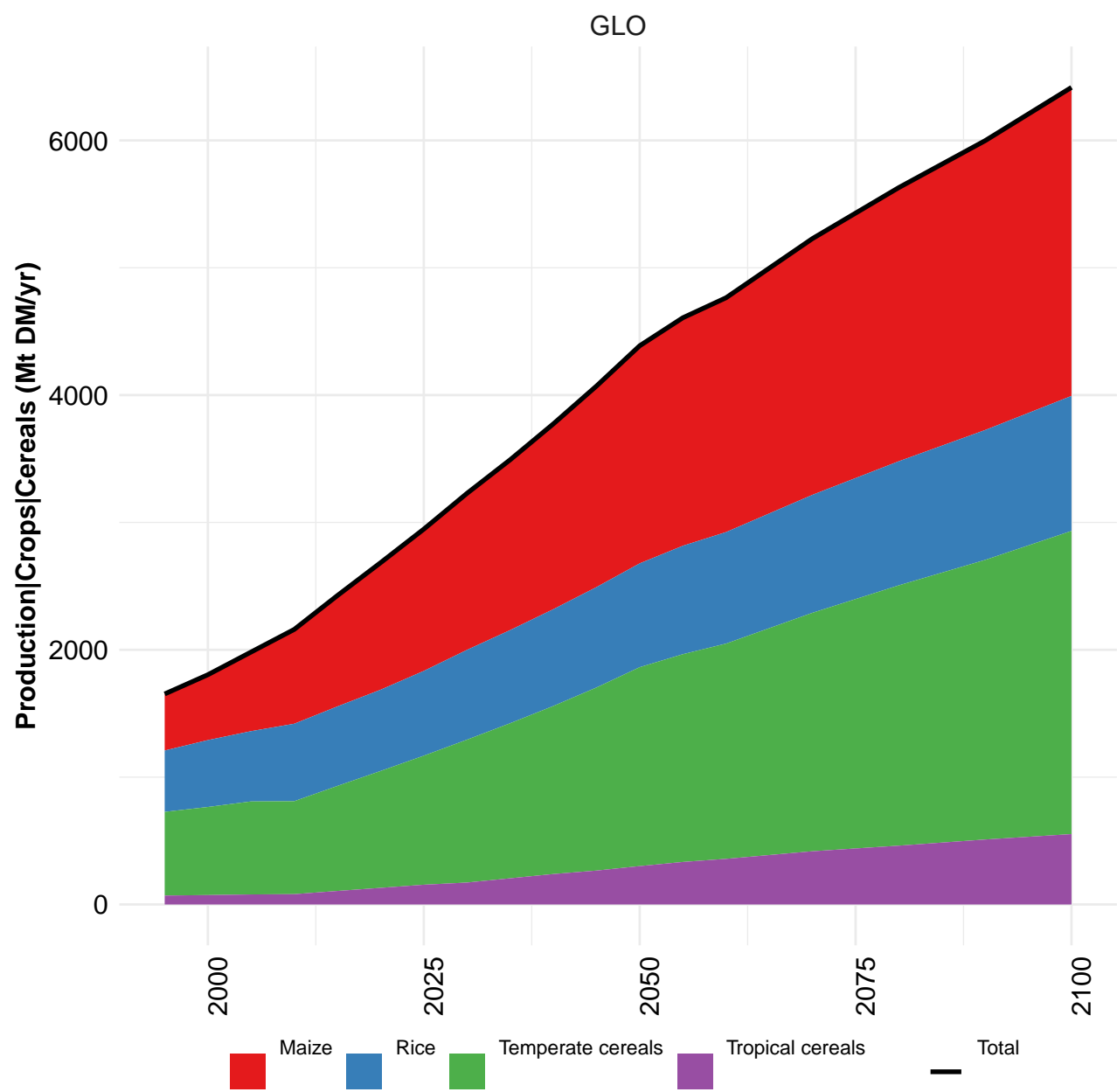
Table 1341: MAgPIE m4p-SSP3 — Production—Crops (Mt DM/yr) [PART 1/2]

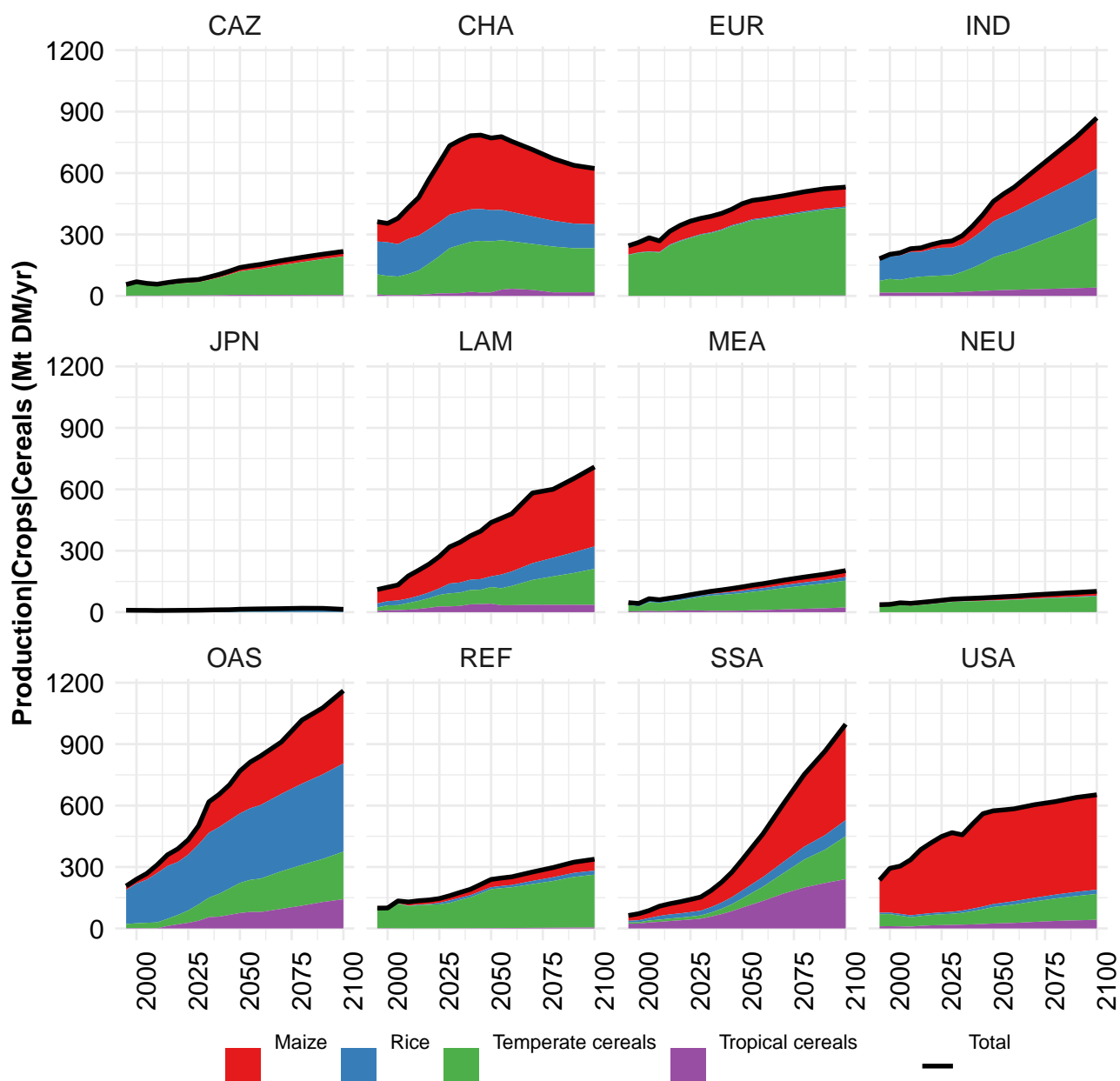
	2050	2055	2060	2070	2080	2090	2100
GLO	7961	8354	8642	9510	10262	10966	11746
CAZ	214	224	235	257	276	294	309
CHA	1241	1243	1208	1173	1103	1051	1027
EUR	627	640	647	661	680	693	700
IND	881	943	992	1118	1253	1386	1541
JPN	26	28	29	32	34	38	47
LAM	1467	1517	1554	1727	1802	1907	2026
MEA	265	292	314	360	394	422	452
NEU	111	115	118	127	135	143	151
OAS	1248	1322	1371	1509	1688	1813	1975
REF	318	327	335	365	393	427	446
SSA	805	942	1073	1394	1707	1976	2247
USA	758	761	766	786	798	816	825

Table 1342: MAgPIE m4p-SSP3 — Production—Crops (Mt DM/yr) [PART 2/2]

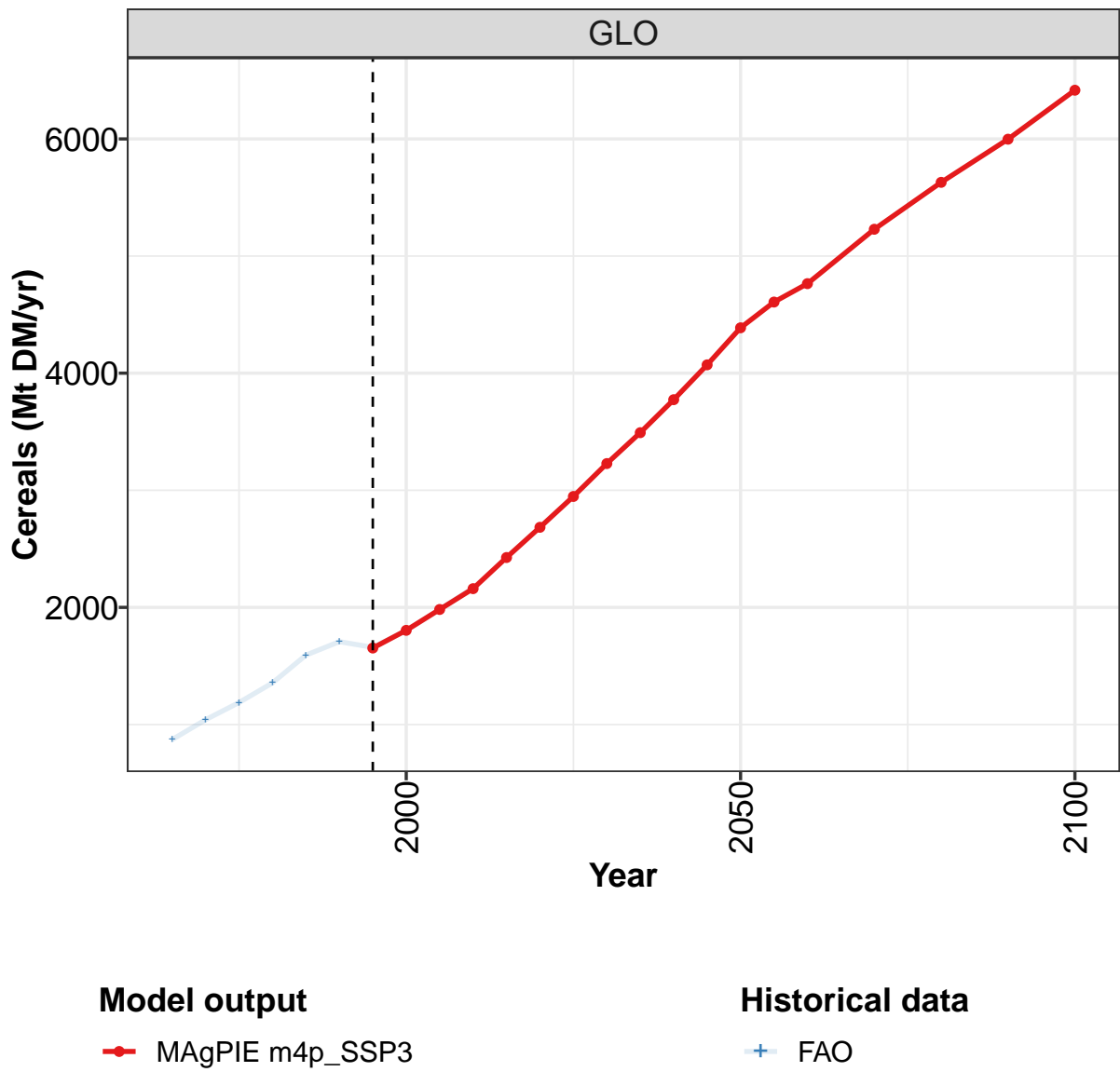
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1430	1679	1880	2110	2486	2702	2769	3057	3404	3830
CAZ	44	47	60	64	81	88	95	109	116	108
CHA	214	258	301	342	417	488	536	569	615	702
EUR	226	245	278	311	345	353	333	356	363	353
IND	135	173	190	196	239	289	330	360	360	426
JPN	21	20	19	17	19	17	16	15	15	13
LAM	153	182	199	237	294	305	343	384	462	615
MEA	34	38	46	50	61	70	78	78	108	108
NEU	29	33	43	48	52	58	54	57	65	63
OAS	143	168	194	229	269	304	345	394	455	535
REF	148	206	164	204	208	241	153	144	188	173
SSA	72	87	97	99	111	131	148	176	216	258
USA	210	221	289	314	390	358	338	415	440	475

Table 1343: FAO — Production—Crops (Mt DM/yr)





44.1 Cereals



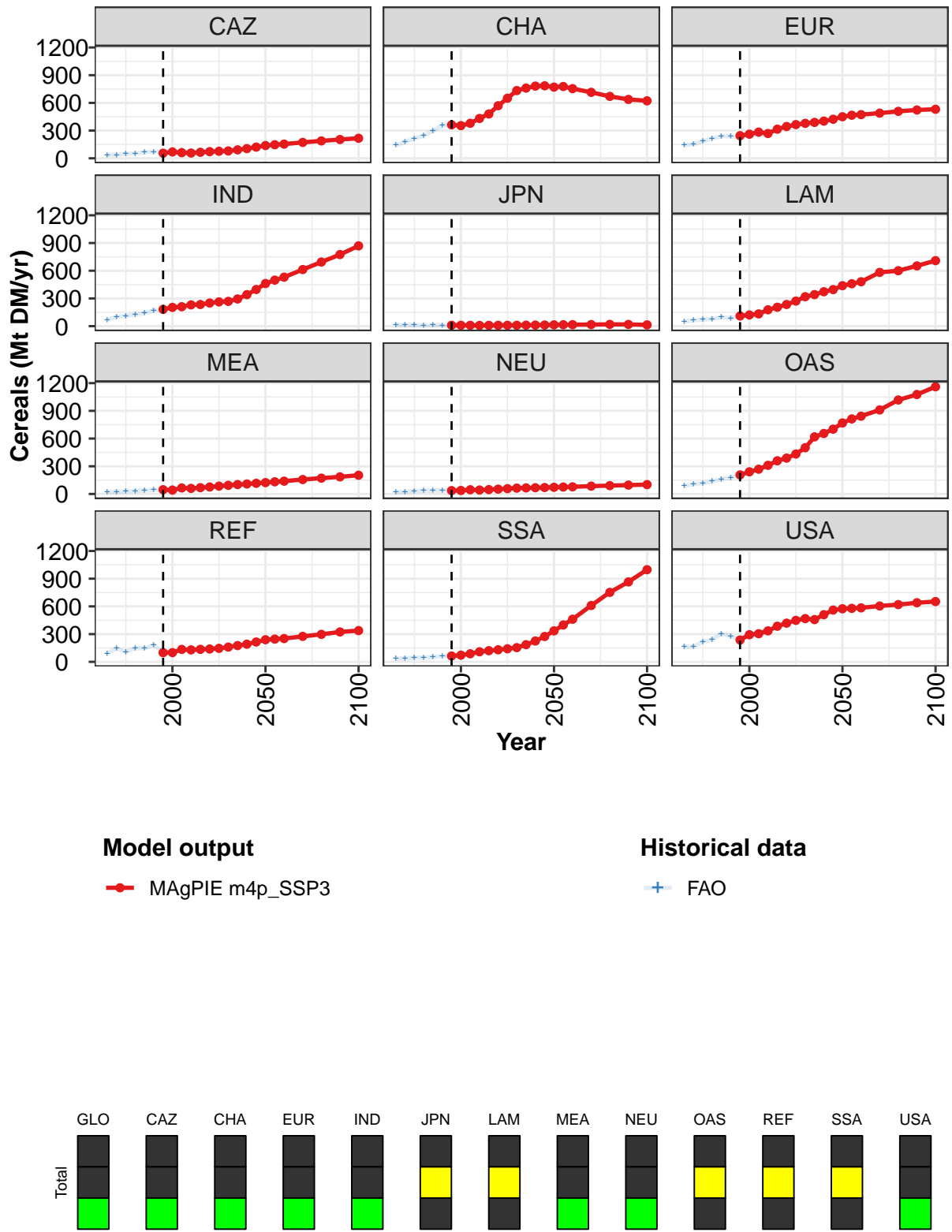


Figure 336: MAgPIE m4p_SSP3 — Production—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1653	1804	1982	2160	2426	2684	2947	3228	3492	3774	4071
CAZ	56	69	61	57	65	72	76	80	92	105	121
CHA	362	354	379	431	480	569	650	733	760	782	785
EUR	245	261	284	269	315	344	365	379	389	403	423
IND	182	203	210	230	235	250	263	268	294	341	397
JPN	10	9	9	8	9	9	9	10	11	12	12
LAM	110	122	133	177	205	234	272	319	341	373	396
MEA	46	43	66	61	68	76	85	94	102	108	116
NEU	37	38	46	43	48	53	58	64	66	68	70
OAS	207	240	268	310	360	389	433	501	618	655	702
REF	99	100	134	129	135	139	146	160	176	191	215
SSA	63	72	87	109	121	130	141	154	186	225	275
USA	236	294	304	335	386	419	449	468	457	510	560

Table 1344: MAgPIE m4p_SSP3 — Production—Crops—Cereals (Mt DM/yr) [PART 1/2]

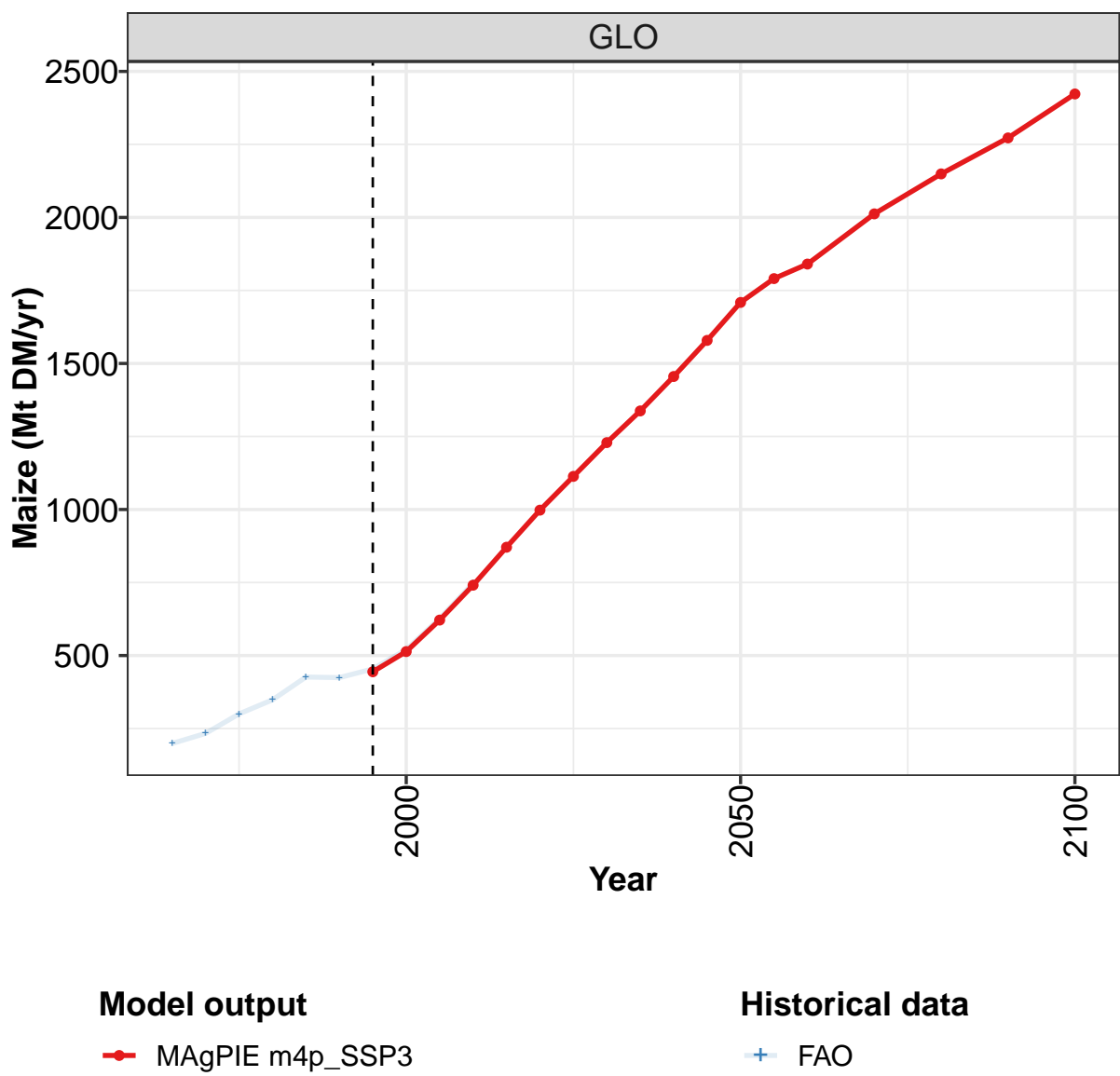
	2050	2055	2060	2070	2080	2090	2100
GLO	4388	4607	4765	5229	5630	5998	6416
CAZ	139	147	154	172	189	204	217
CHA	771	778	754	714	670	638	622
EUR	450	467	473	489	508	523	531
IND	461	498	530	613	694	775	869
JPN	14	15	16	17	19	19	14
LAM	438	459	481	582	600	652	709
MEA	123	132	139	156	172	186	203
NEU	73	75	78	85	91	96	102
OAS	769	813	842	910	1018	1077	1161
REF	239	246	252	276	297	324	338
SSA	335	399	461	610	752	865	997
USA	575	579	584	604	620	640	653

Table 1345: MAgPIE m4p_SSP3 — Production—Crops—Cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	872	1041	1188	1356	1593	1707	1659	1802	1984	2167
CAZ	37	37	49	51	65	71	68	76	81	70
CHA	142	176	214	245	297	354	366	356	376	436
EUR	143	155	184	217	238	241	229	247	256	249
IND	70	100	112	123	145	169	184	205	210	234
JPN	13	12	12	9	11	10	10	9	9	8
LAM	51	63	71	78	97	87	109	121	135	170
MEA	23	24	29	31	37	44	47	42	65	61
NEU	21	24	31	34	37	39	37	37	45	41
OAS	86	106	116	137	162	178	198	233	265	313
REF	92	144	108	147	146	180	104	102	133	118
SSA	33	38	43	46	52	59	63	72	88	112
USA	162	164	219	238	305	275	244	301	322	353

Table 1346: FAO — Production—Crops—Cereals (Mt DM/yr)

44.1.1 Maize



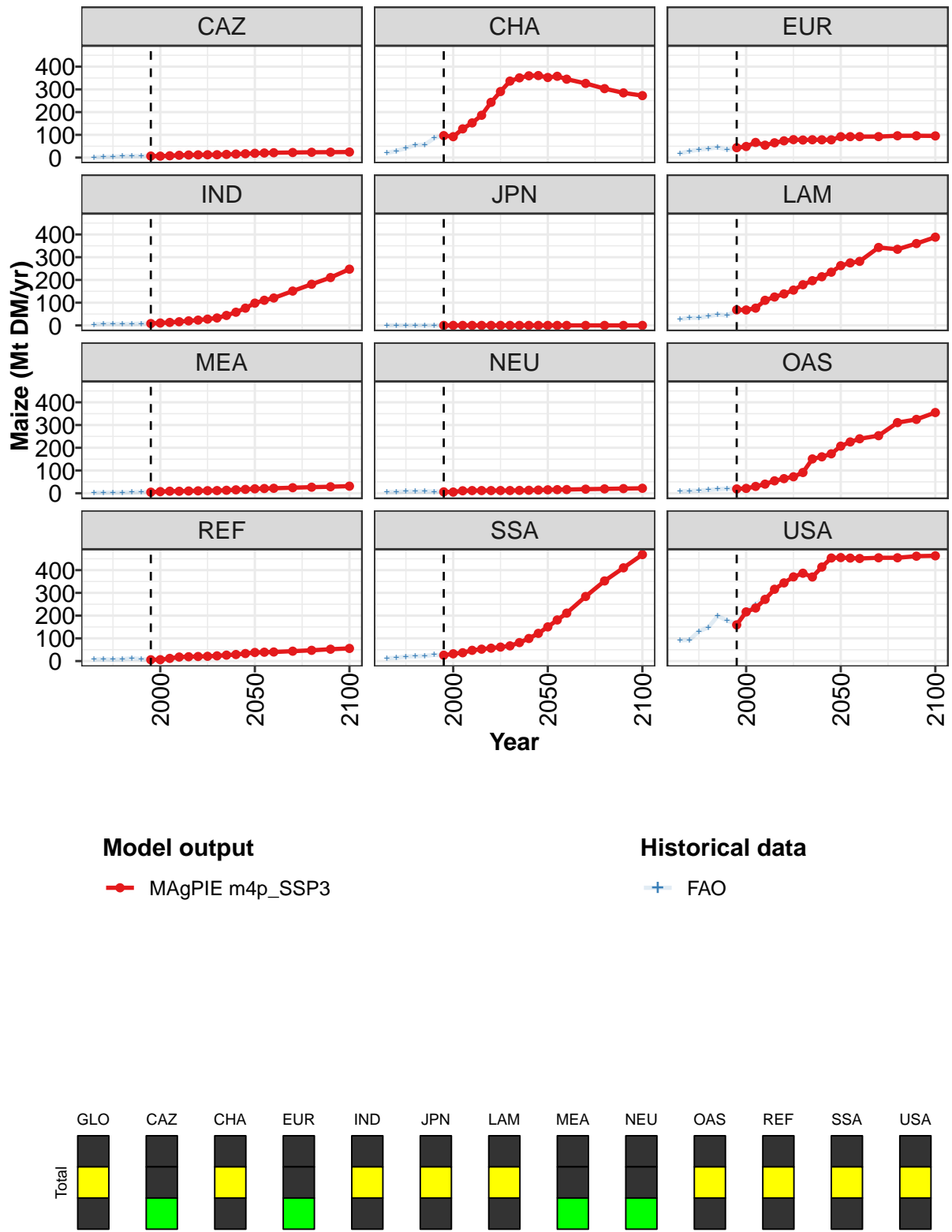


Figure 337: MAgPIE m4p_SSP3 — Production—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	444	514	621	741	871	998	1113	1229	1338	1455	1579
CAZ	7	6	8	10	11	12	12	13	14	15	17
CHA	97	92	126	152	186	243	290	336	351	360	361
EUR	43	49	67	55	65	74	79	77	78	78	78
IND	8	11	13	16	20	23	28	33	44	58	76
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	68	68	76	110	125	139	155	179	197	214	234
MEA	5	7	9	9	10	11	11	12	13	15	17
NEU	6	5	11	12	12	12	12	12	13	13	14
OAS	19	21	30	40	55	64	72	91	151	160	174
REF	6	6	12	18	19	20	21	23	26	29	33
SSA	26	32	37	47	52	57	62	67	81	99	122
USA	159	216	233	271	316	344	370	386	370	414	453

Table 1347: MAgPIE m4p_SSP3 — Production—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

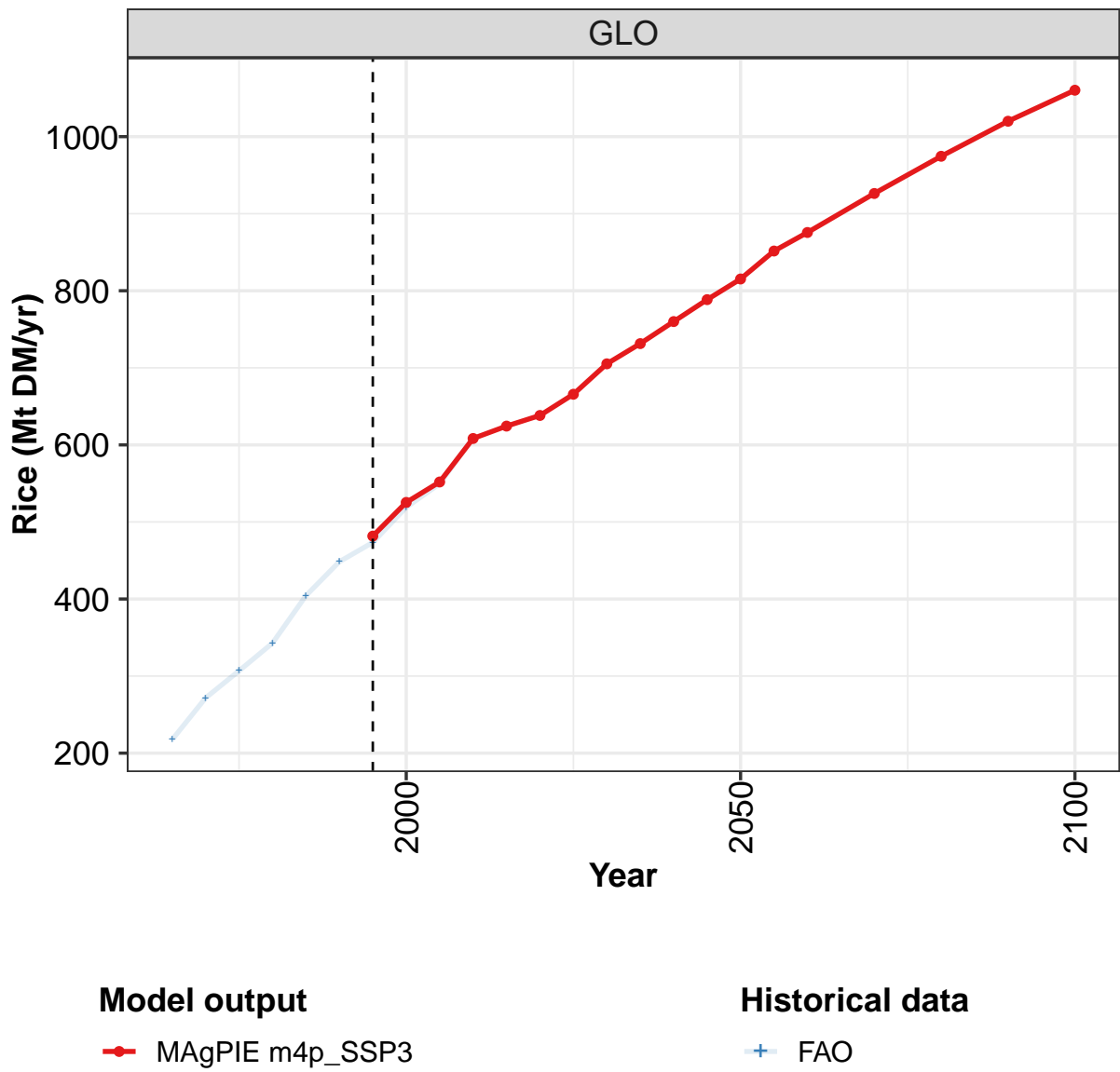
	2050	2055	2060	2070	2080	2090	2100
GLO	1709	1791	1840	2012	2149	2272	2423
CAZ	19	20	21	22	23	24	24
CHA	352	358	345	326	303	285	272
EUR	92	92	92	92	96	96	95
IND	98	111	121	151	181	210	247
JPN	0	0	0	0	0	0	0
LAM	263	275	282	343	335	360	388
MEA	19	21	22	24	27	29	31
NEU	15	16	16	18	19	20	22
OAS	207	226	240	253	311	325	355
REF	38	39	40	44	47	52	56
SSA	150	181	211	284	353	410	468
USA	455	453	451	454	454	461	463

Table 1348: MAgPIE m4p_SSP3 — Production—Crops—Cereals—Maize (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	199	233	300	348	426	424	454	520	627	748
CAZ	2	3	3	5	7	7	7	7	9	11
CHA	21	29	42	55	56	86	99	93	123	156
EUR	19	28	35	39	45	34	44	47	58	52
IND	4	7	6	6	6	8	8	11	13	19
JPN	0	0	0	0	0	0	0	0	0	0
LAM	27	34	34	40	49	44	66	67	77	103
MEA	2	2	3	3	4	5	5	7	9	9
NEU	5	6	8	8	9	7	8	6	11	11
OAS	8	10	12	14	18	21	20	23	30	41
REF	7	8	6	8	13	9	6	7	12	16
SSA	12	15	20	21	23	27	26	32	37	51
USA	92	93	131	148	198	177	165	222	248	278

Table 1349: FAO — Production—Crops—Cereals—Maize (Mt DM/yr)

44.1.2 Rice



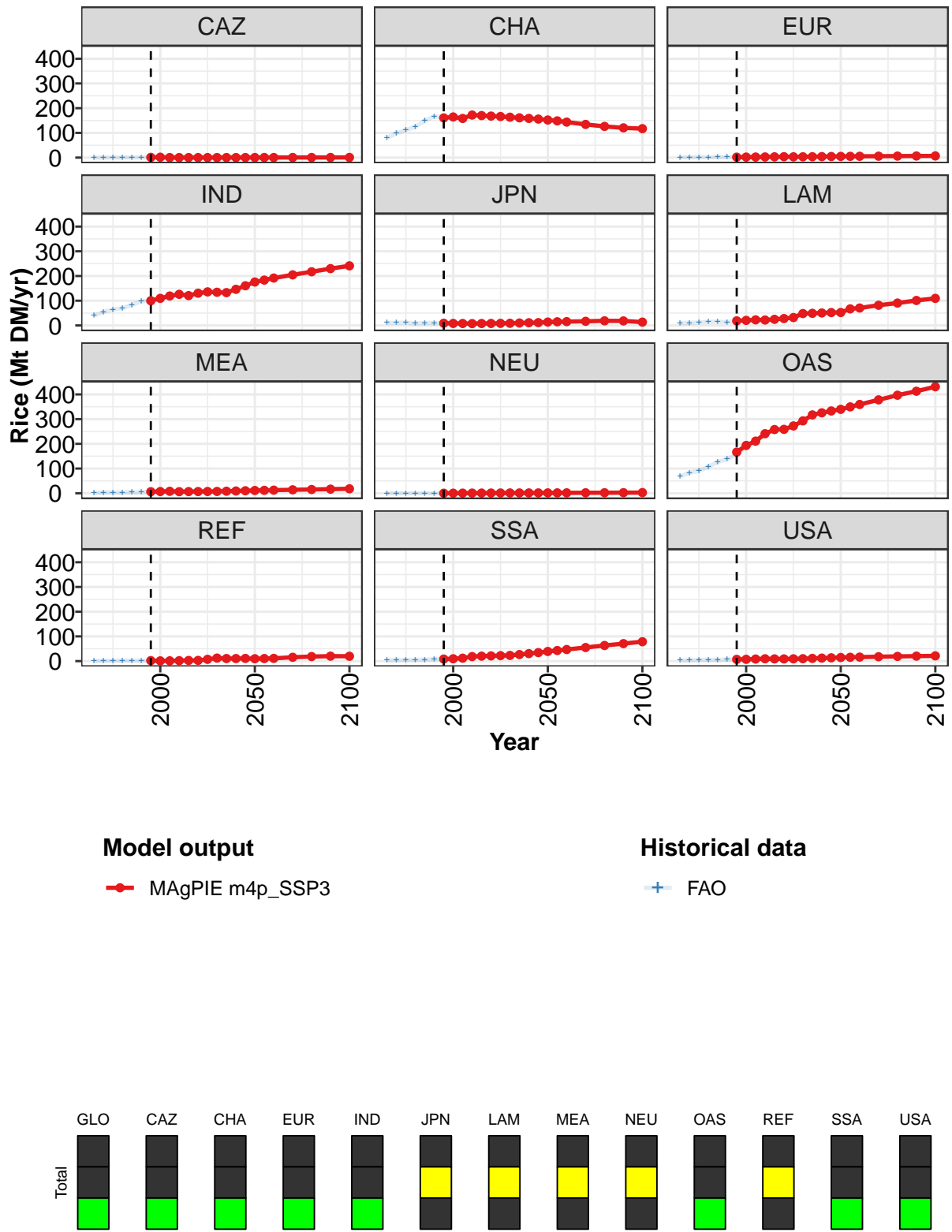


Figure 338: MAgPIE m4p_SSP3 — Production—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	482	525	552	608	624	638	666	705	731	760	789
CAZ	1	2	0	0	0	0	0	0	0	0	0
CHA	161	164	158	172	170	168	166	163	161	159	156
EUR	2	2	2	3	3	4	3	3	4	4	5
IND	100	110	119	126	121	130	136	134	133	146	161
JPN	9	8	8	7	8	8	8	9	10	11	11
LAM	19	20	23	22	25	28	32	48	49	51	52
MEA	6	7	8	7	7	7	7	7	8	9	10
NEU	0	0	1	1	1	1	1	1	1	1	2
OAS	167	194	211	241	258	259	273	293	317	326	333
REF	2	1	1	2	3	3	7	12	10	10	11
SSA	8	10	12	18	20	21	22	23	27	30	35
USA	7	7	8	9	9	9	9	10	11	12	13

Table 1350: MAgPIE m4p_SSP3 — Production—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

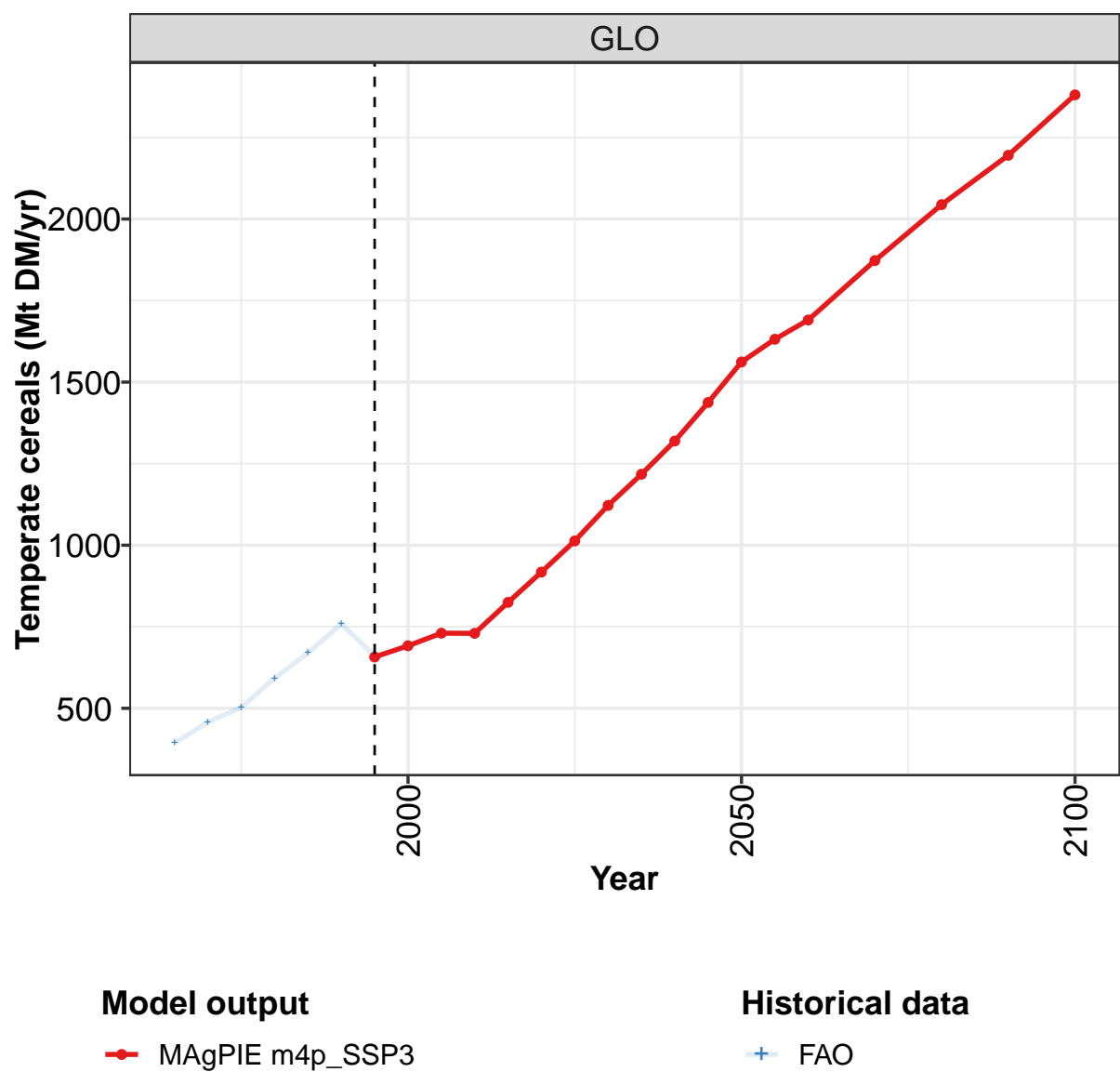
	2050	2055	2060	2070	2080	2090	2100
GLO	815	852	876	926	975	1020	1060
CAZ	0	0	0	0	1	1	1
CHA	152	149	144	134	126	120	117
EUR	5	5	5	6	6	7	7
IND	176	184	192	205	217	230	241
JPN	14	15	16	17	19	18	13
LAM	52	67	71	82	91	101	110
MEA	11	12	13	14	15	17	18
NEU	2	2	2	2	2	2	3
OAS	340	350	359	378	397	413	431
REF	10	10	11	16	18	20	20
SSA	39	43	47	55	63	71	79
USA	15	16	16	18	19	20	21

Table 1351: MAgPIE m4p_SSP3 — Production—Crops—Cereals—Rice (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	218	272	307	343	404	448	473	519	550	609
CAZ	0	0	0	1	1	1	1	1	0	0
CHA	79	98	112	124	149	167	163	165	158	172
EUR	1	2	2	2	2	2	2	2	2	3
IND	40	55	64	70	83	97	100	111	120	125
JPN	11	11	11	8	10	9	9	8	8	7
LAM	9	10	12	14	15	14	19	20	23	22
MEA	3	3	3	3	4	5	6	7	8	7
NEU	0	0	0	0	0	0	0	0	1	1
OAS	68	83	90	107	127	138	156	186	208	243
REF	0	1	2	2	2	2	1	1	1	2
SSA	3	4	5	5	6	8	8	10	12	18
USA	3	3	5	6	5	6	7	8	9	10

Table 1352: FAO — Production—Crops—Cereals—Rice (Mt DM/yr)

44.1.3 Temperate cereals



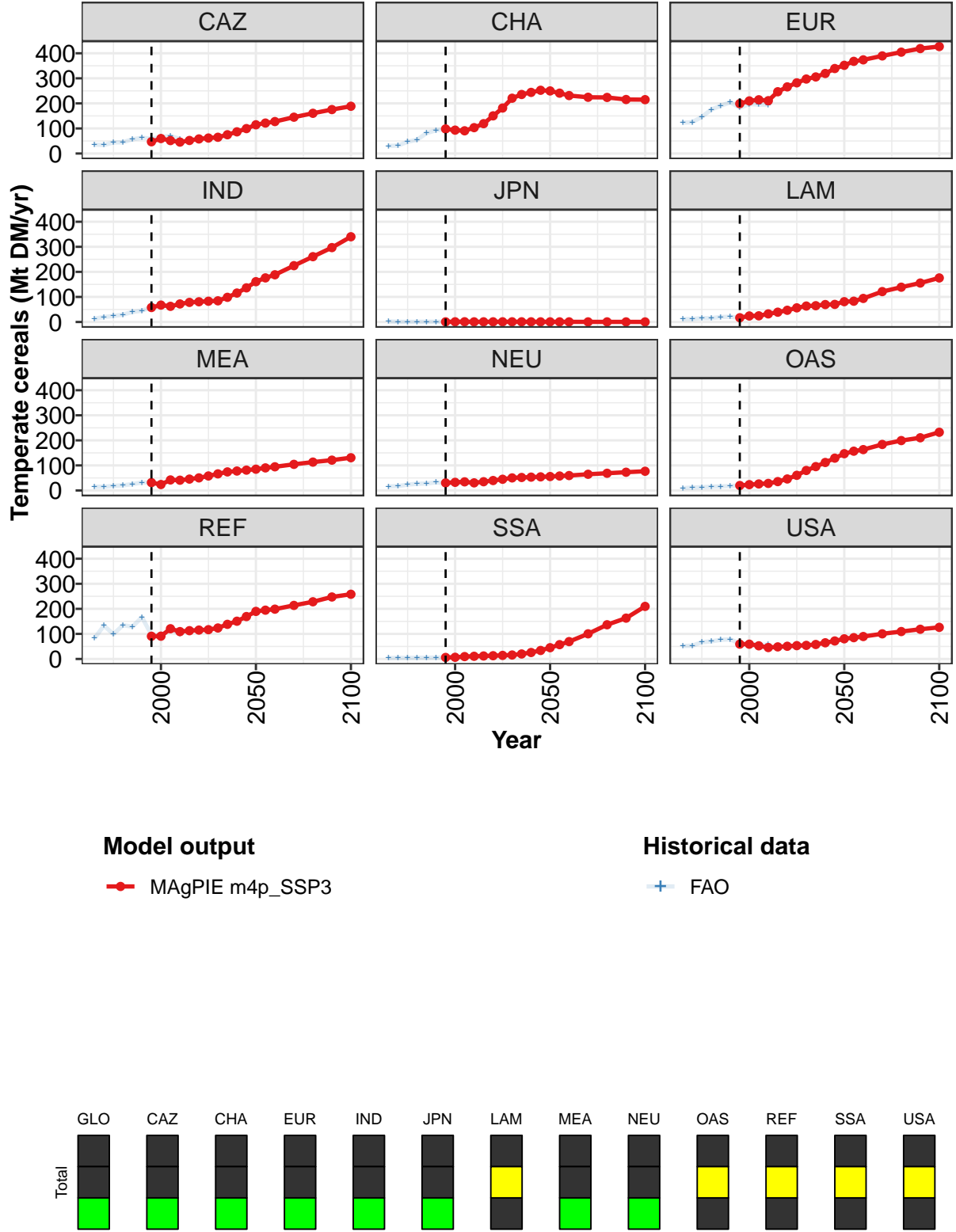


Figure 339: MAgPIE m4p_SSP3 — Production—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	657	692	730	730	825	918	1013	1122	1218	1319	1438
CAZ	47	60	52	46	52	58	62	65	75	87	99
CHA	98	93	91	103	119	150	182	221	236	244	252
EUR	199	210	214	211	246	266	282	297	306	319	339
IND	58	67	63	72	78	81	83	85	99	116	136
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	17	24	25	32	39	47	56	64	65	70	70
MEA	31	24	42	41	45	50	58	66	74	78	81
NEU	30	33	35	31	35	40	45	50	52	53	54
OAS	20	23	26	28	35	46	61	80	95	112	129
REF	91	91	121	109	113	115	117	124	138	151	169
SSA	6	7	10	11	12	13	14	16	20	26	34
USA	59	59	53	46	48	51	53	54	58	65	72

Table 1353: MAgPIE m4p_SSP3 — Production—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 1/2]

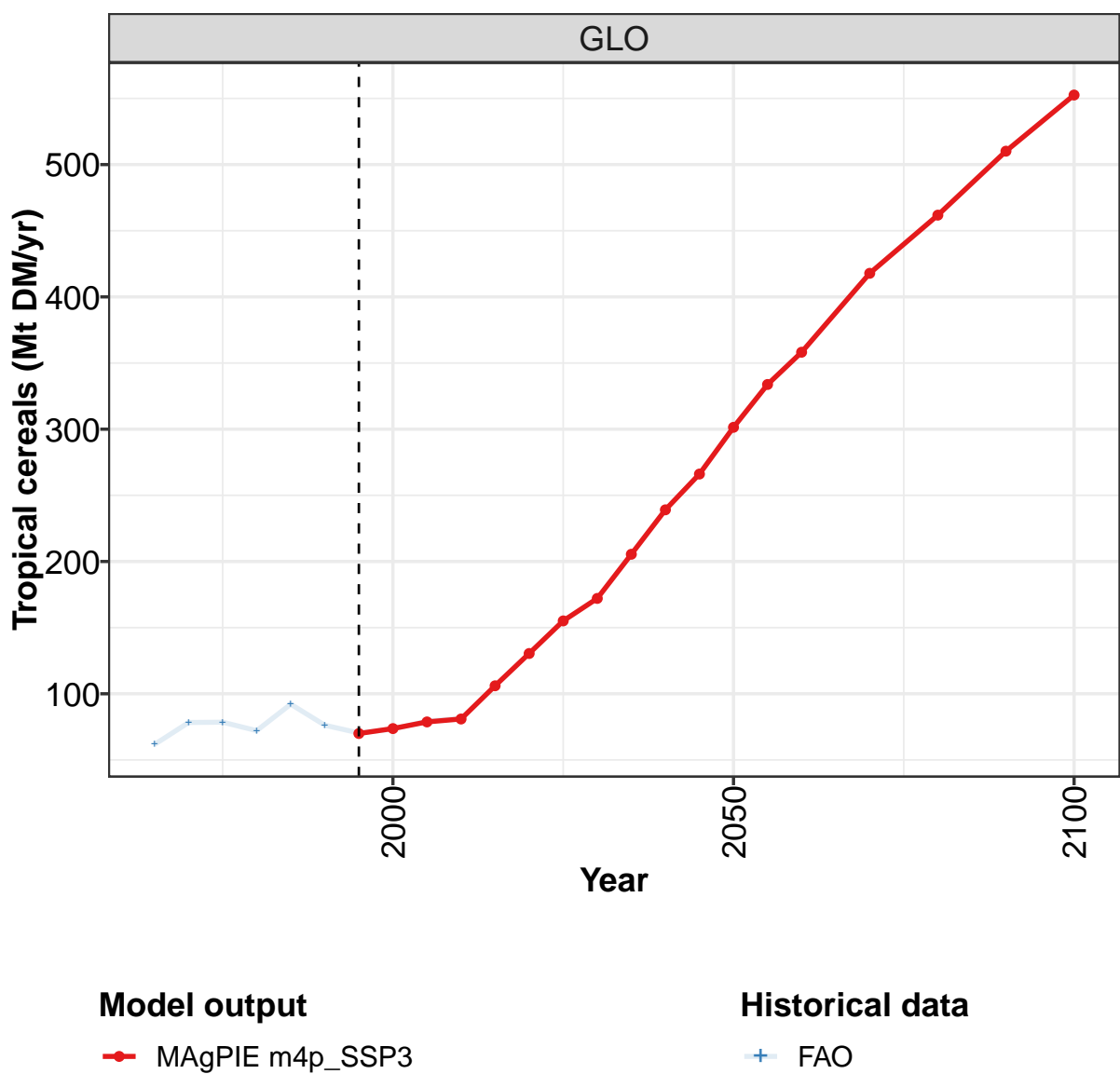
	2050	2055	2060	2070	2080	2090	2100
GLO	1562	1631	1690	1873	2044	2196	2381
CAZ	115	122	127	145	160	175	189
CHA	250	241	231	224	224	215	215
EUR	352	368	374	389	405	419	427
IND	161	176	188	225	261	297	340
JPN	1	1	1	1	0	0	0
LAM	81	83	94	121	139	155	176
MEA	85	90	95	104	113	121	131
NEU	56	58	60	65	69	73	77
OAS	147	157	163	184	199	210	232
REF	190	195	199	214	228	247	258
SSA	45	57	69	100	137	163	210
USA	80	85	90	100	109	119	126

Table 1354: MAgPIE m4p_SSP3 — Production—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	393	458	502	592	670	758	661	690	728	729
CAZ	35	34	44	45	57	63	59	66	70	58
CHA	30	32	47	55	81	93	98	94	91	105
EUR	123	125	146	175	191	204	183	197	195	194
IND	13	20	24	29	40	45	59	68	61	72
JPN	2	1	0	1	1	1	1	1	1	1
LAM	12	12	16	15	20	21	17	24	25	33
MEA	15	15	18	21	25	32	32	24	42	42
NEU	16	17	23	27	28	32	29	31	33	29
OAS	9	12	13	15	16	18	20	23	26	28
REF	83	133	99	135	129	166	96	93	119	100
SSA	4	5	4	5	5	5	6	7	9	11
USA	52	53	67	70	76	78	61	61	56	57

Table 1355: FAO — Production—Crops—Cereals—Temperate cereals (Mt DM/yr)

44.1.4 Tropical cereals



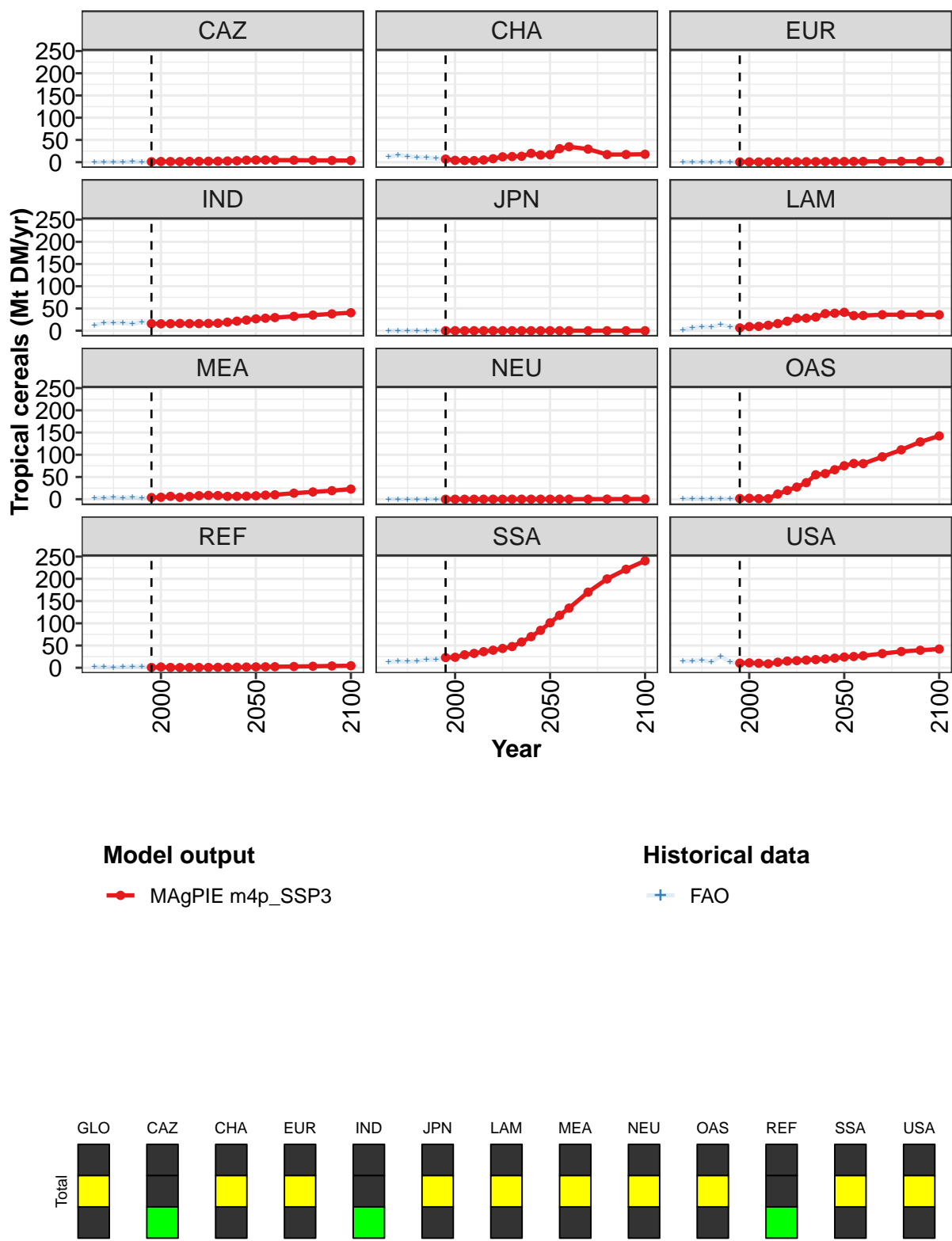


Figure 340: MAGPIE m4p_SSP3 — Production—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	70	74	79	81	106	130	155	172	205	239	266
CAZ	1	2	1	1	2	2	2	2	3	3	5
CHA	7	4	4	4	5	8	12	13	13	20	16
EUR	1	1	0	1	1	1	1	1	1	1	1
IND	16	15	16	16	16	16	16	17	19	21	24
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	6	9	10	12	16	21	28	28	31	38	39
MEA	4	4	7	4	6	8	9	8	6	7	7
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	2	2	1	1	12	20	27	37	55	58	66
REF	1	2	1	0	0	1	1	1	1	1	2
SSA	23	24	29	32	36	39	43	48	58	70	84
USA	10	11	10	9	12	15	16	17	18	20	22

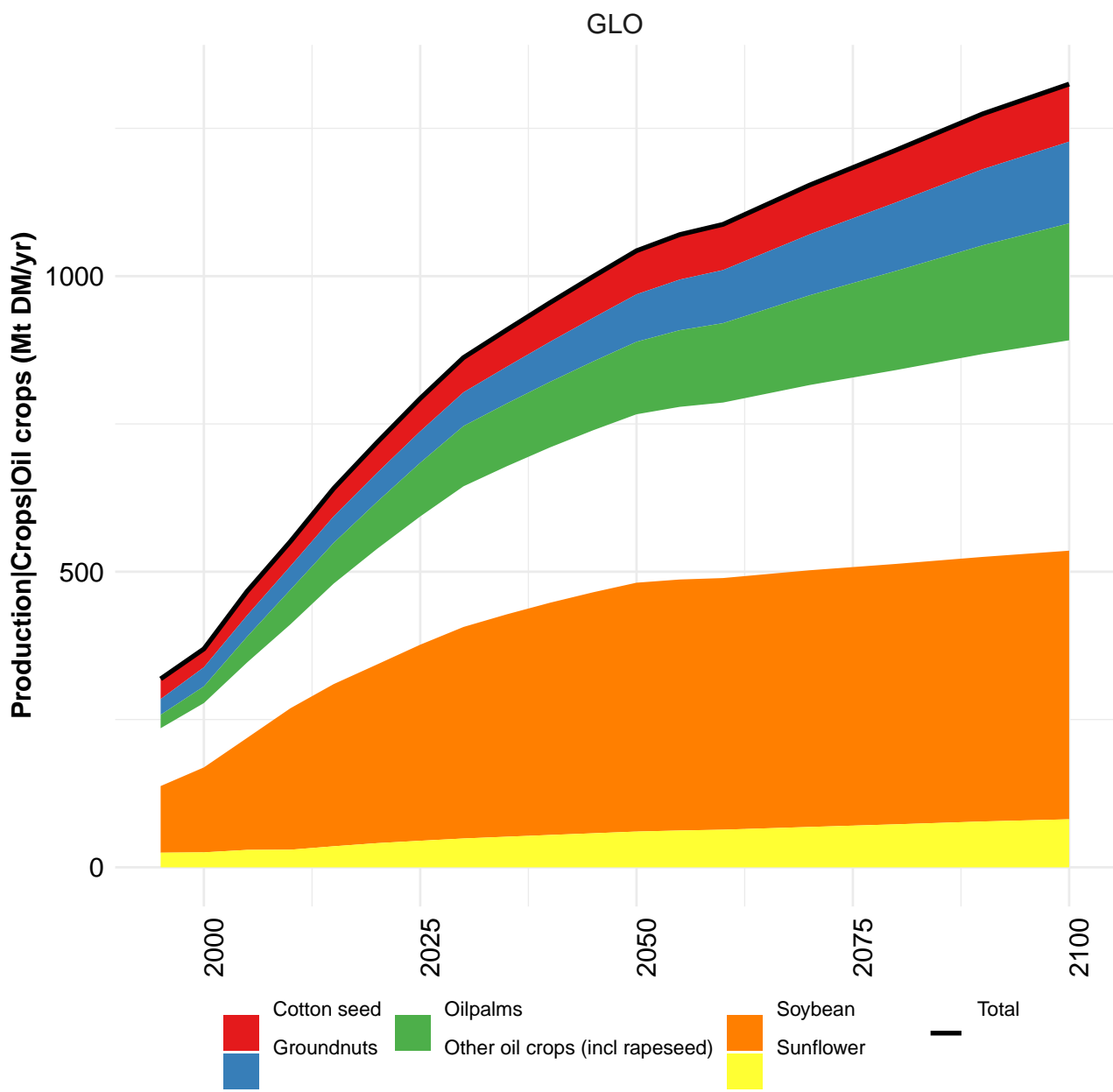
Table 1356: MAgPIE m4p-SSP3 — Production—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

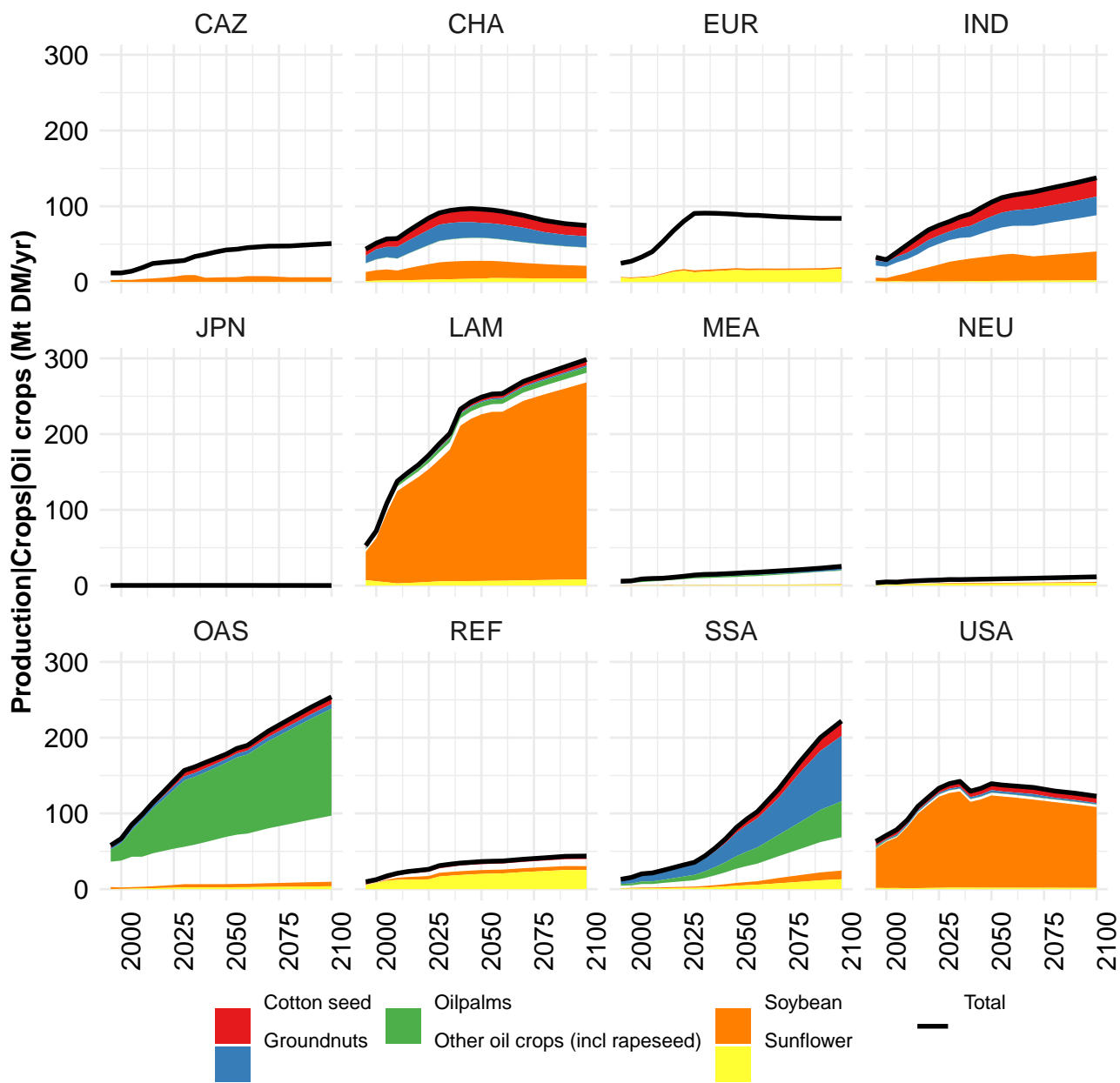
	2050	2055	2060	2070	2080	2090	2100
GLO	301	334	358	418	462	510	553
CAZ	5	5	5	5	4	4	4
CHA	17	30	35	29	17	17	18
EUR	1	2	2	2	2	2	2
IND	27	28	30	32	35	38	40
JPN	0	0	0	0	0	0	0
LAM	41	34	34	36	36	36	36
MEA	8	9	10	14	16	19	23
NEU	0	0	0	0	0	0	0
OAS	75	80	80	95	111	129	142
REF	2	2	2	3	3	4	4
SSA	101	118	134	170	200	221	241
USA	24	25	27	32	37	39	42

Table 1357: MAgPIE m4p-SSP3 — Production—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 2/2]

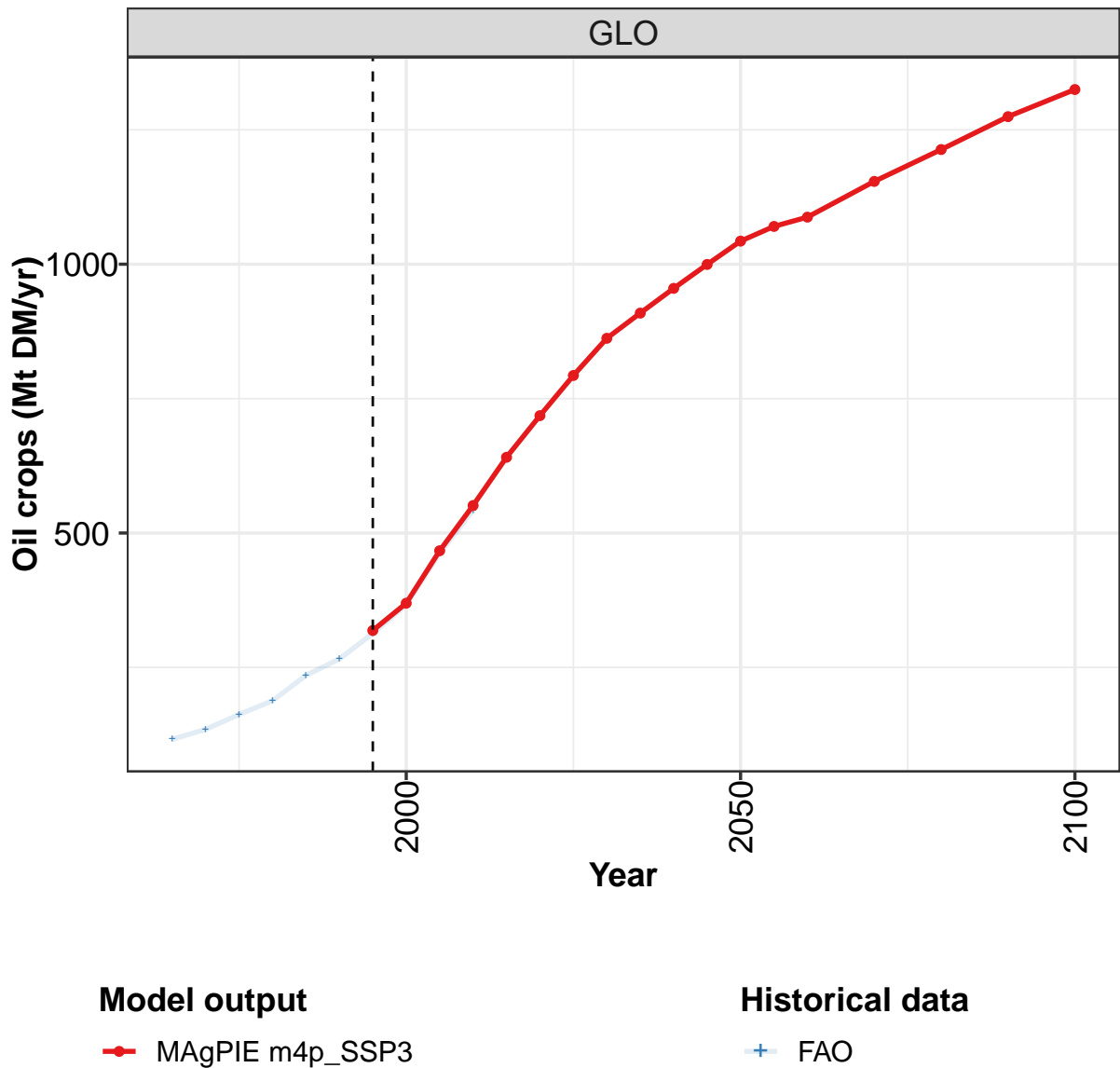
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	61.7	78.3	78.5	72.1	92.1	76.2	70.4	73.3	79.4	81.4
CAZ	0.2	0.5	0.8	0.8	1.2	0.9	1.2	1.9	1.8	1.4
CHA	11.7	16.3	13.2	10.8	10.3	9.1	6.9	4.2	3.8	3.5
EUR	0.2	0.4	0.5	0.6	0.3	0.5	0.5	0.6	0.5	0.6
IND	12.5	17.8	17.6	17.4	15.5	19.5	15.8	15.5	15.6	17.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	2.2	6.7	9.2	8.4	13.3	8.9	7.0	10.0	10.0	12.2
MEA	3.0	3.4	4.0	3.5	4.4	2.3	3.8	4.1	6.4	4.2
NEU	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
OAS	1.0	1.1	1.1	1.0	1.3	1.1	1.0	1.1	1.1	1.2
REF	1.8	1.7	1.0	1.6	2.6	2.9	0.7	1.5	0.6	0.3
SSA	13.7	14.7	14.0	15.0	18.0	18.1	23.0	23.8	30.4	32.2
USA	15.1	15.4	16.9	13.1	25.2	13.0	10.4	10.7	9.1	8.0

Table 1358: FAO — Production—Crops—Cereals—Tropical cereals (Mt DM/yr)





44.2 Oil crops



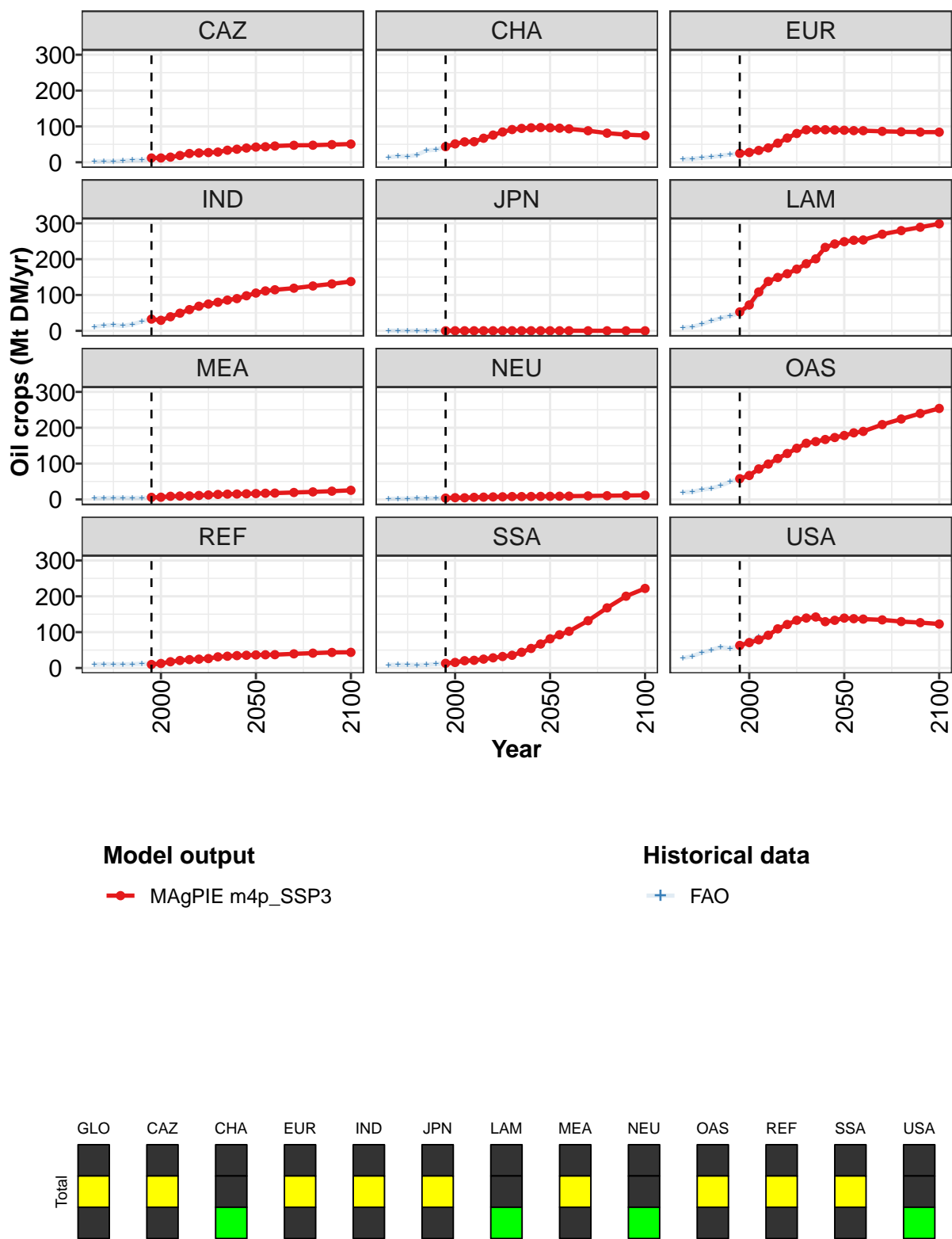


Figure 341: MAgPIE m4p_SSP3 — Production—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	319	369	467	551	641	718	793	862	909	955	1000
CAZ	12	12	14	19	24	26	27	28	34	36	40
CHA	43	51	57	57	67	76	85	91	94	96	97
EUR	25	27	33	40	53	68	80	91	91	91	90
IND	33	29	39	49	59	69	75	80	86	90	98
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	53	72	109	138	149	159	172	187	201	233	242
MEA	6	6	9	9	10	11	12	14	15	15	16
NEU	4	5	5	6	6	7	7	8	8	8	8
OAS	58	67	85	99	114	128	143	157	161	167	173
REF	10	13	17	21	23	25	26	31	33	34	35
SSA	13	15	20	21	25	28	32	35	44	55	67
USA	63	71	79	91	109	121	133	139	142	129	133

Table 1359: MAgPIE m4p-SSP3 — Production—Crops—Oil crops (Mt DM/yr) [PART 1/2]

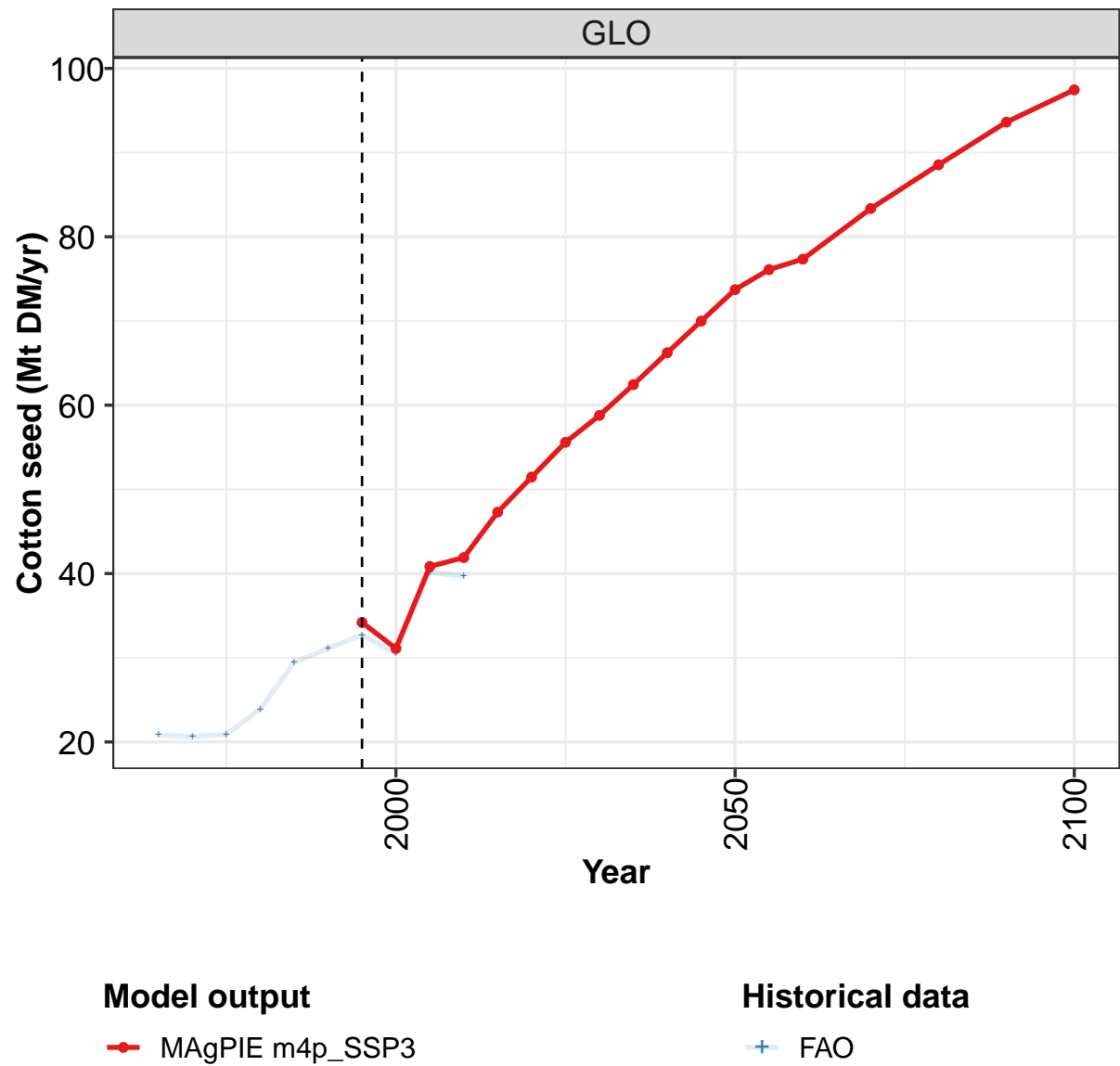
	2050	2055	2060	2070	2080	2090	2100
GLO	1043	1070	1088	1154	1213	1275	1325
CAZ	42	43	45	47	48	49	51
CHA	96	95	93	88	81	77	75
EUR	89	88	88	86	85	84	84
IND	105	111	115	119	125	131	138
JPN	0	0	0	0	0	0	0
LAM	249	253	254	270	280	289	299
MEA	16	17	18	19	21	23	25
NEU	9	9	9	10	10	11	12
OAS	178	186	190	209	224	240	254
REF	36	37	37	40	41	43	44
SSA	81	93	102	132	168	200	222
USA	139	138	136	134	130	127	123

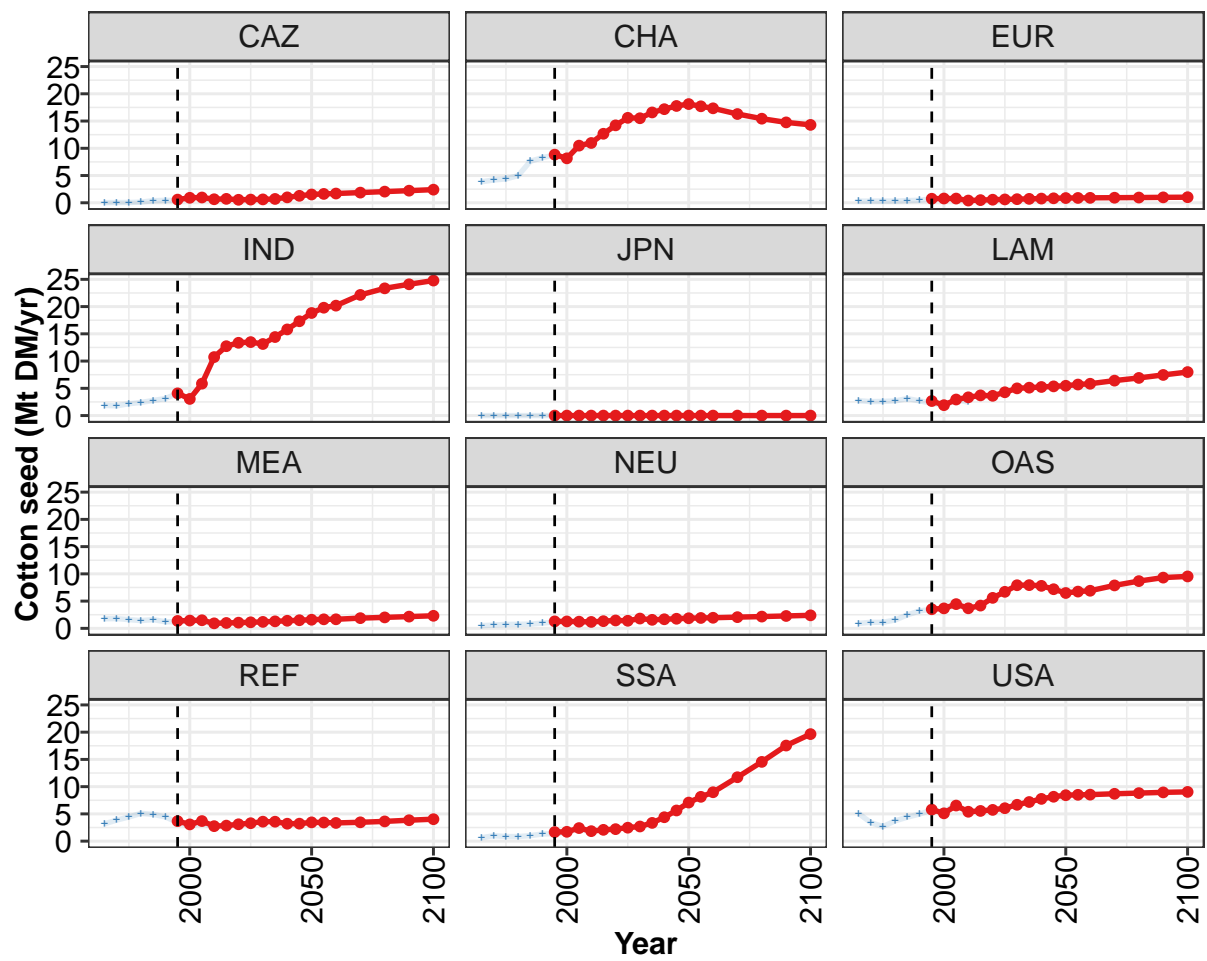
Table 1360: MAgPIE m4p-SSP3 — Production—Crops—Oil crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	116	135	163	188	235	266	313	366	462	542
CAZ	1	3	3	4	6	6	10	13	15	19
CHA	14	17	17	21	33	35	44	52	56	57
EUR	9	10	12	15	19	22	25	28	33	39
IND	12	15	16	14	18	26	33	29	39	49
JPN	0	0	0	0	0	0	0	0	0	0
LAM	9	11	18	27	36	42	50	66	101	133
MEA	3	4	5	4	4	4	5	6	7	7
NEU	1	2	2	3	3	4	3	4	4	5
OAS	20	21	27	31	38	49	58	66	84	100
REF	9	11	10	10	11	12	11	11	17	20
SSA	9	9	9	8	9	11	12	15	20	22
USA	28	33	43	50	59	54	62	76	86	90

Table 1361: FAO — Production—Crops—Oil crops (Mt DM/yr)

44.2.1
Cotton seed



**Model output**

—●— MAgPIE m4p_SSP3

Historical data

—+— FAO

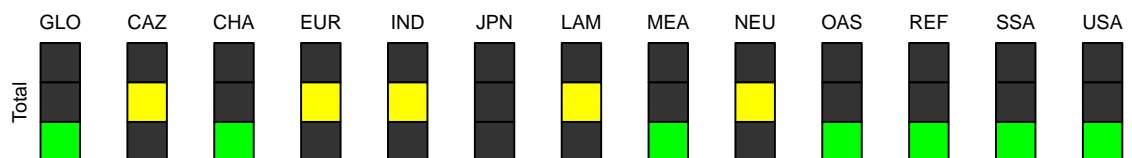


Figure 342: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34.2	31.1	40.8	41.9	47.3	51.5	55.6	58.8	62.4	66.2	70.0
CAZ	0.6	0.9	1.0	0.6	0.7	0.6	0.6	0.6	0.7	1.0	1.3
CHA	8.8	8.2	10.5	11.0	12.7	14.2	15.6	15.5	16.6	17.2	17.8
EUR	0.7	0.8	0.8	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8
IND	4.1	3.1	5.9	10.7	12.7	13.4	13.5	13.1	14.4	15.8	17.3
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	2.7	1.9	2.9	3.4	3.7	3.6	4.3	5.0	5.1	5.2	5.4
MEA	1.4	1.4	1.5	0.9	1.0	1.0	1.1	1.2	1.3	1.4	1.5
NEU	1.3	1.3	1.2	1.2	1.3	1.5	1.4	1.8	1.6	1.7	1.8
OAS	3.5	3.7	4.5	3.7	4.2	5.6	6.7	7.9	7.9	7.8	7.2
REF	3.7	3.1	3.7	2.8	2.9	3.1	3.3	3.6	3.6	3.2	3.2
SSA	1.7	1.7	2.4	1.8	2.1	2.2	2.5	2.7	3.4	4.4	5.6
USA	5.8	5.1	6.5	5.4	5.6	5.7	6.0	6.7	7.2	7.8	8.2

Table 1362: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

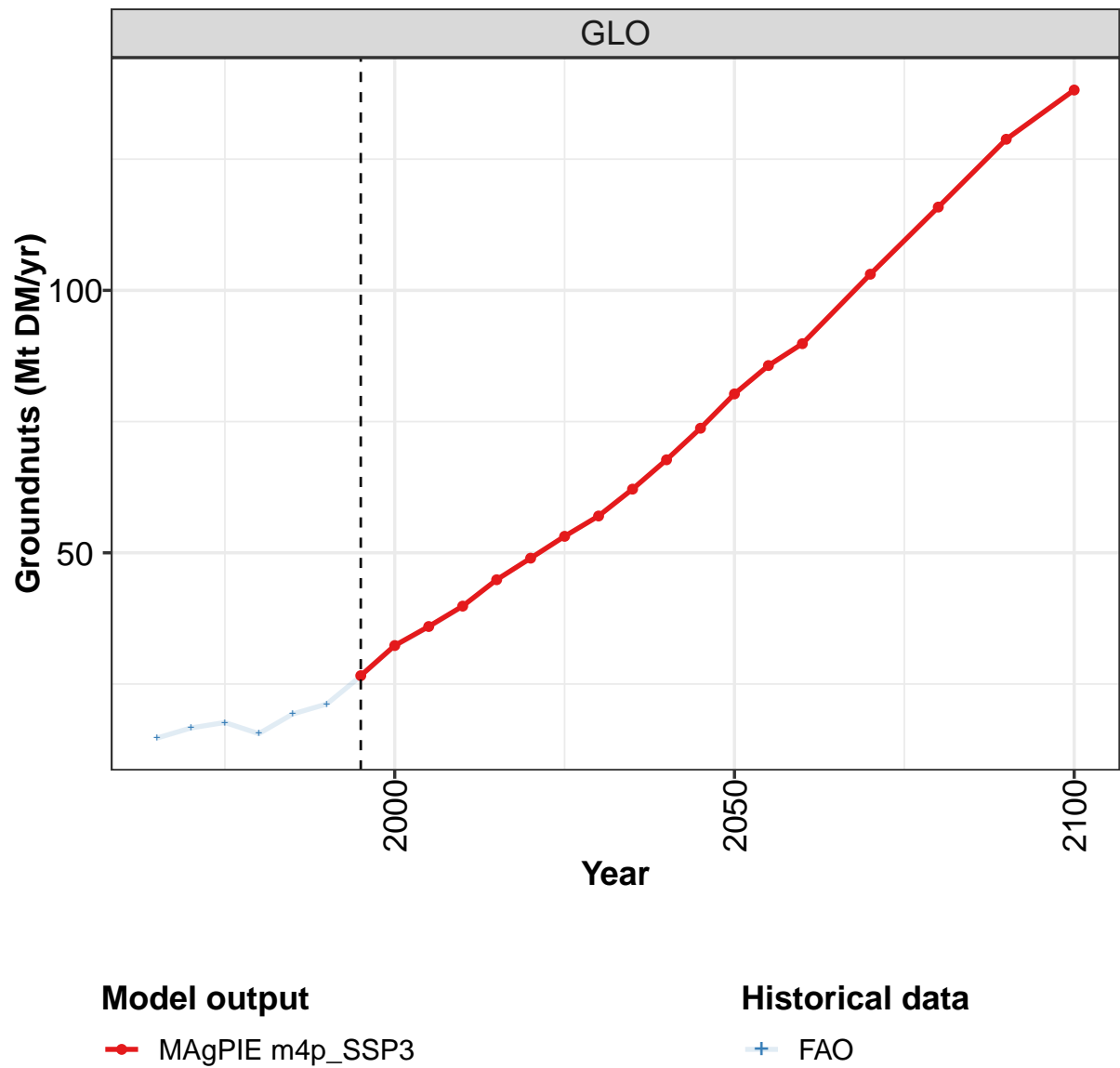
	2050	2055	2060	2070	2080	2090	2100
GLO	73.7	76.1	77.3	83.4	88.6	93.6	97.5
CAZ	1.5	1.6	1.7	1.9	2.0	2.2	2.4
CHA	18.1	17.7	17.3	16.3	15.4	14.8	14.3
EUR	0.9	0.9	0.9	0.9	1.0	1.0	1.0
IND	18.8	19.8	20.2	22.1	23.4	24.1	24.8
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	5.5	5.7	5.8	6.4	6.9	7.5	8.0
MEA	1.6	1.7	1.7	1.9	2.0	2.2	2.3
NEU	1.9	1.9	1.9	2.1	2.2	2.3	2.4
OAS	6.5	6.8	6.9	7.9	8.7	9.3	9.5
REF	3.5	3.4	3.3	3.5	3.6	3.8	4.0
SSA	7.1	8.1	9.0	11.7	14.6	17.5	19.6
USA	8.4	8.5	8.5	8.7	8.8	9.0	9.0

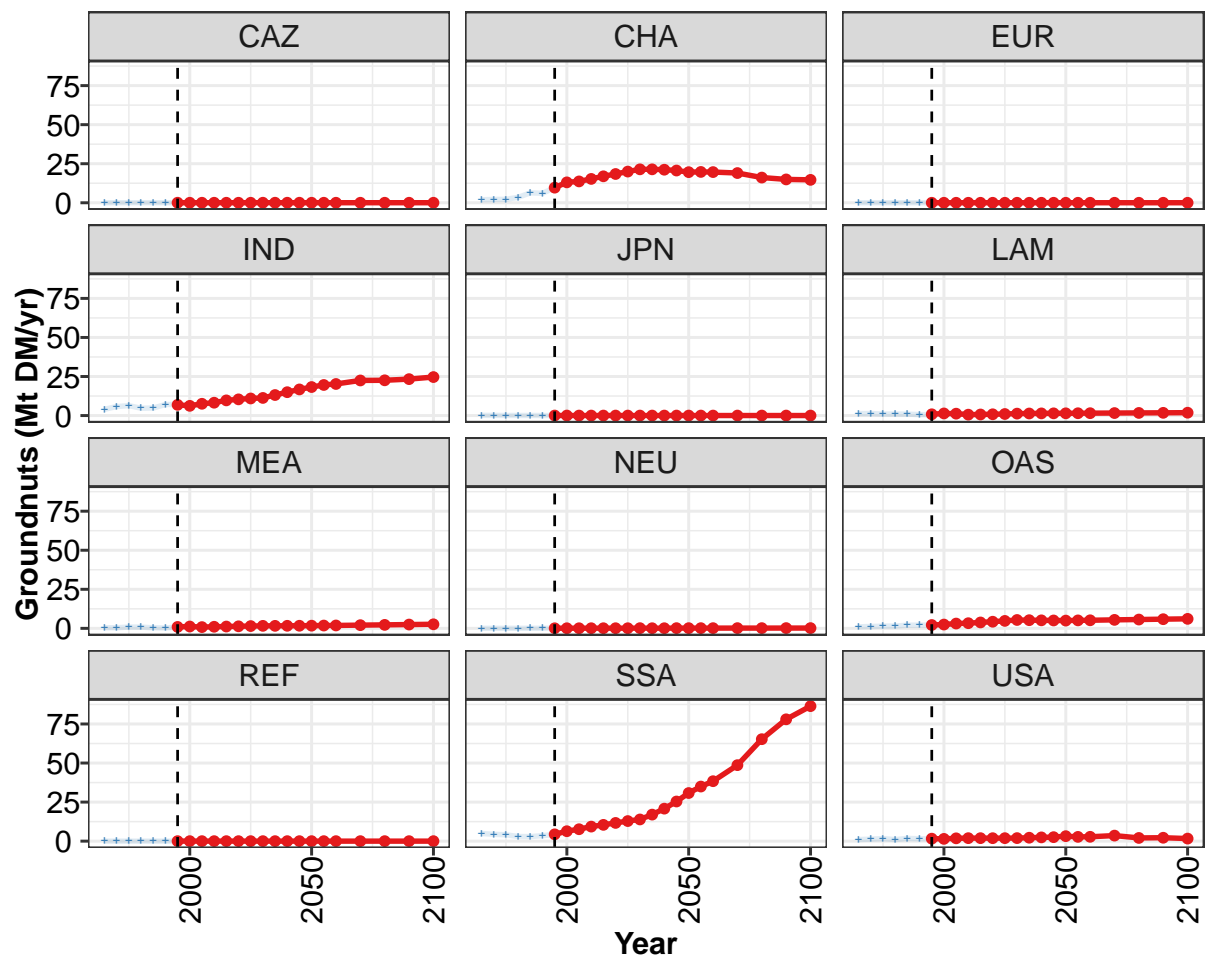
Table 1363: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	20.8	20.6	20.9	23.9	29.4	31.1	32.7	30.5	40.2	39.7
CAZ	0.0	0.0	0.0	0.1	0.4	0.5	0.4	1.0	0.8	0.5
CHA	3.9	4.2	4.4	5.0	7.6	8.3	8.8	8.1	10.5	11.0
EUR	0.3	0.3	0.3	0.3	0.4	0.5	0.7	0.8	0.8	0.4
IND	1.9	1.8	2.2	2.4	2.8	3.1	4.1	3.1	5.9	10.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	2.7	2.6	2.6	2.7	3.1	2.7	2.3	1.8	2.9	2.5
MEA	1.8	1.8	1.6	1.4	1.6	1.2	1.2	1.4	1.4	0.7
NEU	0.5	0.6	0.7	0.7	0.8	1.0	1.2	1.2	1.2	1.2
OAS	0.9	1.1	1.1	1.5	2.5	3.2	3.5	3.6	4.3	3.7
REF	3.2	3.9	4.4	5.1	4.9	4.4	3.4	2.7	3.3	2.5
SSA	0.6	1.0	0.9	0.8	1.0	1.3	1.4	1.6	2.3	1.6
USA	5.1	3.4	2.7	3.7	4.4	5.0	5.7	5.4	6.8	5.1

Table 1364: FAO — Production—Crops—Oil crops—Cotton seed (Mt DM/yr)

44.2.2 Groundnuts





Model output

—●— MAGPIE m4p_SSP3

Historical data

—+— FAO

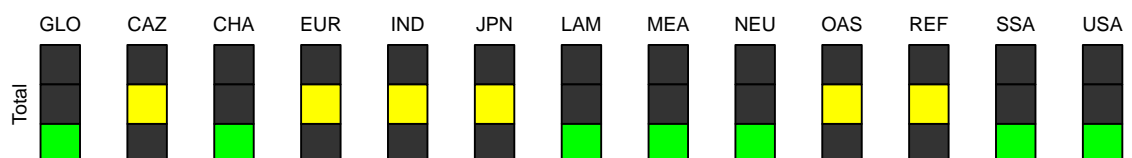


Figure 343: MAGPIE m4p_SSP3 — Production—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	27	32	36	40	45	49	53	57	62	68	74
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	10	13	14	15	17	18	20	21	21	21	21
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	7	6	8	8	10	10	11	11	13	15	17
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1	1	1	1	1	1	1	1	1	1	1
MEA	1	1	1	1	1	1	1	2	2	2	2
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	2	2	3	3	4	4	5	5	5	5	5
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	4	6	8	9	10	12	13	14	17	21	25
USA	2	1	2	2	2	2	2	2	2	2	3

Table 1365: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

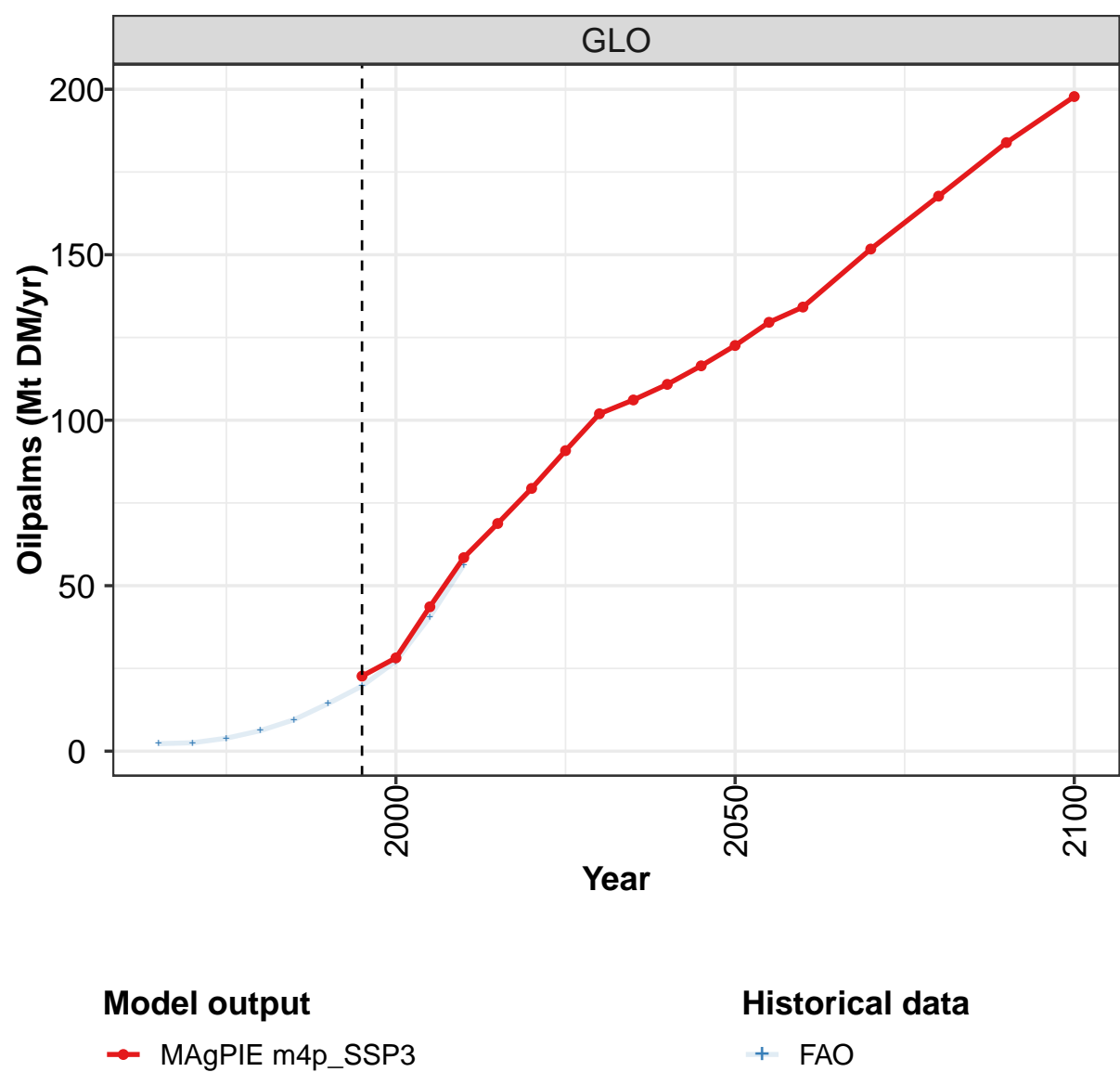
	2050	2055	2060	2070	2080	2090	2100
GLO	80	86	90	103	116	129	138
CAZ	0	0	0	0	0	0	0
CHA	20	20	20	19	16	15	15
EUR	0	0	0	0	0	0	0
IND	18	20	20	22	23	23	25
JPN	0	0	0	0	0	0	0
LAM	1	1	2	2	2	2	2
MEA	2	2	2	2	2	2	3
NEU	0	0	0	0	0	0	0
OAS	5	5	5	5	6	6	6
REF	0	0	0	0	0	0	0
SSA	31	35	38	49	65	78	86
USA	3	3	3	4	2	2	2

Table 1366: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	14.7	16.6	17.7	15.5	19.3	21.2	26.5	32.3	35.9	39.8
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	1.9	2.1	2.2	3.5	6.3	6.0	9.7	13.6	13.5	14.8
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	4.0	5.7	6.3	4.7	4.8	7.1	7.1	6.1	7.5	7.8
JPN	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.3	1.3	1.0	1.0	0.9	0.6	0.6	0.9	1.1	1.2
MEA	0.4	0.4	0.8	0.8	0.4	0.2	0.9	1.2	0.8	1.0
NEU	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
OAS	1.0	1.2	1.4	1.5	2.0	2.1	2.2	2.5	3.1	3.3
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	4.9	4.4	4.1	3.0	2.9	3.5	4.4	6.5	7.6	9.8
USA	1.0	1.3	1.6	1.0	1.8	1.5	1.5	1.4	2.1	1.8

Table 1367: FAO — Production—Crops—Oil crops—Groundnuts (Mt DM/yr)

44.2.3 Oilpalms



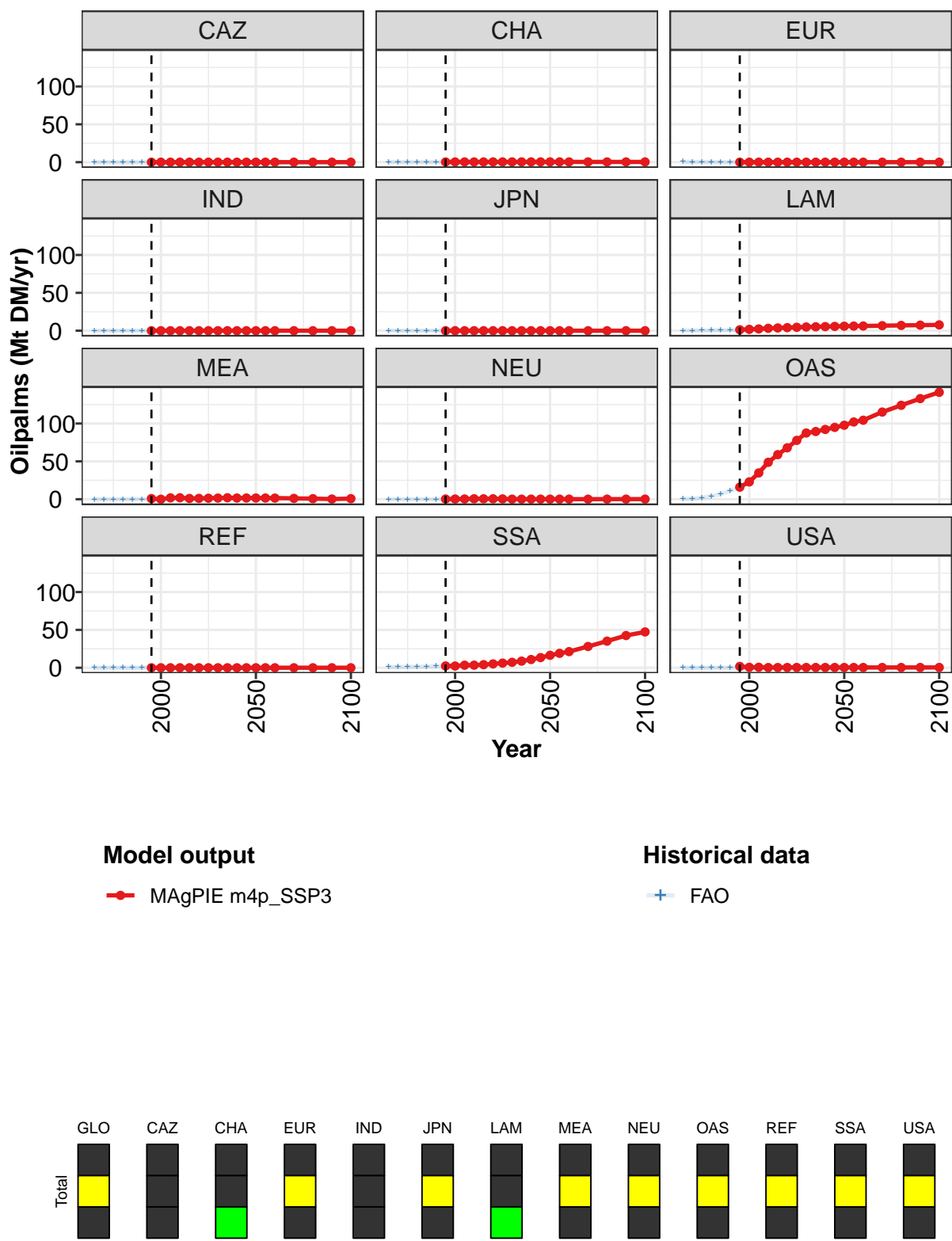


Figure 344: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Oilpalms (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	23	28	44	58	69	79	91	102	106	111	116
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1	2	2	3	4	4	4	5	5	5	6
MEA	1	0	2	2	1	1	1	2	2	2	2
NEU	0	0	0	1	1	1	0	0	0	0	0
OAS	16	23	35	49	59	68	78	88	89	92	95
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	2	2	3	3	4	5	6	7	9	11	13
USA	2	1	1	0	0	0	0	0	0	0	0

Table 1368: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Oilpalms (Mt DM/yr) [PART 1/2]

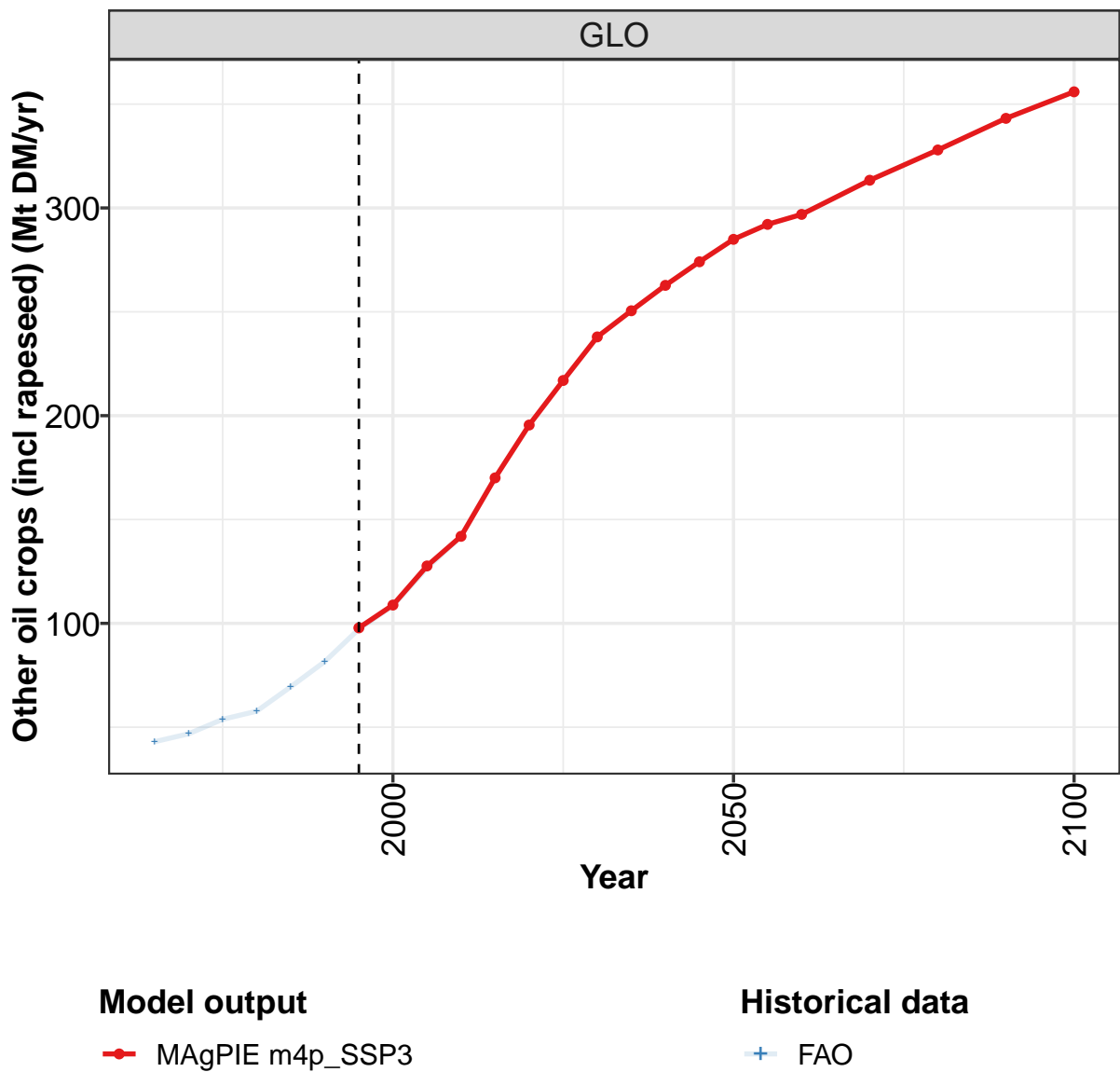
	2050	2055	2060	2070	2080	2090	2100
GLO	123	130	134	152	168	184	198
CAZ	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	6	6	6	7	7	7	8
MEA	2	2	1	1	1	0	1
NEU	0	0	0	0	0	0	0
OAS	98	102	104	115	124	133	141
REF	0	0	0	0	0	0	0
SSA	16	19	21	28	35	43	47
USA	0	0	0	0	0	0	0

Table 1369: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Oilpalms (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.3	2.5	3.9	6.2	9.5	14.4	19.7	27.2	40.6	56.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.1	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3
EUR	0.6	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.3	0.3	0.4	0.7	1.0	1.2	1.7	2.3	3.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.3	0.7	1.9	3.9	6.9	11.2	15.9	23.0	34.6	49.6
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	1.1	1.0	1.2	1.5	1.6	1.9	2.3	2.3	3.4	3.4
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1370: FAO — Production—Crops—Oil crops—Oilpalms (Mt DM/yr)

44.2.4 Other oil crops (incl rapeseed)



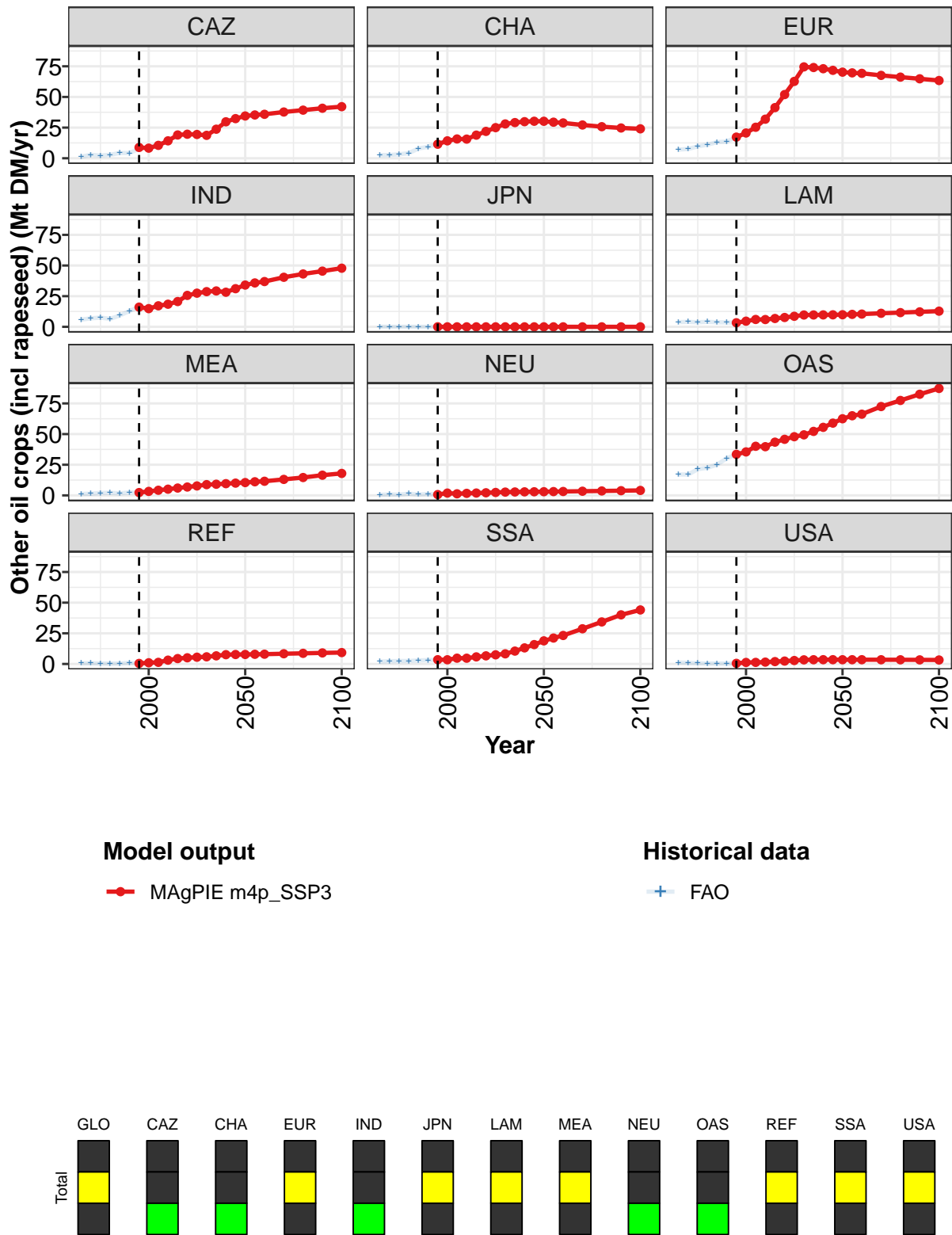


Figure 345: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	98	109	128	142	170	196	217	238	251	263	274
CAZ	9	8	11	14	19	20	19	19	24	30	32
CHA	11	14	16	16	19	22	25	28	29	30	30
EUR	17	21	25	32	41	52	63	75	74	73	72
IND	16	15	17	18	21	26	27	29	29	28	31
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	3	5	6	6	7	8	9	10	10	10	10
MEA	2	3	4	5	6	7	8	9	9	10	10
NEU	1	2	1	2	2	2	2	3	3	3	3
OAS	33	35	40	40	43	46	48	49	52	56	59
REF	0	1	1	3	4	5	6	6	7	8	8
SSA	3	3	5	5	6	7	7	8	11	13	16
USA	1	1	1	2	2	2	3	3	3	3	3

Table 1371: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)
[PART 1/2]

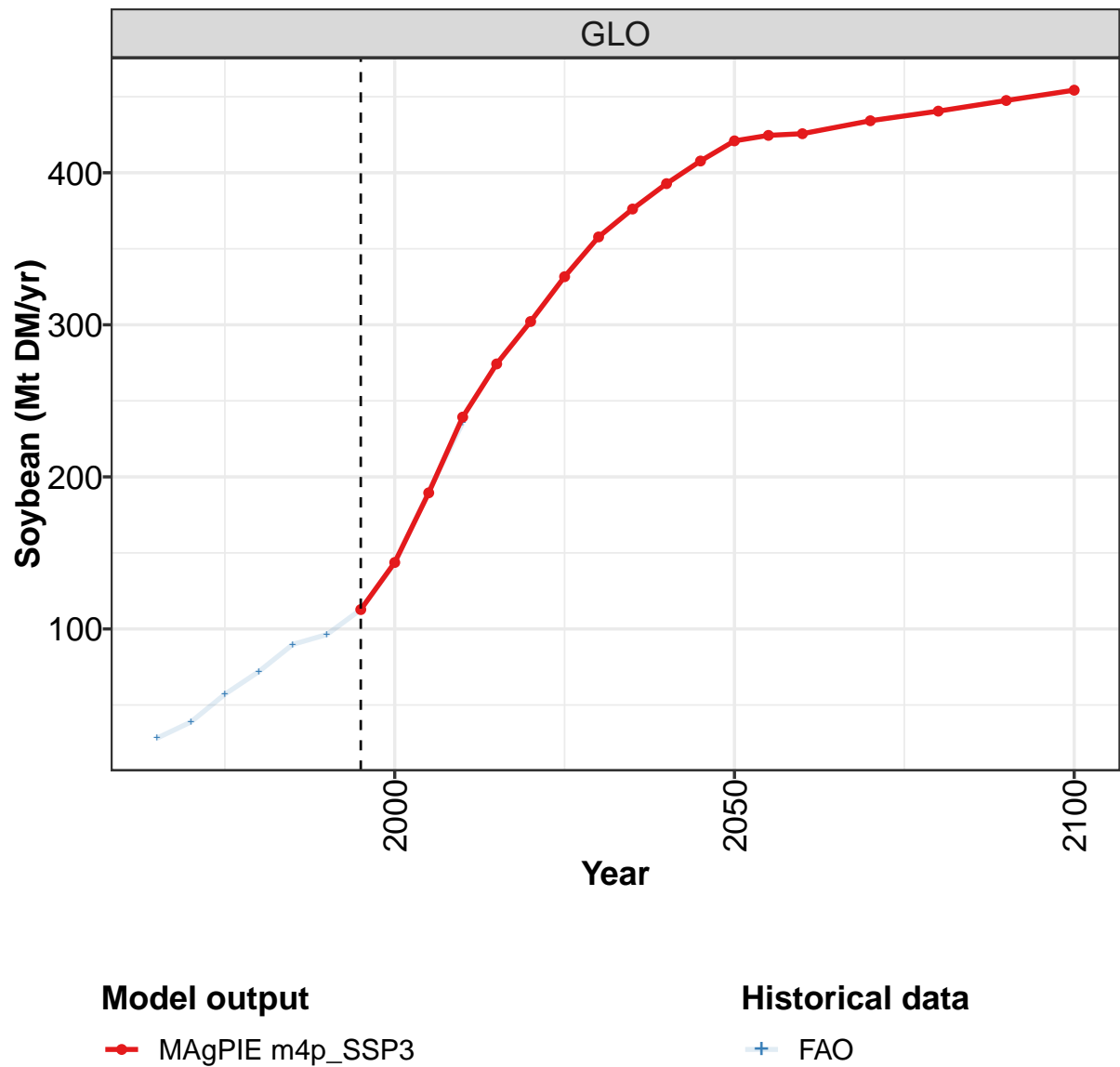
	2050	2055	2060	2070	2080	2090	2100
GLO	285	292	297	313	328	343	356
CAZ	34	35	36	38	39	41	42
CHA	30	29	29	27	26	25	24
EUR	70	70	69	68	66	65	63
IND	34	36	37	40	43	45	48
JPN	0	0	0	0	0	0	0
LAM	10	10	10	11	12	12	13
MEA	10	11	12	13	15	16	18
NEU	3	3	3	3	4	4	4
OAS	63	65	66	72	77	82	87
REF	8	8	8	8	9	9	9
SSA	19	21	23	29	34	40	44
USA	3	3	3	3	3	3	3

Table 1372: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	43	47	54	58	69	82	97	109	127	142
CAZ	1	3	2	3	4	4	8	9	11	14
CHA	2	3	3	4	8	9	12	14	16	16
EUR	7	8	10	11	13	14	17	21	25	31
IND	6	7	8	6	9	13	16	15	17	19
JPN	0	0	0	0	0	0	0	0	0	0
LAM	4	4	4	4	4	4	3	4	6	6
MEA	1	1	2	2	2	2	2	3	4	5
NEU	0	1	1	1	1	1	1	2	1	2
OAS	17	17	21	23	25	30	34	35	39	40
REF	1	1	0	0	0	1	0	1	1	3
SSA	2	2	2	2	3	3	3	3	5	5
USA	1	1	1	0	0	0	1	1	1	2

Table 1373: FAO — Production—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

44.2.5 Soybean



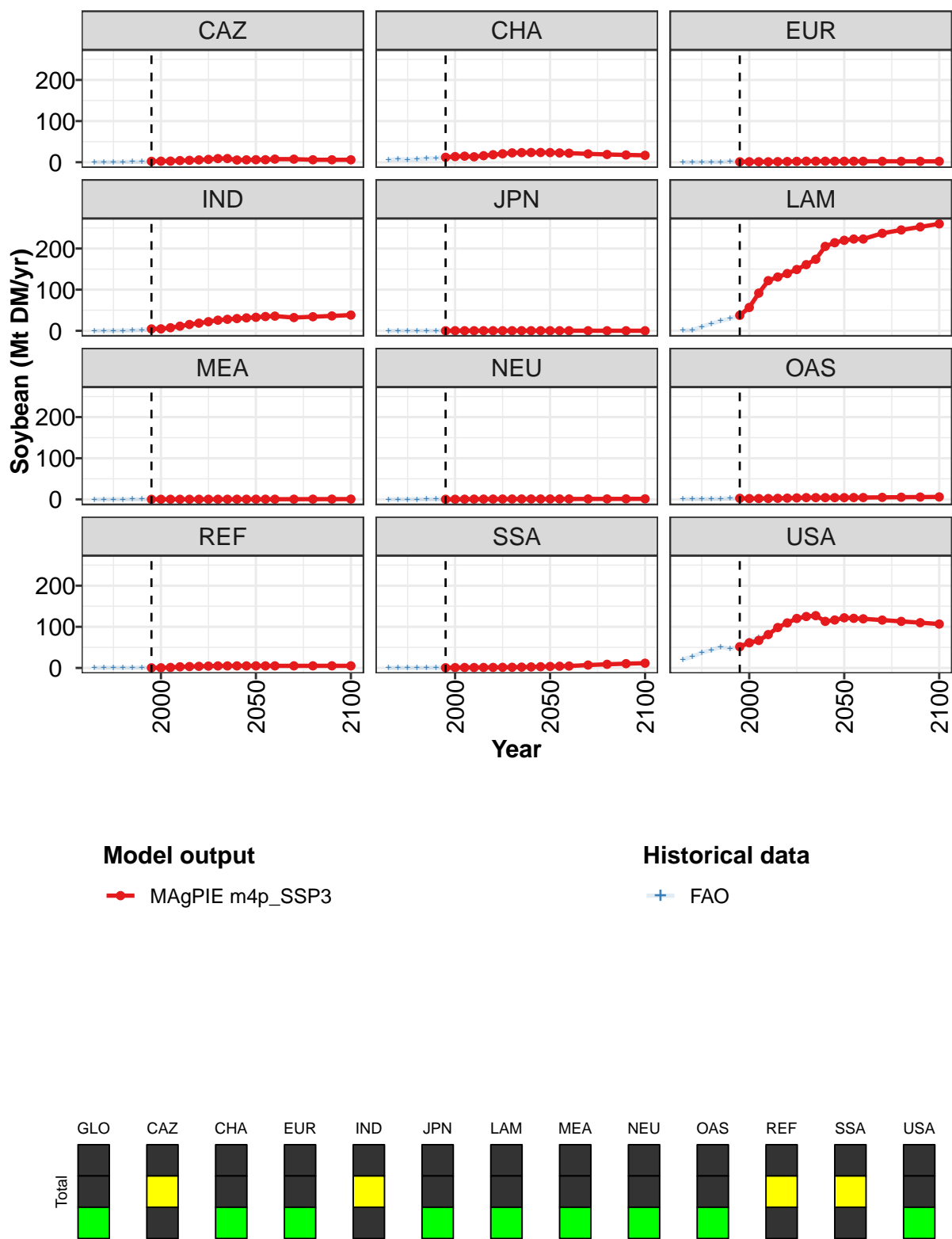


Figure 346: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	113	144	190	239	274	302	332	358	376	393	408
CAZ	2	3	3	4	5	6	7	9	9	5	6
CHA	12	14	15	13	16	18	21	23	23	24	24
EUR	1	1	1	1	1	2	2	2	2	2	2
IND	4	5	7	11	15	19	22	26	28	30	31
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	38	57	92	122	131	139	149	161	174	205	214
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	1	1	1	1	1	1	1	1
OAS	3	2	2	2	3	3	4	4	4	4	4
REF	0	0	1	3	3	4	4	5	5	5	5
SSA	0	1	1	1	1	1	1	2	2	2	3
USA	52	61	67	81	98	109	120	125	127	113	117

Table 1374: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

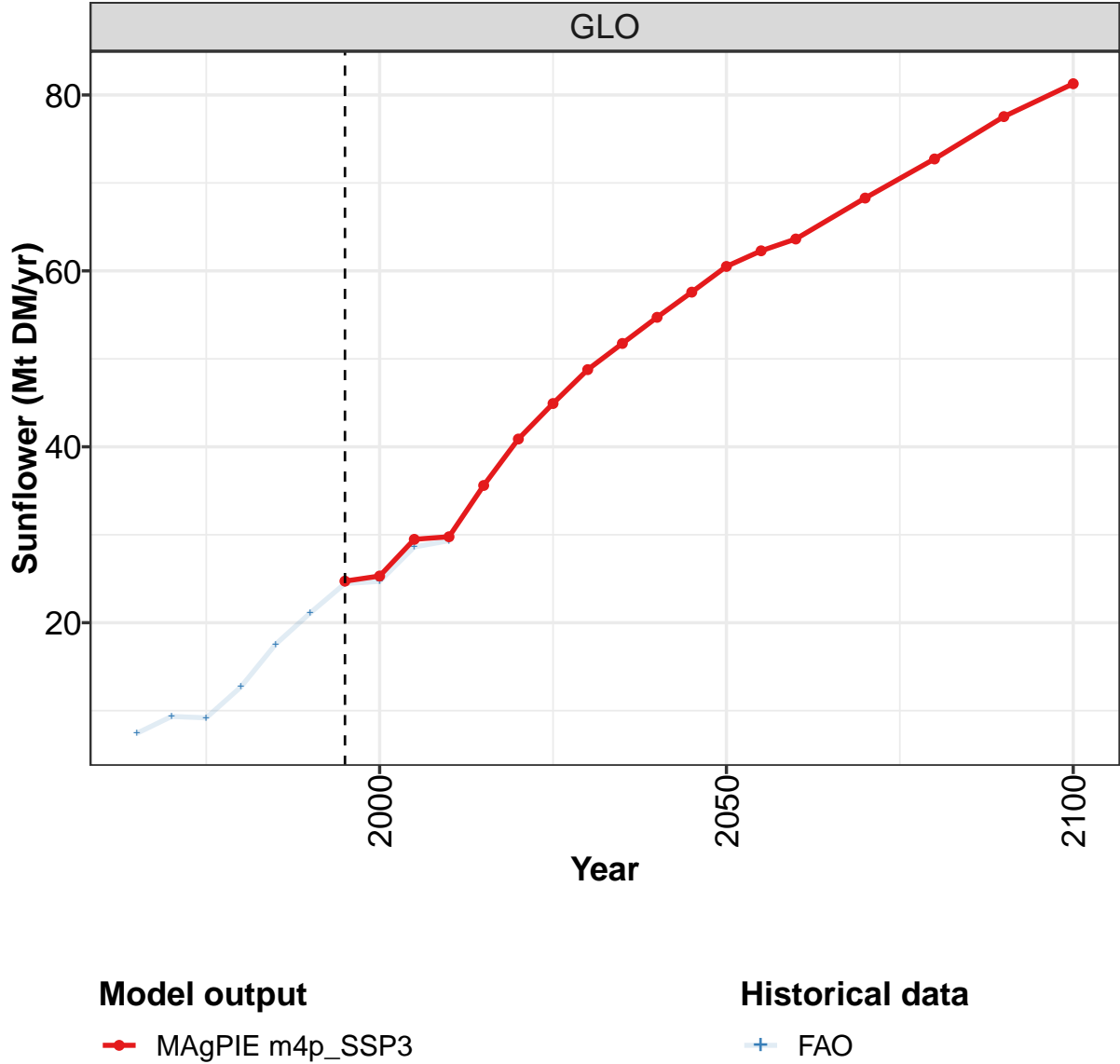
	2050	2055	2060	2070	2080	2090	2100
GLO	421	425	426	434	441	448	454
CAZ	6	6	8	7	6	6	6
CHA	23	23	22	20	19	18	17
EUR	2	2	2	2	2	2	2
IND	33	35	36	32	34	36	38
JPN	0	0	0	0	0	0	0
LAM	220	223	223	237	245	252	260
MEA	0	0	0	0	1	1	1
NEU	1	1	1	1	1	1	1
OAS	4	4	4	5	5	6	6
REF	5	5	5	5	5	5	5
SSA	4	4	5	7	9	10	11
USA	122	121	119	116	113	110	107

Table 1375: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Soybean (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	28	39	57	72	90	96	113	143	191	235
CAZ	0	0	0	1	1	1	2	2	3	4
CHA	6	8	6	7	9	10	12	14	15	13
EUR	0	0	0	1	1	2	1	1	1	1
IND	0	0	0	0	1	2	5	5	7	11
JPN	0	0	0	0	0	0	0	0	0	0
LAM	1	2	10	18	24	30	37	51	85	118
MEA	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	1
OAS	1	1	1	1	2	3	3	2	2	2
REF	0	1	1	0	0	1	0	0	1	3
SSA	0	0	0	0	0	1	0	1	1	1
USA	20	27	37	43	51	47	53	67	74	80

Table 1376: FAO — Production—Crops—Oil crops—Soybean (Mt DM/yr)

44.2.6 Sunflower



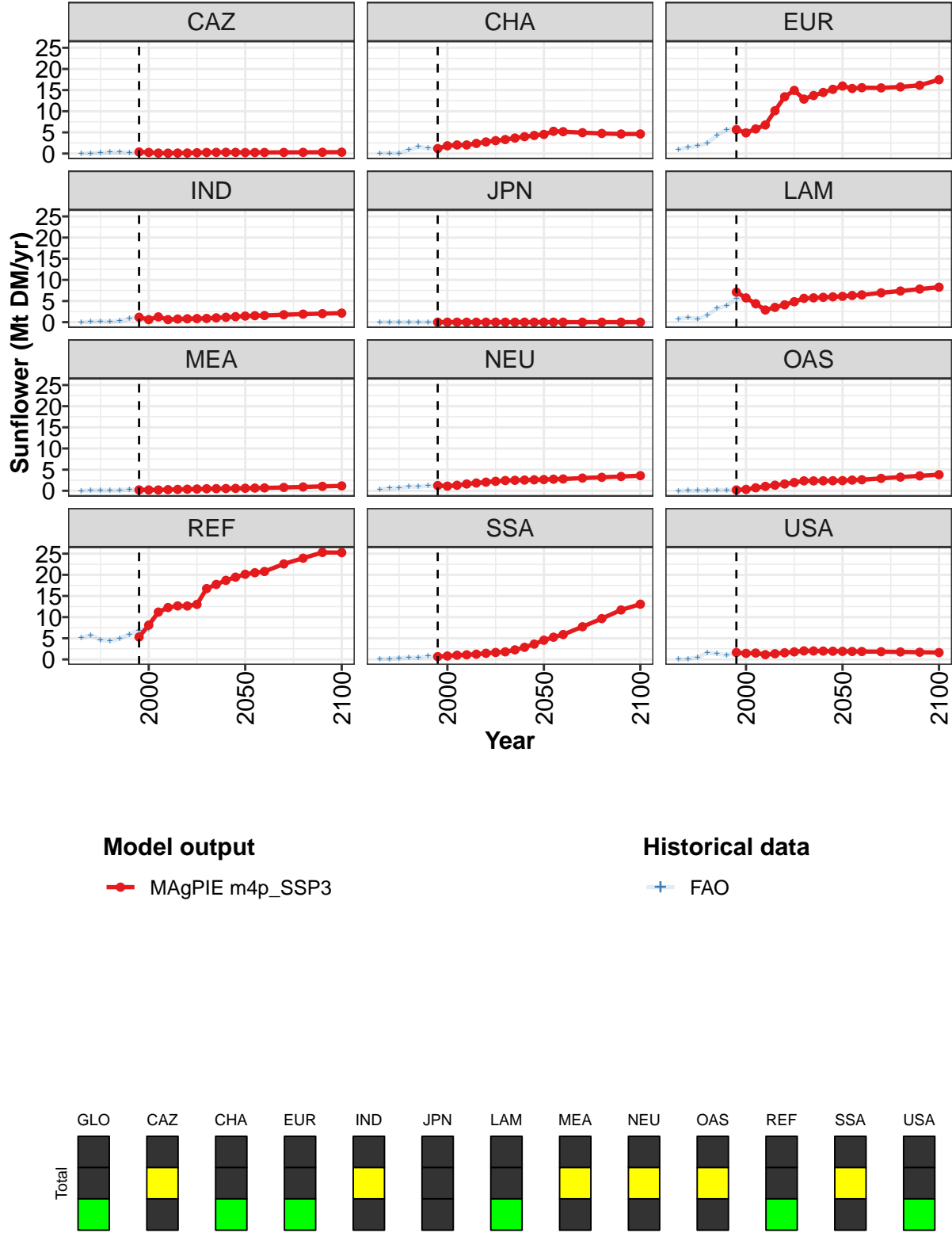


Figure 347: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	24.7	25.3	29.5	29.8	35.6	40.9	44.9	48.8	51.8	54.7	57.6
CAZ	0.4	0.3	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3
CHA	1.2	1.8	2.0	2.0	2.4	2.7	3.0	3.3	3.7	4.0	4.3
EUR	5.7	4.9	5.8	6.8	10.1	13.4	14.9	12.9	13.7	14.4	15.2
IND	1.2	0.6	1.3	0.6	0.7	0.8	0.9	0.9	1.0	1.2	1.3
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	7.1	5.7	4.4	2.9	3.5	4.1	4.8	5.6	5.8	5.9	6.0
MEA	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.6
NEU	1.2	1.1	1.3	1.6	1.8	2.0	2.2	2.4	2.5	2.5	2.6
OAS	0.2	0.3	0.7	1.0	1.3	1.6	2.0	2.3	2.3	2.4	2.4
REF	5.3	8.1	11.2	12.3	12.6	12.6	13.0	16.7	17.7	18.7	19.4
SSA	0.7	0.8	1.0	1.1	1.2	1.4	1.6	1.8	2.3	2.9	3.6
USA	1.6	1.4	1.5	1.1	1.3	1.6	1.8	2.0	2.0	2.0	1.9

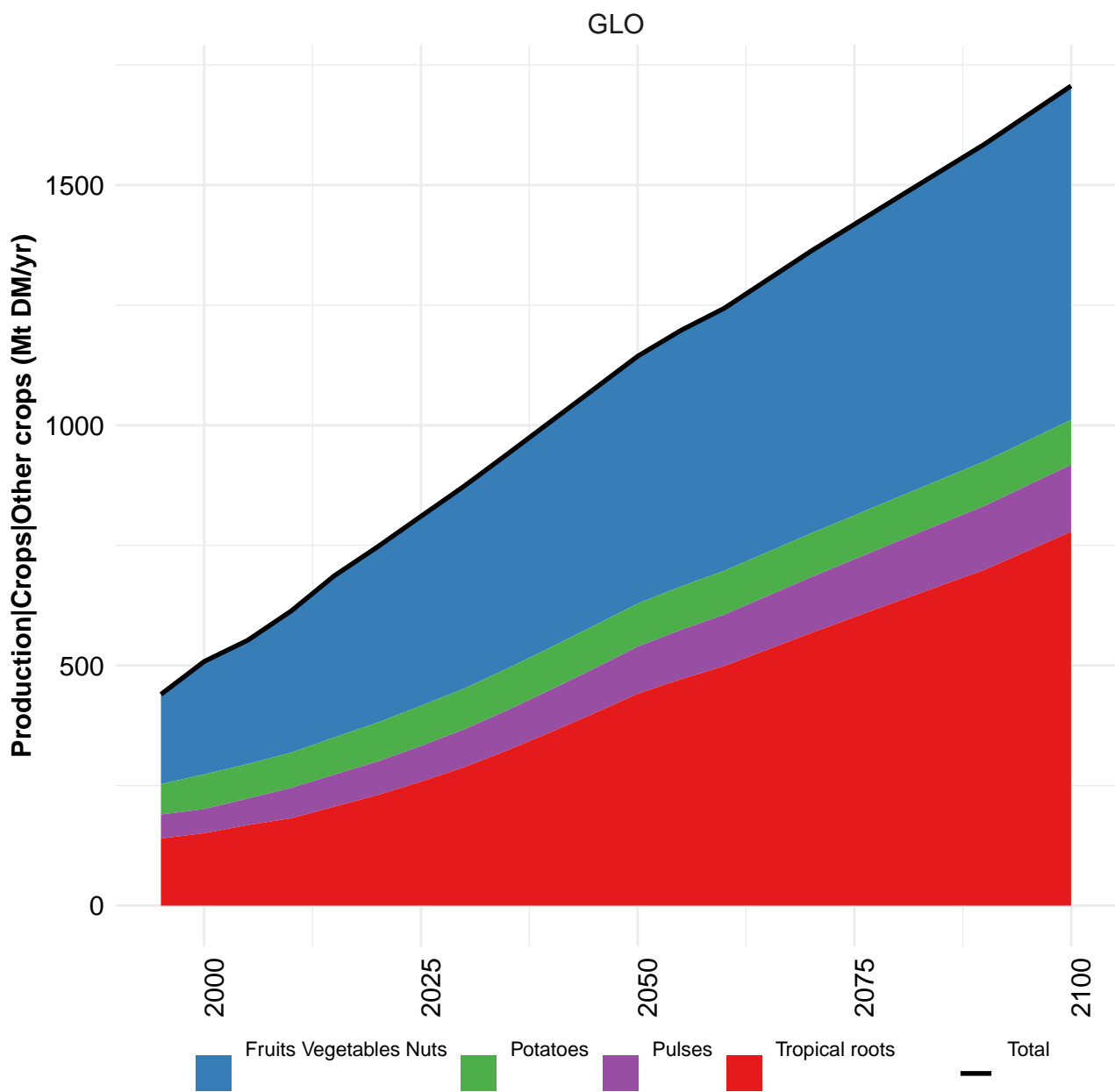
Table 1377: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

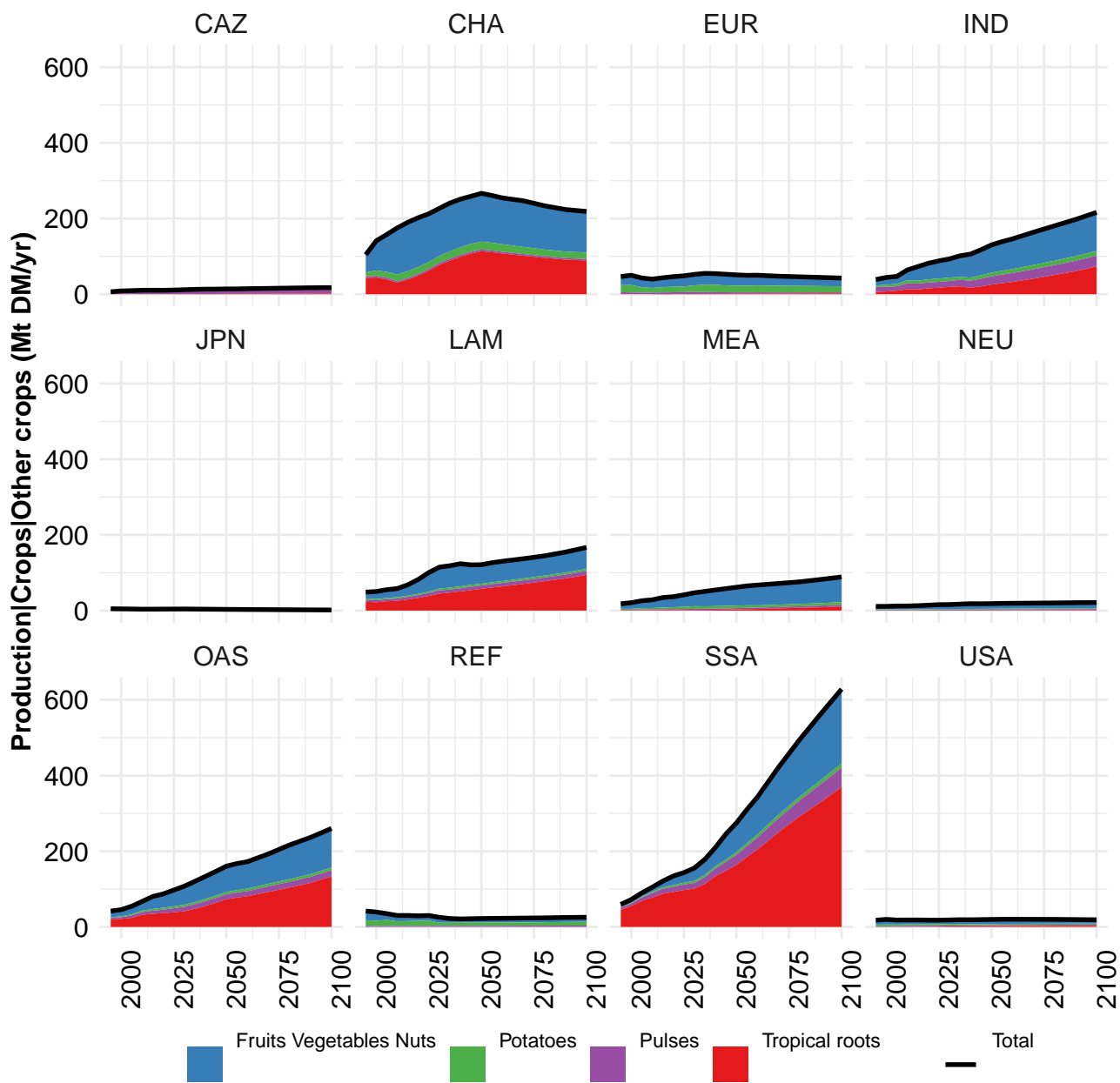
	2050	2055	2060	2070	2080	2090	2100
GLO	60.5	62.3	63.6	68.3	72.7	77.5	81.3
CAZ	0.2	0.2	0.3	0.3	0.3	0.3	0.3
CHA	4.5	5.3	5.2	4.9	4.7	4.6	4.6
EUR	16.0	15.4	15.6	15.5	15.7	16.1	17.5
IND	1.4	1.5	1.6	1.8	1.9	2.0	2.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	6.1	6.3	6.4	6.9	7.4	7.8	8.3
MEA	0.6	0.6	0.7	0.8	0.9	1.0	1.2
NEU	2.7	2.7	2.8	3.0	3.2	3.4	3.6
OAS	2.4	2.5	2.6	2.9	3.2	3.5	3.8
REF	20.1	20.5	20.8	22.6	23.9	25.3	25.2
SSA	4.5	5.2	5.9	7.7	9.7	11.7	13.1
USA	1.9	1.9	1.9	1.8	1.8	1.7	1.6

Table 1378: MAgPIE m4p_SSP3 — Production—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 2/2]

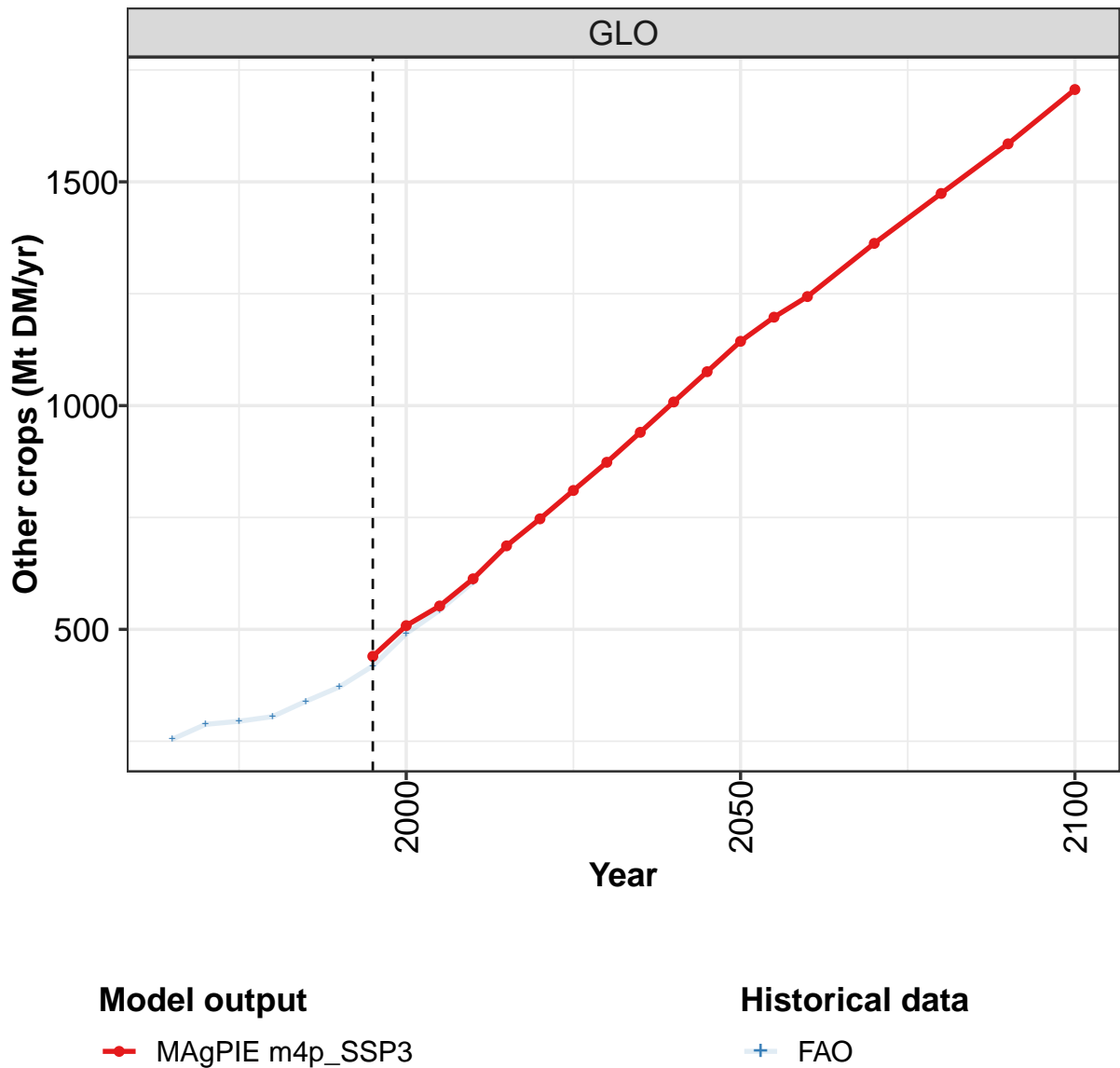
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	7.4	9.3	9.2	12.7	17.5	21.1	24.5	24.7	28.6	29.3
CAZ	0.0	0.0	0.1	0.3	0.3	0.2	0.2	0.3	0.1	0.1
CHA	0.1	0.1	0.1	0.8	1.6	1.2	1.2	1.8	1.8	2.1
EUR	1.0	1.4	1.8	2.5	4.3	5.7	5.6	4.9	5.7	6.6
IND	0.0	0.1	0.2	0.1	0.3	0.8	1.2	0.6	1.3	0.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.8	1.1	0.8	1.6	3.3	3.9	5.6	6.0	3.8	2.7
MEA	0.0	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.3
NEU	0.4	0.6	0.7	1.0	1.0	1.2	1.1	1.1	1.3	1.6
OAS	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.3	0.7	1.1
REF	5.1	5.7	4.6	4.3	4.9	6.0	6.9	7.3	11.0	12.0
SSA	0.1	0.1	0.3	0.4	0.4	0.8	0.6	0.8	1.0	1.1
USA	0.0	0.1	0.5	1.6	1.3	1.0	1.7	1.5	1.7	1.2

Table 1379: FAO — Production—Crops—Oil crops—Sunflower (Mt DM/yr)





44.3 Other crops



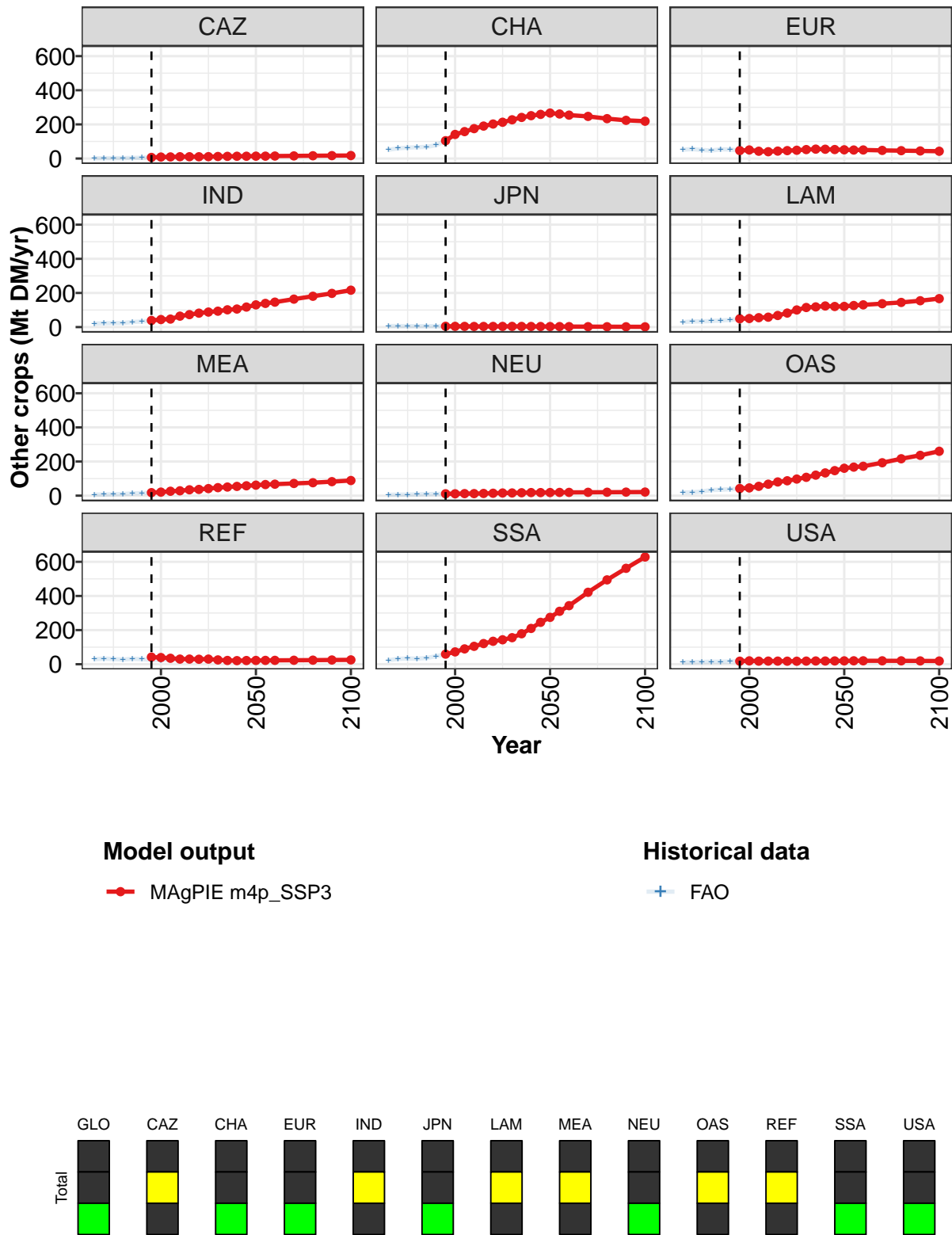


Figure 348: MAgPIE m4p_SSP3 — Production—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	440	508	552	613	687	747	810	873	940	1008	1076
CAZ	6	9	9	11	11	10	11	12	13	13	14
CHA	104	141	158	175	190	202	213	227	241	251	259
EUR	47	50	43	40	44	46	49	52	55	54	53
IND	39	44	47	64	73	82	88	93	101	106	117
JPN	5	4	4	4	4	4	4	4	4	4	3
LAM	49	50	55	58	68	82	100	115	118	124	121
MEA	18	21	26	29	34	37	41	47	51	54	58
NEU	11	11	12	12	13	14	16	16	17	18	18
OAS	42	46	55	67	80	87	97	108	120	133	147
REF	42	39	35	30	30	29	30	25	22	21	22
SSA	59	72	90	105	121	135	143	156	179	210	246
USA	18	20	18	18	18	18	18	18	19	19	19

Table 1380: MAgPIE m4p_SSP3 — Production—Crops—Other crops (Mt DM/yr) [PART 1/2]

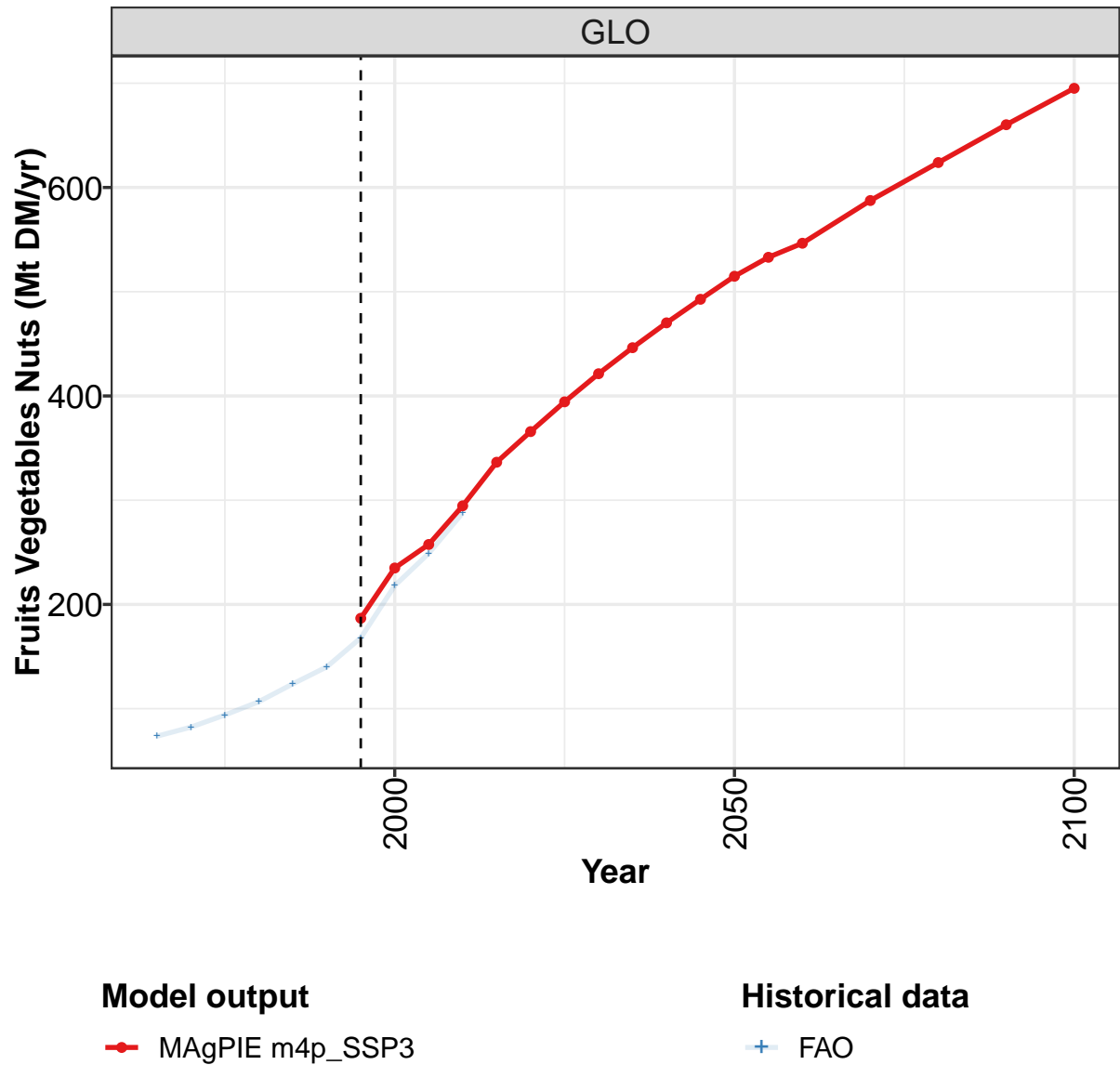
	2050	2055	2060	2070	2080	2090	2100
GLO	1144	1198	1244	1363	1474	1585	1706
CAZ	14	14	15	15	16	17	18
CHA	266	261	254	247	234	224	219
EUR	51	50	50	48	46	44	43
IND	130	139	146	164	181	198	216
JPN	3	3	3	3	2	2	2
LAM	121	126	130	137	145	155	167
MEA	62	65	67	72	76	82	89
NEU	18	19	19	20	20	21	21
OAS	161	167	172	193	216	236	260
REF	22	23	23	23	24	25	26
SSA	275	310	343	422	494	562	628
USA	20	20	20	20	20	19	19

Table 1381: MAgPIE m4p_SSP3 — Production—Crops—Other crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	254	288	295	305	339	371	418	490	543	606
CAZ	2	2	2	2	3	4	7	9	10	10
CHA	52	60	64	66	68	78	104	141	158	176
EUR	52	56	50	47	54	53	46	49	42	40
IND	21	22	23	24	30	33	39	44	47	65
JPN	6	6	6	6	6	5	5	4	4	4
LAM	29	33	33	35	38	42	48	51	55	58
MEA	6	7	8	10	13	15	17	20	25	27
NEU	5	6	6	7	9	10	10	11	12	12
OAS	19	20	24	33	35	38	40	45	53	65
REF	29	33	30	28	32	30	25	24	28	24
SSA	24	32	34	32	37	47	59	72	90	107
USA	11	12	13	14	15	16	18	20	18	18

Table 1382: FAO — Production—Crops—Other crops (Mt DM/yr)

44.3.1 Fruits Vegetables Nuts



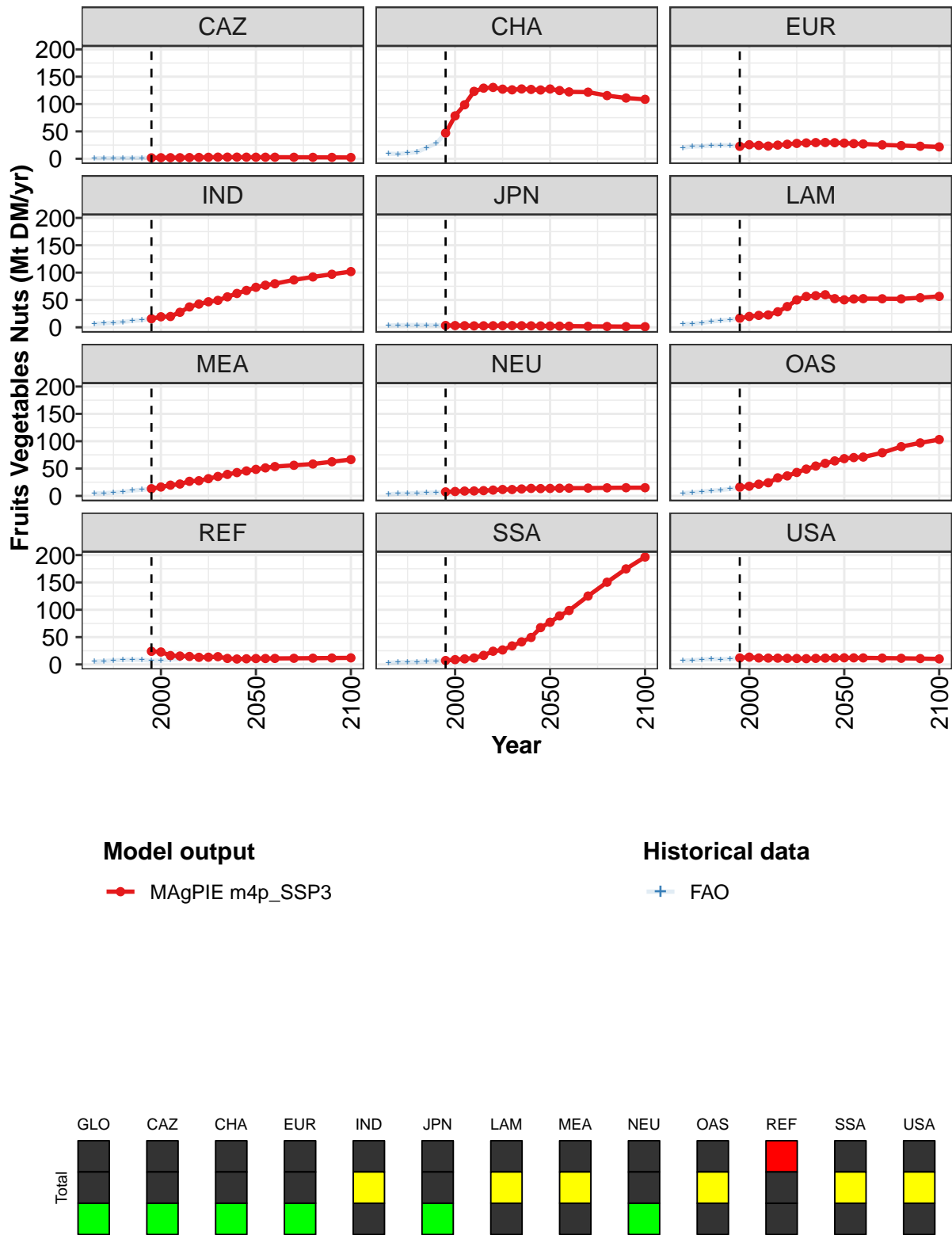


Figure 349: MAgPIE m4p_SSP3 — Production—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	187	235	258	295	336	366	394	421	446	470	493
CAZ	2	2	2	2	2	2	3	3	3	3	3
CHA	47	78	99	123	129	130	127	126	128	127	126
EUR	23	26	24	23	25	27	28	29	30	30	29
IND	16	19	20	27	37	42	47	49	56	62	67
JPN	3	3	3	3	3	3	3	3	3	3	3
LAM	17	20	22	23	28	38	50	56	58	60	52
MEA	13	16	20	22	27	28	31	35	39	43	46
NEU	7	8	9	9	10	11	12	12	13	14	13
OAS	16	18	21	24	33	37	43	49	55	59	64
REF	24	23	16	15	15	13	13	14	11	10	10
SSA	7	9	10	12	17	24	27	34	41	49	67
USA	12	13	12	12	12	11	11	11	11	12	12

Table 1383: MAgPIE m4p-SSP3 — Production—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)
[PART 1/2]

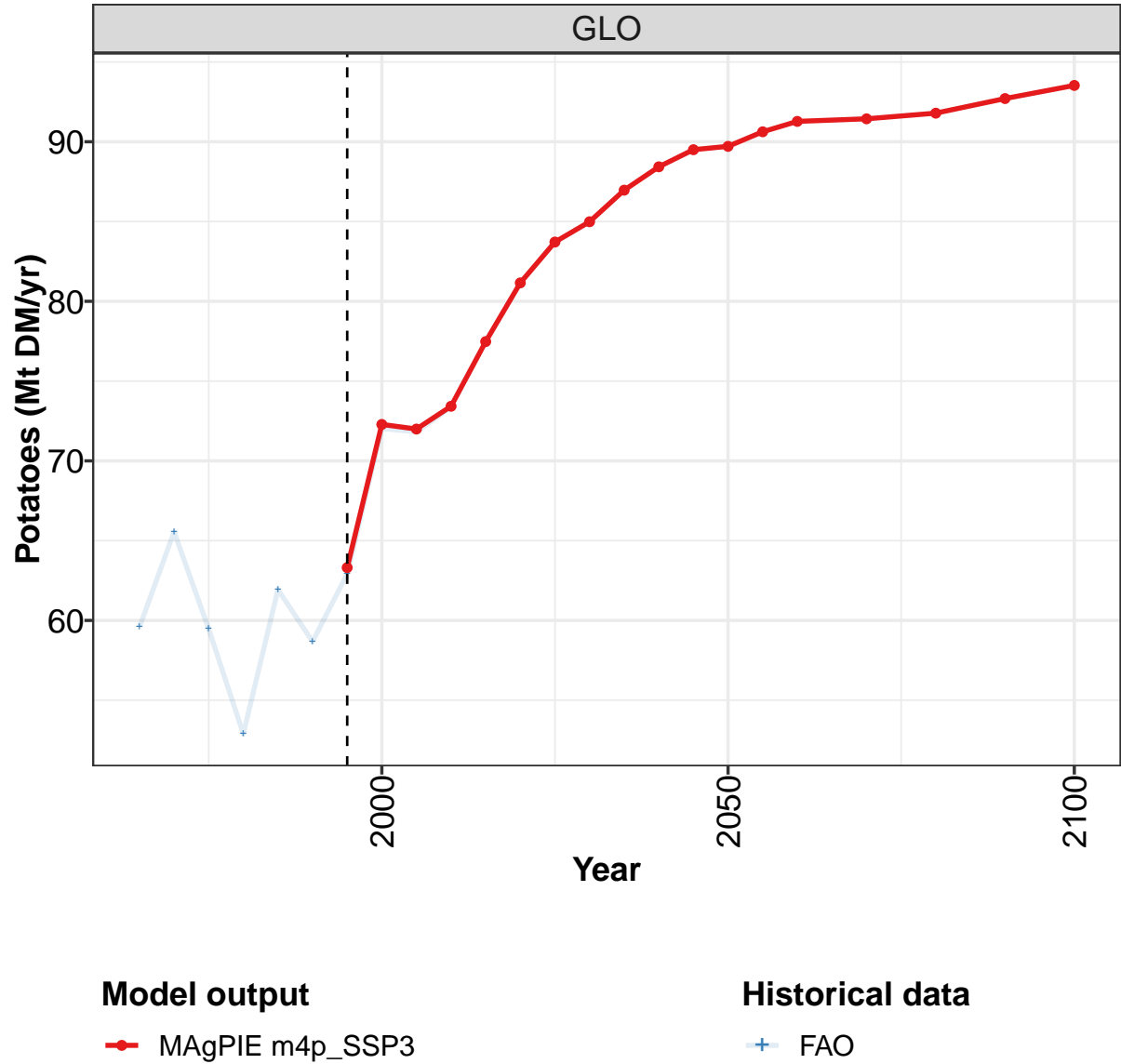
	2050	2055	2060	2070	2080	2090	2100
GLO	515	533	547	587	624	660	695
CAZ	3	3	3	3	3	2	2
CHA	128	125	122	122	115	111	109
EUR	29	28	27	25	24	23	22
IND	73	77	80	87	92	97	102
JPN	2	2	2	2	1	1	1
LAM	50	52	52	52	52	54	57
MEA	48	51	54	56	58	62	66
NEU	14	14	14	14	15	15	15
OAS	68	70	71	79	90	97	103
REF	11	11	11	11	11	12	12
SSA	77	89	99	125	150	175	196
USA	12	12	12	12	11	11	10

Table 1384: MAgPIE m4p-SSP3 — Production—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	74	82	94	107	124	140	168	218	249	288
CAZ	1	1	1	1	1	1	2	2	2	2
CHA	9	9	10	12	20	28	47	78	98	123
EUR	20	23	23	24	25	25	23	26	24	23
IND	6	7	8	10	12	13	16	19	20	28
JPN	3	4	4	4	4	4	3	3	3	3
LAM	6	7	8	10	12	14	17	20	22	23
MEA	4	5	6	7	10	11	13	16	19	21
NEU	3	4	4	5	6	6	7	8	8	9
OAS	5	6	8	10	11	13	16	18	21	23
REF	5	6	7	8	9	8	7	7	9	10
SSA	3	4	4	5	5	6	7	9	10	12
USA	7	8	9	10	9	10	12	13	12	12

Table 1385: FAO — Production—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

44.3.2
Potatoes



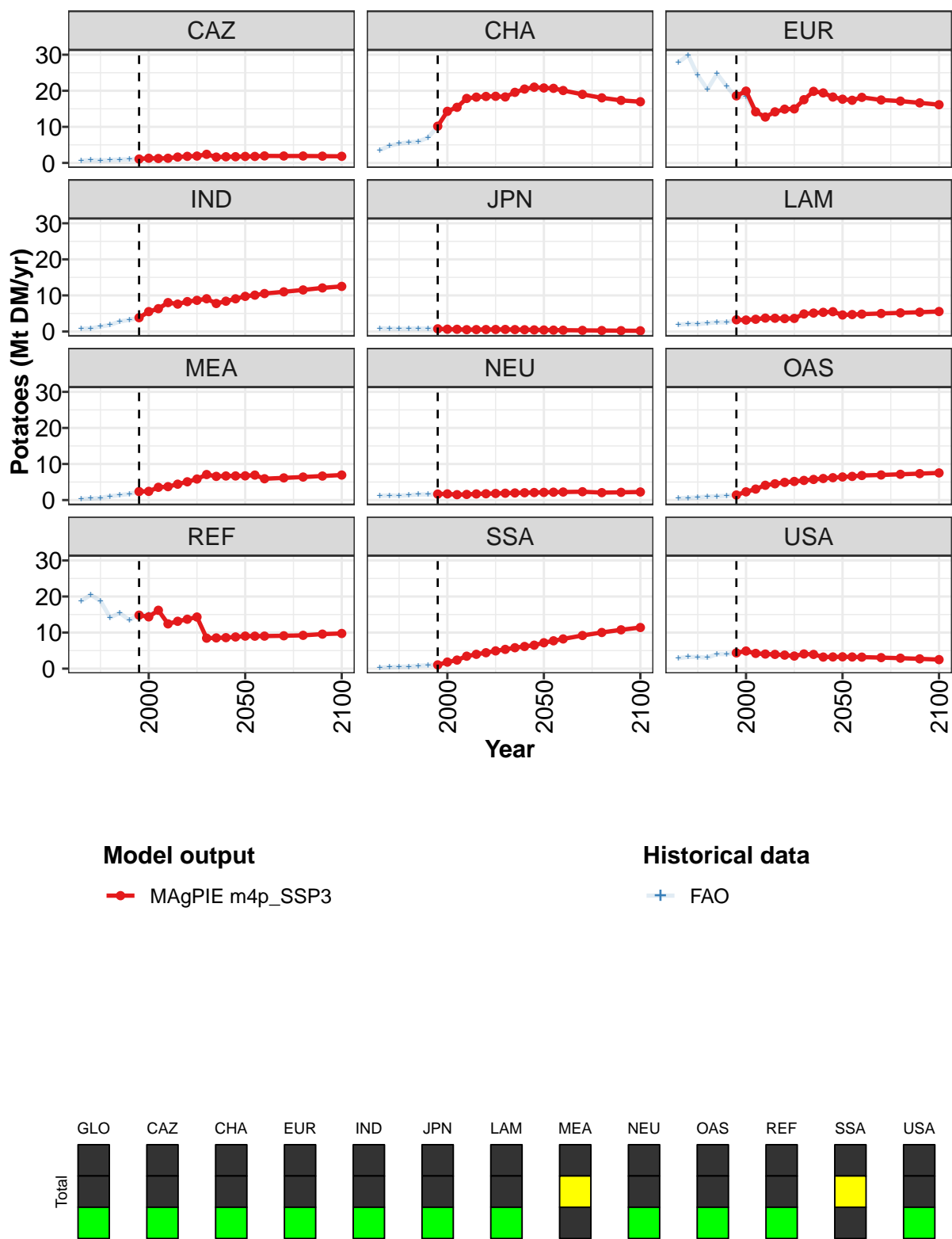


Figure 350: MAgPIE m4p_SSP3 — Production—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	63.3	72.3	72.0	73.4	77.5	81.2	83.7	85.0	87.0	88.4	89.5
CAZ	1.1	1.3	1.2	1.3	1.6	1.8	1.9	2.4	1.6	1.7	1.7
CHA	10.2	14.3	15.4	17.9	18.2	18.4	18.5	18.3	19.6	20.5	21.0
EUR	18.6	19.9	14.2	12.7	14.2	14.9	15.0	17.5	19.8	19.4	18.3
IND	3.8	5.5	6.3	8.0	7.6	8.3	8.6	9.1	7.8	8.4	9.1
JPN	0.7	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.4
LAM	3.2	3.2	3.4	3.7	3.7	3.6	3.6	4.9	5.1	5.3	5.5
MEA	2.4	2.4	3.5	3.7	4.4	5.1	5.8	7.1	6.6	6.7	6.7
NEU	1.7	1.7	1.5	1.6	1.7	1.8	1.8	1.9	2.0	2.0	2.1
OAS	1.4	2.3	3.0	4.1	4.5	4.9	5.2	5.4	5.7	6.0	6.2
REF	14.8	14.4	16.2	12.4	13.1	13.7	14.3	8.4	8.5	8.6	8.8
SSA	1.0	1.8	2.4	3.5	4.0	4.4	4.9	5.3	5.8	6.1	6.5
USA	4.4	4.9	4.2	4.0	3.9	3.8	3.5	4.1	3.9	3.2	3.2

Table 1386: MAgPIE m4p_SSP3 — Production—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

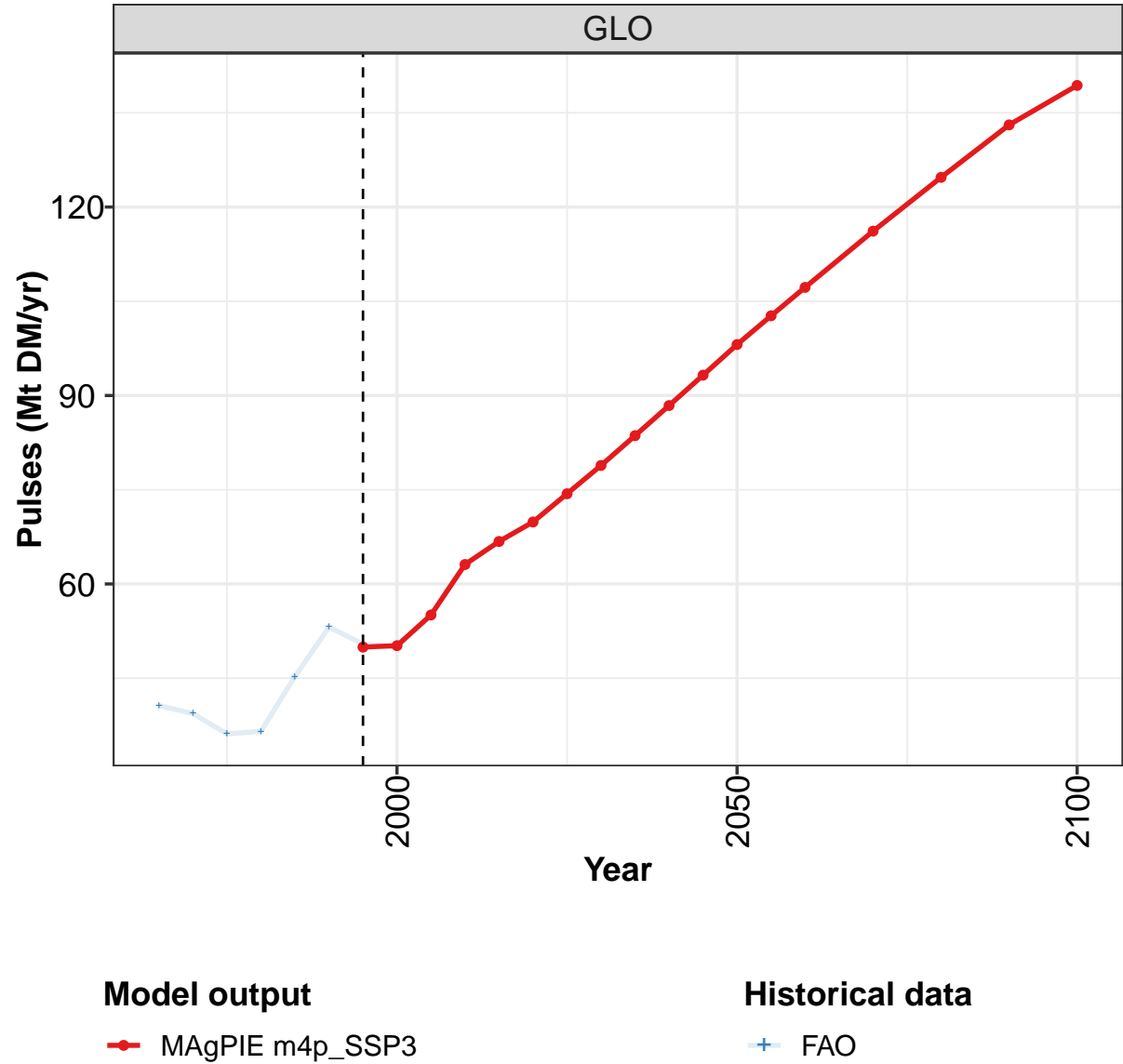
	2050	2055	2060	2070	2080	2090	2100
GLO	89.7	90.6	91.3	91.4	91.8	92.7	93.5
CAZ	1.8	1.8	1.9	1.9	1.9	1.9	1.8
CHA	20.8	20.7	20.1	19.0	18.0	17.3	17.0
EUR	17.7	17.4	18.2	17.5	17.1	16.6	16.1
IND	9.7	10.1	10.5	11.0	11.5	12.1	12.5
JPN	0.4	0.4	0.4	0.3	0.3	0.2	0.2
LAM	4.6	4.7	4.8	5.0	5.2	5.3	5.5
MEA	6.7	6.9	5.9	6.1	6.4	6.7	6.9
NEU	2.1	2.2	2.2	2.3	2.1	2.1	2.2
OAS	6.4	6.6	6.8	7.0	7.1	7.3	7.5
REF	9.0	9.0	9.0	9.1	9.2	9.6	9.7
SSA	7.2	7.7	8.2	9.2	10.0	10.8	11.4
USA	3.3	3.2	3.2	3.1	2.9	2.7	2.5

Table 1387: MAgPIE m4p_SSP3 — Production—Crops—Other crops—Potatoes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	59.6	65.6	59.5	52.9	61.9	58.7	62.9	72.0	71.8	73.4
CAZ	0.6	0.8	0.7	0.8	0.9	1.0	1.2	1.4	1.4	1.4
CHA	3.5	4.7	5.4	5.7	5.9	7.0	10.1	14.6	15.6	18.0
EUR	27.9	29.8	24.3	20.4	24.7	21.2	17.9	18.5	13.8	12.6
IND	0.8	0.9	1.4	1.8	2.8	3.2	3.8	5.5	6.3	8.0
JPN	0.9	0.8	0.7	0.8	0.8	0.8	0.7	0.6	0.6	0.5
LAM	1.9	2.1	2.0	2.3	2.6	2.5	3.2	3.1	3.4	3.7
MEA	0.4	0.4	0.6	1.1	1.4	1.7	2.3	2.4	3.5	3.6
NEU	1.2	1.3	1.2	1.4	1.6	1.5	1.6	1.7	1.5	1.6
OAS	0.5	0.6	0.7	1.0	1.0	1.2	1.4	2.3	3.1	4.1
REF	18.8	20.5	18.8	14.2	15.4	13.4	15.0	14.9	16.0	12.4
SSA	0.3	0.4	0.5	0.6	0.8	1.0	1.0	1.8	2.4	3.5
USA	2.9	3.3	3.2	3.0	4.1	4.0	4.4	5.1	4.2	4.0

Table 1388: FAO — Production—Crops—Other crops—Potatoes (Mt DM/yr)

44.3.3
Pulses



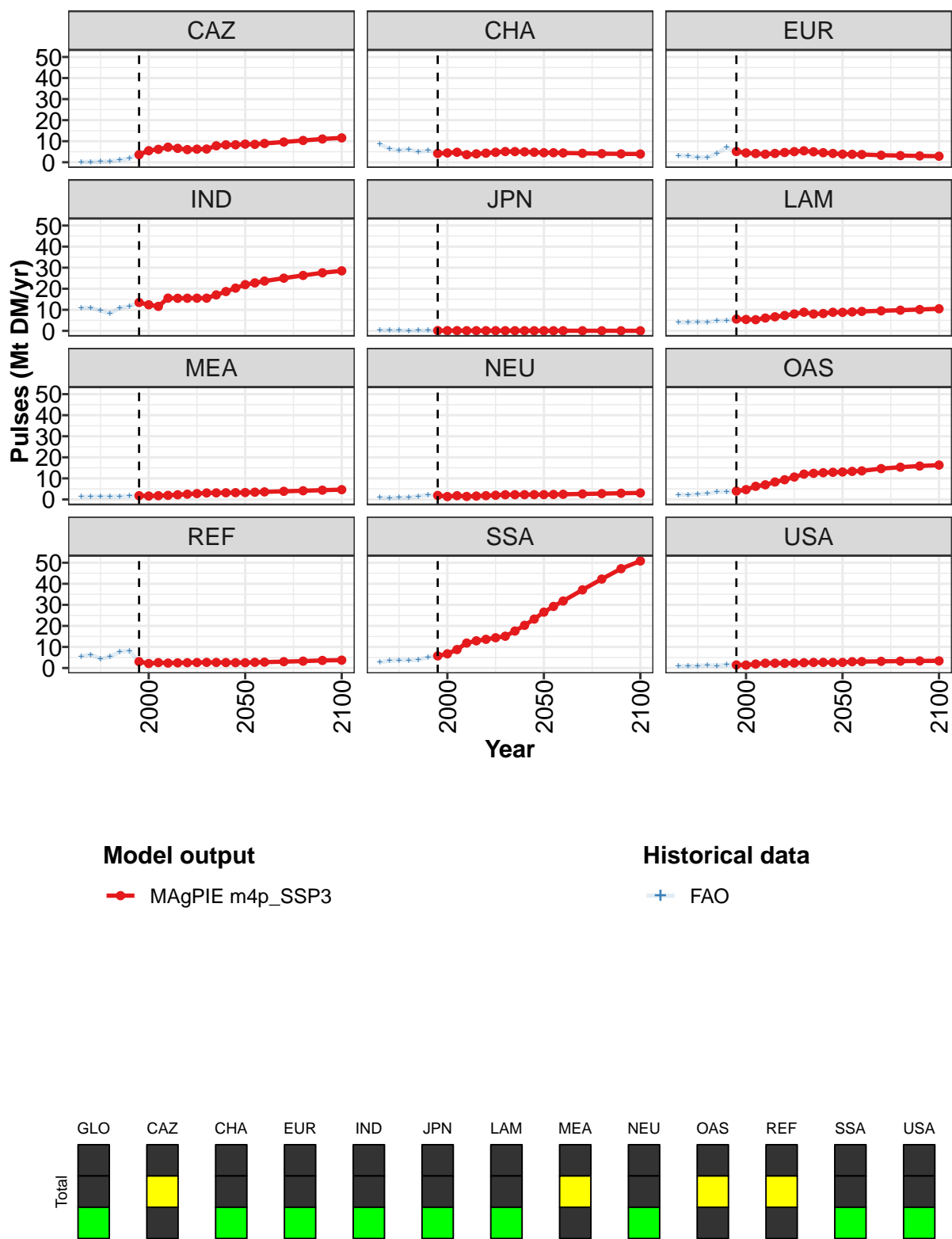


Figure 351: MAgPIE m4p_SSP3 — Production—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	50	50	55	63	67	70	74	79	84	88	93
CAZ	4	6	6	7	7	6	6	6	8	8	8
CHA	4	4	5	4	4	4	5	5	5	5	5
EUR	5	4	4	4	4	5	5	5	5	5	4
IND	13	12	12	16	15	15	16	16	17	19	20
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	6	5	5	6	7	7	8	9	8	8	9
MEA	2	2	2	2	2	2	3	3	3	3	3
NEU	2	1	2	1	2	2	2	2	2	2	2
OAS	4	5	6	7	8	9	11	12	12	13	13
REF	3	2	3	2	2	3	3	3	3	3	3
SSA	6	7	9	12	13	14	14	15	18	20	23
USA	1	1	2	2	2	2	2	3	3	3	3

Table 1389: MAgPIE m4p_SSP3 — Production—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

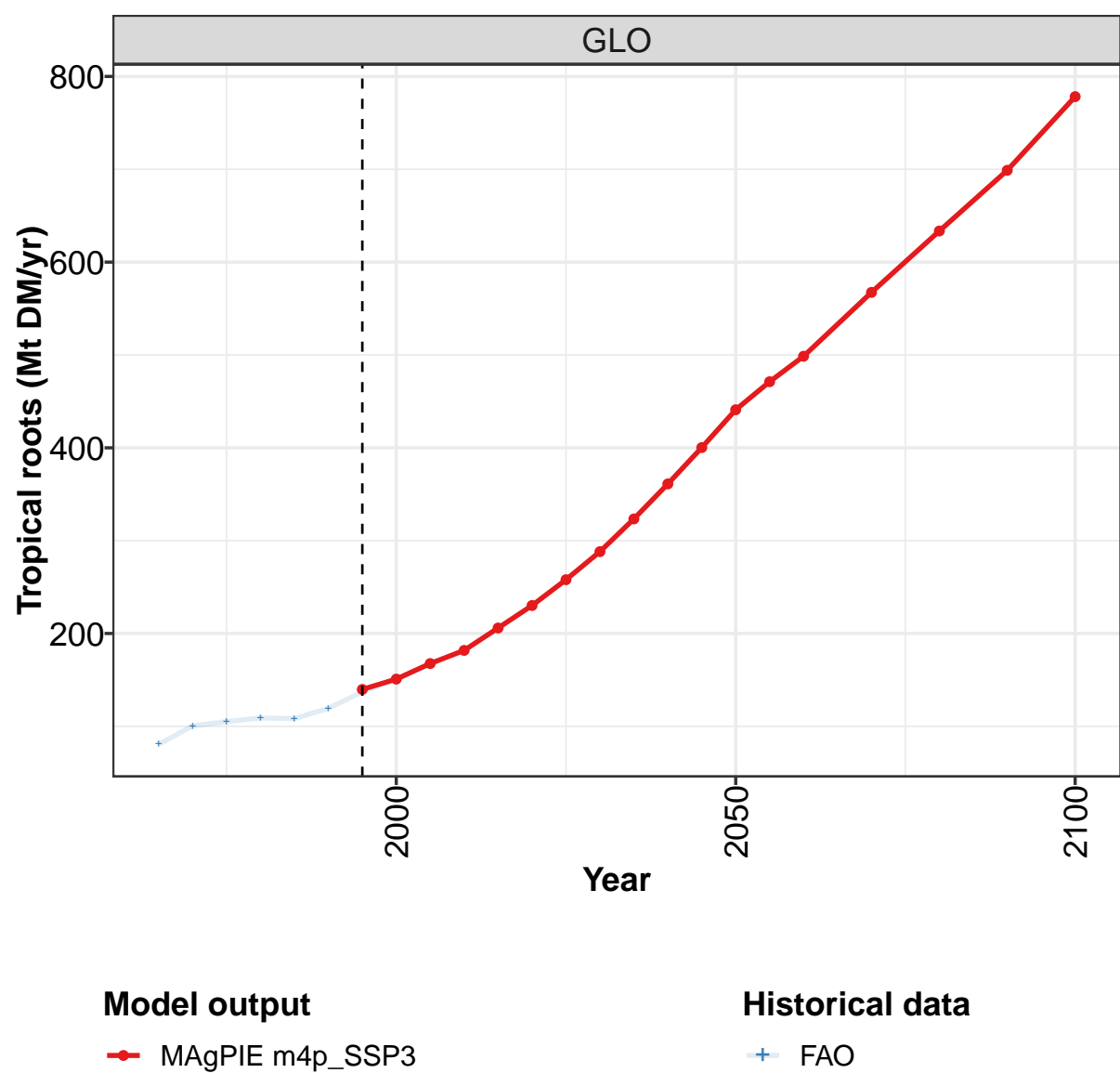
	2050	2055	2060	2070	2080	2090	2100
GLO	98	103	107	116	125	133	139
CAZ	9	9	9	10	10	11	12
CHA	5	5	4	4	4	4	4
EUR	4	4	4	3	3	3	3
IND	22	23	24	25	26	28	29
JPN	0	0	0	0	0	0	0
LAM	9	9	9	10	10	10	10
MEA	3	3	4	4	4	4	5
NEU	2	2	2	3	3	3	3
OAS	13	13	14	15	15	16	16
REF	3	3	3	3	3	4	4
SSA	27	29	32	37	42	47	51
USA	3	3	3	3	3	3	3

Table 1390: MAgPIE m4p_SSP3 — Production—Crops—Other crops—Pulses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	40.7	39.4	36.1	36.5	45.3	53.1	50.4	50.0	55.0	63.3
CAZ	0.1	0.2	0.3	0.4	1.1	1.8	4.3	6.1	6.5	6.7
CHA	8.6	6.3	5.6	6.1	5.0	5.6	4.1	4.3	4.7	3.5
EUR	3.2	3.0	2.3	2.3	4.2	7.0	5.0	4.4	4.1	3.8
IND	10.9	11.0	9.6	8.3	10.9	11.7	13.5	12.4	11.7	15.6
JPN	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	3.9	4.0	4.3	4.1	4.7	4.9	5.4	5.4	5.3	6.1
MEA	1.3	1.2	1.4	1.3	1.5	1.6	1.8	1.6	1.8	1.9
NEU	0.8	0.8	0.8	0.9	1.5	2.1	1.9	1.3	1.6	1.4
OAS	2.3	2.2	2.6	2.8	3.6	3.6	3.9	4.1	5.6	7.0
REF	5.6	6.3	4.4	5.3	7.8	8.1	3.1	2.0	2.7	2.4
SSA	2.8	3.4	3.7	3.7	3.8	5.1	5.8	6.8	8.9	12.5
USA	0.9	0.9	0.9	1.4	1.1	1.5	1.6	1.4	1.9	2.4

Table 1391: FAO — Production—Crops—Other crops—Pulses (Mt DM/yr)

44.3.4
Tropical roots



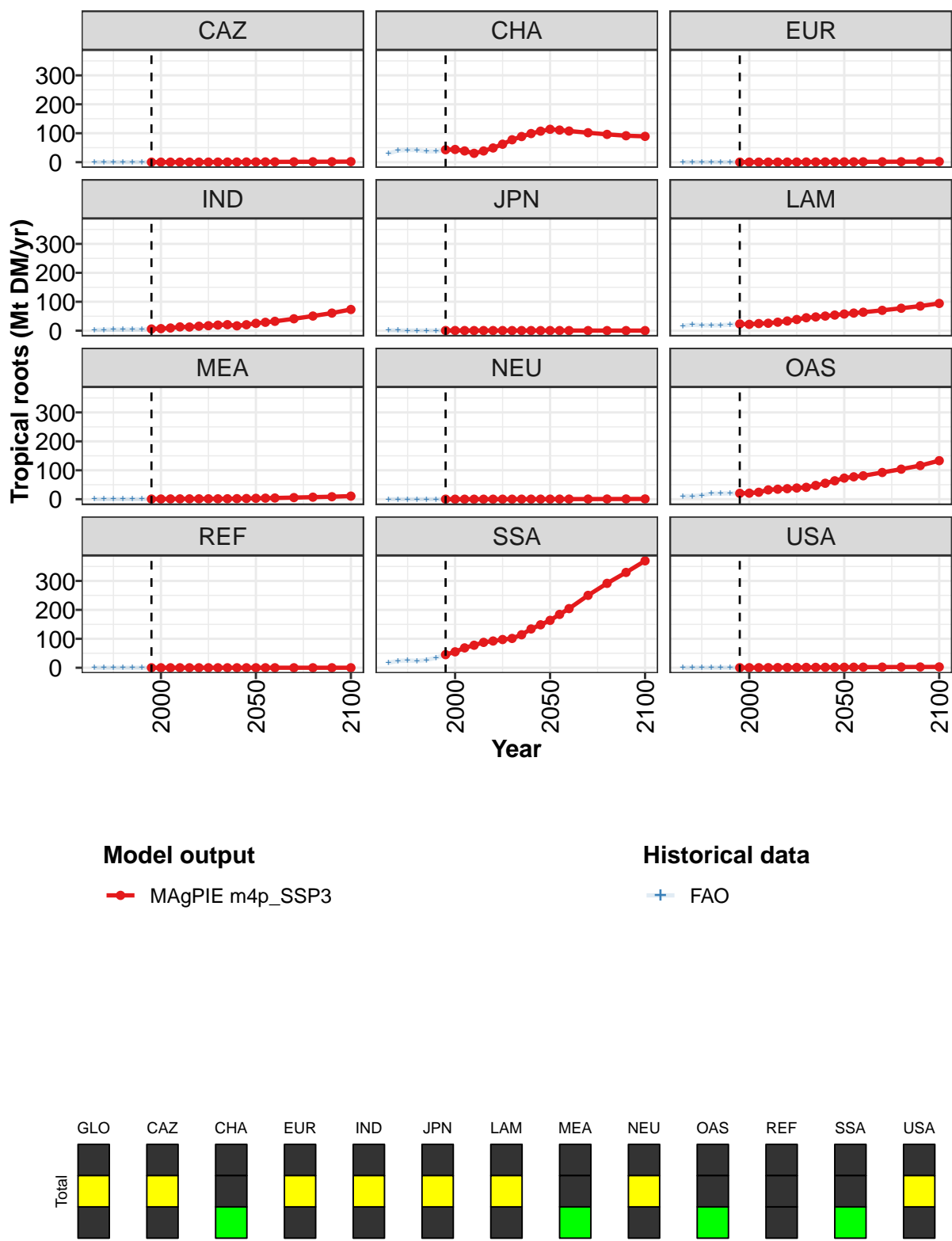


Figure 352: MAgPIE m4p_SSP3 — Production—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	140	151	168	182	206	230	258	288	323	361	400
CAZ	0	0	0	0	0	0	0	0	0	1	1
CHA	43	44	39	31	39	49	62	77	89	99	107
EUR	0	0	0	0	0	0	0	1	1	1	1
IND	6	7	9	13	13	16	17	19	21	17	21
JPN	1	1	1	0	0	0	0	0	0	0	0
LAM	23	22	25	26	29	34	39	45	48	51	54
MEA	1	1	1	1	1	1	1	1	2	2	2
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	20	21	24	32	35	36	39	41	48	55	64
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	45	55	69	78	88	92	98	101	114	134	148
USA	0	0	0	0	1	1	1	1	1	1	2

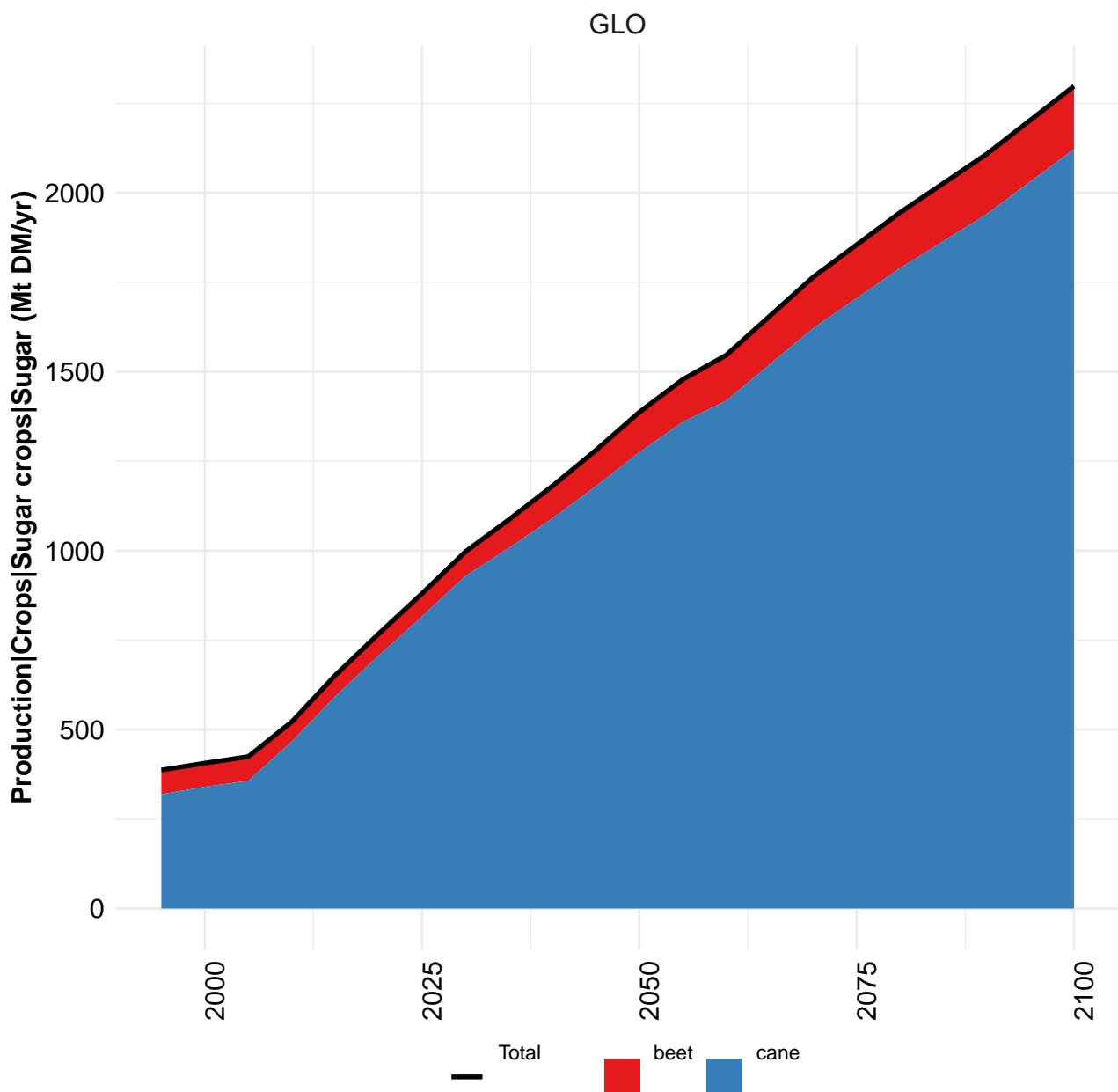
Table 1392: MAgPIE m4p_SSP3 — Production—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 1/2]

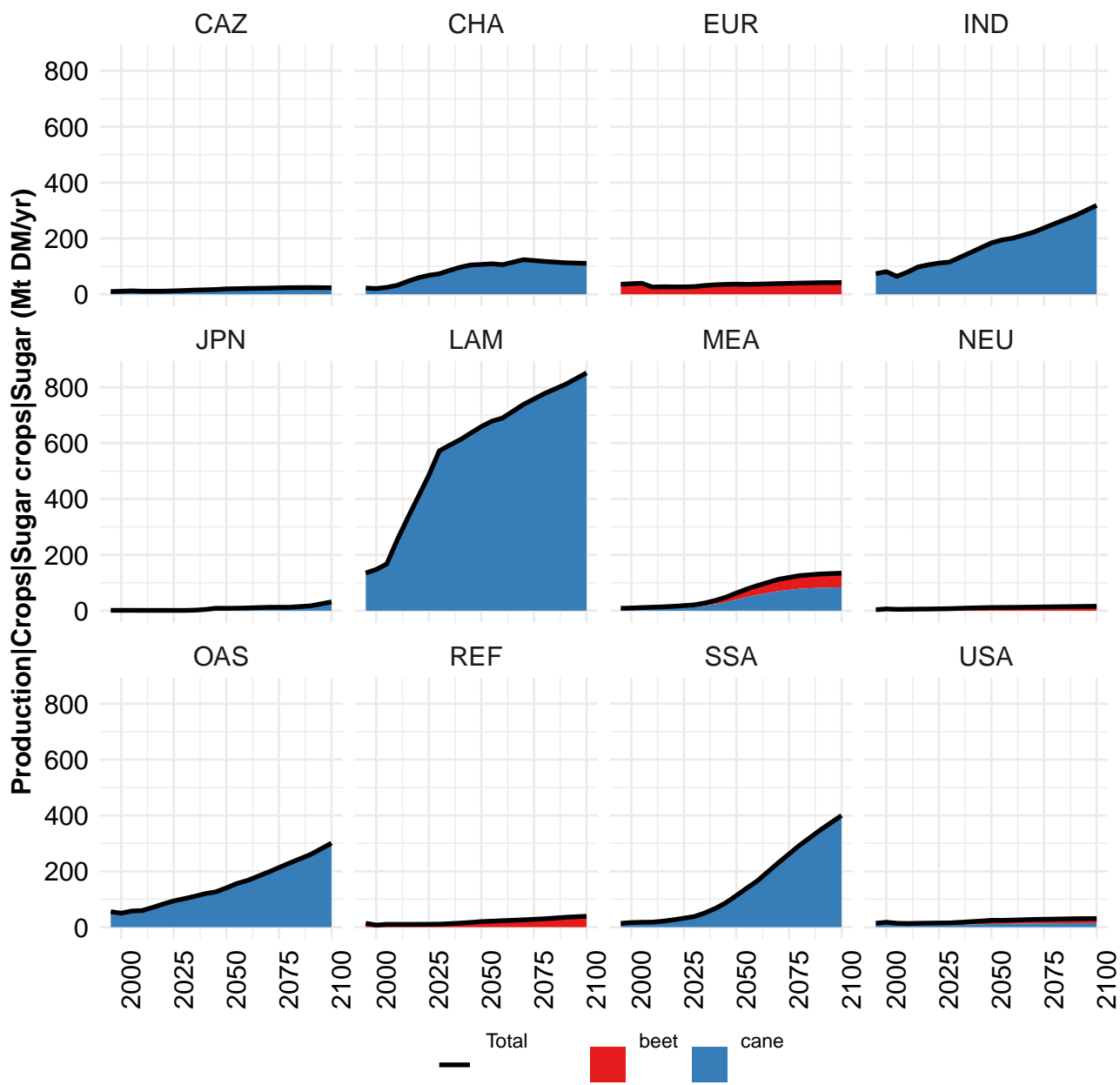
	2050	2055	2060	2070	2080	2090	2100
GLO	441	471	499	567	634	699	778
CAZ	1	1	1	1	1	2	2
CHA	114	111	108	102	96	91	89
EUR	1	1	1	1	2	2	2
IND	25	29	32	41	51	61	73
JPN	0	0	0	0	0	0	0
LAM	58	61	64	70	78	85	94
MEA	3	4	4	6	7	9	11
NEU	0	0	0	1	1	1	1
OAS	73	77	81	92	104	116	133
REF	0	0	0	0	0	0	0
SSA	164	184	204	250	292	329	369
USA	2	2	2	2	2	3	3

Table 1393: MAgPIE m4p_SSP3 — Production—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 2/2]

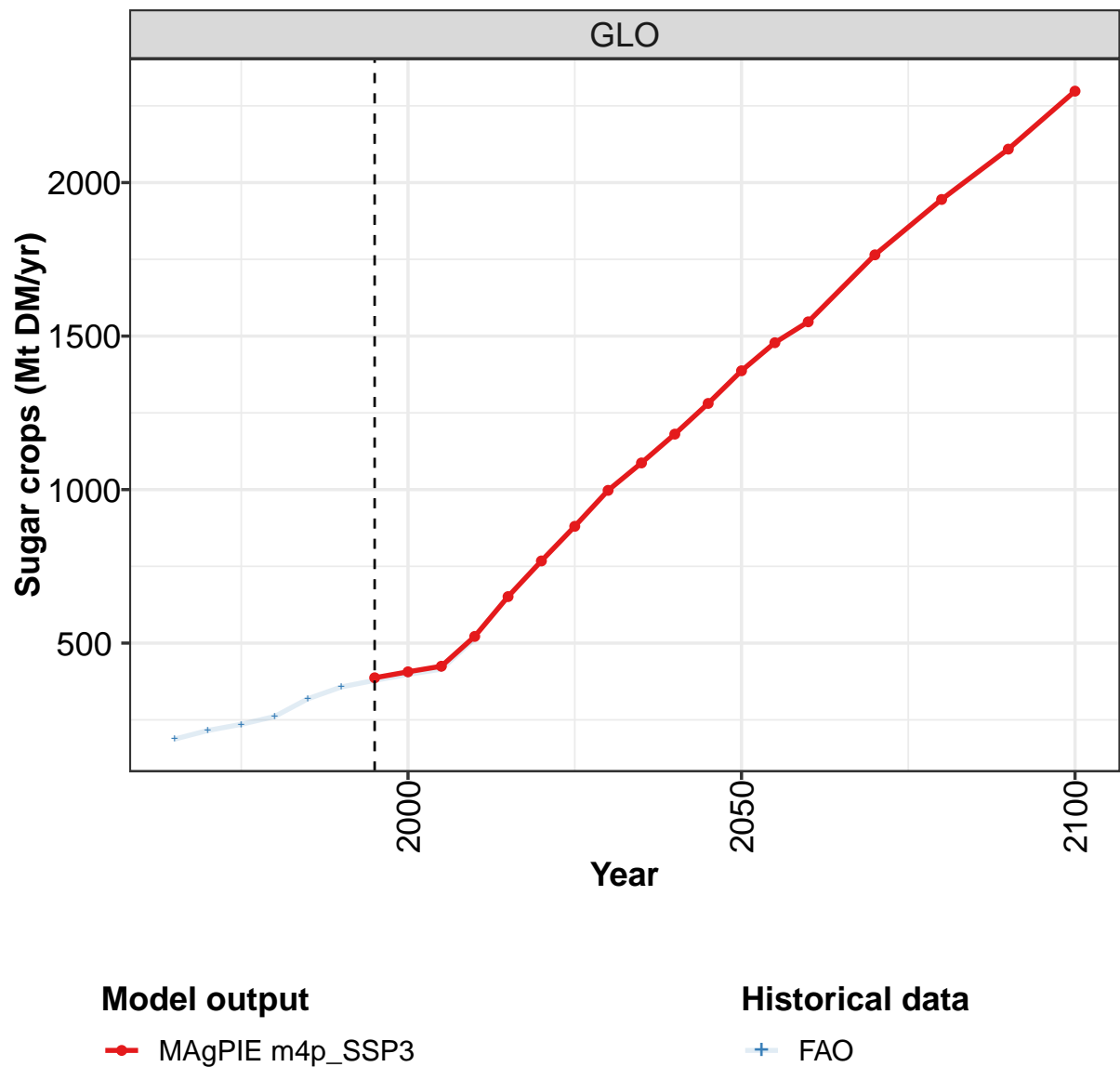
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	81	101	105	109	108	119	137	150	167	181
CAZ	0	0	0	0	0	0	0	0	0	0
CHA	30	40	42	42	37	38	43	44	39	31
EUR	0	0	0	0	0	0	0	0	0	0
IND	3	3	4	4	4	5	6	7	9	13
JPN	2	1	1	1	1	1	1	1	1	0
LAM	17	20	19	19	19	21	22	22	25	25
MEA	0	0	0	0	0	0	0	1	1	1
NEU	0	0	0	0	0	0	0	0	0	0
OAS	11	11	13	20	20	20	19	21	24	31
REF	0	0	0	0	0	0	0	0	0	0
SSA	17	24	25	24	27	35	45	55	68	79
USA	0	0	0	0	0	0	0	0	0	0

Table 1394: FAO — Production—Crops—Other crops—Tropical roots (Mt DM/yr)





44.4 Sugar crops



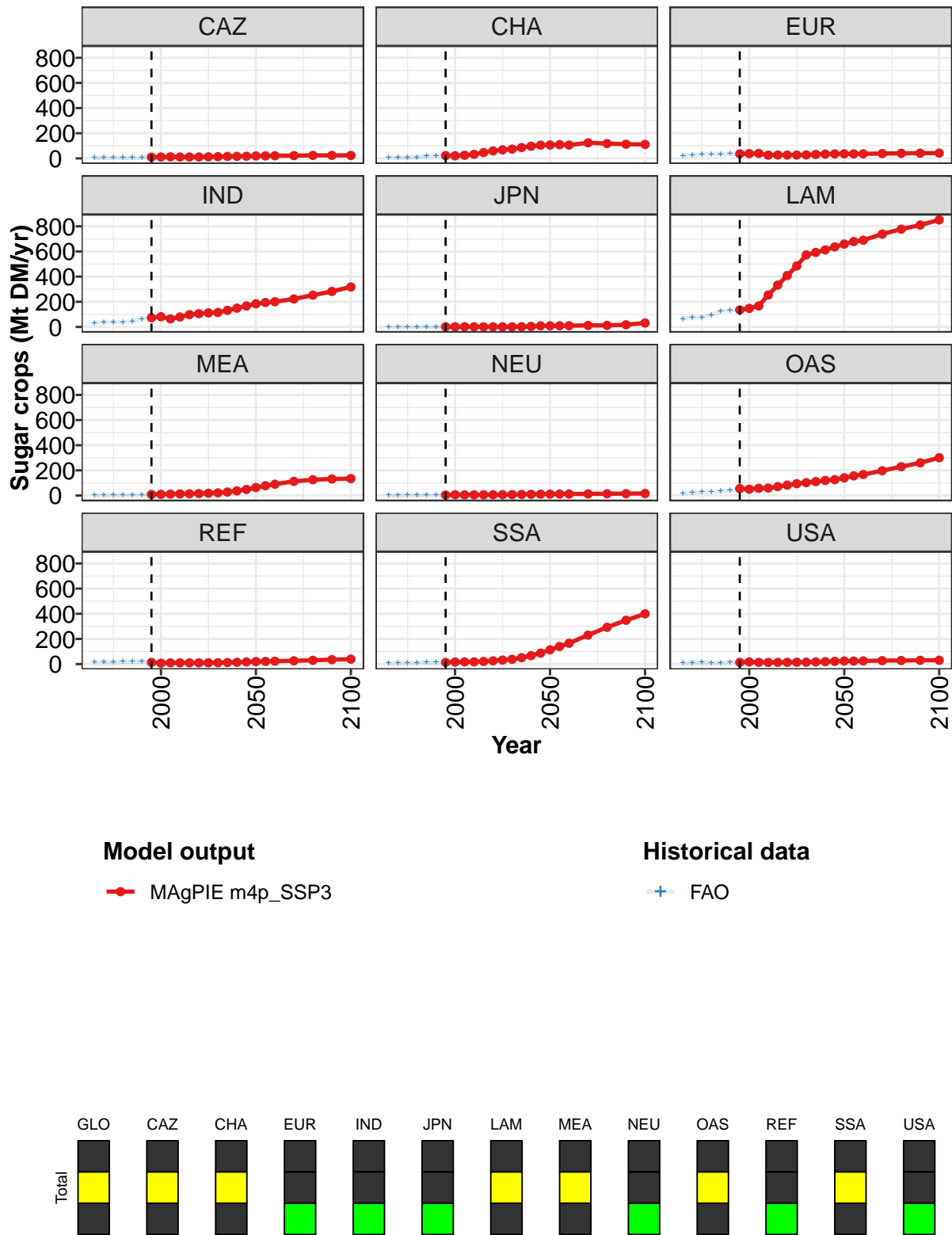


Figure 353: MAgPIE m4p_SSP3 — Production—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	387	406	425	522	651	768	880	997	1087	1181	1281
CAZ	10	11	12	11	11	11	12	14	15	16	17
CHA	22	21	25	32	47	59	68	73	86	97	105
EUR	36	38	40	26	27	27	27	27	31	34	36
IND	74	81	64	79	98	106	112	115	132	149	167
JPN	1	1	1	1	1	1	1	1	2	4	9
LAM	135	148	167	254	333	409	485	573	593	613	636
MEA	9	10	11	13	14	16	18	21	28	37	48
NEU	3	6	5	5	6	6	7	7	9	10	11
OAS	55	50	58	59	71	83	94	102	110	120	126
REF	14	7	10	10	10	10	10	11	12	14	17
SSA	13	16	17	18	21	26	32	38	51	67	87
USA	14	18	14	13	14	14	15	15	17	19	22

Table 1395: MAgPIE m4p-SSP3 — Production—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

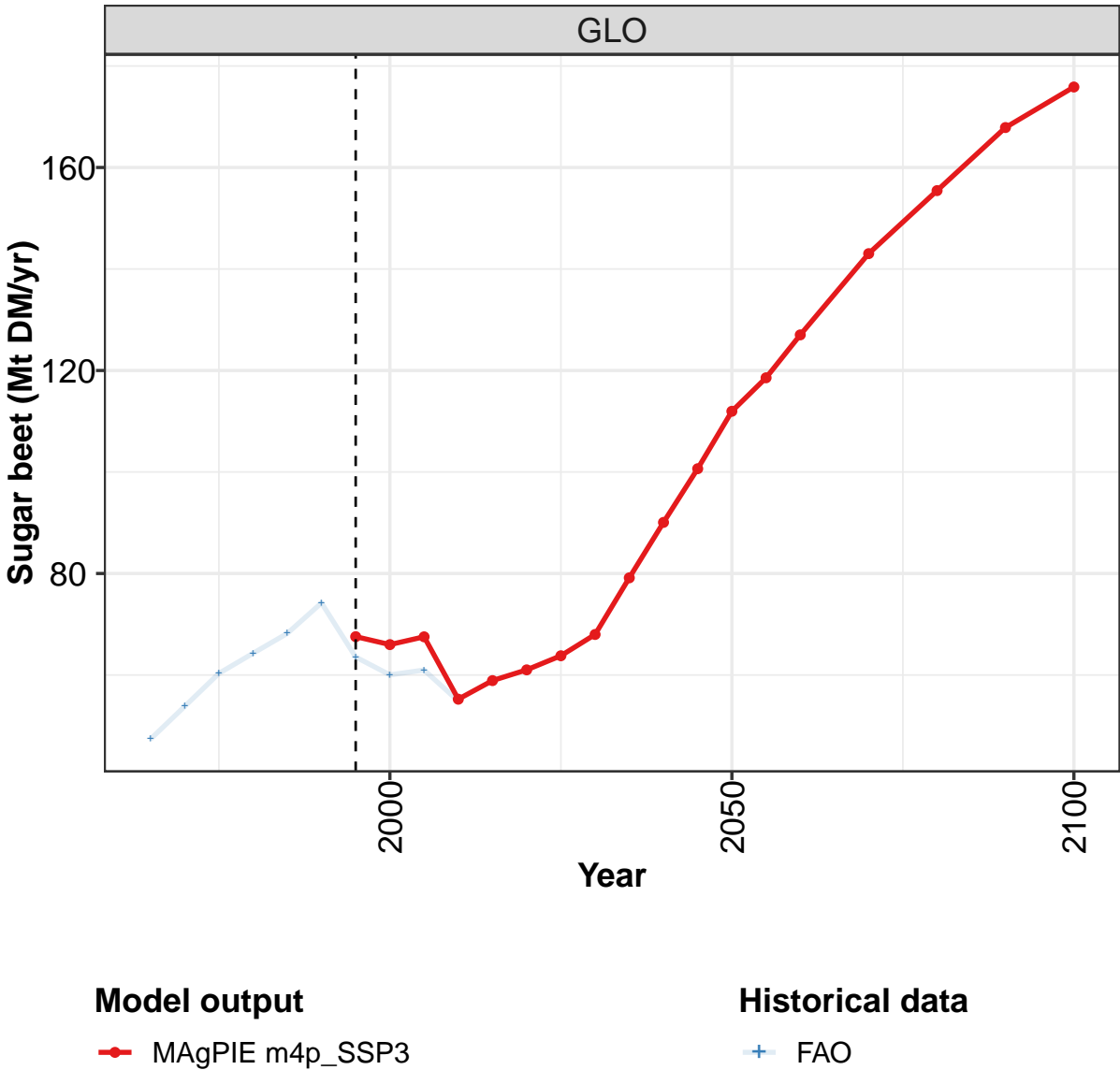
	2050	2055	2060	2070	2080	2090	2100
GLO	1387	1478	1547	1765	1945	2109	2298
CAZ	19	20	21	22	24	24	23
CHA	107	109	106	124	118	113	111
EUR	36	36	36	38	40	42	42
IND	184	195	201	222	253	282	318
JPN	9	9	10	12	12	17	31
LAM	659	679	690	739	778	810	851
MEA	63	78	90	112	126	131	134
NEU	11	12	12	13	14	15	16
OAS	140	156	167	197	229	260	301
REF	20	21	23	26	30	35	39
SSA	113	140	166	231	293	348	400
USA	24	24	25	28	29	30	31

Table 1396: MAgPIE m4p-SSP3 — Production—Crops—Sugar crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	187	215	235	261	319	357	379	398	415	515
CAZ	4	5	6	7	7	7	10	11	10	9
CHA	7	6	7	10	18	21	22	21	26	32
EUR	23	25	32	33	34	37	33	33	33	25
IND	33	36	39	35	46	61	74	81	64	79
JPN	1	1	1	1	2	1	1	1	1	1
LAM	64	75	77	96	123	134	137	146	172	254
MEA	2	4	5	5	7	7	9	9	11	12
NEU	1	2	3	3	4	5	3	5	5	5
OAS	18	22	27	29	34	39	49	50	52	57
REF	17	19	16	19	19	20	13	7	10	10
SSA	7	9	11	12	14	14	13	16	18	17
USA	10	11	13	12	12	13	14	18	14	14

Table 1397: FAO — Production—Crops—Sugar crops (Mt DM/yr)

44.4.1 Sugar beet



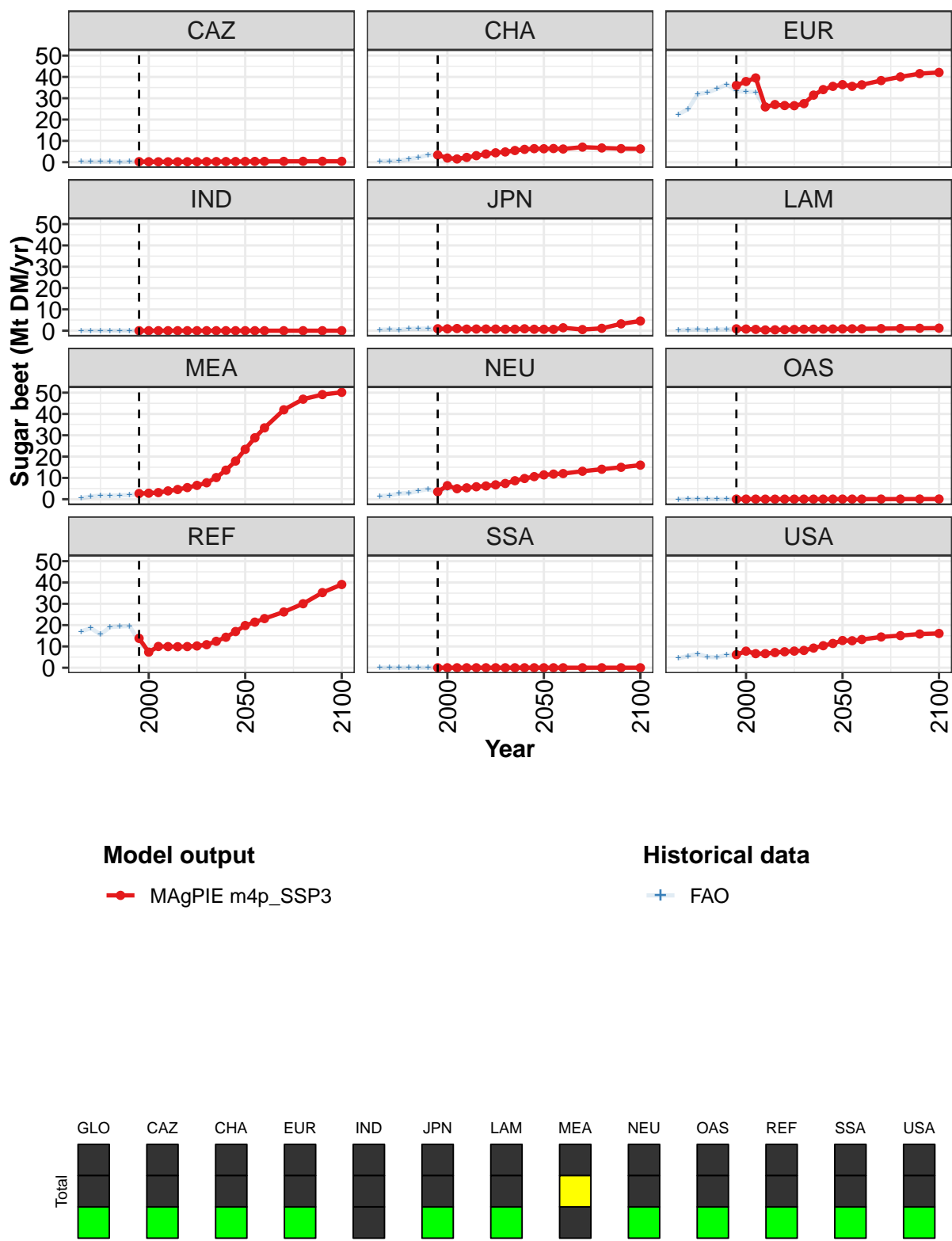


Figure 354: MAgPIE m4p_SSP3 — Production—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	68	66	68	55	59	61	64	68	79	90	101
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	3	2	2	2	3	4	4	5	5	6	6
EUR	36	38	40	26	27	27	27	27	31	34	36
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	1	1	1	0	0	0	1	1	1	1	1
MEA	3	3	3	4	5	5	6	8	10	14	18
NEU	3	6	5	5	6	6	7	7	9	10	11
OAS	0	0	0	0	0	0	0	0	0	0	0
REF	14	7	10	10	10	10	10	11	12	14	17
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	6	8	7	7	7	8	8	8	9	10	11

Table 1398: MAgPIE m4p_SSP3 — Production—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

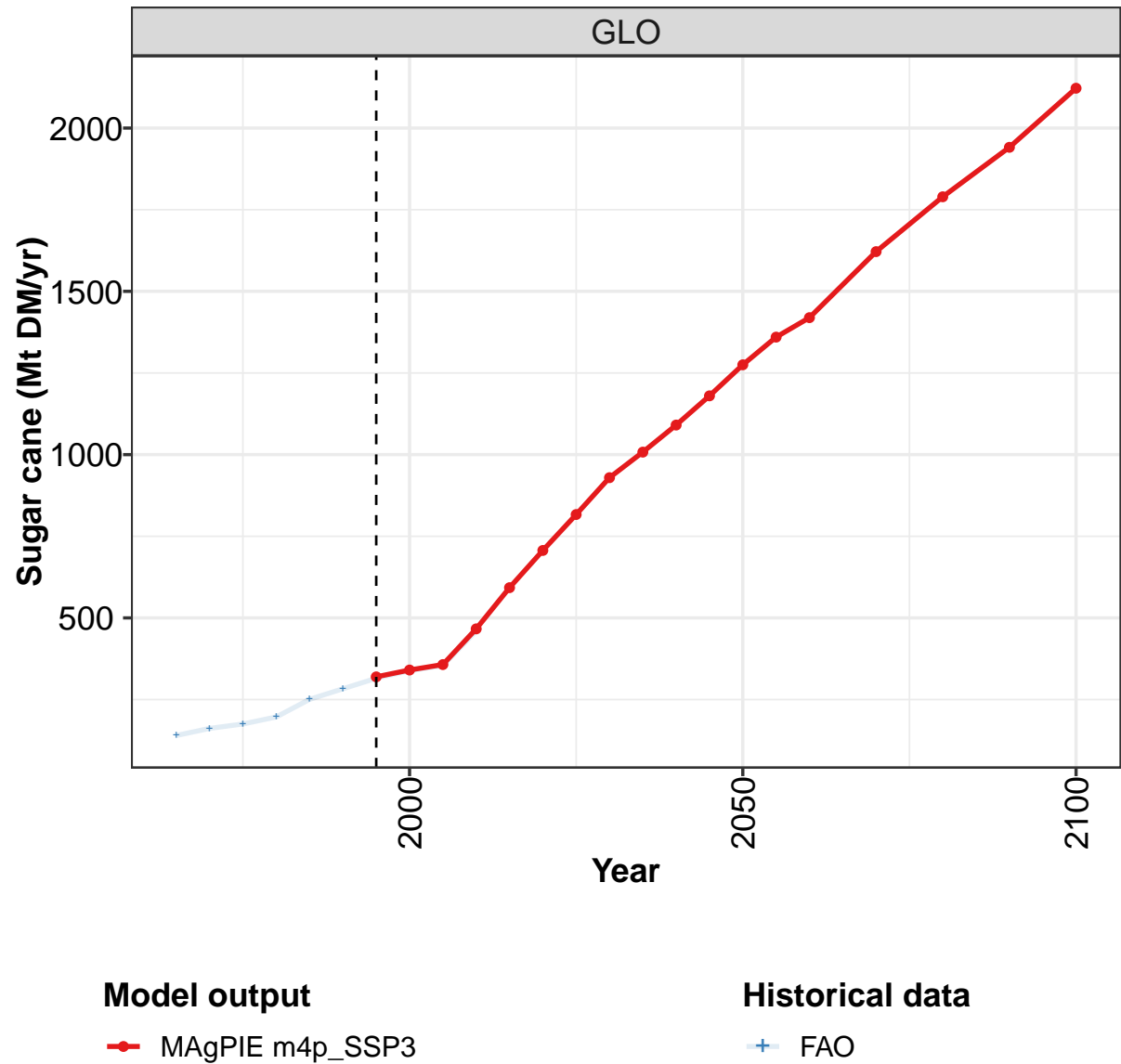
	2050	2055	2060	2070	2080	2090	2100
GLO	112	119	127	143	155	168	176
CAZ	0	0	0	0	0	0	0
CHA	6	6	6	7	7	6	6
EUR	36	36	36	38	40	42	42
IND	0	0	0	0	0	0	0
JPN	1	1	1	1	1	3	5
LAM	1	1	1	1	1	1	1
MEA	23	29	33	42	47	49	50
NEU	11	12	12	13	14	15	16
OAS	0	0	0	0	0	0	0
REF	20	21	23	26	30	35	39
SSA	0	0	0	0	0	0	0
USA	13	13	13	14	15	16	16

Table 1399: MAgPIE m4p_SSP3 — Production—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	47.4	53.8	60.3	64.3	68.2	74.2	63.5	60.0	61.0	54.9
CAZ	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1
CHA	0.5	0.5	0.6	1.5	2.1	3.5	3.4	1.9	1.9	2.2
EUR	22.5	24.9	32.0	32.7	34.4	36.5	33.4	33.1	32.8	25.2
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.4	0.6	0.4	0.9	0.9	1.0	0.9	0.9	1.0	0.7
LAM	0.3	0.5	0.5	0.2	0.6	0.6	0.9	0.7	0.6	0.4
MEA	0.5	1.3	1.7	1.6	1.8	2.0	2.7	2.8	3.1	3.8
NEU	1.4	1.7	2.7	2.9	3.9	4.8	3.3	5.1	4.7	5.4
OAS	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0
REF	17.0	18.6	15.6	19.1	19.4	19.6	12.6	7.4	10.0	9.9
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	4.5	5.5	6.5	5.1	4.9	6.0	6.1	7.8	6.6	7.0

Table 1400: FAO — Production—Crops—Sugar crops—Sugar beet (Mt DM/yr)

44.4.2 Sugar cane



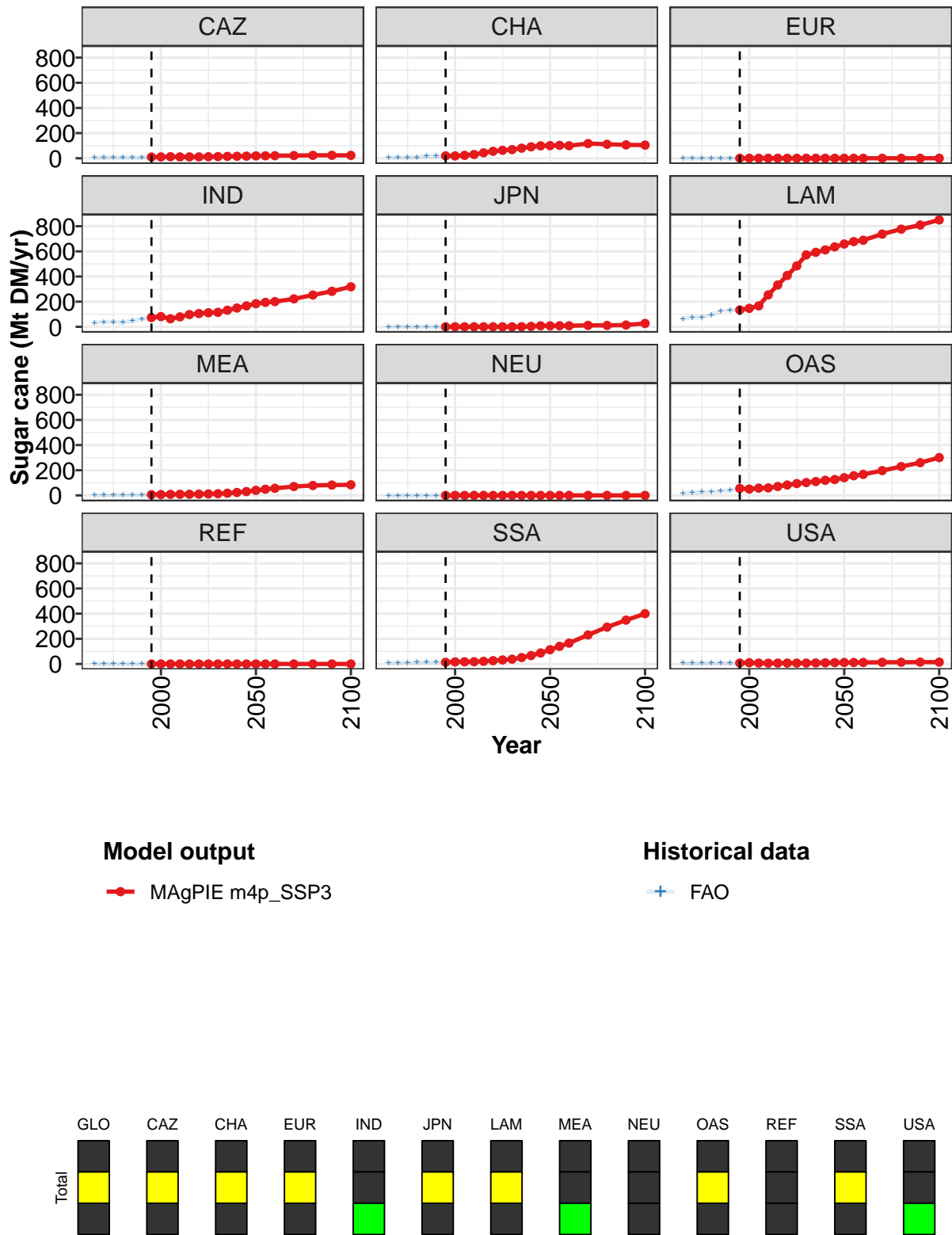


Figure 355: MAgPIE m4p_SSP3 — Production—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	319	340	357	467	593	707	817	930	1008	1091	1180
CAZ	10	11	12	11	11	11	12	13	15	16	17
CHA	19	19	23	30	43	55	64	69	80	91	99
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	74	81	64	79	98	106	112	115	132	149	167
JPN	0	0	0	0	0	0	0	0	1	4	8
LAM	134	147	167	254	332	408	484	572	592	612	636
MEA	6	7	8	9	9	10	12	13	17	23	30
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	55	50	58	59	71	83	94	102	110	120	126
REF	0	0	0	0	0	0	0	0	0	0	0
SSA	13	16	17	18	21	26	32	38	51	67	87
USA	8	10	7	6	7	7	7	7	8	9	10

Table 1401: MAgPIE m4p_SSP3 — Production—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 1/2]

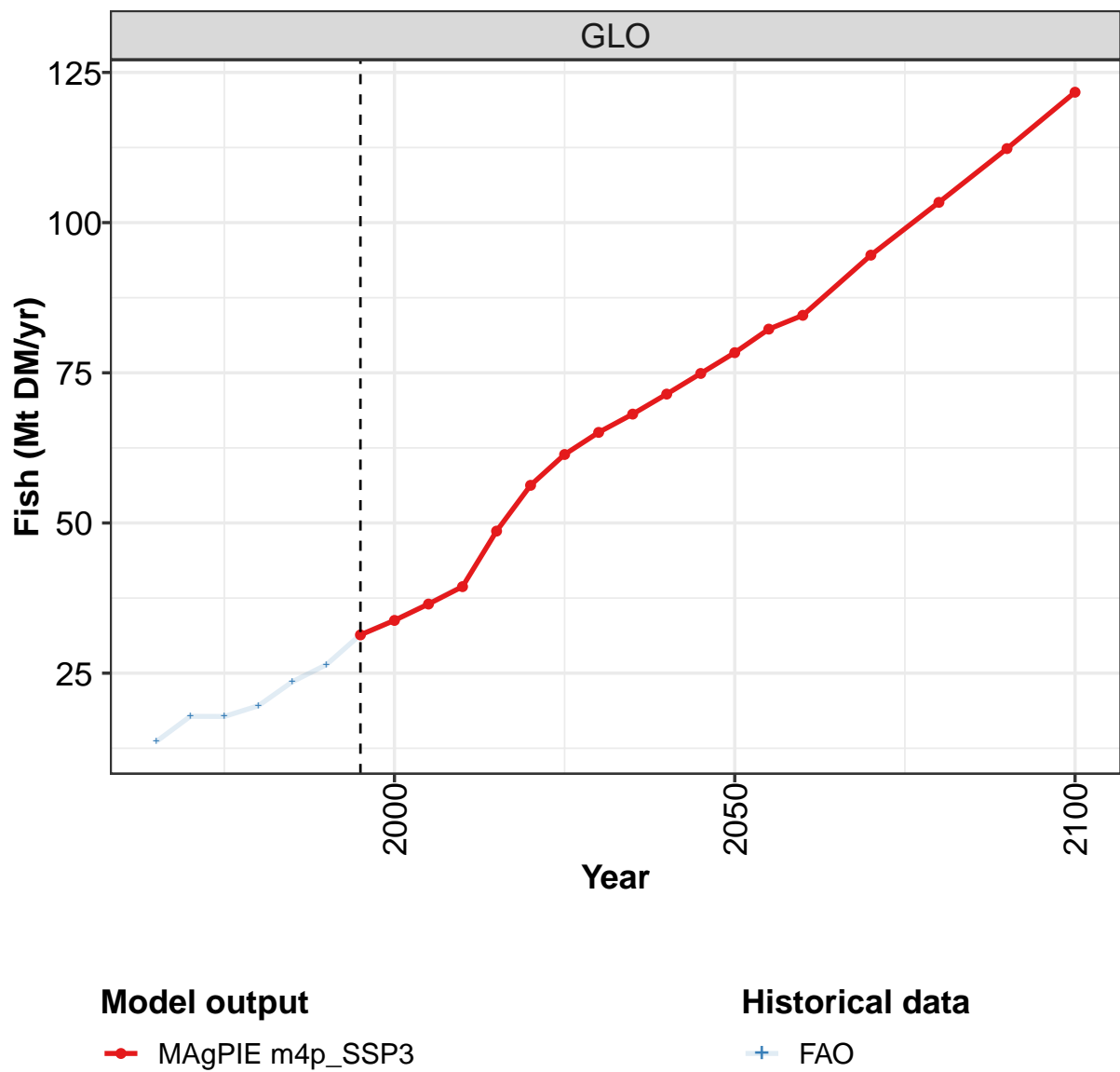
	2050	2055	2060	2070	2080	2090	2100
GLO	1275	1360	1419	1622	1790	1941	2122
CAZ	19	20	21	22	23	24	23
CHA	101	103	100	117	111	106	105
EUR	0	0	0	0	0	0	0
IND	184	195	201	222	253	282	318
JPN	8	8	9	12	11	14	27
LAM	658	678	689	738	776	809	850
MEA	40	49	57	70	79	82	84
NEU	0	0	0	0	0	0	0
OAS	140	156	167	197	229	260	301
REF	0	0	0	0	0	0	0
SSA	113	140	166	231	293	348	400
USA	12	12	12	13	14	14	15

Table 1402: MAgPIE m4p_SSP3 — Production—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	140	162	175	197	251	283	315	338	354	460
CAZ	4	5	6	6	7	7	9	10	10	8
CHA	6	5	7	9	16	17	19	19	24	30
EUR	0	0	0	0	0	0	0	0	0	0
IND	33	36	39	35	46	61	74	81	64	79
JPN	1	1	1	1	1	1	0	0	0	0
LAM	64	75	76	96	122	133	136	145	171	254
MEA	1	2	3	3	5	5	6	7	8	8
NEU	0	0	0	0	0	0	0	0	0	0
OAS	18	22	27	29	34	39	49	50	52	57
REF	0	0	0	0	0	0	0	0	0	0
SSA	7	9	11	12	14	14	13	16	18	17
USA	6	6	7	7	7	7	8	10	7	7

Table 1403: FAO — Production—Crops—Sugar crops—Sugar cane (Mt DM/yr)

45 Fish



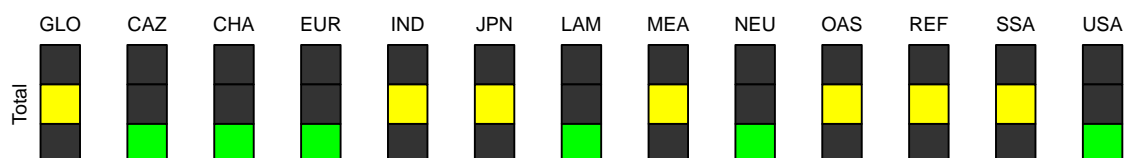
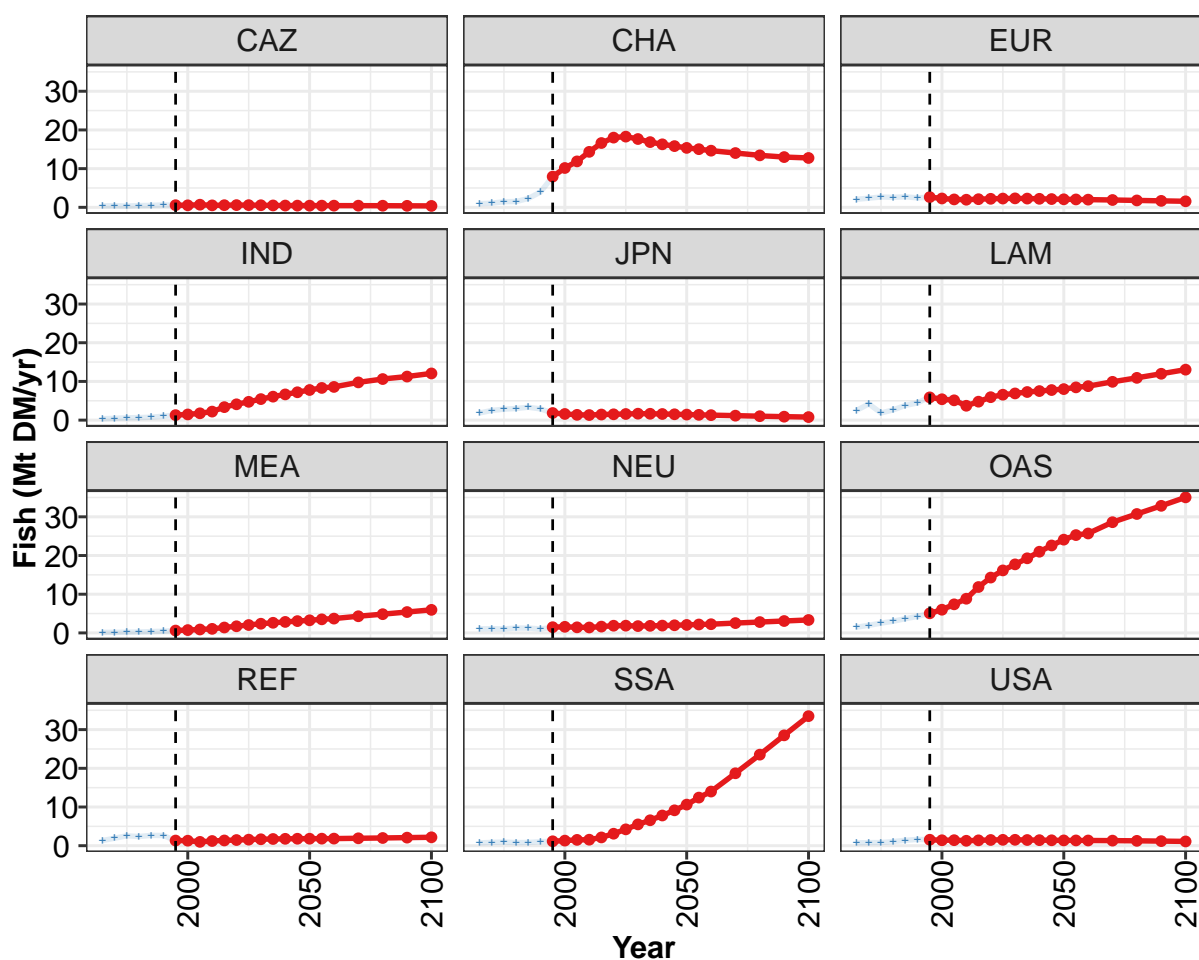


Figure 356: MAgPIE m4p_SSP3 — Production—Fish (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	31	34	37	39	49	56	61	65	68	71	75
CAZ	1	1	1	1	1	1	1	1	0	0	0
CHA	8	10	12	14	17	18	18	18	17	16	16
EUR	3	2	2	2	2	2	2	2	2	2	2
IND	1	1	2	2	3	4	5	5	6	7	7
JPN	2	2	1	1	1	2	2	2	2	2	2
LAM	6	5	5	4	5	6	7	7	7	8	8
MEA	1	1	1	1	1	2	2	2	3	3	3
NEU	1	2	1	1	2	2	2	2	2	2	2
OAS	5	6	7	9	12	14	16	18	19	21	23
REF	1	1	1	1	1	1	2	2	2	2	2
SSA	1	1	2	2	2	3	4	6	7	8	9
USA	2	1	1	1	1	1	2	2	1	1	1

Table 1404: MAgPIE m4p_SSP3 — Production—Fish (Mt DM/yr) [PART 1/2]

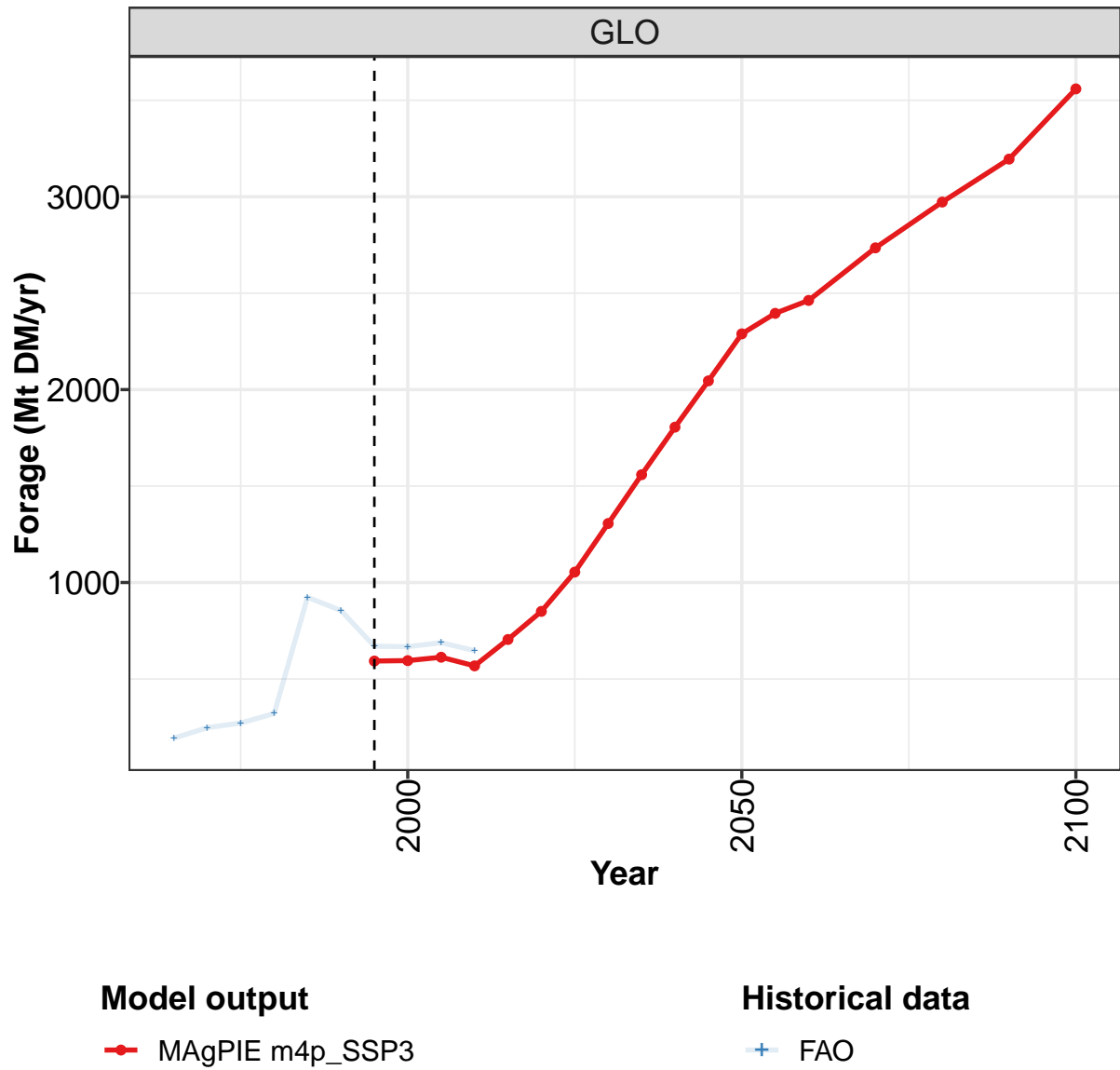
	2050	2055	2060	2070	2080	2090	2100
GLO	78	82	85	95	103	112	122
CAZ	0	0	0	0	0	0	0
CHA	15	15	15	14	13	13	13
EUR	2	2	2	2	2	2	2
IND	8	8	9	10	11	11	12
JPN	1	1	1	1	1	1	1
LAM	8	8	9	10	11	12	13
MEA	3	4	4	4	5	5	6
NEU	2	2	2	3	3	3	3
OAS	24	25	26	29	31	33	35
REF	2	2	2	2	2	2	2
SSA	11	12	14	19	24	29	33
USA	1	1	1	1	1	1	1

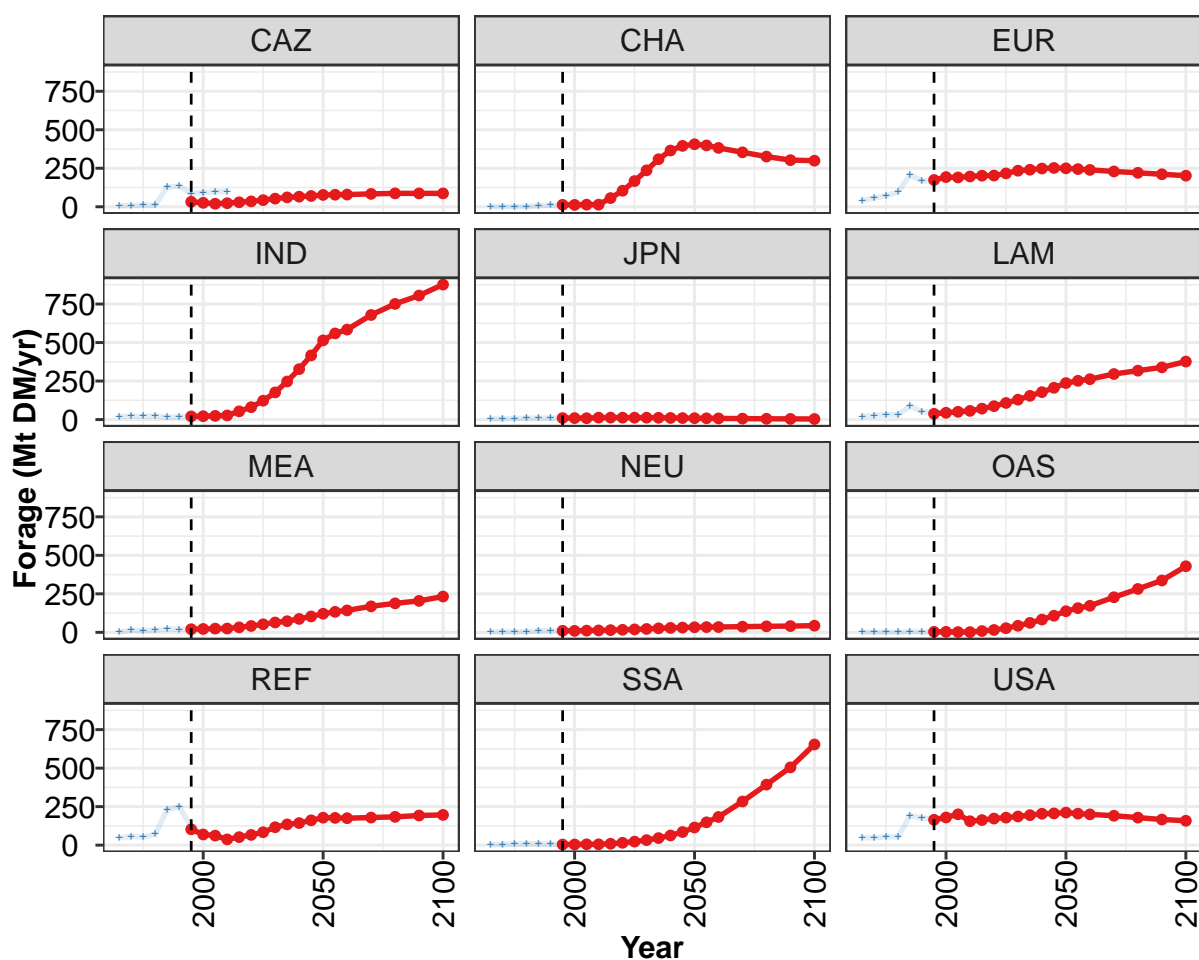
Table 1405: MAgPIE m4p_SSP3 — Production—Fish (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	13.6	17.8	17.8	19.6	23.6	26.4	31.4	33.8	36.6	39.5
CAZ	0.4	0.4	0.3	0.5	0.5	0.6	0.5	0.5	0.6	0.5
CHA	1.0	1.1	1.5	1.5	2.3	3.9	8.0	10.1	11.9	14.3
EUR	2.1	2.4	2.7	2.6	2.7	2.5	2.6	2.3	2.0	2.0
IND	0.4	0.5	0.6	0.7	0.8	1.0	1.3	1.5	1.8	2.3
JPN	1.8	2.5	2.8	3.0	3.3	2.9	1.8	1.6	1.4	1.3
LAM	2.5	4.2	1.8	2.7	3.8	4.4	6.0	5.7	5.5	3.8
MEA	0.1	0.2	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.1
NEU	1.1	1.1	1.0	1.3	1.3	1.0	1.4	1.6	1.5	1.5
OAS	1.5	2.0	2.5	3.0	3.7	4.3	5.1	5.7	7.1	8.8
REF	1.3	1.9	2.6	2.4	2.7	2.6	1.3	1.2	1.0	1.2
SSA	0.7	0.9	1.0	0.8	0.8	1.0	1.1	1.3	1.5	1.5
USA	0.7	0.8	0.8	1.1	1.4	1.6	1.6	1.4	1.5	1.3

Table 1406: FAO — Production—Fish (Mt DM/yr)

46 Forage





Model output

—●— MAgPIE m4p_SSP3

Historical data

+— FAO

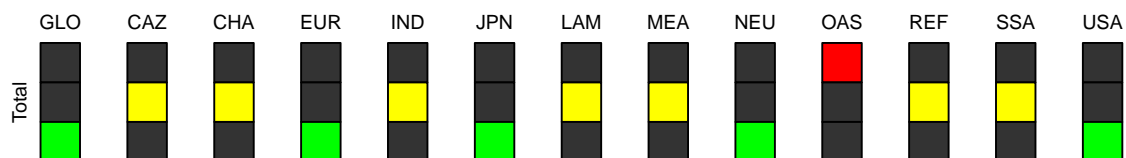


Figure 357: MAgPIE m4p_SSP3 — Production—Forage (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	593	595	613	568	705	850	1054	1306	1559	1805	2045
CAZ	32	26	20	23	29	35	43	53	61	66	70
CHA	13	12	14	14	56	104	167	237	309	365	395
EUR	174	193	191	197	202	203	217	234	241	248	252
IND	20	22	24	27	53	81	123	176	247	327	417
JPN	10	10	9	13	13	12	12	12	11	11	10
LAM	37	44	50	56	71	87	108	129	154	178	206
MEA	21	22	24	25	33	41	53	64	73	87	103
NEU	10	10	11	13	15	17	19	22	26	29	31
OAS	4	3	2	2	9	16	27	43	62	83	108
REF	103	69	62	38	52	67	84	116	135	143	161
SSA	4	4	5	5	9	15	23	33	46	63	85
USA	165	180	200	155	163	173	178	186	195	204	206

Table 1407: MAgPIE m4p_SSP3 — Production—Forage (Mt DM/yr) [PART 1/2]

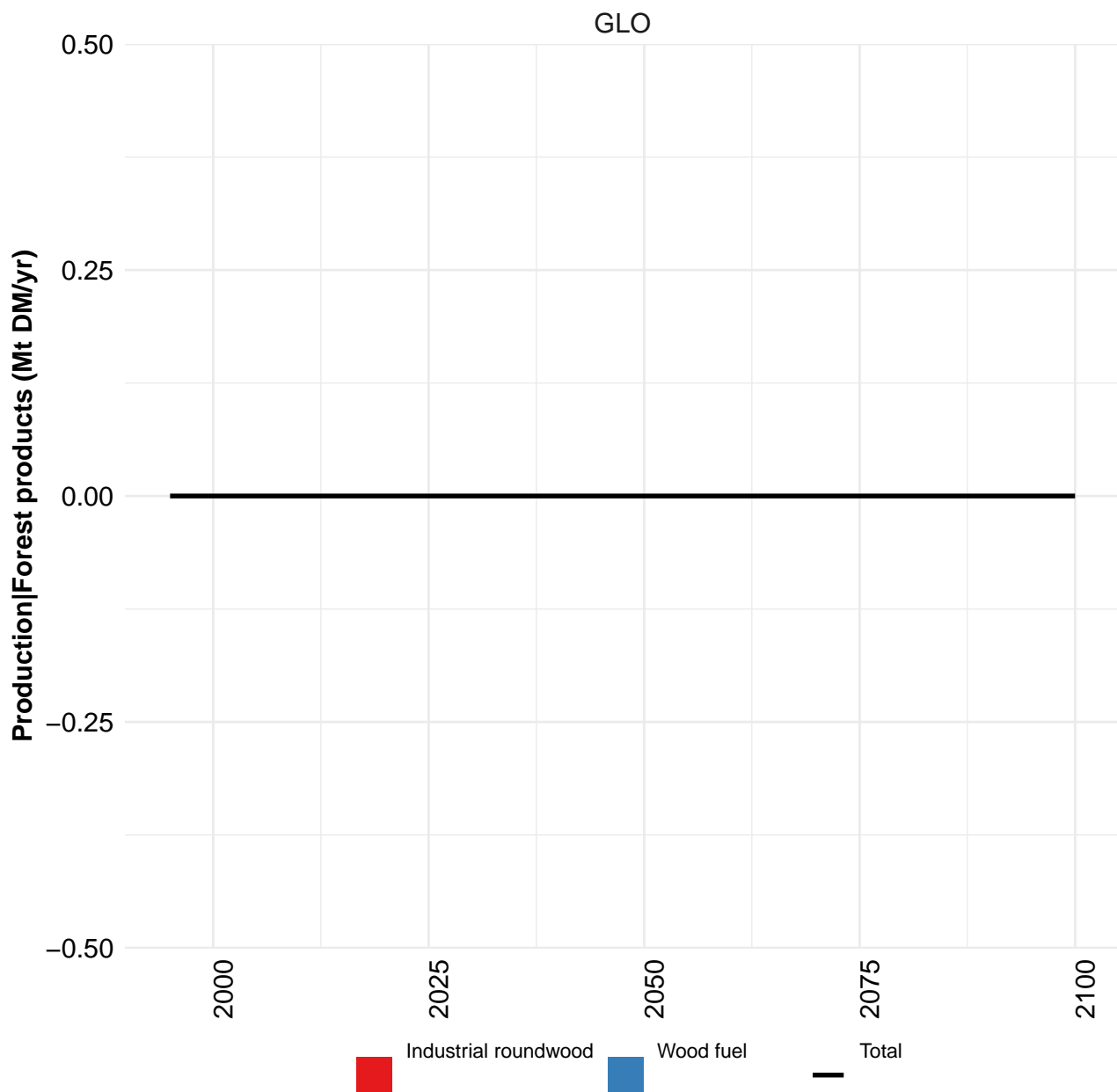
	2050	2055	2060	2070	2080	2090	2100
GLO	2289	2395	2462	2735	2972	3195	3559
CAZ	77	78	79	84	87	87	87
CHA	406	398	382	354	326	303	299
EUR	250	245	239	229	221	211	202
IND	514	559	584	679	751	805	876
JPN	9	8	8	6	5	4	4
LAM	237	252	262	296	318	339	377
MEA	121	133	143	169	188	204	233
NEU	33	34	35	37	39	41	44
OAS	137	157	173	228	282	337	429
REF	178	177	175	179	184	192	196
SSA	115	148	183	283	393	505	654
USA	212	205	200	191	179	166	159

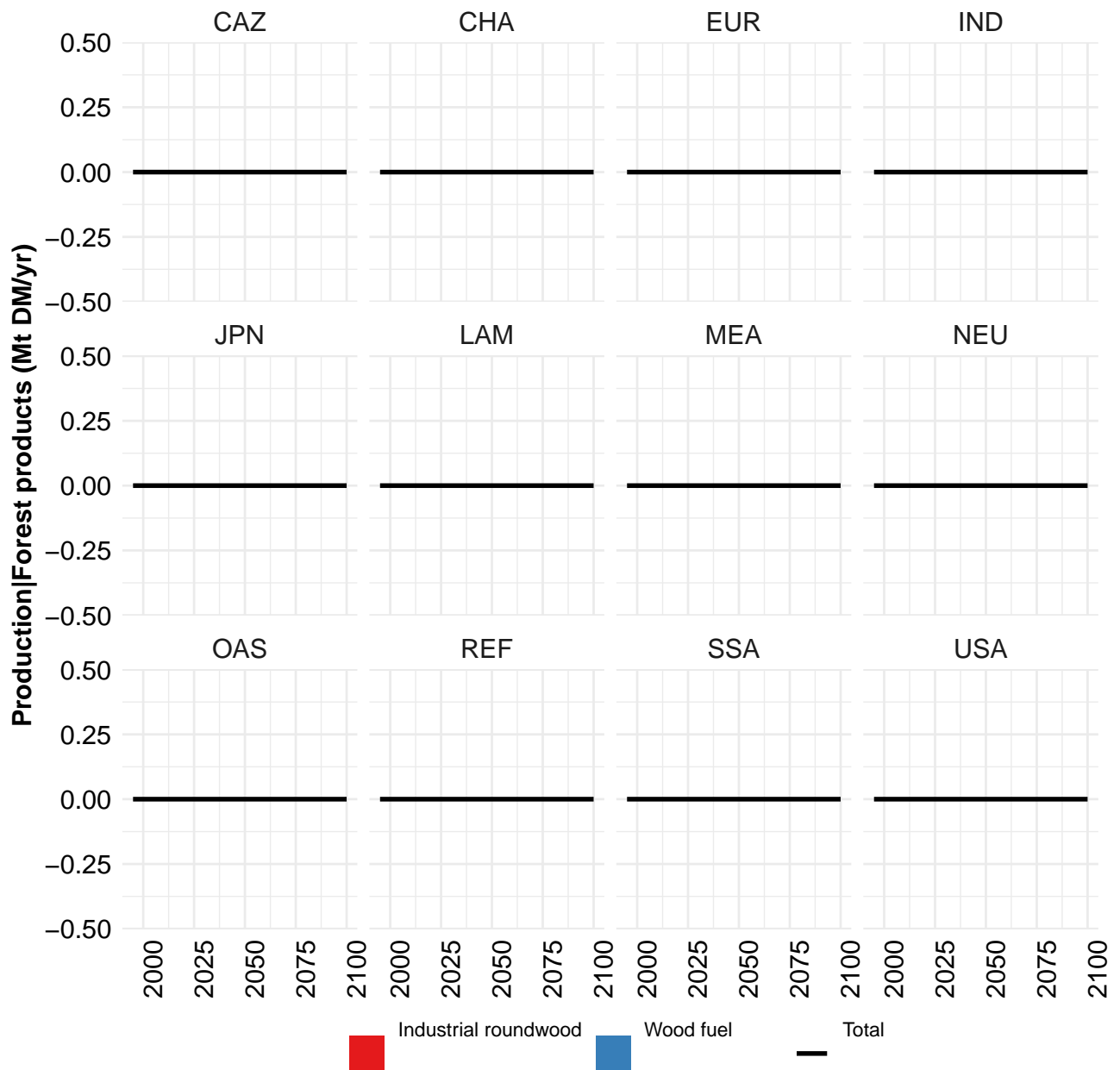
Table 1408: MAgPIE m4p_SSP3 — Production—Forage (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	193	247	272	321	923	855	670	667	688	647
CAZ	7	9	10	10	128	135	85	93	96	99
CHA	0	0	0	0	8	10	11	12	13	14
EUR	40	57	71	97	206	168	169	182	186	196
IND	19	21	21	22	15	18	20	22	25	28
JPN	3	6	8	9	10	10	9	9	8	12
LAM	21	27	33	31	88	51	46	50	51	54
MEA	2	14	13	15	21	20	20	21	23	25
NEU	2	2	3	3	11	11	11	10	12	13
OAS	1	1	1	1	3	2	2	2	2	2
REF	47	57	52	71	232	248	123	77	65	38
SSA	4	5	6	9	9	7	5	5	5	5
USA	47	48	54	53	193	175	170	185	201	162

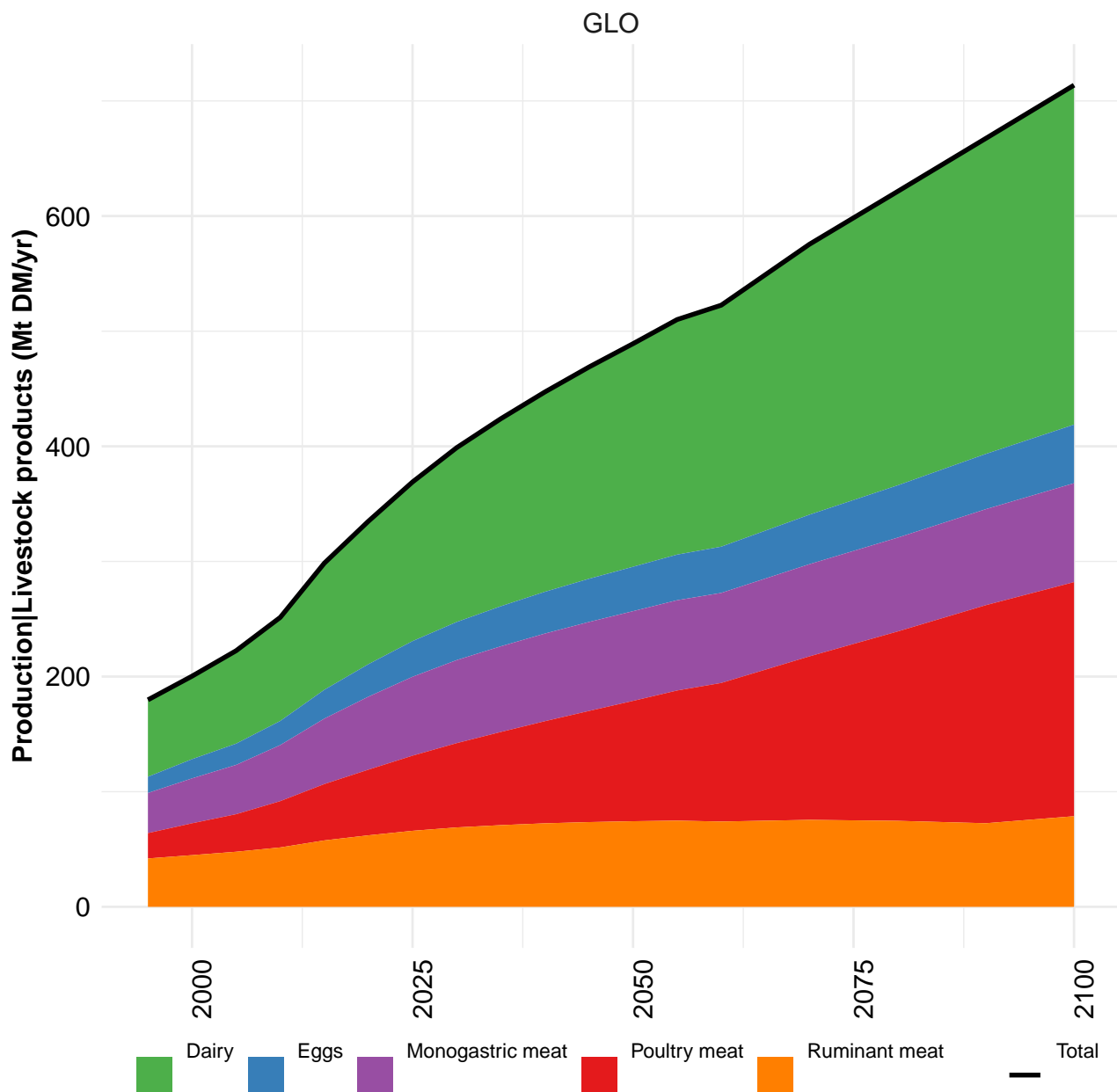
Table 1409: FAO — Production—Forage (Mt DM/yr)

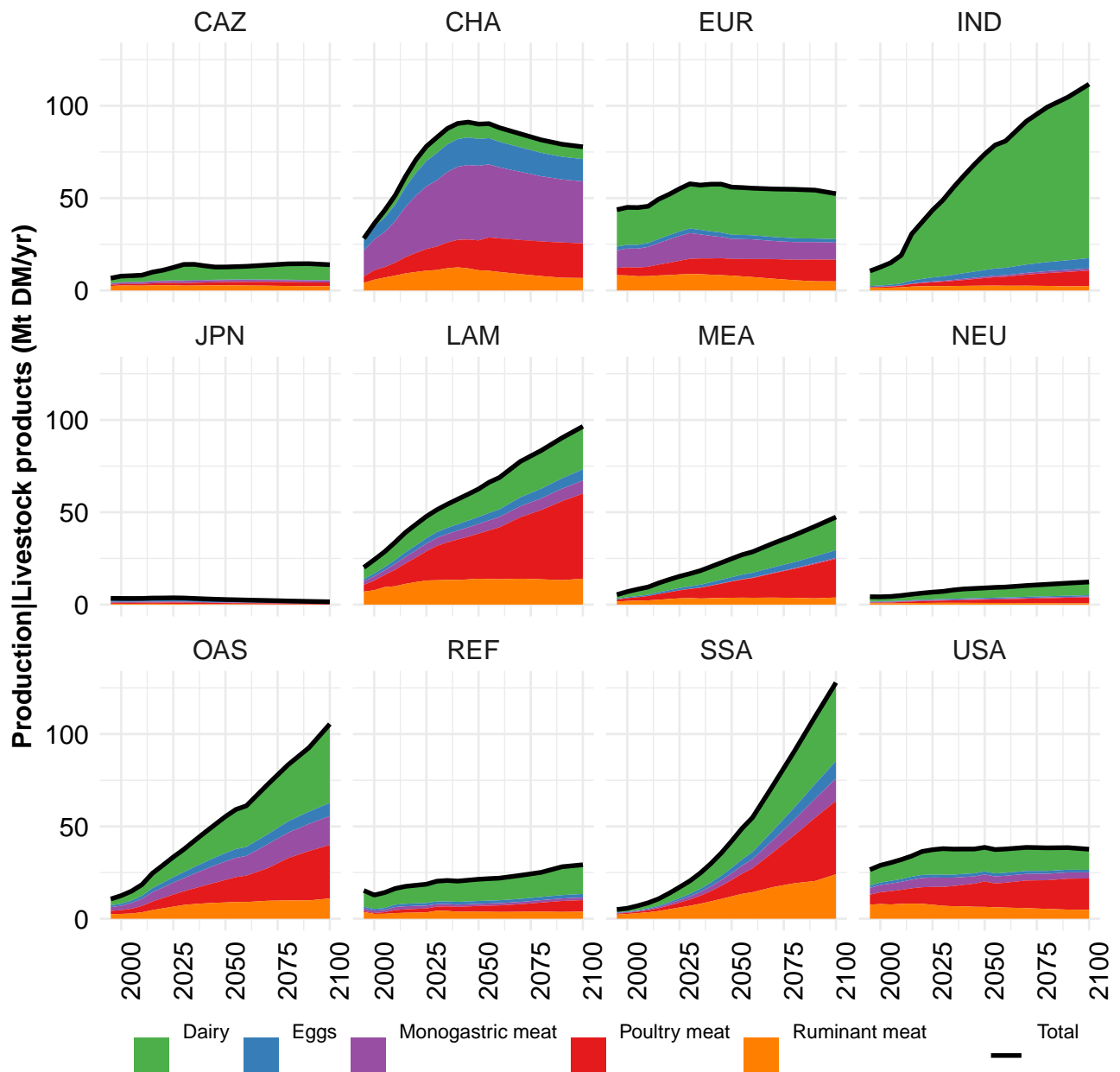
47 Forest products

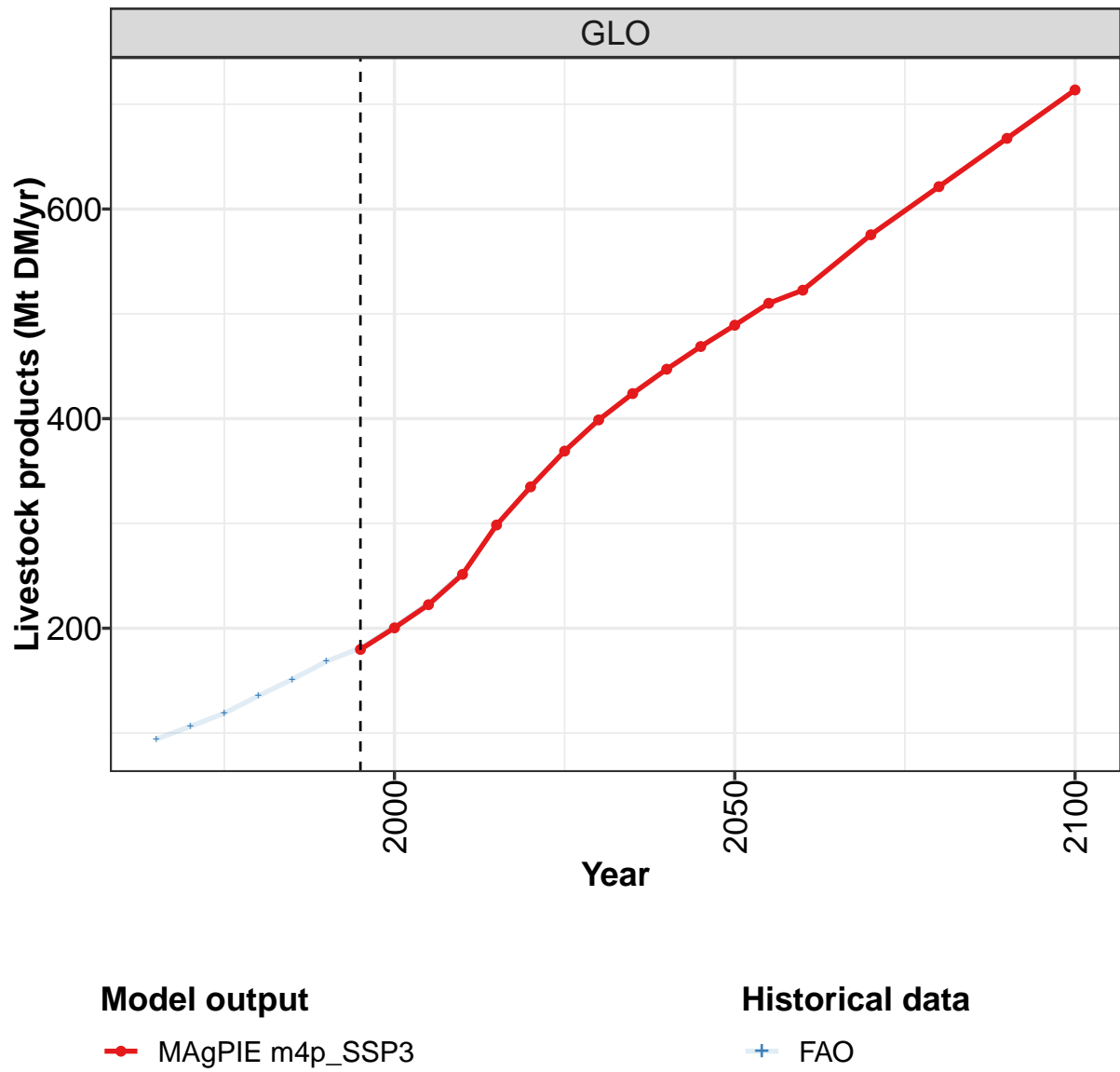




48 Livestock products







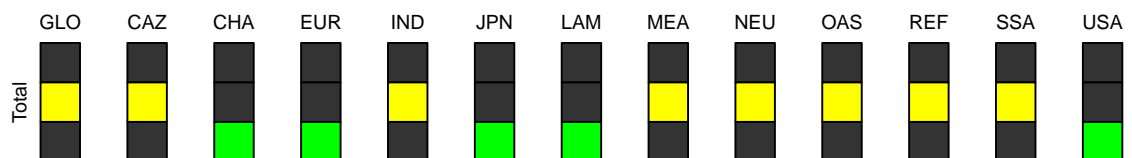
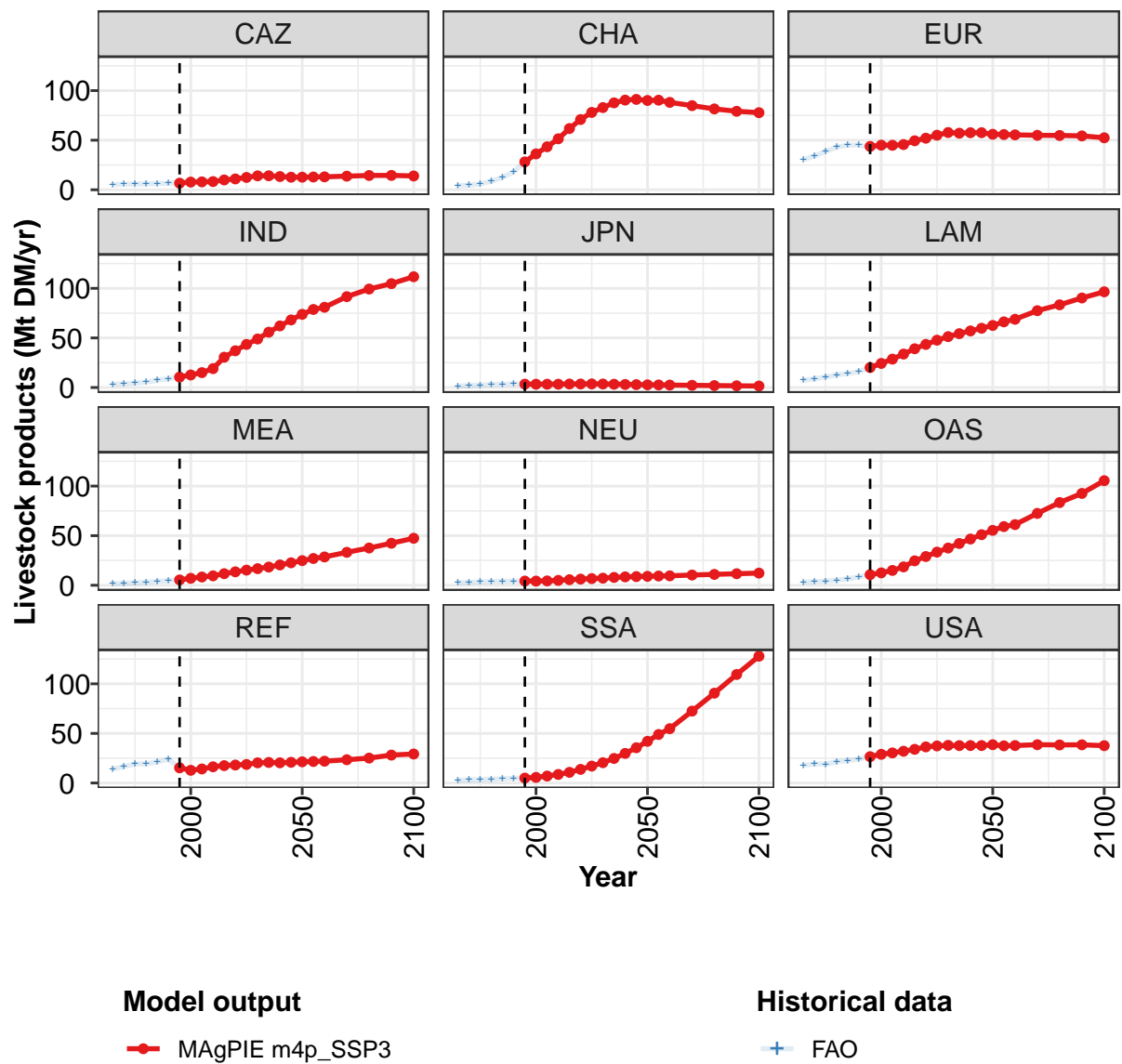


Figure 358: MAgPIE m4p_SSP3 — Production—Livestock products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	180	200	222	251	299	335	369	399	424	447	469
CAZ	7	8	8	8	10	11	12	14	14	13	13
CHA	28	36	43	51	62	71	78	83	88	90	91
EUR	44	45	45	46	49	52	55	58	57	58	58
IND	11	13	15	19	31	37	43	49	56	62	68
JPN	3	3	3	3	4	4	4	4	3	3	3
LAM	20	24	29	34	39	43	48	51	54	57	60
MEA	5	7	8	10	12	14	15	17	18	20	23
NEU	4	4	4	5	6	6	7	7	8	8	9
OAS	11	12	15	19	25	29	33	38	42	47	51
REF	15	13	14	16	18	18	19	20	21	20	21
SSA	5	6	7	9	11	14	17	20	25	30	36
USA	27	29	30	32	34	36	37	38	38	38	38

Table 1410: MAgPIE m4p_SSP3 — Production—Livestock products (Mt DM/yr) [PART 1/2]

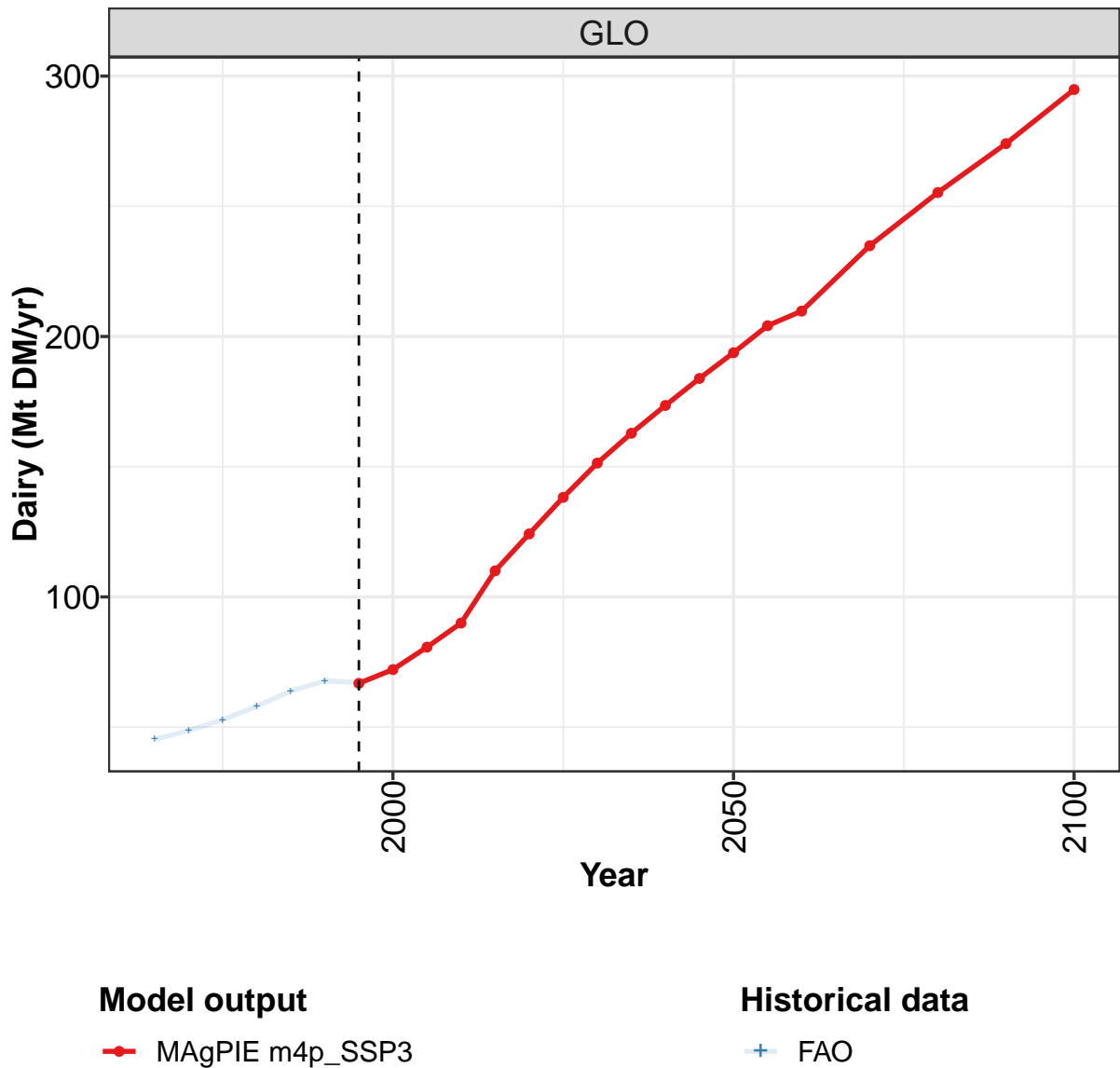
	2050	2055	2060	2070	2080	2090	2100
GLO	489	510	523	575	621	667	714
CAZ	13	13	13	14	14	14	14
CHA	90	90	88	85	82	79	78
EUR	56	56	55	55	55	54	52
IND	74	79	81	92	99	105	112
JPN	3	3	2	2	2	2	2
LAM	63	66	69	77	83	90	96
MEA	25	27	29	33	38	42	47
NEU	9	9	10	10	11	12	12
OAS	55	59	61	72	83	93	105
REF	21	22	22	23	25	28	29
SSA	42	49	55	72	91	109	128
USA	39	37	38	39	38	39	38

Table 1411: MAgPIE m4p_SSP3 — Production—Livestock products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	94	106	119	135	151	168	181	202	224	253
CAZ	5	6	6	6	6	7	7	9	9	10
CHA	4	5	6	9	13	18	28	36	44	52
EUR	30	34	38	43	45	45	43	44	43	44
IND	3	4	4	5	7	9	11	13	15	19
JPN	1	2	2	3	3	4	3	3	3	3
LAM	7	9	10	13	14	16	20	24	29	33
MEA	2	2	2	3	4	5	6	7	8	10
NEU	3	3	3	4	4	4	4	4	4	5
OAS	3	4	4	5	6	8	11	13	15	19
REF	14	17	19	19	21	24	16	13	14	16
SSA	3	3	3	4	4	5	5	6	7	9
USA	18	19	19	21	23	24	27	30	31	33

Table 1412: FAO — Production—Livestock products (Mt DM/yr)

48.1 Dairy



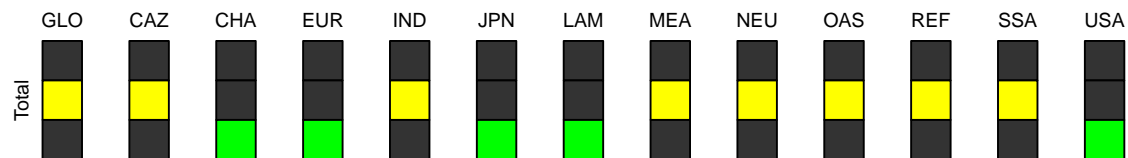
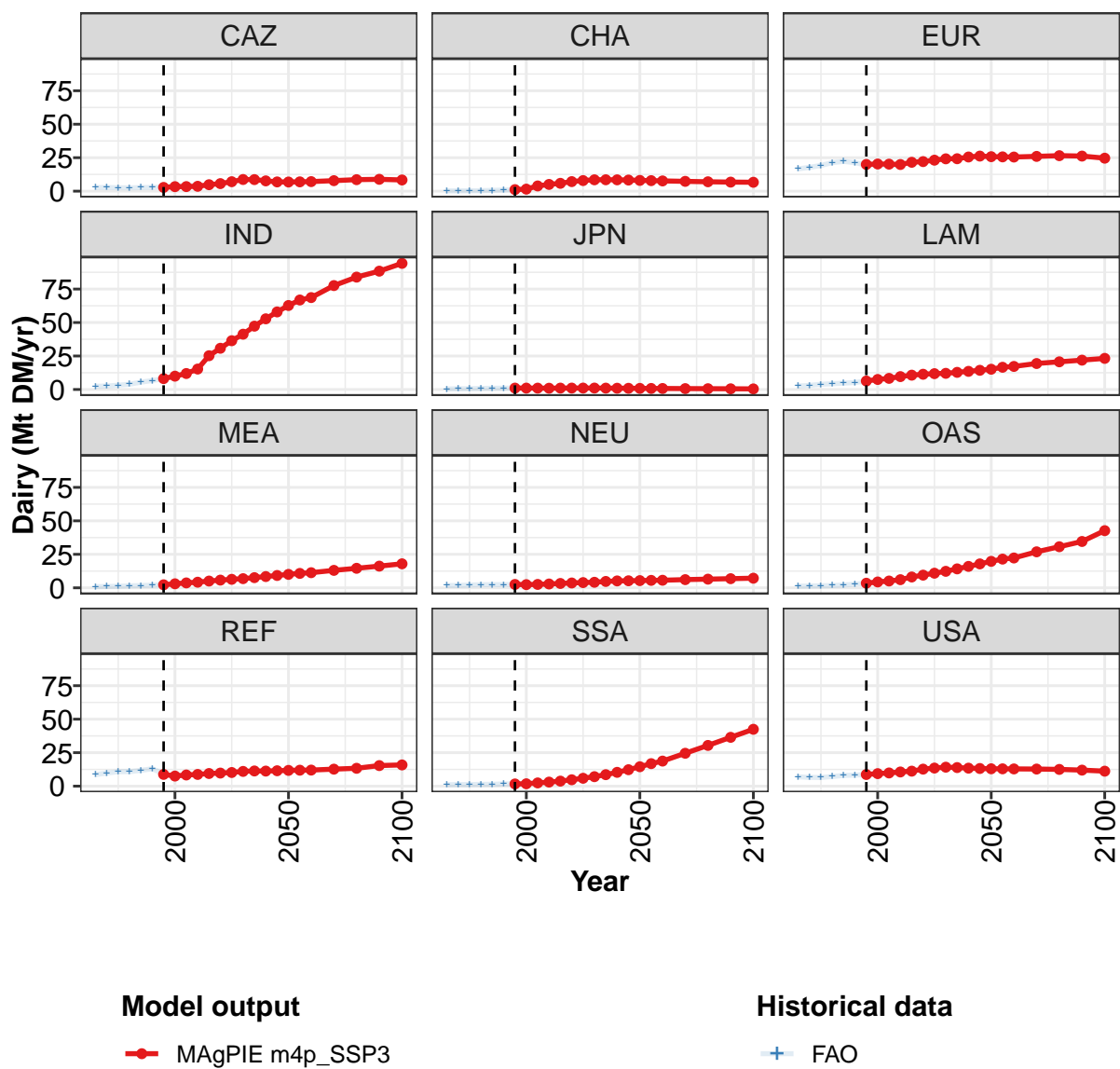


Figure 359: MAgPIE m4p_SSP3 — Production—Livestock products—Dairy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	67	72	81	90	110	124	138	151	163	174	184
CAZ	3	3	3	4	5	6	7	9	9	8	7
CHA	1	2	4	5	6	7	8	8	9	8	8
EUR	20	20	20	20	22	22	23	24	24	26	26
IND	8	10	12	15	25	31	36	41	47	53	58
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	6	7	8	10	11	11	12	12	13	14	14
MEA	2	3	4	4	5	6	6	7	8	8	9
NEU	3	2	3	3	3	4	4	4	5	5	5
OAS	3	4	5	6	8	9	11	12	14	16	18
REF	9	8	8	9	9	10	10	11	11	11	12
SSA	2	2	2	3	4	5	6	7	9	10	12
USA	9	9	10	11	11	13	14	14	14	13	13

Table 1413: MAgPIE m4p-SSP3 — Production—Livestock products—Dairy (Mt DM/yr) [PART 1/2]

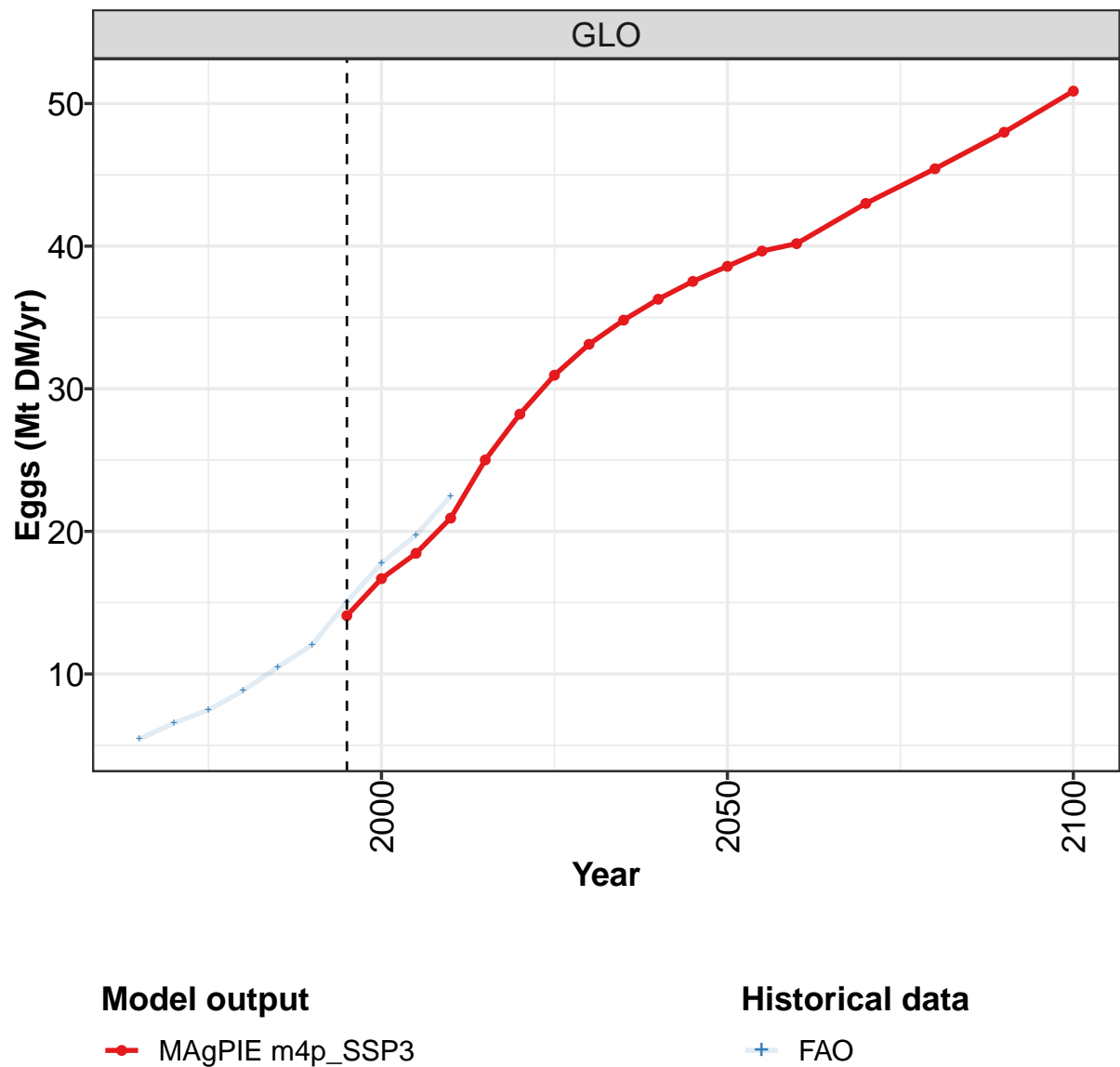
	2050	2055	2060	2070	2080	2090	2100
GLO	194	204	210	235	255	274	295
CAZ	7	7	7	8	9	9	8
CHA	8	8	8	7	7	7	7
EUR	26	26	25	26	27	26	25
IND	63	67	69	78	84	88	94
JPN	1	1	1	1	1	1	0
LAM	15	17	17	19	21	22	23
MEA	10	11	11	13	15	16	18
NEU	5	6	6	6	6	7	7
OAS	20	21	22	27	31	35	43
REF	12	12	12	13	13	15	16
SSA	14	17	19	25	30	36	42
USA	13	13	13	13	12	12	11

Table 1414: MAgPIE m4p-SSP3 — Production—Livestock products—Dairy (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	45.3	48.7	52.8	58.0	63.9	67.7	67.2	72.2	80.7	89.9
CAZ	2.7	2.8	2.6	2.5	2.7	2.8	3.2	3.9	4.1	4.3
CHA	0.2	0.2	0.3	0.4	0.6	0.9	1.2	1.5	3.9	5.0
EUR	16.7	17.8	19.2	21.3	22.2	21.3	19.5	19.5	19.4	19.2
IND	2.4	2.6	3.2	3.9	5.5	6.7	8.1	10.0	12.0	15.3
JPN	0.4	0.6	0.6	0.8	0.9	1.0	1.0	1.0	1.0	1.0
LAM	2.6	3.1	3.9	4.3	4.7	5.2	6.3	7.5	8.3	9.7
MEA	0.9	1.0	1.2	1.5	1.7	2.0	2.3	3.1	3.7	4.2
NEU	1.7	1.8	2.0	2.3	2.4	2.4	2.5	2.4	2.5	2.9
OAS	1.2	1.3	1.5	1.7	2.1	2.7	3.5	4.4	5.1	6.1
REF	8.6	9.8	10.8	10.8	11.8	13.0	9.2	7.7	8.2	8.5
SSA	1.0	1.2	1.2	1.3	1.4	1.6	1.7	1.8	2.4	3.0
USA	7.0	6.5	6.4	7.2	8.0	8.2	8.7	9.3	9.9	10.8

Table 1415: FAO — Production—Livestock products—Dairy (Mt DM/yr)

48.2 Eggs



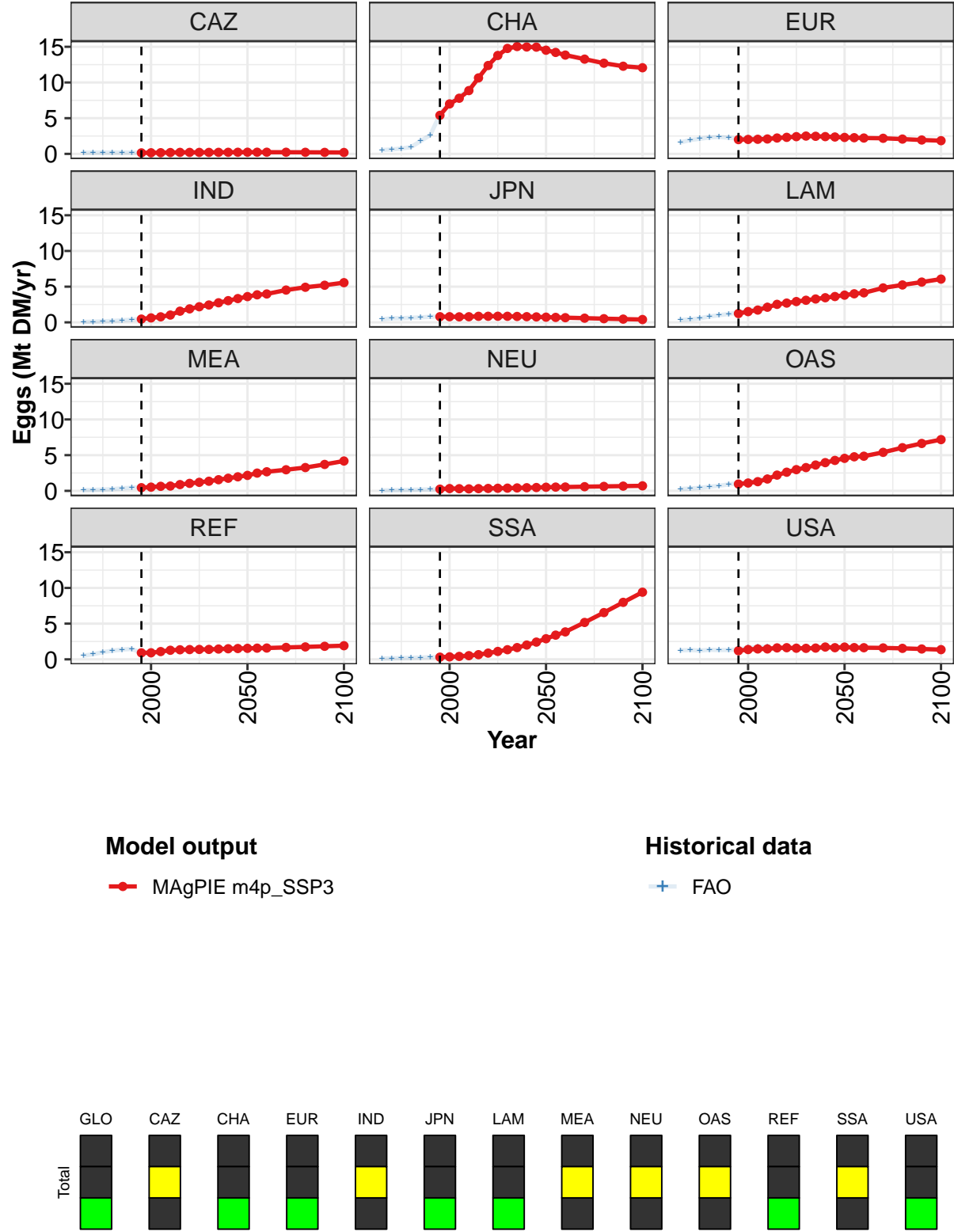


Figure 360: MAgPIE m4p_SSP3 — Production—Livestock products—Eggs (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	14.1	16.7	18.5	20.9	25.0	28.2	31.0	33.1	34.8	36.3	37.5
CAZ	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	5.4	7.0	7.8	8.9	10.6	12.4	13.8	14.8	15.0	15.0	15.0
EUR	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.5	2.5	2.4	2.4
IND	0.5	0.6	0.8	1.0	1.6	1.9	2.2	2.4	2.7	3.0	3.3
JPN	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.8
LAM	1.2	1.5	1.7	2.1	2.5	2.7	2.9	3.1	3.3	3.5	3.6
MEA	0.4	0.5	0.6	0.7	0.9	1.0	1.2	1.3	1.6	1.8	2.0
NEU	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5
OAS	1.0	1.1	1.3	1.7	2.2	2.6	3.0	3.3	3.6	4.0	4.3
REF	0.9	0.9	1.1	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.5
SSA	0.3	0.3	0.4	0.5	0.7	0.9	1.1	1.3	1.6	2.0	2.4
USA	1.2	1.4	1.5	1.5	1.6	1.6	1.6	1.5	1.6	1.7	1.6

Table 1416: MAgPIE m4p_SSP3 — Production—Livestock products—Eggs (Mt DM/yr) [PART 1/2]

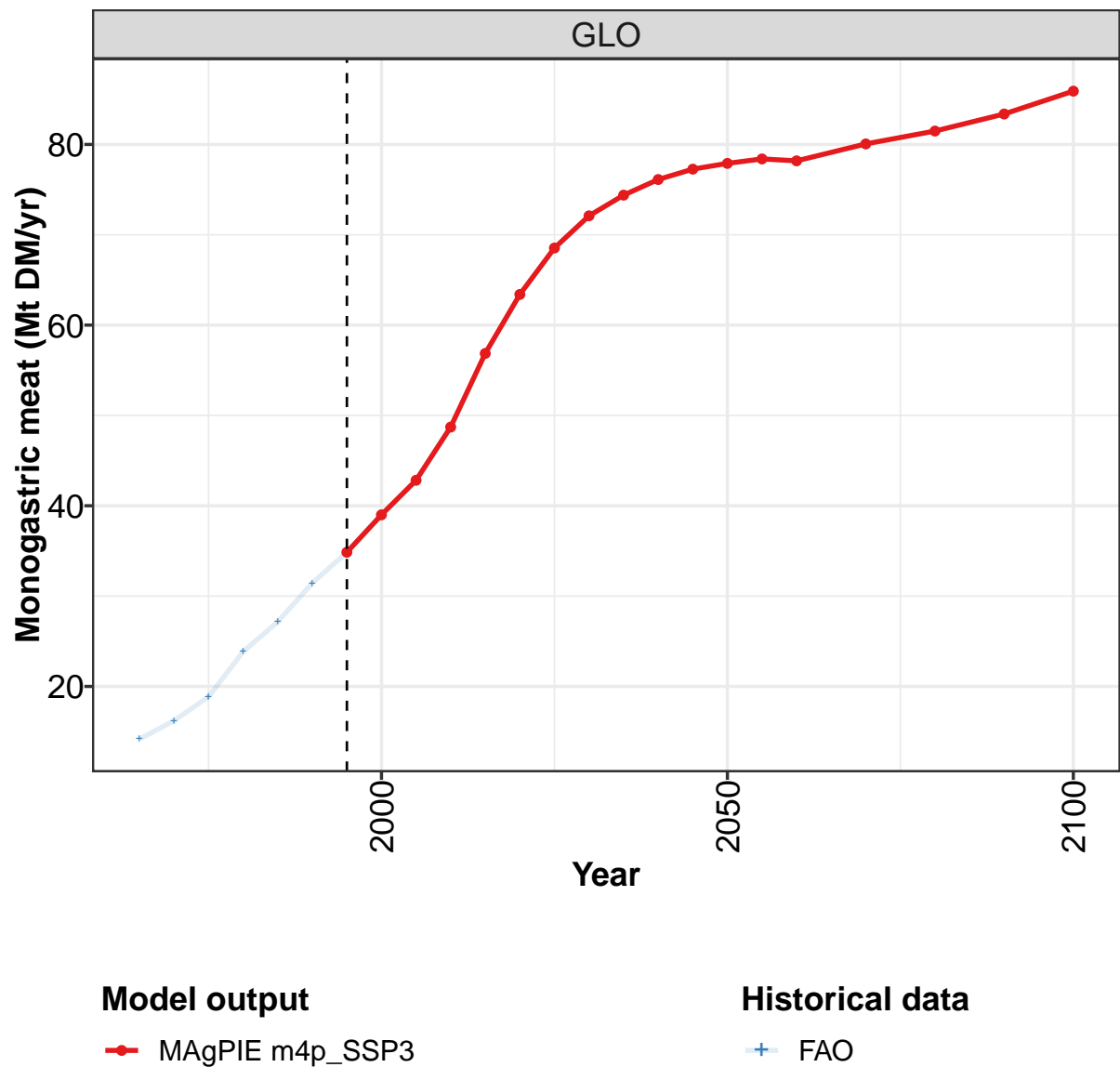
	2050	2055	2060	2070	2080	2090	2100
GLO	38.6	39.7	40.2	43.0	45.4	48.0	50.9
CAZ	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	14.5	14.2	13.8	13.3	12.7	12.3	12.1
EUR	2.3	2.3	2.2	2.2	2.1	1.9	1.8
IND	3.6	3.9	4.0	4.5	4.9	5.2	5.6
JPN	0.7	0.7	0.7	0.6	0.5	0.5	0.4
LAM	3.8	4.0	4.1	4.8	5.2	5.6	6.1
MEA	2.2	2.5	2.7	3.0	3.3	3.7	4.2
NEU	0.5	0.5	0.5	0.6	0.6	0.7	0.7
OAS	4.6	4.8	4.9	5.4	6.0	6.6	7.2
REF	1.5	1.6	1.6	1.7	1.7	1.8	1.9
SSA	2.9	3.4	3.8	5.2	6.5	8.0	9.4
USA	1.7	1.6	1.6	1.6	1.5	1.5	1.4

Table 1417: MAgPIE m4p_SSP3 — Production—Livestock products—Eggs (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.4	6.6	7.5	8.8	10.5	12.0	15.0	17.8	19.7	22.5
CAZ	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	0.5	0.6	0.7	0.9	1.8	2.6	5.5	7.2	8.0	9.1
EUR	1.6	1.9	2.1	2.3	2.4	2.3	2.1	2.2	2.2	2.2
IND	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.1
JPN	0.4	0.6	0.6	0.6	0.7	0.8	0.8	0.8	0.8	0.8
LAM	0.3	0.4	0.6	0.8	1.0	1.2	1.4	1.7	1.9	2.4
MEA	0.1	0.1	0.2	0.2	0.4	0.4	0.5	0.6	0.7	0.8
NEU	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3
OAS	0.3	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.5	1.9
REF	0.5	0.7	1.0	1.2	1.4	1.5	0.9	0.9	1.1	1.3
SSA	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.6
USA	1.3	1.3	1.2	1.3	1.3	1.3	1.4	1.6	1.7	1.7

Table 1418: FAO — Production—Livestock products—Eggs (Mt DM/yr)

48.3 Monogastric meat



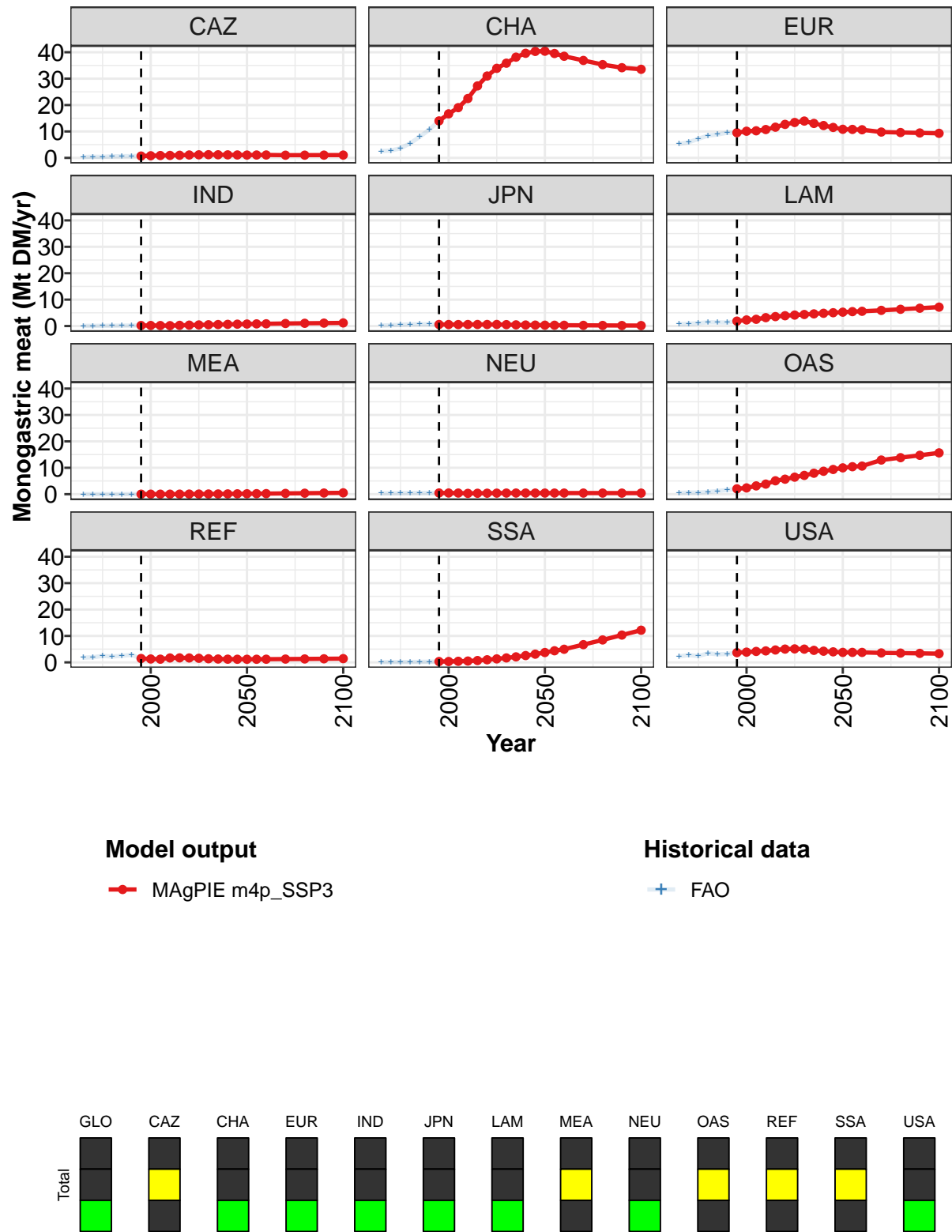


Figure 361: MAgPIE m4p_SSP3 — Production—Livestock products—Monogastric meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34.9	39.0	42.8	48.7	56.9	63.4	68.5	72.1	74.4	76.1	77.3
CAZ	0.7	0.8	0.9	0.9	1.0	1.1	1.2	1.2	1.2	1.1	1.1
CHA	14.0	16.7	19.0	22.5	27.3	31.0	33.9	35.9	38.2	39.6	40.3
EUR	9.5	10.1	10.3	10.7	11.6	12.7	13.4	13.9	13.0	12.3	11.5
IND	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.7
JPN	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.4
LAM	1.9	2.3	2.6	3.2	3.6	3.9	4.2	4.4	4.6	4.8	5.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
NEU	0.5	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
OAS	2.0	2.4	3.1	3.8	5.1	5.7	6.5	7.1	7.9	8.7	9.4
REF	1.5	1.3	1.2	1.7	1.7	1.7	1.6	1.4	1.3	1.2	1.2
SSA	0.3	0.3	0.4	0.5	0.7	1.0	1.3	1.7	2.1	2.6	3.1
USA	3.7	3.9	4.1	4.3	4.7	5.0	5.1	5.0	4.6	4.2	4.0

Table 1419: MAgPIE m4p_SSP3 — Production—Livestock products—Monogastric meat (Mt DM/yr) [PART 1/2]

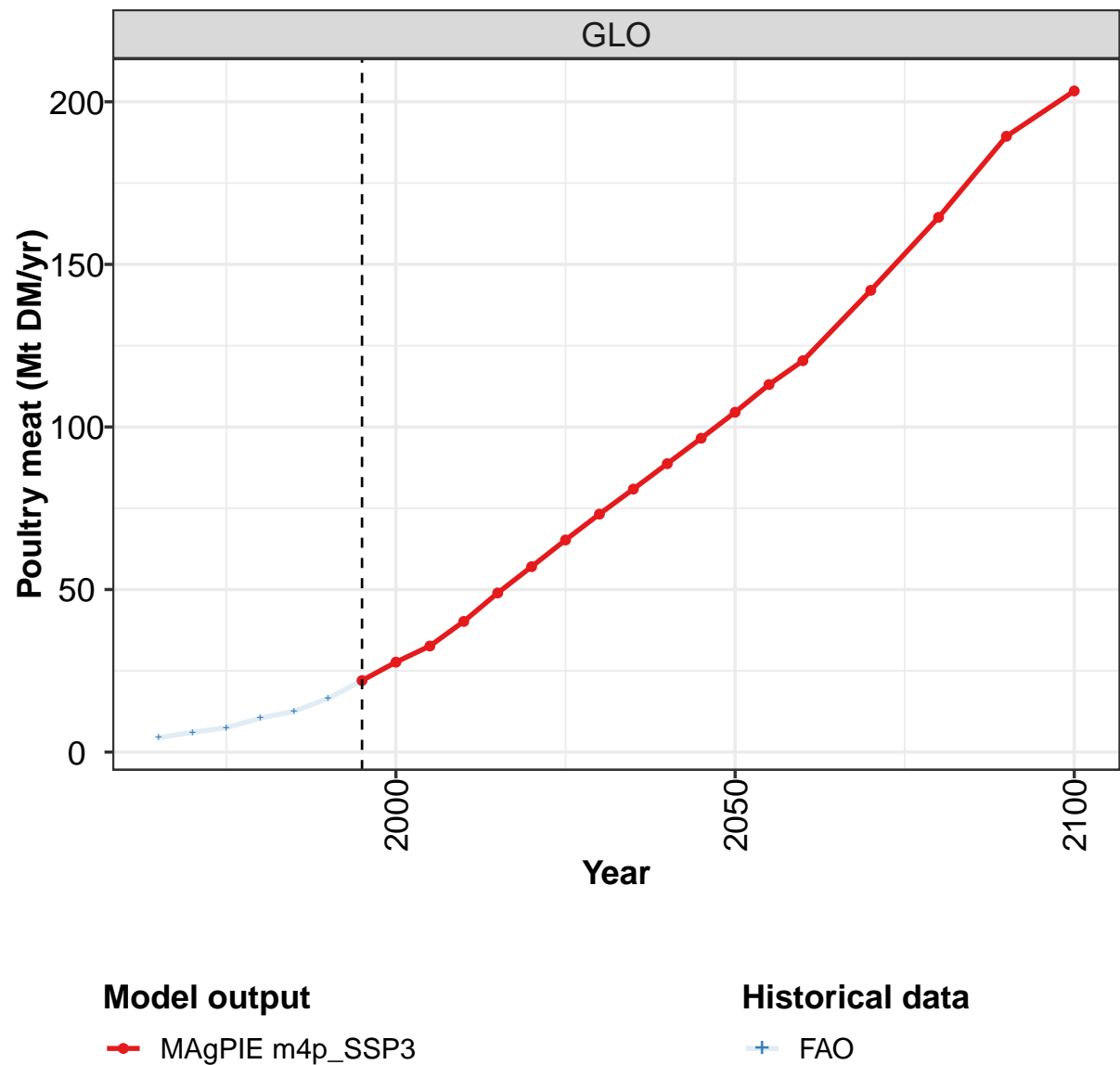
	2050	2055	2060	2070	2080	2090	2100
GLO	77.9	78.4	78.2	80.1	81.5	83.4	85.9
CAZ	1.1	1.1	1.1	1.0	1.0	1.0	1.1
CHA	40.4	39.5	38.5	36.9	35.3	34.1	33.5
EUR	10.8	10.8	10.7	9.8	9.6	9.4	9.3
IND	0.8	0.8	0.8	1.0	1.0	1.1	1.2
JPN	0.3	0.3	0.3	0.3	0.2	0.2	0.2
LAM	5.3	5.5	5.6	5.9	6.3	6.7	7.2
MEA	0.2	0.2	0.2	0.3	0.4	0.4	0.5
NEU	0.4	0.4	0.4	0.4	0.4	0.4	0.4
OAS	10.0	10.4	10.7	12.9	13.8	14.7	15.7
REF	1.2	1.2	1.2	1.2	1.3	1.4	1.4
SSA	3.7	4.4	5.0	6.7	8.5	10.3	12.2
USA	3.8	3.8	3.8	3.6	3.5	3.4	3.3

