

MAGPIE run analysis

Aperture Science Enrichment Center

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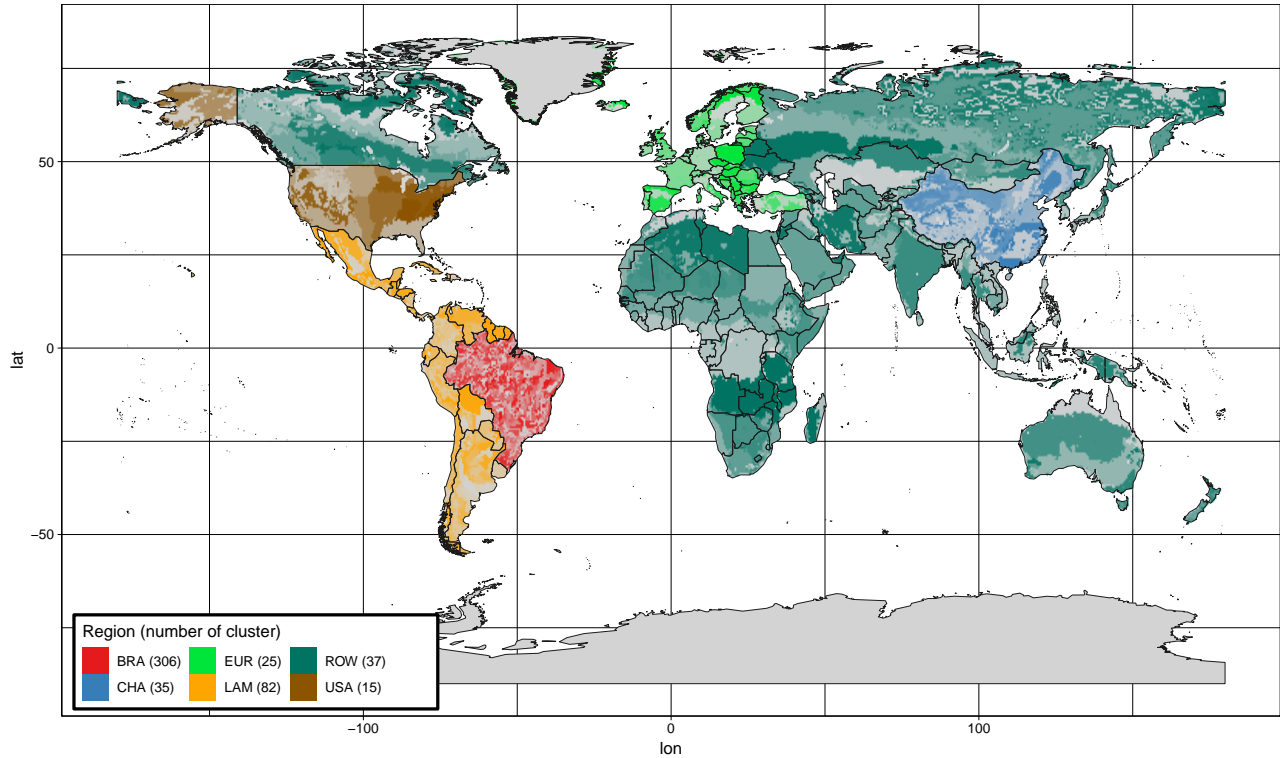
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Part I

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

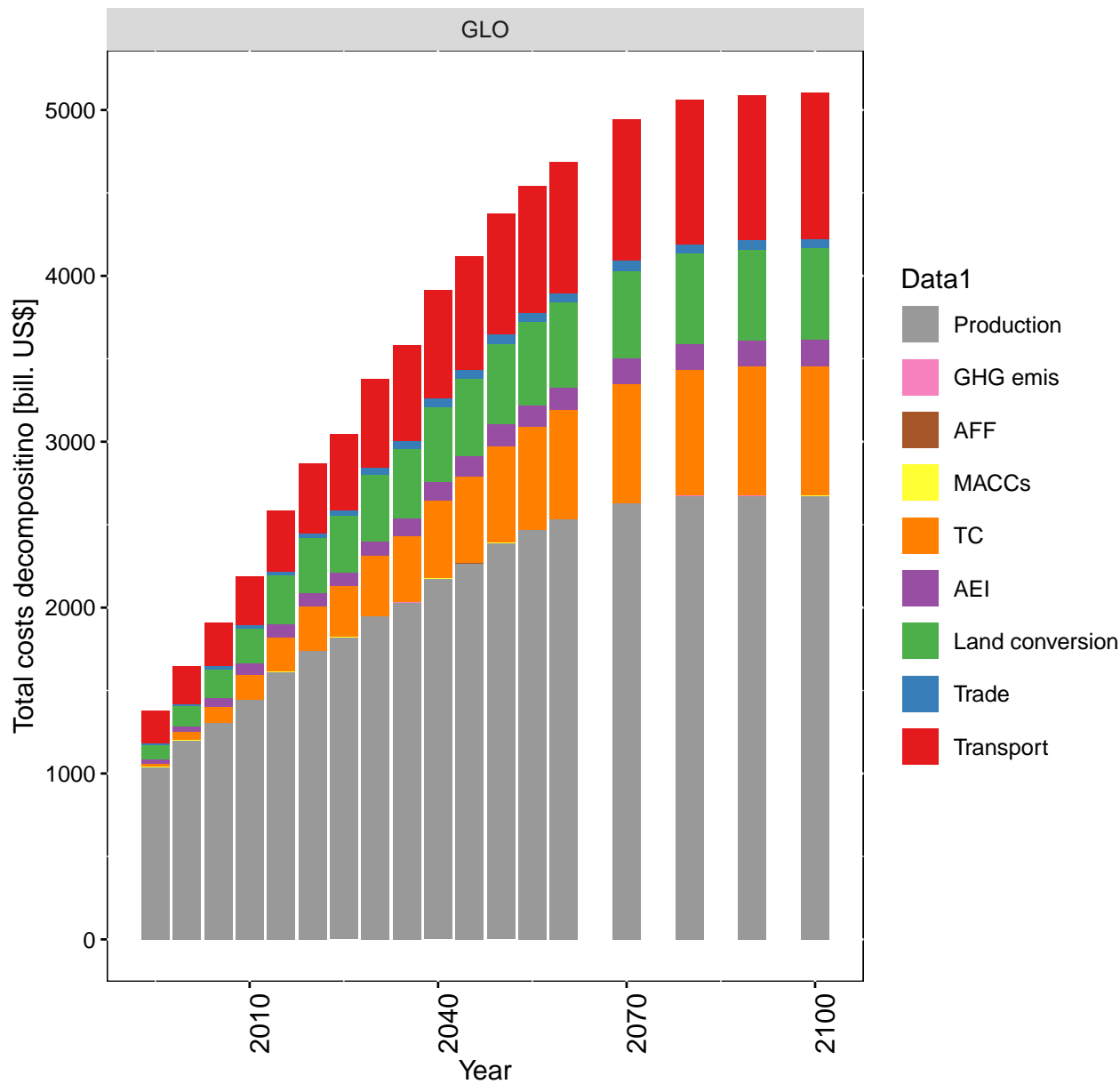
	convergence (limit = 0.005)	iterations (limit = 5)
y1995	0.08	1.00
y2000	0.03	1.00
y2005	0.04	1.00
y2010	0.03	1.00
y2015	0.00	3.00
y2020	0.00	3.00
y2025	0.00	1.00
y2030	0.00	2.00
y2035	0.00	1.00
y2040	0.00	2.00
y2045	0.00	1.00
y2050	0.00	1.00
y2055	0.00	1.00
y2060	0.00	1.00
y2070	0.00	2.00
y2080	0.00	2.00
y2090	0.00	1.00
y2100	0.00	1.00

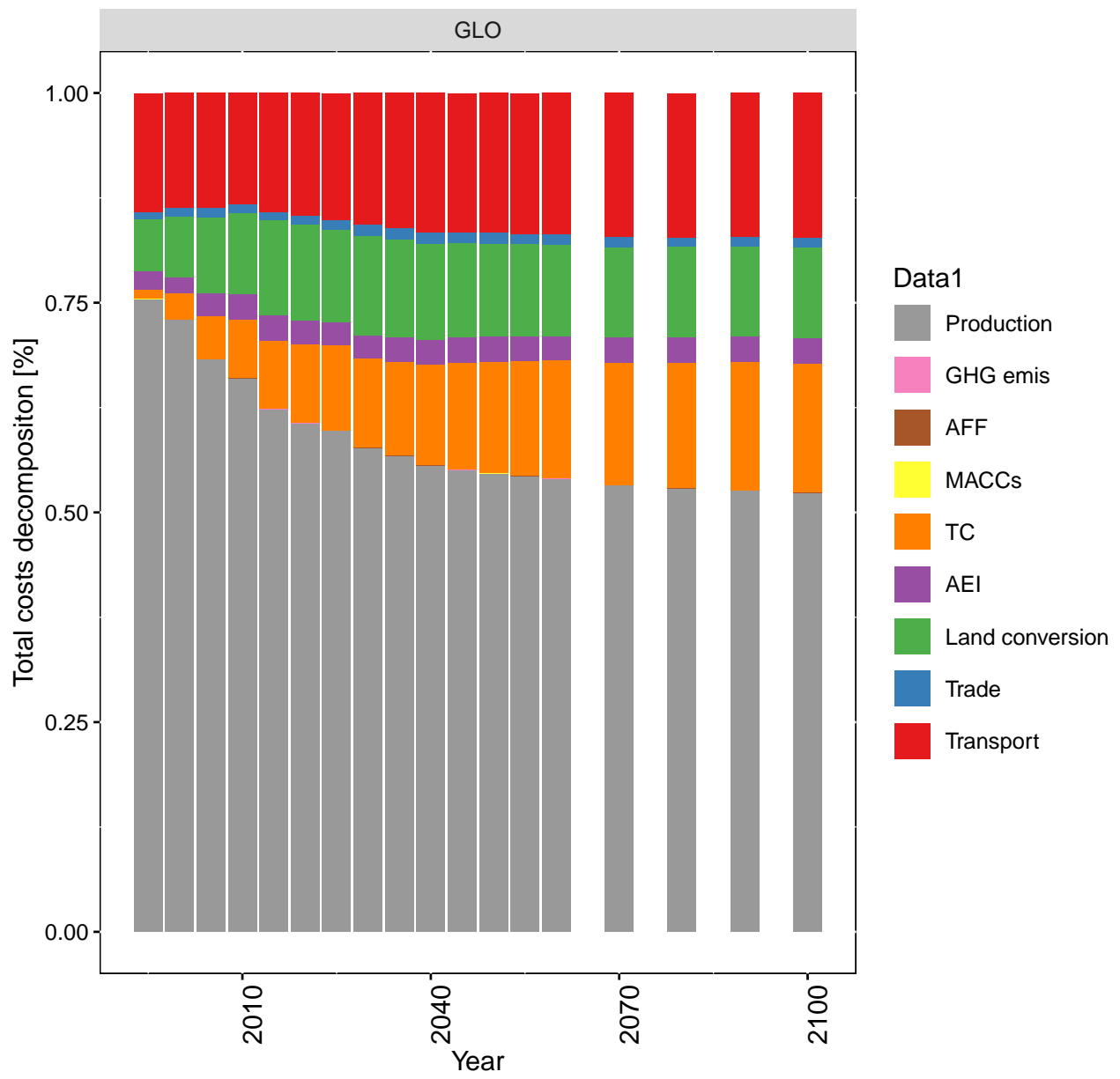
0.4 Goal function value

Table 3: Global costs (billion USD)

	GLO
y1995	1681.55
y2000	1973.57
y2005	2294.18
y2010	2628.20
y2015	3127.30
y2020	3492.98
y2025	3733.92
y2030	4150.52
y2035	4409.85
y2040	4809.14
y2045	5047.73
y2050	5348.81
y2055	5542.98
y2060	5713.35
y2070	6013.51
y2080	6155.37
y2090	6184.86
y2100	6198.12

0.4.1 Total costs decomposition





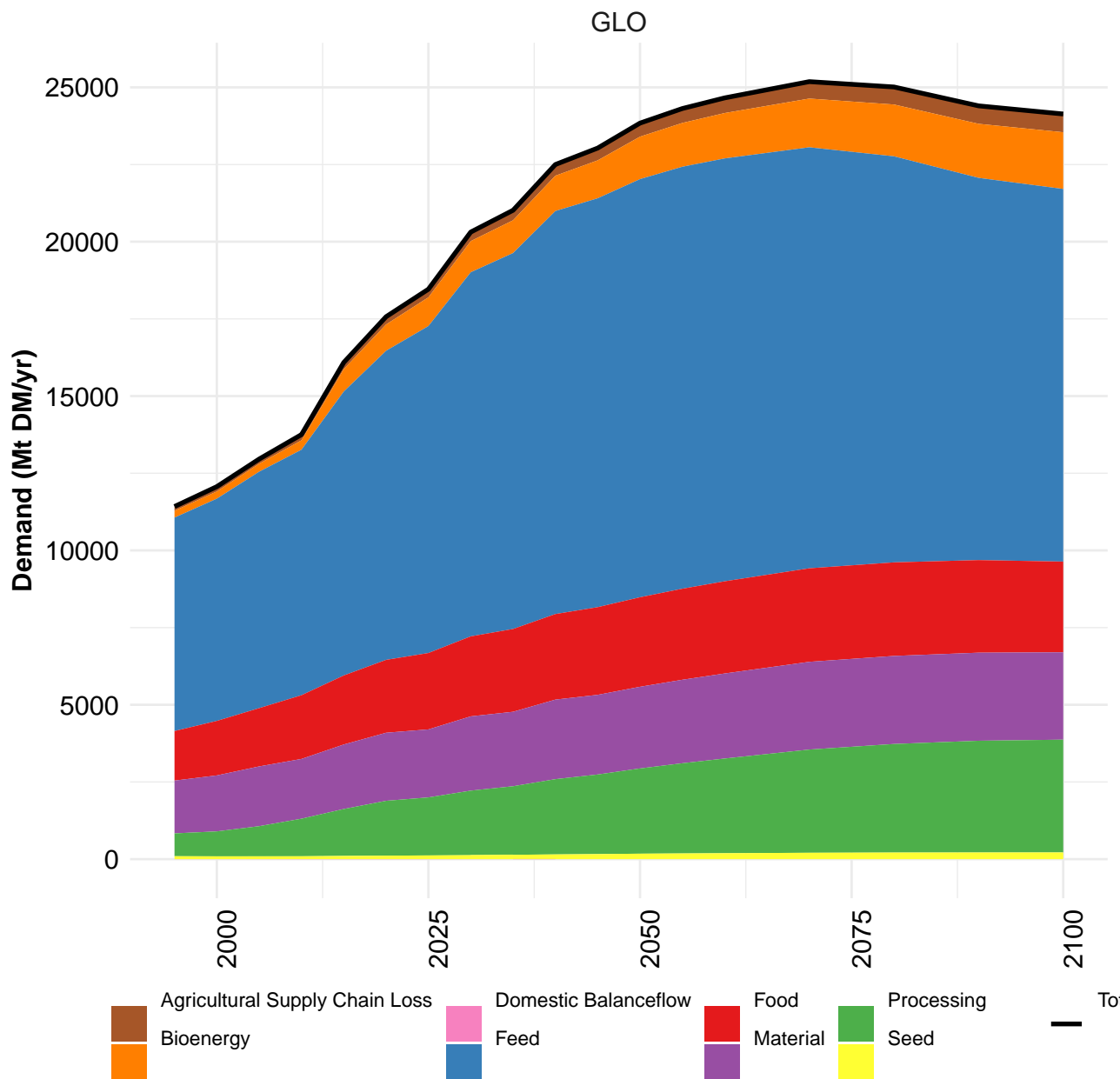
Part II

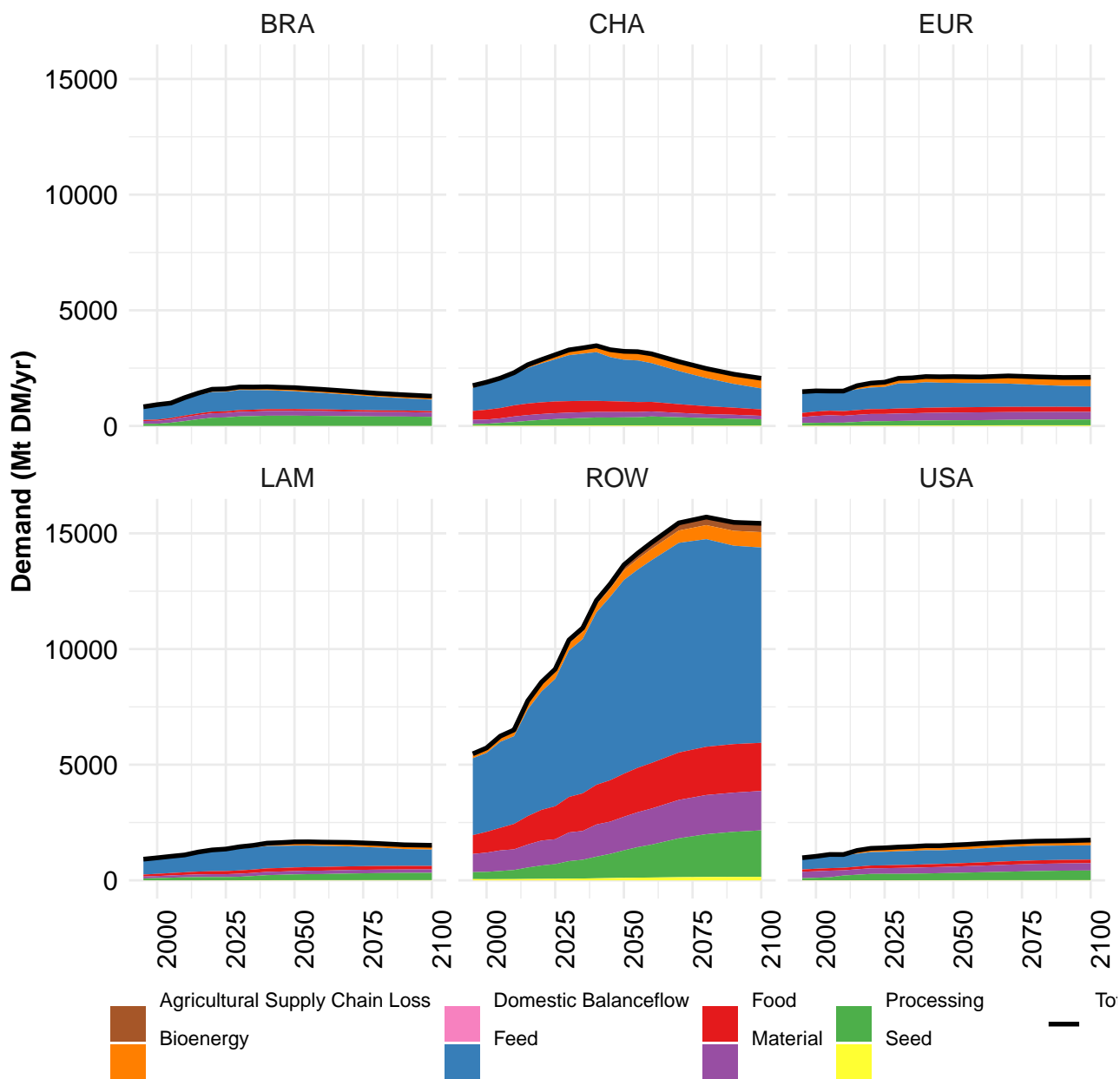
Costs

- 1 MainSolve
- 2 MainSolve w/o GHG Emissions

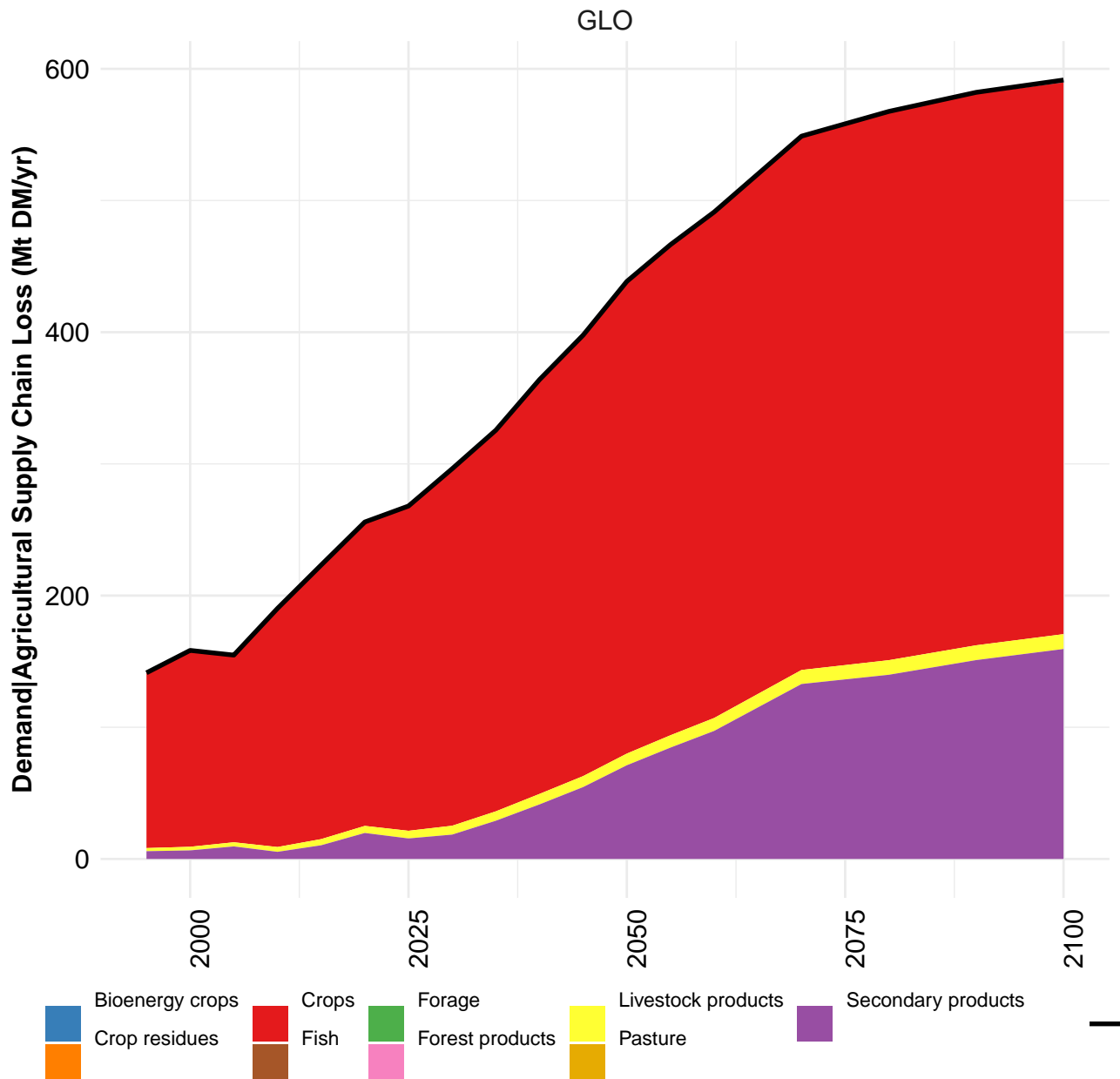
Part III

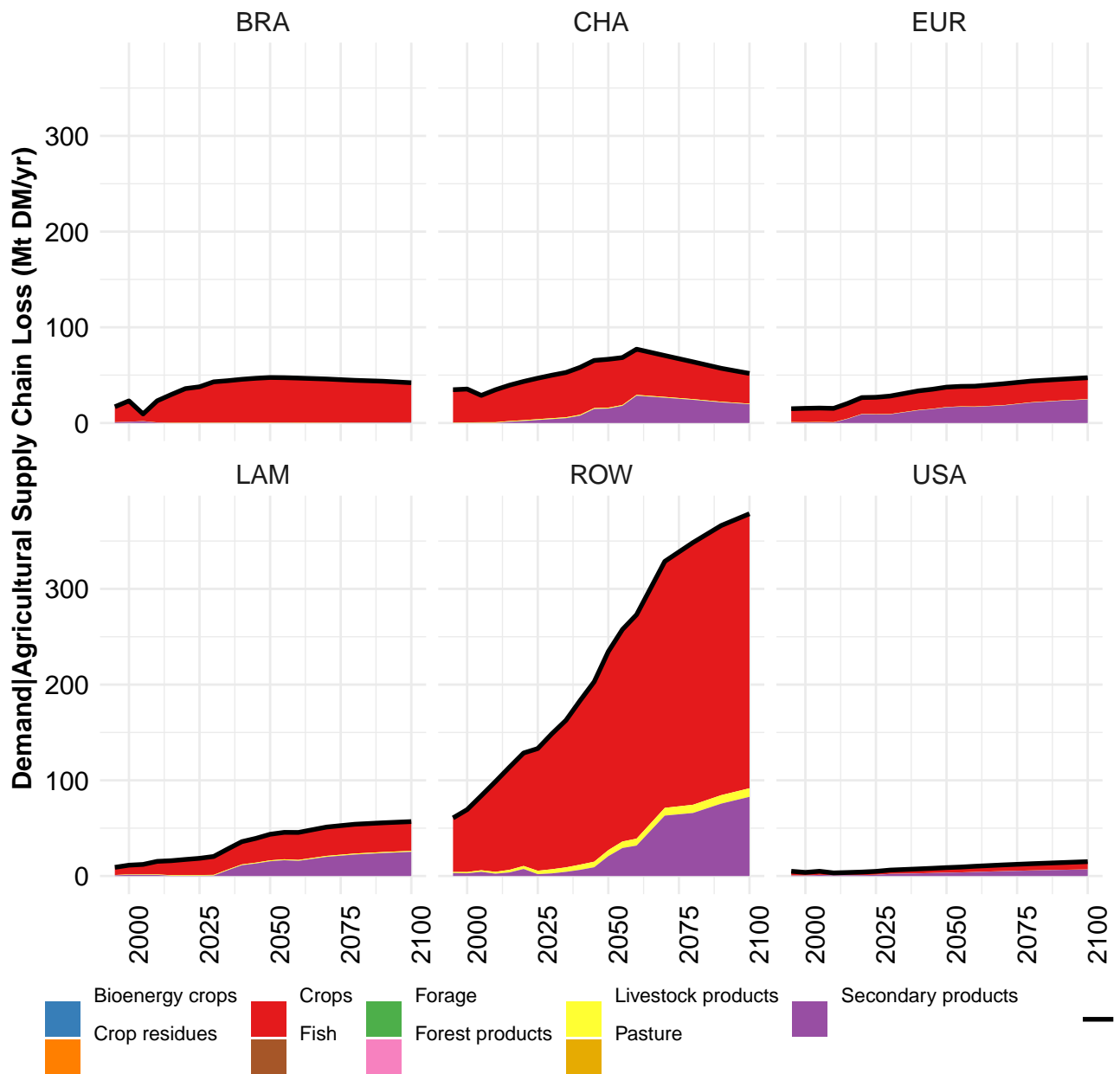
Demand

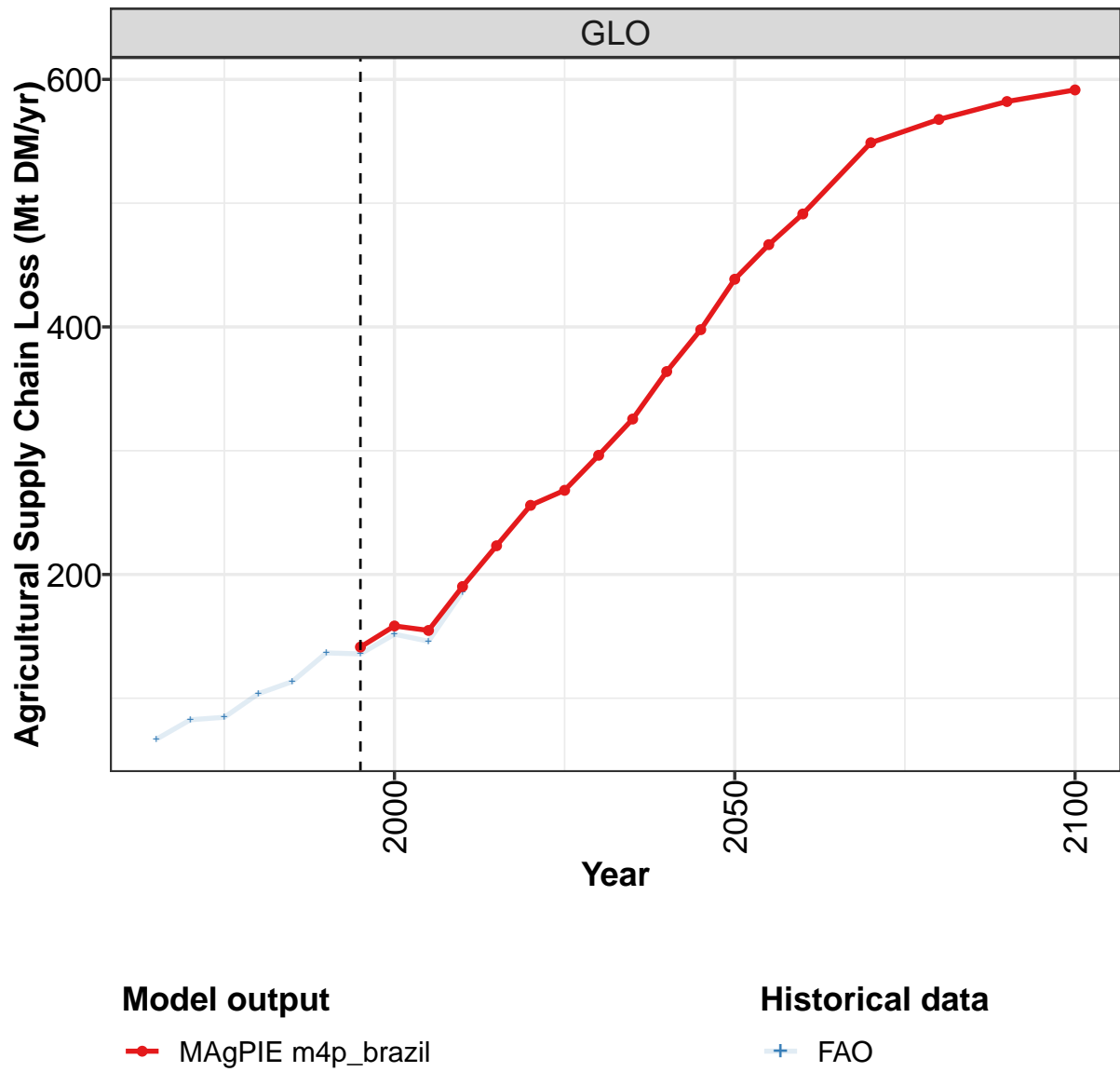


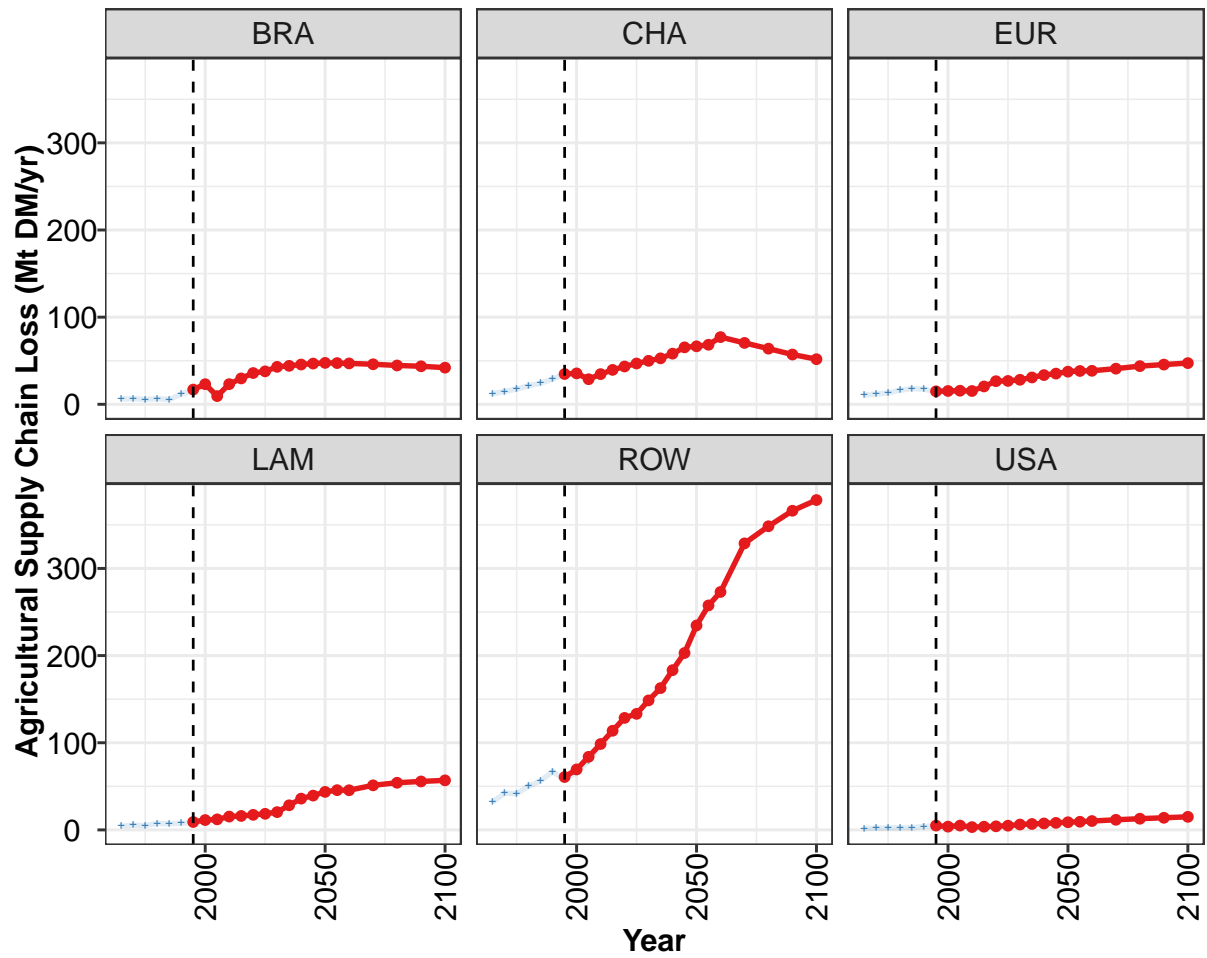


3 Agricultural Supply Chain Loss









Model output

—•— MAgPIE m4p_brazil

Historical data

+— FAO

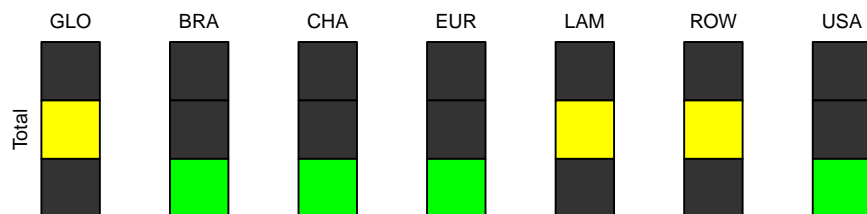


Figure 1: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	141	158	155	190	223	256	268	296	326	364	398
BRA	17	23	9	23	30	36	38	43	44	46	47
CHA	35	35	29	35	40	43	47	50	53	58	65
EUR	15	15	16	15	20	27	27	28	31	34	35
LAM	9	11	12	15	16	17	18	20	28	36	39
ROW	61	69	84	99	114	129	133	149	163	183	203
USA	5	4	5	3	4	4	5	6	7	7	8

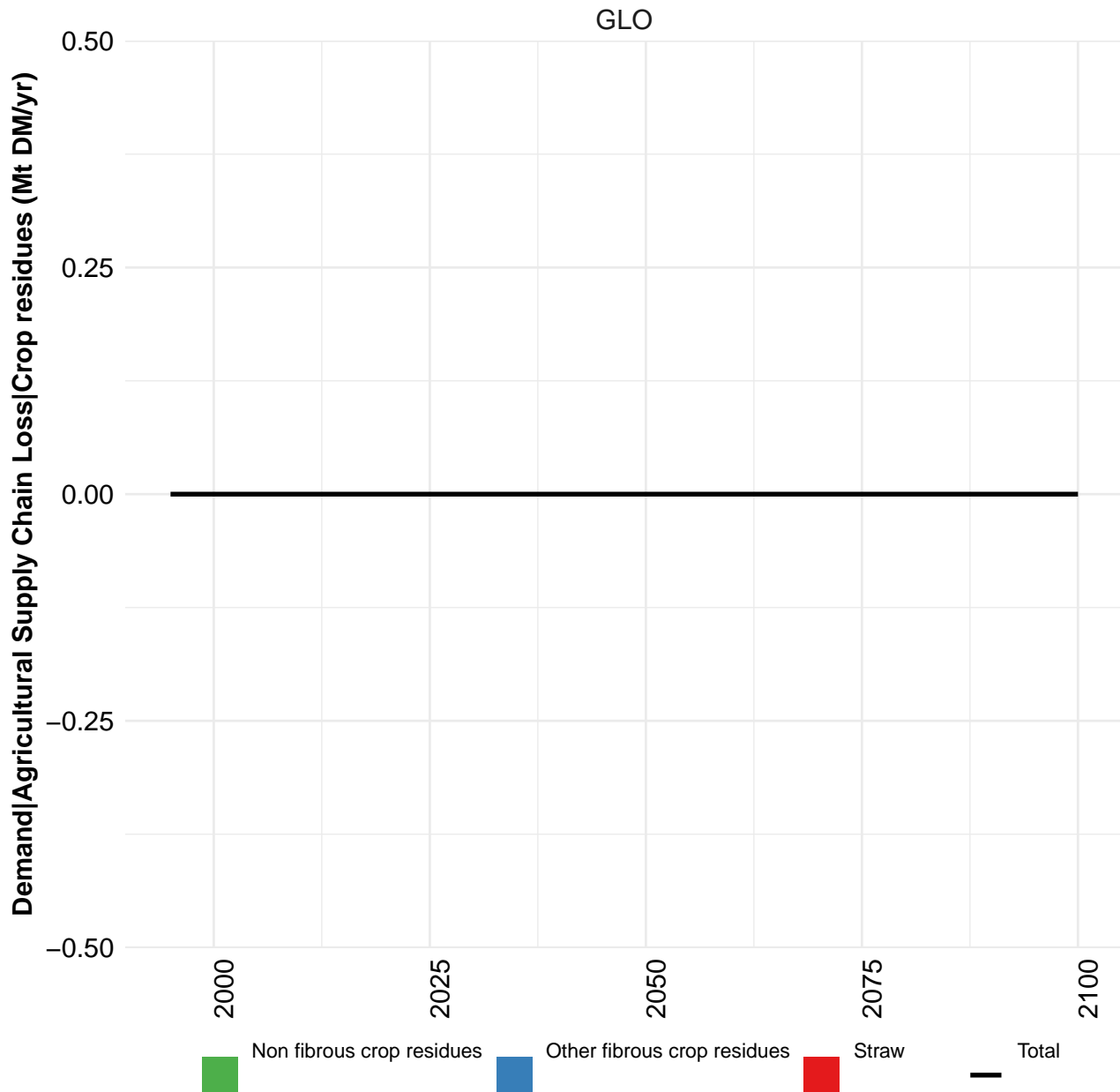
Table 4: MAgPIE m4p.brazil — Demand—Agricultural Supply Chain Loss (Mt DM/yr) [PART 1/2]

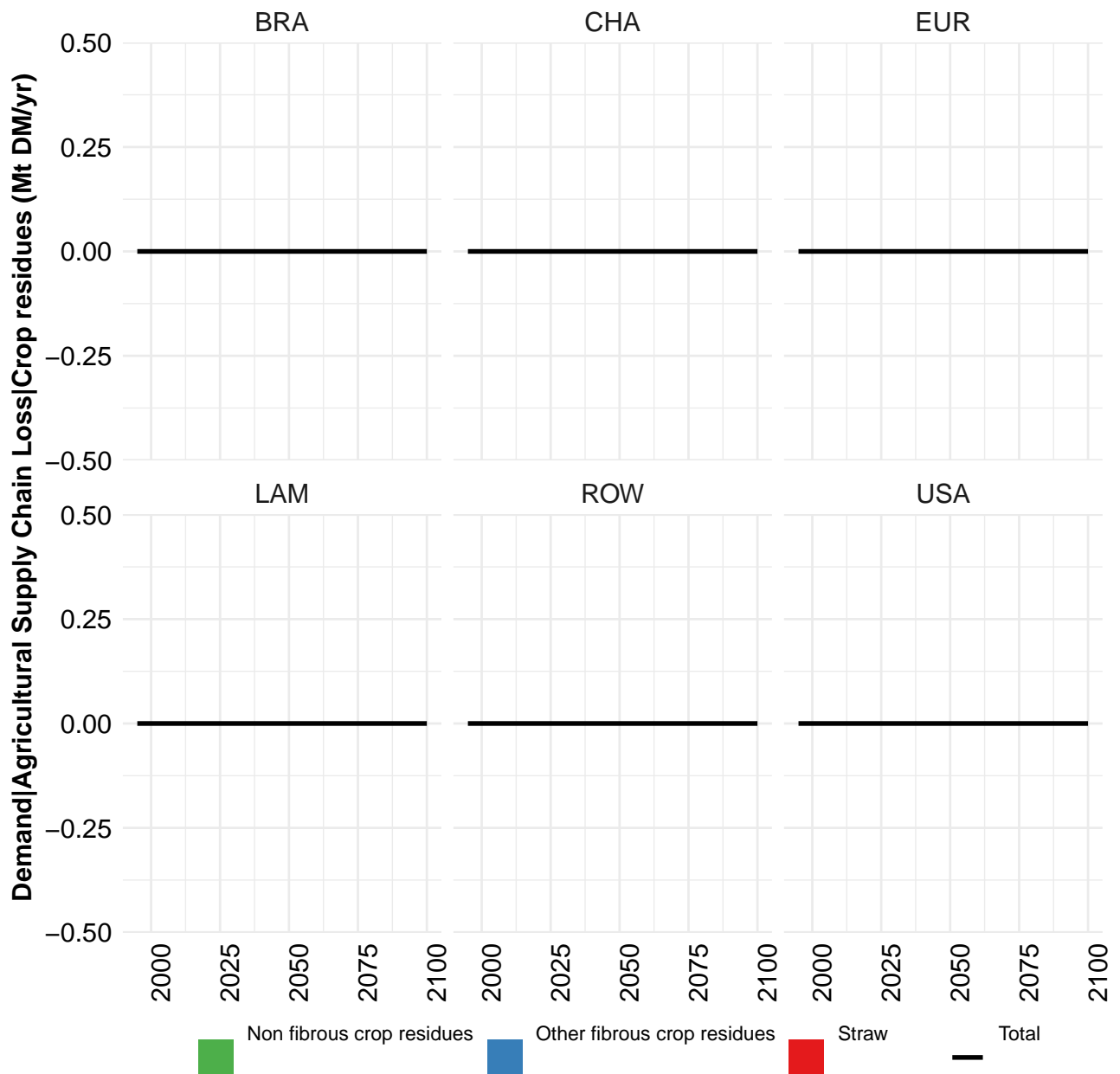
	2050	2055	2060	2070	2080	2090	2100
GLO	439	466	491	549	568	582	592
BRA	48	47	47	46	45	44	42
CHA	67	68	77	70	64	57	52
EUR	37	38	38	41	44	46	47
LAM	44	46	46	51	54	56	57
ROW	235	258	273	329	348	366	378
USA	9	9	10	12	13	14	15

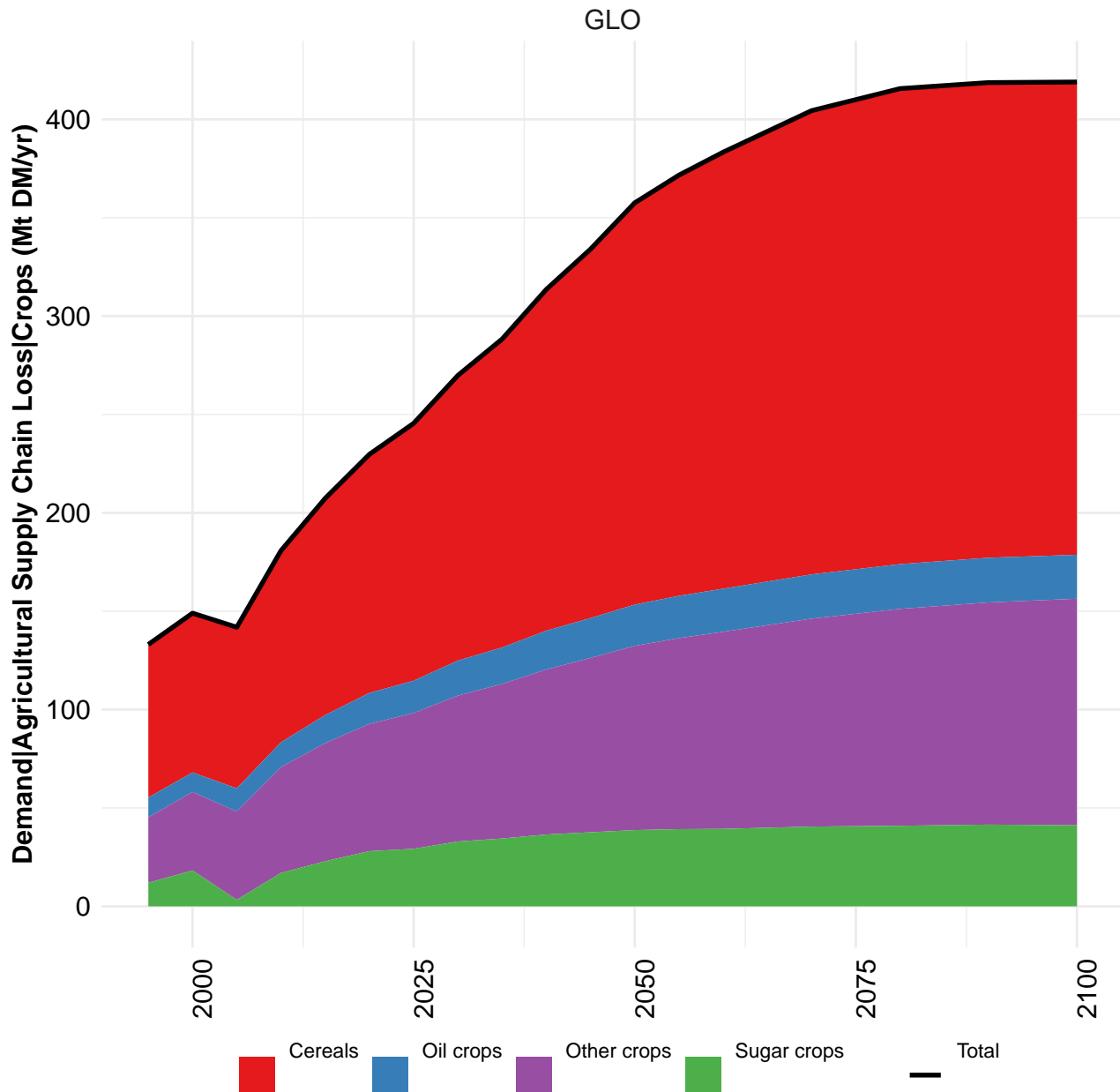
Table 5: MAgPIE m4p.brazil — Demand—Agricultural Supply Chain Loss (Mt DM/yr) [PART 2/2]

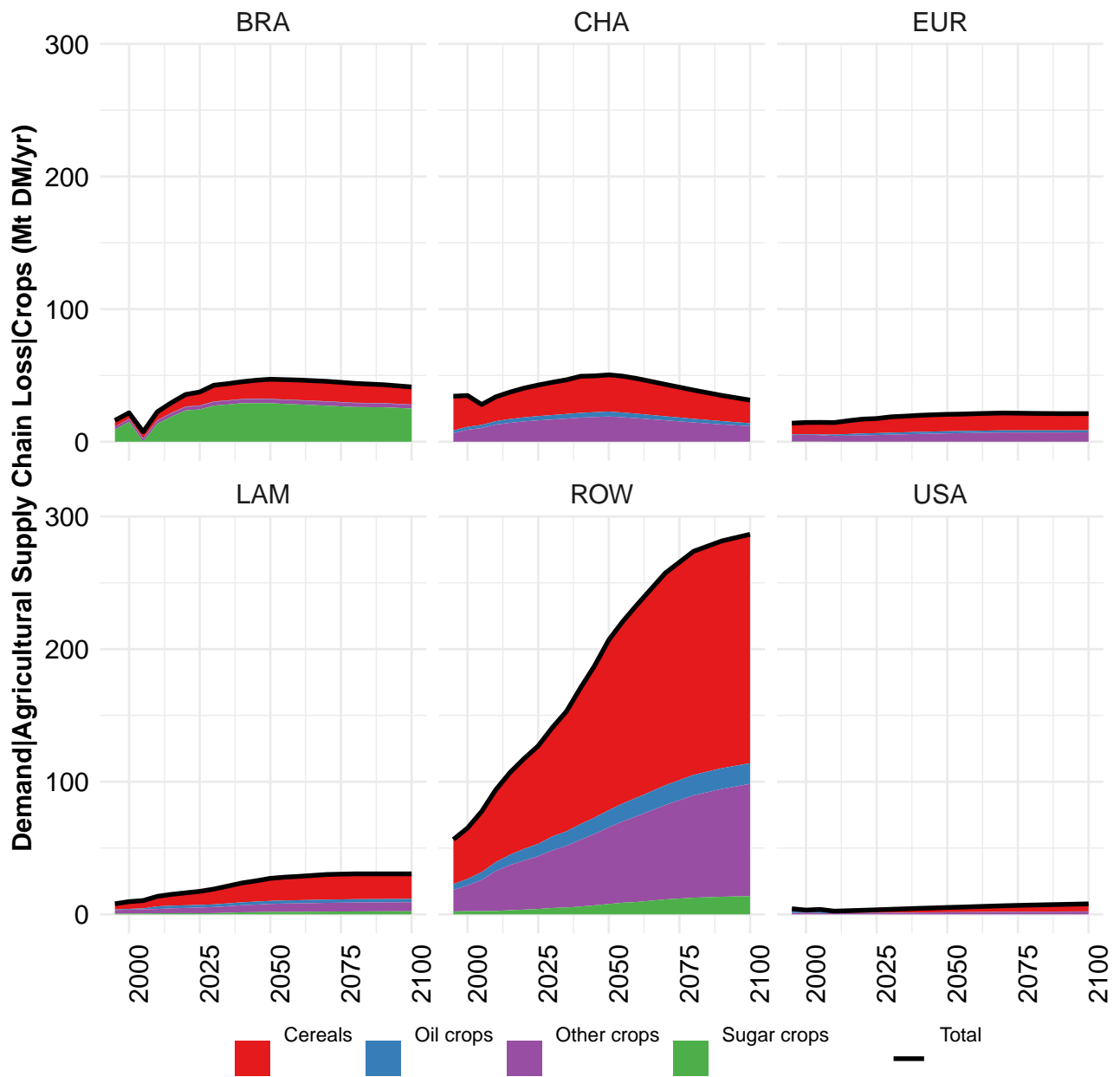
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	67	83	85	104	113	137	136	152	146	186
BRA	6	6	6	6	5	12	16	22	8	23
CHA	12	15	17	21	24	29	35	35	29	35
EUR	10	12	13	16	18	17	14	15	15	14
LAM	4	5	5	7	7	8	9	10	11	14
ROW	32	42	41	50	56	67	58	66	79	96
USA	2	2	2	2	2	4	5	3	5	3

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

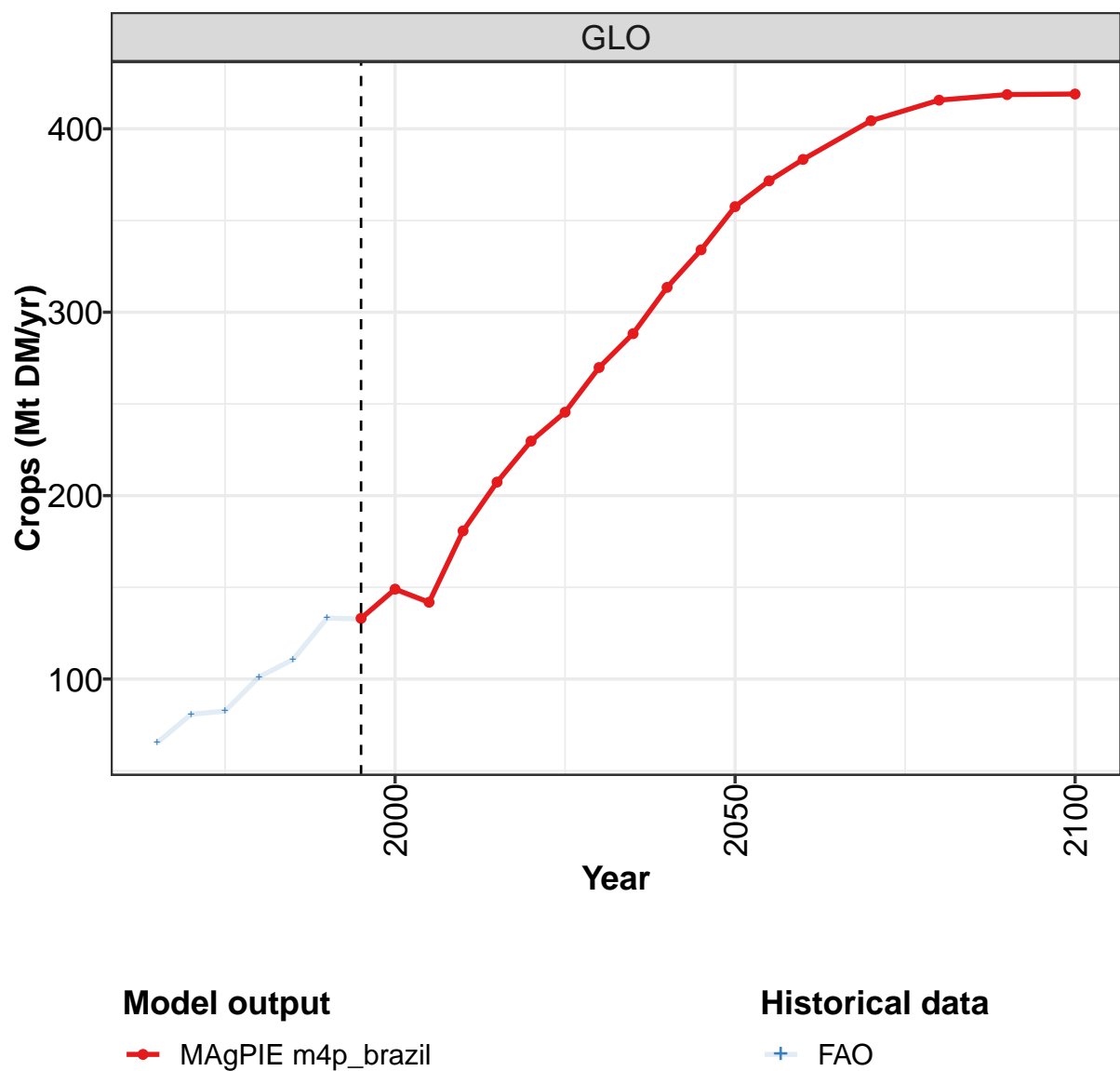








3.1 Crops



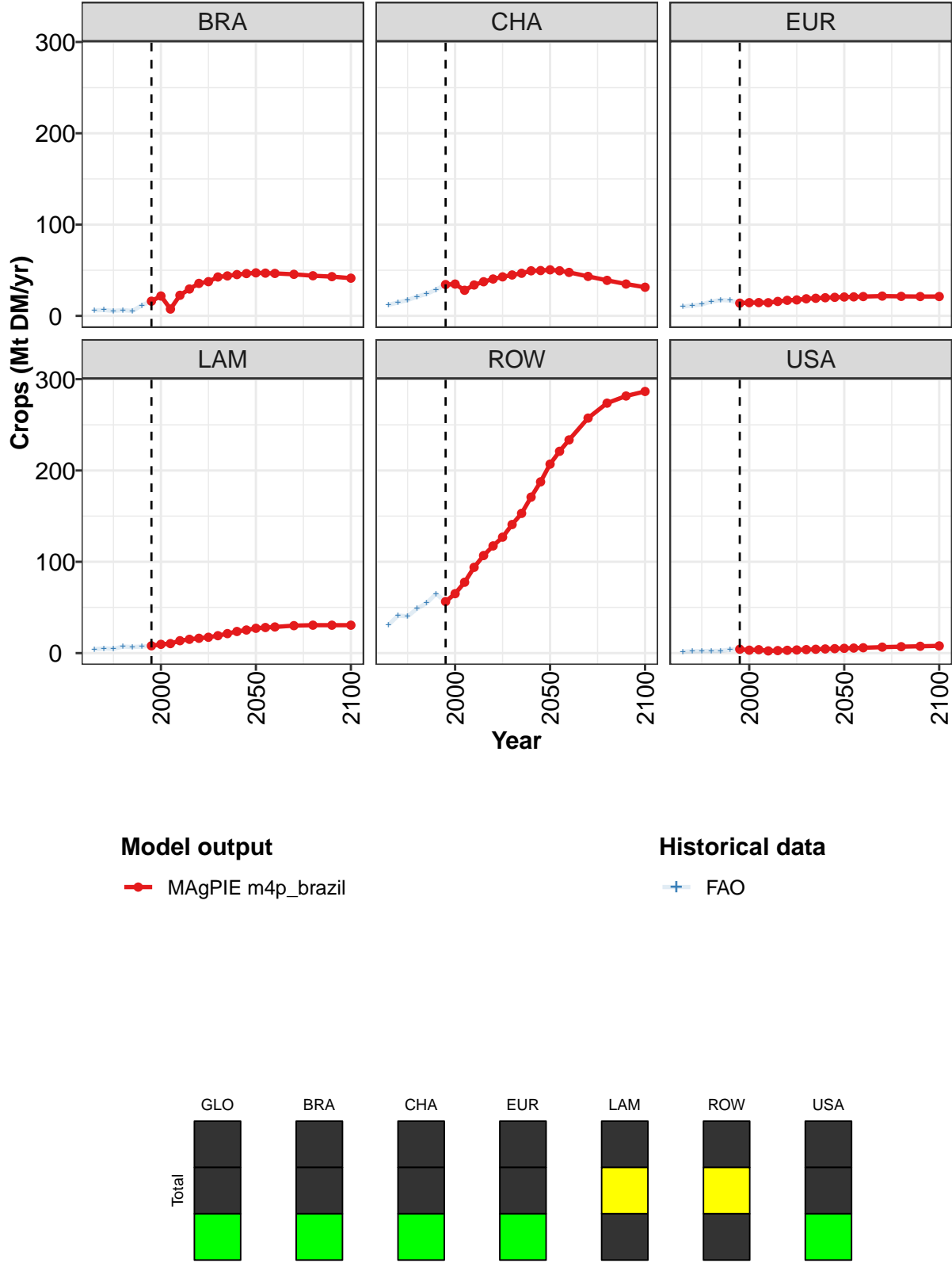


Figure 2: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	133	149	142	181	207	230	245	270	288	314	334
BRA	16	22	7	23	29	36	37	43	44	45	46
CHA	34	35	28	34	37	40	43	45	47	49	50
EUR	14	14	15	14	16	17	17	19	19	20	20
LAM	8	10	10	14	15	16	17	19	21	24	25
ROW	56	65	78	94	107	117	127	141	153	171	188
USA	4	3	4	2	3	3	3	4	4	5	5

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

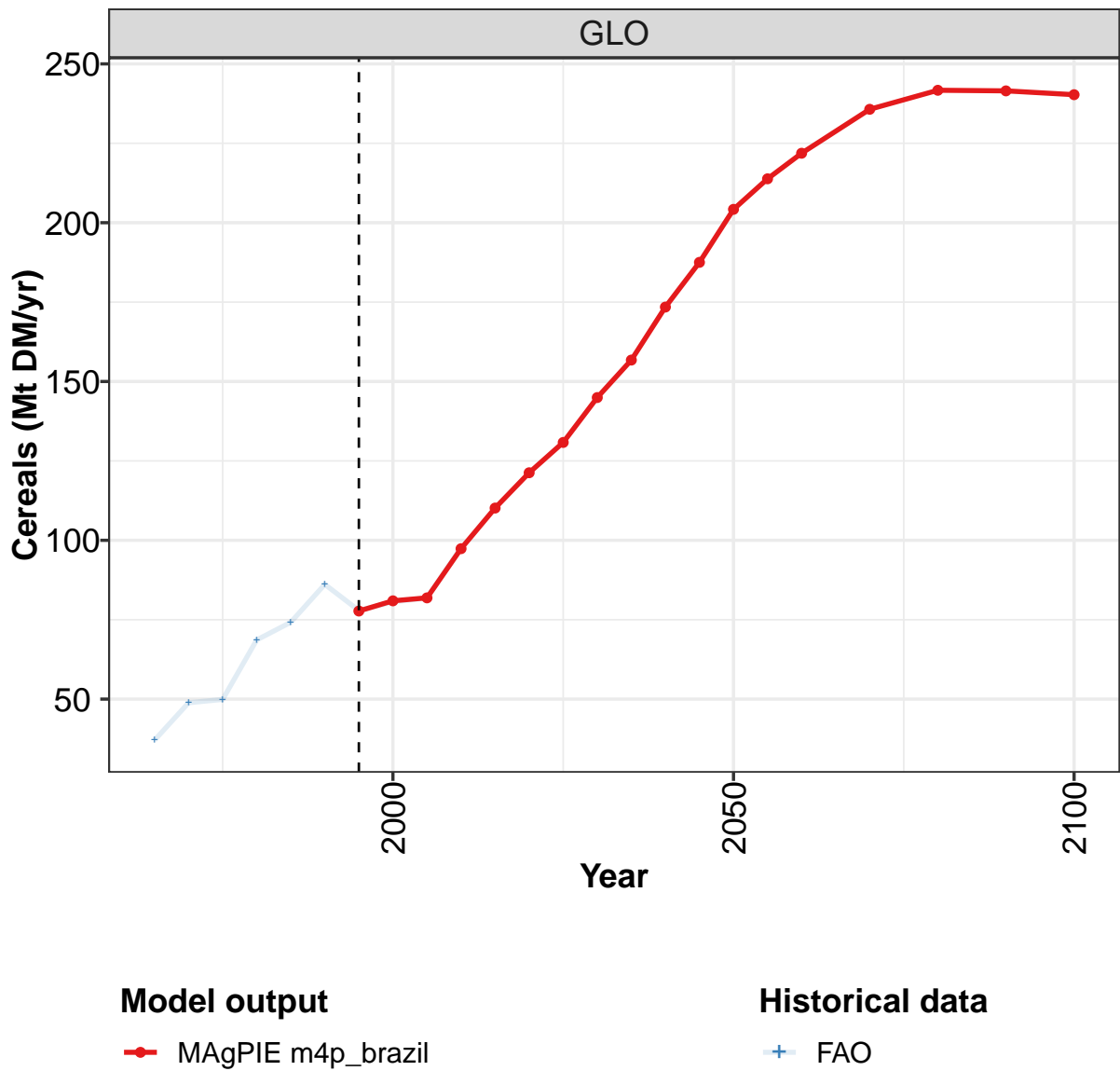
	2050	2055	2060	2070	2080	2090	2100
GLO	358	372	383	404	416	419	419
BRA	47	47	47	46	44	43	41
CHA	50	49	48	43	39	35	31
EUR	21	21	21	22	21	21	21
LAM	27	28	29	30	31	31	31
ROW	207	221	233	257	274	282	287
USA	5	5	6	7	7	7	8

Table 8: MAgPIE m4p.brazil — 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
BRA	6	6	5	6	5	12	16	22	8	23
CHA	12	15	17	21	24	29	34	35	28	34
EUR	10	11	13	16	17	17	14	14	14	14
LAM	4	5	5	7	7	7	8	10	10	13
ROW	31	41	40	49	55	65	56	64	77	94
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



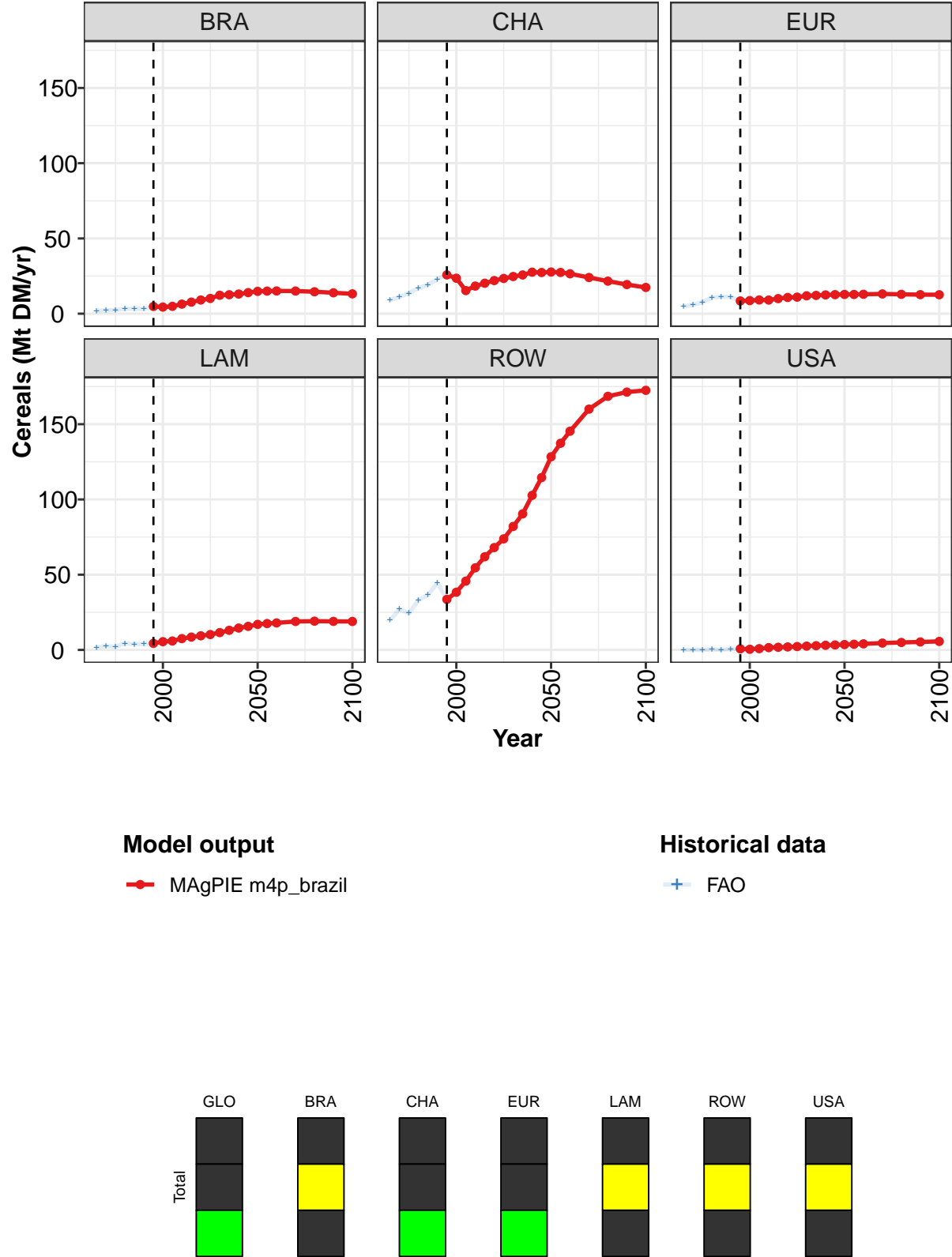


Figure 3: MAGPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	78	81	82	97	110	121	131	145	157	173	188
BRA	5	4	5	6	8	9	10	12	13	13	14
CHA	26	24	15	18	20	22	23	25	26	28	27
EUR	8	9	9	9	10	11	11	12	12	12	13
LAM	4	5	6	8	9	9	10	12	13	15	16
ROW	34	38	46	55	62	68	74	82	90	103	115
USA	1	0	1	2	2	2	2	3	3	3	3

Table 10: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Cereals (Mt DM/yr)
[PART 1/2]

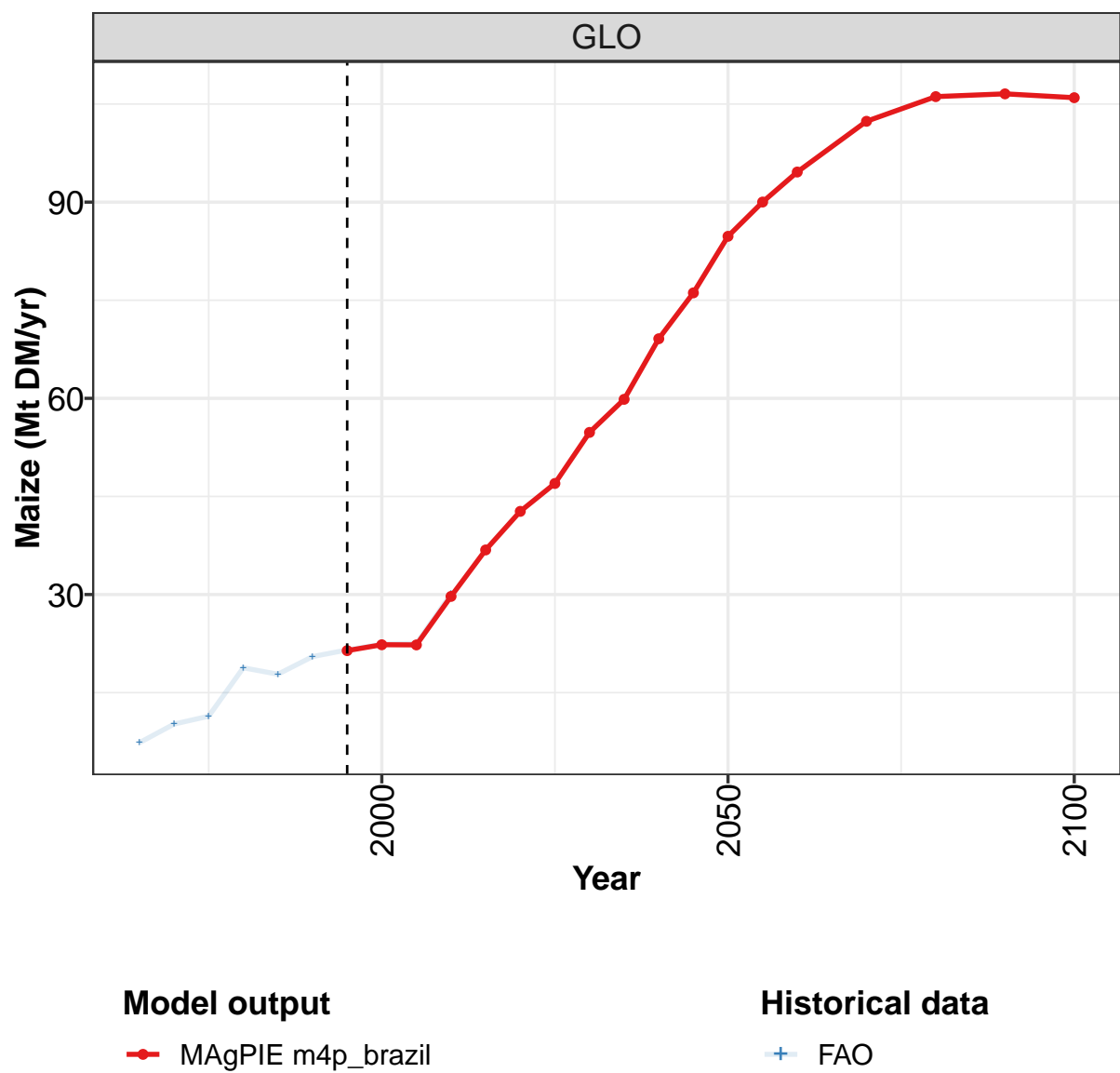
	2050	2055	2060	2070	2080	2090	2100
GLO	204	214	222	236	242	242	240
BRA	15	15	15	15	15	14	13
CHA	28	27	27	24	22	19	17
EUR	13	13	13	13	13	13	13
LAM	17	18	18	19	19	19	19
ROW	128	137	145	160	169	171	173
USA	4	4	4	5	5	5	6

Table 11: MAgPIE m4p_brazil — 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
BRA	1.9	2.2	2.4	3.3	3.3	3.1	4.9	4.5	5.2	6.7
CHA	9.0	11.1	13.5	16.9	19.3	22.9	26.0	23.7	15.5	18.5
EUR	4.7	5.9	7.4	10.8	11.3	10.9	8.4	8.5	9.0	8.8
LAM	1.7	2.6	2.2	4.3	3.7	4.0	4.4	5.5	6.0	7.6
ROW	19.6	27.0	24.3	33.0	36.5	44.5	33.5	38.0	45.4	54.7
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



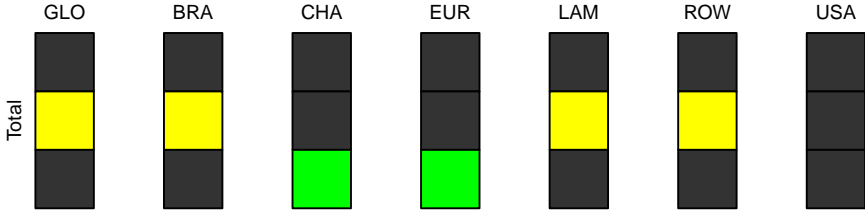
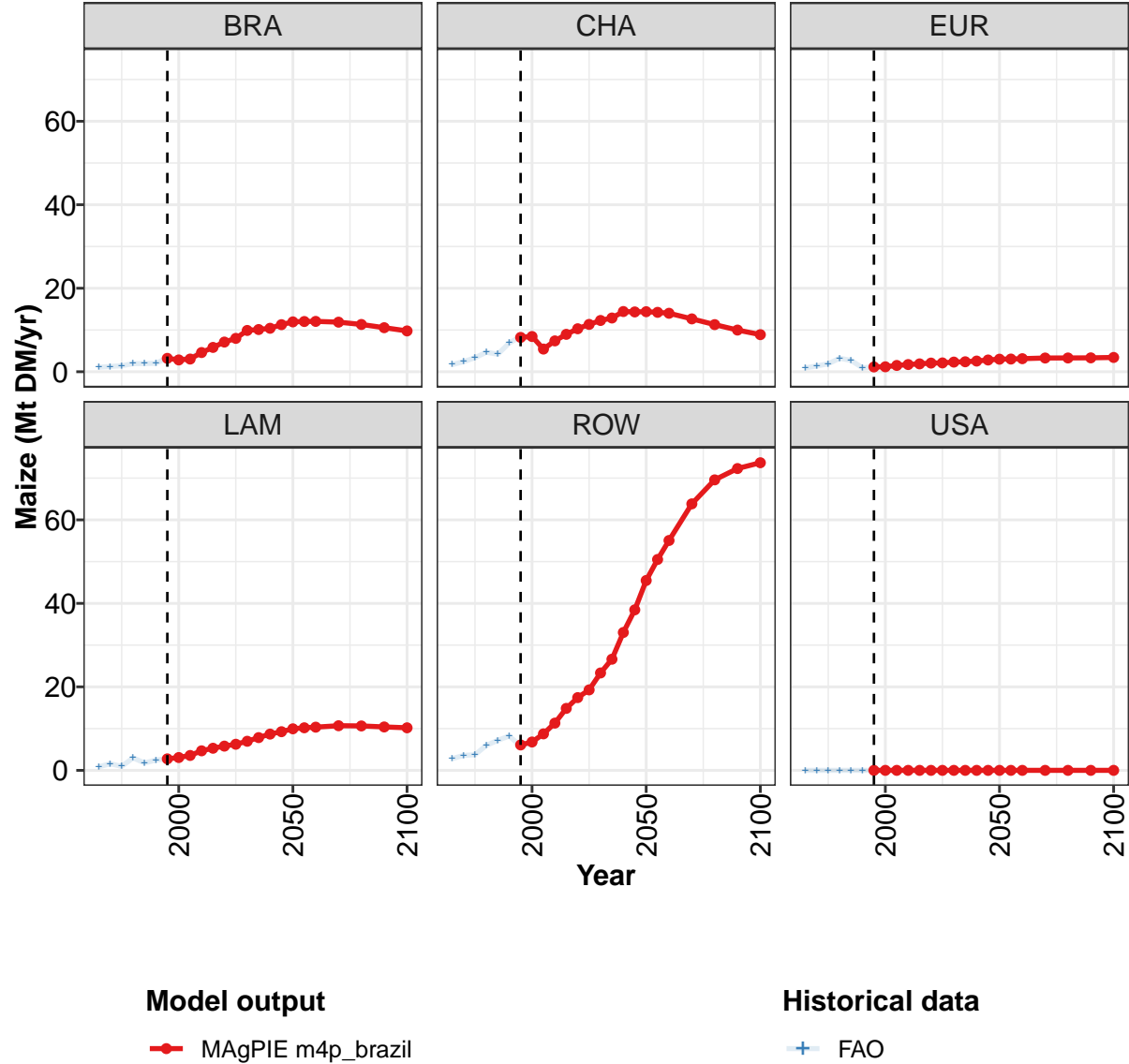


Figure 4: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	21	22	22	30	37	43	47	55	60	69	76
BRA	3	3	3	5	6	7	8	10	10	10	11
CHA	8	8	5	7	9	10	11	12	13	14	14
EUR	1	1	2	2	2	2	2	2	2	3	3
LAM	3	3	4	5	5	6	6	7	8	9	9
ROW	6	7	9	11	15	17	19	23	27	33	38
USA	0	0	0	0	0	0	0	0	0	0	0

Table 13: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

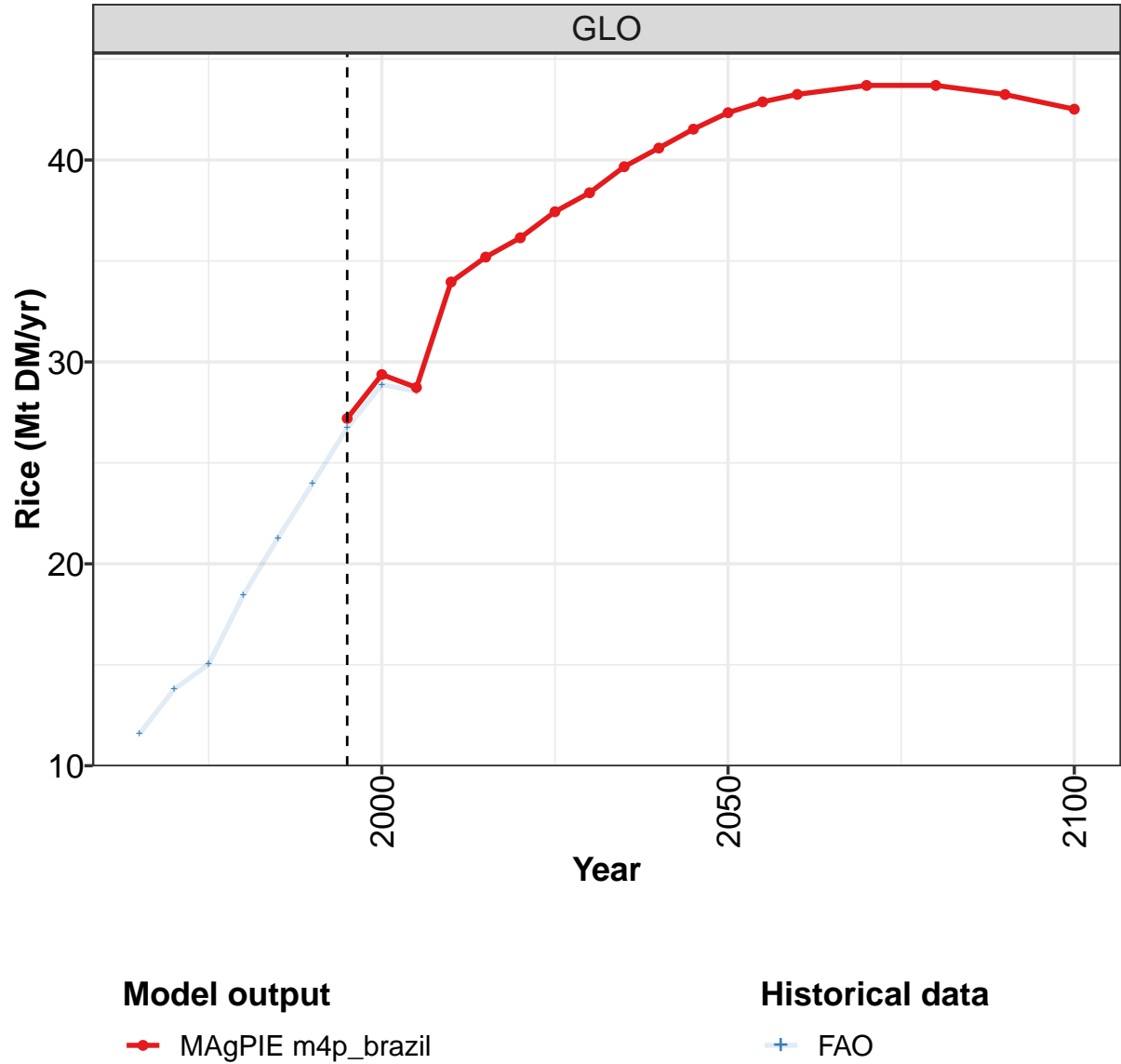
	2050	2055	2060	2070	2080	2090	2100
GLO	85	90	95	102	106	107	106
BRA	12	12	12	12	11	11	10
CHA	14	14	14	13	11	10	9
EUR	3	3	3	3	3	3	3
LAM	10	10	10	11	11	10	10
ROW	45	51	55	64	70	72	74
USA	0	0	0	0	0	0	0

Table 14: MAgPIE m4p_brazil — 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
BRA	1.1	1.3	1.4	1.9	2.0	2.0	3.3	3.0	3.3	4.9
CHA	1.7	2.4	3.4	4.7	4.2	6.9	8.4	8.6	5.5	7.5
EUR	0.9	1.4	1.9	3.2	2.7	0.9	1.2	1.2	1.5	1.6
LAM	0.8	1.6	1.0	3.0	1.8	2.5	2.8	3.1	3.6	4.7
ROW	2.8	3.6	3.7	6.0	7.2	8.2	5.8	6.7	8.6	11.4
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



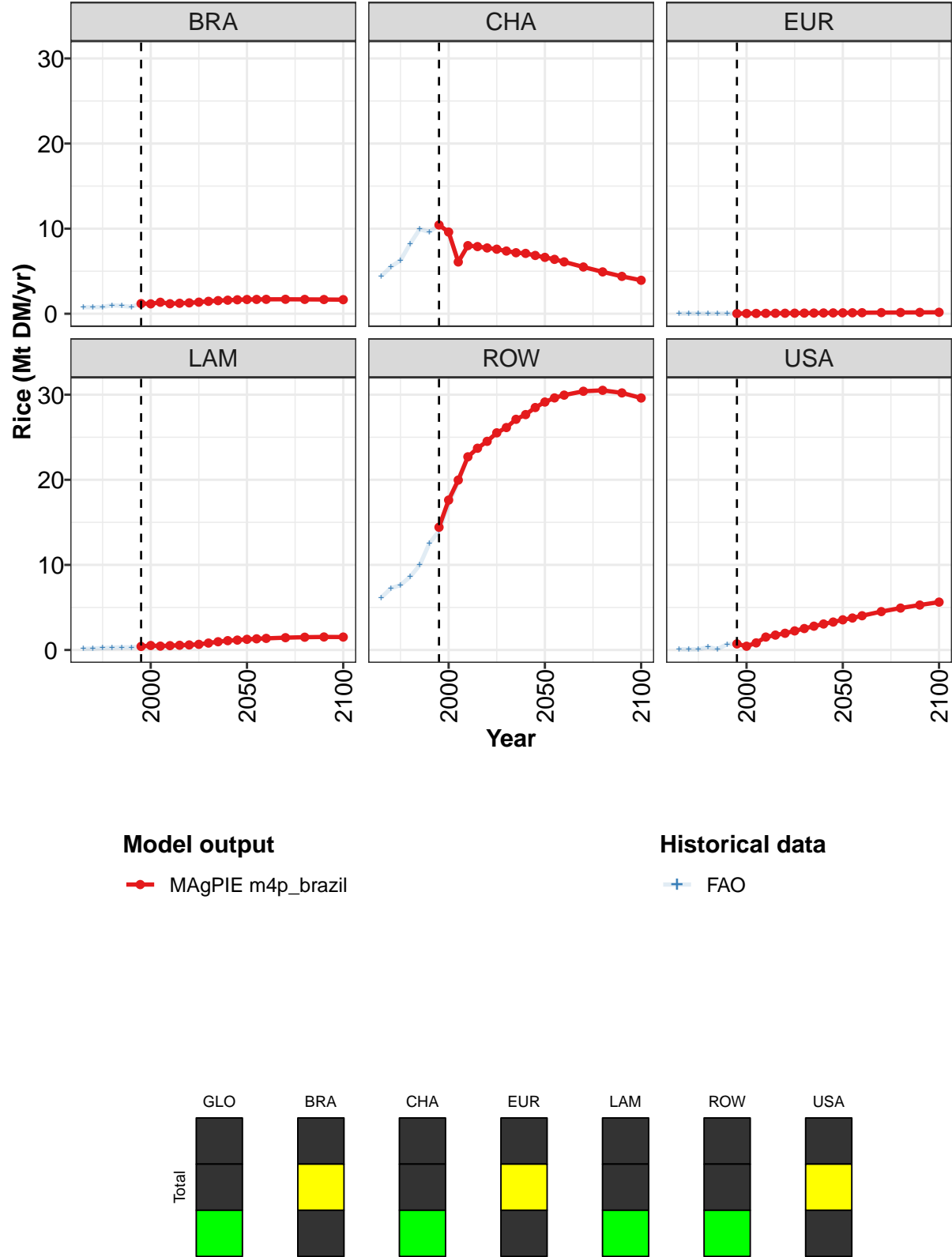


Figure 5: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	27.2	29.4	28.7	34.0	35.2	36.1	37.4	38.4	39.7	40.6	41.5
BRA	1.2	1.2	1.4	1.2	1.2	1.3	1.4	1.5	1.5	1.6	1.6
CHA	10.4	9.6	6.1	8.0	7.9	7.7	7.6	7.4	7.2	7.1	6.9
EUR	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.8	1.0	1.1	1.2
ROW	14.4	17.6	20.0	22.7	23.7	24.5	25.5	26.1	27.1	27.7	28.5
USA	0.7	0.4	0.8	1.5	1.8	2.0	2.2	2.5	2.8	3.1	3.3

Table 16: MAgPIE m4p.brazil — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

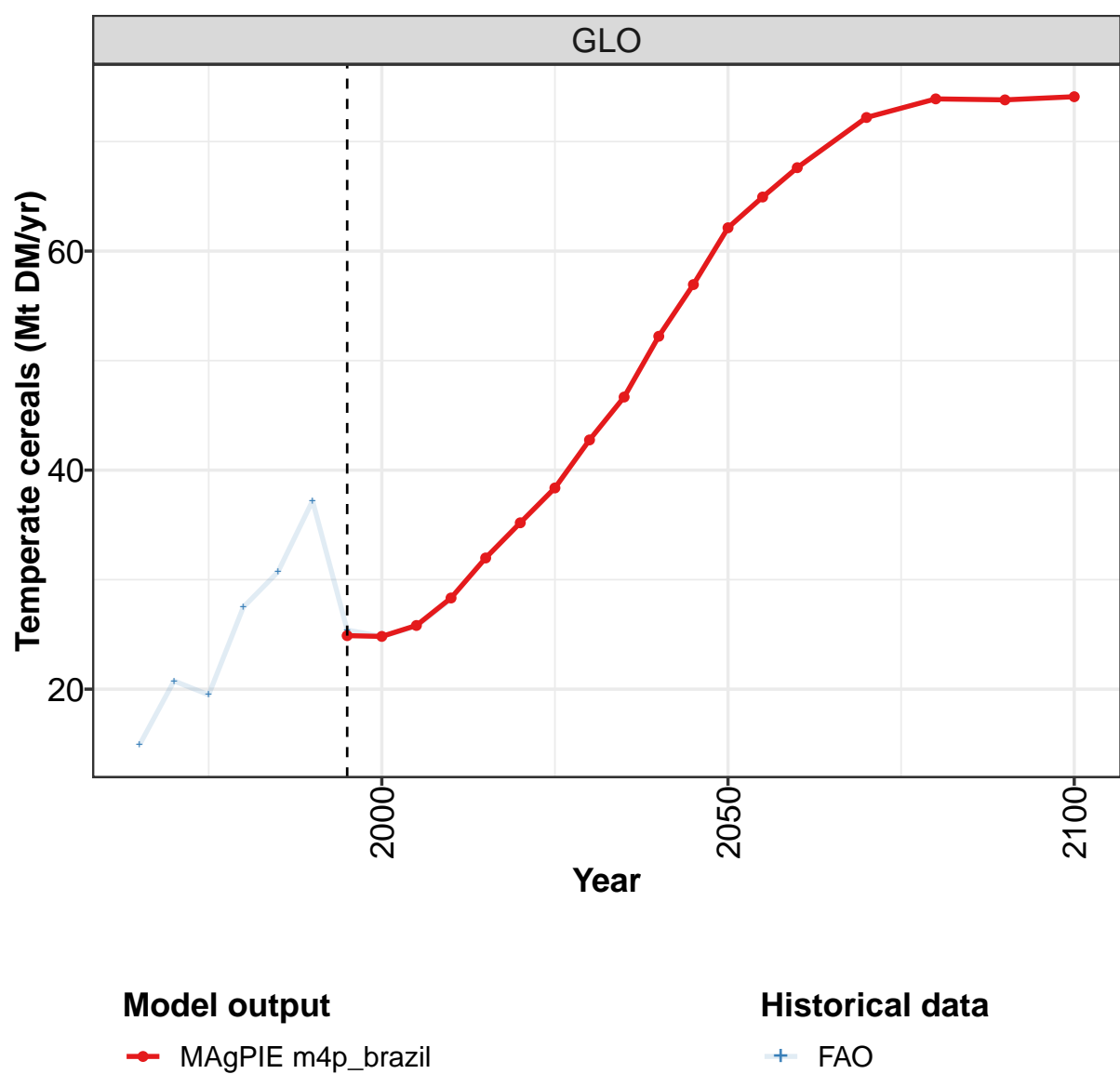
	2050	2055	2060	2070	2080	2090	2100
GLO	42.3	42.9	43.3	43.7	43.7	43.2	42.5
BRA	1.7	1.7	1.7	1.7	1.7	1.7	1.7
CHA	6.6	6.4	6.1	5.5	4.9	4.4	3.9
EUR	0.1	0.1	0.1	0.1	0.1	0.2	0.2
LAM	1.3	1.3	1.4	1.4	1.5	1.5	1.5
ROW	29.1	29.6	29.9	30.4	30.5	30.2	29.6
USA	3.5	3.8	4.0	4.5	4.9	5.3	5.6

Table 17: MAgPIE m4p.brazil — 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
BRA	0.8	0.8	0.8	1.0	0.9	0.8	1.2	1.2	1.4	1.2
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
LAM	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.5
ROW	6.2	7.2	7.6	8.6	10.0	12.5	14.0	17.1	19.7	22.7
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



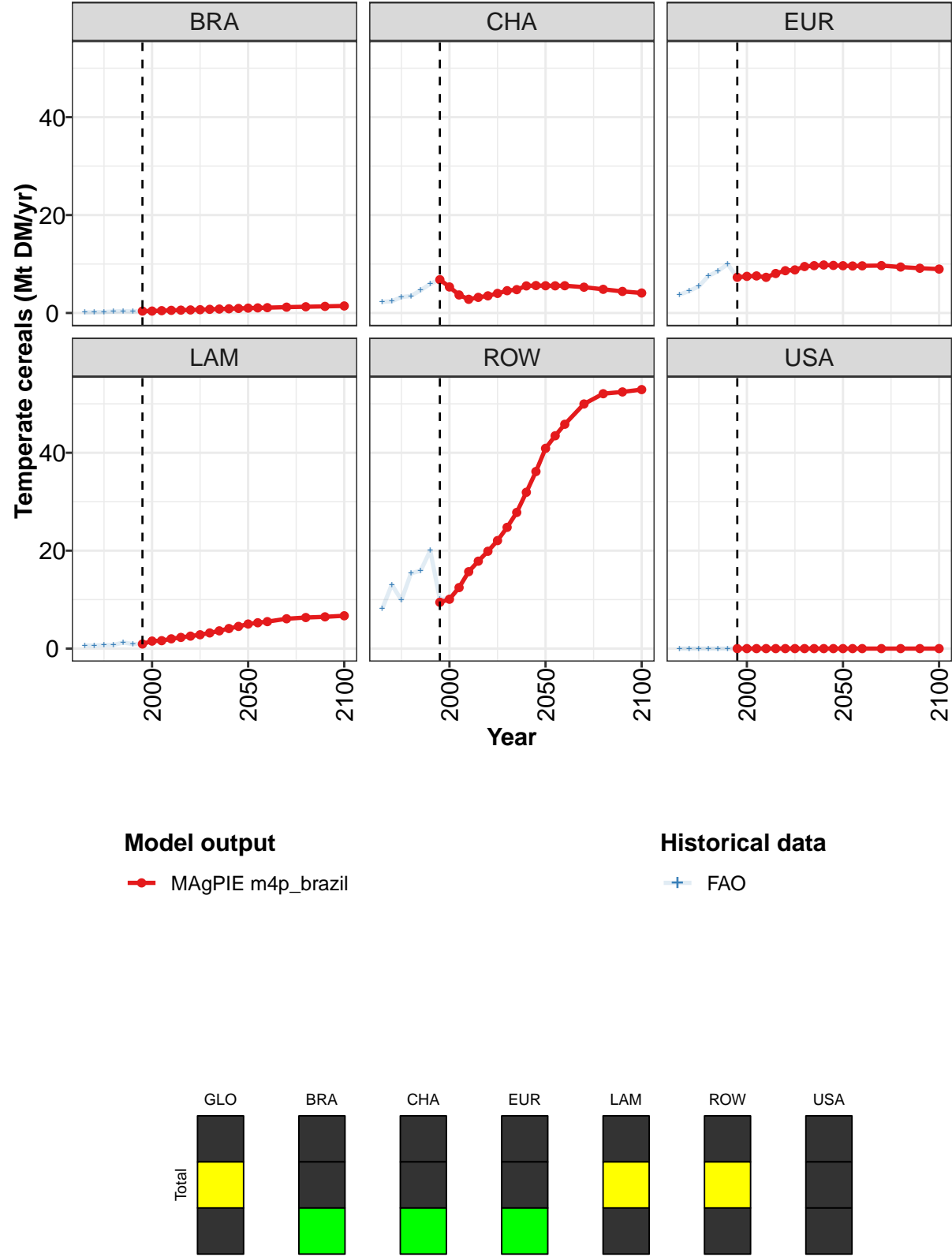


Figure 6: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	24.9	24.8	25.8	28.3	32.0	35.2	38.4	42.8	46.7	52.2	56.9
BRA	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9
CHA	6.8	5.3	3.7	2.8	3.2	3.5	4.0	4.6	4.8	5.5	5.6
EUR	7.3	7.5	7.6	7.3	8.1	8.6	8.8	9.5	9.7	9.8	9.7
LAM	0.9	1.5	1.6	2.0	2.3	2.5	2.8	3.2	3.6	4.1	4.5
ROW	9.5	10.1	12.5	15.7	17.9	19.9	22.1	24.8	27.8	31.9	36.2
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 19: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 1/2]

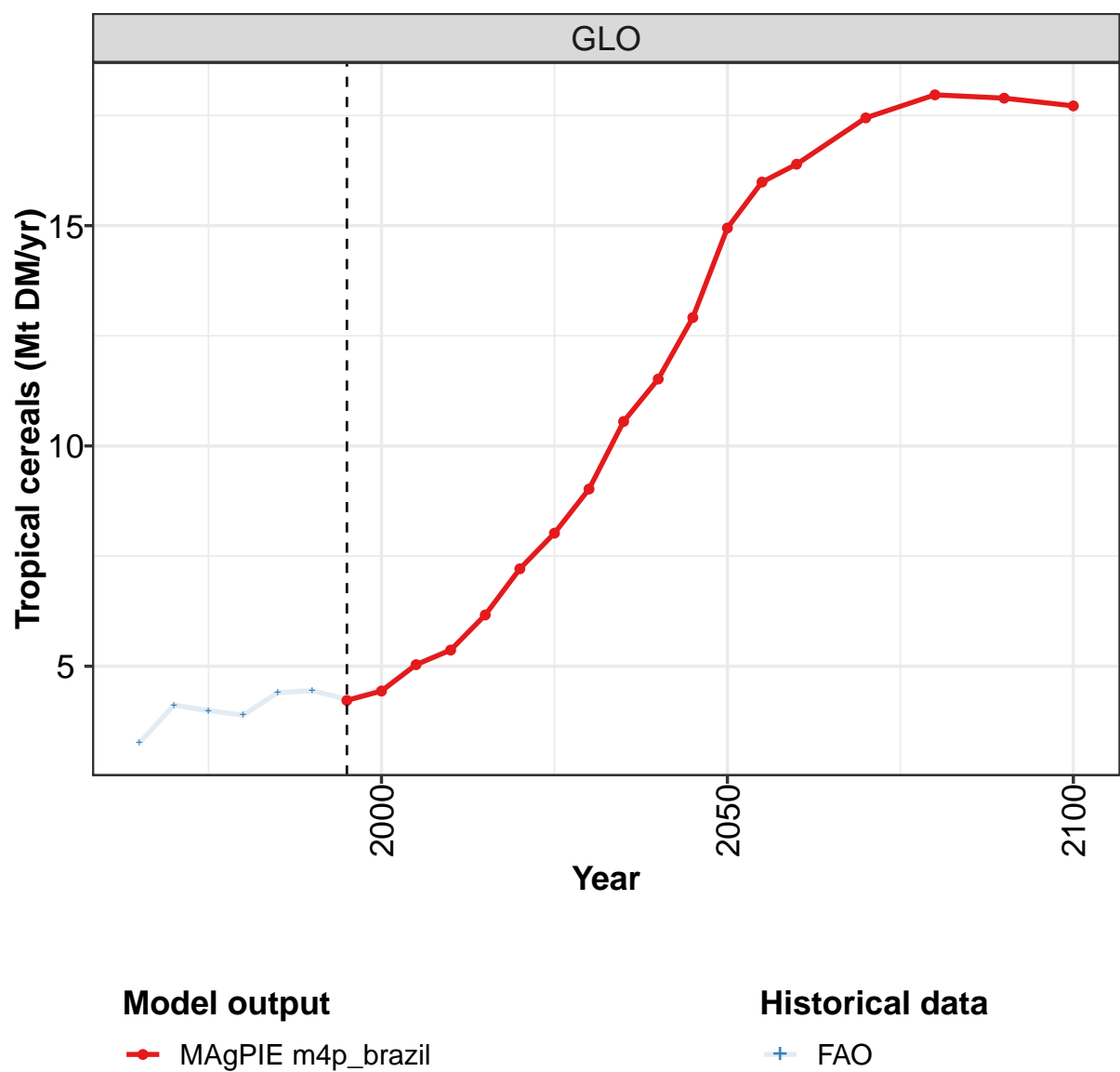
	2050	2055	2060	2070	2080	2090	2100
GLO	62.1	64.9	67.6	72.2	73.9	73.8	74.1
BRA	1.0	1.0	1.1	1.2	1.3	1.3	1.4
CHA	5.6	5.5	5.6	5.3	4.8	4.4	4.1
EUR	9.7	9.6	9.6	9.7	9.4	9.1	9.0
LAM	5.0	5.3	5.5	6.1	6.3	6.5	6.7
ROW	40.9	43.5	45.8	50.0	52.1	52.4	52.9
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 20: MAgPIE m4p_brazil — 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
BRA	0.1	0.2	0.2	0.3	0.4	0.3	0.4	0.4	0.5	0.5
CHA	2.3	2.4	3.2	3.5	4.6	5.9	6.8	5.3	3.7	2.8
EUR	3.8	4.5	5.4	7.6	8.6	10.0	7.2	7.3	7.4	7.1
LAM	0.6	0.6	0.7	0.7	1.2	0.9	0.9	1.5	1.6	2.0
ROW	8.1	13.1	9.9	15.4	15.9	20.0	10.1	10.3	12.5	15.7
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



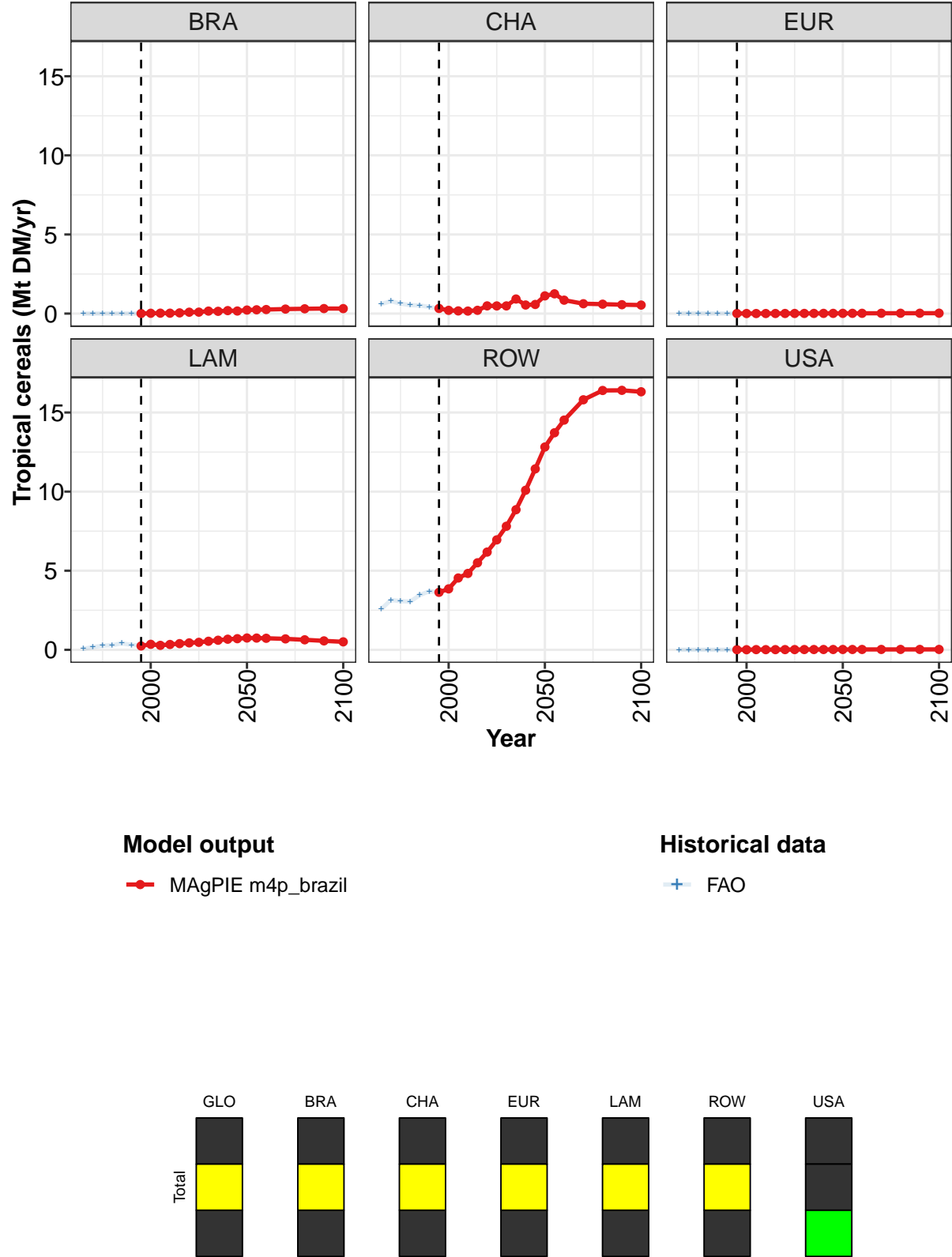


Figure 7: MAgPIE m4p.brazil — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.2	4.4	5.0	5.4	6.2	7.2	8.0	9.0	10.6	11.5	12.9
BRA	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.2	0.2
CHA	0.3	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.9	0.5	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
LAM	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7
ROW	3.6	3.9	4.5	4.8	5.5	6.2	6.9	7.8	8.9	10.1	11.4
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 22: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

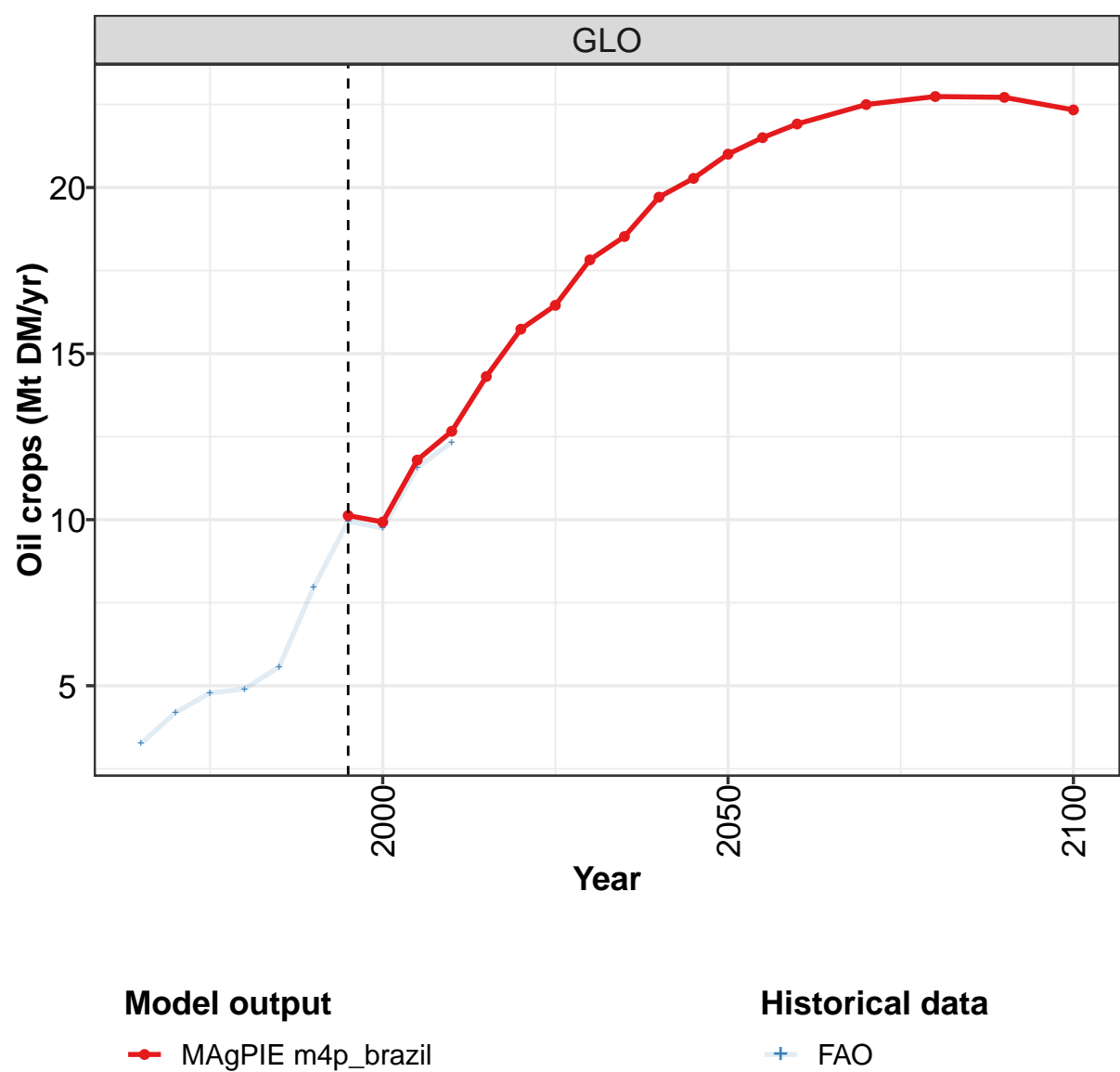
	2050	2055	2060	2070	2080	2090	2100
GLO	14.9	16.0	16.4	17.4	18.0	17.9	17.7
BRA	0.2	0.2	0.3	0.3	0.3	0.3	0.3
CHA	1.1	1.2	0.8	0.6	0.6	0.6	0.5
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.7	0.7	0.7	0.7	0.6	0.6	0.5
ROW	12.8	13.7	14.5	15.8	16.4	16.4	16.3
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 23: MAgPIE m4p_brazil — 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
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.03
CHA	0.61	0.78	0.63	0.53	0.52	0.42	0.32	0.20	0.17	0.16
EUR	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00
LAM	0.07	0.17	0.26	0.29	0.41	0.31	0.26	0.37	0.29	0.34
ROW	2.57	3.15	3.08	3.05	3.46	3.70	3.64	3.88	4.54	4.84
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



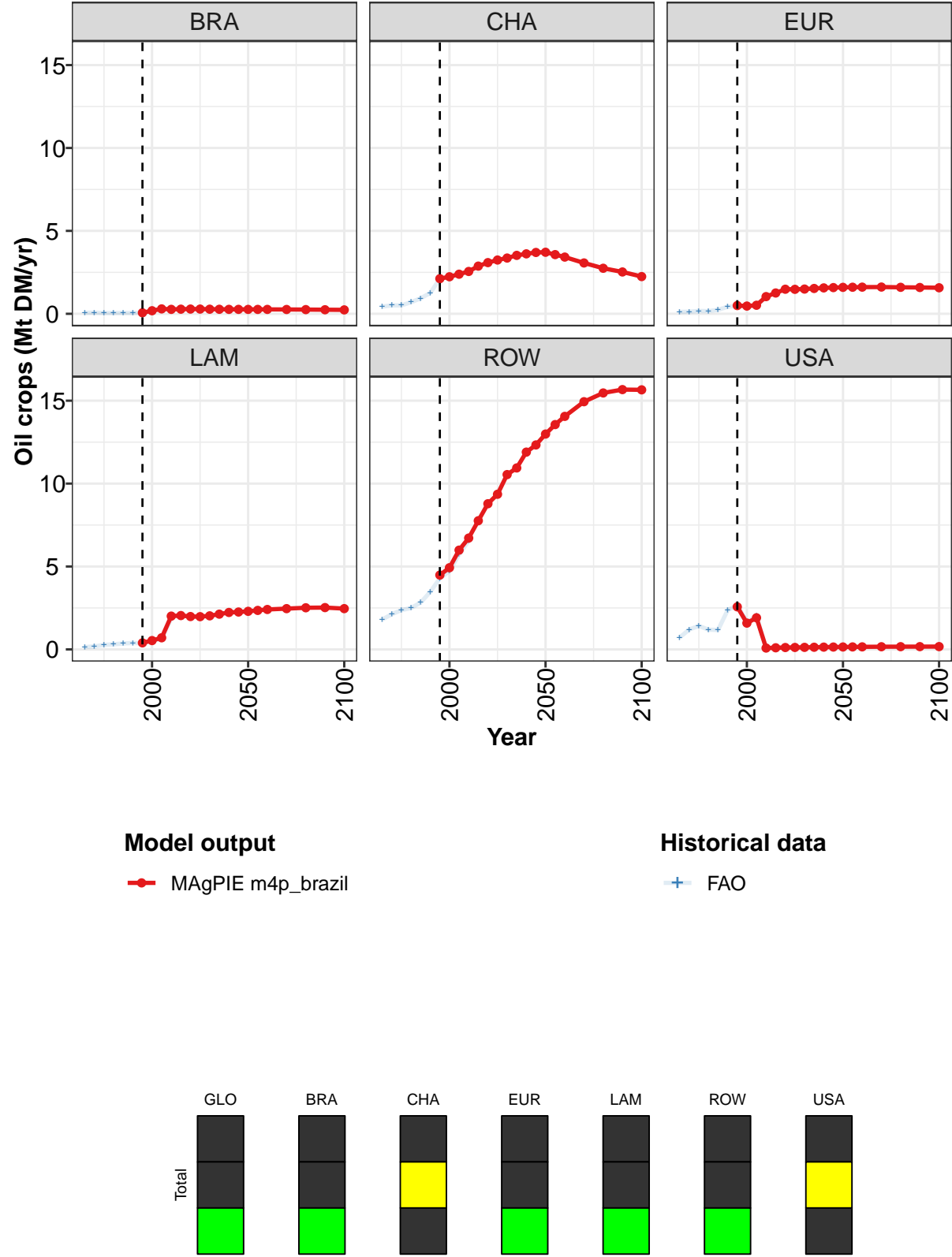


Figure 8: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	10.1	9.9	11.8	12.7	14.3	15.7	16.5	17.8	18.5	19.7	20.3
BRA	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CHA	2.1	2.2	2.4	2.6	2.9	3.1	3.2	3.4	3.5	3.6	3.7
EUR	0.5	0.5	0.5	1.0	1.3	1.5	1.5	1.5	1.5	1.6	1.6
LAM	0.4	0.5	0.7	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3
ROW	4.5	4.9	6.0	6.7	7.8	8.8	9.4	10.5	10.9	11.9	12.3
USA	2.6	1.6	1.9	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 25: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Oil crops (Mt DM/yr)
[PART 1/2]

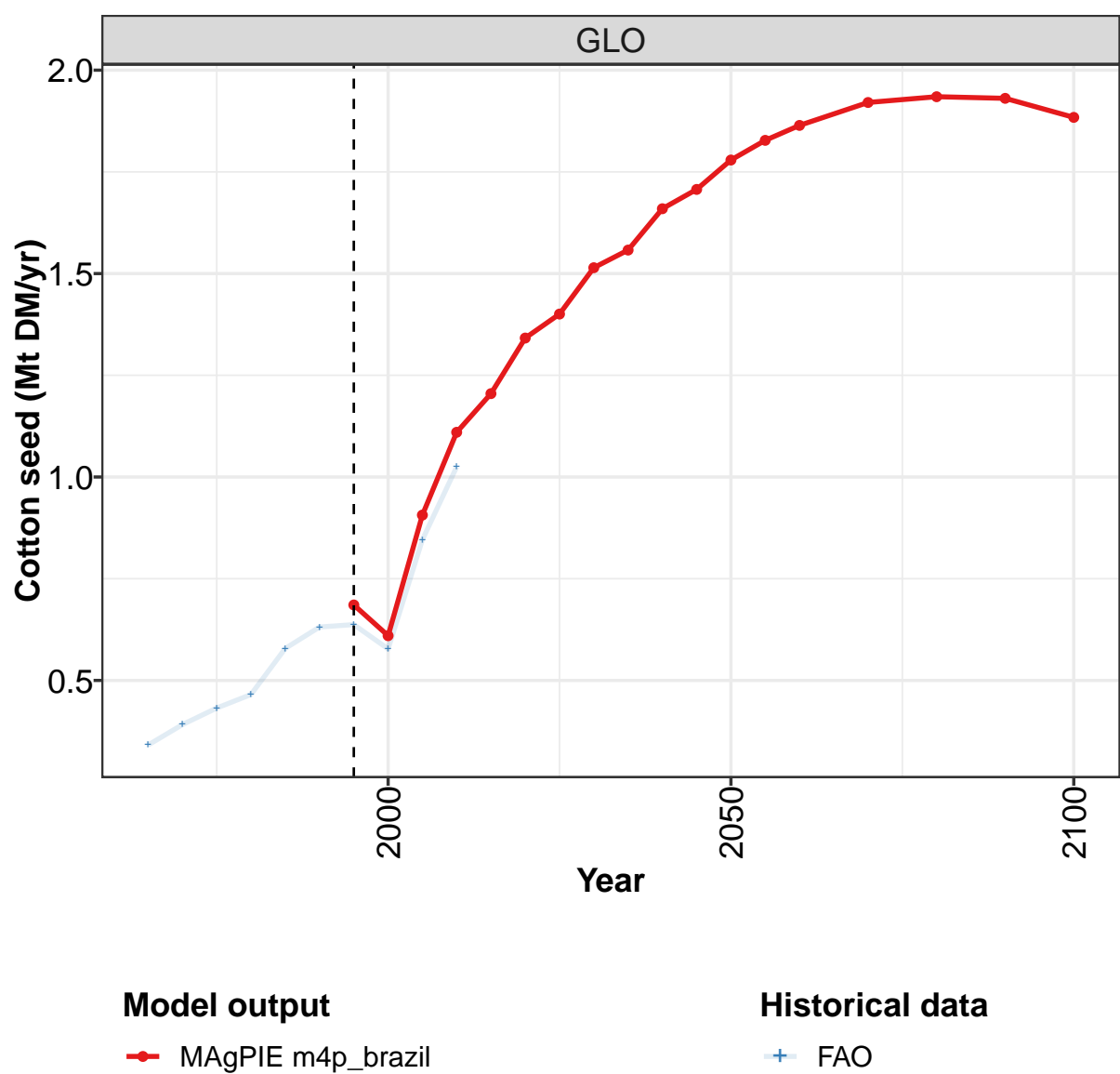
	2050	2055	2060	2070	2080	2090	2100
GLO	21.0	21.5	21.9	22.5	22.7	22.7	22.3
BRA	0.3	0.3	0.3	0.3	0.3	0.2	0.2
CHA	3.7	3.6	3.4	3.1	2.7	2.5	2.2
EUR	1.6	1.6	1.6	1.6	1.6	1.6	1.6
LAM	2.3	2.4	2.4	2.5	2.5	2.5	2.5
ROW	13.0	13.6	14.1	14.9	15.5	15.7	15.7
USA	0.1	0.2	0.2	0.2	0.2	0.2	0.2

Table 26: MAgPIE m4p_brazil — 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
BRA	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.3
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	0.2	0.2	0.2	0.4	0.5	0.5	0.5	1.0
LAM	0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.7	1.9
ROW	1.8	2.1	2.4	2.5	2.8	3.5	4.3	4.7	5.7	6.5
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



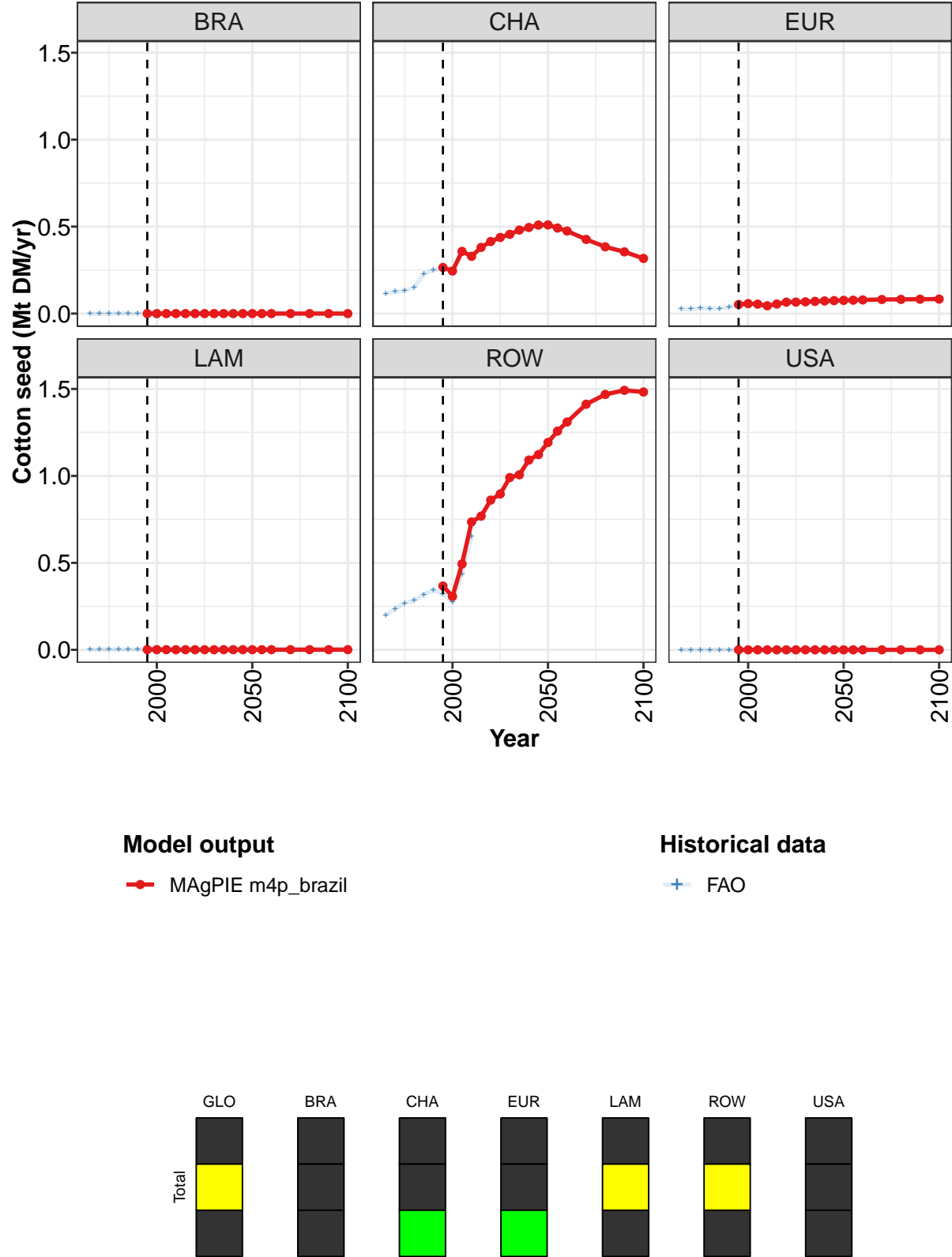


Figure 9: MAGPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.69	0.61	0.91	1.11	1.20	1.34	1.40	1.51	1.56	1.66	1.71
BRA	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	0.41	0.44	0.46	0.48	0.50	0.51
EUR	0.05	0.06	0.05	0.04	0.06	0.07	0.07	0.07	0.07	0.07	0.07
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.37	0.31	0.49	0.74	0.77	0.86	0.90	0.99	1.01	1.09	1.12
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_brazil — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

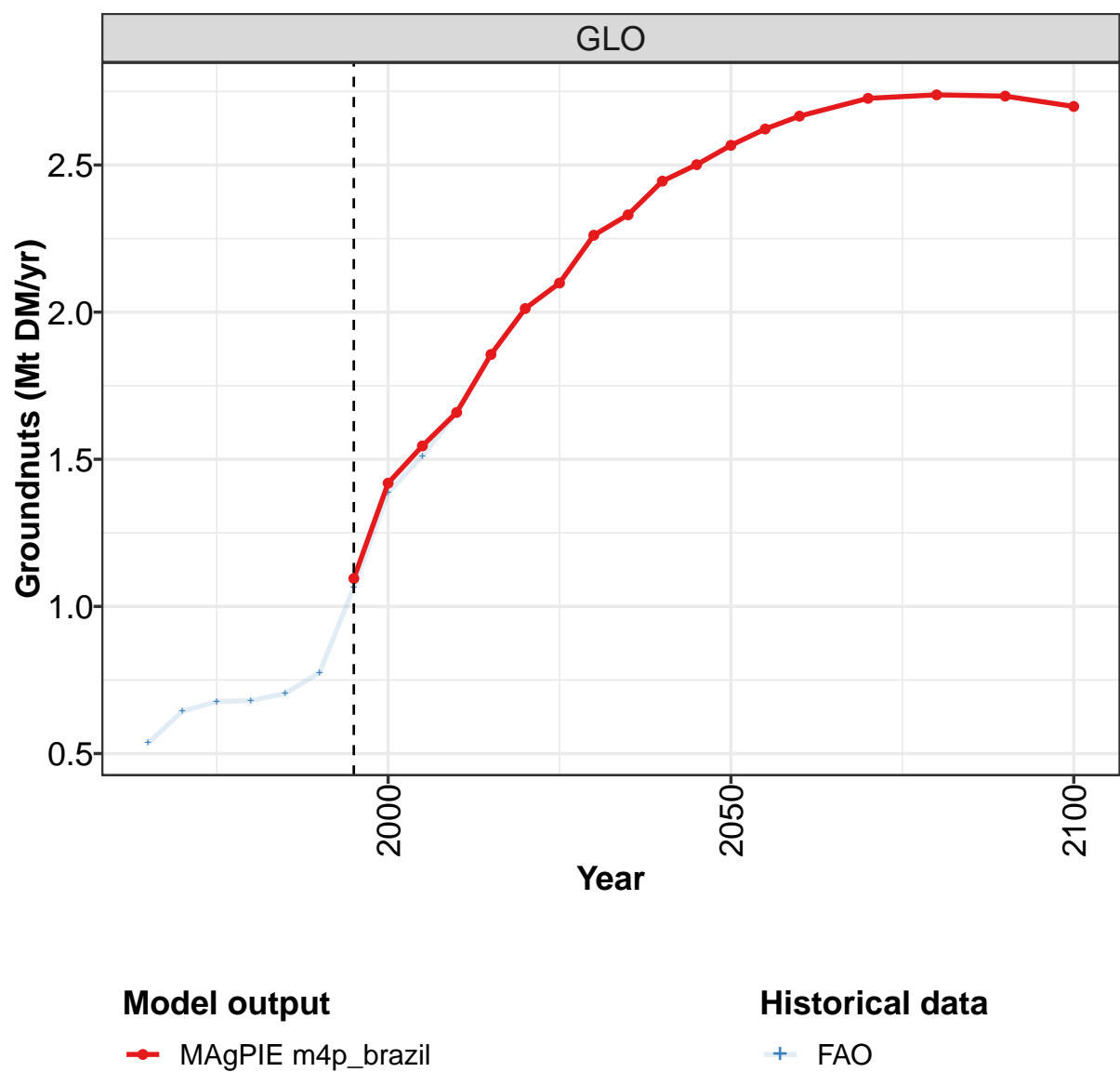
	2050	2055	2060	2070	2080	2090	2100
GLO	1.78	1.83	1.86	1.92	1.93	1.93	1.88
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.51	0.49	0.47	0.43	0.38	0.35	0.32
EUR	0.08	0.08	0.08	0.08	0.08	0.08	0.08
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	1.19	1.26	1.31	1.41	1.47	1.49	1.48
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 29: MAgPIE m4p_brazil — 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
BRA	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	0.03	0.03	0.03	0.03	0.03	0.04	0.05	0.06	0.05	0.04
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.20	0.24	0.27	0.28	0.32	0.34	0.32	0.28	0.44	0.65
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



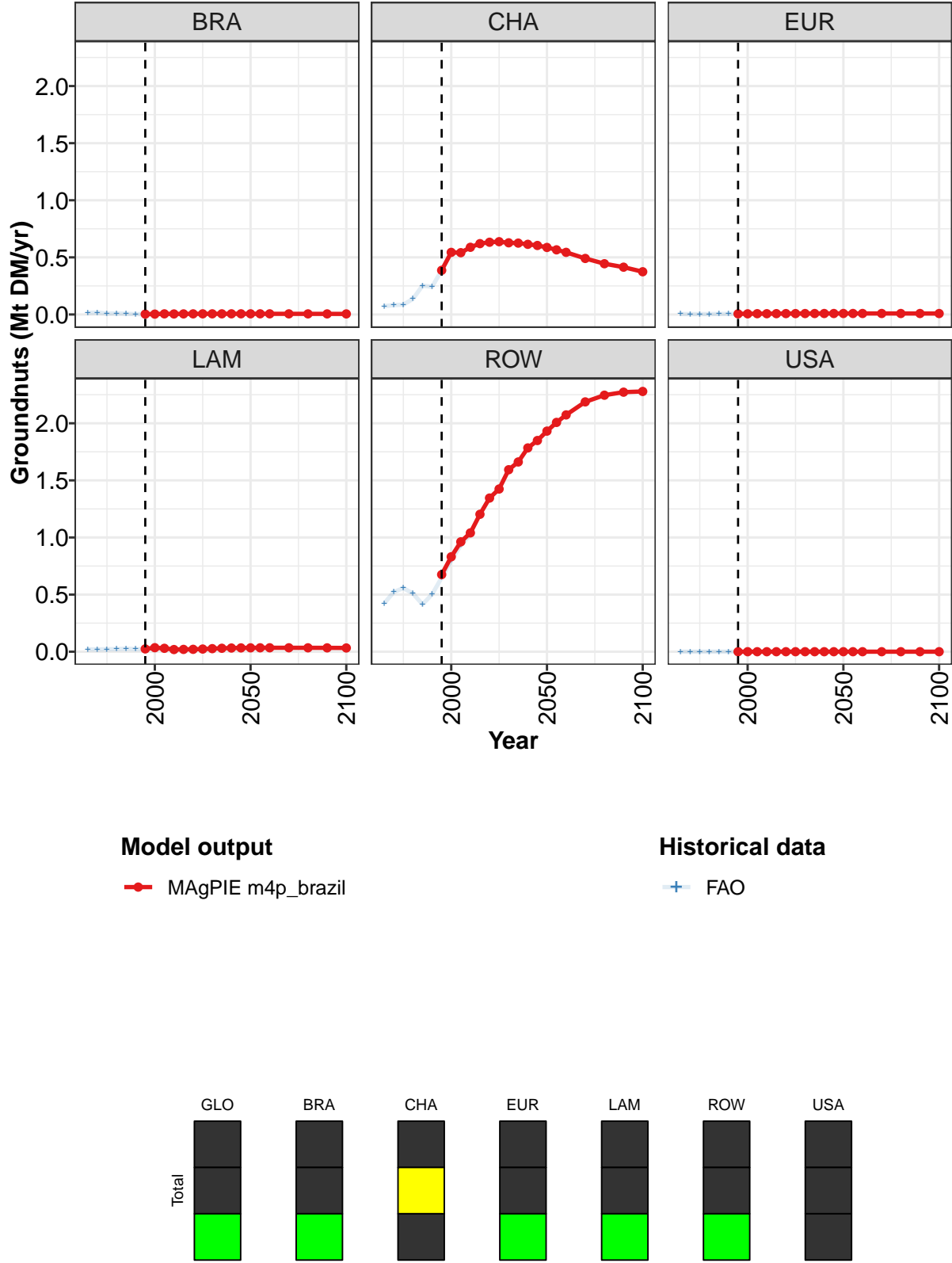


Figure 10: MAgPIE m4p.brazil — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.09	1.42	1.55	1.66	1.86	2.01	2.10	2.26	2.33	2.45	2.50
BRA	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CHA	0.39	0.54	0.54	0.59	0.62	0.63	0.64	0.63	0.62	0.61	0.60
EUR	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
ROW	0.68	0.83	0.96	1.04	1.20	1.35	1.42	1.59	1.66	1.78	1.85
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_brazil — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

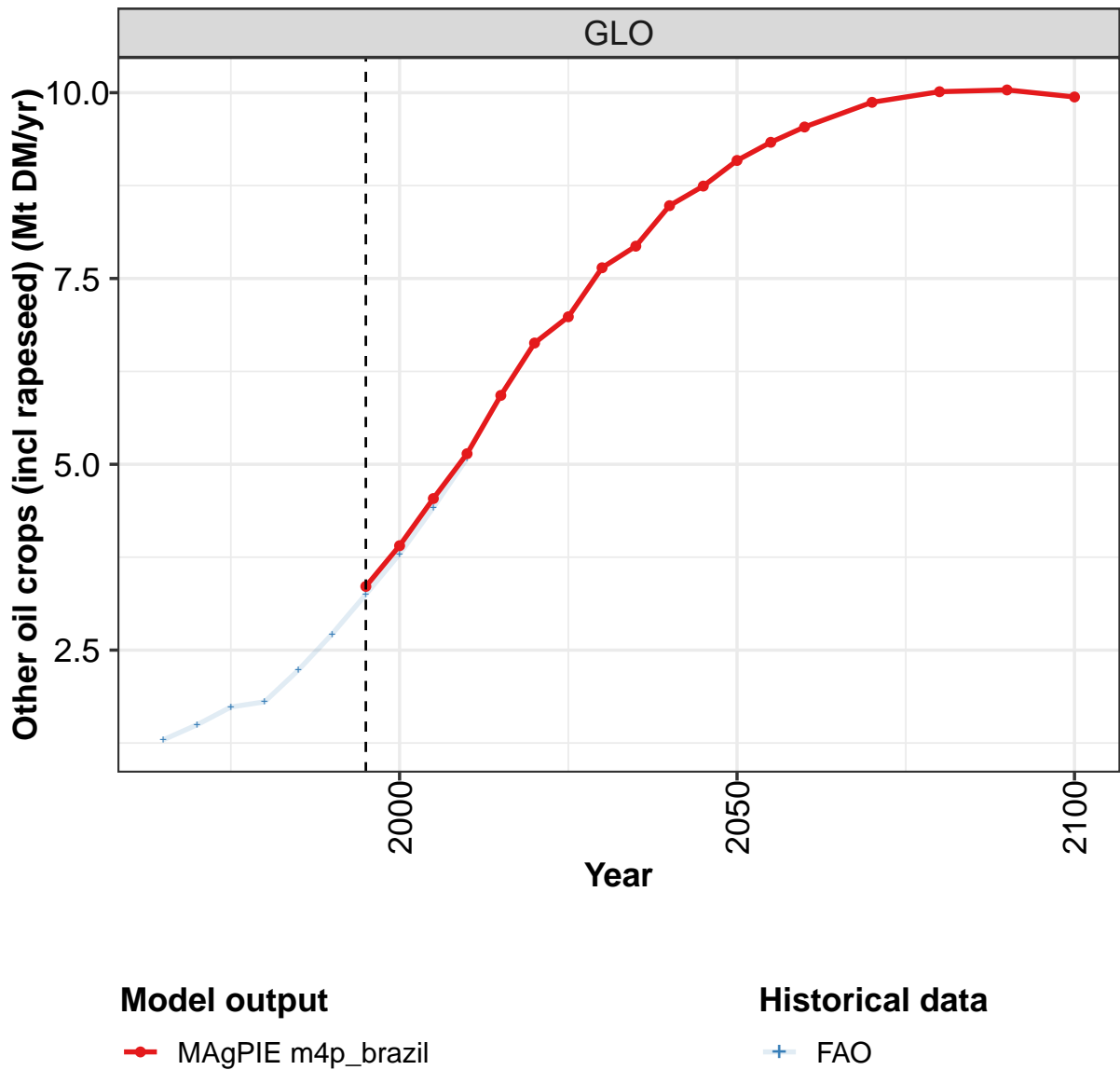
	2050	2055	2060	2070	2080	2090	2100
GLO	2.57	2.62	2.67	2.73	2.74	2.73	2.70
BRA	0.01	0.01	0.01	0.01	0.01	0.01	0.00
CHA	0.59	0.57	0.54	0.49	0.44	0.41	0.37
EUR	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.03	0.03	0.03	0.03	0.03	0.03	0.03
ROW	1.93	2.01	2.07	2.19	2.25	2.27	2.28
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 32: MAgPIE m4p_brazil — 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
BRA	0.01	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.01	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	0.01	0.01	0.01	0.01	0.01
LAM	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.03	0.03
ROW	0.42	0.52	0.56	0.51	0.41	0.50	0.65	0.80	0.93	1.03
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)



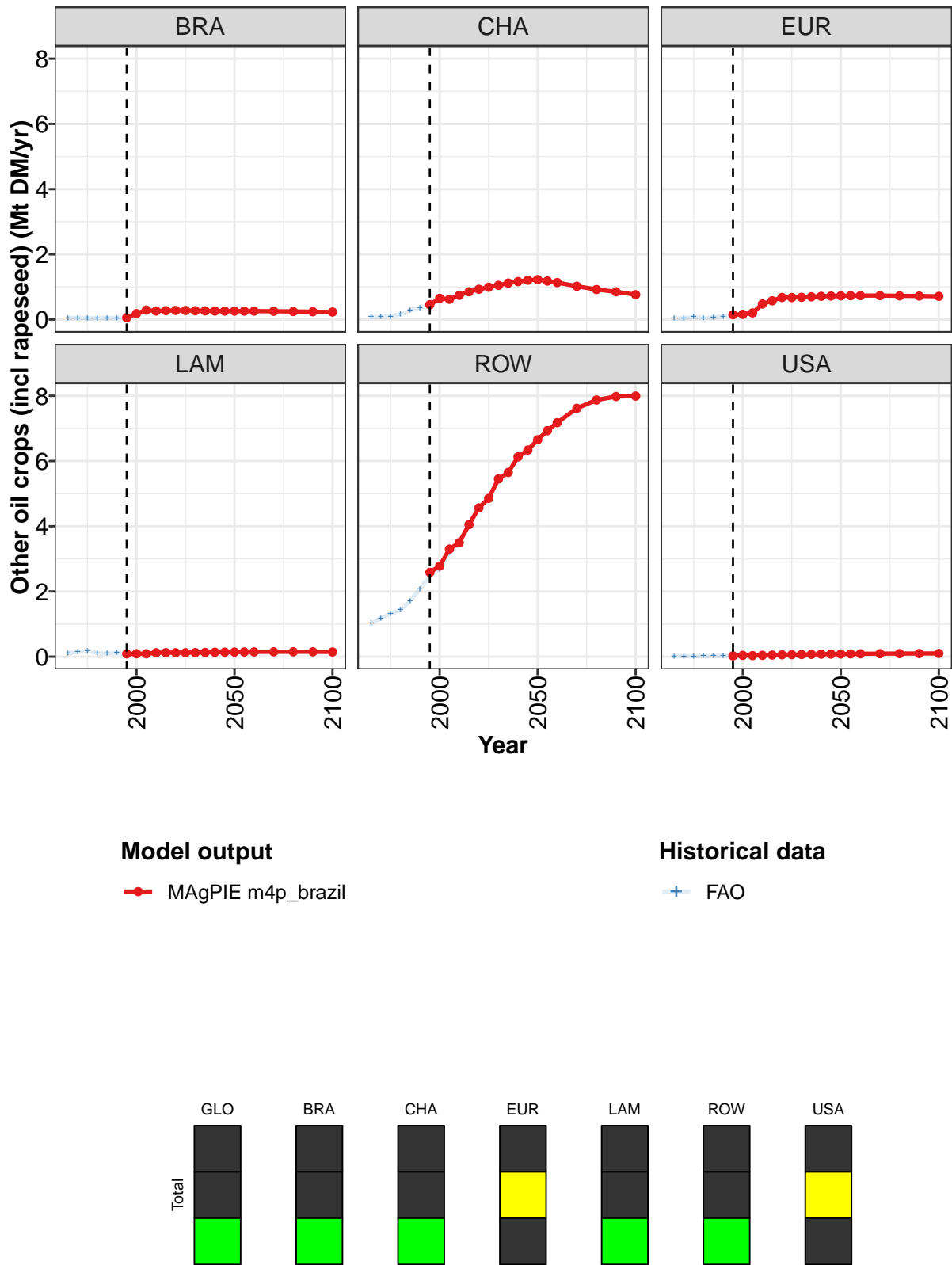


Figure 11: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.4	3.9	4.5	5.1	5.9	6.6	7.0	7.6	7.9	8.5	8.7
BRA	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CHA	0.5	0.7	0.6	0.7	0.9	0.9	1.0	1.0	1.1	1.2	1.2
EUR	0.1	0.2	0.2	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7
LAM	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ROW	2.6	2.8	3.3	3.5	4.1	4.6	4.9	5.4	5.6	6.1	6.3
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_brazil — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

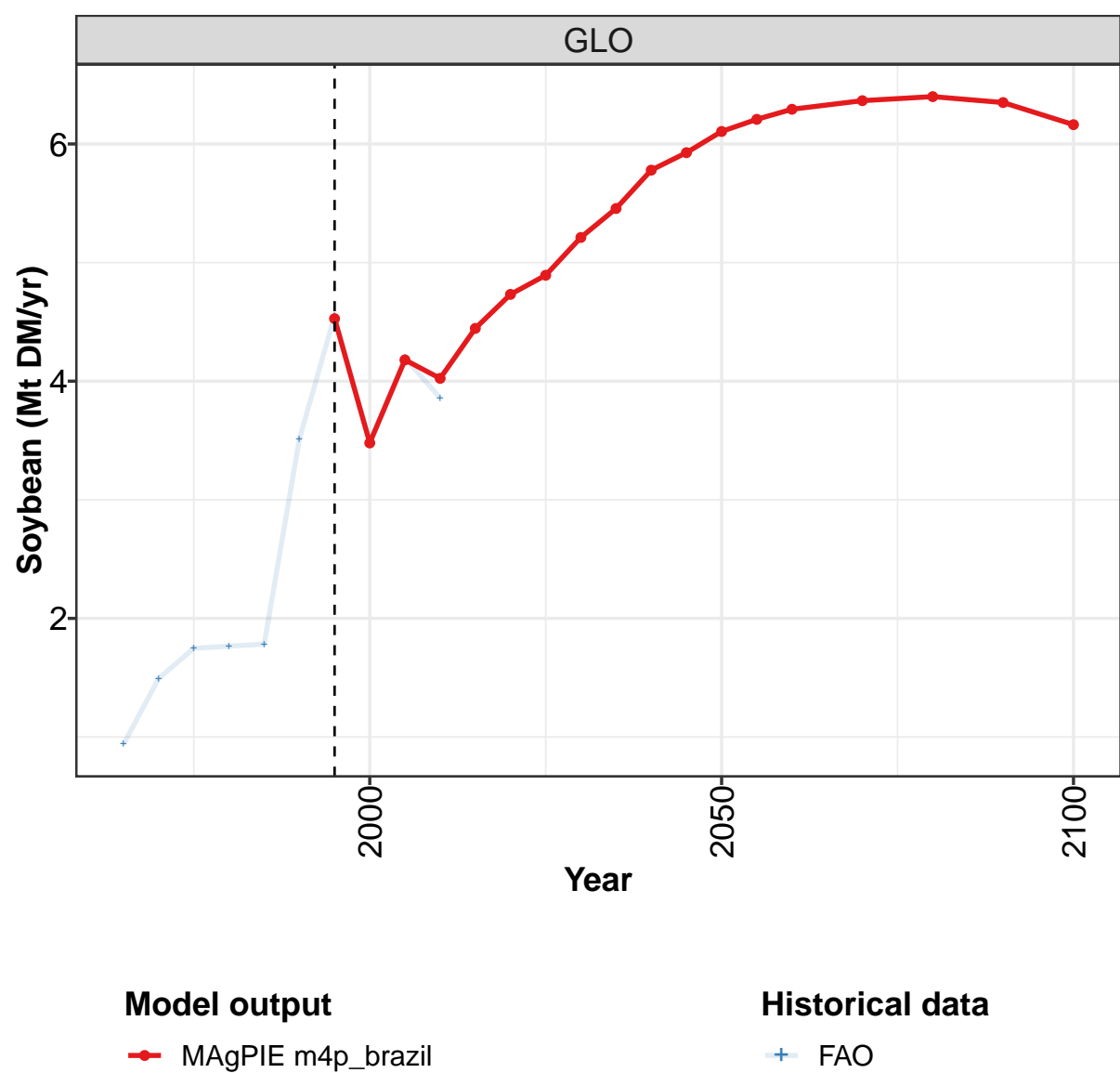
	2050	2055	2060	2070	2080	2090	2100
GLO	9.1	9.3	9.5	9.9	10.0	10.0	9.9
BRA	0.3	0.3	0.3	0.3	0.2	0.2	0.2
CHA	1.2	1.2	1.1	1.0	0.9	0.9	0.8
EUR	0.7	0.7	0.7	0.7	0.7	0.7	0.7
LAM	0.1	0.1	0.1	0.1	0.2	0.1	0.1
ROW	6.7	6.9	7.2	7.6	7.9	8.0	8.0
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 35: MAgPIE m4p_brazil — 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
BRA	0.04	0.05	0.04	0.04	0.05	0.05	0.06	0.18	0.29	0.27
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	0.05	0.06	0.10	0.14	0.16	0.20	0.47
LAM	0.11	0.14	0.19	0.11	0.10	0.12	0.08	0.09	0.09	0.12
ROW	1.02	1.17	1.31	1.44	1.71	2.08	2.49	2.68	3.19	3.45
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



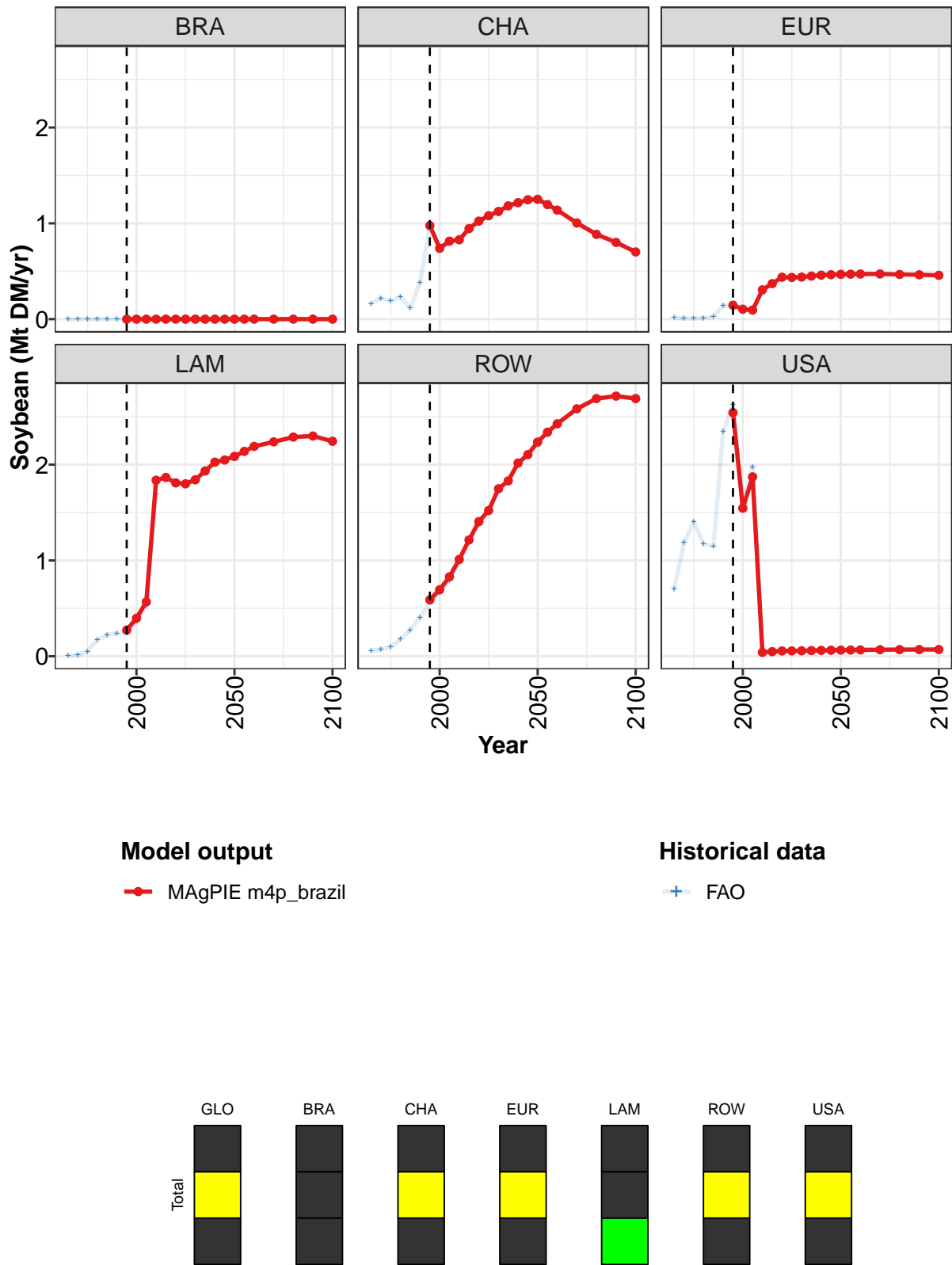


Figure 12: MAgPIE m4p.brazil — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.53	3.48	4.18	4.02	4.45	4.73	4.89	5.21	5.46	5.78	5.93
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.98	0.74	0.81	0.83	0.95	1.02	1.08	1.12	1.18	1.22	1.25
EUR	0.15	0.10	0.09	0.31	0.37	0.44	0.44	0.44	0.45	0.46	0.46
LAM	0.27	0.40	0.57	1.84	1.87	1.81	1.80	1.84	1.93	2.03	2.05
ROW	0.59	0.69	0.83	1.01	1.21	1.41	1.52	1.75	1.83	2.02	2.10
USA	2.54	1.55	1.87	0.04	0.05	0.06	0.06	0.06	0.06	0.06	0.06

Table 37: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

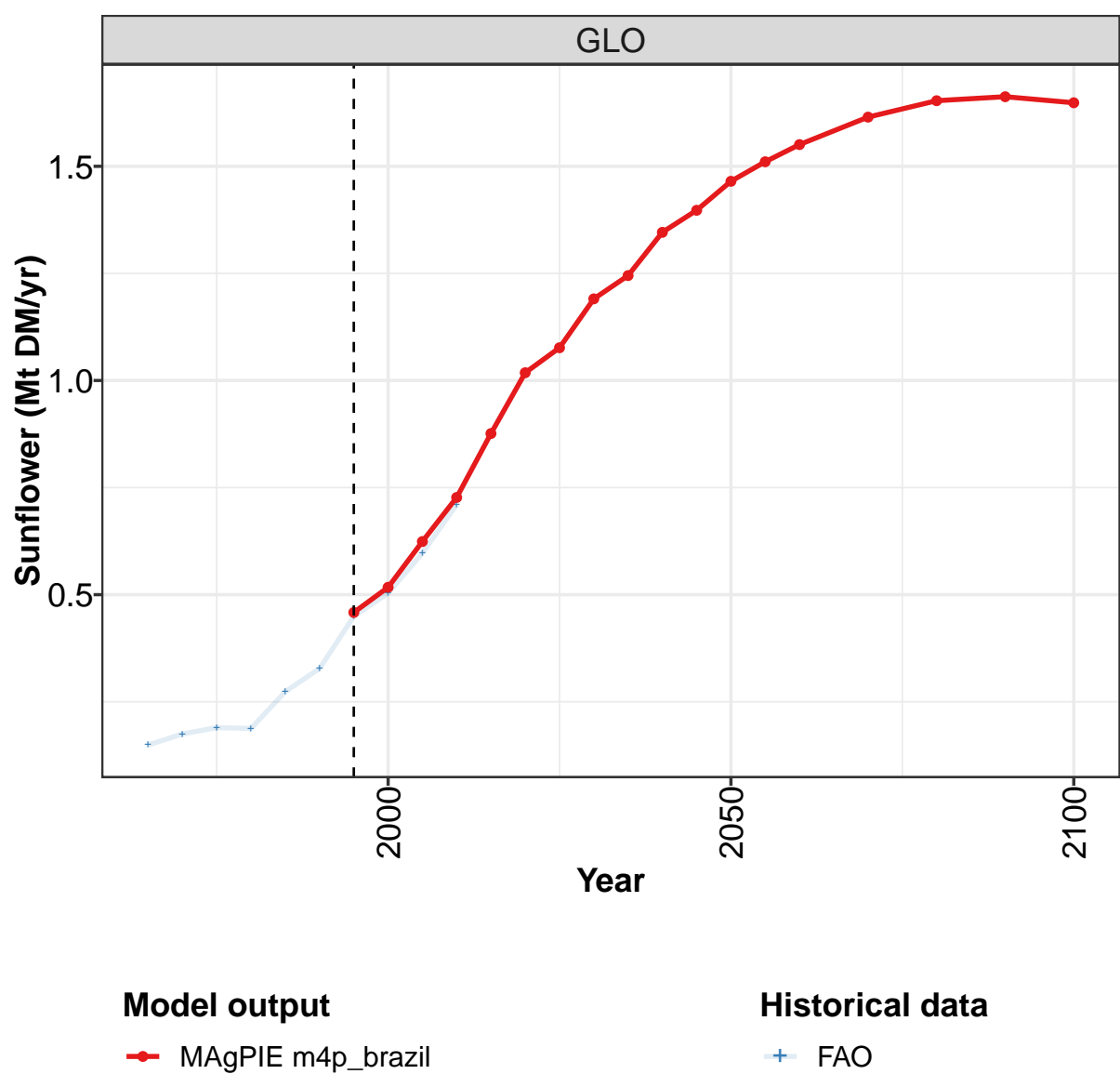
	2050	2055	2060	2070	2080	2090	2100
GLO	6.11	6.21	6.29	6.37	6.40	6.35	6.16
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	1.25	1.20	1.14	1.00	0.89	0.80	0.70
EUR	0.47	0.47	0.47	0.47	0.47	0.46	0.46
LAM	2.09	2.14	2.19	2.24	2.29	2.30	2.24
ROW	2.24	2.34	2.43	2.58	2.69	2.72	2.69
USA	0.06	0.07	0.07	0.07	0.07	0.07	0.07

Table 38: MAgPIE m4p_brazil — 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
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.02	0.14	0.14	0.10	0.09	0.30
LAM	0.00	0.01	0.05	0.17	0.22	0.24	0.25	0.37	0.53	1.70
ROW	0.06	0.07	0.10	0.18	0.27	0.40	0.56	0.67	0.79	0.99
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



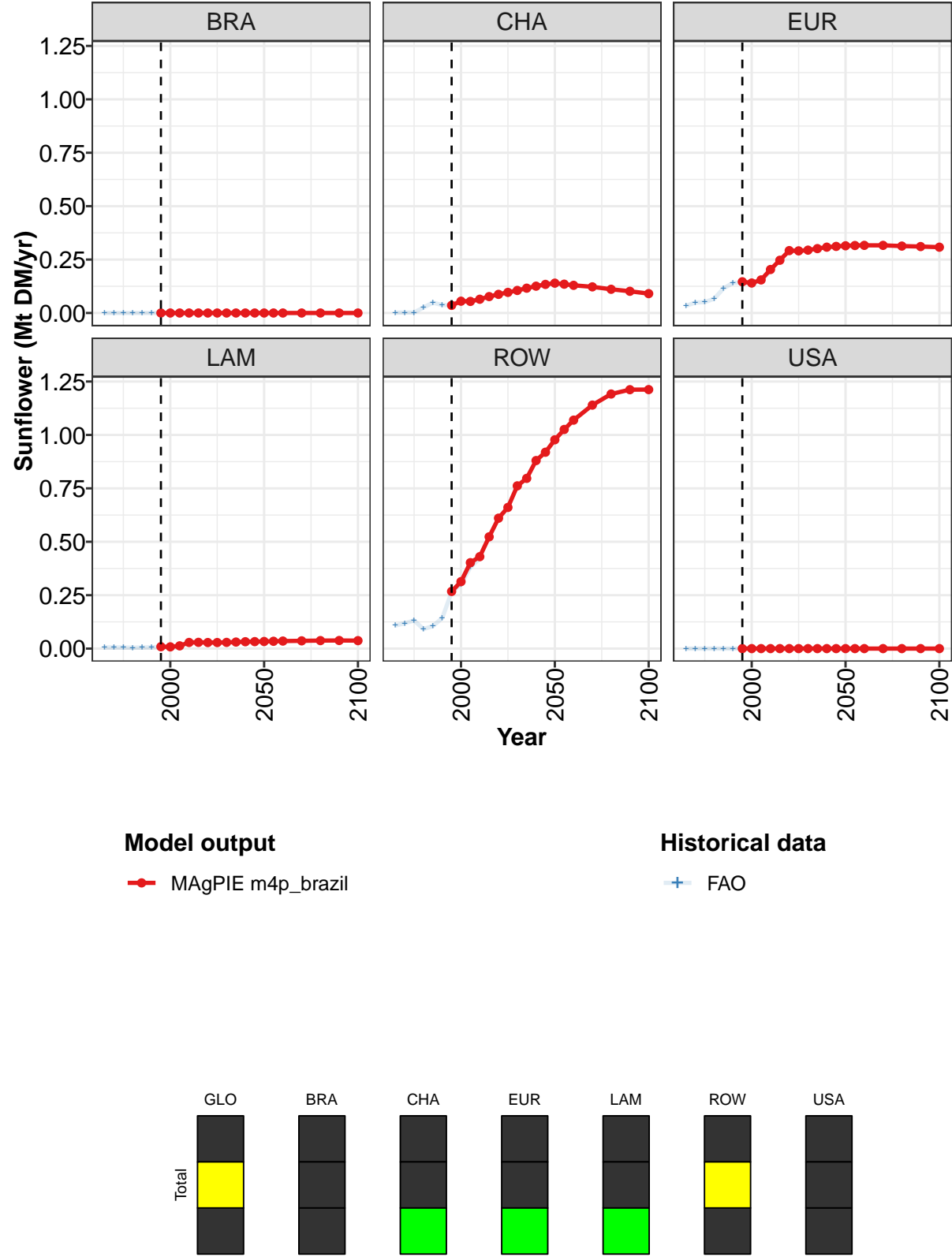


Figure 13: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.46	0.52	0.62	0.73	0.88	1.02	1.08	1.19	1.24	1.35	1.40
BRA	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	0.13
EUR	0.15	0.14	0.15	0.20	0.25	0.29	0.29	0.29	0.30	0.31	0.31
LAM	0.01	0.01	0.01	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
ROW	0.27	0.31	0.40	0.43	0.52	0.61	0.66	0.76	0.80	0.88	0.92
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_brazil — Demand—Agricultural Supply Chain Loss—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

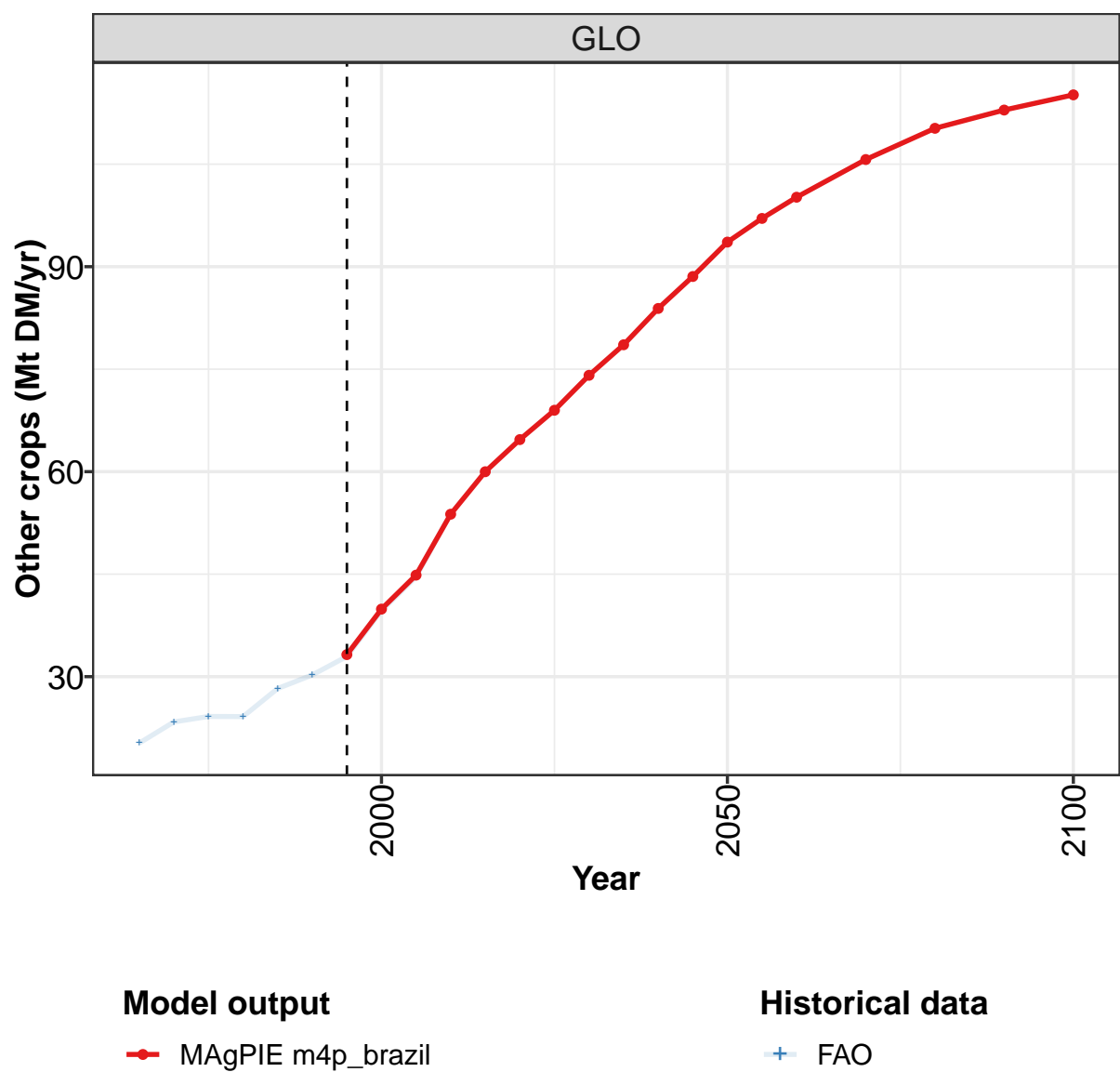
	2050	2055	2060	2070	2080	2090	2100
GLO	1.47	1.51	1.55	1.61	1.65	1.66	1.65
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.14	0.13	0.13	0.12	0.11	0.10	0.09
EUR	0.31	0.32	0.32	0.32	0.31	0.31	0.31
LAM	0.03	0.03	0.04	0.04	0.04	0.04	0.04
ROW	0.98	1.03	1.07	1.14	1.19	1.21	1.21
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 41: MAgPIE m4p_brazil — 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
BRA	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	0.034	0.049	0.051	0.067	0.115	0.141	0.141	0.139	0.150	0.198
LAM	0.005	0.006	0.005	0.004	0.005	0.006	0.008	0.008	0.012	0.026
ROW	0.108	0.118	0.132	0.091	0.105	0.143	0.264	0.302	0.381	0.422
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



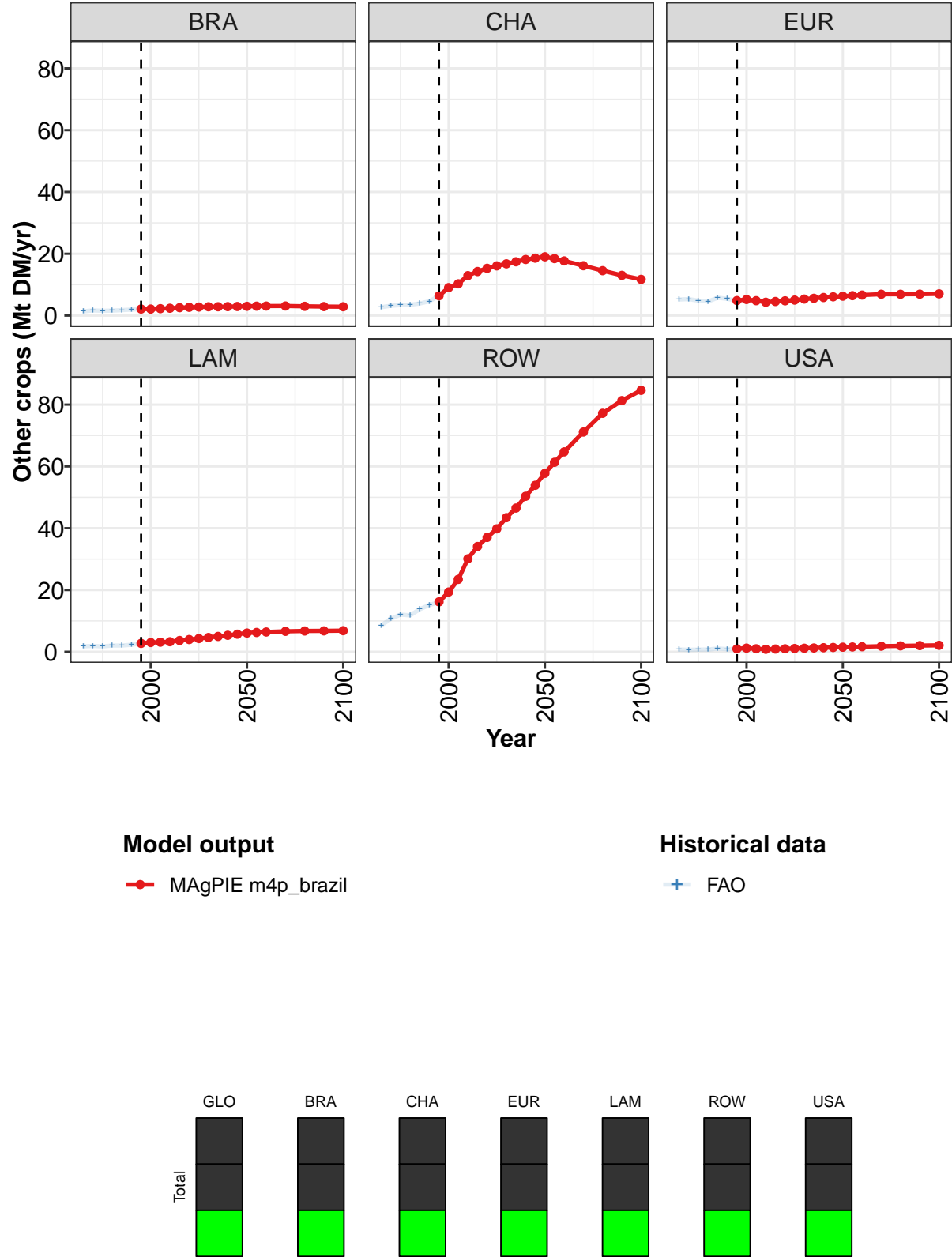


Figure 14: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	33	40	45	54	60	65	69	74	79	84	89
BRA	2	2	2	2	3	3	3	3	3	3	3
CHA	6	9	10	13	14	15	16	17	17	18	19
EUR	5	5	5	4	5	5	5	5	6	6	6
LAM	3	3	3	3	4	4	4	5	5	5	6
ROW	16	19	23	30	34	37	40	43	47	50	54
USA	1	1	1	1	1	1	1	1	1	1	1

Table 43: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Other crops (Mt DM/yr)
[PART 1/2]

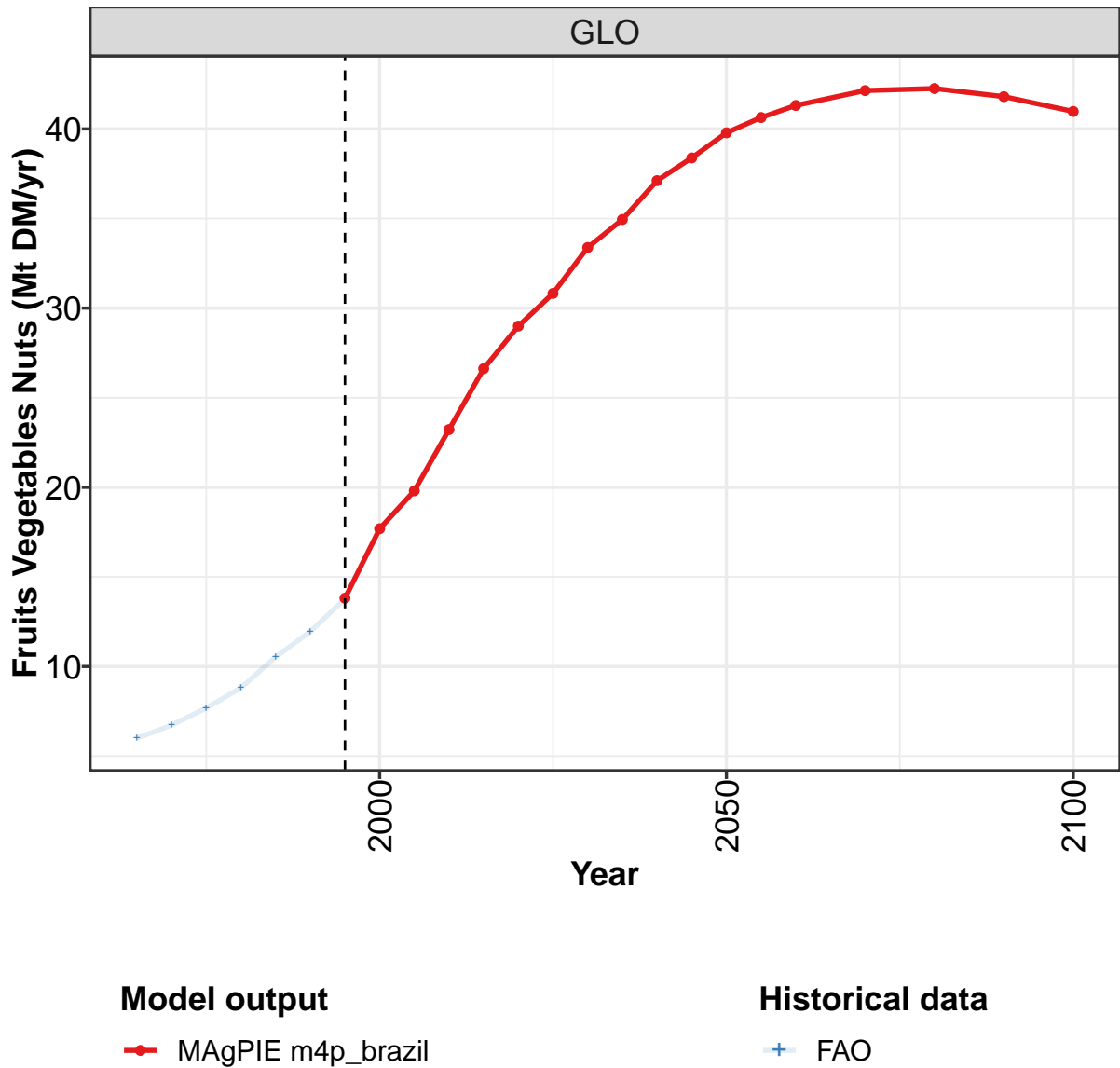
	2050	2055	2060	2070	2080	2090	2100
GLO	94	97	100	106	110	113	115
BRA	3	3	3	3	3	3	3
CHA	19	18	18	16	15	13	12
EUR	6	6	7	7	7	7	7
LAM	6	6	6	7	7	7	7
ROW	58	61	65	71	77	81	85
USA	1	2	2	2	2	2	2

Table 44: MAgPIE m4p_brazil — 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
BRA	1.4	1.6	1.5	1.6	1.7	1.9	2.1	2.1	2.3	2.4
CHA	2.7	3.2	3.4	3.5	3.9	4.6	6.4	9.0	10.3	12.9
EUR	5.2	5.3	4.8	4.5	5.8	5.4	4.8	5.2	4.8	4.3
LAM	1.8	1.9	1.7	2.0	2.0	2.3	2.7	3.0	3.1	3.3
ROW	8.5	10.7	12.0	11.8	13.8	15.2	16.0	19.1	23.2	30.1
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



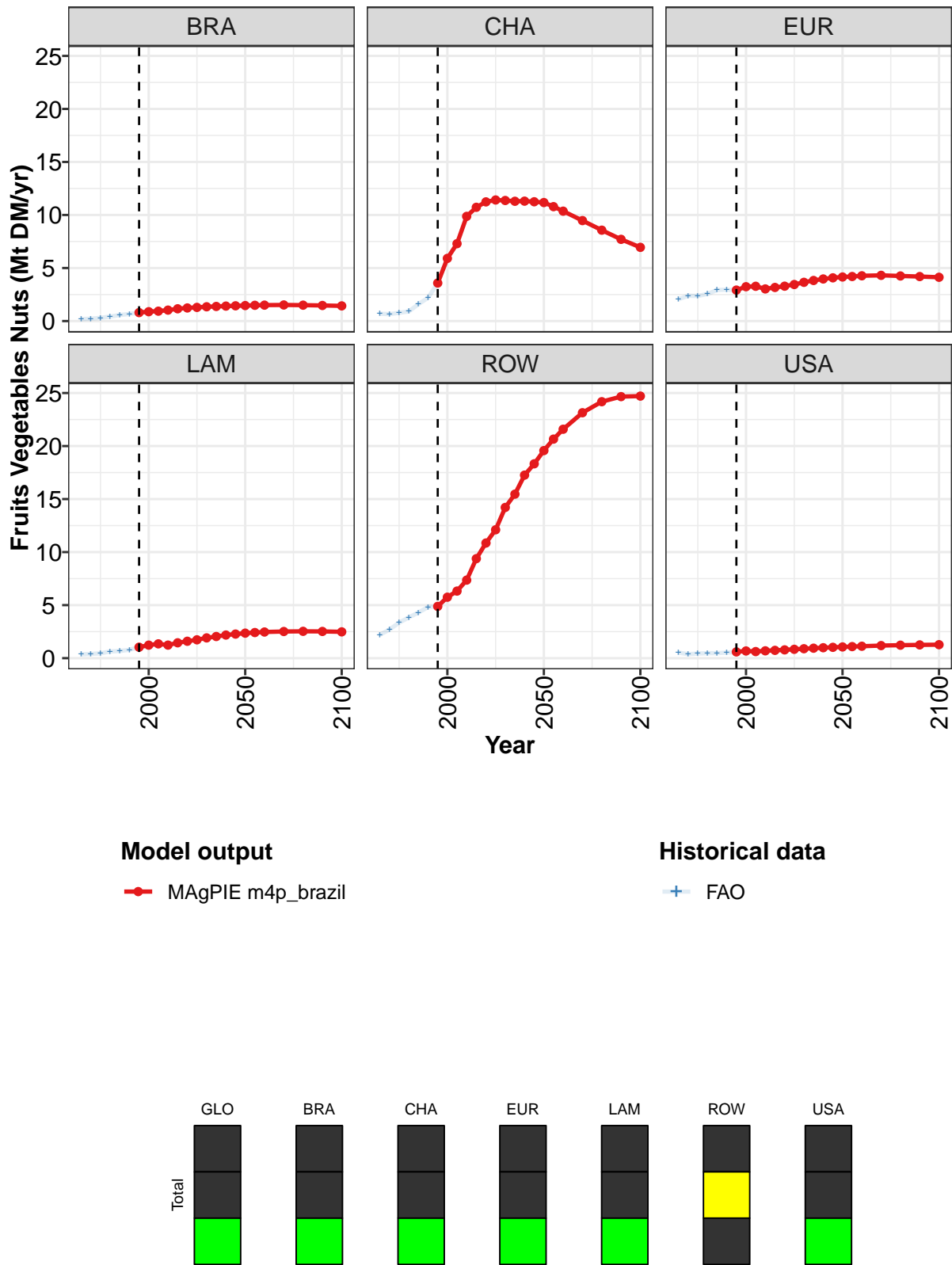


Figure 15: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	13.8	17.7	19.8	23.2	26.6	29.0	30.8	33.4	34.9	37.1	38.4
BRA	0.8	0.9	0.9	1.0	1.2	1.2	1.3	1.3	1.4	1.4	1.4
CHA	3.6	5.9	7.3	9.9	10.7	11.2	11.4	11.4	11.3	11.3	11.2
EUR	2.9	3.2	3.3	3.0	3.2	3.3	3.4	3.7	3.8	4.0	4.1
LAM	1.0	1.2	1.3	1.2	1.4	1.6	1.7	1.9	2.0	2.2	2.3
ROW	4.9	5.7	6.3	7.4	9.4	10.9	12.1	14.2	15.5	17.3	18.3
USA	0.6	0.7	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0

Table 46: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 1/2]

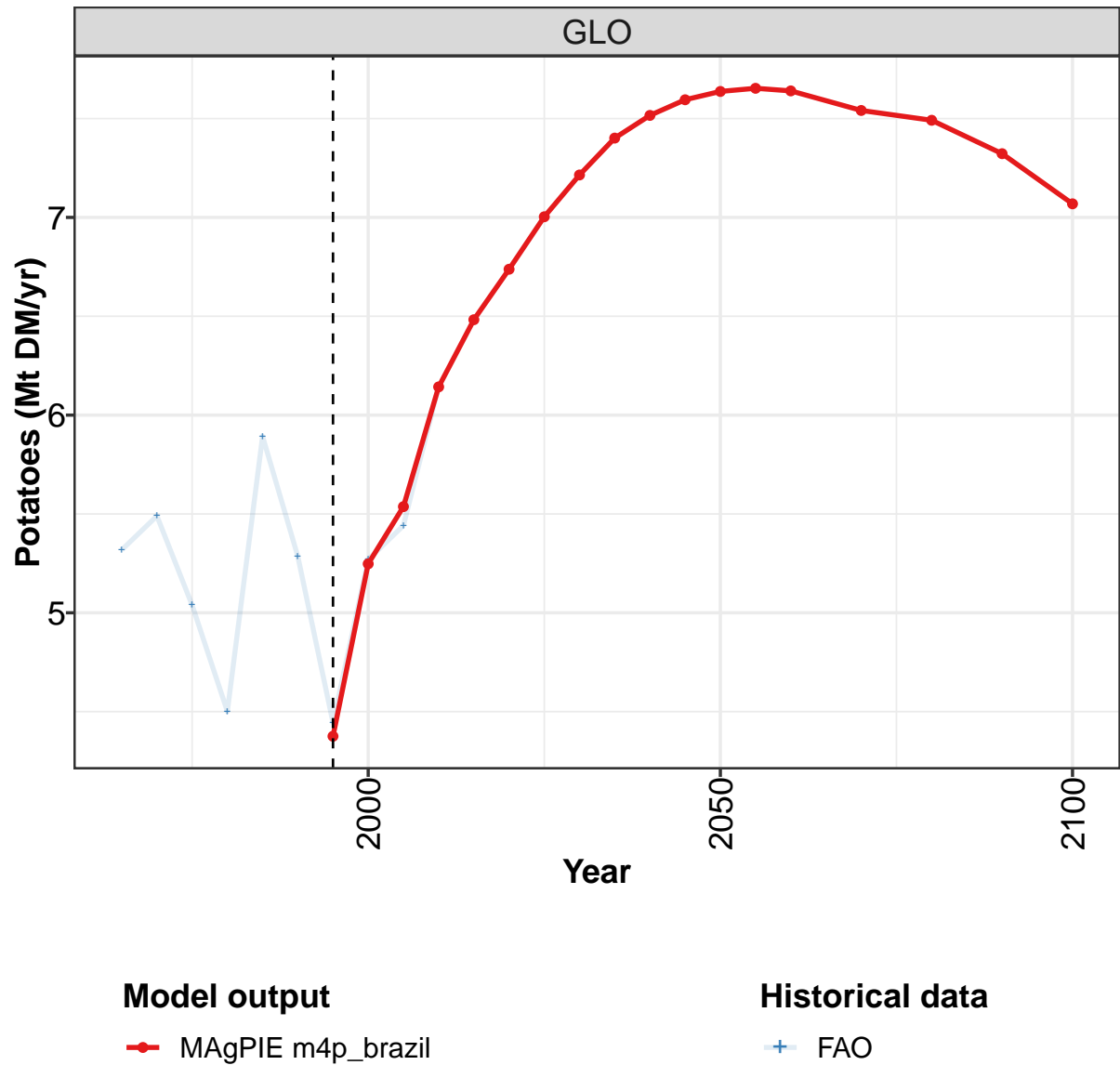
	2050	2055	2060	2070	2080	2090	2100
GLO	39.8	40.6	41.3	42.1	42.3	41.8	41.0
BRA	1.5	1.5	1.5	1.5	1.5	1.5	1.4
CHA	11.2	10.8	10.4	9.5	8.6	7.7	6.9
EUR	4.2	4.2	4.3	4.3	4.3	4.2	4.1
LAM	2.4	2.4	2.5	2.5	2.5	2.5	2.5
ROW	19.6	20.7	21.6	23.1	24.2	24.7	24.7
USA	1.1	1.1	1.1	1.2	1.2	1.3	1.3

Table 47: MAgPIE m4p_brazil — 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
BRA	0.2	0.2	0.3	0.4	0.6	0.7	0.8	0.9	0.9	1.0
CHA	0.7	0.7	0.8	0.9	1.6	2.2	3.6	5.9	7.3	9.9
EUR	2.1	2.4	2.4	2.6	2.9	3.0	2.9	3.2	3.3	3.0
LAM	0.4	0.4	0.5	0.6	0.7	0.8	1.0	1.2	1.3	1.2
ROW	2.2	2.7	3.3	3.8	4.3	4.8	4.9	5.8	6.3	7.4
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



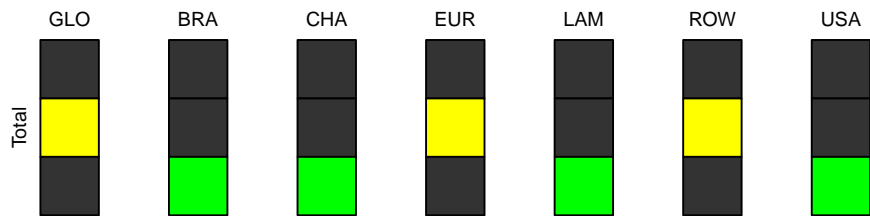
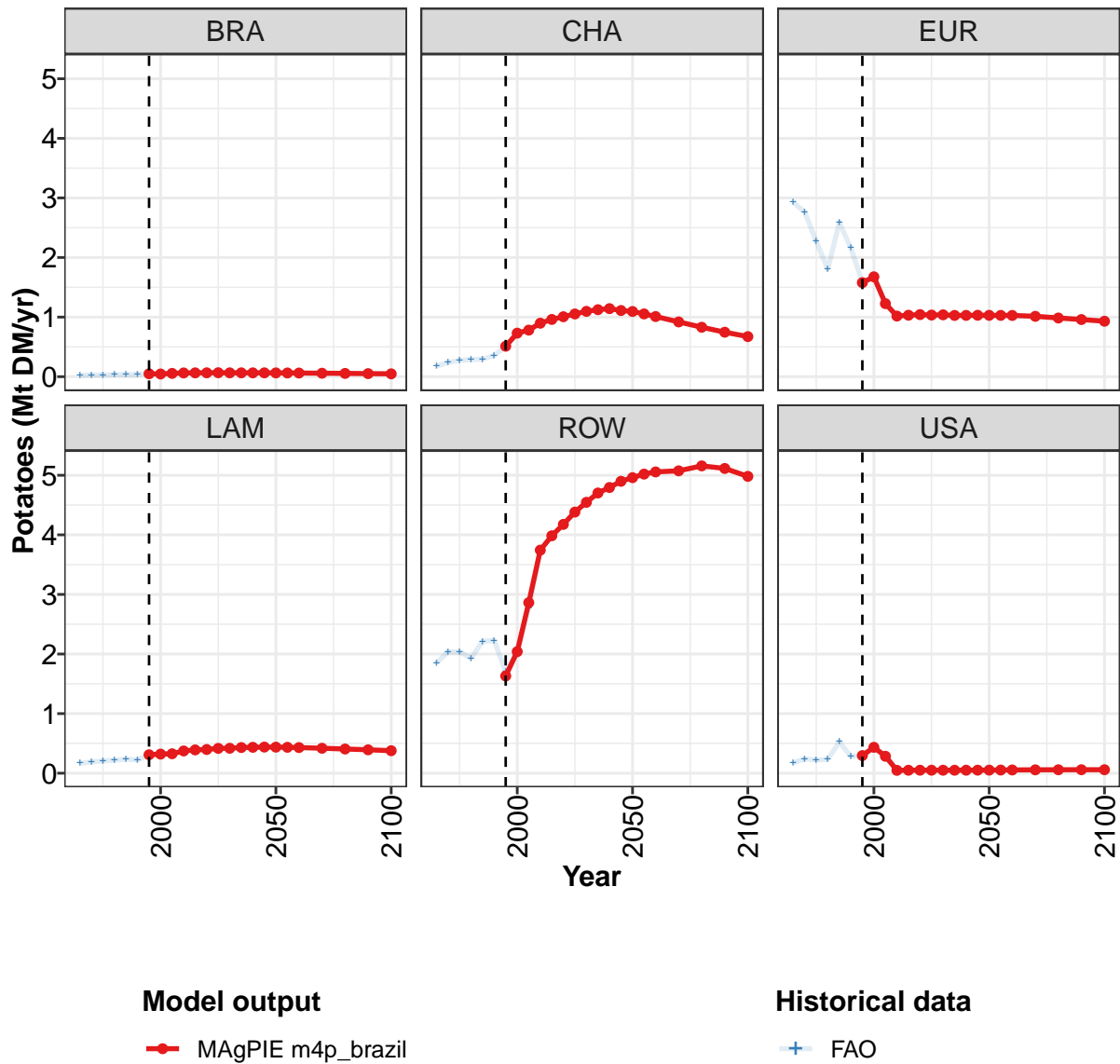


Figure 16: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.38	5.25	5.54	6.14	6.48	6.74	7.00	7.21	7.40	7.52	7.60
BRA	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.06	0.07	0.06	0.06
CHA	0.51	0.73	0.78	0.90	0.96	1.01	1.05	1.10	1.12	1.14	1.11
EUR	1.58	1.68	1.23	1.02	1.03	1.04	1.03	1.04	1.03	1.03	1.03
LAM	0.31	0.32	0.33	0.37	0.39	0.40	0.42	0.42	0.43	0.43	0.44
ROW	1.63	2.04	2.86	3.74	3.98	4.18	4.38	4.55	4.70	4.79	4.90
USA	0.30	0.43	0.28	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05

Table 49: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

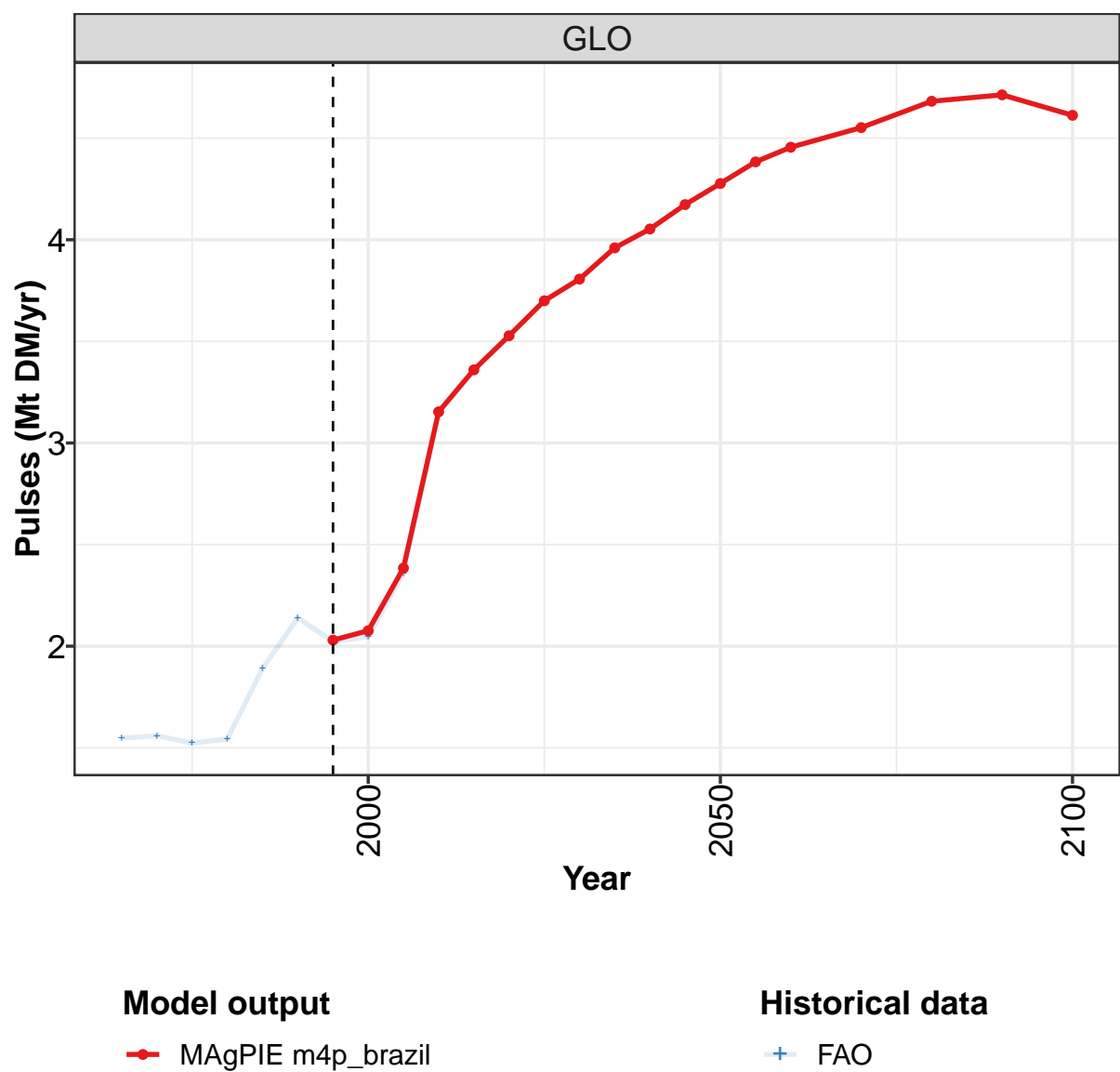
	2050	2055	2060	2070	2080	2090	2100
GLO	7.64	7.65	7.64	7.54	7.49	7.32	7.07
BRA	0.06	0.06	0.06	0.06	0.05	0.05	0.05
CHA	1.09	1.05	1.01	0.92	0.83	0.75	0.67
EUR	1.03	1.03	1.03	1.01	0.98	0.96	0.93
LAM	0.44	0.43	0.43	0.42	0.41	0.39	0.38
ROW	4.96	5.02	5.06	5.07	5.16	5.11	4.98
USA	0.05	0.05	0.05	0.06	0.06	0.06	0.06

Table 50: MAgPIE m4p_brazil — 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
BRA	0.02	0.03	0.03	0.03	0.03	0.04	0.05	0.05	0.06	0.06
CHA	0.18	0.24	0.28	0.29	0.30	0.35	0.51	0.73	0.78	0.90
EUR	2.93	2.76	2.27	1.80	2.59	2.16	1.58	1.68	1.22	1.01
LAM	0.17	0.19	0.21	0.22	0.24	0.22	0.31	0.32	0.33	0.37
ROW	1.85	2.04	2.04	1.93	2.21	2.23	1.70	2.06	2.77	3.75
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



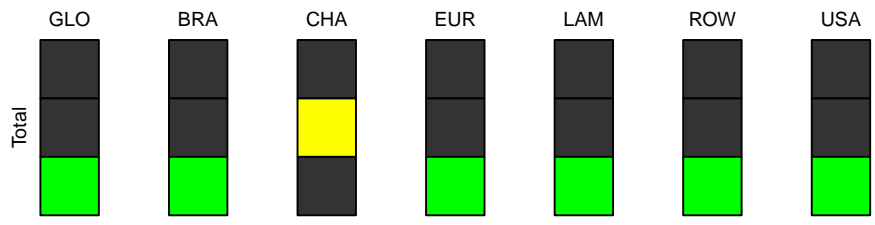
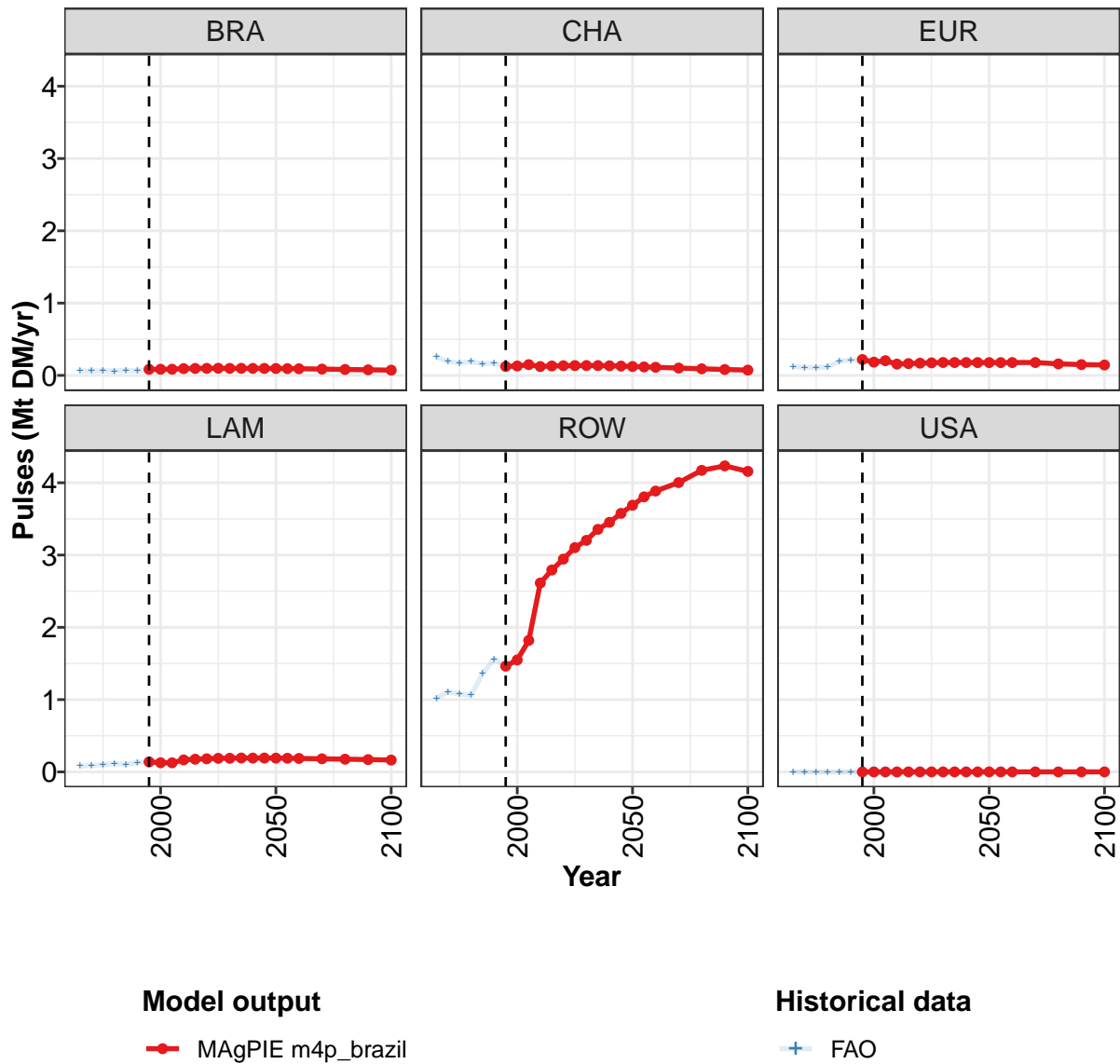


Figure 17: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.03	2.08	2.38	3.15	3.36	3.53	3.70	3.81	3.96	4.05	4.17
BRA	0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10
CHA	0.12	0.13	0.15	0.12	0.13	0.13	0.14	0.14	0.14	0.13	0.13
EUR	0.22	0.18	0.20	0.16	0.16	0.17	0.17	0.18	0.18	0.18	0.18
LAM	0.14	0.13	0.13	0.17	0.18	0.18	0.19	0.19	0.19	0.19	0.19
ROW	1.46	1.55	1.82	2.61	2.79	2.94	3.10	3.20	3.36	3.45	3.58
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_brazil — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

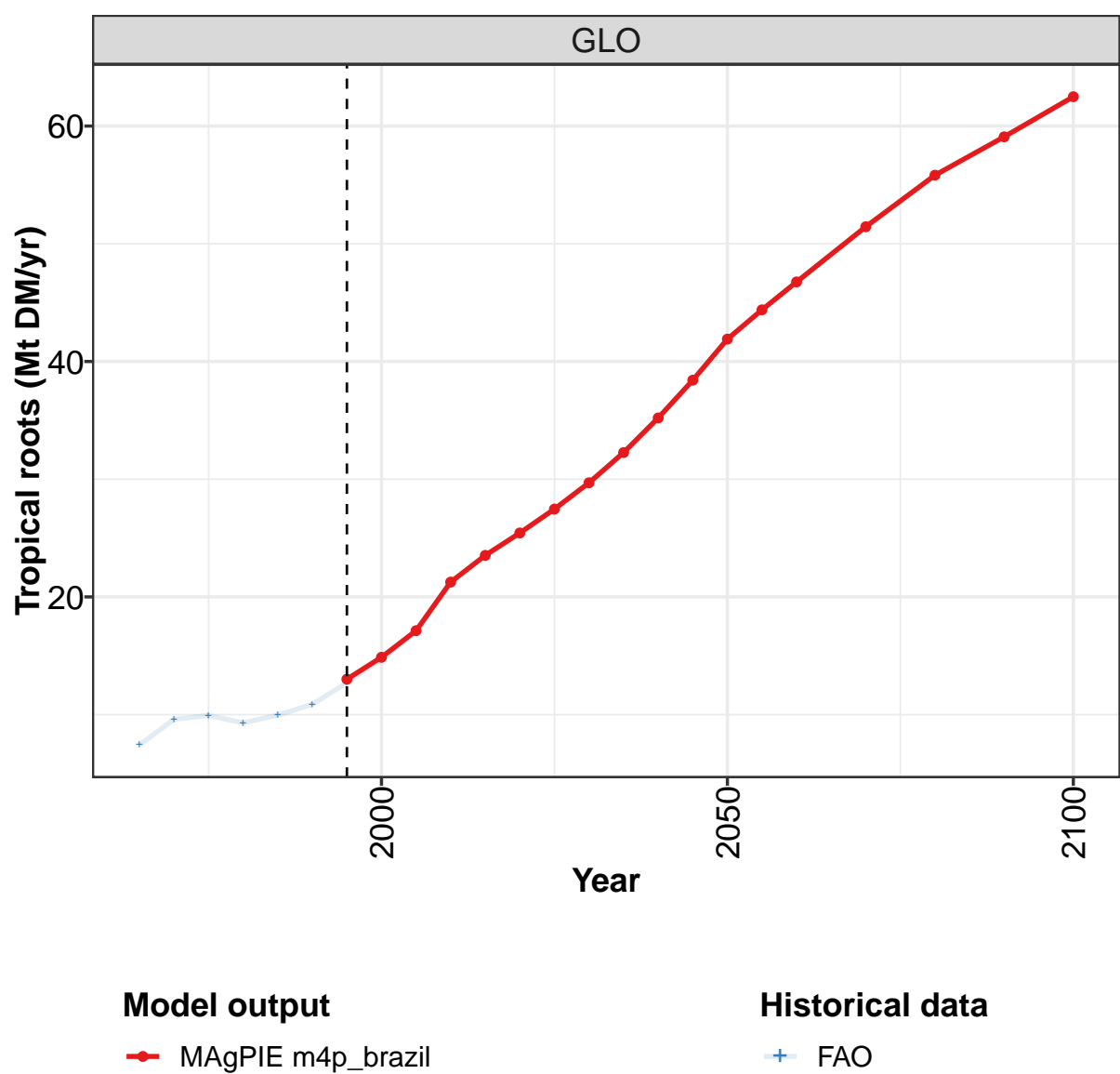
	2050	2055	2060	2070	2080	2090	2100
GLO	4.28	4.38	4.46	4.55	4.68	4.71	4.61
BRA	0.10	0.09	0.09	0.09	0.08	0.08	0.07
CHA	0.12	0.12	0.11	0.10	0.09	0.08	0.07
EUR	0.18	0.18	0.18	0.18	0.16	0.15	0.14
LAM	0.19	0.19	0.19	0.18	0.18	0.17	0.16
ROW	3.69	3.80	3.89	4.00	4.17	4.23	4.16
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 53: MAgPIE m4p_brazil — 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
BRA	0.06	0.06	0.06	0.06	0.07	0.06	0.09	0.09	0.09	0.09
CHA	0.26	0.19	0.17	0.19	0.16	0.17	0.12	0.13	0.15	0.12
EUR	0.12	0.11	0.11	0.12	0.20	0.21	0.21	0.18	0.20	0.15
LAM	0.08	0.09	0.10	0.12	0.10	0.13	0.14	0.13	0.13	0.17
ROW	1.02	1.11	1.08	1.06	1.36	1.56	1.47	1.52	1.80	2.62
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



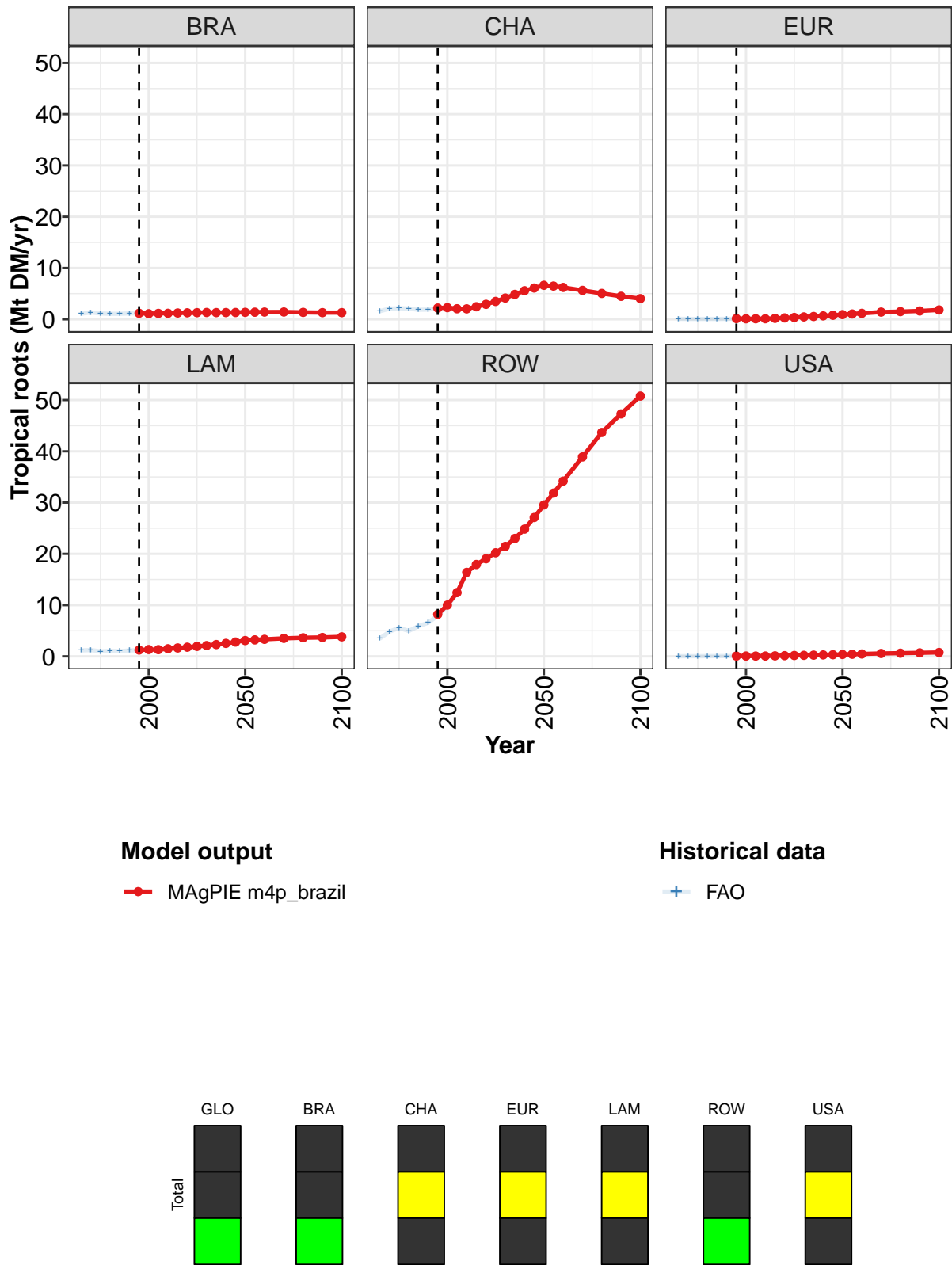


Figure 18: MAgPIE m4p.brazil — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	13.0	14.9	17.1	21.3	23.5	25.4	27.5	29.7	32.3	35.2	38.4
BRA	1.2	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3
CHA	2.2	2.3	2.1	2.0	2.4	2.9	3.5	4.1	4.9	5.6	6.1
EUR	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.5	0.7	0.8
LAM	1.2	1.3	1.3	1.5	1.6	1.8	1.9	2.1	2.3	2.5	2.8
ROW	8.2	10.0	12.4	16.4	17.9	19.0	20.2	21.5	23.0	24.8	27.1
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.brazil — Demand—Agricultural Supply Chain Loss—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 1/2]