Table 1420: MAgPIE m4p_SSP3 — Production—Livestock products—Monogastric meat (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	14.2	16.2	18.9	23.8	27.1	31.4	34.9	39.0	42.8	48.7
CAZ	0.3	0.4	0.4	0.6	0.6	0.7	0.8	0.9	1.1	1.0
CHA	2.5	2.8	3.6	5.5	8.0	10.7	14.1	16.7	19.0	22.5
EUR	5.3	5.9	7.2	8.4	8.8	9.5	9.4	9.9	9.9	10.5
IND	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
JPN	0.2	0.3	0.5	0.7	0.7	0.7	0.6	0.6	0.6	0.6
LAM	0.7	0.9	1.1	1.4	1.4	1.3	1.9	2.3	2.6	3.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3
OAS	0.5	0.6	0.6	0.8	1.2	1.6	2.0	2.4	3.2	3.8
REF	1.8	1.9	2.5	2.2	2.5	2.8	1.5	1.3	1.2	1.7
SSA	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5
USA	2.3	2.8	2.4	3.4	3.0	3.2	3.7	3.9	4.3	4.6

Table 1421: FAO — Production—Livestock products—Monogastric meat (Mt DM/yr)

48.4 Poultry meat



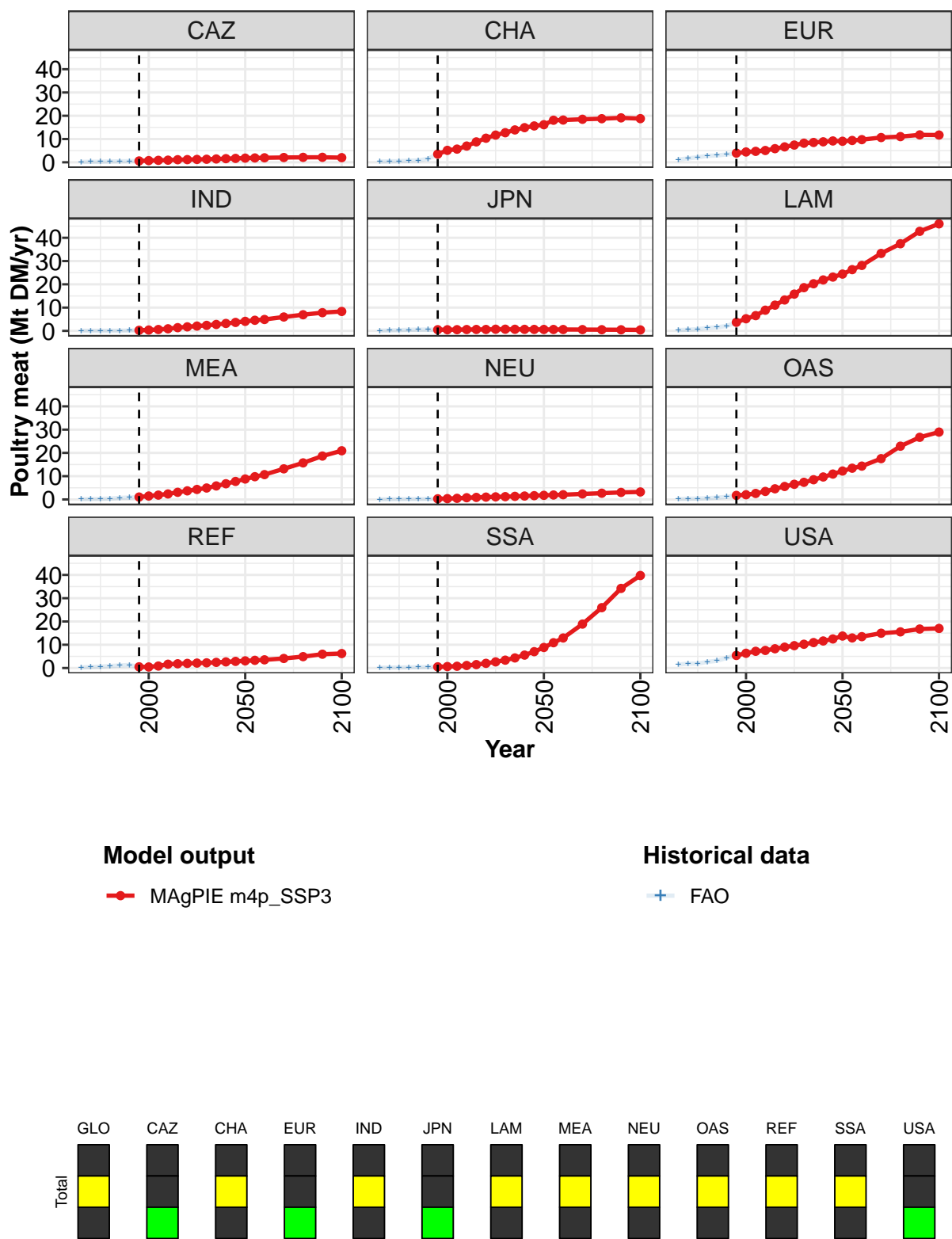


Figure 362: MAgPIE m4p_SSP3 — Production—Livestock products—Poultry meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	22	28	33	40	49	57	65	73	81	89	97
CAZ	1	1	1	1	1	1	1	1	1	2	2
CHA	4	5	6	7	9	10	12	13	14	15	16
EUR	4	4	5	5	6	7	7	8	9	9	9
IND	0	0	1	1	1	2	2	2	3	3	4
JPN	1	0	1	1	1	1	1	1	1	1	1
LAM	4	5	7	9	11	13	16	19	20	22	23
MEA	1	1	2	2	3	4	4	5	6	7	8
NEU	0	0	0	1	1	1	1	1	1	1	2
OAS	2	2	3	3	5	6	7	7	8	10	11
REF	1	0	1	2	2	2	2	2	2	3	3
SSA	1	1	1	1	1	2	3	3	4	6	7
USA	5	6	7	8	8	9	10	10	11	12	12

Table 1422: MAgPIE m4p_SSP3 — Production—Livestock products—Poultry meat (Mt DM/yr) [PART 1/2]

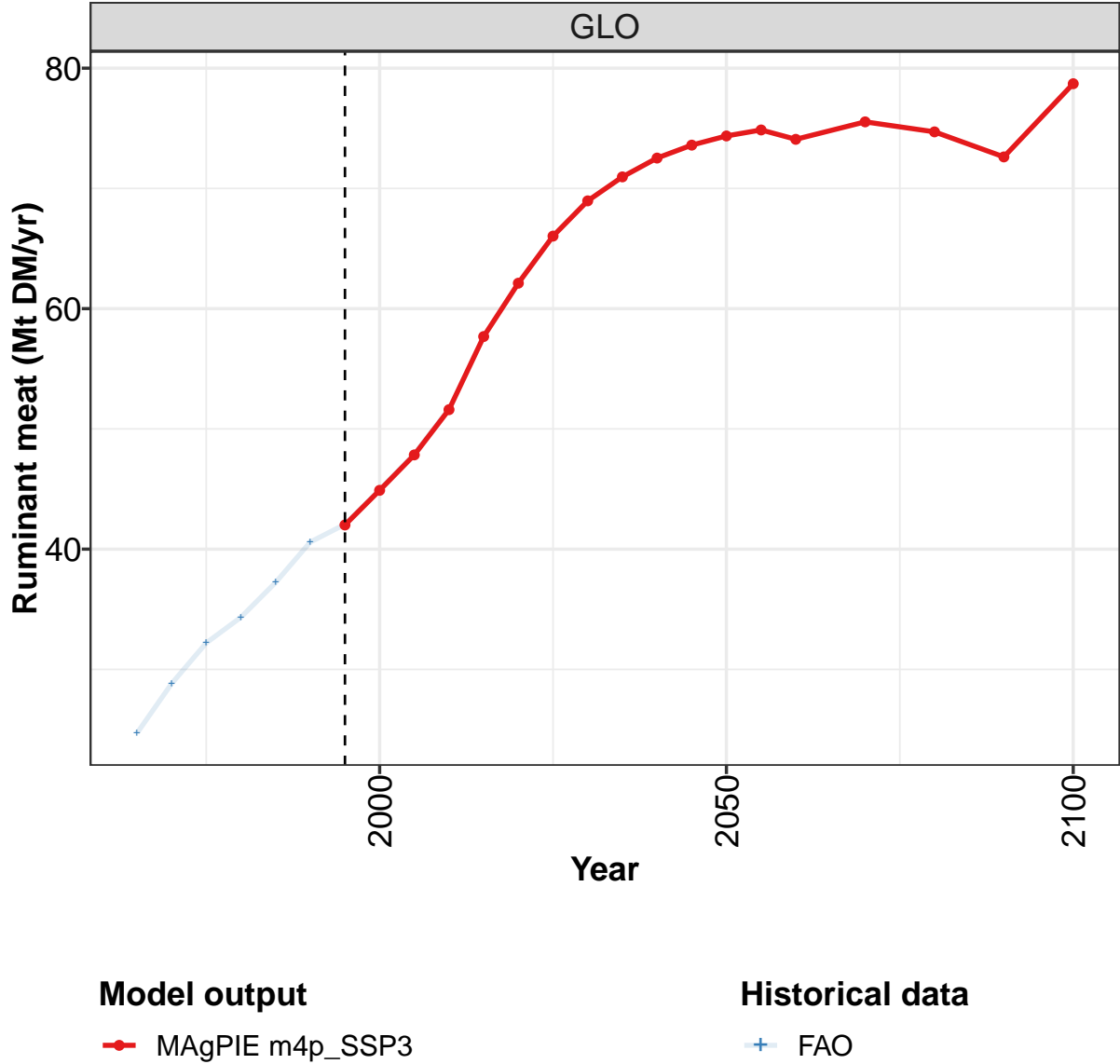
	2050	2055	2060	2070	2080	2090	2100
GLO	105	113	120	142	164	189	203
CAZ	2	2	2	2	2	2	2
CHA	16	18	18	18	19	19	19
EUR	9	9	10	11	11	12	12
IND	4	5	5	6	7	8	8
JPN	1	1	1	1	1	0	0
LAM	24	26	28	33	37	43	46
MEA	9	10	11	13	16	19	21
NEU	2	2	2	2	3	3	3
OAS	12	13	14	18	23	27	29
REF	3	3	4	4	5	6	6
SSA	9	11	13	19	26	34	40
USA	14	13	13	15	16	17	17

Table 1423: MAgPIE m4p_SSP3 — Production—Livestock products—Poultry meat (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.4	6.1	7.5	10.4	12.6	16.5	22.0	27.7	32.6	40.2
CAZ	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.9	0.9
CHA	0.3	0.4	0.5	0.7	0.8	1.5	3.5	5.1	5.7	7.0
EUR	1.2	1.7	2.2	2.8	2.9	3.4	3.8	4.3	4.4	4.9
IND	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.6	0.9
JPN	0.1	0.2	0.3	0.5	0.5	0.6	0.5	0.5	0.5	0.6
LAM	0.3	0.5	0.7	1.3	1.5	2.1	3.6	5.1	6.5	8.7
MEA	0.1	0.2	0.2	0.4	0.7	0.8	1.0	1.5	1.9	2.4
NEU	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.5	0.7
OAS	0.2	0.3	0.4	0.5	0.8	1.1	1.7	2.0	2.5	3.4
REF	0.3	0.4	0.6	0.8	1.1	1.3	0.5	0.5	0.9	1.6
SSA	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.8	1.1
USA	1.5	1.9	1.9	2.6	3.1	4.4	5.6	6.6	7.5	7.9

Table 1424: FAO — Production—Livestock products—Poultry meat (Mt DM/yr)

48.5 Ruminant meat



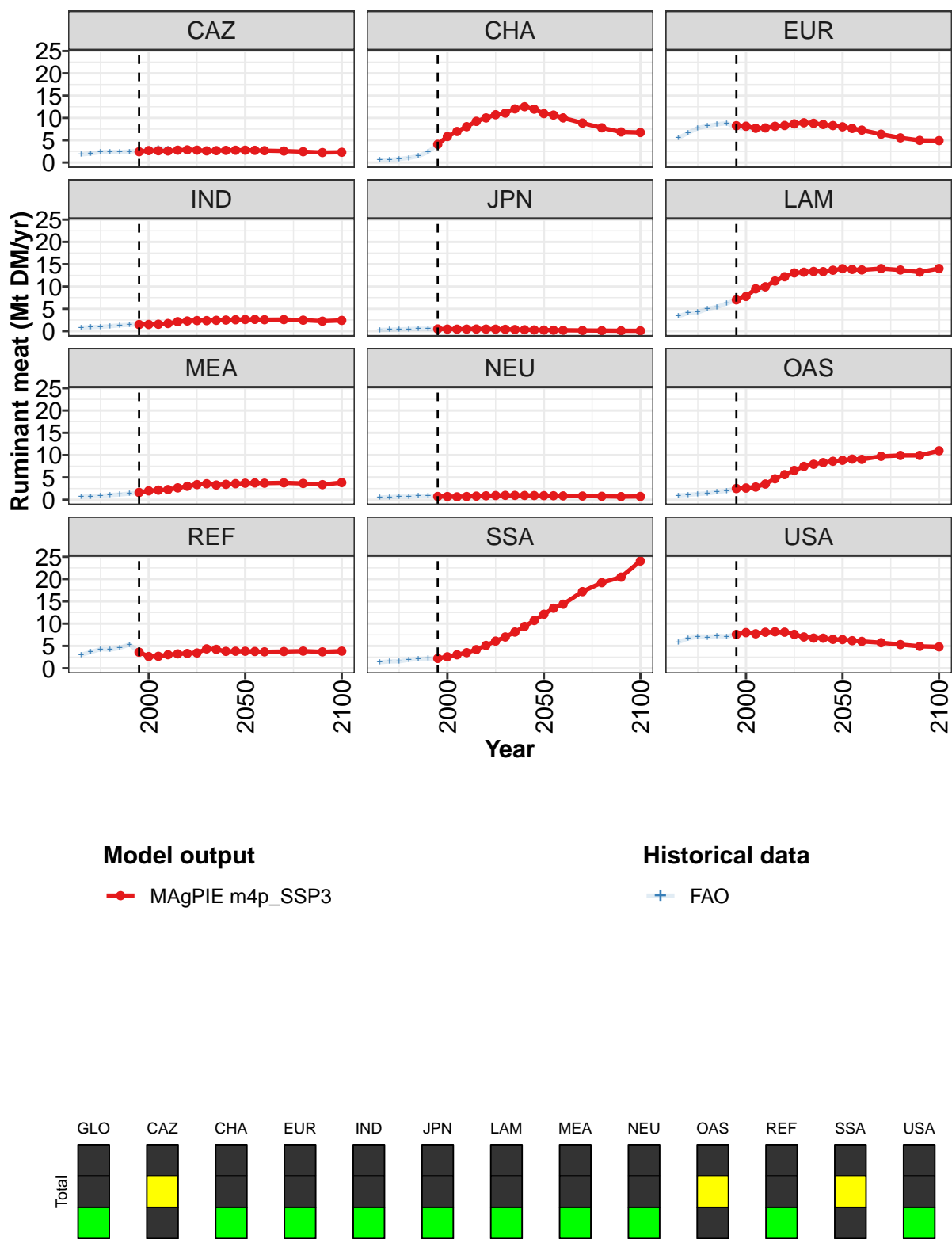


Figure 363: MAgPIE m4p_SSP3 — Production—Livestock products—Ruminant meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	42.0	44.9	47.8	51.6	57.7	62.1	66.0	69.0	71.0	72.5	73.6
CAZ	2.4	2.7	2.6	2.6	2.8	2.8	2.8	2.6	2.7	2.7	2.8
CHA	4.1	5.8	7.0	8.0	9.2	10.0	10.7	11.1	12.0	12.5	12.0
EUR	8.3	8.1	7.7	7.8	8.1	8.3	8.7	8.9	8.8	8.5	8.3
IND	1.5	1.5	1.5	1.7	2.1	2.3	2.4	2.4	2.4	2.5	2.5
JPN	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.3
LAM	7.0	7.8	9.5	9.9	11.2	12.2	13.0	13.2	13.4	13.3	13.7
MEA	1.6	2.0	2.1	2.3	2.6	3.0	3.4	3.6	3.3	3.4	3.6
NEU	0.7	0.7	0.6	0.7	0.8	0.9	0.9	1.0	1.0	1.0	0.9
OAS	2.5	2.6	2.8	3.5	4.7	5.6	6.6	7.5	7.9	8.3	8.6
REF	3.6	2.6	2.7	3.0	3.2	3.3	3.4	4.3	4.2	3.8	3.8
SSA	2.2	2.6	3.0	3.5	4.2	5.1	6.1	7.0	8.1	9.4	10.7
USA	7.6	8.0	7.7	8.1	8.2	8.1	7.6	7.0	6.8	6.7	6.5

Table 1425: MAgPIE m4p_SSP3 — Production—Livestock products—Ruminant meat (Mt DM/yr) [PART 1/2]

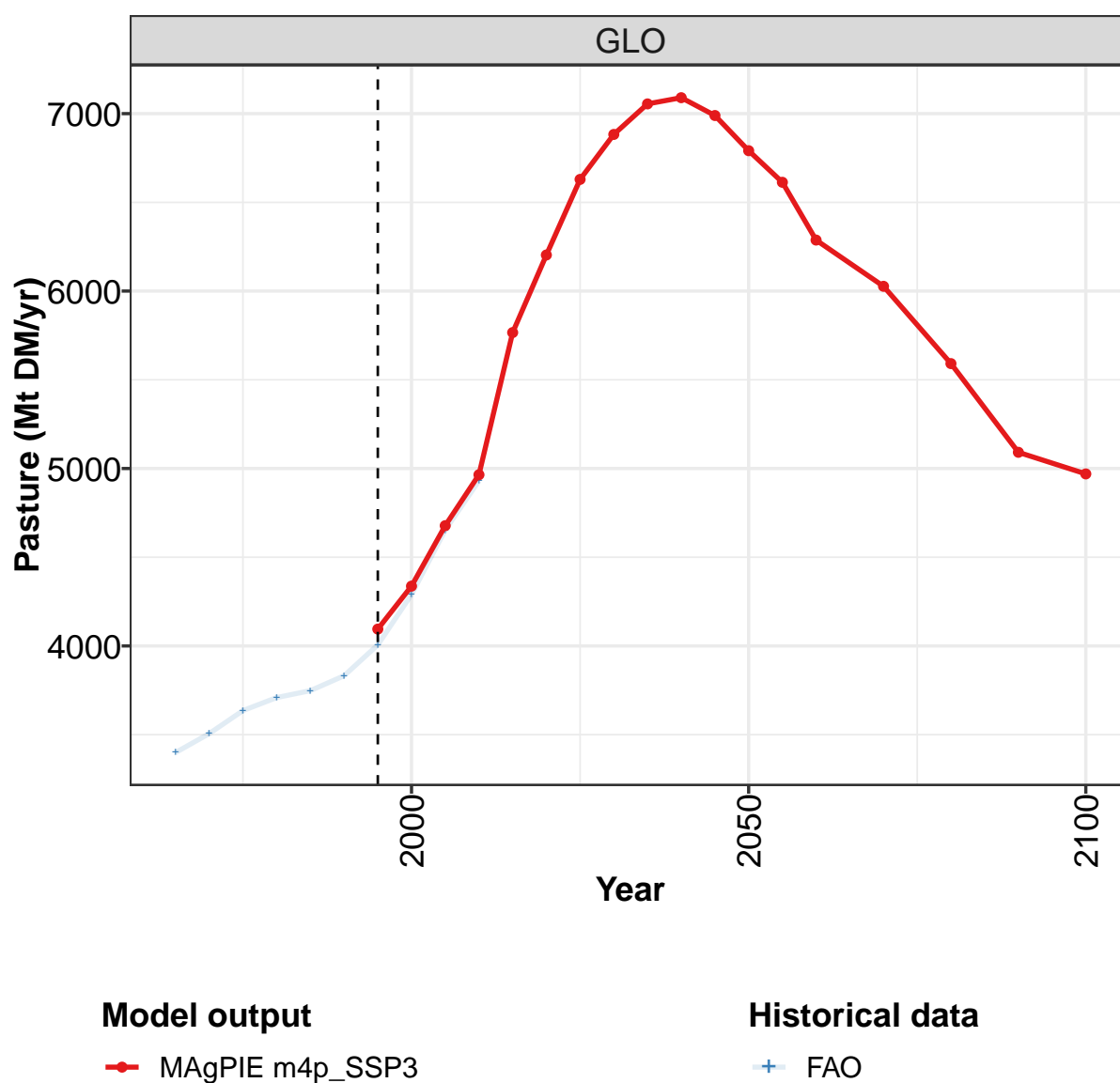
	2050	2055	2060	2070	2080	2090	2100
GLO	74.4	74.9	74.1	75.5	74.7	72.6	78.7
CAZ	2.8	2.7	2.7	2.6	2.4	2.2	2.3
CHA	11.0	10.6	10.0	8.9	7.8	6.9	6.7
EUR	8.0	7.6	7.3	6.4	5.5	5.0	4.9
IND	2.6	2.6	2.6	2.6	2.5	2.2	2.4
JPN	0.2	0.2	0.2	0.1	0.1	0.1	0.1
LAM	14.0	13.8	13.7	14.0	13.7	13.2	14.0
MEA	3.7	3.8	3.7	3.8	3.6	3.4	3.8
NEU	0.9	0.9	0.9	0.8	0.8	0.7	0.7
OAS	8.8	9.1	9.0	9.7	9.9	9.9	11.0
REF	3.8	3.8	3.7	3.8	3.8	3.7	3.8
SSA	12.1	13.5	14.4	17.2	19.2	20.4	24.1
USA	6.4	6.2	6.0	5.7	5.3	4.9	4.8

Table 1426: MAgPIE m4p_SSP3 — Production—Livestock products—Ruminant meat (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	24.7	28.8	32.2	34.3	37.2	40.6	42.1	44.9	47.9	51.7
CAZ	1.8	2.0	2.3	2.4	2.3	2.4	2.7	3.0	3.2	3.0
CHA	0.5	0.6	0.8	1.0	1.4	2.4	4.1	5.8	6.9	8.0
EUR	5.5	6.6	7.7	8.2	8.6	8.8	7.8	7.6	7.4	7.5
IND	0.8	0.9	1.0	1.1	1.3	1.4	1.5	1.5	1.6	1.8
JPN	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4
LAM	3.3	4.1	4.2	5.0	5.4	6.2	7.0	7.8	9.2	9.5
MEA	0.7	0.8	0.9	1.0	1.2	1.4	1.6	2.0	2.2	2.3
NEU	0.5	0.6	0.7	0.7	0.8	0.8	0.7	0.7	0.6	0.7
OAS	1.0	1.1	1.3	1.4	1.7	2.0	2.5	2.6	2.8	3.5
REF	3.0	3.6	4.3	4.2	4.6	5.3	3.6	2.6	2.7	3.0
SSA	1.4	1.5	1.6	1.9	2.1	2.2	2.2	2.6	3.0	3.5
USA	5.9	6.7	7.1	6.9	7.2	7.1	7.8	8.2	7.8	8.4

Table 1427: FAO — Production—Livestock products—Ruminant meat (Mt DM/yr)

49 Pasture



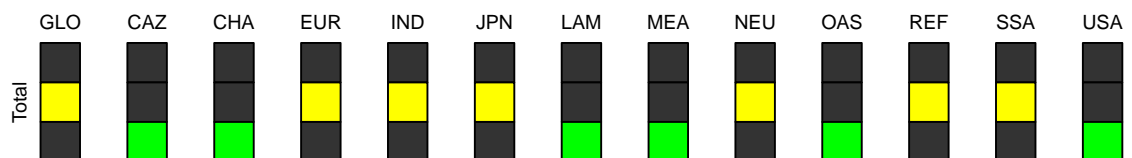
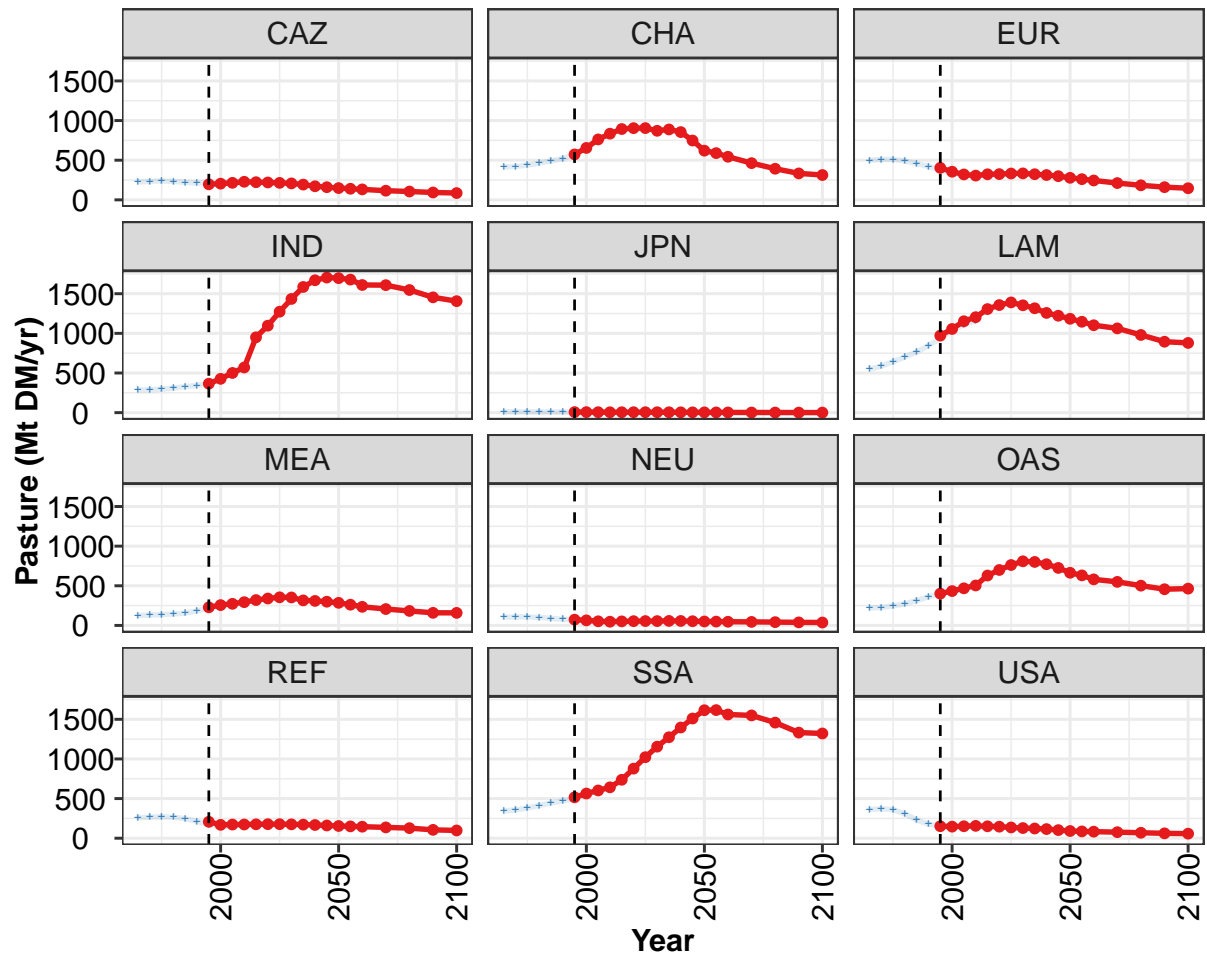


Figure 364: MAgPIE m4p_SSP3 — Production—Pasture (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4095	4337	4678	4965	5766	6203	6629	6883	7055	7090	6989
CAZ	196	205	215	228	223	219	214	208	193	171	160
CHA	573	655	762	835	893	905	905	871	888	855	748
EUR	404	355	321	306	322	325	332	334	324	313	299
IND	365	427	501	570	950	1097	1273	1434	1586	1670	1704
JPN	7	7	6	5	6	6	6	6	5	5	4
LAM	972	1056	1153	1204	1306	1357	1390	1354	1317	1258	1222
MEA	228	257	273	294	320	340	355	353	316	309	299
NEU	73	64	52	47	51	54	55	55	57	57	53
OAS	401	434	468	504	630	700	762	809	801	772	725
REF	207	169	173	174	176	177	177	175	172	167	161
SSA	516	564	603	642	737	878	1023	1155	1274	1397	1510
USA	152	146	151	156	151	146	136	129	123	116	103

Table 1428: MAgPIE m4p_SSP3 — Production—Pasture (Mt DM/yr) [PART 1/2]

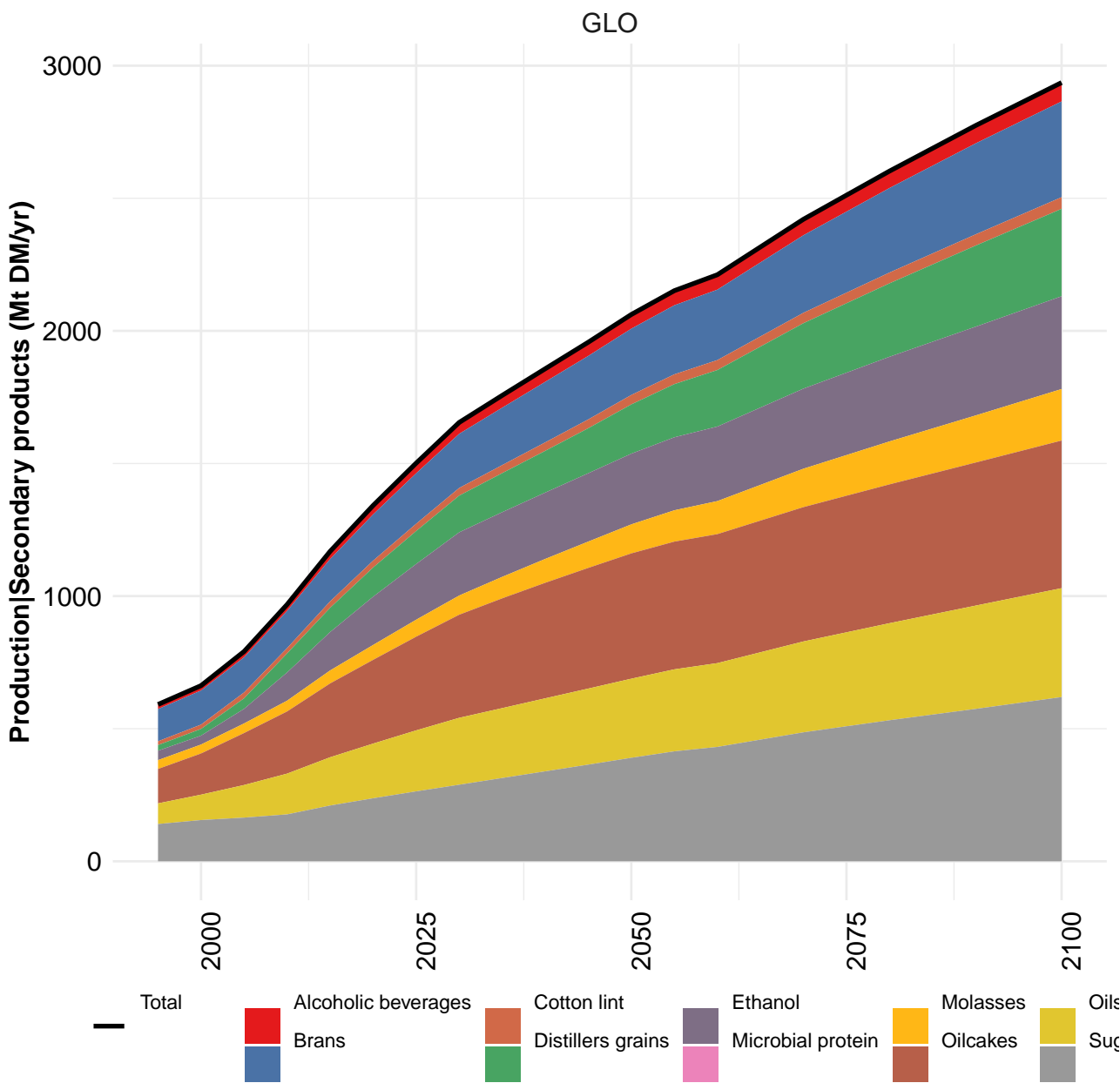
	2050	2055	2060	2070	2080	2090	2100
GLO	6791	6613	6287	6027	5591	5091	4970
CAZ	149	140	132	115	105	93	86
CHA	621	590	544	463	392	333	313
EUR	278	261	244	212	183	160	147
IND	1696	1679	1610	1608	1547	1454	1406
JPN	3	3	3	2	1	1	1
LAM	1184	1146	1103	1063	980	895	879
MEA	285	262	235	207	183	159	159
NEU	50	49	47	45	42	39	37
OAS	664	631	581	550	502	457	464
REF	154	150	145	137	127	106	98
SSA	1615	1617	1561	1549	1458	1332	1321
USA	91	86	83	76	69	62	58

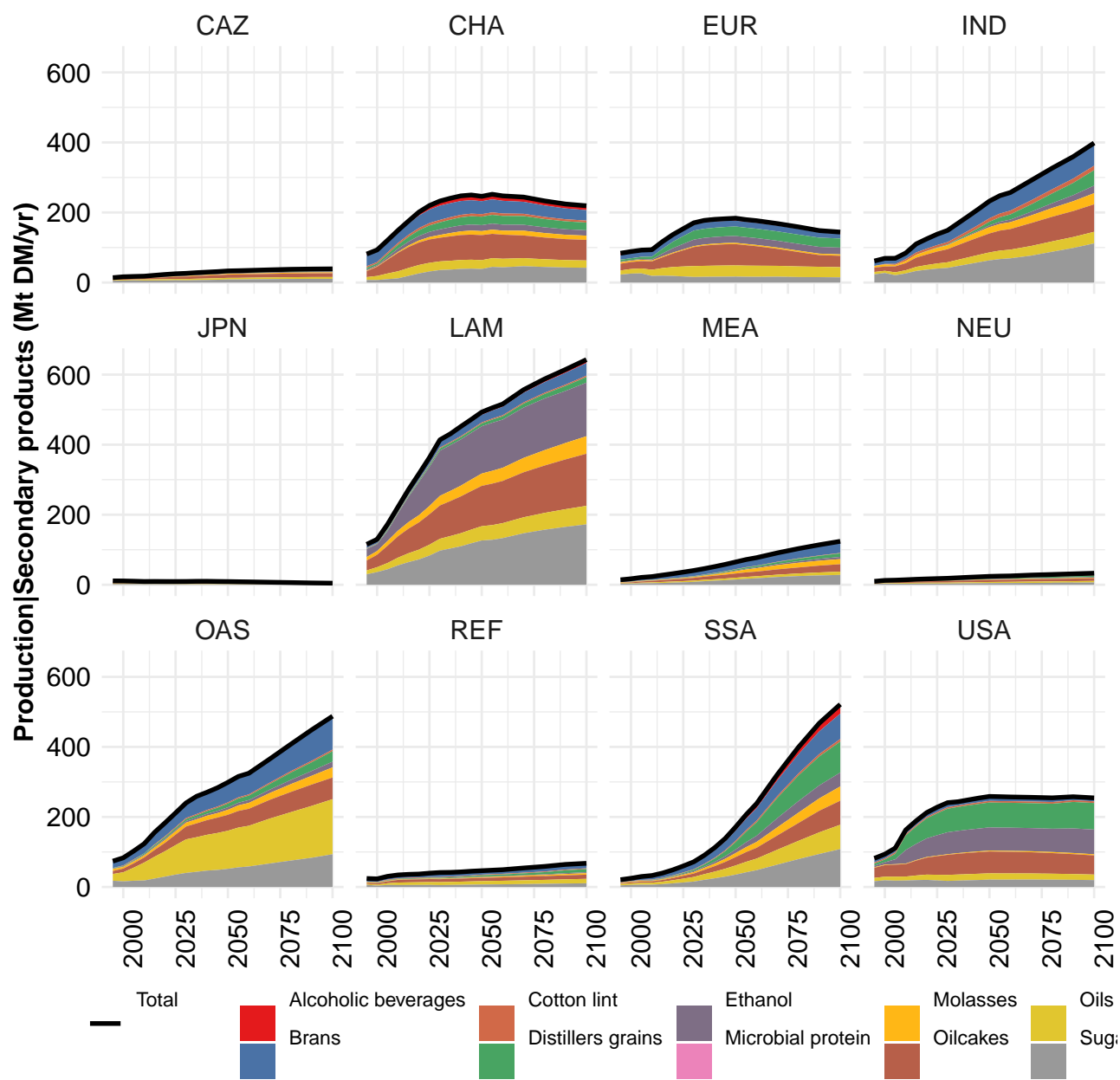
Table 1429: MAgPIE m4p_SSP3 — Production—Pasture (Mt DM/yr) [PART 2/2]

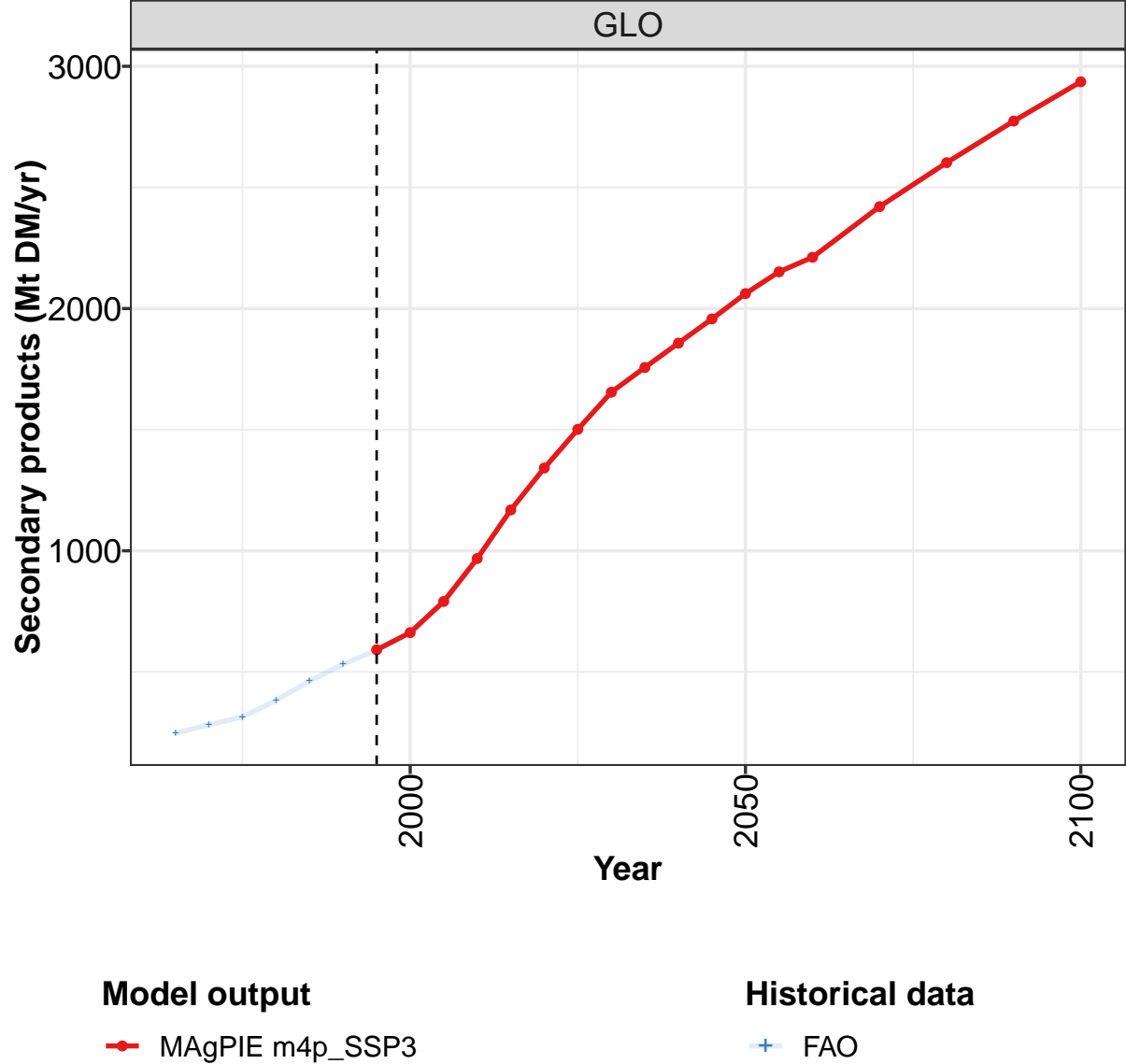
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3399	3506	3636	3709	3748	3832	4006	4290	4653	4931
CAZ	225	234	239	233	220	212	215	223	229	231
CHA	414	422	438	463	490	521	572	657	760	832
EUR	499	509	510	491	457	421	381	339	309	296
IND	287	288	295	311	328	342	367	429	522	594
JPN	10	10	9	9	8	8	7	7	6	5
LAM	548	586	643	702	765	845	939	1034	1113	1157
MEA	127	130	136	142	156	183	222	260	284	294
NEU	105	107	107	101	89	78	68	59	51	47
OAS	218	228	246	273	313	360	402	438	475	503
REF	260	266	270	265	246	213	173	148	152	168
SSA	344	357	381	412	443	471	502	546	600	640
USA	362	371	361	307	230	177	157	149	152	162

Table 1430: FAO — Production—Pasture (Mt DM/yr)

50 Secondary products







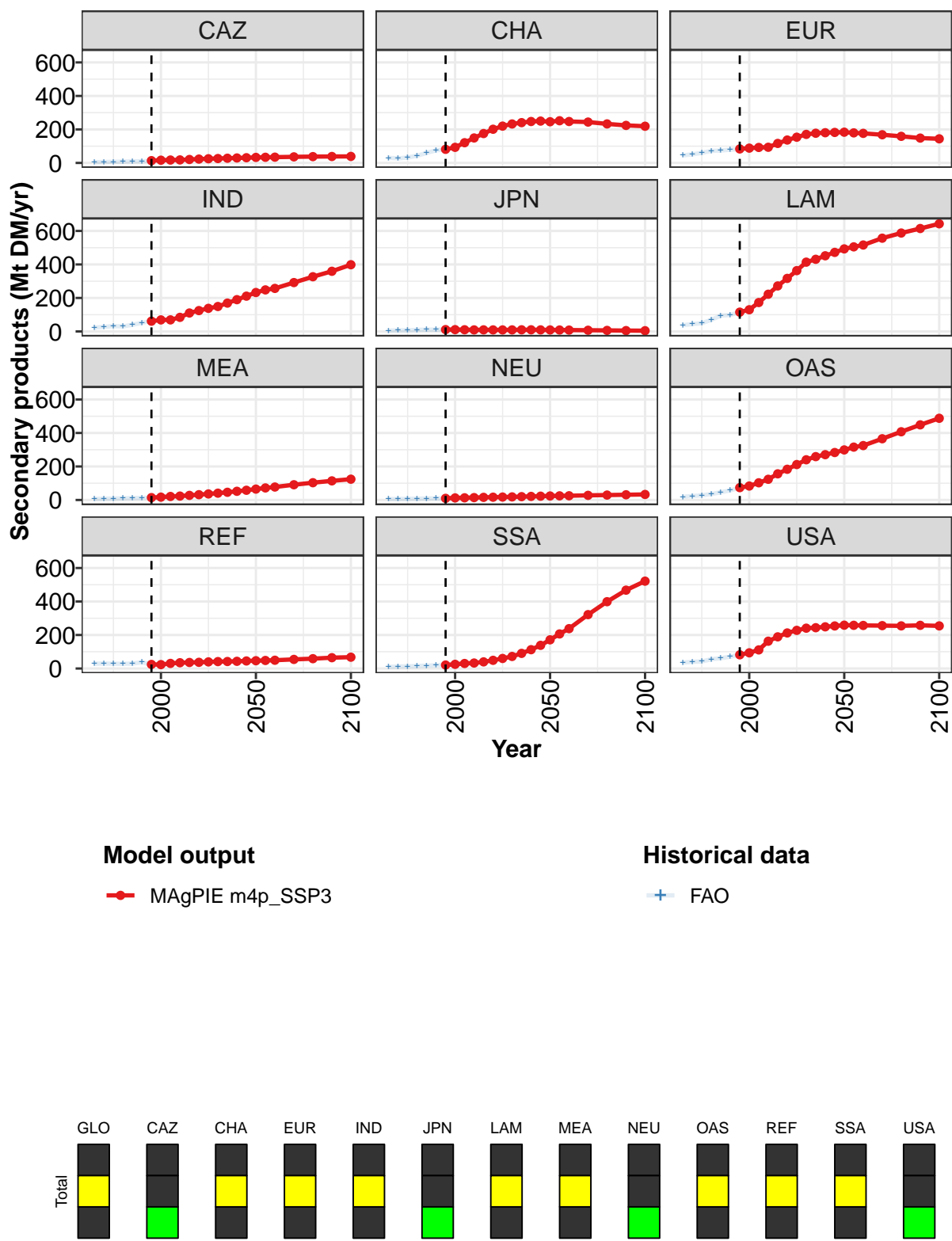


Figure 365: MAgPIE m4p_SSP3 — Production—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	591	662	791	968	1169	1342	1501	1655	1757	1857	1957
CAZ	14	16	17	18	21	23	25	26	28	30	31
CHA	81	93	121	149	176	201	220	233	241	247	250
EUR	84	88	93	94	117	137	154	170	177	180	182
IND	61	69	69	84	110	125	138	149	169	190	211
JPN	11	11	10	9	10	9	9	9	10	10	9
LAM	115	130	173	222	272	317	363	414	431	452	472
MEA	14	17	21	23	28	32	36	41	46	52	58
NEU	10	12	13	14	16	17	18	18	20	21	23
OAS	74	83	103	124	156	183	212	240	259	271	283
REF	24	23	30	34	36	37	39	41	42	43	45
SSA	21	25	30	33	40	49	60	72	90	112	138
USA	82	94	111	163	189	212	228	241	244	249	254

Table 1431: MAgPIE m4p-SSP3 — Production—Secondary products (Mt DM/yr) [PART 1/2]

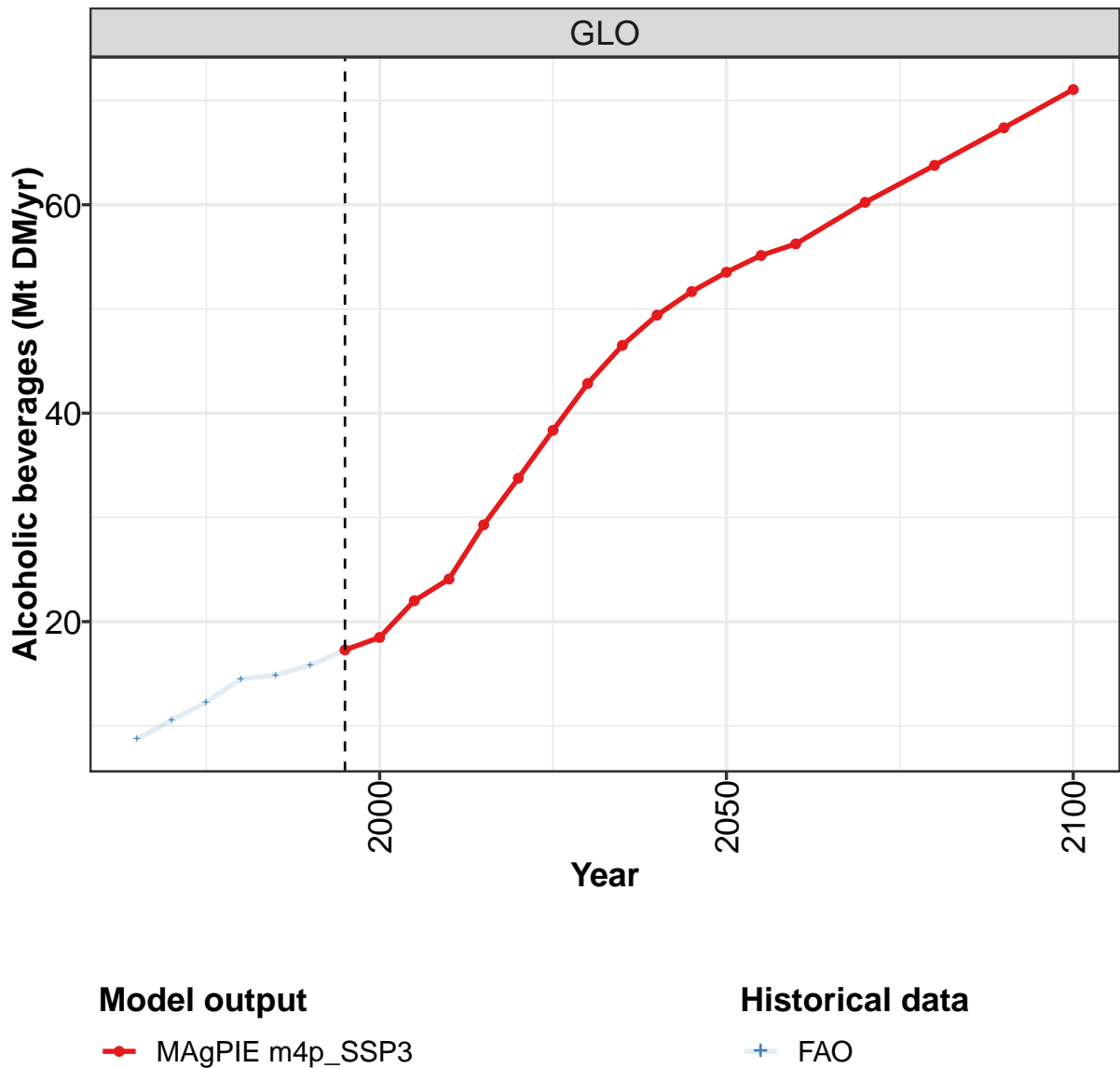
	2050	2055	2060	2070	2080	2090	2100
GLO	2062	2152	2212	2421	2602	2774	2936
CAZ	33	34	35	36	38	39	39
CHA	246	252	247	244	233	224	219
EUR	184	180	177	168	159	148	144
IND	233	248	257	292	327	359	398
JPN	9	9	8	7	6	5	5
LAM	493	505	516	557	588	615	643
MEA	65	72	77	91	103	114	124
NEU	24	25	25	28	29	31	33
OAS	299	316	325	366	407	449	488
REF	47	48	49	54	59	65	68
SSA	171	206	238	322	399	468	522
USA	259	258	257	256	255	258	254

Table 1432: MAgPIE m4p-SSP3 — Production—Secondary products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	247	281	315	383	462	532	590	657	786	964
CAZ	5	6	7	8	9	10	13	16	16	18
CHA	30	27	32	43	60	75	81	93	120	149
EUR	45	51	60	72	74	79	82	86	88	92
IND	23	28	32	30	40	51	64	69	69	84
JPN	5	7	7	9	11	11	11	11	10	9
LAM	37	44	49	70	94	98	115	127	175	218
MEA	6	8	9	10	12	12	14	17	20	23
NEU	5	6	7	8	9	10	9	11	13	14
OAS	19	23	28	35	46	58	73	83	101	126
REF	28	30	28	28	30	37	23	22	30	34
SSA	9	12	13	15	17	20	21	25	30	32
USA	35	40	42	56	62	70	83	96	114	164

Table 1433: FAO — Production—Secondary products (Mt DM/yr)

50.1 Alcoholic beverages



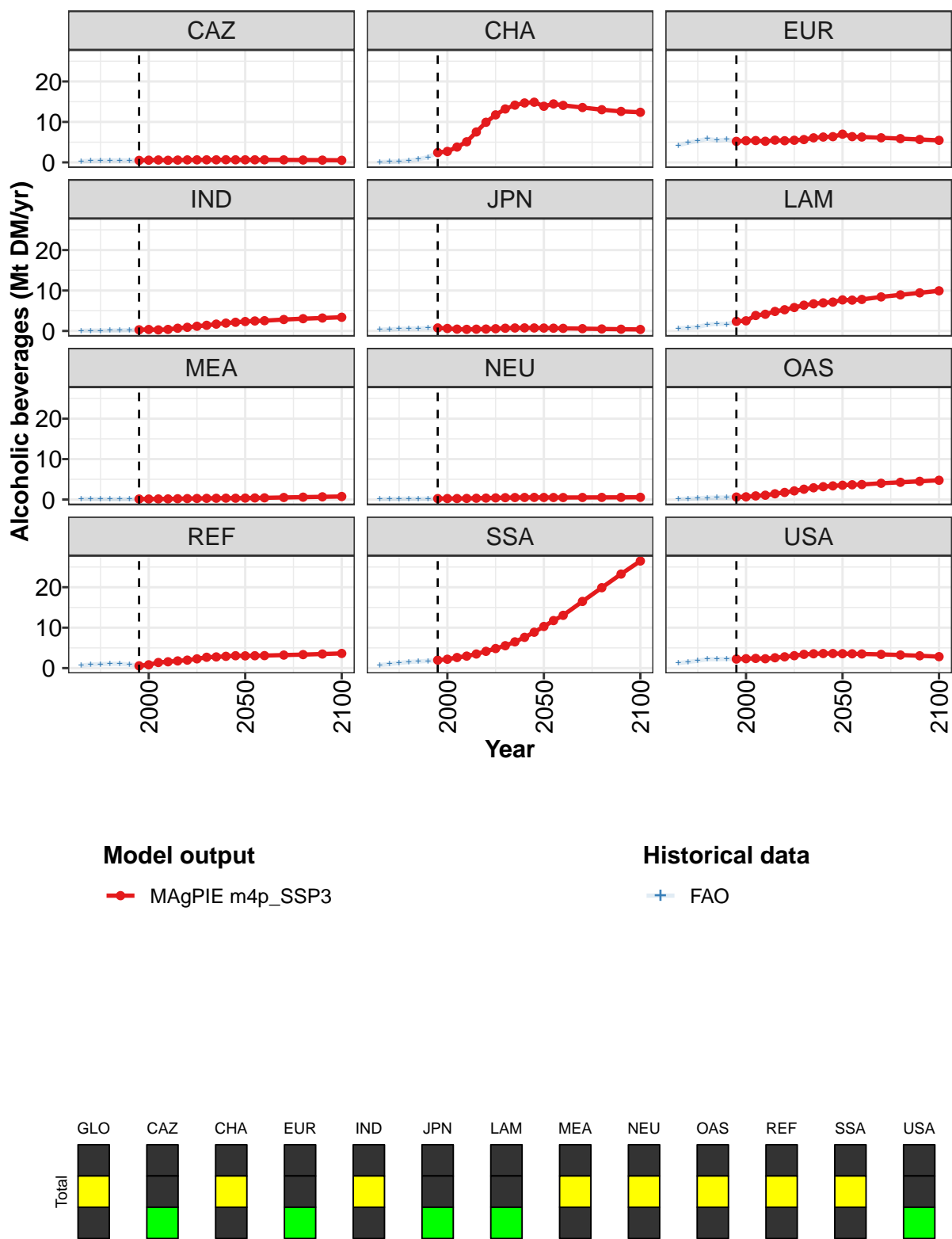


Figure 366: MAgPIE m4p_SSP3 — Production—Secondary products—Alcoholic beverages (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17.3	18.5	22.0	24.1	29.3	33.8	38.4	42.9	46.5	49.4	51.7
CAZ	0.5	0.5	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6
CHA	2.4	2.7	3.8	5.1	7.5	9.9	11.8	13.2	14.2	14.7	14.9
EUR	5.2	5.4	5.4	5.2	5.5	5.4	5.5	5.6	6.1	6.3	6.4
IND	0.3	0.4	0.3	0.4	0.7	0.9	1.2	1.4	1.7	1.9	2.1
JPN	0.7	0.6	0.4	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.7
LAM	2.4	2.5	3.8	4.1	4.8	5.2	5.8	6.4	6.7	6.9	7.1
MEA	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
NEU	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5
OAS	0.6	0.7	0.9	1.1	1.4	1.8	2.1	2.6	2.9	3.2	3.4
REF	0.6	0.8	1.4	1.6	1.8	2.0	2.3	2.7	2.8	2.9	3.1
SSA	2.0	2.2	2.6	3.0	3.5	4.1	4.8	5.5	6.5	7.6	8.9
USA	2.2	2.3	2.4	2.3	2.6	2.8	3.1	3.4	3.5	3.6	3.6

Table 1434: MAgPIE m4p_SSP3 — Production—Secondary products—Alcoholic beverages (Mt DM/yr) [PART 1/2]

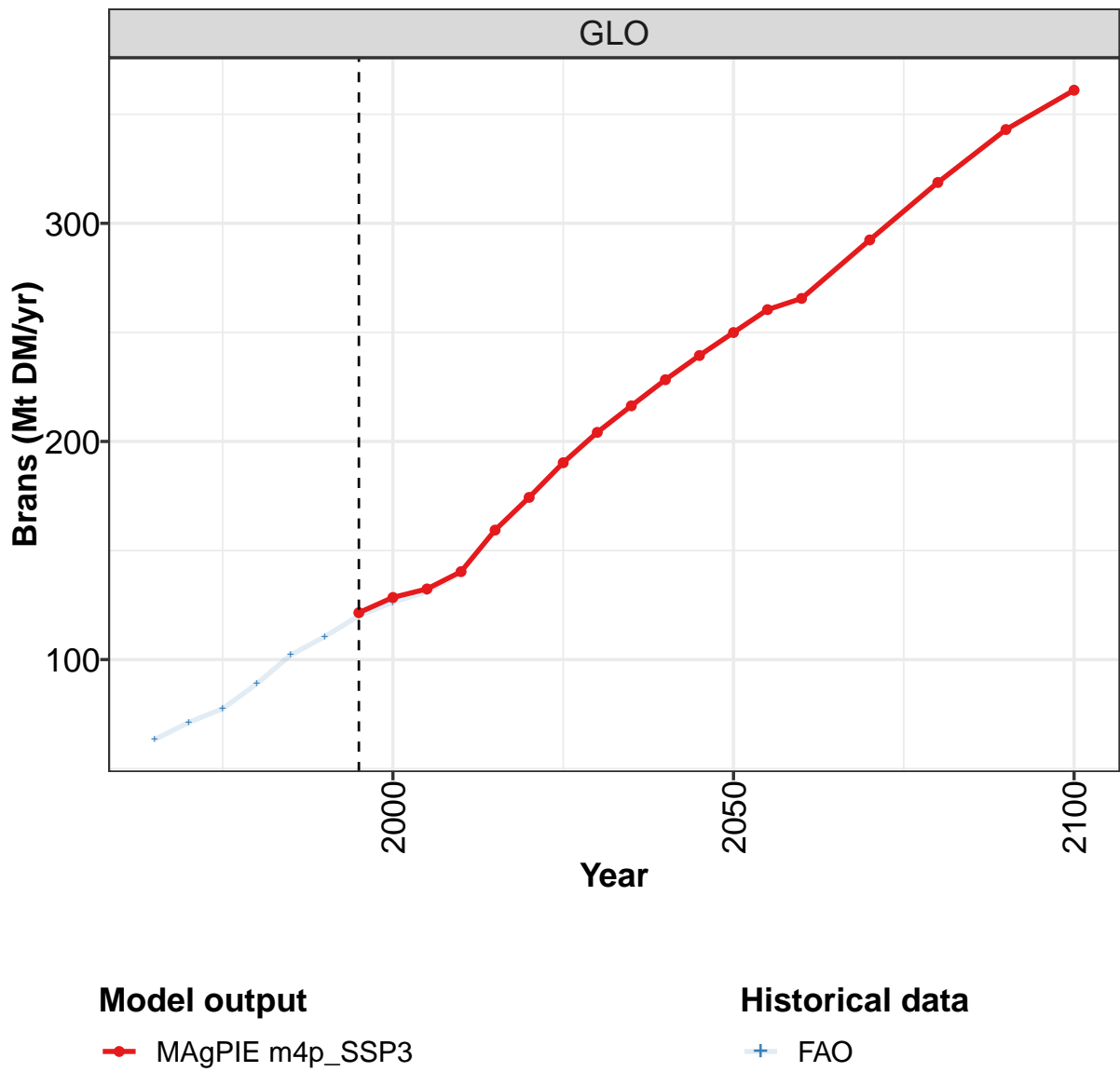
	2050	2055	2060	2070	2080	2090	2100
GLO	53.5	55.1	56.2	60.2	63.8	67.4	71.1
CAZ	0.6	0.6	0.6	0.6	0.6	0.6	0.5
CHA	13.9	14.5	14.1	13.6	13.0	12.6	12.4
EUR	7.0	6.4	6.3	6.1	5.9	5.7	5.4
IND	2.3	2.5	2.5	2.8	3.0	3.2	3.4
JPN	0.7	0.7	0.6	0.6	0.5	0.4	0.4
LAM	7.7	7.6	7.8	8.4	8.9	9.4	9.9
MEA	0.4	0.4	0.4	0.5	0.6	0.7	0.8
NEU	0.5	0.5	0.5	0.5	0.5	0.5	0.6
OAS	3.5	3.7	3.7	4.0	4.3	4.5	4.8
REF	3.0	3.1	3.1	3.2	3.3	3.5	3.6
SSA	10.3	11.8	13.0	16.5	19.9	23.3	26.5
USA	3.6	3.5	3.5	3.4	3.2	3.0	2.8

Table 1435: MAgPIE m4p_SSP3 — Production—Secondary products—Alcoholic beverages (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	8.7	10.5	12.3	14.5	14.9	15.8	17.3	18.5	22.0	24.1
CAZ	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5
CHA	0.1	0.1	0.2	0.4	0.8	1.3	2.4	2.7	3.8	5.1
EUR	4.2	4.9	5.3	5.8	5.4	5.6	5.2	5.4	5.3	5.1
IND	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.4
JPN	0.3	0.4	0.5	0.6	0.6	0.7	0.7	0.6	0.4	0.4
LAM	0.7	0.8	1.0	1.6	1.8	1.7	2.4	2.5	3.9	4.2
MEA	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
NEU	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
OAS	0.1	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.9	1.0
REF	0.6	0.9	1.0	1.1	1.1	0.9	0.6	0.8	1.4	1.6
SSA	0.8	1.0	1.3	1.5	1.6	1.8	1.9	2.2	2.6	3.0
USA	1.2	1.5	1.8	2.2	2.2	2.3	2.2	2.3	2.4	2.3

Table 1436: FAO — Production—Secondary products—Alcoholic beverages (Mt DM/yr)

50.2 Brans



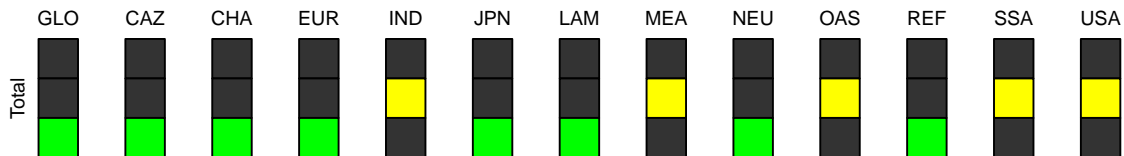
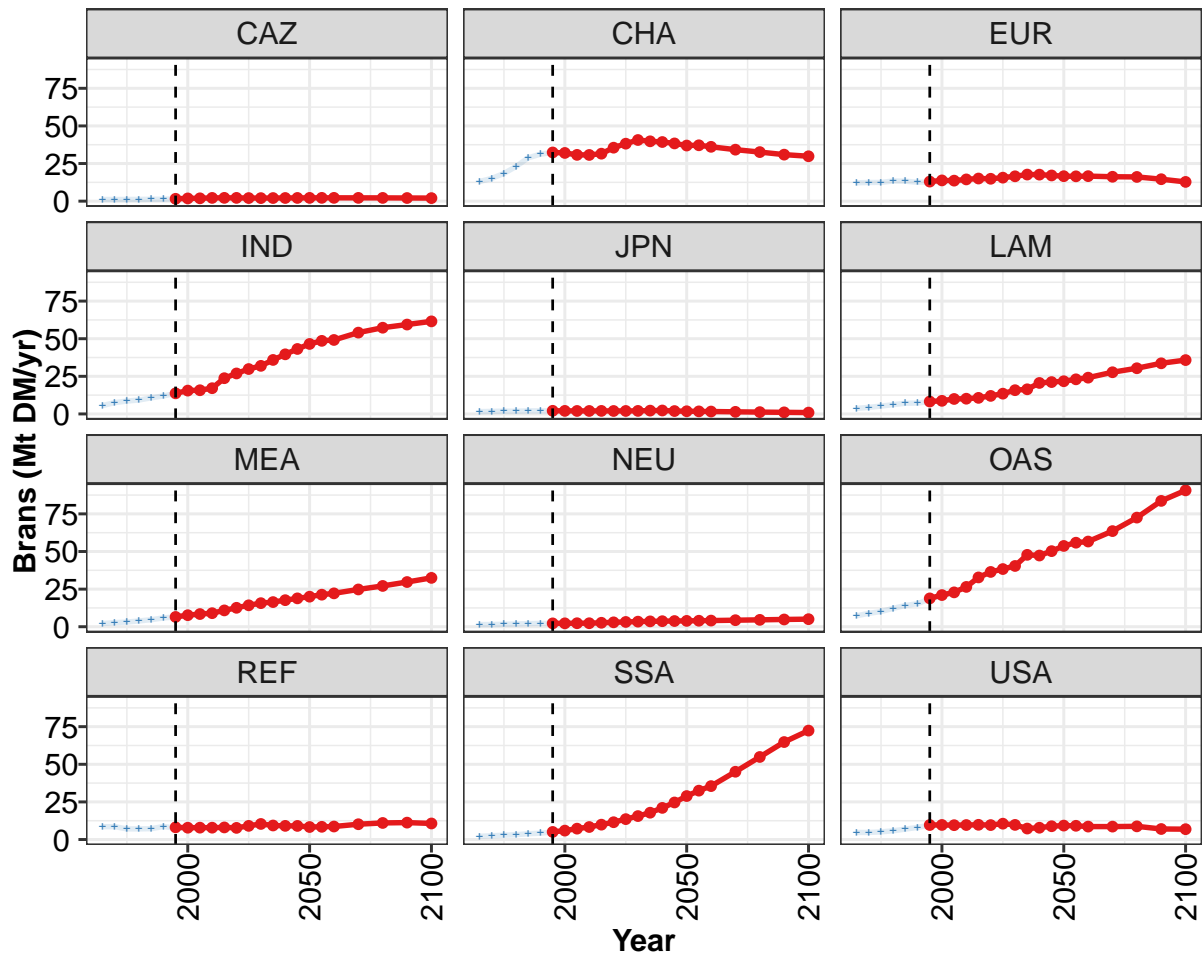


Figure 367: MAgPIE m4p_SSP3 — Production—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	122	128	132	140	159	174	190	204	216	228	239
CAZ	2	2	2	2	2	2	2	2	2	2	2
CHA	32	32	31	31	32	36	38	41	40	39	38
EUR	13	14	14	14	15	15	16	17	18	18	17
IND	14	16	16	17	24	27	30	32	36	40	43
JPN	2	2	2	2	2	2	2	2	2	2	2
LAM	8	9	10	10	11	12	13	16	16	21	21
MEA	7	8	8	9	11	13	14	16	16	18	19
NEU	2	2	2	2	3	3	3	3	4	4	4
OAS	19	21	23	26	33	36	38	40	48	47	50
REF	8	8	8	8	8	8	9	10	9	9	9
SSA	5	6	7	8	10	12	14	16	18	21	25
USA	10	10	10	10	10	10	11	10	7	8	9

Table 1437: MAgPIE m4p_SSP3 — Production—Secondary products—Brans (Mt DM/yr) [PART 1/2]

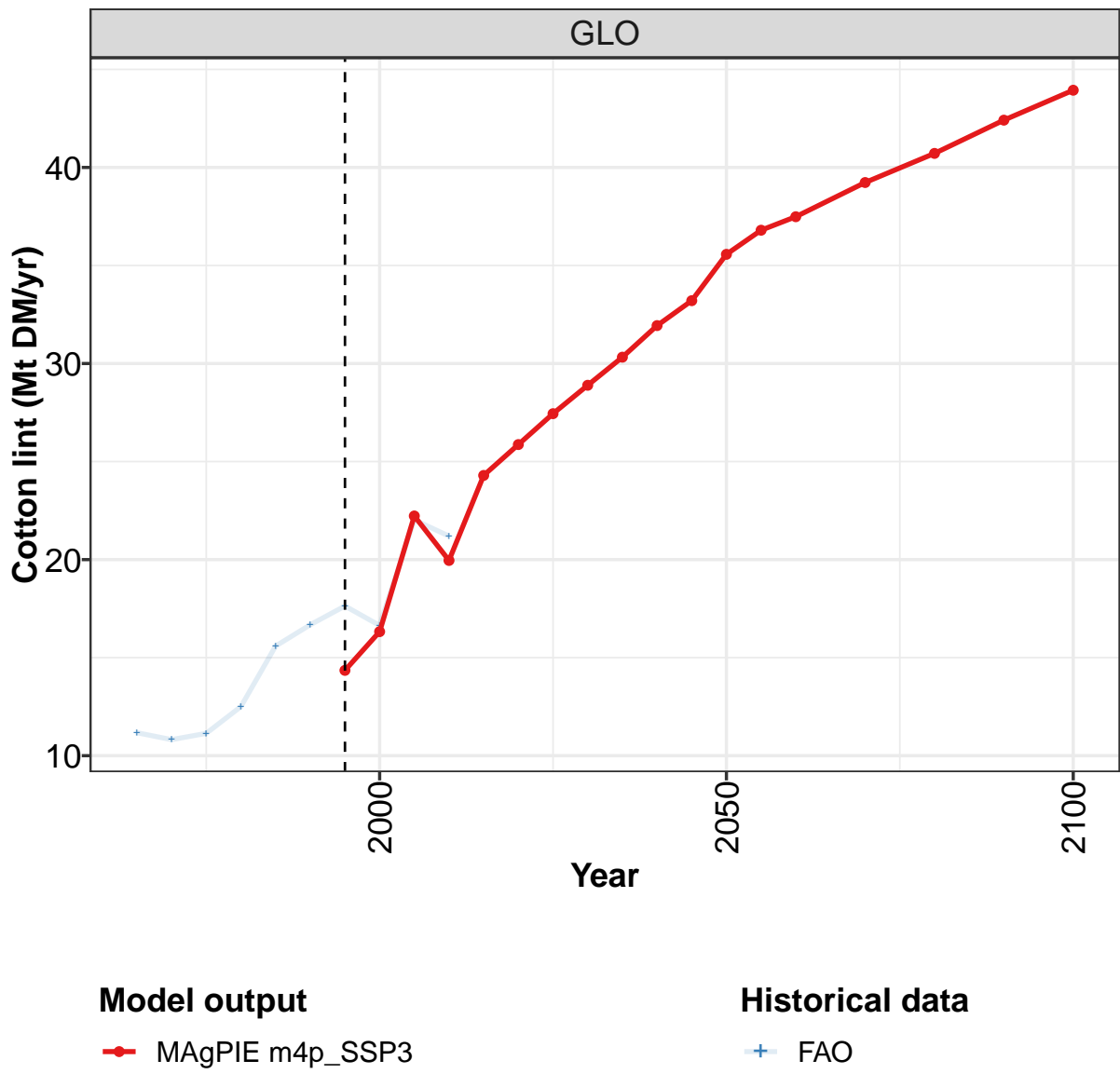
	2050	2055	2060	2070	2080	2090	2100
GLO	250	260	266	292	319	343	361
CAZ	2	2	2	2	2	2	2
CHA	37	37	36	34	33	31	30
EUR	17	17	17	16	16	15	13
IND	47	49	49	54	57	59	62
JPN	2	2	2	1	1	1	1
LAM	22	23	24	28	30	34	36
MEA	20	21	22	25	27	30	32
NEU	4	4	4	4	5	5	5
OAS	54	56	57	64	73	84	91
REF	8	8	9	10	11	11	11
SSA	29	32	36	45	55	65	72
USA	9	9	9	9	9	7	7

Table 1438: MAgPIE m4p_SSP3 — Production—Secondary products—Brans (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	63	71	77	89	102	111	120	126	131	140
CAZ	1	1	1	1	1	1	2	2	2	2
CHA	13	15	18	23	29	31	32	32	31	31
EUR	12	12	12	13	13	13	13	13	13	14
IND	6	8	9	9	11	12	14	16	16	17
JPN	2	2	2	2	2	2	2	2	2	2
LAM	4	4	5	6	7	7	8	9	10	10
MEA	2	3	3	4	5	6	7	7	8	9
NEU	1	2	2	2	2	2	2	2	2	2
OAS	7	9	10	12	14	15	19	21	23	26
REF	9	9	7	7	7	9	8	8	8	8
SSA	2	3	3	3	4	4	5	6	7	8
USA	5	5	5	6	7	8	10	10	10	10

Table 1439: FAO — Production—Secondary products—Brans (Mt DM/yr)

50.3 Cotton lint



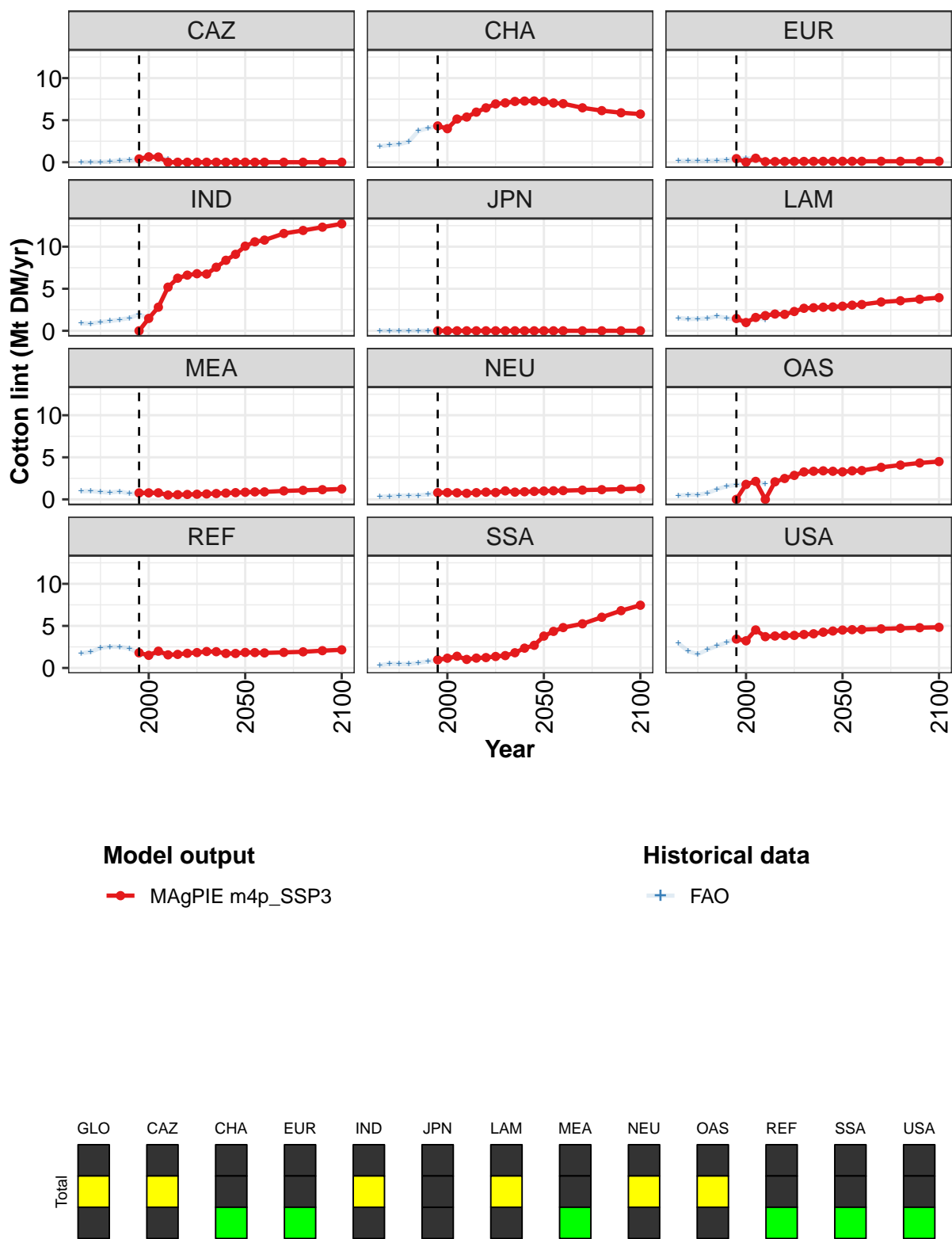


Figure 368: MAgPIE m4p_SSP3 — Production—Secondary products—Cotton lint (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	14.4	16.3	22.2	20.0	24.3	25.9	27.4	28.9	30.3	31.9	33.2
CAZ	0.4	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	4.3	4.0	5.1	5.4	6.0	6.5	6.9	7.1	7.2	7.3	7.3
EUR	0.4	0.0	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	0.0	1.5	2.8	5.2	6.3	6.6	6.8	6.7	7.6	8.4	9.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.5	1.0	1.6	1.8	2.0	2.0	2.3	2.7	2.7	2.8	2.8
MEA	0.8	0.8	0.8	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.8
NEU	0.8	0.8	0.8	0.7	0.8	0.9	0.8	1.0	0.9	0.9	0.9
OAS	0.0	1.8	2.1	0.0	2.1	2.5	2.9	3.3	3.3	3.4	3.3
REF	1.8	1.5	2.0	1.6	1.6	1.7	1.8	2.0	1.9	1.7	1.7
SSA	1.0	1.2	1.4	1.0	1.2	1.2	1.4	1.5	1.8	2.4	2.7
USA	3.4	3.2	4.5	3.7	3.8	3.9	3.9	4.0	4.1	4.2	4.4

Table 1440: MAgPIE m4p_SSP3 — Production—Secondary products—Cotton lint (Mt DM/yr) [PART 1/2]

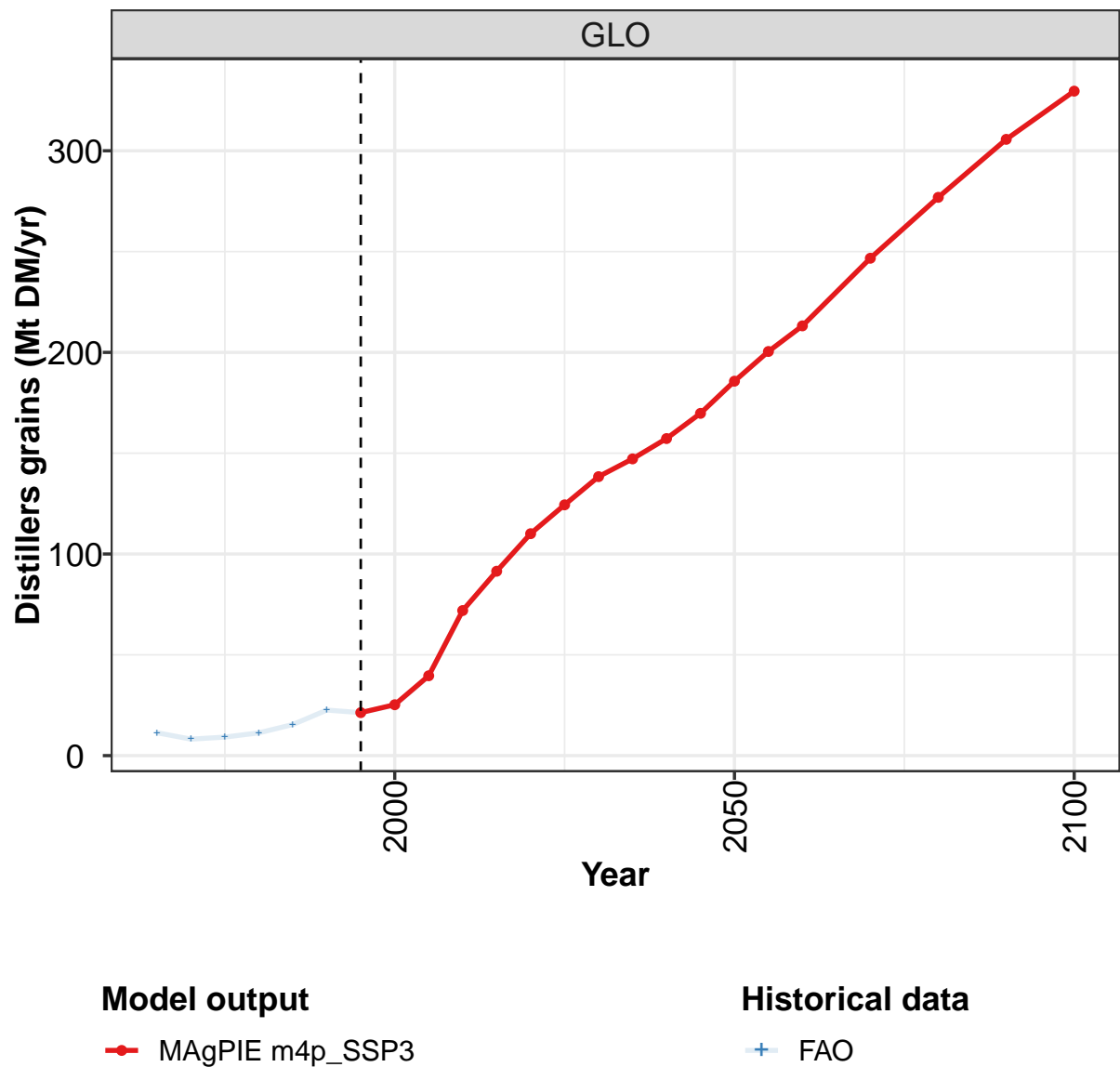
	2050	2055	2060	2070	2080	2090	2100
GLO	35.6	36.8	37.5	39.2	40.7	42.4	43.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	7.2	7.0	7.0	6.5	6.1	5.9	5.7
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.1
IND	10.1	10.6	10.8	11.6	11.9	12.3	12.7
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	2.9	3.0	3.1	3.4	3.6	3.8	3.9
MEA	0.8	0.9	0.9	1.0	1.1	1.2	1.2
NEU	1.0	1.0	1.0	1.1	1.2	1.2	1.3
OAS	3.3	3.4	3.4	3.8	4.1	4.3	4.5
REF	1.8	1.8	1.8	1.8	1.9	2.1	2.2
SSA	3.8	4.3	4.8	5.2	6.0	6.8	7.5
USA	4.5	4.5	4.6	4.6	4.7	4.8	4.8

Table 1441: MAgPIE m4p_SSP3 — Production—Secondary products—Cotton lint (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	11.2	10.8	11.1	12.5	15.6	16.7	17.6	16.6	22.0	21.2
CAZ	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.7	0.6	0.3
CHA	1.9	2.1	2.1	2.4	3.7	4.1	4.3	4.0	5.1	5.4
EUR	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.5	0.2
IND	0.9	0.9	1.0	1.2	1.3	1.5	2.0	1.5	2.8	5.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.5	1.4	1.4	1.5	1.7	1.5	1.3	1.0	1.6	1.3
MEA	1.0	1.0	0.9	0.8	0.9	0.7	0.7	0.7	0.7	0.4
NEU	0.3	0.4	0.4	0.5	0.5	0.6	0.8	0.8	0.8	0.7
OAS	0.4	0.5	0.5	0.8	1.2	1.6	1.7	1.8	2.1	1.8
REF	1.7	1.9	2.4	2.5	2.5	2.3	1.7	1.3	1.8	1.4
SSA	0.3	0.5	0.5	0.5	0.6	0.8	0.9	1.1	1.4	0.9
USA	2.9	2.0	1.6	2.2	2.6	3.0	3.5	3.4	4.7	3.5

Table 1442: FAO — Production—Secondary products—Cotton lint (Mt DM/yr)

50.4 Distillers grains



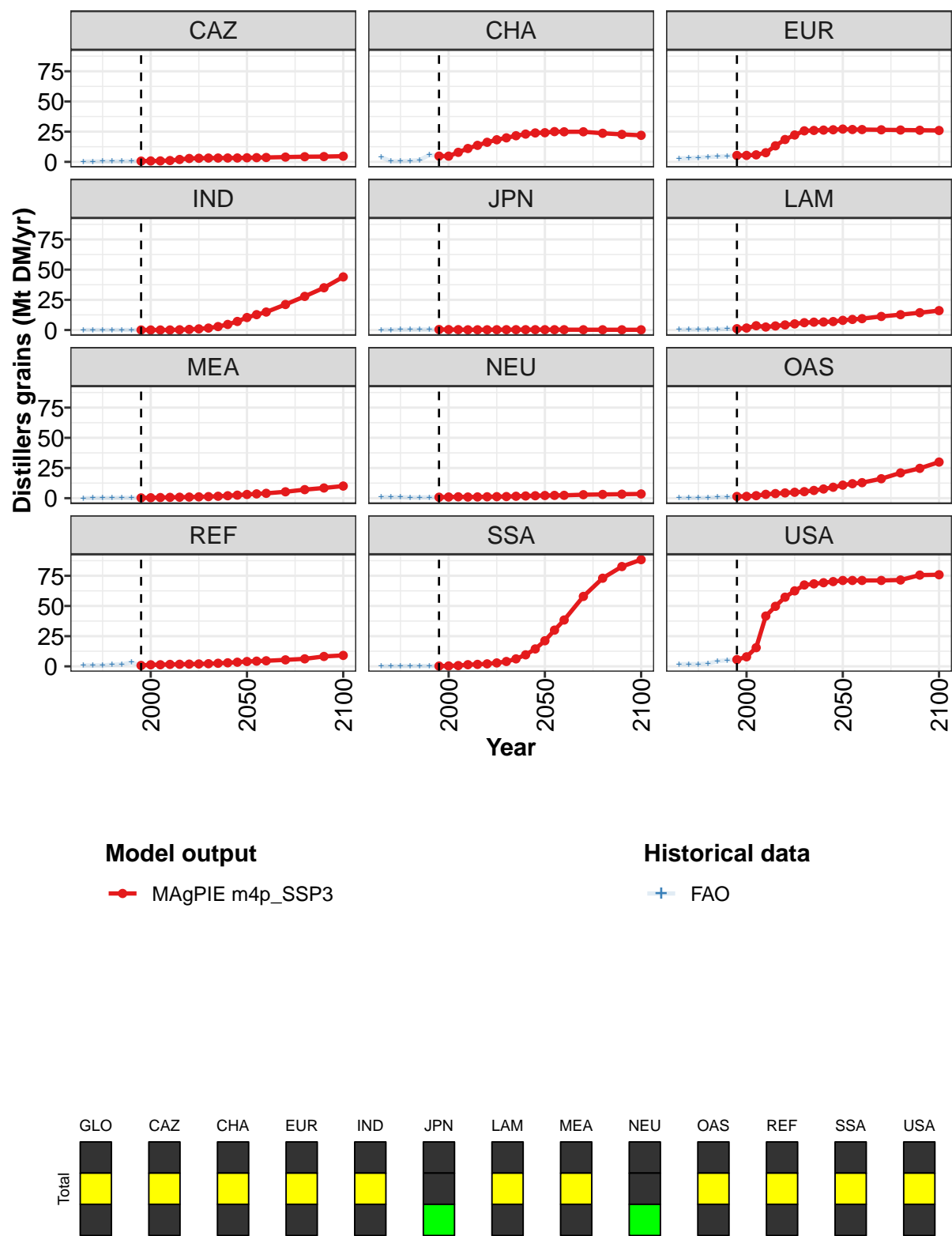


Figure 369: MAgPIE m4p_SSP3 — Production—Secondary products—Distillers grains (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	21	25	40	72	91	110	124	138	147	157	170
CAZ	1	1	1	1	2	3	3	3	3	3	3
CHA	5	5	8	11	14	16	18	20	22	23	24
EUR	5	5	6	8	13	18	22	26	26	26	27
IND	0	0	0	0	0	0	1	2	3	5	7
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1	2	4	2	3	4	5	6	7	7	7
MEA	0	0	1	1	1	1	1	1	2	2	3
NEU	1	1	1	1	1	1	1	1	2	2	2
OAS	1	2	2	3	4	4	5	5	6	8	9
REF	1	1	1	2	2	2	2	2	3	3	3
SSA	0	0	1	1	2	2	3	4	6	10	14
USA	6	8	15	42	50	57	62	67	68	69	70

Table 1443: MAgPIE m4p_SSP3 — Production—Secondary products—Distillers grains (Mt DM/yr) [PART 1/2]

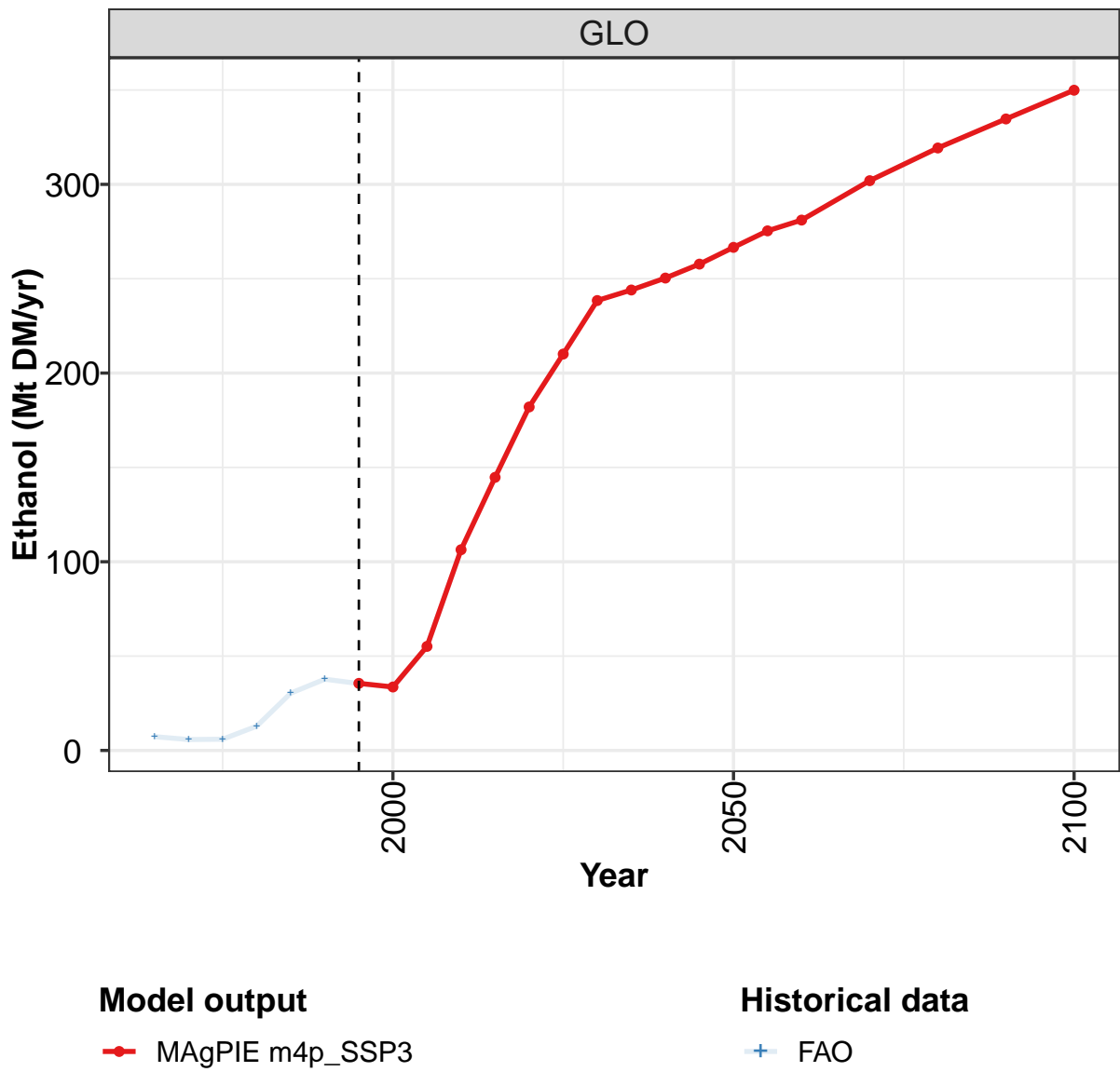
	2050	2055	2060	2070	2080	2090	2100
GLO	186	200	213	247	277	306	330
CAZ	3	3	4	4	4	4	5
CHA	24	25	25	25	24	23	22
EUR	27	27	27	27	26	26	26
IND	10	13	15	21	28	35	44
JPN	0	0	0	0	0	0	0
LAM	8	9	9	11	13	14	16
MEA	3	4	4	5	7	8	10
NEU	2	2	2	3	3	3	4
OAS	11	12	13	16	21	25	30
REF	4	4	5	5	6	8	9
SSA	21	30	38	58	73	83	88
USA	71	71	71	71	72	76	76

Table 1444: MAgPIE m4p_SSP3 — Production—Secondary products—Distillers grains (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	11.3	8.2	9.2	11.3	15.4	22.6	21.3	25.0	39.3	71.8
CAZ	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.8	0.7	1.1
CHA	4.0	0.4	0.6	0.8	1.6	5.7	4.8	4.7	7.9	11.1
EUR	2.8	3.0	3.5	4.0	4.3	4.7	5.3	5.2	5.7	7.4
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.3	0.3	0.2
LAM	0.3	0.3	0.4	0.5	0.6	0.9	1.1	1.7	3.6	2.5
MEA	0.0	0.1	0.1	0.2	0.3	0.2	0.3	0.4	0.5	0.7
NEU	0.9	0.8	0.9	0.6	0.6	0.7	0.8	0.9	1.1	1.0
OAS	0.1	0.2	0.2	0.4	0.8	1.0	1.4	1.5	2.1	3.2
REF	0.8	0.8	0.9	1.3	1.7	3.2	0.7	1.3	1.3	1.6
SSA	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.3	0.6	1.4
USA	1.8	1.8	1.9	2.3	4.3	5.0	5.6	7.9	15.5	41.7

Table 1445: FAO — Production—Secondary products—Distillers grains (Mt DM/yr)

50.5 Ethanol



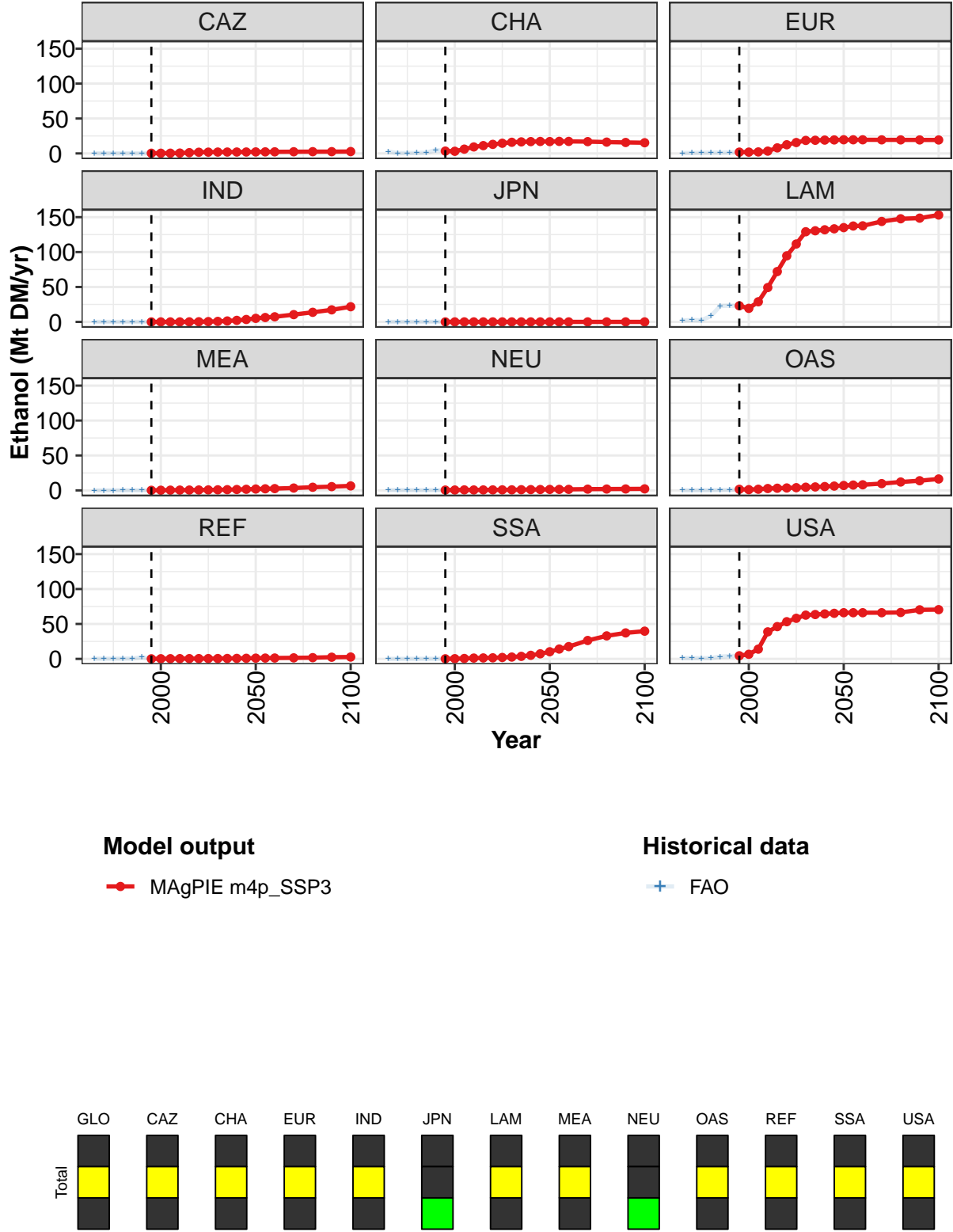


Figure 370: MAgPIE m4p_SSP3 — Production—Secondary products—Ethanol (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	36	34	55	106	145	182	210	238	244	250	258
CAZ	0	0	0	1	1	2	2	2	2	2	2
CHA	3	3	6	9	11	13	15	16	17	17	17
EUR	2	2	2	3	8	12	16	19	19	19	19
IND	0	0	0	0	0	0	0	1	1	2	3
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	23	19	29	49	72	95	112	129	130	132	133
MEA	0	0	0	0	1	1	1	1	1	1	2
NEU	0	1	1	1	1	1	1	1	1	1	1
OAS	2	1	2	3	3	4	4	5	5	5	6
REF	0	0	0	0	0	0	0	0	1	1	1
SSA	0	0	1	1	1	2	2	3	4	5	7
USA	4	7	14	39	46	53	58	63	64	64	65

Table 1446: MAgPIE m4p_SSP3 — Production—Secondary products—Ethanol (Mt DM/yr) [PART 1/2]

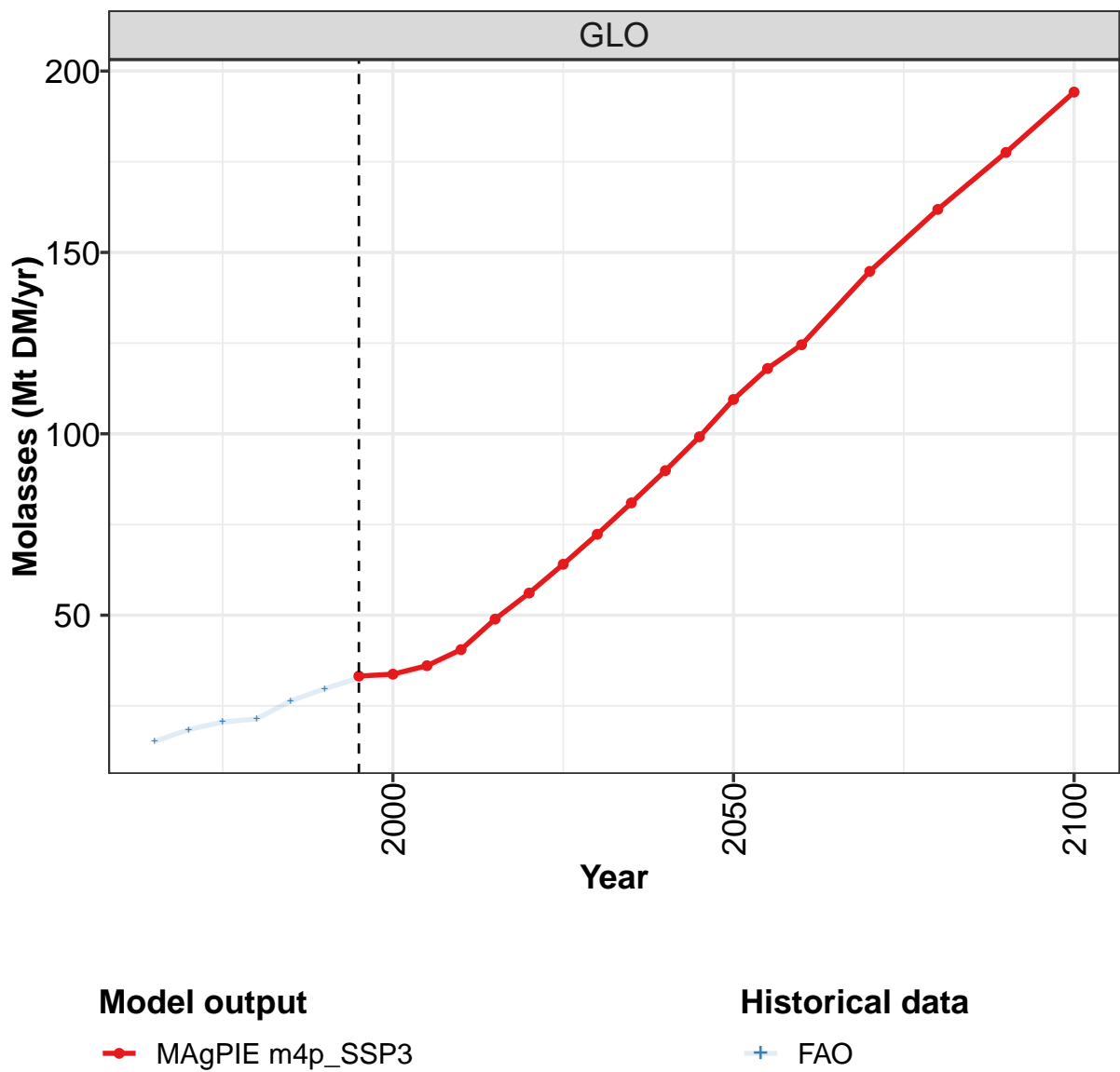
	2050	2055	2060	2070	2080	2090	2100
GLO	267	275	281	302	319	335	350
CAZ	2	2	2	2	3	3	3
CHA	17	17	17	17	16	16	15
EUR	20	20	20	19	19	19	19
IND	5	6	7	10	14	17	22
JPN	0	0	0	0	0	0	0
LAM	135	137	138	144	148	149	153
MEA	2	2	3	3	5	5	6
NEU	1	1	1	2	2	2	2
OAS	7	8	8	10	12	14	16
REF	1	1	1	1	2	2	3
SSA	10	14	18	26	33	37	40
USA	66	66	66	66	66	70	71

Table 1447: MAgPIE m4p_SSP3 — Production—Secondary products—Ethanol (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	7	6	6	13	30	38	35	34	55	106
CAZ	0	0	0	0	0	0	0	0	0	1
CHA	3	0	0	1	1	5	3	3	6	9
EUR	1	1	1	1	1	2	2	2	2	3
IND	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0
LAM	2	3	2	8	23	23	23	19	29	49
MEA	0	0	0	0	0	0	0	0	0	0
NEU	1	0	1	0	0	0	0	1	1	1
OAS	0	0	0	0	1	1	2	1	2	3
REF	0	0	0	0	0	2	0	0	0	0
SSA	0	0	0	0	0	0	0	0	1	1
USA	1	1	1	1	3	4	4	7	14	39

Table 1448: FAO — Production—Secondary products—Ethanol (Mt DM/yr)

50.6 Molasses



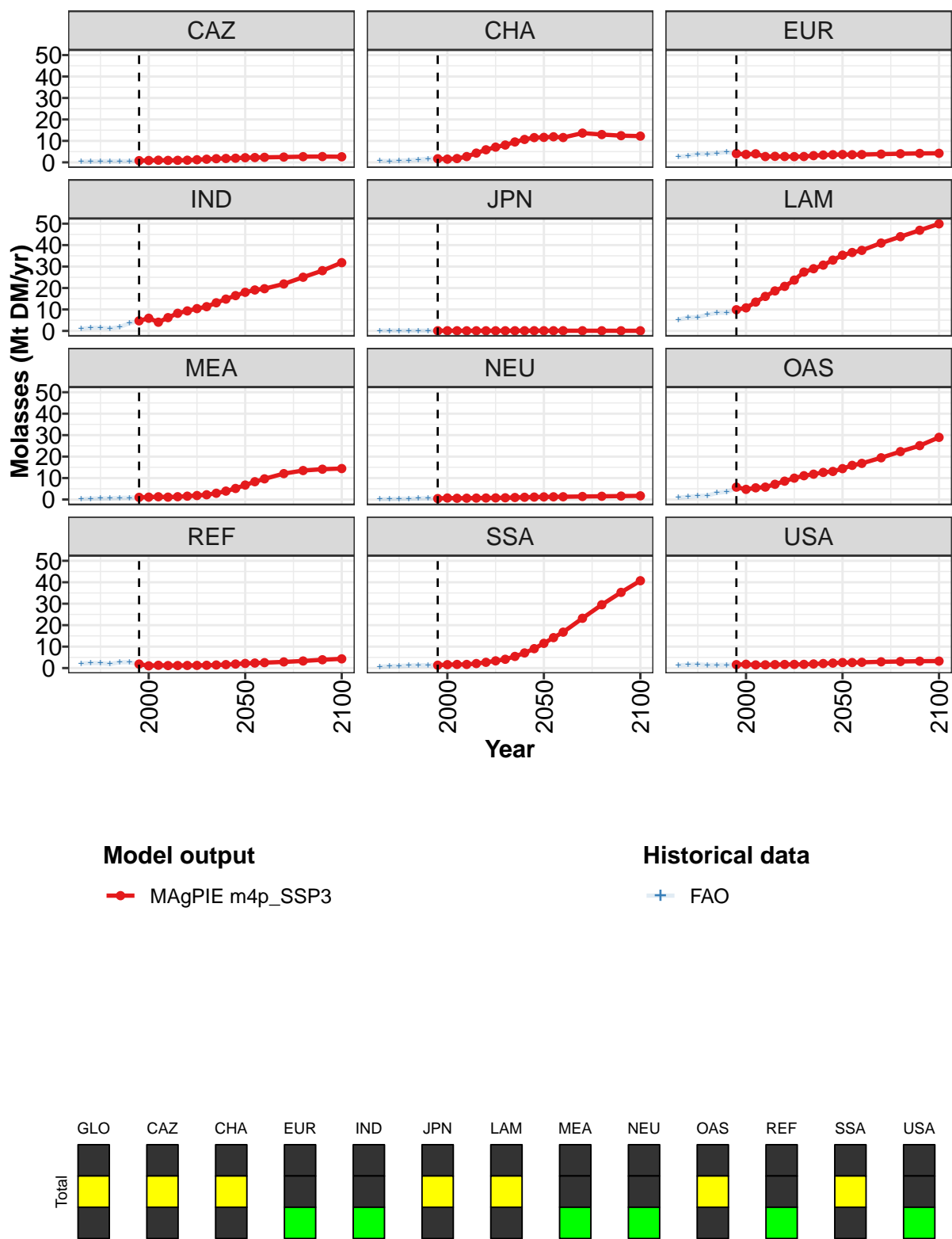


Figure 371: MAgPIE m4p_SSP3 — Production—Secondary products—Molasses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	33	34	36	41	49	56	64	72	81	90	99
CAZ	1	1	1	1	1	1	1	1	2	2	2
CHA	2	1	2	3	4	6	7	8	10	11	12
EUR	4	4	4	3	3	3	3	3	3	3	4
IND	5	6	4	6	8	9	10	11	13	15	16
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	10	11	13	16	19	21	24	27	29	31	33
MEA	1	1	1	1	1	2	2	2	3	4	5
NEU	0	1	1	1	1	1	1	1	1	1	1
OAS	6	5	5	6	7	9	10	11	12	13	13
REF	2	1	1	1	1	1	1	1	1	2	2
SSA	1	2	2	2	2	3	3	4	5	7	9
USA	2	2	1	2	2	2	2	2	2	2	2

Table 1449: MAgPIE m4p-SSP3 — Production—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

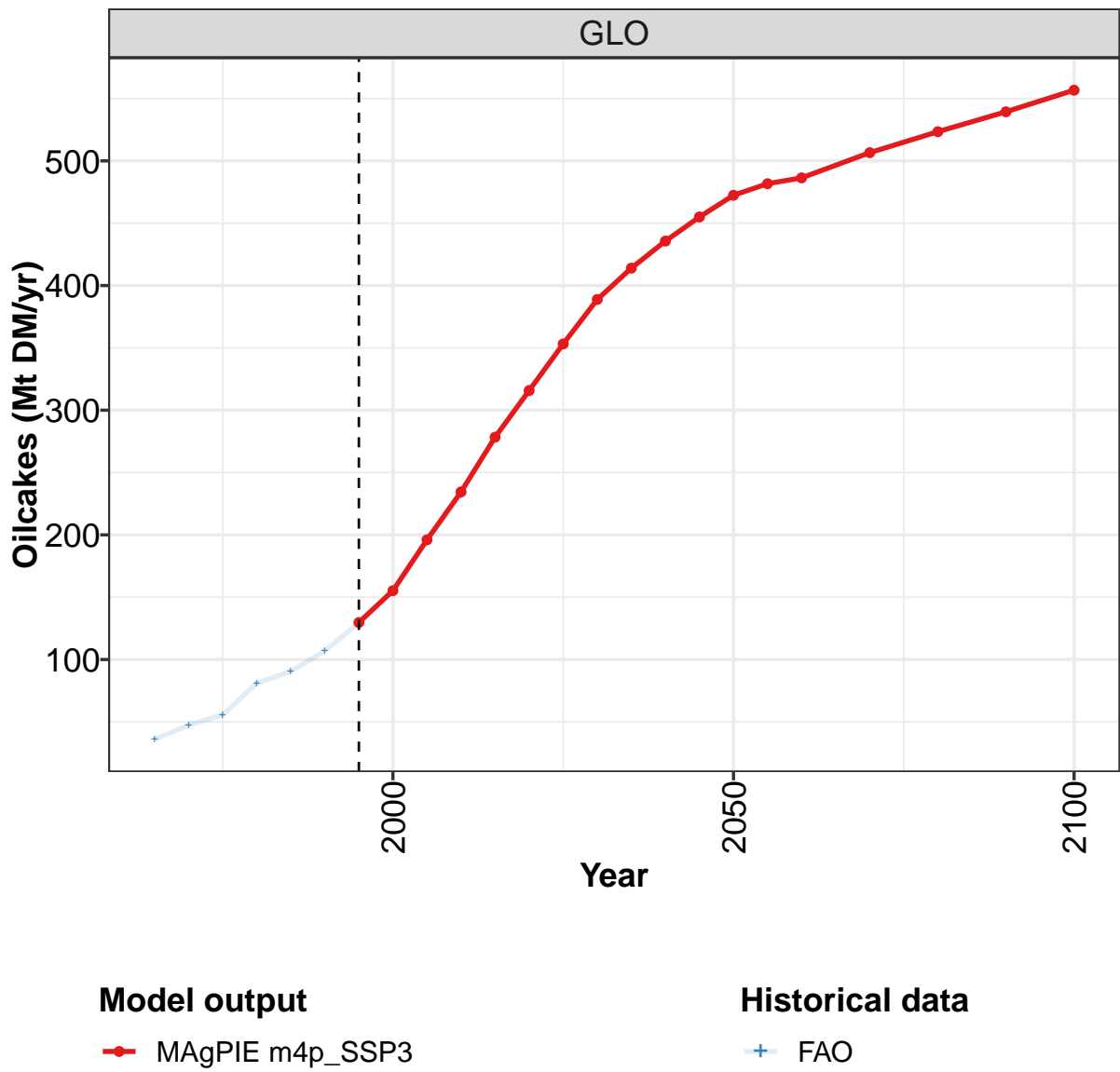
	2050	2055	2060	2070	2080	2090	2100
GLO	109	118	125	145	162	178	194
CAZ	2	2	2	2	3	3	3
CHA	12	12	12	14	13	12	12
EUR	4	4	4	4	4	4	4
IND	18	19	20	22	25	28	32
JPN	0	0	0	0	0	0	0
LAM	35	37	38	41	44	47	50
MEA	7	8	10	12	13	14	14
NEU	1	1	1	1	2	2	2
OAS	14	16	17	19	22	25	29
REF	2	2	3	3	3	4	4
SSA	12	14	17	23	30	35	41
USA	3	3	3	3	3	3	3

Table 1450: MAgPIE m4p-SSP3 — Production—Secondary products—Molasses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	15.2	18.5	20.6	21.4	26.4	29.8	32.7	33.3	35.5	39.8
CAZ	0.3	0.4	0.5	0.5	0.5	0.5	0.8	0.8	0.8	0.7
CHA	0.6	0.6	0.7	0.9	1.3	1.7	1.7	1.5	1.8	2.7
EUR	2.6	3.1	3.9	3.9	4.3	4.8	4.0	3.5	3.7	2.7
IND	1.0	1.5	1.5	1.2	1.8	3.6	4.8	5.9	4.1	6.2
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	5.3	6.3	6.4	7.6	8.5	8.4	10.1	10.6	13.9	16.1
MEA	0.2	0.4	0.5	0.6	0.8	0.8	1.0	1.1	1.3	1.1
NEU	0.2	0.2	0.3	0.4	0.5	0.6	0.4	0.6	0.6	0.6
OAS	0.8	1.3	1.6	1.8	3.1	3.6	5.1	4.8	4.9	5.4
REF	2.2	2.3	2.3	1.9	2.7	2.8	1.7	1.0	1.3	1.2
SSA	0.6	0.9	1.0	1.2	1.3	1.3	1.3	1.6	1.7	1.6
USA	1.3	1.5	1.7	1.4	1.4	1.5	1.6	1.8	1.5	1.6

Table 1451: FAO — Production—Secondary products—Molasses (Mt DM/yr)

50.7 Oilcakes



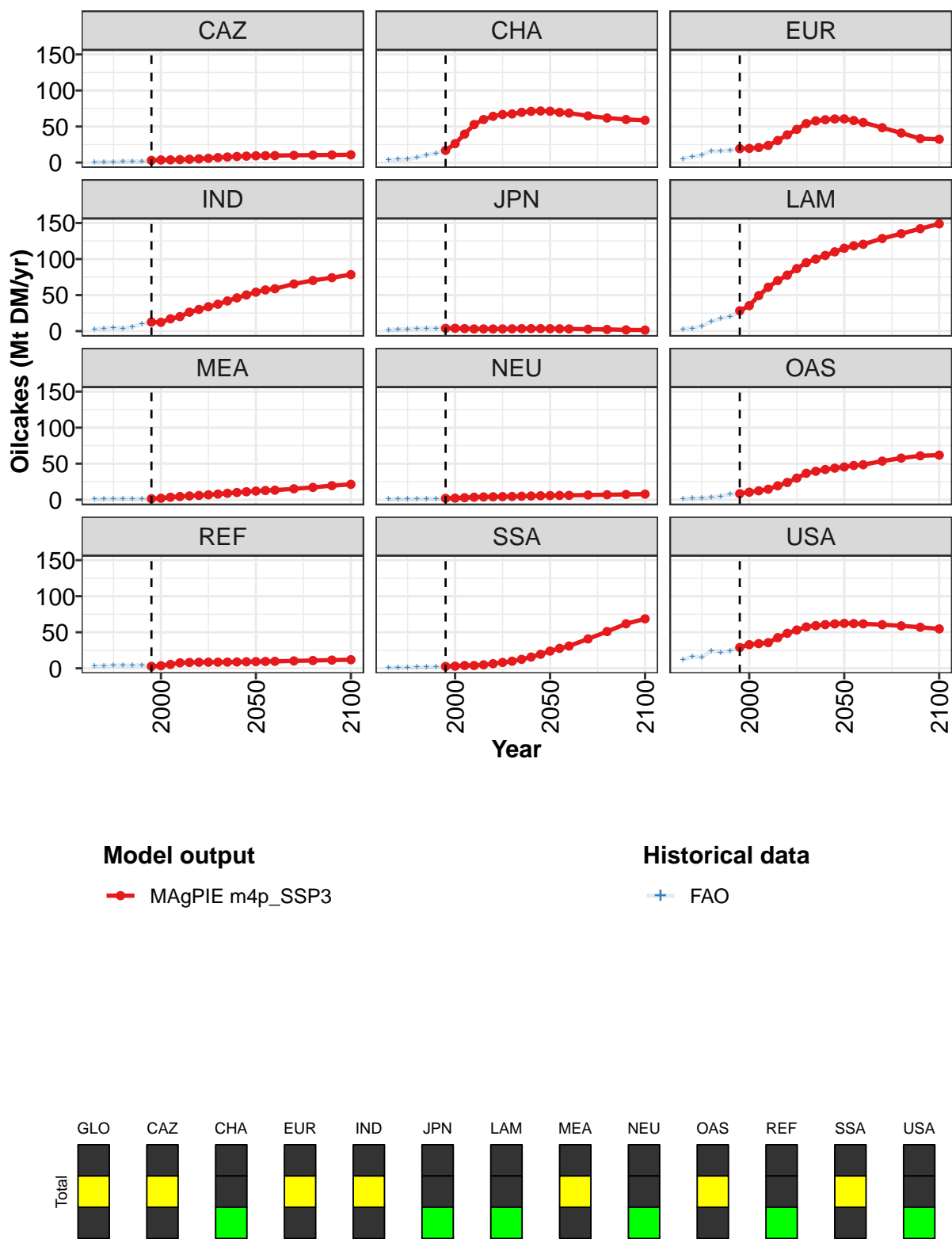


Figure 372: MAgPIE m4p_SSP3 — Production—Secondary products—Oilcakes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	130	155	196	234	278	316	353	389	414	436	455
CAZ	3	4	4	4	5	5	6	7	8	8	9
CHA	17	26	39	53	60	64	67	67	70	71	72
EUR	19	20	21	24	31	38	46	54	58	59	60
IND	13	12	17	20	26	30	34	37	42	46	50
JPN	4	4	4	3	3	3	3	3	3	4	4
LAM	28	35	49	61	70	78	87	95	100	105	110
MEA	1	2	3	4	5	6	7	8	9	10	11
NEU	2	2	3	4	4	4	4	5	5	5	5
OAS	8	10	12	15	19	24	30	37	39	42	44
REF	3	4	5	8	8	8	8	8	9	9	9
SSA	3	3	4	4	5	6	8	10	12	16	19
USA	29	33	34	36	42	49	53	57	59	61	62

Table 1452: MAgPIE m4p-SSP3 — Production—Secondary products—Oilcakes (Mt DM/yr) [PART 1/2]

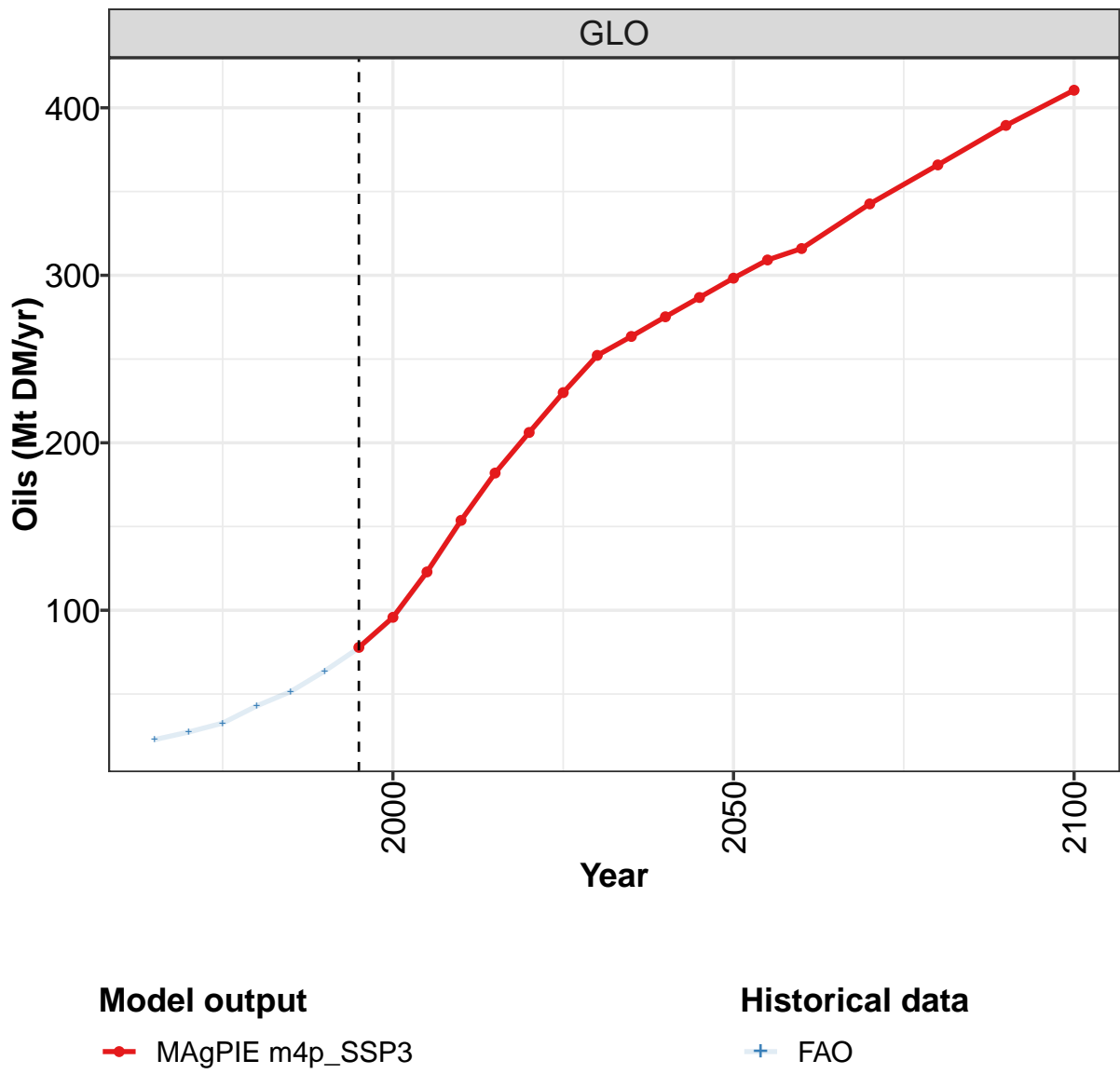
	2050	2055	2060	2070	2080	2090	2100
GLO	472	482	486	507	523	539	557
CAZ	9	10	10	10	10	11	11
CHA	71	70	69	65	62	60	59
EUR	61	58	56	48	41	33	32
IND	54	57	59	65	70	74	78
JPN	3	3	3	3	2	2	2
LAM	115	118	120	128	135	142	149
MEA	12	13	13	15	17	20	21
NEU	6	6	6	7	7	7	8
OAS	45	47	49	54	58	61	62
REF	9	9	10	10	11	11	12
SSA	24	28	31	41	51	62	69
USA	62	62	62	60	59	57	55

Table 1453: MAgPIE m4p-SSP3 — Production—Secondary products—Oilcakes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	36	48	56	81	91	107	129	155	196	232
CAZ	0	1	1	1	2	2	3	3	4	4
CHA	4	4	5	7	10	13	17	26	39	53
EUR	5	8	10	16	16	17	19	20	20	23
IND	3	4	5	4	6	10	13	12	17	20
JPN	2	3	3	3	4	4	4	4	4	3
LAM	3	4	7	13	18	20	27	34	49	58
MEA	1	1	1	1	1	1	1	2	3	4
NEU	1	1	1	1	1	2	2	2	3	3
OAS	2	2	2	3	5	7	9	10	13	15
REF	3	3	4	4	4	5	3	3	5	8
SSA	1	1	1	1	2	2	2	3	4	4
USA	12	16	15	24	22	24	30	35	36	36

Table 1454: FAO — Production—Secondary products—Oilcakes (Mt DM/yr)

50.8
Oils



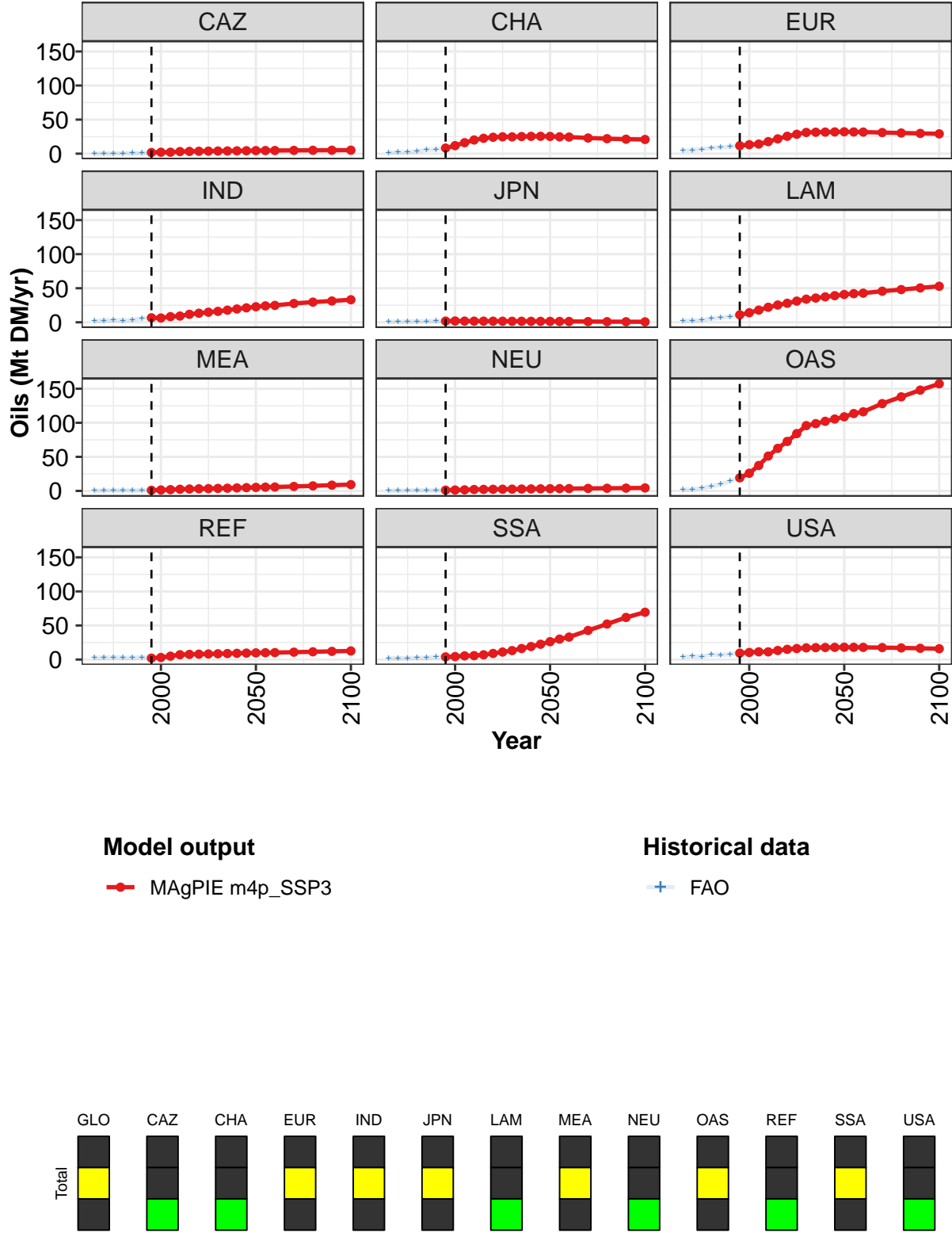


Figure 373: MAgPIE m4p_SSP3 — Production—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	78	96	123	154	182	206	230	252	263	275	287
CAZ	2	2	2	3	3	4	4	4	4	4	4
CHA	8	12	16	20	23	24	25	25	25	25	26
EUR	12	13	14	18	22	26	29	31	31	32	32
IND	7	6	8	9	12	13	15	16	18	20	21
JPN	2	2	2	2	2	2	2	2	2	1	1
LAM	11	14	18	22	25	28	31	34	36	37	39
MEA	1	1	2	2	3	3	3	4	4	4	5
NEU	1	1	2	2	2	2	3	3	3	3	3
OAS	19	26	37	51	62	73	84	96	99	102	106
REF	2	3	5	7	8	8	8	8	9	9	9
SSA	4	4	5	6	7	9	11	13	16	19	22
USA	9	10	11	11	13	15	16	17	17	18	18

Table 1455: MAgPIE m4p_SSP3 — Production—Secondary products—Oils (Mt DM/yr) [PART 1/2]

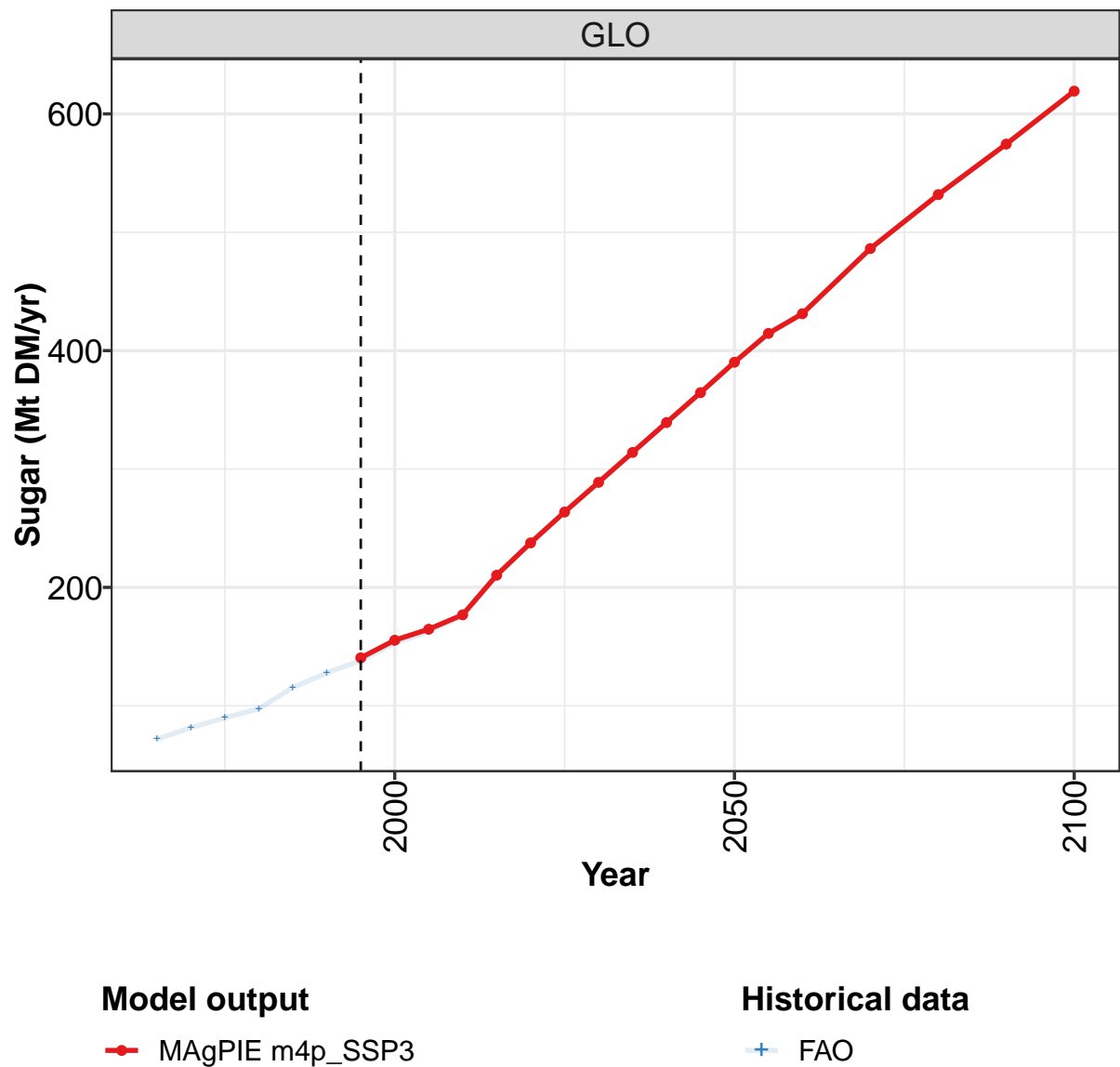
	2050	2055	2060	2070	2080	2090	2100
GLO	298	309	316	343	366	389	411
CAZ	4	5	5	5	5	5	5
CHA	25	25	24	23	22	21	21
EUR	32	32	32	31	30	30	29
IND	23	24	25	28	30	31	33
JPN	1	1	1	1	1	1	1
LAM	41	42	43	46	48	50	53
MEA	5	6	6	7	7	8	9
NEU	3	3	3	4	4	4	4
OAS	109	114	116	128	138	148	157
REF	10	10	10	11	11	12	13
SSA	26	30	33	43	52	62	69
USA	18	18	18	18	17	16	16

Table 1456: MAgPIE m4p_SSP3 — Production—Secondary products—Oils (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	23	27	33	43	51	64	78	95	122	153
CAZ	0	0	0	1	1	1	2	2	2	3
CHA	2	2	2	3	5	6	8	12	16	20
EUR	5	5	7	9	9	10	12	13	14	18
IND	2	3	3	3	4	6	7	6	8	9
JPN	1	1	1	1	2	2	2	2	2	2
LAM	2	2	3	5	7	8	11	13	18	21
MEA	1	1	1	1	1	1	1	1	2	2
NEU	0	1	1	1	1	1	1	1	2	2
OAS	2	2	4	7	10	14	19	26	37	52
REF	3	3	3	3	3	3	2	3	5	7
SSA	2	2	2	2	3	4	4	4	5	6
USA	4	5	5	7	7	8	10	11	12	11

Table 1457: FAO — Production—Secondary products—Oils (Mt DM/yr)

50.9 Sugar



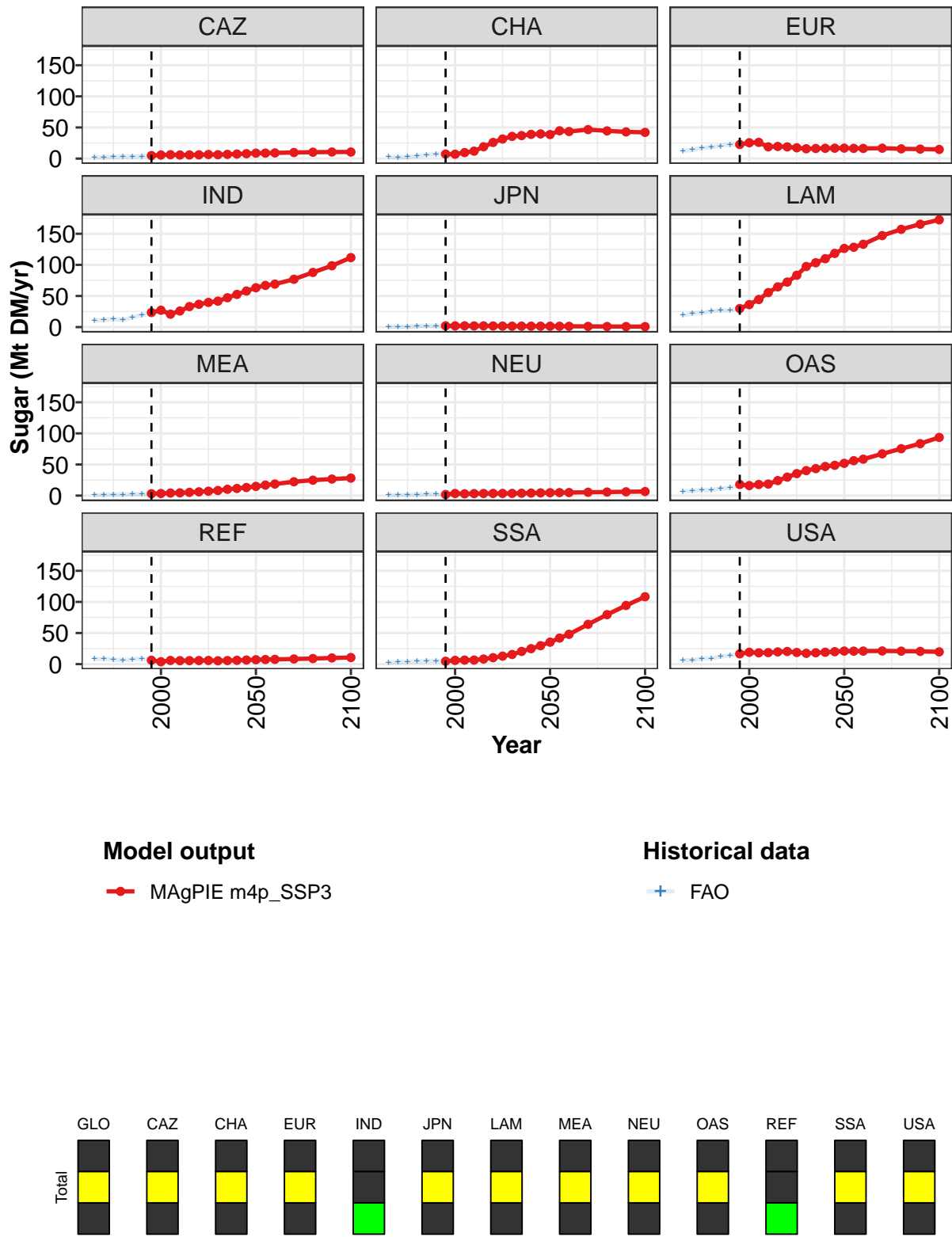


Figure 374: MAgPIE m4p_SSP3 — Production—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	140	155	165	177	210	238	264	289	314	339	365
CAZ	5	6	6	6	6	6	7	6	7	7	8
CHA	7	7	10	12	19	26	31	36	37	39	40
EUR	23	25	26	19	19	19	17	16	16	16	17
IND	23	27	21	26	33	37	40	42	47	53	58
JPN	2	2	2	2	2	2	2	2	2	1	1
LAM	30	36	44	55	65	72	83	97	103	110	118
MEA	3	3	4	4	5	6	7	8	10	12	13
NEU	2	3	3	3	3	4	4	4	4	4	4
OAS	18	16	18	19	24	30	35	40	43	47	49
REF	6	4	6	6	6	6	6	5	6	6	7
SSA	5	6	7	7	8	10	13	16	20	25	30
USA	17	19	18	19	20	20	19	17	18	19	20

Table 1458: MAgPIE m4p_SSP3 — Production—Secondary products—Sugar (Mt DM/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	390	415	431	486	532	574	619
CAZ	9	9	9	10	10	11	11
CHA	39	45	43	47	45	43	42
EUR	17	16	16	17	16	15	15
IND	63	67	69	77	88	99	112
JPN	1	1	1	1	1	1	1
LAM	126	128	133	147	157	165	172
MEA	15	17	19	22	25	27	28
NEU	5	5	5	5	6	6	7
OAS	52	56	59	67	75	84	94
REF	7	7	8	8	9	10	11
SSA	35	42	48	64	80	94	108
USA	21	21	21	21	21	20	20

Table 1459: MAgPIE m4p_SSP3 — Production—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

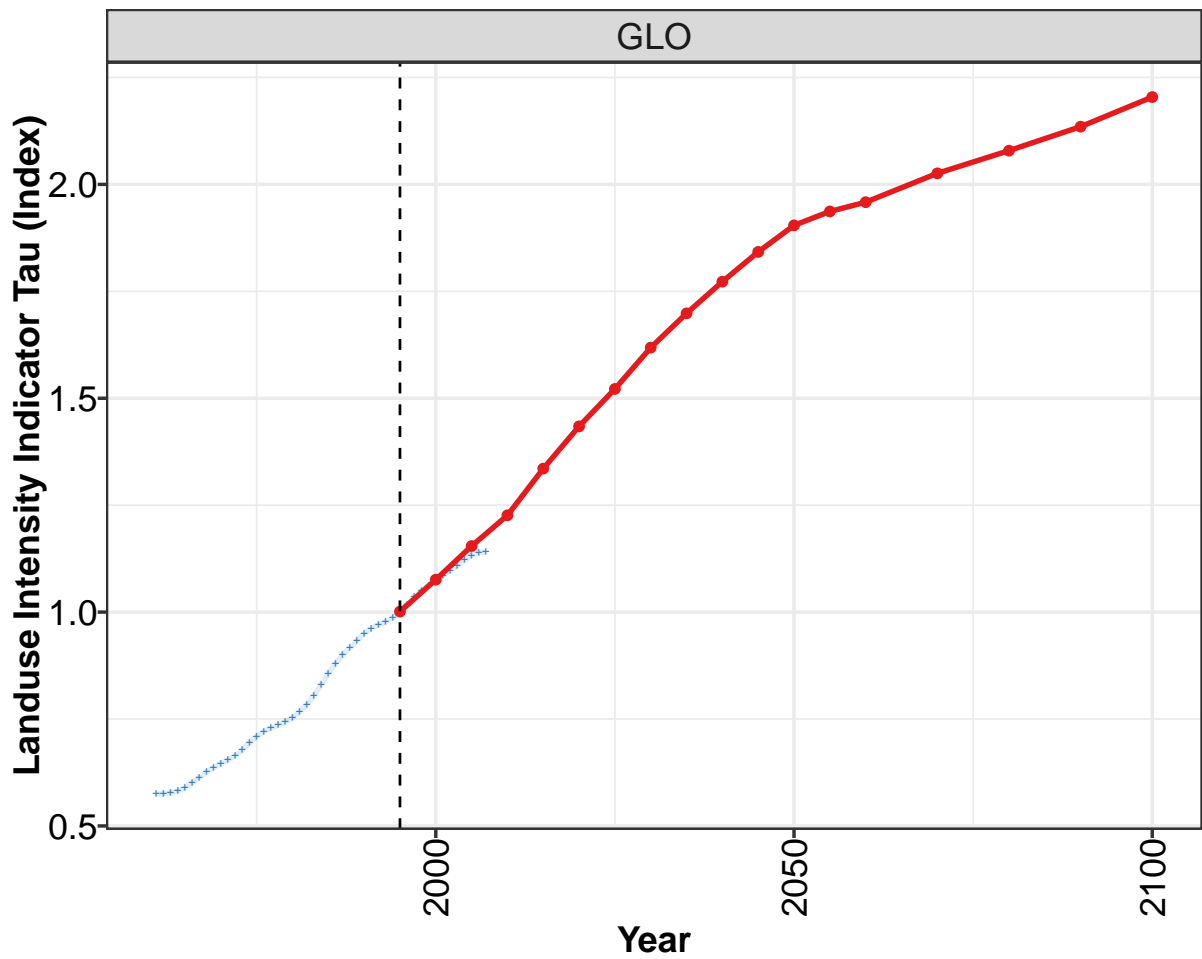
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	72	81	90	97	115	128	138	153	163	176
CAZ	2	2	3	3	3	4	5	6	5	5
CHA	3	2	3	4	6	7	7	7	10	12
EUR	12	14	17	19	20	23	22	23	23	19
IND	10	12	13	12	16	19	24	27	21	26
JPN	1	1	1	2	2	2	2	2	2	2
LAM	19	22	23	25	27	27	31	37	47	55
MEA	1	1	2	2	3	2	3	3	4	4
NEU	1	1	1	2	2	2	2	3	3	3
OAS	6	8	9	9	11	13	16	16	17	18
REF	8	8	7	7	8	9	6	4	6	6
SSA	2	3	4	4	5	5	5	6	7	6
USA	6	7	9	9	12	14	17	19	18	20

Table 1460: FAO — Production—Secondary products—Sugar (Mt DM/yr)

Part XIII

Productivity

51 Landuse Intensity Indicator Tau



Model output

MAgPIE m4p_SSP3

Historical data

dietrich_et_al_2012

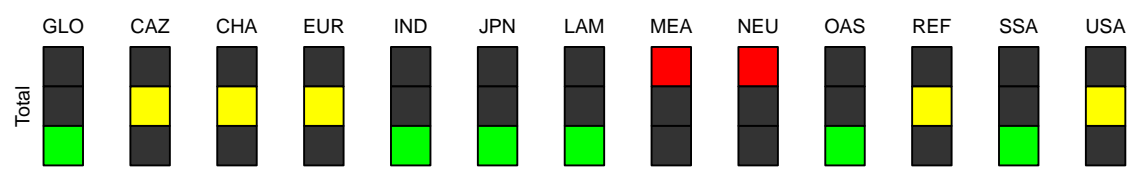
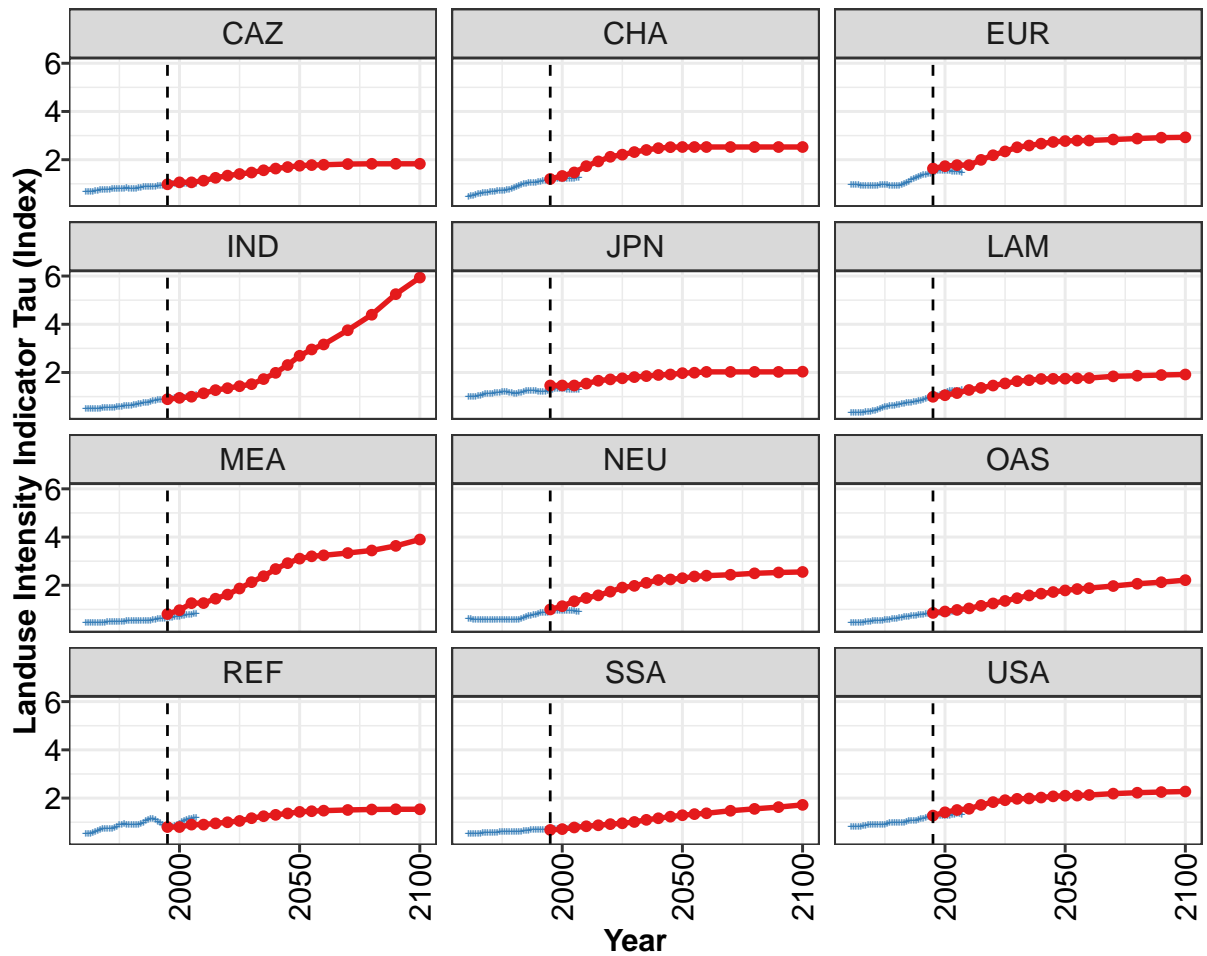


Figure 375: MAgPIE m4p_SSP3 — Productivity—Landuse Intensity Indicator Tau (Index)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.00	1.08	1.15	1.23	1.34	1.43	1.52	1.62	1.70	1.77	1.84
CAZ	0.98	1.06	1.06	1.13	1.25	1.34	1.41	1.47	1.56	1.63	1.70
CHA	1.20	1.33	1.47	1.73	1.93	2.12	2.21	2.32	2.40	2.48	2.52
EUR	1.64	1.73	1.78	1.78	1.99	2.19	2.34	2.52	2.59	2.67	2.74
IND	0.89	0.95	1.00	1.14	1.27	1.35	1.43	1.52	1.73	1.99	2.31
JPN	1.46	1.46	1.46	1.54	1.66	1.71	1.76	1.81	1.85	1.90	1.92
LAM	0.99	1.06	1.15	1.28	1.36	1.46	1.55	1.64	1.68	1.73	1.74
MEA	0.81	0.97	1.26	1.26	1.44	1.61	1.87	2.13	2.38	2.67	2.92
NEU	1.00	1.13	1.34	1.47	1.58	1.74	1.91	1.98	2.10	2.22	2.24
OAS	0.85	0.91	0.98	1.04	1.15	1.25	1.35	1.47	1.58	1.65	1.72
REF	0.80	0.80	0.90	0.90	0.95	1.00	1.05	1.17	1.25	1.31	1.36
SSA	0.68	0.71	0.78	0.83	0.87	0.92	0.96	1.01	1.10	1.16	1.23
USA	1.27	1.41	1.51	1.56	1.72	1.83	1.91	1.97	1.98	2.02	2.07

Table 1461: MAgPIE m4p_SSP3 — Productivity—Landuse Intensity Indicator Tau (Index) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1.90	1.94	1.96	2.03	2.08	2.13	2.20
CAZ	1.75	1.78	1.79	1.82	1.83	1.83	1.83
CHA	2.53	2.53	2.53	2.53	2.53	2.53	2.53
EUR	2.77	2.79	2.80	2.84	2.88	2.91	2.93
IND	2.69	2.96	3.16	3.75	4.40	5.25	5.94
JPN	1.97	1.99	2.03	2.03	2.03	2.03	2.03
LAM	1.75	1.76	1.77	1.84	1.87	1.90	1.92
MEA	3.11	3.20	3.24	3.34	3.44	3.63	3.90
NEU	2.30	2.37	2.40	2.44	2.50	2.53	2.55
OAS	1.79	1.84	1.88	1.97	2.06	2.13	2.21
REF	1.43	1.46	1.48	1.51	1.53	1.54	1.54
SSA	1.29	1.34	1.37	1.48	1.55	1.63	1.72
USA	2.10	2.10	2.13	2.19	2.22	2.25	2.27

Table 1462: MAgPIE m4p_SSP3 — Productivity—Landuse Intensity Indicator Tau (Index) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	0.57	0.58	0.58	0.58	0.59	0.60	0.61	0.63	0.64	0.65	0.65
CAZ	0.69	0.69	0.69	0.69	0.70	0.71	0.73	0.75	0.76	0.77	0.77
CHA	0.47	0.48	0.51	0.54	0.57	0.60	0.61	0.63	0.65	0.66	0.68
EUR	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.91	0.91
IND	0.50	0.50	0.50	0.49	0.49	0.49	0.50	0.52	0.53	0.54	0.54
JPN	1.00	1.00	1.00	1.01	1.03	1.05	1.09	1.11	1.12	1.12	1.13
LAM	0.35	0.34	0.34	0.34	0.34	0.35	0.35	0.36	0.38	0.40	0.43
MEA	0.45	0.45	0.46	0.45	0.45	0.44	0.45	0.45	0.46	0.47	0.47
NEU	0.60	0.59	0.59	0.58	0.57	0.57	0.57	0.56	0.56	0.56	0.56
OAS	0.44	0.45	0.45	0.45	0.45	0.46	0.47	0.48	0.50	0.51	0.52
REF	0.54	0.53	0.53	0.55	0.59	0.65	0.69	0.72	0.73	0.74	0.74
SSA	0.52	0.52	0.53	0.53	0.53	0.54	0.55	0.55	0.56	0.56	0.57
USA	0.82	0.81	0.81	0.81	0.82	0.84	0.86	0.88	0.89	0.91	0.91

Table 1463: dietrich_et_al.2012 — Productivity—Landuse Intensity Indicator Tau (Index) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	0.66	0.68	0.69	0.71	0.72	0.73	0.74	0.74	0.75	0.77	0.78
CAZ	0.78	0.78	0.78	0.79	0.80	0.81	0.82	0.81	0.81	0.80	0.81
CHA	0.69	0.70	0.71	0.72	0.73	0.75	0.77	0.80	0.83	0.87	0.92
EUR	0.93	0.94	0.96	0.96	0.94	0.92	0.91	0.92	0.92	0.94	0.96
IND	0.54	0.55	0.56	0.57	0.59	0.60	0.61	0.62	0.64	0.66	0.68
JPN	1.14	1.16	1.18	1.18	1.18	1.18	1.17	1.15	1.13	1.13	1.15
LAM	0.47	0.51	0.55	0.58	0.59	0.60	0.61	0.62	0.64	0.67	0.70
MEA	0.47	0.47	0.48	0.49	0.50	0.51	0.51	0.51	0.51	0.52	0.52
NEU	0.57	0.58	0.59	0.59	0.58	0.57	0.56	0.56	0.57	0.58	0.59
OAS	0.52	0.53	0.54	0.55	0.56	0.58	0.59	0.60	0.62	0.64	0.66
REF	0.74	0.77	0.82	0.88	0.91	0.92	0.91	0.90	0.89	0.89	0.89
SSA	0.57	0.58	0.59	0.59	0.59	0.59	0.59	0.59	0.60	0.60	0.61
USA	0.91	0.90	0.90	0.91	0.94	0.96	0.98	0.99	0.99	0.98	0.98

Table 1464: dietrich_et_al.2012 — Productivity—Landuse Intensity Indicator Tau (Index) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	0.81	0.83	0.86	0.88	0.90	0.92	0.93	0.95	0.96	0.97	0.98
CAZ	0.82	0.84	0.87	0.88	0.88	0.87	0.88	0.89	0.91	0.92	0.93
CHA	0.96	1.00	1.02	1.03	1.04	1.04	1.06	1.07	1.09	1.11	1.13
EUR	0.99	1.04	1.10	1.17	1.22	1.25	1.29	1.34	1.37	1.39	1.40
IND	0.70	0.71	0.73	0.74	0.76	0.79	0.81	0.83	0.85	0.86	0.87
JPN	1.18	1.21	1.23	1.23	1.23	1.23	1.23	1.22	1.21	1.20	1.21
LAM	0.72	0.74	0.75	0.76	0.78	0.80	0.82	0.85	0.87	0.90	0.94
MEA	0.52	0.53	0.53	0.54	0.54	0.54	0.56	0.58	0.59	0.61	0.62
NEU	0.61	0.64	0.68	0.72	0.75	0.77	0.79	0.82	0.84	0.85	0.86
OAS	0.68	0.69	0.71	0.72	0.73	0.75	0.77	0.78	0.80	0.81	0.82
REF	0.91	0.94	0.99	1.04	1.10	1.13	1.13	1.09	1.03	0.96	0.90
SSA	0.62	0.64	0.65	0.66	0.67	0.68	0.69	0.69	0.69	0.68	0.67
USA	0.99	1.02	1.05	1.07	1.08	1.07	1.09	1.12	1.16	1.19	1.22

Table 1465: dietrich_et_al.2012 — Productivity—Landuse Intensity Indicator Tau (Index) [PART 3/5]

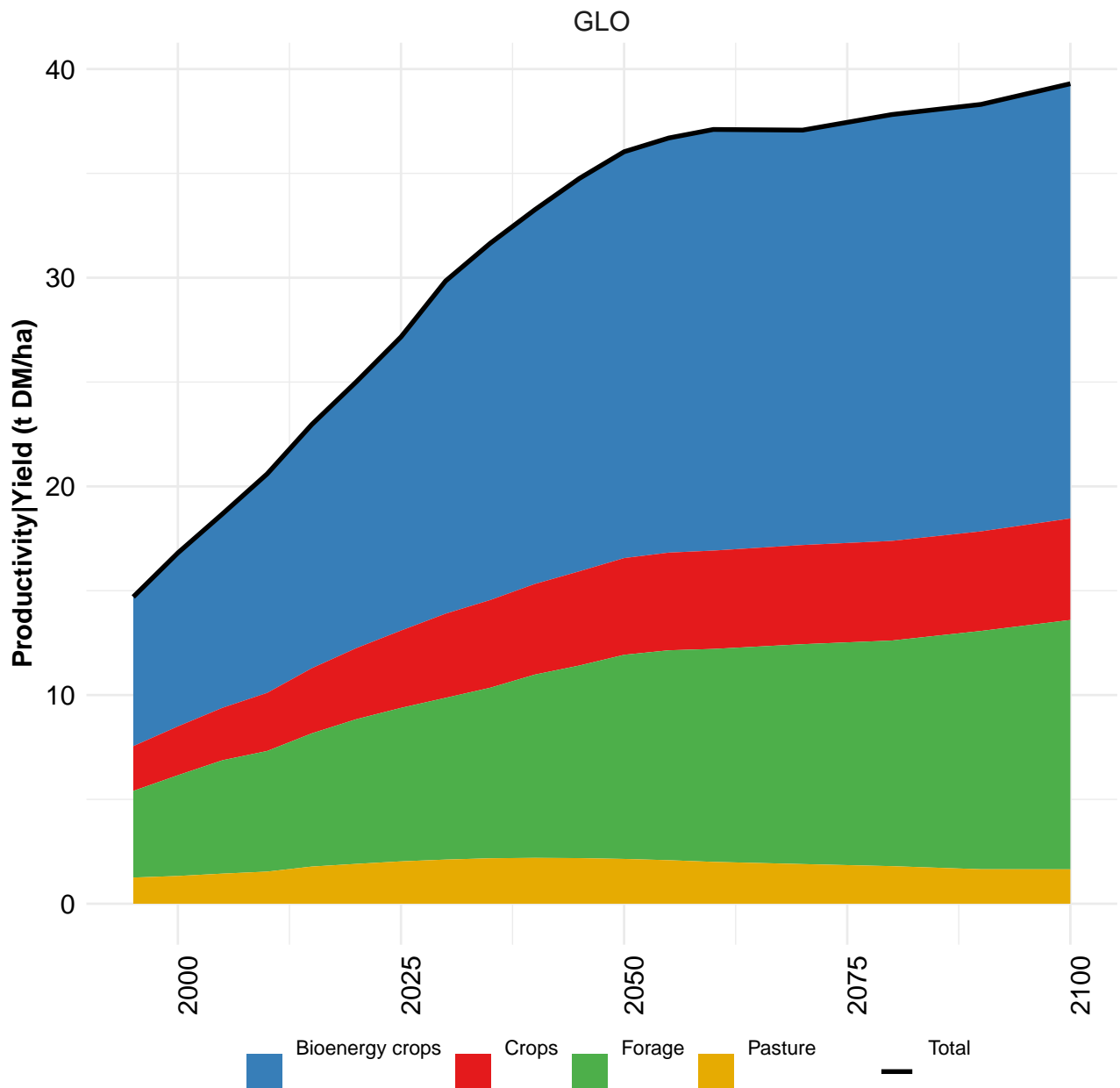
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	0.99	1.00	1.02	1.04	1.05	1.06	1.07	1.09	1.10	1.11	1.12
CAZ	0.95	0.97	0.98	0.99	0.99	0.99	0.99	0.99	0.99	0.99	1.00
CHA	1.15	1.17	1.19	1.21	1.22	1.21	1.21	1.21	1.21	1.21	1.22
EUR	1.43	1.47	1.51	1.54	1.55	1.55	1.54	1.53	1.52	1.52	1.51
IND	0.88	0.89	0.90	0.92	0.94	0.95	0.96	0.96	0.97	0.99	1.01
JPN	1.24	1.27	1.30	1.31	1.31	1.32	1.33	1.32	1.30	1.28	1.27
LAM	0.96	0.99	1.02	1.05	1.09	1.13	1.17	1.21	1.24	1.23	1.22
MEA	0.63	0.64	0.66	0.67	0.68	0.69	0.70	0.72	0.75	0.77	0.78
NEU	0.88	0.90	0.93	0.95	0.95	0.95	0.94	0.94	0.93	0.93	0.93
OAS	0.82	0.83	0.83	0.84	0.85	0.86	0.86	0.87	0.88	0.89	0.91
REF	0.84	0.80	0.79	0.81	0.85	0.89	0.94	1.00	1.06	1.10	1.14
SSA	0.67	0.68	0.70	0.71	0.72	0.73	0.74	0.74	0.75	0.75	0.77
USA	1.24	1.25	1.27	1.27	1.28	1.27	1.27	1.27	1.28	1.30	1.33

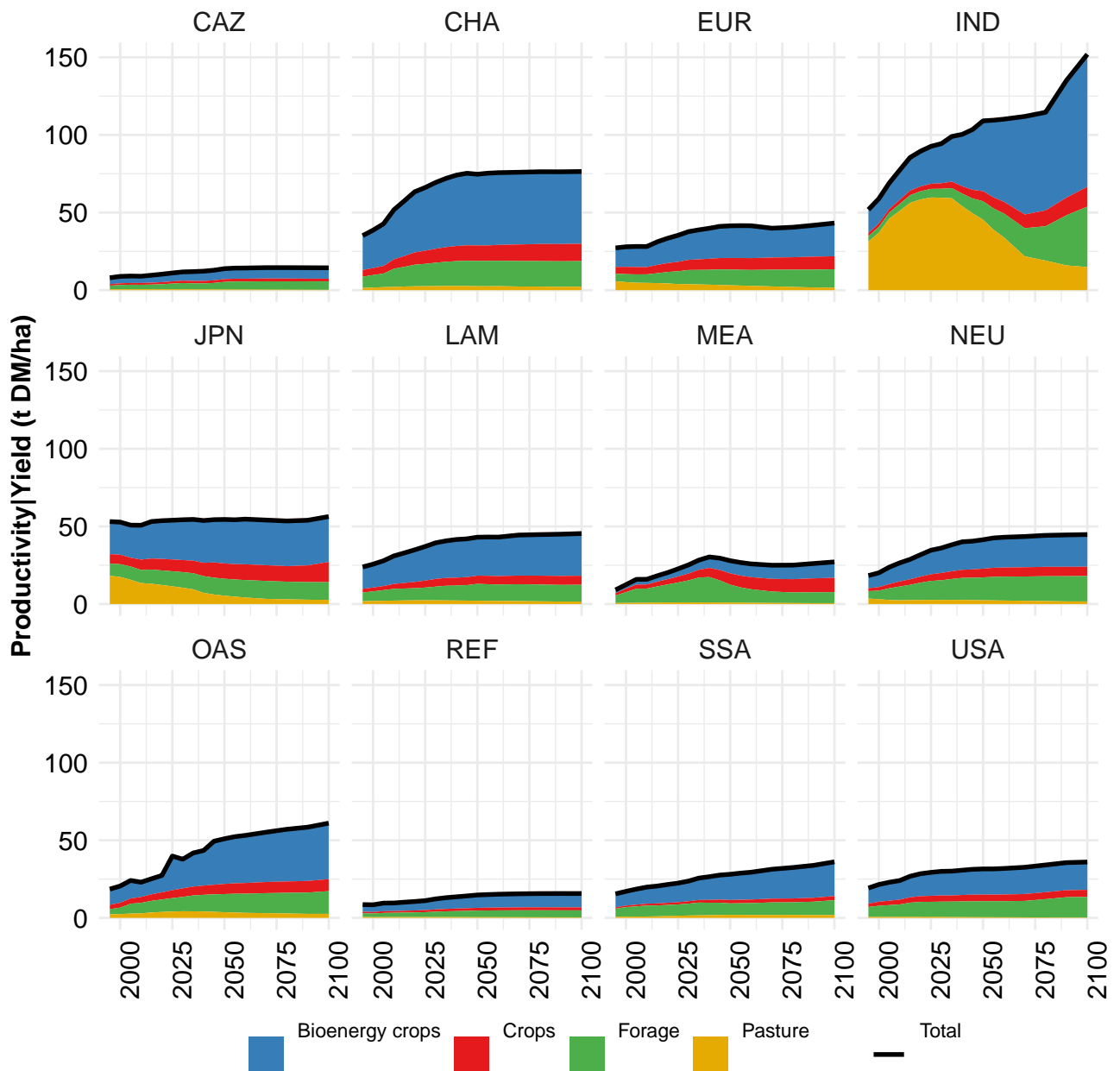
Table 1466: dietrich_et_al.2012 — Productivity—Landuse Intensity Indicator Tau (Index) [PART 4/5]

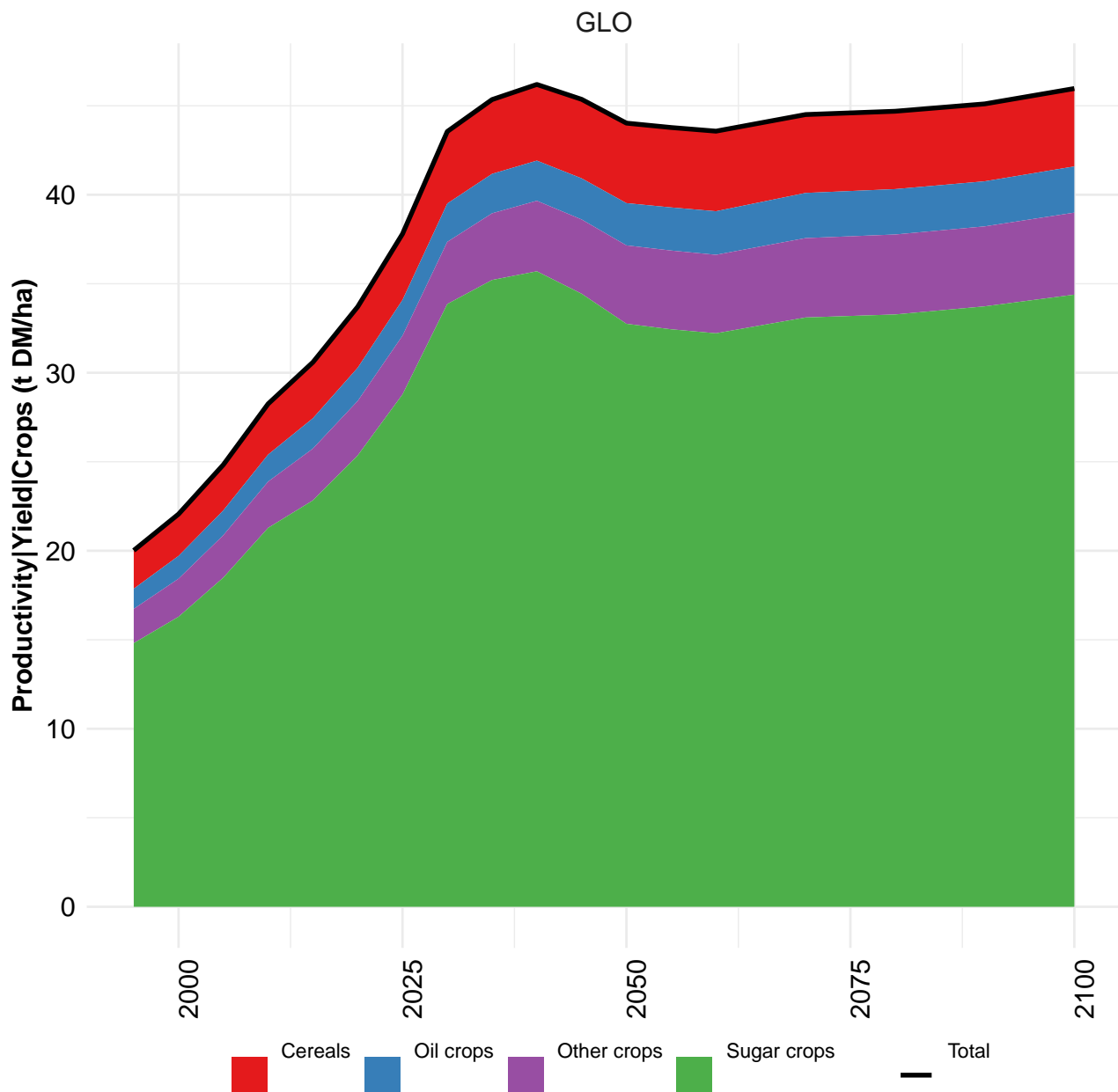
	2005	2006	2007
GLO	1.13	1.14	1.14
CAZ	1.01	1.01	1.00
CHA	1.23	1.23	1.24
EUR	1.51	1.49	1.47
IND	1.03	1.05	1.06
JPN	1.28	1.29	1.29
LAM	1.23	1.25	1.27
MEA	0.80	0.81	0.82
NEU	0.93	0.92	0.91
OAS	0.93	0.94	0.94
REF	1.16	1.17	1.17
SSA	0.79	0.81	0.83
USA	1.34	1.33	1.31

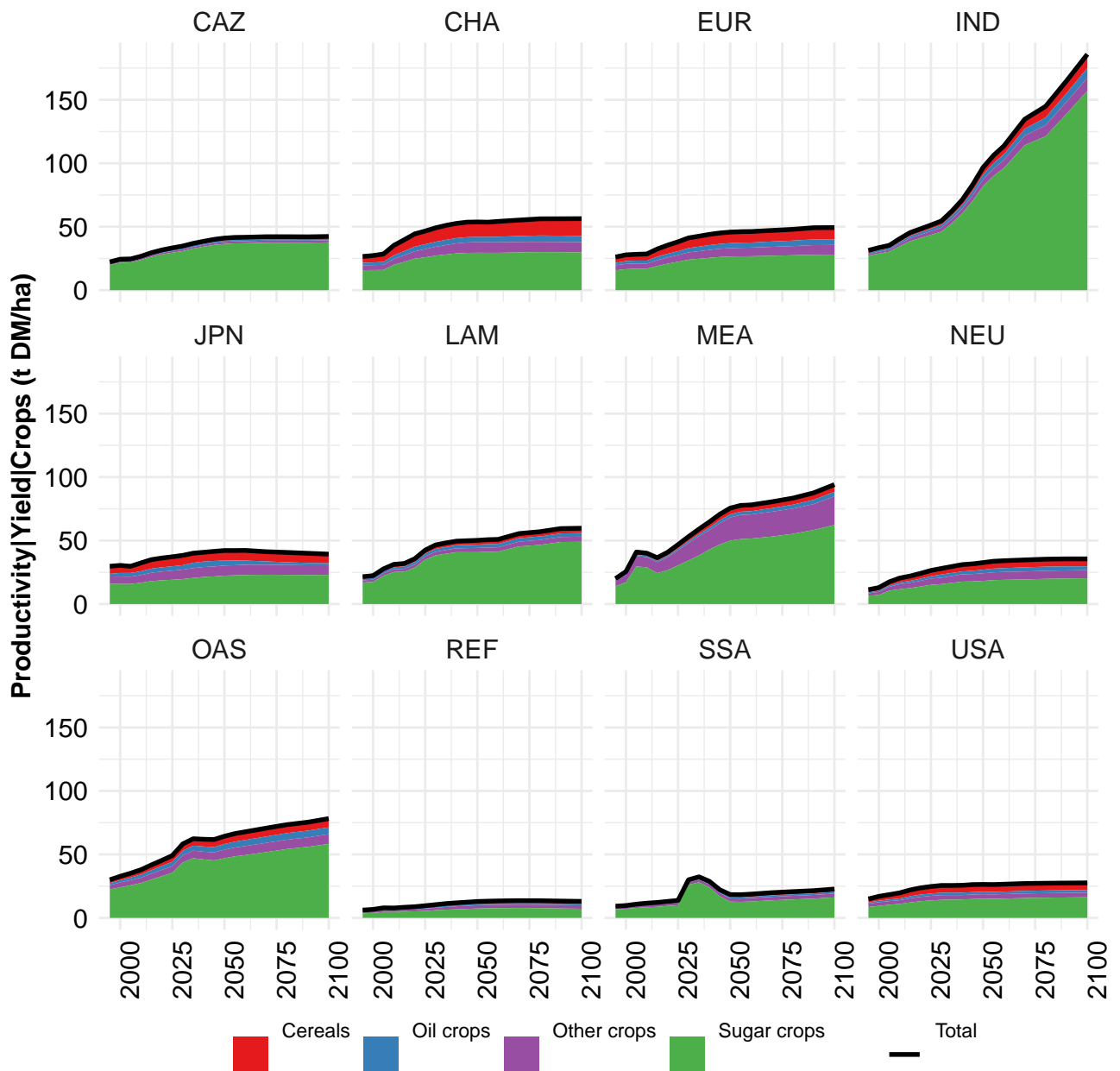
Table 1467: dietrich_et_al_2012 — Productivity—Landuse Intensity Indicator Tau (Index) [PART 5/5]

52 Yield

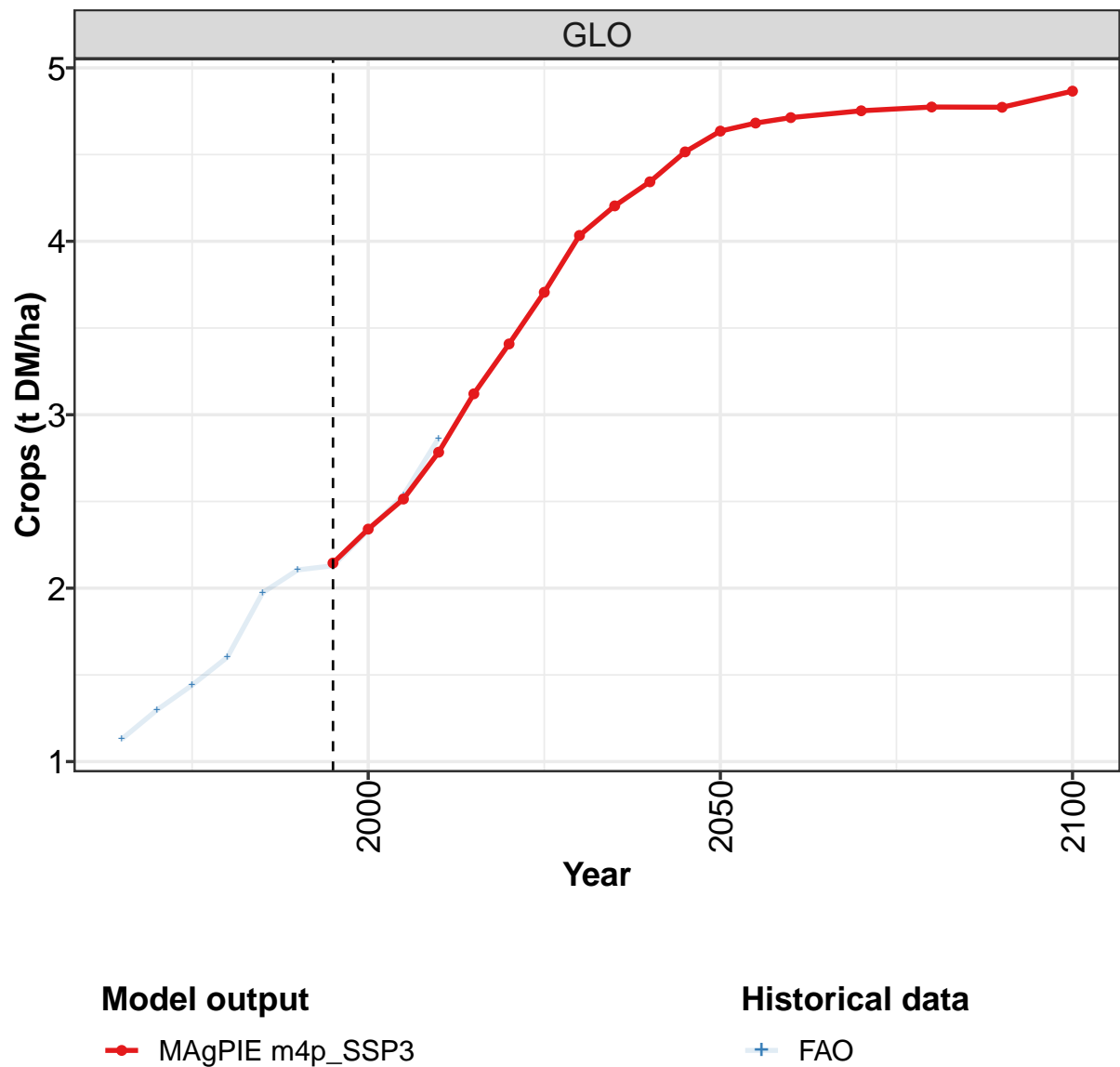








52.1 Crops



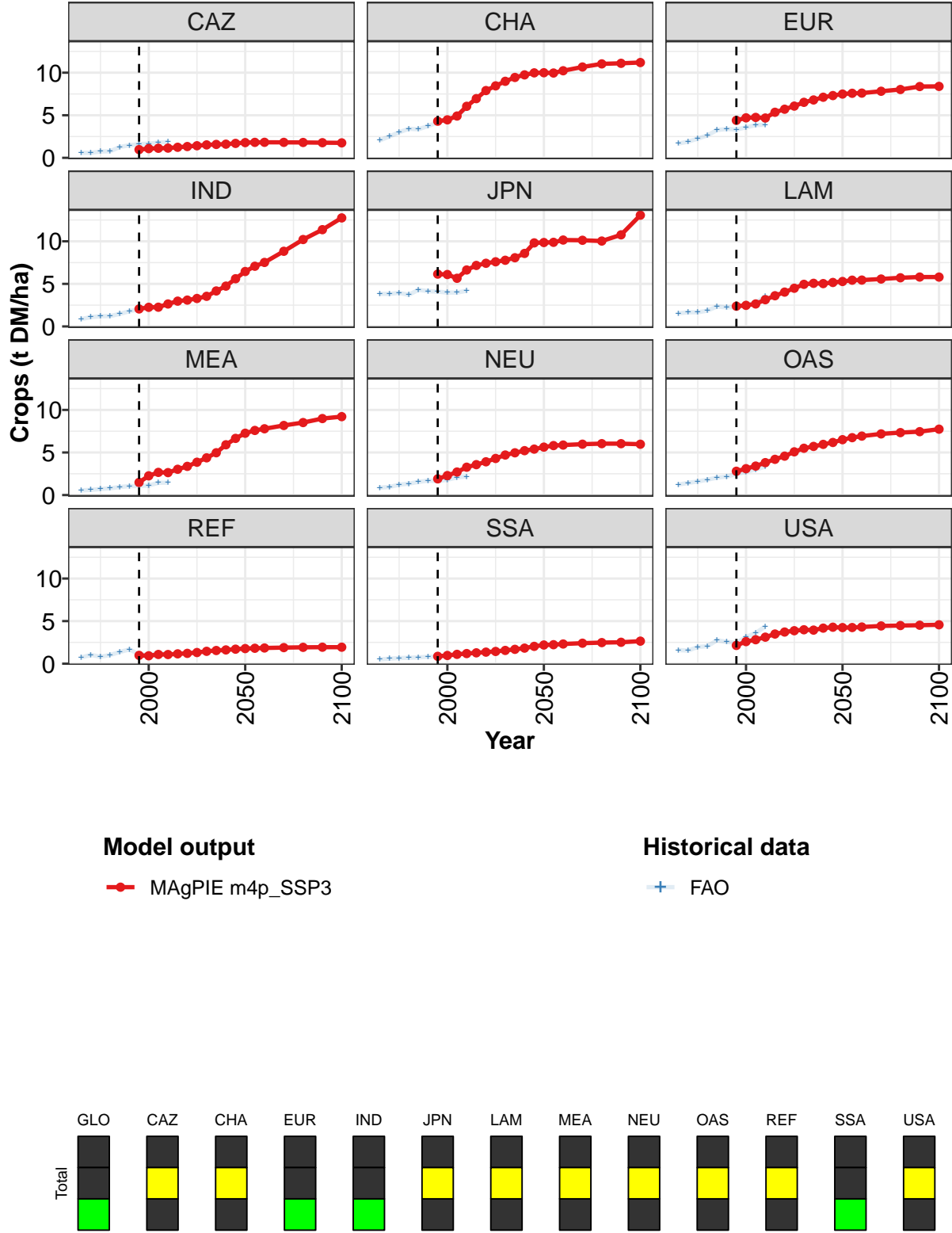


Figure 376: MAgPIE m4p_SSP3 — Productivity—Yield—Crops (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.1	2.3	2.5	2.8	3.1	3.4	3.7	4.0	4.2	4.3	4.5
CAZ	1.0	1.1	1.1	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7
CHA	4.3	4.5	4.9	6.1	7.0	7.9	8.5	9.0	9.4	9.7	10.0
EUR	4.4	4.7	4.7	4.7	5.4	5.7	6.1	6.5	6.8	7.1	7.3
IND	2.1	2.2	2.3	2.6	3.0	3.1	3.3	3.5	4.2	4.7	5.6
JPN	6.1	6.1	5.7	6.6	7.2	7.4	7.6	7.8	8.1	8.6	9.8
LAM	2.4	2.5	2.6	3.1	3.6	4.0	4.5	4.9	5.1	5.0	5.2
MEA	1.5	2.3	2.7	2.6	3.0	3.4	3.9	4.4	5.0	5.9	6.7
NEU	1.9	2.3	2.7	3.3	3.6	3.9	4.3	4.7	5.0	5.2	5.4
OAS	2.8	3.1	3.4	3.8	4.2	4.6	5.1	5.5	5.7	6.0	6.2
REF	1.0	0.9	1.1	1.1	1.2	1.2	1.3	1.5	1.5	1.6	1.7
SSA	0.9	1.0	1.1	1.2	1.3	1.4	1.4	1.6	1.7	1.8	2.0
USA	2.1	2.6	2.8	3.1	3.5	3.7	3.9	4.0	3.9	4.2	4.3

Table 1468: MAgPIE m4p_SSP3 — Productivity—Yield—Crops (t DM/ha) [PART 1/2]

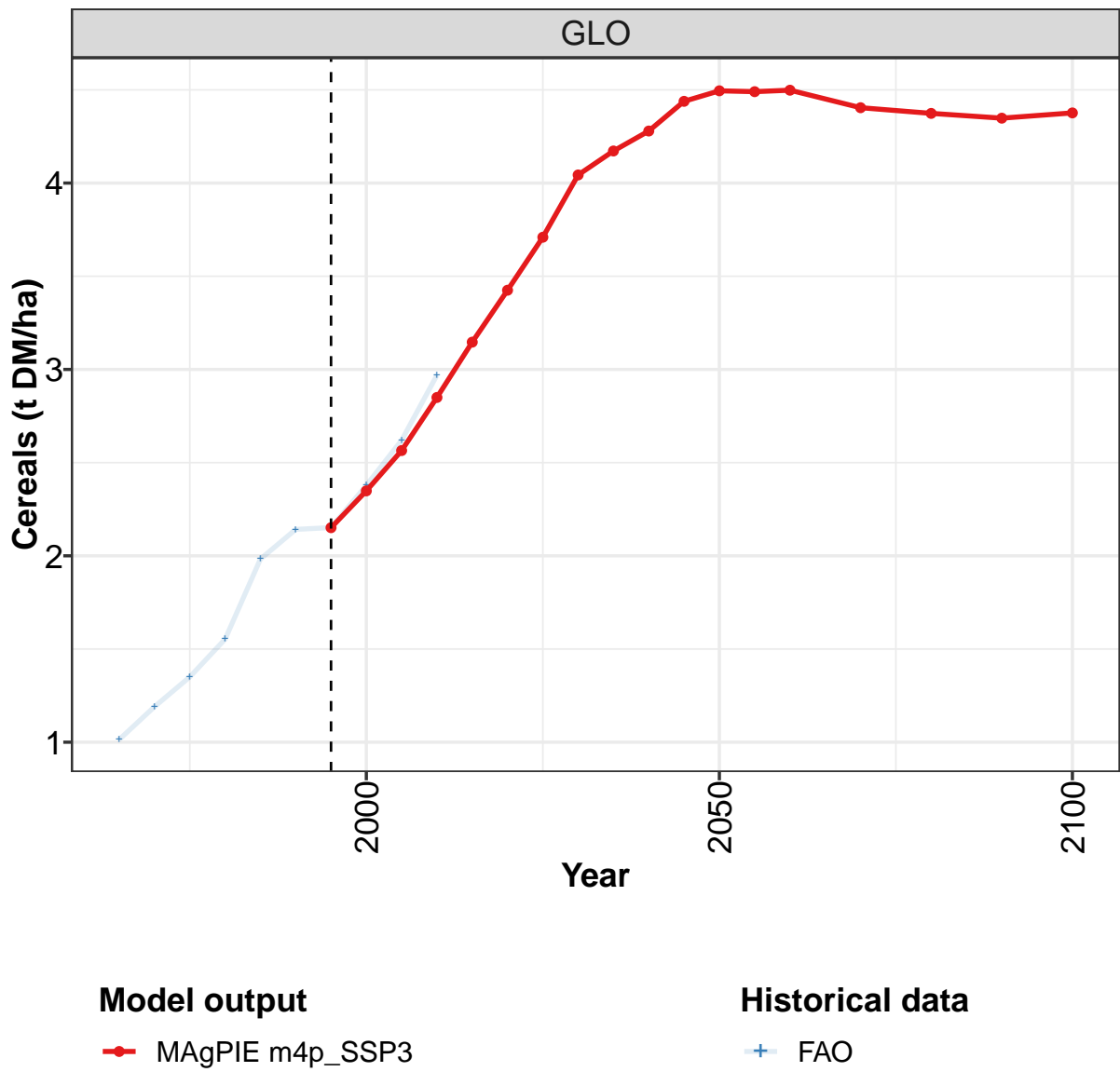
	2050	2055	2060	2070	2080	2090	2100
GLO	4.6	4.7	4.7	4.8	4.8	4.8	4.9
CAZ	1.8	1.8	1.8	1.8	1.8	1.8	1.8
CHA	10.0	10.0	10.2	10.7	11.0	11.1	11.2
EUR	7.5	7.6	7.6	7.8	8.0	8.4	8.4
IND	6.5	7.1	7.5	8.8	10.2	11.4	12.7
JPN	9.9	9.9	10.1	10.1	10.0	10.8	13.1
LAM	5.3	5.4	5.4	5.6	5.7	5.8	5.8
MEA	7.3	7.6	7.8	8.2	8.5	9.0	9.2
NEU	5.6	5.8	5.9	6.0	6.0	6.0	6.0
OAS	6.5	6.7	6.9	7.2	7.3	7.4	7.7
REF	1.8	1.8	1.8	1.9	1.9	1.9	1.9
SSA	2.2	2.2	2.3	2.4	2.5	2.5	2.6
USA	4.2	4.2	4.3	4.4	4.5	4.5	4.6

Table 1469: MAgPIE m4p_SSP3 — Productivity—Yield—Crops (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.13	1.30	1.44	1.60	1.97	2.11	2.13	2.33	2.54	2.86
CAZ	0.58	0.58	0.74	0.77	1.27	1.47	1.61	1.66	1.79	1.85
CHA	2.05	2.52	2.99	3.41	3.35	3.74	4.15	4.43	4.97	5.80
EUR	1.68	1.90	2.25	2.64	3.26	3.39	3.32	3.58	3.85	3.89
IND	0.86	1.09	1.20	1.21	1.48	1.78	2.03	2.22	2.24	2.67
JPN	3.83	3.82	3.95	3.71	4.31	4.15	4.09	3.98	3.98	4.19
LAM	1.54	1.66	1.66	1.86	2.34	2.23	2.31	2.53	2.76	3.54
MEA	0.55	0.61	0.71	0.79	0.94	1.05	1.07	1.13	1.44	1.45
NEU	0.87	0.95	1.22	1.34	1.55	1.70	1.63	1.80	2.07	2.18
OAS	1.24	1.43	1.59	1.81	2.05	2.17	2.48	2.72	3.00	3.35
REF	0.73	1.03	0.82	1.01	1.37	1.67	1.10	1.04	1.25	1.15
SSA	0.50	0.59	0.66	0.69	0.73	0.81	0.85	0.96	1.09	1.24
USA	1.60	1.53	1.97	2.06	2.75	2.56	2.44	3.13	3.61	4.37

Table 1470: FAO — Productivity—Yield—Crops (t DM/ha)

52.1.1 Cereals



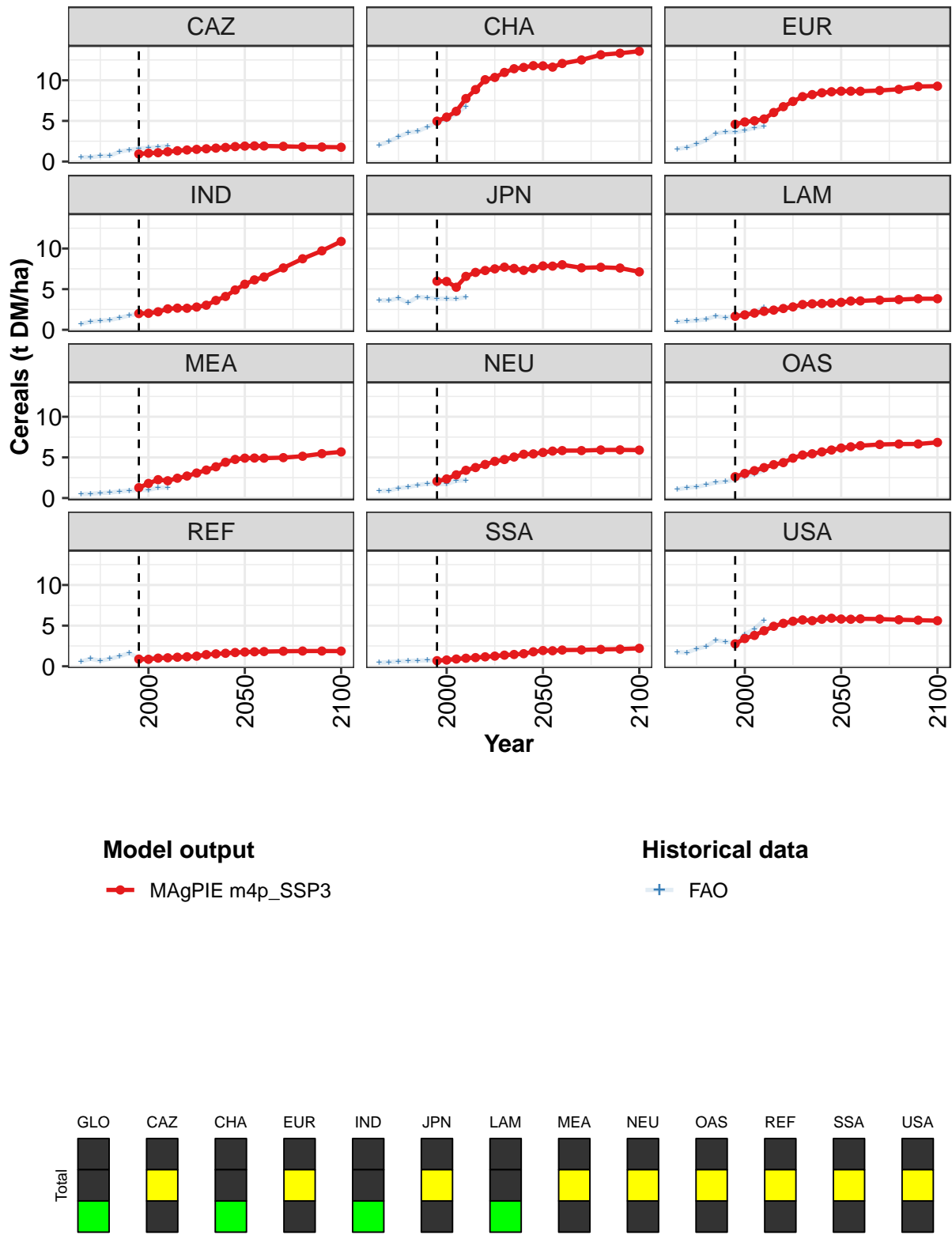


Figure 377: MAGPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.2	2.3	2.6	2.8	3.1	3.4	3.7	4.0	4.2	4.3	4.4
CAZ	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.7	1.8
CHA	5.0	5.5	6.2	7.8	8.9	10.1	10.3	11.0	11.4	11.6	11.8
EUR	4.6	4.9	5.0	5.2	6.0	6.7	7.4	8.0	8.2	8.5	8.6
IND	2.0	2.0	2.2	2.6	2.7	2.6	2.8	3.0	3.6	4.1	4.9
JPN	6.0	5.9	5.2	6.6	7.1	7.3	7.5	7.7	7.5	7.3	7.6
LAM	1.7	1.8	2.1	2.3	2.4	2.6	2.8	3.1	3.2	3.2	3.3
MEA	1.3	1.8	2.3	2.1	2.4	2.7	3.1	3.4	3.8	4.4	4.8
NEU	2.1	2.3	2.9	3.4	3.8	4.1	4.5	4.7	5.0	5.4	5.4
OAS	2.6	3.0	3.4	3.7	4.1	4.4	4.9	5.3	5.4	5.7	5.9
REF	0.9	0.9	1.0	1.0	1.1	1.2	1.2	1.4	1.5	1.6	1.7
SSA	0.7	0.8	0.9	1.0	1.1	1.2	1.2	1.4	1.5	1.5	1.8
USA	2.8	3.4	3.8	4.4	4.9	5.3	5.5	5.7	5.6	5.8	5.9

Table 1471: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals (t DM/ha) [PART 1/2]

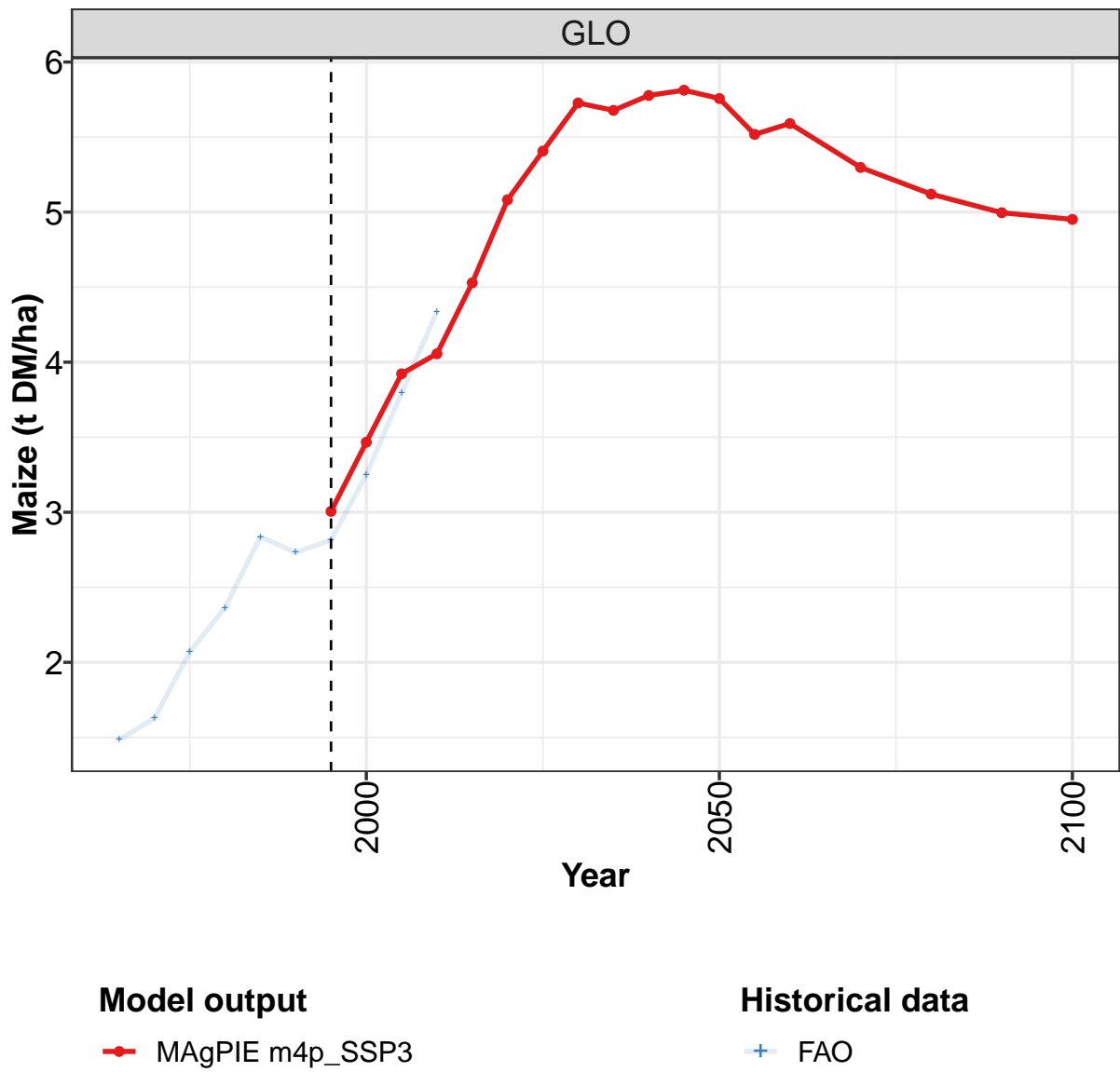
	2050	2055	2060	2070	2080	2090	2100
GLO	4.5	4.5	4.5	4.4	4.4	4.3	4.4
CAZ	1.9	1.9	1.9	1.9	1.8	1.8	1.8
CHA	11.8	11.6	12.1	12.5	13.1	13.3	13.6
EUR	8.7	8.7	8.7	8.7	8.9	9.2	9.3
IND	5.6	6.1	6.5	7.6	8.7	9.7	10.9
JPN	7.9	7.8	8.0	7.6	7.7	7.6	7.1
LAM	3.4	3.5	3.6	3.6	3.7	3.8	3.8
MEA	4.9	4.9	4.9	5.0	5.1	5.5	5.7
NEU	5.6	5.8	5.8	5.8	5.9	5.9	5.9
OAS	6.2	6.3	6.4	6.6	6.6	6.6	6.8
REF	1.7	1.8	1.8	1.8	1.9	1.9	1.9
SSA	1.9	1.9	2.0	2.0	2.1	2.1	2.2
USA	5.8	5.8	5.8	5.8	5.7	5.7	5.6

Table 1472: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.01	1.19	1.35	1.55	1.98	2.14	2.15	2.38	2.62	2.97
CAZ	0.53	0.53	0.68	0.69	1.22	1.44	1.63	1.66	1.79	1.94
CHA	2.01	2.47	3.02	3.56	3.71	4.26	4.82	5.15	5.92	6.79
EUR	1.55	1.73	2.15	2.64	3.46	3.64	3.61	3.83	4.17	4.34
IND	0.73	1.00	1.12	1.22	1.46	1.77	2.01	2.18	2.37	2.79
JPN	3.64	3.62	3.88	3.31	4.06	3.94	3.83	3.83	3.79	4.04
LAM	0.98	1.08	1.15	1.30	1.70	1.49	1.70	1.94	2.18	2.78
MEA	0.49	0.52	0.61	0.68	0.80	0.92	0.97	0.99	1.28	1.29
NEU	0.86	0.90	1.22	1.35	1.59	1.77	1.69	1.73	2.11	2.19
OAS	1.07	1.27	1.38	1.62	1.92	2.01	2.30	2.65	2.98	3.37
REF	0.58	0.92	0.68	0.92	1.24	1.62	0.99	0.98	1.20	1.12
SSA	0.44	0.51	0.61	0.65	0.69	0.73	0.74	0.83	0.95	1.14
USA	1.76	1.69	2.16	2.43	3.22	3.00	2.92	3.93	4.61	5.67

Table 1473: FAO — Productivity—Yield—Crops—Cereals (t DM/ha)

52.1.2 Cereals—Maize



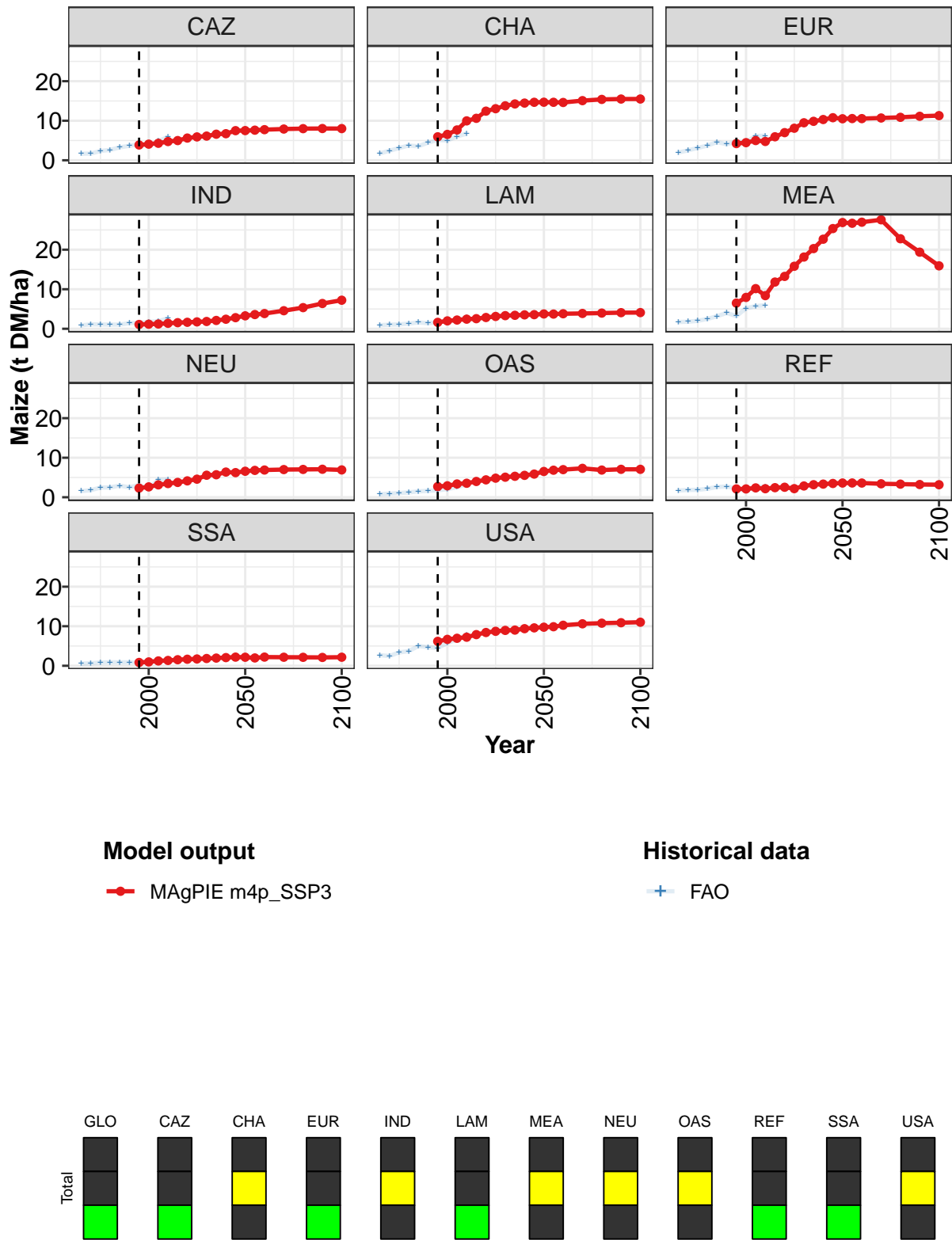


Figure 378: MAGPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals—Maize (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.0	3.5	3.9	4.1	4.5	5.1	5.4	5.7	5.7	5.8	5.8
CAZ	3.9	4.1	4.3	4.7	5.0	5.6	5.9	6.1	6.6	6.7	7.5
CHA	5.9	6.5	7.7	10.0	10.6	12.4	13.0	13.8	14.2	14.5	14.7
EUR	4.2	4.5	5.0	4.8	5.9	7.0	8.1	9.5	9.9	10.3	10.8
IND	1.1	1.2	1.2	1.4	1.5	1.6	1.7	1.8	2.1	2.4	2.8
LAM	1.6	2.0	2.2	2.4	2.6	2.8	3.1	3.3	3.4	3.5	3.6
MEA	6.5	7.9	10.2	8.4	11.8	13.2	15.8	18.1	20.3	22.7	25.3
NEU	2.3	2.6	3.1	3.5	3.8	4.2	4.6	5.6	5.7	6.4	6.2
OAS	2.7	2.9	3.4	3.5	4.0	4.4	4.8	5.1	5.3	5.5	5.9
REF	2.1	2.1	2.4	2.2	2.4	2.5	2.2	2.9	3.2	3.3	3.5
SSA	0.8	1.0	1.2	1.3	1.5	1.7	1.7	1.8	1.9	2.1	2.2
USA	6.2	6.7	7.0	7.2	7.9	8.4	8.7	8.9	9.0	9.4	9.6

Table 1474: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals—Maize (t DM/ha) [PART 1/2]

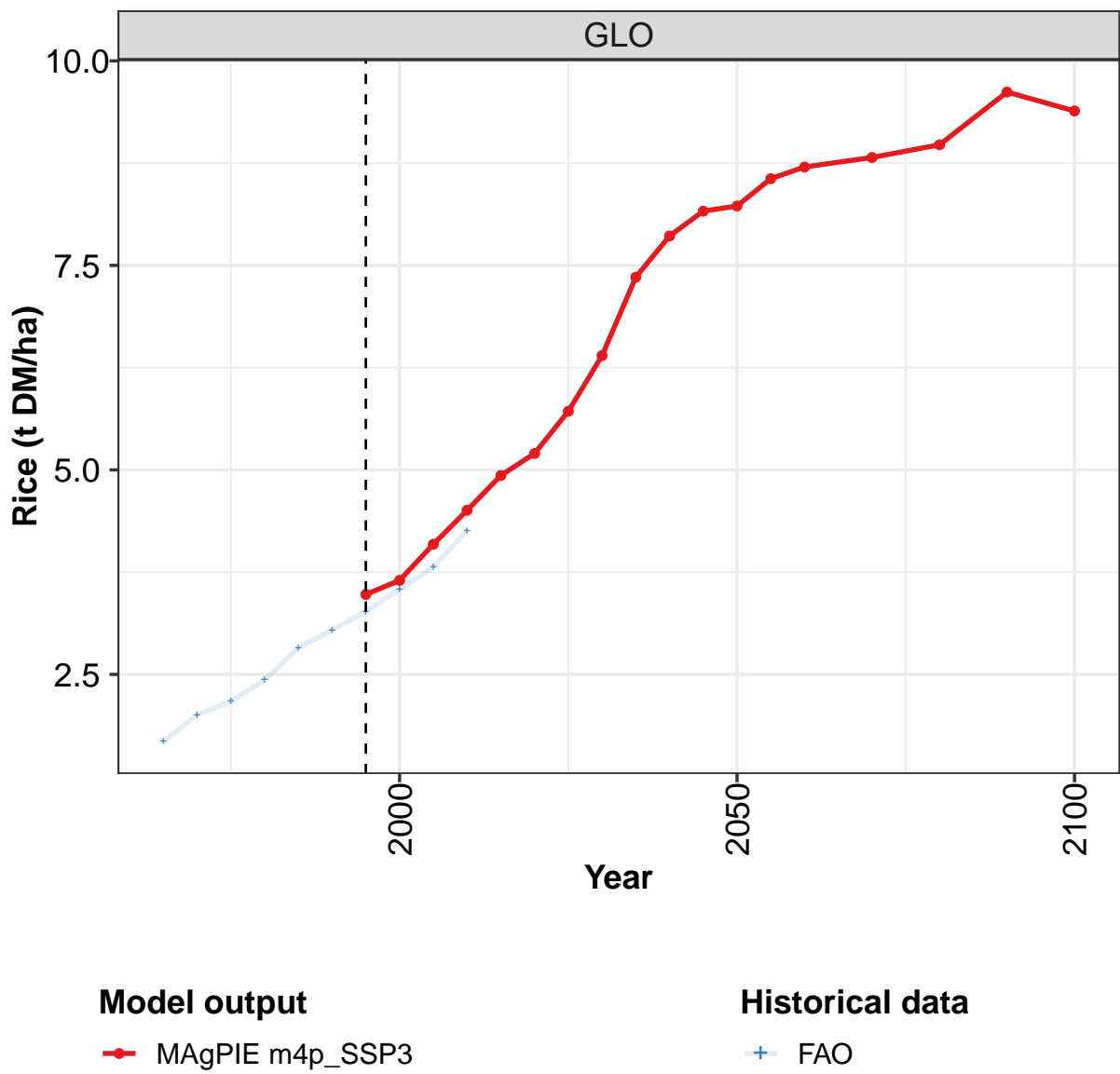
	2050	2055	2060	2070	2080	2090	2100
GLO	5.8	5.5	5.6	5.3	5.1	5.0	5.0
CAZ	7.5	7.6	7.7	7.9	8.0	8.0	8.0
CHA	14.7	14.7	14.6	15.1	15.4	15.5	15.5
EUR	10.5	10.6	10.5	10.7	10.9	11.1	11.3
IND	3.3	3.6	3.8	4.6	5.3	6.4	7.2
LAM	3.7	3.7	3.8	3.9	4.0	4.1	4.1
MEA	26.9	26.7	27.0	27.6	22.8	19.4	15.9
NEU	6.6	6.8	6.9	7.0	7.0	7.1	6.9
OAS	6.5	6.8	7.0	7.3	6.9	7.1	7.1
REF	3.6	3.6	3.6	3.4	3.3	3.2	3.2
SSA	2.2	2.0	2.2	2.2	2.1	2.1	2.2
USA	9.8	9.9	10.2	10.6	10.8	10.9	11.0

Table 1475: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals—Maize (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.49	1.63	2.07	2.37	2.84	2.73	2.81	3.25	3.80	4.34
CAZ	1.65	1.69	2.36	2.62	3.27	3.65	4.11	3.70	4.85	5.92
CHA	1.73	2.42	3.10	3.74	3.52	4.49	5.11	5.02	6.03	6.75
EUR	1.96	2.53	3.12	3.71	4.62	4.04	4.70	4.64	6.16	6.21
IND	0.86	1.13	1.08	1.05	1.06	1.43	1.53	1.74	1.92	2.67
LAM	0.90	1.04	1.10	1.32	1.60	1.40	1.70	1.88	2.22	2.85
MEA	1.71	1.79	2.02	2.50	3.18	4.01	3.19	5.19	5.74	5.96
NEU	1.55	1.79	2.45	2.49	2.94	2.52	3.09	2.20	4.42	4.49
OAS	0.78	0.92	1.07	1.22	1.49	1.63	1.74	2.07	2.55	3.25
REF	1.71	1.85	1.88	2.15	2.61	2.73	2.20	1.75	2.71	2.64
SSA	0.53	0.64	0.82	0.88	0.86	0.87	0.83	1.05	1.07	1.36
USA	2.69	2.44	3.38	3.68	5.01	4.70	4.47	5.77	6.64	7.79

Table 1476: FAO — Productivity—Yield—Crops—Cereals—Maize (t DM/ha)

52.1.3 Cereals—Rice



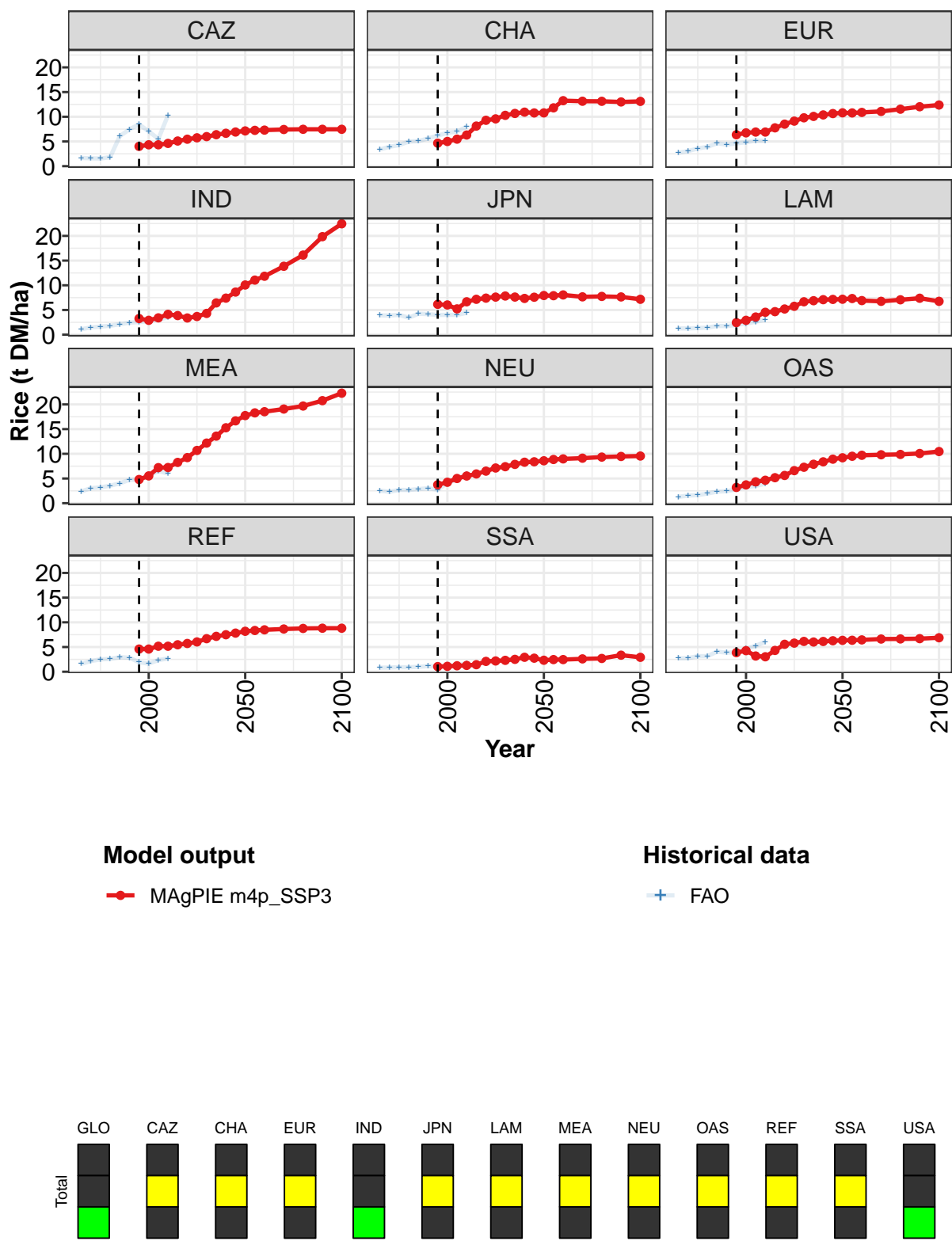


Figure 379: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals—Rice (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.5	3.6	4.1	4.5	4.9	5.2	5.7	6.4	7.4	7.9	8.2
CAZ	4.0	4.3	4.3	4.6	5.1	5.5	5.7	6.0	6.4	6.7	6.9
CHA	4.7	5.0	5.5	6.3	8.1	9.3	9.6	10.3	10.7	10.9	10.8
EUR	6.4	6.7	6.9	6.9	7.8	8.5	9.1	9.8	10.1	10.4	10.6
IND	3.3	2.9	3.4	4.1	3.9	3.4	3.7	4.3	6.4	7.4	8.6
JPN	6.1	6.0	5.2	6.7	7.2	7.4	7.6	7.8	7.6	7.3	7.6
LAM	2.4	2.9	3.6	4.5	4.7	5.2	5.8	6.7	6.9	7.1	7.1
MEA	4.8	5.5	7.2	7.2	8.3	9.2	10.7	12.2	13.6	15.3	16.7
NEU	3.7	4.2	5.0	5.5	5.9	6.5	7.1	7.4	7.9	8.3	8.4
OAS	3.2	3.7	4.3	4.6	5.2	5.6	6.6	7.3	7.9	8.4	8.9
REF	4.6	4.6	5.2	5.2	5.5	5.7	6.0	6.7	7.2	7.5	7.8
SSA	1.0	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.5	2.9	2.7
USA	3.9	4.3	3.2	3.0	4.3	5.6	5.8	6.1	6.0	6.1	6.3

Table 1477: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals—Rice (t DM/ha) [PART 1/2]

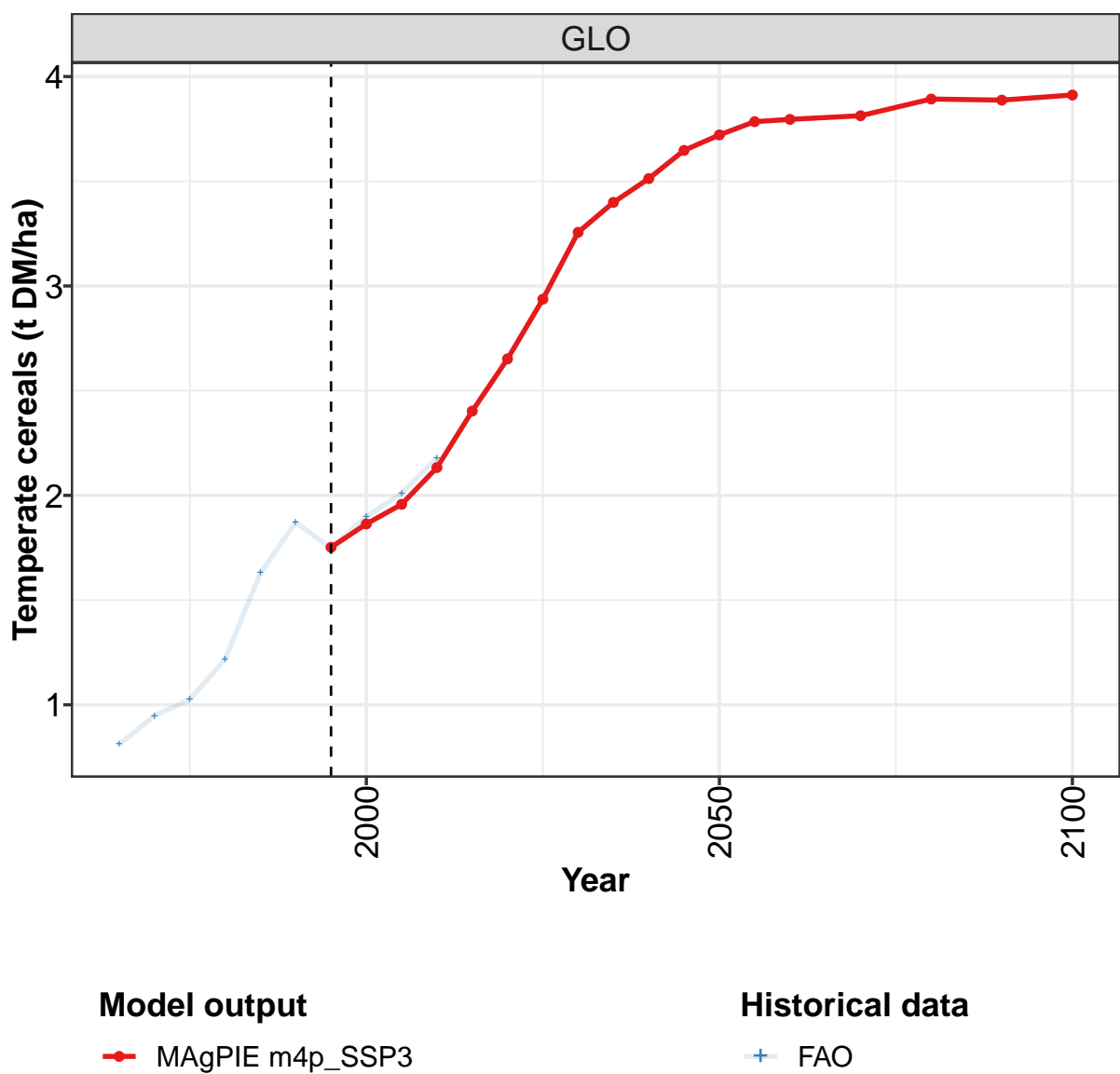
	2050	2055	2060	2070	2080	2090	2100
GLO	8.2	8.6	8.7	8.8	9.0	9.6	9.4
CAZ	7.1	7.3	7.3	7.4	7.5	7.5	7.5
CHA	10.8	11.8	13.3	13.1	13.1	13.0	13.1
EUR	10.8	10.8	10.9	11.1	11.5	12.0	12.4
IND	10.1	11.1	11.8	13.9	16.1	19.8	22.5
JPN	7.9	7.9	8.1	7.7	7.7	7.6	7.2
LAM	7.2	7.3	6.9	6.8	7.1	7.4	6.8
MEA	17.7	18.3	18.5	19.1	19.7	20.8	22.3
NEU	8.6	8.9	9.0	9.1	9.3	9.5	9.6
OAS	9.2	9.5	9.7	9.8	9.9	10.1	10.5
REF	8.2	8.4	8.5	8.7	8.8	8.8	8.8
SSA	2.3	2.5	2.5	2.6	2.7	3.4	2.9
USA	6.4	6.4	6.4	6.6	6.6	6.7	6.9

Table 1478: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals—Rice (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.7	2.0	2.2	2.4	2.8	3.0	3.3	3.5	3.8	4.3
CAZ	1.7	1.6	1.5	1.8	6.1	7.5	8.5	7.0	5.5	10.3
CHA	3.4	3.9	4.3	5.0	5.1	5.6	6.2	6.7	7.0	8.0
EUR	2.7	3.0	3.6	3.9	4.6	4.4	4.6	4.8	5.2	5.1
IND	1.1	1.5	1.6	1.8	2.1	2.4	2.6	2.7	3.1	3.5
JPN	3.9	3.9	4.0	3.4	4.2	4.2	4.0	4.0	4.0	4.4
LAM	1.3	1.3	1.3	1.4	1.8	1.7	2.0	2.3	2.6	3.0
MEA	2.4	3.0	3.2	3.5	4.0	4.7	4.8	5.6	6.5	6.0
NEU	2.5	2.3	2.7	2.7	2.9	3.0	2.7	4.1	4.8	5.9
OAS	1.3	1.5	1.6	2.0	2.3	2.4	2.8	3.2	3.5	3.9
REF	1.6	2.2	2.5	2.6	2.9	2.9	1.9	1.6	2.4	2.7
SSA	0.8	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.3	1.7
USA	2.7	2.7	3.2	3.2	4.1	3.9	3.9	4.7	5.3	6.1

Table 1479: FAO — Productivity—Yield—Crops—Cereals—Rice (t DM/ha)

52.1.4 Cereals—Temperate cereals



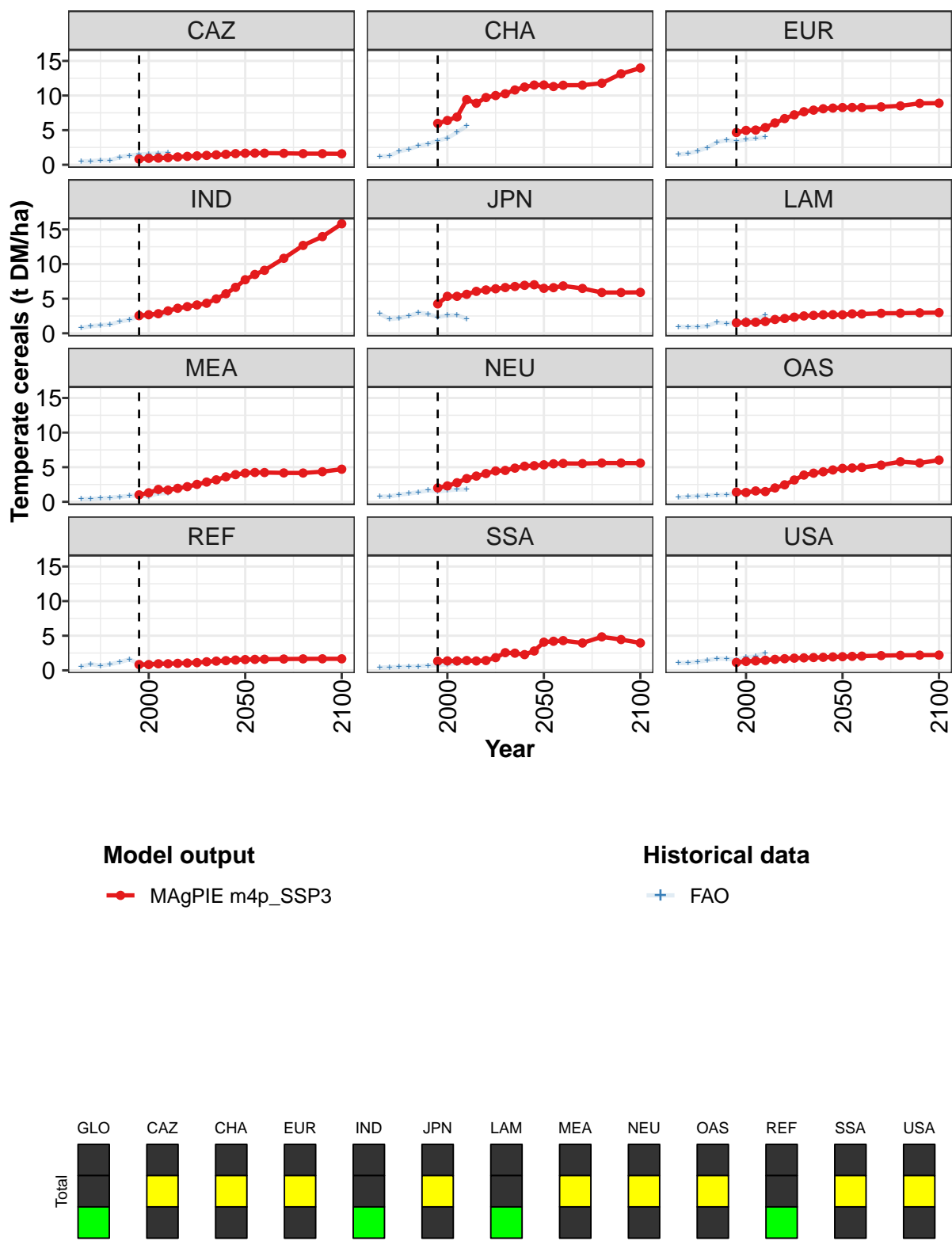


Figure 380: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals—Temperate cereals (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.8	1.9	2.0	2.1	2.4	2.7	2.9	3.3	3.4	3.5	3.6
CAZ	0.8	0.9	1.0	1.0	1.1	1.2	1.3	1.4	1.4	1.5	1.6
CHA	6.0	6.4	6.9	9.4	8.9	9.7	10.0	10.3	10.8	11.2	11.5
EUR	4.7	5.0	5.0	5.4	6.0	6.7	7.2	7.7	7.9	8.1	8.2
IND	2.5	2.7	2.8	3.2	3.6	3.8	4.1	4.3	5.0	5.7	6.6
JPN	4.2	5.3	5.3	5.6	6.1	6.3	6.4	6.6	6.8	6.9	7.0
LAM	1.5	1.6	1.6	1.7	2.0	2.1	2.3	2.5	2.6	2.7	2.7
MEA	1.0	1.3	1.8	1.7	1.9	2.2	2.5	2.9	3.2	3.6	3.9
NEU	2.0	2.3	2.8	3.4	3.7	4.1	4.5	4.5	4.9	5.1	5.2
OAS	1.4	1.3	1.6	1.5	2.0	2.5	3.2	3.9	4.1	4.3	4.6
REF	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.3	1.4	1.5
SSA	1.3	1.4	1.4	1.4	1.4	1.4	1.8	2.6	2.5	2.3	2.8
USA	1.1	1.3	1.4	1.5	1.6	1.7	1.8	1.8	1.8	1.9	1.9

Table 1480: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals—Temperate cereals (t DM/ha)
[PART 1/2]

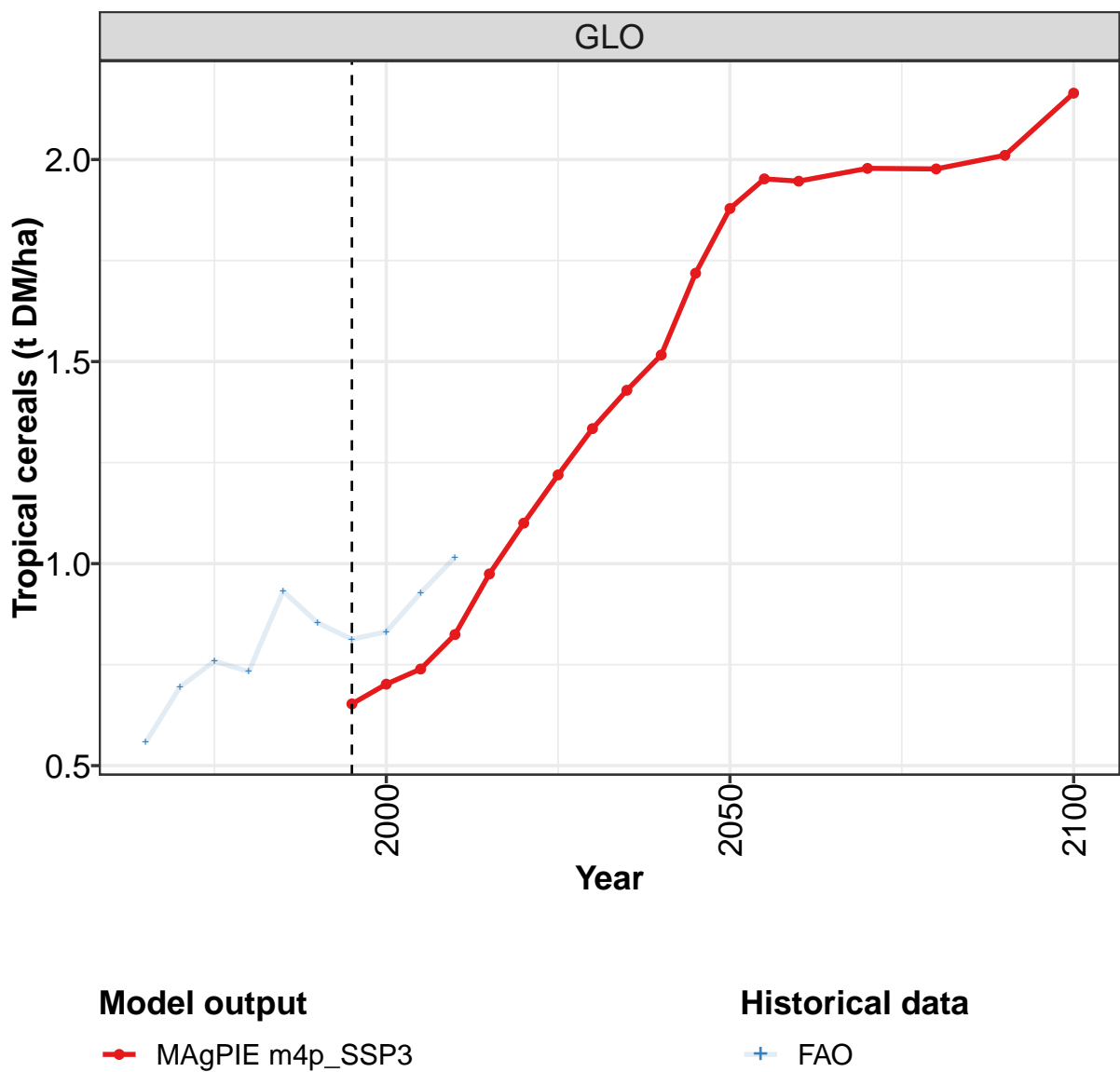
	2050	2055	2060	2070	2080	2090	2100
GLO	3.7	3.8	3.8	3.8	3.9	3.9	3.9
CAZ	1.7	1.7	1.7	1.7	1.6	1.6	1.6
CHA	11.5	11.3	11.5	11.5	11.8	13.1	14.0
EUR	8.3	8.3	8.3	8.4	8.5	8.9	8.9
IND	7.7	8.5	9.1	10.8	12.7	14.0	15.8
JPN	6.5	6.6	6.8	6.5	5.9	5.9	5.9
LAM	2.7	2.8	2.8	2.9	2.9	3.0	3.0
MEA	4.2	4.2	4.2	4.2	4.2	4.4	4.7
NEU	5.3	5.5	5.5	5.5	5.6	5.6	5.6
OAS	4.8	4.9	5.0	5.3	5.8	5.6	6.0
REF	1.6	1.6	1.6	1.6	1.7	1.7	1.7
SSA	4.1	4.2	4.3	3.9	4.8	4.4	4.0
USA	2.0	2.0	2.1	2.1	2.2	2.2	2.2

Table 1481: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals—Temperate cereals (t DM/ha)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.81	0.95	1.03	1.22	1.63	1.87	1.75	1.90	2.01	2.18
CAZ	0.51	0.51	0.65	0.63	1.12	1.34	1.50	1.54	1.65	1.71
CHA	1.19	1.28	1.96	2.25	2.73	3.01	3.49	3.86	4.66	5.64
EUR	1.50	1.61	2.00	2.48	3.26	3.57	3.41	3.67	3.80	4.01
IND	0.79	1.04	1.17	1.27	1.69	1.97	2.41	2.63	2.55	2.96
JPN	2.83	2.05	2.19	2.47	2.99	2.79	2.35	2.58	2.64	2.07
LAM	0.96	0.91	0.95	1.05	1.57	1.43	1.49	1.93	1.86	2.62
MEA	0.40	0.42	0.51	0.60	0.72	0.86	0.92	0.78	1.21	1.26
NEU	0.75	0.77	1.04	1.19	1.39	1.66	1.50	1.66	1.78	1.79
OAS	0.61	0.73	0.83	0.91	0.97	1.03	1.17	1.31	1.56	1.66
REF	0.55	0.90	0.65	0.89	1.18	1.60	0.95	0.96	1.14	1.01
SSA	0.37	0.45	0.47	0.55	0.55	0.68	0.73	0.90	1.02	1.16
USA	1.06	1.08	1.27	1.45	1.70	1.67	1.53	1.90	2.02	2.53

Table 1482: FAO — Productivity—Yield—Crops—Cereals—Temperate cereals (t DM/ha)

52.1.5 Cereals—Tropical cereals



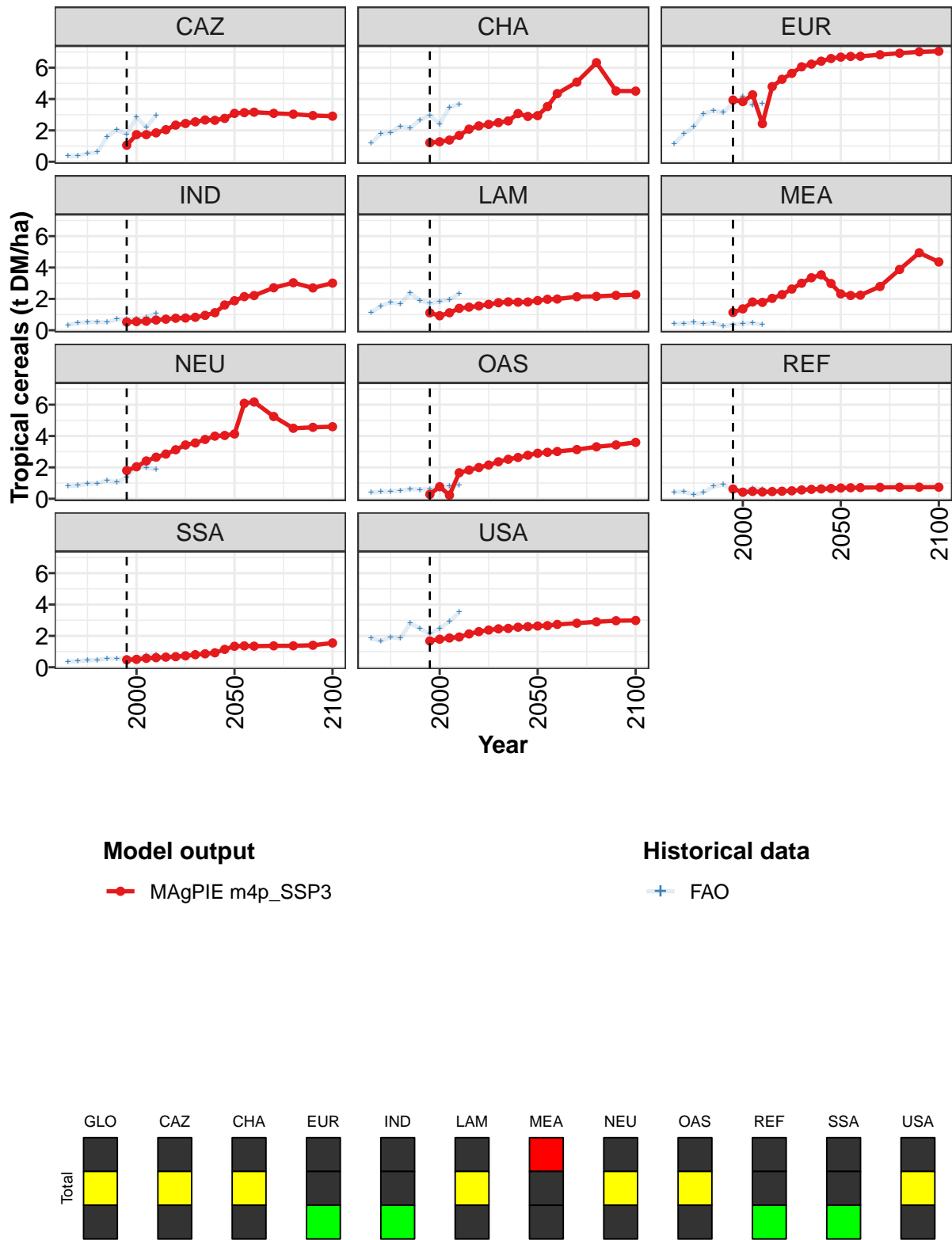


Figure 381: MAGPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals—Tropical cereals (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.65	0.70	0.74	0.82	0.97	1.10	1.22	1.33	1.43	1.52	1.72
CAZ	1.05	1.73	1.73	1.84	2.04	2.34	2.44	2.55	2.66	2.65	2.77
CHA	1.22	1.27	1.38	1.68	2.08	2.29	2.38	2.50	2.60	3.07	2.89
EUR	3.93	3.84	4.27	2.43	4.80	5.26	5.64	6.05	6.23	6.41	6.58
IND	0.53	0.55	0.58	0.65	0.71	0.77	0.78	0.83	0.95	1.12	1.61
LAM	1.11	0.93	1.12	1.40	1.47	1.55	1.65	1.75	1.81	1.79	1.80
MEA	1.14	1.36	1.80	1.78	2.03	2.27	2.63	3.00	3.35	3.53	2.98
NEU	1.80	2.04	2.41	2.65	2.85	3.12	3.43	3.56	3.78	3.99	4.04
OAS	0.28	0.77	0.23	1.66	1.83	1.99	2.15	2.36	2.52	2.63	2.77
REF	0.62	0.42	0.47	0.43	0.46	0.48	0.51	0.56	0.60	0.63	0.66
SSA	0.48	0.51	0.57	0.61	0.65	0.68	0.73	0.80	0.86	0.92	1.14
USA	1.68	1.79	1.87	1.93	2.12	2.27	2.37	2.45	2.48	2.55	2.59

Table 1483: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals—Tropical cereals (t DM/ha) [PART 1/2]

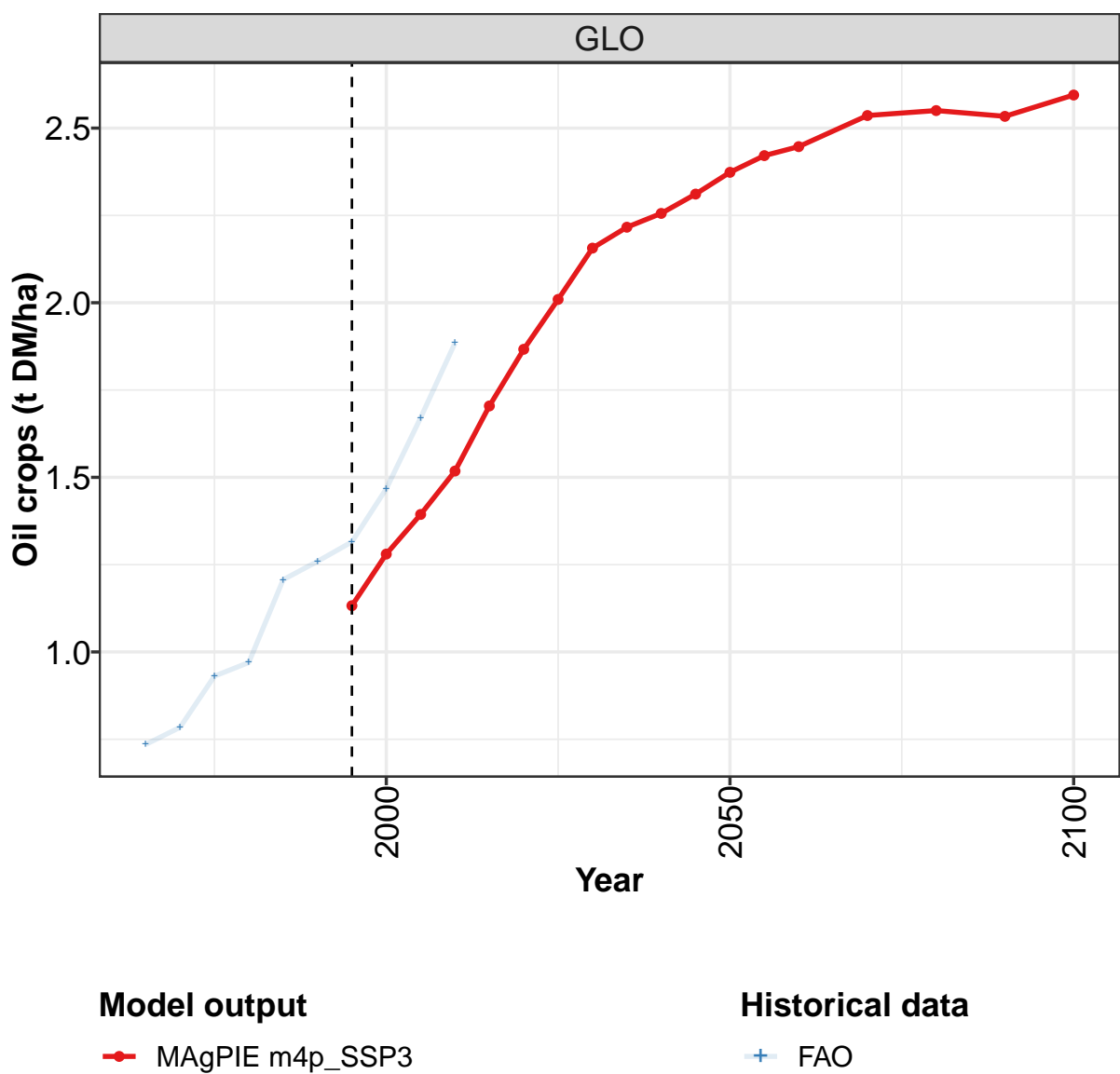
	2050	2055	2060	2070	2080	2090	2100
GLO	1.88	1.95	1.95	1.98	1.98	2.01	2.16
CAZ	3.09	3.13	3.16	3.09	3.04	2.95	2.91
CHA	2.94	3.52	4.35	5.08	6.32	4.51	4.51
EUR	6.67	6.72	6.73	6.83	6.92	7.01	7.04
IND	1.88	2.15	2.21	2.71	3.03	2.70	3.01
LAM	1.89	1.97	1.99	2.14	2.16	2.22	2.27
MEA	2.32	2.22	2.24	2.79	3.88	4.94	4.36
NEU	4.13	6.09	6.17	5.24	4.49	4.55	4.60
OAS	2.90	2.96	3.01	3.14	3.31	3.43	3.59
REF	0.69	0.70	0.71	0.72	0.73	0.74	0.74
SSA	1.34	1.36	1.35	1.37	1.37	1.40	1.55
USA	2.63	2.65	2.73	2.81	2.90	2.97	2.98

Table 1484: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Cereals—Tropical cereals (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.56	0.69	0.76	0.73	0.93	0.85	0.81	0.83	0.93	1.02
CAZ	0.36	0.38	0.53	0.61	1.60	2.04	1.75	2.84	2.21	2.95
CHA	1.20	1.77	1.86	2.26	2.16	2.67	2.97	2.41	3.48	3.67
EUR	1.16	1.77	2.23	3.07	3.27	3.13	3.74	4.15	3.60	3.72
IND	0.33	0.48	0.51	0.53	0.50	0.71	0.72	0.74	0.82	1.07
LAM	1.11	1.55	1.77	1.68	2.38	1.89	1.73	1.82	1.96	2.35
MEA	0.40	0.44	0.50	0.40	0.47	0.27	0.35	0.43	0.47	0.35
NEU	0.81	0.84	0.96	0.98	1.17	1.04	1.38	2.04	1.99	1.86
OAS	0.39	0.44	0.47	0.51	0.63	0.58	0.62	0.70	0.79	0.88
REF	0.42	0.46	0.26	0.40	0.79	0.89	0.59	0.52	0.67	0.62
SSA	0.37	0.40	0.44	0.46	0.54	0.53	0.59	0.58	0.75	0.79
USA	1.85	1.68	1.90	1.86	2.81	2.45	2.15	2.48	2.91	3.51

Table 1485: FAO — Productivity—Yield—Crops—Cereals—Tropical cereals (t DM/ha)

52.1.6 Oil crops



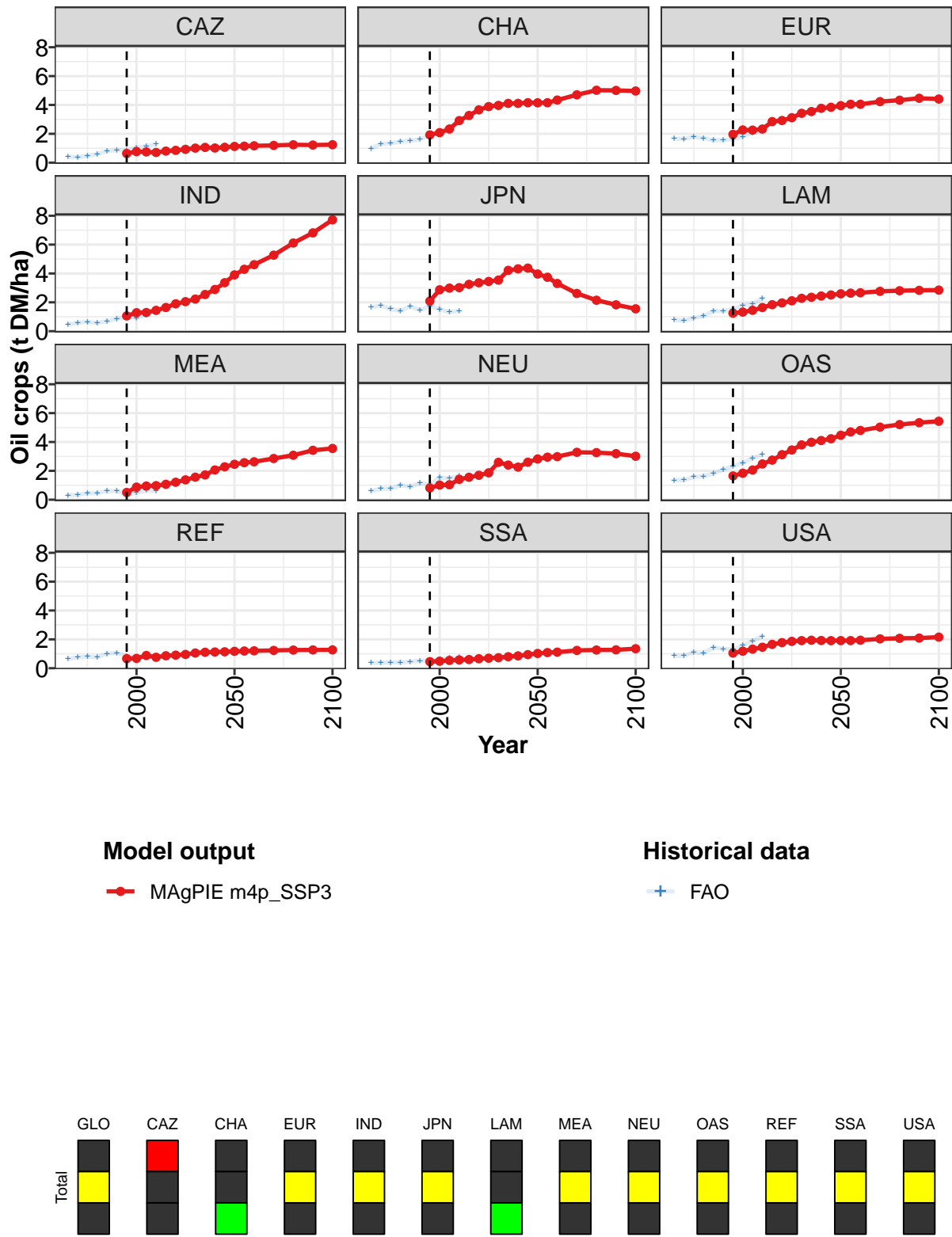


Figure 382: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.13	1.28	1.39	1.52	1.70	1.87	2.01	2.16	2.22	2.26	2.31
CAZ	0.64	0.77	0.75	0.71	0.80	0.86	0.92	1.01	1.06	1.02	1.07
CHA	1.93	2.08	2.33	2.92	3.27	3.66	3.89	3.97	4.11	4.11	4.15
EUR	1.96	2.27	2.26	2.33	2.85	2.92	3.12	3.42	3.54	3.77	3.84
IND	1.06	1.28	1.29	1.44	1.64	1.90	2.05	2.23	2.54	2.89	3.36
JPN	2.09	2.87	2.99	3.02	3.25	3.36	3.45	3.54	4.22	4.32	4.37
LAM	1.25	1.32	1.45	1.64	1.84	1.96	2.11	2.28	2.35	2.44	2.51
MEA	0.50	0.87	0.95	0.98	1.07	1.21	1.38	1.56	1.72	2.06	2.28
NEU	0.82	1.02	1.04	1.41	1.56	1.69	1.86	2.59	2.40	2.26	2.60
OAS	1.65	1.84	2.06	2.48	2.74	3.12	3.45	3.80	3.98	4.10	4.22
REF	0.66	0.68	0.88	0.76	0.86	0.91	0.96	1.05	1.11	1.13	1.14
SSA	0.46	0.49	0.54	0.57	0.60	0.66	0.70	0.73	0.80	0.85	0.94
USA	1.05	1.18	1.33	1.46	1.65	1.77	1.86	1.91	1.94	1.92	1.91

Table 1486: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops (t DM/ha) [PART 1/2]

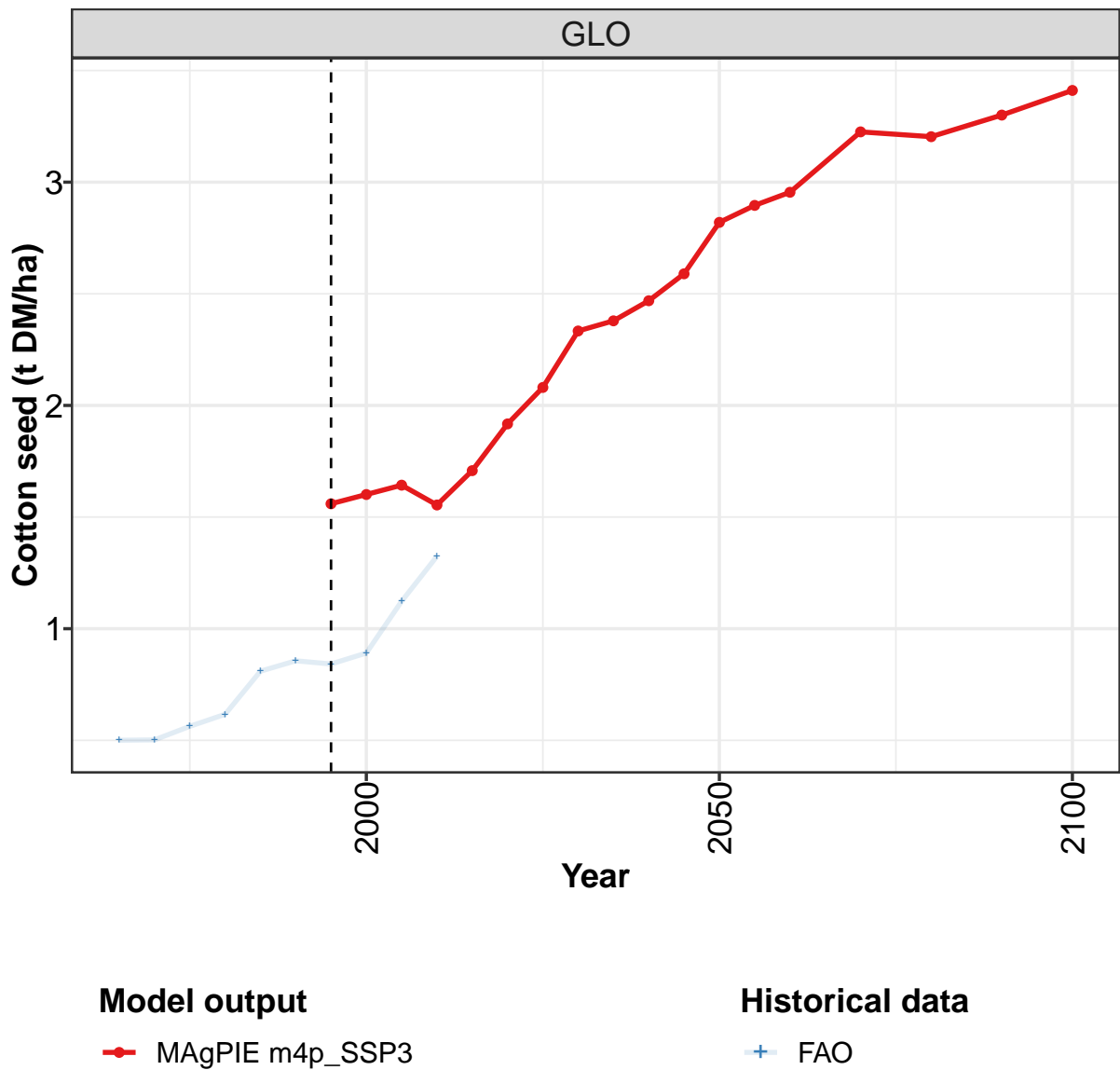
	2050	2055	2060	2070	2080	2090	2100
GLO	2.37	2.42	2.45	2.54	2.55	2.53	2.59
CAZ	1.13	1.14	1.17	1.20	1.24	1.22	1.25
CHA	4.15	4.15	4.34	4.70	5.02	5.01	4.97
EUR	3.95	4.05	4.05	4.23	4.33	4.46	4.41
IND	3.90	4.29	4.61	5.27	6.11	6.81	7.72
JPN	3.96	3.74	3.31	2.61	2.15	1.83	1.55
LAM	2.59	2.64	2.66	2.76	2.81	2.83	2.85
MEA	2.46	2.57	2.63	2.86	3.08	3.43	3.55
NEU	2.82	2.95	2.98	3.29	3.26	3.19	3.01
OAS	4.47	4.70	4.80	5.03	5.21	5.34	5.44
REF	1.17	1.19	1.21	1.24	1.26	1.27	1.27
SSA	1.03	1.08	1.11	1.23	1.26	1.27	1.35
USA	1.91	1.91	1.94	2.03	2.07	2.09	2.16

Table 1487: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.74	0.78	0.93	0.97	1.21	1.26	1.32	1.47	1.67	1.89
CAZ	0.40	0.38	0.46	0.59	0.81	0.87	0.87	1.04	1.15	1.27
CHA	0.98	1.29	1.33	1.47	1.52	1.61	1.91	2.19	2.46	2.88
EUR	1.66	1.65	1.78	1.70	1.55	1.57	1.61	1.81	2.09	2.16
IND	0.45	0.58	0.65	0.56	0.68	0.87	0.99	0.92	1.14	1.50
JPN	1.65	1.77	1.54	1.42	1.72	1.44	1.74	1.52	1.33	1.41
LAM	0.79	0.71	0.92	1.05	1.41	1.38	1.53	1.80	1.86	2.29
MEA	0.31	0.34	0.45	0.45	0.61	0.59	0.41	0.48	0.64	0.60
NEU	0.59	0.77	0.76	1.00	0.90	1.14	1.05	1.53	1.47	1.64
OAS	1.36	1.36	1.58	1.62	1.81	2.08	2.33	2.55	2.89	3.12
REF	0.65	0.75	0.80	0.76	1.01	1.07	0.84	0.70	0.82	0.75
SSA	0.37	0.38	0.39	0.41	0.45	0.52	0.54	0.61	0.70	0.74
USA	0.85	0.85	1.12	1.04	1.45	1.33	1.31	1.57	1.89	2.22

Table 1488: FAO — Productivity—Yield—Crops—Oil crops (t DM/ha)

52.1.7 Oil crops—Cotton seed



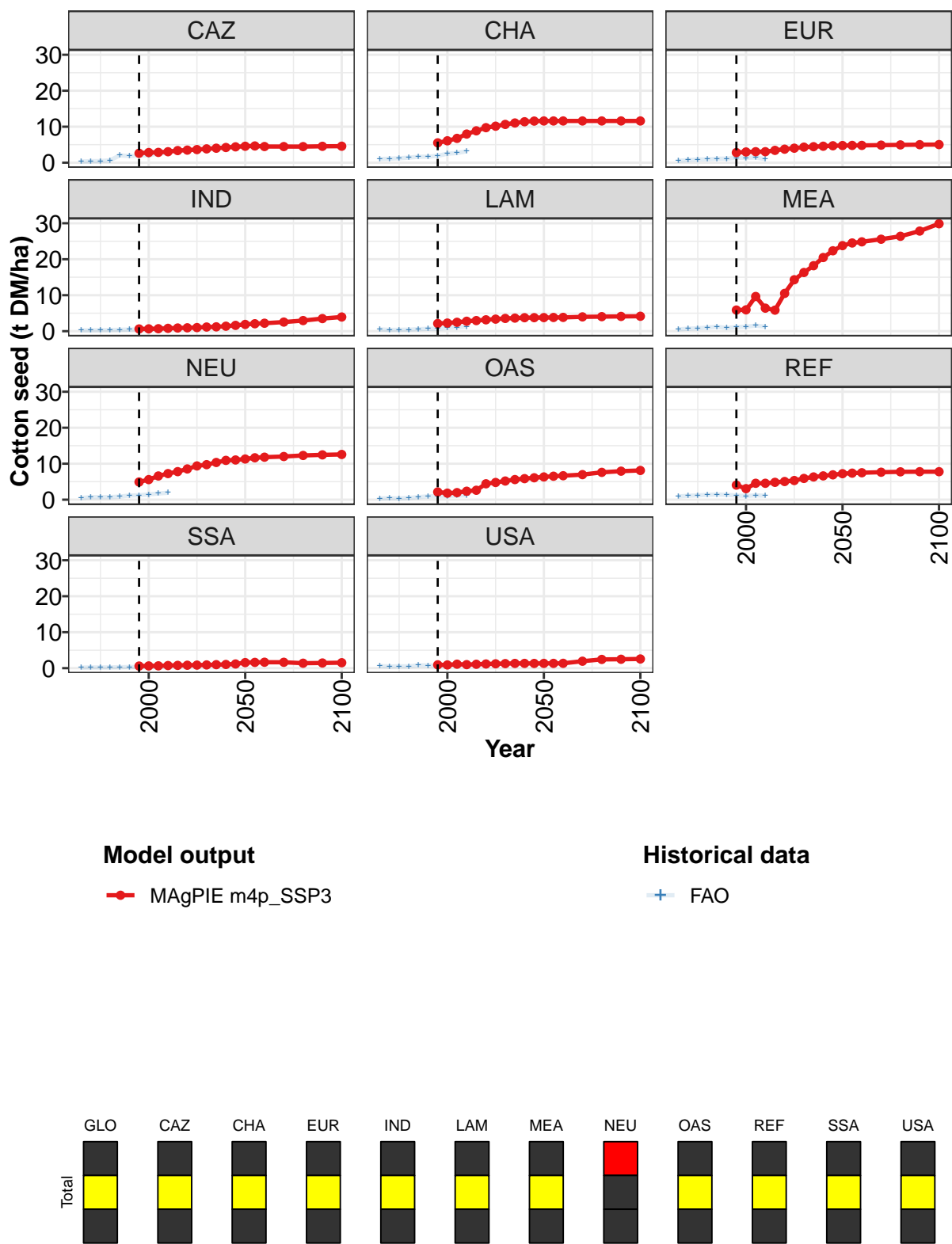


Figure 383: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Cotton seed (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.6	1.6	1.6	1.6	1.7	1.9	2.1	2.3	2.4	2.5	2.6
CAZ	2.6	2.8	2.9	3.0	3.4	3.5	3.6	3.8	4.0	4.2	4.4
CHA	5.5	6.1	6.8	8.0	8.9	9.7	10.1	10.6	11.0	11.4	11.6
EUR	2.8	3.0	3.1	3.1	3.4	3.8	4.0	4.3	4.4	4.6	4.7
IND	0.6	0.6	0.7	0.8	0.9	0.9	1.0	1.2	1.2	1.4	1.6
LAM	2.1	2.3	2.5	2.8	2.9	3.2	3.3	3.5	3.6	3.7	3.8
MEA	5.9	5.9	9.6	6.4	5.9	10.5	14.3	16.3	18.2	20.5	22.4
NEU	4.9	5.6	6.6	7.3	7.8	8.5	9.4	9.7	10.3	10.9	11.0
OAS	2.1	1.8	2.0	2.4	2.6	4.4	4.8	5.2	5.6	5.8	6.1
REF	4.1	3.1	4.6	4.6	4.8	5.1	5.3	5.9	6.3	6.6	6.9
SSA	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.2
USA	0.9	0.9	1.1	1.0	1.1	1.2	1.2	1.3	1.3	1.3	1.3

Table 1489: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Cotton seed (t DM/ha) [PART 1/2]

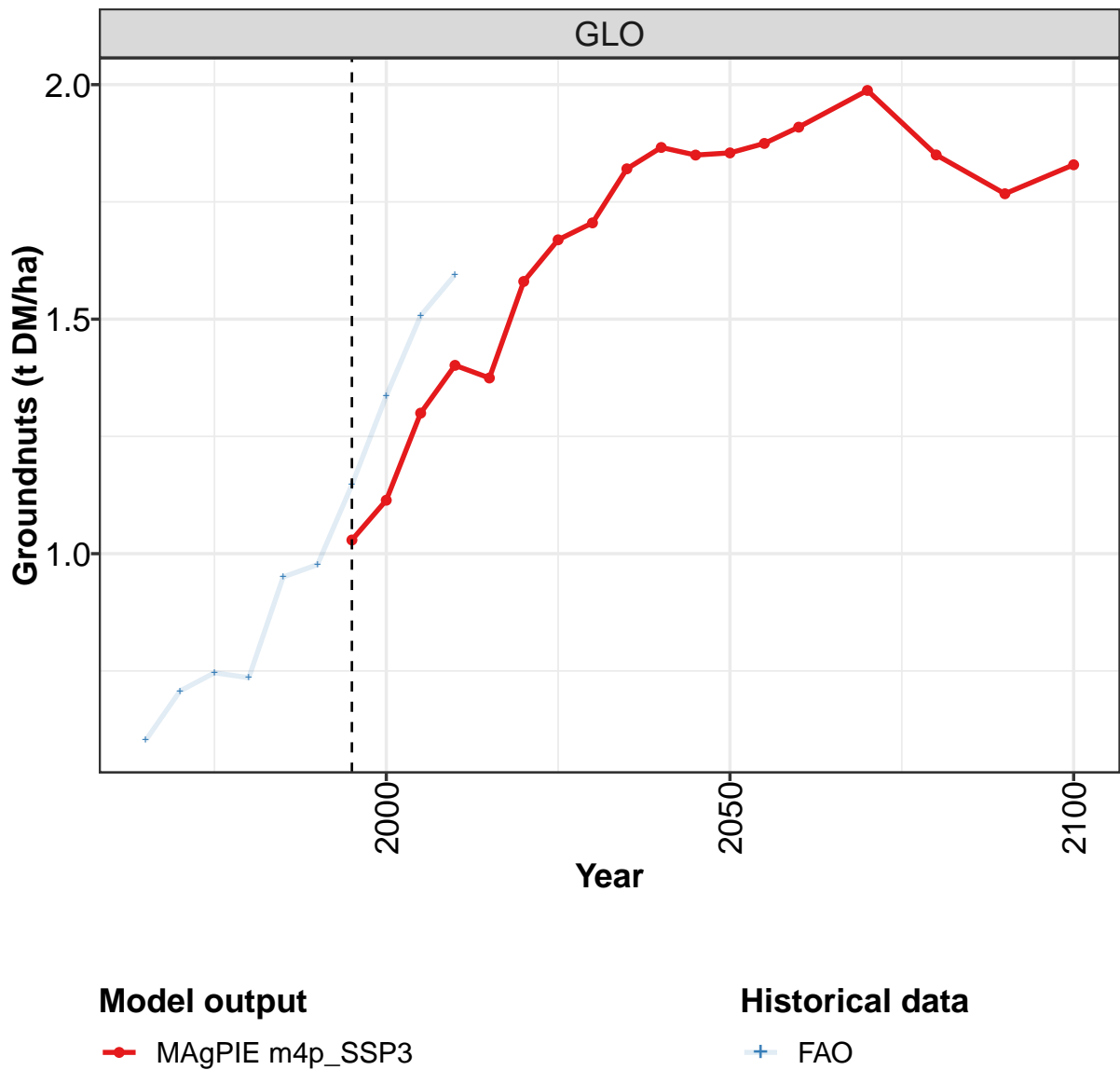
	2050	2055	2060	2070	2080	2090	2100
GLO	2.8	2.9	3.0	3.2	3.2	3.3	3.4
CAZ	4.6	4.6	4.5	4.5	4.5	4.6	4.6
CHA	11.6	11.6	11.6	11.6	11.6	11.6	11.6
EUR	4.8	4.8	4.8	4.9	4.9	5.0	5.0
IND	1.9	2.1	2.2	2.5	2.9	3.5	3.9
LAM	3.8	3.8	3.8	4.0	4.0	4.1	4.1
MEA	23.8	24.5	24.8	25.6	26.4	27.8	29.9
NEU	11.3	11.6	11.8	12.0	12.3	12.5	12.6
OAS	6.3	6.5	6.7	7.0	7.6	7.9	8.1
REF	7.2	7.4	7.5	7.6	7.7	7.8	7.8
SSA	1.6	1.6	1.7	1.6	1.4	1.4	1.5
USA	1.3	1.3	1.4	1.9	2.4	2.5	2.6

Table 1490: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Cotton seed (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.50	0.50	0.56	0.62	0.81	0.86	0.84	0.89	1.12	1.32
CAZ	0.32	0.41	0.44	0.66	2.02	1.84	1.95	2.03	2.51	2.76
CHA	1.00	1.10	1.22	1.40	1.64	1.67	1.91	2.49	2.68	3.18
EUR	0.52	0.73	0.90	0.93	1.09	1.12	1.35	1.34	1.44	0.99
IND	0.23	0.24	0.30	0.32	0.39	0.45	0.49	0.39	0.76	1.14
LAM	0.49	0.36	0.38	0.42	0.56	0.66	0.68	0.90	1.07	1.30
MEA	0.52	0.68	0.81	1.01	1.23	0.89	1.14	1.26	1.53	1.27
NEU	0.47	0.70	0.70	0.71	0.86	1.15	1.23	1.46	1.72	1.93
OAS	0.33	0.41	0.36	0.49	0.71	0.93	0.94	0.97	1.17	1.18
REF	0.92	1.06	1.20	1.32	1.43	1.32	1.17	0.99	1.21	1.08
SSA	0.15	0.20	0.20	0.22	0.26	0.32	0.34	0.33	0.41	0.47
USA	0.61	0.46	0.53	0.51	0.82	0.75	0.63	0.77	0.99	1.08

Table 1491: FAO — Productivity—Yield—Crops—Oil crops—Cotton seed (t DM/ha)

52.1.8 Oil crops—Groundnuts



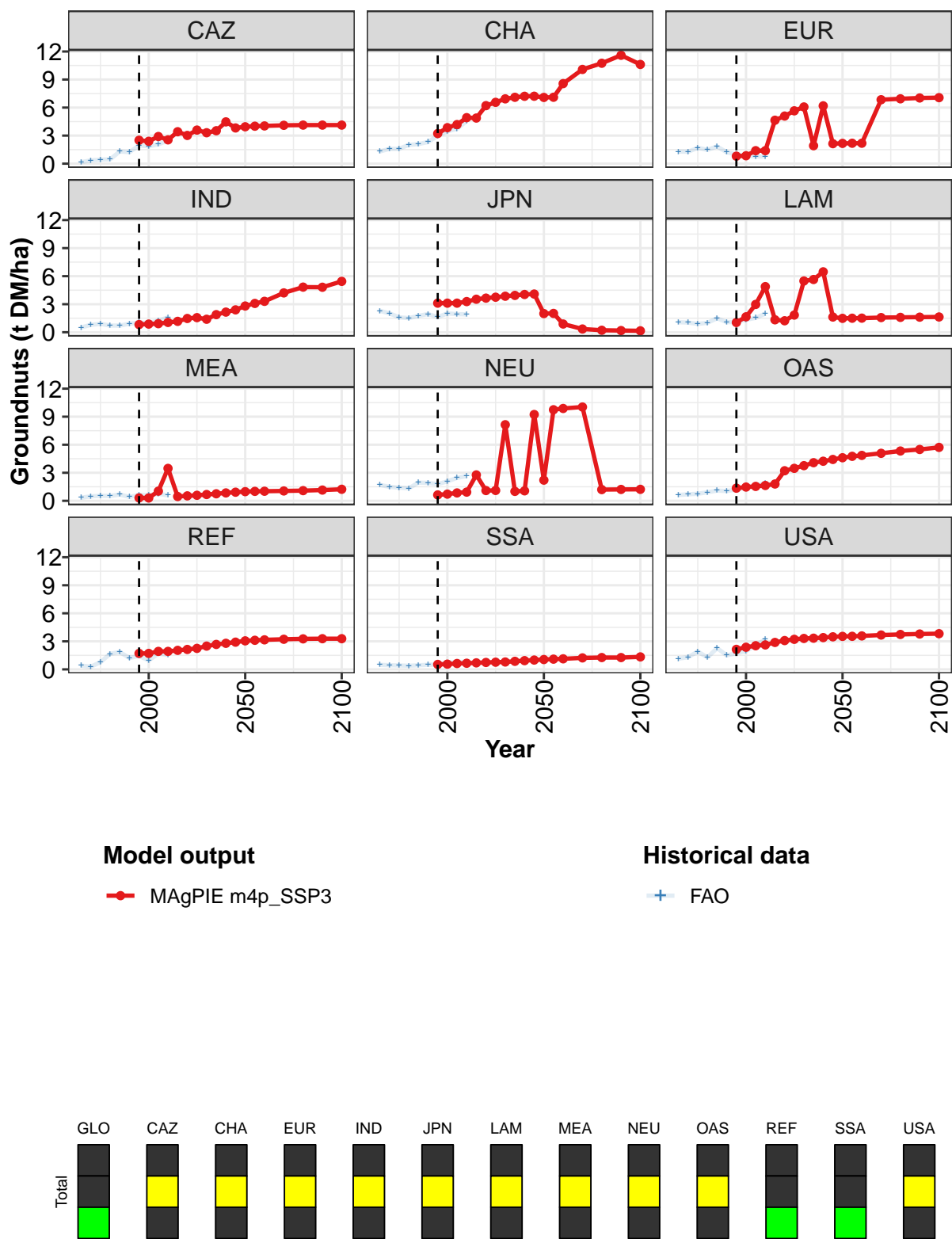


Figure 384: MAGPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Groundnuts (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.0	1.1	1.3	1.4	1.4	1.6	1.7	1.7	1.8	1.9	1.8
CAZ	2.5	2.4	2.9	2.5	3.4	3.0	3.6	3.3	3.5	4.5	3.8
CHA	3.2	3.9	4.2	4.9	4.9	6.2	6.6	6.9	7.1	7.2	7.2
EUR	0.8	0.8	1.4	1.4	4.6	5.1	5.7	6.1	1.9	6.2	2.1
IND	0.8	0.9	0.9	1.0	1.2	1.5	1.6	1.4	1.9	2.2	2.4
JPN	3.1	3.1	3.1	3.3	3.5	3.7	3.7	3.9	3.9	4.0	4.1
LAM	1.0	1.7	3.0	4.9	1.3	1.2	1.8	5.5	5.6	6.5	1.6
MEA	0.3	0.3	1.0	3.5	0.5	0.5	0.6	0.7	0.8	0.8	0.9
NEU	0.6	0.7	0.8	0.9	2.8	1.1	1.1	8.1	1.0	1.1	9.2
OAS	1.4	1.5	1.5	1.6	1.8	3.2	3.5	3.8	4.1	4.2	4.4
REF	1.7	1.7	1.9	1.9	2.0	2.1	2.3	2.5	2.7	2.8	2.9
SSA	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.9	0.9	1.0
USA	2.1	2.4	2.5	2.6	2.9	3.1	3.2	3.3	3.3	3.4	3.5

Table 1492: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Groundnuts (t DM/ha) [PART 1/2]

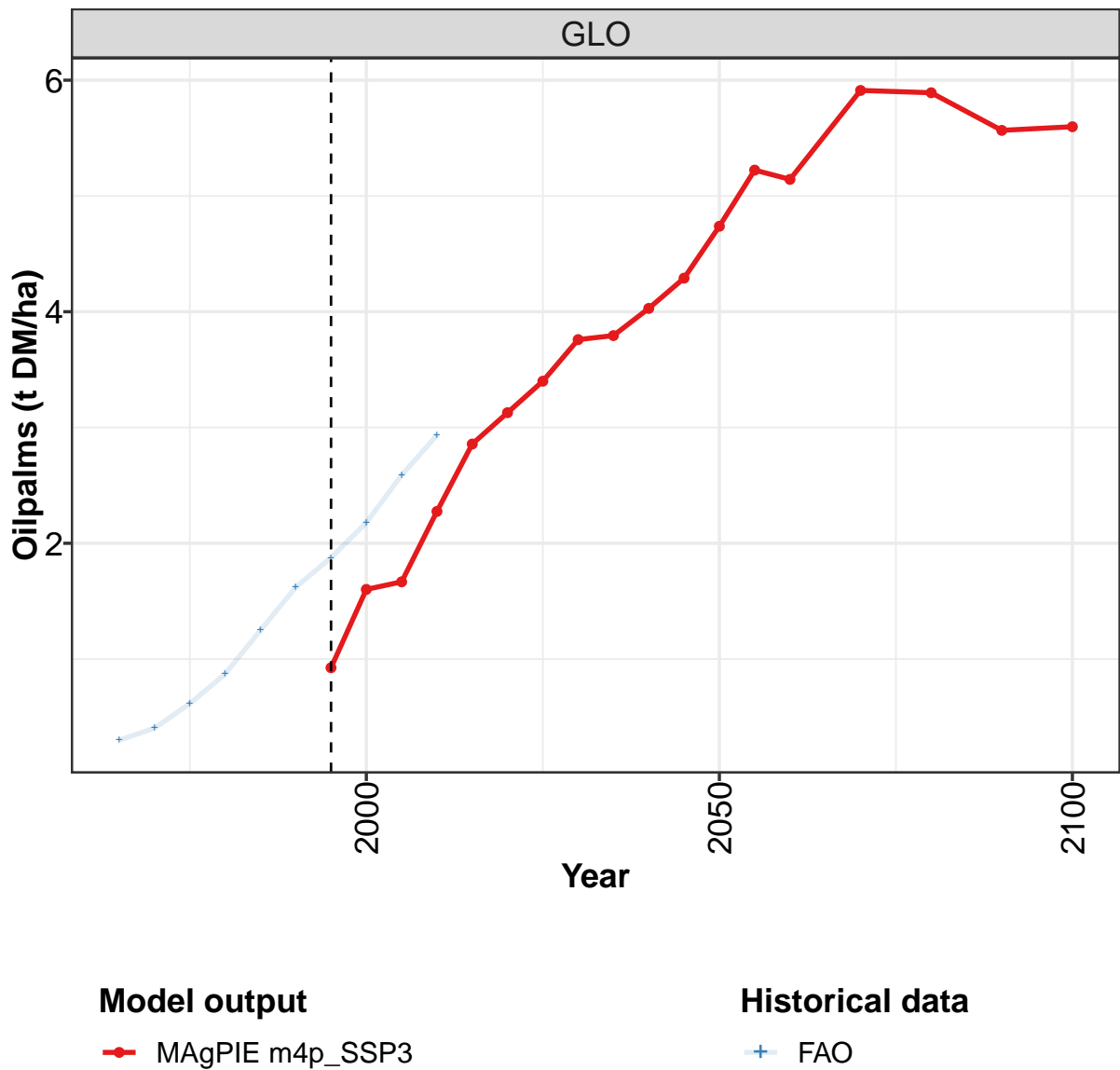
	2050	2055	2060	2070	2080	2090	2100
GLO	1.9	1.9	1.9	2.0	1.9	1.8	1.8
CAZ	3.9	4.0	4.0	4.1	4.1	4.1	4.1
CHA	7.1	7.1	8.6	10.1	10.7	11.6	10.6
EUR	2.2	2.2	2.2	6.8	6.9	7.0	7.1
IND	2.8	3.1	3.3	4.2	4.8	4.8	5.4
JPN	2.0	2.0	0.9	0.3	0.2	0.2	0.2
LAM	1.5	1.5	1.5	1.6	1.6	1.6	1.6
MEA	1.0	1.0	1.0	1.1	1.1	1.2	1.2
NEU	2.2	9.7	9.9	10.0	1.2	1.2	1.2
OAS	4.6	4.8	4.9	5.1	5.3	5.5	5.7
REF	3.1	3.1	3.2	3.2	3.3	3.3	3.3
SSA	1.1	1.1	1.1	1.2	1.3	1.3	1.3
USA	3.5	3.5	3.6	3.7	3.7	3.8	3.8

Table 1493: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Groundnuts (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.60	0.71	0.75	0.74	0.95	0.98	1.15	1.34	1.51	1.59
CAZ	0.16	0.35	0.43	0.46	1.31	1.23	1.94	1.86	2.06	2.48
CHA	1.31	1.58	1.59	2.00	2.09	2.32	2.98	3.46	3.73	4.55
EUR	1.30	1.27	1.69	1.48	1.84	1.22	1.00	0.86	0.76	0.77
IND	0.51	0.79	0.90	0.71	0.71	0.91	1.03	1.01	1.25	1.58
JPN	2.29	2.02	1.59	1.51	1.75	1.95	1.62	2.01	1.94	1.91
LAM	1.08	1.03	0.90	1.01	1.49	1.08	1.10	1.34	1.54	1.99
MEA	0.33	0.47	0.53	0.52	0.67	0.42	0.63	0.59	0.75	0.58
NEU	1.70	1.50	1.41	1.34	1.95	1.92	1.78	2.08	2.45	2.64
OAS	0.63	0.69	0.75	0.91	1.09	1.05	1.20	1.41	1.65	1.89
REF	0.41	0.29	0.77	1.67	1.85	1.22	1.43	0.96	1.68	1.55
SSA	0.48	0.44	0.42	0.38	0.44	0.49	0.53	0.72	0.79	0.81
USA	1.15	1.30	1.92	1.27	2.27	1.50	1.72	1.96	2.56	3.22

Table 1494: FAO — Productivity—Yield—Crops—Oil crops—Groundnuts (t DM/ha)

52.1.9 Oil crops—Oilpalms



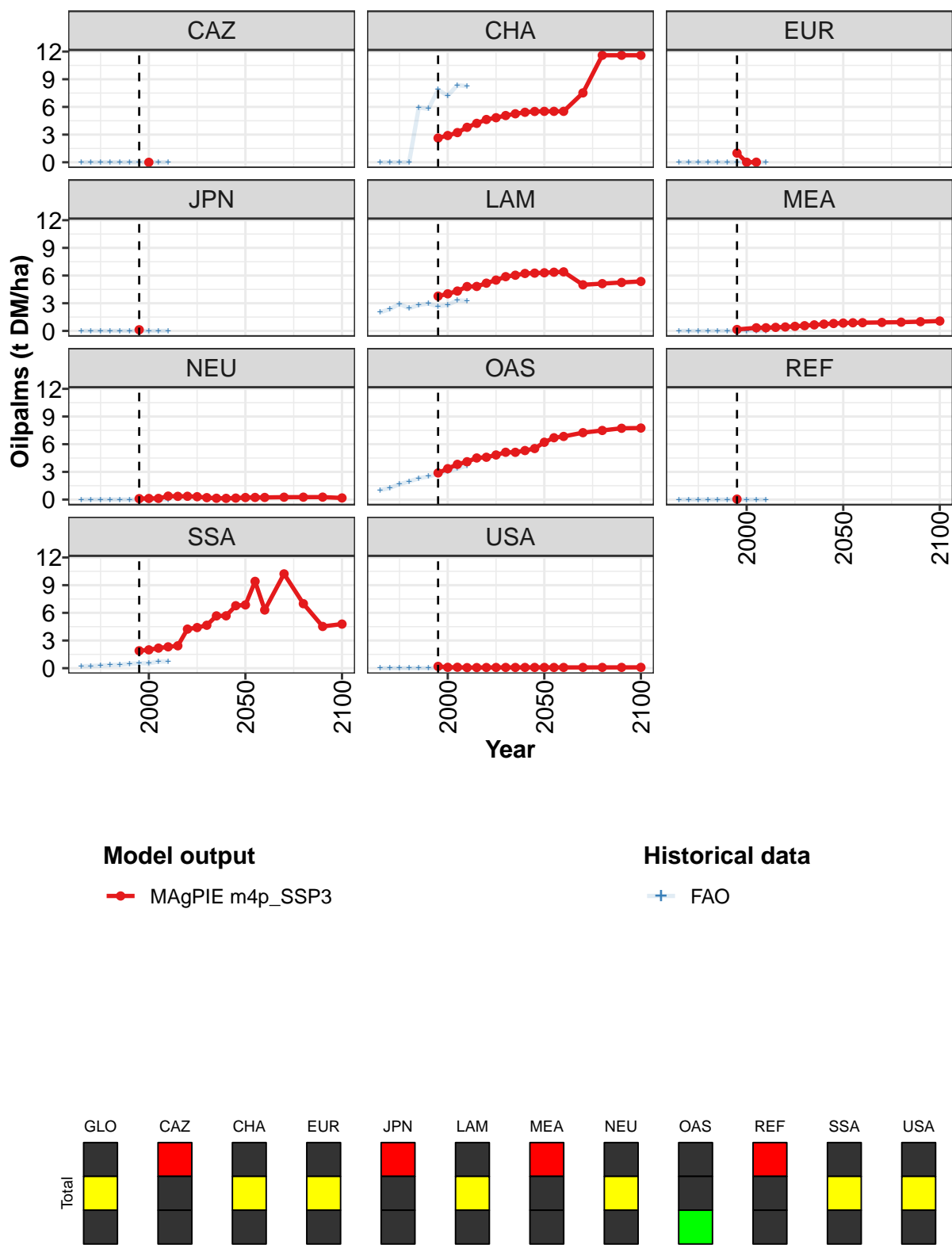


Figure 385: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Oilpalms (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1	2	2	2	3	3	3	4	4	4	4
CAZ		0									
CHA	3	3	3	4	4	5	5	5	5	5	6
EUR	1	0	0								
JPN	0										
LAM	4	4	4	5	5	5	6	6	6	6	6
MEA	0		0	0	0	0	0	1	1	1	1
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	3	3	4	4	5	5	5	5	5	5	6
REF	0										
SSA	2	2	2	2	2	4	4	5	6	6	7
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1495: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Oilpalms (t DM/ha) [PART 1/2]

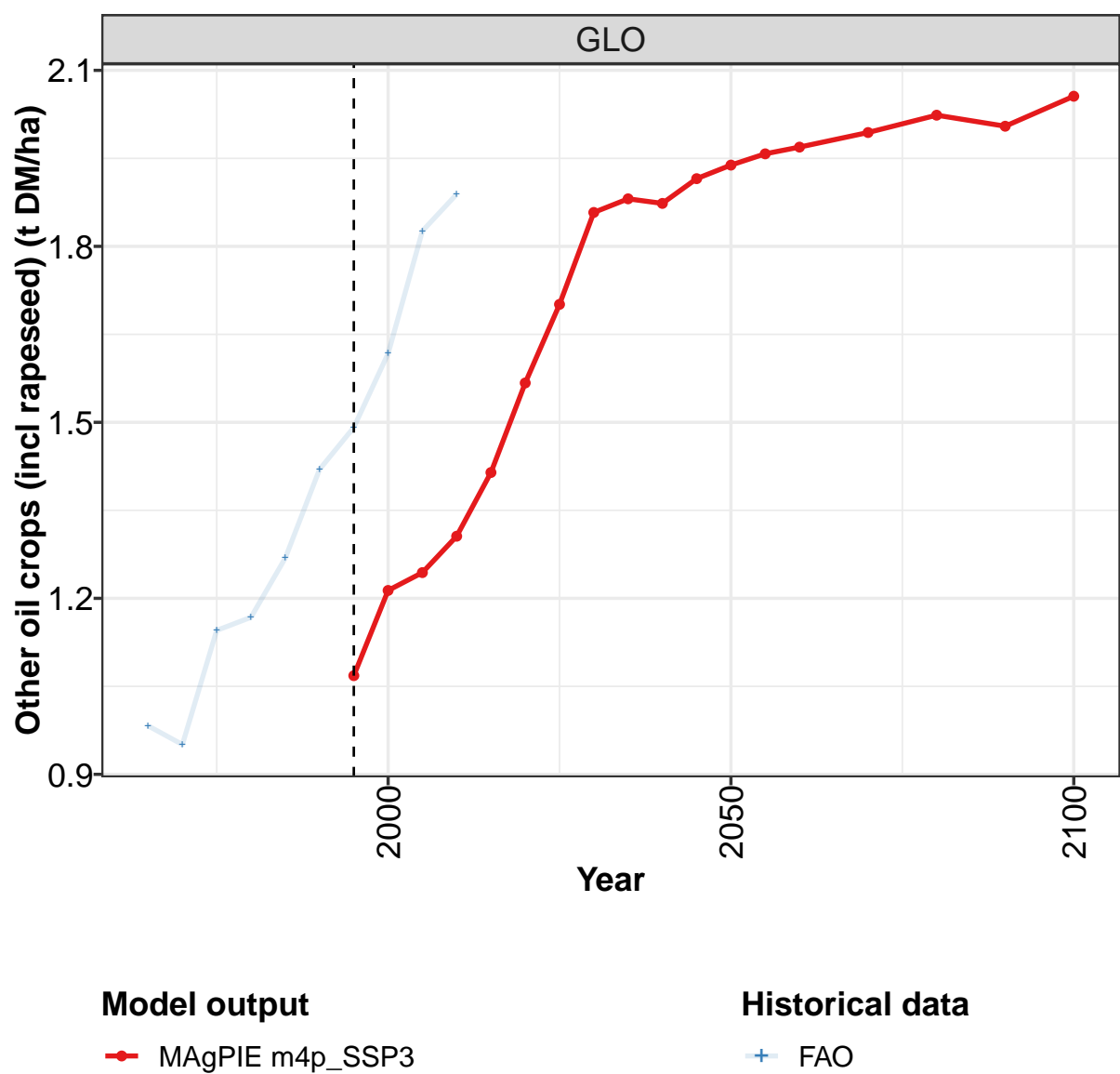
	2050	2055	2060	2070	2080	2090	2100
GLO	5	5	5	6	6	6	6
CAZ							
CHA	6	6	6	8	12	12	12
EUR							
JPN							
LAM	6	6	6	5	5	5	5
MEA	1	1	1	1	1	1	1
NEU	0	0	0	0	0	0	0
OAS	6	7	7	7	7	8	8
REF							
SSA	7	9	6	10	7	5	5
USA	0	0	0	0	0	0	0

Table 1496: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Oilpalms (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.30	0.40	0.61	0.87	1.25	1.62	1.88	2.18	2.59	2.93
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	5.93	5.80	7.86	7.21	8.36	8.24
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	2.02	2.36	2.93	2.46	2.81	2.96	2.65	2.82	3.32	3.26
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	1.03	1.26	1.67	1.96	2.30	2.51	2.79	3.04	3.36	3.67
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.21	0.24	0.28	0.34	0.38	0.49	0.53	0.53	0.73	0.72
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1497: FAO — Productivity—Yield—Crops—Oil crops—Oilpalms (t DM/ha)

52.1.10 Oil crops—Other oil crops (incl rapeseed)



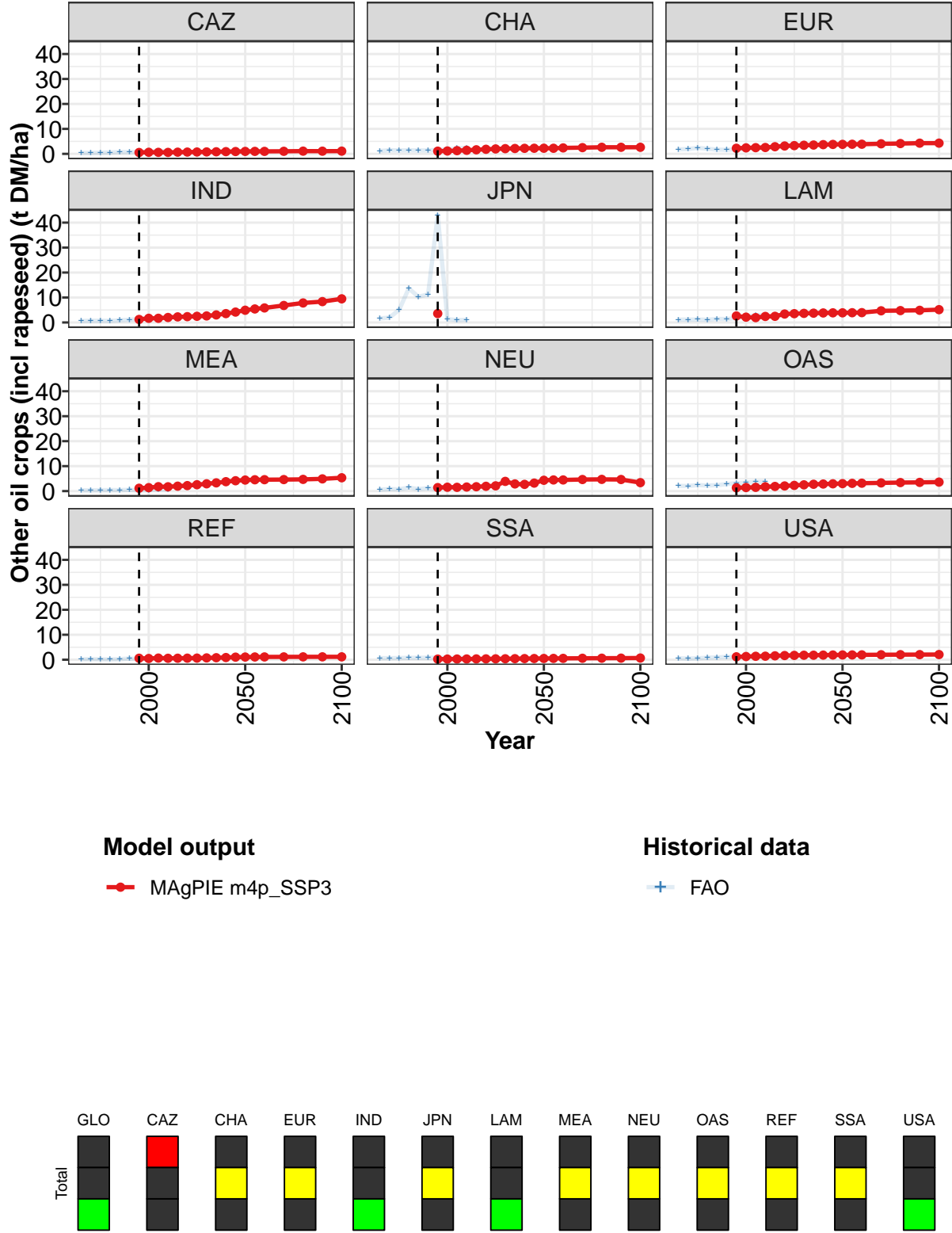


Figure 386: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Other oil crops (incl rapeseed) (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1	1	1	1	1	2	2	2	2	2	2
CAZ	1	1	1	1	1	1	1	1	1	1	1
CHA	1	1	1	1	2	2	2	2	2	2	2
EUR	2	2	2	3	3	3	3	3	4	4	4
IND	1	2	2	2	2	2	2	3	3	4	4
JPN	4										
LAM	3	2	2	2	2	3	4	4	4	4	4
MEA	1	1	2	2	2	2	3	3	3	4	4
NEU	1	2	2	2	2	2	2	4	3	3	3
OAS	1	1	2	2	2	2	2	3	3	3	3
REF	1	0	1	1	1	1	1	1	1	1	1
SSA	0	0	0	0	0	0	0	0	0	0	0
USA	1	1	1	1	2	2	2	2	2	2	2

Table 1498: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Other oil crops (incl rapeseed) (t DM/ha) [PART 1/2]

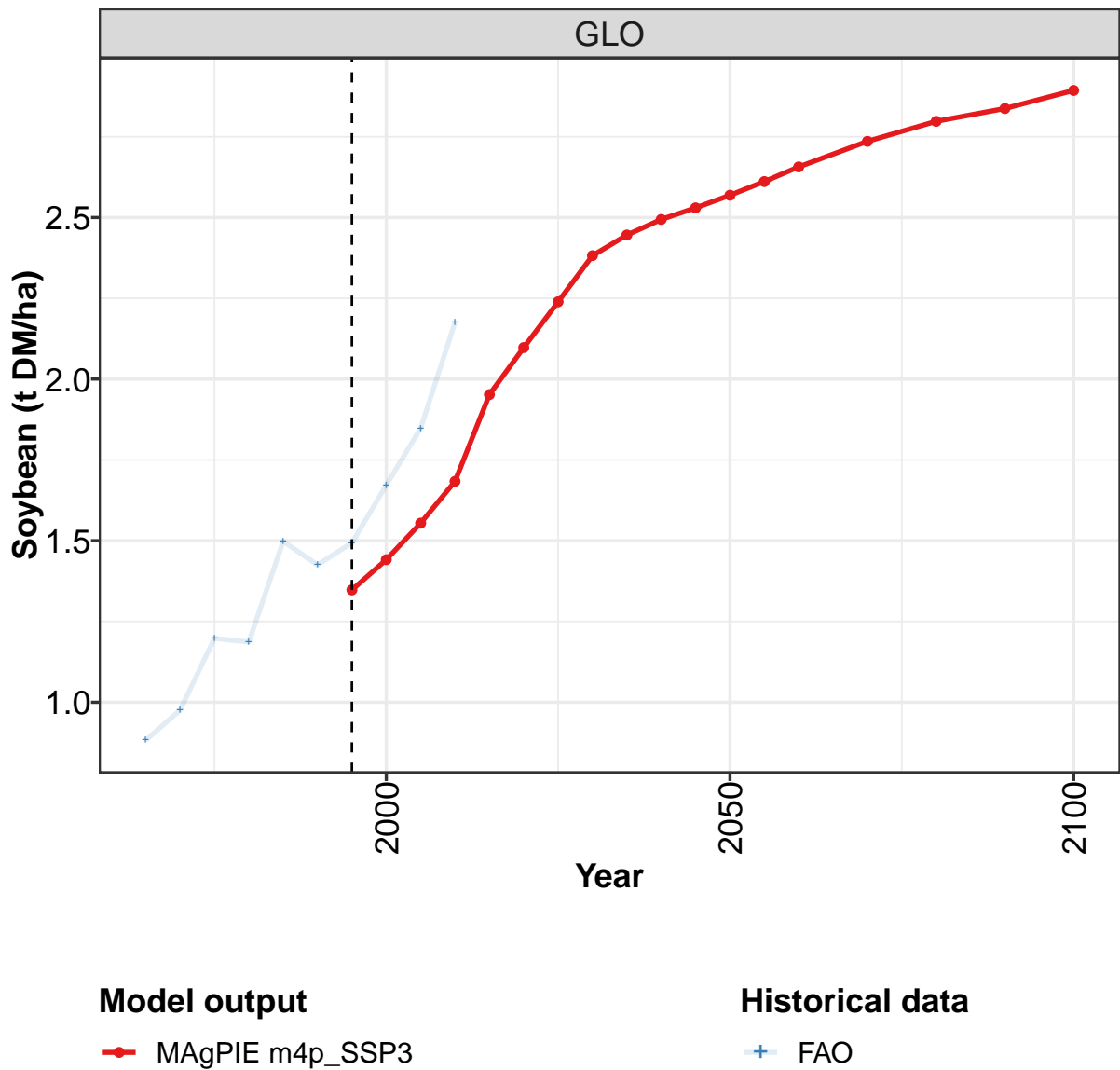
	2050	2055	2060	2070	2080	2090	2100
GLO	2	2	2	2	2	2	2
CAZ	1	1	1	1	1	1	1
CHA	2	2	2	2	3	3	3
EUR	4	4	4	4	4	4	4
IND	5	5	6	7	8	8	9
JPN							
LAM	4	4	4	5	5	5	5
MEA	4	5	5	5	5	5	5
NEU	4	4	4	5	5	5	3
OAS	3	3	3	3	3	3	4
REF	1	1	1	1	1	1	1
SSA	1	1	1	1	1	1	1
USA	2	2	2	2	2	2	2

Table 1499: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Other oil crops (incl rapeseed) (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.8	1.9
CAZ	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.2
CHA	1.1	1.5	1.4	1.4	1.4	1.4	1.6	1.8	2.2	2.5
EUR	1.8	1.9	2.4	2.0	1.7	1.6	1.8	2.1	2.3	2.4
IND	0.6	0.7	0.7	0.6	0.9	1.1	1.4	1.3	1.5	1.9
JPN	1.6	1.9	5.0	13.6	10.3	11.3	43.0	1.4	0.9	1.1
LAM	1.2	1.2	1.2	1.1	1.4	1.4	1.8	2.2	2.8	3.0
MEA	0.3	0.3	0.4	0.4	0.4	0.5	0.3	0.4	0.6	0.6
NEU	0.5	0.8	0.7	1.4	0.8	1.2	0.7	1.9	1.3	1.4
OAS	2.1	2.0	2.4	2.2	2.4	2.8	3.2	3.4	3.7	3.7
REF	0.2	0.2	0.2	0.1	0.2	0.5	0.3	0.4	0.7	0.7
SSA	0.6	0.6	0.7	0.8	0.8	0.8	0.8	0.7	0.8	0.8
USA	0.6	0.4	0.6	0.8	0.9	1.1	1.1	1.1	1.2	1.7

Table 1500: FAO — Productivity—Yield—Crops—Oil crops—Other oil crops (incl rapeseed) (t DM/ha)

52.1.11 Oil crops—Soybean



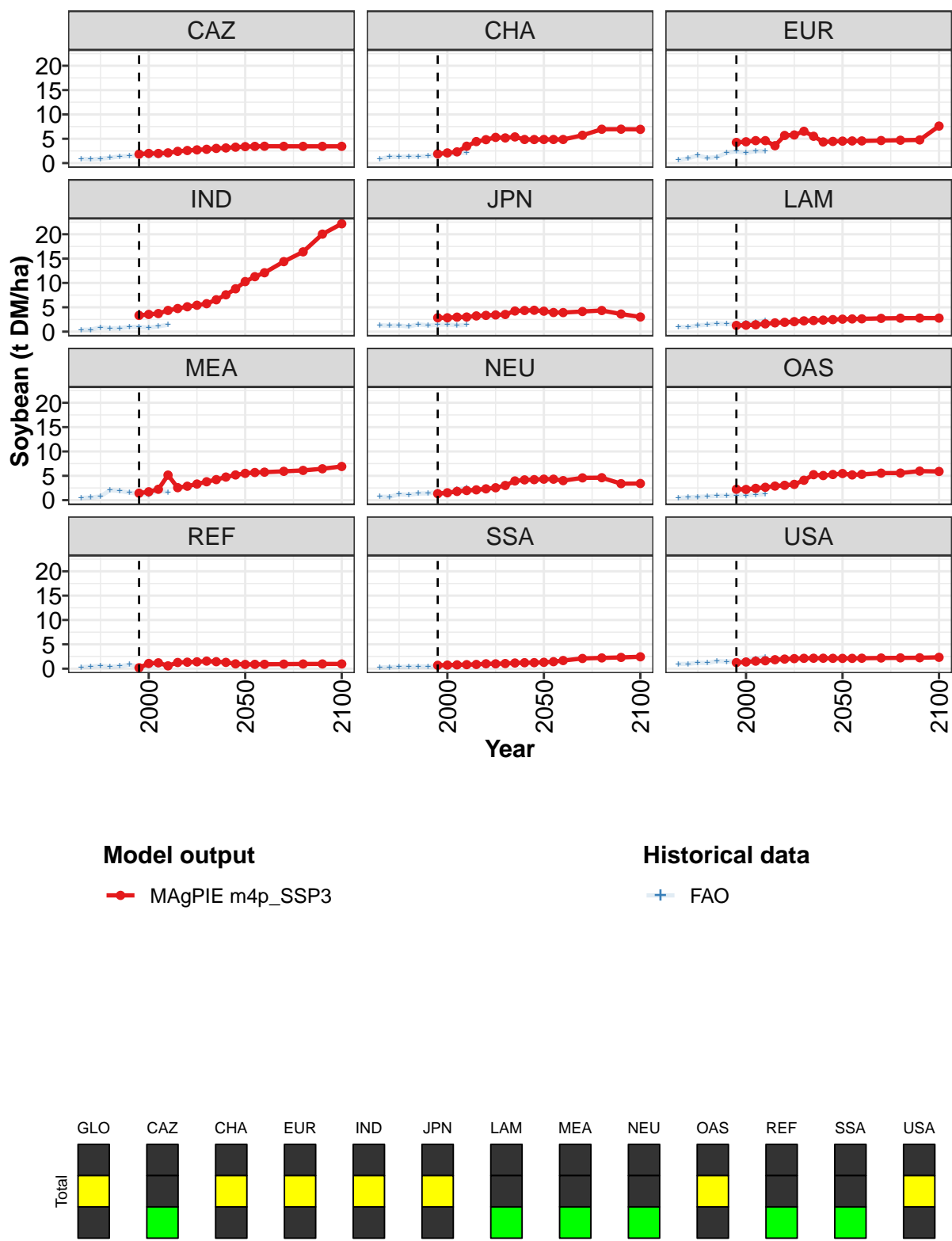


Figure 387: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Soybean (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.3	1.4	1.6	1.7	2.0	2.1	2.2	2.4	2.4	2.5	2.5
CAZ	1.8	2.0	2.0	2.1	2.4	2.6	2.7	2.8	3.0	3.1	3.3
CHA	1.9	2.1	2.3	3.5	4.4	4.8	5.3	5.2	5.4	4.9	4.8
EUR	4.2	4.4	4.6	4.6	3.6	5.7	5.8	6.5	5.5	4.3	4.5
IND	3.3	3.5	3.7	4.4	4.7	5.1	5.4	5.7	6.5	7.6	8.8
JPN	2.8	2.8	3.0	3.0	3.2	3.3	3.4	3.5	4.2	4.3	4.4
LAM	1.3	1.3	1.4	1.6	1.8	1.9	2.0	2.2	2.3	2.4	2.5
MEA	1.4	1.7	2.2	5.1	2.6	2.9	3.3	3.8	4.2	4.7	5.2
NEU	1.3	1.5	1.8	2.0	2.1	2.3	2.5	3.0	3.9	4.2	4.2
OAS	2.2	2.2	2.4	2.6	2.9	3.0	3.2	4.1	5.2	5.1	5.3
REF	0.2	1.1	1.2	0.6	1.3	1.3	1.4	1.6	1.4	1.3	1.0
SSA	0.7	0.7	0.8	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.2
USA	1.3	1.4	1.5	1.6	1.8	2.0	2.1	2.1	2.1	2.1	2.1

Table 1501: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Soybean (t DM/ha) [PART 1/2]

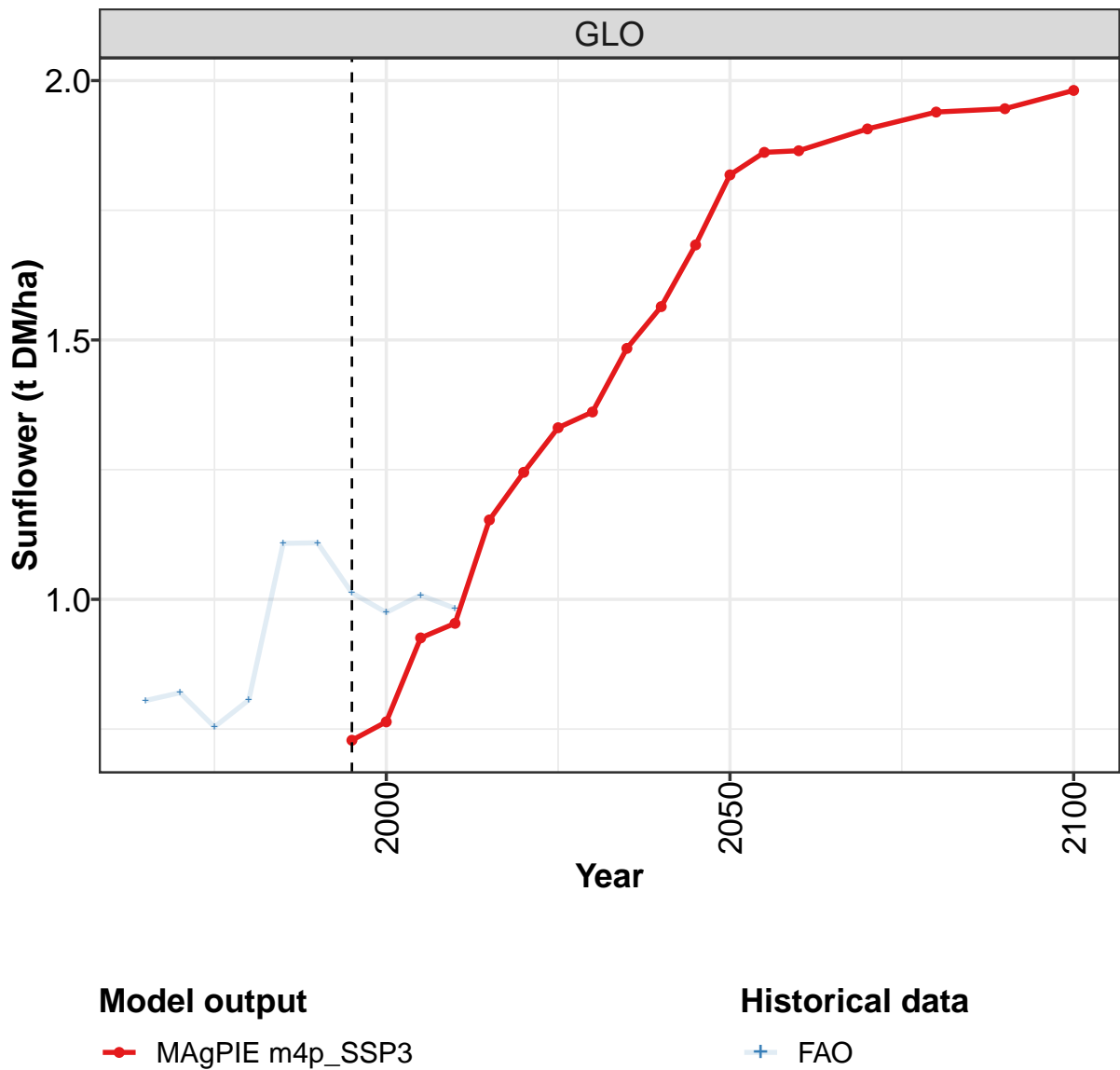
	2050	2055	2060	2070	2080	2090	2100
GLO	2.6	2.6	2.7	2.7	2.8	2.8	2.9
CAZ	3.4	3.4	3.5	3.4	3.4	3.4	3.4
CHA	4.9	4.9	4.9	5.7	7.0	7.0	6.9
EUR	4.5	4.6	4.6	4.6	4.7	4.8	7.6
IND	10.3	11.3	12.1	14.4	16.4	20.0	22.2
JPN	4.2	3.9	3.9	4.1	4.3	3.6	3.0
LAM	2.6	2.6	2.6	2.7	2.8	2.8	2.8
MEA	5.5	5.7	5.8	5.9	6.1	6.4	6.9
NEU	4.3	4.3	4.0	4.6	4.6	3.4	3.4
OAS	5.5	5.2	5.3	5.5	5.6	6.0	5.9
REF	0.9	0.9	0.9	0.9	1.0	1.0	1.0
SSA	1.3	1.4	1.7	2.1	2.2	2.3	2.4
USA	2.1	2.1	2.1	2.2	2.2	2.2	2.3

Table 1502: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Soybean (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.88	0.98	1.20	1.19	1.50	1.43	1.49	1.67	1.85	2.18
CAZ	0.90	0.77	0.92	1.09	1.38	1.44	1.60	1.52	1.53	1.80
CHA	0.83	1.28	1.28	1.35	1.34	1.46	1.74	1.82	1.96	2.21
EUR	0.66	0.98	1.58	1.06	1.24	2.13	2.40	2.10	2.48	2.44
IND	0.38	0.39	0.88	0.67	0.71	0.96	0.98	0.79	1.07	1.41
JPN	1.32	1.22	1.25	1.06	1.50	1.28	1.40	1.48	1.29	1.39
LAM	1.00	0.93	1.30	1.39	1.69	1.55	1.61	1.84	1.87	2.32
MEA	0.47	0.53	0.77	2.05	1.89	1.56	1.30	1.07	2.04	1.63
NEU	0.70	0.68	1.20	1.10	1.36	1.38	1.71	1.10	2.21	2.50
OAS	0.47	0.58	0.67	0.75	0.87	0.88	0.99	0.98	1.12	1.24
REF	0.32	0.42	0.61	0.39	0.50	0.83	0.43	0.61	0.77	0.82
SSA	0.22	0.29	0.35	0.41	0.48	0.43	0.48	0.80	0.78	0.83
USA	0.96	0.97	1.22	1.16	1.56	1.46	1.51	1.74	2.09	2.40

Table 1503: FAO — Productivity—Yield—Crops—Oil crops—Soybean (t DM/ha)

52.1.12 Oil crops—Sunflower



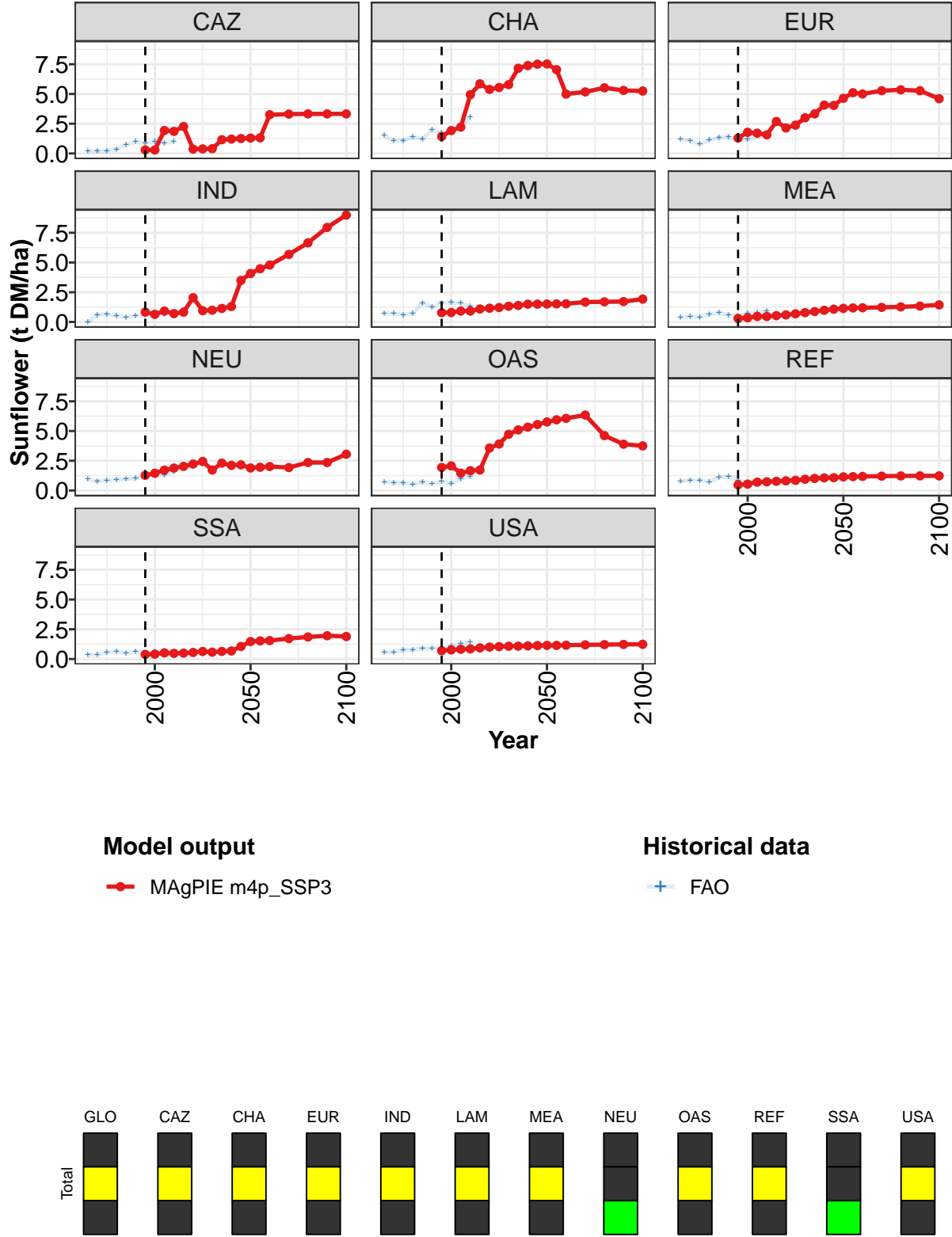


Figure 388: MAGPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Sunflower (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.73	0.76	0.93	0.95	1.15	1.24	1.33	1.36	1.48	1.56	1.68
CAZ	0.30	0.29	1.93	1.86	2.27	0.37	0.39	0.40	1.16	1.21	1.25
CHA	1.42	1.92	2.21	4.95	5.85	5.38	5.55	5.79	7.16	7.39	7.51
EUR	1.29	1.78	1.71	1.57	2.69	2.15	2.38	3.00	3.33	4.07	4.04
IND	0.83	0.64	0.92	0.70	0.83	2.04	0.95	0.99	1.14	1.30	3.50
LAM	0.78	0.80	0.92	0.92	1.09	1.16	1.21	1.32	1.39	1.50	1.50
MEA	0.30	0.36	0.46	0.47	0.53	0.59	0.69	0.78	0.88	0.98	1.07
NEU	1.28	1.45	1.71	1.89	2.03	2.22	2.44	1.72	2.30	2.11	2.16
OAS	1.94	2.07	1.46	1.67	1.72	3.57	3.91	4.73	5.10	5.33	5.55
REF	0.47	0.54	0.70	0.73	0.77	0.81	0.86	0.95	1.02	1.06	1.08
SSA	0.39	0.41	0.51	0.47	0.50	0.55	0.64	0.58	0.64	0.67	1.06
USA	0.69	0.77	0.82	0.85	0.94	1.00	1.04	1.07	1.08	1.10	1.13

Table 1504: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Sunflower (t DM/ha) [PART 1/2]

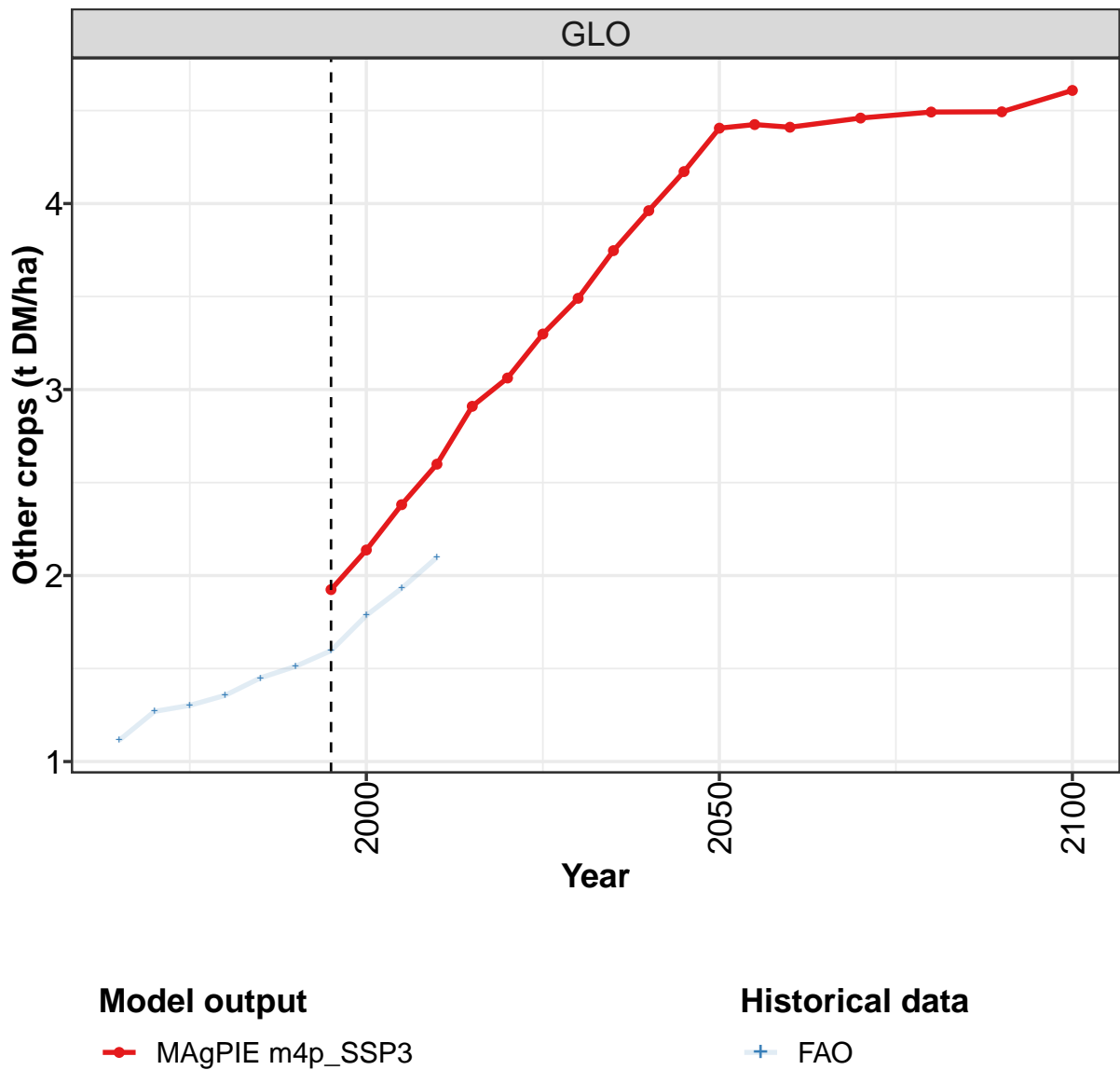
	2050	2055	2060	2070	2080	2090	2100
GLO	1.82	1.86	1.86	1.91	1.94	1.95	1.98
CAZ	1.29	1.32	3.25	3.31	3.33	3.33	3.33
CHA	7.53	7.05	4.99	5.18	5.52	5.30	5.25
EUR	4.64	5.11	5.00	5.28	5.35	5.28	4.60
IND	4.08	4.47	4.79	5.68	6.66	7.95	8.99
LAM	1.51	1.52	1.53	1.68	1.69	1.72	1.92
MEA	1.14	1.18	1.19	1.23	1.27	1.34	1.44
NEU	1.90	1.95	2.01	1.93	2.35	2.35	3.05
OAS	5.76	5.95	6.06	6.34	4.62	3.90	3.75
REF	1.15	1.17	1.18	1.21	1.22	1.23	1.23
SSA	1.47	1.52	1.55	1.72	1.85	1.96	1.89
USA	1.14	1.15	1.16	1.19	1.21	1.23	1.24

Table 1505: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Oil crops—Sunflower (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.81	0.82	0.75	0.81	1.11	1.11	1.01	0.97	1.01	0.98
CAZ	0.22	0.23	0.20	0.36	0.74	0.99	0.86	1.00	0.84	1.03
CHA	1.50	1.07	1.08	1.39	1.21	1.97	1.72	1.83	2.28	3.05
EUR	1.17	1.05	0.78	1.13	1.32	1.38	1.14	1.19	1.46	1.60
IND	0.00	0.61	0.65	0.53	0.36	0.53	0.60	0.61	0.64	0.78
LAM	0.72	0.71	0.61	0.74	1.60	1.23	1.61	1.63	1.56	1.30
MEA	0.38	0.46	0.42	0.63	0.77	0.59	0.52	0.71	0.77	0.89
NEU	0.97	0.76	0.84	0.90	0.96	1.01	1.20	1.25	1.33	1.59
OAS	0.70	0.67	0.64	0.50	0.73	0.54	0.76	0.59	1.00	1.20
REF	0.79	0.86	0.86	0.73	1.10	1.15	0.86	0.66	0.77	0.69
SSA	0.32	0.37	0.55	0.65	0.46	0.63	0.45	0.64	0.67	0.65
USA	0.58	0.57	0.75	0.78	0.89	0.92	0.89	1.06	1.30	1.40

Table 1506: FAO — Productivity—Yield—Crops—Oil crops—Sunflower (t DM/ha)

52.1.13 Other crops



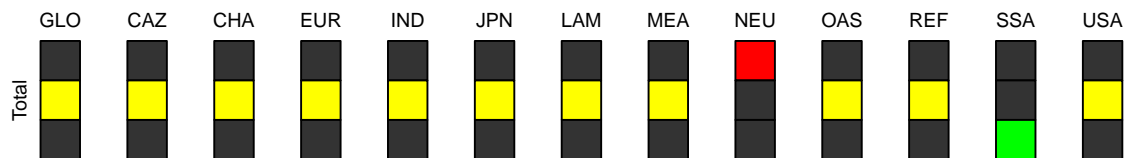
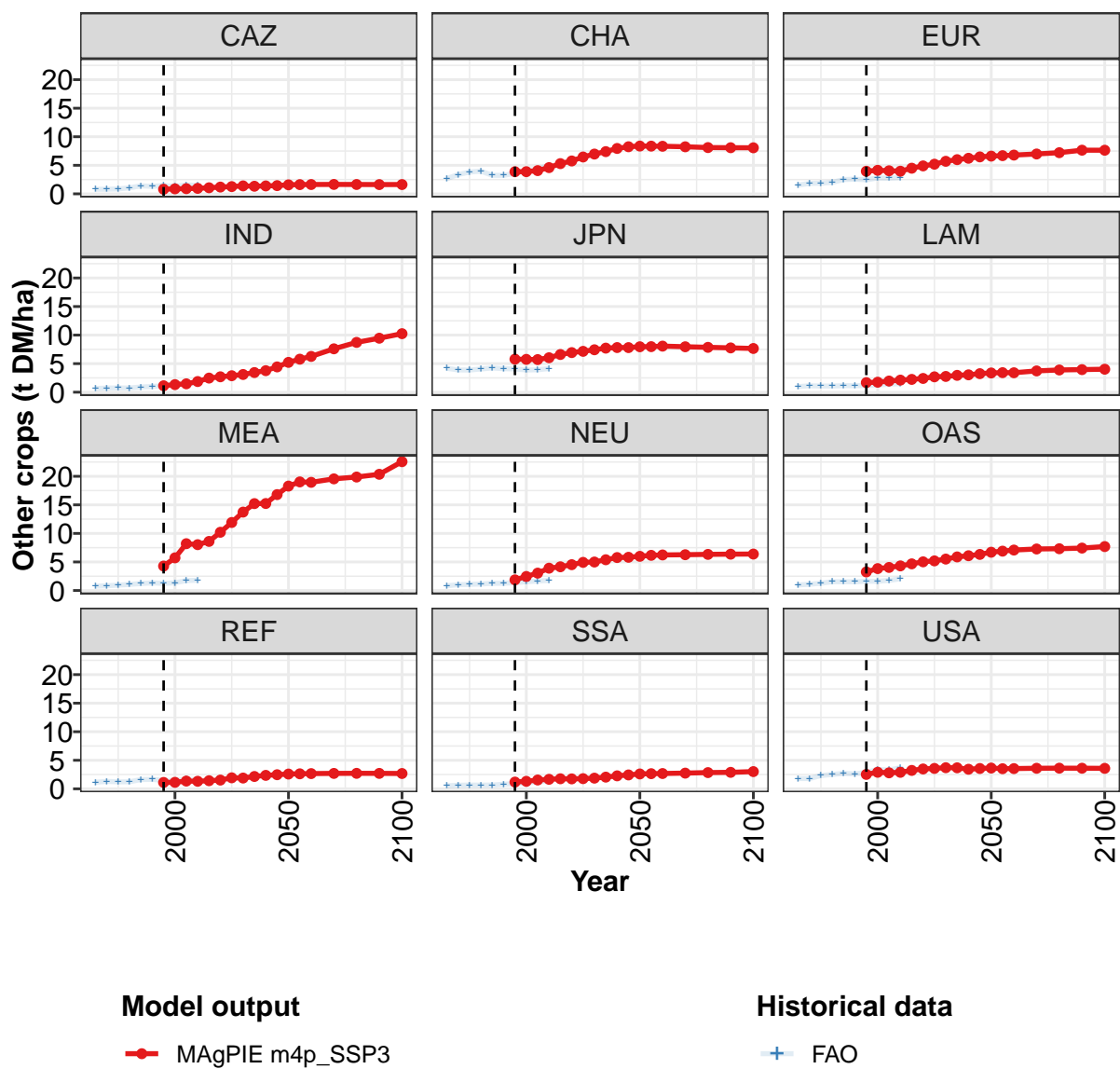


Figure 389: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.9	2.1	2.4	2.6	2.9	3.1	3.3	3.5	3.7	4.0	4.2
CAZ	0.8	0.9	0.9	1.0	1.1	1.2	1.3	1.4	1.3	1.4	1.4
CHA	3.9	3.9	4.1	4.6	5.3	5.8	6.5	7.0	7.4	8.0	8.3
EUR	4.0	4.1	4.0	4.0	4.5	4.9	5.2	5.7	6.0	6.2	6.5
IND	1.1	1.3	1.5	1.9	2.5	2.7	2.9	3.1	3.4	3.8	4.4
JPN	5.8	5.7	5.7	6.0	6.6	6.9	7.2	7.4	7.7	7.8	7.8
LAM	1.7	1.8	2.0	2.1	2.2	2.4	2.7	2.8	2.9	3.0	3.2
MEA	4.3	5.7	8.2	8.0	8.6	10.2	11.9	13.7	15.2	15.2	16.8
NEU	1.9	2.5	3.0	3.9	4.2	4.5	4.9	5.0	5.4	5.8	5.8
OAS	3.3	3.8	4.0	4.3	4.7	5.0	5.2	5.5	5.9	6.1	6.3
REF	1.1	1.1	1.4	1.3	1.4	1.5	1.9	1.9	2.2	2.4	2.5
SSA	1.2	1.3	1.5	1.7	1.8	1.7	1.8	1.9	2.1	2.3	2.4
USA	2.5	2.9	2.8	2.9	3.2	3.5	3.6	3.7	3.7	3.4	3.6

Table 1507: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops (t DM/ha) [PART 1/2]

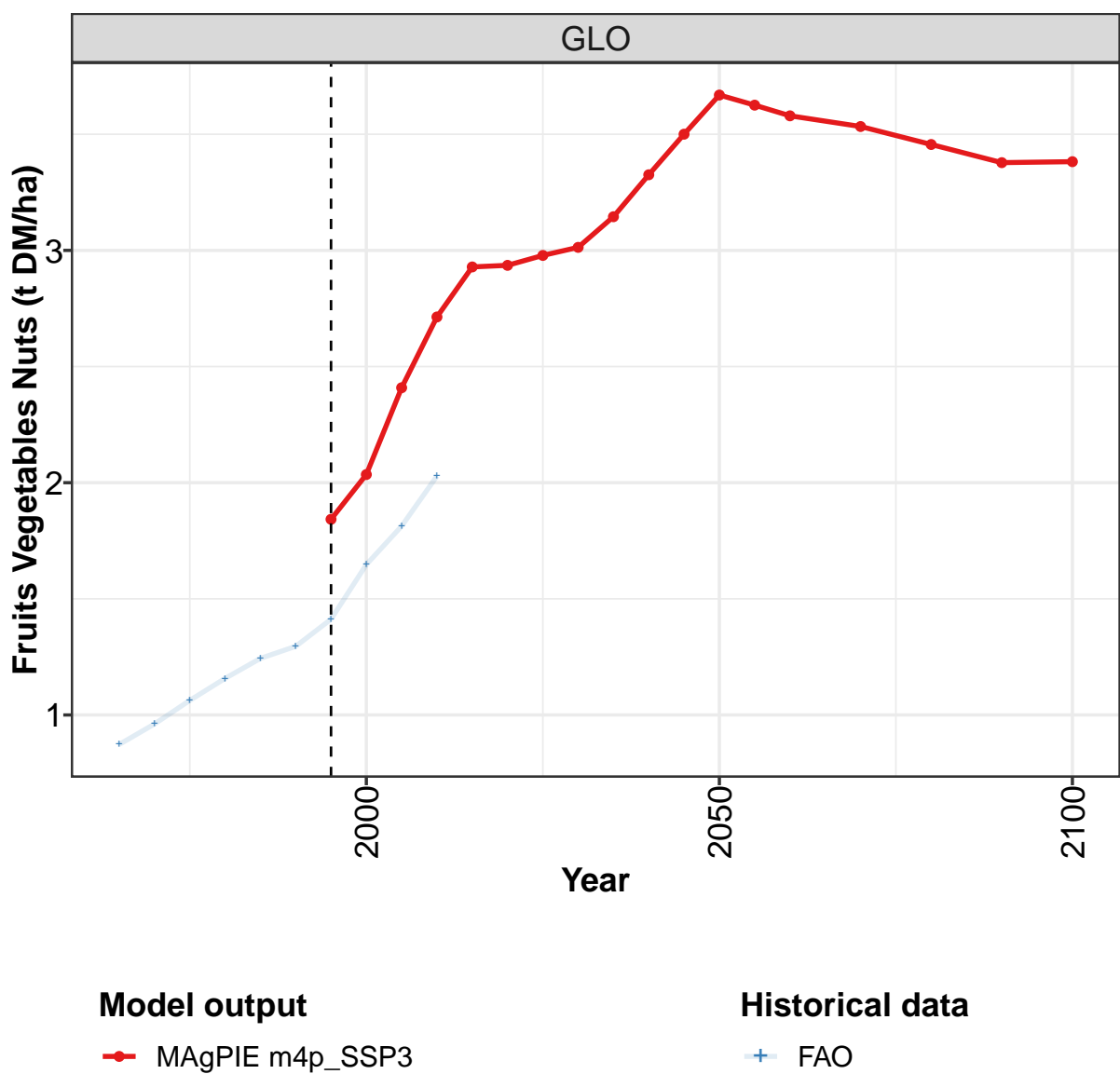
	2050	2055	2060	2070	2080	2090	2100
GLO	4.4	4.4	4.4	4.5	4.5	4.5	4.6
CAZ	1.6	1.6	1.6	1.7	1.6	1.6	1.6
CHA	8.4	8.4	8.3	8.2	8.1	8.1	8.1
EUR	6.6	6.7	6.8	7.0	7.2	7.6	7.6
IND	5.2	5.8	6.3	7.6	8.7	9.5	10.2
JPN	8.0	8.0	8.1	8.0	7.9	7.8	7.7
LAM	3.4	3.4	3.4	3.7	3.9	4.0	4.0
MEA	18.3	19.0	18.9	19.6	19.9	20.4	22.6
NEU	6.0	6.2	6.2	6.3	6.3	6.4	6.4
OAS	6.7	6.9	7.1	7.3	7.3	7.4	7.7
REF	2.6	2.6	2.7	2.7	2.7	2.7	2.7
SSA	2.6	2.7	2.7	2.8	2.8	2.9	3.0
USA	3.6	3.5	3.5	3.6	3.6	3.6	3.6

Table 1508: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.11	1.27	1.30	1.36	1.45	1.51	1.60	1.79	1.93	2.10
CAZ	0.79	0.81	0.86	1.06	1.40	1.32	1.45	1.32	1.56	1.48
CHA	2.68	3.38	3.81	3.98	3.25	3.23	3.61	4.08	4.36	4.97
EUR	1.53	1.83	1.85	2.01	2.50	2.57	2.45	2.77	2.74	2.84
IND	0.64	0.73	0.74	0.73	0.90	0.99	1.15	1.40	1.37	1.63
JPN	4.18	3.89	3.87	4.06	4.24	4.12	4.06	3.89	3.92	4.14
LAM	0.97	1.12	1.07	1.07	1.14	1.13	1.17	1.24	1.40	1.49
MEA	0.76	0.83	0.94	1.07	1.22	1.33	1.24	1.35	1.74	1.80
NEU	0.82	1.02	1.07	1.14	1.25	1.26	1.37	1.54	1.66	1.77
OAS	0.97	1.10	1.27	1.54	1.54	1.53	1.62	1.61	1.78	2.05
REF	1.15	1.30	1.22	1.23	1.62	1.65	1.47	1.44	1.68	1.60
SSA	0.53	0.63	0.66	0.64	0.66	0.81	0.92	1.04	1.21	1.35
USA	1.80	1.80	2.32	2.52	2.71	2.61	2.87	3.40	3.31	3.69

Table 1509: FAO — Productivity—Yield—Crops—Other crops (t DM/ha)

52.1.14 Other crops—Fruits Vegetables Nuts



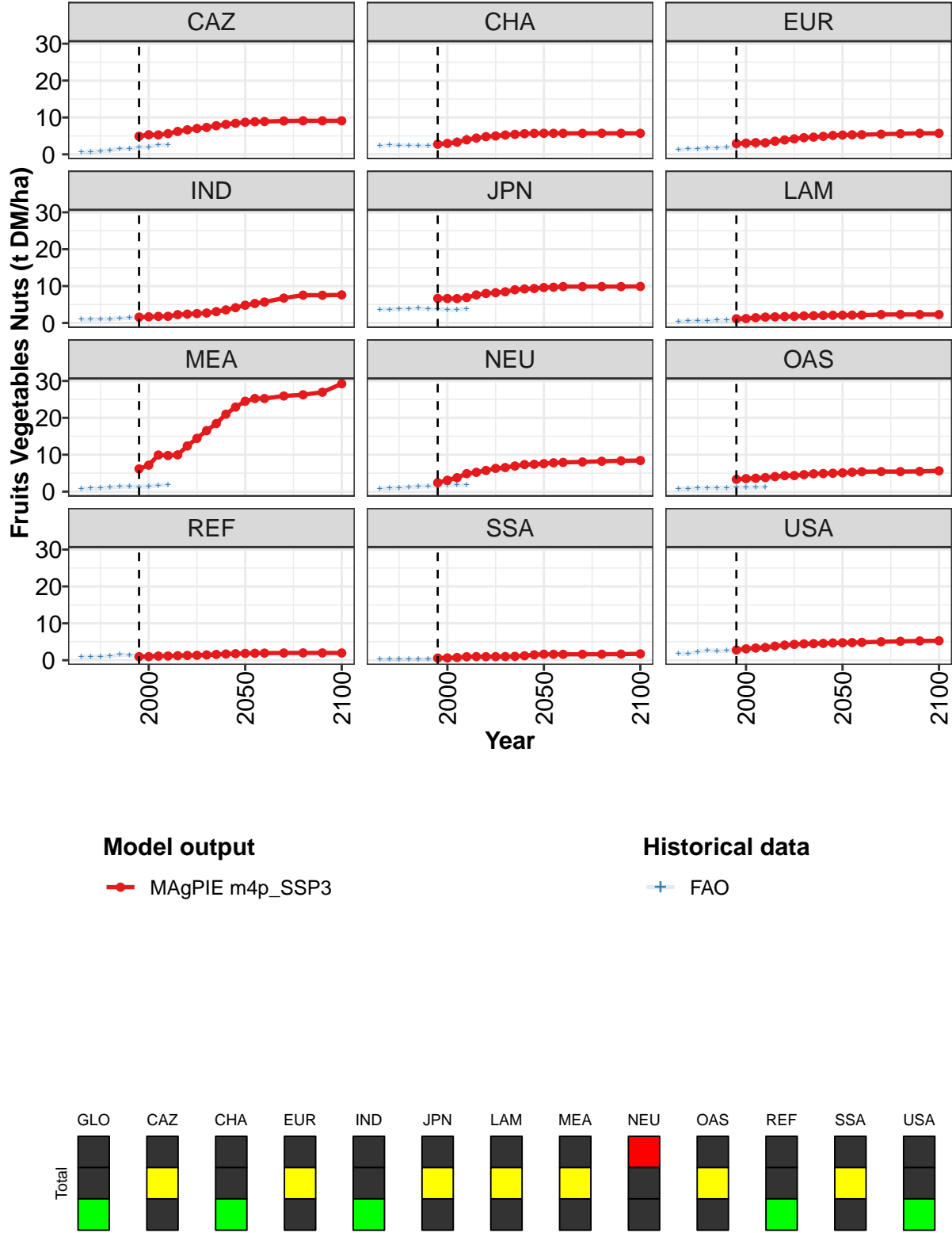


Figure 390: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops—Fruits Vegetables Nuts (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.8	2.0	2.4	2.7	2.9	2.9	3.0	3.0	3.1	3.3	3.5
CAZ	4.9	5.3	5.3	5.6	6.2	6.7	7.0	7.3	7.8	8.1	8.4
CHA	2.7	3.0	3.3	3.9	4.4	4.8	5.0	5.2	5.4	5.6	5.7
EUR	2.9	3.0	3.2	3.2	3.6	3.9	4.2	4.5	4.7	4.9	5.1
IND	1.6	1.7	1.8	1.8	2.3	2.4	2.6	2.7	3.1	3.6	4.1
JPN	6.7	6.6	6.6	6.9	7.6	8.0	8.2	8.5	9.0	9.2	9.3
LAM	1.1	1.2	1.4	1.6	1.7	1.7	1.8	1.9	2.0	2.0	2.1
MEA	6.2	7.2	9.9	9.8	10.0	12.4	14.4	16.5	18.4	21.0	22.9
NEU	2.4	3.1	3.8	4.9	5.2	5.7	6.3	6.5	6.9	7.3	7.4
OAS	3.3	3.5	3.6	3.8	4.1	4.3	4.3	4.6	4.8	4.9	5.0
REF	1.0	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.6	1.7	1.8
SSA	0.6	0.6	0.7	0.9	1.0	1.0	1.0	1.0	1.1	1.2	1.5
USA	2.8	3.1	3.3	3.4	3.8	4.1	4.3	4.4	4.5	4.6	4.7

Table 1510: MAGPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops—Fruits Vegetables Nuts (t DM/ha) [PART 1/2]

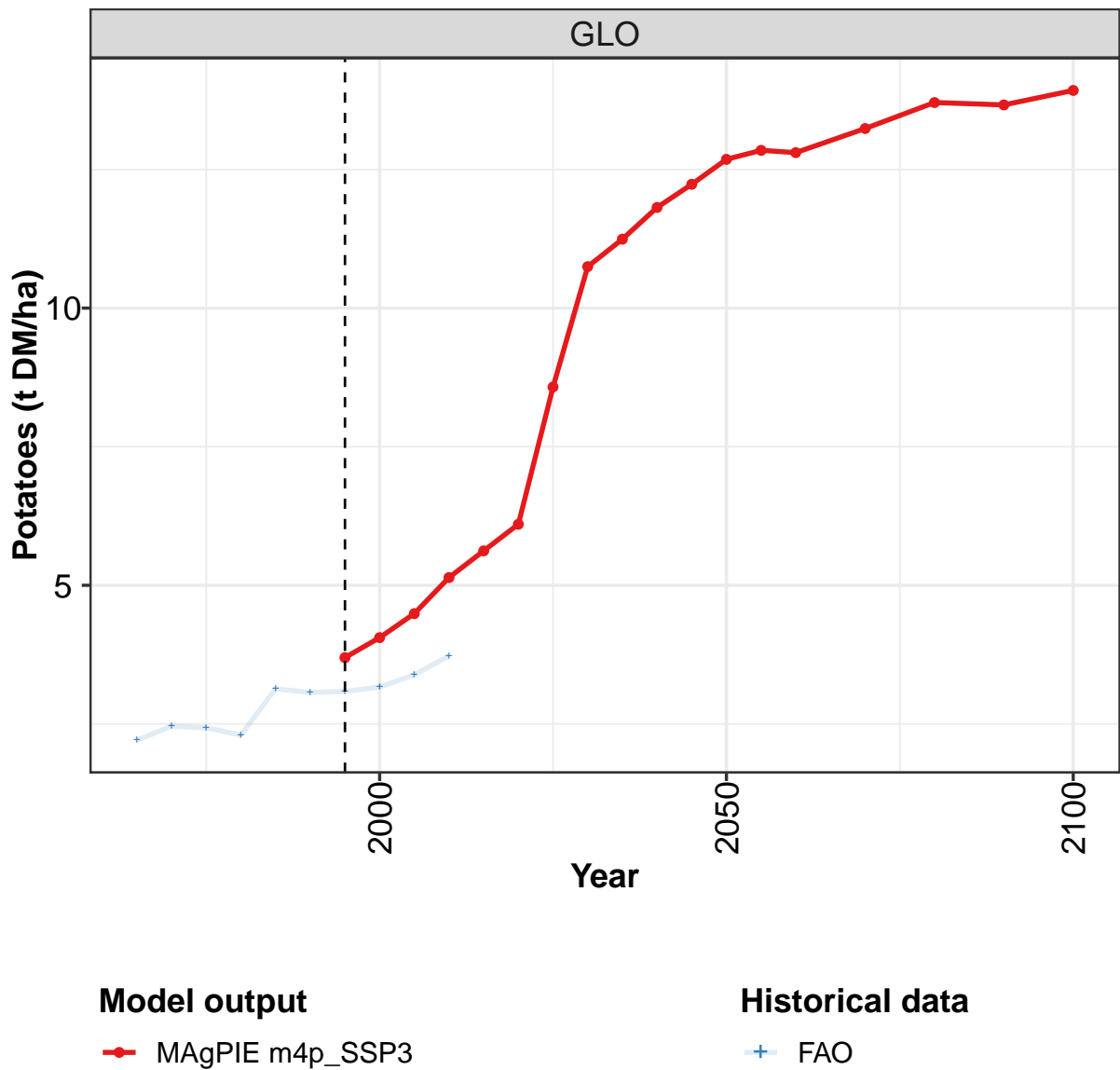
	2050	2055	2060	2070	2080	2090	2100
GLO	3.7	3.6	3.6	3.5	3.5	3.4	3.4
CAZ	8.7	8.8	8.9	9.0	9.1	9.1	9.1
CHA	5.7	5.7	5.7	5.7	5.7	5.7	5.7
EUR	5.2	5.3	5.3	5.5	5.6	5.7	5.7
IND	4.8	5.3	5.7	6.7	7.5	7.5	7.6
JPN	9.6	9.7	9.9	9.9	9.9	9.9	9.9
LAM	2.1	2.1	2.1	2.3	2.3	2.3	2.3
MEA	24.5	25.2	25.2	25.9	26.2	26.9	29.2
NEU	7.6	7.8	7.9	8.0	8.2	8.3	8.4
OAS	5.1	5.3	5.4	5.4	5.4	5.5	5.6
REF	1.8	1.9	1.9	2.0	2.0	2.0	2.0
SSA	1.6	1.6	1.6	1.6	1.6	1.7	1.7
USA	4.7	4.8	4.8	5.0	5.1	5.2	5.3

Table 1511: MAGPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops—Fruits Vegetables Nuts (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.87	0.96	1.06	1.16	1.24	1.30	1.41	1.65	1.81	2.03
CAZ	0.68	0.71	0.87	1.07	1.53	1.52	1.93	2.01	2.54	2.57
CHA	2.33	2.50	2.46	2.44	2.27	2.27	2.67	3.43	3.83	4.64
EUR	1.19	1.41	1.49	1.75	1.82	1.88	1.86	2.14	2.20	2.26
IND	0.92	0.99	1.06	1.11	1.25	1.39	1.39	1.64	1.57	1.87
JPN	3.72	3.69	3.84	3.88	3.96	3.84	3.76	3.60	3.58	3.86
LAM	0.44	0.51	0.62	0.69	0.76	0.74	0.83	0.92	1.01	1.09
MEA	0.83	0.91	1.03	1.16	1.31	1.39	1.30	1.43	1.73	1.81
NEU	0.87	1.00	1.07	1.17	1.32	1.50	1.54	1.76	1.76	1.75
OAS	0.68	0.81	0.96	1.07	1.03	1.03	1.20	1.10	1.16	1.21
REF	0.90	0.84	1.00	1.16	1.49	1.42	1.12	1.13	1.49	1.69
SSA	0.22	0.26	0.27	0.28	0.29	0.34	0.39	0.42	0.48	0.51
USA	1.75	1.72	2.30	2.62	2.52	2.58	2.84	3.31	3.36	3.85

Table 1512: FAO — Productivity—Yield—Crops—Other crops—Fruits Vegetables Nuts (t DM/ha)

52.1.15 Other crops—Potatoes



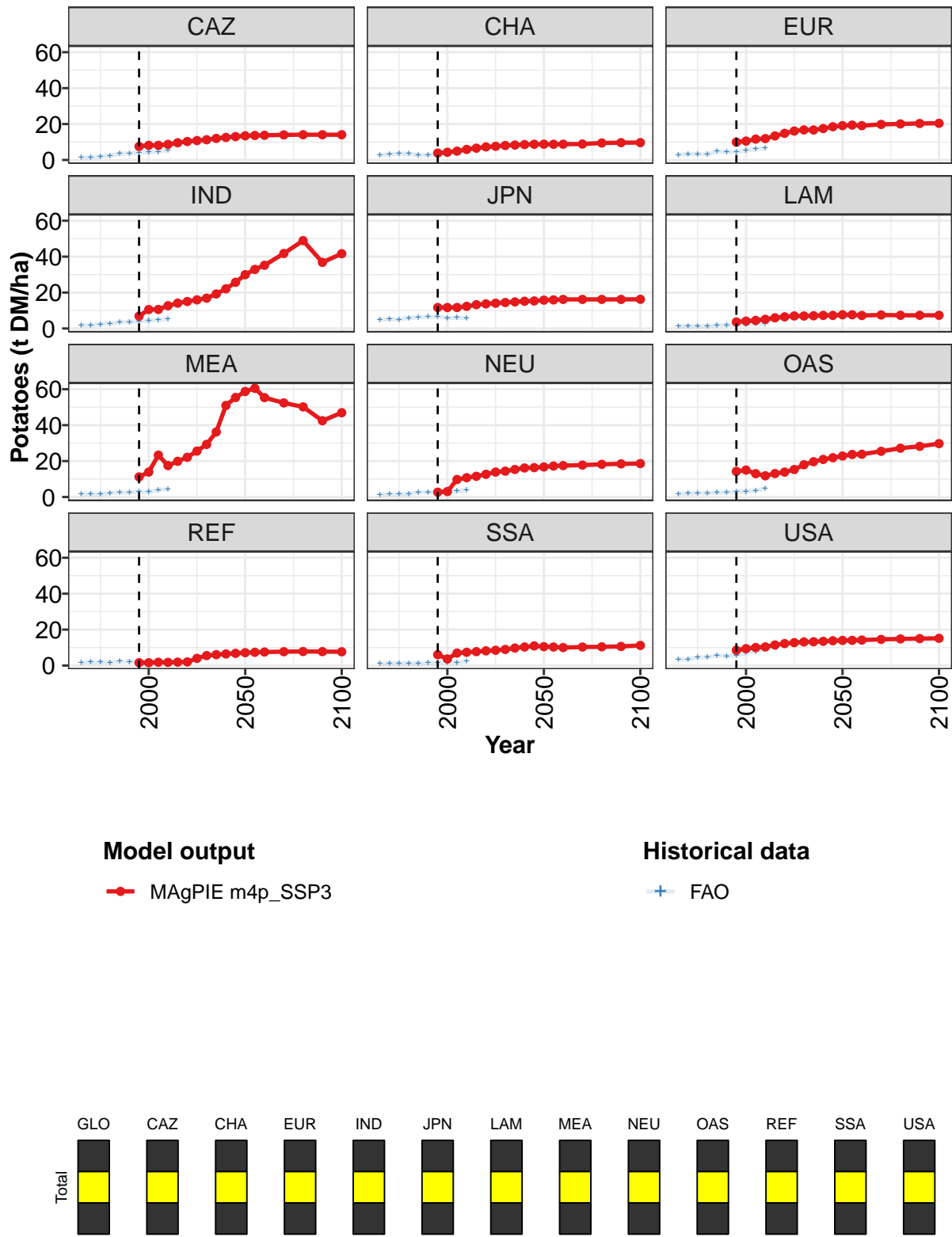


Figure 391: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops—Potatoes (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.7	4.1	4.5	5.1	5.6	6.1	8.6	10.7	11.2	11.8	12.2
CAZ	7.5	8.2	8.2	8.7	9.6	10.3	10.8	11.3	12.0	12.5	13.0
CHA	3.9	4.3	4.9	5.9	6.6	7.3	7.6	8.1	8.3	8.6	8.7
EUR	9.9	10.5	11.6	11.9	13.4	14.8	16.1	16.8	16.7	17.5	18.5
IND	6.9	10.6	10.6	12.7	14.1	15.0	15.9	16.9	19.2	22.1	25.7
JPN	11.7	11.7	11.7	12.3	13.3	13.7	14.1	14.5	14.8	15.2	15.3
LAM	3.6	4.1	4.5	5.1	6.0	6.5	7.0	6.9	7.1	7.3	7.3
MEA	11.2	13.9	23.3	17.5	19.9	22.1	25.6	29.3	36.2	51.0	55.4
NEU	2.7	3.1	9.8	10.7	11.5	12.7	13.9	14.4	15.3	16.2	16.4
OAS	14.3	15.0	13.0	11.8	13.1	13.9	15.3	18.0	19.7	20.9	21.9
REF	1.6	1.6	1.8	1.8	1.9	2.0	4.0	5.5	6.1	6.4	6.8
SSA	6.0	3.7	6.9	7.4	7.7	8.2	8.5	9.0	9.7	10.3	10.9
USA	8.5	9.4	10.0	10.4	11.4	12.2	12.8	13.1	13.2	13.5	13.8

Table 1513: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops—Potatoes (t DM/ha) [PART 1/2]

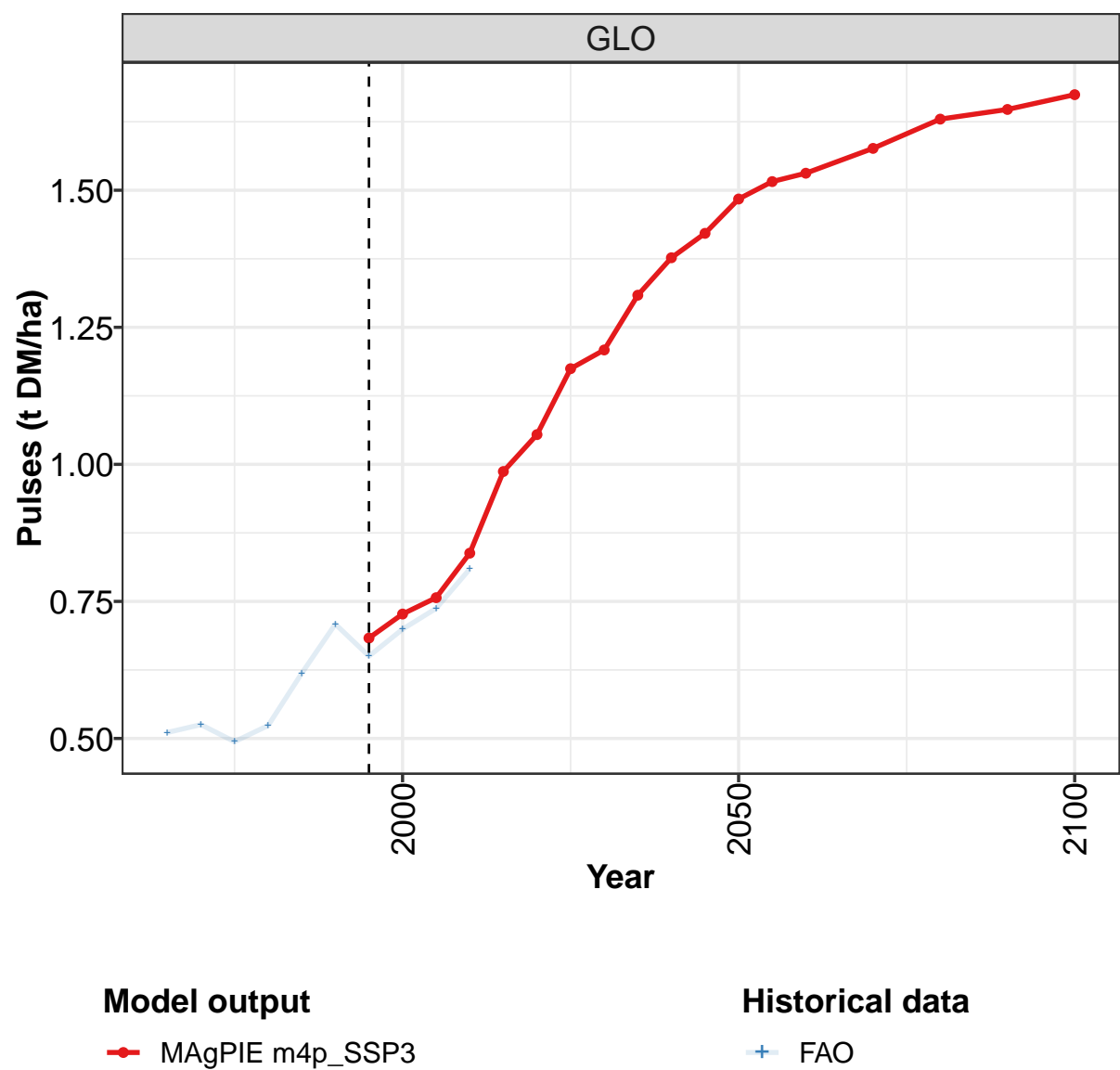
	2050	2055	2060	2070	2080	2090	2100
GLO	12.7	12.8	12.8	13.2	13.7	13.7	13.9
CAZ	13.4	13.7	13.8	14.0	14.1	14.1	14.1
CHA	8.8	8.7	8.8	8.9	9.5	9.6	9.7
EUR	19.1	19.4	19.1	19.8	20.1	20.3	20.4
IND	30.0	32.9	35.2	41.8	48.9	36.8	41.6
JPN	15.8	15.9	16.2	16.2	16.2	16.2	16.3
LAM	7.6	7.7	7.2	7.5	7.3	7.3	7.3
MEA	58.8	60.5	55.3	52.4	50.2	42.5	46.9
NEU	16.7	17.3	17.5	17.8	18.2	18.5	18.6
OAS	22.8	23.7	23.8	25.5	27.2	28.2	29.7
REF	7.2	7.4	7.5	7.7	7.8	7.7	7.7
SSA	10.5	10.3	10.0	10.3	10.4	10.6	11.2
USA	14.0	14.0	14.2	14.6	14.8	15.0	15.1

Table 1514: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops—Potatoes (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.20	2.46	2.43	2.30	3.13	3.07	3.09	3.16	3.38	3.73
CAZ	1.31	1.50	1.91	2.46	3.57	3.56	4.12	4.33	4.61	5.54
CHA	2.69	3.11	3.52	3.41	2.63	2.80	3.48	3.83	4.14	4.84
EUR	2.89	3.38	3.26	3.09	4.75	4.54	4.43	5.30	6.05	6.56
IND	1.80	1.75	2.37	2.76	3.42	3.70	3.90	4.45	4.67	5.23
JPN	4.99	5.20	5.01	5.92	6.20	6.42	6.48	5.84	6.02	5.91
LAM	1.23	1.32	1.30	1.36	1.81	1.92	2.07	2.16	2.59	2.77
MEA	1.60	1.67	1.54	2.17	2.55	2.52	2.97	2.82	3.99	4.33
NEU	1.42	1.53	1.52	1.69	2.56	2.68	2.75	3.07	3.28	3.78
OAS	1.78	2.10	2.14	2.20	2.42	2.50	2.94	2.96	3.63	4.67
REF	1.71	1.88	1.84	1.57	2.28	2.17	2.11	1.80	2.02	1.84
SSA	0.99	1.27	1.21	1.11	1.22	1.44	1.42	1.58	1.65	2.24
USA	3.41	3.43	4.45	4.76	5.64	5.20	5.69	7.17	7.82	9.20

Table 1515: FAO — Productivity—Yield—Crops—Other crops—Potatoes (t DM/ha)

52.1.16 Other crops—Pulses



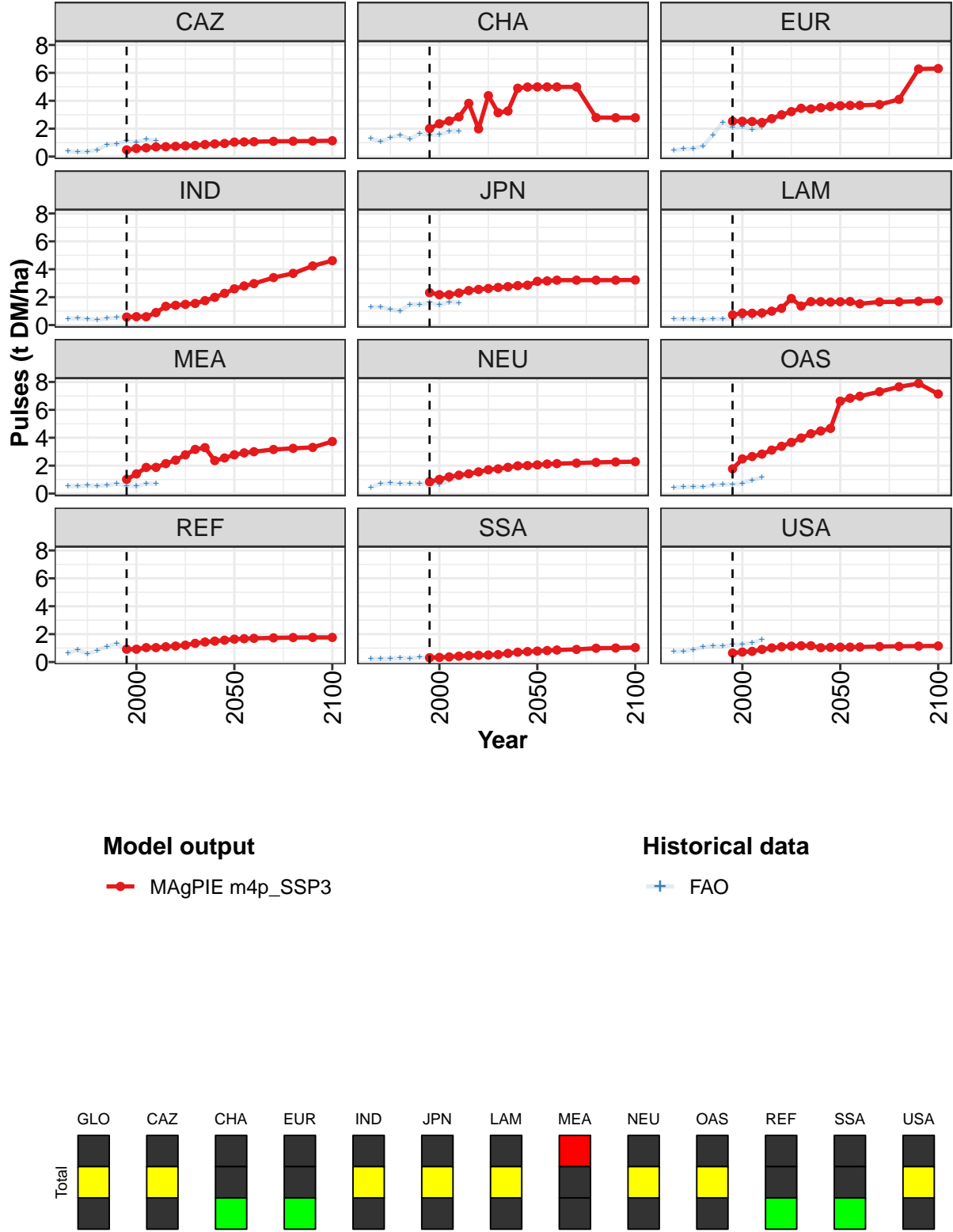


Figure 392: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops—Pulses (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.68	0.73	0.76	0.84	0.99	1.05	1.17	1.21	1.31	1.38	1.42
CAZ	0.48	0.58	0.62	0.69	0.71	0.73	0.77	0.80	0.87	0.91	0.94
CHA	2.01	2.35	2.55	2.84	3.82	1.98	4.37	3.15	3.26	4.90	4.98
EUR	2.53	2.53	2.51	2.44	2.72	2.99	3.22	3.46	3.41	3.50	3.59
IND	0.57	0.60	0.60	0.89	1.34	1.42	1.48	1.55	1.75	1.99	2.27
JPN	2.32	2.18	2.18	2.30	2.47	2.56	2.62	2.70	2.76	2.83	2.86
LAM	0.73	0.86	0.85	0.87	1.00	1.20	1.91	1.36	1.68	1.68	1.65
MEA	1.02	1.41	1.87	1.88	2.15	2.40	2.77	3.17	3.29	2.36	2.55
NEU	0.84	1.01	1.20	1.32	1.42	1.55	1.70	1.77	1.88	1.98	2.01
OAS	1.77	2.48	2.65	2.83	3.12	3.39	3.67	3.98	4.29	4.48	4.67
REF	0.92	0.92	1.03	1.03	1.09	1.15	1.21	1.34	1.43	1.50	1.57
SSA	0.31	0.33	0.37	0.42	0.46	0.48	0.50	0.53	0.62	0.70	0.75
USA	0.65	0.72	0.76	0.91	1.01	1.09	1.14	1.16	1.17	1.03	1.05

Table 1516: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops—Pulses (t DM/ha) [PART 1/2]

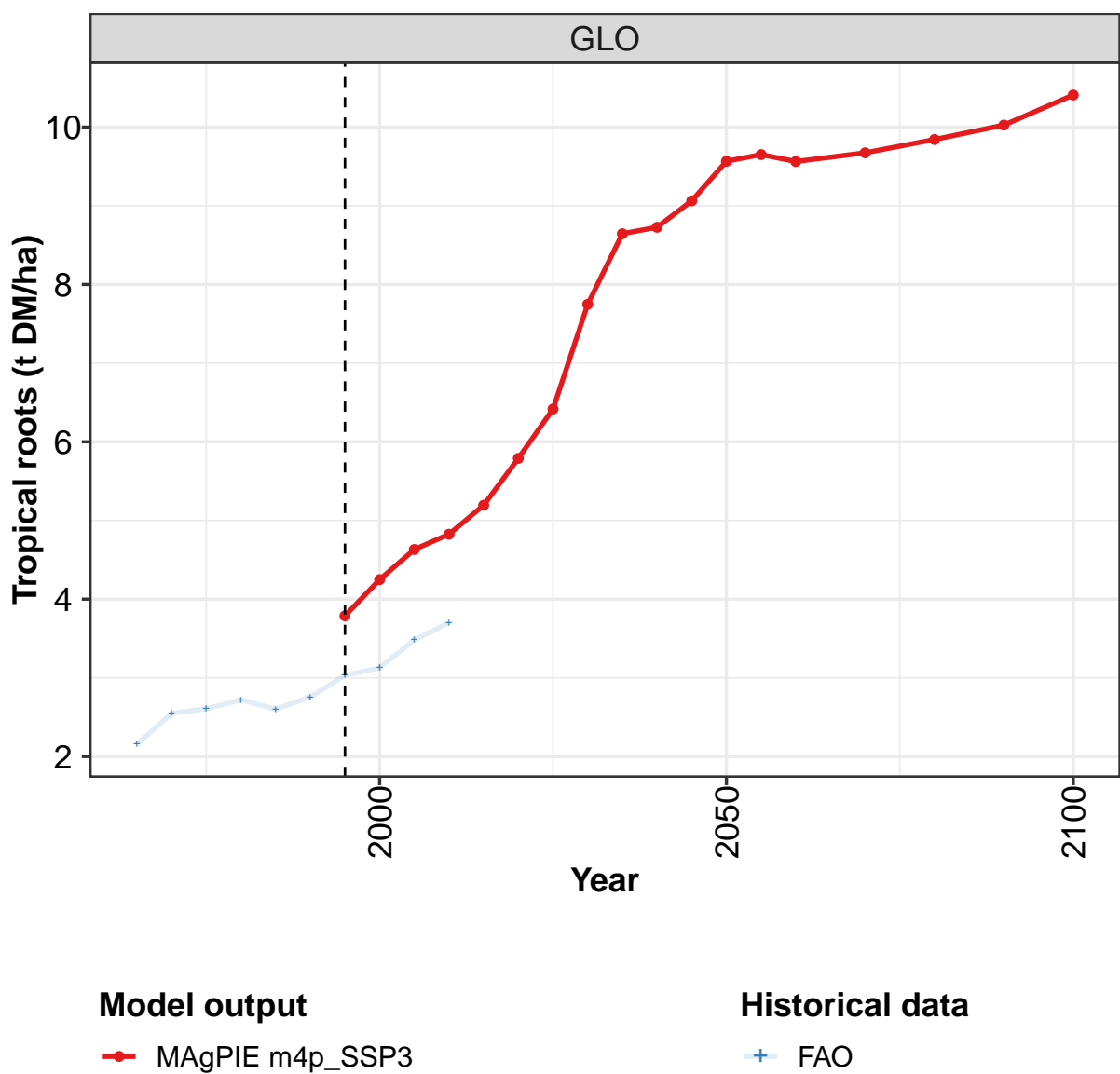
	2050	2055	2060	2070	2080	2090	2100
GLO	1.48	1.52	1.53	1.58	1.63	1.65	1.67
CAZ	1.04	1.05	1.06	1.09	1.10	1.11	1.14
CHA	4.99	4.99	4.99	4.99	2.80	2.78	2.78
EUR	3.64	3.67	3.67	3.73	4.10	6.28	6.31
IND	2.60	2.80	2.97	3.40	3.70	4.24	4.62
JPN	3.13	3.16	3.22	3.22	3.22	3.22	3.23
LAM	1.67	1.69	1.52	1.66	1.66	1.70	1.75
MEA	2.78	2.92	3.00	3.16	3.24	3.31	3.73
NEU	2.05	2.12	2.15	2.18	2.23	2.26	2.28
OAS	6.62	6.84	6.98	7.30	7.65	7.89	7.14
REF	1.64	1.67	1.70	1.73	1.76	1.76	1.76
SSA	0.78	0.82	0.86	0.90	0.99	1.01	1.04
USA	1.07	1.07	1.08	1.11	1.13	1.14	1.15

Table 1517: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops—Pulses (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.51	0.53	0.49	0.52	0.62	0.71	0.65	0.70	0.74	0.81
CAZ	0.40	0.32	0.36	0.47	0.85	0.89	1.12	1.03	1.23	1.15
CHA	1.28	1.08	1.34	1.56	1.26	1.65	1.54	1.57	1.80	1.79
EUR	0.46	0.54	0.58	0.76	1.56	2.46	2.08	2.13	1.94	2.12
IND	0.45	0.49	0.44	0.37	0.49	0.53	0.65	0.69	0.60	0.70
JPN	1.28	1.30	1.13	1.00	1.48	1.46	1.61	1.44	1.66	1.60
LAM	0.42	0.43	0.43	0.41	0.45	0.44	0.45	0.50	0.56	0.63
MEA	0.54	0.53	0.59	0.55	0.60	0.69	0.55	0.53	0.70	0.70
NEU	0.45	0.69	0.75	0.69	0.72	0.69	0.74	0.65	0.93	1.14
OAS	0.43	0.46	0.50	0.49	0.62	0.63	0.67	0.72	0.96	1.15
REF	0.62	0.89	0.58	0.83	1.10	1.34	0.82	1.00	1.06	0.85
SSA	0.23	0.23	0.25	0.29	0.27	0.34	0.30	0.38	0.42	0.56
USA	0.77	0.76	0.88	1.08	1.13	1.13	1.25	1.26	1.37	1.60

Table 1518: FAO — Productivity—Yield—Crops—Other crops—Pulses (t DM/ha)

52.1.17 Other crops—Tropical roots



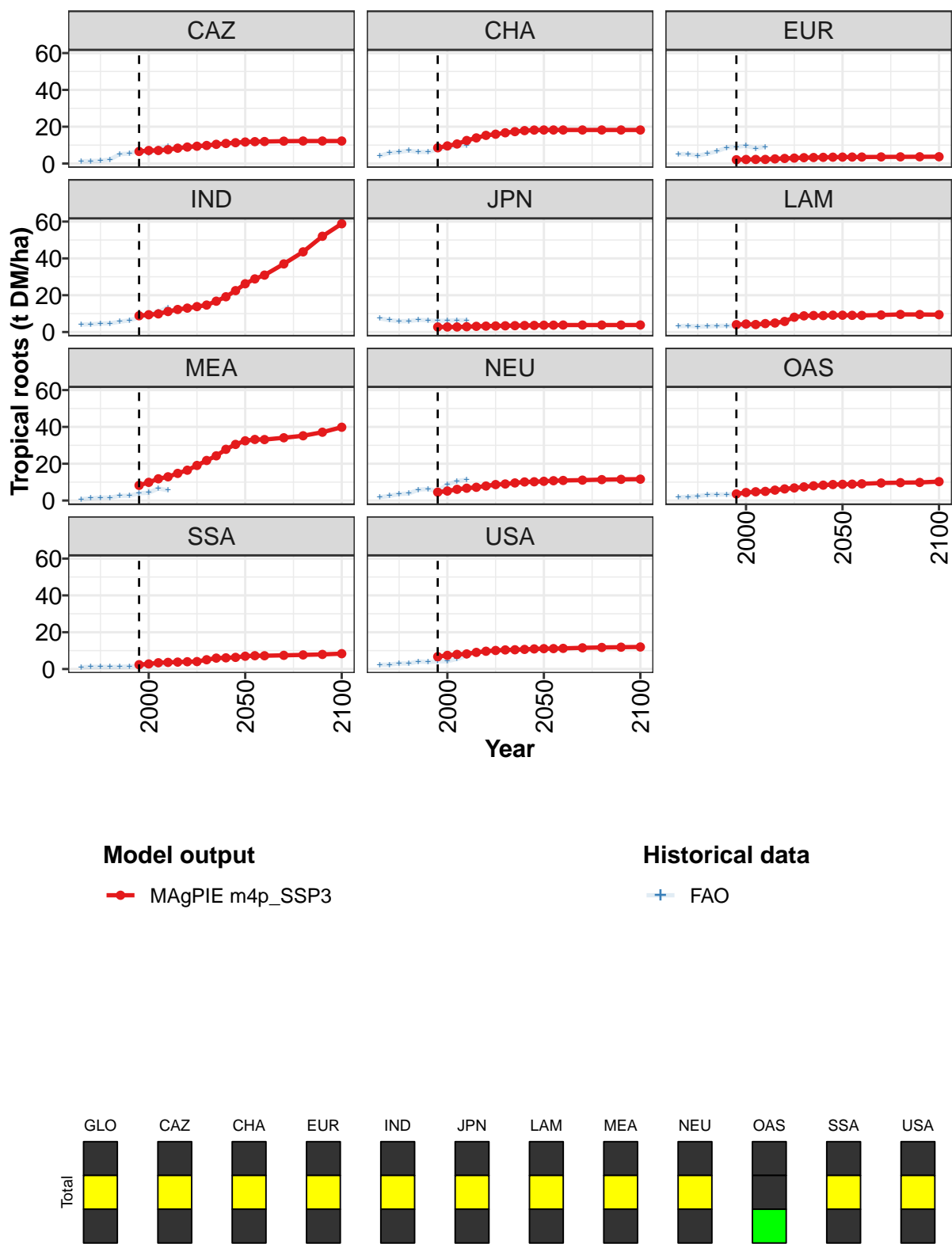


Figure 393: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops—Tropical roots (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.8	4.2	4.6	4.8	5.2	5.8	6.4	7.7	8.6	8.7	9.1
CAZ	6.6	7.1	7.1	7.6	8.3	9.0	9.4	9.8	10.4	10.9	11.3
CHA	8.5	9.6	10.6	12.5	13.9	15.3	15.9	16.7	17.3	17.9	18.2
EUR	2.1	2.2	2.2	2.2	2.5	2.8	3.0	3.2	3.3	3.4	3.5
IND	8.8	9.4	9.9	11.1	12.2	13.0	13.8	14.7	16.8	19.2	22.5
JPN	2.7	2.7	2.7	2.9	3.1	3.2	3.3	3.4	3.5	3.6	3.6
LAM	4.0	4.4	4.1	4.6	4.9	5.7	8.0	8.8	9.0	8.9	9.1
MEA	8.2	9.9	11.8	12.9	14.8	16.5	19.1	21.8	24.3	27.8	30.5
NEU	4.5	5.2	6.1	6.7	7.2	7.9	8.7	9.0	9.6	10.1	10.2
OAS	3.6	4.4	4.8	5.0	5.7	6.3	6.8	7.4	8.0	8.4	8.7
SSA	2.4	2.8	3.4	3.6	3.8	4.0	4.1	5.1	5.9	6.1	6.3
USA	6.7	7.4	7.9	8.2	9.0	9.7	10.1	10.4	10.5	10.7	10.9

Table 1519: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops—Tropical roots (t DM/ha)
[PART 1/2]

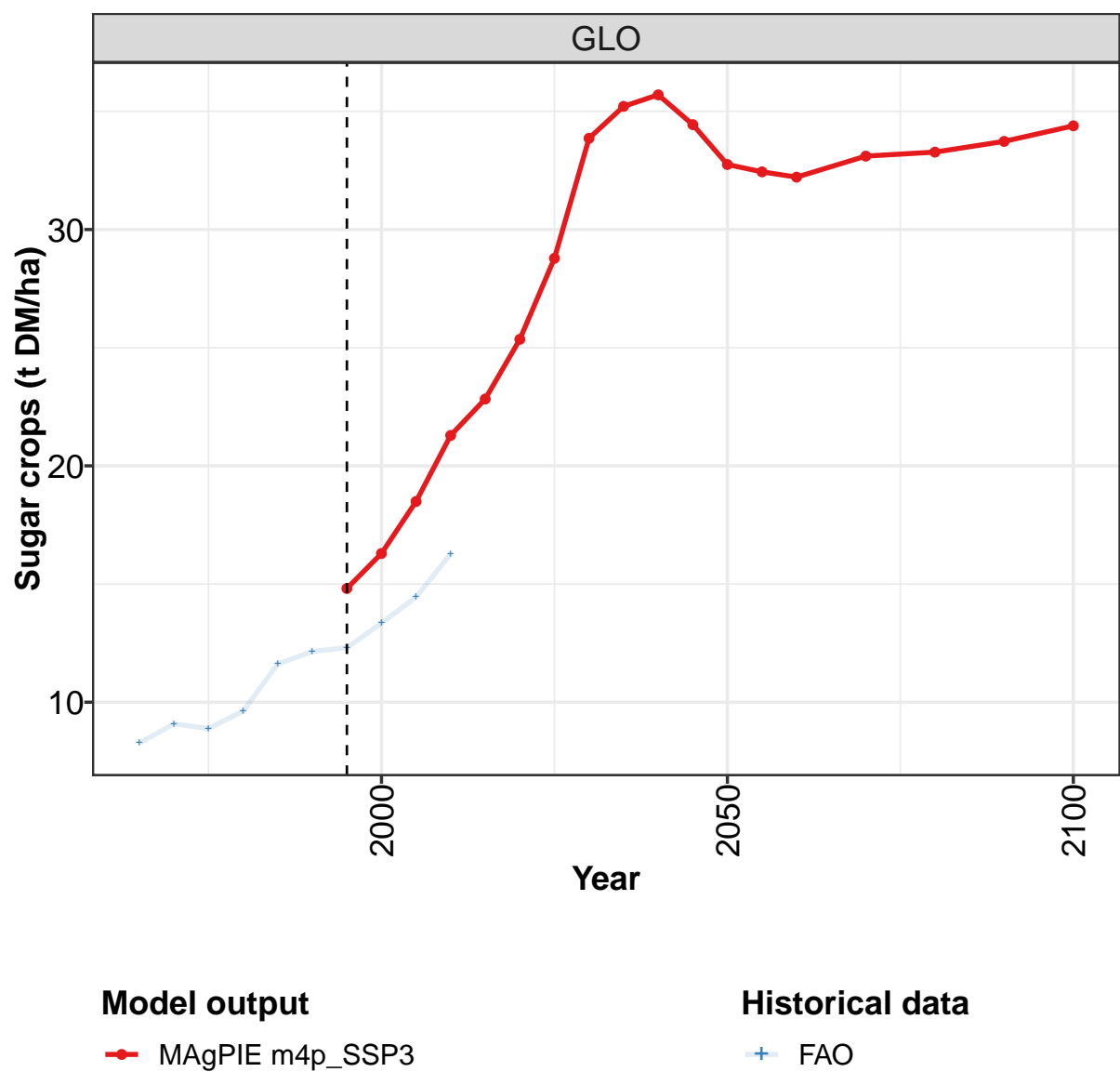
	2050	2055	2060	2070	2080	2090	2100
GLO	9.6	9.7	9.6	9.7	9.8	10.0	10.4
CAZ	11.7	11.9	12.0	12.2	12.2	12.2	12.2
CHA	18.2	18.2	18.2	18.2	18.2	18.2	18.2
EUR	3.5	3.5	3.5	3.6	3.6	3.7	3.7
IND	26.2	28.9	30.9	37.0	43.6	52.0	58.8
JPN	3.7	3.7	3.8	3.8	3.8	3.8	3.8
LAM	9.1	9.1	9.0	9.3	9.6	9.5	9.4
MEA	32.4	33.2	33.1	34.1	35.2	37.1	39.8
NEU	10.4	10.8	10.9	11.1	11.4	11.5	11.6
OAS	8.8	8.9	9.1	9.5	9.7	9.8	10.3
SSA	7.0	7.2	7.2	7.4	7.7	7.9	8.3
USA	11.1	11.1	11.2	11.5	11.7	11.9	12.0

Table 1520: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Other crops—Tropical roots (t DM/ha)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.2	2.5	2.6	2.7	2.6	2.8	3.0	3.1	3.5	3.7
CAZ	1.2	1.3	1.5	2.2	5.1	5.4	7.3	5.6	8.1	9.3
CHA	4.2	5.8	6.3	7.0	6.3	6.3	7.6	8.4	9.6	10.0
EUR	5.1	5.1	4.3	5.3	6.7	8.7	9.1	9.6	8.3	9.1
IND	4.0	4.2	4.6	4.7	5.6	6.3	7.9	9.7	11.1	13.3
JPN	7.4	6.5	5.9	5.9	6.6	6.3	6.1	6.1	6.4	6.4
LAM	3.2	3.4	3.0	3.1	3.3	3.4	3.2	3.2	3.5	3.7
MEA	0.7	1.2	1.6	1.6	2.5	2.6	3.9	4.2	6.5	5.6
NEU	1.8	2.5	3.5	3.8	5.9	6.3	5.2	8.7	10.6	11.3
OAS	1.8	2.0	2.4	3.1	3.2	3.3	3.5	3.9	4.5	5.5
SSA	1.0	1.2	1.2	1.2	1.2	1.4	1.7	1.9	2.2	2.5
USA	2.3	2.4	3.0	3.0	4.1	3.8	4.2	4.2	5.5	7.1

Table 1521: FAO — Productivity—Yield—Crops—Other crops—Tropical roots (t DM/ha)

52.1.18 Sugar crops



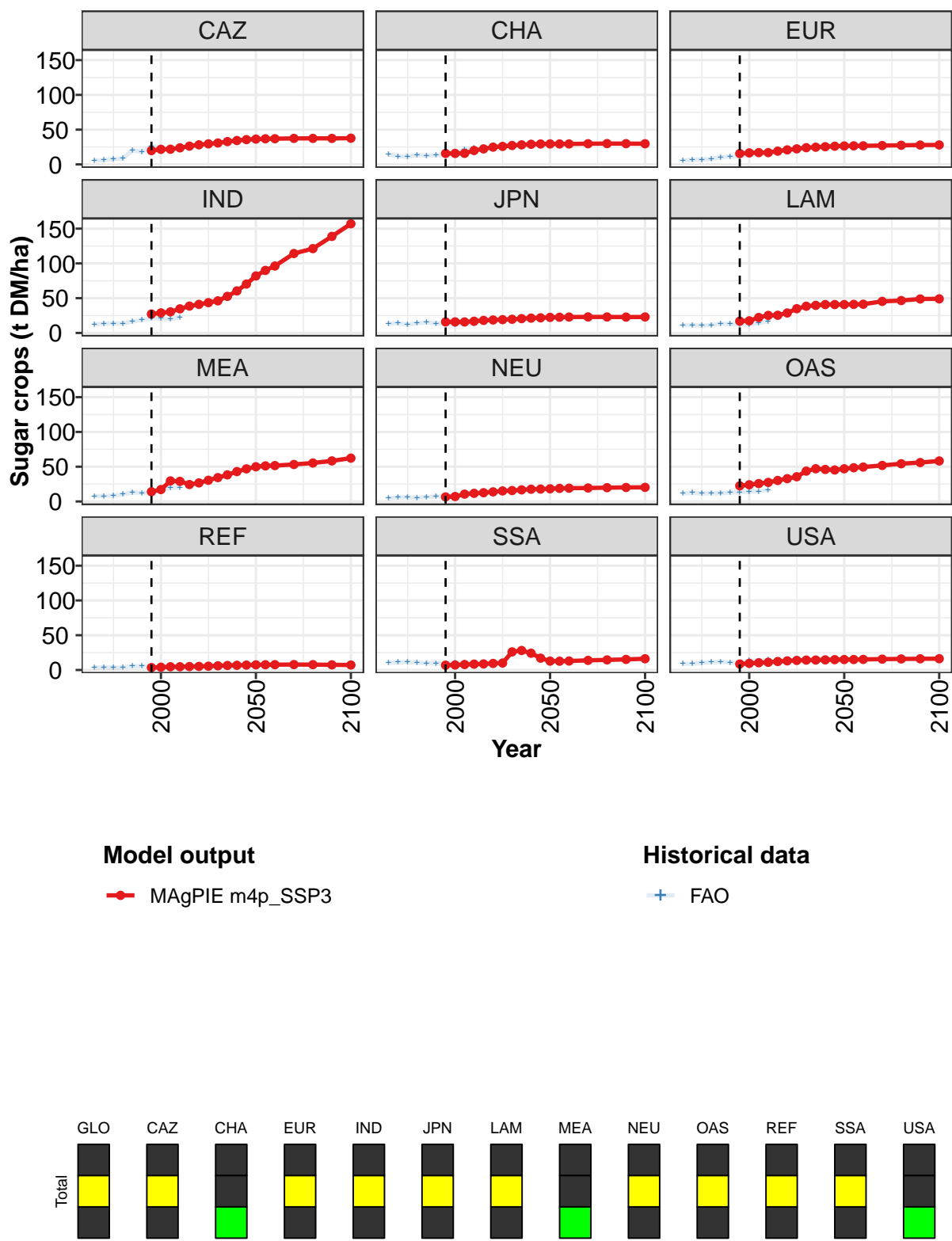


Figure 394: MAGPIE m4p_SSP3 — Productivity—Yield—Crops—Sugar crops (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	15	16	18	21	23	25	29	34	35	36	34
CAZ	20	22	22	24	26	28	30	31	33	34	36
CHA	16	16	16	20	22	25	26	27	28	29	29
EUR	16	17	17	17	19	21	22	24	25	25	26
IND	27	29	30	35	39	41	44	46	53	60	70
JPN	16	16	16	17	18	19	19	20	21	21	22
LAM	17	17	22	25	25	29	35	38	40	41	41
MEA	14	17	30	29	24	27	30	34	38	43	47
NEU	7	7	11	12	13	14	15	16	17	18	18
OAS	22	24	26	27	30	33	36	44	47	46	45
REF	3	4	5	5	5	5	5	6	6	7	7
SSA	7	7	8	8	9	9	10	26	28	24	17
USA	9	9	10	11	12	13	14	14	14	15	15

Table 1522: MAGPIE m4p_SSP3 — Productivity—Yield—Crops—Sugar crops (t DM/ha) [PART 1/2]

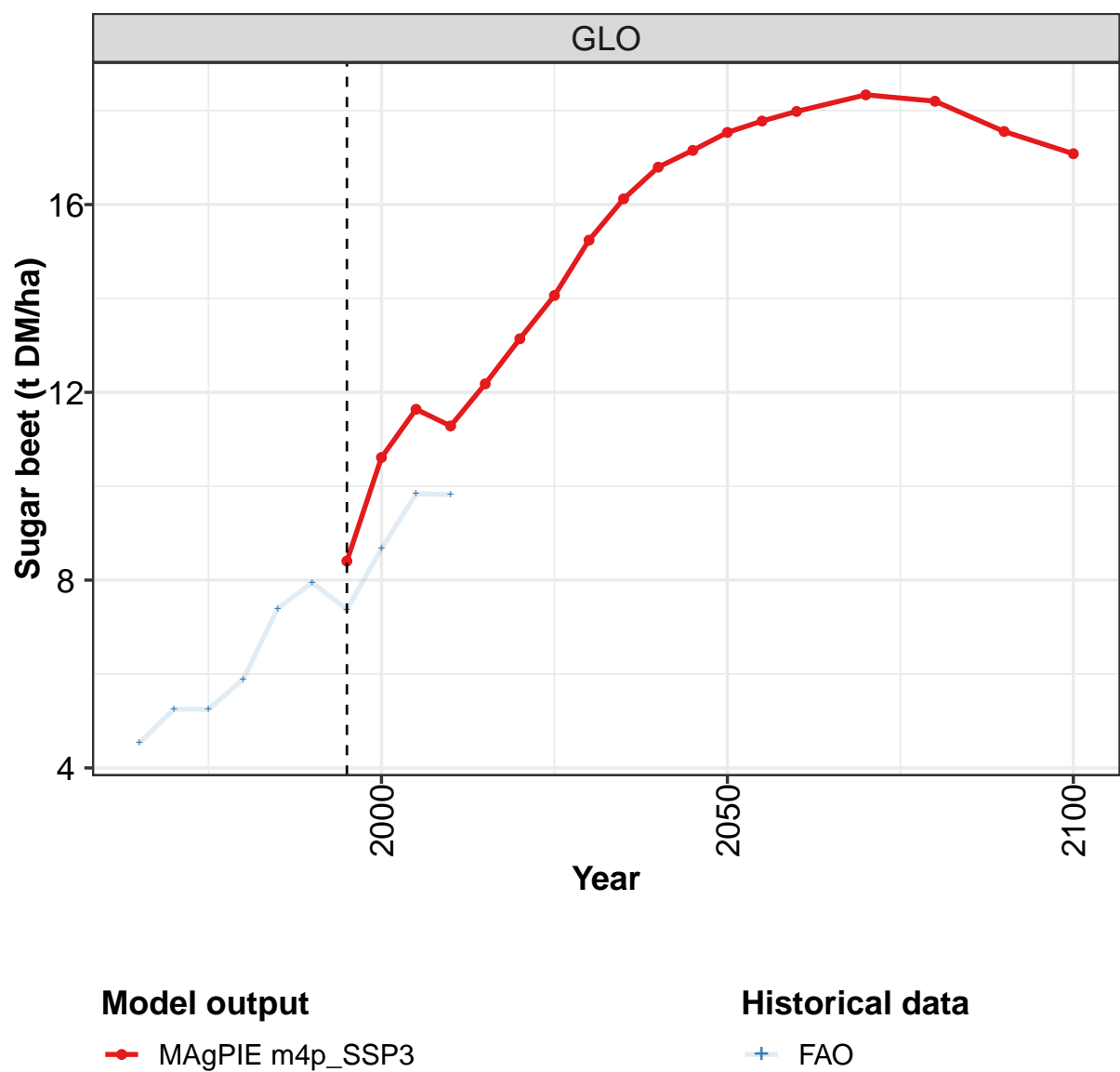
	2050	2055	2060	2070	2080	2090	2100
GLO	33	32	32	33	33	34	34
CAZ	36	37	37	37	37	37	38
CHA	29	29	29	30	30	30	30
EUR	27	27	27	27	28	28	28
IND	82	90	96	114	121	139	157
JPN	22	23	23	23	23	23	23
LAM	41	41	41	45	47	49	49
MEA	50	51	52	53	55	58	62
NEU	18	19	19	19	20	20	20
OAS	47	49	49	52	54	56	58
REF	7	8	8	8	8	7	7
SSA	13	13	13	14	15	15	16
USA	15	15	15	16	16	16	16

Table 1523: MAGPIE m4p_SSP3 — Productivity—Yield—Crops—Sugar crops (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	8.3	9.1	8.9	9.6	11.6	12.1	12.3	13.3	14.5	16.3
CAZ	5.6	6.1	7.7	8.6	20.4	17.9	26.3	23.2	21.9	23.2
CHA	14.4	11.7	11.0	13.7	12.5	13.3	14.0	16.8	20.9	23.7
EUR	5.7	6.7	7.0	8.0	10.2	11.3	11.2	13.2	14.8	17.2
IND	12.4	13.3	13.7	13.7	16.3	18.9	21.0	20.8	19.6	22.5
JPN	13.3	14.1	11.8	14.0	15.1	13.6	13.1	11.8	13.0	12.8
LAM	11.0	11.3	10.4	11.4	13.1	12.9	11.9	12.5	14.6	16.7
MEA	7.7	7.8	8.3	10.2	13.0	12.2	13.0	15.9	19.4	20.1
NEU	4.4	5.9	6.0	5.2	6.5	7.3	6.9	8.8	9.2	10.7
OAS	11.3	12.5	11.6	11.5	11.9	12.8	13.4	14.1	14.6	16.6
REF	3.5	4.1	3.3	4.0	5.3	5.5	4.0	3.2	4.6	3.9
SSA	10.1	11.1	11.5	10.8	9.6	9.6	9.1	10.0	10.3	10.3
USA	9.0	8.8	10.3	11.0	12.0	10.5	10.2	13.8	12.8	15.3

Table 1524: FAO — Productivity—Yield—Crops—Sugar crops (t DM/ha)

52.1.19 Sugar crops—Sugar beet



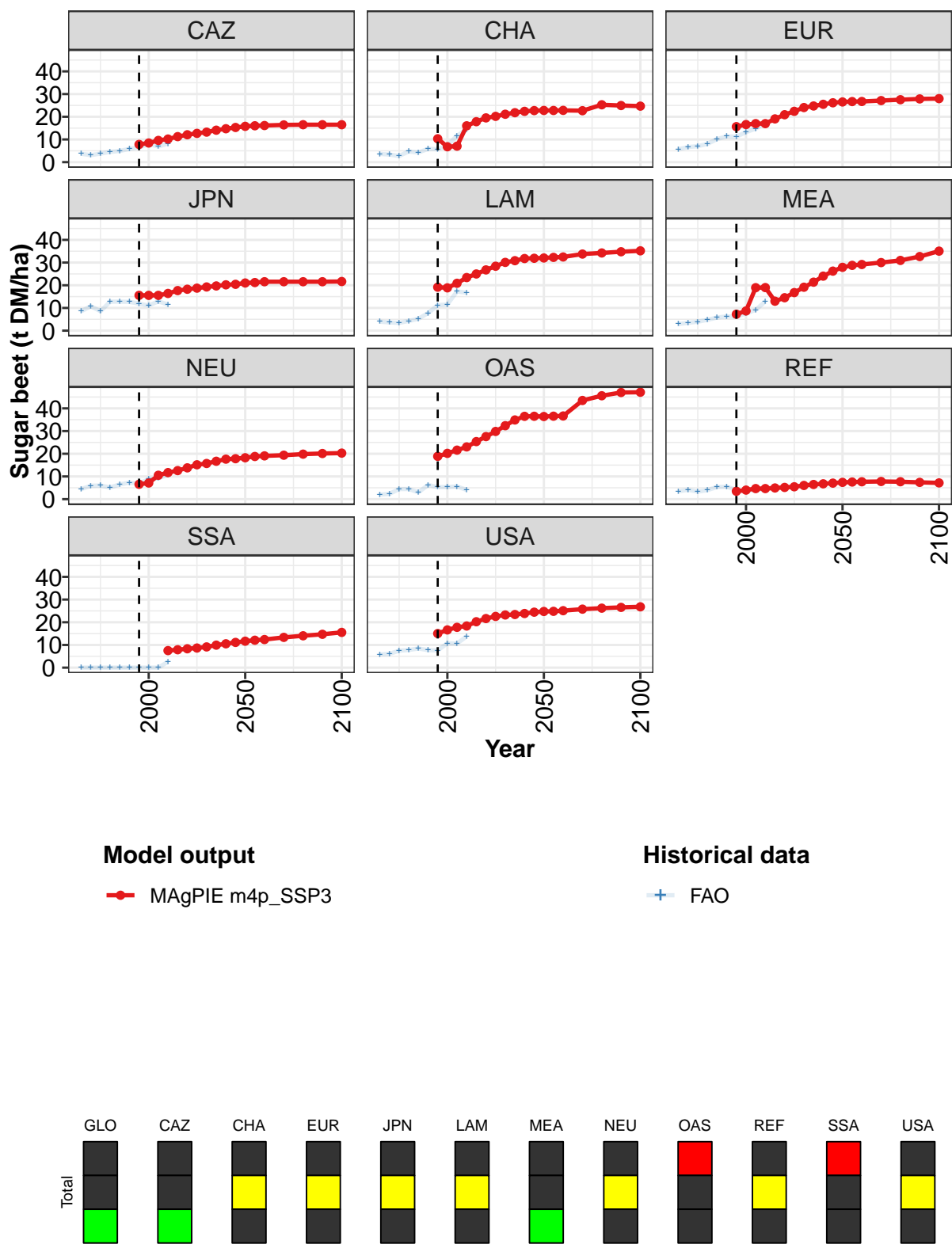


Figure 395: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Sugar crops—Sugar beet (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	8	11	12	11	12	13	14	15	16	17	17
CAZ	8	8	10	10	11	12	13	13	14	15	15
CHA	10	7	7	16	18	20	20	21	22	22	23
EUR	16	17	17	17	19	21	22	24	25	25	26
JPN	16	16	16	16	18	18	19	19	20	20	20
LAM	19	19	21	23	25	27	28	30	31	32	32
MEA	7	9	19	19	13	15	17	19	21	24	26
NEU	7	7	11	12	13	14	15	16	17	18	18
OAS	19	20	22	23	25	28	30	32	35	36	37
REF	3	4	5	5	5	5	5	6	6	7	7
SSA				8	8	8	9	9	10	11	11
USA	15	17	18	18	20	22	23	23	23	24	24

Table 1525: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Sugar crops—Sugar beet (t DM/ha) [PART 1/2]

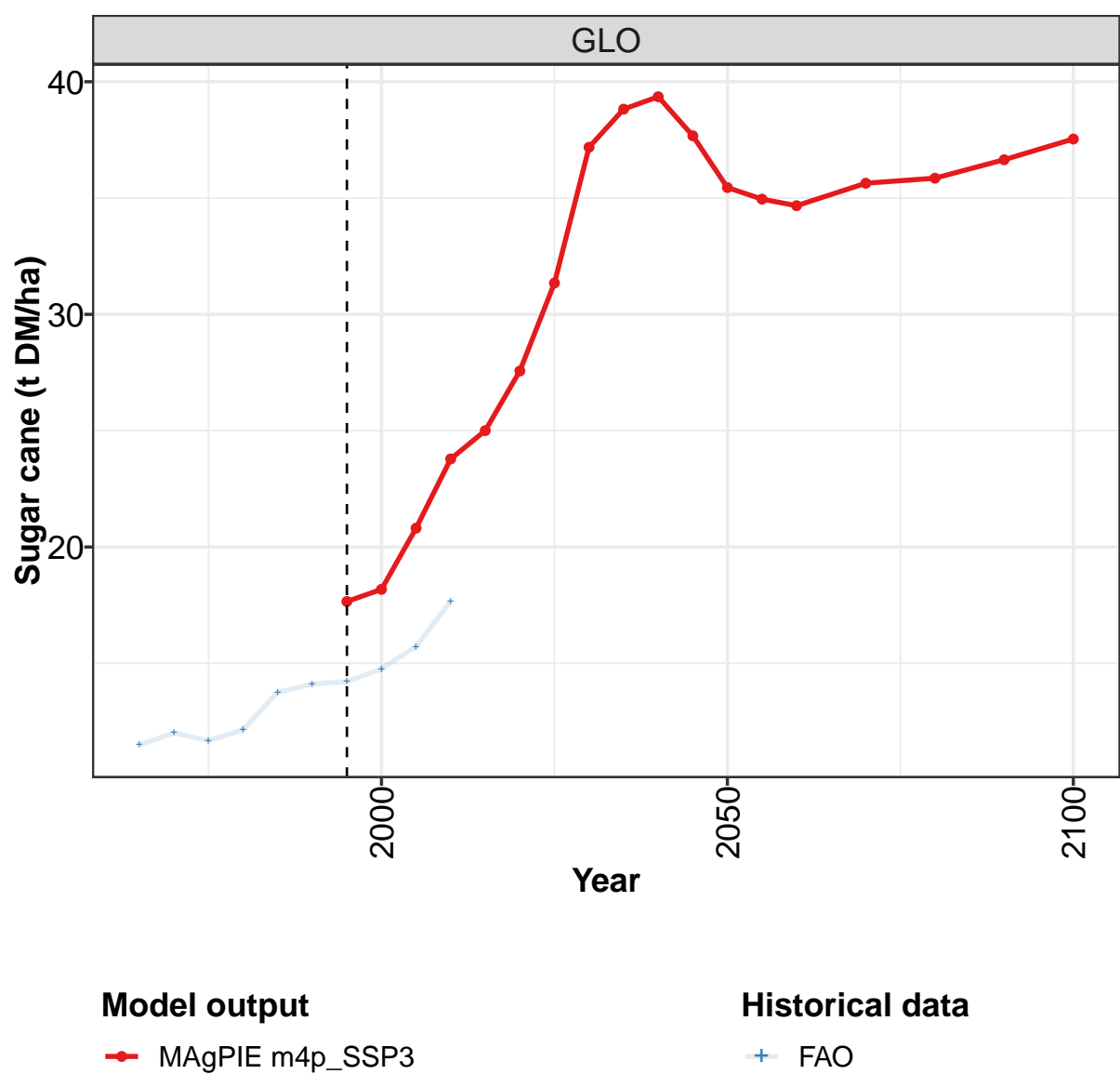
	2050	2055	2060	2070	2080	2090	2100
GLO	18	18	18	18	18	18	17
CAZ	16	16	16	16	17	17	17
CHA	23	23	23	23	25	25	25
EUR	27	27	27	27	28	28	28
JPN	21	21	22	22	22	22	22
LAM	32	32	32	34	34	35	35
MEA	28	29	29	30	31	33	35
NEU	18	19	19	19	20	20	20
OAS	36	37	37	43	46	47	47
REF	7	8	8	8	8	7	7
SSA	12	12	12	13	14	15	16
USA	25	25	25	26	26	27	27

Table 1526: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Sugar crops—Sugar beet (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.5	5.3	5.2	5.9	7.4	7.9	7.4	8.7	9.8	9.8
CAZ	3.7	3.1	3.8	4.5	4.9	5.8	6.5	7.9	6.9	8.2
CHA	3.6	3.3	2.7	4.7	4.2	5.9	5.7	7.3	11.7	14.3
EUR	5.7	6.6	7.0	8.0	10.2	11.3	11.2	13.2	14.8	17.2
JPN	8.6	10.8	8.6	12.8	12.8	12.7	11.9	11.0	12.9	11.5
LAM	4.0	3.6	3.4	4.3	5.2	7.8	11.2	11.5	17.3	16.7
MEA	2.9	3.4	3.9	4.8	5.8	6.3	6.1	7.6	9.2	12.8
NEU	4.4	5.9	6.0	5.2	6.5	7.3	6.9	8.8	9.2	10.7
OAS	2.0	2.4	4.4	4.5	3.0	6.2	5.3	5.3	5.6	4.1
REF	3.5	4.1	3.3	4.0	5.3	5.5	4.0	3.2	4.6	3.9
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
USA	5.8	6.1	7.5	7.8	8.4	7.7	7.6	10.7	10.6	13.8

Table 1527: FAO — Productivity—Yield—Crops—Sugar crops—Sugar beet (t DM/ha)

52.1.20 Sugar crops—Sugar cane



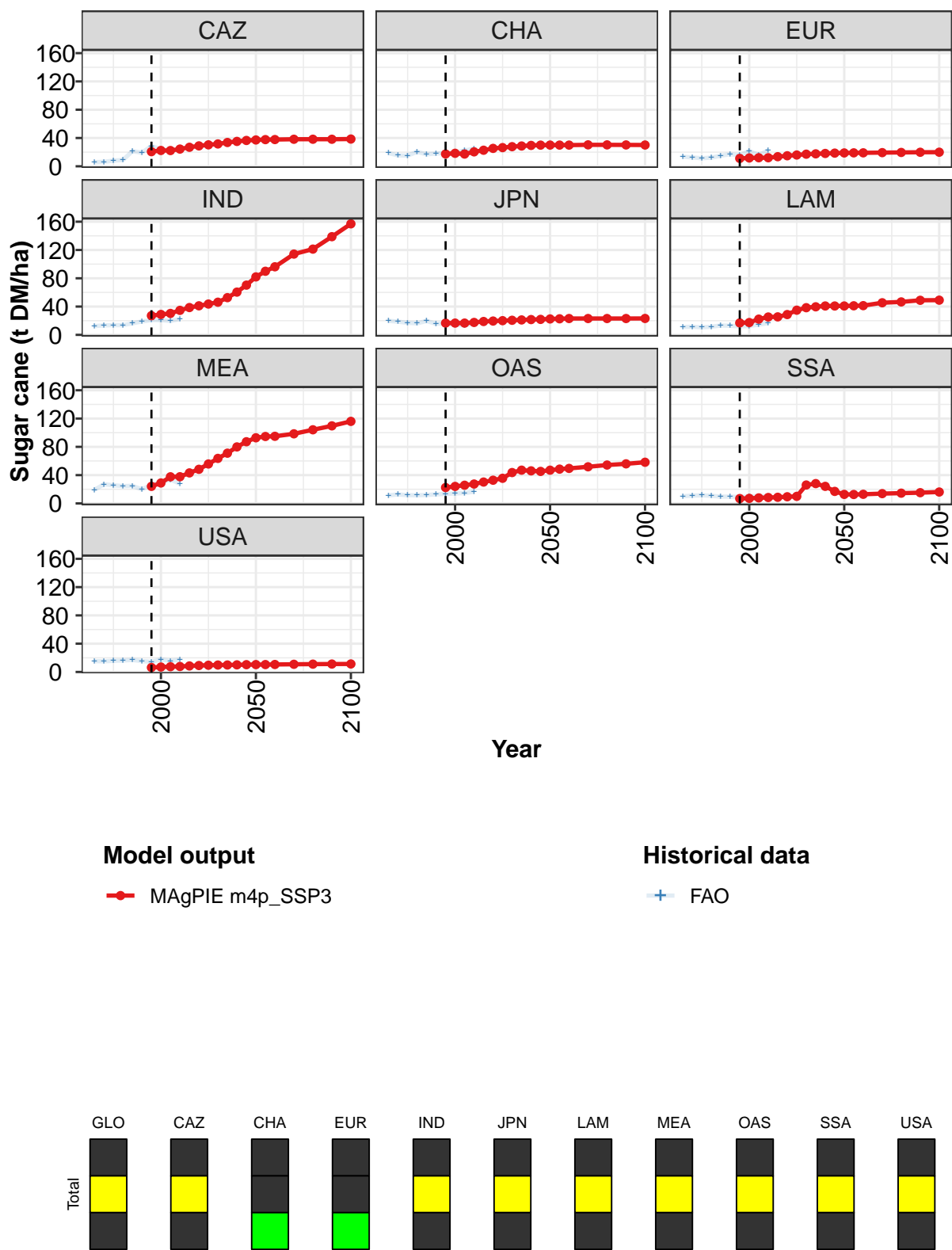


Figure 396: MAGPIE m4p_SSP3 — Productivity—Yield—Crops—Sugar crops—Sugar cane (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	18	18	21	24	25	28	31	37	39	39	38
CAZ	21	22	22	24	27	29	30	32	34	35	37
CHA	17	18	17	20	23	25	26	28	29	30	30
EUR	11	12	12	12	14	15	16	17	18	18	19
IND	27	29	30	35	39	41	44	46	53	60	70
JPN	17	17	17	18	19	20	20	21	21	22	22
LAM	17	17	22	25	25	29	35	38	40	41	41
MEA	24	29	38	38	43	48	56	64	71	80	87
OAS	22	24	26	27	30	33	36	44	47	46	45
SSA	7	7	8	8	9	9	10	26	28	24	17
USA	6	7	8	8	9	9	10	10	10	10	10

Table 1528: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Sugar crops—Sugar cane (t DM/ha) [PART 1/2]

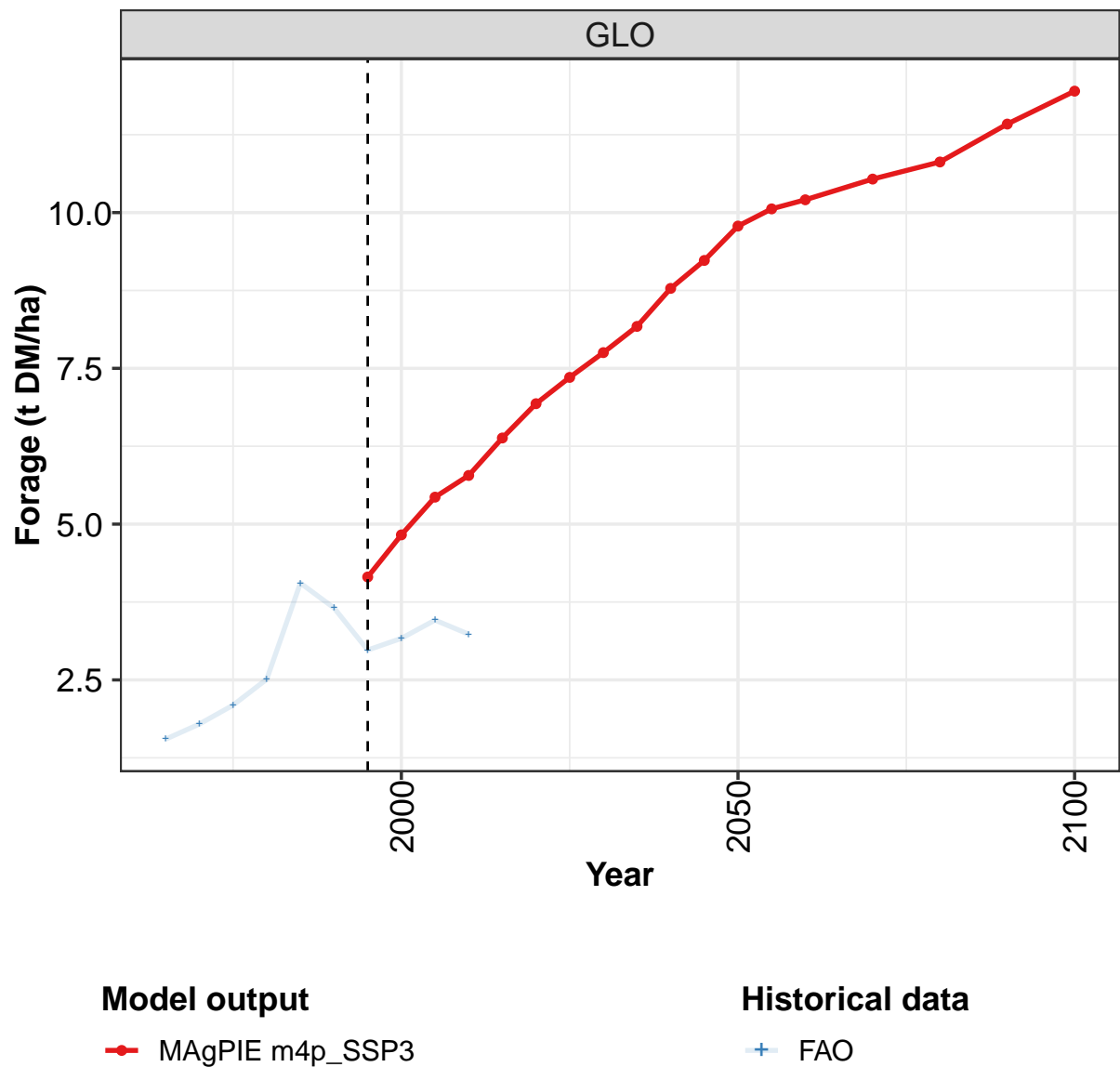
	2050	2055	2060	2070	2080	2090	2100
GLO	35	35	35	36	36	37	38
CAZ	37	38	38	38	38	38	39
CHA	30	30	30	30	30	30	30
EUR	19	19	19	19	20	20	20
IND	82	90	96	114	121	139	157
JPN	23	23	23	23	23	23	23
LAM	41	41	41	45	47	49	49
MEA	93	95	95	98	104	110	116
OAS	47	49	50	52	54	56	58
SSA	13	13	13	14	15	15	16
USA	10	10	11	11	11	11	11

Table 1529: MAgPIE m4p_SSP3 — Productivity—Yield—Crops—Sugar crops—Sugar cane (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	11.5	12.0	11.7	12.1	13.8	14.1	14.2	14.8	15.7	17.7
CAZ	5.8	6.3	8.0	8.9	21.3	19.3	28.6	24.1	22.6	23.9
CHA	18.7	15.4	15.1	20.4	17.0	18.0	18.9	19.4	22.3	24.9
EUR	13.5	12.5	11.4	12.3	14.9	17.3	15.5	21.7	15.8	22.7
IND	12.4	13.3	13.7	13.7	16.3	18.9	21.0	20.8	19.6	22.5
JPN	19.8	18.7	17.0	16.3	19.7	15.5	16.6	14.1	13.3	16.5
LAM	11.1	11.4	10.6	11.5	13.2	12.9	11.9	12.5	14.5	16.7
MEA	19.3	27.0	25.7	24.5	24.9	19.8	26.5	29.7	33.7	28.0
OAS	11.4	12.7	11.6	11.6	11.9	12.8	13.5	14.1	14.6	16.6
SSA	10.1	11.1	11.5	10.8	9.6	9.6	9.1	10.0	10.3	10.3
USA	15.3	15.2	15.7	16.3	17.0	15.4	14.3	17.8	15.7	17.4

Table 1530: FAO — Productivity—Yield—Crops—Sugar crops—Sugar cane (t DM/ha)

52.2 Forage



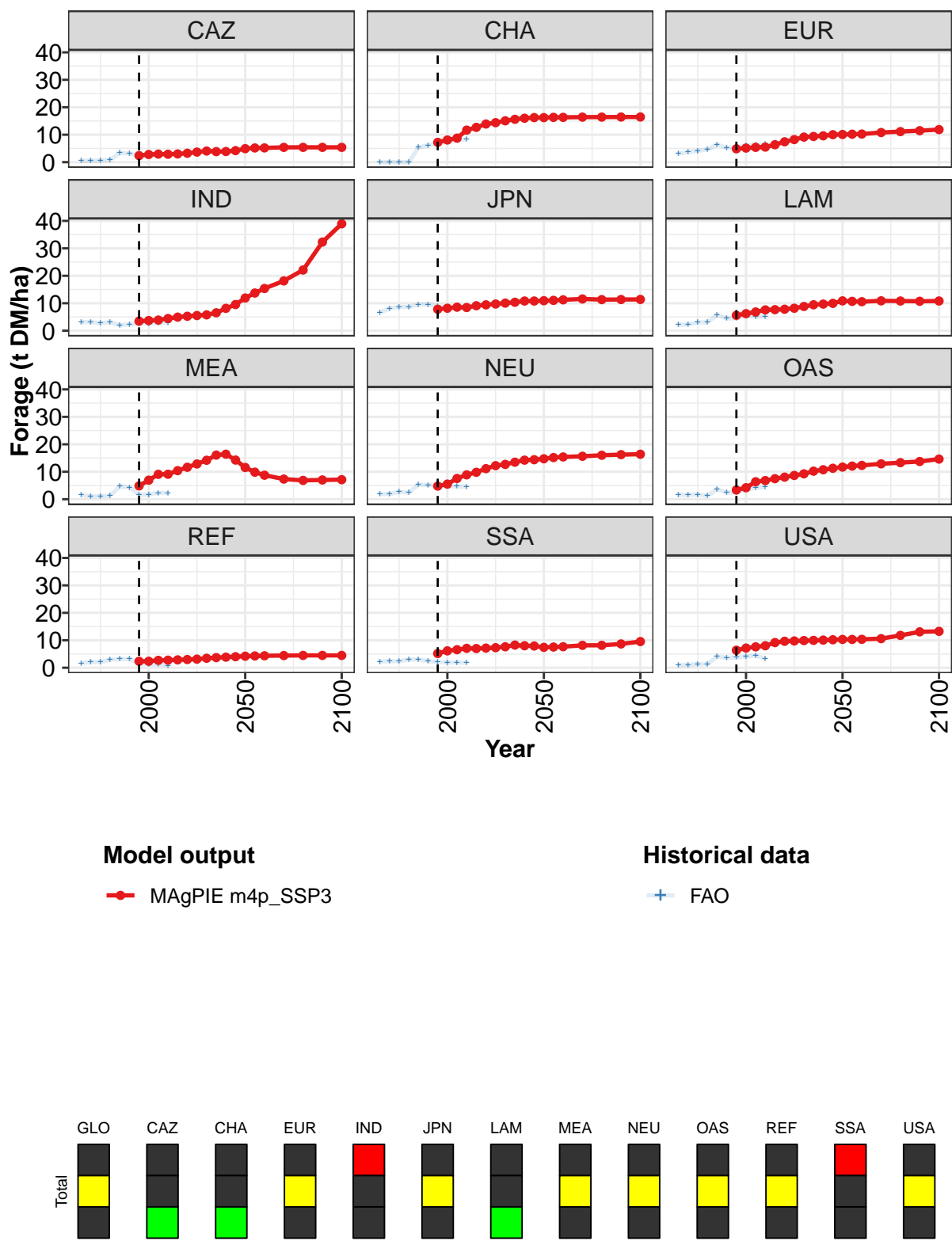


Figure 397: MAGPIE m4p_SSP3 — Productivity—Yield—Forage (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.2	4.8	5.4	5.8	6.4	6.9	7.4	7.8	8.2	8.8	9.2
CAZ	2.4	2.8	3.0	2.9	3.0	3.3	3.7	4.1	3.8	3.9	4.2
CHA	7.2	8.1	8.8	11.7	12.7	13.9	14.4	15.1	15.6	16.0	16.2
EUR	4.9	5.1	5.4	5.5	6.4	7.4	8.2	9.1	9.4	9.6	10.0
IND	3.5	3.7	3.9	4.4	4.9	5.3	5.5	5.8	6.5	8.1	9.5
JPN	7.8	8.2	8.6	8.4	9.1	9.4	9.7	10.0	10.4	10.8	10.8
LAM	5.6	6.2	6.8	7.6	7.7	7.8	8.2	8.8	9.4	9.7	10.0
MEA	4.8	6.9	9.1	9.1	10.4	11.6	12.8	14.2	16.1	16.4	14.3
NEU	4.8	5.5	7.6	8.9	9.8	11.1	12.2	12.7	13.5	14.2	14.4
OAS	3.4	4.2	6.4	6.8	7.5	8.0	8.7	9.3	10.2	10.7	11.3
REF	2.3	2.4	2.7	2.8	2.9	3.0	3.1	3.5	3.7	3.9	4.0
SSA	5.2	6.2	6.6	7.1	7.0	7.2	7.3	7.6	8.3	8.0	7.9
USA	6.4	7.2	7.6	8.0	9.2	9.6	9.8	9.9	10.0	10.1	10.2

Table 1531: MAgPIE m4p-SSP3 — Productivity—Yield—Forage (t DM/ha) [PART 1/2]

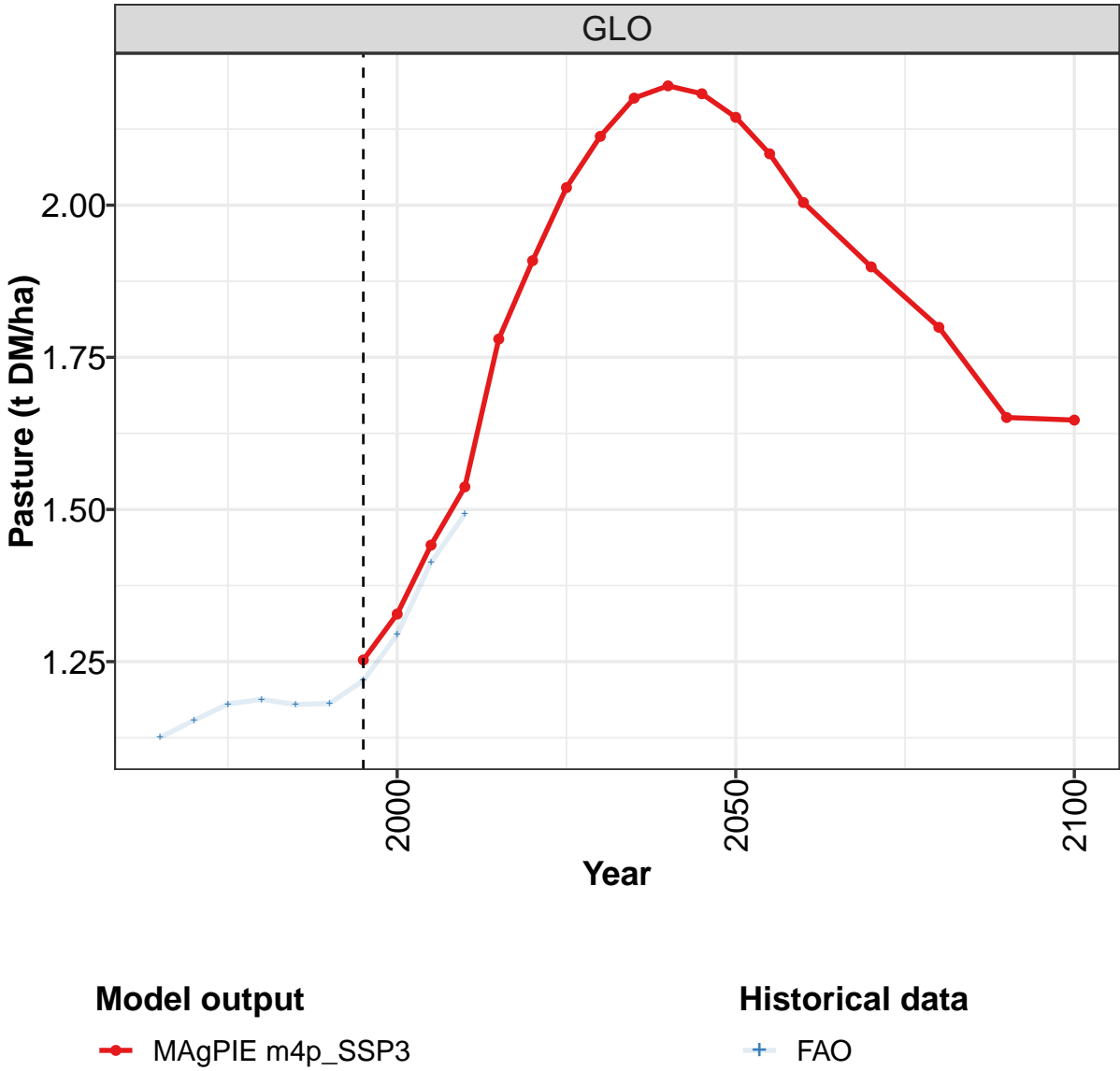
	2050	2055	2060	2070	2080	2090	2100
GLO	9.8	10.1	10.2	10.5	10.8	11.4	11.9
CAZ	4.9	5.2	5.2	5.4	5.4	5.4	5.4
CHA	16.2	16.3	16.3	16.4	16.4	16.5	16.5
EUR	10.1	10.2	10.3	10.8	11.1	11.5	11.9
IND	11.9	13.7	15.4	18.1	22.1	32.3	38.9
JPN	10.9	11.0	11.2	11.6	11.3	11.4	11.4
LAM	10.9	10.7	10.6	10.9	10.8	10.7	10.8
MEA	11.6	9.9	8.7	7.3	6.9	7.0	7.1
NEU	14.7	15.2	15.4	15.6	16.0	16.2	16.4
OAS	11.7	12.1	12.3	12.9	13.3	13.7	14.6
REF	4.2	4.3	4.4	4.4	4.5	4.5	4.5
SSA	7.4	7.5	7.7	8.2	8.2	8.7	9.5
USA	10.3	10.3	10.4	10.6	11.8	13.1	13.3

Table 1532: MAgPIE m4p-SSP3 — Productivity—Yield—Forage (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.55	1.79	2.09	2.51	4.05	3.65	2.98	3.17	3.46	3.23
CAZ	0.50	0.53	0.69	0.78	3.39	3.16	2.42	2.59	2.58	2.93
CHA	0.00	0.00	0.00	0.00	5.36	6.15	6.99	7.36	8.05	8.36
EUR	3.05	3.72	4.13	4.60	6.40	5.25	5.42	6.10	6.31	6.49
IND	3.09	3.15	2.73	3.10	1.97	2.35	2.66	2.64	2.72	2.90
JPN	6.65	8.09	8.70	8.68	9.46	9.55	8.86	8.43	8.08	8.47
LAM	2.17	2.30	3.00	3.04	5.79	4.46	4.45	5.45	5.10	5.17
MEA	1.57	1.03	1.16	1.25	4.70	4.32	1.63	1.69	2.31	2.21
NEU	1.86	1.92	2.66	2.40	5.27	5.20	5.08	4.65	4.66	4.52
OAS	1.63	1.53	1.73	1.21	3.66	2.39	2.56	3.49	4.17	4.41
REF	1.67	2.12	2.10	2.86	3.14	3.14	1.58	1.21	1.30	0.81
SSA	2.25	2.39	2.37	2.98	2.96	2.47	2.03	1.97	1.92	1.80
USA	0.99	1.03	1.31	1.39	4.01	3.65	3.72	4.06	4.41	3.25

Table 1533: FAO — Productivity—Yield—Forage (t DM/ha)

52.3 Pasture



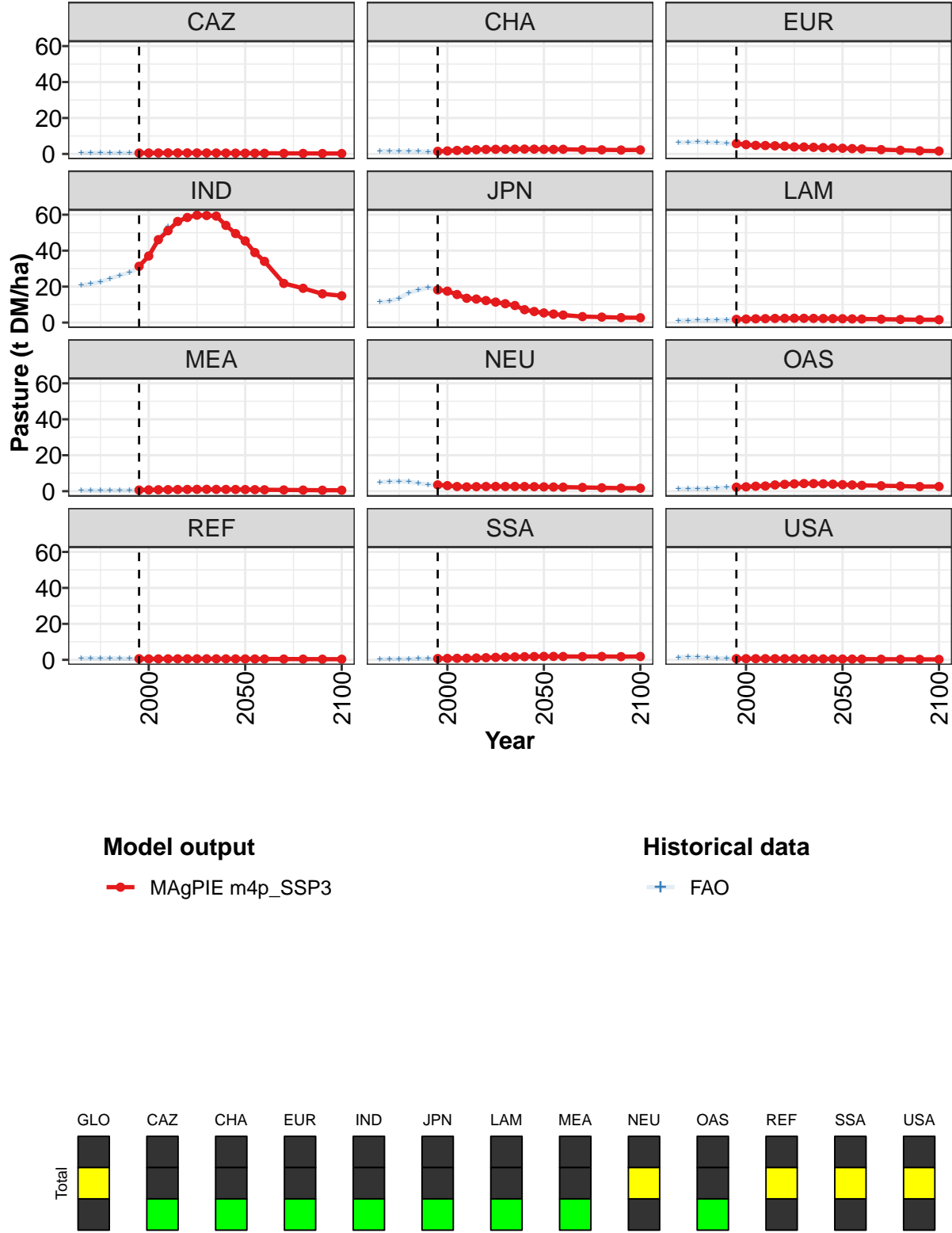


Figure 398: MAgPIE m4p_SSP3 — Productivity—Yield—Pasture (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.3	1.3	1.4	1.5	1.8	1.9	2.0	2.1	2.2	2.2	2.2
CAZ	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5
CHA	1.5	1.7	2.0	2.1	2.4	2.5	2.6	2.6	2.7	2.7	2.7
EUR	5.7	5.2	4.8	4.7	4.6	4.3	3.9	3.9	3.7	3.5	3.4
IND	31.3	37.0	46.1	51.1	56.2	58.4	59.7	59.5	59.2	54.1	49.5
JPN	18.2	17.5	15.6	13.5	13.1	12.2	11.4	10.5	9.5	7.2	6.2
LAM	1.8	2.0	2.1	2.2	2.3	2.4	2.4	2.4	2.3	2.3	2.2
MEA	0.6	0.7	0.8	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0
NEU	3.5	3.1	2.6	2.4	2.5	2.6	2.6	2.6	2.6	2.6	2.5
OAS	2.2	2.4	2.8	2.9	3.5	3.8	4.1	4.3	4.2	4.1	3.9
REF	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
SSA	0.7	0.8	0.8	0.9	1.0	1.2	1.4	1.5	1.6	1.7	1.8
USA	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5

Table 1534: MAgPIE m4p_SSP3 — Productivity—Yield—Pasture (t DM/ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	2.1	2.1	2.0	1.9	1.8	1.7	1.6
CAZ	0.4	0.4	0.4	0.3	0.3	0.3	0.2
CHA	2.6	2.5	2.6	2.4	2.3	2.2	2.3
EUR	3.2	3.0	2.8	2.4	2.1	1.7	1.6
IND	45.4	39.0	34.0	21.8	19.1	16.0	14.9
JPN	5.4	4.7	4.2	3.3	3.1	2.8	2.7
LAM	2.1	2.1	2.0	1.9	1.7	1.6	1.6
MEA	0.9	0.9	0.8	0.7	0.6	0.5	0.5
NEU	2.4	2.3	2.2	2.1	1.9	1.7	1.7
OAS	3.6	3.5	3.2	3.0	2.8	2.6	2.6
REF	0.5	0.5	0.4	0.4	0.4	0.3	0.3
SSA	1.9	1.9	1.8	1.8	1.9	1.8	1.9
USA	0.4	0.4	0.4	0.3	0.3	0.2	0.2

Table 1535: MAgPIE m4p_SSP3 — Productivity—Yield—Pasture (t DM/ha) [PART 2/2]

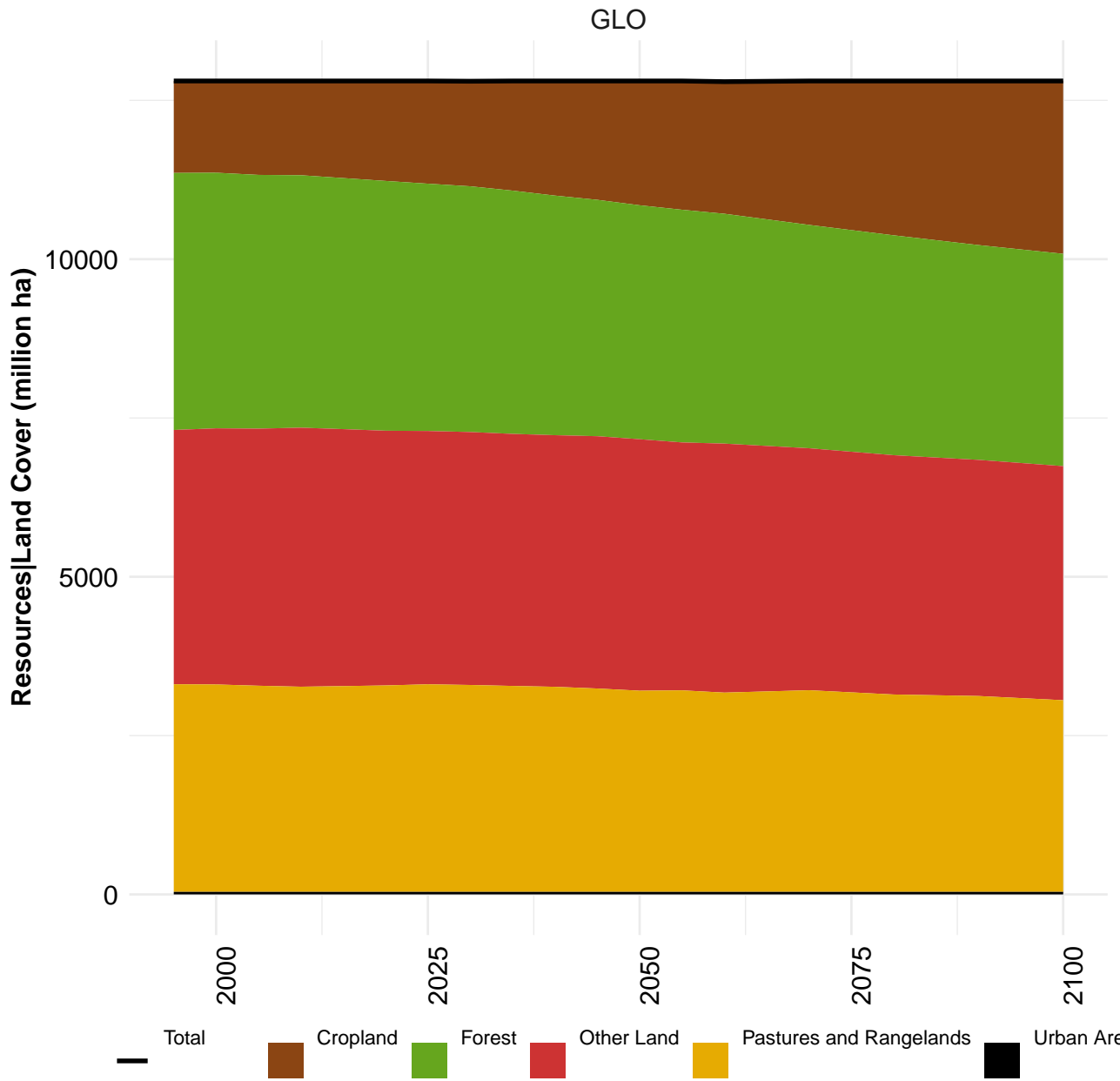
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.4	1.5
CAZ	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6
CHA	1.6	1.6	1.5	1.4	1.3	1.3	1.5	1.7	2.0	2.1
EUR	6.4	6.5	6.7	6.5	6.2	5.9	5.3	4.9	4.5	4.4
IND	20.8	21.5	22.7	24.5	26.3	27.8	30.7	37.0	46.5	53.4
JPN	11.5	11.9	13.5	16.6	18.1	19.3	18.4	17.6	15.6	13.5
LAM	1.2	1.2	1.3	1.4	1.5	1.6	1.7	1.9	2.0	2.1
MEA	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.8	0.8
NEU	5.1	5.3	5.4	5.3	4.5	3.7	3.3	2.9	2.5	2.3
OAS	1.2	1.3	1.4	1.5	1.8	2.0	2.2	2.3	2.7	2.6
REF	0.8	0.9	0.9	0.8	0.8	0.7	0.5	0.4	0.4	0.5
SSA	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.8	0.9
USA	1.4	1.5	1.5	1.3	1.0	0.7	0.7	0.6	0.6	0.7

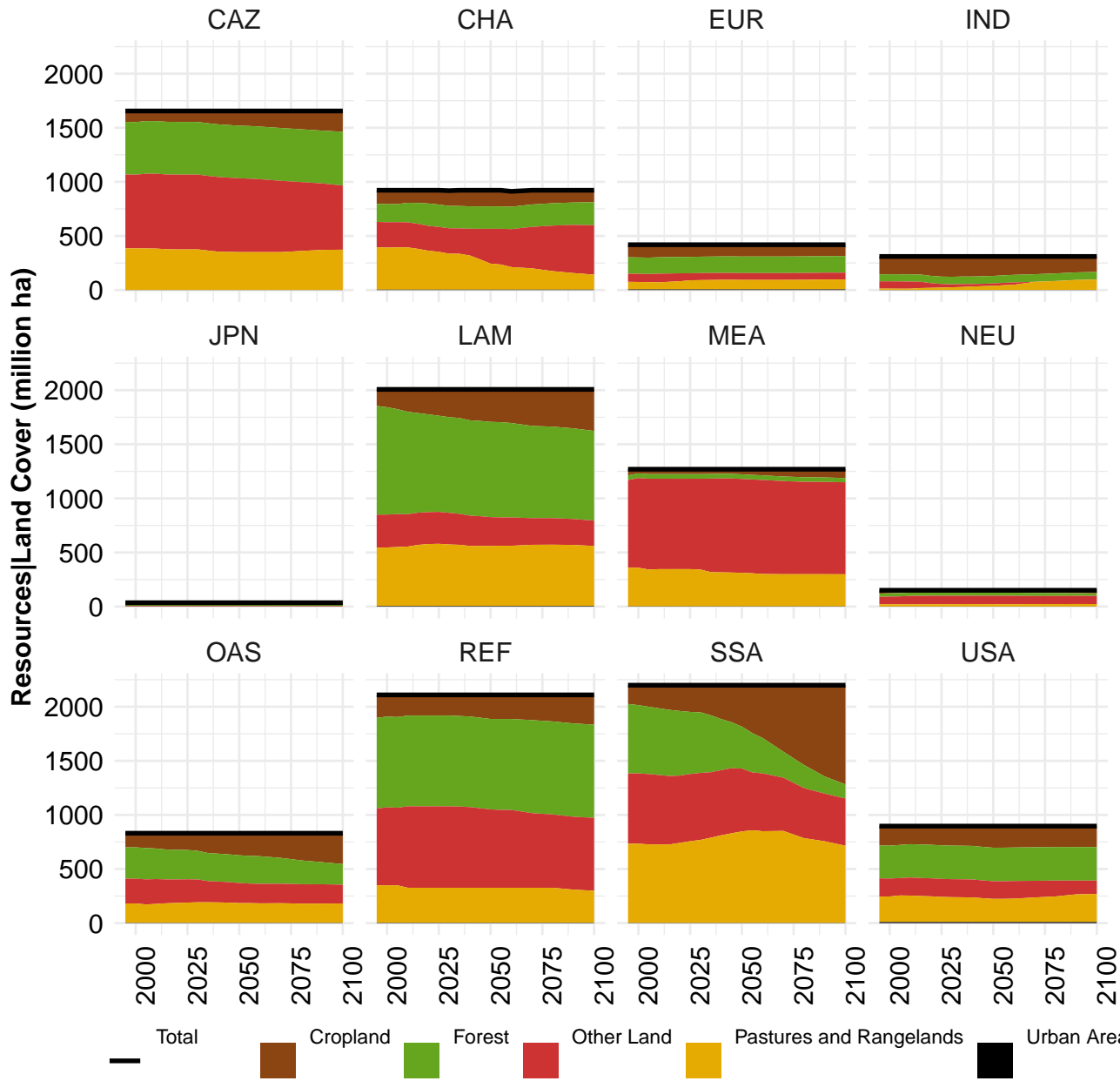
Table 1536: FAO — Productivity—Yield—Pasture (t DM/ha)

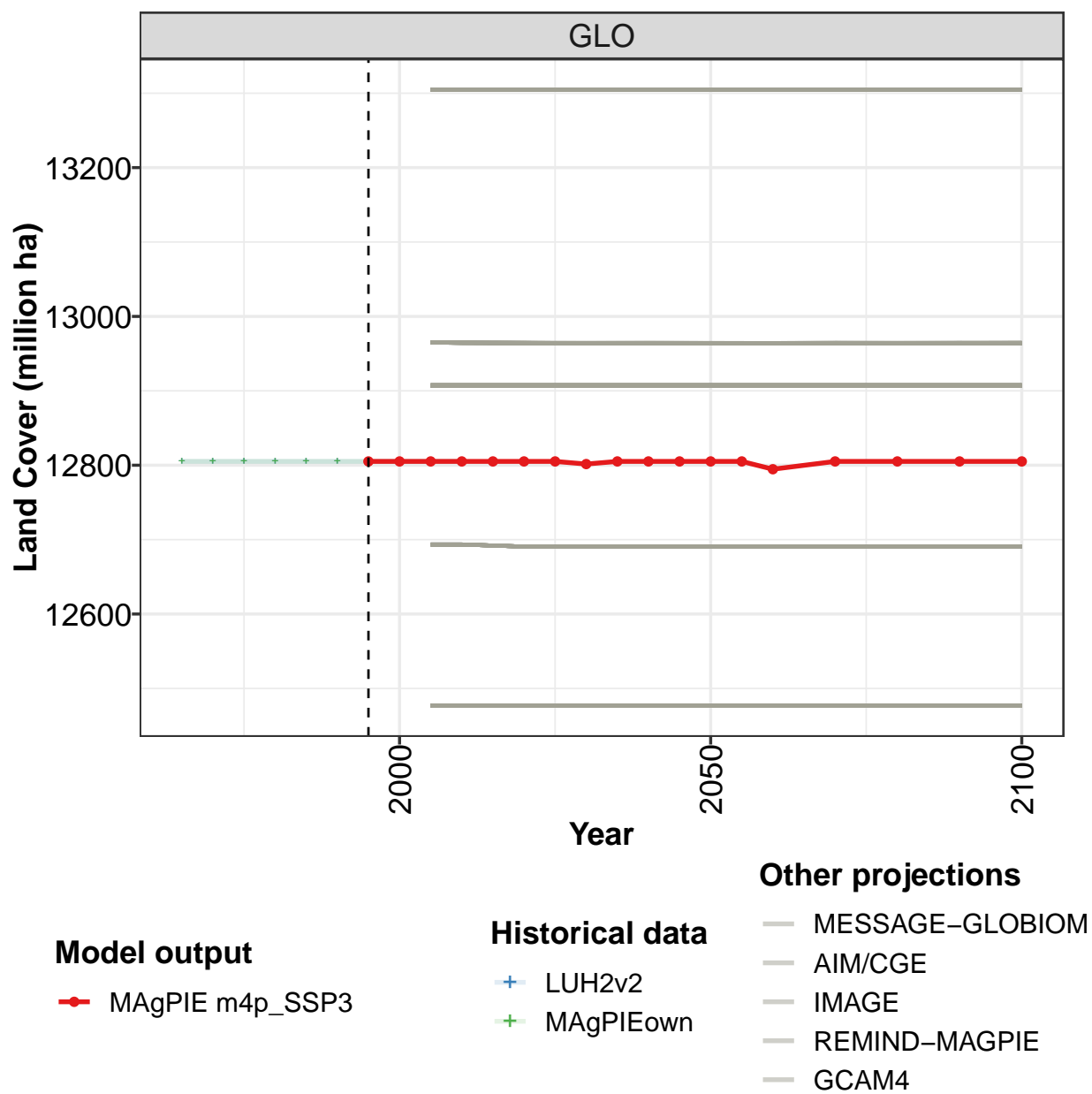
53 Yield-increasing technological change

Part XIV
Resources

54 Land Cover







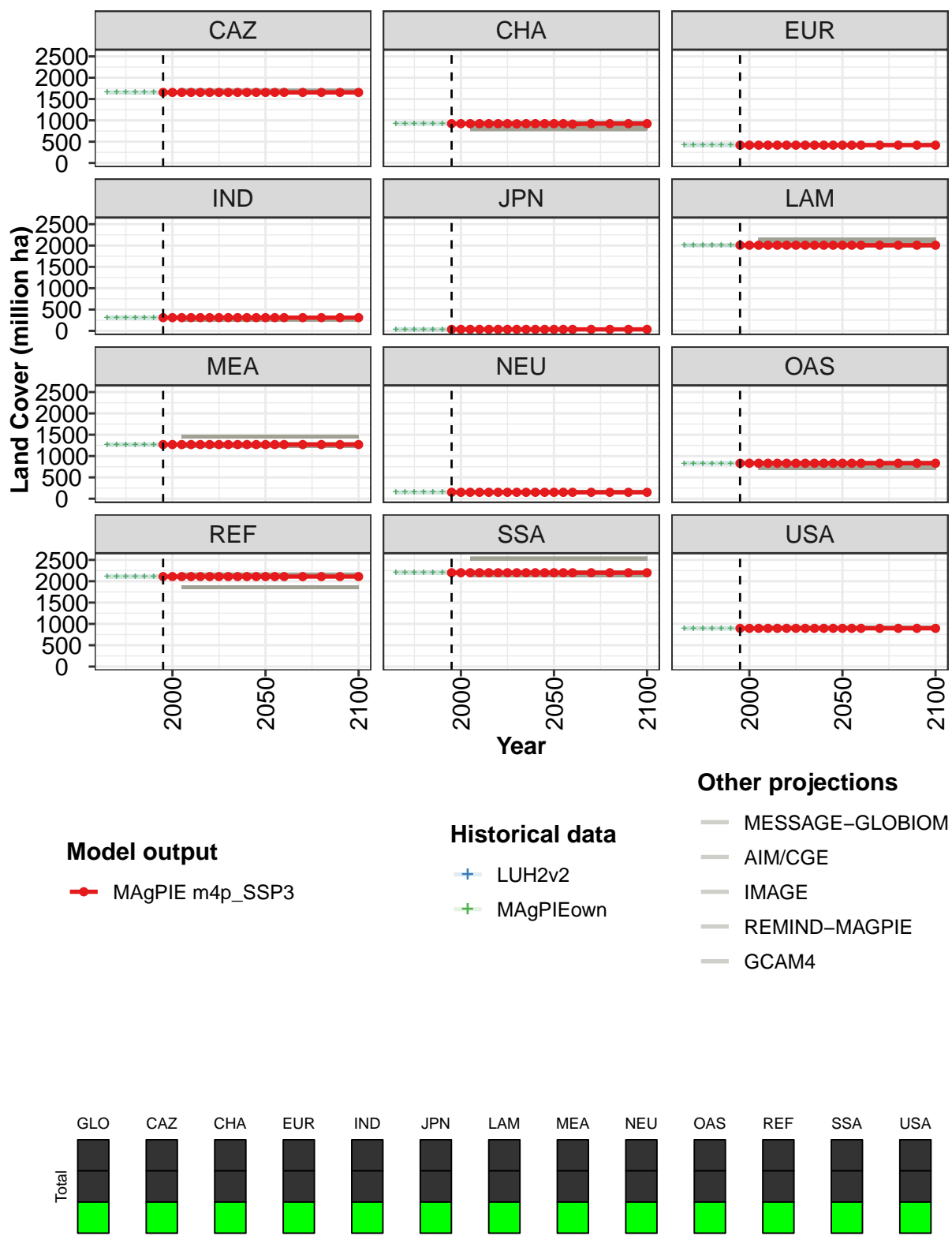


Figure 399: MAgPIE m4p_SSP3 — Resources—Land Cover (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	12805	12805	12805	12805	12805	12805	12805	12802	12805	12805	12805
CAZ	1655	1655	1655	1655	1655	1655	1655	1655	1655	1655	1655
CHA	922	922	922	922	922	922	922	919	922	922	922
EUR	419	419	419	419	419	419	419	419	419	419	419
IND	310	310	310	310	310	310	310	310	310	310	310
JPN	35	35	35	35	35	35	35	35	35	35	35
LAM	2007	2007	2007	2007	2007	2007	2007	2007	2007	2007	2007
MEA	1269	1269	1269	1269	1269	1269	1269	1269	1269	1269	1269
NEU	151	151	151	151	151	151	151	151	151	151	151
OAS	831	831	831	831	831	831	831	831	831	831	831
REF	2110	2110	2110	2110	2110	2110	2110	2110	2110	2110	2110
SSA	2199	2199	2199	2199	2199	2199	2199	2199	2199	2199	2199
USA	896	896	896	896	896	896	896	896	896	896	896

Table 1537: MAgPIE m4p_SSP3 — Resources—Land Cover (million ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	12805	12805	12795	12805	12805	12805	12805
CAZ	1655	1655	1655	1655	1655	1655	1655
CHA	922	922	912	922	922	922	922
EUR	419	419	419	419	419	419	419
IND	310	310	310	310	310	310	310
JPN	35	35	35	35	35	35	35
LAM	2007	2007	2007	2007	2007	2007	2007
MEA	1269	1269	1269	1269	1269	1269	1269
NEU	151	151	151	151	151	151	151
OAS	831	831	831	831	831	831	831
REF	2110	2110	2110	2110	2110	2110	2110
SSA	2199	2199	2199	2199	2199	2199	2199
USA	896	896	896	896	896	896	896

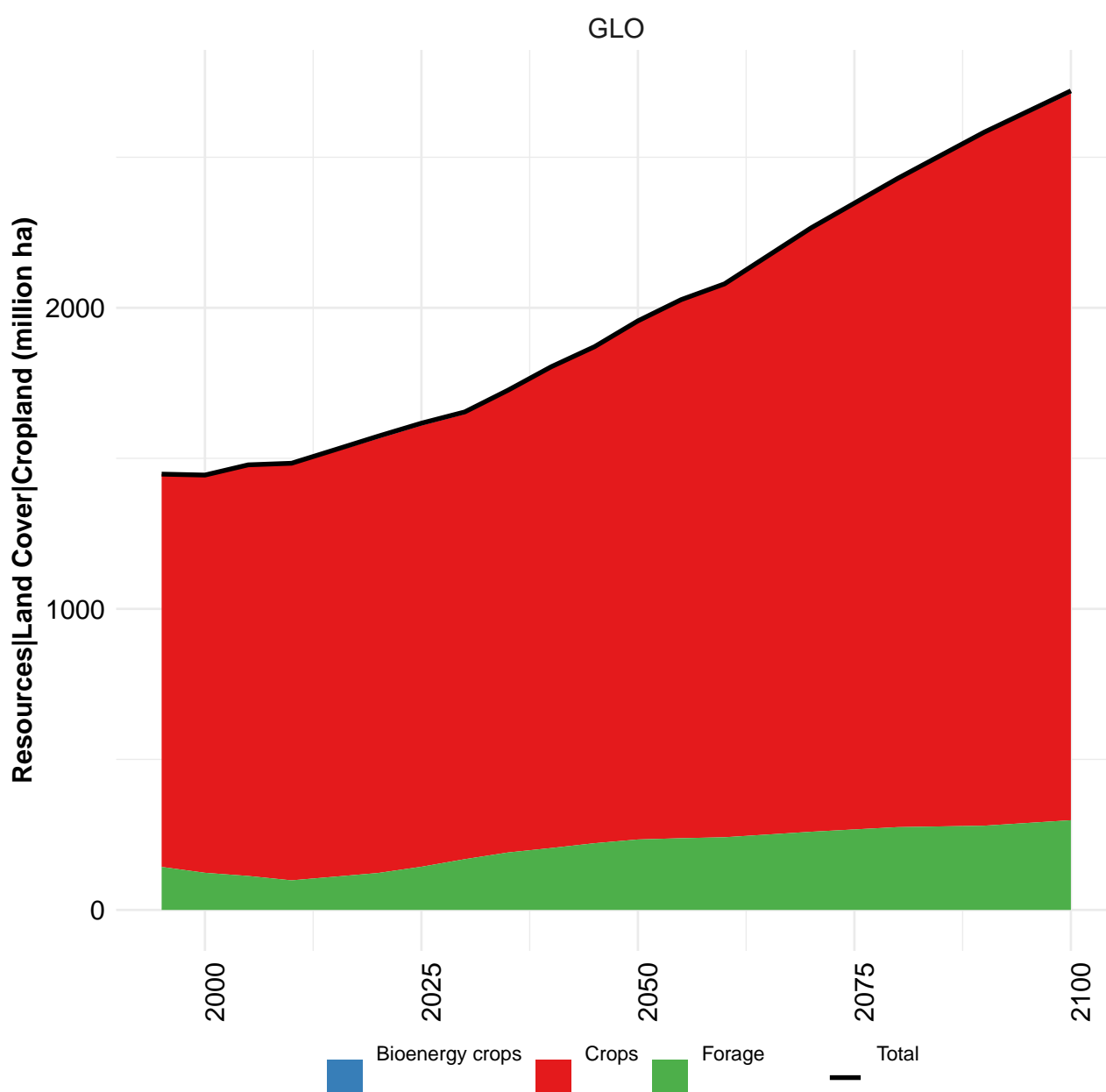
Table 1538: MAgPIE m4p_SSP3 — Resources—Land Cover (million ha) [PART 2/2]

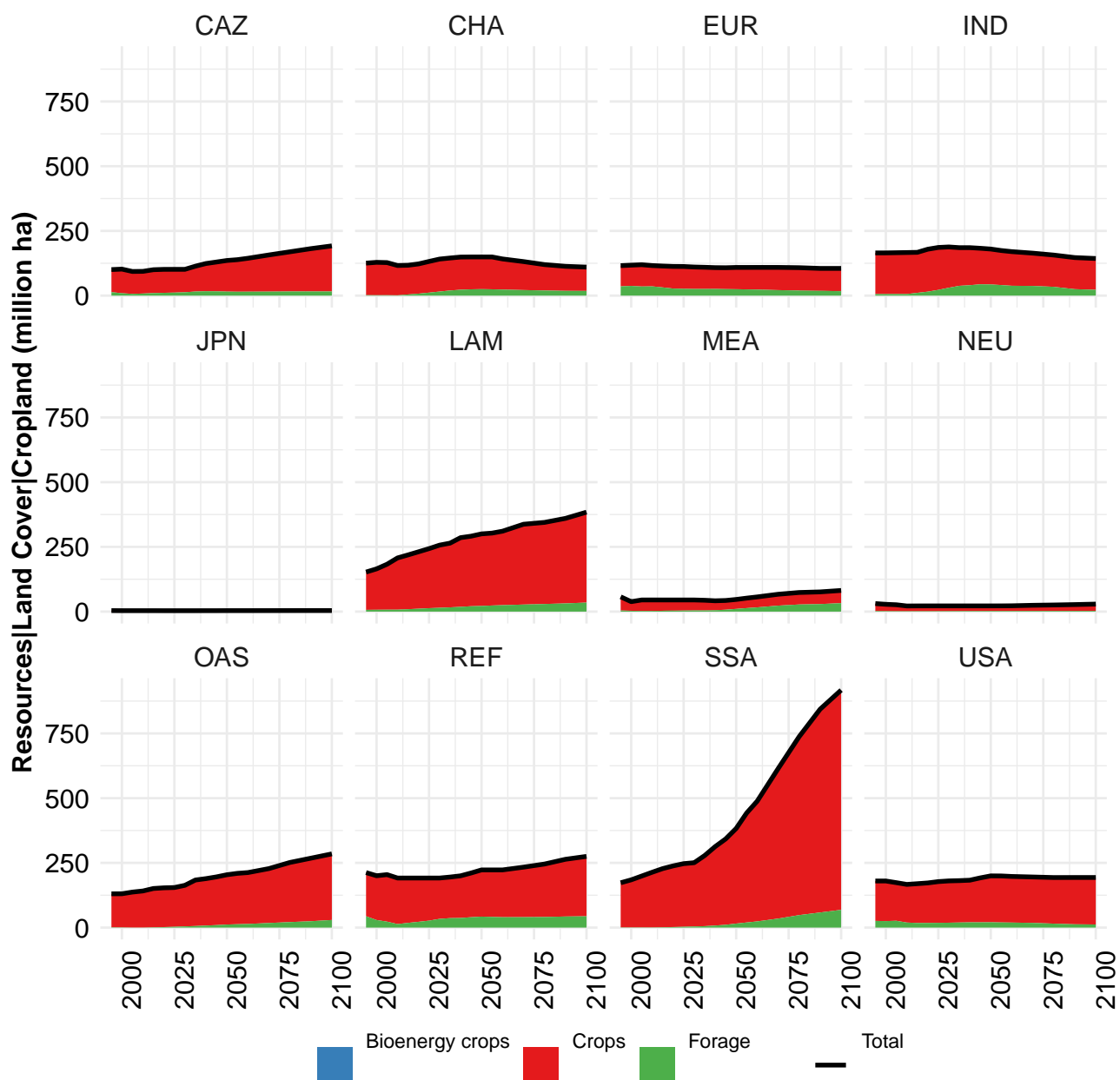
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	12805	12805	12805	12805	12805	12805	12805	12805	12805	12805
CAZ	1655	1655	1655	1655	1655	1655	1655	1655	1655	1655
CHA	922	922	922	922	922	922	922	922	922	922
EUR	419	419	419	419	419	419	419	419	419	419
IND	310	310	310	310	310	310	310	310	310	310
JPN	35	35	35	35	35	35	35	35	35	35
LAM	2007	2007	2007	2007	2007	2007	2007	2007	2007	2007
MEA	1269	1269	1269	1269	1269	1269	1269	1269	1269	1269
NEU	151	151	151	151	151	151	151	151	151	151
OAS	831	831	831	831	831	831	831	831	831	831
REF	2110	2110	2110	2110	2110	2110	2110	2110	2110	2110
SSA	2199	2199	2199	2199	2199	2199	2199	2199	2199	2199
USA	896	896	896	896	896	896	896	896	896	896

Table 1539: LUH2v2 — Resources—Land Cover (million ha)

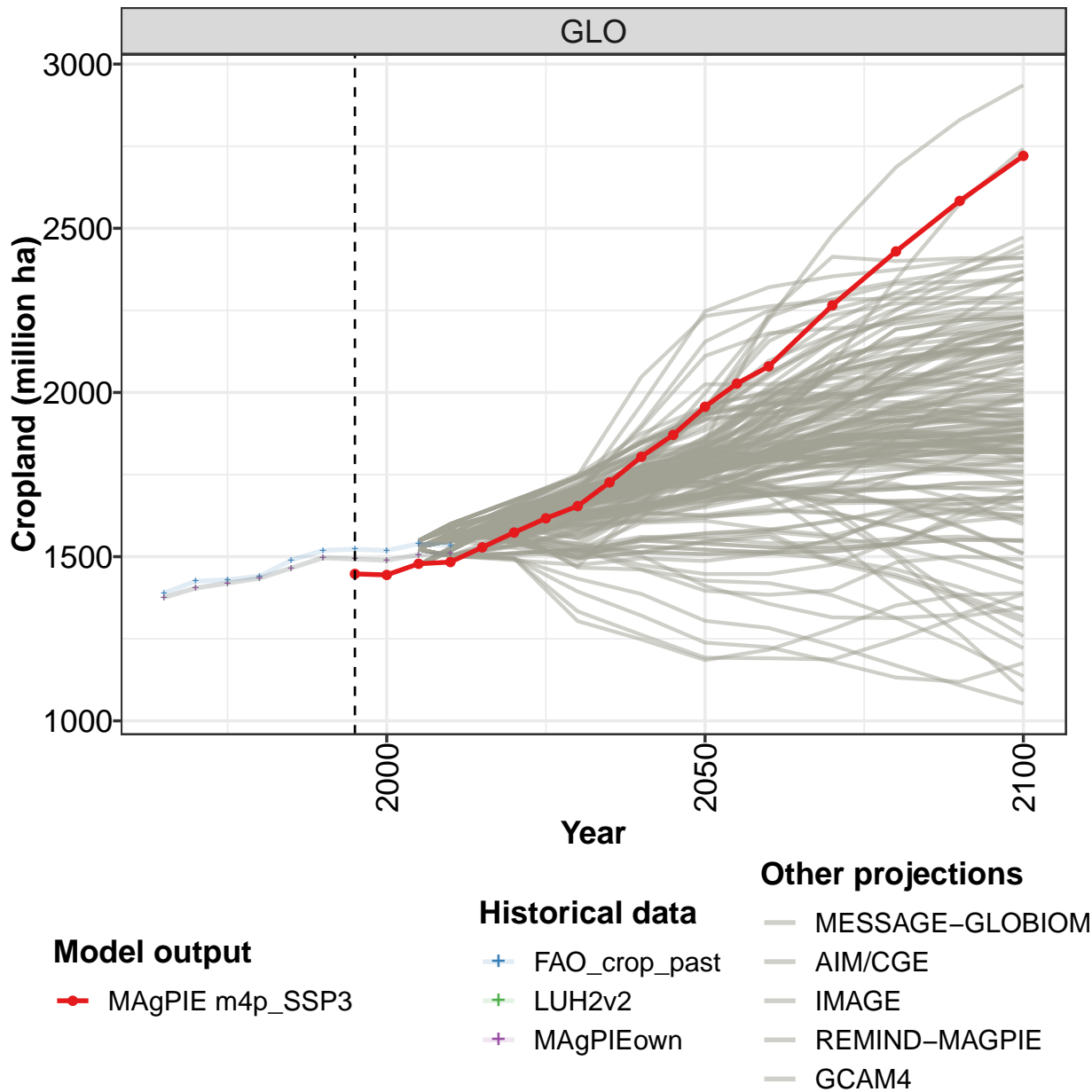
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	12805	12805	12805	12805	12805	12805	12805	12805	12805	12805
CAZ	1655	1655	1655	1655	1655	1655	1655	1655	1655	1655
CHA	922	922	922	922	922	922	922	922	922	922
EUR	419	419	419	419	419	419	419	419	419	419
IND	310	310	310	310	310	310	310	310	310	310
JPN	35	35	35	35	35	35	35	35	35	35
LAM	2007	2007	2007	2007	2007	2007	2007	2007	2007	2007
MEA	1269	1269	1269	1269	1269	1269	1269	1269	1269	1269
NEU	151	151	151	151	151	151	151	151	151	151
OAS	831	831	831	831	831	831	831	831	831	831
REF	2110	2110	2110	2110	2110	2110	2110	2110	2110	2110
SSA	2199	2199	2199	2199	2199	2199	2199	2199	2199	2199
USA	896	896	896	896	896	896	896	896	896	896

Table 1540: MAgPIEown — Resources—Land Cover (million ha)





54.1 Cropland



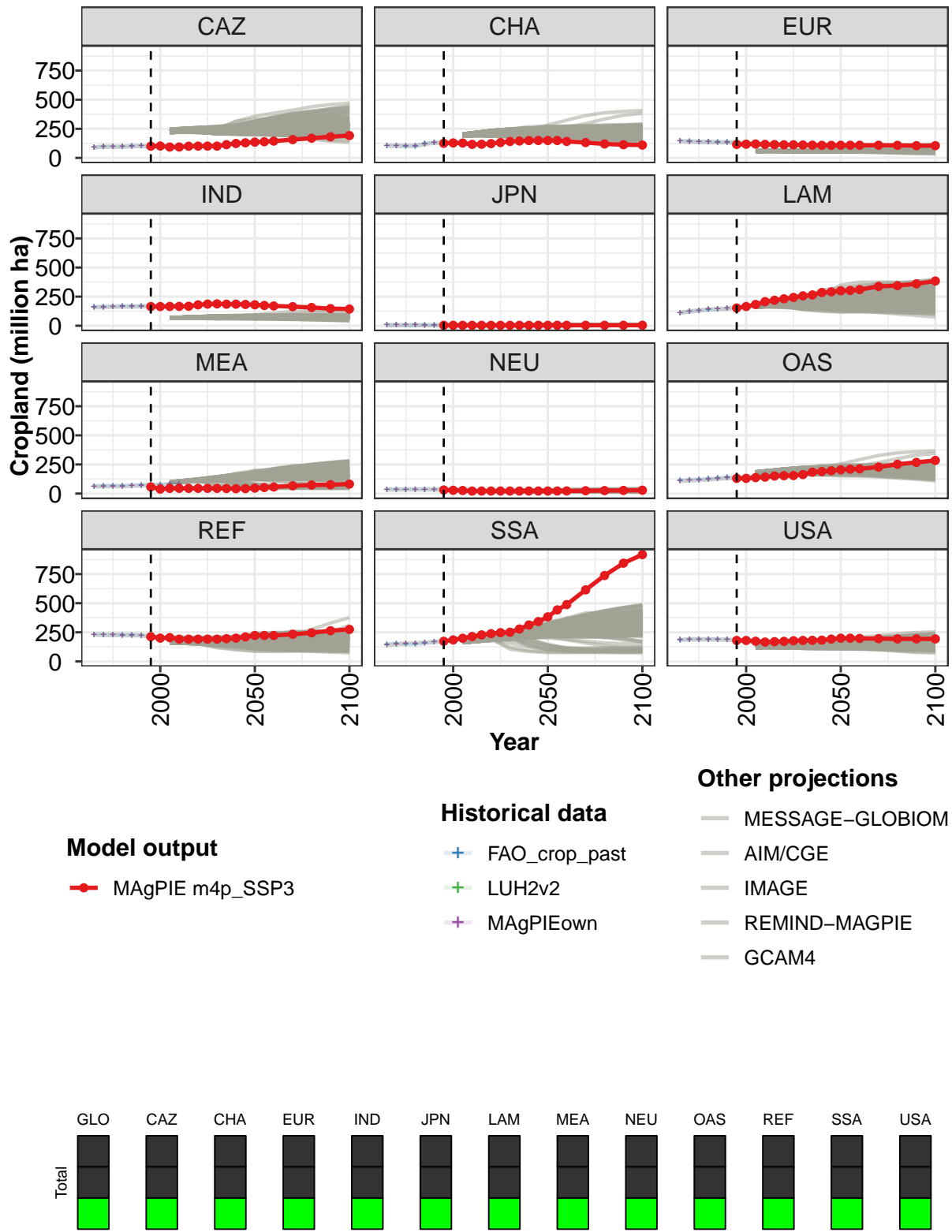


Figure 400: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1448	1444	1478	1484	1528	1573	1617	1654	1726	1804	1871
CAZ	101	102	93	94	100	101	102	102	114	124	130
CHA	126	129	128	116	117	123	132	141	145	149	149
EUR	116	118	119	116	114	113	113	111	110	108	108
IND	165	165	166	166	167	179	186	188	185	185	183
JPN	4	4	4	4	4	4	3	3	3	4	4
LAM	153	165	183	207	219	231	243	257	264	286	291
MEA	57	38	45	45	45	45	45	45	44	42	43
NEU	31	28	26	22	22	22	22	22	22	22	22
OAS	130	131	137	141	151	154	155	163	184	189	196
REF	213	200	205	191	191	191	191	191	195	200	211
SSA	173	184	199	214	228	238	247	251	278	313	342
USA	180	180	174	167	170	172	178	180	181	183	192

Table 1541: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland (million ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1956	2027	2079	2265	2430	2583	2720
CAZ	136	139	144	157	169	182	192
CHA	149	149	142	132	120	113	110
EUR	109	109	109	109	108	105	105
IND	180	174	170	164	157	147	143
JPN	4	4	4	4	4	4	4
LAM	300	303	311	338	345	360	384
MEA	47	52	57	67	74	76	82
NEU	22	22	22	24	26	27	29
OAS	204	210	212	228	252	268	285
REF	223	223	223	233	245	264	275
SSA	383	443	488	614	738	844	917
USA	200	199	197	195	193	193	193

Table 1542: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1390	1425	1430	1440	1489	1519	1523	1519	1539	1534
CAZ	91	98	96	97	102	103	94	101	102	92
CHA	105	103	101	100	126	132	131	130	125	123
EUR	147	144	140	139	138	136	131	129	123	120
IND	162	165	167	168	169	170	170	170	170	169
JPN	6	6	6	5	5	5	5	5	5	5
LAM	109	121	131	137	141	148	159	161	177	184
MEA	64	65	67	65	69	72	78	75	80	80
NEU	35	36	36	37	36	36	35	34	34	32
OAS	116	118	122	127	132	141	140	145	152	160
REF	231	227	227	226	226	223	217	203	200	198
SSA	146	153	150	148	156	166	179	188	203	214
USA	179	190	188	191	190	188	184	178	168	159

Table 1543: FAO_crop_past — Resources—Land Cover—Cropland (million ha)

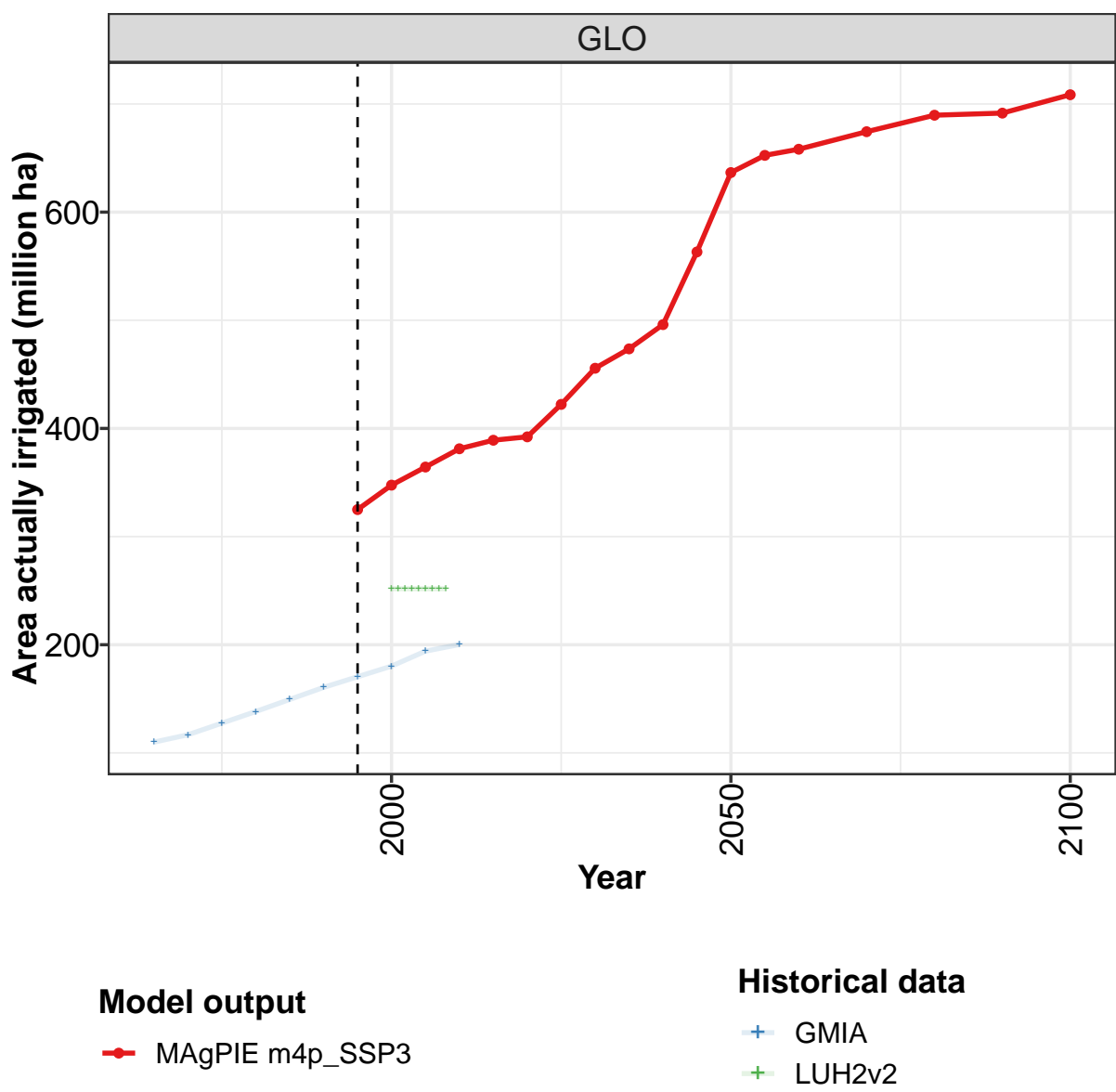
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1376	1404	1419	1434	1465	1497	1493	1489	1506	1510
CAZ	91	96	96	96	99	101	101	100	101	91
CHA	104	104	104	103	117	130	129	128	130	122
EUR	143	140	138	135	134	133	130	127	119	118
IND	158	160	162	163	164	165	166	167	169	168
JPN	5	5	5	5	5	5	4	4	4	4
LAM	112	124	132	140	144	148	154	160	165	182
MEA	62	63	63	64	67	70	72	75	79	78
NEU	34	35	36	36	36	35	34	33	33	31
OAS	108	112	116	120	126	132	134	136	141	150
REF	230	227	226	225	224	223	213	203	199	196
SSA	142	149	153	157	162	168	173	179	197	212
USA	187	190	190	190	188	186	182	178	167	158

Table 1544: LUH2v2 — Resources—Land Cover—Cropland (million ha)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1376	1404	1419	1434	1465	1497	1493	1489	1506	1510
CAZ	91	96	96	96	99	101	101	100	101	91
CHA	104	104	104	103	117	130	129	128	130	122
EUR	143	140	138	135	134	133	130	127	119	118
IND	158	160	162	163	164	165	166	167	169	168
JPN	5	5	5	5	5	5	4	4	4	4
LAM	112	124	132	140	144	148	154	160	165	182
MEA	62	63	63	64	67	70	72	75	79	78
NEU	34	35	36	36	36	35	34	33	33	31
OAS	108	112	116	120	126	132	134	136	141	150
REF	230	227	226	225	224	223	213	203	199	196
SSA	142	149	153	157	162	168	173	179	197	212
USA	187	190	190	190	188	186	182	178	167	158

Table 1545: MAgPIEown — Resources—Land Cover—Cropland (million ha)

54.1.1 Area actually irrigated



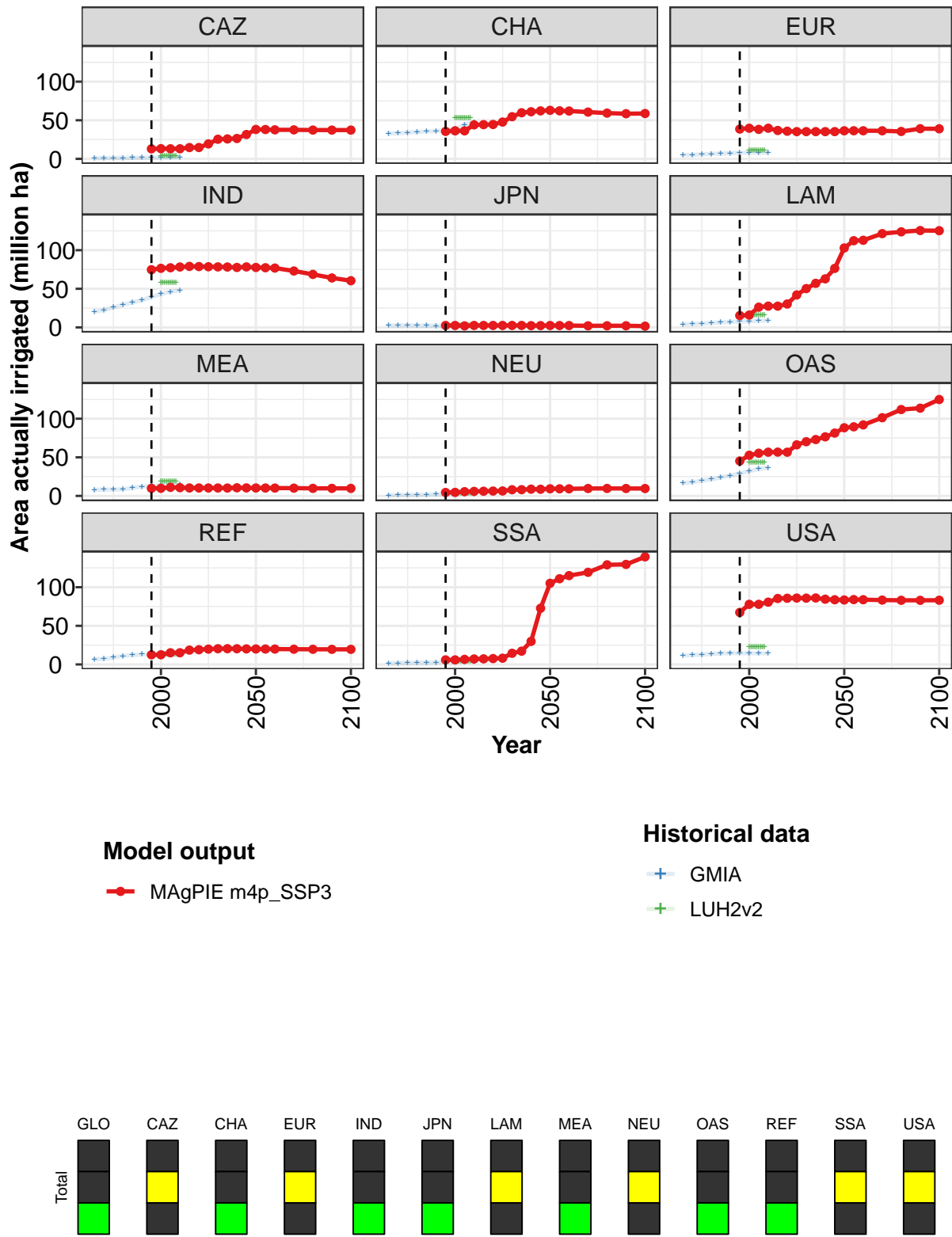


Figure 401: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Area actually irrigated (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	325	348	364	381	389	392	422	456	474	496	563
CAZ	13	13	13	13	15	15	19	25	26	26	32
CHA	36	36	36	44	44	45	48	55	60	61	62
EUR	39	40	38	40	37	36	35	35	35	35	35
IND	75	77	77	78	79	79	79	78	78	78	78
JPN	3	3	2	3	3	3	3	3	3	2	2
LAM	15	16	26	28	27	30	42	50	57	63	76
MEA	10	10	11	11	10	10	10	10	10	11	10
NEU	4	5	5	6	6	6	6	8	8	9	9
OAS	45	53	55	57	57	57	66	70	73	77	81
REF	12	13	15	15	19	19	20	20	20	20	20
SSA	6	6	7	7	7	8	8	14	17	30	73
USA	67	78	78	81	85	86	86	86	86	85	84

Table 1546: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Area actually irrigated (million ha)
[PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	637	652	658	674	690	692	709
CAZ	38	38	38	38	37	37	37
CHA	63	62	62	61	59	58	59
EUR	36	36	36	36	36	39	39
IND	78	77	77	73	69	64	60
JPN	2	2	2	2	2	2	2
LAM	103	112	113	121	124	125	125
MEA	10	10	10	10	10	10	10
NEU	9	9	9	10	10	10	10
OAS	88	89	92	101	112	114	125
REF	20	20	20	20	20	20	20
SSA	105	111	115	119	129	130	139
USA	83	84	84	83	83	83	83

Table 1547: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Area actually irrigated (million ha)
[PART 2/2]

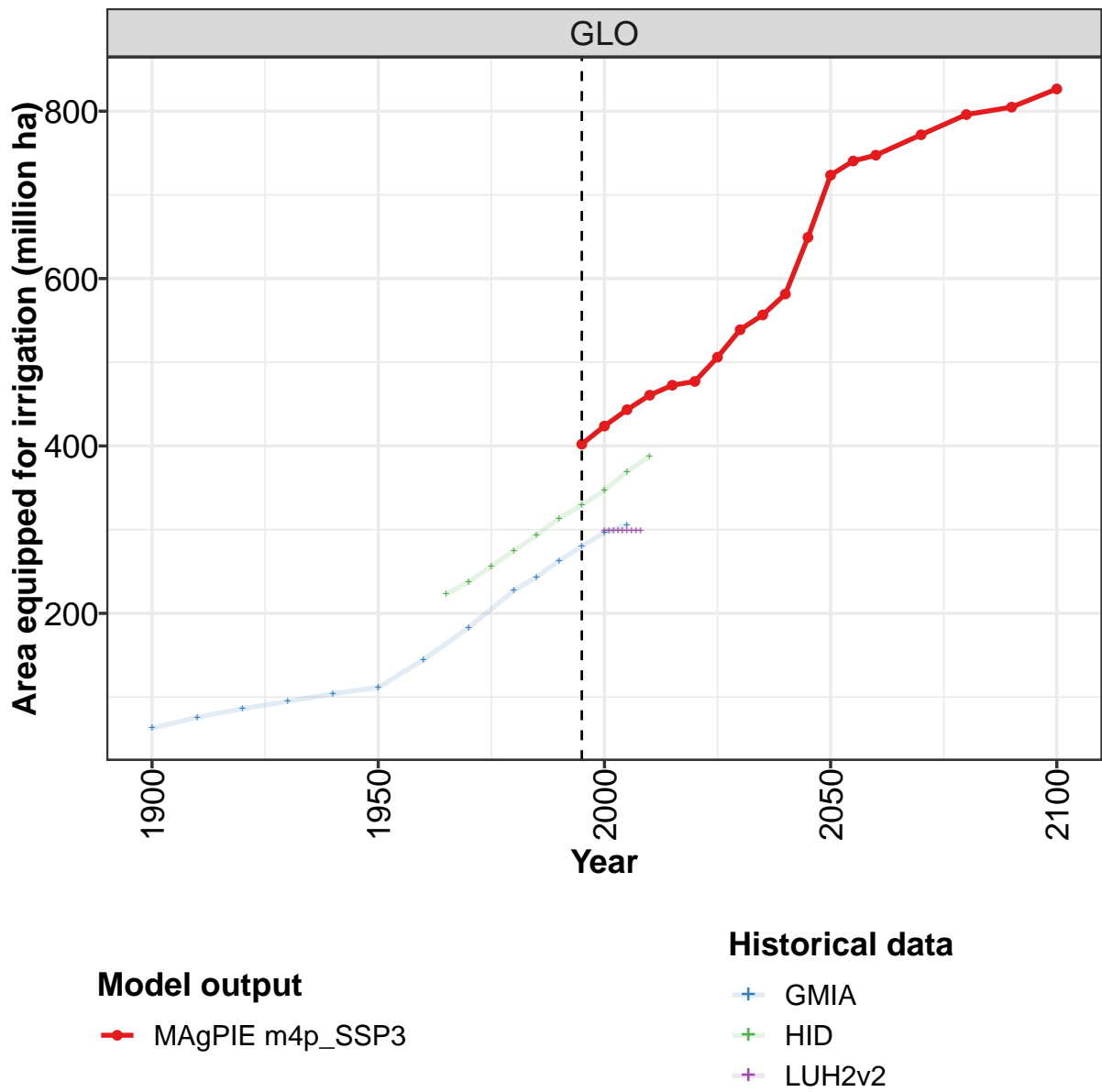
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	110	117	128	138	149	161	170	180	194	200
CAZ	1	1	1	1	1	2	2	2	2	2
CHA	33	33	34	35	35	36	37	39	44	47
EUR	5	5	6	6	7	7	8	8	8	8
IND	20	22	26	29	32	35	39	43	46	48
JPN	2	3	2	2	2	2	2	2	2	2
LAM	4	4	5	6	6	7	8	8	9	9
MEA	8	8	8	9	10	12	13	14	15	15
NEU	1	1	1	1	2	2	2	3	3	3
OAS	16	18	20	21	24	26	29	32	35	36
REF	7	7	9	11	12	13	13	12	12	12
SSA	2	2	2	2	2	3	3	3	3	4
USA	11	12	13	14	14	15	15	15	14	14

Table 1548: LUH2v2 — Resources—Land Cover—Cropland—Area actually irrigated (million ha)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
GLO	252	252	252	252	252	252	252	252	252
CAZ	4	4	4	4	4	4	4	4	4
CHA	53	53	53	53	53	53	53	53	53
EUR	11	11	11	11	11	11	11	11	11
IND	58	58	58	58	58	58	58	58	58
JPN	3	3	3	3	3	3	3	3	3
LAM	16	16	16	16	16	16	16	16	16
MEA	19	19	19	19	19	19	19	19	19
NEU	4	4	4	4	4	4	4	4	4
OAS	43	43	43	43	43	43	43	43	43
REF	13	13	13	13	13	13	13	13	13
SSA	5	5	5	5	5	5	5	5	5
USA	22	22	22	22	22	22	22	22	22

Table 1549: GMIA — Resources—Land Cover—Cropland—Area actually irrigated (million ha)

54.1.2 Area equipped for irrigation



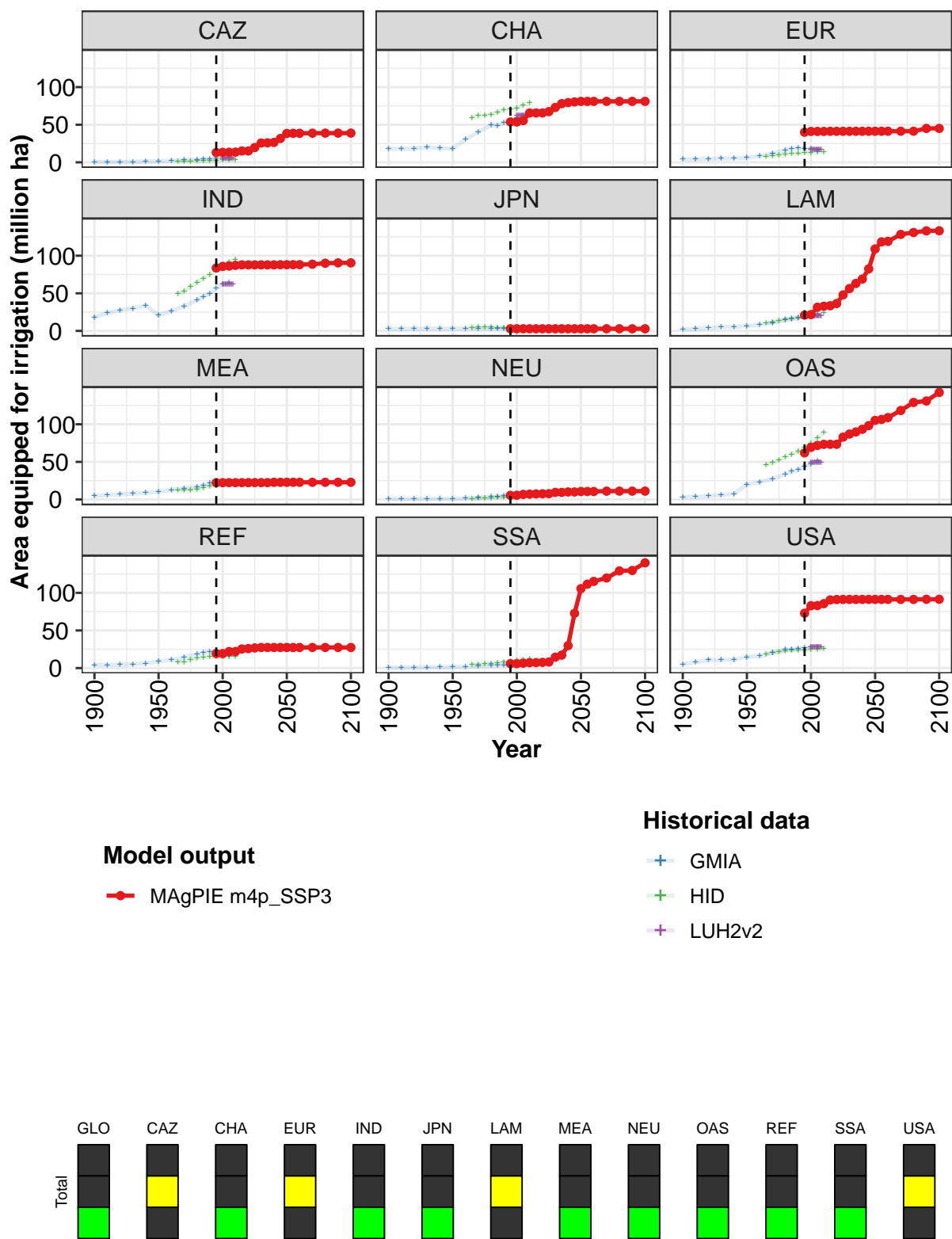


Figure 402: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Area equipped for irrigation (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	402	424	443	461	473	477	506	539	557	582	649
CAZ	13	13	13	14	15	15	20	26	26	26	32
CHA	54	54	56	66	66	66	67	73	78	79	80
EUR	40	41	41	41	41	41	41	41	41	41	41
IND	84	86	86	87	88	88	88	88	88	88	88
JPN	3	3	3	3	3	3	3	3	3	3	3
LAM	21	22	32	33	33	36	48	56	63	69	82
MEA	22	22	22	22	22	22	22	22	22	23	23
NEU	5	6	7	7	7	8	8	9	9	10	10
OAS	62	69	72	73	73	73	83	87	90	93	98
REF	19	19	22	22	25	26	27	27	27	27	27
SSA	6	6	7	7	7	8	8	14	17	30	73
USA	73	83	83	86	91	91	91	91	91	91	91

Table 1550: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Area equipped for irrigation (million ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	724	740	747	772	796	805	827
CAZ	38	39	39	39	39	39	39
CHA	81	81	81	81	81	81	81
EUR	41	41	41	41	41	45	45
IND	88	88	88	89	90	90	90
JPN	3	3	3	3	3	3	3
LAM	109	118	119	128	131	133	133
MEA	23	23	23	23	23	23	23
NEU	11	11	11	11	11	11	11
OAS	105	106	109	118	129	131	142
REF	27	27	27	27	27	27	27
SSA	106	112	115	120	129	130	140
USA	91	91	91	91	91	91	91

Table 1551: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Area equipped for irrigation (million ha) [PART 2/2]

	1900	1910	1920	1930	1940	1950	1960	1970	1980	1985	1990
GLO	63	76	86	95	104	111	144	183	227	243	263
CAZ	0	0	0	1	1	1	2	3	4	4	5
CHA	18	18	18	20	19	18	30	40	49	49	52
EUR	4	4	5	5	5	6	8	12	16	18	19
IND	18	24	28	30	34	21	27	33	41	46	49
JPN	3	3	3	3	3	3	3	3	3	3	3
LAM	2	3	4	5	6	6	8	11	14	16	17
MEA	5	6	7	8	9	10	13	15	17	18	21
NEU	1	1	1	1	1	1	1	2	3	4	5
OAS	3	4	5	6	8	20	23	27	33	37	39
REF	4	4	4	5	6	9	11	14	18	20	22
SSA	1	1	1	1	1	2	2	2	3	4	4
USA	4	8	11	11	11	15	16	20	25	24	26

Table 1552: HID — Resources—Land Cover—Cropland—Area equipped for irrigation (million ha) [PART 1/2]

	1995	2000	2005
GLO	280	297	306
CAZ	6	5	6
CHA	54	59	62
EUR	18	18	16
IND	57	62	65
JPN	3	3	3
LAM	19	20	21
MEA	23	24	24
NEU	5	6	6
OAS	44	47	51
REF	21	20	17
SSA	5	5	5
USA	26	28	28

Table 1553: HID — Resources—Land Cover—Cropland—Area equipped for irrigation (million ha) [PART 2/2]

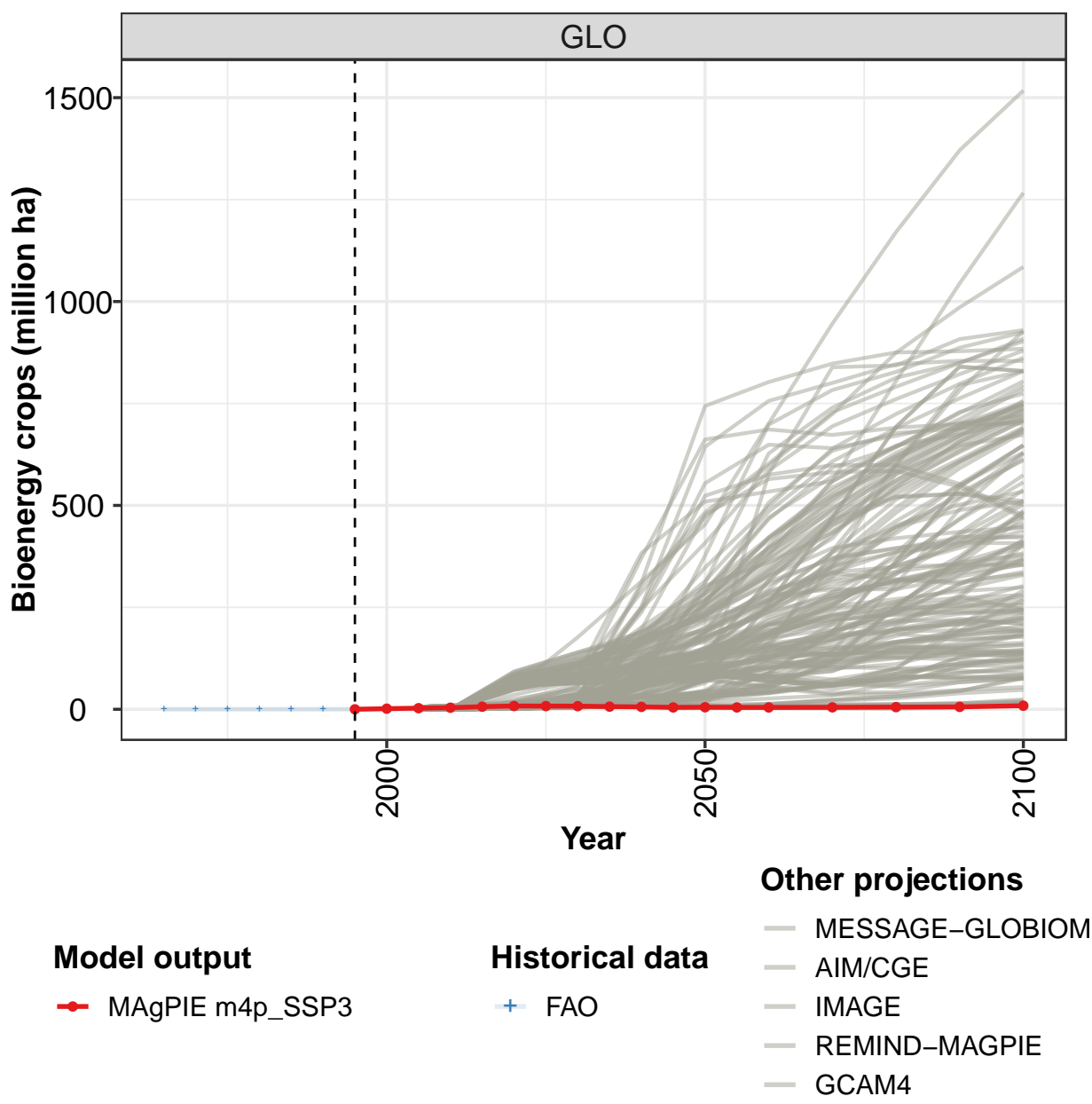
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	223	238	256	275	293	313	329	347	369	388
CAZ	1	1	2	2	2	2	3	3	3	3
CHA	59	62	63	64	66	70	70	72	76	79
EUR	8	9	10	11	11	12	12	13	14	14
IND	49	53	59	65	70	75	81	87	92	95
JPN	5	5	5	5	5	5	4	4	4	4
LAM	11	12	14	16	17	18	19	20	22	24
MEA	12	13	13	13	15	18	19	20	22	23
NEU	1	1	2	2	3	3	4	4	4	4
OAS	46	49	53	56	60	64	69	74	82	89
REF	8	8	11	13	14	15	15	15	15	15
SSA	4	5	5	6	7	8	9	10	11	12
USA	19	20	22	23	23	24	24	25	25	25

Table 1554: LUH2v2 — Resources—Land Cover—Cropland—Area equipped for irrigation (million ha)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
GLO	299	299	299	299	299	299	299	299	299
CAZ	5	5	5	5	5	5	5	5	5
CHA	62	62	62	62	62	62	62	62	62
EUR	17	17	17	17	17	17	17	17	17
IND	62	62	62	62	62	62	62	62	62
JPN	3	3	3	3	3	3	3	3	3
LAM	20	20	20	20	20	20	20	20	20
MEA	23	23	23	23	23	23	23	23	23
NEU	6	6	6	6	6	6	6	6	6
OAS	50	50	50	50	50	50	50	50	50
REF	19	19	19	19	19	19	19	19	19
SSA	5	5	5	5	5	5	5	5	5
USA	28	28	28	28	28	28	28	28	28

Table 1555: GMIA — Resources—Land Cover—Cropland—Area equipped for irrigation (million ha)

54.1.3 Bioenergy crops



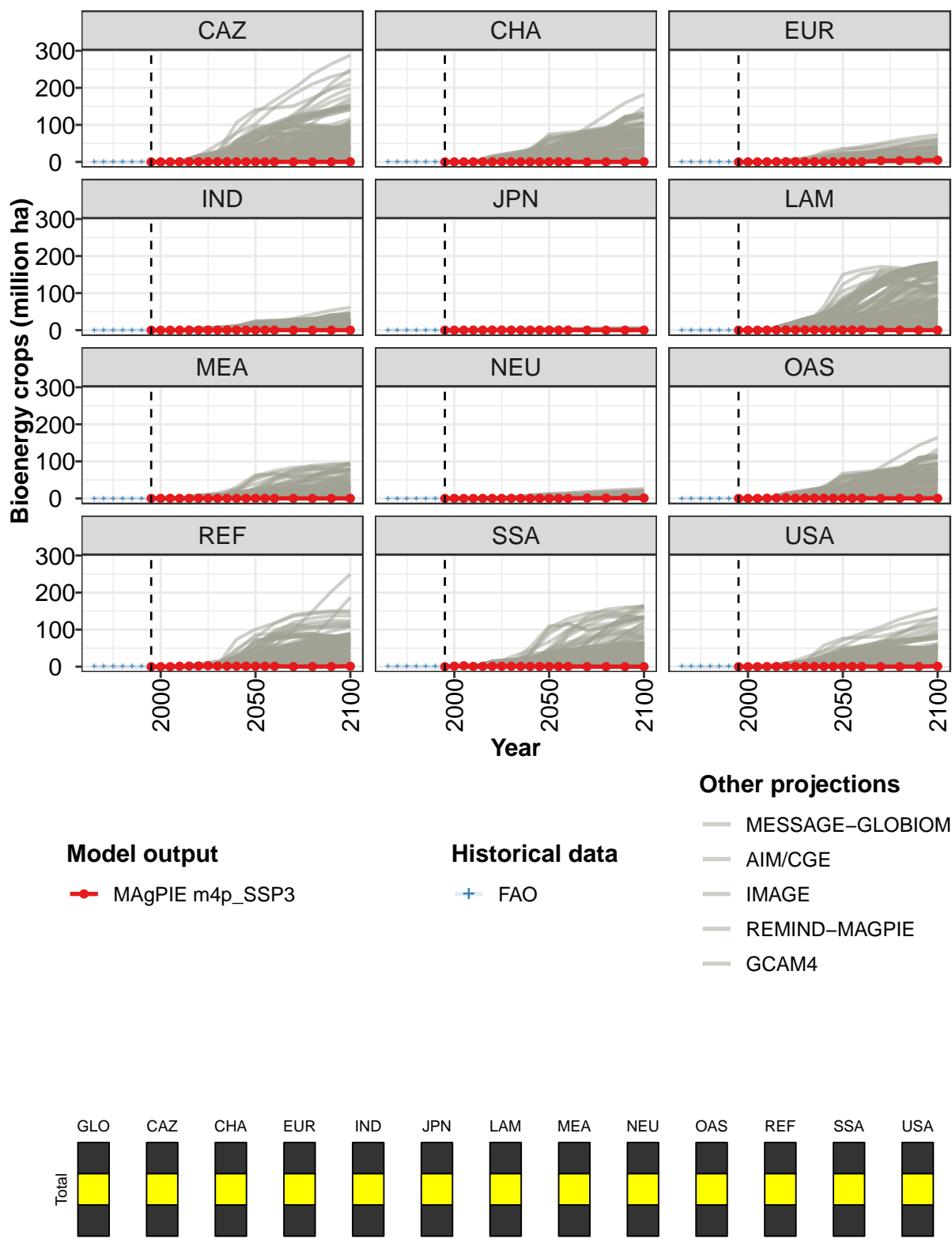


Figure 403: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Bioenergy crops (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.00	1.52	2.72	3.88	6.40	8.04	7.85	7.70	6.46	5.89	4.53
CAZ	0.00	0.00	0.00	0.25	0.42	0.51	0.49	0.50	0.40	0.37	0.29
CHA	0.00	0.00	0.00	0.11	0.20	0.27	0.31	0.38	0.33	0.31	0.25
EUR	0.00	0.00	0.00	0.22	0.40	0.54	0.56	0.69	0.50	0.48	0.39
IND	0.00	0.00	0.00	0.14	0.25	0.31	0.30	0.30	0.24	0.21	0.15
JPN	0.00	0.00	0.00	0.13	0.23	0.30	0.30	0.30	0.27	0.26	0.21
LAM	0.00	0.00	0.00	0.24	0.48	0.67	0.75	0.92	0.73	0.67	0.55
MEA	0.00	0.20	0.30	0.09	0.12	0.14	0.12	0.18	0.14	0.06	0.04
NEU	0.00	0.00	0.00	0.05	0.10	0.13	0.13	0.17	0.11	0.11	0.09
OAS	0.00	0.00	0.00	0.52	1.06	1.47	0.61	0.80	0.85	0.75	0.46
REF	0.00	0.00	0.00	1.06	1.63	1.93	2.58	1.75	1.52	1.44	1.20
SSA	0.00	1.32	2.41	0.71	0.96	1.10	1.06	1.08	0.81	0.71	0.52
USA	0.00	0.00	0.00	0.34	0.56	0.68	0.65	0.64	0.55	0.51	0.38

Table 1556: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Bioenergy crops (million ha) [PART 1/2]

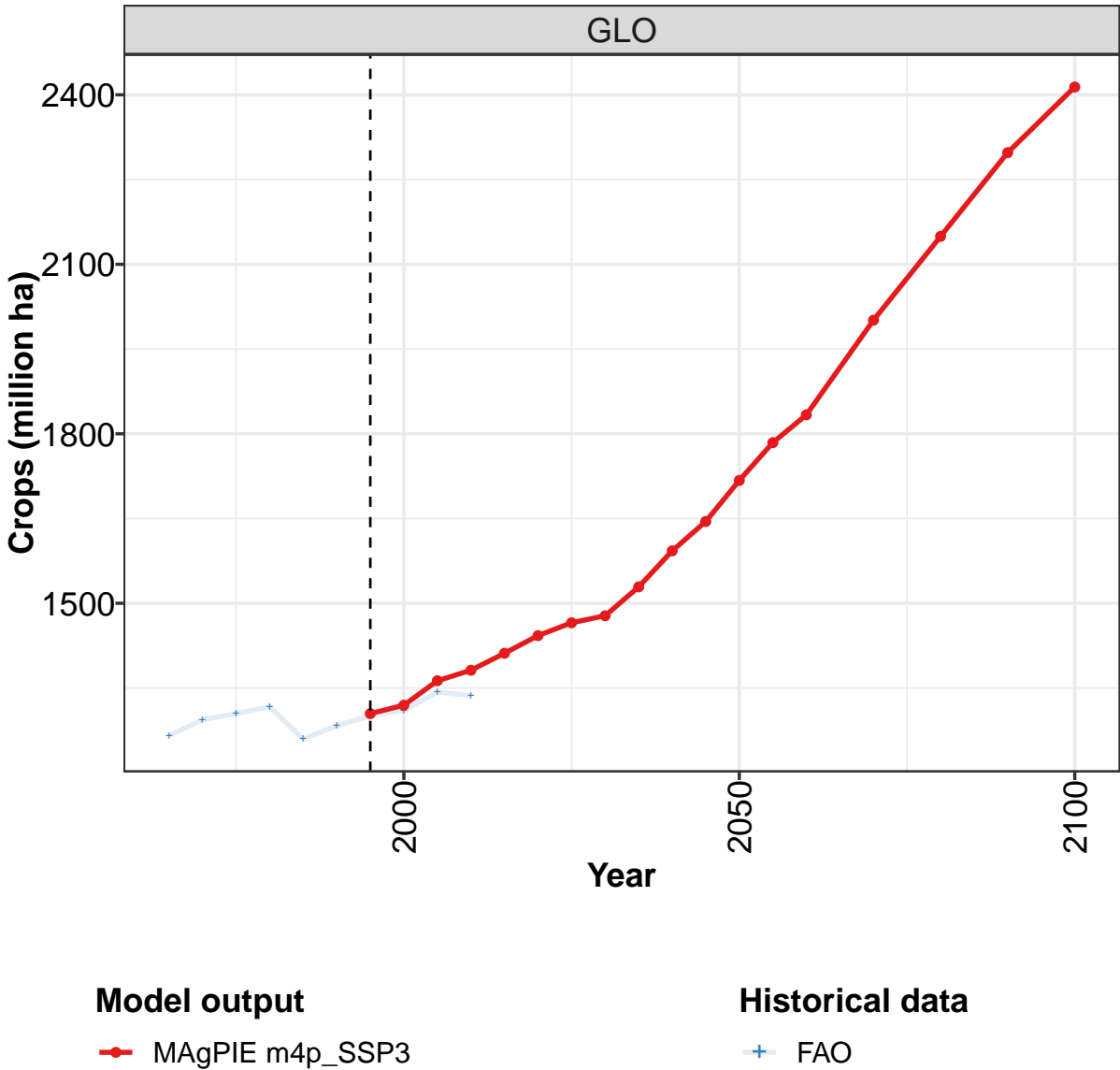
	2050	2055	2060	2070	2080	2090	2100
GLO	5.01	4.58	4.47	4.76	5.32	5.89	8.75
CAZ	0.34	0.31	0.31	0.07	0.10	0.15	0.39
CHA	0.27	0.24	0.22	0.00	0.04	0.09	0.35
EUR	0.46	0.45	0.48	3.19	3.47	3.94	4.66
IND	0.15	0.13	0.12	0.05	0.06	0.03	0.06
JPN	0.24	0.22	0.22	0.09	0.10	0.12	0.12
LAM	0.60	0.56	0.54	0.25	0.08	0.00	0.01
MEA	0.05	0.04	0.04	0.01	0.01	0.00	0.00
NEU	0.10	0.10	0.10	0.69	0.77	0.90	1.11
OAS	0.51	0.46	0.46	0.14	0.31	0.16	0.17
REF	1.25	1.13	1.06	0.16	0.27	0.34	0.88
SSA	0.57	0.50	0.49	0.11	0.06	0.00	0.00
USA	0.46	0.44	0.43	0.00	0.05	0.16	1.00

Table 1557: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Bioenergy crops (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0	0	0	0	0	0	0	0	0	0
CAZ	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0
OAS	0	0	0	0	0	0	0	0	0	0
REF	0	0	0	0	0	0	0	0	0	0
SSA	0	0	0	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	0	0

Table 1558: FAO — Resources—Land Cover—Cropland—Bioenergy crops (million ha)

54.1.4 Crops



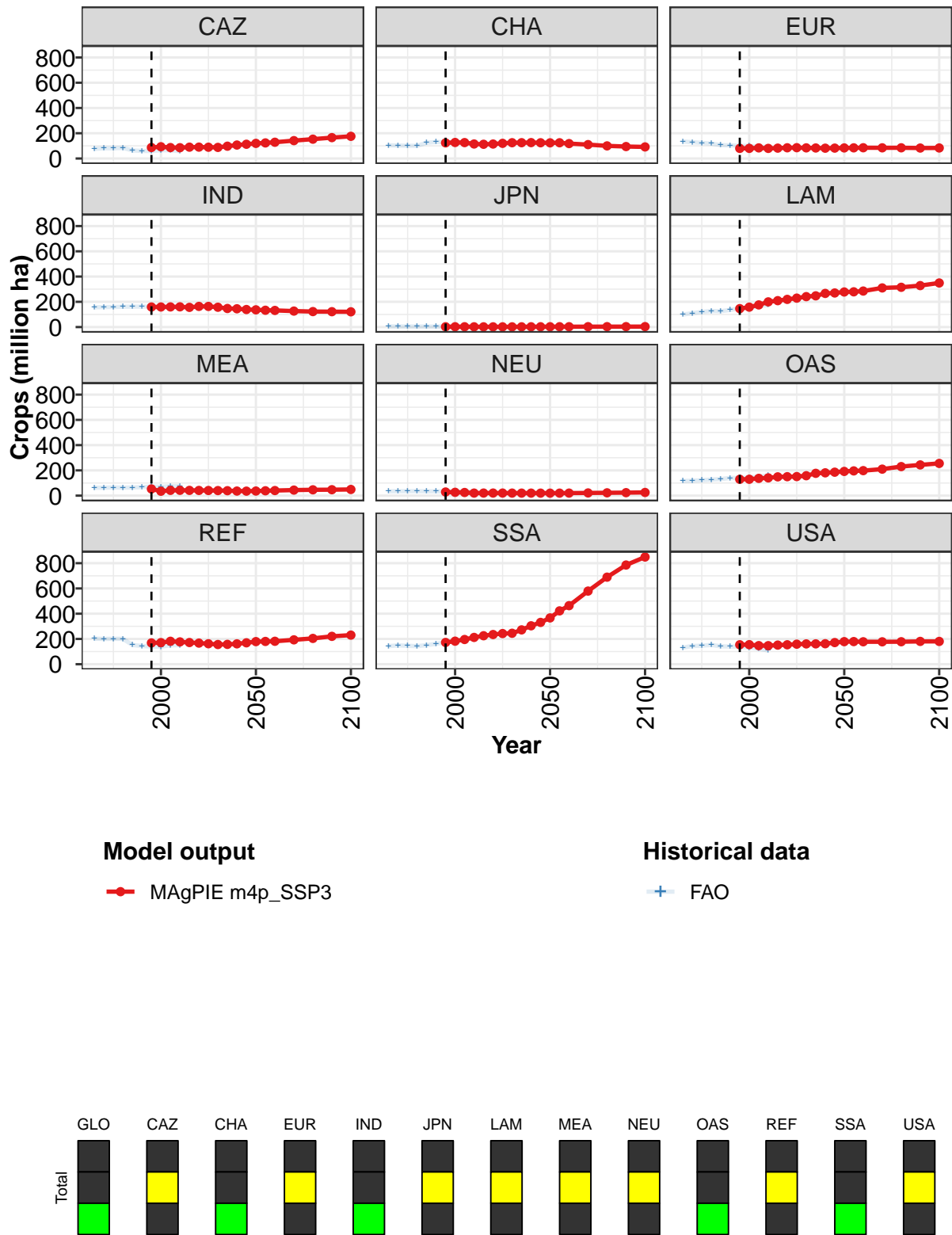


Figure 404: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1305	1320	1363	1381	1412	1443	1466	1478	1529	1593	1645
CAZ	87	93	87	85	90	90	89	88	97	107	113
CHA	124	127	126	115	113	115	120	125	125	126	125
EUR	80	80	84	80	82	85	86	84	83	82	82
IND	159	159	160	160	156	164	164	157	147	145	139
JPN	3	2	3	2	2	2	2	2	2	2	3
LAM	146	158	176	200	209	219	229	241	247	267	270
MEA	53	35	42	42	42	41	41	40	39	36	36
NEU	29	26	25	20	20	20	20	20	20	20	20
OAS	129	130	137	141	149	150	151	158	177	181	186
REF	169	171	182	177	172	167	162	156	157	161	169
SSA	172	182	196	212	226	235	243	245	272	304	331
USA	154	155	147	147	151	154	159	161	161	162	171

Table 1559: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops (million ha) [PART 1/2]

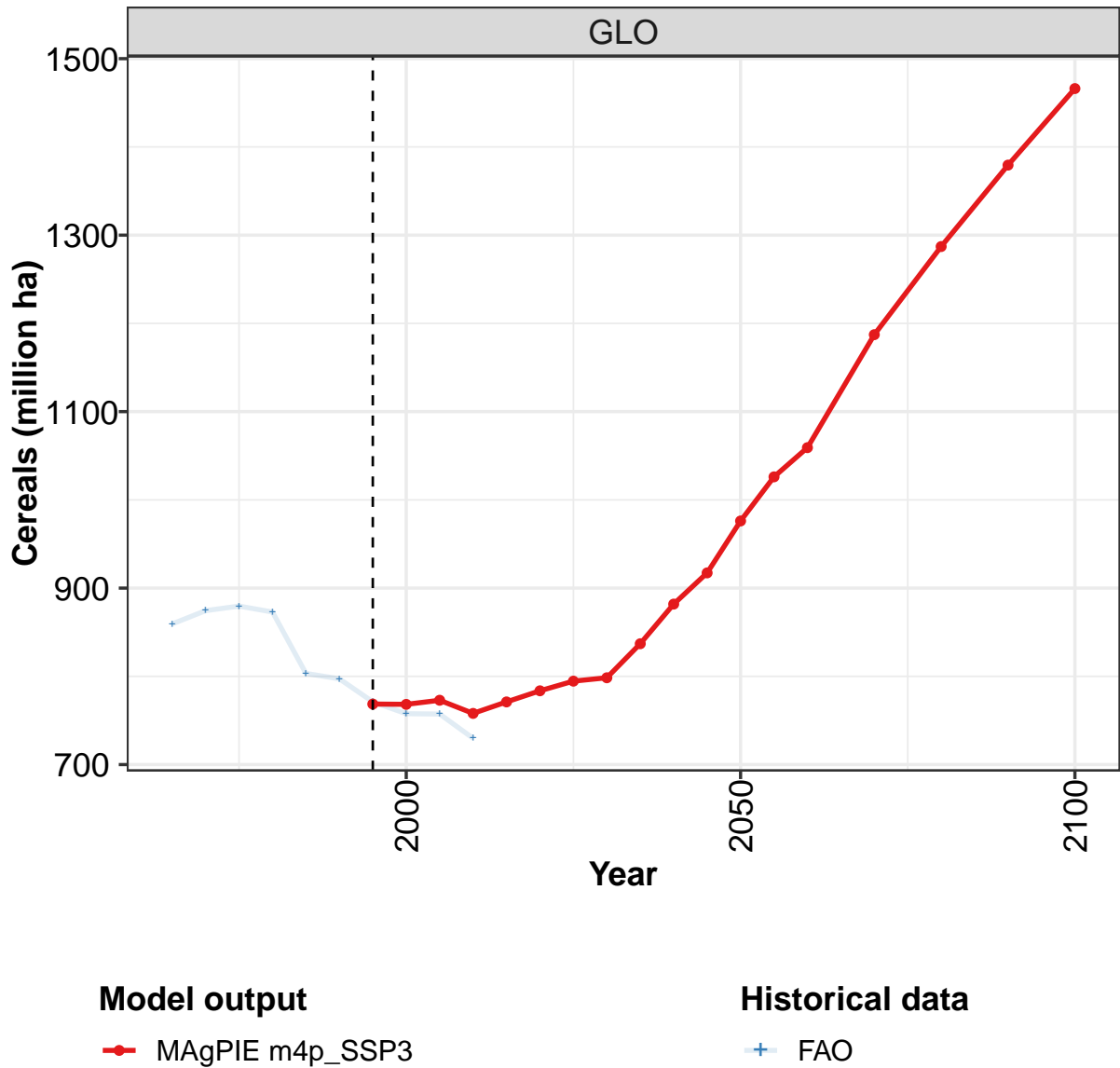
	2050	2055	2060	2070	2080	2090	2100
GLO	1717	1784	1834	2001	2149	2298	2414
CAZ	120	123	129	142	153	165	176
CHA	124	125	118	110	100	95	92
EUR	84	84	85	85	85	83	83
IND	137	133	132	127	123	122	121
JPN	3	3	3	3	3	4	4
LAM	278	279	285	310	315	329	349
MEA	36	38	40	44	46	47	49
NEU	20	20	20	21	22	24	25
OAS	192	196	198	210	230	243	255
REF	179	180	182	193	204	221	230
SSA	367	422	464	579	689	785	849
USA	179	179	178	177	178	181	181

Table 1560: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1266	1294	1305	1317	1260	1283	1301	1311	1343	1337
CAZ	77	81	81	84	64	60	59	66	65	58
CHA	105	103	101	100	124	131	129	128	124	121
EUR	135	129	123	118	106	104	100	99	94	91
IND	156	158	159	161	162	162	162	162	161	160
JPN	6	5	5	4	4	4	4	4	4	3
LAM	99	110	120	127	125	136	148	152	167	174
MEA	62	63	65	63	64	67	73	69	75	74
NEU	34	35	35	36	34	34	33	32	32	29
OAS	115	118	122	127	131	140	139	145	152	160
REF	202	200	202	201	152	144	139	138	150	151
SSA	143	149	146	143	151	161	175	183	198	208
USA	132	144	147	153	142	140	139	133	122	109

Table 1561: FAO — Resources—Land Cover—Cropland—Crops (million ha)

54.1.5 Crops—Cereals



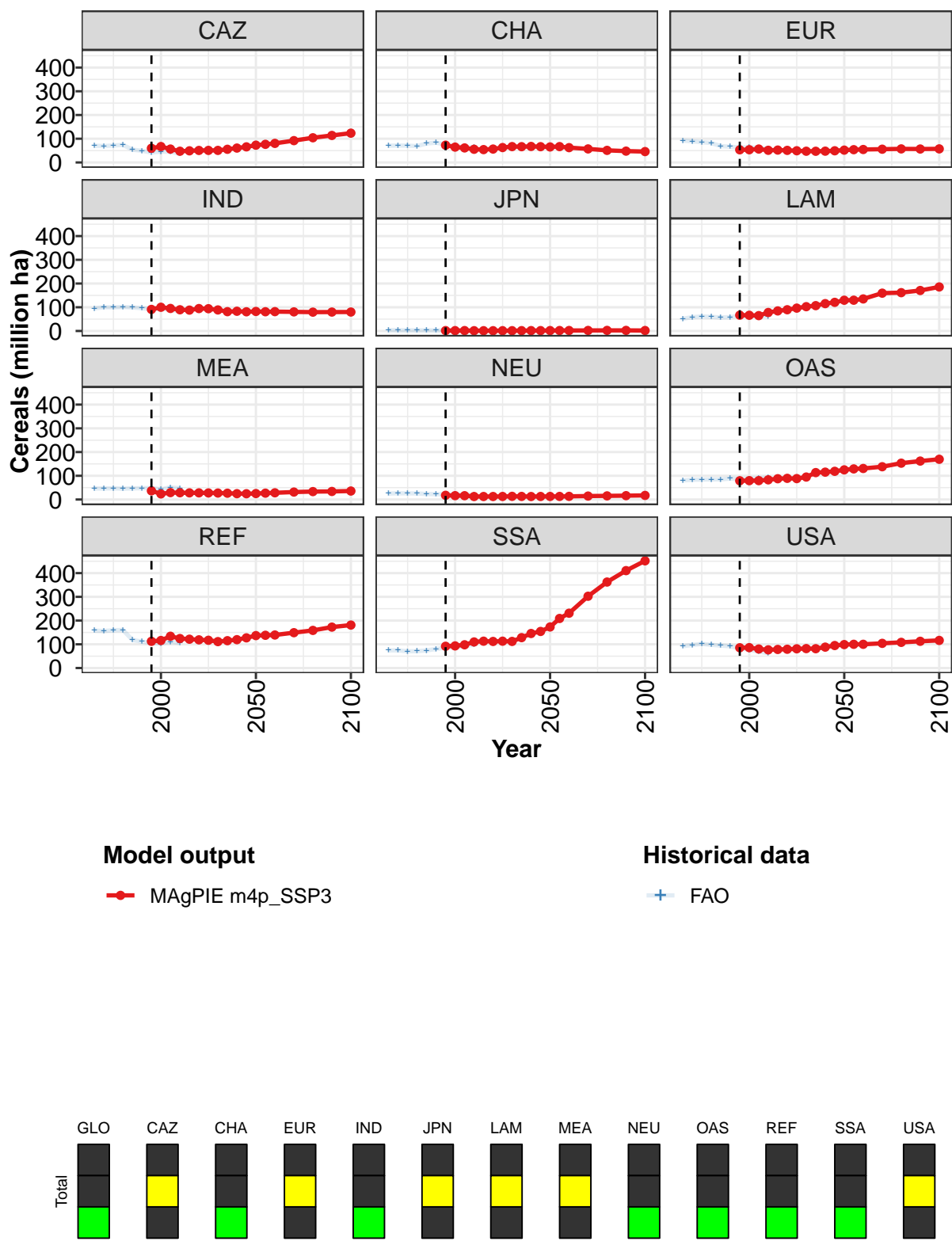


Figure 405: MAGPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	769	768	773	758	771	784	795	798	837	882	917
CAZ	60	67	56	47	49	51	51	51	56	61	66
CHA	73	65	61	56	54	57	63	67	67	68	67
EUR	53	54	57	51	52	51	49	47	47	48	49
IND	91	100	95	89	88	95	94	89	81	83	81
JPN	2	2	2	1	1	1	1	1	1	2	2
LAM	67	66	65	78	85	90	96	102	107	115	121
MEA	37	24	29	29	28	28	28	27	27	25	24
NEU	18	16	16	13	13	13	13	13	13	13	13
OAS	79	80	80	83	88	89	88	95	113	115	119
REF	113	116	134	124	121	119	117	111	115	120	127
SSA	92	93	98	110	113	112	113	112	128	146	154
USA	86	86	80	77	78	79	81	82	81	88	95

Table 1562: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals (million ha) [PART 1/2]

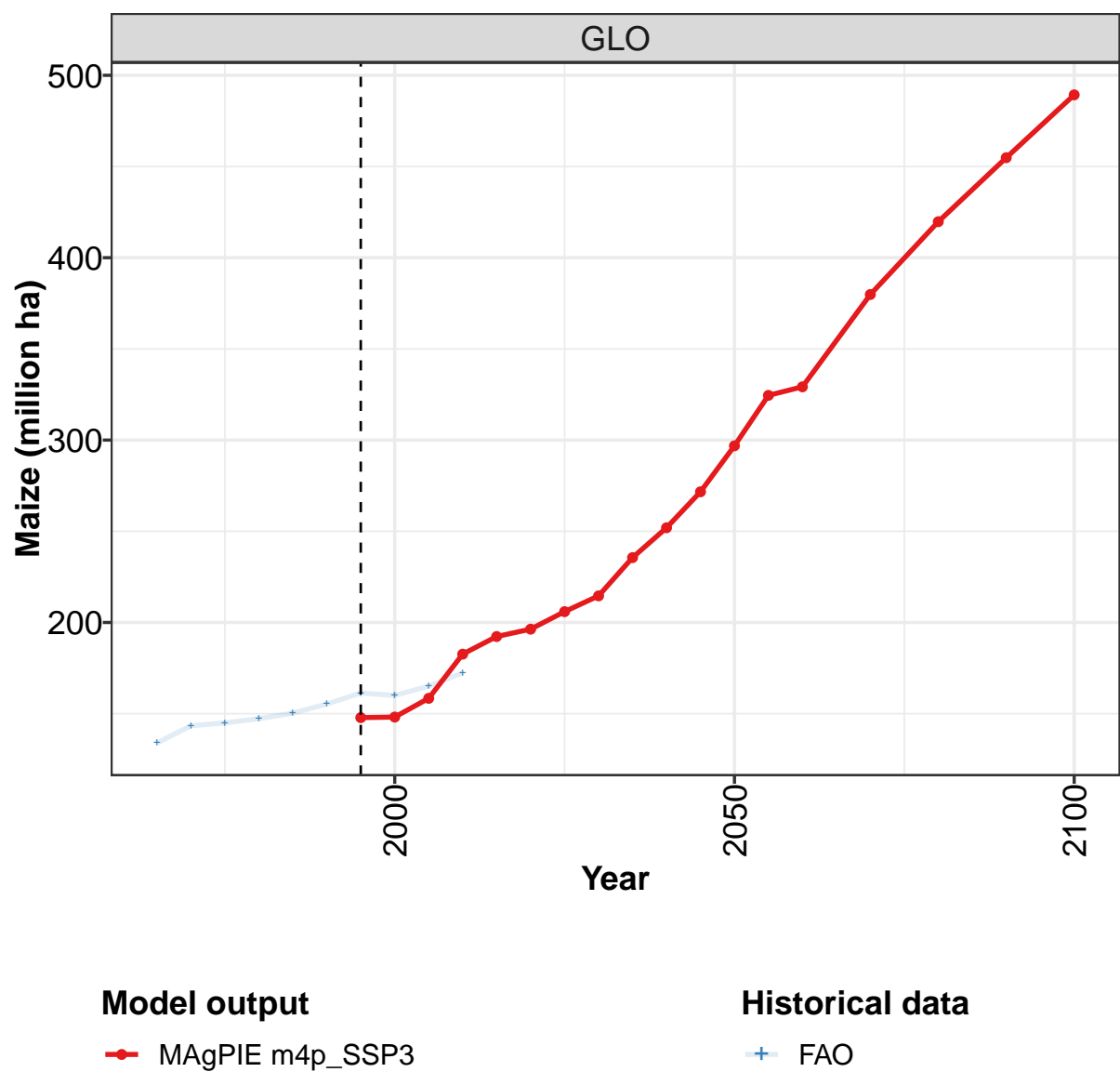
	2050	2055	2060	2070	2080	2090	2100
GLO	976	1026	1059	1187	1287	1379	1466
CAZ	73	76	80	92	104	114	124
CHA	65	67	63	57	51	48	46
EUR	52	54	55	56	57	57	57
IND	82	81	82	81	79	80	80
JPN	2	2	2	2	2	2	2
LAM	130	130	135	159	162	171	186
MEA	25	27	28	31	33	34	36
NEU	13	13	13	15	15	16	17
OAS	125	129	131	138	153	162	170
REF	137	138	139	149	159	172	181
SSA	173	209	231	303	362	411	452
USA	99	100	100	104	108	113	116

Table 1563: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	859	874	880	873	803	797	771	758	757	730
CAZ	70	69	71	74	54	49	42	46	45	36
CHA	71	71	71	69	80	83	76	69	64	64
EUR	92	89	85	82	69	66	63	64	61	57
IND	96	100	100	101	99	96	91	94	89	84
JPN	4	3	3	3	3	3	3	2	2	2
LAM	52	58	61	60	57	58	64	63	62	61
MEA	46	46	47	45	47	48	49	43	51	47
NEU	25	26	26	25	23	22	22	21	21	19
OAS	80	83	84	85	85	88	86	88	89	93
REF	158	156	159	160	118	111	106	104	111	106
SSA	74	74	71	71	74	81	86	87	93	98
USA	92	97	102	98	95	91	84	77	70	62

Table 1564: FAO — Resources—Land Cover—Cropland—Crops—Cereals (million ha)

54.1.6 Crops—Cereals—Maize



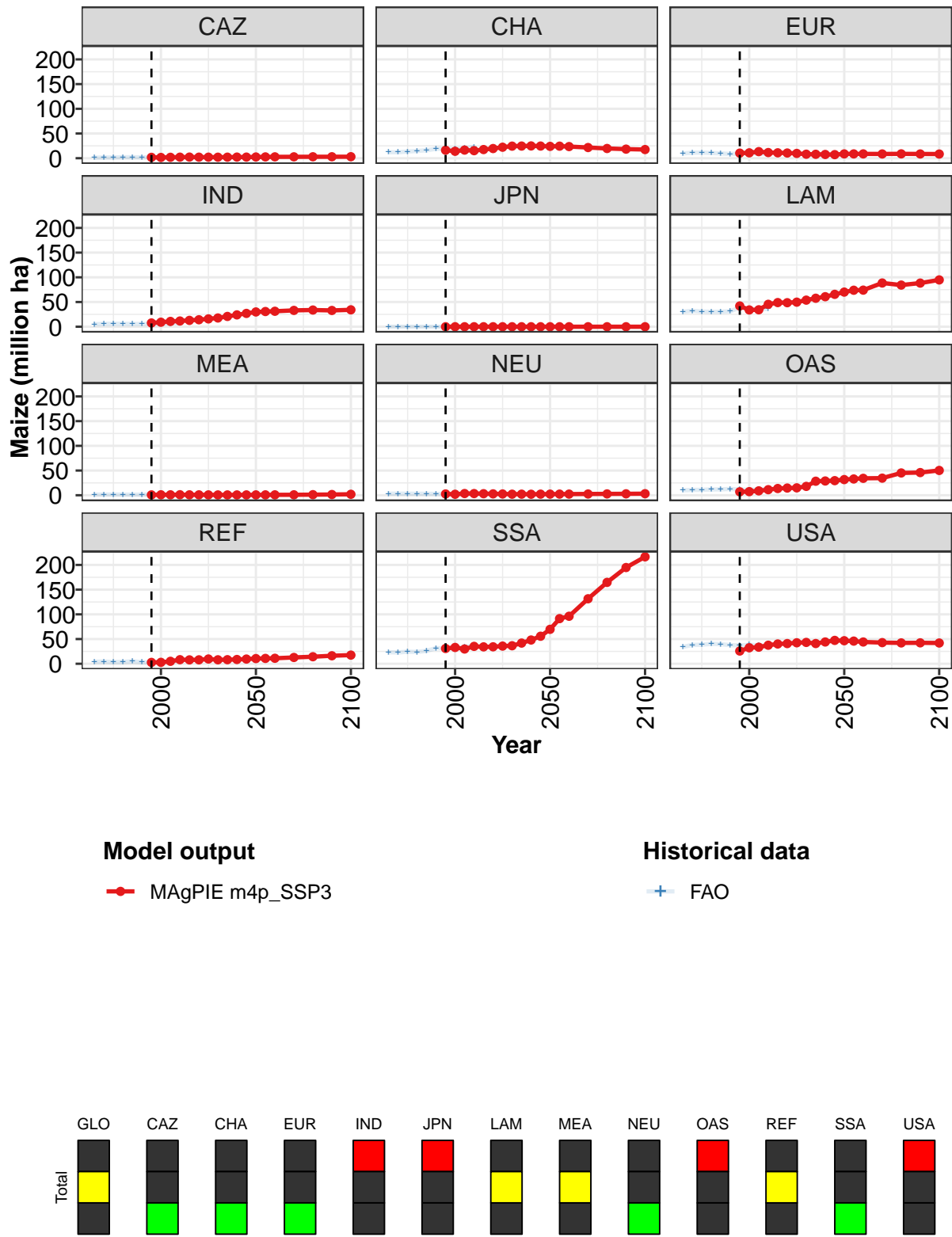


Figure 406: MAGPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals—Maize (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	148	148	158	183	192	196	206	215	236	252	272
CAZ	2	2	2	2	2	2	2	2	2	2	2
CHA	16	14	16	15	18	20	22	24	25	25	25
EUR	10	11	13	11	11	11	10	8	8	8	7
IND	8	9	11	12	13	14	16	18	21	24	27
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	42	34	34	45	49	49	50	54	58	61	66
MEA	1	1	1	1	1	1	1	1	1	1	1
NEU	3	2	3	3	3	3	3	2	2	2	2
OAS	7	7	9	11	14	15	15	18	28	29	30
REF	3	3	5	8	8	8	10	8	8	9	10
SSA	31	33	30	35	34	34	36	36	42	48	56
USA	26	32	34	38	40	41	42	43	41	44	47

Table 1565: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals—Maize (million ha)
[PART 1/2]

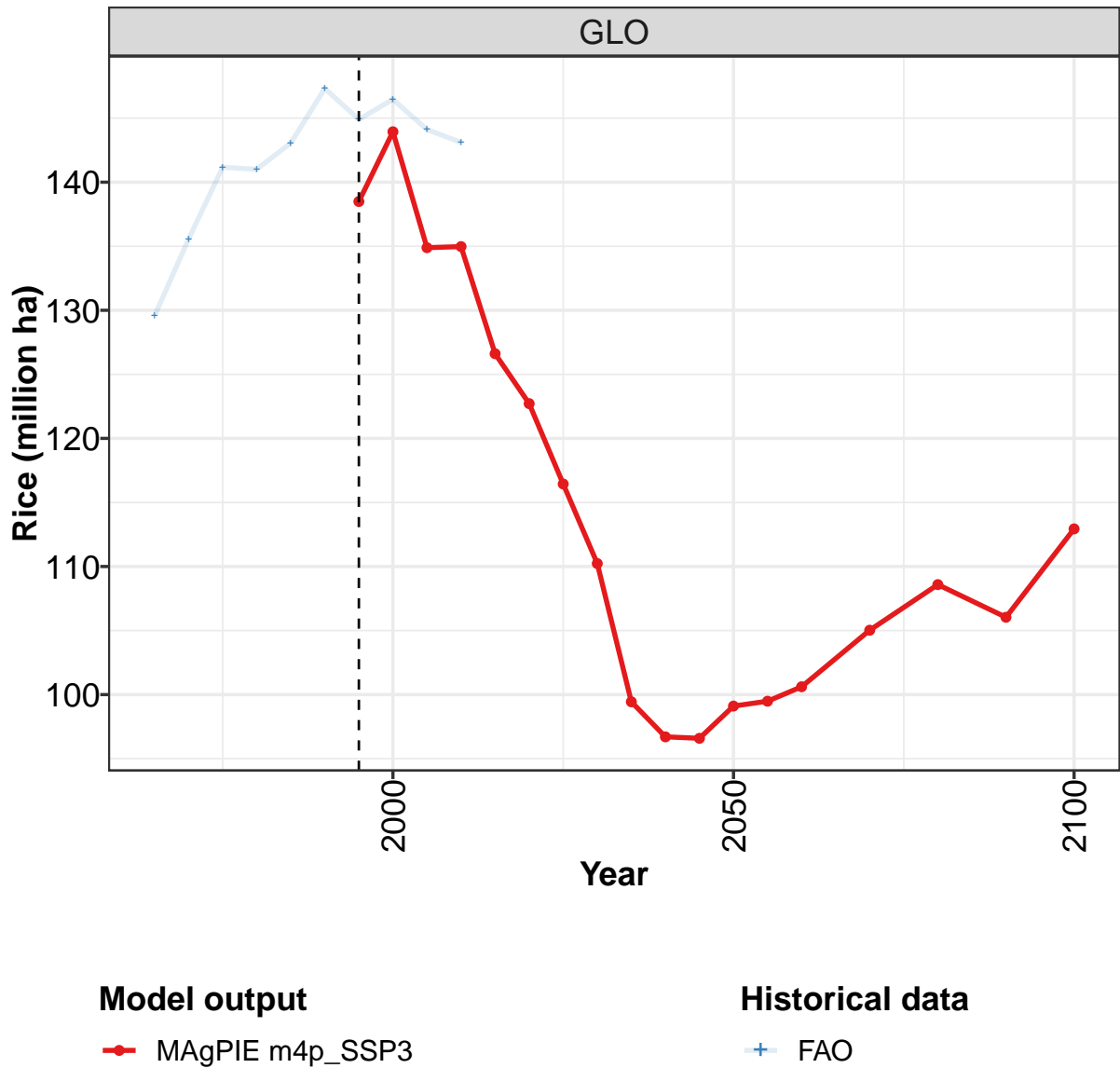
	2050	2055	2060	2070	2080	2090	2100
GLO	297	325	329	380	420	455	489
CAZ	2	3	3	3	3	3	3
CHA	24	24	24	22	20	18	18
EUR	9	9	9	9	9	9	8
IND	30	31	31	33	34	33	34
JPN	0	0	0	0	0	0	0
LAM	70	74	74	89	84	88	95
MEA	1	1	1	1	1	1	2
NEU	2	2	2	3	3	3	3
OAS	32	33	34	35	45	46	50
REF	11	11	11	13	14	16	18
SSA	70	91	96	132	165	195	216
USA	47	46	44	43	42	42	42

Table 1566: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals—Maize (million ha)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	134	143	145	147	150	155	161	160	165	172
CAZ	1	1	1	2	2	2	2	2	2	2
CHA	12	12	13	15	16	19	19	19	20	23
EUR	10	11	11	11	10	9	9	10	9	8
IND	5	6	6	6	6	6	5	6	7	7
JPN	0	0	0	0	0	0	0	0	0	0
LAM	30	32	31	30	30	31	39	36	35	36
MEA	1	1	1	1	1	1	2	1	2	2
NEU	3	3	3	3	3	3	2	3	3	3
OAS	10	11	11	12	12	13	12	11	12	13
REF	4	4	3	4	5	3	3	4	4	6
SSA	23	23	24	24	26	32	31	31	34	37
USA	34	38	39	40	40	38	37	38	37	36

Table 1567: FAO — Resources—Land Cover—Cropland—Crops—Cereals—Maize (million ha)

54.1.7 Crops—Cereals—Rice



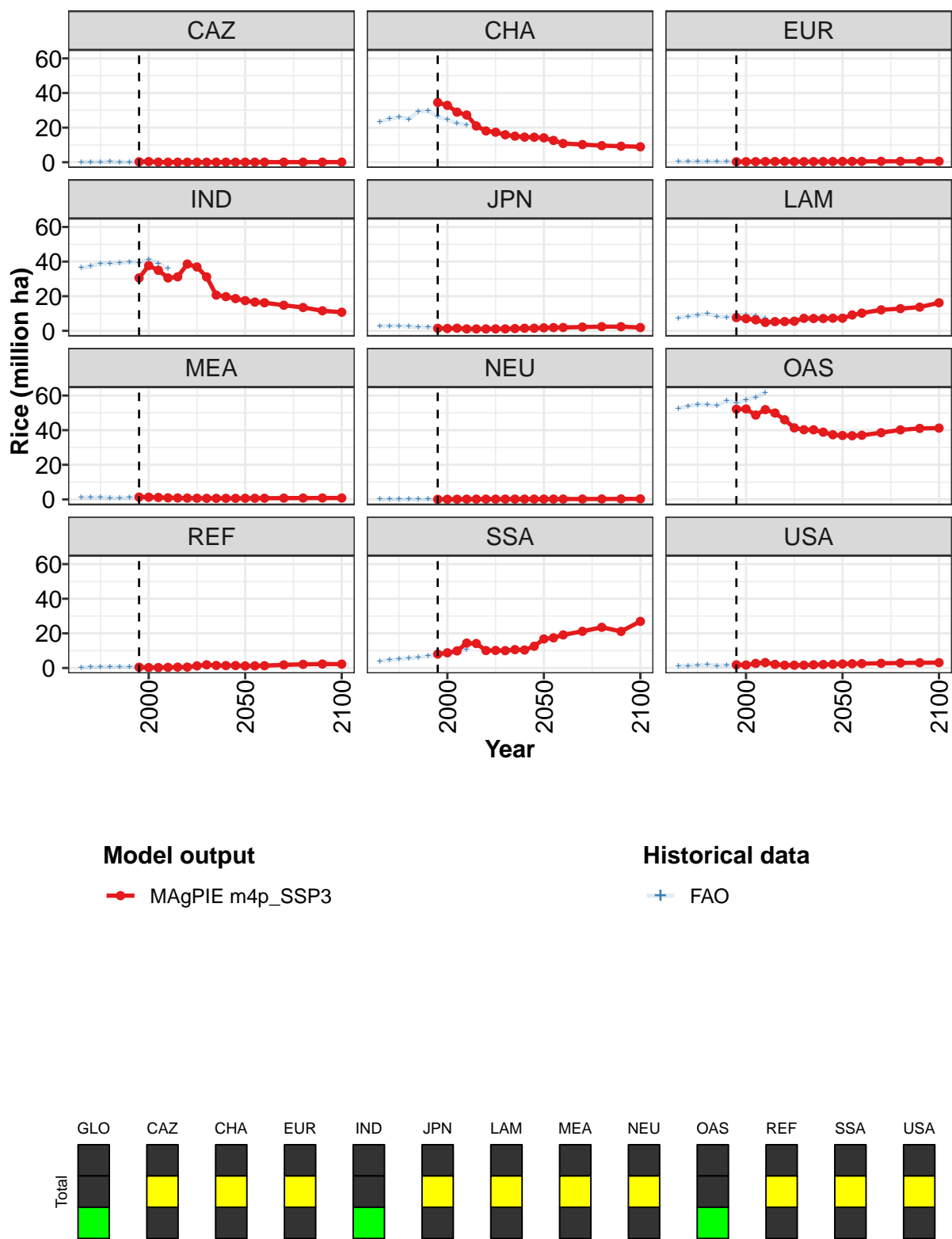


Figure 407: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals—Rice (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	138	144	135	135	127	123	116	110	99	97	97
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	35	33	29	27	21	18	17	16	15	15	14
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	31	38	35	31	31	39	37	31	21	20	19
JPN	1	1	2	1	1	1	1	1	1	1	2
LAM	8	7	6	5	5	5	6	7	7	7	7
MEA	1	1	1	1	1	1	1	1	1	1	1
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	52	52	49	52	50	46	41	40	40	39	37
REF	0	0	0	0	0	1	1	2	1	1	1
SSA	8	9	10	14	14	10	10	10	11	10	13
USA	2	2	3	3	2	2	2	2	2	2	2

Table 1568: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals—Rice (million ha)
[PART 1/2]

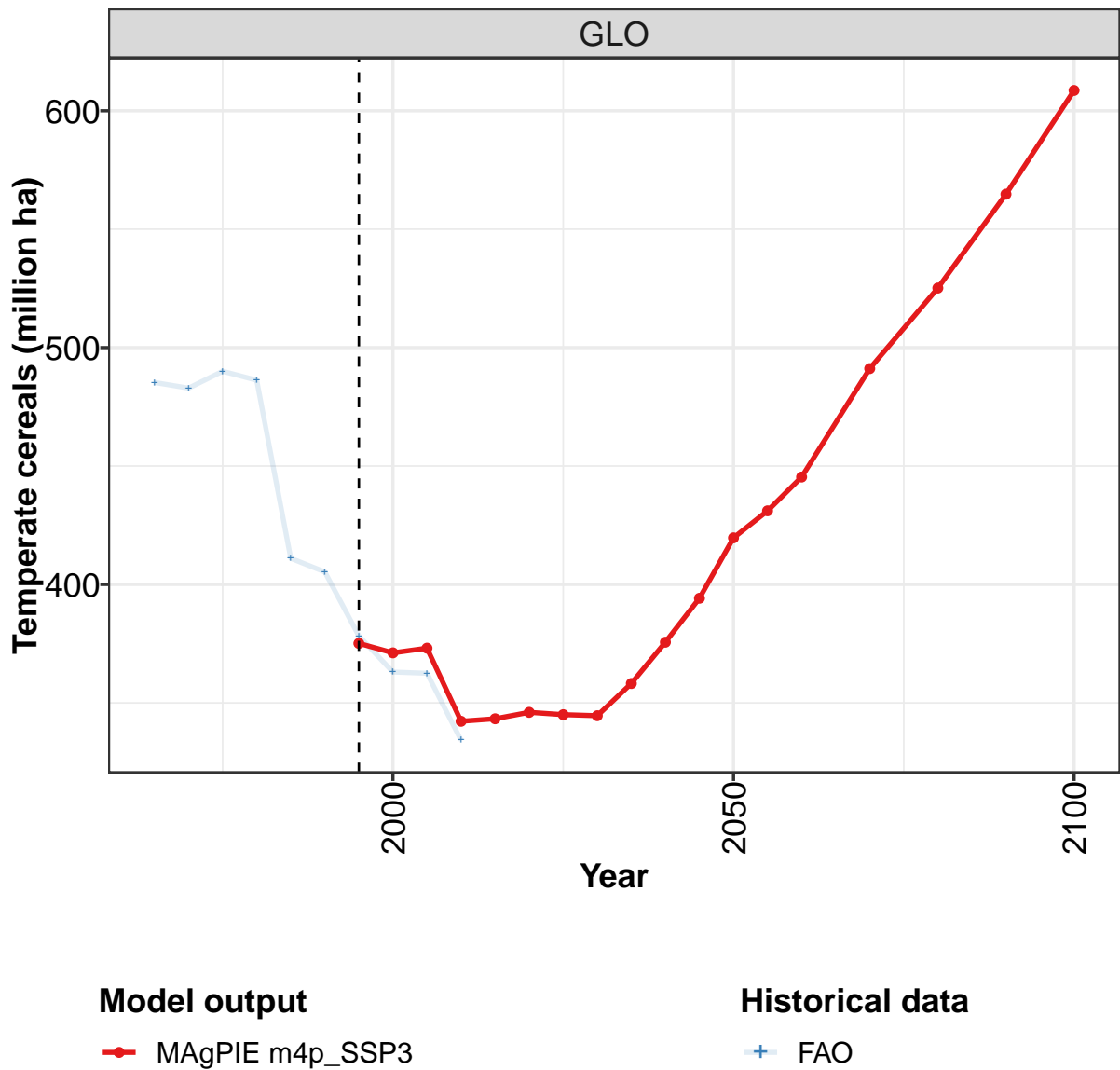
	2050	2055	2060	2070	2080	2090	2100
GLO	99	99	101	105	109	106	113
CAZ	0	0	0	0	0	0	0
CHA	14	13	11	10	10	9	9
EUR	0	0	0	1	1	1	1
IND	17	17	16	15	13	12	11
JPN	2	2	2	2	2	2	2
LAM	7	9	10	12	13	14	16
MEA	1	1	1	1	1	1	1
NEU	0	0	0	0	0	0	0
OAS	37	37	37	39	40	41	41
REF	1	1	1	2	2	2	2
SSA	17	17	19	21	23	21	27
USA	2	2	3	3	3	3	3

Table 1569: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals—Rice (million ha)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	130	136	141	141	143	147	145	146	144	143
CAZ	0	0	0	0	0	0	0	0	0	0
CHA	23	25	26	25	29	30	26	24	23	22
EUR	0	0	0	0	0	0	0	0	0	1
IND	36	37	39	39	39	40	39	41	39	36
JPN	3	3	3	2	2	2	2	2	2	2
LAM	7	8	9	10	8	8	9	9	9	7
MEA	1	1	1	1	1	1	1	1	1	1
NEU	0	0	0	0	0	0	0	0	0	0
OAS	53	54	55	55	54	57	56	58	59	62
REF	0	0	1	1	1	1	1	1	0	1
SSA	4	5	5	6	6	7	8	8	9	11
USA	1	1	2	2	1	2	2	2	2	2

Table 1570: FAO — Resources—Land Cover—Cropland—Crops—Cereals—Rice (million ha)

54.1.8 Crops—Cereals—Temperate cereals



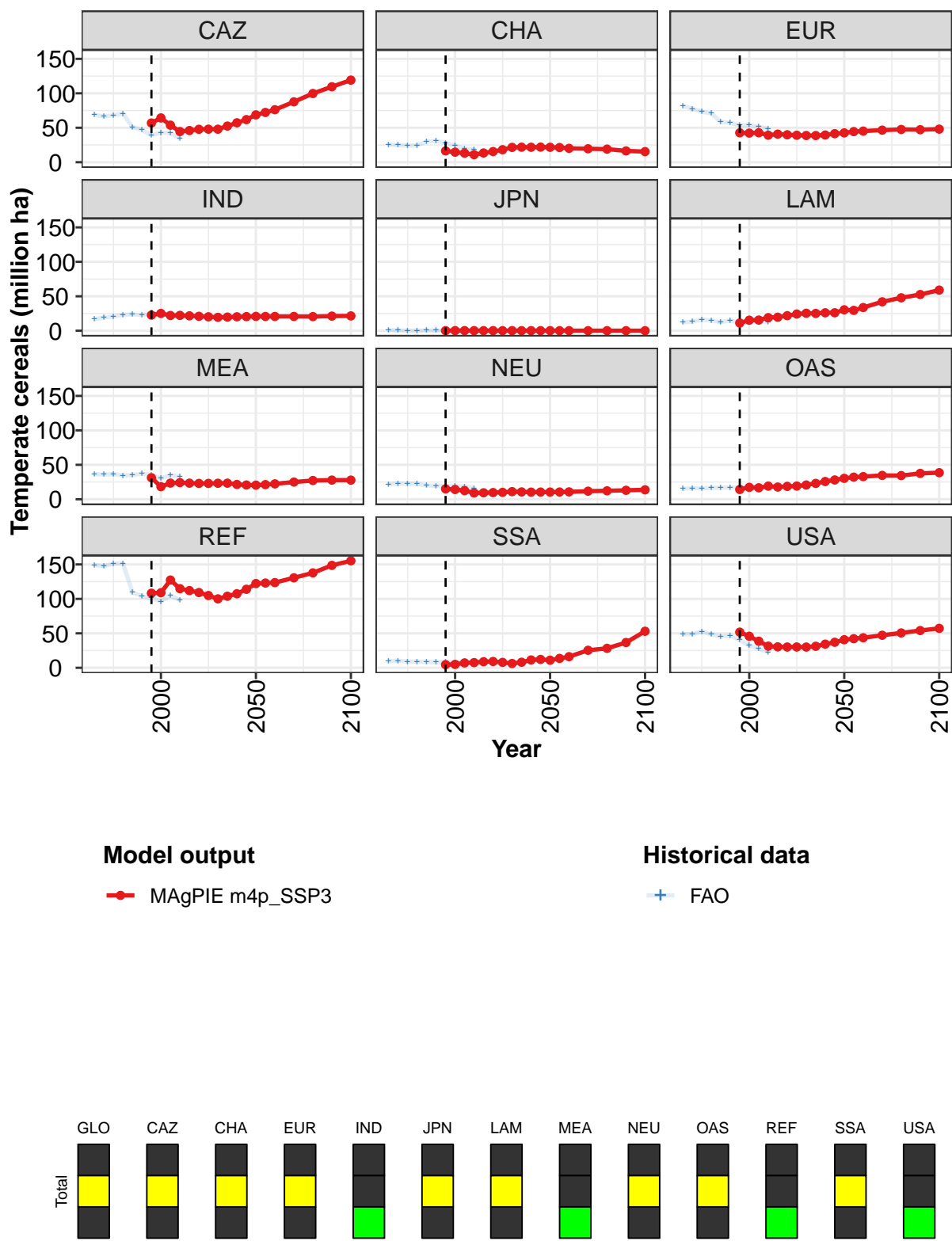


Figure 408: MAGPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals—Temperate cereals (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	375	371	373	342	343	346	345	345	358	376	394
CAZ	57	64	54	45	46	48	48	48	52	57	62
CHA	16	15	13	11	13	15	18	22	22	22	22
EUR	43	42	43	39	41	40	39	39	39	39	41
IND	23	25	22	22	22	21	20	19	20	20	21
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	11	15	16	19	20	22	24	25	25	26	26
MEA	31	18	23	24	23	23	23	23	23	22	21
NEU	15	14	13	9	9	10	10	11	11	10	10
OAS	14	17	17	19	18	19	19	21	23	26	28
REF	108	109	127	115	112	109	105	100	104	108	114
SSA	5	5	7	8	9	9	8	6	8	11	12
USA	52	46	39	31	30	30	30	30	31	34	37

Table 1571: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals—Temperate cereals (million ha) [PART 1/2]

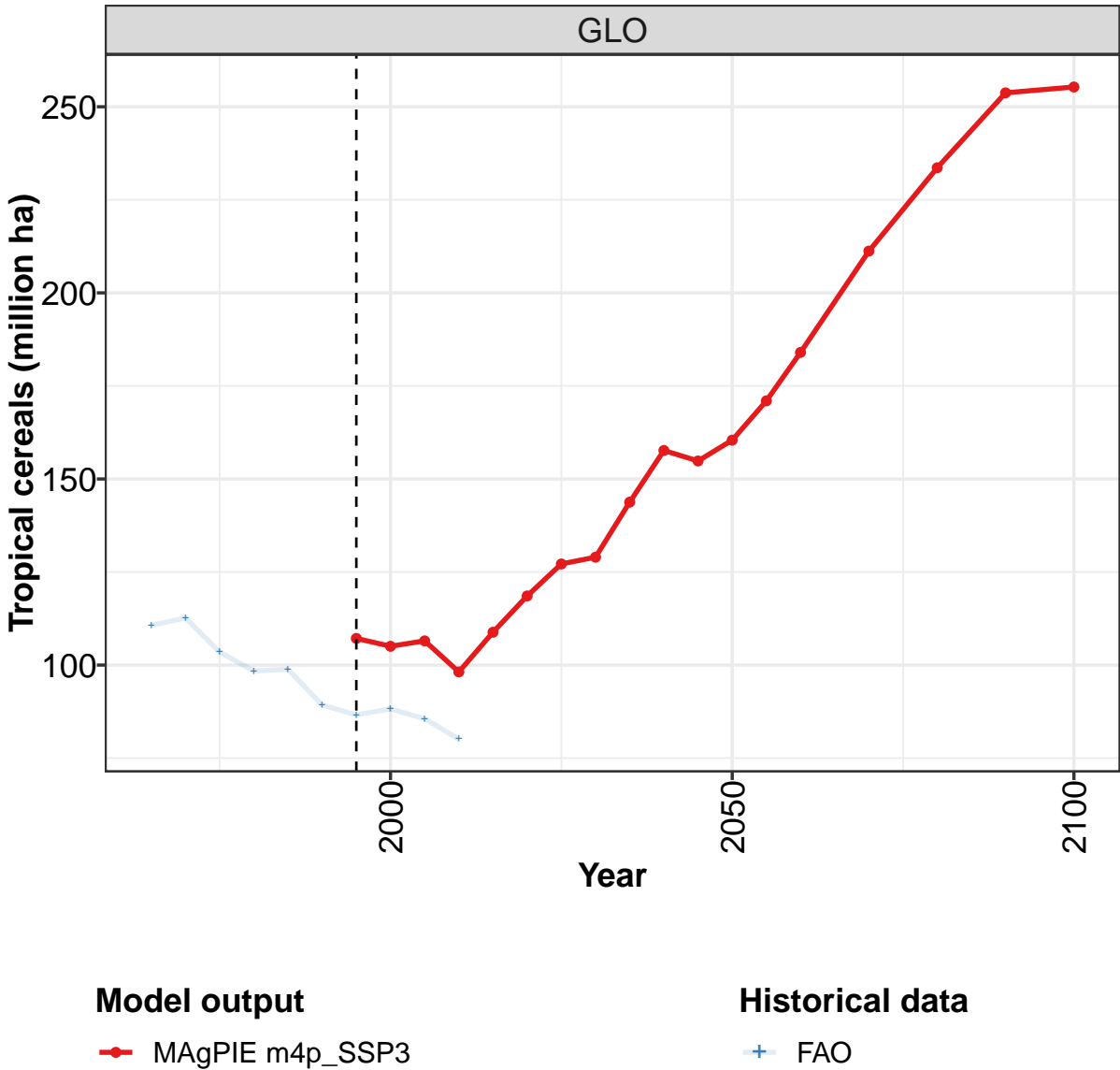
	2050	2055	2060	2070	2080	2090	2100
GLO	420	431	445	491	525	565	609
CAZ	69	72	76	88	100	110	119
CHA	22	21	20	20	19	16	15
EUR	43	44	45	47	48	47	48
IND	21	21	21	21	21	21	22
JPN	0	0	0	0	0	0	0
LAM	30	30	34	42	48	53	59
MEA	20	21	22	25	27	28	28
NEU	10	11	11	12	12	13	14
OAS	30	32	33	35	34	38	39
REF	122	123	124	131	138	149	155
SSA	11	14	16	25	28	37	53
USA	41	42	44	47	51	54	57

Table 1572: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals—Temperate cereals (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	485	483	490	486	411	405	378	363	363	334
CAZ	69	66	68	71	51	47	39	43	42	34
CHA	25	25	24	24	30	31	28	24	19	19
EUR	82	78	73	71	59	57	54	54	51	48
IND	17	19	21	23	24	23	24	26	24	24
JPN	1	0	0	0	0	0	0	0	0	0
LAM	12	13	16	15	13	15	12	12	13	12
MEA	36	36	36	34	35	37	35	31	35	33
NEU	22	23	23	22	20	19	19	19	18	16
OAS	15	16	16	17	17	17	17	18	17	17
REF	149	147	151	152	109	104	101	96	105	98
SSA	10	10	9	9	9	8	8	7	9	9
USA	49	49	53	49	45	47	40	32	28	23

Table 1573: FAO — Resources—Land Cover—Cropland—Crops—Cereals—Temperate cereals (million ha)

54.1.9 Crops—Cereals—Tropical cereals



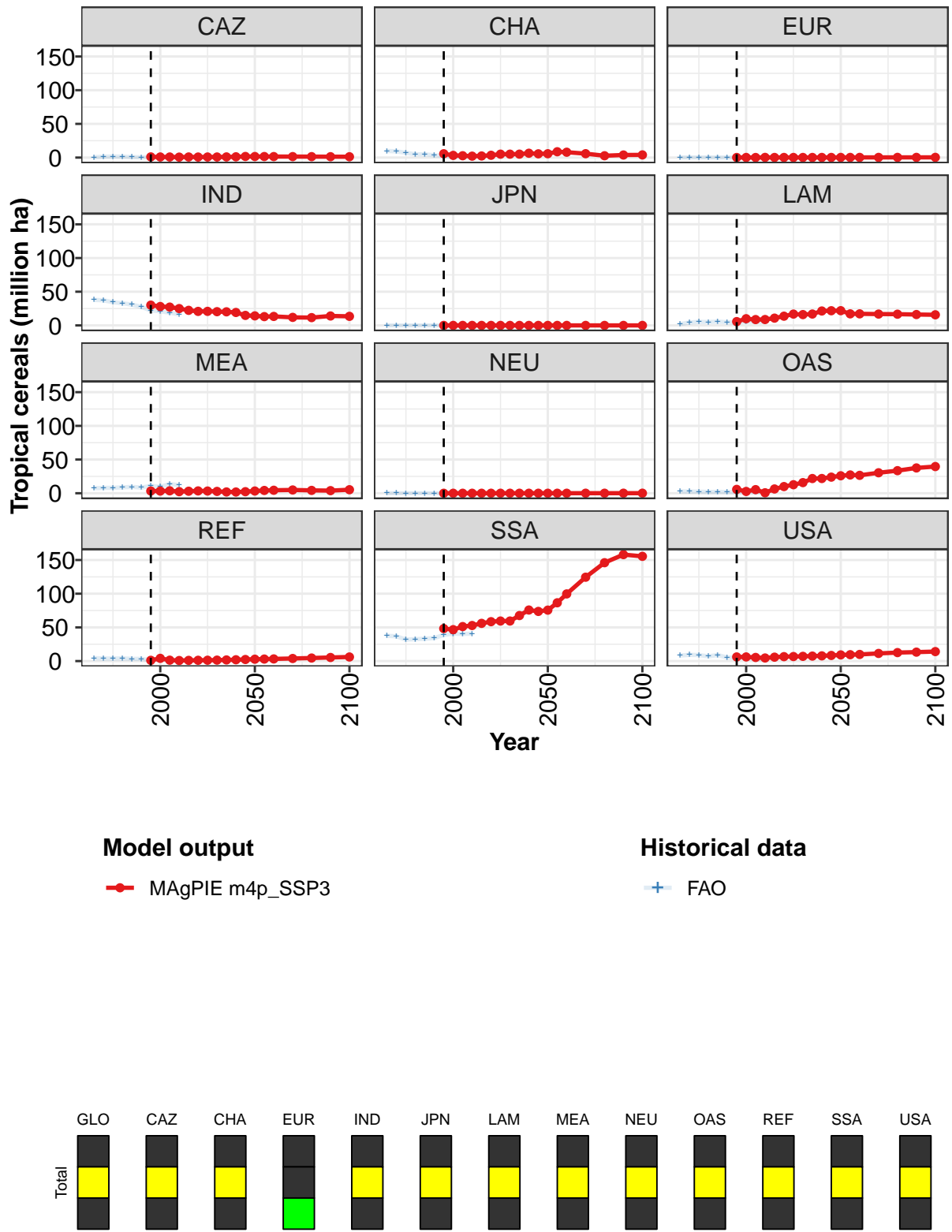


Figure 409: MAGPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals—Tropical cereals (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	107	105	107	98	109	119	127	129	144	158	155
CAZ	1	1	1	1	1	1	1	1	1	1	2
CHA	6	3	3	2	2	3	5	5	5	6	6
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	30	28	27	25	22	21	21	20	20	19	15
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	6	10	9	9	11	14	17	16	17	21	22
MEA	3	3	4	2	3	3	3	3	2	2	2
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	6	3	5	1	6	10	13	16	22	22	24
REF	1	4	1	1	1	1	1	1	2	2	2
SSA	48	47	51	53	56	59	59	59	68	76	74
USA	6	6	5	5	6	7	7	7	7	8	8

Table 1574: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals—Tropical cereals (million ha) [PART 1/2]

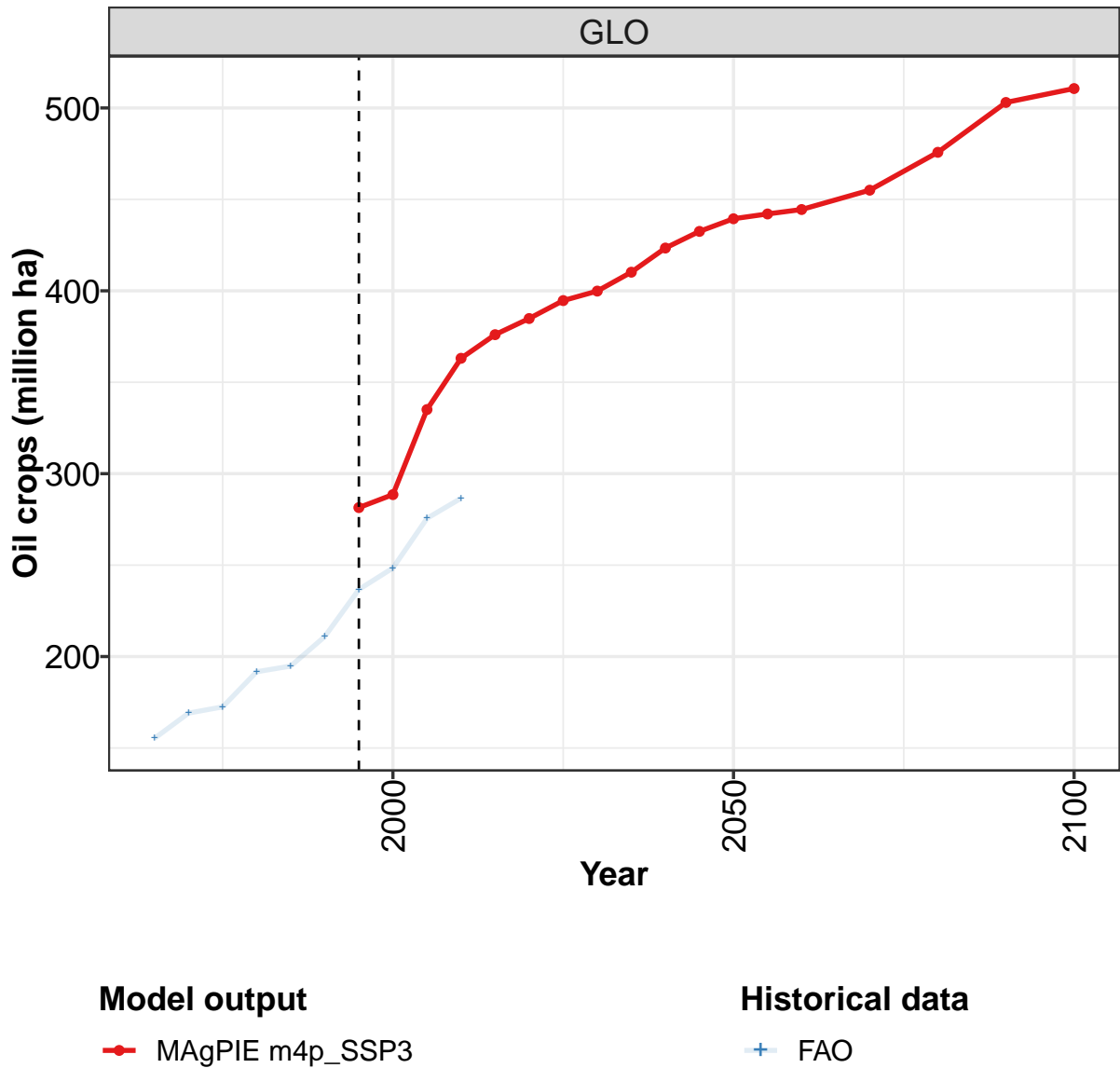
	2050	2055	2060	2070	2080	2090	2100
GLO	160	171	184	211	234	254	255
CAZ	2	2	1	1	1	1	1
CHA	6	9	8	6	3	4	4
EUR	0	0	0	0	0	0	0
IND	14	13	13	12	12	14	13
JPN	0	0	0	0	0	0	0
LAM	22	17	17	17	17	16	16
MEA	3	4	4	5	4	4	5
NEU	0	0	0	0	0	0	0
OAS	26	27	27	30	34	38	40
REF	3	3	3	4	5	5	6
SSA	76	87	100	124	146	158	155
USA	9	10	10	11	13	13	14

Table 1575: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Cereals—Tropical cereals (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	111	113	103	98	99	89	87	88	86	80
CAZ	1	1	2	1	1	0	1	1	1	0
CHA	10	9	7	5	5	3	2	2	1	1
EUR	0	0	0	0	0	0	0	0	0	0
IND	38	37	34	33	31	28	22	21	19	16
JPN	0	0	0	0	0	0	0	0	0	0
LAM	2	4	5	5	6	5	4	5	5	5
MEA	8	8	8	9	9	8	11	10	14	12
NEU	0	0	0	0	0	0	0	0	0	0
OAS	3	2	2	2	2	2	2	2	1	1
REF	4	4	4	4	3	3	1	3	1	1
SSA	38	37	32	33	33	34	39	41	40	41
USA	8	9	9	7	9	5	5	4	3	2

Table 1576: FAO — Resources—Land Cover—Cropland—Crops—Cereals—Tropical cereals (million ha)

54.1.10 Crops—Oil crops



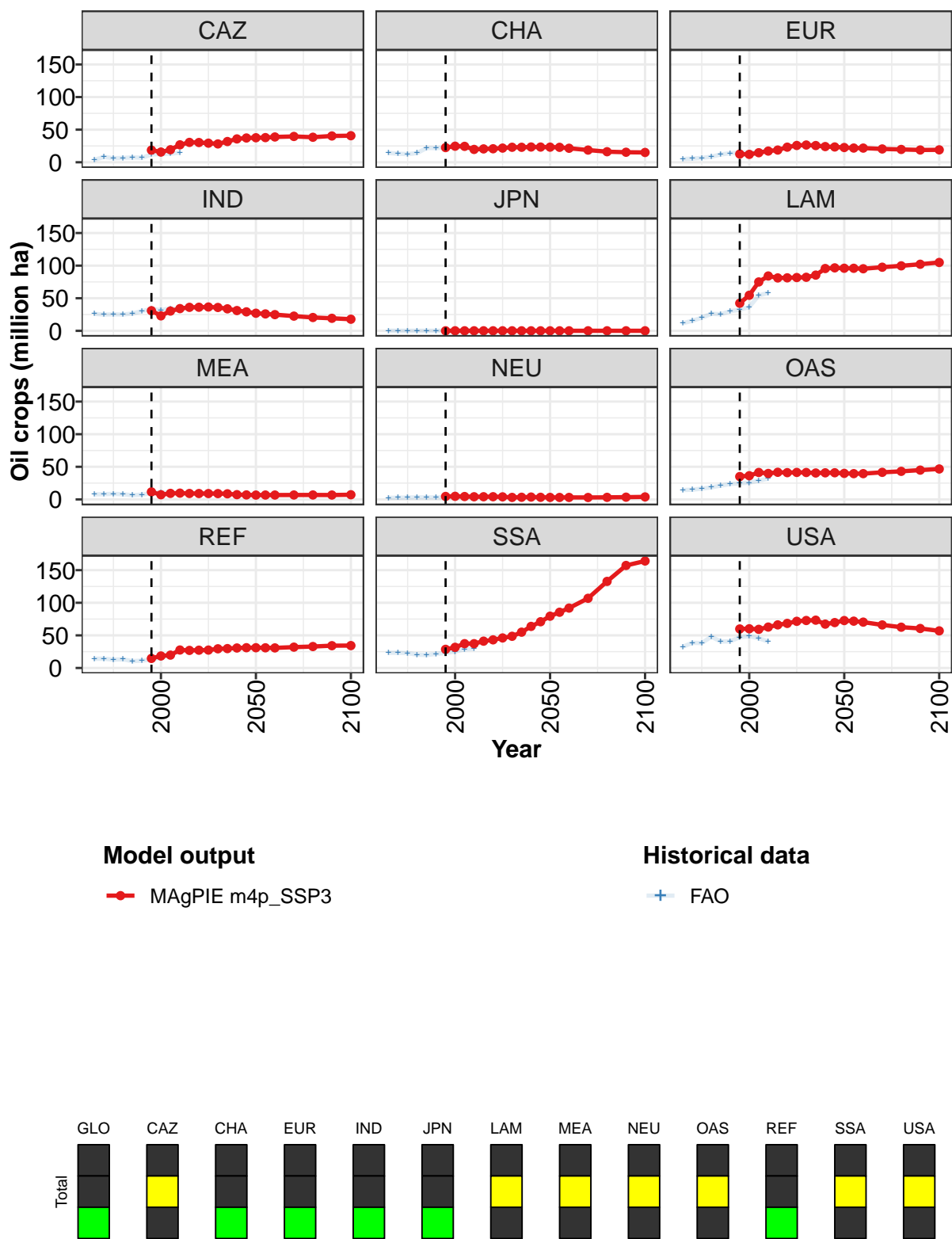


Figure 410: MAGPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	281	289	335	363	376	385	395	400	410	423	432
CAZ	19	16	19	27	30	30	29	28	32	36	37
CHA	23	25	24	20	21	21	22	23	23	23	23
EUR	13	12	15	17	19	23	26	26	26	24	23
IND	31	23	30	34	36	36	37	36	34	31	29
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	42	55	75	84	81	81	82	82	85	96	97
MEA	12	7	9	10	9	9	9	9	9	7	7
NEU	5	5	4	4	4	4	4	3	3	4	3
OAS	35	36	41	40	42	41	41	41	41	41	41
REF	15	18	20	28	27	27	27	29	30	31	31
SSA	29	32	37	37	41	43	46	49	55	64	71
USA	60	60	59	63	66	68	72	73	73	67	70

Table 1577: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops (million ha) [PART 1/2]

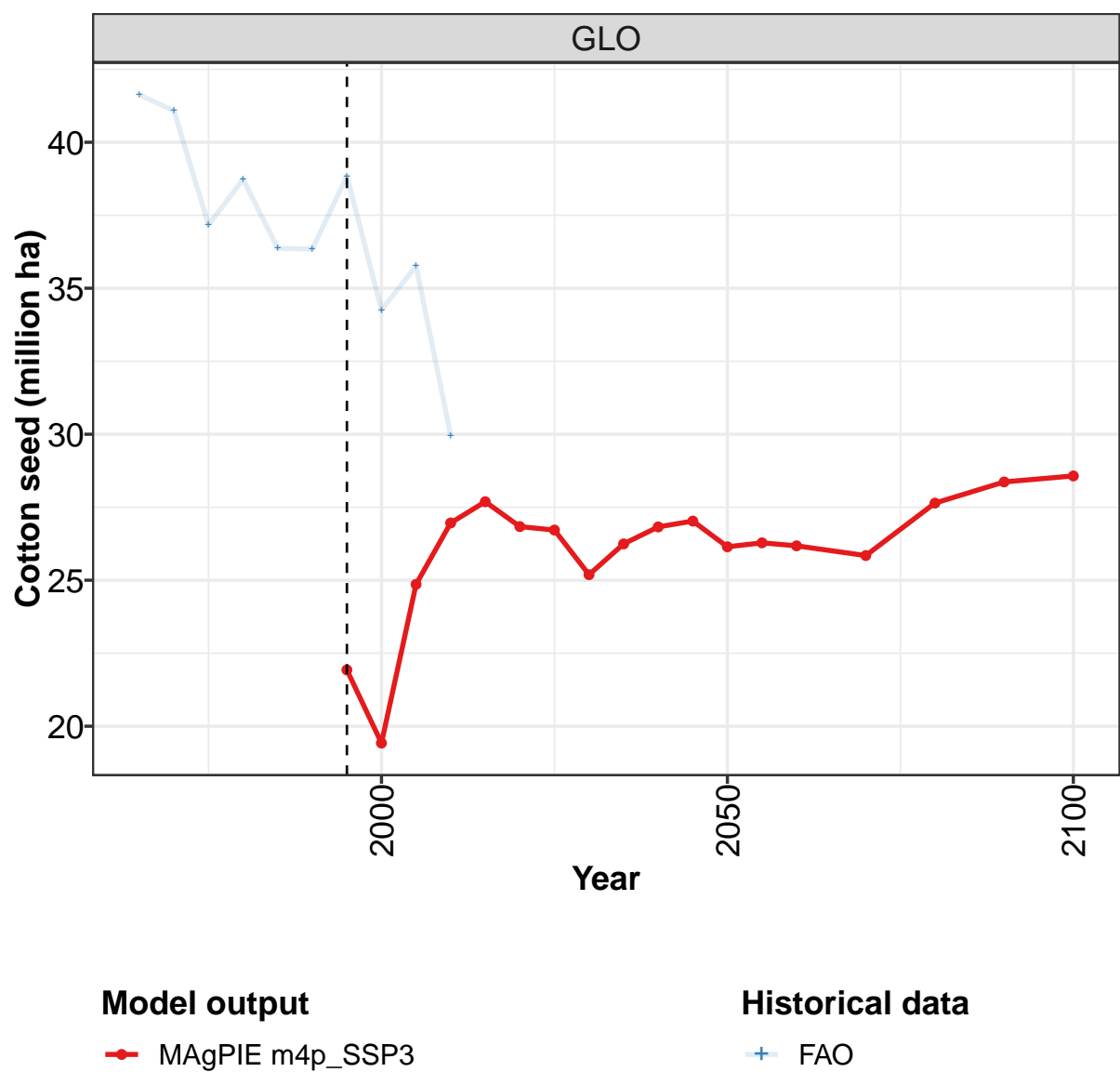
	2050	2055	2060	2070	2080	2090	2100
GLO	439	442	444	455	476	503	511
CAZ	38	38	39	40	38	40	41
CHA	23	23	21	19	16	15	15
EUR	23	22	22	20	20	19	19
IND	27	26	25	23	20	19	18
JPN	0	0	0	0	0	0	0
LAM	96	96	95	98	100	102	105
MEA	7	7	7	7	7	7	7
NEU	3	3	3	3	3	3	4
OAS	40	40	40	42	43	45	47
REF	31	31	31	32	33	34	34
SSA	79	85	92	107	133	157	164
USA	73	72	70	66	63	61	57

Table 1578: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	155	169	172	192	195	211	237	248	276	287
CAZ	4	8	6	7	7	7	12	12	13	15
CHA	14	13	12	14	22	22	23	24	23	20
EUR	5	6	7	8	12	14	15	15	15	18
IND	26	25	25	25	26	30	34	32	34	33
JPN	0	0	0	0	0	0	0	0	0	0
LAM	12	15	20	26	25	30	32	36	54	58
MEA	8	8	9	8	6	7	10	11	9	11
NEU	2	3	3	3	3	3	3	3	3	3
OAS	14	15	17	18	21	24	25	26	29	32
REF	14	14	13	13	10	11	13	16	20	27
SSA	23	23	23	20	20	22	23	25	29	29
USA	32	39	38	48	41	41	47	49	46	41

Table 1579: FAO — Resources—Land Cover—Cropland—Crops—Oil crops (million ha)

54.1.11 Crops—Oil crops—Cotton seed



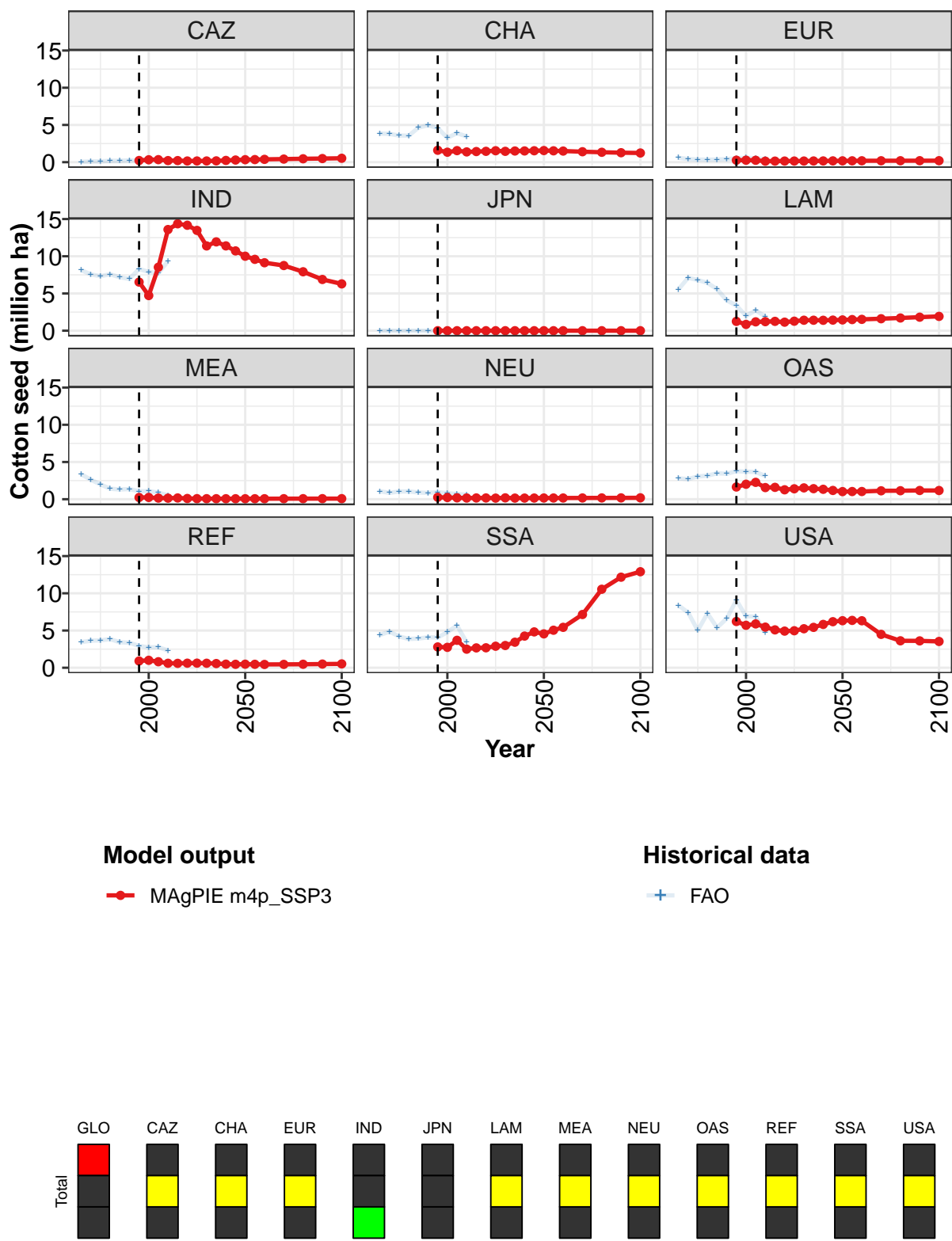


Figure 411: MAGPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Cotton seed (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	21.9	19.4	24.9	27.0	27.7	26.8	26.7	25.2	26.2	26.8	27.0
CAZ	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
CHA	1.6	1.3	1.6	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5
EUR	0.3	0.3	0.3	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
IND	6.5	4.7	8.5	13.6	14.4	14.2	13.5	11.4	11.9	11.4	10.7
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.3	0.8	1.2	1.2	1.3	1.1	1.3	1.4	1.4	1.4	1.4
MEA	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
NEU	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2
OAS	1.6	2.0	2.3	1.6	1.6	1.3	1.4	1.5	1.4	1.3	1.2
REF	0.9	1.0	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5
SSA	2.8	2.7	3.7	2.5	2.7	2.7	2.9	3.0	3.4	4.3	4.8
USA	6.2	5.7	5.9	5.5	5.1	4.9	5.0	5.2	5.4	5.8	6.2

Table 1580: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Cotton seed (million ha) [PART 1/2]

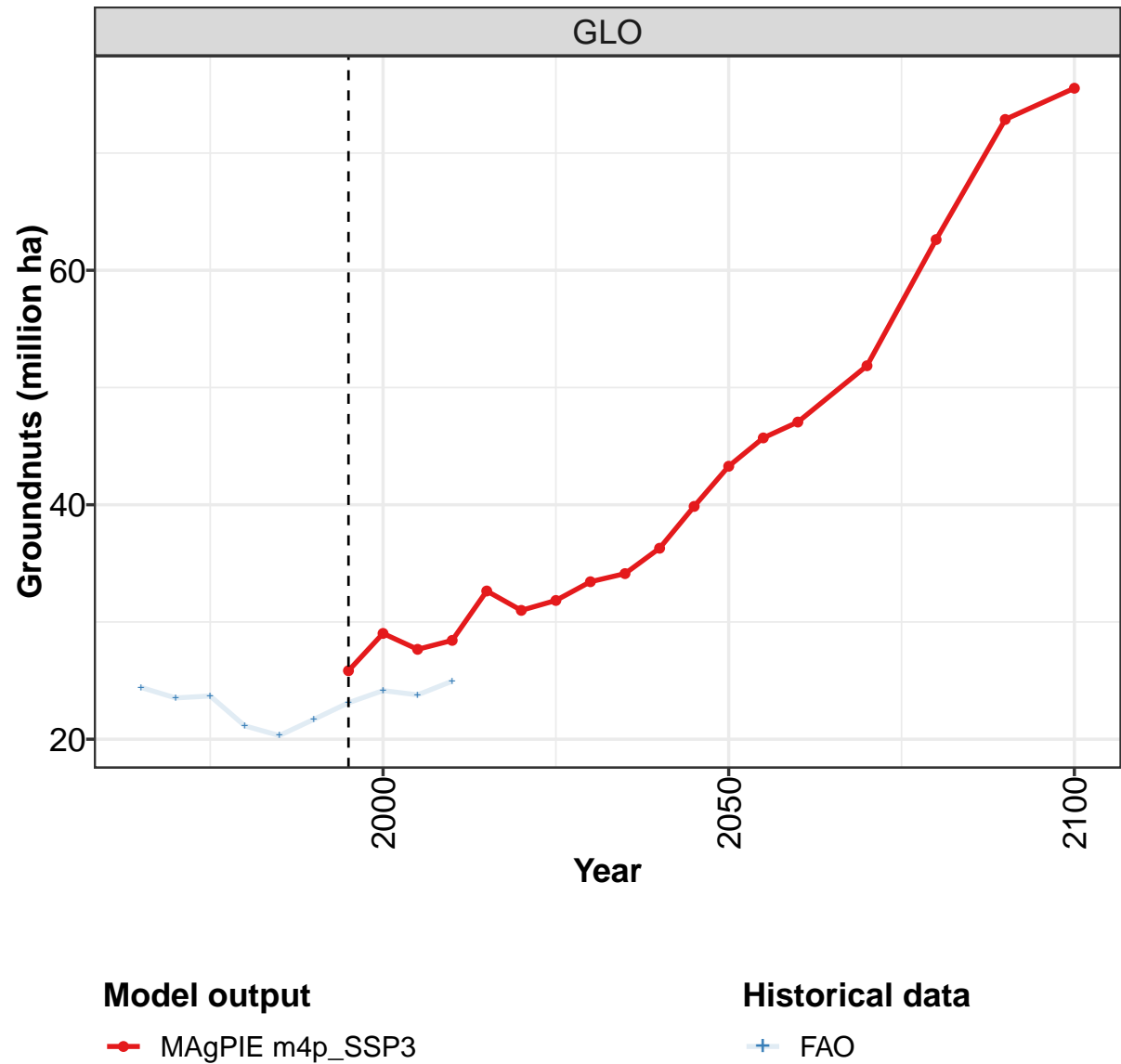
	2050	2055	2060	2070	2080	2090	2100
GLO	26.1	26.3	26.2	25.8	27.6	28.4	28.6
CAZ	0.3	0.4	0.4	0.4	0.5	0.5	0.5
CHA	1.6	1.5	1.5	1.4	1.3	1.3	1.2
EUR	0.2	0.2	0.2	0.2	0.2	0.2	0.2
IND	10.0	9.6	9.1	8.8	7.9	6.9	6.3
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.4	1.5	1.5	1.6	1.7	1.8	1.9
MEA	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	1.0	1.0	1.0	1.1	1.1	1.2	1.2
REF	0.5	0.5	0.4	0.5	0.5	0.5	0.5
SSA	4.6	5.0	5.4	7.2	10.5	12.2	12.9
USA	6.3	6.4	6.3	4.5	3.6	3.6	3.5

Table 1581: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Cotton seed (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	41.6	41.1	37.2	38.7	36.4	36.3	38.8	34.3	35.8	30.0
CAZ	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.5	0.3	0.2
CHA	3.8	3.8	3.6	3.6	4.6	5.0	4.6	3.3	3.9	3.4
EUR	0.6	0.4	0.4	0.3	0.4	0.4	0.5	0.6	0.5	0.4
IND	8.1	7.6	7.3	7.6	7.2	7.0	8.3	7.9	7.7	9.3
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	5.6	7.1	6.8	6.4	5.6	4.1	3.4	2.0	2.7	1.9
MEA	3.4	2.6	2.0	1.4	1.3	1.4	1.1	1.1	0.9	0.5
NEU	1.1	0.9	1.0	1.0	0.9	0.8	0.9	0.8	0.7	0.6
OAS	2.8	2.7	3.1	3.2	3.5	3.4	3.8	3.7	3.7	3.1
REF	3.4	3.6	3.7	3.8	3.4	3.4	2.9	2.7	2.8	2.3
SSA	4.4	4.9	4.2	3.9	3.9	4.1	4.1	4.8	5.7	3.4
USA	8.4	7.4	5.0	7.3	5.4	6.6	9.1	6.9	6.9	4.7

Table 1582: FAO — Resources—Land Cover—Cropland—Crops—Oil crops—Cotton seed (million ha)

54.1.12 Crops—Oil crops—Groundnuts



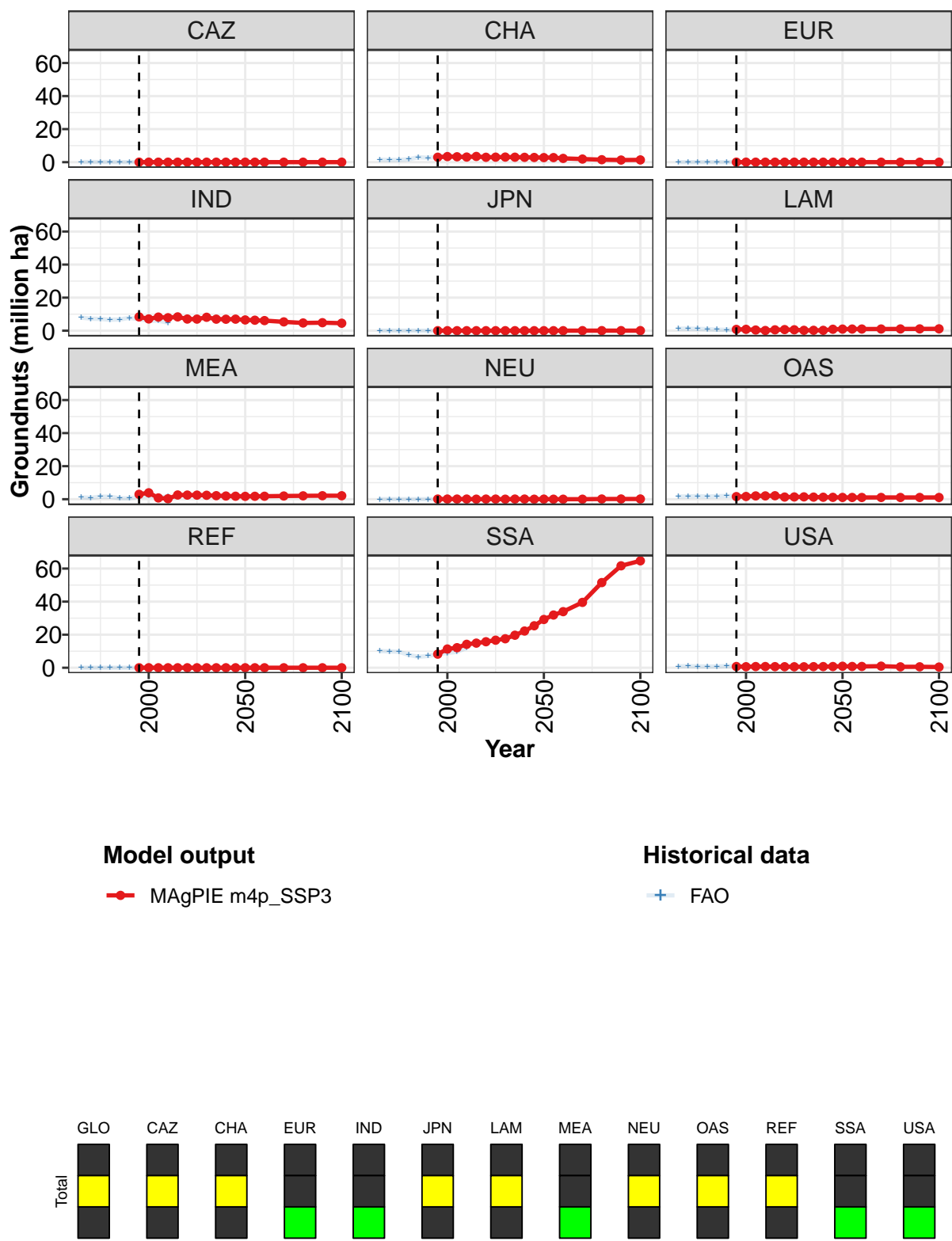


Figure 412: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Groundnuts (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	25.8	29.0	27.7	28.4	32.6	31.0	31.8	33.4	34.1	36.3	39.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	3.0	3.4	3.3	3.1	3.5	3.0	3.0	3.1	3.0	2.9	2.9
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	8.4	7.1	8.2	7.9	8.4	7.1	7.0	8.1	7.0	6.9	7.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.8	0.8	0.4	0.1	0.5	0.7	0.6	0.2	0.2	0.2	0.9
MEA	3.0	3.9	0.8	0.3	2.6	2.5	2.5	2.4	2.2	1.9	1.8
NEU	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0
OAS	1.6	1.7	2.0	2.0	2.1	1.3	1.4	1.4	1.3	1.2	1.1
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	8.2	11.3	12.1	14.2	14.9	15.7	16.7	17.5	19.7	22.2	25.4
USA	0.7	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.7	0.7

Table 1583: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Groundnuts (million ha) [PART 1/2]

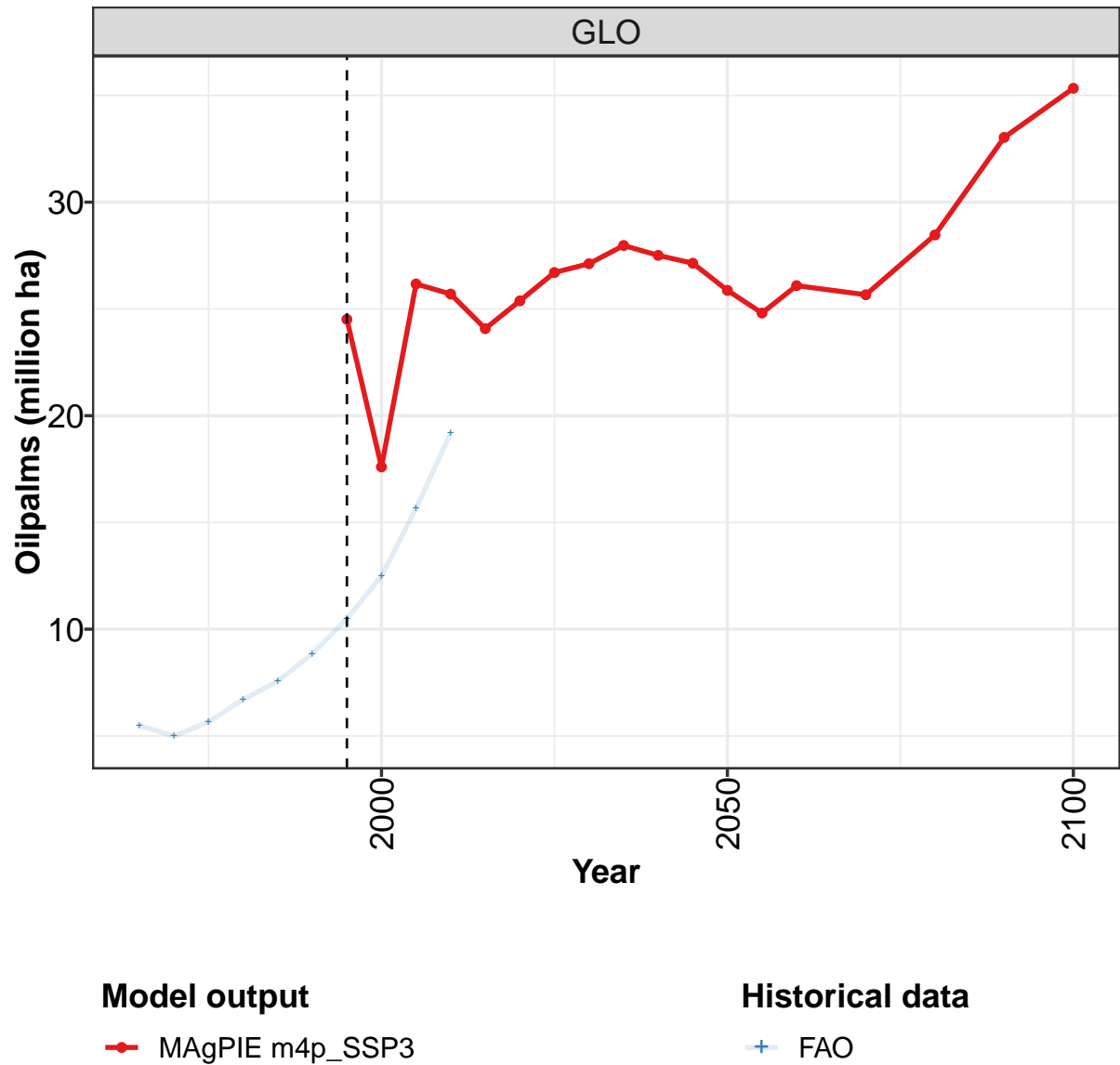
	2050	2055	2060	2070	2080	2090	2100
GLO	43.3	45.7	47.1	51.9	62.6	72.9	75.5
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	2.8	2.8	2.3	1.9	1.5	1.3	1.4
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	6.5	6.4	6.1	5.3	4.7	4.8	4.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.0	1.0	1.0	1.0	1.1	1.1	1.1
MEA	1.8	1.8	1.8	2.0	2.1	2.1	2.1
NEU	0.1	0.0	0.0	0.0	0.1	0.1	0.1
OAS	1.1	1.1	1.1	1.1	1.1	1.1	1.1
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	29.2	31.9	33.9	39.6	51.5	61.7	64.7
USA	0.9	0.8	0.8	1.0	0.6	0.6	0.4

Table 1584: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Groundnuts (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	24.4	23.5	23.7	21.1	20.3	21.7	23.1	24.1	23.8	25.0
CAZ	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
CHA	1.5	1.3	1.4	1.7	3.0	2.6	3.3	3.9	3.6	3.2
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	7.9	7.3	7.1	6.6	6.8	7.8	6.9	6.0	6.0	4.9
JPN	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.2	1.3	1.1	1.0	0.6	0.6	0.5	0.7	0.7	0.6
MEA	1.1	0.9	1.6	1.5	0.6	0.5	1.4	2.0	1.1	1.7
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	1.6	1.7	1.9	1.6	1.8	2.0	1.8	1.7	1.9	1.7
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	10.1	9.9	9.6	7.8	6.6	7.1	8.2	8.9	9.6	12.1
USA	0.9	1.0	0.9	0.8	0.8	1.0	0.9	0.7	0.8	0.6

Table 1585: FAO — Resources—Land Cover—Cropland—Crops—Oil crops—Groundnuts (million ha)

54.1.13 Crops—Oil crops—Oilpalms



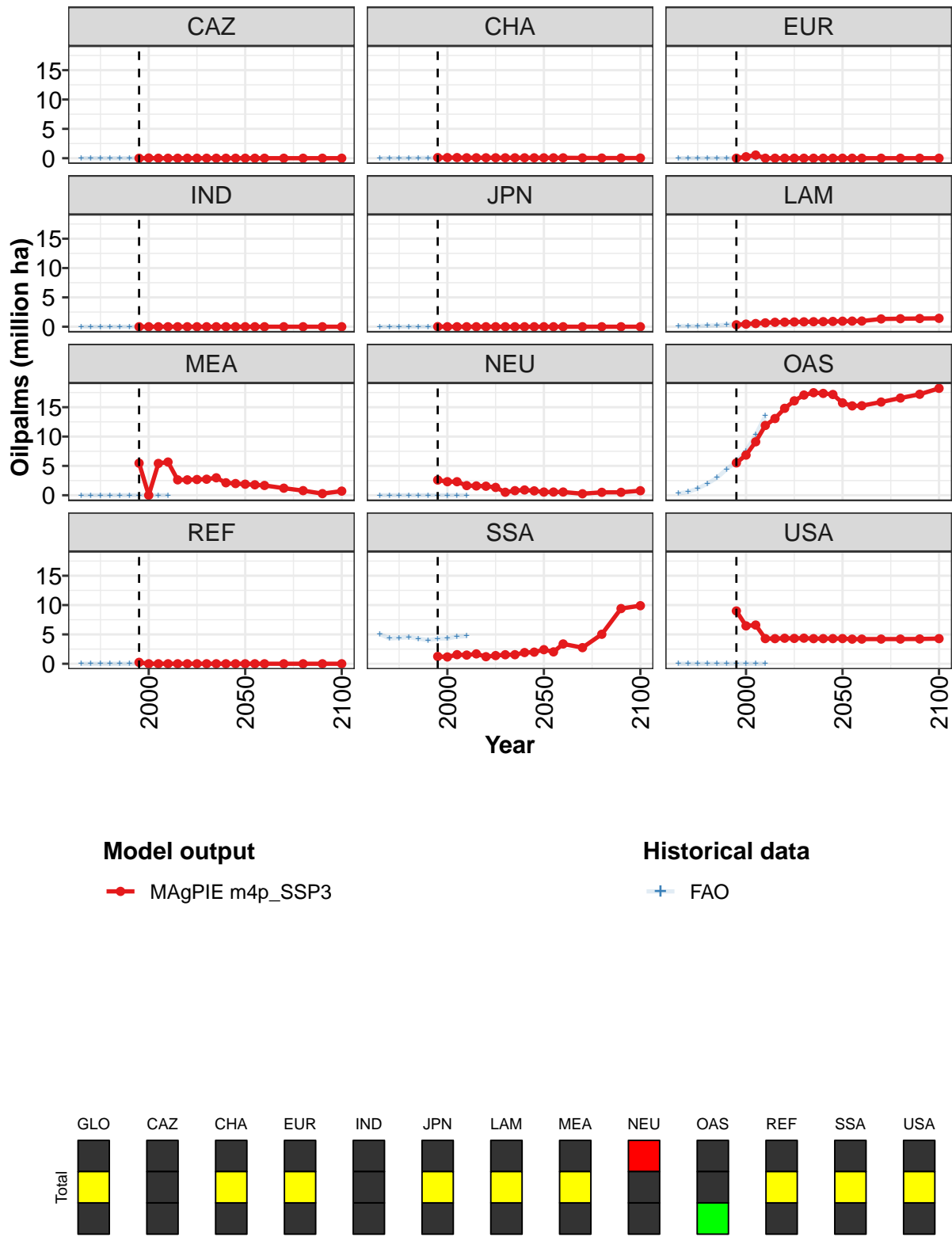


Figure 413: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Oilpalms (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	24.5	17.6	26.2	25.7	24.1	25.4	26.7	27.1	28.0	27.5	27.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EUR	0.0	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.3	0.4	0.5	0.7	0.8	0.8	0.8	0.8	0.9	0.9	0.9
MEA	5.5	0.0	5.4	5.7	2.6	2.6	2.7	2.7	3.0	2.1	2.0
NEU	2.6	2.3	2.3	1.6	1.6	1.5	1.3	0.5	0.8	0.9	0.7
OAS	5.5	6.8	9.1	11.9	13.1	14.8	16.1	17.1	17.5	17.4	17.2
REF	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	1.2	1.2	1.5	1.5	1.7	1.2	1.4	1.5	1.5	1.9	2.0
USA	9.0	6.5	6.6	4.3	4.3	4.3	4.3	4.4	4.3	4.3	4.3

Table 1586: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Oilpalms (million ha) [PART 1/2]

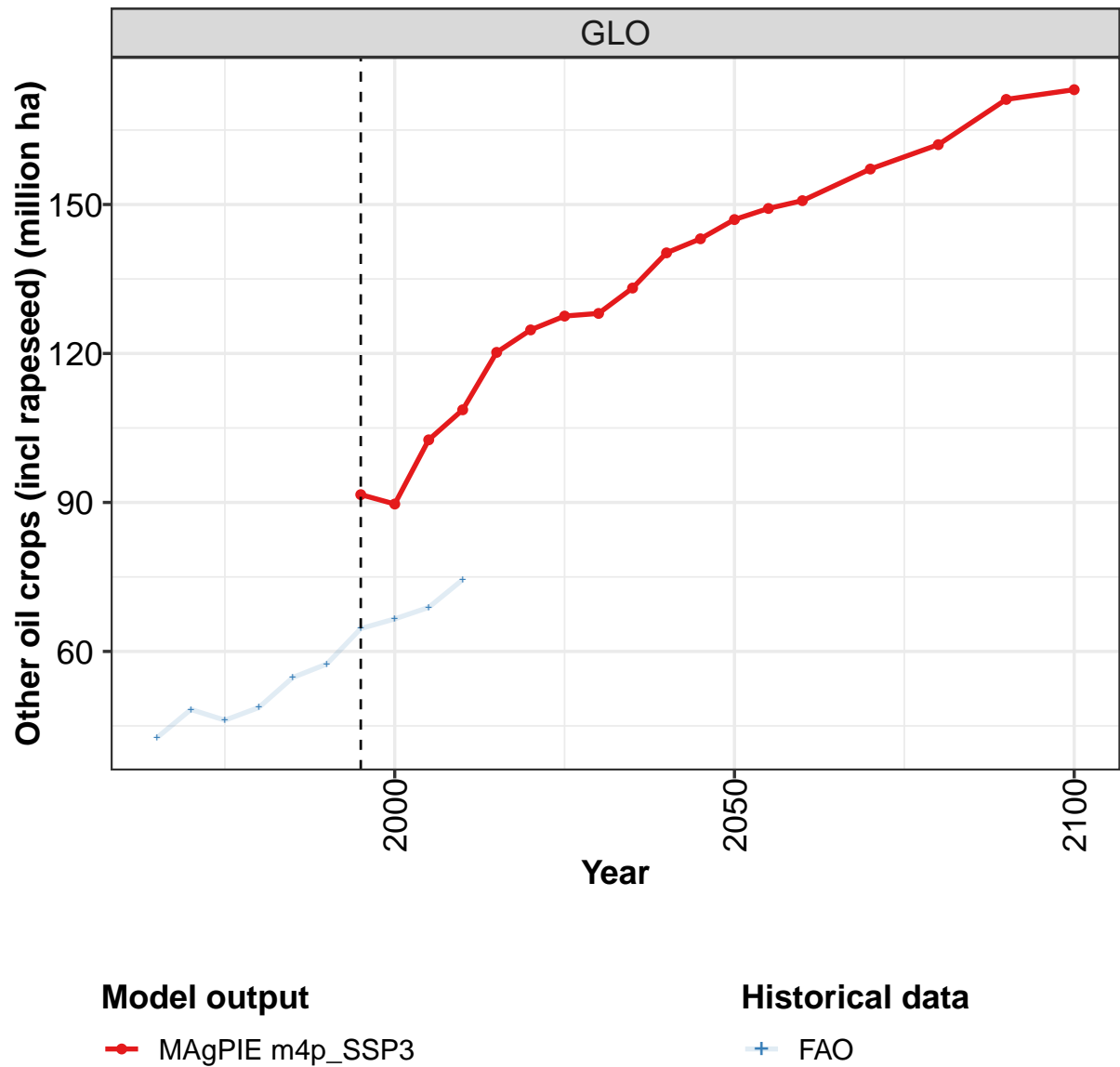
	2050	2055	2060	2070	2080	2090	2100
GLO	25.9	24.8	26.1	25.7	28.5	33.0	35.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.1	0.1	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.9	1.0	1.0	1.3	1.4	1.4	1.4
MEA	1.9	1.8	1.7	1.2	0.8	0.3	0.7
NEU	0.5	0.5	0.6	0.3	0.5	0.5	0.8
OAS	15.7	15.2	15.3	15.9	16.6	17.2	18.2
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	2.4	2.0	3.4	2.7	5.0	9.4	9.9
USA	4.3	4.2	4.2	4.2	4.2	4.2	4.3

Table 1587: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Oilpalms (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.5	5.0	5.7	6.7	7.6	8.8	10.5	12.5	15.7	19.2
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.1	0.1	0.2	0.2	0.3	0.5	0.6	0.7	0.9
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.3	0.6	1.1	2.0	3.0	4.5	5.7	7.5	10.3	13.5
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	5.1	4.3	4.4	4.5	4.3	4.0	4.3	4.3	4.6	4.7
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1588: FAO — Resources—Land Cover—Cropland—Crops—Oil crops—Oilpalms (million ha)

54.1.14 Crops—Oil crops—Other oil crops (incl rapeseed)



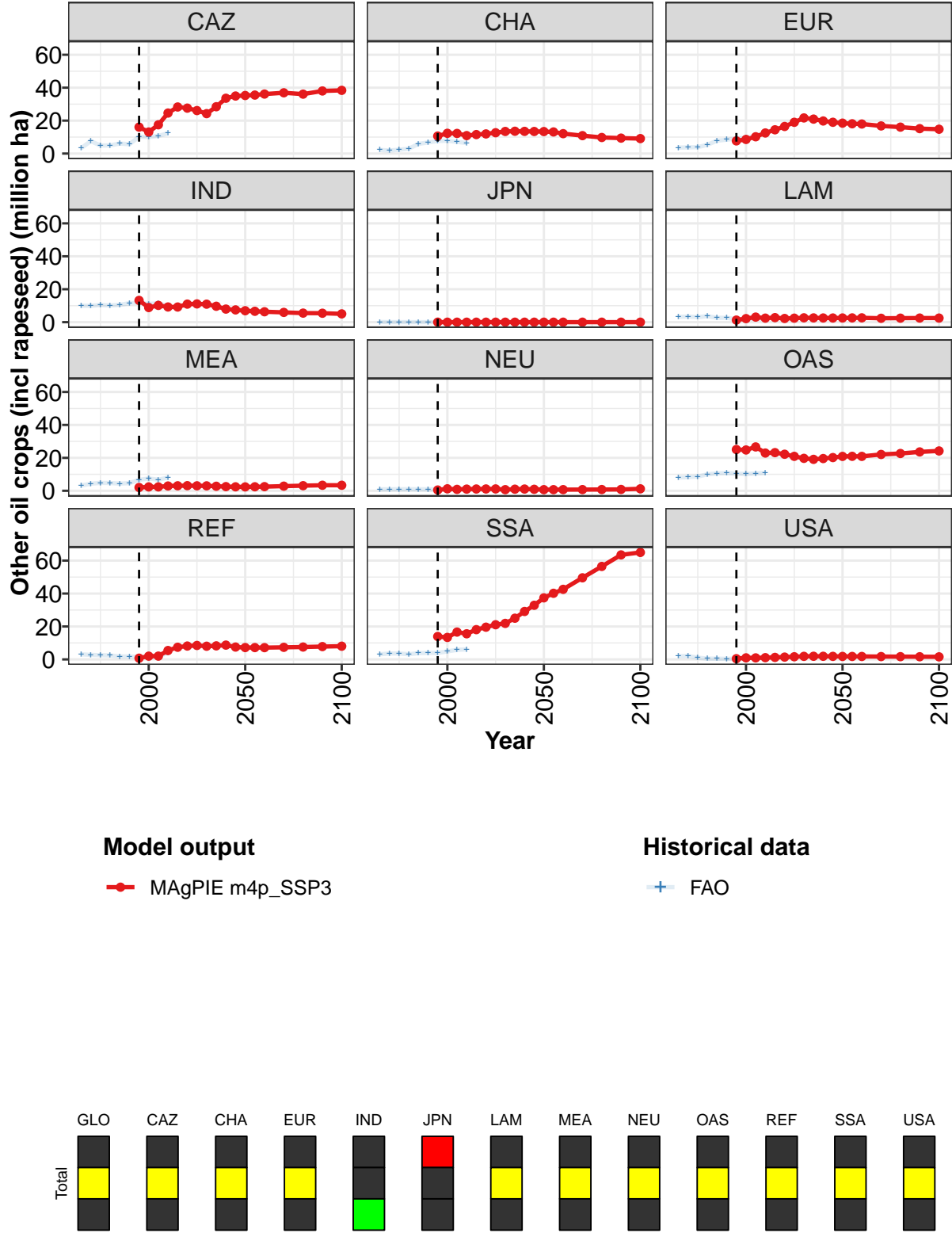


Figure 414: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Other oil crops (incl rapeseed) (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	92	90	103	109	120	125	128	128	133	140	143
CAZ	16	13	17	25	28	28	26	24	28	34	35
CHA	11	12	12	11	12	12	13	13	14	13	13
EUR	8	9	10	13	14	16	19	22	21	20	19
IND	13	9	10	9	9	11	11	11	10	8	7
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1	2	3	2	3	2	2	3	3	3	3
MEA	2	2	2	3	3	3	3	3	3	3	2
NEU	0	1	1	1	1	1	1	1	1	1	1
OAS	25	25	27	23	23	22	21	20	19	20	20
REF	1	2	2	5	7	8	8	8	8	9	8
SSA	14	13	17	16	18	20	21	22	25	29	33
USA	0	1	1	1	1	1	2	2	2	2	2

Table 1589: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Other oil crops (incl rapeseed) (million ha) [PART 1/2]

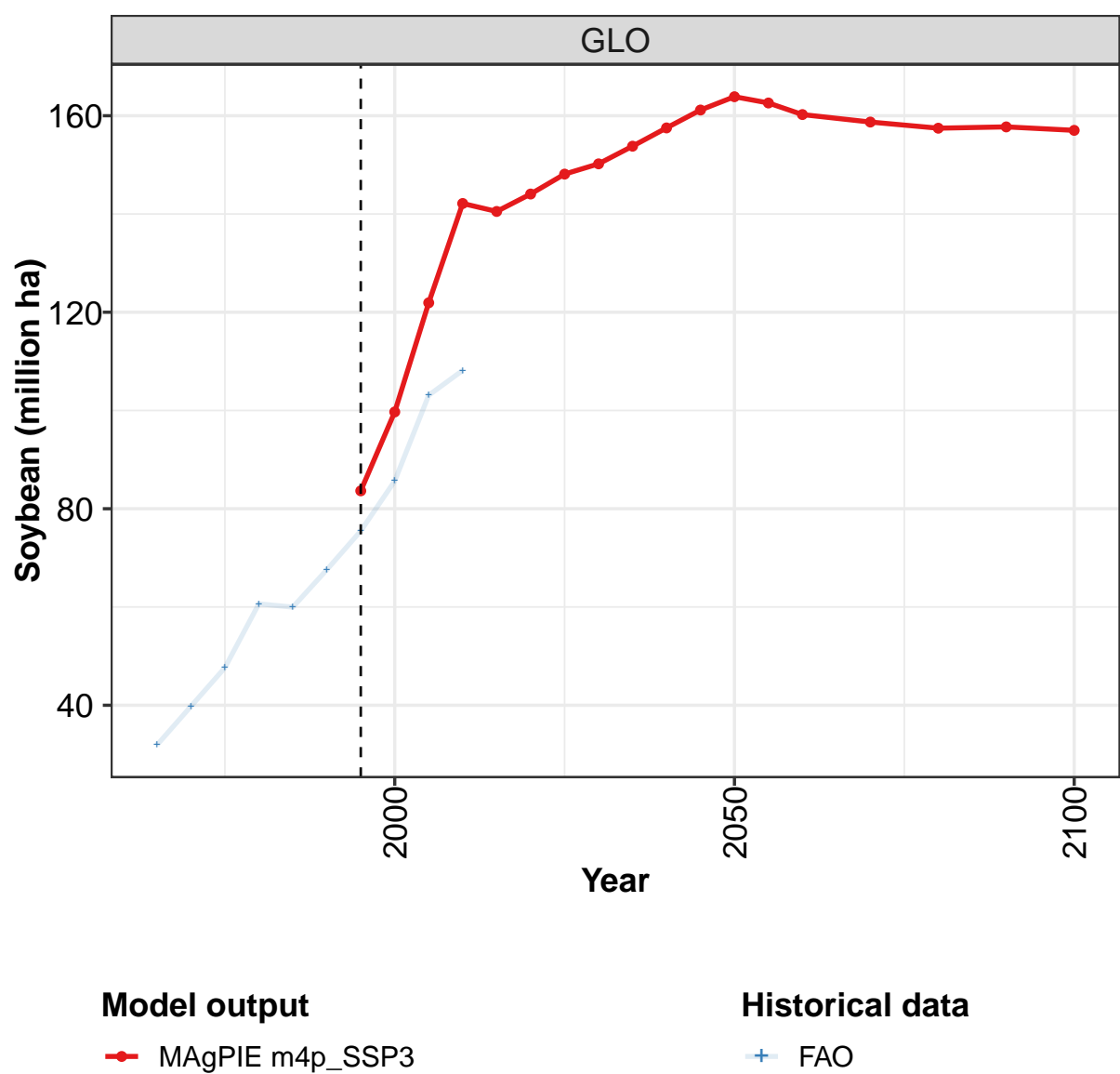
	2050	2055	2060	2070	2080	2090	2100
GLO	147	149	151	157	162	171	173
CAZ	35	36	36	37	36	38	38
CHA	13	13	12	11	10	9	9
EUR	18	18	18	17	16	15	15
IND	7	7	6	6	6	5	5
JPN	0	0	0	0	0	0	0
LAM	3	3	3	2	2	3	2
MEA	2	2	3	3	3	3	3
NEU	1	1	1	1	1	1	1
OAS	21	21	21	22	23	24	24
REF	7	7	7	7	8	8	8
SSA	37	40	43	50	56	63	65
USA	2	2	2	2	2	2	2

Table 1590: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Other oil crops (incl rapeseed) (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	42.6	48.3	46.2	48.7	54.8	57.5	64.6	66.5	68.9	74.5
CAZ	3.3	7.6	4.8	5.0	6.1	5.7	10.3	10.0	10.7	12.3
CHA	2.2	1.8	2.3	2.9	5.8	6.8	7.6	7.8	7.1	6.4
EUR	3.6	3.7	3.9	5.3	7.8	8.4	9.1	9.7	10.6	13.0
IND	10.0	9.9	10.4	10.2	10.5	11.5	11.8	11.1	11.6	9.6
JPN	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.2	3.4	3.1	3.7	2.6	2.7	1.8	2.0	2.1	1.9
MEA	3.2	4.3	4.8	4.7	4.4	4.6	6.6	7.5	6.7	8.0
NEU	0.9	0.9	0.9	1.0	0.9	0.9	1.0	0.9	1.0	1.2
OAS	8.1	8.3	8.7	10.0	10.6	10.8	10.4	10.2	10.5	10.8
REF	3.1	2.7	2.6	2.4	1.8	1.8	1.5	1.3	1.6	4.2
SSA	3.1	3.6	3.6	3.1	3.8	3.9	3.9	4.9	5.8	6.1
USA	2.0	2.1	1.0	0.5	0.4	0.3	0.5	1.2	1.2	0.9

Table 1591: FAO — Resources—Land Cover—Cropland—Crops—Oil crops—Other oil crops (incl rapeseed) (million ha)

54.1.15 Crops—Oil crops—Soybean



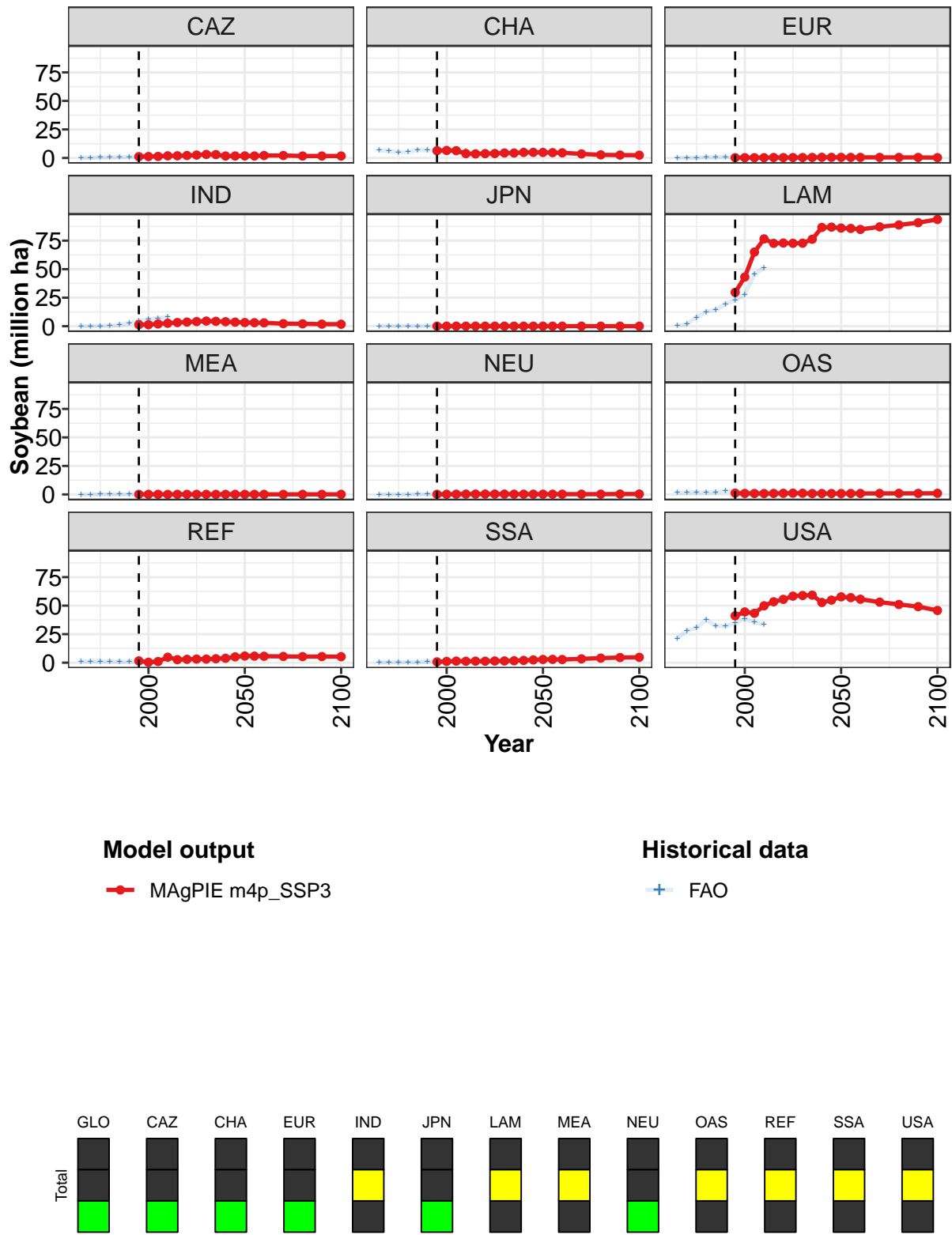


Figure 415: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Soybean (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	84	100	122	142	141	144	148	150	154	158	161
CAZ	1	1	1	2	2	2	3	3	3	2	2
CHA	6	7	6	4	4	4	4	4	4	5	5
EUR	0	0	0	0	0	0	0	0	0	1	1
IND	1	1	2	3	3	4	4	5	4	4	4
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	30	43	65	77	73	73	73	73	76	87	87
MEA	0	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0	0
OAS	1	1	1	1	1	1	1	1	1	1	1
REF	2	0	1	5	3	3	3	3	3	4	5
SSA	1	1	1	1	1	1	1	2	2	2	2
USA	41	45	43	50	53	56	58	59	59	53	55

Table 1592: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Soybean (million ha) [PART 1/2]

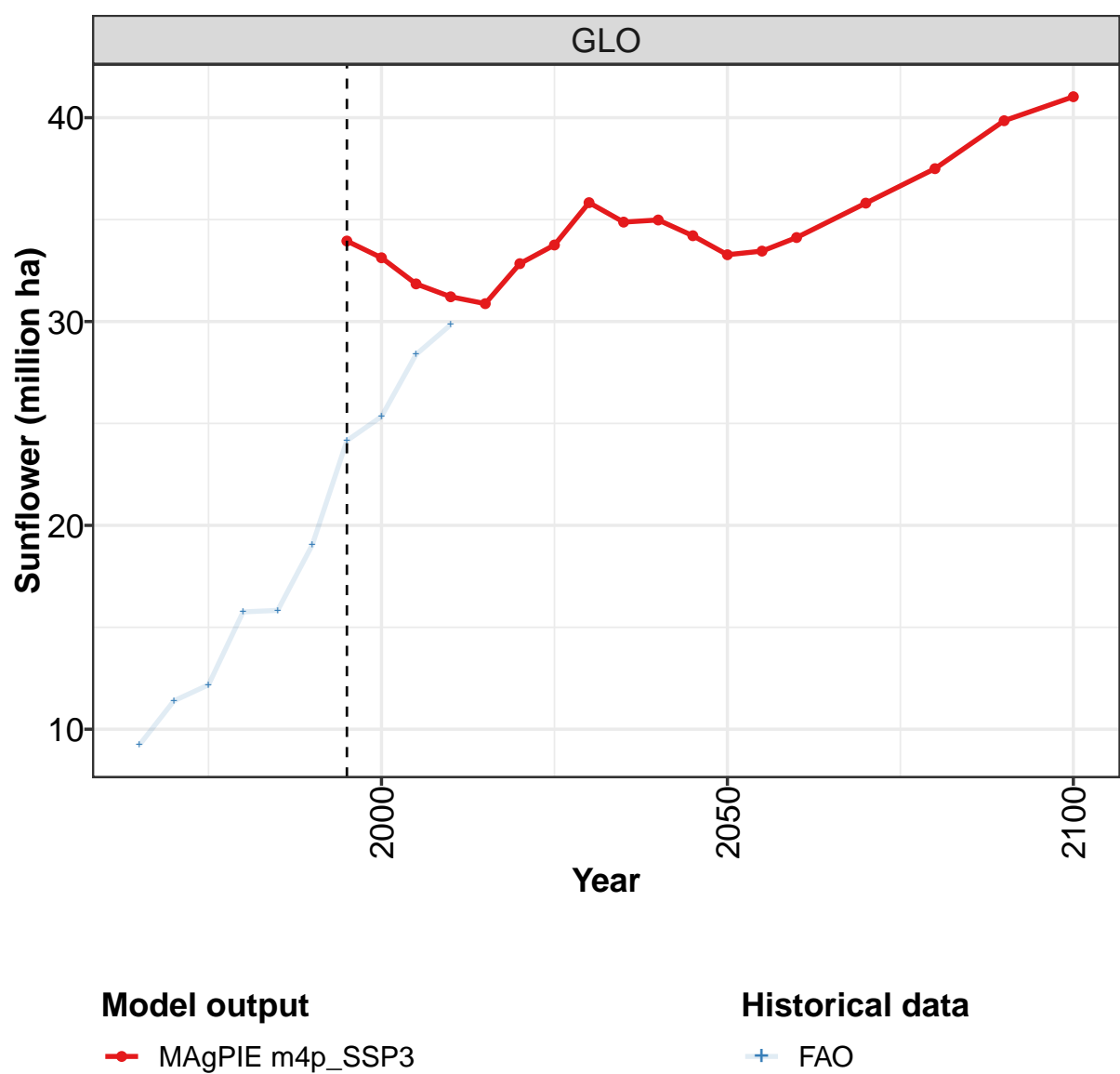
	2050	2055	2060	2070	2080	2090	2100
GLO	164	163	160	159	157	158	157
CAZ	2	2	2	2	2	2	2
CHA	5	5	5	4	3	3	2
EUR	1	1	1	0	0	0	0
IND	3	3	3	2	2	2	2
JPN	0	0	0	0	0	0	0
LAM	86	86	85	87	89	91	94
MEA	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0
OAS	1	1	1	1	1	1	1
REF	6	6	6	5	5	5	5
SSA	3	3	3	3	4	5	5
USA	58	57	56	53	51	49	46

Table 1593: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Soybean (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	32	40	48	61	60	68	75	86	103	108
CAZ	0	0	0	1	1	1	1	2	2	2
CHA	7	6	5	5	7	7	7	8	7	6
EUR	0	0	0	1	1	1	0	1	0	0
IND	0	0	0	1	1	2	5	6	7	8
JPN	0	0	0	0	0	0	0	0	0	0
LAM	1	2	8	13	14	19	23	28	46	51
MEA	0	0	0	0	0	0	0	0	0	0
NEU	0	0	0	0	0	0	0	0	0	0
OAS	2	2	2	2	2	3	3	2	2	2
REF	1	1	1	1	1	1	1	1	2	3
SSA	0	0	0	1	0	1	1	1	1	2
USA	21	28	31	37	32	32	35	38	35	34

Table 1594: FAO — Resources—Land Cover—Cropland—Crops—Oil crops—Soybean (million ha)

54.1.16 Crops—Oil crops—Sunflower



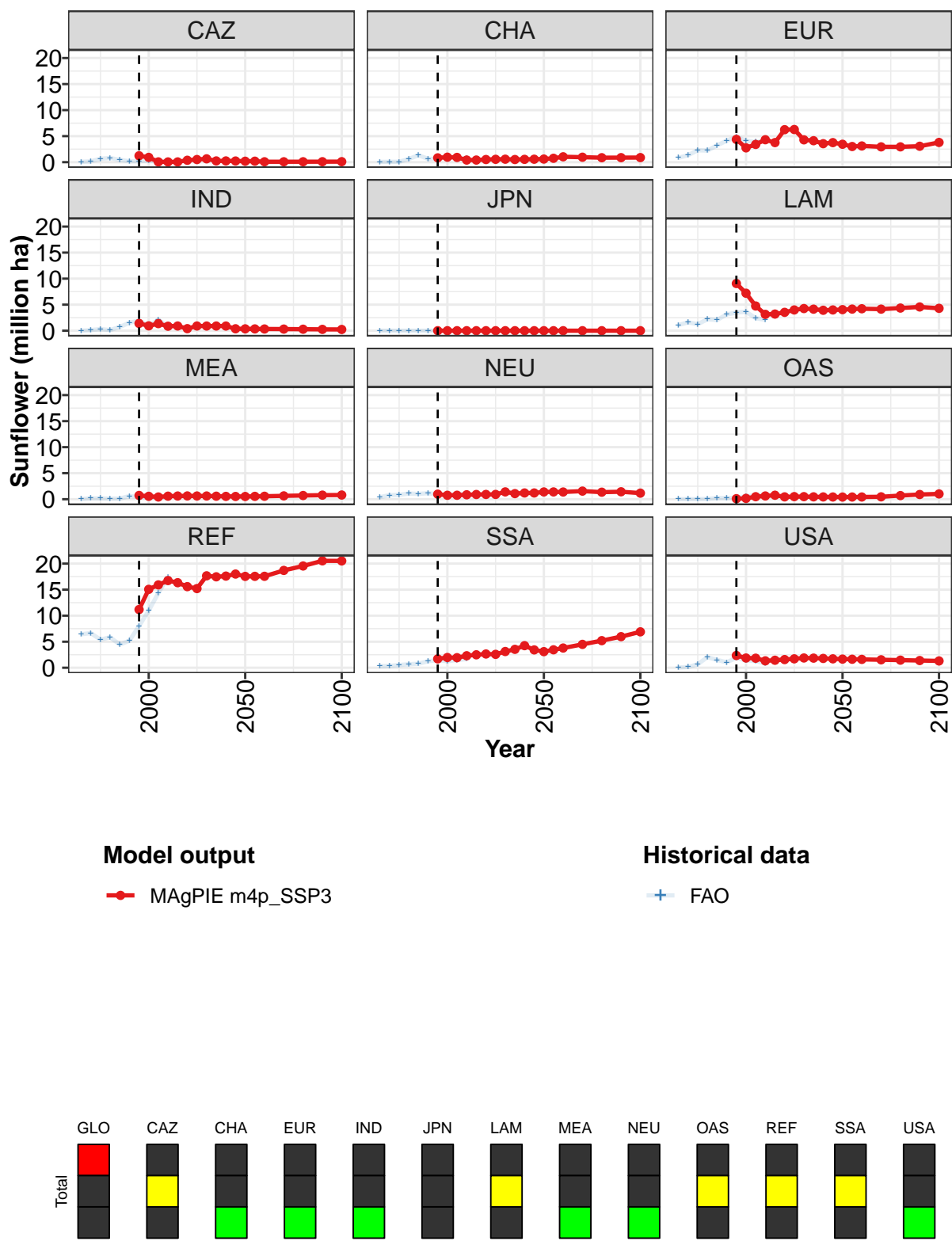


Figure 416: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Sunflower (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	33.9	33.1	31.8	31.2	30.9	32.8	33.8	35.8	34.9	35.0	34.2
CAZ	1.2	0.9	0.1	0.1	0.1	0.4	0.5	0.6	0.2	0.2	0.2
CHA	0.8	1.0	0.9	0.4	0.4	0.5	0.5	0.6	0.5	0.5	0.6
EUR	4.4	2.8	3.4	4.3	3.8	6.2	6.3	4.3	4.1	3.6	3.8
IND	1.4	0.9	1.4	0.9	0.9	0.4	0.9	0.9	0.9	0.9	0.4
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	9.1	7.2	4.7	3.1	3.2	3.5	4.0	4.3	4.1	3.9	4.0
MEA	0.7	0.6	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5
NEU	1.0	0.8	0.8	0.9	0.9	0.9	0.9	1.4	1.1	1.2	1.2
OAS	0.1	0.2	0.5	0.6	0.8	0.5	0.5	0.5	0.5	0.4	0.4
REF	11.2	15.1	15.9	16.7	16.3	15.6	15.2	17.7	17.5	17.6	18.0
SSA	1.7	2.0	1.9	2.3	2.5	2.6	2.6	3.1	3.5	4.2	3.4
USA	2.4	1.9	1.8	1.3	1.4	1.6	1.7	1.9	1.8	1.8	1.7

Table 1595: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Sunflower (million ha) [PART 1/2]

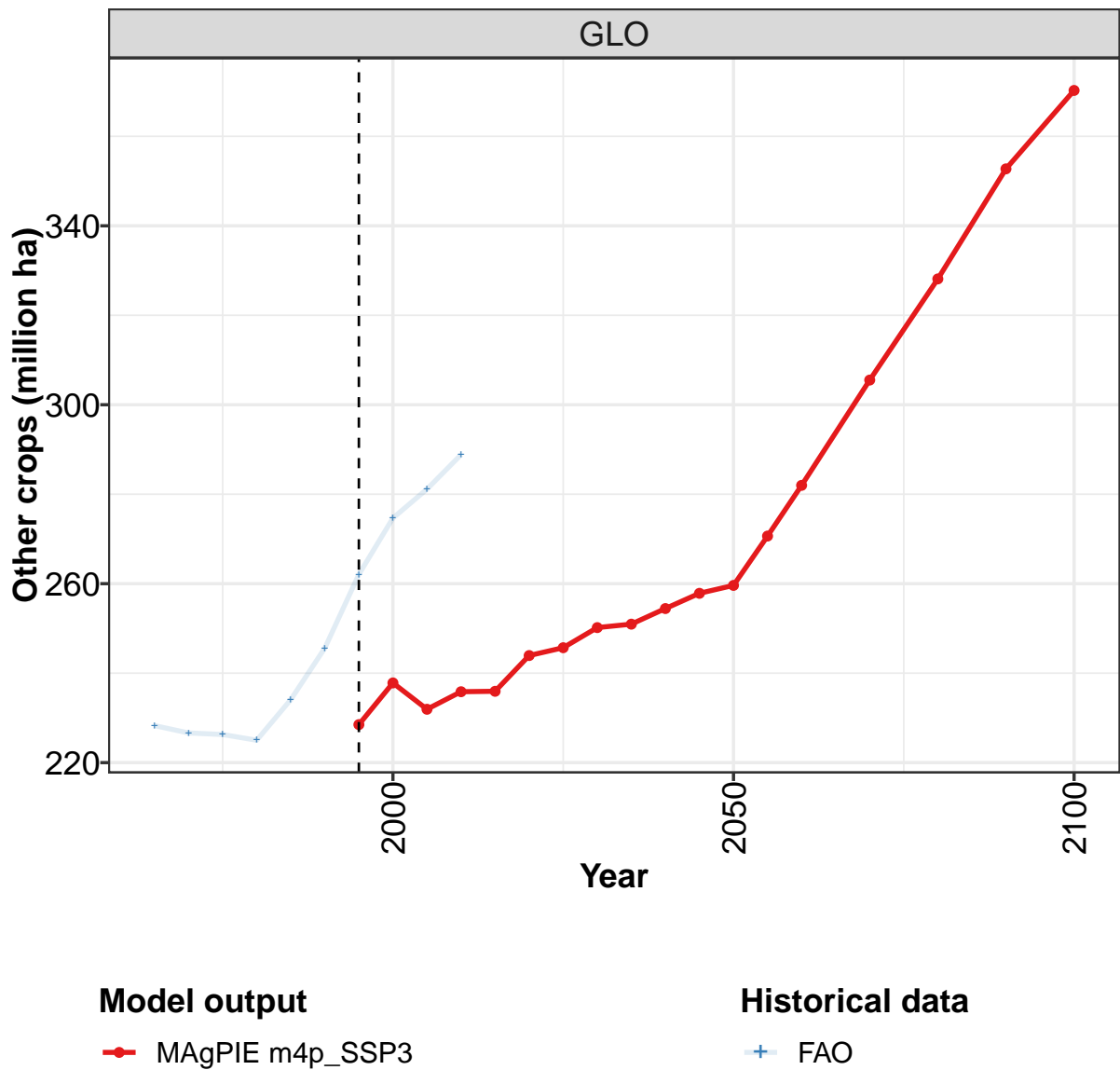
	2050	2055	2060	2070	2080	2090	2100
GLO	33.3	33.5	34.1	35.8	37.5	39.9	41.0
CAZ	0.2	0.2	0.1	0.1	0.1	0.1	0.1
CHA	0.6	0.7	1.0	1.0	0.9	0.9	0.9
EUR	3.4	3.0	3.1	2.9	2.9	3.1	3.8
IND	0.4	0.3	0.3	0.3	0.3	0.3	0.2
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	4.0	4.1	4.2	4.1	4.3	4.6	4.3
MEA	0.5	0.6	0.6	0.6	0.7	0.8	0.8
NEU	1.4	1.4	1.4	1.6	1.4	1.4	1.2
OAS	0.4	0.4	0.4	0.5	0.7	0.9	1.0
REF	17.6	17.6	17.6	18.7	19.5	20.5	20.5
SSA	3.1	3.4	3.8	4.5	5.2	6.0	6.9
USA	1.7	1.6	1.6	1.5	1.5	1.4	1.3