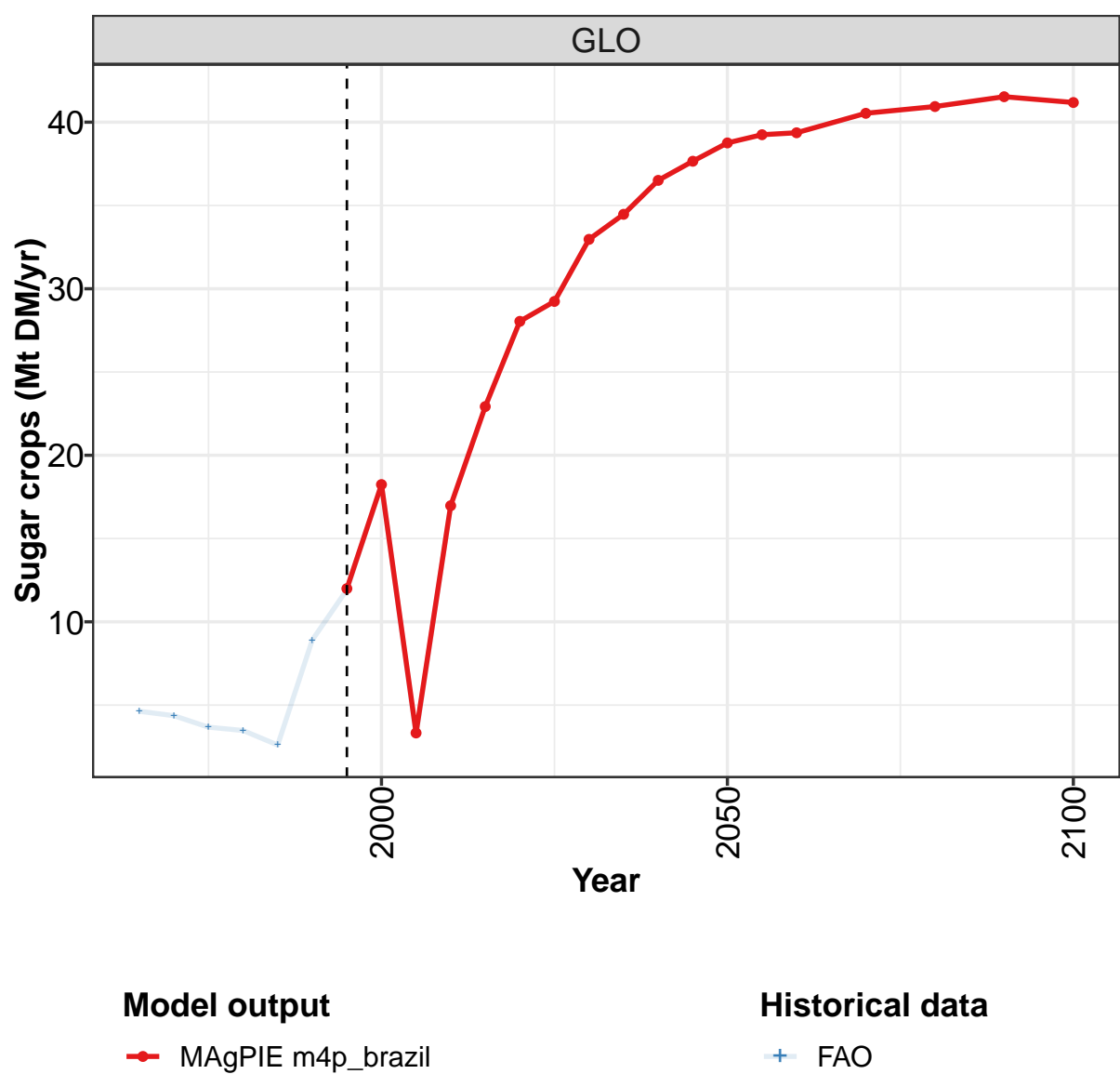
	2050	2055	2060	2070	2080	2090	2100
GLO	41.9	44.4	46.8	51.4	55.8	59.1	62.5
BRA	1.4	1.4	1.4	1.4	1.3	1.3	1.3
CHA	6.6	6.5	6.2	5.6	5.0	4.5	4.0
EUR	0.9	1.0	1.2	1.4	1.5	1.6	1.8
LAM	3.1	3.2	3.3	3.5	3.6	3.7	3.8
ROW	29.5	31.9	34.2	38.9	43.7	47.3	50.8
USA	0.4	0.4	0.5	0.6	0.6	0.7	0.8

Table 56: MAgPIE m4p.brazil — 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
BRA	1.1	1.3	1.1	1.1	1.1	1.1	1.2	1.1	1.2	1.2
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
LAM	1.2	1.2	1.0	1.1	1.0	1.1	1.2	1.3	1.3	1.5
ROW	3.5	4.8	5.6	5.0	5.9	6.6	7.9	9.8	12.3	16.4
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



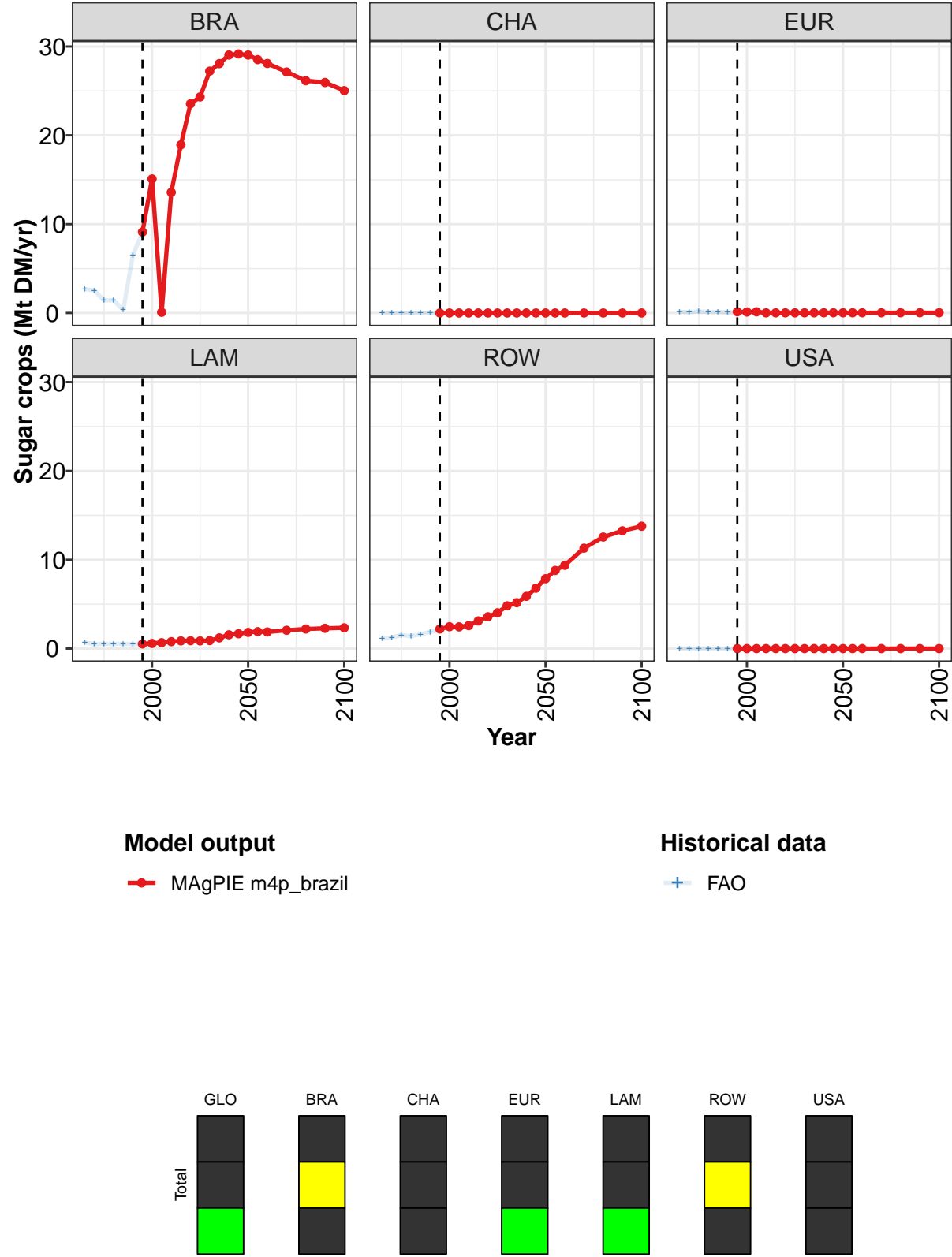


Figure 19: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	12.0	18.2	3.3	17.0	22.9	28.0	29.2	33.0	34.5	36.5	37.7
BRA	9.1	15.1	0.1	13.6	18.9	23.5	24.3	27.2	28.1	29.0	29.2
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
LAM	0.5	0.6	0.7	0.8	0.9	0.9	0.9	0.9	1.2	1.6	1.7
ROW	2.2	2.5	2.4	2.6	3.1	3.6	4.0	4.8	5.2	5.9	6.8
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 58: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops (Mt DM/yr)
[PART 1/2]

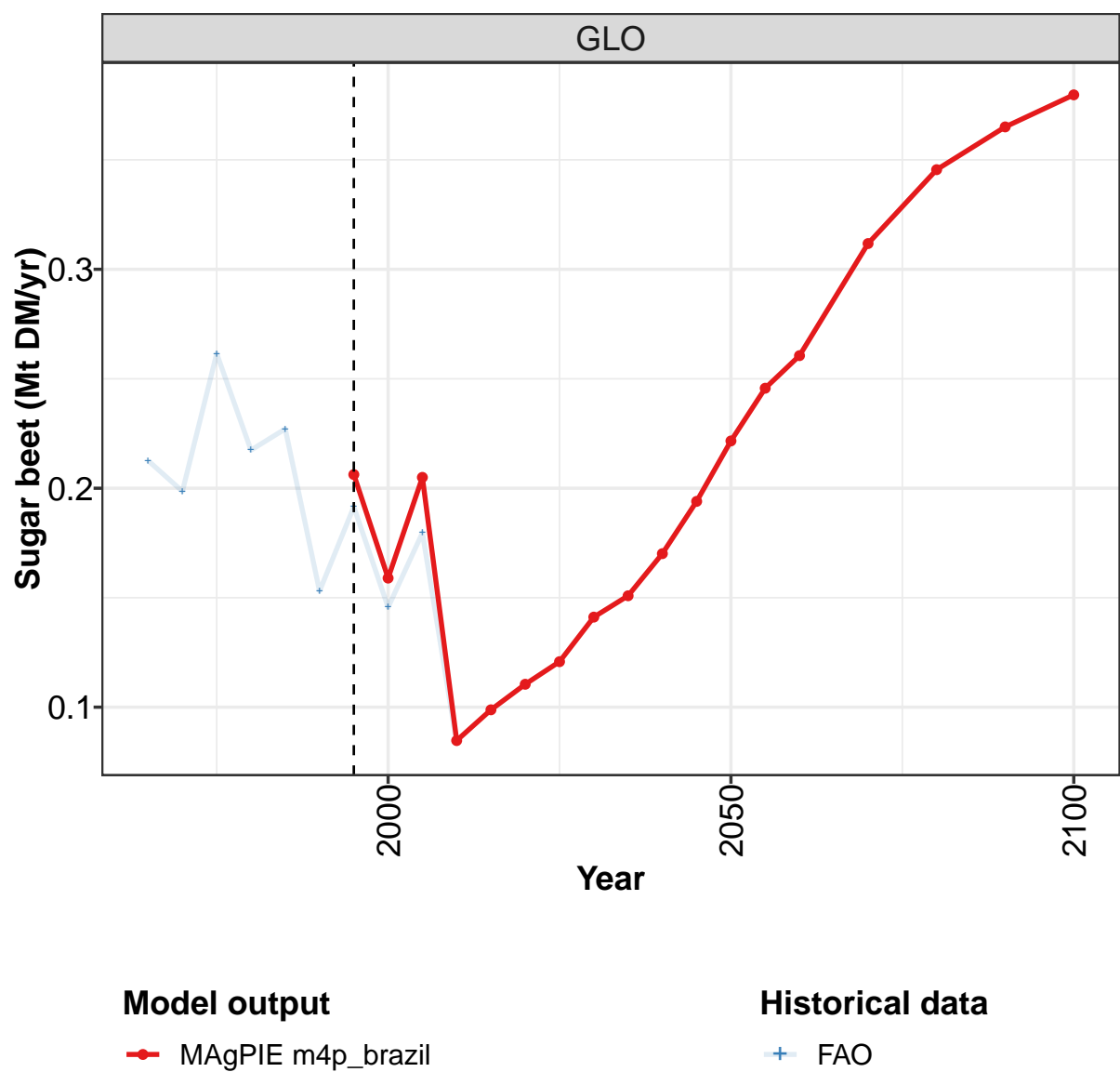
	2050	2055	2060	2070	2080	2090	2100
GLO	38.8	39.2	39.4	40.5	40.9	41.5	41.2
BRA	29.0	28.5	28.1	27.1	26.1	25.9	25.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.8	1.9	1.9	2.1	2.2	2.3	2.3
ROW	7.9	8.8	9.4	11.3	12.6	13.3	13.8
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 59: MAgPIE m4p_brazil — 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
BRA	2.7	2.5	1.4	1.4	0.3	6.5	9.1	15.1	0.1	13.7
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	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0
LAM	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7
ROW	1.1	1.3	1.5	1.4	1.6	1.9	2.1	2.4	2.3	2.6
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



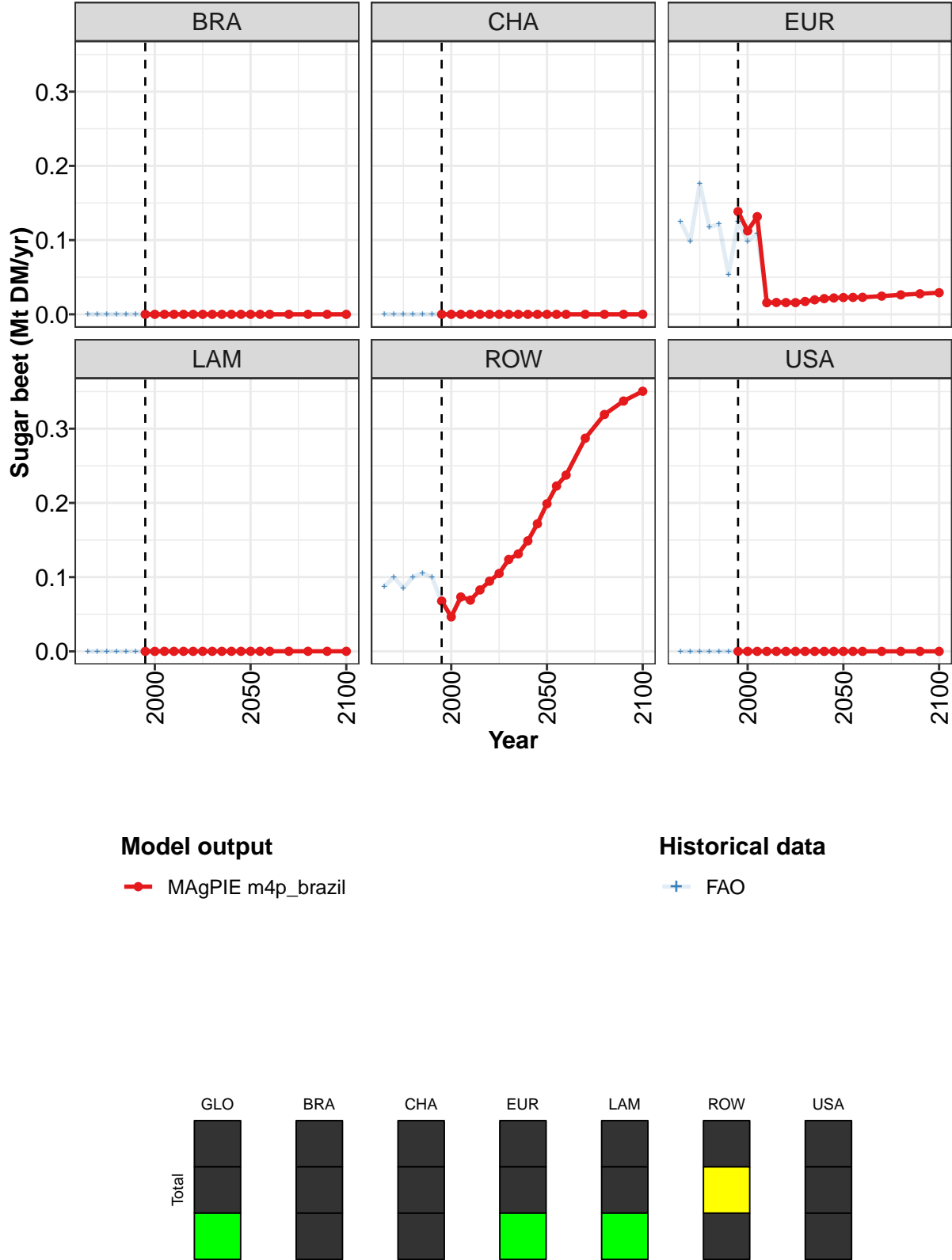


Figure 20: MAgPIE m4p.brazil — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.206	0.159	0.205	0.085	0.099	0.110	0.121	0.141	0.151	0.170	0.194
BRA	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	0.138	0.112	0.132	0.016	0.016	0.016	0.016	0.017	0.020	0.021	0.022
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.068	0.047	0.073	0.069	0.083	0.095	0.105	0.124	0.131	0.149	0.172
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_brazil — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

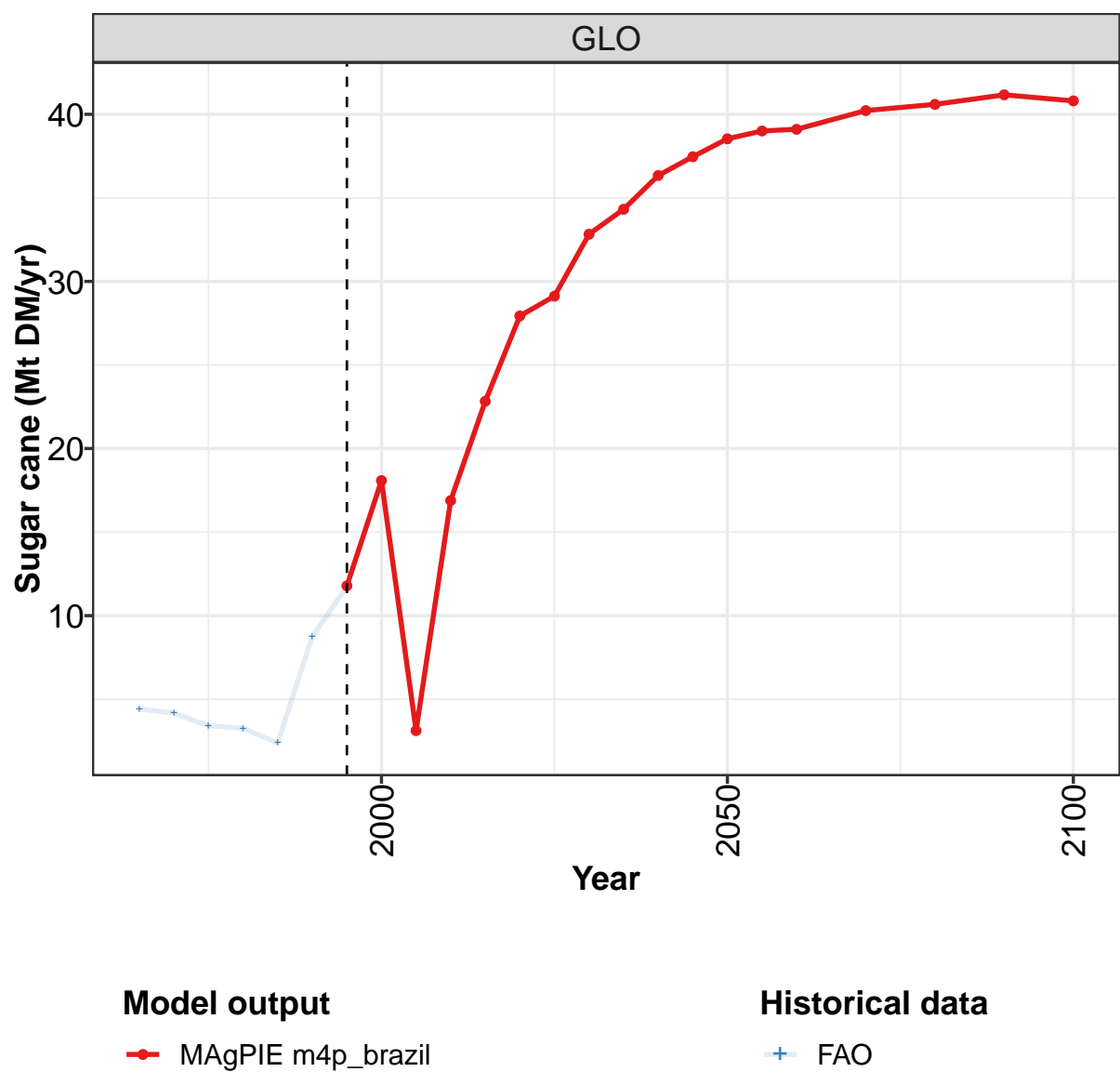
	2050	2055	2060	2070	2080	2090	2100
GLO	0.222	0.246	0.261	0.312	0.346	0.365	0.380
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.023	0.023	0.023	0.025	0.026	0.028	0.029
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.199	0.223	0.238	0.287	0.319	0.337	0.350
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 62: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.088	0.100	0.085	0.100	0.106	0.100	0.066	0.047	0.071	0.069
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



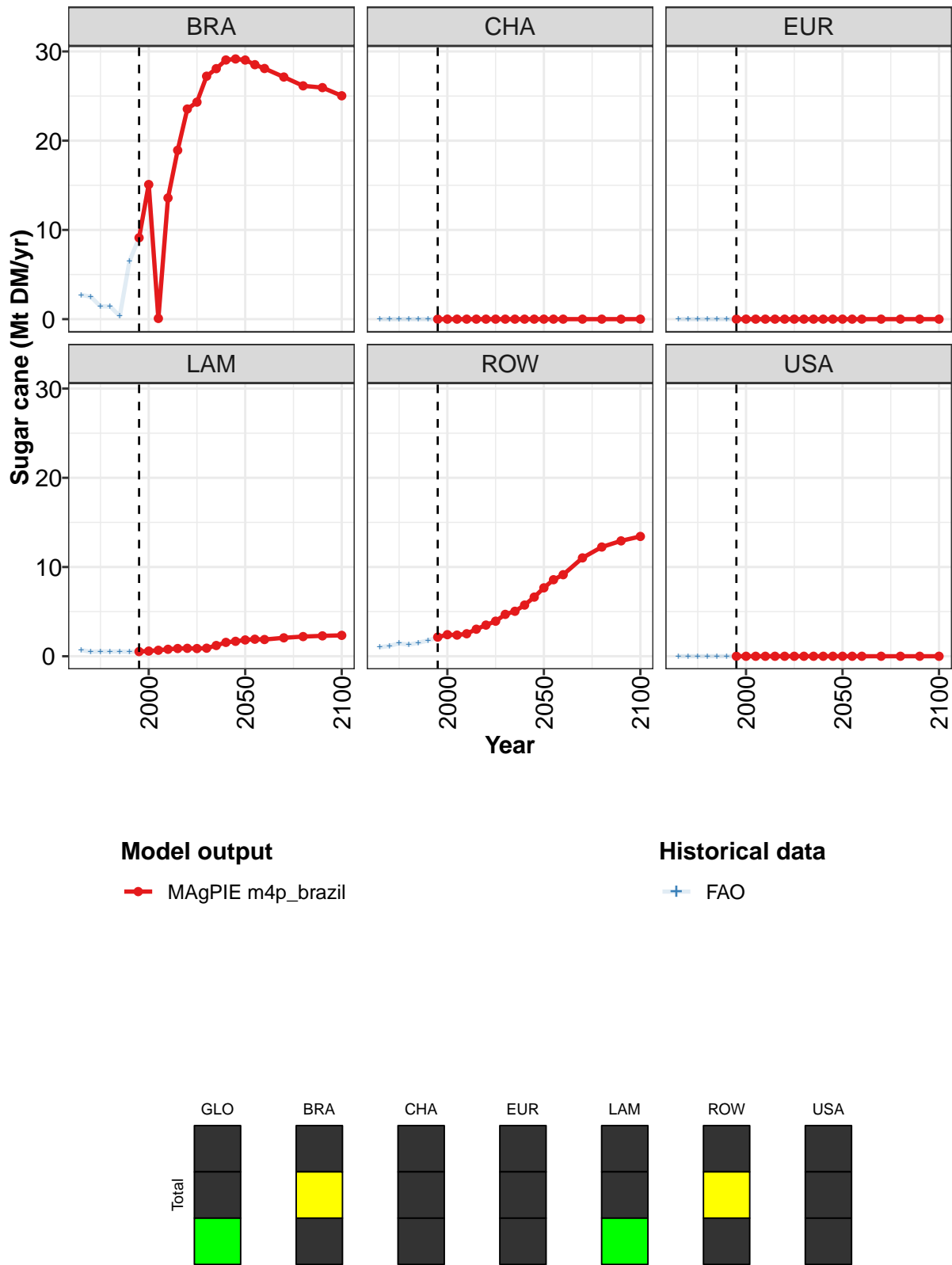


Figure 21: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	11.8	18.1	3.1	16.9	22.8	27.9	29.1	32.8	34.3	36.3	37.5
BRA	9.1	15.1	0.1	13.6	18.9	23.5	24.3	27.2	28.1	29.0	29.2
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
LAM	0.5	0.6	0.7	0.8	0.9	0.9	0.9	0.9	1.2	1.6	1.7
ROW	2.1	2.4	2.4	2.5	3.0	3.5	3.9	4.7	5.0	5.7	6.6
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

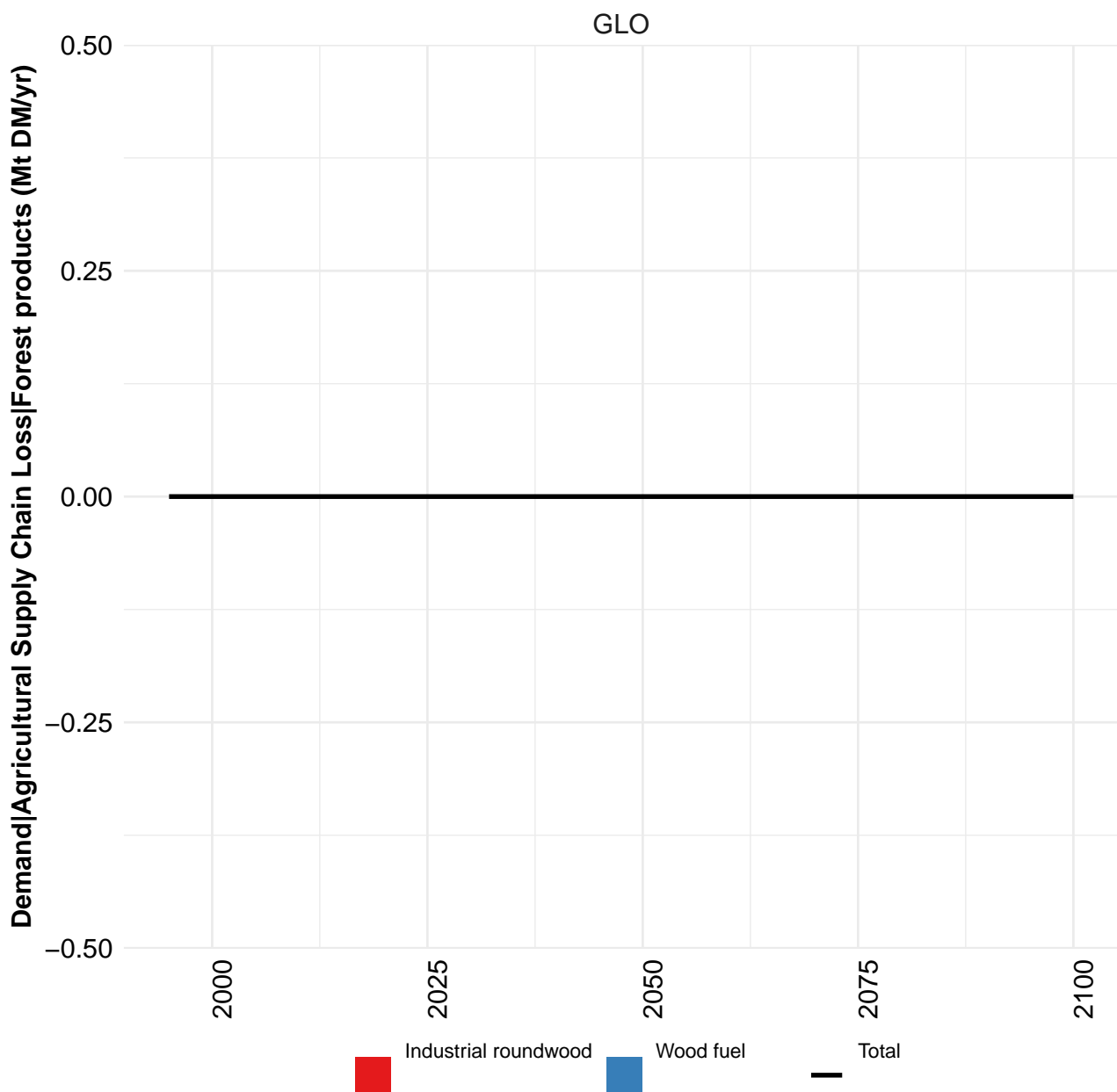
Table 64: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 1/2]

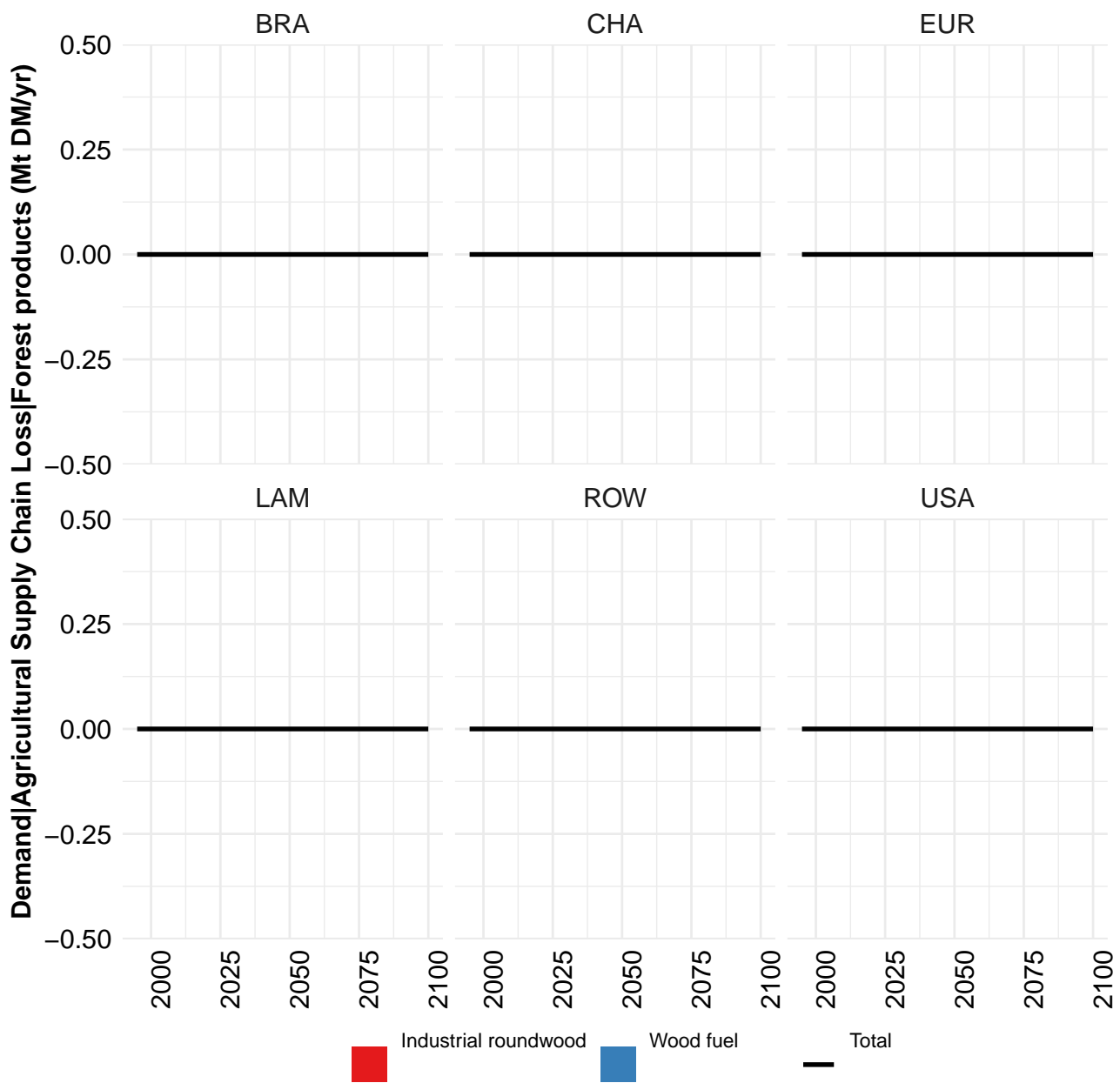
	2050	2055	2060	2070	2080	2090	2100
GLO	38.5	39.0	39.1	40.2	40.6	41.2	40.8
BRA	29.0	28.5	28.1	27.1	26.1	25.9	25.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.8	1.9	1.9	2.1	2.2	2.3	2.3
ROW	7.7	8.6	9.1	11.0	12.2	12.9	13.4
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

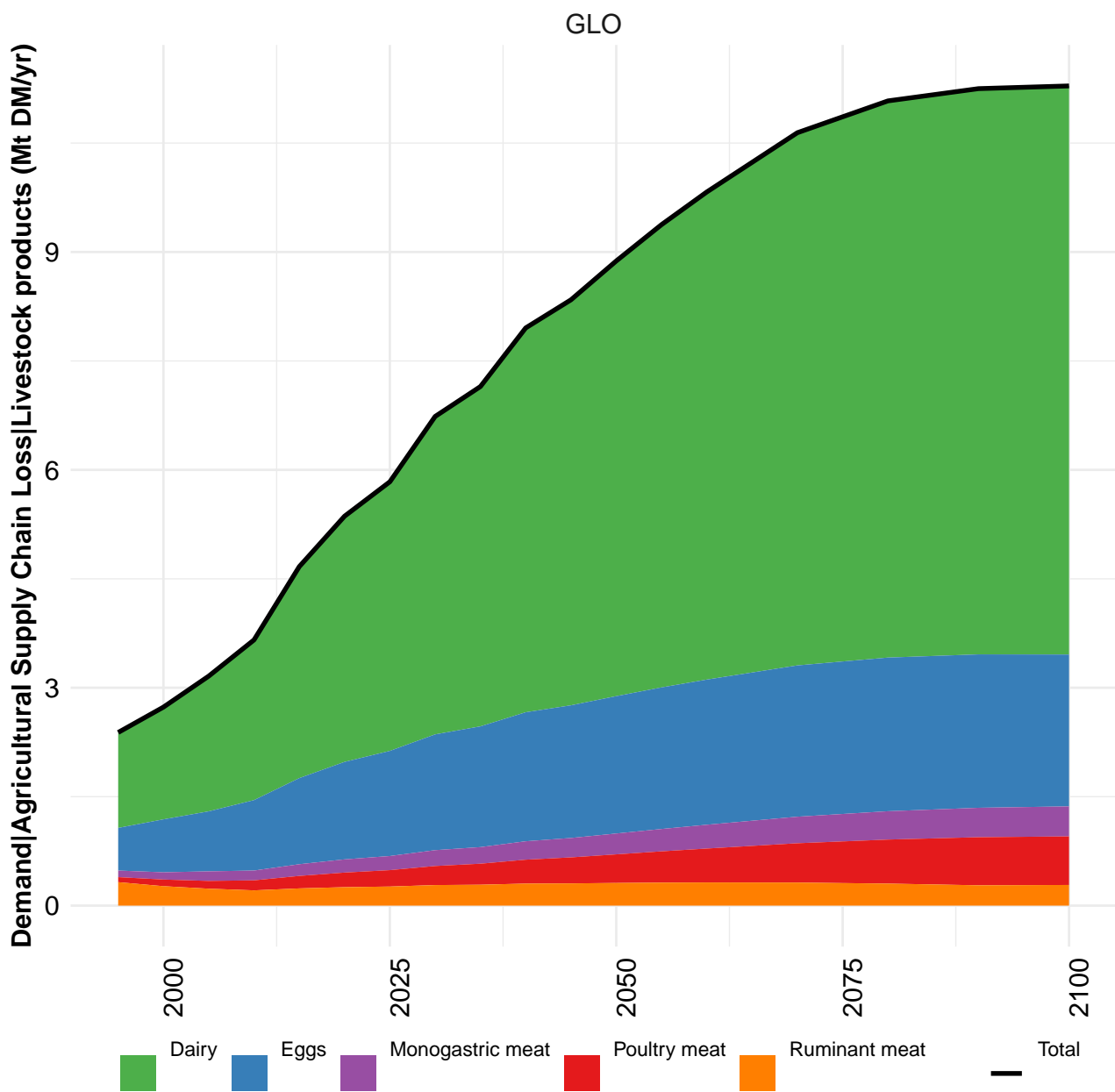
Table 65: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 2/2]

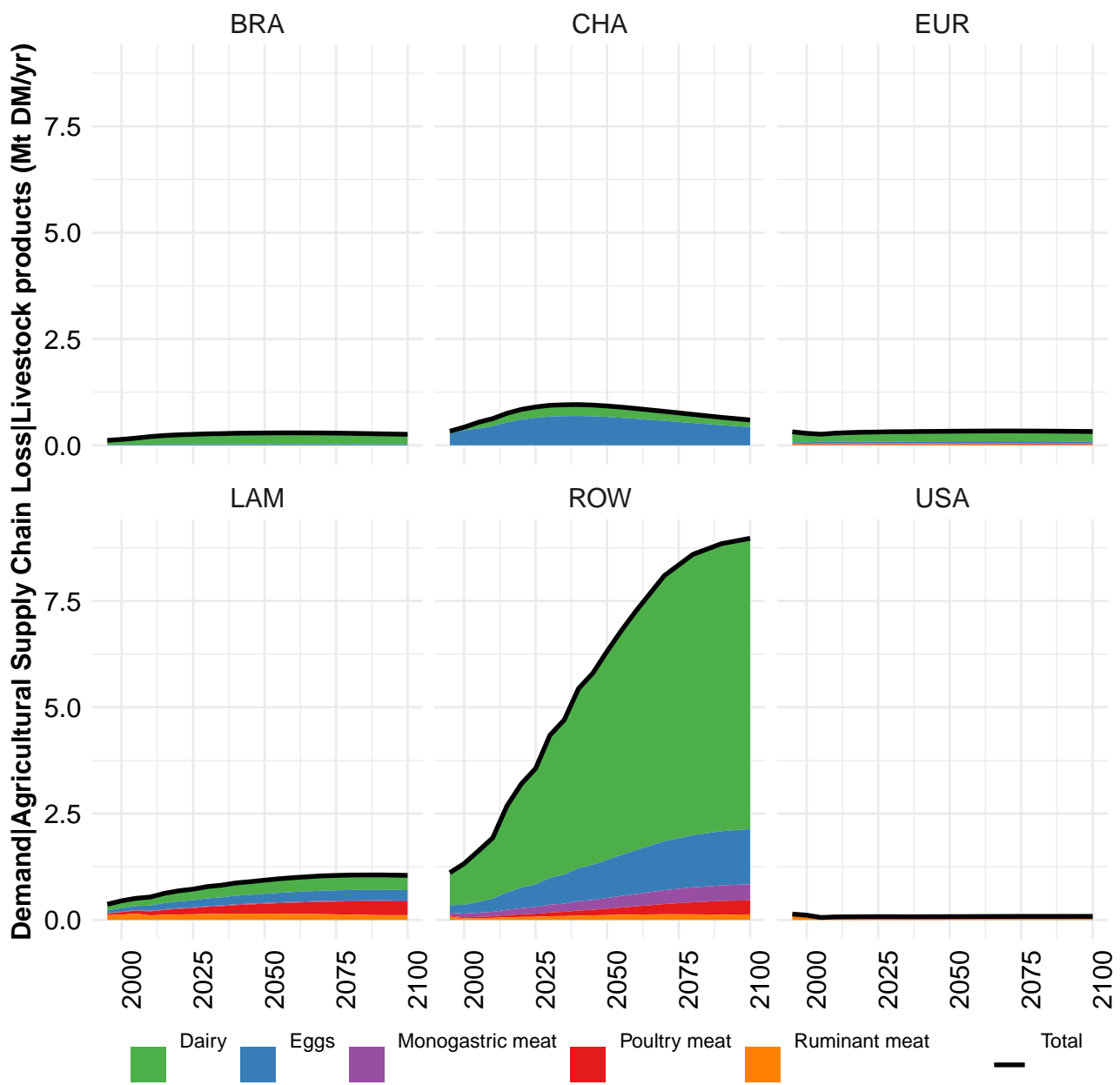
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.4	4.2	3.4	3.3	2.4	8.8	11.7	18.1	3.0	16.9
BRA	2.7	2.5	1.4	1.4	0.3	6.5	9.1	15.1	0.1	13.7
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7
ROW	1.0	1.2	1.4	1.3	1.5	1.8	2.1	2.4	2.3	2.5
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)

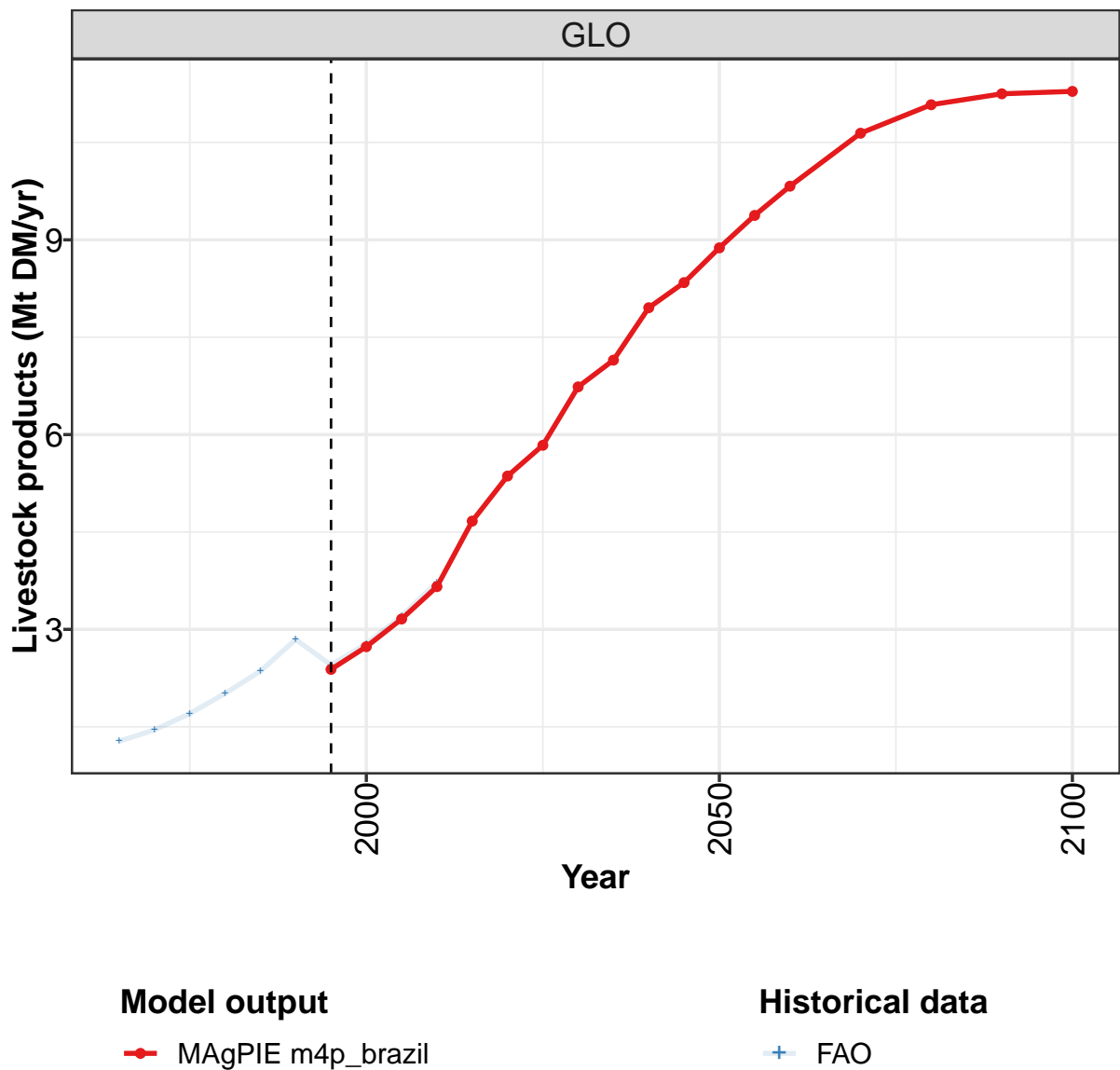








3.2 Livestock products



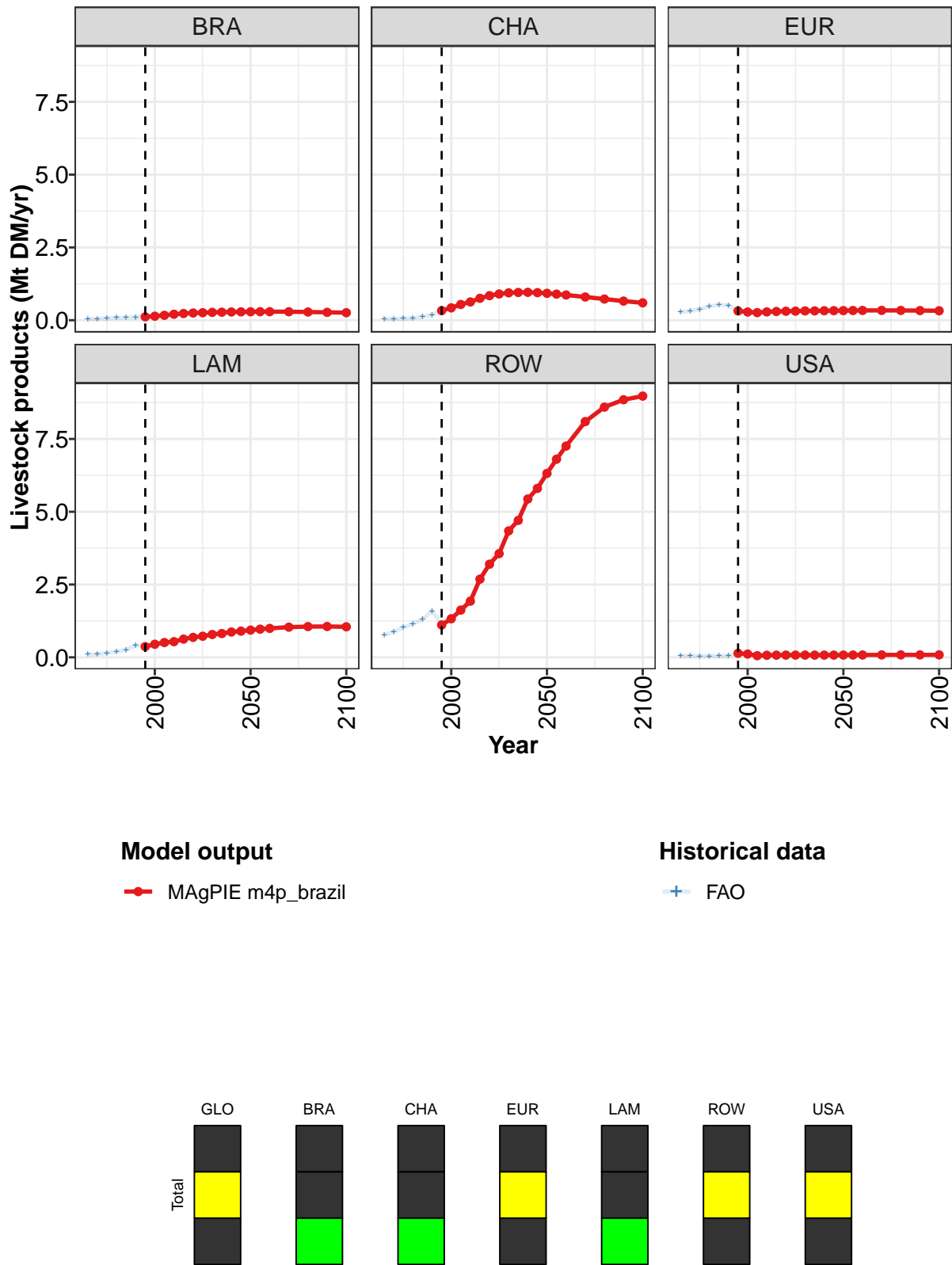


Figure 22: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Livestock products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.4	2.7	3.2	3.7	4.7	5.4	5.8	6.7	7.1	8.0	8.3
BRA	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
CHA	0.3	0.4	0.5	0.6	0.8	0.8	0.9	0.9	1.0	1.0	0.9
EUR	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
LAM	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.9	0.9
ROW	1.1	1.3	1.6	1.9	2.7	3.2	3.6	4.3	4.7	5.4	5.8
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_brazil — Demand—Agricultural Supply Chain Loss—Livestock products (Mt DM/yr)
[PART 1/2]

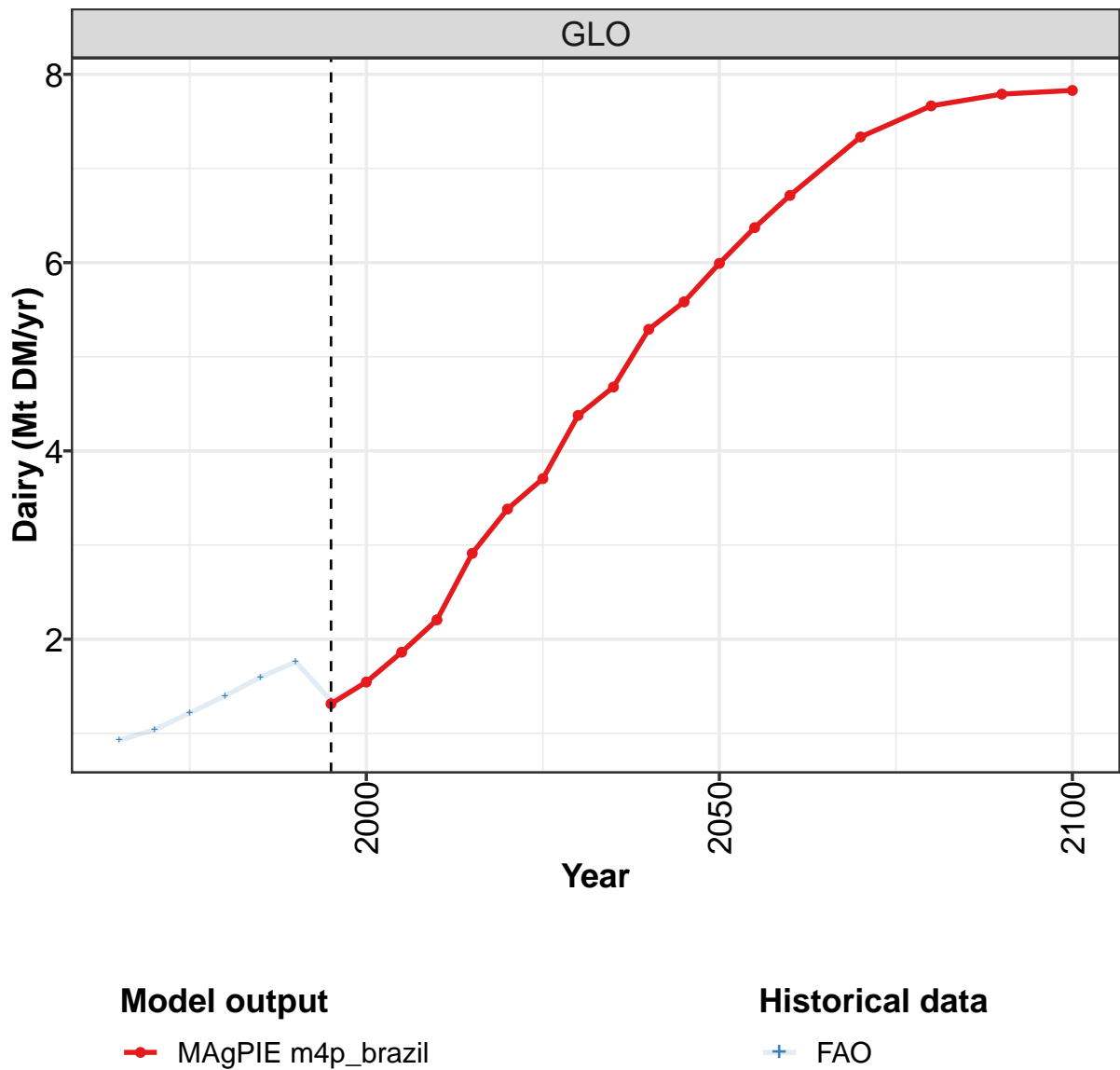
	2050	2055	2060	2070	2080	2090	2100
GLO	8.9	9.4	9.8	10.6	11.1	11.2	11.3
BRA	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CHA	0.9	0.9	0.9	0.8	0.7	0.7	0.6
EUR	0.3	0.3	0.3	0.3	0.3	0.3	0.3
LAM	0.9	1.0	1.0	1.0	1.1	1.1	1.0
ROW	6.3	6.8	7.3	8.1	8.6	8.8	9.0
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 68: MAgPIE m4p_brazil — 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
BRA	0.04	0.05	0.07	0.08	0.09	0.10	0.12	0.14	0.17	0.21
CHA	0.04	0.04	0.05	0.07	0.13	0.18	0.34	0.44	0.55	0.64
EUR	0.28	0.32	0.38	0.48	0.54	0.50	0.32	0.28	0.26	0.29
LAM	0.10	0.11	0.14	0.20	0.25	0.42	0.37	0.46	0.52	0.55
ROW	0.77	0.88	1.02	1.14	1.31	1.59	1.16	1.34	1.64	1.96
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



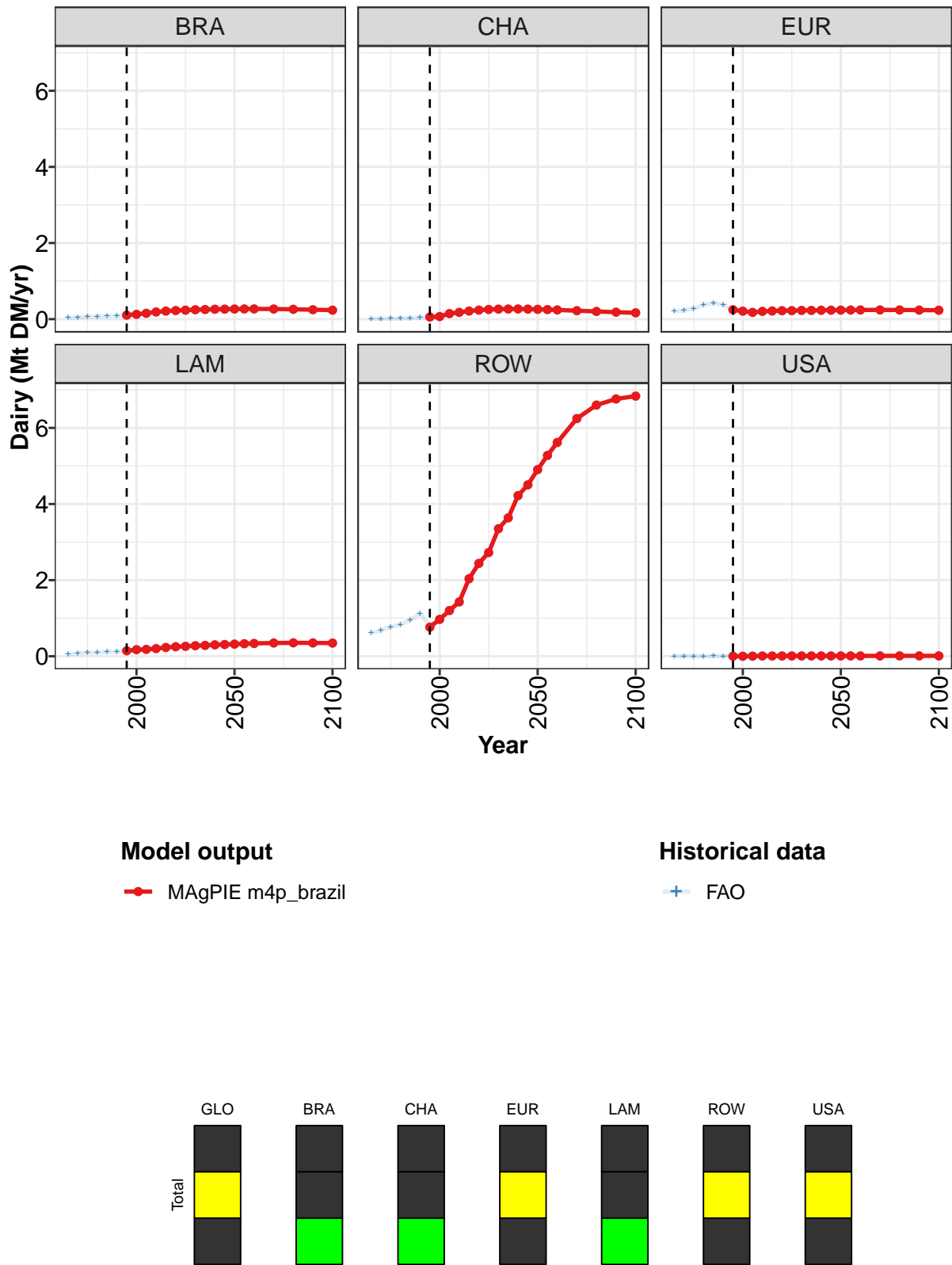


Figure 23: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Livestock products—Dairy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.31	1.55	1.86	2.21	2.91	3.38	3.71	4.38	4.68	5.29	5.58
BRA	0.10	0.13	0.15	0.19	0.21	0.23	0.24	0.25	0.25	0.26	0.26
CHA	0.06	0.07	0.14	0.18	0.21	0.24	0.25	0.26	0.27	0.27	0.26
EUR	0.25	0.21	0.18	0.20	0.21	0.22	0.22	0.23	0.23	0.23	0.23
LAM	0.14	0.17	0.18	0.20	0.23	0.25	0.26	0.28	0.28	0.30	0.31
ROW	0.76	0.97	1.20	1.43	2.04	2.44	2.72	3.35	3.64	4.22	4.50
USA	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Table 70: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Livestock products—Dairy (Mt DM/yr) [PART 1/2]

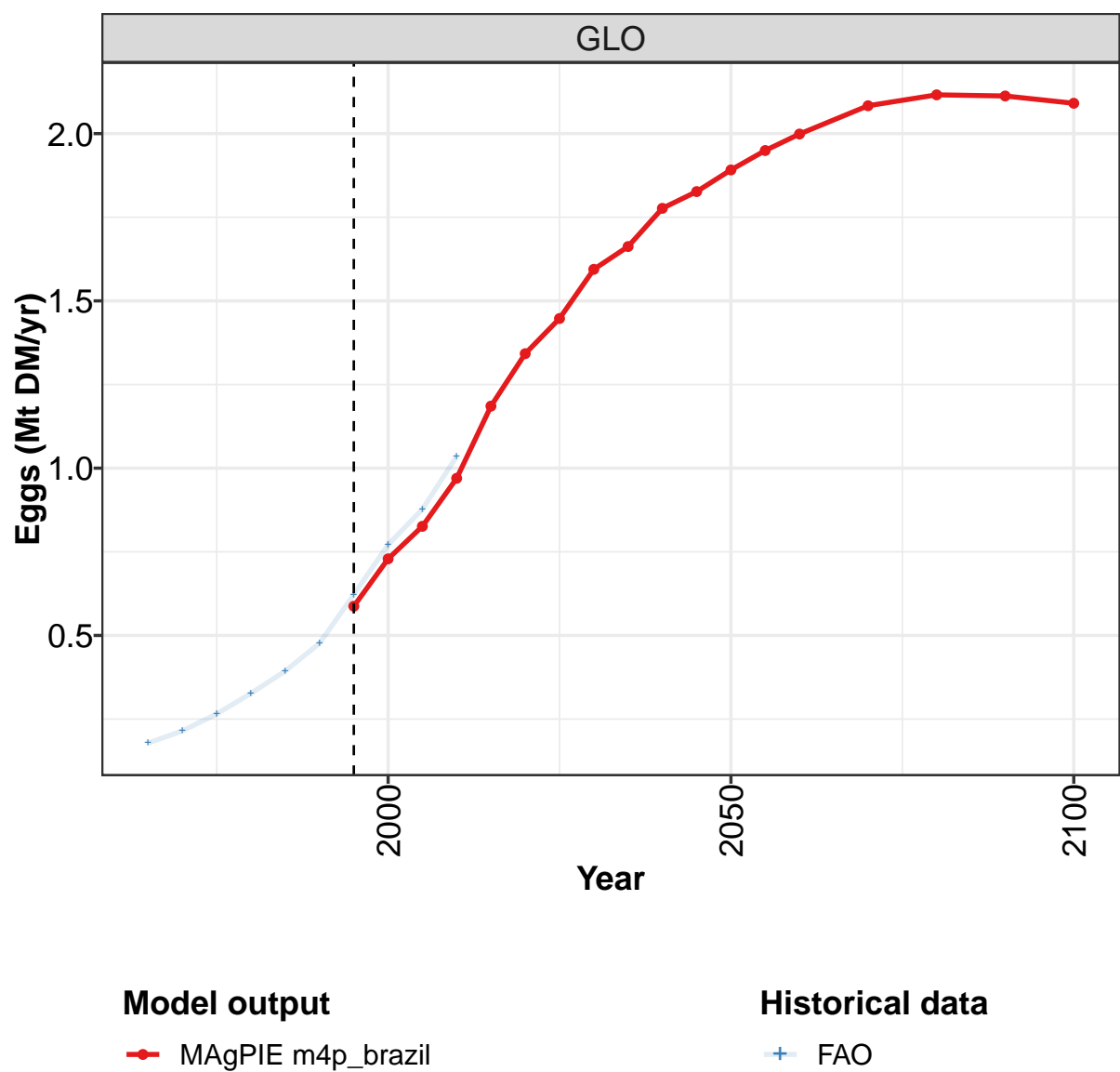
	2050	2055	2060	2070	2080	2090	2100
GLO	5.99	6.37	6.71	7.33	7.66	7.79	7.83
BRA	0.27	0.27	0.27	0.27	0.26	0.25	0.24
CHA	0.26	0.25	0.24	0.22	0.20	0.18	0.17
EUR	0.24	0.24	0.24	0.24	0.24	0.24	0.23
LAM	0.32	0.33	0.34	0.35	0.35	0.35	0.35
ROW	4.90	5.28	5.62	6.25	6.60	6.76	6.84
USA	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Table 71: MAgPIE m4p_brazil — 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
BRA	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.13	0.16	0.19
CHA	0.01	0.01	0.02	0.02	0.03	0.04	0.06	0.07	0.14	0.18
EUR	0.20	0.23	0.28	0.37	0.43	0.38	0.25	0.21	0.18	0.20
LAM	0.06	0.08	0.09	0.10	0.11	0.12	0.14	0.17	0.18	0.20
ROW	0.61	0.67	0.77	0.83	0.95	1.12	0.80	0.97	1.20	1.43
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



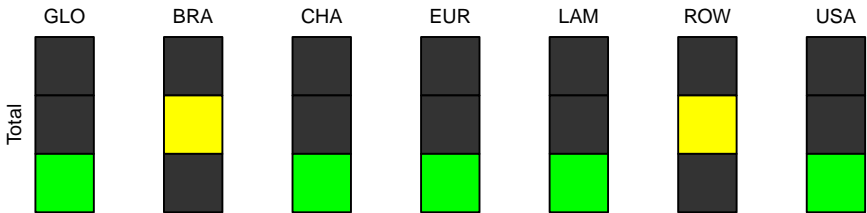
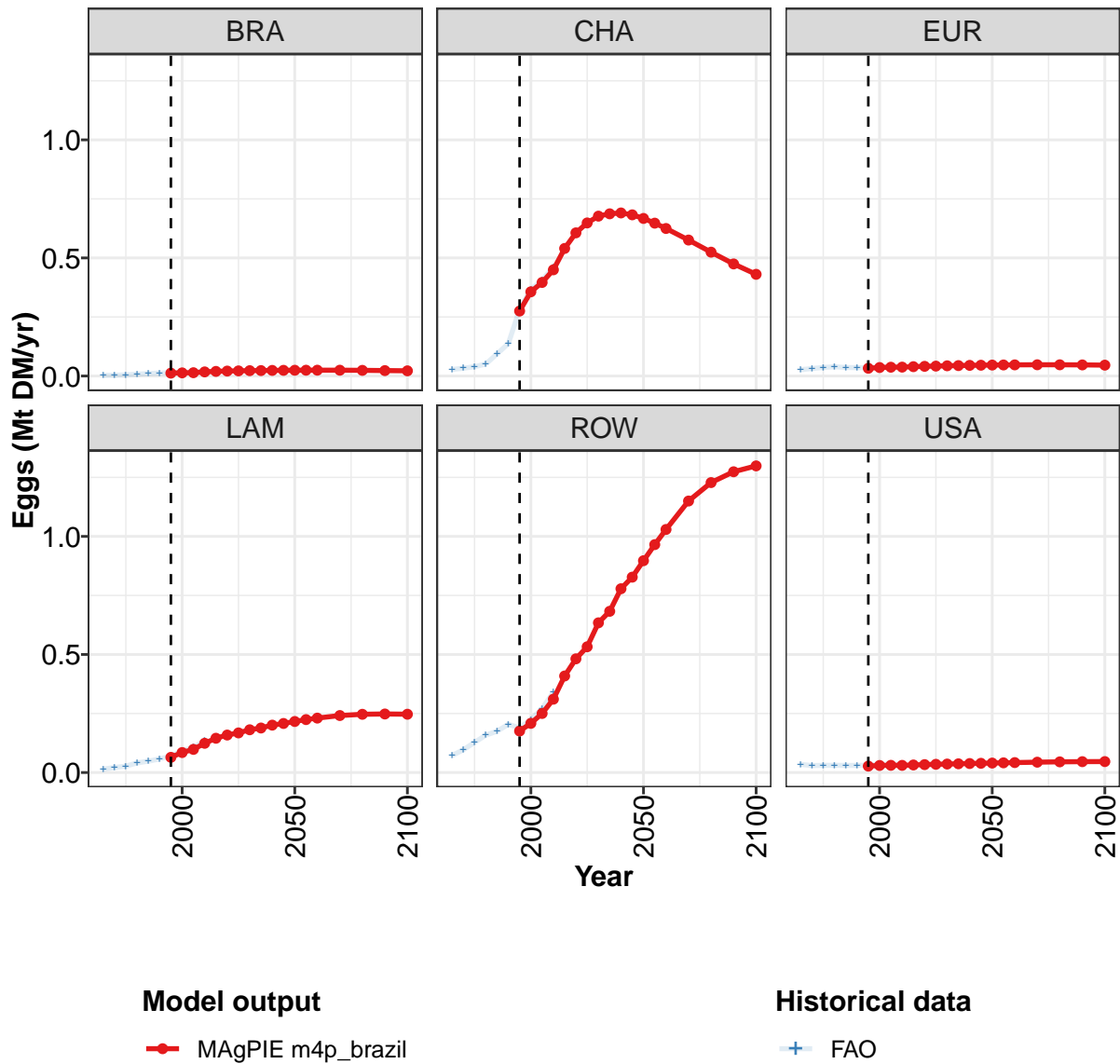


Figure 24: MAGPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Livestock products—Eggs (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.59	0.73	0.83	0.97	1.19	1.34	1.45	1.59	1.66	1.78	1.83
BRA	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
CHA	0.28	0.36	0.40	0.45	0.54	0.61	0.65	0.68	0.69	0.69	0.68
EUR	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05
LAM	0.06	0.08	0.10	0.12	0.15	0.16	0.17	0.18	0.19	0.20	0.21
ROW	0.18	0.21	0.25	0.31	0.41	0.48	0.53	0.63	0.68	0.78	0.83
USA	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04

Table 73: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Livestock products—Eggs (Mt DM/yr) [PART 1/2]

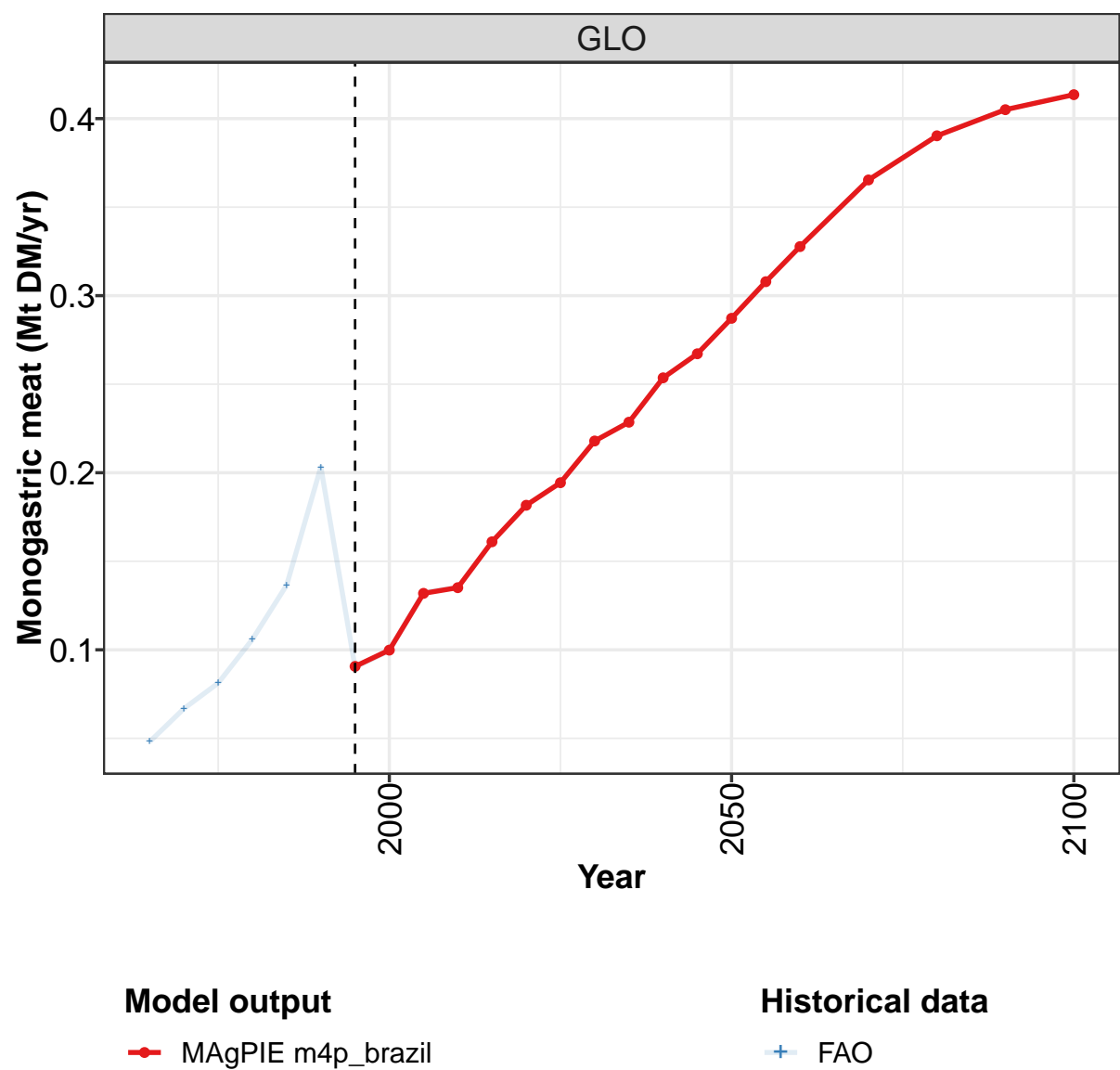
	2050	2055	2060	2070	2080	2090	2100
GLO	1.89	1.95	2.00	2.08	2.12	2.11	2.09
BRA	0.02	0.02	0.02	0.02	0.02	0.02	0.02
CHA	0.67	0.65	0.62	0.58	0.52	0.47	0.43
EUR	0.05	0.05	0.05	0.05	0.05	0.05	0.05
LAM	0.22	0.22	0.23	0.24	0.25	0.25	0.25
ROW	0.90	0.97	1.03	1.15	1.23	1.27	1.30
USA	0.04	0.04	0.04	0.04	0.05	0.05	0.05

Table 74: MAgPIE m4p_brazil — 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
BRA	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02
CHA	0.03	0.03	0.04	0.05	0.09	0.14	0.28	0.37	0.41	0.46
EUR	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
LAM	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.09	0.11	0.13
ROW	0.07	0.10	0.13	0.16	0.17	0.20	0.19	0.22	0.27	0.34
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



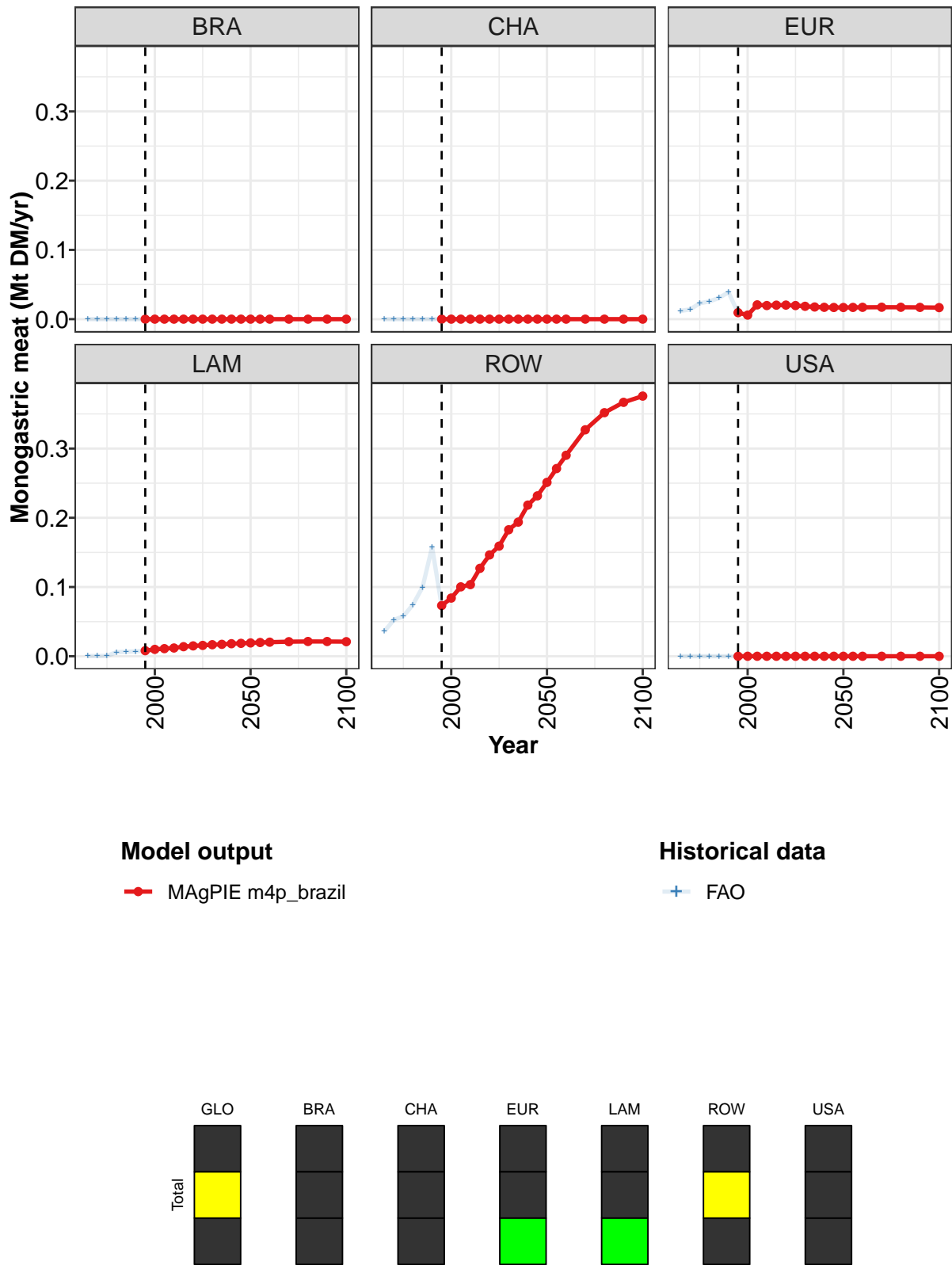


Figure 25: MAGPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Livestock products—Monogastric meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.091	0.100	0.132	0.135	0.161	0.182	0.194	0.218	0.229	0.254	0.267
BRA	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	0.009	0.006	0.021	0.020	0.020	0.020	0.020	0.019	0.018	0.017	0.017
LAM	0.008	0.010	0.011	0.012	0.014	0.015	0.016	0.017	0.017	0.018	0.019
ROW	0.073	0.084	0.100	0.103	0.127	0.146	0.159	0.183	0.194	0.218	0.232
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.brazil — Demand—Agricultural Supply Chain Loss—Livestock products—Monogastric meat (Mt DM/yr) [PART 1/2]

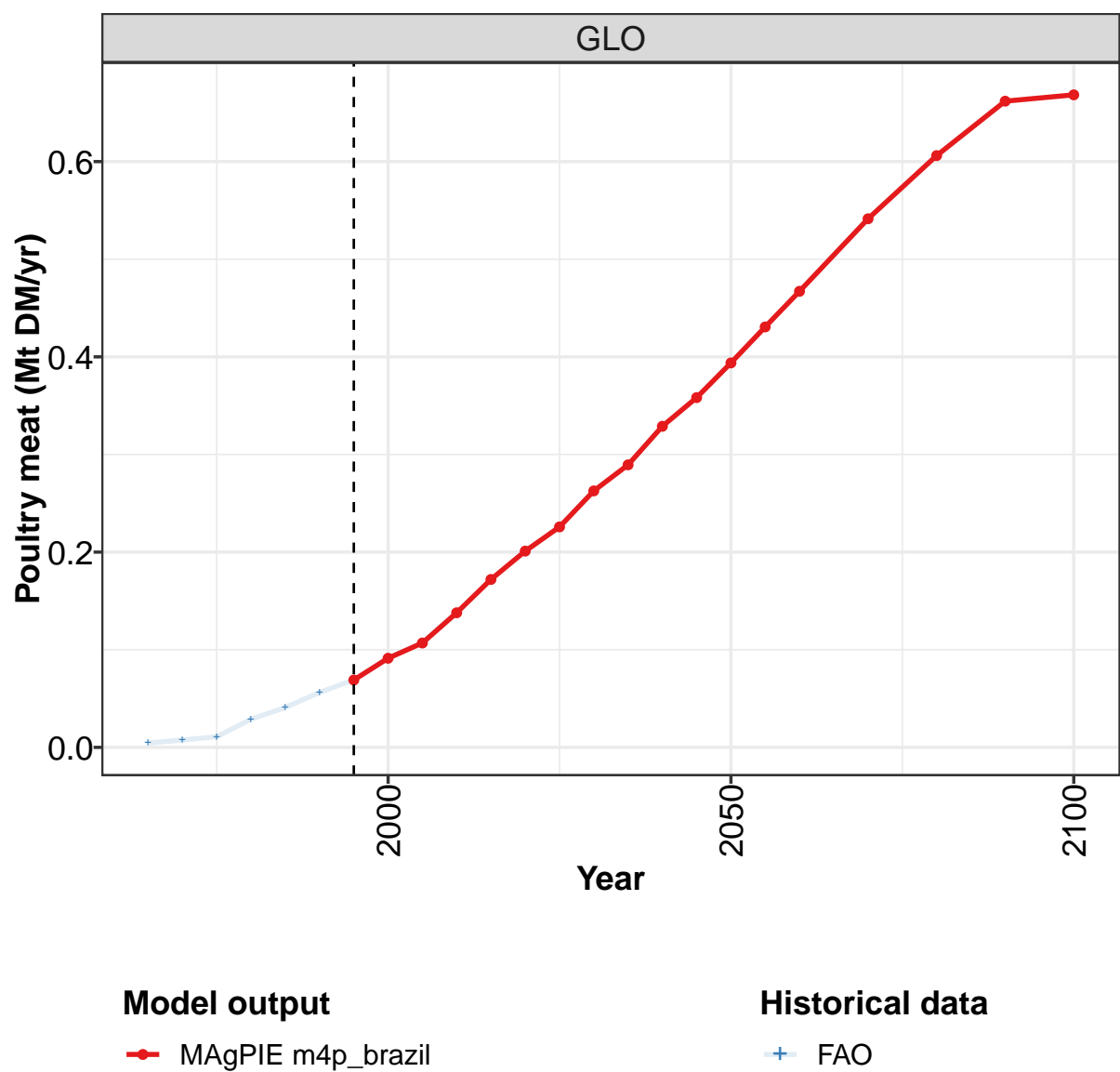
	2050	2055	2060	2070	2080	2090	2100
GLO	0.287	0.308	0.328	0.365	0.390	0.405	0.414
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.017	0.017	0.017	0.017	0.017	0.017	0.017
LAM	0.019	0.020	0.020	0.021	0.021	0.021	0.021
ROW	0.251	0.271	0.290	0.327	0.352	0.367	0.376
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 77: MAgPIE m4p.brazil — 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
BRA	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	0.012	0.014	0.023	0.025	0.031	0.039	0.009	0.005	0.021	0.020
LAM	0.000	0.000	0.001	0.006	0.006	0.007	0.008	0.010	0.011	0.012
ROW	0.036	0.052	0.058	0.074	0.100	0.158	0.073	0.084	0.101	0.104
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



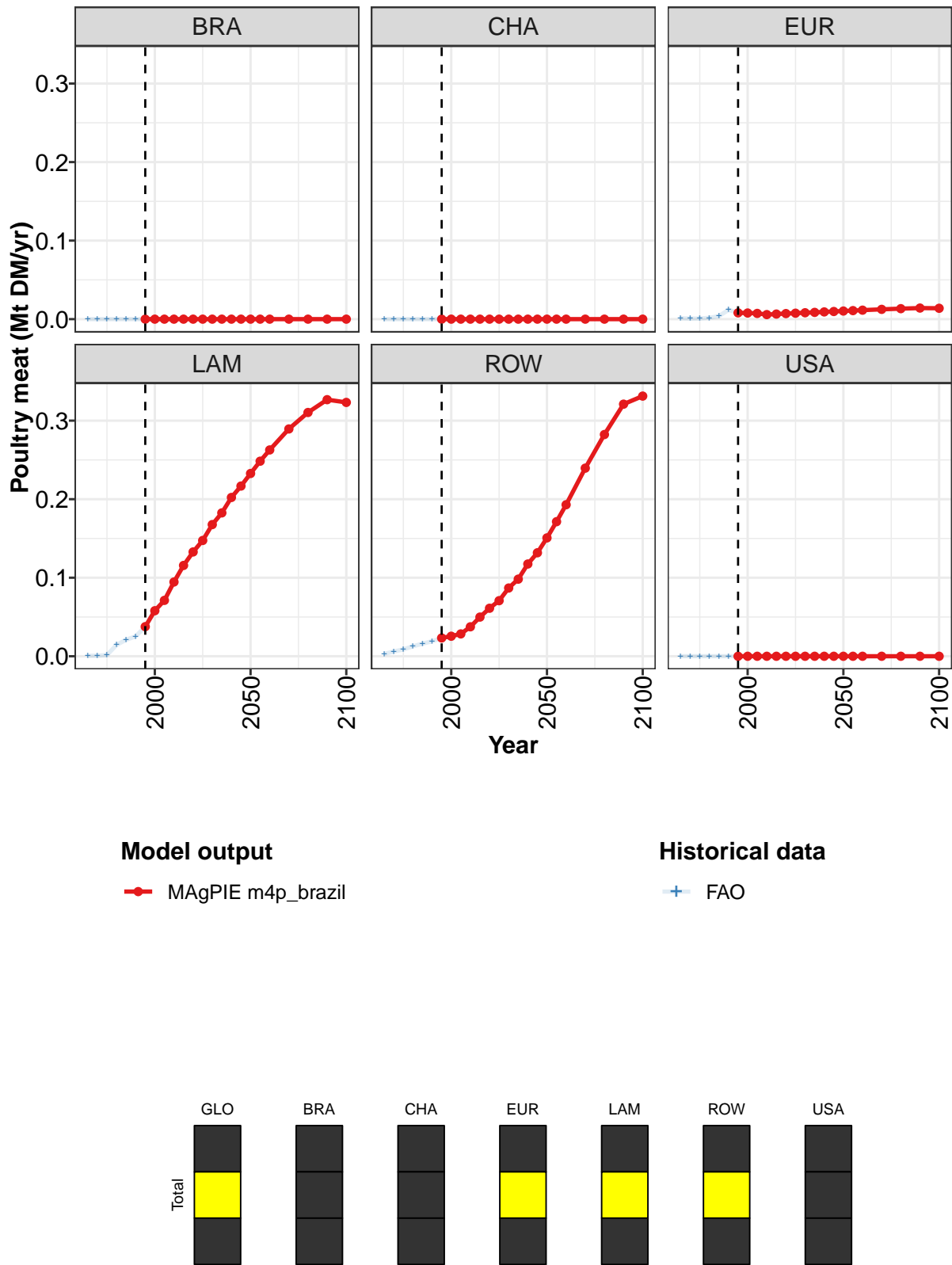


Figure 26: MAGPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Livestock products—Poultry meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.069	0.091	0.107	0.138	0.172	0.201	0.226	0.263	0.289	0.329	0.358
BRA	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	0.006	0.007	0.008	0.008	0.009	0.009	0.010
LAM	0.038	0.058	0.071	0.095	0.116	0.133	0.147	0.168	0.183	0.202	0.217
ROW	0.023	0.025	0.028	0.038	0.050	0.061	0.071	0.087	0.098	0.117	0.132
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_brazil — Demand—Agricultural Supply Chain Loss—Livestock products—Poultry meat (Mt DM/yr) [PART 1/2]

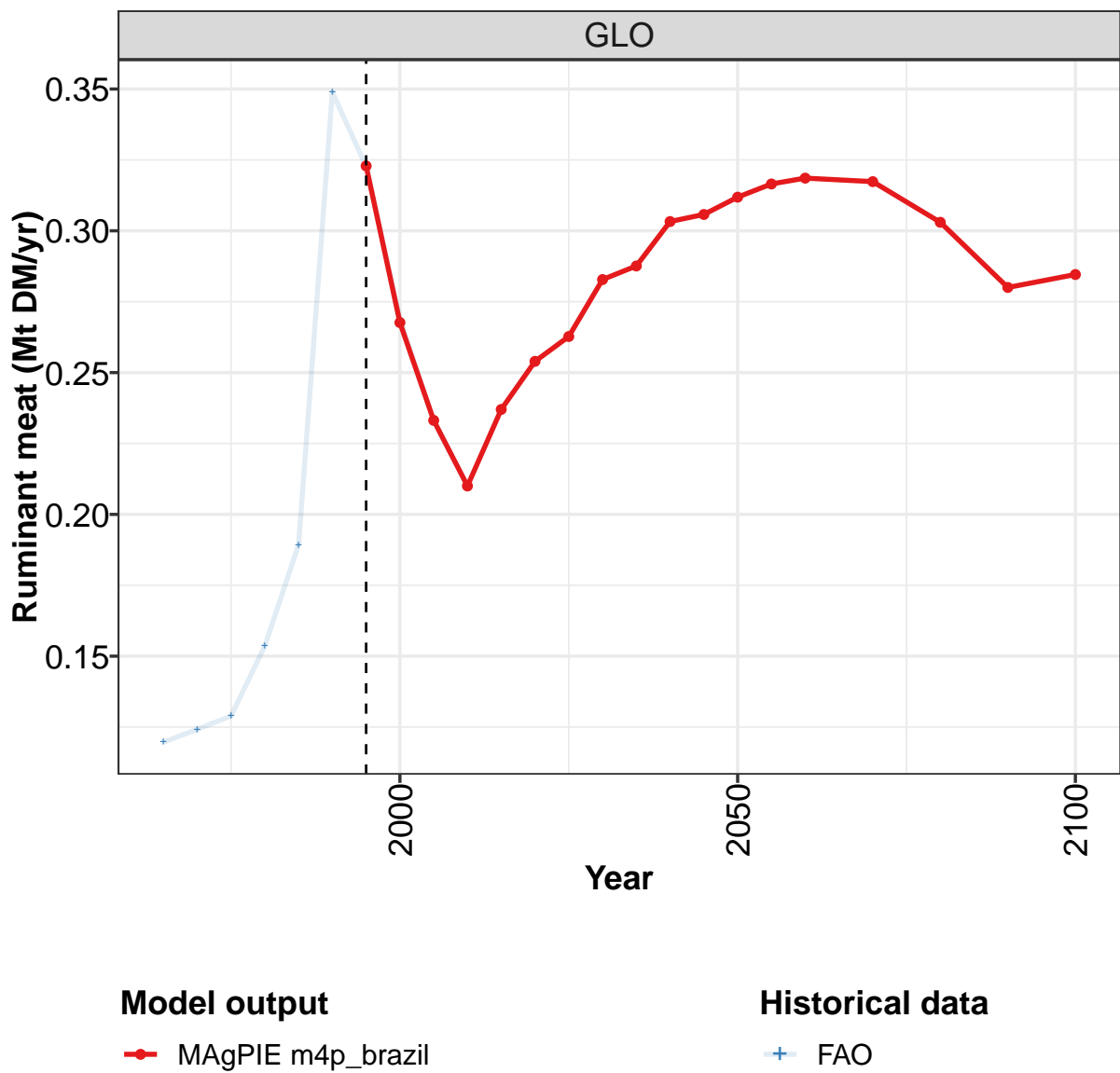
	2050	2055	2060	2070	2080	2090	2100
GLO	0.394	0.431	0.467	0.541	0.606	0.662	0.668
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.010	0.011	0.011	0.012	0.013	0.014	0.014
LAM	0.233	0.248	0.263	0.289	0.310	0.327	0.323
ROW	0.151	0.171	0.193	0.240	0.282	0.321	0.331
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 80: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.001	0.001	0.002	0.014	0.021	0.025	0.038	0.058	0.071	0.095
ROW	0.003	0.006	0.009	0.013	0.016	0.019	0.023	0.025	0.029	0.037
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



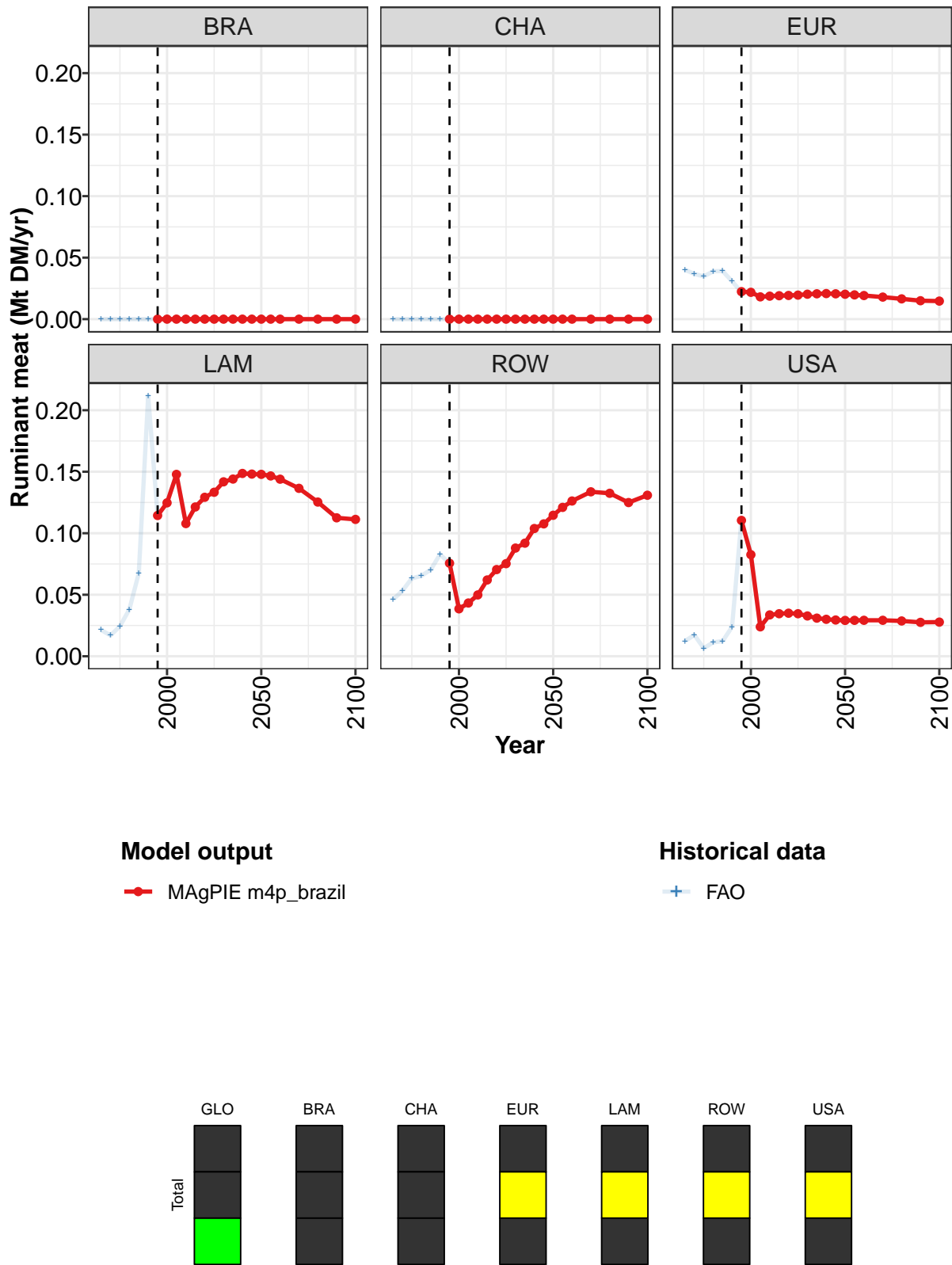


Figure 27: MAGPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Livestock products—Ruminant meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.323	0.268	0.233	0.210	0.237	0.254	0.263	0.283	0.288	0.303	0.306
BRA	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	0.022	0.022	0.018	0.019	0.019	0.019	0.020	0.020	0.021	0.021	0.021
LAM	0.114	0.125	0.148	0.108	0.121	0.129	0.133	0.142	0.144	0.149	0.148
ROW	0.076	0.039	0.043	0.050	0.062	0.070	0.075	0.088	0.092	0.104	0.108
USA	0.110	0.083	0.024	0.034	0.035	0.035	0.035	0.033	0.031	0.030	0.029

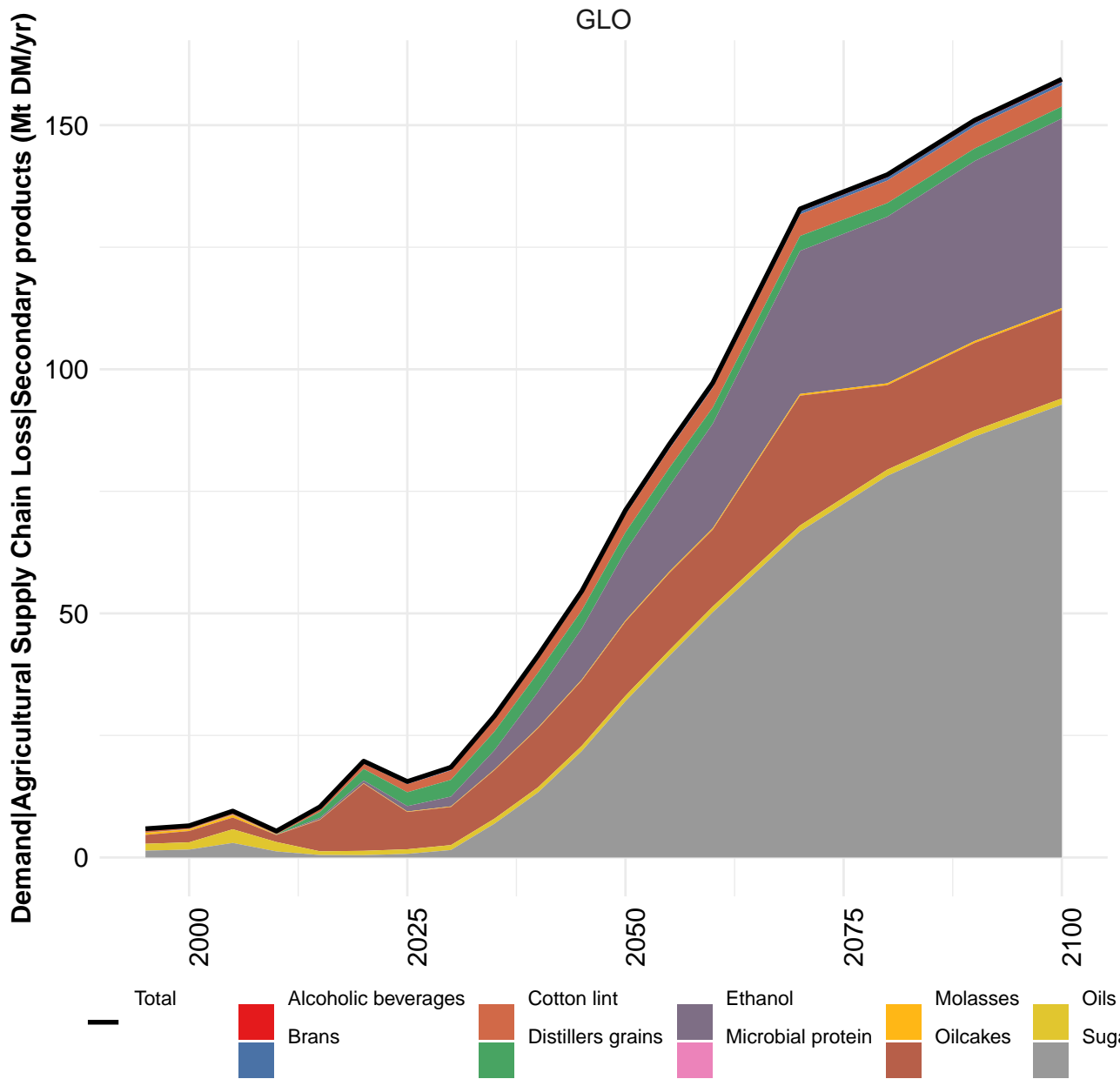
Table 82: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Livestock products—Ruminant meat (Mt DM/yr) [PART 1/2]

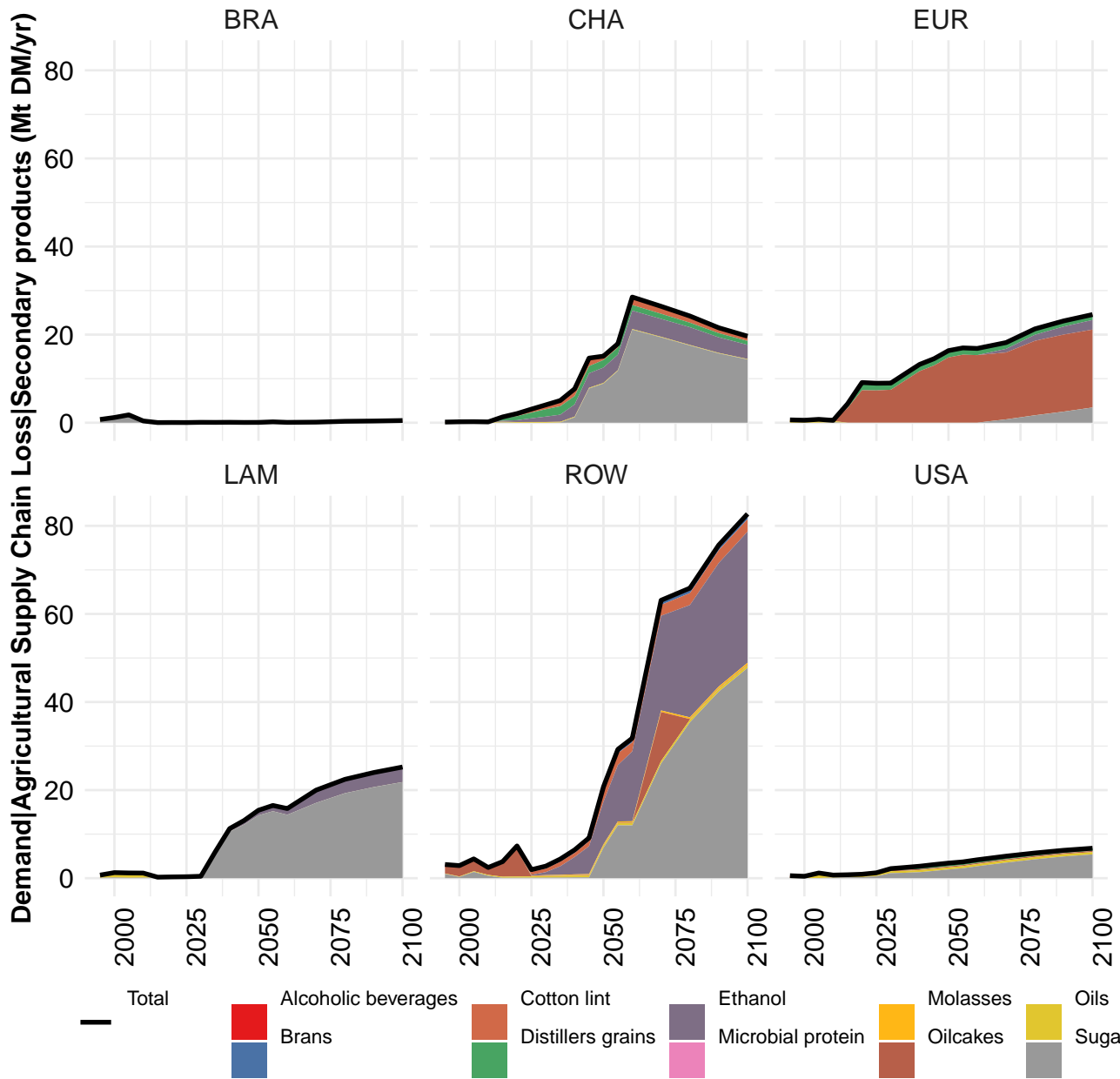
	2050	2055	2060	2070	2080	2090	2100
GLO	0.312	0.317	0.319	0.317	0.303	0.280	0.285
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.020	0.020	0.019	0.018	0.016	0.015	0.015
LAM	0.148	0.147	0.144	0.137	0.125	0.113	0.111
ROW	0.115	0.121	0.126	0.134	0.132	0.125	0.131
USA	0.029	0.029	0.029	0.029	0.029	0.028	0.028