Table 1596: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Oil crops—Sunflower (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	9.2	11.4	12.2	15.8	15.8	19.0	24.2	25.3	28.4	29.8
CAZ	0.1	0.2	0.7	0.8	0.4	0.2	0.2	0.3	0.2	0.1
CHA	0.0	0.1	0.1	0.6	1.3	0.6	0.7	1.0	0.8	0.7
EUR	0.8	1.3	2.3	2.2	3.2	4.1	4.9	4.1	3.9	4.1
IND	0.0	0.1	0.3	0.1	0.7	1.5	1.9	1.0	2.1	0.8
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.1	1.6	1.2	2.2	2.0	3.1	3.5	3.6	2.4	2.1
MEA	0.0	0.2	0.2	0.1	0.1	0.6	0.4	0.3	0.3	0.3
NEU	0.4	0.8	0.8	1.1	1.0	1.2	0.9	0.8	0.9	1.0
OAS	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.6	0.7	0.9
REF	6.4	6.6	5.4	5.9	4.4	5.2	8.0	11.0	14.4	17.4
SSA	0.3	0.3	0.5	0.7	0.8	1.3	1.4	1.2	1.5	1.7
USA	0.0	0.1	0.7	2.0	1.5	1.0	1.9	1.4	1.3	0.8

Table 1597: FAO — Resources—Land Cover—Cropland—Crops—Oil crops—Sunflower (million ha)

54.1.17 Crops—Other crops



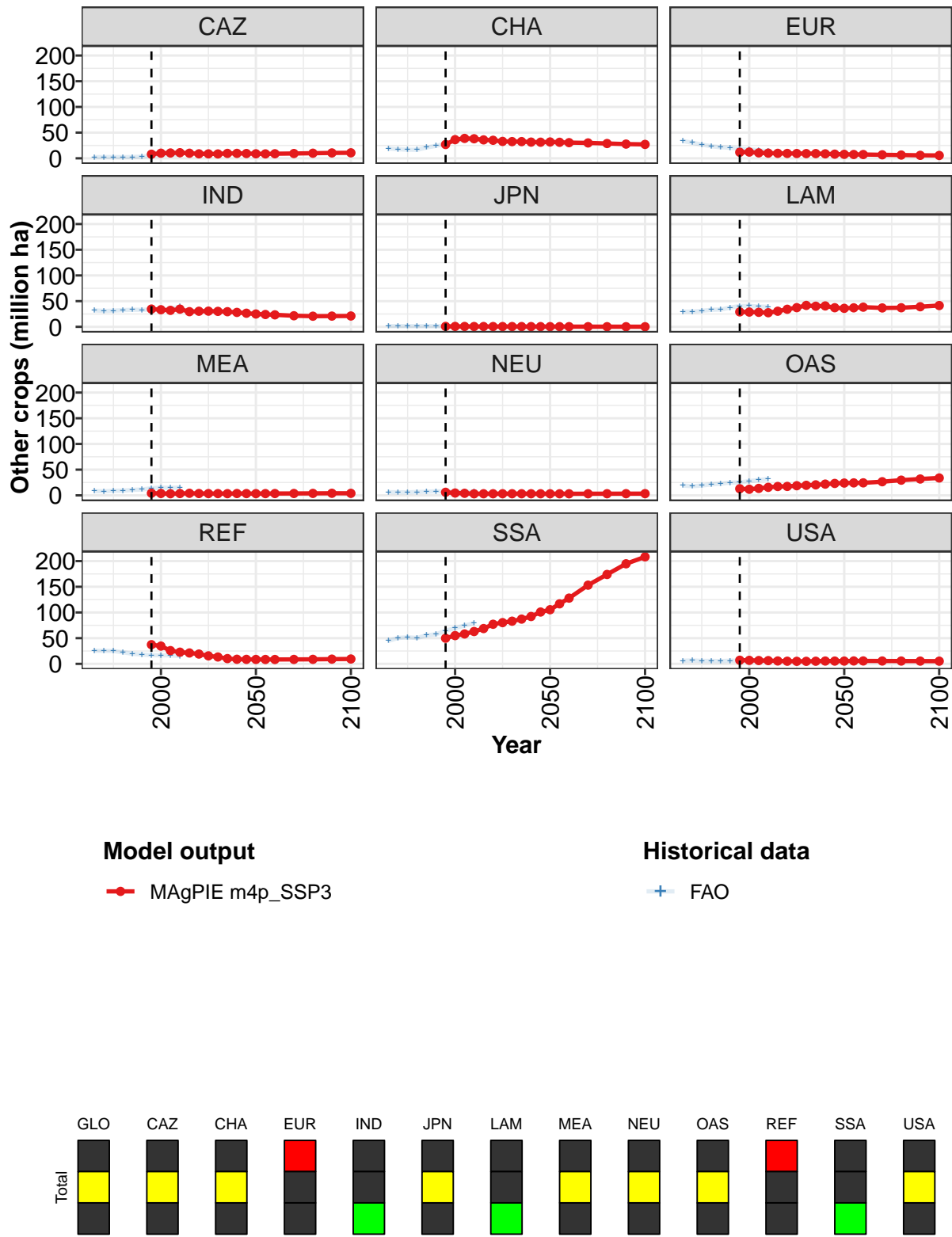


Figure 417: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	229	238	232	236	236	244	246	250	251	254	258
CAZ	8	10	10	11	10	9	9	9	10	10	9
CHA	27	36	39	38	36	35	33	33	33	32	31
EUR	12	12	11	10	10	9	9	9	9	9	8
IND	35	33	32	34	30	30	31	30	29	28	27
JPN	1	1	1	1	1	1	1	1	1	0	0
LAM	29	29	28	27	30	34	37	42	40	41	37
MEA	4	4	3	4	4	4	3	3	3	4	3
NEU	6	5	4	3	3	3	3	3	3	3	3
OAS	13	12	14	16	17	17	19	20	20	22	23
REF	37	35	26	23	21	19	16	13	10	9	9
SSA	50	55	58	63	69	77	80	83	87	92	101
USA	7	7	6	6	6	5	5	5	5	6	5

Table 1598: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops (million ha)
[PART 1/2]

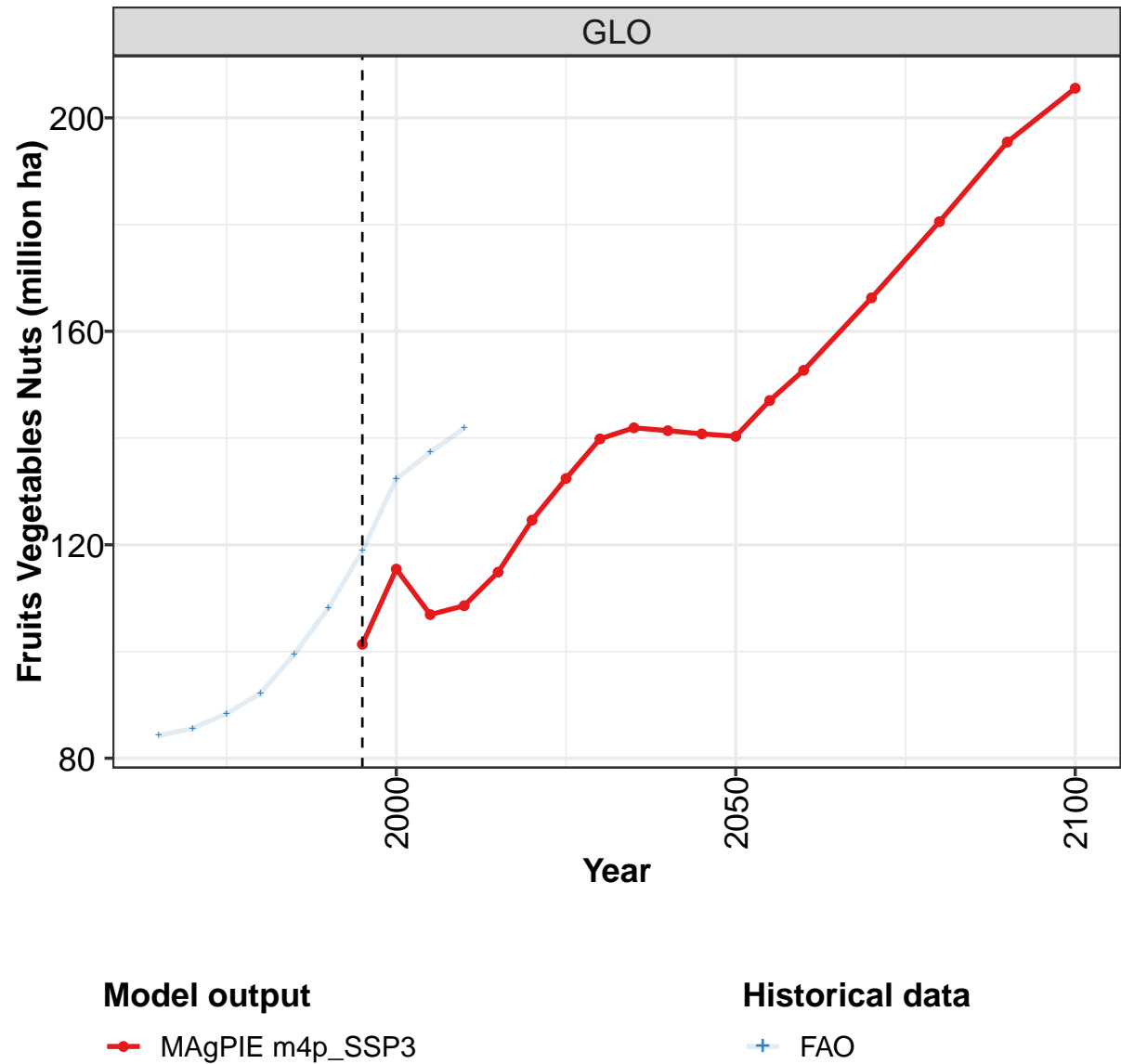
	2050	2055	2060	2070	2080	2090	2100
GLO	260	271	282	306	328	353	370
CAZ	9	9	9	9	10	10	11
CHA	32	31	31	30	29	28	27
EUR	8	7	7	7	6	6	6
IND	25	24	23	22	21	21	21
JPN	0	0	0	0	0	0	0
LAM	36	37	38	37	37	39	41
MEA	3	3	4	4	4	4	4
NEU	3	3	3	3	3	3	3
OAS	24	24	24	27	30	32	34
REF	9	9	9	9	9	9	9
SSA	105	117	128	153	174	195	208
USA	5	6	6	6	5	5	5

Table 1599: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops (million ha)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	228	227	226	225	234	246	262	275	281	289
CAZ	2	2	2	2	2	3	5	7	6	7
CHA	19	18	17	17	21	24	29	34	36	35
EUR	34	30	27	23	22	21	19	18	15	14
IND	32	31	31	33	33	33	34	32	34	40
JPN	1	2	1	1	1	1	1	1	1	1
LAM	30	30	31	33	34	37	40	41	39	39
MEA	8	8	9	9	11	11	14	15	15	15
NEU	6	6	6	6	7	8	8	7	7	7
OAS	19	18	19	21	23	25	25	28	30	32
REF	26	25	25	23	20	18	17	17	17	15
SSA	45	50	52	50	56	58	64	70	75	79
USA	6	7	6	6	5	6	6	6	6	5

Table 1600: FAO — Resources—Land Cover—Cropland—Crops—Other crops (million ha)

54.1.18 Crops—Other crops—Fruits Vegetables Nuts



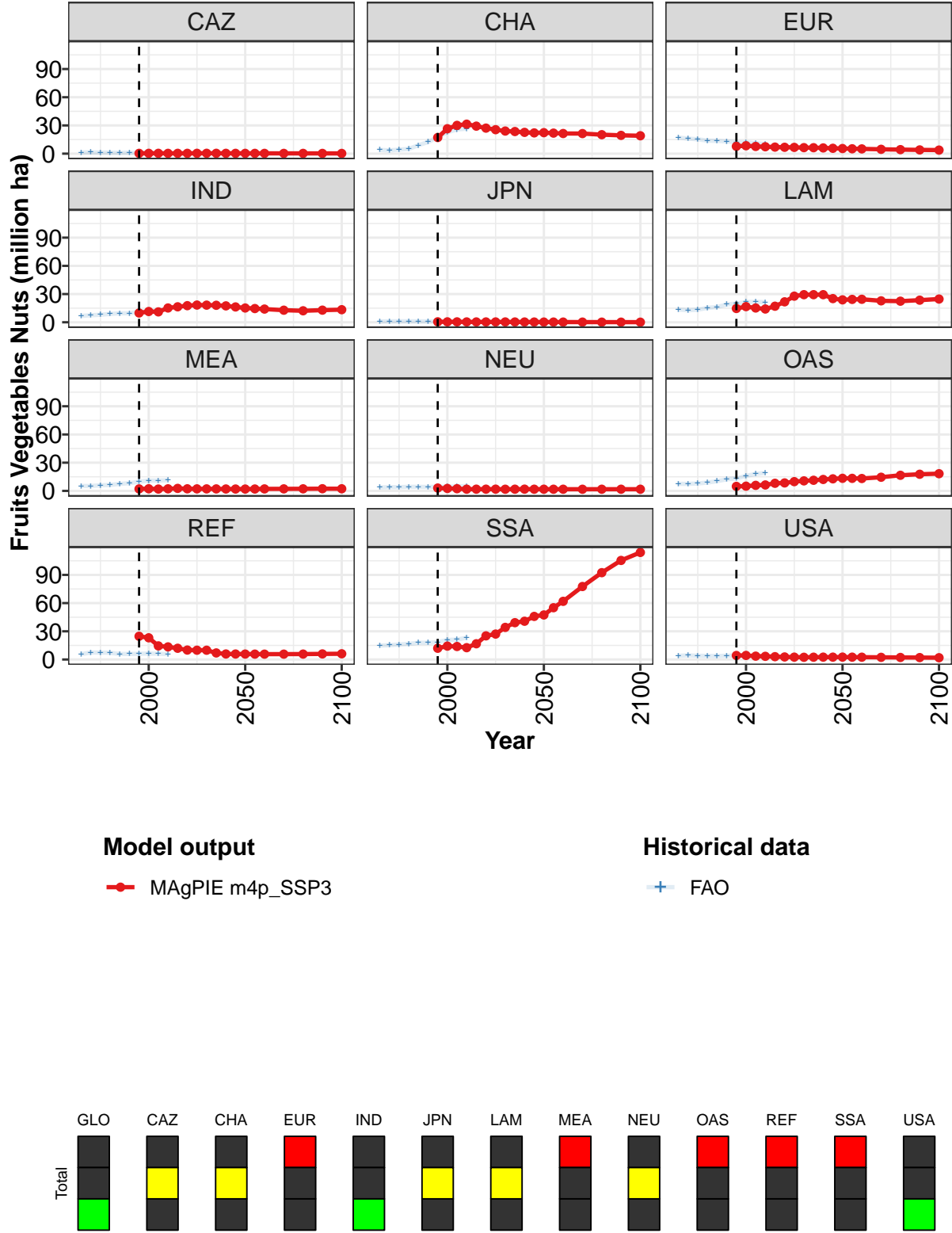


Figure 418: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops—Fruits Vegetables Nuts (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	101	115	107	109	115	125	132	140	142	141	141
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	17	27	30	31	29	27	26	24	24	23	22
EUR	8	8	8	7	7	7	7	6	6	6	6
IND	10	11	11	15	16	18	18	18	18	17	16
JPN	1	0	0	0	0	0	0	0	0	0	0
LAM	15	17	15	14	17	22	28	29	29	29	25
MEA	2	2	2	2	3	2	2	2	2	2	2
NEU	3	3	2	2	2	2	2	2	2	2	2
OAS	5	5	6	6	8	8	10	11	11	12	13
REF	25	23	14	13	12	10	10	10	7	6	6
SSA	12	14	14	13	17	25	27	34	39	41	46
USA	4	4	4	3	3	3	3	2	2	3	3

Table 1601: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops—Fruits Vegetables Nuts (million ha) [PART 1/2]

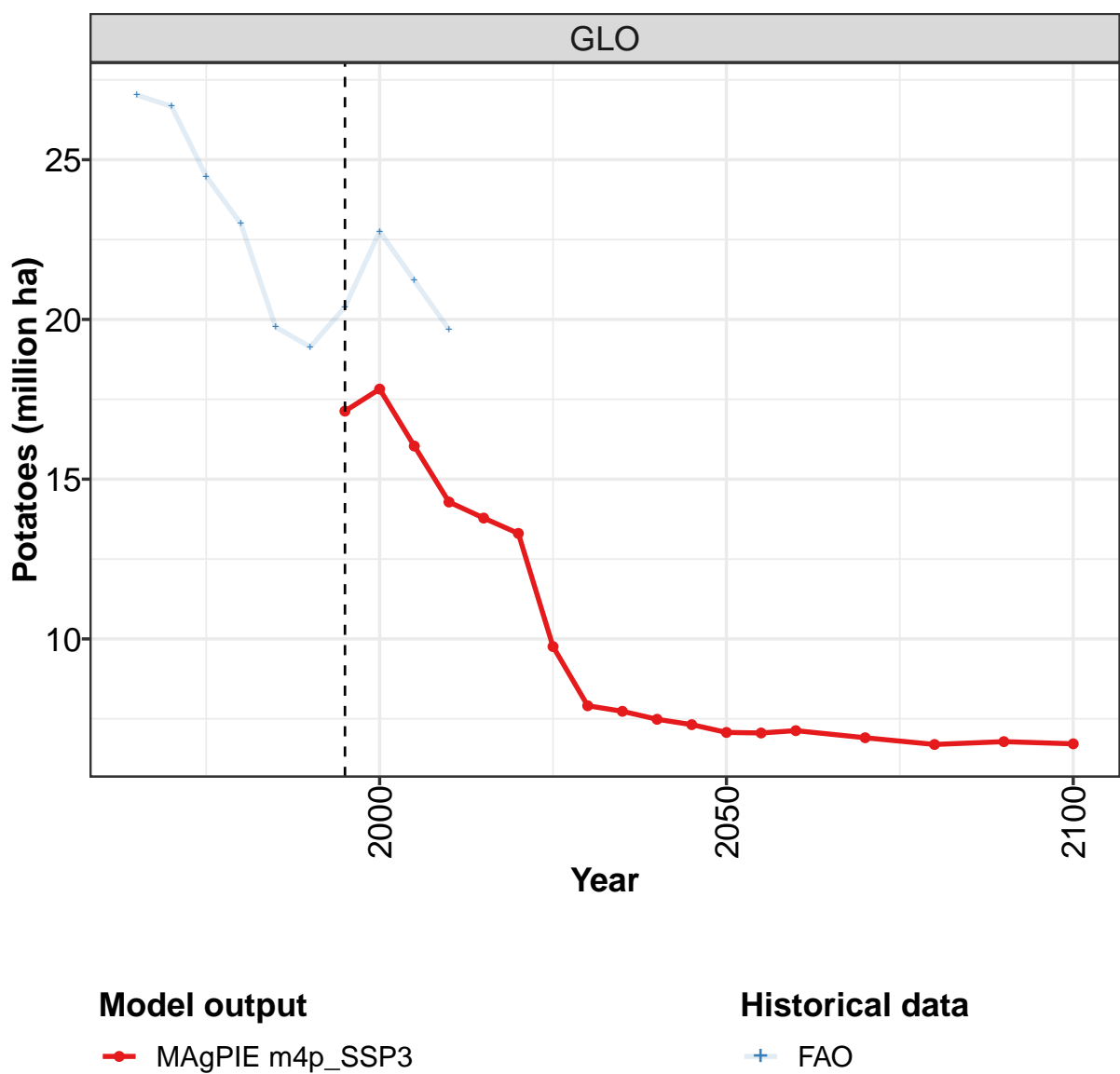
	2050	2055	2060	2070	2080	2090	2100
GLO	140	147	153	166	181	195	206
CAZ	0	0	0	0	0	0	0
CHA	22	22	21	21	20	19	19
EUR	5	5	5	5	4	4	4
IND	15	15	14	13	12	13	13
JPN	0	0	0	0	0	0	0
LAM	24	24	24	23	22	24	25
MEA	2	2	2	2	2	2	2
NEU	2	2	2	2	2	2	2
OAS	13	13	13	15	17	18	18
REF	6	6	6	6	6	6	6
SSA	47	55	62	78	92	105	114
USA	3	3	2	2	2	2	2

Table 1602: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops—Fruits Vegetables Nuts (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	84	86	88	92	100	108	119	132	137	142
CAZ	1	1	1	1	1	1	1	1	1	1
CHA	4	3	4	5	9	12	18	23	26	27
EUR	17	16	15	14	14	13	12	12	11	10
IND	7	7	8	9	10	10	11	12	13	15
JPN	1	1	1	1	1	1	1	1	1	1
LAM	13	13	13	15	16	19	20	22	22	21
MEA	5	5	6	6	7	8	10	11	11	11
NEU	4	4	4	4	4	4	5	4	5	5
OAS	8	7	8	9	10	12	13	16	18	19
REF	6	7	7	7	6	6	6	6	6	6
SSA	15	15	16	17	18	18	19	21	21	23
USA	4	4	4	4	4	4	4	4	4	3

Table 1603: FAO — Resources—Land Cover—Cropland—Crops—Other crops—Fruits Vegetables Nuts (million ha)

54.1.19 Crops—Other crops—Potatoes



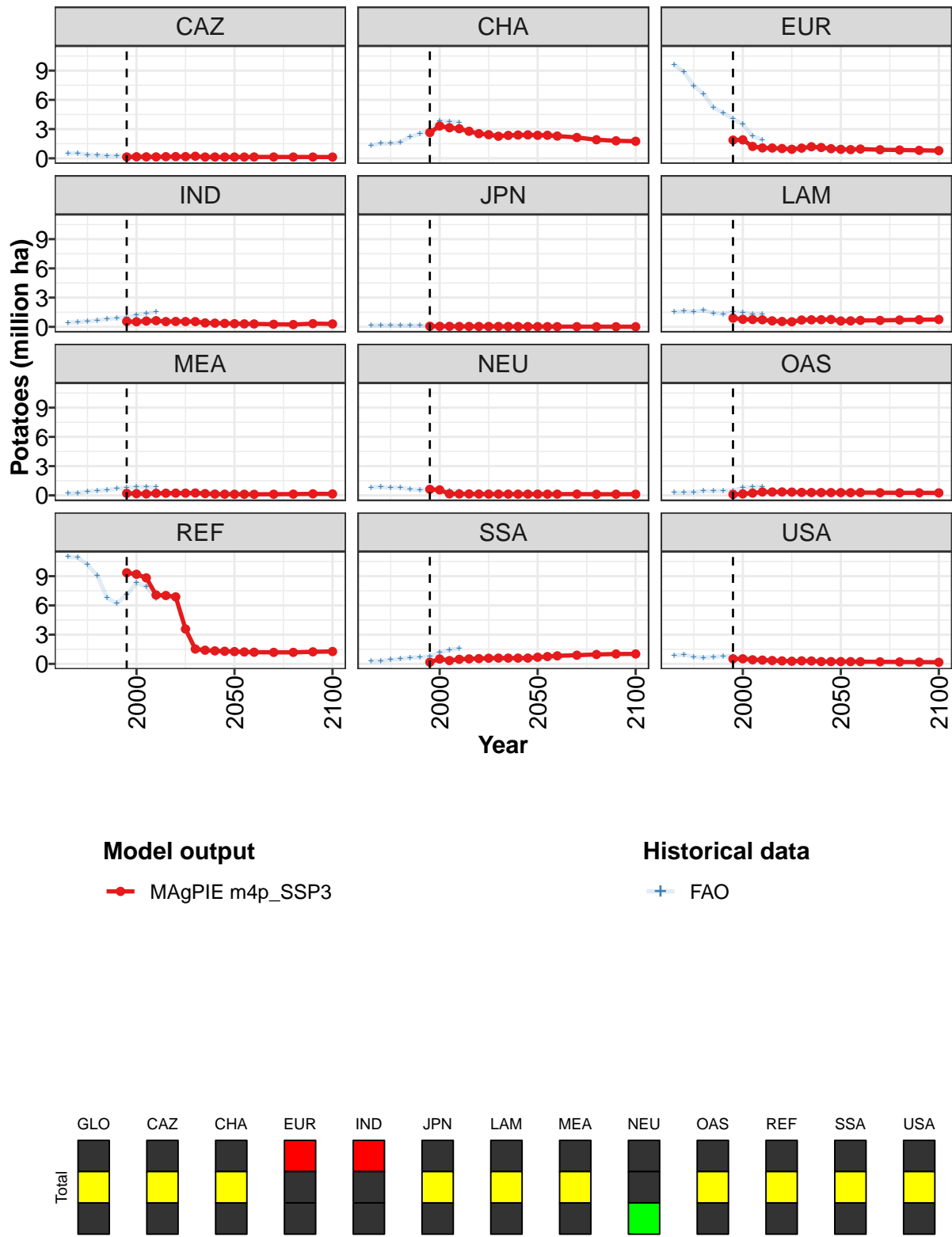


Figure 419: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops—Potatoes (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17.1	17.8	16.0	14.3	13.8	13.3	9.8	7.9	7.7	7.5	7.3
CAZ	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
CHA	2.6	3.3	3.1	3.0	2.8	2.5	2.4	2.3	2.4	2.4	2.4
EUR	1.9	1.9	1.2	1.1	1.1	1.0	0.9	1.0	1.2	1.1	1.0
IND	0.6	0.5	0.6	0.6	0.5	0.6	0.5	0.5	0.4	0.4	0.4
JPN	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.9	0.8	0.8	0.7	0.6	0.6	0.5	0.7	0.7	0.7	0.8
MEA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
NEU	0.6	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	0.1	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3
REF	9.4	9.2	8.8	7.1	7.0	6.9	3.6	1.5	1.4	1.3	1.3
SSA	0.2	0.5	0.3	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
USA	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2

Table 1604: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops—Potatoes (million ha) [PART 1/2]

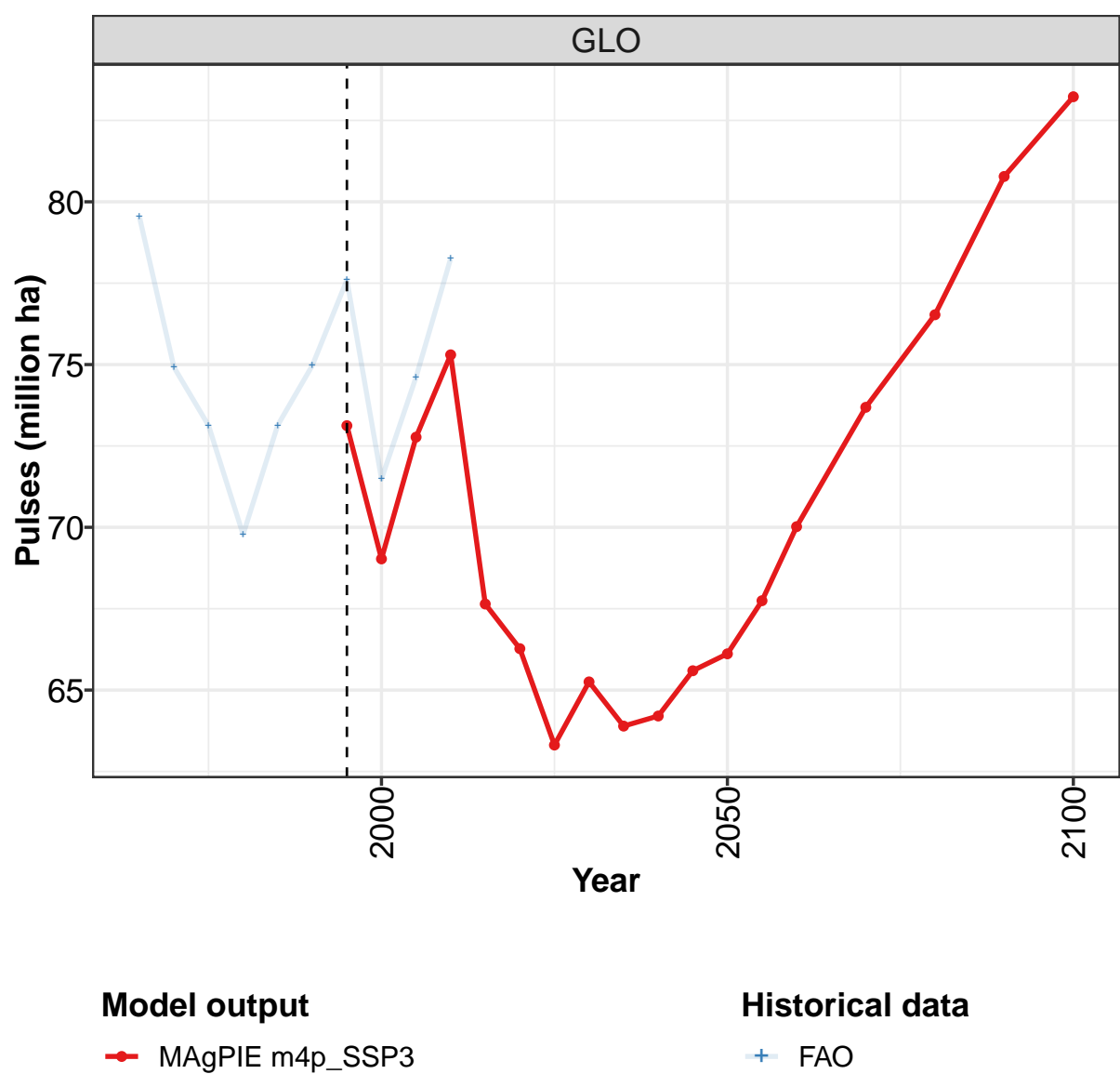
	2050	2055	2060	2070	2080	2090	2100
GLO	7.1	7.1	7.1	6.9	6.7	6.8	6.7
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	2.4	2.4	2.3	2.1	1.9	1.8	1.8
EUR	0.9	0.9	1.0	0.9	0.9	0.8	0.8
IND	0.3	0.3	0.3	0.3	0.2	0.3	0.3
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.6	0.6	0.7	0.7	0.7	0.7	0.8
MEA	0.1	0.1	0.1	0.1	0.1	0.2	0.1
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	0.3	0.3	0.3	0.3	0.3	0.3	0.3
REF	1.3	1.2	1.2	1.2	1.2	1.2	1.3
SSA	0.7	0.7	0.8	0.9	1.0	1.0	1.0
USA	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Table 1605: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops—Potatoes (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	27.0	26.7	24.5	23.0	19.8	19.1	20.4	22.8	21.2	19.7
CAZ	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2
CHA	1.3	1.5	1.5	1.7	2.2	2.5	2.9	3.8	3.8	3.7
EUR	9.6	8.8	7.4	6.6	5.2	4.7	4.0	3.5	2.3	1.9
IND	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.4	1.5
JPN	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	1.5	1.6	1.6	1.7	1.4	1.3	1.6	1.5	1.3	1.3
MEA	0.2	0.3	0.4	0.5	0.5	0.7	0.8	0.9	0.9	0.8
NEU	0.8	0.8	0.8	0.8	0.6	0.6	0.6	0.5	0.5	0.4
OAS	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.8	0.9	0.9
REF	11.0	10.9	10.2	9.1	6.8	6.2	7.1	8.3	7.9	6.7
SSA	0.3	0.3	0.4	0.5	0.6	0.7	0.7	1.1	1.4	1.6
USA	0.9	0.9	0.7	0.6	0.7	0.8	0.8	0.7	0.5	0.4

Table 1606: FAO — Resources—Land Cover—Cropland—Crops—Other crops—Potatoes (million ha)

54.1.20 Crops—Other crops—Pulses



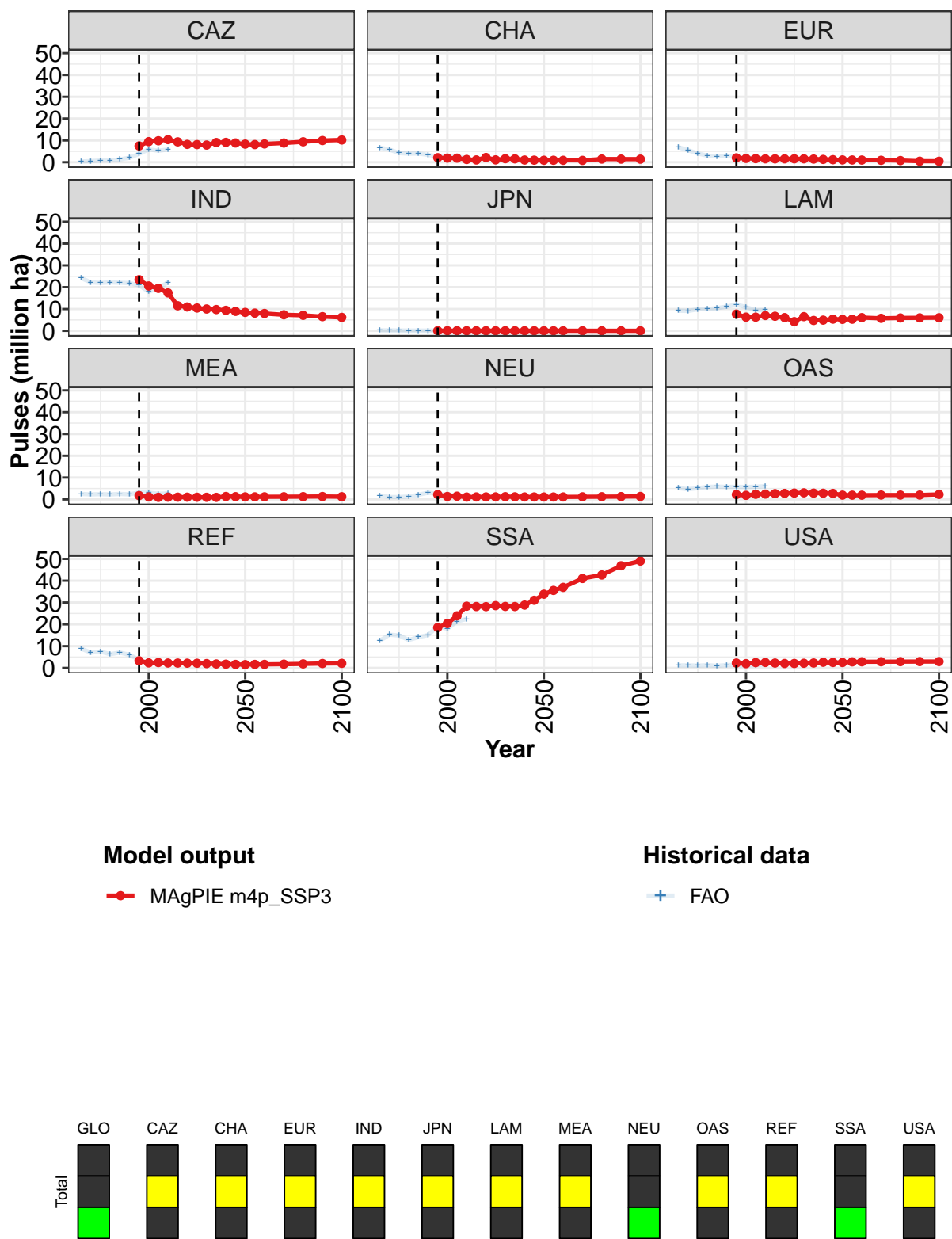


Figure 420: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops—Pulses (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	73.1	69.0	72.8	75.3	67.6	66.3	63.3	65.3	63.9	64.2	65.6
CAZ	7.5	9.4	9.9	10.4	9.4	8.2	8.1	7.9	9.0	9.1	8.8
CHA	2.1	1.9	1.9	1.3	1.0	2.2	1.1	1.6	1.6	1.0	1.0
EUR	2.0	1.8	1.7	1.6	1.5	1.6	1.6	1.6	1.5	1.3	1.2
IND	23.5	20.6	19.5	17.4	11.5	10.9	10.5	10.0	9.8	9.4	8.9
JPN	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	7.7	6.3	6.3	7.0	6.7	6.1	4.2	6.5	4.8	4.9	5.4
MEA	1.7	1.2	0.9	1.0	1.0	1.0	1.0	1.0	0.9	1.3	1.3
NEU	2.3	1.3	1.5	1.1	1.1	1.2	1.2	1.3	1.2	1.1	1.1
OAS	2.2	1.9	2.3	2.5	2.7	2.8	2.9	3.0	2.9	2.8	2.8
REF	3.3	2.3	2.5	2.3	2.2	2.2	2.2	2.0	1.8	1.7	1.6
SSA	18.6	20.4	23.9	28.3	28.2	28.1	28.6	28.2	28.2	28.8	31.0
USA	2.2	2.0	2.5	2.5	2.2	2.0	2.1	2.2	2.3	2.6	2.5

Table 1607: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops—Pulses (million ha) [PART 1/2]

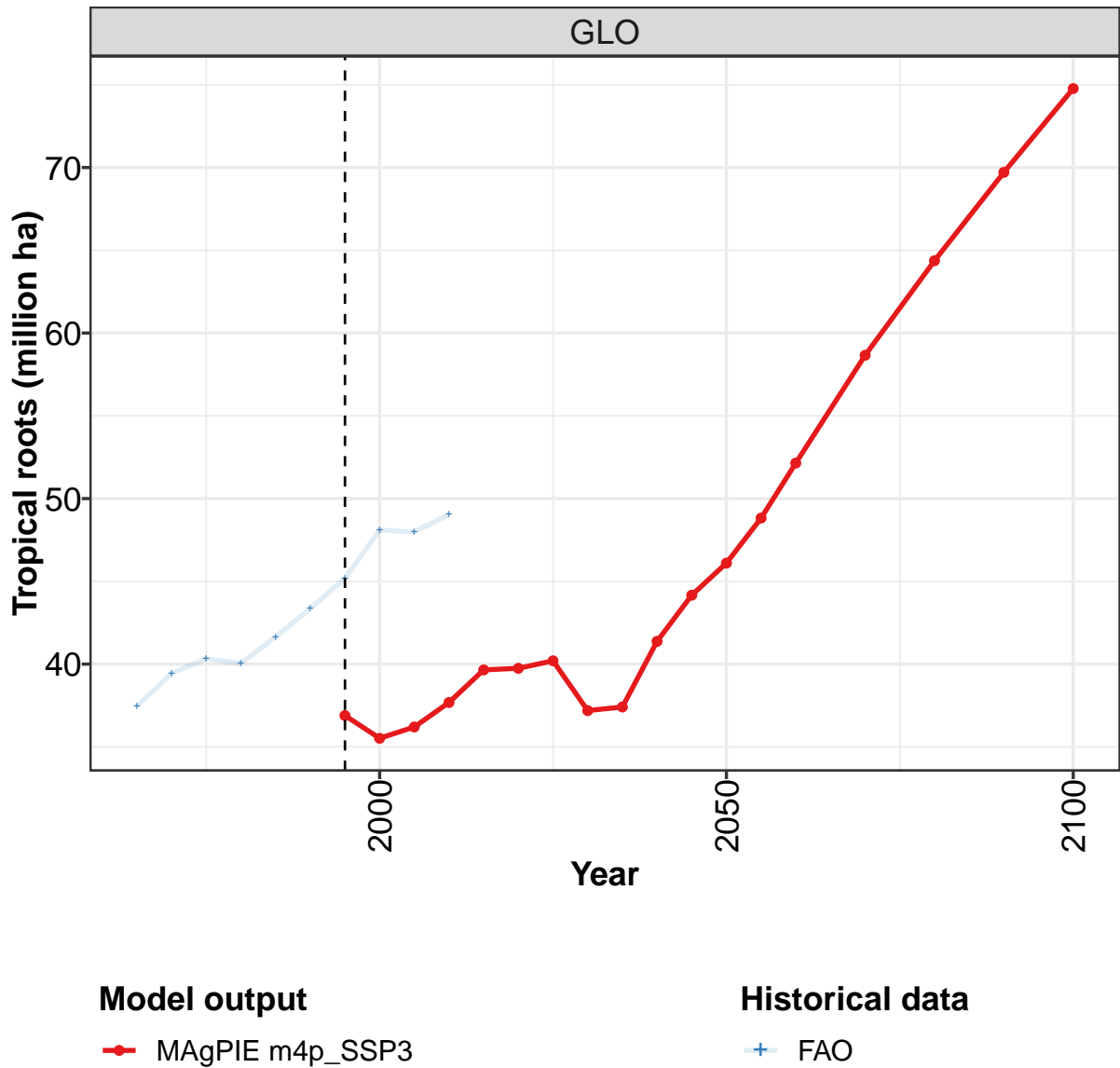
	2050	2055	2060	2070	2080	2090	2100
GLO	66.1	67.7	70.0	73.7	76.5	80.8	83.2
CAZ	8.3	8.1	8.4	8.8	9.4	10.0	10.2
CHA	0.9	0.9	0.9	0.9	1.5	1.4	1.4
EUR	1.1	1.0	1.0	0.9	0.8	0.5	0.5
IND	8.5	8.1	8.0	7.4	7.1	6.5	6.2
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	5.3	5.3	6.1	5.7	5.9	5.9	6.0
MEA	1.2	1.2	1.2	1.2	1.3	1.3	1.2
NEU	1.1	1.1	1.1	1.2	1.2	1.3	1.3
OAS	2.0	1.9	1.9	2.0	2.0	2.0	2.3
REF	1.5	1.6	1.6	1.7	1.9	2.0	2.1
SSA	33.8	35.6	37.0	41.0	42.6	46.9	49.0
USA	2.5	2.8	2.8	2.9	2.9	2.9	2.9

Table 1608: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops—Pulses (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	79.5	74.9	73.1	69.8	73.1	75.0	77.6	71.5	74.6	78.3
CAZ	0.3	0.5	0.8	0.8	1.3	2.0	3.8	5.9	5.3	5.8
CHA	6.7	5.8	4.2	3.9	4.0	3.4	2.6	2.7	2.6	2.0
EUR	6.9	5.5	4.0	3.0	2.7	2.9	2.4	2.1	2.1	1.8
IND	24.2	22.2	22.0	22.2	22.1	21.9	20.9	17.9	19.6	22.3
JPN	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
LAM	9.2	9.1	9.9	10.0	10.4	11.1	12.1	10.9	9.5	9.6
MEA	2.5	2.3	2.4	2.3	2.5	2.3	3.2	3.1	2.5	2.8
NEU	1.8	1.1	1.1	1.3	2.1	3.1	2.5	2.1	1.7	1.3
OAS	5.2	4.7	5.2	5.7	5.9	5.7	5.8	5.7	5.8	6.1
REF	8.9	7.0	7.5	6.3	7.1	6.0	3.8	2.0	2.6	2.8
SSA	12.5	15.3	14.9	12.8	14.1	15.1	19.1	18.0	21.4	22.5
USA	1.2	1.2	1.0	1.3	1.0	1.3	1.3	1.1	1.4	1.5

Table 1609: FAO — Resources—Land Cover—Cropland—Crops—Other crops—Pulses (million ha)

54.1.21 Crops—Other crops—Tropical roots



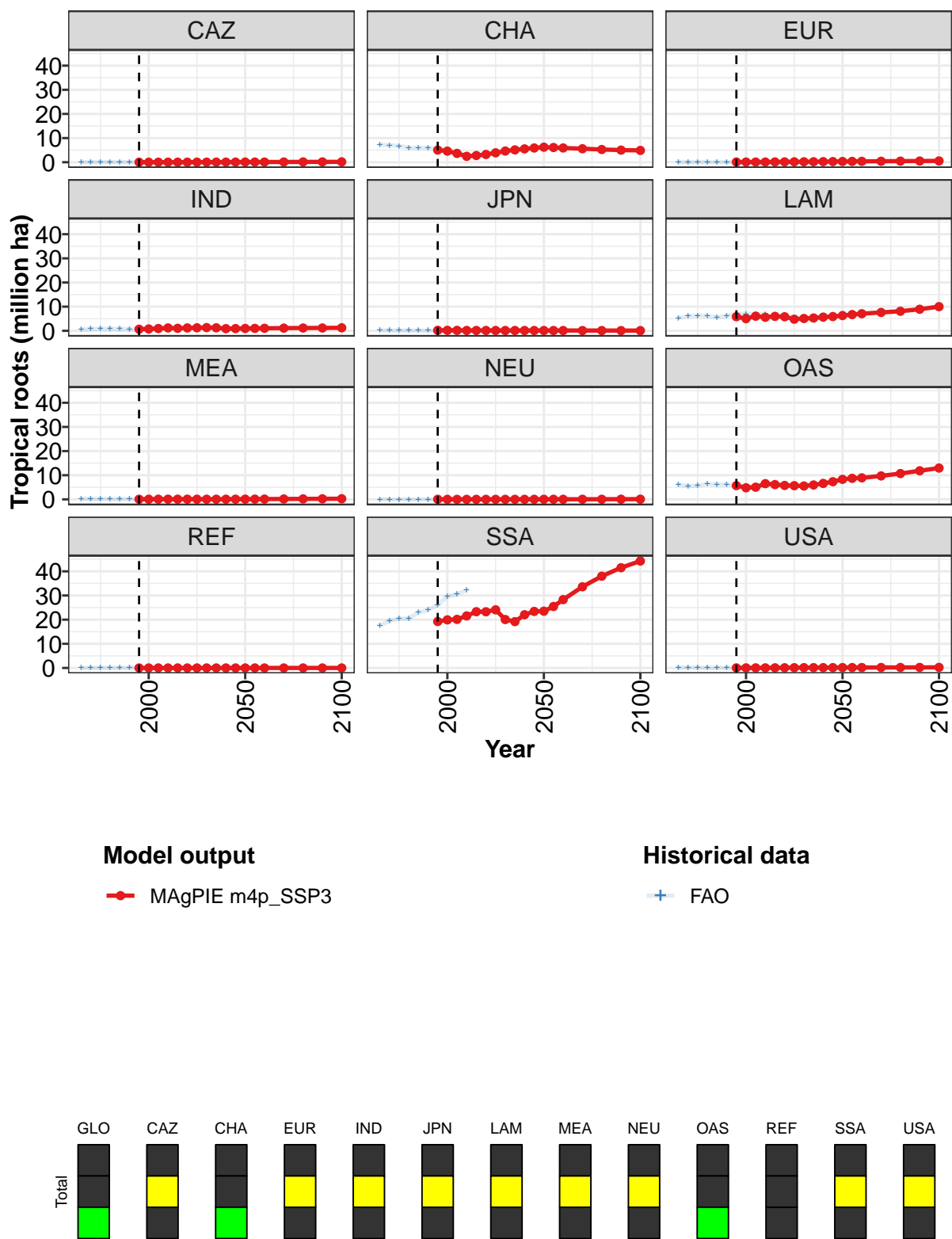


Figure 421: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops—Tropical roots (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	36.9	35.5	36.2	37.7	39.6	39.7	40.2	37.2	37.4	41.4	44.2
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
CHA	5.0	4.6	3.7	2.4	2.8	3.2	3.9	4.6	5.1	5.5	5.9
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3
IND	0.7	0.8	0.9	1.2	1.0	1.2	1.2	1.3	1.2	0.9	0.9
JPN	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	5.8	5.0	6.0	5.6	6.0	5.8	4.8	5.1	5.3	5.7	5.9
MEA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	5.7	4.8	5.0	6.5	6.1	5.8	5.7	5.5	6.0	6.6	7.3
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	19.2	19.9	20.1	21.5	23.3	23.3	24.1	20.1	19.2	22.0	23.4
USA	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 1610: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops—Tropical roots (million ha) [PART 1/2]

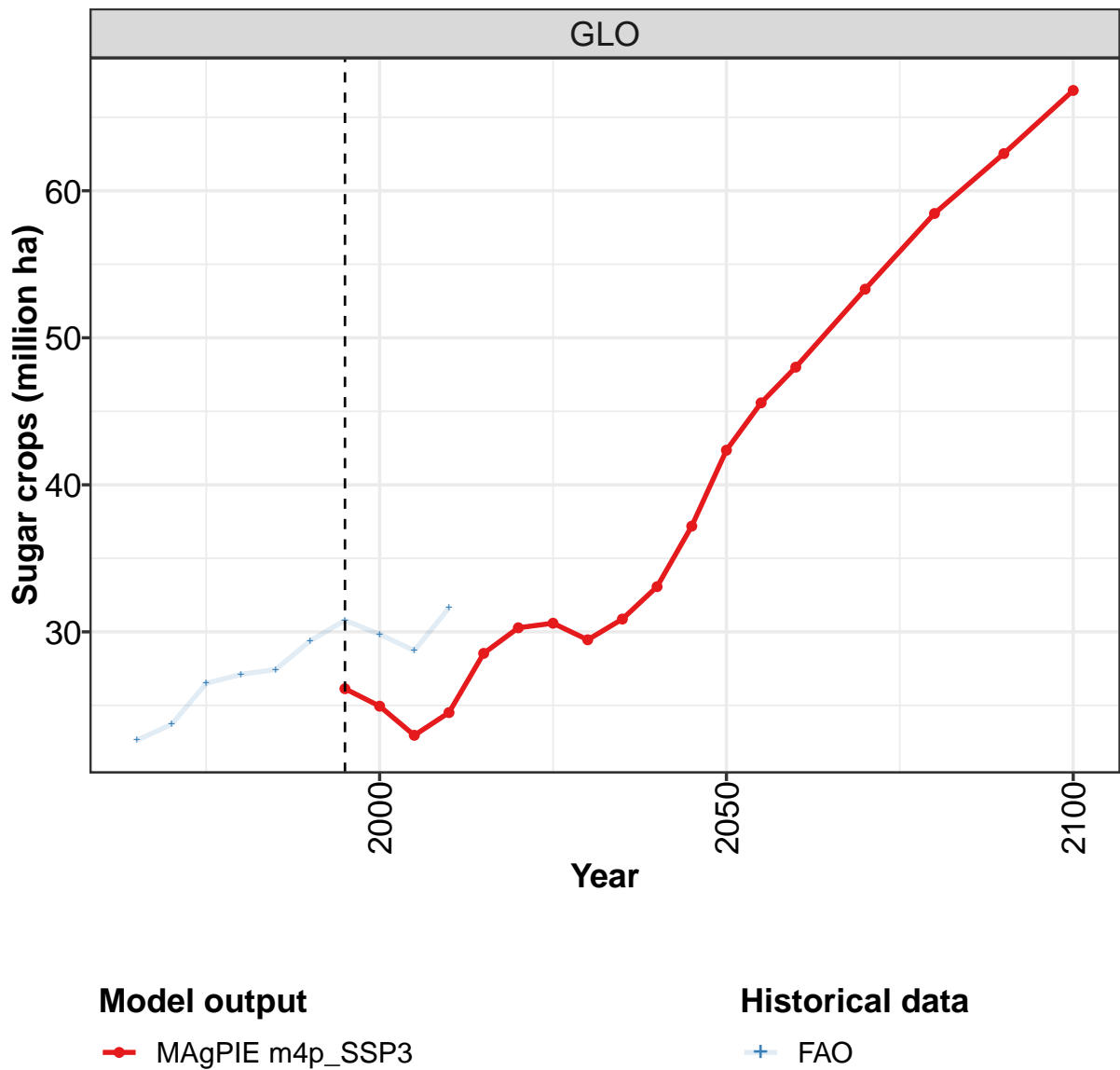
	2050	2055	2060	2070	2080	2090	2100
GLO	46.1	48.8	52.1	58.7	64.4	69.7	74.8
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.2
CHA	6.2	6.1	5.9	5.6	5.3	5.0	4.9
EUR	0.3	0.3	0.4	0.4	0.5	0.5	0.5
IND	1.0	1.0	1.0	1.1	1.2	1.2	1.2
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	6.3	6.7	7.1	7.6	8.1	8.9	10.0
MEA	0.1	0.1	0.1	0.2	0.2	0.2	0.3
NEU	0.0	0.0	0.0	0.1	0.1	0.1	0.1
OAS	8.3	8.7	8.9	9.7	10.7	11.8	13.0
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	23.5	25.5	28.3	33.6	38.0	41.5	44.3
USA	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Table 1611: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Other crops—Tropical roots (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	37.4	39.4	40.3	40.0	41.6	43.3	45.2	48.1	48.0	49.0
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	7.2	7.0	6.7	6.0	5.9	6.0	5.6	5.2	4.1	3.1
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.6	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.8	1.0
JPN	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	5.3	6.1	6.3	6.1	5.7	6.1	7.0	7.0	6.9	6.8
MEA	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	6.1	5.5	5.7	6.4	6.0	6.3	5.5	5.3	5.3	5.6
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	17.4	19.6	20.4	20.4	23.0	24.0	26.1	29.6	30.5	32.2
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1

Table 1612: FAO — Resources—Land Cover—Cropland—Crops—Other crops—Tropical roots (million ha)

54.1.22 Crops—Sugar crops



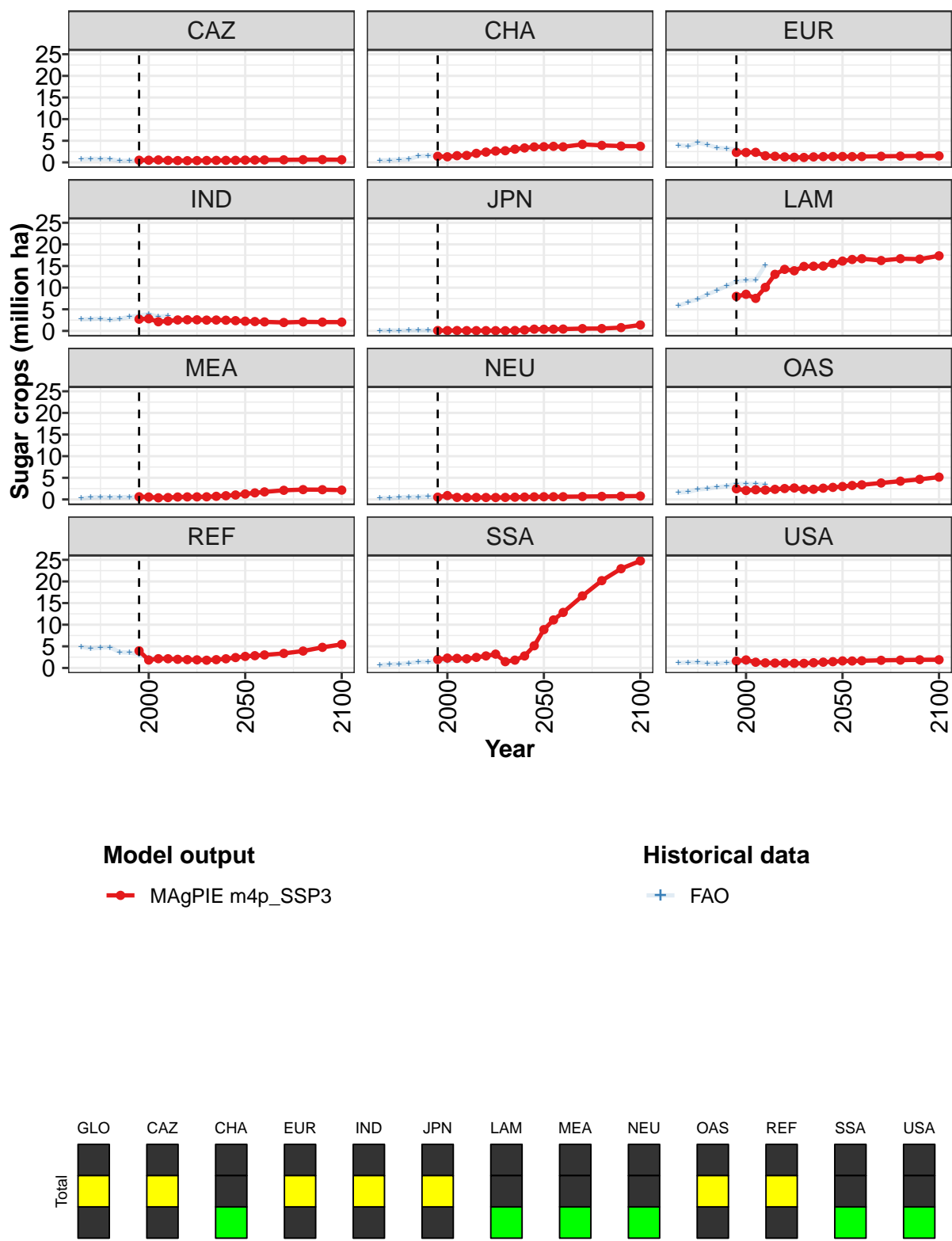


Figure 422: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Sugar crops (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	26.1	24.9	23.0	24.5	28.5	30.3	30.6	29.5	30.9	33.1	37.2
CAZ	0.5	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5
CHA	1.4	1.3	1.6	1.6	2.1	2.4	2.6	2.7	3.1	3.3	3.6
EUR	2.3	2.3	2.3	1.5	1.4	1.3	1.2	1.1	1.3	1.3	1.4
IND	2.7	2.8	2.1	2.3	2.5	2.6	2.6	2.5	2.5	2.5	2.4
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
LAM	8.0	8.5	7.5	10.1	13.1	14.2	13.9	14.9	14.9	15.0	15.6
MEA	0.6	0.6	0.4	0.4	0.6	0.6	0.6	0.6	0.7	0.9	1.0
NEU	0.5	0.9	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.6	0.6
OAS	2.5	2.1	2.2	2.2	2.3	2.5	2.6	2.3	2.3	2.6	2.8
REF	4.0	1.8	2.1	2.1	2.0	1.9	1.9	1.8	1.9	2.1	2.4
SSA	2.0	2.3	2.2	2.1	2.4	2.8	3.2	1.5	1.8	2.8	5.1
USA	1.6	1.9	1.3	1.2	1.1	1.1	1.1	1.1	1.2	1.3	1.5

Table 1613: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Sugar crops (million ha)
[PART 1/2]

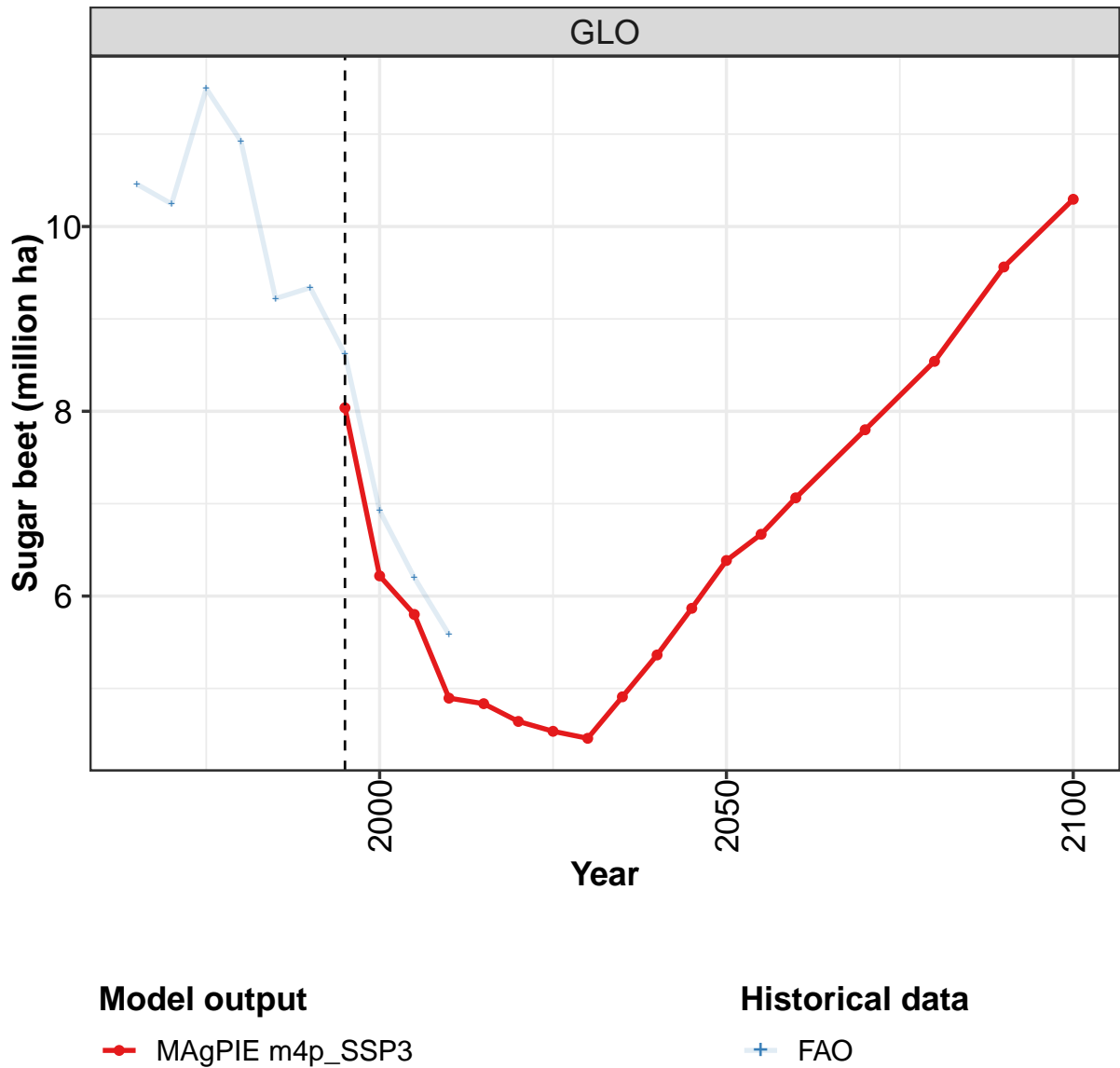
	2050	2055	2060	2070	2080	2090	2100
GLO	42.4	45.6	48.0	53.3	58.5	62.5	66.8
CAZ	0.5	0.5	0.6	0.6	0.6	0.6	0.6
CHA	3.6	3.7	3.6	4.2	3.9	3.8	3.7
EUR	1.4	1.3	1.4	1.4	1.5	1.5	1.5
IND	2.2	2.2	2.1	1.9	2.1	2.0	2.0
JPN	0.4	0.4	0.4	0.5	0.5	0.8	1.4
LAM	16.1	16.5	16.7	16.3	16.7	16.6	17.4
MEA	1.3	1.5	1.7	2.1	2.3	2.3	2.2
NEU	0.6	0.6	0.6	0.7	0.7	0.7	0.8
OAS	3.0	3.2	3.4	3.8	4.2	4.6	5.2
REF	2.7	2.8	3.0	3.4	3.9	4.8	5.4
SSA	8.9	11.1	12.8	16.7	20.2	22.9	24.8
USA	1.6	1.6	1.7	1.8	1.8	1.9	1.9

Table 1614: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Sugar crops (million ha)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	22.6	23.7	26.5	27.1	27.4	29.4	30.8	29.8	28.7	31.6
CAZ	0.7	0.8	0.8	0.8	0.3	0.4	0.4	0.5	0.5	0.4
CHA	0.5	0.5	0.7	0.7	1.4	1.5	1.6	1.2	1.2	1.4
EUR	4.0	3.8	4.6	4.1	3.4	3.2	3.0	2.5	2.2	1.5
IND	2.7	2.7	2.8	2.5	2.8	3.2	3.5	3.9	3.3	3.5
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	5.8	6.7	7.3	8.4	9.4	10.4	11.5	11.7	11.8	15.2
MEA	0.3	0.5	0.5	0.5	0.5	0.6	0.7	0.6	0.6	0.6
NEU	0.3	0.3	0.4	0.6	0.6	0.7	0.5	0.6	0.5	0.5
OAS	1.6	1.8	2.3	2.5	2.8	3.1	3.6	3.6	3.6	3.4
REF	4.9	4.5	4.7	4.8	3.6	3.6	3.1	2.3	2.2	2.5
SSA	0.7	0.8	0.9	1.1	1.4	1.4	1.5	1.6	1.7	1.7
USA	1.1	1.3	1.3	1.1	1.0	1.2	1.3	1.3	1.1	0.9

Table 1615: FAO — Resources—Land Cover—Cropland—Crops—Sugar crops (million ha)

54.1.23 Crops—Sugar crops—Sugar beet



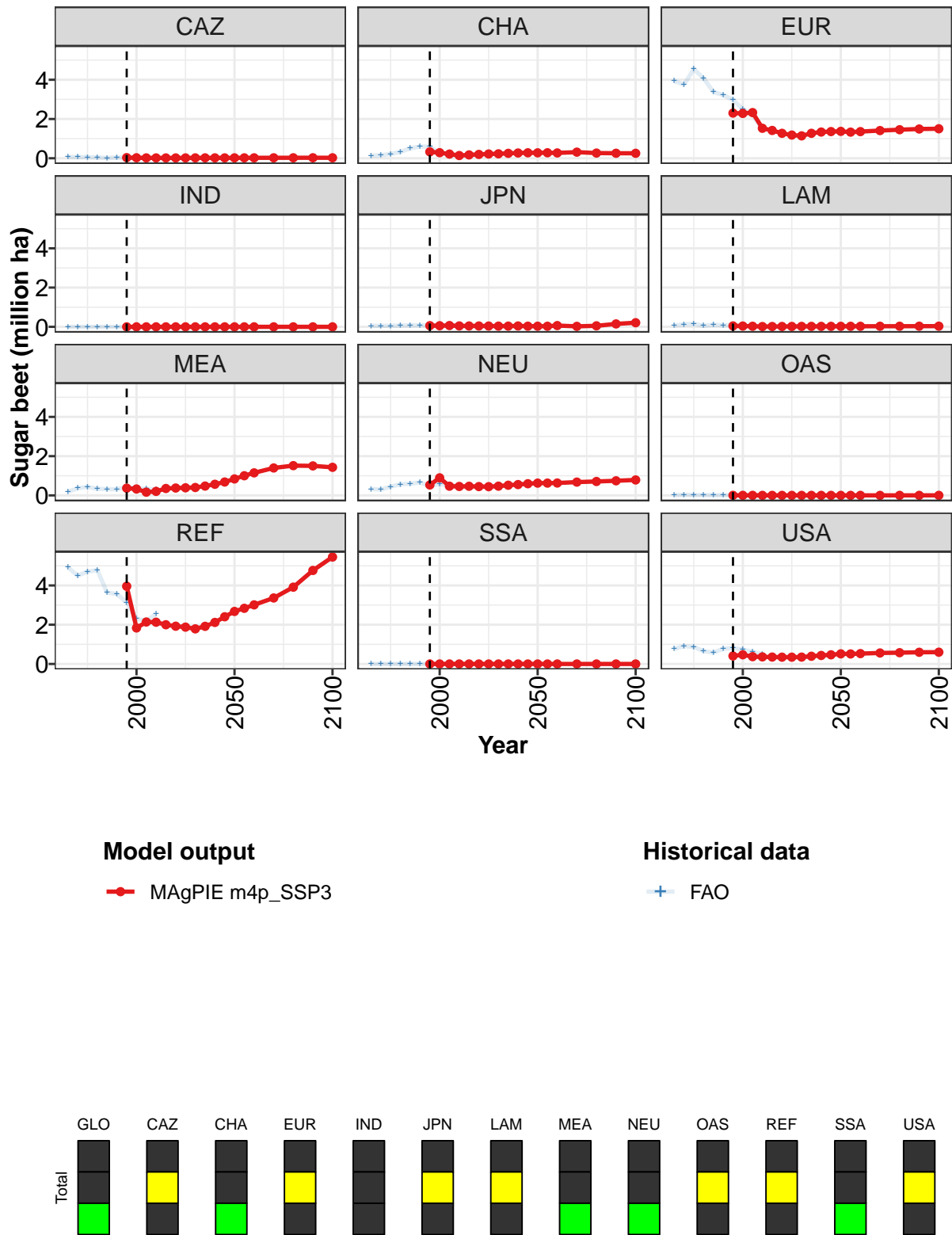


Figure 423: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Sugar crops—Sugar beet (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	8.0	6.2	5.8	4.9	4.8	4.6	4.5	4.5	4.9	5.4	5.9
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.3	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3
EUR	2.3	2.3	2.3	1.5	1.4	1.3	1.2	1.1	1.3	1.3	1.4
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEA	0.4	0.3	0.2	0.2	0.4	0.4	0.4	0.4	0.5	0.6	0.7
NEU	0.5	0.9	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.6	0.6
OAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REF	4.0	1.8	2.1	2.1	2.0	1.9	1.9	1.8	1.9	2.1	2.4
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.5

Table 1616: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Sugar crops—Sugar beet (million ha) [PART 1/2]

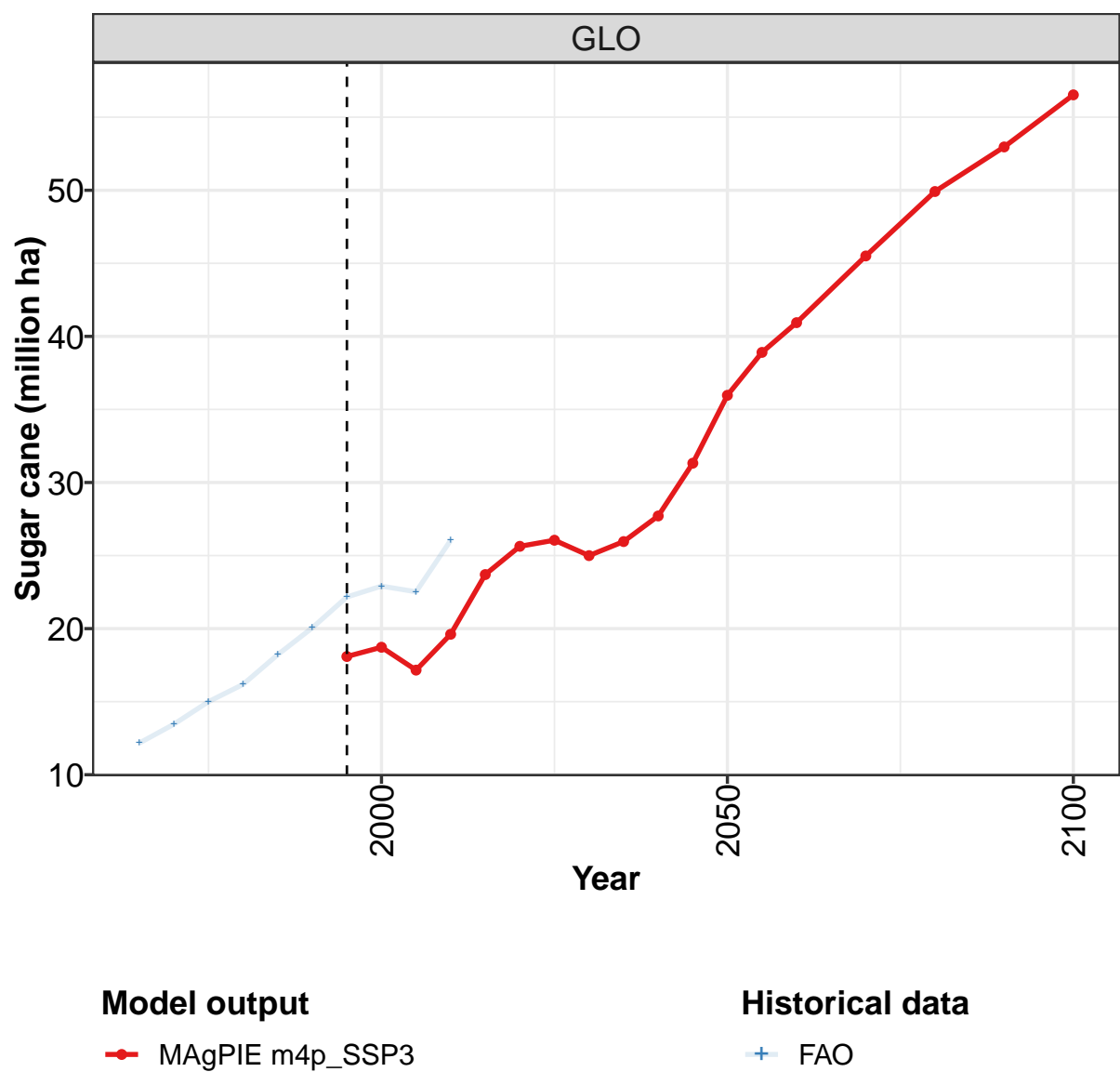
	2050	2055	2060	2070	2080	2090	2100
GLO	6.4	6.7	7.1	7.8	8.5	9.6	10.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.3	0.3	0.3	0.3	0.3	0.3	0.3
EUR	1.4	1.3	1.4	1.4	1.5	1.5	1.5
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.1	0.0	0.1	0.1	0.2
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEA	0.8	1.0	1.1	1.4	1.5	1.5	1.4
NEU	0.6	0.6	0.6	0.7	0.7	0.7	0.8
OAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REF	2.7	2.8	3.0	3.4	3.9	4.8	5.4
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.5	0.5	0.5	0.6	0.6	0.6	0.6

Table 1617: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Sugar crops—Sugar beet (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	10.5	10.2	11.5	10.9	9.2	9.3	8.6	6.9	6.2	5.6
CAZ	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.1	0.2	0.2	0.3	0.5	0.6	0.6	0.3	0.2	0.2
EUR	3.9	3.7	4.5	4.1	3.4	3.2	3.0	2.5	2.2	1.5
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0
MEA	0.2	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.3
NEU	0.3	0.3	0.4	0.6	0.6	0.7	0.5	0.6	0.5	0.5
OAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REF	4.9	4.5	4.7	4.8	3.6	3.6	3.1	2.3	2.2	2.5
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.8	0.9	0.9	0.7	0.6	0.8	0.8	0.7	0.6	0.5

Table 1618: FAO — Resources—Land Cover—Cropland—Crops—Sugar crops—Sugar beet (million ha)

54.1.24 Crops—Sugar crops—Sugar cane



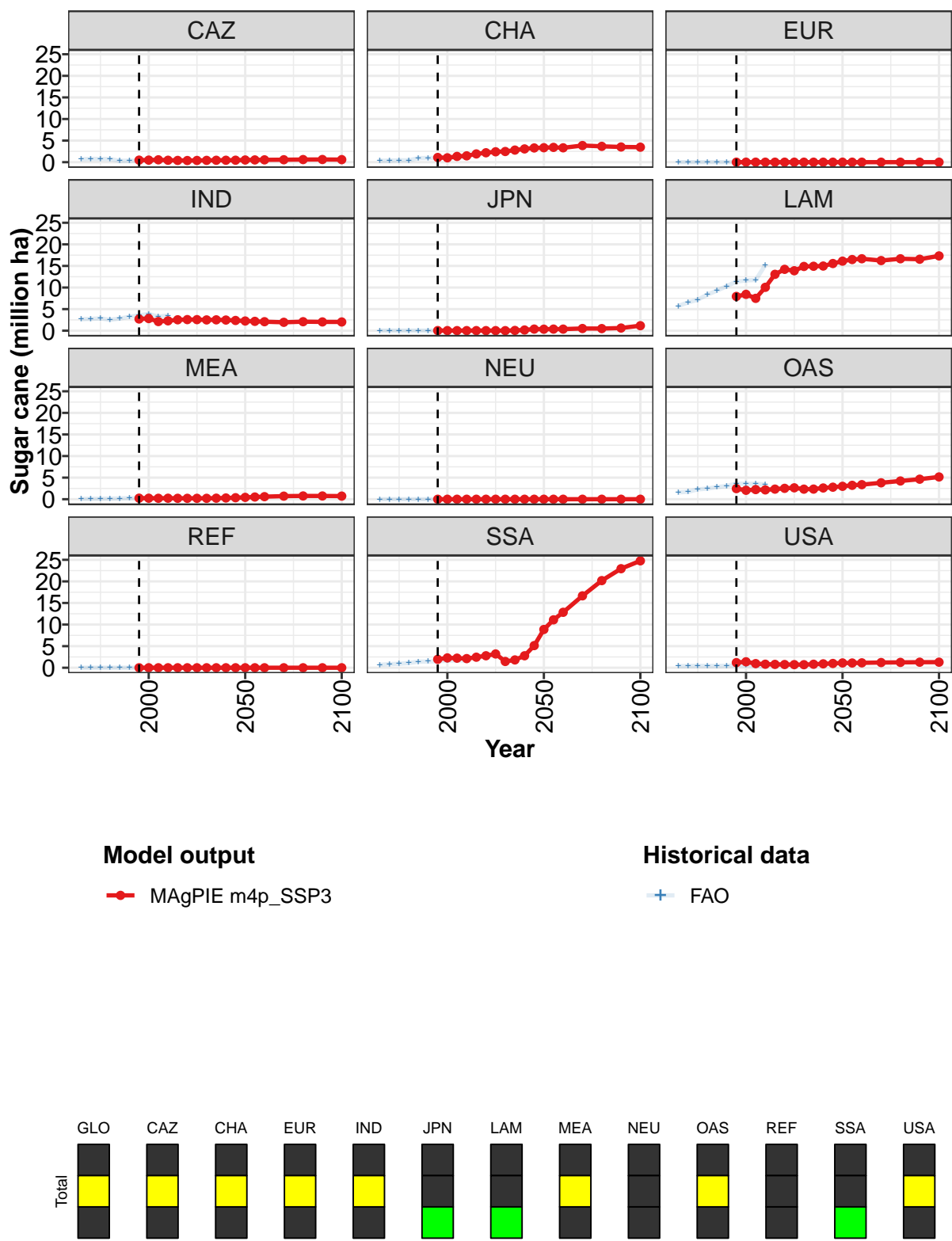


Figure 424: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Sugar crops—Sugar cane (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	18.1	18.7	17.2	19.6	23.7	25.6	26.1	25.0	26.0	27.7	31.3
CAZ	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
CHA	1.1	1.0	1.3	1.5	1.9	2.2	2.4	2.5	2.8	3.1	3.3
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	2.7	2.8	2.1	2.3	2.5	2.6	2.6	2.5	2.5	2.5	2.4
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4
LAM	7.9	8.4	7.5	10.1	13.1	14.2	13.9	14.9	14.9	15.0	15.6
MEA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	2.5	2.1	2.2	2.2	2.3	2.5	2.6	2.3	2.3	2.6	2.8
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	2.0	2.3	2.2	2.1	2.4	2.8	3.2	1.5	1.8	2.8	5.1
USA	1.2	1.4	1.0	0.8	0.8	0.7	0.7	0.7	0.8	0.9	1.0

Table 1619: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Sugar crops—Sugar cane (million ha) [PART 1/2]

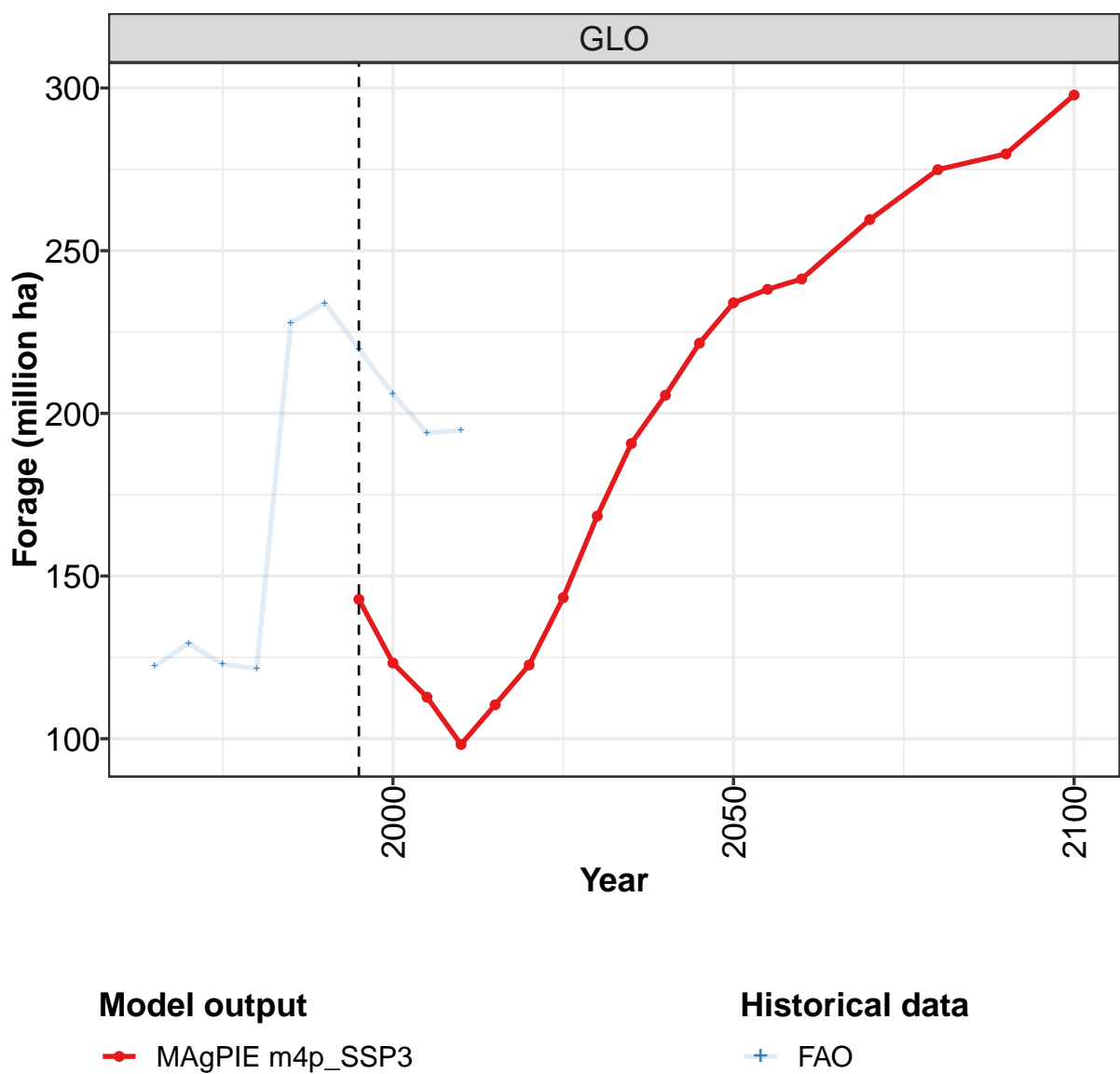
	2050	2055	2060	2070	2080	2090	2100
GLO	36.0	38.9	40.9	45.5	49.9	53.0	56.5
CAZ	0.5	0.5	0.5	0.6	0.6	0.6	0.6
CHA	3.3	3.4	3.3	3.9	3.7	3.5	3.5
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	2.2	2.2	2.1	1.9	2.1	2.0	2.0
JPN	0.4	0.4	0.4	0.5	0.5	0.6	1.2
LAM	16.1	16.5	16.7	16.2	16.7	16.6	17.3
MEA	0.4	0.5	0.6	0.7	0.8	0.8	0.7
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	3.0	3.2	3.4	3.8	4.2	4.6	5.2
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	8.9	11.1	12.8	16.7	20.2	22.9	24.8
USA	1.1	1.1	1.1	1.2	1.2	1.3	1.3

Table 1620: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Crops—Sugar crops—Sugar cane (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	12.2	13.5	15.0	16.2	18.2	20.1	22.2	22.9	22.5	26.0
CAZ	0.7	0.8	0.7	0.7	0.3	0.3	0.3	0.4	0.5	0.4
CHA	0.3	0.3	0.4	0.4	0.9	1.0	1.0	1.0	1.1	1.2
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	2.7	2.7	2.8	2.5	2.8	3.2	3.5	3.9	3.3	3.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	5.7	6.6	7.2	8.4	9.3	10.3	11.4	11.6	11.7	15.2
MEA	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	1.6	1.7	2.3	2.5	2.8	3.1	3.6	3.6	3.6	3.4
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.7	0.8	0.9	1.1	1.4	1.4	1.5	1.6	1.7	1.7
USA	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4

Table 1621: FAO — Resources—Land Cover—Cropland—Crops—Sugar crops—Sugar cane (million ha)

54.1.25 Forage



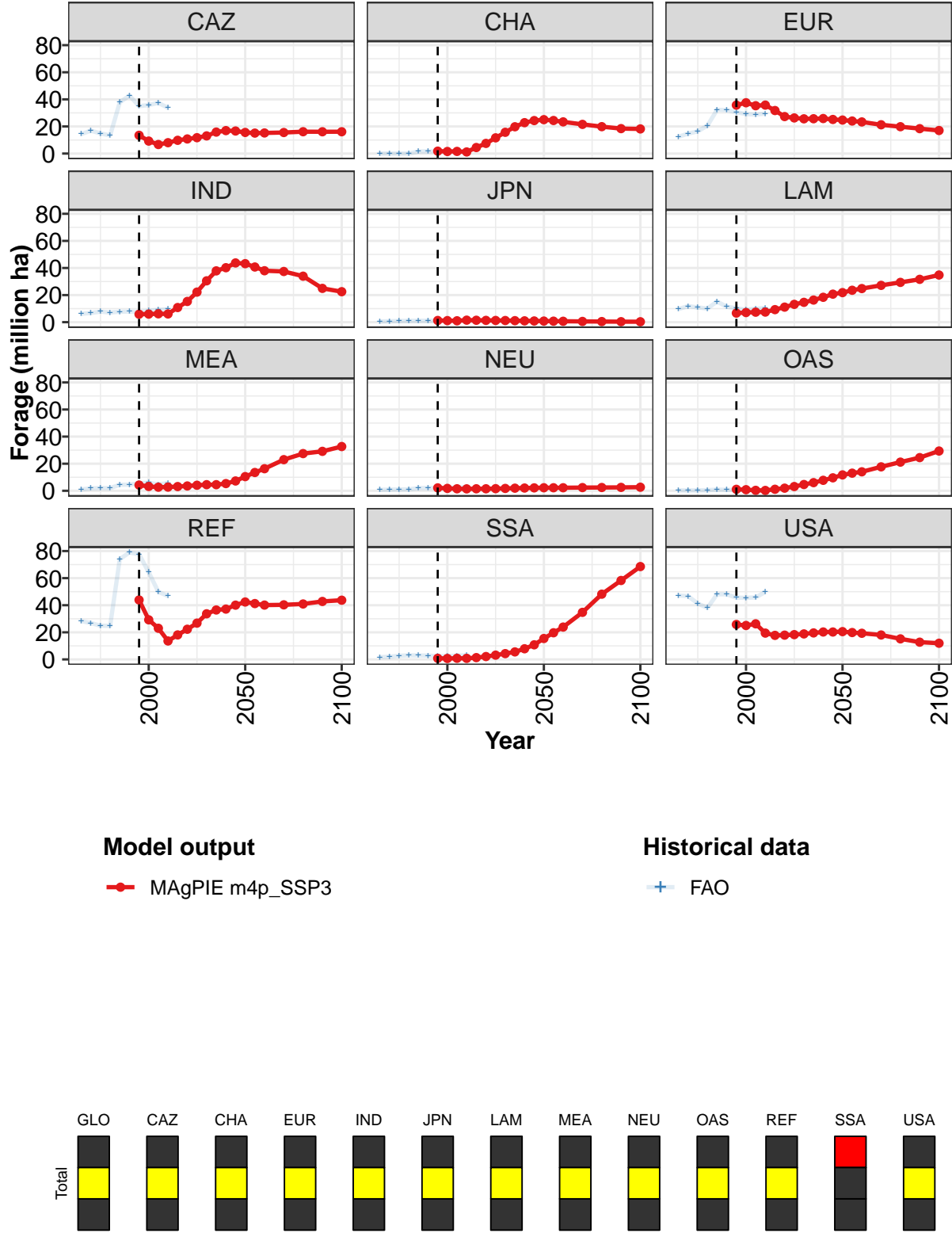


Figure 425: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Forage (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	143	123	113	98	110	123	143	168	191	206	222
CAZ	13	9	7	8	10	11	12	13	16	17	17
CHA	2	2	2	1	4	8	12	16	20	23	24
EUR	36	38	35	36	32	27	26	26	26	26	25
IND	6	6	6	6	11	15	22	31	38	40	44
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	7	7	7	7	9	11	13	15	16	18	21
MEA	4	3	3	3	3	4	4	5	5	5	7
NEU	2	2	1	1	1	1	2	2	2	2	2
OAS	1	1	0	0	1	2	3	5	6	8	10
REF	44	29	23	14	18	22	27	34	37	37	40
SSA	1	1	1	1	1	2	3	4	6	8	11
USA	26	25	26	19	18	18	18	19	20	20	20

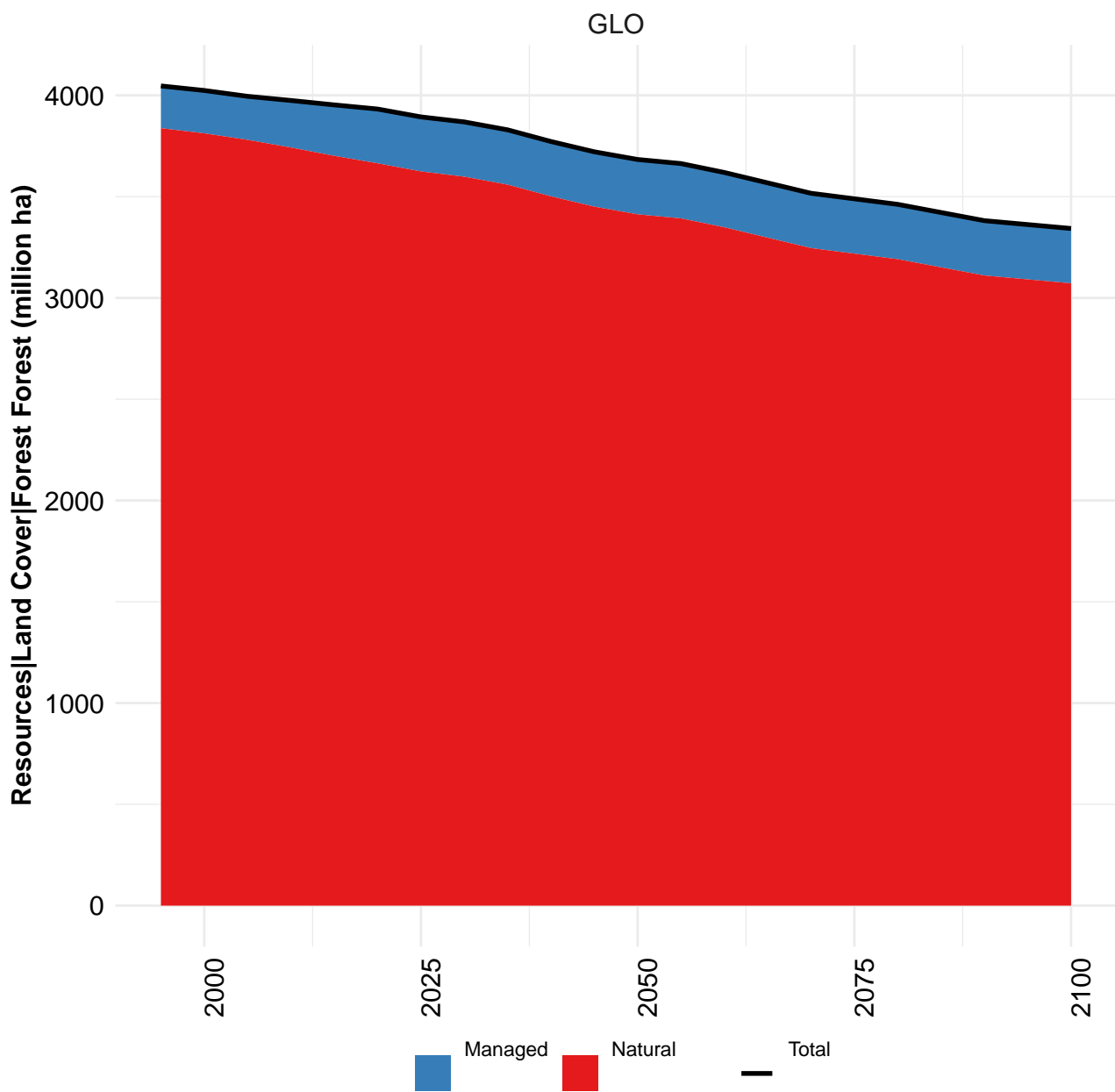
Table 1622: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Forage (million ha) [PART 1/2]

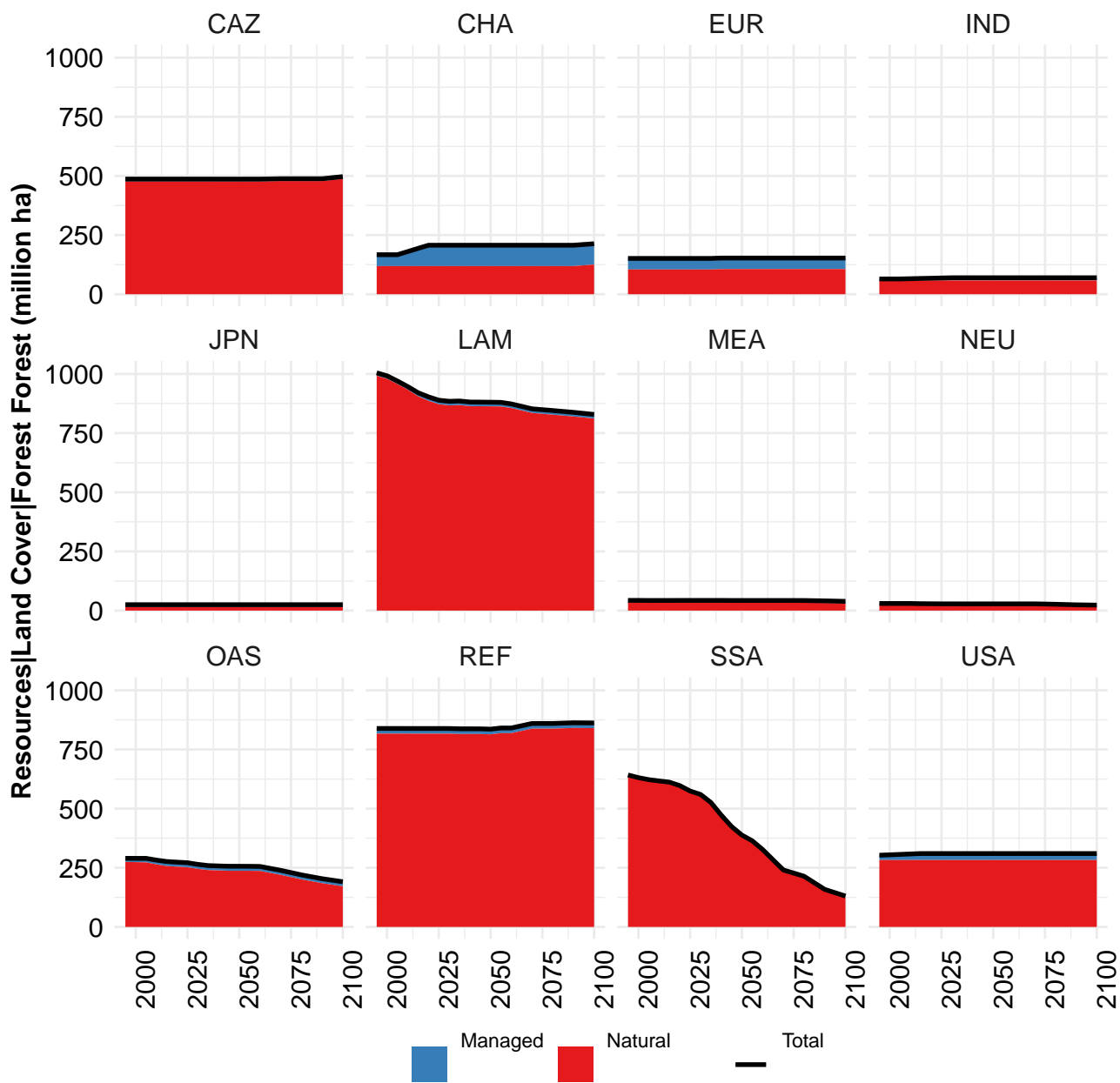
	2050	2055	2060	2070	2080	2090	2100
GLO	234	238	241	260	275	280	298
CAZ	16	15	15	16	16	16	16
CHA	25	24	23	22	20	18	18
EUR	25	24	23	21	20	18	17
IND	43	41	38	37	34	25	23
JPN	1	1	1	1	0	0	0
LAM	22	24	25	27	29	32	35
MEA	10	14	16	23	27	29	33
NEU	2	2	2	2	2	3	3
OAS	12	13	14	18	21	24	29
REF	42	41	40	40	41	43	44
SSA	15	20	24	35	48	58	69
USA	21	20	19	18	15	13	12

Table 1623: MAgPIE m4p_SSP3 — Resources—Land Cover—Cropland—Forage (million ha) [PART 2/2]

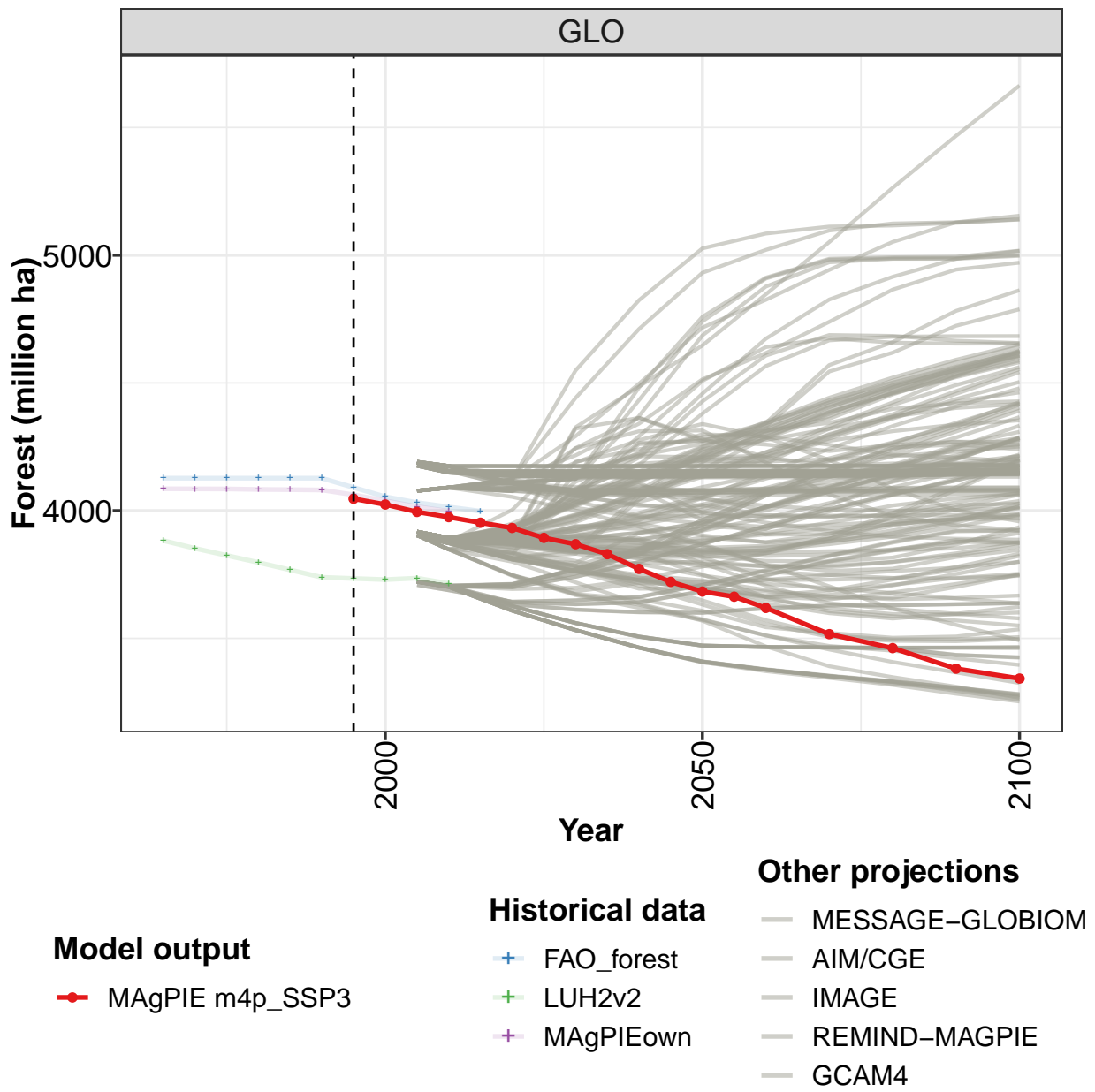
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	122	129	123	122	228	234	220	206	194	195
CAZ	14	17	15	13	38	43	35	36	37	34
CHA	0	0	0	0	2	2	2	2	2	2
EUR	12	15	16	21	32	32	30	29	29	30
IND	6	7	8	7	8	8	8	8	9	10
JPN	1	1	1	1	1	1	1	1	1	1
LAM	10	12	11	10	15	11	10	9	10	10
MEA	1	2	2	2	4	5	6	6	5	6
NEU	1	1	1	1	2	2	2	2	3	3
OAS	0	0	0	0	1	1	0	0	0	0
REF	28	27	25	25	74	79	78	64	50	47
SSA	2	2	3	3	3	3	2	2	3	3
USA	47	47	41	38	48	48	46	45	46	50

Table 1624: FAO — Resources—Land Cover—Cropland—Forage (million ha)





54.2 Forest



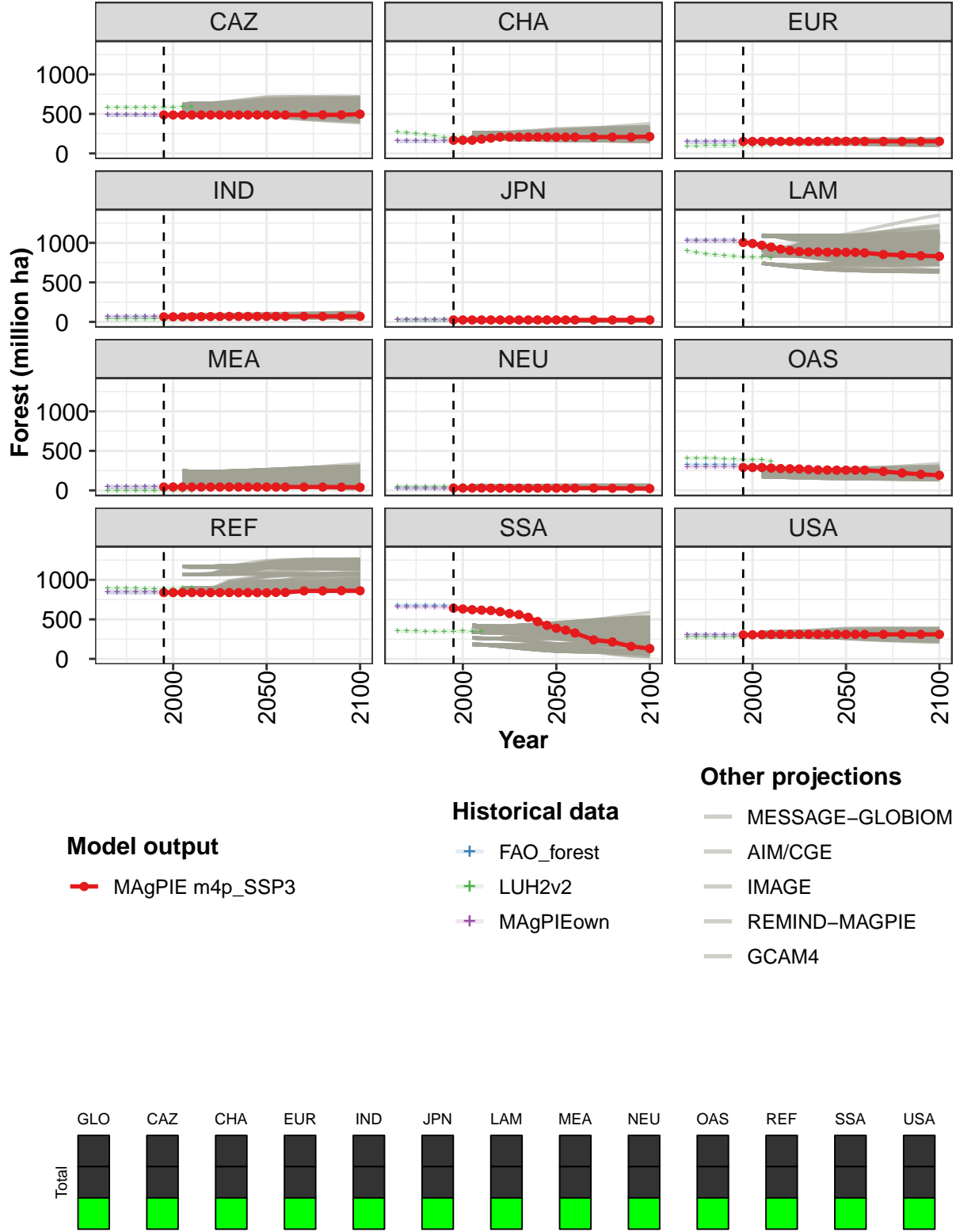


Figure 426: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4046	4024	3995	3975	3953	3932	3894	3869	3830	3772	3721
CAZ	487	487	487	487	487	487	487	487	487	487	487
CHA	167	167	167	180	194	207	207	207	207	207	207
EUR	151	151	151	151	151	151	151	151	151	153	153
IND	65	65	65	66	67	68	69	70	70	70	70
JPN	25	25	25	25	25	25	25	25	25	25	25
LAM	1005	992	970	947	921	903	889	885	886	882	881
MEA	43	43	43	43	43	43	43	43	43	43	43
NEU	30	30	30	30	29	29	28	28	28	28	28
OAS	290	290	290	282	276	274	271	264	259	258	256
REF	839	839	839	839	839	839	839	839	837	837	837
SSA	642	631	623	617	612	597	574	560	526	473	424
USA	303	305	307	308	310	310	310	310	310	310	310

Table 1625: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest (million ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	3683	3663	3619	3517	3462	3381	3343
CAZ	487	487	487	488	488	488	497
CHA	207	207	207	207	207	207	213
EUR	153	153	153	153	153	153	153
IND	70	70	70	70	70	70	70
JPN	25	25	25	25	25	25	25
LAM	881	880	873	853	846	838	829
MEA	43	43	43	43	43	41	39
NEU	28	28	28	29	27	24	23
OAS	256	256	256	239	220	204	191
REF	836	841	841	860	860	863	862
SSA	388	364	327	241	214	159	130
USA	310	310	310	310	310	310	310

Table 1626: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015
GLO	4127	4127	4127	4127	4127	4127	4091	4055	4032	4014	3998
CAZ	486	486	486	486	486	486	487	487	485	481	482
CHA	157	157	157	157	157	157	167	177	193	201	208
EUR	148	148	148	148	148	148	151	155	157	159	161
IND	64	64	64	64	64	64	65	65	68	70	71
JPN	25	25	25	25	25	25	25	25	25	25	25
LAM	1032	1032	1032	1032	1032	1032	1010	988	964	946	935
MEA	44	44	44	44	44	44	44	43	44	44	43
NEU	30	30	30	30	30	30	30	31	31	32	33
OAS	322	322	322	322	322	322	310	298	292	291	285
REF	842	842	842	842	842	842	843	843	843	850	850
SSA	674	674	674	674	674	674	657	640	625	608	595
USA	302	302	302	302	302	302	303	304	305	309	310

Table 1627: FAO_forest — Resources—Land Cover—Forest (million ha)

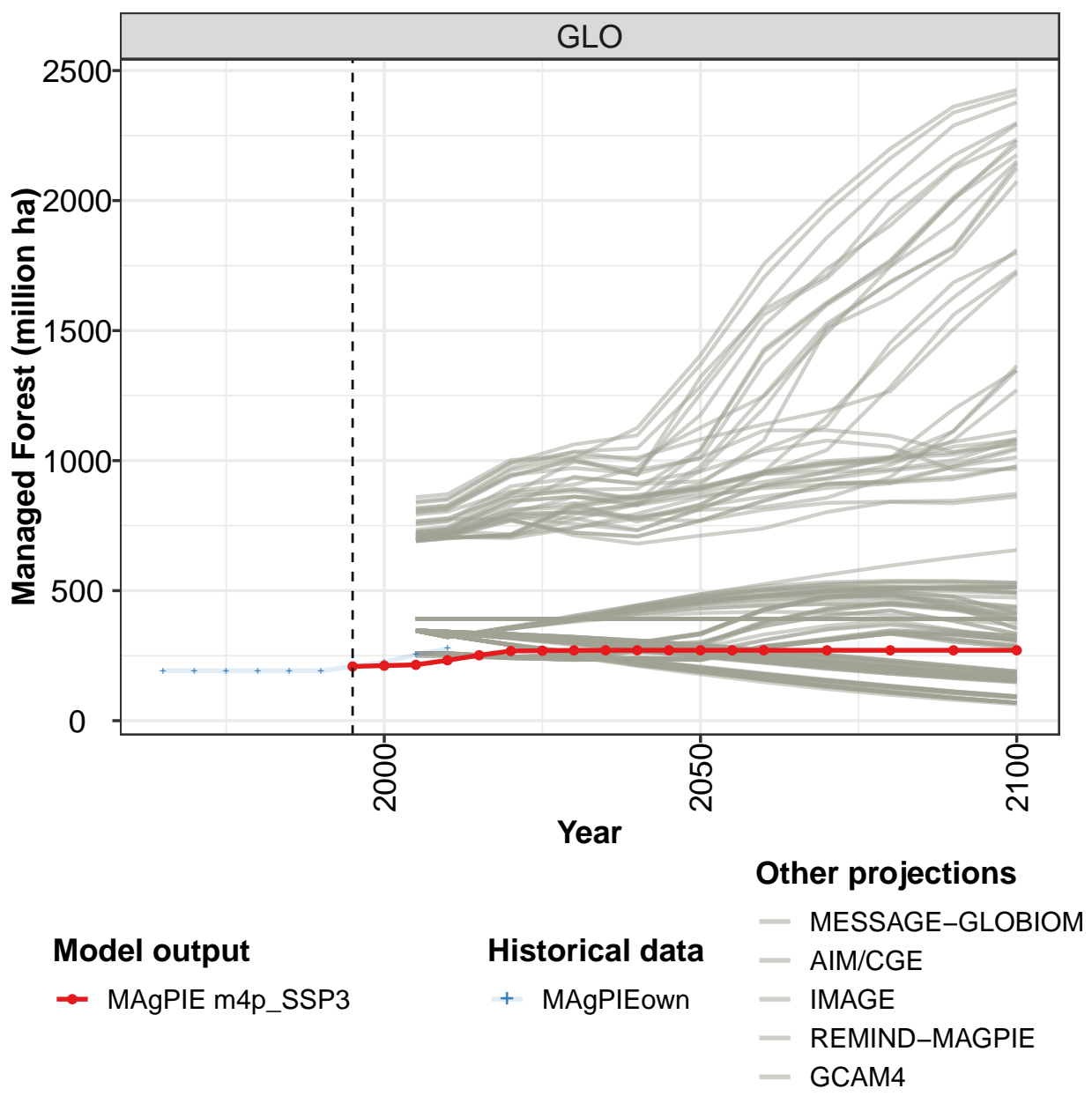
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3883	3852	3825	3797	3768	3739	3735	3730	3736	3715
CAZ	583	582	582	582	583	583	583	584	587	590
CHA	267	261	249	237	220	203	204	206	204	207
EUR	94	95	96	97	98	98	100	102	103	103
IND	37	37	36	36	36	36	36	36	36	36
JPN	29	29	29	29	29	29	30	30	30	30
LAM	897	876	862	847	839	830	823	815	815	808
MEA	0	0	0	0	0	0	0	0	0	0
NEU	50	50	50	51	50	50	51	52	52	52
OAS	408	406	405	404	398	393	390	388	386	368
REF	892	891	891	890	890	890	890	889	895	895
SSA	354	352	350	349	349	348	349	349	345	342
USA	273	273	274	274	276	278	279	279	282	285

Table 1628: LUH2v2 — Resources—Land Cover—Forest (million ha)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4086	4085	4085	4083	4082	4081	4062	4039	4016	3998
CAZ	486	486	486	486	486	486	487	487	485	481
CHA	157	157	157	157	157	157	167	177	193	201
EUR	148	148	148	148	148	148	151	155	157	159
IND	64	64	64	64	64	64	65	65	68	70
JPN	25	25	25	25	25	25	25	25	25	25
LAM	1031	1031	1031	1030	1030	1030	1008	986	962	945
MEA	44	44	44	44	44	44	44	43	44	44
NEU	29	29	29	29	29	29	30	31	31	32
OAS	298	298	298	298	298	298	297	297	291	289
REF	842	842	842	842	842	842	843	843	843	850
SSA	658	658	658	656	655	654	642	627	611	594
USA	302	302	302	302	302	302	303	304	305	309

Table 1629: MAgPIEown — Resources—Land Cover—Forest (million ha)

54.2.1 Managed Forest



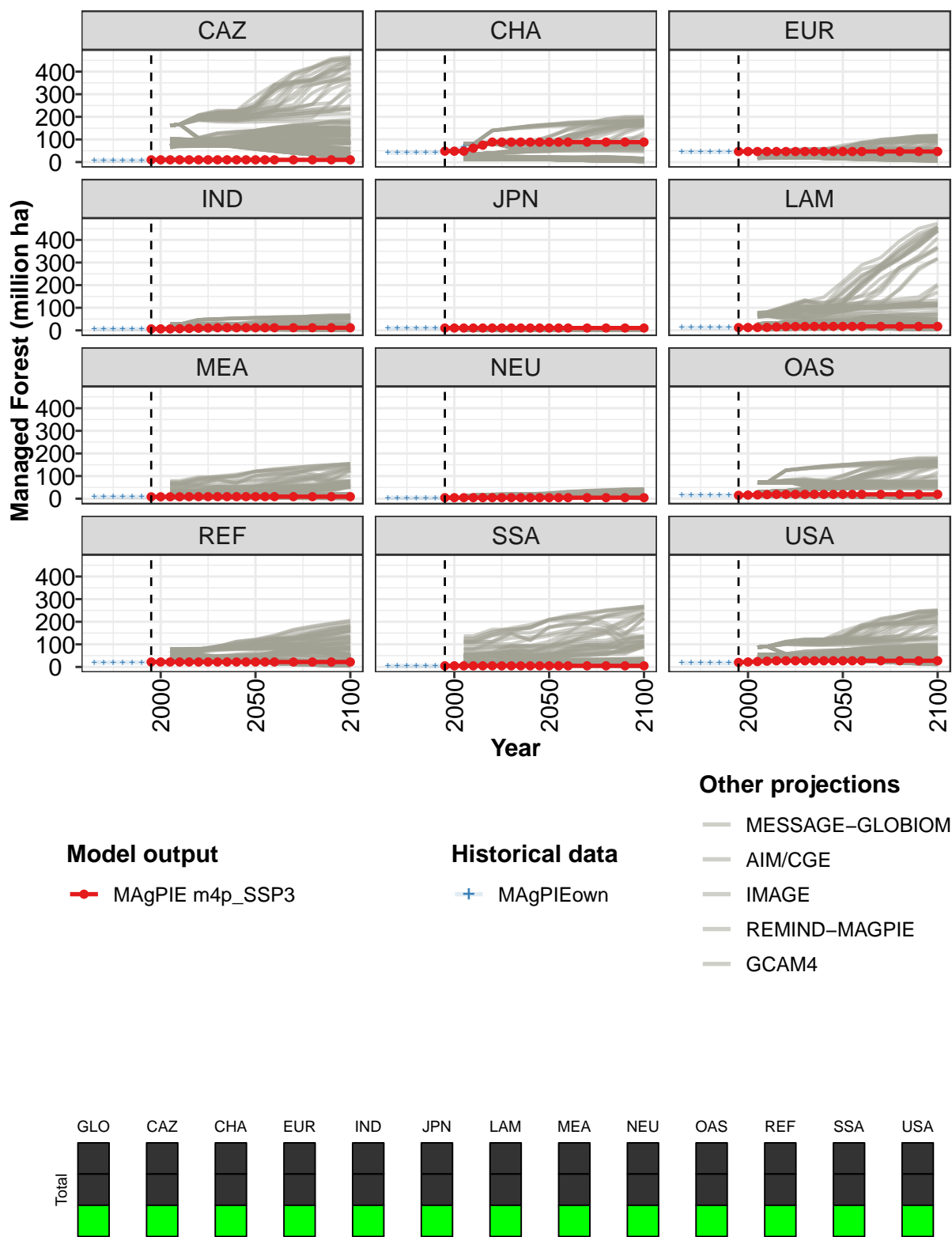


Figure 427: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest—Managed Forest (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	209	212	215	232	252	268	269	270	271	271	271
CAZ	10	10	10	10	10	10	10	10	10	10	10
CHA	48	48	48	62	75	88	88	88	88	88	88
EUR	47	47	47	47	47	47	47	47	47	47	47
IND	6	6	6	7	8	9	10	11	11	11	11
JPN	10	10	10	10	10	10	10	10	10	10	10
LAM	12	13	13	13	15	17	17	17	17	17	17
MEA	8	8	8	8	9	9	9	9	9	9	9
NEU	4	4	4	4	4	4	4	4	4	4	4
OAS	15	16	17	18	19	19	19	19	19	19	19
REF	22	22	22	22	22	22	22	22	22	22	22
SSA	5	5	5	5	5	5	5	5	5	5	5
USA	20	22	24	26	27	27	27	27	27	27	27

Table 1630: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest—Managed Forest (million ha) [PART 1/2]

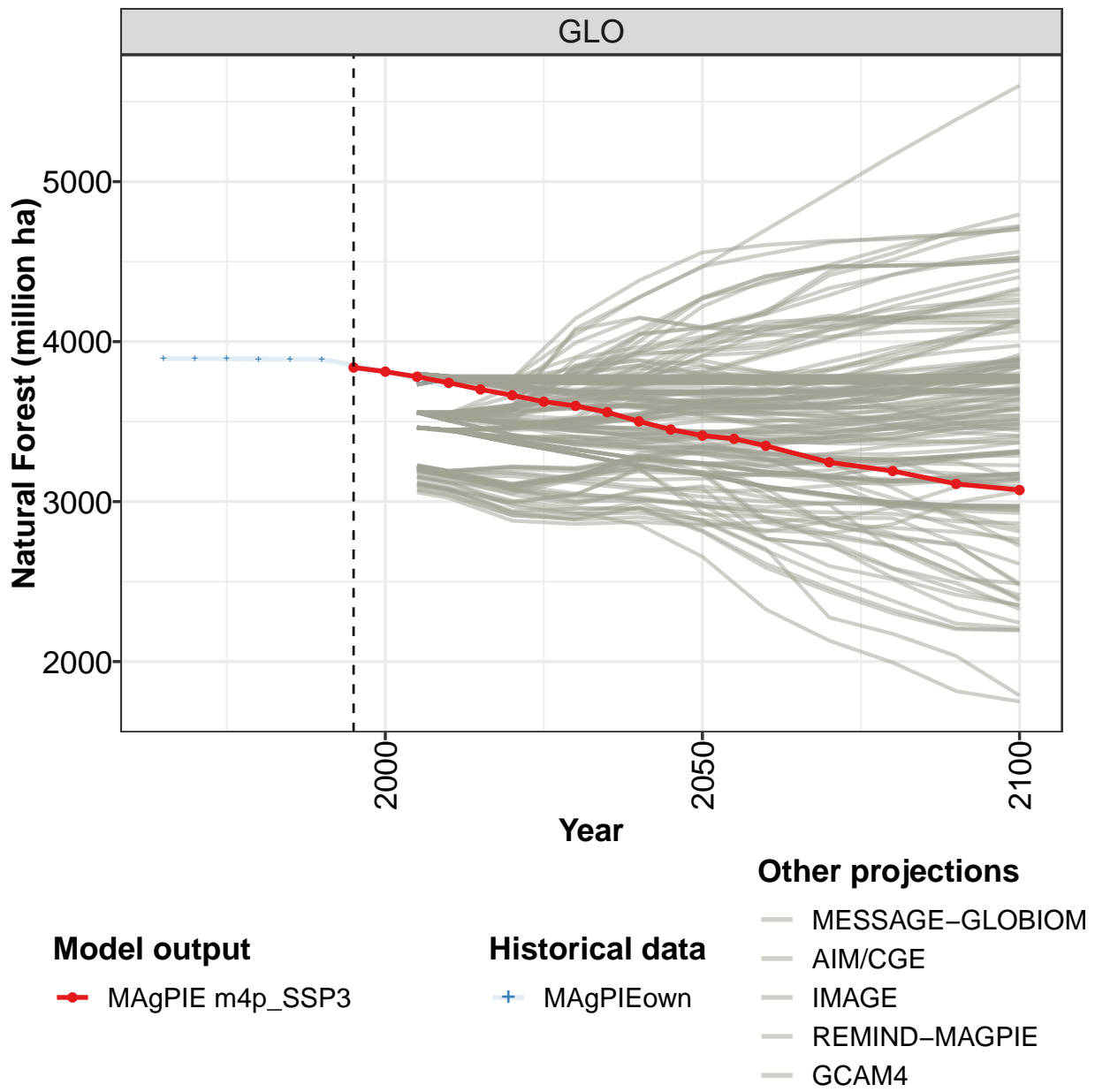
	2050	2055	2060	2070	2080	2090	2100
GLO	271	271	271	271	271	271	271
CAZ	10	10	10	10	10	10	10
CHA	88	88	88	88	88	88	88
EUR	47	47	47	47	47	47	47
IND	11	11	11	11	11	11	11
JPN	10	10	10	10	10	10	10
LAM	17	17	17	17	17	17	17
MEA	9	9	9	9	9	9	9
NEU	4	4	4	4	4	4	4
OAS	19	19	19	19	19	19	19
REF	22	22	22	22	22	22	22
SSA	5	5	5	5	5	5	5
USA	27	27	27	27	27	27	27

Table 1631: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest—Managed Forest (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	192	192	192	192	192	192	209	225	253	277
CAZ	7	7	7	7	7	7	10	13	15	18
CHA	42	42	42	42	42	42	48	54	67	73
EUR	45	45	45	45	45	45	47	49	52	54
IND	6	6	6	6	6	6	6	7	9	11
JPN	10	10	10	10	10	10	10	10	10	10
LAM	12	12	12	12	12	12	12	12	12	14
MEA	8	8	8	8	8	8	8	9	9	10
NEU	4	4	4	4	4	4	4	5	5	6
OAS	15	15	15	15	15	15	15	15	17	19
REF	20	20	20	20	20	20	22	24	25	28
SSA	5	5	5	5	5	5	5	5	6	7
USA	18	18	18	18	18	18	20	23	24	26

Table 1632: MAgPIEown — Resources—Land Cover—Forest—Managed Forest (million ha)

54.2.2 Natural Forest



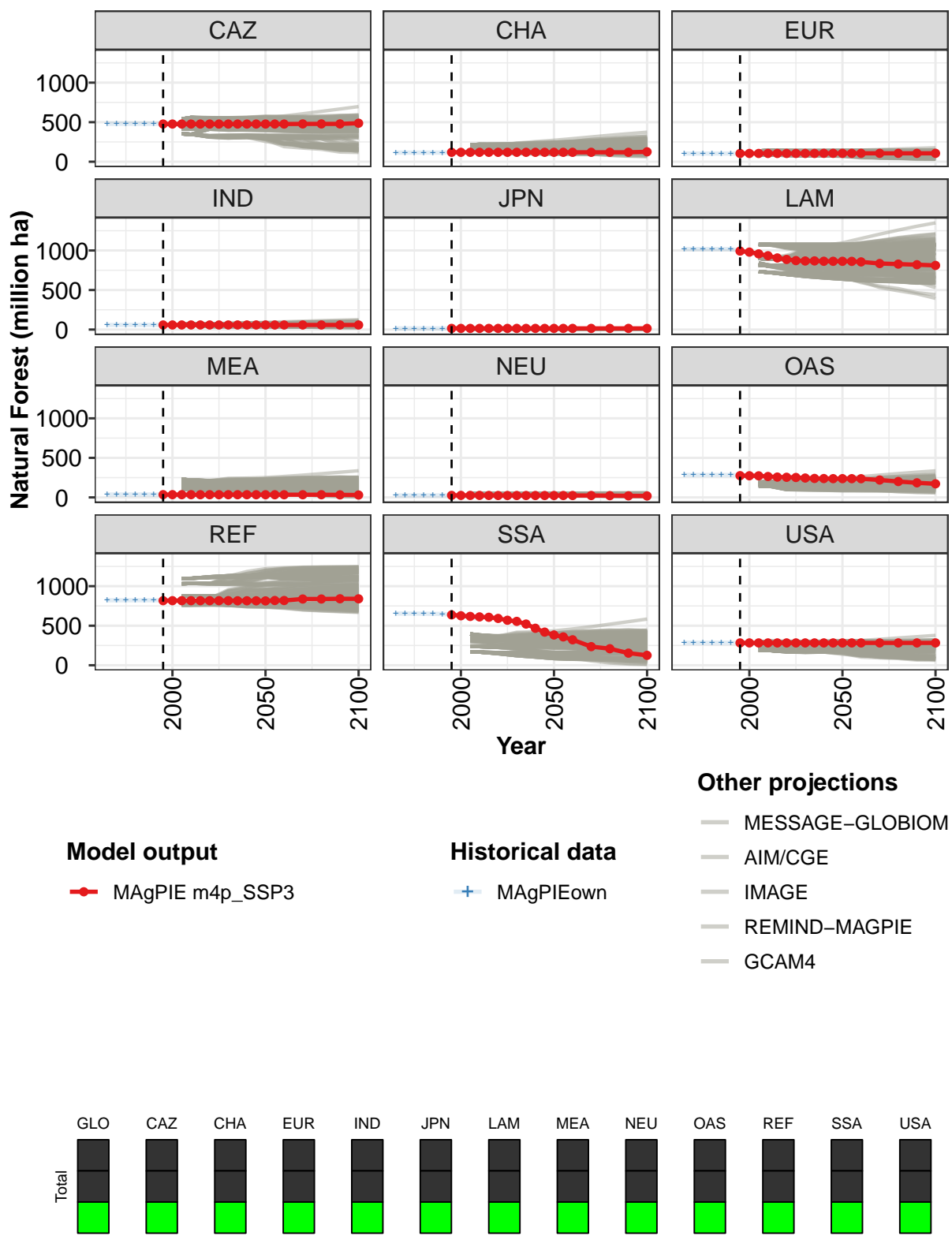


Figure 428: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest—Natural Forest (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3838	3812	3780	3742	3701	3665	3624	3598	3559	3501	3451
CAZ	477	477	477	477	477	477	477	477	477	477	477
CHA	119	119	119	119	119	119	119	119	119	119	119
EUR	105	105	105	105	105	105	105	105	105	106	106
IND	58	58	58	58	58	58	58	58	58	58	58
JPN	15	15	15	15	15	15	15	15	15	15	15
LAM	993	980	957	934	906	887	872	867	868	864	864
MEA	35	35	34	34	34	34	34	34	34	34	34
NEU	26	26	26	26	25	24	24	24	24	24	24
OAS	275	274	273	264	257	255	252	245	240	239	237
REF	817	817	817	817	817	817	817	817	815	815	815
SSA	637	626	617	612	607	592	569	555	521	468	419
USA	283	283	283	283	283	283	283	283	283	283	283

Table 1633: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest—Natural Forest (million ha) [PART 1/2]

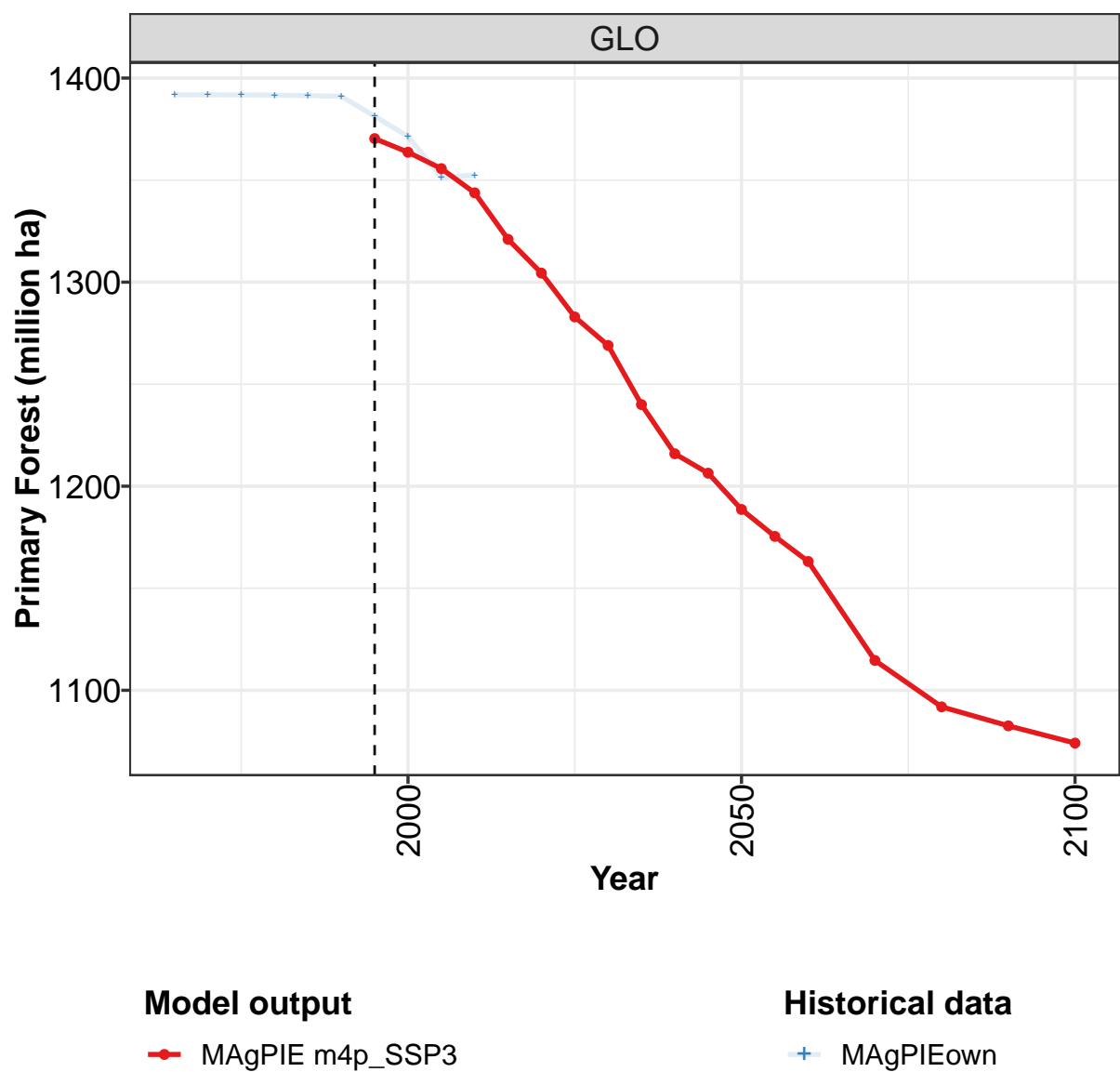
	2050	2055	2060	2070	2080	2090	2100
GLO	3413	3393	3349	3246	3191	3111	3072
CAZ	477	477	477	478	478	478	487
CHA	119	119	119	119	119	119	125
EUR	106	106	106	106	106	106	106
IND	58	58	58	58	58	58	58
JPN	15	15	15	15	15	15	15
LAM	863	863	856	835	828	820	811
MEA	34	34	34	34	34	32	30
NEU	24	24	24	24	22	20	19
OAS	237	237	236	220	201	185	172
REF	814	819	819	838	838	841	840
SSA	383	359	322	236	209	153	125
USA	283	283	283	283	283	283	283

Table 1634: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest—Natural Forest (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3894	3894	3893	3891	3891	3889	3853	3813	3762	3721
CAZ	479	479	479	479	479	479	477	474	470	463
CHA	115	115	115	115	115	115	119	123	126	128
EUR	103	103	103	103	103	103	105	106	105	105
IND	58	58	58	58	58	58	58	58	58	59
JPN	15	15	15	15	15	15	15	15	15	15
LAM	1018	1018	1018	1018	1018	1018	996	974	950	930
MEA	36	36	36	36	36	36	35	34	35	34
NEU	25	25	25	25	25	25	26	26	26	26
OAS	284	284	284	284	284	284	283	282	274	270
REF	822	822	822	822	822	822	821	820	818	821
SSA	654	653	653	651	650	649	637	621	605	587
USA	285	285	285	285	285	285	283	281	280	283

Table 1635: MAgPIEown — Resources—Land Cover—Forest—Natural Forest (million ha)

54.2.3 Natural Forest—Primary Forest



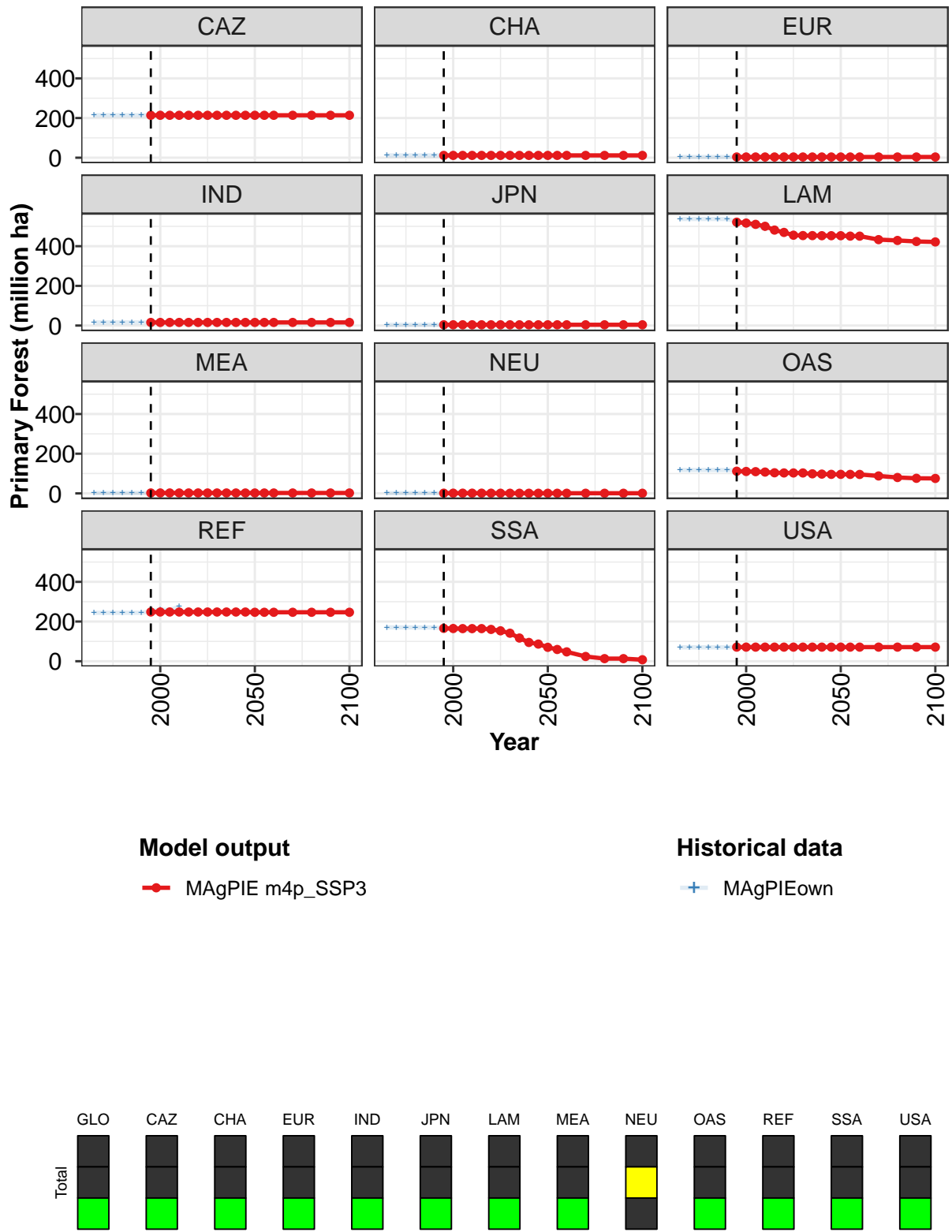


Figure 429: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest—Natural Forest—Primary Forest (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1370	1364	1356	1344	1321	1304	1283	1269	1240	1216	1206
CAZ	214	214	214	214	214	214	214	214	214	214	214
CHA	12	12	12	12	12	12	12	12	12	12	12
EUR	4	4	4	4	4	4	4	4	4	4	4
IND	16	16	16	16	16	16	16	16	16	16	16
JPN	4	4	4	4	4	4	4	4	4	4	4
LAM	521	517	510	500	481	470	455	454	453	453	453
MEA	2	2	2	2	2	2	2	2	2	2	2
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	112	111	110	108	104	103	103	103	99	97	96
REF	248	248	248	248	248	248	248	248	248	248	248
SSA	166	165	164	164	164	160	153	141	117	95	87
USA	71	71	71	71	71	71	71	71	71	71	71

Table 1636: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest—Natural Forest—Primary Forest (million ha) [PART 1/2]

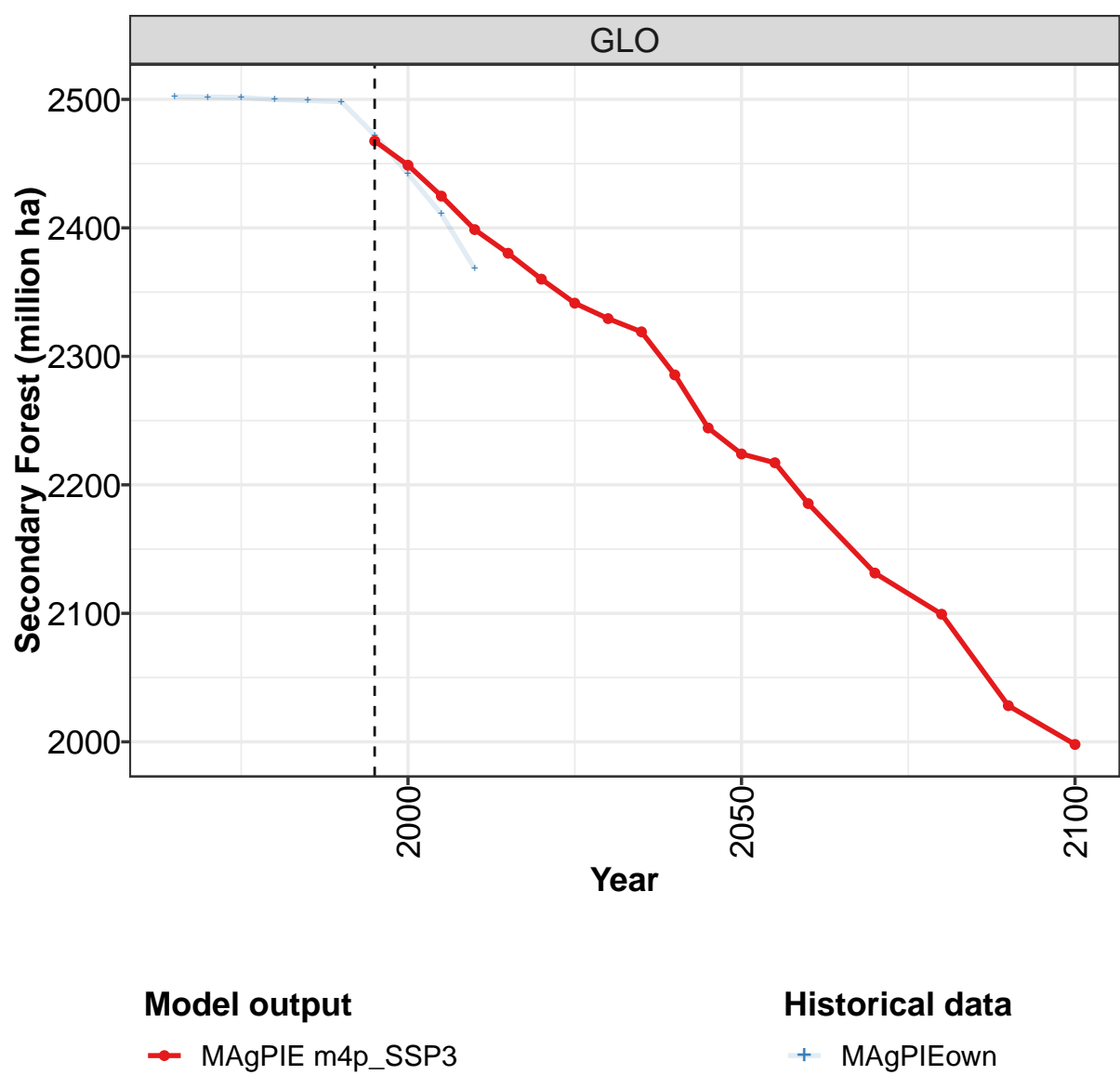
	2050	2055	2060	2070	2080	2090	2100
GLO	1189	1175	1163	1115	1092	1083	1074
CAZ	214	214	214	214	214	214	214
CHA	12	12	12	12	12	12	12
EUR	4	4	4	4	4	4	4
IND	16	16	16	16	16	16	16
JPN	4	4	4	4	4	4	4
LAM	453	451	451	433	429	424	421
MEA	2	2	2	2	2	2	2
NEU	1	1	1	1	1	1	1
OAS	96	96	96	88	80	76	76
REF	247	247	247	247	247	247	247
SSA	70	59	47	24	13	13	8
USA	71	71	71	71	71	71	71

Table 1637: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest—Natural Forest—Primary Forest (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1392	1392	1392	1392	1391	1391	1381	1371	1351	1352
CAZ	214	214	214	214	214	214	214	214	214	213
CHA	12	12	12	12	12	12	12	12	12	12
EUR	4	4	4	4	4	4	4	4	4	4
IND	16	16	16	16	16	16	16	16	16	16
JPN	4	4	4	4	4	4	4	4	4	5
LAM	537	537	537	537	537	537	525	512	500	490
MEA	2	2	2	2	2	2	2	2	2	2
NEU	1	1	1	1	1	1	1	1	1	1
OAS	118	118	118	118	118	118	115	113	108	106
REF	244	244	244	244	244	244	252	260	258	276
SSA	171	171	170	170	170	170	166	162	158	153
USA	70	70	70	70	70	70	71	72	76	75

Table 1638: MAgPIEown — Resources—Land Cover—Forest—Natural Forest—Primary Forest (million ha)

54.2.4 Natural Forest—Secondary Forest



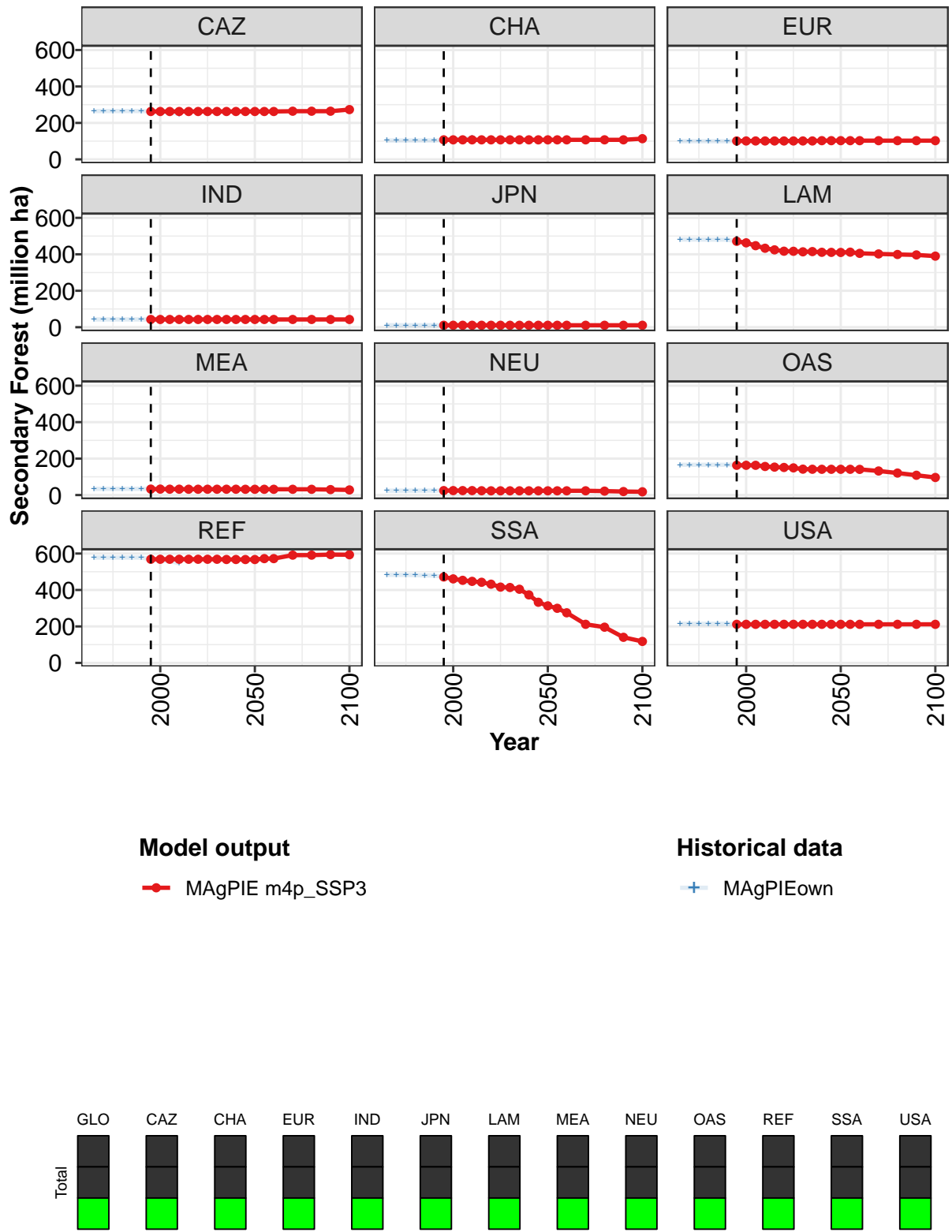


Figure 430: MAGPIE m4p_SSP3 — Resources—Land Cover—Forest—Natural Forest—Secondary Forest (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2468	2449	2425	2399	2380	2360	2341	2329	2319	2286	2244
CAZ	263	263	263	263	263	263	263	263	263	263	263
CHA	107	107	107	107	107	107	107	107	107	107	107
EUR	101	101	101	101	101	101	101	101	101	103	103
IND	43	43	43	43	43	43	43	43	43	43	43
JPN	11	11	11	11	11	11	11	11	11	11	11
LAM	471	463	447	433	424	417	417	414	415	411	411
MEA	33	33	32	32	32	32	32	32	32	32	32
NEU	24	24	24	24	24	23	23	23	23	23	23
OAS	163	163	163	157	153	151	149	142	142	141	141
REF	569	569	569	569	569	569	569	569	567	567	567
SSA	471	461	453	447	442	432	416	414	404	373	333
USA	212	212	212	212	212	212	212	212	212	212	212

Table 1639: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest—Natural Forest—Secondary Forest (million ha) [PART 1/2]

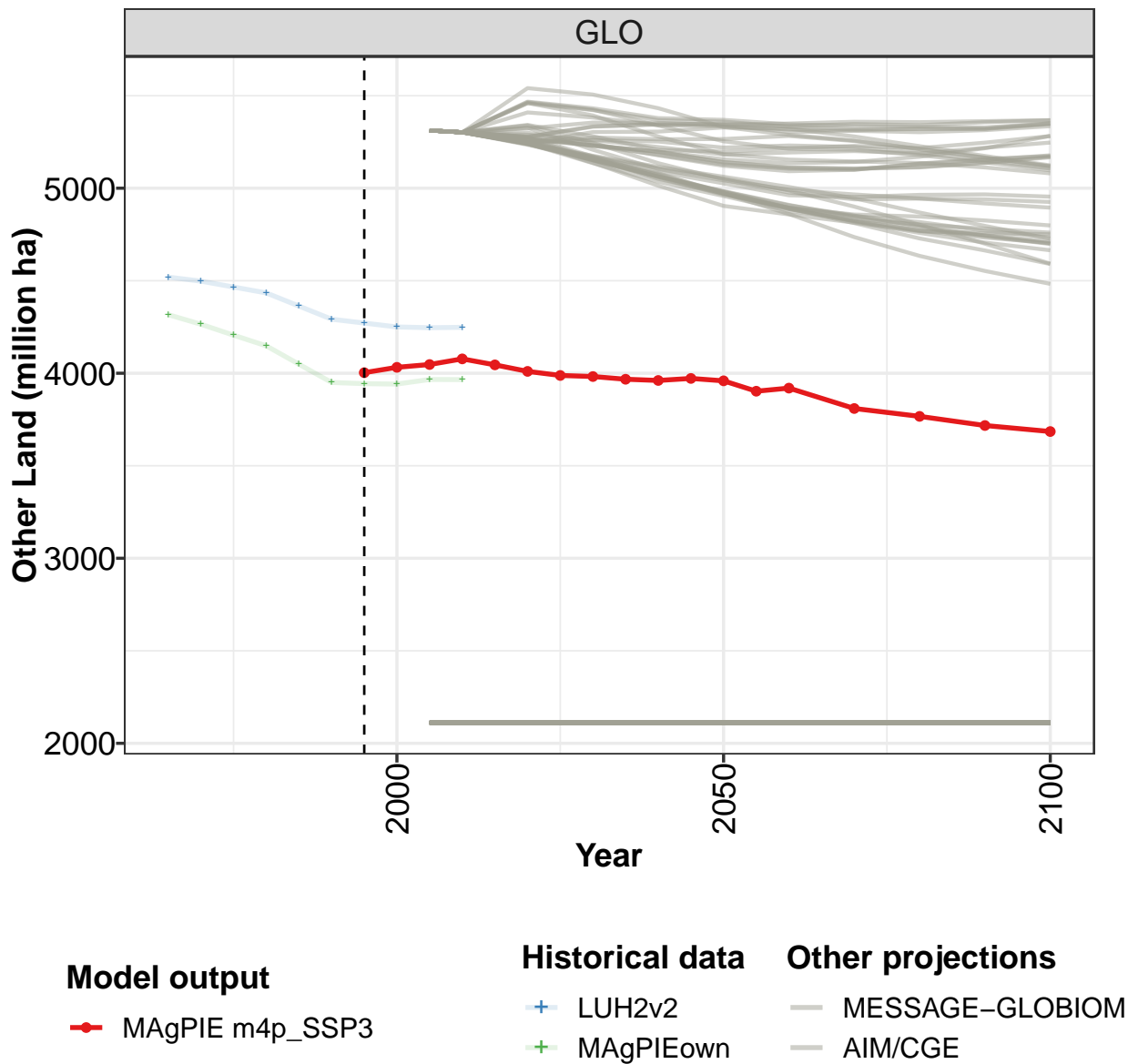
	2050	2055	2060	2070	2080	2090	2100
GLO	2224	2217	2185	2131	2099	2028	1998
CAZ	263	263	263	264	264	264	273
CHA	107	107	107	107	107	107	114
EUR	103	103	103	103	103	103	103
IND	43	43	43	43	43	43	43
JPN	11	11	11	11	11	11	11
LAM	410	412	405	402	399	397	390
MEA	32	32	32	32	32	30	28
NEU	23	23	23	23	22	19	18
OAS	141	141	141	132	121	109	96
REF	567	572	572	591	591	594	593
SSA	313	300	275	212	196	140	118
USA	212	212	212	212	212	212	212

Table 1640: MAgPIE m4p_SSP3 — Resources—Land Cover—Forest—Natural Forest—Secondary Forest (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2502	2502	2502	2500	2499	2498	2472	2442	2411	2368
CAZ	265	265	265	265	265	265	263	260	256	249
CHA	104	104	104	104	104	104	107	111	114	116
EUR	100	100	100	100	100	100	101	102	101	101
IND	43	43	43	43	43	43	43	43	43	43
JPN	11	11	11	11	11	11	11	10	10	10
LAM	481	481	481	481	481	481	471	462	451	440
MEA	34	34	34	34	34	34	33	32	33	32
NEU	24	24	24	24	24	24	24	25	25	25
OAS	166	166	166	166	166	166	167	169	166	165
REF	578	578	578	578	578	578	569	559	560	546
SSA	483	483	482	481	480	479	471	460	448	434
USA	214	214	214	214	214	214	212	209	205	208

Table 1641: MAgPIEown — Resources—Land Cover—Forest—Natural Forest—Secondary Forest (million ha)

54.3 Other Land



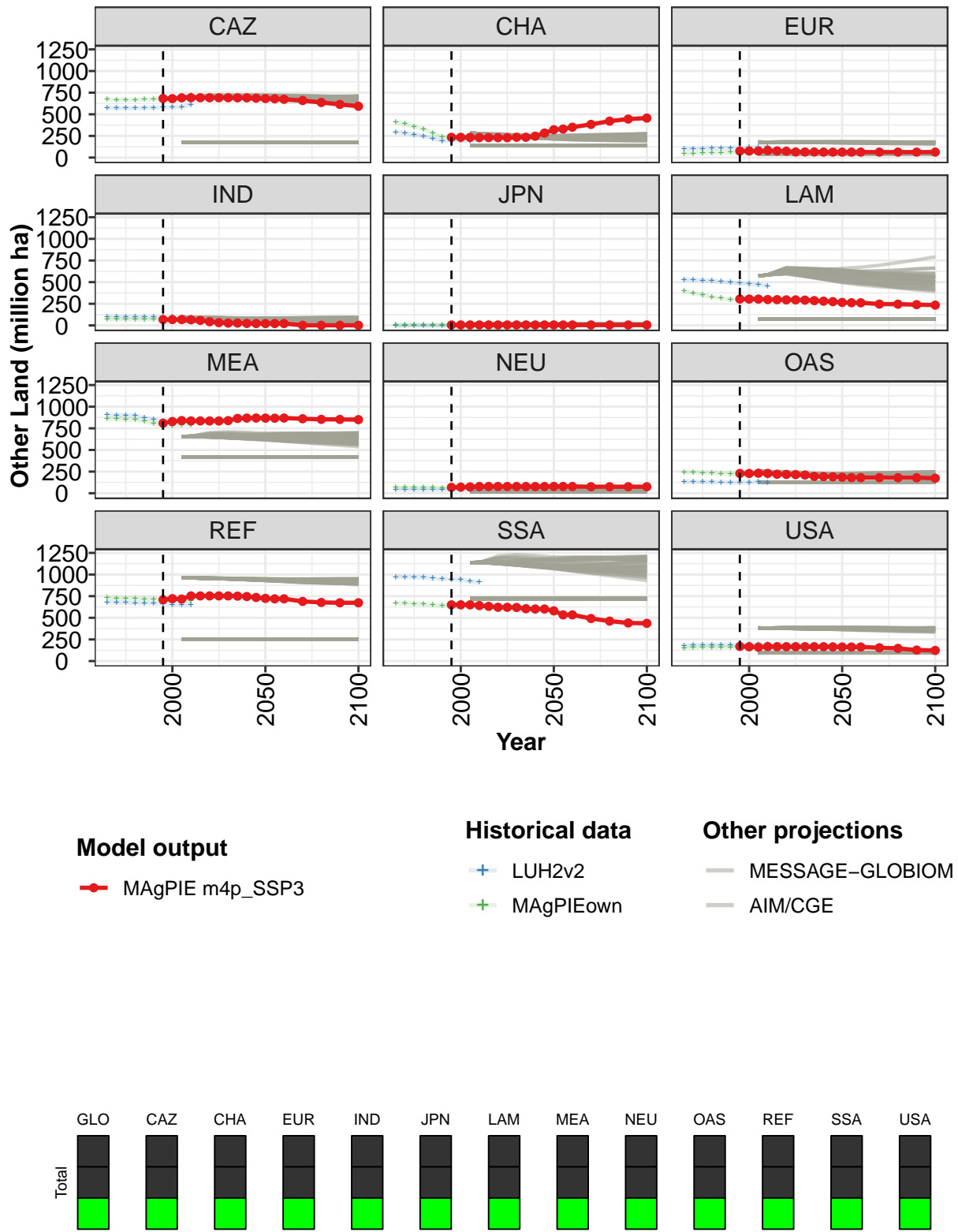


Figure 431: MAgPIE m4p_SSP3 — Resources—Land Cover—Other Land (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4003	4032	4047	4078	4045	4010	3988	3982	3968	3961	3972
CAZ	683	681	690	692	691	691	691	691	690	690	686
CHA	234	234	234	231	231	230	230	235	235	247	283
EUR	76	75	75	80	77	74	65	65	65	63	63
IND	67	67	67	65	58	43	33	27	27	23	22
JPN	5	5	5	5	5	5	5	5	5	5	5
LAM	305	304	304	299	298	295	295	292	287	280	274
MEA	809	829	839	836	836	835	835	839	865	868	869
NEU	68	71	73	78	78	78	78	78	78	77	78
OAS	229	229	232	229	220	217	215	211	195	193	190
REF	709	721	717	753	753	753	753	753	750	746	735
SSA	650	650	650	642	633	622	621	620	605	602	602
USA	169	165	161	167	166	166	166	166	166	166	164

Table 1642: MAgPIE m4p_SSP3 — Resources—Land Cover—Other Land (million ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	3959	3903	3920	3810	3767	3718	3685
CAZ	682	679	674	659	637	614	593
CHA	322	330	351	383	421	445	456
EUR	63	63	63	63	63	63	63
IND	22	22	22	1	1	1	1
JPN	5	5	5	5	5	5	5
LAM	266	262	262	246	245	240	235
MEA	868	867	869	861	854	853	850
NEU	79	78	78	75	75	75	75
OAS	185	180	180	180	179	179	173
REF	724	719	719	690	678	674	674
SSA	581	534	534	492	462	441	436
USA	163	163	163	154	147	127	123

Table 1643: MAgPIE m4p_SSP3 — Resources—Land Cover—Other Land (million ha) [PART 2/2]

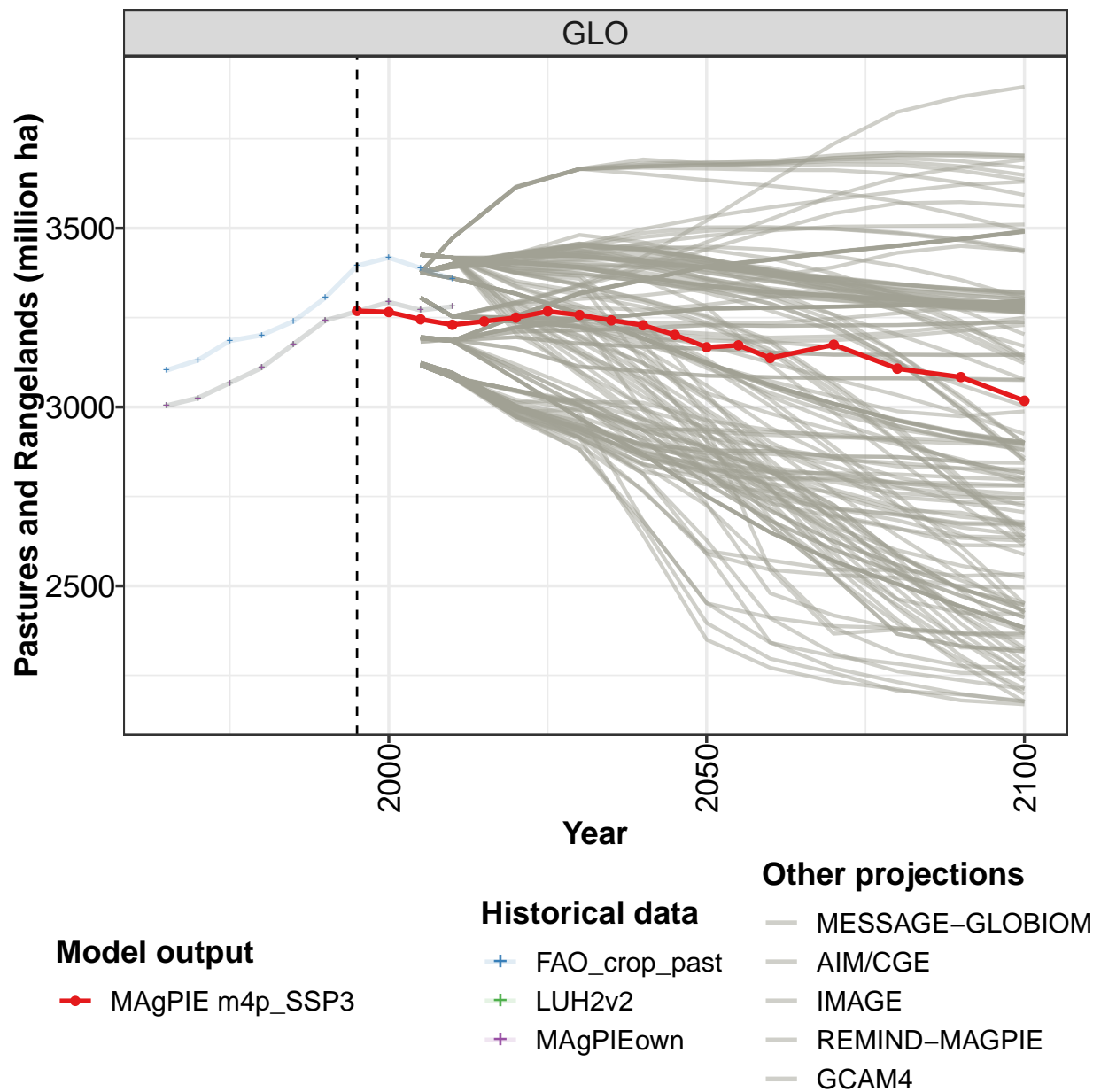
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4519	4498	4466	4434	4363	4292	4271	4250	4246	4248
CAZ	576	571	571	571	574	577	579	581	585	614
CHA	295	285	268	250	221	192	194	197	196	200
EUR	101	103	105	107	108	110	113	116	122	125
IND	101	99	98	97	96	96	95	94	93	93
JPN	0	0	0	0	0	0	0	0	0	0
LAM	531	528	521	513	505	496	487	478	472	456
MEA	904	902	900	897	874	852	839	825	835	835
NEU	45	44	44	44	44	43	43	44	43	45
OAS	133	131	130	130	128	126	125	125	133	122
REF	680	677	674	672	670	668	661	654	652	654
SSA	974	972	968	965	956	947	945	943	922	911
USA	179	185	187	189	188	186	190	193	192	192

Table 1644: LUH2v2 — Resources—Land Cover—Other Land (million ha)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4317	4265	4206	4148	4049	3950	3944	3941	3966	3966
CAZ	672	667	667	667	670	674	676	678	687	724
CHA	406	389	359	329	283	237	231	225	207	206
EUR	47	50	53	56	58	60	61	62	69	69
IND	74	72	70	69	69	68	66	65	61	59
JPN	4	4	4	4	4	4	5	5	5	5
LAM	397	374	352	330	313	296	302	308	325	319
MEA	860	858	855	853	830	807	795	782	791	791
NEU	66	65	65	65	65	64	65	65	64	65
OAS	243	239	237	235	228	220	218	216	229	201
REF	730	726	723	720	718	716	708	700	704	699
SSA	669	665	661	658	649	641	652	666	656	659
USA	149	156	159	161	161	162	165	169	170	168

Table 1645: MAgPIEown — Resources—Land Cover—Other Land (million ha)

54.4 Pastures and Rangelands



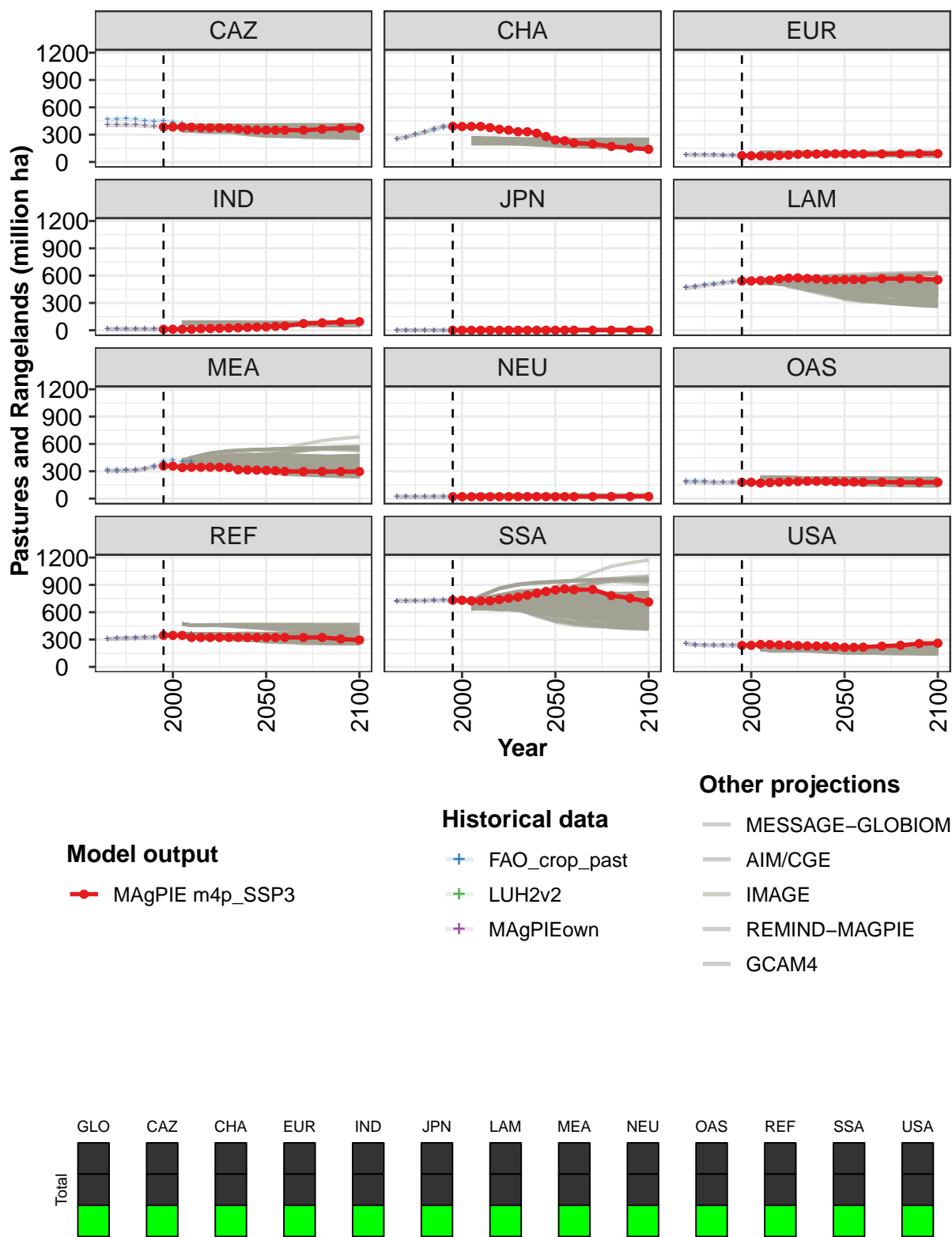


Figure 432: MAgPIE m4p_SSP3 — Resources—Land Cover—Pastures and Rangelands (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3269	3265	3245	3230	3239	3250	3268	3257	3242	3228	3202
CAZ	384	384	384	382	376	375	375	375	363	353	351
CHA	392	389	391	391	377	359	350	332	332	316	279
EUR	70	68	67	65	71	75	84	86	87	89	89
IND	12	12	11	11	17	19	21	24	27	31	34
JPN	0	0	0	0	0	0	0	1	1	1	1
LAM	540	541	546	550	565	573	575	569	566	555	556
MEA	358	357	340	344	344	344	344	340	316	314	312
NEU	21	21	20	20	20	21	21	21	22	22	21
OAS	179	179	170	175	181	184	187	190	190	189	186
REF	346	346	346	323	323	323	323	323	323	323	323
SSA	732	732	725	725	725	739	754	766	787	809	828
USA	235	237	246	245	241	238	233	230	229	227	220

Table 1646: MAgPIE m4p-SSP3 — Resources—Land Cover—Pastures and Rangelands (million ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	3167	3173	3137	3174	3107	3084	3018
CAZ	350	349	349	349	360	370	372
CHA	240	232	209	197	171	153	139
EUR	88	88	88	88	89	92	92
IND	37	43	47	74	81	91	94
JPN	1	1	1	1	0	0	0
LAM	556	557	557	566	567	565	555
MEA	310	306	299	297	297	297	296
NEU	21	21	21	21	22	23	22
OAS	182	182	180	181	177	177	179
REF	323	323	323	323	323	306	295
SSA	845	856	847	850	783	754	713
USA	214	214	216	227	237	256	260

Table 1647: MAgPIE m4p-SSP3 — Resources—Land Cover—Pastures and Rangelands (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3102	3131	3186	3201	3240	3305	3395	3418	3388	3358
CAZ	468	469	476	469	455	446	452	437	422	381
CHA	251	273	301	328	351	374	393	393	393	393
EUR	81	81	80	79	76	76	74	72	70	68
IND	15	13	13	12	12	11	11	11	10	10
JPN	1	1	1	1	0	0	0	0	0	0
LAM	473	486	503	514	527	539	547	554	555	561
MEA	316	318	319	322	329	362	416	420	405	406
NEU	20	20	19	19	19	20	20	21	22	22
OAS	194	195	195	178	178	181	173	185	169	169
REF	307	313	316	320	325	326	355	362	362	363
SSA	720	720	721	722	724	730	718	727	735	736
USA	257	244	242	238	242	239	236	236	244	250

Table 1648: FAO.crop_past — Resources—Land Cover—Pastures and Rangelands (million ha)

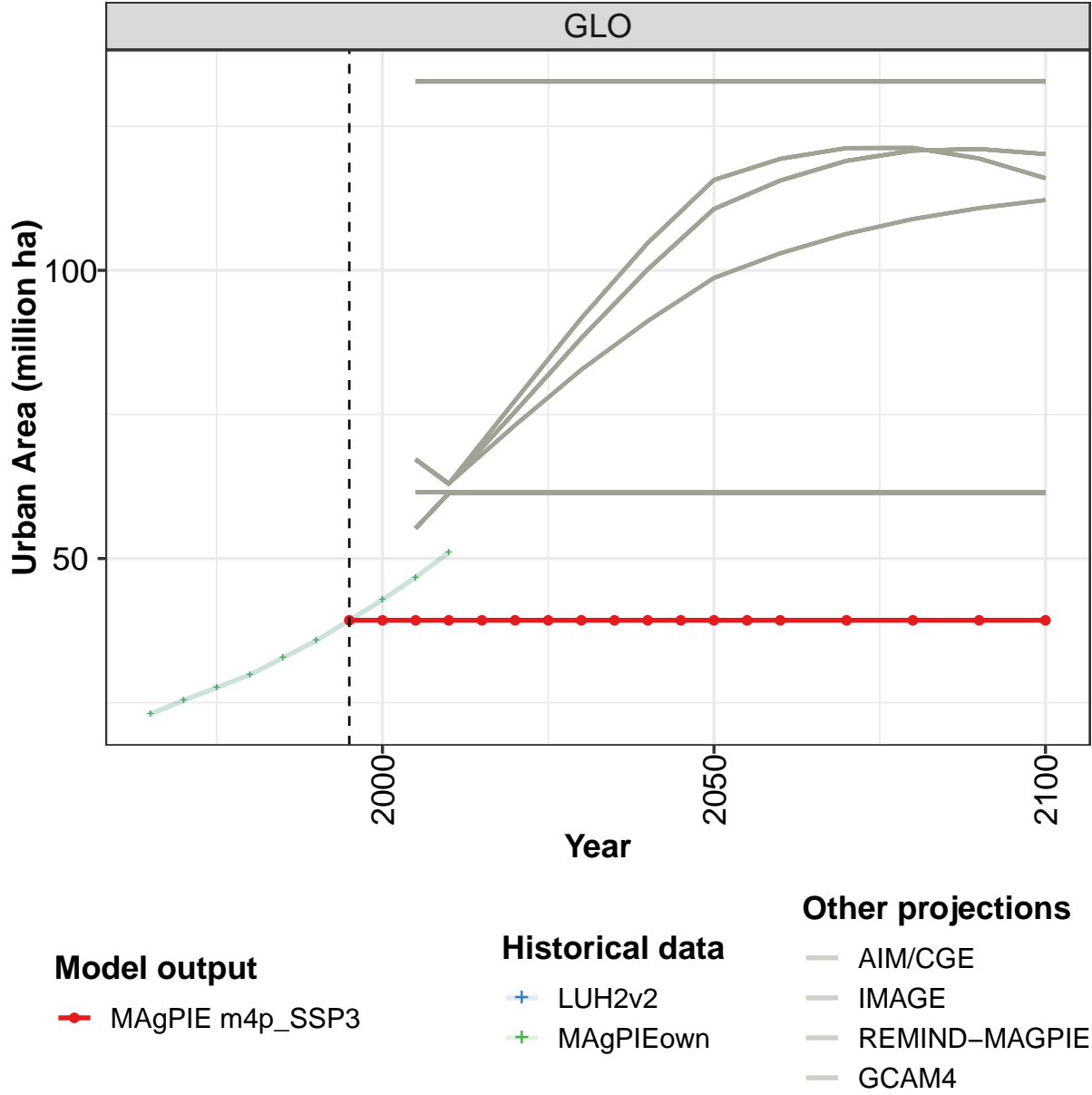
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3004	3025	3068	3110	3176	3242	3267	3293	3271	3281
CAZ	405	405	405	405	399	393	391	389	380	358
CHA	253	270	300	330	362	395	391	388	388	388
EUR	77	76	75	75	73	72	70	69	68	66
IND	14	13	13	13	12	12	12	12	11	11
JPN	1	1	1	1	0	0	0	0	0	0
LAM	465	476	490	503	516	529	539	549	549	555
MEA	303	303	306	308	327	346	356	367	353	353
NEU	21	20	20	19	20	21	21	20	21	21
OAS	180	180	178	175	177	178	179	179	166	187
REF	306	312	315	319	322	325	342	360	360	361
SSA	728	726	727	727	731	734	730	725	731	731
USA	252	241	238	236	236	237	236	236	243	249

Table 1649: LUH2v2 — Resources—Land Cover—Pastures and Rangelands (million ha)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3004	3025	3068	3110	3176	3242	3267	3293	3271	3281
CAZ	405	405	405	405	399	393	391	389	380	358
CHA	253	270	300	330	362	395	391	388	388	388
EUR	77	76	75	75	73	72	70	69	68	66
IND	14	13	13	13	12	12	12	12	11	11
JPN	1	1	1	1	0	0	0	0	0	0
LAM	465	476	490	503	516	529	539	549	549	555
MEA	303	303	306	308	327	346	356	367	353	353
NEU	21	20	20	19	20	21	21	20	21	21
OAS	180	180	178	175	177	178	179	179	166	187
REF	306	312	315	319	322	325	342	360	360	361
SSA	728	726	727	727	731	734	730	725	731	731
USA	252	241	238	236	236	237	236	236	243	249

Table 1650: MAgPIEown — Resources—Land Cover—Pastures and Rangelands (million ha)

54.5 Urban Area



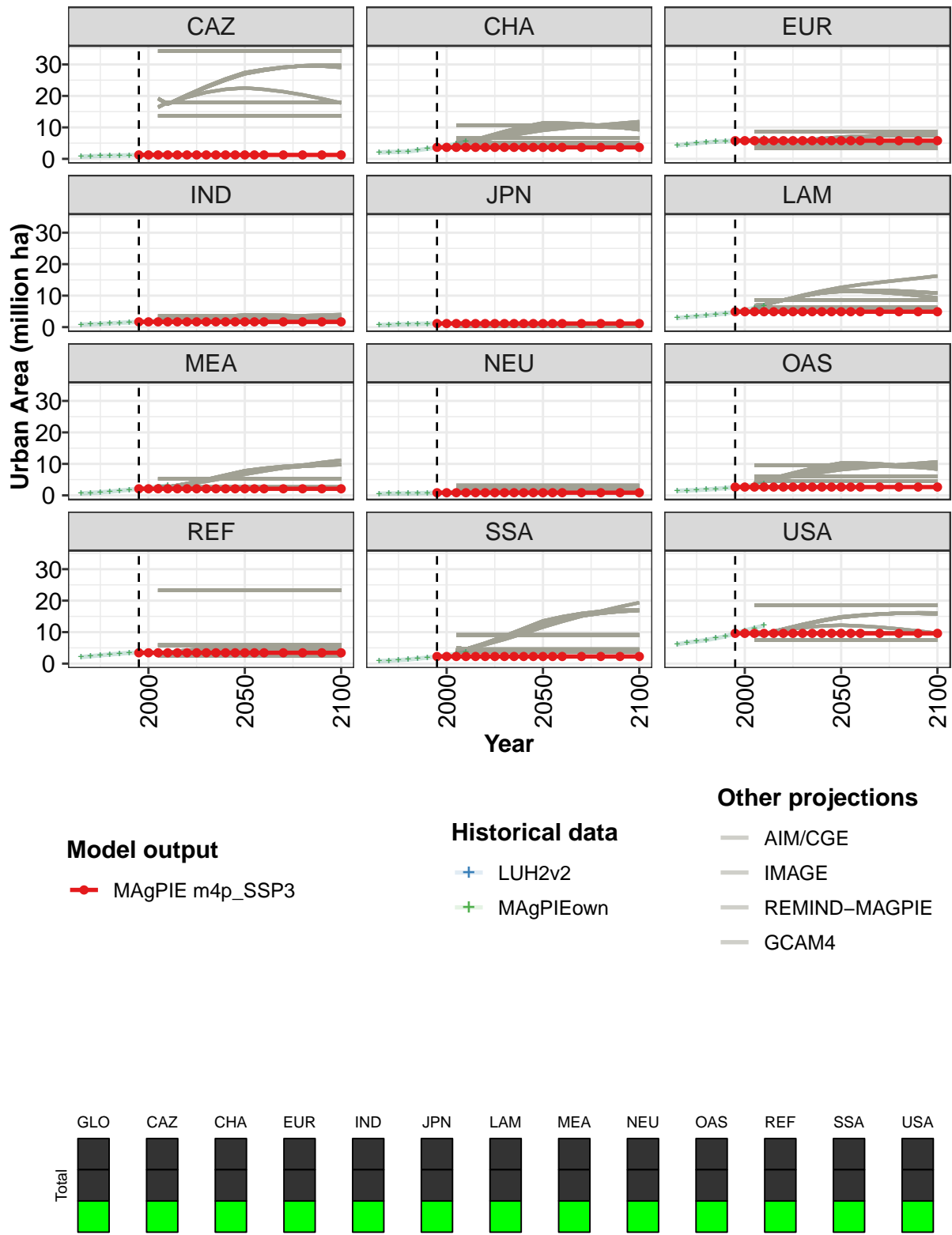


Figure 433: MAgPIE m4p_SSP3 — Resources—Land Cover—Urban Area (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3
CAZ	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
CHA	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
EUR	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
IND	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
JPN	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
LAM	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
MEA	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
NEU	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
OAS	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
REF	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
SSA	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
USA	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6

Table 1651: MAgPIE m4p_SSP3 — Resources—Land Cover—Urban Area (million ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	39.3	39.3	39.3	39.3	39.3	39.3	39.3
CAZ	1.3	1.3	1.3	1.3	1.3	1.3	1.3
CHA	3.7	3.7	3.7	3.7	3.7	3.7	3.7
EUR	5.8	5.8	5.8	5.8	5.8	5.8	5.8
IND	1.7	1.7	1.7	1.7	1.7	1.7	1.7
JPN	1.1	1.1	1.1	1.1	1.1	1.1	1.1
LAM	4.9	4.9	4.9	4.9	4.9	4.9	4.9
MEA	2.1	2.1	2.1	2.1	2.1	2.1	2.1
NEU	0.8	0.8	0.8	0.8	0.8	0.8	0.8
OAS	2.6	2.6	2.6	2.6	2.6	2.6	2.6
REF	3.4	3.4	3.4	3.4	3.4	3.4	3.4
SSA	2.3	2.3	2.3	2.3	2.3	2.3	2.3
USA	9.6	9.6	9.6	9.6	9.6	9.6	9.6

Table 1652: MAgPIE m4p_SSP3 — Resources—Land Cover—Urban Area (million ha) [PART 2/2]

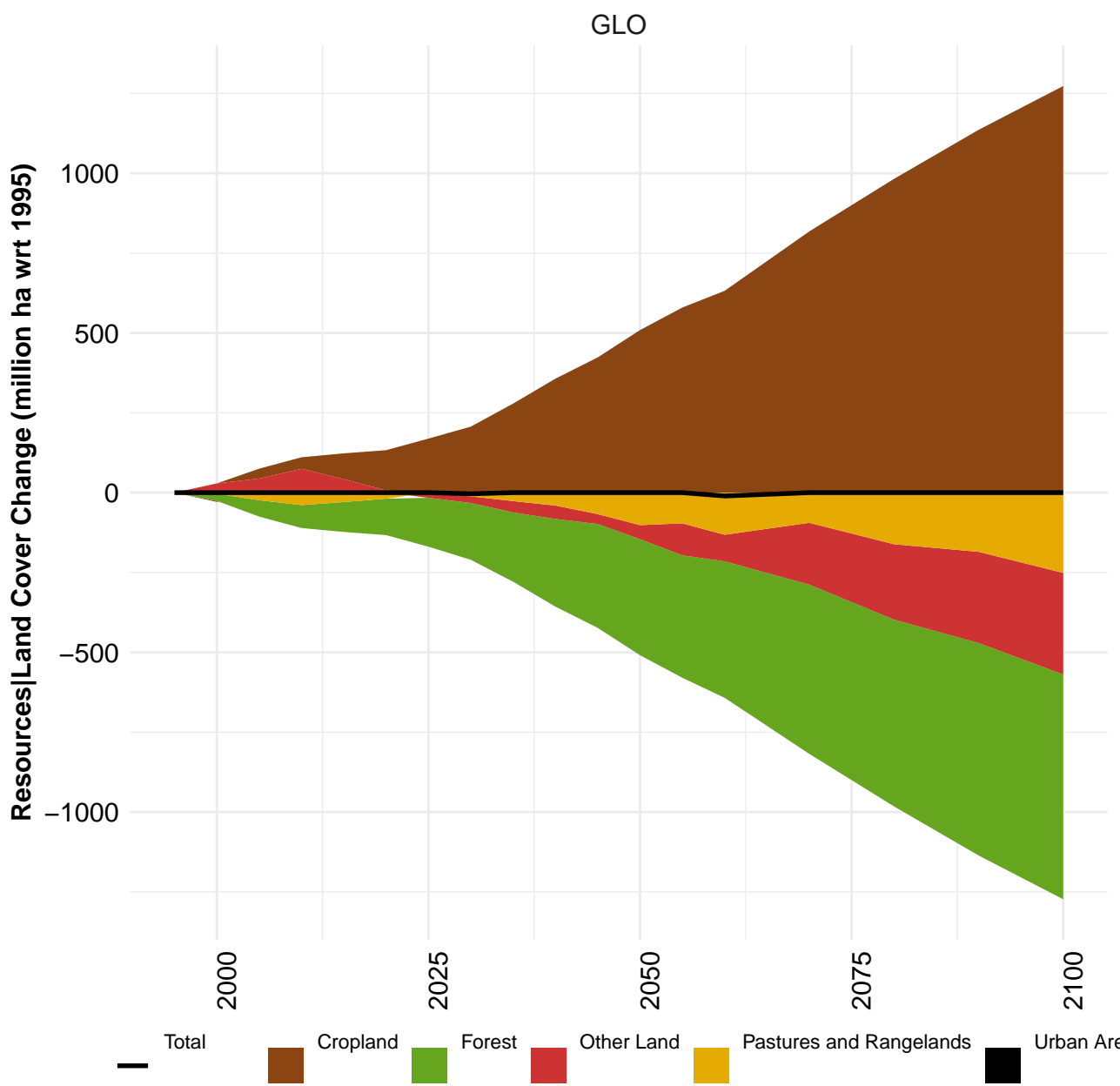
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	23.0	25.4	27.6	29.8	32.8	35.7	39.3	42.8	46.7	51.0
CAZ	0.8	0.9	0.9	1.0	1.1	1.2	1.3	1.3	1.5	1.6
CHA	2.1	2.2	2.3	2.3	2.8	3.2	3.7	4.1	4.7	5.5
EUR	4.3	4.6	4.9	5.3	5.5	5.6	5.8	5.9	6.2	6.4
IND	0.8	0.9	1.1	1.2	1.4	1.5	1.7	1.8	2.0	2.2
JPN	0.7	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2
LAM	2.9	3.2	3.4	3.7	4.0	4.3	4.9	5.5	6.1	6.8
MEA	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.8	3.1
NEU	0.5	0.6	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.1
OAS	1.4	1.6	1.7	1.8	2.1	2.3	2.6	3.0	3.3	3.7
REF	2.1	2.4	2.6	2.9	3.2	3.4	3.4	3.5	3.5	3.6
SSA	0.8	0.9	1.1	1.3	1.6	1.9	2.3	2.6	3.1	3.7
USA	6.1	6.7	7.1	7.5	8.1	8.7	9.6	10.5	11.3	12.1

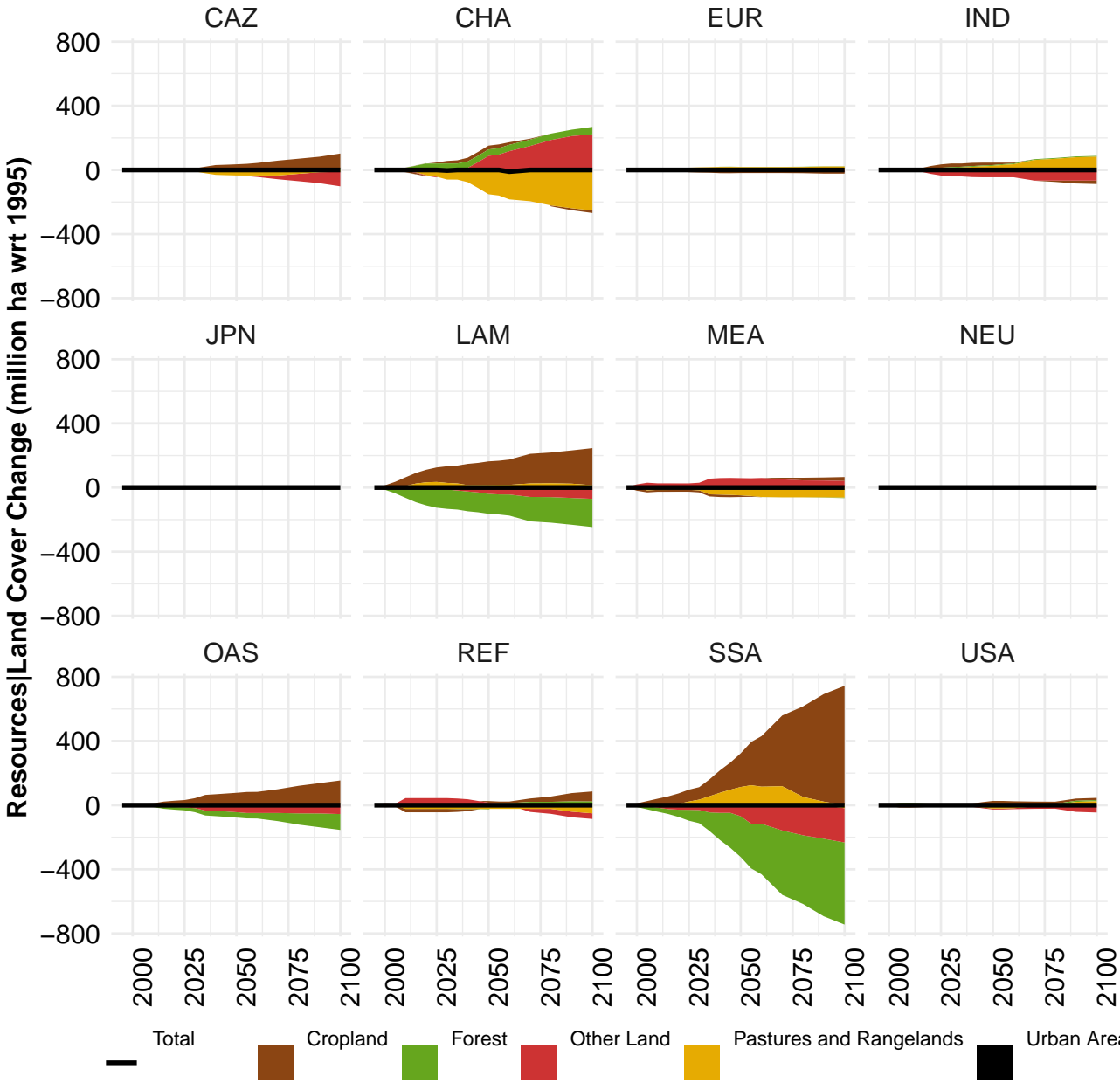
Table 1653: LUH2v2 — Resources—Land Cover—Urban Area (million ha)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	23.0	25.4	27.6	29.8	32.8	35.7	39.3	42.8	46.7	51.0
CAZ	0.8	0.9	0.9	1.0	1.1	1.2	1.3	1.3	1.5	1.6
CHA	2.1	2.2	2.3	2.3	2.8	3.2	3.7	4.1	4.7	5.5
EUR	4.3	4.6	4.9	5.3	5.5	5.6	5.8	5.9	6.2	6.4
IND	0.8	0.9	1.1	1.2	1.4	1.5	1.7	1.8	2.0	2.2
JPN	0.7	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2
LAM	2.9	3.2	3.4	3.7	4.0	4.3	4.9	5.5	6.1	6.8
MEA	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.8	3.1
NEU	0.5	0.6	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.1
OAS	1.4	1.6	1.7	1.8	2.1	2.3	2.6	3.0	3.3	3.7
REF	2.1	2.4	2.6	2.9	3.2	3.4	3.4	3.5	3.5	3.6
SSA	0.8	0.9	1.1	1.3	1.6	1.9	2.3	2.6	3.1	3.7
USA	6.1	6.7	7.1	7.5	8.1	8.7	9.6	10.5	11.3	12.1

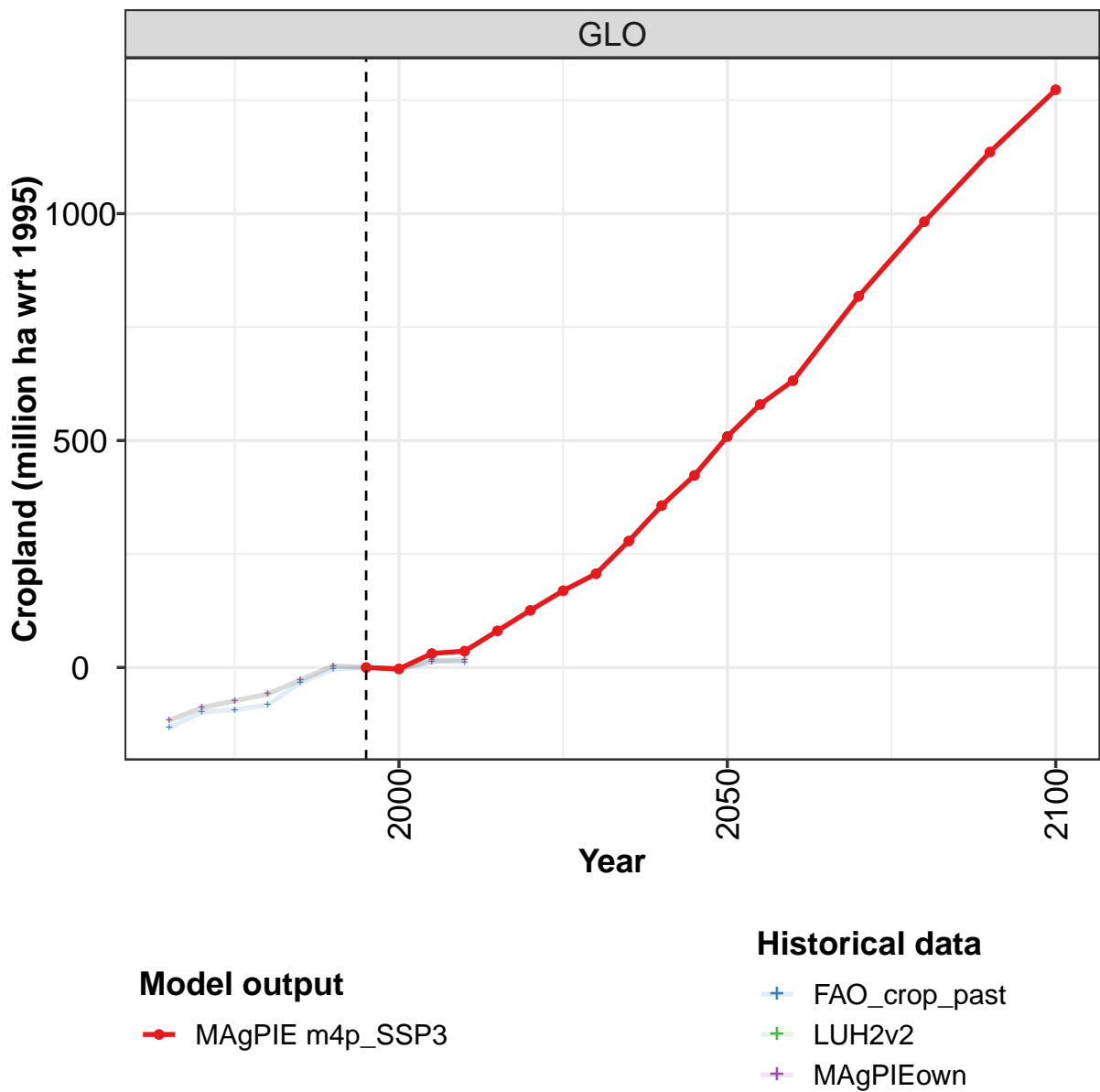
Table 1654: MAgPIEown — Resources—Land Cover—Urban Area (million ha)

55 Land Cover Change





55.1 Cropland



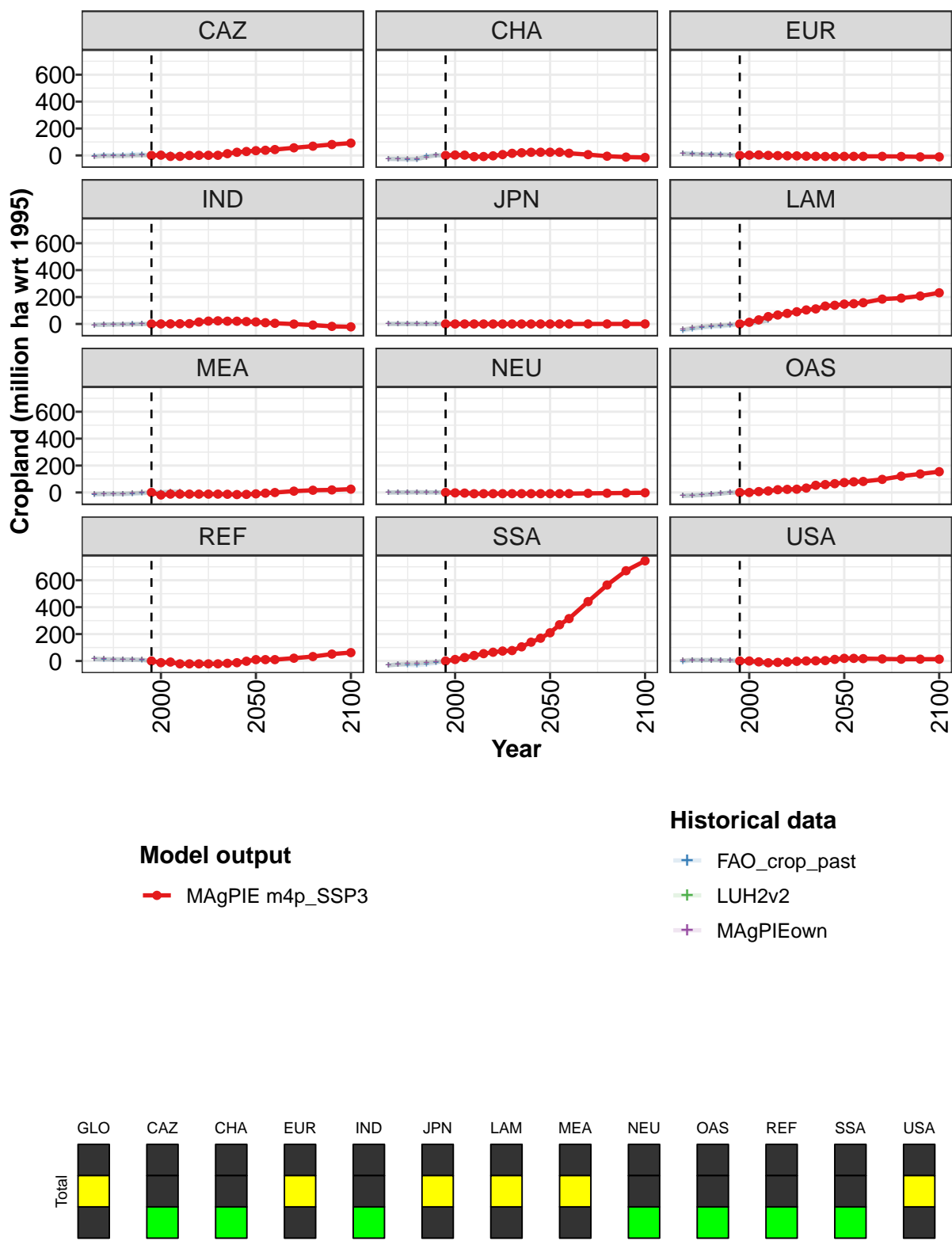


Figure 434: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Cropland (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0	-3	31	36	81	126	169	207	279	357	423
CAZ	0	2	-7	-7	-0	1	1	1	13	23	29
CHA	0	3	2	-9	-8	-3	6	16	20	23	24
EUR	0	2	4	0	-2	-3	-3	-5	-6	-8	-8
IND	0	0	1	2	2	14	21	23	20	20	18
JPN	0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
LAM	0	12	30	55	66	78	91	104	112	133	139
MEA	0	-19	-12	-12	-12	-12	-12	-12	-13	-15	-14
NEU	0	-3	-4	-9	-9	-9	-9	-9	-9	-9	-9
OAS	0	0	7	11	21	23	24	33	53	59	65
REF	0	-12	-8	-21	-21	-21	-21	-21	-17	-13	-2
SSA	0	11	26	41	55	65	74	77	105	140	169
USA	0	-0	-6	-13	-10	-7	-2	0	1	3	12

Table 1655: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Cropland (million ha wrt 1995) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	509	580	632	818	982	1136	1273
CAZ	35	38	44	57	69	81	92
CHA	24	24	16	6	-6	-12	-15
EUR	-7	-7	-7	-7	-8	-11	-11
IND	15	9	5	-1	-8	-18	-22
JPN	-0	-0	-0	-0	0	0	0
LAM	148	151	158	185	192	207	231
MEA	-10	-5	-0	10	17	19	25
NEU	-9	-9	-8	-7	-5	-4	-2
OAS	74	79	82	97	121	138	154
REF	10	10	10	21	33	51	62
SSA	210	270	315	441	564	671	744
USA	20	20	18	16	13	14	14

Table 1656: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Cropland (million ha wrt 1995) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-133.1	-97.7	-93.0	-82.6	-33.4	-3.7	0.0	-4.0	16.6	11.6
CAZ	-3.1	3.5	1.3	3.1	7.5	8.4	0.0	7.1	8.1	-2.3
CHA	-26.4	-28.4	-30.2	-30.7	-5.0	1.3	0.0	-0.9	-5.4	-8.3
EUR	16.5	13.1	9.1	8.0	7.4	5.5	0.0	-2.0	-7.4	-10.3
IND	-7.5	-4.9	-3.1	-1.8	-0.6	0.2	0.0	0.2	-0.2	-0.7
JPN	1.0	0.8	0.5	0.4	0.3	0.2	0.0	-0.2	-0.3	-0.4
LAM	-50.1	-37.3	-27.9	-21.6	-18.2	-11.1	0.0	2.1	18.6	25.3
MEA	-14.9	-13.8	-11.2	-13.4	-9.5	-6.8	0.0	-3.2	1.5	1.2
NEU	-0.5	0.6	0.8	1.6	0.7	0.8	0.0	-1.1	-1.0	-3.3
OAS	-23.9	-21.6	-17.4	-12.3	-7.4	1.1	0.0	5.6	12.3	20.4
REF	13.9	10.4	9.9	9.0	9.3	6.5	0.0	-14.1	-17.0	-19.1
SSA	-32.8	-26.6	-29.0	-31.5	-23.6	-13.4	0.0	8.6	23.9	34.8
USA	-5.3	6.4	4.1	6.5	5.7	3.6	0.0	-6.1	-16.3	-25.6

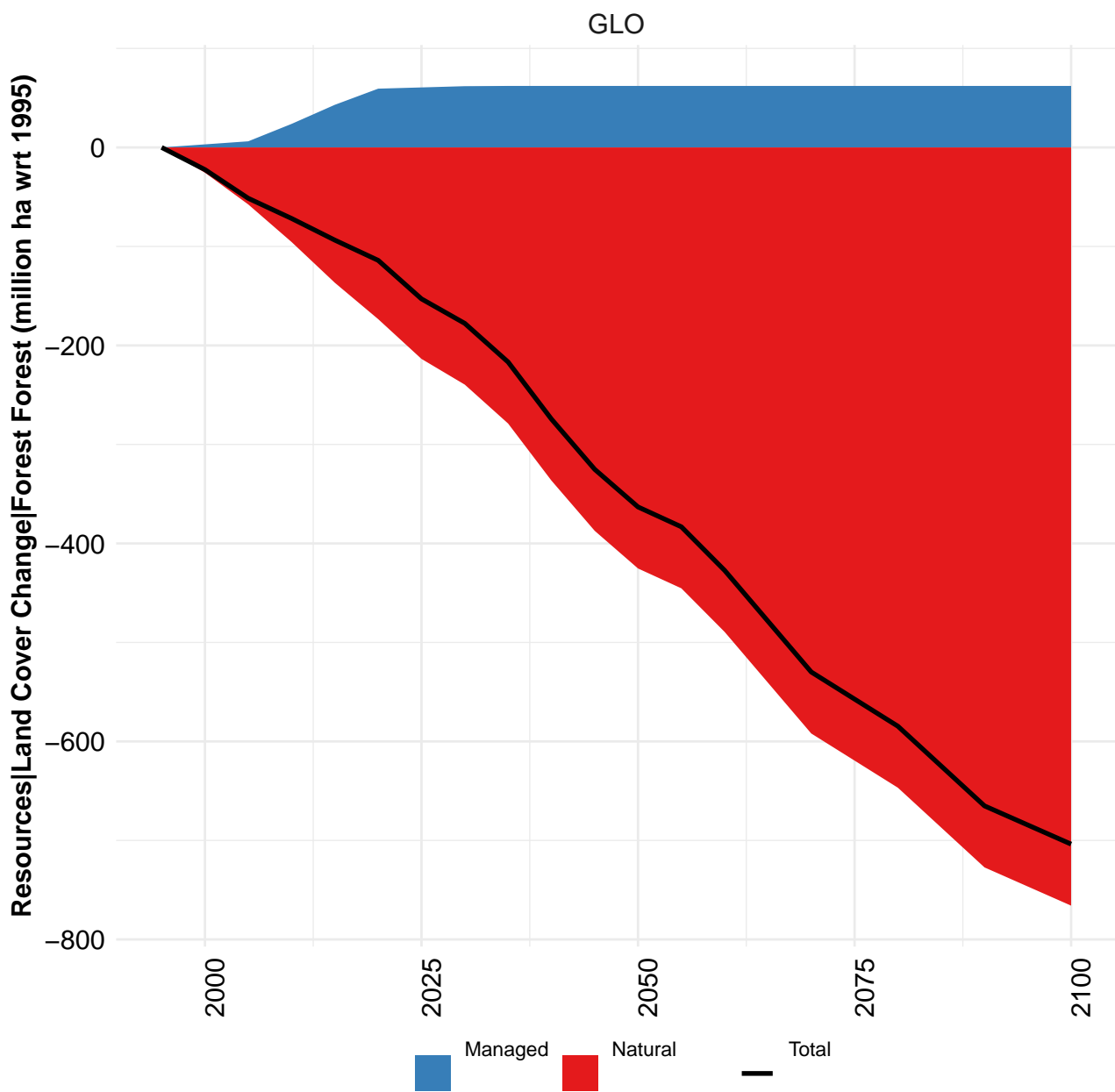
Table 1657: FAO_crop_past — Resources—Land Cover Change—Cropland (million ha wrt 1995)

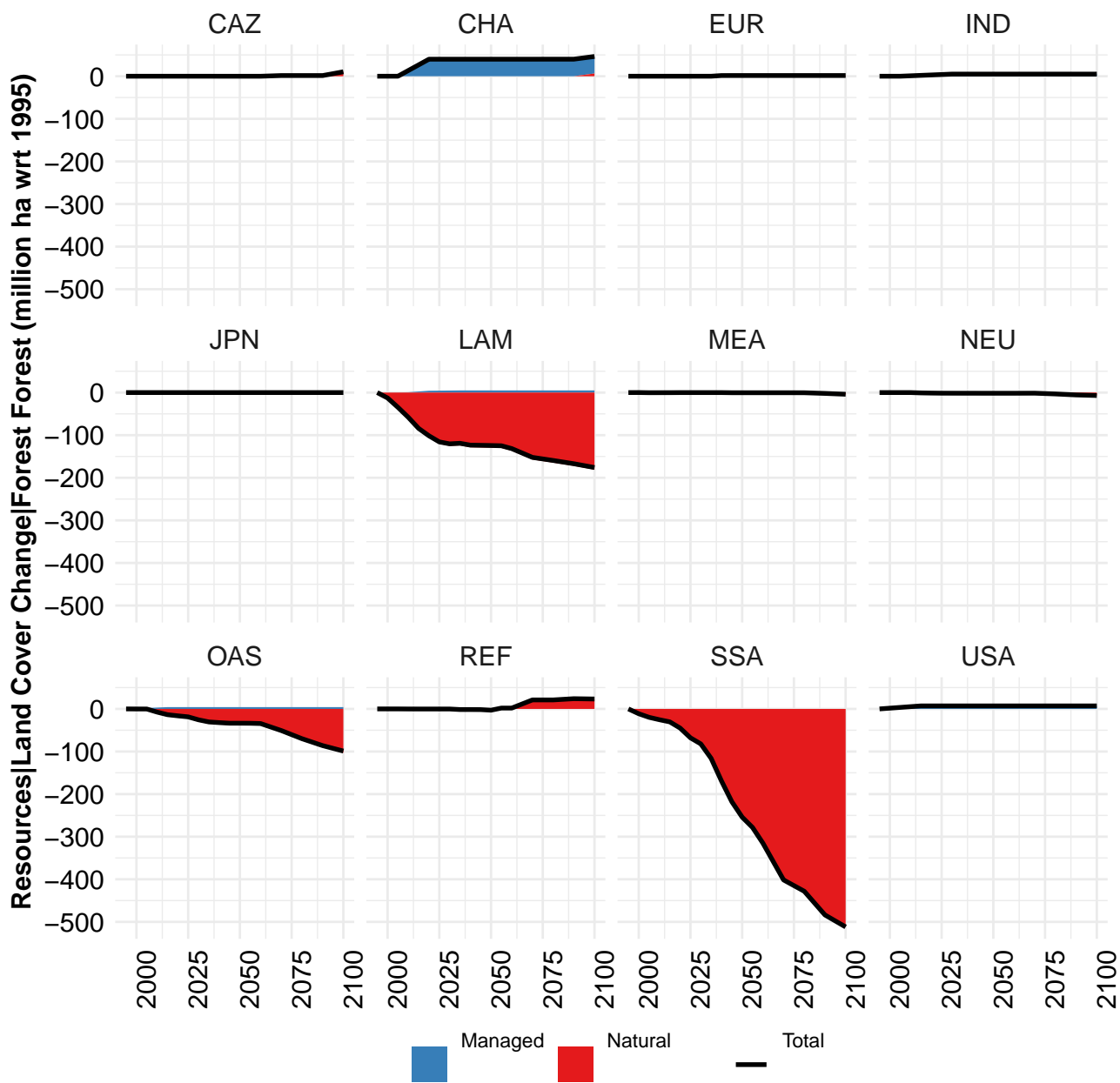
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-116.7	-88.3	-73.4	-58.5	-27.3	3.8	0.0	-3.8	12.9	17.4
CAZ	-10.3	-4.5	-4.6	-4.8	-2.1	0.6	0.0	-0.6	0.5	-9.8
CHA	-24.9	-25.3	-25.5	-25.7	-12.4	1.0	0.0	-1.0	1.1	-7.1
EUR	13.0	10.2	7.9	5.5	4.4	3.3	0.0	-3.3	-10.5	-11.8
IND	-7.5	-5.5	-4.0	-2.4	-1.8	-1.2	0.0	1.2	2.8	2.6
JPN	0.7	0.7	0.5	0.4	0.3	0.2	0.0	-0.2	-0.3	-0.4
LAM	-41.5	-30.2	-21.8	-13.4	-9.7	-5.9	0.0	5.9	11.0	28.1
MEA	-10.7	-9.5	-9.2	-9.0	-5.6	-2.2	0.0	2.2	6.9	5.7
NEU	-0.0	1.0	1.4	1.9	1.5	1.1	0.0	-1.1	-0.9	-3.0
OAS	-26.1	-22.3	-18.4	-14.4	-8.1	-1.8	0.0	1.8	7.0	15.6
REF	17.2	14.0	13.3	12.6	11.3	10.1	0.0	-10.1	-13.8	-16.8
SSA	-31.4	-24.7	-20.8	-16.8	-11.3	-5.8	0.0	5.8	23.5	38.2
USA	4.8	8.0	7.8	7.7	6.1	4.4	0.0	-4.4	-14.6	-23.9

Table 1658: LUH2v2 — Resources—Land Cover Change—Cropland (million ha wrt 1995)

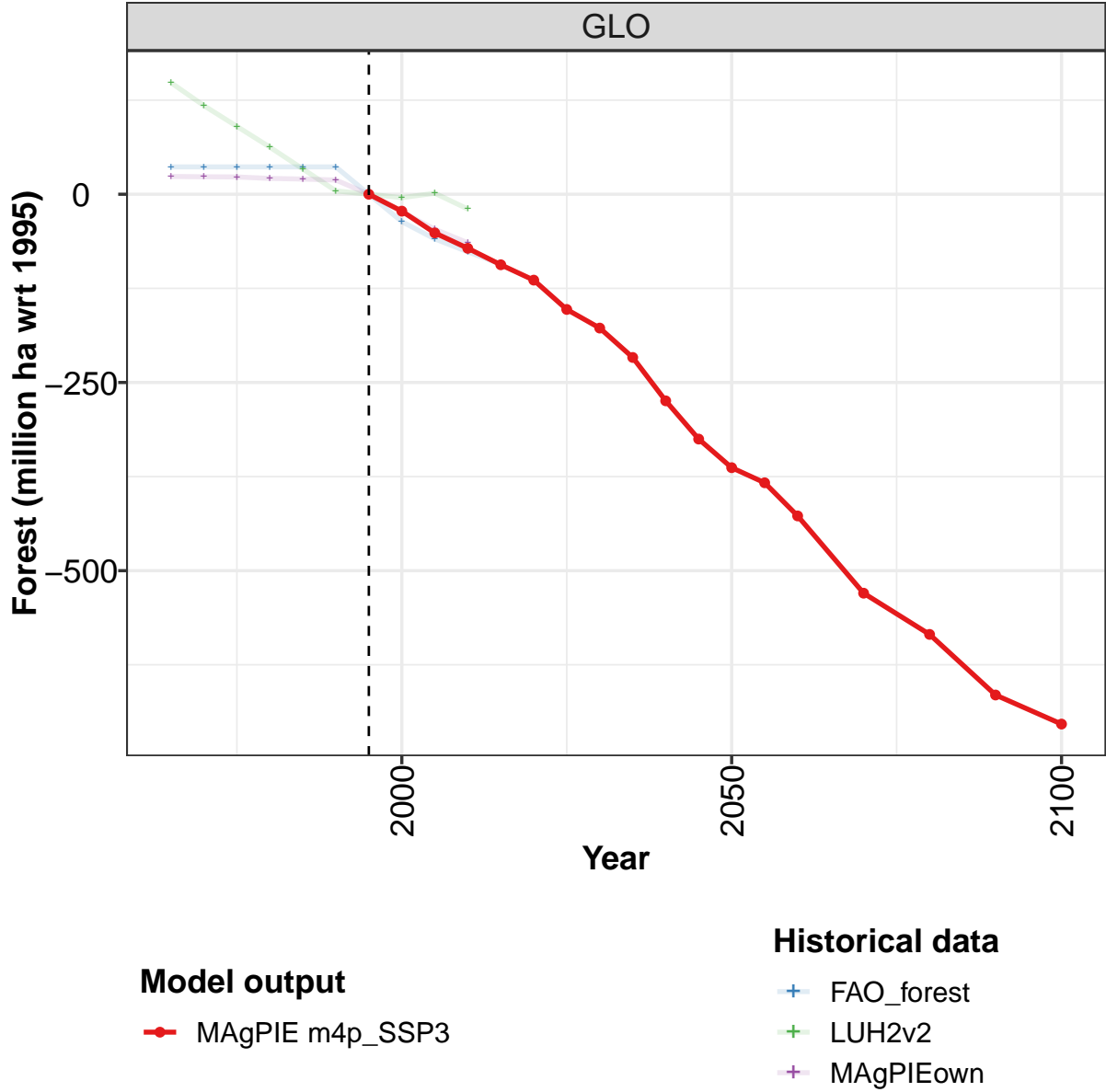
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-116.7	-88.3	-73.4	-58.5	-27.3	3.8	0.0	-3.8	12.9	17.4
CAZ	-10.3	-4.5	-4.6	-4.8	-2.1	0.6	0.0	-0.6	0.5	-9.8
CHA	-24.9	-25.3	-25.5	-25.7	-12.4	1.0	0.0	-1.0	1.1	-7.1
EUR	13.0	10.2	7.9	5.5	4.4	3.3	0.0	-3.3	-10.5	-11.8
IND	-7.5	-5.5	-4.0	-2.4	-1.8	-1.2	0.0	1.2	2.8	2.6
JPN	0.7	0.7	0.5	0.4	0.3	0.2	0.0	-0.2	-0.3	-0.4
LAM	-41.5	-30.2	-21.8	-13.4	-9.7	-5.9	0.0	5.9	11.0	28.1
MEA	-10.7	-9.5	-9.2	-9.0	-5.6	-2.2	0.0	2.2	6.9	5.7
NEU	-0.0	1.0	1.4	1.9	1.5	1.1	0.0	-1.1	-0.9	-3.0
OAS	-26.1	-22.3	-18.4	-14.4	-8.1	-1.8	0.0	1.8	7.0	15.6
REF	17.2	14.0	13.3	12.6	11.3	10.1	0.0	-10.1	-13.8	-16.8
SSA	-31.4	-24.7	-20.8	-16.8	-11.3	-5.8	0.0	5.8	23.5	38.2
USA	4.8	8.0	7.8	7.7	6.1	4.4	0.0	-4.4	-14.6	-23.9

Table 1659: MAgPIEown — Resources—Land Cover Change—Cropland (million ha wrt 1995)





55.2 Forest



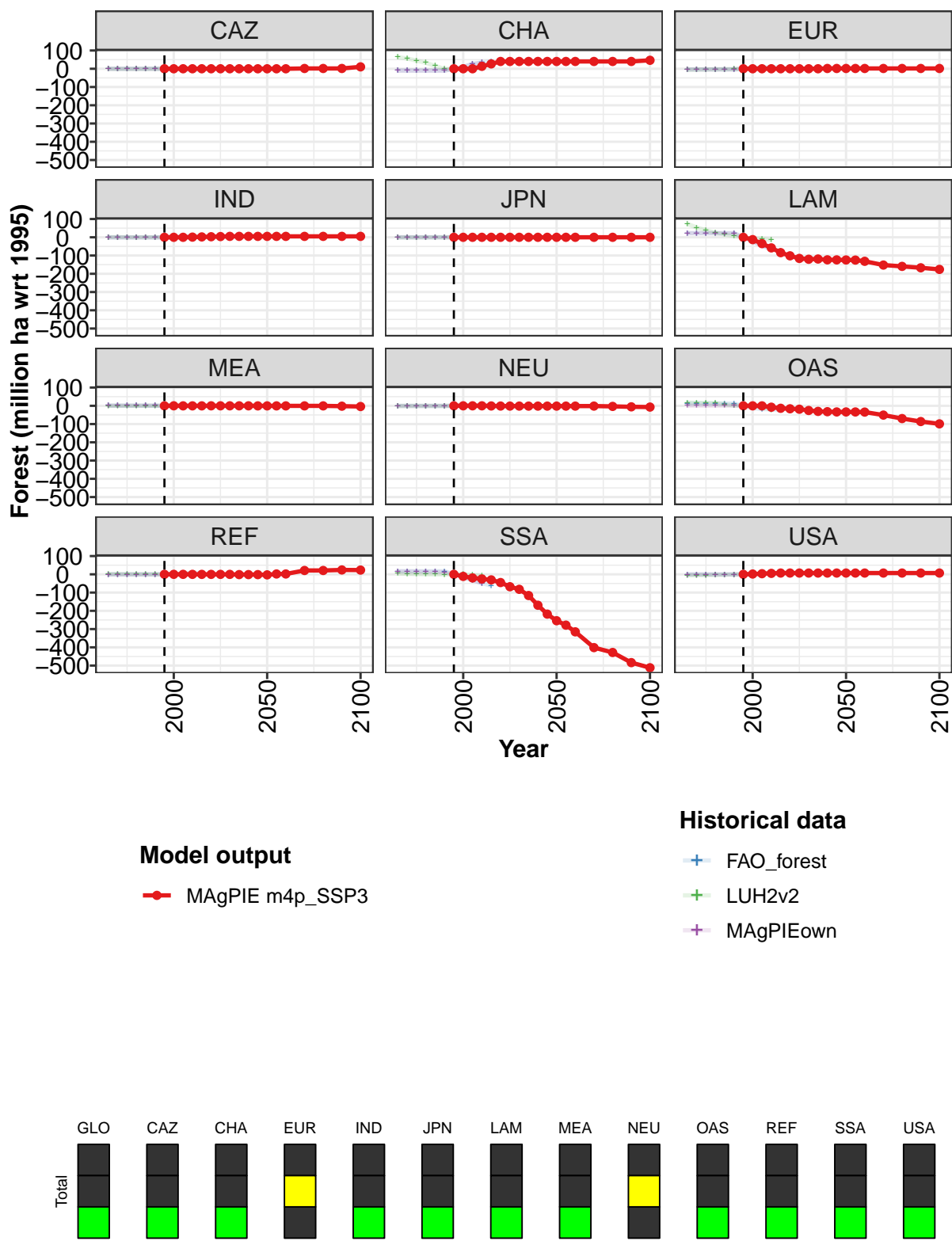


Figure 435: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Forest (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0	-22.4	-51.4	-71.7	-93.6	-114.1	-153.0	-177.7	-216.8	-274.4	-325.2
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0
CHA	0.0	0.0	0.0	13.3	26.7	40.0	40.0	40.0	40.0	40.0	40.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
IND	0.0	0.0	0.0	1.0	2.0	3.0	4.0	5.0	5.0	5.0	5.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	-12.8	-34.7	-58.1	-84.2	-101.5	-115.8	-120.4	-119.1	-123.4	-123.8
MEA	0.0	0.0	-0.3	-0.2	-0.2	-0.0	-0.0	-0.0	-0.0	-0.0	-0.3
NEU	0.0	0.0	-0.0	-0.0	-0.8	-1.2	-1.5	-1.5	-1.5	-1.5	-1.6
OAS	0.0	-0.2	-0.2	-7.5	-13.6	-16.3	-18.6	-25.6	-30.6	-32.2	-33.6
REF	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-1.5	-1.5	-1.6
SSA	0.0	-11.3	-19.7	-25.4	-30.4	-44.9	-67.9	-82.2	-116.2	-169.4	-218.0
USA	0.0	1.8	3.6	5.3	7.1	7.1	7.1	7.1	7.1	7.1	7.1

Table 1660: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Forest (million ha wrt 1995) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	-363.2	-383.2	-427.3	-529.9	-584.6	-665.1	-703.7
CAZ	-0.0	-0.0	-0.0	1.6	1.6	1.6	10.4
CHA	40.0	40.0	40.0	40.0	40.0	40.0	46.4
EUR	1.6	1.6	1.6	1.6	1.6	1.6	1.6
IND	5.0	5.0	5.0	5.0	5.0	5.0	5.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	-124.3	-124.9	-131.5	-152.1	-159.4	-167.1	-176.0
MEA	-0.3	-0.3	-0.3	-0.4	-0.4	-2.0	-3.9
NEU	-1.6	-1.6	-1.6	-1.4	-3.2	-5.6	-6.9
OAS	-33.6	-33.7	-34.4	-50.8	-69.9	-86.1	-98.9
REF	-3.0	2.0	2.0	21.1	21.1	24.0	23.3
SSA	-254.2	-278.4	-315.1	-401.5	-428.1	-483.7	-511.8
USA	7.1	7.1	7.1	7.1	7.1	7.1	7.1

Table 1661: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Forest (million ha wrt 1995) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015
GLO	36.3	36.3	36.3	36.3	36.3	36.3	0.0	-36.3	-59.3	-76.4	-92.9
CAZ	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	0.0	0.2	-1.2	-6.0	-4.7
CHA	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	0.0	9.9	26.0	33.5	41.3
EUR	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4	0.0	3.4	5.4	7.9	9.7
IND	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	0.0	0.7	3.0	5.1	6.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	0.0	0.1	0.0
LAM	22.3	22.3	22.3	22.3	22.3	22.3	0.0	-22.3	-46.1	-63.9	-74.8
MEA	0.6	0.6	0.6	0.6	0.6	0.6	0.0	-0.6	0.4	0.3	-0.5
NEU	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	0.0	0.4	0.9	1.9	2.5
OAS	12.3	12.3	12.3	12.3	12.3	12.3	0.0	-12.3	-17.8	-19.5	-24.7
REF	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	0.0	0.6	0.5	6.9	6.9
SSA	16.9	16.9	16.9	16.9	16.9	16.9	0.0	-16.9	-32.2	-48.4	-61.8
USA	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	0.0	0.5	1.8	5.7	7.1

Table 1662: FAO_forest — Resources—Land Cover Change—Forest (million ha wrt 1995)

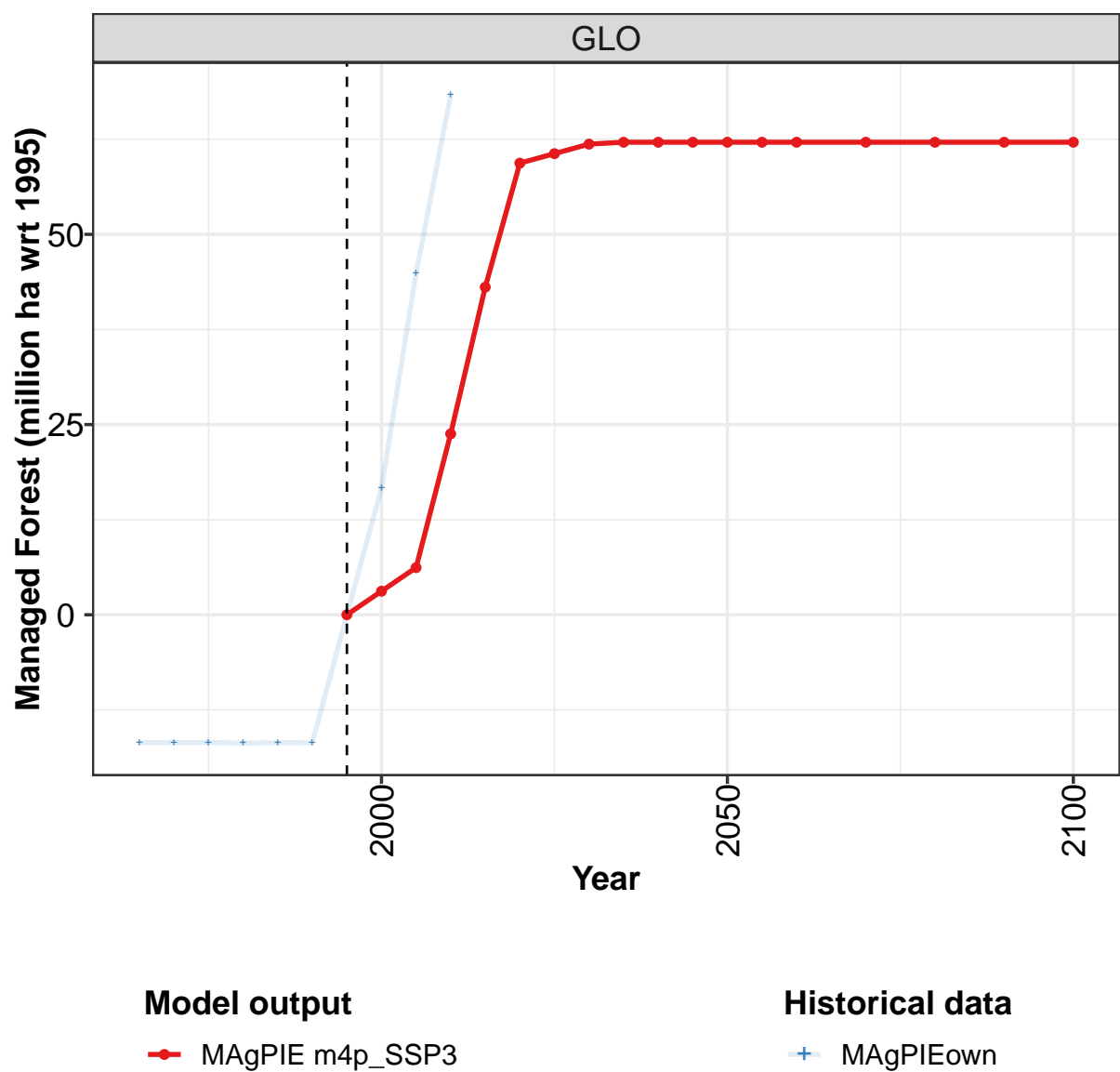
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	148	118	90	63	34	5	0	-5	1	-20
CAZ	-1	-1	-1	-1	-1	-0	0	0	4	7
CHA	63	56	45	33	16	-1	0	1	0	3
EUR	-6	-5	-4	-3	-2	-2	0	2	3	3
IND	1	1	0	0	0	0	0	-0	-0	-0
JPN	-1	-1	-1	-0	-0	-0	0	0	0	0
LAM	74	53	39	24	16	8	0	-8	-8	-15
MEA	0	0	0	0	0	0	0	0	0	0
NEU	-1	-1	-1	-1	-1	-1	0	1	1	1
OAS	18	16	15	14	8	2	0	-2	-4	-22
REF	2	2	1	1	1	0	0	-0	5	5
SSA	5	3	2	0	-0	-0	0	0	-4	-7
USA	-6	-5	-5	-4	-2	-1	0	1	3	6

Table 1663: LUH2v2 — Resources—Land Cover Change—Forest (million ha wrt 1995)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	23.6	23.2	23.0	21.1	20.2	18.9	0.0	-23.4	-46.4	-64.5
CAZ	-0.2	-0.2	-0.2	-0.4	-0.2	-0.2	0.0	0.2	-1.2	-6.0
CHA	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	0.0	9.9	26.0	33.5
EUR	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4	0.0	3.4	5.4	7.9
IND	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	0.0	0.7	3.0	5.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	0.0	0.1
LAM	22.5	22.4	22.3	22.0	21.9	21.8	0.0	-22.2	-45.9	-63.7
MEA	0.6	0.6	0.6	0.6	0.6	0.6	0.0	-0.6	0.4	0.3
NEU	-1.1	-1.0	-0.9	-0.8	-0.7	-0.7	0.0	0.5	1.0	1.9
OAS	1.0	1.0	1.0	1.0	0.9	0.9	0.0	-0.9	-6.3	-8.0
REF	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	0.0	0.6	0.5	6.9
SSA	16.1	15.7	15.4	13.9	12.8	11.7	0.0	-15.5	-31.0	-48.1
USA	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	0.0	0.5	1.8	5.7

Table 1664: MAgPIEown — Resources—Land Cover Change—Forest (million ha wrt 1995)

55.2.1 Managed Forest



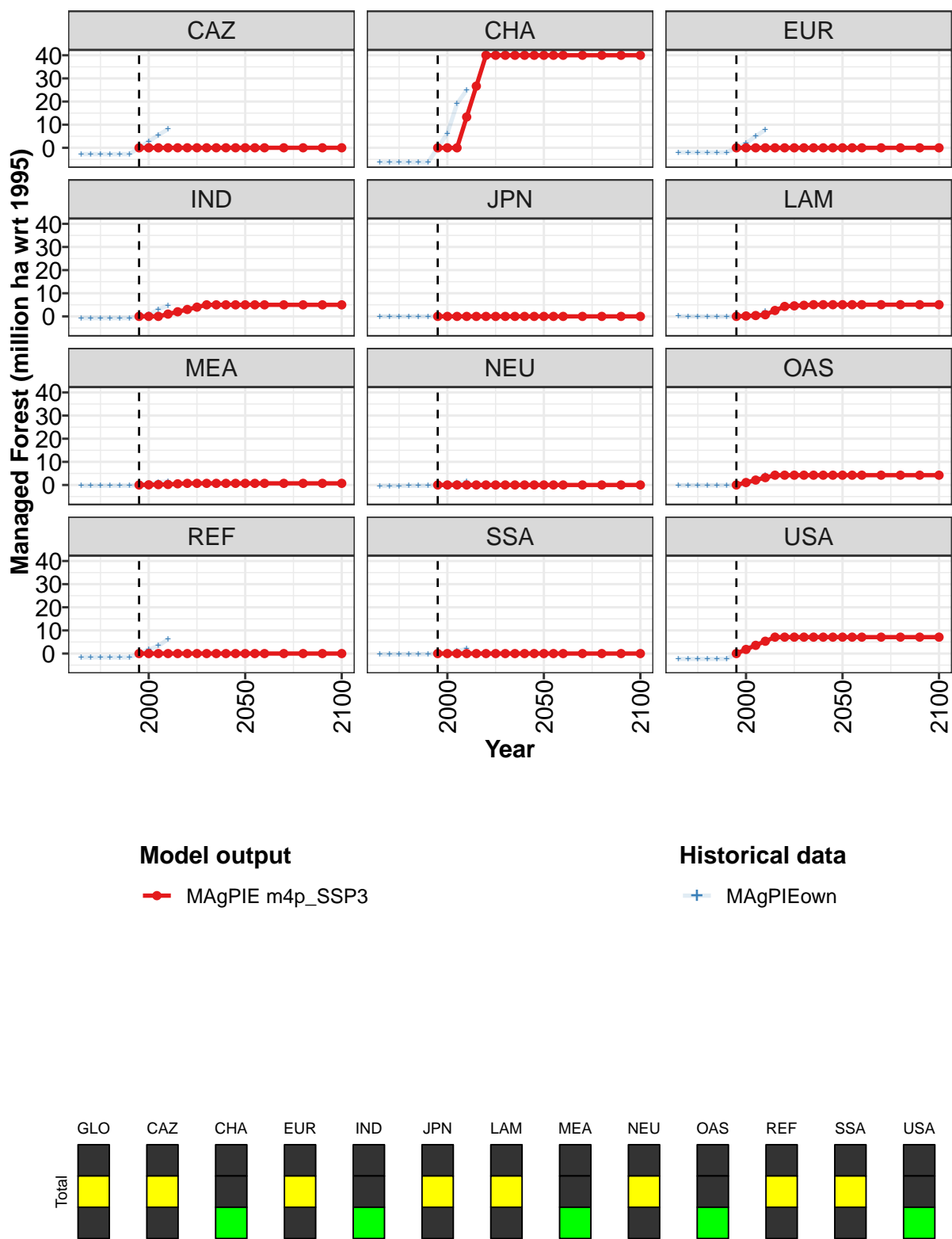


Figure 436: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Forest—Managed Forest (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0	3.1	6.2	23.8	43.1	59.4	60.6	61.9	62.1	62.1	62.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	13.3	26.7	40.0	40.0	40.0	40.0	40.0	40.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	0.0	0.0	0.0	1.0	2.0	3.0	4.0	5.0	5.0	5.0	5.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.2	0.4	0.7	2.6	4.3	4.6	4.8	5.1	5.1	5.1
MEA	0.0	0.1	0.2	0.2	0.5	0.7	0.7	0.7	0.7	0.7	0.7
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	0.0	1.1	2.1	3.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	0.0	1.8	3.6	5.3	7.1	7.1	7.1	7.1	7.1	7.1	7.1

Table 1665: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Forest—Managed Forest (million ha wrt 1995) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	62.1	62.1	62.1	62.1	62.1	62.1	62.1
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	40.0	40.0	40.0	40.0	40.0	40.0	40.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	5.0	5.0	5.0	5.0	5.0	5.0	5.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	5.1	5.1	5.1	5.1	5.1	5.1	5.1
MEA	0.7	0.7	0.7	0.7	0.7	0.7	0.7
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	4.2	4.2	4.2	4.2	4.2	4.2	4.2
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	7.1	7.1	7.1	7.1	7.1	7.1	7.1

Table 1666: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Forest—Managed Forest (million ha wrt 1995) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-16.8	-16.8	-16.8	-16.9	-16.8	-16.8	0.0	16.7	44.9	68.3
CAZ	-2.7	-2.7	-2.7	-2.8	-2.7	-2.7	0.0	2.7	5.5	8.1
CHA	-6.2	-6.2	-6.2	-6.2	-6.2	-6.2	0.0	6.2	19.0	24.9
EUR	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	0.0	2.0	5.0	7.8
IND	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	0.0	0.7	3.0	4.7
JPN	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0	-0.0
LAM	0.0	0.0	-0.0	-0.1	-0.1	-0.1	0.0	-0.1	-0.3	2.1
MEA	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	0.0	0.3	1.2	1.5
NEU	-0.4	-0.4	-0.4	-0.4	-0.4	-0.3	0.0	0.3	0.7	1.5
OAS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	0.0	0.2	2.2	4.2
REF	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	0.0	1.6	3.3	6.2
SSA	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	0.0	0.3	1.0	2.1
USA	-2.3	-2.3	-2.3	-2.3	-2.3	-2.3	0.0	2.3	4.2	5.3

Table 1667: MAgPIEown — Resources—Land Cover Change—Forest—Managed Forest (million ha wrt 1995)

55.2.2 Natural Forest



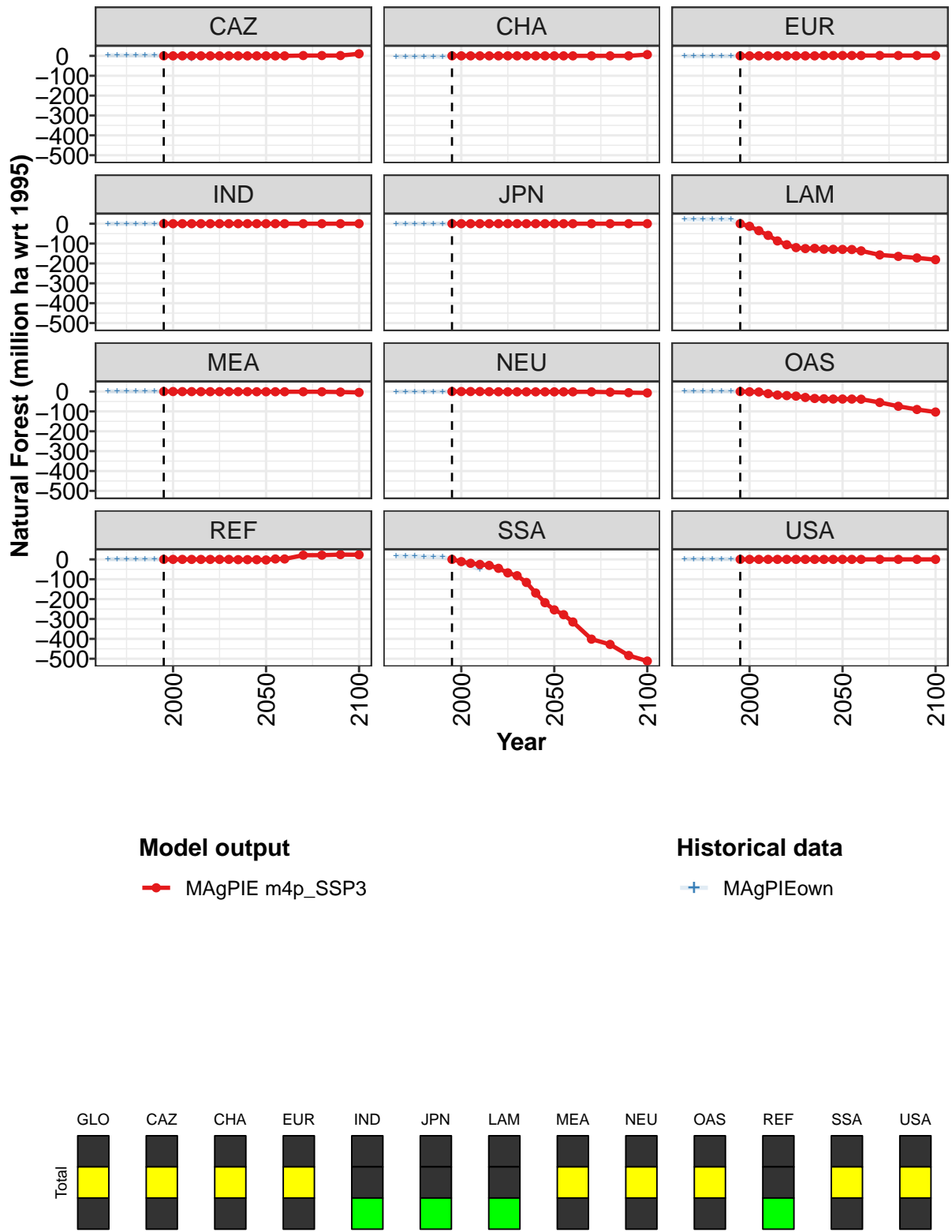


Figure 437: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Forest—Natural Forest (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0	-25.5	-57.6	-95.5	-136.7	-173.4	-213.6	-239.6	-278.9	-336.5	-387.3
CAZ	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	-13.0	-35.1	-58.8	-86.7	-105.8	-120.4	-125.2	-124.1	-128.5	-128.9
MEA	0.0	-0.0	-0.4	-0.5	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-1.0
NEU	0.0	0.0	-0.0	-0.0	-0.8	-1.2	-1.5	-1.5	-1.5	-1.5	-1.6
OAS	0.0	-1.2	-2.3	-10.7	-17.8	-20.5	-22.9	-29.8	-34.8	-36.4	-37.8
REF	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-1.5	-1.5	-1.6
SSA	0.0	-11.3	-19.7	-25.4	-30.4	-44.9	-67.9	-82.2	-116.2	-169.4	-218.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1668: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Forest—Natural Forest (million ha wrt 1995) [PART 1/2]

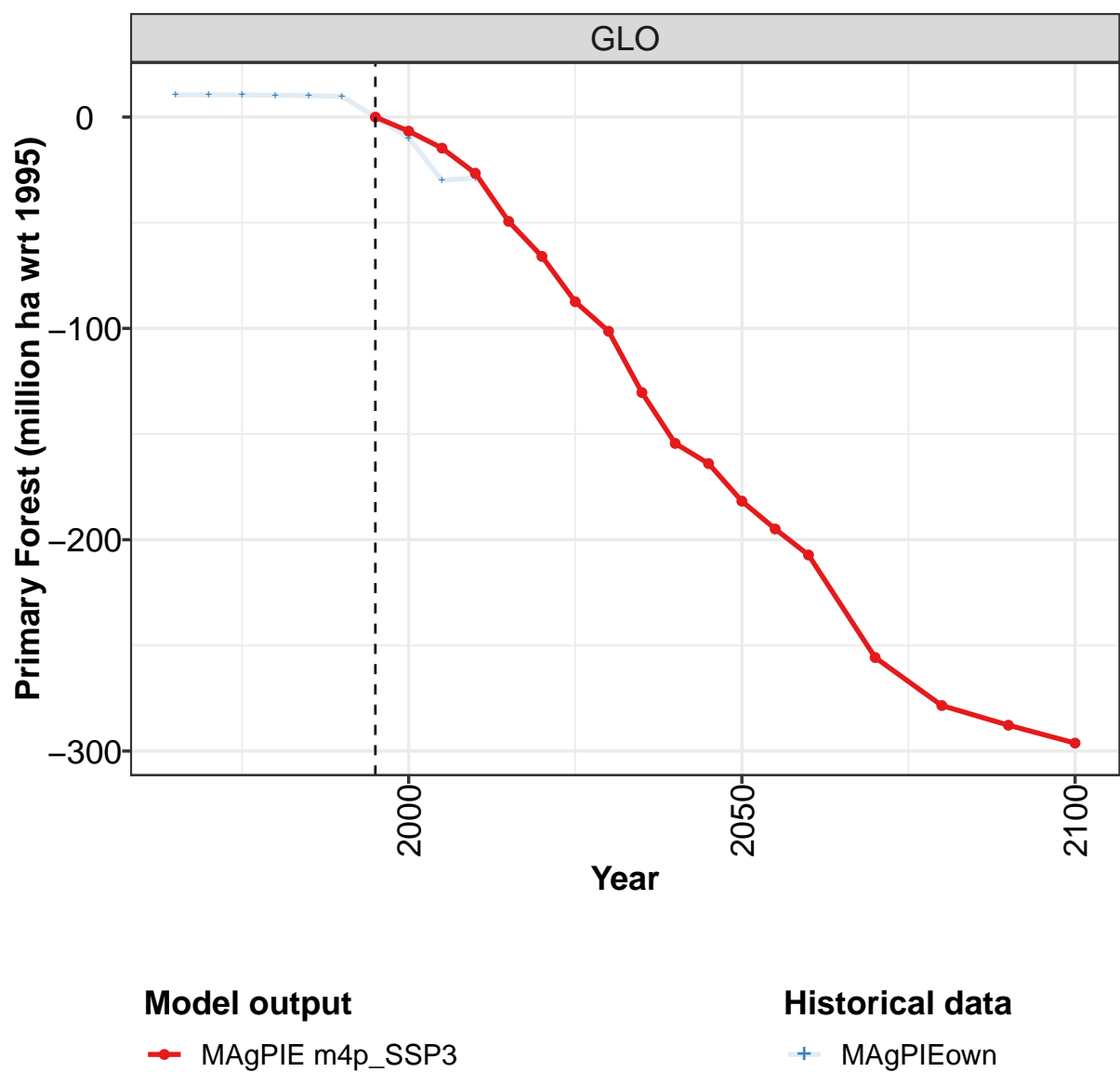
	2050	2055	2060	2070	2080	2090	2100
GLO	-425.3	-445.3	-489.4	-592.0	-646.7	-727.2	-765.8
CAZ	-0.0	-0.0	-0.0	1.6	1.6	1.5	10.4
CHA	0.0	0.0	0.0	0.0	0.0	0.0	6.4
EUR	1.6	1.6	1.6	1.6	1.6	1.6	1.6
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	-129.3	-130.0	-136.6	-157.2	-164.5	-172.1	-181.0
MEA	-1.0	-1.0	-1.0	-1.1	-1.1	-2.7	-4.6
NEU	-1.6	-1.6	-1.6	-1.4	-3.2	-5.6	-6.9
OAS	-37.8	-37.9	-38.6	-55.0	-74.1	-90.4	-103.2
REF	-3.0	2.0	2.0	21.1	21.1	24.0	23.3
SSA	-254.2	-278.4	-315.1	-401.5	-428.1	-483.7	-511.8
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1669: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Forest—Natural Forest (million ha wrt 1995) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	40.4	40.0	39.8	37.9	37.0	35.8	0.0	-40.0	-91.3	-132.8
CAZ	2.6	2.6	2.6	2.3	2.6	2.6	0.0	-2.6	-6.8	-14.0
CHA	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7	0.0	3.7	6.9	8.6
EUR	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	0.0	1.5	0.4	0.1
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.0	-0.1	0.0	0.1
LAM	22.4	22.4	22.3	22.1	22.0	21.9	0.0	-22.2	-45.6	-65.8
MEA	0.9	0.9	0.9	0.9	0.9	0.9	0.0	-0.9	-0.7	-1.2
NEU	-0.7	-0.6	-0.5	-0.4	-0.4	-0.3	0.0	0.2	0.4	0.3
OAS	1.1	1.1	1.1	1.1	1.1	1.0	0.0	-1.0	-8.6	-12.2
REF	1.0	1.0	1.0	1.0	1.0	1.0	0.0	-1.0	-2.9	0.7
SSA	16.5	16.0	15.7	14.2	13.1	12.0	0.0	-15.8	-32.1	-50.2
USA	1.8	1.8	1.8	1.8	1.8	1.8	0.0	-1.8	-2.4	0.4

Table 1670: MAgPIEown — Resources—Land Cover Change—Forest—Natural Forest (million ha wrt 1995)

55.2.3 Natural Forest—Primary Forest



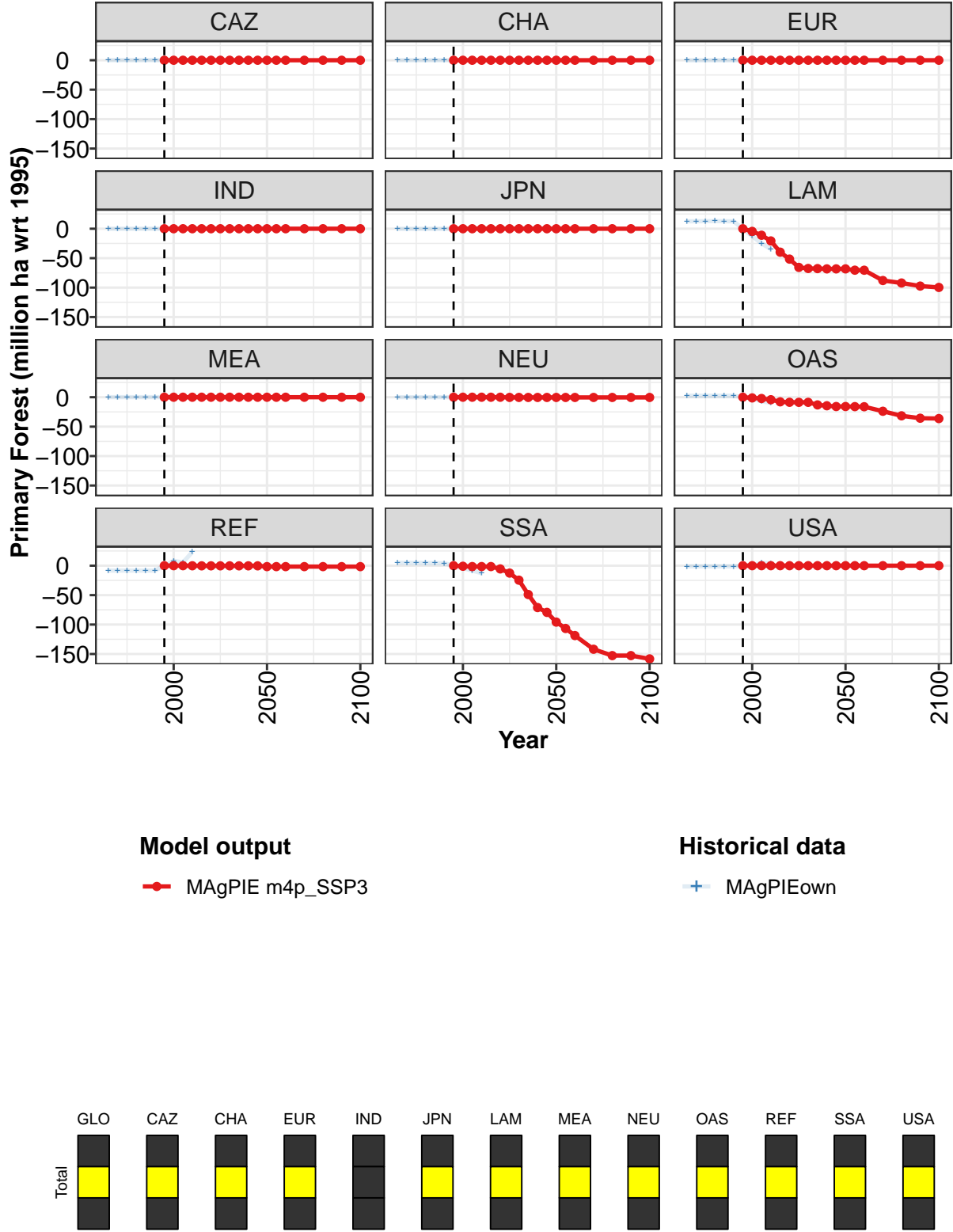


Figure 438: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Forest—Natural Forest—Primary Forest (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0	-7	-15	-27	-49	-66	-87	-101	-130	-154	-164
CAZ	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	0	-5	-11	-21	-40	-52	-66	-68	-68	-68	-68
MEA	0	0	-0	-0	-0	-0	-0	-0	-0	-0	-0
NEU	0	0	-0	-0	-0	-0	-0	-0	-0	-0	-0
OAS	0	-1	-2	-4	-8	-9	-9	-9	-13	-15	-16
REF	0	0	0	-0	-0	-0	-0	-0	-0	-0	-0
SSA	0	-1	-1	-1	-1	-5	-13	-25	-49	-71	-79
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1671: MAgPIE m4p.SSP3 — Resources—Land Cover Change—Forest—Natural Forest—Primary Forest (million ha wrt 1995) [PART 1/2]

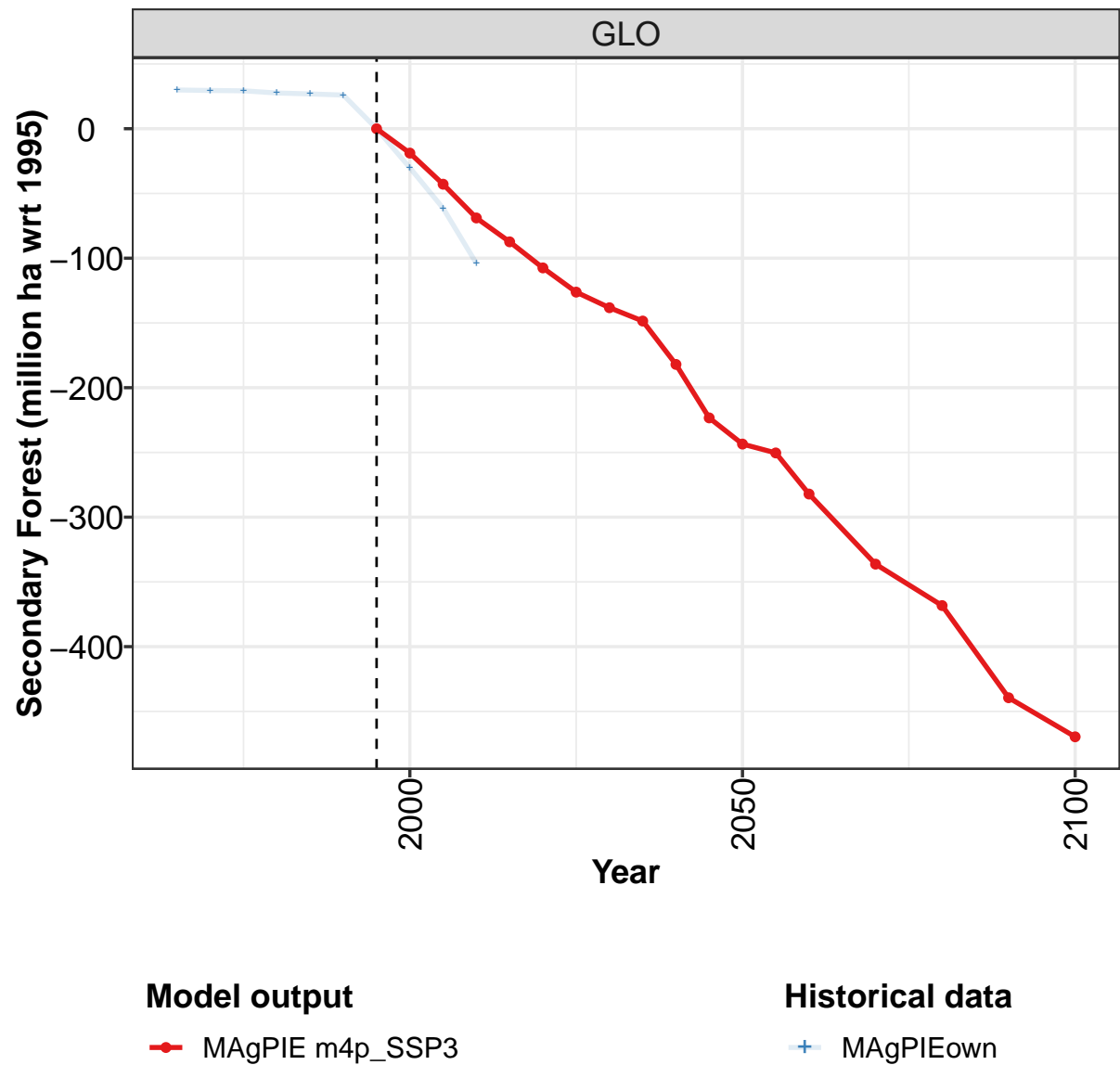
	2050	2055	2060	2070	2080	2090	2100
GLO	-182	-195	-207	-256	-278	-288	-296
CAZ	0	0	0	-0	-0	-0	-0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
IND	0	0	0	0	0	0	0
JPN	0	0	0	0	0	0	0
LAM	-68	-70	-70	-88	-92	-97	-100
MEA	-0	-0	-0	-0	-0	-0	-0
NEU	-0	-0	-0	-0	-0	-0	-0
OAS	-16	-16	-16	-24	-32	-36	-36
REF	-2	-2	-2	-2	-2	-2	-2
SSA	-96	-107	-119	-142	-153	-153	-158
USA	0	0	0	0	0	0	0

Table 1672: MAgPIE m4p.SSP3 — Resources—Land Cover Change—Forest—Natural Forest—Primary Forest (million ha wrt 1995) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	10.5	10.5	10.5	10.3	10.1	9.8	0.0	-9.9	-29.9	-28.8
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.0	-0.1	-0.3	-0.7
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0
EUR	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.1	0.1	0.4
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.1	0.5	0.9
LAM	12.6	12.7	12.8	12.9	12.8	12.6	0.0	-12.6	-25.0	-34.5
MEA	0.1	0.1	0.1	0.1	0.1	0.1	0.0	-0.1	-0.1	-0.2
NEU	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.1
OAS	2.5	2.5	2.5	2.5	2.5	2.4	0.0	-2.4	-7.0	-9.5
REF	-8.2	-8.2	-8.2	-8.2	-8.2	-8.2	0.0	8.2	5.6	23.3
SSA	4.8	4.7	4.6	4.4	4.3	4.2	0.0	-4.2	-8.3	-12.7
USA	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	0.0	1.1	4.6	4.1

Table 1673: MAgPIEown — Resources—Land Cover Change—Forest—Natural Forest—Primary Forest (million ha wrt 1995)

55.2.4 Natural Forest—Secondary Forest



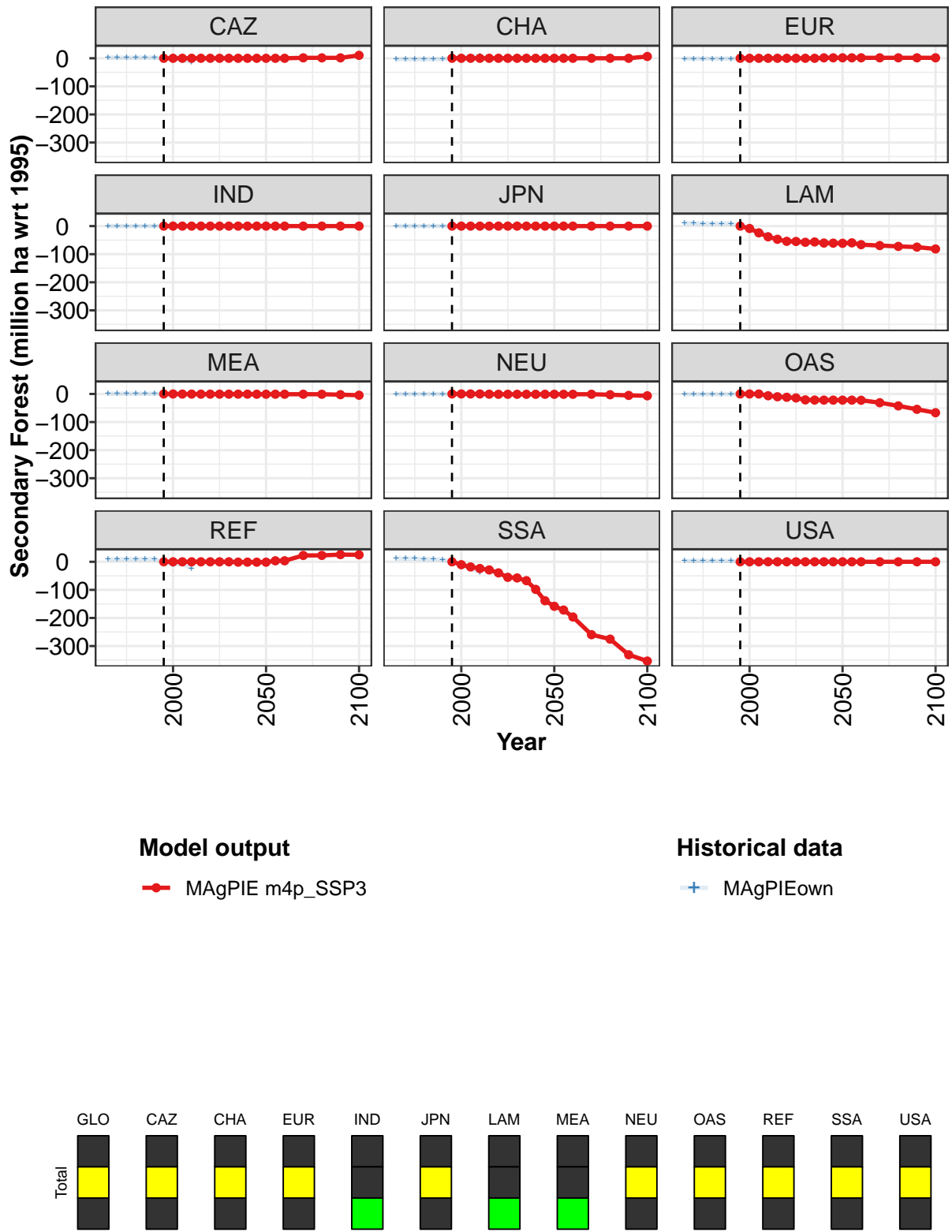


Figure 439: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Forest—Natural Forest—Secondary Forest (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0	-18.8	-42.8	-68.9	-87.4	-107.5	-126.2	-138.2	-148.5	-182.0	-223.3
CAZ	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	-8.4	-24.0	-38.1	-46.9	-54.2	-54.7	-57.7	-56.4	-60.3	-60.7
MEA	0.0	-0.0	-0.4	-0.5	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-1.0
NEU	0.0	0.0	0.0	0.0	-0.8	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2
OAS	0.0	-0.1	-0.1	-6.5	-10.0	-11.9	-14.2	-21.1	-21.7	-21.9	-22.0
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-1.2	-1.4
SSA	0.0	-10.3	-18.3	-23.9	-29.0	-39.5	-55.4	-57.6	-67.2	-98.3	-138.7
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1674: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Forest—Natural Forest—Secondary Forest (million ha wrt 1995) [PART 1/2]

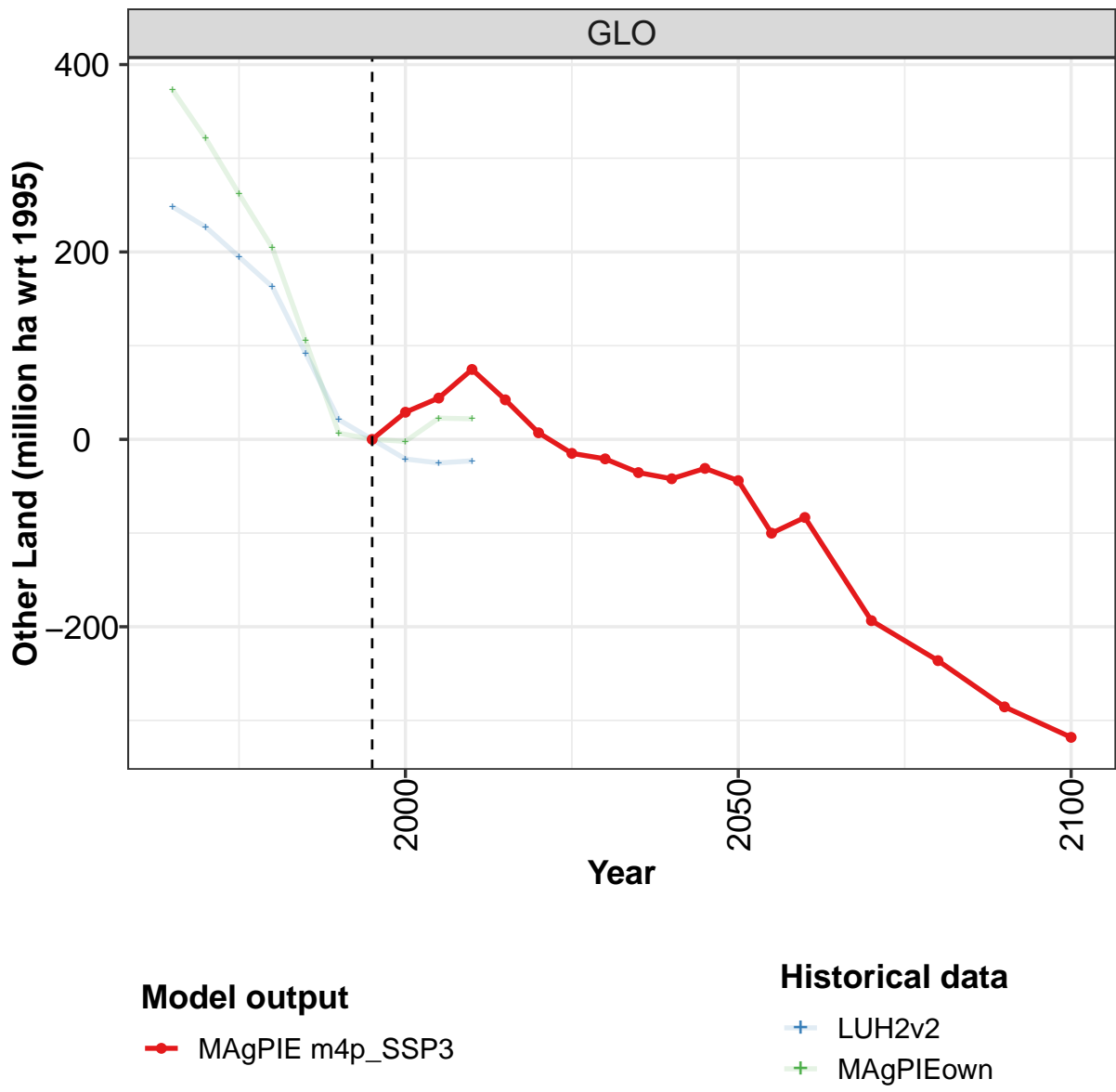
	2050	2055	2060	2070	2080	2090	2100
GLO	-243.5	-250.4	-282.1	-336.3	-368.3	-439.5	-469.6
CAZ	-0.0	-0.0	-0.0	1.6	1.6	1.5	10.4
CHA	0.0	0.0	0.0	0.0	0.0	0.0	6.4
EUR	1.6	1.6	1.6	1.6	1.6	1.6	1.6
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	-61.2	-59.6	-66.1	-69.2	-72.3	-74.7	-81.3
MEA	-1.0	-1.0	-1.0	-1.0	-1.1	-2.6	-4.6
NEU	-1.2	-1.2	-1.2	-1.1	-2.9	-5.2	-6.5
OAS	-22.0	-22.0	-22.4	-31.2	-42.5	-54.7	-66.9
REF	-1.4	3.5	3.5	22.6	22.7	25.6	24.8
SSA	-158.4	-171.8	-196.5	-259.6	-275.4	-331.0	-353.5
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1675: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Forest—Natural Forest—Secondary Forest (million ha wrt 1995) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	29.9	29.5	29.3	27.6	26.9	26.0	0.0	-30.2	-61.4	-104.0
CAZ	2.4	2.4	2.4	2.2	2.4	2.4	0.0	-2.4	-6.4	-13.3
CHA	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7	0.0	3.7	6.9	8.7
EUR	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	0.0	1.4	0.3	-0.4
IND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.0	-0.2	-0.5	-0.8
LAM	9.8	9.7	9.5	9.2	9.3	9.3	0.0	-9.6	-20.6	-31.2
MEA	0.9	0.9	0.9	0.9	0.9	0.9	0.0	-0.9	-0.6	-1.1
NEU	-0.7	-0.6	-0.5	-0.4	-0.4	-0.3	0.0	0.1	0.3	0.3
OAS	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	0.0	1.4	-1.6	-2.8
REF	9.3	9.3	9.3	9.3	9.3	9.3	0.0	-9.3	-8.4	-22.6
SSA	11.6	11.3	11.2	9.8	8.8	7.9	0.0	-11.6	-23.7	-37.5
USA	2.9	2.9	2.9	2.9	2.9	2.9	0.0	-2.9	-7.0	-3.7

Table 1676: MAgPIEown — Resources—Land Cover Change—Forest—Natural Forest—Secondary Forest (million ha wrt 1995)

55.3 Other Land



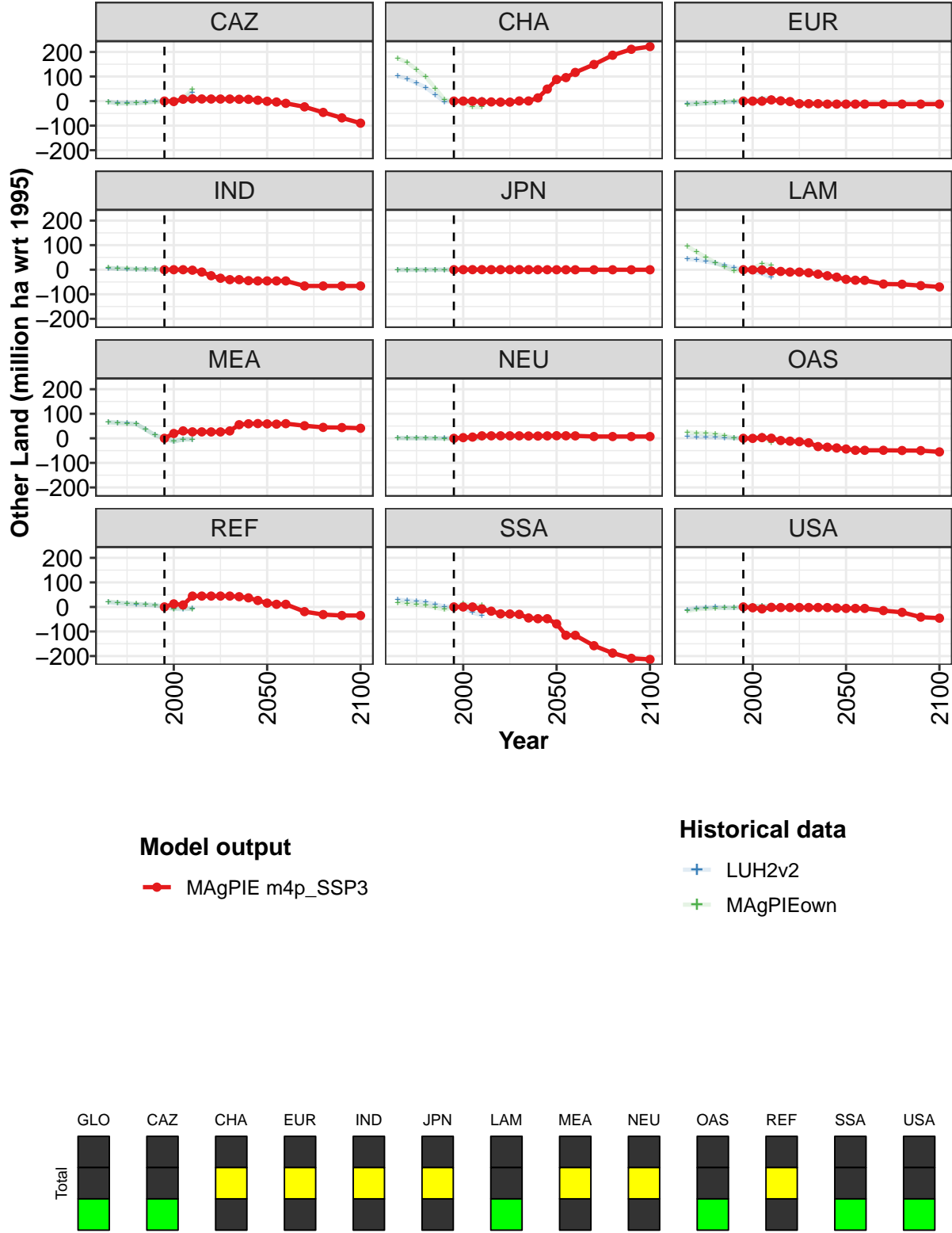


Figure 440: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Other Land (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0	29	44	75	42	7	-15	-21	-35	-42	-31
CAZ	0	-2	8	9	9	8	8	8	7	7	3
CHA	0	-0	-1	-3	-3	-4	-4	1	1	13	49
EUR	0	-0	-1	5	1	-2	-11	-11	-11	-12	-12
IND	0	0	0	-2	-10	-24	-35	-40	-40	-45	-46
JPN	0	0	0	0	0	0	0	0	0	-0	-0
LAM	0	-1	-1	-6	-7	-10	-10	-13	-18	-25	-30
MEA	0	20	30	26	26	26	26	30	55	59	60
NEU	0	3	5	10	10	10	10	10	10	9	10
OAS	0	-0	3	1	-9	-12	-14	-18	-34	-36	-39
REF	0	12	8	44	44	44	44	44	42	37	26
SSA	0	-0	-0	-8	-17	-28	-29	-30	-45	-48	-48
USA	0	-3	-8	-2	-2	-2	-2	-2	-2	-3	-5

Table 1677: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Other Land (million ha wrt 1995) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	-44	-100	-83	-193	-236	-285	-318
CAZ	-1	-4	-9	-23	-46	-68	-90
CHA	88	96	117	149	187	211	222
EUR	-12	-12	-12	-12	-12	-12	-12
IND	-46	-46	-46	-66	-66	-66	-66
JPN	-0	-0	-0	-0	-0	-0	-0
LAM	-39	-43	-43	-58	-59	-65	-70
MEA	59	58	60	51	45	44	41
NEU	11	10	10	7	7	7	7
OAS	-44	-49	-49	-49	-50	-50	-55
REF	16	11	11	-19	-31	-35	-35
SSA	-69	-115	-115	-158	-188	-209	-214
USA	-6	-6	-6	-15	-22	-41	-46

Table 1678: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Other Land (million ha wrt 1995) [PART 2/2]

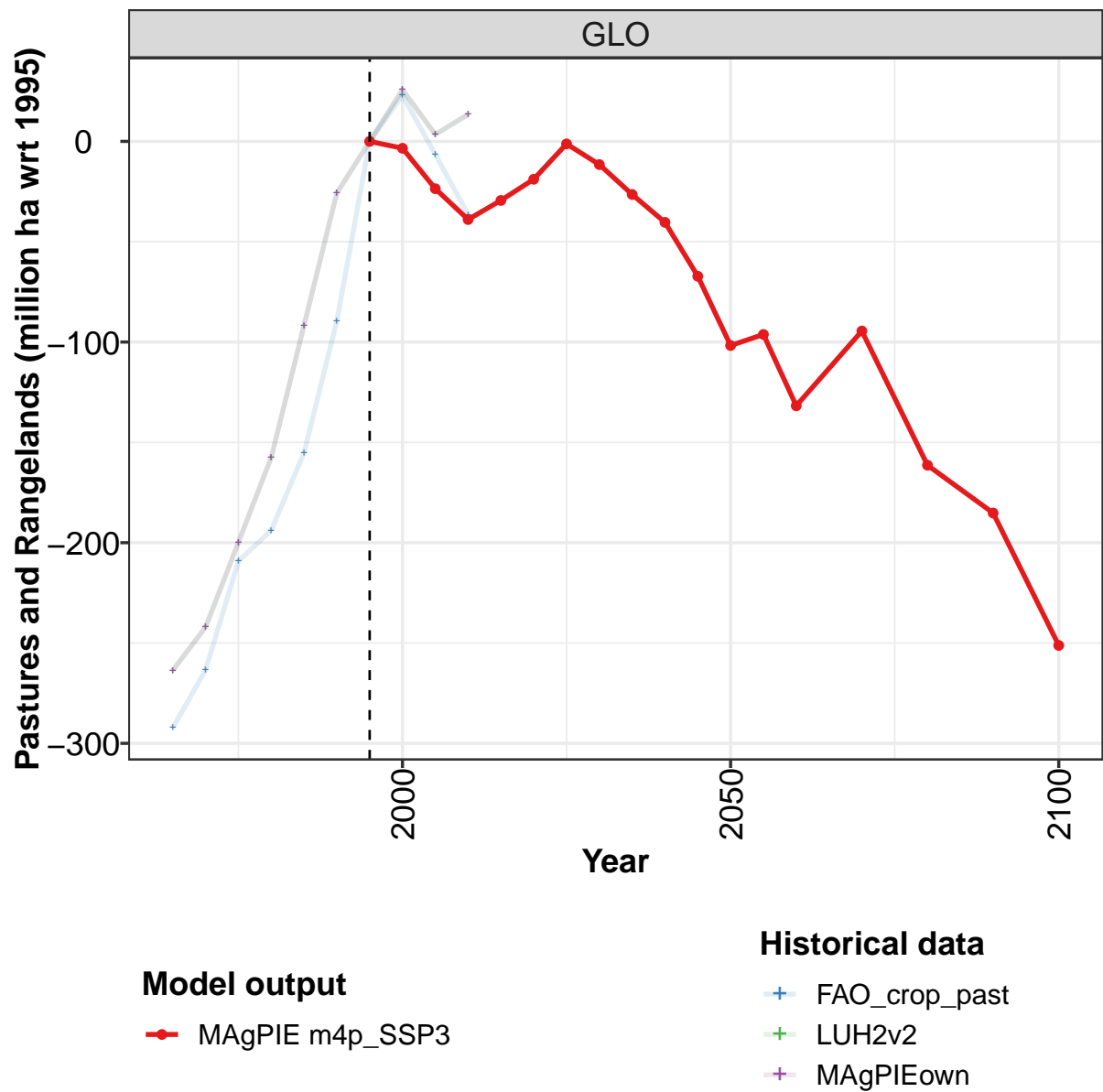
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	248	227	195	163	92	21	0	-21	-25	-23
CAZ	-3	-8	-8	-8	-5	-2	0	2	6	35
CHA	101	91	73	55	26	-3	0	3	1	6
EUR	-12	-10	-8	-6	-4	-3	0	3	10	13
IND	6	4	3	2	1	1	0	-1	-2	-2
JPN	0	0	0	0	0	0	0	0	0	0
LAM	44	41	34	26	17	9	0	-9	-15	-31
MEA	66	64	61	59	36	13	0	-13	-4	-4
NEU	1	1	1	1	0	-0	0	0	-0	2
OAS	8	6	5	4	2	1	0	-1	8	-3
REF	19	16	13	10	9	7	0	-7	-9	-7
SSA	29	27	23	20	11	2	0	-2	-23	-34
USA	-11	-5	-3	-1	-2	-3	0	3	3	3

Table 1679: LUH2v2 — Resources—Land Cover Change—Other Land (million ha wrt 1995)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	373	321	262	204	105	7	0	-2	23	22
CAZ	-4	-9	-9	-9	-6	-2	0	2	12	48
CHA	174	158	128	98	52	6	0	-6	-25	-25
EUR	-14	-12	-9	-6	-3	-1	0	1	7	8
IND	7	6	4	3	2	2	0	-2	-5	-7
JPN	-1	-1	-1	-0	-0	-0	0	0	0	0
LAM	95	72	50	28	11	-6	0	6	23	18
MEA	65	63	61	58	35	13	0	-13	-4	-4
NEU	2	1	1	1	0	-1	0	1	-1	1
OAS	25	21	19	17	10	2	0	-2	11	-17
REF	21	18	15	12	10	8	0	-8	-5	-9
SSA	18	14	9	6	-2	-10	0	14	5	7
USA	-17	-9	-7	-5	-4	-3	0	3	4	3

Table 1680: MAgPIEown — Resources—Land Cover Change—Other Land (million ha wrt 1995)

55.4 Pastures and Rangelands



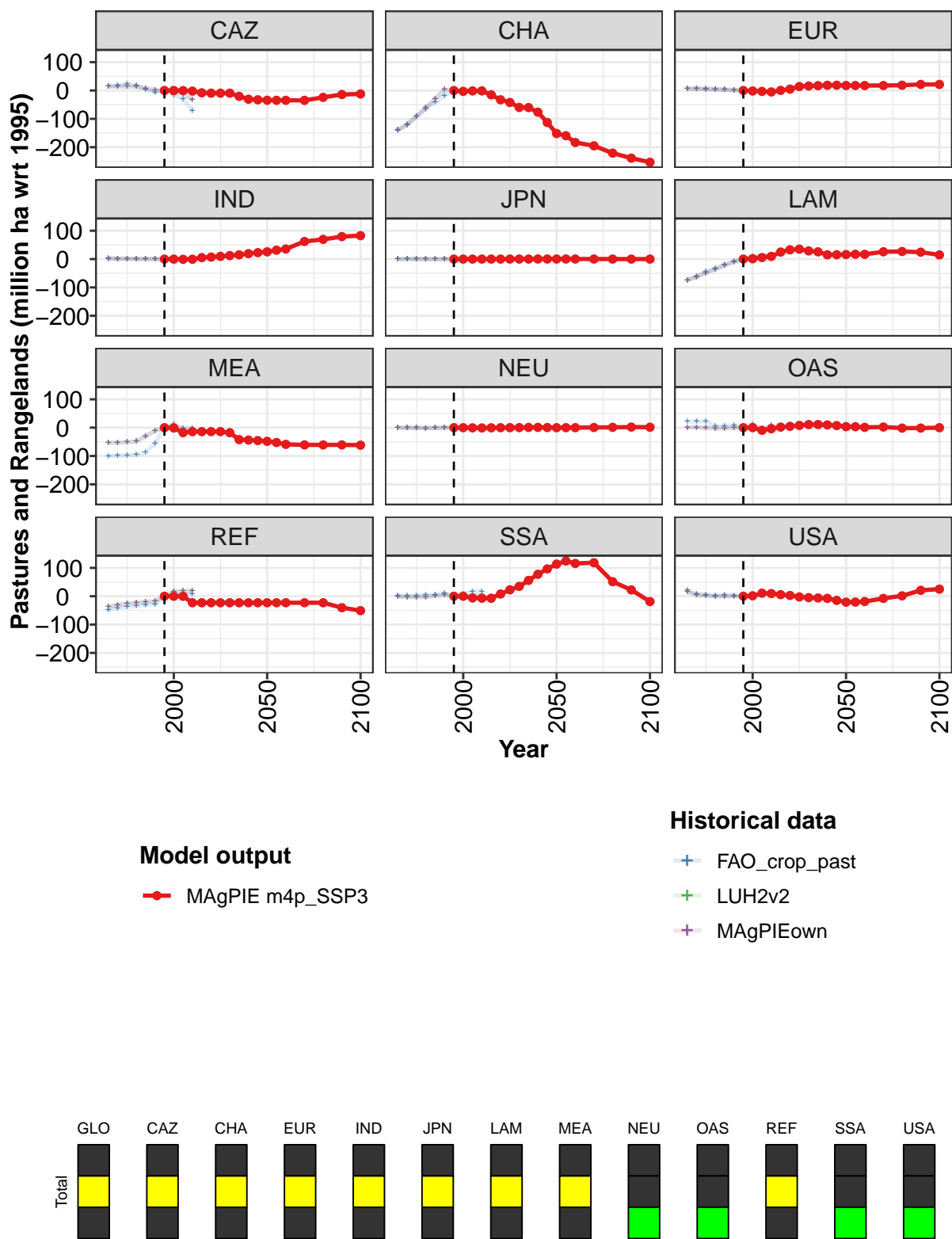


Figure 441: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Pastures and Rangelands (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0	-3	-24	-39	-29	-19	-1	-12	-26	-40	-67
CAZ	0	-0	-0	-2	-8	-9	-9	-9	-21	-31	-33
CHA	0	-3	-1	-1	-15	-33	-42	-60	-60	-76	-113
EUR	0	-2	-3	-5	0	5	14	16	17	18	19
IND	0	-0	-1	-1	5	7	10	12	15	19	23
JPN	0	-0	-0	-0	0	0	0	0	0	0	0
LAM	0	1	5	9	25	33	35	29	26	15	15
MEA	0	-1	-18	-14	-14	-14	-14	-18	-42	-44	-46
NEU	0	-0	-1	-1	-0	-0	0	0	1	1	0
OAS	0	0	-9	-4	2	5	8	11	11	10	7
REF	0	-0	-0	-23	-23	-23	-23	-23	-23	-23	-23
SSA	0	0	-6	-7	-7	8	23	35	56	77	97
USA	0	2	11	9	6	3	-2	-5	-6	-8	-15

Table 1681: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Pastures and Rangelands (million ha wrt 1995) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	-102	-96	-132	-95	-161	-185	-251
CAZ	-34	-35	-35	-35	-24	-14	-12
CHA	-152	-160	-183	-195	-221	-239	-253
EUR	18	18	18	18	19	21	21
IND	26	31	36	62	70	79	83
JPN	0	0	0	0	0	-0	-0
LAM	16	17	17	26	27	24	15
MEA	-48	-52	-59	-61	-61	-61	-62
NEU	-0	-0	-0	1	1	2	2
OAS	4	3	1	2	-2	-1	-0
REF	-23	-23	-23	-23	-23	-40	-51
SSA	113	124	116	118	51	22	-19
USA	-21	-21	-19	-8	1	21	25

Table 1682: MAgPIE m4p_SSP3 — Resources—Land Cover Change—Pastures and Rangelands (million ha wrt 1995) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-292.3	-263.4	-209.2	-193.8	-155.2	-89.4	0.0	22.9	-6.5	-36.5
CAZ	16.0	16.7	24.1	16.7	3.0	-6.3	0.0	-14.9	-30.0	-70.8
CHA	-141.8	-119.8	-91.8	-64.5	-41.5	-18.4	0.0	0.0	0.0	-0.0
EUR	7.2	6.8	6.1	4.8	2.7	2.3	0.0	-2.1	-3.3	-5.5
IND	3.7	2.0	1.8	1.1	1.0	0.3	0.0	-0.2	-0.6	-0.7
JPN	0.6	0.5	0.3	0.2	0.1	0.0	0.0	0.0	-0.4	-0.4
LAM	-73.9	-60.9	-43.7	-33.0	-19.7	-7.3	0.0	6.9	8.6	14.3
MEA	-100.7	-98.9	-97.1	-94.7	-87.2	-55.0	0.0	3.0	-11.6	-10.9
NEU	0.3	-0.3	-1.2	-1.4	-1.0	0.4	0.0	1.3	1.8	1.9
OAS	21.5	21.9	21.9	5.5	5.6	8.2	0.0	12.2	-3.9	-3.7
REF	-47.6	-41.3	-38.1	-34.2	-29.9	-28.7	0.0	7.1	7.8	8.2
SSA	1.4	2.1	2.6	4.1	6.2	12.0	0.0	9.1	17.1	17.4
USA	21.0	7.9	5.9	1.5	5.6	3.2	0.0	0.3	8.0	13.9

Table 1683: FAO_crop_past — Resources—Land Cover Change—Pastures and Rangelands (million ha wrt 1995)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-263.6	-242.1	-199.8	-157.6	-91.7	-25.7	0.0	25.7	3.5	13.4
CAZ	14.5	14.3	14.2	14.0	8.0	2.0	0.0	-2.0	-11.1	-32.5
CHA	-137.9	-120.8	-91.0	-61.2	-28.9	3.4	0.0	-3.4	-3.6	-3.4
EUR	6.3	6.0	5.1	4.1	2.8	1.5	0.0	-1.5	-2.6	-4.8
IND	1.8	1.4	1.1	0.7	0.5	0.4	0.0	-0.4	-0.7	-0.8
JPN	0.5	0.4	0.3	0.1	0.1	0.0	0.0	-0.0	-0.0	-0.0
LAM	-74.3	-62.8	-49.3	-35.7	-22.7	-9.6	0.0	9.6	10.3	15.9
MEA	-53.8	-53.0	-50.8	-48.7	-29.7	-10.6	0.0	10.6	-3.7	-2.9
NEU	-0.1	-0.5	-1.0	-1.5	-0.6	0.3	0.0	-0.3	0.2	0.2
OAS	1.4	1.5	-0.8	-3.2	-2.0	-0.8	0.0	0.8	-12.1	8.8
REF	-36.7	-30.4	-26.8	-23.3	-20.4	-17.6	0.0	17.6	17.9	18.7
SSA	-1.1	-3.3	-2.8	-2.4	1.2	4.8	0.0	-4.8	1.9	1.5
USA	15.8	4.9	2.2	-0.5	0.0	0.6	0.0	-0.6	7.0	12.7

Table 1684: LUH2v2 — Resources—Land Cover Change—Pastures and Rangelands (million ha wrt 1995)

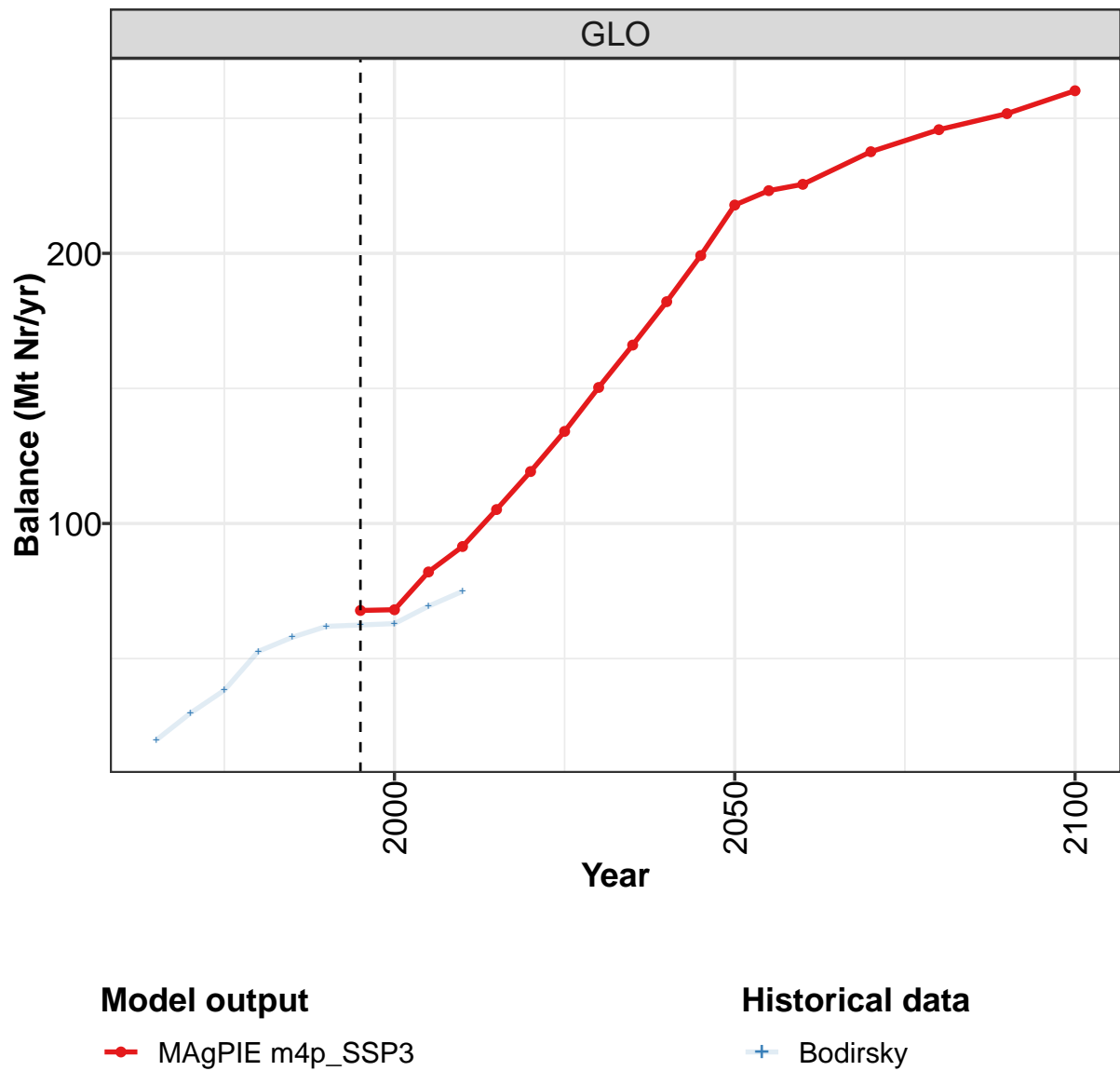
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-263.6	-242.1	-199.8	-157.6	-91.7	-25.7	0.0	25.7	3.5	13.4
CAZ	14.5	14.3	14.2	14.0	8.0	2.0	0.0	-2.0	-11.1	-32.5
CHA	-137.9	-120.8	-91.0	-61.2	-28.9	3.4	0.0	-3.4	-3.6	-3.4
EUR	6.3	6.0	5.1	4.1	2.8	1.5	0.0	-1.5	-2.6	-4.8
IND	1.8	1.4	1.1	0.7	0.5	0.4	0.0	-0.4	-0.7	-0.8
JPN	0.5	0.4	0.3	0.1	0.1	0.0	0.0	-0.0	-0.0	-0.0
LAM	-74.3	-62.8	-49.3	-35.7	-22.7	-9.6	0.0	9.6	10.3	15.9
MEA	-53.8	-53.0	-50.8	-48.7	-29.7	-10.6	0.0	10.6	-3.7	-2.9
NEU	-0.1	-0.5	-1.0	-1.5	-0.6	0.3	0.0	-0.3	0.2	0.2
OAS	1.4	1.5	-0.8	-3.2	-2.0	-0.8	0.0	0.8	-12.1	8.8
REF	-36.7	-30.4	-26.8	-23.3	-20.4	-17.6	0.0	17.6	17.9	18.7
SSA	-1.1	-3.3	-2.8	-2.4	1.2	4.8	0.0	-4.8	1.9	1.5
USA	15.8	4.9	2.2	-0.5	0.0	0.6	0.0	-0.6	7.0	12.7

Table 1685: MAgPIEown — Resources—Land Cover Change—Pastures and Rangelands (million ha wrt 1995)

56 Nitrogen

56.1 Cropland Budget

56.1.1 Balance



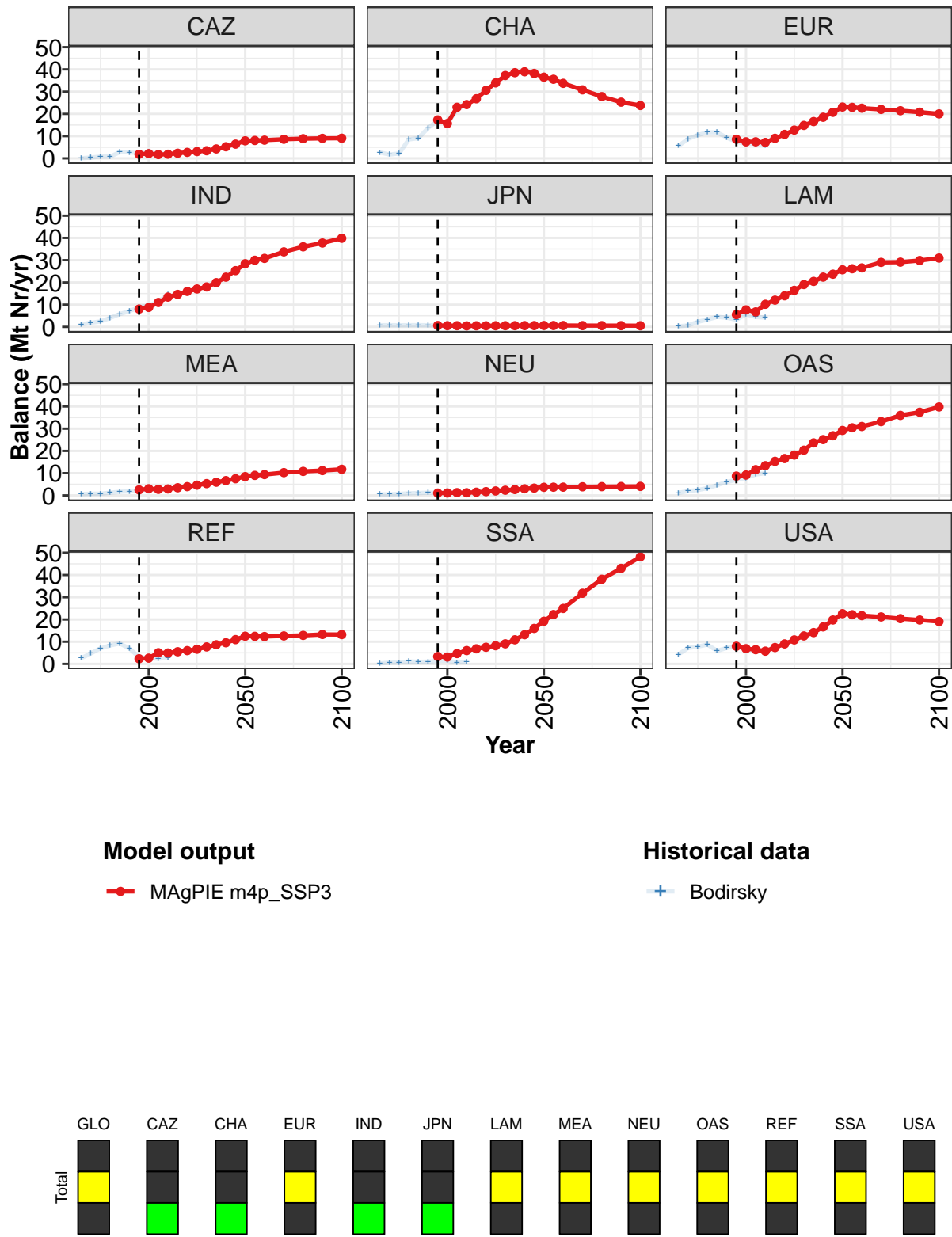


Figure 442: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Balance (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	68	68	82	91	105	119	134	150	166	182	199
CAZ	2	2	2	2	2	3	3	3	4	5	6
CHA	17	16	23	24	27	31	34	37	39	39	38
EUR	9	7	7	7	9	11	13	15	17	19	21
IND	8	9	11	13	15	16	17	18	20	22	25
JPN	1	1	1	0	0	1	1	1	1	1	1
LAM	6	8	7	10	12	14	16	19	20	22	24
MEA	2	3	3	3	3	4	5	5	6	7	8
NEU	1	1	1	1	1	2	2	2	3	3	3
OAS	9	9	12	13	15	17	18	20	24	25	27
REF	2	3	5	5	5	6	7	8	9	10	11
SSA	3	3	5	6	7	7	8	9	11	13	16
USA	8	7	6	6	7	9	11	13	14	17	20

Table 1686: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Balance (Mt Nr/yr) [PART 1/2]

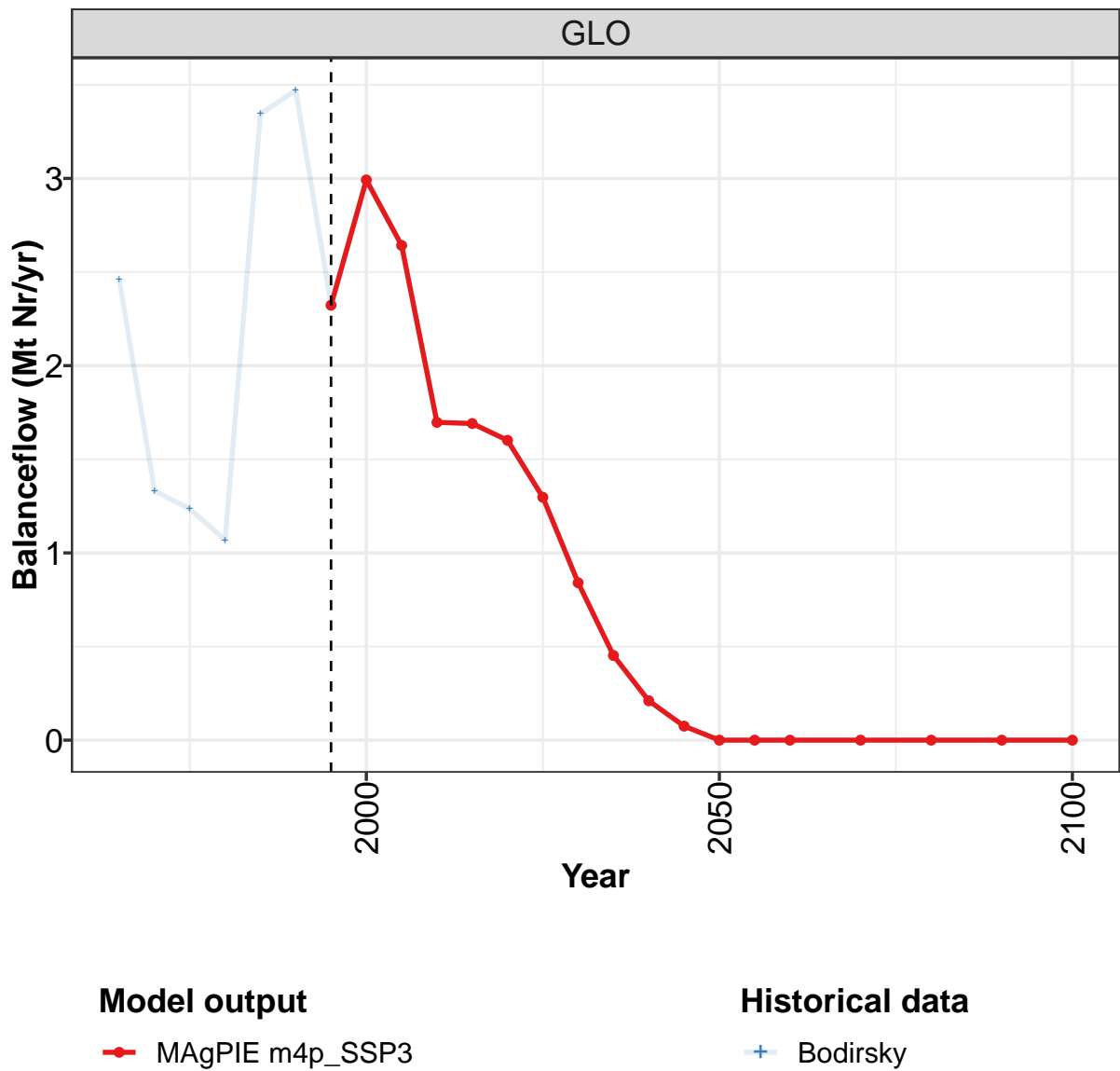
	2050	2055	2060	2070	2080	2090	2100
GLO	218	223	226	238	246	252	260
CAZ	8	8	8	9	9	9	9
CHA	37	36	34	31	28	25	24
EUR	23	23	23	22	21	21	20
IND	28	30	31	34	36	38	40
JPN	1	1	1	1	1	1	1
LAM	26	26	27	29	29	30	31
MEA	8	9	9	10	11	11	12
NEU	4	4	4	4	4	4	4
OAS	29	30	31	33	36	37	40
REF	12	12	12	13	13	13	13
SSA	19	22	25	32	38	43	48
USA	23	22	22	21	20	20	19

Table 1687: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Balance (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	19.8	29.8	38.3	52.7	57.9	61.9	62.4	62.9	69.4	74.9
CAZ	0.1	0.3	0.8	0.8	2.8	2.7	2.3	2.8	2.1	2.2
CHA	2.7	1.7	2.2	8.5	9.1	13.7	17.0	15.6	22.0	24.0
EUR	5.6	8.8	10.5	11.7	11.7	9.4	7.5	6.5	6.5	5.9
IND	1.1	1.9	2.4	4.0	5.7	7.1	8.9	9.6	11.4	14.6
JPN	0.7	0.8	0.7	0.8	0.8	0.7	0.6	0.5	0.5	0.5
LAM	0.3	0.7	2.3	3.3	4.5	4.2	3.2	5.6	4.5	4.2
MEA	0.6	0.7	0.8	1.2	1.6	1.8	2.1	2.7	2.4	2.7
NEU	0.5	0.5	0.7	1.0	1.1	1.2	1.2	1.1	1.2	1.1
OAS	1.1	1.9	2.4	3.3	4.6	6.1	7.0	7.9	9.4	10.0
REF	2.6	4.7	7.0	8.3	9.2	6.9	3.1	2.6	2.4	2.8
SSA	0.2	0.6	0.6	1.1	0.9	1.0	1.5	1.5	0.7	0.9
USA	4.3	7.2	7.8	8.7	5.9	7.2	8.2	6.3	6.1	5.9

Table 1688: Bodirsky — Resources—Nitrogen—Cropland Budget—Balance (Mt Nr/yr)

56.1.2 Balance—Balanceflow



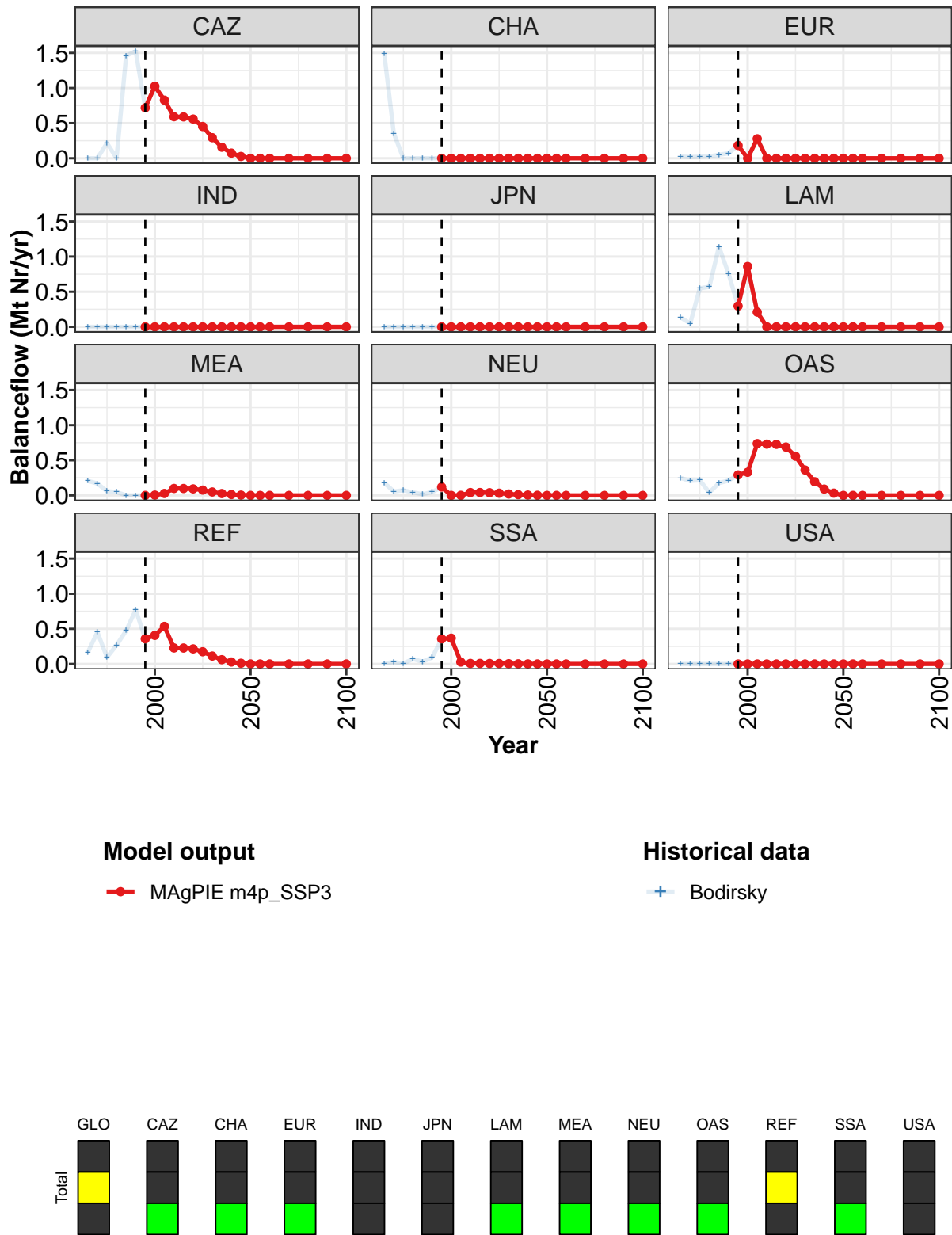


Figure 443: MAGPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Balance—Balanceflow (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.32	2.99	2.64	1.70	1.69	1.60	1.30	0.84	0.45	0.21	0.07
CAZ	0.72	1.03	0.83	0.59	0.59	0.56	0.45	0.29	0.16	0.07	0.03
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.18	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.30	0.86	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.03	0.10	0.10	0.09	0.08	0.05	0.03	0.01	0.00
NEU	0.12	0.00	0.00	0.04	0.04	0.04	0.03	0.02	0.01	0.01	0.00
OAS	0.29	0.33	0.74	0.73	0.73	0.69	0.56	0.36	0.19	0.09	0.03
REF	0.36	0.41	0.53	0.23	0.23	0.21	0.17	0.11	0.06	0.03	0.01
SSA	0.36	0.37	0.03	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1689: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Balance—Balanceflow (Mt Nr/yr) [PART 1/2]

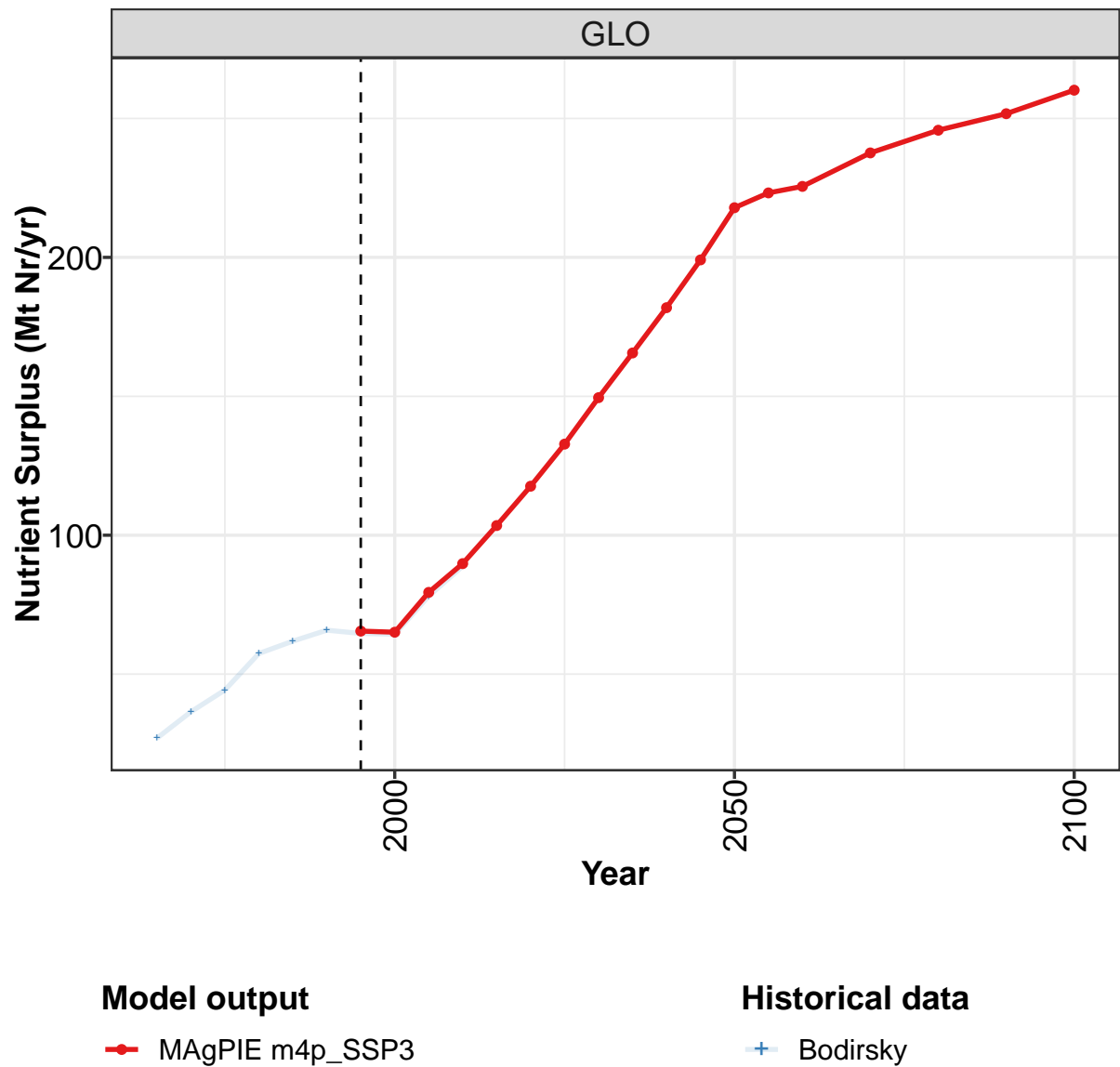
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1690: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Balance—Balanceflow (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.46	1.33	1.24	1.07	3.34	3.47	2.32	2.99	2.64	1.70
CAZ	0.00	0.00	0.22	0.00	1.46	1.52	0.72	1.03	0.83	0.59
CHA	1.49	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.02	0.02	0.02	0.03	0.05	0.07	0.18	0.00	0.28	0.00
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.13	0.05	0.55	0.57	1.14	0.76	0.30	0.86	0.21	0.00
MEA	0.21	0.17	0.06	0.05	0.00	0.00	0.00	0.00	0.03	0.10
NEU	0.18	0.06	0.07	0.04	0.02	0.05	0.12	0.00	0.00	0.04
OAS	0.25	0.21	0.22	0.04	0.18	0.21	0.29	0.33	0.74	0.73
REF	0.17	0.45	0.10	0.27	0.47	0.77	0.36	0.41	0.53	0.23
SSA	0.01	0.03	0.01	0.07	0.03	0.09	0.36	0.37	0.03	0.01
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1691: Bodirsky — Resources—Nitrogen—Cropland Budget—Balance—Balanceflow (Mt Nr/yr)

56.1.3 Balance—Nutrient Surplus



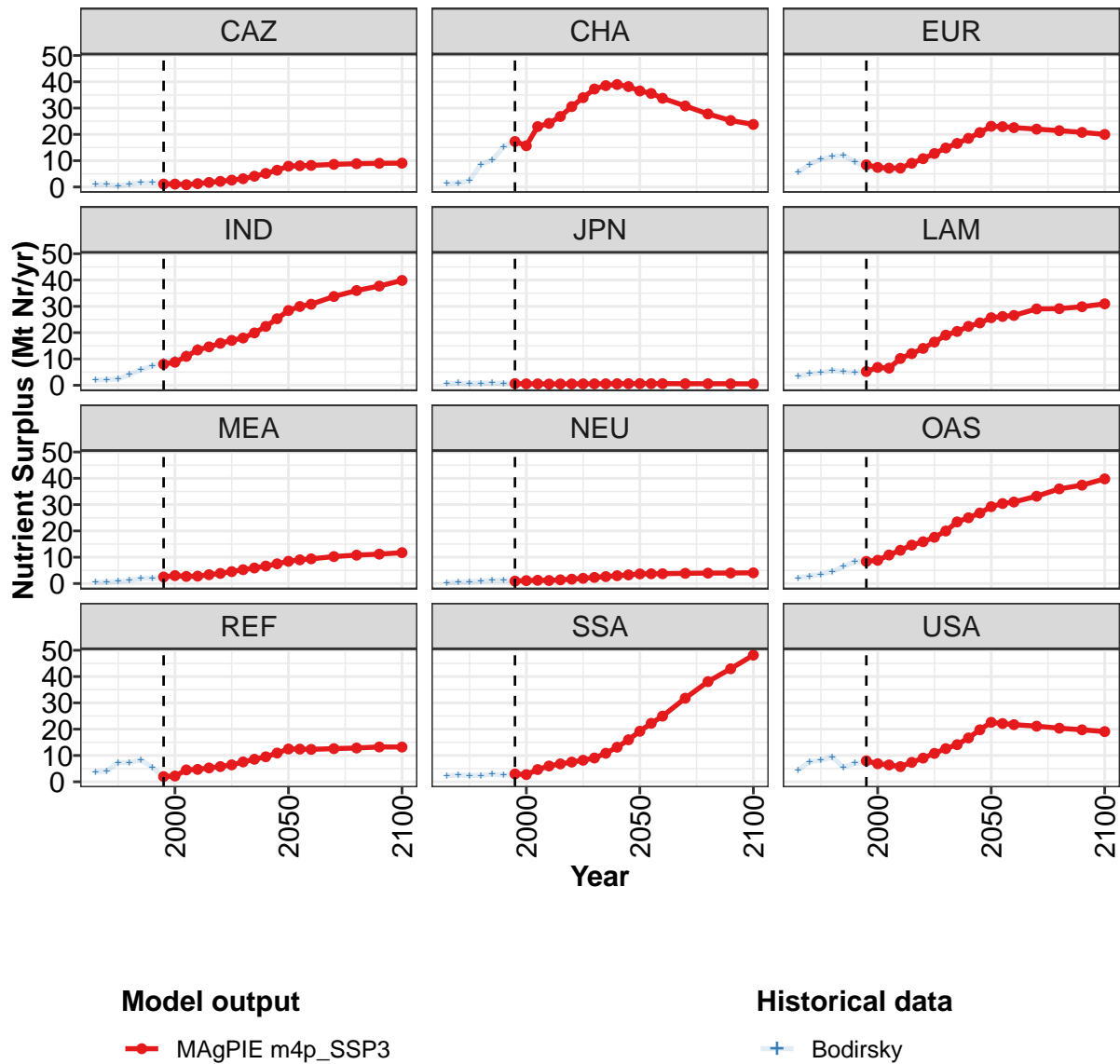


Figure 444: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Balance—Nutrient Surplus (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	65	65	79	90	103	118	133	150	166	182	199
CAZ	1	1	1	1	2	2	3	3	4	5	6
CHA	17	16	23	24	27	31	34	37	39	39	38
EUR	8	7	7	7	9	11	13	15	17	19	21
IND	8	9	11	13	15	16	17	18	20	22	25
JPN	1	1	1	0	0	1	1	1	1	1	1
LAM	5	7	7	10	12	14	16	19	20	22	24
MEA	2	3	3	3	3	4	5	5	6	7	7
NEU	1	1	1	1	1	2	2	2	3	3	3
OAS	8	9	11	13	15	16	18	20	23	25	27
REF	2	2	5	5	5	6	6	8	9	10	11
SSA	3	3	5	6	7	7	8	9	11	13	16
USA	8	7	6	6	7	9	11	13	14	17	20

Table 1692: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Balance—Nutrient Surplus (Mt Nr/yr) [PART 1/2]

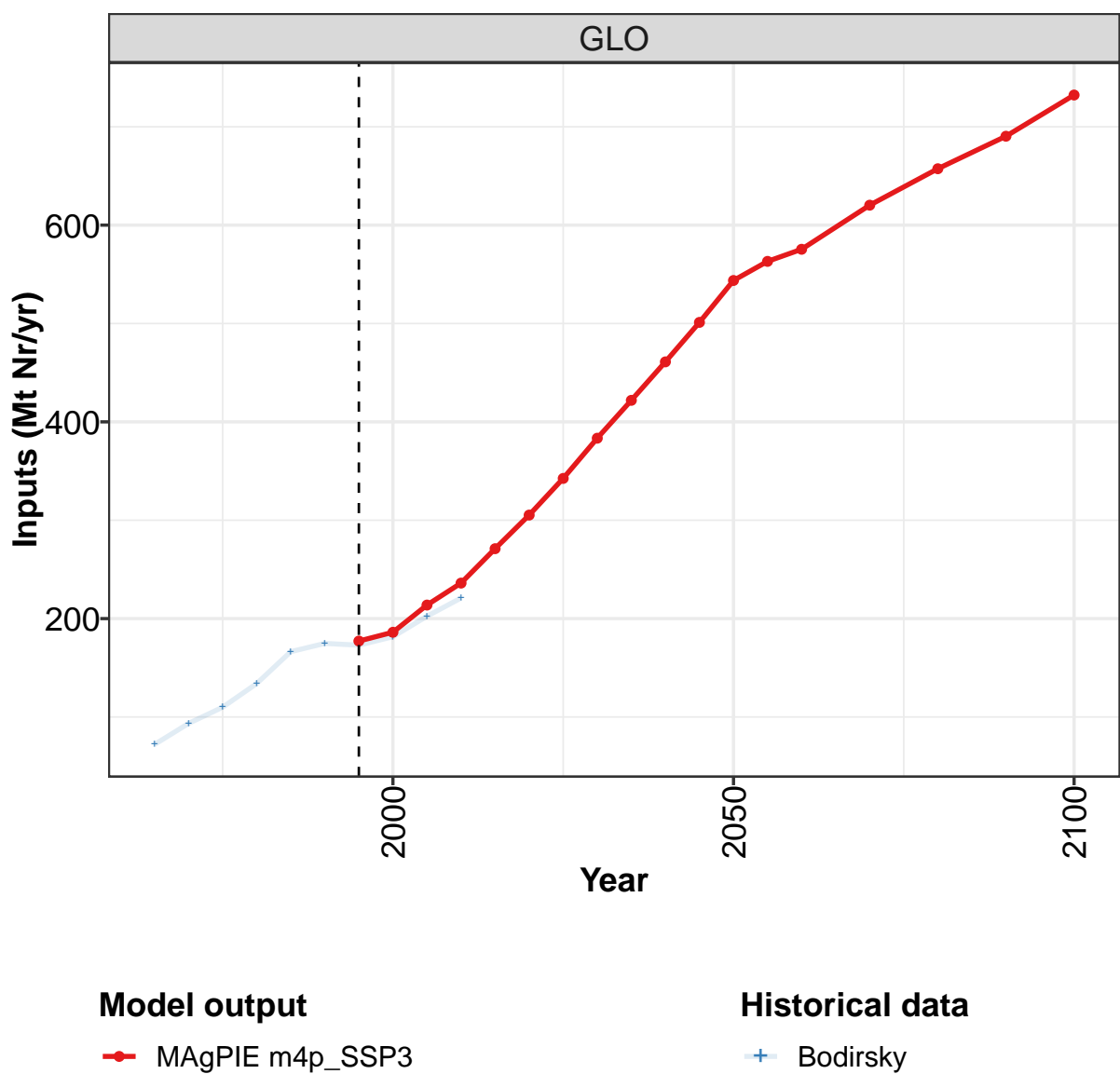
	2050	2055	2060	2070	2080	2090	2100
GLO	218	223	226	238	246	252	260
CAZ	8	8	8	9	9	9	9
CHA	37	36	34	31	28	25	24
EUR	23	23	23	22	21	21	20
IND	28	30	31	34	36	38	40
JPN	1	1	1	1	1	1	1
LAM	26	26	27	29	29	30	31
MEA	8	9	9	10	11	11	12
NEU	4	4	4	4	4	4	4
OAS	29	30	31	33	36	37	40
REF	12	12	12	13	13	13	13
SSA	19	22	25	32	38	43	48
USA	23	22	22	21	20	20	19

Table 1693: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Balance—Nutrient Surplus (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	26.9	36.4	44.3	57.4	61.9	65.8	64.6	64.4	78.1	88.8
CAZ	0.9	1.0	0.4	1.0	1.6	1.6	1.4	1.4	1.4	1.8
CHA	1.2	1.5	2.5	8.6	10.2	15.3	17.5	16.0	22.9	24.5
EUR	5.5	8.6	10.6	11.5	12.1	9.5	7.6	6.7	6.3	6.4
IND	2.0	2.2	2.4	4.0	6.0	7.2	9.0	9.7	11.9	14.6
JPN	0.8	0.8	0.8	0.8	0.8	0.8	0.6	0.5	0.5	0.4
LAM	3.3	4.3	4.8	5.6	5.1	4.9	5.0	6.5	6.2	9.4
MEA	0.4	0.6	0.8	1.2	1.9	2.1	2.4	2.9	2.6	2.8
NEU	0.3	0.5	0.7	0.9	1.1	1.2	1.0	1.1	1.2	1.2
OAS	2.1	2.8	3.5	4.5	6.4	8.3	8.3	8.9	11.0	13.0
REF	3.7	4.1	7.3	7.3	8.3	5.4	1.9	1.9	4.0	3.9
SSA	2.3	2.6	2.4	2.4	2.8	2.6	2.7	2.4	4.1	5.5
USA	4.4	7.6	8.2	9.4	5.5	7.1	7.3	6.4	6.0	5.4

Table 1694: Bodirsky — Resources—Nitrogen—Cropland Budget—Balance—Nutrient Surplus (Mt Nr/yr)

56.1.4 Inputs



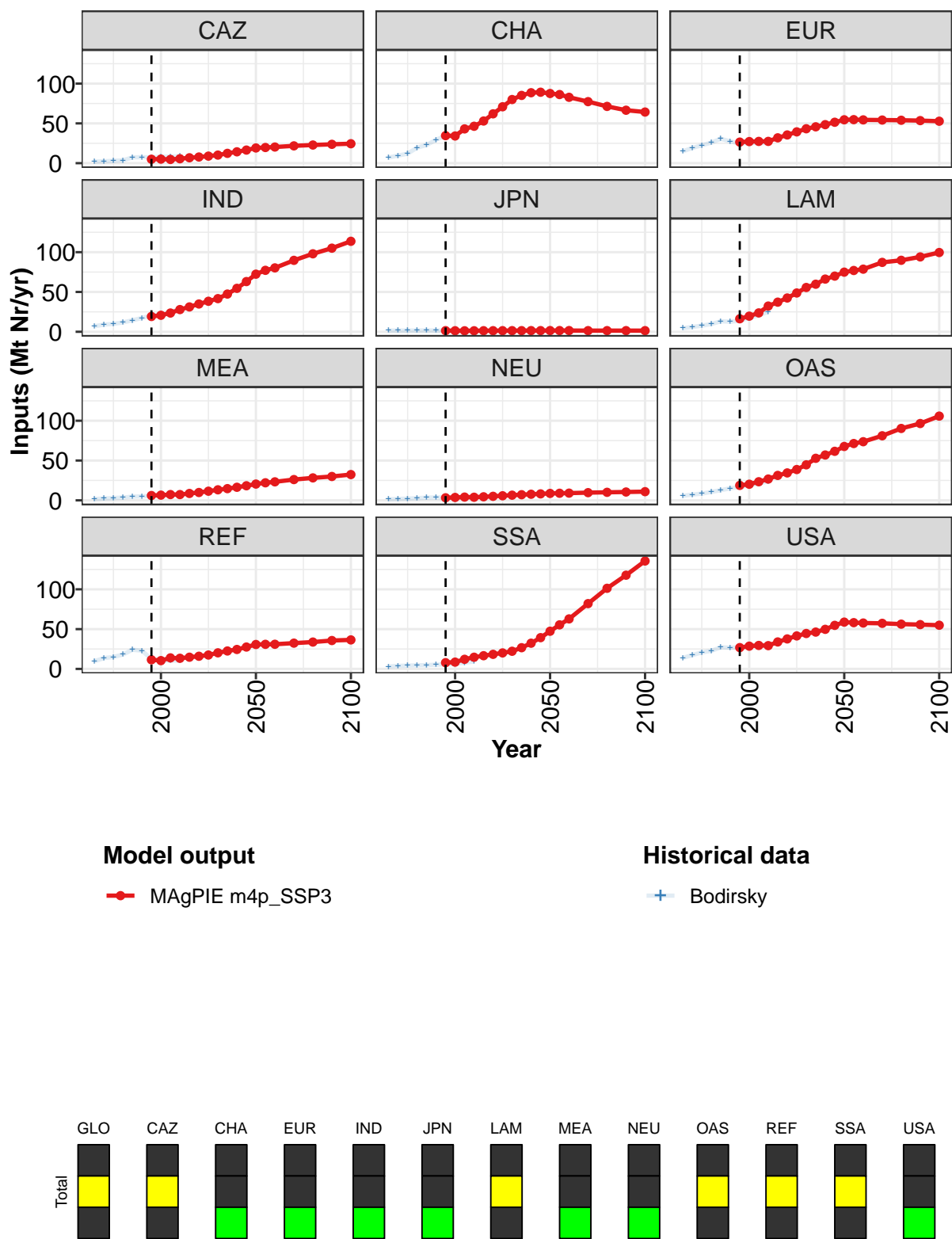


Figure 445: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	177	186	214	236	271	305	343	383	422	461	501
CAZ	5	5	5	6	7	8	9	10	12	14	16
CHA	35	34	43	46	53	62	71	80	85	89	89
EUR	26	27	27	27	32	35	39	43	46	48	51
IND	19	21	24	28	31	35	38	42	47	55	63
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	16	20	24	32	37	42	49	56	60	66	70
MEA	6	7	7	7	9	10	12	13	15	16	18
NEU	3	4	4	4	4	5	6	6	7	8	8
OAS	19	20	23	27	31	34	39	45	53	57	62
REF	11	10	14	13	15	16	17	20	23	24	27
SSA	8	9	12	15	17	18	20	22	27	32	39
USA	27	29	30	29	34	38	41	45	46	50	55

Table 1695: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs (Mt Nr/yr) [PART 1/2]

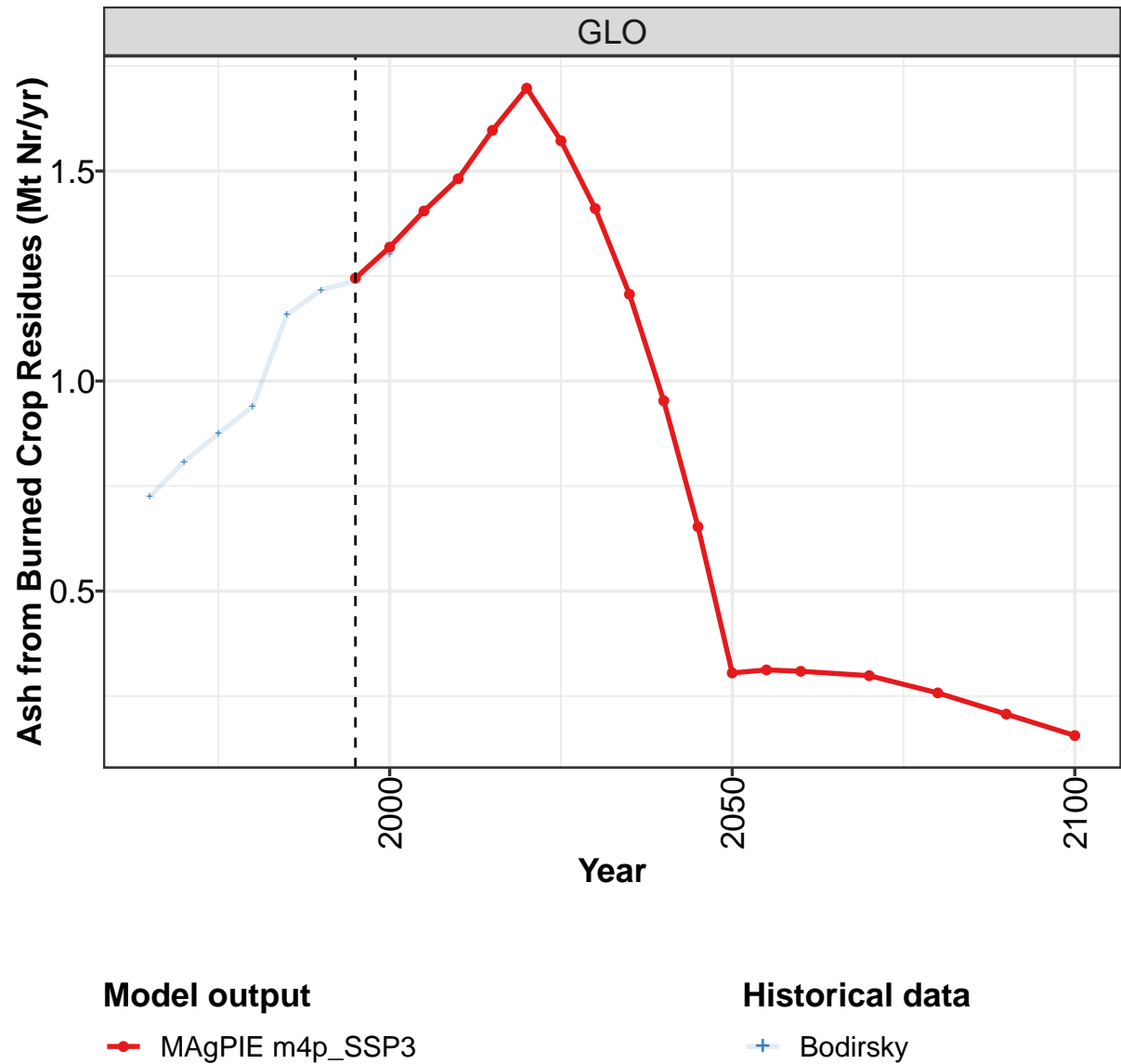
	2050	2055	2060	2070	2080	2090	2100
GLO	544	563	575	620	657	690	732
CAZ	19	20	20	22	23	24	24
CHA	88	86	83	77	71	67	64
EUR	55	55	54	54	54	54	53
IND	72	77	80	90	98	105	114
JPN	2	2	2	1	1	1	1
LAM	75	77	79	87	90	94	100
MEA	20	22	23	26	28	30	32
NEU	9	9	9	10	10	10	11
OAS	68	71	74	81	90	97	106
REF	31	31	31	32	34	36	36
SSA	47	55	63	82	101	118	136
USA	59	58	58	57	56	56	55

Table 1696: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	72	93	110	134	166	175	173	182	202	221
CAZ	2	2	3	4	7	8	7	8	8	9
CHA	7	10	12	20	23	29	34	34	42	47
EUR	15	19	22	26	31	27	25	25	25	25
IND	7	9	10	12	14	17	20	22	24	29
JPN	1	2	2	2	2	2	1	1	1	1
LAM	4	6	8	10	13	13	14	17	21	25
MEA	2	2	3	4	5	5	6	6	7	7
NEU	1	2	2	3	3	4	3	4	4	4
OAS	6	7	8	11	13	15	17	19	21	24
REF	10	14	15	18	24	23	12	10	11	10
SSA	3	4	4	5	5	5	6	7	8	9
USA	14	17	21	23	27	27	27	29	30	30

Table 1697: Bodirsky — Resources—Nitrogen—Cropland Budget—Inputs (Mt Nr/yr)

56.1.5 Inputs—Ash from Burned Crop Residues



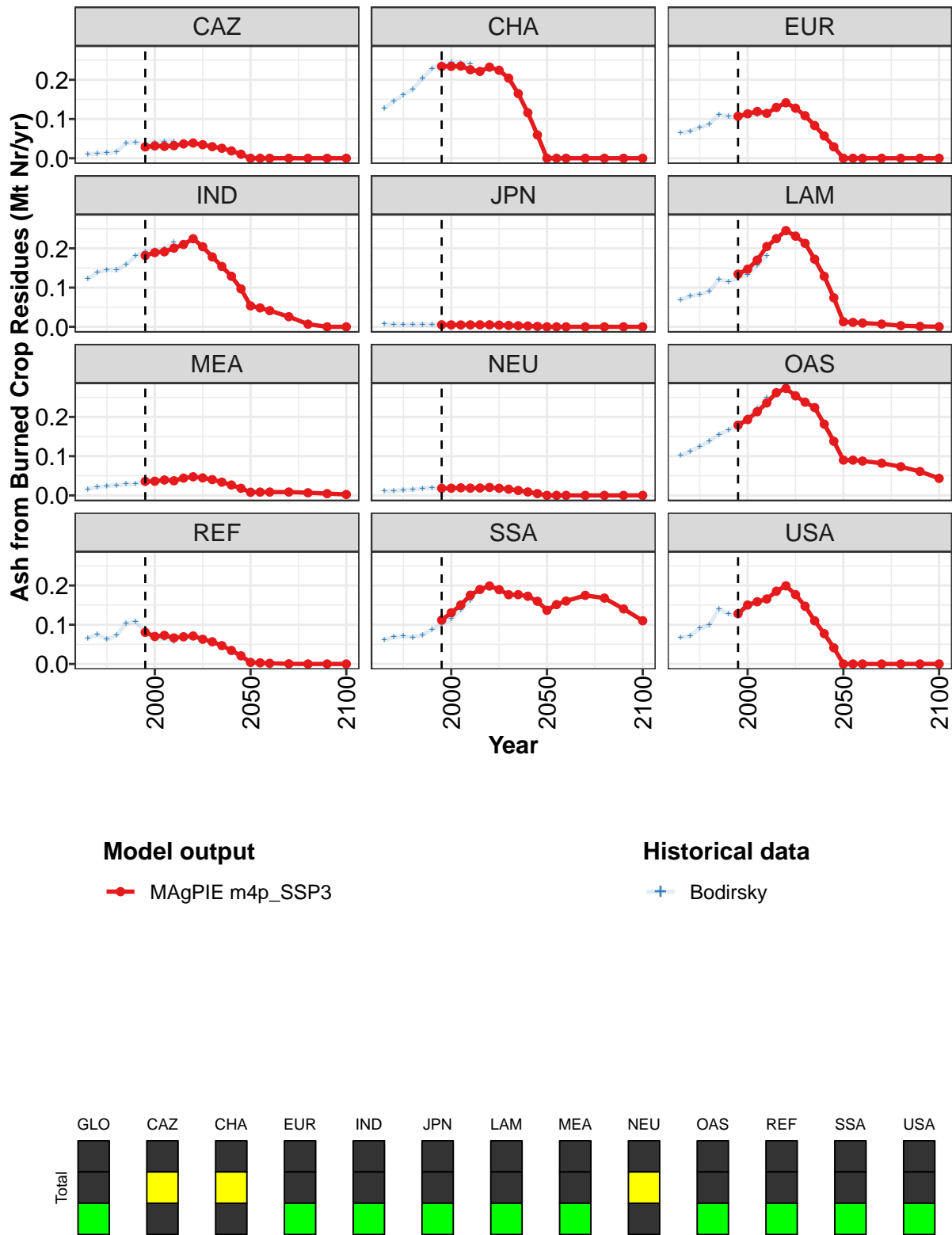


Figure 446: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Ash from Burned Crop Residues (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.24	1.32	1.40	1.48	1.60	1.70	1.57	1.41	1.21	0.95	0.65
CAZ	0.03	0.03	0.03	0.03	0.04	0.04	0.03	0.03	0.03	0.02	0.01
CHA	0.23	0.23	0.23	0.23	0.22	0.23	0.22	0.20	0.16	0.12	0.06
EUR	0.11	0.11	0.12	0.11	0.13	0.14	0.13	0.11	0.08	0.06	0.03
IND	0.18	0.19	0.19	0.20	0.21	0.22	0.20	0.18	0.15	0.13	0.10
JPN	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
LAM	0.13	0.15	0.17	0.20	0.22	0.25	0.23	0.21	0.17	0.13	0.07
MEA	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.03	0.03	0.02
NEU	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.00
OAS	0.18	0.19	0.21	0.24	0.26	0.27	0.25	0.24	0.22	0.18	0.14
REF	0.08	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.05	0.03	0.02
SSA	0.11	0.13	0.15	0.18	0.19	0.20	0.19	0.18	0.18	0.17	0.16
USA	0.13	0.15	0.16	0.17	0.19	0.20	0.18	0.15	0.11	0.08	0.04

Table 1698: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Ash from Burned Crop Residues (Mt Nr/yr) [PART 1/2]

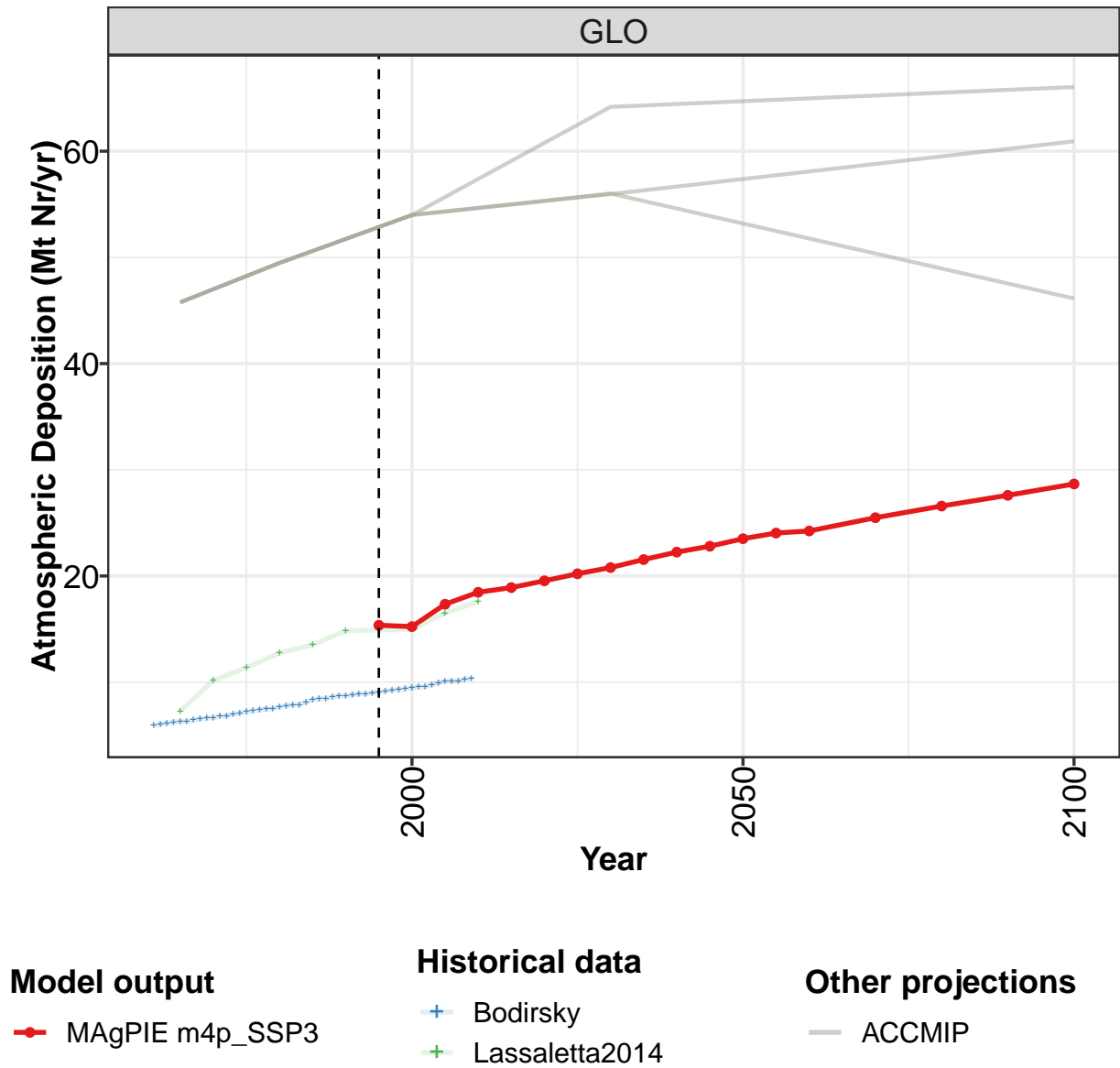
	2050	2055	2060	2070	2080	2090	2100
GLO	0.31	0.31	0.31	0.30	0.26	0.21	0.16
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.05	0.05	0.04	0.03	0.01	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.01	0.01	0.01	0.01	0.00	0.00	0.00
MEA	0.01	0.01	0.01	0.01	0.01	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.09	0.09	0.09	0.08	0.07	0.06	0.04
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.14	0.15	0.16	0.17	0.17	0.14	0.11
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1699: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Ash from Burned Crop Residues (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.72	0.81	0.87	0.94	1.16	1.22	1.24	1.30	1.40	1.48
CAZ	0.01	0.01	0.01	0.02	0.04	0.04	0.04	0.04	0.04	0.04
CHA	0.13	0.15	0.16	0.18	0.20	0.23	0.24	0.24	0.24	0.24
EUR	0.07	0.07	0.08	0.09	0.11	0.11	0.10	0.11	0.11	0.11
IND	0.12	0.14	0.14	0.14	0.16	0.18	0.19	0.20	0.20	0.21
JPN	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01
LAM	0.07	0.08	0.08	0.09	0.12	0.12	0.12	0.13	0.16	0.18
MEA	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04
NEU	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
OAS	0.10	0.11	0.12	0.14	0.16	0.17	0.18	0.20	0.22	0.25
REF	0.07	0.07	0.06	0.07	0.10	0.11	0.08	0.06	0.06	0.06
SSA	0.06	0.07	0.07	0.07	0.07	0.09	0.10	0.11	0.14	0.16
USA	0.07	0.07	0.09	0.10	0.14	0.13	0.12	0.15	0.16	0.16

Table 1700: Bodirsky — Resources—Nitrogen—Cropland Budget—Inputs—Ash from Burned Crop Residues (Mt Nr/yr)

56.1.6 Inputs—Atmospheric Deposition



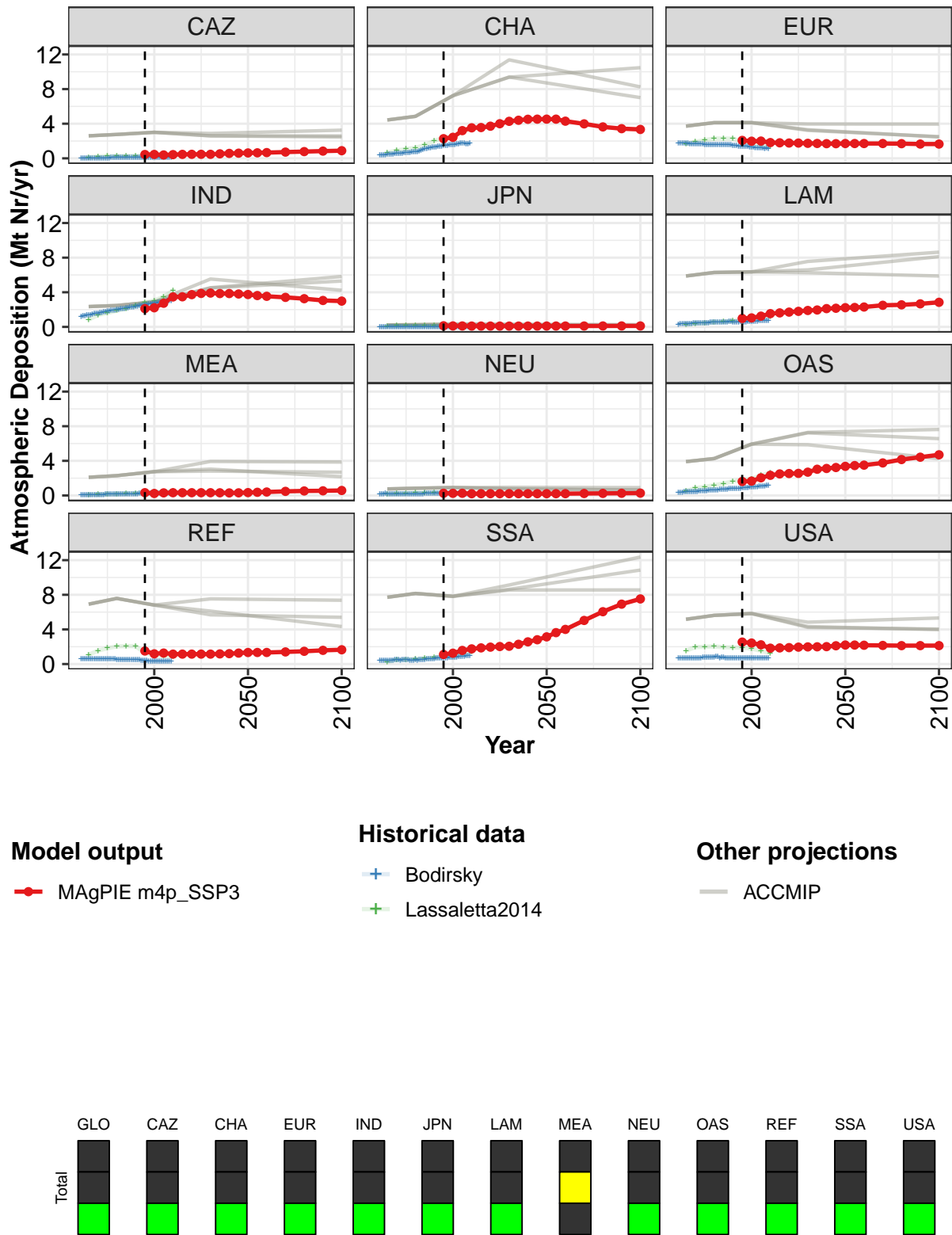


Figure 447: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Atmospheric Deposition (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	15.4	15.2	17.3	18.5	18.9	19.5	20.2	20.8	21.5	22.3	22.8
CAZ	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6
CHA	2.3	2.4	3.2	3.5	3.6	3.7	4.0	4.3	4.4	4.5	4.5
EUR	2.1	2.0	2.0	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
IND	2.1	2.2	2.7	3.5	3.5	3.7	3.9	3.9	3.9	3.9	3.8
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	1.0	1.0	1.2	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2
MEA	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
NEU	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	1.6	1.7	2.0	2.3	2.5	2.5	2.6	2.7	3.0	3.1	3.2
REF	1.5	1.2	1.3	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.3
SSA	1.1	1.3	1.6	1.8	1.9	2.0	2.0	2.1	2.3	2.6	2.8
USA	2.5	2.4	2.2	1.8	1.9	1.9	2.0	2.0	2.0	2.0	2.1

Table 1701: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Atmospheric Deposition (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	23.5	24.0	24.2	25.5	26.6	27.6	28.7
CAZ	0.6	0.6	0.7	0.7	0.8	0.8	0.9
CHA	4.5	4.5	4.3	4.0	3.6	3.4	3.3
EUR	1.7	1.7	1.7	1.7	1.7	1.7	1.7
IND	3.7	3.6	3.5	3.4	3.3	3.1	3.0
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	2.2	2.2	2.3	2.5	2.5	2.7	2.8
MEA	0.3	0.4	0.4	0.5	0.5	0.5	0.6
NEU	0.2	0.2	0.2	0.2	0.2	0.3	0.3
OAS	3.4	3.5	3.5	3.8	4.2	4.4	4.7
REF	1.3	1.3	1.3	1.4	1.5	1.6	1.6
SSA	3.1	3.6	4.0	5.0	6.0	6.9	7.5
USA	2.2	2.2	2.2	2.1	2.1	2.1	2.1

Table 1702: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Atmospheric Deposition (Mt Nr/yr) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	5.9	6.0	6.1	6.2	6.3	6.3	6.4	6.5	6.6	6.7	6.8
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
CHA	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6
EUR	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
IND	1.2	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.6	1.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
MEA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
REF	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5
SSA	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5
USA	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

Table 1703: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Atmospheric Deposition (Mt Nr/yr) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	6.8	7.0	7.1	7.2	7.3	7.4	7.5	7.5	7.7	7.8	7.9
CAZ	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.8
EUR	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
IND	1.7	1.7	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.0	2.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
MEA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7
REF	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5
SSA	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.5
USA	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

Table 1704: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Atmospheric Deposition (Mt Nr/yr) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	7.9	8.1	8.4	8.4	8.5	8.6	8.7	8.7	8.8	8.9	8.9
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.9	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.4	1.4
EUR	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.4	1.4
IND	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
MEA	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8
REF	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
SSA	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7
USA	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

Table 1705: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Atmospheric Deposition (Mt Nr/yr) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	9.0	9.1	9.2	9.2	9.3	9.4	9.5	9.5	9.6	9.7	10.0
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.7
EUR	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.2	1.2	1.2
IND	2.5	2.5	2.6	2.6	2.7	2.7	2.8	2.8	2.8	2.8	2.9
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7
MEA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0
REF	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
SSA	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.9
USA	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

Table 1706: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Atmospheric Deposition (Mt Nr/yr) [PART 4/5]

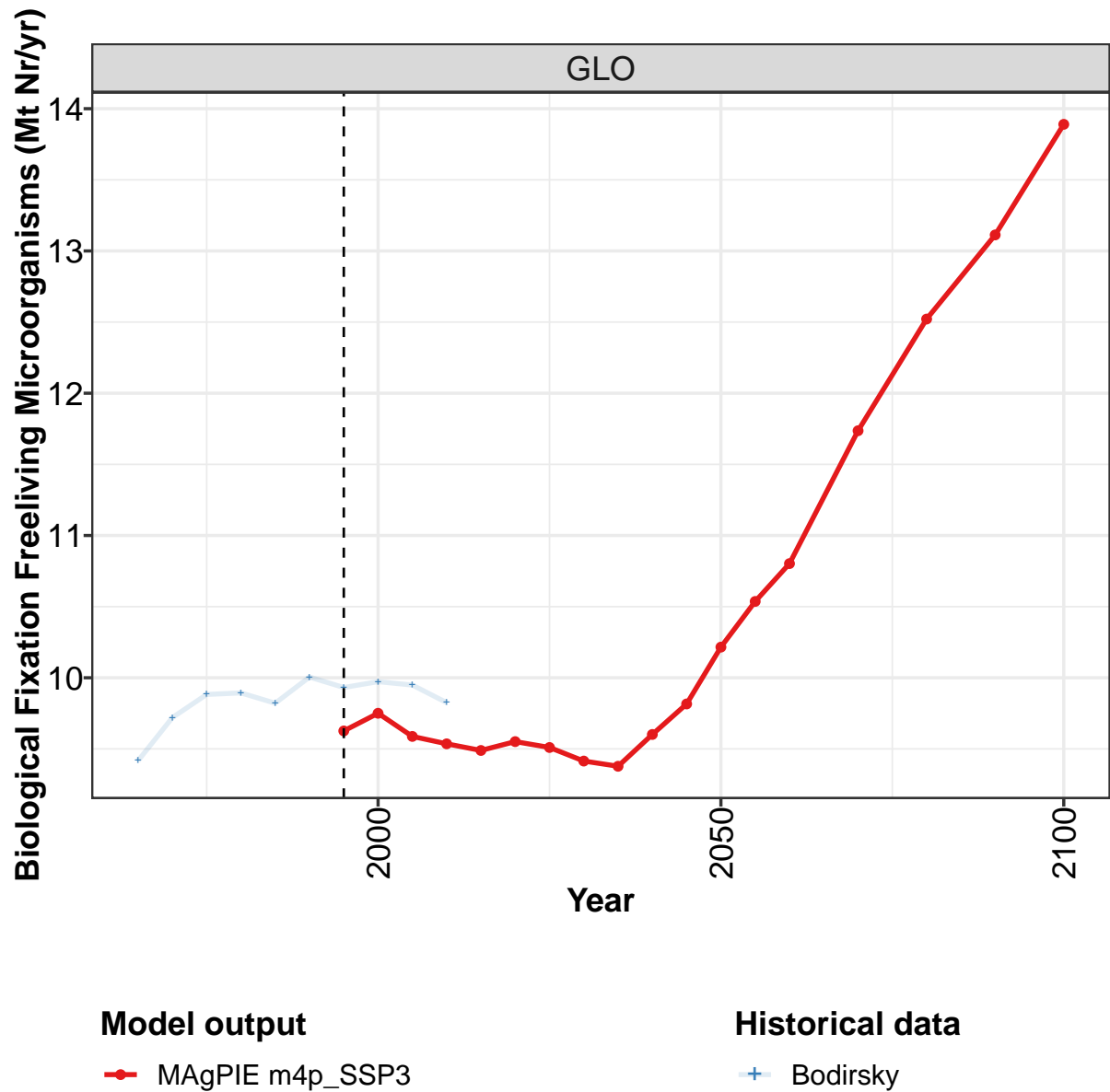
	2005	2006	2007	2008	2009
GLO	10.1	10.1	10.1	10.3	10.4
CAZ	0.1	0.1	0.1	0.1	0.1
CHA	1.7	1.8	1.7	1.7	1.7
EUR	1.2	1.2	1.1	1.2	1.1
IND	2.9	2.9	3.0	3.0	3.0
JPN	0.0	0.0	0.0	0.0	0.0
LAM	0.7	0.7	0.7	0.8	0.7
MEA	0.3	0.3	0.3	0.3	0.3
NEU	0.2	0.2	0.2	0.2	0.2
OAS	1.1	1.1	1.1	1.1	1.1
REF	0.3	0.3	0.3	0.3	0.3
SSA	0.9	0.9	0.9	0.9	0.9
USA	0.7	0.7	0.7	0.7	0.7

Table 1707: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Atmospheric Deposition (Mt Nr/yr) [PART 5/5]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	7.3	10.2	11.4	12.7	13.5	14.8	14.9	15.0	16.5	17.6
CAZ	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CHA	0.6	0.9	1.1	1.2	1.5	2.0	2.4	2.5	3.1	3.4
EUR	1.6	1.9	2.1	2.3	2.3	2.3	1.9	1.7	1.6	1.4
IND	0.8	1.4	1.6	1.9	2.1	2.5	2.8	3.0	3.5	4.2
JPN	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
LAM	0.3	0.4	0.5	0.6	0.6	0.7	0.9	0.9	1.1	1.2
MEA	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5
NEU	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
OAS	0.5	0.9	1.0	1.2	1.4	1.6	1.8	1.9	2.3	2.6
REF	1.1	1.5	1.8	2.0	2.1	2.1	1.3	1.0	0.9	0.9
SSA	0.3	0.5	0.5	0.6	0.6	0.7	0.9	1.0	1.3	1.4
USA	1.5	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.5	1.3

Table 1708: Bodirsky — Resources—Nitrogen—Cropland Budget—Inputs—Atmospheric Deposition (Mt Nr/yr)

56.1.7 Inputs—Biological Fixation Freelifving Microorganisms



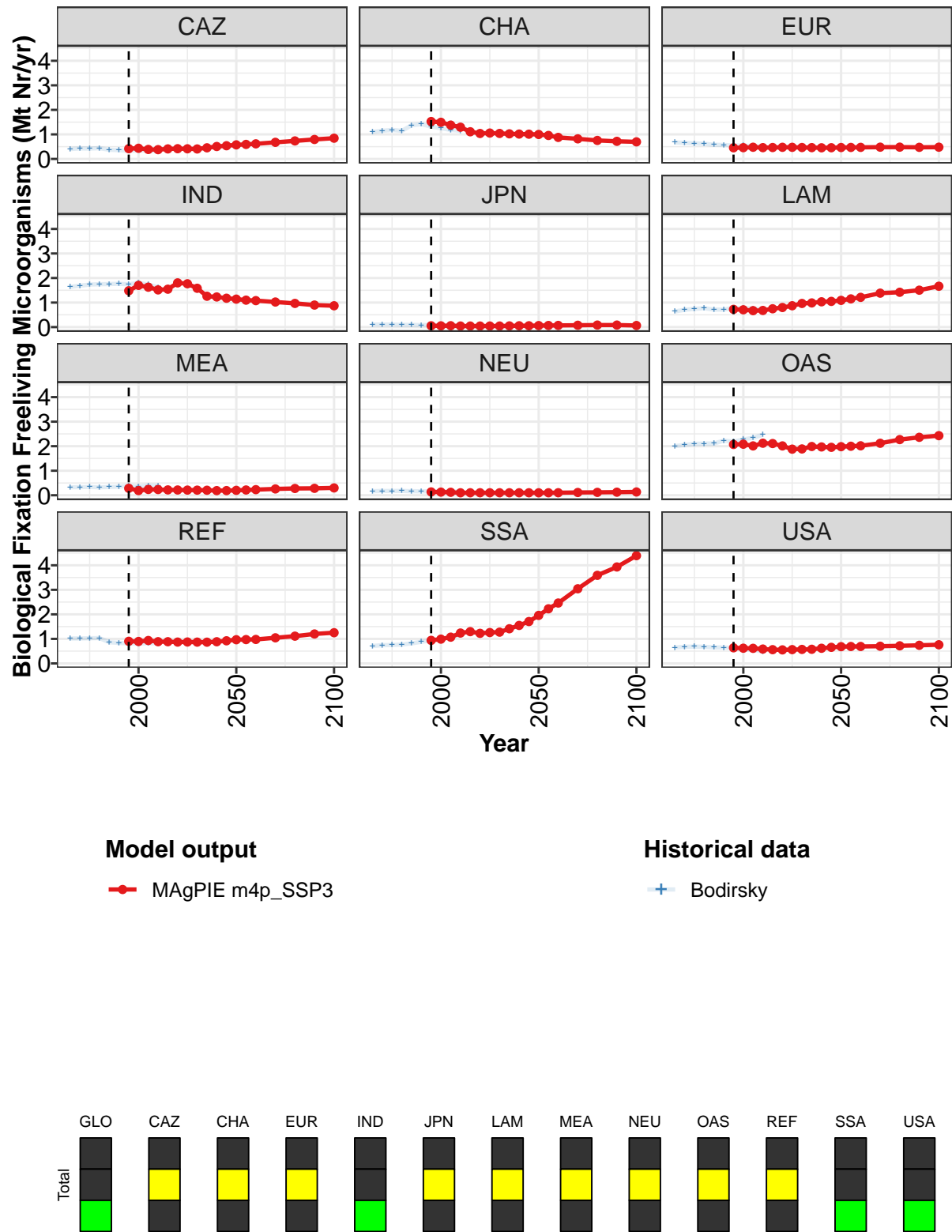


Figure 448: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Free-living Microorganisms (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9.6	9.8	9.6	9.5	9.5	9.6	9.5	9.4	9.4	9.6	9.8
CAZ	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5
CHA	1.5	1.5	1.4	1.3	1.1	1.0	1.1	1.0	1.0	1.0	1.0
EUR	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
IND	1.5	1.7	1.6	1.5	1.5	1.8	1.8	1.6	1.3	1.2	1.2
JPN	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
LAM	0.7	0.7	0.7	0.7	0.7	0.8	0.9	1.0	1.0	1.0	1.0
MEA	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	2.1	2.1	2.0	2.1	2.1	2.0	1.9	1.9	2.0	2.0	2.0
REF	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
SSA	0.9	1.0	1.1	1.2	1.3	1.2	1.3	1.3	1.4	1.5	1.7
USA	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7

Table 1709: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Free-living Microorganisms (Mt Nr/yr) [PART 1/2]

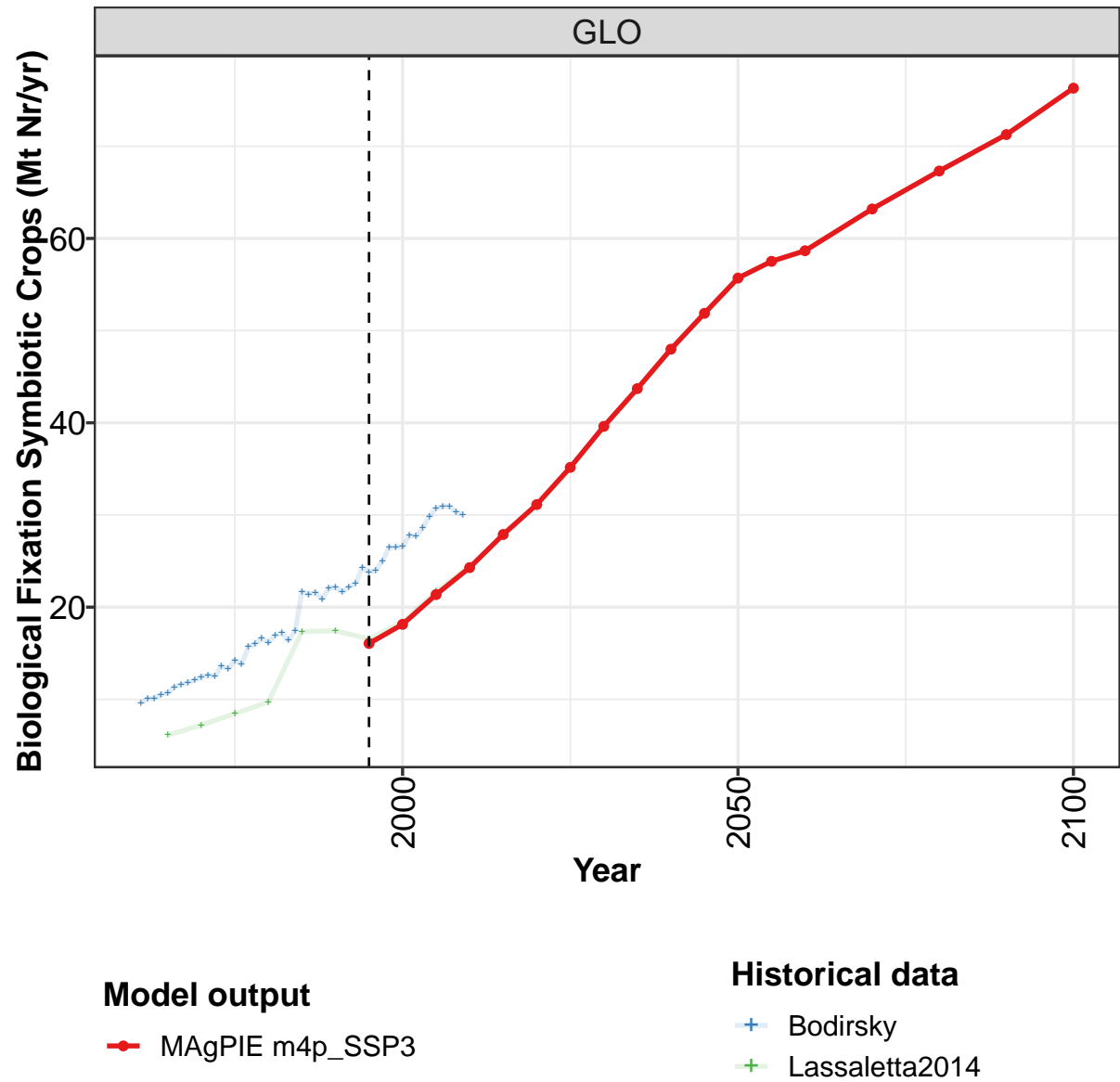
	2050	2055	2060	2070	2080	2090	2100
GLO	10.2	10.5	10.8	11.7	12.5	13.1	13.9
CAZ	0.6	0.6	0.6	0.7	0.7	0.8	0.8
CHA	1.0	1.0	0.9	0.8	0.8	0.7	0.7
EUR	0.5	0.5	0.5	0.5	0.5	0.5	0.5
IND	1.1	1.1	1.1	1.0	1.0	0.9	0.9
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	1.1	1.2	1.2	1.4	1.4	1.5	1.7
MEA	0.2	0.2	0.2	0.3	0.3	0.3	0.3
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	2.0	2.0	2.0	2.1	2.3	2.4	2.4
REF	1.0	1.0	1.0	1.0	1.1	1.2	1.3
SSA	2.0	2.2	2.5	3.0	3.6	3.9	4.4
USA	0.7	0.7	0.7	0.7	0.7	0.7	0.8

Table 1710: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Free-living Microorganisms (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	9.4	9.7	9.9	9.9	9.8	10.0	9.9	10.0	9.9	9.8
CAZ	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3
CHA	1.1	1.1	1.2	1.1	1.4	1.4	1.3	1.3	1.2	1.1
EUR	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5
IND	1.6	1.7	1.7	1.7	1.8	1.8	1.7	1.8	1.7	1.6
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.6	0.7	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.7
MEA	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
OAS	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.5
REF	1.0	1.0	1.0	1.0	0.9	0.8	0.8	0.8	0.8	0.8
SSA	0.7	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.1	1.2
USA	0.6	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.5

Table 1711: Bodirsky — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Freelifving Microorganisms (Mt Nr/yr)

56.1.8 Inputs—Biological Fixation Symbiotic Crops



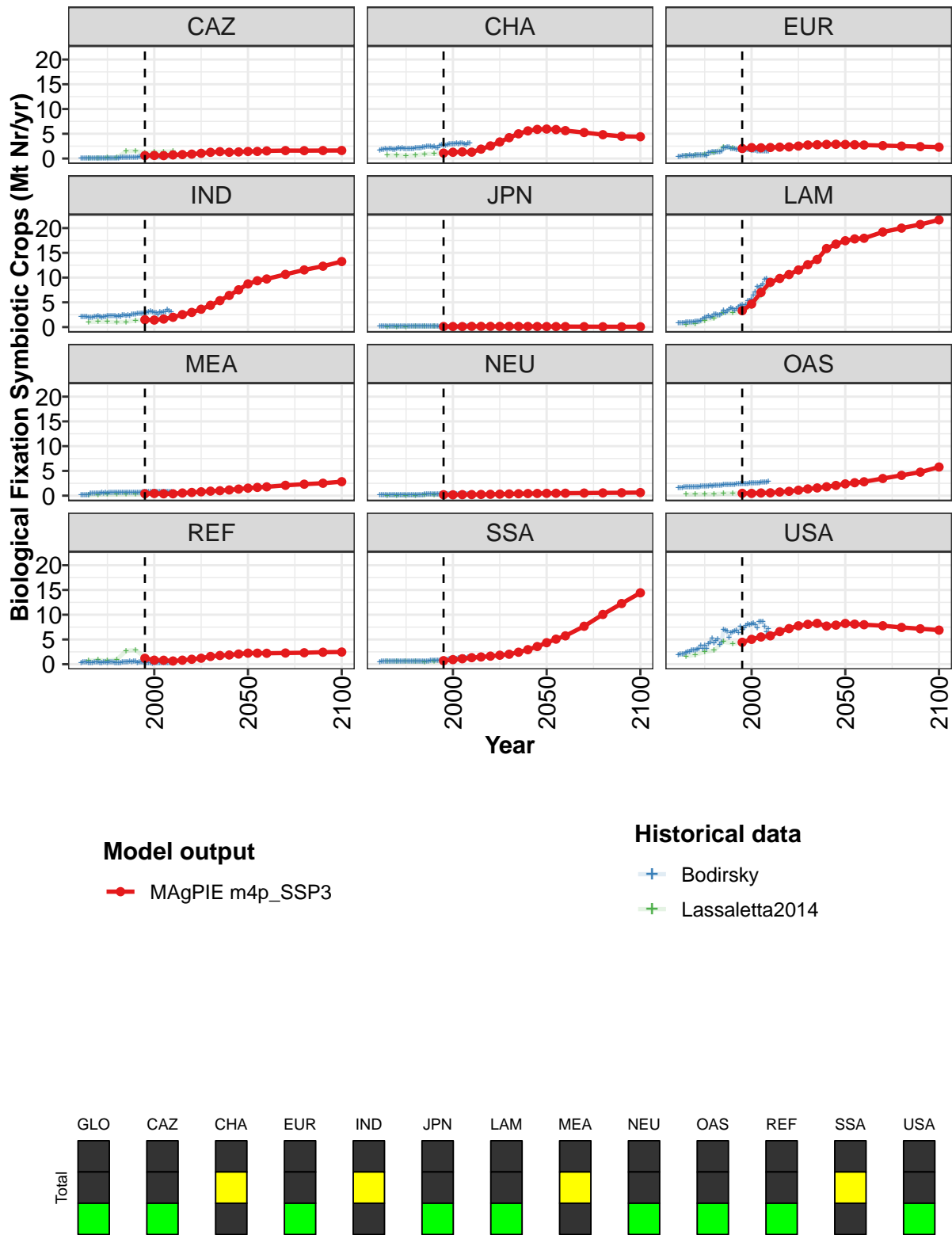


Figure 449: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Symbiotic Crops (Mt N_r/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	16.1	18.1	21.4	24.3	27.9	31.1	35.2	39.6	43.7	48.0	51.9
CAZ	0.6	0.6	0.6	0.7	0.8	0.9	1.0	1.3	1.4	1.3	1.3
CHA	1.1	1.3	1.3	1.3	1.9	2.5	3.3	4.2	5.0	5.6	5.9
EUR	2.0	2.2	2.2	2.2	2.3	2.3	2.5	2.7	2.8	2.9	2.9
IND	1.5	1.4	1.6	2.0	2.5	3.0	3.6	4.4	5.3	6.4	7.5
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	3.3	4.7	7.0	9.0	9.8	10.6	11.5	12.6	13.7	15.9	16.8
MEA	0.4	0.4	0.4	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3
NEU	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4
OAS	0.5	0.5	0.5	0.6	0.7	0.9	1.1	1.4	1.6	1.8	2.1
REF	1.2	0.8	0.8	0.7	0.8	1.0	1.2	1.6	1.8	1.9	2.1
SSA	0.7	0.9	1.1	1.3	1.5	1.6	1.8	2.0	2.4	2.9	3.6
USA	4.4	5.0	5.5	5.7	6.6	7.2	7.8	8.1	8.3	7.7	7.9

Table 1712: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Symbiotic Crops (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	55.7	57.5	58.7	63.2	67.3	71.3	76.3
CAZ	1.4	1.4	1.5	1.6	1.6	1.6	1.6
CHA	6.0	5.8	5.6	5.3	4.8	4.5	4.4
EUR	2.8	2.8	2.7	2.6	2.5	2.4	2.3
IND	8.7	9.4	9.7	10.6	11.5	12.3	13.2
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	17.4	17.8	17.9	19.2	20.0	20.7	21.7
MEA	1.5	1.7	1.8	2.1	2.3	2.5	2.8
NEU	0.5	0.5	0.5	0.5	0.6	0.6	0.6
OAS	2.4	2.6	2.8	3.5	4.1	4.7	5.8
REF	2.2	2.2	2.2	2.3	2.3	2.4	2.5
SSA	4.4	5.1	5.7	7.7	10.1	12.3	14.4
USA	8.2	8.1	8.0	7.8	7.4	7.2	6.9

Table 1713: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Symbiotic Crops (Mt Nr/yr) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	9.6	10.1	10.1	10.5	10.7	11.3	11.6	11.8	12.1	12.4	12.6
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	1.7	1.8	1.8	2.0	1.9	1.9	1.9	1.9	1.8	2.0	2.1
EUR	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
IND	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.1	2.1	2.2	2.2
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
LAM	0.8	0.9	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.1
MEA	0.1	0.1	0.1	0.2	0.2	0.5	0.5	0.5	0.5	0.5	0.5
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8
REF	0.2	0.4	0.4	0.5	0.3	0.3	0.3	0.4	0.4	0.4	0.3
SSA	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
USA	1.9	2.0	2.0	2.0	2.3	2.5	2.6	2.8	2.9	2.9	3.0

Table 1714: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Symbiotic Crops (Mt Nr/yr) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	12.5	13.6	13.3	14.2	13.8	15.7	16.0	16.6	16.2	16.9	17.2
CAZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	1.9	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1
EUR	0.7	0.7	0.7	0.7	0.6	1.2	1.2	1.3	1.3	1.3	1.3
IND	2.0	2.1	2.0	2.2	2.2	2.3	2.3	2.3	2.1	2.3	2.2
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	1.2	1.4	1.6	1.9	2.0	2.2	2.0	2.1	2.6	2.6	2.4
MEA	0.6	0.5	0.6	0.5	0.6	0.6	0.7	0.6	0.6	0.6	0.6
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	1.8	1.8	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0
REF	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.2	0.3	0.2	0.3
SSA	0.6	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
USA	3.2	3.7	3.1	3.8	3.2	4.2	4.4	5.2	4.2	4.7	5.1

Table 1715: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Symbiotic Crops (Mt Nr/yr) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	16.4	17.5	21.7	21.4	21.6	20.9	22.0	22.1	21.6	22.2	22.6
CAZ	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.4
CHA	2.2	2.2	2.3	2.4	2.4	2.4	2.3	2.4	2.2	2.2	2.6
EUR	1.3	1.4	2.2	2.2	2.3	2.3	2.0	2.0	2.0	1.7	1.8
IND	2.4	2.4	2.3	2.4	2.3	2.6	2.7	2.7	2.7	2.7	2.8
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	2.5	2.7	3.3	2.9	3.2	3.5	3.9	3.7	3.3	3.8	4.1
MEA	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6
NEU	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
OAS	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3
REF	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.3	0.4	0.4
SSA	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.7	0.8	0.8	0.8
USA	3.9	4.5	6.9	6.9	6.6	5.4	6.3	6.5	6.7	6.9	6.4

Table 1716: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Symbiotic Crops (Mt Nr/yr) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	24.3	23.8	24.0	25.0	26.5	26.5	26.6	27.8	27.7	28.6	29.8
CAZ	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5
CHA	2.8	2.7	2.7	2.7	2.9	2.9	3.0	3.0	3.1	2.9	3.1
EUR	1.7	1.7	1.7	1.8	1.8	1.8	1.6	1.6	1.6	1.5	1.6
IND	2.8	2.9	3.0	3.0	3.1	3.0	2.9	2.9	2.6	3.1	2.9
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	4.4	4.4	4.2	4.5	5.3	5.4	5.6	6.5	7.0	8.2	7.8
MEA	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8
NEU	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
OAS	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.6	2.6
REF	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3
SSA	0.8	0.8	0.9	0.9	1.0	1.1	1.0	1.1	1.1	1.2	1.2
USA	7.6	7.0	7.3	7.8	8.0	8.0	8.1	8.3	7.9	7.4	8.6

Table 1717: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Symbiotic Crops (Mt Nr/yr) [PART 4/5]

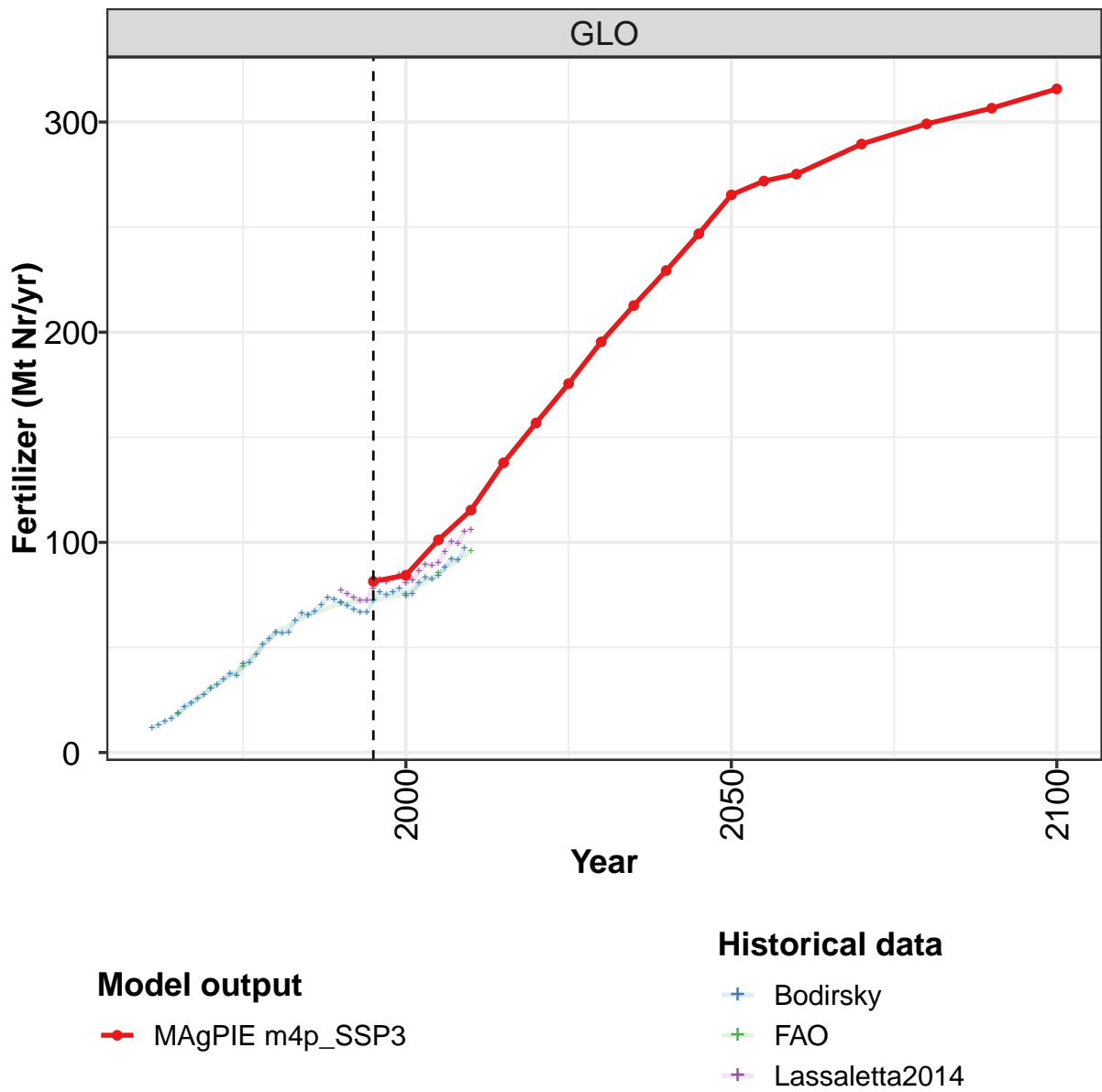
	2005	2006	2007	2008	2009
GLO	30.7	30.9	30.9	30.3	30.0
CAZ	0.6	0.5	0.5	0.6	0.6
CHA	3.1	2.9	2.8	3.1	3.1
EUR	1.6	1.5	1.4	1.4	1.5
IND	3.1	3.1	3.5	3.3	3.1
JPN	0.1	0.1	0.1	0.1	0.1
LAM	8.3	8.6	9.6	9.8	8.7
MEA	0.8	0.8	0.8	0.8	0.8
NEU	0.4	0.4	0.3	0.3	0.3
OAS	2.7	2.7	2.7	2.8	2.8
REF	0.3	0.3	0.3	0.3	0.3
SSA	1.3	1.4	1.3	1.4	1.4
USA	8.6	8.6	7.6	6.5	7.2

Table 1718: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Symbiotic Crops (Mt Nr/yr) [PART 5/5]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	6.1	7.2	8.4	9.7	17.3	17.4	16.6	18.4	21.7	24.5
CAZ	0.1	0.1	0.1	0.2	1.4	1.5	1.1	1.3	1.4	1.5
CHA	0.6	0.7	0.6	0.7	0.9	0.9	1.1	1.3	1.4	1.3
EUR	0.5	0.7	0.8	1.1	2.3	2.1	2.0	2.1	2.1	2.2
IND	1.0	1.1	1.1	1.0	1.0	1.3	1.5	1.4	1.7	2.0
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.6	0.7	1.3	1.8	2.9	2.8	3.2	4.2	6.4	8.5
MEA	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4
NEU	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.6
REF	0.7	0.8	0.7	0.9	2.7	2.9	1.4	0.9	0.8	0.6
SSA	0.5	0.6	0.6	0.5	0.5	0.6	0.7	0.8	1.0	1.3
USA	1.6	1.9	2.5	2.8	4.5	4.2	4.4	5.2	5.7	5.6

Table 1719: Bodirsky — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Symbiotic Crops (Mt Nr/yr)

56.1.9 Inputs—Fertilizer



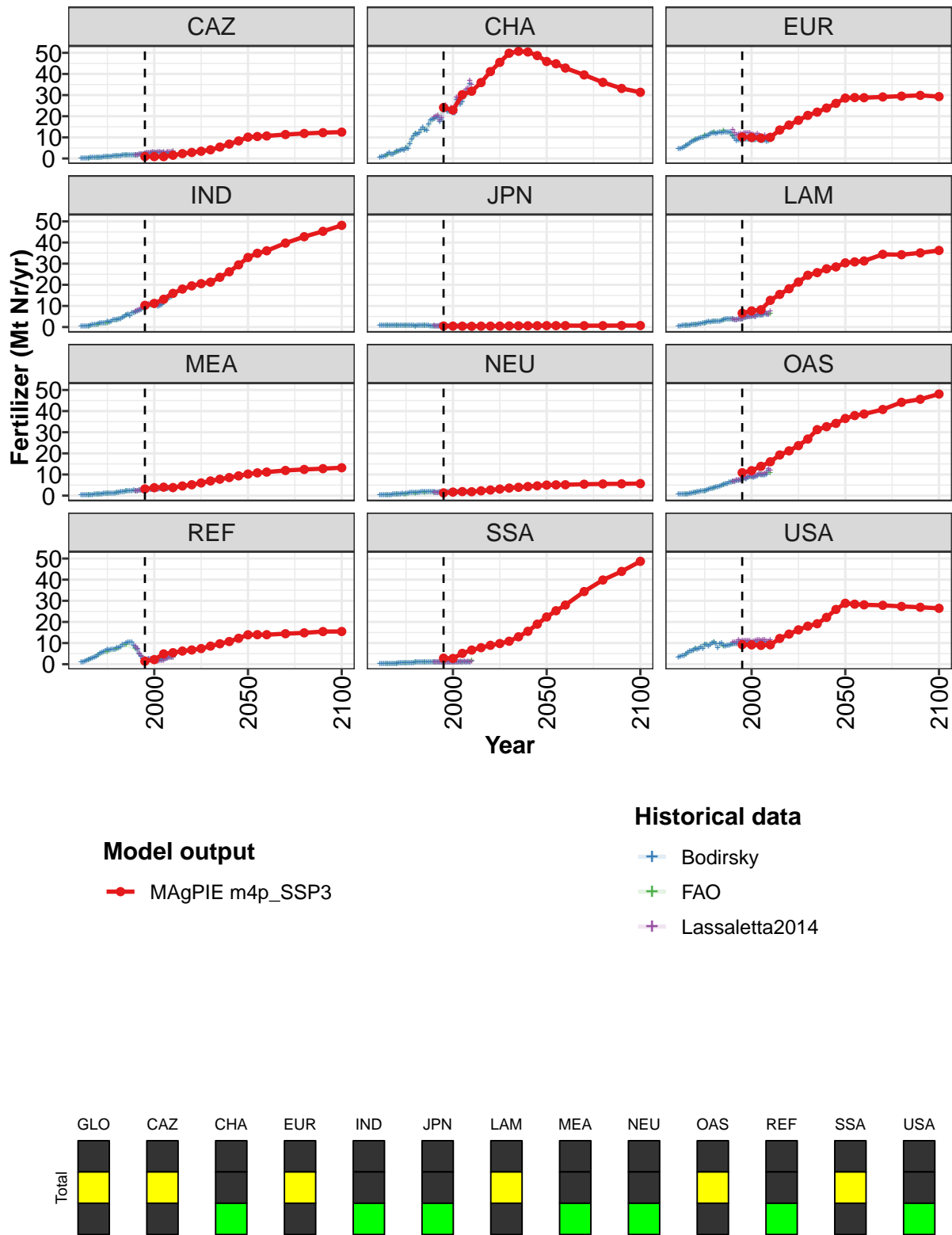


Figure 450: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Fertilizer (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	81	84	101	115	138	157	176	195	213	229	247
CAZ	1	1	1	2	2	3	3	4	5	7	8
CHA	24	23	30	32	36	41	46	50	51	50	49
EUR	10	10	10	10	13	16	18	20	22	24	26
IND	10	11	13	16	18	19	21	21	24	26	29
JPN	1	0	0	0	0	0	0	1	1	1	1
LAM	7	8	8	13	15	18	21	25	26	28	28
MEA	3	4	4	4	5	5	6	7	8	9	9
NEU	1	2	2	2	2	3	3	4	4	4	5
OAS	11	12	14	16	19	21	24	27	31	33	34
REF	1	2	5	5	6	7	7	9	10	11	12
SSA	3	3	5	7	8	9	10	11	13	16	19
USA	9	9	9	9	12	14	16	18	19	22	26

Table 1720: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Fertilizer (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	265	272	275	290	299	307	316
CAZ	10	10	11	11	12	12	12
CHA	46	45	43	40	36	33	31
EUR	29	29	29	29	29	30	29
IND	33	35	36	40	43	45	48
JPN	1	1	1	1	1	1	1
LAM	30	31	31	34	34	35	36
MEA	10	11	11	12	12	13	13
NEU	5	5	5	5	6	6	6
OAS	37	38	39	41	44	46	48
REF	14	14	14	14	15	15	15
SSA	22	25	28	34	40	44	49
USA	29	28	28	28	27	27	26

Table 1721: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Fertilizer (Mt Nr/yr) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	11.6	13.1	14.6	16.3	18.8	21.7	23.6	25.6	27.6	30.7	32.3
CAZ	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.4	0.4	0.4	0.5
CHA	0.5	0.8	1.0	1.2	1.8	2.7	1.9	2.1	2.6	3.3	3.3
EUR	4.5	4.7	5.0	5.4	6.0	6.6	7.2	7.9	8.2	8.7	9.1
IND	0.2	0.3	0.4	0.6	0.6	0.7	1.0	1.2	1.3	1.5	1.8
JPN	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.7
LAM	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.1	1.2	1.3	1.3
MEA	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.7
NEU	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.8
OAS	0.6	0.6	0.7	0.6	0.7	0.8	1.1	1.2	1.4	1.6	1.6
REF	0.9	1.1	1.3	1.7	2.2	2.6	3.0	3.4	3.7	4.4	5.0
SSA	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4
USA	3.1	3.6	3.9	4.2	4.8	5.4	6.1	6.2	6.6	7.2	7.1

Table 1722: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Fertilizer (Mt Nr/yr) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	34.8	37.6	36.7	42.3	43.0	46.5	51.4	54.0	57.3	56.8	57.3
CAZ	0.6	0.7	0.7	0.7	0.8	1.0	1.1	1.1	1.2	1.2	1.3
CHA	3.8	4.4	3.8	5.0	4.7	7.0	9.1	10.5	11.9	11.3	12.0
EUR	9.4	9.9	9.9	10.6	10.8	11.0	11.8	12.2	11.9	11.9	12.1
IND	1.8	1.8	1.7	2.7	2.4	2.8	3.3	3.4	3.5	3.9	3.9
JPN	0.7	0.8	0.7	0.6	0.7	0.7	0.7	0.7	0.6	0.6	0.6
LAM	1.6	1.7	1.8	1.9	2.2	2.5	2.4	2.6	2.8	2.8	2.8
MEA	0.8	0.9	0.9	1.0	1.0	1.1	1.0	1.3	1.4	1.5	1.7
NEU	0.9	0.9	0.8	1.0	1.2	1.3	1.5	1.4	1.5	1.5	1.6
OAS	2.0	2.0	2.0	2.2	2.5	2.9	3.3	3.4	3.7	3.9	4.2
REF	5.4	5.9	6.3	6.9	6.8	7.0	7.1	6.9	7.6	7.7	8.3
SSA	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.9	1.0	0.9
USA	7.3	8.0	7.5	9.1	9.3	8.7	9.3	9.9	10.3	9.5	7.8

Table 1723: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Fertilizer (Mt Nr/yr) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	62.7	66.2	65.4	67.2	70.3	73.6	72.9	71.4	70.0	68.2	66.9
CAZ	1.6	1.7	1.6	1.5	1.6	1.6	1.6	1.6	1.8	1.9	2.0
CHA	13.4	14.8	13.5	13.2	16.4	18.0	18.3	19.0	19.4	19.7	17.4
EUR	12.3	12.3	12.5	12.5	12.3	12.5	12.2	10.5	9.4	8.4	8.6
IND	4.4	5.1	5.5	6.2	5.4	6.8	6.8	7.1	7.6	7.9	8.2
JPN	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5
LAM	2.7	3.2	3.4	3.8	3.9	3.7	3.7	3.6	3.4	3.5	3.7
MEA	1.9	1.9	2.0	2.3	2.3	2.3	2.5	2.3	2.4	2.5	2.5
NEU	1.7	1.8	1.7	1.7	1.9	1.8	1.8	1.8	1.6	1.6	1.7
OAS	4.4	4.8	5.1	5.6	5.7	6.1	6.4	6.6	6.6	7.0	7.1
REF	9.4	9.3	9.9	10.3	10.5	10.3	8.8	7.7	6.9	4.7	3.5
SSA	0.8	0.9	0.9	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.0
USA	9.5	9.8	8.9	8.7	8.9	8.9	9.3	9.5	9.6	9.5	10.5

Table 1724: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Fertilizer (Mt Nr/yr) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	66.8	72.4	76.3	74.9	76.2	78.0	74.5	75.7	80.9	83.3	82.5
CAZ	2.1	2.3	2.5	2.5	2.6	2.8	2.6	2.7	2.7	2.7	2.7
CHA	18.5	23.0	24.4	22.2	22.1	23.3	21.3	21.6	28.0	27.3	25.5
EUR	8.8	8.6	9.3	9.0	9.0	9.0	8.6	8.7	8.7	9.2	8.7
IND	8.9	9.2	9.6	10.1	10.5	10.7	10.1	10.4	9.6	10.1	10.7
JPN	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
LAM	3.8	3.8	4.4	4.7	4.8	4.8	5.0	5.1	4.7	5.6	5.6
MEA	2.4	2.6	2.7	2.8	3.0	3.0	3.1	3.3	3.3	3.4	3.5
NEU	1.4	1.5	1.6	1.7	1.9	1.9	1.8	1.6	1.7	1.8	2.0
OAS	7.3	7.6	8.1	7.9	8.6	8.8	8.9	8.6	8.8	9.2	10.0
REF	2.4	2.3	2.1	2.5	2.2	2.3	2.3	2.5	2.0	2.2	2.2
SSA	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1
USA	9.7	10.2	10.2	10.1	10.2	10.1	9.4	9.8	9.8	10.3	10.1

Table 1725: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Fertilizer (Mt Nr/yr) [PART 4/5]

	2005	2006	2007	2008	2009
GLO	84.0	88.1	92.2	91.5	97.2
CAZ	2.8	2.3	2.6	2.5	2.3
CHA	26.9	29.8	31.1	31.7	35.2
EUR	8.4	8.3	8.8	8.0	8.3
IND	11.6	12.5	13.1	13.7	14.2
JPN	0.4	0.4	0.4	0.4	0.3
LAM	5.6	5.7	7.0	6.0	5.8
MEA	3.5	3.4	3.3	3.6	2.9
NEU	1.9	1.9	1.9	1.7	2.0
OAS	9.7	9.6	9.9	10.2	12.1
REF	2.4	2.7	2.9	3.3	3.4
SSA	1.0	1.2	1.0	1.1	1.0
USA	9.8	10.3	10.2	9.4	9.7

Table 1726: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Fertilizer (Mt Nr/yr) [PART 5/5]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	18.4	30.4	40.8	57.1	65.2	71.1	72.3	75.6	85.4	95.8
CAZ	0.3	0.5	0.7	1.2	1.7	1.6	2.3	2.6	2.6	3.0
CHA	1.5	3.1	5.0	11.8	13.5	19.0	23.0	22.1	28.7	31.2
EUR	6.1	9.0	11.0	12.4	13.1	11.0	8.8	9.0	8.6	8.9
IND	0.5	1.3	1.9	3.4	5.5	7.1	9.2	10.1	11.6	15.1
JPN	0.8	0.7	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.3
LAM	0.7	1.3	1.9	2.8	3.4	3.7	3.8	5.3	5.6	6.4
MEA	0.4	0.6	1.0	1.4	2.0	2.3	2.6	3.0	3.2	3.1
NEU	0.2	0.5	0.8	1.2	1.4	1.6	1.3	1.6	1.7	1.5
OAS	0.7	1.6	2.3	3.7	5.1	6.6	7.6	8.9	9.9	10.9
REF	2.1	4.2	6.0	7.3	9.4	7.2	2.2	2.2	2.5	3.4
SSA	0.2	0.4	0.6	0.9	0.9	1.0	0.9	1.0	1.0	1.6
USA	4.8	7.2	9.1	10.3	8.7	9.5	10.2	9.4	9.7	10.3

Table 1727: Bodirsky — Resources—Nitrogen—Cropland Budget—Inputs—Fertilizer (Mt Nr/yr)

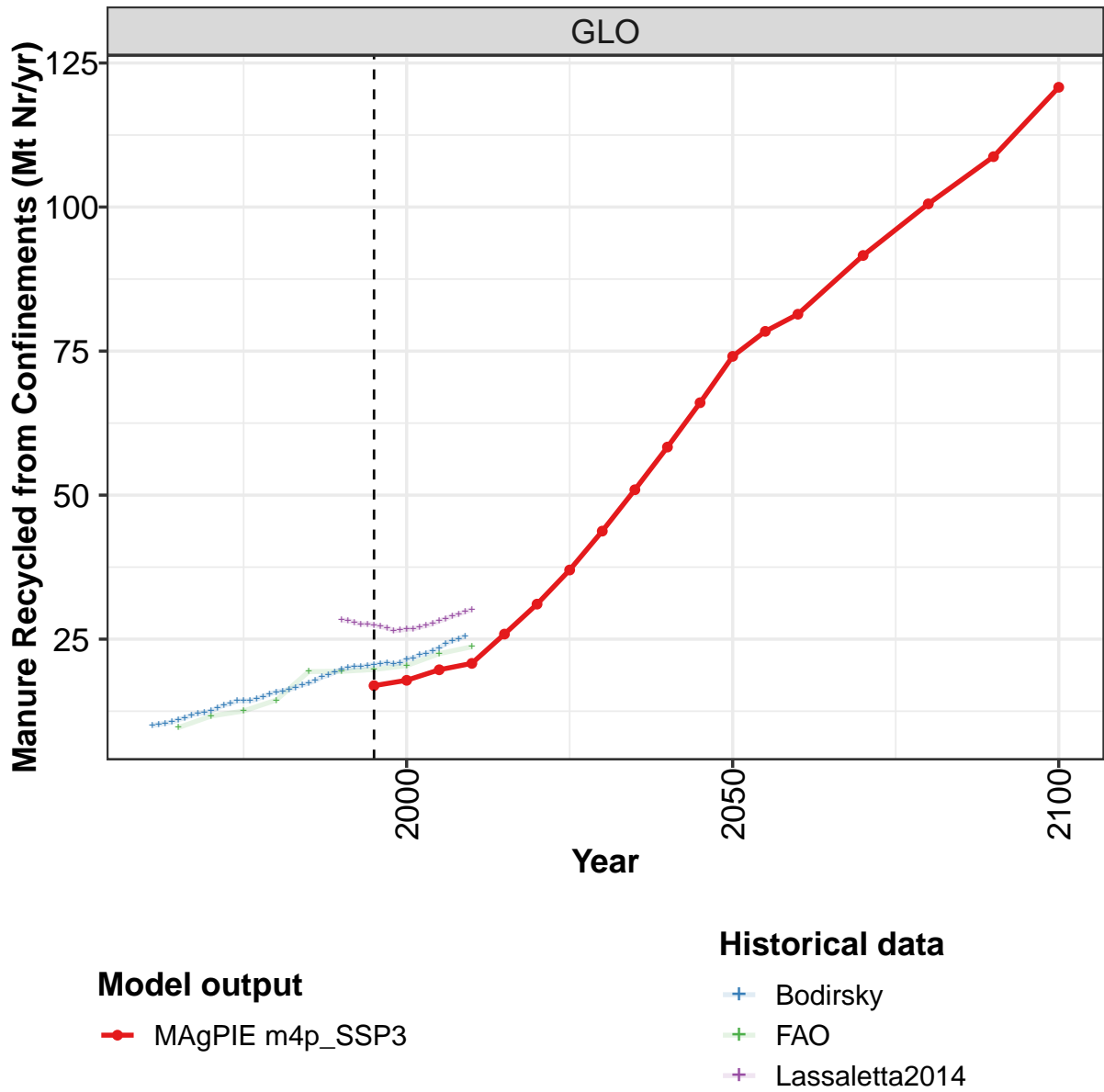
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	77	76	74	72	72	78	82	81	83	85	81
CAZ	2	2	2	2	2	2	3	3	3	3	3
CHA	20	20	20	18	19	24	25	23	23	24	22
EUR	14	12	11	11	12	11	12	12	12	12	11
IND	8	8	8	9	10	10	10	11	11	12	11
JPN	1	1	1	1	1	1	1	0	0	0	0
LAM	4	4	4	4	4	4	4	5	5	5	5
MEA	2	2	3	3	2	3	3	3	3	3	3
NEU	1	1	1	2	1	1	1	1	2	2	2
OAS	7	7	7	7	8	8	8	8	9	9	9
REF	8	8	5	4	3	3	2	3	2	2	2
SSA	1	1	1	1	1	1	1	1	1	1	1
USA	10	10	10	11	11	11	11	11	11	11	10

Table 1728: FAO — Resources—Nitrogen—Cropland Budget—Inputs—Fertilizer (Mt Nr/yr) [PART 1/2]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
GLO	82	86	90	89	90	96	100	99	105	106
CAZ	3	3	3	3	3	2	3	3	3	3
CHA	22	29	28	27	28	31	33	33	37	35
EUR	11	11	12	11	10	10	11	10	10	11
IND	11	10	11	12	13	14	14	15	16	17
JPN	0	1	1	1	1	1	1	0	1	0
LAM	5	5	6	6	6	6	7	6	6	7
MEA	3	3	3	4	4	4	3	4	3	3
NEU	1	2	2	2	2	2	2	2	2	2
OAS	9	9	10	10	10	10	10	11	13	12
REF	3	1	2	2	2	3	3	3	3	3
SSA	1	1	1	1	1	1	1	1	1	1
USA	11	11	12	11	11	12	12	11	11	11

Table 1729: FAO — Resources—Nitrogen—Cropland Budget—Inputs—Fertilizer (Mt Nr/yr) [PART 2/2]

56.1.10 Inputs—Manure Recycled from Confinements



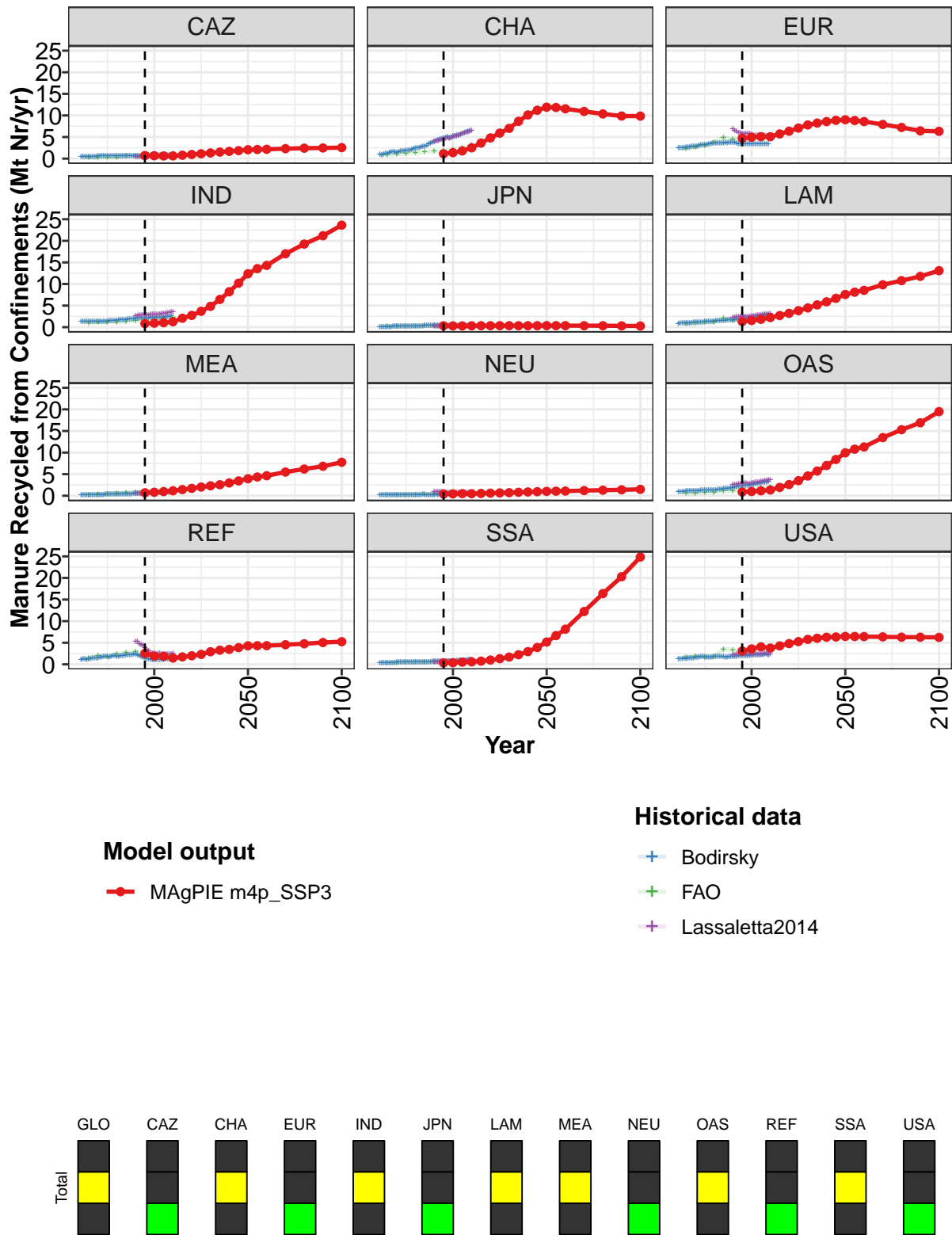


Figure 451: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Manure Recycled from Confinements (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17	18	20	21	26	31	37	44	51	58	66
CAZ	1	1	1	1	1	1	1	1	2	2	2
CHA	1	1	2	2	4	5	6	7	9	10	11
EUR	5	5	5	5	6	6	7	8	8	9	9
IND	1	1	1	1	2	3	4	5	6	8	10
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	1	2	2	2	3	3	4	4	5	6	7
MEA	1	1	1	1	1	2	2	2	3	3	3
NEU	0	0	0	0	1	1	1	1	1	1	1
OAS	1	1	1	1	2	3	3	5	6	7	8
REF	3	2	2	1	2	2	2	3	3	3	4
SSA	0	0	1	1	1	1	1	2	2	3	4
USA	3	4	4	4	4	5	5	6	6	6	6

Table 1730: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Manure Recycled from Confinements (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	74	78	81	92	101	109	121
CAZ	2	2	2	2	2	2	3
CHA	12	12	12	11	10	10	10
EUR	9	9	9	8	7	6	6
IND	12	14	14	17	19	21	24
JPN	0	0	0	0	0	0	0
LAM	8	8	9	10	11	12	13
MEA	4	4	5	5	6	7	8
NEU	1	1	1	1	1	1	1
OAS	10	11	11	13	15	17	19
REF	4	4	4	5	5	5	5
SSA	5	7	8	12	16	20	25
USA	6	6	6	6	6	6	6

Table 1731: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Manure Recycled from Confinements (Mt Nr/yr) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	10.0	10.2	10.4	10.6	11.1	11.4	11.8	12.1	12.2	12.5	13.1
CAZ	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6
CHA	0.9	0.9	1.0	1.1	1.2	1.3	1.5	1.5	1.5	1.4	1.6
EUR	2.5	2.5	2.5	2.5	2.6	2.6	2.7	2.8	2.8	2.8	2.9
IND	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
LAM	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.1
MEA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.2
REF	1.1	1.2	1.2	1.0	1.2	1.3	1.4	1.4	1.4	1.5	1.7
SSA	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
USA	1.2	1.3	1.3	1.4	1.3	1.4	1.4	1.5	1.5	1.6	1.6

Table 1732: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Manure Recycled from Confinements (Mt Nr/yr) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	13.5	13.9	14.3	14.3	14.3	14.6	15.1	15.5	15.8	16.0	16.3
CAZ	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
CHA	1.7	1.8	1.8	1.9	1.9	1.9	2.1	2.2	2.4	2.5	2.5
EUR	3.0	3.1	3.2	3.2	3.3	3.3	3.4	3.5	3.5	3.5	3.5
IND	1.3	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.6	1.6	1.7
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
LAM	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.5
MEA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
OAS	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.4
REF	1.7	1.7	1.8	1.8	1.7	1.9	1.9	1.9	1.9	1.9	1.9
SSA	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
USA	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.7

Table 1733: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Manure Recycled from Confinements (Mt Nr/yr) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	16.6	17.1	17.4	17.8	18.4	18.8	19.3	19.7	20.0	20.2	20.2
CAZ	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
CHA	2.6	2.7	2.9	3.0	3.4	3.6	3.8	3.9	4.2	4.3	4.5
EUR	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.5	3.4
IND	1.7	1.7	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.1	2.1
JPN	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
LAM	1.5	1.5	1.5	1.5	1.6	1.6	1.7	1.7	1.7	1.8	1.8
MEA	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
NEU	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
OAS	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.1
REF	2.0	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.0	1.9
SSA	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
USA	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.9	1.9

Table 1734: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Manure Recycled from Confinements (Mt Nr/yr) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	20.4	20.6	20.7	20.9	20.7	20.9	21.6	21.7	22.2	22.5	23.0
CAZ	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.9
CHA	4.6	4.7	4.9	5.0	4.8	4.8	5.2	5.3	5.4	5.4	5.6
EUR	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
IND	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
JPN	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
LAM	1.9	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.3	2.4	2.5
MEA	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.7	0.7	0.8	0.8
NEU	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
OAS	2.2	2.3	2.3	2.4	2.3	2.4	2.6	2.6	2.7	2.8	2.9
REF	1.7	1.5	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.2	1.1
SSA	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
USA	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1

Table 1735: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Manure Recycled from Confinements (Mt Nr/yr) [PART 4/5]

	2005	2006	2007	2008	2009
GLO	23.5	24.2	24.7	25.1	25.5
CAZ	0.9	0.9	0.9	0.8	0.8
CHA	5.7	6.0	6.1	6.3	6.5
EUR	3.4	3.4	3.4	3.4	3.4
IND	2.3	2.4	2.4	2.5	2.6
JPN	0.3	0.3	0.3	0.3	0.3
LAM	2.5	2.7	2.7	2.8	2.9
MEA	0.8	0.9	0.9	0.9	0.9
NEU	0.3	0.3	0.3	0.3	0.3
OAS	2.9	3.1	3.2	3.2	3.3
REF	1.1	1.2	1.2	1.2	1.2
SSA	0.9	0.9	1.0	1.0	1.0
USA	2.2	2.3	2.3	2.3	2.2

Table 1736: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Inputs—Manure Recycled from Confinements (Mt Nr/yr) [PART 5/5]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	9.6	11.6	12.5	14.4	19.4	19.4	19.7	20.4	22.5	23.7
CAZ	0.3	0.3	0.3	0.3	0.6	0.7	0.7	0.7	0.7	0.7
CHA	0.9	1.0	1.2	1.3	1.5	1.7	1.8	2.1	2.4	3.1
EUR	2.2	2.7	3.1	3.7	4.8	4.4	4.5	4.6	4.7	4.7
IND	1.0	1.2	1.2	1.2	1.3	1.5	1.7	1.8	2.0	2.3
JPN	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3
LAM	0.7	0.9	1.1	1.2	2.0	1.6	1.7	1.9	2.2	2.5
MEA	0.2	0.4	0.4	0.5	0.7	0.7	0.8	0.9	1.1	1.3
NEU	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.5	0.5
OAS	0.5	0.6	0.7	0.8	1.0	1.2	1.4	1.5	1.8	2.1
REF	1.5	2.0	1.9	2.4	2.7	3.0	2.5	1.7	1.7	1.3
SSA	0.3	0.4	0.5	0.5	0.5	0.6	0.7	0.8	0.9	1.1
USA	1.7	1.8	1.7	1.8	3.5	3.4	3.2	3.7	4.1	3.8

Table 1737: Bodirsky — Resources—Nitrogen—Cropland Budget—Inputs—Manure Recycled from Confinements (Mt Nr/yr)

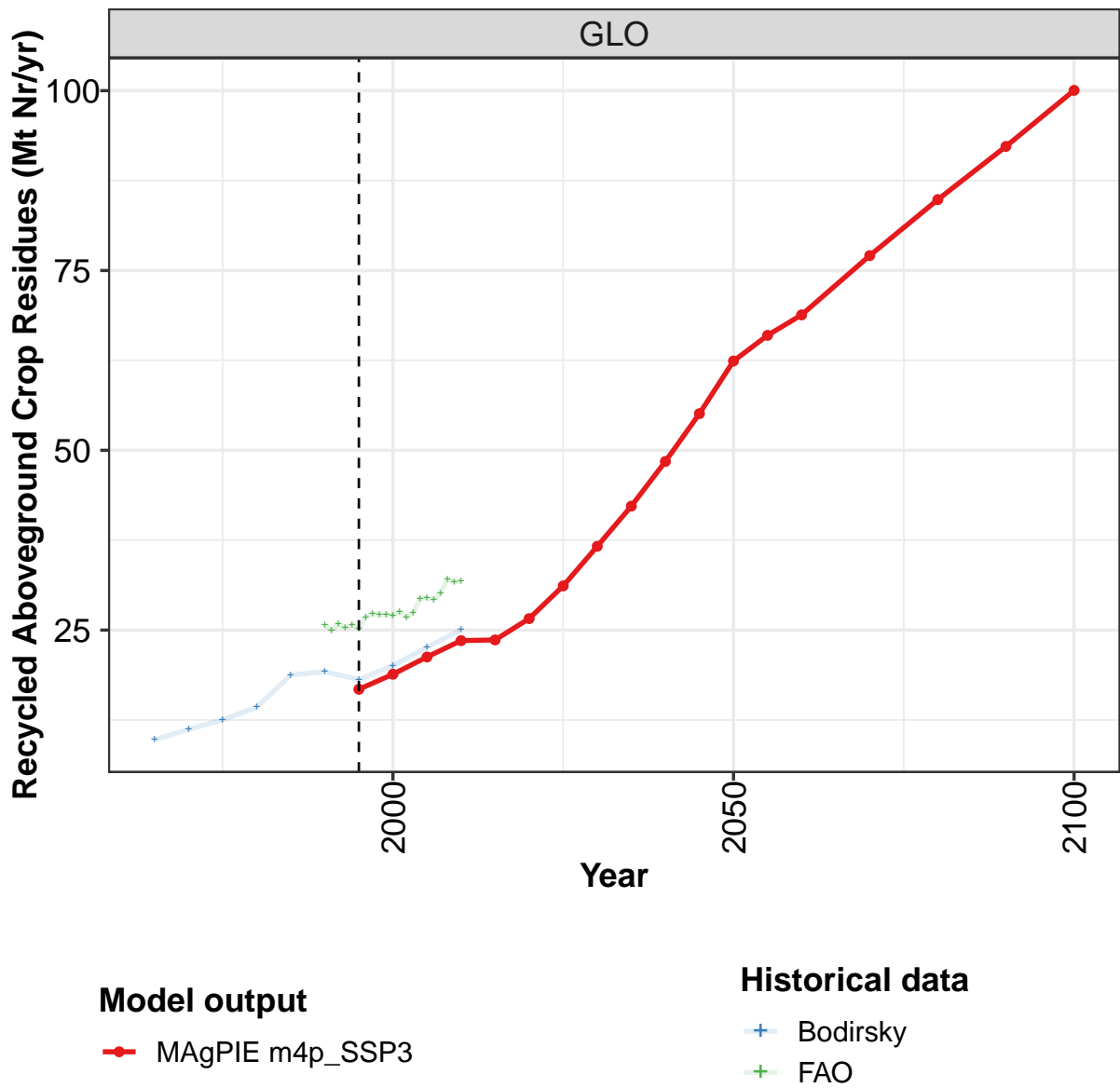
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	28.3	28.2	27.9	27.6	27.6	27.5	27.2	27.0	26.5	26.6	26.7
CAZ	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
CHA	4.0	4.1	4.1	4.2	4.4	4.6	4.8	4.9	4.7	4.9	5.0
EUR	6.8	6.6	6.3	6.0	5.9	5.8	5.8	5.8	5.7	5.7	5.6
IND	2.6	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	2.3	2.3	2.4	2.4	2.5	2.5	2.4	2.4	2.4	2.5	2.6
MEA	0.6	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
NEU	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
OAS	2.5	2.6	2.6	2.7	2.8	2.8	2.9	2.9	2.8	2.8	2.9
REF	5.3	5.2	4.8	4.6	4.3	3.8	3.4	3.0	2.7	2.6	2.5
SSA	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
USA	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4

Table 1738: FAO — Resources—Nitrogen—Cropland Budget—Inputs—Manure Recycled from Confinements (Mt Nr/yr) [PART 1/2]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
GLO	26.8	27.1	27.3	27.7	28.1	28.6	29.0	29.3	29.8	30.1
CAZ	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4
CHA	5.2	5.3	5.4	5.6	5.8	6.0	6.1	6.2	6.3	6.5
EUR	5.5	5.4	5.4	5.4	5.4	5.3	5.3	5.3	5.2	5.2
IND	3.0	3.0	3.0	3.1	3.2	3.2	3.3	3.4	3.4	3.5
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	2.6	2.7	2.7	2.8	2.9	2.9	2.9	3.0	3.1	3.1
MEA	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.9
NEU	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
OAS	2.9	3.0	3.1	3.2	3.2	3.4	3.5	3.6	3.7	3.7
REF	2.4	2.4	2.5	2.4	2.3	2.3	2.4	2.4	2.4	2.5
SSA	0.7	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.0
USA	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.4	2.4

Table 1739: FAO — Resources—Nitrogen—Cropland Budget—Inputs—Manure Recycled from Confinements (Mt Nr/yr) [PART 2/2]

56.1.11 Inputs—Recycled Aboveground Crop Residues



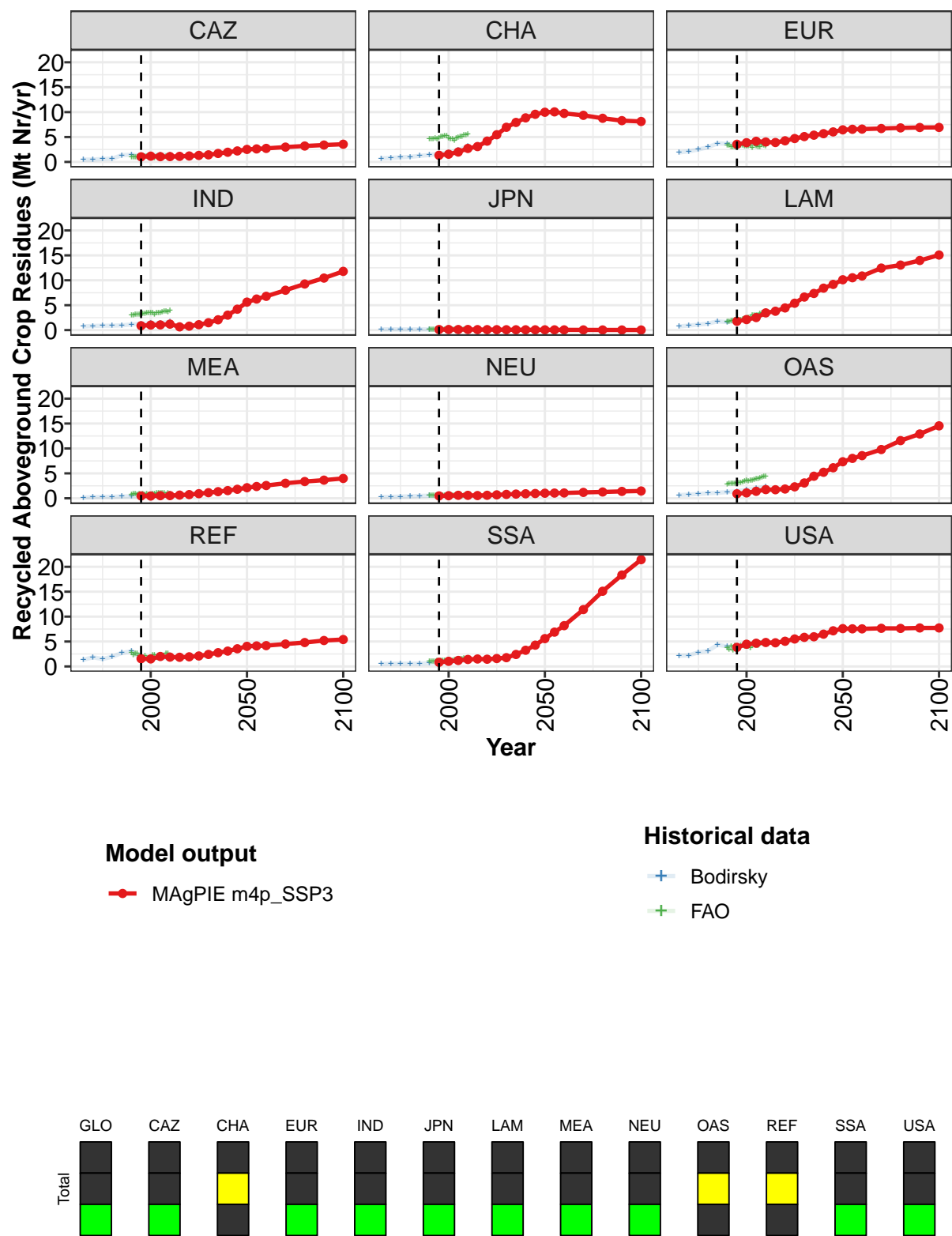


Figure 452: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Aboveground Crop Residues (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17	19	21	24	24	27	31	37	42	48	55
CAZ	1	1	1	1	1	1	1	1	2	2	2
CHA	1	2	2	3	3	4	5	7	8	9	10
EUR	4	4	4	4	4	4	5	5	5	6	6
IND	1	1	1	1	1	1	1	1	2	3	4
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	2	2	3	3	4	4	5	7	7	8	9
MEA	0	0	1	1	1	1	1	1	1	2	2
NEU	0	1	1	1	1	1	1	1	1	1	1
OAS	1	1	1	2	2	2	2	3	4	5	6
REF	2	2	2	2	2	2	2	2	3	3	4
SSA	1	1	1	1	1	1	2	2	2	3	4
USA	4	4	5	5	5	5	6	6	6	6	7

Table 1740: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Aboveground Crop Residues (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	62	66	69	77	85	92	100
CAZ	3	3	3	3	3	3	4
CHA	10	10	10	9	9	8	8
EUR	6	7	7	7	7	7	7
IND	6	6	7	8	9	10	12
JPN	0	0	0	0	0	0	0
LAM	10	11	11	12	13	14	15
MEA	2	2	3	3	3	4	4
NEU	1	1	1	1	1	1	1
OAS	7	8	9	10	12	13	15
REF	4	4	4	4	5	5	5
SSA	6	7	8	11	15	18	21
USA	8	8	8	8	8	8	8

Table 1741: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Aboveground Crop Residues (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	9.7	11.2	12.5	14.3	18.7	19.2	18.1	20.0	22.6	25.0
CAZ	0.5	0.5	0.6	0.7	1.4	1.4	1.3	1.4	1.5	1.5
CHA	0.7	0.8	0.9	1.0	1.2	1.4	1.7	1.9	2.3	3.2
EUR	1.9	2.1	2.5	3.0	3.7	3.6	3.5	3.8	4.0	4.0
IND	0.7	0.8	0.9	0.9	1.0	1.1	1.3	1.4	1.4	1.7
JPN	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1
LAM	0.7	0.9	1.1	1.3	1.8	1.6	1.8	2.1	2.5	3.4
MEA	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.6	0.6
NEU	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.6	0.6
OAS	0.6	0.7	0.9	1.0	1.1	1.2	1.4	1.7	2.0	2.4
REF	1.3	1.8	1.5	2.0	2.7	3.0	1.6	1.4	1.8	1.6
SSA	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.8	1.0	1.2
USA	2.1	2.2	2.9	3.1	4.4	4.0	3.8	4.5	4.8	4.8

Table 1742: Bodirsky — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Aboveground Crop Residues (Mt Nr/yr)

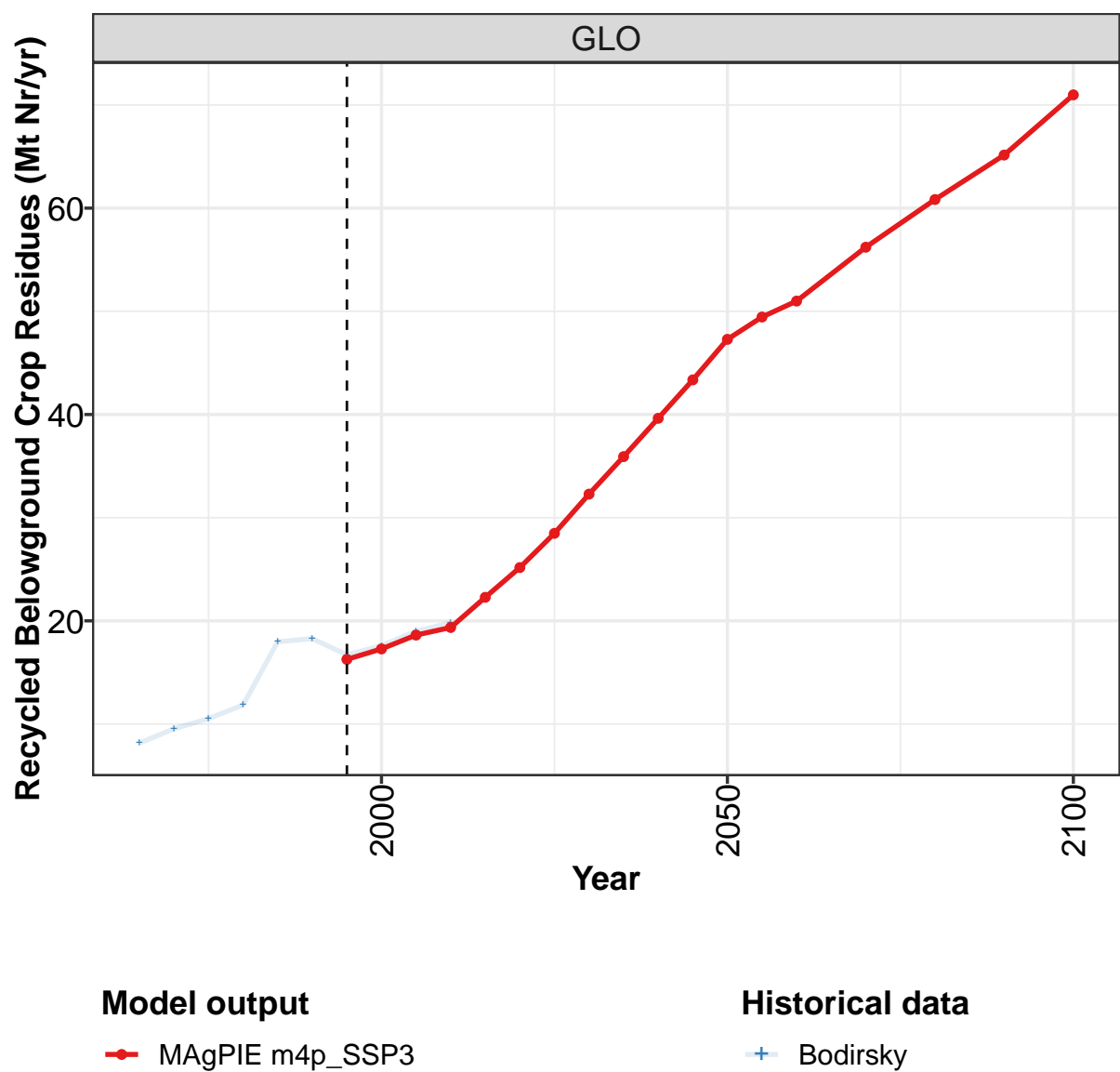
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	25.8	24.9	25.8	25.3	25.7	25.2	26.8	27.3	27.1	27.1	27.0
CAZ	1.0	1.0	1.0	1.0	0.8	1.0	1.2	1.1	1.1	1.2	1.1
CHA	4.7	4.6	4.7	4.8	4.6	4.8	5.1	5.2	5.2	5.2	4.7
EUR	3.3	3.4	3.0	3.0	3.0	3.0	3.2	3.4	3.4	3.2	3.2
IND	3.0	3.0	3.1	3.2	3.2	3.2	3.3	3.4	3.4	3.5	3.5
JPN	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
LAM	1.8	1.7	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.3	2.4
MEA	0.7	0.9	0.8	0.8	0.9	0.8	1.0	0.8	0.9	0.7	0.7
NEU	0.6	0.6	0.5	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.5
OAS	2.9	2.9	3.0	3.0	3.0	3.1	3.2	3.2	3.3	3.5	3.5
REF	2.8	2.3	2.7	2.6	2.1	1.9	1.9	2.2	1.5	1.7	1.8
SSA	1.0	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2
USA	3.8	3.4	4.1	3.3	4.2	3.5	4.0	4.1	4.3	4.1	4.2

Table 1743: FAO — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Aboveground Crop Residues (Mt Nr/yr) [PART 1/2]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
GLO	27.6	26.8	27.4	29.4	29.5	29.2	30.1	32.1	31.7	31.8
CAZ	1.1	0.8	1.2	1.1	1.2	0.9	1.0	1.2	1.1	1.1
CHA	4.6	4.6	4.4	4.7	4.9	5.1	5.1	5.3	5.4	5.5
EUR	3.2	3.3	2.9	3.6	3.2	3.1	3.0	3.5	3.3	3.1
IND	3.5	3.2	3.5	3.4	3.5	3.6	3.8	3.9	3.7	3.9
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	2.6	2.6	3.0	3.0	3.0	3.1	3.4	3.4	3.1	3.7
MEA	0.8	0.9	1.0	1.0	1.1	1.1	1.0	0.8	1.0	1.0
NEU	0.5	0.6	0.5	0.6	0.6	0.6	0.5	0.5	0.6	0.6
OAS	3.5	3.5	3.7	3.7	3.9	3.9	4.1	4.2	4.4	4.4
REF	2.2	2.3	1.8	2.2	2.2	2.2	2.2	2.7	2.6	1.9
SSA	1.2	1.3	1.3	1.3	1.4	1.5	1.5	1.6	1.5	1.7
USA	4.0	3.7	4.1	4.6	4.4	4.1	4.6	4.7	4.9	4.7

Table 1744: FAO — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Aboveground Crop Residues (Mt Nr/yr) [PART 2/2]

56.1.12 Inputs—Recycled Belowground Crop Residues



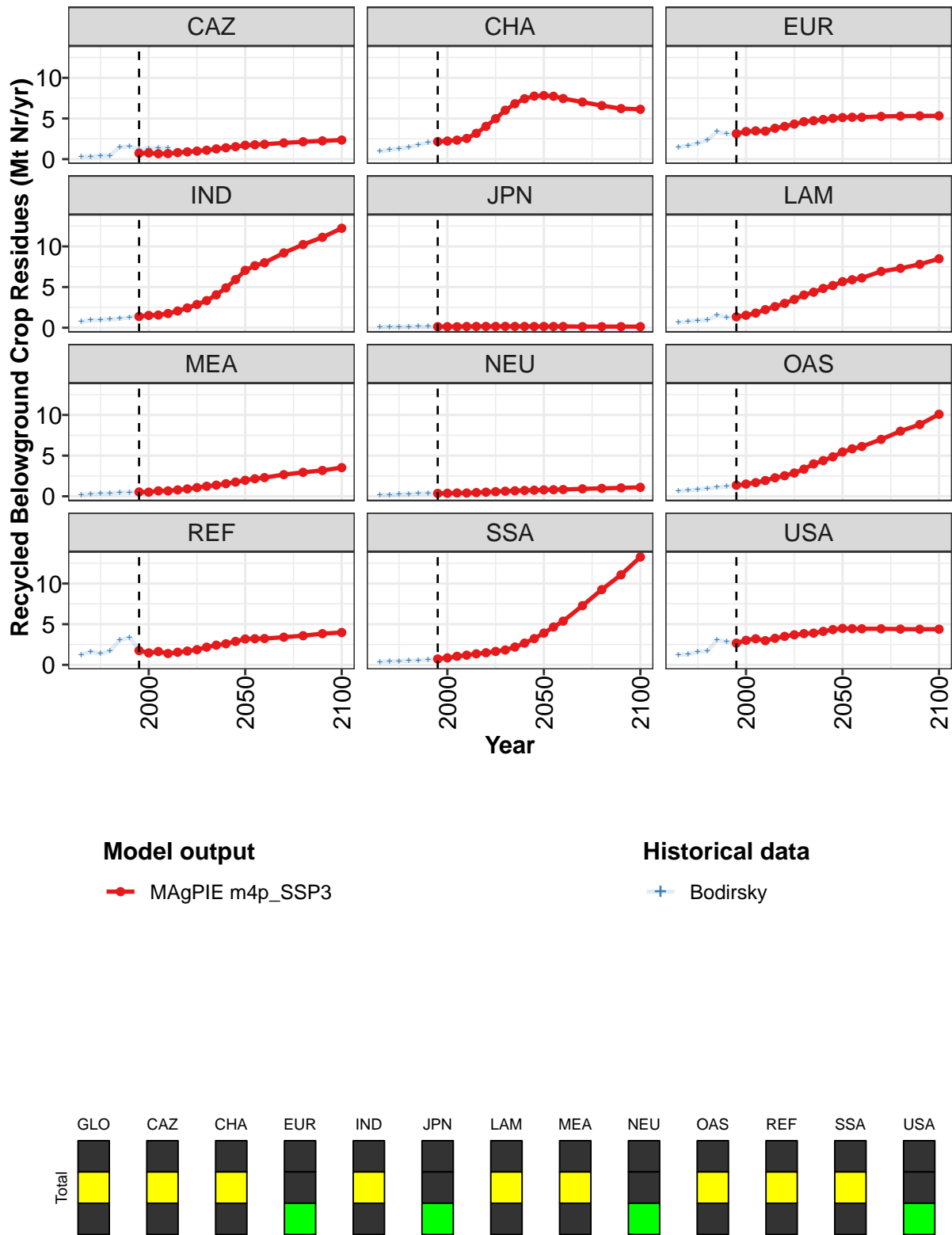


Figure 453: MAGPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Belowground Crop Residues (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	16.3	17.3	18.6	19.4	22.3	25.2	28.5	32.3	35.9	39.6	43.4
CAZ	0.7	0.8	0.7	0.7	0.8	0.9	1.0	1.1	1.3	1.4	1.5
CHA	2.2	2.2	2.3	2.5	3.2	4.0	5.0	6.0	6.8	7.4	7.8
EUR	3.1	3.4	3.5	3.4	3.8	4.0	4.3	4.6	4.7	4.9	5.0
IND	1.4	1.5	1.6	1.7	2.1	2.4	2.9	3.3	4.0	4.9	5.9
JPN	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	1.3	1.5	1.8	2.2	2.6	3.0	3.5	4.0	4.4	4.8	5.2
MEA	0.5	0.5	0.7	0.7	0.8	0.9	1.1	1.2	1.4	1.6	1.7
NEU	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8
OAS	1.4	1.5	1.7	1.9	2.3	2.5	2.9	3.3	4.0	4.4	4.9
REF	1.8	1.5	1.6	1.4	1.6	1.7	1.9	2.2	2.4	2.6	2.9
SSA	0.7	0.9	1.1	1.2	1.4	1.5	1.7	1.8	2.2	2.7	3.2
USA	2.7	3.0	3.2	3.0	3.3	3.5	3.7	3.8	3.9	4.1	4.3

Table 1745: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Belowground Crop Residues (Mt Nr/yr) [PART 1/2]

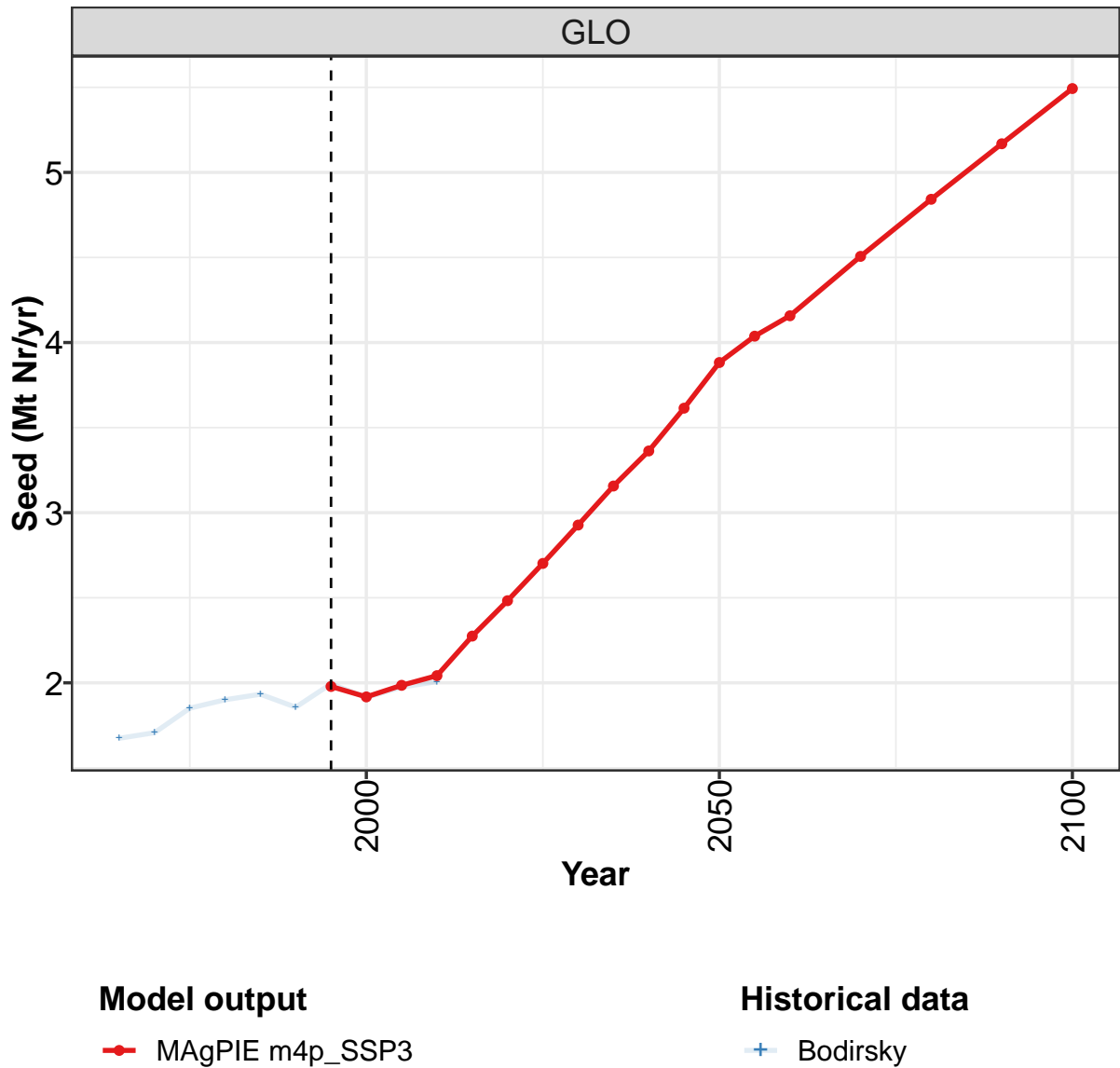
	2050	2055	2060	2070	2080	2090	2100
GLO	47.3	49.4	51.0	56.2	60.8	65.1	71.0
CAZ	1.7	1.8	1.8	2.0	2.1	2.2	2.3
CHA	7.8	7.7	7.5	7.0	6.6	6.2	6.1
EUR	5.1	5.2	5.2	5.3	5.3	5.3	5.3
IND	7.1	7.6	8.0	9.2	10.2	11.1	12.2
JPN	0.2	0.2	0.2	0.1	0.1	0.1	0.1
LAM	5.7	5.9	6.1	6.9	7.3	7.8	8.5
MEA	2.0	2.2	2.3	2.7	2.9	3.2	3.5
NEU	0.8	0.8	0.8	0.9	1.0	1.0	1.1
OAS	5.4	5.8	6.1	7.0	8.0	8.8	10.1
REF	3.2	3.2	3.2	3.4	3.6	3.8	4.0
SSA	3.9	4.7	5.4	7.3	9.3	11.1	13.3
USA	4.5	4.4	4.4	4.4	4.4	4.4	4.4

Table 1746: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Belowground Crop Residues (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	8.2	9.5	10.5	11.8	18.0	18.3	16.7	17.6	19.0	19.8
CAZ	0.3	0.3	0.4	0.4	1.5	1.6	1.2	1.3	1.4	1.3
CHA	1.0	1.1	1.3	1.4	1.8	2.0	2.2	2.3	2.4	2.6
EUR	1.5	1.7	1.9	2.3	3.4	3.1	3.0	3.2	3.3	3.3
IND	0.8	0.9	1.0	1.0	1.1	1.3	1.4	1.6	1.6	1.8
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.6	0.8	0.9	1.0	1.6	1.3	1.3	1.5	1.7	2.1
MEA	0.2	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.7	0.7
NEU	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4
OAS	0.7	0.7	0.8	1.0	1.1	1.2	1.3	1.5	1.7	2.0
REF	1.3	1.6	1.4	1.7	3.0	3.4	1.9	1.4	1.6	1.2
SSA	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.8	1.0	1.2
USA	1.2	1.3	1.6	1.7	3.1	2.8	2.7	3.0	3.2	3.0

Table 1747: Bodirsky — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Belowground Crop Residues (Mt Nr/yr)

56.1.13 Inputs—Seed



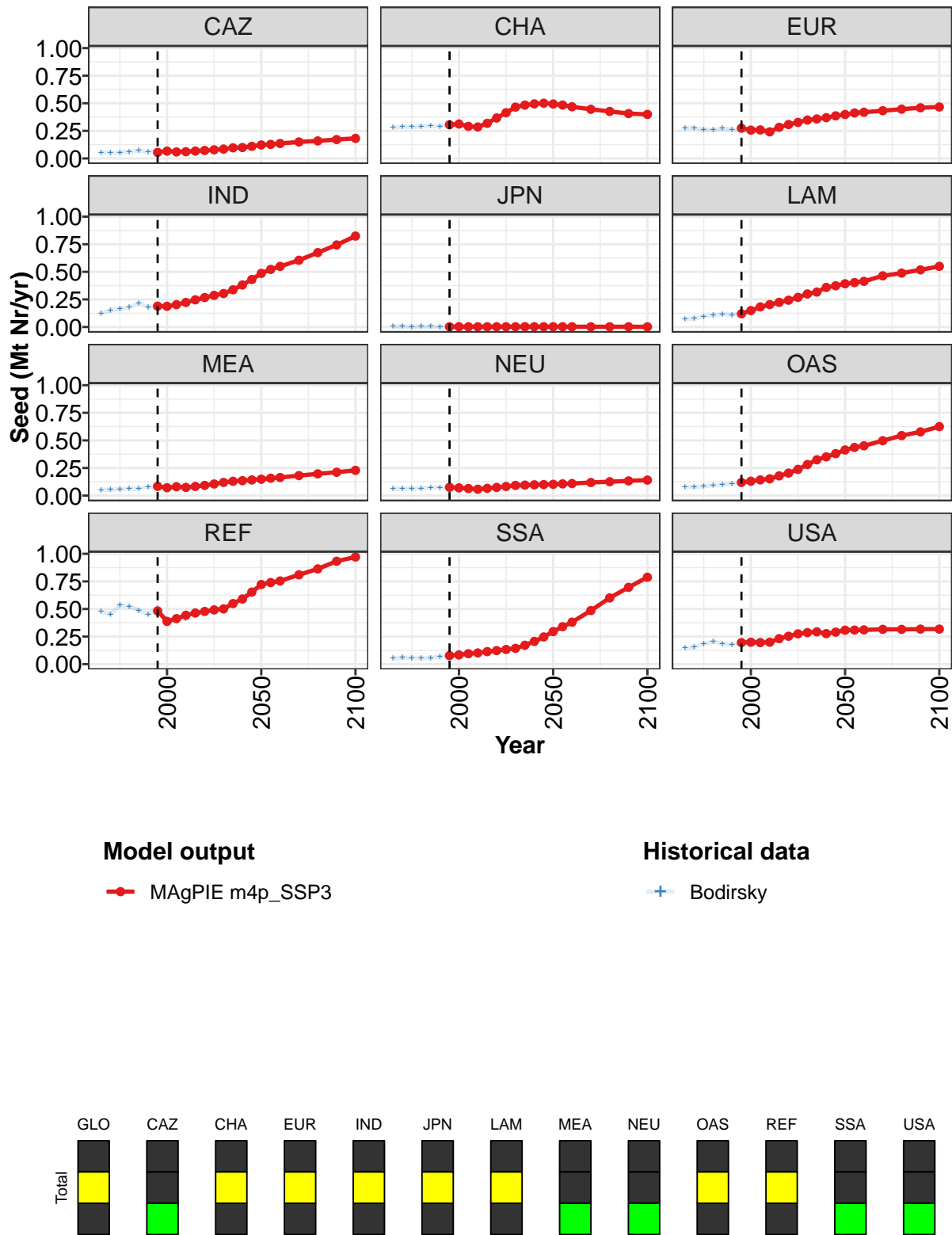


Figure 454: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Seed (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.98	1.92	1.99	2.04	2.27	2.48	2.70	2.93	3.16	3.36	3.61
CAZ	0.05	0.07	0.06	0.06	0.07	0.07	0.08	0.08	0.10	0.10	0.11
CHA	0.31	0.31	0.29	0.29	0.32	0.37	0.41	0.47	0.48	0.49	0.50
EUR	0.27	0.26	0.26	0.24	0.28	0.31	0.33	0.35	0.36	0.37	0.39
IND	0.19	0.19	0.20	0.22	0.25	0.27	0.29	0.30	0.34	0.38	0.43
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.12	0.15	0.18	0.20	0.22	0.24	0.27	0.30	0.32	0.36	0.37
MEA	0.08	0.07	0.08	0.07	0.08	0.09	0.11	0.12	0.13	0.14	0.14
NEU	0.08	0.07	0.06	0.06	0.07	0.07	0.08	0.09	0.10	0.10	0.10
OAS	0.12	0.13	0.14	0.15	0.18	0.20	0.24	0.28	0.32	0.35	0.38
REF	0.48	0.39	0.41	0.44	0.46	0.48	0.49	0.50	0.55	0.59	0.65
SSA	0.08	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.17	0.21	0.25
USA	0.20	0.20	0.20	0.20	0.23	0.25	0.27	0.29	0.29	0.28	0.29

Table 1748: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Seed (Mt Nr/yr) [PART 1/2]

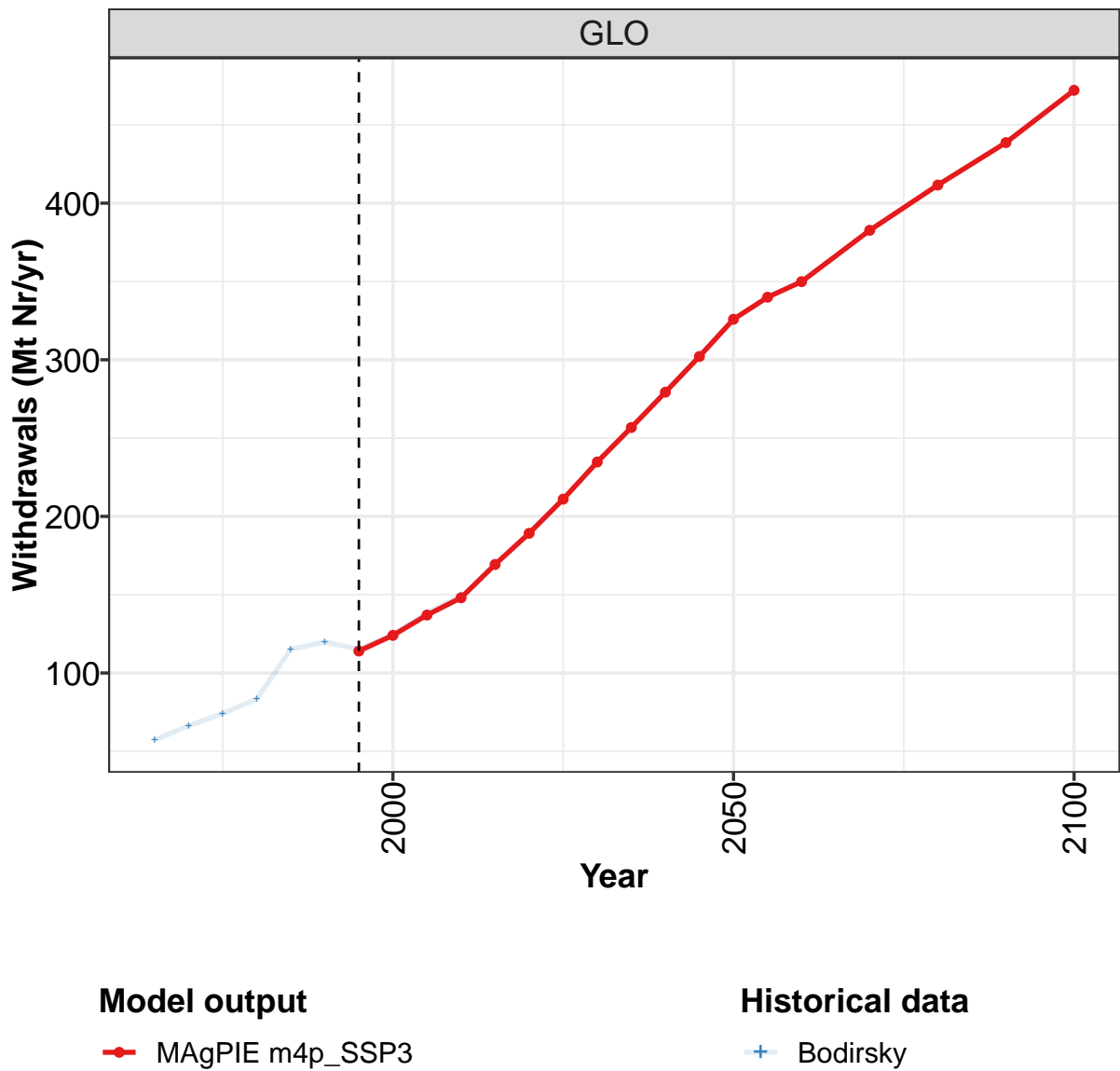
	2050	2055	2060	2070	2080	2090	2100
GLO	3.88	4.04	4.16	4.51	4.84	5.17	5.49
CAZ	0.12	0.13	0.14	0.15	0.16	0.17	0.18
CHA	0.49	0.48	0.47	0.45	0.43	0.41	0.40
EUR	0.40	0.41	0.42	0.43	0.45	0.46	0.47
IND	0.49	0.52	0.55	0.61	0.67	0.74	0.82
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.39	0.40	0.41	0.46	0.49	0.52	0.55
MEA	0.15	0.16	0.16	0.18	0.20	0.21	0.23
NEU	0.10	0.11	0.11	0.12	0.13	0.13	0.14
OAS	0.41	0.44	0.45	0.50	0.54	0.58	0.63
REF	0.72	0.74	0.75	0.81	0.86	0.93	0.97
SSA	0.30	0.34	0.38	0.49	0.60	0.70	0.79
USA	0.31	0.31	0.31	0.32	0.32	0.32	0.32

Table 1749: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Inputs—Seed (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.67	1.71	1.85	1.90	1.93	1.86	1.99	1.91	1.97	2.01
CAZ	0.05	0.05	0.05	0.06	0.07	0.06	0.07	0.07	0.07	0.07
CHA	0.28	0.29	0.29	0.29	0.29	0.29	0.31	0.31	0.29	0.29
EUR	0.28	0.28	0.26	0.26	0.27	0.26	0.26	0.24	0.24	0.22
IND	0.12	0.15	0.16	0.18	0.21	0.18	0.19	0.19	0.20	0.22
JPN	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.07	0.08	0.10	0.10	0.11	0.11	0.12	0.14	0.17	0.20
MEA	0.05	0.05	0.06	0.06	0.07	0.08	0.08	0.07	0.08	0.07
NEU	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.05
OAS	0.08	0.08	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15
REF	0.48	0.45	0.54	0.52	0.49	0.45	0.51	0.39	0.41	0.41
SSA	0.05	0.06	0.06	0.05	0.06	0.07	0.08	0.08	0.09	0.10
USA	0.14	0.16	0.18	0.20	0.18	0.18	0.20	0.21	0.21	0.21

Table 1750: Bodirsky — Resources—Nitrogen—Cropland Budget—Inputs—Seed (Mt Nr/yr)

56.1.14 Withdrawals



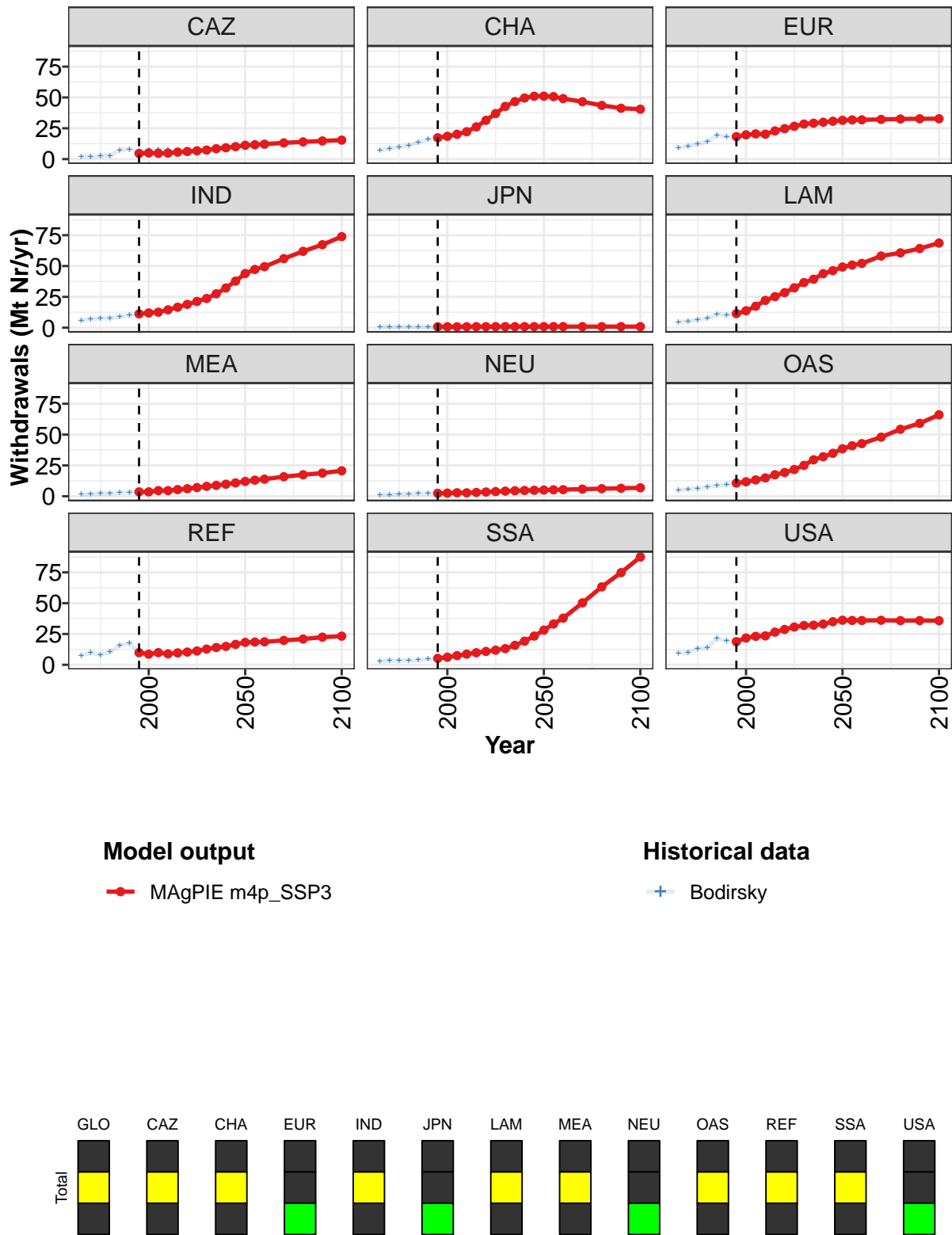


Figure 455: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Withdrawals (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	114	124	137	148	169	189	211	235	257	279	302
CAZ	5	5	5	5	6	6	7	7	8	9	10
CHA	17	19	20	22	26	31	37	43	47	50	51
EUR	18	20	20	20	23	25	27	28	29	30	31
IND	11	12	13	14	17	19	21	24	27	32	38
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	11	14	17	22	25	28	32	37	39	44	46
MEA	4	4	5	5	5	6	7	8	9	10	11
NEU	2	3	3	3	3	3	4	4	4	5	5
OAS	11	12	13	15	17	19	22	25	30	32	35
REF	10	9	10	9	10	10	11	13	14	15	17
SSA	5	6	7	9	10	11	12	13	16	19	23
USA	19	22	23	23	27	29	31	32	32	33	35

Table 1751: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Withdrawals (Mt Nr/yr) [PART 1/2]

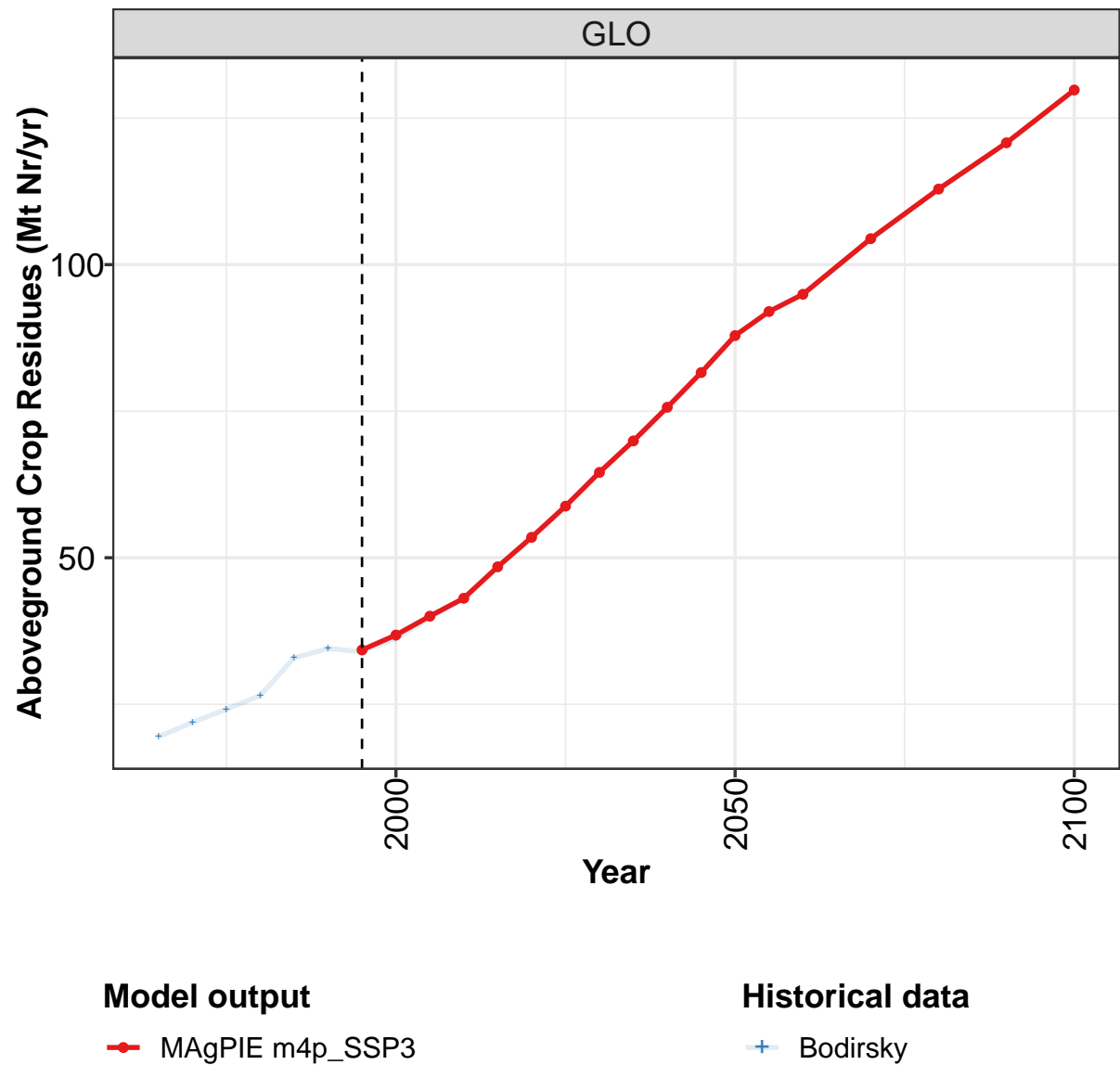
	2050	2055	2060	2070	2080	2090	2100
GLO	326	340	350	383	412	439	472
CAZ	11	12	12	13	14	15	15
CHA	51	51	49	47	44	41	40
EUR	31	32	32	32	33	33	33
IND	44	47	49	56	62	67	74
JPN	1	1	1	1	1	1	1
LAM	49	51	52	58	61	64	69
MEA	12	13	14	16	17	19	21
NEU	5	5	5	6	6	6	7
OAS	38	41	43	48	54	59	66
REF	18	18	19	20	21	22	23
SSA	28	33	38	50	63	75	87
USA	36	36	36	36	36	36	36

Table 1752: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Withdrawals (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	57	66	74	83	115	120	115	125	138	149
CAZ	2	2	3	3	7	8	7	7	8	8
CHA	7	9	10	11	14	16	17	19	20	23
EUR	9	10	12	14	19	18	17	19	19	19
IND	6	7	7	8	9	10	12	12	13	15
JPN	1	1	1	1	1	1	1	1	1	1
LAM	4	5	7	8	11	10	11	13	17	21
MEA	1	2	2	2	3	3	3	3	5	5
NEU	1	1	2	2	2	3	2	2	3	3
OAS	5	6	6	7	9	9	10	12	13	15
REF	7	10	8	10	16	18	10	8	9	8
SSA	3	3	3	4	4	4	5	6	7	8
USA	10	10	13	14	21	20	19	22	24	24

Table 1753: Bodirsky — Resources—Nitrogen—Cropland Budget—Withdrawals (Mt Nr/yr)

56.1.15 Withdrawals—Aboveground Crop Residues



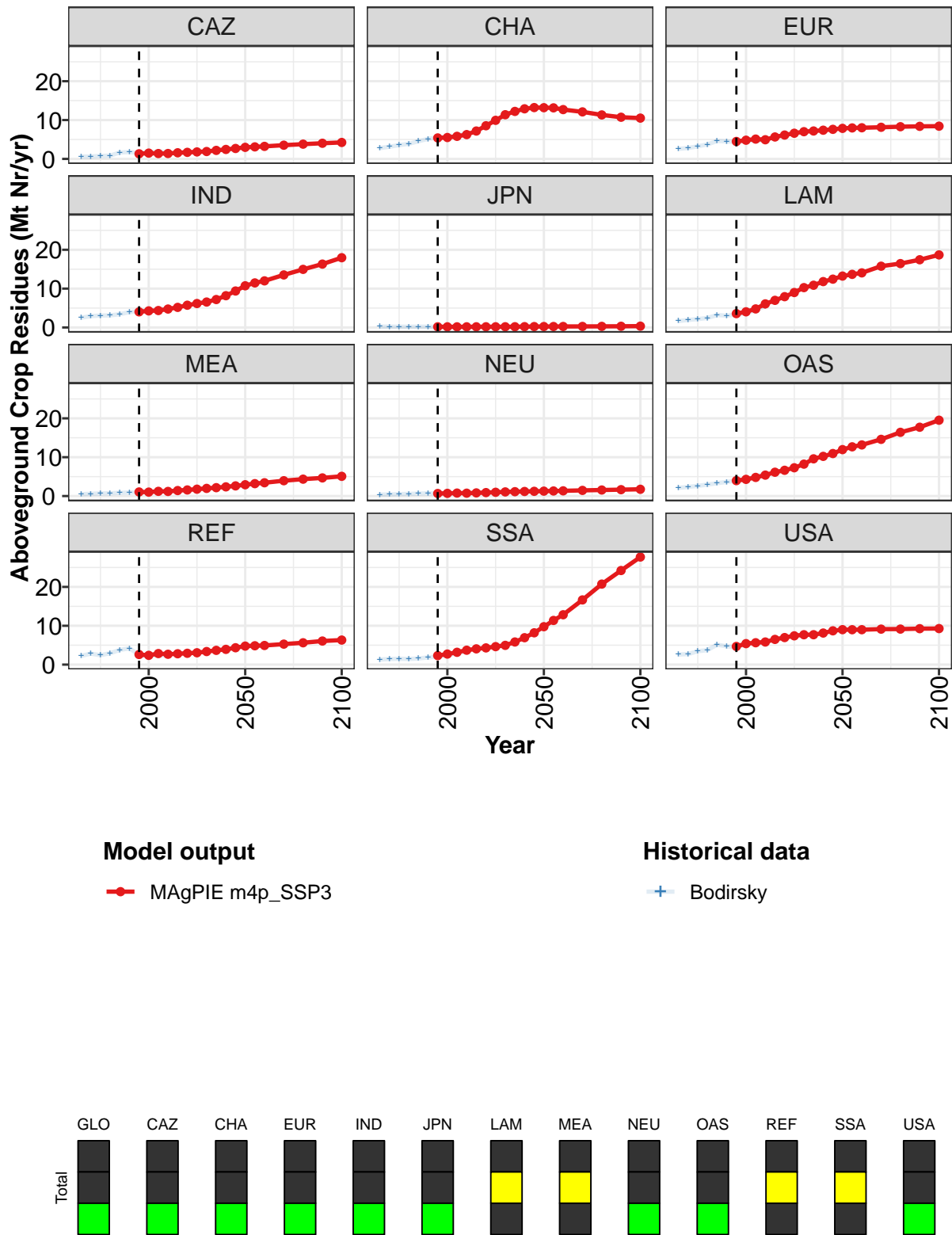


Figure 456: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Withdrawals—Aboveground Crop Residues (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34	37	40	43	48	53	59	65	70	76	82
CAZ	1	1	1	1	2	2	2	2	2	2	3
CHA	5	6	6	6	7	9	10	11	12	13	13
EUR	4	5	5	5	6	6	7	7	7	7	8
IND	4	4	4	5	5	6	6	7	7	8	9
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	4	4	5	6	7	8	9	10	11	12	12
MEA	1	1	1	1	1	2	2	2	2	2	3
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	4	4	5	5	6	7	7	8	10	10	11
REF	3	2	3	3	3	3	3	3	4	4	4
SSA	2	3	3	4	4	4	5	5	6	7	8
USA	5	5	6	6	6	7	7	8	8	8	9

Table 1754: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Withdrawals—Aboveground Crop Residues (Mt Nr/yr) [PART 1/2]

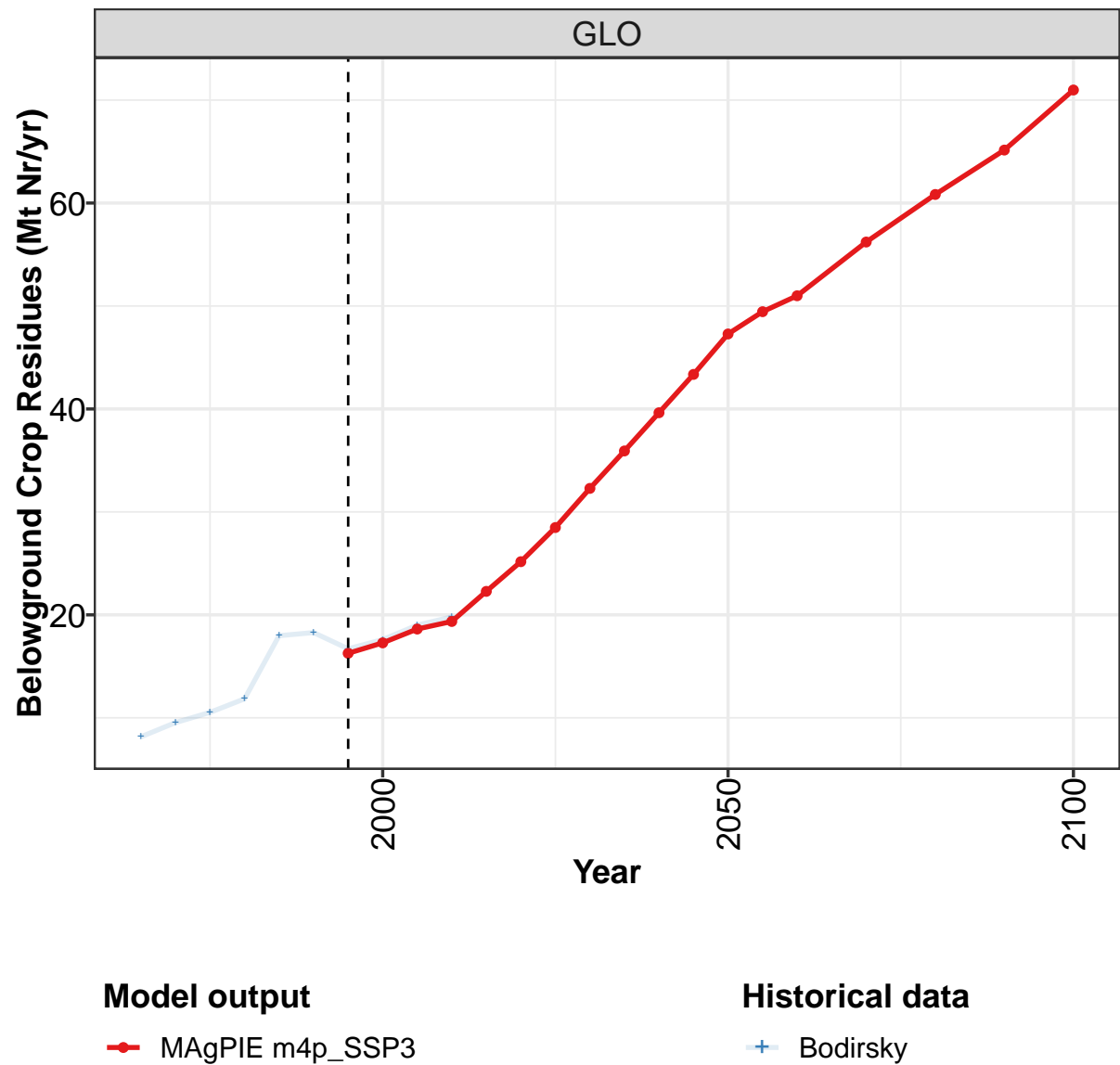
	2050	2055	2060	2070	2080	2090	2100
GLO	88	92	95	104	113	121	130
CAZ	3	3	3	4	4	4	4
CHA	13	13	13	12	11	11	11
EUR	8	8	8	8	8	8	8
IND	11	11	12	14	15	16	18
JPN	0	0	0	0	0	0	0
LAM	13	14	14	16	16	17	19
MEA	3	3	3	4	4	5	5
NEU	1	1	1	1	2	2	2
OAS	12	13	13	15	16	18	20
REF	5	5	5	5	6	6	6
SSA	10	11	13	17	21	24	28
USA	9	9	9	9	9	9	9

Table 1755: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Withdrawals—Aboveground Crop Residues (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	19.5	21.9	24.1	26.5	32.9	34.5	33.9	36.2	39.7	43.0
CAZ	0.6	0.6	0.8	0.8	1.7	1.7	1.6	1.8	1.8	1.8
CHA	2.8	3.1	3.5	3.9	4.6	5.1	5.5	5.7	6.0	6.6
EUR	2.6	2.8	3.2	3.7	4.6	4.5	4.3	4.6	4.8	4.8
IND	2.5	2.9	3.1	3.1	3.4	3.9	4.3	4.4	4.5	5.1
JPN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	1.7	1.9	2.2	2.5	3.2	3.0	3.3	3.7	4.4	5.5
MEA	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	1.3	1.3
NEU	0.4	0.4	0.5	0.5	0.6	0.7	0.6	0.7	0.7	0.7
OAS	2.1	2.3	2.6	2.9	3.3	3.6	4.0	4.4	5.0	5.7
REF	2.3	2.8	2.4	2.9	3.8	4.2	2.5	2.1	2.5	2.2
SSA	1.3	1.4	1.5	1.5	1.6	1.9	2.1	2.4	2.9	3.4
USA	2.6	2.7	3.4	3.7	5.1	4.7	4.5	5.2	5.6	5.7

Table 1756: Bodirsky — Resources—Nitrogen—Cropland Budget—Withdrawals—Aboveground Crop Residues (Mt Nr/yr)

56.1.16 Withdrawals—Belowground Crop Residues



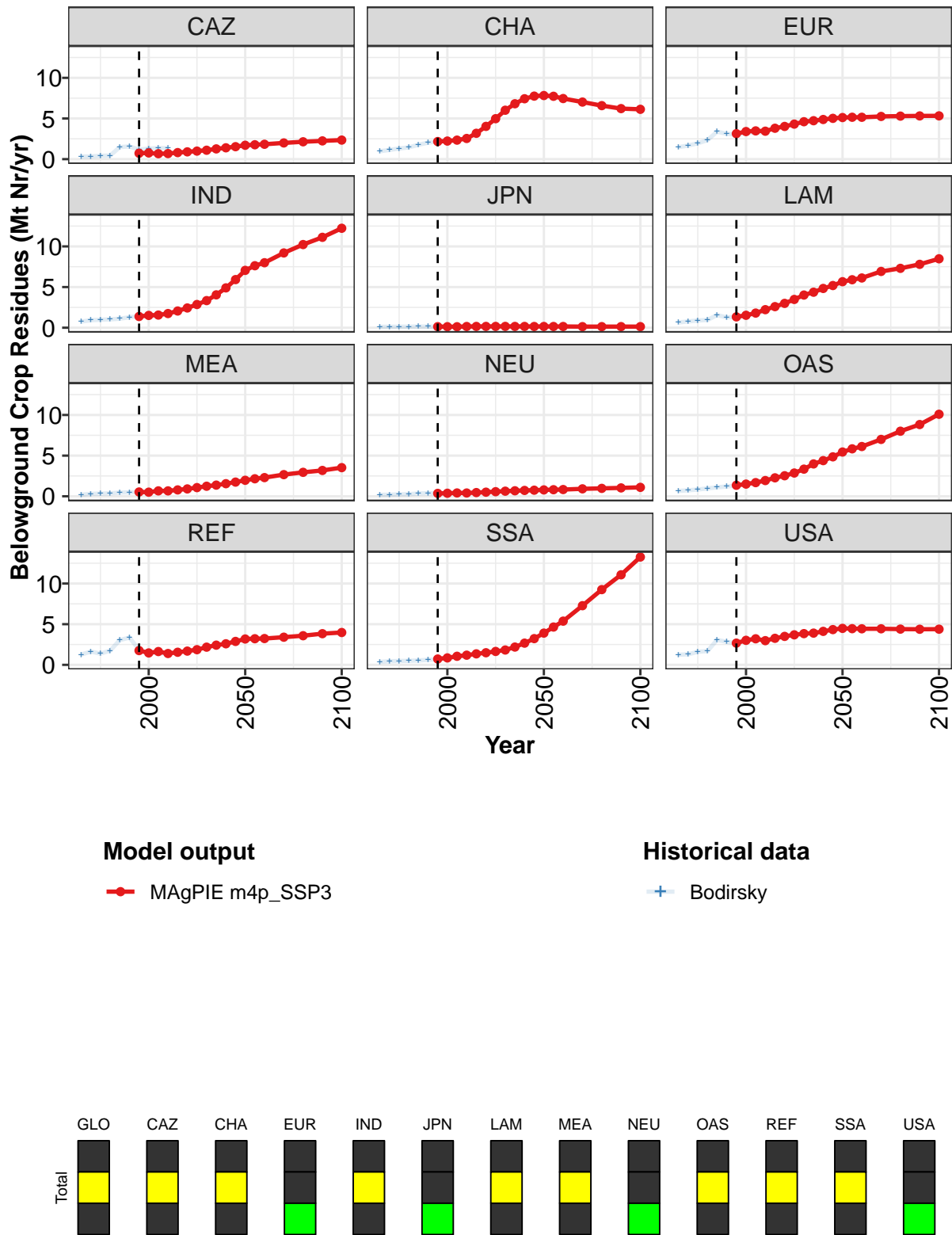


Figure 457: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Withdrawals—Belowground Crop Residues (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	16.3	17.3	18.6	19.4	22.3	25.2	28.5	32.3	35.9	39.6	43.4
CAZ	0.7	0.8	0.7	0.7	0.8	0.9	1.0	1.1	1.3	1.4	1.5
CHA	2.2	2.2	2.3	2.5	3.2	4.0	5.0	6.0	6.8	7.4	7.8
EUR	3.1	3.4	3.5	3.4	3.8	4.0	4.3	4.6	4.7	4.9	5.0
IND	1.4	1.5	1.6	1.7	2.1	2.4	2.9	3.3	4.0	4.9	5.9
JPN	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	1.3	1.5	1.8	2.2	2.6	3.0	3.5	4.0	4.4	4.8	5.2
MEA	0.5	0.5	0.7	0.7	0.8	0.9	1.1	1.2	1.4	1.6	1.7
NEU	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8
OAS	1.4	1.5	1.7	1.9	2.3	2.5	2.9	3.3	4.0	4.4	4.9
REF	1.8	1.5	1.6	1.4	1.6	1.7	1.9	2.2	2.4	2.6	2.9
SSA	0.7	0.9	1.1	1.2	1.4	1.5	1.7	1.8	2.2	2.7	3.2
USA	2.7	3.0	3.2	3.0	3.3	3.5	3.7	3.8	3.9	4.1	4.3

Table 1757: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Withdrawals—Belowground Crop Residues (Mt Nr/yr) [PART 1/2]

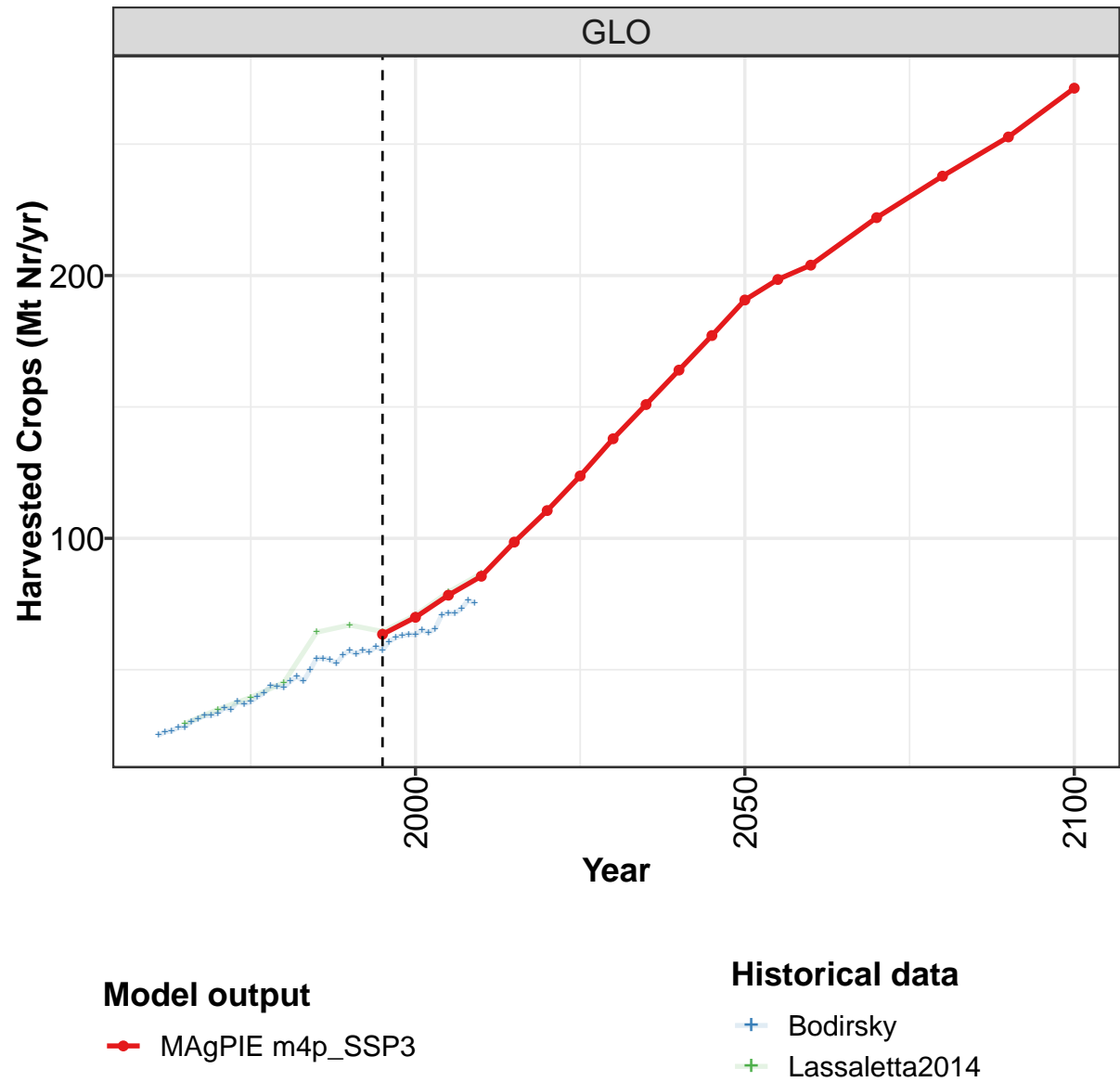
	2050	2055	2060	2070	2080	2090	2100
GLO	47.3	49.4	51.0	56.2	60.8	65.1	71.0
CAZ	1.7	1.8	1.8	2.0	2.1	2.2	2.3
CHA	7.8	7.7	7.5	7.0	6.6	6.2	6.1
EUR	5.1	5.2	5.2	5.3	5.3	5.3	5.3
IND	7.1	7.6	8.0	9.2	10.2	11.1	12.2
JPN	0.2	0.2	0.2	0.1	0.1	0.1	0.1
LAM	5.7	5.9	6.1	6.9	7.3	7.8	8.5
MEA	2.0	2.2	2.3	2.7	2.9	3.2	3.5
NEU	0.8	0.8	0.8	0.9	1.0	1.0	1.1
OAS	5.4	5.8	6.1	7.0	8.0	8.8	10.1
REF	3.2	3.2	3.2	3.4	3.6	3.8	4.0
SSA	3.9	4.7	5.4	7.3	9.3	11.1	13.3
USA	4.5	4.4	4.4	4.4	4.4	4.4	4.4

Table 1758: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Withdrawals—Belowground Crop Residues (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	8.2	9.5	10.5	11.8	18.0	18.3	16.7	17.6	19.0	19.8
CAZ	0.3	0.3	0.4	0.4	1.5	1.6	1.2	1.3	1.4	1.3
CHA	1.0	1.1	1.3	1.4	1.8	2.0	2.2	2.3	2.4	2.6
EUR	1.5	1.7	1.9	2.3	3.4	3.1	3.0	3.2	3.3	3.3
IND	0.8	0.9	1.0	1.0	1.1	1.3	1.4	1.6	1.6	1.8
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.6	0.8	0.9	1.0	1.6	1.3	1.3	1.5	1.7	2.1
MEA	0.2	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.7	0.7
NEU	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4
OAS	0.7	0.7	0.8	1.0	1.1	1.2	1.3	1.5	1.7	2.0
REF	1.3	1.6	1.4	1.7	3.0	3.4	1.9	1.4	1.6	1.2
SSA	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.8	1.0	1.2
USA	1.2	1.3	1.6	1.7	3.1	2.8	2.7	3.0	3.2	3.0

Table 1759: Bodirsky — Resources—Nitrogen—Cropland Budget—Withdrawals—Belowground Crop Residues (Mt Nr/yr)

56.1.17 Withdrawals—Harvested Crops



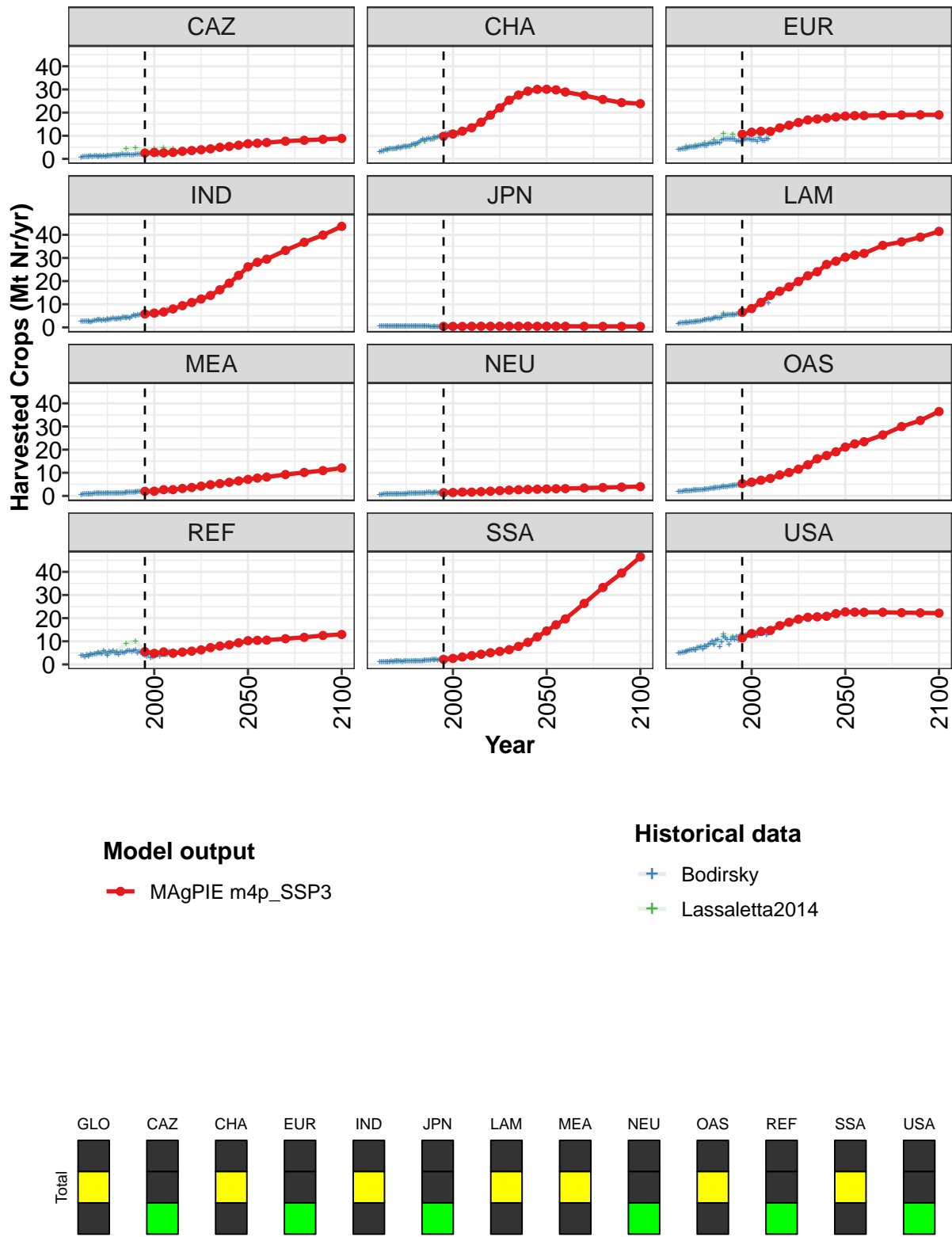


Figure 458: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Withdrawals—Harvested Crops (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	63	70	78	86	99	111	124	138	151	164	177
CAZ	2	3	3	3	3	4	4	4	5	5	6
CHA	10	11	12	13	16	19	22	25	28	29	30
EUR	11	12	12	12	13	15	16	17	17	18	18
IND	6	6	7	8	9	11	12	14	16	19	22
JPN	0	0	0	0	0	0	0	1	1	0	0
LAM	6	8	11	14	16	18	20	22	24	27	29
MEA	2	2	3	3	3	4	4	5	5	6	6
NEU	1	1	2	2	2	2	2	2	3	3	3
OAS	5	6	7	8	9	10	12	13	16	17	19
REF	6	5	5	5	5	6	6	7	8	8	9
SSA	2	3	3	4	4	5	6	6	8	10	12
USA	11	13	14	15	17	18	20	20	21	21	22

Table 1760: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Withdrawals—Harvested Crops (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	191	198	204	222	238	253	271
CAZ	7	7	7	8	8	8	9
CHA	30	30	29	27	26	24	24
EUR	18	19	19	19	19	19	19
IND	26	28	29	33	37	40	44
JPN	0	0	0	0	0	0	0
LAM	30	31	32	35	37	39	41
MEA	7	8	8	9	10	11	12
NEU	3	3	3	3	4	4	4
OAS	21	22	23	26	30	33	36
REF	10	10	10	11	12	13	13
SSA	14	17	20	26	33	39	46
USA	23	23	23	23	22	22	22

Table 1761: MAgPIE m4p_SSP3 — Resources—Nitrogen—Cropland Budget—Withdrawals—Harvested Crops (Mt Nr/yr) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	25.1	26.3	26.6	28.1	28.2	30.3	31.3	32.5	32.6	33.5	35.5
CAZ	0.6	0.9	1.0	1.0	1.0	1.2	0.9	1.2	1.2	1.0	1.3
CHA	3.0	3.3	3.5	3.9	4.0	4.4	4.4	4.3	4.3	4.8	5.0
EUR	4.0	4.2	4.2	4.3	4.5	4.7	5.1	5.1	5.1	5.0	5.5
IND	2.6	2.6	2.6	2.7	2.5	2.4	2.7	2.9	2.9	3.2	3.2
JPN	0.5	0.5	0.5	0.4	0.5	0.4	0.5	0.5	0.5	0.4	0.4
LAM	1.7	1.8	1.9	2.0	2.0	2.1	2.2	2.2	2.3	2.4	2.5
MEA	0.5	0.7	0.7	0.7	0.7	0.9	1.0	1.0	1.0	1.0	1.0
NEU	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.9
OAS	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.3	2.4	2.5	2.5
REF	3.7	3.8	3.1	4.1	3.5	4.5	4.2	4.6	4.4	4.9	4.7
SSA	1.0	1.1	1.1	1.1	1.1	1.1	1.3	1.2	1.3	1.3	1.4
USA	5.0	5.0	5.3	5.0	5.7	5.7	6.2	6.4	6.5	6.2	7.1

Table 1762: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Withdrawals—Harvested Crops (Mt Nr/yr) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	34.8	37.9	36.9	37.8	39.6	41.1	43.9	43.7	43.3	45.6	47.5
CAZ	1.1	1.2	1.1	1.3	1.4	1.4	1.6	1.5	1.4	1.7	1.6
CHA	4.7	5.2	5.3	5.5	5.5	5.4	6.1	6.4	6.3	6.6	7.2
EUR	5.7	5.8	6.0	5.7	5.6	6.4	6.8	6.6	6.9	6.8	7.2
IND	3.0	3.3	3.0	3.5	3.4	3.7	3.8	3.5	3.6	3.9	3.8
JPN	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4
LAM	2.5	2.7	3.0	3.2	3.3	3.5	3.4	3.5	3.8	4.2	4.1
MEA	1.2	1.0	1.1	1.1	1.2	1.1	1.2	1.1	1.2	1.2	1.3
NEU	0.9	0.8	0.9	1.0	1.1	1.1	1.0	1.1	1.1	1.1	1.2
OAS	2.4	2.7	2.7	2.8	2.9	2.9	3.1	3.1	3.3	3.5	3.5
REF	4.4	5.7	5.1	3.9	5.7	5.2	5.9	4.7	5.0	4.3	5.1
SSA	1.4	1.2	1.5	1.4	1.4	1.4	1.5	1.4	1.5	1.6	1.5
USA	7.1	7.8	6.7	7.9	7.6	8.7	9.0	10.1	8.7	10.2	10.5

Table 1763: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Withdrawals—Harvested Crops (Mt Nr/yr) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	45.6	49.8	54.4	54.3	53.9	52.4	55.5	57.3	55.9	57.5	56.8
CAZ	1.8	1.8	1.8	2.0	1.8	1.5	1.7	1.9	1.9	1.9	2.1
CHA	7.9	8.4	8.1	8.4	8.7	8.5	8.6	9.5	9.3	9.4	9.9
EUR	6.9	8.1	8.4	8.4	8.5	8.6	8.5	8.3	8.5	7.6	7.7
IND	4.4	4.4	4.3	4.3	4.1	4.7	5.2	5.1	5.2	5.4	5.6
JPN	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3
LAM	4.0	4.4	5.4	5.0	5.2	5.5	5.4	5.3	5.2	5.7	5.8
MEA	1.3	1.2	1.5	1.6	1.5	1.6	1.5	1.6	1.8	1.8	1.7
NEU	1.2	1.2	1.2	1.4	1.4	1.4	1.3	1.4	1.4	1.2	1.3
OAS	3.7	3.8	4.0	4.1	3.9	4.2	4.4	4.4	4.5	4.6	4.7
REF	5.2	4.9	5.5	5.8	5.9	5.5	6.0	6.3	4.8	5.4	5.2
SSA	1.4	1.4	1.6	1.8	1.7	1.9	2.0	1.9	2.1	1.9	2.1
USA	7.4	9.7	12.1	11.4	10.8	8.6	10.5	11.2	10.8	12.2	10.3

Table 1764: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Withdrawals—Harvested Crops (Mt Nr/yr) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	58.7	57.5	60.7	62.2	63.1	63.5	63.3	65.1	64.0	65.7	70.9
CAZ	1.9	2.2	2.5	2.3	2.5	2.7	2.5	2.3	1.7	2.5	2.5
CHA	9.9	10.3	10.9	11.0	11.2	11.2	10.9	10.8	11.0	10.5	11.5
EUR	7.6	7.8	8.2	8.6	8.6	8.5	8.2	8.2	8.3	7.4	9.1
IND	5.7	5.8	6.0	6.2	6.2	6.4	6.3	6.3	5.6	6.5	6.4
JPN	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
LAM	6.2	6.2	6.2	6.4	7.2	7.3	7.5	8.5	8.8	10.1	9.9
MEA	1.9	1.8	2.1	1.8	2.0	1.8	1.7	1.9	2.1	2.3	2.3
NEU	1.2	1.3	1.3	1.4	1.4	1.3	1.3	1.3	1.4	1.3	1.5
OAS	4.6	4.9	5.0	4.9	5.1	5.4	5.6	5.5	5.7	5.9	6.1
REF	4.2	3.7	3.5	4.2	2.9	3.2	3.4	4.1	4.2	3.5	4.2
SSA	2.2	2.2	2.4	2.4	2.4	2.5	2.5	2.6	2.7	2.8	2.9
USA	12.8	11.0	12.2	12.7	13.1	12.8	13.1	13.0	12.3	12.5	14.3

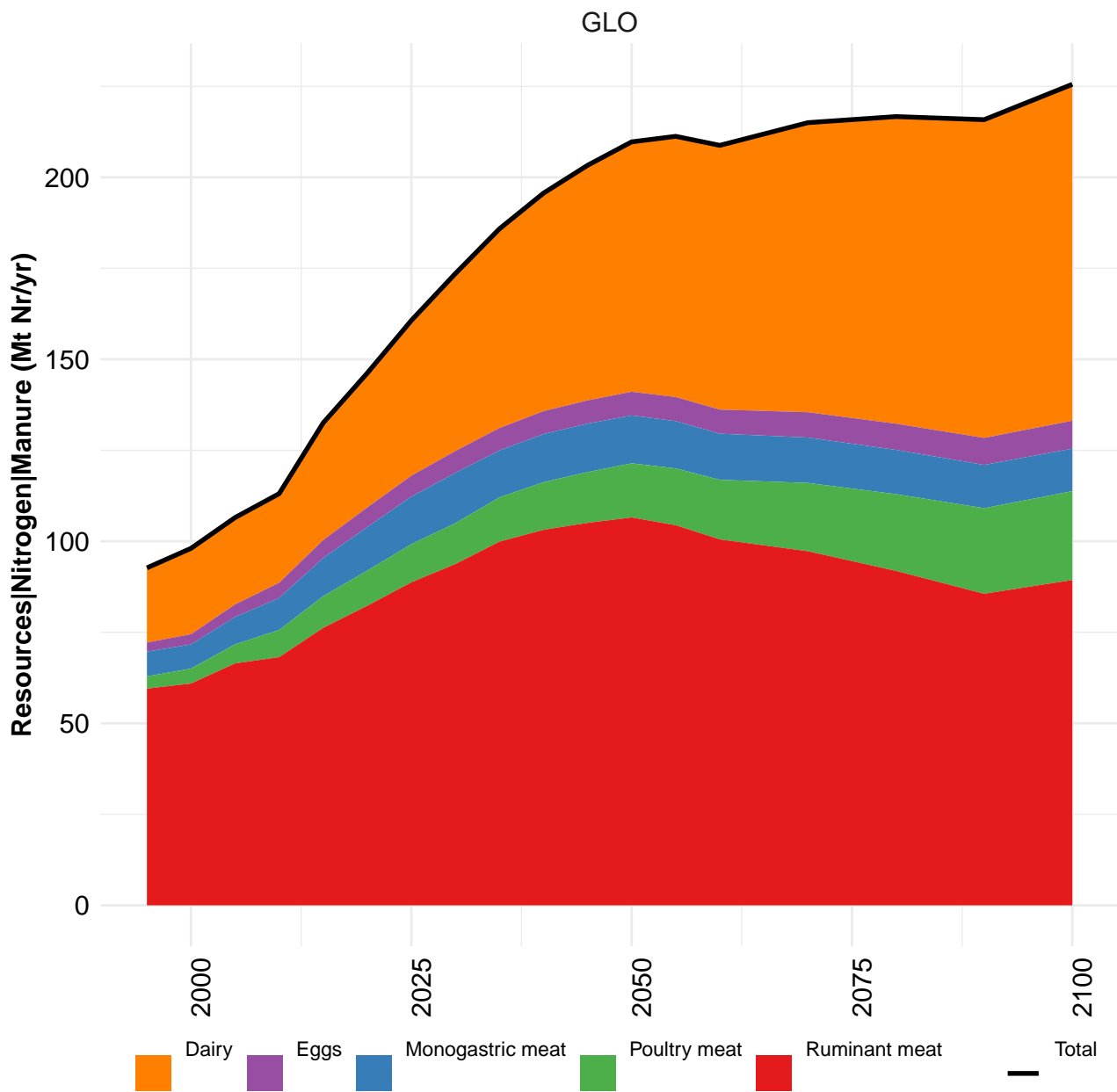
Table 1765: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Withdrawals—Harvested Crops (Mt Nr/yr) [PART 4/5]

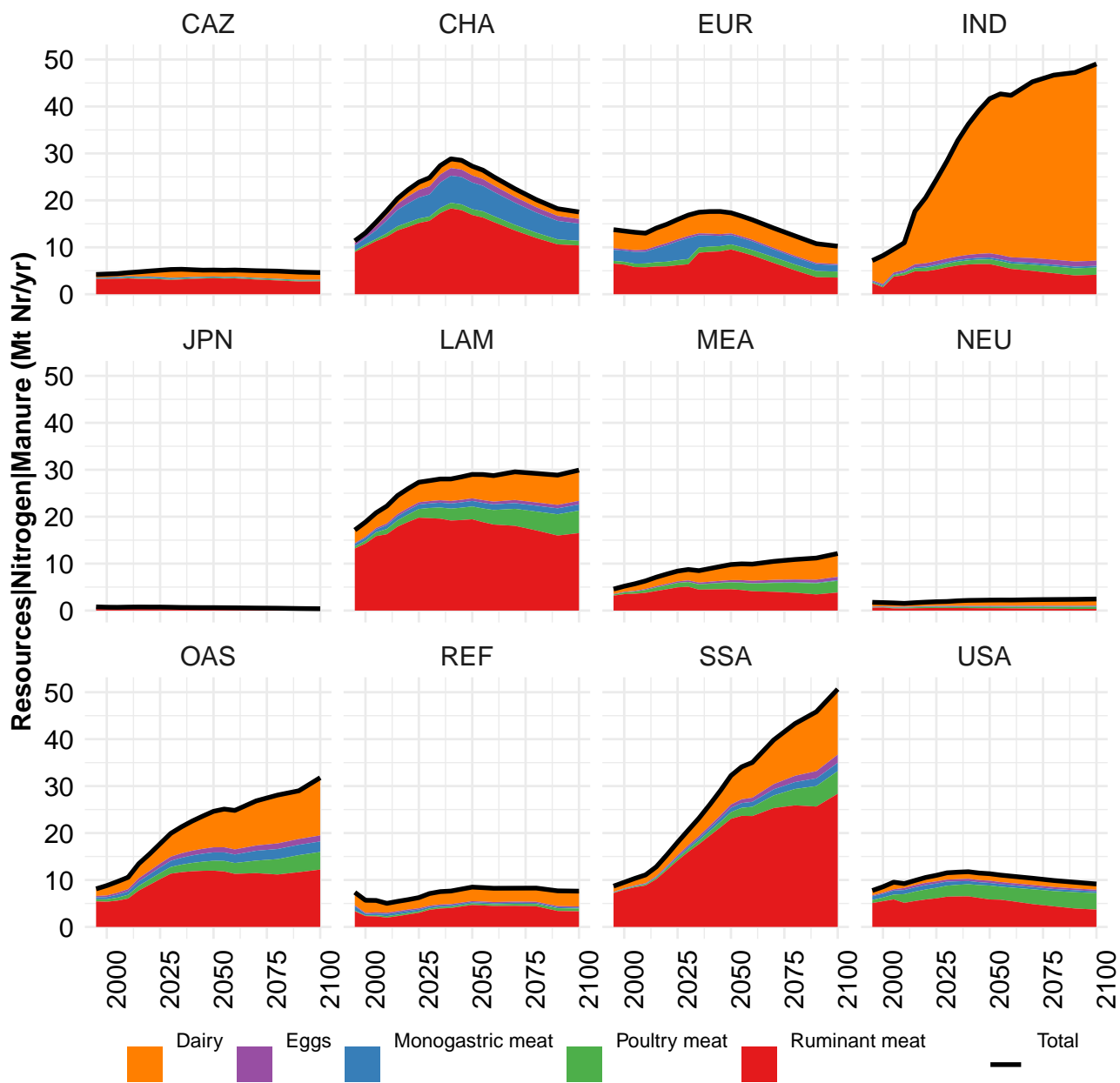
	2005	2006	2007	2008	2009
GLO	71.6	71.4	73.3	76.4	75.4
CAZ	2.7	2.2	2.3	2.8	2.7
CHA	11.7	12.0	12.1	12.9	12.9
EUR	8.3	8.0	7.7	8.7	8.6
IND	6.8	6.9	7.6	7.5	7.2
JPN	0.3	0.3	0.3	0.4	0.3
LAM	10.2	10.6	11.9	12.1	10.5
MEA	2.3	2.4	2.3	2.0	2.4
NEU	1.5	1.5	1.3	1.4	1.5
OAS	6.4	6.5	6.8	7.1	7.3
REF	4.3	4.3	4.3	5.4	5.1
SSA	3.1	3.2	3.1	3.4	3.4
USA	13.9	13.5	13.6	12.7	13.5

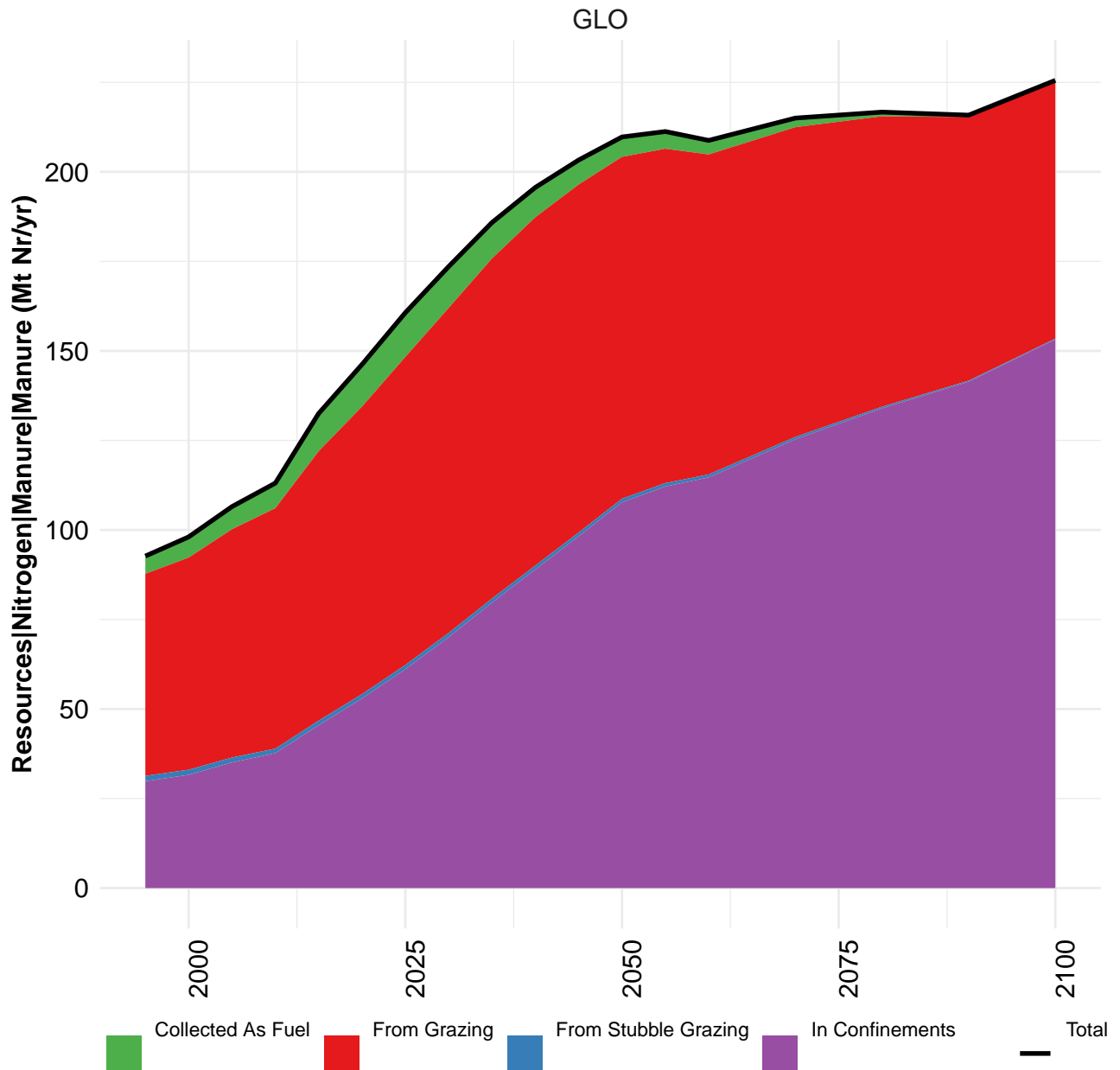
Table 1766: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Withdrawals—Harvested Crops (Mt Nr/yr) [PART 5/5]

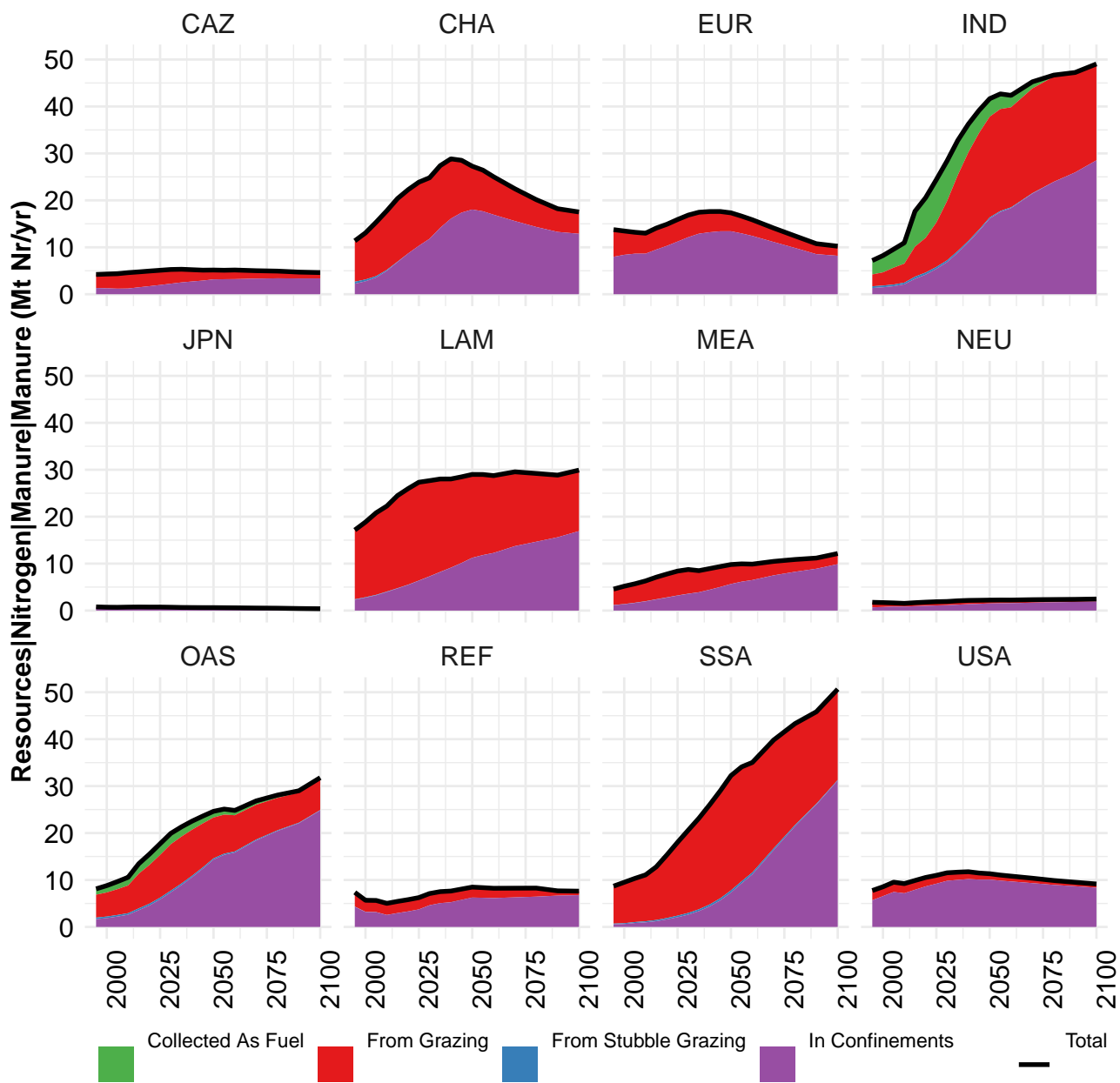
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	29.5	34.9	39.5	45.1	64.3	67.0	64.5	70.8	79.5	86.6
CAZ	1.0	1.1	1.4	1.5	4.3	4.6	3.8	4.3	4.6	4.6
CHA	3.7	4.3	4.9	5.6	7.3	8.6	9.8	10.8	11.9	13.5
EUR	5.3	5.9	6.8	8.1	11.0	10.6	10.1	10.9	11.2	11.4
IND	2.6	3.2	3.4	3.6	4.2	5.0	5.8	6.2	6.6	8.1
JPN	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.5
LAM	2.2	2.7	3.5	4.1	6.2	5.7	6.5	7.9	10.4	13.4
MEA	0.8	1.1	1.2	1.3	1.7	1.8	2.0	2.0	2.6	2.7
NEU	0.7	0.8	0.9	1.1	1.3	1.4	1.4	1.4	1.6	1.6
OAS	2.2	2.6	3.0	3.5	4.1	4.6	5.2	5.8	6.7	7.6
REF	3.9	5.4	4.4	5.6	8.9	10.0	5.6	4.5	5.2	4.4
SSA	1.2	1.4	1.5	1.6	1.7	2.0	2.2	2.6	3.2	3.9
USA	5.7	6.1	7.9	8.6	13.0	12.0	11.8	13.9	15.1	15.1

Table 1767: Bodirsky — Resources—Nitrogen—Cropland Budget—Withdrawals—Harvested Crops (Mt Nr/yr)

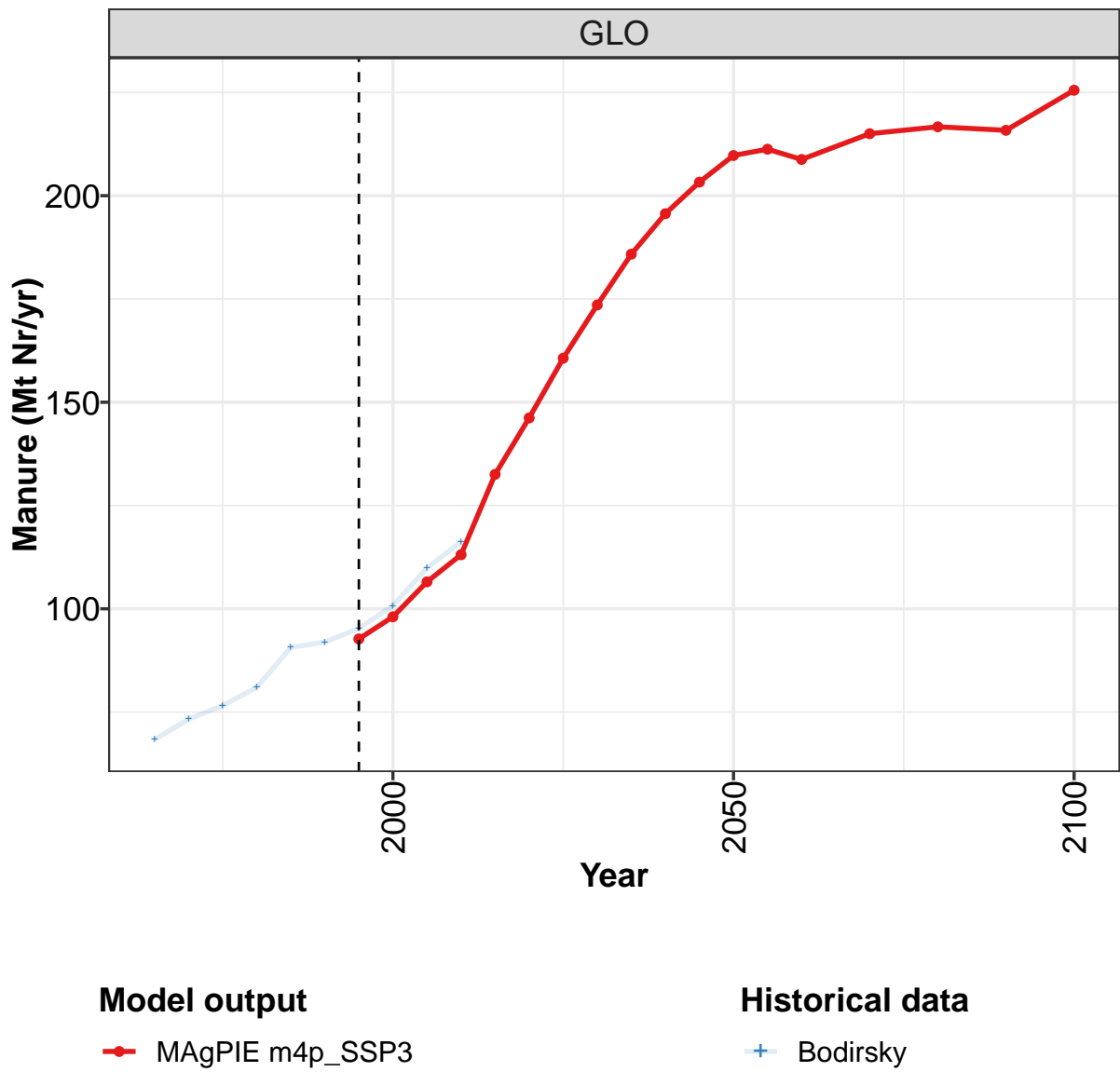








56.2 Manure



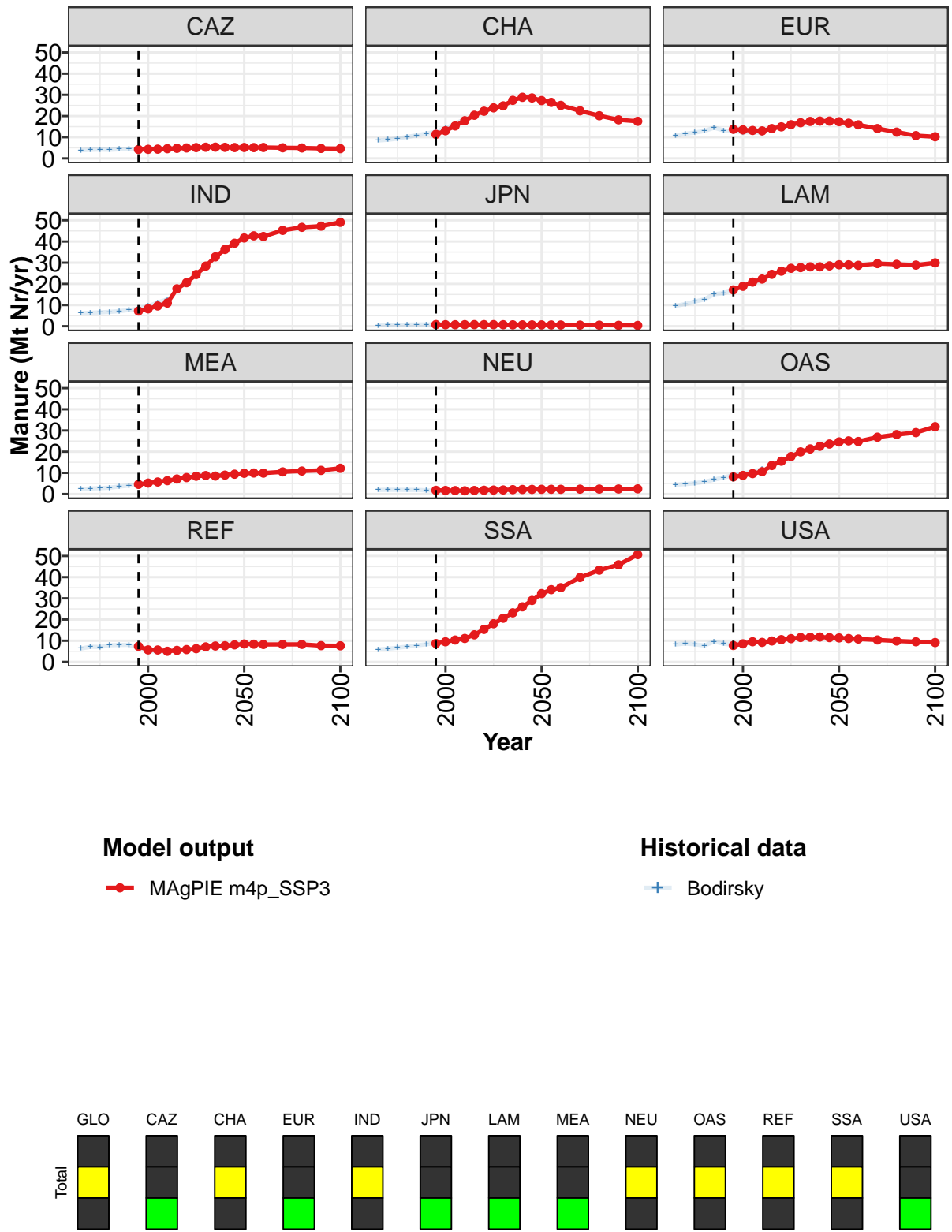


Figure 459: MAGPIE m4p_SSP3 — Resources—Nitrogen—Manure (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	93	98	107	113	133	146	161	174	186	196	203
CAZ	4	4	4	5	5	5	5	5	5	5	5
CHA	11	13	15	18	20	22	24	25	27	29	29
EUR	14	13	13	13	14	15	16	17	17	18	18
IND	7	8	10	11	18	21	24	28	33	36	39
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	17	19	21	22	24	26	27	28	28	28	28
MEA	5	5	6	6	7	8	8	9	9	9	9
NEU	2	2	2	2	2	2	2	2	2	2	2
OAS	8	9	10	11	13	16	18	20	21	23	24
REF	7	6	6	5	5	6	6	7	8	8	8
SSA	9	10	10	11	13	15	18	21	23	26	29
USA	8	9	10	9	10	11	11	12	12	12	11

Table 1768: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure (Mt Nr/yr) [PART 1/2]

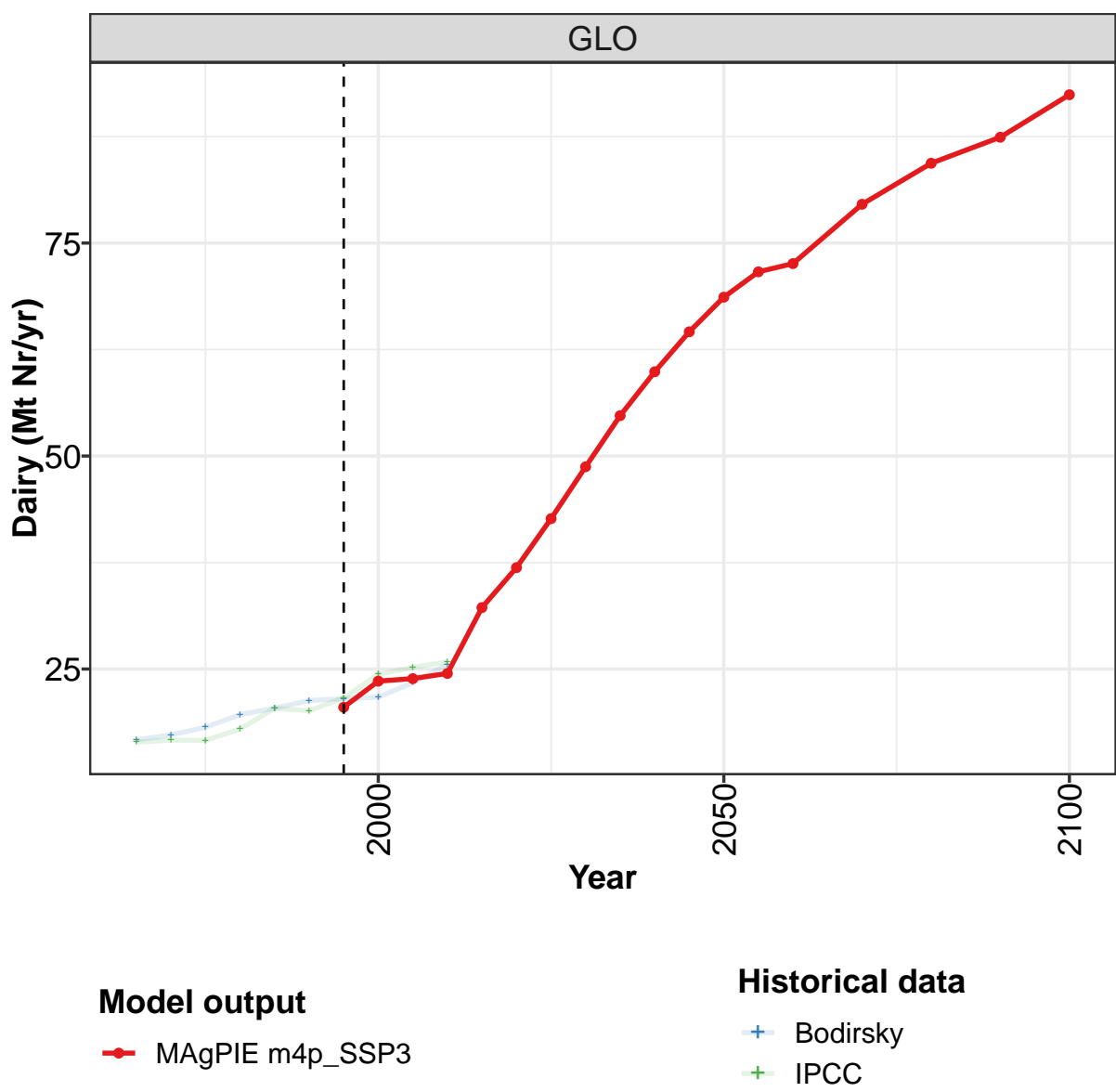
	2050	2055	2060	2070	2080	2090	2100
GLO	210	211	209	215	217	216	226
CAZ	5	5	5	5	5	5	5
CHA	27	26	25	22	20	18	18
EUR	17	17	16	14	12	11	10
IND	42	43	42	45	47	47	49
JPN	1	1	1	1	1	0	0
LAM	29	29	29	30	29	29	30
MEA	10	10	10	10	11	11	12
NEU	2	2	2	2	2	2	2
OAS	25	25	25	27	28	29	32
REF	8	8	8	8	8	8	8
SSA	32	34	35	40	43	46	51
USA	11	11	11	10	10	10	9

Table 1769: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	68	73	77	81	91	92	95	101	110	116
CAZ	4	4	4	4	4	4	5	5	5	5
CHA	8	9	9	10	11	12	13	14	16	19
EUR	11	12	12	13	15	13	13	12	12	12
IND	6	6	7	7	7	8	8	9	11	13
JPN	0	1	1	1	1	1	1	1	1	1
LAM	10	10	12	13	15	16	17	19	21	22
MEA	2	3	3	3	4	4	5	5	6	7
NEU	2	2	2	2	2	2	2	2	2	1
OAS	4	5	5	6	7	8	9	10	11	12
REF	6	7	7	8	8	8	7	5	5	5
SSA	6	6	7	7	8	8	9	10	11	12
USA	8	9	8	8	10	9	8	9	10	9

Table 1770: Bodirsky — Resources—Nitrogen—Manure (Mt Nr/yr)

56.2.1 Dairy



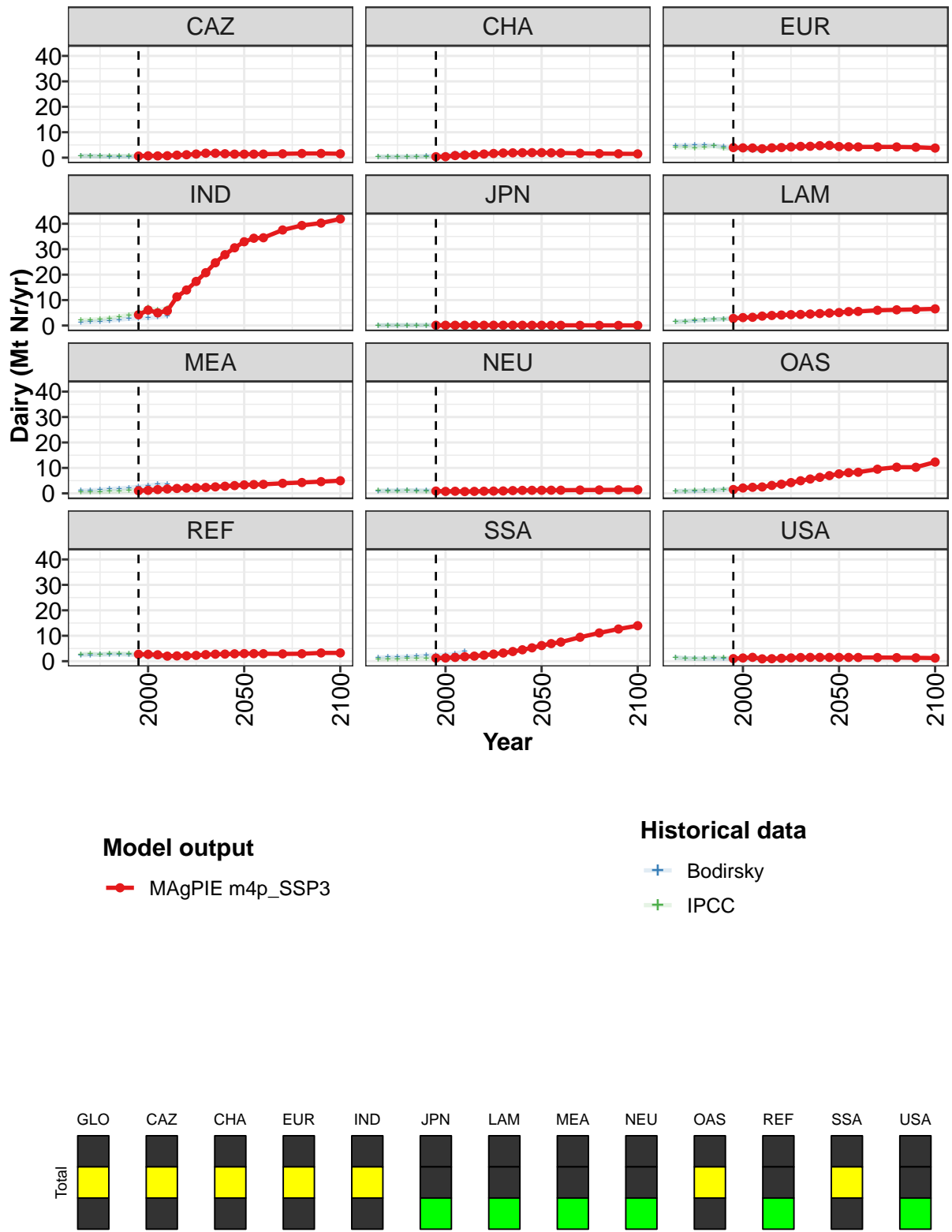


Figure 460: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Dairy (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	20.5	23.6	23.9	24.5	32.2	36.9	42.6	48.7	54.7	59.9	64.6
CAZ	0.6	0.7	0.7	0.8	1.0	1.2	1.4	1.8	1.7	1.5	1.4
CHA	0.4	0.4	0.8	1.0	1.1	1.4	1.6	1.8	1.9	2.0	2.0
EUR	4.0	3.9	3.8	3.5	3.9	4.0	4.2	4.4	4.5	4.7	4.8
IND	4.2	6.1	5.0	5.8	11.3	14.0	17.3	20.8	24.7	27.8	30.6
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	2.8	3.1	3.2	3.7	4.0	4.1	4.3	4.4	4.5	4.7	4.9
MEA	1.0	1.2	1.5	1.7	1.9	2.1	2.2	2.3	2.6	2.8	3.1
NEU	0.9	0.8	0.8	0.7	0.8	0.8	0.9	0.9	1.1	1.2	1.2
OAS	1.5	2.1	2.4	2.5	3.1	3.6	4.2	5.0	5.6	6.3	7.0
REF	2.7	2.7	2.5	2.0	2.1	2.1	2.3	2.6	2.7	2.8	2.9
SSA	1.2	1.3	1.5	1.8	2.0	2.4	2.8	3.2	3.8	4.5	5.3
USA	1.0	1.3	1.5	0.9	1.0	1.1	1.3	1.4	1.5	1.5	1.5

Table 1771: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Dairy (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	68.6	71.6	72.6	79.6	84.4	87.4	92.4
CAZ	1.4	1.4	1.4	1.5	1.6	1.7	1.5
CHA	2.0	1.9	1.8	1.7	1.6	1.5	1.5
EUR	4.4	4.3	4.2	4.2	4.2	4.1	3.8
IND	32.9	34.3	34.5	37.6	39.3	40.3	41.9
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.0
LAM	5.1	5.5	5.5	6.0	6.2	6.3	6.5
MEA	3.3	3.5	3.6	3.9	4.3	4.6	5.0
NEU	1.2	1.2	1.2	1.3	1.3	1.4	1.4
OAS	7.7	8.1	8.3	9.5	10.3	10.3	12.3
REF	3.0	3.0	2.9	2.9	2.9	3.2	3.3
SSA	6.1	6.9	7.5	9.4	11.1	12.6	14.0
USA	1.5	1.5	1.5	1.4	1.4	1.3	1.2

Table 1772: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Dairy (Mt Nr/yr) [PART 2/2]

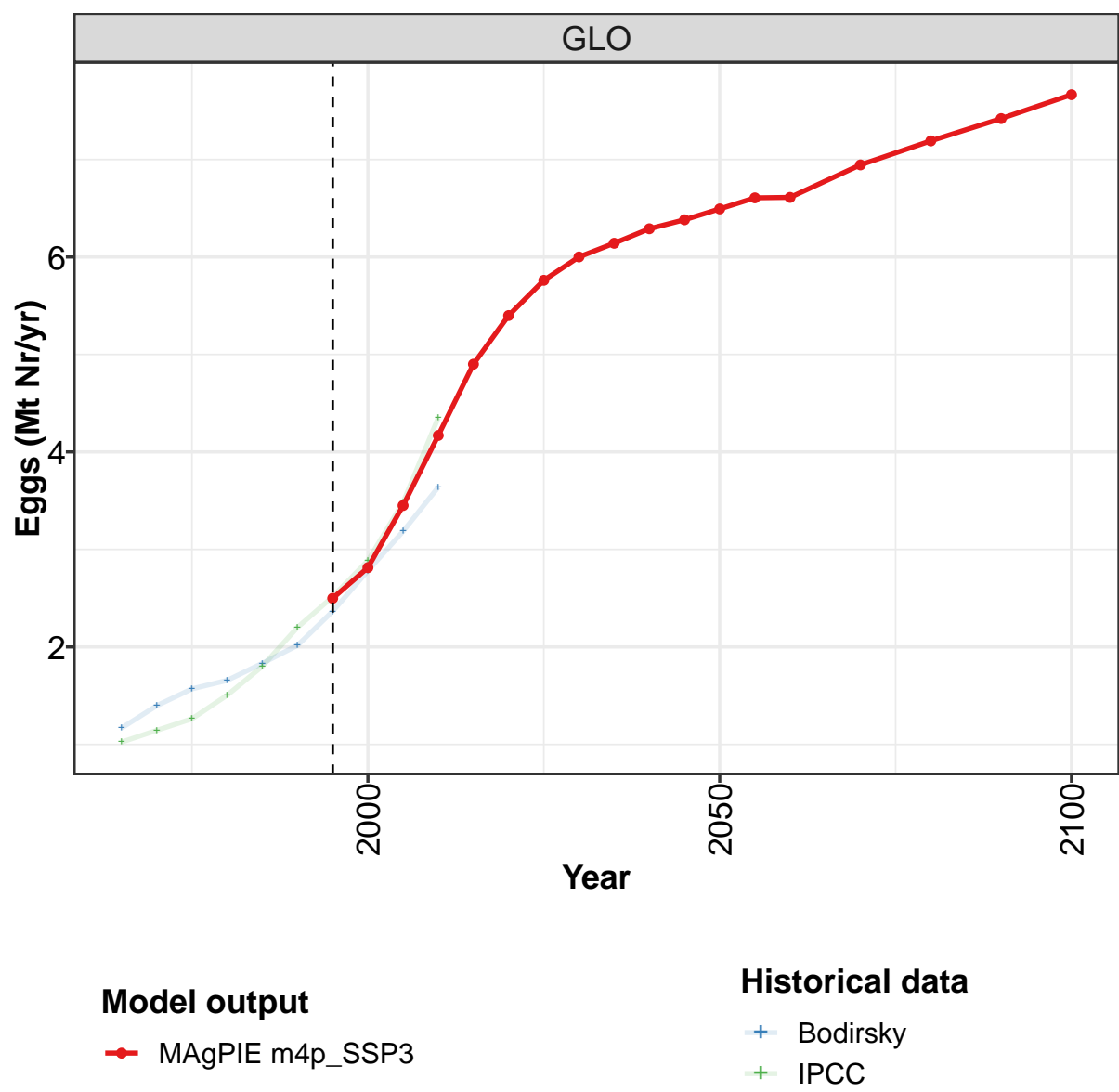
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	16.7	17.3	18.2	19.6	20.4	21.3	21.5	21.7	23.4	25.5
CAZ	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.6
CHA	0.3	0.3	0.4	0.4	0.5	0.6	0.8	1.0	1.5	1.8
EUR	4.8	4.8	4.9	4.9	4.8	4.3	3.6	3.2	2.9	2.8
IND	1.2	1.4	1.6	2.0	2.3	2.7	2.9	3.0	3.3	3.8
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	1.5	1.6	1.9	2.3	2.3	2.6	2.8	2.8	3.1	3.2
MEA	1.1	1.2	1.4	1.7	1.9	2.2	2.6	3.0	3.6	3.6
NEU	1.0	1.0	1.1	1.2	1.2	1.2	1.1	0.9	0.7	0.7
OAS	0.8	0.8	0.9	1.1	1.1	1.4	1.6	1.9	2.1	2.7
REF	2.4	2.5	2.6	2.7	2.7	2.6	2.4	1.8	1.6	1.6
SSA	1.4	1.6	1.6	1.8	1.9	2.2	2.3	2.5	2.9	3.8
USA	1.5	1.2	1.1	1.0	1.1	1.0	0.9	0.9	0.9	0.9

Table 1773: IPCC — Resources—Nitrogen—Manure—Dairy (Mt Nr/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	16.4	16.6	16.6	18.0	20.4	20.1	21.6	24.4	25.2	25.8
CAZ	0.7	0.7	0.6	0.5	0.6	0.6	0.7	0.8	0.8	0.9
CHA	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.5	1.0	1.2
EUR	4.1	4.1	3.9	4.1	4.7	3.6	3.6	3.5	3.4	3.1
IND	2.2	2.2	2.5	2.8	3.5	4.1	5.2	7.1	6.0	6.9
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	1.5	1.6	2.1	2.1	2.5	2.5	2.8	3.2	3.3	3.7
MEA	0.5	0.6	0.6	0.8	0.9	1.1	1.2	1.4	1.8	1.9
NEU	1.1	1.0	0.9	1.1	0.9	0.8	0.8	0.7	0.8	0.7
OAS	0.9	1.0	1.0	1.1	1.3	1.5	1.7	2.4	2.6	2.8
REF	2.7	3.0	2.7	3.1	3.1	2.8	2.8	2.3	2.3	1.7
SSA	0.8	0.9	0.9	0.9	1.0	1.1	1.2	1.3	1.6	2.0
USA	1.4	1.1	1.0	0.9	1.4	1.3	1.0	1.3	1.5	0.9

Table 1774: Bodirsky — Resources—Nitrogen—Manure—Dairy (Mt Nr/yr)

56.2.2 Eggs



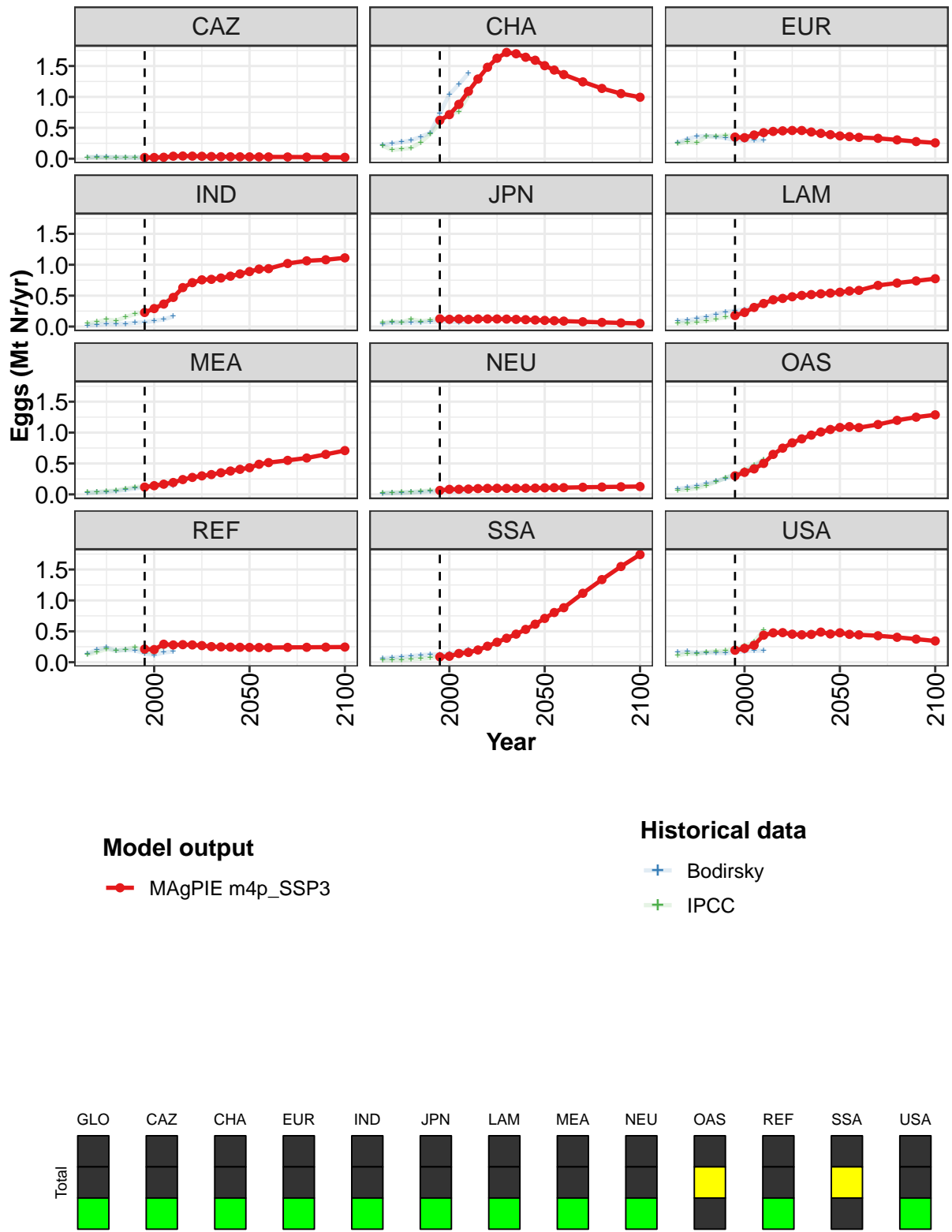


Figure 461: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Eggs (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.50	2.81	3.45	4.17	4.90	5.40	5.76	6.00	6.14	6.29	6.38
CAZ	0.02	0.02	0.02	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03
CHA	0.62	0.71	0.88	1.09	1.29	1.48	1.63	1.72	1.70	1.64	1.59
EUR	0.35	0.34	0.38	0.42	0.44	0.45	0.46	0.46	0.43	0.41	0.39
IND	0.23	0.29	0.36	0.47	0.63	0.71	0.76	0.76	0.79	0.82	0.85
JPN	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11
LAM	0.18	0.23	0.31	0.37	0.43	0.46	0.48	0.50	0.52	0.53	0.54
MEA	0.12	0.14	0.16	0.19	0.24	0.27	0.30	0.32	0.35	0.38	0.41
NEU	0.06	0.08	0.08	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10
OAS	0.30	0.36	0.41	0.50	0.65	0.75	0.83	0.90	0.96	1.01	1.05
REF	0.21	0.20	0.29	0.28	0.28	0.28	0.27	0.25	0.25	0.24	0.24
SSA	0.09	0.10	0.14	0.16	0.20	0.26	0.32	0.39	0.45	0.53	0.62
USA	0.19	0.22	0.27	0.44	0.48	0.48	0.45	0.44	0.45	0.49	0.46

Table 1775: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Eggs (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	6.49	6.61	6.61	6.94	7.19	7.42	7.66
CAZ	0.03	0.03	0.03	0.03	0.03	0.02	0.02
CHA	1.51	1.43	1.36	1.24	1.14	1.05	0.99
EUR	0.37	0.36	0.34	0.33	0.30	0.28	0.26
IND	0.89	0.93	0.94	1.02	1.06	1.08	1.11
JPN	0.10	0.09	0.09	0.08	0.07	0.06	0.05
LAM	0.56	0.57	0.59	0.67	0.70	0.74	0.77
MEA	0.43	0.49	0.51	0.55	0.59	0.65	0.71
NEU	0.11	0.11	0.11	0.12	0.12	0.12	0.13
OAS	1.08	1.10	1.08	1.13	1.20	1.25	1.29
REF	0.24	0.24	0.24	0.24	0.24	0.24	0.25
SSA	0.71	0.80	0.88	1.12	1.34	1.55	1.74
USA	0.48	0.45	0.44	0.43	0.40	0.37	0.34

Table 1776: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Eggs (Mt Nr/yr) [PART 2/2]

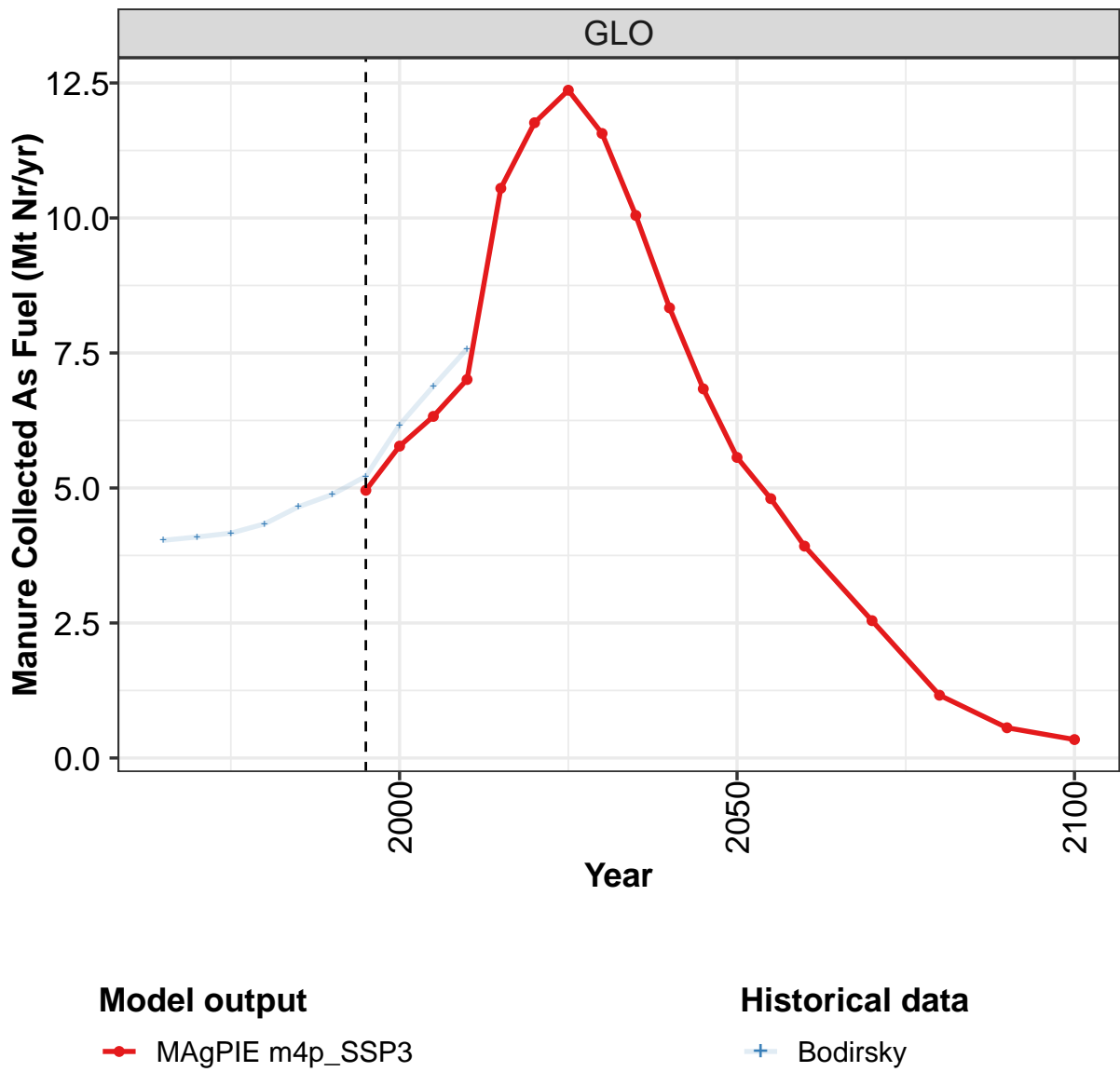
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.17	1.40	1.57	1.66	1.83	2.02	2.37	2.78	3.19	3.64
CAZ	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
CHA	0.22	0.24	0.27	0.30	0.35	0.42	0.73	1.04	1.20	1.38
EUR	0.26	0.32	0.36	0.37	0.35	0.34	0.30	0.29	0.30	0.30
IND	0.02	0.03	0.04	0.04	0.04	0.06	0.07	0.09	0.12	0.16
JPN	0.05	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.07	0.08
LAM	0.09	0.10	0.13	0.15	0.20	0.24	0.26	0.28	0.32	0.38
MEA	0.03	0.03	0.04	0.05	0.07	0.10	0.12	0.12	0.15	0.15
NEU	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.05	0.05	0.05
OAS	0.09	0.11	0.13	0.18	0.21	0.26	0.32	0.37	0.45	0.55
REF	0.14	0.21	0.24	0.19	0.20	0.19	0.14	0.12	0.16	0.18
SSA	0.06	0.07	0.09	0.10	0.12	0.12	0.13	0.14	0.17	0.20
USA	0.16	0.17	0.15	0.16	0.15	0.15	0.16	0.18	0.19	0.19

Table 1777: IPCC — Resources—Nitrogen—Manure—Eggs (Mt Nr/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.02	1.14	1.26	1.50	1.80	2.20	2.51	2.89	3.48	4.35
CAZ	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.04
CHA	0.21	0.14	0.16	0.18	0.27	0.40	0.58	0.73	0.76	1.02
EUR	0.24	0.28	0.26	0.36	0.36	0.38	0.37	0.34	0.39	0.44
IND	0.05	0.07	0.11	0.10	0.15	0.20	0.24	0.30	0.38	0.49
JPN	0.06	0.08	0.07	0.12	0.09	0.10	0.13	0.12	0.13	0.12
LAM	0.05	0.06	0.07	0.09	0.12	0.15	0.17	0.22	0.33	0.39
MEA	0.03	0.04	0.05	0.06	0.09	0.12	0.13	0.15	0.18	0.22
NEU	0.02	0.03	0.04	0.04	0.05	0.06	0.07	0.08	0.09	0.10
OAS	0.06	0.08	0.10	0.14	0.20	0.27	0.32	0.40	0.47	0.57
REF	0.12	0.17	0.21	0.19	0.21	0.24	0.17	0.16	0.25	0.27
SSA	0.03	0.04	0.04	0.05	0.06	0.07	0.10	0.10	0.15	0.17
USA	0.11	0.14	0.13	0.16	0.18	0.18	0.23	0.26	0.32	0.52

Table 1778: Bodirsky — Resources—Nitrogen—Manure—Eggs (Mt Nr/yr)

56.2.3 Manure Collected As Fuel



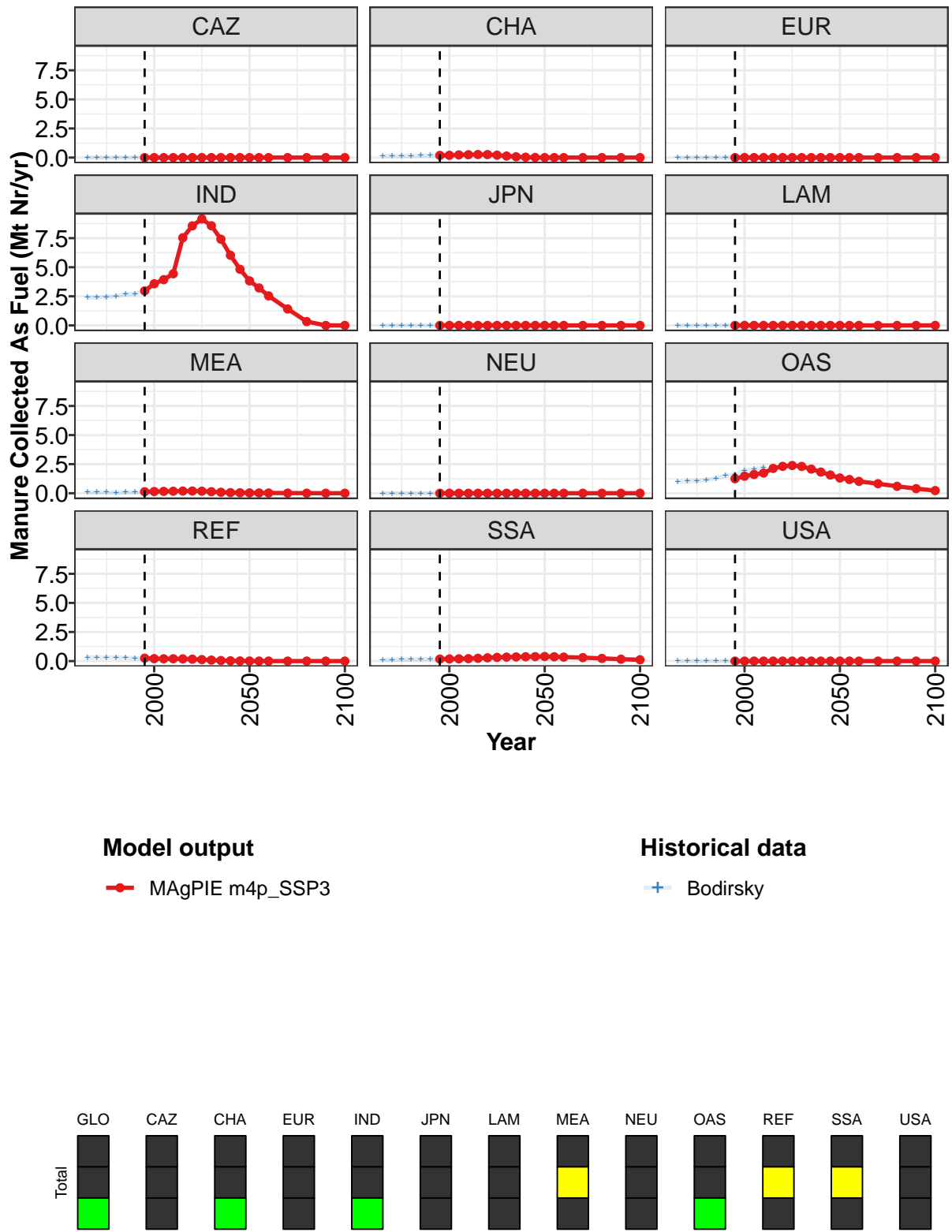


Figure 462: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Manure Collected As Fuel (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.0	5.8	6.3	7.0	10.6	11.8	12.4	11.6	10.0	8.3	6.8
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	3.0	3.6	3.9	4.4	7.5	8.6	9.2	8.6	7.4	6.0	4.8
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEA	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	1.2	1.5	1.6	1.7	2.1	2.3	2.4	2.3	2.1	1.8	1.6
REF	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0
SSA	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1779: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Manure Collected As Fuel (Mt Nr/yr)
[PART 1/2]

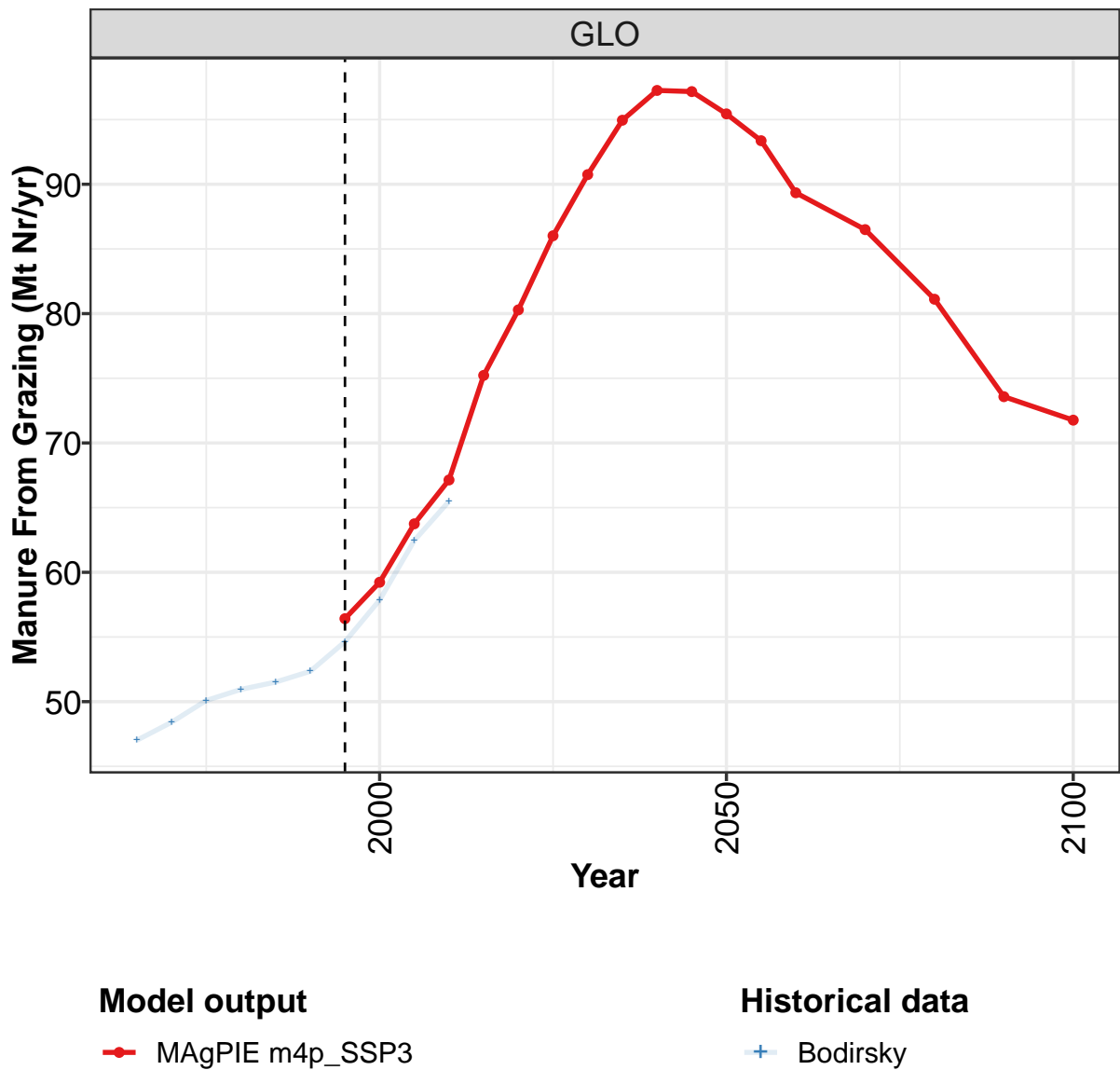
	2050	2055	2060	2070	2080	2090	2100
GLO	5.6	4.8	3.9	2.5	1.2	0.6	0.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IND	3.8	3.2	2.5	1.4	0.3	0.0	0.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OAS	1.3	1.2	1.0	0.8	0.6	0.4	0.2
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.4	0.4	0.3	0.3	0.2	0.2	0.1
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1780: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Manure Collected As Fuel (Mt Nr/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.03	4.09	4.16	4.33	4.65	4.88	5.22	6.17	6.88	7.58
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.13	0.15	0.15	0.14	0.17	0.18	0.19	0.20	0.23	0.24
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	2.39	2.39	2.45	2.52	2.68	2.73	2.98	3.59	4.08	4.60
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEA	0.08	0.08	0.07	0.07	0.08	0.09	0.09	0.11	0.12	0.12
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.98	1.03	1.05	1.15	1.29	1.50	1.59	1.91	2.07	2.22
REF	0.32	0.32	0.31	0.32	0.29	0.23	0.19	0.17	0.18	0.19
SSA	0.12	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.20	0.21
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1781: Bodirsky — Resources—Nitrogen—Manure—Manure Collected As Fuel (Mt Nr/yr)

56.2.4 Manure From Grazing



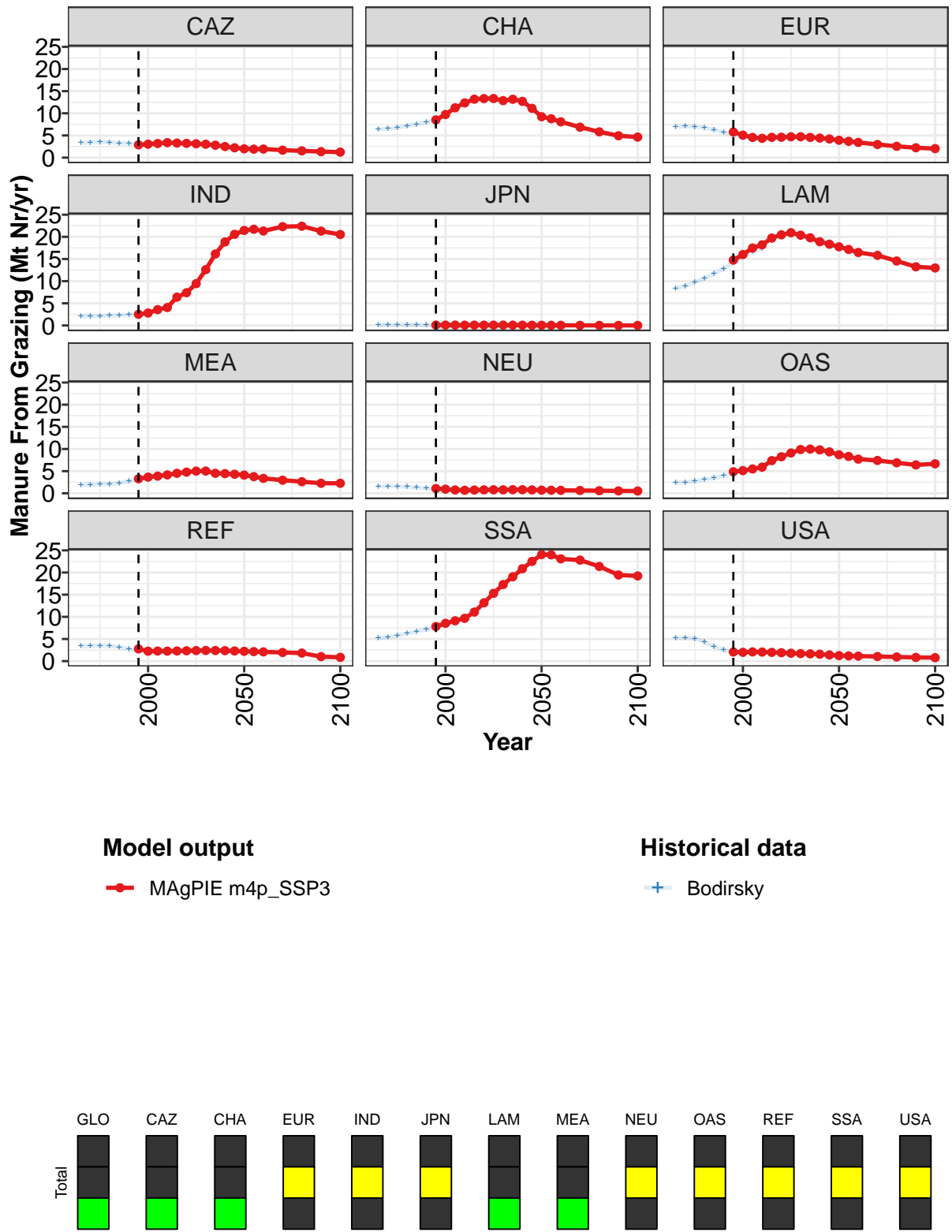


Figure 463: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Manure From Grazing (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	56.4	59.2	63.7	67.1	75.2	80.3	86.0	90.7	95.0	97.3	97.2
CAZ	2.9	3.0	3.2	3.4	3.3	3.2	3.1	3.0	2.8	2.5	2.2
CHA	8.5	9.7	11.3	12.3	13.2	13.3	13.3	12.9	13.2	12.7	11.1
EUR	5.8	5.1	4.6	4.4	4.6	4.6	4.7	4.7	4.6	4.4	4.2
IND	2.5	2.8	3.6	4.0	6.4	7.4	9.4	12.6	16.1	18.8	20.6
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	14.8	16.0	17.5	18.2	19.7	20.5	20.9	20.4	19.8	18.9	18.3
MEA	3.3	3.7	3.9	4.2	4.5	4.8	5.0	5.0	4.5	4.4	4.3
NEU	1.1	0.9	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
OAS	4.9	5.1	5.5	5.9	7.4	8.2	9.1	9.9	10.0	9.8	9.4
REF	2.8	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.3
SSA	7.8	8.5	9.1	9.7	11.1	13.2	15.3	17.3	19.0	20.8	22.5
USA	2.1	2.0	2.1	2.1	2.0	1.9	1.8	1.7	1.6	1.6	1.4

Table 1782: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Manure From Grazing (Mt Nr/yr) [PART 1/2]

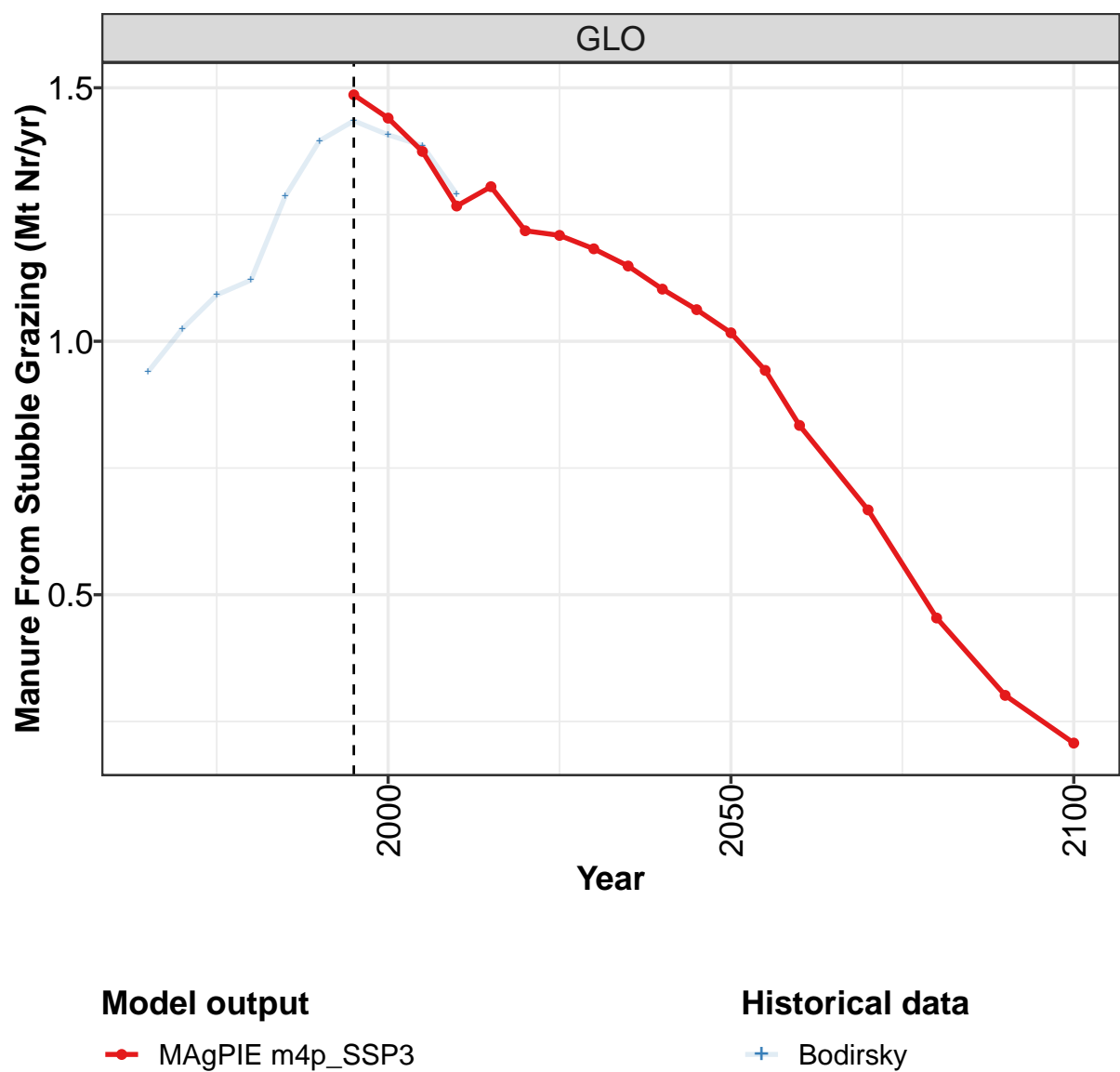
	2050	2055	2060	2070	2080	2090	2100
GLO	95.4	93.4	89.3	86.5	81.1	73.6	71.8
CAZ	2.0	1.9	1.9	1.7	1.5	1.3	1.2
CHA	9.2	8.8	8.1	6.9	5.8	4.9	4.6
EUR	3.9	3.7	3.4	3.0	2.6	2.2	2.0
IND	21.5	21.7	21.3	22.3	22.4	21.3	20.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	17.8	17.2	16.5	15.8	14.5	13.2	13.0
MEA	4.1	3.8	3.4	3.0	2.6	2.3	2.3
NEU	0.7	0.7	0.7	0.6	0.6	0.5	0.5
OAS	8.7	8.3	7.7	7.4	6.9	6.4	6.7
REF	2.2	2.2	2.1	2.0	1.8	1.0	0.9
SSA	24.0	24.0	23.1	22.8	21.4	19.4	19.2
USA	1.2	1.2	1.1	1.0	0.9	0.8	0.8

Table 1783: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Manure From Grazing (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	47.0	48.4	50.1	50.9	51.5	52.3	54.6	57.9	62.5	65.5
CAZ	3.4	3.5	3.5	3.5	3.3	3.2	3.2	3.2	3.3	3.3
CHA	6.4	6.5	6.8	7.2	7.5	7.9	8.6	9.8	11.2	12.2
EUR	7.0	7.1	7.0	6.7	6.3	5.7	5.2	4.6	4.2	4.0
IND	2.1	2.1	2.1	2.3	2.3	2.4	2.5	2.8	3.8	4.3
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	8.4	8.9	9.8	10.6	11.7	12.8	14.2	15.6	16.7	17.4
MEA	1.9	1.9	2.0	2.1	2.3	2.7	3.3	3.8	4.2	4.4
NEU	1.6	1.6	1.6	1.5	1.3	1.1	1.0	0.8	0.7	0.6
OAS	2.4	2.5	2.7	3.1	3.5	4.0	4.5	4.7	5.1	5.4
REF	3.4	3.5	3.5	3.4	3.2	2.7	2.3	1.9	2.0	2.1
SSA	5.2	5.4	5.8	6.3	6.7	7.1	7.6	8.3	9.0	9.6
USA	5.2	5.3	5.1	4.3	3.3	2.5	2.1	2.0	2.1	2.1

Table 1784: Bodirsky — Resources—Nitrogen—Manure—Manure From Grazing (Mt Nr/yr)

56.2.5 Manure From Stubble Grazing



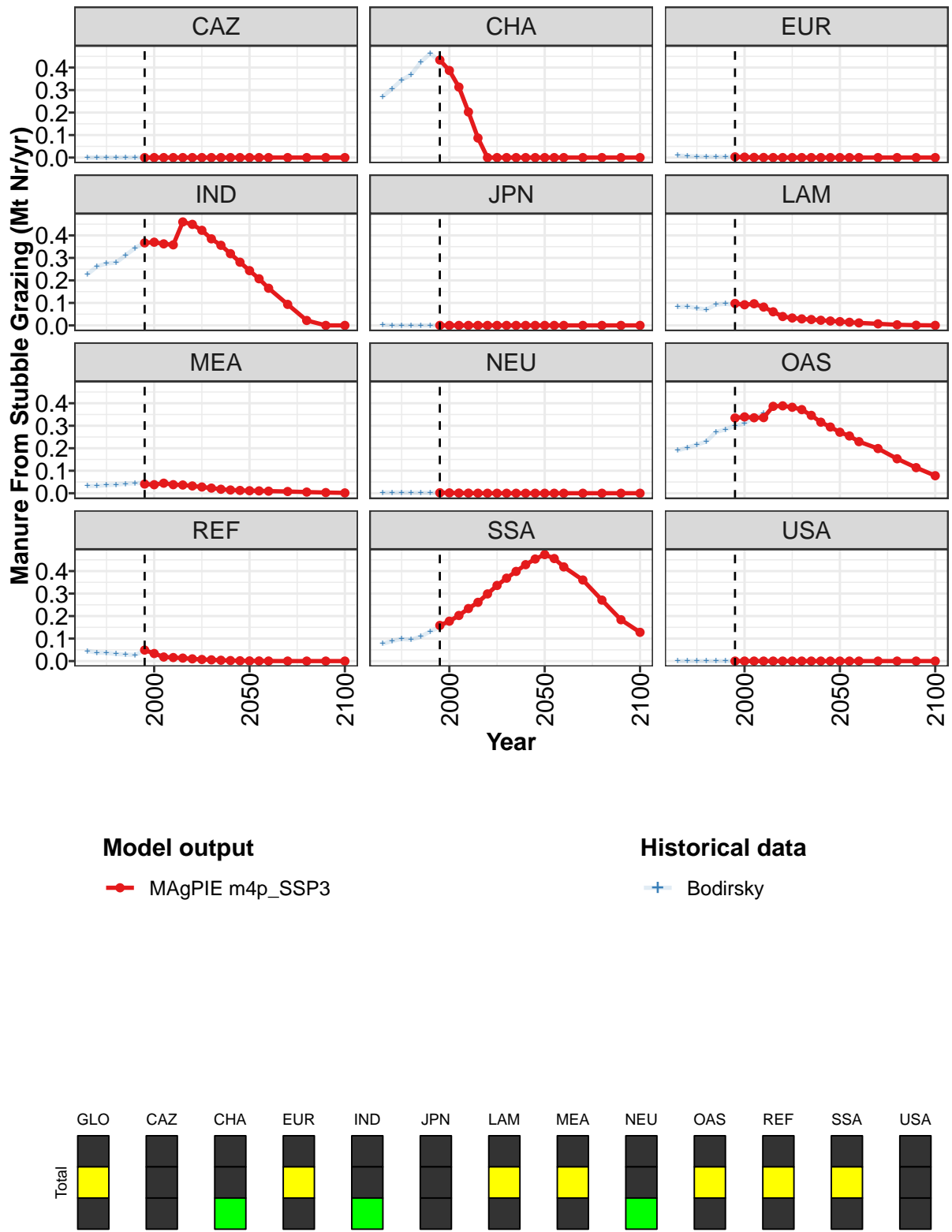


Figure 464: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Manure From Stubble Grazing (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.49	1.44	1.37	1.27	1.30	1.22	1.21	1.18	1.15	1.10	1.06
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.43	0.39	0.31	0.20	0.09	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.37	0.37	0.36	0.36	0.46	0.45	0.42	0.38	0.36	0.32	0.28
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.10	0.09	0.10	0.08	0.06	0.04	0.03	0.03	0.03	0.02	0.02
MEA	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.02	0.02	0.01	0.01
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.33	0.34	0.34	0.34	0.39	0.39	0.38	0.37	0.35	0.32	0.29
REF	0.05	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00
SSA	0.16	0.18	0.20	0.23	0.26	0.30	0.34	0.37	0.40	0.43	0.45
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1785: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Manure From Stubble Grazing (Mt Nr/yr)
[PART 1/2]

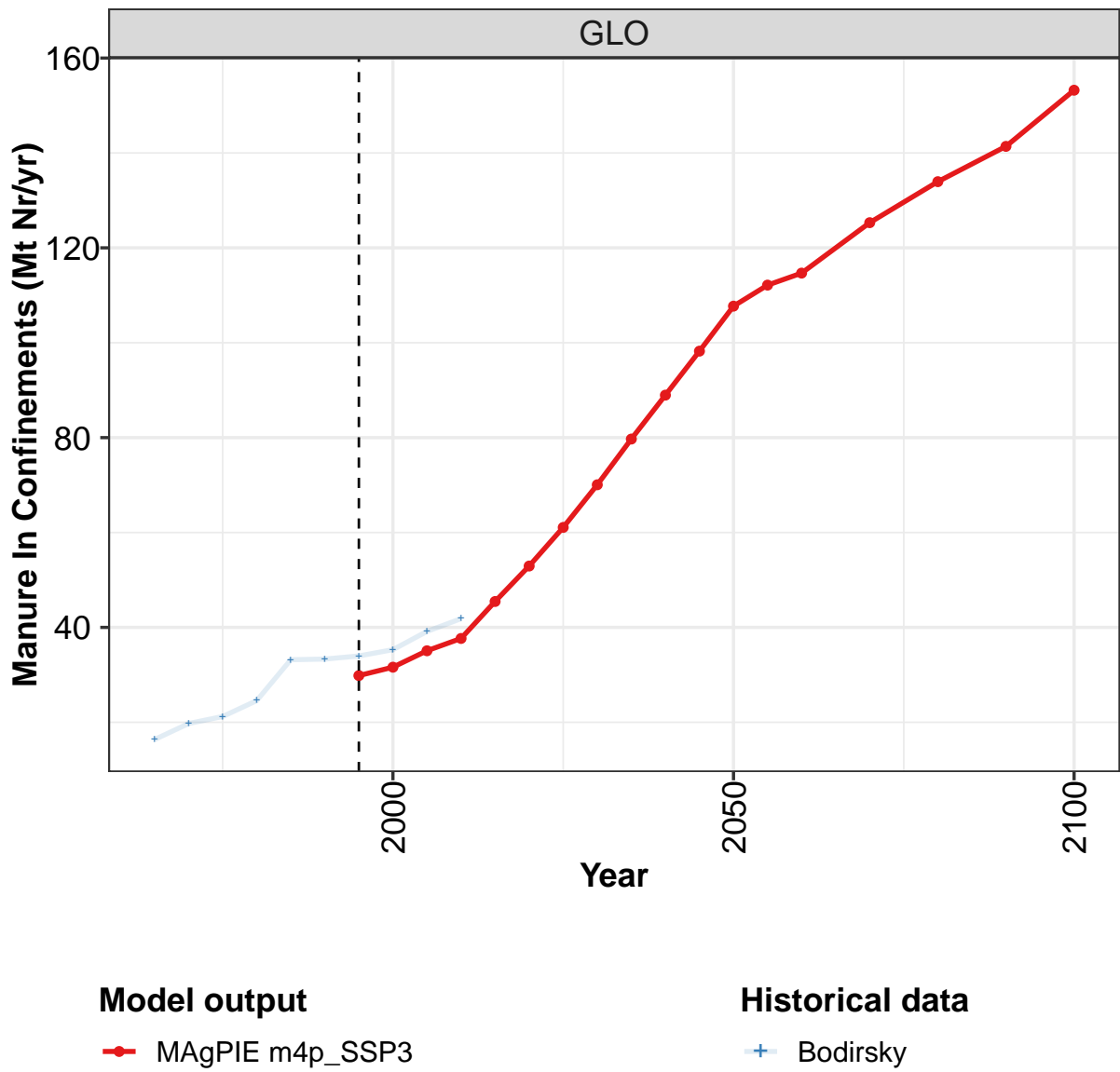
	2050	2055	2060	2070	2080	2090	2100
GLO	1.02	0.94	0.83	0.67	0.45	0.30	0.21
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.24	0.21	0.17	0.09	0.02	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.02	0.01	0.01	0.01	0.00	0.00	0.00
MEA	0.01	0.01	0.01	0.01	0.01	0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.27	0.25	0.23	0.20	0.15	0.11	0.08
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.47	0.46	0.42	0.36	0.27	0.18	0.13
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1786: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Manure From Stubble Grazing (Mt Nr/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.94	1.02	1.09	1.12	1.29	1.40	1.43	1.41	1.39	1.29
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.27	0.31	0.34	0.37	0.42	0.46	0.43	0.38	0.31	0.20
EUR	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.23	0.26	0.28	0.28	0.31	0.34	0.37	0.37	0.37	0.36
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.08	0.08	0.08	0.07	0.09	0.10	0.09	0.09	0.10	0.08
MEA	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.04	0.05	0.04
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.19	0.20	0.22	0.23	0.27	0.28	0.30	0.31	0.34	0.35
REF	0.04	0.04	0.04	0.03	0.03	0.03	0.05	0.03	0.02	0.02
SSA	0.08	0.09	0.10	0.10	0.11	0.13	0.15	0.17	0.20	0.24
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1787: Bodirsky — Resources—Nitrogen—Manure—Manure From Stubble Grazing (Mt Nr/yr)

56.2.6 Manure In Confinements



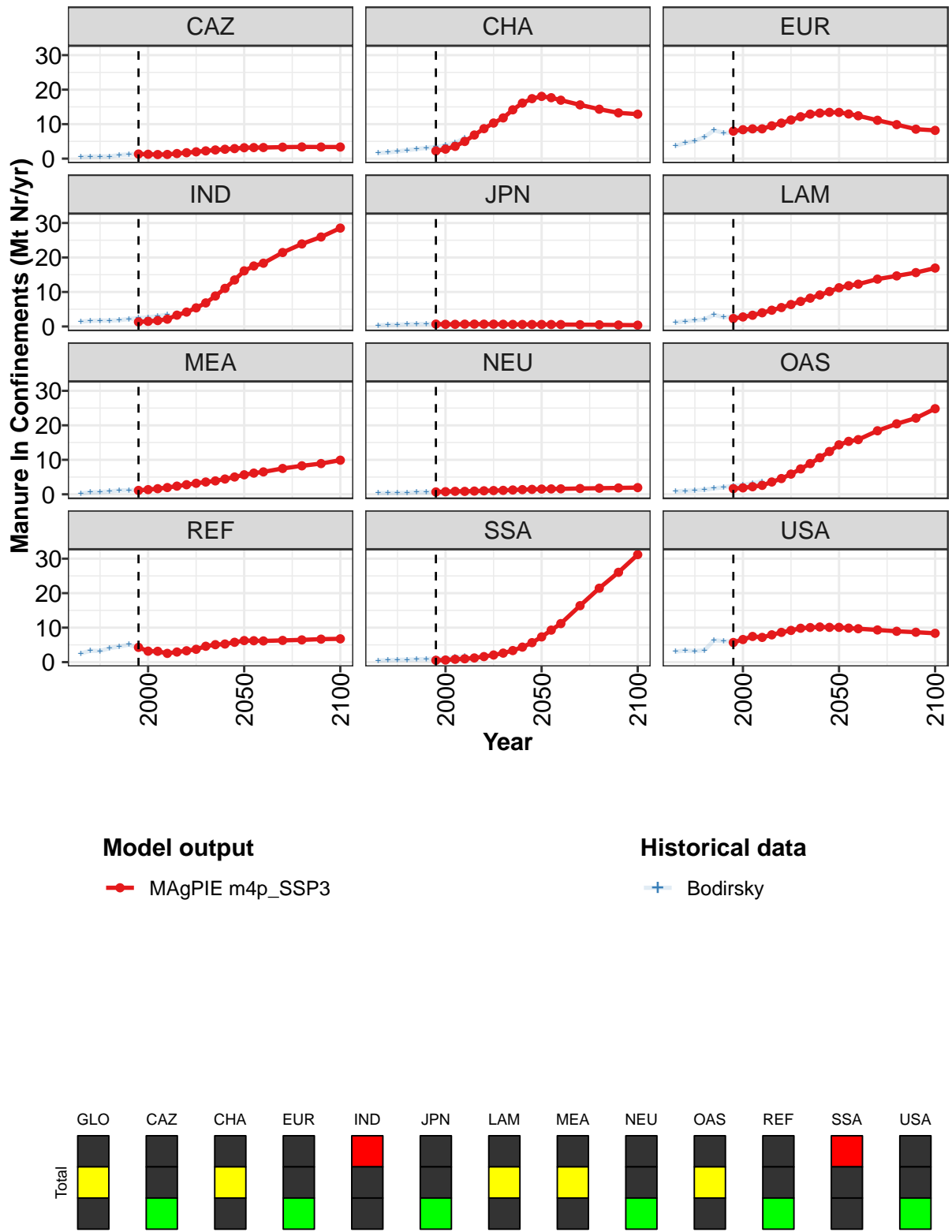


Figure 465: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Manure In Confinements (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	30	32	35	38	45	53	61	70	80	89	98
CAZ	1	1	1	1	1	2	2	2	3	3	3
CHA	2	3	4	5	7	9	10	12	14	16	17
EUR	8	8	9	9	10	10	11	12	13	13	13
IND	1	1	2	2	3	4	5	7	9	11	13
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	2	3	3	4	5	5	6	7	8	9	10
MEA	1	1	2	2	2	3	3	4	4	4	5
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	2	2	2	3	4	5	6	7	9	11	12
REF	4	3	3	3	3	3	4	5	5	5	6
SSA	1	1	1	1	1	2	2	3	3	4	6
USA	6	7	7	7	8	9	9	10	10	10	10

Table 1788: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Manure In Confinements (Mt Nr/yr)
[PART 1/2]

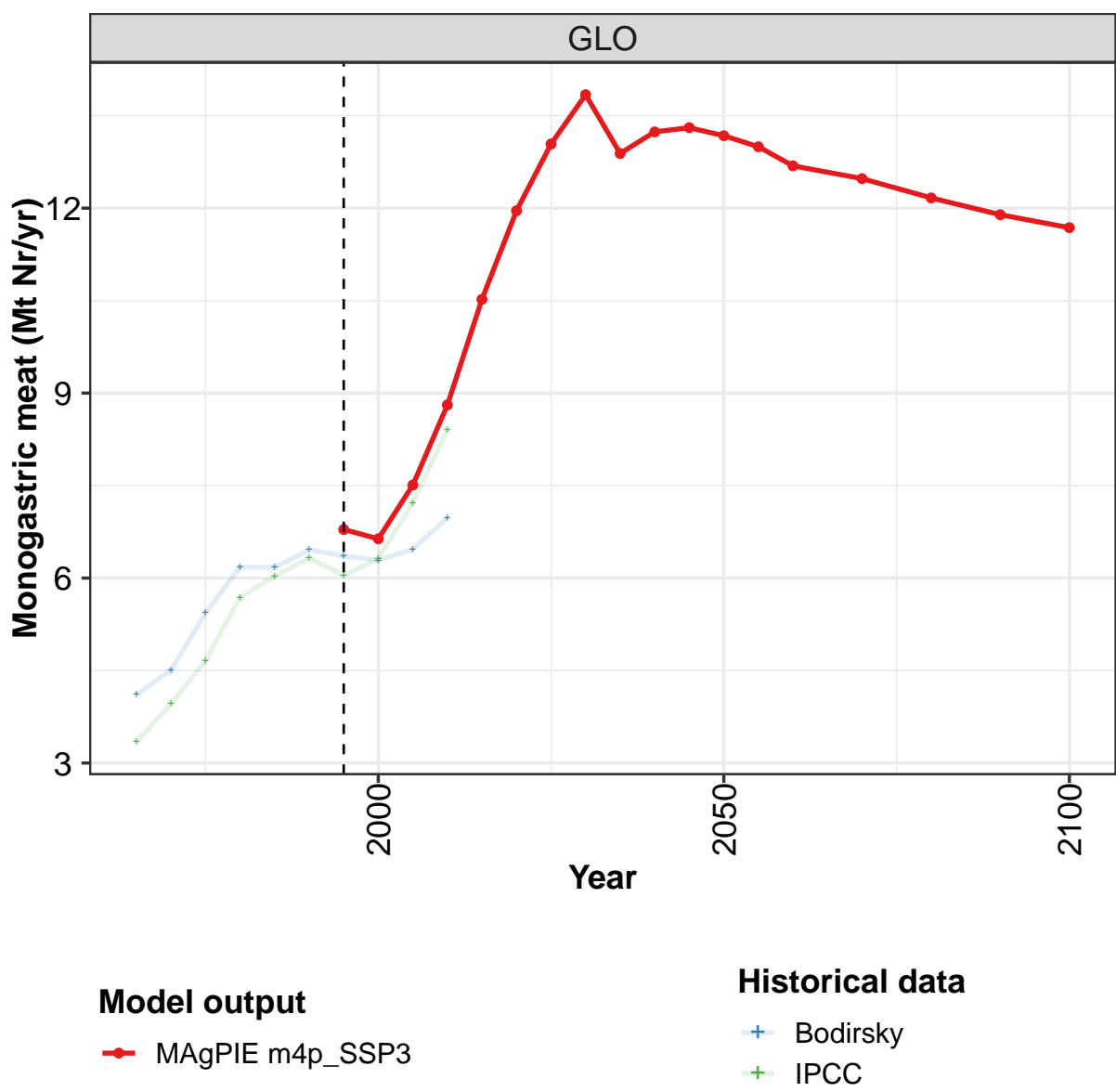
	2050	2055	2060	2070	2080	2090	2100
GLO	108	112	115	125	134	141	153
CAZ	3	3	3	3	3	3	3
CHA	18	18	17	16	14	13	13
EUR	13	13	12	11	10	9	8
IND	16	18	18	21	24	26	29
JPN	1	1	1	1	0	0	0
LAM	11	12	12	14	15	16	17
MEA	6	6	6	7	8	9	10
NEU	2	2	2	2	2	2	2
OAS	14	15	16	18	20	22	25
REF	6	6	6	6	6	7	7
SSA	7	9	11	16	21	26	31
USA	10	10	10	9	9	9	8

Table 1789: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Manure In Confinements (Mt Nr/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	16.4	19.7	21.2	24.6	33.2	33.3	34.0	35.3	39.2	41.8
CAZ	0.5	0.6	0.6	0.6	1.0	1.2	1.4	1.4	1.4	1.4
CHA	1.6	1.8	2.1	2.4	2.8	3.1	3.4	3.9	4.6	6.0
EUR	3.8	4.5	5.2	6.3	8.2	7.5	7.6	7.8	8.1	8.1
IND	1.4	1.6	1.7	1.7	1.8	2.2	2.4	2.7	3.0	3.4
JPN	0.3	0.5	0.5	0.6	0.7	0.7	0.7	0.6	0.6	0.7
LAM	1.2	1.5	1.8	2.0	3.4	2.7	2.8	3.3	3.8	4.4
MEA	0.3	0.6	0.7	0.8	1.1	1.2	1.3	1.5	1.7	2.1
NEU	0.4	0.4	0.4	0.5	0.7	0.6	0.7	0.7	0.8	0.8
OAS	0.9	1.0	1.1	1.3	1.7	2.0	2.5	2.7	3.2	3.7
REF	2.5	3.3	3.2	4.1	4.5	5.1	4.2	2.9	2.9	2.3
SSA	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.4	1.7
USA	3.1	3.4	3.2	3.4	6.4	6.1	6.0	6.8	7.6	7.4

Table 1790: Bodirsky — Resources—Nitrogen—Manure—Manure In Confinements (Mt Nr/yr)

56.2.7 Monogastric meat



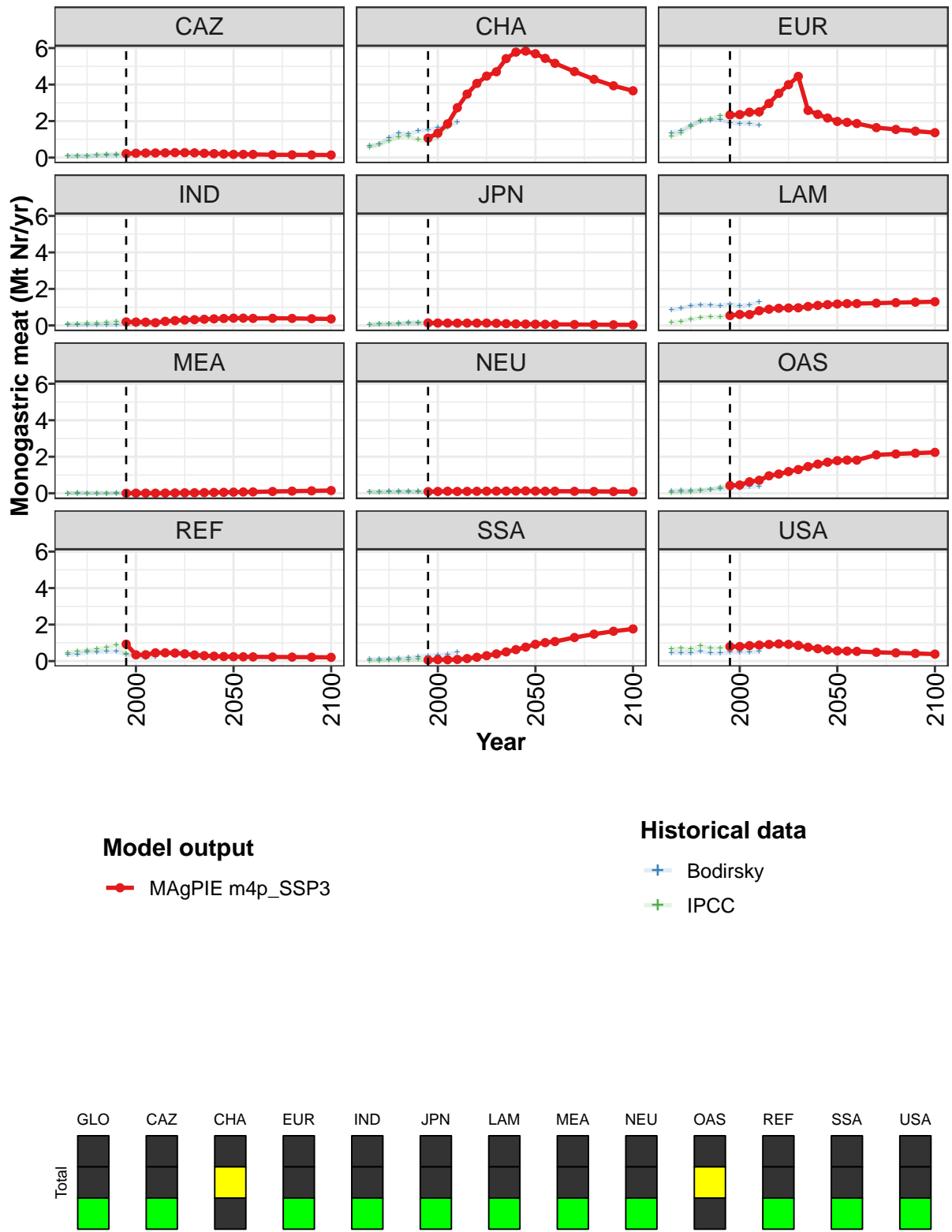


Figure 466: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Monogastric meat (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.8	6.6	7.5	8.8	10.5	12.0	13.0	13.8	12.9	13.2	13.3
CAZ	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
CHA	1.1	1.3	1.8	2.7	3.5	4.1	4.5	4.7	5.4	5.8	5.8
EUR	2.3	2.4	2.5	2.5	3.0	3.5	4.0	4.4	2.6	2.4	2.2
IND	0.2	0.2	0.2	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.5	0.6	0.6	0.8	0.9	0.9	1.0	1.0	1.0	1.1	1.1
MEA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	0.4	0.5	0.6	0.7	1.0	1.1	1.2	1.3	1.5	1.6	1.7
REF	0.9	0.3	0.3	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3
SSA	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.8
USA	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.6

Table 1791: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Monogastric meat (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	13.2	13.0	12.7	12.5	12.2	11.9	11.7
CAZ	0.2	0.2	0.2	0.2	0.2	0.1	0.1
CHA	5.7	5.4	5.2	4.7	4.3	3.9	3.7
EUR	2.0	1.9	1.9	1.6	1.5	1.4	1.4
IND	0.4	0.4	0.4	0.4	0.4	0.4	0.4
JPN	0.1	0.1	0.1	0.0	0.0	0.0	0.0
LAM	1.2	1.2	1.2	1.2	1.2	1.3	1.3
MEA	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	1.8	1.8	1.8	2.1	2.2	2.2	2.2
REF	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SSA	0.9	1.0	1.1	1.3	1.5	1.6	1.8
USA	0.6	0.5	0.5	0.5	0.5	0.4	0.4

Table 1792: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Monogastric meat (Mt Nr/yr) [PART 2/2]

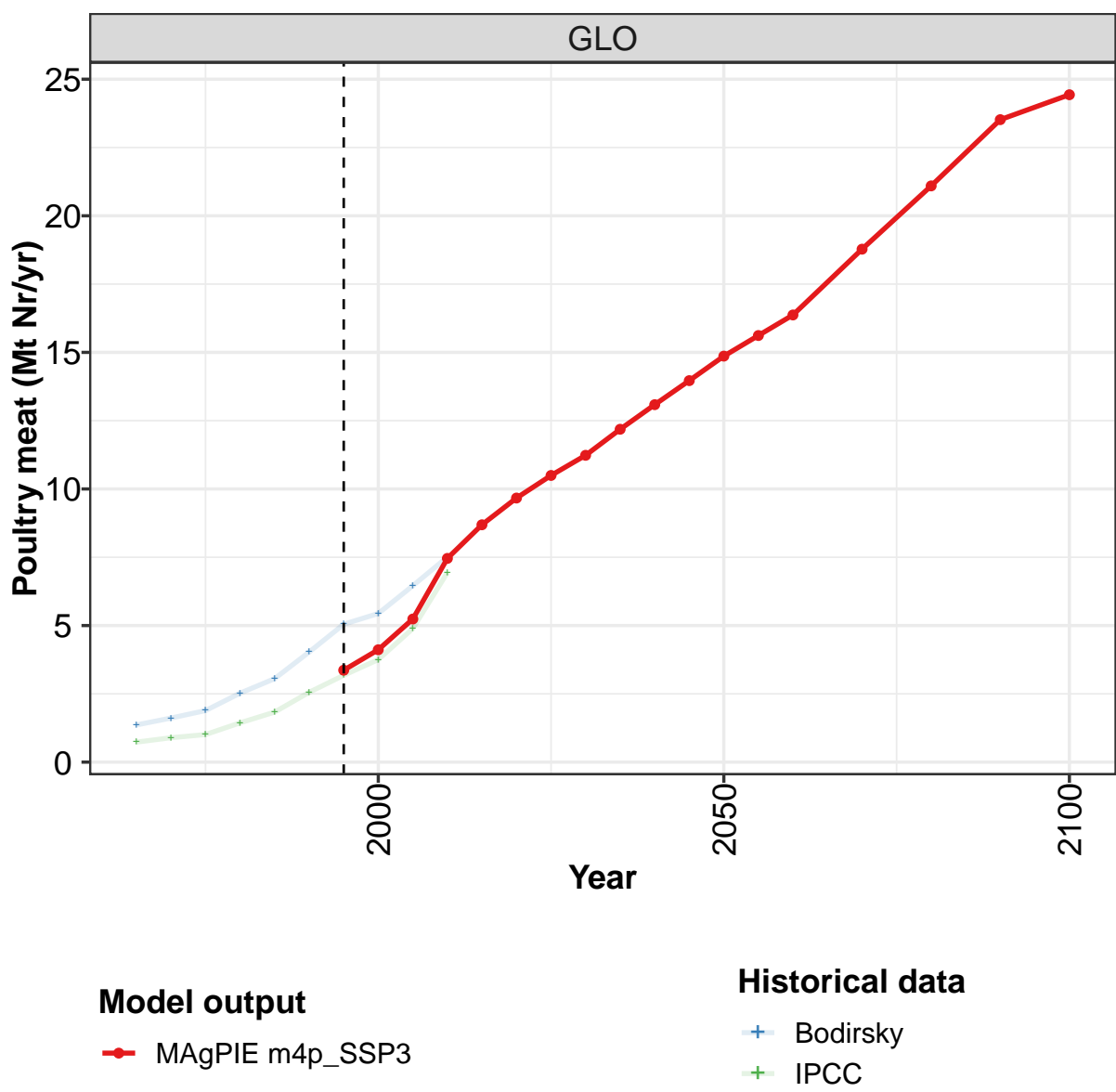
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.11	4.50	5.43	6.18	6.17	6.46	6.36	6.29	6.47	6.98
CAZ	0.07	0.09	0.08	0.11	0.12	0.12	0.12	0.14	0.15	0.13
CHA	0.64	0.72	1.08	1.34	1.29	1.45	1.52	1.63	1.67	1.96
EUR	1.36	1.48	1.78	1.99	2.04	2.09	1.90	1.86	1.86	1.78
IND	0.02	0.02	0.03	0.04	0.04	0.05	0.05	0.06	0.05	0.04
JPN	0.04	0.07	0.08	0.11	0.12	0.13	0.11	0.11	0.10	0.11
LAM	0.85	0.94	1.07	1.13	1.10	1.08	1.17	1.06	1.14	1.28
MEA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEU	0.09	0.08	0.10	0.10	0.11	0.09	0.09	0.08	0.08	0.08
OAS	0.13	0.15	0.15	0.17	0.20	0.23	0.26	0.29	0.36	0.38
REF	0.36	0.38	0.49	0.50	0.53	0.53	0.35	0.26	0.19	0.22
SSA	0.09	0.11	0.12	0.15	0.18	0.25	0.29	0.33	0.37	0.47
USA	0.45	0.46	0.44	0.54	0.44	0.43	0.48	0.48	0.49	0.52

Table 1793: IPCC — Resources—Nitrogen—Manure—Monogastric meat (Mt Nr/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3.34	3.96	4.66	5.69	6.03	6.32	6.04	6.32	7.21	8.41
CAZ	0.07	0.10	0.10	0.15	0.17	0.19	0.24	0.28	0.30	0.26
CHA	0.58	0.72	0.91	1.14	1.15	0.98	0.87	1.10	1.68	2.59
EUR	1.16	1.36	1.70	2.02	2.12	2.29	2.25	2.26	2.35	2.35
IND	0.09	0.10	0.11	0.10	0.16	0.19	0.20	0.20	0.19	0.15
JPN	0.04	0.08	0.09	0.07	0.16	0.16	0.14	0.13	0.13	0.13
LAM	0.17	0.23	0.33	0.44	0.47	0.45	0.58	0.65	0.63	0.78
MEA	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00
NEU	0.06	0.06	0.07	0.07	0.08	0.07	0.06	0.07	0.08	0.09
OAS	0.05	0.07	0.09	0.15	0.22	0.31	0.42	0.41	0.59	0.66
REF	0.45	0.52	0.58	0.65	0.73	0.89	0.42	0.32	0.30	0.38
SSA	0.02	0.03	0.04	0.05	0.06	0.08	0.06	0.09	0.07	0.09
USA	0.65	0.70	0.65	0.83	0.71	0.72	0.80	0.81	0.88	0.94

Table 1794: Bodirsky — Resources—Nitrogen—Manure—Monogastric meat (Mt Nr/yr)

56.2.8 Poultry meat



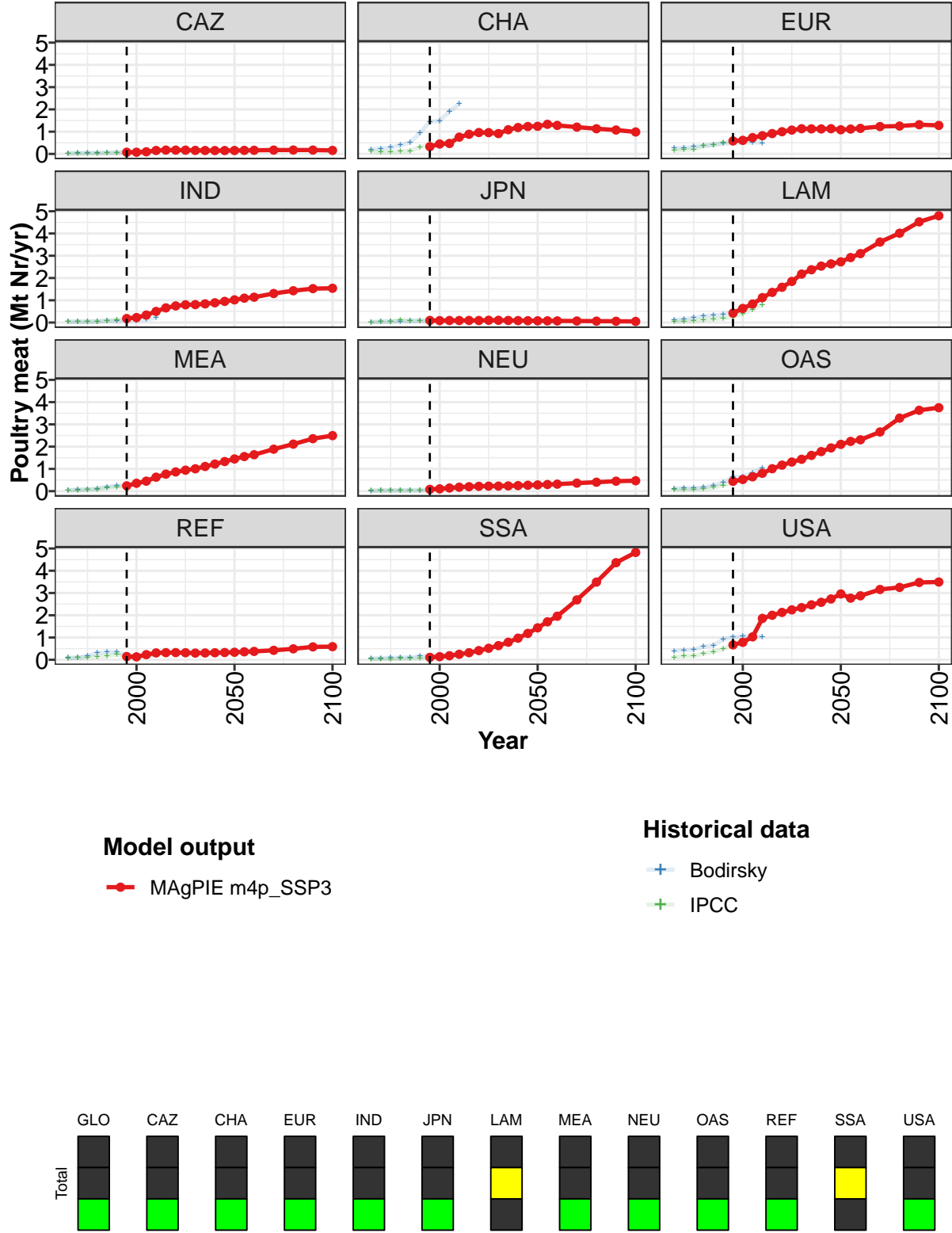


Figure 467: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Poultry meat (Mt N/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.4	4.1	5.2	7.5	8.7	9.7	10.5	11.2	12.2	13.1	14.0
CAZ	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	0.3	0.4	0.5	0.8	0.9	1.0	1.0	0.9	1.1	1.2	1.2
EUR	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.1	1.1	1.1	1.1
IND	0.2	0.2	0.3	0.5	0.7	0.7	0.8	0.8	0.8	0.9	1.0
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.4	0.6	0.8	1.1	1.4	1.6	1.8	2.2	2.4	2.5	2.6
MEA	0.2	0.4	0.5	0.6	0.8	0.9	0.9	1.0	1.1	1.2	1.3
NEU	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
OAS	0.4	0.5	0.6	0.8	1.0	1.2	1.3	1.4	1.6	1.8	1.9
REF	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
SSA	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2
USA	0.7	0.8	1.0	1.9	2.0	2.1	2.2	2.3	2.5	2.6	2.7

Table 1795: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Poultry meat (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	14.9	15.6	16.4	18.8	21.1	23.5	24.4
CAZ	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	1.2	1.3	1.3	1.2	1.1	1.1	1.0
EUR	1.1	1.1	1.1	1.2	1.3	1.3	1.3
IND	1.0	1.1	1.1	1.3	1.4	1.5	1.5
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	2.7	2.9	3.1	3.6	4.0	4.5	4.8
MEA	1.4	1.6	1.6	1.9	2.1	2.4	2.5
NEU	0.3	0.3	0.3	0.4	0.4	0.4	0.5
OAS	2.1	2.2	2.3	2.7	3.3	3.6	3.7
REF	0.3	0.4	0.4	0.4	0.5	0.6	0.6
SSA	1.4	1.7	2.0	2.7	3.5	4.4	4.8
USA	3.0	2.8	2.9	3.2	3.3	3.5	3.5

Table 1796: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Poultry meat (Mt Nr/yr) [PART 2/2]

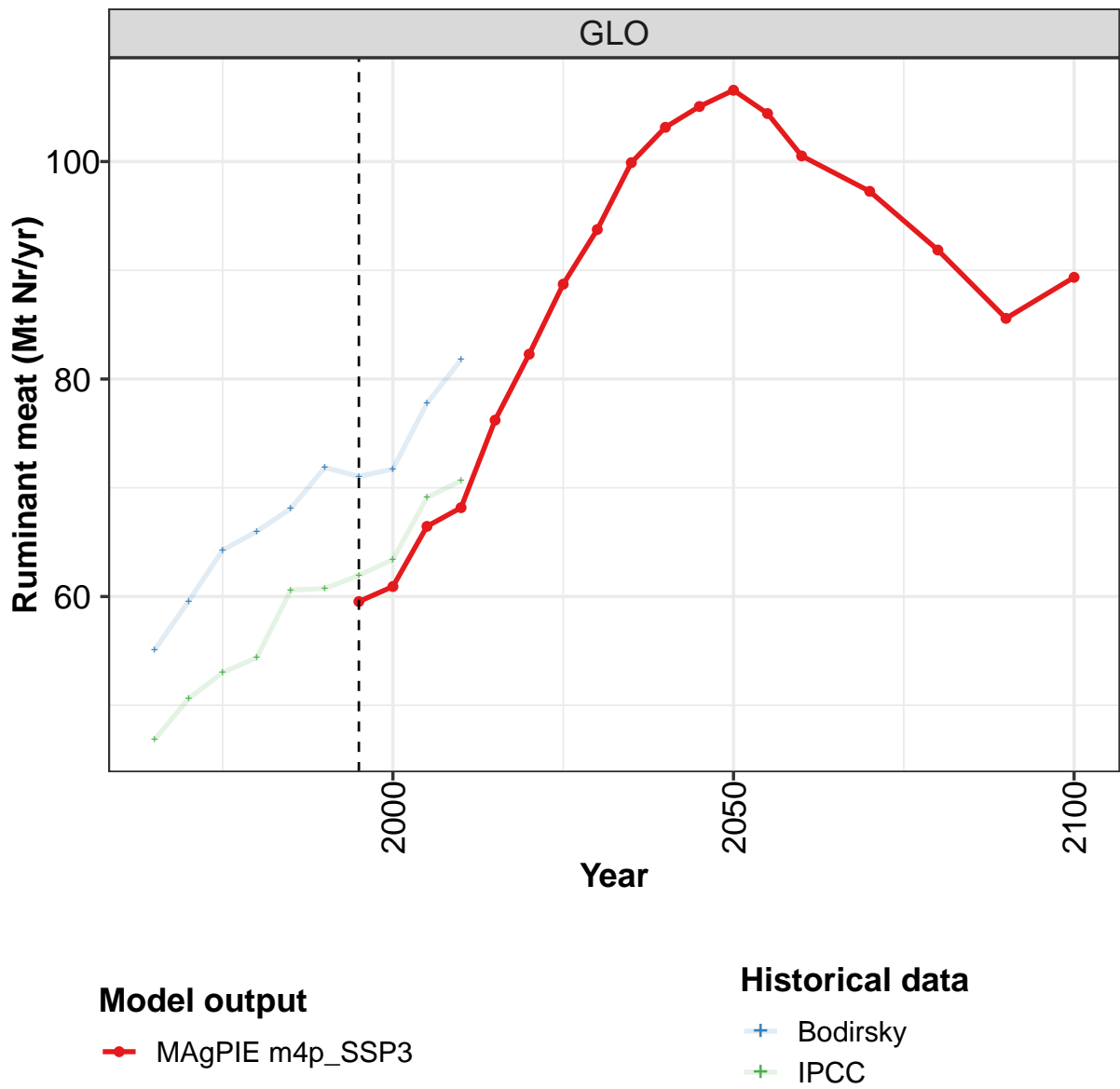
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.36	1.61	1.89	2.52	3.06	4.03	5.05	5.44	6.46	7.51
CAZ	0.03	0.04	0.04	0.05	0.05	0.06	0.08	0.09	0.09	0.09
CHA	0.20	0.24	0.29	0.39	0.52	0.94	1.44	1.49	1.91	2.25
EUR	0.25	0.28	0.32	0.37	0.42	0.47	0.47	0.51	0.52	0.50
IND	0.03	0.04	0.03	0.05	0.08	0.07	0.09	0.10	0.14	0.22
JPN	0.02	0.04	0.05	0.06	0.07	0.07	0.06	0.06	0.05	0.05
LAM	0.12	0.16	0.21	0.30	0.32	0.36	0.53	0.67	0.84	1.02
MEA	0.04	0.06	0.08	0.12	0.19	0.24	0.26	0.35	0.51	0.67
NEU	0.02	0.02	0.02	0.03	0.03	0.03	0.07	0.09	0.11	0.09
OAS	0.12	0.14	0.14	0.17	0.27	0.39	0.64	0.65	0.82	1.02
REF	0.09	0.10	0.17	0.31	0.35	0.34	0.21	0.16	0.17	0.24
SSA	0.05	0.07	0.08	0.10	0.11	0.16	0.17	0.21	0.23	0.33
USA	0.39	0.44	0.45	0.58	0.65	0.91	1.02	1.06	1.06	1.04

Table 1797: IPCC — Resources—Nitrogen—Manure—Poultry meat (Mt Nr/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.73	0.89	1.01	1.44	1.83	2.56	3.18	3.75	4.89	6.94
CAZ	0.02	0.02	0.02	0.03	0.04	0.04	0.06	0.05	0.07	0.12
CHA	0.12	0.08	0.09	0.11	0.14	0.30	0.43	0.51	0.57	0.81
EUR	0.15	0.19	0.21	0.35	0.40	0.50	0.55	0.55	0.66	0.73
IND	0.04	0.05	0.05	0.05	0.08	0.13	0.18	0.22	0.34	0.50
JPN	0.02	0.04	0.04	0.10	0.08	0.09	0.09	0.09	0.09	0.09
LAM	0.05	0.06	0.08	0.12	0.15	0.19	0.26	0.40	0.60	0.80
MEA	0.04	0.05	0.07	0.09	0.16	0.19	0.23	0.33	0.42	0.59
NEU	0.02	0.03	0.04	0.04	0.04	0.05	0.08	0.10	0.14	0.18
OAS	0.06	0.07	0.08	0.10	0.17	0.27	0.40	0.46	0.59	0.73
REF	0.06	0.08	0.11	0.13	0.18	0.24	0.11	0.10	0.18	0.23
SSA	0.03	0.04	0.04	0.05	0.05	0.08	0.10	0.12	0.17	0.21
USA	0.12	0.18	0.18	0.27	0.36	0.48	0.69	0.82	1.08	1.95

Table 1798: Bodirsky — Resources—Nitrogen—Manure—Poultry meat (Mt Nr/yr)

56.2.9 Ruminant meat



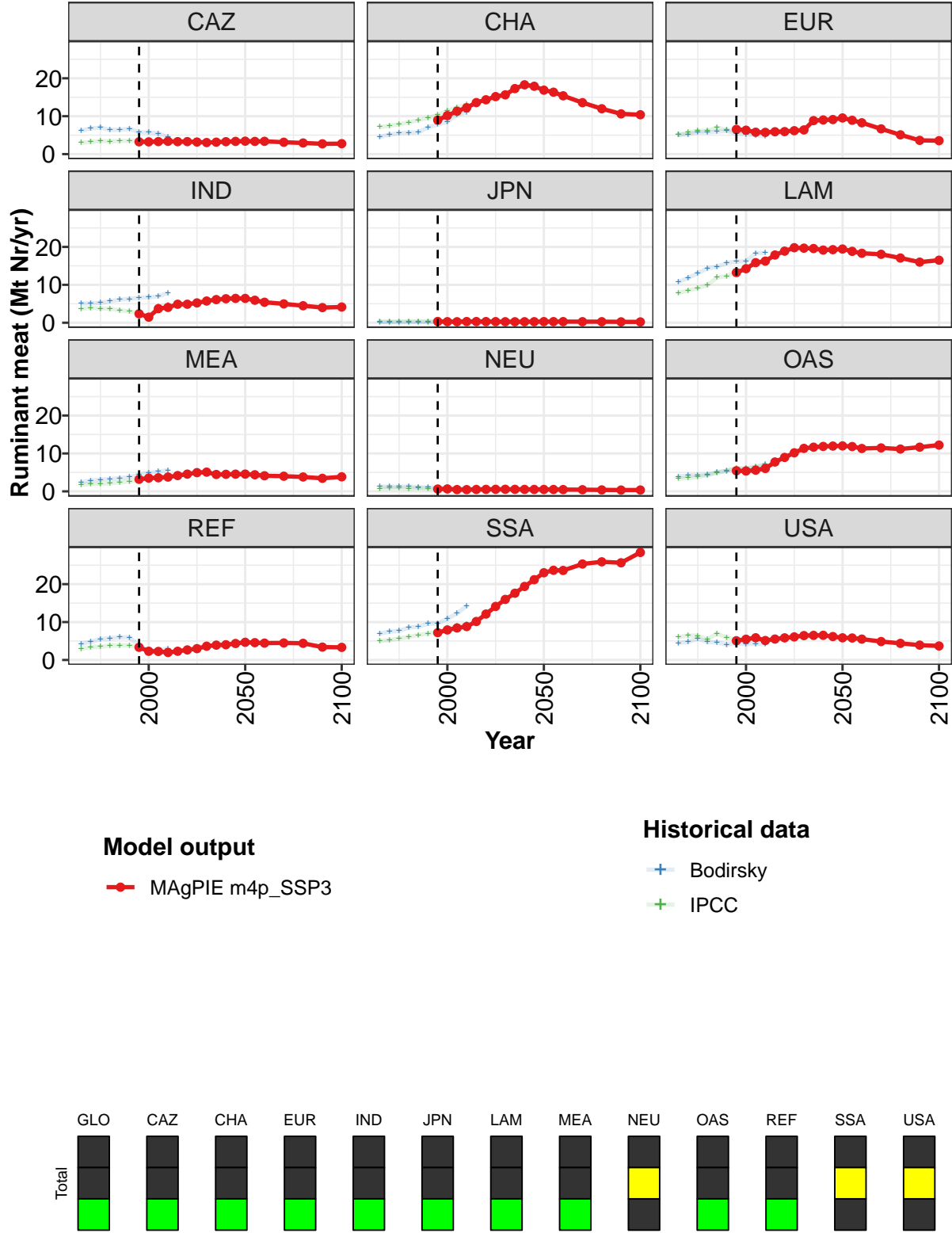


Figure 468: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Ruminant meat (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	60	61	66	68	76	82	89	94	100	103	105
CAZ	3	3	3	3	3	3	3	3	3	3	3
CHA	9	10	11	12	14	14	15	16	17	18	18
EUR	7	6	6	6	6	6	6	6	9	9	9
IND	2	1	4	4	5	5	5	6	6	6	6
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	13	14	16	16	18	19	20	20	20	19	19
MEA	3	3	4	4	4	5	5	5	4	5	5
NEU	1	1	0	0	1	1	1	1	1	1	1
OAS	5	5	6	6	8	9	10	11	12	12	12
REF	3	2	2	2	2	3	3	4	4	4	4
SSA	7	8	8	9	10	12	14	16	18	19	21
USA	5	5	6	5	6	6	6	6	6	7	6

Table 1799: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Ruminant meat (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	107	104	101	97	92	86	89
CAZ	3	3	3	3	3	3	3
CHA	17	16	15	14	12	11	10
EUR	10	9	8	7	5	4	4
IND	6	6	5	5	4	4	4
JPN	0	0	0	0	0	0	0
LAM	19	19	18	18	17	16	16
MEA	5	4	4	4	4	3	4
NEU	1	0	0	0	0	0	0
OAS	12	12	11	11	11	12	12
REF	5	5	4	4	4	3	3
SSA	23	24	24	25	26	26	28
USA	6	6	6	5	4	4	4

Table 1800: MAgPIE m4p_SSP3 — Resources—Nitrogen—Manure—Ruminant meat (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	55.1	59.6	64.3	66.0	68.1	71.9	71.0	71.7	77.8	81.8
CAZ	6.2	6.8	7.0	6.4	6.4	6.7	5.8	5.7	5.4	4.5
CHA	4.6	5.1	5.5	5.7	5.8	7.1	7.8	8.5	10.3	11.1
EUR	5.1	5.2	5.8	5.7	6.0	6.2	5.4	5.3	4.9	4.7
IND	5.0	5.1	5.3	5.7	6.1	6.3	6.6	6.7	7.0	7.9
JPN	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	10.8	11.8	13.1	14.3	14.8	15.7	16.1	16.2	18.3	18.4
MEA	2.4	2.9	3.1	3.3	3.5	3.7	4.4	4.9	5.2	5.6
NEU	1.3	1.3	1.2	1.3	1.0	1.0	0.9	0.8	0.9	0.8
OAS	3.9	4.2	4.3	4.4	5.1	5.4	6.0	6.0	6.4	7.2
REF	4.3	4.8	5.5	5.7	6.0	5.9	3.9	2.3	2.6	3.0
SSA	7.0	7.5	7.7	8.6	8.8	9.6	9.6	10.9	12.3	14.3
USA	4.5	4.8	5.6	4.7	4.6	4.1	4.4	4.2	4.2	4.2

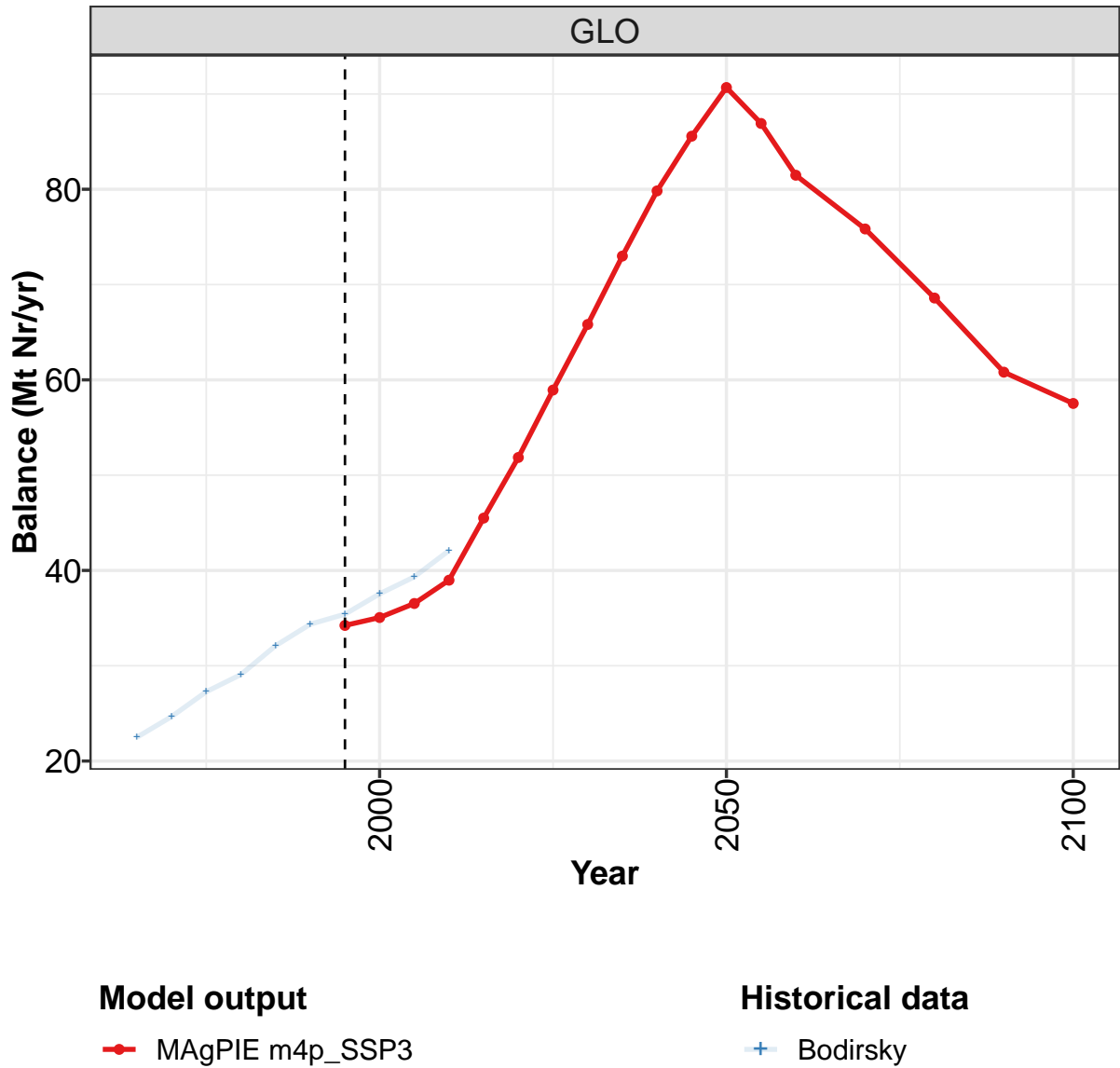
Table 1801: IPCC — Resources—Nitrogen—Manure—Ruminant meat (Mt Nr/yr)

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	46.8	50.6	53.0	54.4	60.6	60.8	61.9	63.4	69.1	70.7
CAZ	3.0	3.2	3.5	3.4	3.5	3.5	3.5	3.5	3.5	3.4
CHA	7.2	7.5	7.9	8.4	9.0	9.6	10.3	11.4	12.3	13.0
EUR	5.1	5.7	6.1	6.2	7.0	6.4	6.0	5.8	5.4	5.5
IND	3.7	3.9	3.8	3.7	3.2	3.0	2.5	1.7	4.3	4.6
JPN	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3
LAM	7.9	8.5	9.1	9.9	11.9	12.3	13.3	14.5	15.7	16.1
MEA	1.7	2.0	2.0	2.1	2.4	2.6	3.2	3.6	3.7	3.9
NEU	0.8	0.9	0.9	0.7	0.9	0.8	0.6	0.6	0.5	0.4
OAS	3.3	3.5	3.8	4.2	5.0	5.5	6.1	6.1	6.5	6.9
REF	2.9	3.4	3.5	3.8	3.8	3.9	3.2	2.2	2.0	2.0
SSA	5.0	5.3	5.7	6.1	6.6	7.0	7.4	8.2	8.9	9.3
USA	6.0	6.5	6.4	5.5	6.9	5.9	5.4	5.7	5.9	5.1

Table 1802: Bodirsky — Resources—Nitrogen—Manure—Ruminant meat (Mt Nr/yr)

56.3 Pasture Budget

56.3.1 Balance



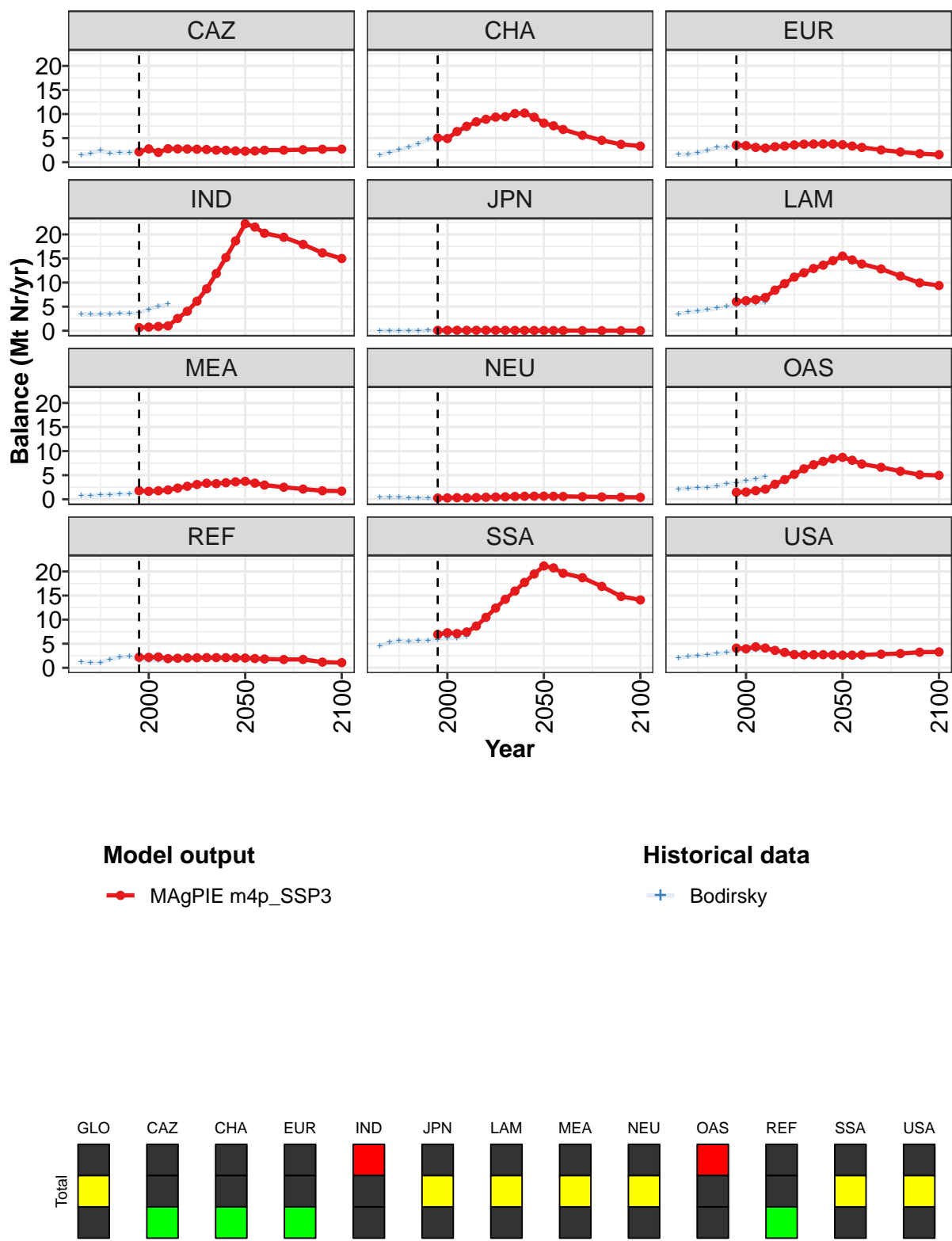


Figure 469: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Balance (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34.2	35.1	36.5	39.0	45.5	51.9	58.9	65.8	73.0	79.8	85.6
CAZ	2.2	2.8	2.0	2.8	2.8	2.7	2.7	2.6	2.5	2.5	2.4
CHA	5.0	4.9	6.4	7.5	8.4	8.9	9.4	9.4	10.1	10.2	9.3
EUR	3.6	3.4	3.1	2.9	3.2	3.4	3.6	3.7	3.8	3.8	3.8
IND	0.6	0.8	0.9	1.0	2.6	4.1	6.1	8.7	11.9	15.2	18.6
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	6.0	6.2	6.5	6.9	8.4	9.8	11.1	12.0	12.9	13.6	14.6
MEA	1.8	1.7	1.8	1.9	2.3	2.7	3.1	3.3	3.2	3.4	3.6
NEU	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6
OAS	1.5	1.5	1.8	2.1	3.1	4.1	5.2	6.3	7.2	7.9	8.4
REF	2.2	2.2	2.2	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.1
SSA	6.9	7.3	7.1	7.4	8.7	10.5	12.4	14.2	15.9	17.7	19.5
USA	4.1	4.0	4.4	4.1	3.6	3.2	2.7	2.7	2.7	2.7	2.7

Table 1803: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Balance (Mt Nr/yr) [PART 1/2]

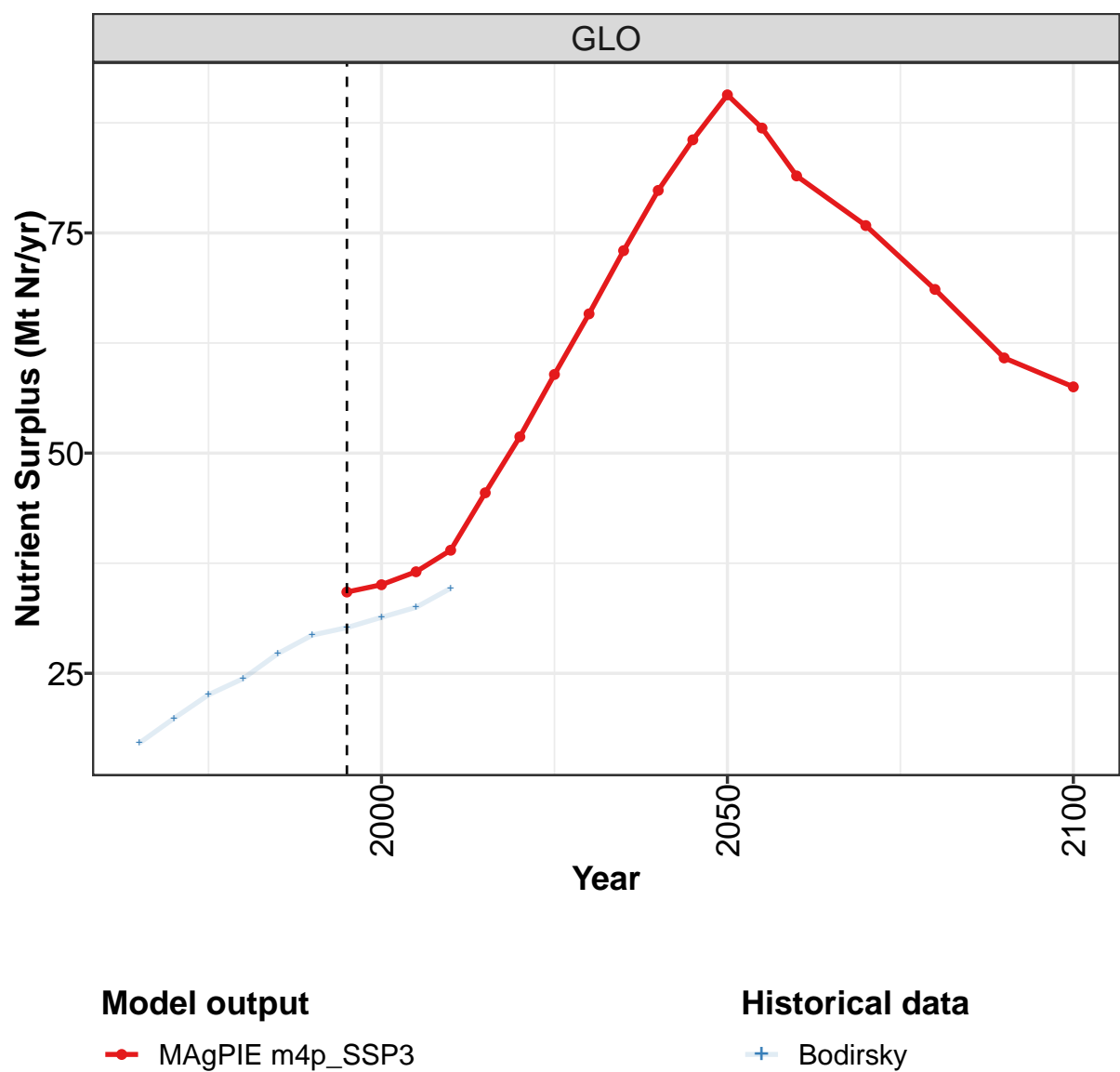
	2050	2055	2060	2070	2080	2090	2100
GLO	90.7	86.9	81.5	75.8	68.6	60.8	57.5
CAZ	2.3	2.3	2.5	2.5	2.6	2.7	2.7
CHA	8.1	7.6	6.8	5.6	4.5	3.7	3.3
EUR	3.6	3.3	3.1	2.6	2.1	1.8	1.6
IND	22.2	21.5	20.2	19.4	17.9	16.2	15.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	15.5	14.7	13.9	12.8	11.4	9.9	9.4
MEA	3.7	3.4	3.0	2.5	2.1	1.8	1.7
NEU	0.7	0.6	0.6	0.5	0.5	0.4	0.4
OAS	8.7	8.1	7.3	6.6	5.8	5.1	5.0
REF	2.0	1.9	1.8	1.7	1.7	1.2	1.1
SSA	21.1	20.7	19.6	18.7	16.9	14.8	14.1
USA	2.6	2.6	2.7	2.8	3.0	3.2	3.3

Table 1804: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Balance (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	22.5	24.7	27.3	29.1	32.1	34.4	35.4	37.5	39.3	42.1
CAZ	1.5	1.8	2.4	1.9	2.0	1.9	2.2	2.7	2.1	2.7
CHA	1.5	2.1	2.6	3.2	3.8	4.7	5.2	5.1	6.1	7.0
EUR	1.6	1.6	1.9	2.4	3.1	3.1	3.1	3.1	2.8	2.6
IND	3.4	3.3	3.4	3.5	3.6	3.6	3.7	4.5	5.1	5.5
JPN	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
LAM	3.5	3.8	4.1	4.3	4.7	5.0	5.2	5.4	5.7	5.9
MEA	0.8	0.7	0.9	1.0	1.1	1.2	1.5	1.5	1.7	1.8
NEU	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
OAS	2.1	2.2	2.3	2.5	2.8	3.3	3.4	3.8	4.2	4.7
REF	1.2	1.0	1.1	1.8	2.2	2.4	1.5	1.5	1.5	1.4
SSA	4.5	5.3	5.6	5.5	5.6	5.7	5.8	6.2	6.2	6.4
USA	2.1	2.3	2.5	2.7	3.0	3.2	3.5	3.4	3.7	3.7