Table 83: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Livestock products—Ruminant meat (Mt DM/yr) [PART 2/2]

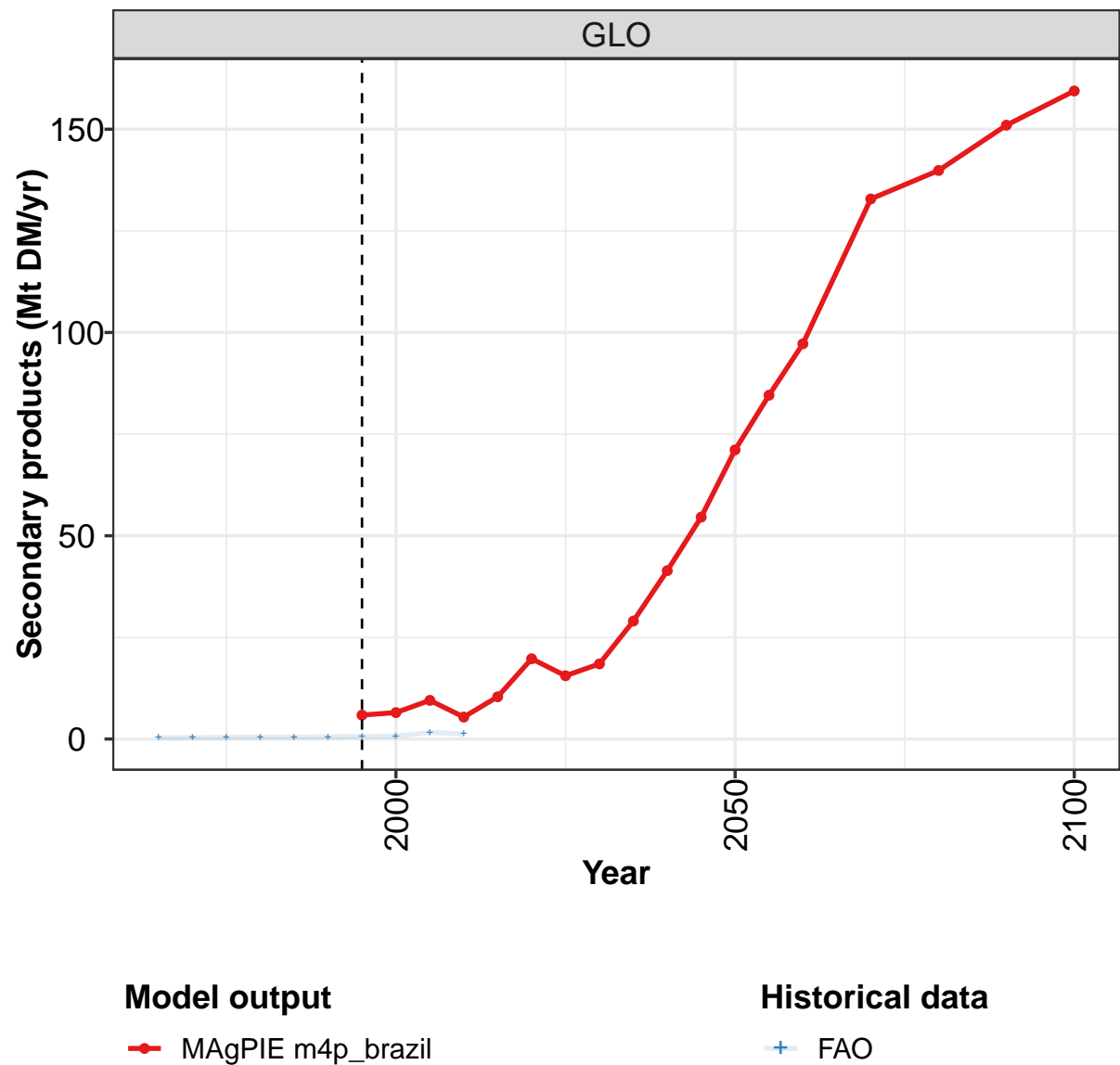
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.120	0.124	0.129	0.154	0.189	0.349	0.323	0.269	0.233	0.210
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.040	0.037	0.035	0.039	0.039	0.031	0.022	0.022	0.018	0.019
LAM	0.021	0.017	0.024	0.038	0.068	0.211	0.115	0.125	0.148	0.108
ROW	0.046	0.053	0.063	0.065	0.070	0.083	0.075	0.039	0.043	0.050
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



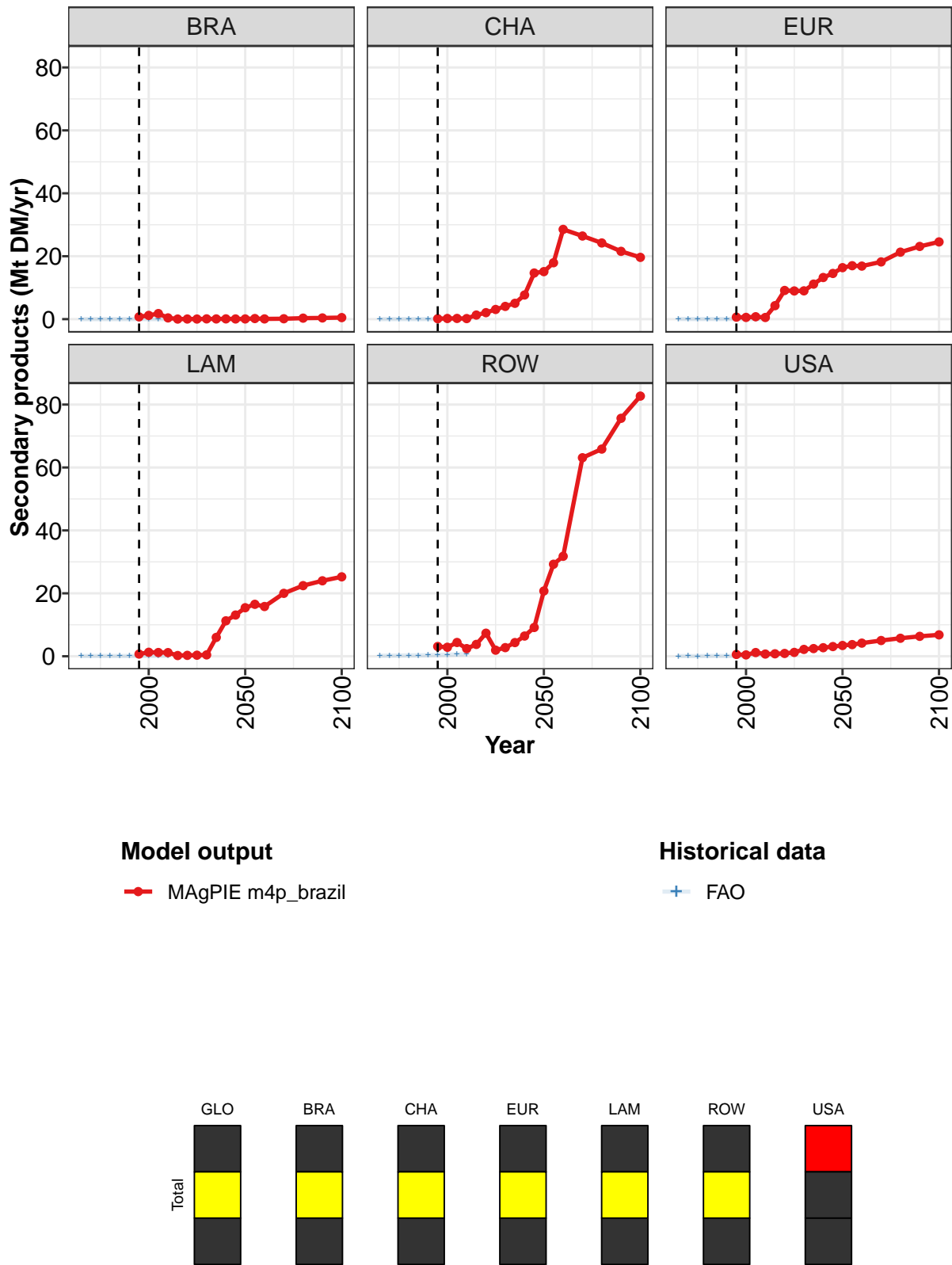


Figure 28: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6	7	10	5	10	20	16	18	29	41	55
BRA	1	1	2	0	0	0	0	0	0	0	0
CHA	0	0	0	0	1	2	3	4	5	8	15
EUR	1	1	1	1	4	9	9	9	11	13	15
LAM	1	1	1	1	0	0	0	0	6	11	13
ROW	3	3	4	2	4	7	2	3	4	6	9
USA	1	0	1	1	1	1	1	2	2	3	3

Table 85: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Secondary products (Mt DM/yr)
[PART 1/2]

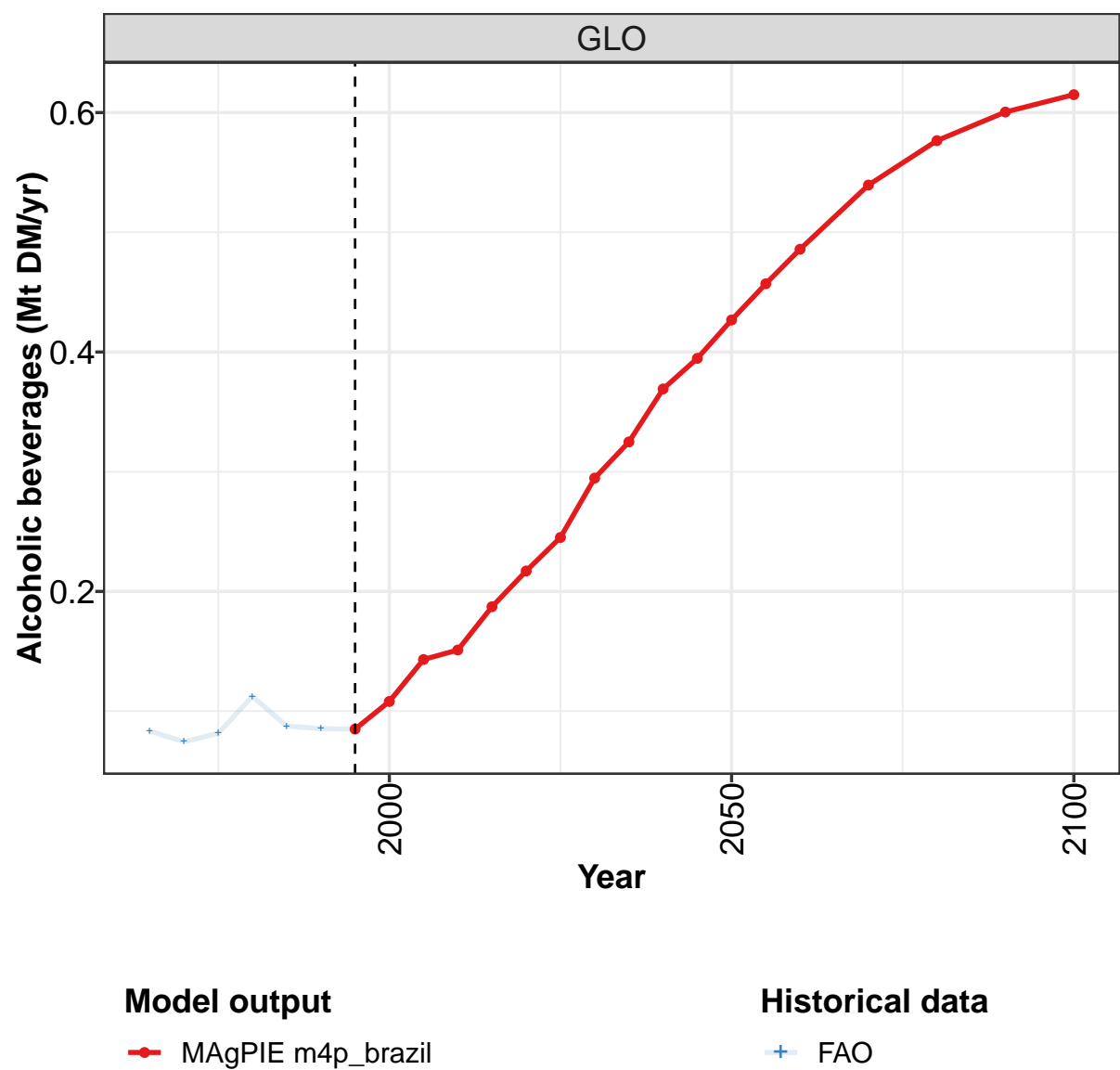
	2050	2055	2060	2070	2080	2090	2100
GLO	71	85	97	133	140	151	159
BRA	0	0	0	0	0	0	0
CHA	15	18	29	26	24	22	20
EUR	16	17	17	18	21	23	25
LAM	15	17	16	20	22	24	25
ROW	21	29	32	63	66	76	83
USA	3	4	4	5	6	6	7

Table 86: MAgPIE m4p_brazil — 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
BRA	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	0.04	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
LAM	0.06	0.07	0.09	0.09	0.07	0.06	0.07	0.09	0.11	0.14
ROW	0.14	0.19	0.22	0.27	0.28	0.34	0.43	0.49	0.57	0.65
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



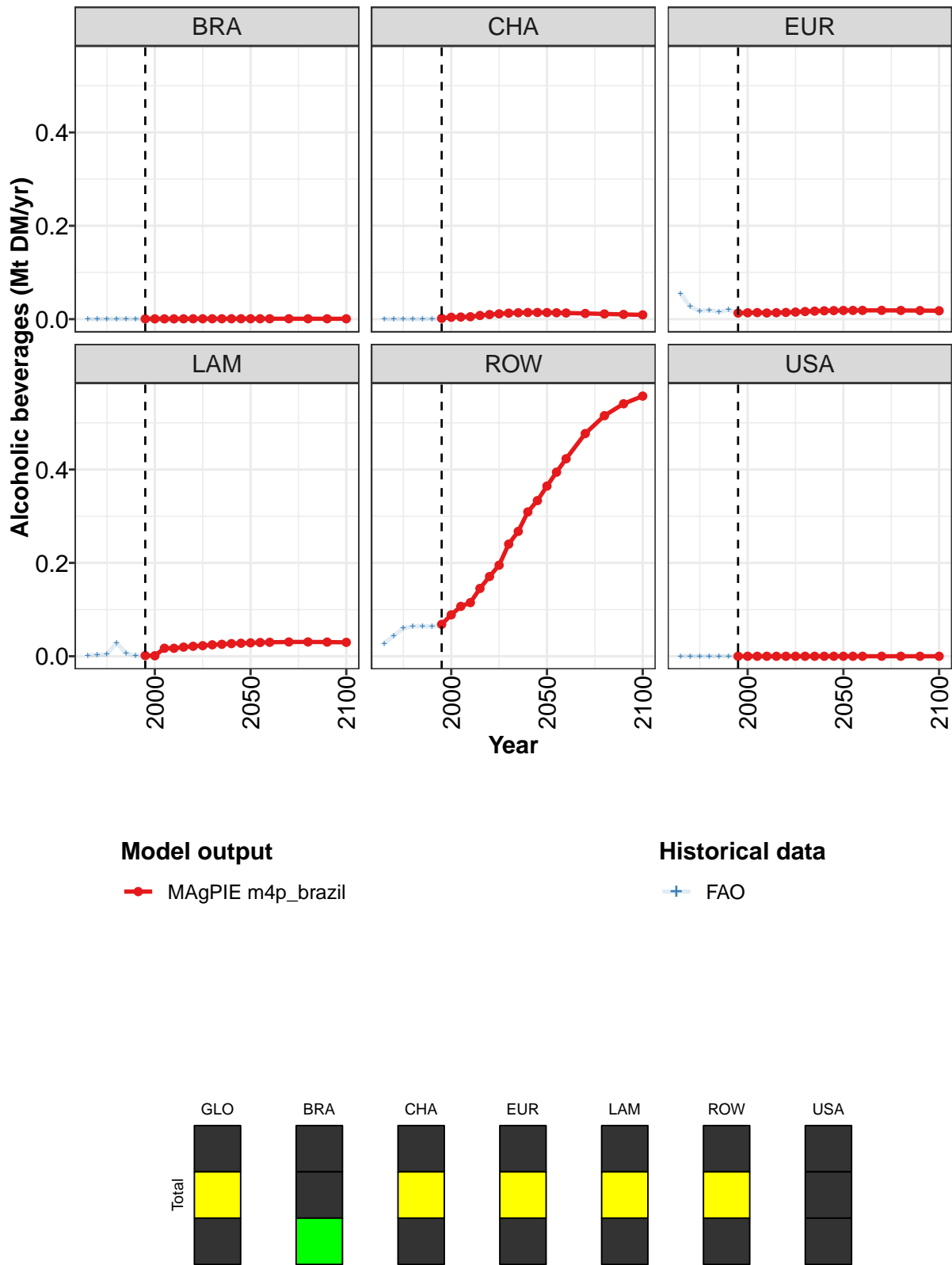


Figure 29: MAgPIE m4p.brazil — Demand—Agricultural Supply Chain Loss—Secondary products—Alcoholic beverages (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.085	0.108	0.143	0.151	0.187	0.217	0.245	0.295	0.325	0.369	0.395
BRA	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
CHA	0.002	0.004	0.005	0.005	0.008	0.010	0.011	0.013	0.014	0.014	0.014
EUR	0.013	0.014	0.014	0.013	0.014	0.014	0.015	0.016	0.017	0.018	0.018
LAM	0.001	0.001	0.017	0.017	0.020	0.021	0.023	0.025	0.026	0.027	0.028
ROW	0.068	0.089	0.107	0.115	0.145	0.171	0.195	0.240	0.268	0.309	0.333
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 88: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Secondary products—Alcoholic beverages (Mt DM/yr) [PART 1/2]

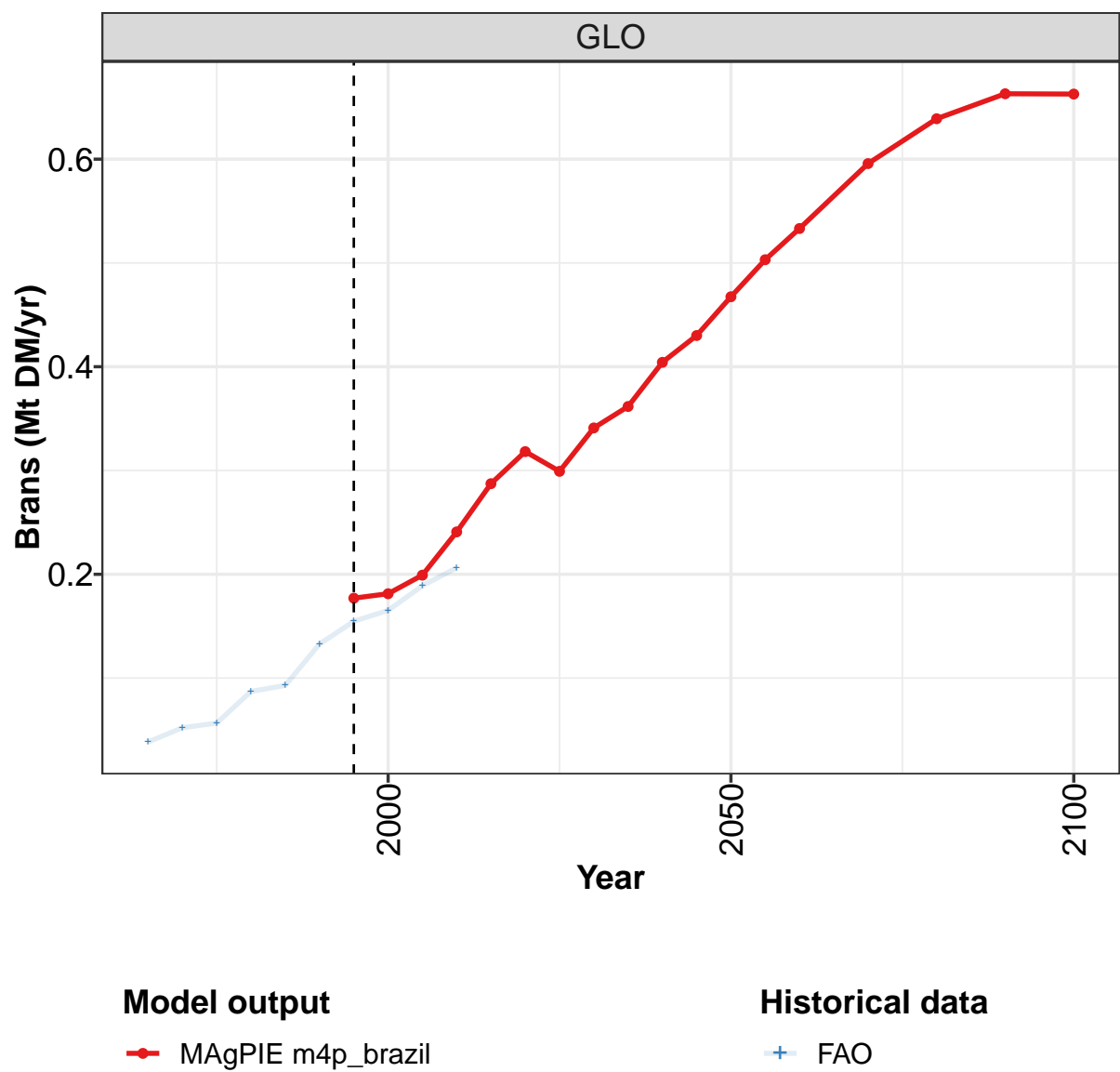
	2050	2055	2060	2070	2080	2090	2100
GLO	0.427	0.457	0.486	0.539	0.577	0.600	0.615
BRA	0.001	0.001	0.001	0.001	0.001	0.001	0.001
CHA	0.014	0.014	0.013	0.012	0.011	0.010	0.009
EUR	0.019	0.019	0.019	0.019	0.019	0.018	0.018
LAM	0.029	0.029	0.030	0.031	0.031	0.030	0.030
ROW	0.365	0.394	0.423	0.477	0.515	0.541	0.557
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 89: MAgPIE m4p_brazil — 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
BRA	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001
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	0.020	0.013	0.014	0.014	0.013
LAM	0.001	0.003	0.004	0.028	0.007	0.001	0.001	0.001	0.017	0.017
ROW	0.027	0.044	0.060	0.064	0.065	0.063	0.068	0.089	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



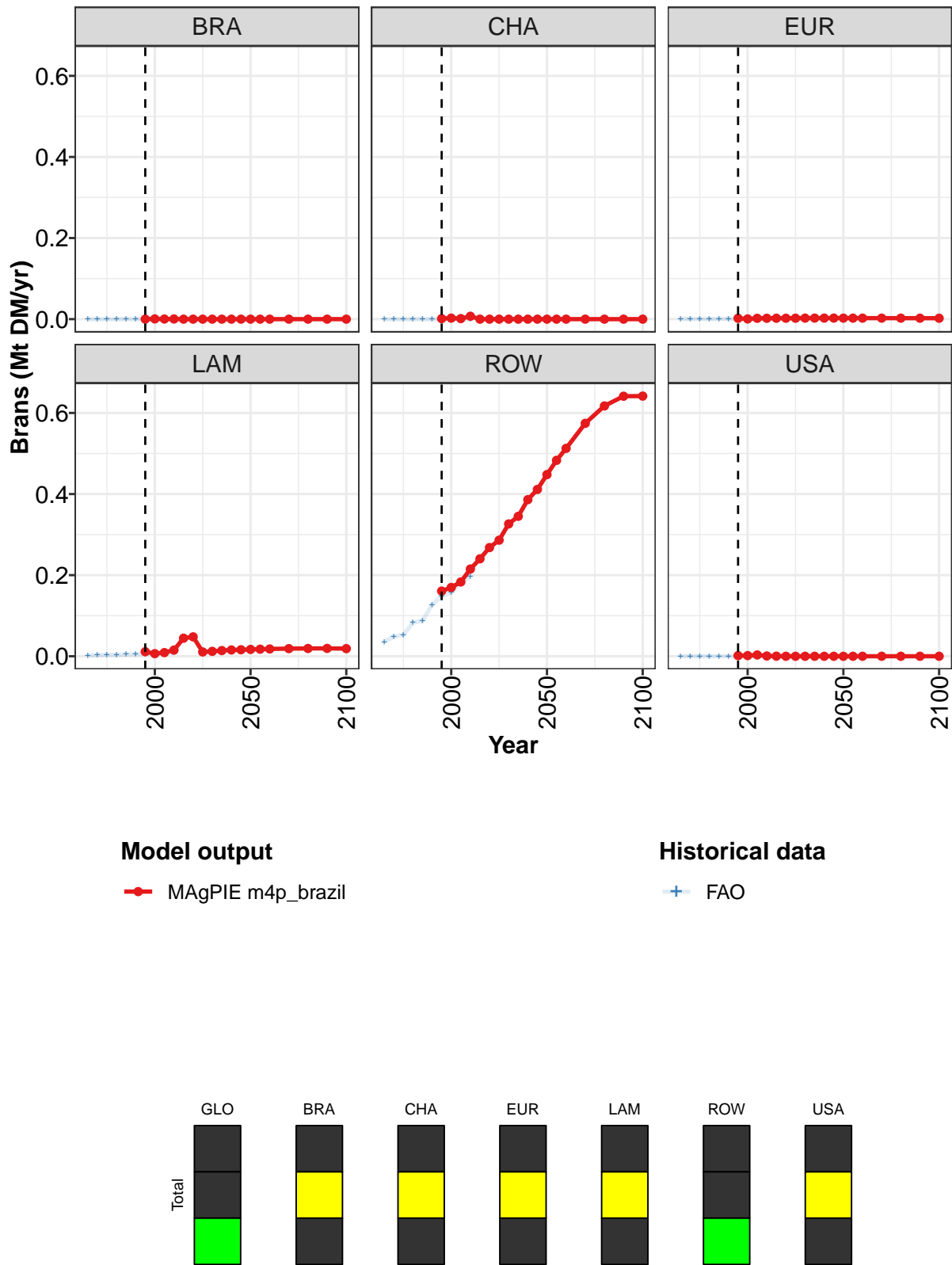


Figure 30: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.177	0.181	0.199	0.241	0.287	0.318	0.299	0.341	0.362	0.404	0.430
BRA	0.000	0.001	0.000	0.000	0.000	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	0.001	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.003
LAM	0.011	0.006	0.009	0.015	0.045	0.048	0.011	0.012	0.014	0.015	0.016
ROW	0.161	0.170	0.183	0.215	0.240	0.268	0.286	0.326	0.345	0.386	0.411
USA	0.002	0.002	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 91: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Secondary products—Brans (Mt DM/yr) [PART 1/2]

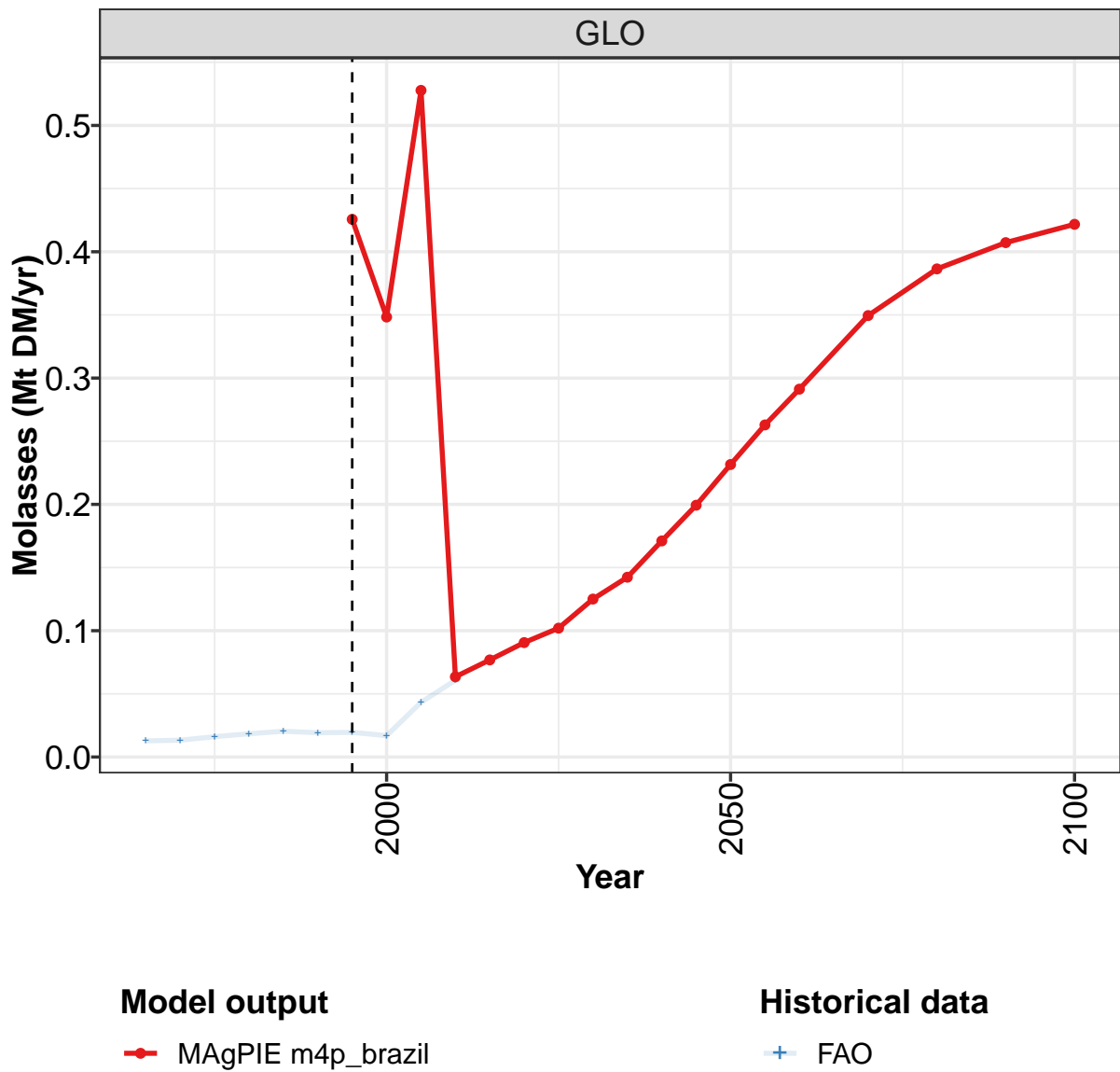
	2050	2055	2060	2070	2080	2090	2100
GLO	0.467	0.503	0.533	0.596	0.639	0.663	0.663
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.003	0.002	0.002	0.002	0.002	0.002	0.002
LAM	0.017	0.017	0.018	0.019	0.019	0.019	0.019
ROW	0.448	0.483	0.513	0.574	0.617	0.641	0.642
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 92: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.002	0.003	0.004	0.004	0.004	0.005	0.006	0.007	0.007	0.009
ROW	0.035	0.049	0.053	0.083	0.088	0.127	0.148	0.158	0.181	0.197
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



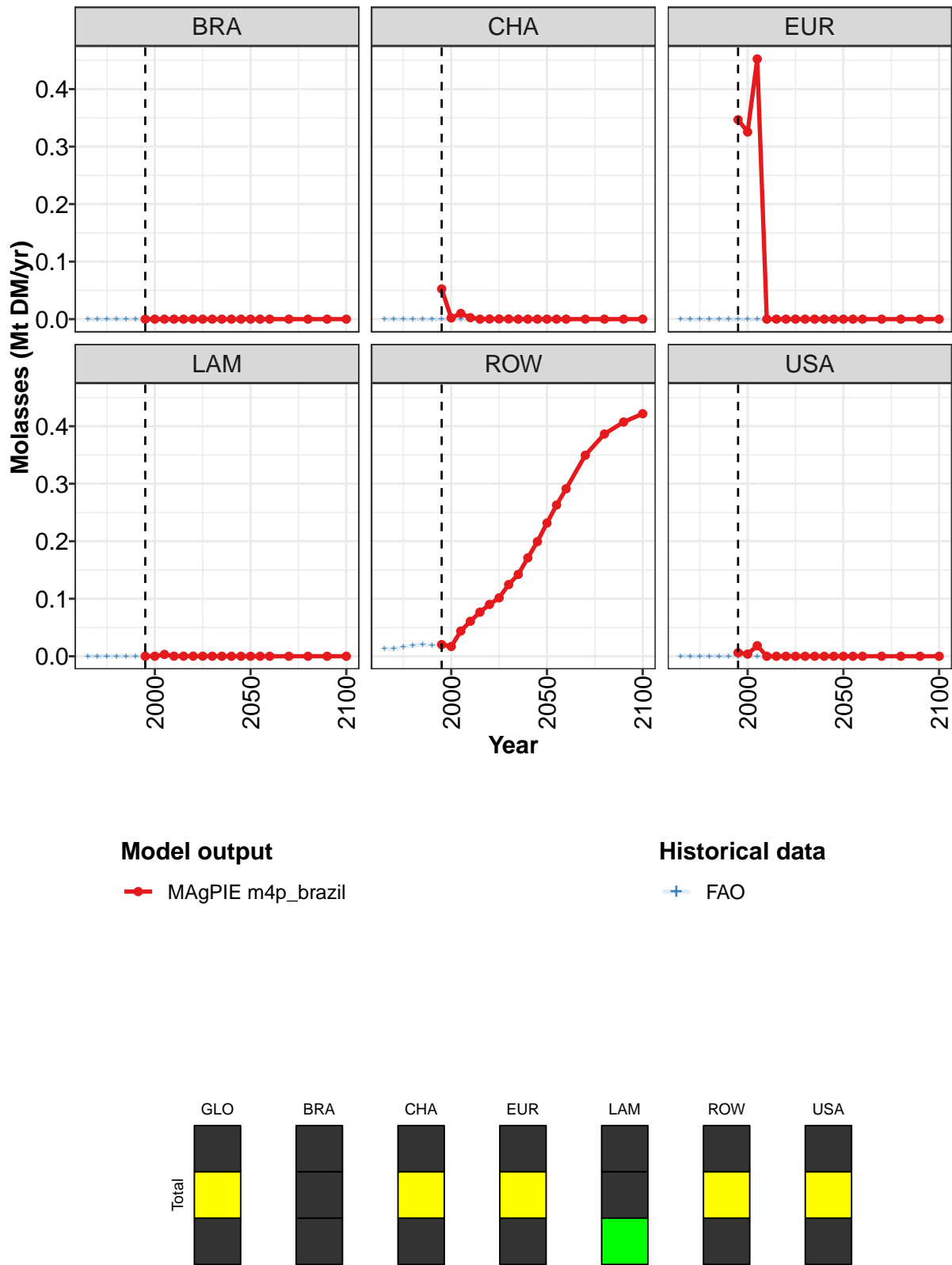


Figure 31: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Secondary products—Molasses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.426	0.348	0.528	0.063	0.077	0.091	0.102	0.125	0.142	0.171	0.199
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.052	0.002	0.010	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.347	0.325	0.452	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.020	0.017	0.044	0.061	0.077	0.090	0.102	0.125	0.142	0.171	0.199
USA	0.006	0.004	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 94: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

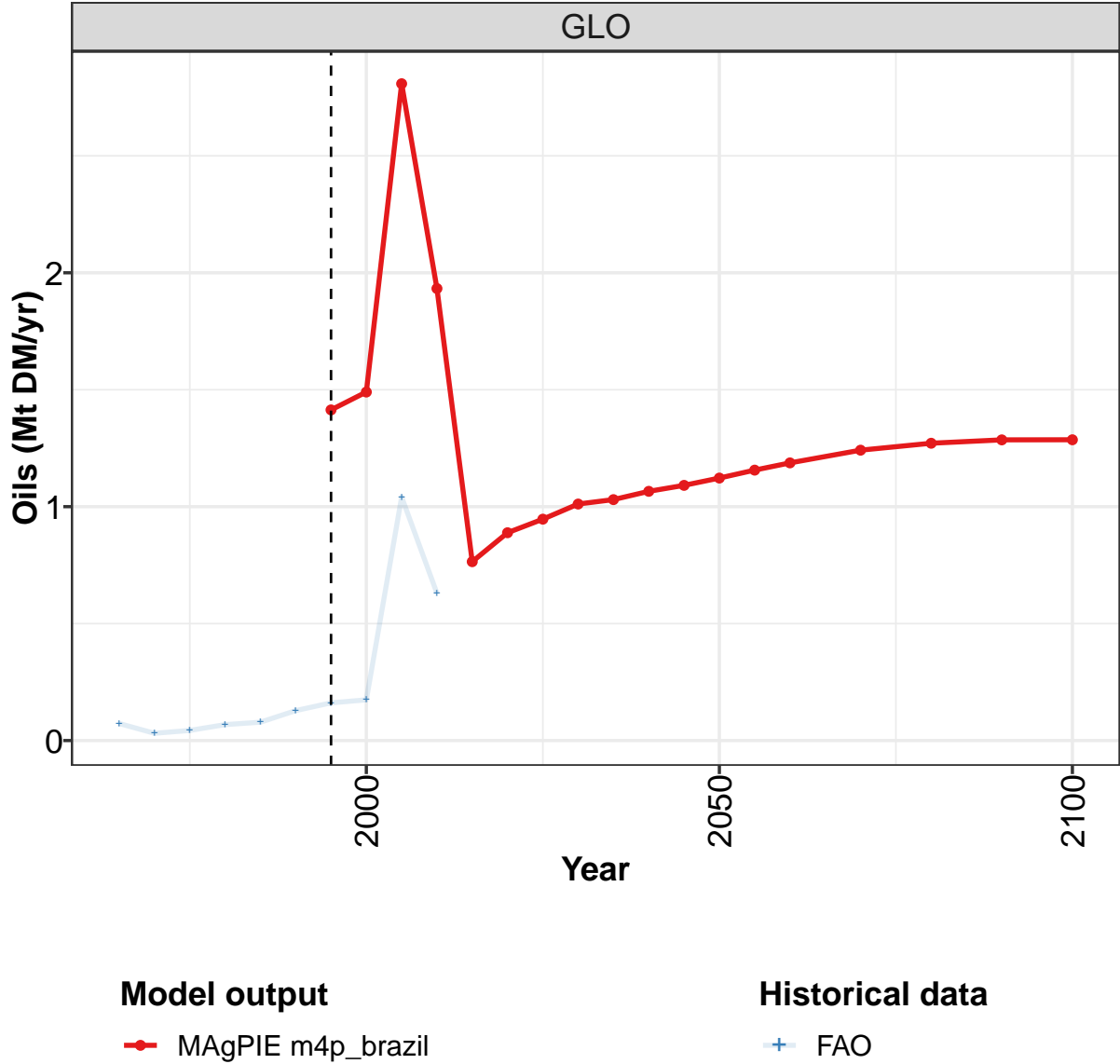
	2050	2055	2060	2070	2080	2090	2100
GLO	0.232	0.263	0.291	0.349	0.386	0.407	0.422
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.232	0.263	0.291	0.349	0.386	0.407	0.422
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 95: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	0.0128	0.0133	0.0161	0.0184	0.0204	0.0192	0.0195	0.0169	0.0433	0.0608
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



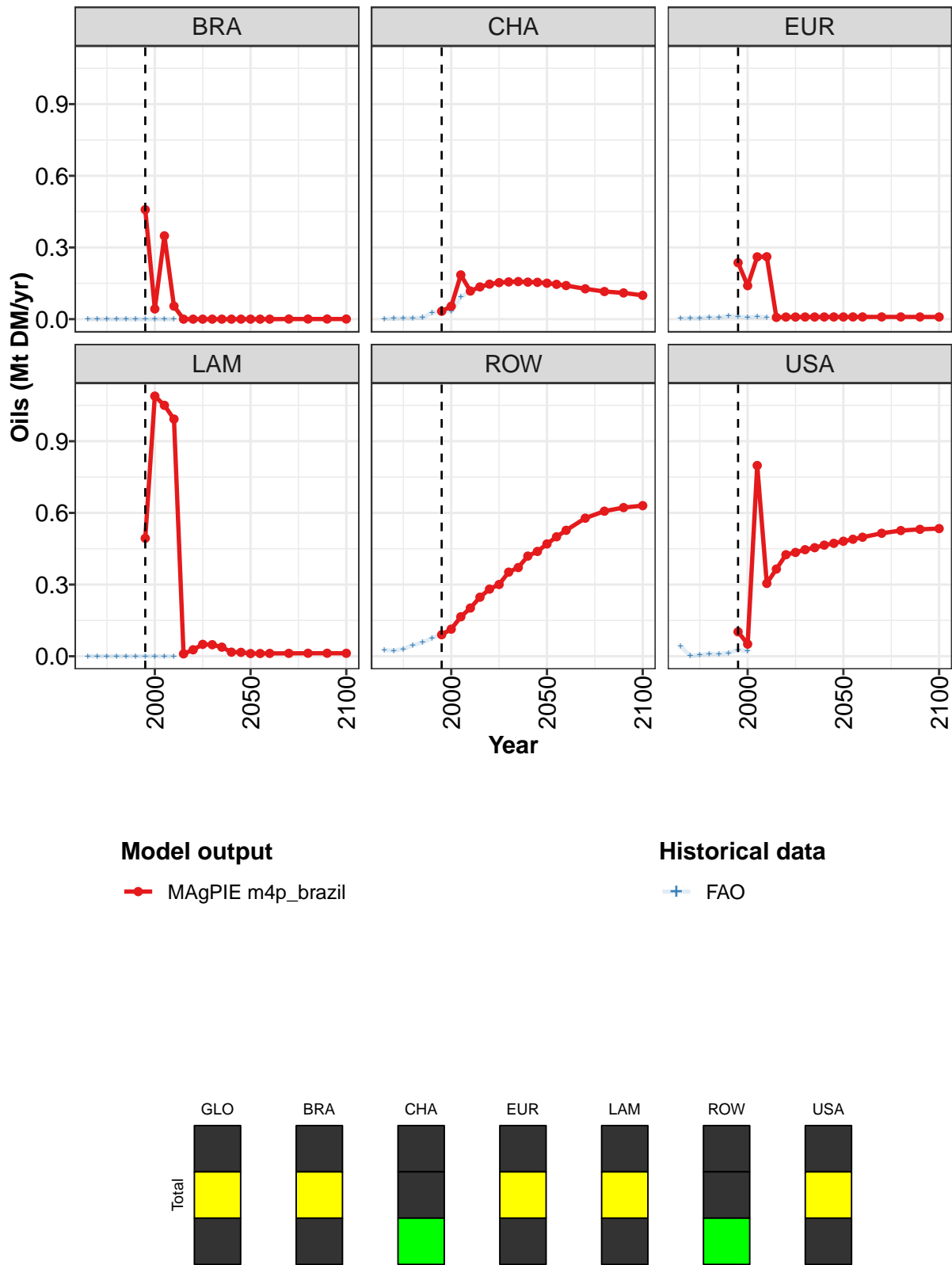


Figure 32: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.41	1.49	2.81	1.93	0.76	0.89	0.95	1.01	1.03	1.07	1.09
BRA	0.46	0.04	0.35	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.03	0.05	0.19	0.12	0.13	0.15	0.15	0.16	0.16	0.15	0.15
EUR	0.24	0.14	0.26	0.26	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.49	1.09	1.05	0.99	0.01	0.03	0.05	0.05	0.04	0.02	0.02
ROW	0.09	0.11	0.17	0.20	0.25	0.28	0.30	0.35	0.37	0.42	0.44
USA	0.10	0.05	0.80	0.30	0.37	0.43	0.43	0.45	0.45	0.47	0.47

Table 97: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Secondary products—Oils (Mt DM/yr) [PART 1/2]

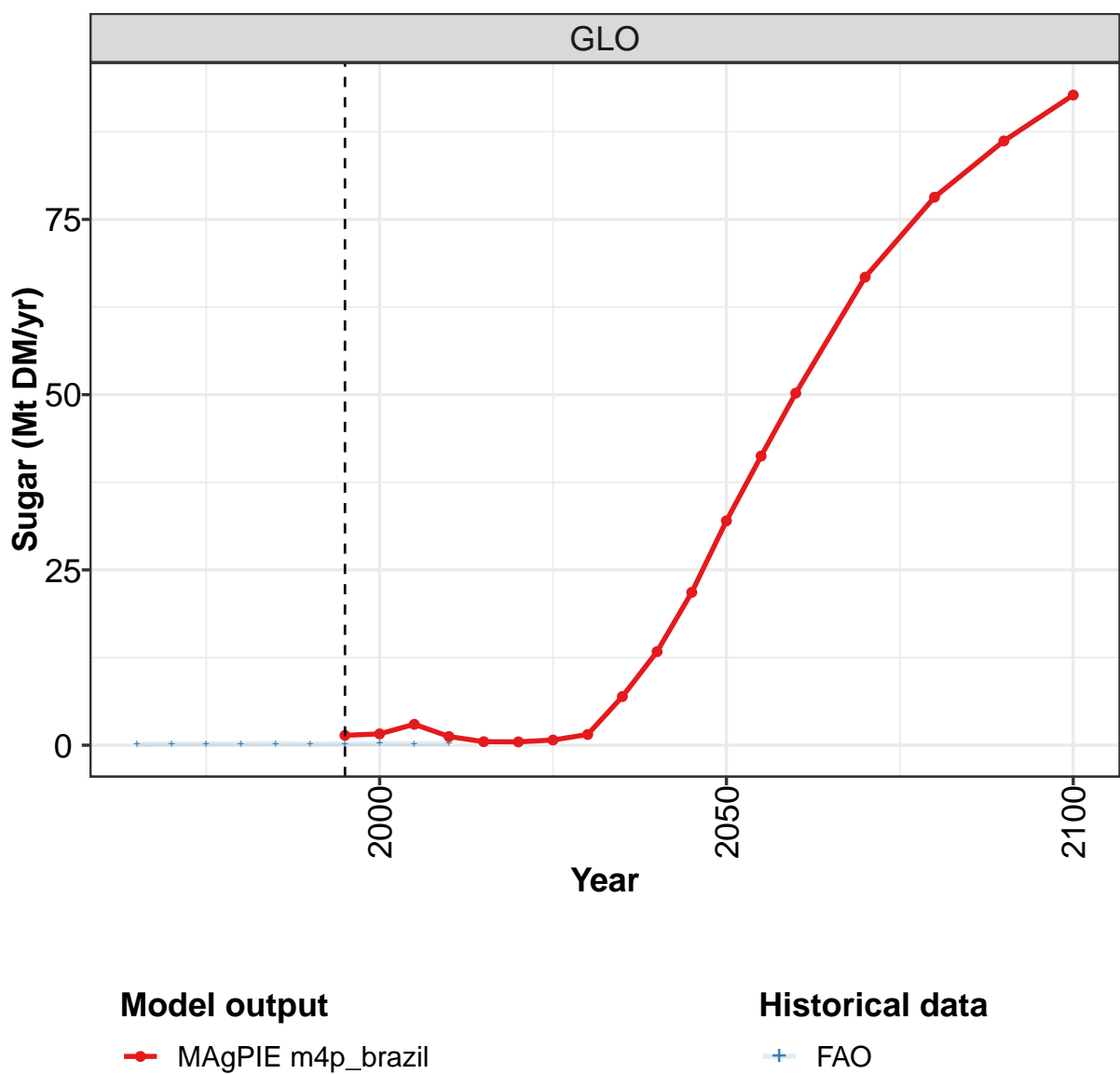
	2050	2055	2060	2070	2080	2090	2100
GLO	1.12	1.16	1.19	1.24	1.27	1.29	1.29
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.15	0.15	0.14	0.13	0.12	0.11	0.10
EUR	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ROW	0.47	0.50	0.53	0.58	0.61	0.62	0.63
USA	0.48	0.49	0.50	0.51	0.53	0.53	0.53

Table 98: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.03	0.02	0.03	0.05	0.06	0.08	0.09	0.11	0.17	0.20
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



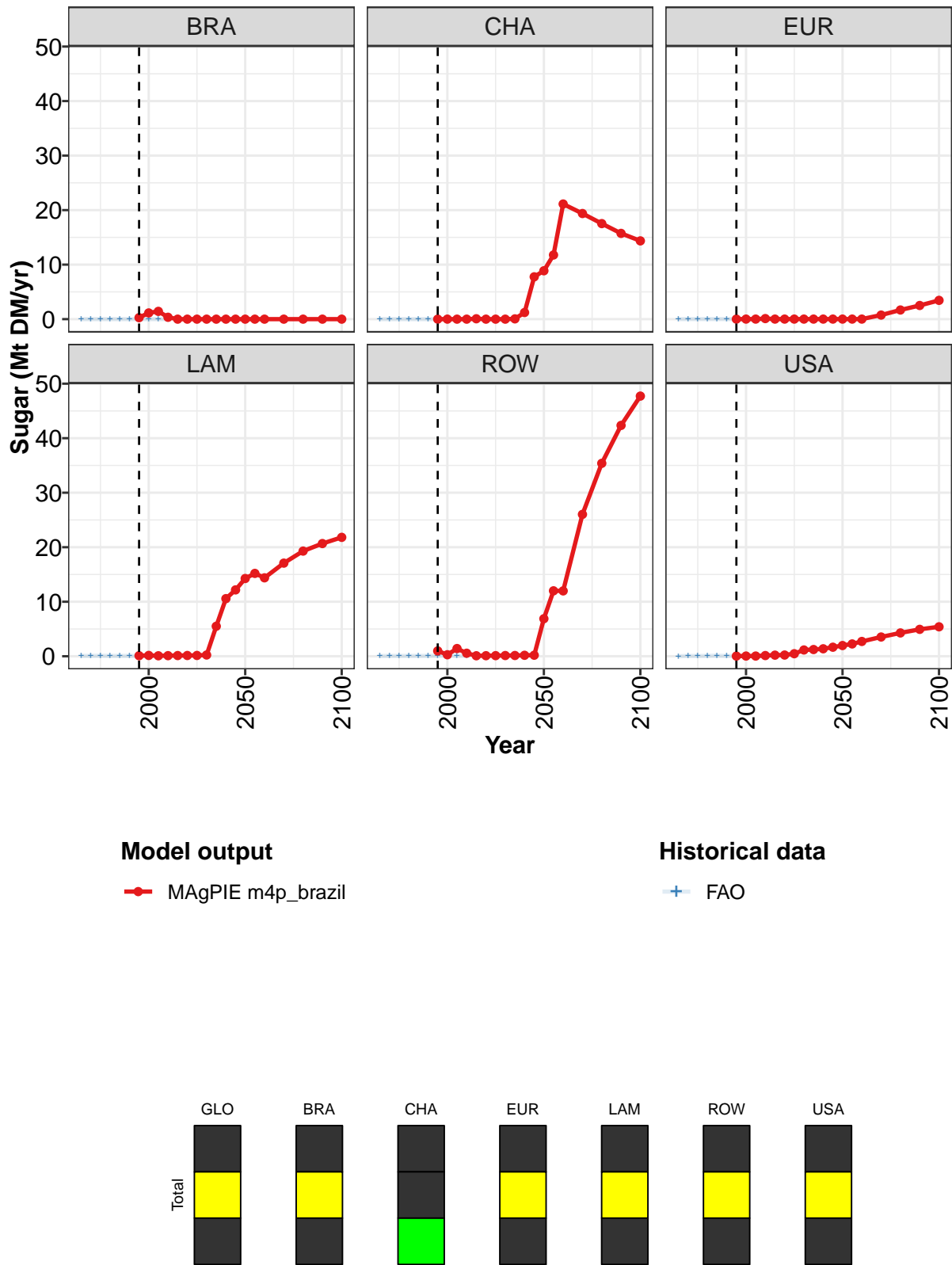


Figure 33: MAgPIE m4p_brazil — Demand—Agricultural Supply Chain Loss—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.4	1.6	3.0	1.2	0.5	0.5	0.7	1.5	6.9	13.3	21.8
BRA	0.3	1.1	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.2	7.8
EUR	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	5.5	10.6	12.2
ROW	1.0	0.3	1.4	0.6	0.1	0.1	0.1	0.1	0.1	0.2	0.2
USA	0.0	0.0	0.0	0.1	0.2	0.2	0.5	1.2	1.2	1.4	1.7

Table 100: MAgPIE m4p.brazil — Demand—Agricultural Supply Chain Loss—Secondary products—Sugar (Mt DM/yr) [PART 1/2]

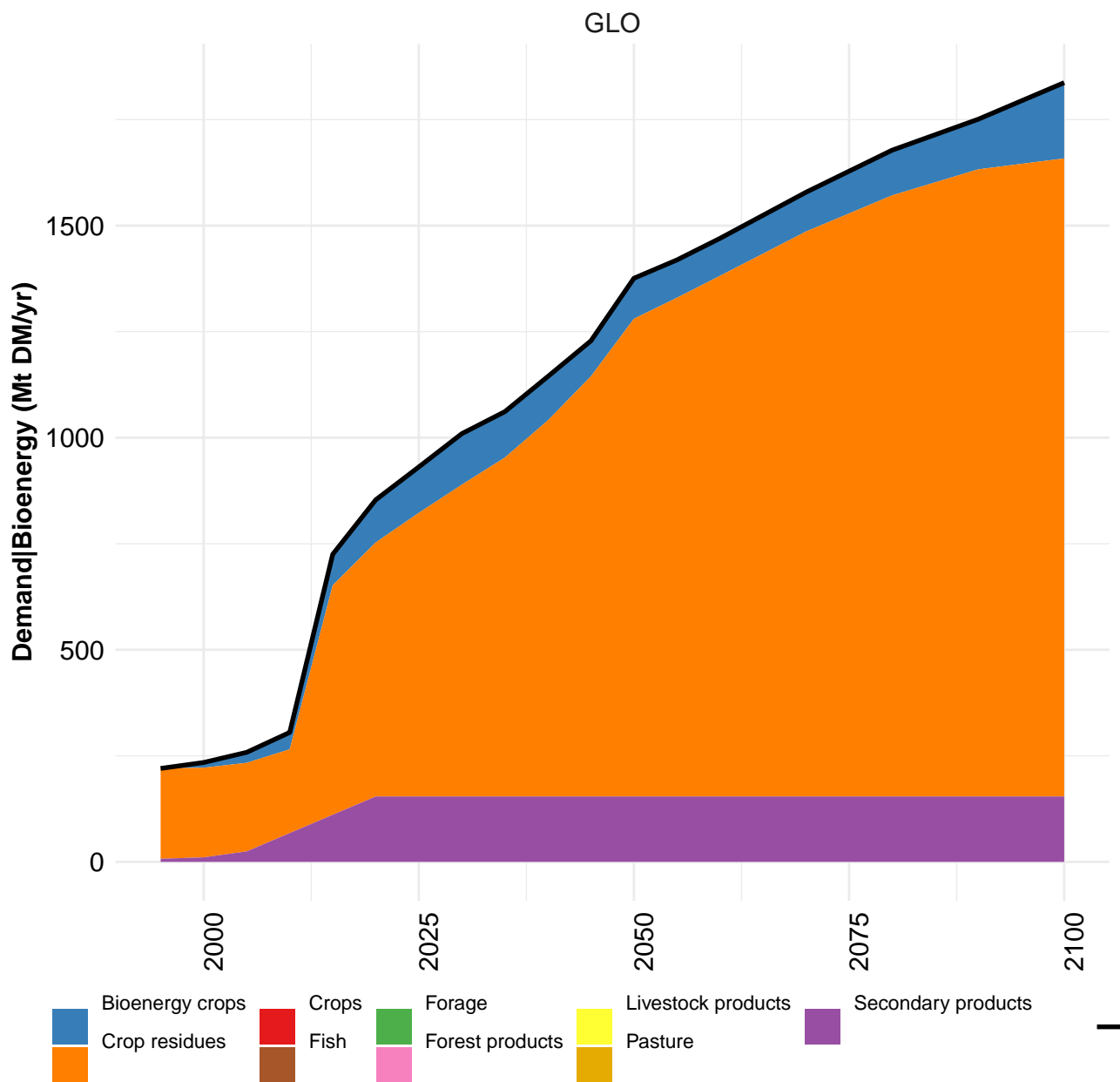
	2050	2055	2060	2070	2080	2090	2100
GLO	32.0	41.2	50.2	66.8	78.2	86.2	92.7
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	8.9	11.8	21.1	19.4	17.5	15.7	14.4
EUR	0.0	0.0	0.0	0.7	1.7	2.5	3.4
LAM	14.3	15.2	14.4	17.1	19.3	20.7	21.8
ROW	6.9	12.0	12.0	26.0	35.4	42.3	47.7
USA	2.0	2.3	2.7	3.5	4.3	4.9	5.4

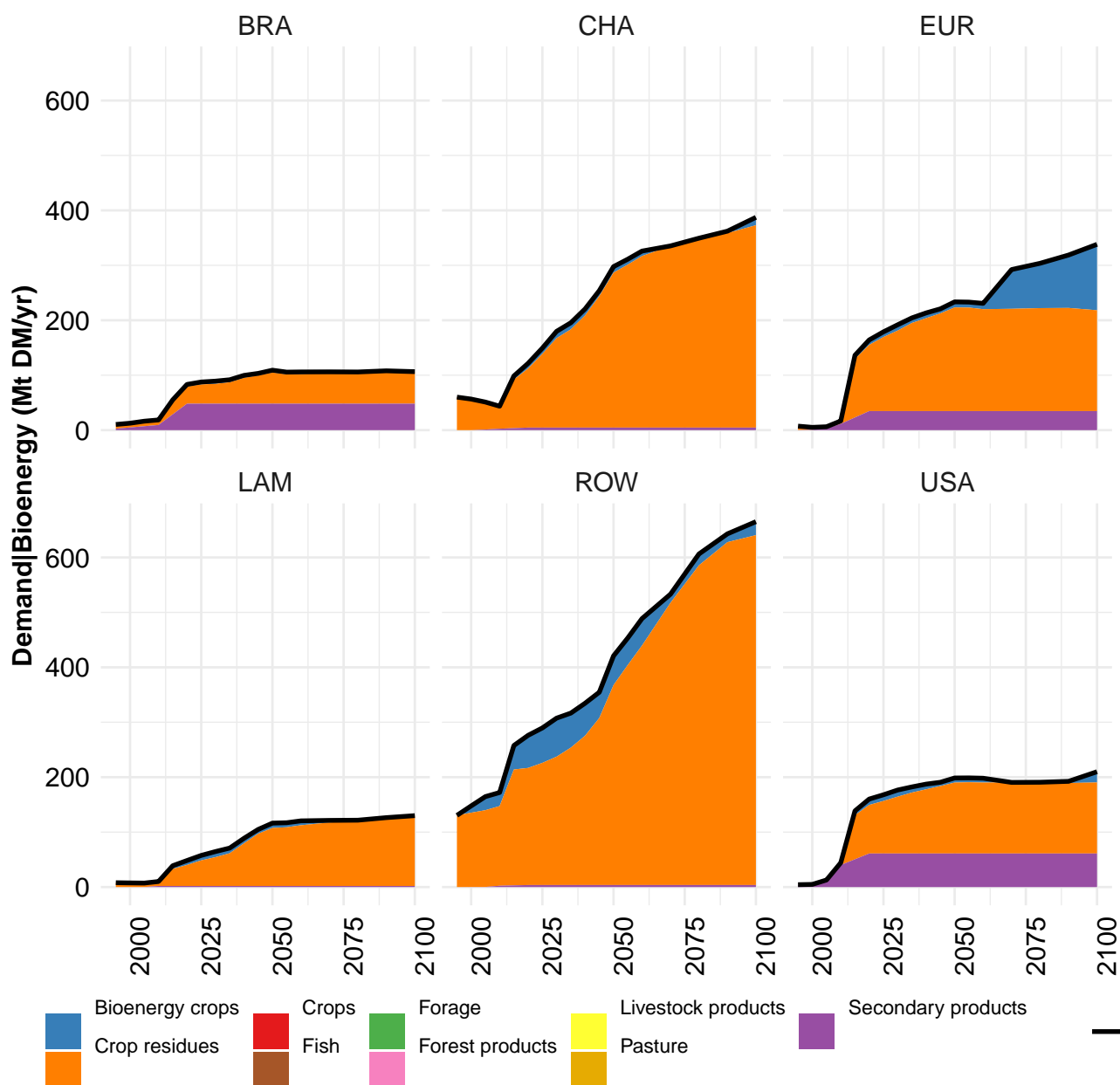
Table 101: MAgPIE m4p.brazil — Demand—Agricultural Supply Chain Loss—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

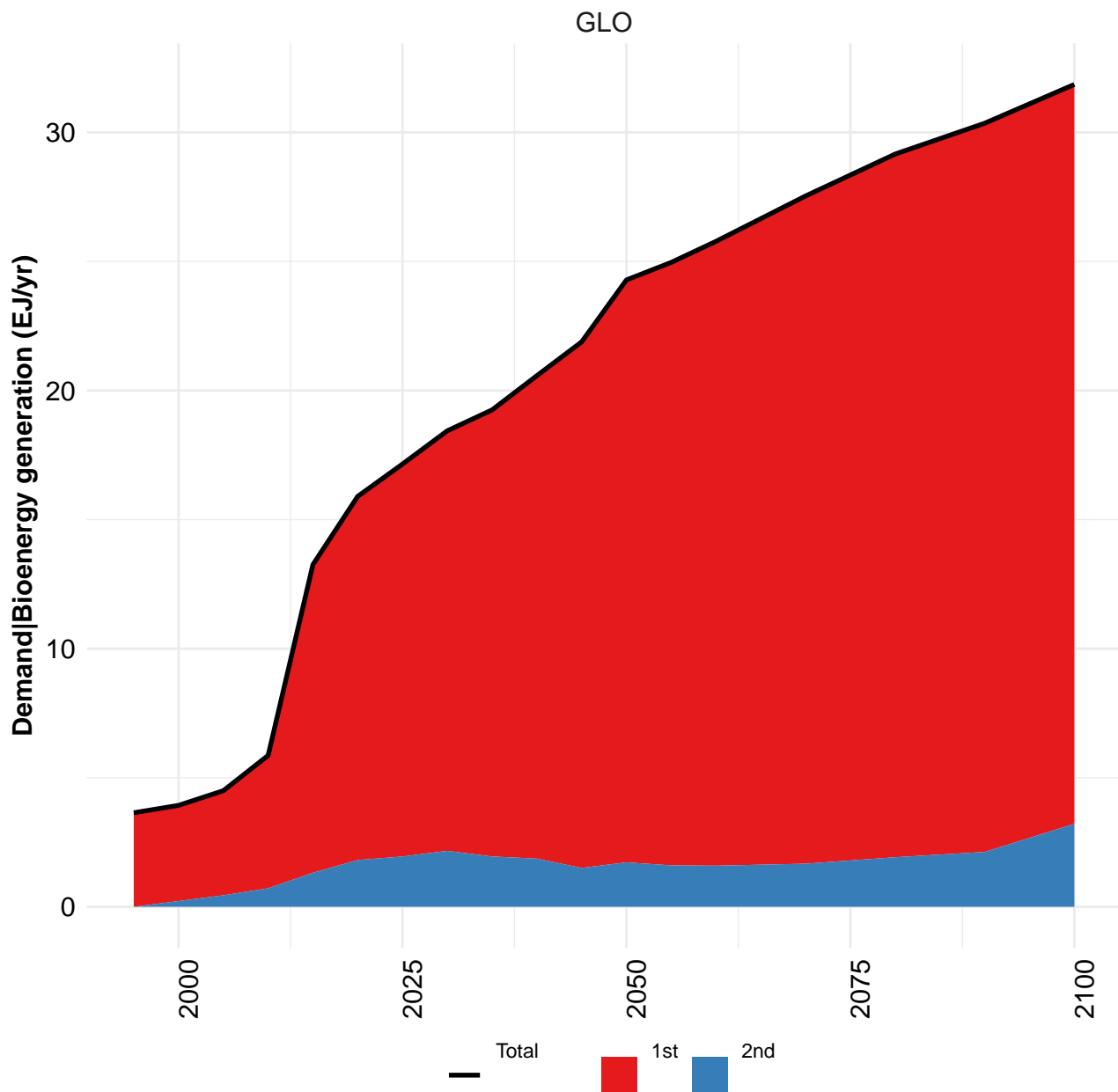
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.104	0.174	0.180	0.196	0.225	0.164	0.208	0.244	0.214	0.230
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
EUR	0.007	0.008	0.011	0.022	0.018	0.014	0.008	0.009	0.010	0.007
LAM	0.057	0.060	0.083	0.054	0.056	0.055	0.064	0.085	0.089	0.110
ROW	0.039	0.057	0.058	0.056	0.052	0.058	0.101	0.109	0.076	0.072
USA	0.000	0.049	0.029	0.064	0.100	0.038	0.035	0.040	0.040	0.040

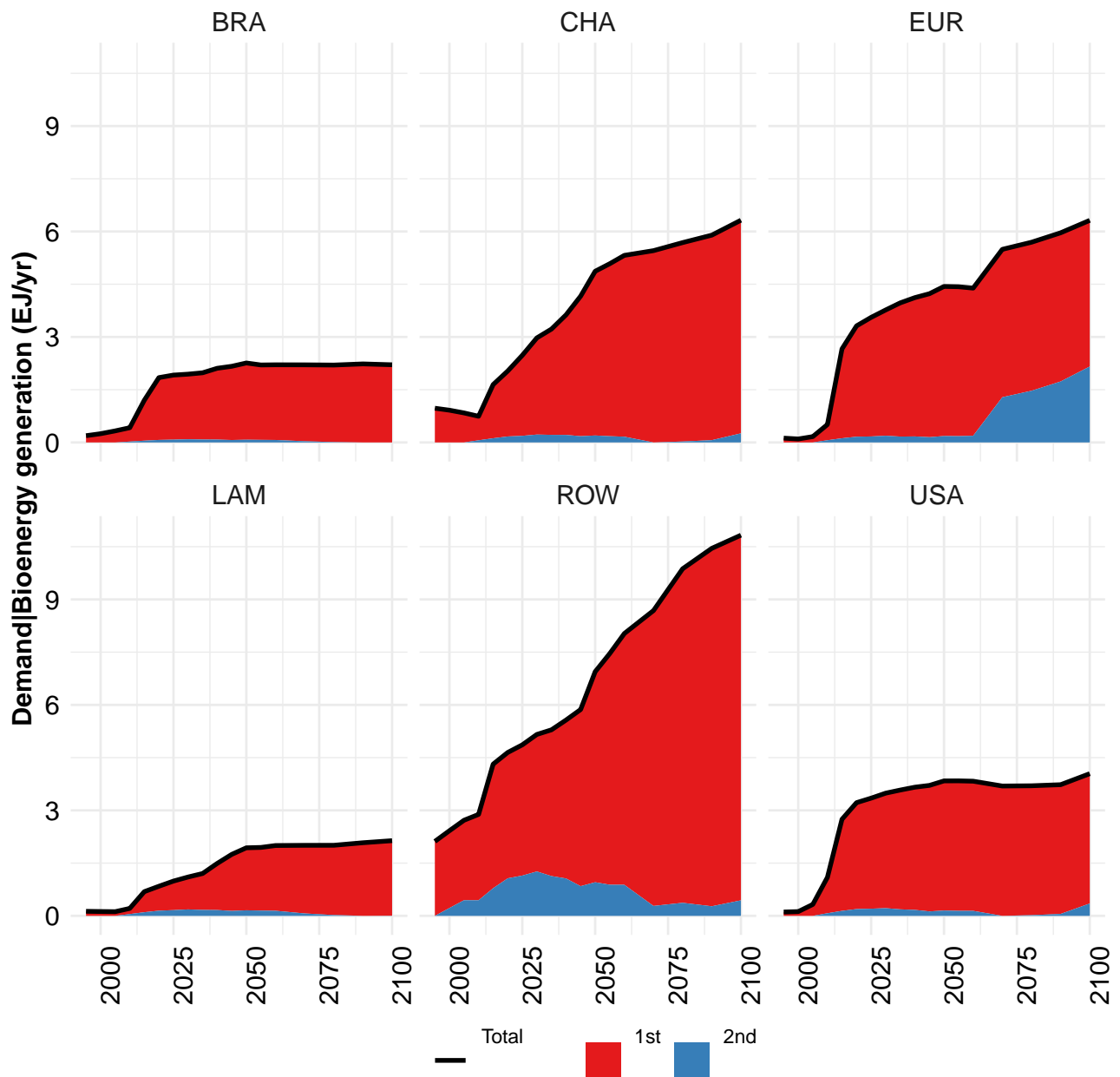
Table 102: FAO — Demand—Agricultural Supply Chain Loss—Secondary products—Sugar (Mt DM/yr)

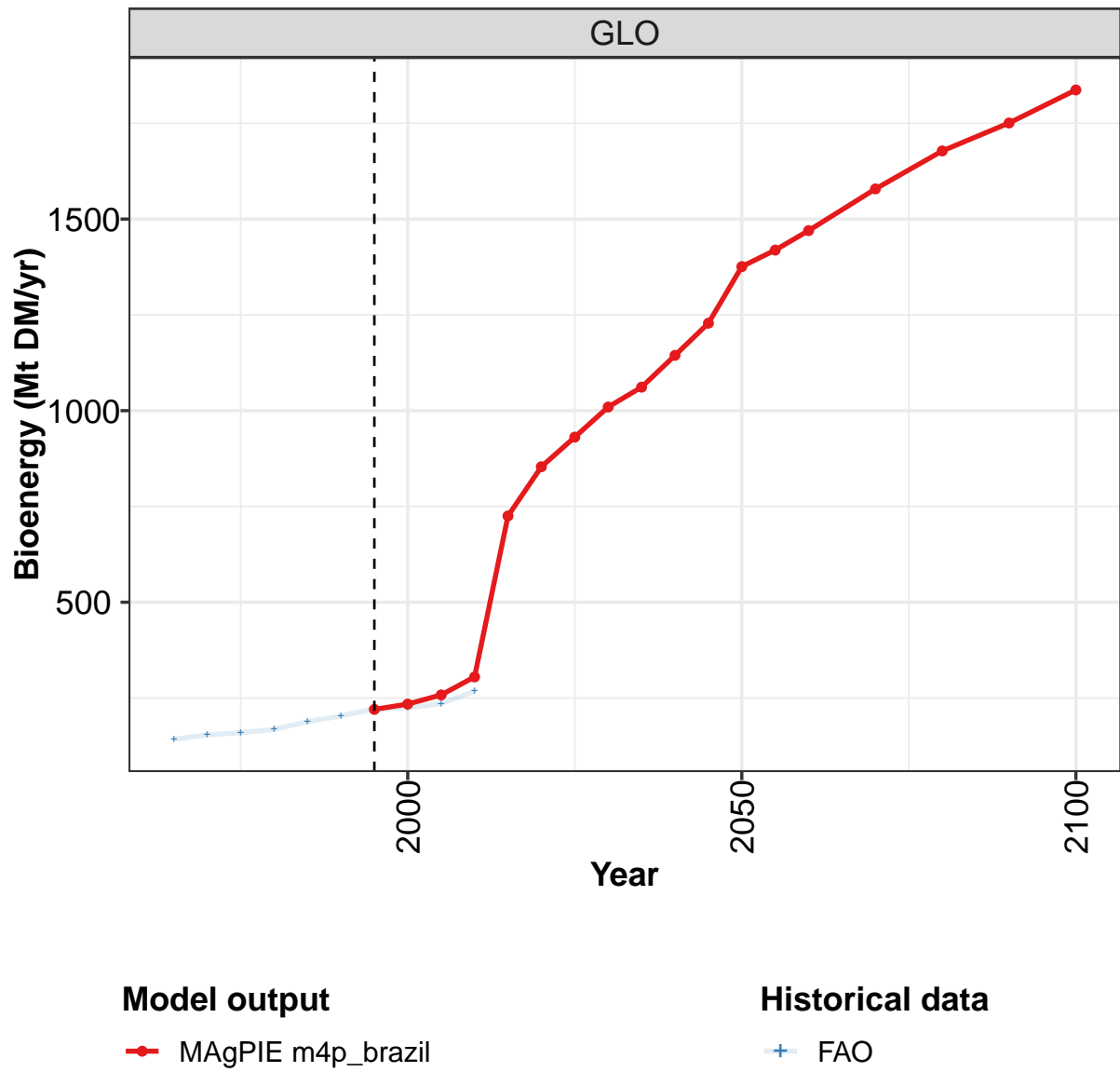
4 Bioenergy

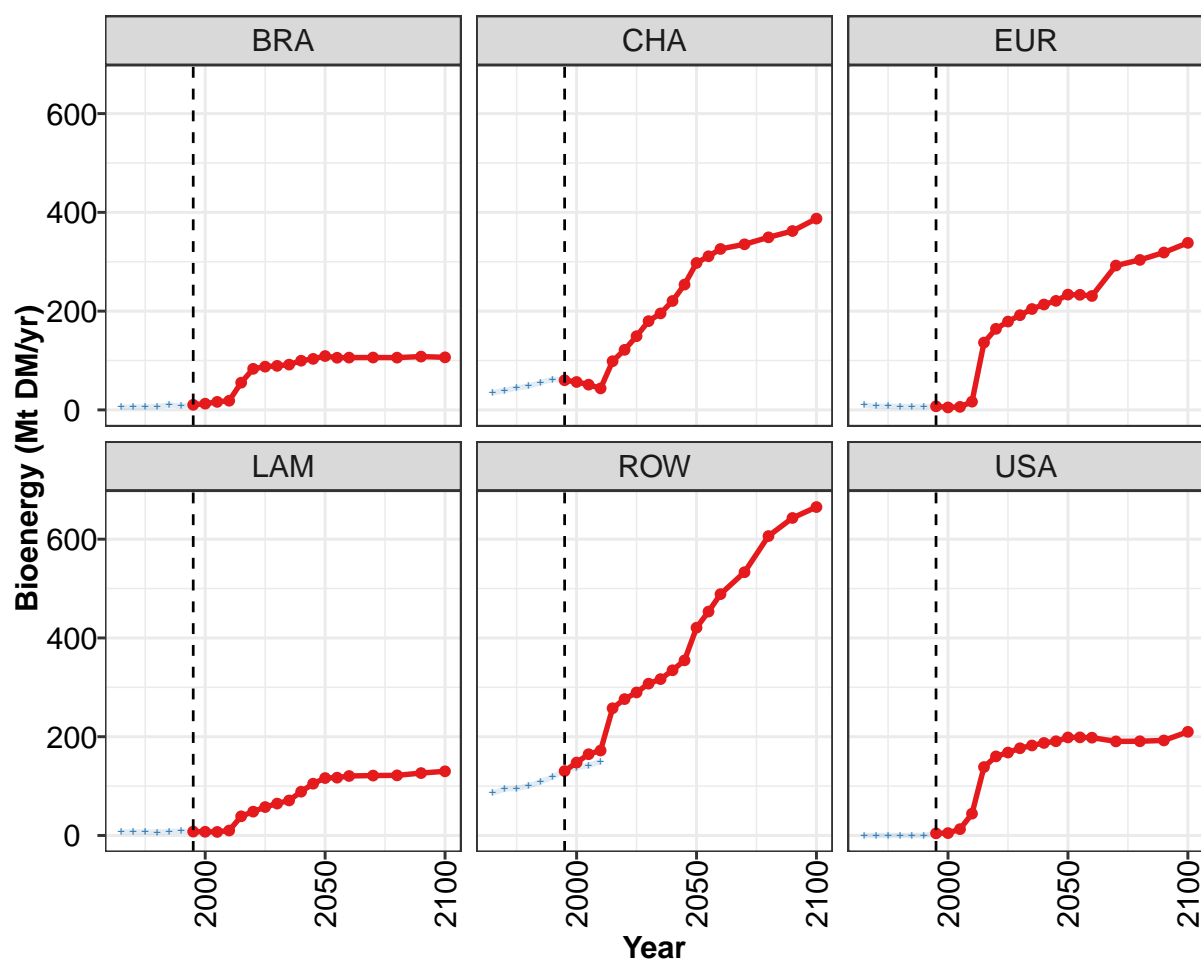












Model output

—•— MAgPIE m4p_brazil

Historical data

+— FAO

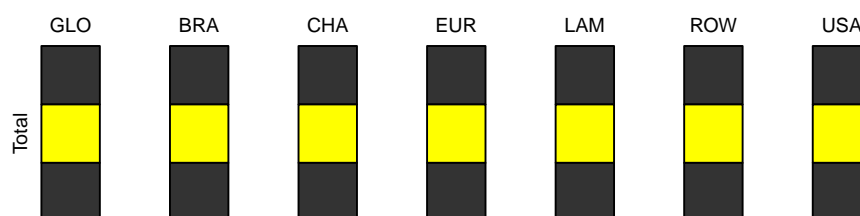


Figure 34: MAgPIE m4p_brazil — Demand—Bioenergy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	220	234	258	305	725	854	931	1010	1061	1144	1228
BRA	10	13	16	19	55	83	88	89	92	100	103
CHA	60	57	51	44	99	122	149	180	195	221	254
EUR	7	5	6	17	136	164	179	192	204	213	221
LAM	8	8	7	10	39	48	58	65	71	89	105
ROW	130	148	165	172	258	276	290	307	317	335	355
USA	4	5	13	44	139	160	168	177	182	187	191

Table 103: MAgPIE m4p_brazil — Demand—Bioenergy (Mt DM/yr) [PART 1/2]

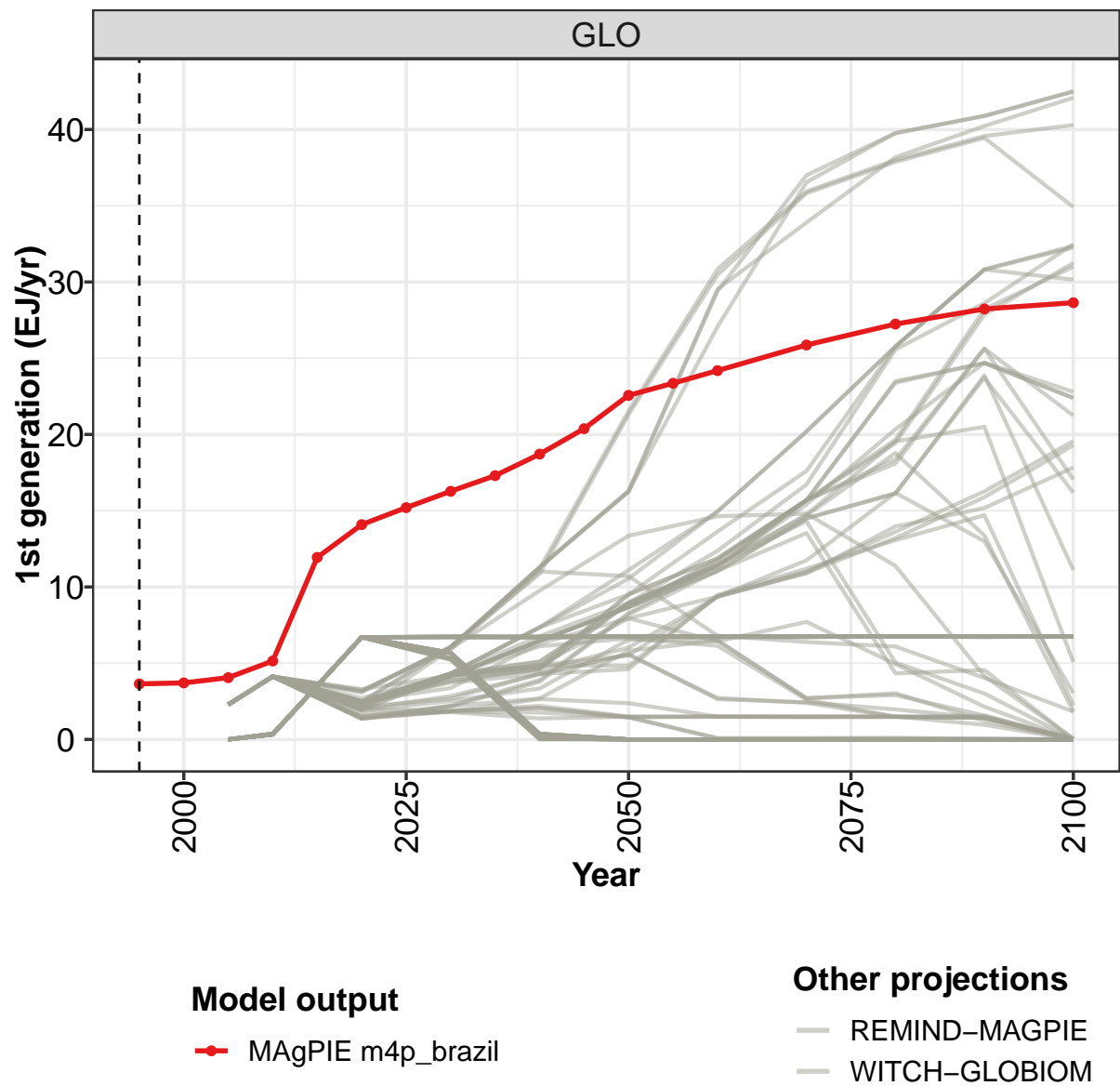
	2050	2055	2060	2070	2080	2090	2100
GLO	1376	1419	1470	1579	1678	1751	1837
BRA	109	106	106	106	106	108	106
CHA	298	311	326	335	349	362	387
EUR	233	233	231	292	304	319	338
LAM	116	117	120	121	122	126	130
ROW	421	453	489	533	606	643	665
USA	199	199	198	191	191	192	210

Table 104: MAgPIE m4p_brazil — 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
BRA	5	6	6	7	10	8	10	13	16	17
CHA	35	39	44	48	55	62	61	57	52	40
EUR	10	8	7	7	7	7	7	5	6	13
LAM	7	7	7	6	8	9	8	7	7	7
ROW	86	94	95	100	109	118	132	137	142	150
USA	0	0	0	0	0	0	4	5	13	40

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

4.1 1st generation



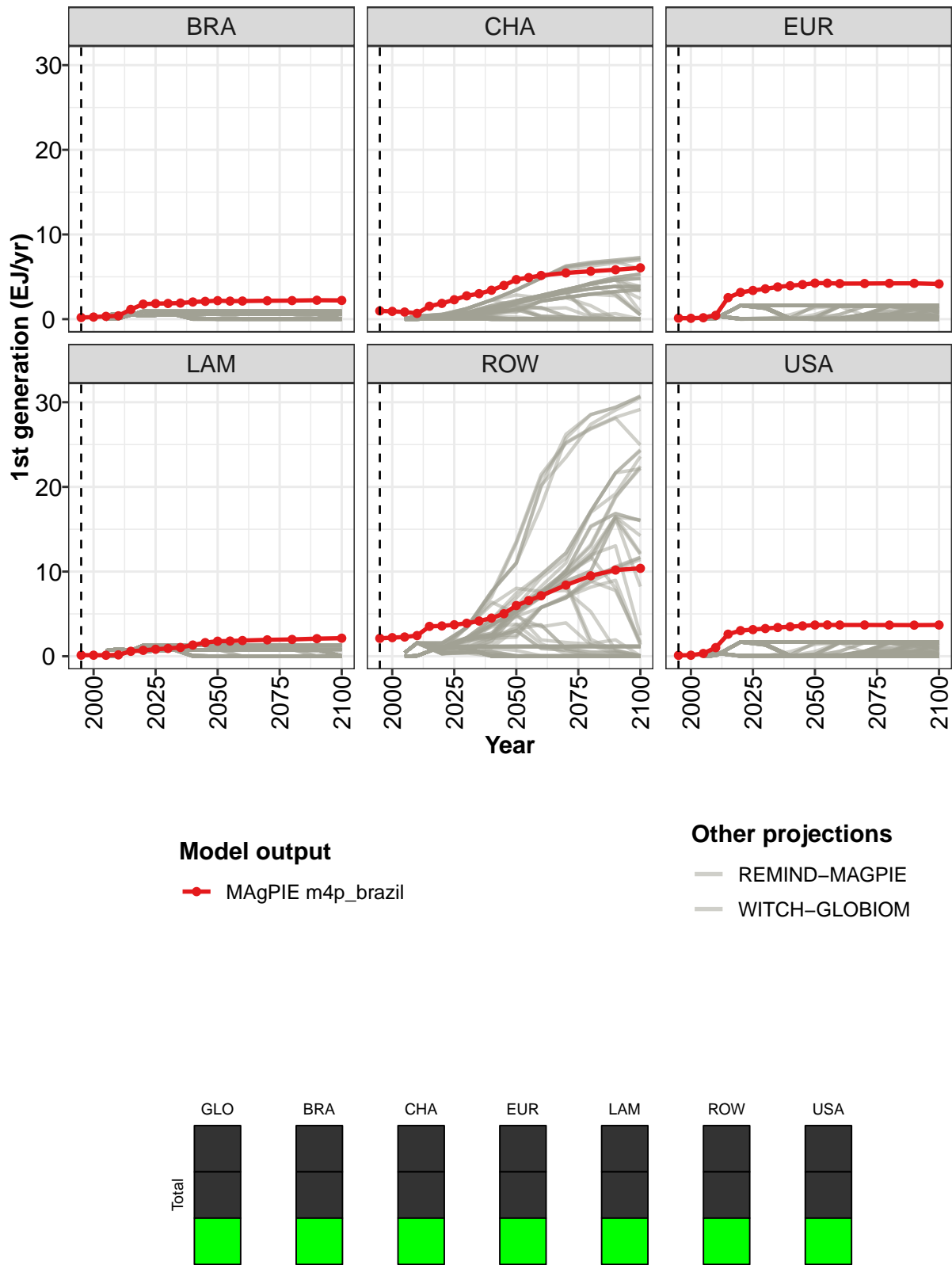


Figure 35: MAgPIE m4p_brazil — Demand—Bioenergy—1st generation (EJ/yr)

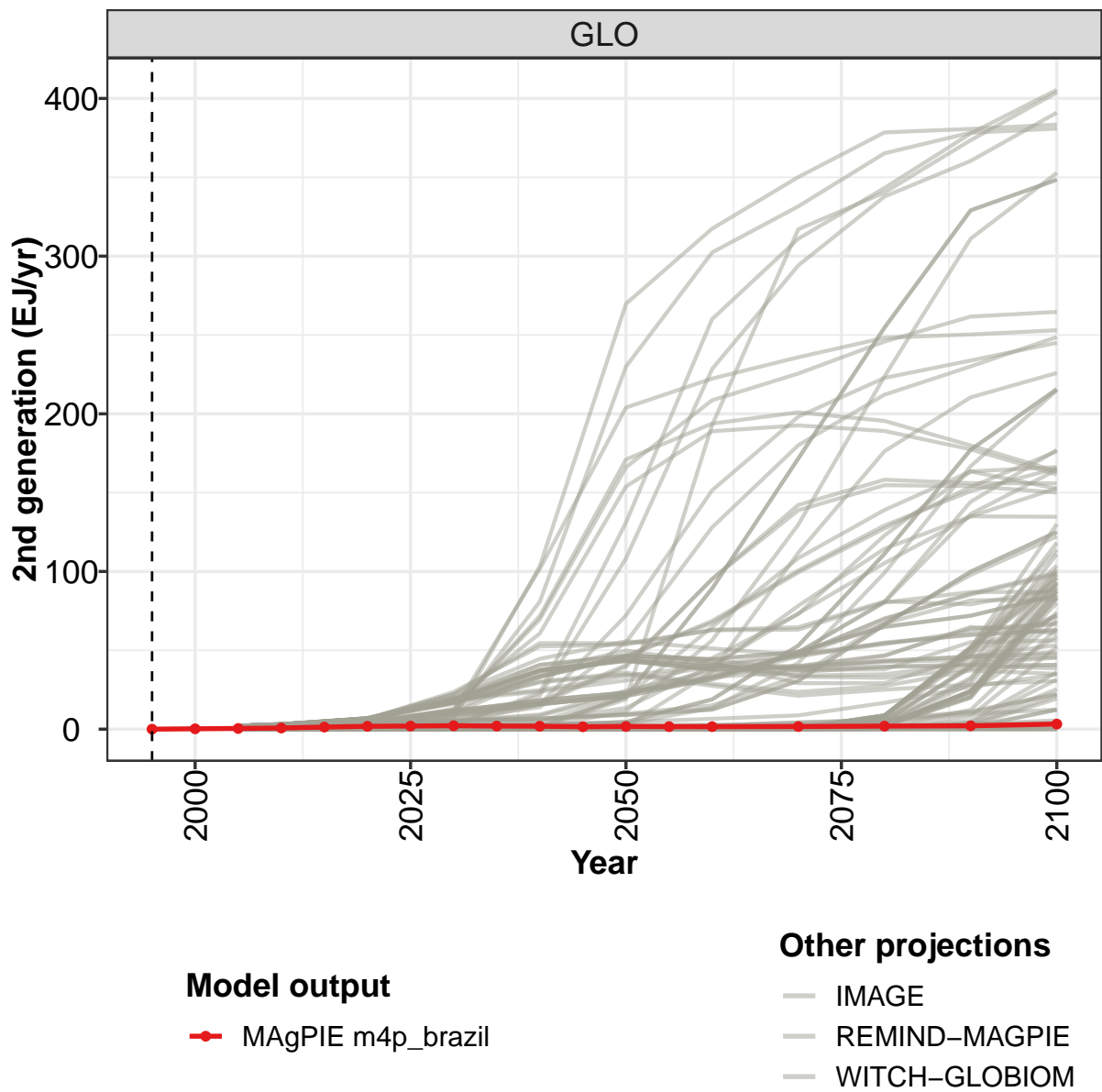
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.6	3.7	4.1	5.1	11.9	14.1	15.2	16.3	17.3	18.7	20.4
BRA	0.2	0.2	0.3	0.4	1.1	1.8	1.8	1.9	1.9	2.0	2.1
CHA	1.0	0.9	0.8	0.7	1.5	1.9	2.3	2.8	3.0	3.4	4.0
EUR	0.1	0.1	0.2	0.4	2.5	3.2	3.4	3.6	3.8	3.9	4.1
LAM	0.1	0.1	0.1	0.2	0.6	0.7	0.8	0.9	1.0	1.3	1.6
ROW	2.1	2.2	2.3	2.4	3.5	3.6	3.7	3.9	4.2	4.5	5.0
USA	0.1	0.1	0.3	1.0	2.6	3.0	3.1	3.3	3.4	3.5	3.6

Table 106: MAgPIE m4p_brazil — Demand—Bioenergy—1st generation (EJ/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	22.6	23.4	24.2	25.9	27.2	28.2	28.6
BRA	2.2	2.1	2.1	2.2	2.2	2.2	2.2
CHA	4.7	4.9	5.2	5.5	5.7	5.8	6.1
EUR	4.3	4.2	4.2	4.2	4.2	4.2	4.2
LAM	1.8	1.8	1.9	1.9	2.0	2.1	2.1
ROW	6.0	6.6	7.1	8.4	9.5	10.2	10.4
USA	3.7	3.7	3.7	3.7	3.7	3.7	3.7

Table 107: MAgPIE m4p_brazil — Demand—Bioenergy—1st generation (EJ/yr) [PART 2/2]

4.2 2nd generation



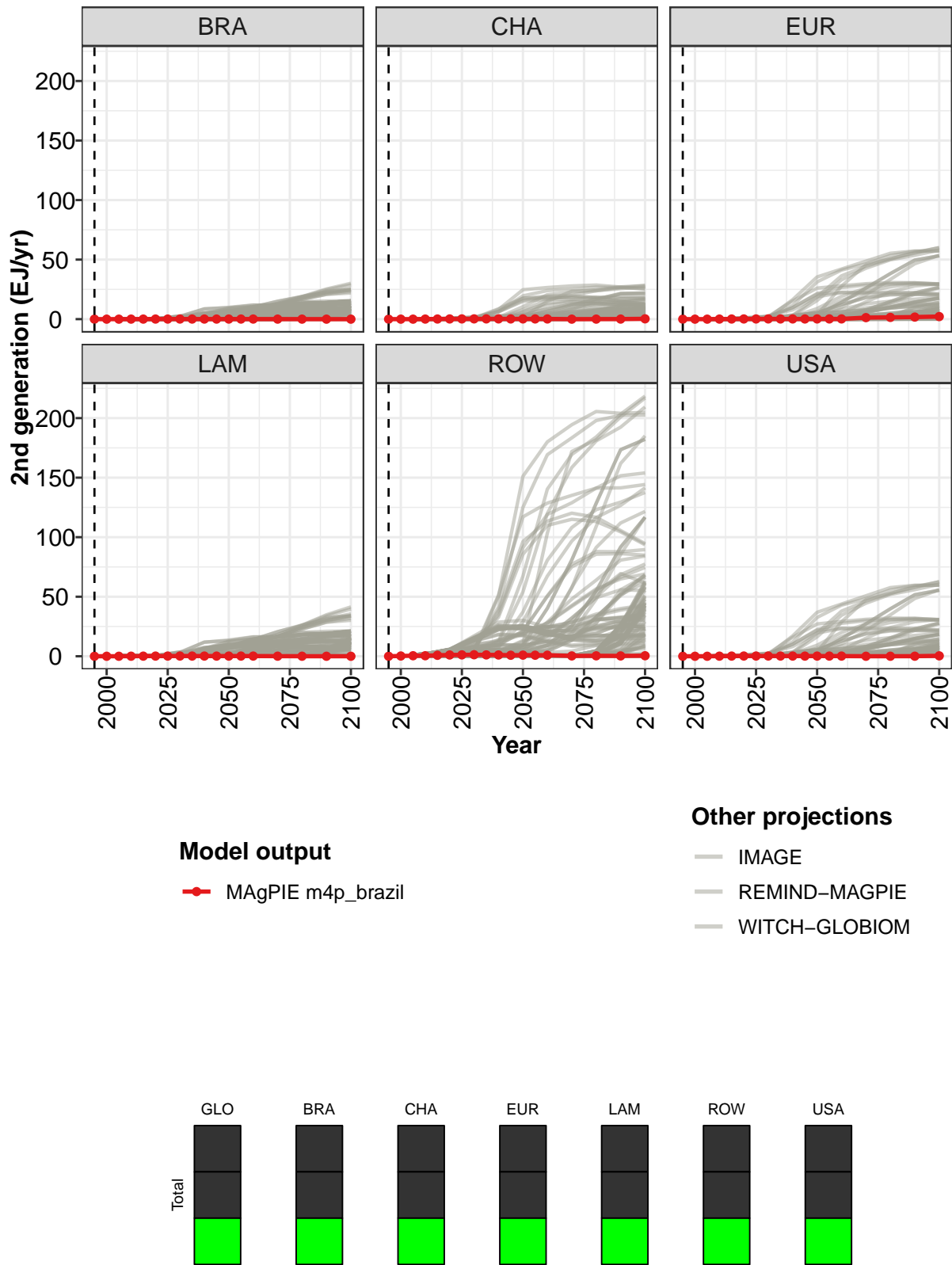


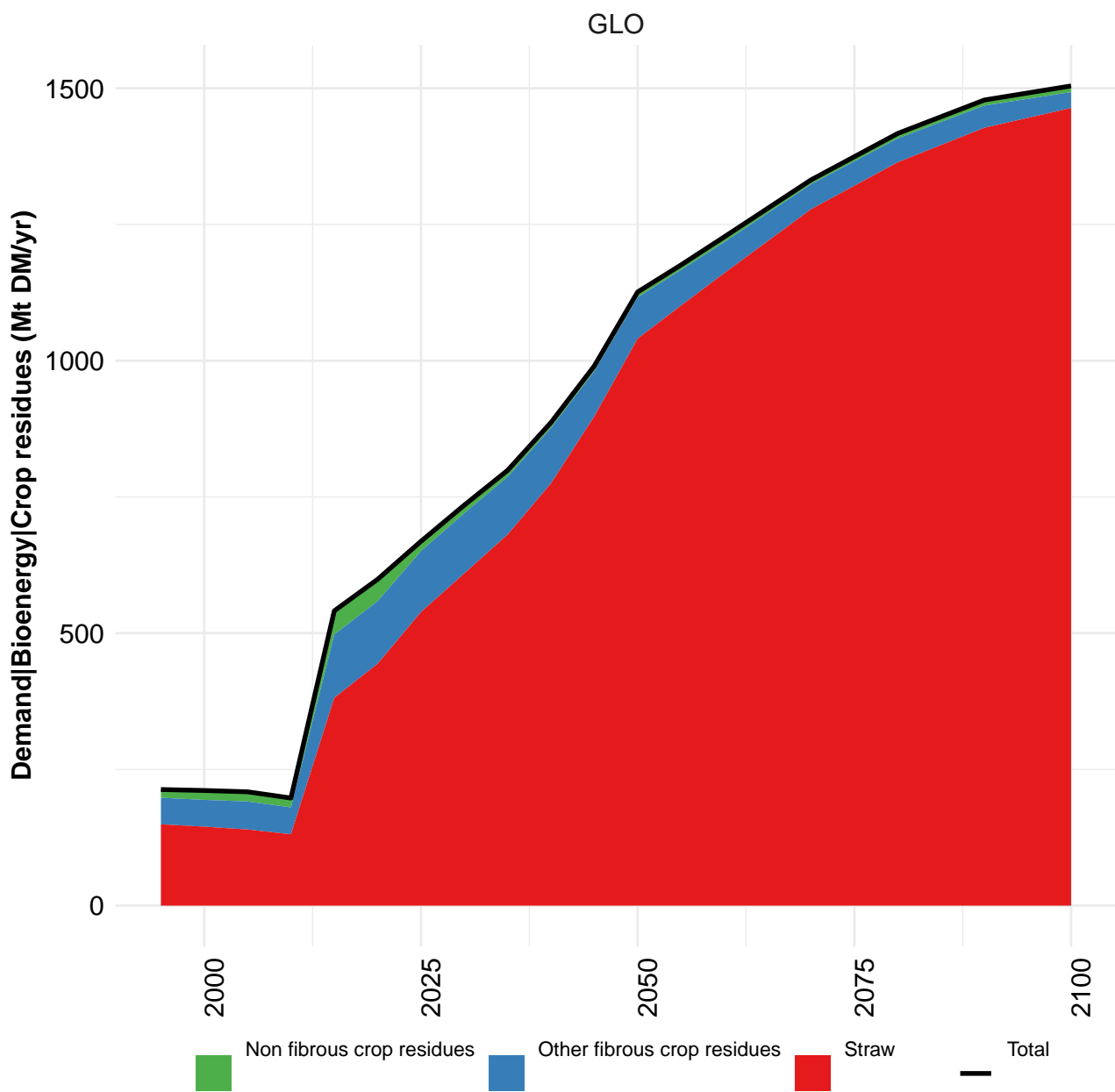
Figure 36: MAgPIE m4p_brazil — Demand—Bioenergy—2nd generation (EJ/yr)

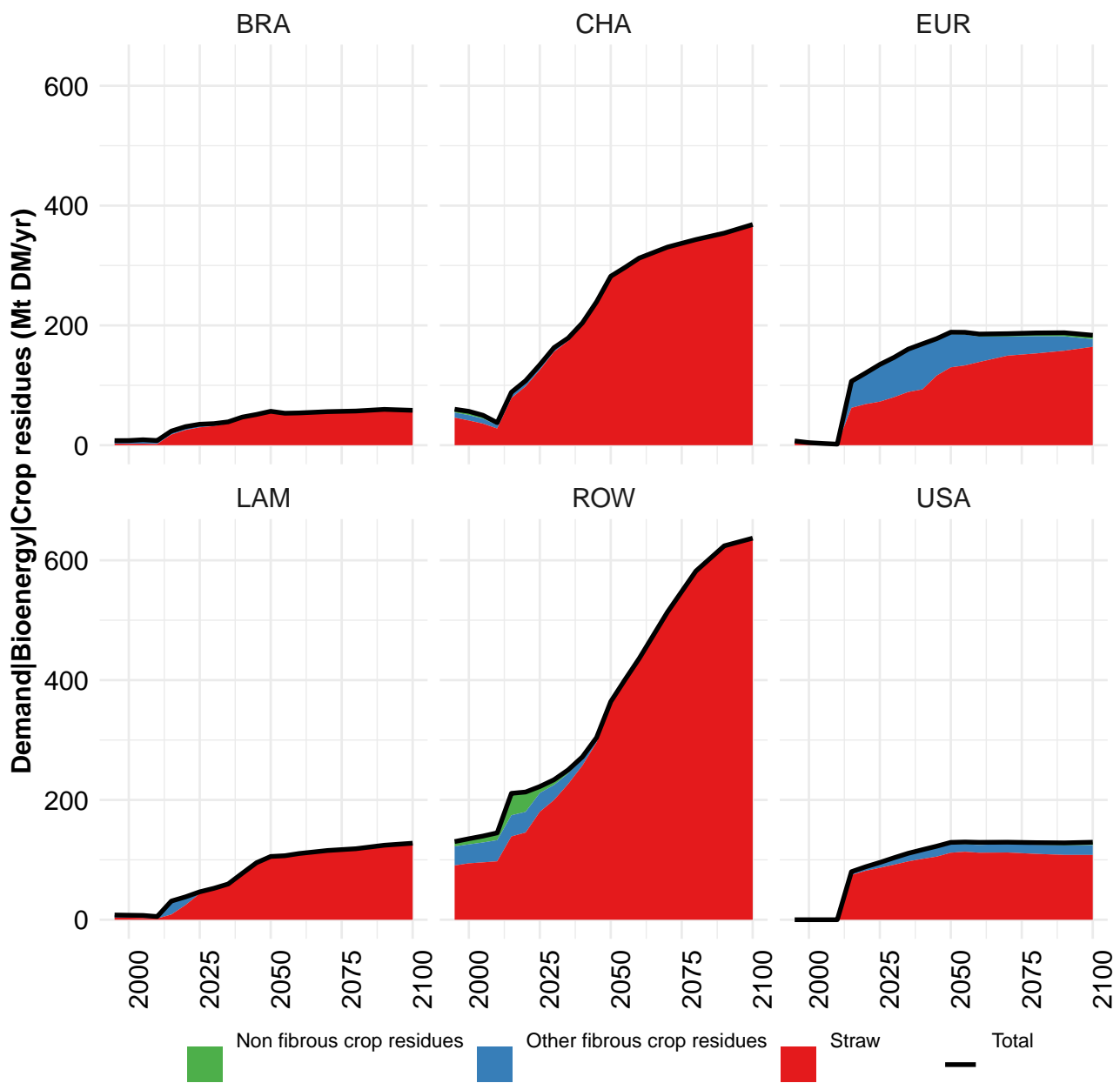
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.00	0.22	0.45	0.72	1.32	1.81	1.95	2.17	1.95	1.86	1.51
BRA	0.00	0.00	0.00	0.02	0.05	0.07	0.08	0.09	0.08	0.08	0.07
CHA	0.00	0.00	0.00	0.06	0.12	0.17	0.19	0.22	0.22	0.21	0.18
EUR	0.00	0.00	0.00	0.06	0.12	0.16	0.17	0.19	0.17	0.17	0.15
LAM	0.00	0.00	0.00	0.05	0.10	0.15	0.16	0.18	0.17	0.17	0.14
ROW	0.00	0.22	0.45	0.44	0.79	1.07	1.15	1.26	1.13	1.06	0.84
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_brazil — Demand—Bioenergy—2nd generation (EJ/yr) [PART 1/2]

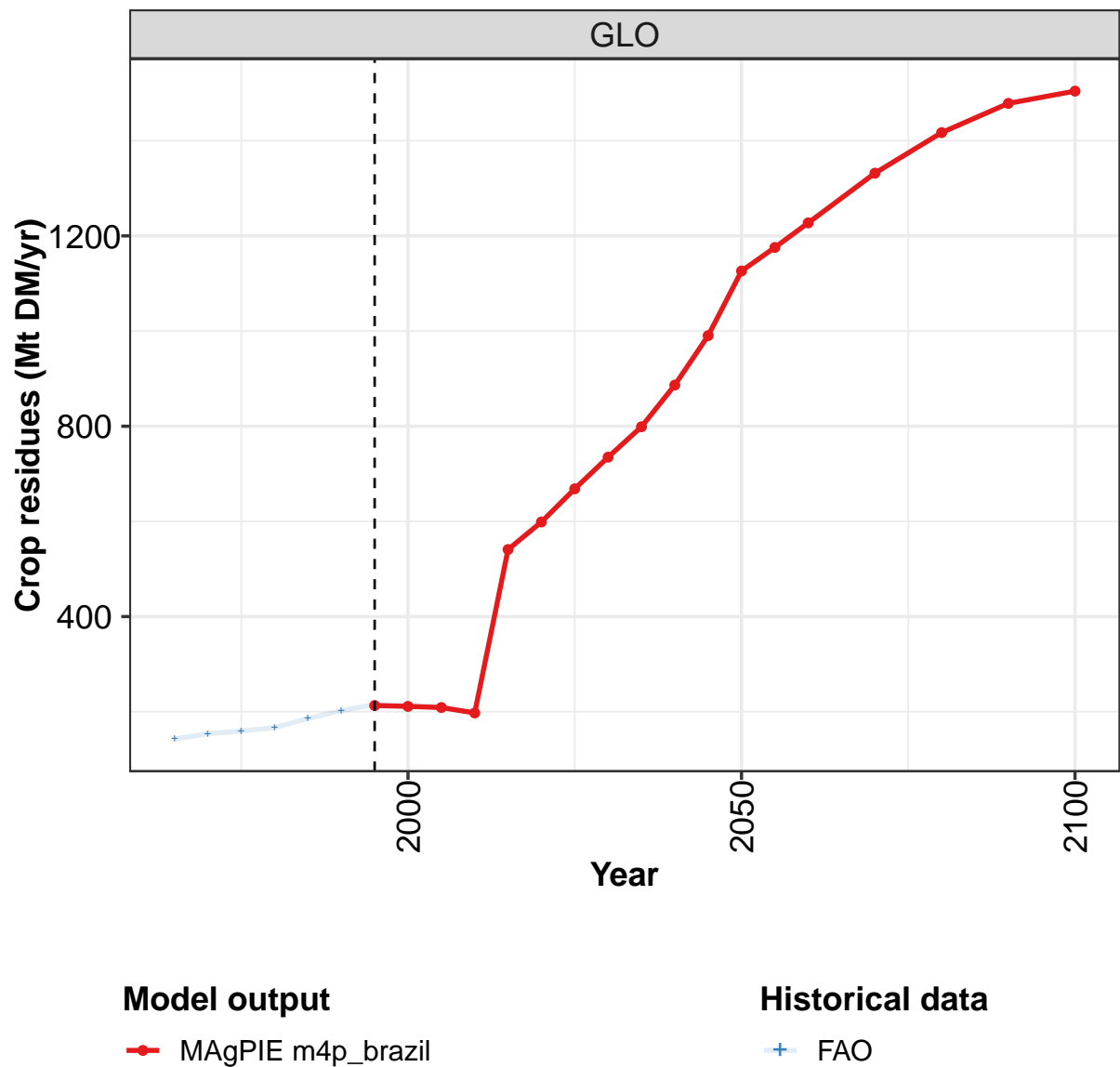
	2050	2055	2060	2070	2080	2090	2100
GLO	1.72	1.61	1.59	1.67	1.92	2.13	3.22
BRA	0.08	0.07	0.07	0.03	0.01	0.00	0.00
CHA	0.20	0.18	0.16	0.00	0.03	0.06	0.26
EUR	0.18	0.18	0.19	1.29	1.47	1.73	2.16
LAM	0.16	0.15	0.14	0.07	0.02	0.00	0.00
ROW	0.96	0.88	0.88	0.28	0.37	0.27	0.44
USA	0.15	0.14	0.14	0.00	0.02	0.05	0.35

Table 109: MAgPIE m4p_brazil — Demand—Bioenergy—2nd generation (EJ/yr) [PART 2/2]





4.3 Crop residues



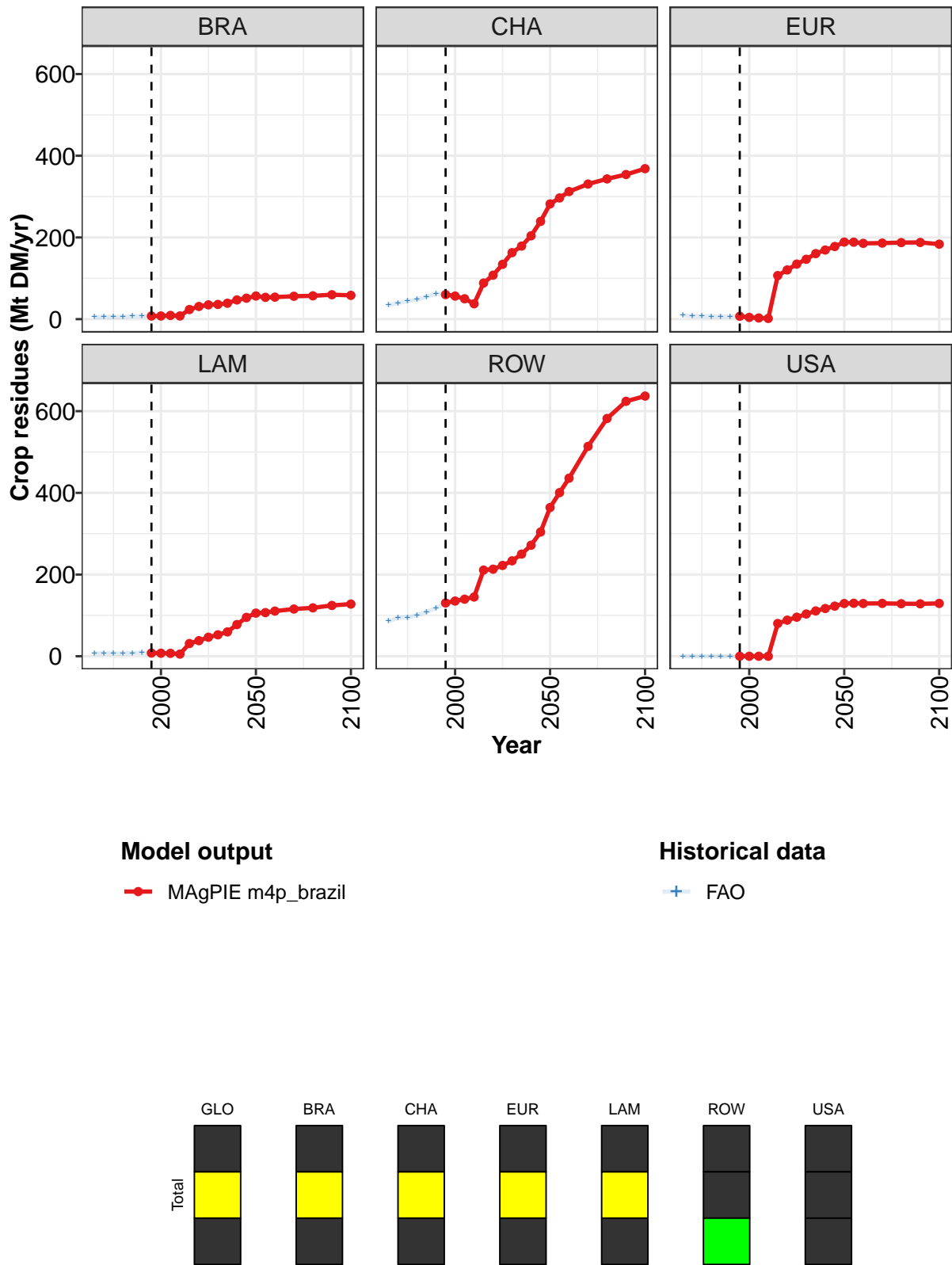


Figure 37: MAGPIE m4p_brazil — Demand—Bioenergy—Crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	213	211	209	197	541	599	669	735	799	887	990
BRA	8	8	9	8	24	31	35	36	39	47	51
CHA	60	57	50	38	88	108	134	163	179	204	239
EUR	7	4	3	2	107	120	135	147	160	169	178
LAM	8	8	7	5	31	38	47	52	60	78	95
ROW	130	135	140	145	211	213	222	234	250	272	304
USA	0	0	0	0	80	88	96	103	111	117	123

Table 110: MAgPIE m4p.brazil — Demand—Bioenergy—Crop residues (Mt DM/yr) [PART 1/2]

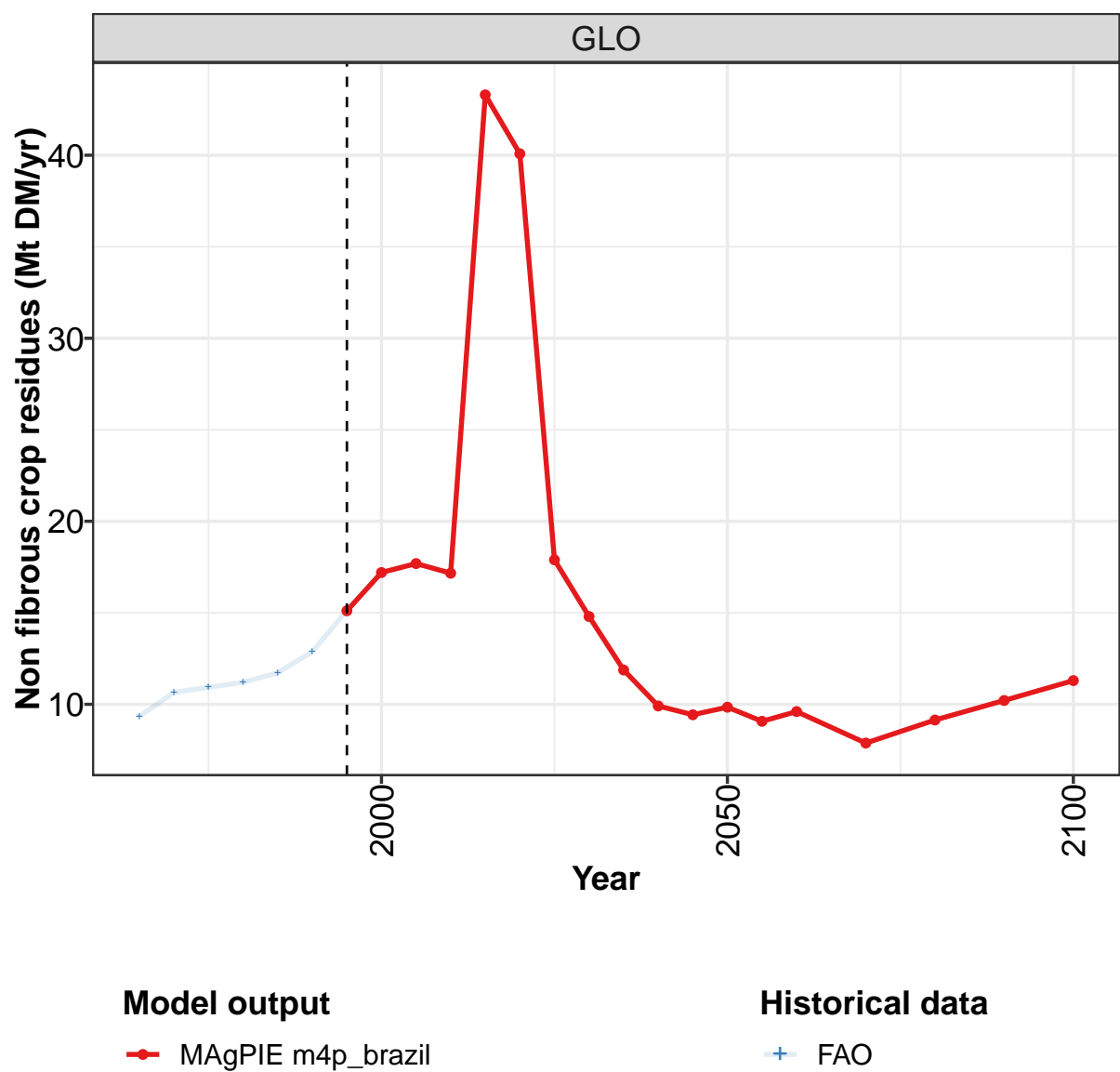
	2050	2055	2060	2070	2080	2090	2100
GLO	1126	1176	1227	1332	1417	1478	1504
BRA	57	53	54	56	57	60	58
CHA	282	297	312	331	343	354	368
EUR	189	188	186	186	187	188	184
LAM	106	107	111	116	119	124	128
ROW	364	401	436	514	582	624	637
USA	129	130	129	129	129	128	129

Table 111: MAgPIE m4p.brazil — 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
BRA	5	6	5	6	7	7	8	8	9	8
CHA	35	39	44	48	55	62	61	57	50	38
EUR	10	8	7	7	7	7	7	4	3	2
LAM	7	7	7	6	8	8	8	7	7	5
ROW	86	94	95	100	109	118	132	137	142	147
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



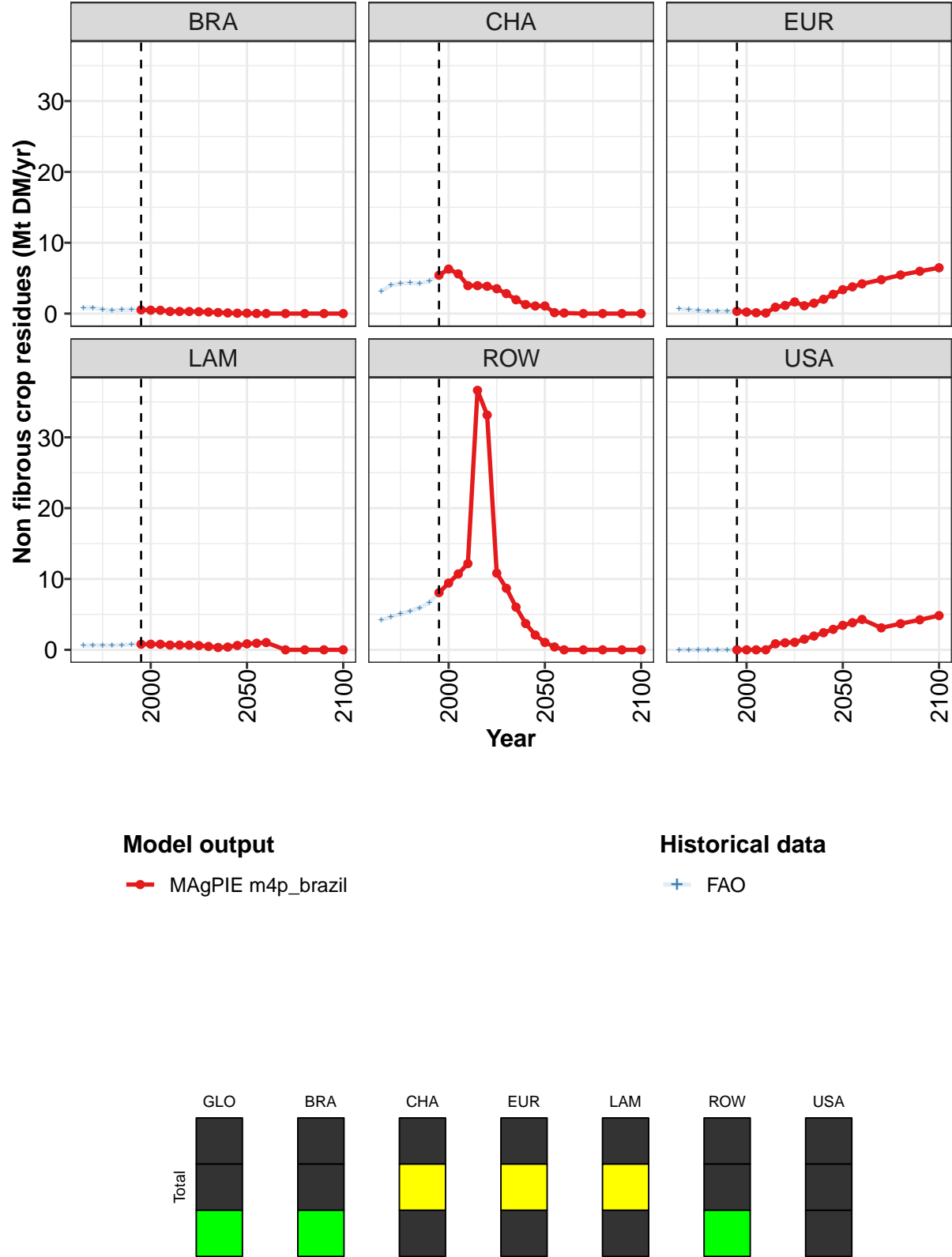


Figure 38: MAGPIE m4p_brazil — Demand—Bioenergy—Crop residues—Non fibrous crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	15.1	17.2	17.7	17.2	43.3	40.1	17.9	14.8	11.9	9.9	9.4
BRA	0.5	0.5	0.5	0.3	0.3	0.3	0.3	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	1.3	1.1
EUR	0.3	0.2	0.1	0.1	0.9	1.1	1.6	1.1	1.5	2.0	2.7
LAM	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.5	0.3	0.4	0.6
ROW	8.1	9.4	10.7	12.2	36.6	33.2	10.8	8.7	6.0	3.7	2.1
USA	0.0	0.0	0.0	0.0	0.9	1.0	1.1	1.5	1.9	2.4	2.9

Table 113: MAgPIE m4p_brazil — Demand—Bioenergy—Crop residues—Non fibrous crop residues (Mt DM/yr)
[PART 1/2]

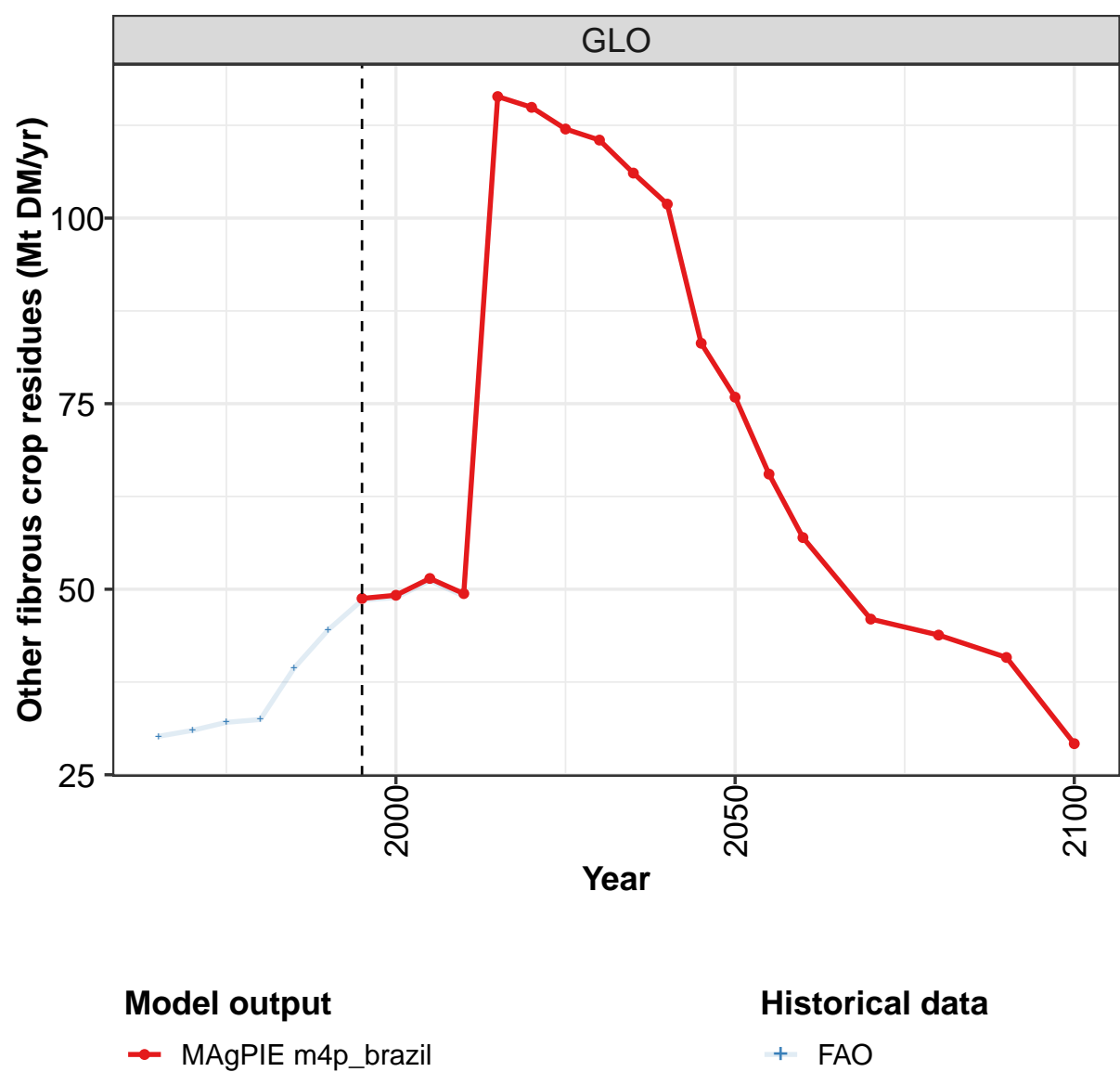
	2050	2055	2060	2070	2080	2090	2100
GLO	9.8	9.1	9.6	7.9	9.1	10.2	11.3
BRA	0.1	0.0	0.0	0.0	0.0	0.0	0.0
CHA	1.1	0.1	0.1	0.0	0.0	0.0	0.0
EUR	3.4	3.8	4.2	4.8	5.5	6.0	6.5
LAM	0.8	0.9	1.0	0.0	0.0	0.0	0.0
ROW	1.0	0.4	0.0	0.0	0.0	0.0	0.0
USA	3.5	3.8	4.3	3.1	3.7	4.2	4.8

Table 114: MAgPIE m4p_brazil — 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
BRA	0.8	0.8	0.6	0.4	0.5	0.5	0.5	0.5	0.5	0.3
CHA	3.1	4.0	4.3	4.3	4.2	4.6	5.4	6.3	5.6	3.9
EUR	0.7	0.5	0.4	0.3	0.4	0.3	0.3	0.2	0.1	0.1
LAM	0.6	0.7	0.6	0.6	0.7	0.8	0.8	0.8	0.8	0.7
ROW	4.2	4.6	5.1	5.5	5.9	6.7	8.1	9.4	10.7	12.2
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



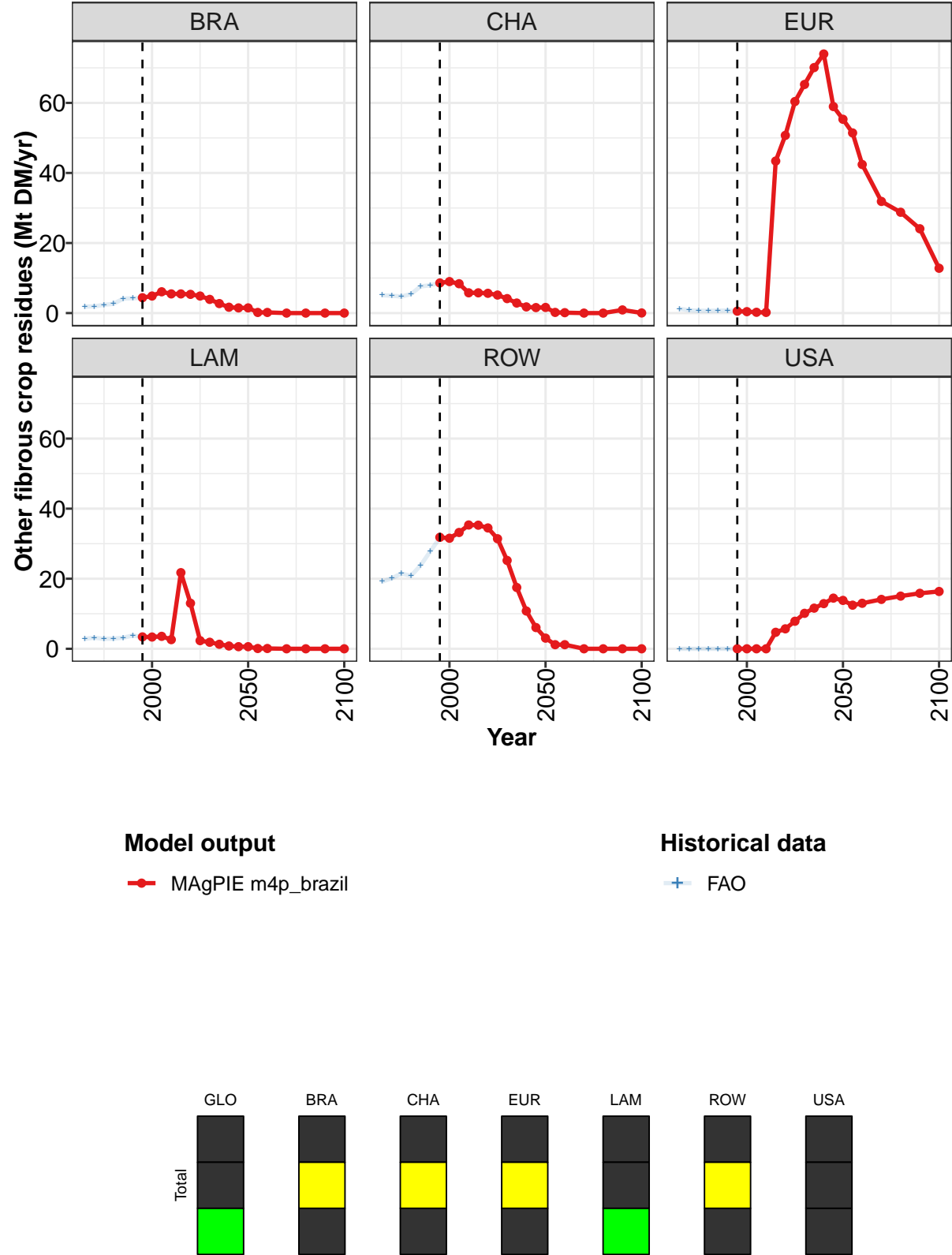


Figure 39: MAgPIE m4p_brazil — Demand—Bioenergy—Crop residues—Other fibrous crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	49	49	51	49	116	115	112	111	106	102	83
BRA	4	5	6	5	5	5	5	4	3	2	1
CHA	9	9	8	6	6	6	5	4	3	2	2
EUR	1	0	0	0	43	51	60	65	70	74	59
LAM	3	3	4	3	22	13	2	2	1	1	1
ROW	32	32	33	35	35	34	31	25	18	11	6
USA	0	0	0	0	5	6	8	10	12	13	14

Table 116: MAgPIE m4p_brazil — Demand—Bioenergy—Crop residues—Other fibrous crop residues (Mt DM/yr) [PART 1/2]

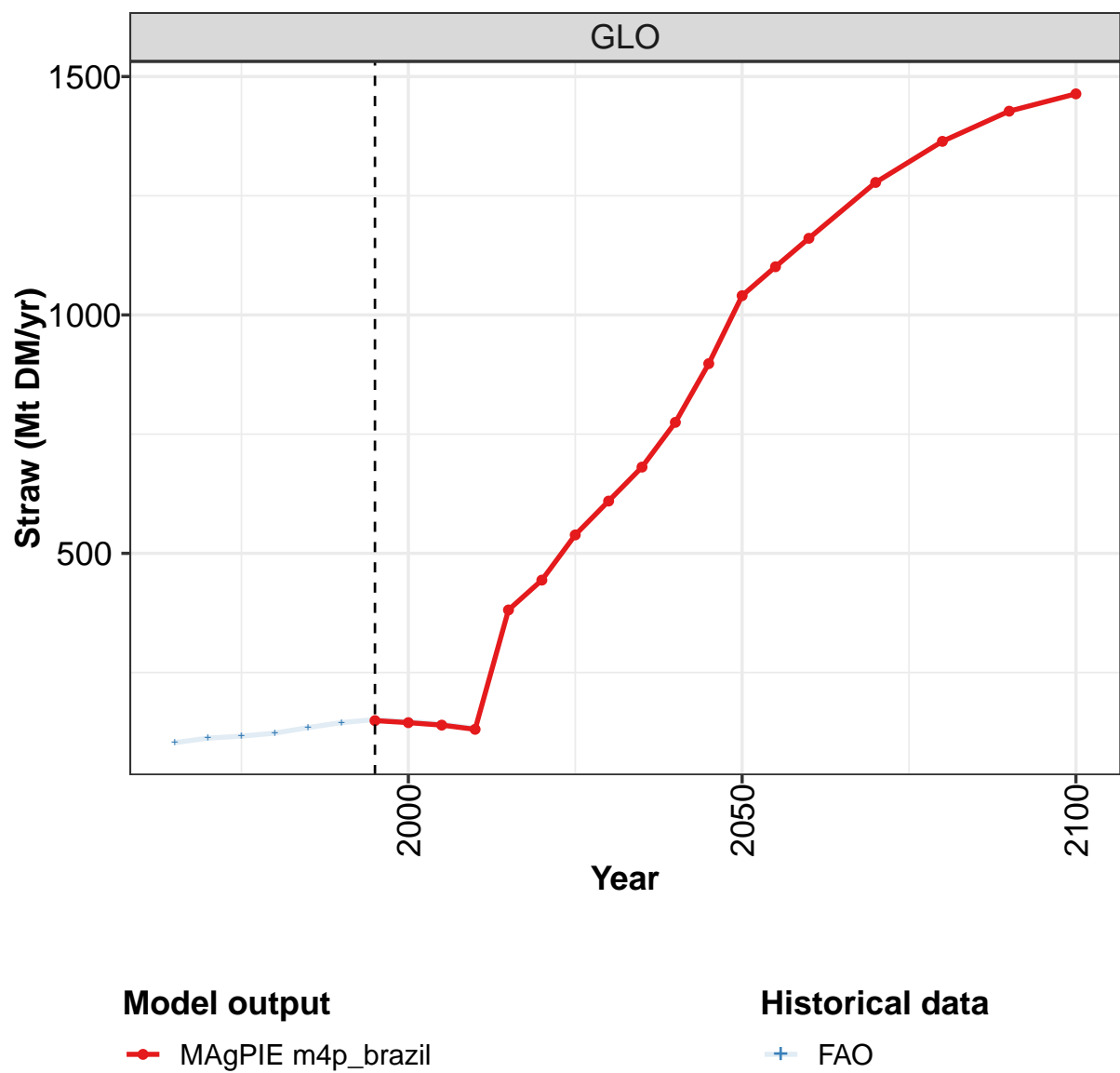
	2050	2055	2060	2070	2080	2090	2100
GLO	76	66	57	46	44	41	29
BRA	1	0	0	0	0	0	0
CHA	2	0	0	0	0	1	0
EUR	55	51	42	32	29	24	13
LAM	1	0	0	0	0	0	0
ROW	3	1	1	0	0	0	0
USA	14	12	13	14	15	16	16

Table 117: MAgPIE m4p_brazil — 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
BRA	1.8	1.9	2.3	2.7	4.1	4.2	4.3	4.8	6.0	5.4
CHA	5.1	4.9	4.7	5.4	7.6	7.9	8.6	9.0	8.4	5.8
EUR	1.2	0.8	0.7	0.6	0.7	0.7	0.6	0.4	0.2	0.2
LAM	2.9	3.2	2.8	2.9	3.2	3.8	3.3	3.3	3.5	2.6
ROW	19.2	20.1	21.5	20.8	23.8	27.8	31.7	31.4	33.0	35.1
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



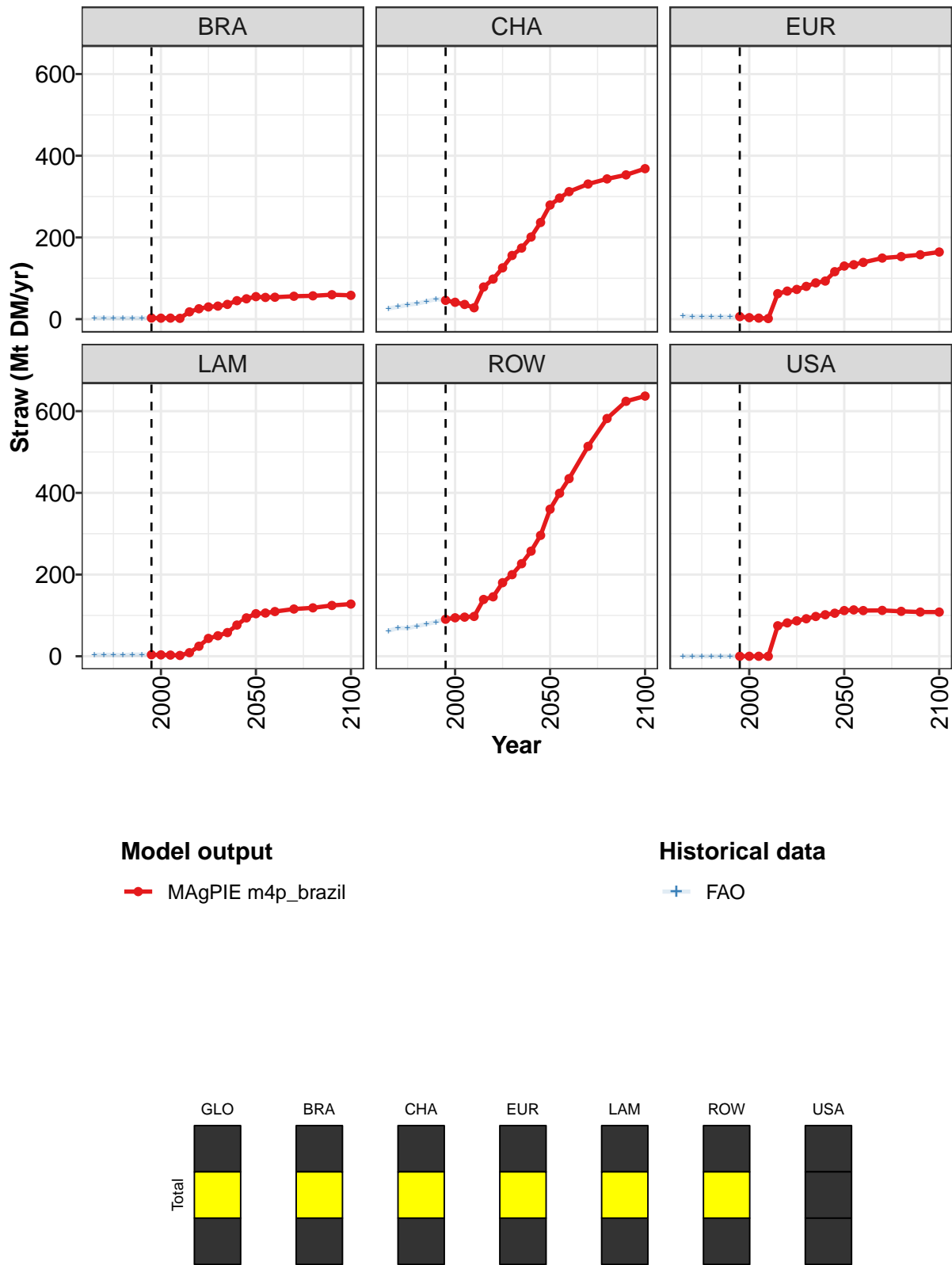


Figure 40: MAGPIE m4p_brazil — Demand—Bioenergy—Crop residues—Straw (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	149	145	140	131	381	444	539	610	681	775	898
BRA	3	2	3	2	18	25	30	32	36	45	50
CHA	46	41	36	28	79	98	126	156	174	201	237
EUR	6	4	3	1	62	69	73	80	89	93	116
LAM	4	3	3	2	9	25	44	50	58	76	94
ROW	91	94	96	98	139	146	180	200	227	257	296
USA	0	0	0	0	75	82	87	92	97	102	105

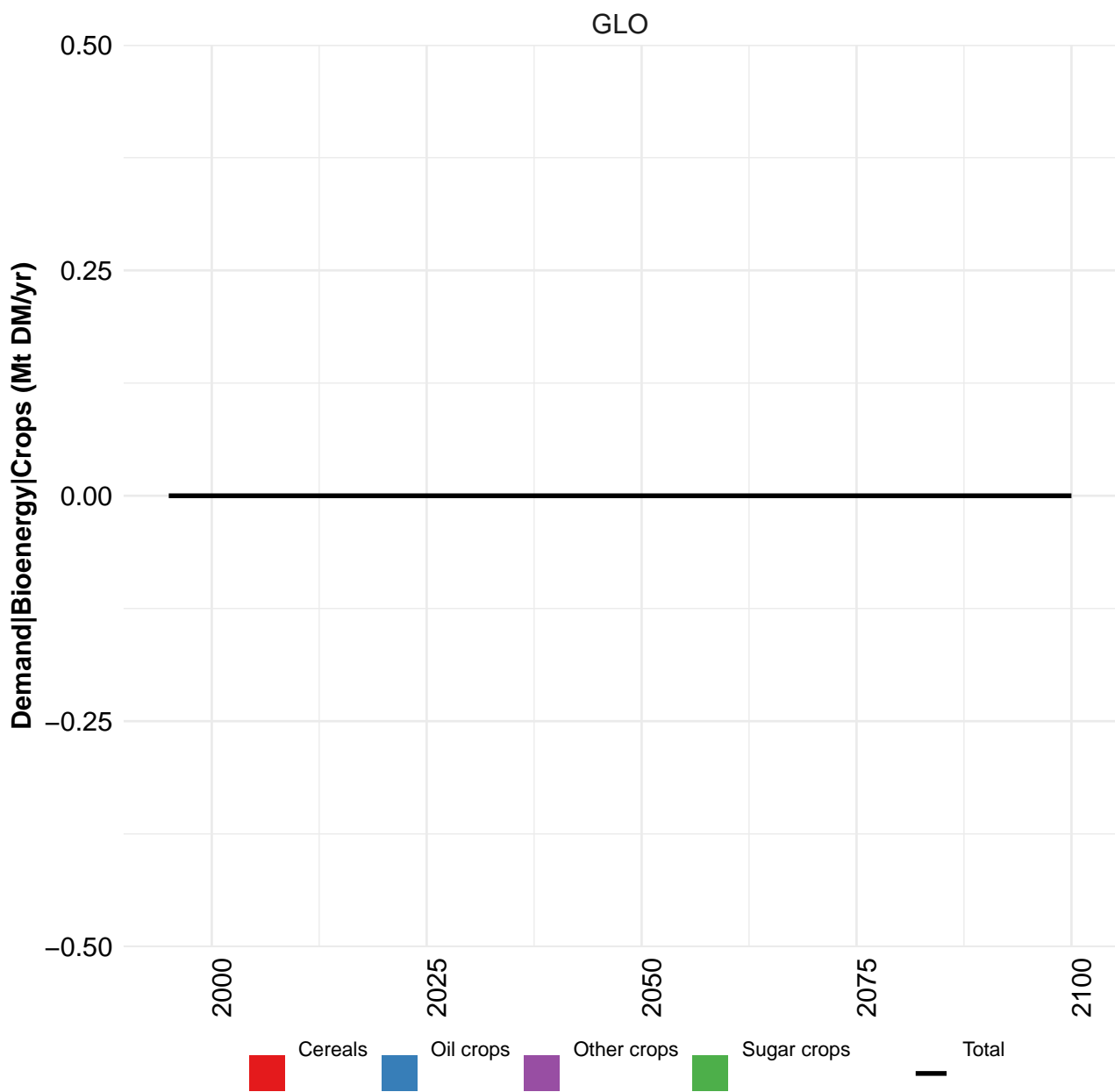
Table 119: MAgPIE m4p.brazil — Demand—Bioenergy—Crop residues—Straw (Mt DM/yr) [PART 1/2]

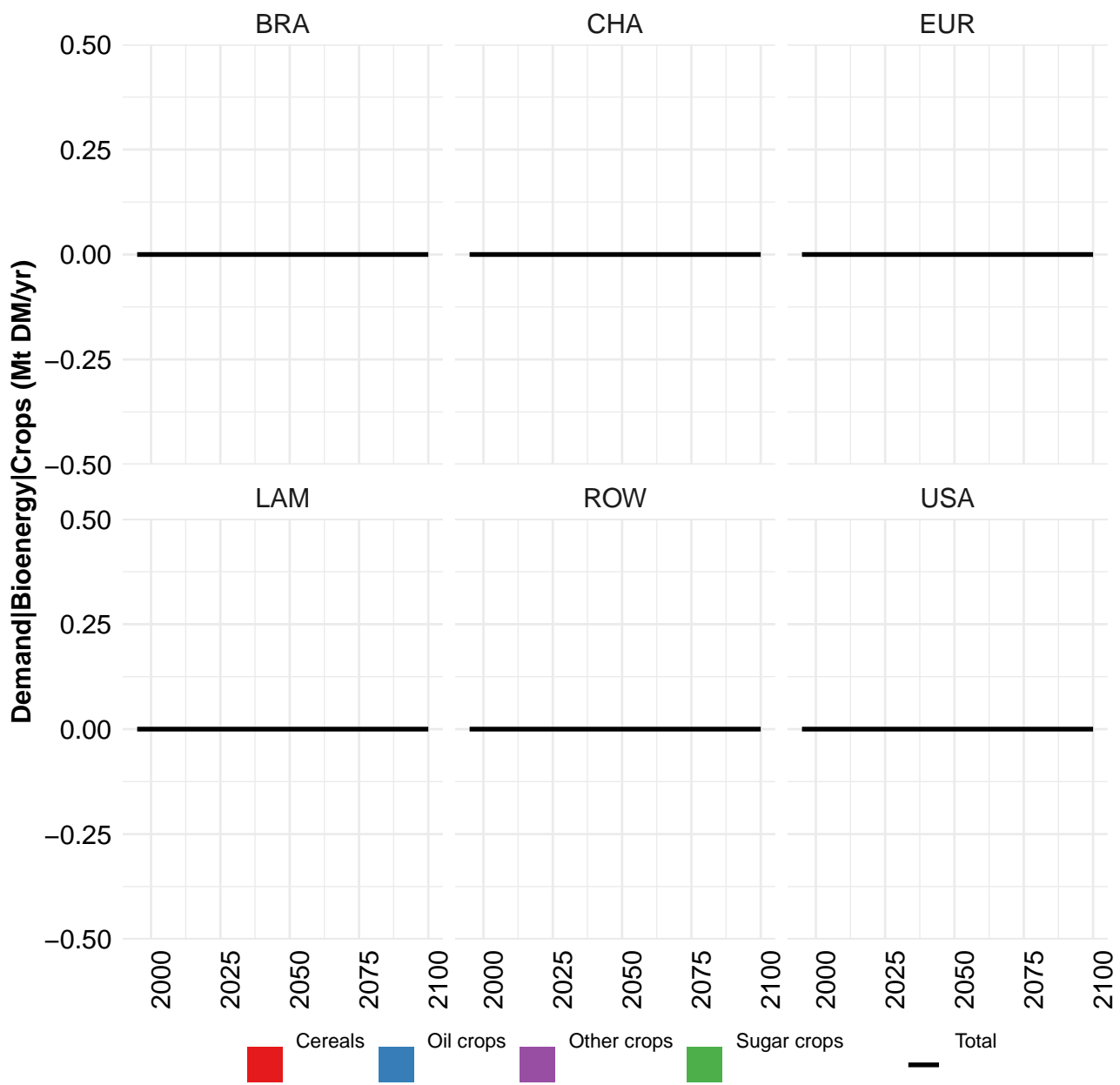
	2050	2055	2060	2070	2080	2090	2100
GLO	1040	1101	1161	1278	1364	1427	1464
BRA	55	53	54	56	57	60	58
CHA	279	296	312	331	343	353	368
EUR	130	133	139	150	153	158	164
LAM	104	106	109	116	119	124	128
ROW	360	399	435	514	582	624	637
USA	112	113	112	112	110	108	108

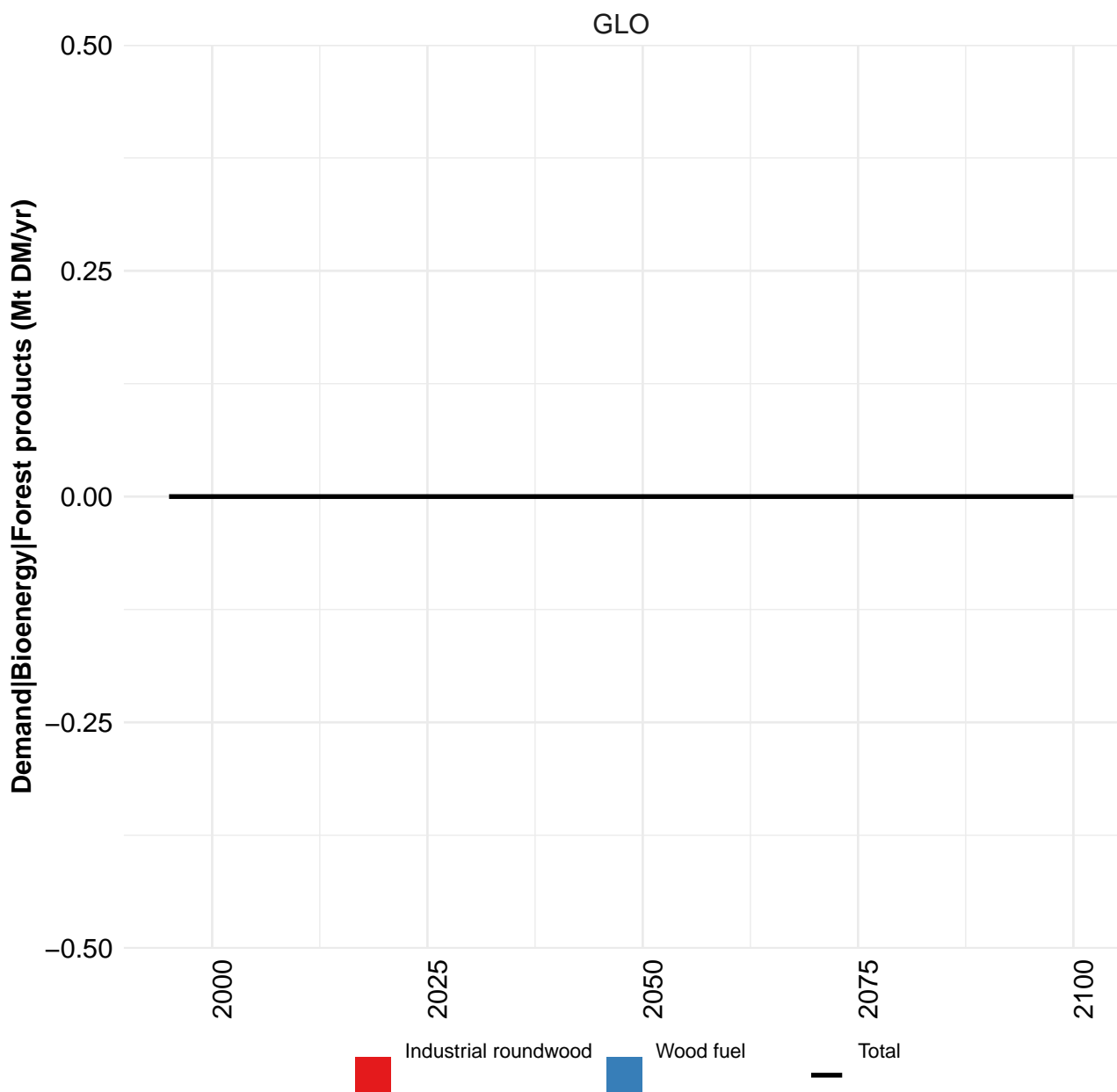
Table 120: MAgPIE m4p.brazil — Demand—Bioenergy—Crop residues—Straw (Mt DM/yr) [PART 2/2]

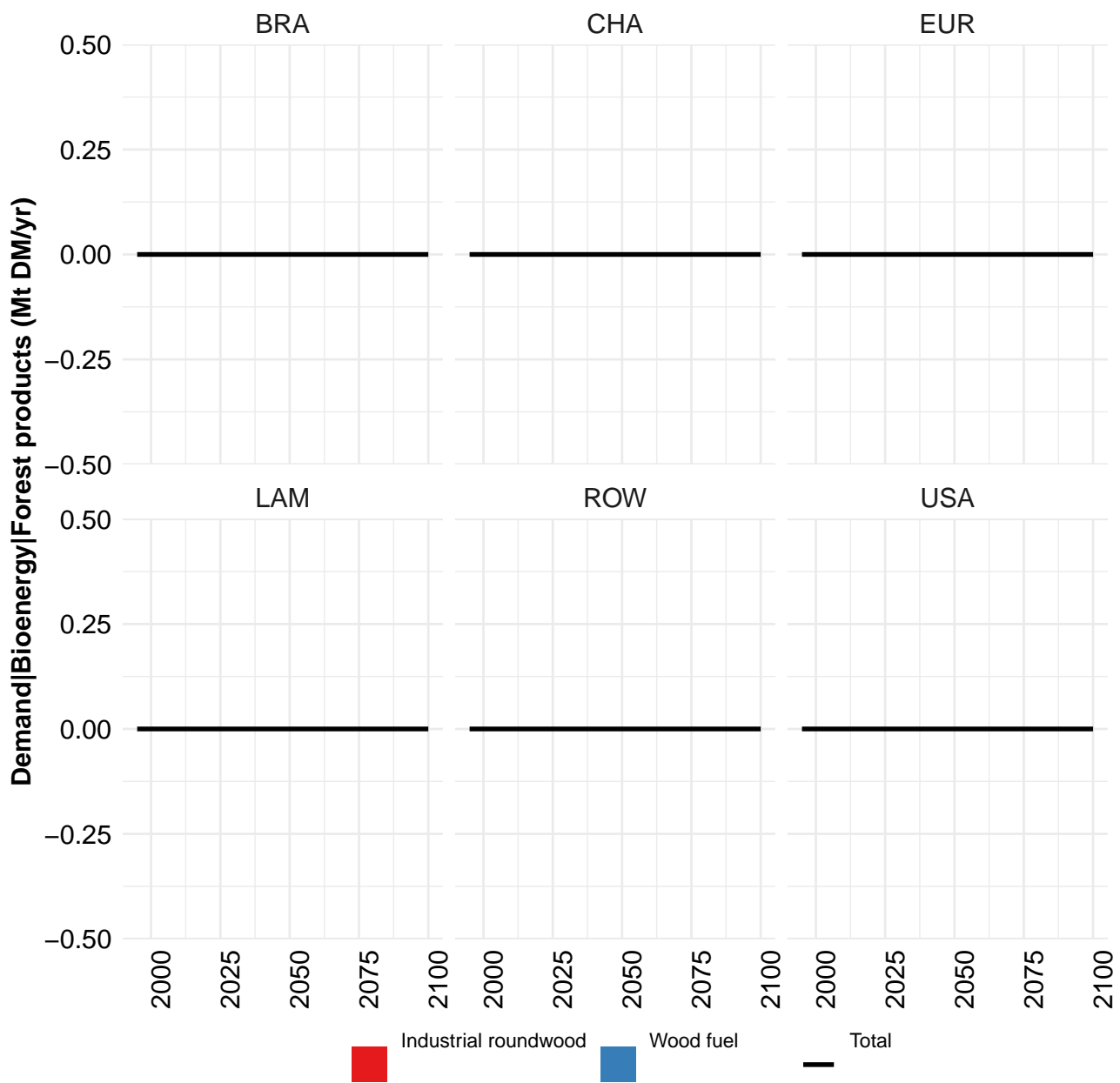
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	103	112	116	123	135	145	151	148	142	133
BRA	3	3	3	2	3	2	3	2	3	2
CHA	26	30	35	38	43	49	47	42	36	28
EUR	8	6	6	6	6	6	6	4	2	1
LAM	3	4	3	3	4	4	4	3	3	2
ROW	62	69	69	74	79	84	92	96	98	100
USA	0	0	0	0	0	0	0	0	0	0

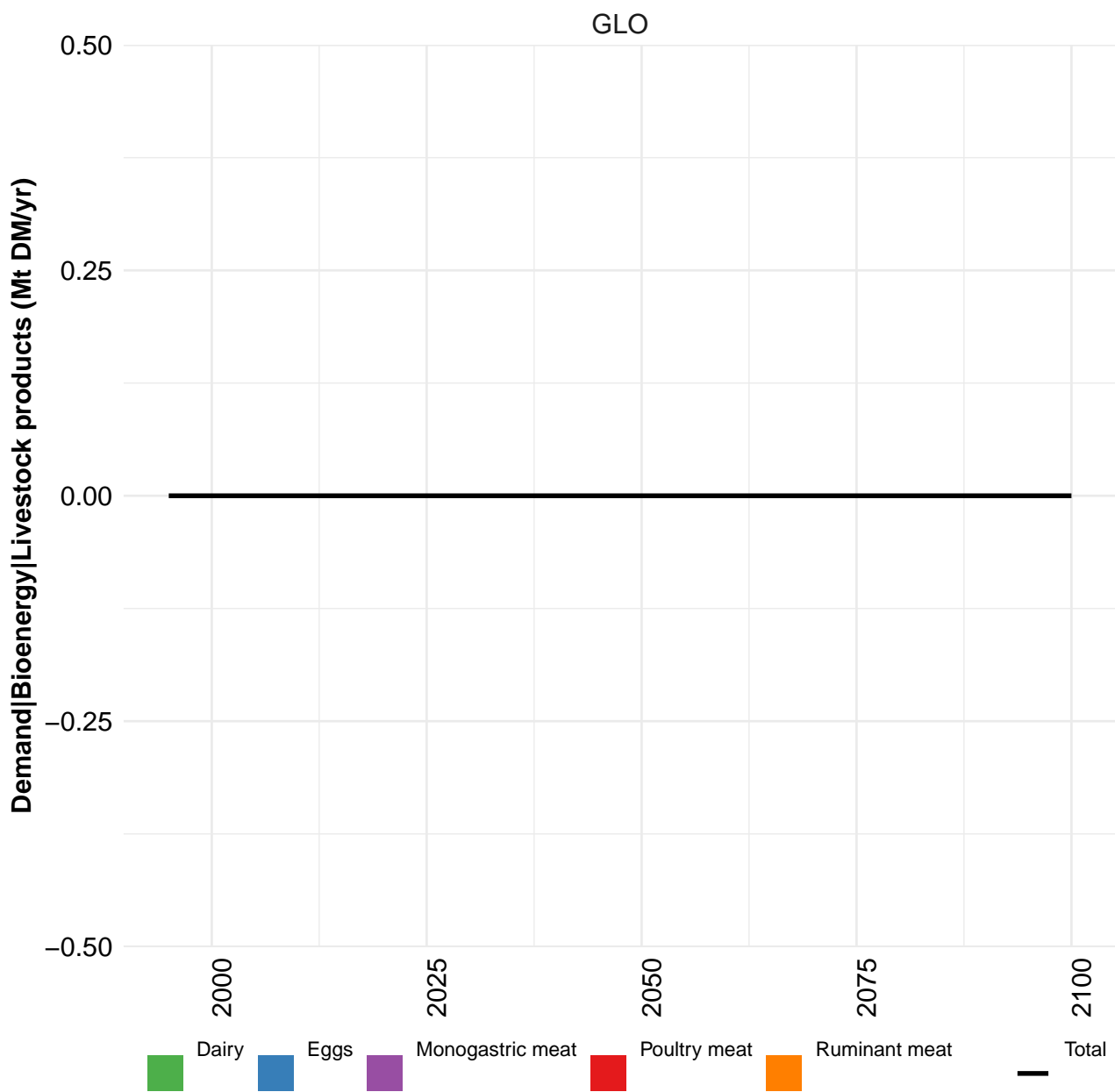
Table 121: FAO — Demand—Bioenergy—Crop residues—Straw (Mt DM/yr)

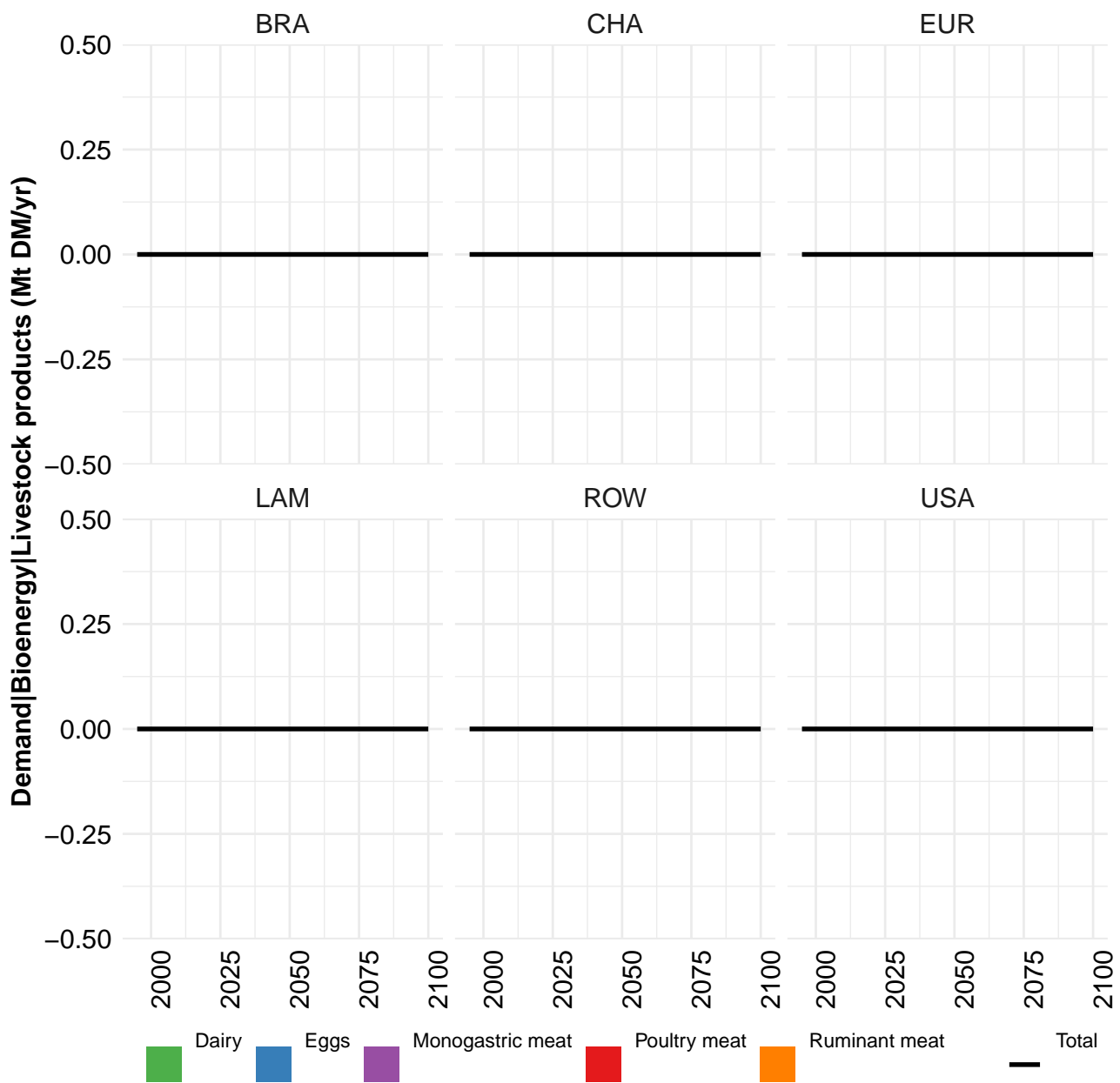


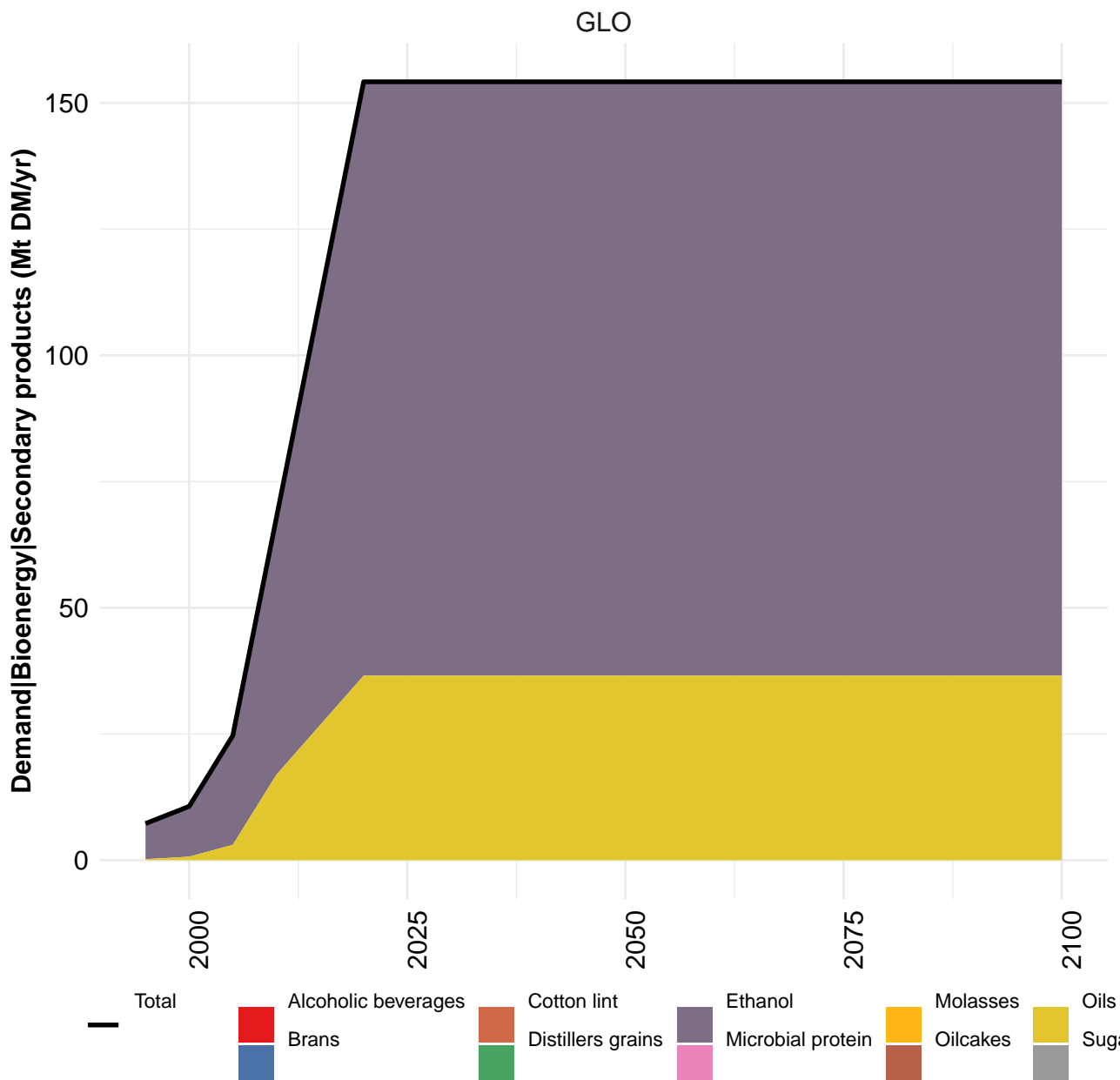


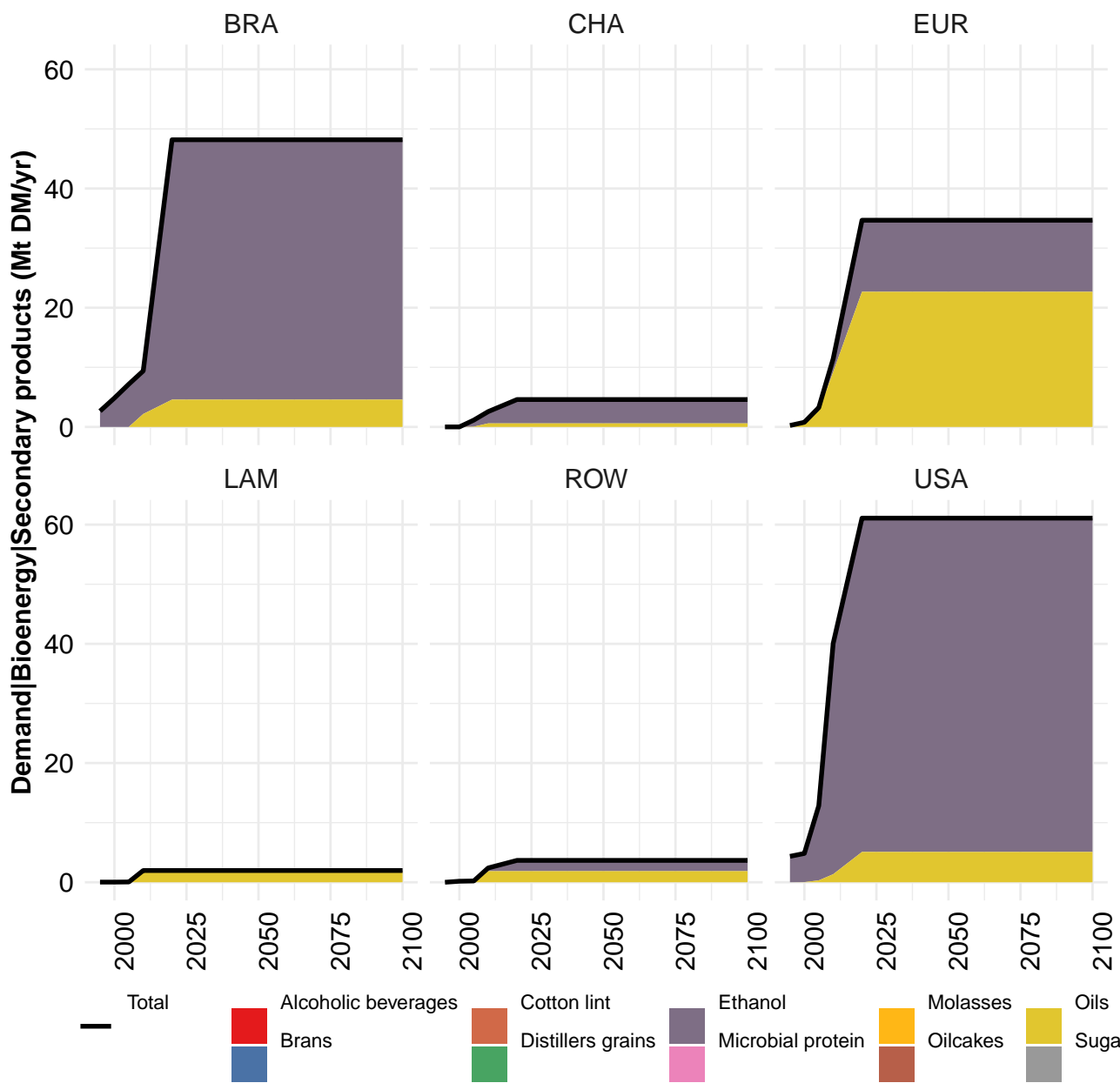




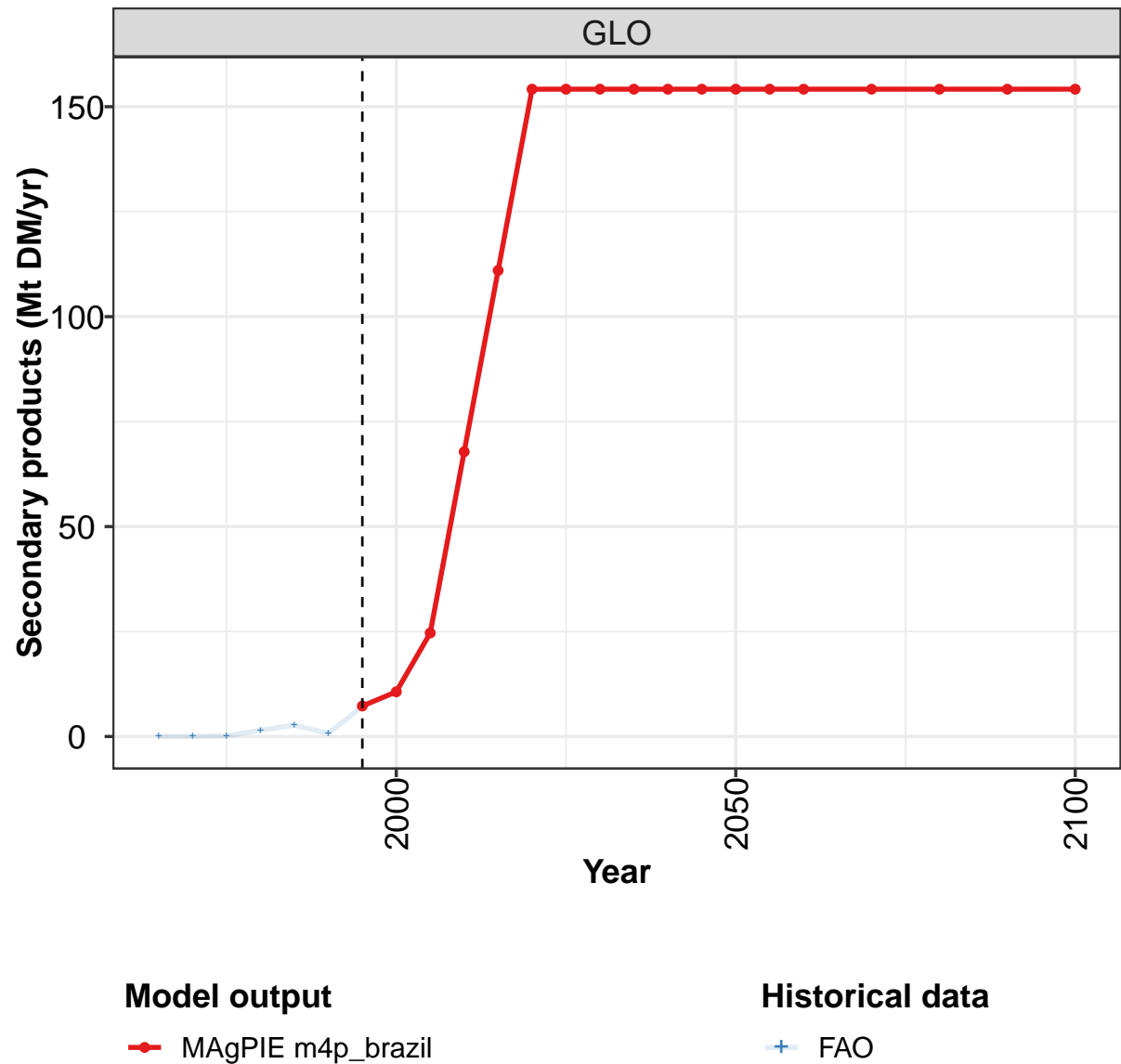








4.4 Secondary products



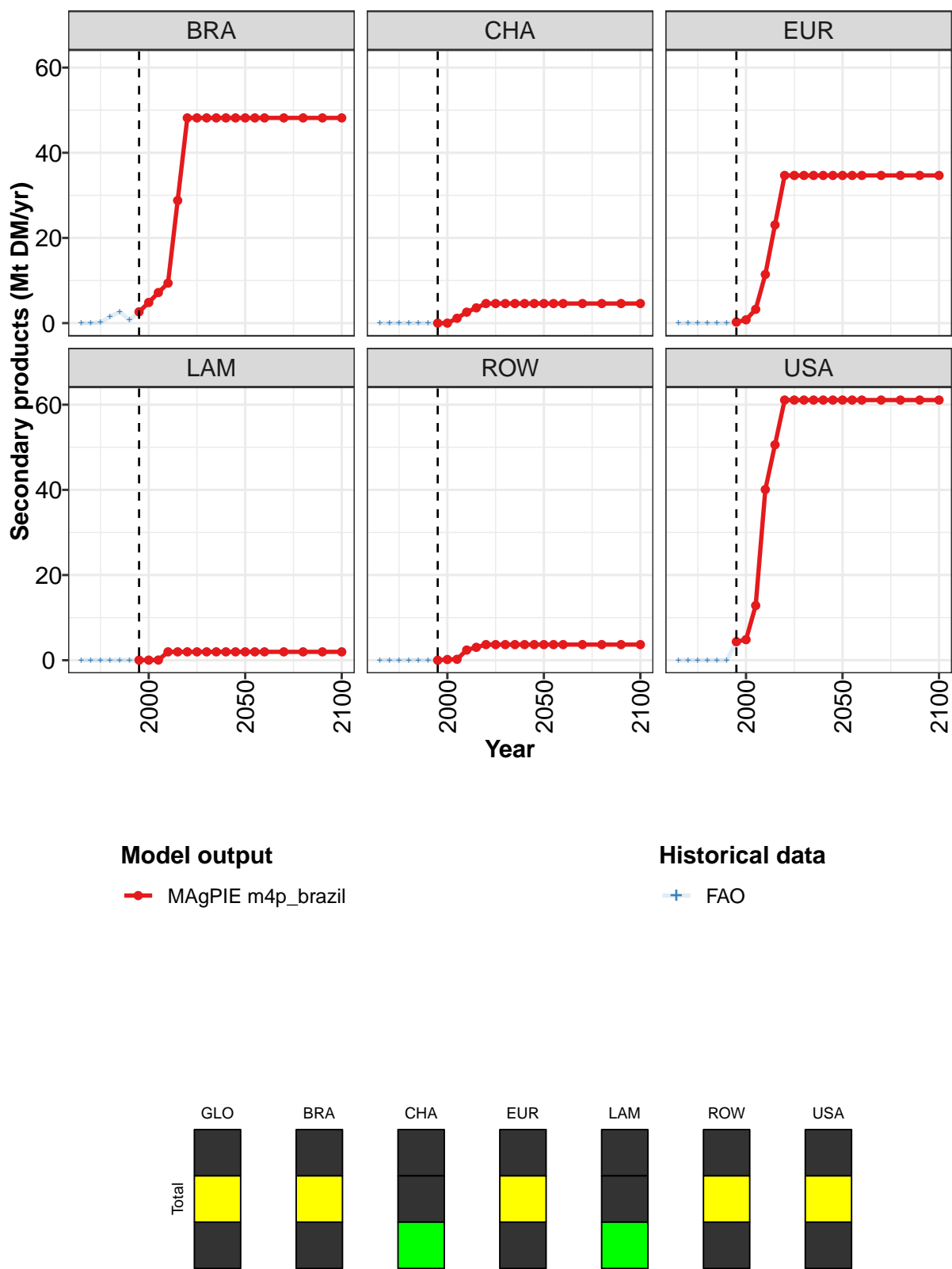


Figure 41: MAgPIE m4p_brazil — Demand—Bioenergy—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7	11	25	68	111	154	154	154	154	154	154
BRA	3	5	7	9	29	48	48	48	48	48	48
CHA	0	0	1	3	4	5	5	5	5	5	5
EUR	0	1	3	11	23	35	35	35	35	35	35
LAM	0	0	0	2	2	2	2	2	2	2	2
ROW	0	0	0	2	3	4	4	4	4	4	4
USA	4	5	13	40	51	61	61	61	61	61	61

Table 122: MAgPIE m4p_brazil — Demand—Bioenergy—Secondary products (Mt DM/yr) [PART 1/2]

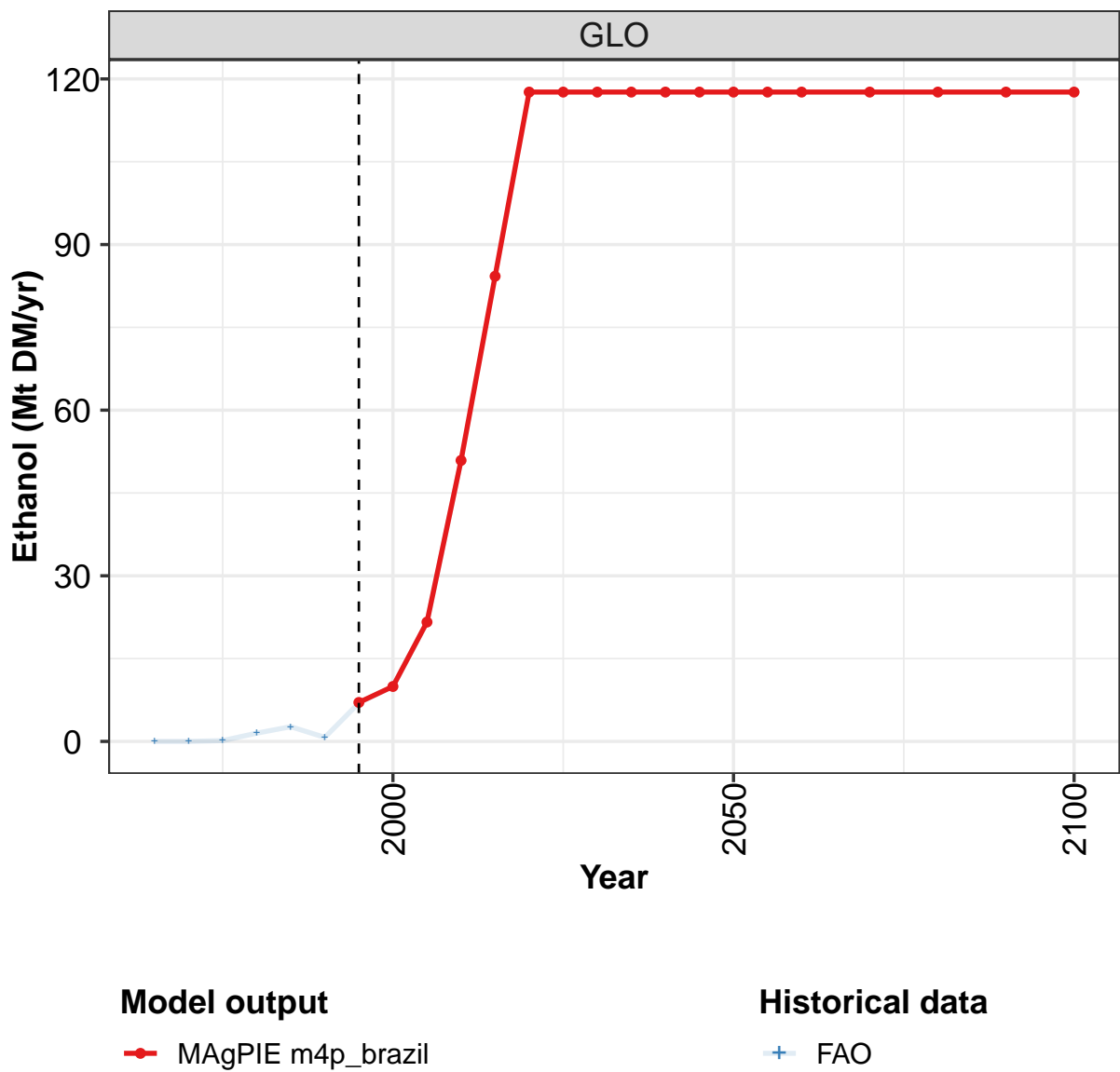
	2050	2055	2060	2070	2080	2090	2100
GLO	154	154	154	154	154	154	154
BRA	48	48	48	48	48	48	48
CHA	5	5	5	5	5	5	5
EUR	35	35	35	35	35	35	35
LAM	2	2	2	2	2	2	2
ROW	4	4	4	4	4	4	4
USA	61	61	61	61	61	61	61

Table 123: MAgPIE m4p_brazil — 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
BRA	0.0	0.0	0.1	1.5	2.6	0.7	2.5	4.8	7.2	9.4
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
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
ROW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	2.4
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



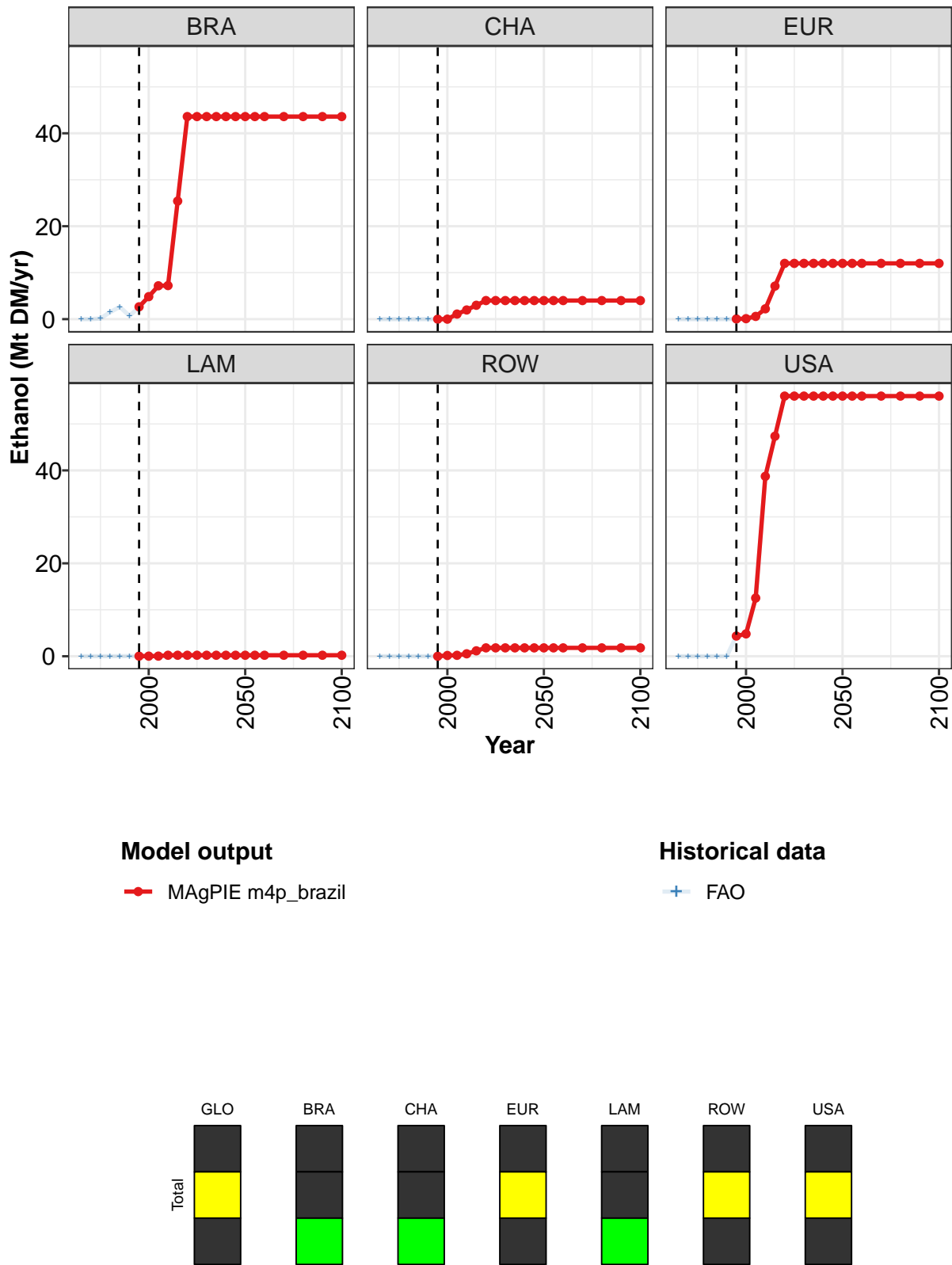


Figure 42: MAGPIE m4p_brazil — Demand—Bioenergy—Secondary products—Ethanol (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7	10	22	51	84	118	118	118	118	118	118
BRA	3	5	7	7	25	44	44	44	44	44	44
CHA	0	0	1	2	3	4	4	4	4	4	4
EUR	0	0	1	2	7	12	12	12	12	12	12
LAM	0	0	0	0	0	0	0	0	0	0	0
ROW	0	0	0	1	1	2	2	2	2	2	2
USA	4	5	13	39	47	56	56	56	56	56	56

Table 125: MAgPIE m4p_brazil — Demand—Bioenergy—Secondary products—Ethanol (Mt DM/yr) [PART 1/2]

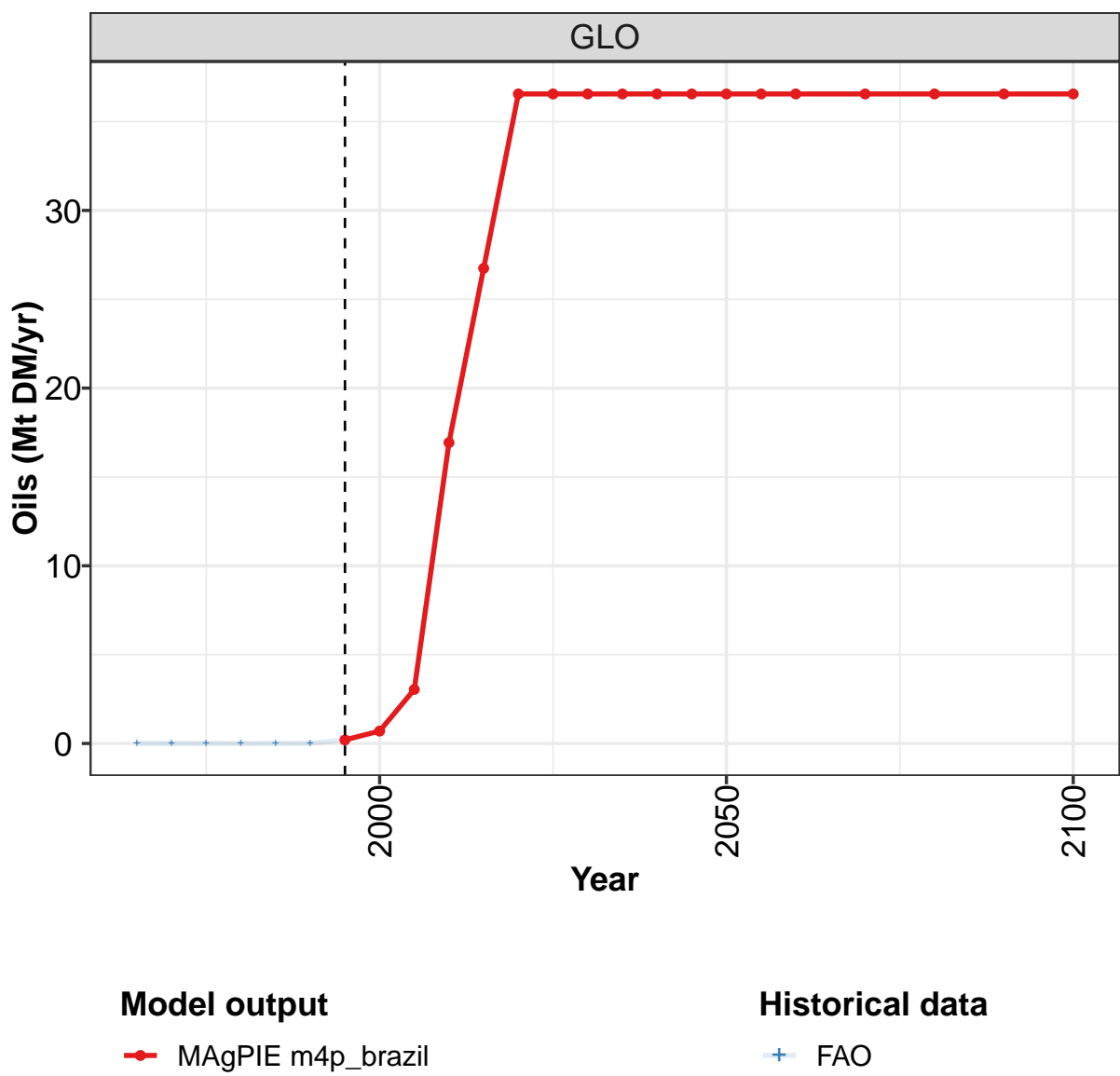
	2050	2055	2060	2070	2080	2090	2100
GLO	118	118	118	118	118	118	118
BRA	44	44	44	44	44	44	44
CHA	4	4	4	4	4	4	4
EUR	12	12	12	12	12	12	12
LAM	0	0	0	0	0	0	0
ROW	2	2	2	2	2	2	2
USA	56	56	56	56	56	56	56

Table 126: MAgPIE m4p_brazil — 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
BRA	0.0	0.0	0.1	1.5	2.6	0.7	2.5	4.8	7.2	7.2
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
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
ROW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5
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



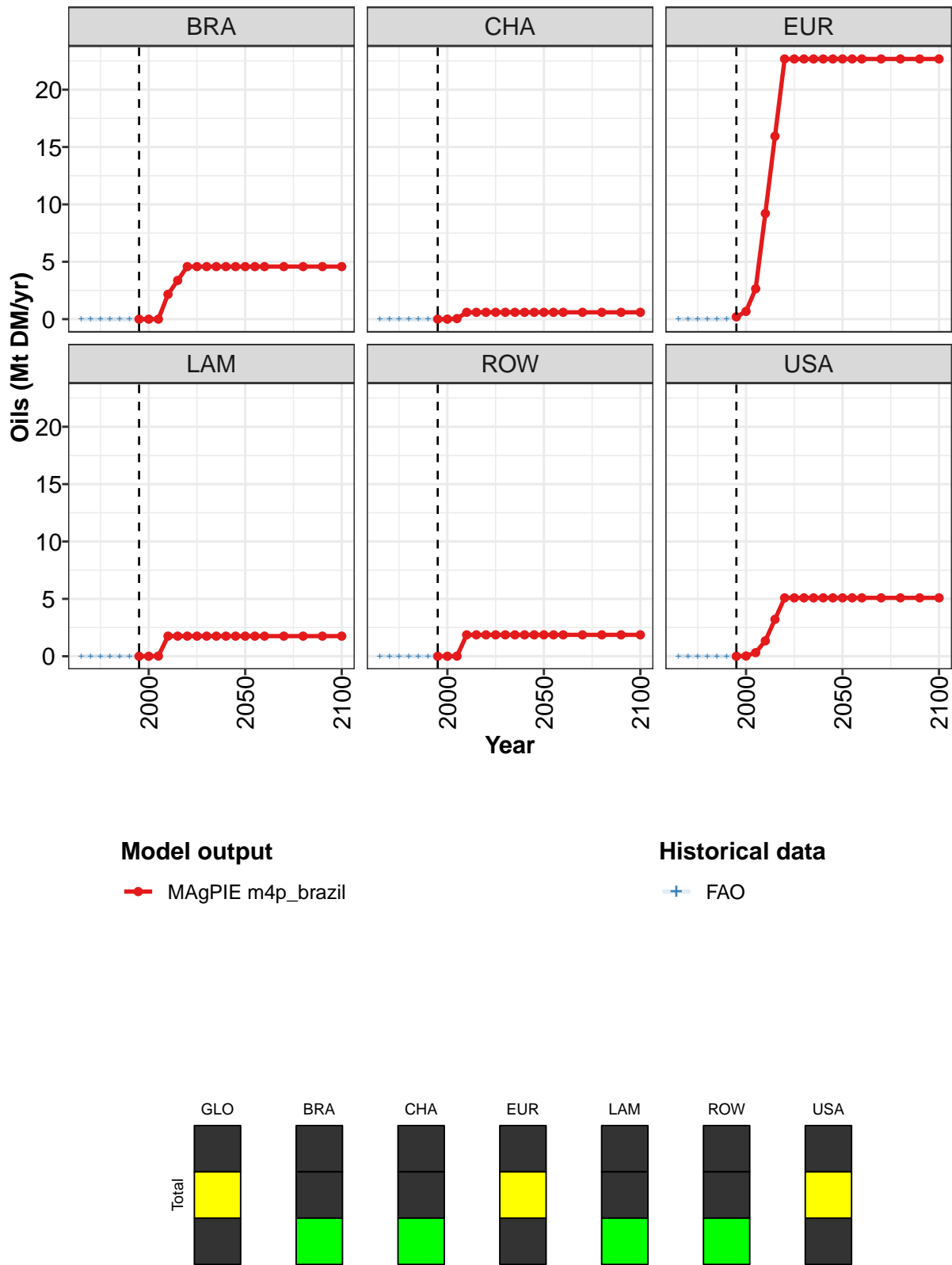


Figure 43: MAgPIE m4p_brazil — Demand—Bioenergy—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.2	0.7	3.0	16.9	26.7	36.6	36.6	36.6	36.6	36.6	36.6
BRA	0.0	0.0	0.0	2.2	3.4	4.6	4.6	4.6	4.6	4.6	4.6
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	22.7	22.7	22.7	22.7	22.7
LAM	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
ROW	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
USA	0.0	0.0	0.3	1.3	3.2	5.1	5.1	5.1	5.1	5.1	5.1

Table 128: MAgPIE m4p_brazil — Demand—Bioenergy—Secondary products—Oils (Mt DM/yr) [PART 1/2]

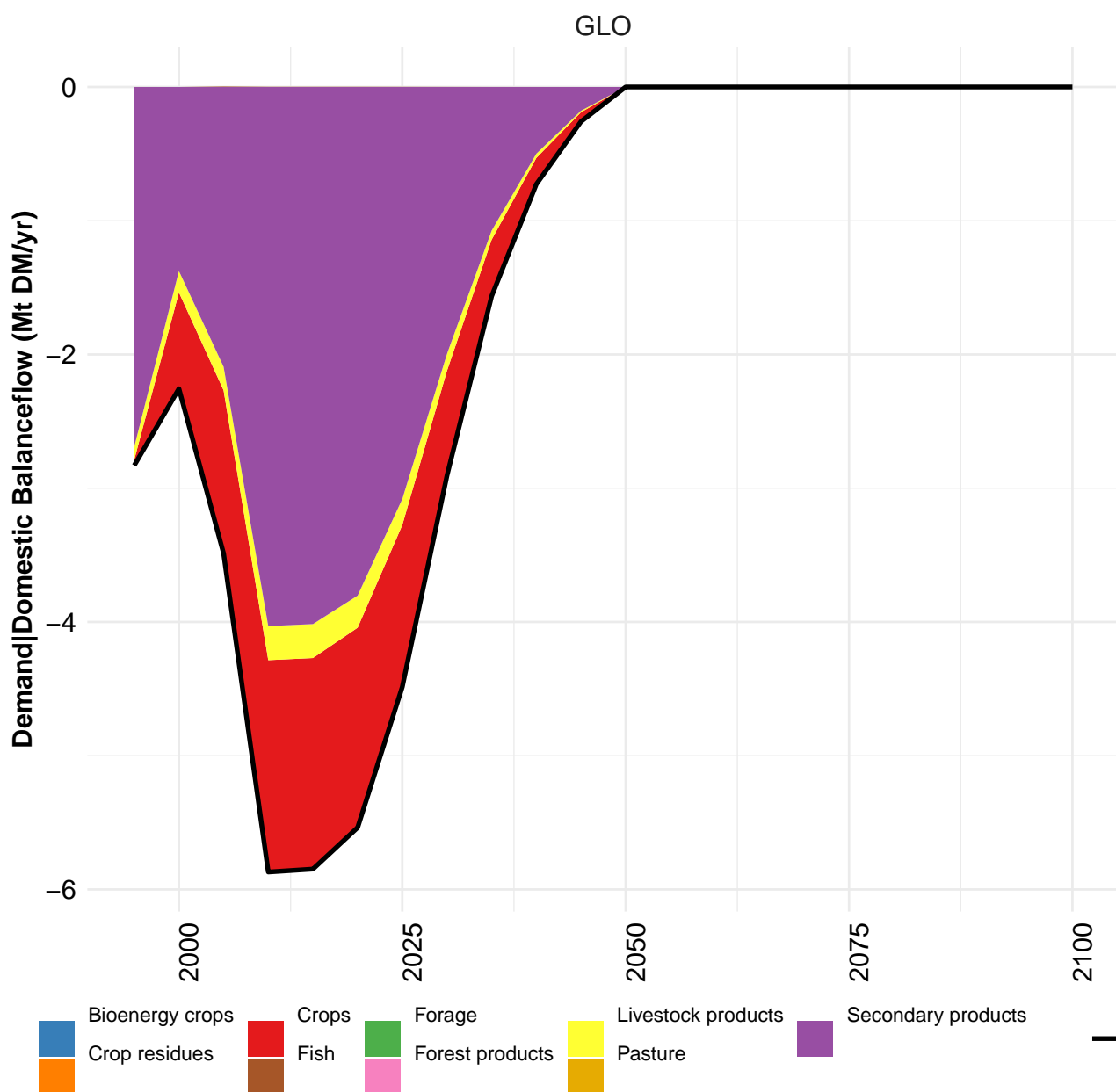
	2050	2055	2060	2070	2080	2090	2100
GLO	36.6	36.6	36.6	36.6	36.6	36.6	36.6
BRA	4.6	4.6	4.6	4.6	4.6	4.6	4.6
CHA	0.6	0.6	0.6	0.6	0.6	0.6	0.6
EUR	22.7	22.7	22.7	22.7	22.7	22.7	22.7
LAM	1.8	1.8	1.8	1.8	1.8	1.8	1.8
ROW	1.9	1.9	1.9	1.9	1.9	1.9	1.9
USA	5.1	5.1	5.1	5.1	5.1	5.1	5.1

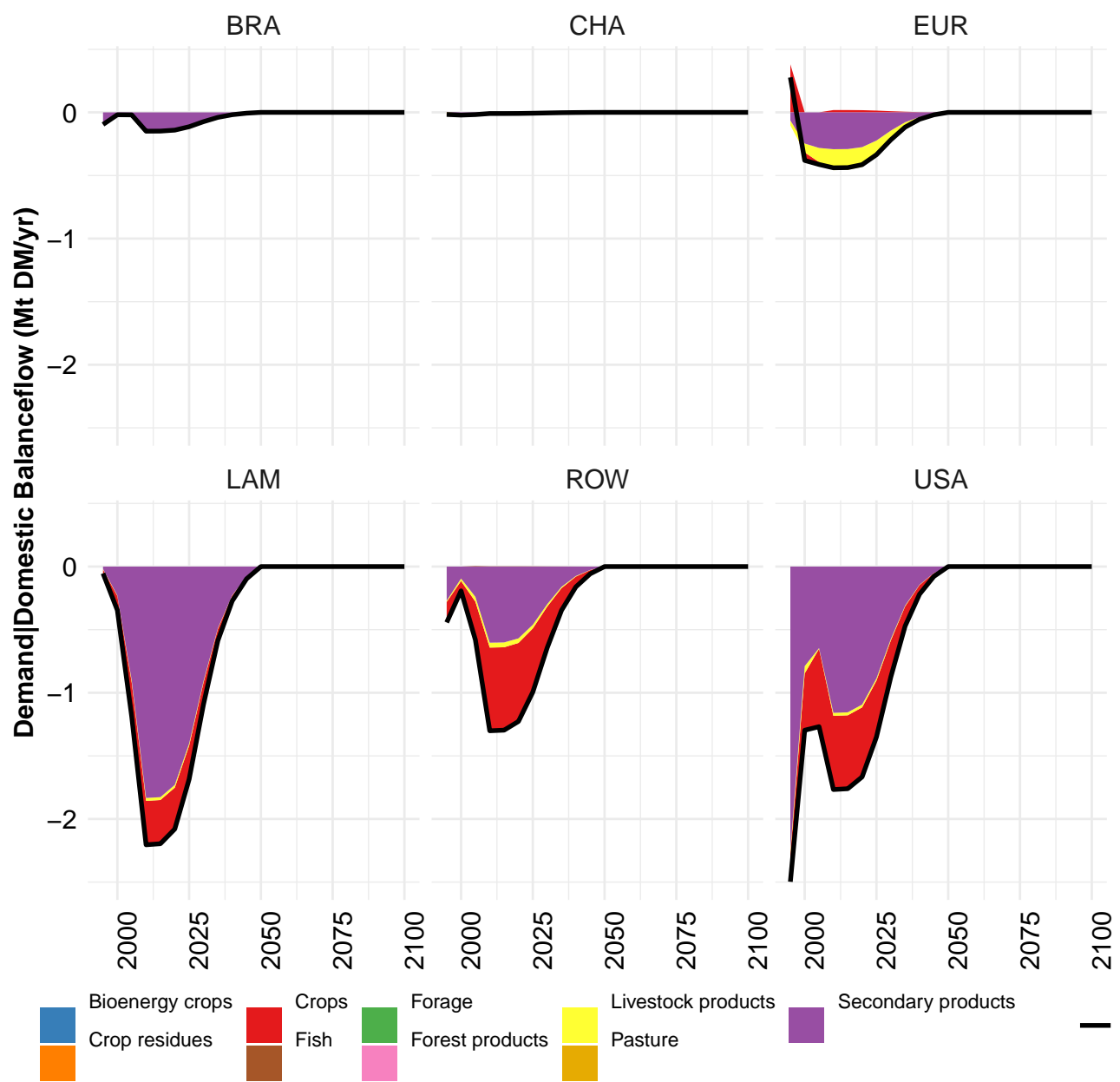
Table 129: MAgPIE m4p_brazil — Demand—Bioenergy—Secondary products—Oils (Mt DM/yr) [PART 2/2]