Table 1805: Bodirsky — Resources—Nitrogen—Pasture Budget—Balance (Mt Nr/yr)

56.3.2 Balance—Nutrient Surplus



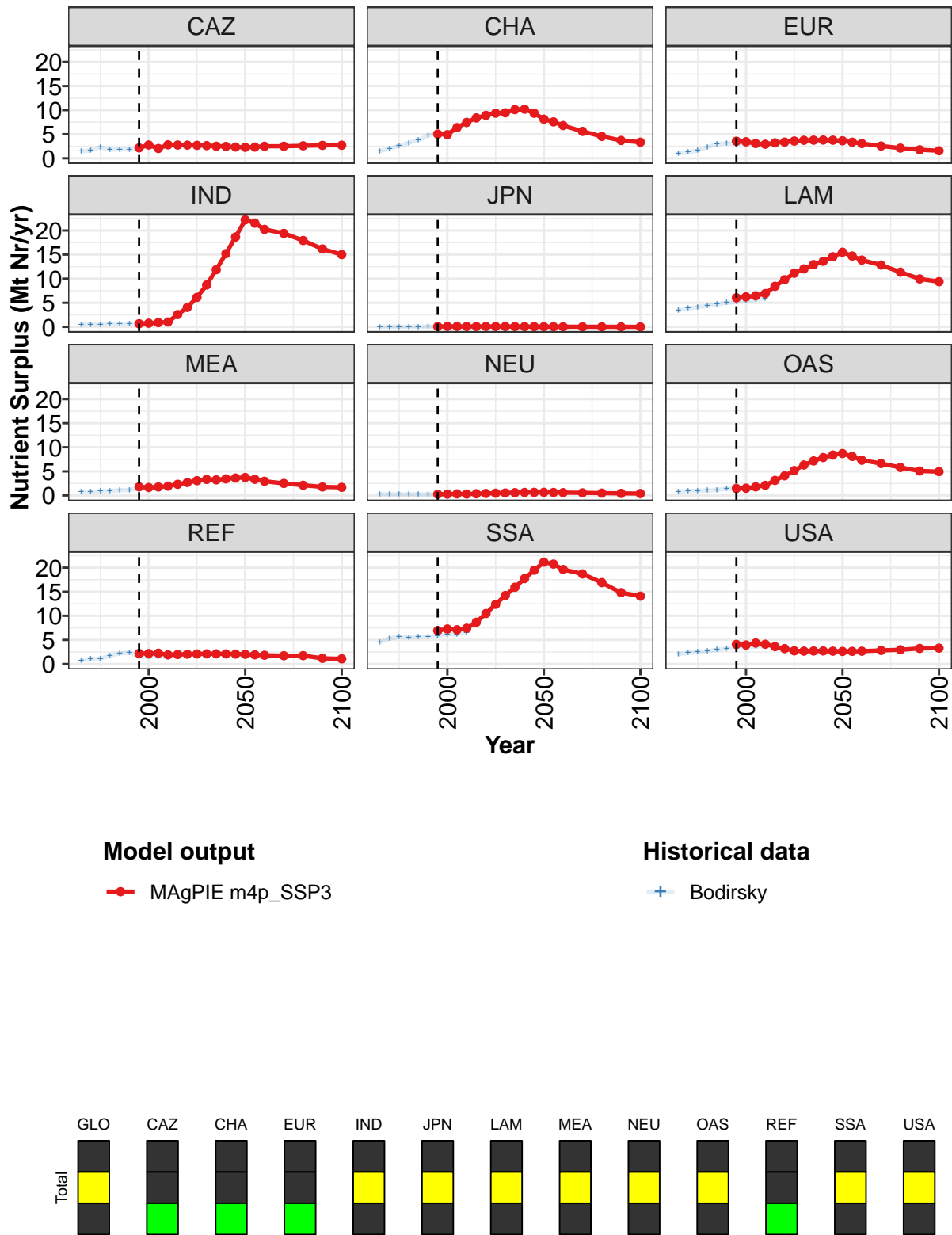


Figure 470: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Balance—Nutrient Surplus (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34.2	35.1	36.5	39.0	45.5	51.9	58.9	65.8	73.0	79.8	85.6
CAZ	2.2	2.8	2.0	2.8	2.8	2.7	2.7	2.6	2.5	2.5	2.4
CHA	5.0	4.9	6.4	7.5	8.4	8.9	9.4	9.4	10.1	10.2	9.3
EUR	3.6	3.4	3.1	2.9	3.2	3.4	3.6	3.7	3.8	3.8	3.8
IND	0.6	0.8	0.9	1.0	2.6	4.1	6.1	8.7	11.9	15.2	18.6
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	6.0	6.2	6.5	6.9	8.4	9.8	11.1	12.0	12.9	13.6	14.6
MEA	1.8	1.7	1.8	1.9	2.3	2.7	3.1	3.3	3.2	3.4	3.6
NEU	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6
OAS	1.5	1.5	1.8	2.1	3.1	4.1	5.2	6.3	7.2	7.9	8.4
REF	2.2	2.2	2.2	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.1
SSA	6.9	7.3	7.1	7.4	8.7	10.5	12.4	14.2	15.9	17.7	19.5
USA	4.1	4.0	4.4	4.1	3.6	3.2	2.7	2.7	2.7	2.7	2.7

Table 1806: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Balance—Nutrient Surplus (Mt Nr/yr) [PART 1/2]

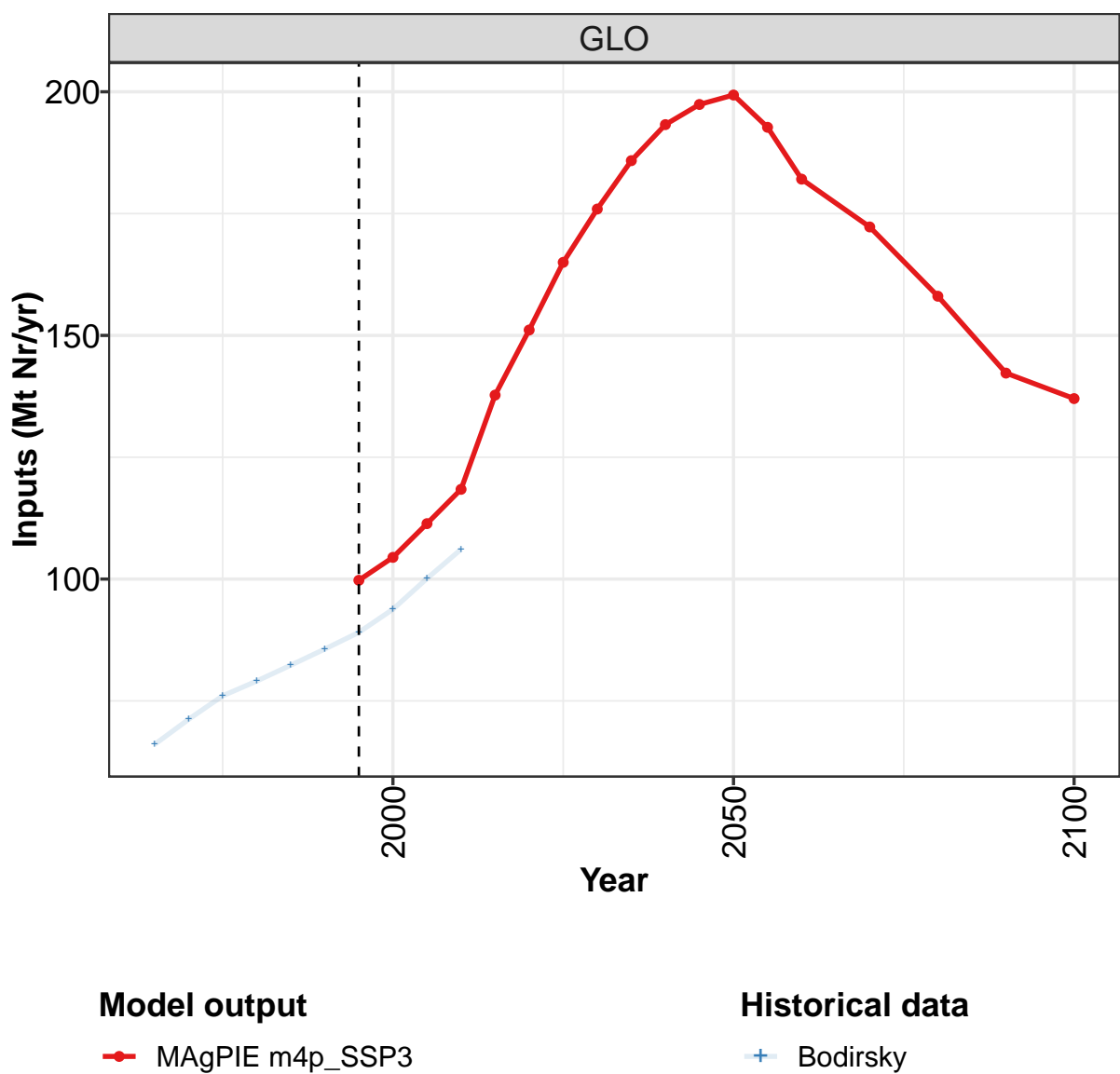
	2050	2055	2060	2070	2080	2090	2100
GLO	90.7	86.9	81.5	75.8	68.6	60.8	57.5
CAZ	2.3	2.3	2.5	2.5	2.6	2.7	2.7
CHA	8.1	7.6	6.8	5.6	4.5	3.7	3.3
EUR	3.6	3.3	3.1	2.6	2.1	1.8	1.6
IND	22.2	21.5	20.2	19.4	17.9	16.2	15.0
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	15.5	14.7	13.9	12.8	11.4	9.9	9.4
MEA	3.7	3.4	3.0	2.5	2.1	1.8	1.7
NEU	0.7	0.6	0.6	0.5	0.5	0.4	0.4
OAS	8.7	8.1	7.3	6.6	5.8	5.1	5.0
REF	2.0	1.9	1.8	1.7	1.7	1.2	1.1
SSA	21.1	20.7	19.6	18.7	16.9	14.8	14.1
USA	2.6	2.6	2.7	2.8	3.0	3.2	3.3

Table 1807: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Balance—Nutrient Surplus (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	17.1	19.9	22.6	24.4	27.2	29.3	30.2	31.4	32.5	34.7
CAZ	1.4	1.7	2.3	1.8	1.8	1.8	2.1	2.6	1.9	2.5
CHA	1.5	2.1	2.6	3.2	3.8	4.7	5.2	5.1	6.1	7.0
EUR	1.0	1.3	1.7	2.3	3.0	3.1	3.1	3.0	2.7	2.6
IND	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.9	1.1
JPN	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
LAM	3.5	3.8	4.1	4.3	4.7	5.0	5.2	5.4	5.7	5.9
MEA	0.7	0.7	0.9	0.9	1.1	1.2	1.5	1.5	1.6	1.8
NEU	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3
OAS	0.8	0.9	1.0	1.0	1.2	1.4	1.4	1.5	1.7	2.0
REF	0.8	1.0	1.1	1.8	2.2	2.4	1.5	1.5	1.5	1.4
SSA	4.5	5.3	5.6	5.5	5.6	5.7	5.8	6.2	6.2	6.4
USA	2.1	2.3	2.5	2.7	3.0	3.2	3.5	3.4	3.7	3.7

Table 1808: Bodirsky — Resources—Nitrogen—Pasture Budget—Balance—Nutrient Surplus (Mt Nr/yr)

56.3.3 Inputs



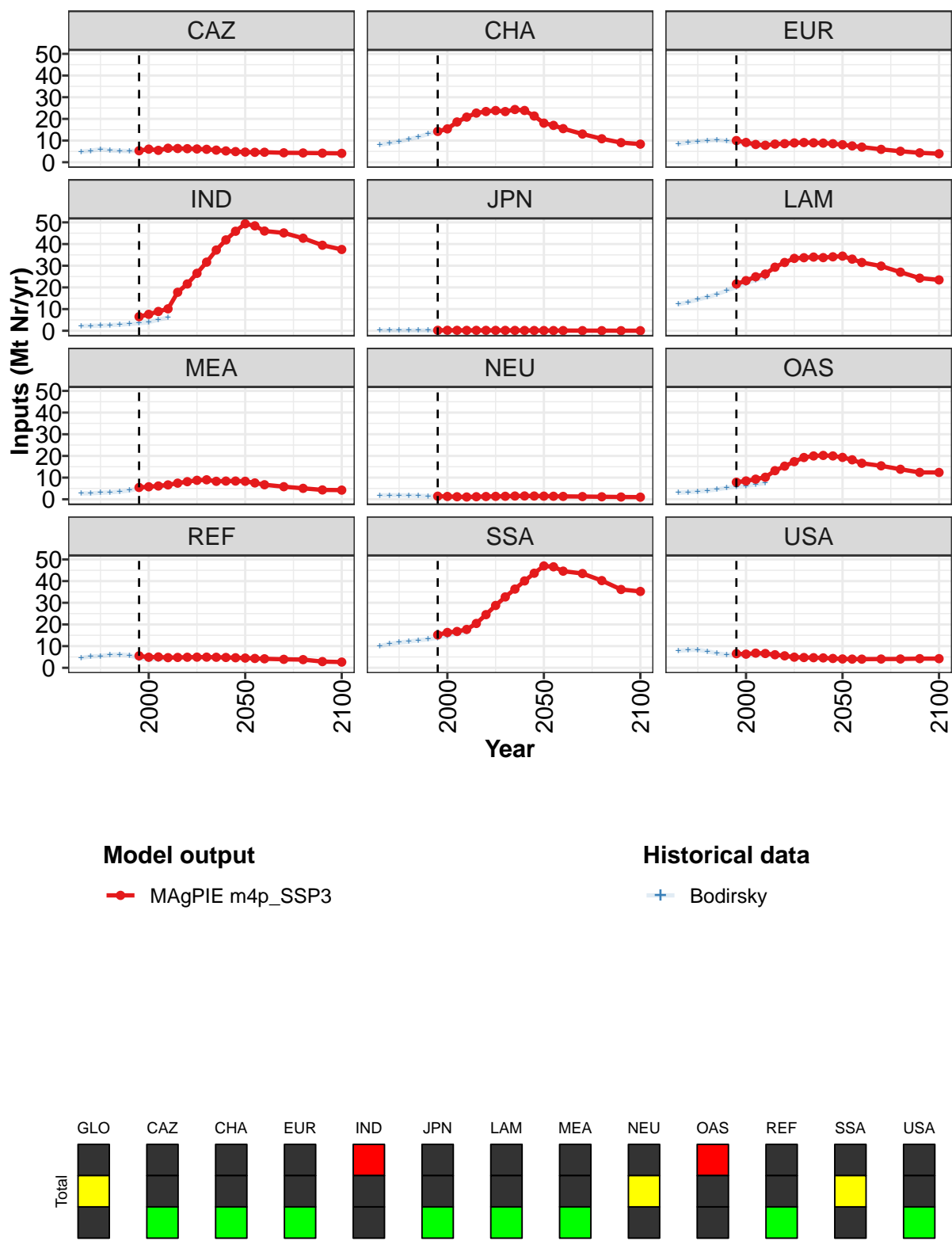


Figure 471: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	100	104	111	118	138	151	165	176	186	193	197
CAZ	5	6	5	6	6	6	6	6	6	5	5
CHA	14	15	19	21	23	23	24	23	24	24	21
EUR	10	9	8	8	8	9	9	9	9	9	9
IND	6	8	9	10	18	22	27	32	37	42	46
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	22	23	25	26	29	32	33	34	34	34	34
MEA	5	6	6	7	7	8	9	9	8	8	8
NEU	1	1	1	1	1	1	1	1	1	2	1
OAS	8	8	9	10	13	15	17	19	20	20	20
REF	6	5	5	5	5	5	5	5	5	5	5
SSA	15	16	17	18	20	25	29	33	36	40	44
USA	7	6	7	7	6	6	5	5	5	5	4

Table 1809: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs (Mt Nr/yr) [PART 1/2]

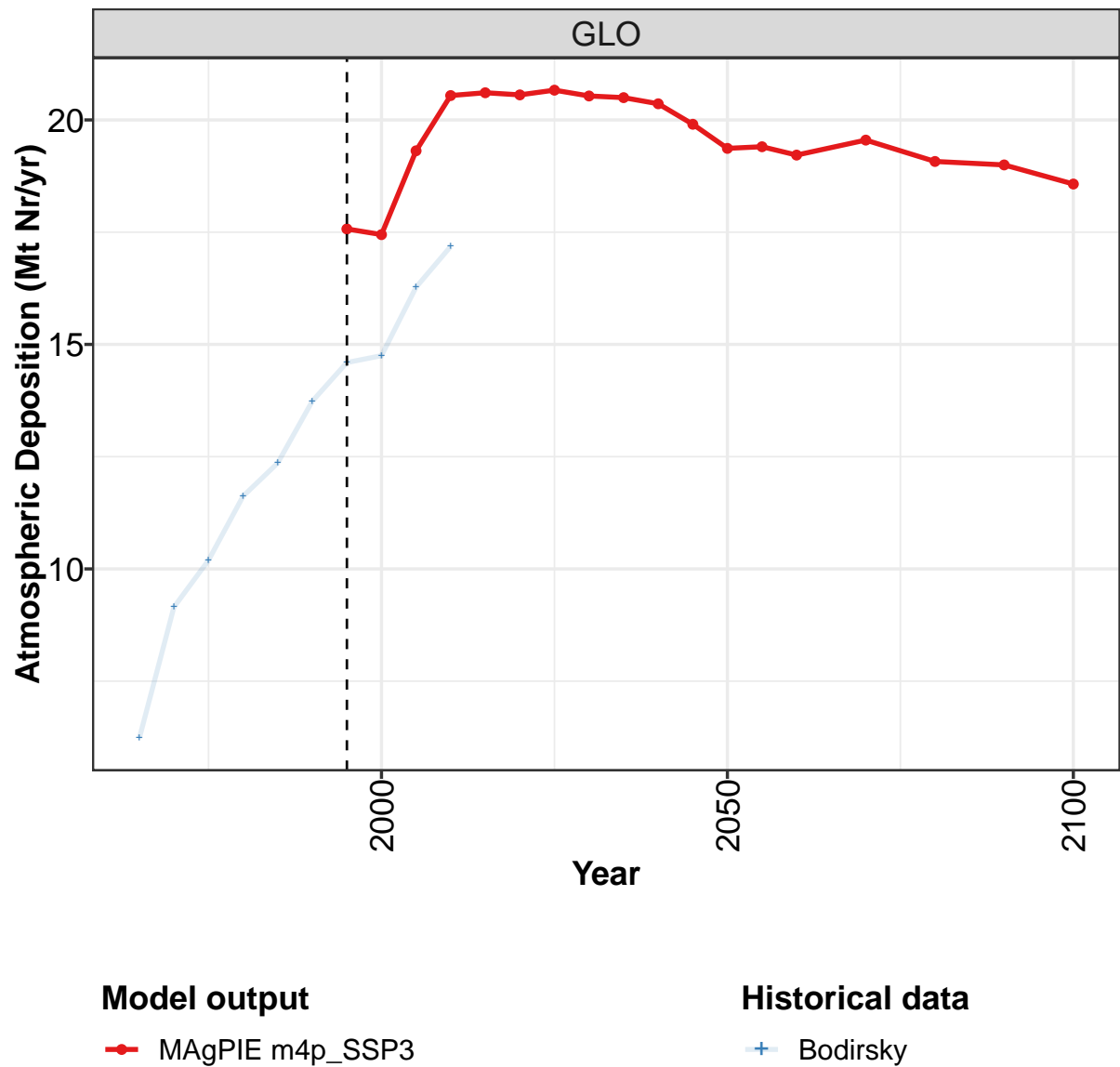
	2050	2055	2060	2070	2080	2090	2100
GLO	199	193	182	172	158	142	137
CAZ	5	5	5	4	4	4	4
CHA	18	17	16	13	11	9	8
EUR	8	8	7	6	5	4	4
IND	49	48	46	45	43	39	37
JPN	0	0	0	0	0	0	0
LAM	34	33	32	30	27	24	23
MEA	8	8	7	6	5	4	4
NEU	1	1	1	1	1	1	1
OAS	19	18	17	15	14	12	12
REF	4	4	4	4	4	3	3
SSA	47	47	45	43	40	36	35
USA	4	4	4	4	4	4	4

Table 1810: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	66	71	76	79	82	86	89	94	100	106
CAZ	5	5	6	5	5	5	5	6	5	6
CHA	8	9	10	11	12	13	14	16	18	20
EUR	8	9	10	10	10	10	9	8	8	7
IND	2	2	2	3	3	3	3	4	5	6
JPN	0	0	0	0	0	0	0	0	0	0
LAM	12	13	14	16	17	19	20	22	23	24
MEA	3	3	3	3	4	4	5	6	6	6
NEU	2	2	2	2	2	1	1	1	1	1
OAS	3	3	4	4	5	5	6	6	7	7
REF	5	5	5	6	6	6	4	4	4	4
SSA	10	11	12	12	13	13	14	15	16	17
USA	8	8	8	8	7	6	6	6	6	6

Table 1811: Bodirsky — Resources—Nitrogen—Pasture Budget—Inputs (Mt Nr/yr)

56.3.4 Inputs—Atmospheric Deposition



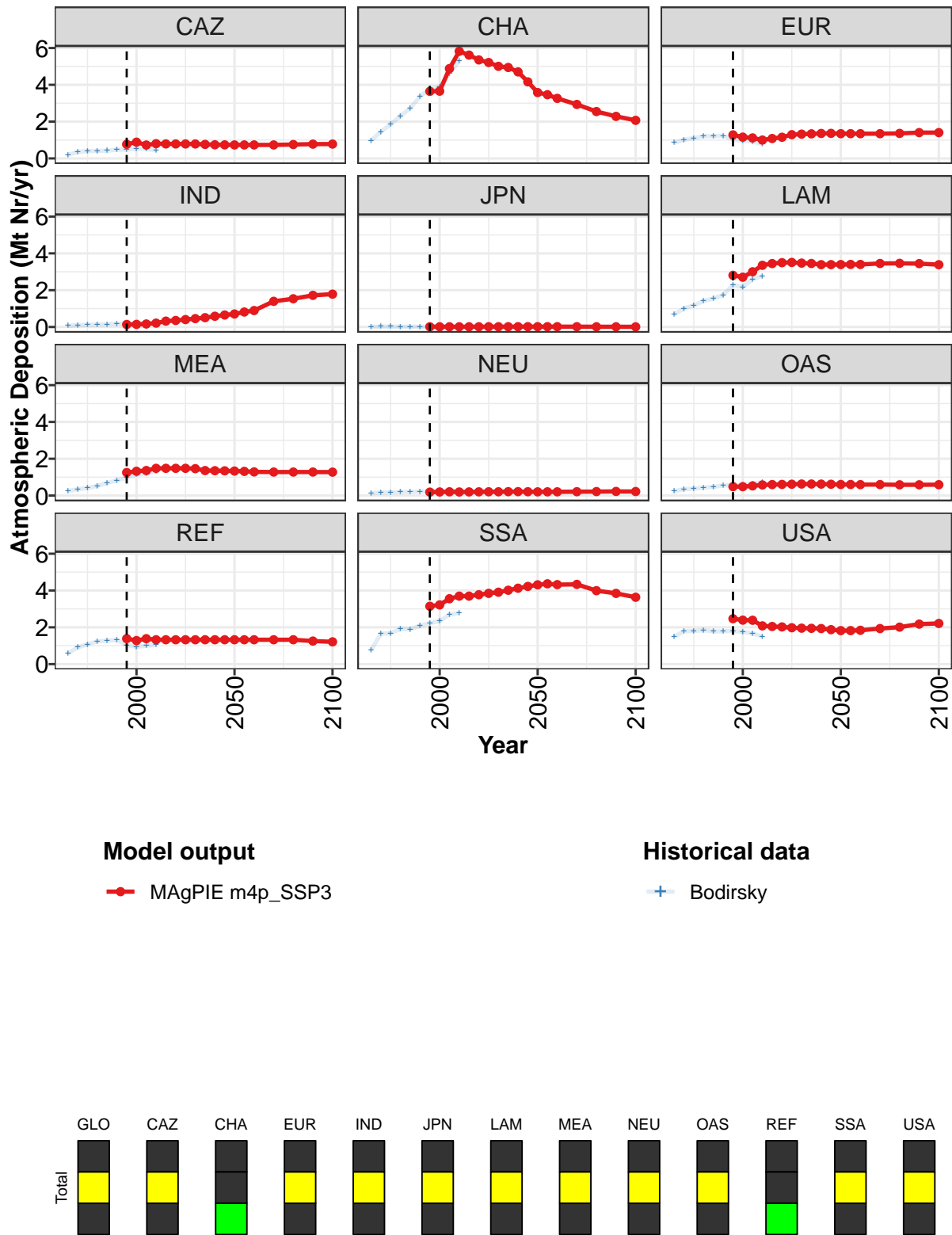


Figure 472: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs—Atmospheric Deposition (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17.6	17.4	19.3	20.5	20.6	20.6	20.7	20.5	20.5	20.4	19.9
CAZ	0.8	0.9	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7
CHA	3.6	3.7	4.9	5.8	5.6	5.4	5.2	5.0	4.9	4.7	4.2
EUR	1.3	1.2	1.1	1.0	1.1	1.2	1.3	1.3	1.3	1.4	1.4
IND	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.6	0.7
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	2.8	2.7	3.0	3.4	3.4	3.5	3.5	3.5	3.5	3.4	3.4
MEA	1.3	1.3	1.4	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.3
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
REF	1.4	1.3	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
SSA	3.1	3.2	3.6	3.7	3.7	3.8	3.8	3.9	4.0	4.1	4.2
USA	2.5	2.4	2.4	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9

Table 1812: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs—Atmospheric Deposition (Mt Nr/yr) [PART 1/2]

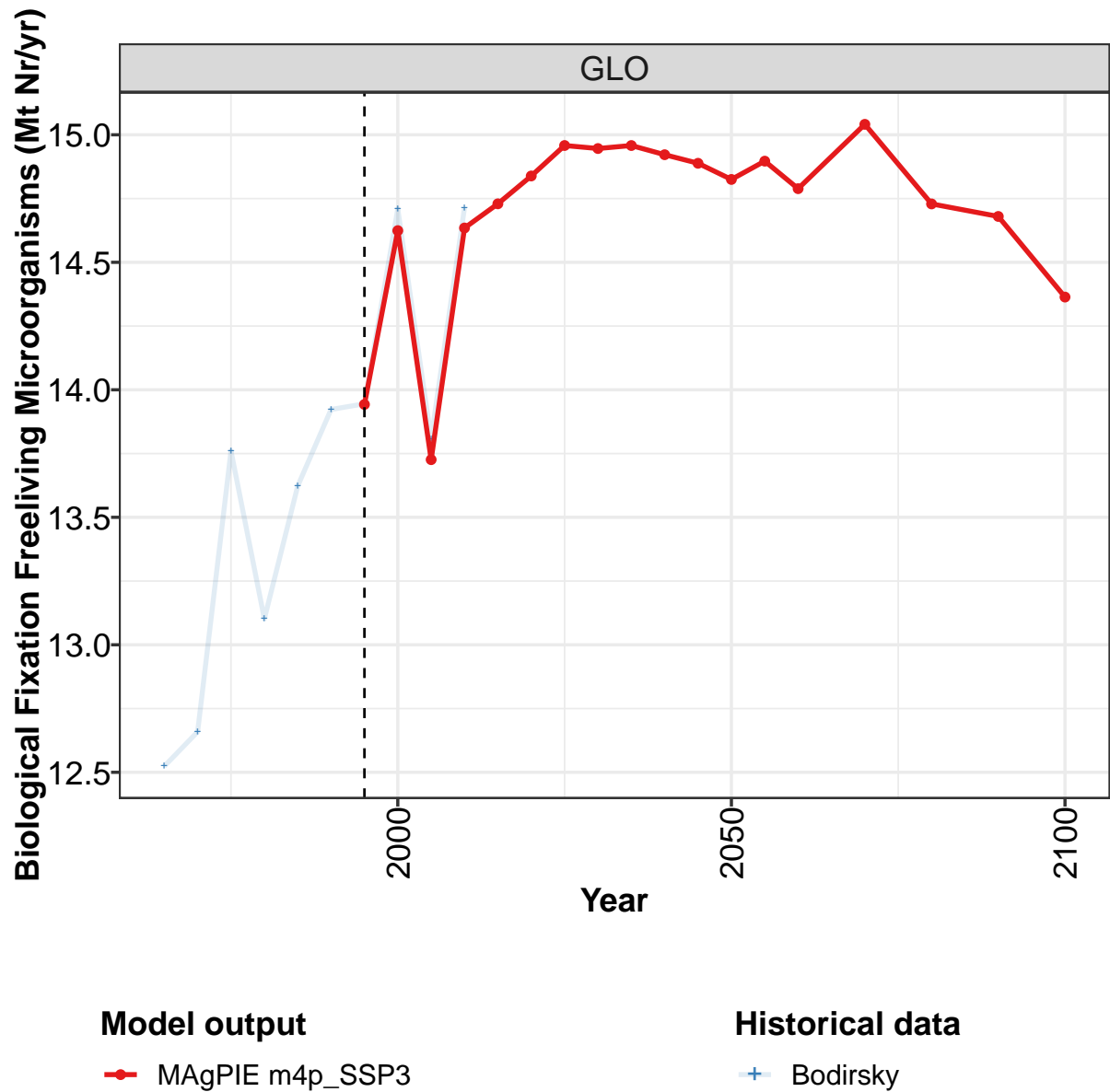
	2050	2055	2060	2070	2080	2090	2100
GLO	19.4	19.4	19.2	19.6	19.1	19.0	18.6
CAZ	0.7	0.7	0.7	0.7	0.8	0.8	0.8
CHA	3.6	3.5	3.3	2.9	2.5	2.3	2.1
EUR	1.3	1.3	1.3	1.3	1.4	1.4	1.4
IND	0.7	0.8	0.9	1.4	1.5	1.7	1.8
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.4	3.4	3.4	3.5	3.5	3.4	3.4
MEA	1.3	1.3	1.3	1.3	1.3	1.3	1.3
NEU	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.6	0.6	0.6	0.6	0.6	0.6	0.6
REF	1.3	1.3	1.3	1.3	1.3	1.3	1.2
SSA	4.3	4.4	4.3	4.3	4.0	3.8	3.6
USA	1.8	1.8	1.8	1.9	2.0	2.2	2.2

Table 1813: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs—Atmospheric Deposition (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	6.2	9.1	10.2	11.6	12.4	13.7	14.6	14.7	16.3	17.2
CAZ	0.2	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
CHA	1.0	1.4	1.9	2.3	2.7	3.4	3.8	3.9	4.6	5.3
EUR	0.9	1.0	1.1	1.2	1.2	1.2	1.0	1.0	0.9	0.8
IND	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.7	1.0	1.2	1.4	1.5	1.7	2.3	2.2	2.6	2.8
MEA	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.1	1.2	1.3
NEU	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OAS	0.2	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7
REF	0.6	0.9	1.1	1.2	1.3	1.3	1.0	0.9	1.0	1.0
SSA	0.8	1.7	1.7	1.9	1.9	2.1	2.2	2.3	2.7	2.8
USA	1.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.5

Table 1814: Bodirsky — Resources—Nitrogen—Pasture Budget—Inputs—Atmospheric Deposition (Mt Nr/yr)

56.3.5 Inputs—Biological Fixation Freelifving Microorganisms



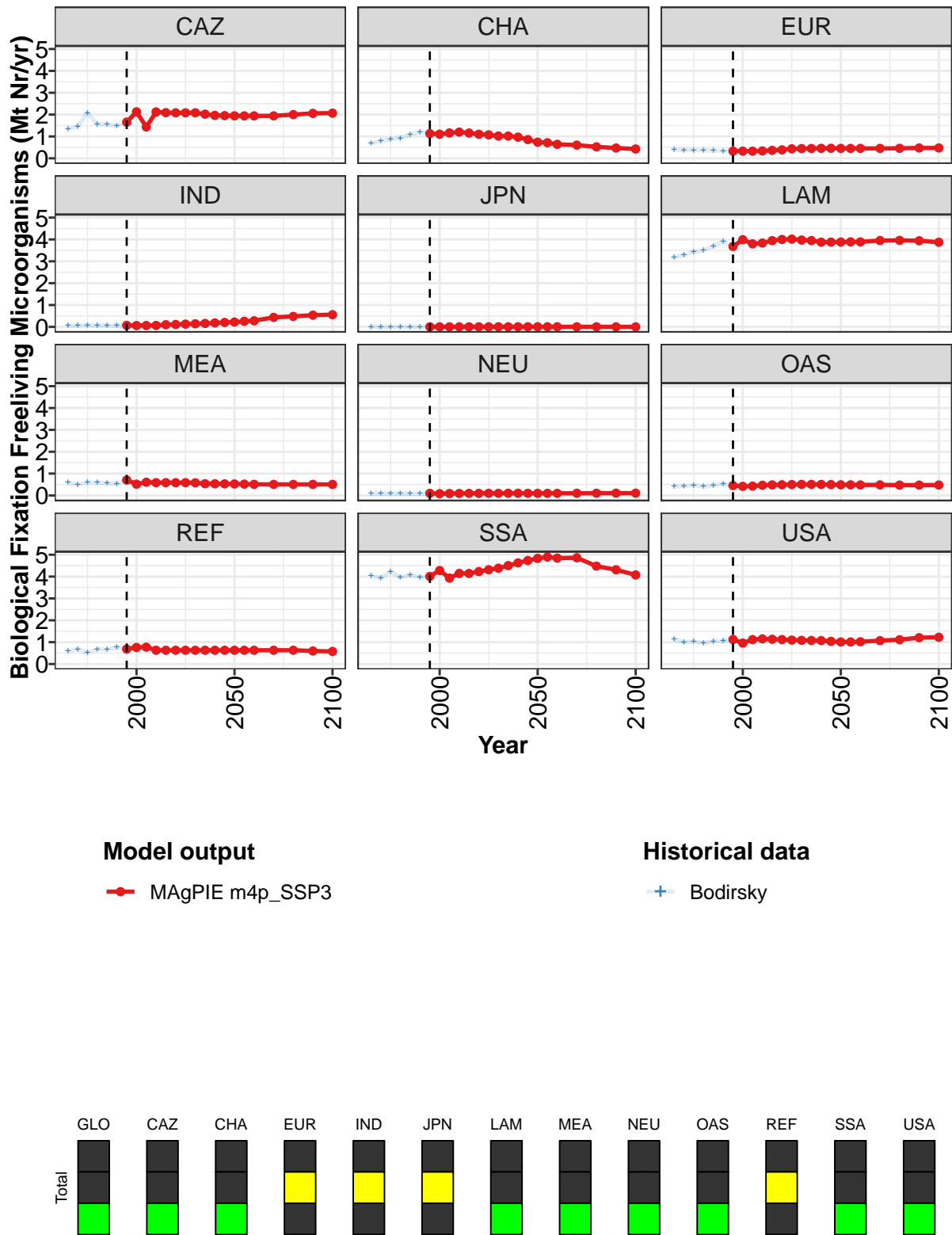


Figure 473: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs—Biological Fixation Free-living Microorganisms (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	13.9	14.6	13.7	14.6	14.7	14.8	15.0	14.9	15.0	14.9	14.9
CAZ	1.7	2.1	1.4	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0
CHA	1.1	1.1	1.2	1.2	1.2	1.1	1.1	1.0	1.0	1.0	0.9
EUR	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5
IND	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.7	4.0	3.8	3.8	3.9	4.0	4.0	4.0	3.9	3.9	3.9
MEA	0.7	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
REF	0.7	0.8	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SSA	4.0	4.3	3.9	4.1	4.1	4.2	4.3	4.4	4.5	4.6	4.7
USA	1.1	1.0	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.0

Table 1815: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs—Biological Fixation Free-living Microorganisms (Mt Nr/yr) [PART 1/2]

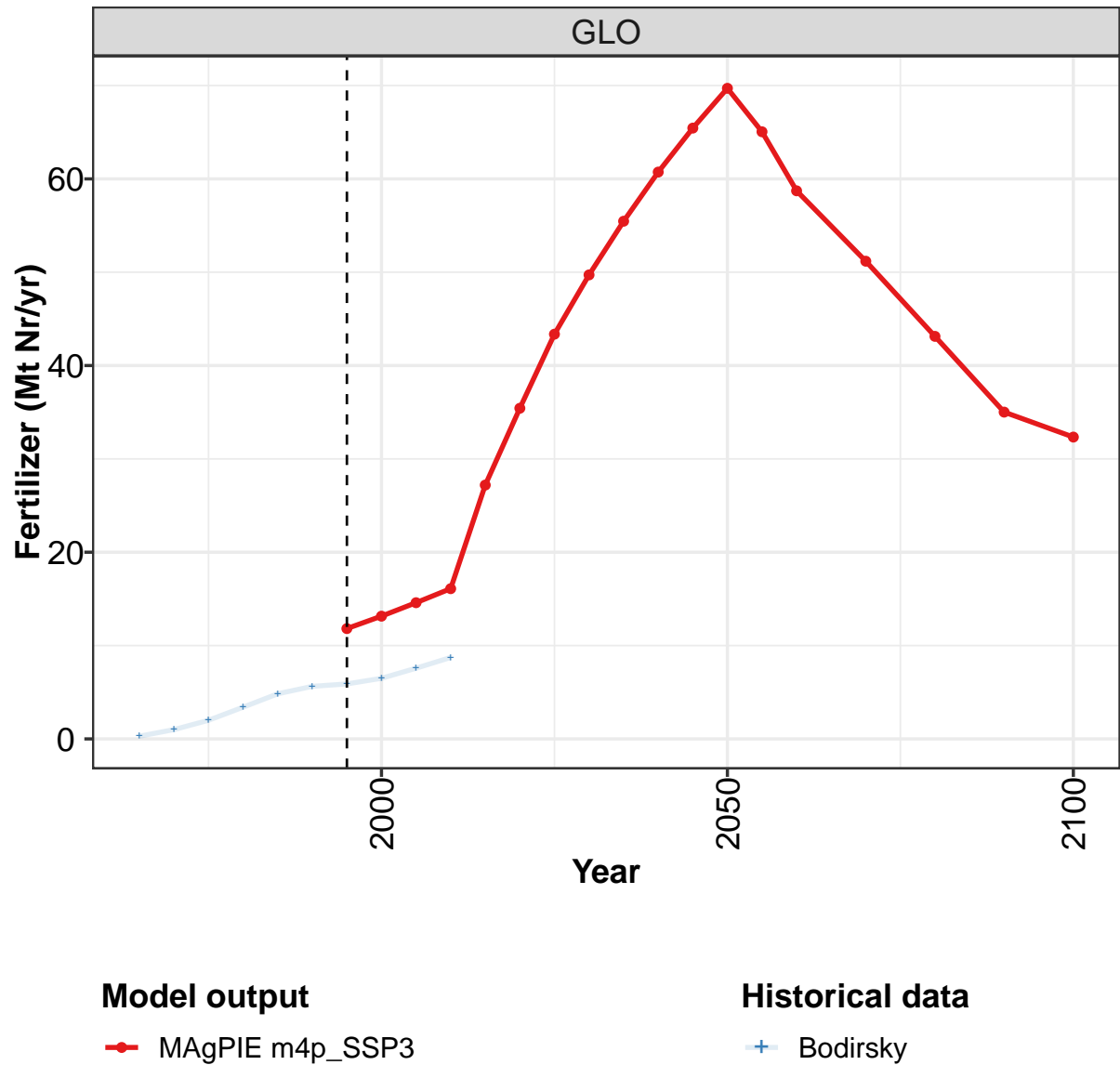
	2050	2055	2060	2070	2080	2090	2100
GLO	14.8	14.9	14.8	15.0	14.7	14.7	14.4
CAZ	1.9	1.9	1.9	1.9	2.0	2.1	2.1
CHA	0.7	0.7	0.6	0.6	0.5	0.5	0.4
EUR	0.5	0.5	0.5	0.5	0.5	0.5	0.5
IND	0.2	0.3	0.3	0.4	0.5	0.5	0.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.9	3.9	3.9	4.0	4.0	3.9	3.9
MEA	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	0.5	0.5	0.5	0.5	0.5	0.5	0.5
REF	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SSA	4.8	4.9	4.8	4.9	4.5	4.3	4.1
USA	1.0	1.0	1.0	1.1	1.1	1.2	1.2

Table 1816: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs—Biological Fixation Free-living Microorganisms (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	12.5	12.7	13.8	13.1	13.6	13.9	13.9	14.7	13.8	14.7
CAZ	1.3	1.5	2.1	1.6	1.5	1.5	1.7	2.2	1.4	2.0
CHA	0.7	0.8	0.9	0.9	1.1	1.2	1.1	1.1	1.2	1.2
EUR	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
IND	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.2	3.3	3.4	3.5	3.7	3.9	3.7	4.0	3.8	3.9
MEA	0.6	0.5	0.6	0.6	0.6	0.5	0.7	0.5	0.6	0.6
NEU	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OAS	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.4	0.4	0.5
REF	0.6	0.7	0.5	0.7	0.7	0.8	0.7	0.8	0.8	0.7
SSA	4.0	3.9	4.2	4.0	4.1	4.0	4.0	4.2	4.0	4.2
USA	1.1	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.1	1.2

Table 1817: Bodirsky — Resources—Nitrogen—Pasture Budget—Inputs—Biological Fixation Freelifving Microorganisms (Mt Nr/yr)

56.3.6 Inputs—Fertilizer



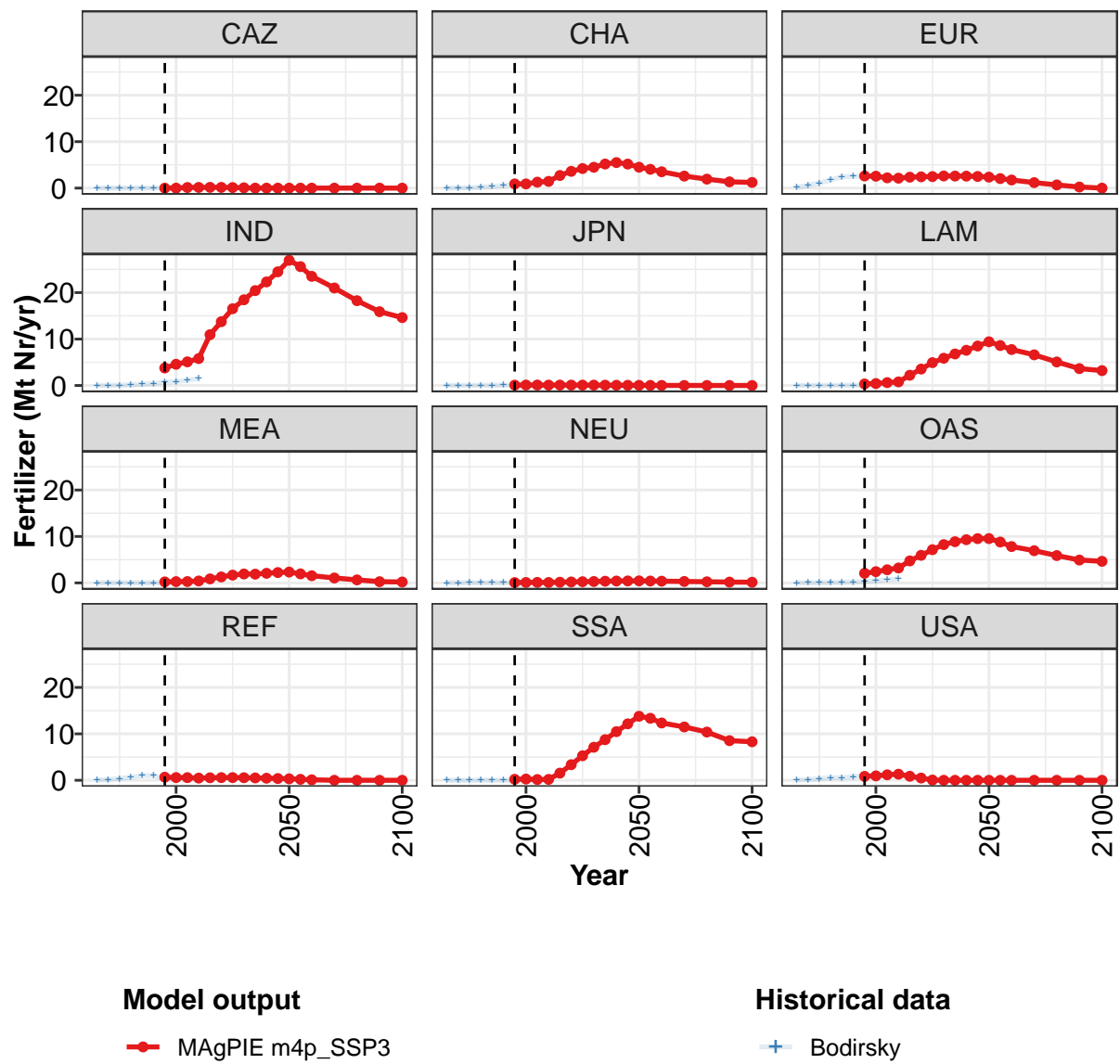


Figure 474: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs—Fertilizer (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	11.8	13.2	14.6	16.1	27.2	35.4	43.4	49.7	55.5	60.7	65.4
CAZ	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0
CHA	0.9	0.9	1.3	1.4	2.7	3.6	4.2	4.5	5.2	5.5	5.2
EUR	2.6	2.6	2.2	2.1	2.4	2.4	2.5	2.6	2.6	2.6	2.5
IND	3.8	4.6	5.1	5.8	10.9	13.7	16.5	18.5	20.4	22.3	24.5
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
LAM	0.3	0.4	0.6	0.8	2.2	3.5	4.9	5.9	6.8	7.6	8.5
MEA	0.2	0.3	0.3	0.4	0.9	1.3	1.7	1.9	1.9	2.1	2.2
NEU	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.4
OAS	2.1	2.4	2.8	3.2	4.7	5.9	7.1	8.3	8.9	9.3	9.5
REF	0.7	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.5	0.4	0.4
SSA	0.2	0.3	0.2	0.2	1.5	3.4	5.3	7.1	8.8	10.5	12.2
USA	0.9	1.0	1.2	1.3	0.9	0.5	0.1	0.0	0.0	0.0	0.0

Table 1818: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs—Fertilizer (Mt Nr/yr)
[PART 1/2]

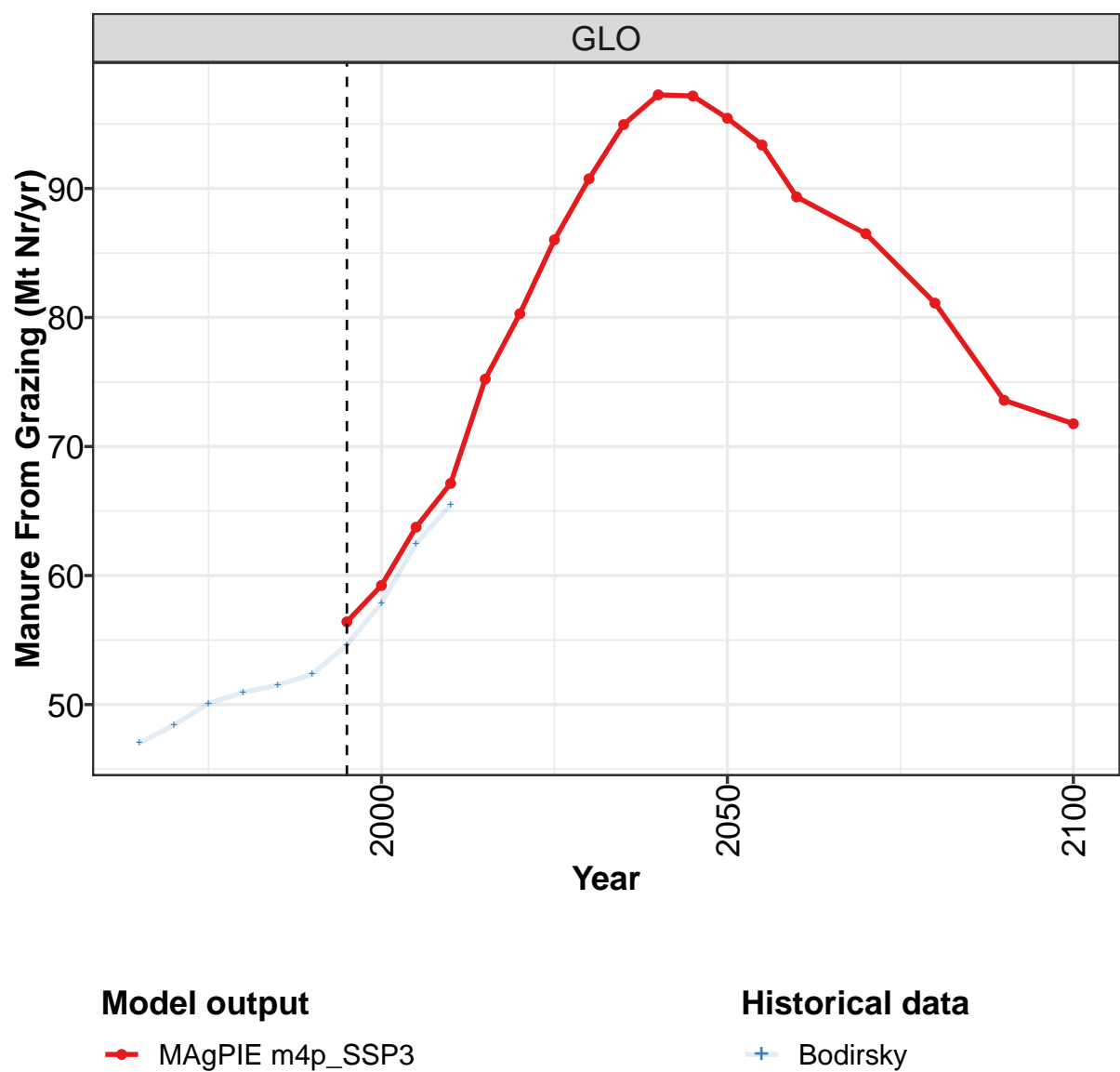
	2050	2055	2060	2070	2080	2090	2100
GLO	69.7	65.0	58.7	51.2	43.1	35.0	32.3
CAZ	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	4.5	4.1	3.5	2.6	1.9	1.3	1.2
EUR	2.4	2.1	1.7	1.2	0.7	0.2	0.0
IND	27.0	25.6	23.5	21.0	18.3	15.9	14.6
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	9.4	8.6	7.7	6.6	5.1	3.6	3.2
MEA	2.3	1.9	1.5	1.1	0.6	0.3	0.2
NEU	0.4	0.4	0.4	0.3	0.2	0.2	0.1
OAS	9.5	8.8	7.8	6.9	5.9	4.9	4.6
REF	0.3	0.2	0.1	0.0	0.0	0.0	0.0
SSA	13.8	13.4	12.3	11.5	10.4	8.5	8.3
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1819: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs—Fertilizer (Mt Nr/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.29	0.99	1.99	3.40	4.83	5.63	5.89	6.49	7.57	8.72
CAZ	0.00	0.00	0.00	0.01	0.01	0.02	0.08	0.16	0.25	0.30
CHA	0.01	0.03	0.07	0.21	0.31	0.54	0.77	0.86	1.28	1.53
EUR	0.17	0.56	1.07	1.74	2.40	2.53	2.57	2.53	2.15	2.10
IND	0.00	0.02	0.05	0.13	0.28	0.44	0.67	0.85	1.12	1.49
JPN	0.01	0.02	0.03	0.03	0.05	0.06	0.09	0.10	0.10	0.09
LAM	0.00	0.00	0.01	0.02	0.03	0.05	0.06	0.12	0.29	0.37
MEA	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.09	0.15	0.16
NEU	0.00	0.01	0.01	0.03	0.04	0.05	0.05	0.06	0.09	0.09
OAS	0.00	0.02	0.04	0.07	0.11	0.19	0.31	0.42	0.70	0.86
REF	0.04	0.16	0.37	0.63	1.03	0.98	0.26	0.21	0.20	0.26
SSA	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.03	0.03
USA	0.05	0.17	0.34	0.53	0.56	0.76	0.97	1.05	1.22	1.44

Table 1820: Bodirsky — Resources—Nitrogen—Pasture Budget—Inputs—Fertilizer (Mt Nr/yr)

56.3.7 Inputs—Manure From Grazing



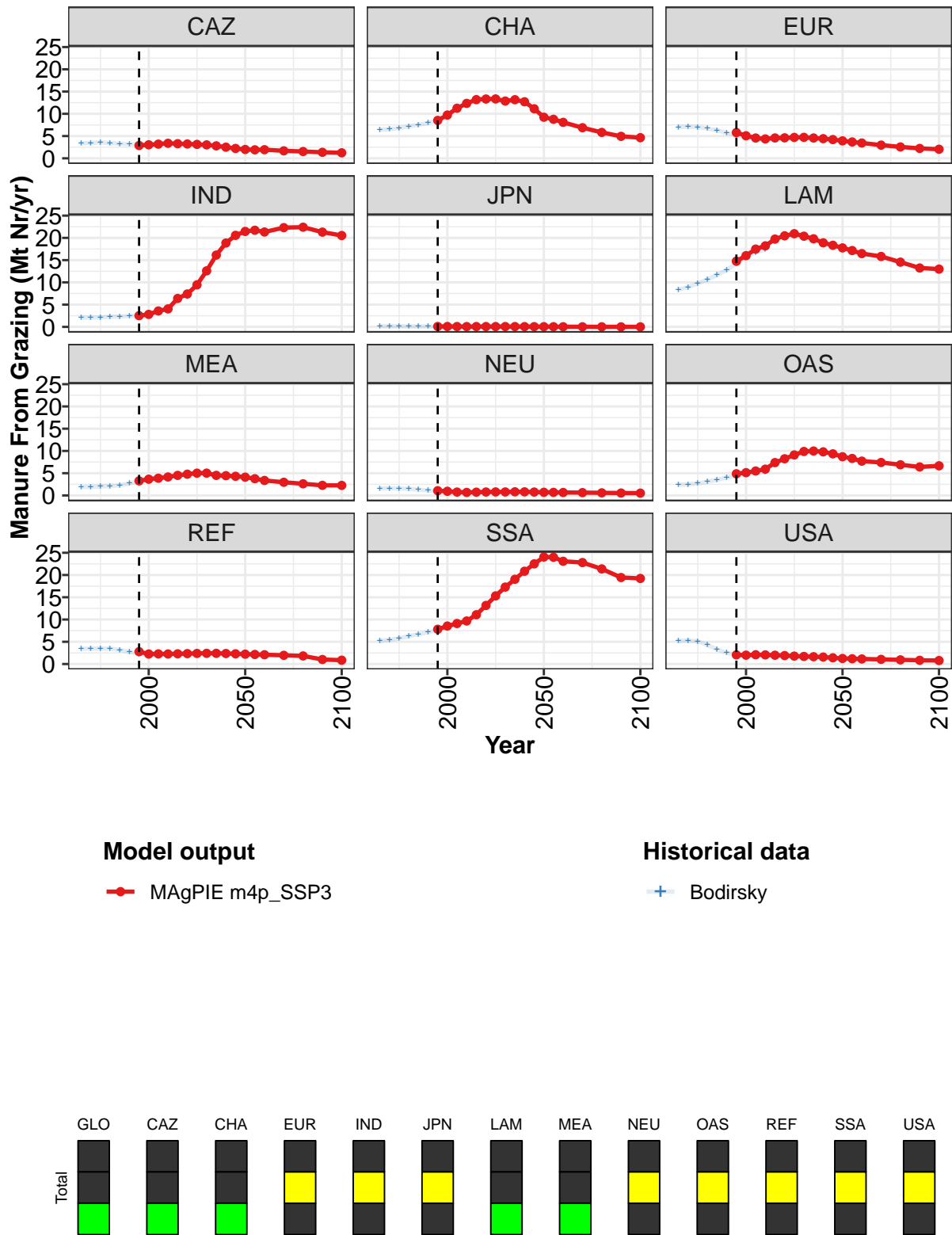


Figure 475: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs—Manure From Grazing (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	56.4	59.2	63.7	67.1	75.2	80.3	86.0	90.7	95.0	97.3	97.2
CAZ	2.9	3.0	3.2	3.4	3.3	3.2	3.1	3.0	2.8	2.5	2.2
CHA	8.5	9.7	11.3	12.3	13.2	13.3	13.3	12.9	13.2	12.7	11.1
EUR	5.8	5.1	4.6	4.4	4.6	4.6	4.7	4.7	4.6	4.4	4.2
IND	2.5	2.8	3.6	4.0	6.4	7.4	9.4	12.6	16.1	18.8	20.6
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	14.8	16.0	17.5	18.2	19.7	20.5	20.9	20.4	19.8	18.9	18.3
MEA	3.3	3.7	3.9	4.2	4.5	4.8	5.0	5.0	4.5	4.4	4.3
NEU	1.1	0.9	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
OAS	4.9	5.1	5.5	5.9	7.4	8.2	9.1	9.9	10.0	9.8	9.4
REF	2.8	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.3
SSA	7.8	8.5	9.1	9.7	11.1	13.2	15.3	17.3	19.0	20.8	22.5
USA	2.1	2.0	2.1	2.1	2.0	1.9	1.8	1.7	1.6	1.6	1.4

Table 1821: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs—Manure From Grazing (Mt Nr/yr) [PART 1/2]

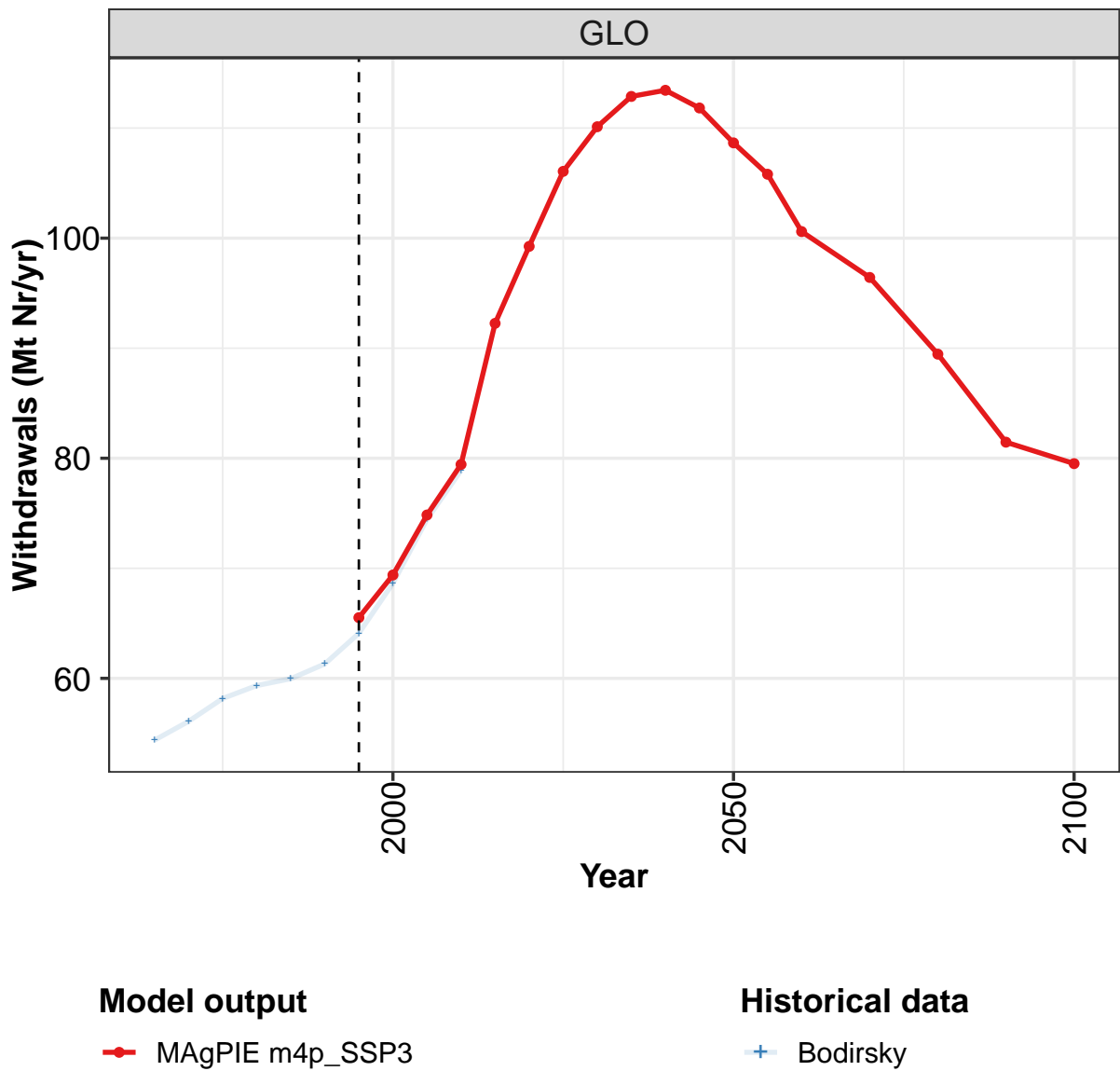
	2050	2055	2060	2070	2080	2090	2100
GLO	95.4	93.4	89.3	86.5	81.1	73.6	71.8
CAZ	2.0	1.9	1.9	1.7	1.5	1.3	1.2
CHA	9.2	8.8	8.1	6.9	5.8	4.9	4.6
EUR	3.9	3.7	3.4	3.0	2.6	2.2	2.0
IND	21.5	21.7	21.3	22.3	22.4	21.3	20.5
JPN	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	17.8	17.2	16.5	15.8	14.5	13.2	13.0
MEA	4.1	3.8	3.4	3.0	2.6	2.3	2.3
NEU	0.7	0.7	0.7	0.6	0.6	0.5	0.5
OAS	8.7	8.3	7.7	7.4	6.9	6.4	6.7
REF	2.2	2.2	2.1	2.0	1.8	1.0	0.9
SSA	24.0	24.0	23.1	22.8	21.4	19.4	19.2
USA	1.2	1.2	1.1	1.0	0.9	0.8	0.8

Table 1822: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Inputs—Manure From Grazing (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	47.0	48.4	50.1	50.9	51.5	52.3	54.6	57.9	62.5	65.5
CAZ	3.4	3.5	3.5	3.5	3.3	3.2	3.2	3.2	3.3	3.3
CHA	6.4	6.5	6.8	7.2	7.5	7.9	8.6	9.8	11.2	12.2
EUR	7.0	7.1	7.0	6.7	6.3	5.7	5.2	4.6	4.2	4.0
IND	2.1	2.1	2.1	2.3	2.3	2.4	2.5	2.8	3.8	4.3
JPN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	8.4	8.9	9.8	10.6	11.7	12.8	14.2	15.6	16.7	17.4
MEA	1.9	1.9	2.0	2.1	2.3	2.7	3.3	3.8	4.2	4.4
NEU	1.6	1.6	1.6	1.5	1.3	1.1	1.0	0.8	0.7	0.6
OAS	2.4	2.5	2.7	3.1	3.5	4.0	4.5	4.7	5.1	5.4
REF	3.4	3.5	3.5	3.4	3.2	2.7	2.3	1.9	2.0	2.1
SSA	5.2	5.4	5.8	6.3	6.7	7.1	7.6	8.3	9.0	9.6
USA	5.2	5.3	5.1	4.3	3.3	2.5	2.1	2.0	2.1	2.1

Table 1823: Bodirsky — Resources—Nitrogen—Pasture Budget—Inputs—Manure From Grazing (Mt Nr/yr)

56.3.8 Withdrawals



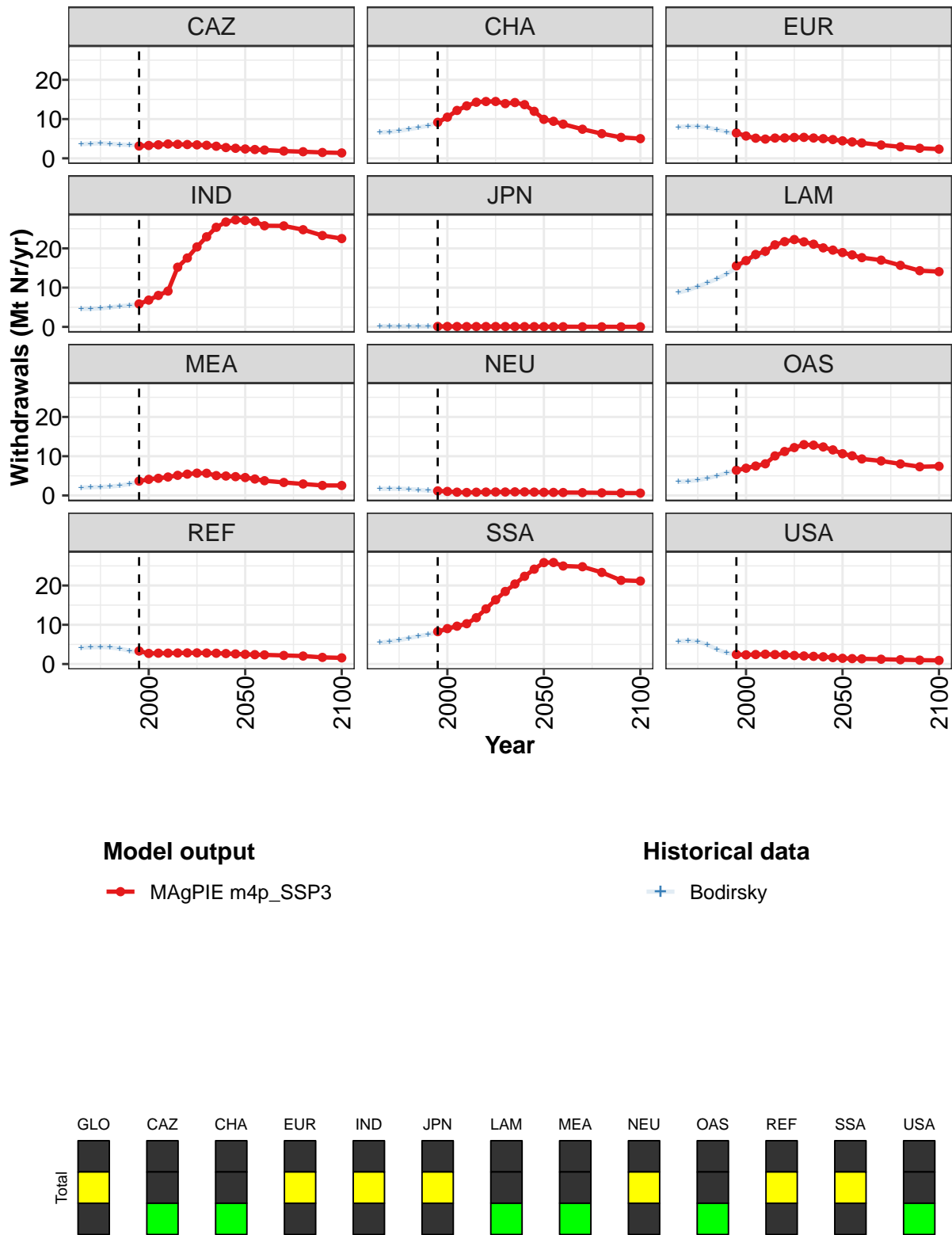


Figure 476: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Withdrawals (Mt N_r/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	66	69	75	79	92	99	106	110	113	113	112
CAZ	3	3	3	4	4	4	3	3	3	3	3
CHA	9	10	12	13	14	14	14	14	14	14	12
EUR	6	6	5	5	5	5	5	5	5	5	5
IND	6	7	8	9	15	18	20	23	25	27	27
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	16	17	18	19	21	22	22	22	21	20	20
MEA	4	4	4	5	5	5	6	6	5	5	5
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	6	7	7	8	10	11	12	13	13	12	12
REF	3	3	3	3	3	3	3	3	3	3	3
SSA	8	9	10	10	12	14	16	18	20	22	24
USA	2	2	2	2	2	2	2	2	2	2	2

Table 1824: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Withdrawals (Mt Nr/yr) [PART 1/2]

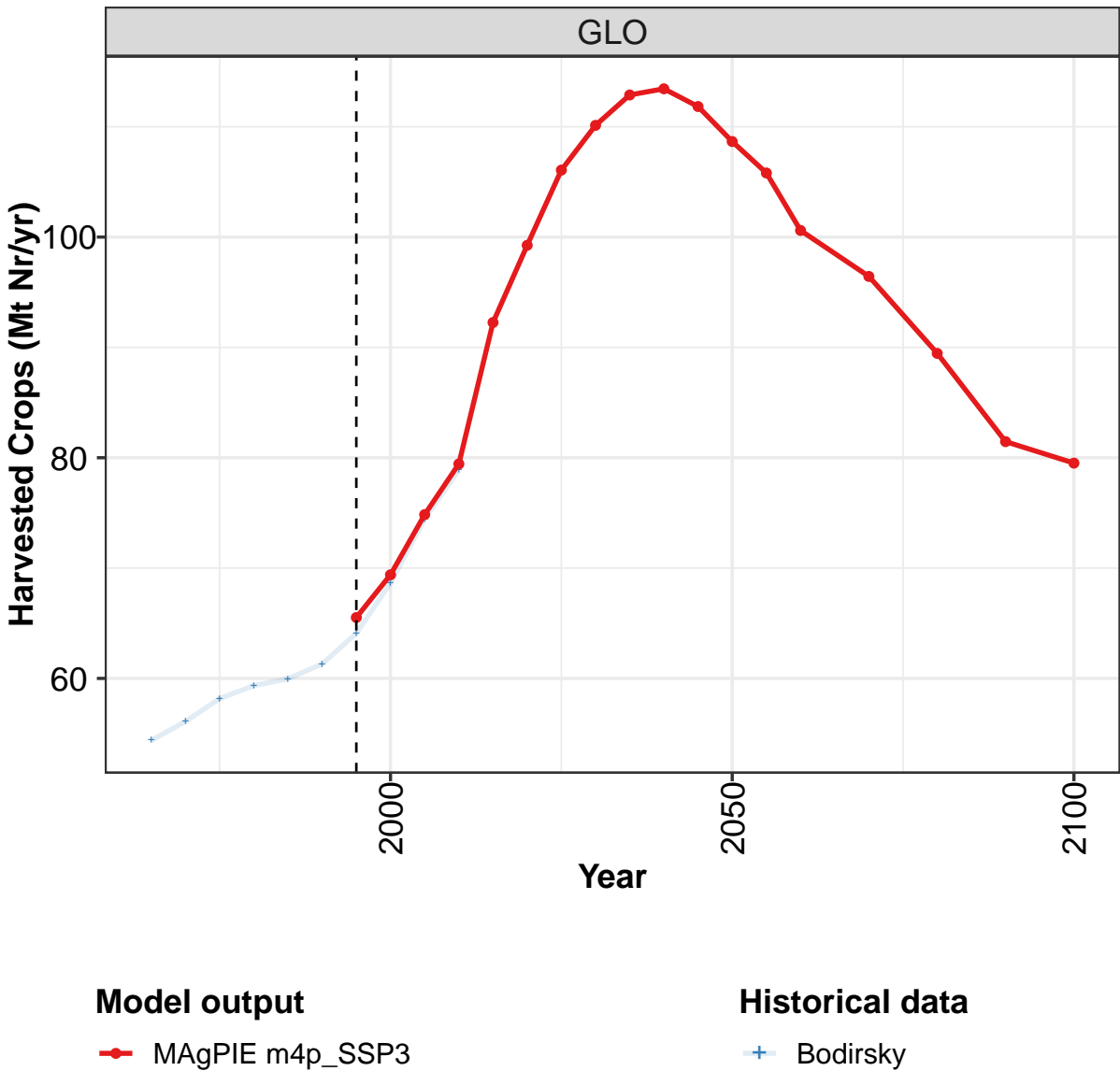
	2050	2055	2060	2070	2080	2090	2100
GLO	109	106	101	96	89	81	80
CAZ	2	2	2	2	2	1	1
CHA	10	9	9	7	6	5	5
EUR	4	4	4	3	3	3	2
IND	27	27	26	26	25	23	22
JPN	0	0	0	0	0	0	0
LAM	19	18	18	17	16	14	14
MEA	5	4	4	3	3	3	3
NEU	1	1	1	1	1	1	1
OAS	11	10	9	9	8	7	7
REF	2	2	2	2	2	2	2
SSA	26	26	25	25	23	21	21
USA	1	1	1	1	1	1	1

Table 1825: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Withdrawals (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	54.4	56.1	58.2	59.3	60.0	61.3	64.1	68.6	74.4	78.9
CAZ	3.6	3.7	3.8	3.7	3.5	3.4	3.4	3.6	3.7	3.7
CHA	6.6	6.7	7.0	7.4	7.8	8.3	9.1	10.5	12.2	13.3
EUR	8.0	8.1	8.2	7.9	7.3	6.7	6.1	5.4	4.9	4.7
IND	4.6	4.6	4.7	5.0	5.3	5.5	5.9	6.9	8.4	9.5
JPN	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	8.8	9.4	10.3	11.2	12.2	13.5	15.0	16.5	17.8	18.5
MEA	2.0	2.1	2.2	2.3	2.5	2.9	3.6	4.2	4.6	4.7
NEU	1.7	1.7	1.7	1.6	1.4	1.2	1.1	0.9	0.8	0.8
OAS	3.5	3.6	3.9	4.4	5.0	5.8	6.4	7.0	7.6	8.0
REF	4.2	4.2	4.3	4.2	3.9	3.4	2.8	2.4	2.4	2.7
SSA	5.5	5.7	6.1	6.6	7.1	7.5	8.0	8.7	9.6	10.2
USA	5.8	5.9	5.8	4.9	3.7	2.8	2.5	2.4	2.4	2.6

Table 1826: Bodirsky — Resources—Nitrogen—Pasture Budget—Withdrawals (Mt Nr/yr)

56.3.9 Withdrawals—Harvested Crops



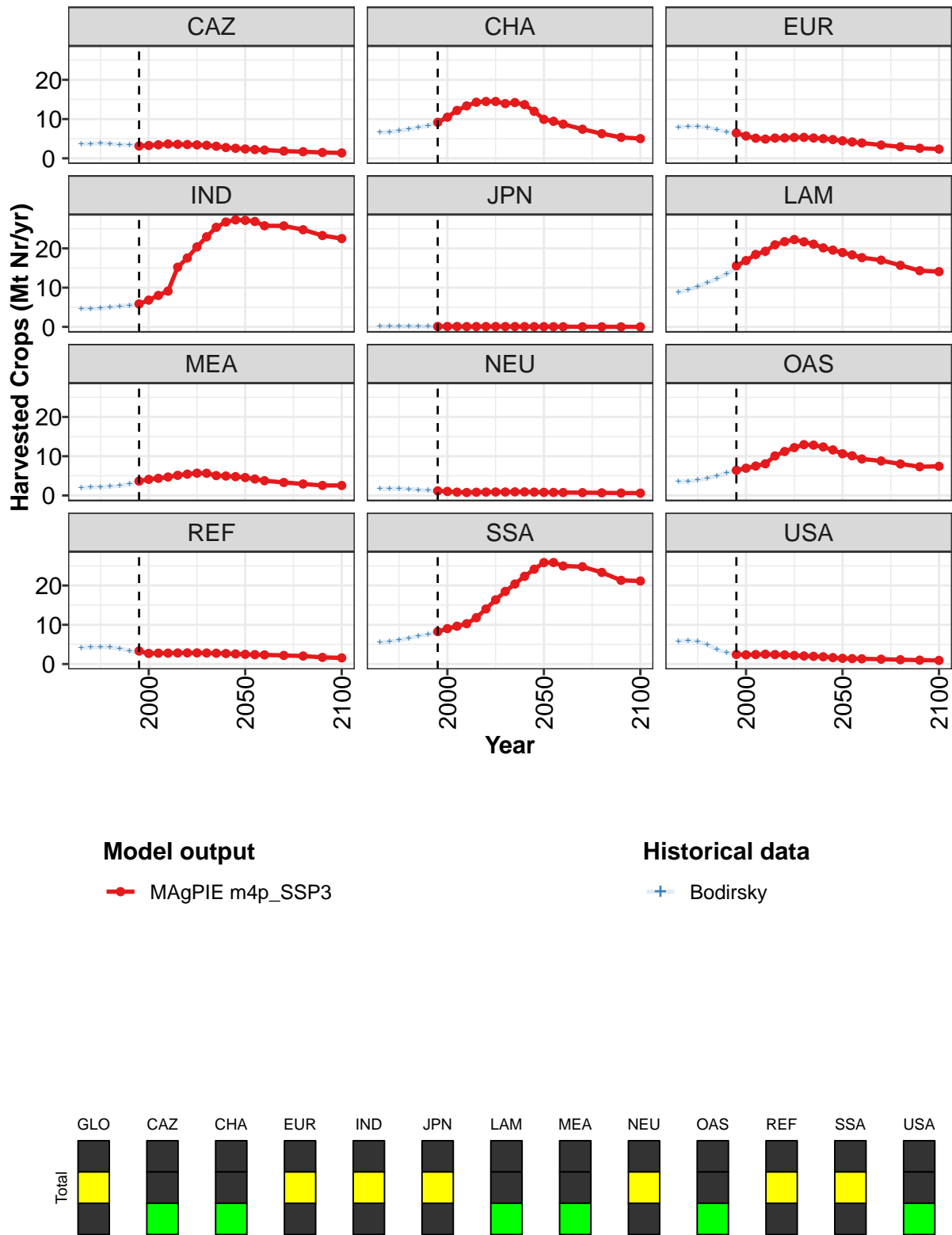


Figure 477: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Withdrawals—Harvested Crops (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	66	69	75	79	92	99	106	110	113	113	112
CAZ	3	3	3	4	4	4	3	3	3	3	3
CHA	9	10	12	13	14	14	14	14	14	14	12
EUR	6	6	5	5	5	5	5	5	5	5	5
IND	6	7	8	9	15	18	20	23	25	27	27
JPN	0	0	0	0	0	0	0	0	0	0	0
LAM	16	17	18	19	21	22	22	22	21	20	20
MEA	4	4	4	5	5	5	6	6	5	5	5
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	6	7	7	8	10	11	12	13	13	12	12
REF	3	3	3	3	3	3	3	3	3	3	3
SSA	8	9	10	10	12	14	16	18	20	22	24
USA	2	2	2	2	2	2	2	2	2	2	2

Table 1827: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Withdrawals—Harvested Crops (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	109	106	101	96	89	81	80
CAZ	2	2	2	2	2	1	1
CHA	10	9	9	7	6	5	5
EUR	4	4	4	3	3	3	2
IND	27	27	26	26	25	23	22
JPN	0	0	0	0	0	0	0
LAM	19	18	18	17	16	14	14
MEA	5	4	4	3	3	3	3
NEU	1	1	1	1	1	1	1
OAS	11	10	9	9	8	7	7
REF	2	2	2	2	2	2	2
SSA	26	26	25	25	23	21	21
USA	1	1	1	1	1	1	1

Table 1828: MAgPIE m4p_SSP3 — Resources—Nitrogen—Pasture Budget—Withdrawals—Harvested Crops (Mt Nr/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	54.4	56.1	58.2	59.3	60.0	61.3	64.1	68.6	74.4	78.9
CAZ	3.6	3.7	3.8	3.7	3.5	3.4	3.4	3.6	3.7	3.7
CHA	6.6	6.7	7.0	7.4	7.8	8.3	9.1	10.5	12.2	13.3
EUR	8.0	8.1	8.2	7.9	7.3	6.7	6.1	5.4	4.9	4.7
IND	4.6	4.6	4.7	5.0	5.3	5.5	5.9	6.9	8.4	9.5
JPN	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	8.8	9.4	10.3	11.2	12.2	13.5	15.0	16.5	17.8	18.5
MEA	2.0	2.1	2.2	2.3	2.5	2.9	3.6	4.2	4.6	4.7
NEU	1.7	1.7	1.7	1.6	1.4	1.2	1.1	0.9	0.8	0.8
OAS	3.5	3.6	3.9	4.4	5.0	5.8	6.4	7.0	7.6	8.0
REF	4.2	4.2	4.3	4.2	3.9	3.4	2.8	2.4	2.4	2.7
SSA	5.5	5.7	6.1	6.6	7.1	7.5	8.0	8.7	9.6	10.2
USA	5.8	5.9	5.8	4.9	3.7	2.8	2.5	2.4	2.4	2.6

Table 1829: Bodirsky — Resources—Nitrogen—Pasture Budget—Withdrawals—Harvested Crops (Mt Nr/yr)

57 Water

57.1 Withdrawal

57.1.1 Agriculture

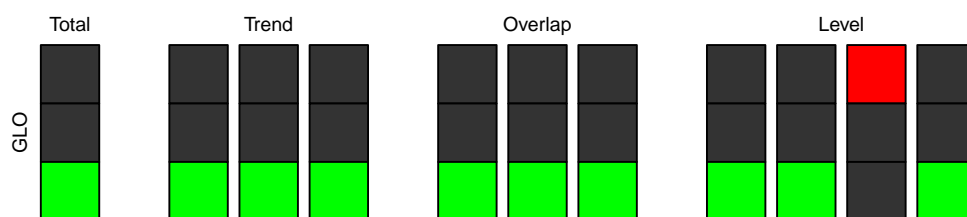
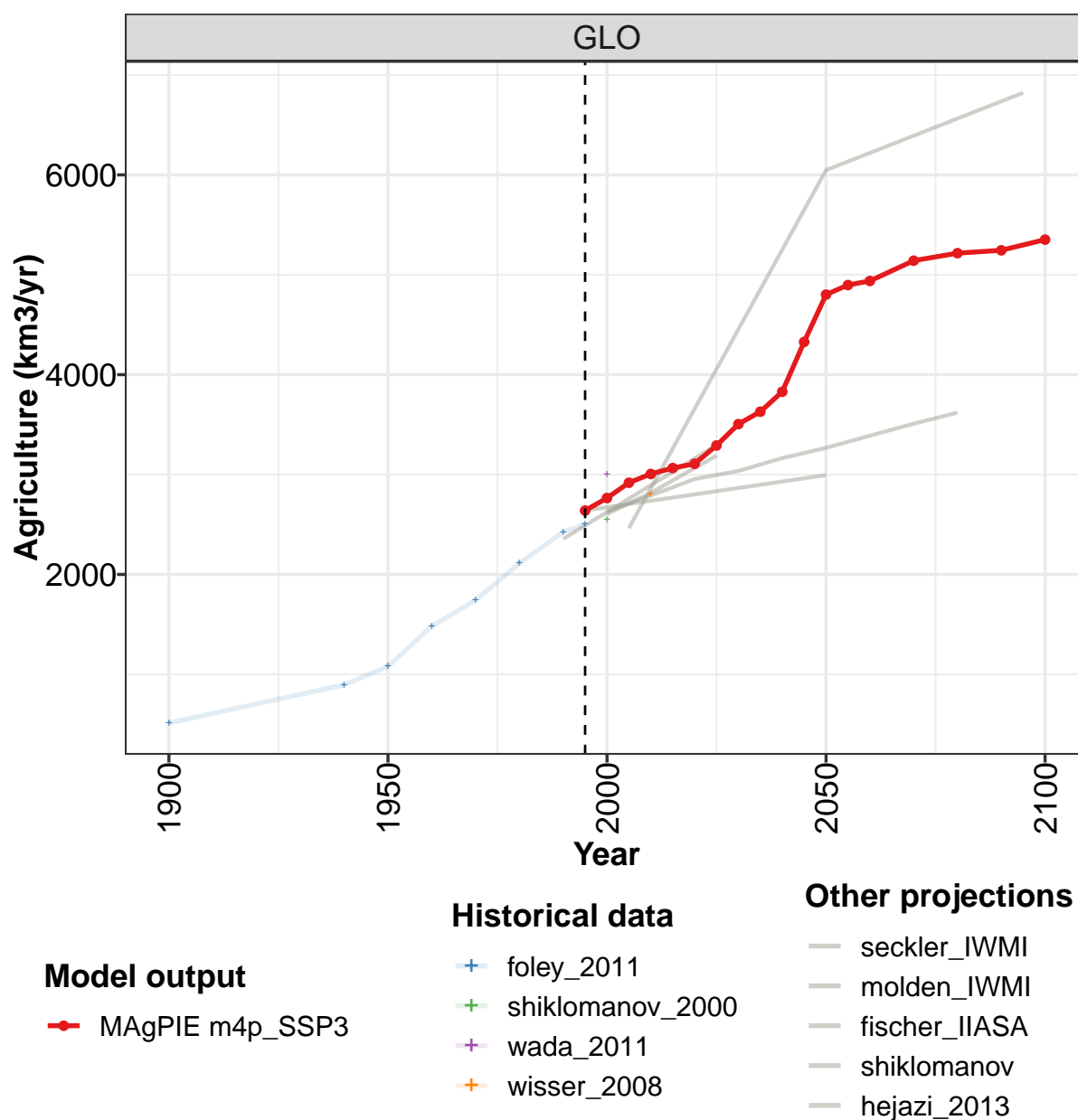


Figure 478: MAgPIE m4p_SSP3 — Resources—Water—Withdrawal—Agriculture (km3/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2639	2765	2918	3006	3065	3108	3291	3505	3630	3829	4328

Table 1830: MAgPIE m4p_SSP3 — Resources—Water—Withdrawal—Agriculture (km3/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	4801	4897	4938	5141	5216	5245	5352

Table 1831: MAgPIE m4p_SSP3 — Resources—Water—Withdrawal—Agriculture (km3/yr) [PART 2/2]

	1900	1940	1950	1960	1970	1980	1990	1995
GLO	513	895	1080	1481	1743	2112	2425	2504

Table 1832: shiklomanov_2000 — Resources—Water—Withdrawal—Agriculture (km3/yr)

	2000
GLO	2548

Table 1833: wada_2011 — Resources—Water—Withdrawal—Agriculture (km3/yr)

	2000
GLO	3000

Table 1834: wisser_2008 — Resources—Water—Withdrawal—Agriculture (km3/yr)

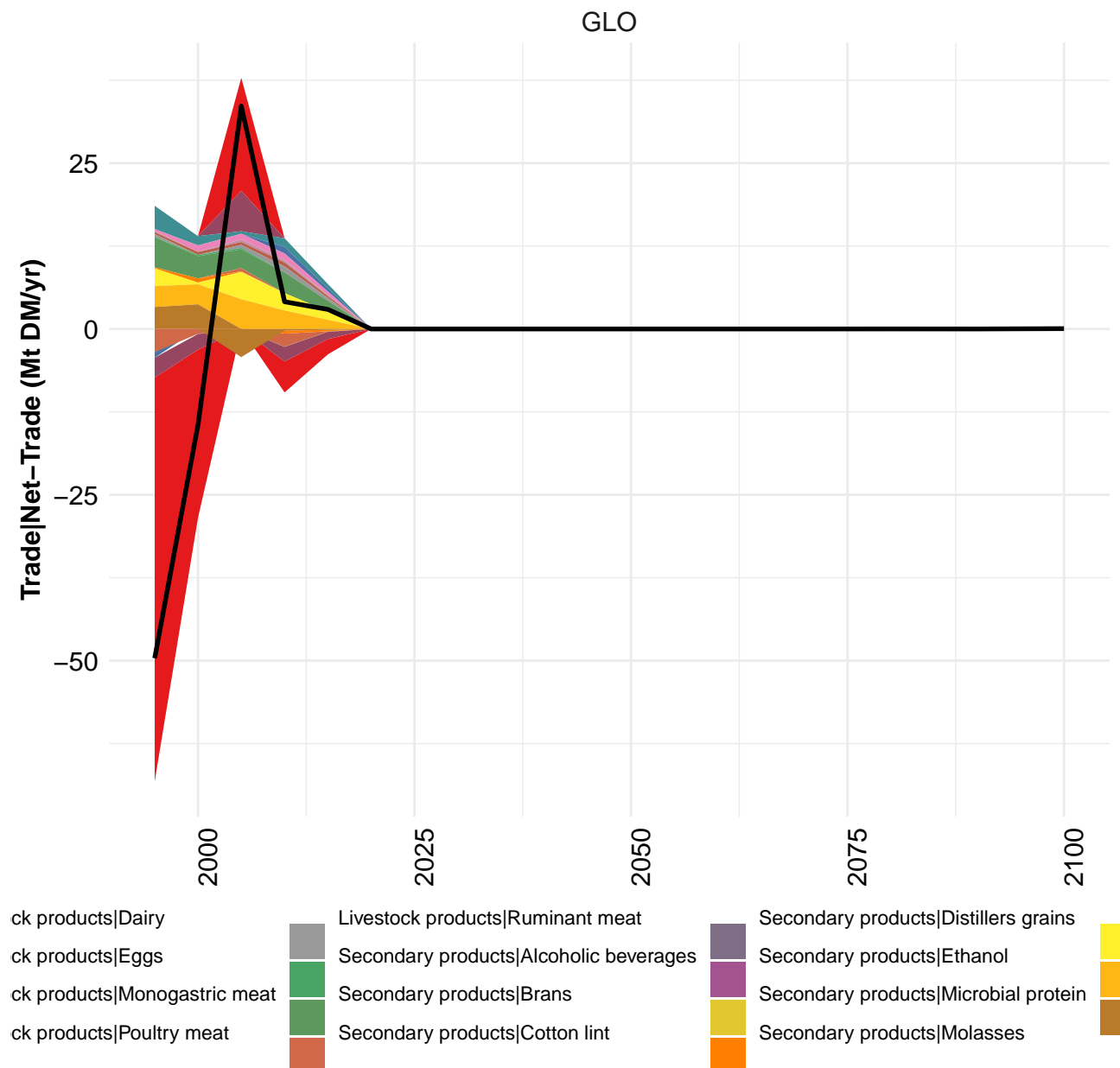
	2010
GLO	2800

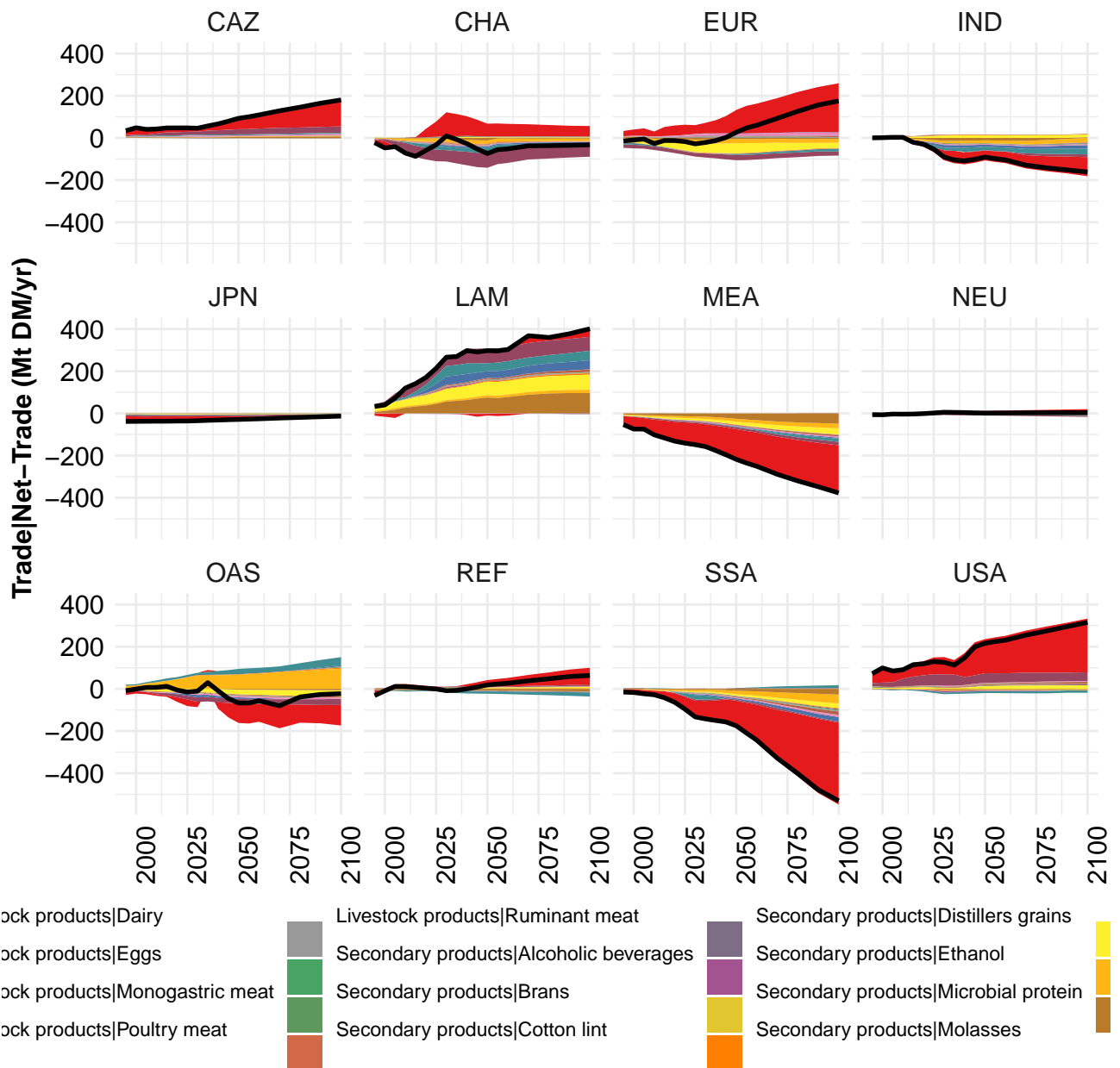
Table 1835: foley_2011 — Resources—Water—Withdrawal—Agriculture (km3/yr)

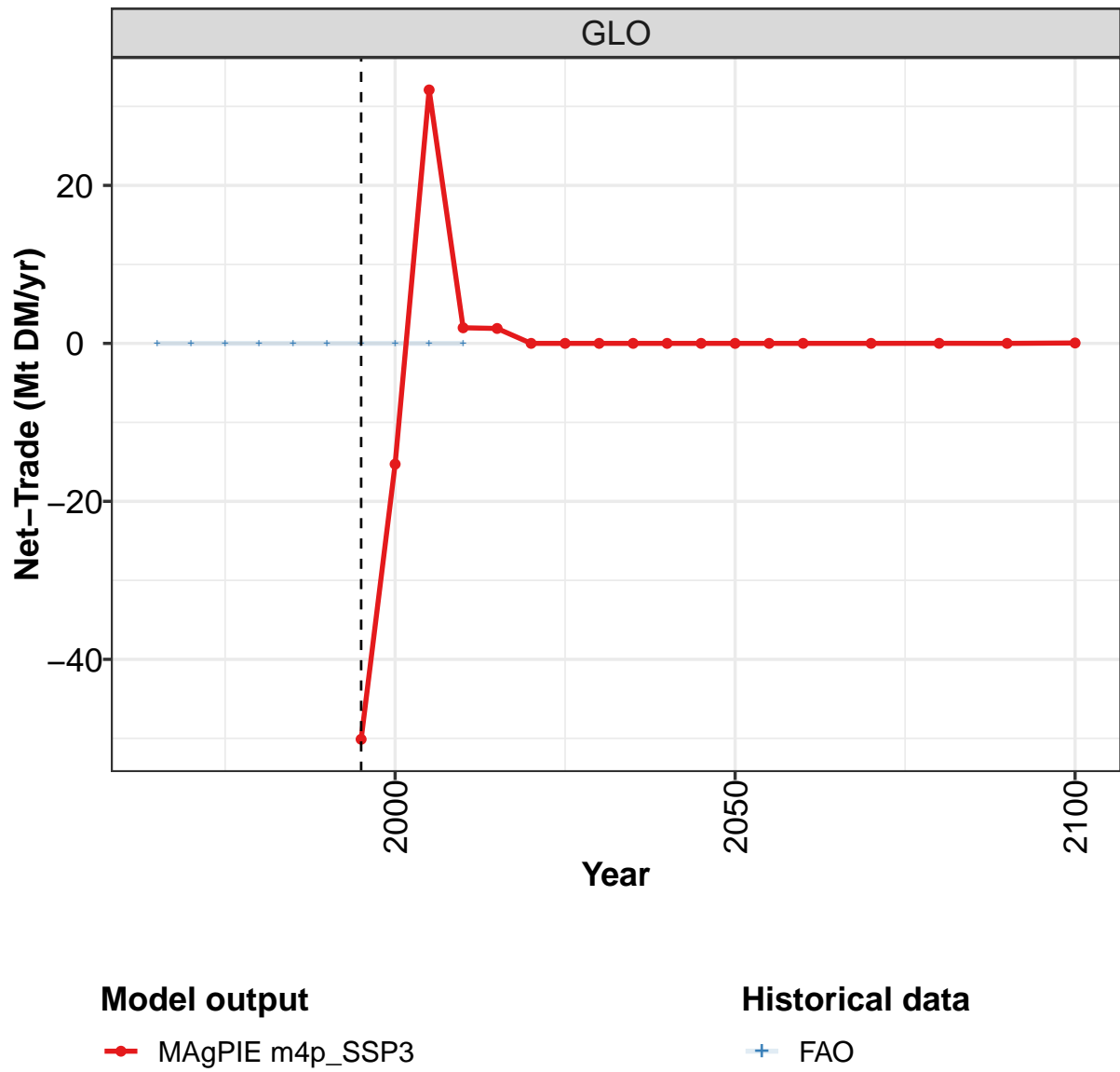
Part XV

Trade

58 Net-Trade







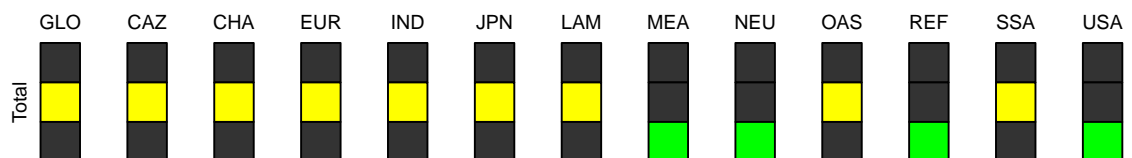
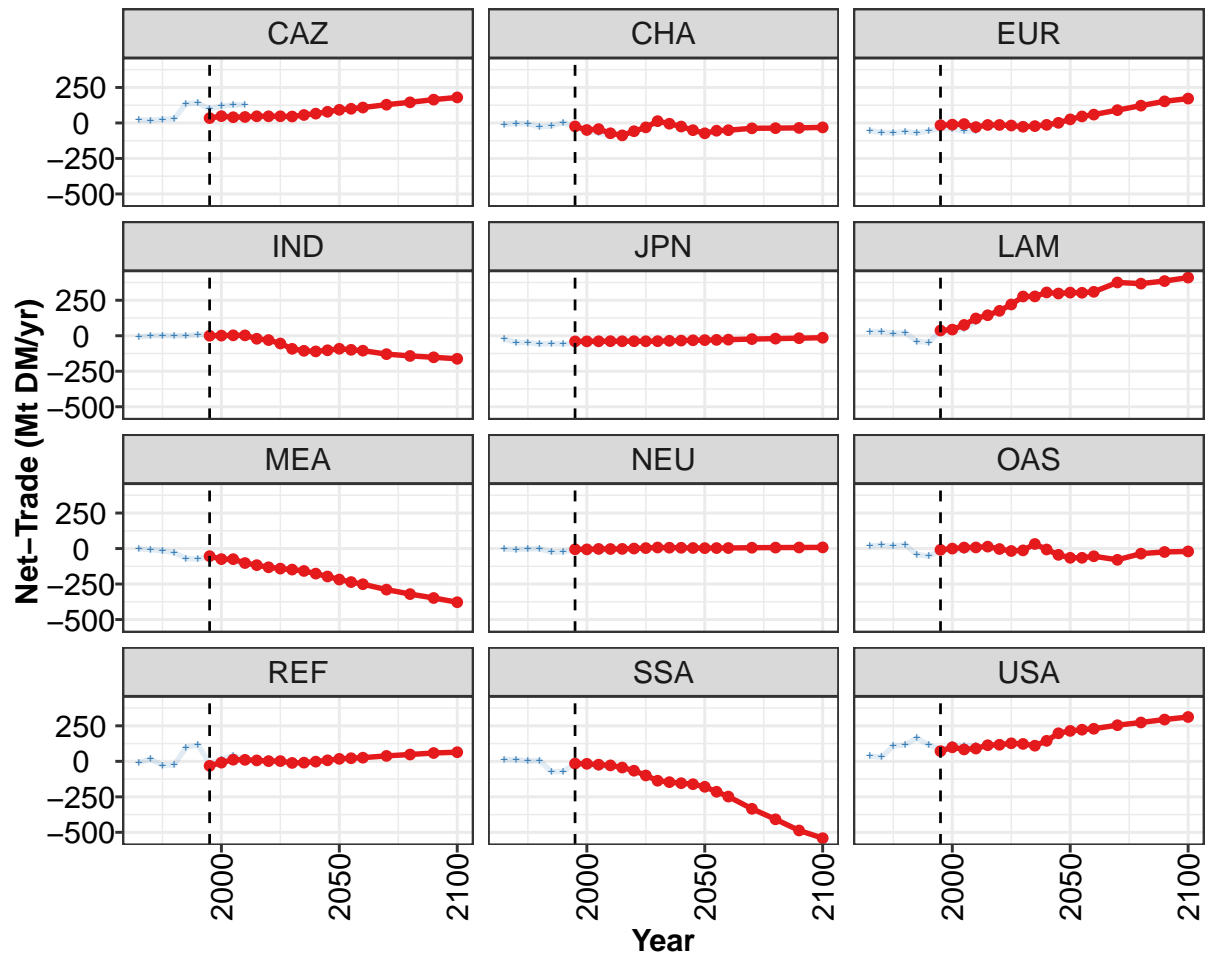


Figure 479: MAgPIE m4p_SSP3 — Trade—Net-Trade (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-50	-15	32	2	2	0	-0	-0	-0	0	-0
CAZ	34	48	41	42	47	47	47	45	56	66	79
CHA	-24	-49	-43	-73	-87	-58	-31	13	-5	-25	-51
EUR	-16	-12	-8	-29	-14	-14	-18	-27	-22	-13	1
IND	0	1	3	3	-21	-30	-54	-92	-106	-110	-102
JPN	-40	-39	-39	-38	-39	-38	-39	-38	-36	-34	-32
LAM	37	43	76	122	145	175	220	277	277	305	298
MEA	-53	-74	-75	-102	-117	-132	-141	-148	-158	-176	-197
NEU	-5	-6	-3	-3	-2	0	3	7	6	6	4
OAS	-9	-0	7	8	14	-3	-17	-13	32	-7	-44
REF	-32	-9	11	11	7	2	2	-11	-9	-2	7
SSA	-15	-17	-23	-28	-43	-66	-99	-136	-147	-154	-161
USA	72	99	84	90	114	117	127	123	110	145	198

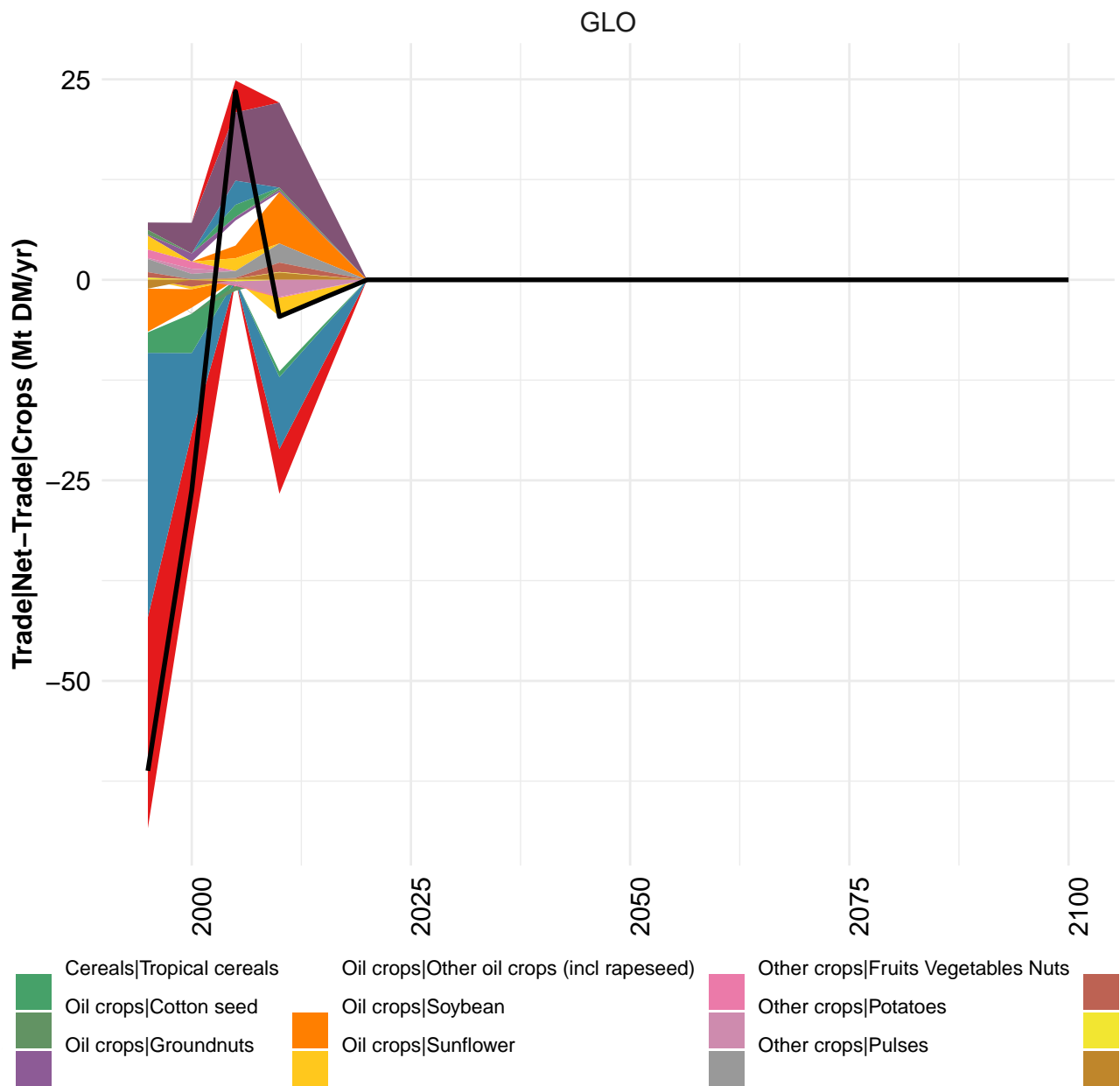
Table 1836: MAgPIE m4p_SSP3 — Trade—Net-Trade (Mt DM/yr) [PART 1/2]

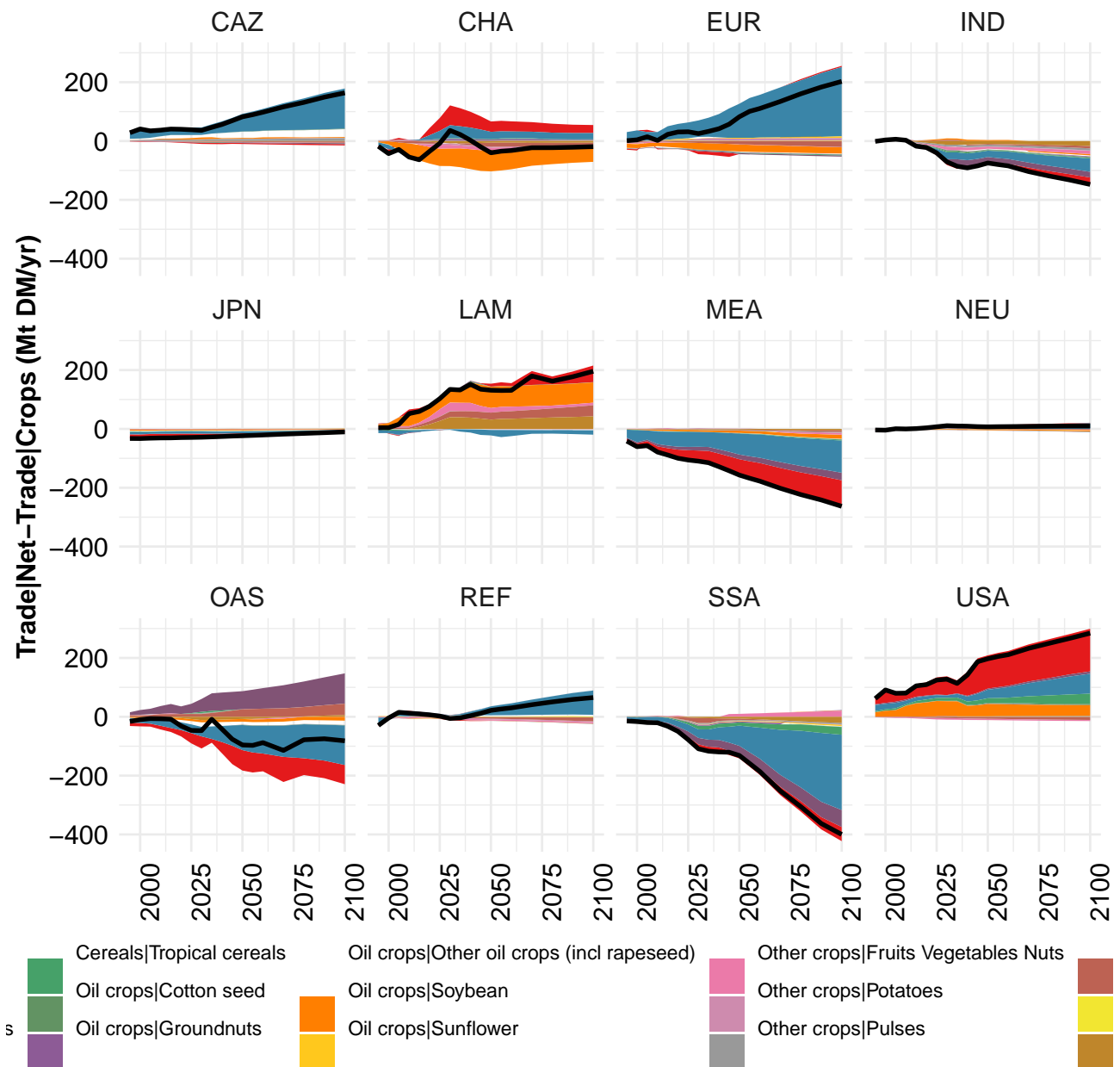
	2050	2055	2060	2070	2080	2090	2100
GLO	0	-0	0	0	0	-0	0
CAZ	93	100	109	129	145	164	180
CHA	-73	-54	-51	-38	-36	-35	-31
EUR	25	46	59	90	122	152	172
IND	-91	-99	-105	-129	-142	-152	-162
JPN	-31	-29	-27	-23	-20	-17	-14
LAM	304	303	310	375	367	385	410
MEA	-218	-236	-251	-289	-321	-348	-378
NEU	3	3	4	6	7	8	8
OAS	-65	-65	-54	-79	-36	-24	-20
REF	18	22	26	38	48	59	64
SSA	-179	-214	-248	-334	-408	-487	-541
USA	214	223	230	255	274	295	312

Table 1837: MAgPIE m4p_SSP3 — Trade—Net-Trade (Mt DM/yr) [PART 2/2]

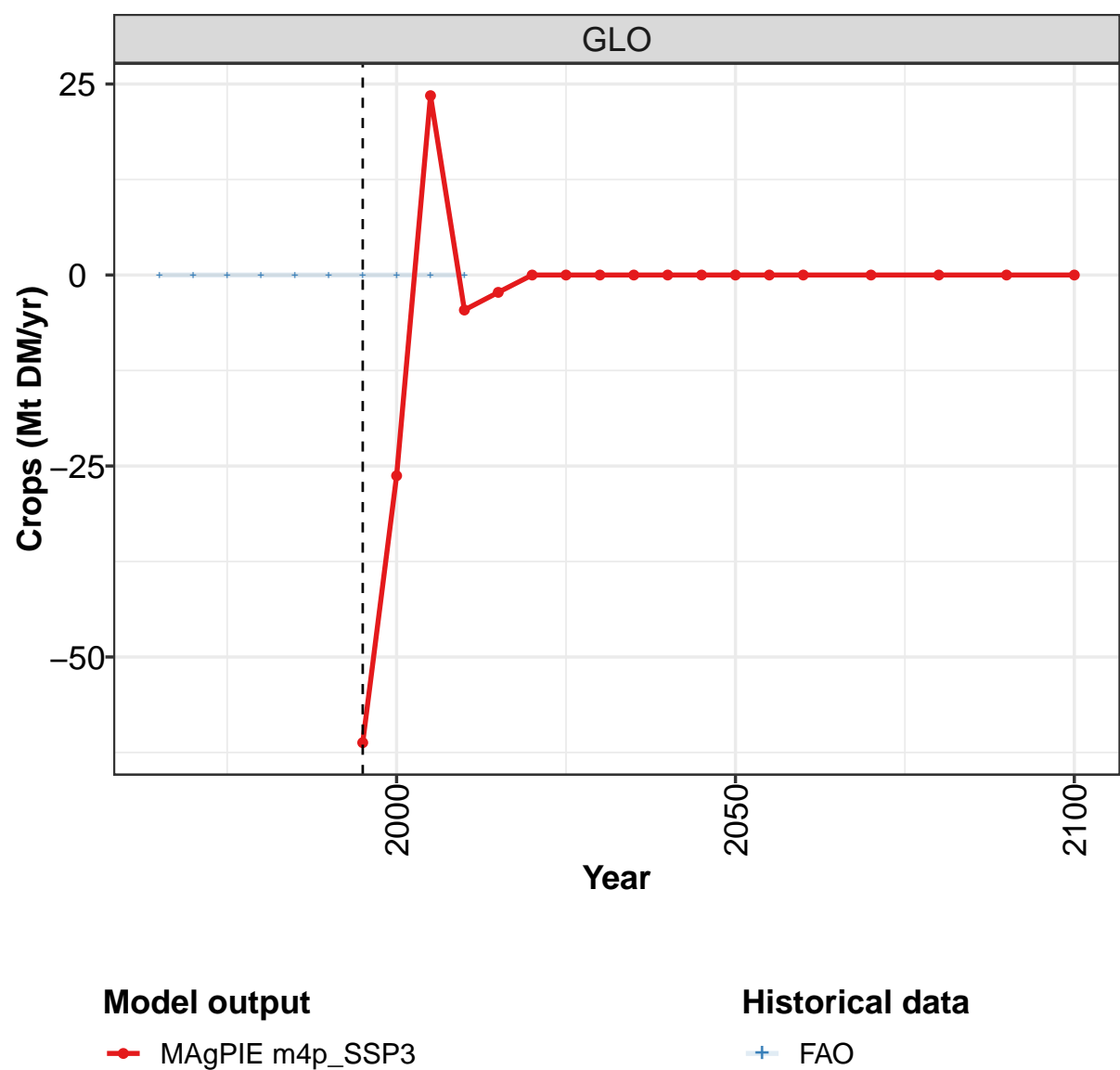
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0	0	0	0	0	0	0	0	0	0
CAZ	21	19	26	31	136	141	98	119	128	128
CHA	-12	-3	-6	-27	-21	3	-25	-59	-69	-93
EUR	-54	-66	-70	-61	-71	-57	-39	-41	-58	-56
IND	-9	-0	2	-0	0	8	6	3	-1	3
JPN	-24	-47	-48	-58	-55	-58	-54	-50	-47	-42
LAM	26	30	17	22	-39	-47	35	29	52	97
MEA	-2	-7	-16	-28	-69	-74	-56	-80	-85	-111
NEU	-4	-6	-3	-1	-26	-23	-6	-10	-13	-11
OAS	17	23	16	28	-42	-53	-14	-12	-15	-3
REF	-8	16	-28	-26	98	116	-15	12	41	15
SSA	13	12	2	5	-74	-71	-15	-25	-43	-37
USA	36	31	107	116	163	115	84	113	109	109

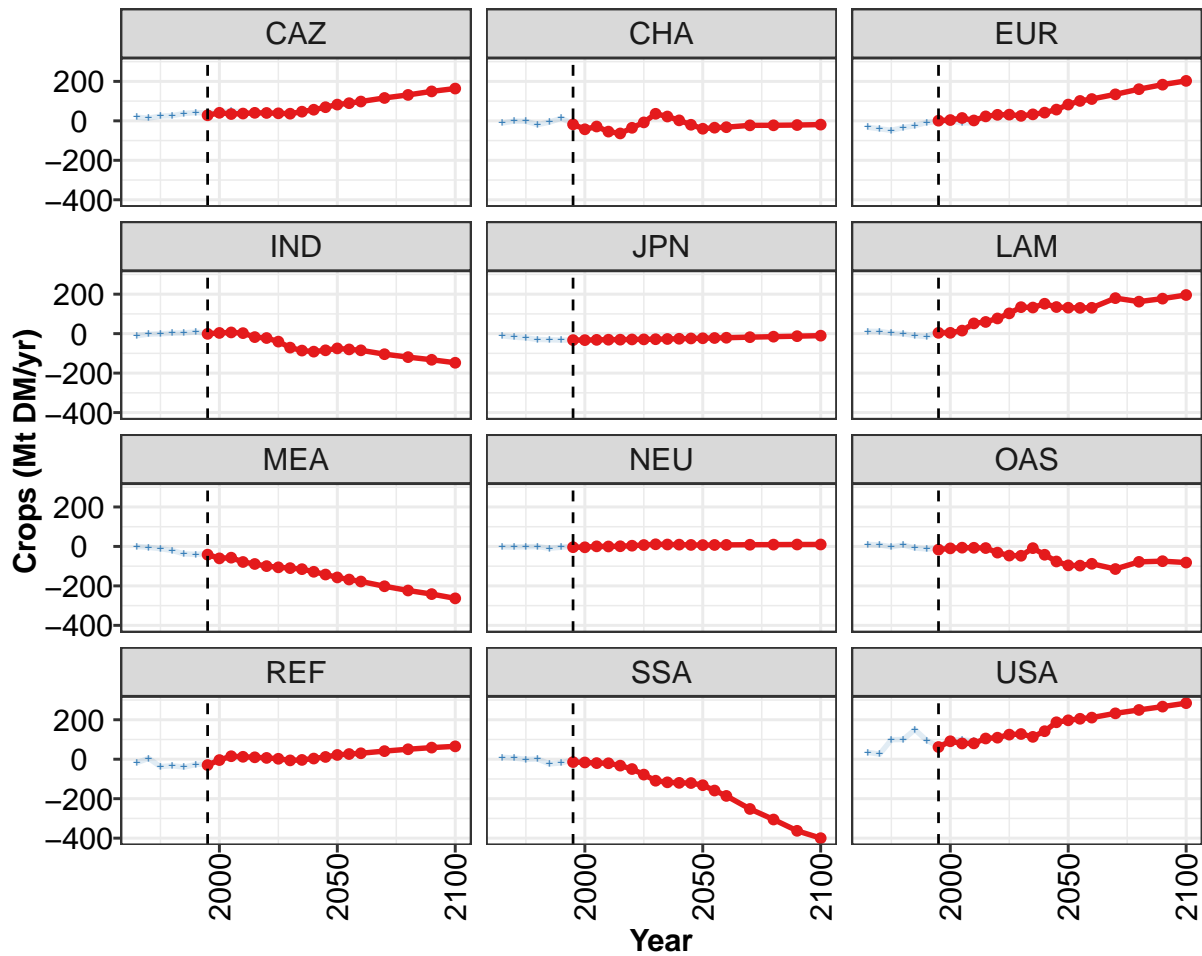
Table 1838: FAO — Trade—Net-Trade (Mt DM/yr)





58.1 Crops





Model output

MAgPIE m4p_SSP3

Historical data

FAO

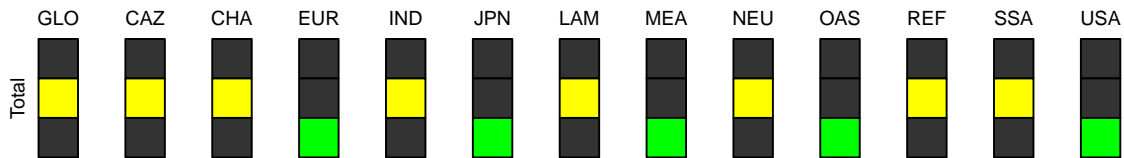


Figure 480: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-61	-26	23	-5	-2	0	-0	-0	0	-0	0
CAZ	28	41	35	37	41	40	38	36	47	56	69
CHA	-18	-43	-29	-54	-64	-35	-8	36	22	3	-20
EUR	1	4	15	2	23	31	31	25	33	42	57
IND	-1	4	6	3	-18	-22	-40	-71	-86	-91	-84
JPN	-33	-33	-31	-31	-30	-29	-29	-28	-27	-26	-24
LAM	4	4	15	52	59	77	103	134	132	152	135
MEA	-41	-60	-57	-79	-89	-100	-106	-110	-115	-128	-142
NEU	-4	-4	1	-0	1	4	7	11	10	9	8
OAS	-16	-10	-6	-7	-8	-31	-46	-47	-9	-42	-76
REF	-29	-4	15	12	10	7	2	-6	-4	4	12
SSA	-14	-16	-20	-20	-32	-50	-78	-109	-117	-120	-121
USA	62	91	80	80	105	109	125	128	113	142	187

Table 1839: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops (Mt DM/yr) [PART 1/2]

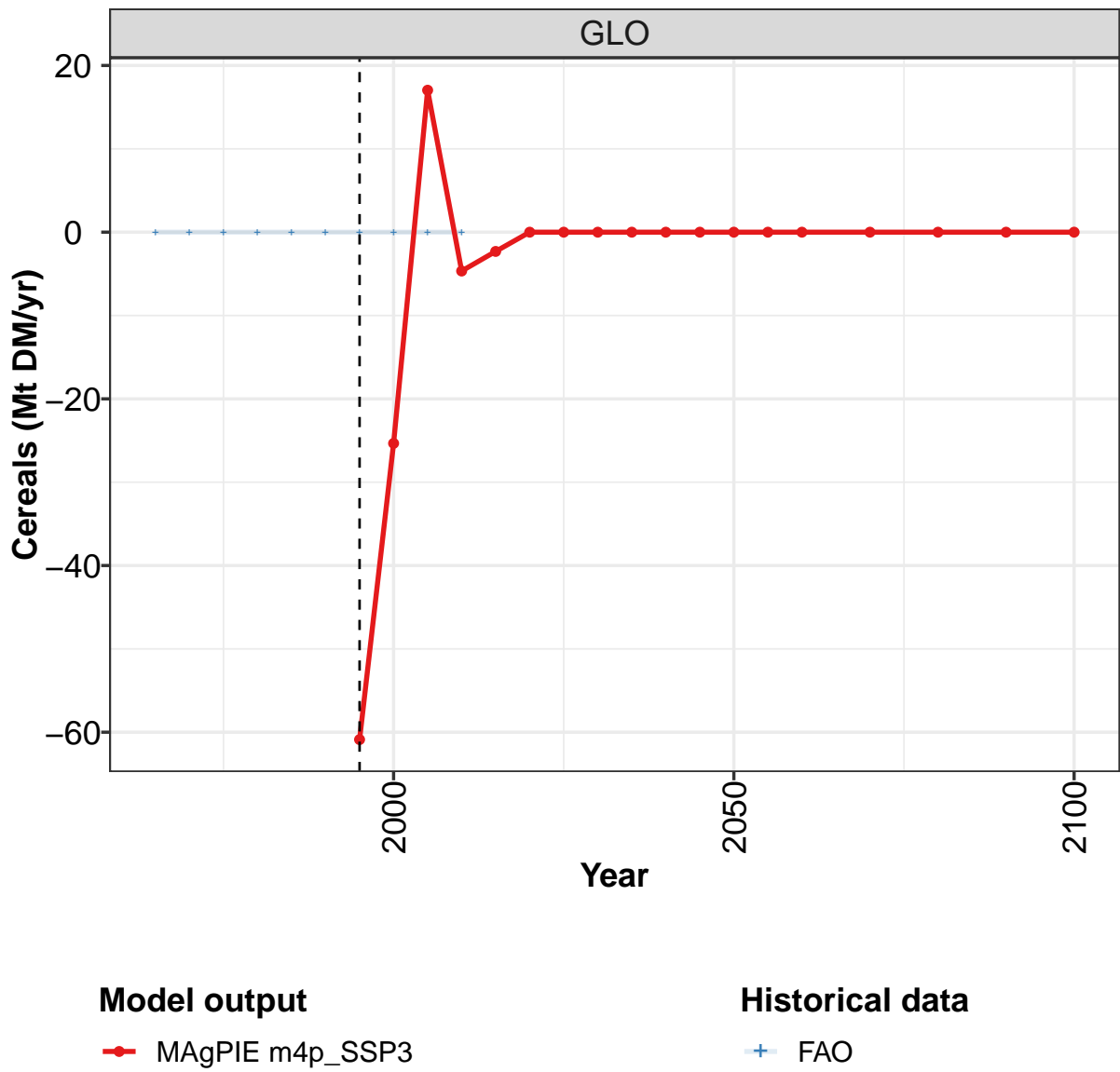
	2050	2055	2060	2070	2080	2090	2100
GLO	0	-0	0	0	0	-0	-0
CAZ	82	90	98	116	131	149	164
CHA	-40	-35	-32	-23	-23	-21	-19
EUR	83	101	111	134	161	183	203
IND	-75	-80	-84	-104	-119	-132	-148
JPN	-23	-22	-21	-18	-15	-13	-10
LAM	131	131	131	180	162	177	196
MEA	-157	-168	-178	-202	-223	-241	-263
NEU	7	8	8	9	9	10	10
OAS	-96	-97	-88	-114	-78	-75	-82
REF	22	26	30	41	51	59	65
SSA	-132	-159	-186	-252	-306	-363	-400
USA	197	205	211	233	250	267	284

Table 1840: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0	0	0	0	0	0	0	0	0	0
CAZ	18	14	24	26	37	42	40	47	49	46
CHA	-11	-1	-2	-19	-7	13	-15	-41	-33	-52
EUR	-32	-40	-48	-34	-25	-8	-3	-1	-10	-11
IND	-10	-3	-1	2	4	8	1	6	5	6
JPN	-11	-18	-21	-30	-31	-33	-32	-33	-32	-31
LAM	12	11	2	-1	-10	-15	14	6	4	47
MEA	-0	-5	-12	-20	-38	-40	-37	-58	-59	-80
NEU	-3	-3	-2	-1	-9	-4	2	-2	-2	-2
OAS	10	8	-2	7	-8	-13	-9	-8	-13	-6
REF	-17	5	-37	-33	-40	-27	-24	-2	15	4
SSA	9	6	-1	1	-23	-19	-2	-11	-24	-14
USA	35	26	99	100	150	95	65	97	99	92

Table 1841: FAO — Trade—Net-Trade—Crops (Mt DM/yr)

58.1.1 Cereals



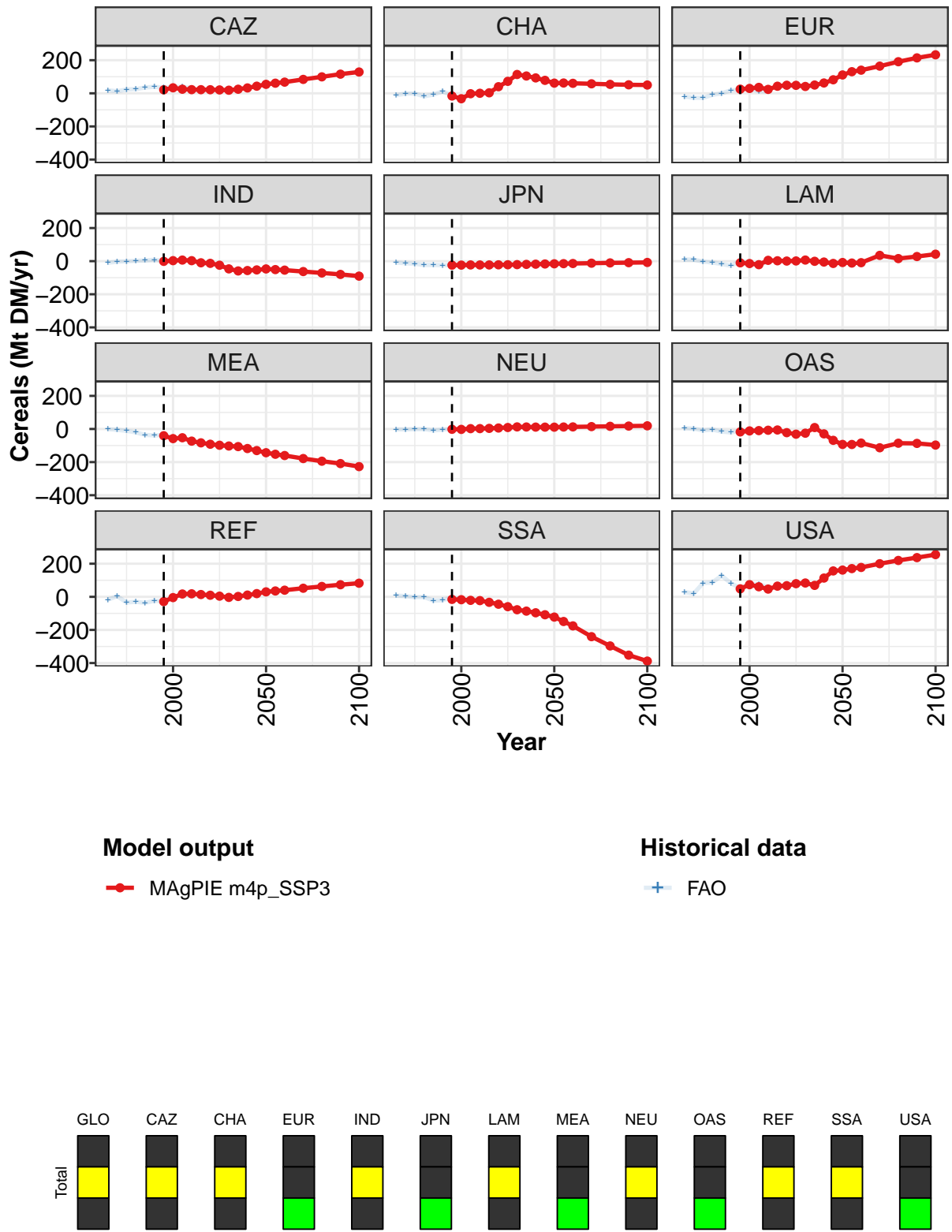


Figure 481: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-61	-25	17	-5	-2	-0	-0	0	0	-0	0
CAZ	21	33	25	22	22	22	21	19	25	33	43
CHA	-16	-33	-2	0	3	40	72	114	105	93	78
EUR	25	30	36	24	43	49	48	41	50	62	82
IND	-1	3	7	3	-10	-13	-25	-47	-59	-57	-53
JPN	-24	-24	-23	-23	-23	-22	-22	-21	-19	-18	-17
LAM	-10	-14	-21	5	2	1	1	7	-1	-5	-14
MEA	-41	-58	-53	-73	-84	-92	-98	-103	-106	-118	-130
NEU	-2	-2	2	2	4	6	9	13	12	11	11
OAS	-18	-12	-10	-8	-6	-22	-31	-25	9	-29	-69
REF	-29	-5	17	18	14	10	4	-3	2	11	19
SSA	-16	-17	-21	-23	-33	-45	-59	-78	-86	-96	-108
USA	48	74	61	47	65	67	80	84	69	113	157

Table 1842: MAgPIE m4p-SSP3 — Trade—Net-Trade—Crops—Cereals (Mt DM/yr) [PART 1/2]

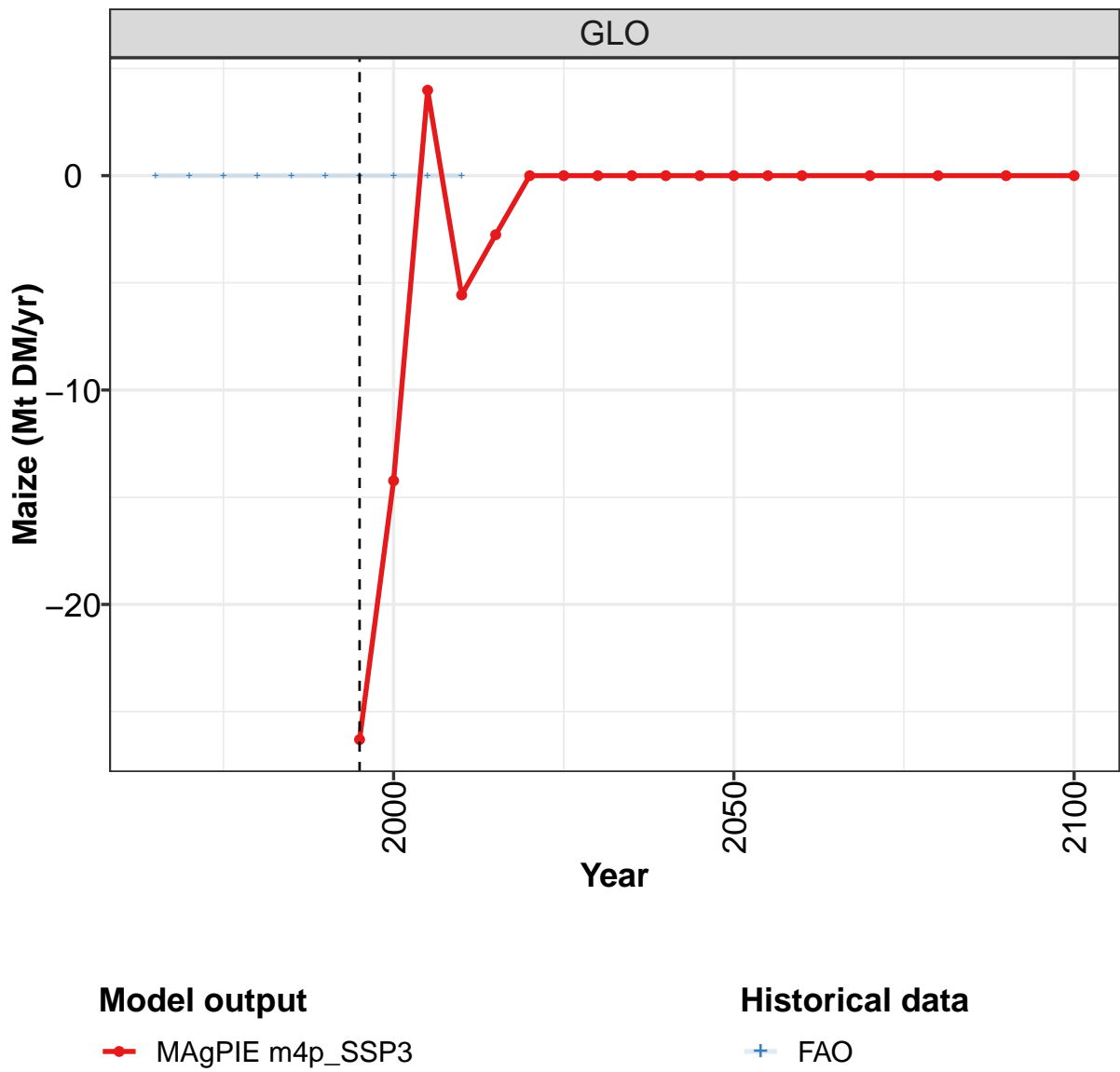
	2050	2055	2060	2070	2080	2090	2100
GLO	0	-0	0	0	-0	-0	-0
CAZ	54	61	68	84	100	116	129
CHA	62	62	60	57	54	51	50
EUR	111	131	140	164	191	214	233
IND	-47	-51	-54	-63	-71	-80	-90
JPN	-16	-15	-14	-12	-11	-9	-8
LAM	-8	-11	-9	35	16	28	42
MEA	-143	-153	-160	-178	-194	-209	-227
NEU	11	12	13	15	16	18	19
OAS	-93	-93	-85	-113	-86	-87	-97
REF	30	35	40	52	63	73	82
SSA	-122	-149	-175	-241	-297	-352	-388
USA	162	171	178	200	220	237	255

Table 1843: MAgPIE m4p-SSP3 — Trade—Net-Trade—Crops—Cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0	0	0	0	0	0	0	0	0	0
CAZ	18	12	23	26	35	39	34	38	39	32
CHA	-11	-2	-1	-18	-8	12	-13	-31	-8	3
EUR	-20	-27	-27	-9	-0	18	22	26	12	11
IND	-10	-3	-1	2	4	9	1	5	6	6
JPN	-8	-13	-16	-23	-23	-25	-24	-24	-23	-23
LAM	10	9	-3	-8	-17	-28	1	-10	-25	-1
MEA	-1	-5	-11	-20	-36	-39	-36	-55	-54	-73
NEU	-2	-3	-1	-1	-9	-4	2	-1	-0	1
OAS	5	2	-9	-3	-16	-21	-10	-9	-14	-5
REF	-17	4	-34	-30	-37	-23	-27	-3	16	9
SSA	7	4	-3	-1	-23	-20	-3	-12	-24	-19
USA	29	20	83	87	128	82	53	76	75	59

Table 1844: FAO — Trade—Net-Trade—Crops—Cereals (Mt DM/yr)

58.1.2 Cereals—Maize



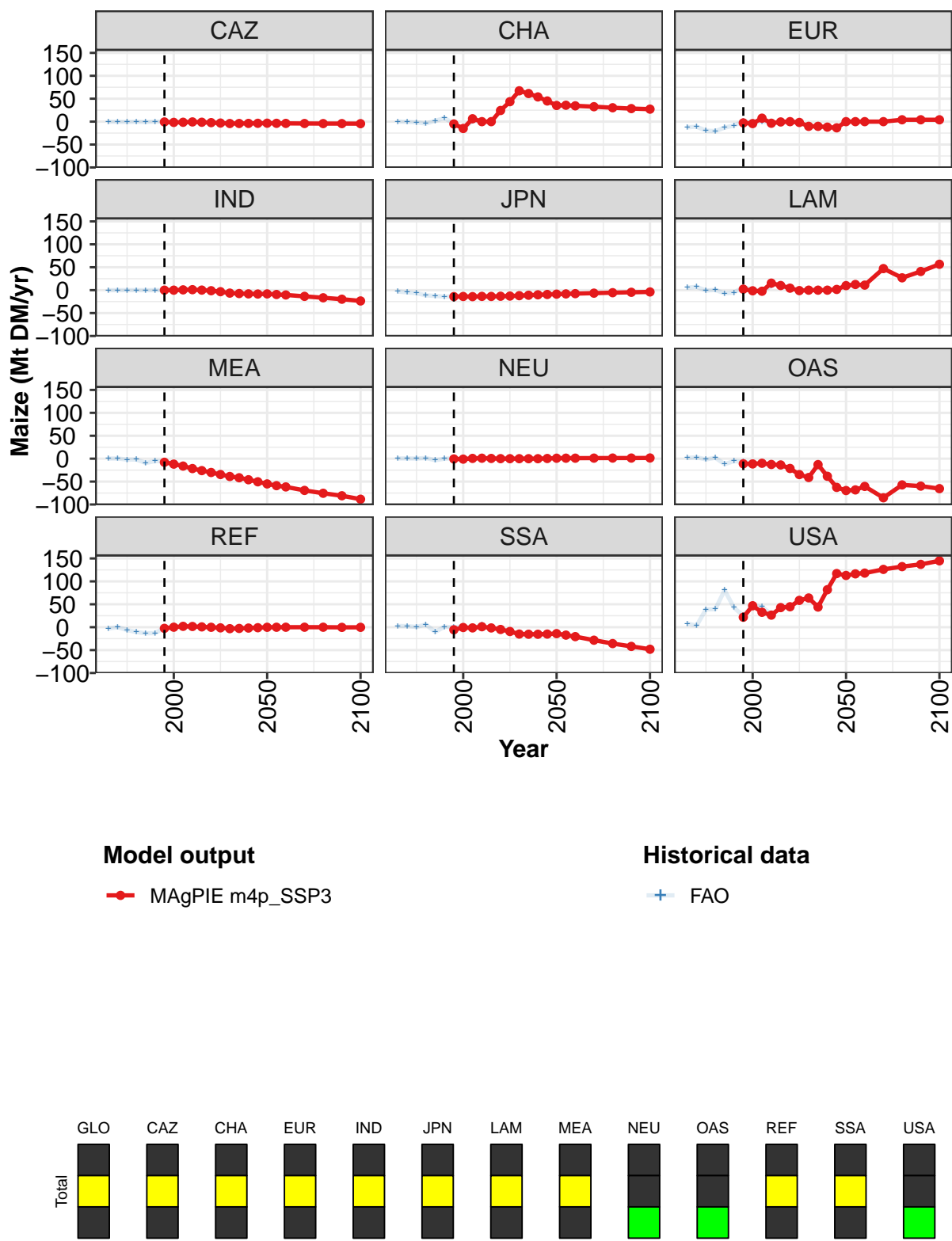


Figure 482: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-26	-14	4	-6	-3	-0	0	0	0	-0	0
CAZ	-1	-2	-1	-1	-1	-2	-3	-4	-4	-4	-4
CHA	-5	-15	6	0	0	24	44	67	61	54	45
EUR	-3	-4	8	-3	-1	-0	-2	-10	-10	-12	-13
IND	0	0	1	1	0	-1	-3	-6	-7	-8	-8
JPN	-14	-14	-14	-14	-14	-13	-13	-12	-11	-10	-9
LAM	2	-1	-2	15	10	4	-1	0	0	-0	2
MEA	-8	-12	-16	-22	-26	-30	-35	-39	-42	-46	-50
NEU	-1	-1	1	1	1	0	0	0	0	0	0
OAS	-11	-11	-10	-13	-14	-21	-35	-41	-13	-38	-63
REF	-2	0	2	2	1	-0	-1	-3	-3	-2	-1
SSA	-6	-1	-2	1	-2	-5	-9	-15	-15	-15	-15
USA	22	47	33	26	43	45	59	64	44	82	117

Table 1845: MAgPIE m4p-SSP3 — Trade—Net-Trade—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

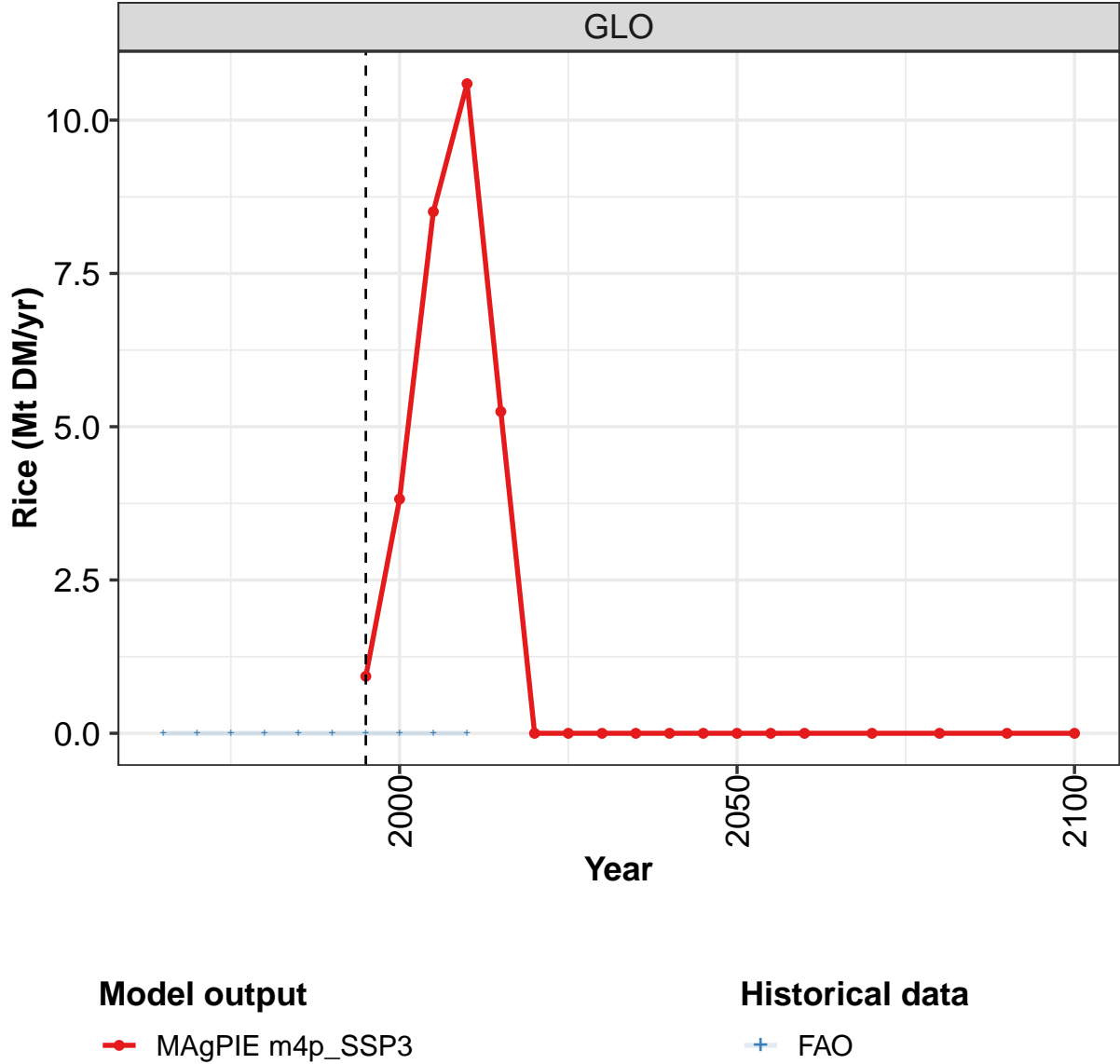
	2050	2055	2060	2070	2080	2090	2100
GLO	0	-0	0	0	-0	0	-0
CAZ	-3	-4	-4	-4	-4	-4	-4
CHA	35	36	34	33	30	28	27
EUR	-0	0	0	0	4	4	4
IND	-8	-9	-10	-14	-17	-20	-24
JPN	-9	-8	-8	-7	-6	-5	-4
LAM	10	12	11	47	27	41	56
MEA	-55	-59	-62	-69	-75	-81	-88
NEU	1	1	1	1	1	1	2
OAS	-70	-68	-60	-85	-57	-60	-65
REF	-0	-0	-0	0	-0	-0	-0
SSA	-14	-17	-21	-28	-36	-42	-48
USA	113	116	118	126	132	137	145

Table 1846: MAgPIE m4p-SSP3 — Trade—Net-Trade—Crops—Cereals—Maize (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAZ	-0.3	-0.3	-0.9	-0.2	-1.1	-0.1	-0.1	-1.5	-1.6	-0.6
CHA	0.1	-0.6	-1.6	-4.2	1.7	7.7	-4.6	-14.7	1.1	2.2
EUR	-12.2	-11.2	-19.7	-20.8	-13.1	-8.4	1.0	-2.1	0.3	-2.7
IND	-0.2	0.0	-0.1	0.0	-0.2	0.0	0.1	0.0	0.4	3.9
JPN	-2.9	-4.9	-6.7	-11.4	-12.6	-14.2	-14.0	-13.8	-14.2	-13.6
LAM	5.5	7.1	-0.9	0.5	-7.1	-5.2	6.5	1.4	-2.8	9.3
MEA	0.3	0.4	-2.0	-2.0	-9.3	-5.4	-5.7	-10.3	-15.8	-21.3
NEU	0.6	0.5	0.2	1.4	-3.3	-0.1	1.0	-0.1	-0.1	1.0
OAS	1.7	3.0	-1.6	1.9	-11.9	-5.3	-6.8	-9.7	-11.2	-11.7
REF	-3.0	-0.0	-6.3	-10.5	-13.4	-12.9	-1.5	0.9	1.7	0.4
SSA	2.6	2.4	0.6	5.9	-10.4	1.1	-0.4	2.2	-2.4	5.3
USA	7.9	3.5	38.9	39.3	80.7	42.7	24.6	47.8	44.5	27.7

Table 1847: FAO — Trade—Net-Trade—Crops—Cereals—Maize (Mt DM/yr)

58.1.3 Cereals—Rice



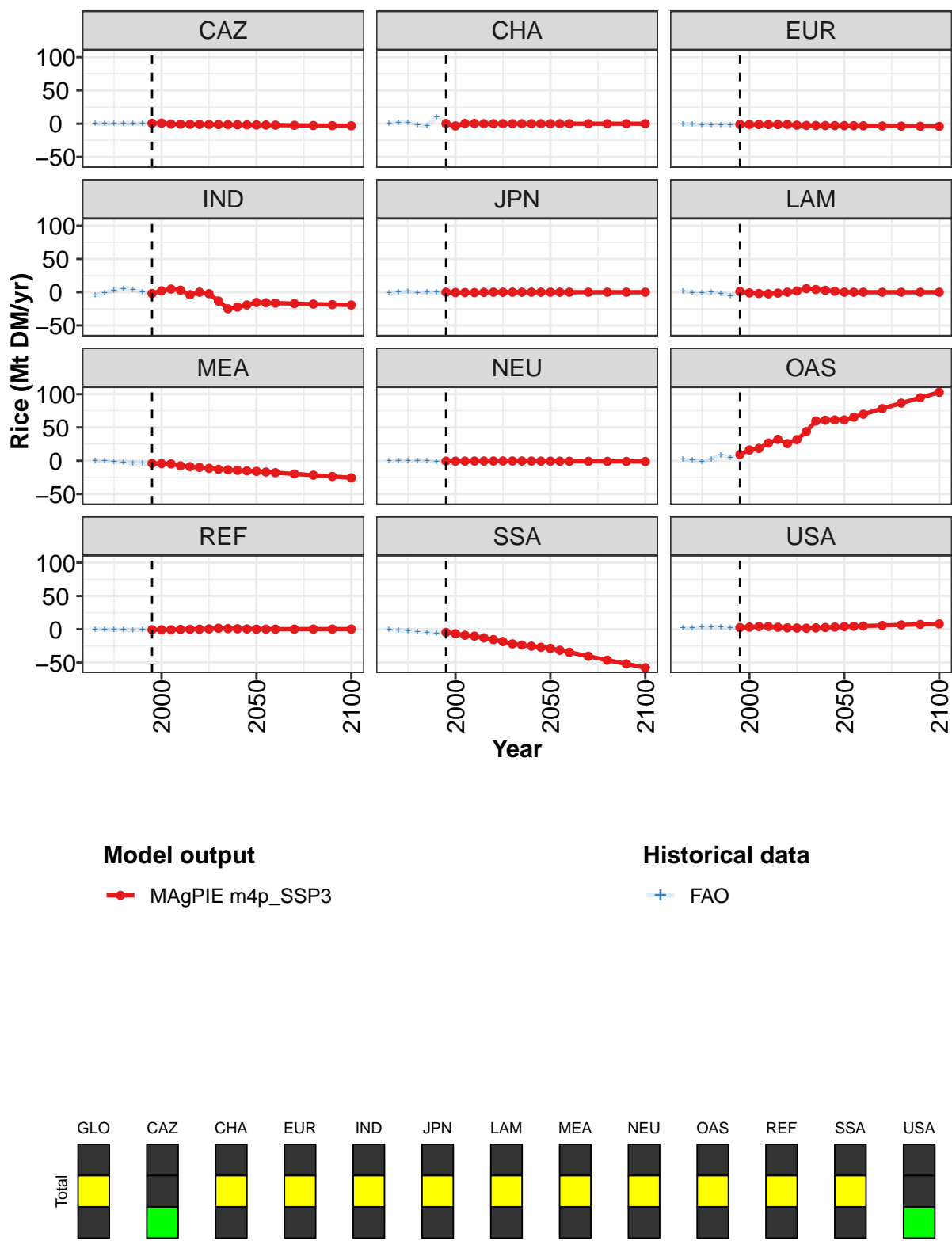


Figure 483: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1	4	9	11	5	0	-0	-0	-0	0	0
CAZ	1	1	-1	-1	-1	-1	-1	-1	-1	-1	-2
CHA	0	-3	0	0	0	0	0	0	0	0	-0
EUR	-1	-1	-1	-1	-1	-1	-2	-3	-3	-3	-3
IND	-2	2	5	3	-4	0	-2	-13	-25	-22	-19
JPN	0	-1	-1	-1	-0	0	0	0	0	0	0
LAM	1	-1	-2	-2	-1	0	2	5	4	3	1
MEA	-4	-4	-5	-8	-9	-10	-11	-13	-14	-14	-15
NEU	-1	-1	-1	-0	-0	-0	-0	-0	-0	-0	-1
OAS	9	16	19	27	32	26	32	44	60	61	61
REF	-1	-1	-1	-0	-0	0	0	1	1	1	0
SSA	-5	-7	-9	-10	-13	-16	-19	-22	-24	-25	-27
USA	3	3	4	4	3	2	2	2	2	3	3

Table 1848: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

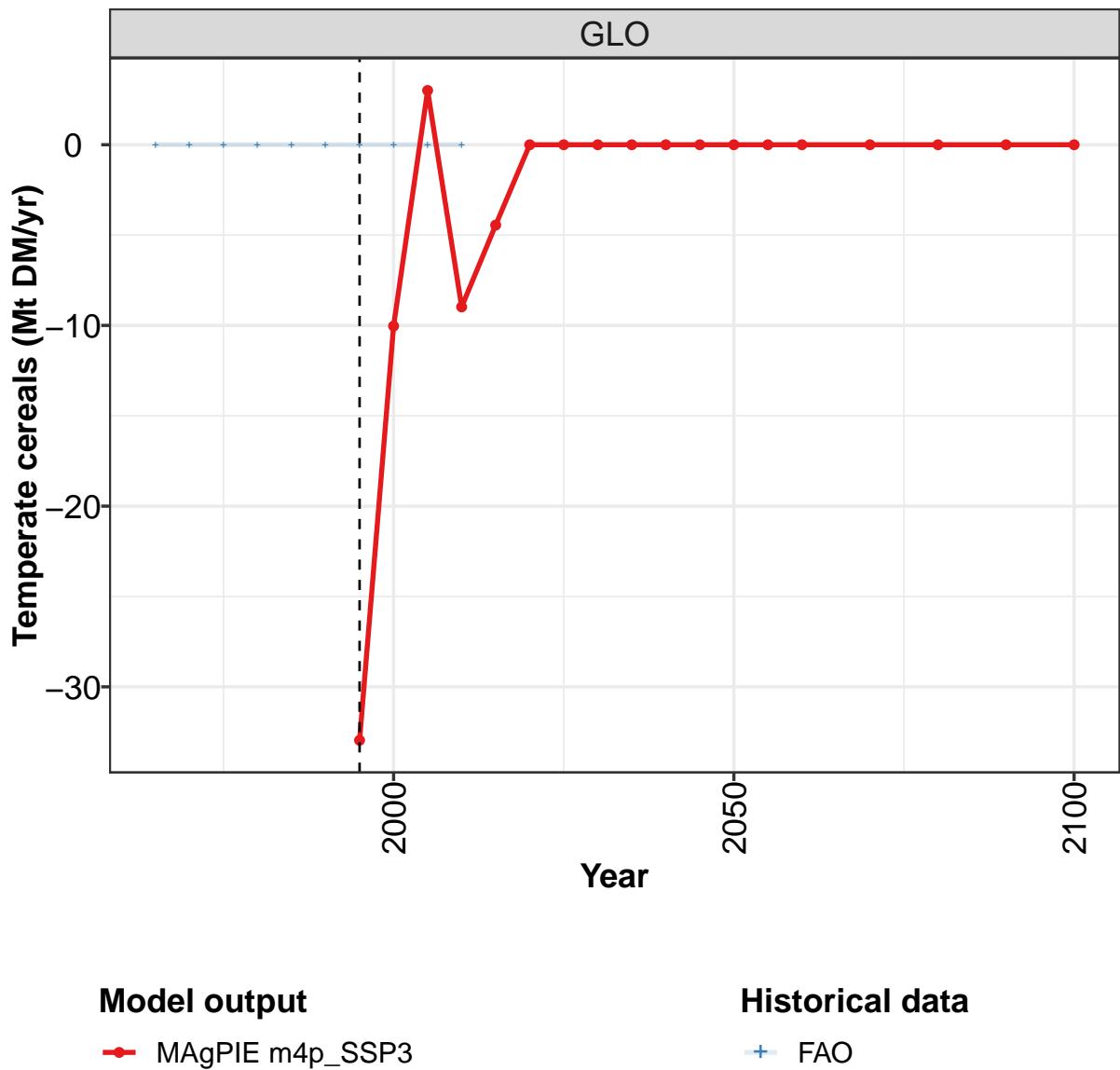
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	-0	0	0	0
CAZ	-2	-2	-2	-2	-3	-3	-3
CHA	0	0	0	0	0	0	0
EUR	-3	-3	-3	-3	-4	-4	-4
IND	-15	-16	-16	-17	-18	-19	-19
JPN	0	0	-0	0	-0	0	0
LAM	0	0	0	0	0	0	0
MEA	-16	-17	-18	-20	-22	-24	-26
NEU	-1	-1	-1	-1	-1	-1	-1
OAS	61	65	70	78	87	95	103
REF	0	0	0	0	0	0	0
SSA	-29	-32	-35	-41	-47	-52	-58
USA	4	4	5	6	7	7	8

Table 1849: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Cereals—Rice (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAZ	0.0	-0.0	0.0	0.2	0.4	0.2	0.4	0.1	-0.7	-0.9
CHA	0.9	1.8	2.1	-1.7	-3.3	10.3	2.6	-2.8	0.0	-0.6
EUR	-0.4	-1.0	-1.4	-1.4	-1.6	-1.9	-1.1	-1.6	-2.2	-2.6
IND	-4.8	-0.8	2.3	5.1	3.6	0.4	-1.5	3.3	5.3	2.2
JPN	-0.8	0.6	0.9	-1.2	0.5	-0.0	0.3	-0.5	-0.6	-0.7
LAM	1.5	-0.4	-1.0	-0.2	-1.8	-5.4	0.8	-2.0	-3.7	-4.6
MEA	0.1	-0.2	-1.4	-2.1	-3.2	-3.5	-4.0	-4.7	-5.5	-8.6
NEU	0.1	-0.4	-0.6	-0.3	-0.6	-0.9	-0.6	-0.9	-1.1	-1.1
OAS	2.2	0.7	-1.6	2.6	8.4	5.2	6.0	14.0	16.2	25.9
REF	-0.2	-0.6	-0.7	-0.8	-1.0	-0.8	-0.4	-1.0	-1.2	-0.7
SSA	-0.3	-1.7	-2.1	-3.8	-4.7	-5.9	-4.8	-7.5	-10.8	-12.5
USA	1.7	1.9	3.3	3.5	3.2	2.2	2.4	3.5	4.4	4.2

Table 1850: FAO — Trade—Net-Trade—Crops—Cereals—Rice (Mt DM/yr)

58.1.4 Cereals—Temperate cereals



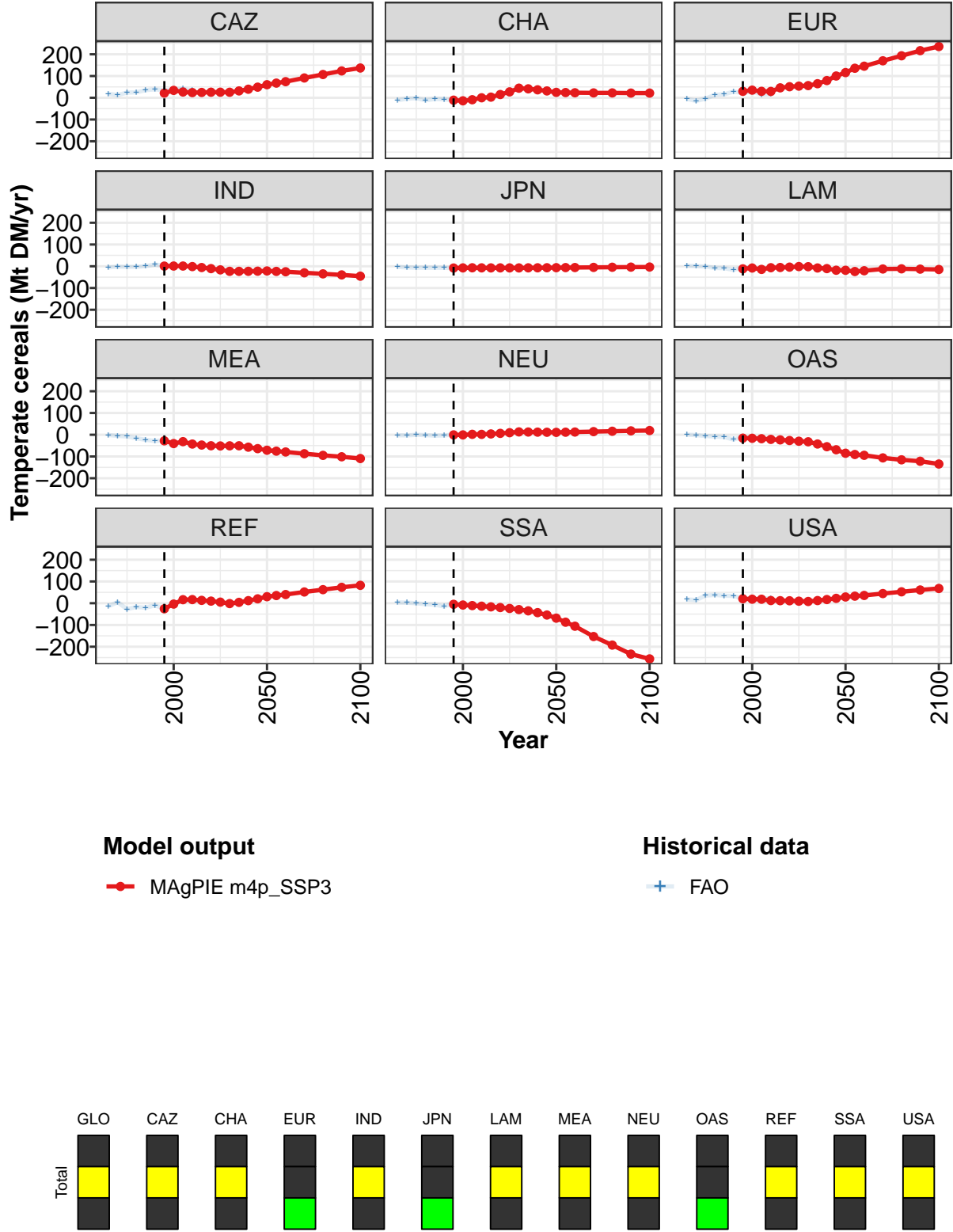


Figure 484: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-33	-10	3	-9	-4	-0	0	0	0	0	0
CAZ	21	34	27	24	25	26	26	25	32	39	49
CHA	-11	-14	-9	-0	3	15	27	44	41	37	32
EUR	30	35	30	29	46	51	54	56	65	79	100
IND	1	1	1	-1	-6	-11	-17	-23	-23	-23	-23
JPN	-8	-7	-7	-7	-7	-7	-7	-8	-7	-7	-7
LAM	-12	-8	-14	-7	-6	-4	-1	-2	-8	-11	-18
MEA	-28	-41	-32	-43	-47	-51	-51	-51	-51	-57	-64
NEU	-1	-1	2	2	4	6	9	13	13	12	11
OAS	-16	-16	-18	-21	-24	-27	-30	-32	-43	-55	-69
REF	-26	-4	16	17	13	10	5	-2	4	12	20
SSA	-5	-8	-11	-14	-17	-20	-24	-29	-35	-43	-54
USA	21	19	18	12	12	11	10	8	12	17	22

Table 1851: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Cereals—Temperate cereals (Mt DM/yr)
[PART 1/2]

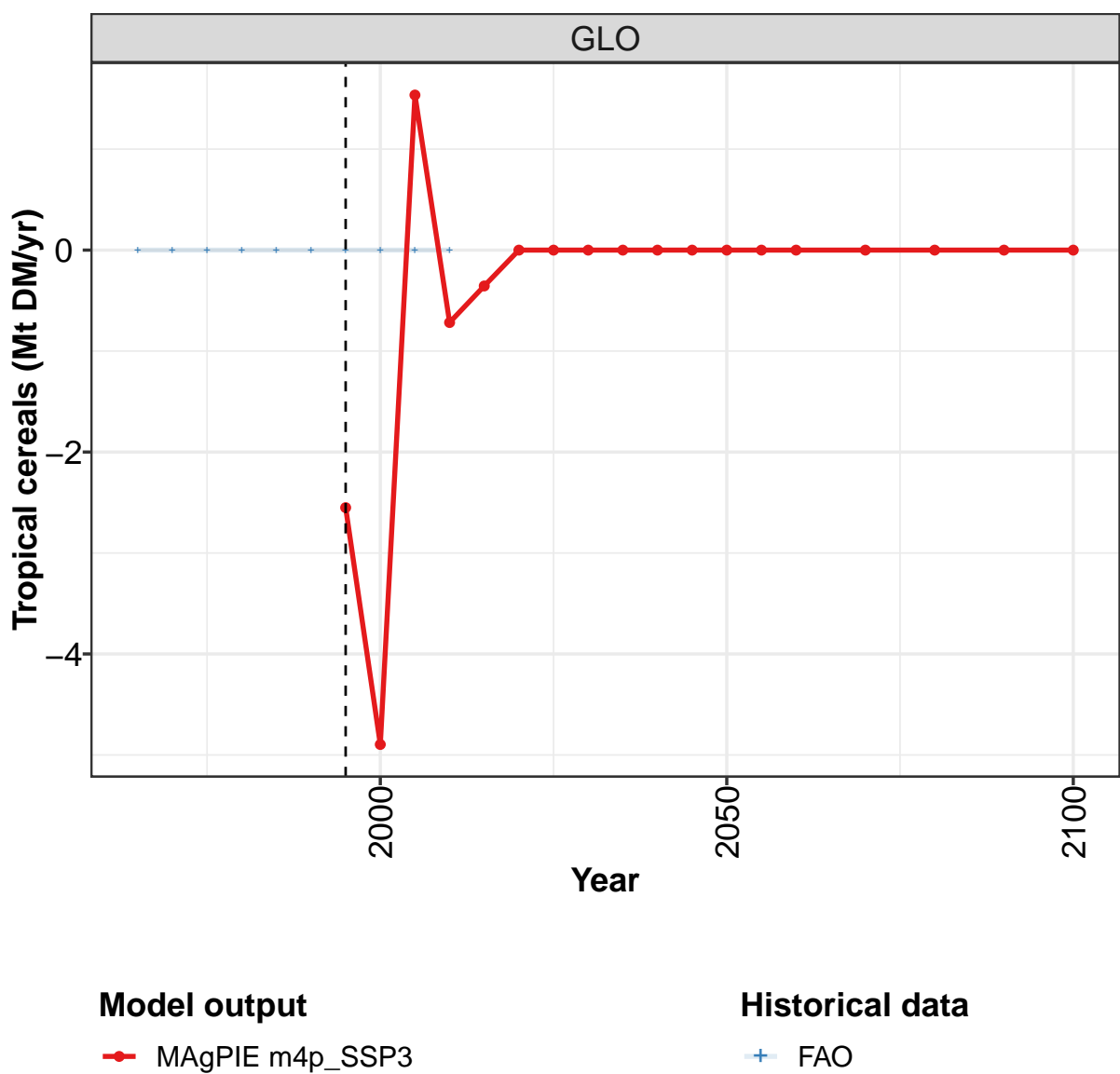
	2050	2055	2060	2070	2080	2090	2100
GLO	0	-0	0	0	0	-0	-0
CAZ	60	68	74	91	107	124	137
CHA	25	24	23	22	22	22	21
EUR	116	136	145	170	193	217	236
IND	-22	-24	-25	-30	-35	-40	-46
JPN	-6	-6	-6	-5	-5	-4	-3
LAM	-18	-24	-21	-12	-12	-13	-15
MEA	-71	-75	-79	-87	-95	-101	-109
NEU	11	12	12	14	16	18	19
OAS	-85	-91	-94	-106	-115	-122	-135
REF	30	35	40	52	63	73	82
SSA	-69	-87	-106	-153	-192	-234	-256
USA	29	33	36	44	53	61	68

Table 1852: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Cereals—Temperate cereals (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAZ	18.4	12.5	23.7	25.0	34.9	39.2	33.6	39.1	40.9	34.4
CHA	-11.4	-3.9	-1.8	-11.5	-5.4	-6.9	-10.9	-13.5	-8.8	1.7
EUR	-5.3	-14.2	-4.3	13.6	15.8	28.4	22.1	28.8	14.7	17.1
IND	-4.9	-2.1	-3.1	-3.0	0.6	8.1	2.0	1.9	-0.2	-1.4
JPN	-3.1	-5.3	-6.8	-7.0	-7.0	-7.3	-7.9	-7.5	-7.0	-7.3
LAM	2.9	0.3	-1.6	-7.7	-8.6	-16.7	-4.7	-6.0	-15.4	-4.6
MEA	-1.2	-5.1	-7.8	-16.1	-23.1	-28.5	-25.6	-39.6	-32.0	-41.9
NEU	-2.6	-2.9	-0.2	-1.6	-4.2	-3.1	1.6	0.1	1.2	0.6
OAS	0.5	-1.6	-5.6	-8.2	-10.7	-21.7	-9.4	-14.5	-18.9	-19.6
REF	-14.1	4.8	-27.1	-17.3	-20.7	-9.8	-25.0	-3.5	15.3	9.1
SSA	3.6	2.8	-0.3	-4.6	-6.5	-15.2	1.8	-6.1	-11.4	-11.8
USA	17.3	14.7	35.0	38.3	34.8	33.6	22.4	20.6	21.6	23.7

Table 1853: FAO — Trade—Net-Trade—Crops—Cereals—Temperate cereals (Mt DM/yr)

58.1.5 Cereals—Tropical cereals



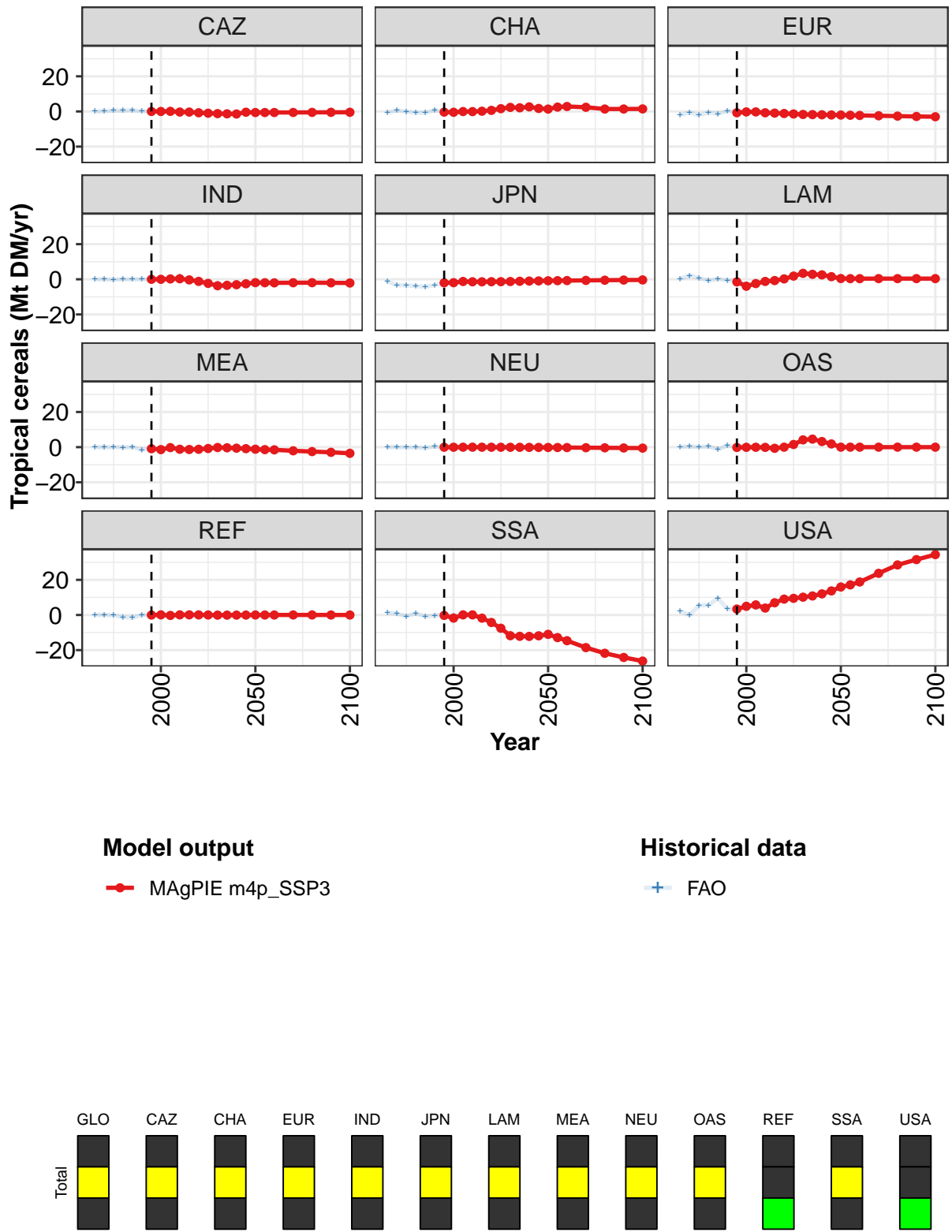


Figure 485: MAGPIE m4p_SSP3 — Trade—Net-Trade—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-2.6	-4.9	1.5	-0.7	-0.4	0.0	-0.0	0.0	0.0	-0.0	0.0
CAZ	0.0	0.0	0.1	-0.3	-0.3	-0.7	-1.0	-1.2	-1.3	-1.4	-0.4
CHA	-0.4	-0.5	-0.0	-0.1	0.2	0.6	1.6	2.3	2.1	2.6	1.7
EUR	-0.7	-0.2	-0.2	-0.7	-0.9	-1.2	-1.4	-1.7	-1.8	-1.9	-2.0
IND	0.0	0.0	0.2	0.3	-0.3	-1.2	-2.3	-3.7	-3.4	-3.1	-2.6
JPN	-2.0	-1.9	-1.2	-1.4	-1.4	-1.4	-1.3	-1.3	-1.1	-1.0	-0.9
LAM	-1.5	-3.9	-2.4	-1.2	-0.7	0.2	1.8	3.4	2.9	2.5	1.5
MEA	-0.9	-1.4	-0.3	-1.2	-1.3	-1.2	-0.8	-0.2	-0.4	-0.6	-0.8
NEU	-0.0	-0.1	-0.0	-0.0	-0.0	-0.0	-0.1	-0.1	-0.1	-0.1	-0.2
OAS	-0.2	-0.1	-0.1	-0.1	-0.6	0.0	1.5	4.1	4.6	3.2	1.8
REF	-0.0	0.1	-0.3	0.1	0.1	0.1	-0.0	-0.1	-0.1	-0.1	-0.0
SSA	-0.2	-1.8	0.1	0.1	-1.8	-4.3	-7.5	-11.8	-12.1	-12.2	-11.8
USA	3.4	4.9	5.7	3.9	7.0	9.0	9.5	10.1	10.8	12.0	13.7

Table 1854: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

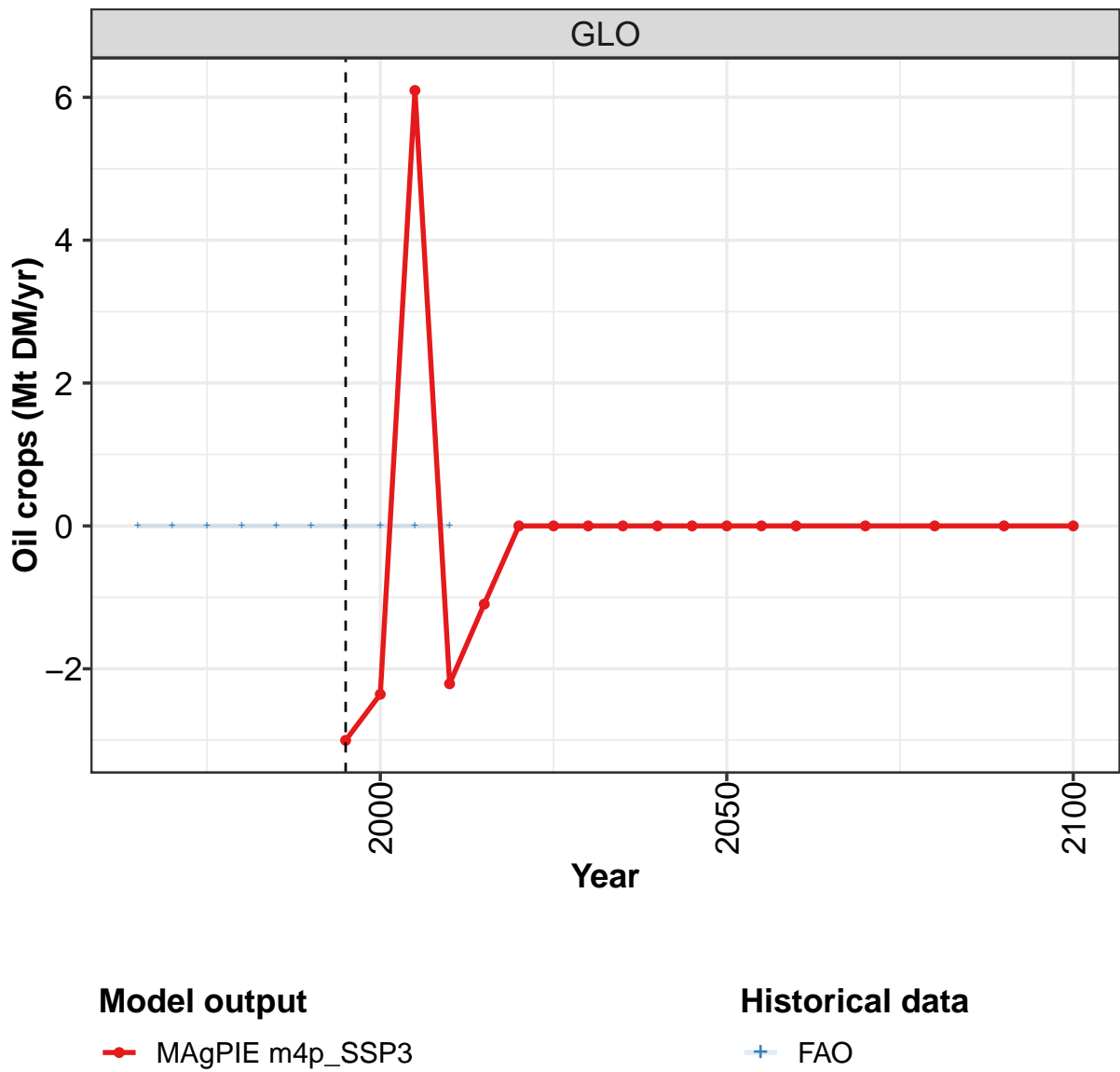
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAZ	-0.6	-0.6	-0.6	-0.6	-0.5	-0.5	-0.5
CHA	1.4	2.5	2.8	2.4	1.4	1.4	1.5
EUR	-2.0	-2.2	-2.3	-2.5	-2.6	-2.8	-3.0
IND	-1.9	-2.0	-2.0	-2.0	-1.9	-2.0	-2.1
JPN	-0.8	-0.8	-0.7	-0.6	-0.5	-0.4	-0.3
LAM	0.5	0.4	0.4	0.4	0.4	0.4	0.4
MEA	-1.2	-1.4	-1.5	-2.1	-2.5	-3.0	-3.5
NEU	-0.2	-0.2	-0.2	-0.3	-0.4	-0.5	-0.5
OAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REF	0.0	-0.0	0.0	0.0	0.0	-0.0	-0.0
SSA	-11.0	-12.9	-14.6	-18.6	-21.8	-24.2	-26.2
USA	15.9	17.1	18.8	23.7	28.5	31.5	34.4

Table 1855: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.02	0.11	0.55	0.54	0.75	0.11	0.08	0.38	0.17	-0.34
CHA	-0.77	0.66	-0.08	-0.79	-0.81	0.84	-0.33	-0.36	-0.05	-0.07
EUR	-2.00	-0.64	-2.07	-0.66	-1.36	0.23	-0.31	0.42	-0.45	-0.63
IND	-0.04	-0.02	-0.18	0.00	-0.01	0.03	0.03	0.03	0.12	1.57
JPN	-1.25	-3.26	-3.51	-3.75	-4.22	-3.32	-1.99	-1.91	-1.25	-1.41
LAM	0.34	2.07	0.70	-0.85	0.30	-0.57	-1.08	-3.21	-2.82	-1.11
MEA	0.03	-0.16	0.03	-0.18	0.05	-1.57	-0.68	-0.85	-0.40	-1.17
NEU	-0.03	0.09	-0.15	-0.13	-0.45	0.28	0.12	0.26	-0.12	0.03
OAS	0.19	0.43	0.12	0.46	-1.35	1.00	0.40	0.91	-0.37	0.01
REF	0.03	0.09	-0.23	-1.23	-1.60	0.03	0.08	0.50	-0.33	0.06
SSA	1.28	0.80	-0.74	1.03	-0.90	-0.40	0.40	-0.66	0.85	0.16
USA	2.21	-0.16	5.57	5.55	9.59	3.34	3.29	4.47	4.65	2.90

Table 1856: FAO — Trade—Net-Trade—Crops—Cereals—Tropical cereals (Mt DM/yr)

58.1.6 Oil crops



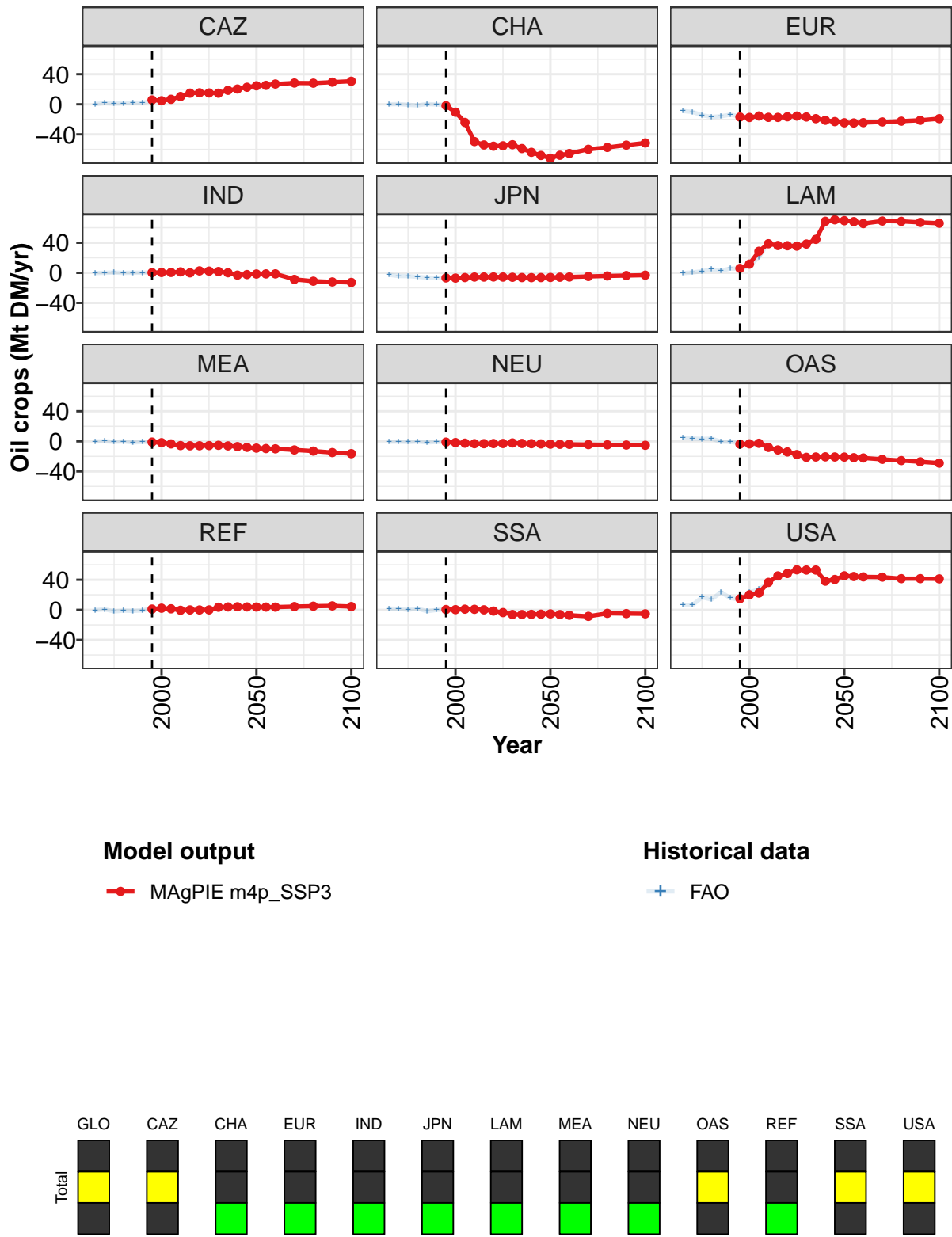


Figure 486: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-3.0	-2.4	6.1	-2.2	-1.1	0.0	-0.0	-0.0	0.0	0.0	-0.0
CAZ	5.8	4.7	6.7	10.4	14.9	15.3	15.1	14.8	18.6	20.4	22.7
CHA	-1.8	-10.5	-24.1	-49.5	-54.0	-55.7	-55.2	-53.7	-58.8	-63.8	-68.0
EUR	-16.9	-17.5	-15.5	-17.3	-17.4	-16.5	-15.6	-16.8	-19.1	-21.2	-23.0
IND	0.2	0.5	0.5	1.2	0.0	2.5	2.2	1.7	0.1	-3.0	-2.3
JPN	-6.8	-7.0	-6.3	-5.6	-5.6	-5.5	-5.6	-5.9	-6.3	-6.4	-6.3
LAM	5.9	11.6	28.6	38.7	36.3	36.0	35.5	38.3	44.5	68.5	70.5
MEA	-1.0	-1.8	-3.4	-5.7	-5.9	-5.9	-5.7	-5.3	-6.1	-7.0	-8.0
NEU	-1.0	-1.7	-2.4	-3.1	-3.1	-3.0	-2.9	-2.2	-2.8	-3.1	-3.4
OAS	-3.7	-3.3	-2.6	-8.1	-11.4	-14.1	-17.6	-21.3	-20.8	-20.6	-20.8
REF	1.1	2.2	1.4	-0.5	-0.1	-0.1	-0.0	3.5	3.9	4.1	3.9
SSA	0.5	0.3	0.9	0.8	0.1	-1.6	-3.6	-6.2	-6.2	-6.0	-5.7
USA	14.8	20.1	22.4	36.5	45.2	48.4	53.3	53.0	53.0	38.2	40.4

Table 1857: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops (Mt DM/yr) [PART 1/2]

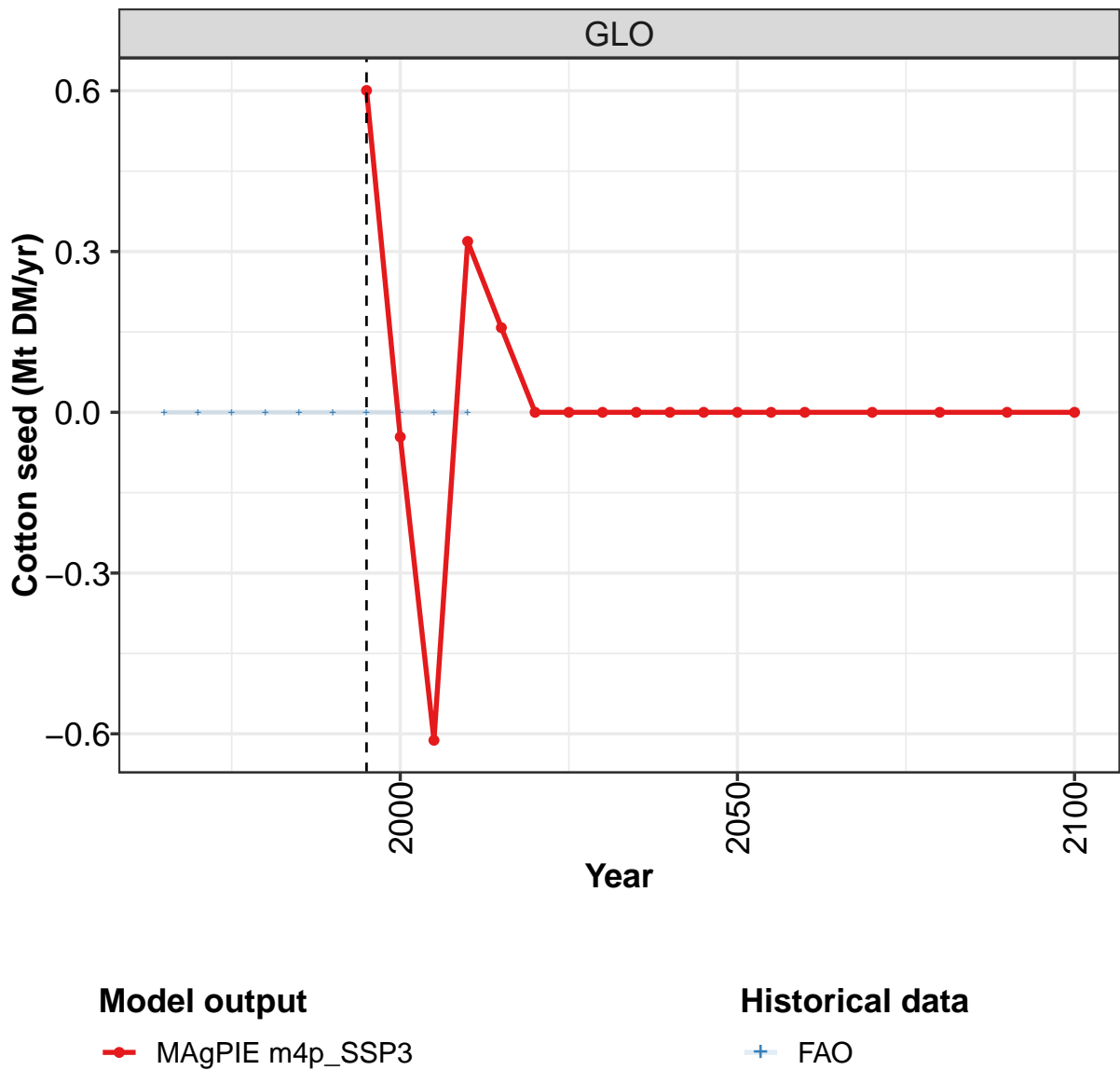
	2050	2055	2060	2070	2080	2090	2100
GLO	-0.0	0.0	0.0	0.0	-0.0	0.0	0.0
CAZ	24.6	25.2	27.0	28.3	28.1	29.5	30.7
CHA	-71.7	-67.7	-65.4	-59.8	-57.4	-54.2	-51.3
EUR	-24.5	-24.8	-24.4	-23.4	-22.4	-21.2	-19.1
IND	-1.6	-1.4	-1.4	-8.7	-11.1	-12.1	-12.8
JPN	-6.1	-5.8	-5.6	-4.8	-4.2	-3.6	-3.1
LAM	69.3	68.0	65.5	68.9	68.4	67.0	65.9
MEA	-9.0	-9.6	-10.0	-11.4	-13.0	-14.9	-16.4
NEU	-3.8	-3.9	-4.0	-4.4	-4.6	-4.9	-5.2
OAS	-20.9	-21.8	-22.1	-24.0	-25.6	-27.2	-29.0
REF	3.8	3.7	3.7	4.4	4.9	5.3	4.4
SSA	-5.3	-6.3	-7.1	-8.6	-4.6	-4.9	-5.2
USA	45.3	44.4	43.9	43.5	41.5	41.5	41.2

Table 1858: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAZ	0.3	1.6	0.9	1.3	2.2	2.1	4.7	6.0	7.4	9.6
CHA	-0.0	0.3	-0.7	-1.4	0.3	-0.4	-1.0	-9.8	-24.5	-49.7
EUR	-8.9	-10.2	-14.5	-16.8	-16.0	-13.8	-16.2	-17.3	-16.0	-16.8
IND	-0.4	0.0	0.4	-0.1	0.1	0.2	0.7	0.4	0.6	1.2
JPN	-2.6	-4.2	-4.4	-5.3	-6.4	-6.6	-6.7	-6.9	-6.3	-5.6
LAM	-0.4	0.5	2.0	4.7	2.8	5.8	5.3	9.0	21.1	40.2
MEA	-0.1	0.0	-0.7	-0.2	-1.5	-0.8	-0.8	-1.7	-3.9	-5.5
NEU	-0.5	-0.4	-0.9	-0.3	-1.5	-0.8	-0.8	-1.4	-2.8	-3.0
OAS	5.1	3.7	3.2	3.6	-0.4	-0.7	-2.5	-3.6	-4.3	-7.5
REF	-0.3	0.8	-2.0	-1.0	-1.4	-0.7	2.7	1.4	1.7	-0.5
SSA	1.6	1.5	0.1	1.7	-1.8	-0.1	0.8	0.8	-0.6	1.7
USA	6.3	6.3	16.7	13.8	23.5	15.7	13.8	23.2	27.3	35.9

Table 1859: FAO — Trade—Net-Trade—Crops—Oil crops (Mt DM/yr)

58.1.7 Oil crops—Cotton seed



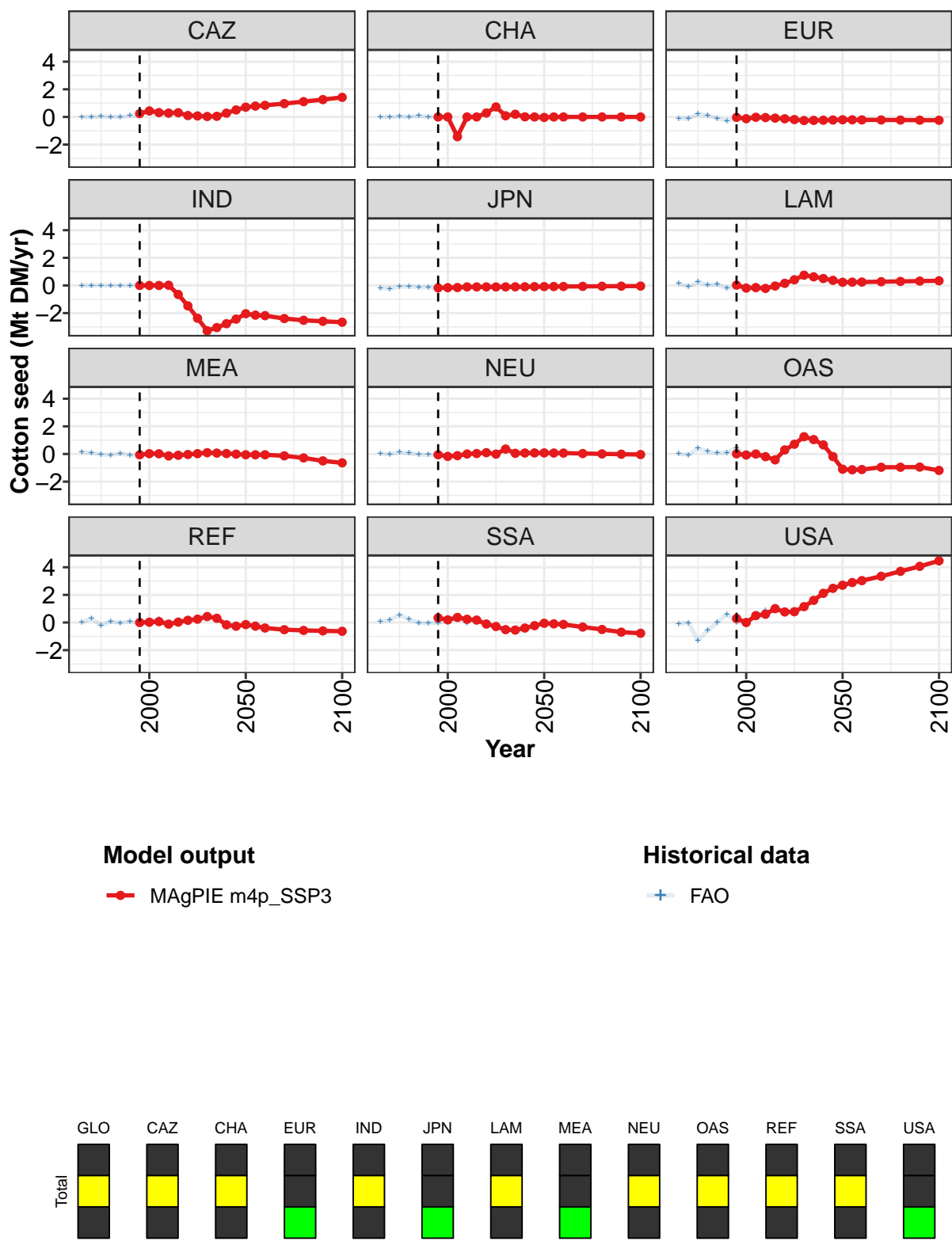


Figure 487: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.60	-0.05	-0.61	0.32	0.16	0.00	0.00	0.00	-0.00	0.00	0.00
CAZ	0.24	0.43	0.32	0.28	0.31	0.10	0.07	0.03	0.05	0.27	0.51
CHA	0.00	0.00	-1.43	0.00	0.00	0.28	0.73	0.08	0.20	0.01	-0.00
EUR	-0.03	-0.13	-0.02	-0.05	-0.08	-0.13	-0.19	-0.26	-0.25	-0.24	-0.22
IND	0.00	-0.00	-0.00	0.02	-0.65	-1.48	-2.37	-3.27	-3.05	-2.77	-2.43
JPN	-0.17	-0.16	-0.15	-0.10	-0.11	-0.10	-0.11	-0.10	-0.10	-0.09	-0.09
LAM	0.02	-0.19	-0.16	-0.21	-0.04	0.15	0.41	0.74	0.63	0.50	0.37
MEA	-0.06	0.03	0.02	-0.14	-0.09	-0.04	0.03	0.10	0.07	0.03	-0.01
NEU	-0.05	-0.17	-0.12	0.00	0.03	0.10	-0.01	0.36	0.05	0.07	0.08
OAS	0.01	-0.07	0.00	-0.19	-0.42	0.29	0.71	1.25	1.04	0.66	-0.19
REF	0.00	0.03	0.07	-0.11	0.03	0.16	0.24	0.43	0.31	-0.17	-0.27
SSA	0.34	0.19	0.37	0.24	0.18	-0.11	-0.29	-0.52	-0.55	-0.40	-0.23
USA	0.29	0.00	0.50	0.60	1.00	0.77	0.78	1.15	1.60	2.11	2.48

Table 1860: MAGPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

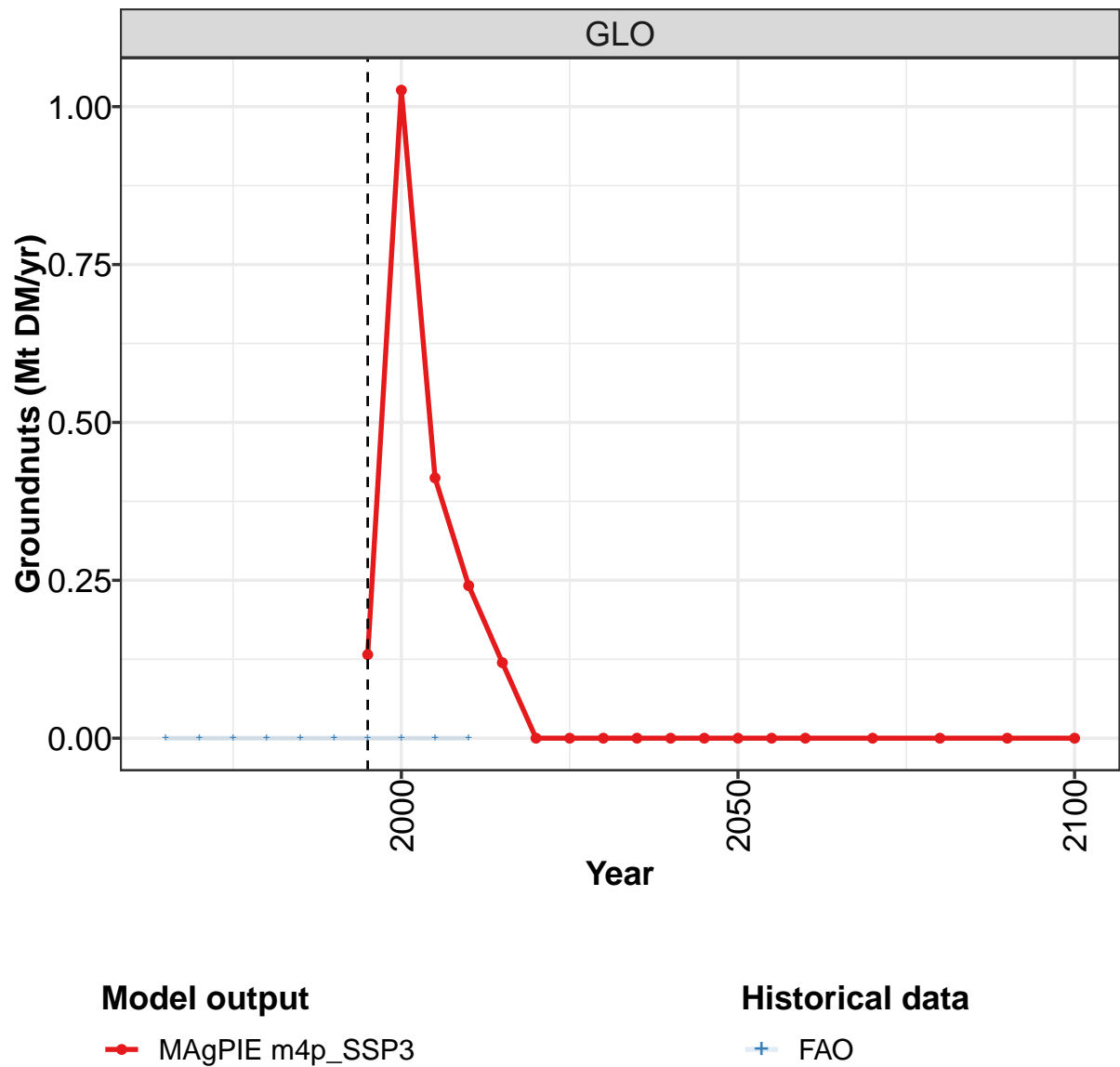
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	0.00	-0.00	-0.00
CAZ	0.71	0.79	0.84	0.97	1.11	1.26	1.42
CHA	-0.03	0.00	0.00	0.00	0.00	0.00	0.00
EUR	-0.20	-0.21	-0.21	-0.22	-0.23	-0.23	-0.24
IND	-2.04	-2.15	-2.18	-2.40	-2.52	-2.59	-2.66
JPN	-0.08	-0.08	-0.07	-0.07	-0.06	-0.05	-0.04
LAM	0.23	0.24	0.25	0.27	0.29	0.32	0.34
MEA	-0.05	-0.06	-0.06	-0.13	-0.28	-0.50	-0.64
NEU	0.08	0.07	0.07	0.03	0.01	-0.02	-0.04
OAS	-1.10	-1.15	-1.13	-0.96	-0.96	-0.95	-1.19
REF	-0.15	-0.26	-0.40	-0.52	-0.57	-0.60	-0.63
SSA	-0.05	-0.10	-0.14	-0.33	-0.50	-0.70	-0.78
USA	2.70	2.89	3.03	3.35	3.71	4.07	4.46

Table 1861: MAGPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAZ	-0.002	-0.002	0.044	0.018	-0.000	0.105	0.110	0.566	0.226	0.113
CHA	-0.002	-0.006	0.033	0.014	0.083	0.007	-0.011	-0.001	-1.367	-0.020
EUR	-0.120	-0.108	0.206	0.113	-0.093	-0.279	-0.113	-0.120	0.057	-0.088
IND	-0.000	-0.001	0.008	0.004	-0.002	-0.004	0.000	0.001	0.003	0.003
JPN	-0.193	-0.242	-0.083	-0.068	-0.127	-0.156	-0.177	-0.158	-0.147	-0.107
LAM	0.170	-0.104	0.253	0.038	0.100	-0.217	-0.019	-0.172	-0.030	-0.230
MEA	0.152	0.076	-0.038	-0.081	0.055	-0.114	-0.099	0.002	0.082	-0.126
NEU	0.021	-0.019	0.133	0.058	-0.036	-0.060	-0.088	-0.161	-0.073	-0.026
OAS	0.013	-0.062	0.408	0.174	0.073	0.108	0.423	-0.078	0.100	-0.262
REF	-0.001	0.295	-0.217	0.077	-0.027	0.064	-0.018	0.024	0.245	-0.119
SSA	0.075	0.192	0.550	0.216	-0.016	-0.058	-0.016	0.086	0.457	-0.034
USA	-0.113	-0.018	-1.296	-0.564	-0.010	0.604	0.009	0.012	0.446	0.895

Table 1862: FAO — Trade—Net-Trade—Crops—Oil crops—Cotton seed (Mt DM/yr)

58.1.8 Oil crops—Groundnuts



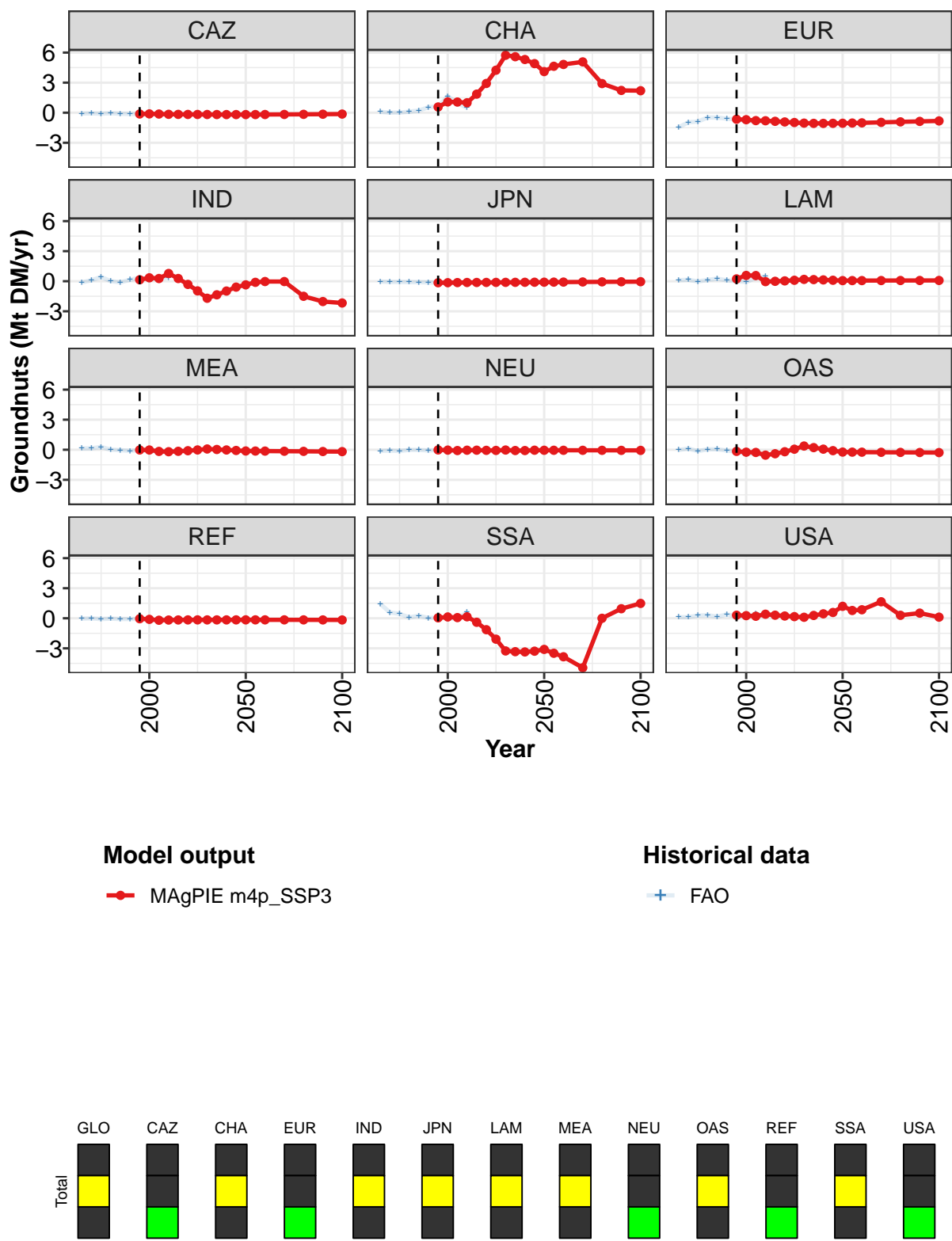


Figure 488: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.13	1.03	0.41	0.24	0.12	0.00	0.00	0.00	0.00	0.00	-0.00
CAZ	-0.13	-0.12	-0.13	-0.16	-0.17	-0.17	-0.17	-0.18	-0.18	-0.19	-0.19
CHA	0.57	1.08	1.06	0.99	1.86	2.92	4.24	5.73	5.59	5.31	4.90
EUR	-0.65	-0.70	-0.79	-0.80	-0.86	-0.92	-0.98	-1.04	-1.06	-1.07	-1.06
IND	0.15	0.34	0.27	0.77	0.27	-0.32	-0.96	-1.70	-1.36	-0.98	-0.59
JPN	-0.15	-0.15	-0.14	-0.13	-0.12	-0.12	-0.12	-0.11	-0.11	-0.10	-0.10
LAM	0.23	0.58	0.57	-0.04	-0.01	0.04	0.10	0.19	0.16	0.13	0.10
MEA	-0.02	-0.02	-0.17	-0.19	-0.15	-0.09	-0.02	0.08	0.03	-0.02	-0.07
NEU	-0.02	-0.03	-0.08	-0.05	-0.04	-0.06	-0.07	-0.03	-0.08	-0.08	-0.04
OAS	-0.16	-0.24	-0.27	-0.54	-0.40	-0.20	0.06	0.37	0.21	0.06	-0.09
REF	-0.04	-0.11	-0.19	-0.17	-0.17	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16
SSA	0.04	0.13	0.07	0.15	-0.40	-1.14	-2.08	-3.26	-3.33	-3.36	-3.28
USA	0.31	0.26	0.20	0.41	0.31	0.23	0.17	0.10	0.28	0.45	0.58

Table 1863: MAGPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

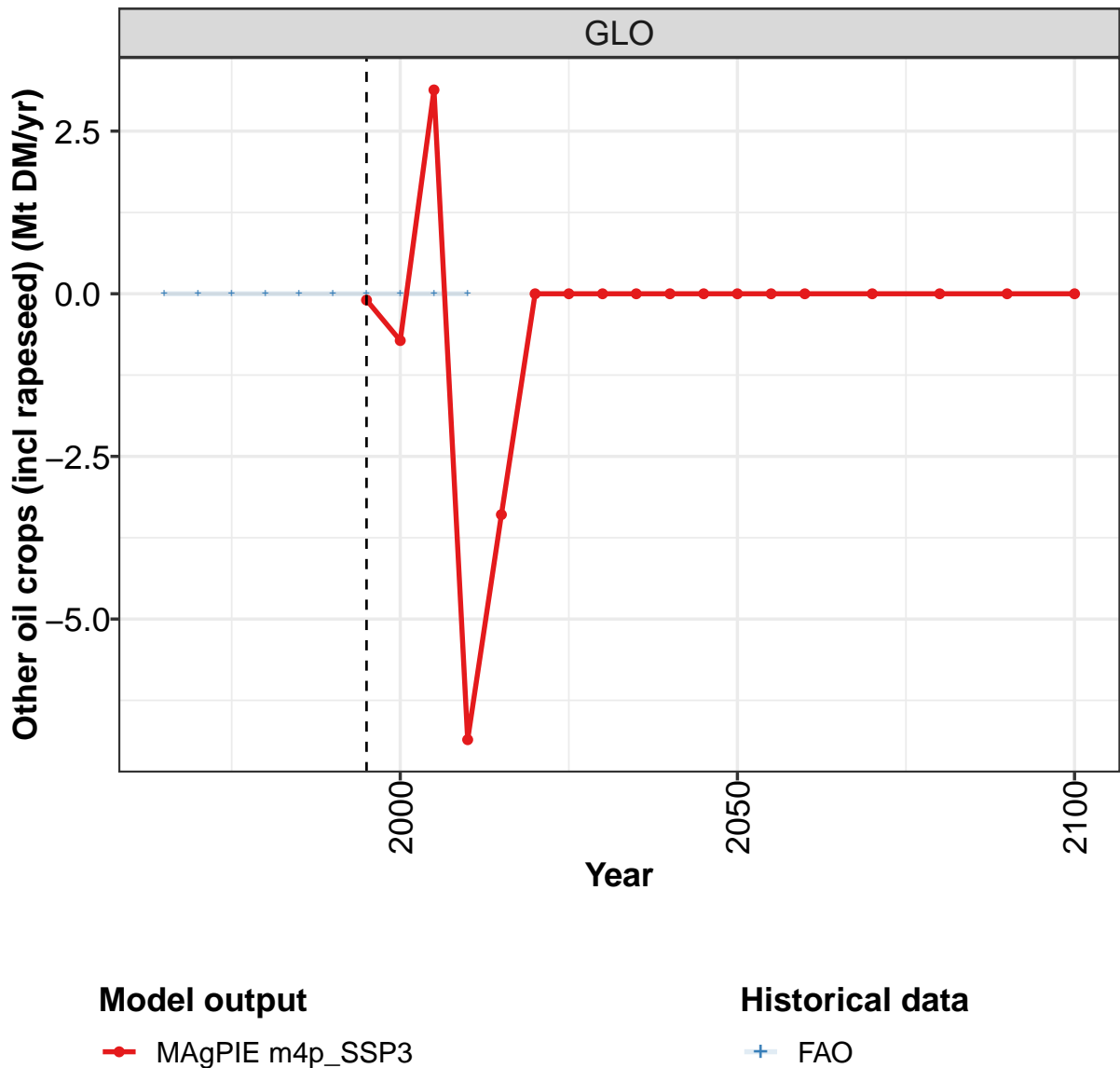
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	-0.00	0.00	-0.00	0.00	-0.00	0.00
CAZ	-0.19	-0.18	-0.18	-0.17	-0.16	-0.15	-0.14
CHA	4.11	4.63	4.82	5.07	2.91	2.22	2.20
EUR	-1.05	-1.03	-1.01	-0.96	-0.91	-0.87	-0.82
IND	-0.36	-0.11	-0.03	-0.03	-1.50	-2.03	-2.17
JPN	-0.10	-0.09	-0.08	-0.07	-0.06	-0.05	-0.04
LAM	0.06	0.06	0.07	0.07	0.07	0.08	0.08
MEA	-0.12	-0.13	-0.13	-0.15	-0.16	-0.17	-0.19
NEU	-0.05	-0.05	-0.05	-0.05	-0.06	-0.06	-0.06
OAS	-0.23	-0.24	-0.24	-0.25	-0.26	-0.27	-0.28
REF	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.17
SSA	-3.11	-3.49	-3.84	-4.94	0.00	0.95	1.48
USA	1.19	0.78	0.85	1.65	0.30	0.51	0.11

Table 1864: MAGPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	-0.09	-0.07	-0.10	-0.06	-0.11	-0.13	-0.13	-0.14	-0.14	-0.16
CHA	0.08	0.01	0.01	0.10	0.21	0.55	0.63	1.64	0.96	0.49
EUR	-1.46	-0.96	-0.88	-0.48	-0.49	-0.60	-0.67	-0.84	-0.84	-0.83
IND	-0.12	0.10	0.42	0.00	-0.11	0.14	0.35	0.20	0.29	0.36
JPN	-0.03	-0.08	-0.07	-0.09	-0.09	-0.12	-0.15	-0.15	-0.14	-0.13
LAM	0.10	0.14	-0.02	0.13	0.25	0.09	0.01	-0.08	0.34	0.49
MEA	0.13	0.14	0.28	0.01	-0.04	-0.11	-0.03	-0.11	-0.20	-0.22
NEU	-0.11	-0.09	-0.13	-0.01	-0.02	-0.07	-0.03	-0.10	-0.10	-0.06
OAS	-0.02	0.12	-0.14	0.05	0.05	-0.08	-0.18	-0.44	-0.35	-0.60
REF	-0.04	-0.01	-0.08	-0.04	-0.07	-0.08	-0.05	-0.15	-0.21	-0.19
SSA	1.44	0.58	0.44	0.09	0.26	0.03	0.07	0.01	-0.04	0.60
USA	0.11	0.12	0.27	0.31	0.16	0.38	0.17	0.17	0.44	0.25

Table 1865: FAO — Trade—Net-Trade—Crops—Oil crops—Groundnuts (Mt DM/yr)

58.1.9 Oil crops—Other oil crops (incl rapeseed)



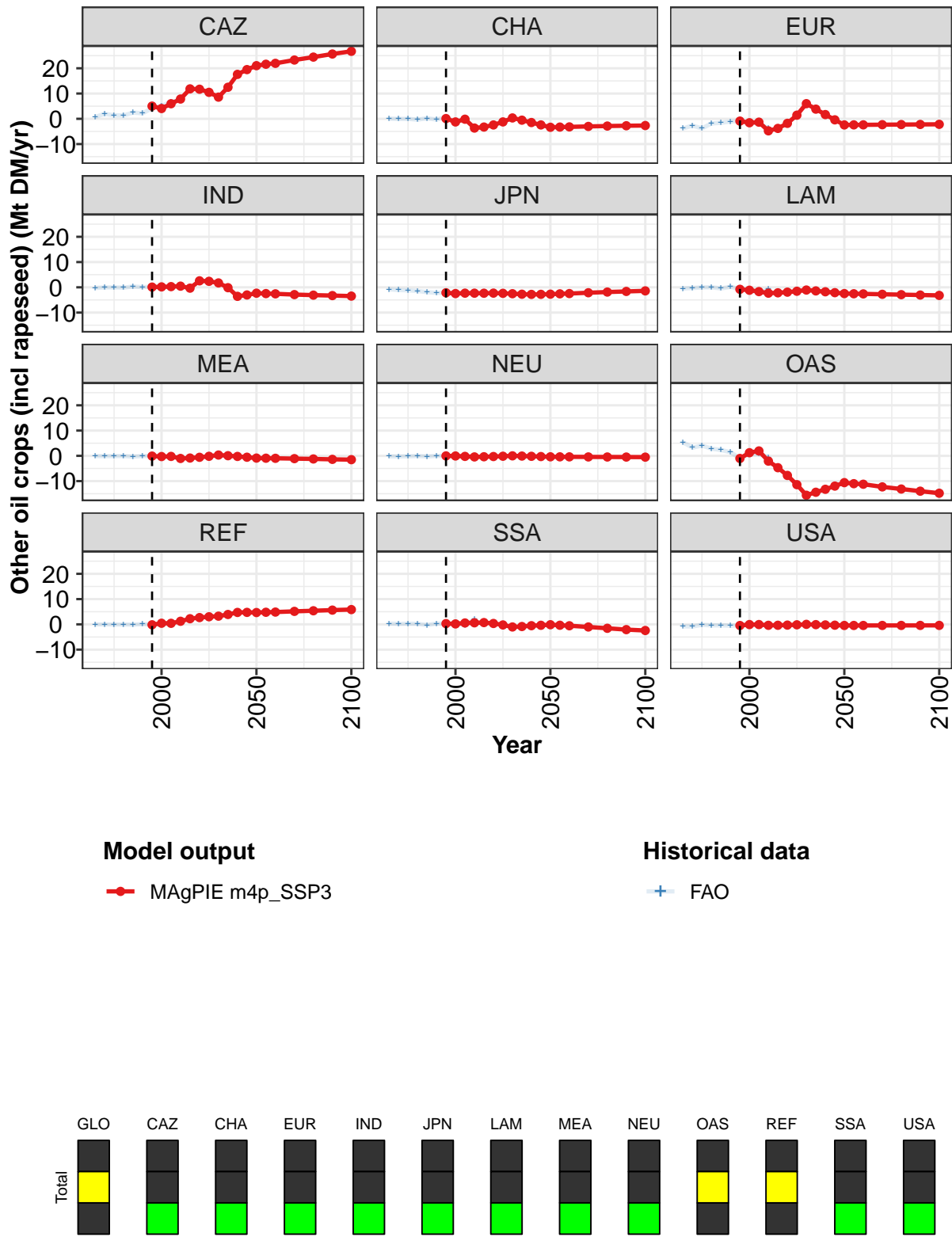


Figure 489: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.1	-0.7	3.1	-6.9	-3.4	0.0	-0.0	0.0	0.0	-0.0	0.0
CAZ	5.0	4.1	6.0	7.8	11.8	11.7	10.5	8.6	12.5	17.6	19.5
CHA	0.1	-1.2	-0.2	-3.7	-3.3	-2.4	-1.2	0.3	-0.5	-1.5	-2.4
EUR	-0.9	-1.6	-1.3	-4.8	-3.8	-1.8	1.4	6.0	3.8	1.7	-0.4
IND	0.1	0.2	0.3	0.5	-0.3	2.6	2.4	1.7	-0.1	-3.6	-3.0
JPN	-2.2	-2.5	-2.3	-2.3	-2.3	-2.3	-2.4	-2.5	-2.7	-2.8	-2.8
LAM	-0.8	-1.2	-1.7	-2.3	-2.2	-1.9	-1.6	-1.1	-1.4	-1.8	-2.1
MEA	-0.1	-0.3	-0.2	-1.0	-0.9	-0.6	-0.2	0.3	0.1	-0.2	-0.5
NEU	-0.0	-0.1	-0.2	-0.4	-0.4	-0.3	-0.2	0.0	-0.1	-0.2	-0.3
OAS	-1.0	1.2	1.9	-2.1	-4.7	-7.8	-11.4	-15.6	-14.4	-13.2	-12.0
REF	-0.2	0.4	0.4	1.2	2.2	2.7	3.0	3.2	3.9	4.7	4.7
SSA	0.3	0.2	0.6	0.6	0.7	0.4	-0.2	-1.0	-0.9	-0.5	-0.4
USA	-0.5	-0.1	-0.1	-0.4	-0.4	-0.3	-0.2	0.0	-0.1	-0.2	-0.3

Table 1866: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

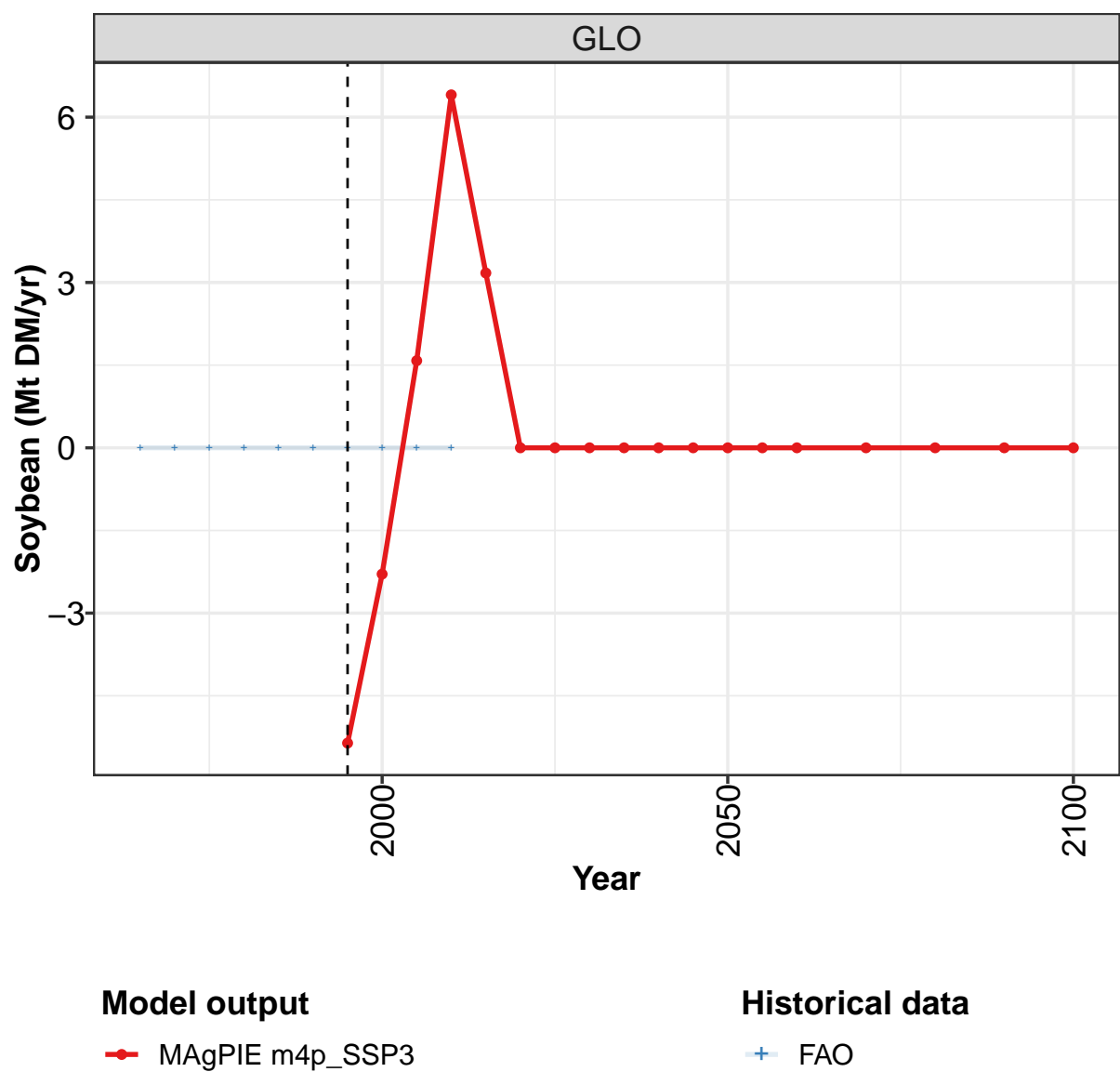
	2050	2055	2060	2070	2080	2090	2100
GLO	-0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAZ	21.0	21.6	22.0	23.3	24.4	25.7	26.7
CHA	-3.4	-3.3	-3.2	-3.0	-2.9	-2.7	-2.7
EUR	-2.4	-2.4	-2.4	-2.3	-2.3	-2.2	-2.2
IND	-2.3	-2.5	-2.6	-2.9	-3.1	-3.3	-3.5
JPN	-2.7	-2.6	-2.5	-2.1	-1.9	-1.6	-1.4
LAM	-2.5	-2.5	-2.6	-2.8	-2.9	-3.1	-3.2
MEA	-0.9	-0.9	-1.0	-1.1	-1.2	-1.4	-1.5
NEU	-0.4	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5
OAS	-10.6	-11.0	-11.2	-12.3	-13.1	-14.0	-14.8
REF	4.7	4.8	4.9	5.1	5.4	5.6	5.9
SSA	-0.1	-0.3	-0.5	-1.0	-1.6	-2.1	-2.4
USA	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4

Table 1867: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.71	1.97	1.39	1.33	2.47	2.15	4.21	5.13	6.72	7.52
CHA	0.08	-0.03	-0.03	-0.33	0.23	-0.31	0.73	-1.22	-0.24	-3.47
EUR	-3.79	-2.69	-3.81	-1.84	-1.59	-1.10	-0.87	-1.57	-1.70	-3.83
IND	-0.24	-0.08	-0.05	-0.14	0.31	0.06	0.27	0.22	0.29	0.68
JPN	-0.79	-1.08	-1.19	-1.44	-1.91	-2.20	-2.15	-2.44	-2.32	-2.28
LAM	-0.49	-0.28	-0.05	0.02	-0.45	0.17	-0.73	-0.95	-2.36	-0.76
MEA	-0.08	-0.14	-0.11	-0.08	-0.32	-0.07	-0.09	-0.24	-0.48	-0.47
NEU	-0.22	-0.24	-0.20	-0.07	-0.24	-0.04	-0.01	-0.01	-0.41	0.02
OAS	5.37	3.24	4.08	2.84	2.31	1.45	-0.97	0.67	0.84	-0.58
REF	-0.05	-0.05	-0.11	-0.09	-0.13	0.08	-0.15	0.10	0.07	1.51
SSA	0.30	0.19	0.25	0.21	-0.29	0.32	0.23	0.38	-0.31	2.00
USA	-0.80	-0.83	-0.18	-0.40	-0.39	-0.51	-0.47	-0.08	-0.10	-0.34

Table 1868: FAO — Trade—Net-Trade—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

58.1.10 Oil crops—Soybean



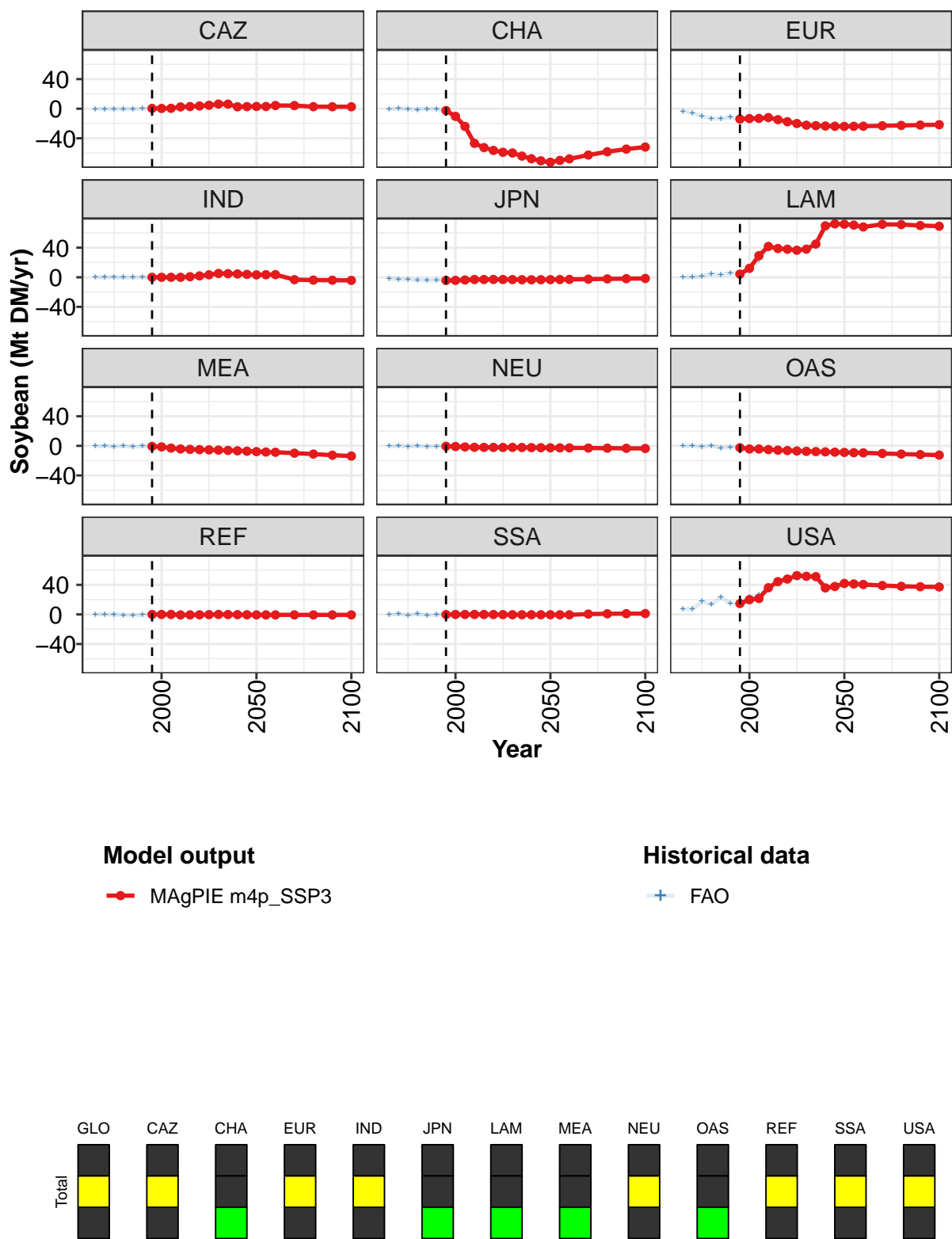


Figure 490: MAGPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-5.4	-2.3	1.6	6.4	3.2	0.0	0.0	-0.0	0.0	0.0	-0.0
CAZ	0.4	0.3	0.5	2.4	2.9	3.6	4.7	6.3	6.2	2.6	2.8
CHA	-2.5	-10.4	-23.9	-46.8	-52.6	-56.4	-58.9	-59.9	-64.1	-67.7	-70.5
EUR	-14.0	-13.4	-13.1	-12.0	-14.8	-17.6	-20.0	-22.3	-22.9	-23.4	-23.7
IND	0.0	-0.0	0.0	0.0	0.8	1.9	3.3	5.2	4.9	4.5	3.9
JPN	-4.3	-4.2	-3.7	-3.0	-3.0	-3.0	-3.0	-3.1	-3.3	-3.4	-3.3
LAM	4.3	12.1	29.2	41.7	38.9	37.9	36.5	38.0	44.9	69.5	72.2
MEA	-0.7	-1.4	-3.0	-4.2	-4.7	-5.1	-5.4	-5.7	-6.2	-6.7	-7.3
NEU	-0.6	-0.9	-1.5	-1.9	-2.1	-2.1	-2.1	-2.1	-2.2	-2.4	-2.5
OAS	-2.5	-4.2	-4.3	-5.1	-5.8	-6.4	-6.9	-7.5	-7.8	-8.2	-8.5
REF	-0.1	-0.1	-0.0	-0.7	-0.6	-0.5	-0.3	-0.0	-0.2	-0.3	-0.5
SSA	-0.2	-0.1	-0.0	0.0	-0.1	-0.1	-0.3	-0.4	-0.4	-0.4	-0.4
USA	14.7	19.9	21.5	36.1	44.3	47.8	52.5	51.6	51.1	35.8	37.7

Table 1869: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

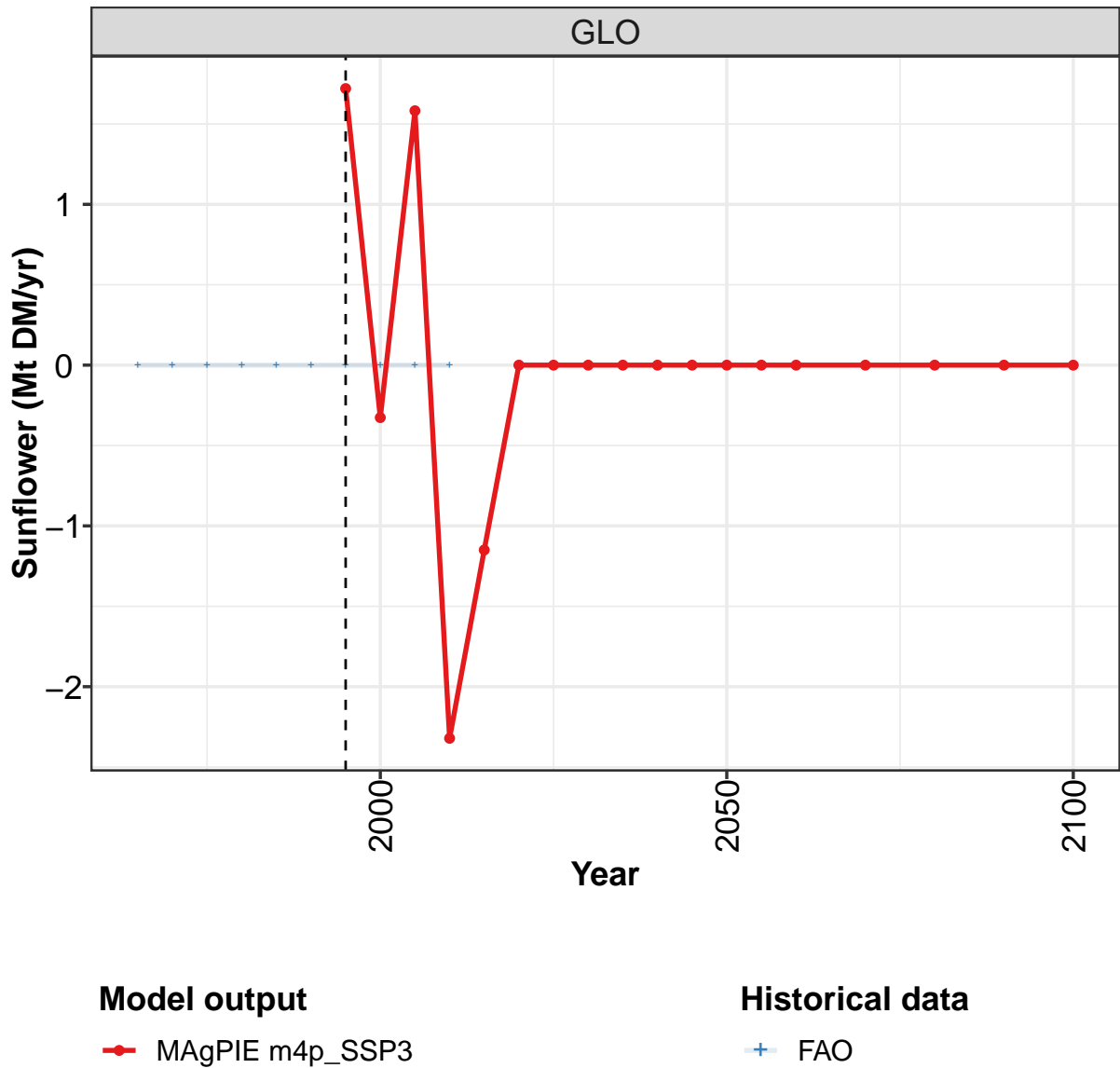
	2050	2055	2060	2070	2080	2090	2100
GLO	-0.0	0.0	0.0	0.0	-0.0	0.0	0.0
CAZ	3.0	3.0	4.3	4.2	2.7	2.7	2.6
CHA	-72.4	-69.9	-67.9	-62.7	-58.2	-54.6	-51.9
EUR	-24.0	-23.8	-23.6	-23.1	-22.6	-22.1	-21.7
IND	3.3	3.5	3.6	-3.2	-3.8	-4.0	-4.2
JPN	-3.2	-3.1	-2.9	-2.5	-2.2	-1.9	-1.6
LAM	71.8	70.6	68.0	71.6	71.3	70.0	69.0
MEA	-7.8	-8.4	-8.7	-9.9	-11.1	-12.7	-13.8
NEU	-2.6	-2.7	-2.8	-3.0	-3.2	-3.4	-3.5
OAS	-8.9	-9.2	-9.4	-10.3	-11.1	-11.8	-12.6
REF	-0.6	-0.6	-0.6	-0.6	-0.6	-0.7	-0.6
SSA	-0.4	-0.5	-0.5	0.5	0.9	1.0	1.1
USA	41.9	41.2	40.5	39.1	38.0	37.4	37.1

Table 1870: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Soybean (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAZ	-0.3	-0.3	-0.5	-0.2	-0.2	-0.0	0.5	0.4	0.6	2.1
CHA	-0.2	0.3	-0.8	-1.2	-0.2	-0.6	-2.4	-10.3	-23.9	-46.8
EUR	-3.5	-6.1	-10.0	-13.3	-13.4	-11.8	-13.1	-13.1	-13.0	-12.6
IND	-0.0	0.0	-0.0	0.0	-0.1	-0.0	0.0	-0.1	-0.0	0.1
JPN	-1.6	-2.8	-3.0	-3.7	-4.3	-4.1	-4.2	-4.2	-3.7	-3.1
LAM	-0.2	0.7	1.4	4.7	3.0	5.6	5.7	9.3	23.4	40.6
MEA	-0.3	-0.0	-1.0	-0.1	-1.2	-0.5	-0.2	-1.2	-3.1	-4.8
NEU	-0.2	-0.0	-0.8	-0.2	-1.1	-0.6	-0.2	-0.6	-1.5	-2.3
OAS	-0.3	0.4	-1.5	0.3	-2.9	-2.1	-1.5	-3.8	-4.6	-6.4
REF	-0.0	0.3	-0.0	-1.0	-1.2	-0.6	0.2	0.1	0.1	-1.0
SSA	-0.3	0.5	-1.4	1.1	-1.7	-0.3	0.9	0.4	-0.4	-1.1
USA	7.1	7.1	17.6	13.5	23.2	15.0	14.2	23.1	26.2	35.2

Table 1871: FAO — Trade—Net-Trade—Crops—Oil crops—Soybean (Mt DM/yr)

58.1.11 Oil crops—Sunflower



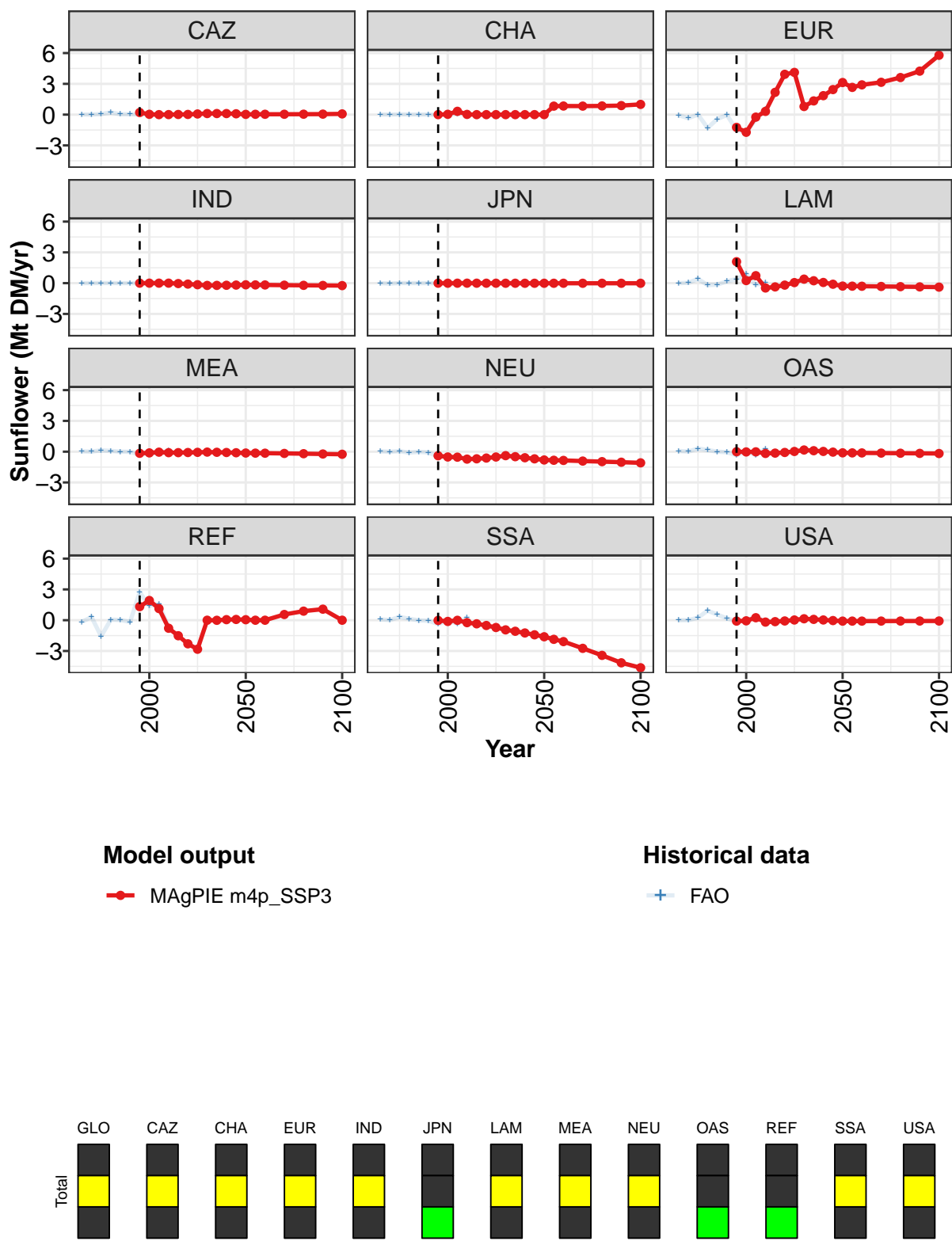


Figure 491: MAGPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.72	-0.33	1.58	-2.32	-1.15	0.00	-0.00	0.00	0.00	0.00	0.00
CAZ	0.21	0.03	0.00	0.00	0.02	0.02	0.06	0.11	0.11	0.10	0.08
CHA	0.00	0.03	0.32	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	-1.24	-1.72	-0.24	0.32	2.17	3.93	4.11	0.79	1.34	1.85	2.44
IND	0.00	0.00	-0.00	0.00	-0.04	-0.09	-0.15	-0.22	-0.22	-0.21	-0.19
JPN	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.01	-0.01	-0.01	-0.01	-0.01
LAM	2.09	0.25	0.73	-0.47	-0.37	-0.19	0.06	0.39	0.23	0.07	-0.10
MEA	-0.16	-0.12	-0.05	-0.10	-0.09	-0.08	-0.06	-0.04	-0.06	-0.08	-0.10
NEU	-0.39	-0.52	-0.53	-0.72	-0.69	-0.62	-0.52	-0.39	-0.49	-0.59	-0.70
OAS	-0.00	-0.03	-0.01	-0.17	-0.14	-0.07	0.02	0.16	0.10	0.03	-0.04
REF	1.32	1.92	1.14	-0.78	-1.52	-2.30	-2.83	0.00	-0.01	0.06	0.07
SSA	-0.02	-0.12	-0.01	-0.24	-0.35	-0.51	-0.71	-0.94	-1.08	-1.24	-1.42
USA	-0.09	-0.06	0.24	-0.18	-0.14	-0.07	0.02	0.14	0.08	0.02	-0.03

Table 1872: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

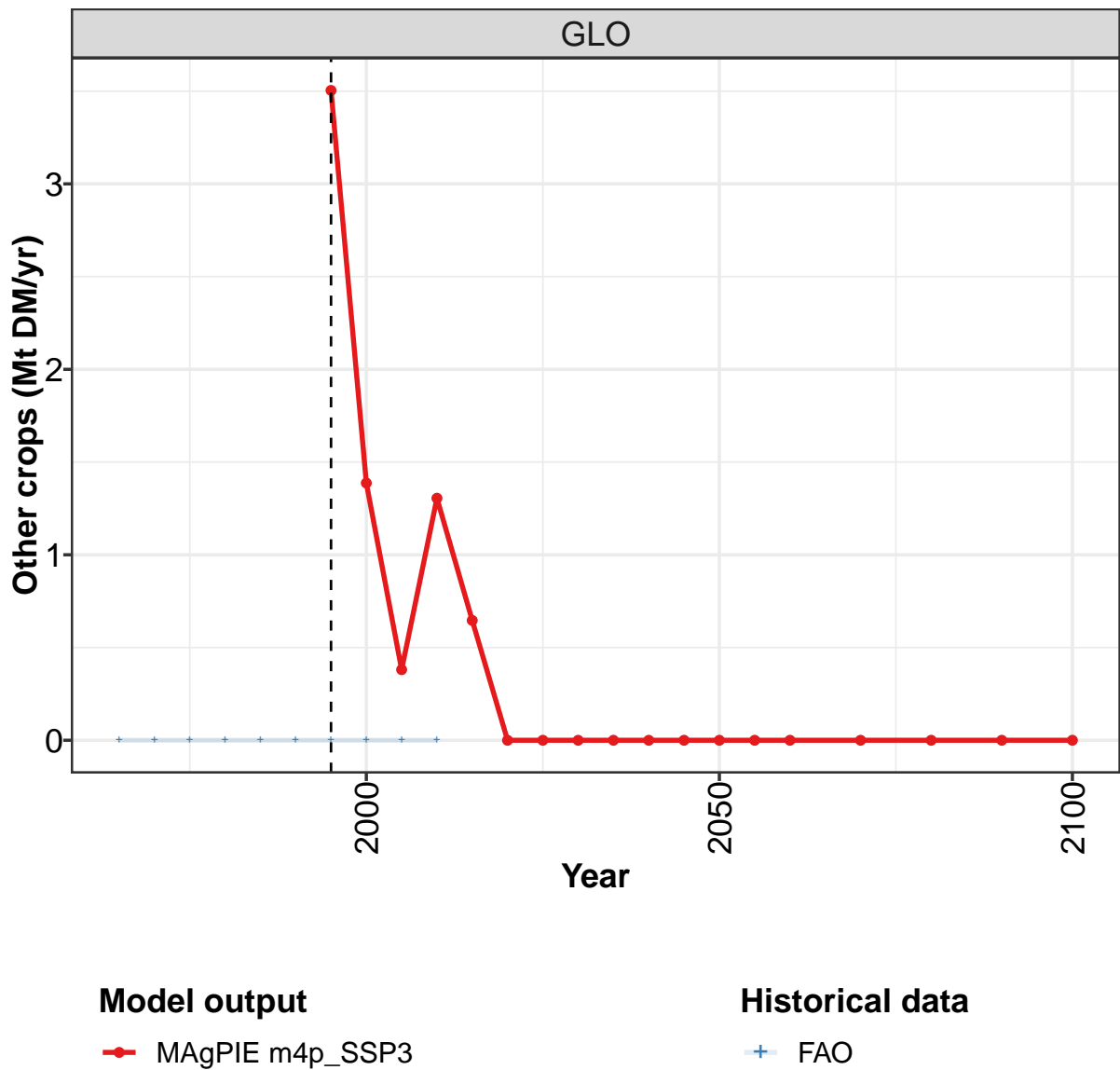
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	0.00	0.00	-0.00
CAZ	0.03	0.03	0.04	0.04	0.04	0.05	0.07
CHA	0.00	0.83	0.84	0.83	0.85	0.88	1.00
EUR	3.13	2.66	2.90	3.15	3.62	4.24	5.79
IND	-0.16	-0.17	-0.18	-0.20	-0.21	-0.22	-0.24
JPN	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
LAM	-0.28	-0.29	-0.30	-0.32	-0.34	-0.36	-0.38
MEA	-0.13	-0.14	-0.15	-0.17	-0.20	-0.23	-0.25
NEU	-0.81	-0.83	-0.85	-0.92	-0.97	-1.03	-1.09
OAS	-0.11	-0.12	-0.12	-0.14	-0.15	-0.16	-0.18
REF	0.05	0.00	0.00	0.56	0.88	1.08	0.00
SSA	-1.61	-1.86	-2.08	-2.74	-3.43	-4.15	-4.63
USA	-0.09	-0.09	-0.09	-0.08	-0.08	-0.08	-0.08

Table 1873: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.01	0.01	0.06	0.21	0.04	0.04	-0.01	0.05	-0.00	0.05
CHA	0.01	0.00	0.03	0.02	0.01	0.01	-0.02	0.03	0.08	0.16
EUR	-0.05	-0.34	0.01	-1.30	-0.43	-0.04	-1.48	-1.71	-0.47	0.56
IND	0.00	0.00	0.01	0.00	0.00	0.00	-0.01	0.00	0.09	0.01
JPN	-0.00	-0.05	0.00	0.00	-0.00	-0.00	-0.01	-0.00	-0.01	0.01
LAM	-0.00	0.03	0.42	-0.20	-0.15	0.18	0.40	0.89	-0.16	0.05
MEA	0.03	0.01	0.13	0.08	0.00	-0.01	-0.30	-0.09	-0.18	0.10
NEU	0.04	-0.01	0.05	-0.10	-0.02	-0.08	-0.48	-0.48	-0.62	-0.57
OAS	0.07	0.01	0.31	0.16	-0.00	-0.05	-0.34	0.04	-0.32	0.28
REF	-0.17	0.31	-1.56	0.05	0.02	-0.18	2.72	1.40	1.56	-0.72
SSA	0.08	0.02	0.31	0.14	-0.02	-0.05	-0.37	-0.05	-0.33	0.24
USA	-0.00	0.00	0.24	0.93	0.55	0.18	-0.09	-0.06	0.37	-0.17

Table 1874: FAO — Trade—Net-Trade—Crops—Oil crops—Sunflower (Mt DM/yr)

58.1.12 Other crops



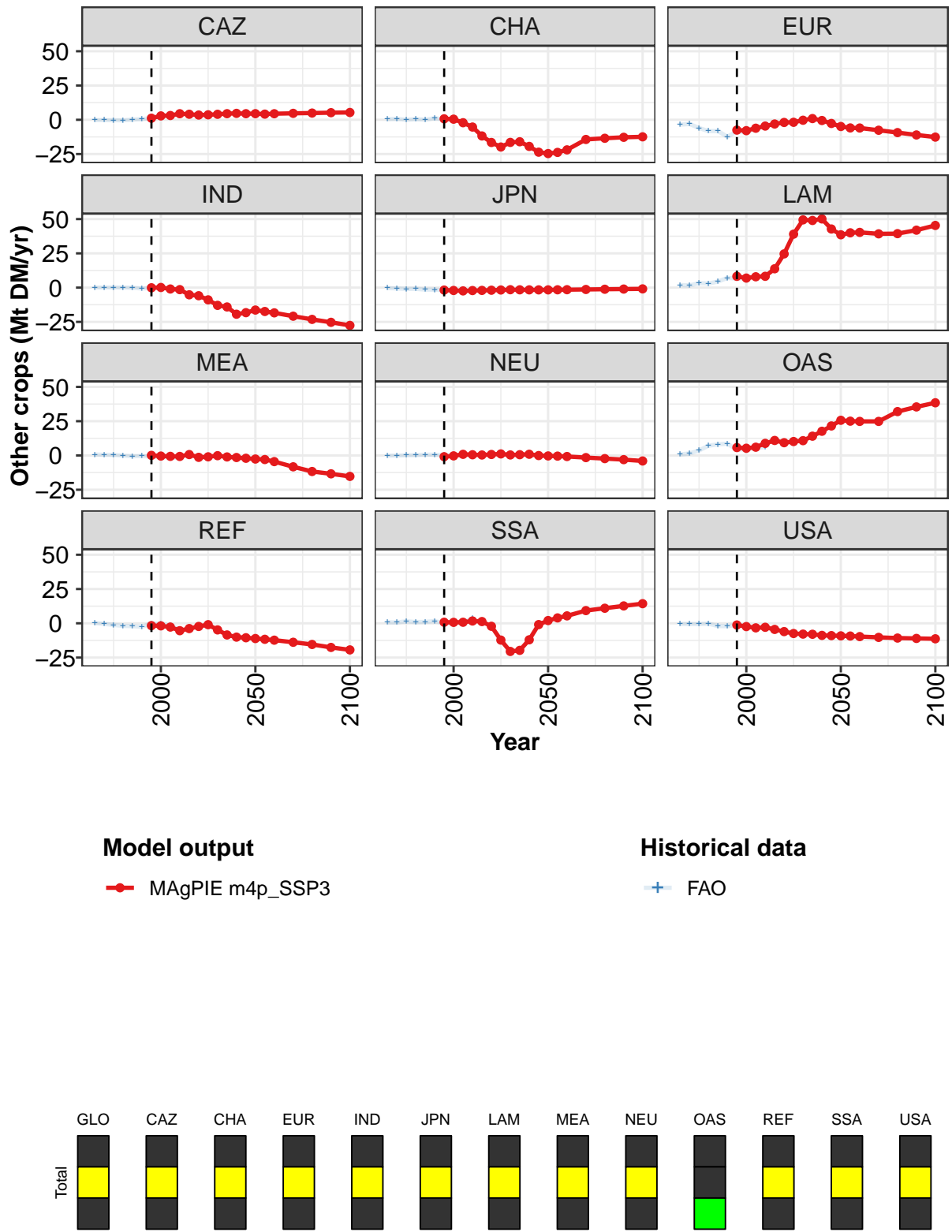


Figure 492: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.5	1.4	0.4	1.3	0.6	0.0	-0.0	0.0	0.0	0.0	0.0
CAZ	1.2	2.8	3.1	4.4	4.0	3.5	3.6	4.0	4.5	4.7	4.5
CHA	0.7	0.5	-2.1	-5.3	-11.8	-16.5	-19.9	-16.5	-16.0	-19.4	-23.6
EUR	-7.5	-7.9	-6.1	-4.6	-3.1	-1.9	-1.8	-0.3	0.9	-0.5	-2.7
IND	-0.1	0.1	-1.0	-1.5	-5.2	-5.9	-8.9	-12.9	-14.1	-19.4	-18.3
JPN	-1.8	-2.1	-2.4	-2.1	-2.0	-1.9	-1.7	-1.5	-1.6	-1.6	-1.6
LAM	8.2	7.0	7.9	8.3	13.8	24.6	39.0	49.4	49.0	50.1	42.8
MEA	0.1	-0.4	-0.6	-0.7	0.7	-1.4	-1.0	-0.2	-1.1	-1.5	-2.0
NEU	-0.9	-0.3	0.8	0.5	0.4	0.7	1.1	0.4	0.6	0.9	-0.1
OAS	5.8	5.3	6.0	8.8	10.9	9.3	10.2	10.8	14.1	17.7	21.5
REF	-1.7	-1.9	-2.7	-5.4	-3.8	-2.3	-1.0	-4.8	-8.5	-10.1	-10.5
SSA	0.8	0.7	0.8	1.7	1.3	-2.2	-12.2	-20.5	-19.7	-12.0	-0.9
USA	-1.2	-2.4	-3.3	-2.9	-4.5	-6.0	-7.4	-7.9	-8.0	-8.8	-9.0

Table 1875: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops (Mt DM/yr) [PART 1/2]

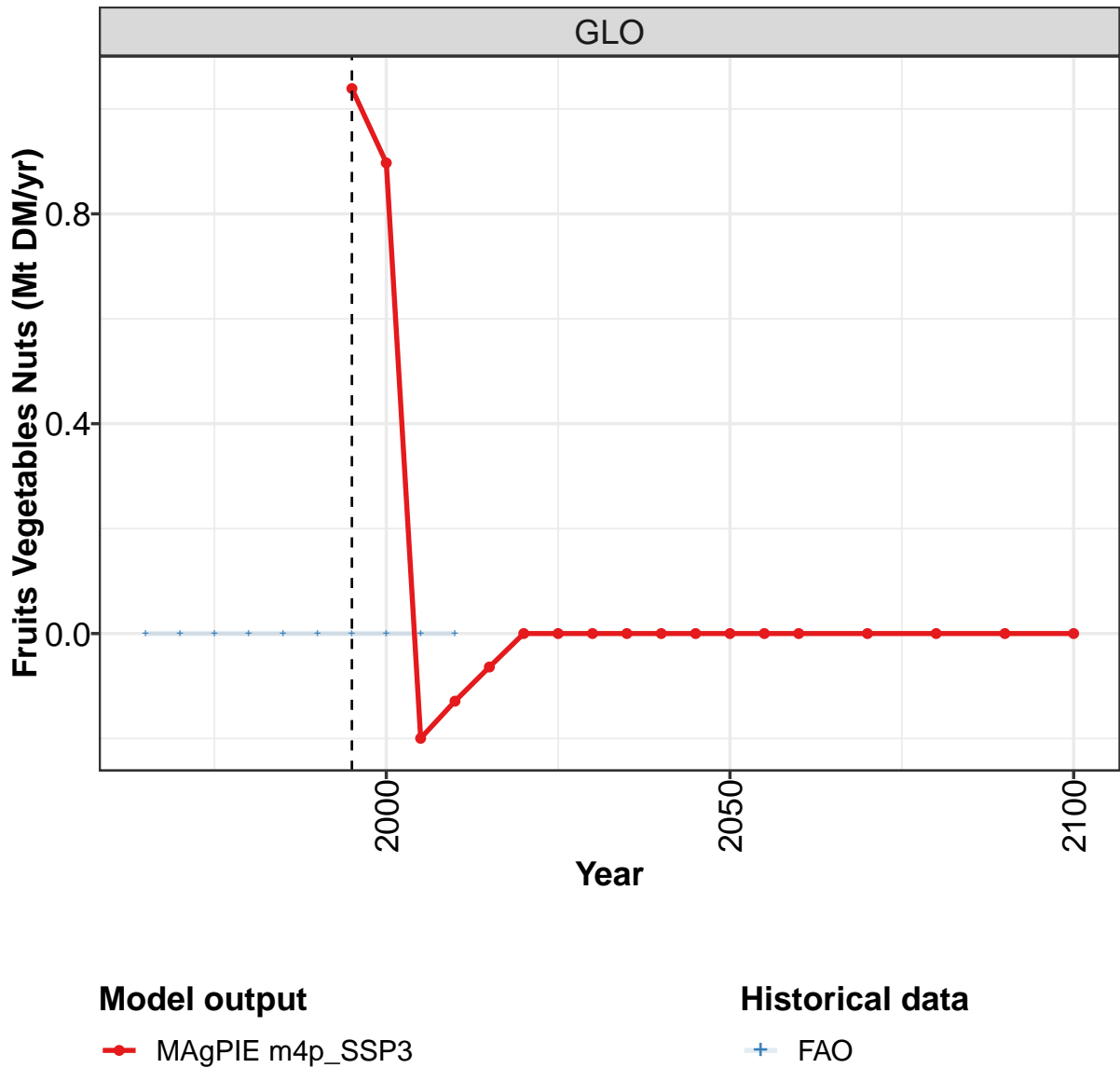
	2050	2055	2060	2070	2080	2090	2100
GLO	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0
CAZ	4.5	4.1	4.4	4.7	4.9	5.2	5.3
CHA	-24.6	-23.8	-21.9	-14.3	-13.5	-12.8	-12.4
EUR	-4.9	-5.9	-6.0	-7.6	-9.3	-11.1	-12.6
IND	-16.3	-17.4	-18.4	-20.8	-23.2	-25.3	-27.6
JPN	-1.6	-1.6	-1.5	-1.3	-1.2	-1.0	-0.9
LAM	38.6	40.0	40.3	39.2	39.4	41.9	45.4
MEA	-2.6	-3.0	-4.5	-8.3	-11.7	-13.4	-15.3
NEU	-0.3	-0.5	-0.8	-1.6	-2.3	-3.0	-4.0
OAS	25.7	25.0	24.9	24.8	32.0	35.4	38.4
REF	-11.1	-11.7	-12.3	-13.8	-15.4	-17.6	-19.4
SSA	2.0	3.9	5.4	9.3	11.0	12.7	14.3
USA	-9.2	-9.3	-9.7	-10.3	-10.8	-11.0	-11.3

Table 1876: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	-0.23	-0.24	-0.31	-0.38	0.15	0.54	1.28	3.02	3.20	3.91
CHA	0.50	0.72	0.05	0.48	0.12	1.12	0.32	0.11	-1.87	-5.13
EUR	-3.50	-3.06	-6.01	-8.25	-8.22	-12.35	-8.48	-9.26	-6.43	-4.81
IND	0.06	0.09	0.10	0.08	-0.11	-0.61	-0.18	0.12	-0.88	-1.22
JPN	-0.32	-0.57	-0.93	-0.88	-1.42	-1.52	-1.78	-2.08	-2.36	-2.12
LAM	1.87	1.61	3.26	2.99	4.42	7.11	6.59	6.83	8.11	8.29
MEA	0.67	0.48	0.40	-0.08	-0.54	-0.41	-0.84	-1.13	-1.32	-1.94
NEU	-0.15	-0.10	0.11	0.23	0.58	0.53	0.18	-0.08	0.43	0.25
OAS	0.74	1.48	3.64	7.13	8.09	8.60	4.13	4.67	5.34	6.18
REF	0.17	-0.43	-1.19	-1.90	-2.08	-2.50	-0.15	-0.37	-1.66	-4.26
SSA	0.69	0.59	1.47	0.87	1.03	1.59	0.03	0.33	0.62	3.74
USA	-0.49	-0.56	-0.59	-0.29	-2.01	-2.10	-1.09	-2.16	-3.18	-2.88

Table 1877: FAO — Trade—Net-Trade—Crops—Other crops (Mt DM/yr)

58.1.13 Other crops—Fruits Vegetables Nuts



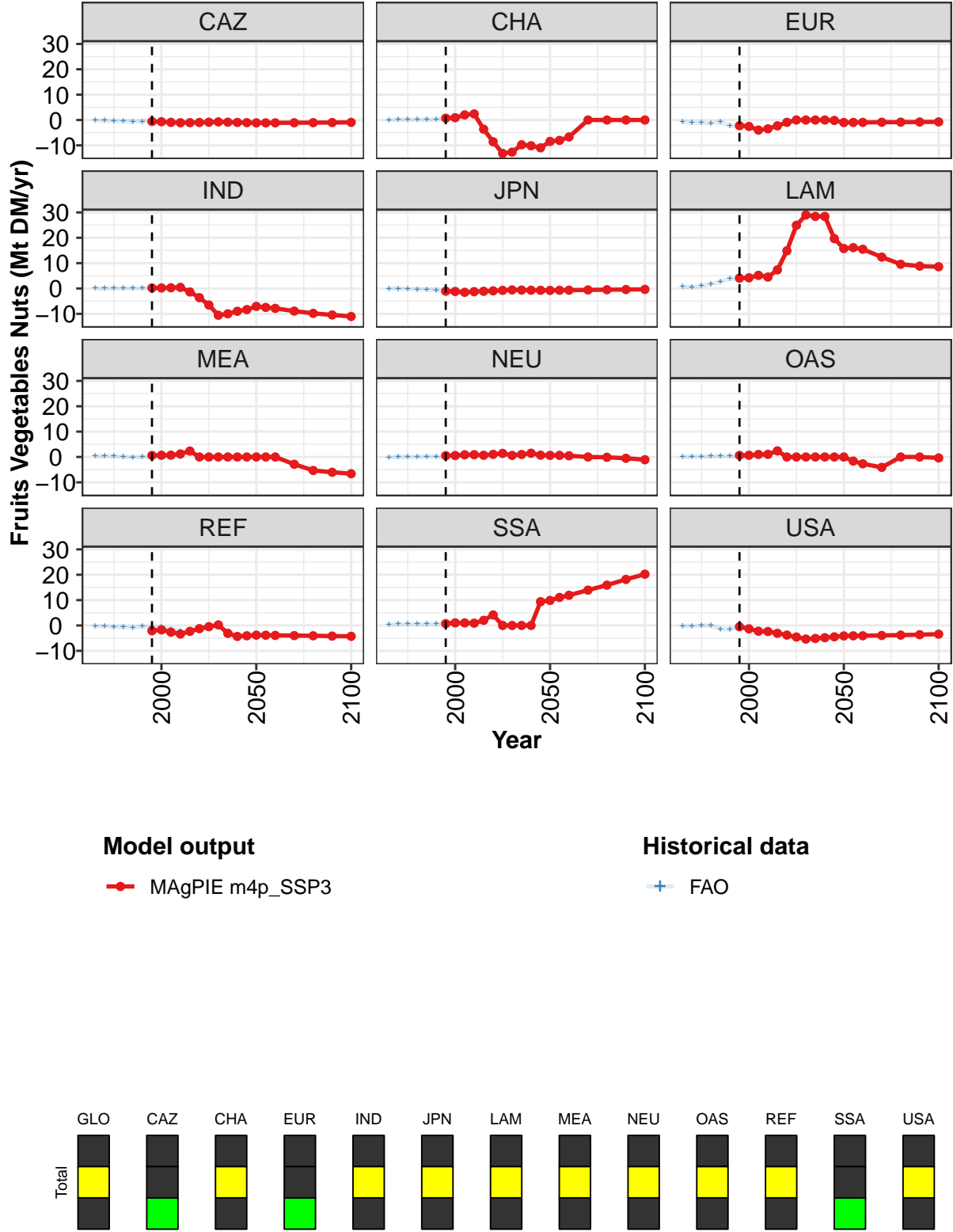


Figure 493: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.0	0.9	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.0	0.0
CAZ	-0.6	-0.7	-0.9	-1.1	-1.0	-1.0	-0.9	-0.7	-0.8	-0.9	-1.0
CHA	0.7	0.9	2.0	2.4	-3.6	-8.6	-13.2	-12.7	-9.8	-10.1	-11.0
EUR	-2.2	-2.5	-4.0	-3.5	-2.3	-0.9	0.0	0.0	0.0	0.0	-0.2
IND	0.2	0.2	0.3	0.5	-1.4	-3.6	-6.5	-10.5	-10.0	-9.0	-8.3
JPN	-1.1	-1.2	-1.5	-1.3	-1.1	-0.9	-0.7	-0.5	-0.6	-0.7	-0.7
LAM	4.1	4.2	5.2	4.5	7.3	14.9	24.9	29.0	28.4	28.4	19.7
MEA	0.6	0.7	0.7	1.2	2.3	0.0	0.0	-0.0	0.0	0.0	0.0
NEU	0.5	0.6	0.9	0.9	0.7	1.0	1.4	0.6	1.0	1.5	0.7
OAS	0.6	0.7	1.0	1.1	2.4	-0.0	0.0	0.0	0.0	-0.0	0.0
REF	-2.1	-1.7	-2.6	-3.4	-2.3	-1.3	-0.5	0.2	-3.1	-4.3	-4.1
SSA	0.7	1.0	1.0	0.9	2.0	4.2	0.0	0.0	0.0	0.0	9.4
USA	-0.5	-1.3	-2.3	-2.4	-3.1	-3.8	-4.6	-5.4	-5.1	-4.8	-4.5

Table 1878: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 1/2]

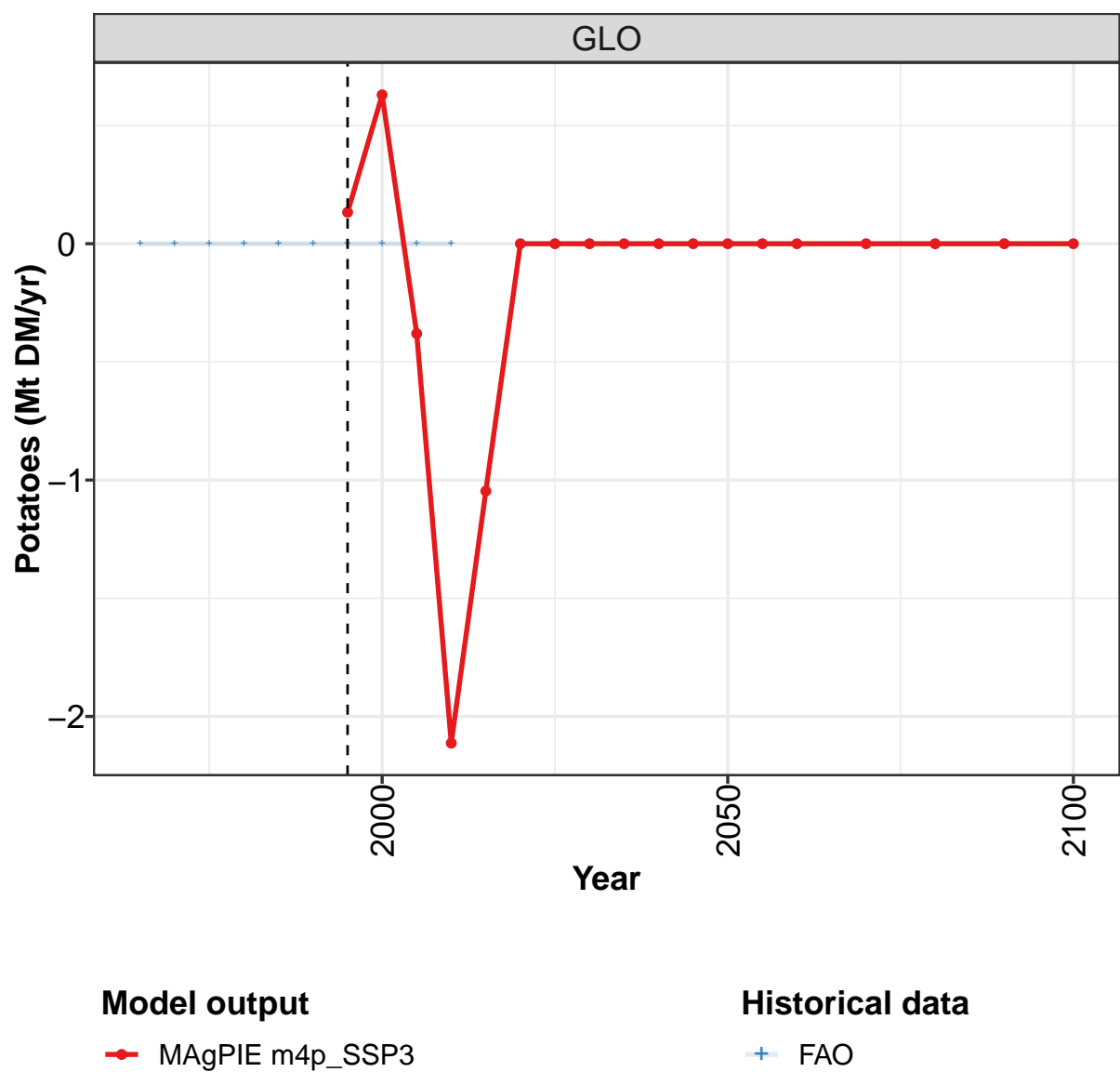
	2050	2055	2060	2070	2080	2090	2100
GLO	-0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAZ	-1.1	-1.1	-1.1	-1.1	-1.0	-1.0	-0.9
CHA	-8.4	-8.0	-6.7	0.0	0.0	-0.0	0.0
EUR	-1.0	-1.0	-0.9	-0.9	-0.8	-0.8	-0.7
IND	-7.1	-7.5	-7.8	-8.9	-9.8	-10.4	-11.0
JPN	-0.7	-0.7	-0.7	-0.6	-0.5	-0.4	-0.3
LAM	15.8	16.1	15.5	12.4	9.6	8.8	8.6
MEA	0.0	0.0	0.0	-2.9	-5.3	-6.0	-6.6
NEU	0.6	0.6	0.5	0.0	-0.1	-0.5	-1.1
OAS	0.0	-1.6	-2.7	-4.1	0.0	0.0	-0.4
REF	-3.8	-3.9	-3.9	-4.0	-4.1	-4.2	-4.3
SSA	9.9	11.1	11.9	13.9	15.9	18.2	20.2
USA	-4.1	-4.1	-4.1	-3.9	-3.8	-3.6	-3.4

Table 1879: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	-0.20	-0.22	-0.42	-0.50	-0.54	-0.54	-0.62	-0.71	-0.90	-1.08
CHA	0.02	0.10	0.11	0.15	0.16	0.24	0.39	0.61	1.88	2.48
EUR	-0.84	-1.13	-1.16	-1.33	-0.77	-2.37	-2.37	-2.71	-3.91	-3.43
IND	0.05	0.06	0.09	0.13	0.16	0.12	0.18	0.21	0.38	0.60
JPN	-0.03	-0.09	-0.19	-0.31	-0.41	-0.63	-1.05	-1.18	-1.49	-1.23
LAM	0.69	0.61	1.07	1.71	2.58	3.91	3.79	4.27	5.48	5.18
MEA	0.35	0.48	0.35	0.05	-0.05	0.05	-0.06	0.05	0.09	0.16
NEU	-0.11	-0.01	0.02	0.00	0.19	0.15	0.18	0.35	0.61	0.71
OAS	0.04	0.18	0.18	0.28	0.34	0.43	0.21	0.33	0.53	0.27
REF	-0.25	-0.35	-0.53	-0.70	-0.81	-0.35	-0.66	-0.62	-1.51	-2.17
SSA	0.40	0.60	0.58	0.53	0.59	0.61	0.56	0.74	1.04	0.92
USA	-0.13	-0.23	-0.09	-0.02	-1.43	-1.61	-0.55	-1.33	-2.19	-2.41

Table 1880: FAO — Trade—Net-Trade—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

58.1.14 Other crops—Potatoes



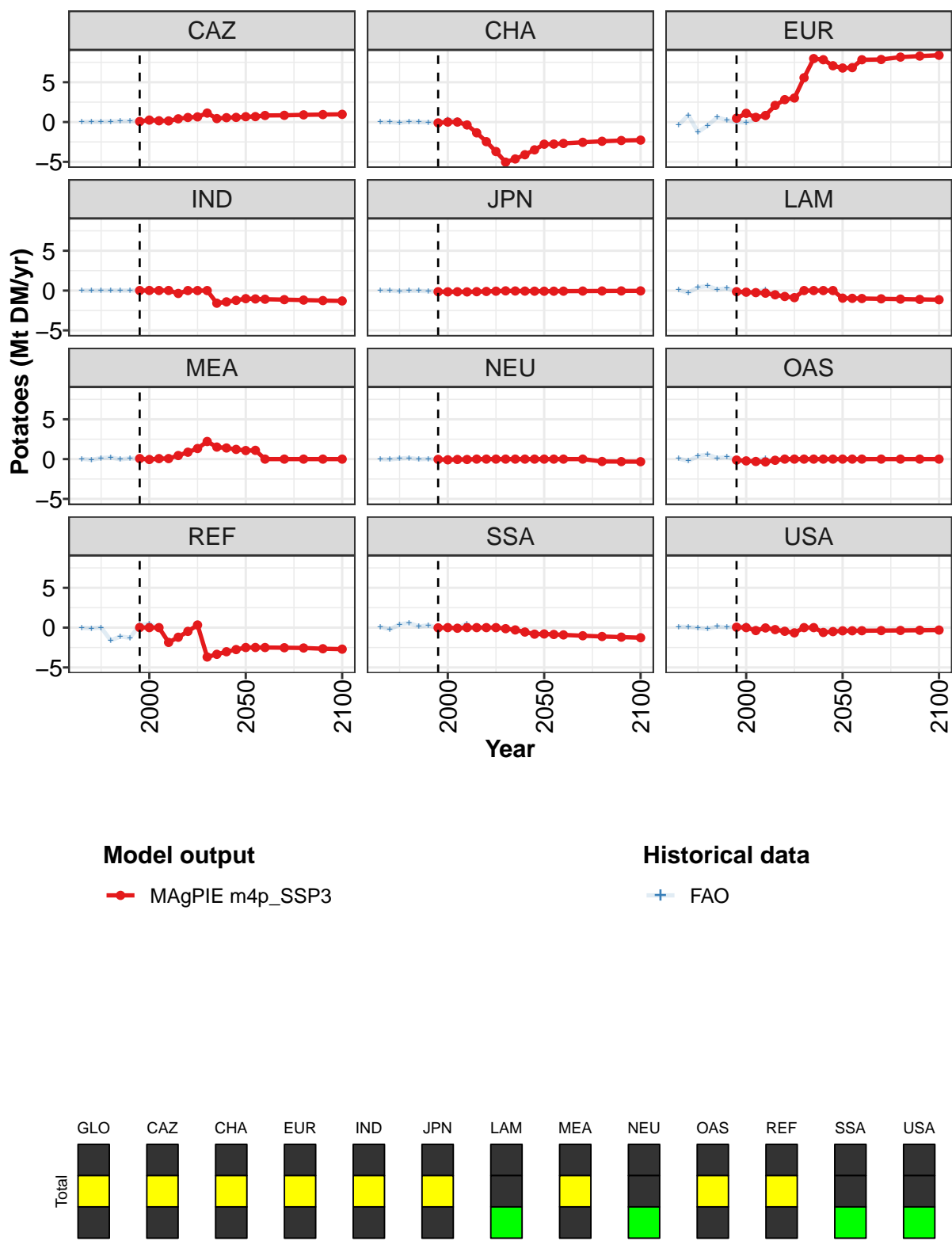


Figure 494: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.13	0.63	-0.38	-2.11	-1.05	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.07	0.25	0.16	0.14	0.41	0.57	0.65	1.13	0.44	0.55	0.58
CHA	-0.10	0.00	0.00	-0.36	-1.35	-2.47	-3.70	-5.04	-4.64	-4.10	-3.49
EUR	0.48	1.09	0.59	0.82	2.09	2.81	3.02	5.56	7.97	7.83	7.07
IND	0.01	0.01	0.01	0.01	-0.36	0.00	0.00	0.00	-1.59	-1.42	-1.23
JPN	-0.14	-0.16	-0.15	-0.17	-0.14	-0.11	-0.07	-0.04	-0.05	-0.06	-0.07
LAM	-0.13	-0.20	-0.26	-0.32	-0.53	-0.74	-0.89	0.00	0.00	0.00	0.00
MEA	0.06	-0.05	0.06	0.07	0.45	0.86	1.33	2.21	1.51	1.40	1.22
NEU	-0.03	-0.09	-0.05	-0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	-0.12	-0.23	-0.30	-0.36	-0.15	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.01	-0.00	0.00	-1.86	-1.21	-0.47	0.33	-3.69	-3.35	-3.03	-2.76
SSA	-0.02	0.00	-0.07	0.00	-0.00	0.00	0.00	-0.13	-0.29	-0.56	-0.82
USA	0.05	0.00	-0.37	-0.04	-0.25	-0.46	-0.66	0.00	-0.00	-0.60	-0.50

Table 1881: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

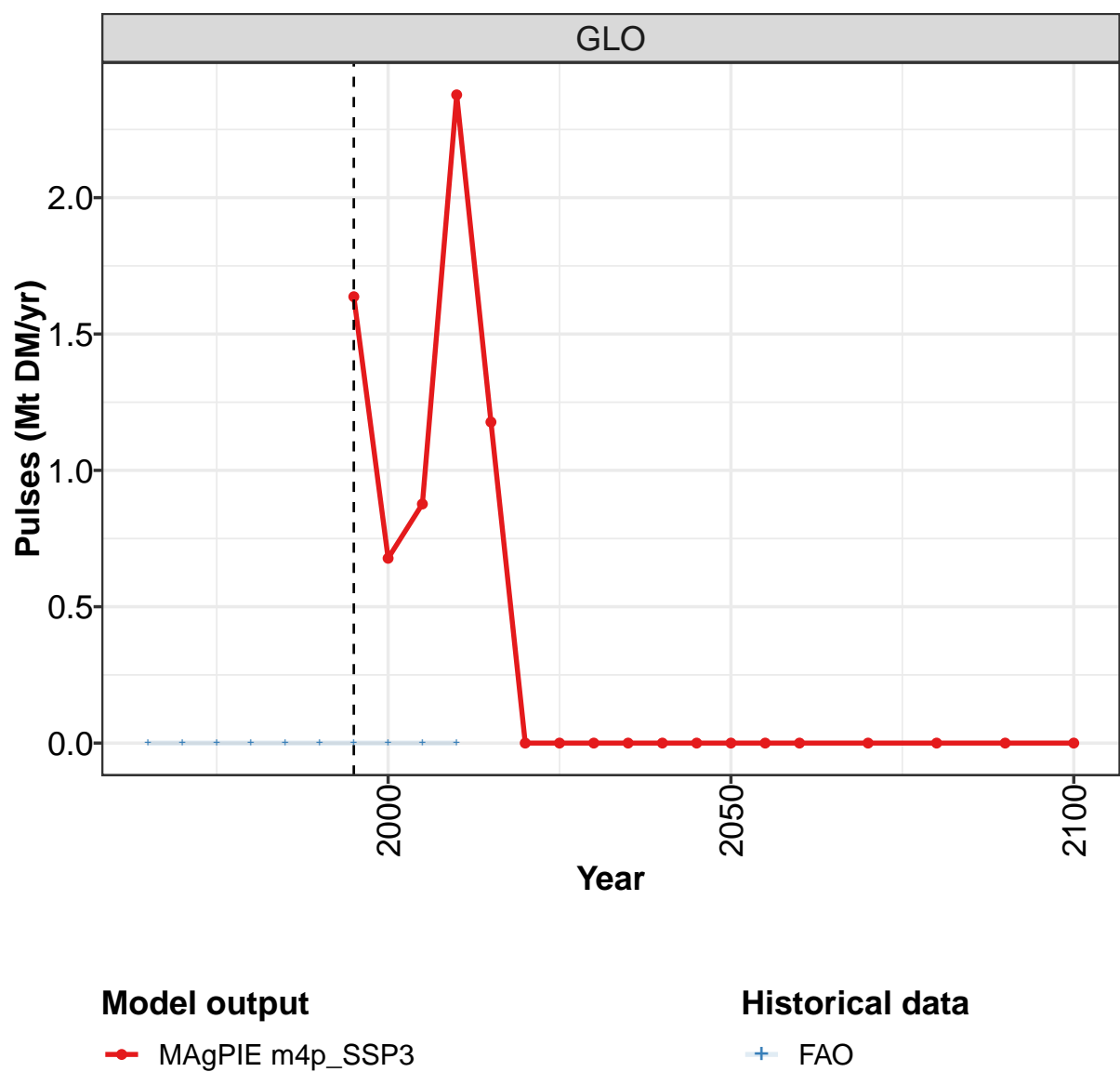
	2050	2055	2060	2070	2080	2090	2100
GLO	-0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.67	0.68	0.83	0.85	0.90	0.94	0.97
CHA	-2.78	-2.77	-2.69	-2.54	-2.41	-2.32	-2.27
EUR	6.78	6.83	7.82	7.85	8.16	8.28	8.39
IND	-1.02	-1.05	-1.09	-1.14	-1.19	-1.25	-1.30
JPN	-0.08	-0.08	-0.07	-0.06	-0.05	-0.05	-0.04
LAM	-0.95	-0.97	-1.00	-1.04	-1.07	-1.11	-1.15
MEA	1.07	1.10	0.00	0.00	0.00	0.00	0.00
NEU	0.00	0.00	0.00	0.00	-0.30	-0.31	-0.33
OAS	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
REF	-2.50	-2.50	-2.50	-2.52	-2.56	-2.65	-2.70
SSA	-0.80	-0.86	-0.92	-1.02	-1.11	-1.20	-1.27
USA	-0.40	-0.40	-0.39	-0.37	-0.35	-0.33	-0.31

Table 1882: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops—Potatoes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.02	0.03	0.04	0.08	0.10	0.11	0.18	0.31	0.29	0.26
CHA	-0.01	-0.01	-0.09	0.06	-0.01	-0.03	-0.08	0.29	0.20	-0.28
EUR	-0.36	0.87	-1.27	-0.42	0.58	0.23	-0.00	-0.07	0.35	1.02
IND	0.00	-0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.02	0.05
JPN	0.01	-0.00	-0.08	-0.03	-0.03	-0.08	-0.14	-0.16	-0.15	-0.16
LAM	0.09	-0.27	0.41	0.56	0.14	0.30	-0.18	-0.35	-0.16	0.12
MEA	0.04	-0.09	0.13	0.20	-0.03	0.10	0.02	-0.11	0.08	0.16
NEU	-0.00	-0.04	0.07	0.14	-0.02	0.03	-0.05	-0.13	-0.02	0.09
OAS	0.06	-0.24	0.38	0.57	0.12	0.27	-0.14	-0.35	-0.22	0.07
REF	-0.04	-0.09	0.01	-1.61	-1.12	-1.27	0.33	0.46	-0.04	-1.76
SSA	0.09	-0.23	0.41	0.59	0.14	0.30	-0.05	-0.13	0.01	0.47
USA	0.11	0.08	-0.04	-0.15	0.13	0.03	0.11	0.22	-0.37	-0.05

Table 1883: FAO — Trade—Net-Trade—Crops—Other crops—Potatoes (Mt DM/yr)

58.1.15 Other crops—Pulses



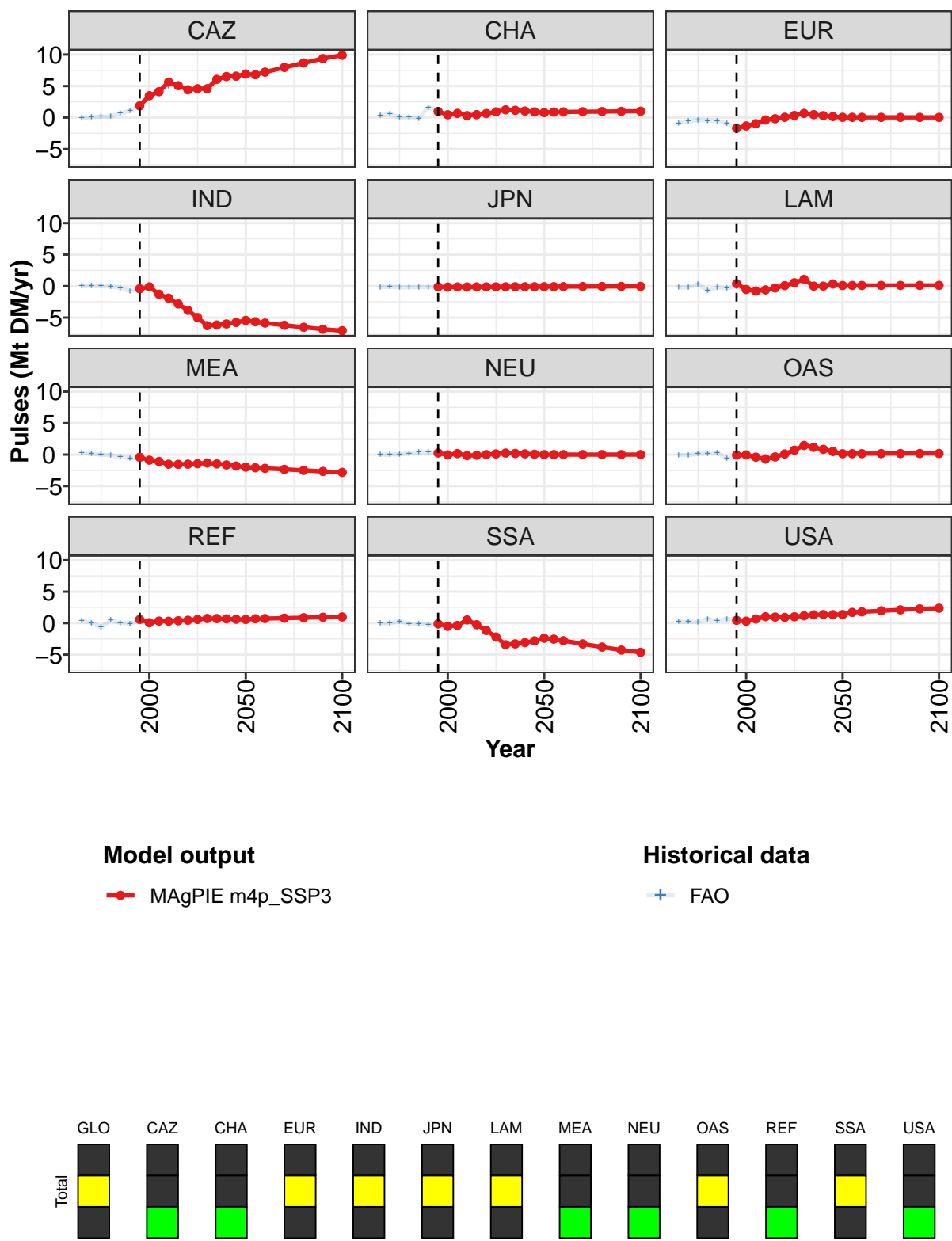


Figure 495: MAGPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.64	0.68	0.88	2.38	1.18	0.00	-0.00	0.00	0.00	0.00	0.00
CAZ	1.86	3.47	4.11	5.64	5.06	4.41	4.58	4.58	6.07	6.52	6.58
CHA	0.96	0.44	0.66	0.31	0.46	0.64	0.91	1.22	1.14	1.03	0.90
EUR	-1.70	-1.33	-0.97	-0.38	-0.19	0.05	0.33	0.66	0.46	0.30	0.16
IND	-0.42	-0.13	-1.29	-1.92	-2.83	-3.85	-4.99	-6.28	-6.18	-6.01	-5.77
JPN	-0.13	-0.15	-0.14	-0.15	-0.14	-0.13	-0.12	-0.11	-0.11	-0.10	-0.10
LAM	0.39	-0.53	-0.79	-0.60	-0.29	0.08	0.53	1.07	0.00	0.00	0.34
MEA	-0.42	-0.87	-1.09	-1.52	-1.54	-1.51	-1.44	-1.32	-1.47	-1.64	-1.81
NEU	0.26	-0.04	0.16	-0.16	-0.09	-0.00	0.11	0.25	0.19	0.13	0.06
OAS	-0.08	-0.05	-0.40	-0.69	-0.36	0.10	0.70	1.45	1.16	0.84	0.50
REF	0.58	0.06	0.33	0.31	0.38	0.46	0.59	0.74	0.72	0.68	0.62
SSA	-0.12	-0.51	-0.36	0.51	-0.25	-1.17	-2.21	-3.43	-3.30	-3.10	-2.82
USA	0.45	0.32	0.66	1.03	0.97	0.92	1.01	1.18	1.32	1.36	1.34

Table 1884: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

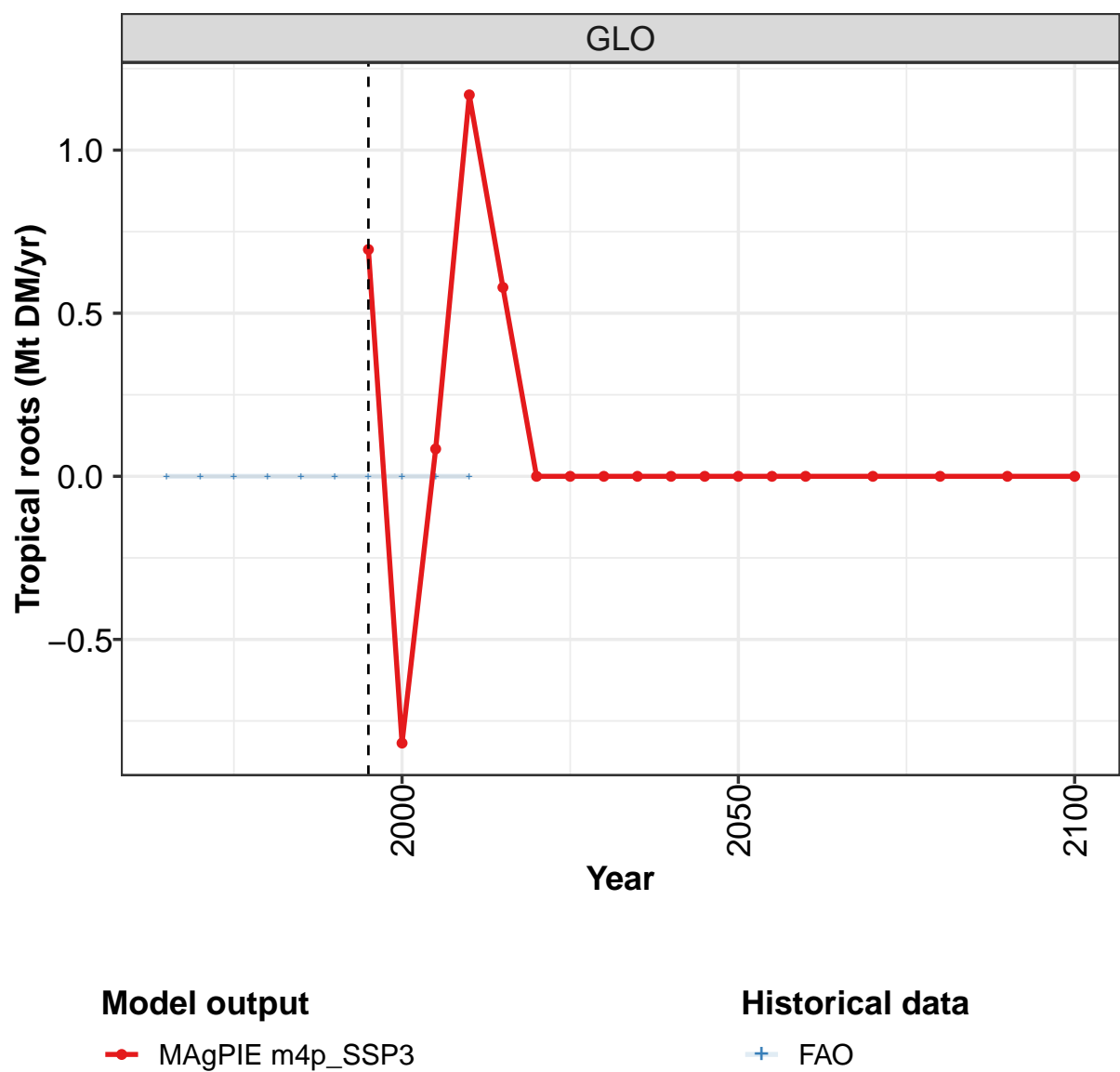
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	-0.00	-0.00	0.00	0.00	0.00
CAZ	6.91	6.81	7.21	7.96	8.67	9.36	9.89
CHA	0.79	0.88	0.89	0.92	0.94	0.98	1.00
EUR	0.04	0.04	0.04	0.04	0.03	0.03	0.03
IND	-5.45	-5.66	-5.87	-6.22	-6.54	-6.85	-7.08
JPN	-0.09	-0.09	-0.08	-0.07	-0.06	-0.05	-0.04
LAM	0.10	0.10	0.10	0.10	0.11	0.11	0.12
MEA	-1.98	-2.08	-2.18	-2.34	-2.50	-2.67	-2.82
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	0.14	0.15	0.15	0.16	0.17	0.17	0.18
REF	0.58	0.69	0.73	0.79	0.86	0.94	0.98
SSA	-2.40	-2.54	-2.79	-3.30	-3.80	-4.28	-4.63
USA	1.37	1.71	1.80	1.96	2.11	2.26	2.37

Table 1885: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops—Pulses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.01	0.04	0.16	0.17	0.70	1.06	1.93	3.60	4.03	5.02
CHA	0.37	0.58	0.04	0.03	-0.11	1.64	0.84	0.25	0.63	0.19
EUR	-0.86	-0.61	-0.39	-0.48	-0.50	-0.98	-1.86	-1.43	-1.10	-0.71
IND	-0.00	0.03	0.00	-0.07	-0.28	-0.78	-0.41	-0.10	-1.29	-1.89
JPN	-0.15	-0.12	-0.16	-0.20	-0.15	-0.16	-0.13	-0.16	-0.14	-0.16
LAM	-0.19	-0.22	0.28	-0.72	-0.26	-0.33	-0.12	-0.66	-0.99	-1.12
MEA	0.26	0.12	0.01	-0.15	-0.34	-0.58	-0.56	-0.93	-1.15	-1.72
NEU	-0.03	-0.00	0.07	0.20	0.38	0.43	0.17	-0.09	-0.01	-0.31
OAS	-0.03	-0.09	0.16	0.20	0.31	-0.63	-0.39	-0.16	-0.51	-1.15
REF	0.44	0.03	-0.66	0.47	0.03	-0.07	0.42	-0.03	0.32	0.20
SSA	-0.06	-0.02	0.31	-0.13	-0.09	-0.28	-0.48	-0.62	-0.51	0.55
USA	0.23	0.26	0.19	0.68	0.32	0.68	0.58	0.33	0.72	1.08

Table 1886: FAO — Trade—Net-Trade—Crops—Other crops—Pulses (Mt DM/yr)

58.1.16 Other crops—Tropical roots



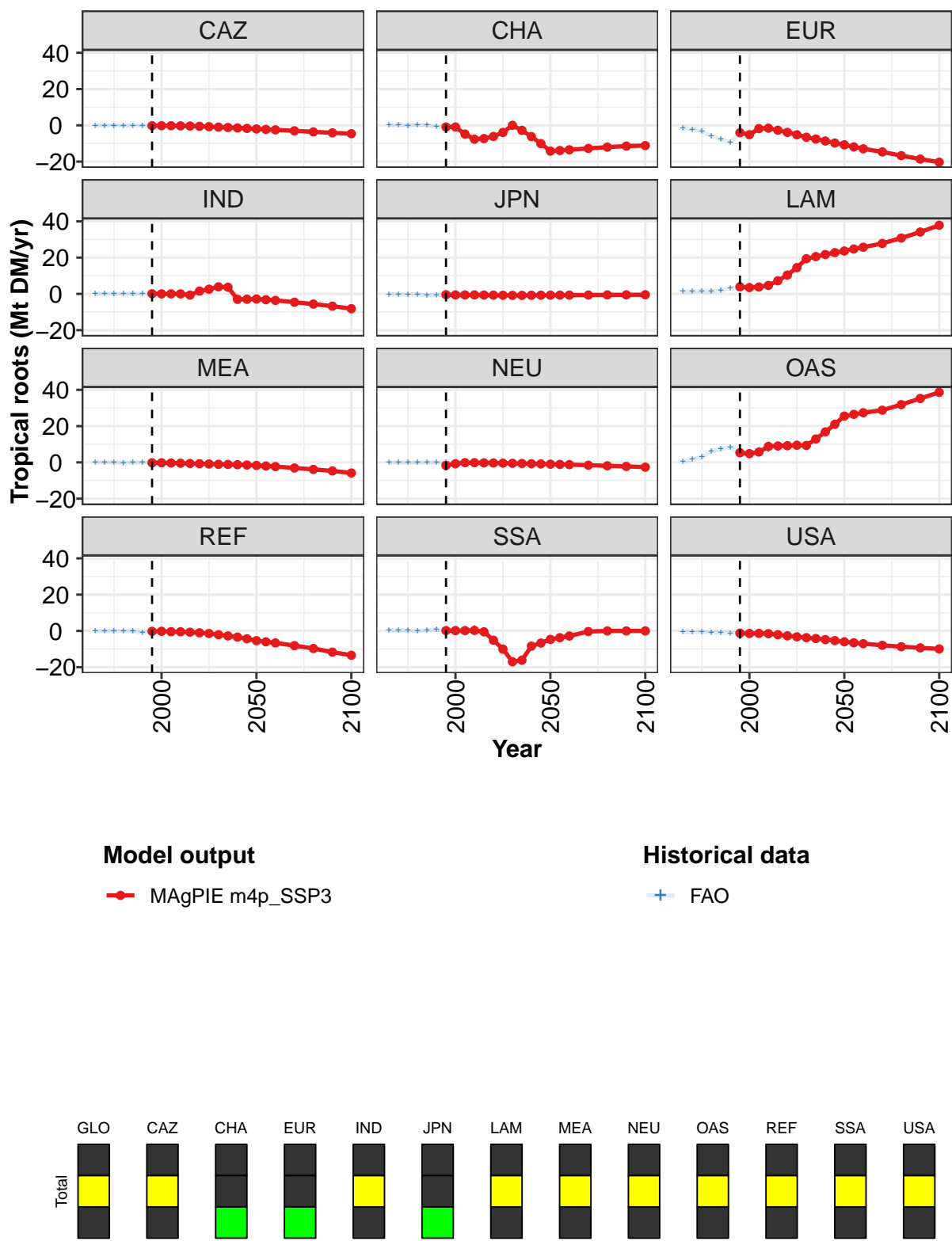


Figure 496: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.7	-0.8	0.1	1.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0
CAZ	-0.2	-0.2	-0.2	-0.3	-0.4	-0.5	-0.7	-1.0	-1.2	-1.4	-1.7
CHA	-0.9	-0.9	-4.8	-7.6	-7.3	-6.1	-3.9	0.0	-2.8	-6.2	-10.1
EUR	-4.0	-5.1	-1.8	-1.5	-2.7	-3.9	-5.2	-6.5	-7.5	-8.6	-9.7
IND	0.1	0.0	0.0	0.0	-0.7	1.6	2.6	3.9	3.7	-3.0	-2.9
JPN	-0.4	-0.6	-0.6	-0.6	-0.6	-0.7	-0.8	-0.8	-0.8	-0.8	-0.7
LAM	3.9	3.5	3.8	4.7	7.2	10.4	14.5	19.4	20.6	21.7	22.8
MEA	-0.2	-0.2	-0.3	-0.5	-0.6	-0.7	-0.9	-1.0	-1.1	-1.3	-1.4
NEU	-1.7	-0.7	-0.1	-0.2	-0.2	-0.3	-0.4	-0.5	-0.6	-0.7	-0.8
OAS	5.3	4.9	5.7	8.8	9.1	9.2	9.5	9.3	12.9	16.8	21.0
REF	-0.2	-0.2	-0.4	-0.5	-0.7	-1.0	-1.4	-2.1	-2.8	-3.4	-4.3
SSA	0.2	0.2	0.2	0.3	-0.5	-5.2	-10.0	-17.0	-16.2	-8.4	-6.7
USA	-1.2	-1.4	-1.3	-1.5	-2.1	-2.7	-3.2	-3.7	-4.2	-4.8	-5.3

Table 1887: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops—Tropical roots (Mt DM/yr)
[PART 1/2]

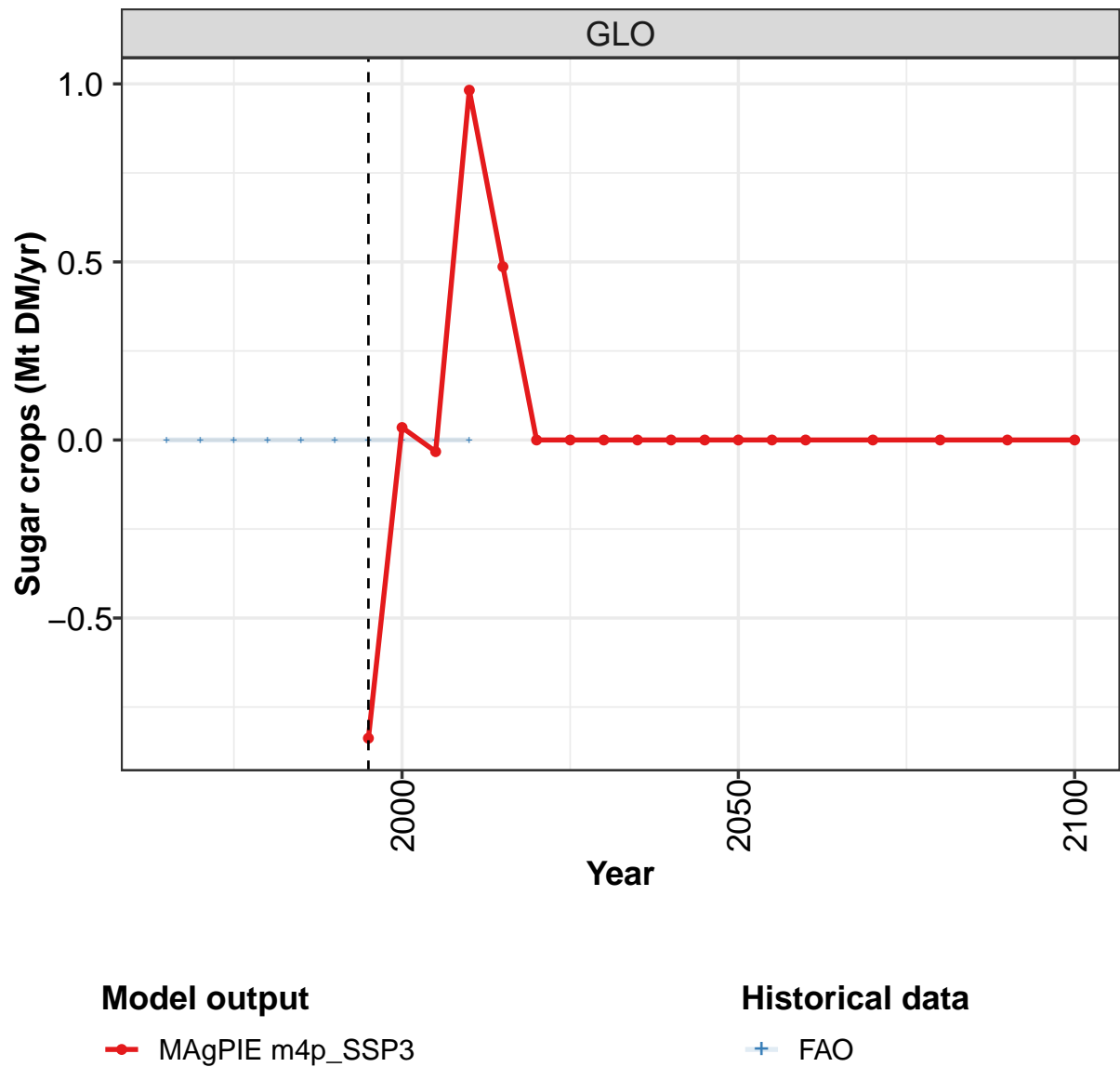
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0
CAZ	-2.0	-2.2	-2.5	-3.0	-3.6	-4.1	-4.6
CHA	-14.2	-13.9	-13.4	-12.7	-12.0	-11.4	-11.1
EUR	-10.7	-11.9	-12.9	-14.6	-16.7	-18.6	-20.3
IND	-2.8	-3.2	-3.6	-4.6	-5.6	-6.8	-8.2
JPN	-0.7	-0.7	-0.7	-0.6	-0.6	-0.5	-0.5
LAM	23.6	24.7	25.7	27.8	30.8	34.1	37.8
MEA	-1.7	-2.0	-2.3	-3.1	-3.9	-4.7	-5.8
NEU	-1.0	-1.1	-1.2	-1.6	-1.9	-2.2	-2.6
OAS	25.5	26.5	27.4	28.8	31.8	35.2	38.6
REF	-5.4	-6.0	-6.6	-8.1	-9.7	-11.7	-13.4
SSA	-4.7	-3.7	-2.8	-0.3	0.0	0.0	-0.0
USA	-6.0	-6.5	-7.0	-7.9	-8.7	-9.3	-9.9

Table 1888: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Other crops—Tropical roots (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	-0.06	-0.09	-0.09	-0.13	-0.11	-0.09	-0.21	-0.18	-0.22	-0.29
CHA	0.11	0.06	-0.01	0.25	0.09	-0.72	-0.82	-1.03	-4.58	-7.52
EUR	-1.44	-2.19	-3.19	-6.02	-7.53	-9.24	-4.26	-5.06	-1.77	-1.70
IND	0.00	0.00	0.00	-0.00	0.01	0.04	0.03	0.01	0.01	0.02
JPN	-0.15	-0.36	-0.50	-0.34	-0.83	-0.64	-0.45	-0.58	-0.57	-0.58
LAM	1.28	1.47	1.50	1.43	1.96	3.23	3.08	3.57	3.78	4.11
MEA	0.02	-0.03	-0.09	-0.19	-0.11	0.02	-0.24	-0.13	-0.34	-0.55
NEU	-0.01	-0.04	-0.04	-0.11	0.04	-0.08	-0.12	-0.21	-0.15	-0.24
OAS	0.66	1.62	2.91	6.08	7.32	8.54	4.45	4.85	5.53	6.99
REF	0.01	-0.01	-0.00	-0.06	-0.18	-0.80	-0.23	-0.17	-0.42	-0.52
SSA	0.26	0.24	0.16	-0.12	0.39	0.95	-0.01	0.32	0.08	1.79
USA	-0.71	-0.68	-0.65	-0.79	-1.04	-1.21	-1.23	-1.39	-1.34	-1.50

Table 1889: FAO — Trade—Net-Trade—Crops—Other crops—Tropical roots (Mt DM/yr)

58.1.17 Sugar crops



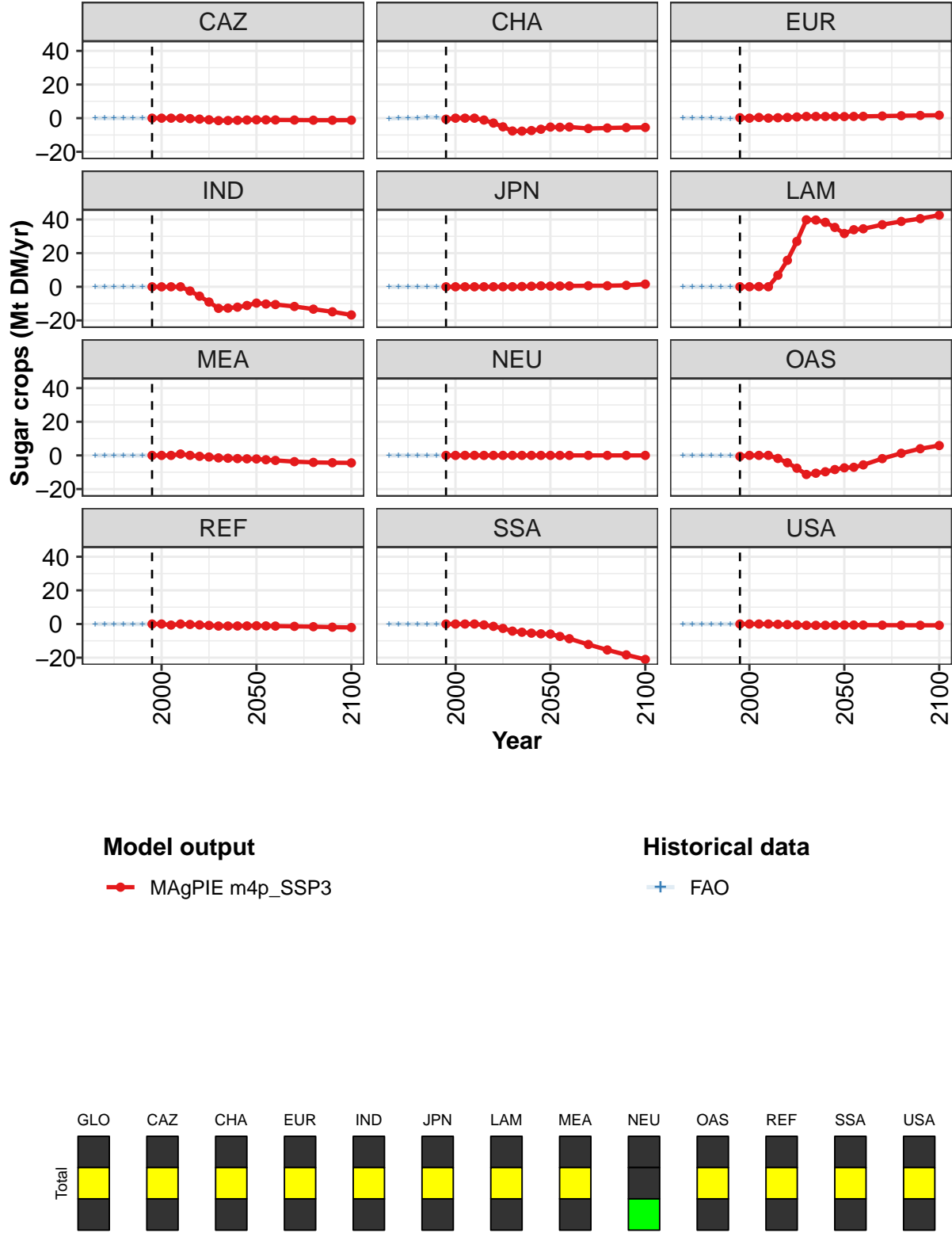


Figure 497: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.8	0.0	-0.0	1.0	0.5	0.0	-0.0	-0.0	0.0	-0.0	0.0
CAZ	0.0	-0.0	-0.0	-0.0	-0.3	-0.6	-1.0	-1.5	-1.4	-1.3	-1.1
CHA	-0.6	0.0	0.0	0.0	-1.1	-2.9	-5.2	-7.6	-7.7	-7.4	-6.6
EUR	0.3	-0.0	0.4	0.0	0.3	0.4	0.7	1.0	1.0	1.0	1.0
IND	0.0	-0.0	0.0	0.0	-2.5	-5.6	-9.1	-12.8	-12.7	-12.1	-11.1
JPN	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.6
LAM	0.0	0.0	0.1	0.0	6.9	15.7	27.0	39.8	39.7	38.3	35.3
MEA	0.0	0.0	0.0	0.8	0.0	-0.5	-0.9	-1.5	-1.7	-1.9	-2.0
NEU	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
OAS	-0.6	0.0	0.0	0.0	-1.8	-4.4	-7.6	-11.3	-10.6	-9.7	-8.4
REF	0.0	0.0	-0.6	0.0	-0.3	-0.5	-0.8	-1.2	-1.2	-1.2	-1.1
SSA	0.0	-0.0	0.0	0.0	-0.5	-1.4	-2.6	-4.2	-4.9	-5.4	-5.8
USA	0.0	0.0	-0.0	0.0	-0.2	-0.4	-0.6	-0.8	-0.8	-0.7	-0.7