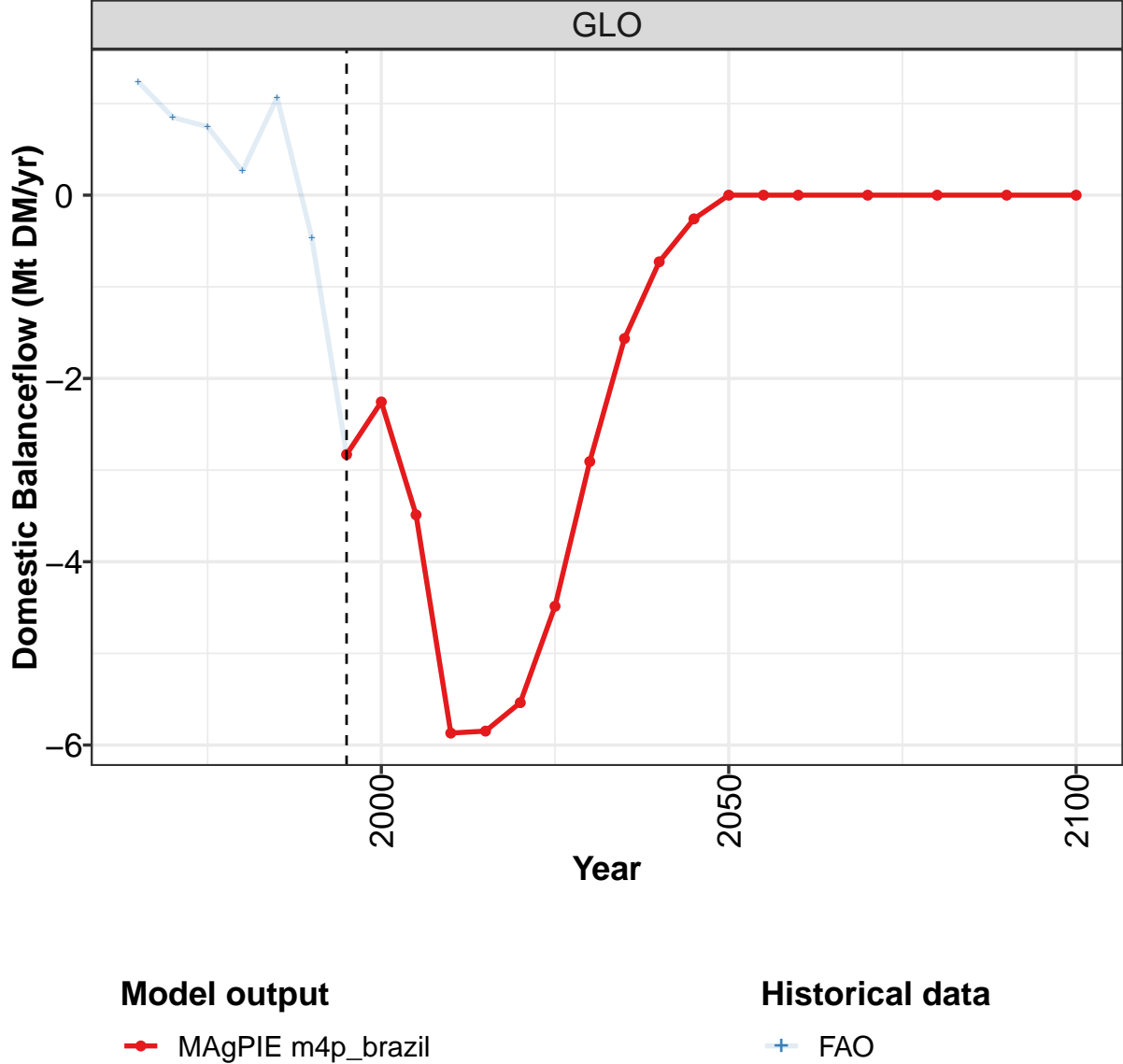
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	3.0	16.9
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	2.6	9.2
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
ROW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
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







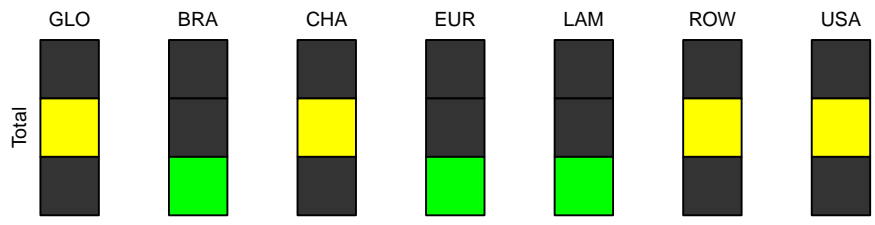
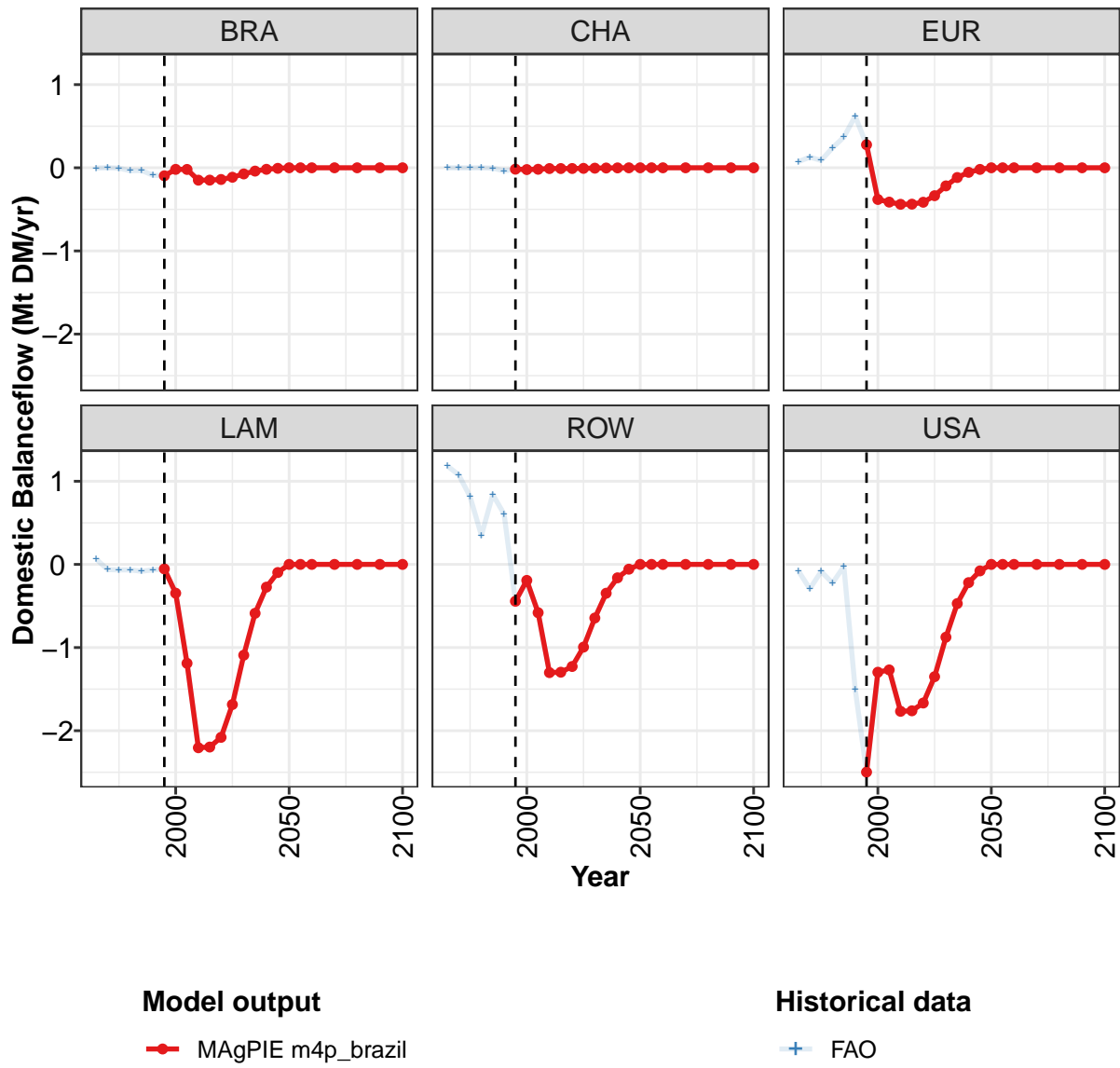


Figure 44: MAgPIE m4p_brazil — Demand—Domestic Balanceflow (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-2.830	-2.256	-3.488	-5.870	-5.848	-5.537	-4.486	-2.907	-1.564	-0.727	-0.259
BRA	-0.096	-0.019	-0.020	-0.149	-0.148	-0.141	-0.114	-0.074	-0.040	-0.018	-0.006
CHA	-0.017	-0.021	-0.018	-0.009	-0.009	-0.009	-0.007	-0.004	-0.002	-0.001	-0.000
EUR	0.277	-0.381	-0.413	-0.439	-0.438	-0.414	-0.336	-0.217	-0.117	-0.054	-0.019
LAM	-0.054	-0.346	-1.189	-2.204	-2.196	-2.080	-1.685	-1.092	-0.588	-0.273	-0.097
ROW	-0.443	-0.192	-0.581	-1.301	-1.296	-1.227	-0.995	-0.644	-0.347	-0.161	-0.057
USA	-2.498	-1.297	-1.269	-1.767	-1.760	-1.667	-1.350	-0.875	-0.471	-0.219	-0.078

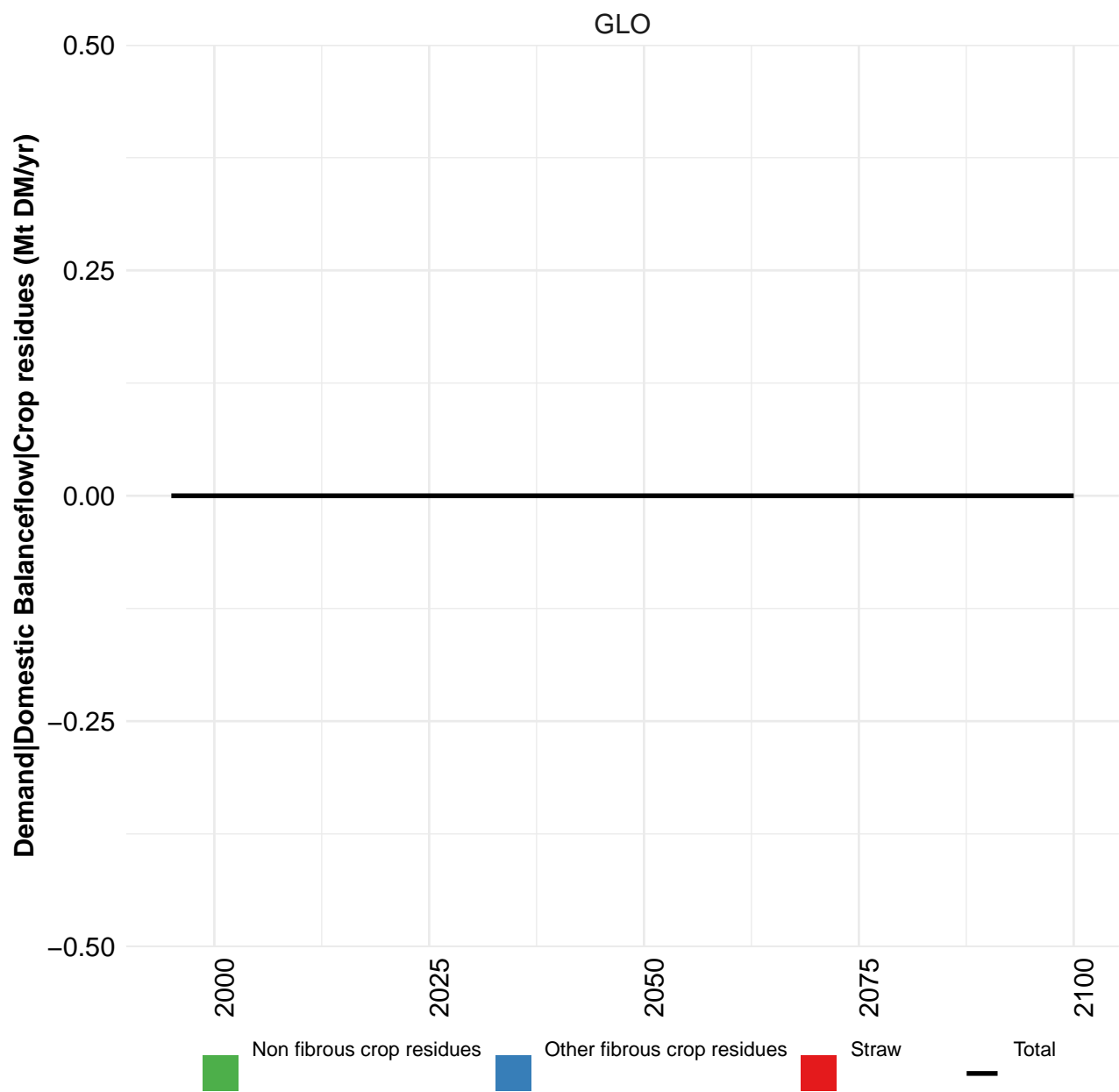
Table 131: MAgPIE m4p_brazil — Demand—Domestic Balanceflow (Mt DM/yr) [PART 1/2]

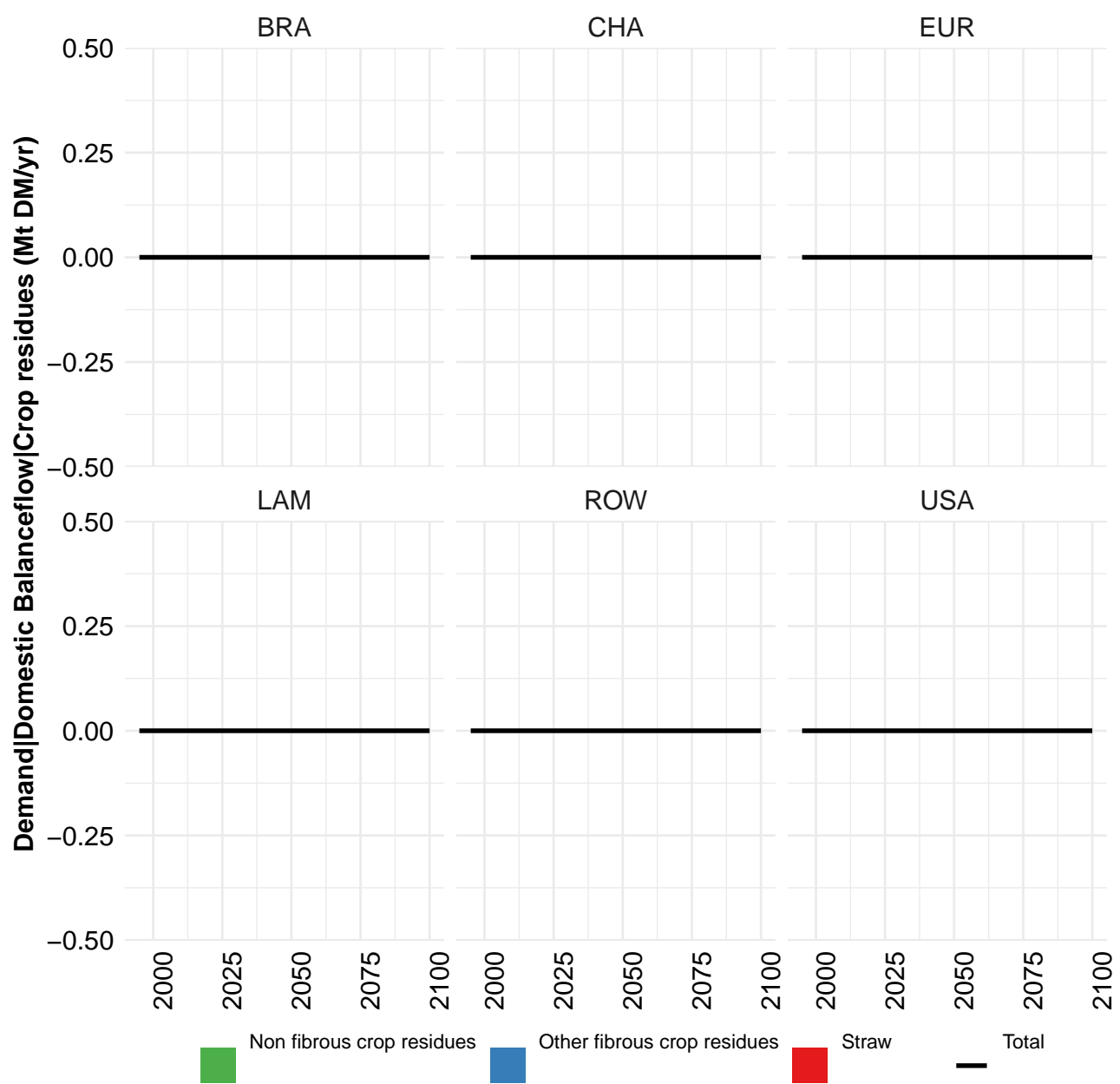
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

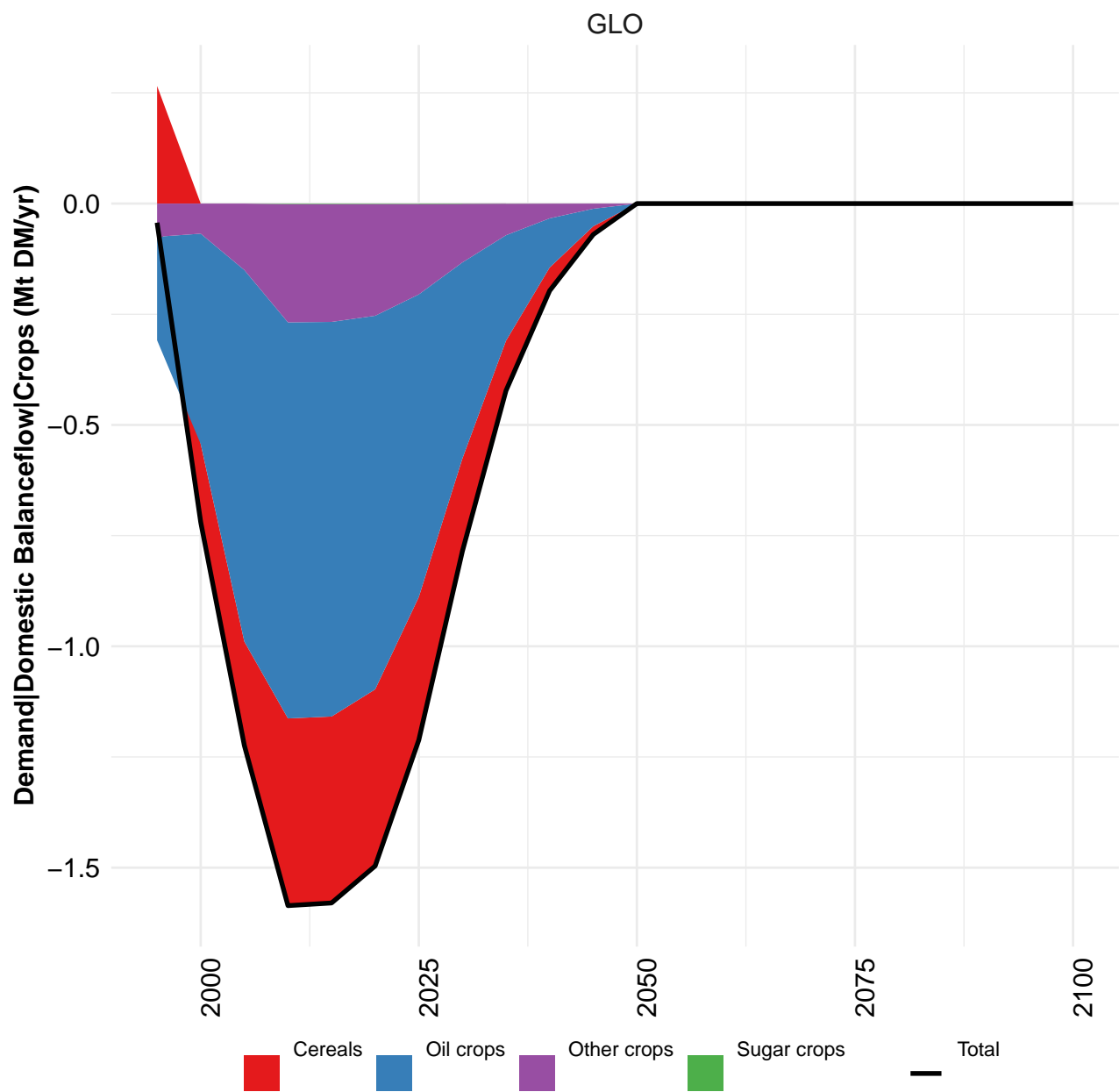
Table 132: MAgPIE m4p_brazil — Demand—Domestic Balanceflow (Mt DM/yr) [PART 2/2]

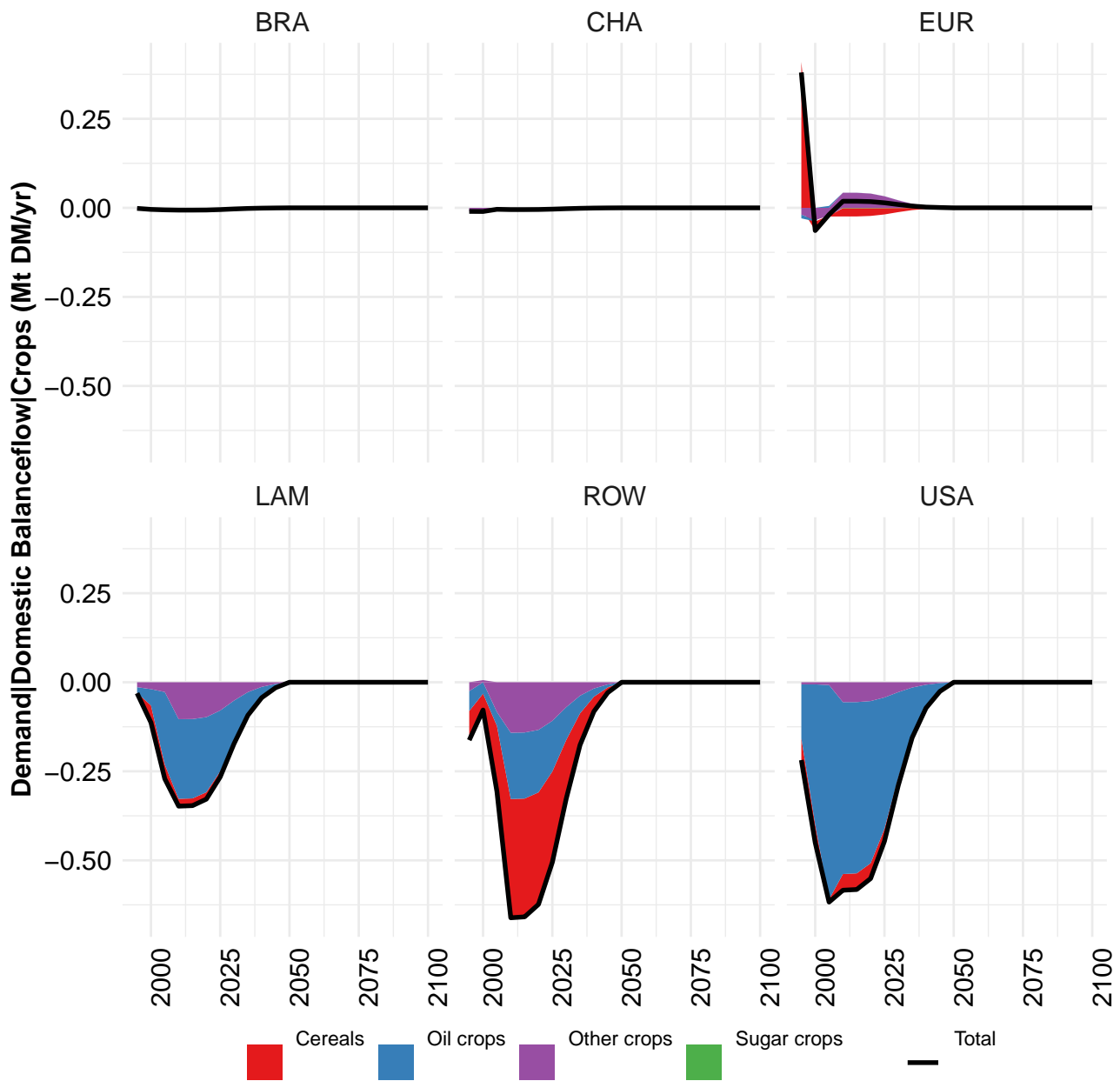
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.24	0.85	0.75	0.26	1.06	-0.47	-2.83	-2.26	-3.49	-5.87
BRA	-0.00	0.00	-0.00	-0.04	-0.03	-0.09	-0.10	-0.02	-0.02	-0.15
CHA	-0.00	-0.00	-0.00	-0.00	-0.00	-0.04	-0.02	-0.02	-0.02	-0.01
EUR	0.07	0.13	0.09	0.24	0.37	0.62	0.28	-0.38	-0.41	-0.44
LAM	0.06	-0.06	-0.07	-0.07	-0.08	-0.07	-0.05	-0.35	-1.19	-2.20
ROW	1.18	1.08	0.81	0.35	0.84	0.61	-0.44	-0.19	-0.58	-1.30
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)

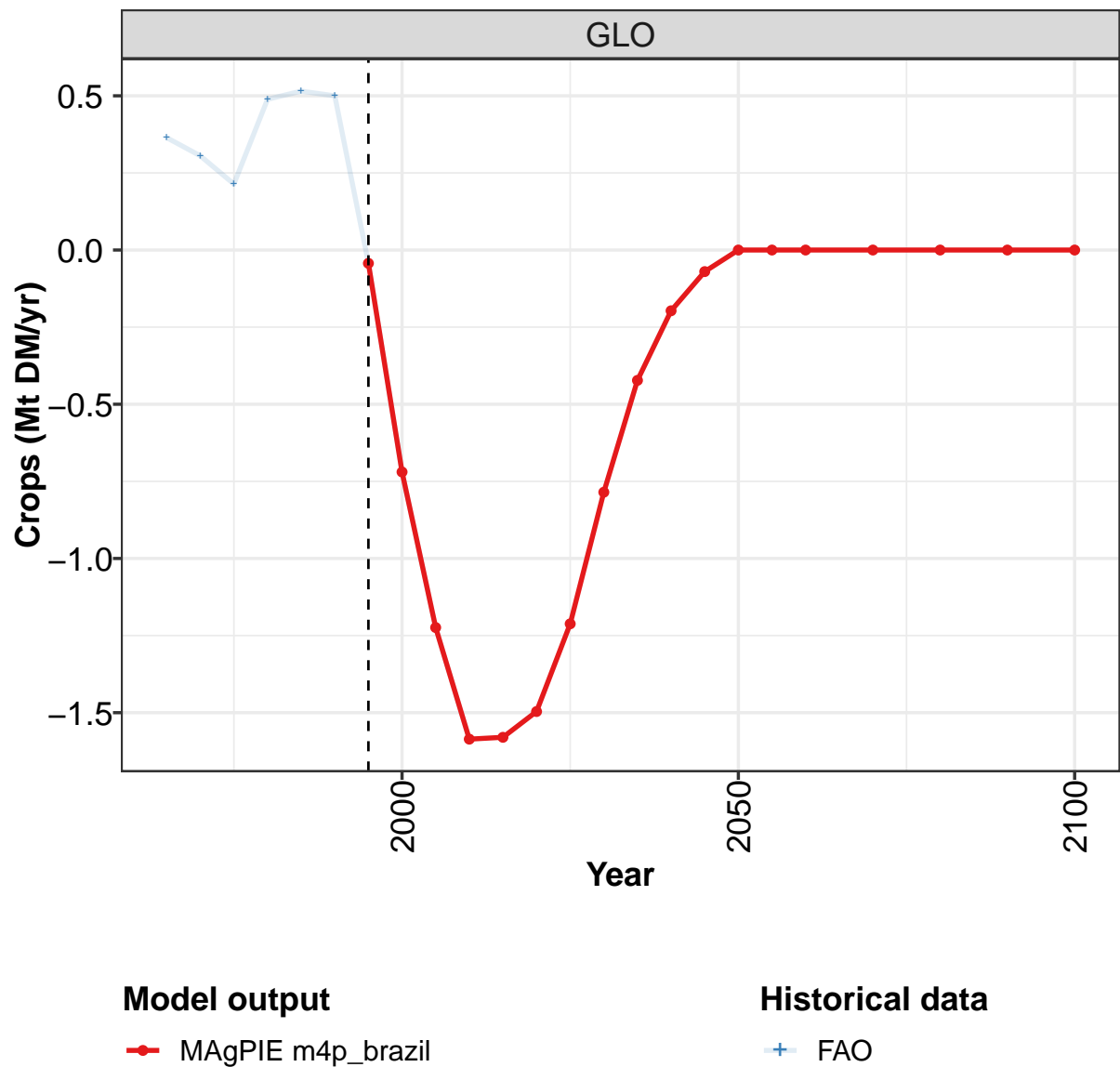








5.1 Crops



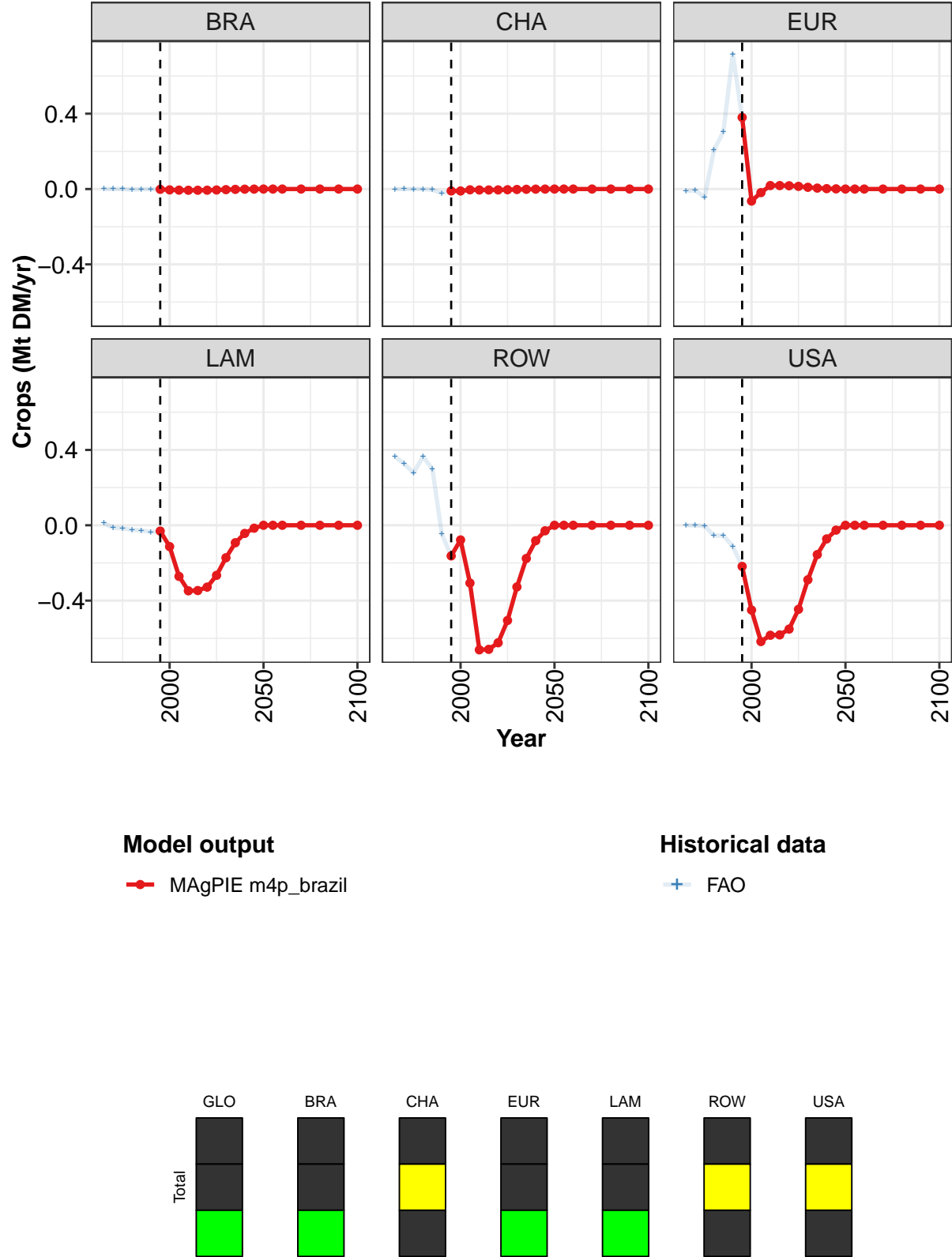


Figure 45: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops (Mt DM/yr)

	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
BRA	-0.002	-0.004	-0.006	-0.006	-0.006	-0.006	-0.005	-0.003	-0.002	-0.001	-0.000
CHA	-0.010	-0.010	-0.004	-0.005	-0.005	-0.005	-0.004	-0.002	-0.001	-0.001	-0.000
EUR	0.380	-0.064	-0.019	0.018	0.018	0.018	0.014	0.009	0.005	0.002	0.001
LAM	-0.031	-0.113	-0.271	-0.348	-0.346	-0.328	-0.266	-0.172	-0.093	-0.043	-0.015
ROW	-0.163	-0.078	-0.307	-0.661	-0.659	-0.624	-0.505	-0.327	-0.176	-0.082	-0.029
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_brazil — Demand—Domestic Balanceflow—Crops (Mt DM/yr) [PART 1/2]

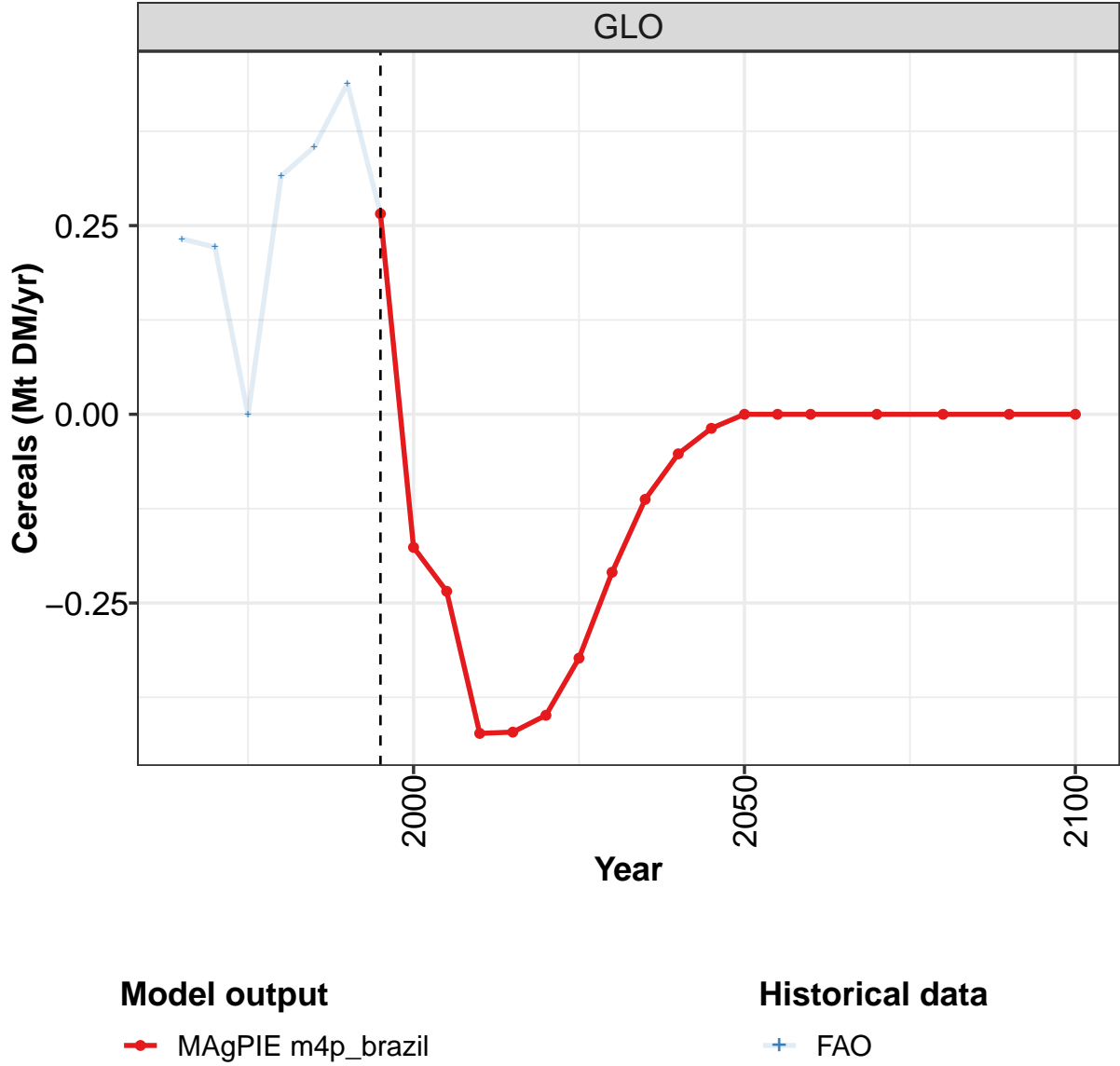
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 135: MAgPIE m4p_brazil — 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
BRA	0.000	0.000	-0.000	-0.004	-0.001	-0.001	-0.001	-0.004	-0.006	-0.006
CHA	-0.001	0.000	-0.000	-0.000	-0.004	-0.022	-0.010	-0.010	-0.004	-0.005
EUR	-0.012	-0.006	-0.044	0.208	0.303	0.717	0.380	-0.064	-0.019	0.018
LAM	0.012	-0.014	-0.017	-0.025	-0.027	-0.036	-0.031	-0.113	-0.271	-0.348
ROW	0.366	0.326	0.279	0.364	0.300	-0.046	-0.163	-0.078	-0.307	-0.661
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



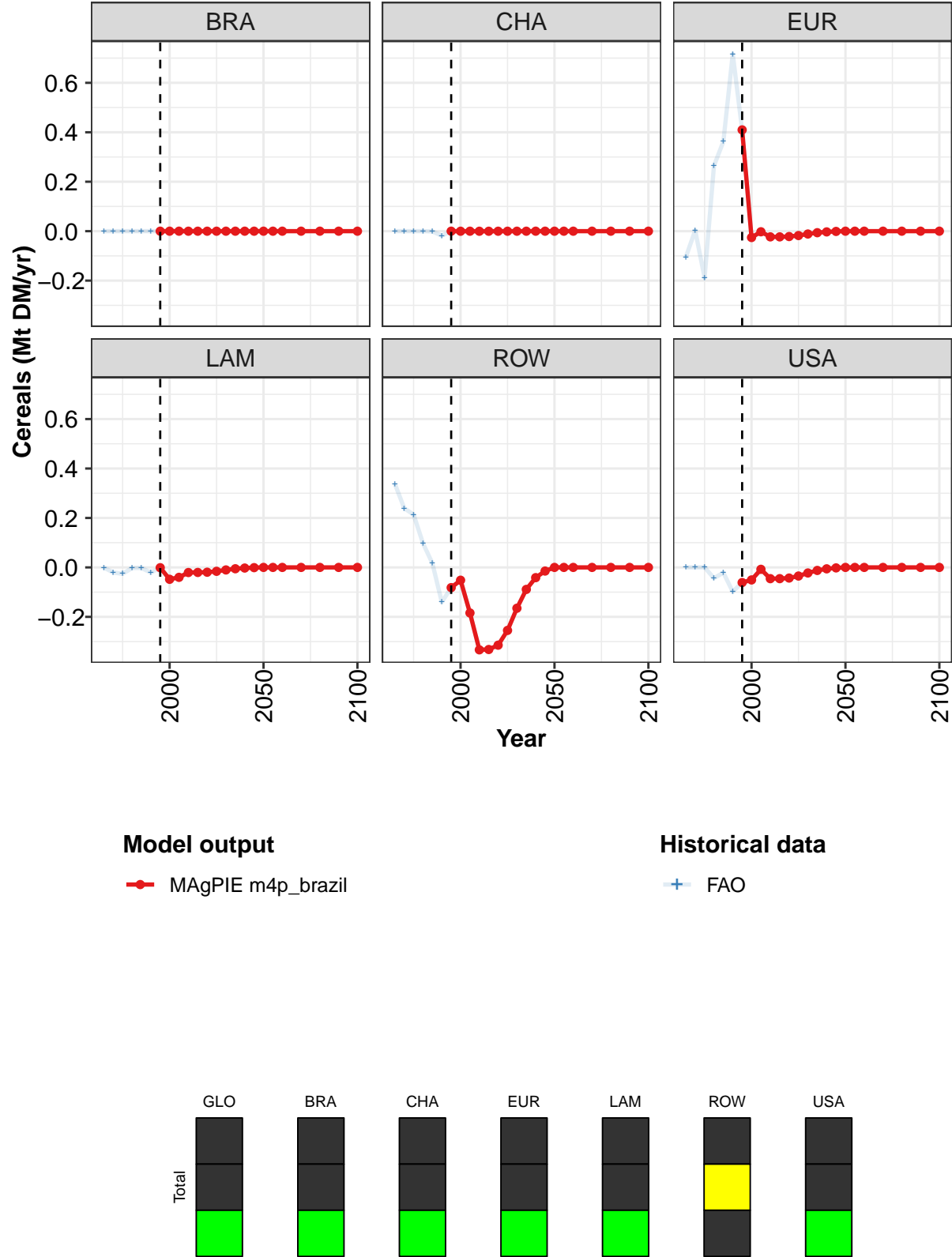


Figure 46: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Cereals (Mt DM/yr)

	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
BRA	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	0.410	-0.026	-0.002	-0.023	-0.023	-0.022	-0.018	-0.011	-0.006	-0.003	-0.001
LAM	-0.001	-0.048	-0.040	-0.021	-0.020	-0.019	-0.016	-0.010	-0.005	-0.003	-0.001
ROW	-0.082	-0.052	-0.184	-0.333	-0.332	-0.314	-0.255	-0.165	-0.089	-0.041	-0.015
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_brazil — Demand—Domestic Balanceflow—Crops—Cereals (Mt DM/yr) [PART 1/2]

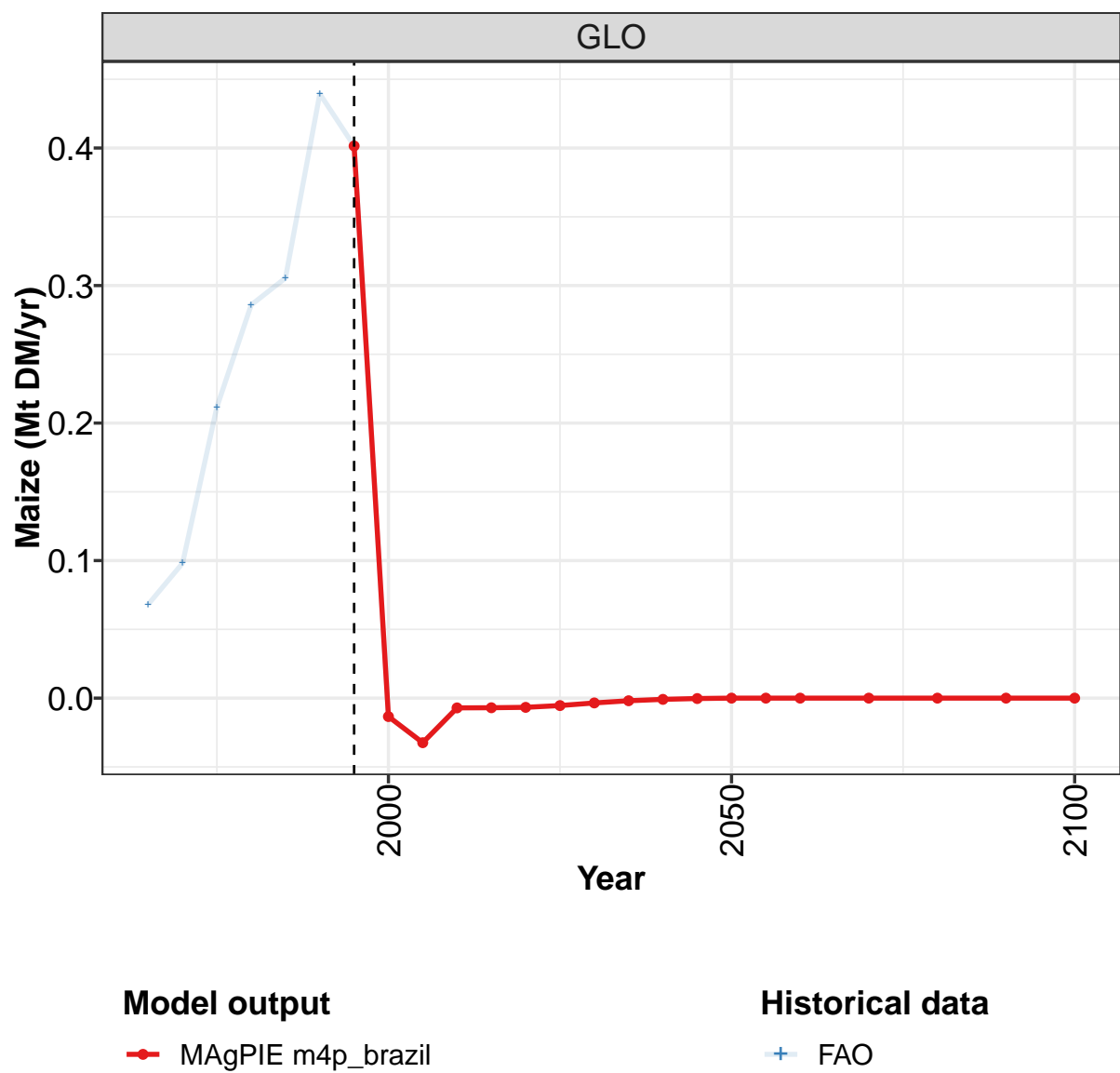
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 138: MAgPIE m4p_brazil — 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
BRA	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	-0.001	-0.018	0.000	-0.000	0.000	-0.000
EUR	-0.105	0.003	-0.188	0.265	0.362	0.716	0.410	-0.026	-0.002	-0.023
LAM	-0.000	-0.021	-0.026	-0.003	-0.002	-0.021	-0.001	-0.048	-0.040	-0.021
ROW	0.338	0.239	0.213	0.097	0.017	-0.141	-0.082	-0.052	-0.184	-0.333
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



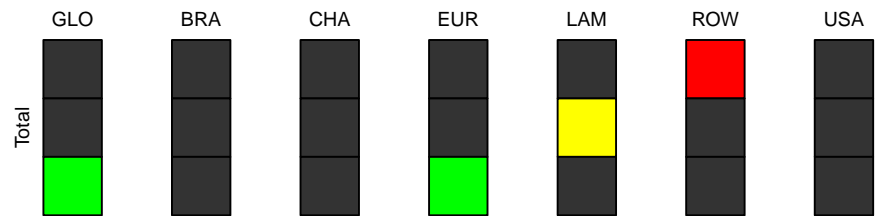
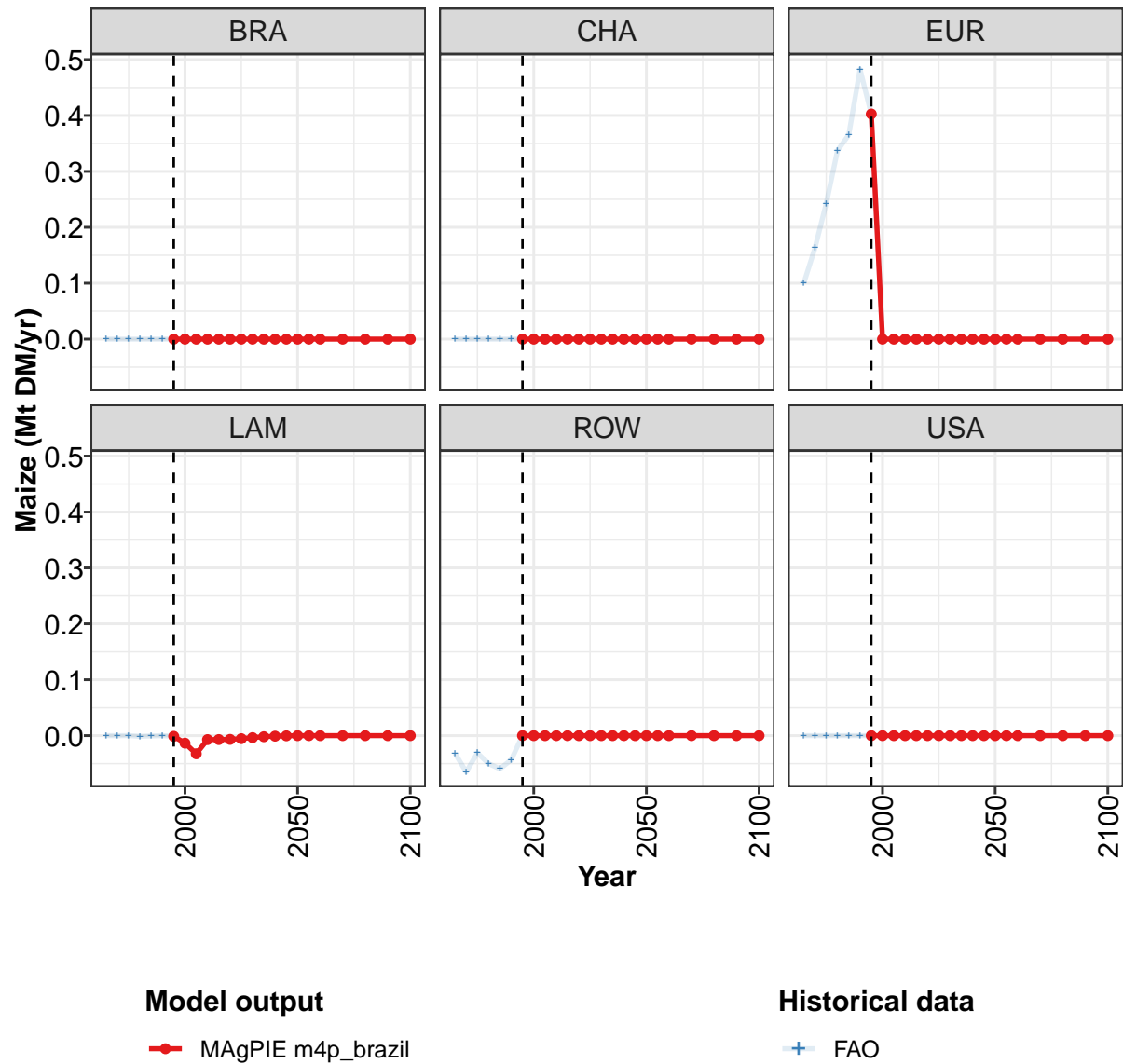


Figure 47: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Cereals—Maize (Mt DM/yr)

	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
BRA	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
LAM	-0.001	-0.013	-0.032	-0.007	-0.007	-0.007	-0.005	-0.004	-0.002	-0.001	-0.000
ROW	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_brazil — Demand—Domestic Balanceflow—Crops—Cereals—Maize (Mt DM/yr)
[PART 1/2]

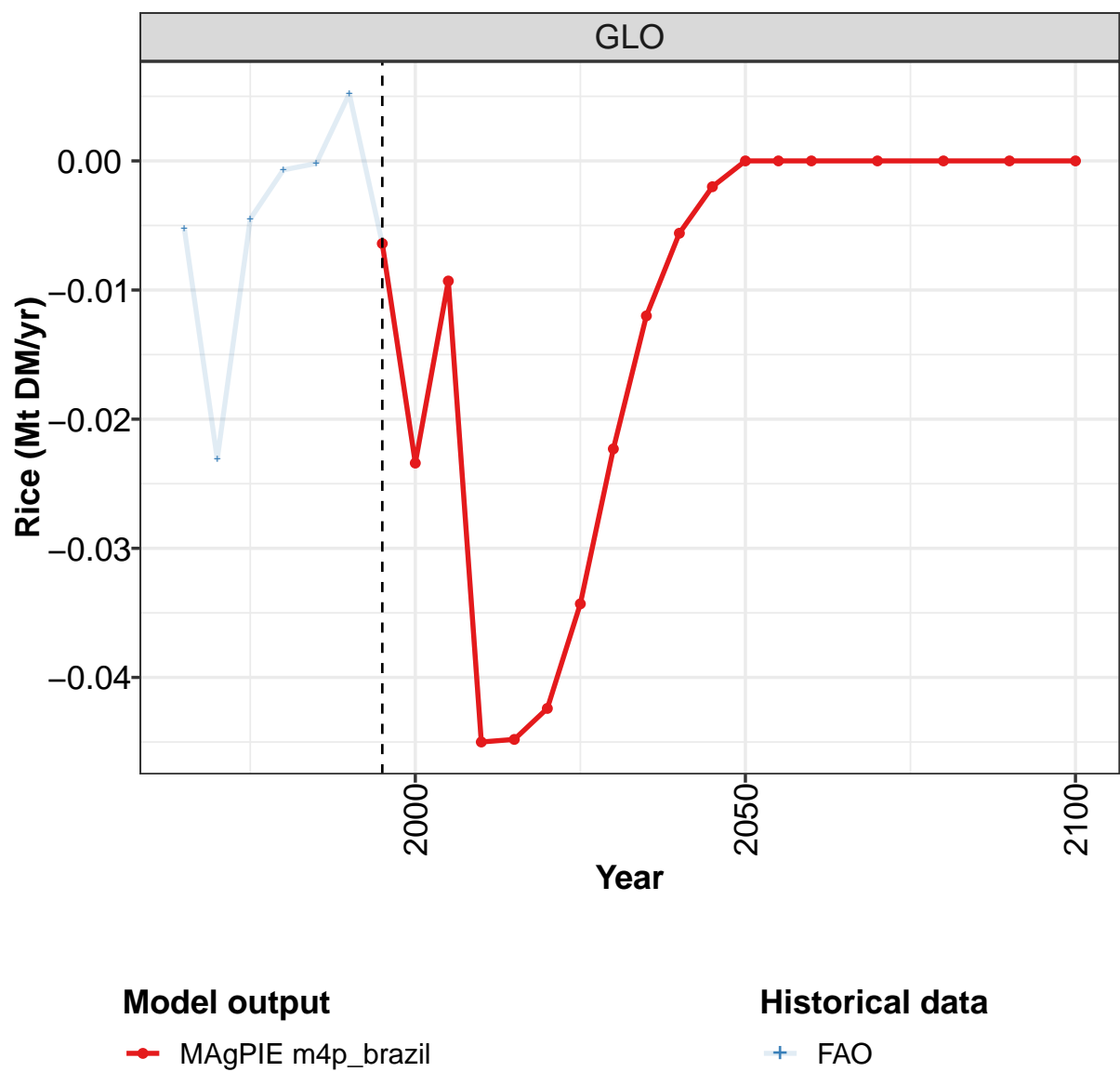
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 141: MAgPIE m4p_brazil — 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
BRA	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	0.100	0.163	0.243	0.337	0.365	0.482	0.403	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
ROW	-0.031	-0.065	-0.031	-0.050	-0.059	-0.043	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



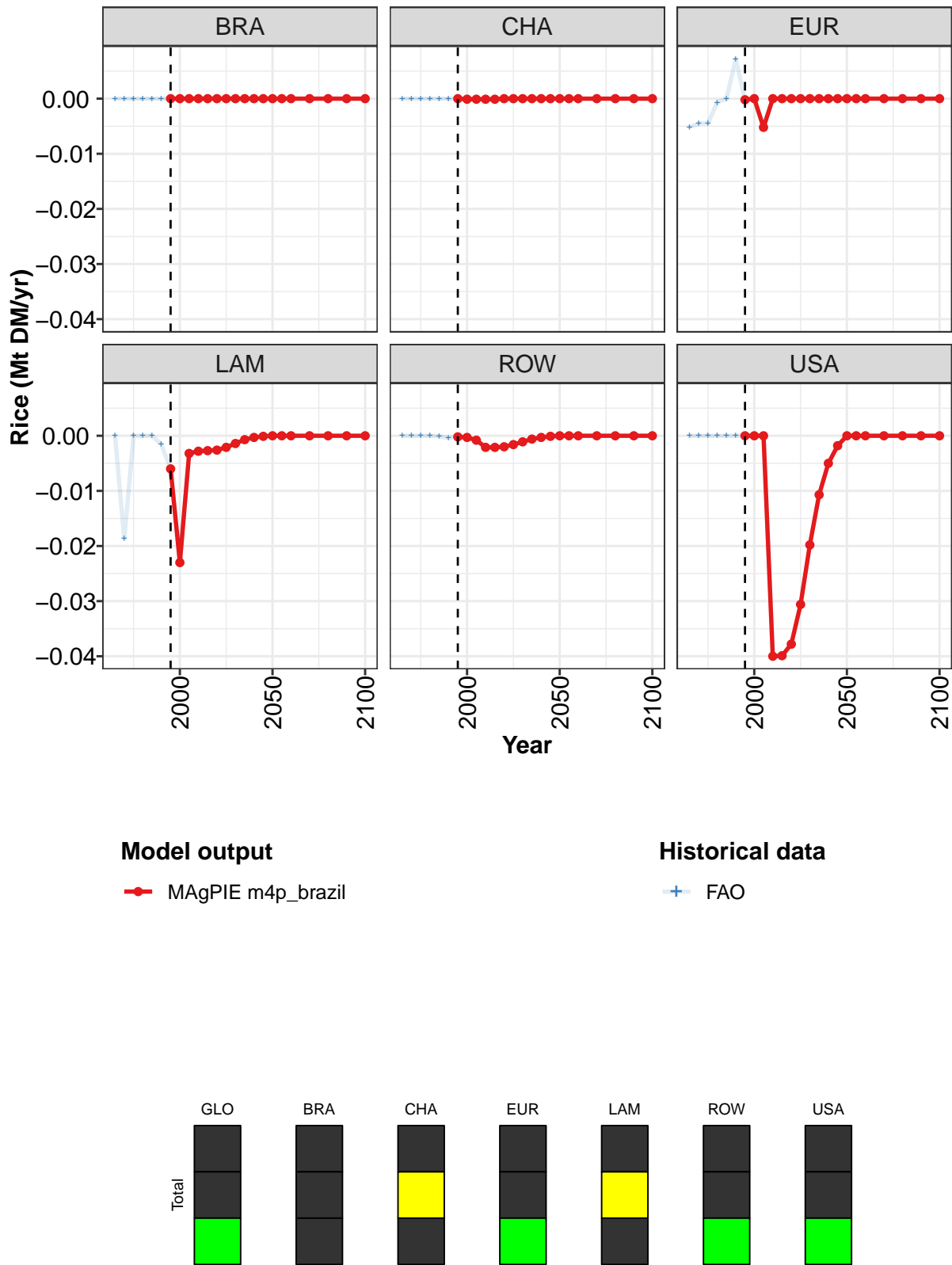


Figure 48: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
BRA	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
LAM	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
ROW	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
USA	0	0	0	-0	-0	-0	-0	-0	-0	-0	-0

Table 143: MAgPIE m4p.brazil — Demand—Domestic Balanceflow—Crops—Cereals—Rice (Mt DM/yr)
[PART 1/2]

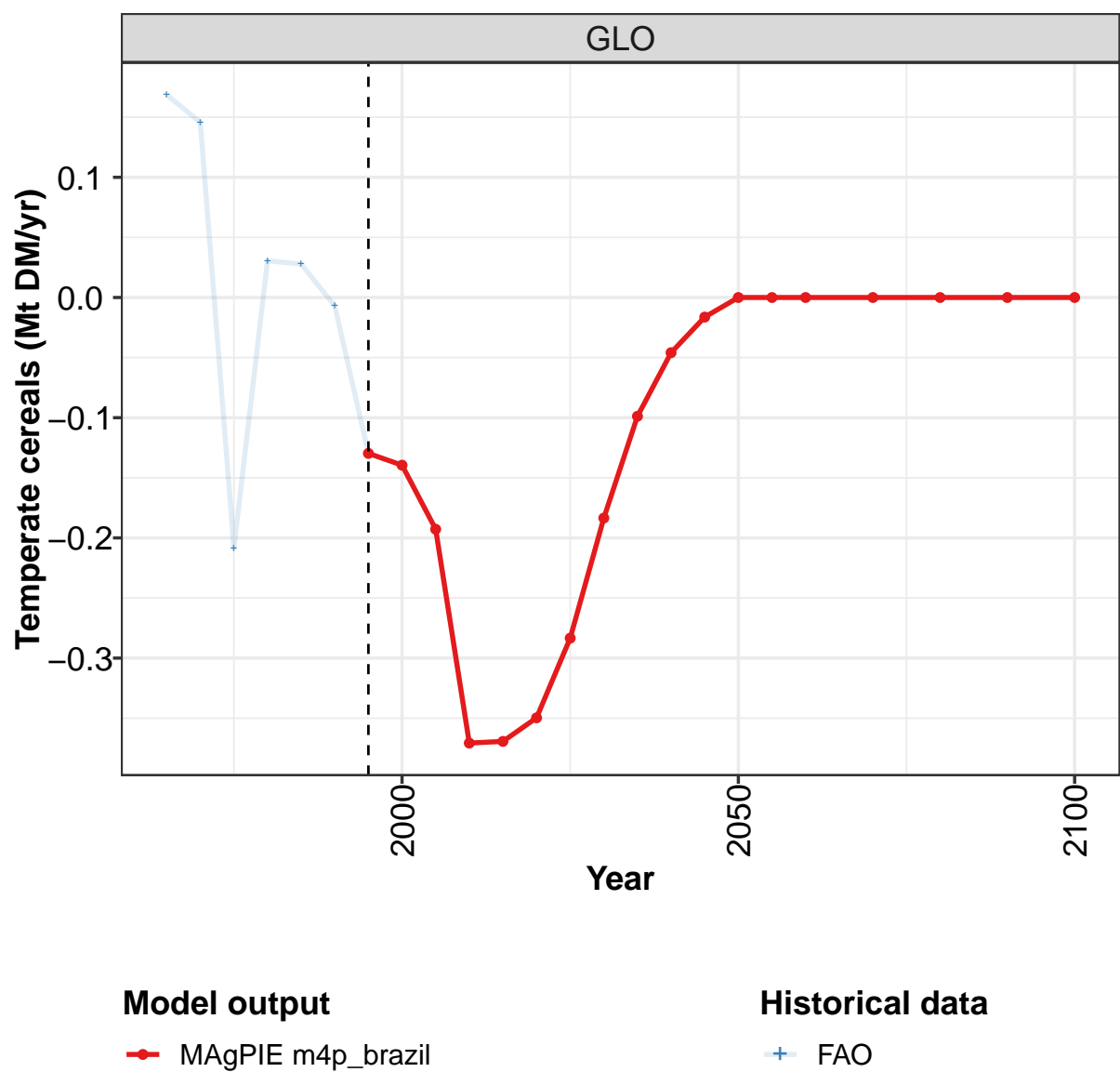
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
BRA	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
ROW	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 144: MAgPIE m4p.brazil — Demand—Domestic Balanceflow—Crops—Cereals—Rice (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-0.00520	-0.02310	-0.00450	-0.00070	-0.00020	0.00520	-0.00640	-0.02340	-0.00930	-0.04500
BRA	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	-0.00010	-0.00010	-0.00010
EUR	-0.00520	-0.00450	-0.00450	-0.00070	0.00000	0.00720	-0.00020	0.00000	-0.00520	0.00000
LAM	0.00000	-0.01870	0.00000	0.00000	0.00000	-0.00160	-0.00600	-0.02300	-0.00320	-0.00280
ROW	0.00000	0.00000	0.00000	0.00000	-0.00010	-0.00040	-0.00020	-0.00030	-0.00080	-0.00210
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.04000

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

5.1.4 Cereals—Temperate cereals



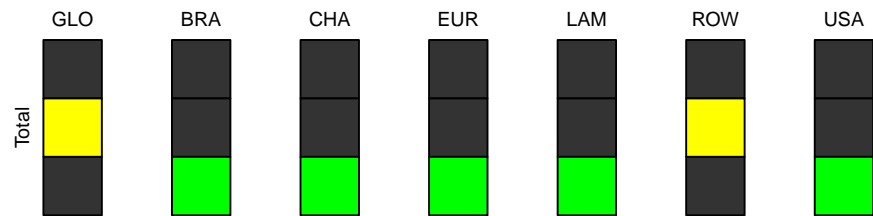
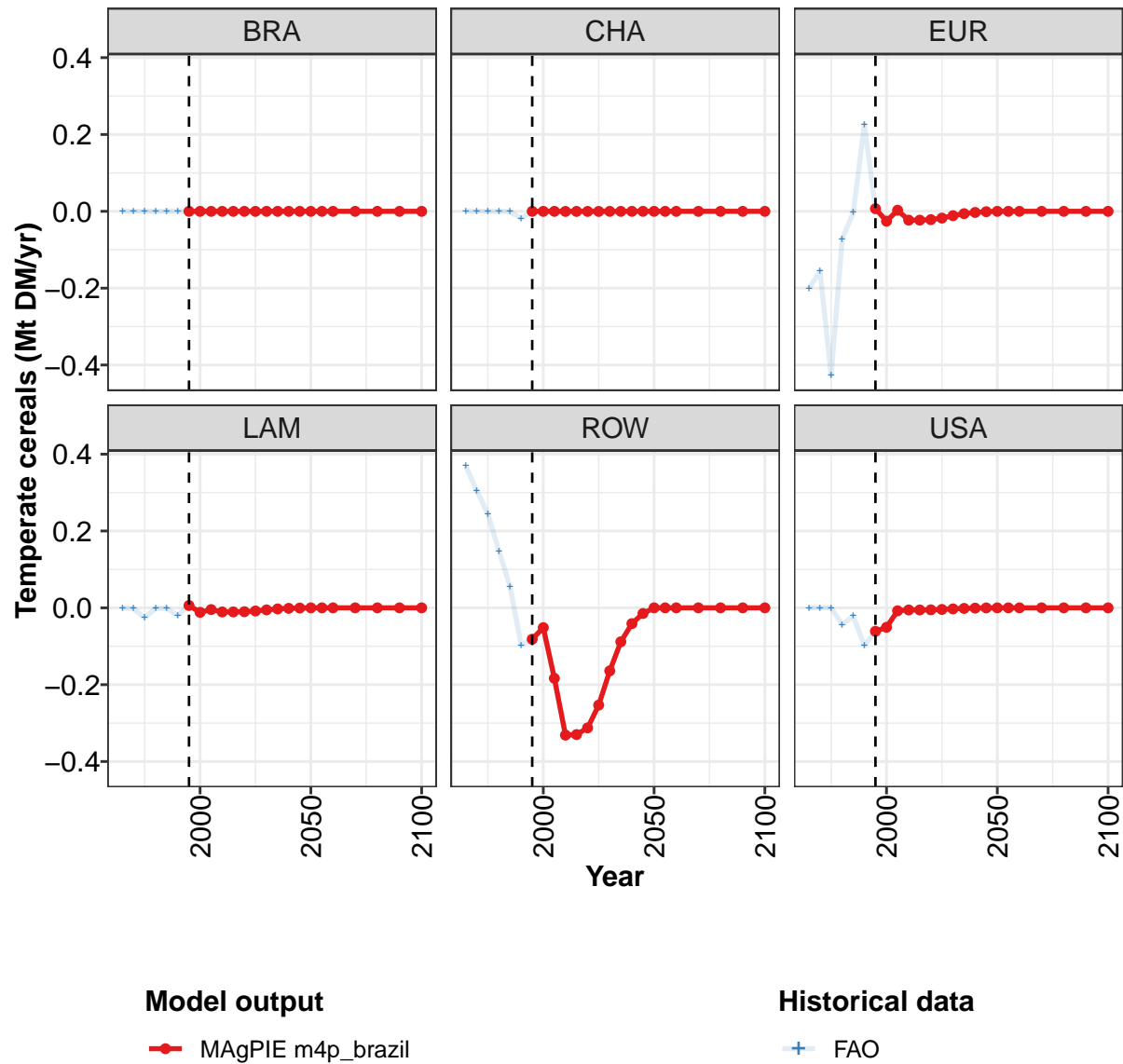


Figure 49: MAGPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	
GLO	-0.12970	-0.13950	-0.19280	-0.37070	-0.36930	-0.34970	-0.28340	-0.18350	-0.09880	-0.04590	-0.0
BRA	0.00000	0.00000	0.00000	-0.00010	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.0
CHA	0.00000	-0.00010	0.00000	-0.00020	-0.00020	-0.00020	-0.00020	-0.00010	-0.00010	0.00000	0.0
EUR	0.00690	-0.02560	0.00280	-0.02300	-0.02300	-0.02170	-0.01760	-0.01140	-0.00610	-0.00290	-0.0
LAM	0.00610	-0.01170	-0.00450	-0.01070	-0.01060	-0.01010	-0.00820	-0.00530	-0.00280	-0.00130	-0.0
ROW	-0.08160	-0.05150	-0.18340	-0.33120	-0.32990	-0.31240	-0.25310	-0.16400	-0.08830	-0.04100	-0.0
USA	-0.06110	-0.05060	-0.00770	-0.00550	-0.00550	-0.00520	-0.00420	-0.00270	-0.00150	-0.00070	-0.0

Table 146: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 1/2]

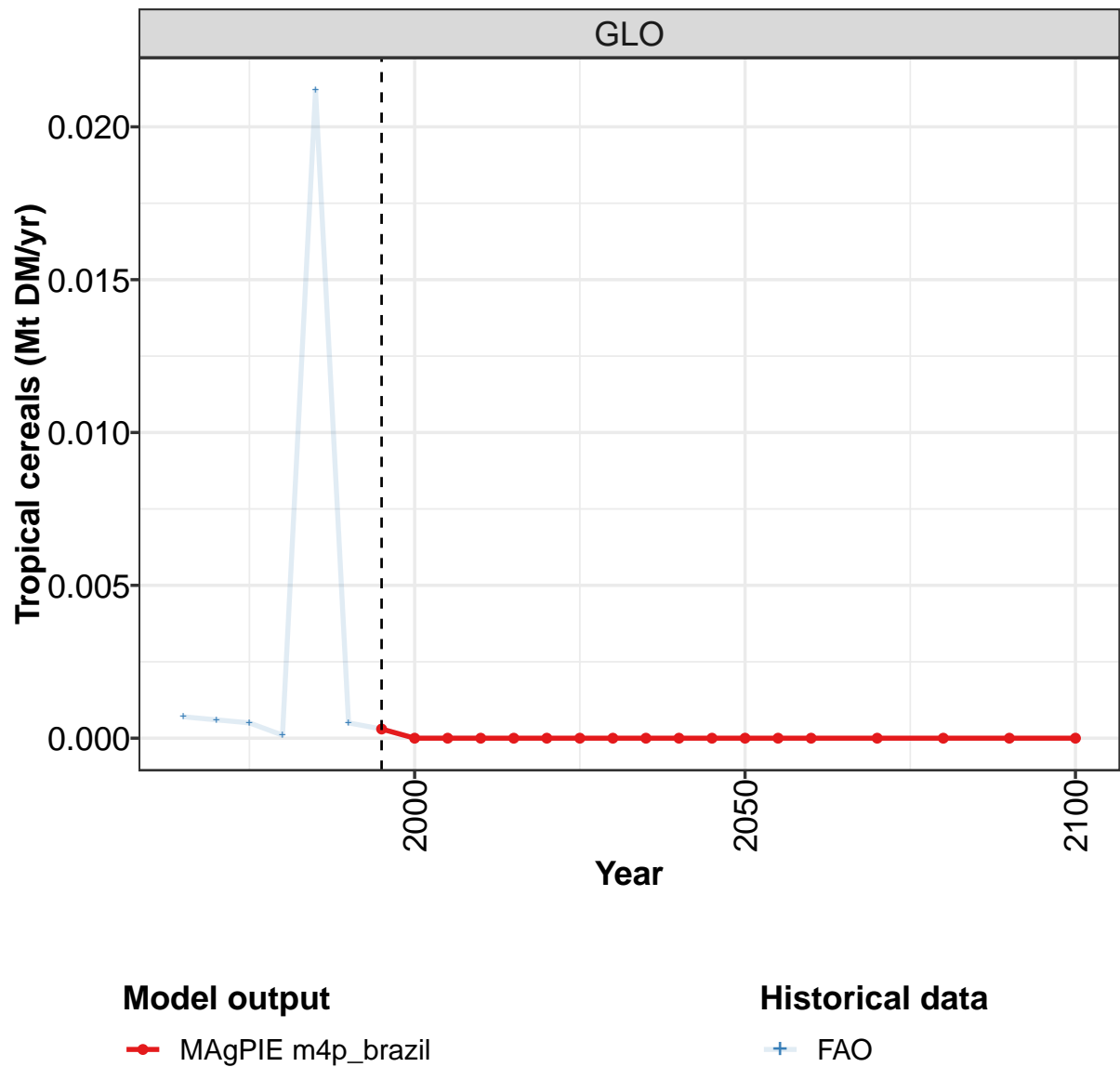
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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_brazil — 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
BRA	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	-0.001	-0.018	0.000	-0.000	0.000	-0.000
EUR	-0.200	-0.156	-0.427	-0.072	-0.003	0.226	0.007	-0.026	0.003	-0.023
LAM	-0.001	-0.002	-0.026	-0.001	-0.002	-0.019	0.006	-0.012	-0.004	-0.011
ROW	0.369	0.304	0.244	0.147	0.055	-0.097	-0.082	-0.051	-0.183	-0.331
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



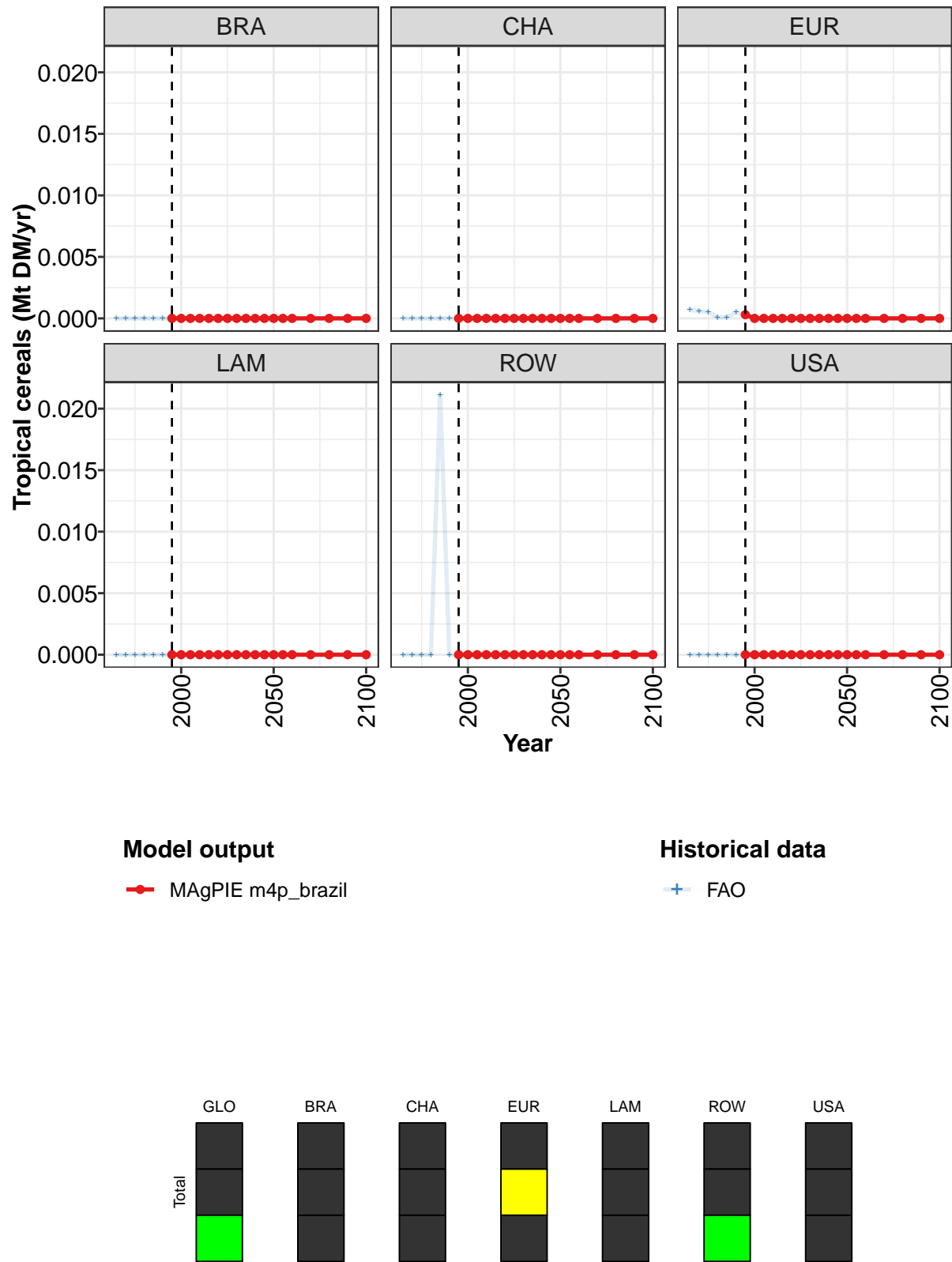


Figure 50: MAgPIE m4p.brazil — Demand—Domestic Balanceflow—Crops—Cereals—Tropical cereals (Mt DM/yr)

	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
BRA	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
LAM	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
ROW	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_brazil — Demand—Domestic Balanceflow—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

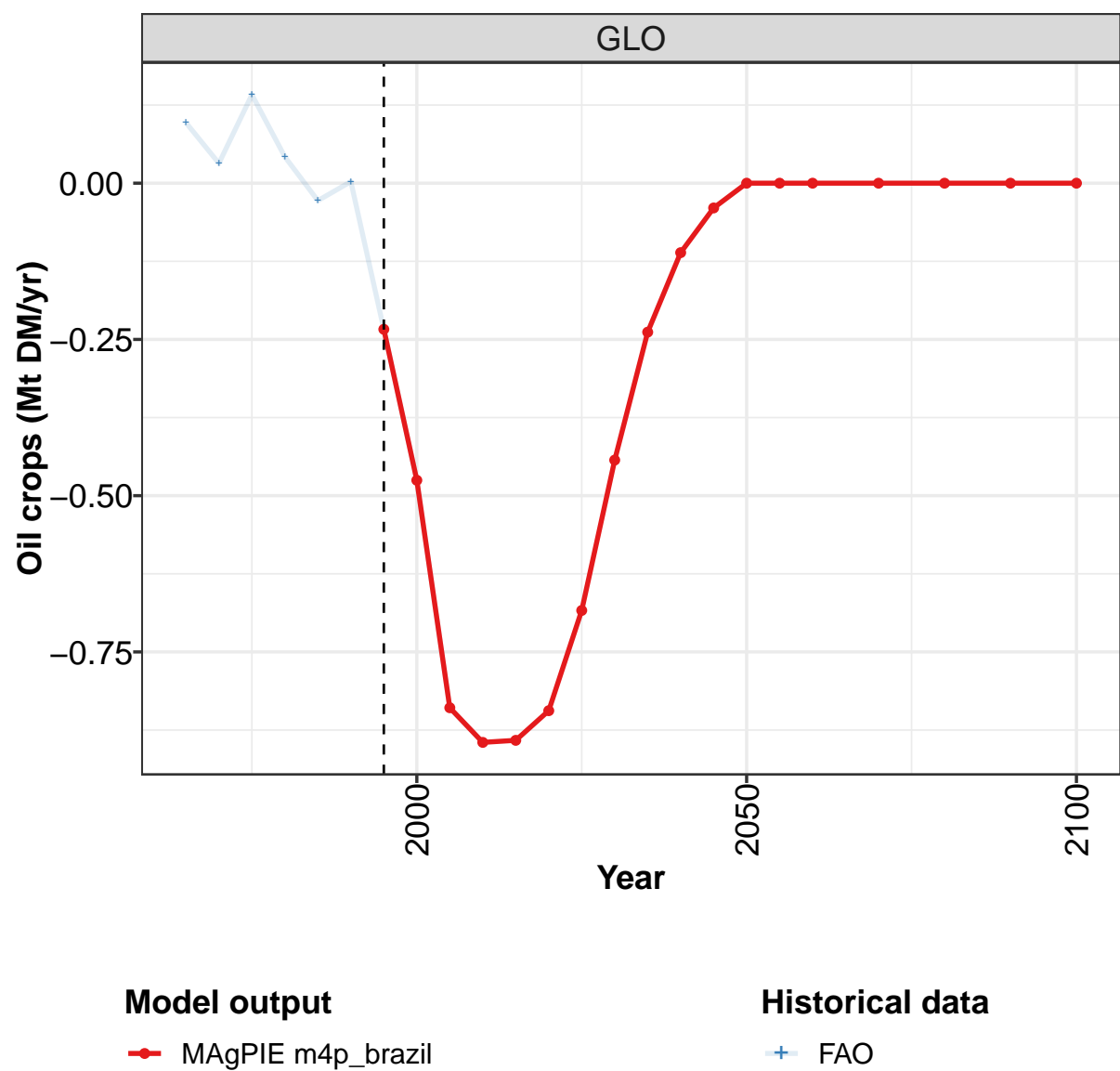
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
BRA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
CHA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
EUR	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
LAM	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
ROW	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_brazil — 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
BRA	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	0.0006	0.0005	0.0001	0.0001	0.0005	0.0003	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
ROW	0.0000	0.0000	0.0000	0.0000	0.0211	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



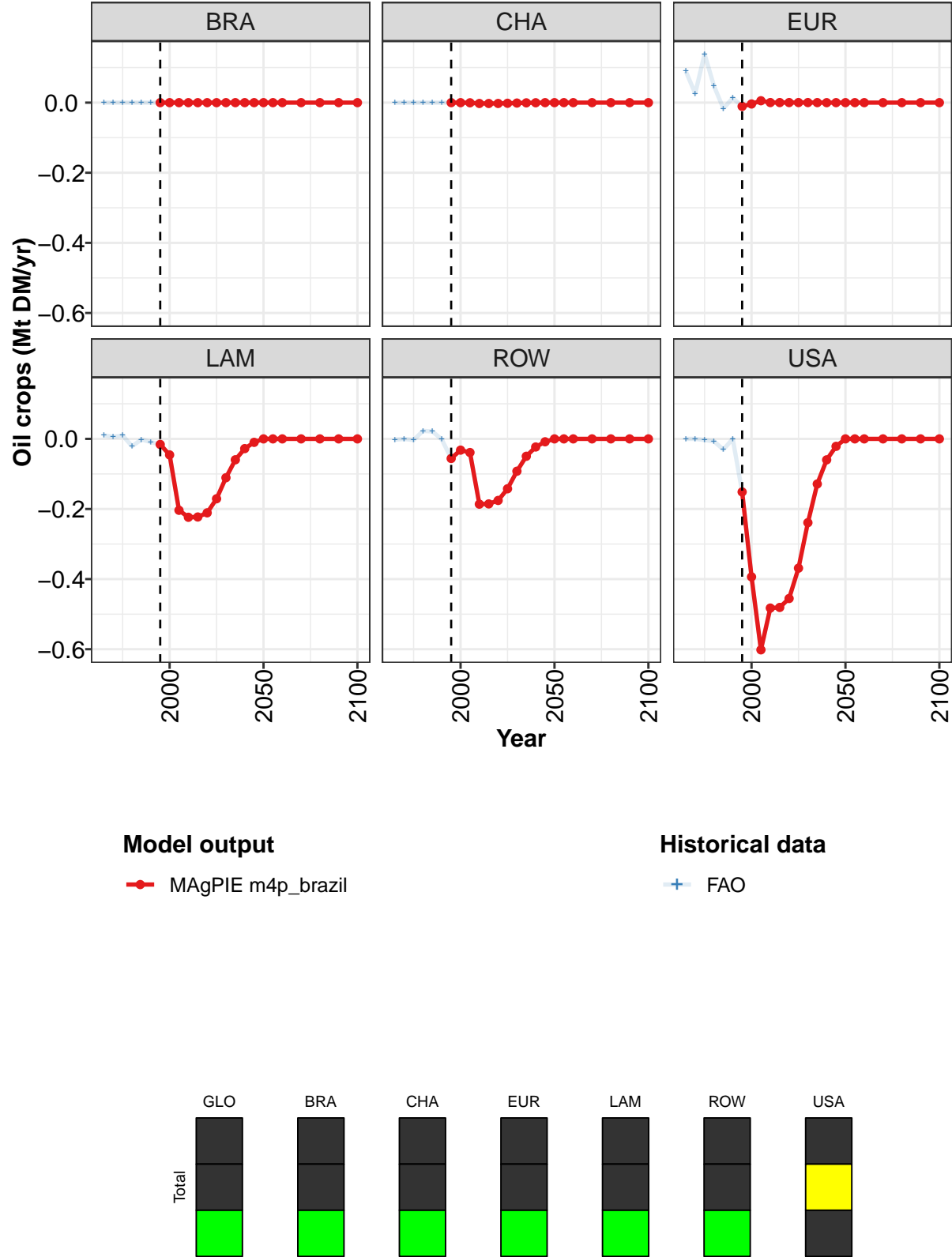


Figure 51: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	
GLO	-0.23380	-0.47530	-0.83930	-0.89470	-0.89140	-0.84400	-0.68360	-0.44300	-0.23830	-0.11110	-0.0
BRA	0.00000	0.00000	0.00000	-0.00010	-0.00010	-0.00010	-0.00010	0.00000	0.00000	0.00000	0.0
CHA	0.00000	-0.00010	-0.00040	-0.00240	-0.00240	-0.00230	-0.00180	-0.00120	-0.00060	-0.00030	-0.0
EUR	-0.01070	-0.00380	0.00540	0.00020	0.00020	0.00020	0.00020	0.00020	0.00010	-0.00010	0.0
LAM	-0.01590	-0.04570	-0.20370	-0.22360	-0.22280	-0.21090	-0.17080	-0.11080	-0.05960	-0.02780	-0.0
ROW	-0.05590	-0.03210	-0.03890	-0.18620	-0.18550	-0.17560	-0.14230	-0.09220	-0.04960	-0.02310	-0.0
USA	-0.15130	-0.39360	-0.60170	-0.48260	-0.48080	-0.45530	-0.36880	-0.23900	-0.12860	-0.05980	-0.0

Table 152: MAgPIE m4p.brazil — Demand—Domestic Balanceflow—Crops—Oil crops (Mt DM/yr) [PART 1/2]

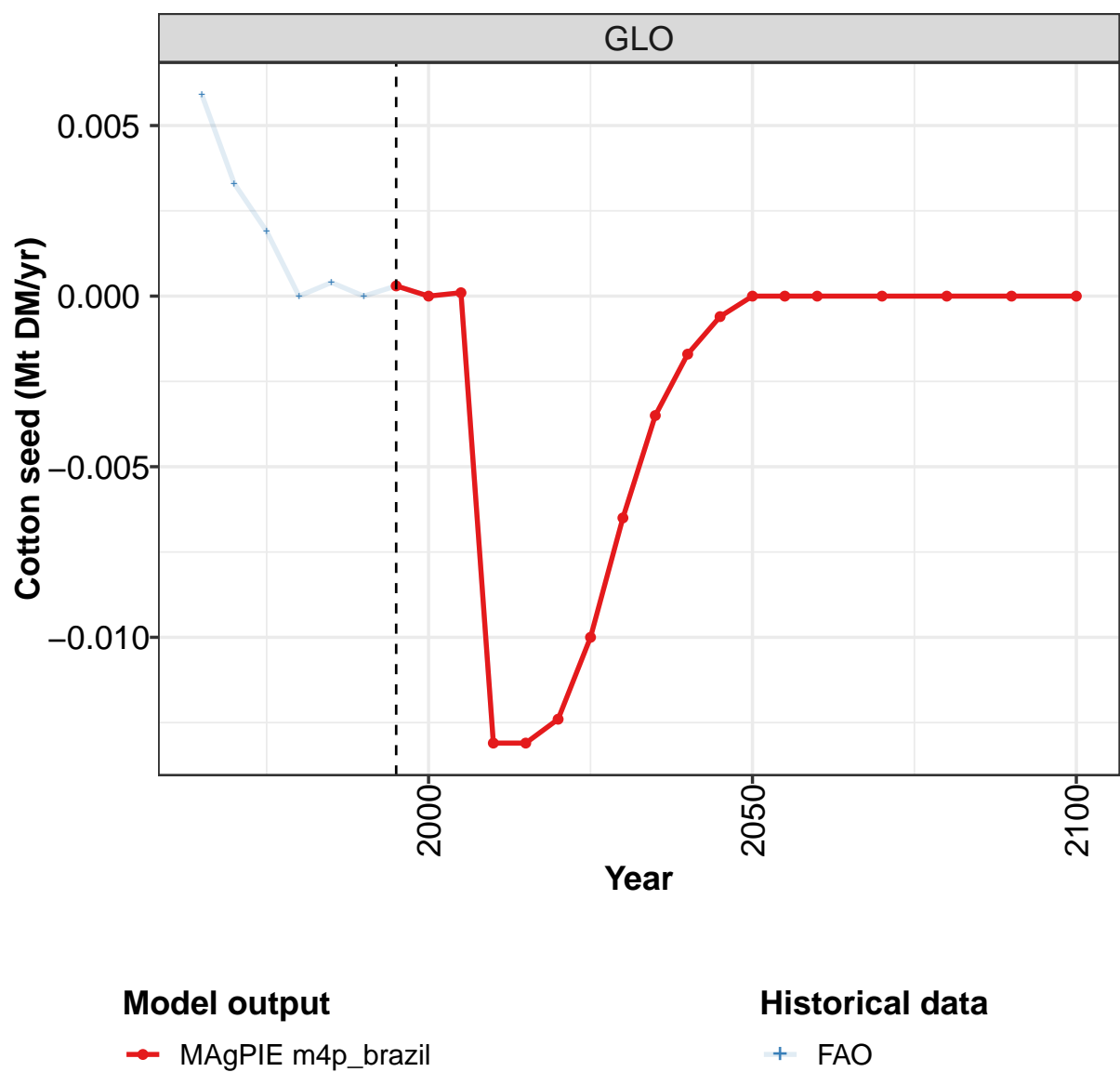
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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.brazil — 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
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.000
CHA	-0.001	0.000	0.000	0.000	-0.000	0.000	0.000	-0.000	-0.000	-0.002
EUR	0.089	0.026	0.139	0.047	-0.017	0.013	-0.011	-0.004	0.005	0.000
LAM	0.010	0.006	0.009	-0.021	-0.002	-0.009	-0.016	-0.046	-0.204	-0.224
ROW	-0.002	-0.000	-0.003	0.023	0.021	-0.002	-0.056	-0.032	-0.039	-0.186
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



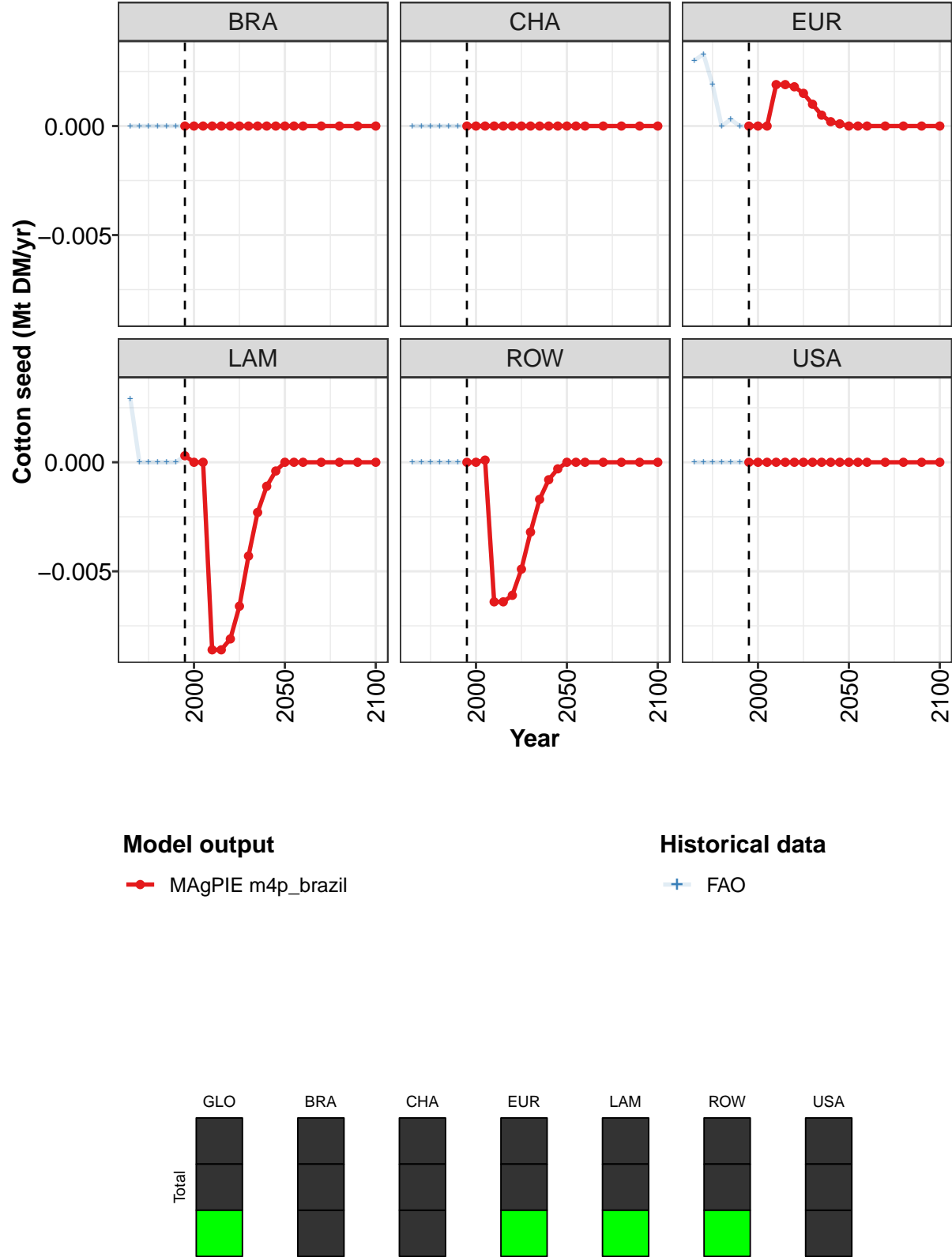


Figure 52: MAGPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Oil crops—Cotton seed (Mt DM/yr)

	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
BRA	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
LAM	0.00030	0.00000	0.00000	-0.00860	-0.00860	-0.00810	-0.00660	-0.00430	-0.00230	-0.00110	-0.00000
ROW	0.00000	0.00000	0.00010	-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_brazil — Demand—Domestic Balanceflow—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

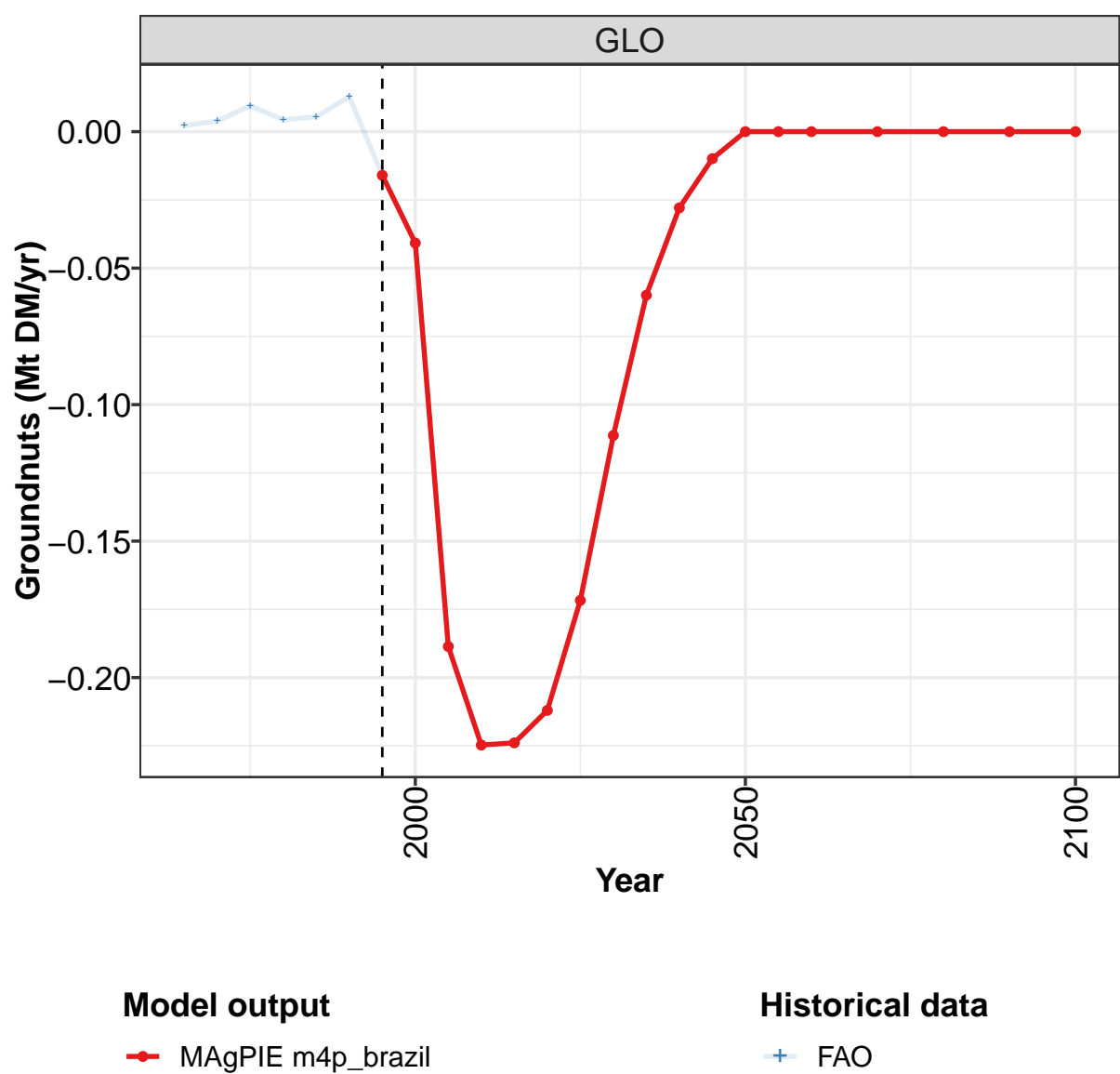
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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_brazil — 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
BRA	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	0.00300	0.00330	0.00190	0.00000	0.00030	0.00000	0.00000	0.00000	0.00000	0.00190
LAM	0.00290	0.00000	0.00000	0.00000	0.00000	0.00000	0.00030	0.00000	0.00000	-0.00860
ROW	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	-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