Table 1890: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

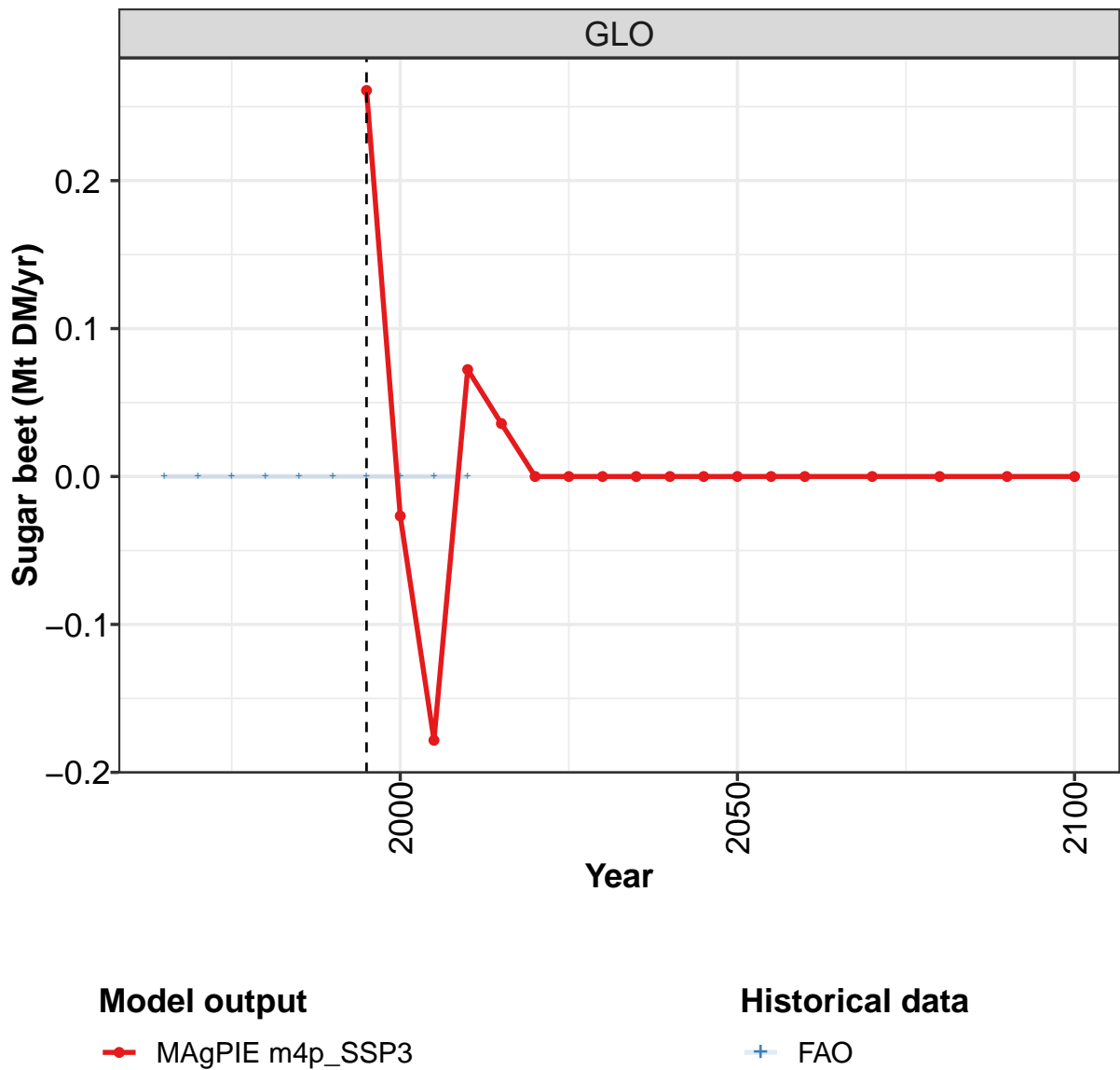
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	-0.0	0.0	-0.0	0.0	-0.0	-0.0
CAZ	-1.0	-1.0	-1.1	-1.1	-1.2	-1.2	-1.2
CHA	-5.3	-5.4	-5.3	-6.2	-5.8	-5.6	-5.5
EUR	0.9	1.0	1.1	1.3	1.4	1.6	1.7
IND	-9.7	-10.2	-10.6	-11.7	-13.3	-14.9	-16.8
JPN	0.4	0.5	0.5	0.6	0.6	0.9	1.6
LAM	31.7	33.9	34.5	36.9	38.9	40.5	42.6
MEA	-2.1	-2.6	-3.0	-3.7	-4.1	-4.3	-4.4
NEU	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
OAS	-7.4	-7.1	-5.6	-1.9	1.3	4.0	5.9
REF	-1.0	-1.1	-1.2	-1.4	-1.6	-1.9	-2.1
SSA	-6.0	-7.4	-8.7	-12.2	-15.4	-18.3	-21.0
USA	-0.6	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8

Table 1891: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Sugar crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAZ	0.004	0.000	-0.001	-0.002	-0.016	0.000	0.017	-0.001	0.001	-0.020
CHA	-0.269	-0.002	-0.003	-0.002	0.715	0.406	-0.526	-0.001	0.784	-0.016
EUR	0.091	0.001	0.014	0.036	-0.093	-0.304	0.235	-0.080	0.106	-0.236
IND	0.001	0.000	-0.000	-0.000	-0.003	0.000	0.003	0.000	0.000	-0.004
JPN	0.001	0.000	-0.000	-0.000	-0.003	0.000	0.003	-0.000	0.000	-0.004
LAM	0.053	0.011	0.002	-0.007	-0.165	0.026	0.170	0.052	-0.256	-0.098
MEA	0.016	-0.000	-0.004	-0.009	-0.066	0.000	0.071	-0.003	0.002	-0.086
NEU	0.026	0.016	0.012	0.023	-0.015	0.011	0.058	-0.020	0.006	0.008
OAS	0.044	-0.006	0.006	-0.000	-0.137	-0.117	-0.373	-0.004	0.009	0.617
REF	-0.007	-0.018	-0.017	-0.023	-0.056	-0.019	0.177	0.062	-0.658	0.056
SSA	0.039	-0.000	-0.008	-0.018	-0.159	0.000	0.172	-0.009	0.007	-0.202
USA	0.001	0.000	-0.000	0.002	-0.002	-0.002	-0.007	0.003	-0.001	-0.017

Table 1892: FAO — Trade—Net-Trade—Crops—Sugar crops (Mt DM/yr)

58.1.18 Sugar crops—Sugar beet



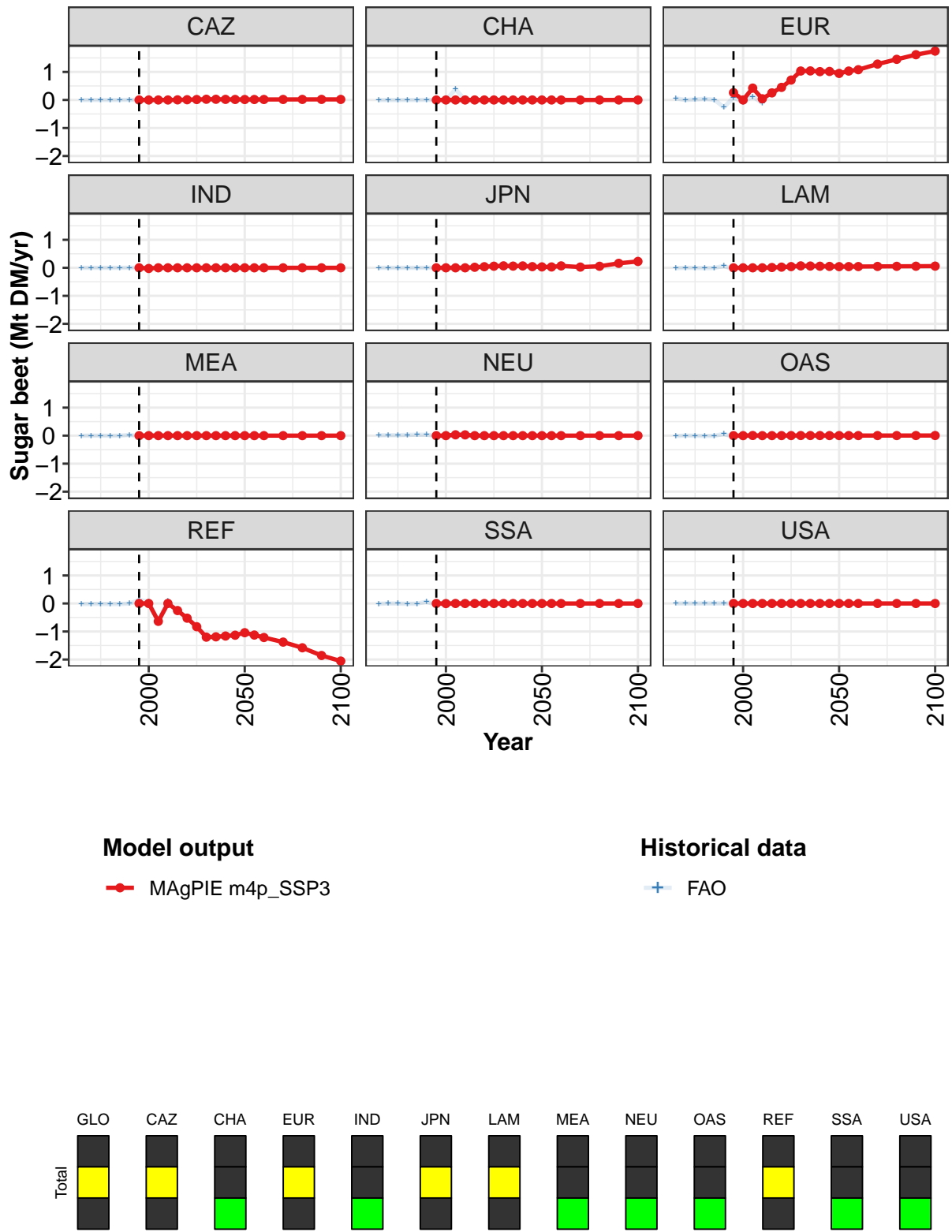


Figure 498: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.26	-0.03	-0.18	0.07	0.04	0.00	-0.00	-0.00	0.00	-0.00	-0.00
CAZ	0.00	-0.00	-0.00	0.00	0.00	0.01	0.02	0.03	0.02	0.02	0.02
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.26	0.00	0.42	0.04	0.25	0.45	0.71	1.03	1.04	1.01	1.02
IND	0.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.00	0.00	0.00	0.00	0.02	0.04	0.06	0.07	0.06	0.07	0.04
LAM	0.00	0.00	0.00	0.00	0.01	0.02	0.04	0.07	0.06	0.06	0.05
MEA	0.00	0.00	0.00	-0.00	0.00	-0.00	-0.00	0.00	0.00	0.00	-0.00
NEU	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.00	-0.00	0.00	0.00
OAS	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	-0.64	0.00	-0.25	-0.52	-0.83	-1.20	-1.19	-1.16	-1.13
SSA	0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00	-0.00	0.00	0.00

Table 1893: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

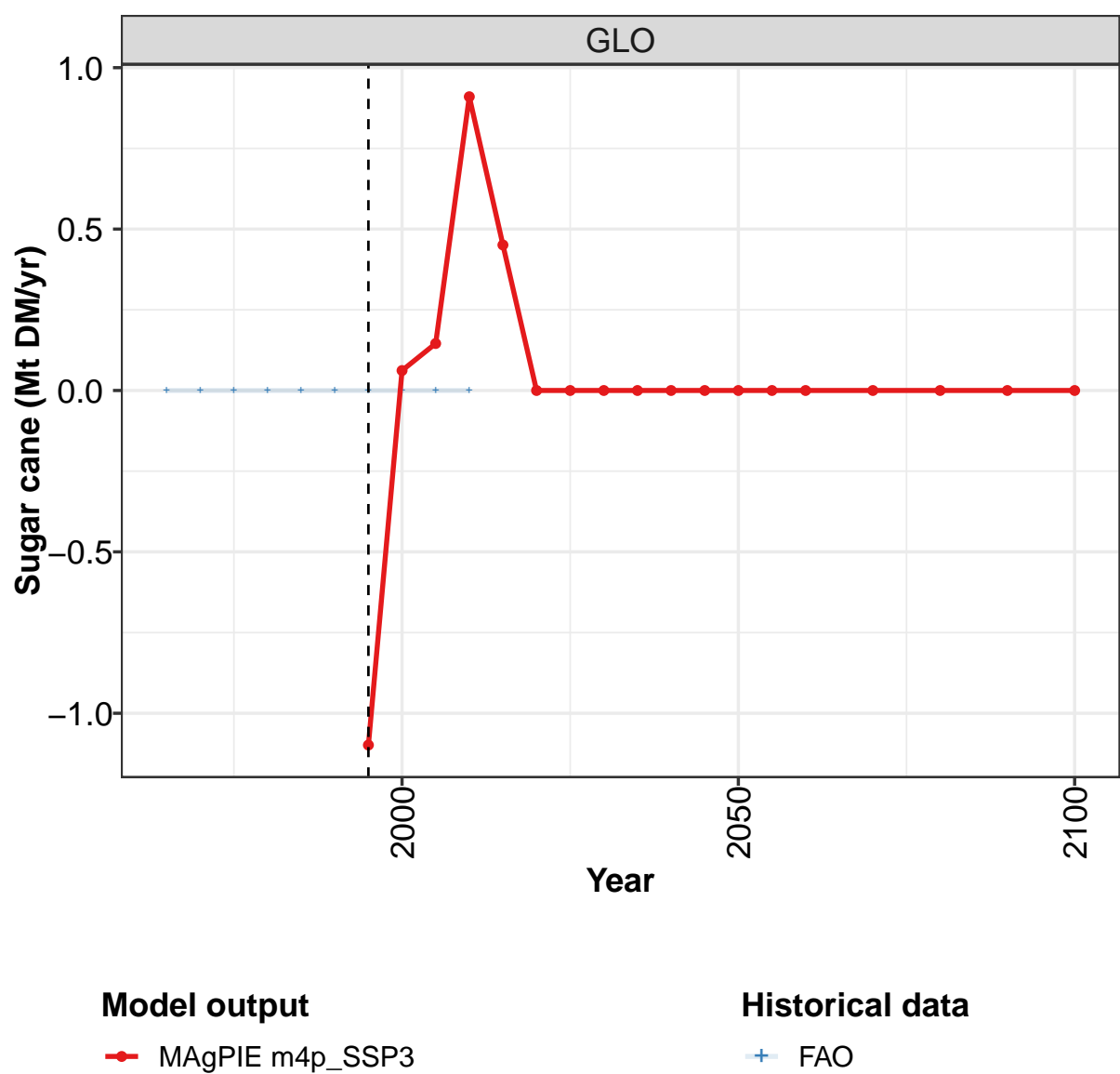
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	-0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.02	0.02	0.02	0.02	0.02	0.02	0.02
CHA	0.00	0.00	0.00	0.00	0.00	-0.00	-0.00
EUR	0.95	1.03	1.08	1.28	1.45	1.62	1.74
IND	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JPN	0.03	0.03	0.07	0.03	0.06	0.16	0.23
LAM	0.04	0.04	0.05	0.05	0.05	0.06	0.06
MEA	-0.00	-0.00	0.00	0.00	0.00	-0.00	0.00
NEU	0.00	0.00	0.00	0.00	0.00	0.00	-0.00
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	-1.04	-1.13	-1.21	-1.38	-1.58	-1.86	-2.06
SSA	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1894: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAZ	-0.001	0.000	-0.000	-0.001	-0.001	0.006	-0.005	0.000	0.004	-0.001
CHA	-0.004	-0.003	-0.003	-0.001	-0.001	0.005	-0.005	0.001	0.382	-0.001
EUR	0.057	0.001	0.018	0.040	0.009	-0.262	0.086	-0.072	0.123	-0.110
IND	-0.000	0.000	-0.000	-0.000	-0.000	0.001	-0.001	0.000	0.001	-0.000
JPN	-0.000	0.000	-0.000	-0.000	-0.000	0.001	-0.001	0.000	0.001	-0.000
LAM	-0.013	0.001	-0.004	-0.013	-0.006	0.068	-0.057	0.006	0.039	-0.016
MEA	-0.005	0.000	-0.002	-0.005	-0.003	0.026	-0.022	0.002	0.014	-0.009
NEU	0.010	0.016	0.014	0.025	0.033	0.031	-0.013	-0.016	0.015	0.068
OAS	-0.012	0.001	-0.003	-0.012	-0.006	0.061	-0.051	0.005	0.035	-0.014
REF	-0.019	-0.018	-0.016	-0.021	-0.020	-0.004	0.124	0.065	-0.651	0.100
SSA	-0.012	0.001	-0.004	-0.013	-0.006	0.064	-0.053	0.005	0.036	-0.015
USA	-0.000	0.000	-0.000	0.002	0.001	0.001	-0.001	0.003	0.001	0.000

Table 1895: FAO — Trade—Net-Trade—Crops—Sugar crops—Sugar beet (Mt DM/yr)

58.1.19 Sugar crops—Sugar cane



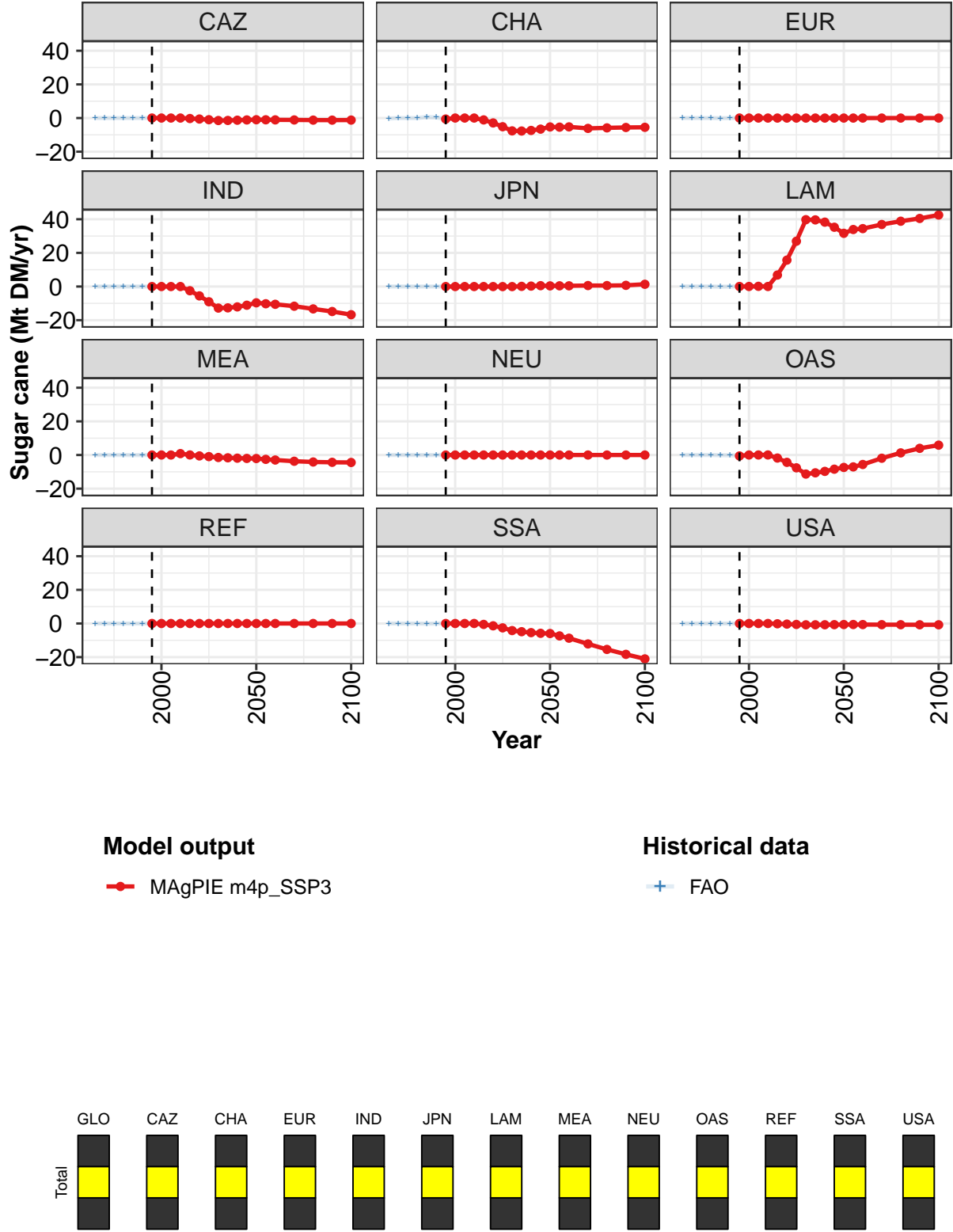


Figure 499: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-1.1	0.1	0.1	0.9	0.5	0.0	-0.0	-0.0	0.0	0.0	0.0
CAZ	0.0	0.0	0.0	-0.0	-0.3	-0.6	-1.0	-1.5	-1.4	-1.3	-1.1
CHA	-0.6	0.0	0.0	0.0	-1.1	-2.9	-5.2	-7.6	-7.7	-7.4	-6.6
EUR	0.0	-0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
IND	0.0	0.0	0.0	0.0	-2.5	-5.6	-9.1	-12.8	-12.7	-12.1	-11.1
JPN	-0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	0.1	0.3	0.5
LAM	0.0	0.0	0.1	0.0	6.8	15.7	26.9	39.7	39.6	38.3	35.3
MEA	0.0	0.0	0.0	0.8	0.0	-0.5	-0.9	-1.5	-1.7	-1.9	-2.0
NEU	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
OAS	-0.6	0.0	0.0	0.0	-1.8	-4.4	-7.6	-11.3	-10.6	-9.7	-8.4
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.0	-0.5	-1.4	-2.6	-4.2	-4.9	-5.4	-5.8
USA	0.0	0.0	-0.0	0.0	-0.2	-0.4	-0.6	-0.8	-0.8	-0.7	-0.7

Table 1896: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 1/2]

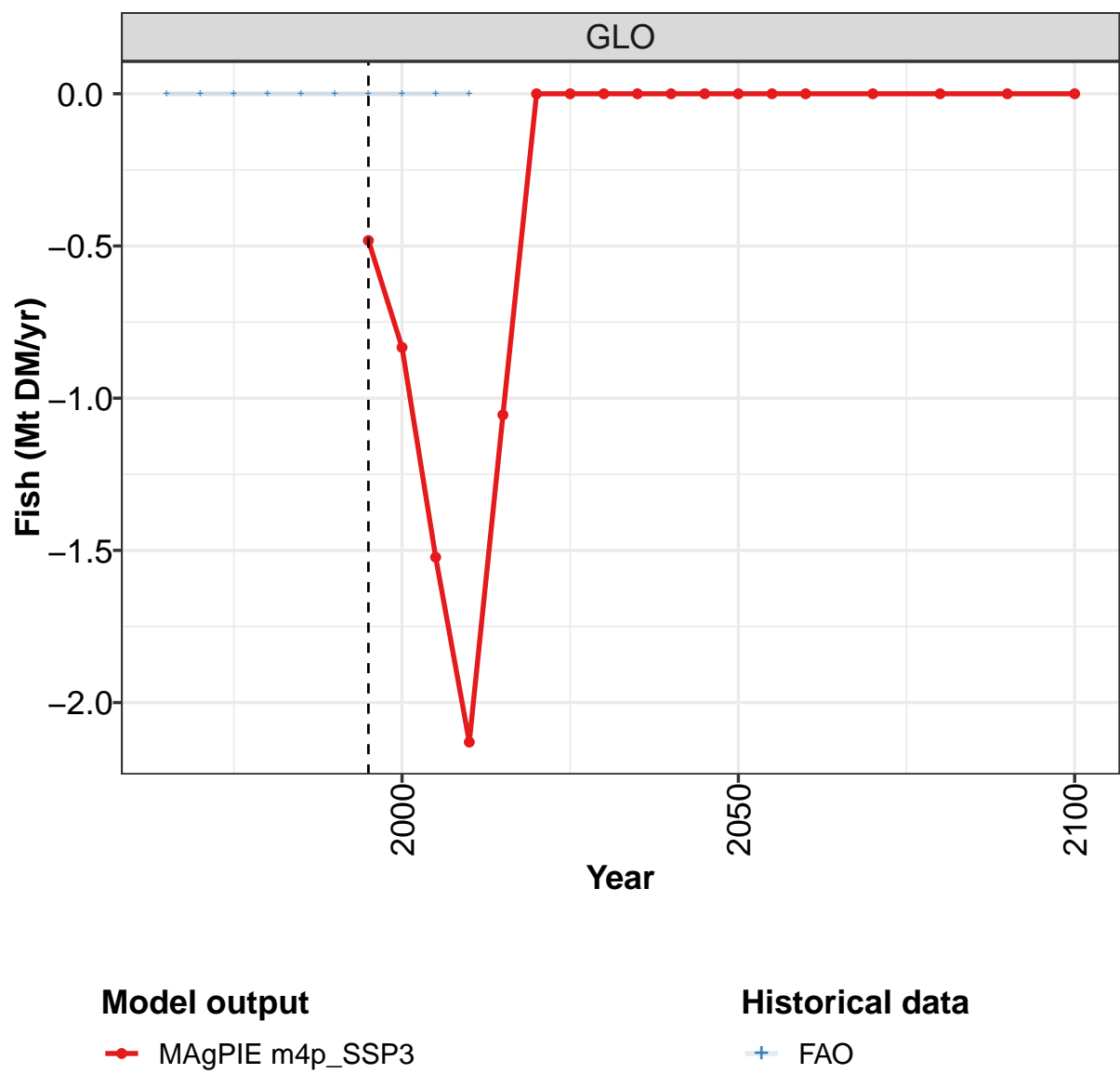
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0
CAZ	-1.0	-1.0	-1.1	-1.1	-1.2	-1.2	-1.2
CHA	-5.3	-5.4	-5.3	-6.2	-5.8	-5.6	-5.5
EUR	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
IND	-9.7	-10.2	-10.6	-11.7	-13.3	-14.9	-16.8
JPN	0.4	0.4	0.4	0.6	0.6	0.7	1.3
LAM	31.6	33.9	34.4	36.9	38.8	40.5	42.5
MEA	-2.1	-2.6	-3.0	-3.7	-4.1	-4.3	-4.4
NEU	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
OAS	-7.4	-7.1	-5.6	-1.9	1.3	4.0	5.9
REF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	-6.0	-7.4	-8.7	-12.2	-15.4	-18.3	-21.0
USA	-0.6	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8

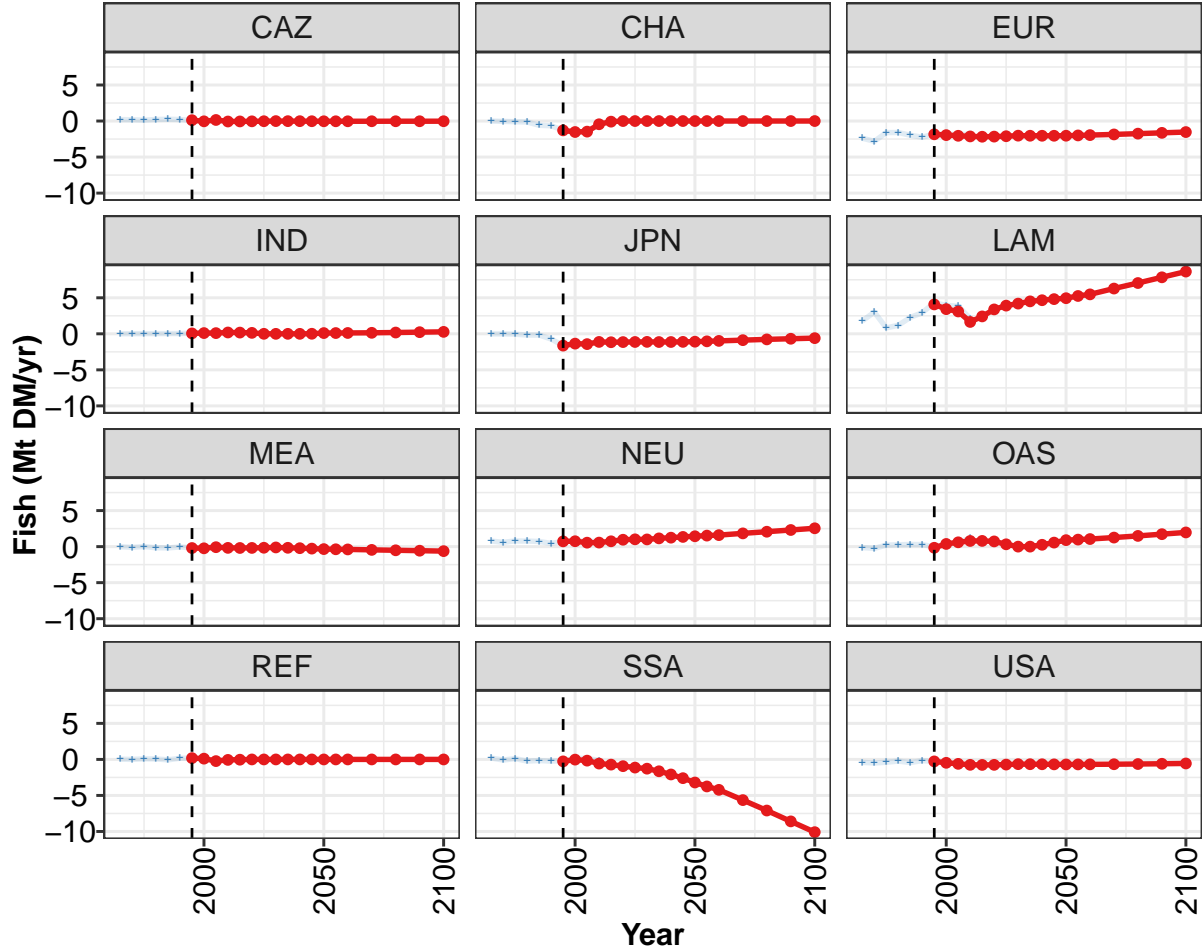
Table 1897: MAgPIE m4p_SSP3 — Trade—Net-Trade—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAZ	0.005	-0.000	-0.001	-0.001	-0.015	-0.006	0.022	-0.001	-0.003	-0.018
CHA	-0.265	0.000	-0.000	-0.001	0.716	0.401	-0.521	-0.001	0.402	-0.015
EUR	0.034	-0.001	-0.004	-0.004	-0.102	-0.043	0.150	-0.008	-0.017	-0.126
IND	0.001	0.000	-0.000	-0.000	-0.003	-0.001	0.004	0.000	-0.001	-0.004
JPN	0.001	0.000	-0.000	-0.000	-0.003	-0.001	0.004	-0.000	-0.001	-0.004
LAM	0.066	0.010	0.005	0.007	-0.158	-0.042	0.227	0.046	-0.294	-0.082
MEA	0.021	-0.001	-0.002	-0.004	-0.063	-0.026	0.093	-0.005	-0.012	-0.076
NEU	0.016	-0.000	-0.002	-0.002	-0.048	-0.020	0.071	-0.004	-0.009	-0.059
OAS	0.056	-0.007	0.009	0.012	-0.131	-0.179	-0.322	-0.009	-0.026	0.631
REF	0.012	-0.000	-0.001	-0.001	-0.036	-0.015	0.053	-0.003	-0.007	-0.044
SSA	0.051	-0.001	-0.004	-0.005	-0.153	-0.064	0.225	-0.014	-0.030	-0.186
USA	0.001	0.000	-0.000	-0.000	-0.003	-0.003	-0.006	0.000	-0.002	-0.017

Table 1898: FAO — Trade—Net-Trade—Crops—Sugar crops—Sugar cane (Mt DM/yr)

58.2
Fish





Model output

MAgPIE m4p_SSP3

Historical data

FAO

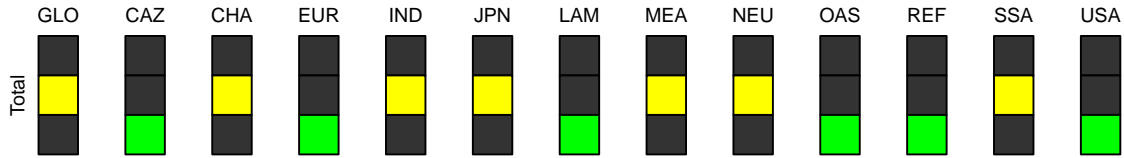


Figure 500: MAgPIE m4p_SSP3 — Trade—Net-Trade—Fish (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.48	-0.83	-1.52	-2.13	-1.05	-0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.12	-0.04	0.15	-0.06	-0.05	-0.04	-0.02	-0.01	-0.01	-0.02	-0.02
CHA	-1.29	-1.52	-1.47	-0.44	-0.09	0.00	0.00	0.00	0.00	0.00	0.00
EUR	-1.84	-1.95	-2.04	-2.13	-2.17	-2.16	-2.11	-2.03	-2.04	-2.04	-2.04
IND	0.06	0.11	0.10	0.19	0.18	0.14	0.01	0.00	0.00	-0.00	0.01
JPN	-1.64	-1.36	-1.42	-1.12	-1.16	-1.14	-1.13	-1.11	-1.14	-1.13	-1.12
LAM	4.08	3.43	3.10	1.65	2.42	3.39	3.91	4.20	4.51	4.67	4.82
MEA	-0.19	-0.23	-0.08	-0.17	-0.19	-0.18	-0.15	-0.11	-0.16	-0.22	-0.28
NEU	0.73	0.75	0.55	0.56	0.74	0.96	1.01	1.00	1.14	1.25	1.35
OAS	-0.16	0.37	0.60	0.79	0.79	0.72	0.32	0.00	0.00	0.26	0.56
REF	0.18	0.11	-0.23	-0.06	-0.04	0.00	0.00	0.00	0.00	0.00	0.00
SSA	-0.27	-0.03	-0.17	-0.57	-0.72	-0.94	-1.13	-1.28	-1.64	-2.09	-2.60
USA	-0.27	-0.47	-0.61	-0.75	-0.76	-0.75	-0.71	-0.66	-0.66	-0.67	-0.68

Table 1899: MAgPIE m4p-SSP3 — Trade—Net-Trade—Fish (Mt DM/yr) [PART 1/2]

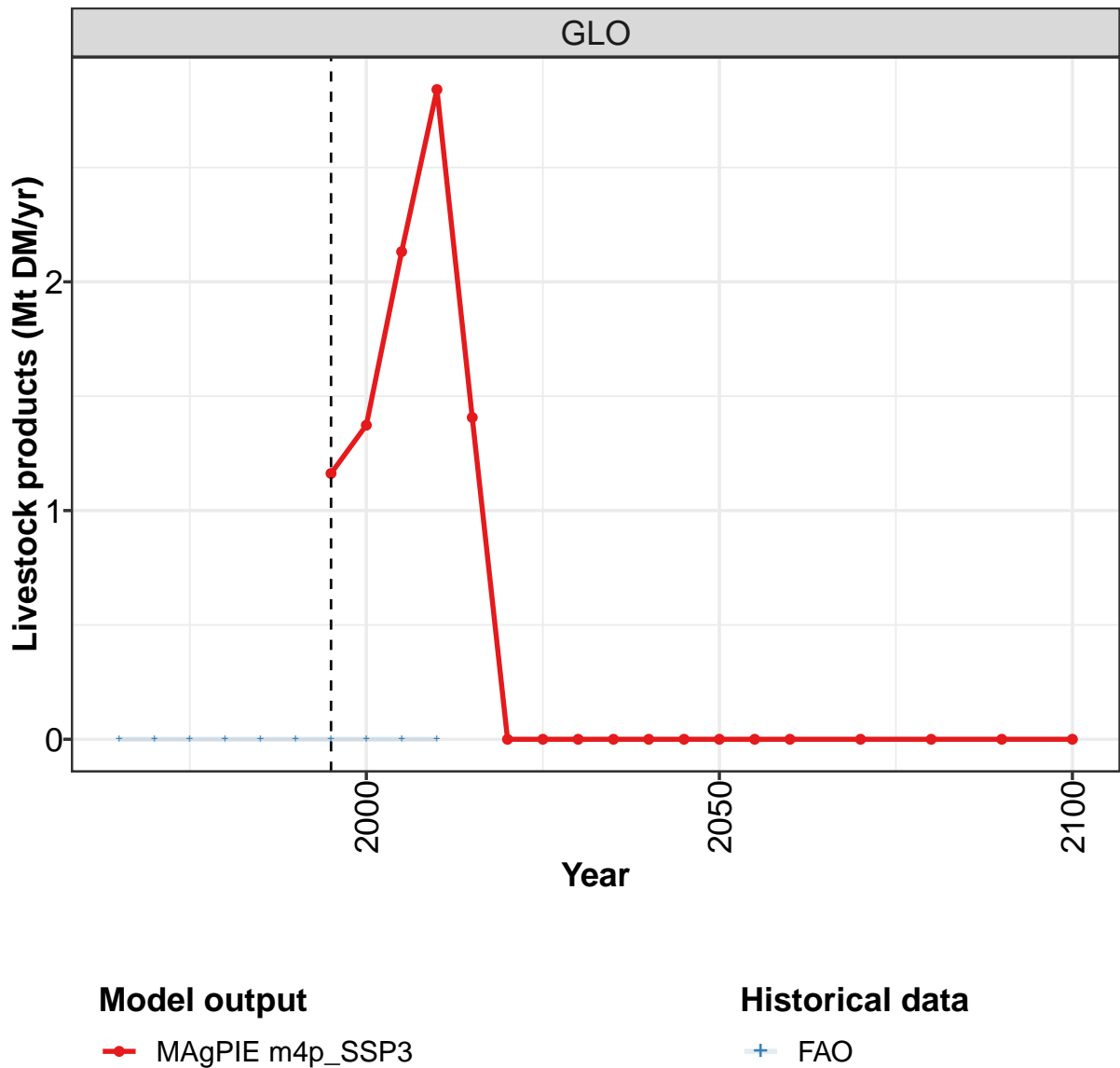
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	-0.00	-0.00	-0.00	0.00	-0.00	-0.00
CAZ	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.02
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	-2.03	-2.00	-1.95	-1.86	-1.75	-1.64	-1.53
IND	0.11	0.11	0.12	0.14	0.18	0.23	0.27
JPN	-1.09	-1.04	-0.98	-0.88	-0.77	-0.68	-0.60
LAM	4.94	5.25	5.48	6.28	7.05	7.84	8.64
MEA	-0.34	-0.37	-0.39	-0.45	-0.51	-0.56	-0.62
NEU	1.44	1.53	1.60	1.84	2.07	2.31	2.55
OAS	0.90	0.97	1.05	1.26	1.49	1.73	1.97
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	-3.20	-3.75	-4.22	-5.64	-7.09	-8.60	-10.09
USA	-0.70	-0.69	-0.68	-0.67	-0.64	-0.60	-0.56

Table 1900: MAgPIE m4p-SSP3 — Trade—Net-Trade—Fish (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.20	0.18	0.12	0.22	0.24	0.21	0.06	-0.02	0.08	-0.02
CHA	-0.01	-0.05	-0.10	-0.14	-0.59	-0.66	-1.27	-1.53	-1.44	-0.47
EUR	-2.38	-2.81	-1.61	-1.59	-1.97	-2.24	-1.80	-1.86	-1.84	-1.86
IND	0.01	0.01	0.02	0.03	0.03	0.04	0.08	0.14	0.12	0.25
JPN	-0.02	-0.01	-0.05	-0.17	-0.18	-0.72	-1.64	-1.35	-1.42	-1.10
LAM	1.80	3.01	0.82	1.18	2.28	2.94	4.32	3.95	3.83	2.15
MEA	-0.02	-0.11	0.00	-0.16	-0.18	-0.05	-0.16	-0.17	0.05	0.01
NEU	0.76	0.60	0.79	0.77	0.71	0.45	0.71	0.82	0.70	0.75
OAS	-0.14	-0.24	0.21	0.26	0.30	0.28	-0.04	0.28	0.59	1.17
REF	0.02	0.01	0.08	0.06	-0.06	0.16	0.18	0.07	-0.16	0.03
SSA	0.18	-0.09	0.11	-0.23	-0.16	-0.24	-0.17	0.15	0.14	-0.14
USA	-0.41	-0.50	-0.39	-0.24	-0.43	-0.17	-0.28	-0.49	-0.63	-0.78

Table 1901: FAO — Trade—Net-Trade—Fish (Mt DM/yr)

58.3 Livestock products



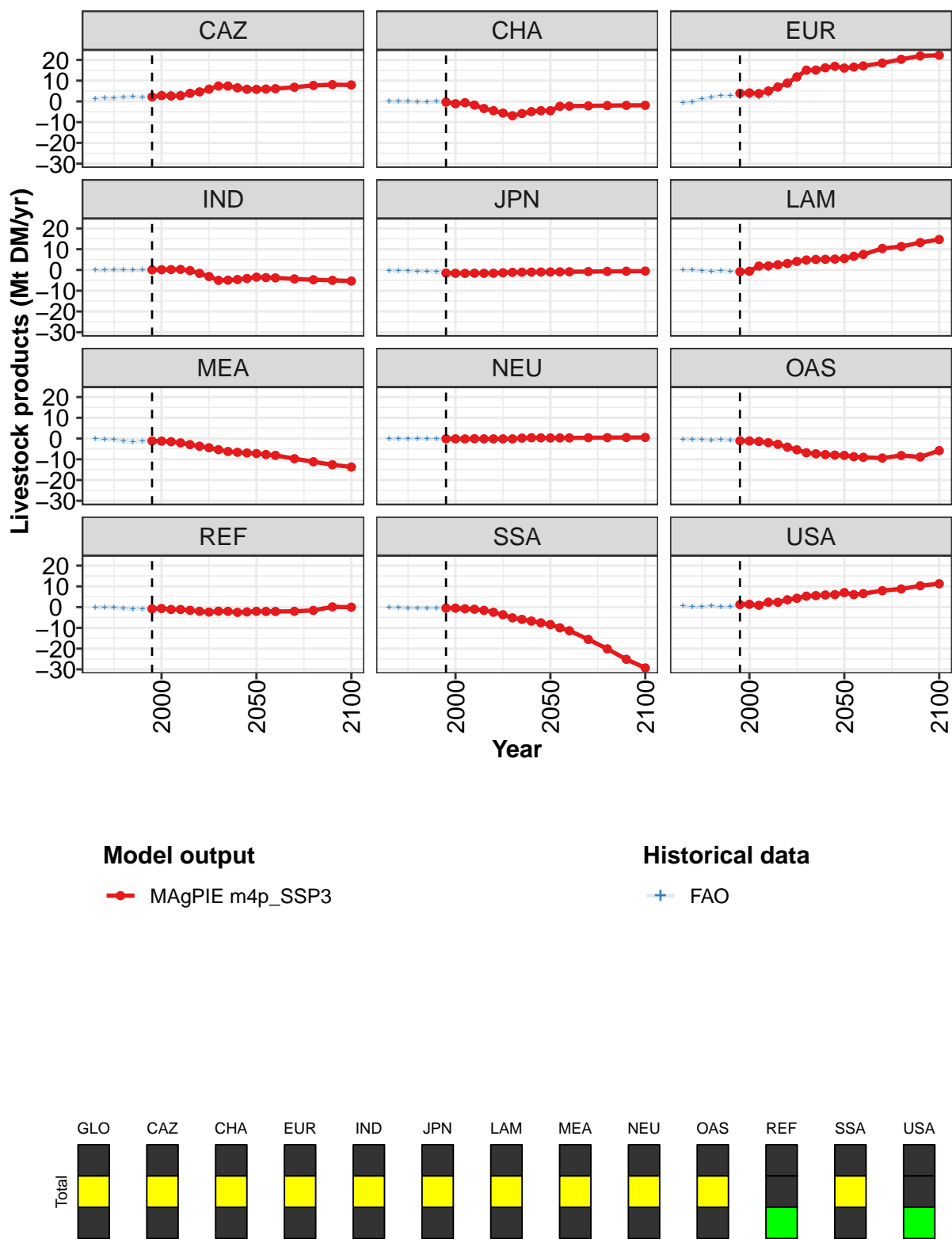


Figure 501: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.2	1.4	2.1	2.8	1.4	-0.0	0.0	0.0	0.0	0.0	-0.0
CAZ	2.2	2.8	2.6	2.8	3.9	4.6	5.9	7.4	7.4	6.5	5.8
CHA	-0.3	-1.1	-0.6	-1.8	-3.4	-4.5	-5.6	-6.9	-5.8	-4.9	-4.5
EUR	3.9	4.1	3.8	5.0	6.9	8.8	11.8	15.1	15.1	16.2	16.9
IND	0.1	0.1	0.2	0.3	-0.3	-1.6	-3.1	-5.0	-4.9	-4.6	-4.1
JPN	-1.5	-1.6	-1.6	-1.6	-1.6	-1.6	-1.3	-1.2	-1.1	-1.0	-1.0
LAM	-0.8	-0.6	1.9	2.0	2.5	3.1	4.1	4.8	5.1	5.1	5.2
MEA	-1.2	-1.3	-1.5	-2.1	-2.9	-3.7	-4.4	-5.4	-6.2	-6.6	-7.0
NEU	-0.1	-0.1	-0.2	-0.1	-0.1	-0.2	-0.1	-0.2	0.2	0.4	0.3
OAS	-1.1	-1.2	-1.4	-2.0	-2.8	-4.1	-5.4	-6.9	-7.3	-7.7	-8.0
REF	-0.8	-0.7	-1.1	-1.1	-1.5	-2.0	-2.4	-2.0	-2.0	-2.5	-2.3
SSA	-0.5	-0.5	-0.8	-1.0	-1.6	-2.5	-3.7	-5.2	-5.9	-6.7	-7.6
USA	1.2	1.4	0.9	2.3	2.3	3.5	4.3	5.3	5.6	5.9	6.0

Table 1902: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products (Mt DM/yr) [PART 1/2]

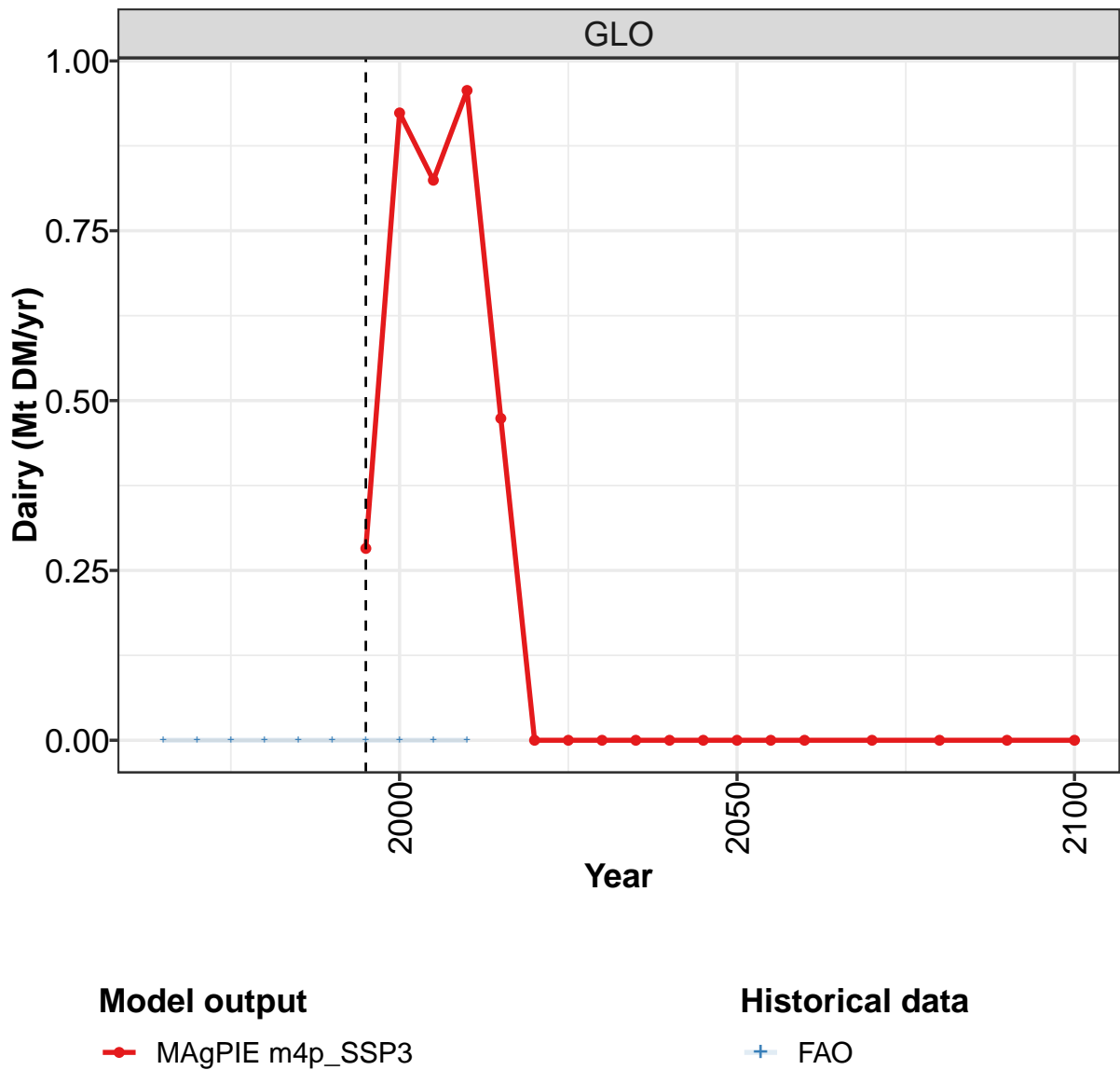
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	-0.0	0.0	0.0	-0.0	-0.0
CAZ	5.8	6.0	6.1	6.8	7.7	8.1	7.9
CHA	-4.5	-2.4	-2.3	-2.1	-2.0	-1.9	-1.9
EUR	16.1	16.6	17.1	18.4	20.3	21.9	22.2
IND	-3.4	-3.7	-3.8	-4.3	-4.7	-5.0	-5.3
JPN	-1.0	-0.9	-0.9	-0.8	-0.7	-0.6	-0.5
LAM	5.5	6.6	7.5	10.4	11.3	13.2	14.7
MEA	-7.2	-7.7	-8.1	-9.7	-11.2	-12.6	-13.7
NEU	0.3	0.3	0.3	0.4	0.4	0.5	0.5
OAS	-8.1	-8.7	-9.0	-9.4	-8.2	-8.9	-5.8
REF	-2.0	-2.1	-2.1	-2.0	-1.6	0.1	-0.0
SSA	-8.4	-10.0	-11.4	-15.6	-20.1	-25.2	-29.3
USA	7.0	6.0	6.5	7.9	8.8	10.3	11.3

Table 1903: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	1.41	1.69	1.61	2.05	2.19	2.08	2.84	3.74	3.97	3.92
CHA	0.03	-0.02	-0.10	-0.15	-0.15	-0.10	-0.33	-1.14	-0.70	-1.80
EUR	-0.62	-0.30	1.09	2.06	2.66	2.79	2.71	2.52	1.91	3.23
IND	-0.08	-0.07	-0.05	-0.03	-0.03	0.03	0.07	0.17	0.34	0.38
JPN	-0.24	-0.34	-0.43	-0.61	-0.65	-0.90	-1.46	-1.59	-1.63	-1.56
LAM	-0.13	-0.04	-0.43	-0.79	-0.54	-0.71	-1.18	-1.02	1.16	0.57
MEA	-0.24	-0.30	-0.58	-1.25	-1.64	-1.36	-1.25	-1.39	-1.73	-2.29
NEU	-0.01	-0.03	-0.00	-0.01	0.03	-0.14	-0.21	-0.22	-0.30	-0.28
OAS	-0.39	-0.47	-0.55	-0.69	-0.64	-0.68	-1.29	-1.47	-1.84	-2.49
REF	-0.23	-0.05	-0.29	-0.71	-0.80	-0.85	-0.80	-0.70	-1.31	-1.51
SSA	-0.20	-0.22	-0.41	-0.47	-0.49	-0.39	-0.70	-0.78	-1.23	-1.57
USA	0.70	0.15	0.15	0.61	0.05	0.24	1.60	1.89	1.37	3.41

Table 1904: FAO — Trade—Net-Trade—Livestock products (Mt DM/yr)

58.3.1 Dairy



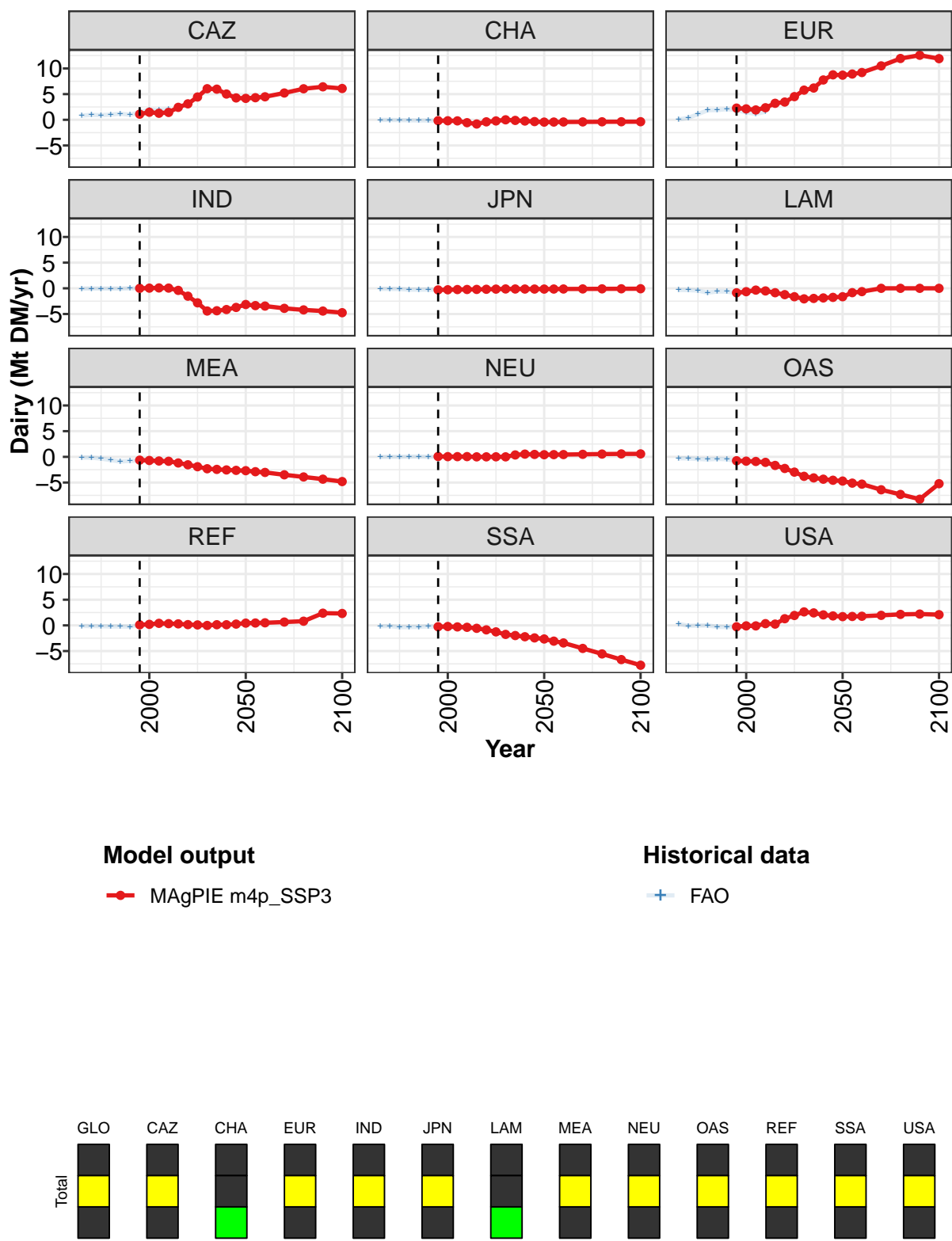


Figure 502: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products—Dairy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.3	0.9	0.8	1.0	0.5	0.0	0.0	0.0	0.0	0.0	-0.0
CAZ	1.1	1.5	1.3	1.4	2.4	3.1	4.4	6.1	6.0	5.0	4.3
CHA	-0.2	-0.2	-0.2	-0.6	-0.8	-0.4	-0.2	0.0	-0.1	-0.2	-0.3
EUR	2.3	2.1	1.9	2.3	3.2	3.5	4.5	5.8	6.2	7.8	8.8
IND	0.0	0.0	0.1	0.0	-0.4	-1.5	-2.8	-4.4	-4.4	-4.1	-3.7
JPN	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1
LAM	-0.9	-0.7	-0.3	-0.5	-0.9	-1.2	-1.6	-2.0	-2.0	-1.9	-1.8
MEA	-0.6	-0.7	-0.8	-0.9	-1.2	-1.5	-1.9	-2.3	-2.4	-2.5	-2.6
NEU	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.5
OAS	-0.8	-0.8	-0.9	-1.1	-1.7	-2.3	-3.0	-3.8	-4.1	-4.3	-4.6
REF	0.1	0.2	0.4	0.3	0.3	0.1	0.1	-0.0	0.1	0.1	0.3
SSA	-0.3	-0.2	-0.3	-0.4	-0.6	-0.9	-1.3	-1.8	-2.0	-2.2	-2.4
USA	-0.3	-0.1	-0.1	0.3	0.3	1.3	1.9	2.6	2.4	2.0	1.8

Table 1905: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products—Dairy (Mt DM/yr) [PART 1/2]

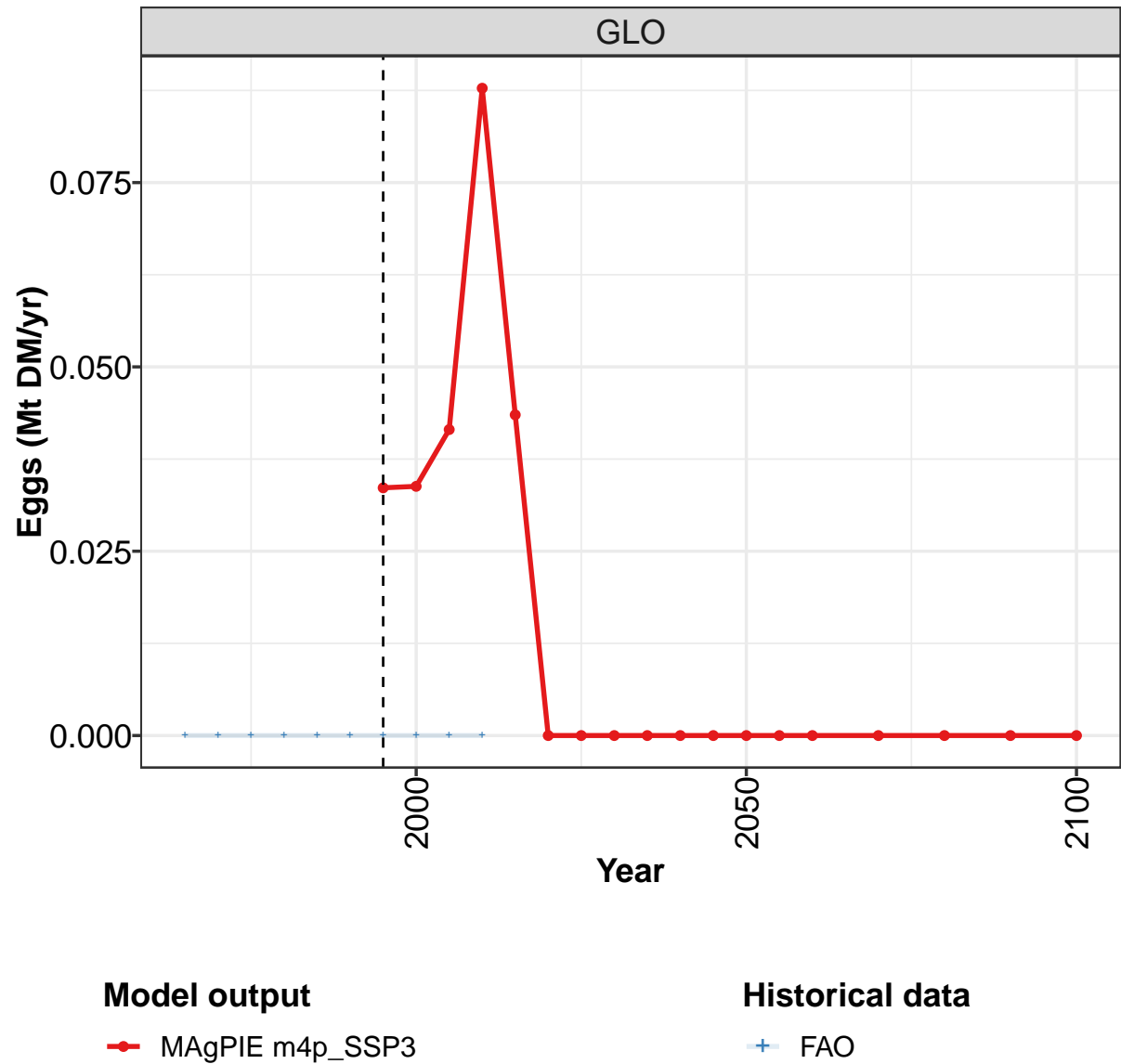
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0
CAZ	4.2	4.3	4.5	5.2	6.0	6.4	6.1
CHA	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
EUR	8.7	8.9	9.2	10.5	11.9	12.6	11.9
IND	-3.2	-3.4	-3.5	-3.9	-4.2	-4.4	-4.7
JPN	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
LAM	-1.6	-0.8	-0.6	0.0	0.0	0.0	0.0
MEA	-2.7	-2.9	-3.0	-3.5	-3.9	-4.3	-4.8
NEU	0.4	0.4	0.4	0.5	0.5	0.6	0.6
OAS	-4.7	-5.1	-5.3	-6.4	-7.3	-8.2	-5.2
REF	0.4	0.5	0.5	0.6	0.8	2.4	2.3
SSA	-2.6	-3.1	-3.4	-4.5	-5.6	-6.7	-7.8
USA	1.7	1.7	1.8	2.0	2.1	2.2	2.1

Table 1906: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products—Dairy (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.83	0.96	0.89	1.01	1.18	0.98	1.49	1.98	1.89	2.05
CHA	-0.02	-0.03	-0.06	-0.09	-0.13	-0.14	-0.17	-0.21	-0.21	-0.59
EUR	0.08	0.38	1.10	1.86	1.90	2.07	1.87	1.45	1.15	1.57
IND	-0.05	-0.04	-0.05	-0.04	-0.05	-0.00	-0.00	0.04	0.12	0.04
JPN	-0.10	-0.10	-0.13	-0.27	-0.27	-0.24	-0.31	-0.27	-0.24	-0.22
LAM	-0.33	-0.34	-0.44	-0.84	-0.61	-0.63	-0.94	-0.82	-0.49	-0.67
MEA	-0.14	-0.16	-0.34	-0.64	-0.89	-0.80	-0.68	-0.79	-0.90	-0.92
NEU	-0.03	0.01	0.00	0.05	0.06	0.01	0.02	-0.01	-0.01	-0.02
OAS	-0.28	-0.30	-0.42	-0.50	-0.40	-0.47	-0.82	-1.03	-1.06	-1.23
REF	-0.12	-0.14	-0.16	-0.22	-0.21	-0.27	0.14	0.19	0.29	0.05
SSA	-0.17	-0.13	-0.36	-0.32	-0.30	-0.18	-0.32	-0.42	-0.46	-0.56
USA	0.32	-0.10	-0.03	-0.01	-0.28	-0.34	-0.29	-0.10	-0.08	0.50

Table 1907: FAO — Trade—Net-Trade—Livestock products—Dairy (Mt DM/yr)

58.3.2 Eggs



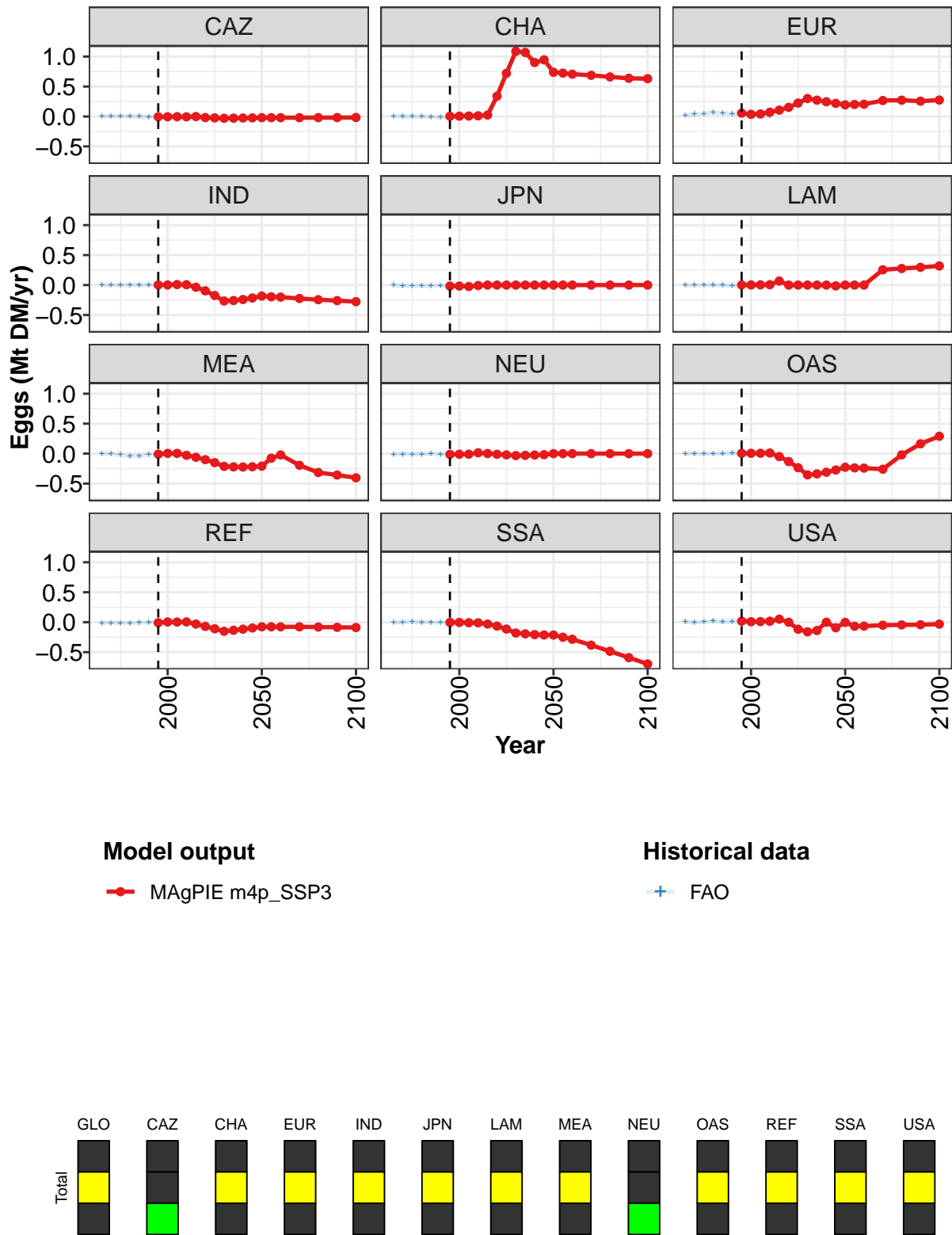


Figure 503: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products—Eggs (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.03	0.03	0.04	0.09	0.04	-0.00	0.00	0.00	0.00	0.00	0.00
CAZ	-0.00	-0.00	-0.00	-0.01	-0.00	-0.02	-0.02	-0.03	-0.03	-0.03	-0.02
CHA	0.00	0.01	0.01	0.01	0.02	0.34	0.72	1.09	1.07	0.90	0.95
EUR	0.06	0.04	0.04	0.07	0.11	0.15	0.22	0.30	0.27	0.25	0.22
IND	0.00	0.00	0.01	0.01	-0.04	-0.10	-0.17	-0.27	-0.26	-0.24	-0.22
JPN	-0.02	-0.02	-0.02	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.01	0.07	0.00	0.00	0.00	0.00	0.00	-0.01
MEA	-0.01	0.00	0.00	-0.03	-0.06	-0.10	-0.15	-0.21	-0.22	-0.22	-0.22
NEU	-0.01	-0.01	-0.01	0.01	0.00	-0.01	-0.02	-0.03	-0.03	-0.02	-0.02
OAS	0.01	0.01	0.01	0.01	-0.05	-0.13	-0.23	-0.35	-0.34	-0.31	-0.27
REF	-0.01	0.00	0.00	0.00	-0.03	-0.07	-0.11	-0.15	-0.13	-0.12	-0.10
SSA	-0.00	-0.00	-0.01	-0.01	-0.03	-0.06	-0.11	-0.18	-0.19	-0.21	-0.21
USA	0.02	0.01	0.01	0.02	0.05	0.00	-0.12	-0.16	-0.14	0.00	-0.09

Table 1908: MAgPIE m4p-SSP3 — Trade—Net-Trade—Livestock products—Eggs (Mt DM/yr) [PART 1/2]

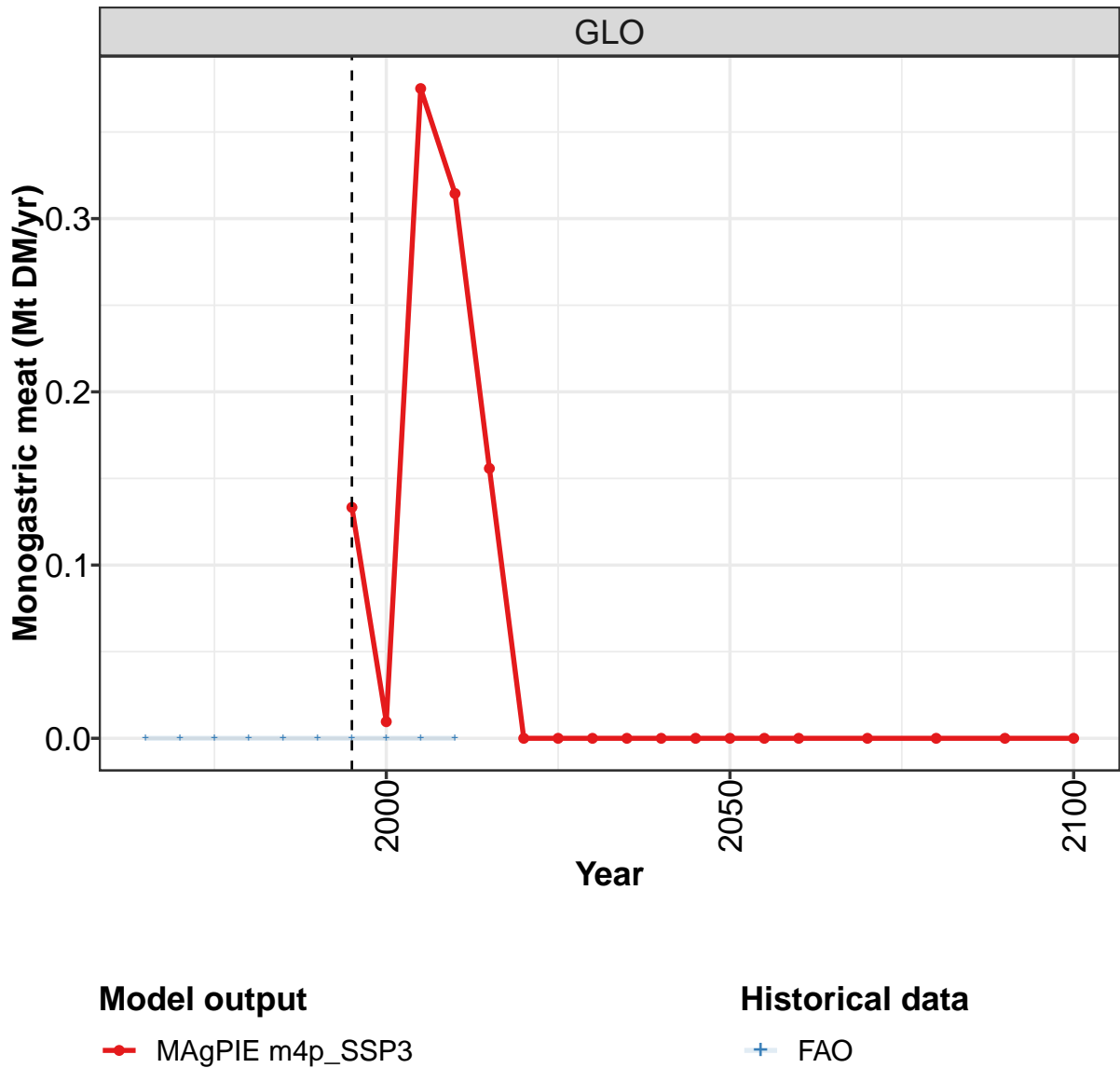
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	-0.00	0.00	0.00	0.00	0.00	0.00
CAZ	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
CHA	0.74	0.72	0.71	0.69	0.66	0.64	0.63
EUR	0.19	0.20	0.21	0.27	0.27	0.26	0.27
IND	-0.18	-0.20	-0.20	-0.22	-0.24	-0.26	-0.28
JPN	0.00	-0.00	0.00	0.00	-0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.26	0.28	0.30	0.32
MEA	-0.21	-0.08	-0.02	-0.19	-0.31	-0.36	-0.40
NEU	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OAS	-0.23	-0.24	-0.24	-0.26	-0.02	0.16	0.29
REF	-0.08	-0.08	-0.08	-0.08	-0.08	-0.09	-0.09
SSA	-0.21	-0.25	-0.28	-0.38	-0.49	-0.59	-0.70
USA	-0.00	-0.07	-0.07	-0.05	-0.04	-0.04	-0.03

Table 1909: MAgPIE m4p-SSP3 — Trade—Net-Trade—Livestock products—Eggs (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CAZ	0.0022	0.0067	0.0044	0.0028	-0.0010	-0.0037	-0.0054	-0.0055	-0.0053	-0.0094
CHA	0.0062	-0.0003	-0.0020	-0.0028	-0.0060	-0.0145	-0.0205	-0.0071	-0.0013	0.0000
EUR	0.0218	0.0422	0.0452	0.0647	0.0515	0.0447	0.0450	0.0191	0.0078	0.0076
IND	0.0000	0.0000	-0.0001	0.0007	0.0000	0.0012	0.0054	0.0084	0.0285	0.0209
JPN	-0.0003	-0.0120	-0.0127	-0.0104	-0.0069	-0.0095	-0.0129	-0.0133	-0.0245	-0.0114
LAM	-0.0036	-0.0033	-0.0003	-0.0046	-0.0003	-0.0083	-0.0098	-0.0146	-0.0121	-0.0152
MEA	0.0007	-0.0073	-0.0212	-0.0454	-0.0413	-0.0088	-0.0112	-0.0046	-0.0060	-0.0400
NEU	-0.0100	-0.0117	-0.0091	-0.0116	0.0032	-0.0143	-0.0159	-0.0133	-0.0136	0.0229
OAS	-0.0023	-0.0015	0.0016	-0.0029	0.0043	0.0047	0.0027	0.0099	0.0091	0.0040
REF	-0.0186	-0.0116	-0.0140	-0.0151	-0.0084	0.0010	-0.0069	0.0007	-0.0025	0.0012
SSA	-0.0004	0.0004	0.0048	-0.0021	0.0006	-0.0057	-0.0092	-0.0113	-0.0199	-0.0325
USA	0.0044	-0.0015	0.0034	0.0267	0.0041	0.0133	0.0387	0.0313	0.0399	0.0519

Table 1910: FAO — Trade—Net-Trade—Livestock products—Eggs (Mt DM/yr)

58.3.3 Monogastric meat



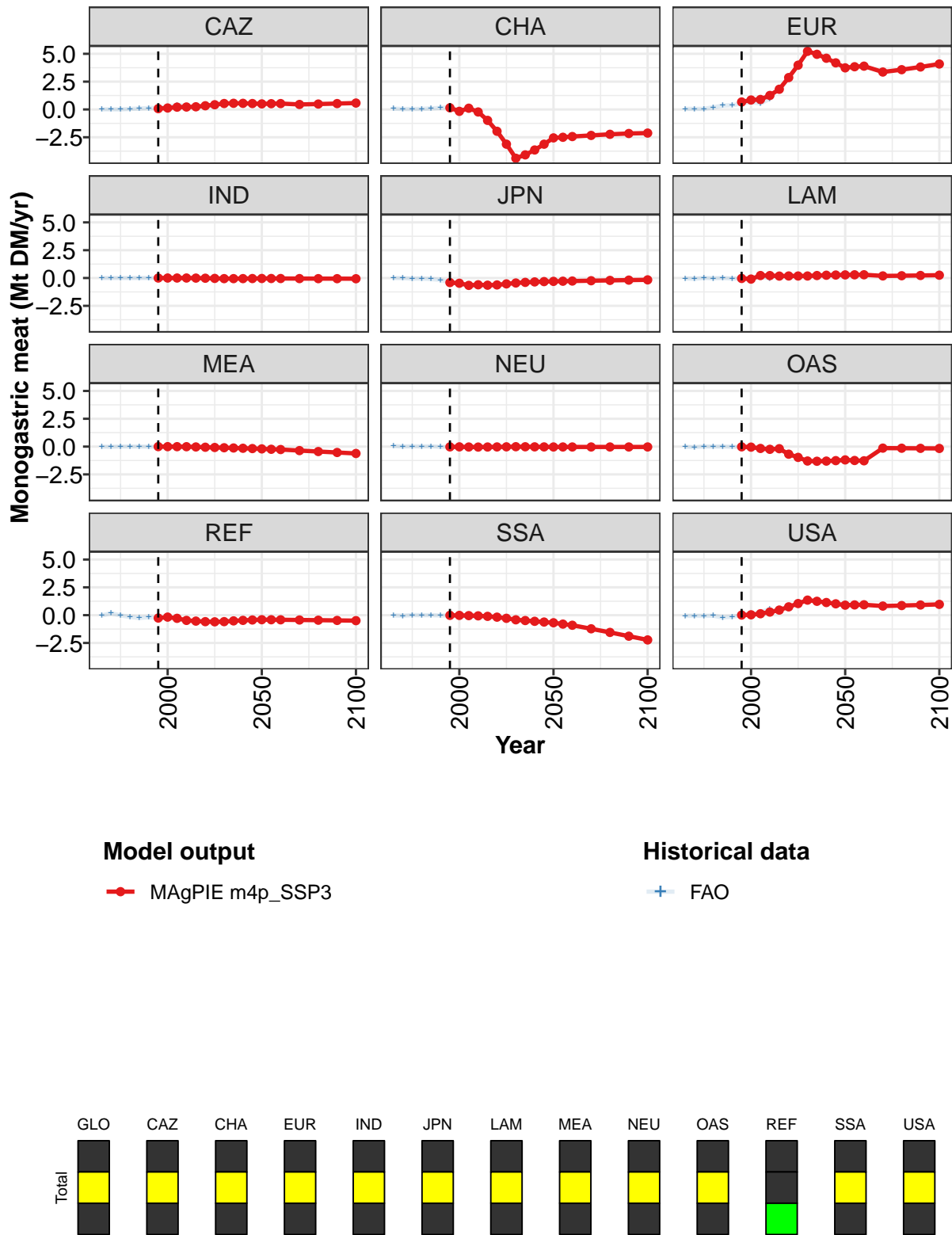


Figure 504: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products—Monogastric meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.13	0.01	0.38	0.31	0.16	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.07	0.13	0.21	0.22	0.24	0.33	0.43	0.53	0.55	0.55	0.53
CHA	0.15	-0.17	0.11	-0.23	-0.98	-1.96	-3.12	-4.39	-4.08	-3.64	-3.12
EUR	0.67	0.85	0.90	1.26	1.82	2.87	3.98	5.23	4.96	4.60	4.19
IND	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.03	-0.05	-0.05	-0.05	-0.05
JPN	-0.41	-0.47	-0.66	-0.61	-0.64	-0.62	-0.53	-0.45	-0.39	-0.35	-0.32
LAM	-0.04	-0.10	0.22	0.22	0.17	0.18	0.18	0.18	0.22	0.25	0.27
MEA	-0.00	-0.00	-0.01	-0.01	-0.03	-0.06	-0.08	-0.10	-0.13	-0.15	-0.18
NEU	-0.02	-0.02	-0.04	-0.04	-0.04	-0.03	-0.02	-0.01	-0.02	-0.02	-0.03
OAS	-0.02	-0.05	-0.17	-0.24	-0.19	-0.68	-0.97	-1.30	-1.32	-1.30	-1.26
REF	-0.26	-0.17	-0.28	-0.47	-0.54	-0.58	-0.60	-0.58	-0.51	-0.47	-0.43
SSA	-0.02	-0.02	-0.04	-0.06	-0.11	-0.18	-0.28	-0.42	-0.48	-0.55	-0.62
USA	0.01	0.03	0.13	0.28	0.46	0.75	1.04	1.35	1.25	1.14	1.02

Table 1911: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products—Monogastric meat (Mt DM/yr)
[PART 1/2]

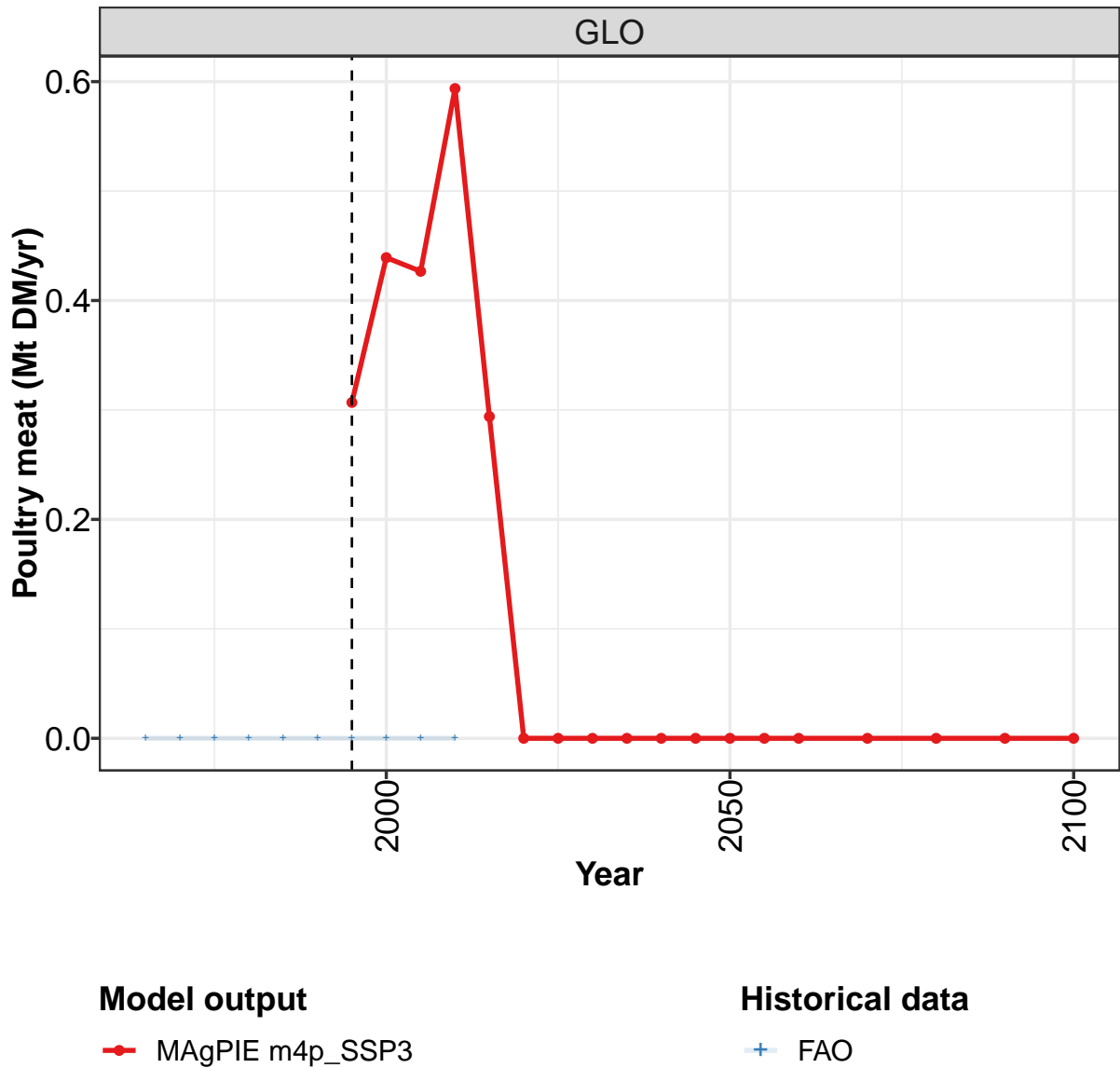
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	-0.00	0.00	0.00	0.00	-0.00
CAZ	0.50	0.52	0.53	0.45	0.49	0.53	0.58
CHA	-2.56	-2.50	-2.43	-2.33	-2.23	-2.16	-2.12
EUR	3.74	3.84	3.89	3.36	3.58	3.82	4.08
IND	-0.04	-0.04	-0.04	-0.05	-0.06	-0.06	-0.06
JPN	-0.30	-0.29	-0.27	-0.24	-0.21	-0.19	-0.17
LAM	0.28	0.29	0.29	0.19	0.21	0.23	0.25
MEA	-0.21	-0.24	-0.26	-0.36	-0.44	-0.53	-0.62
NEU	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
OAS	-1.20	-1.25	-1.28	-0.14	-0.15	-0.16	-0.17
REF	-0.41	-0.41	-0.42	-0.44	-0.45	-0.47	-0.49
SSA	-0.68	-0.80	-0.91	-1.23	-1.55	-1.89	-2.22
USA	0.90	0.92	0.93	0.82	0.86	0.91	0.97

Table 1912: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products—Monogastric meat (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAZ	0.006	0.008	-0.001	0.049	0.084	0.122	0.139	0.252	0.381	0.328
CHA	0.075	0.038	0.038	0.046	0.095	0.137	0.210	-0.143	0.080	-0.199
EUR	0.052	0.048	0.055	0.196	0.348	0.385	0.527	0.669	0.537	0.962
IND	-0.001	-0.001	0.000	0.000	0.000	-0.000	0.000	-0.000	-0.001	-0.001
JPN	-0.001	-0.009	-0.061	-0.054	-0.093	-0.167	-0.405	-0.469	-0.658	-0.605
LAM	-0.039	-0.068	0.005	-0.023	-0.003	-0.051	-0.064	-0.087	0.168	-0.048
MEA	-0.012	-0.023	0.003	-0.002	0.001	-0.011	-0.014	-0.005	-0.038	-0.037
NEU	0.051	0.006	0.024	0.012	0.027	-0.032	-0.034	-0.024	-0.061	-0.064
OAS	-0.025	-0.052	0.010	-0.001	0.006	-0.024	-0.047	-0.056	-0.229	-0.290
REF	-0.022	0.168	-0.021	-0.165	-0.254	-0.186	-0.273	-0.177	-0.309	-0.480
SSA	-0.025	-0.055	0.009	-0.004	0.000	-0.031	-0.042	-0.024	-0.115	-0.128
USA	-0.061	-0.060	-0.062	-0.053	-0.211	-0.144	0.003	0.063	0.244	0.562

Table 1913: FAO — Trade—Net-Trade—Livestock products—Monogastric meat (Mt DM/yr)

58.3.4 Poultry meat



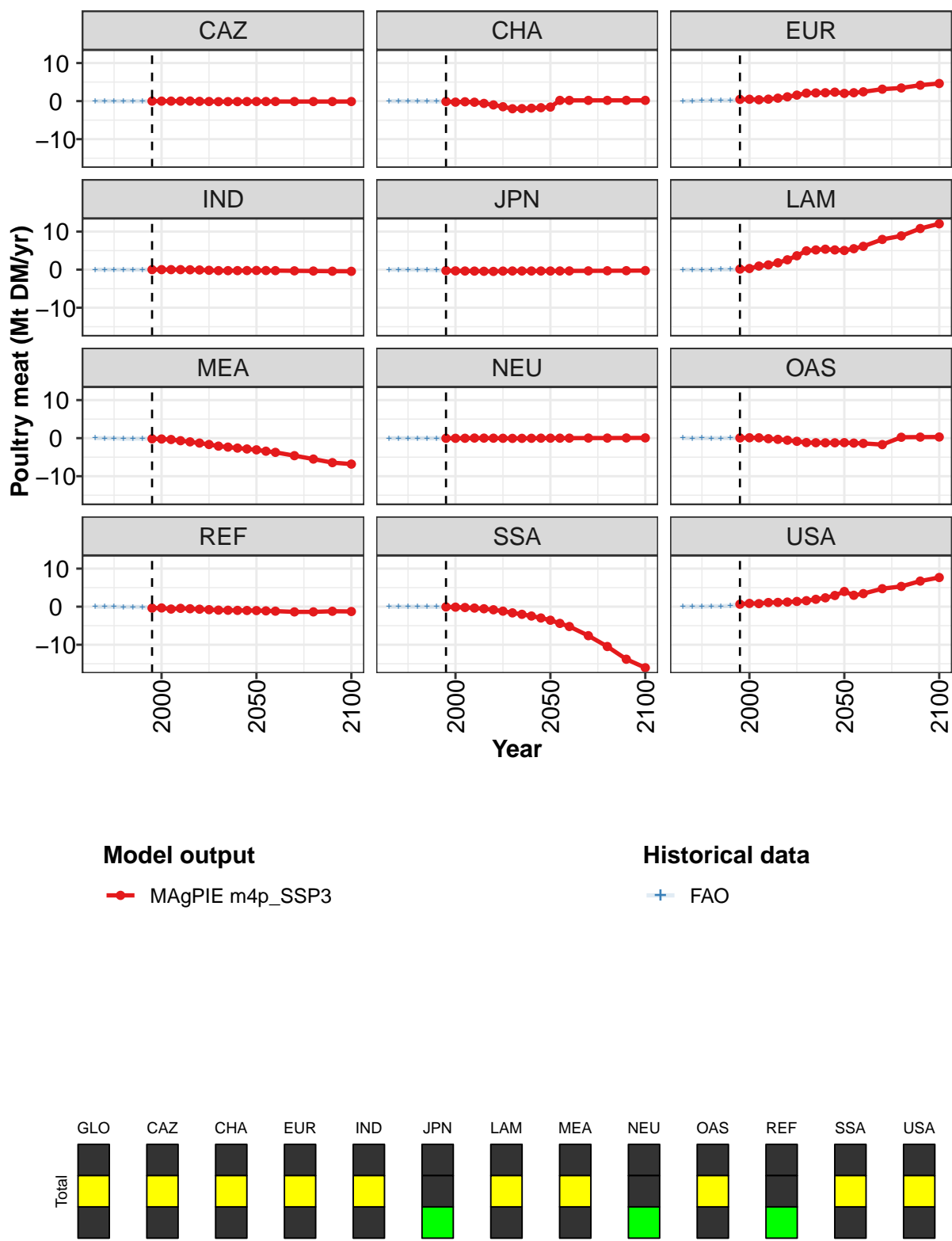


Figure 505: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products—Poultry meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.3	0.4	0.4	0.6	0.3	0.0	0.0	0.0	-0.0	0.0	-0.0
CAZ	0.0	-0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
CHA	-0.1	-0.3	-0.2	-0.3	-0.6	-1.0	-1.5	-2.0	-2.0	-1.9	-1.7
EUR	0.5	0.5	0.4	0.5	0.8	1.1	1.6	2.1	2.2	2.2	2.4
IND	0.0	0.0	0.0	0.0	-0.0	-0.1	-0.2	-0.3	-0.3	-0.3	-0.2
JPN	-0.3	-0.3	-0.4	-0.4	-0.4	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4
LAM	0.1	0.3	0.9	1.2	1.8	2.6	3.6	4.9	5.2	5.4	5.2
MEA	-0.2	-0.2	-0.4	-0.7	-1.0	-1.3	-1.7	-2.1	-2.4	-2.6	-2.8
NEU	-0.0	-0.0	-0.0	0.0	0.0	-0.0	-0.0	-0.1	-0.0	-0.0	0.0
OAS	0.1	0.1	0.1	-0.1	-0.3	-0.5	-0.8	-1.2	-1.2	-1.2	-1.2
REF	-0.4	-0.3	-0.6	-0.4	-0.5	-0.7	-0.8	-0.9	-0.9	-1.0	-1.0
SSA	-0.1	-0.1	-0.2	-0.4	-0.5	-0.8	-1.2	-1.6	-2.0	-2.5	-3.0
USA	0.7	0.9	0.8	1.1	1.1	1.2	1.4	1.6	1.9	2.3	2.9

Table 1914: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products—Poultry meat (Mt DM/yr) [PART 1/2]

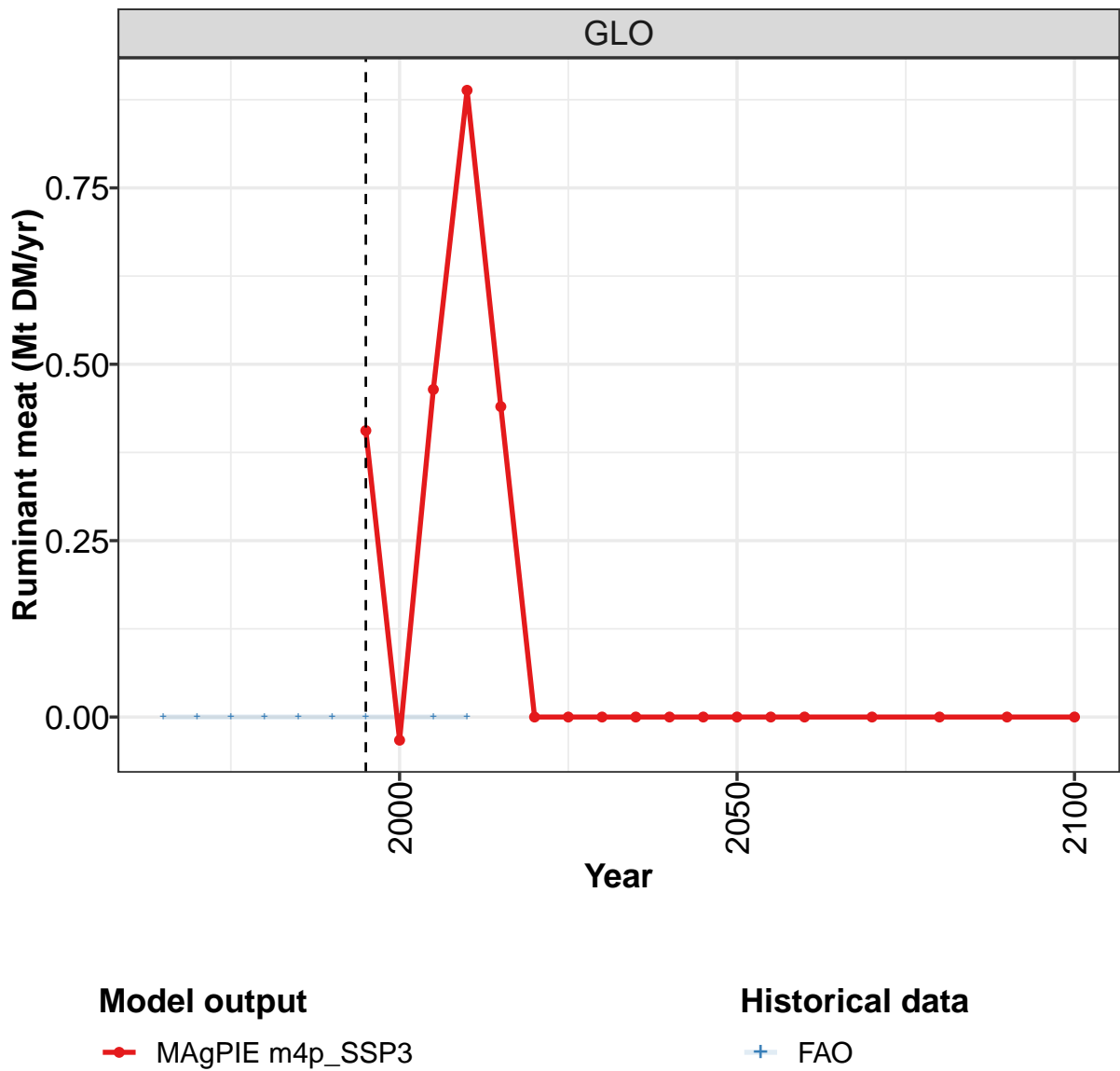
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	-0.0	-0.0	0.0	0.0	0.0
CAZ	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
CHA	-1.6	0.2	0.2	0.2	0.2	0.2	0.2
EUR	2.0	2.2	2.4	3.1	3.5	4.2	4.6
IND	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4	-0.4
JPN	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3	-0.2
LAM	5.0	5.5	6.1	7.9	8.9	10.8	12.0
MEA	-3.1	-3.4	-3.7	-4.6	-5.5	-6.4	-6.8
NEU	0.0	0.0	0.0	0.0	0.0	0.1	0.1
OAS	-1.2	-1.3	-1.4	-1.7	0.2	0.3	0.3
REF	-1.0	-1.1	-1.2	-1.4	-1.4	-1.2	-1.3
SSA	-3.6	-4.4	-5.2	-7.6	-10.5	-13.8	-16.0
USA	4.0	3.0	3.4	4.7	5.3	6.7	7.7

Table 1915: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products—Poultry meat (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	-0.00	0.00	-0.01	-0.00	-0.01	-0.01	-0.01	-0.01	-0.00	-0.02
CHA	-0.00	-0.01	-0.00	-0.01	-0.03	-0.05	-0.11	-0.28	-0.16	-0.27
EUR	0.00	0.06	0.09	0.19	0.20	0.18	0.30	0.30	0.01	0.22
IND	0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
JPN	-0.00	-0.00	-0.01	-0.03	-0.04	-0.12	-0.25	-0.33	-0.37	-0.39
LAM	-0.00	-0.02	-0.02	0.02	0.06	0.05	-0.01	0.06	0.80	0.95
MEA	-0.00	-0.01	-0.03	-0.19	-0.17	-0.13	-0.19	-0.26	-0.40	-0.72
NEU	-0.01	-0.02	-0.02	-0.03	-0.02	-0.04	-0.05	-0.06	-0.05	-0.04
OAS	-0.00	-0.01	-0.00	-0.01	-0.01	0.03	-0.01	-0.01	-0.04	-0.25
REF	-0.01	-0.03	-0.02	-0.07	-0.06	-0.12	-0.39	-0.35	-0.64	-0.46
SSA	0.00	-0.01	0.00	-0.02	-0.03	-0.05	-0.12	-0.21	-0.30	-0.48
USA	0.03	0.04	0.01	0.14	0.10	0.26	0.84	1.16	1.16	1.46

Table 1916: FAO — Trade—Net-Trade—Livestock products—Poultry meat (Mt DM/yr)

58.3.5 Ruminant meat



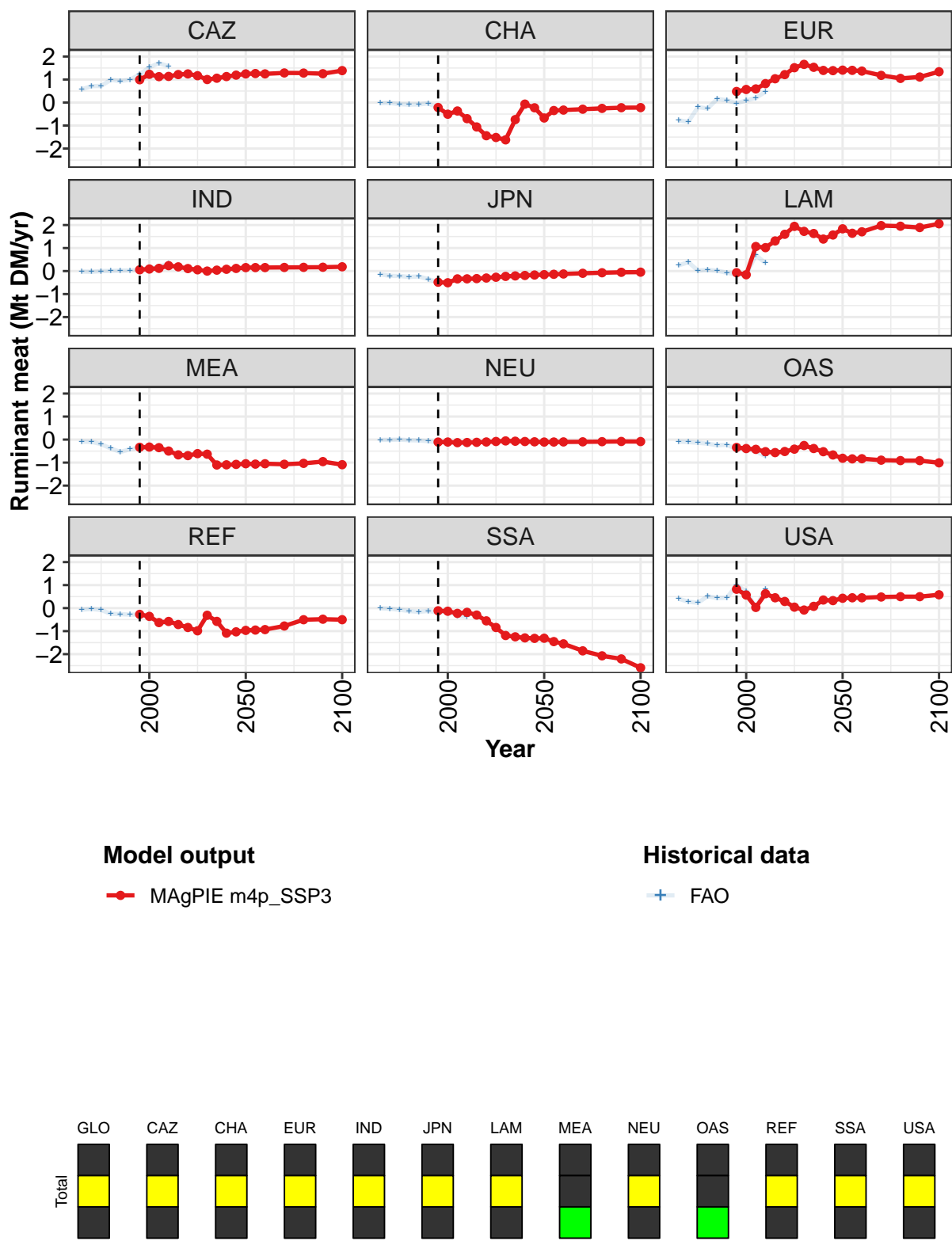


Figure 506: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products—Ruminant meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.41	-0.03	0.46	0.89	0.44	-0.00	0.00	0.00	-0.00	0.00	0.00
CAZ	0.99	1.23	1.13	1.14	1.22	1.25	1.17	1.00	1.06	1.13	1.19
CHA	-0.22	-0.51	-0.37	-0.70	-1.06	-1.44	-1.52	-1.62	-0.74	-0.07	-0.23
EUR	0.48	0.57	0.59	0.82	1.03	1.21	1.51	1.66	1.53	1.40	1.39
IND	0.06	0.09	0.12	0.23	0.18	0.11	0.06	0.00	0.04	0.08	0.11
JPN	-0.48	-0.51	-0.34	-0.34	-0.33	-0.30	-0.27	-0.23	-0.21	-0.19	-0.17
LAM	-0.07	-0.16	1.07	1.02	1.31	1.60	1.94	1.72	1.63	1.39	1.57
MEA	-0.33	-0.32	-0.35	-0.50	-0.66	-0.70	-0.61	-0.63	-1.10	-1.10	-1.08
NEU	-0.11	-0.11	-0.13	-0.13	-0.12	-0.10	-0.08	-0.06	-0.07	-0.08	-0.10
OAS	-0.34	-0.39	-0.42	-0.52	-0.57	-0.52	-0.41	-0.26	-0.39	-0.53	-0.67
REF	-0.27	-0.36	-0.63	-0.58	-0.71	-0.84	-0.99	-0.31	-0.58	-1.09	-1.03
SSA	-0.12	-0.14	-0.23	-0.18	-0.30	-0.55	-0.84	-1.19	-1.25	-1.29	-1.31
USA	0.82	0.57	0.03	0.63	0.45	0.29	0.04	-0.08	0.08	0.35	0.33

Table 1917: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products—Ruminant meat (Mt DM/yr)
[PART 1/2]

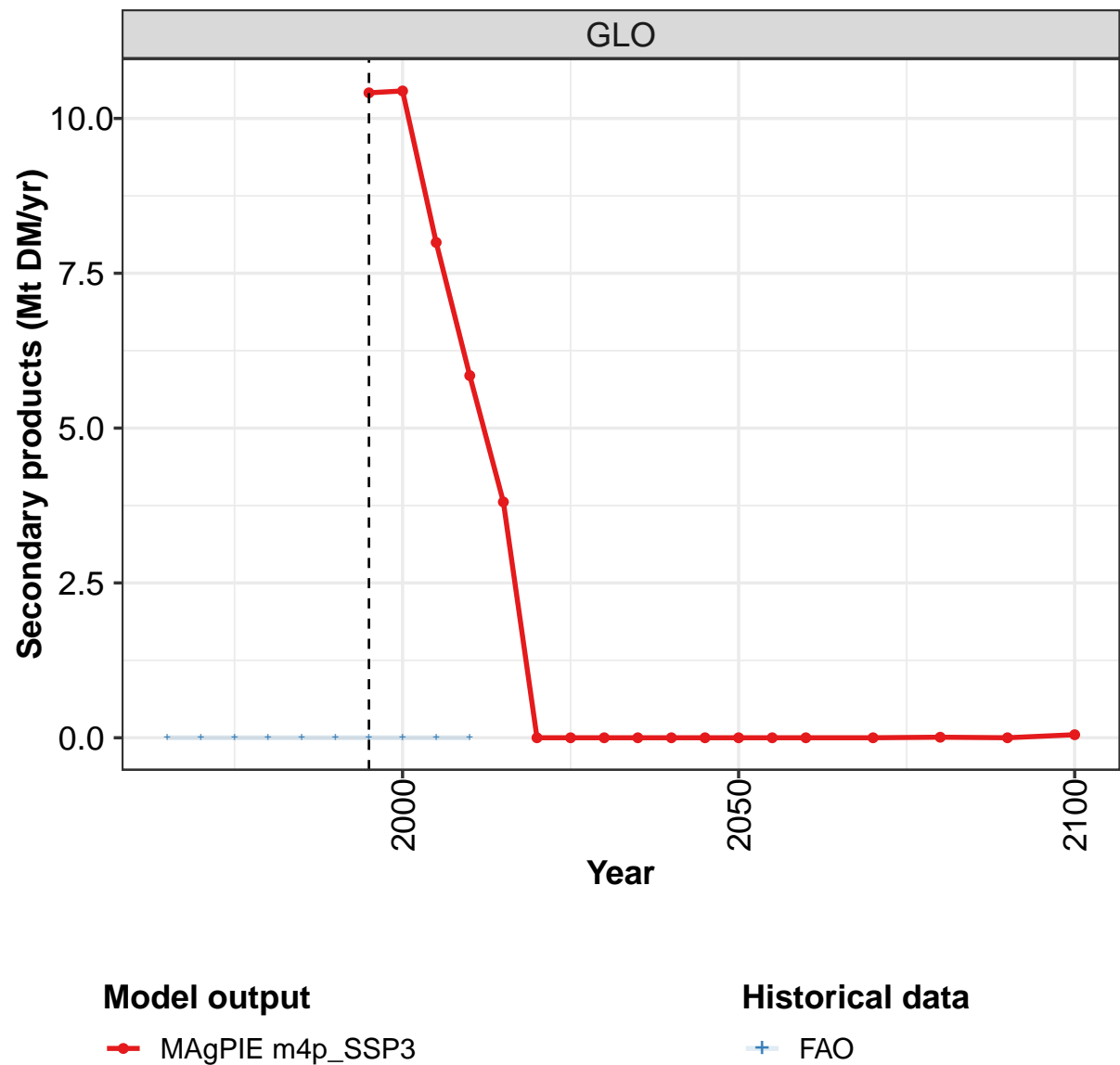
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	0.00	-0.00	-0.00
CAZ	1.24	1.26	1.25	1.29	1.28	1.25	1.39
CHA	-0.67	-0.35	-0.33	-0.29	-0.25	-0.22	-0.22
EUR	1.41	1.40	1.37	1.18	1.05	1.11	1.34
IND	0.15	0.15	0.15	0.16	0.16	0.17	0.19
JPN	-0.16	-0.14	-0.13	-0.10	-0.07	-0.05	-0.05
LAM	1.84	1.64	1.71	1.98	1.95	1.89	2.05
MEA	-1.05	-1.07	-1.05	-1.07	-1.03	-0.96	-1.09
NEU	-0.11	-0.11	-0.10	-0.10	-0.09	-0.08	-0.09
OAS	-0.81	-0.84	-0.83	-0.89	-0.91	-0.91	-1.01
REF	-0.97	-0.95	-0.93	-0.78	-0.50	-0.48	-0.50
SSA	-1.31	-1.45	-1.55	-1.86	-2.07	-2.21	-2.59
USA	0.43	0.45	0.45	0.48	0.50	0.50	0.58

Table 1918: MAgPIE m4p_SSP3 — Trade—Net-Trade—Livestock products—Ruminant meat (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.58	0.71	0.72	0.99	0.93	0.99	1.22	1.53	1.71	1.57
CHA	-0.03	-0.02	-0.07	-0.09	-0.08	-0.03	-0.24	-0.50	-0.40	-0.74
EUR	-0.77	-0.84	-0.20	-0.26	0.15	0.10	-0.03	0.09	0.20	0.47
IND	-0.02	-0.03	-0.00	0.01	0.02	0.03	0.07	0.12	0.19	0.32
JPN	-0.14	-0.21	-0.22	-0.25	-0.23	-0.35	-0.48	-0.51	-0.34	-0.34
LAM	0.25	0.39	0.02	0.06	0.02	-0.07	-0.15	-0.16	0.69	0.35
MEA	-0.09	-0.10	-0.20	-0.39	-0.54	-0.42	-0.36	-0.32	-0.38	-0.57
NEU	-0.01	-0.01	-0.00	-0.03	-0.04	-0.07	-0.14	-0.10	-0.16	-0.19
OAS	-0.09	-0.10	-0.14	-0.18	-0.25	-0.22	-0.42	-0.39	-0.52	-0.72
REF	-0.07	-0.04	-0.08	-0.25	-0.26	-0.29	-0.27	-0.37	-0.65	-0.63
SSA	-0.01	-0.03	-0.07	-0.13	-0.16	-0.12	-0.20	-0.13	-0.34	-0.37
USA	0.41	0.28	0.23	0.52	0.44	0.45	1.00	0.73	0.01	0.84

Table 1919: FAO — Trade—Net-Trade—Livestock products—Ruminant meat (Mt DM/yr)

58.4 Secondary products



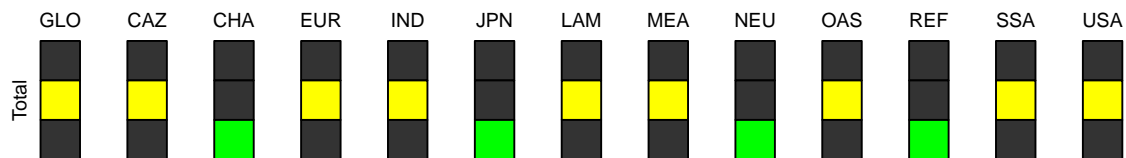
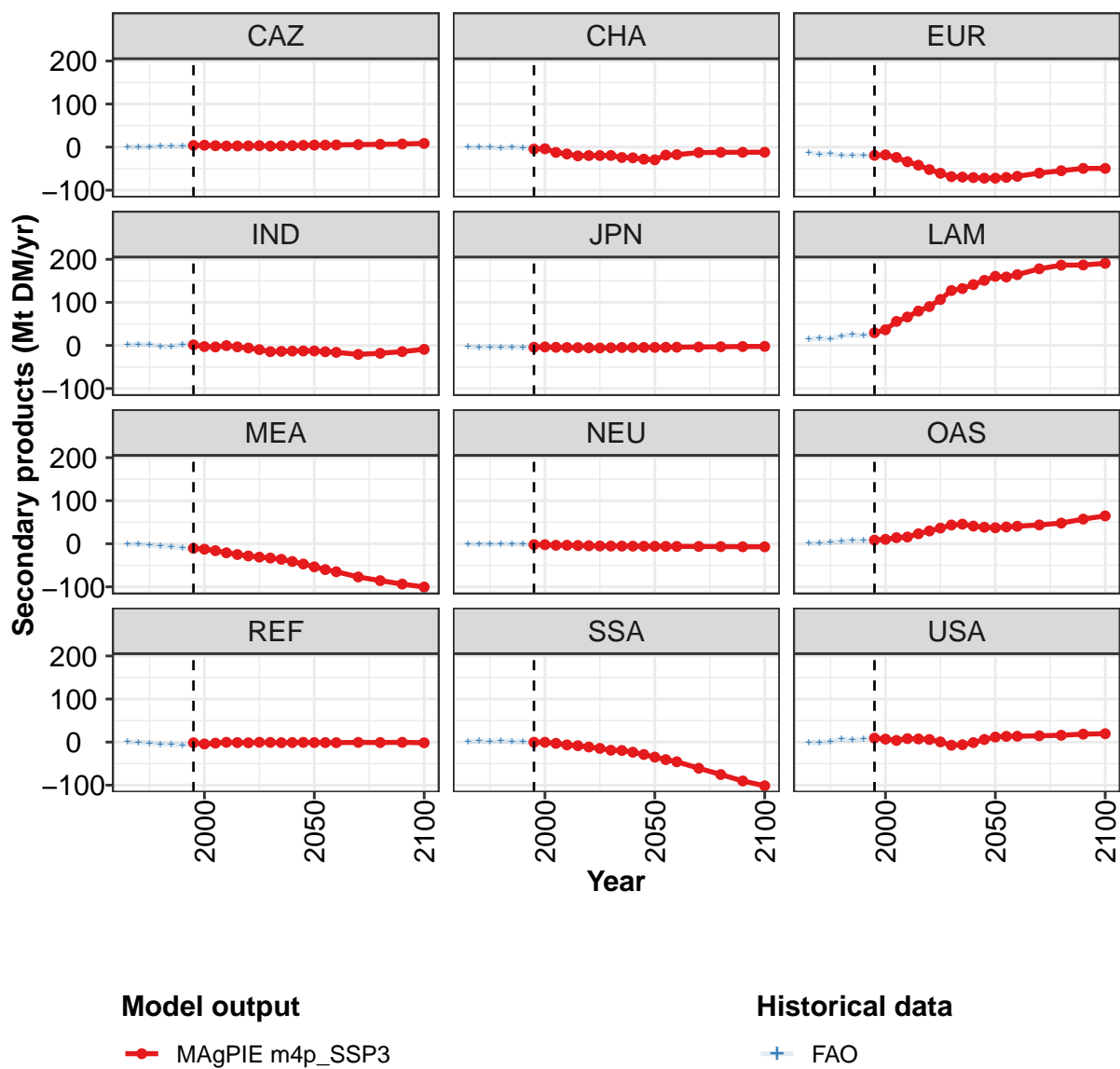


Figure 507: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	10	10	8	6	4	0	-0	0	-0	-0	0
CAZ	4	4	3	3	3	3	3	2	3	3	4
CHA	-4	-4	-12	-16	-20	-20	-20	-19	-24	-25	-28
EUR	-19	-18	-24	-34	-42	-52	-61	-69	-70	-71	-72
IND	1	-3	-3	-0	-3	-6	-10	-14	-14	-13	-13
JPN	-4	-3	-4	-5	-5	-5	-6	-6	-5	-5	-5
LAM	30	36	56	66	80	90	107	128	132	141	151
MEA	-10	-13	-16	-21	-25	-28	-31	-33	-36	-41	-47
NEU	-2	-2	-4	-3	-4	-5	-5	-5	-5	-6	-6
OAS	9	10	14	16	23	30	36	44	46	41	38
REF	-1	-4	-2	-1	-1	-2	-0	-1	-1	-1	-1
SSA	-0	-0	-3	-7	-8	-11	-15	-19	-19	-23	-29
USA	9	7	4	8	7	6	0	-7	-6	-1	6

Table 1920: MAGPIE m4p-SSP3 — Trade—Net-Trade—Secondary products (Mt DM/yr) [PART 1/2]

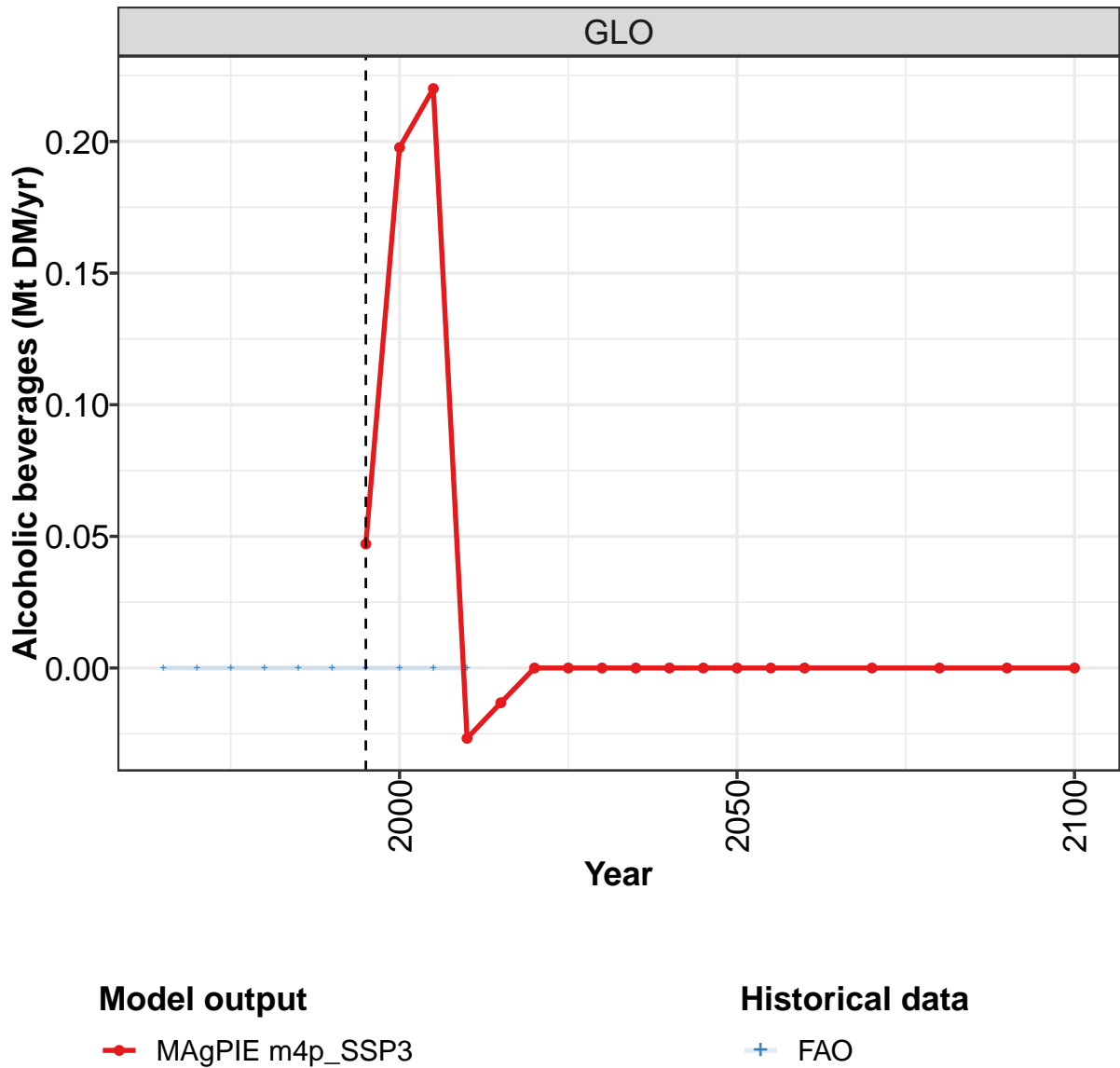
	2050	2055	2060	2070	2080	2090	2100
GLO	0	-0	0	0	0	-0	0
CAZ	5	5	5	6	6	7	9
CHA	-29	-19	-17	-13	-12	-12	-12
EUR	-72	-70	-68	-60	-55	-49	-49
IND	-13	-15	-16	-21	-18	-14	-9
JPN	-5	-4	-4	-4	-3	-3	-2
LAM	160	159	164	178	186	187	191
MEA	-54	-60	-65	-77	-86	-94	-100
NEU	-6	-6	-6	-6	-7	-7	-7
OAS	37	39	41	44	48	57	65
REF	-1	-1	-1	-1	-1	-1	-2
SSA	-35	-41	-46	-61	-75	-90	-102
USA	12	13	14	15	16	18	19

Table 1921: MAGPIE m4p-SSP3 — Trade—Net-Trade—Secondary products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAZ	0.2	0.8	0.9	1.7	1.6	2.2	3.3	4.0	2.1	2.2
CHA	0.4	-0.4	-0.8	-2.8	-0.2	-1.1	-4.8	-4.4	-12.7	-15.8
EUR	-13.4	-16.5	-15.7	-19.1	-19.3	-19.6	-21.8	-21.3	-28.1	-34.7
IND	1.7	2.5	2.7	-2.4	-2.8	2.1	5.5	-1.1	-3.8	0.0
JPN	-3.0	-4.6	-3.9	-4.0	-4.0	-4.5	-4.2	-3.6	-4.4	-4.8
LAM	13.9	16.7	15.5	22.3	24.9	23.0	26.9	33.6	57.7	62.8
MEA	-1.1	-0.8	-2.6	-4.7	-7.1	-9.7	-11.8	-13.7	-16.8	-21.8
NEU	-0.6	-0.6	-0.6	-0.3	-0.4	-1.2	-2.8	-3.2	-3.9	-3.9
OAS	1.3	2.0	4.0	5.4	6.9	7.6	5.1	8.6	12.0	15.7
REF	0.9	-0.7	-2.3	-5.0	-5.2	-7.2	-2.3	-5.2	-2.9	-1.2
SSA	1.3	2.7	1.8	2.1	1.3	1.2	-3.4	-2.7	-4.6	-8.4
USA	-1.4	-1.1	1.1	6.8	4.2	7.2	10.1	8.9	5.4	10.0

Table 1922: FAO — Trade—Net-Trade—Secondary products (Mt DM/yr)

58.4.1 Alcoholic beverages



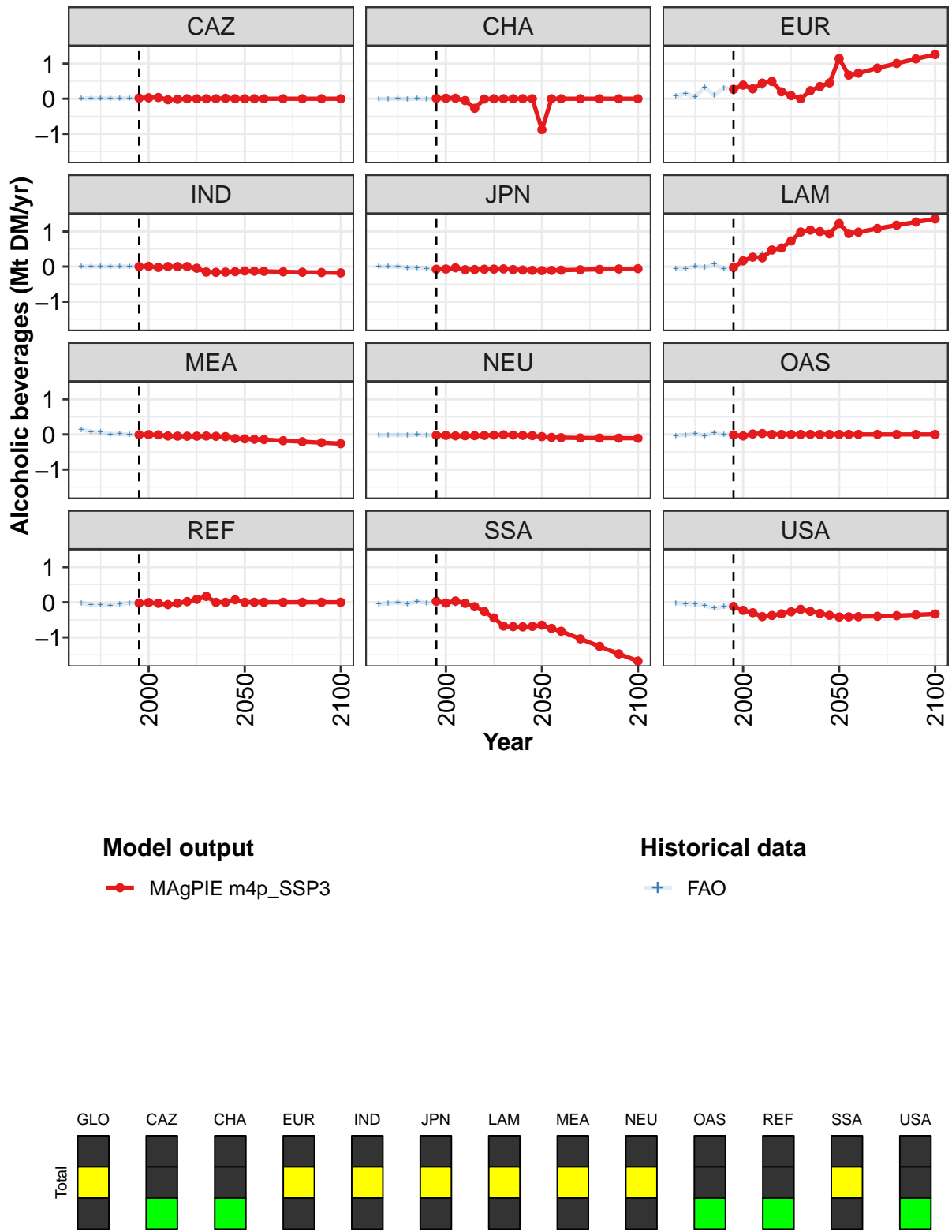


Figure 508: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Alcoholic beverages (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.05	0.20	0.22	-0.03	-0.01	-0.00	-0.00	0.00	0.00	0.00	0.00
CAZ	0.02	0.03	0.04	-0.03	-0.02	0.00	0.00	0.00	0.00	0.01	-0.00
CHA	0.01	0.01	0.01	-0.05	-0.27	-0.01	0.00	0.00	0.00	0.00	0.00
EUR	0.27	0.39	0.28	0.45	0.49	0.20	0.09	0.00	0.23	0.35	0.45
IND	0.00	0.01	-0.02	0.00	0.00	0.00	-0.05	-0.16	-0.16	-0.16	-0.14
JPN	-0.07	-0.07	-0.03	-0.09	-0.08	-0.07	-0.07	-0.07	-0.08	-0.10	-0.11
LAM	-0.02	0.17	0.27	0.25	0.47	0.53	0.73	0.99	1.04	1.00	0.94
MEA	-0.01	-0.01	-0.01	-0.04	-0.05	-0.05	-0.05	-0.04	-0.05	-0.06	-0.12
NEU	-0.02	-0.03	-0.04	-0.04	-0.03	-0.03	-0.02	-0.01	-0.02	-0.03	-0.03
OAS	-0.01	-0.04	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	-0.02	-0.01	-0.03	-0.07	-0.03	0.02	0.08	0.17	-0.00	0.00	0.07
SSA	0.03	-0.02	0.04	-0.03	-0.13	-0.26	-0.45	-0.68	-0.69	-0.70	-0.69
USA	-0.12	-0.23	-0.30	-0.41	-0.38	-0.33	-0.27	-0.20	-0.26	-0.32	-0.37

Table 1923: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Alcoholic beverages (Mt DM/yr)
[PART 1/2]

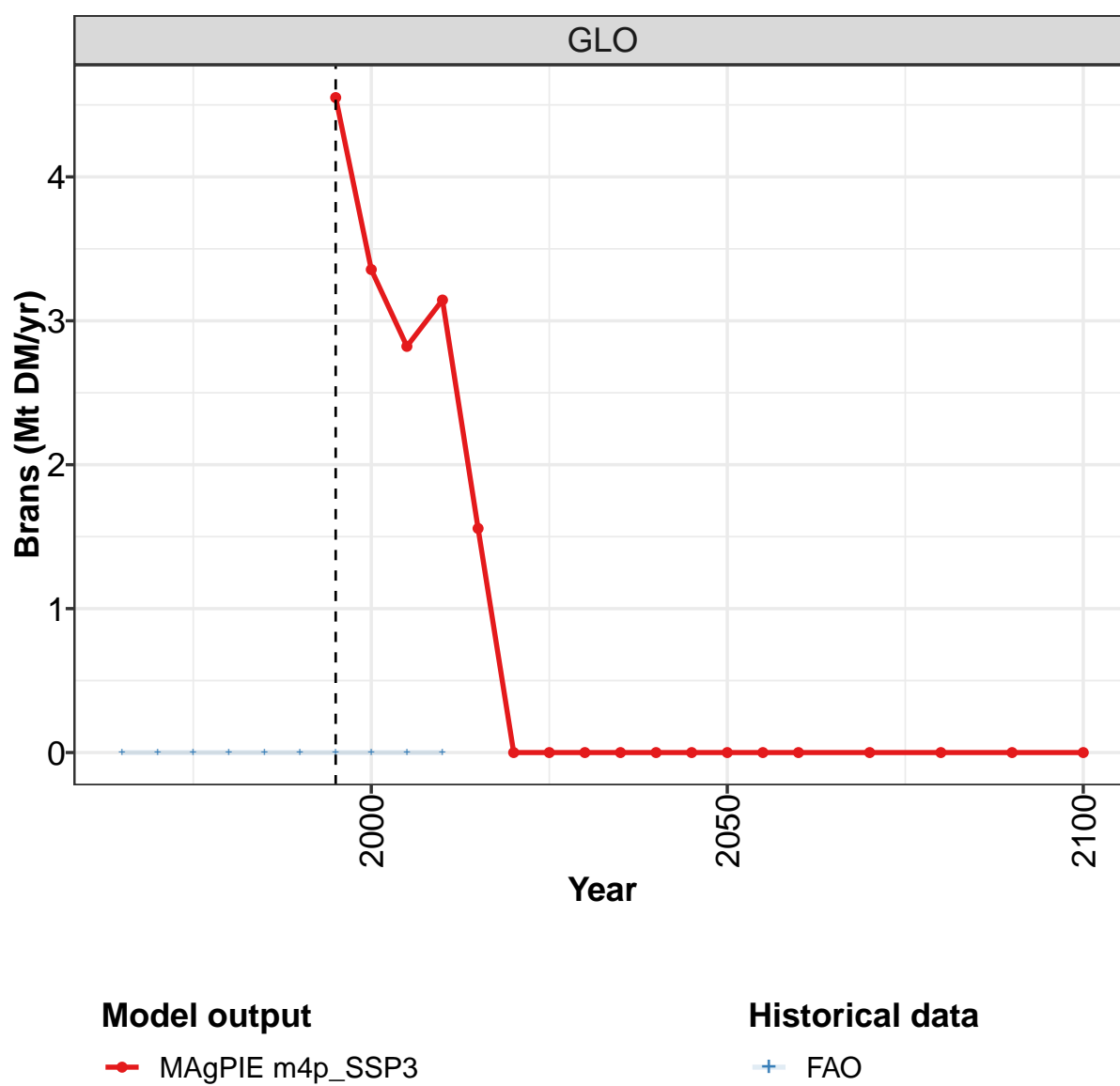
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	-0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	-0.88	0.00	0.00	0.00	0.00	0.00	0.00
EUR	1.15	0.67	0.73	0.87	1.01	1.14	1.26
IND	-0.12	-0.13	-0.13	-0.15	-0.16	-0.17	-0.18
JPN	-0.11	-0.11	-0.10	-0.09	-0.08	-0.07	-0.06
LAM	1.23	0.94	0.98	1.09	1.18	1.27	1.36
MEA	-0.12	-0.14	-0.15	-0.18	-0.21	-0.23	-0.26
NEU	-0.06	-0.08	-0.09	-0.10	-0.10	-0.11	-0.11
OAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	-0.65	-0.74	-0.83	-1.04	-1.26	-1.47	-1.68
USA	-0.42	-0.42	-0.41	-0.40	-0.38	-0.36	-0.33

Table 1924: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Alcoholic beverages (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAZ	0.005	0.012	0.016	0.014	0.014	0.018	0.022	0.020	0.038	-0.029
CHA	-0.006	-0.003	-0.001	-0.009	0.002	-0.003	-0.009	-0.013	-0.012	-0.029
EUR	0.079	0.145	0.056	0.325	0.100	0.309	0.299	0.426	0.205	0.343
IND	-0.001	-0.000	0.000	-0.001	0.001	0.002	0.001	0.006	-0.023	0.000
JPN	-0.001	-0.001	-0.004	-0.030	-0.031	-0.053	-0.078	-0.069	-0.033	-0.089
LAM	-0.054	-0.054	0.012	-0.022	0.062	-0.066	-0.036	0.088	0.318	0.364
MEA	0.141	0.077	0.057	0.007	0.020	-0.010	-0.011	-0.023	-0.030	-0.041
NEU	-0.025	-0.014	-0.014	-0.016	-0.008	-0.021	-0.026	-0.038	-0.054	-0.034
OAS	-0.037	-0.014	0.016	-0.037	0.042	-0.010	-0.020	-0.082	-0.018	0.001
REF	-0.024	-0.070	-0.075	-0.089	-0.058	-0.019	-0.027	-0.018	-0.036	-0.065
SSA	-0.060	-0.033	-0.006	-0.053	0.028	-0.020	-0.003	-0.060	-0.049	-0.026
USA	-0.019	-0.046	-0.057	-0.088	-0.171	-0.126	-0.112	-0.237	-0.305	-0.396

Table 1925: FAO — Trade—Net-Trade—Secondary products—Alcoholic beverages (Mt DM/yr)

58.4.2 Brans



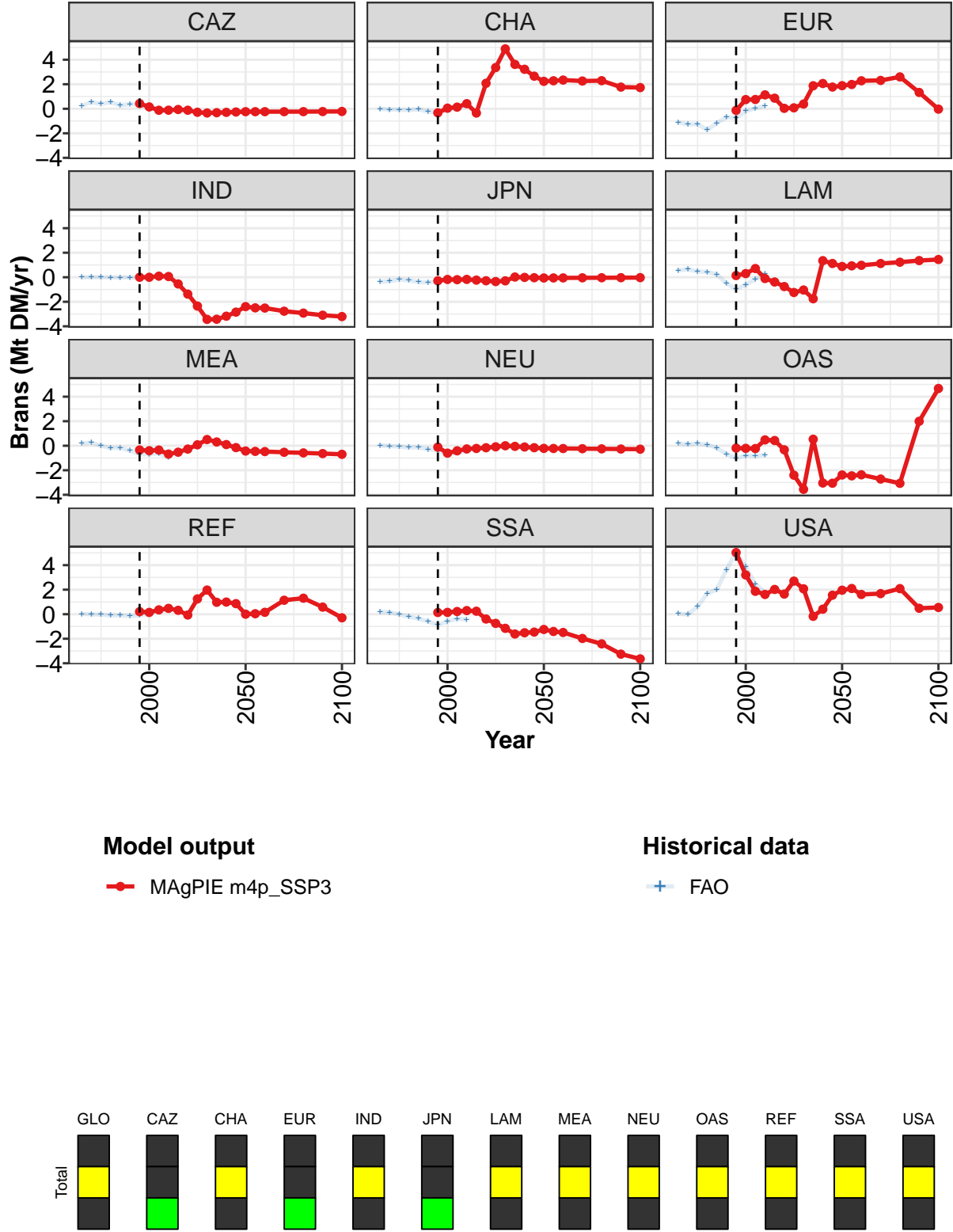


Figure 509: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.55	3.36	2.82	3.14	1.56	-0.00	-0.00	0.00	0.00	0.00	0.00
CAZ	0.42	0.15	-0.12	-0.11	-0.06	-0.12	-0.29	-0.34	-0.32	-0.29	-0.26
CHA	-0.33	0.05	0.13	0.42	-0.35	2.08	3.36	4.88	3.62	3.22	2.66
EUR	-0.13	0.75	0.76	1.13	0.86	0.03	0.08	0.38	1.88	2.06	1.77
IND	0.00	-0.00	0.09	0.06	-0.54	-1.37	-2.35	-3.44	-3.42	-3.18	-2.84
JPN	-0.29	-0.18	-0.20	-0.17	-0.23	-0.29	-0.35	-0.29	0.02	-0.01	-0.04
LAM	0.14	0.30	0.71	-0.10	-0.39	-0.76	-1.24	-1.04	-1.75	1.35	1.12
MEA	-0.34	-0.40	-0.35	-0.68	-0.53	-0.27	0.08	0.51	0.31	0.09	-0.15
NEU	-0.12	-0.60	-0.41	-0.26	-0.22	-0.16	-0.09	0.00	-0.05	-0.10	-0.16
OAS	-0.19	-0.21	-0.23	0.48	0.43	-0.33	-2.40	-3.56	0.53	-3.04	-3.05
REF	0.21	0.15	0.36	0.48	0.32	-0.06	1.25	1.97	0.98	0.99	0.86
SSA	0.14	0.15	0.22	0.30	0.24	-0.39	-0.75	-1.15	-1.61	-1.51	-1.46
USA	5.03	3.20	1.87	1.61	2.02	1.64	2.70	2.07	-0.17	0.41	1.55

Table 1926: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Brans (Mt DM/yr) [PART 1/2]

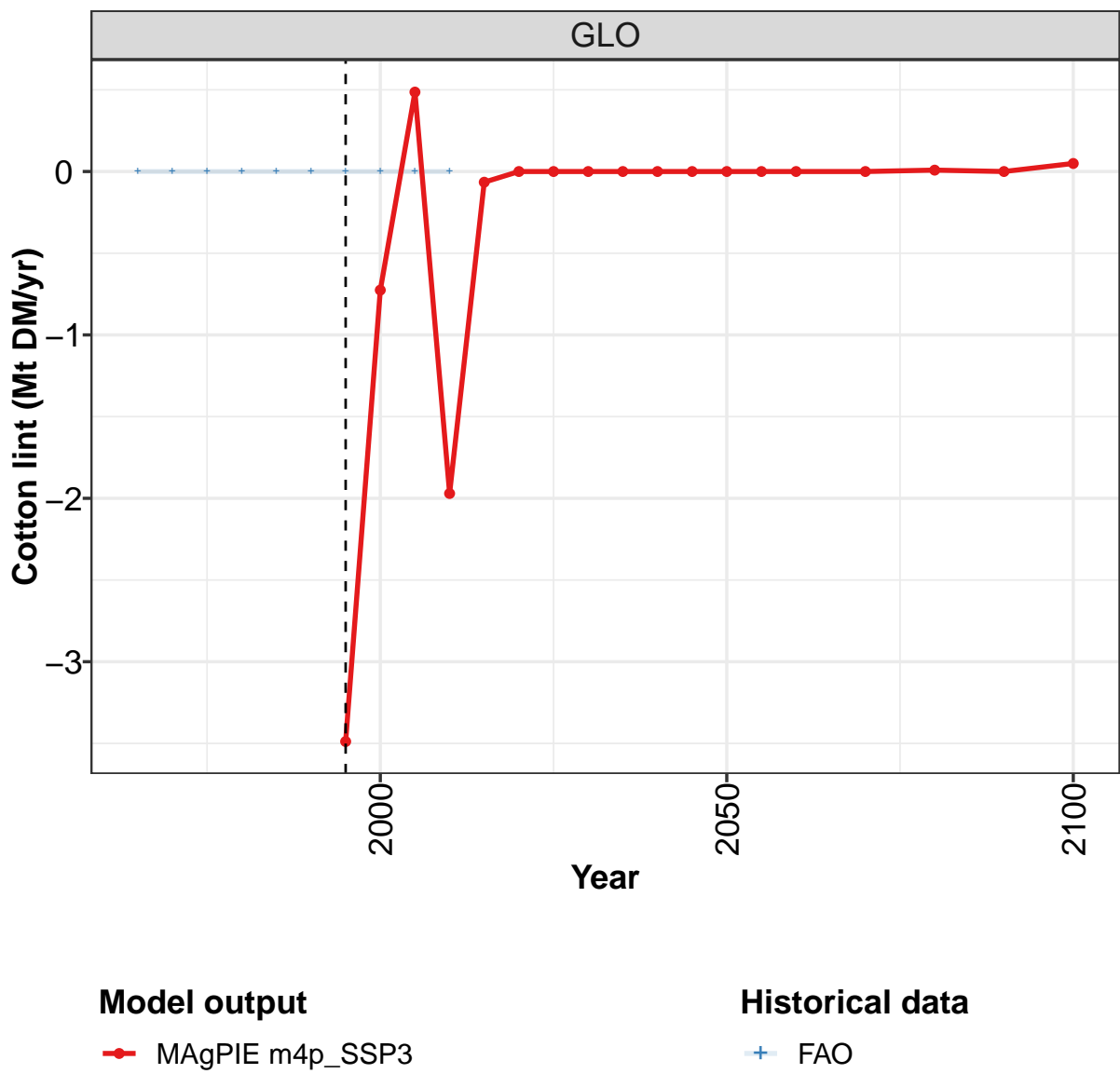
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	-0.24	-0.24	-0.24	-0.24	-0.23	-0.23	-0.22
CHA	2.24	2.28	2.34	2.26	2.29	1.77	1.73
EUR	1.88	1.98	2.28	2.31	2.60	1.33	-0.03
IND	-2.39	-2.50	-2.51	-2.77	-2.92	-3.10	-3.20
JPN	-0.06	-0.06	-0.05	-0.05	-0.04	-0.03	-0.03
LAM	0.88	0.93	0.97	1.12	1.23	1.36	1.45
MEA	-0.43	-0.46	-0.48	-0.53	-0.58	-0.64	-0.70
NEU	-0.22	-0.22	-0.23	-0.24	-0.25	-0.27	-0.28
OAS	-2.38	-2.45	-2.37	-2.71	-3.06	1.99	4.67
REF	0.01	0.04	0.16	1.14	1.31	0.58	-0.29
SSA	-1.24	-1.41	-1.49	-1.98	-2.42	-3.25	-3.64
USA	1.96	2.10	1.61	1.68	2.09	0.49	0.55

Table 1927: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Brans (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.26	0.54	0.39	0.54	0.28	0.39	0.31	0.05	-0.17	-0.17
CHA	-0.01	-0.06	-0.08	-0.11	-0.04	-0.24	-0.28	-0.12	0.00	0.34
EUR	-1.11	-1.28	-1.25	-1.73	-1.16	-0.69	-0.76	-0.19	0.04	0.23
IND	0.00	0.01	-0.00	-0.01	-0.02	-0.02	-0.02	-0.00	0.10	0.04
JPN	-0.37	-0.32	-0.19	-0.25	-0.39	-0.44	-0.30	-0.20	-0.21	-0.19
LAM	0.57	0.64	0.47	0.42	0.25	-0.51	-0.95	-0.61	-0.16	0.29
MEA	0.18	0.26	-0.00	-0.19	-0.17	-0.40	-0.71	-0.67	-0.61	-0.97
NEU	0.03	-0.02	-0.07	-0.14	-0.14	-0.29	-0.39	-0.73	-0.57	-0.46
OAS	0.17	0.12	0.17	0.09	-0.18	-0.67	-1.03	-0.81	-0.85	-0.73
REF	0.02	-0.02	-0.03	-0.09	-0.09	-0.16	-0.09	0.01	0.33	0.31
SSA	0.21	0.15	-0.02	-0.20	-0.35	-0.61	-0.86	-0.58	-0.36	-0.44
USA	0.04	-0.02	0.61	1.68	2.02	3.61	5.07	3.86	2.46	1.75

Table 1928: FAO — Trade—Net-Trade—Secondary products—Brans (Mt DM/yr)

58.4.3 Cotton lint



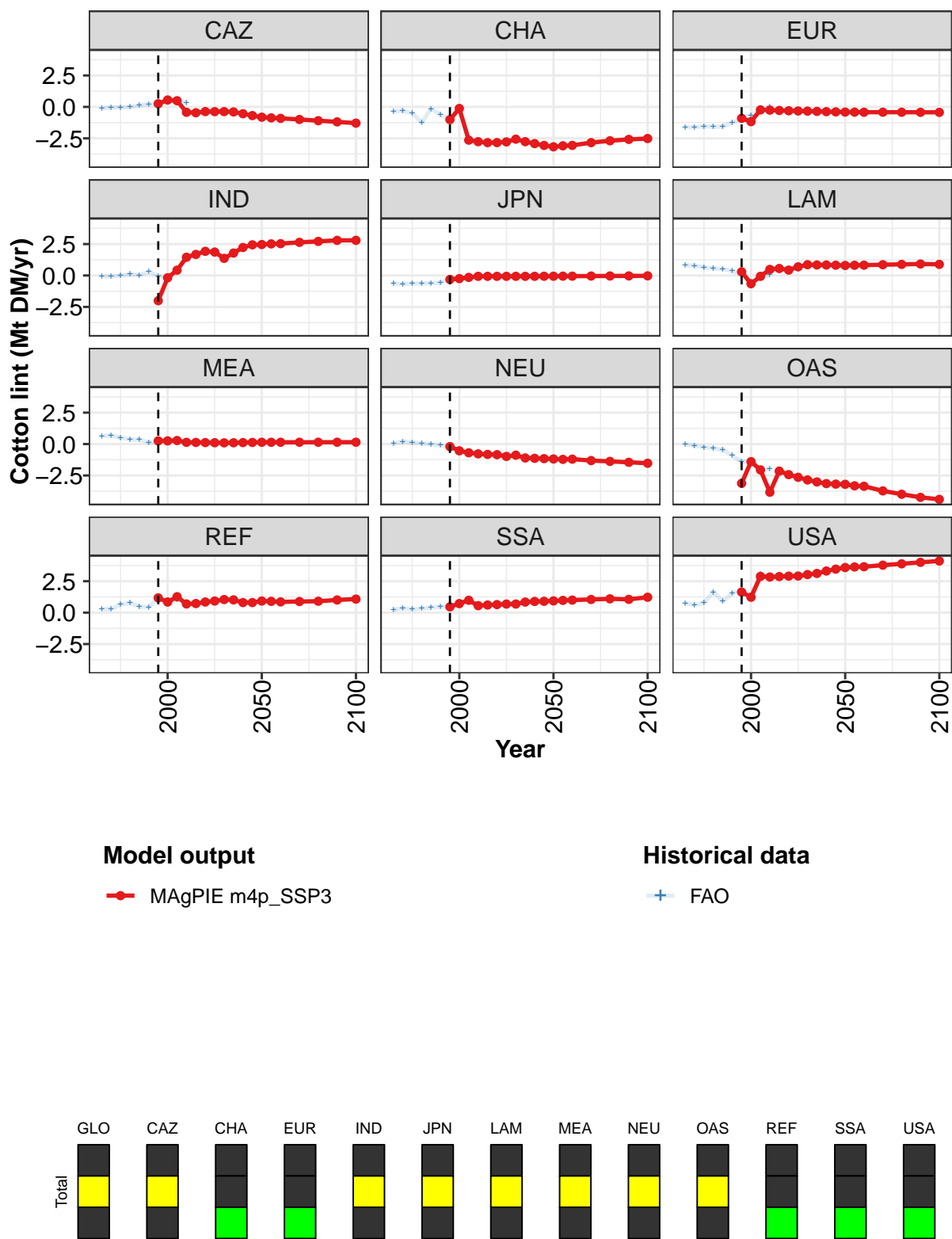


Figure 510: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Cotton lint (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-3.49	-0.73	0.49	-1.97	-0.07	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.25	0.55	0.49	-0.43	-0.46	-0.37	-0.38	-0.37	-0.40	-0.54	-0.69
CHA	-1.01	-0.12	-2.64	-2.77	-2.84	-2.84	-2.78	-2.57	-2.76	-2.92	-3.06
EUR	-0.90	-1.17	-0.24	-0.26	-0.28	-0.31	-0.32	-0.33	-0.36	-0.38	-0.40
IND	-2.01	-0.18	0.42	1.45	1.68	1.92	1.86	1.36	1.79	2.23	2.44
JPN	-0.31	-0.25	-0.15	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.06	-0.06
LAM	0.29	-0.66	-0.07	0.48	0.56	0.43	0.69	0.86	0.84	0.83	0.82
MEA	0.25	0.25	0.28	0.14	0.13	0.12	0.11	0.10	0.10	0.12	0.13
NEU	-0.20	-0.54	-0.69	-0.78	-0.82	-0.84	-0.98	-0.88	-1.10	-1.13	-1.16
OAS	-3.12	-1.40	-2.06	-3.83	-2.15	-2.43	-2.64	-2.85	-3.01	-3.15	-3.19
REF	1.18	0.84	1.27	0.69	0.72	0.84	0.92	1.04	1.02	0.80	0.80
SSA	0.46	0.72	0.98	0.55	0.61	0.64	0.68	0.68	0.84	0.89	0.90
USA	1.64	1.22	2.88	2.84	2.87	2.90	2.91	3.03	3.12	3.31	3.46

Table 1929: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Cotton lint (Mt DM/yr) [PART 1/2]

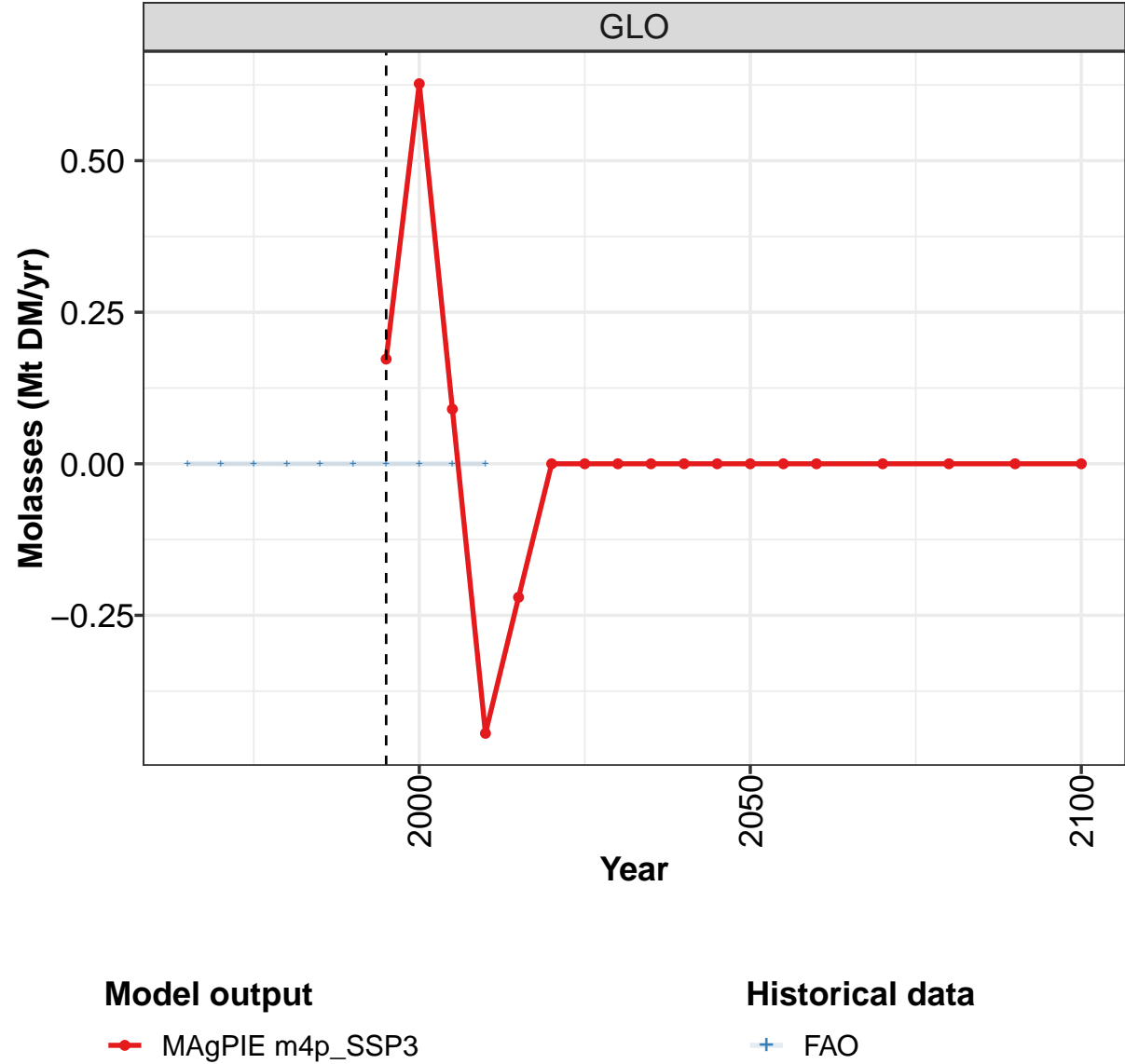
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	0.01	0.00	0.05
CAZ	-0.82	-0.87	-0.91	-1.00	-1.10	-1.19	-1.29
CHA	-3.17	-3.09	-3.06	-2.84	-2.69	-2.58	-2.52
EUR	-0.41	-0.41	-0.42	-0.42	-0.42	-0.43	-0.43
IND	2.46	2.51	2.53	2.64	2.71	2.80	2.80
JPN	-0.06	-0.05	-0.05	-0.04	-0.04	-0.03	-0.03
LAM	0.80	0.81	0.82	0.86	0.88	0.91	0.89
MEA	0.14	0.14	0.14	0.14	0.14	0.15	0.15
NEU	-1.18	-1.22	-1.20	-1.31	-1.38	-1.45	-1.52
OAS	-3.20	-3.32	-3.36	-3.73	-3.99	-4.24	-4.40
REF	0.92	0.90	0.86	0.88	0.91	1.01	1.08
SSA	0.94	0.97	1.00	1.05	1.10	1.06	1.22
USA	3.59	3.63	3.65	3.78	3.88	4.00	4.11

Table 1930: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Cotton lint (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	-0.12	-0.05	-0.04	-0.01	0.14	0.23	0.22	0.58	0.51	0.35
CHA	-0.36	-0.32	-0.50	-1.23	-0.16	-0.62	-1.02	-0.12	-2.62	-2.76
EUR	-1.60	-1.62	-1.54	-1.58	-1.56	-1.27	-0.92	-0.66	-0.30	0.04
IND	-0.07	-0.09	-0.01	0.10	0.03	0.30	-0.04	-0.18	0.46	1.38
JPN	-0.63	-0.69	-0.62	-0.65	-0.61	-0.56	-0.31	-0.25	-0.15	-0.07
LAM	0.83	0.78	0.65	0.55	0.51	0.37	0.05	-0.58	-0.17	0.04
MEA	0.64	0.68	0.52	0.36	0.36	0.12	0.16	0.24	0.17	0.01
NEU	0.07	0.20	0.14	0.07	-0.02	-0.09	-0.21	-0.50	-0.71	-0.77
OAS	-0.01	-0.13	-0.27	-0.34	-0.46	-0.92	-1.43	-1.35	-2.14	-1.96
REF	0.28	0.28	0.64	0.77	0.48	0.44	1.20	0.66	1.05	0.57
SSA	0.22	0.37	0.26	0.32	0.40	0.48	0.48	0.80	0.85	0.50
USA	0.76	0.60	0.77	1.64	0.89	1.53	1.84	1.36	3.05	2.67

Table 1931: FAO — Trade—Net-Trade—Secondary products—Cotton lint (Mt DM/yr)

58.4.4 Molasses



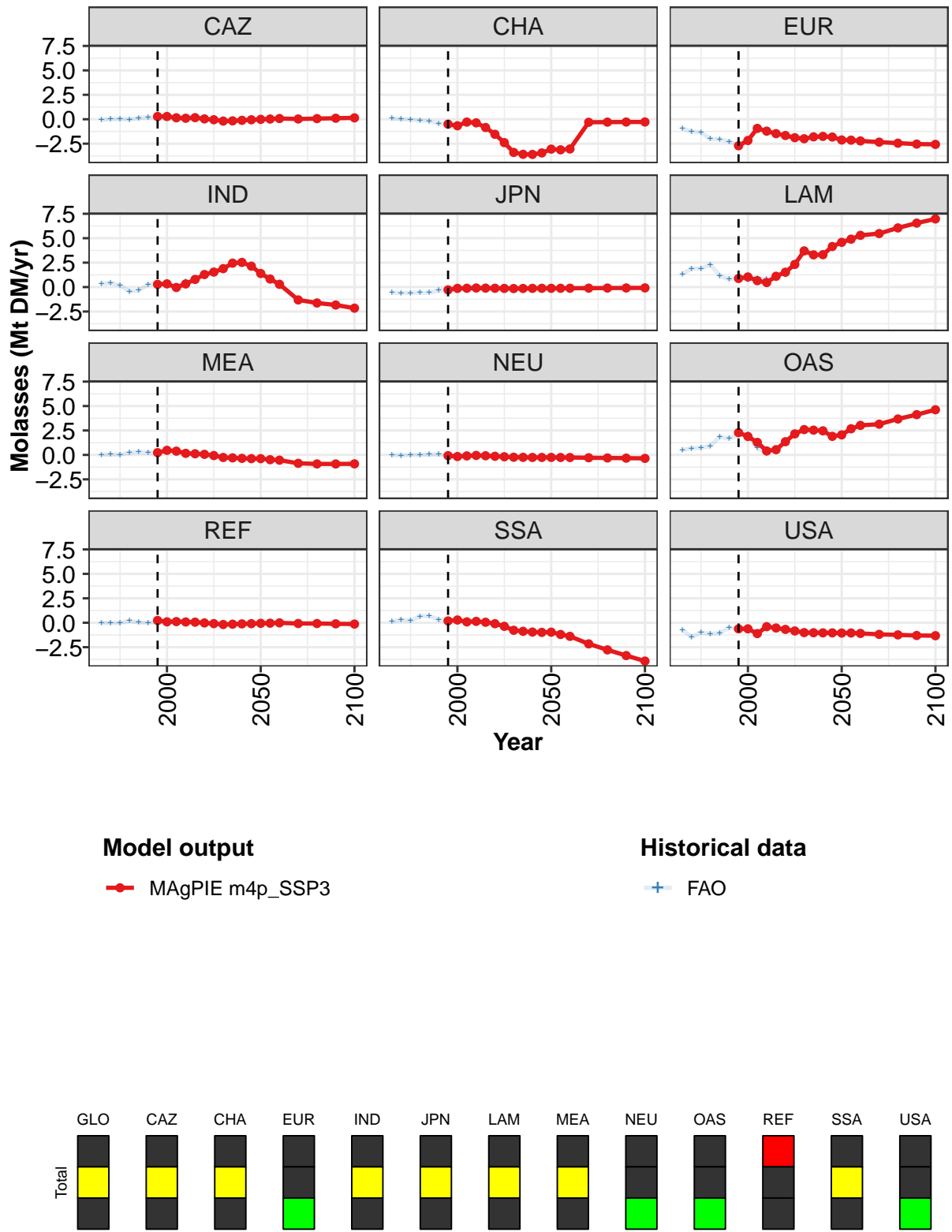


Figure 511: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Molasses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.17	0.63	0.09	-0.44	-0.22	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	0.28	0.28	0.15	0.10	0.16	0.03	-0.05	-0.19	-0.16	-0.11	-0.05
CHA	-0.50	-0.67	-0.29	-0.37	-0.85	-1.54	-2.39	-3.40	-3.59	-3.60	-3.45
EUR	-2.71	-2.17	-0.93	-1.22	-1.47	-1.66	-1.89	-2.00	-1.80	-1.76	-1.82
IND	0.28	0.33	-0.04	0.32	0.78	1.29	1.54	1.89	2.45	2.52	2.14
JPN	-0.28	-0.13	-0.12	-0.09	-0.11	-0.12	-0.14	-0.15	-0.14	-0.13	-0.12
LAM	0.88	1.04	0.66	0.47	1.10	1.52	2.32	3.70	3.30	3.32	4.15
MEA	0.23	0.47	0.39	0.16	0.12	0.06	-0.06	-0.26	-0.30	-0.35	-0.38
NEU	-0.08	-0.16	-0.10	-0.05	-0.08	-0.14	-0.19	-0.24	-0.25	-0.26	-0.26
OAS	2.28	1.89	1.28	0.41	0.54	1.35	2.15	2.59	2.54	2.46	1.90
REF	0.23	0.09	0.12	0.08	0.06	-0.02	-0.09	-0.18	-0.15	-0.12	-0.09
SSA	0.19	0.28	0.09	0.14	0.05	-0.09	-0.36	-0.77	-0.88	-0.95	-0.98
USA	-0.62	-0.62	-1.11	-0.40	-0.53	-0.68	-0.84	-1.01	-1.02	-1.03	-1.03

Table 1932: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

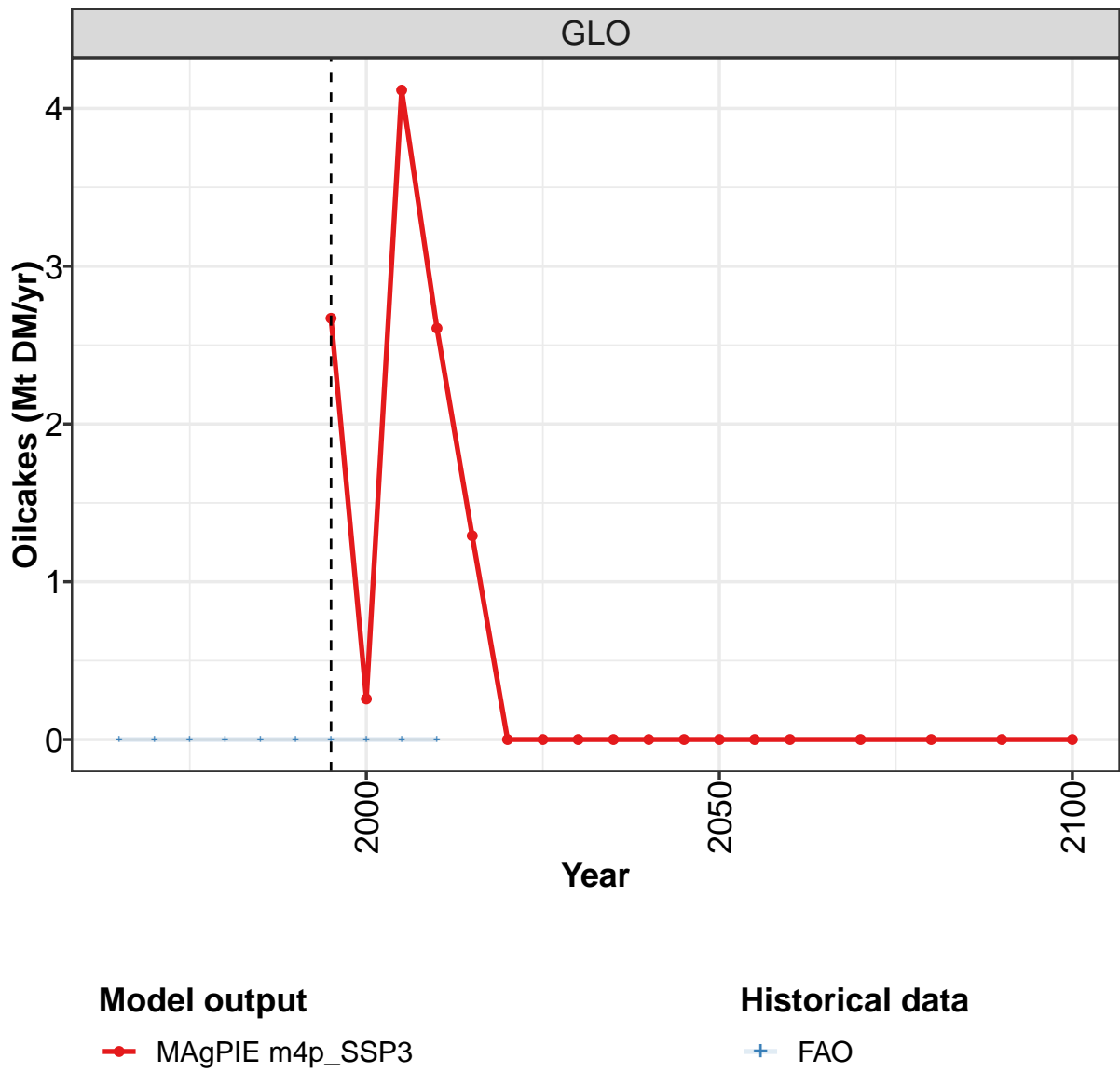
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	-0.00	0.00	-0.00	0.00	-0.00	0.00
CAZ	-0.01	0.02	0.07	0.03	0.07	0.10	0.14
CHA	-3.06	-3.13	-3.04	-0.31	-0.29	-0.28	-0.28
EUR	-2.12	-2.14	-2.22	-2.34	-2.45	-2.54	-2.57
IND	1.39	0.82	0.28	-1.31	-1.63	-1.83	-2.16
JPN	-0.13	-0.12	-0.12	-0.11	-0.10	-0.09	-0.08
LAM	4.58	4.90	5.29	5.48	6.05	6.54	6.97
MEA	-0.38	-0.49	-0.53	-0.86	-0.92	-0.92	-0.91
NEU	-0.25	-0.26	-0.27	-0.29	-0.31	-0.33	-0.35
OAS	2.05	2.67	3.02	3.15	3.68	4.12	4.62
REF	-0.06	-0.04	-0.01	-0.08	-0.08	-0.11	-0.13
SSA	-0.96	-1.20	-1.39	-2.16	-2.77	-3.36	-3.92
USA	-1.05	-1.04	-1.09	-1.19	-1.24	-1.30	-1.32

Table 1933: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Molasses (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAZ	-0.08	0.01	0.02	-0.03	0.13	0.21	0.17	0.08	0.09	0.04
CHA	0.08	0.01	-0.03	-0.13	-0.19	-0.44	-0.51	-0.69	-0.30	-0.37
EUR	-0.97	-1.27	-1.36	-2.02	-2.05	-2.27	-2.66	-2.14	-0.87	-1.15
IND	0.32	0.44	0.17	-0.45	-0.34	0.27	0.33	0.29	-0.05	0.57
JPN	-0.55	-0.61	-0.60	-0.57	-0.57	-0.35	-0.28	-0.14	-0.12	-0.09
LAM	1.32	1.91	1.90	2.30	1.16	0.78	0.99	0.77	0.93	0.80
MEA	0.02	0.04	0.04	0.25	0.31	0.24	0.23	0.39	0.51	0.17
NEU	-0.02	-0.06	-0.02	0.01	0.04	0.06	-0.08	-0.19	-0.10	-0.02
OAS	0.51	0.68	0.74	0.92	1.84	1.67	2.08	2.06	0.74	0.15
REF	-0.03	-0.03	-0.04	0.20	0.03	0.00	0.06	0.01	0.17	0.17
SSA	0.12	0.34	0.19	0.66	0.69	0.31	0.31	0.17	0.10	0.16
USA	-0.72	-1.46	-1.00	-1.13	-1.04	-0.48	-0.63	-0.62	-1.10	-0.42

Table 1934: FAO — Trade—Net-Trade—Secondary products—Molasses (Mt DM/yr)

58.4.5 Oilcakes



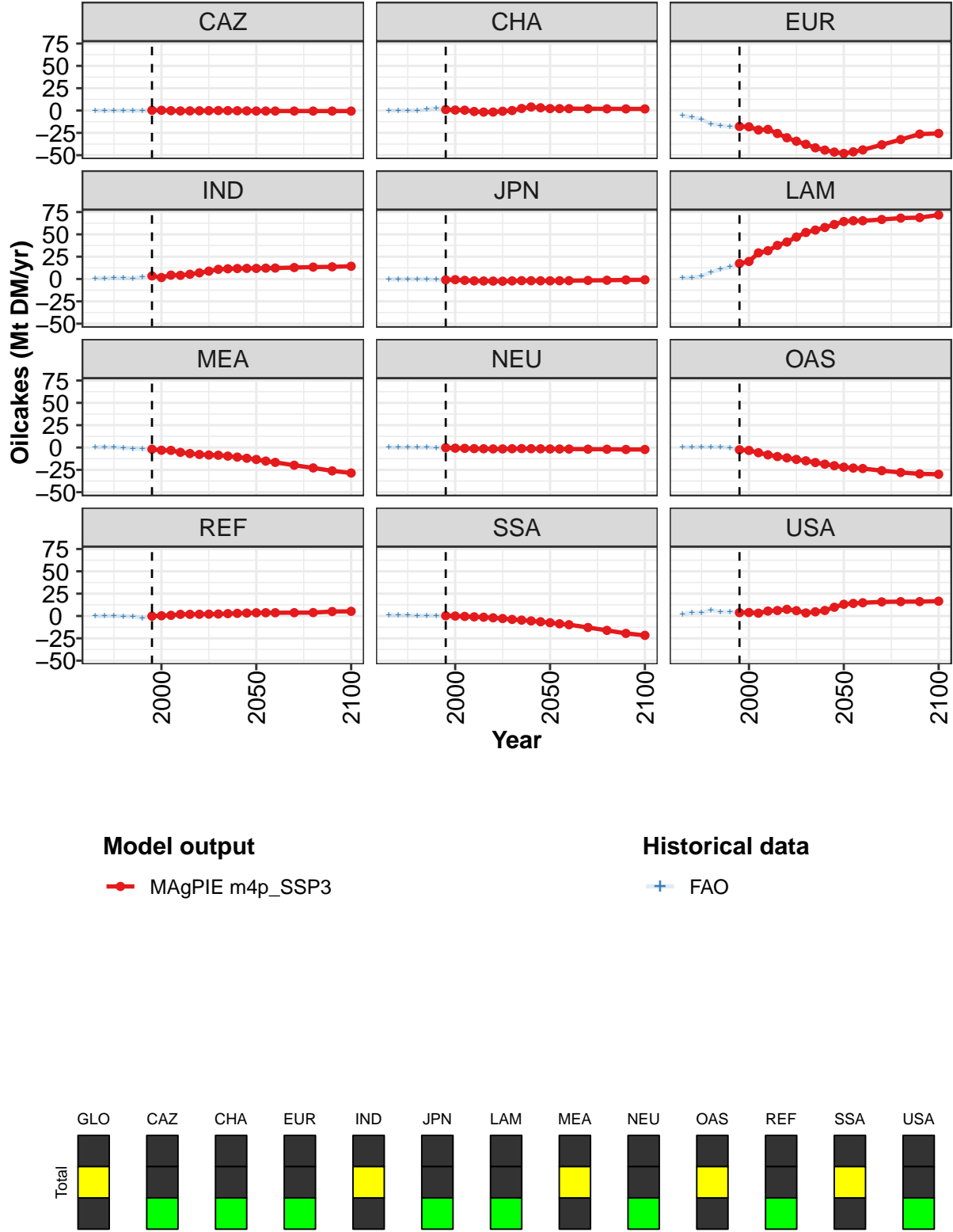


Figure 512: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Oilcakes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.7	0.3	4.1	2.6	1.3	0.0	0.0	-0.0	-0.0	-0.0	0.0
CAZ	0.3	0.3	-0.2	-0.5	-0.4	-0.3	-0.2	-0.0	-0.1	-0.2	-0.4
CHA	1.1	0.6	0.4	-1.1	-1.7	-1.7	-0.8	0.0	2.3	4.0	3.1
EUR	-17.8	-18.2	-21.7	-21.1	-25.7	-30.5	-34.3	-37.8	-41.7	-44.3	-46.5
IND	3.5	1.7	4.3	4.1	5.3	6.9	8.8	10.9	11.4	11.8	11.9
JPN	-0.9	-0.7	-1.5	-2.1	-2.2	-2.3	-2.5	-2.1	-1.8	-1.9	-2.0
LAM	17.4	19.7	29.3	31.7	37.6	41.4	47.0	52.1	54.8	57.7	61.0
MEA	-1.9	-3.1	-3.2	-5.4	-6.7	-7.8	-8.4	-8.6	-9.6	-10.7	-12.0
NEU	-0.2	-0.8	-0.9	-1.2	-1.4	-1.6	-1.6	-1.4	-1.2	-1.3	-1.5
OAS	-2.5	-3.3	-5.8	-8.2	-10.1	-11.6	-13.3	-14.9	-16.8	-18.6	-20.4
REF	-0.2	0.3	0.8	1.8	1.9	2.0	2.1	2.2	2.6	3.0	3.3
SSA	0.3	-0.1	-0.5	-1.0	-1.4	-2.0	-2.8	-3.8	-4.6	-5.5	-6.5
USA	3.7	3.9	3.2	5.5	6.1	7.4	6.0	3.4	4.7	6.2	9.8

Table 1935: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Oilcakes (Mt DM/yr) [PART 1/2]

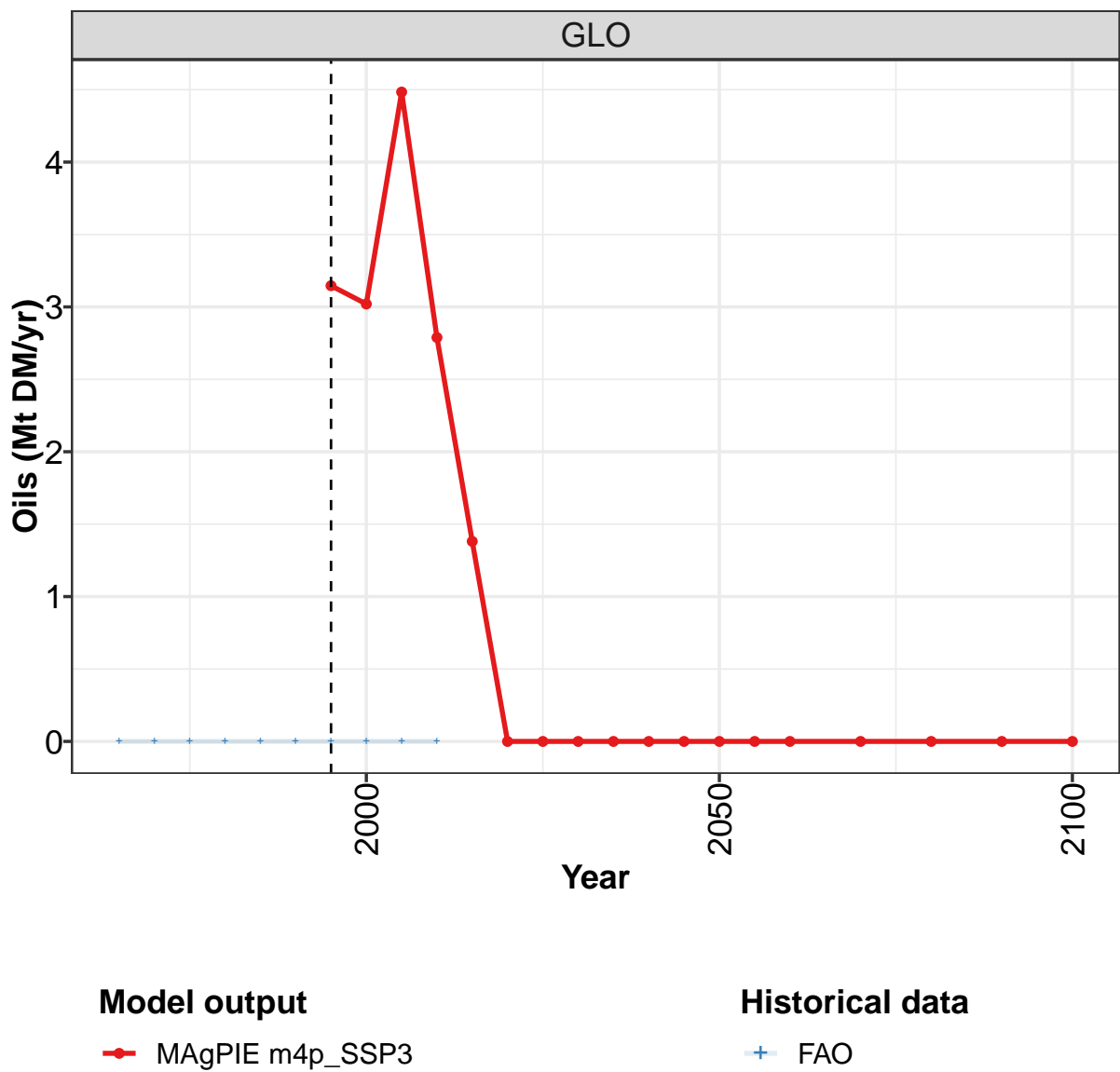
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	-0.0	0.0	0.0	0.0	-0.0	0.0
CAZ	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6
CHA	2.2	2.1	2.1	2.0	1.9	1.8	1.8
EUR	-48.0	-46.2	-44.1	-38.3	-32.5	-26.4	-25.6
IND	11.9	12.2	12.3	12.8	13.3	13.7	14.3
JPN	-2.0	-1.9	-1.8	-1.6	-1.4	-1.0	-0.9
LAM	64.4	65.2	65.2	66.7	68.2	68.8	71.7
MEA	-13.4	-15.2	-16.6	-19.8	-22.9	-26.1	-28.6
NEU	-1.6	-1.7	-1.7	-1.9	-2.0	-2.2	-2.2
OAS	-22.0	-23.0	-23.5	-25.9	-28.0	-29.5	-30.0
REF	3.6	3.6	3.6	3.7	3.8	5.0	5.2
SSA	-7.5	-8.7	-9.8	-12.9	-16.1	-19.5	-21.7
USA	13.1	14.1	14.8	15.8	16.0	16.1	16.6

Table 1936: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Oilcakes (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAZ	0.0	-0.1	-0.2	-0.1	-0.3	-0.2	-0.0	0.3	-0.2	-0.5
CHA	0.0	0.0	0.0	0.0	1.3	2.7	0.8	0.3	-0.0	-1.0
EUR	-5.6	-7.7	-9.7	-15.0	-16.6	-18.2	-18.0	-18.2	-22.0	-21.1
IND	0.8	1.0	1.1	1.0	0.9	2.3	4.0	2.0	4.0	4.6
JPN	-0.1	-0.3	-0.1	-0.3	-0.2	-0.7	-0.9	-0.7	-1.5	-2.0
LAM	1.4	1.8	3.5	7.5	10.9	13.5	16.4	19.1	28.5	29.7
MEA	0.3	0.4	0.2	-0.3	-1.1	-1.7	-2.2	-3.1	-3.6	-5.8
NEU	-0.1	0.0	0.2	-0.0	0.0	-0.1	-0.4	-0.7	-1.2	-1.4
OAS	0.5	0.5	0.7	0.6	0.7	-0.3	-3.1	-3.4	-6.7	-9.0
REF	0.0	-0.0	-0.0	-0.4	-0.4	-2.3	-0.3	0.2	0.5	1.6
SSA	0.6	0.7	0.6	0.3	0.3	0.4	-0.5	-0.1	-1.3	-1.5
USA	2.2	3.8	3.5	6.8	4.5	4.6	4.1	4.3	3.5	6.5

Table 1937: FAO — Trade—Net-Trade—Secondary products—Oilcakes (Mt DM/yr)

58.4.6 Oils



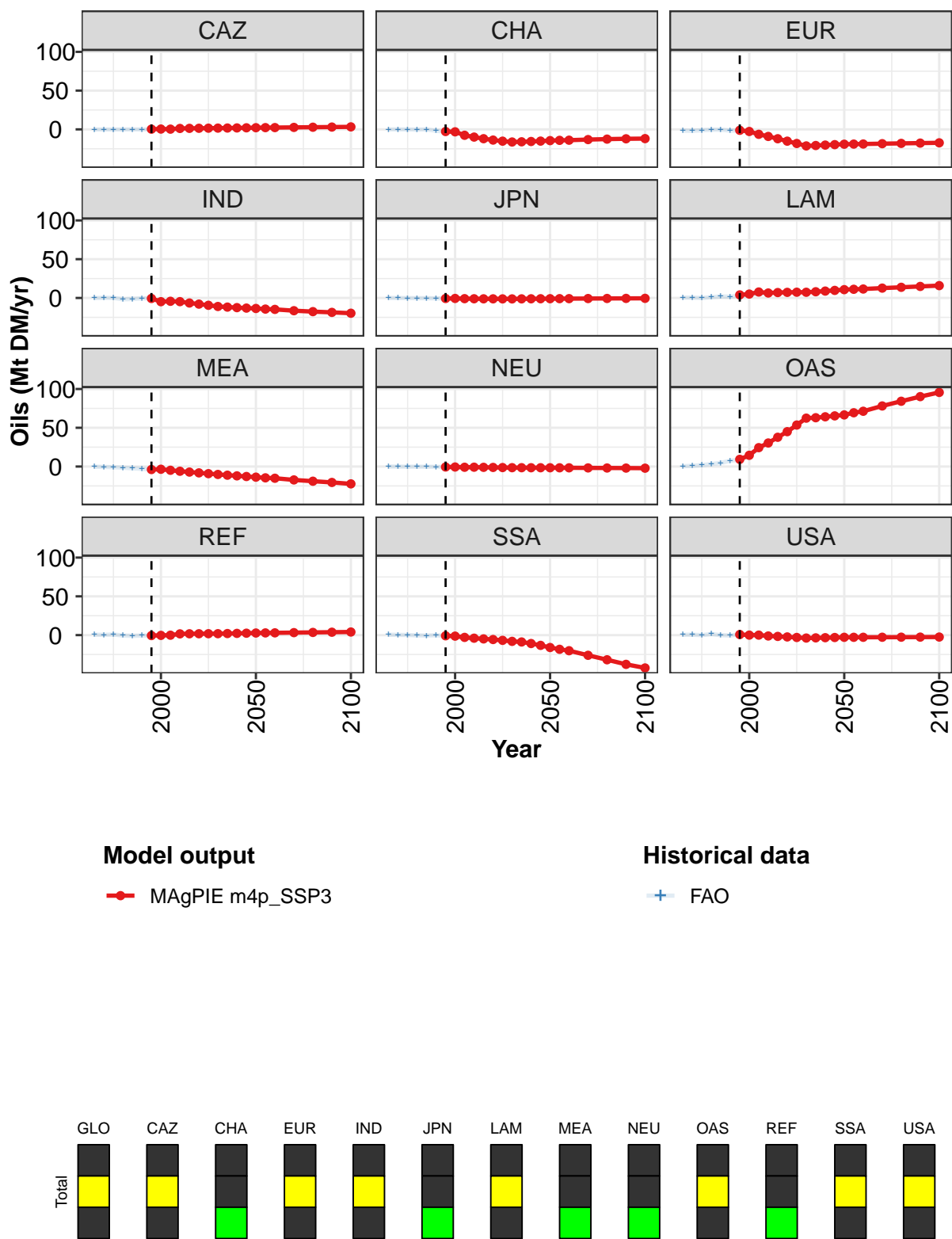


Figure 513: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.1	3.0	4.5	2.8	1.4	0.0	0.0	-0.0	-0.0	0.0	-0.0
CAZ	0.3	0.4	0.3	1.2	1.3	1.4	1.6	1.7	1.8	1.9	2.0
CHA	-2.7	-3.1	-7.6	-9.9	-12.0	-13.8	-15.2	-16.2	-16.0	-15.6	-15.1
EUR	-1.2	-2.7	-6.3	-9.1	-12.0	-15.2	-18.2	-21.3	-20.8	-20.2	-19.7
IND	-0.7	-4.8	-4.3	-4.7	-6.5	-7.9	-9.4	-11.0	-11.8	-12.5	-13.1
JPN	-0.7	-0.6	-0.9	-1.0	-1.1	-1.1	-1.2	-1.2	-1.2	-1.1	-1.0
LAM	3.9	5.0	7.7	6.4	7.0	7.2	7.4	7.4	8.0	8.9	9.8
MEA	-3.9	-3.5	-4.8	-6.1	-7.2	-8.2	-9.2	-10.2	-11.2	-12.0	-12.9
NEU	-0.6	-0.6	-0.9	-0.9	-1.0	-1.2	-1.3	-1.5	-1.5	-1.5	-1.6
OAS	9.3	14.5	24.4	30.4	37.8	45.0	53.5	62.4	63.0	64.2	65.4
REF	-0.6	-0.3	-0.1	1.6	1.7	1.8	1.8	1.8	2.0	2.2	2.5
SSA	-0.9	-1.3	-2.9	-4.0	-4.9	-5.7	-6.8	-8.1	-8.8	-10.9	-13.2
USA	0.8	0.0	0.0	-1.1	-1.7	-2.4	-3.0	-3.8	-3.6	-3.3	-3.1

Table 1938: MAgPIE m4p-SSP3 — Trade—Net-Trade—Secondary products—Oils (Mt DM/yr) [PART 1/2]

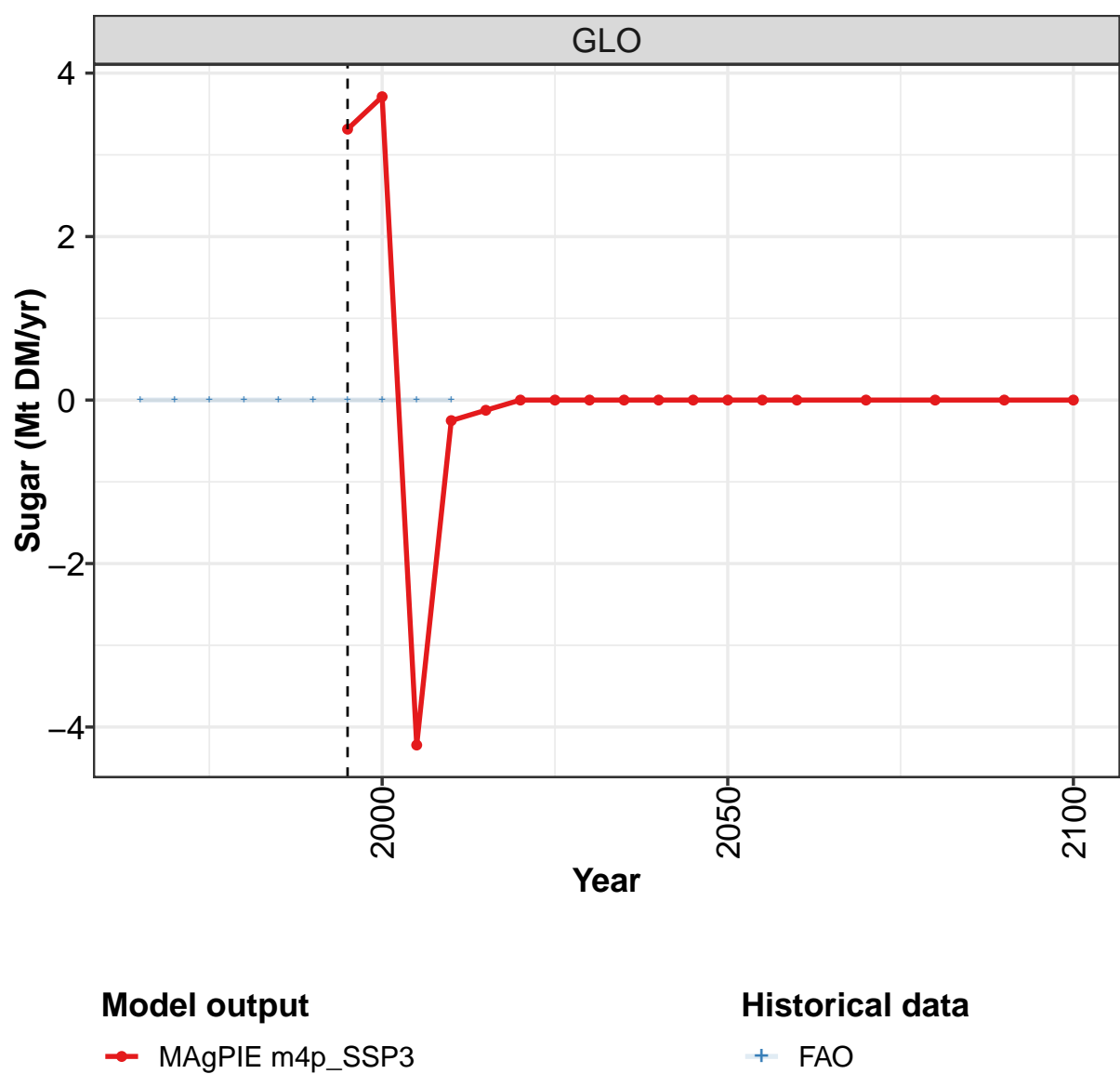
	2050	2055	2060	2070	2080	2090	2100
GLO	-0.0	0.0	0.0	-0.0	-0.0	0.0	0.0
CAZ	2.2	2.3	2.3	2.6	2.8	3.0	3.2
CHA	-14.5	-14.1	-13.9	-13.1	-12.6	-12.1	-11.9
EUR	-19.1	-19.0	-18.9	-18.4	-18.1	-17.7	-17.3
IND	-13.6	-14.4	-14.7	-16.4	-17.6	-18.6	-19.7
JPN	-0.9	-0.9	-0.9	-0.7	-0.6	-0.6	-0.5
LAM	10.7	11.2	11.5	12.7	13.7	14.9	15.9
MEA	-13.7	-14.6	-15.1	-17.3	-18.9	-20.5	-22.4
NEU	-1.6	-1.6	-1.7	-1.8	-1.9	-2.0	-2.1
OAS	66.6	69.4	71.3	78.1	84.2	90.2	95.6
REF	2.7	2.8	2.9	3.2	3.5	3.7	4.0
SSA	-16.0	-18.3	-20.1	-26.0	-31.8	-37.7	-42.4
USA	-2.8	-2.8	-2.8	-2.7	-2.7	-2.6	-2.5

Table 1939: MAgPIE m4p-SSP3 — Trade—Net-Trade—Secondary products—Oils (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAZ	-0.1	-0.1	-0.2	-0.1	-0.0	-0.1	0.2	0.3	0.2	1.3
CHA	0.0	-0.0	-0.1	-0.3	0.0	-1.8	-2.8	-3.2	-7.6	-9.9
EUR	-1.6	-1.9	-1.1	-0.5	-0.5	-1.5	-1.6	-3.0	-7.0	-9.3
IND	-0.2	0.2	0.0	-1.7	-1.3	-0.5	-0.6	-4.8	-4.3	-4.8
JPN	-0.0	-0.0	-0.2	-0.2	-0.3	-0.5	-0.7	-0.6	-0.9	-1.0
LAM	0.5	0.4	-0.1	1.0	1.9	1.7	2.9	3.5	6.4	4.7
MEA	-0.3	-0.5	-0.9	-1.5	-2.3	-3.0	-4.2	-3.8	-5.2	-6.3
NEU	-0.1	-0.1	-0.3	-0.2	-0.4	-0.4	-0.8	-0.8	-1.2	-1.1
OAS	0.4	0.9	1.9	3.2	4.6	7.5	8.6	14.0	23.3	30.7
REF	0.5	0.3	0.8	-0.6	-1.0	-0.6	-0.7	-0.5	-0.3	1.4
SSA	0.5	0.3	0.2	-0.4	-0.7	-0.2	-1.5	-1.9	-3.8	-4.6
USA	0.4	0.6	-0.0	1.5	-0.1	-0.5	1.2	0.7	0.5	-1.1

Table 1940: FAO — Trade—Net-Trade—Secondary products—Oils (Mt DM/yr)

58.4.7 Sugar



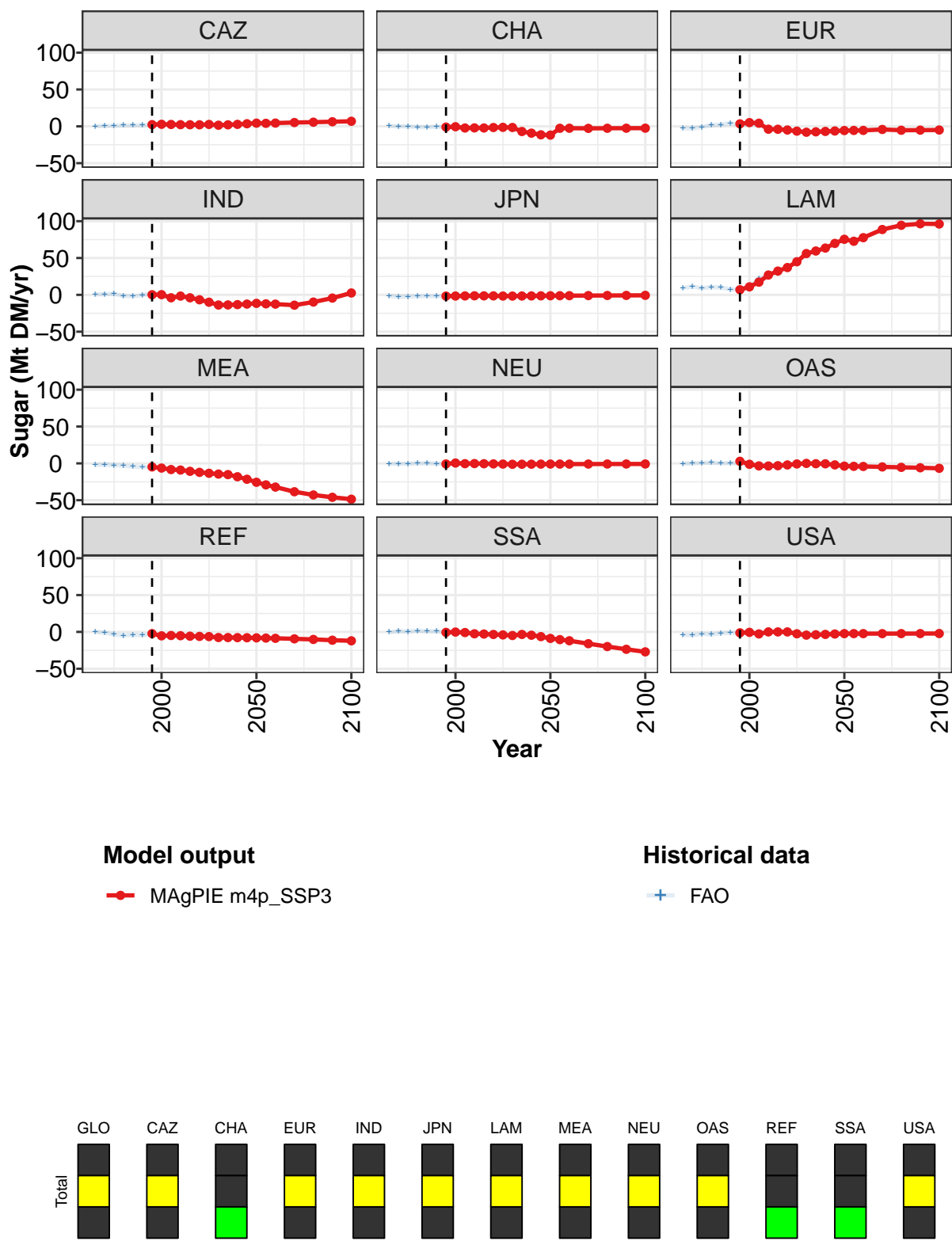


Figure 514: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.3	3.7	-4.2	-0.3	-0.1	0.0	-0.0	0.0	0.0	0.0	0.0
CAZ	2.3	2.8	2.5	2.3	2.1	2.1	2.6	1.5	2.1	2.7	3.5
CHA	-1.0	-0.5	-2.3	-2.1	-2.2	-1.6	-1.4	-1.5	-7.0	-9.2	-11.5
EUR	3.4	5.1	4.2	-3.9	-4.0	-5.0	-6.5	-8.0	-7.5	-6.9	-6.3
IND	0.2	0.3	-4.0	-1.7	-4.0	-6.7	-10.0	-13.8	-13.7	-13.2	-12.5
JPN	-1.6	-1.6	-1.4	-1.3	-1.4	-1.4	-1.6	-1.7	-1.5	-1.4	-1.3
LAM	7.0	10.9	17.3	26.9	32.3	37.1	45.0	56.1	59.5	63.5	69.8
MEA	-4.8	-6.3	-8.4	-9.0	-10.7	-12.1	-13.4	-14.5	-15.2	-18.1	-21.5
NEU	-0.8	0.5	-0.4	-0.2	-0.5	-0.7	-0.9	-1.2	-1.2	-1.1	-1.0
OAS	2.9	-1.2	-3.4	-3.5	-3.2	-2.1	-0.8	-0.0	-0.5	-0.6	-2.0
REF	-2.3	-5.3	-4.9	-5.2	-5.8	-6.1	-6.3	-7.6	-7.7	-7.7	-7.9
SSA	-0.6	-0.2	-0.9	-2.5	-2.9	-3.4	-4.1	-4.9	-3.5	-4.5	-6.4
USA	-1.2	-0.6	-2.7	0.0	0.0	0.0	-2.6	-4.4	-3.9	-3.4	-2.9

Table 1941: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Sugar (Mt DM/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	-0.0	-0.0	0.0	0.0	0.0	-0.0	-0.0
CAZ	4.3	4.1	4.4	5.2	5.6	6.3	6.9
CHA	-11.9	-2.6	-2.6	-2.7	-2.6	-2.5	-2.5
EUR	-5.7	-5.6	-5.5	-4.2	-5.3	-5.2	-5.0
IND	-11.5	-12.2	-12.6	-14.0	-9.8	-4.4	2.6
JPN	-1.2	-1.2	-1.1	-1.0	-0.8	-0.7	-0.6
LAM	75.4	72.8	77.6	88.7	94.4	96.5	96.2
MEA	-25.6	-29.2	-32.2	-38.5	-42.9	-46.0	-48.6
NEU	-0.9	-0.9	-1.0	-0.9	-0.9	-0.8	-0.8
OAS	-3.7	-4.0	-4.2	-4.8	-5.4	-6.0	-6.7
REF	-8.1	-8.4	-8.7	-9.4	-10.2	-11.3	-12.1
SSA	-8.8	-10.5	-12.0	-16.0	-19.9	-23.6	-27.1
USA	-2.3	-2.3	-2.3	-2.4	-2.3	-2.3	-2.2

Table 1942: MAgPIE m4p_SSP3 — Trade—Net-Trade—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

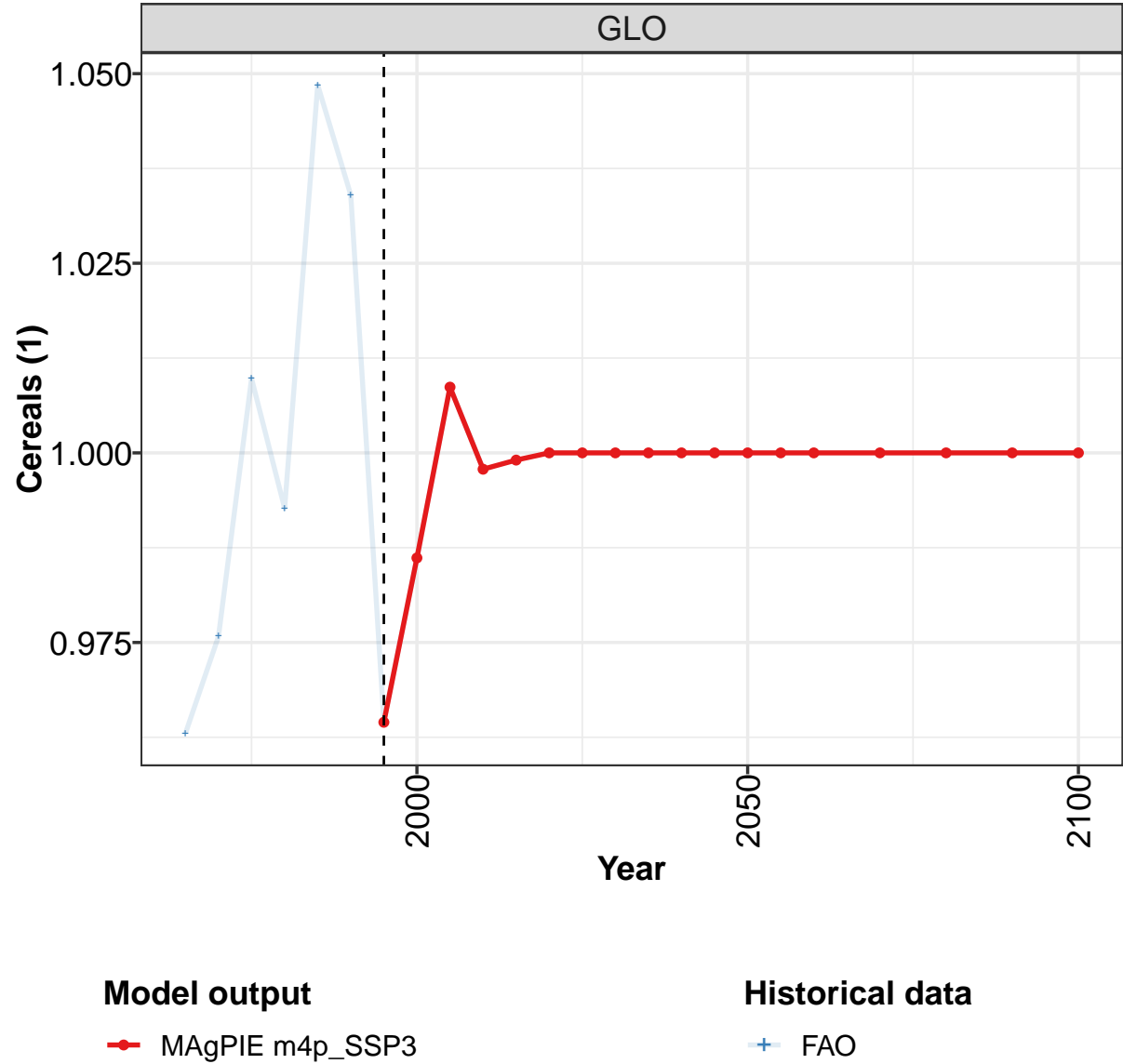
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAZ	0.2	0.6	0.9	1.3	1.4	1.6	2.4	2.6	1.7	1.2
CHA	0.7	-0.1	-0.1	-1.0	-1.1	-0.6	-1.0	-0.6	-2.2	-2.1
EUR	-2.5	-2.9	-0.8	1.5	2.4	4.1	1.9	2.4	1.9	-3.8
IND	0.7	1.0	1.4	-1.4	-2.0	-0.3	1.9	1.6	-4.0	-1.8
JPN	-1.3	-2.6	-2.2	-2.0	-1.8	-1.9	-1.7	-1.6	-1.4	-1.3
LAM	9.4	11.2	9.0	10.6	10.1	7.3	7.6	11.3	21.9	27.0
MEA	-2.1	-1.7	-2.6	-3.3	-4.2	-5.0	-5.1	-6.7	-8.1	-8.9
NEU	-0.6	-0.6	-0.5	0.1	0.0	-0.2	-1.0	-0.2	-0.1	-0.2
OAS	-0.2	0.0	0.8	1.0	0.3	0.3	0.0	-1.9	-2.3	-3.5
REF	0.1	-1.2	-3.6	-4.8	-4.1	-4.6	-2.4	-5.6	-4.6	-5.2
SSA	-0.4	0.8	0.6	1.6	1.0	0.9	-1.3	-1.0	0.0	-2.5
USA	-4.1	-4.6	-2.7	-3.5	-1.9	-1.4	-1.3	-0.6	-2.8	1.0

Table 1943: FAO — Trade—Net-Trade—Secondary products—Sugar (Mt DM/yr)

59 Self-sufficiency

59.1 Crops

59.1.1 Cereals



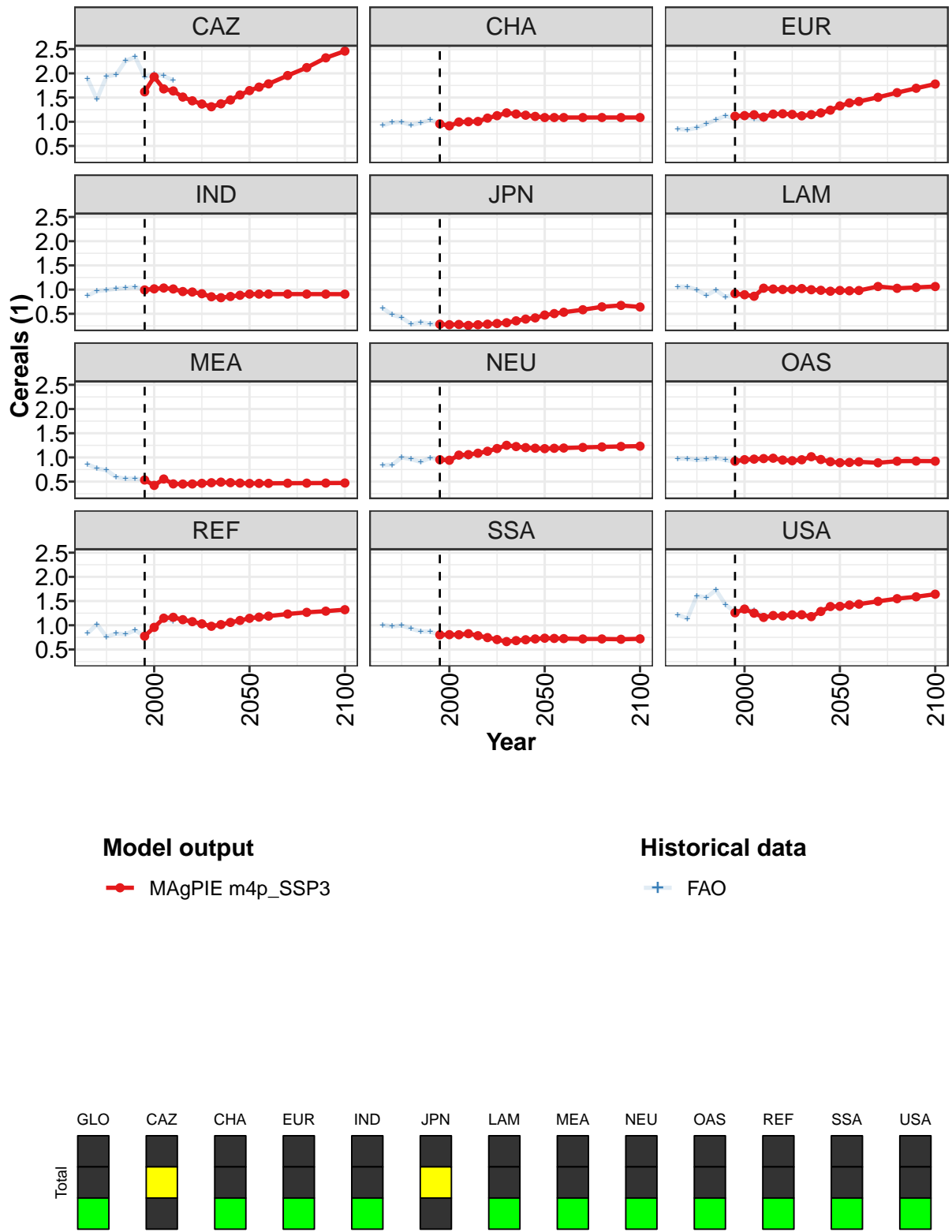


Figure 515: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Cereals (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.96	0.99	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.62	1.93	1.68	1.64	1.51	1.43	1.37	1.31	1.37	1.45	1.55
CHA	0.96	0.92	0.99	1.00	1.01	1.08	1.13	1.18	1.16	1.14	1.11
EUR	1.11	1.13	1.14	1.10	1.16	1.16	1.15	1.12	1.15	1.18	1.24
IND	0.99	1.02	1.03	1.01	0.96	0.95	0.91	0.85	0.83	0.86	0.88
JPN	0.28	0.27	0.28	0.26	0.27	0.29	0.30	0.32	0.35	0.39	0.42
LAM	0.92	0.89	0.86	1.03	1.01	1.00	1.00	1.02	1.00	0.99	0.97
MEA	0.53	0.42	0.55	0.45	0.45	0.45	0.46	0.48	0.49	0.48	0.47
NEU	0.95	0.94	1.05	1.06	1.09	1.13	1.18	1.25	1.23	1.20	1.19
OAS	0.92	0.95	0.97	0.98	0.98	0.95	0.93	0.95	1.01	0.96	0.91
REF	0.78	0.96	1.15	1.16	1.12	1.07	1.03	0.98	1.01	1.06	1.10
SSA	0.80	0.81	0.80	0.83	0.78	0.75	0.70	0.66	0.68	0.70	0.72
USA	1.26	1.33	1.25	1.16	1.20	1.19	1.22	1.22	1.18	1.29	1.39

Table 1944: MAgPIE m4p-SSP3 — Trade—Self-sufficiency—Crops—Cereals (1) [PART 1/2]

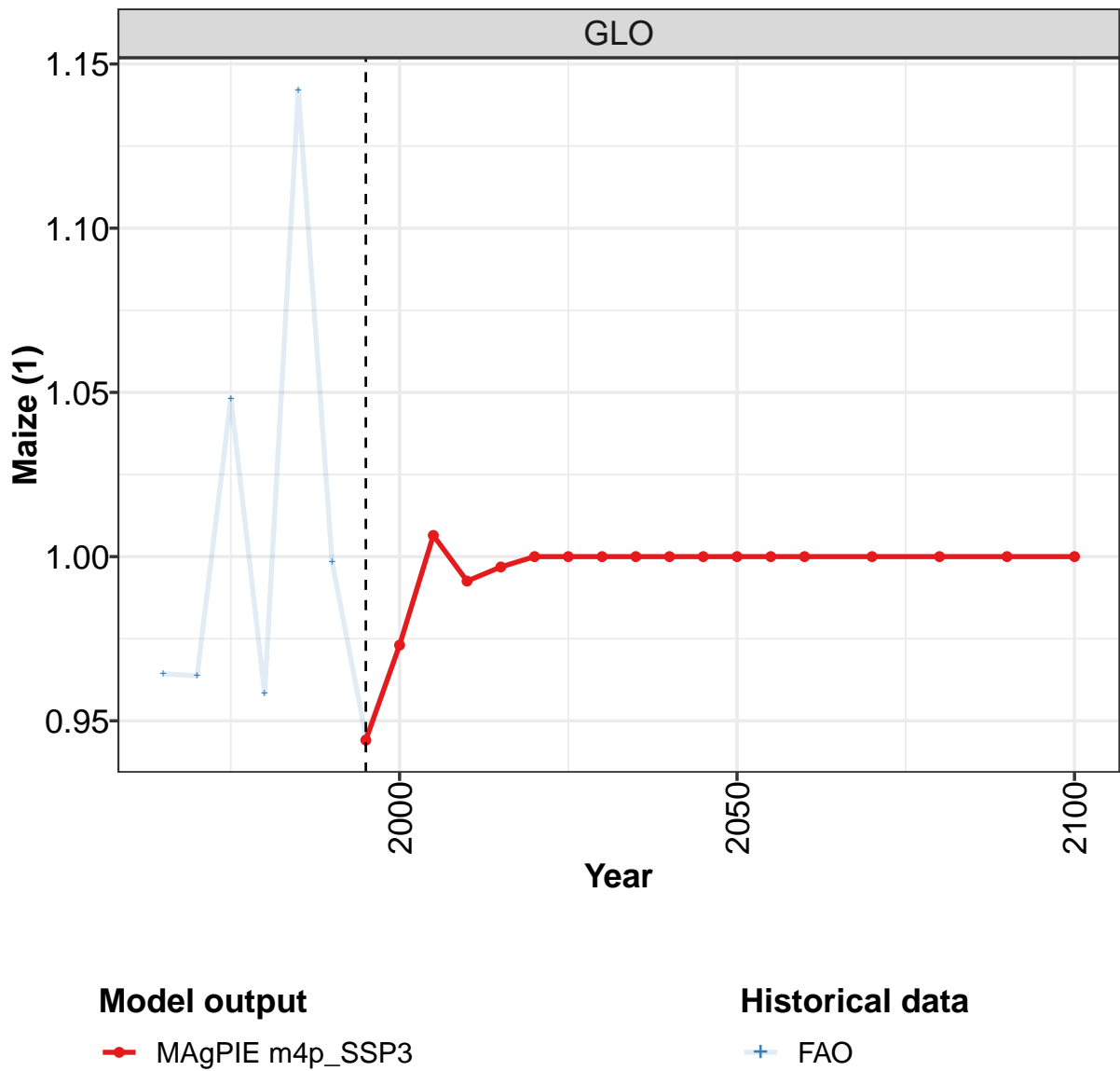
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.64	1.72	1.78	1.95	2.12	2.32	2.46
CHA	1.09	1.09	1.09	1.09	1.09	1.09	1.09
EUR	1.33	1.39	1.42	1.51	1.60	1.69	1.78
IND	0.91	0.91	0.91	0.91	0.91	0.91	0.91
JPN	0.47	0.50	0.53	0.58	0.64	0.67	0.64
LAM	0.98	0.98	0.98	1.06	1.03	1.04	1.06
MEA	0.46	0.46	0.46	0.47	0.47	0.47	0.47
NEU	1.18	1.19	1.19	1.21	1.22	1.23	1.23
OAS	0.89	0.90	0.91	0.89	0.92	0.93	0.92
REF	1.14	1.17	1.19	1.23	1.27	1.29	1.32
SSA	0.73	0.73	0.72	0.72	0.72	0.71	0.72
USA	1.39	1.42	1.44	1.49	1.55	1.59	1.64

Table 1945: MAgPIE m4p-SSP3 — Trade—Self-sufficiency—Crops—Cereals (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.96	0.98	1.01	0.99	1.05	1.03	0.96	0.99	1.01	1.00
CAZ	1.89	1.47	1.94	1.97	2.26	2.34	1.93	1.98	1.95	1.85
CHA	0.92	0.99	0.99	0.93	0.98	1.04	0.96	0.92	0.98	1.01
EUR	0.85	0.84	0.88	0.95	1.04	1.12	1.06	1.10	1.06	1.04
IND	0.87	0.97	0.99	1.02	1.03	1.05	1.00	1.03	1.03	1.03
JPN	0.62	0.48	0.42	0.28	0.33	0.29	0.29	0.27	0.28	0.26
LAM	1.06	1.06	1.00	0.88	0.99	0.85	0.90	0.89	0.86	0.99
MEA	0.86	0.77	0.74	0.59	0.56	0.56	0.53	0.42	0.56	0.46
NEU	0.84	0.85	1.00	0.97	0.91	0.99	0.95	0.94	1.02	1.01
OAS	0.98	0.98	0.95	0.96	0.99	0.95	0.90	0.94	0.96	0.98
REF	0.83	1.02	0.76	0.83	0.82	0.90	0.78	0.96	1.14	1.08
SSA	1.01	0.98	1.00	0.93	0.87	0.87	0.80	0.81	0.81	0.85
USA	1.22	1.14	1.61	1.57	1.73	1.43	1.27	1.34	1.30	1.20

Table 1946: FAO — Trade—Self-sufficiency—Crops—Cereals (1)

59.1.2 Cereals—Maize



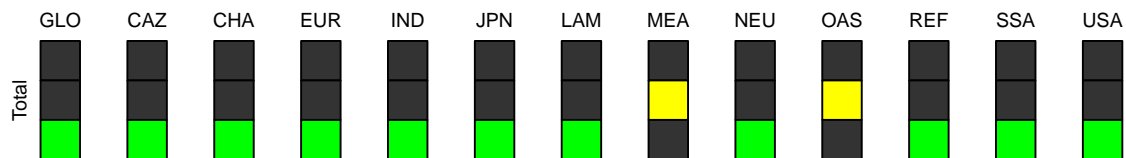
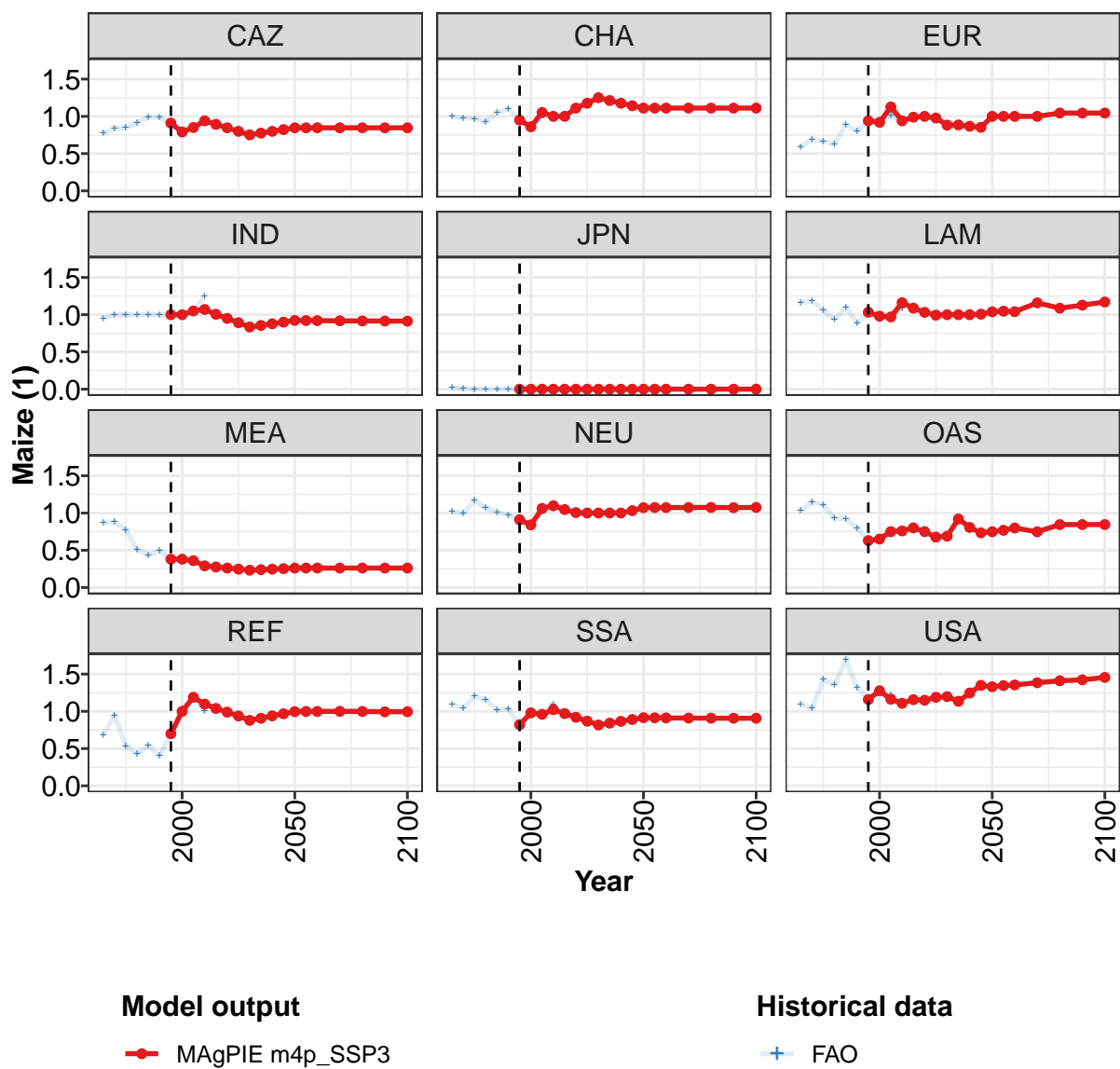


Figure 516: MAGPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Cereals—Maize (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.94	0.97	1.01	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.91	0.79	0.85	0.94	0.89	0.85	0.80	0.75	0.78	0.80	0.82
CHA	0.95	0.86	1.05	1.00	1.00	1.11	1.18	1.25	1.21	1.18	1.14
EUR	0.94	0.92	1.13	0.94	0.99	1.00	0.98	0.88	0.88	0.87	0.85
IND	1.00	1.00	1.05	1.07	1.01	0.95	0.89	0.84	0.86	0.88	0.90
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	1.03	0.98	0.97	1.16	1.09	1.03	0.99	1.00	1.00	1.00	1.01
MEA	0.38	0.38	0.36	0.29	0.28	0.26	0.25	0.23	0.24	0.25	0.25
NEU	0.91	0.84	1.06	1.10	1.05	1.00	1.00	1.00	1.00	1.00	1.03
OAS	0.63	0.65	0.75	0.76	0.80	0.75	0.68	0.69	0.92	0.81	0.73
REF	0.70	1.00	1.19	1.10	1.04	0.99	0.94	0.88	0.91	0.94	0.97
SSA	0.82	0.98	0.96	1.02	0.97	0.92	0.87	0.82	0.84	0.87	0.89
USA	1.16	1.28	1.16	1.11	1.16	1.15	1.19	1.20	1.13	1.25	1.35

Table 1947: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Cereals—Maize (1) [PART 1/2]

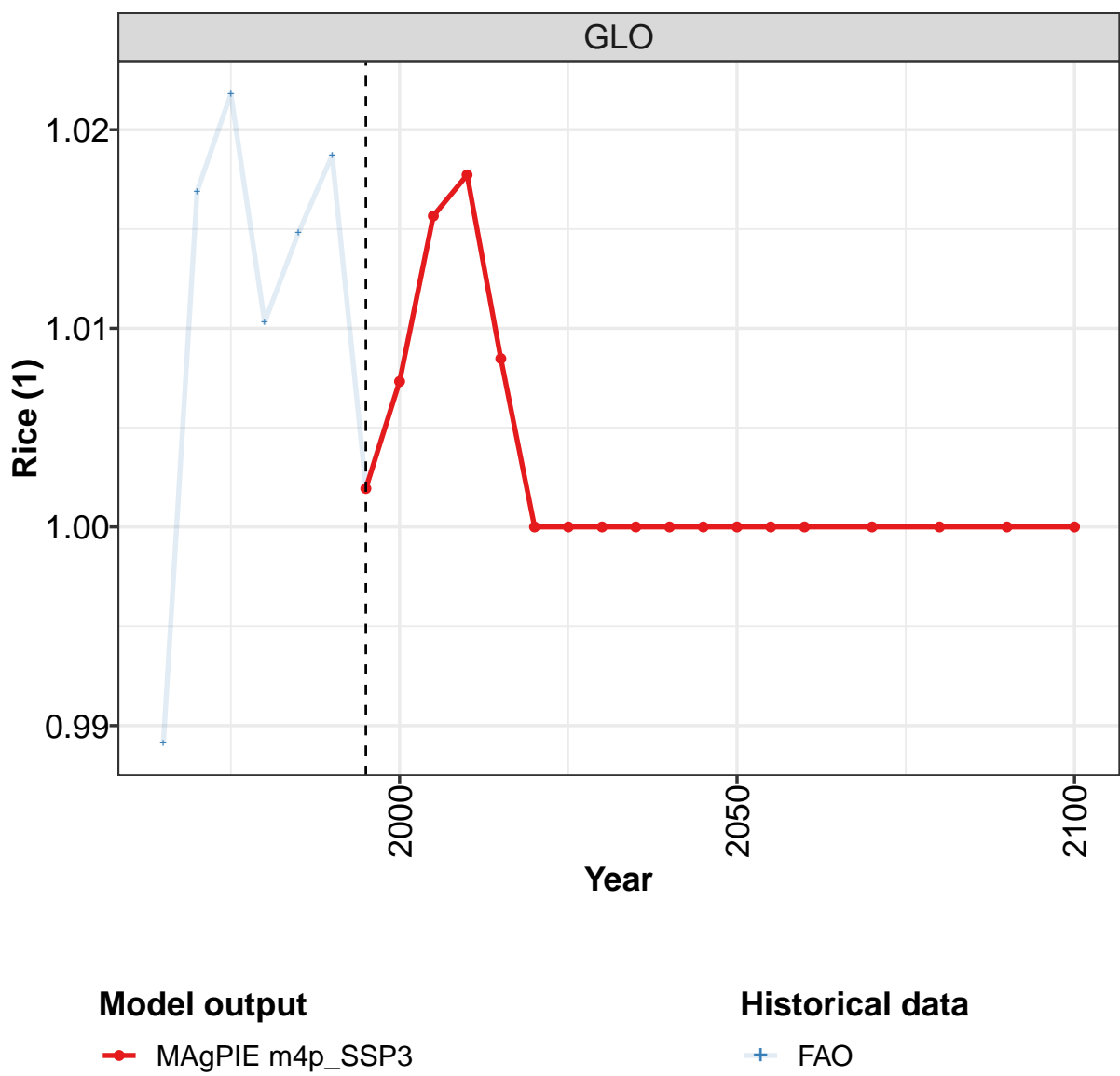
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.85	0.85	0.85	0.85	0.85	0.85	0.85
CHA	1.11	1.11	1.11	1.11	1.11	1.11	1.11
EUR	1.00	1.00	1.00	1.00	1.04	1.04	1.04
IND	0.92	0.92	0.92	0.92	0.92	0.91	0.91
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	1.04	1.05	1.04	1.16	1.09	1.13	1.17
MEA	0.26	0.26	0.26	0.26	0.26	0.26	0.26
NEU	1.07	1.07	1.07	1.07	1.07	1.07	1.07
OAS	0.75	0.77	0.80	0.75	0.84	0.84	0.84
REF	1.00	1.00	1.00	1.00	1.00	0.99	1.00
SSA	0.91	0.91	0.91	0.91	0.91	0.91	0.91
USA	1.33	1.35	1.35	1.38	1.41	1.42	1.45

Table 1948: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Cereals—Maize (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.96	0.96	1.05	0.96	1.14	1.00	0.95	0.97	1.01	0.99
CAZ	0.77	0.84	0.85	0.91	0.99	0.99	0.91	0.79	0.85	0.94
CHA	1.00	0.98	0.97	0.93	1.05	1.10	0.95	0.86	1.01	1.01
EUR	0.59	0.69	0.67	0.63	0.89	0.80	0.94	0.92	1.02	0.94
IND	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.03	1.25
JPN	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	1.16	1.18	1.07	0.93	1.10	0.89	1.01	0.98	0.97	1.09
MEA	0.87	0.88	0.77	0.51	0.44	0.49	0.38	0.38	0.36	0.29
NEU	1.02	1.00	1.17	1.06	1.01	0.97	0.91	0.84	1.02	1.06
OAS	1.03	1.15	1.10	0.93	0.92	0.79	0.63	0.65	0.75	0.76
REF	0.68	0.95	0.54	0.43	0.54	0.40	0.70	1.03	1.19	1.01
SSA	1.10	1.04	1.21	1.15	1.02	1.04	0.82	0.98	0.96	1.09
USA	1.09	1.04	1.43	1.36	1.69	1.32	1.17	1.27	1.22	1.11

Table 1949: FAO — Trade—Self-sufficiency—Crops—Cereals—Maize (1)

59.1.3 Cereals—Rice



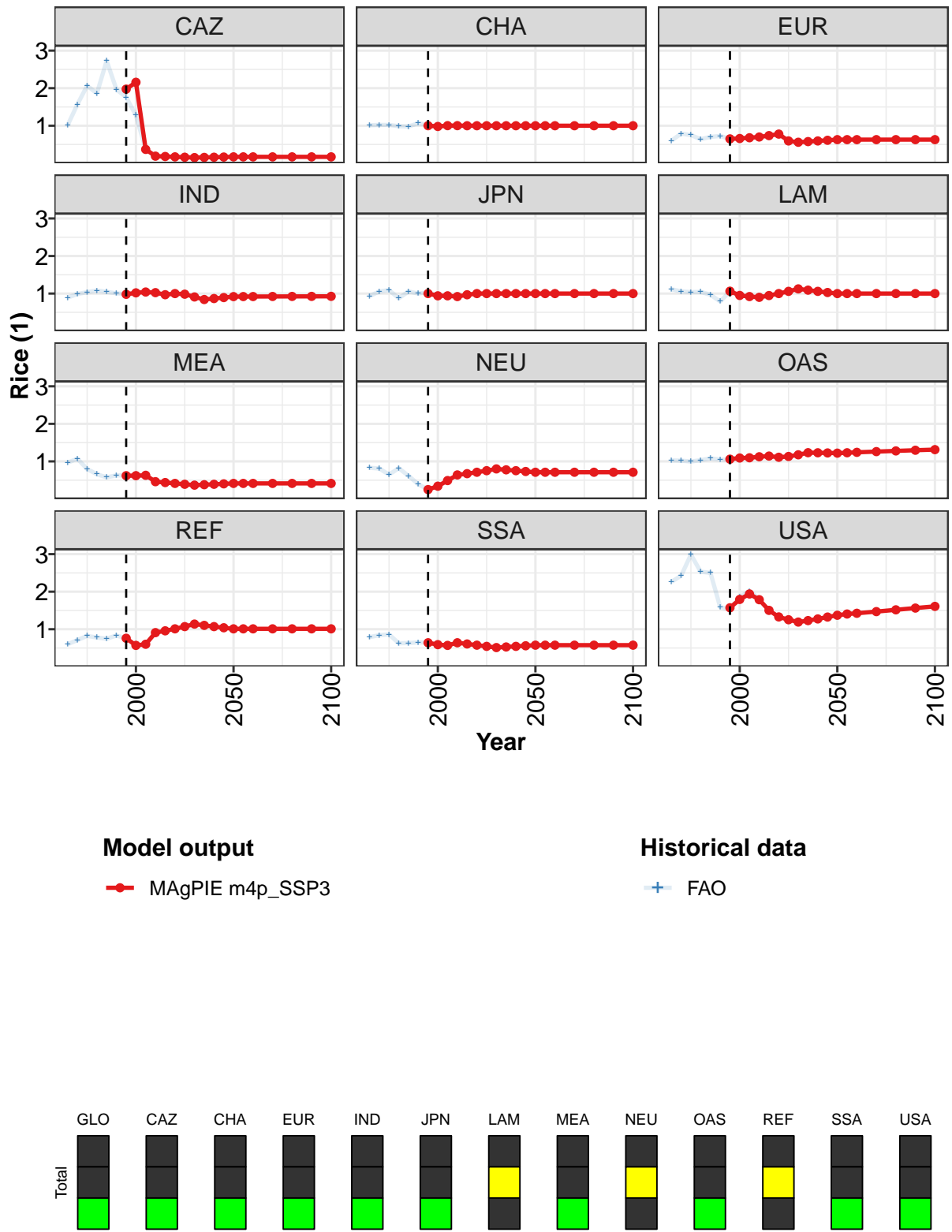


Figure 517: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Cereals—Rice (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.00	1.01	1.02	1.02	1.01	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.97	2.16	0.37	0.19	0.18	0.17	0.16	0.15	0.16	0.16	0.17
CHA	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
EUR	0.65	0.66	0.68	0.70	0.74	0.78	0.60	0.56	0.58	0.59	0.61
IND	0.98	1.02	1.04	1.02	0.97	1.00	0.98	0.91	0.84	0.87	0.89
JPN	1.00	0.94	0.94	0.92	0.97	1.00	1.00	1.00	1.00	1.00	1.00
LAM	1.06	0.95	0.92	0.90	0.95	1.00	1.06	1.12	1.09	1.06	1.03
MEA	0.62	0.62	0.63	0.46	0.44	0.41	0.39	0.37	0.38	0.39	0.40
NEU	0.25	0.34	0.49	0.64	0.67	0.71	0.75	0.80	0.78	0.75	0.73
OAS	1.06	1.09	1.10	1.12	1.14	1.11	1.13	1.18	1.23	1.23	1.23
REF	0.76	0.57	0.60	0.91	0.96	1.01	1.07	1.14	1.10	1.07	1.04
SSA	0.64	0.59	0.57	0.64	0.61	0.58	0.54	0.51	0.53	0.54	0.56
USA	1.57	1.79	1.94	1.79	1.50	1.33	1.25	1.19	1.23	1.27	1.32

Table 1950: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Cereals—Rice (1) [PART 1/2]

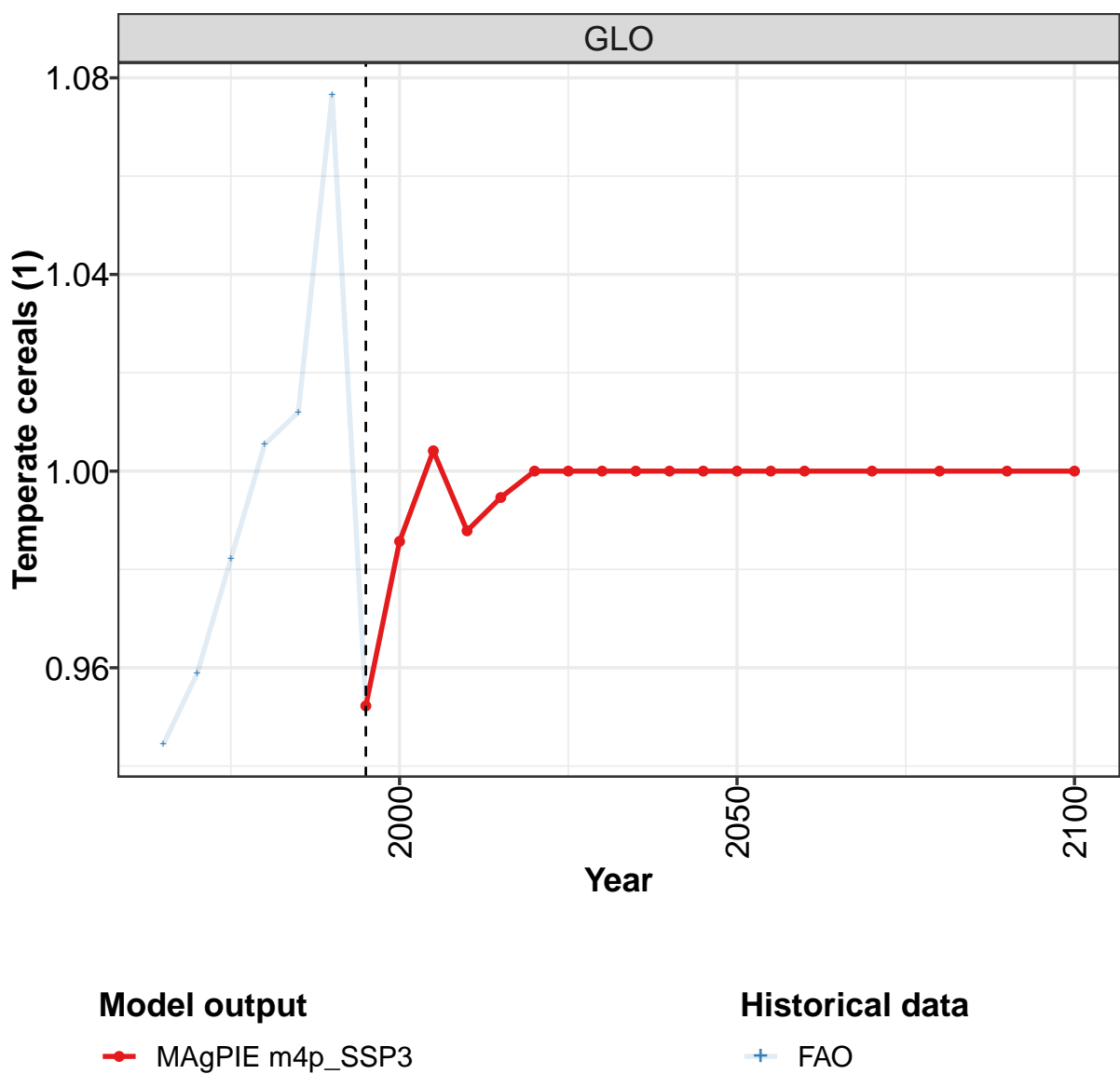
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.17	0.17	0.17	0.17	0.17	0.17	0.17
CHA	1.00	1.00	1.00	1.00	1.00	1.00	1.00
EUR	0.63	0.63	0.63	0.63	0.63	0.63	0.63
IND	0.92	0.92	0.92	0.92	0.92	0.93	0.93
JPN	1.00	1.00	1.00	1.00	1.00	1.00	1.00
LAM	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MEA	0.41	0.41	0.41	0.41	0.41	0.41	0.41
NEU	0.71	0.71	0.71	0.71	0.71	0.71	0.71
OAS	1.22	1.23	1.24	1.26	1.28	1.30	1.31
REF	1.01	1.01	1.01	1.01	1.01	1.01	1.01
SSA	0.58	0.58	0.58	0.58	0.58	0.58	0.58
USA	1.37	1.41	1.43	1.47	1.52	1.56	1.61

Table 1951: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Cereals—Rice (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.99	1.02	1.02	1.01	1.01	1.02	1.00	1.01	1.02	1.02
CAZ	1.01	1.57	2.07	1.86	2.73	1.97	1.76	1.28	0.37	0.19
CHA	1.01	1.02	1.02	0.99	0.98	1.07	1.02	0.98	1.00	1.00
EUR	0.60	0.79	0.75	0.64	0.70	0.73	0.65	0.66	0.68	0.70
IND	0.89	0.99	1.04	1.08	1.05	1.00	0.98	1.03	1.05	1.02
JPN	0.93	1.06	1.09	0.87	1.06	1.00	1.04	0.94	0.94	0.92
LAM	1.11	1.06	1.04	1.04	0.97	0.79	1.06	0.95	0.92	0.90
MEA	0.97	1.07	0.80	0.66	0.58	0.63	0.62	0.62	0.63	0.46
NEU	0.83	0.81	0.65	0.82	0.62	0.39	0.25	0.34	0.49	0.64
OAS	1.03	1.02	1.00	1.03	1.08	1.05	1.04	1.09	1.09	1.13
REF	0.60	0.71	0.82	0.78	0.75	0.83	0.76	0.56	0.60	0.91
SSA	0.79	0.84	0.86	0.63	0.63	0.65	0.64	0.59	0.57	0.64
USA	2.26	2.43	2.99	2.53	2.50	1.59	1.53	1.85	2.02	1.80

Table 1952: FAO — Trade—Self-sufficiency—Crops—Cereals—Rice (1)

59.1.4 Cereals—Temperate cereals



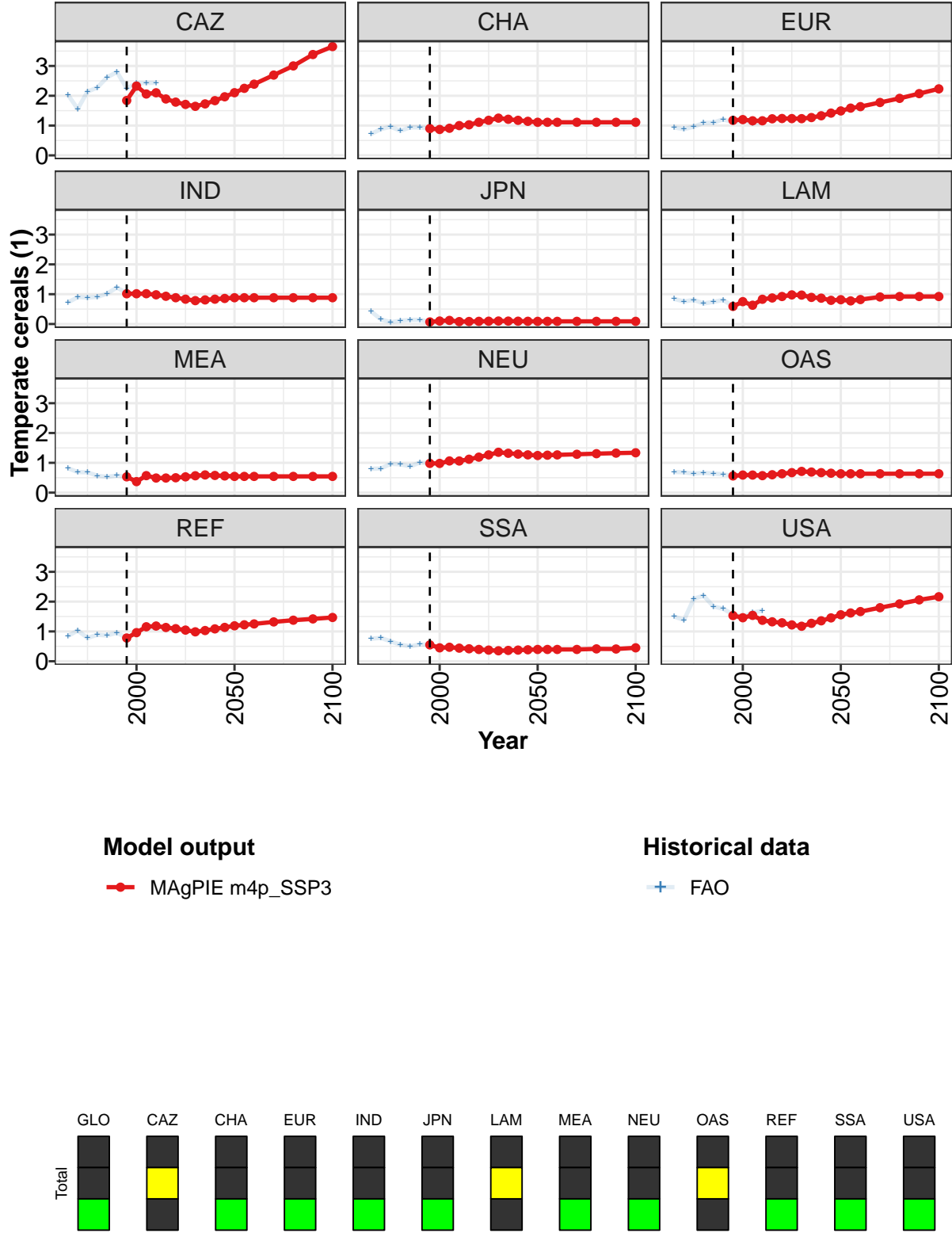


Figure 518: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Cereals—Temperate cereals (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.95	0.99	1.00	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.84	2.33	2.06	2.10	1.89	1.79	1.71	1.65	1.73	1.84	1.97
CHA	0.90	0.87	0.91	1.00	1.03	1.11	1.18	1.25	1.21	1.18	1.14
EUR	1.18	1.20	1.16	1.16	1.23	1.24	1.23	1.23	1.27	1.33	1.42
IND	1.01	1.02	1.02	0.98	0.93	0.88	0.83	0.78	0.81	0.83	0.86
JPN	0.07	0.10	0.12	0.08	0.08	0.09	0.09	0.10	0.10	0.09	0.09
LAM	0.59	0.75	0.63	0.83	0.87	0.92	0.98	0.97	0.89	0.87	0.79
MEA	0.53	0.37	0.57	0.49	0.49	0.50	0.53	0.57	0.59	0.58	0.56
NEU	0.98	0.98	1.06	1.06	1.12	1.19	1.27	1.35	1.32	1.29	1.27
OAS	0.56	0.59	0.59	0.57	0.60	0.63	0.67	0.71	0.69	0.67	0.65
REF	0.78	0.96	1.16	1.18	1.13	1.09	1.05	0.99	1.03	1.09	1.14
SSA	0.55	0.45	0.47	0.44	0.42	0.40	0.37	0.35	0.36	0.37	0.39
USA	1.53	1.46	1.54	1.37	1.32	1.29	1.22	1.17	1.27	1.36	1.45

Table 1953: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Cereals—Temperate cereals (1) [PART 1/2]

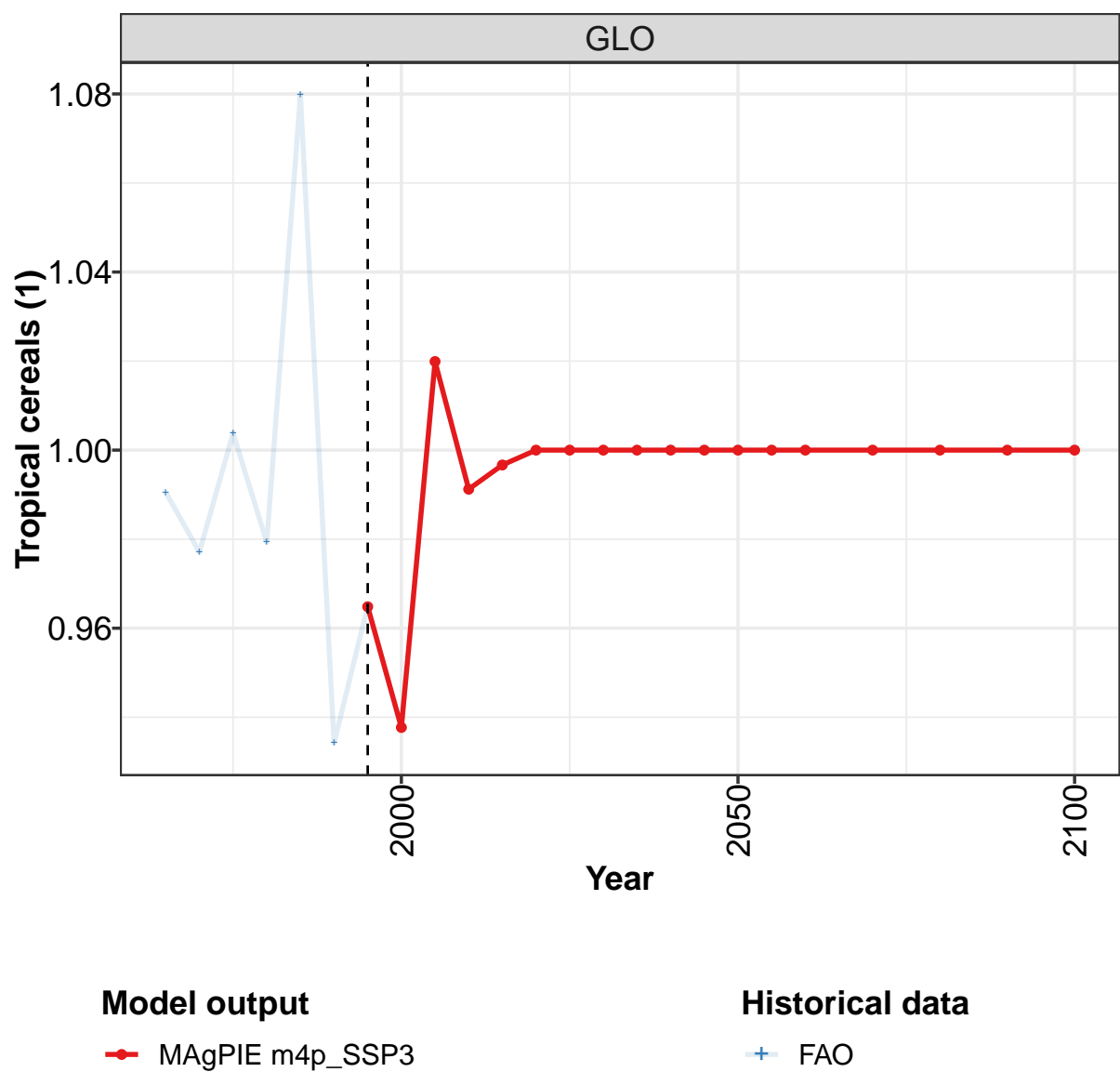
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	2.10	2.25	2.39	2.69	3.00	3.38	3.65
CHA	1.11	1.11	1.11	1.11	1.11	1.11	1.11
EUR	1.49	1.59	1.64	1.78	1.91	2.07	2.23
IND	0.88	0.88	0.88	0.88	0.88	0.88	0.88
JPN	0.09	0.09	0.09	0.09	0.09	0.09	0.09
LAM	0.82	0.78	0.82	0.91	0.92	0.92	0.92
MEA	0.54	0.54	0.54	0.54	0.54	0.54	0.54
NEU	1.25	1.26	1.27	1.29	1.31	1.33	1.34
OAS	0.63	0.63	0.63	0.63	0.63	0.63	0.63
REF	1.19	1.22	1.25	1.32	1.38	1.42	1.47
SSA	0.40	0.40	0.40	0.40	0.41	0.41	0.45
USA	1.56	1.62	1.67	1.80	1.92	2.06	2.16

Table 1954: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Cereals—Temperate cereals (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.94	0.96	0.98	1.01	1.01	1.08	0.95	0.99	1.00	0.99
CAZ	2.03	1.56	2.14	2.28	2.62	2.80	2.25	2.42	2.43	2.43
CHA	0.72	0.88	0.96	0.83	0.94	0.94	0.90	0.87	0.91	1.02
EUR	0.94	0.88	0.96	1.09	1.10	1.21	1.11	1.16	1.08	1.09
IND	0.72	0.90	0.89	0.91	1.02	1.23	1.03	1.03	1.00	0.98
JPN	0.43	0.16	0.06	0.11	0.14	0.14	0.07	0.10	0.12	0.08
LAM	0.84	0.75	0.81	0.69	0.74	0.81	0.59	0.75	0.63	0.83
MEA	0.82	0.69	0.68	0.57	0.53	0.57	0.53	0.37	0.57	0.49
NEU	0.80	0.81	0.97	0.95	0.88	1.01	0.98	0.98	1.04	1.00
OAS	0.69	0.68	0.64	0.66	0.64	0.61	0.56	0.59	0.59	0.57
REF	0.84	1.03	0.78	0.89	0.86	0.96	0.78	0.96	1.15	1.10
SSA	0.75	0.78	0.67	0.55	0.50	0.57	0.55	0.45	0.47	0.44
USA	1.50	1.38	2.10	2.20	1.84	1.76	1.57	1.50	1.63	1.70

Table 1955: FAO — Trade—Self-sufficiency—Crops—Cereals—Temperate cereals (1)

59.1.5 Cereals—Tropical cereals



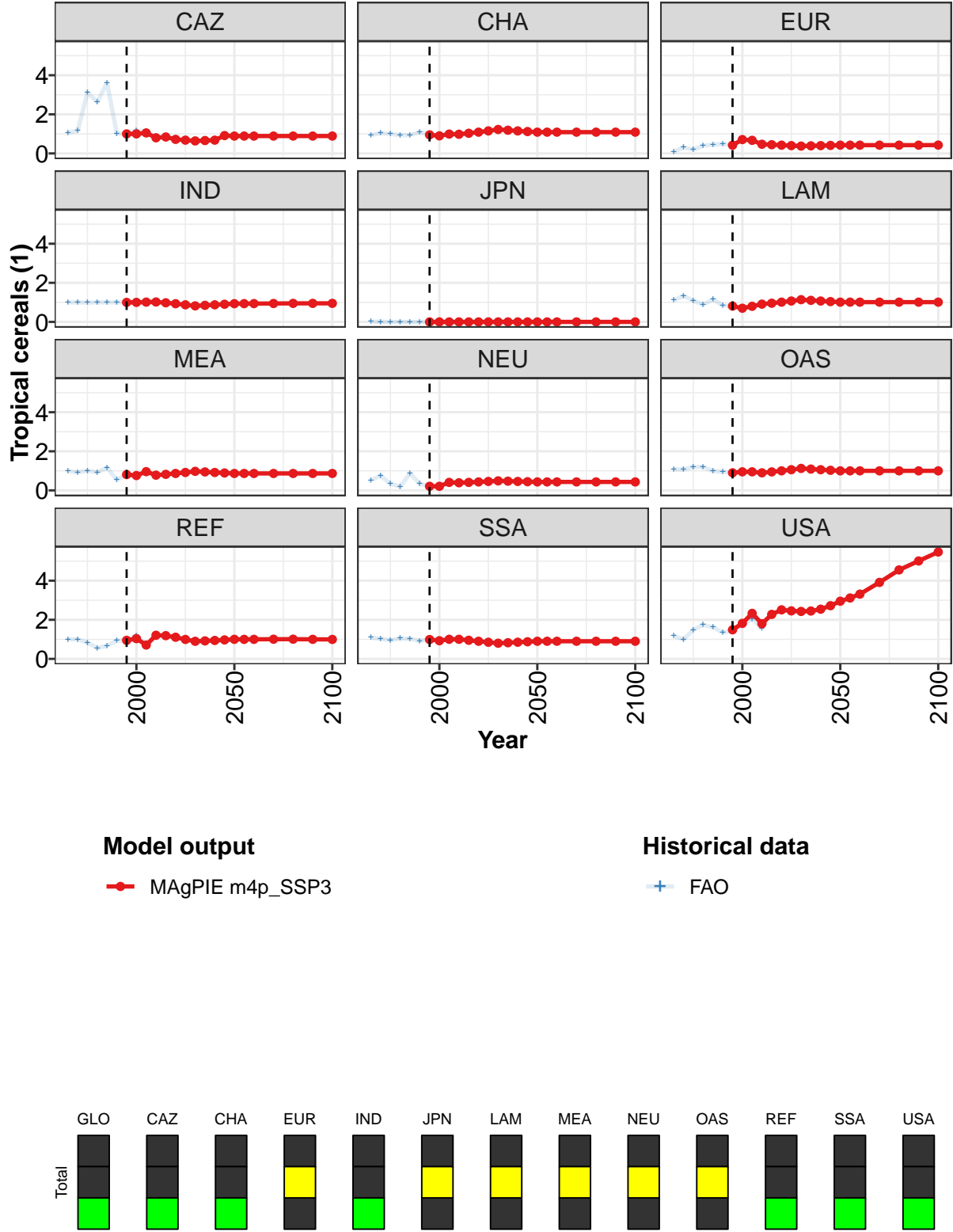


Figure 519: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Cereals—Tropical cereals (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.96	0.94	1.02	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.00	1.00	1.05	0.80	0.84	0.72	0.68	0.64	0.66	0.68	0.91
CHA	0.95	0.90	0.99	0.98	1.03	1.09	1.15	1.23	1.19	1.15	1.12
EUR	0.42	0.71	0.67	0.47	0.45	0.42	0.40	0.38	0.39	0.40	0.41
IND	1.00	1.00	1.01	1.02	0.98	0.93	0.88	0.82	0.85	0.87	0.90
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.81	0.70	0.80	0.91	0.96	1.01	1.07	1.14	1.10	1.07	1.04
MEA	0.81	0.76	0.96	0.78	0.82	0.87	0.92	0.98	0.95	0.92	0.89
NEU	0.21	0.21	0.41	0.39	0.41	0.43	0.46	0.49	0.47	0.46	0.45
OAS	0.90	0.95	0.95	0.90	0.95	1.00	1.06	1.12	1.09	1.06	1.03
REF	0.95	1.04	0.71	1.21	1.19	1.11	1.00	0.90	0.92	0.94	0.97
SSA	0.99	0.93	1.00	1.00	0.95	0.90	0.85	0.80	0.83	0.85	0.88
USA	1.49	1.82	2.33	1.80	2.28	2.51	2.46	2.43	2.45	2.54	2.72

Table 1956: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Cereals—Tropical cereals (1) [PART 1/2]

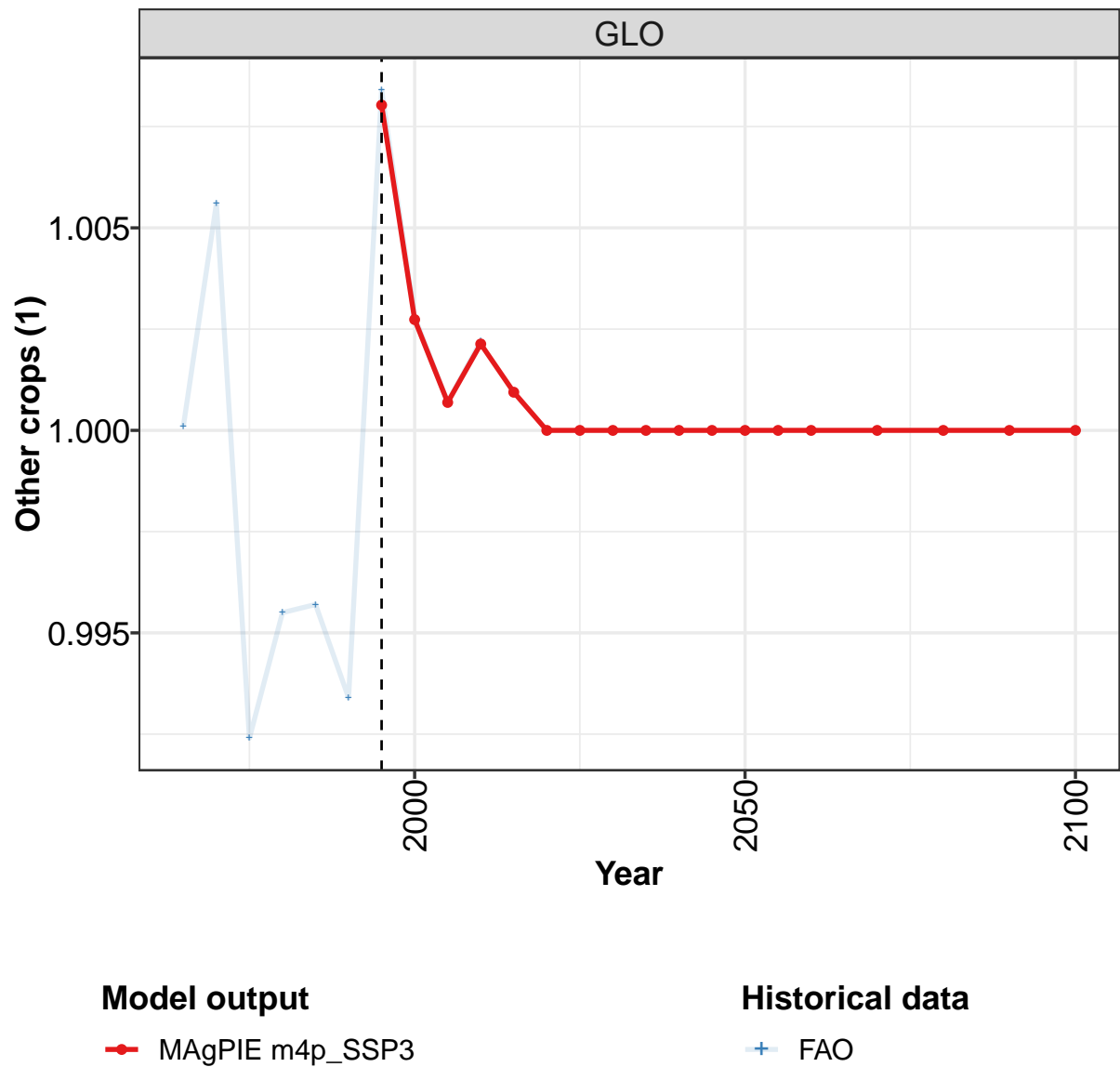
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.89	0.89	0.89	0.89	0.89	0.89	0.89
CHA	1.09	1.09	1.09	1.09	1.09	1.09	1.09
EUR	0.42	0.42	0.42	0.42	0.42	0.42	0.43
IND	0.93	0.93	0.94	0.94	0.95	0.95	0.95
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	1.01	1.01	1.01	1.01	1.01	1.01	1.01
MEA	0.87	0.87	0.87	0.87	0.87	0.87	0.87
NEU	0.43	0.43	0.43	0.43	0.43	0.43	0.43
OAS	1.00	1.00	1.00	1.00	1.00	1.00	1.00
REF	1.00	1.00	1.00	1.01	1.01	1.00	1.00
SSA	0.90	0.90	0.90	0.90	0.90	0.90	0.90
USA	2.95	3.12	3.31	3.91	4.55	5.01	5.47

Table 1957: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Cereals—Tropical cereals (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.99	0.98	1.00	0.98	1.08	0.93	0.96	0.94	1.02	0.99
CAZ	1.07	1.15	3.12	2.63	3.61	1.00	1.03	1.18	1.12	0.80
CHA	0.94	1.04	0.99	0.93	0.94	1.09	0.95	0.91	0.99	0.98
EUR	0.09	0.31	0.19	0.40	0.44	0.49	0.42	0.71	0.67	0.47
IND	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.01	1.10
JPN	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	1.11	1.33	1.09	0.88	1.15	0.84	0.81	0.70	0.80	0.91
MEA	0.99	0.92	1.01	0.92	1.17	0.53	0.81	0.76	0.96	0.78
NEU	0.52	0.75	0.34	0.19	0.87	0.34	0.21	0.21	0.41	0.39
OAS	1.08	1.07	1.20	1.20	0.99	0.95	0.90	0.95	0.95	0.90
REF	1.00	1.00	0.83	0.55	0.67	0.93	0.95	1.21	0.71	1.09
SSA	1.09	1.03	0.95	1.05	1.03	0.92	0.99	0.93	1.04	1.00
USA	1.17	0.99	1.49	1.74	1.62	1.34	1.46	1.72	2.06	1.57

Table 1958: FAO — Trade—Self-sufficiency—Crops—Cereals—Tropical cereals (1)

59.1.6 Other crops



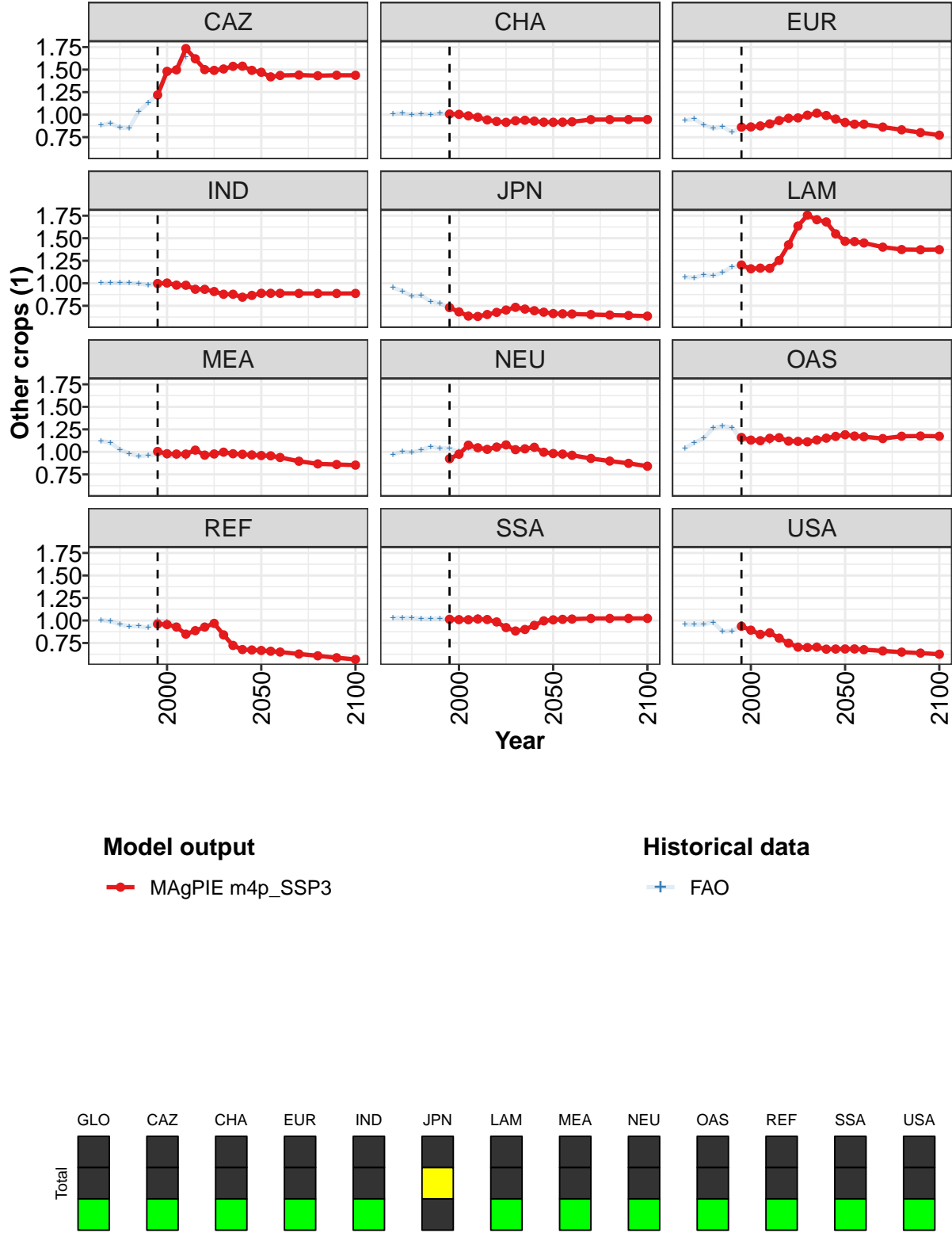


Figure 520: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Other crops (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.22	1.48	1.50	1.73	1.62	1.50	1.49	1.51	1.54	1.54	1.49
CHA	1.01	1.00	0.99	0.97	0.94	0.92	0.91	0.93	0.94	0.93	0.92
EUR	0.86	0.86	0.87	0.90	0.93	0.96	0.96	0.99	1.02	0.99	0.95
IND	1.00	1.00	0.98	0.98	0.93	0.93	0.91	0.88	0.88	0.85	0.87
JPN	0.73	0.68	0.64	0.63	0.65	0.68	0.70	0.73	0.71	0.70	0.68
LAM	1.20	1.16	1.17	1.17	1.25	1.43	1.64	1.76	1.71	1.68	1.55
MEA	1.00	0.98	0.98	0.98	1.02	0.96	0.98	1.00	0.98	0.97	0.97
NEU	0.92	0.97	1.07	1.05	1.03	1.05	1.08	1.02	1.03	1.05	1.00
OAS	1.16	1.13	1.12	1.15	1.16	1.12	1.12	1.11	1.13	1.15	1.17
REF	0.96	0.95	0.93	0.85	0.89	0.93	0.97	0.84	0.72	0.68	0.67
SSA	1.01	1.01	1.01	1.02	1.01	0.98	0.92	0.88	0.90	0.95	1.00
USA	0.94	0.89	0.85	0.86	0.80	0.75	0.70	0.70	0.70	0.68	0.68

Table 1959: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Other crops (1) [PART 1/2]

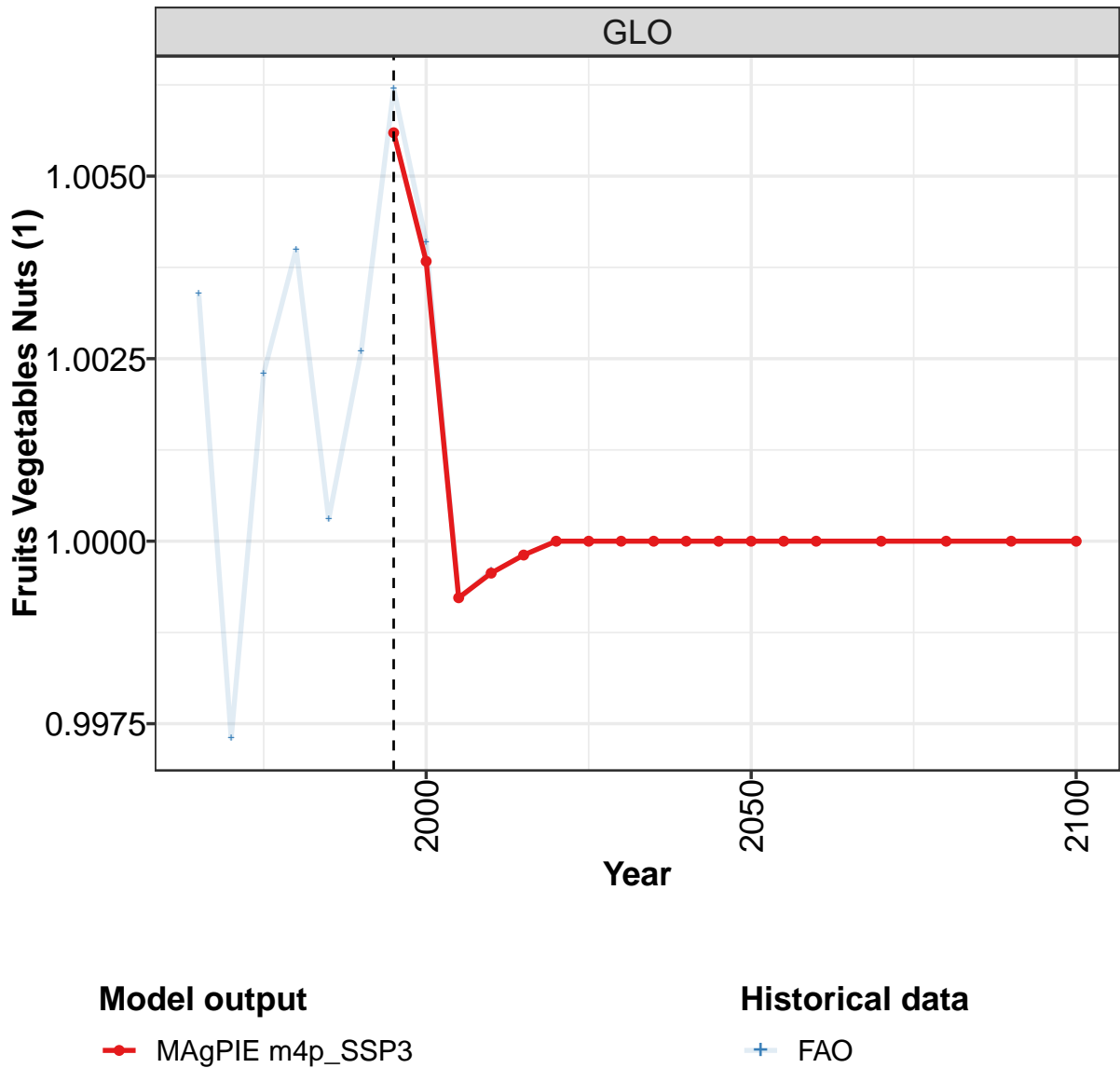
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.47	1.42	1.43	1.44	1.43	1.44	1.44
CHA	0.92	0.92	0.92	0.95	0.95	0.95	0.95
EUR	0.91	0.89	0.89	0.86	0.83	0.80	0.77
IND	0.89	0.89	0.89	0.89	0.89	0.89	0.89
JPN	0.66	0.66	0.66	0.65	0.65	0.64	0.64
LAM	1.47	1.46	1.45	1.40	1.37	1.37	1.37
MEA	0.96	0.96	0.94	0.90	0.87	0.86	0.85
NEU	0.98	0.98	0.96	0.93	0.90	0.87	0.84
OAS	1.19	1.18	1.17	1.15	1.17	1.18	1.17
REF	0.67	0.66	0.65	0.63	0.61	0.59	0.57
SSA	1.01	1.01	1.02	1.02	1.02	1.02	1.02
USA	0.68	0.68	0.68	0.66	0.65	0.64	0.63

Table 1960: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Other crops (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.00	1.01	0.99	1.00	1.00	0.99	1.01	1.00	1.00	1.00
CAZ	0.88	0.91	0.85	0.85	1.04	1.13	1.23	1.48	1.47	1.64
CHA	1.01	1.01	1.00	1.01	1.00	1.01	1.00	1.00	0.99	0.97
EUR	0.94	0.95	0.89	0.85	0.86	0.81	0.85	0.84	0.87	0.90
IND	1.00	1.00	1.00	1.00	1.00	0.98	1.00	1.00	0.98	0.98
JPN	0.95	0.91	0.86	0.86	0.80	0.78	0.73	0.68	0.64	0.63
LAM	1.07	1.06	1.09	1.08	1.12	1.18	1.18	1.16	1.17	1.17
MEA	1.12	1.10	1.03	0.98	0.95	0.96	0.97	0.95	0.95	0.94
NEU	0.97	1.00	1.00	1.02	1.06	1.04	1.04	1.00	1.04	1.03
OAS	1.04	1.10	1.15	1.26	1.29	1.27	1.14	1.12	1.11	1.11
REF	1.01	0.99	0.96	0.93	0.94	0.92	1.00	0.99	0.94	0.85
SSA	1.03	1.03	1.03	1.02	1.02	1.02	1.01	1.01	1.01	1.04
USA	0.96	0.96	0.96	0.98	0.88	0.88	0.94	0.90	0.85	0.86

Table 1961: FAO — Trade—Self-sufficiency—Crops—Other crops (1)

59.1.7 Other crops—Fruits Vegetables Nuts



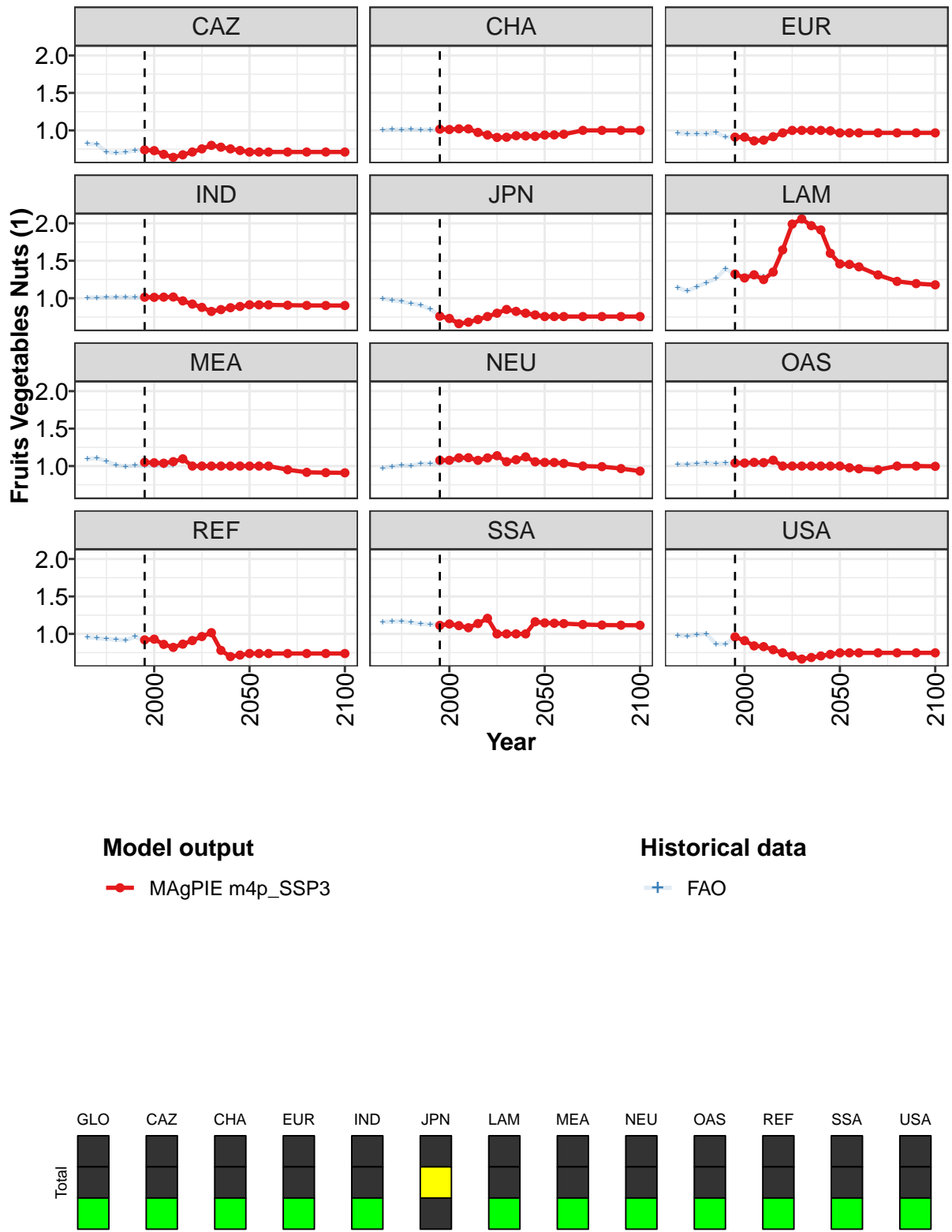


Figure 521: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Other crops—Fruits Vegetables Nuts (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.74	0.73	0.68	0.64	0.67	0.71	0.75	0.80	0.78	0.75	0.73
CHA	1.02	1.01	1.02	1.02	0.97	0.94	0.91	0.91	0.93	0.93	0.92
EUR	0.91	0.91	0.86	0.87	0.92	0.97	1.00	1.00	1.00	1.00	0.99
IND	1.01	1.01	1.01	1.02	0.96	0.92	0.88	0.82	0.85	0.87	0.89
JPN	0.76	0.73	0.66	0.68	0.72	0.76	0.80	0.85	0.82	0.80	0.78
LAM	1.32	1.27	1.31	1.25	1.35	1.65	1.99	2.06	1.97	1.91	1.60
MEA	1.05	1.04	1.04	1.06	1.10	1.00	1.00	1.00	1.00	1.00	1.00
NEU	1.08	1.08	1.11	1.11	1.08	1.11	1.14	1.06	1.08	1.12	1.06
OAS	1.04	1.04	1.05	1.05	1.08	1.00	1.00	1.00	1.00	1.00	1.00
REF	0.92	0.93	0.86	0.82	0.86	0.91	0.96	1.02	0.78	0.70	0.72
SSA	1.11	1.13	1.11	1.08	1.14	1.21	1.00	1.00	1.00	1.00	1.16
USA	0.96	0.91	0.84	0.83	0.79	0.75	0.71	0.66	0.68	0.71	0.73

Table 1962: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Other crops—Fruits Vegetables Nuts (1)
[PART 1/2]

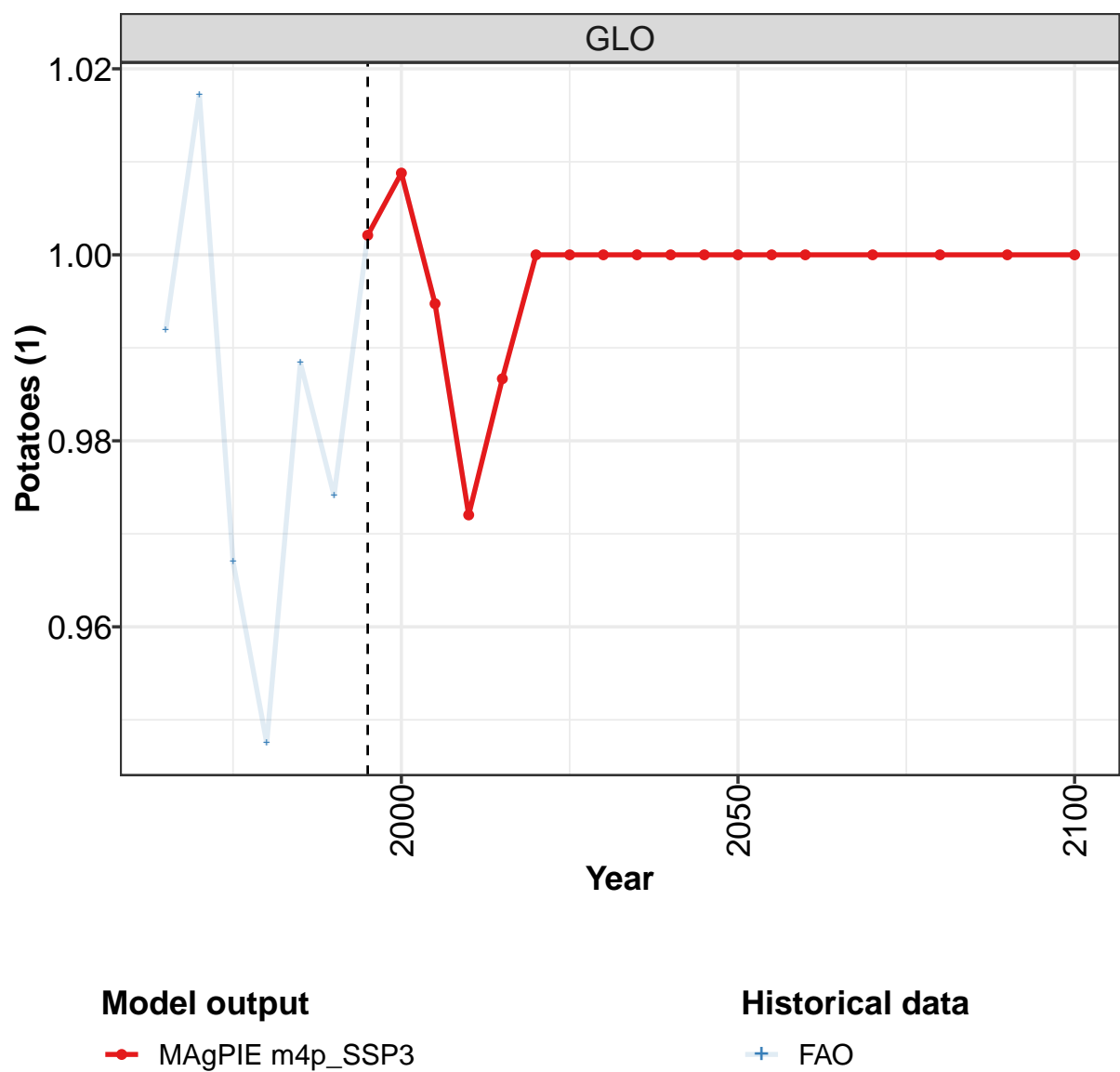
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.71	0.71	0.71	0.71	0.71	0.71	0.71
CHA	0.94	0.94	0.95	1.00	1.00	1.00	1.00
EUR	0.97	0.97	0.97	0.97	0.97	0.97	0.97
IND	0.91	0.91	0.91	0.91	0.90	0.90	0.90
JPN	0.76	0.76	0.76	0.76	0.76	0.76	0.76
LAM	1.46	1.45	1.42	1.31	1.22	1.20	1.18
MEA	1.00	1.00	1.00	0.95	0.92	0.91	0.91
NEU	1.05	1.05	1.04	1.00	0.99	0.97	0.93
OAS	1.00	0.98	0.96	0.95	1.00	1.00	1.00
REF	0.74	0.74	0.74	0.74	0.74	0.74	0.74
SSA	1.15	1.14	1.14	1.13	1.12	1.12	1.11
USA	0.75	0.75	0.75	0.75	0.75	0.75	0.75

Table 1963: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Other crops—Fruits Vegetables Nuts (1)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.00
CAZ	0.82	0.82	0.71	0.70	0.71	0.73	0.74	0.73	0.68	0.64
CHA	1.00	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.02	1.02
EUR	0.96	0.95	0.95	0.95	0.97	0.91	0.91	0.91	0.86	0.87
IND	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.02	1.02
JPN	0.99	0.98	0.96	0.93	0.91	0.85	0.76	0.73	0.66	0.68
LAM	1.14	1.09	1.16	1.21	1.26	1.40	1.32	1.29	1.33	1.28
MEA	1.09	1.11	1.06	1.01	0.99	1.01	1.00	1.01	1.00	1.01
NEU	0.97	0.99	1.01	1.01	1.03	1.03	1.04	1.06	1.08	1.09
OAS	1.02	1.02	1.03	1.04	1.03	1.04	1.03	1.03	1.02	1.01
REF	0.96	0.95	0.93	0.92	0.92	0.96	0.92	0.93	0.86	0.82
SSA	1.16	1.17	1.17	1.15	1.13	1.13	1.12	1.12	1.11	1.08
USA	0.98	0.97	0.99	1.00	0.87	0.86	0.96	0.91	0.84	0.83

Table 1964: FAO — Trade—Self-sufficiency—Crops—Other crops—Fruits Vegetables Nuts (1)

59.1.8 Other crops—Potatoes



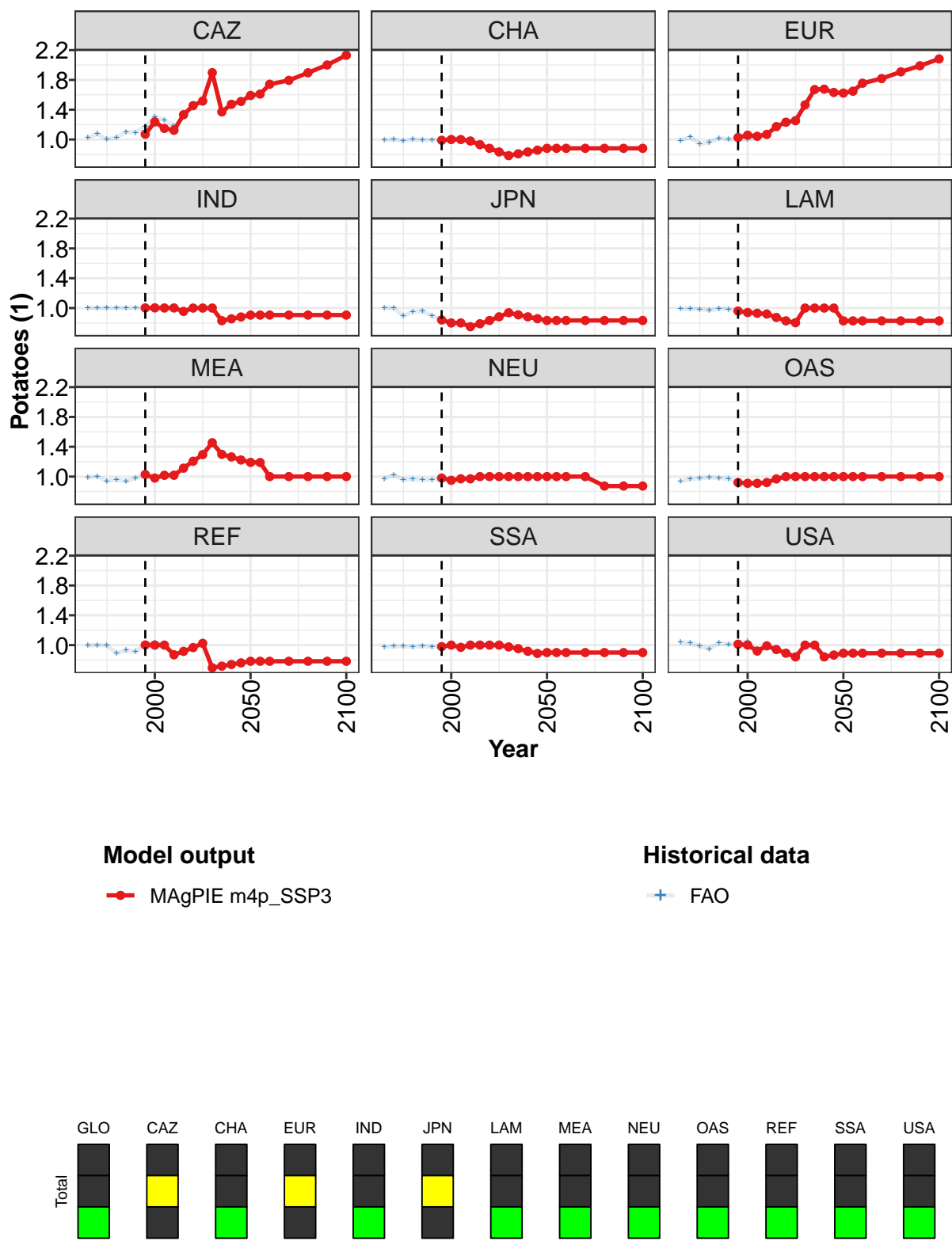


Figure 522: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Other crops—Potatoes (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.00	1.01	0.99	0.97	0.99	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.07	1.24	1.15	1.12	1.33	1.45	1.52	1.90	1.37	1.47	1.51
CHA	0.99	1.00	1.00	0.98	0.93	0.88	0.83	0.78	0.81	0.83	0.86
EUR	1.03	1.06	1.04	1.07	1.17	1.23	1.25	1.47	1.67	1.68	1.63
IND	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	0.83	0.86	0.88
JPN	0.84	0.80	0.80	0.75	0.79	0.83	0.88	0.94	0.91	0.88	0.86
LAM	0.96	0.94	0.93	0.92	0.87	0.83	0.80	1.00	1.00	1.00	1.00
MEA	1.03	0.98	1.02	1.02	1.11	1.21	1.29	1.45	1.30	1.26	1.22
NEU	0.98	0.95	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00
OAS	0.92	0.91	0.91	0.92	0.97	1.00	1.00	1.00	1.00	1.00	1.00
REF	1.00	1.00	1.00	0.87	0.92	0.97	1.02	0.70	0.72	0.74	0.76
SSA	0.98	1.00	0.97	1.00	1.00	1.00	1.00	0.98	0.95	0.92	0.89
USA	1.01	1.00	0.92	0.99	0.94	0.89	0.84	1.00	1.00	0.84	0.87

Table 1965: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Other crops—Potatoes (1) [PART 1/2]

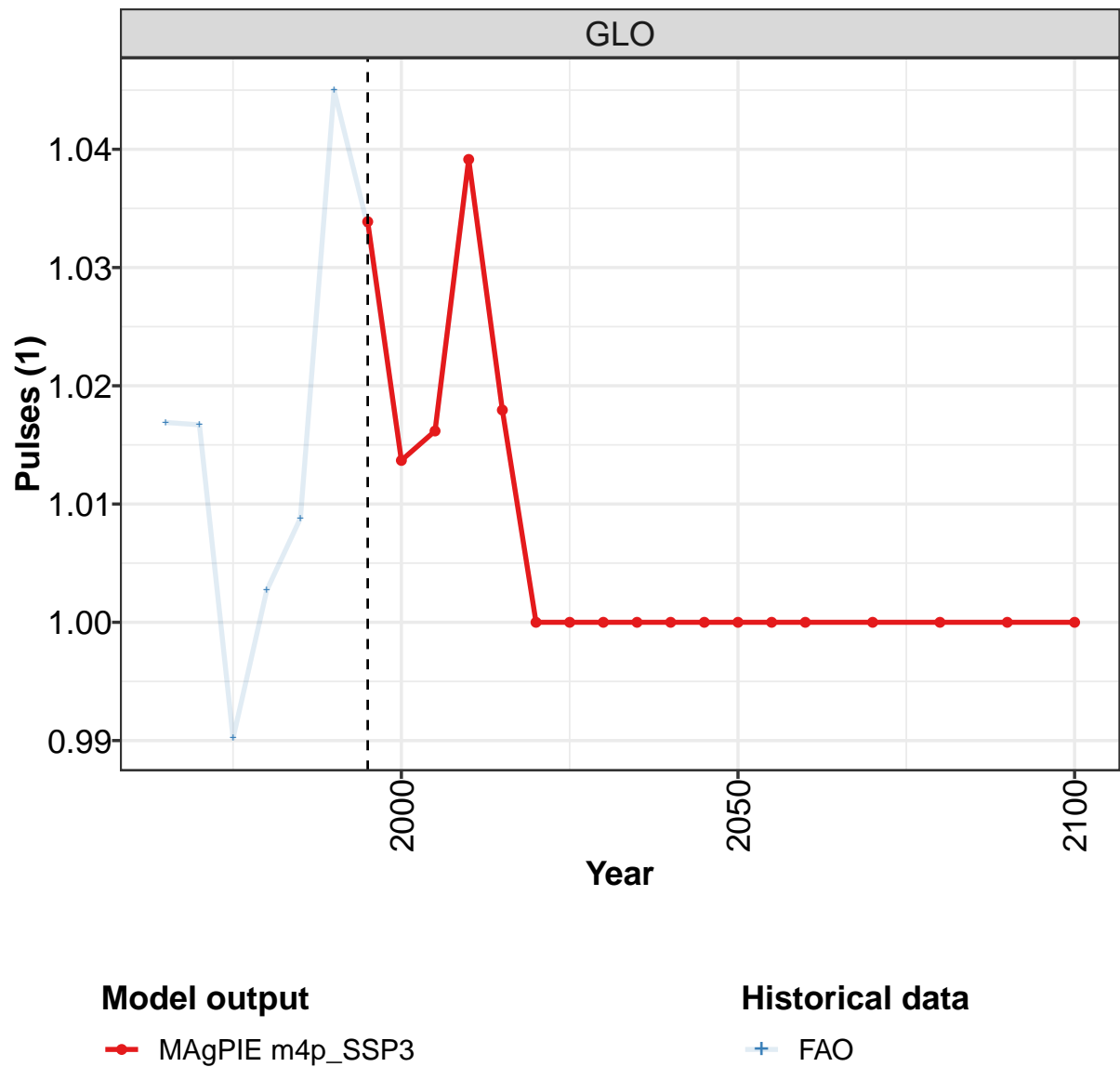
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.59	1.61	1.74	1.79	1.90	2.00	2.13
CHA	0.88	0.88	0.88	0.88	0.88	0.88	0.88
EUR	1.62	1.65	1.76	1.82	1.91	1.99	2.08
IND	0.91	0.91	0.91	0.91	0.91	0.91	0.91
JPN	0.83	0.83	0.83	0.83	0.83	0.83	0.83
LAM	0.83	0.83	0.83	0.83	0.83	0.83	0.83
MEA	1.19	1.19	1.00	1.00	1.00	1.00	1.00
NEU	1.00	1.00	1.00	1.00	0.87	0.87	0.87
OAS	1.00	1.00	1.00	1.00	1.00	1.00	1.00
REF	0.78	0.78	0.78	0.78	0.78	0.78	0.78
SSA	0.90	0.90	0.90	0.90	0.90	0.90	0.90
USA	0.89	0.89	0.89	0.89	0.89	0.89	0.89

Table 1966: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Other crops—Potatoes (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.99	1.02	0.97	0.95	0.99	0.97	1.00	1.01	0.99	0.97
CAZ	1.02	1.08	1.00	1.03	1.10	1.09	1.18	1.30	1.26	1.18
CHA	1.00	1.00	0.98	1.00	1.00	0.99	0.99	1.02	1.01	0.98
EUR	0.98	1.04	0.94	0.96	1.02	1.00	1.00	1.00	1.02	1.06
IND	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01
JPN	1.00	1.00	0.89	0.95	0.96	0.90	0.84	0.80	0.80	0.75
LAM	0.99	0.99	0.99	0.97	0.99	0.99	0.96	0.94	0.93	0.92
MEA	0.99	1.00	0.94	0.96	0.94	0.98	1.01	0.98	1.01	1.00
NEU	0.97	1.02	0.95	0.96	0.96	0.96	0.98	0.95	0.97	0.97
OAS	0.94	0.97	0.98	0.99	0.98	0.97	0.92	0.91	0.91	0.92
REF	1.00	1.00	1.00	0.89	0.93	0.91	1.02	1.03	1.00	0.87
SSA	0.97	0.98	0.98	0.98	0.99	0.98	0.98	1.00	0.97	1.01
USA	1.04	1.03	0.99	0.95	1.03	1.01	1.02	1.05	0.92	0.99

Table 1967: FAO — Trade—Self-sufficiency—Crops—Other crops—Potatoes (1)

59.1.9 Other crops—Pulses



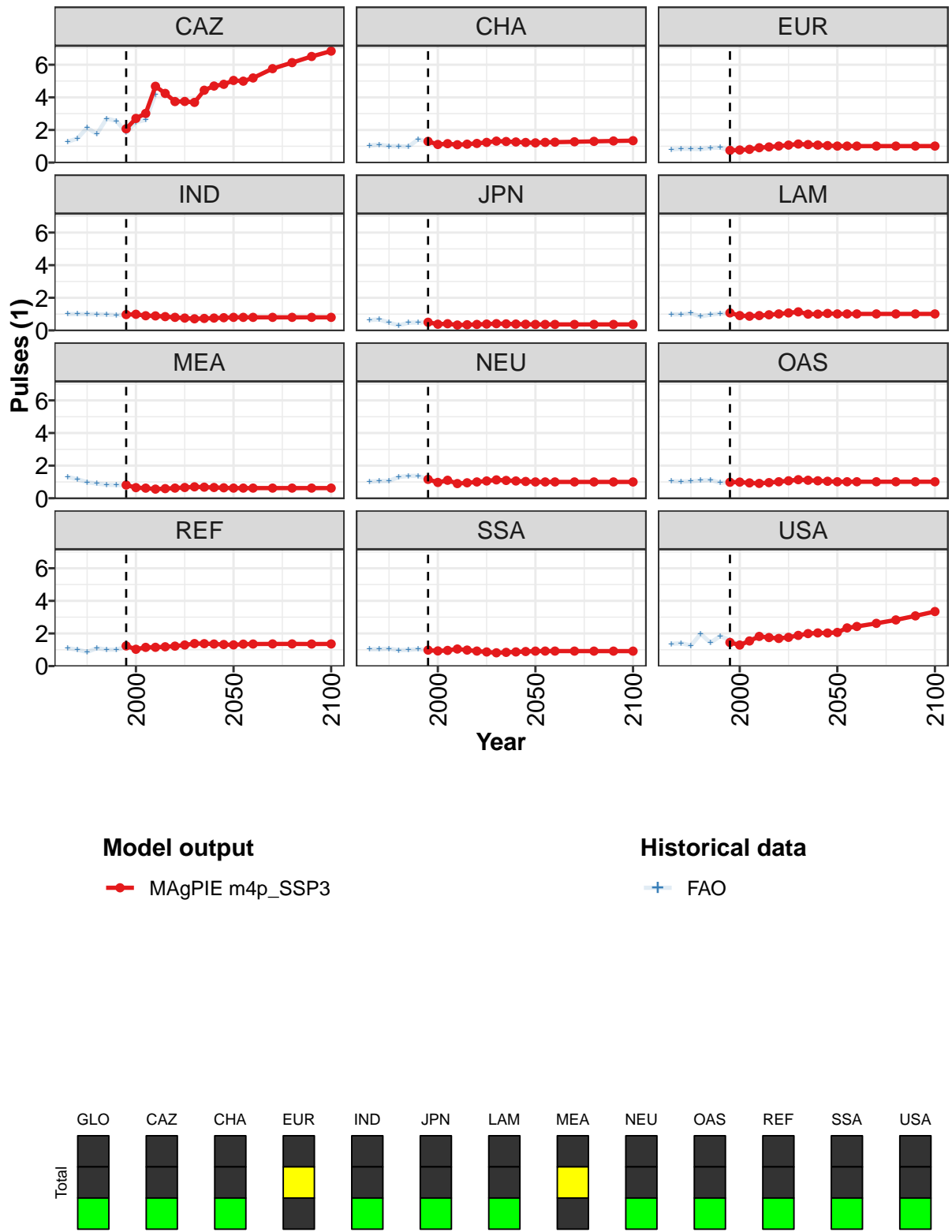


Figure 523: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Other crops—Pulses (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.03	1.01	1.02	1.04	1.02	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	2.07	2.71	3.01	4.68	4.24	3.74	3.75	3.69	4.44	4.69	4.80
CHA	1.30	1.11	1.16	1.09	1.13	1.17	1.24	1.32	1.29	1.26	1.23
EUR	0.75	0.77	0.81	0.91	0.96	1.01	1.07	1.14	1.10	1.07	1.04
IND	0.97	0.99	0.90	0.89	0.85	0.80	0.76	0.71	0.73	0.76	0.78
JPN	0.50	0.38	0.41	0.33	0.35	0.37	0.39	0.41	0.40	0.39	0.38
LAM	1.07	0.91	0.87	0.91	0.96	1.01	1.07	1.14	1.00	1.00	1.04
MEA	0.81	0.65	0.62	0.56	0.59	0.62	0.66	0.70	0.68	0.66	0.64
NEU	1.16	0.97	1.10	0.90	0.95	1.00	1.06	1.12	1.09	1.06	1.03
OAS	0.98	0.99	0.94	0.91	0.96	1.01	1.07	1.14	1.10	1.07	1.04
REF	1.24	1.03	1.15	1.15	1.18	1.22	1.29	1.38	1.37	1.35	1.32
SSA	0.98	0.93	0.96	1.05	0.98	0.92	0.87	0.81	0.84	0.87	0.89
USA	1.45	1.29	1.54	1.82	1.75	1.70	1.76	1.88	1.99	2.03	2.03

Table 1968: MAgPIE m4p-SSP3 — Trade—Self-sufficiency—Crops—Other crops—Pulses (1) [PART 1/2]

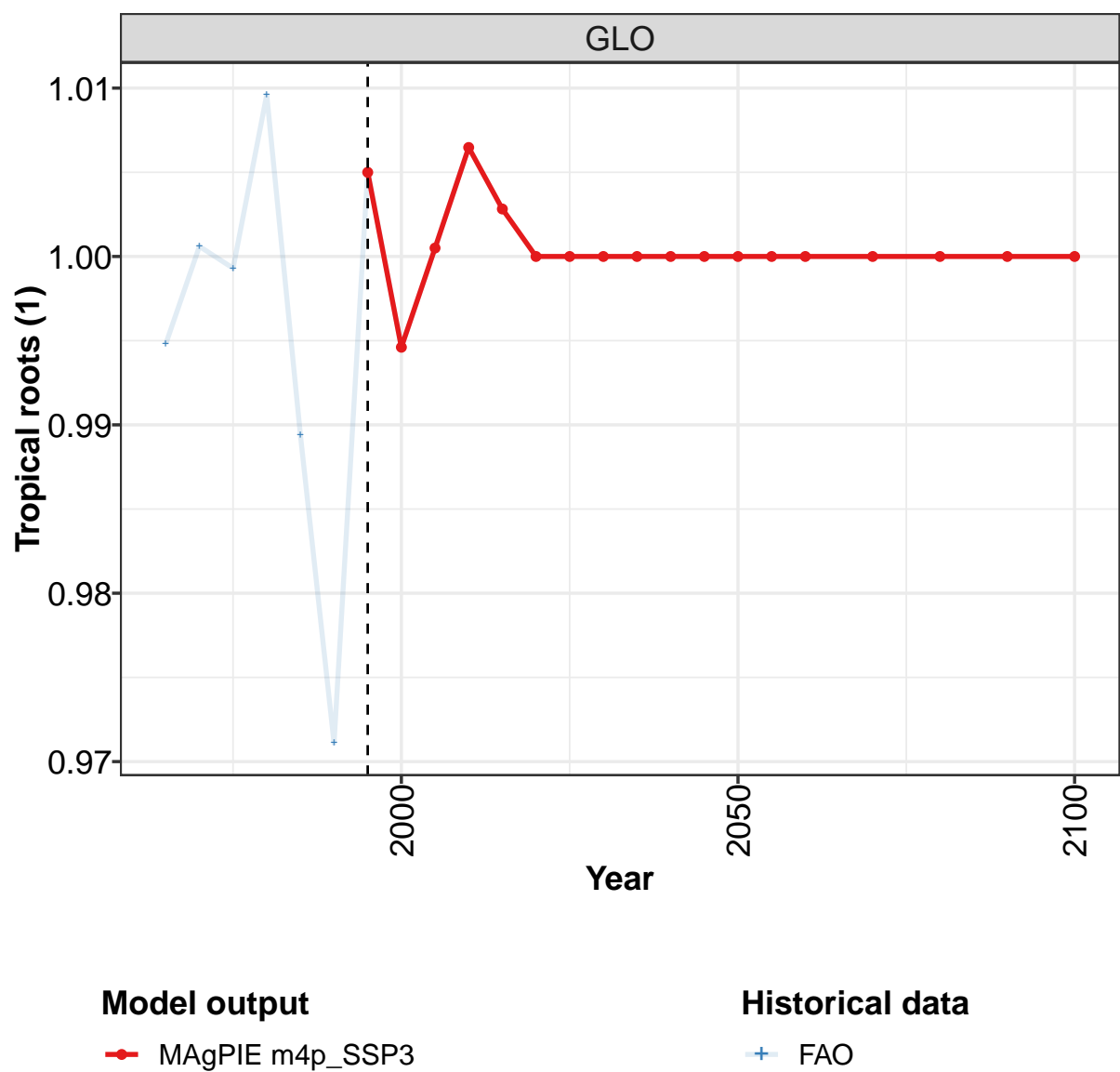
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	5.04	4.99	5.19	5.76	6.13	6.51	6.84
CHA	1.21	1.24	1.25	1.28	1.30	1.32	1.34
EUR	1.01	1.01	1.01	1.01	1.01	1.01	1.01
IND	0.80	0.80	0.80	0.80	0.80	0.80	0.80
JPN	0.37	0.37	0.37	0.37	0.37	0.37	0.37
LAM	1.01	1.01	1.01	1.01	1.01	1.01	1.01
MEA	0.62	0.62	0.62	0.62	0.62	0.62	0.62
NEU	1.00	1.00	1.00	1.00	1.00	1.00	1.00
OAS	1.01	1.01	1.01	1.01	1.01	1.01	1.01
REF	1.30	1.35	1.35	1.36	1.36	1.35	1.36
SSA	0.92	0.92	0.92	0.92	0.92	0.92	0.92
USA	2.06	2.34	2.43	2.62	2.83	3.08	3.34

Table 1969: MAgPIE m4p-SSP3 — Trade—Self-sufficiency—Crops—Other crops—Pulses (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.02	1.02	0.99	1.00	1.01	1.04	1.03	1.01	1.02	1.04
CAZ	1.27	1.48	2.13	1.75	2.70	2.55	1.84	2.48	2.62	4.19
CHA	1.05	1.10	1.01	1.00	0.98	1.43	1.27	1.06	1.16	1.07
EUR	0.81	0.85	0.84	0.83	0.90	0.91	0.75	0.77	0.81	0.91
IND	1.00	1.00	1.00	0.99	0.98	0.94	0.97	0.99	0.90	0.89
JPN	0.63	0.67	0.48	0.31	0.47	0.49	0.50	0.38	0.41	0.33
LAM	0.99	0.98	1.05	0.85	0.96	1.03	1.05	0.91	0.87	0.91
MEA	1.31	1.17	0.98	0.90	0.83	0.80	0.81	0.65	0.62	0.56
NEU	1.02	1.05	1.06	1.30	1.37	1.37	1.17	0.97	1.03	0.90
OAS	1.05	1.02	1.04	1.08	1.12	0.95	0.98	0.99	0.94	0.91
REF	1.09	1.01	0.87	1.10	1.01	1.00	1.19	1.00	1.15	1.15
SSA	1.03	1.03	1.07	0.97	1.00	1.04	0.98	0.93	0.96	1.09
USA	1.36	1.40	1.26	1.98	1.43	1.84	1.59	1.30	1.59	1.87

Table 1970: FAO — Trade—Self-sufficiency—Crops—Other crops—Pulses (1)

59.1.10 Other crops—Tropical roots



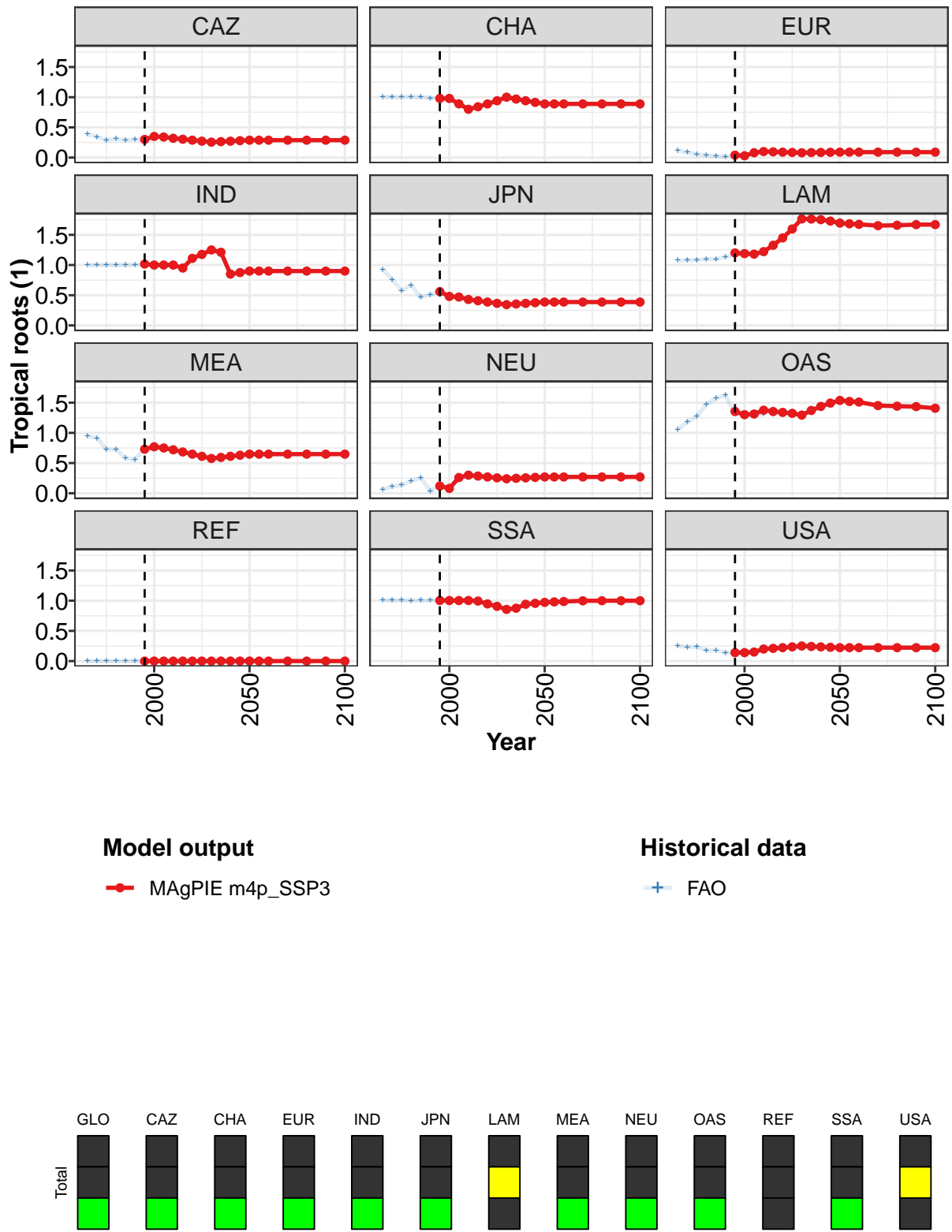


Figure 524: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Other crops—Tropical roots (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.00	0.99	1.00	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.30	0.35	0.34	0.32	0.30	0.29	0.27	0.26	0.26	0.27	0.28
CHA	0.98	0.98	0.89	0.80	0.84	0.89	0.94	1.00	0.97	0.94	0.91
EUR	0.04	0.03	0.08	0.10	0.10	0.09	0.09	0.08	0.08	0.09	0.09
IND	1.02	1.00	1.00	1.00	0.95	1.11	1.18	1.25	1.21	0.85	0.88
JPN	0.56	0.48	0.47	0.43	0.41	0.39	0.37	0.34	0.35	0.37	0.38
LAM	1.20	1.19	1.18	1.22	1.33	1.45	1.60	1.76	1.76	1.75	1.73
MEA	0.73	0.77	0.75	0.72	0.68	0.65	0.61	0.58	0.59	0.61	0.63
NEU	0.12	0.08	0.26	0.30	0.28	0.27	0.26	0.24	0.25	0.26	0.26
OAS	1.35	1.30	1.31	1.38	1.35	1.34	1.32	1.29	1.37	1.44	1.49
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	1.00	1.00	1.00	1.00	0.99	0.95	0.91	0.86	0.88	0.94	0.96
USA	0.14	0.14	0.15	0.20	0.21	0.22	0.24	0.25	0.24	0.24	0.23

Table 1971: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Other crops—Tropical roots (1) [PART 1/2]

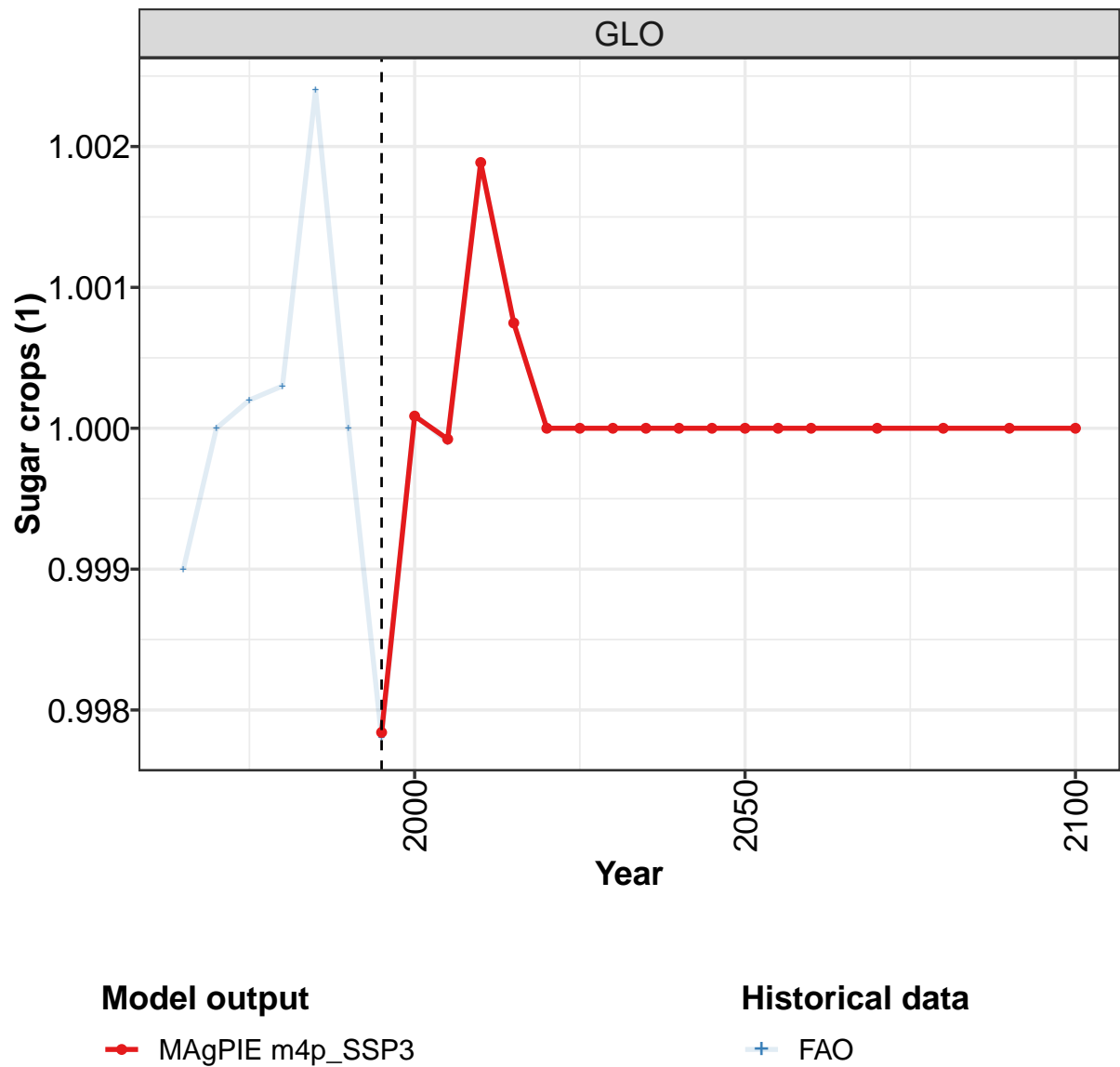
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.29	0.29	0.29	0.29	0.29	0.29	0.29
CHA	0.89	0.89	0.89	0.89	0.89	0.89	0.89
EUR	0.09	0.09	0.09	0.09	0.09	0.09	0.09
IND	0.90	0.90	0.90	0.90	0.90	0.90	0.90
JPN	0.39	0.39	0.39	0.39	0.39	0.39	0.39
LAM	1.69	1.68	1.67	1.65	1.66	1.67	1.67
MEA	0.65	0.65	0.65	0.65	0.65	0.65	0.65
NEU	0.27	0.27	0.27	0.27	0.27	0.27	0.27
OAS	1.54	1.52	1.51	1.45	1.44	1.43	1.41
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	0.97	0.98	0.99	1.00	1.00	1.00	1.00
USA	0.22	0.22	0.22	0.22	0.22	0.22	0.22

Table 1972: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Other crops—Tropical roots (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.99	1.00	1.00	1.01	0.99	0.97	1.01	0.99	1.00	1.01
CAZ	0.39	0.35	0.28	0.31	0.29	0.30	0.30	0.35	0.34	0.32
CHA	1.00	1.00	1.00	1.01	1.00	0.98	0.98	0.98	0.89	0.80
EUR	0.12	0.09	0.05	0.04	0.03	0.02	0.04	0.03	0.08	0.10
IND	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.00
JPN	0.93	0.76	0.58	0.67	0.47	0.51	0.56	0.48	0.47	0.43
LAM	1.08	1.08	1.09	1.10	1.10	1.13	1.17	1.18	1.18	1.21
MEA	0.95	0.91	0.72	0.72	0.58	0.56	0.73	0.77	0.75	0.72
NEU	0.06	0.11	0.13	0.20	0.25	0.04	0.12	0.08	0.26	0.30
OAS	1.06	1.18	1.28	1.47	1.57	1.62	1.31	1.29	1.30	1.31
REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSA	1.01	1.01	1.01	1.00	1.01	1.01	1.00	1.00	1.00	1.03
USA	0.25	0.23	0.23	0.18	0.18	0.14	0.14	0.14	0.15	0.20