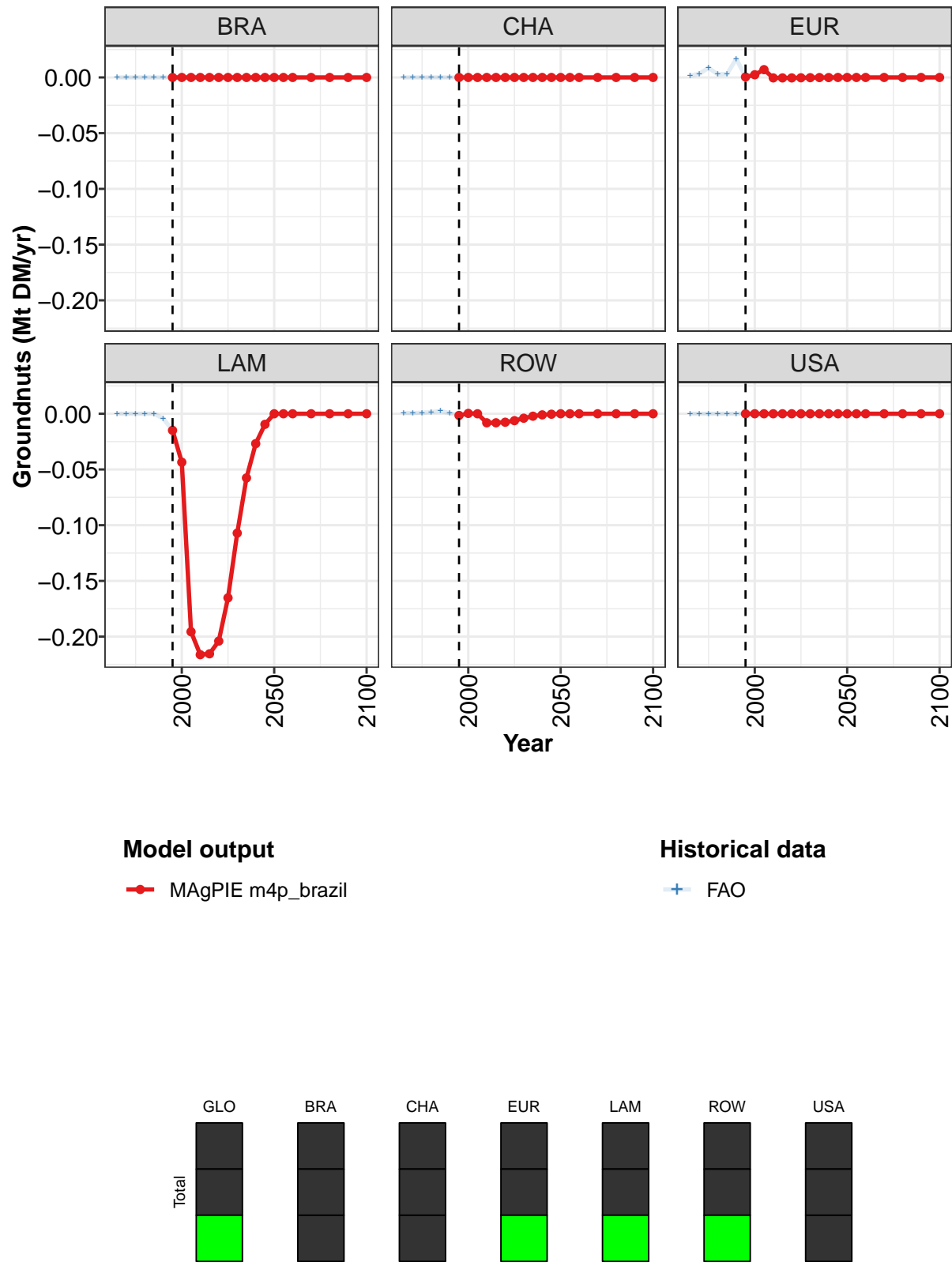


Figure 53: MAGPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	
GLO	-0.01600	-0.04080	-0.18860	-0.22470	-0.22390	-0.21200	-0.17170	-0.11130	-0.05990	-0.02790	-0.0
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0
EUR	0.00040	0.00240	0.00700	-0.00040	-0.00040	-0.00040	-0.00030	-0.00020	-0.00010	-0.00010	0.0
LAM	-0.01490	-0.04350	-0.19560	-0.21620	-0.21540	-0.20400	-0.16520	-0.10710	-0.05760	-0.02680	-0.0
ROW	-0.00150	0.00030	0.00000	-0.00810	-0.00810	-0.00760	-0.00620	-0.00400	-0.00220	-0.00100	-0.0
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0

Table 158: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

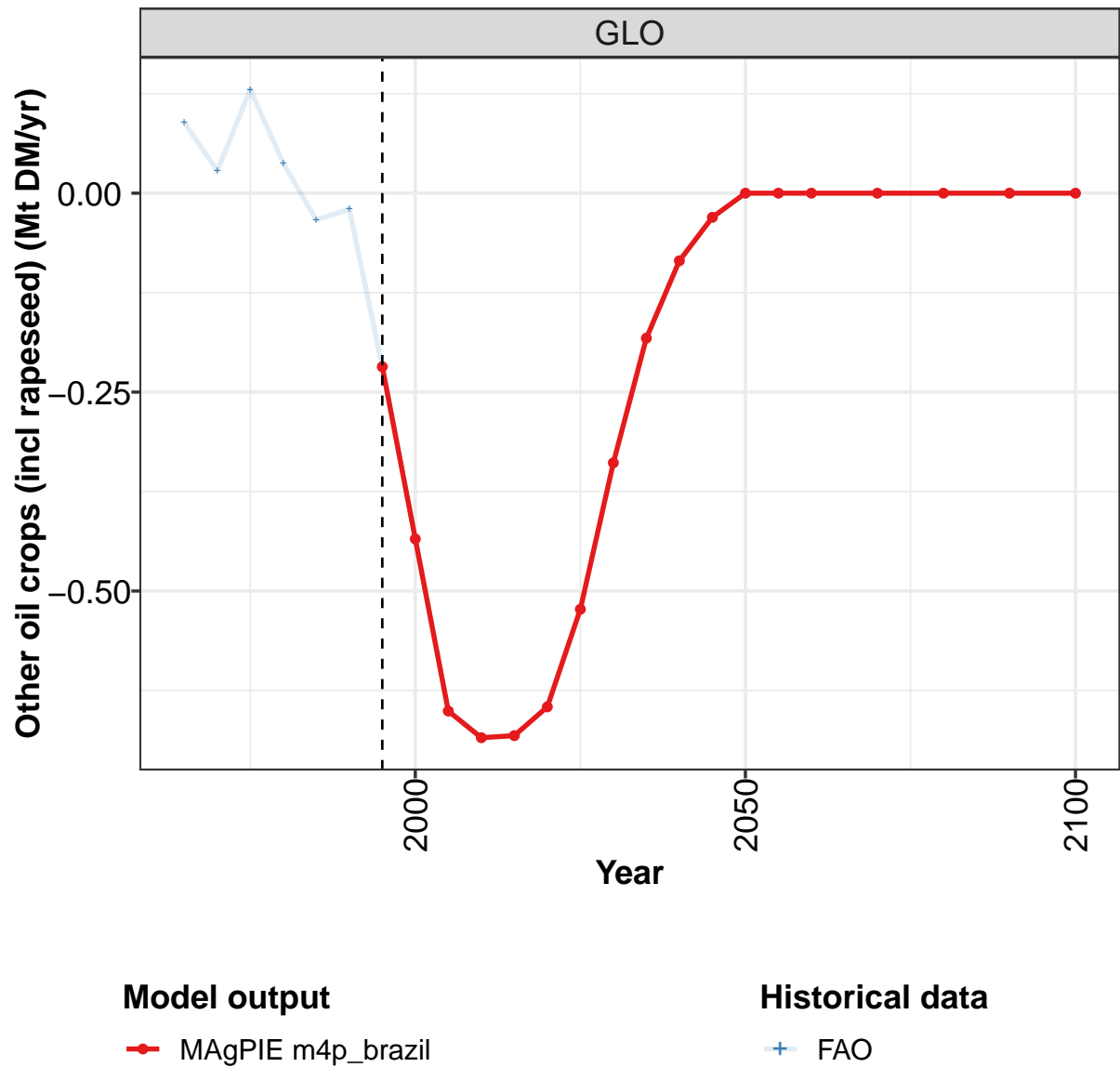
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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

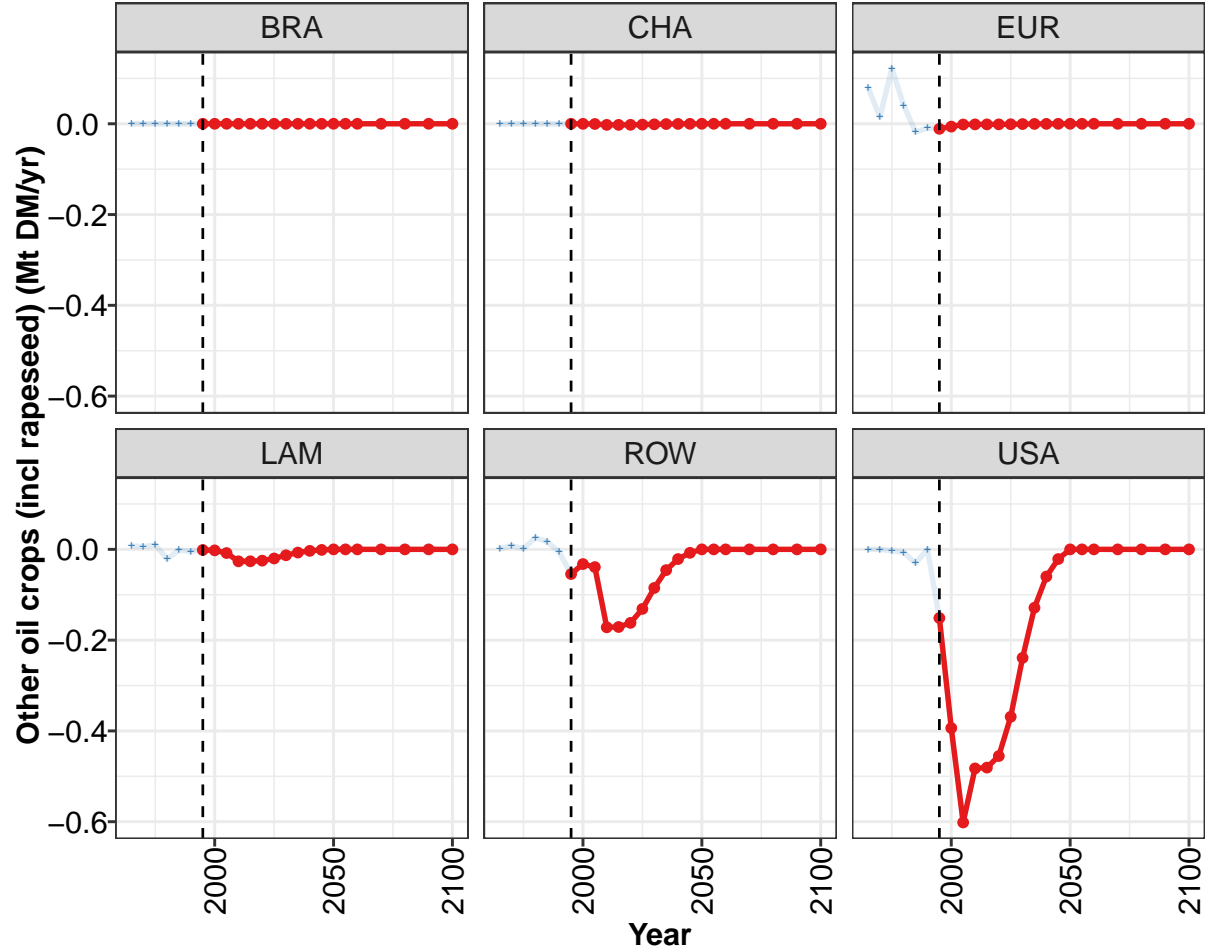
Table 159: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 2/2]

	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
BRA	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	0.0015	0.0033	0.0086	0.0028	0.0031	0.0167	0.0004	0.0024	0.0070	-0.0004
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0044	-0.0149	-0.0435	-0.1956	-0.2162
ROW	0.0007	0.0006	0.0009	0.0015	0.0024	0.0005	-0.0015	0.0003	0.0000	-0.0081
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)





Model output

—•— MAgPIE m4p_brazil

Historical data

+— FAO

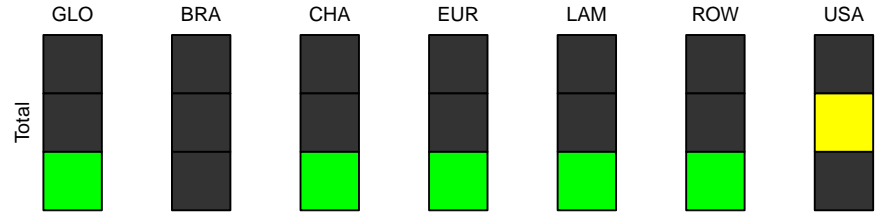


Figure 54: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0	-0	-1	-1	-1	-1	-1	-0	-0	-0	-0
BRA	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
LAM	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
ROW	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
USA	-0	-0	-1	-0	-0	-0	-0	-0	-0	-0	-0

Table 161: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

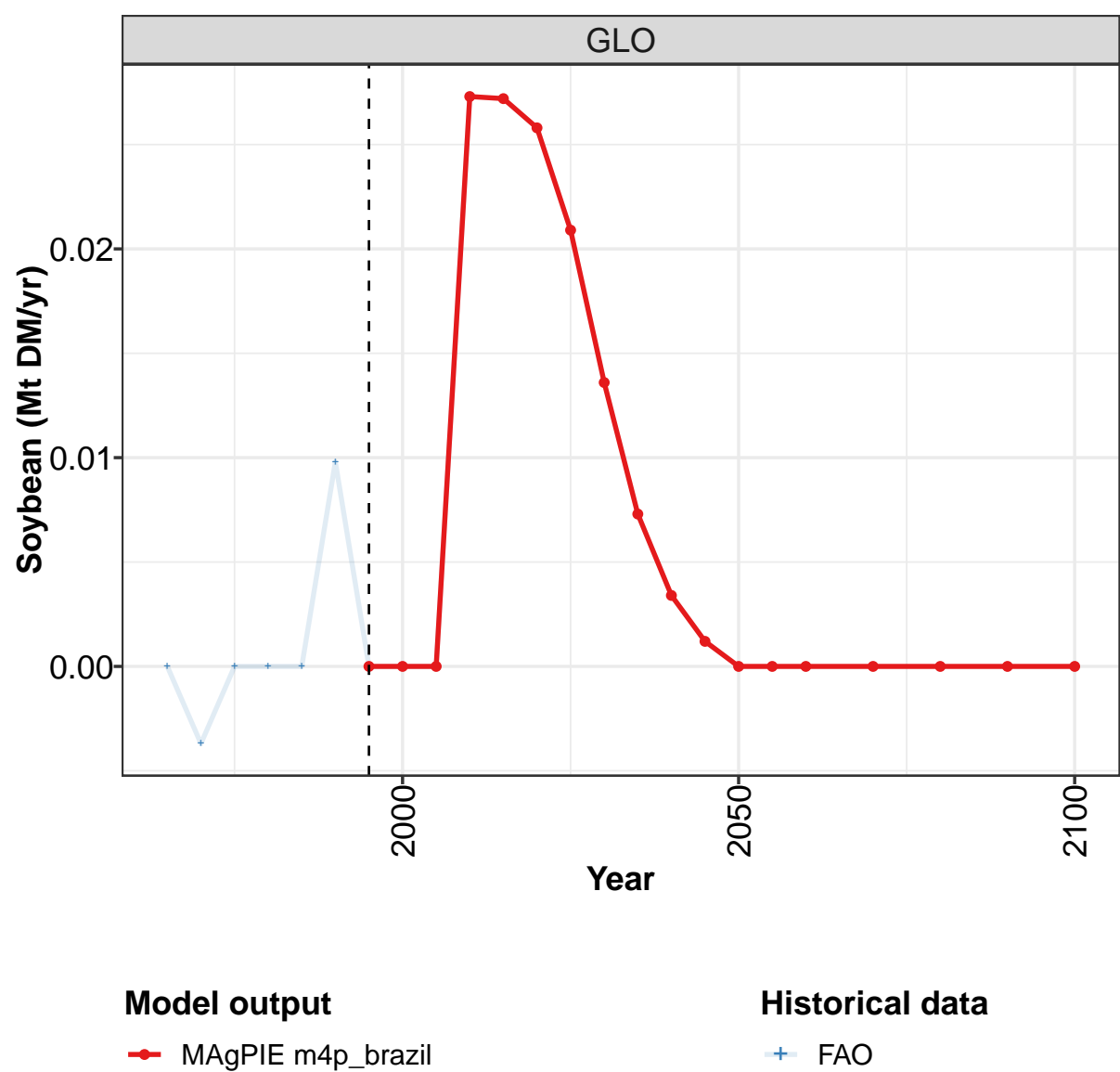
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
BRA	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
ROW	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 162: MAgPIE m4p_brazil — 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
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	-0.001	0.000	0.000	-0.000	-0.000	0.000	0.000	-0.000	-0.000	-0.002
EUR	0.080	0.015	0.122	0.041	-0.018	-0.009	-0.011	-0.006	-0.002	-0.001
LAM	0.007	0.006	0.009	-0.021	-0.002	-0.005	-0.001	-0.002	-0.008	-0.026
ROW	0.002	0.008	0.002	0.025	0.017	-0.006	-0.054	-0.032	-0.039	-0.172
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



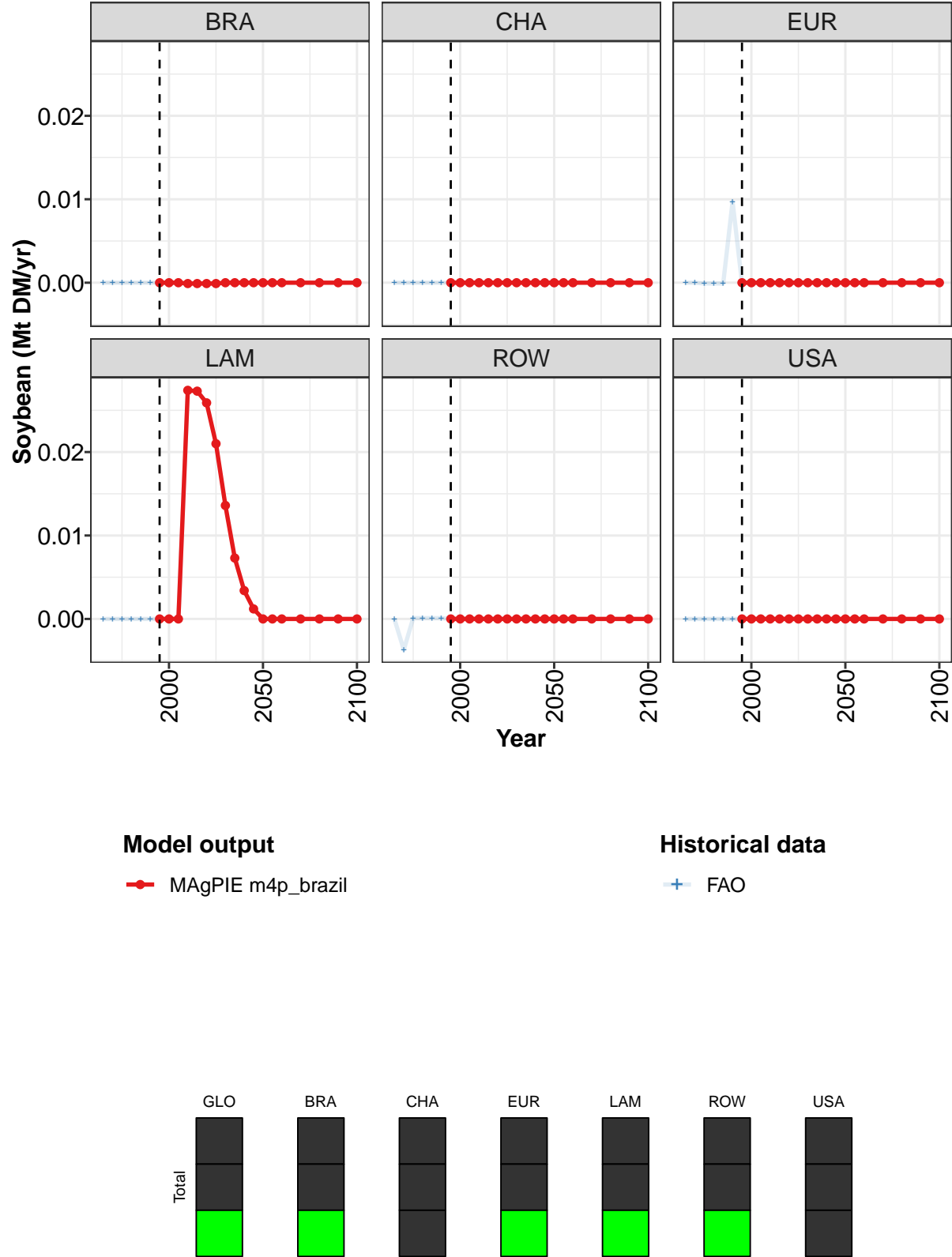


Figure 55: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Oil crops—Soybean (Mt DM/yr)

	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	0.0136	0.0073	0.0034	0.0012
BRA	0.0000	0.0000	0.0000	-0.0001	-0.0001	-0.0001	-0.0001	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
LAM	0.0000	0.0000	0.0000	0.0274	0.0273	0.0259	0.0210	0.0136	0.0073	0.0034	0.0012
ROW	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_brazil — Demand—Domestic Balanceflow—Crops—Oil crops—Soybean (Mt DM/yr)
[PART 1/2]

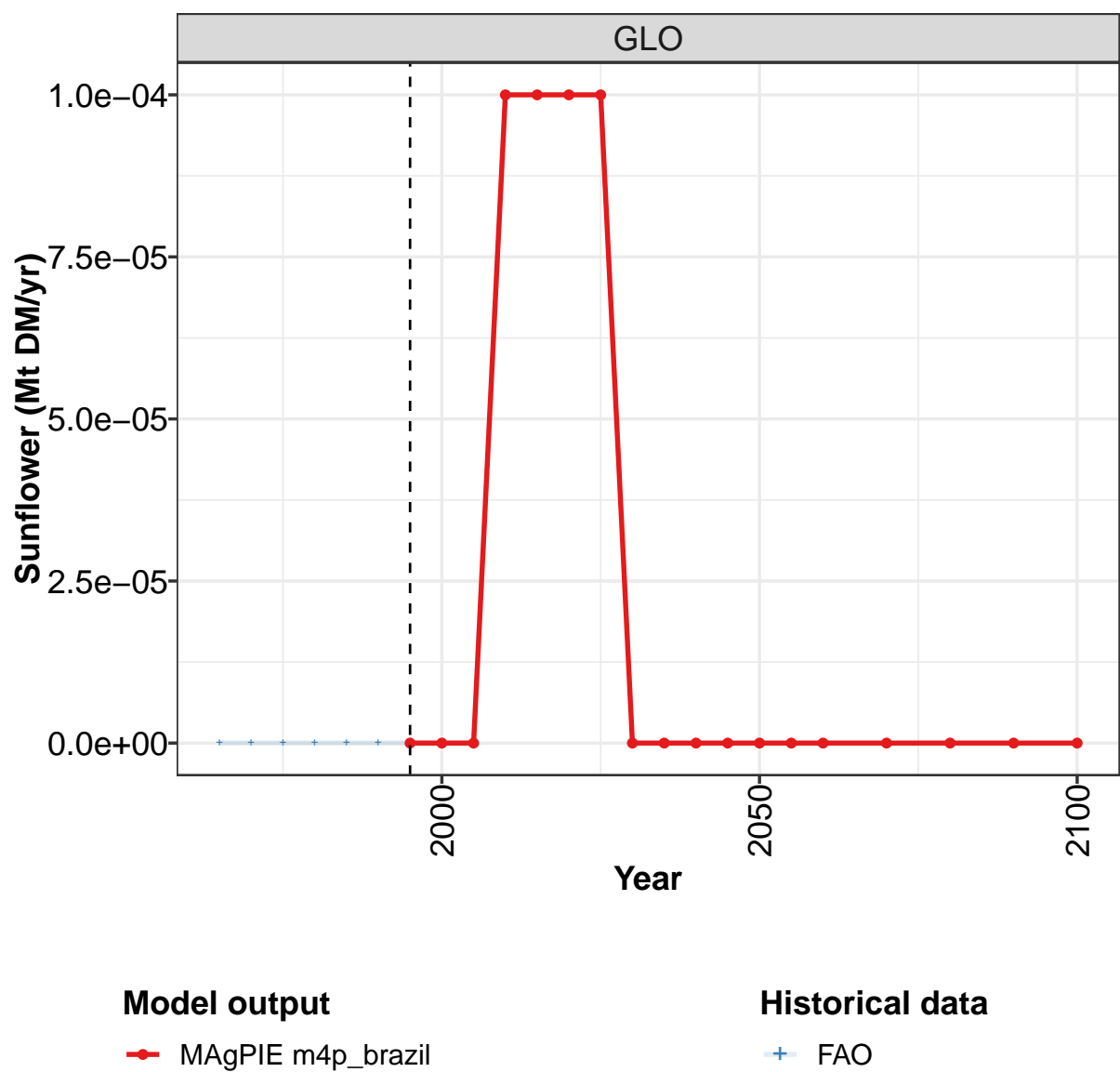
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BRA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	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_brazil — 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
BRA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001
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	-0.0001	-0.0001	-0.0001	0.0097	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	0.0274
ROW	0.0000	-0.0037	0.0001	0.0001	0.0001	0.0001	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



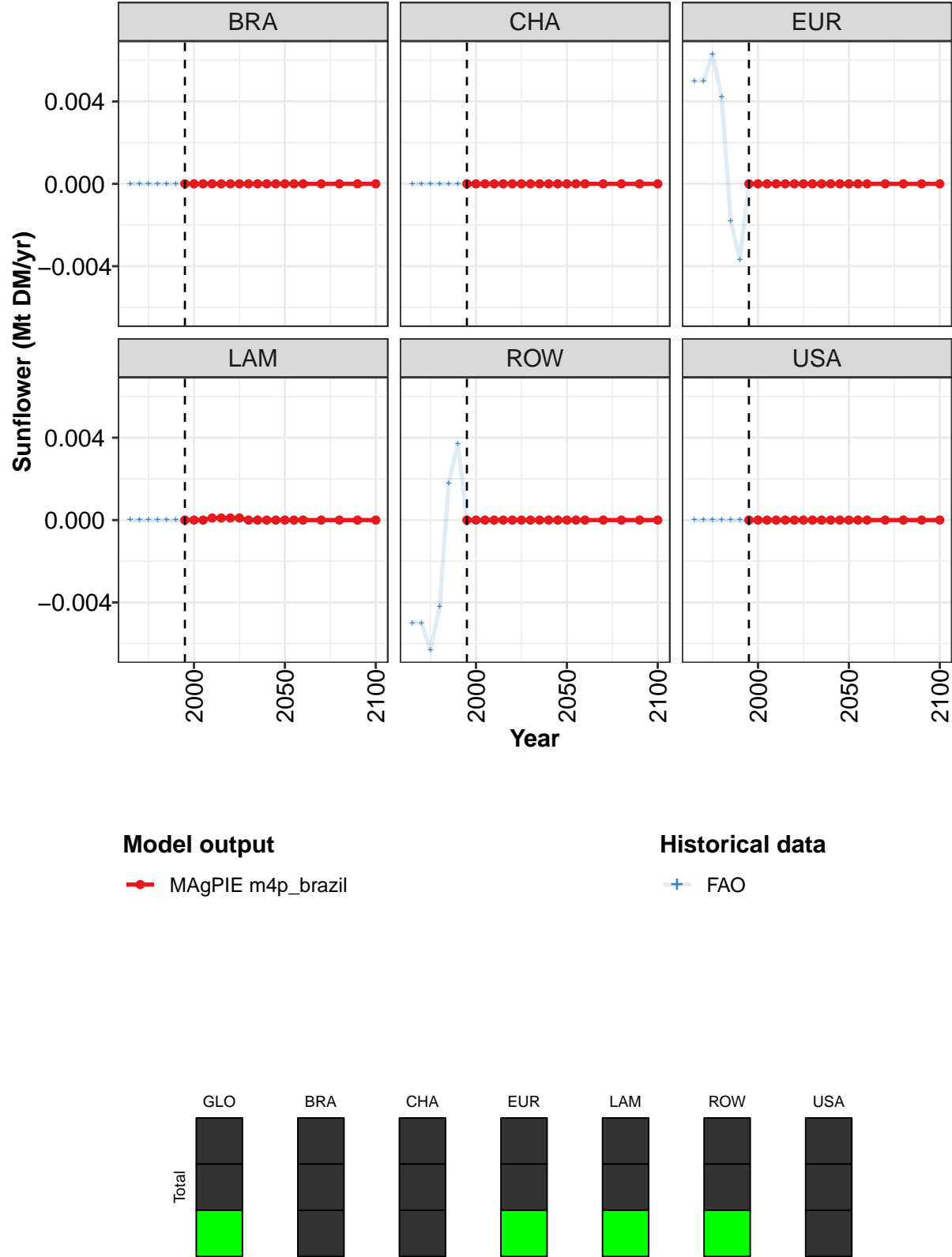


Figure 56: MAGPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Oil crops—Sunflower (Mt DM/yr)

	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
BRA	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
LAM	0.0000000	0.0000000	0.0000000	0.0001000	0.0001000	0.0001000	0.0001000	0.0000000	0.0000000	0
ROW	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_brazil — Demand—Domestic Balanceflow—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

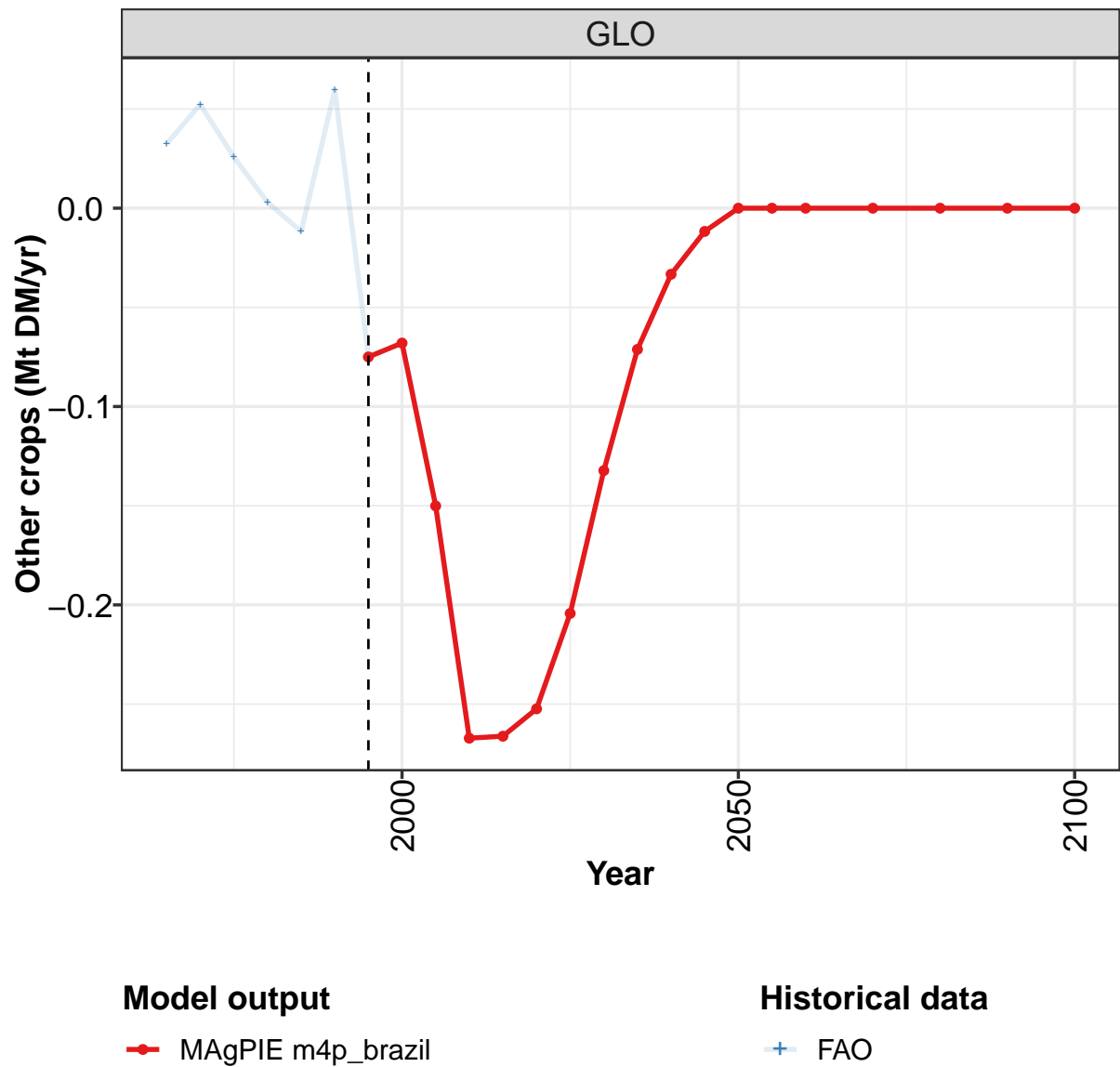
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
BRA	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
CHA	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
EUR	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
LAM	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
ROW	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_brazil — Demand—Domestic Balanceflow—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010
BRA	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	0.00500	0.00500	0.00630	0.00420	-0.00180	-0.00370	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	0.00010
ROW	-0.00500	-0.00500	-0.00630	-0.00420	0.00180	0.00370	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 169: FAO — Demand—Domestic Balanceflow—Crops—Oil crops—Sunflower (Mt DM/yr)

5.1.12 Other crops



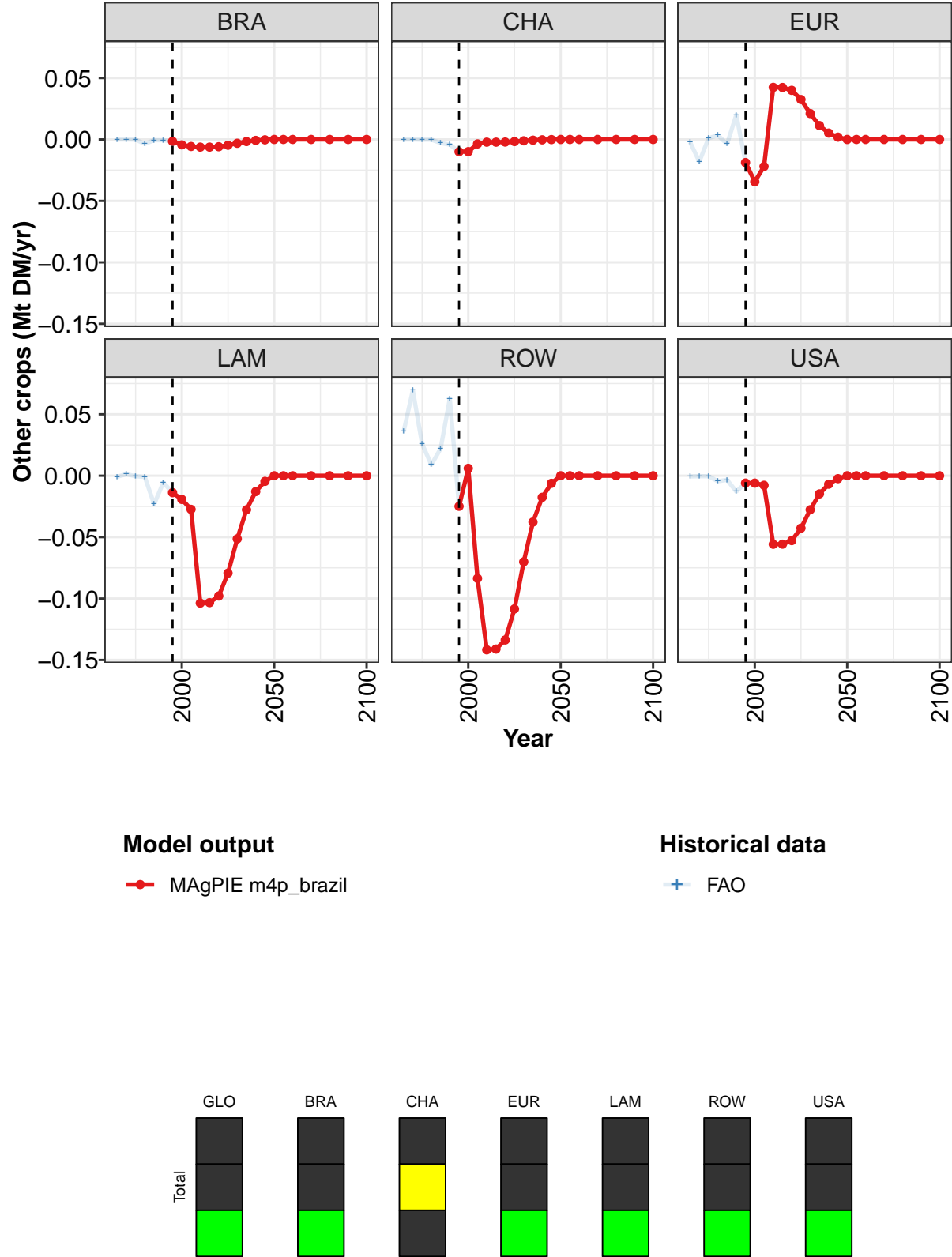


Figure 57: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.0750	-0.0680	-0.1501	-0.2672	-0.2662	-0.2524	-0.2043	-0.1323	-0.0712	-0.0333	-0.0117
BRA	-0.0015	-0.0044	-0.0057	-0.0062	-0.0062	-0.0059	-0.0047	-0.0031	-0.0017	-0.0008	-0.0003
CHA	-0.0100	-0.0099	-0.0036	-0.0022	-0.0022	-0.0021	-0.0017	-0.0011	-0.0006	-0.0003	-0.0001
EUR	-0.0188	-0.0344	-0.0220	0.0424	0.0423	0.0400	0.0325	0.0211	0.0113	0.0052	0.0019
LAM	-0.0138	-0.0193	-0.0274	-0.1037	-0.1033	-0.0979	-0.0793	-0.0514	-0.0277	-0.0129	-0.0046
ROW	-0.0249	0.0060	-0.0836	-0.1417	-0.1411	-0.1337	-0.1084	-0.0701	-0.0377	-0.0176	-0.0062
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_brazil — Demand—Domestic Balanceflow—Crops—Other crops (Mt DM/yr) [PART 1/2]

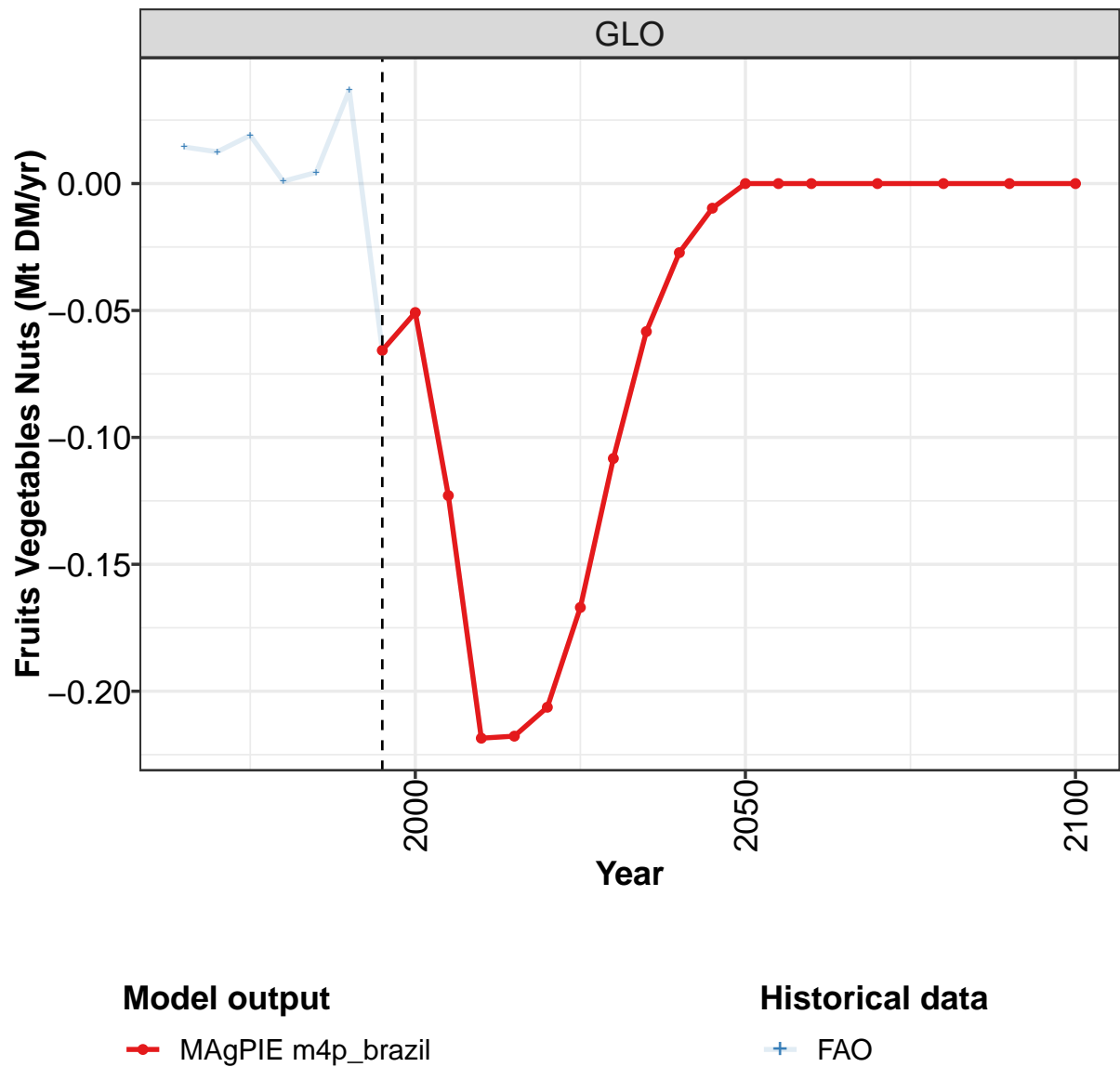
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BRA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	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_brazil — 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
BRA	0.0000	0.0000	-0.0001	-0.0036	-0.0006	-0.0006	-0.0015	-0.0044	-0.0057	-0.0062
CHA	0.0000	0.0000	-0.0002	-0.0001	-0.0029	-0.0042	-0.0100	-0.0099	-0.0036	-0.0022
EUR	-0.0022	-0.0180	0.0010	0.0034	-0.0037	0.0200	-0.0187	-0.0345	-0.0220	0.0425
LAM	-0.0008	0.0012	-0.0004	-0.0010	-0.0232	-0.0056	-0.0138	-0.0193	-0.0274	-0.1037
ROW	0.0359	0.0695	0.0259	0.0089	0.0219	0.0627	-0.0248	0.0059	-0.0836	-0.1417
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



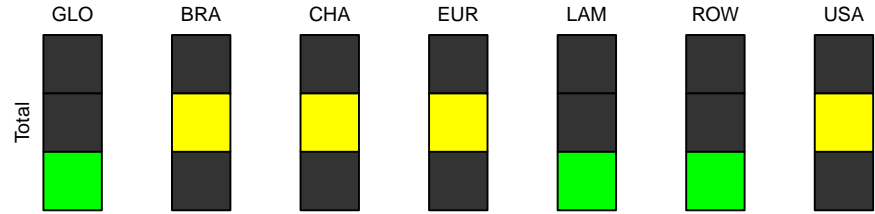
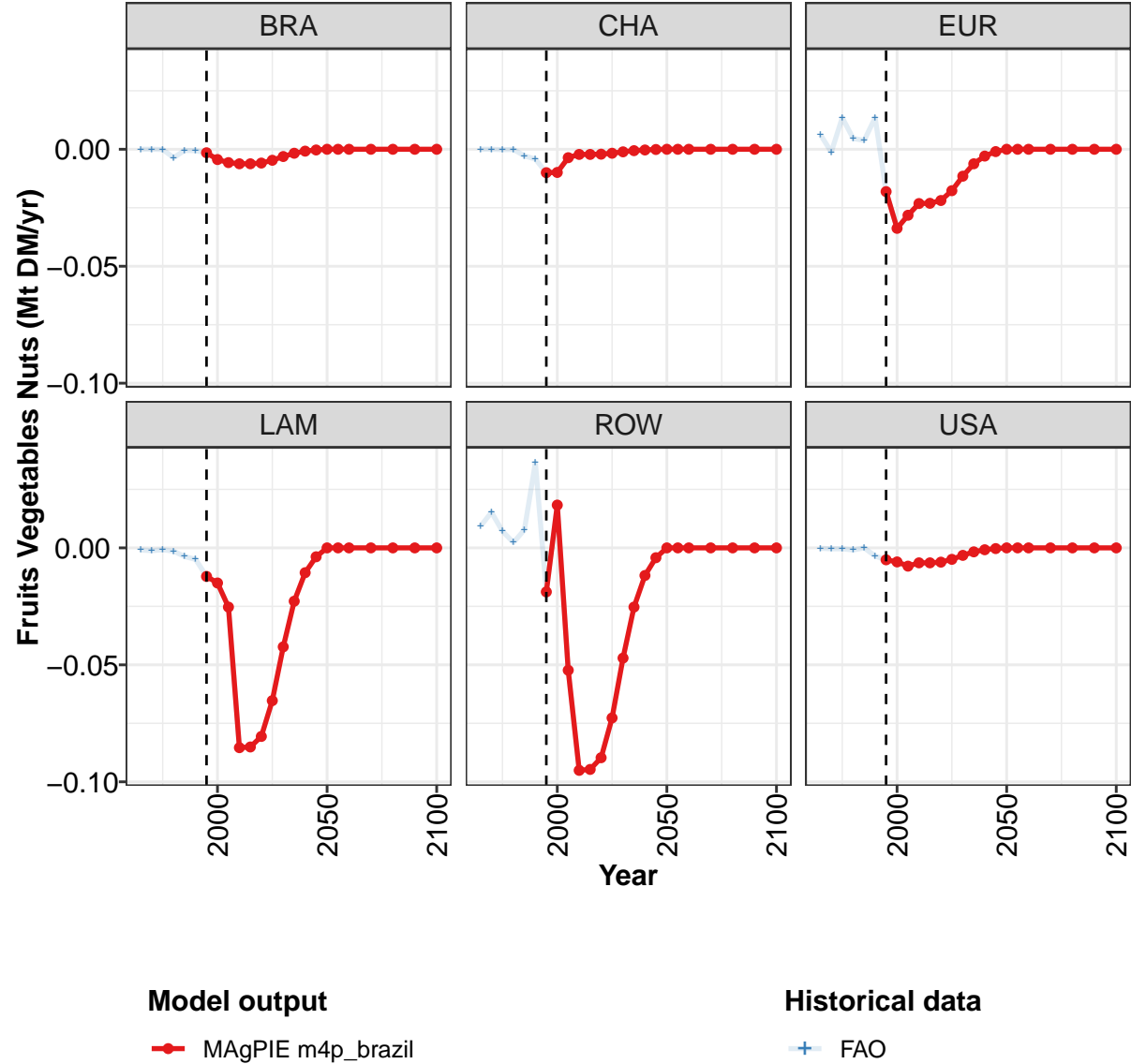


Figure 58: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.0657	-0.0508	-0.1229	-0.2185	-0.2177	-0.2063	-0.1670	-0.1083	-0.0583	-0.0272	-0.0097
BRA	-0.0015	-0.0044	-0.0057	-0.0062	-0.0062	-0.0059	-0.0047	-0.0031	-0.0017	-0.0008	-0.0003
CHA	-0.0100	-0.0099	-0.0036	-0.0022	-0.0022	-0.0021	-0.0017	-0.0011	-0.0006	-0.0003	-0.0001
EUR	-0.0181	-0.0338	-0.0282	-0.0232	-0.0231	-0.0219	-0.0177	-0.0115	-0.0062	-0.0029	-0.0010
LAM	-0.0122	-0.0150	-0.0253	-0.0854	-0.0851	-0.0806	-0.0653	-0.0423	-0.0228	-0.0106	-0.0038
ROW	-0.0188	0.0183	-0.0523	-0.0951	-0.0947	-0.0897	-0.0727	-0.0471	-0.0253	-0.0118	-0.0042
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_brazil — Demand—Domestic Balanceflow—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 1/2]

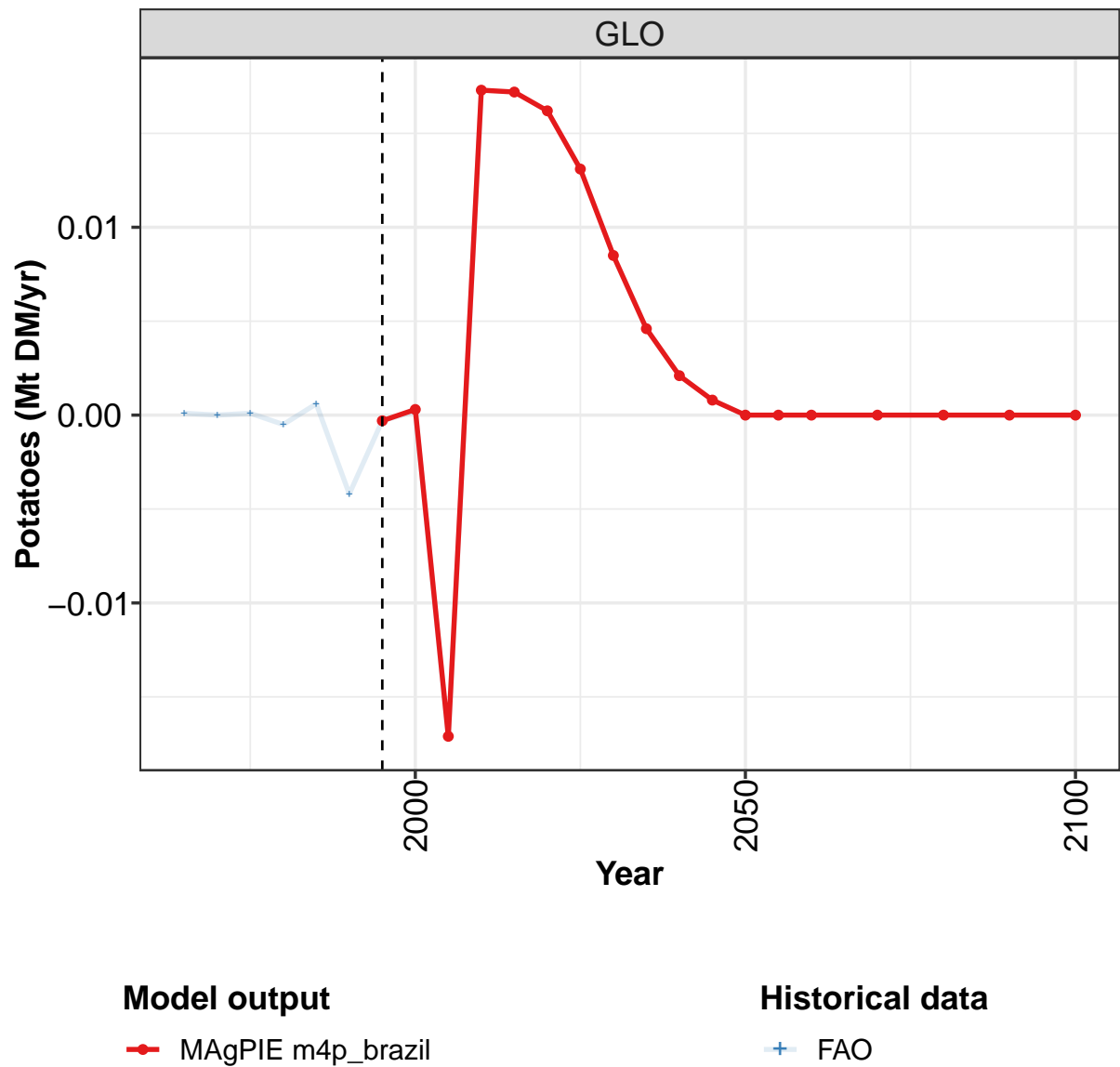
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BRA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	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_brazil — 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
BRA	0.0000	0.0000	-0.0001	-0.0036	-0.0005	-0.0006	-0.0015	-0.0044	-0.0057	-0.0062
CHA	0.0000	0.0000	-0.0002	-0.0001	-0.0028	-0.0042	-0.0100	-0.0099	-0.0036	-0.0022
EUR	0.0063	-0.0012	0.0135	0.0046	0.0038	0.0135	-0.0181	-0.0338	-0.0282	-0.0232
LAM	-0.0009	-0.0012	-0.0008	-0.0014	-0.0037	-0.0049	-0.0122	-0.0150	-0.0253	-0.0854
ROW	0.0093	0.0152	0.0071	0.0023	0.0077	0.0364	-0.0188	0.0183	-0.0523	-0.0951
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



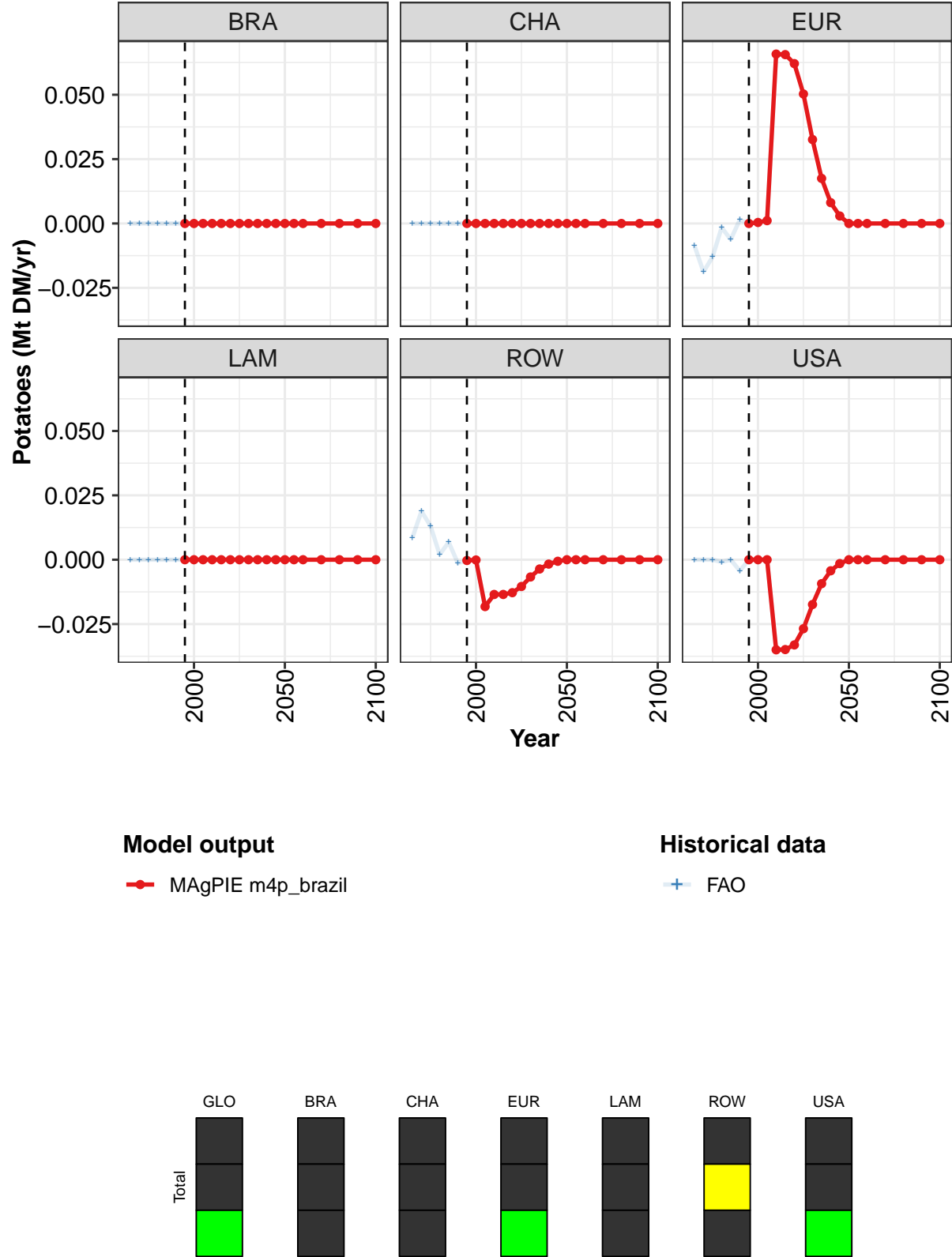


Figure 59: MAGPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.0003	0.0003	-0.0171	0.0173	0.0172	0.0162	0.0131	0.0085	0.0046	0.0021	0.0008
BRA	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	0.0004	0.0011	0.0658	0.0656	0.0621	0.0503	0.0326	0.0175	0.0081	0.0029
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	-0.0003	-0.0001	-0.0182	-0.0135	-0.0135	-0.0128	-0.0104	-0.0067	-0.0036	-0.0017	-0.0006
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_brazil — Demand—Domestic Balanceflow—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

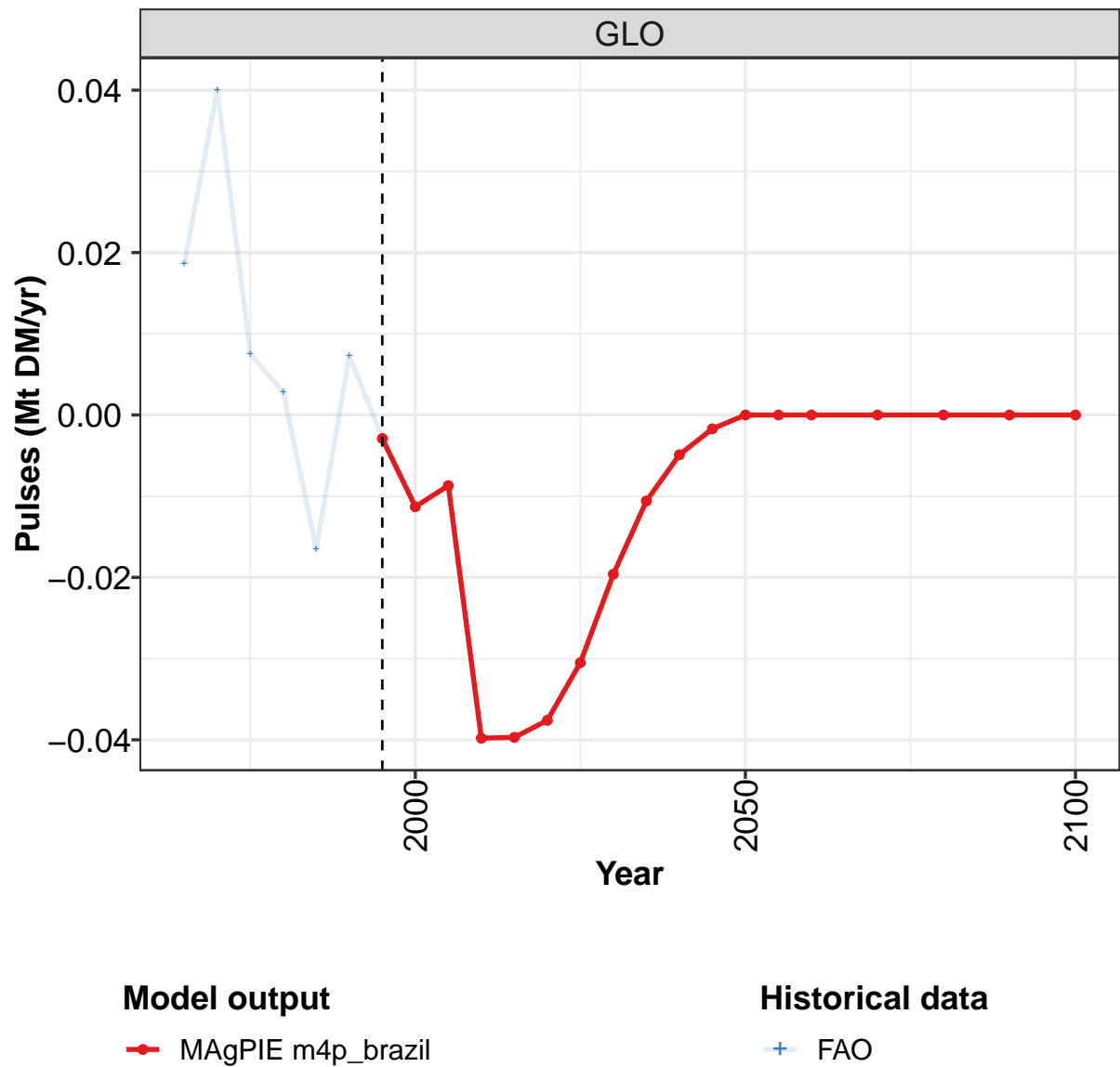
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BRA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	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_brazil — 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
BRA	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	-0.0085	-0.0188	-0.0130	-0.0016	-0.0062	0.0014	0.0000	0.0004	0.0011	0.0658
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	0.0085	0.0188	0.0131	0.0020	0.0068	-0.0013	-0.0003	-0.0001	-0.0182	-0.0135
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



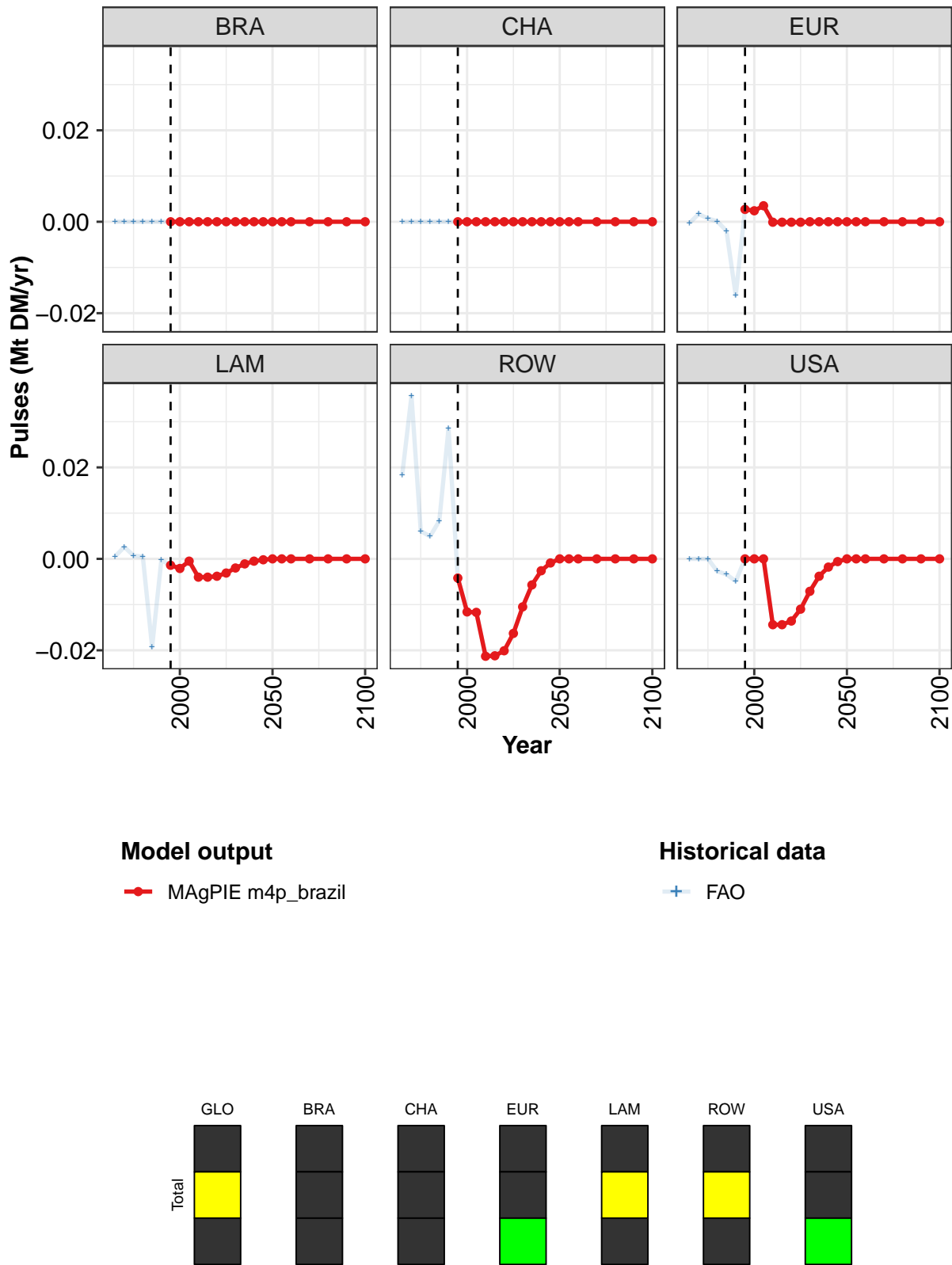


Figure 60: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	
GLO	-0.00290	-0.01130	-0.00870	-0.03980	-0.03970	-0.03760	-0.03050	-0.01960	-0.01060	-0.00490	-0.00000
BRA	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	0.00270	0.00240	0.00350	-0.00010	-0.00010	-0.00010	-0.00010	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
ROW	-0.00420	-0.01160	-0.01170	-0.02130	-0.02120	-0.02010	-0.01630	-0.01050	-0.00570	-0.00260	-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.brazil — Demand—Domestic Balanceflow—Crops—Other crops—Pulses (Mt DM/yr)
[PART 1/2]

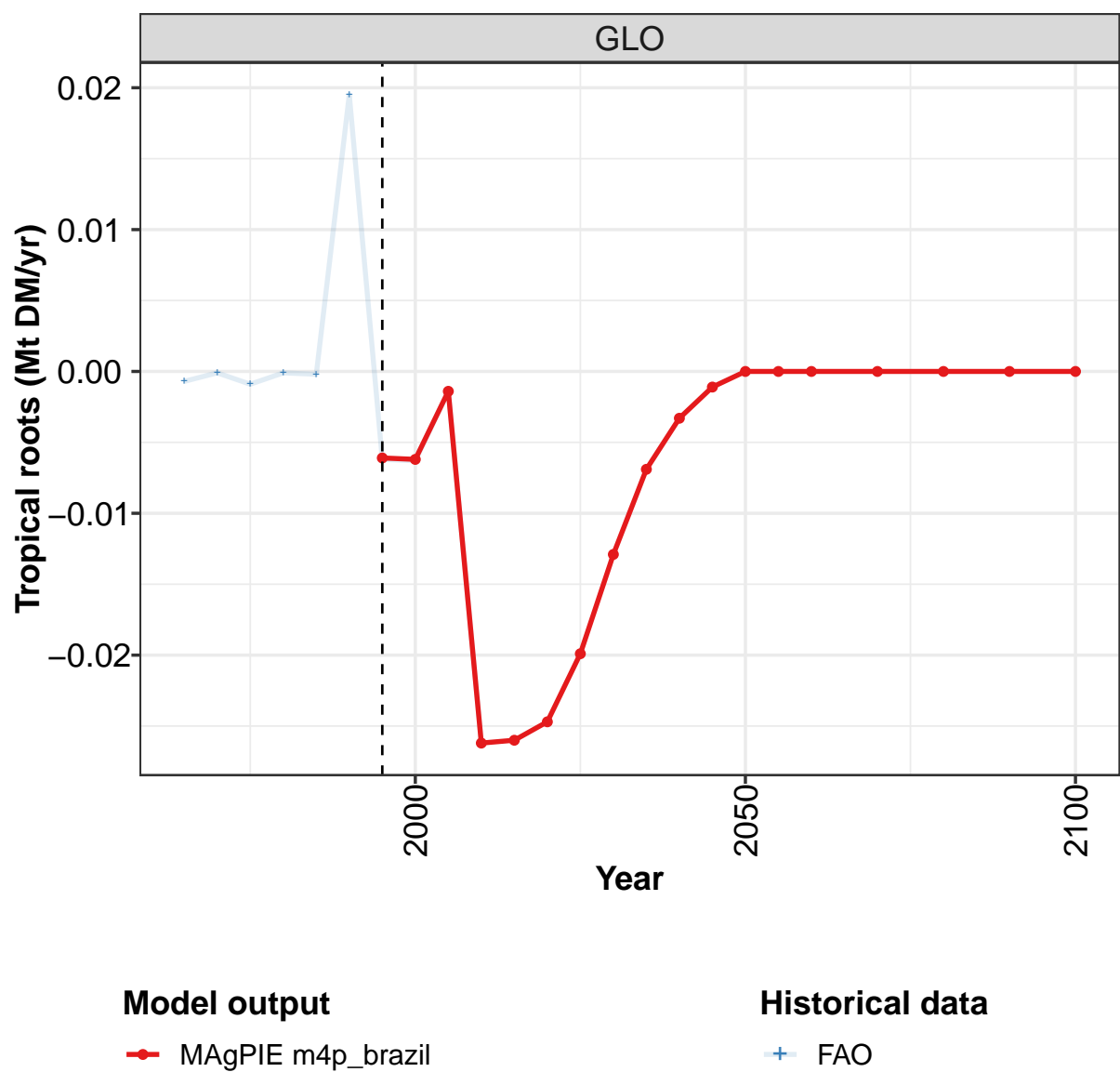
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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.brazil — 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
BRA	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	-0.0003	0.0017	0.0007	0.0001	-0.0020	-0.0161	0.0027	0.0024	0.0035	-0.0001
LAM	0.0005	0.0026	0.0007	0.0005	-0.0193	-0.0003	-0.0014	-0.0021	-0.0005	-0.0040
ROW	0.0184	0.0356	0.0061	0.0049	0.0083	0.0285	-0.0042	-0.0116	-0.0117	-0.0213
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



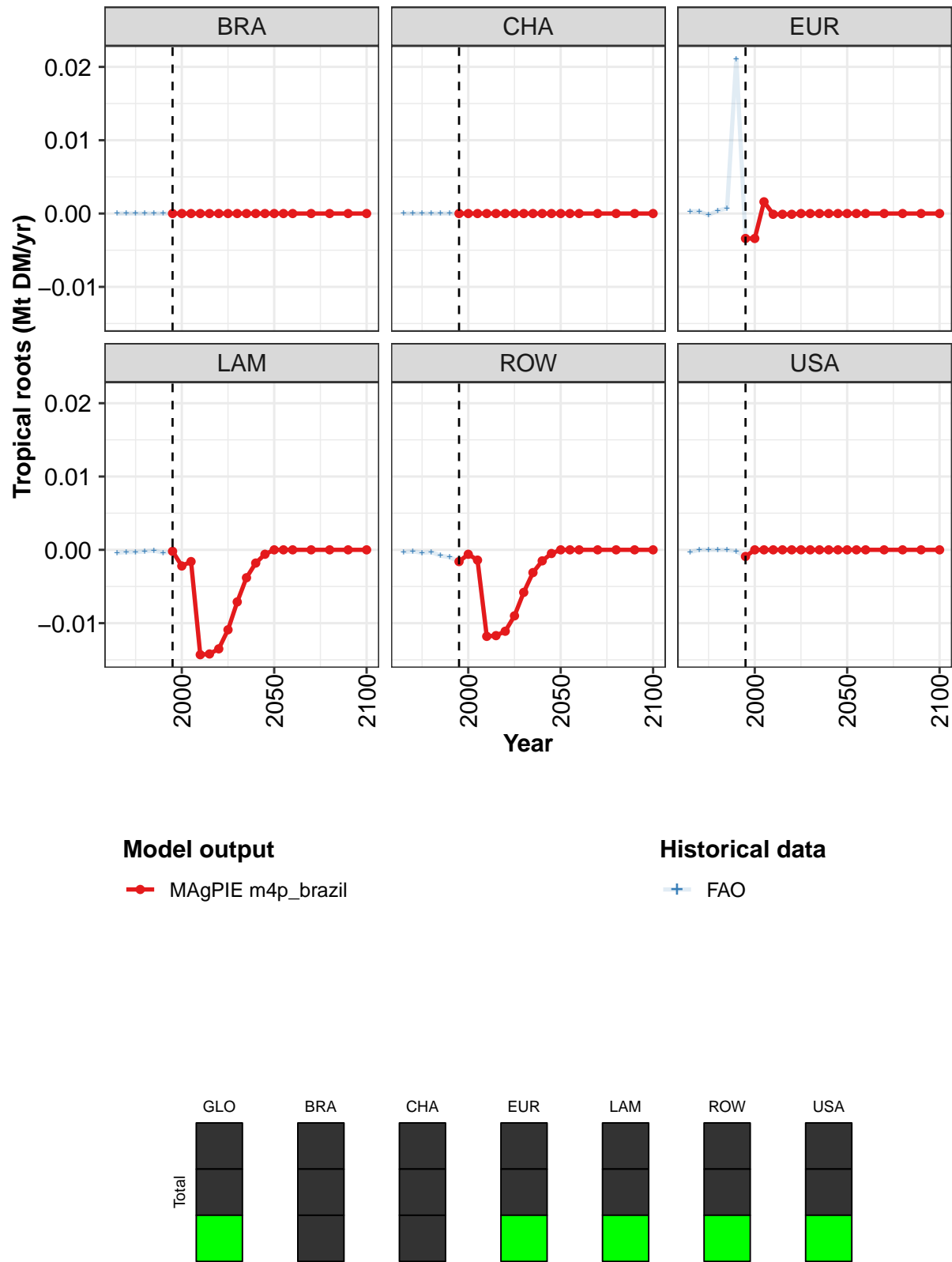


Figure 61: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	
GLO	-0.00610	-0.00620	-0.00140	-0.02620	-0.02600	-0.02470	-0.01990	-0.01290	-0.00690	-0.00330	-0.00000
BRA	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	-0.00340	0.00160	-0.00010	-0.00010	-0.00010	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
ROW	-0.00160	-0.00060	-0.00140	-0.01180	-0.01170	-0.01110	-0.00900	-0.00580	-0.00310	-0.00150	-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_brazil — Demand—Domestic Balanceflow—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 1/2]

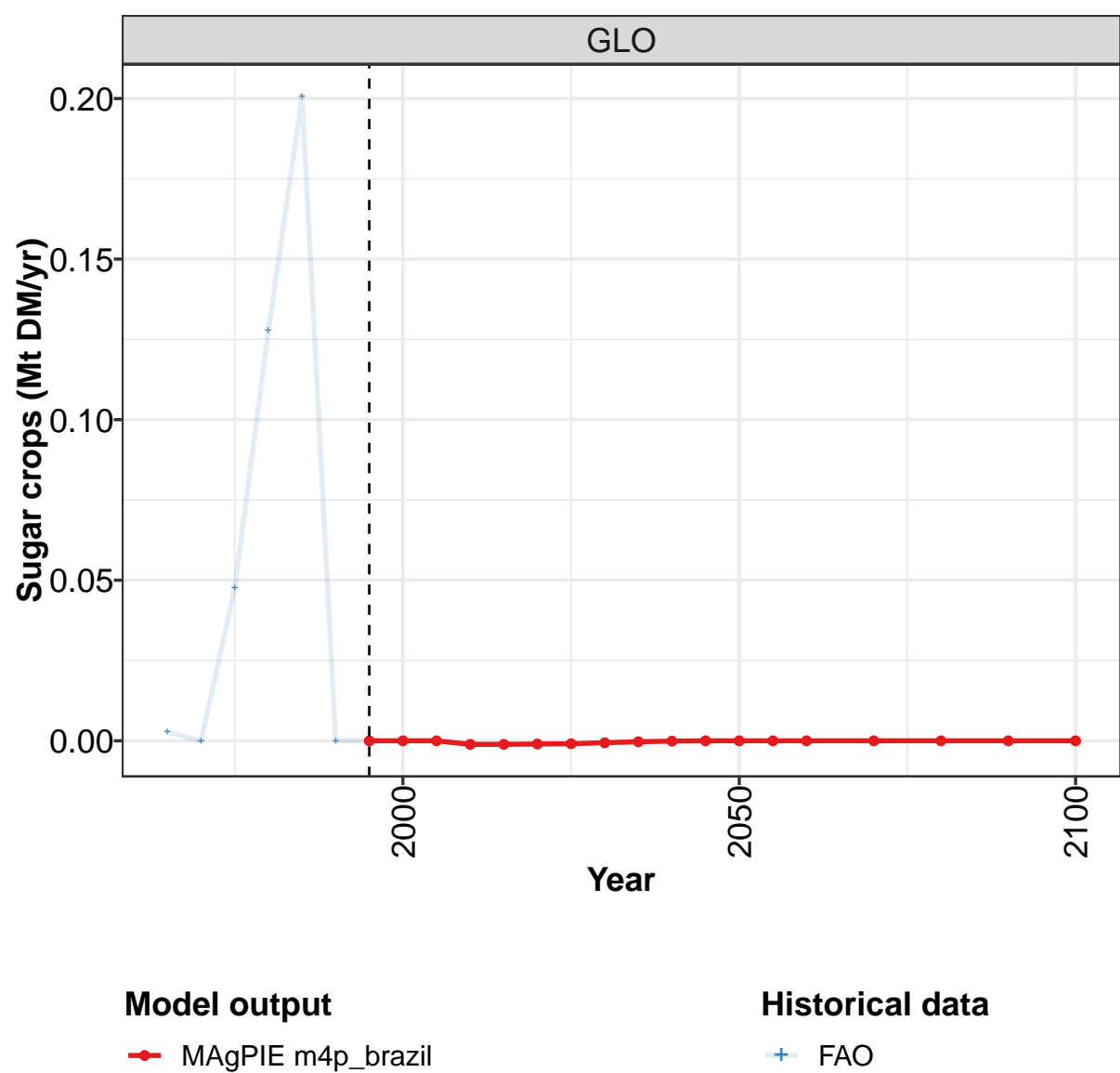
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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_brazil — 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
BRA	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	0.0003	0.0003	-0.0002	0.0004	0.0007	0.0211	-0.0034	-0.0034	0.0016	-0.0001
LAM	-0.0004	-0.0003	-0.0003	-0.0002	-0.0001	-0.0004	-0.0002	-0.0022	-0.0016	-0.0143
ROW	-0.0003	-0.0002	-0.0004	-0.0003	-0.0008	-0.0010	-0.0016	-0.0006	-0.0014	-0.0118
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



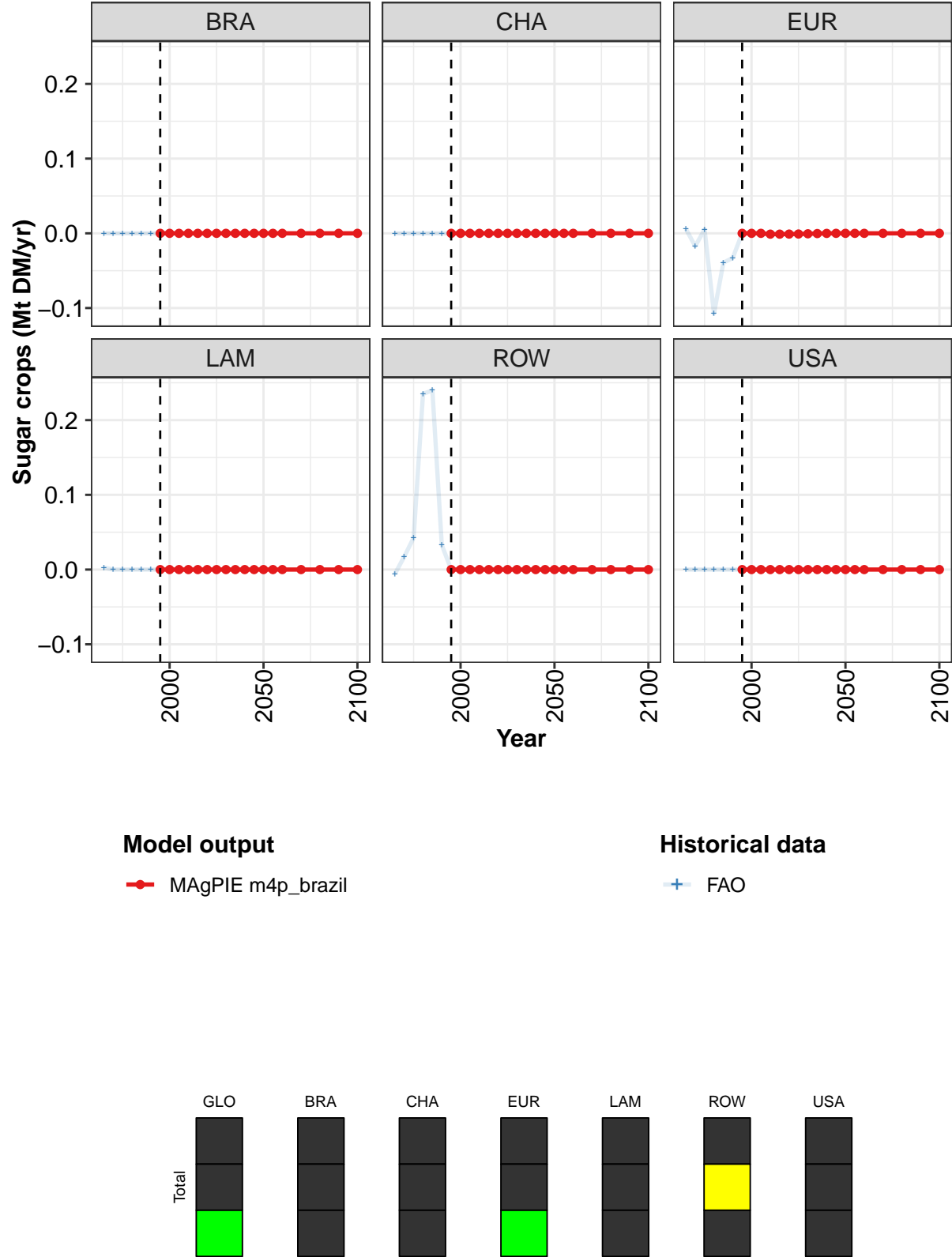


Figure 62: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0	0	0	-0	-0	-0	-0	-0	-0	-0	0
BRA	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
LAM	0	0	0	0	0	0	0	0	0	0	0
ROW	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_brazil — Demand—Domestic Balanceflow—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

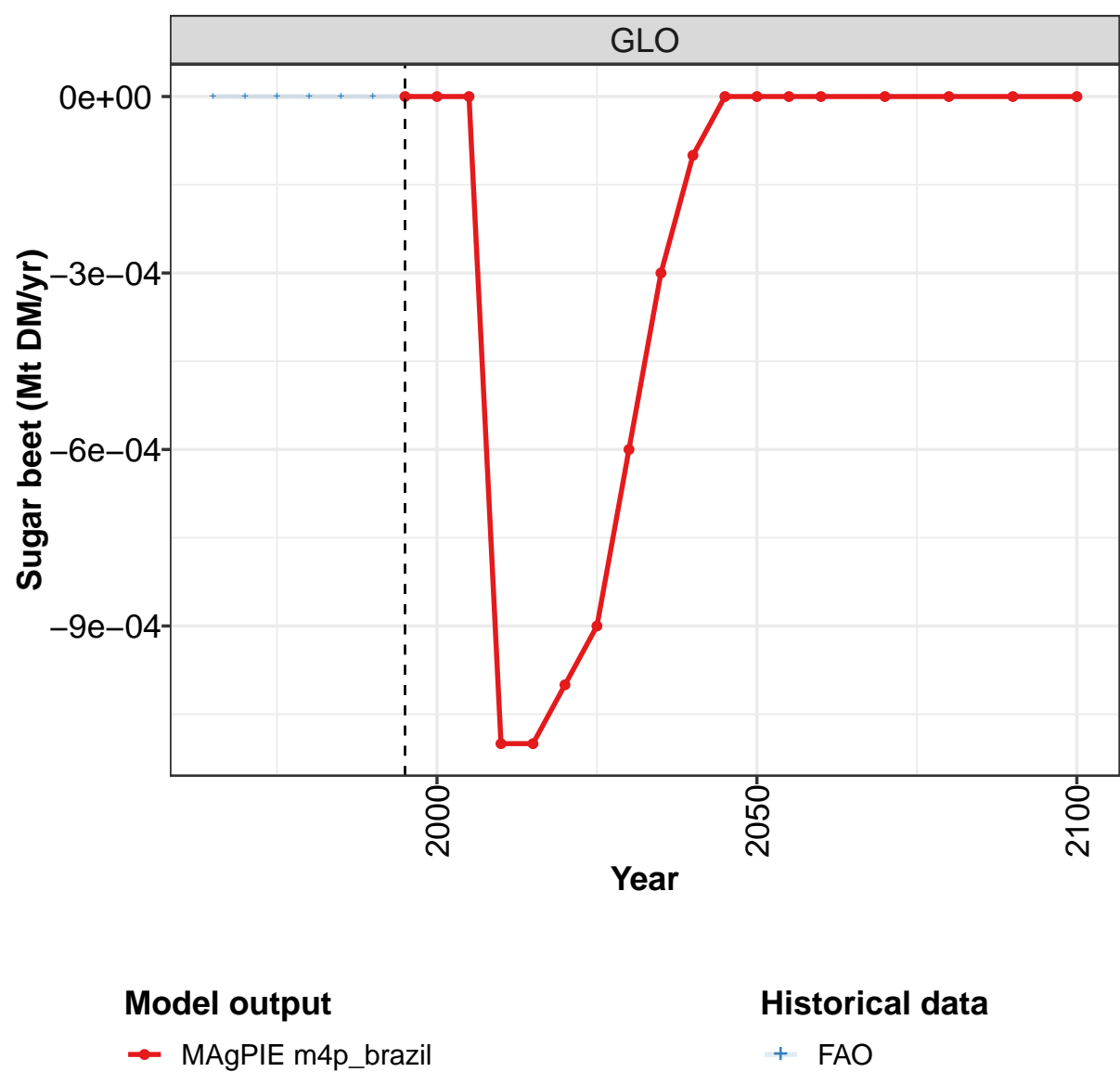
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
BRA	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
ROW	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 186: MAgPIE m4p_brazil — 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
BRA	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	0.006	-0.017	0.005	-0.107	-0.039	-0.033	0.000	0.000	0.000	-0.001
LAM	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	-0.006	0.017	0.043	0.235	0.240	0.033	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



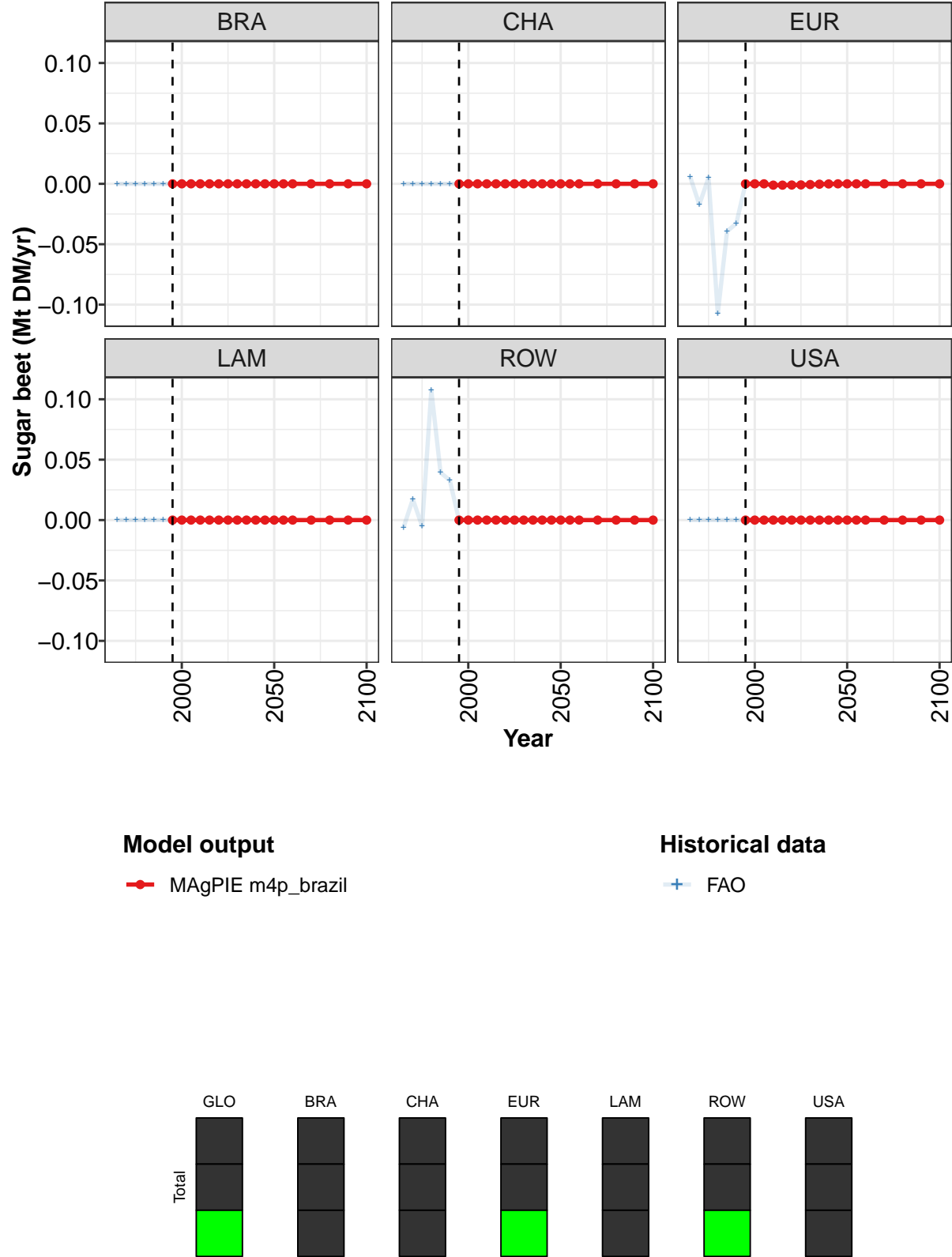


Figure 63: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0	0	0	-0	-0	-0	-0	-0	-0	-0	0
BRA	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
LAM	0	0	0	0	0	0	0	0	0	0	0
ROW	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_brazil — Demand—Domestic Balanceflow—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

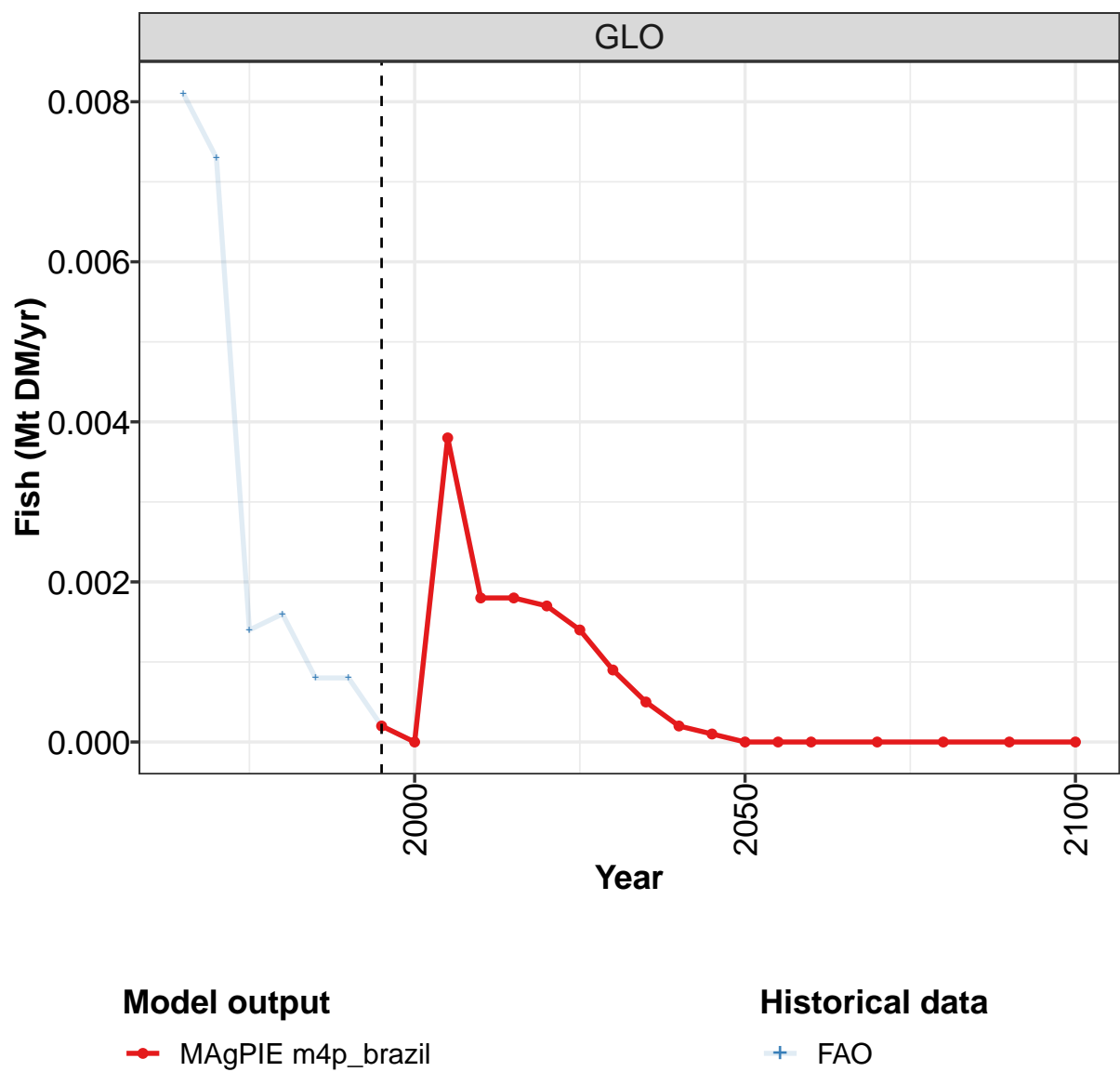
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
BRA	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
ROW	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 189: MAgPIE m4p_brazil — 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
BRA	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	0.006	-0.017	0.005	-0.107	-0.039	-0.033	0.000	0.000	0.000	-0.001
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	-0.006	0.017	-0.005	0.107	0.039	0.033	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



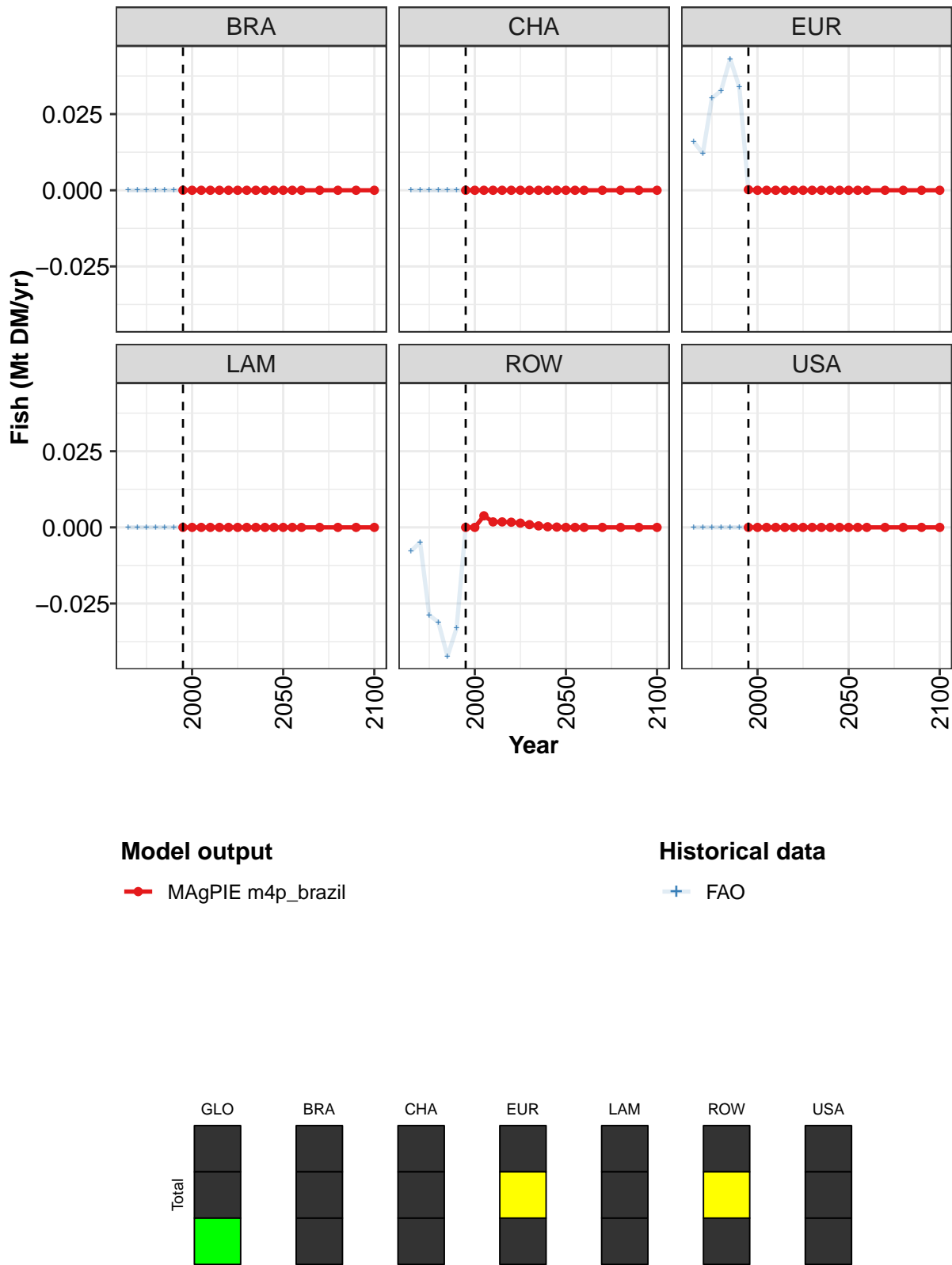


Figure 64: MAGPIE m4p_brazil — Demand—Domestic Balanceflow—Fish (Mt DM/yr)

	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
BRA	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
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	0.00000	0.00000	0.00380	0.00180	0.00180	0.00170	0.00140	0.00090	0.00050	0.00020	0.00010
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

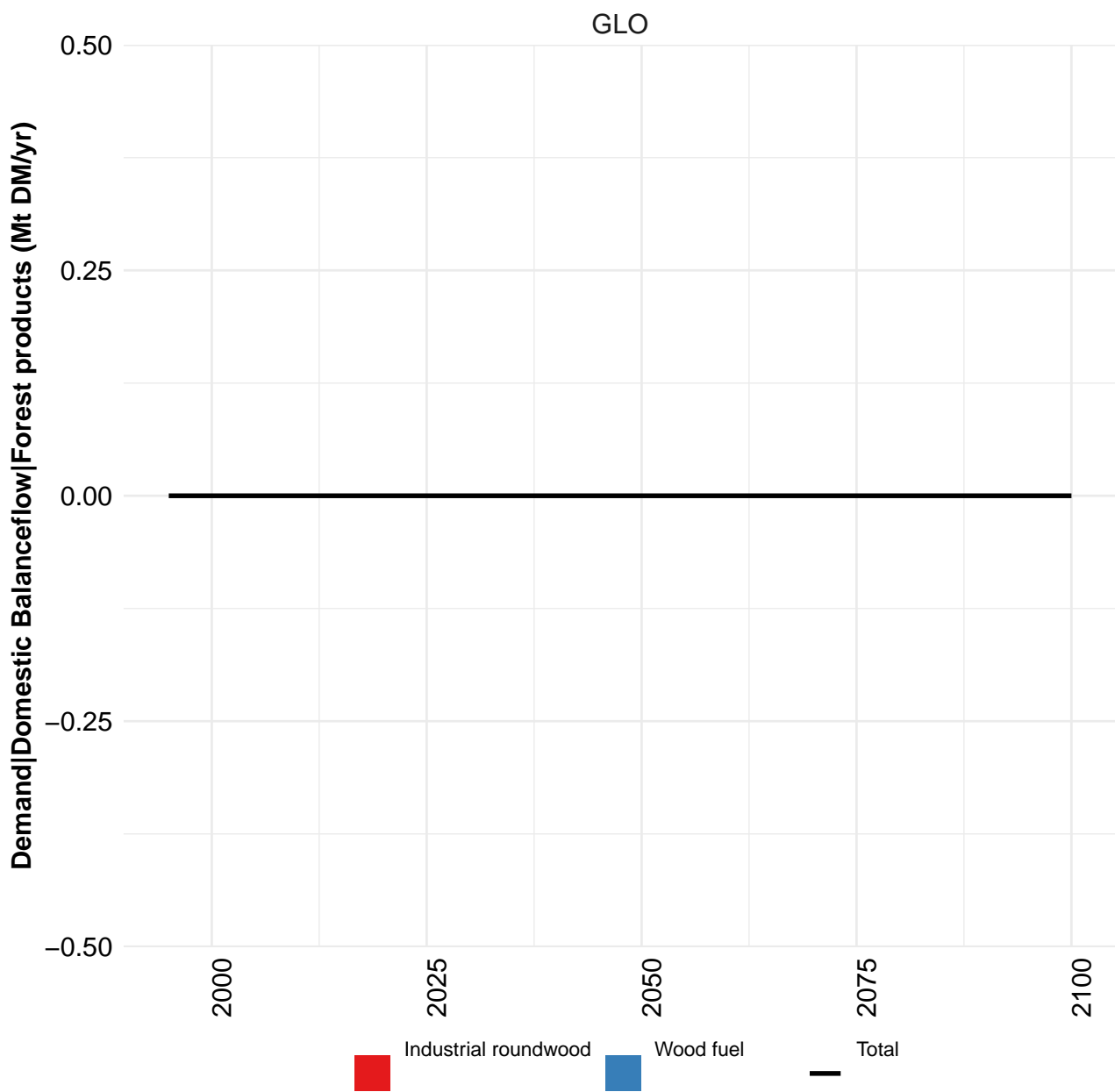
Table 191: MAgPIE m4p.brazil — Demand—Domestic Balanceflow—Fish (Mt DM/yr) [PART 1/2]