Table 1973: FAO — Trade—Self-sufficiency—Crops—Other crops—Tropical roots (1)

59.1.11 Sugar crops



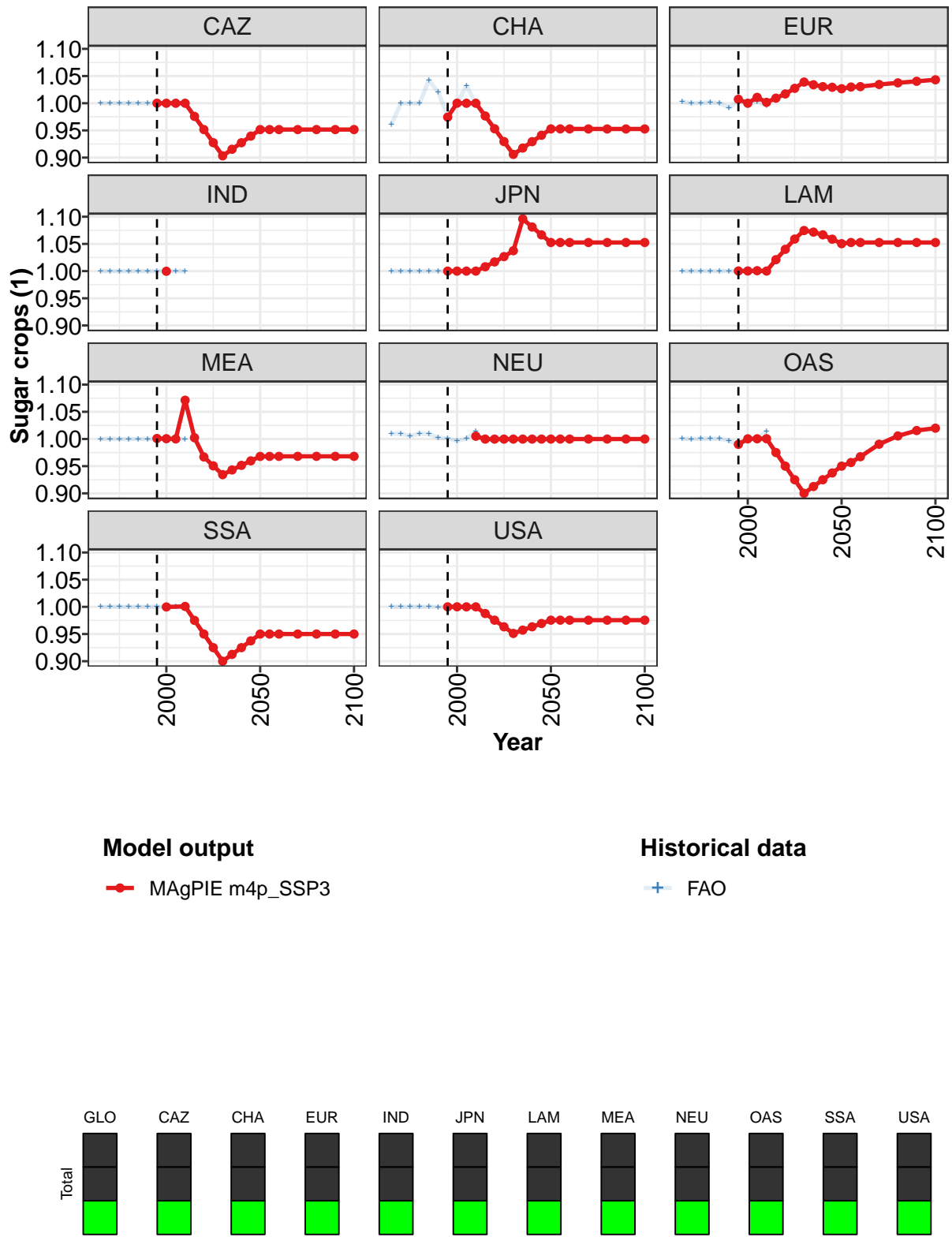


Figure 525: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Sugar crops (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1	1	1	1	1	1	1	1	1	1	1
CAZ	1	1	1	1	1	1	1	1	1	1	1
CHA	1	1	1	1	1	1	1	1	1	1	1
EUR	1	1	1	1	1	1	1	1	1	1	1
IND		1									
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	1	1	1	1	1	1	1	1	1	1	1
MEA	1	1	1	1	1	1	1	1	1	1	1
NEU				1	1	1	1	1	1	1	1
OAS	1	1	1	1	1	1	1	1	1	1	1
SSA		1		1	1	1	1	1	1	1	1
USA	1	1	1	1	1	1	1	1	1	1	1

Table 1974: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Sugar crops (1) [PART 1/2]

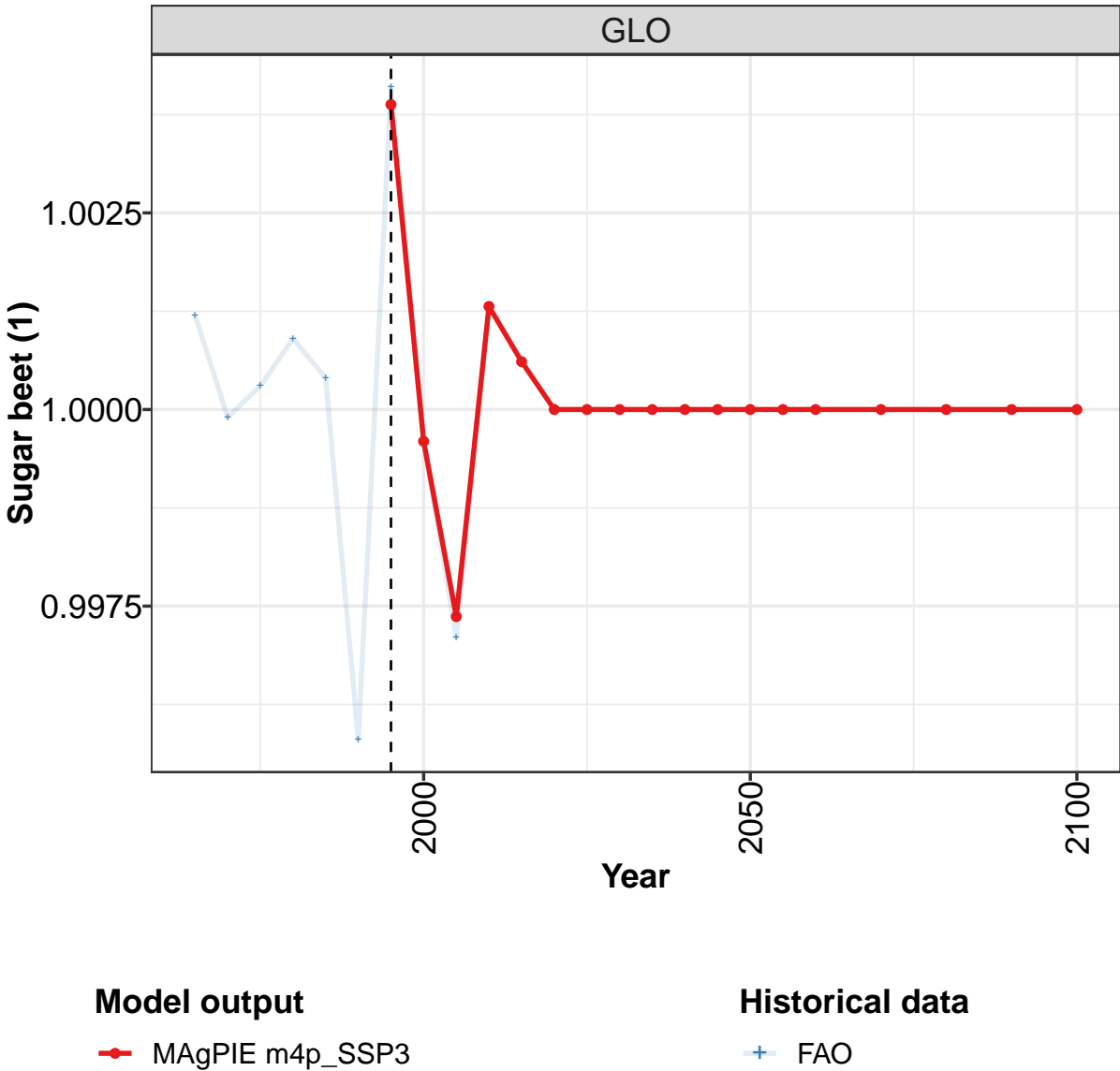
	2050	2055	2060	2070	2080	2090	2100
GLO	1	1	1	1	1	1	1
CAZ	1	1	1	1	1	1	1
CHA	1	1	1	1	1	1	1
EUR	1	1	1	1	1	1	1
IND							
JPN	1	1	1	1	1	1	1
LAM	1	1	1	1	1	1	1
MEA	1	1	1	1	1	1	1
NEU	1	1	1	1	1	1	1
OAS	1	1	1	1	1	1	1
SSA	1	1	1	1	1	1	1
USA	1	1	1	1	1	1	1

Table 1975: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Sugar crops (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CHA	0.96	1.00	1.00	1.00	1.04	1.02	0.98	1.00	1.03	1.00
EUR	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00
IND	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
JPN	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
LAM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MEA	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
NEU	1.01	1.01	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.01
OAS	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.01
SSA	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
USA	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table 1976: FAO — Trade—Self-sufficiency—Crops—Sugar crops (1)

59.1.12 Sugar crops—Sugar beet



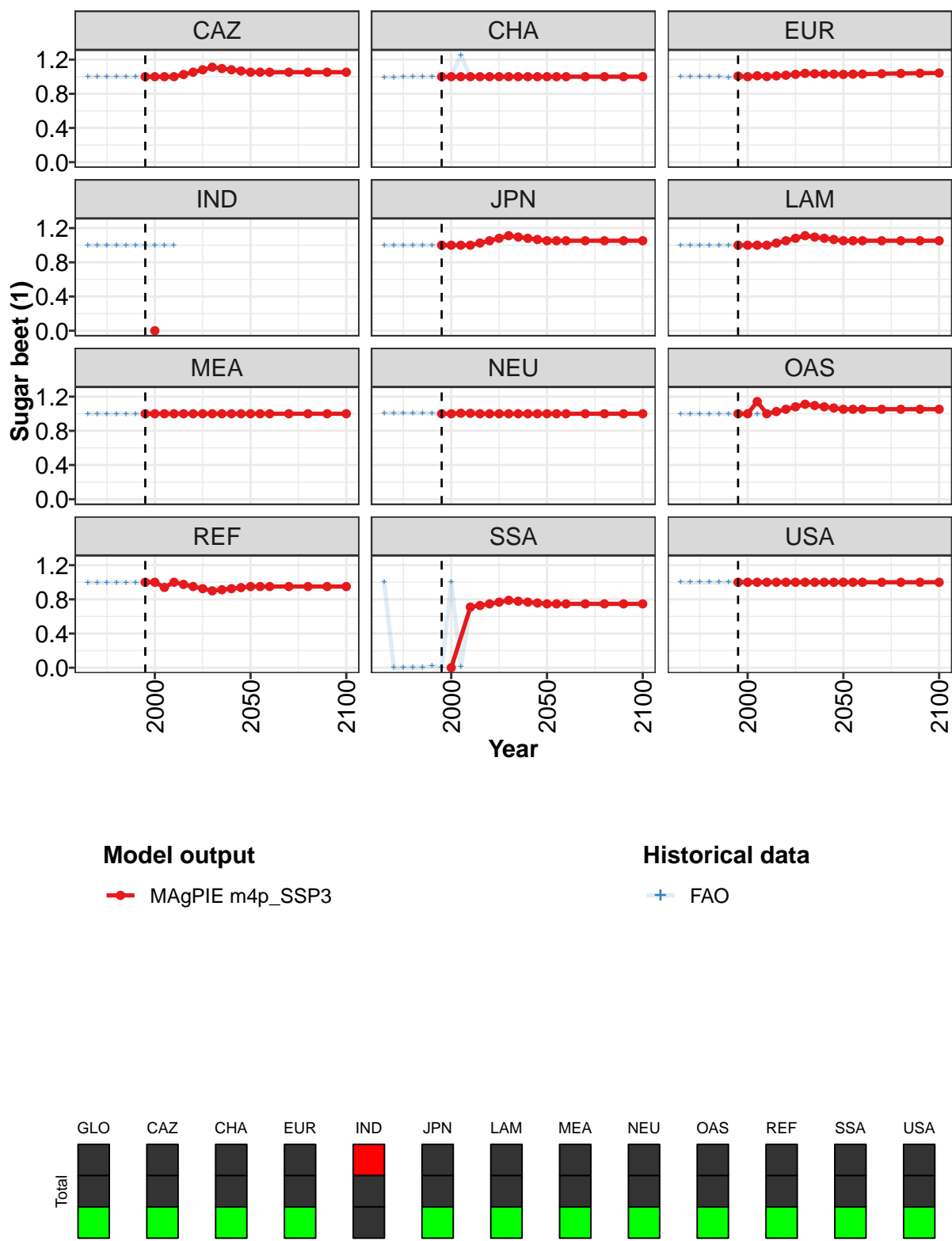


Figure 526: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Sugar crops—Sugar beet (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1	1	1	1	1	1	1	1	1	1	1
CAZ	1	1	1	1	1	1	1	1	1	1	1
CHA	1	1	1	1	1	1	1	1	1	1	1
EUR	1	1	1	1	1	1	1	1	1	1	1
IND		0									
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	1	1	1	1	1	1	1	1	1	1	1
MEA	1	1	1	1	1	1	1	1	1	1	1
NEU	1	1	1	1	1	1	1	1	1	1	1
OAS	1	1	1	1	1	1	1	1	1	1	1
REF	1	1	1	1	1	1	1	1	1	1	1
SSA		0		1	1	1	1	1	1	1	1
USA	1	1	1	1	1	1	1	1	1	1	1

Table 1977: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Sugar crops—Sugar beet (1) [PART 1/2]

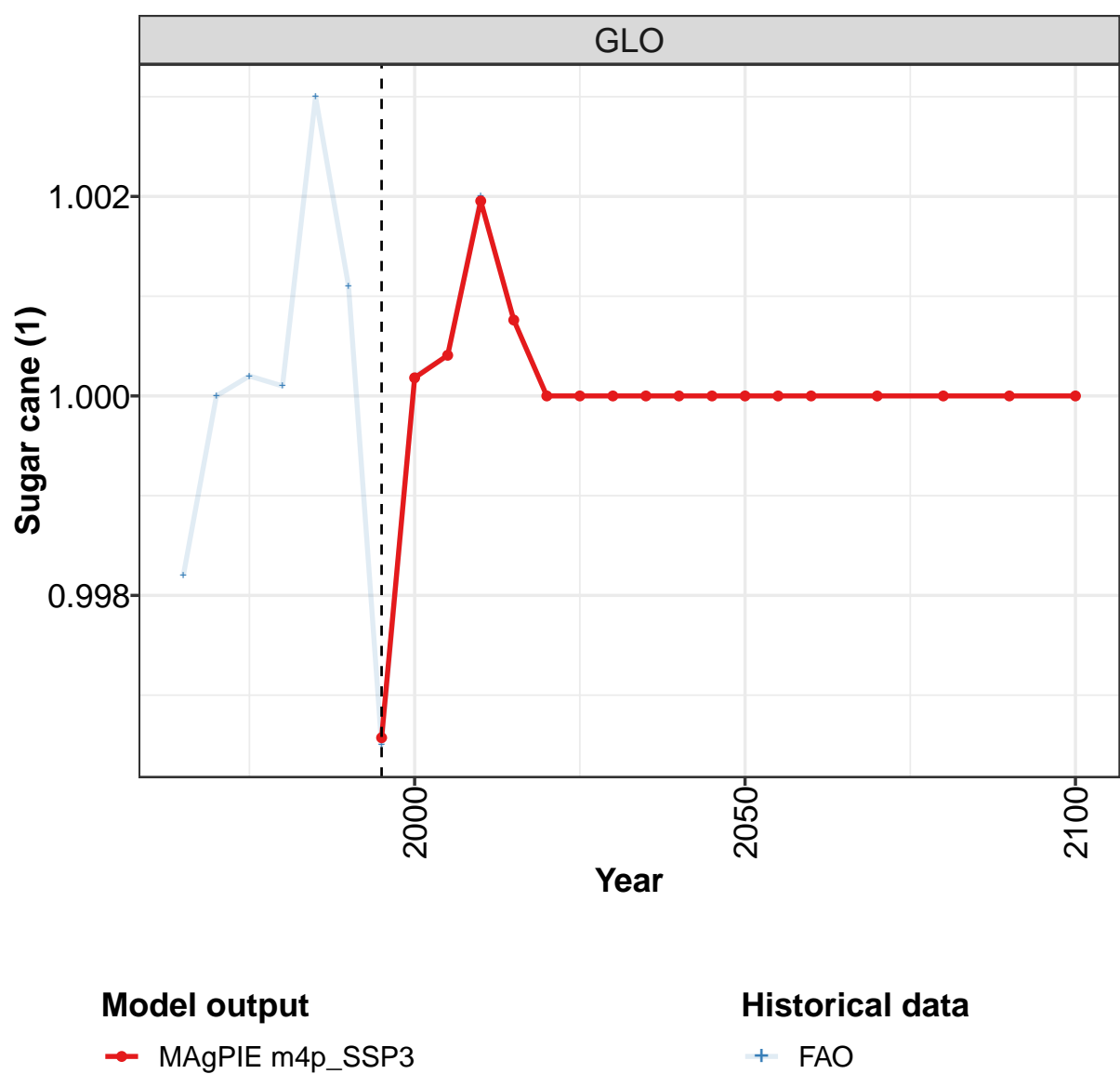
	2050	2055	2060	2070	2080	2090	2100
GLO	1	1	1	1	1	1	1
CAZ	1	1	1	1	1	1	1
CHA	1	1	1	1	1	1	1
EUR	1	1	1	1	1	1	1
IND							
JPN	1	1	1	1	1	1	1
LAM	1	1	1	1	1	1	1
MEA	1	1	1	1	1	1	1
NEU	1	1	1	1	1	1	1
OAS	1	1	1	1	1	1	1
REF	1	1	1	1	1	1	1
SSA	1	1	1	1	1	1	1
USA	1	1	1	1	1	1	1

Table 1978: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Sugar crops—Sugar beet (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CHA	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.25	1.00
EUR	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00
IND	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
JPN	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
LAM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MEA	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
NEU	1.01	1.01	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.01
OAS	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
REF	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	0.94	1.01
SSA	1.00	0.00	0.00	0.01	0.00	0.02	0.00	1.00	0.01	0.71
USA	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table 1979: FAO — Trade—Self-sufficiency—Crops—Sugar crops—Sugar beet (1)

59.1.13 Sugar crops—Sugar cane



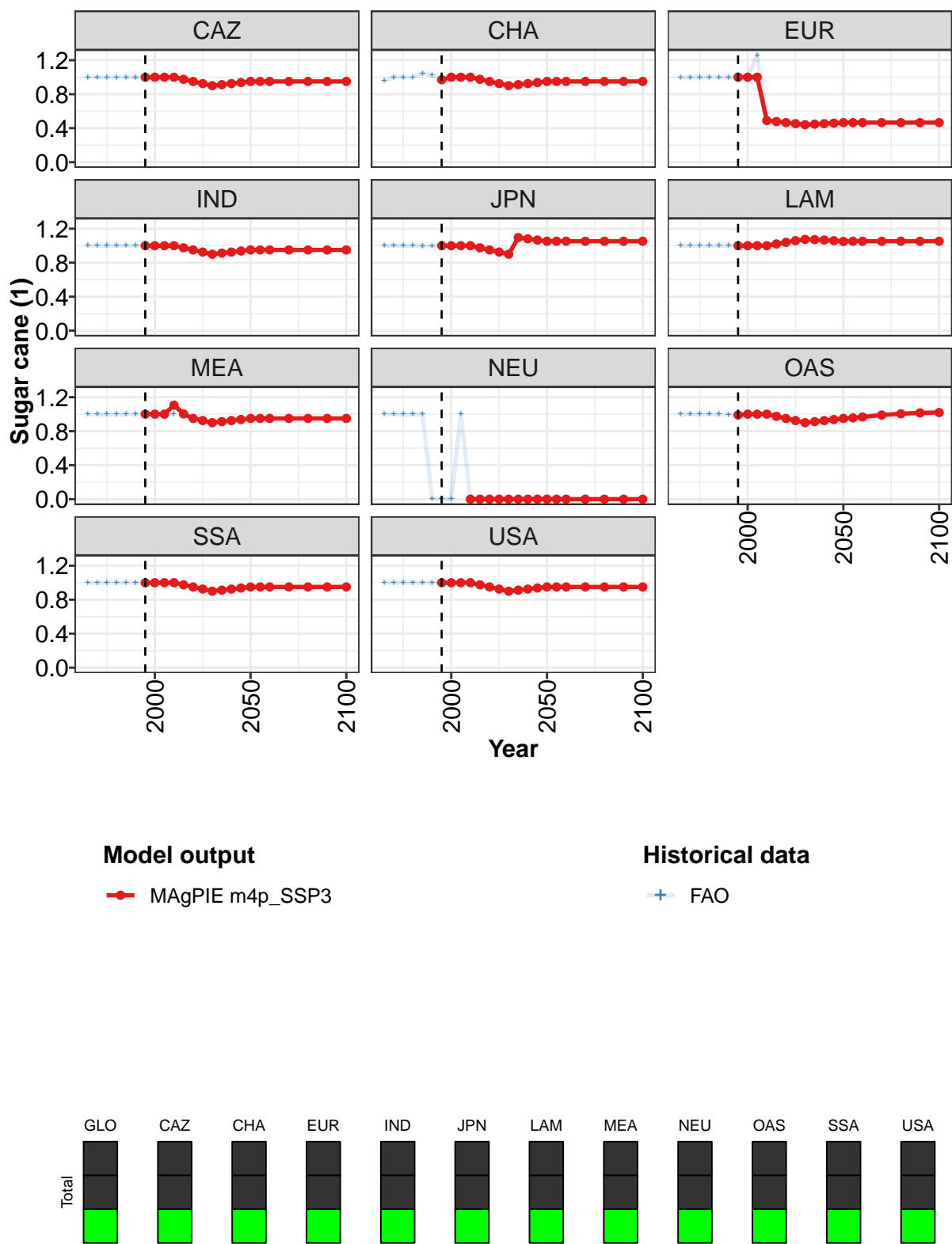


Figure 527: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Sugar crops—Sugar cane (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1	1	1	1	1	1	1	1	1	1	1
CAZ	1	1	1	1	1	1	1	1	1	1	1
CHA	1	1	1	1	1	1	1	1	1	1	1
EUR	1	1	1	0	0	0	0	0	0	0	0
IND	1	1	1	1	1	1	1	1	1	1	1
JPN	1	1	1	1	1	1	1	1	1	1	1
LAM	1	1	1	1	1	1	1	1	1	1	1
MEA	1	1	1	1	1	1	1	1	1	1	1
NEU				0	0	0	0	0	0	0	0
OAS	1	1	1	1	1	1	1	1	1	1	1
SSA	1	1	1	1	1	1	1	1	1	1	1
USA	1	1	1	1	1	1	1	1	1	1	1

Table 1980: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Sugar crops—Sugar cane (1) [PART 1/2]

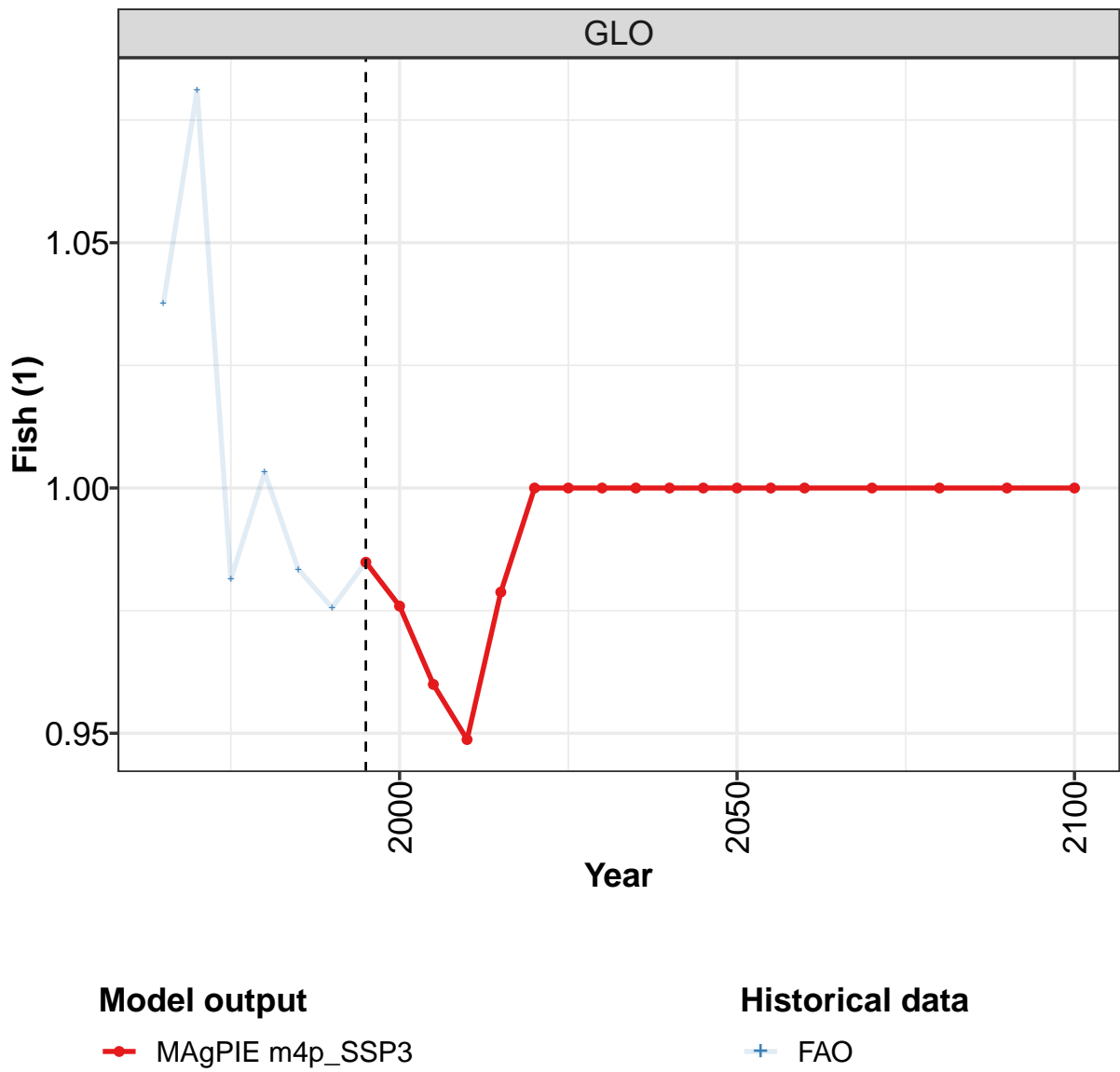
	2050	2055	2060	2070	2080	2090	2100
GLO	1	1	1	1	1	1	1
CAZ	1	1	1	1	1	1	1
CHA	1	1	1	1	1	1	1
EUR	0	0	0	0	0	0	0
IND	1	1	1	1	1	1	1
JPN	1	1	1	1	1	1	1
LAM	1	1	1	1	1	1	1
MEA	1	1	1	1	1	1	1
NEU	0	0	0	0	0	0	0
OAS	1	1	1	1	1	1	1
SSA	1	1	1	1	1	1	1
USA	1	1	1	1	1	1	1

Table 1981: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Crops—Sugar crops—Sugar cane (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CHA	0.96	1.00	1.00	1.00	1.05	1.02	0.97	1.00	1.02	1.00
EUR	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.26	0.49
IND	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
JPN	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
LAM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MEA	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
NEU	1.00	1.00	1.00	1.00	1.00	0.01	0.01	0.00	1.00	0.00
OAS	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.01
SSA	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
USA	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table 1982: FAO — Trade—Self-sufficiency—Crops—Sugar crops—Sugar cane (1)

59.2 Fish



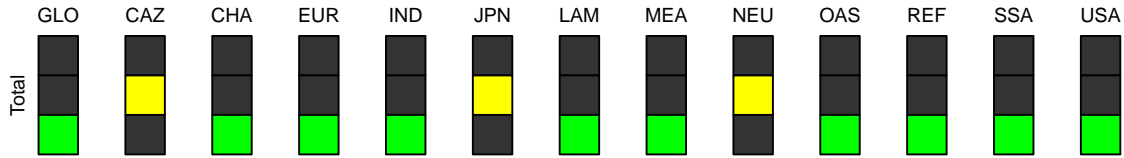
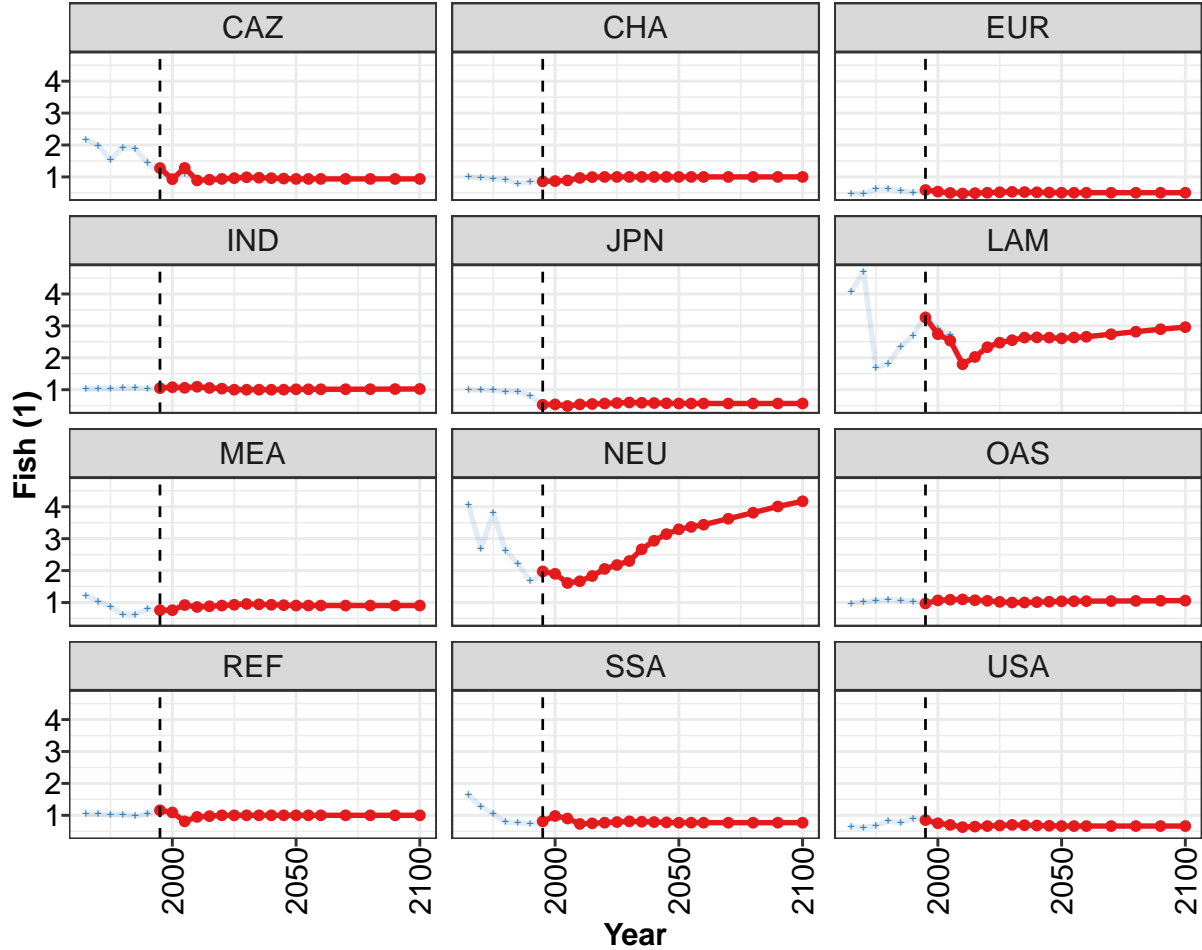


Figure 528: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Fish (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.98	0.98	0.96	0.95	0.98	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.28	0.93	1.28	0.89	0.91	0.94	0.96	0.99	0.98	0.96	0.95
CHA	0.86	0.87	0.89	0.97	0.99	1.00	1.00	1.00	1.00	1.00	1.00
EUR	0.59	0.54	0.50	0.48	0.49	0.51	0.52	0.53	0.53	0.52	0.51
IND	1.05	1.08	1.06	1.09	1.06	1.03	1.00	1.00	1.00	1.00	1.00
JPN	0.53	0.54	0.49	0.54	0.55	0.57	0.58	0.60	0.59	0.58	0.58
LAM	3.26	2.74	2.54	1.80	2.03	2.33	2.47	2.55	2.63	2.64	2.63
MEA	0.76	0.76	0.92	0.86	0.88	0.91	0.93	0.96	0.94	0.93	0.92
NEU	1.97	1.90	1.61	1.67	1.83	2.05	2.18	2.30	2.67	2.94	3.14
OAS	0.97	1.07	1.09	1.10	1.07	1.05	1.02	1.00	1.00	1.01	1.03
REF	1.16	1.09	0.81	0.95	0.97	1.00	1.00	1.00	1.00	1.00	1.00
SSA	0.81	0.98	0.90	0.73	0.75	0.77	0.79	0.81	0.80	0.79	0.78
USA	0.85	0.75	0.70	0.63	0.65	0.66	0.68	0.70	0.69	0.68	0.67

Table 1983: MAgPIE m4p-SSP3 — Trade—Self-sufficiency—Fish (1) [PART 1/2]

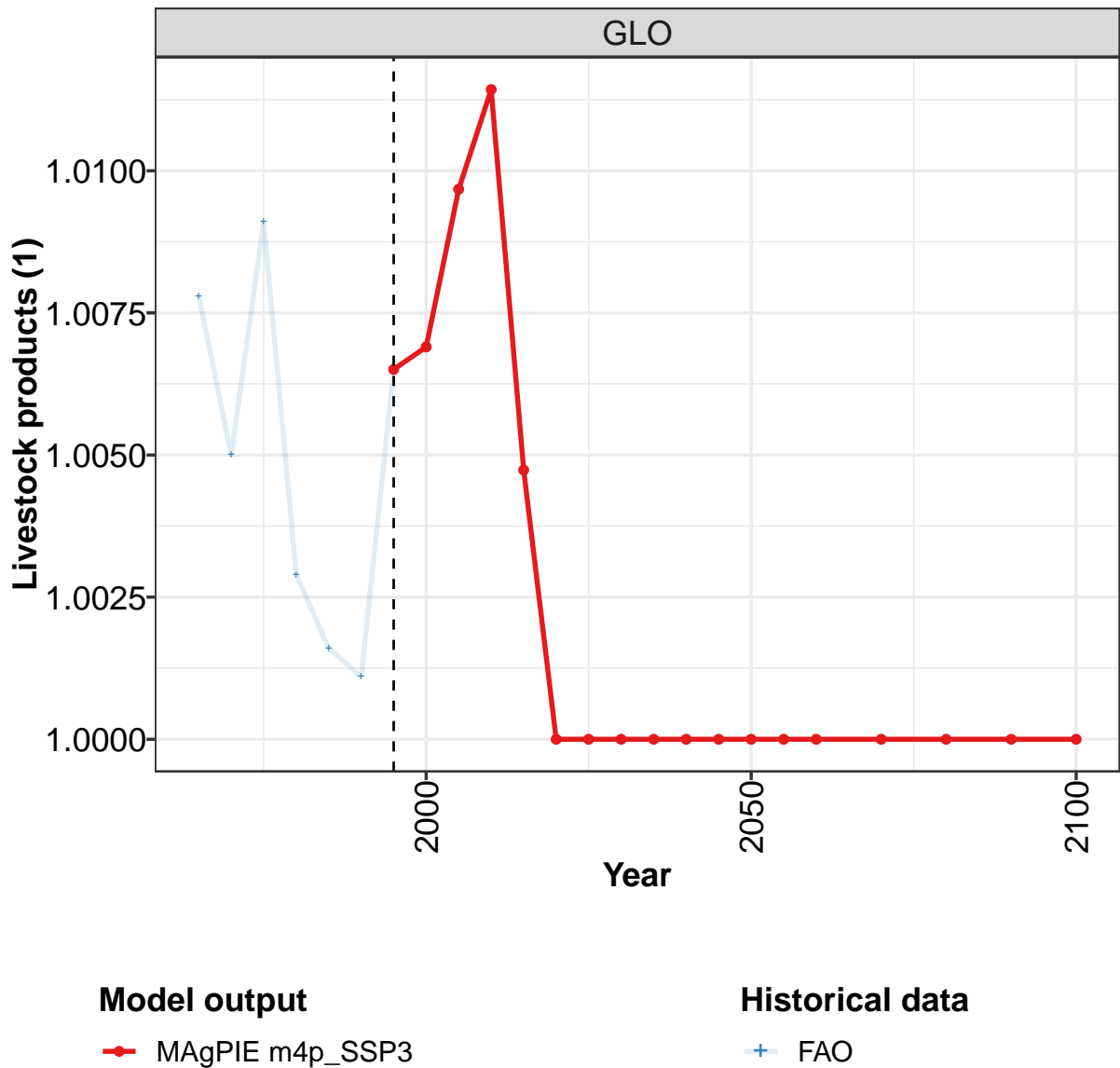
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.94	0.94	0.94	0.94	0.94	0.94	0.94
CHA	1.00	1.00	1.00	1.00	1.00	1.00	1.00
EUR	0.51	0.51	0.51	0.51	0.51	0.51	0.51
IND	1.01	1.01	1.01	1.02	1.02	1.02	1.02
JPN	0.57	0.57	0.57	0.57	0.57	0.57	0.57
LAM	2.61	2.64	2.66	2.74	2.82	2.89	2.96
MEA	0.91	0.91	0.91	0.91	0.91	0.91	0.91
NEU	3.29	3.37	3.44	3.62	3.81	4.01	4.17
OAS	1.04	1.04	1.04	1.05	1.05	1.06	1.06
REF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
SSA	0.77	0.77	0.77	0.77	0.77	0.77	0.77
USA	0.66	0.66	0.66	0.66	0.66	0.66	0.66

Table 1984: MAgPIE m4p-SSP3 — Trade—Self-sufficiency—Fish (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.04	1.08	0.98	1.00	0.98	0.98	0.98	0.98	0.96	0.95
CAZ	2.18	1.98	1.53	1.92	1.88	1.45	1.12	0.93	1.10	0.89
CHA	1.00	0.98	0.93	0.92	0.79	0.85	0.86	0.87	0.89	0.97
EUR	0.47	0.47	0.62	0.62	0.57	0.51	0.59	0.54	0.50	0.48
IND	1.02	1.04	1.03	1.05	1.05	1.04	1.07	1.10	1.07	1.12
JPN	0.99	1.00	0.98	0.95	0.95	0.80	0.53	0.54	0.49	0.54
LAM	4.07	4.70	1.68	1.82	2.36	2.70	3.34	2.91	2.73	1.81
MEA	1.22	1.04	0.87	0.62	0.62	0.80	0.76	0.76	0.92	0.86
NEU	4.07	2.69	3.81	2.62	2.21	1.67	1.89	1.92	1.67	1.70
OAS	0.97	1.01	1.06	1.10	1.06	1.04	0.97	1.02	1.04	1.09
REF	1.04	1.04	1.02	1.03	0.97	1.05	1.14	1.03	0.81	0.95
SSA	1.65	1.28	1.05	0.78	0.78	0.73	0.81	0.98	0.90	0.73
USA	0.64	0.61	0.67	0.82	0.76	0.90	0.85	0.75	0.70	0.63

Table 1985: FAO — Trade—Self-sufficiency—Fish (1)

59.3 Livestock products



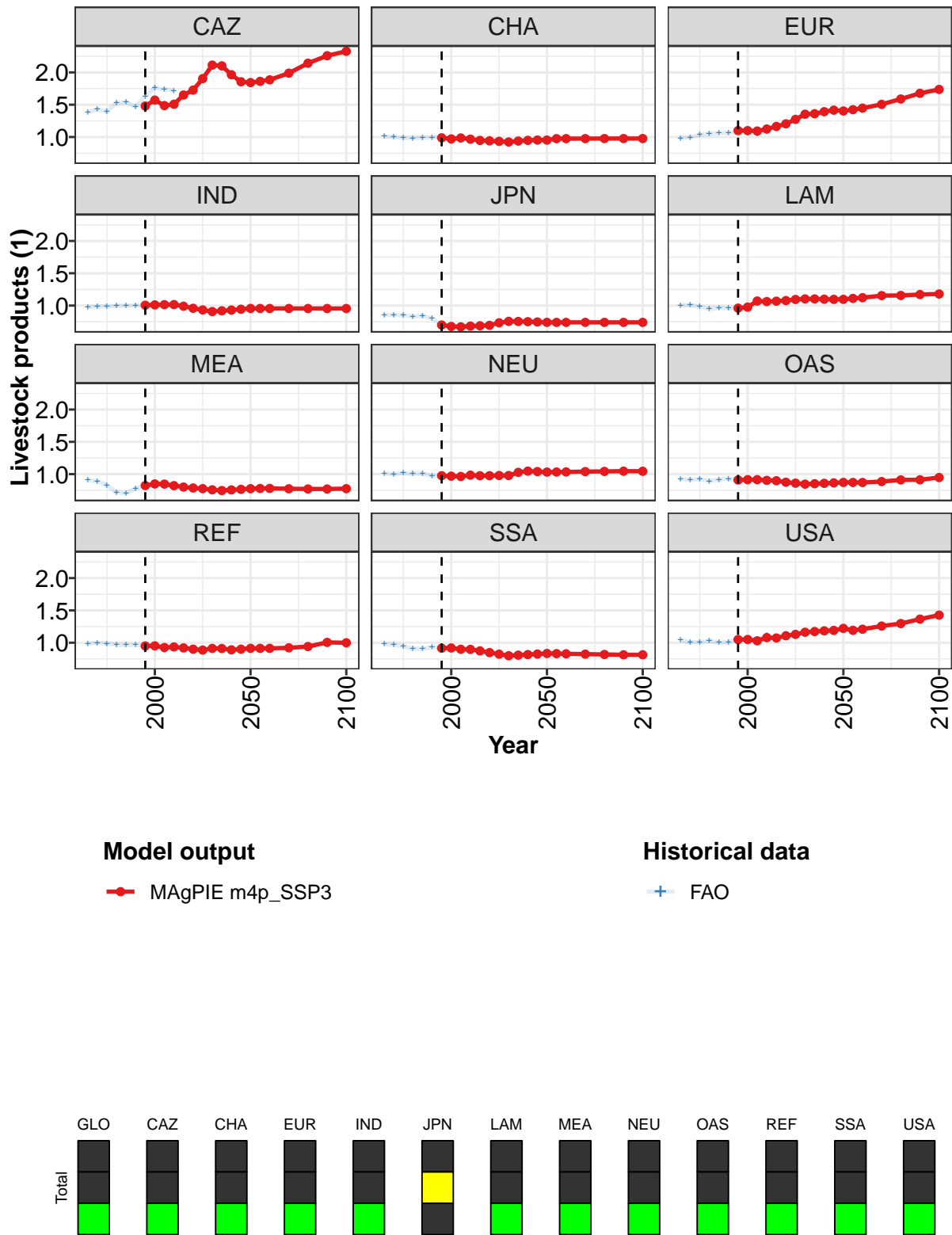


Figure 529: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.01	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.48	1.57	1.49	1.51	1.65	1.73	1.90	2.11	2.10	1.96	1.86
CHA	0.99	0.97	0.99	0.97	0.95	0.94	0.93	0.92	0.94	0.95	0.95
EUR	1.10	1.10	1.09	1.12	1.16	1.20	1.27	1.35	1.36	1.39	1.42
IND	1.01	1.01	1.01	1.02	0.99	0.96	0.93	0.91	0.92	0.93	0.94
JPN	0.70	0.68	0.67	0.68	0.69	0.69	0.73	0.76	0.75	0.75	0.75
LAM	0.96	0.98	1.07	1.06	1.07	1.08	1.09	1.10	1.10	1.10	1.10
MEA	0.82	0.85	0.85	0.82	0.80	0.79	0.78	0.76	0.75	0.76	0.77
NEU	0.98	0.97	0.96	0.98	0.98	0.98	0.98	0.98	1.03	1.05	1.04
OAS	0.91	0.91	0.91	0.90	0.90	0.88	0.86	0.85	0.85	0.86	0.86
REF	0.95	0.95	0.93	0.93	0.92	0.90	0.89	0.91	0.91	0.89	0.90
SSA	0.92	0.92	0.90	0.90	0.87	0.85	0.82	0.80	0.81	0.82	0.82
USA	1.05	1.05	1.03	1.08	1.07	1.11	1.13	1.16	1.17	1.18	1.19

Table 1986: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products (1) [PART 1/2]

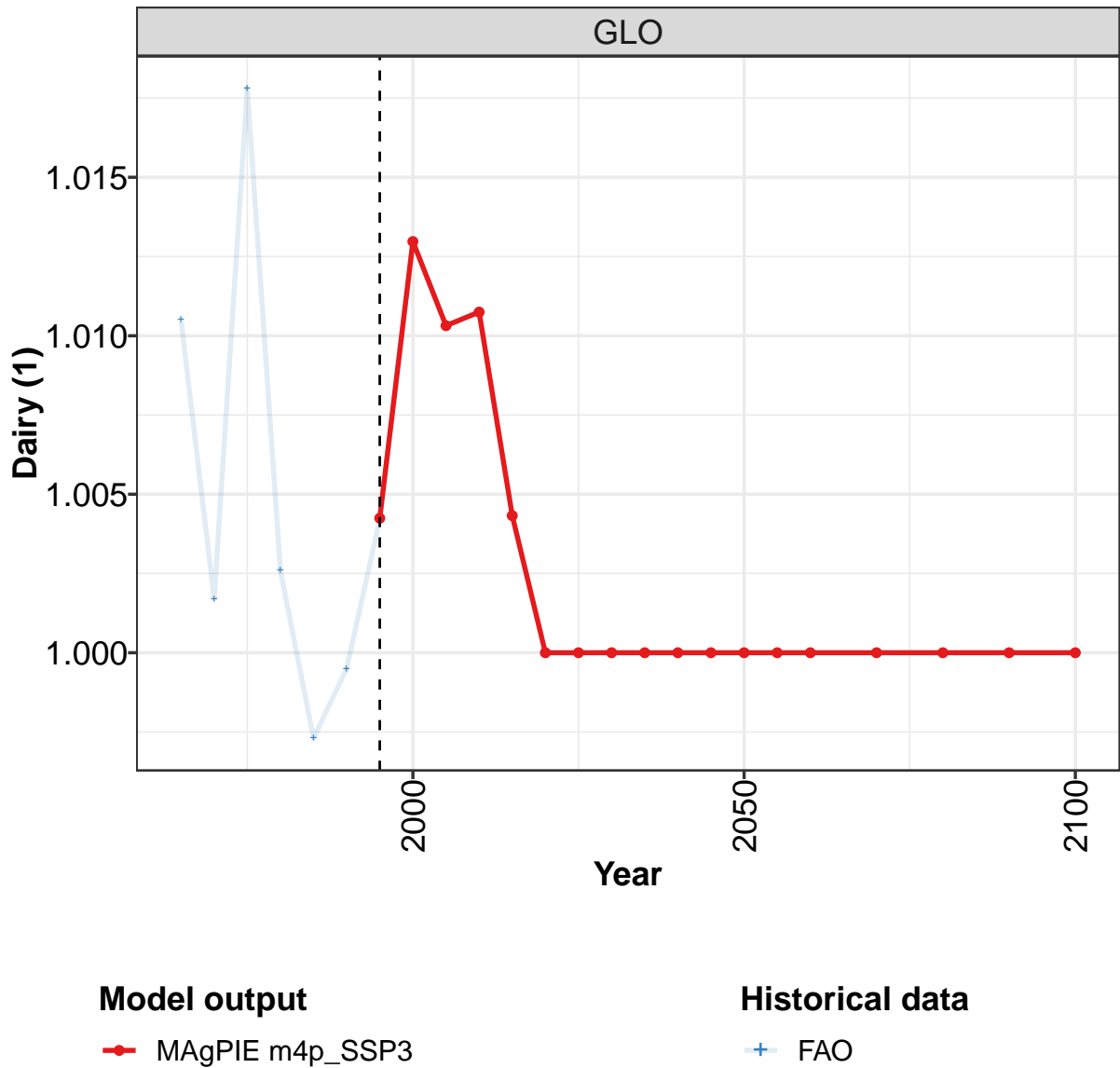
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.84	1.86	1.88	1.99	2.14	2.26	2.33
CHA	0.95	0.97	0.97	0.98	0.98	0.98	0.98
EUR	1.40	1.42	1.45	1.51	1.59	1.68	1.74
IND	0.96	0.96	0.96	0.95	0.95	0.95	0.95
JPN	0.74	0.74	0.74	0.74	0.74	0.74	0.74
LAM	1.10	1.11	1.12	1.15	1.16	1.17	1.18
MEA	0.77	0.78	0.78	0.77	0.77	0.77	0.78
NEU	1.03	1.03	1.03	1.04	1.04	1.05	1.04
OAS	0.87	0.87	0.87	0.89	0.91	0.91	0.95
REF	0.91	0.91	0.91	0.92	0.94	1.00	1.00
SSA	0.83	0.83	0.83	0.82	0.82	0.81	0.81
USA	1.22	1.19	1.21	1.26	1.30	1.37	1.43

Table 1987: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.01	1.00	1.01	1.00	1.00	1.00	1.01	1.01	1.01	1.01
CAZ	1.38	1.43	1.40	1.52	1.54	1.47	1.63	1.76	1.74	1.72
CHA	1.01	1.00	0.99	0.98	0.99	0.99	0.99	0.97	0.98	0.97
EUR	0.98	0.99	1.03	1.05	1.06	1.07	1.07	1.07	1.05	1.09
IND	0.98	0.98	0.99	0.99	1.00	1.00	1.01	1.01	1.02	1.02
JPN	0.85	0.86	0.85	0.83	0.84	0.80	0.70	0.68	0.67	0.68
LAM	1.00	1.01	0.98	0.95	0.97	0.96	0.96	0.97	1.06	1.04
MEA	0.91	0.89	0.83	0.72	0.71	0.77	0.83	0.85	0.85	0.82
NEU	1.01	1.00	1.02	1.01	1.01	0.97	0.97	0.97	0.96	0.98
OAS	0.93	0.91	0.92	0.89	0.92	0.93	0.91	0.91	0.91	0.91
REF	0.99	1.00	0.99	0.97	0.96	0.97	0.95	0.95	0.92	0.92
SSA	0.98	0.97	0.94	0.91	0.91	0.93	0.92	0.92	0.90	0.90
USA	1.04	1.01	1.01	1.03	1.00	1.01	1.06	1.07	1.05	1.11

Table 1988: FAO — Trade—Self-sufficiency—Livestock products (1)

59.3.1 Dairy



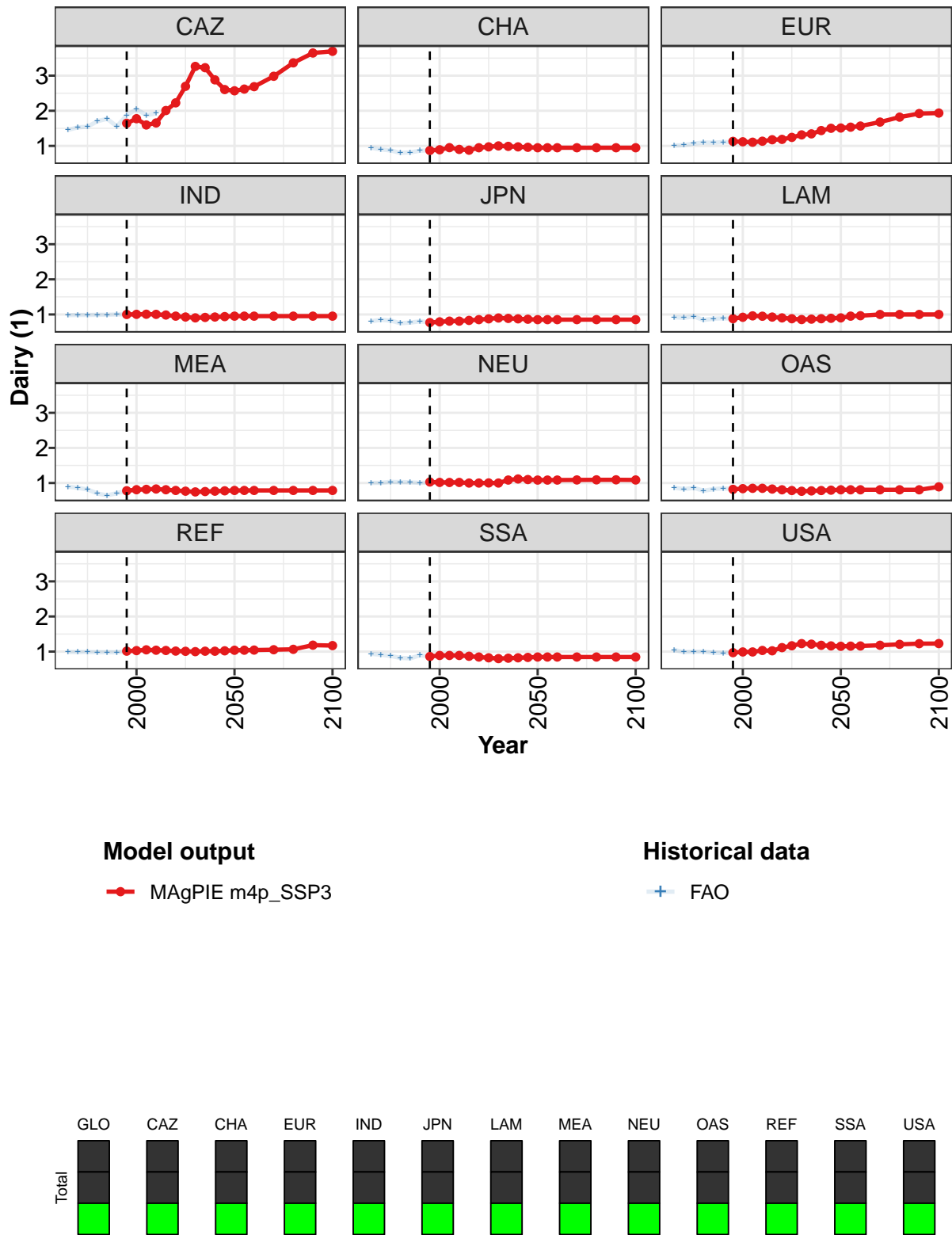


Figure 530: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Dairy (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.00	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.64	1.77	1.60	1.65	2.01	2.23	2.70	3.26	3.23	2.88	2.60
CHA	0.87	0.89	0.95	0.90	0.88	0.95	0.97	1.00	0.99	0.97	0.96
EUR	1.13	1.12	1.11	1.13	1.18	1.19	1.24	1.31	1.34	1.44	1.50
IND	1.00	1.00	1.01	1.00	0.98	0.95	0.93	0.90	0.92	0.93	0.94
JPN	0.77	0.79	0.81	0.81	0.83	0.85	0.88	0.90	0.89	0.88	0.86
LAM	0.88	0.92	0.96	0.95	0.93	0.90	0.88	0.85	0.87	0.88	0.89
MEA	0.78	0.81	0.82	0.83	0.81	0.79	0.77	0.75	0.76	0.77	0.78
NEU	1.03	1.02	1.02	1.02	1.00	1.00	1.00	1.00	1.08	1.12	1.10
OAS	0.82	0.84	0.85	0.85	0.83	0.81	0.79	0.77	0.78	0.79	0.80
REF	1.01	1.03	1.05	1.04	1.03	1.02	1.01	1.00	1.01	1.01	1.02
SSA	0.86	0.89	0.89	0.89	0.87	0.85	0.82	0.80	0.81	0.82	0.83
USA	0.97	0.99	0.99	1.03	1.02	1.11	1.17	1.23	1.21	1.18	1.16

Table 1989: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Dairy (1) [PART 1/2]

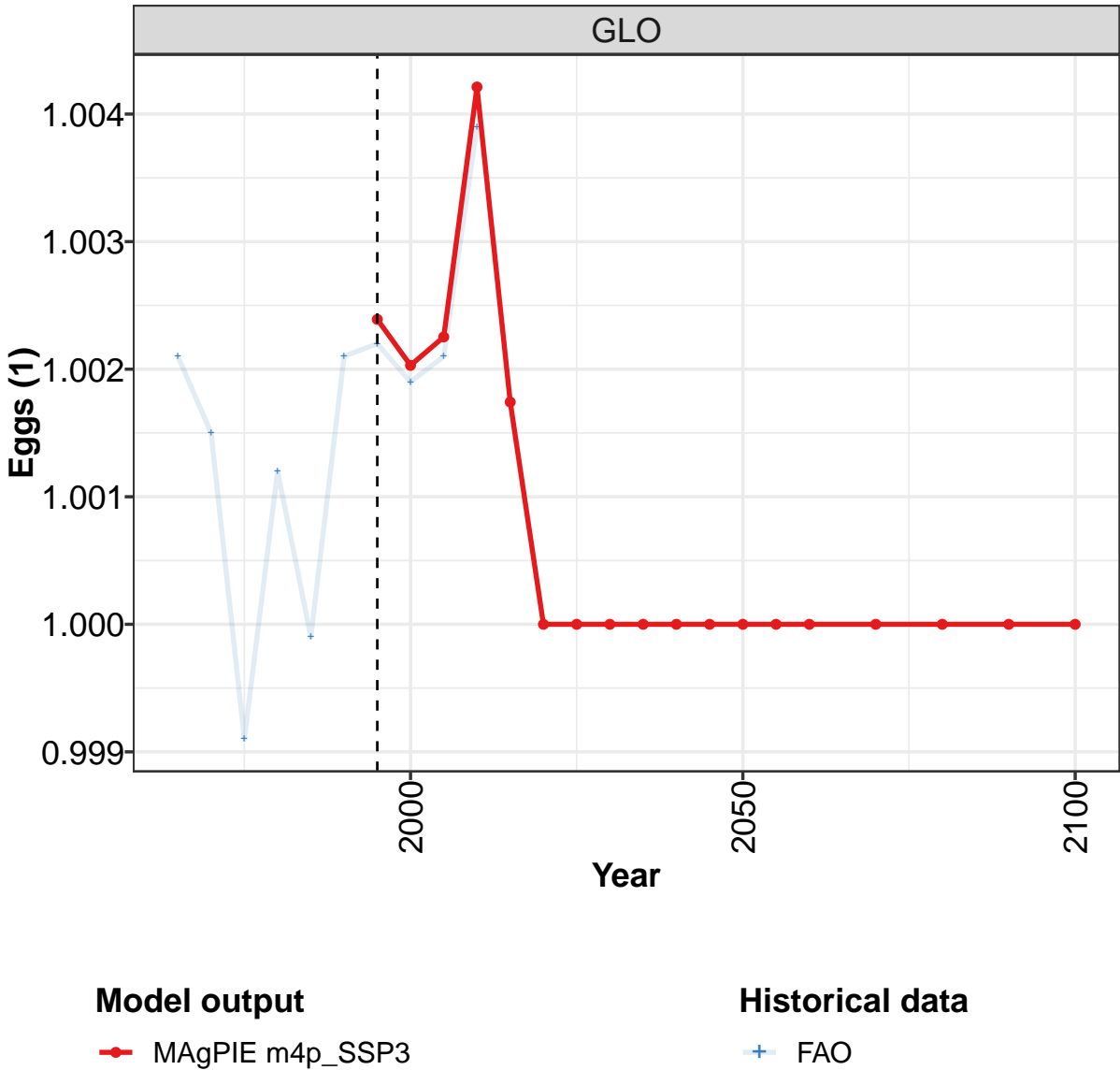
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	2.57	2.62	2.69	2.98	3.37	3.65	3.69
CHA	0.95	0.95	0.95	0.95	0.95	0.95	0.95
EUR	1.51	1.53	1.57	1.68	1.82	1.92	1.94
IND	0.95	0.95	0.95	0.95	0.95	0.95	0.95
JPN	0.85	0.85	0.85	0.85	0.85	0.85	0.85
LAM	0.90	0.95	0.96	1.00	1.00	1.00	1.00
MEA	0.79	0.79	0.79	0.79	0.79	0.79	0.79
NEU	1.08	1.08	1.09	1.09	1.09	1.09	1.09
OAS	0.81	0.81	0.81	0.81	0.81	0.81	0.89
REF	1.04	1.04	1.04	1.05	1.07	1.18	1.17
SSA	0.85	0.85	0.85	0.85	0.85	0.85	0.85
USA	1.15	1.16	1.16	1.18	1.21	1.23	1.23

Table 1990: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Dairy (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.01	1.00	1.02	1.00	1.00	1.00	1.00	1.01	1.01	1.01
CAZ	1.46	1.53	1.54	1.70	1.77	1.55	1.87	2.04	1.87	1.92
CHA	0.95	0.90	0.87	0.80	0.82	0.86	0.87	0.89	0.95	0.90
EUR	1.01	1.02	1.07	1.10	1.09	1.11	1.11	1.09	1.07	1.10
IND	0.98	0.99	0.99	0.99	0.99	1.00	1.00	1.00	1.01	1.00
JPN	0.81	0.85	0.82	0.75	0.77	0.80	0.77	0.79	0.81	0.81
LAM	0.92	0.90	0.94	0.84	0.88	0.89	0.88	0.92	0.96	0.95
MEA	0.90	0.86	0.82	0.70	0.65	0.71	0.78	0.81	0.82	0.83
NEU	1.00	1.01	1.03	1.03	1.02	1.00	1.02	1.02	1.02	1.02
OAS	0.87	0.83	0.86	0.78	0.83	0.85	0.82	0.84	0.85	0.85
REF	0.99	0.99	0.99	0.98	0.98	0.98	1.02	1.03	1.04	1.01
SSA	0.94	0.91	0.88	0.82	0.81	0.90	0.86	0.89	0.89	0.89
USA	1.05	0.98	1.00	1.00	0.97	0.96	0.97	0.99	0.99	1.05

Table 1991: FAO — Trade—Self-sufficiency—Livestock products—Dairy (1)

59.3.2 Eggs



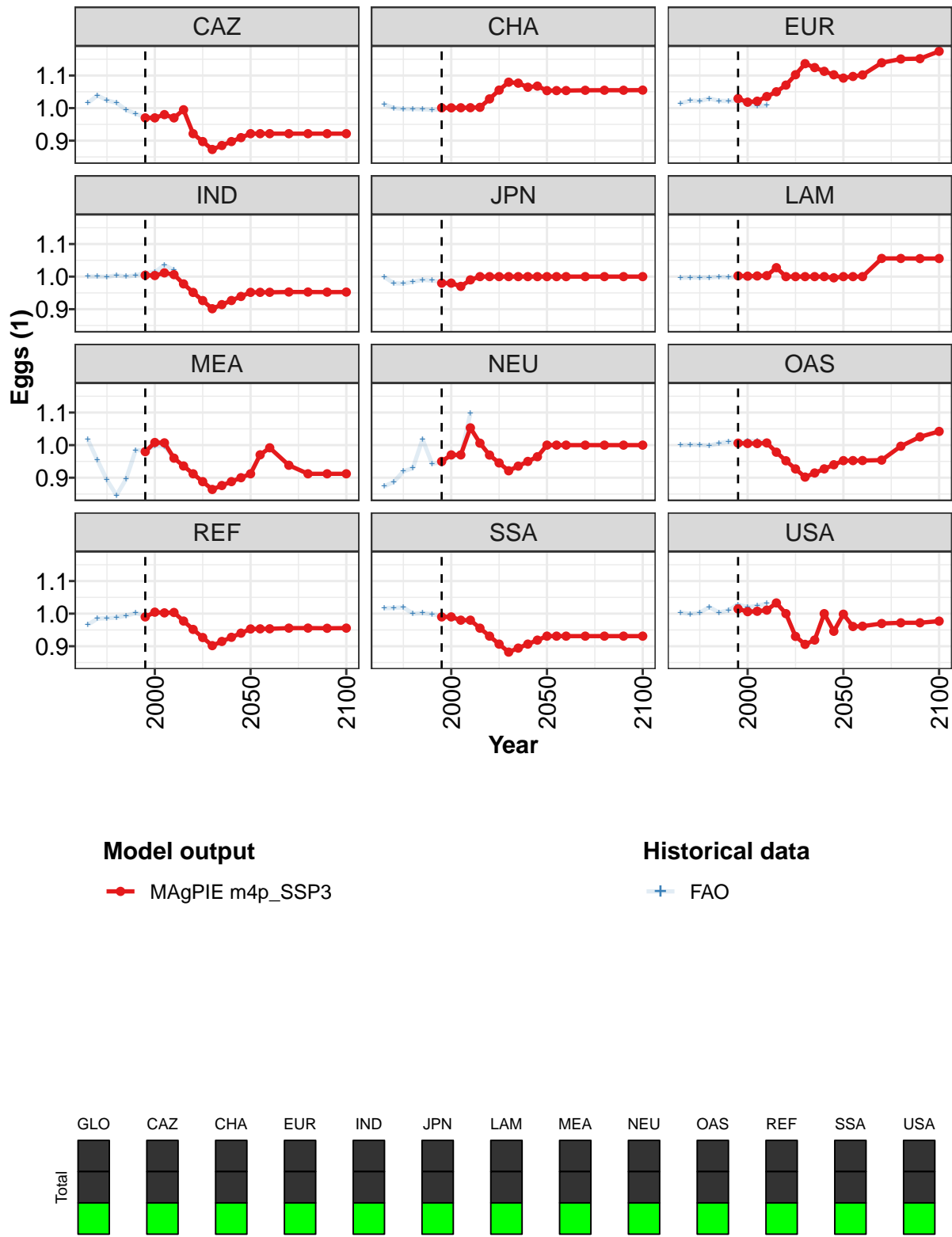


Figure 531: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Eggs (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.97	0.97	0.98	0.97	0.99	0.92	0.90	0.87	0.89	0.90	0.91
CHA	1.00	1.00	1.00	1.00	1.00	1.03	1.06	1.08	1.08	1.06	1.07
EUR	1.03	1.02	1.02	1.04	1.05	1.07	1.10	1.14	1.12	1.11	1.10
IND	1.00	1.00	1.01	1.01	0.98	0.95	0.93	0.90	0.91	0.93	0.94
JPN	0.98	0.98	0.97	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00
LAM	1.00	1.00	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00
MEA	0.98	1.01	1.01	0.96	0.94	0.91	0.89	0.86	0.88	0.89	0.90
NEU	0.95	0.97	0.97	1.05	1.01	0.97	0.95	0.92	0.94	0.95	0.96
OAS	1.01	1.01	1.00	1.01	0.98	0.95	0.93	0.90	0.91	0.93	0.94
REF	0.99	1.00	1.00	1.00	0.98	0.95	0.93	0.90	0.91	0.93	0.94
SSA	0.99	0.99	0.98	0.98	0.96	0.93	0.91	0.88	0.89	0.91	0.92
USA	1.01	1.01	1.01	1.01	1.03	1.00	0.93	0.91	0.92	1.00	0.95

Table 1992: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Eggs (1) [PART 1/2]

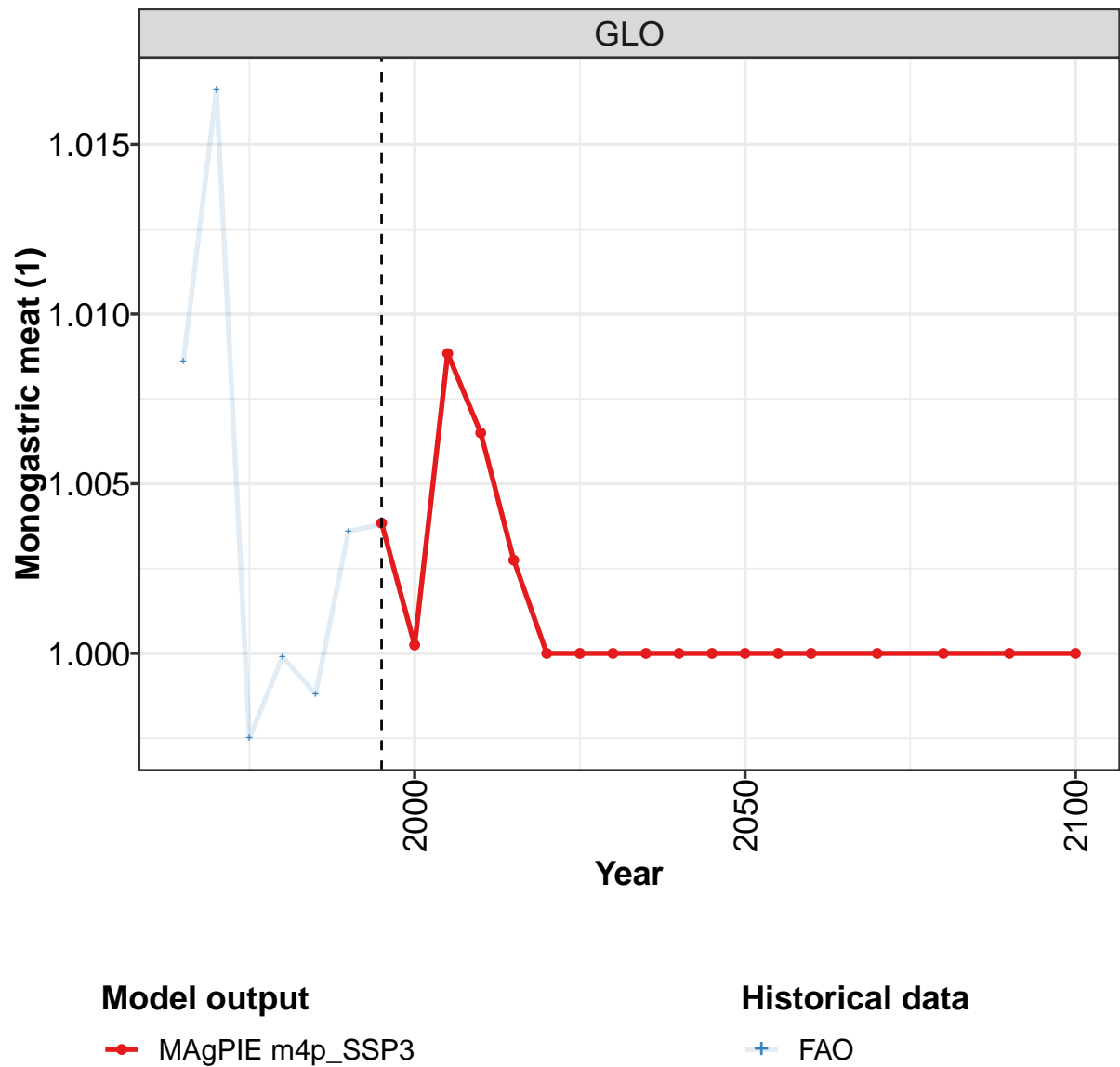
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.92	0.92	0.92	0.92	0.92	0.92	0.92
CHA	1.05	1.05	1.05	1.05	1.05	1.05	1.06
EUR	1.09	1.10	1.10	1.14	1.15	1.15	1.17
IND	0.95	0.95	0.95	0.95	0.95	0.95	0.95
JPN	1.00	1.00	1.00	1.00	1.00	1.00	1.00
LAM	1.00	1.00	1.00	1.06	1.06	1.06	1.06
MEA	0.91	0.97	0.99	0.94	0.91	0.91	0.91
NEU	1.00	1.00	1.00	1.00	1.00	1.00	1.00
OAS	0.95	0.95	0.95	0.95	1.00	1.03	1.04
REF	0.95	0.95	0.95	0.96	0.96	0.96	0.96
SSA	0.93	0.93	0.93	0.93	0.93	0.93	0.93
USA	1.00	0.96	0.96	0.97	0.97	0.97	0.98

Table 1993: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Eggs (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.02	1.04	1.02	1.02	0.99	0.98	0.97	0.97	0.98	0.97
CHA	1.01	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00
EUR	1.01	1.02	1.02	1.03	1.02	1.02	1.02	1.01	1.01	1.01
IND	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.04	1.02
JPN	1.00	0.98	0.98	0.98	0.99	0.99	0.98	0.98	0.97	0.99
LAM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MEA	1.02	0.95	0.89	0.85	0.90	0.98	0.98	1.00	1.00	0.96
NEU	0.87	0.89	0.92	0.93	1.02	0.94	0.95	0.97	0.97	1.10
OAS	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01
REF	0.97	0.98	0.99	0.99	0.99	1.00	0.99	1.00	1.00	1.00
SSA	1.02	1.02	1.02	1.00	1.00	1.00	0.99	0.99	0.98	0.98
USA	1.00	1.00	1.00	1.02	1.00	1.01	1.03	1.02	1.02	1.03

Table 1994: FAO — Trade—Self-sufficiency—Livestock products—Eggs (1)

59.3.3 Monogastric meat



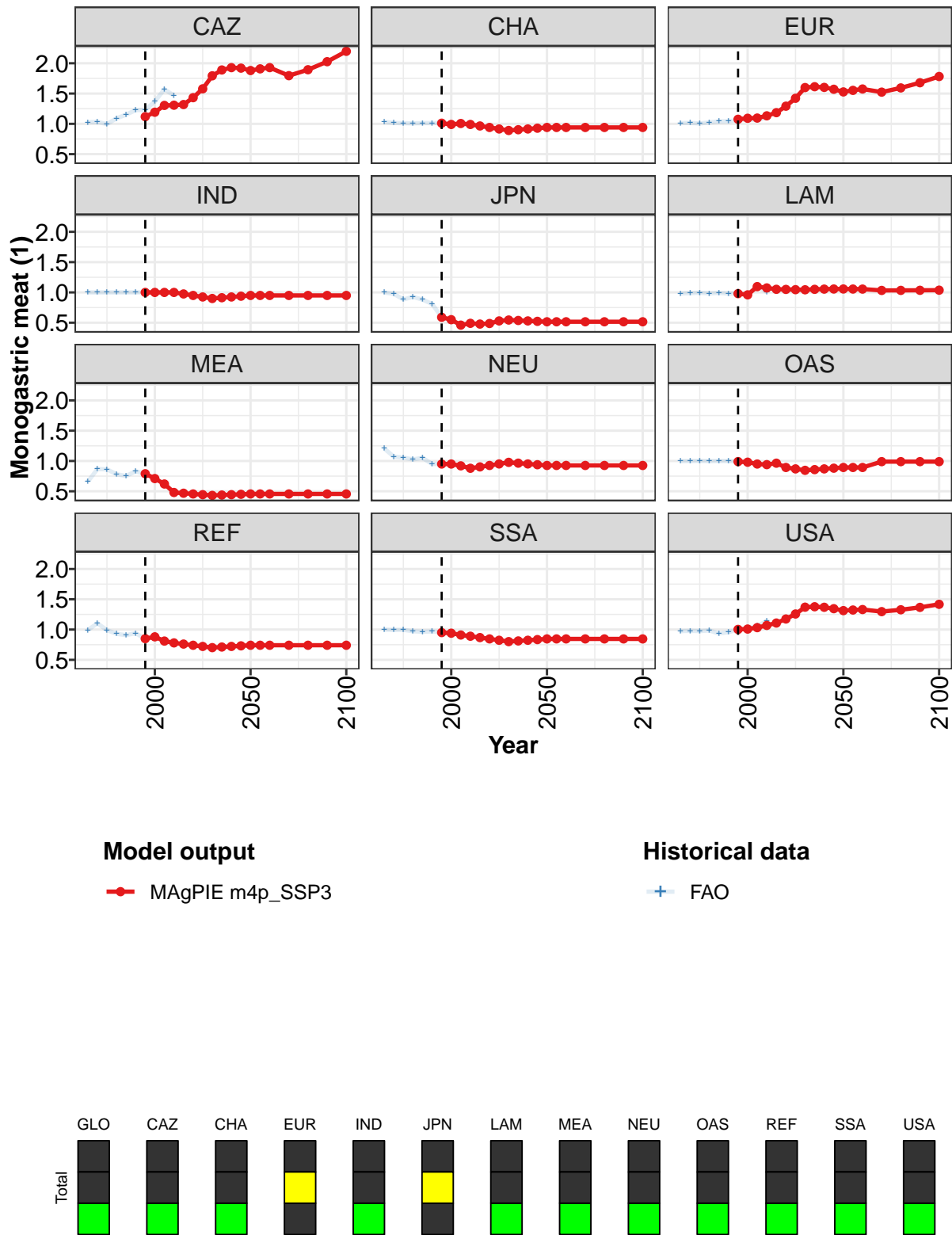


Figure 532: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Monogastric meat (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.00	1.00	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.12	1.19	1.30	1.31	1.32	1.43	1.58	1.79	1.89	1.93	1.92
CHA	1.01	0.99	1.01	0.99	0.97	0.94	0.92	0.89	0.90	0.92	0.93
EUR	1.08	1.09	1.10	1.13	1.19	1.29	1.42	1.60	1.61	1.60	1.57
IND	1.00	1.00	1.00	1.00	0.98	0.95	0.93	0.90	0.91	0.92	0.94
JPN	0.59	0.55	0.46	0.49	0.48	0.49	0.53	0.54	0.54	0.53	0.52
LAM	0.98	0.96	1.10	1.07	1.05	1.05	1.05	1.04	1.05	1.05	1.06
MEA	0.79	0.71	0.62	0.48	0.47	0.46	0.44	0.43	0.44	0.44	0.45
NEU	0.95	0.95	0.92	0.88	0.90	0.93	0.95	0.98	0.96	0.95	0.94
OAS	0.99	0.98	0.95	0.94	0.96	0.89	0.87	0.85	0.86	0.87	0.88
REF	0.85	0.88	0.81	0.78	0.76	0.74	0.72	0.70	0.71	0.72	0.73
SSA	0.95	0.94	0.91	0.89	0.87	0.85	0.82	0.80	0.81	0.82	0.83
USA	1.00	1.01	1.03	1.07	1.11	1.17	1.26	1.37	1.38	1.37	1.34

Table 1995: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Monogastric meat (1) [PART 1/2]

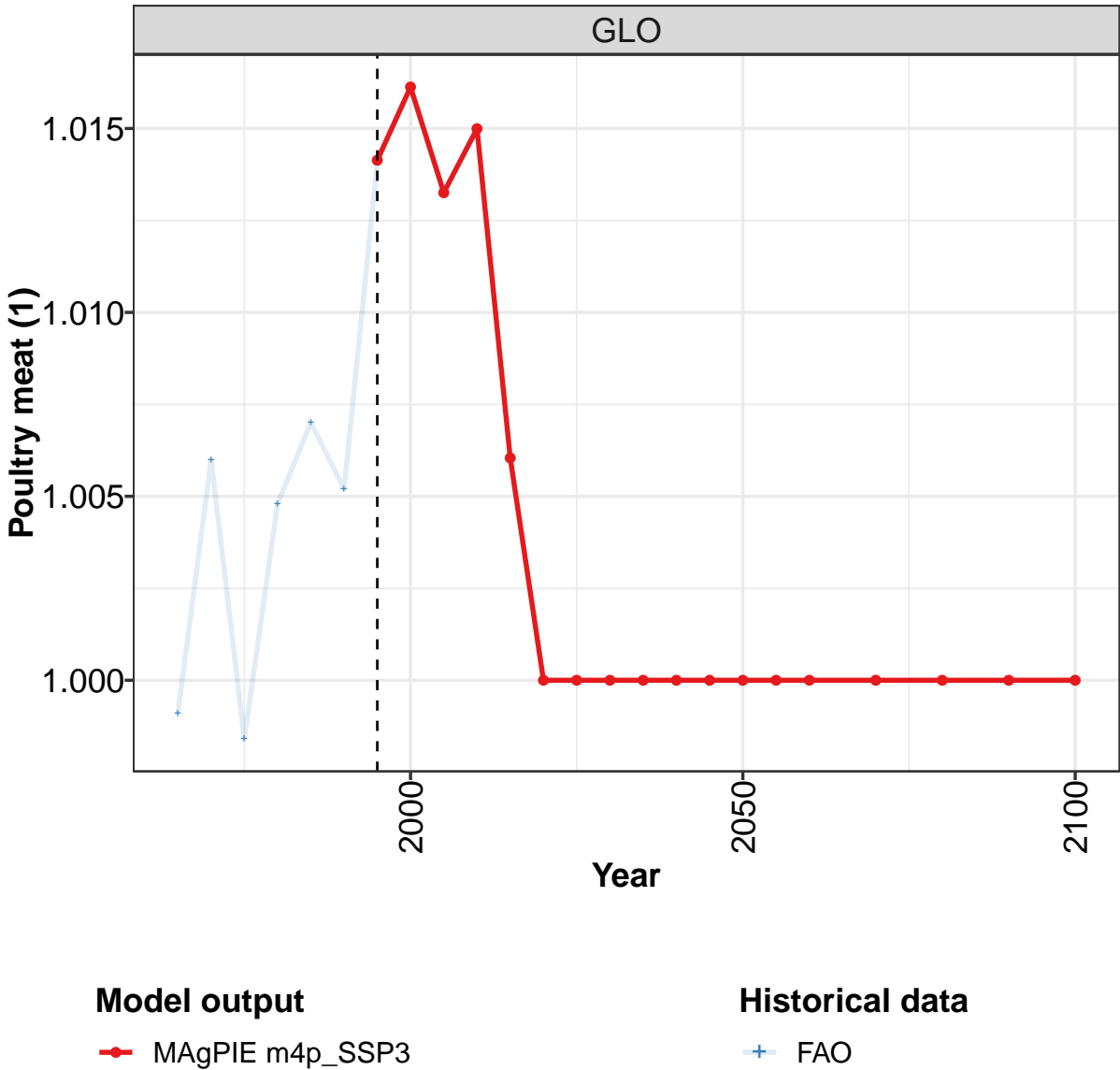
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.88	1.91	1.93	1.80	1.89	2.03	2.20
CHA	0.94	0.94	0.94	0.94	0.94	0.94	0.94
EUR	1.53	1.55	1.58	1.52	1.59	1.68	1.78
IND	0.95	0.95	0.95	0.95	0.95	0.95	0.95
JPN	0.52	0.52	0.52	0.52	0.52	0.52	0.52
LAM	1.06	1.06	1.06	1.03	1.03	1.04	1.04
MEA	0.46	0.46	0.46	0.46	0.46	0.46	0.46
NEU	0.93	0.93	0.93	0.93	0.93	0.93	0.93
OAS	0.89	0.89	0.89	0.99	0.99	0.99	0.99
REF	0.74	0.74	0.74	0.74	0.74	0.74	0.74
SSA	0.85	0.85	0.85	0.85	0.85	0.85	0.85
USA	1.31	1.32	1.33	1.30	1.33	1.37	1.42

Table 1996: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Monogastric meat (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.01	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01
CAZ	1.03	1.03	1.00	1.09	1.15	1.23	1.23	1.37	1.57	1.47
CHA	1.03	1.02	1.01	1.01	1.01	1.01	1.02	0.99	1.00	0.99
EUR	1.01	1.01	1.01	1.02	1.04	1.04	1.06	1.07	1.06	1.11
IND	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
JPN	1.00	0.98	0.88	0.93	0.88	0.81	0.59	0.55	0.46	0.49
LAM	0.98	0.99	1.00	0.98	0.99	0.98	0.98	0.96	1.11	1.01
MEA	0.66	0.87	0.86	0.78	0.75	0.83	0.79	0.71	0.62	0.48
NEU	1.21	1.07	1.06	1.03	1.05	0.95	0.95	0.95	0.92	0.88
OAS	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.98	0.95	0.94
REF	0.99	1.10	0.99	0.93	0.91	0.94	0.85	0.88	0.81	0.78
SSA	1.00	0.99	1.00	0.97	0.96	0.97	0.95	0.94	0.91	0.89
USA	0.97	0.98	0.97	0.98	0.94	0.96	1.00	1.02	1.06	1.14

Table 1997: FAO — Trade—Self-sufficiency—Livestock products—Monogastric meat (1)

59.3.4 Poultry meat



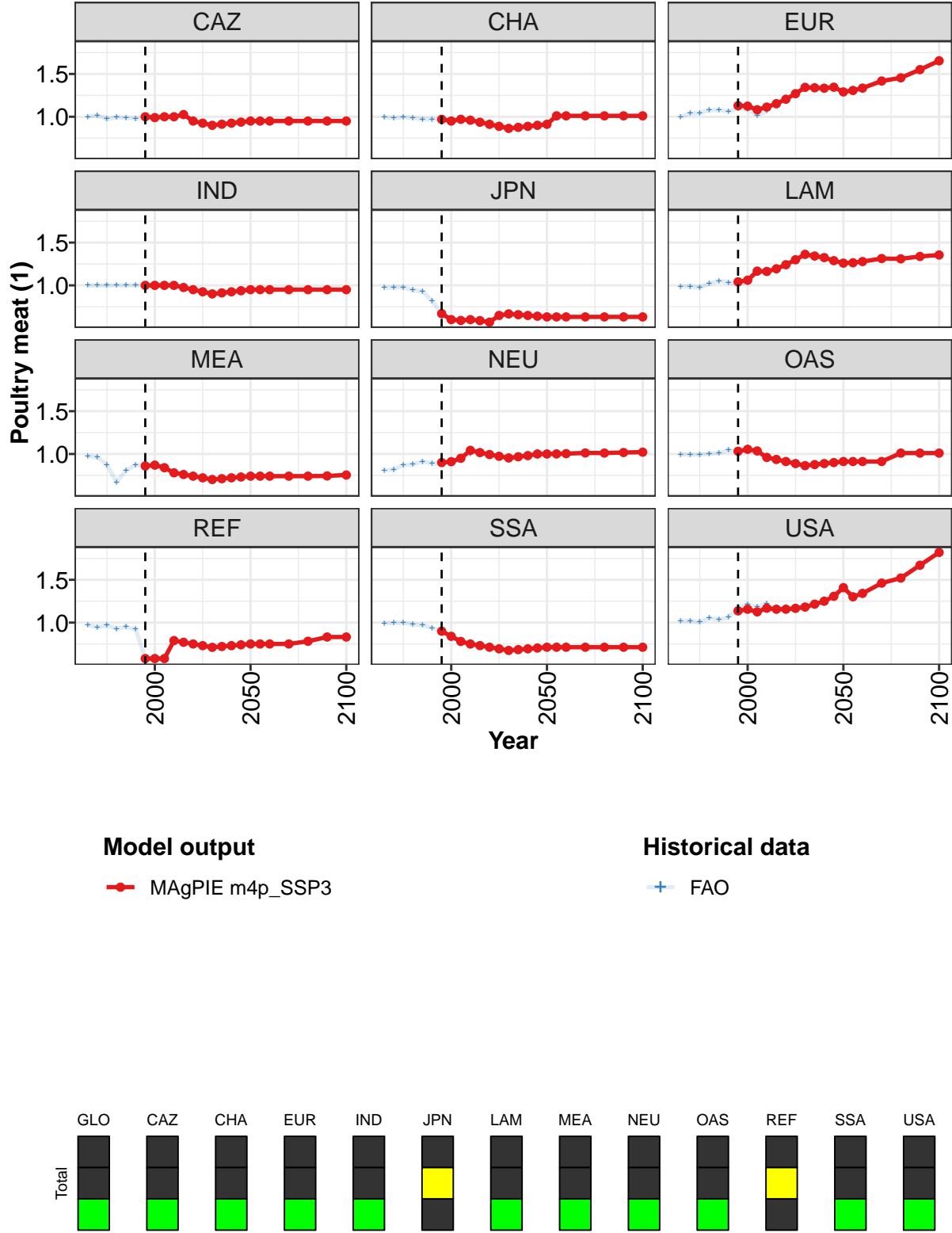


Figure 533: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Poultry meat (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.01	1.02	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.00	0.99	1.00	1.00	1.03	0.95	0.93	0.90	0.91	0.93	0.94
CHA	0.97	0.95	0.97	0.96	0.94	0.91	0.89	0.86	0.88	0.89	0.90
EUR	1.13	1.12	1.08	1.11	1.15	1.20	1.27	1.34	1.34	1.33	1.35
IND	1.00	1.00	1.00	1.00	0.97	0.95	0.93	0.90	0.91	0.93	0.94
JPN	0.67	0.60	0.59	0.60	0.59	0.57	0.65	0.67	0.66	0.65	0.64
LAM	1.04	1.06	1.17	1.16	1.19	1.24	1.30	1.36	1.34	1.32	1.29
MEA	0.86	0.87	0.84	0.78	0.76	0.74	0.72	0.70	0.71	0.72	0.73
NEU	0.90	0.91	0.95	1.04	1.02	0.99	0.97	0.95	0.97	0.98	1.00
OAS	1.03	1.05	1.04	0.96	0.94	0.91	0.89	0.86	0.88	0.89	0.90
REF	0.58	0.58	0.58	0.79	0.77	0.75	0.73	0.71	0.72	0.73	0.74
SSA	0.90	0.84	0.78	0.75	0.73	0.71	0.69	0.68	0.68	0.69	0.70
USA	1.14	1.16	1.13	1.17	1.16	1.16	1.17	1.18	1.22	1.25	1.31

Table 1998: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Poultry meat (1) [PART 1/2]

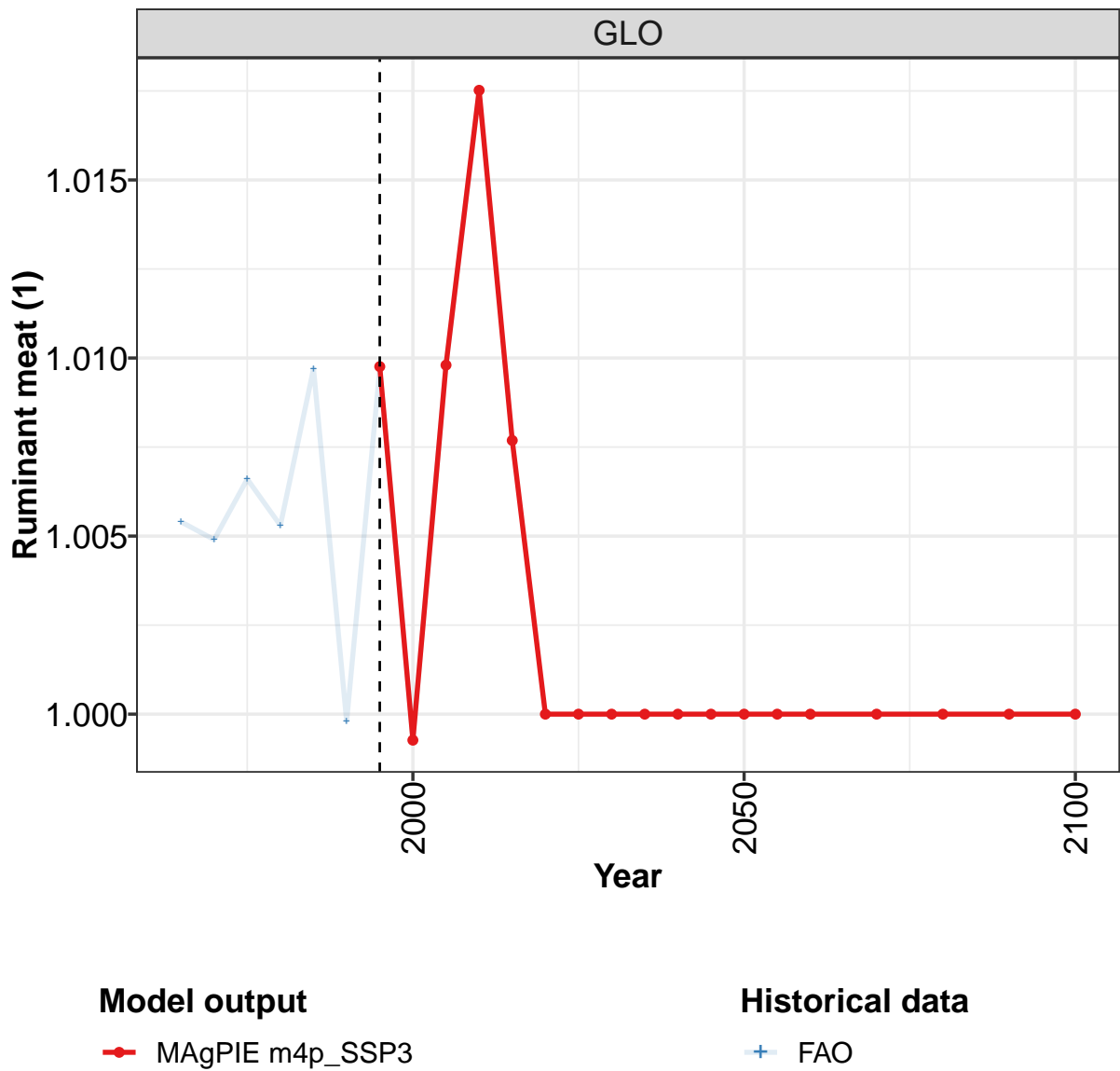
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.95	0.95	0.95	0.95	0.95	0.95	0.95
CHA	0.91	1.01	1.01	1.01	1.01	1.01	1.01
EUR	1.29	1.31	1.33	1.42	1.45	1.55	1.65
IND	0.95	0.95	0.95	0.95	0.95	0.95	0.95
JPN	0.63	0.63	0.63	0.63	0.63	0.63	0.63
LAM	1.26	1.26	1.28	1.31	1.31	1.34	1.35
MEA	0.74	0.74	0.74	0.74	0.74	0.74	0.75
NEU	1.00	1.00	1.00	1.01	1.01	1.02	1.02
OAS	0.91	0.91	0.91	0.91	1.01	1.01	1.01
REF	0.75	0.75	0.75	0.75	0.78	0.83	0.83
SSA	0.71	0.71	0.71	0.71	0.71	0.71	0.71
USA	1.41	1.30	1.34	1.46	1.52	1.67	1.82

Table 1999: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Poultry meat (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.00	1.01	1.00	1.00	1.01	1.01	1.01	1.02	1.01	1.01
CAZ	1.00	1.02	0.97	0.99	0.99	0.98	1.00	0.99	1.00	1.00
CHA	0.99	0.98	1.00	0.99	0.97	0.97	0.97	0.95	0.97	0.96
EUR	1.00	1.04	1.04	1.08	1.08	1.06	1.10	1.09	1.02	1.07
IND	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
JPN	0.97	0.98	0.98	0.94	0.93	0.82	0.67	0.60	0.58	0.60
LAM	0.99	0.98	0.97	1.02	1.05	1.03	1.02	1.03	1.16	1.14
MEA	0.97	0.96	0.88	0.67	0.81	0.87	0.86	0.87	0.84	0.78
NEU	0.81	0.82	0.87	0.88	0.91	0.89	0.90	0.91	0.95	1.00
OAS	0.99	0.99	0.99	1.00	1.01	1.04	1.03	1.04	1.02	0.96
REF	0.98	0.94	0.97	0.93	0.95	0.92	0.58	0.58	0.58	0.79
SSA	0.99	1.00	1.00	0.98	0.97	0.94	0.90	0.84	0.78	0.75
USA	1.02	1.02	1.01	1.05	1.03	1.06	1.18	1.21	1.18	1.23

Table 2000: FAO — Trade—Self-sufficiency—Livestock products—Poultry meat (1)

59.3.5 Ruminant meat



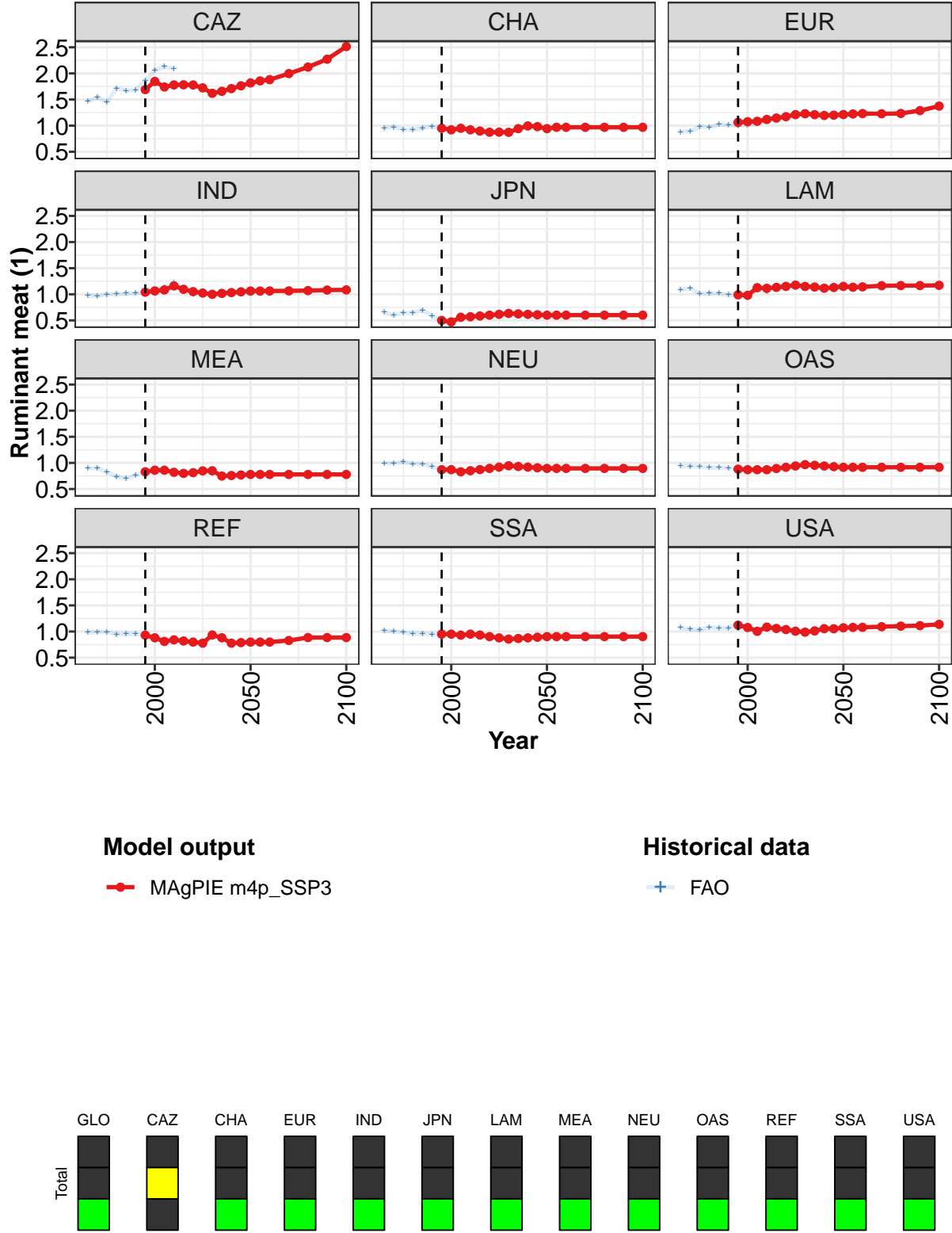


Figure 534: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Ruminant meat (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.01	1.00	1.01	1.02	1.01	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.69	1.85	1.74	1.78	1.78	1.78	1.72	1.62	1.66	1.71	1.76
CHA	0.95	0.92	0.95	0.92	0.90	0.87	0.88	0.87	0.94	0.99	0.98
EUR	1.06	1.08	1.08	1.12	1.15	1.17	1.21	1.23	1.21	1.20	1.20
IND	1.04	1.06	1.08	1.16	1.09	1.05	1.02	1.00	1.02	1.03	1.05
JPN	0.50	0.47	0.56	0.57	0.58	0.60	0.62	0.63	0.62	0.62	0.61
LAM	0.99	0.98	1.13	1.11	1.13	1.15	1.17	1.15	1.14	1.12	1.13
MEA	0.83	0.86	0.86	0.82	0.80	0.81	0.85	0.85	0.75	0.76	0.77
NEU	0.87	0.87	0.83	0.85	0.87	0.89	0.92	0.94	0.93	0.92	0.91
OAS	0.88	0.87	0.87	0.87	0.89	0.92	0.94	0.97	0.95	0.94	0.93
REF	0.93	0.88	0.81	0.84	0.82	0.80	0.78	0.93	0.88	0.78	0.79
SSA	0.95	0.95	0.93	0.95	0.93	0.90	0.88	0.85	0.87	0.88	0.89
USA	1.12	1.08	1.00	1.08	1.06	1.04	1.01	0.99	1.01	1.06	1.05

Table 2001: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Ruminant meat (1) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.82	1.86	1.88	2.00	2.12	2.27	2.51
CHA	0.94	0.97	0.97	0.97	0.97	0.97	0.97
EUR	1.21	1.22	1.23	1.23	1.23	1.29	1.37
IND	1.06	1.06	1.06	1.07	1.07	1.08	1.08
JPN	0.60	0.60	0.60	0.60	0.60	0.60	0.60
LAM	1.15	1.13	1.14	1.16	1.17	1.17	1.17
MEA	0.78	0.78	0.78	0.78	0.78	0.78	0.78
NEU	0.89	0.89	0.89	0.89	0.89	0.89	0.89
OAS	0.92	0.92	0.92	0.92	0.92	0.92	0.92
REF	0.80	0.80	0.80	0.83	0.88	0.88	0.88
SSA	0.90	0.90	0.90	0.90	0.90	0.90	0.90
USA	1.07	1.08	1.08	1.09	1.10	1.11	1.14

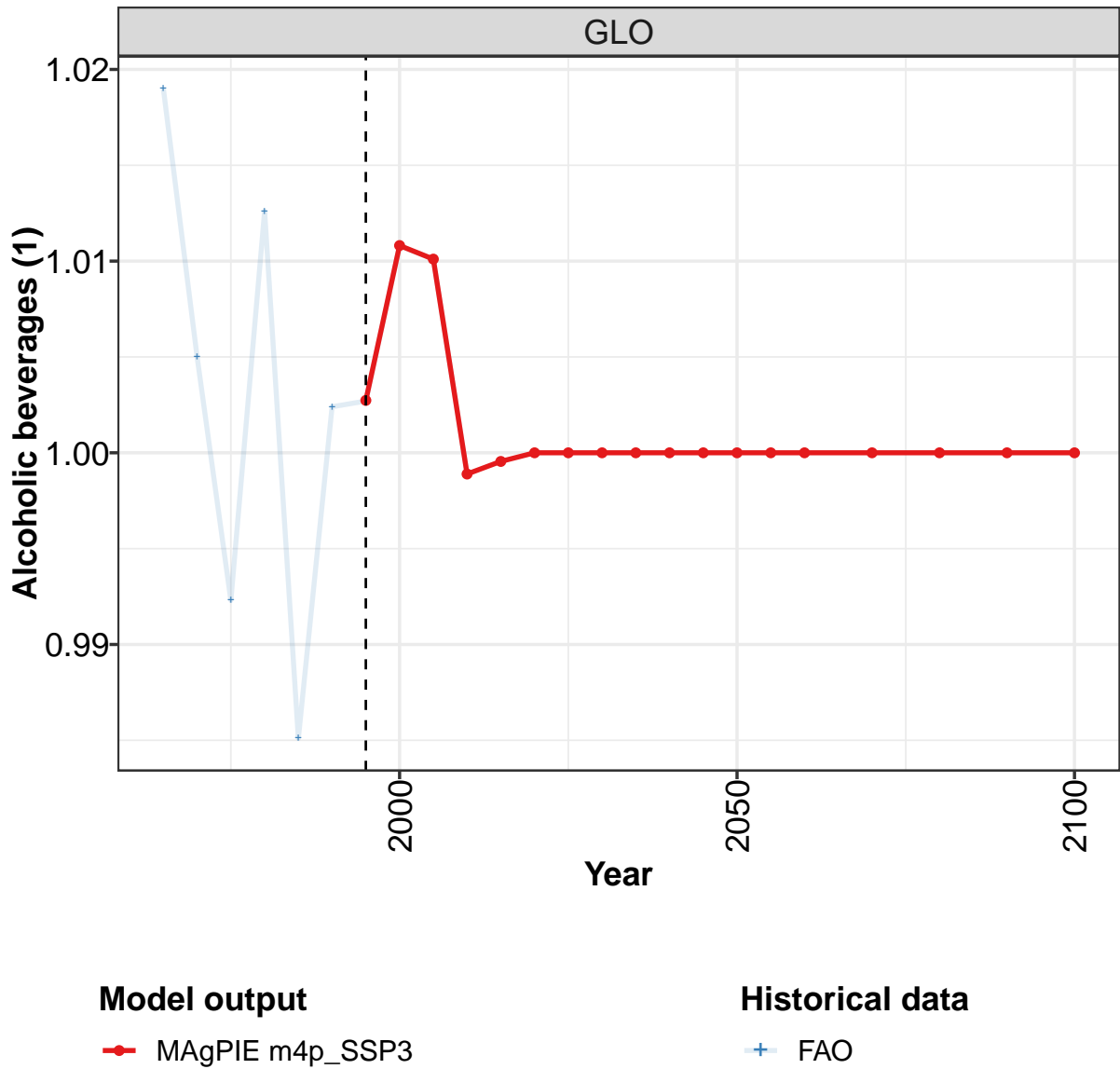
Table 2002: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Livestock products—Ruminant meat (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.01	1.00	1.01	1.01	1.01	1.00	1.01	1.00	1.01	1.02
CAZ	1.47	1.54	1.45	1.71	1.67	1.68	1.86	2.06	2.13	2.09
CHA	0.96	0.97	0.92	0.92	0.95	0.99	0.95	0.92	0.95	0.92
EUR	0.88	0.89	0.98	0.97	1.02	1.01	1.00	1.01	1.04	1.08
IND	0.97	0.96	1.00	1.01	1.02	1.02	1.05	1.09	1.13	1.22
JPN	0.66	0.60	0.64	0.64	0.70	0.59	0.50	0.47	0.56	0.57
LAM	1.09	1.11	1.02	1.02	1.02	0.99	0.99	0.98	1.09	1.06
MEA	0.90	0.90	0.83	0.74	0.70	0.77	0.83	0.86	0.86	0.82
NEU	0.99	0.99	1.02	0.98	0.98	0.92	0.87	0.87	0.83	0.85
OAS	0.94	0.93	0.93	0.91	0.91	0.90	0.88	0.87	0.87	0.87
REF	0.98	0.99	0.98	0.95	0.95	0.95	0.93	0.88	0.81	0.84
SSA	1.01	1.00	0.98	0.96	0.96	0.95	0.95	0.95	0.93	0.95
USA	1.07	1.04	1.03	1.08	1.06	1.07	1.15	1.10	1.00	1.11

Table 2003: FAO — Trade—Self-sufficiency—Livestock products—Ruminant meat (1)

59.4 Secondary products

59.4.1 Alcoholic beverages



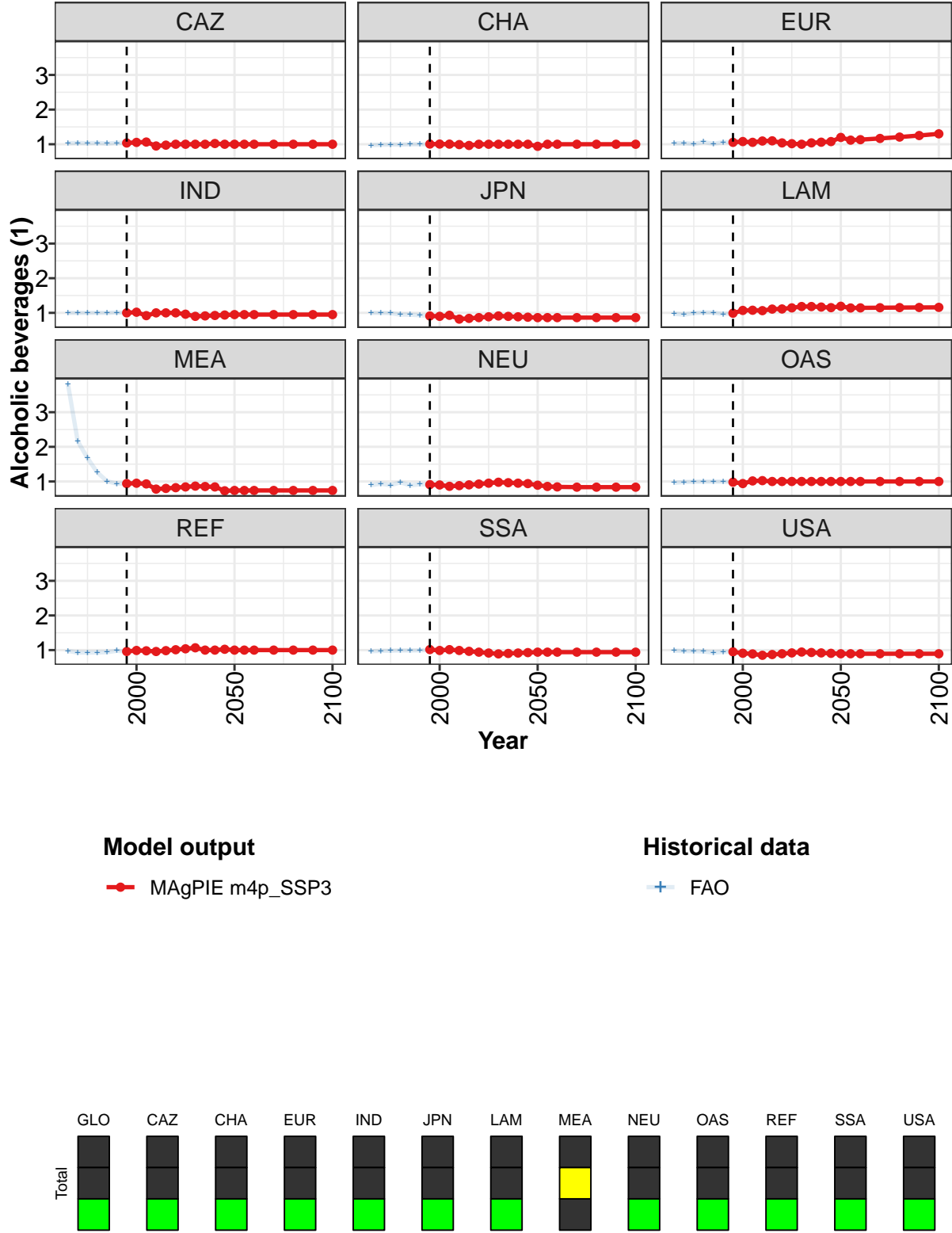


Figure 535: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Alcoholic beverages (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.00	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.04	1.05	1.06	0.95	0.97	1.00	1.00	1.00	1.00	1.02	1.00
CHA	1.01	1.01	1.00	0.99	0.97	1.00	1.00	1.00	1.00	1.00	1.00
EUR	1.05	1.08	1.06	1.09	1.10	1.04	1.02	1.00	1.04	1.06	1.08
IND	1.00	1.02	0.92	1.00	1.00	1.00	0.96	0.90	0.91	0.93	0.94
JPN	0.91	0.90	0.93	0.82	0.84	0.86	0.89	0.91	0.90	0.89	0.87
LAM	0.99	1.07	1.08	1.06	1.11	1.11	1.14	1.18	1.18	1.17	1.15
MEA	0.94	0.95	0.93	0.78	0.80	0.82	0.84	0.87	0.85	0.84	0.73
NEU	0.91	0.90	0.86	0.88	0.90	0.93	0.95	0.98	0.96	0.95	0.94
OAS	0.98	0.94	1.02	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00
REF	0.96	0.99	0.98	0.96	0.98	1.01	1.04	1.07	1.00	1.00	1.02
SSA	1.02	0.99	1.01	0.99	0.97	0.94	0.92	0.89	0.90	0.92	0.93
USA	0.95	0.91	0.89	0.85	0.87	0.89	0.92	0.94	0.93	0.92	0.91

Table 2004: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Alcoholic beverages (1)
[PART 1/2]

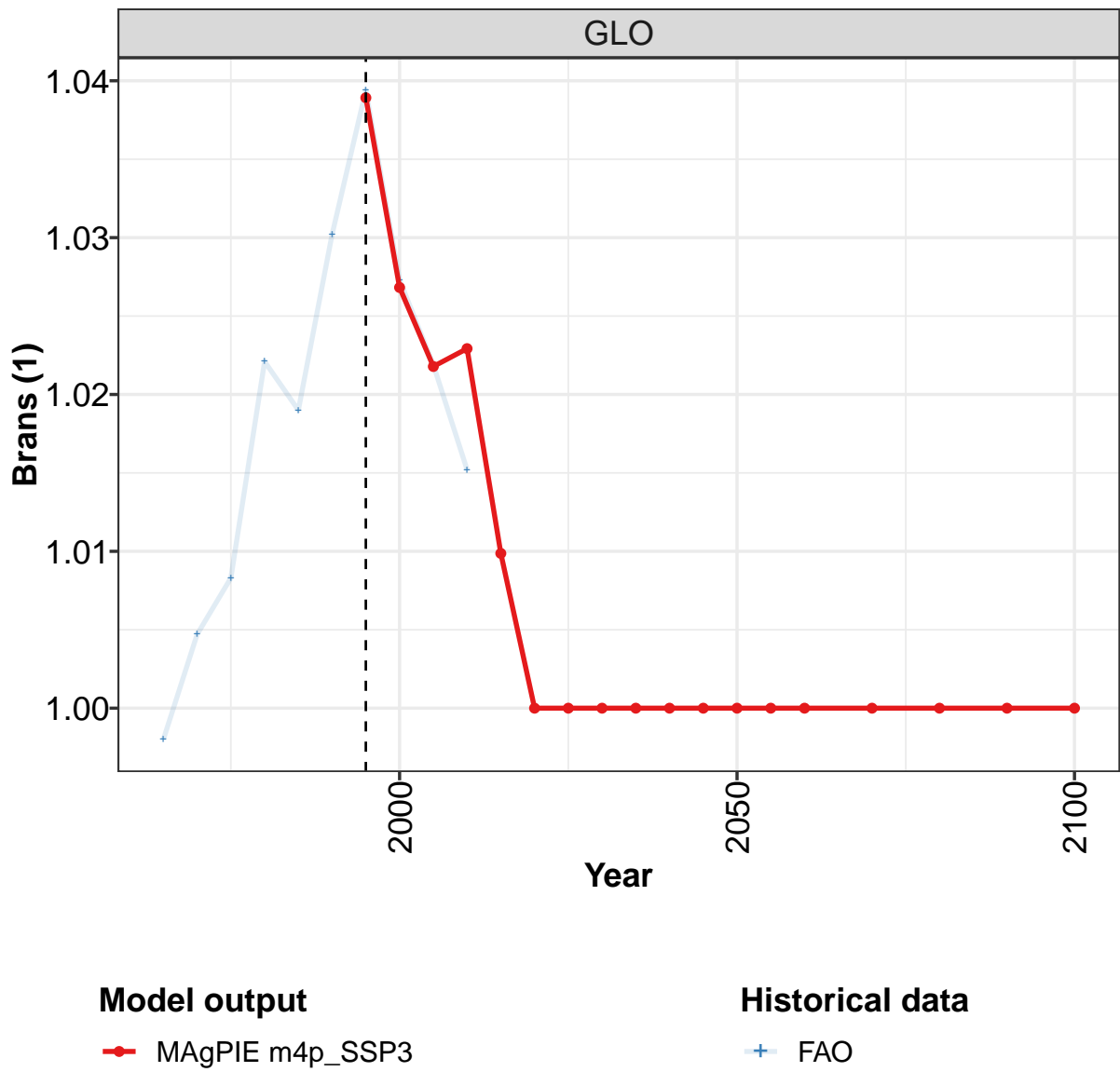
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CHA	0.94	1.00	1.00	1.00	1.00	1.00	1.00
EUR	1.20	1.12	1.13	1.17	1.21	1.25	1.30
IND	0.95	0.95	0.95	0.95	0.95	0.95	0.95
JPN	0.86	0.86	0.86	0.86	0.86	0.86	0.86
LAM	1.19	1.14	1.14	1.15	1.15	1.16	1.16
MEA	0.74	0.74	0.74	0.74	0.74	0.74	0.74
NEU	0.89	0.86	0.84	0.84	0.84	0.84	0.84
OAS	1.00	1.00	1.00	1.00	1.00	1.00	1.00
REF	1.00	1.00	1.00	1.00	1.00	1.00	1.00
SSA	0.94	0.94	0.94	0.94	0.94	0.94	0.94
USA	0.89	0.89	0.89	0.89	0.89	0.89	0.89

Table 2005: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Alcoholic beverages (1)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.02	1.00	0.99	1.01	0.99	1.00	1.00	1.01	1.01	1.00
CAZ	1.03	1.04	1.03	1.04	1.02	1.04	1.05	1.05	1.08	0.95
CHA	0.97	0.98	0.99	0.99	1.00	1.00	1.00	1.00	1.00	0.99
EUR	1.02	1.03	1.01	1.06	1.01	1.06	1.06	1.09	1.05	1.07
IND	1.00	1.00	1.00	1.00	1.00	1.01	1.00	1.02	0.92	1.00
JPN	1.00	1.00	0.99	0.95	0.95	0.93	0.91	0.90	0.93	0.82
LAM	0.97	0.95	0.99	1.01	1.01	0.97	0.99	1.06	1.10	1.09
MEA	3.82	2.16	1.68	1.26	1.01	0.93	0.94	0.95	0.93	0.78
NEU	0.90	0.93	0.89	0.98	0.89	0.92	0.91	0.90	0.86	0.88
OAS	0.96	0.98	0.99	1.00	0.99	1.00	0.98	0.94	1.03	1.00
REF	0.98	0.93	0.93	0.93	0.94	0.98	0.96	0.99	0.98	0.96
SSA	0.97	0.98	0.98	0.99	0.99	0.99	1.00	0.99	1.00	0.99
USA	0.99	0.97	0.97	0.96	0.93	0.95	0.95	0.91	0.89	0.85

Table 2006: FAO — Trade—Self-sufficiency—Secondary products—Alcoholic beverages (1)

59.4.2 Brans



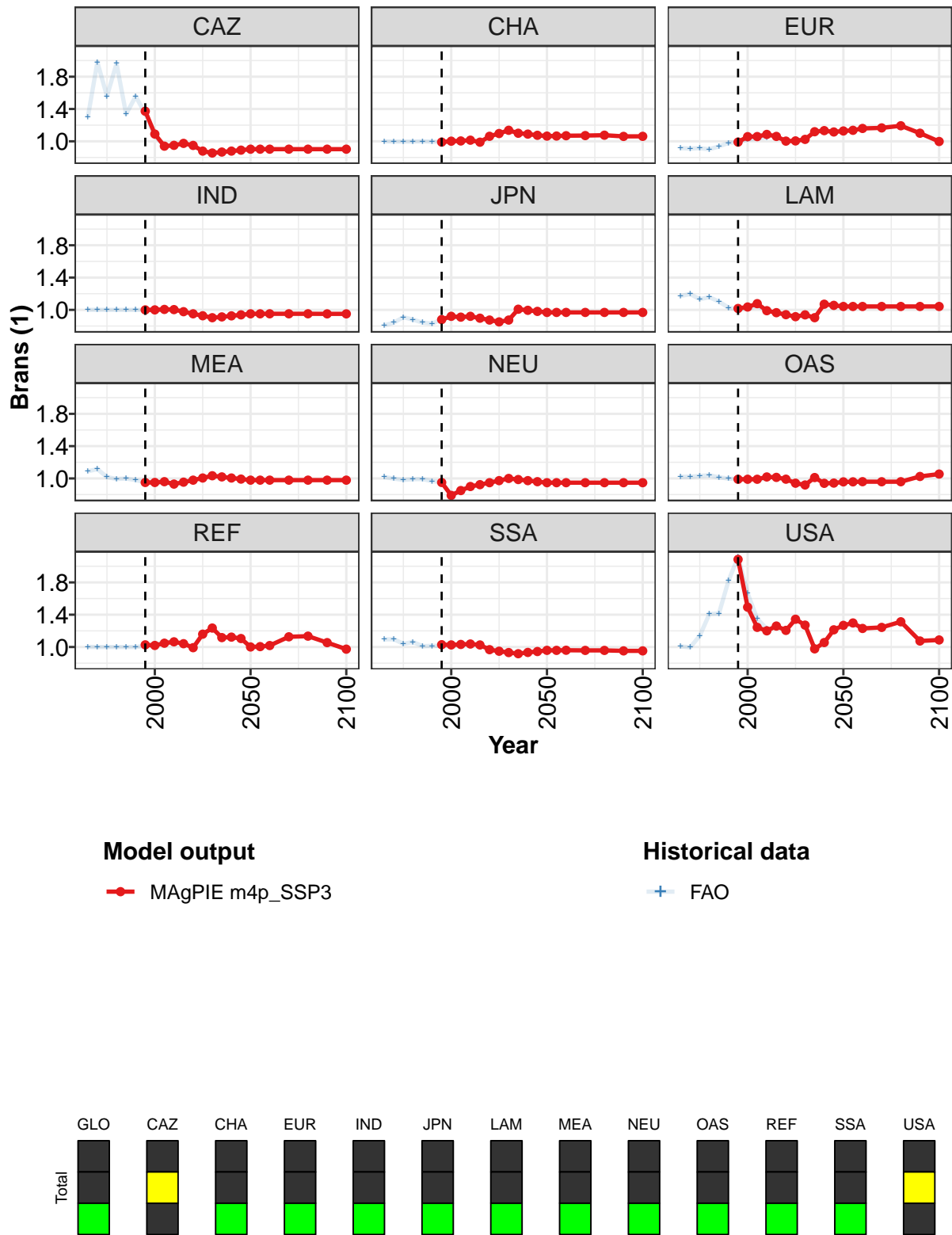


Figure 536: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Brans (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.04	1.03	1.02	1.02	1.01	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.37	1.09	0.94	0.95	0.97	0.95	0.88	0.86	0.87	0.88	0.89
CHA	0.99	1.00	1.00	1.01	0.99	1.06	1.10	1.14	1.10	1.09	1.07
EUR	0.99	1.06	1.06	1.09	1.06	1.00	1.00	1.02	1.12	1.13	1.12
IND	1.00	1.00	1.01	1.00	0.98	0.95	0.93	0.90	0.91	0.93	0.94
JPN	0.88	0.92	0.91	0.92	0.90	0.87	0.85	0.87	1.01	0.99	0.98
LAM	1.02	1.04	1.08	0.99	0.97	0.94	0.92	0.94	0.90	1.07	1.06
MEA	0.95	0.95	0.96	0.93	0.95	0.98	1.01	1.03	1.02	1.01	0.99
NEU	0.95	0.79	0.85	0.90	0.92	0.95	0.97	1.00	0.99	0.97	0.96
OAS	0.99	0.99	0.99	1.02	1.01	0.99	0.94	0.92	1.01	0.94	0.94
REF	1.03	1.02	1.05	1.06	1.04	0.99	1.16	1.23	1.12	1.12	1.11
SSA	1.03	1.03	1.03	1.04	1.03	0.97	0.95	0.93	0.92	0.93	0.94
USA	2.08	1.49	1.24	1.20	1.26	1.21	1.34	1.27	0.98	1.06	1.21

Table 2007: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Brans (1) [PART 1/2]

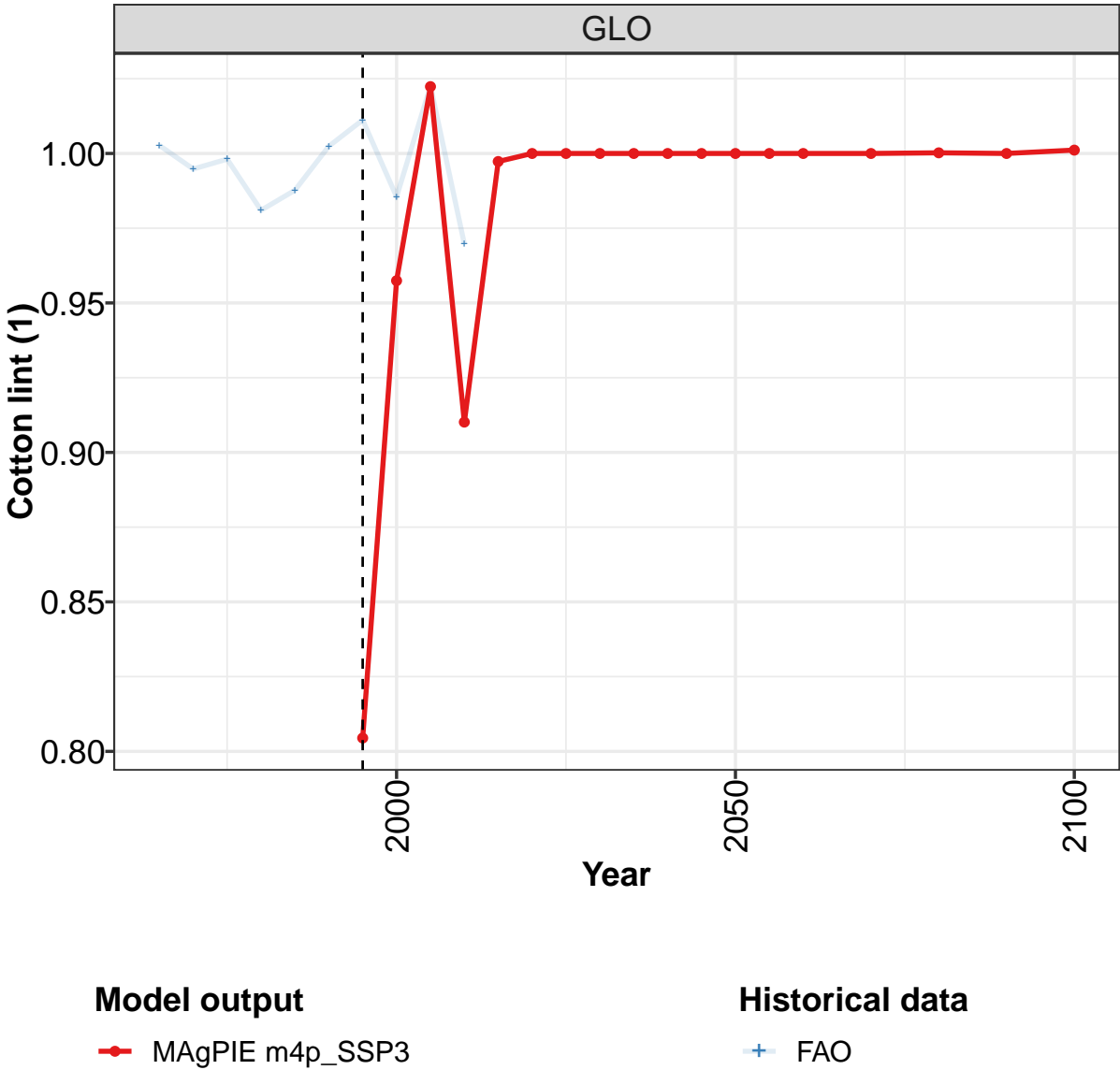
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.90	0.90	0.90	0.90	0.90	0.90	0.90
CHA	1.06	1.07	1.07	1.07	1.08	1.06	1.06
EUR	1.13	1.14	1.16	1.17	1.19	1.10	1.00
IND	0.95	0.95	0.95	0.95	0.95	0.95	0.95
JPN	0.97	0.97	0.97	0.97	0.97	0.97	0.97
LAM	1.04	1.04	1.04	1.04	1.04	1.04	1.04
MEA	0.98	0.98	0.98	0.98	0.98	0.98	0.98
NEU	0.95	0.95	0.95	0.95	0.95	0.95	0.95
OAS	0.96	0.96	0.96	0.96	0.96	1.02	1.05
REF	1.00	1.00	1.02	1.13	1.13	1.05	0.97
SSA	0.96	0.96	0.96	0.96	0.96	0.95	0.95
USA	1.27	1.30	1.23	1.24	1.31	1.07	1.09

Table 2008: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Brans (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.00	1.00	1.01	1.02	1.02	1.03	1.04	1.03	1.02	1.02
CAZ	1.30	1.98	1.56	1.96	1.34	1.56	1.34	1.07	0.94	0.95
CHA	1.00	1.00	1.00	1.00	1.00	0.99	0.99	1.00	1.00	1.01
EUR	0.92	0.91	0.91	0.90	0.94	0.98	0.99	1.02	1.03	1.05
IND	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00
JPN	0.81	0.84	0.91	0.88	0.84	0.83	0.88	0.92	0.91	0.92
LAM	1.17	1.20	1.13	1.16	1.10	1.03	1.00	1.01	1.05	0.99
MEA	1.09	1.12	1.02	0.99	1.00	0.98	0.95	0.95	0.96	0.93
NEU	1.02	1.00	0.98	0.99	0.99	0.97	0.95	0.79	0.85	0.90
OAS	1.02	1.02	1.03	1.04	1.01	1.00	0.99	0.99	0.99	1.00
REF	1.00	1.00	1.00	1.00	1.00	1.00	1.02	1.02	1.06	1.06
SSA	1.09	1.10	1.04	1.06	1.01	1.01	1.02	1.02	1.03	1.03
USA	1.01	1.00	1.14	1.41	1.42	1.82	2.11	1.66	1.35	1.22

Table 2009: FAO — Trade—Self-sufficiency—Secondary products—Brans (1)

59.4.3 Cotton lint



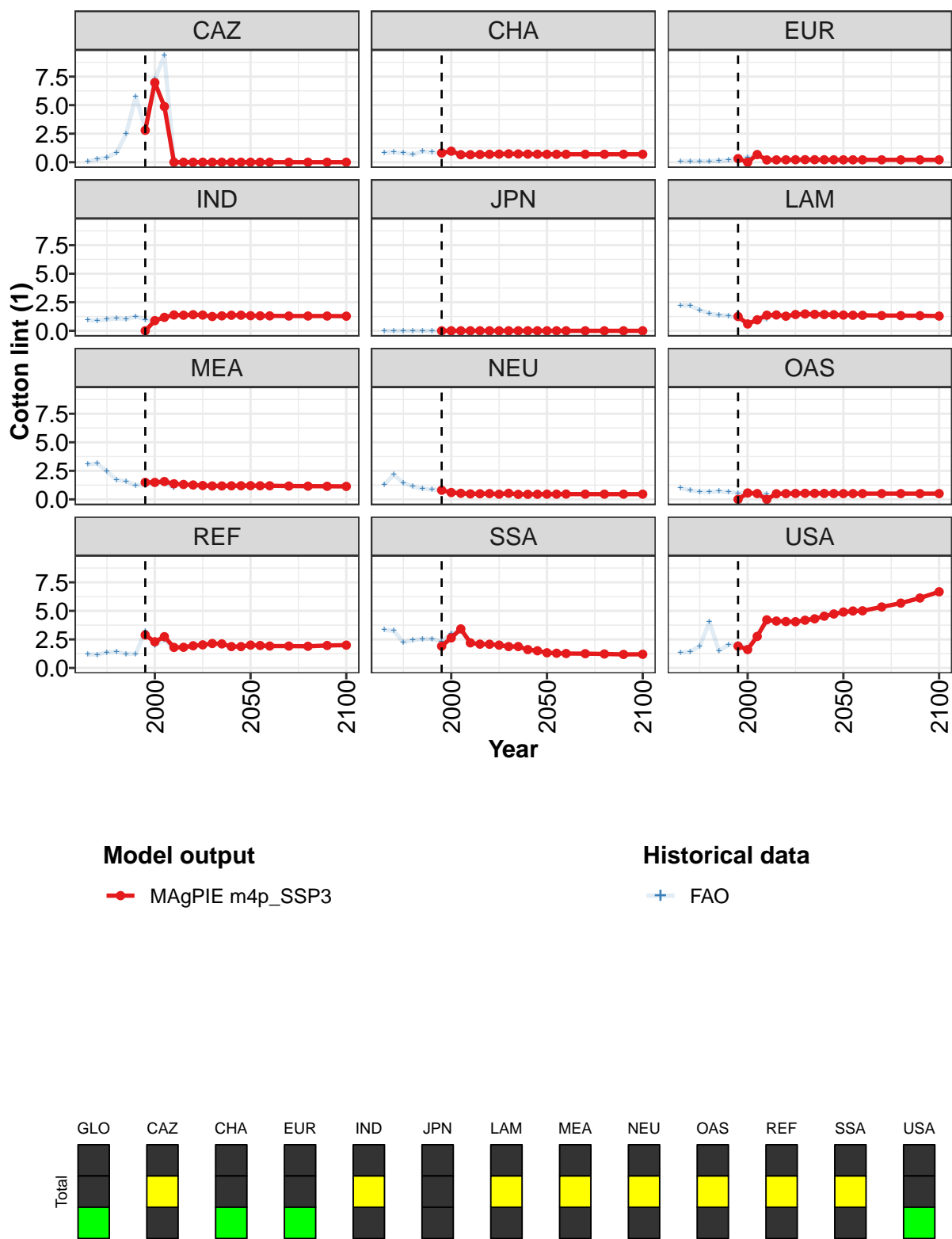


Figure 537: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Cotton lint (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.80	0.96	1.02	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	2.80	6.97	4.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.81	0.97	0.66	0.66	0.68	0.69	0.71	0.73	0.72	0.71	0.70
EUR	0.32	0.00	0.67	0.20	0.21	0.21	0.22	0.22	0.22	0.22	0.21
IND	0.00	0.89	1.18	1.39	1.37	1.41	1.38	1.25	1.31	1.36	1.37
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	1.25	0.60	0.96	1.37	1.39	1.28	1.43	1.47	1.44	1.42	1.41
MEA	1.49	1.49	1.56	1.37	1.31	1.26	1.21	1.18	1.18	1.19	1.19
NEU	0.80	0.60	0.53	0.48	0.49	0.51	0.45	0.53	0.44	0.44	0.45
OAS	0.00	0.56	0.51	0.00	0.49	0.51	0.52	0.53	0.53	0.52	0.51
REF	2.88	2.29	2.74	1.80	1.81	1.94	2.02	2.14	2.11	1.87	1.87
SSA	1.91	2.63	3.42	2.20	2.08	2.08	2.00	1.87	1.87	1.61	1.50
USA	1.91	1.61	2.77	4.22	4.11	4.06	4.05	4.18	4.30	4.53	4.73

Table 2010: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Cotton lint (1) [PART 1/2]

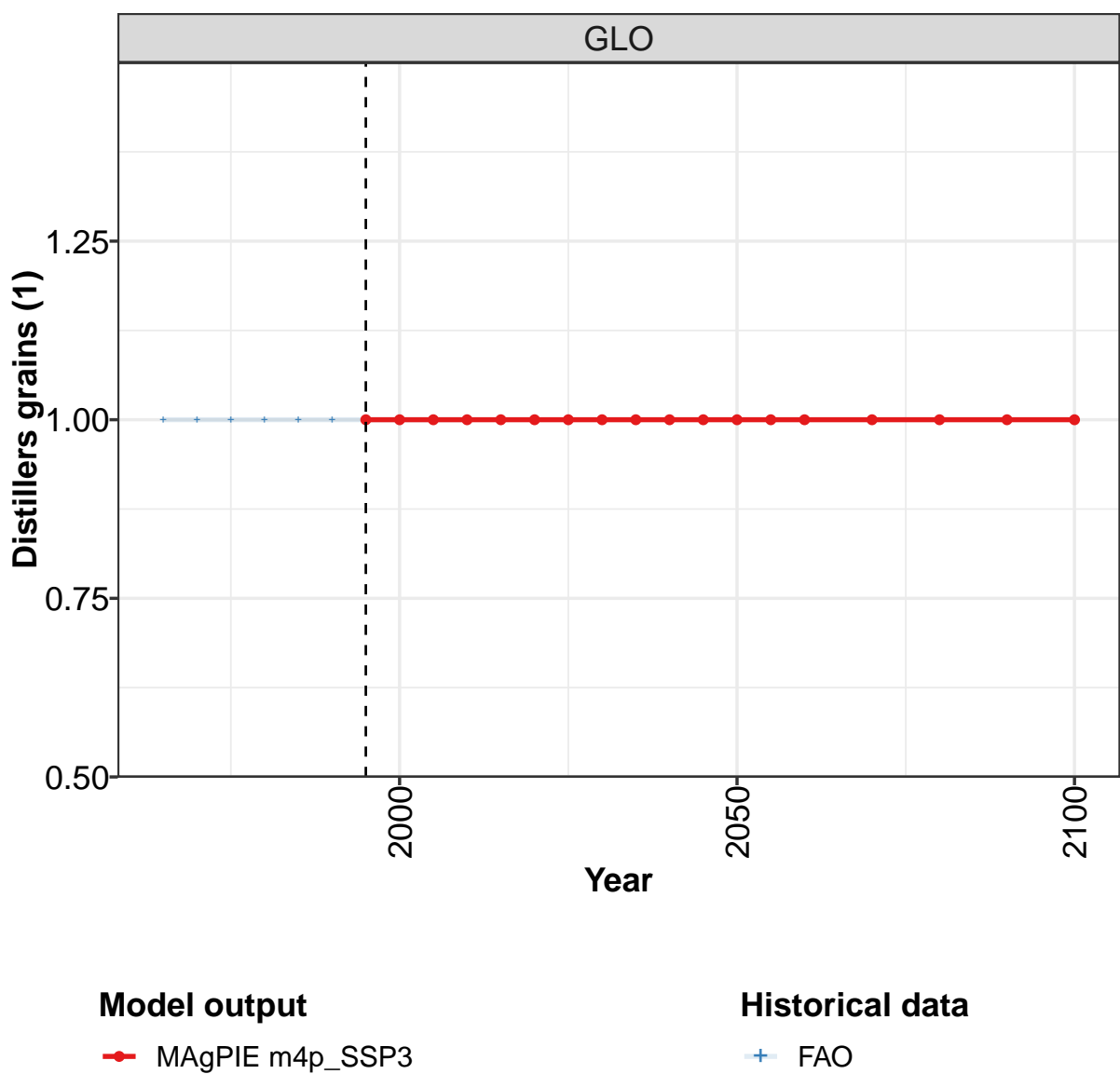
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.69	0.69	0.69	0.69	0.69	0.69	0.69
EUR	0.21	0.21	0.21	0.21	0.21	0.21	0.21
IND	1.32	1.31	1.31	1.30	1.29	1.29	1.28
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	1.38	1.36	1.36	1.33	1.33	1.32	1.29
MEA	1.20	1.19	1.19	1.17	1.16	1.15	1.14
NEU	0.46	0.46	0.46	0.46	0.46	0.46	0.46
OAS	0.51	0.51	0.51	0.51	0.51	0.51	0.51
REF	2.00	1.97	1.92	1.91	1.90	1.97	2.00
SSA	1.33	1.29	1.26	1.25	1.22	1.18	1.20
USA	4.90	4.99	5.01	5.34	5.68	6.12	6.67

Table 2011: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Cotton lint (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.00	0.99	1.00	0.98	0.99	1.00	1.01	0.99	1.02	0.97
CAZ	0.06	0.28	0.41	0.84	2.47	5.75	2.98	7.25	9.37	0.00
CHA	0.84	0.87	0.81	0.66	0.96	0.87	0.81	0.97	0.66	0.66
EUR	0.09	0.09	0.09	0.09	0.12	0.18	0.32	0.41	0.67	0.20
IND	0.92	0.90	0.99	1.09	1.02	1.25	0.98	0.89	1.20	1.37
JPN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	2.21	2.20	1.82	1.52	1.37	1.33	1.08	0.60	0.96	1.01
MEA	3.08	3.13	2.44	1.70	1.59	1.20	1.34	1.41	1.43	1.00
NEU	1.31	2.16	1.45	1.13	0.94	0.87	0.80	0.60	0.53	0.48
OAS	0.99	0.79	0.67	0.66	0.71	0.63	0.55	0.56	0.51	0.48
REF	1.19	1.17	1.37	1.43	1.23	1.23	3.22	1.99	2.48	1.65
SSA	3.34	3.25	2.23	2.44	2.53	2.55	2.30	2.99	3.32	2.09
USA	1.35	1.43	1.91	4.02	1.51	2.01	2.10	1.68	2.88	4.02

Table 2012: FAO — Trade—Self-sufficiency—Secondary products—Cotton lint (1)

59.4.4 Distillers grains



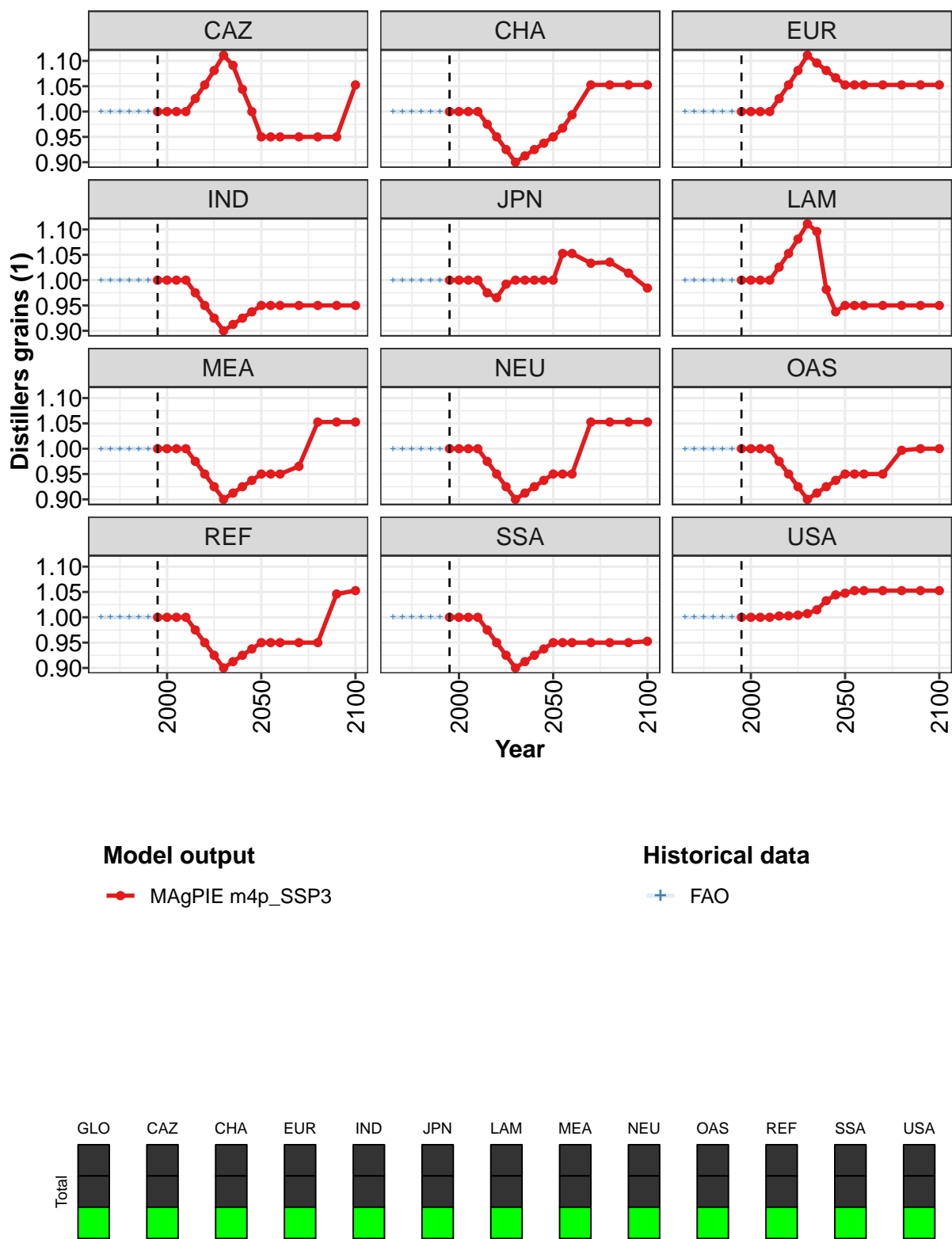


Figure 538: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Distillers grains (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.00	1.00	1.00	1.00	1.03	1.05	1.08	1.11	1.09	1.04	1.00
CHA	1.00	1.00	1.00	1.00	0.97	0.95	0.93	0.90	0.91	0.93	0.94
EUR	1.00	1.00	1.00	1.00	1.03	1.05	1.08	1.11	1.10	1.08	1.07
IND	1.00	1.00	1.00	1.00	0.97	0.95	0.93	0.90	0.91	0.93	0.94
JPN	1.00	1.00	1.00	1.00	0.97	0.97	0.99	1.00	1.00	1.00	1.00
LAM	1.00	1.00	1.00	1.00	1.03	1.05	1.08	1.11	1.10	0.98	0.94
MEA	1.00	1.00	1.00	1.00	0.97	0.95	0.92	0.90	0.91	0.92	0.94
NEU	1.00	1.00	1.00	1.00	0.98	0.95	0.92	0.90	0.91	0.93	0.94
OAS	1.00	1.00	1.00	1.00	0.97	0.95	0.93	0.90	0.91	0.93	0.94
REF	1.00	1.00	1.00	1.00	0.97	0.95	0.93	0.90	0.91	0.93	0.94
SSA	1.00	1.00	1.00	1.00	0.97	0.95	0.92	0.90	0.91	0.92	0.94
USA	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.03	1.04

Table 2013: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Distillers grains (1) [PART 1/2]

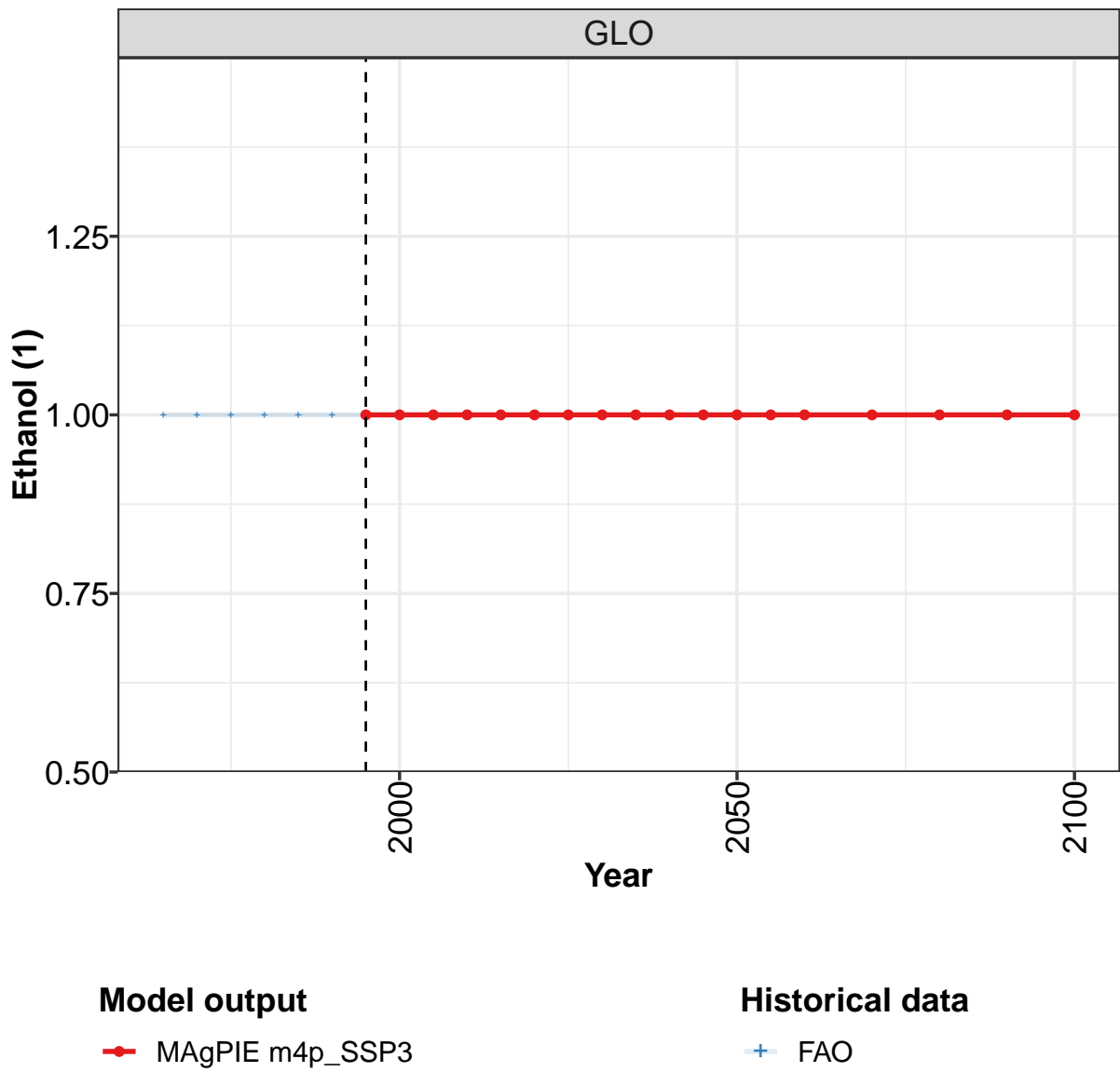
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.95	0.95	0.95	0.95	0.95	0.95	1.05
CHA	0.95	0.97	0.99	1.05	1.05	1.05	1.05
EUR	1.05	1.05	1.05	1.05	1.05	1.05	1.05
IND	0.95	0.95	0.95	0.95	0.95	0.95	0.95
JPN	1.00	1.05	1.05	1.03	1.04	1.01	0.98
LAM	0.95	0.95	0.95	0.95	0.95	0.95	0.95
MEA	0.95	0.95	0.95	0.97	1.05	1.05	1.05
NEU	0.95	0.95	0.95	1.05	1.05	1.05	1.05
OAS	0.95	0.95	0.95	0.95	1.00	1.00	1.00
REF	0.95	0.95	0.95	0.95	0.95	1.05	1.05
SSA	0.95	0.95	0.95	0.95	0.95	0.95	0.95
USA	1.05	1.05	1.05	1.05	1.05	1.05	1.05

Table 2014: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Distillers grains (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CAZ	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CHA	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EUR	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
IND	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
JPN	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
LAM	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
MEA	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
NEU	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
OAS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
REF	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SSA	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
USA	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Table 2015: FAO — Trade—Self-sufficiency—Secondary products—Distillers grains (1)

59.4.5 Ethanol



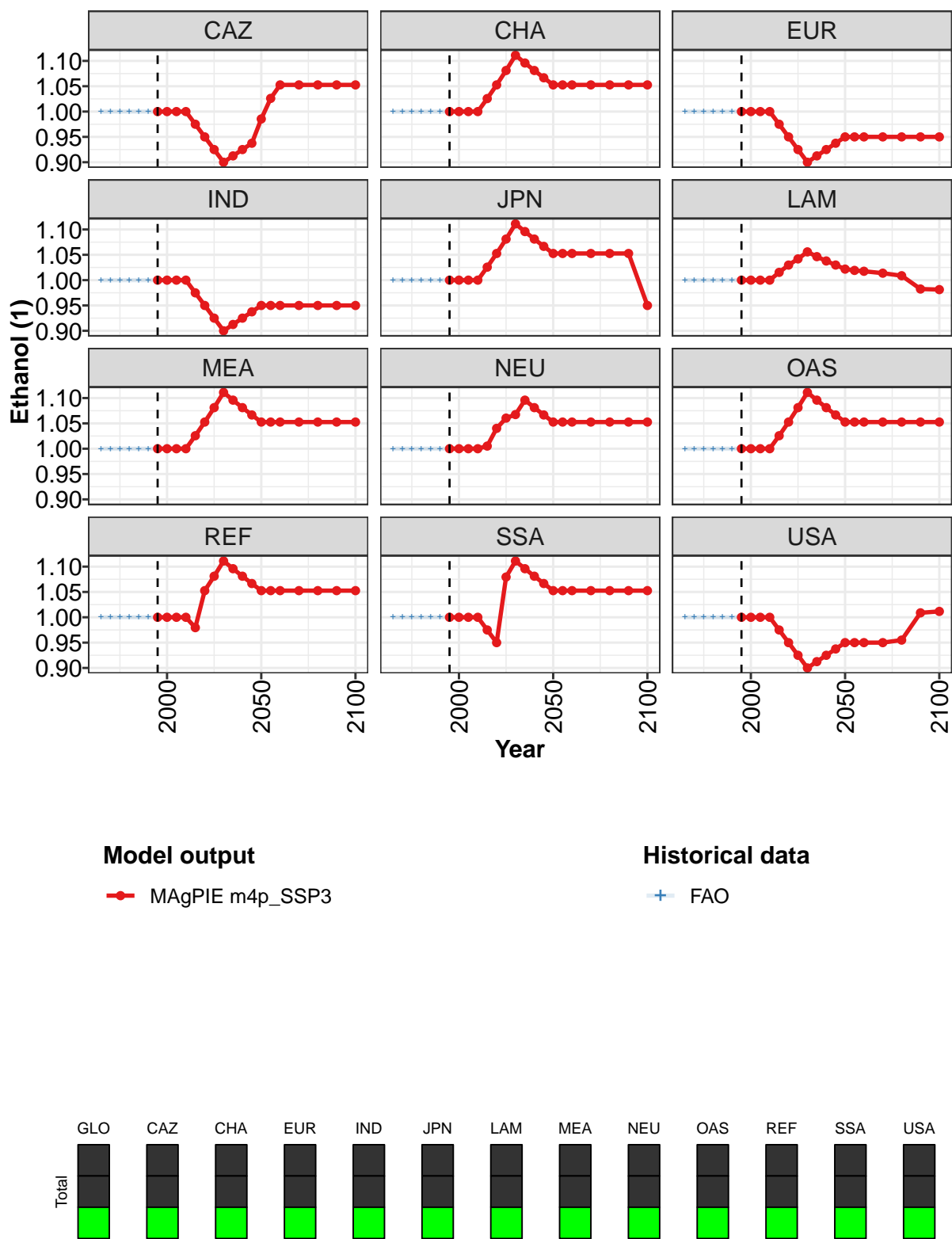


Figure 539: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Ethanol (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.00	1.00	1.00	1.00	0.97	0.95	0.93	0.90	0.91	0.92	0.94
CHA	1.00	1.00	1.00	1.00	1.03	1.05	1.08	1.11	1.10	1.08	1.07
EUR	1.00	1.00	1.00	1.00	0.97	0.95	0.93	0.90	0.91	0.93	0.94
IND	1.00	1.00	1.00	1.00	0.98	0.95	0.92	0.90	0.91	0.92	0.94
JPN	1.00	1.00	1.00	1.00	1.03	1.05	1.08	1.11	1.10	1.08	1.07
LAM	1.00	1.00	1.00	1.00	1.02	1.03	1.04	1.06	1.05	1.04	1.03
MEA	1.00	1.00	1.00	1.00	1.03	1.05	1.08	1.11	1.10	1.08	1.07
NEU	1.00	1.00	1.00	1.00	1.01	1.04	1.06	1.07	1.10	1.08	1.07
OAS	1.00	1.00	1.00	1.00	1.03	1.05	1.08	1.11	1.10	1.08	1.07
REF	1.00	1.00	1.00	1.00	0.98	1.05	1.08	1.11	1.10	1.08	1.07
SSA	1.00	1.00	1.00	1.00	0.97	0.95	1.08	1.11	1.10	1.08	1.07
USA	1.00	1.00	1.00	1.00	0.97	0.95	0.93	0.90	0.91	0.93	0.94

Table 2016: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Ethanol (1) [PART 1/2]

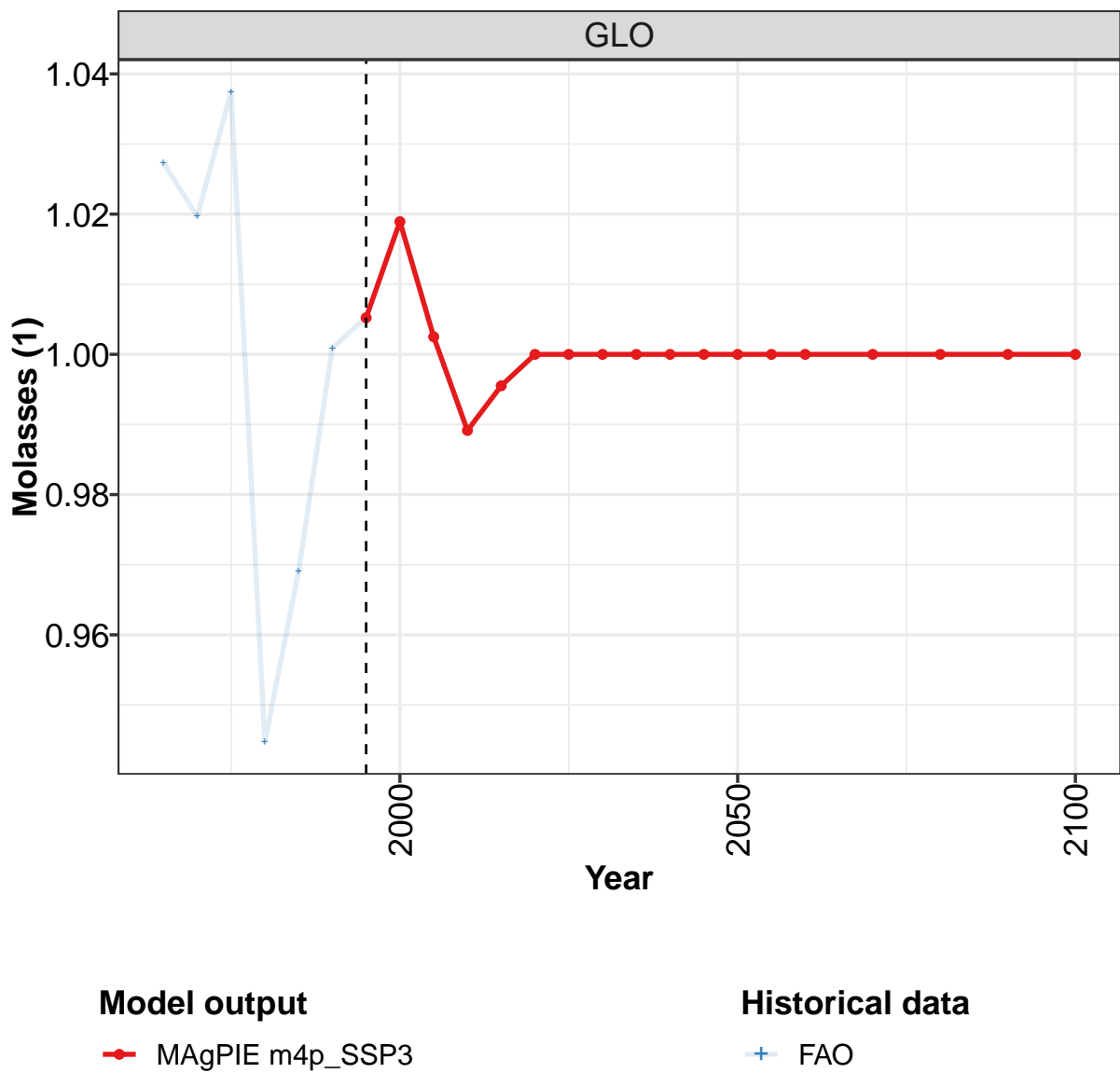
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.99	1.03	1.05	1.05	1.05	1.05	1.05
CHA	1.05	1.05	1.05	1.05	1.05	1.05	1.05
EUR	0.95	0.95	0.95	0.95	0.95	0.95	0.95
IND	0.95	0.95	0.95	0.95	0.95	0.95	0.95
JPN	1.05	1.05	1.05	1.05	1.05	1.05	0.95
LAM	1.02	1.02	1.02	1.01	1.01	0.98	0.98
MEA	1.05	1.05	1.05	1.05	1.05	1.05	1.05
NEU	1.05	1.05	1.05	1.05	1.05	1.05	1.05
OAS	1.05	1.05	1.05	1.05	1.05	1.05	1.05
REF	1.05	1.05	1.05	1.05	1.05	1.05	1.05
SSA	1.05	1.05	1.05	1.05	1.05	1.05	1.05
USA	0.95	0.95	0.95	0.95	0.96	1.01	1.01

Table 2017: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Ethanol (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CAZ	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CHA	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EUR	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
IND	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
JPN	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
LAM	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
MEA	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
NEU	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
OAS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
REF	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SSA	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
USA	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Table 2018: FAO — Trade—Self-sufficiency—Secondary products—Ethanol (1)

59.4.6 Molasses



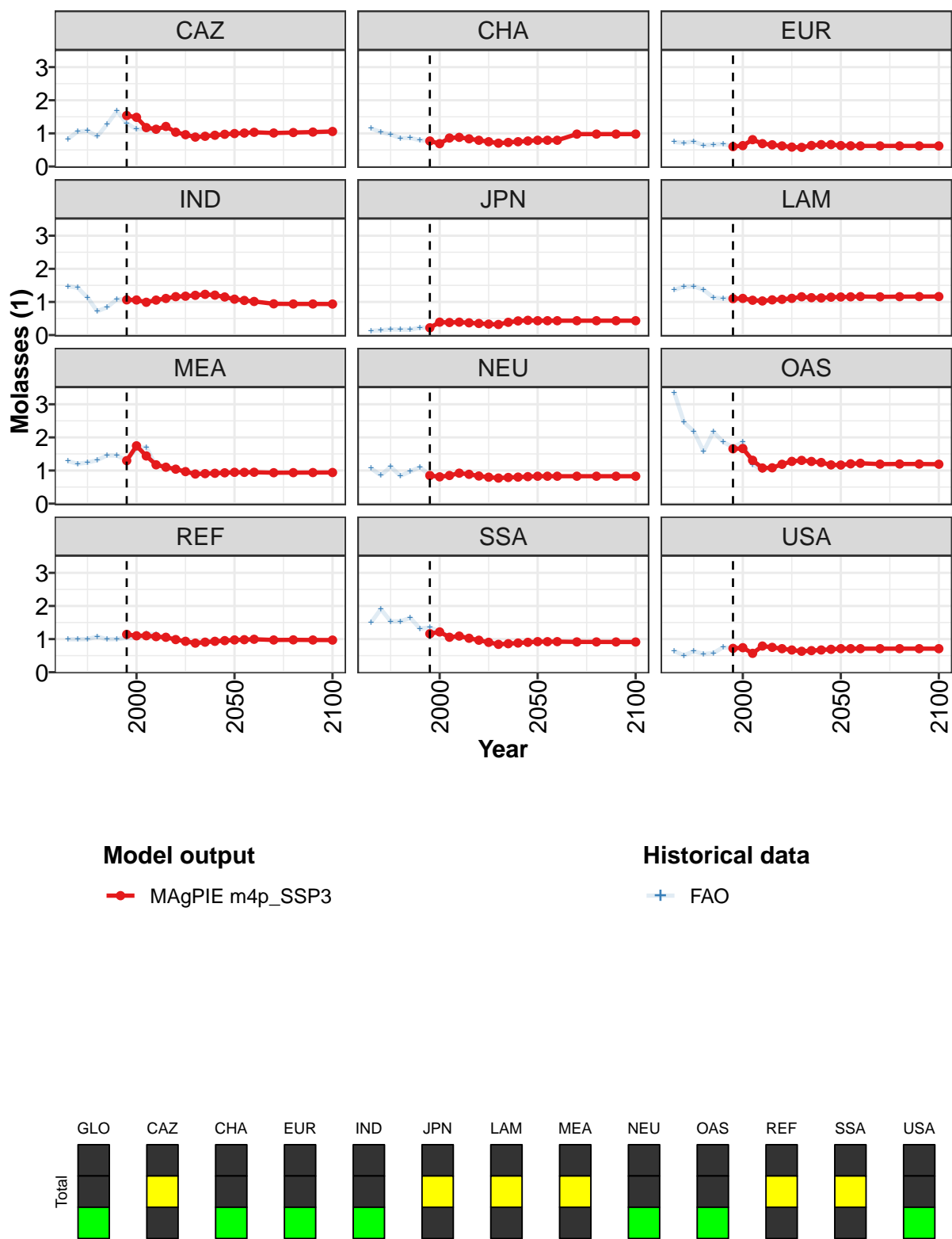


Figure 540: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Molasses (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.01	1.02	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.54	1.48	1.17	1.12	1.21	1.04	0.96	0.89	0.91	0.94	0.97
CHA	0.77	0.69	0.86	0.88	0.84	0.79	0.75	0.70	0.73	0.75	0.77
EUR	0.60	0.63	0.81	0.69	0.66	0.62	0.59	0.58	0.63	0.66	0.66
IND	1.06	1.06	0.99	1.06	1.11	1.16	1.17	1.20	1.23	1.21	1.15
JPN	0.22	0.39	0.38	0.39	0.37	0.35	0.33	0.32	0.39	0.43	0.45
LAM	1.10	1.11	1.05	1.03	1.06	1.08	1.11	1.16	1.13	1.12	1.14
MEA	1.30	1.75	1.44	1.17	1.10	1.04	0.97	0.89	0.91	0.92	0.93
NEU	0.85	0.81	0.85	0.92	0.89	0.83	0.80	0.77	0.79	0.80	0.82
OAS	1.65	1.66	1.31	1.08	1.08	1.19	1.28	1.31	1.27	1.24	1.17
REF	1.14	1.10	1.10	1.07	1.05	0.99	0.93	0.88	0.91	0.93	0.95
SSA	1.16	1.22	1.06	1.09	1.03	0.97	0.90	0.84	0.86	0.88	0.90
USA	0.72	0.74	0.57	0.79	0.75	0.71	0.67	0.63	0.65	0.67	0.69

Table 2019: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Molasses (1) [PART 1/2]

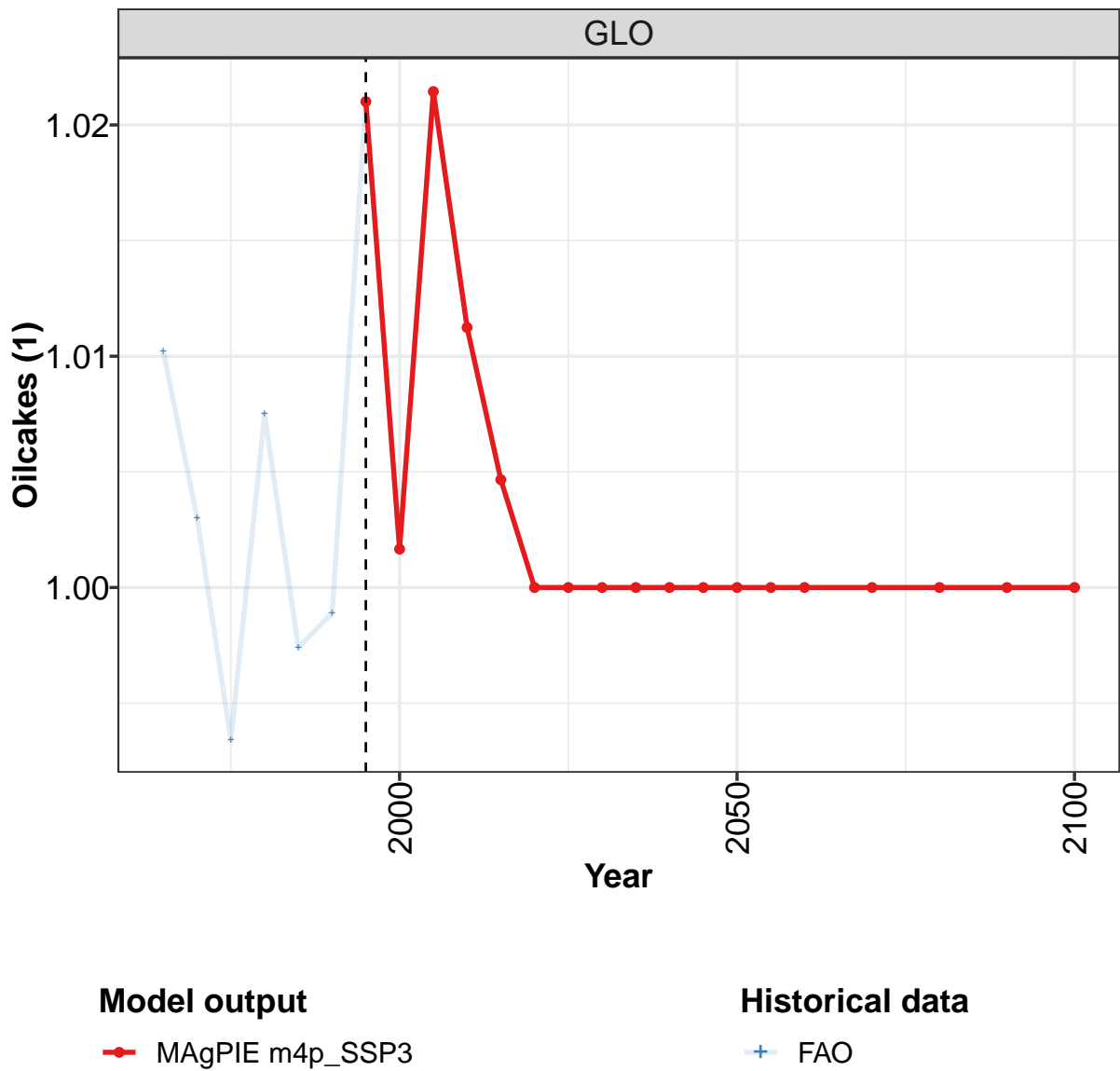
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.99	1.01	1.03	1.01	1.03	1.04	1.06
CHA	0.79	0.79	0.79	0.98	0.98	0.98	0.98
EUR	0.63	0.62	0.62	0.62	0.62	0.62	0.62
IND	1.08	1.05	1.01	0.94	0.94	0.94	0.94
JPN	0.43	0.43	0.43	0.43	0.43	0.43	0.43
LAM	1.15	1.15	1.16	1.15	1.16	1.16	1.16
MEA	0.95	0.94	0.95	0.93	0.94	0.94	0.94
NEU	0.83	0.83	0.83	0.83	0.83	0.83	0.83
OAS	1.17	1.20	1.22	1.19	1.20	1.20	1.19
REF	0.97	0.98	0.99	0.97	0.98	0.97	0.97
SSA	0.92	0.92	0.92	0.91	0.91	0.91	0.91
USA	0.71	0.71	0.71	0.71	0.71	0.71	0.71

Table 2020: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Molasses (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.03	1.02	1.04	0.94	0.97	1.00	1.01	1.02	1.00	0.99
CAZ	0.83	1.05	1.08	0.91	1.27	1.67	1.31	1.12	1.13	1.05
CHA	1.15	1.04	0.97	0.86	0.86	0.79	0.77	0.69	0.86	0.88
EUR	0.74	0.71	0.76	0.64	0.66	0.68	0.60	0.63	0.81	0.69
IND	1.47	1.43	1.13	0.72	0.84	1.08	1.08	1.05	0.99	1.10
JPN	0.13	0.14	0.17	0.17	0.16	0.22	0.22	0.39	0.38	0.39
LAM	1.37	1.46	1.47	1.37	1.13	1.10	1.11	1.09	1.07	1.05
MEA	1.29	1.20	1.24	1.31	1.46	1.45	1.31	1.67	1.70	1.14
NEU	1.07	0.85	1.11	0.84	0.97	1.10	0.85	0.81	0.85	0.92
OAS	3.36	2.46	2.18	1.58	2.16	1.86	1.70	1.85	1.18	1.01
REF	0.99	0.99	1.00	1.08	1.00	1.00	1.04	1.04	1.16	1.15
SSA	1.50	1.90	1.54	1.53	1.64	1.32	1.35	1.23	1.08	1.04
USA	0.64	0.51	0.63	0.55	0.58	0.75	0.72	0.74	0.57	0.79

Table 2021: FAO — Trade—Self-sufficiency—Secondary products—Molasses (1)

59.4.7 Oilcakes



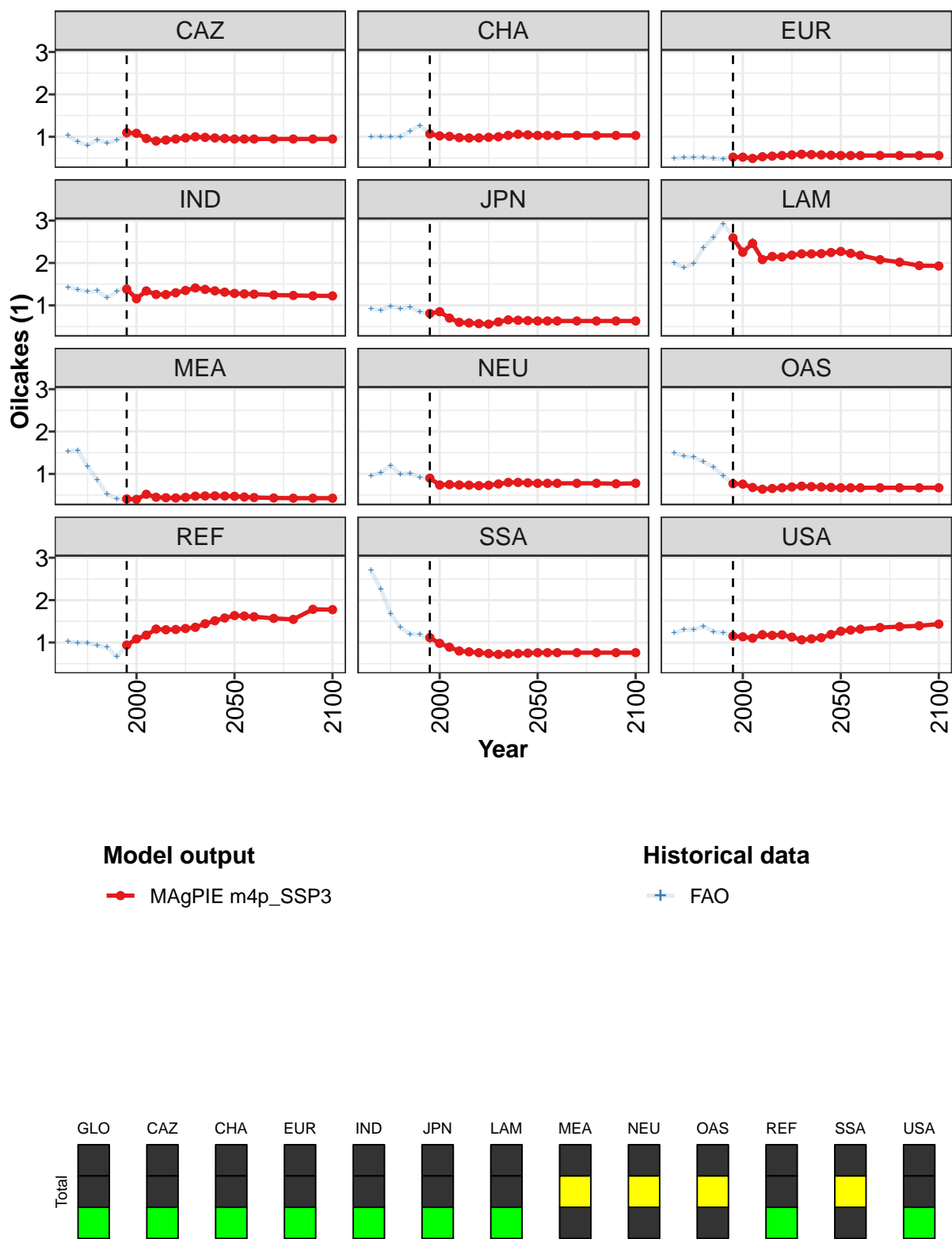


Figure 541: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Oilcakes (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.02	1.00	1.02	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.10	1.08	0.96	0.90	0.92	0.95	0.97	1.00	0.99	0.97	0.96
CHA	1.07	1.02	1.01	0.98	0.97	0.97	0.99	1.00	1.03	1.06	1.05
EUR	0.52	0.52	0.49	0.53	0.54	0.56	0.57	0.59	0.58	0.57	0.57
IND	1.38	1.16	1.34	1.26	1.25	1.30	1.35	1.41	1.38	1.34	1.31
JPN	0.81	0.85	0.70	0.60	0.58	0.57	0.56	0.61	0.66	0.65	0.64
LAM	2.59	2.25	2.46	2.08	2.15	2.14	2.18	2.22	2.21	2.22	2.25
MEA	0.41	0.40	0.52	0.45	0.44	0.43	0.45	0.48	0.48	0.48	0.48
NEU	0.90	0.74	0.75	0.74	0.74	0.72	0.73	0.76	0.80	0.80	0.79
OAS	0.77	0.76	0.68	0.64	0.66	0.67	0.69	0.71	0.70	0.69	0.68
REF	0.94	1.08	1.17	1.32	1.30	1.31	1.33	1.36	1.44	1.51	1.58
SSA	1.12	0.98	0.89	0.80	0.78	0.76	0.74	0.72	0.73	0.74	0.75
USA	1.15	1.13	1.10	1.18	1.17	1.18	1.13	1.06	1.09	1.11	1.19

Table 2022: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Oilcakes (1) [PART 1/2]

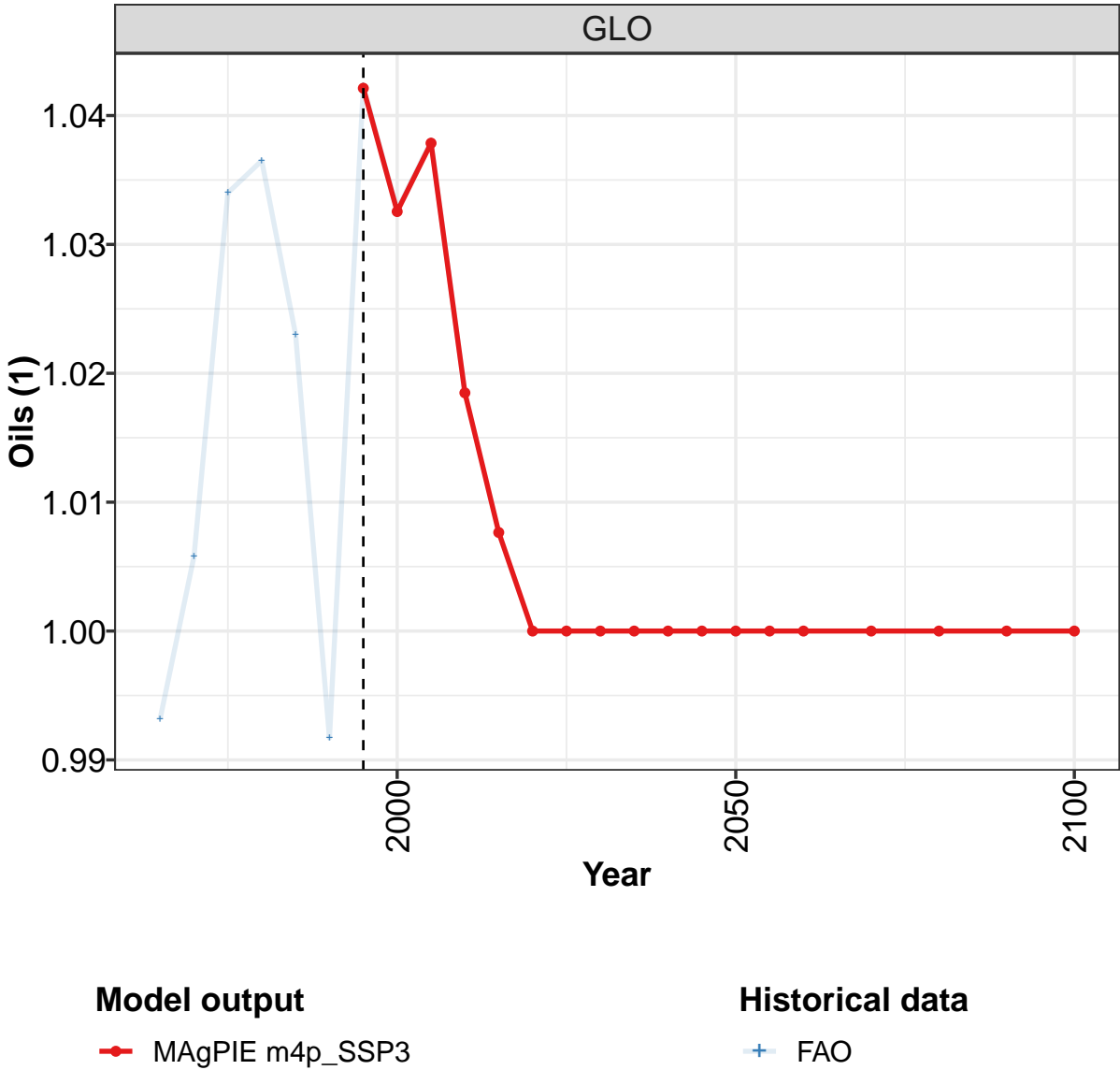
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	0.95	0.95	0.95	0.95	0.95	0.95	0.95
CHA	1.03	1.03	1.03	1.03	1.03	1.03	1.03
EUR	0.56	0.56	0.56	0.56	0.56	0.56	0.56
IND	1.28	1.27	1.26	1.24	1.23	1.23	1.22
JPN	0.63	0.63	0.63	0.63	0.63	0.63	0.63
LAM	2.27	2.23	2.18	2.08	2.02	1.94	1.93
MEA	0.47	0.46	0.44	0.43	0.43	0.43	0.43
NEU	0.78	0.78	0.78	0.78	0.78	0.77	0.78
OAS	0.67	0.67	0.67	0.67	0.67	0.67	0.67
REF	1.63	1.62	1.61	1.57	1.55	1.78	1.78
SSA	0.76	0.76	0.76	0.76	0.76	0.76	0.76
USA	1.27	1.29	1.32	1.35	1.37	1.39	1.43

Table 2023: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Oilcakes (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.01	1.00	0.99	1.01	1.00	1.00	1.02	1.00	1.02	1.01
CAZ	1.03	0.88	0.80	0.93	0.86	0.92	1.01	1.11	0.96	0.90
CHA	1.01	1.00	1.00	1.00	1.14	1.27	1.06	1.01	1.00	0.98
EUR	0.49	0.51	0.52	0.51	0.49	0.48	0.52	0.52	0.49	0.53
IND	1.43	1.37	1.32	1.34	1.18	1.32	1.47	1.20	1.31	1.29
JPN	0.92	0.89	0.98	0.92	0.95	0.85	0.81	0.85	0.70	0.60
LAM	2.00	1.88	1.99	2.36	2.60	2.92	2.63	2.30	2.52	2.10
MEA	1.53	1.56	1.19	0.86	0.53	0.41	0.41	0.40	0.52	0.45
NEU	0.95	1.03	1.20	1.00	1.01	0.92	0.90	0.74	0.75	0.74
OAS	1.50	1.42	1.39	1.28	1.16	0.96	0.77	0.76	0.68	0.64
REF	1.02	0.99	0.99	0.93	0.89	0.66	0.94	1.06	1.16	1.30
SSA	2.70	2.26	1.68	1.35	1.19	1.19	1.02	0.98	0.89	0.80
USA	1.22	1.30	1.30	1.39	1.26	1.23	1.16	1.14	1.11	1.22

Table 2024: FAO — Trade—Self-sufficiency—Secondary products—Oilcakes (1)

59.4.8 Oils



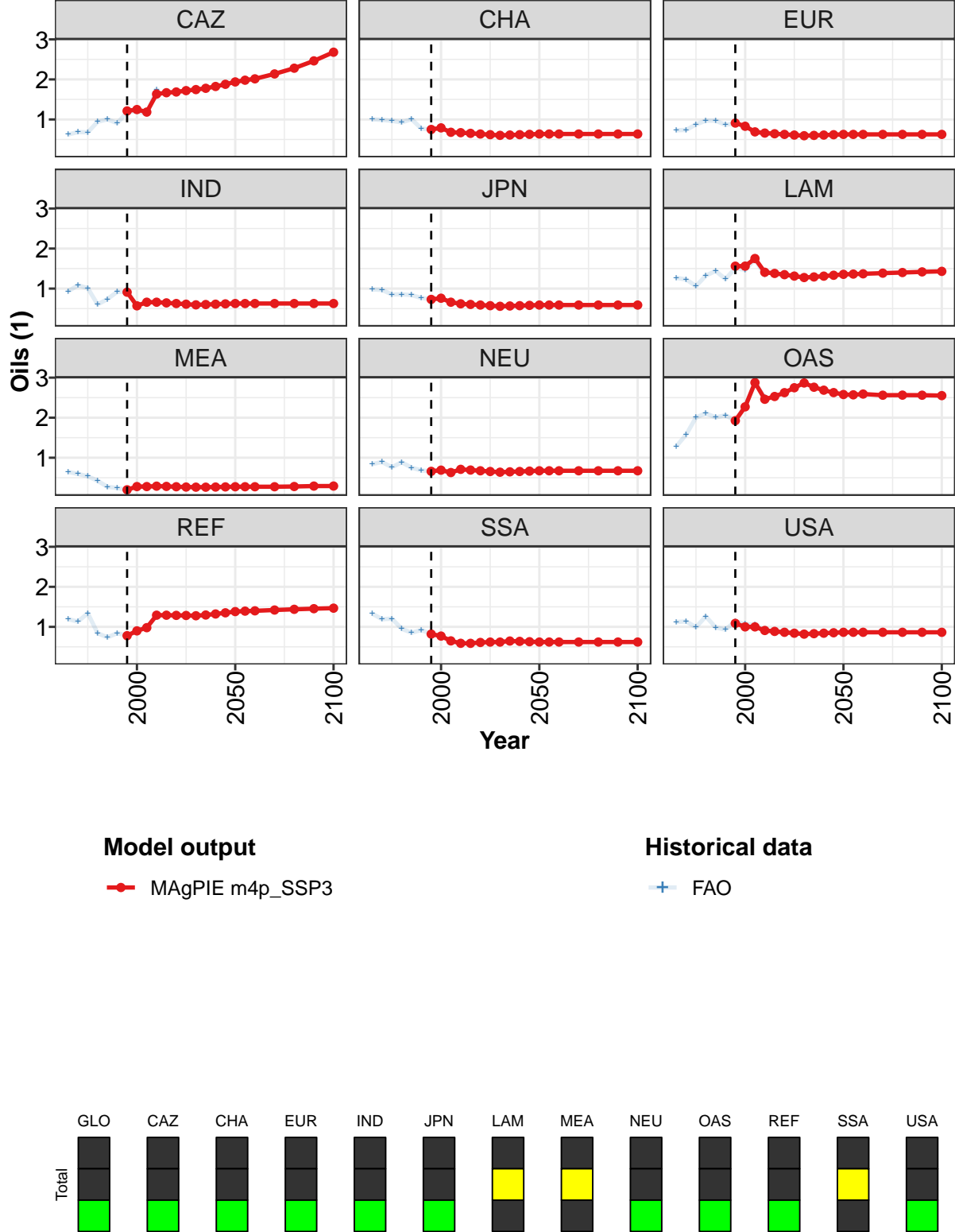


Figure 542: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Oils (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.04	1.03	1.04	1.02	1.01	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.21	1.25	1.18	1.63	1.67	1.69	1.72	1.75	1.78	1.82	1.88
CHA	0.75	0.79	0.68	0.67	0.65	0.64	0.62	0.60	0.61	0.62	0.63
EUR	0.91	0.83	0.69	0.66	0.64	0.63	0.61	0.59	0.60	0.61	0.62
IND	0.91	0.57	0.66	0.66	0.64	0.63	0.61	0.59	0.60	0.61	0.62
JPN	0.73	0.76	0.66	0.62	0.60	0.59	0.57	0.56	0.57	0.57	0.58
LAM	1.56	1.56	1.75	1.41	1.38	1.35	1.31	1.28	1.29	1.31	1.33
MEA	0.20	0.28	0.28	0.29	0.28	0.28	0.27	0.27	0.26	0.27	0.27
NEU	0.66	0.69	0.63	0.71	0.69	0.67	0.66	0.64	0.65	0.66	0.67
OAS	1.93	2.27	2.88	2.46	2.53	2.63	2.75	2.87	2.76	2.69	2.63
REF	0.78	0.90	0.98	1.29	1.29	1.29	1.28	1.28	1.30	1.32	1.35
SSA	0.82	0.77	0.65	0.59	0.59	0.61	0.62	0.62	0.65	0.64	0.63
USA	1.09	1.00	1.00	0.91	0.89	0.86	0.84	0.82	0.83	0.84	0.85

Table 2025: MAgPIE m4p-SSP3 — Trade—Self-sufficiency—Secondary products—Oils (1) [PART 1/2]

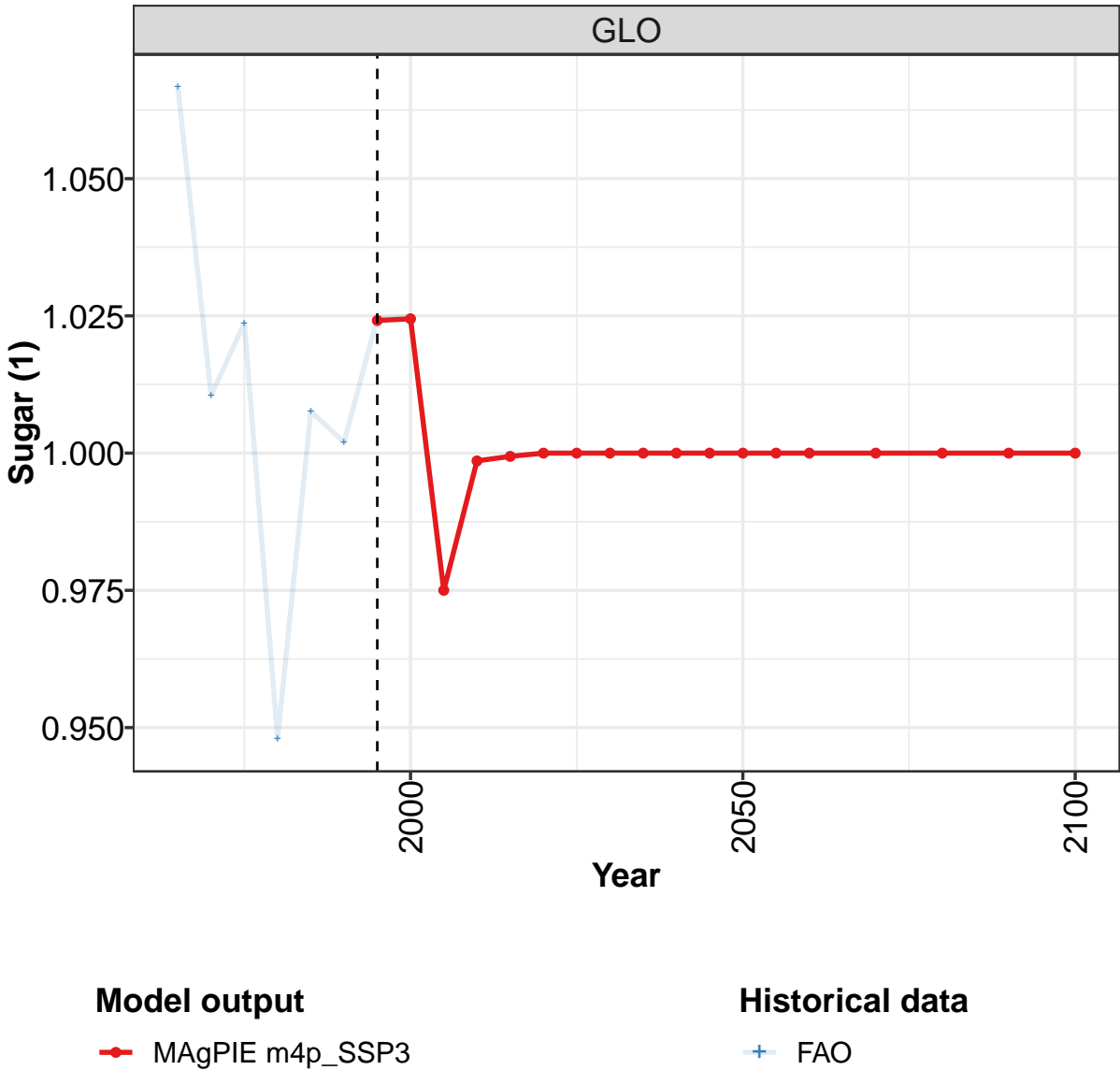
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.94	1.98	2.01	2.14	2.28	2.46	2.68
CHA	0.64	0.64	0.64	0.64	0.64	0.64	0.64
EUR	0.63	0.63	0.63	0.63	0.63	0.63	0.63
IND	0.63	0.63	0.63	0.63	0.63	0.63	0.63
JPN	0.59	0.59	0.59	0.59	0.59	0.59	0.59
LAM	1.36	1.36	1.37	1.39	1.40	1.42	1.43
MEA	0.28	0.28	0.28	0.28	0.28	0.29	0.29
NEU	0.67	0.67	0.67	0.67	0.67	0.67	0.67
OAS	2.58	2.57	2.59	2.56	2.56	2.56	2.55
REF	1.38	1.39	1.40	1.42	1.44	1.45	1.47
SSA	0.62	0.62	0.62	0.62	0.62	0.62	0.62
USA	0.86	0.86	0.86	0.86	0.86	0.86	0.86

Table 2026: MAgPIE m4p-SSP3 — Trade—Self-sufficiency—Secondary products—Oils (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.99	1.01	1.03	1.04	1.02	0.99	1.04	1.03	1.04	1.02
CAZ	0.62	0.69	0.68	0.94	1.00	0.91	1.19	1.21	1.14	1.75
CHA	1.00	0.99	0.97	0.93	1.01	0.77	0.75	0.79	0.68	0.67
EUR	0.73	0.74	0.88	0.97	0.97	0.86	0.91	0.83	0.69	0.66
IND	0.93	1.08	1.01	0.60	0.74	0.92	0.91	0.57	0.66	0.66
JPN	0.98	0.97	0.85	0.86	0.84	0.77	0.73	0.76	0.66	0.62
LAM	1.27	1.23	1.06	1.32	1.44	1.24	1.51	1.47	1.73	1.34
MEA	0.65	0.59	0.54	0.42	0.27	0.24	0.20	0.28	0.28	0.29
NEU	0.84	0.89	0.76	0.89	0.75	0.68	0.66	0.69	0.63	0.71
OAS	1.28	1.58	2.01	2.11	2.01	2.06	1.93	2.29	2.86	2.50
REF	1.19	1.13	1.34	0.84	0.74	0.84	0.78	0.90	0.98	1.27
SSA	1.33	1.19	1.21	0.95	0.85	0.92	0.82	0.77	0.65	0.59
USA	1.12	1.14	0.99	1.26	0.99	0.93	1.14	1.07	1.05	0.91

Table 2027: FAO — Trade—Self-sufficiency—Secondary products—Oils (1)

59.4.9 Sugar



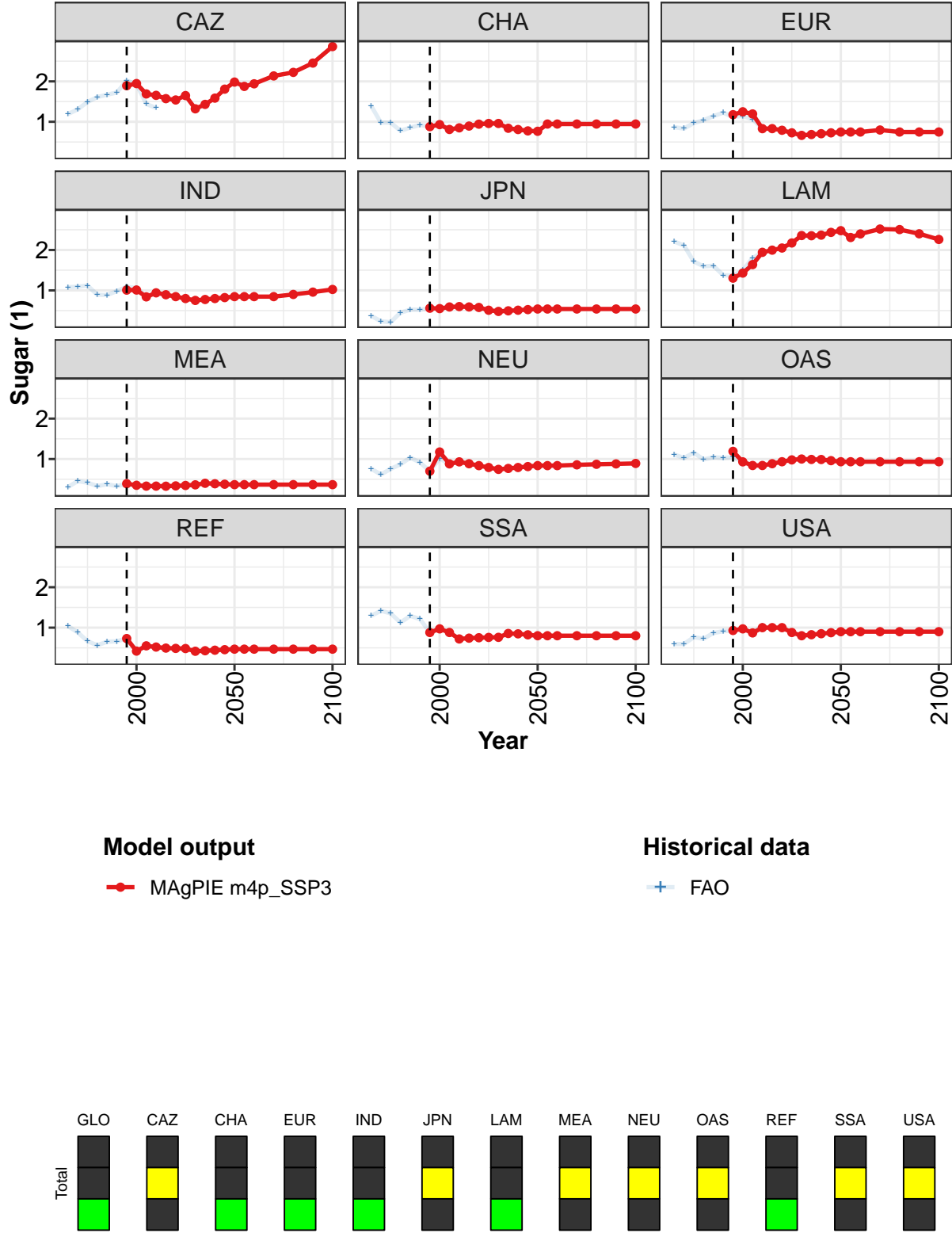


Figure 543: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Sugar (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.02	1.02	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.89	1.95	1.69	1.65	1.57	1.54	1.65	1.32	1.43	1.59	1.81
CHA	0.88	0.93	0.81	0.85	0.89	0.94	0.96	0.96	0.84	0.81	0.78
EUR	1.18	1.25	1.19	0.83	0.83	0.79	0.73	0.66	0.68	0.71	0.73
IND	1.01	1.01	0.84	0.94	0.89	0.85	0.80	0.75	0.78	0.80	0.82
JPN	0.56	0.55	0.59	0.60	0.59	0.58	0.51	0.48	0.49	0.51	0.53
LAM	1.30	1.43	1.64	1.94	2.00	2.05	2.17	2.36	2.35	2.37	2.44
MEA	0.39	0.35	0.33	0.33	0.33	0.34	0.35	0.36	0.40	0.39	0.38
NEU	0.70	1.17	0.88	0.93	0.88	0.84	0.79	0.74	0.77	0.79	0.81
OAS	1.19	0.93	0.84	0.84	0.88	0.93	0.98	1.00	0.99	0.99	0.96
REF	0.73	0.42	0.55	0.52	0.49	0.49	0.48	0.42	0.43	0.44	0.46
SSA	0.88	0.97	0.88	0.72	0.74	0.75	0.76	0.76	0.86	0.85	0.82
USA	0.93	0.97	0.87	1.00	1.00	1.00	0.88	0.80	0.82	0.85	0.88

Table 2028: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Sugar (1) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CAZ	1.98	1.88	1.94	2.13	2.22	2.45	2.86
CHA	0.77	0.94	0.94	0.94	0.94	0.94	0.94
EUR	0.75	0.75	0.75	0.80	0.75	0.75	0.75
IND	0.85	0.85	0.85	0.85	0.90	0.96	1.02
JPN	0.54	0.54	0.54	0.54	0.54	0.54	0.54
LAM	2.48	2.31	2.40	2.52	2.51	2.40	2.26
MEA	0.37	0.37	0.37	0.37	0.37	0.37	0.37
NEU	0.84	0.84	0.84	0.86	0.87	0.88	0.89
OAS	0.93	0.93	0.93	0.93	0.93	0.93	0.93
REF	0.47	0.47	0.47	0.47	0.47	0.47	0.47
SSA	0.80	0.80	0.80	0.80	0.80	0.80	0.80
USA	0.90	0.90	0.90	0.90	0.90	0.90	0.90

Table 2029: MAgPIE m4p_SSP3 — Trade—Self-sufficiency—Secondary products—Sugar (1) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.07	1.01	1.02	0.95	1.01	1.00	1.02	1.02	0.97	1.00
CAZ	1.19	1.31	1.49	1.61	1.67	1.73	2.02	1.93	1.44	1.34
CHA	1.40	0.98	0.98	0.78	0.86	0.92	0.88	0.93	0.81	0.85
EUR	0.86	0.83	0.97	1.04	1.14	1.22	1.12	1.14	1.06	0.83
IND	1.08	1.09	1.12	0.89	0.89	0.98	1.09	1.06	0.84	0.94
JPN	0.38	0.24	0.21	0.45	0.52	0.52	0.56	0.55	0.59	0.60
LAM	2.21	2.11	1.71	1.60	1.61	1.38	1.37	1.50	1.80	1.94
MEA	0.30	0.45	0.42	0.33	0.38	0.33	0.39	0.35	0.33	0.33
NEU	0.76	0.61	0.76	0.87	1.04	0.91	0.70	1.01	0.88	0.93
OAS	1.11	1.03	1.16	0.99	1.04	1.03	1.04	0.93	0.84	0.84
REF	1.04	0.88	0.67	0.56	0.65	0.66	0.73	0.42	0.55	0.52
SSA	1.29	1.42	1.35	1.13	1.29	1.21	0.88	0.97	0.88	0.72
USA	0.59	0.60	0.76	0.73	0.87	0.91	0.93	0.97	0.87	1.05

Table 2030: FAO — Trade—Self-sufficiency—Secondary products—Sugar (1)

Part XVI**Trade Value****60 Exports****61 Imports****62 Net-Exports**

Part XVII

Statistics

63 Traffic Lights

63.1 Total

	green	yellow	red	NA.
total	254	266	12	11
relative	47%	49%	2%	2%

Table 2031: Global

	green	yellow	red	NA.
total	2897	2840	142	469
relative	46%	45%	2%	7%

Table 2032: Regional

63.2 Trend

	green	yellow	red	NA.
total	218	141	173	11
relative	40%	26%	32%	2%

Table 2033: Global

	green	yellow	red	NA.
total	2624	1505	1741	478
relative	41%	24%	27%	8%

Table 2034: Regional

63.3 Overlap

	green	yellow	red	NA.
total	481	48	3	11
relative	89%	9%	1%	2%

Table 2035: Global

	green	yellow	red	NA.
total	5138	568	103	539
relative	81%	9%	2%	8%

Table 2036: Regional

63.4 Level

	green	yellow	red	NA.
total	313	130	83	17
relative	58%	24%	15%	3%

Table 2037: Global

	green	yellow	red	NA.
total	2999	1956	785	608
relative	47%	31%	12%	10%

Table 2038: Regional

64 Ignored data

Variables of data and validation data that only contain a mix of 0 and NA values and are ignored.

```
## Demand|Agricultural Supply Chain Loss|Crop residues (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Crop residues|Non fibrous crop residues (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Crop residues|Other fibrous crop residues (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Crop residues|Straw (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Fish (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Forage (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Forest products (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Forest products|Industrial roundwood (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Forest products|Wood fuel (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Pasture (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Secondary products|Microbial protein (Mt DM/yr)
## Demand|Bioenergy|Crops (Mt DM/yr)
## Demand|Bioenergy|Crops|Cereals (Mt DM/yr)
## Demand|Bioenergy|Crops|Cereals|Maize (Mt DM/yr)
## Demand|Bioenergy|Crops|Cereals|Rice (Mt DM/yr)
## Demand|Bioenergy|Crops|Cereals|Temperate cereals (Mt DM/yr)
## Demand|Bioenergy|Crops|Cereals|Tropical cereals (Mt DM/yr)
## Demand|Bioenergy|Crops|Oil crops (Mt DM/yr)
## Demand|Bioenergy|Crops|Oil crops|Cotton seed (Mt DM/yr)
## Demand|Bioenergy|Crops|Oil crops|Groundnuts (Mt DM/yr)
## Demand|Bioenergy|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Bioenergy|Crops|Oil crops|Other oil crops (incl rapeseed) (Mt DM/yr)
## Demand|Bioenergy|Crops|Oil crops|Soybean (Mt DM/yr)
## Demand|Bioenergy|Crops|Oil crops|Sunflower (Mt DM/yr)
## Demand|Bioenergy|Crops|Other crops (Mt DM/yr)
## Demand|Bioenergy|Crops|Other crops|Fruits Vegetables Nuts (Mt DM/yr)
## Demand|Bioenergy|Crops|Other crops|Potatoes (Mt DM/yr)
## Demand|Bioenergy|Crops|Other crops|Pulses (Mt DM/yr)
## Demand|Bioenergy|Crops|Other crops|Tropical roots (Mt DM/yr)
## Demand|Bioenergy|Crops|Sugar crops (Mt DM/yr)
## Demand|Bioenergy|Crops|Sugar crops|Sugar beet (Mt DM/yr)
## Demand|Bioenergy|Crops|Sugar crops|Sugar cane (Mt DM/yr)
## Demand|Bioenergy|Fish (Mt DM/yr)
## Demand|Bioenergy|Forage (Mt DM/yr)
## Demand|Bioenergy|Forest products (Mt DM/yr)
## Demand|Bioenergy|Forest products|Industrial roundwood (Mt DM/yr)
## Demand|Bioenergy|Forest products|Wood fuel (Mt DM/yr)
## Demand|Bioenergy|Livestock products (Mt DM/yr)
## Demand|Bioenergy|Livestock products|Dairy (Mt DM/yr)
## Demand|Bioenergy|Livestock products|Eggs (Mt DM/yr)
## Demand|Bioenergy|Livestock products|Monogastric meat (Mt DM/yr)
## Demand|Bioenergy|Livestock products|Poultry meat (Mt DM/yr)
## Demand|Bioenergy|Livestock products|Ruminant meat (Mt DM/yr)
## Demand|Bioenergy|Pasture (Mt DM/yr)
## Demand|Bioenergy|Secondary products|Alcoholic beverages (Mt DM/yr)
## Demand|Bioenergy|Secondary products|Brans (Mt DM/yr)
## Demand|Bioenergy|Secondary products|Cotton lint (Mt DM/yr)
## Demand|Bioenergy|Secondary products|Distillers grains (Mt DM/yr)
## Demand|Bioenergy|Secondary products|Microbial protein (Mt DM/yr)
```

```

## Demand|Bioenergy|Secondary products|Molasses (Mt DM/yr)
## Demand|Bioenergy|Secondary products|Oilcakes (Mt DM/yr)
## Demand|Bioenergy|Secondary products|Sugar (Mt DM/yr)
## Demand|Domestic Balanceflow|Bioenergy crops (Mt DM/yr)
## Demand|Domestic Balanceflow|Crop residues (Mt DM/yr)
## Demand|Domestic Balanceflow|Crop residues|Non fibrous crop residues (Mt DM/yr)
## Demand|Domestic Balanceflow|Crop residues|Other fibrous crop residues (Mt DM/yr)
## Demand|Domestic Balanceflow|Crop residues|Straw (Mt DM/yr)
## Demand|Domestic Balanceflow|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Domestic Balanceflow|Forage (Mt DM/yr)
## Demand|Domestic Balanceflow|Forest products (Mt DM/yr)
## Demand|Domestic Balanceflow|Forest products|Industrial roundwood (Mt DM/yr)
## Demand|Domestic Balanceflow|Forest products|Wood fuel (Mt DM/yr)
## Demand|Domestic Balanceflow|Pasture (Mt DM/yr)
## Demand|Domestic Balanceflow|Secondary products|Distillers grains (Mt DM/yr)
## Demand|Domestic Balanceflow|Secondary products|Ethanol (Mt DM/yr)
## Demand|Domestic Balanceflow|Secondary products|Microbial protein (Mt DM/yr)
## Demand|Feed|Bioenergy crops (Mt DM/yr)
## Demand|Feed|Forest products (Mt DM/yr)
## Demand|Feed|Forest products|Industrial roundwood (Mt DM/yr)
## Demand|Feed|Forest products|Wood fuel (Mt DM/yr)
## Demand|Feed|Livestock products|Monogastric meat (Mt DM/yr)
## Demand|Feed|Secondary products|Alcoholic beverages (Mt DM/yr)
## Demand|Feed|Secondary products|Microbial protein (Mt DM/yr)
## Demand|Food|Bioenergy crops (Mt DM/yr)
## Demand|Food|Crop residues (Mt DM/yr)
## Demand|Food|Crop residues|Non fibrous crop residues (Mt DM/yr)
## Demand|Food|Crop residues|Other fibrous crop residues (Mt DM/yr)
## Demand|Food|Crop residues|Straw (Mt DM/yr)
## Demand|Food|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Food|Forage (Mt DM/yr)
## Demand|Food|Forest products (Mt DM/yr)
## Demand|Food|Forest products|Industrial roundwood (Mt DM/yr)
## Demand|Food|Forest products|Wood fuel (Mt DM/yr)
## Demand|Food|Pasture (Mt DM/yr)
## Demand|Food|Secondary products|Cotton lint (Mt DM/yr)
## Demand|Food|Secondary products|Distillers grains (Mt DM/yr)
## Demand|Food|Secondary products|Ethanol (Mt DM/yr)
## Demand|Food|Secondary products|Microbial protein (Mt DM/yr)
## Demand|Food|Secondary products|Oilcakes (Mt DM/yr)
## Demand|Material|Bioenergy crops (Mt DM/yr)
## Demand|Material|Crop residues|Non fibrous crop residues (Mt DM/yr)
## Demand|Material|Crop residues|Other fibrous crop residues (Mt DM/yr)
## Demand|Material|Crops|Cereals|Maize (Mt DM/yr)
## Demand|Material|Crops|Cereals|Temperate cereals (Mt DM/yr)
## Demand|Material|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Material|Crops|Sugar crops|Sugar cane (Mt DM/yr)
## Demand|Material|Forage (Mt DM/yr)
## Demand|Material|Pasture (Mt DM/yr)
## Demand|Material|Secondary products|Distillers grains (Mt DM/yr)
## Demand|Material|Secondary products|Microbial protein (Mt DM/yr)
## Demand|Processing|Bioenergy crops (Mt DM/yr)
## Demand|Processing|Crop residues (Mt DM/yr)
## Demand|Processing|Crop residues|Non fibrous crop residues (Mt DM/yr)
## Demand|Processing|Crop residues|Other fibrous crop residues (Mt DM/yr)
## Demand|Processing|Crop residues|Straw (Mt DM/yr)
## Demand|Processing|Crops|Other crops|Pulses (Mt DM/yr)
## Demand|Processing|Fish (Mt DM/yr)
## Demand|Processing|Forage (Mt DM/yr)
## Demand|Processing|Forest products (Mt DM/yr)

```

```

## Demand|Processing|Forest products|Industrial roundwood (Mt DM/yr)
## Demand|Processing|Forest products|Wood fuel (Mt DM/yr)
## Demand|Processing|Livestock products (Mt DM/yr)
## Demand|Processing|Livestock products|Dairy (Mt DM/yr)
## Demand|Processing|Livestock products|Eggs (Mt DM/yr)
## Demand|Processing|Livestock products|Monogastric meat (Mt DM/yr)
## Demand|Processing|Livestock products|Poultry meat (Mt DM/yr)
## Demand|Processing|Livestock products|Ruminant meat (Mt DM/yr)
## Demand|Processing|Pasture (Mt DM/yr)
## Demand|Processing|Secondary products|Alcoholic beverages (Mt DM/yr)
## Demand|Processing|Secondary products|Cotton lint (Mt DM/yr)
## Demand|Processing|Secondary products|Distillers grains (Mt DM/yr)
## Demand|Processing|Secondary products|Ethanol (Mt DM/yr)
## Demand|Processing|Secondary products|Microbial protein (Mt DM/yr)
## Demand|Processing|Secondary products|Oilcakes (Mt DM/yr)
## Demand|Seed|Crop residues (Mt DM/yr)
## Demand|Seed|Crop residues|Non fibrous crop residues (Mt DM/yr)
## Demand|Seed|Crop residues|Other fibrous crop residues (Mt DM/yr)
## Demand|Seed|Crop residues|Straw (Mt DM/yr)
## Demand|Seed|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Seed|Crops|Sugar crops|Sugar beet (Mt DM/yr)
## Demand|Seed|Forage (Mt DM/yr)
## Demand|Seed|Forest products (Mt DM/yr)
## Demand|Seed|Forest products|Industrial roundwood (Mt DM/yr)
## Demand|Seed|Forest products|Wood fuel (Mt DM/yr)
## Demand|Seed|Pasture (Mt DM/yr)
## Demand|Seed|Secondary products (Mt DM/yr)
## Demand|Seed|Secondary products|Alcoholic beverages (Mt DM/yr)
## Demand|Seed|Secondary products|Brans (Mt DM/yr)
## Demand|Seed|Secondary products|Cotton lint (Mt DM/yr)
## Demand|Seed|Secondary products|Distillers grains (Mt DM/yr)
## Demand|Seed|Secondary products|Ethanol (Mt DM/yr)
## Demand|Seed|Secondary products|Microbial protein (Mt DM/yr)
## Demand|Seed|Secondary products|Molasses (Mt DM/yr)
## Demand|Seed|Secondary products|Oilcakes (Mt DM/yr)
## Demand|Seed|Secondary products|Oils (Mt DM/yr)
## Demand|Seed|Secondary products|Sugar (Mt DM/yr)
## Emissions|NH3|Land|Agriculture|Agricultural Soils|Decay of Crop Residues (Mt NH3/yr)
## Emissions|NH3|Land|Agriculture|Agricultural Soils|Soil Organic Matter Loss (Mt NH3/yr)
## Emissions|NO2|Land|Agriculture|Agricultural Soils|Decay of Crop Residues (Mt NO2/yr)
## Emissions|NO2|Land|Agriculture|Agricultural Soils|Soil Organic Matter Loss (Mt NO2/yr)
## Production|Secondary products|Microbial protein (Mt DM/yr)
## Trade|Net-Trade|Secondary products|Microbial protein (Mt DM/yr)

```

Data contains only a mix of 0 and NA values and is ignored, but validation data contains other values.

```

## Costs|MainSolve|GHG Emissions (million US$05/yr)
## Costs|MainSolve|P Fertilizer (million US$05/yr)
## Costs|MainSolve|Reward for Afforestation (million US$05/yr)
## Demand|Domestic Balanceflow|Crops|Sugar crops|Sugar cane (Mt DM/yr)
## Demand|Domestic Balanceflow|Secondary products|Molasses (Mt DM/yr)
## Demand|Feed|Livestock products|Poultry meat (Mt DM/yr)
## Demand|Food|Crops|Oil crops|Cotton seed (Mt DM/yr)
## Demand|Seed|Fish (Mt DM/yr)
## Demand|Seed|Livestock products (Mt DM/yr)
## Demand|Seed|Livestock products|Dairy (Mt DM/yr)
## Demand|Seed|Livestock products|Eggs (Mt DM/yr)
## Demand|Seed|Livestock products|Monogastric meat (Mt DM/yr)
## Demand|Seed|Livestock products|Poultry meat (Mt DM/yr)
## Demand|Seed|Livestock products|Ruminant meat (Mt DM/yr)

```

```

## Emissions|N2O|Land|Agriculture|Agricultural Soils|Soil Organic Matter Loss (Mt N2O/yr)
## Emissions|N03|Land|Agriculture|Agricultural Soils|Soil Organic Matter Loss (Mt N03-/yr)
## Food Consumption Value|Bioenergy crops (million US$05/yr)
## Food Consumption Value|Crop residues (million US$05/yr)
## Food Consumption Value|Forage (million US$05/yr)
## Food Consumption Value|Pasture (million US$05/yr)
## Food Expenditure Share|Bioenergy crops (% of GDP)
## Food Expenditure Share|Crop residues (% of GDP)
## Food Expenditure Share|Forage (% of GDP)
## Food Expenditure Share|Pasture (% of GDP)
## Prices|GHG Emission|CH4 (US$2005/tCH4)
## Prices|GHG Emission|CO2 (US$2005/tCO2)
## Prices|GHG Emission|N2O (US$2005/tN2O)
## Production|Forest products (Mt DM/yr)
## Production|Forest products|Industrial roundwood (Mt DM/yr)
## Production|Forest products|Wood fuel (Mt DM/yr)
## Resources|Land Cover|Cropland|Bioenergy crops|irrigated (million ha)
## Resources|Land Cover Change|Forest|Plantations|Forestry (million ha wrt 1995)
## Resources|Land Cover Change|Urban Area (million ha wrt 1995)
## Resources|Nitrogen|Cropland Budget|Balance|Soil Organic Matter Loss (Mt Nr/yr)

```

Validation data contains only a mix of 0 and NA values and is ignored, but data contains other values.

```

## Demand|Agricultural Supply Chain Loss|Bioenergy crops (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Secondary products|Cotton lint (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Secondary products|Distillers grains (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Secondary products|Ethanol (Mt DM/yr)
## Demand|Agricultural Supply Chain Loss|Secondary products|Oilcakes (Mt DM/yr)
## Demand|Bioenergy|Bioenergy crops (Mt DM/yr)
## Demand|Feed|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Feed|Secondary products|Cotton lint (Mt DM/yr)
## Demand|Feed|Secondary products|Ethanol (Mt DM/yr)
## Demand|Processing|Secondary products|Oils (Mt DM/yr)
## Demand|Seed|Bioenergy crops (Mt DM/yr)
## Production|Bioenergy crops (Mt DM/yr)
## Productivity|Yield|Bioenergy crops (t DM/ha)
## Trade|Net-Trade|Bioenergy crops (Mt DM/yr)
## Trade|Net-Trade|Secondary products|Distillers grains (Mt DM/yr)
## Trade|Net-Trade|Secondary products|Ethanol (Mt DM/yr)

```

65 Non-Matching Data

65.1 Model outputs

```

## Household Expenditure|Food|Food Expenditure Share (USD/USD)
## Resources|Land Cover|Forest|Plantations|Forestry (million ha)
## Resources|Land Cover|Forest|Plantations|Afforestation (million ha)
## Resources|Land Cover Change|Forest|Plantations|Forestry (million ha wrt 1995)
## Resources|Land Cover Change|Forest|Plantations|Afforestation (million ha wrt 1995)
## Resources|Land Cover|Forest|Natural Forest|Primary Forest|Protected (million ha)
## Resources|Land Cover|Forest|Natural Forest|Secondary Forest|Protected (million ha)
## Resources|Land Cover|Other Land|Protected (million ha)
## Resources|Land Cover|Cropland|Crops|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Cereals|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Cereals|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Cereals|Maize|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Cereals|Maize|irrigated (million ha)

```

```

## Resources|Land Cover|Cropland|Crops|Cereals|Rice|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Cereals|Rice|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Cereals|Temperate cereals|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Cereals|Temperate cereals|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Cereals|Tropical cereals|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Cereals|Tropical cereals|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|Cotton seed|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|Cotton seed|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|Groundnuts|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|Groundnuts|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|Oilpalms|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|Oilpalms|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|Other oil crops (incl rapeseed)|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|Other oil crops (incl rapeseed)|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|Soybean|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|Soybean|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|Sunflower|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Oil crops|Sunflower|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Sugar crops|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Sugar crops|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Sugar crops|Sugar beet|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Sugar crops|Sugar beet|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Sugar crops|Sugar cane|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Sugar crops|Sugar cane|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Other crops|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Other crops|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Other crops|Tropical roots|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Other crops|Tropical roots|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Other crops|Fruits Vegetables Nuts|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Other crops|Fruits Vegetables Nuts|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Other crops|Potatoes|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Other crops|Potatoes|irrigated (million ha)
## Resources|Land Cover|Cropland|Crops|Other crops|Pulses|rainfed (million ha)
## Resources|Land Cover|Cropland|Crops|Other crops|Pulses|irrigated (million ha)
## Resources|Land Cover|Cropland|Bioenergy crops|rainfed (million ha)
## Resources|Land Cover|Cropland|Bioenergy crops|irrigated (million ha)
## Resources|Land Cover|Cropland|Forage|rainfed (million ha)
## Resources|Land Cover|Cropland|Forage|irrigated (million ha)
## Resources|Nitrogen|Cropland Budget|Inputs|Manure From Stubble Grazing (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Other Land (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Anaerobic lagoon (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Liquid slurry (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Solid storage (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Dry lot (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Daily spread (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Anaerobic digester (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Pit storage longer than a month (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Pit storage less than a month (Mt Nr/yr)
## Productivity|Yield|Crops|rainfed (t DM/ha)
## Productivity|Yield|Crops|irrigated (t DM/ha)
## Productivity|Yield|Crops|Cereals|rainfed (t DM/ha)
## Productivity|Yield|Crops|Cereals|irrigated (t DM/ha)
## Productivity|Yield|Crops|Cereals|Maize|rainfed (t DM/ha)
## Productivity|Yield|Crops|Cereals|Maize|irrigated (t DM/ha)
## Productivity|Yield|Crops|Cereals|Rice|rainfed (t DM/ha)
## Productivity|Yield|Crops|Cereals|Rice|irrigated (t DM/ha)
## Productivity|Yield|Crops|Cereals|Temperate cereals|rainfed (t DM/ha)
## Productivity|Yield|Crops|Cereals|Temperate cereals|irrigated (t DM/ha)

```

```

## Productivity|Yield|Crops|Cereals|Tropical cereals|rainfed (t DM/ha)
## Productivity|Yield|Crops|Cereals|Tropical cereals|irrigated (t DM/ha)
## Productivity|Yield|Crops|Oil crops|rainfed (t DM/ha)
## Productivity|Yield|Crops|Oil crops|irrigated (t DM/ha)
## Productivity|Yield|Crops|Oil crops|Cotton seed|rainfed (t DM/ha)
## Productivity|Yield|Crops|Oil crops|Cotton seed|irrigated (t DM/ha)
## Productivity|Yield|Crops|Oil crops|Groundnuts|rainfed (t DM/ha)
## Productivity|Yield|Crops|Oil crops|Groundnuts|irrigated (t DM/ha)
## Productivity|Yield|Crops|Oil crops|Oilpalms|rainfed (t DM/ha)
## Productivity|Yield|Crops|Oil crops|Oilpalms|irrigated (t DM/ha)
## Productivity|Yield|Crops|Oil crops|Other oil crops (incl rapeseed)|rainfed (t DM/ha)
## Productivity|Yield|Crops|Oil crops|Other oil crops (incl rapeseed)|irrigated (t DM/ha)
## Productivity|Yield|Crops|Oil crops|Soybean|rainfed (t DM/ha)
## Productivity|Yield|Crops|Oil crops|Soybean|irrigated (t DM/ha)
## Productivity|Yield|Crops|Oil crops|Sunflower|rainfed (t DM/ha)
## Productivity|Yield|Crops|Oil crops|Sunflower|irrigated (t DM/ha)
## Productivity|Yield|Crops|Sugar crops|rainfed (t DM/ha)
## Productivity|Yield|Crops|Sugar crops|irrigated (t DM/ha)
## Productivity|Yield|Crops|Sugar crops|Sugar beet|rainfed (t DM/ha)
## Productivity|Yield|Crops|Sugar crops|Sugar beet|irrigated (t DM/ha)
## Productivity|Yield|Crops|Sugar crops|Sugar cane|rainfed (t DM/ha)
## Productivity|Yield|Crops|Sugar crops|Sugar cane|irrigated (t DM/ha)
## Productivity|Yield|Crops|Other crops|rainfed (t DM/ha)
## Productivity|Yield|Crops|Other crops|irrigated (t DM/ha)
## Productivity|Yield|Crops|Other crops|Tropical roots|rainfed (t DM/ha)
## Productivity|Yield|Crops|Other crops|Tropical roots|irrigated (t DM/ha)
## Productivity|Yield|Crops|Other crops|Fruits Vegetables Nuts|rainfed (t DM/ha)
## Productivity|Yield|Crops|Other crops|Fruits Vegetables Nuts|irrigated (t DM/ha)
## Productivity|Yield|Crops|Other crops|Potatoes|rainfed (t DM/ha)
## Productivity|Yield|Crops|Other crops|Potatoes|irrigated (t DM/ha)
## Productivity|Yield|Crops|Other crops|Pulses|rainfed (t DM/ha)
## Productivity|Yield|Crops|Other crops|Pulses|irrigated (t DM/ha)
## Productivity|Yield|Bioenergy crops|rainfed (t DM/ha)
## Productivity|Yield|Forage|rainfed (t DM/ha)
## Productivity|Yield|Forage|irrigated (t DM/ha)
## Productivity|Yield-increasing technological change (%/yr)
## Emissions|CO2|Land (Mt CO2/yr)
## Emissions|CO2|Land|Land-use Change|Positive (Mt CO2/yr)
## Emissions|CO2|Land|Land-use Change|Negative (Mt CO2/yr)
## Emissions|CO2|Land|Climate Change (Mt CO2/yr)
## Emissions|CO2|Land|Cumulative (Gt CO2)
## Emissions|CO2|Land|Cumulative|Land-use Change (Gt CO2)
## Emissions|CO2|Land|Cumulative|Land-use Change|Positive (Gt CO2)
## Emissions|CO2|Land|Cumulative|Land-use Change|Negative (Gt CO2)
## Emissions|CO2|Land|Cumulative|Climate Change (Gt CO2)
## Emissions|CH4|Land|Agriculture|Enteric fermentation (Mt CH4/yr)
## Costs|MainSolve (million US$05/yr)
## Costs|MainSolve|Input Factors (million US$05/yr)
## Costs|MainSolve|Land Conversion (million US$05/yr)
## Costs|MainSolve|Transport (million US$05/yr)
## Costs|MainSolve|TC (million US$05/yr)
## Costs|MainSolve|N Fertilizer (million US$05/yr)
## Costs|MainSolve|P Fertilizer (million US$05/yr)
## Costs|MainSolve|GHG Emissions (million US$05/yr)
## Costs|MainSolve|Reward for Afforestation (million US$05/yr)
## Costs|MainSolve|MACCS (million US$05/yr)
## Costs|MainSolve|AEI (million US$05/yr)
## Costs|MainSolve|Trade (million US$05/yr)
## Costs|MainSolve|Forestry (million US$05/yr)
## Costs|MainSolve w/o GHG Emissions (million US$05/yr)

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## Prices|Land|Cropland (US$05/ha)
## Prices|Water|Agriculture (Index 2005=100)
## Trade Value|Net-Exports|Crops|Cereals (million US$05/yr)
## Trade Value|Net-Exports|Crops|Sugar crops (million US$05/yr)
## Trade Value|Net-Exports|Crops|Other crops (million US$05/yr)
## Trade Value|Net-Exports|Bioenergy crops (million US$05/yr)
## Trade Value|Net-Exports|Secondary products (million US$05/yr)
## Trade Value|Net-Exports|Livestock products (million US$05/yr)
## Trade Value|Net-Exports|Fish (million US$05/yr)
## Trade Value|Exports|Crops|Cereals (million US$05/yr)
## Trade Value|Exports|Crops|Sugar crops (million US$05/yr)
## Trade Value|Exports|Crops|Other crops (million US$05/yr)
## Trade Value|Exports|Bioenergy crops (million US$05/yr)
## Trade Value|Exports|Secondary products (million US$05/yr)
## Trade Value|Exports|Livestock products (million US$05/yr)
## Trade Value|Exports|Fish (million US$05/yr)
## Trade Value|Imports|Crops|Cereals (million US$05/yr)
## Trade Value|Imports|Crops|Sugar crops (million US$05/yr)
## Trade Value|Imports|Crops|Other crops (million US$05/yr)
## Trade Value|Imports|Bioenergy crops (million US$05/yr)
## Trade Value|Imports|Secondary products (million US$05/yr)
## Trade Value|Imports|Livestock products (million US$05/yr)
## Trade Value|Imports|Fish (million US$05/yr)
## Food Consumption Value|Crops (million US$05/yr)
## Food Consumption Value|Crops|Cereals (million US$05/yr)
## Food Consumption Value|Crops|Oil crops (million US$05/yr)
## Food Consumption Value|Crops|Sugar crops (million US$05/yr)
## Food Consumption Value|Crops|Other crops (million US$05/yr)
## Food Consumption Value|Bioenergy crops (million US$05/yr)
## Food Consumption Value|Forage (million US$05/yr)
## Food Consumption Value|Pasture (million US$05/yr)
## Food Consumption Value|Secondary products (million US$05/yr)
## Food Consumption Value|Crop residues (million US$05/yr)
## Food Consumption Value|Livestock products (million US$05/yr)
## Food Consumption Value|Fish (million US$05/yr)
## Food Expenditure Share|Crops (% of GDP)
## Food Expenditure Share|Crops|Cereals (% of GDP)
## Food Expenditure Share|Crops|Oil crops (% of GDP)
## Food Expenditure Share|Crops|Sugar crops (% of GDP)
## Food Expenditure Share|Crops|Other crops (% of GDP)
## Food Expenditure Share|Bioenergy crops (% of GDP)
## Food Expenditure Share|Forage (% of GDP)
## Food Expenditure Share|Pasture (% of GDP)
## Food Expenditure Share|Secondary products (% of GDP)
## Food Expenditure Share|Crop residues (% of GDP)
## Food Expenditure Share|Livestock products (% of GDP)
## Food Expenditure Share|Fish (% of GDP)

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65.2 Validation data

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## Emissions|CH4|Land|Land-use Change (Mt CH4/yr)
## Emissions|CO2|Land|Agriculture (Mt CO2/yr)
## Emissions|N2O|Land|Land-use Change (Mt N2O/yr)
## Resources|Carbon Stocks|Litter Carbon (Mt C)
## Resources|Carbon Stocks|Soil Carbon in top 30 cm (Mt C)
## Resources|Carbon Stocks|Vegetation Carbon (Mt C)
## Income (US$05 MER/cap/yr)
## Income (million US$05 MER/yr)

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## Income (million US$05 PPP/yr)
## Nutrition|Calorie Supply (NA)
## Nutrition|Calorie Supply|Bioenergy crops (NA)
## Nutrition|Calorie Supply|Crop residues (NA)
## Nutrition|Calorie Supply|Crops (NA)
## Nutrition|Calorie Supply|Fish (NA)
## Nutrition|Calorie Supply|Forage (NA)
## Nutrition|Calorie Supply|Forest products (NA)
## Nutrition|Calorie Supply|Livestock products (NA)
## Nutrition|Calorie Supply|Pasture (NA)
## Nutrition|Calorie Supply|Secondary products (NA)
## Nutrition|Calorie Supply|Crop residues|Non fibrous crop residues (NA)
## Nutrition|Calorie Supply|Crop residues|Other fibrous crop residues (NA)
## Nutrition|Calorie Supply|Crop residues|Straw (NA)
## Nutrition|Calorie Supply|Crops|Cereals (NA)
## Nutrition|Calorie Supply|Crops|Oil crops (NA)
## Nutrition|Calorie Supply|Crops|Other crops (NA)
## Nutrition|Calorie Supply|Crops|Sugar crops (NA)
## Nutrition|Calorie Supply|Crops|Cereals|Maize (NA)
## Nutrition|Calorie Supply|Crops|Cereals|Rice (NA)
## Nutrition|Calorie Supply|Crops|Cereals|Temperate cereals (NA)
## Nutrition|Calorie Supply|Crops|Cereals|Tropical cereals (NA)
## Nutrition|Calorie Supply|Crops|Oil crops|Cotton seed (NA)
## Nutrition|Calorie Supply|Crops|Oil crops|Groundnuts (NA)
## Nutrition|Calorie Supply|Crops|Oil crops|Oilpalms (NA)
## Nutrition|Calorie Supply|Crops|Oil crops|Other oil crops (incl rapeseed)
## Nutrition|Calorie Supply|Crops|Oil crops|Soybean (NA)
## Nutrition|Calorie Supply|Crops|Oil crops|Sunflower (NA)
## Nutrition|Calorie Supply|Crops|Other crops|Fruits Vegetables Nuts (NA)
## Nutrition|Calorie Supply|Crops|Other crops|Potatoes (NA)
## Nutrition|Calorie Supply|Crops|Other crops|Pulses (NA)
## Nutrition|Calorie Supply|Crops|Other crops|Tropical roots (NA)
## Nutrition|Calorie Supply|Crops|Sugar crops|Sugar beet (NA)
## Nutrition|Calorie Supply|Crops|Sugar crops|Sugar cane (NA)
## Nutrition|Calorie Supply|Forest products|Industrial roundwood (NA)
## Nutrition|Calorie Supply|Forest products|Wood fuel (NA)
## Nutrition|Calorie Supply|Livestock products|Dairy (NA)
## Nutrition|Calorie Supply|Livestock products|Eggs (NA)
## Nutrition|Calorie Supply|Livestock products|Monogastric meat (NA)
## Nutrition|Calorie Supply|Livestock products|Poultry meat (NA)
## Nutrition|Calorie Supply|Livestock products|Ruminant meat (NA)
## Nutrition|Calorie Supply|Secondary products|Alcoholic beverages (NA)
## Nutrition|Calorie Supply|Secondary products|Brans (NA)
## Nutrition|Calorie Supply|Secondary products|Cotton lint (NA)
## Nutrition|Calorie Supply|Secondary products|Distillers grains (NA)
## Nutrition|Calorie Supply|Secondary products|Ethanol (NA)
## Nutrition|Calorie Supply|Secondary products|Microbial protein (NA)
## Nutrition|Calorie Supply|Secondary products|Molasses (NA)
## Nutrition|Calorie Supply|Secondary products|Oilcakes (NA)
## Nutrition|Calorie Supply|Secondary products|Oils (NA)
## Nutrition|Calorie Supply|Secondary products|Sugar (NA)
## Resources|Carbon Stocks|Soil Carbon in top 30 cm|Cropland Soils (Mt C)
## Resources|Carbon Stocks|Soil Carbon in top 30 cm|Noncropland Soils (Mt C)
## Emissions|CH4|Land|Agriculture|Enteric Fermentation (Mt CH4/yr)
## Emissions|N2O|Agriculture (Mt N2O/yr)
## Emissions|N2O|Agriculture|Agricultural Soils (Mt N2O/yr)
## Emissions|N2O|Agriculture|Animal waste management (Mt N2O/yr)
## Emissions|N2O|Agriculture|Agricultural Soils|Decay of crop residues (Mt N2O/yr)
## Emissions|N2O|Agriculture|Agricultural Soils|Inorganic Fertilizers (Mt N2O/yr)
## Emissions|N2O|Agriculture|Agricultural Soils|Manure applied to Croplands (Mt N2O/yr)

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## Emissions|N2O|Agriculture|Agricultural Soils|Pasture (Mt N2O/yr)
## Emissions|N2O|Agriculture|Agricultural Soils|Soil organic matter loss (Mt N2O/yr)
## Nutrition|Calorie Supply|Crops|Cereals|Maize (kcal/capita/day)
## Nutrition|Calorie Supply|Crops|Cereals|Rice (kcal/capita/day)
## Nutrition|Calorie Supply|Crops|Cereals|Temperate cereals (kcal/capita/day)
## Nutrition|Calorie Supply|Crops|Cereals|Tropical cereals (kcal/capita/day)
## Nutrition|Calorie Supply|Crops|Oil crops|Groundnuts (kcal/capita/day)
## Nutrition|Calorie Supply|Crops|Oil crops|Other oil crops (incl rapeseed) (kcal/capita/day)
## Nutrition|Calorie Supply|Crops|Oil crops|Soybean (kcal/capita/day)
## Nutrition|Calorie Supply|Crops|Oil crops|Sunflower (kcal/capita/day)
## Nutrition|Calorie Supply|Crops|Other crops|Fruits Vegetables Nuts (kcal/capita/day)
## Nutrition|Calorie Supply|Crops|Other crops|Potatoes (kcal/capita/day)
## Nutrition|Calorie Supply|Crops|Other crops|Pulses (kcal/capita/day)
## Nutrition|Calorie Supply|Crops|Other crops|Tropical roots (kcal/capita/day)
## Nutrition|Calorie Supply|Crops|Sugar crops|Sugar beet (kcal/capita/day)
## Nutrition|Calorie Supply|Crops|Sugar crops|Sugar cane (kcal/capita/day)
## Nutrition|Calorie Supply|Livestock products|Dairy (kcal/capita/day)
## Nutrition|Calorie Supply|Livestock products|Eggs (kcal/capita/day)
## Nutrition|Calorie Supply|Livestock products|Monogastric meat (kcal/capita/day)
## Nutrition|Calorie Supply|Livestock products|Poultry meat (kcal/capita/day)
## Nutrition|Calorie Supply|Livestock products|Ruminant meat (kcal/capita/day)
## Nutrition|Calorie Supply|Secondary products|Alcoholic beverages (kcal/capita/day)
## Nutrition|Calorie Supply|Secondary products|Brans (kcal/capita/day)
## Nutrition|Calorie Supply|Secondary products|Molasses (kcal/capita/day)
## Nutrition|Calorie Supply|Secondary products|Oils (kcal/capita/day)
## Nutrition|Calorie Supply|Secondary products|Sugar (kcal/capita/day)
## Nutrition|Dietary Composition|Vegetables Fruits and Nuts Share (kcal/kcal)
## Household Expenditure|Food|Expenditure Share (USD/USD)
## Household Expenditure|Food|Expenditure Share|Crops (USD/USD)
## Household Expenditure|Food|Expenditure Share|Crops|Cereals (USD/USD)
## Household Expenditure|Food|Expenditure Share|Crops|Oil crops (USD/USD)
## Household Expenditure|Food|Expenditure Share|Crops|Other crops (USD/USD)
## Household Expenditure|Food|Expenditure Share|Crops|Sugar crops (USD/USD)
## Household Expenditure|Food|Expenditure Share|Fish (USD/USD)
## Household Expenditure|Food|Expenditure Share|Livestock products (USD/USD)
## Household Expenditure|Food|Expenditure Share|Secondary products (USD/USD)
## Trade|Net-Trade|Crop residues (Mt DM/yr)
## Trade|Net-Trade|Forage (Mt DM/yr)
## Trade|Net-Trade|Forest products (Mt DM/yr)
## Trade|Net-Trade|Pasture (Mt DM/yr)
## Trade|Net-Trade|Crop residues|Non fibrous crop residues (Mt DM/yr)
## Trade|Net-Trade|Crop residues|Other fibrous crop residues (Mt DM/yr)
## Trade|Net-Trade|Crop residues|Straw (Mt DM/yr)
## Trade|Net-Trade|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Trade|Net-Trade|Forest products|Industrial roundwood (Mt DM/yr)
## Trade|Net-Trade|Forest products|Wood fuel (Mt DM/yr)
## Trade|Self-sufficiency|Bioenergy crops (1)
## Trade|Self-sufficiency|Forest products (1)
## Trade|Self-sufficiency|Forest products|Industrial roundwood (1)
## Trade|Self-sufficiency|Forest products|Wood fuel (1)
## Trade|Self-sufficiency|Secondary products (1)
## Trade|Self-sufficiency|Secondary products|Microbial protein (1)
## Demand|Feed|Feed for Aquaculture (Mt DM/yr)
## Demand|Feed|Feed for Dairy (Mt DM/yr)
## Demand|Feed|Feed for Eggs (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Bioenergy crops (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crop residues (Mt DM/yr)

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## Demand|Feed|Feed for Aquaculture|Crops (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Fish (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Forage (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Forest products (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Livestock products (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Pasture (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Secondary products (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crop residues|Non fibrous crop residues (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crop residues|Other fibrous crop residues (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crop residues|Straw (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Cereals (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Oil crops (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Other crops (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Sugar crops (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Cereals|Maize (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Cereals|Rice (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Cereals|Temperate cereals (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Cereals|Tropical cereals (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Oil crops|Cotton seed (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Oil crops|Groundnuts (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Oil crops|Other oil crops (incl rapeseed) (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Oil crops|Soybean (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Oil crops|Sunflower (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Other crops|Fruits Vegetables Nuts (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Other crops|Potatoes (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Other crops|Pulses (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Other crops|Tropical roots (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Sugar crops|Sugar beet (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crops|Sugar crops|Sugar cane (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Forest products|Industrial roundwood (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Forest products|Wood fuel (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Livestock products|Dairy (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Livestock products|Eggs (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Livestock products|Monogastric meat (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Livestock products|Poultry meat (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Livestock products|Ruminant meat (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Secondary products|Alcoholic beverages (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Secondary products|Brans (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Secondary products|Cotton lint (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Secondary products|Distillers grains (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Secondary products|Ethanol (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Secondary products|Microbial protein (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Secondary products|Molasses (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Secondary products|Oilcakes (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Secondary products|Oils (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Secondary products|Sugar (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Bioenergy crops (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crop residues (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Fish (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Forage (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Forest products (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Livestock products (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Pasture (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Secondary products (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crop residues|Non fibrous crop residues (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crop residues|Other fibrous crop residues (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crop residues|Straw (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Cereals (Mt DM/yr)

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## Demand|Feed|Feed for Dairy|Crops|Oil crops (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Other crops (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Sugar crops (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Cereals|Maize (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Cereals|Rice (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Cereals|Temperate cereals (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Cereals|Tropical cereals (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Oil crops|Cotton seed (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Oil crops|Groundnuts (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Oil crops|Other oil crops (incl rapeseed) (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Oil crops|Soybean (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Oil crops|Sunflower (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Other crops|Fruits Vegetables Nuts (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Other crops|Potatoes (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Other crops|Pulses (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Other crops|Tropical roots (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Sugar crops|Sugar beet (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Sugar crops|Sugar cane (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Forest products|Industrial roundwood (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Forest products|Wood fuel (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Livestock products|Dairy (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Livestock products|Eggs (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Livestock products|Monogastric meat (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Livestock products|Poultry meat (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Livestock products|Ruminant meat (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Secondary products|Alcoholic beverages (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Secondary products|Brans (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Secondary products|Cotton lint (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Secondary products|Distillers grains (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Secondary products|Ethanol (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Secondary products|Microbial protein (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Secondary products|Molasses (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Secondary products|Oilcakes (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Secondary products|Oils (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Secondary products|Sugar (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Bioenergy crops (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crop residues (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Fish (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Forage (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Forest products (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Livestock products (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Pasture (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Secondary products (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crop residues|Non fibrous crop residues (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crop residues|Other fibrous crop residues (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crop residues|Straw (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Cereals (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Oil crops (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Other crops (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Sugar crops (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Cereals|Maize (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Cereals|Rice (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Cereals|Temperate cereals (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Cereals|Tropical cereals (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Oil crops|Cotton seed (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Oil crops|Groundnuts (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Oil crops|Other oil crops (incl rapeseed) (Mt DM/yr)

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## Demand|Feed|Feed for Eggs|Crops|Oil crops|Soybean (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Oil crops|Sunflower (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Other crops|Fruits Vegetables Nuts (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Other crops|Potatoes (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Other crops|Pulses (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Other crops|Tropical roots (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Sugar crops|Sugar beet (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Crops|Sugar crops|Sugar cane (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Forest products|Industrial roundwood (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Forest products|Wood fuel (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Livestock products|Dairy (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Livestock products|Eggs (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Livestock products|Monogastric meat (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Livestock products|Poultry meat (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Livestock products|Ruminant meat (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Secondary products|Alcoholic beverages (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Secondary products|Brans (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Secondary products|Cotton lint (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Secondary products|Distillers grains (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Secondary products|Ethanol (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Secondary products|Microbial protein (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Secondary products|Molasses (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Secondary products|Oilcakes (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Secondary products|Oils (Mt DM/yr)
## Demand|Feed|Feed for Eggs|Secondary products|Sugar (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Bioenergy crops (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crop residues (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Fish (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Forage (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Forest products (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Livestock products (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Pasture (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Secondary products (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crop residues|Non fibrous crop residues (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crop residues|Other fibrous crop residues (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crop residues|Straw (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Cereals (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Oil crops (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Other crops (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Sugar crops (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Cereals|Maize (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Cereals|Rice (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Cereals|Temperate cereals (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Cereals|Tropical cereals (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Oil crops|Cotton seed (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Oil crops|Groundnuts (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Oil crops|Other oil crops (incl rapeseed) (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Oil crops|Soybean (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Oil crops|Sunflower (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Other crops|Fruits Vegetables Nuts (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Other crops|Potatoes (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Other crops|Pulses (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Other crops|Tropical roots (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Sugar crops|Sugar beet (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Crops|Sugar crops|Sugar cane (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Forest products|Industrial roundwood (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Forest products|Wood fuel (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Livestock products|Dairy (Mt DM/yr)

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## Demand|Feed|Feed for Monogastric meat|Livestock products|Eggs (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Livestock products|Monogastric meat (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Livestock products|Poultry meat (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Livestock products|Ruminant meat (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Secondary products|Alcoholic beverages (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Secondary products|Brans (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Secondary products|Cotton lint (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Secondary products|Distillers grains (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Secondary products|Ethanol (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Secondary products|Microbial protein (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Secondary products|Molasses (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Secondary products|Oilcakes (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Secondary products|Oils (Mt DM/yr)
## Demand|Feed|Feed for Monogastric meat|Secondary products|Sugar (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Bioenergy crops (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crop residues (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Fish (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Forage (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Forest products (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Livestock products (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Pasture (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Secondary products (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crop residues|Non fibrous crop residues (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crop residues|Other fibrous crop residues (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crop residues|Straw (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Cereals (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Oil crops (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Other crops (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Sugar crops (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Cereals|Maize (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Cereals|Rice (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Cereals|Temperate cereals (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Cereals|Tropical cereals (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Oil crops|Cotton seed (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Oil crops|Groundnuts (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Oil crops|Other oil crops (incl rapeseed) (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Oil crops|Soybean (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Oil crops|Sunflower (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Other crops|Fruits Vegetables Nuts (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Other crops|Potatoes (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Other crops|Pulses (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Other crops|Tropical roots (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Sugar crops|Sugar beet (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Crops|Sugar crops|Sugar cane (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Forest products|Industrial roundwood (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Forest products|Wood fuel (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Livestock products|Dairy (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Livestock products|Eggs (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Livestock products|Monogastric meat (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Livestock products|Poultry meat (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Livestock products|Ruminant meat (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Secondary products|Alcoholic beverages (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Secondary products|Brans (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Secondary products|Cotton lint (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Secondary products|Distillers grains (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Secondary products|Ethanol (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Secondary products|Microbial protein (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Secondary products|Molasses (Mt DM/yr)

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## Demand|Feed|Feed for Poultry meat|Secondary products|Oilcakes (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Secondary products|Oils (Mt DM/yr)
## Demand|Feed|Feed for Poultry meat|Secondary products|Sugar (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Bioenergy crops (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crop residues (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Fish (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Forage (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Forest products (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Livestock products (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Pasture (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Secondary products (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crop residues|Non fibrous crop residues (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crop residues|Other fibrous crop residues (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crop residues|Straw (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Cereals (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Oil crops (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Other crops (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Sugar crops (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Cereals|Maize (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Cereals|Rice (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Cereals|Temperate cereals (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Cereals|Tropical cereals (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Oil crops|Cotton seed (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Oil crops|Groundnuts (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Oil crops|Other oil crops (incl rapeseed) (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Oil crops|Soybean (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Oil crops|Sunflower (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Other crops|Fruits Vegetables Nuts (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Other crops|Potatoes (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Other crops|Pulses (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Other crops|Tropical roots (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Sugar crops|Sugar beet (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Crops|Sugar crops|Sugar cane (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Forest products|Industrial roundwood (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Forest products|Wood fuel (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Livestock products|Dairy (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Livestock products|Eggs (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Livestock products|Monogastric meat (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Livestock products|Poultry meat (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Livestock products|Ruminant meat (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Secondary products|Alcoholic beverages (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Secondary products|Brans (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Secondary products|Cotton lint (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Secondary products|Distillers grains (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Secondary products|Ethanol (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Secondary products|Microbial protein (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Secondary products|Molasses (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Secondary products|Oilcakes (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Secondary products|Oils (Mt DM/yr)
## Demand|Feed|Feed for Ruminant meat|Secondary products|Sugar (Mt DM/yr)
## Demand|Processing|Distiilling (Mt DM/yr)
## Demand|Processing|Extracting (Mt DM/yr)
## Demand|Processing|Fermentation (Mt DM/yr)
## Demand|Processing|Refining (Mt DM/yr)
## Demand|Processing|Distiilling|Crops (Mt DM/yr)
## Demand|Processing|Distiilling|Crops|Cereals (Mt DM/yr)
## Demand|Processing|Distiilling|Crops|Sugar crops (Mt DM/yr)
## Demand|Processing|Distiilling|Crops|Cereals|Maize (Mt DM/yr)

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## Demand|Processing|Distiilling|Crops|Cereals|Temperate cereals (Mt DM/yr)
## Demand|Processing|Distiilling|Crops|Sugar crops|Sugar cane (Mt DM/yr)
## Demand|Processing|Extracting|Crops (Mt DM/yr)
## Demand|Processing|Extracting|Crops|Oil crops (Mt DM/yr)
## Demand|Processing|Extracting|Crops|Oil crops|Cotton seed (Mt DM/yr)
## Demand|Processing|Extracting|Crops|Oil crops|Groundnuts (Mt DM/yr)
## Demand|Processing|Extracting|Crops|Oil crops|Oilpalms (Mt DM/yr)
## Demand|Processing|Extracting|Crops|Oil crops|Other oil crops (incl rapeseed) (Mt DM/yr)
## Demand|Processing|Extracting|Crops|Oil crops|Soybean (Mt DM/yr)
## Demand|Processing|Extracting|Crops|Oil crops|Sunflower (Mt DM/yr)
## Demand|Processing|Fermentation|Crops (Mt DM/yr)
## Demand|Processing|Fermentation|Secondary products (Mt DM/yr)
## Demand|Processing|Fermentation|Crops|Cereals (Mt DM/yr)
## Demand|Processing|Fermentation|Crops|Other crops (Mt DM/yr)
## Demand|Processing|Fermentation|Crops|Cereals|Rice (Mt DM/yr)
## Demand|Processing|Fermentation|Crops|Cereals|Temperate cereals (Mt DM/yr)
## Demand|Processing|Fermentation|Crops|Cereals|Tropical cereals (Mt DM/yr)
## Demand|Processing|Fermentation|Crops|Other crops|Fruits Vegetables Nuts (Mt DM/yr)
## Demand|Processing|Fermentation|Crops|Other crops|Potatoes (Mt DM/yr)
## Demand|Processing|Fermentation|Crops|Other crops|Tropical roots (Mt DM/yr)
## Demand|Processing|Fermentation|Secondary products|Brans (Mt DM/yr)
## Demand|Processing|Fermentation|Secondary products|Molasses (Mt DM/yr)
## Demand|Processing|Fermentation|Secondary products|Sugar (Mt DM/yr)
## Demand|Processing|Refining|Crops (Mt DM/yr)
## Demand|Processing|Refining|Crops|Cereals (Mt DM/yr)
## Demand|Processing|Refining|Crops|Sugar crops (Mt DM/yr)
## Demand|Processing|Refining|Crops|Cereals|Maize (Mt DM/yr)
## Demand|Processing|Refining|Crops|Sugar crops|Sugar beet (Mt DM/yr)
## Demand|Processing|Refining|Crops|Sugar crops|Sugar cane (Mt DM/yr)
## Production|Secondary Products|Alcoholic beverages|Brans (Mt DM/yr)
## Production|Secondary Products|Alcoholic beverages|Fruits Vegetables Nuts (Mt DM/yr)
## Production|Secondary Products|Alcoholic beverages|Molasses (Mt DM/yr)
## Production|Secondary Products|Alcoholic beverages|Potatoes (Mt DM/yr)
## Production|Secondary Products|Alcoholic beverages|Rice (Mt DM/yr)
## Production|Secondary Products|Alcoholic beverages|Sugar (Mt DM/yr)
## Production|Secondary Products|Alcoholic beverages|Temperate cereals (Mt DM/yr)
## Production|Secondary Products|Alcoholic beverages|Tropical cereals (Mt DM/yr)
## Production|Secondary Products|Alcoholic beverages|Tropical roots (Mt DM/yr)
## Production|Secondary Products|Brans|Maize (Mt DM/yr)
## Production|Secondary Products|Brans|Rice (Mt DM/yr)
## Production|Secondary Products|Brans|Temperate cereals (Mt DM/yr)
## Production|Secondary Products|Brans|Tropical cereals (Mt DM/yr)
## Production|Secondary Products|Distillers grains|Maize (Mt DM/yr)
## Production|Secondary Products|Distillers grains|Temperate cereals (Mt DM/yr)
## Production|Secondary Products|Ethanol|Maize (Mt DM/yr)
## Production|Secondary Products|Ethanol|Sugar cane (Mt DM/yr)
## Production|Secondary Products|Ethanol|Temperate cereals (Mt DM/yr)
## Production|Secondary Products|Molasses|Sugar beet (Mt DM/yr)
## Production|Secondary Products|Molasses|Sugar cane (Mt DM/yr)
## Production|Secondary Products|Oilcakes|Cotton seed (Mt DM/yr)
## Production|Secondary Products|Oilcakes|Groundnuts (Mt DM/yr)
## Production|Secondary Products|Oilcakes|Oilpalms (Mt DM/yr)
## Production|Secondary Products|Oilcakes|Other oil crops (incl rapeseed) (Mt DM/yr)
## Production|Secondary Products|Oilcakes|Soybean (Mt DM/yr)
## Production|Secondary Products|Oilcakes|Sunflower (Mt DM/yr)
## Production|Secondary Products|Oils|Cotton seed (Mt DM/yr)
## Production|Secondary Products|Oils|Groundnuts (Mt DM/yr)
## Production|Secondary Products|Oils|Maize (Mt DM/yr)
## Production|Secondary Products|Oils|Oilpalms (Mt DM/yr)
## Production|Secondary Products|Oils|Other oil crops (incl rapeseed) (Mt DM/yr)

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## Production|Secondary Products|Oils|Rice (Mt DM/yr)
## Production|Secondary Products|Oils|Soybean (Mt DM/yr)
## Production|Secondary Products|Oils|Sunflower (Mt DM/yr)
## Production|Secondary Products|Sugar|Maize (Mt DM/yr)
## Production|Secondary Products|Sugar|Sugar beet (Mt DM/yr)
## Production|Secondary Products|Sugar|Sugar cane (Mt DM/yr)
## Resources|Land Cover (million ha wrt 1995)
## Resources|Nitrogen|Cropland Budget|Inputs|Manure From Grazing (Mt Nr/yr)
## Resources|Nitrogen|Pasture Budget|Balance|Balanceflow (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure Collected As Fuel|Dairy (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure Collected As Fuel|Eggs (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure Collected As Fuel|Monogastric meat (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure Collected As Fuel|Poultry meat (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure Collected As Fuel|Ruminant meat (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure From Grazing|Dairy (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure From Grazing|Eggs (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure From Grazing|Monogastric meat (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure From Grazing|Poultry meat (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure From Grazing|Ruminant meat (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure From Stubble Grazing|Dairy (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure From Stubble Grazing|Eggs (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure From Stubble Grazing|Monogastric meat (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure From Stubble Grazing|Poultry meat (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure From Stubble Grazing|Ruminant meat (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Dairy (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Eggs (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Monogastric meat (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Poultry meat (Mt Nr/yr)
## Resources|Nitrogen|Manure|Manure In Confinements|Ruminant meat (Mt Nr/yr)
## Emissions|BC|Land| (Mt BC/yr)
## Emissions|BC|Land|Agriculture (Mt BC/yr)
## Emissions|BC|Land|Biomass Burning (Mt BC/yr)
## Emissions|BC|Land|Agriculture|Agricultural Soils (Mt BC/yr)
## Emissions|BC|Land|Agriculture|Animal Waste Management (Mt BC/yr)
## Emissions|BC|Land|Agriculture|Enteric Fermentation (Mt BC/yr)
## Emissions|BC|Land|Agriculture|Other (Mt BC/yr)
## Emissions|BC|Land|Agriculture|Rice (Mt BC/yr)
## Emissions|BC|Land|Biomass Burning|Agricultural Waste Burning (Mt BC/yr)
## Emissions|BC|Land|Biomass Burning|Deforestation Fires (Mt BC/yr)
## Emissions|BC|Land|Biomass Burning|Forest Fires (Mt BC/yr)
## Emissions|BC|Land|Biomass Burning|Peat Fires (Mt BC/yr)
## Emissions|BC|Land|Biomass Burning|Savannah Fires (Mt BC/yr)
## Emissions|CO|Land| (Mt CO/yr)
## Emissions|CO|Land|Agriculture (Mt CO/yr)
## Emissions|CO|Land|Biomass Burning (Mt CO/yr)
## Emissions|CO|Land|Agriculture|Agricultural Soils (Mt CO/yr)
## Emissions|CO|Land|Agriculture|Animal Waste Management (Mt CO/yr)
## Emissions|CO|Land|Agriculture|Enteric Fermentation (Mt CO/yr)
## Emissions|CO|Land|Agriculture|Other (Mt CO/yr)
## Emissions|CO|Land|Agriculture|Rice (Mt CO/yr)
## Emissions|CO|Land|Biomass Burning|Agricultural Waste Burning (Mt CO/yr)
## Emissions|CO|Land|Biomass Burning|Deforestation Fires (Mt CO/yr)
## Emissions|CO|Land|Biomass Burning|Forest Fires (Mt CO/yr)
## Emissions|CO|Land|Biomass Burning|Peat Fires (Mt CO/yr)
## Emissions|CO|Land|Biomass Burning|Savannah Fires (Mt CO/yr)
## Emissions|NH3-N|Land| (Mt NH3-N/yr)
## Emissions|NH3-N|Land|Agriculture (Mt NH3-N/yr)
## Emissions|NH3-N|Land|Biomass Burning (Mt NH3-N/yr)
## Emissions|NH3-N|Land|Agriculture|Agricultural Soils (Mt NH3-N/yr)
## Emissions|NH3-N|Land|Agriculture|Animal Waste Management (Mt NH3-N/yr)

```

```

## Emissions|NH3-N|Land|Agriculture|Enteric Fermentation (Mt NH3-N/yr)
## Emissions|NH3-N|Land|Agriculture|Other (Mt NH3-N/yr)
## Emissions|NH3-N|Land|Agriculture|Rice (Mt NH3-N/yr)
## Emissions|NH3-N|Land|Biomass Burning|Agricultural Waste Burning (Mt NH3-N/yr)
## Emissions|NH3-N|Land|Biomass Burning|Deforestation Fires (Mt NH3-N/yr)
## Emissions|NH3-N|Land|Biomass Burning|Forest Fires (Mt NH3-N/yr)
## Emissions|NH3-N|Land|Biomass Burning|Peat Fires (Mt NH3-N/yr)
## Emissions|NH3-N|Land|Biomass Burning|Savannah Fires (Mt NH3-N/yr)
## Emissions|NH3|Land| (Mt NH3/yr)
## Emissions|NH3|Land|Biomass Burning (Mt NH3/yr)
## Emissions|NH3|Land|Agriculture|Enteric Fermentation (Mt NH3/yr)
## Emissions|NH3|Land|Agriculture|Other (Mt NH3/yr)
## Emissions|NH3|Land|Agriculture|Rice (Mt NH3/yr)
## Emissions|NH3|Land|Biomass Burning|Agricultural Waste Burning (Mt NH3/yr)
## Emissions|NH3|Land|Biomass Burning|Deforestation Fires (Mt NH3/yr)
## Emissions|NH3|Land|Biomass Burning|Forest Fires (Mt NH3/yr)
## Emissions|NH3|Land|Biomass Burning|Peat Fires (Mt NH3/yr)
## Emissions|NH3|Land|Biomass Burning|Savannah Fires (Mt NH3/yr)
## Emissions|NMHC|Land| (Mt NMHC/yr)
## Emissions|NMHC|Land|Agriculture (Mt NMHC/yr)
## Emissions|NMHC|Land|Biomass Burning (Mt NMHC/yr)
## Emissions|NMHC|Land|Agriculture|Agricultural Soils (Mt NMHC/yr)
## Emissions|NMHC|Land|Agriculture|Animal Waste Management (Mt NMHC/yr)
## Emissions|NMHC|Land|Agriculture|Enteric Fermentation (Mt NMHC/yr)
## Emissions|NMHC|Land|Agriculture|Other (Mt NMHC/yr)
## Emissions|NMHC|Land|Agriculture|Rice (Mt NMHC/yr)
## Emissions|NMHC|Land|Biomass Burning|Agricultural Waste Burning (Mt NMHC/yr)
## Emissions|NMHC|Land|Biomass Burning|Deforestation Fires (Mt NMHC/yr)
## Emissions|NMHC|Land|Biomass Burning|Forest Fires (Mt NMHC/yr)
## Emissions|NMHC|Land|Biomass Burning|Peat Fires (Mt NMHC/yr)
## Emissions|NMHC|Land|Biomass Burning|Savannah Fires (Mt NMHC/yr)
## Emissions|NO2-N|Land| (Mt NO2-N/yr)
## Emissions|NO2-N|Land|Agriculture (Mt NO2-N/yr)
## Emissions|NO2-N|Land|Biomass Burning (Mt NO2-N/yr)
## Emissions|NO2-N|Land|Agriculture|Agricultural Soils (Mt NO2-N/yr)
## Emissions|NO2-N|Land|Agriculture|Animal Waste Management (Mt NO2-N/yr)
## Emissions|NO2-N|Land|Agriculture|Enteric Fermentation (Mt NO2-N/yr)
## Emissions|NO2-N|Land|Agriculture|Other (Mt NO2-N/yr)
## Emissions|NO2-N|Land|Agriculture|Rice (Mt NO2-N/yr)
## Emissions|NO2-N|Land|Biomass Burning|Agricultural Waste Burning (Mt NO2-N/yr)
## Emissions|NO2-N|Land|Biomass Burning|Deforestation Fires (Mt NO2-N/yr)
## Emissions|NO2-N|Land|Biomass Burning|Forest Fires (Mt NO2-N/yr)
## Emissions|NO2-N|Land|Biomass Burning|Peat Fires (Mt NO2-N/yr)
## Emissions|NO2-N|Land|Biomass Burning|Savannah Fires (Mt NO2-N/yr)
## Emissions|NO2|Land| (Mt NO2/yr)
## Emissions|NO2|Land|Biomass Burning (Mt NO2/yr)
## Emissions|NO2|Land|Agriculture|Enteric Fermentation (Mt NO2/yr)
## Emissions|NO2|Land|Agriculture|Other (Mt NO2/yr)
## Emissions|NO2|Land|Agriculture|Rice (Mt NO2/yr)
## Emissions|NO2|Land|Biomass Burning|Agricultural Waste Burning (Mt NO2/yr)
## Emissions|NO2|Land|Biomass Burning|Deforestation Fires (Mt NO2/yr)
## Emissions|NO2|Land|Biomass Burning|Forest Fires (Mt NO2/yr)
## Emissions|NO2|Land|Biomass Burning|Peat Fires (Mt NO2/yr)
## Emissions|NO2|Land|Biomass Burning|Savannah Fires (Mt NO2/yr)
## Emissions|NO3-N|Land| (Mt NO3-N/yr)
## Emissions|NO3-N|Land|Agriculture (Mt NO3-N/yr)
## Emissions|NO3-N|Land|Biomass Burning (Mt NO3-N/yr)
## Emissions|NO3-N|Land|Agriculture|Agricultural Soils (Mt NO3-N/yr)
## Emissions|NO3-N|Land|Agriculture|Animal Waste Management (Mt NO3-N/yr)
## Emissions|NO3-N|Land|Agriculture|Enteric Fermentation (Mt NO3-N/yr)

```

```

## Emissions|N03-N|Land|Agriculture|Other (Mt N03-N/yr)
## Emissions|N03-N|Land|Agriculture|Rice (Mt N03-N/yr)
## Emissions|N03-N|Land|Biomass Burning|Agricultural Waste Burning (Mt N03-N/yr)
## Emissions|N03-N|Land|Biomass Burning|Deforestation Fires (Mt N03-N/yr)
## Emissions|N03-N|Land|Biomass Burning|Forest Fires (Mt N03-N/yr)
## Emissions|N03-N|Land|Biomass Burning|Peat Fires (Mt N03-N/yr)
## Emissions|N03-N|Land|Biomass Burning|Savannah Fires (Mt N03-N/yr)
## Emissions|N03Land| (Mt N03-/yr)
## Emissions|N03Land|Biomass Burning (Mt N03-/yr)
## Emissions|N03Land|Agriculture|Enteric Fermentation (Mt N03-/yr)
## Emissions|N03Land|Agriculture|Other (Mt N03-/yr)
## Emissions|N03Land|Agriculture|Rice (Mt N03-/yr)
## Emissions|N03Land|Biomass Burning|Agricultural Waste Burning (Mt N03-/yr)
## Emissions|N03Land|Biomass Burning|Deforestation Fires (Mt N03-/yr)
## Emissions|N03Land|Biomass Burning|Forest Fires (Mt N03-/yr)
## Emissions|N03Land|Biomass Burning|Peat Fires (Mt N03-/yr)
## Emissions|N03Land|Biomass Burning|Savannah Fires (Mt N03-/yr)
## Emissions|OC|Land| (Mt OC/yr)
## Emissions|OC|Land|Agriculture (Mt OC/yr)
## Emissions|OC|Land|Biomass Burning (Mt OC/yr)
## Emissions|OC|Land|Agriculture|Agricultural Soils (Mt OC/yr)
## Emissions|OC|Land|Agriculture|Animal Waste Management (Mt OC/yr)
## Emissions|OC|Land|Agriculture|Enteric Fermentation (Mt OC/yr)
## Emissions|OC|Land|Agriculture|Other (Mt OC/yr)
## Emissions|OC|Land|Agriculture|Rice (Mt OC/yr)
## Emissions|OC|Land|Biomass Burning|Agricultural Waste Burning (Mt OC/yr)
## Emissions|OC|Land|Biomass Burning|Deforestation Fires (Mt OC/yr)
## Emissions|OC|Land|Biomass Burning|Forest Fires (Mt OC/yr)
## Emissions|OC|Land|Biomass Burning|Peat Fires (Mt OC/yr)
## Emissions|OC|Land|Biomass Burning|Savannah Fires (Mt OC/yr)
## Emissions|S02|Land| (Mt S02/yr)
## Emissions|S02|Land|Agriculture (Mt S02/yr)
## Emissions|S02|Land|Biomass Burning (Mt S02/yr)
## Emissions|S02|Land|Agriculture|Agricultural Soils (Mt S02/yr)
## Emissions|S02|Land|Agriculture|Animal Waste Management (Mt S02/yr)
## Emissions|S02|Land|Agriculture|Enteric Fermentation (Mt S02/yr)
## Emissions|S02|Land|Agriculture|Other (Mt S02/yr)
## Emissions|S02|Land|Agriculture|Rice (Mt S02/yr)
## Emissions|S02|Land|Biomass Burning|Agricultural Waste Burning (Mt S02/yr)
## Emissions|S02|Land|Biomass Burning|Deforestation Fires (Mt S02/yr)
## Emissions|S02|Land|Biomass Burning|Forest Fires (Mt S02/yr)
## Emissions|S02|Land|Biomass Burning|Peat Fires (Mt S02/yr)
## Emissions|S02|Land|Biomass Burning|Savannah Fires (Mt S02/yr)
## Emissions|N20|Land|Land Use Change (Mt N20/yr)
## Emissions|NH3|Land|Land Use Change (Mt NH3/yr)
## Emissions|NO2|Land|Land Use Change (Mt NO2/yr)
## Emissions|N03Land|Land Use Change (Mt N03-/yr)
## Emissions|CO2|Land|Land Use Change (Mt CO2/yr)
## Resources|Land Cover|Other Natural Land (million ha)
## Resources|Land Cover|Forest|Forestry|Harvested Area (million ha)
## Resources|Land Cover|Other Arable Land (million ha)
## Resources|Land Cover (million ha wrt 2005)
## Resources|Land Cover Change|Cropland (million ha wrt 2005)
## Resources|Land Cover Change|Forest (million ha wrt 2005)
## Resources|Land Cover Change|Other Land (million ha wrt 2005)
## Resources|Land Cover Change|Pastures and Rangelands (million ha wrt 2005)
## Resources|Land Cover Change|Cropland|Bioenergy crops (million ha wrt 2005)
## Resources|Land Cover Change|Forest|Managed Forest (million ha wrt 2005)
## Resources|Land Cover Change|Forest|Natural Forest (million ha wrt 2005)
## Resources|Land Cover Change|Other Natural Land (million ha wrt 2005)

```

```
## Resources|Land Cover Change|Urban Area (million ha wrt 2005)
## Resources|Land Cover Change|Forest|Forestry|Harvested Area (million ha wrt 2005)
## Resources|Land Cover Change|Other Arable Land (million ha wrt 2005)
## Prices|Agriculture|Microbial protein (US$05/tDM)
## Prices|Agriculture|Industrial roundwood (US$05/tDM)
## Prices|Agriculture|Short rotation trees (US$05/tDM)
## Prices|Agriculture|Wood fuel (US$05/tDM)
```

Part XVIII

Run Information

66 Calibration

66.1 Yield calibration factors

	CAZ	CHA	EUR	IND	JPN	LAM	MEA	NEU	OAS	REF	SSA	USA
crops	0.32	0.86	0.73	0.84	0.83	0.57	0.66	0.72	0.70	0.85	0.63	0.60
pasture	0.96	1.00	1.06	0.96	0.99	1.03	1.01	1.07	1.00	1.17	1.02	0.98

66.2 Land use change in 1995 (reshuffling)

Table 2039: Land use change cropland 1995 (Mio. ha)

	CAZ	CHA	EUR	IND	JPN	LAM	MEA	NEU	OAS	REF	SSA	USA	GLO
expansion	6.10	1.54	9.78	3.62	0.00	11.50	0.02	0.00	12.19	0.00	0.00	1.90	46.64
contraction	-6.31	-5.09	-23.96	-4.37	-0.57	-12.52	-15.38	-3.31	-15.78	-0.40	-0.24	-3.97	-91.89
net changes	-0.22	-3.56	-14.18	-0.75	-0.57	-1.02	-15.36	-3.31	-3.60	-0.40	-0.24	-2.07	-45.25
gross changes	12.41	6.63	33.74	8.00	0.57	24.01	15.39	3.31	27.97	0.40	0.24	5.87	138.53

67 Model settings

67.1 Code settings

```
## ### GIT revision ###
## 9a5e1b3d6ec7db76820f503de06ebcda9e4dd6cc
##
## ### Modifications ###
##
## On branch magpie4paper
## Your branch is up-to-date with jpd/magpie4paper.
##
## Changes not staged for commit:
##
##   (use "git add <file>..." to update what will be committed)
##
##   (use "git checkout -- <file>..." to discard changes in working directory)
##
##
## modified:   main.gms
## modified:   modules/09_drivers/aug17/input.gms
##
## modified:   modules/12_interest_rate/glo_jan16/input.gms
##
## modified:   modules/12_interest_rate/reg_feb18/input.gms
```

```

##
## modified:   modules/15_food/anthropometrics_jan18/input.gms
##
## modified:   modules/21_trade/selfsuff_reduced/input.gms
##
## modified:   modules/50_nr_soil_budget/excoeff_aug16/input.gms
##
## modified:   modules/60_bioenergy/standard_flexreg_may17/input.gms
##
## modified:   modules/70_livestock/fbask_jan16/input.gms
##
## Untracked files:
##
##   (use "git add <file>..." to include in what will be committed)
##
##
## log_out-11157596.err
## log_out-11157597.err
##
##
## no changes added to commit (use "git add" and/or "git commit -a")
##
##
## ### MODULE SETUP ###
## $setglobal drivers aug17
## $setglobal land feb15
##
## $setglobal costs default
## $setglobal interest_rate reg_feb18
##
## $setglobal tc endo_jun18
## $setglobal yields dynamic_aug18
##
## $setglobal food anthropometrics_jan18
## $setglobal demand sector_may15
##
## $setglobal production flexreg_apr16
## $setglobal residues flexreg_apr16
##
## $setglobal processing coupleproducts_feb17
## $setglobal trade selfsuff_reduced
##
## $setglobal crop endo_jun13
## $setglobal past endo_jun13
##
## $setglobal forestry affore_vegc_dec16
## $setglobal urban static
##
## $setglobal natveg dynamic_may18
## $setglobal factor_costs mixed_feb17
##
## $setglobal landconversion global_static_aug18
## $setglobal transport gtap_nov12
##
## $setglobal area_equipped_for_irrigation endo_apr13
##
## $setglobal water_demand agr_sector_aug13
##
## $setglobal water_availability total_water_aug13

```

```

## $setglobal climate static
##
## $setglobal nr_soil_budget exoeff_aug16
## $setglobal nitrogen ipcc2006_sep16
##
## $setglobal carbon normal_dec17
## $setglobal methane ipcc2006_flexreg_apr16
##
## $setglobal phosphorus off
## $setglobal awms ipcc2006_aug16
##
## $setglobal ghg_policy price_sep16
## $setglobal maccs on_sep16
##
## $setglobal carbon_removal off_sep16
## $setglobal som off
##
## $setglobal bioenergy standard_flexreg_may17
## $setglobal material exo_flexreg_apr16
##
## $setglobal livestock fbask_jan16
## $setglobal disag_lvst foragebased_aug18
##
## $setglobal optimization nlp_apr17

```

67.2 Dataset

```

##
##
## Used data set: isimip_rcp-IPSL_CM5A_LR-rcp2p6-co2_rev34_c200_690d3718e151be1b450b394c1064b1c5.tgz
##
## md5sum: b88ddae2ac42d76603bd988337115c64
##
## Repository: /p/projects/landuse/data/input/archive
##
##
## Used data set: rev4.14_690d3718e151be1b450b394c1064b1c5_magpie.tgz
##
## md5sum: a049d482a1a9766c843b671a1b69b9f1
##
## Repository: /p/projects/rd3mod/inputdata/output
##
##
## Used data set: rev4.14_690d3718e151be1b450b394c1064b1c5_validation.tgz
##
## md5sum: 9d67c5c2f80429f00967e9a2e6d9c34f
##
## Repository: /p/projects/rd3mod/inputdata/output
##
##
## Used data set: additional_data_rev3.58.tgz
## md5sum: 75798c6d2670497a92ae2a3fb5a7e6ee
##
## Repository: /p/projects/landuse/data/input/archive
##
##
## Used data set: calibration_H12_c200_12Sep18.tgz
##
## md5sum: 0a7d88e902918eb6a5263faaf066cc5d

```

```
##
## Repository: /p/projects/landuse/data/input/calibration
##
## Low resolution: c200
##
## High resolution: 0.5
##
## Total number of cells: 200
##
## Number of cells per region:
##
##   CAZ  CHA  EUR  IND  JPN  LAM  MEA  NEU  OAS  REF  SSA  USA
##
##   28   24   10    7    3   53   17    8   22    7   11   10
##
##
## Regionscode: 690d3718e151be1b450b394c1064b1c5
##
## Regions data revision: 4.14
##
##
## lpj2magpie settings:
##
## * LPJmL data folder: /p/projects/landuse/data/input/lpj_input/isimip_rcp/IPSL_CM5A_LR/rcp2p6/co2
##
## * Additional input folder: /p/projects/landuse/data/input/other/rev34
## * Revision: 34
##
## * Call: lpj2magpie(input_folder = path(cfg$lpj_input_folder, gsub("-", "/", cfg$input)), input2_
##
##
## aggregation settings:
## * Input resolution: 0.5
## * Output resolution: c200
##
## * Input file: /p/projects/landuse/data/input/archive/isimip_rcp-IPSL_CM5A_LR-rcp2p6-co2_rev34_0.5.tg
##
## * Output file: /p/projects/landuse/data/input/archive/isimip_rcp-IPSL_CM5A_LR-rcp2p6-co2_rev34_c200_
##
## * Regionscode: 690d3718e151be1b450b394c1064b1c5
## * (clustering) n-repeat: 5
##
## * (clustering) n-redistribute: 0
##
## * Call: aggregation(input_file = lpj2magpie_file, regionmapping = paste0("../", cfg$regionmappin
##
##
##
## Last modification (input data): Tue Oct 16 16:46:11 2018
```

67.3 R Information

```
## R version 3.3.2 (2016-10-31)
## Platform: x86_64-pc-linux-gnu (64-bit)
## Running under: SUSE Linux Enterprise Server 12 SP2
##
```

```
## locale:
## [1] C
##
## attached base packages:
## [1] methods    grid      stats      graphics  grDevices  utils      datasets  base
##
## other attached packages:
## [1] luscale_2.13.1  lucode_2.136.0  magclass_4.87.9
##
## loaded via a namespace (and not attached):
## [1] spam_1.4-0      tidyselect_0.2.4  Rook_1.1-1      purrr_0.2.4
## [5] reshape2_1.4.3  colorspace_1.3-2  htmltools_0.3.6  viridisLite_0.3.0
## [9] XML_3.98-1.5    rlang_0.2.0       pillar_1.2.3     glue_1.2.0
## [13] RColorBrewer_1.1-2 bindrcpp_0.2.2    bindr_0.1.1      plyr_1.8.4
## [17] stringr_1.3.1   munsell_0.4.3     gtable_0.2.0     data.tree_0.7.4
## [21] visNetwork_2.0.4 htmlwidgets_1.2   httpuv_1.3.5     DiagrammeR_1.0.0
## [25] curl_2.3         Rcpp_0.12.18      xtable_1.8-2     readr_1.1.1
## [29] scales_0.5.0     jsonlite_1.5       abind_1.4-5      rgeof_0.15.3
## [33] mime_0.5         gridExtra_2.2.1    brew_1.0-6       ggplot2_3.0.0
## [37] hms_0.4.2        digest_0.6.15     stringi_1.2.2    dplyr_0.7.6
## [41] shiny_1.0.5      influenceR_0.1.0   tools_3.3.2      magrittr_1.5
## [45] lazyeval_0.2.1   tibble_1.4.2       tidyr_0.8.1      pkgconfig_2.0.1
## [49] data.table_1.11.4 downloader_0.4     assertthat_0.2.0 rstudioapi_0.7
## [53] viridis_0.5.1    R6_2.2.2           igraph_1.2.1
```

```
## [1] "/p/projects/rd3mod/R/libraries/main"
## [2] "/p/system/packages/R/3.3.2/lib64/R/library"
```

##	BBmisc	BH	BatchJobs	BiocInstaller
##	"1.11"	"1.66.0-1"	"1.6"	"1.24.0"
##	CVST	DBI	DEoptimR	DRR
##	"0.2-1"	"1.0.0"	"1.0-8"	"0.0.3"
##	DT	DiagrammeR	EnvStats	FNN
##	"0.4"	"1.0.0"	"2.3.0"	"1.1"
##	FactoMineR	Formula	GGally	Gmisc
##	"1.36"	"1.2-3"	"1.4.0"	"1.4.1"
##	Hmisc	IDPmisc	ISOCodes	Lahman
##	"4.0-2"	"1.1.18"	"2018.06.29"	"6.0-0"
##	LandMark	LearnBayes	Lmoments	MASS
##	"1.1.0"	"2.15.1"	"1.2-3"	"7.3-50"
##	NLP	NMF	PIKTools	R.matlab
##	"0.1-10"	"0.20.6"	"1.1"	"3.6.1"
##	R.methodsS3	R.oo	R.utils	R6
##	"1.7.1"	"1.21.0"	"2.5.0"	"2.2.2"
##	RANN	RCurl	RISmed	RJSONIO
##	"2.5.1"	"1.95-4.8"	"2.1.7"	"1.3-0"
##	RSQLite	RSpectra	RandomFields	RandomFieldsUtils
##	"2.1.1"	"0.13-1"	"3.1.50"	"0.3.25"
##	Rcpp	RcppArmadillo	RcppOctave	RcppParallel
##	"0.12.18"	"0.7.700.0.0"	"0.18.1"	"4.3.20"
##	RcppRoll	Rook	Rtsne	Rttf2pt1
##	"0.2.2"	"1.1-1"	"0.13"	"1.3.7"
##	SDMTools	SPEI	SQUAREM	SnowballC
##	"1.1-221"	"1.6"	"2017.10-1"	"0.5.1"
##	SpatialPack	TH.data	WDI	XML
##	"0.3"	"1.0-8"	"2.5"	"3.98-1.5"

##	abind	aqfig	ar5data	areaplot
##	"1.4-5"	"0.8"	"1.7.1"	"1.2-0"
##	arm	assertr	assertthat	automap
##	"1.9-3"	"2.5"	"0.2.0"	"1.0-14"
##	backports	bfast	bibliometrix	bibtex
##	"1.1.2"	"1.5.7"	"2.0.0"	"0.4.2"
##	bindr	bindrcpp	bit64	blob
##	"0.1.1"	"0.2.2"	"0.9-7"	"1.1.1"
##	brew	broom	burdensharing	callr
##	"1.0-6"	"0.4.2"	"1.4.25"	"1.0.0"
##	caret	cellranger	citation	classInt
##	"6.0-80"	"1.1.0"	"0.2.1"	"0.1-23"
##	cli	clipr	coda	coin
##	"1.0.0"	"0.4.0"	"0.19-1"	"1.2-2"
##	colorRamps	commonmark	compare	corpcor
##	"2.3"	"1.5"	"0.2-6"	"1.6.9"
##	corrplot	countrycode	covr	cowplot
##	"0.84"	"1.00.0"	"3.1.0"	"0.9.2"
##	cowsay	crayon	crosstalk	curl
##	"0.6.0"	"1.3.4"	"1.0.0"	"2.3"
##	d3Network	data.table	data.tree	dbplyr
##	"0.5.2.1"	"1.11.4"	"0.7.4"	"1.2.1"
##	ddalpha	deldir	demystas	dendextend
##	"1.3.3"	"0.1-15"	"1.3.5"	"1.5.2"
##	desc	devtools	digest	dimRed
##	"1.2.0"	"1.13.3"	"0.6.15"	"0.1.0"
##	diptest	doMC	doMPI	doSNOW
##	"0.75-7"	"1.3.5"	"0.2.2"	"1.0.16"
##	dotCall64	downloader	dplyr	dtplyr
##	"0.9-5.2"	"0.4"	"0.7.6"	"0.0.2"
##	dummies	e1071	easyNCDF	ellipse
##	"1.5.6"	"1.6-8"	"0.0.4"	"0.4.1"
##	estimability	evaluate	expm	extrafont
##	"1.3"	"0.10.1"	"0.999-2"	"0.17"
##	extrafontdb	factoextra	fail	faodata
##	"1.0"	"1.0.4"	"1.3"	"1.09"
##	fdrtool	fields	fitdistrplus	flashClust
##	"1.2.15"	"8.10"	"1.0-9"	"1.01-2"
##	flexmix	forcats	forecast	forestplot
##	"2.3-14"	"0.2.0"	"8.0"	"1.7.2"
##	formatR	fortunes	fpc	fracdiff
##	"1.5"	"1.5-4"	"2.1-10"	"1.4-2"
##	futile.logger	futile.options	gclus	gdata
##	"1.4.3"	"1.0.1"	"1.3.1"	"2.18.0"
##	gdistance	gdx	gdxrrw	geoR
##	"1.2-2"	"1.49.0"	"1.0.2"	"1.7-5.2"
##	geodata	geometry	geosphere	ggforce
##	"1.56"	"0.3-6"	"1.5-7"	"0.1.3"
##	ggm	ggplot2	ggpubr	ggraph
##	"2.3"	"3.0.0"	"0.1.4"	"1.0.2"
##	ggrepel	ggsci	ggsignif	git2r
##	"0.8.0"	"2.9"	"0.4.0"	"0.21.0"
##	givemeall	glasso	glodato	glue
##	"0.02"	"1.8"	"1.12"	"1.2.0"
##	gmodels	gmp	goftest	gower
##	"2.16.2"	"0.5-13.1"	"1.1-1"	"0.1.2"
##	goxygen	gplots	gridBase	gstat
##	"0.21.2"	"3.0.1"	"0.4-7"	"1.1-5"
##	gsw	guidr	gvlma	haven
##	"1.0-5"	"0.0.5.0000"	"1.0.0.2"	"1.1.0"

##	hms	htmlTable	htmltools	htmlwidgets
##	"0.4.2"	"1.12"	"0.3.6"	"1.2"
##	httpuv	httr	huge	hydroGOF
##	"1.3.5"	"1.3.1"	"1.2.7"	"0.3-10"
##	hydroTSM	iamc	igraph	influenceR
##	"0.5-1"	"0.24.0"	"1.2.1"	"0.1.0"
##	intervals	inum	ipred	irlba
##	"0.15.1"	"1.0-0"	"0.9-6"	"2.3.2"
##	jpeg	jsonlite	kernlab	knitr
##	"0.1-8"	"1.5"	"0.9-26"	"1.20"
##	ks	lambda.r	later	lattice
##	"1.11.2"	"1.1.9"	"0.7.2"	"0.20-35"
##	lava	lavaan	lazyeval	leaflet
##	"1.6.1"	"0.6-1"	"0.2.1"	"1.1.0"
##	leaps	libcoin	limes	lme4
##	"3.0"	"1.0-1"	"0.3.60"	"1.1-17"
##	lmomco	lmtest	lpSolve	lpjclass
##	"2.2.7"	"0.9-36"	"5.6.13"	"1.13"
##	lsmeans	lubase	lubridate	lucode
##	"2.25-5"	"1.06"	"1.7.1"	"2.136.0"
##	ludata	luplayground	luplot	luscale
##	"1.43.3"	"1.05"	"3.49.0"	"2.13.1"
##	lusweave	mFilter	madrat	magclass
##	"1.45.0"	"0.1-3"	"1.52.0"	"4.87.9"
##	magic	magpie	magpie4	magpieflexreg
##	"1.5-8"	"0.2266.1"	"1.26.0"	"0.0036"
##	magpiesets	magrittr	mapdata	markdown
##	"0.33.3"	"1.5"	"2.3.0"	"0.8"
##	matlab	matrixcalc	mclust	memoise
##	"1.0.2"	"1.0-3"	"5.3"	"1.0.0"
##	mgcv	mi	mice	microbenchmark
##	"1.8-23"	"1.0"	"2.30"	"1.4-4"
##	mip	misc3d	mlapi	mnormt
##	"0.108.0"	"0.8-4"	"0.1.0"	"1.5-5"
##	modelr	modeltools	moinput	mrfood
##	"0.1.1"	"0.2-21"	"9.137.0"	"0.7.3"
##	mrregression	mrvalidation	multcomp	multicool
##	"3.11.0"	"1.31.0"	"1.4-8"	"0.1-10"
##	mvtnorm	ncdf4	network	nitrogen
##	"1.0-7"	"1.15"	"1.13.0"	"1.0.3"
##	nleqslv	nnls	nonparaeff	nortest
##	"3.3.2"	"1.4"	"0.5-8"	"1.0-4"
##	numDeriv	nycflights13	oce	openssl
##	"2016.8-1"	"0.2.2"	"0.9-23"	"0.9.6"
##	openxlsx	osmar	pROC	pan
##	"4.0.0"	"1.1-7"	"1.12.1"	"1.4"
##	pander	party	partykit	pastecs
##	"0.6.0"	"1.2-4"	"1.2-0"	"1.3-18"
##	pbapply	pbivnorm	piam	pikcluster
##	"1.3-4"	"0.6.0"	"0.8.2"	"0.04"
##	pillar	pkgconfig	pkgmaker	plogr
##	"1.2.3"	"2.0.1"	"0.22"	"0.2.0"
##	plot3D	plotly	plotrix	png
##	"1.1"	"4.5.6"	"3.6-4"	"0.1-7"
##	polspline	polyclip	prabclus	prettyunits
##	"1.1.12"	"1.6-1"	"2.2-6"	"1.0.2"
##	processx	prodlim	profvis	progress
##	"3.1.0"	"2018.04.18"	"0.3.3"	"1.1.2"
##	proto	pse	psych	purrr
##	"1.0.0"	"0.4.7"	"1.6.12"	"0.2.4"

##	pwt	qgraph	quadprog	qualV
##	"7.1-1"	"1.4.2"	"1.5-5"	"0.3-2"
##	quanteda	quitte	randomForest	randomForestExplainer
##	"1.3.4"	"0.3072.0"	"4.6-14"	"0.9"
##	raster	rasterVis	readr	readstata13
##	"2.5-8"	"0.41"	"1.1.1"	"0.9.0"
##	readxl	recipes	registry	rematch
##	"1.0.0"	"0.1.2"	"0.3"	"1.0.1"
##	remind	remulator	reprex	reshape
##	"36.55.0"	"1.15.0"	"0.1.1"	"0.8.7"
##	reshape2	reticulate	rfPermute	rgdal
##	"1.4.3"	"1.10"	"2.1.5"	"1.2-5"
##	rgenoud	rgeos	rgexf	rhdf5
##	"5.7-12.4"	"0.3-17"	"0.15.3"	"2.18.0"
##	rjson	rlang	rmarkdown	rms
##	"0.2.15"	"0.2.0"	"1.9"	"5.1-0"
##	rmsfact	rngtools	robustbase	rootSolve
##	"0.0.3"	"1.2.4"	"0.92-7"	"1.7"
##	roxygen2	rpart	rpart.plot	rprojroot
##	"6.0.1"	"4.1-13"	"2.1.2"	"1.3-2"
##	rscopus	rsm	rstudioapi	rvest
##	"0.5.11"	"2.8"	"0.7"	"0.3.2"
##	rworldmap	rworldxtra	sandwich	satellite
##	"1.3-6"	"1.01"	"2.4-0"	"0.2.0"
##	scales	scatterplot3d	selectr	sem
##	"0.5.0"	"0.3-38"	"0.3-1"	"3.1-8"
##	sendmailR	sensitivity	sfsmisc	shiny
##	"1.2-1"	"1.15.0"	"1.1-2"	"1.0.5"
##	shinycssloaders	shinyresults	shinythemes	slam
##	"0.2.0"	"0.16.0"	"1.1.1"	"0.1-40"
##	sna	snow	soiltexture	sourcetools
##	"2.4"	"0.4-2"	"1.4.1"	"0.1.5"
##	spData	spacetime	spacyr	spam
##	"0.2.8.3"	"1.2-0"	"0.9.91"	"1.4-0"
##	sparsepp	spatstat	spatstat.data	spatstat.utils
##	"0.2.0"	"1.55-1"	"1.2-0"	"1.8-0"
##	spdep	splanCS	statnet.common	stopwords
##	"0.6-11"	"2.01-40"	"3.3.0"	"0.9.0"
##	stringdist	stringi	stringr	strucchange
##	"0.9.4.4"	"1.2.2"	"1.3.1"	"1.5-1"
##	swfscMisc	tensor	testthat	text2vec
##	"1.2"	"1.5"	"2.0.0"	"0.4.0"
##	tibble	tidyr	tidyselect	tidyverse
##	"1.4.2"	"0.8.1"	"0.2.4"	"1.2.1"
##	tiff	timeDate	tinytex	tm
##	"0.1-5"	"3012.100"	"0.5"	"0.7-1"
##	trafficlight	trefoil	trimcluster	tseries
##	"1.11.1"	"0.01"	"0.1-2"	"0.10-38"
##	tweenr	txtplot	udunits2	units
##	"0.1.5"	"1.0-3"	"0.13"	"0.6-1"
##	urca	uroot	utf8	validation
##	"1.3-0"	"2.0-9"	"1.1.4"	"1.195"
##	vcd	viridis	viridisLite	visNetwork
##	"1.4-3"	"0.5.1"	"0.3.0"	"2.0.4"
##	webshot	weights	whisker	withr
##	"0.4.0"	"0.85"	"0.3-2"	"2.1.2"
##	xml2	xtable	xts	yaImpute
##	"1.1.1"	"1.8-2"	"0.9-7"	"1.0-29"
##	yaml	zip	zlibbioc	zoo
##	"2.1.19"	"1.0.0"	"1.20.0"	"1.8-1"

##	BH	Formula	KernSmooth	MASS
##	"1.62.0-1"	"1.2-1"	"2.23-15"	"7.3-45"
##	Matrix	MatrixModels	ModelMetrics	R6
##	"1.2-8"	"0.4-1"	"1.1.0"	"2.2.0"
##	RColorBrewer	Rcpp	RcppEigen	Rmpi
##	"1.1-2"	"0.12.10"	"0.3.2.9.1"	"0.6-6"
##	SparseM	TH.data	abind	acepack
##	"1.76"	"1.0-8"	"1.4-5"	"1.4.1"
##	assertthat	backports	base	base64enc
##	"0.1"	"1.0.5"	"3.3.2"	"0.1-3"
##	bdsmatrix	bit	bitops	boot
##	"1.3-2"	"1.1-12"	"1.0-6"	"1.3-18"
##	caTools	car	cffdrs	checkmate
##	"1.17.1"	"2.1-4"	"1.7.5"	"1.8.2"
##	chron	class	cluster	codetools
##	"2.3-50"	"7.3-14"	"2.0.6"	"0.2-15"
##	colorspace	compiler	crayon	data.table
##	"1.3-2"	"3.3.2"	"1.3.2"	"1.10.4"
##	datasets	dichromat	digest	doMPI
##	"3.3.2"	"2.0-0"	"0.6.12"	"0.2.1"
##	doParallel	evaluate	fastmatch	foreach
##	"1.0.10"	"0.10"	"1.1-0"	"1.4.3"
##	foreign	fwi.fbp	gdtools	ggplot2movies
##	"0.8-67"	"1.7"	"0.1.4"	"0.0.1"
##	grDevices	graphics	grid	gridExtra
##	"3.3.2"	"3.3.2"	"3.3.2"	"2.2.1"
##	gtable	gtools	hexbin	highr
##	"0.2.0"	"3.5.0"	"1.27.1"	"0.6"
##	htmlTable	htmltools	htmlwidgets	iterators
##	"1.9"	"0.3.5"	"0.8"	"1.0.8"
##	jsonlite	knitr	labeling	lattice
##	"1.3"	"1.15.1"	"0.3"	"0.20-35"
##	latticeExtra	lazyeval	lme4	magrittr
##	"0.6-28"	"0.2.0"	"1.1-12"	"1.5"
##	mapproj	maps	maptools	markdown
##	"1.2-4"	"3.1.1"	"0.9-2"	"0.7.7"
##	methods	mgcv	mime	minqa
##	"3.3.2"	"1.8-17"	"0.5"	"1.2.4"
##	mlbench	mmap	multcomp	munsell
##	"2.1-1"	"0.6-12"	"1.4-6"	"0.4.3"
##	mvtnorm	ncdf4	nlme	nloptr
##	"1.0-6"	"1.15"	"3.1-131"	"1.0.4"
##	nnet	parallel	pbkrtest	plyr
##	"7.3-12"	"3.3.2"	"0.4-7"	"1.8.4"
##	praise	quantreg	raster	reshape2
##	"1.0.0"	"5.29"	"2.5-8"	"1.4.2"
##	rex	rmarkdown	rpart	rprojroot
##	"1.1.1"	"1.4"	"4.1-10"	"1.2"
##	sandwich	scales	sp	spatial
##	"2.3-4"	"0.4.1"	"1.2-4"	"7.3-11"
##	spatial.tools	splines	stats	stats4
##	"1.4.8"	"3.3.2"	"3.3.2"	"3.3.2"
##	stringi	stringr	survival	svglite
##	"1.1.3"	"1.2.0"	"2.41-2"	"1.2.0"
##	tcltk	testthat	tibble	tools
##	"3.3.2"	"1.0.2"	"1.3.0"	"3.3.2"
##	utils	withr	yaml	zoo
##	"3.3.2"	"1.0.2"	"2.1.14"	"1.7-14"

start_functions

```
## R version 3.3.2 (2016-10-31)
## Platform: x86_64-pc-linux-gnu (64-bit)
## Running under: SUSE Linux Enterprise Server 12 SP2
##
## locale:
## [1] C
##
## attached base packages:
## [1] grid      methods  stats      graphics  grDevices  utils      datasets  base
##
## other attached packages:
## [1] magpie4_1.26.0  gdx_1.49.0      gdxrrw_1.0.2    lrcode_2.136.0  magclass_4.87.9
##
## loaded via a namespace (and not attached):
## [1] viridis_0.5.1      httr_1.3.1        maps_3.1.1        tidyr_0.8.1
## [5] jsonlite_1.5       viridisLite_0.3.0  splines_3.3.2     Formula_1.2-3
## [9] shiny_1.0.5        assertthat_0.2.0   sp_1.2-4          rworldmap_1.3-6
## [13] latticeExtra_0.6-28  lusweave_1.45.0    nonparaeff_0.5-8  qualV_0.3-2
## [17] pillar_1.2.3       backports_1.1.2    lattice_0.20-35   downloader_0.4
## [21] glue_1.2.0         luscale_2.13.1     digest_0.6.15     RColorBrewer_1.1-2
## [25] checkmate_1.8.2     colorspace_1.3-2   htmltools_0.3.6   httpuv_1.3.5
## [29] Matrix_1.2-8        plyr_1.8.4         XML_3.98-1.5      pkgconfig_2.0.1
## [33] DiagrammeR_1.0.0    trafficlight_1.11.1  purrr_0.2.4       xtable_1.8-2
## [37] scales_0.5.0        brew_1.0-6         htmlTable_1.12    tibble_1.4.2
## [41] ggplot2_3.0.0       influenceR_0.1.0    nnet_7.3-12       lazyeval_0.2.1
## [45] rgexf_0.15.3        survival_2.41-2     magrittr_1.5       mime_0.5
## [49] maptools_0.9-2      data.tree_0.7.4     xml2_1.1.1        foreign_0.8-67
## [53] mip_0.108.0         Rook_1.1-1         tools_3.3.2       data.table_1.11.4
## [57] hms_0.4.2           stringr_1.3.1       plotly_4.5.6      munsell_0.4.3
## [61] cluster_2.0.6        bindrcpp_0.2.2      luplot_3.49.0     rlang_0.2.0
## [65] quitte_0.3072.0      rstudioapi_0.7      visNetwork_2.0.4  htmlwidgets_1.2
## [69] spam_1.4-0           igraph_1.2.1        base64enc_0.1-3    gtable_0.2.0
## [73] reshape2_1.4.3      R6_2.2.2           gridExtra_2.2.1    knitr_1.20
## [77] dplyr_0.7.6         magpiesets_0.33.3   bindr_0.1.1       Hmisc_4.0-2
## [81] readr_1.1.1         KernSmooth_2.23-15  stringi_1.2.2     Rcpp_0.12.18
## [85] fields_8.10         rpart_4.1-13        acepack_1.4.1     tidyselect_0.2.4

## [1] "/p/projects/rd3mod/R/libraries/main"
## [2] "/p/system/packages/R/3.3.2/lib64/R/library"
```

##	BBmisc	BH	BatchJobs	BiocInstaller
##	"1.11"	"1.66.0-1"	"1.6"	"1.24.0"
##	CVST	DBI	DEoptimR	DRR
##	"0.2-1"	"1.0.0"	"1.0-8"	"0.0.3"
##	DT	DiagrammeR	EnvStats	FNN
##	"0.4"	"1.0.0"	"2.3.0"	"1.1"
##	FactoMineR	Formula	GGally	Gmisc
##	"1.36"	"1.2-3"	"1.4.0"	"1.4.1"
##	Hmisc	IDPmisc	ISOcodes	Lahman
##	"4.0-2"	"1.1.18"	"2018.06.29"	"6.0-0"
##	LandMark	LearnBayes	Lmoments	MASS
##	"1.1.0"	"2.15.1"	"1.2-3"	"7.3-50"
##	NLP	NMF	PIKTools	R.matlab
##	"0.1-10"	"0.20.6"	"1.1"	"3.6.1"
##	R.methodsS3	R.oo	R.utils	R6

##	"1.7.1"	"1.21.0"	"2.5.0"	"2.2.2"
##	RANN	RCurl	RISmed	RJSONIO
##	"2.5.1"	"1.95-4.8"	"2.1.7"	"1.3-0"
##	RSQLite	RSpectra	RandomFields	RandomFieldsUtils
##	"2.1.1"	"0.13-1"	"3.1.50"	"0.3.25"
##	Rcpp	RcppArmadillo	RcppOctave	RcppParallel
##	"0.12.18"	"0.7.700.0.0"	"0.18.1"	"4.3.20"
##	RcppRoll	Rook	Rtsne	Rttf2pt1
##	"0.2.2"	"1.1-1"	"0.13"	"1.3.7"
##	SDMTools	SPEI	SQUAREM	SnowballC
##	"1.1-221"	"1.6"	"2017.10-1"	"0.5.1"
##	SpatialPack	TH.data	WDI	XML
##	"0.3"	"1.0-8"	"2.5"	"3.98-1.5"
##	abind	aqfig	ar5data	areaplot
##	"1.4-5"	"0.8"	"1.7.1"	"1.2-0"
##	arm	assertr	assertthat	automap
##	"1.9-3"	"2.5"	"0.2.0"	"1.0-14"
##	backports	bfast	biometrix	bibtex
##	"1.1.2"	"1.5.7"	"2.0.0"	"0.4.2"
##	bindr	bindrcpp	bit64	blob
##	"0.1.1"	"0.2.2"	"0.9-7"	"1.1.1"
##	brew	broom	burdensharing	callr
##	"1.0-6"	"0.4.2"	"1.4.25"	"1.0.0"
##	caret	cellranger	citation	classInt
##	"6.0-80"	"1.1.0"	"0.2.1"	"0.1-23"
##	cli	clipr	coda	coin
##	"1.0.0"	"0.4.0"	"0.19-1"	"1.2-2"
##	colorRamps	commonmark	compare	corpcor
##	"2.3"	"1.5"	"0.2-6"	"1.6.9"
##	corrplot	countrycode	covr	cowplot
##	"0.84"	"1.00.0"	"3.1.0"	"0.9.2"
##	cowsay	crayon	crosstalk	curl
##	"0.6.0"	"1.3.4"	"1.0.0"	"2.3"
##	d3Network	data.table	data.tree	dbplyr
##	"0.5.2.1"	"1.11.4"	"0.7.4"	"1.2.1"
##	ddalpha	deldir	demystas	dendextend
##	"1.3.3"	"0.1-15"	"1.3.5"	"1.5.2"
##	desc	devtools	digest	dimRed
##	"1.2.0"	"1.13.3"	"0.6.15"	"0.1.0"
##	diptest	doMC	doMPI	doSNOW
##	"0.75-7"	"1.3.5"	"0.2.2"	"1.0.16"
##	dotCall64	downloader	dplyr	dtplyr
##	"0.9-5.2"	"0.4"	"0.7.6"	"0.0.2"
##	dummies	e1071	easyNCDF	ellipse
##	"1.5.6"	"1.6-8"	"0.0.4"	"0.4.1"
##	estimability	evaluate	expm	extrafont
##	"1.3"	"0.10.1"	"0.999-2"	"0.17"
##	extrafontdb	factoextra	fail	faodata
##	"1.0"	"1.0.4"	"1.3"	"1.09"
##	fdrtool	fields	fitdistrplus	flashClust
##	"1.2.15"	"8.10"	"1.0-9"	"1.01-2"
##	flexmix	forcats	forecast	forestplot
##	"2.3-14"	"0.2.0"	"8.0"	"1.7.2"
##	formatR	fortunes	fpc	fracdiff
##	"1.5"	"1.5-4"	"2.1-10"	"1.4-2"
##	futile.logger	futile.options	gclus	gdata
##	"1.4.3"	"1.0.1"	"1.3.1"	"2.18.0"
##	gdistance	gdx	gdxrrw	geoR
##	"1.2-2"	"1.49.0"	"1.0.2"	"1.7-5.2"
##	geodata	geometry	geosphere	ggforce

##	"1.56"	"0.3-6"	"1.5-7"	"0.1.3"
##	ggm	ggplot2	ggpubr	ggraph
##	"2.3"	"3.0.0"	"0.1.4"	"1.0.2"
##	ggrepel	ggsci	ggsignif	git2r
##	"0.8.0"	"2.9"	"0.4.0"	"0.21.0"
##	givemeall	glasso	glodato	glue
##	"0.02"	"1.8"	"1.12"	"1.2.0"
##	gmodels	gmp	goftest	gower
##	"2.16.2"	"0.5-13.1"	"1.1-1"	"0.1.2"
##	goxygen	gplots	gridBase	gstat
##	"0.21.2"	"3.0.1"	"0.4-7"	"1.1-5"
##	gsw	guidr	gvlma	haven
##	"1.0-5"	"0.0.5.0000"	"1.0.0.2"	"1.1.0"
##	hms	htmlTable	htmltools	htmlwidgets
##	"0.4.2"	"1.12"	"0.3.6"	"1.2"
##	httpuv	httr	huge	hydroGOF
##	"1.3.5"	"1.3.1"	"1.2.7"	"0.3-10"
##	hydroTSM	iamc	igraph	influenceR
##	"0.5-1"	"0.24.0"	"1.2.1"	"0.1.0"
##	intervals	inum	ipred	irlba
##	"0.15.1"	"1.0-0"	"0.9-6"	"2.3.2"
##	jpeg	jsonlite	kernlab	knitr
##	"0.1-8"	"1.5"	"0.9-26"	"1.20"
##	ks	lambda.r	later	lattice
##	"1.11.2"	"1.1.9"	"0.7.2"	"0.20-35"
##	lava	lavaan	lazyeval	leaflet
##	"1.6.1"	"0.6-1"	"0.2.1"	"1.1.0"
##	leaps	libcoin	limes	lme4
##	"3.0"	"1.0-1"	"0.3.60"	"1.1-17"
##	lmomco	lmtest	lpSolve	lpjclass
##	"2.2.7"	"0.9-36"	"5.6.13"	"1.13"
##	lsmeans	lubase	lubridate	lucode
##	"2.25-5"	"1.06"	"1.7.1"	"2.136.0"
##	ludata	luplayground	luplot	luscale
##	"1.43.3"	"1.05"	"3.49.0"	"2.13.1"
##	lusweave	mFilter	madrat	magclass
##	"1.45.0"	"0.1-3"	"1.52.0"	"4.87.9"
##	magic	magpie	magpie4	magpieflexreg
##	"1.5-8"	"0.2266.1"	"1.26.0"	"0.0036"
##	magpiesets	magrittr	mapdata	markdown
##	"0.33.3"	"1.5"	"2.3.0"	"0.8"
##	matlab	matrixcalc	mclust	memoise
##	"1.0.2"	"1.0-3"	"5.3"	"1.0.0"
##	mgcv	mi	mice	microbenchmark
##	"1.8-23"	"1.0"	"2.30"	"1.4-4"
##	mip	misc3d	mlapi	mnormt
##	"0.108.0"	"0.8-4"	"0.1.0"	"1.5-5"
##	modelr	modeltools	moinput	mrfood
##	"0.1.1"	"0.2-21"	"9.137.0"	"0.7.3"
##	mrregression	mrvalidation	multcomp	multicool
##	"3.11.0"	"1.31.0"	"1.4-8"	"0.1-10"
##	mvtnorm	ncdf4	network	nitrogen
##	"1.0-7"	"1.15"	"1.13.0"	"1.0.3"
##	nleqslv	nnls	nonparaeff	nortest
##	"3.3.2"	"1.4"	"0.5-8"	"1.0-4"
##	numDeriv	nycflights13	oce	openssl
##	"2016.8-1"	"0.2.2"	"0.9-23"	"0.9.6"
##	openxlsx	osmar	pROC	pan
##	"4.0.0"	"1.1-7"	"1.12.1"	"1.4"
##	pander	party	partykit	pastecs

##	"0.6.0"	"1.2-4"	"1.2-0"	"1.3-18"
##	pbapply	pbivnorm	piam	pikcluster
##	"1.3-4"	"0.6.0"	"0.8.2"	"0.04"
##	pillar	pkgconfig	pkgmaker	plogr
##	"1.2.3"	"2.0.1"	"0.22"	"0.2.0"
##	plot3D	plotly	plotrix	png
##	"1.1"	"4.5.6"	"3.6-4"	"0.1-7"
##	polspline	polyclip	prabclus	prettyunits
##	"1.1.12"	"1.6-1"	"2.2-6"	"1.0.2"
##	processx	prodlim	profvis	progress
##	"3.1.0"	"2018.04.18"	"0.3.3"	"1.1.2"
##	proto	pse	psych	purrr
##	"1.0.0"	"0.4.7"	"1.6.12"	"0.2.4"
##	pwt	qgraph	quadprog	qualV
##	"7.1-1"	"1.4.2"	"1.5-5"	"0.3-2"
##	quanteda	quitte	randomForest	randomForestExplainer
##	"1.3.4"	"0.3072.0"	"4.6-14"	"0.9"
##	raster	rasterVis	readr	readstata13
##	"2.5-8"	"0.41"	"1.1.1"	"0.9.0"
##	readxl	recipes	registry	rematch
##	"1.0.0"	"0.1.2"	"0.3"	"1.0.1"
##	remind	remulator	reprex	reshape
##	"36.55.0"	"1.15.0"	"0.1.1"	"0.8.7"
##	reshape2	reticulate	rfPermute	rgdal
##	"1.4.3"	"1.10"	"2.1.5"	"1.2-5"
##	rgenoud	rgeos	rgexf	rhdf5
##	"5.7-12.4"	"0.3-17"	"0.15.3"	"2.18.0"
##	rjson	rlang	rmarkdown	rms
##	"0.2.15"	"0.2.0"	"1.9"	"5.1-0"
##	rmsfact	rngtools	robustbase	rootSolve
##	"0.0.3"	"1.2.4"	"0.92-7"	"1.7"
##	roxygen2	rpart	rpart.plot	rprojroot
##	"6.0.1"	"4.1-13"	"2.1.2"	"1.3-2"
##	rscopus	rsm	rstudioapi	rvest
##	"0.5.11"	"2.8"	"0.7"	"0.3.2"
##	rworldmap	rworldxtra	sandwich	satellite
##	"1.3-6"	"1.01"	"2.4-0"	"0.2.0"
##	scales	scatterplot3d	selectr	sem
##	"0.5.0"	"0.3-38"	"0.3-1"	"3.1-8"
##	sendmailR	sensitivity	sfsmisc	shiny
##	"1.2-1"	"1.15.0"	"1.1-2"	"1.0.5"
##	shinycssloaders	shinyresults	shinythemes	slam
##	"0.2.0"	"0.16.0"	"1.1.1"	"0.1-40"
##	sna	snow	soiltexture	sourcetools
##	"2.4"	"0.4-2"	"1.4.1"	"0.1.5"
##	spData	spacetime	spacyr	spam
##	"0.2.8.3"	"1.2-0"	"0.9.91"	"1.4-0"
##	sparsepp	spatstat	spatstat.data	spatstat.utils
##	"0.2.0"	"1.55-1"	"1.2-0"	"1.8-0"
##	spdep	splancls	statnet.common	stopwords
##	"0.6-11"	"2.01-40"	"3.3.0"	"0.9.0"
##	stringdist	stringi	stringr	strucchange
##	"0.9.4.4"	"1.2.2"	"1.3.1"	"1.5-1"
##	swfscMisc	tensor	testthat	text2vec
##	"1.2"	"1.5"	"2.0.0"	"0.4.0"
##	tibble	tidyr	tidyselect	tidyverse
##	"1.4.2"	"0.8.1"	"0.2.4"	"1.2.1"
##	tiff	timeDate	tinytex	tm
##	"0.1-5"	"3012.100"	"0.5"	"0.7-1"
##	trafficlight	trefoil	trimcluster	tseries

##	"1.11.1"	"0.01"	"0.1-2"	"0.10-38"
##	tweenr	txtplot	udunits2	units
##	"0.1.5"	"1.0-3"	"0.13"	"0.6-1"
##	urca	uroot	utf8	validation
##	"1.3-0"	"2.0-9"	"1.1.4"	"1.195"
##	vcd	viridis	viridisLite	visNetwork
##	"1.4-3"	"0.5.1"	"0.3.0"	"2.0.4"
##	webshot	weights	whisker	withr
##	"0.4.0"	"0.85"	"0.3-2"	"2.1.2"
##	xml2	xtable	xts	yaImpute
##	"1.1.1"	"1.8-2"	"0.9-7"	"1.0-29"
##	yaml	zip	zlibbioc	zoo
##	"2.1.19"	"1.0.0"	"1.20.0"	"1.8-1"
##	BH	Formula	KernSmooth	MASS
##	"1.62.0-1"	"1.2-1"	"2.23-15"	"7.3-45"
##	Matrix	MatrixModels	ModelMetrics	R6
##	"1.2-8"	"0.4-1"	"1.1.0"	"2.2.0"
##	RColorBrewer	Rcpp	RcppEigen	Rmpi
##	"1.1-2"	"0.12.10"	"0.3.2.9.1"	"0.6-6"
##	SparseM	TH.data	abind	acepack
##	"1.76"	"1.0-8"	"1.4-5"	"1.4.1"
##	assertthat	backports	base	base64enc
##	"0.1"	"1.0.5"	"3.3.2"	"0.1-3"
##	bdsmatrix	bit	bitops	boot
##	"1.3-2"	"1.1-12"	"1.0-6"	"1.3-18"
##	caTools	car	cffdrs	checkmate
##	"1.17.1"	"2.1-4"	"1.7.5"	"1.8.2"
##	chron	class	cluster	codetools
##	"2.3-50"	"7.3-14"	"2.0.6"	"0.2-15"
##	colorspace	compiler	crayon	data.table
##	"1.3-2"	"3.3.2"	"1.3.2"	"1.10.4"
##	datasets	dichromat	digest	doMPI
##	"3.3.2"	"2.0-0"	"0.6.12"	"0.2.1"
##	doParallel	evaluate	fastmatch	foreach
##	"1.0.10"	"0.10"	"1.1-0"	"1.4.3"
##	foreign	fwi.fbp	gdtools	ggplot2movies
##	"0.8-67"	"1.7"	"0.1.4"	"0.0.1"
##	grDevices	graphics	grid	gridExtra
##	"3.3.2"	"3.3.2"	"3.3.2"	"2.2.1"
##	gtable	gtools	hexbin	highr
##	"0.2.0"	"3.5.0"	"1.27.1"	"0.6"
##	htmlTable	htmltools	htmlwidgets	iterators
##	"1.9"	"0.3.5"	"0.8"	"1.0.8"
##	jsonlite	knitr	labeling	lattice
##	"1.3"	"1.15.1"	"0.3"	"0.20-35"
##	latticeExtra	lazyeval	lme4	magrittr
##	"0.6-28"	"0.2.0"	"1.1-12"	"1.5"
##	mapproj	maps	maptools	markdown
##	"1.2-4"	"3.1.1"	"0.9-2"	"0.7.7"
##	methods	mgcv	mime	minqa
##	"3.3.2"	"1.8-17"	"0.5"	"1.2.4"
##	mlbench	mmap	multcomp	munsell
##	"2.1-1"	"0.6-12"	"1.4-6"	"0.4.3"
##	mvtnorm	ncdf4	nlme	nloptr
##	"1.0-6"	"1.15"	"3.1-131"	"1.0.4"
##	nnet	parallel	pbkrtest	plyr
##	"7.3-12"	"3.3.2"	"0.4-7"	"1.8.4"
##	praise	quantreg	raster	reshape2
##	"1.0.0"	"5.29"	"2.5-8"	"1.4.2"
##	rex	rmarkdown	rpart	rprojroot

##	"1.1.1"	"1.4"	"4.1-10"	"1.2"
##	sandwich	scales	sp	spatial
##	"2.3-4"	"0.4.1"	"1.2-4"	"7.3-11"
##	spatial.tools	splines	stats	stats4
##	"1.4.8"	"3.3.2"	"3.3.2"	"3.3.2"
##	stringi	stringr	survival	svglite
##	"1.1.3"	"1.2.0"	"2.41-2"	"1.2.0"
##	tcltk	testthat	tibble	tools
##	"3.3.2"	"1.0.2"	"1.3.0"	"3.3.2"
##	utils	withr	yaml	zoo
##	"3.3.2"	"1.0.2"	"2.1.14"	"1.7-14"

model_run

68 Runtime information

```
## magpie.gms          : 0h 33m 18s
```