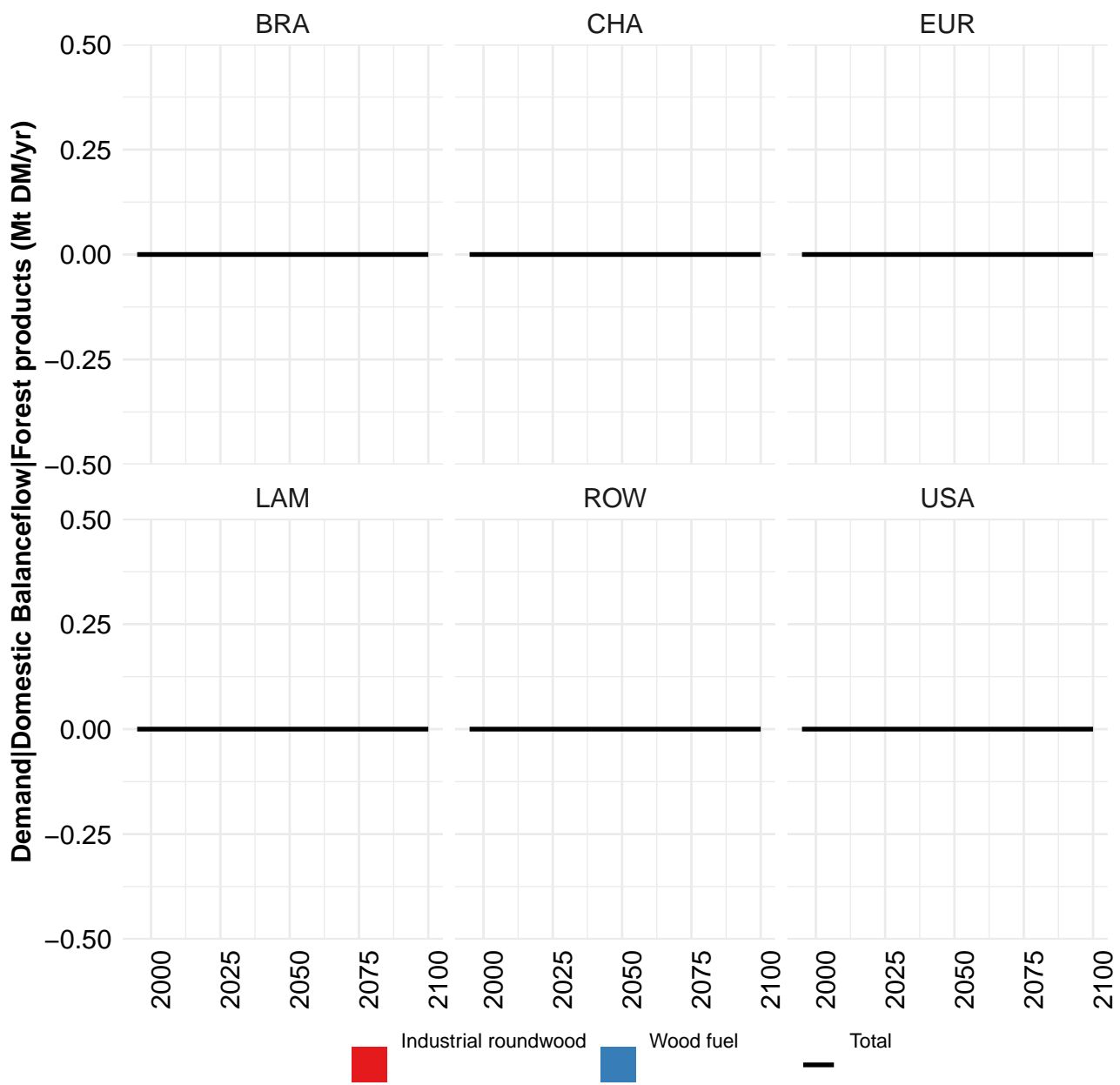
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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

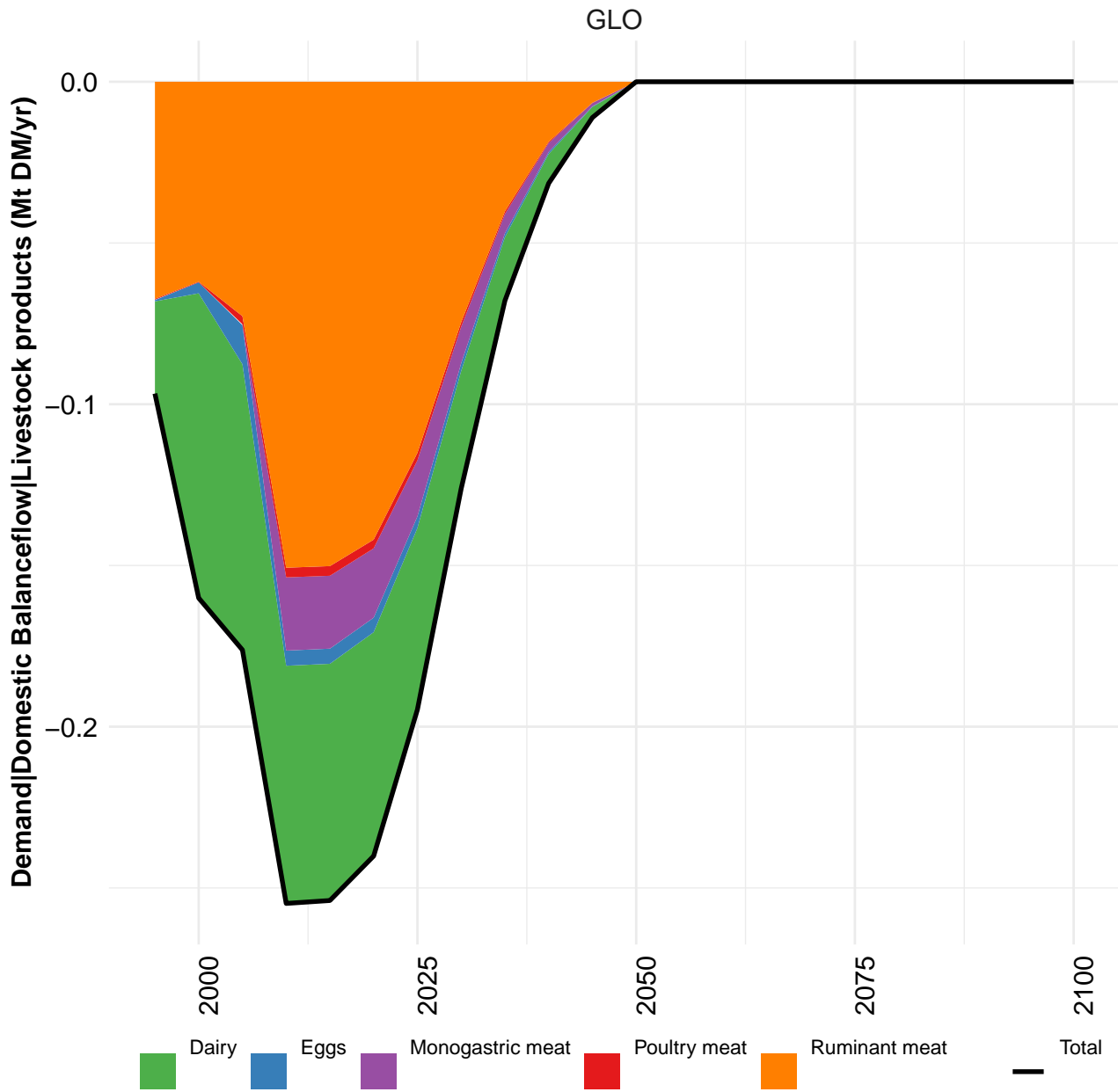
Table 192: MAgPIE m4p.brazil — Demand—Domestic Balanceflow—Fish (Mt DM/yr) [PART 2/2]

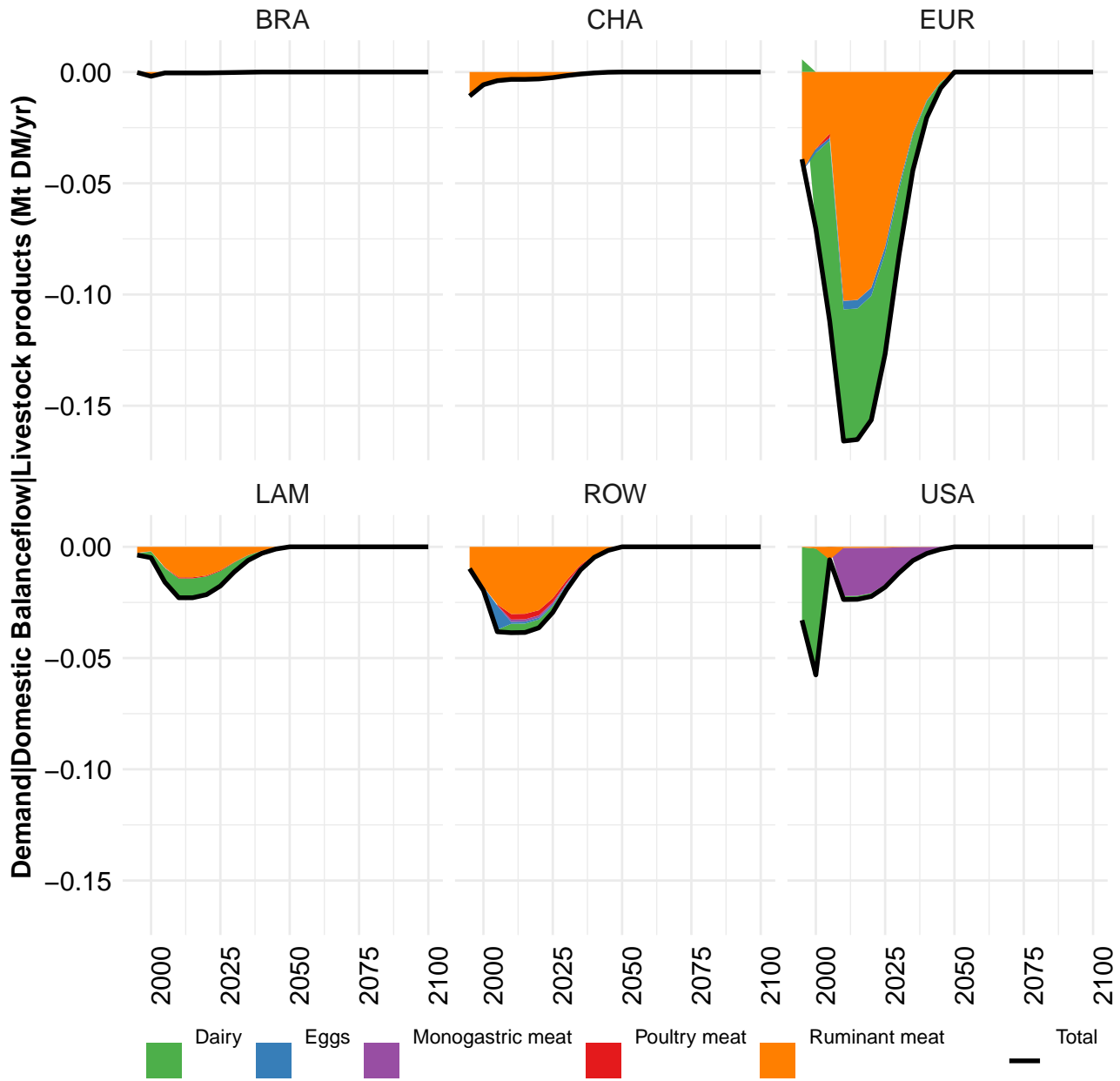
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0081	0.0073	0.0014	0.0016	0.0008	0.0008	0.0002	0.0000	0.0038	0.0018
BRA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0159	0.0121	0.0302	0.0327	0.0431	0.0339	0.0002	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
ROW	-0.0078	-0.0049	-0.0288	-0.0311	-0.0423	-0.0331	0.0000	0.0000	0.0038	0.0018
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)

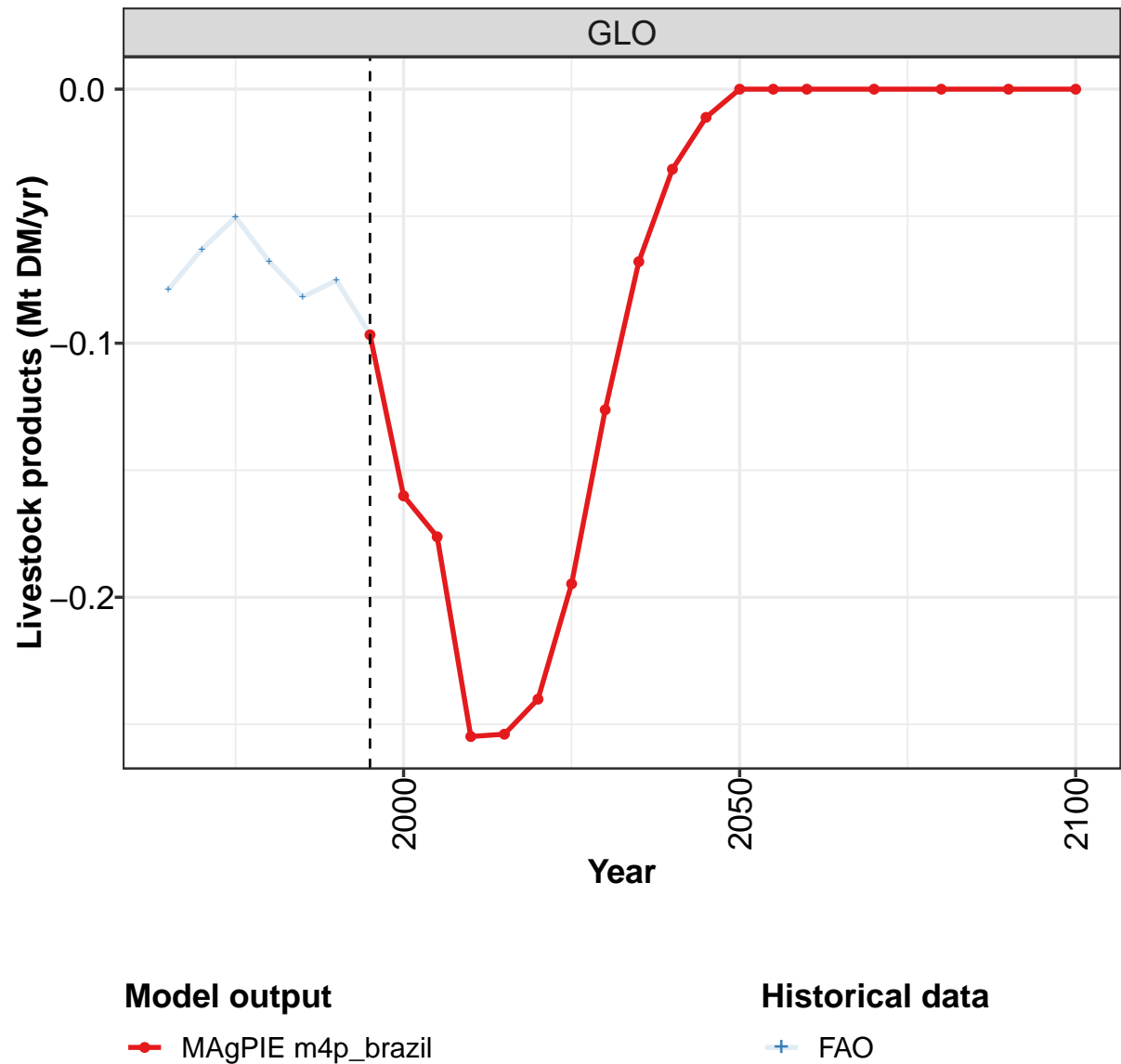








5.3 Livestock products



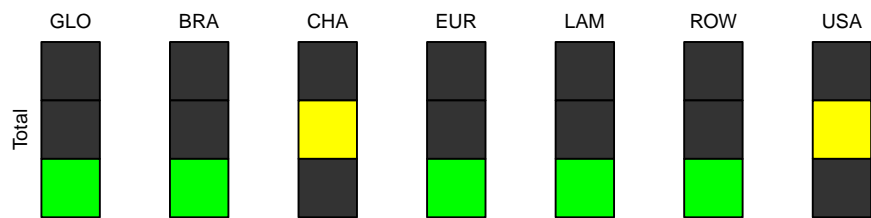
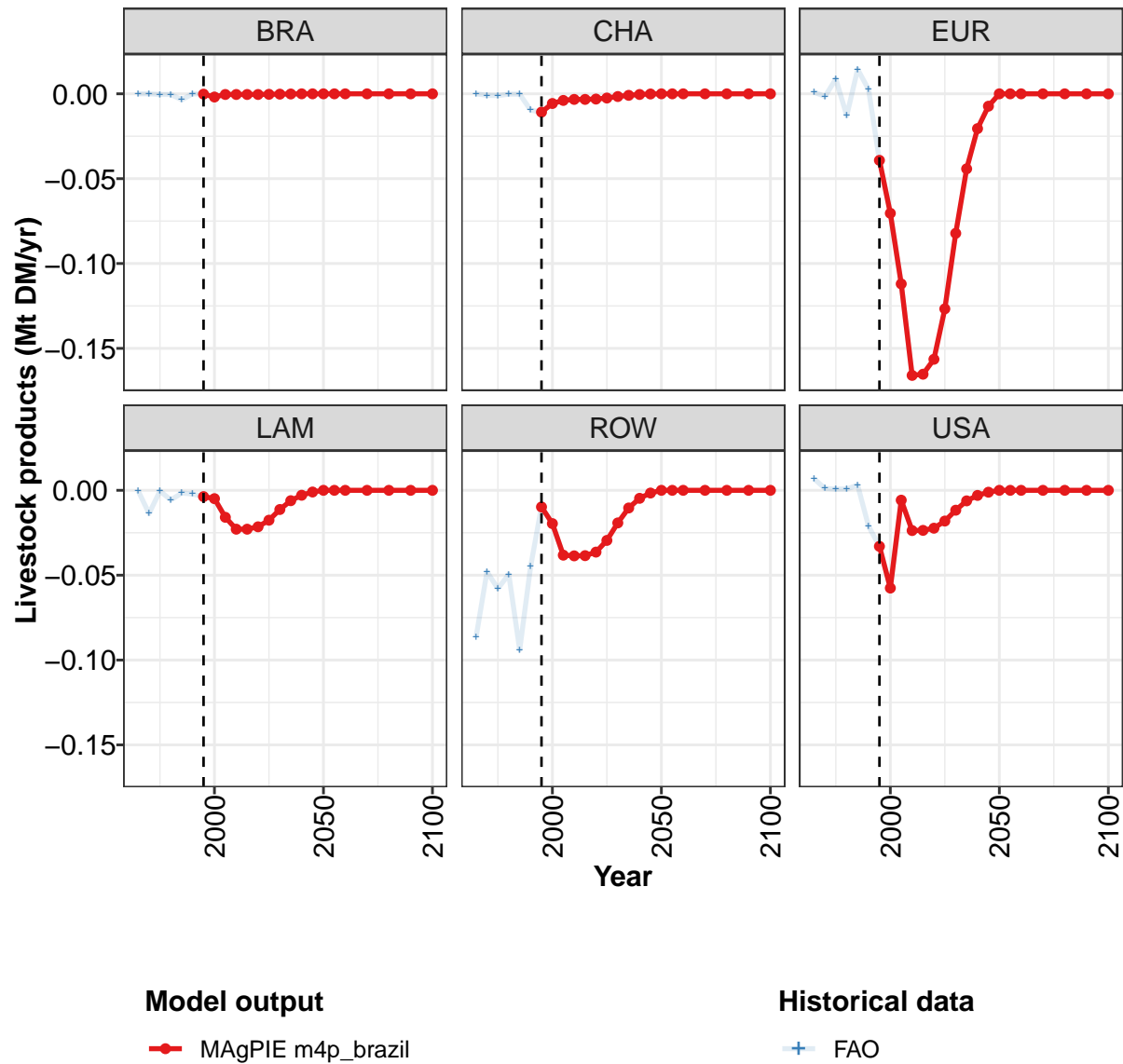


Figure 65: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Livestock products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
BRA	-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
LAM	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
ROW	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
USA	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0

Table 194: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Livestock products (Mt DM/yr) [PART 1/2]

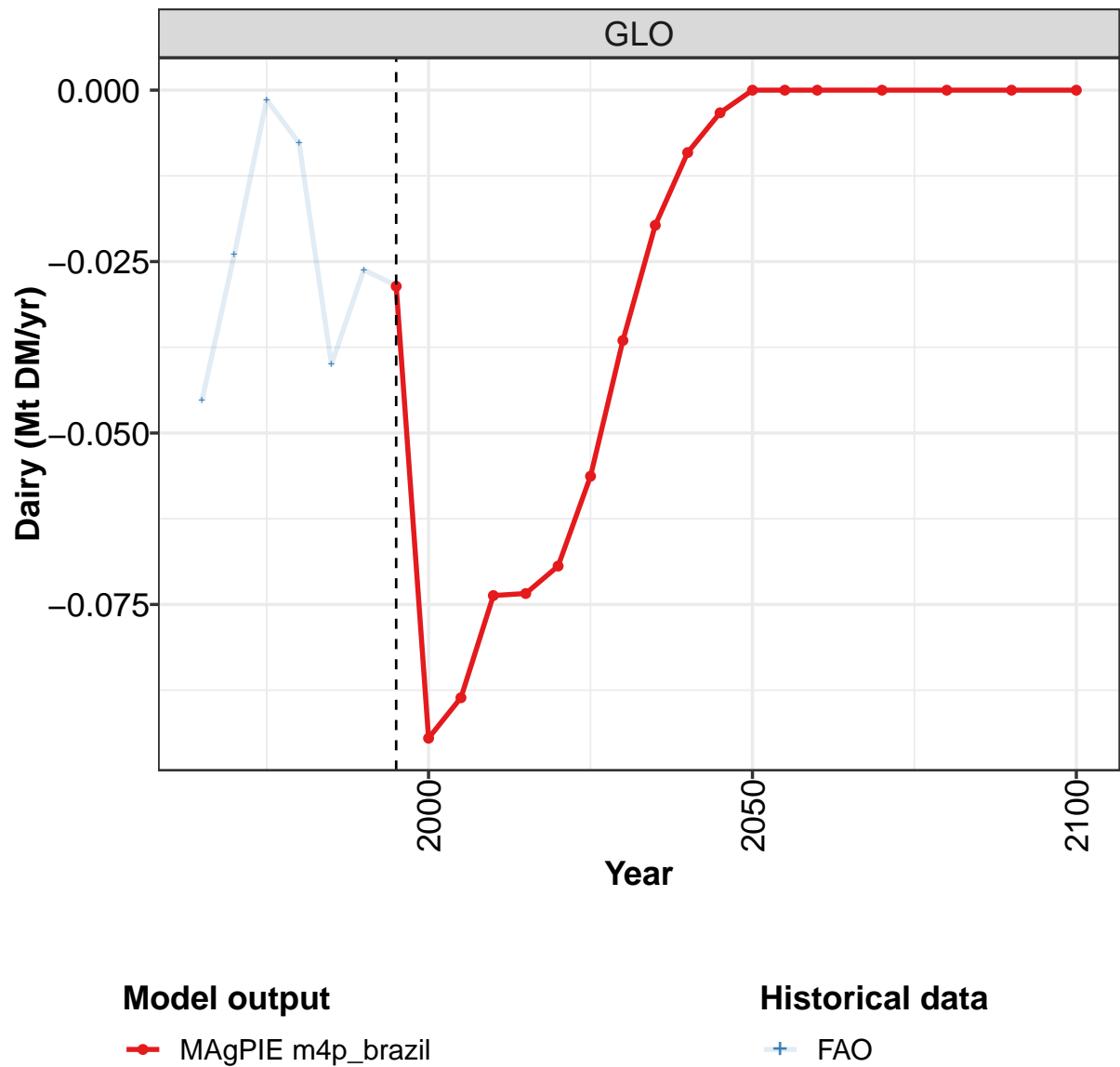
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
BRA	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
ROW	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 195: MAgPIE m4p_brazil — 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
BRA	0.0000	0.0000	-0.0004	-0.0004	-0.0035	0.0000	-0.0002	-0.0019	-0.0004	-0.0004
CHA	0.0000	-0.0009	-0.0011	-0.0002	-0.0002	-0.0096	-0.0108	-0.0057	-0.0038	-0.0033
EUR	0.0010	-0.0016	0.0087	-0.0129	0.0144	0.0026	-0.0393	-0.0703	-0.1120	-0.1658
LAM	-0.0003	-0.0137	-0.0004	-0.0057	-0.0016	-0.0022	-0.0037	-0.0049	-0.0159	-0.0230
ROW	-0.0864	-0.0480	-0.0579	-0.0495	-0.0940	-0.0449	-0.0097	-0.0196	-0.0383	-0.0386
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



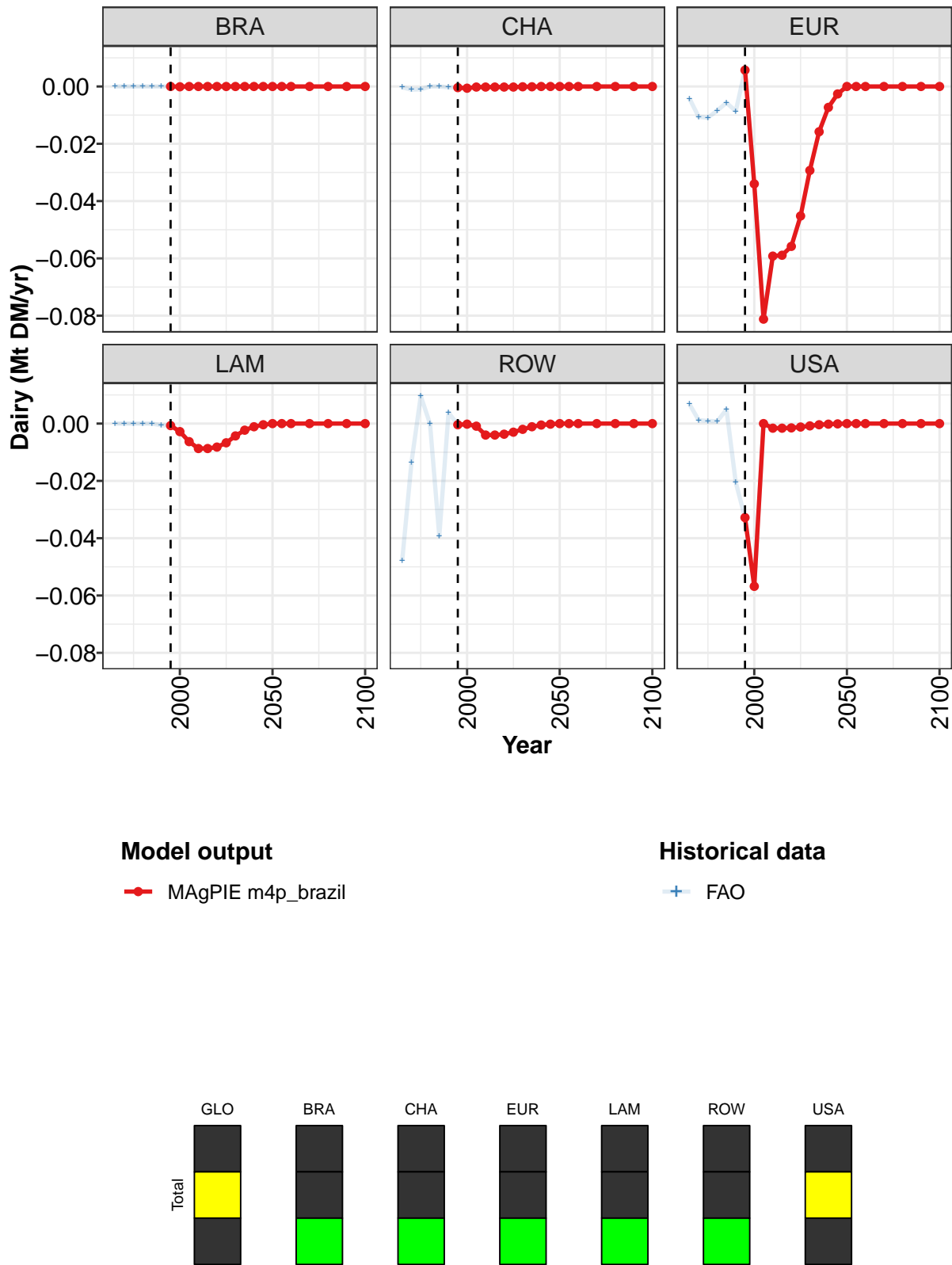


Figure 66: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Livestock products—Dairy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	
GLO	-0.02860	-0.09450	-0.08860	-0.07370	-0.07340	-0.06940	-0.05630	-0.03650	-0.01970	-0.00910	-0.00000
BRA	0.00000	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	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	0.00570	-0.03400	-0.08120	-0.05920	-0.05890	-0.05580	-0.04520	-0.02930	-0.01580	-0.00730	-0.00000
LAM	-0.00070	-0.00280	-0.00630	-0.00870	-0.00870	-0.00820	-0.00670	-0.00430	-0.00230	-0.00110	-0.00000
ROW	-0.00040	-0.00020	-0.00090	-0.00400	-0.00400	-0.00370	-0.00300	-0.00200	-0.00110	-0.00050	-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_brazil — Demand—Domestic Balanceflow—Livestock products—Dairy (Mt DM/yr)
[PART 1/2]

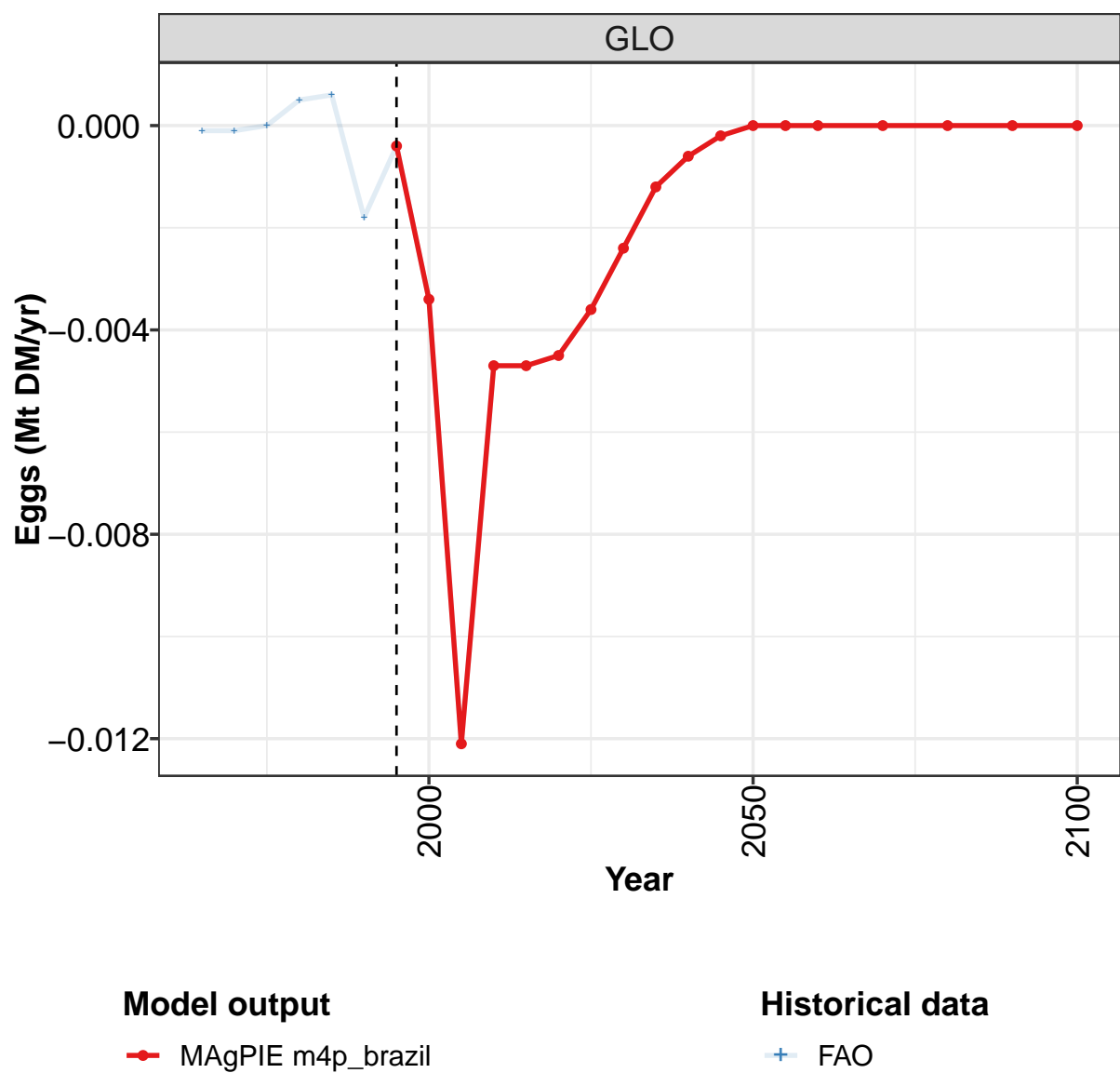
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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_brazil — Demand—Domestic Balanceflow—Livestock products—Dairy (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-0.04530	-0.02400	-0.00140	-0.00770	-0.04000	-0.02620	-0.02850	-0.09440	-0.08850	-0.07370
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00010	0.00000	0.00000
CHA	-0.00030	-0.00110	-0.00100	0.00000	0.00000	-0.00030	-0.00040	-0.00060	-0.00020	-0.00020
EUR	-0.00420	-0.01060	-0.01090	-0.00840	-0.00570	-0.00860	0.00570	-0.03400	-0.08120	-0.05920
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	-0.00060	-0.00070	-0.00280	-0.00630	-0.00870
ROW	-0.04770	-0.01350	0.00960	-0.00010	-0.03920	0.00380	-0.00040	-0.00020	-0.00090	-0.00400
USA	0.00680	0.00120	0.00090	0.00080	0.00490	-0.02050	-0.03280	-0.05680	0.00000	-0.00160

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

5.3.2 Eggs



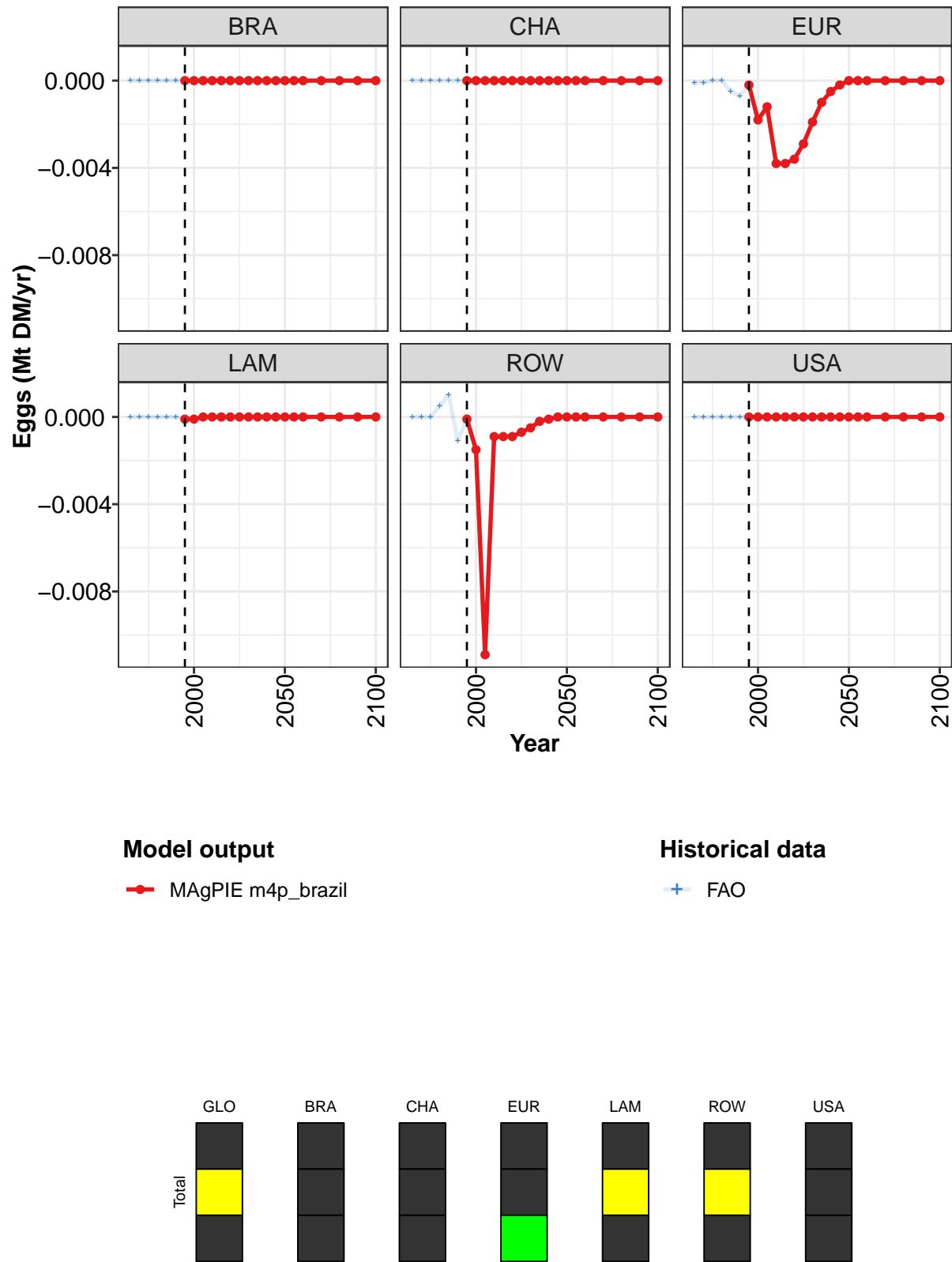


Figure 67: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Livestock products—Eggs (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
BRA	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
LAM	-0	-0	0	0	0	0	0	0	0	0	0
ROW	-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_brazil — Demand—Domestic Balanceflow—Livestock products—Eggs (Mt DM/yr)
[PART 1/2]

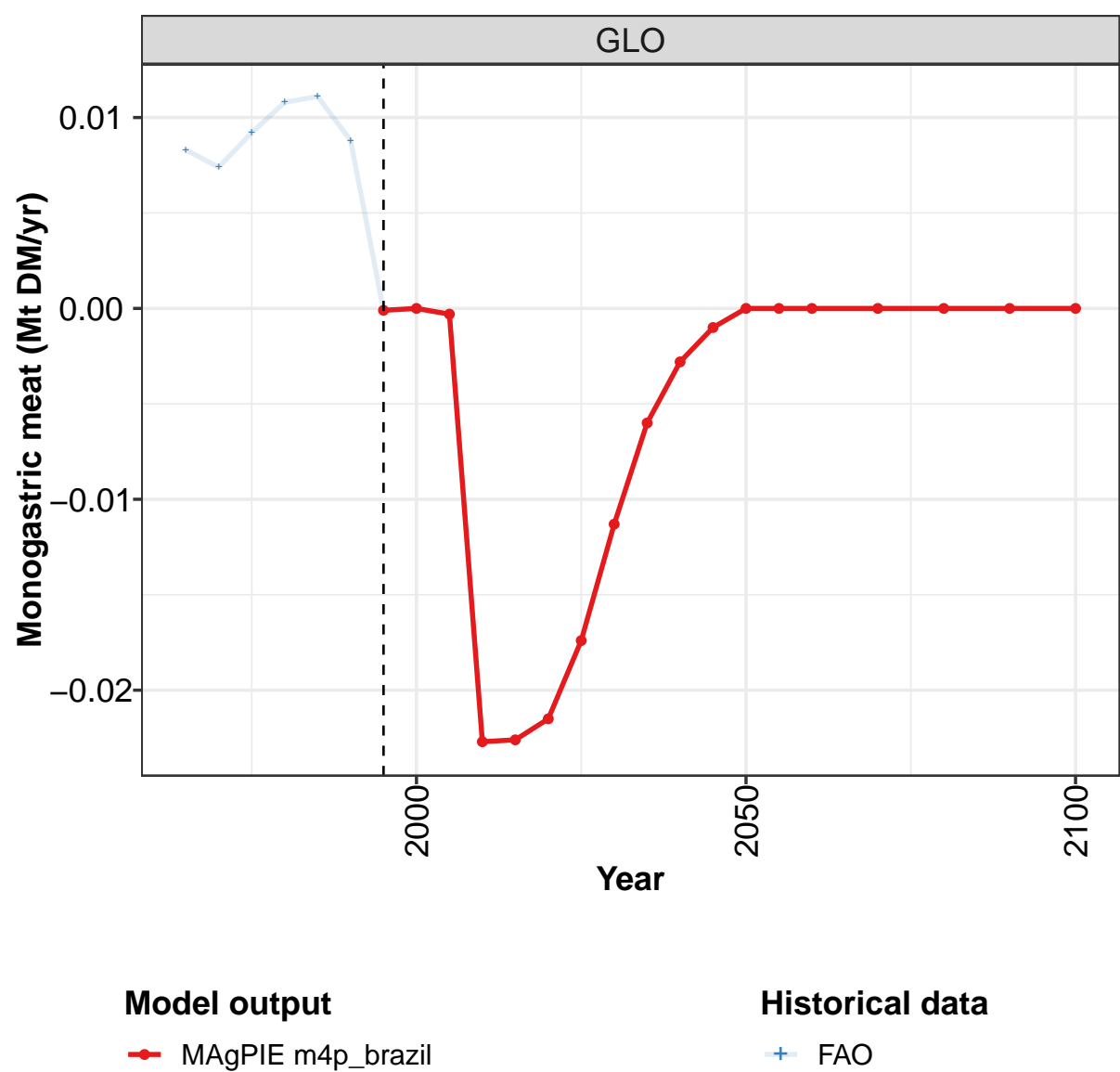
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
BRA	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
ROW	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 201: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Livestock products—Eggs (Mt DM/yr)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2
GLO	-0.000100	-0.000100	0.000000	0.000500	0.000600	-0.001800	-0.000400	-0.003400	-0.012100	-0.004
BRA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000
CHA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000
EUR	-0.000100	-0.000100	0.000000	0.000000	-0.000500	-0.000700	-0.000200	-0.001800	-0.001200	-0.003
LAM	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.000100	-0.000100	0.000000	0.000
ROW	0.000000	0.000000	0.000000	0.000500	0.001000	-0.001100	-0.000100	-0.001500	-0.010900	-0.000
USA	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000

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

5.3.3 Monogastric meat



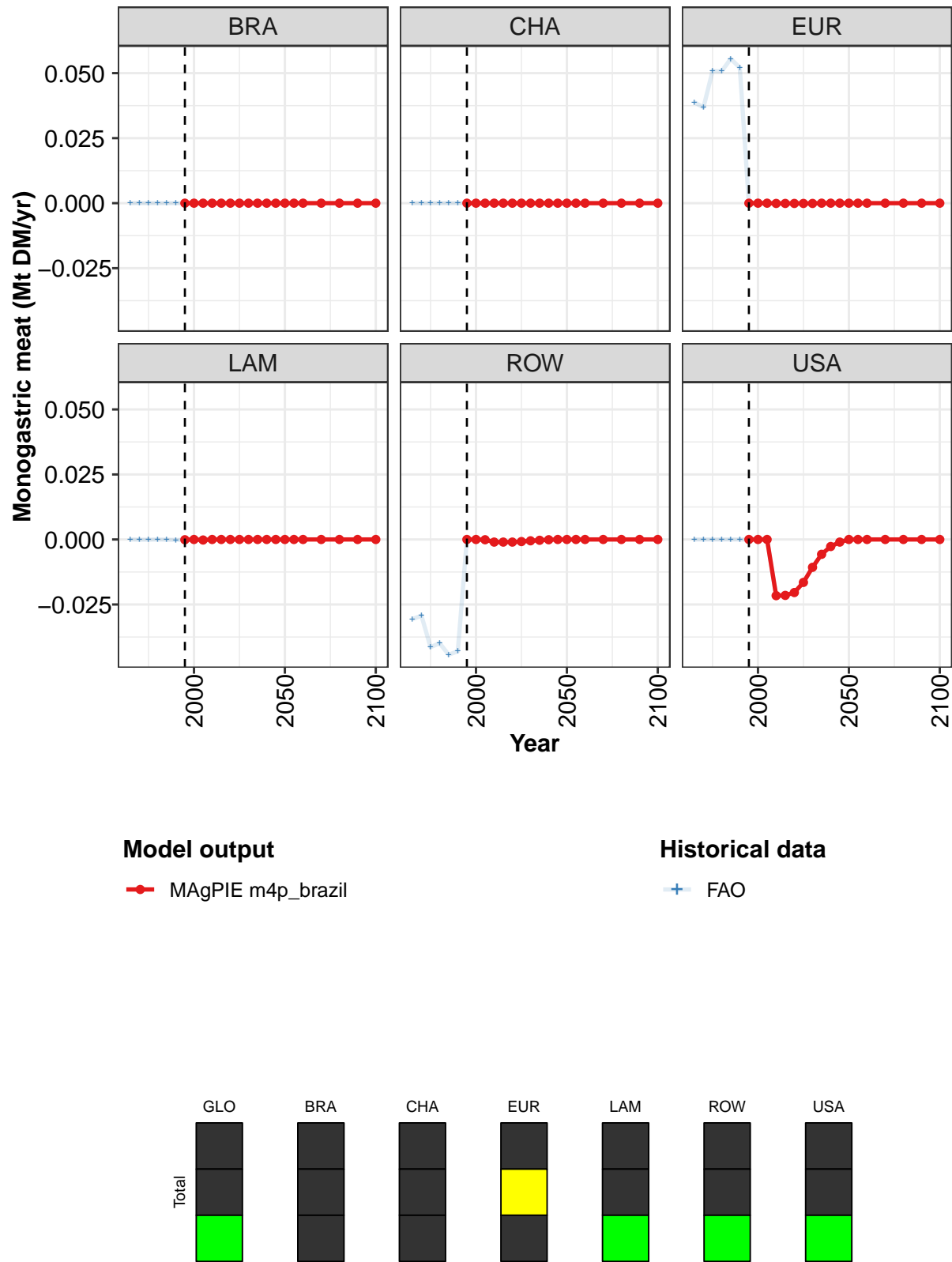


Figure 68: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Livestock products—Monogastric meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0	0	-0	-0	-0	-0	-0	-0	-0	-0	-0
BRA	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
LAM	-0	0	-0	0	0	0	0	0	0	0	0
ROW	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_brazil — Demand—Domestic Balanceflow—Livestock products—Monogastric meat (Mt DM/yr) [PART 1/2]

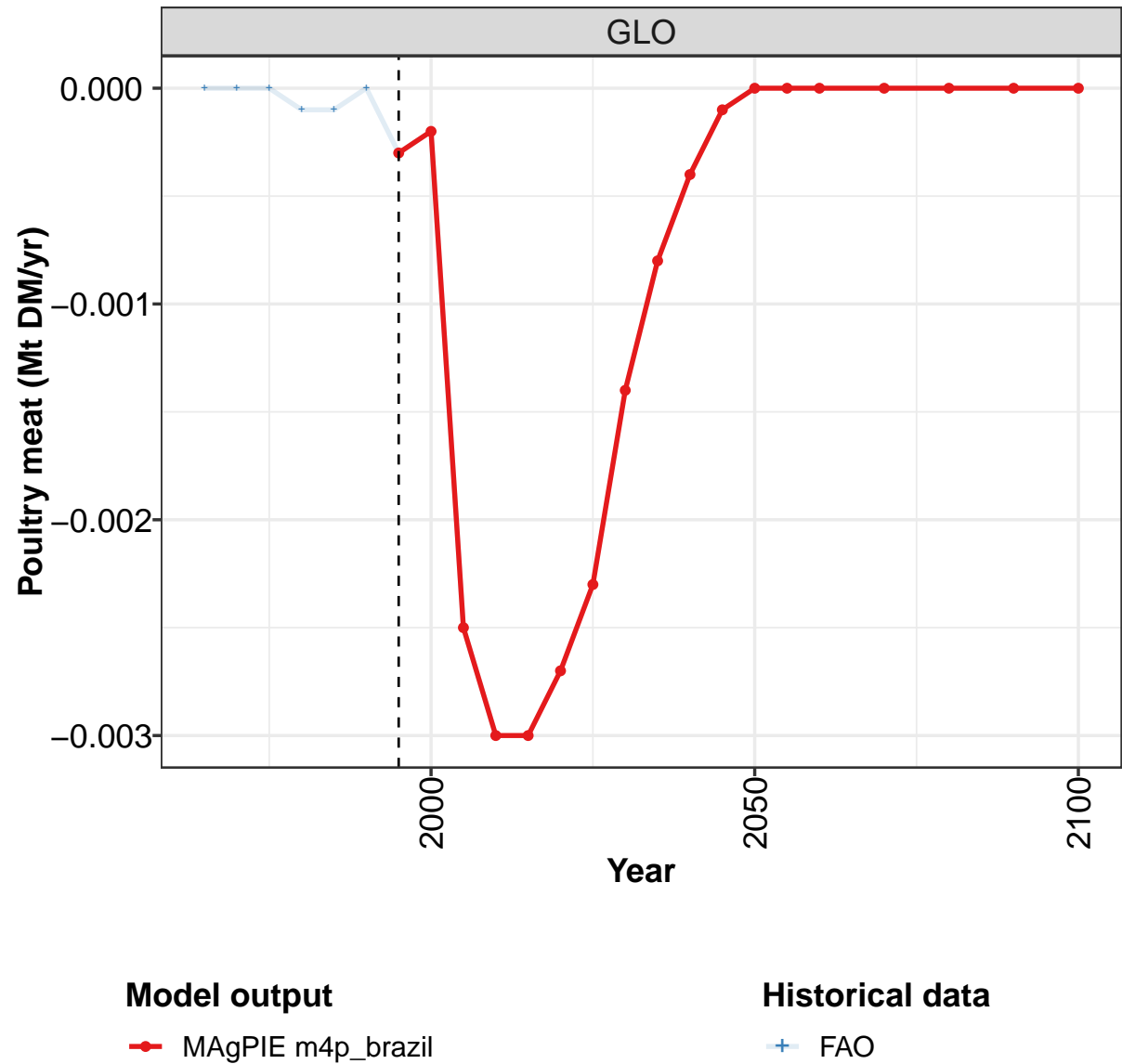
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
BRA	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
ROW	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 204: MAgPIE m4p_brazil — 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
BRA	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	0.0388	0.0368	0.0508	0.0507	0.0555	0.0521	0.0000	0.0000	0.0000	-0.0001
LAM	0.0000	-0.0001	-0.0001	0.0000	-0.0001	-0.0002	-0.0001	0.0000	-0.0002	0.0000
ROW	-0.0306	-0.0293	-0.0414	-0.0399	-0.0443	-0.0430	0.0000	0.0000	-0.0001	-0.0010
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



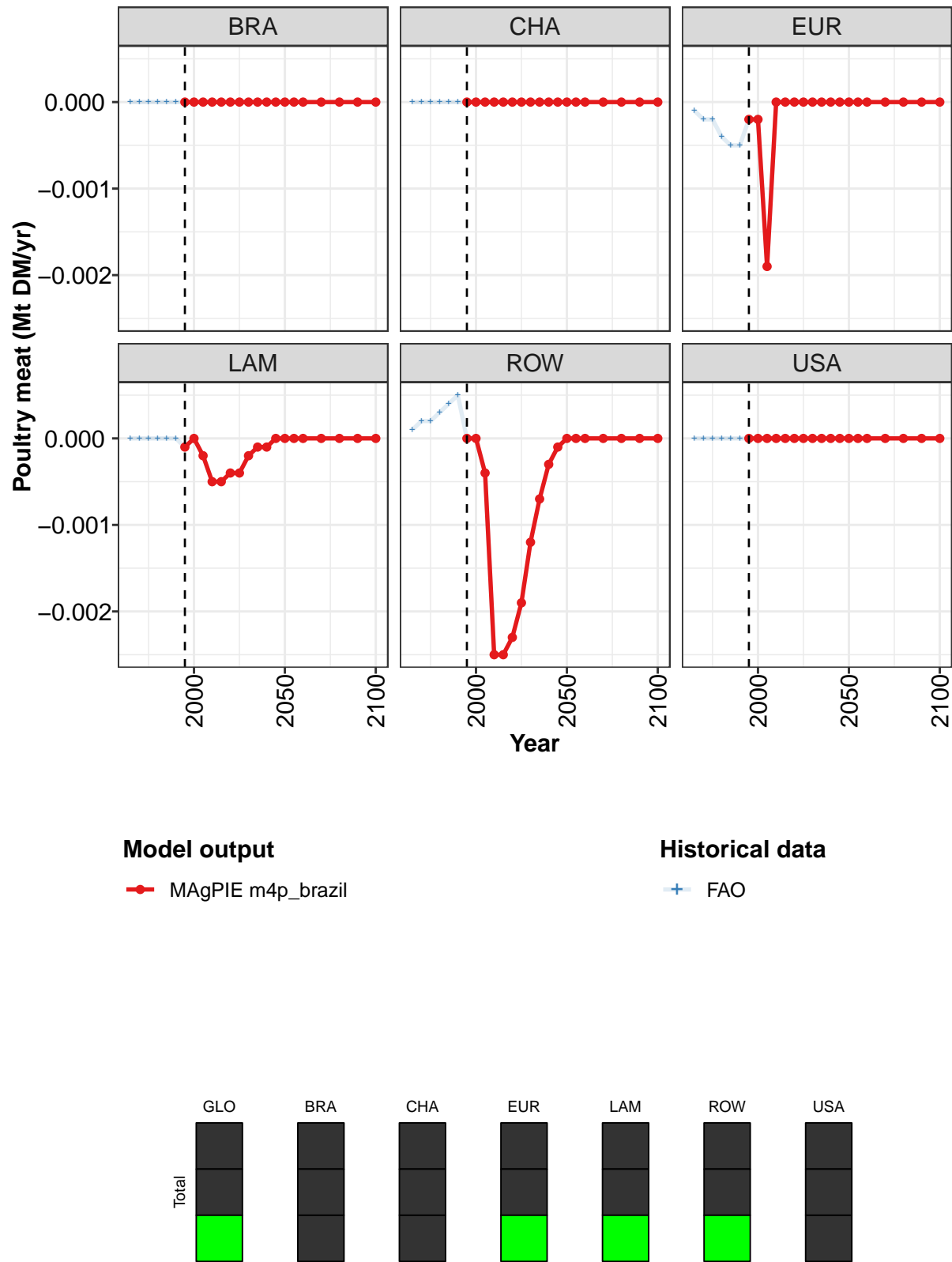


Figure 69: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Livestock products—Poultry meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
BRA	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
LAM	-0	0	-0	-0	-0	-0	-0	-0	-0	-0	0
ROW	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_brazil — Demand—Domestic Balanceflow—Livestock products—Poultry meat (Mt DM/yr) [PART 1/2]

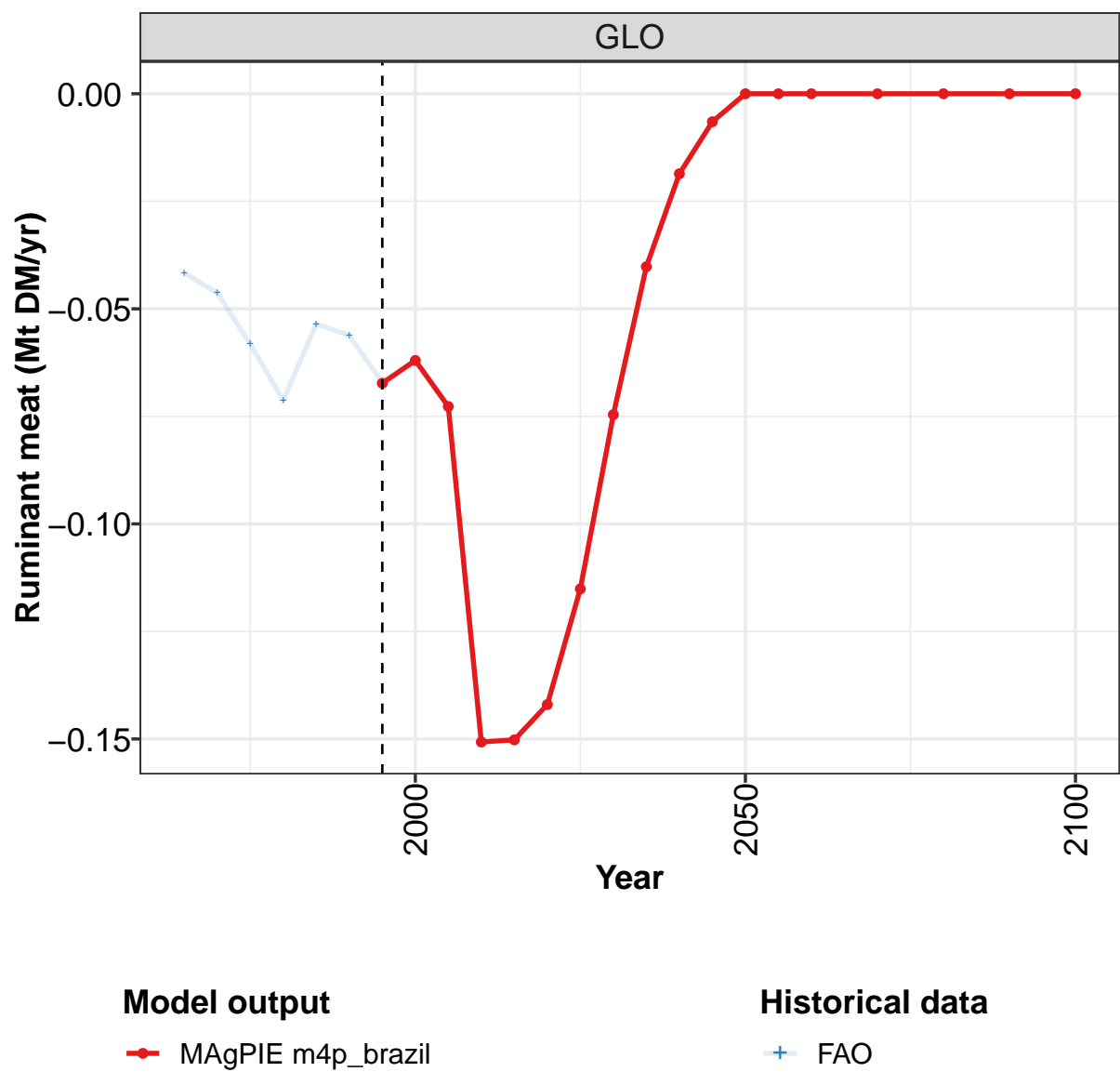
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
BRA	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
ROW	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 207: MAgPIE m4p_brazil — 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
BRA	0.000000	0.000000	0.000000	0.000000	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	-0.000200	-0.000400	-0.000500	-0.000500	-0.000200	-0.000200	-0.001900	0.00
LAM	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.000100	0.000000	-0.000200	-0.00
ROW	0.000100	0.000200	0.000200	0.000300	0.000400	0.000500	0.000000	0.000000	-0.000400	-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



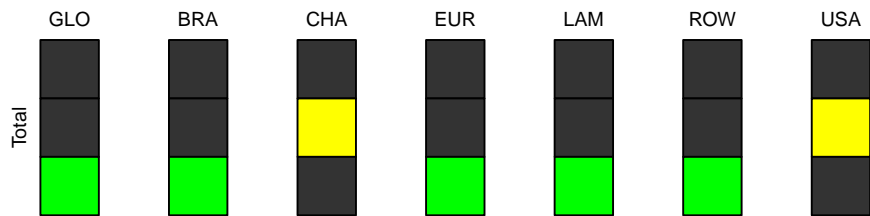
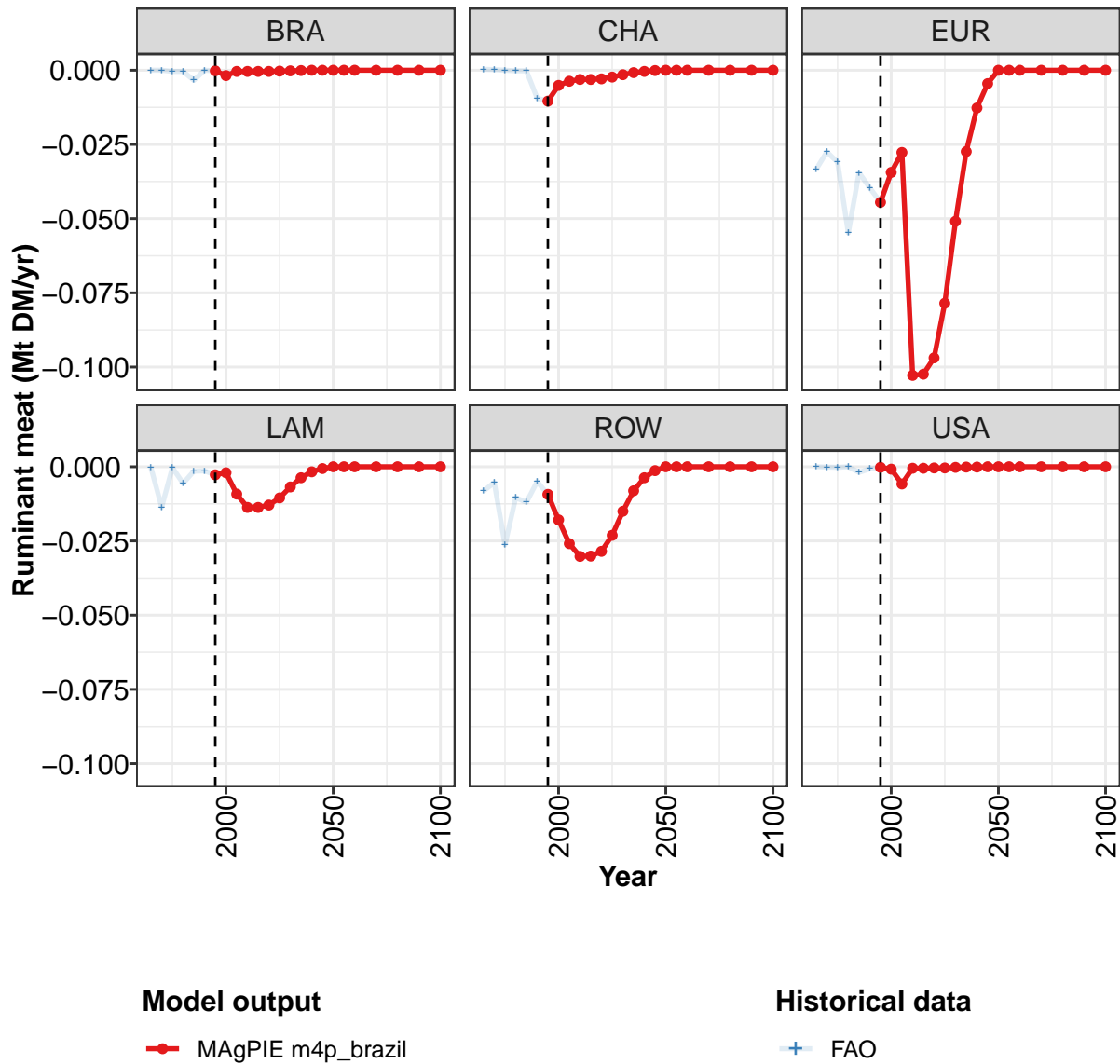


Figure 70: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Livestock products—Ruminant meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
BRA	-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
LAM	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
ROW	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
USA	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	0

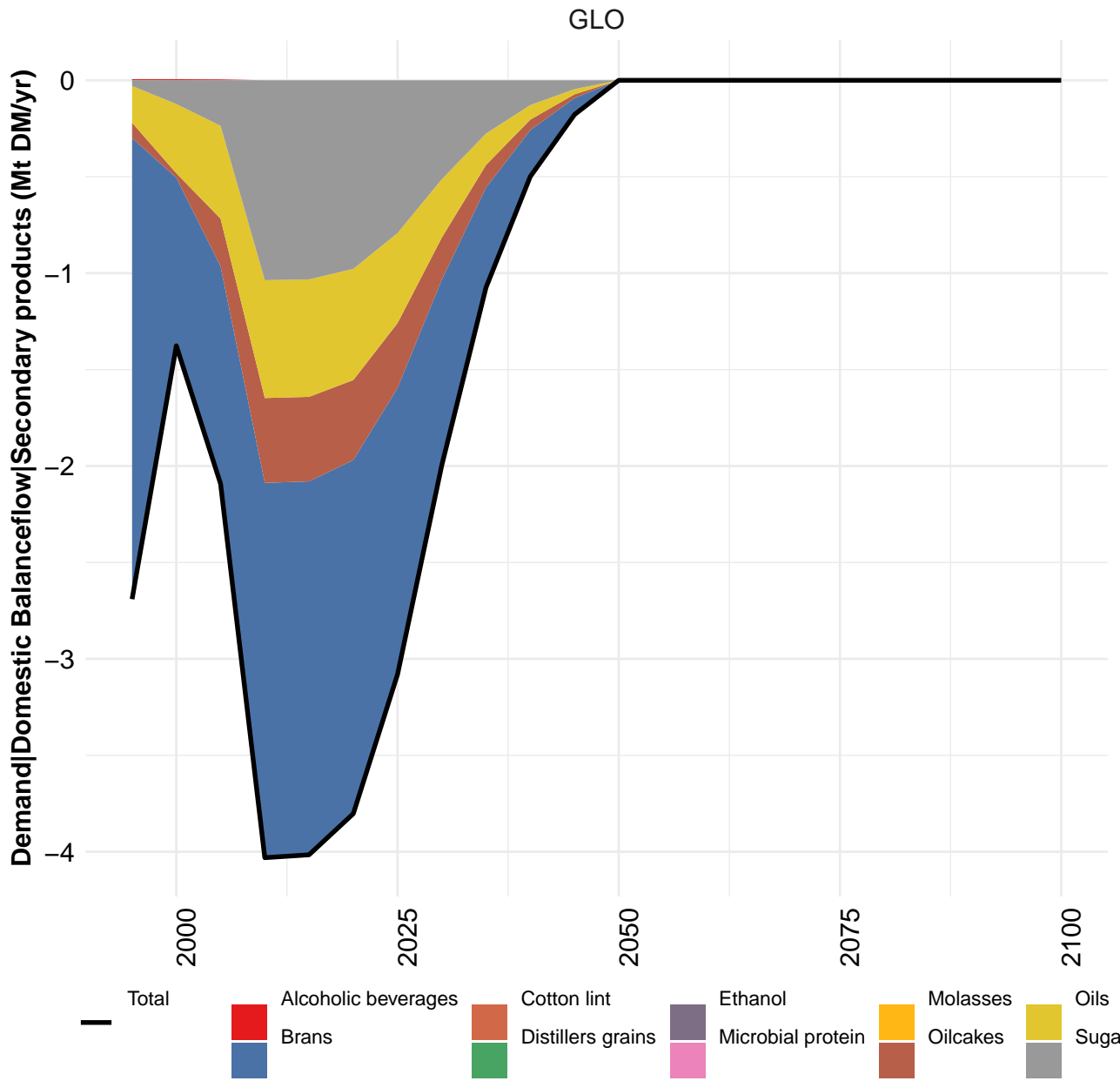
Table 209: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Livestock products—Ruminant meat (Mt DM/yr) [PART 1/2]

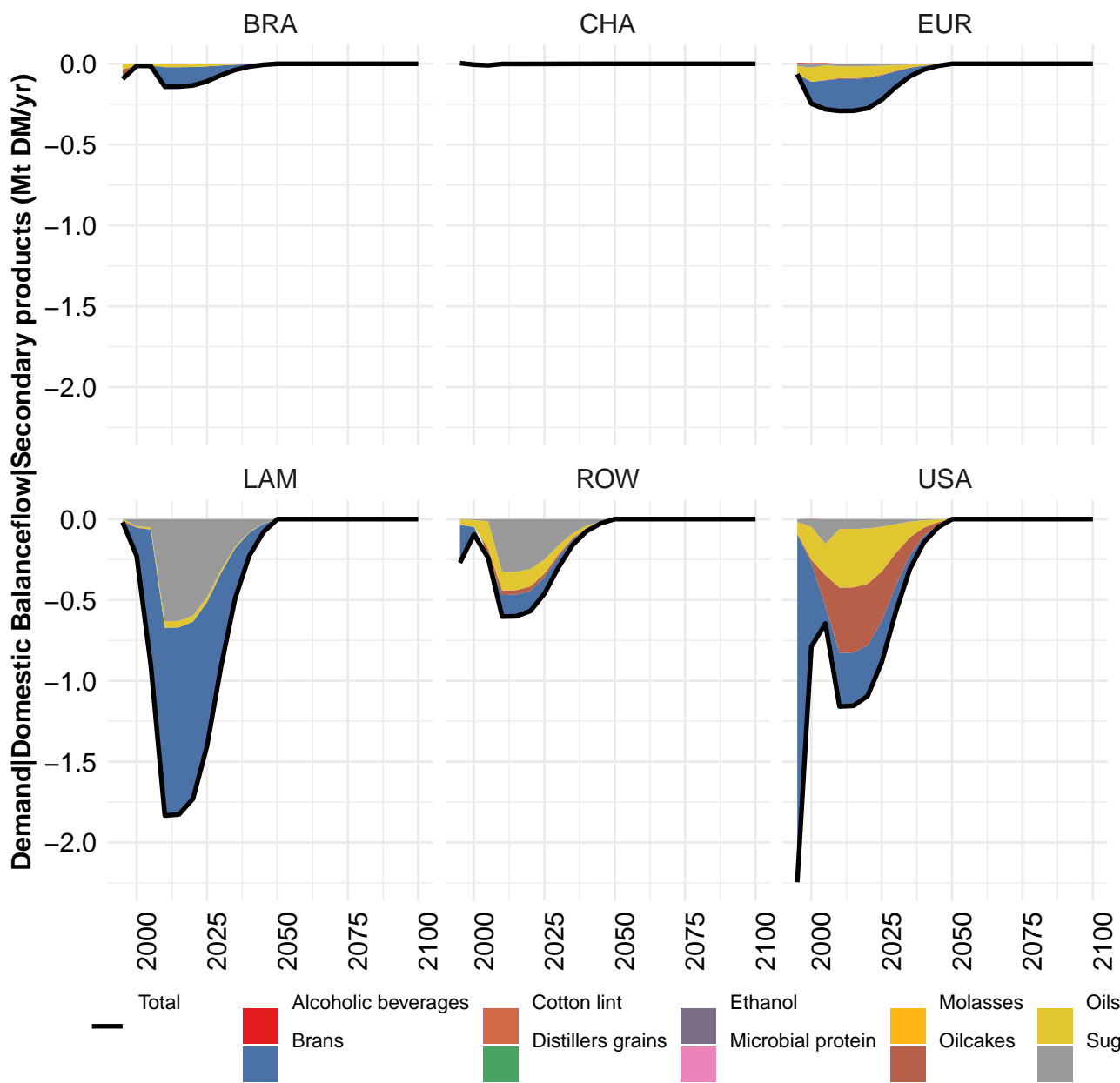
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
BRA	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
ROW	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 210: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Livestock products—Ruminant meat (Mt DM/yr) [PART 2/2]

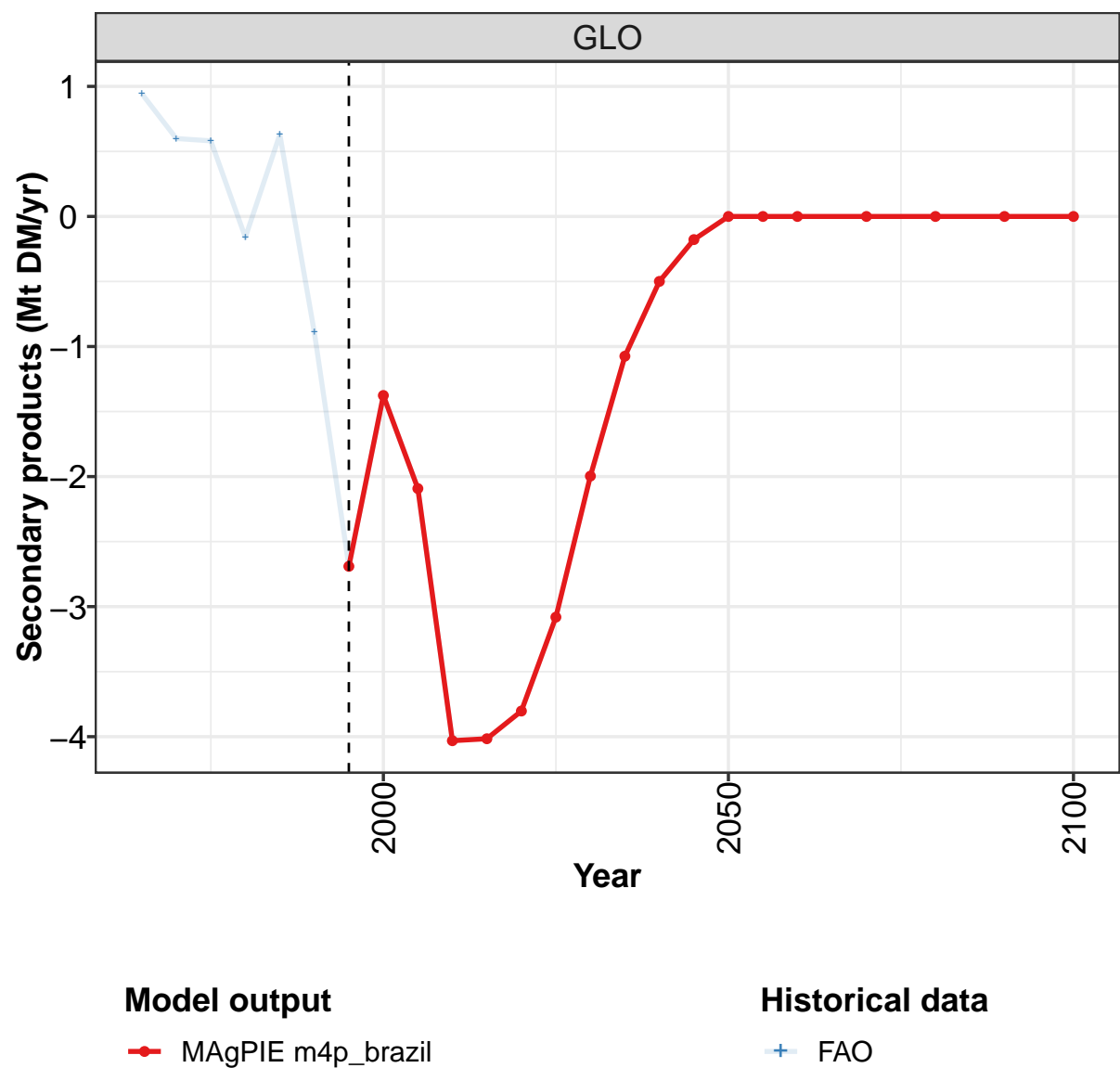
	1965	1970	1975	1980	1985	1990	1995	2000	2005	
GLO	-0.041700	-0.046300	-0.058200	-0.071300	-0.053500	-0.056200	-0.067100	-0.061900	-0.072800	-0.15
BRA	0.000000	0.000000	-0.000400	-0.000400	-0.003400	0.000000	-0.000200	-0.001800	-0.000400	-0.00
CHA	0.000300	0.000200	0.000000	-0.000200	-0.000200	-0.009400	-0.010400	-0.005100	-0.003700	-0.00
EUR	-0.033400	-0.027500	-0.031000	-0.054800	-0.034500	-0.039600	-0.044500	-0.034400	-0.027700	-0.10
LAM	-0.000300	-0.013600	-0.000300	-0.005600	-0.001500	-0.001400	-0.002700	-0.002000	-0.009200	-0.01
ROW	-0.008200	-0.005300	-0.026300	-0.010400	-0.012000	-0.005000	-0.009300	-0.017900	-0.025900	-0.03
USA	0.000000	-0.000100	-0.000200	0.000000	-0.001900	-0.000700	-0.000200	-0.000800	-0.005800	-0.00

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





5.4 Secondary products



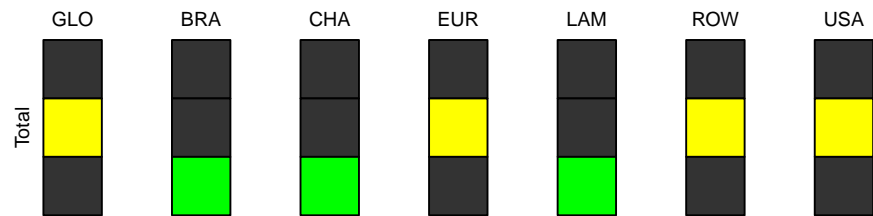
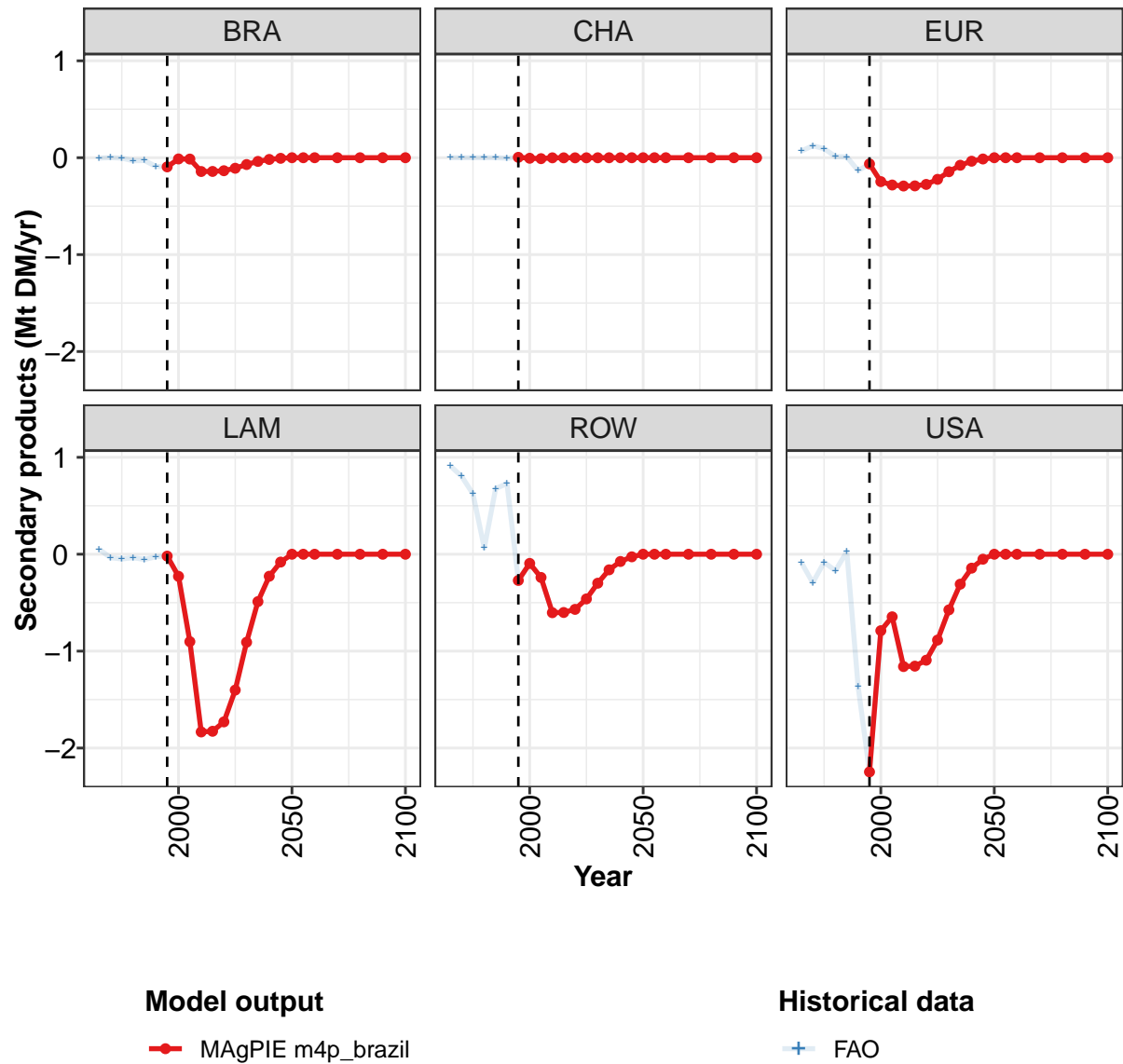


Figure 71: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	
GLO	-2.69020	-1.37640	-2.09210	-4.03090	-4.01590	-3.80280	-3.08070	-1.99630	-1.07430	-0.49920	-0.1
BRA	-0.09430	-0.01260	-0.01370	-0.14220	-0.14160	-0.13410	-0.10860	-0.07040	-0.03790	-0.01760	-0.0
CHA	0.00420	-0.00550	-0.00960	-0.00090	-0.00090	-0.00090	-0.00070	-0.00050	-0.00020	-0.00020	0.0
EUR	-0.06400	-0.24660	-0.28160	-0.29180	-0.29070	-0.27530	-0.22310	-0.14450	-0.07780	-0.03610	-0.0
LAM	-0.01940	-0.22810	-0.90200	-1.83370	-1.82690	-1.73000	-1.40150	-0.90810	-0.48880	-0.22700	-0.0
ROW	-0.27050	-0.09470	-0.23950	-0.60320	-0.60100	-0.56900	-0.46110	-0.29880	-0.16070	-0.07470	-0.0
USA	-2.24620	-0.78890	-0.64570	-1.15910	-1.15480	-1.09350	-0.88570	-0.57400	-0.30890	-0.14360	-0.0

Table 212: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Secondary products (Mt DM/yr) [PART 1/2]

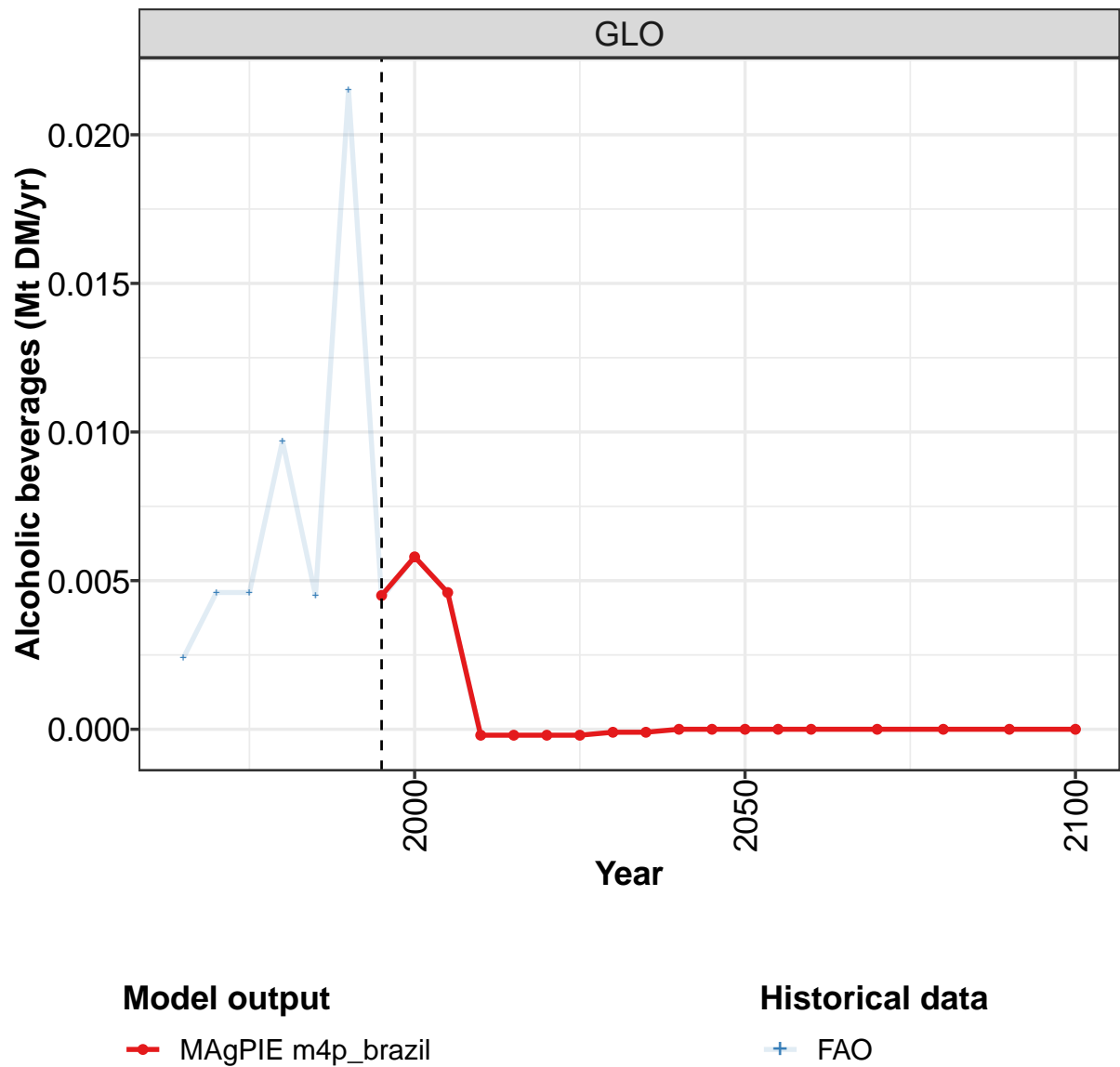
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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_brazil — Demand—Domestic Balanceflow—Secondary products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.944	0.599	0.581	-0.161	0.629	-0.892	-2.690	-1.376	-2.092	-4.031
BRA	-0.003	0.000	-0.004	-0.032	-0.029	-0.089	-0.094	-0.013	-0.014	-0.142
CHA	0.000	0.000	0.000	0.000	0.000	-0.005	0.004	-0.005	-0.010	-0.001
EUR	0.069	0.124	0.094	0.012	0.009	-0.133	-0.064	-0.247	-0.282	-0.292
LAM	0.053	-0.035	-0.049	-0.036	-0.054	-0.027	-0.019	-0.228	-0.902	-1.834
ROW	0.912	0.804	0.623	0.065	0.677	0.730	-0.271	-0.095	-0.239	-0.603
USA	-0.087	-0.294	-0.083	-0.170	0.026	-1.367	-2.246	-0.789	-0.646	-1.159

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

5.4.1 Alcoholic beverages



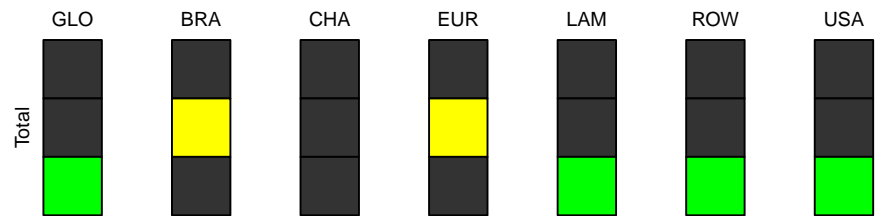
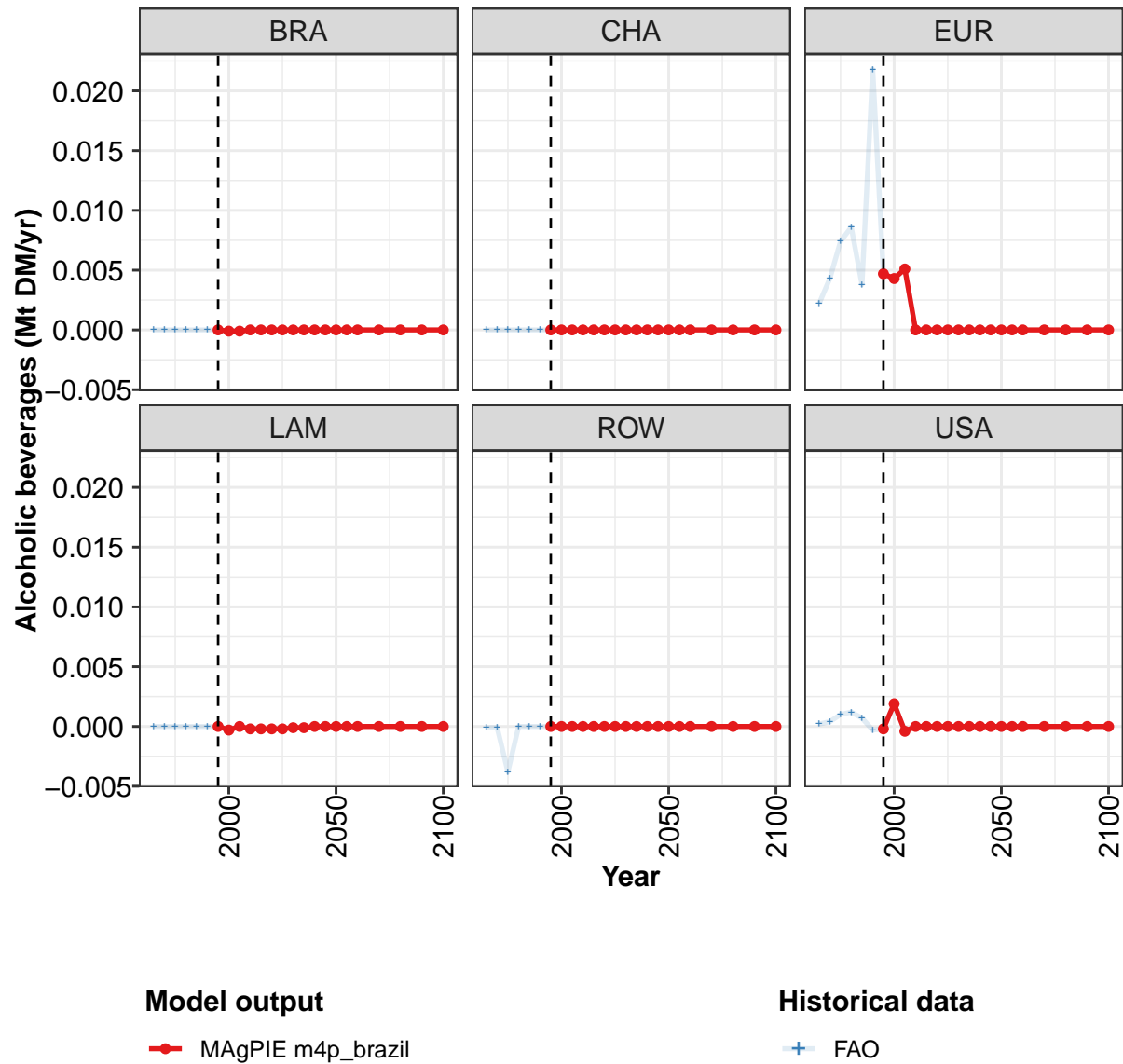


Figure 72: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Secondary products—Alcoholic beverages (Mt DM/yr)

	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
BRA	0.00000	-0.00010	-0.00010	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	0.00470	0.00430	0.00510	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	-0.00030	0.00000	-0.00020	-0.00020	-0.00020	-0.00020	-0.00010	-0.00010	0.00000	0.00000
ROW	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.brazil — Demand—Domestic Balanceflow—Secondary products—Alcoholic beverages (Mt DM/yr) [PART 1/2]

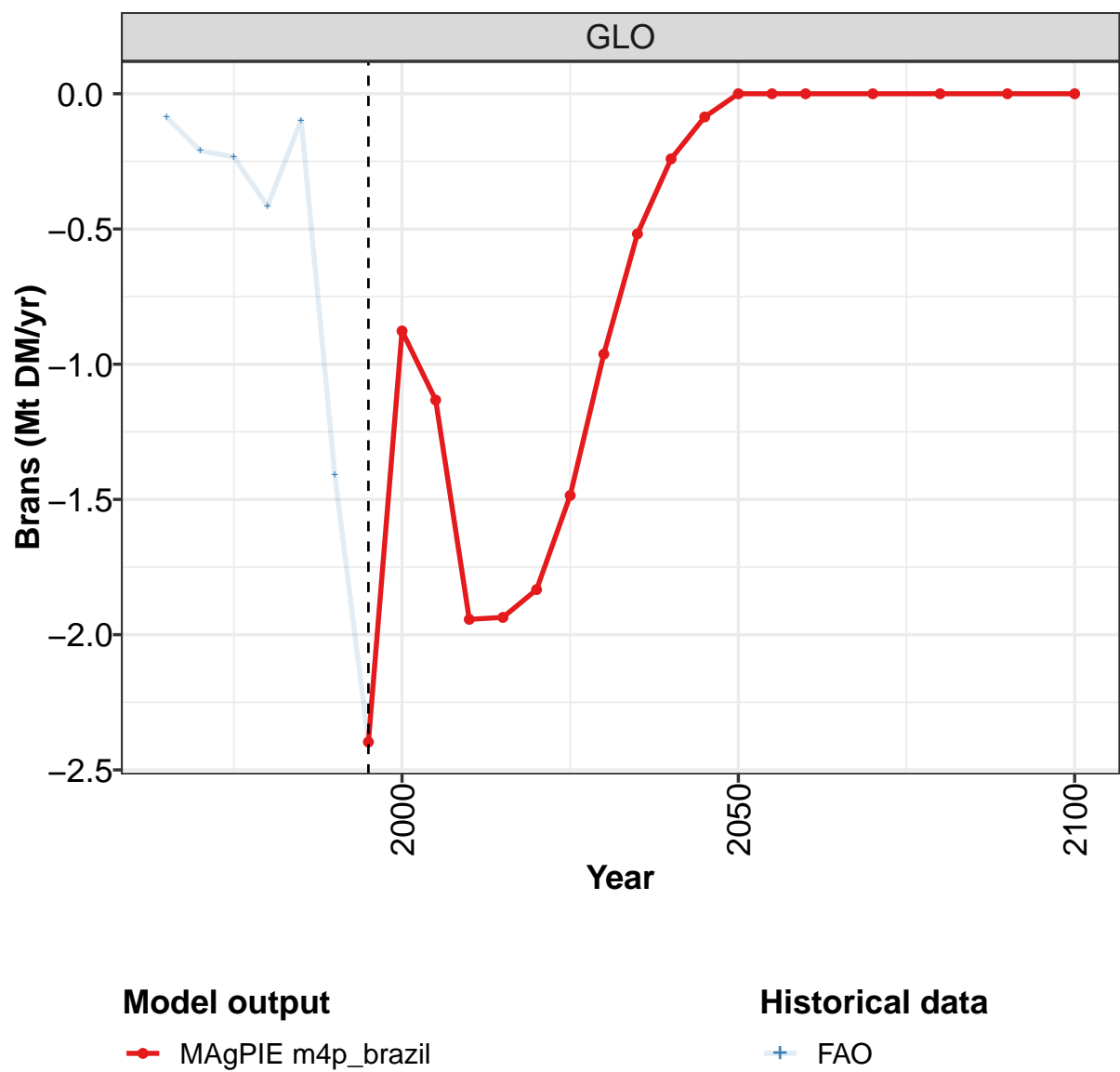
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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.brazil — 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
BRA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0001	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0022	0.0043	0.0074	0.0086	0.0038	0.0218	0.0047	0.0043	0.0051	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0003	0.0000	-0.0002
ROW	-0.0001	-0.0001	-0.0038	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



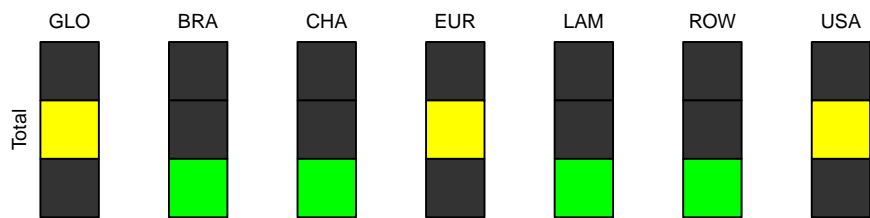
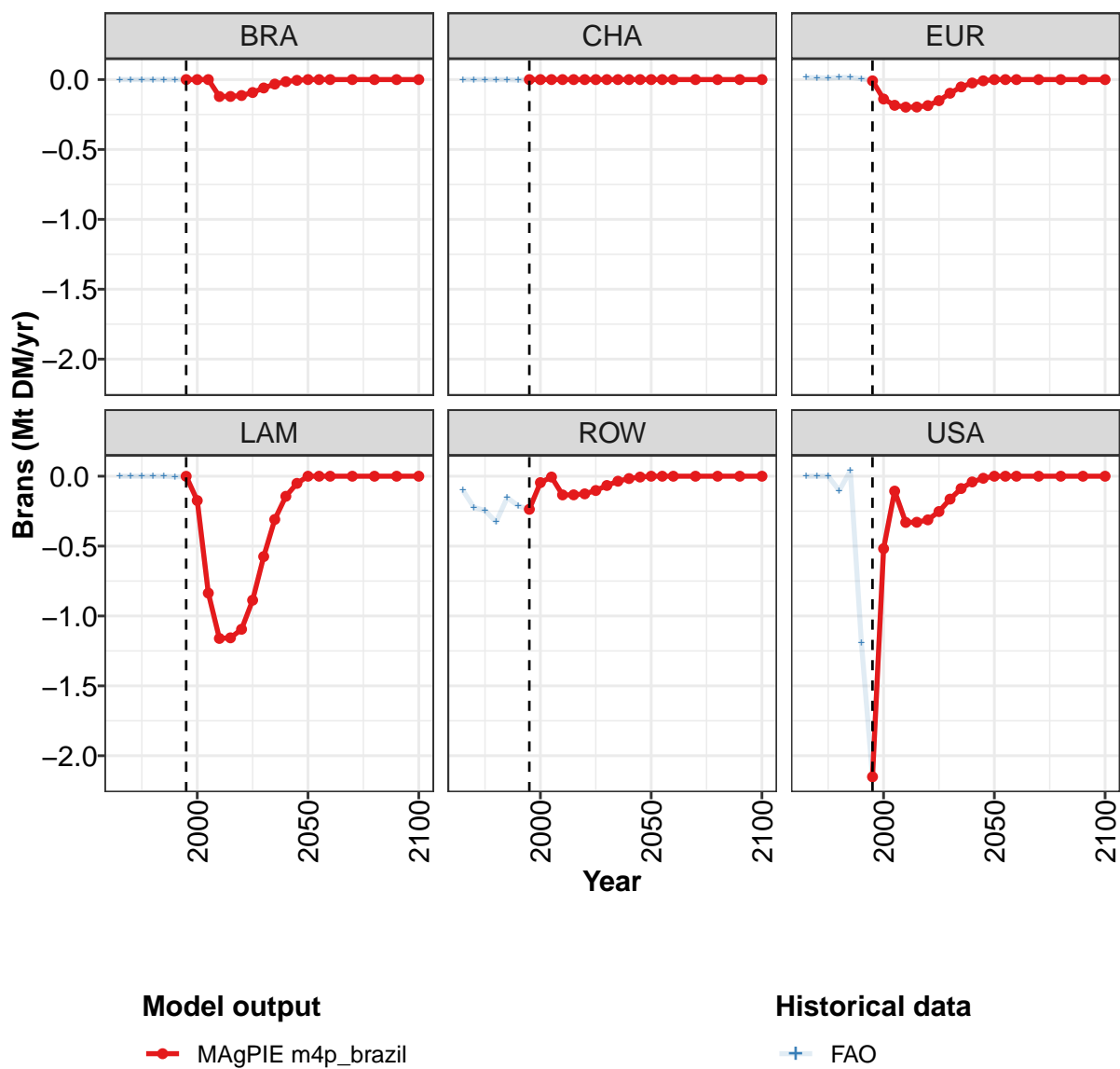


Figure 73: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-2	-1	-1	-2	-2	-2	-1	-1	-1	-0	-0
BRA	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
LAM	-0	-0	-1	-1	-1	-1	-1	-1	-0	-0	-0
ROW	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
USA	-2	-1	-0	-0	-0	-0	-0	-0	-0	-0	-0

Table 218: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Secondary products—Brans (Mt DM/yr)
[PART 1/2]

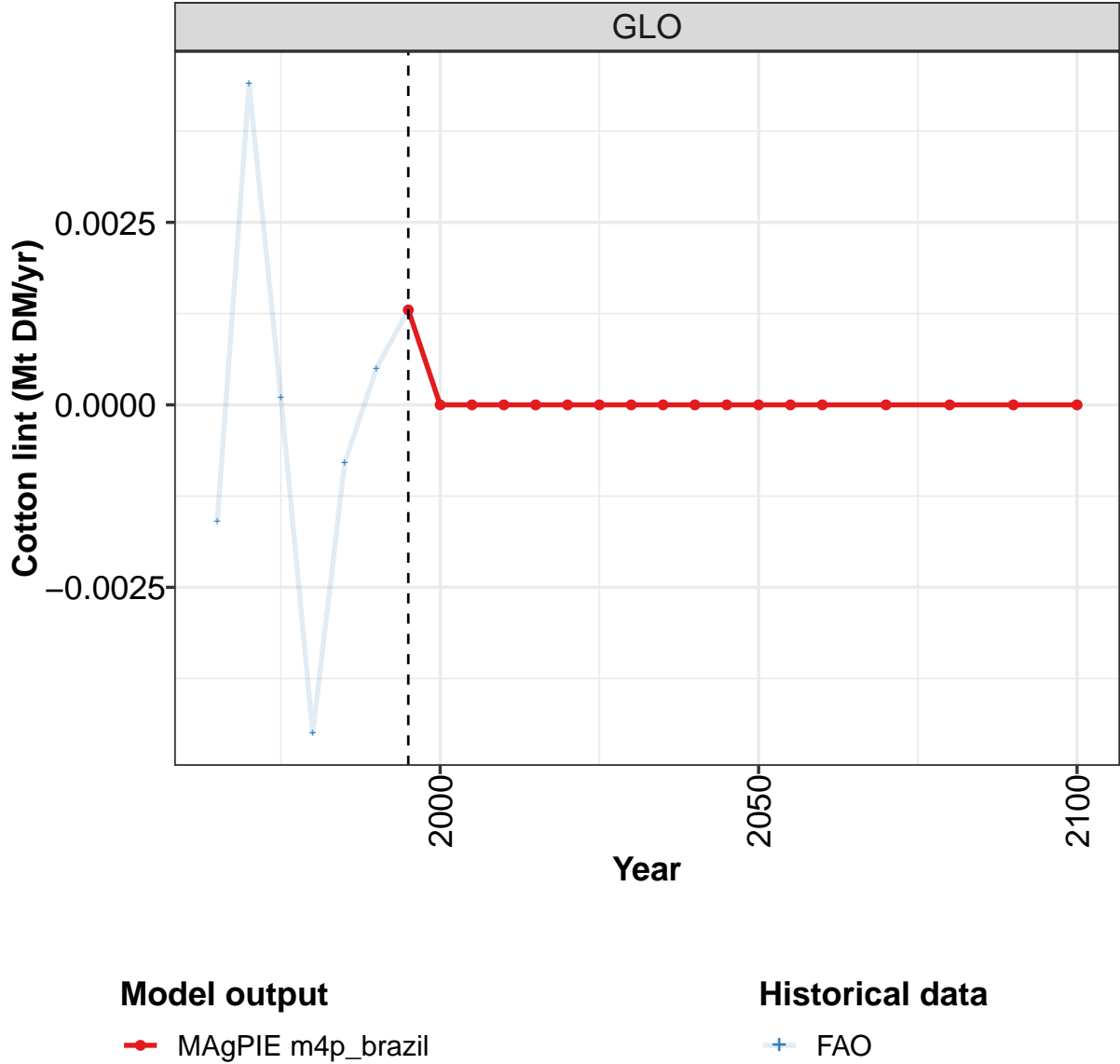
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
BRA	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
ROW	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 219: MAgPIE m4p_brazil — 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
BRA	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.1211
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0044	0.0000	0.0000	0.0000	0.0000
EUR	0.0145	0.0131	0.0109	0.0150	0.0156	0.0062	-0.0090	-0.1392	-0.1841	-0.1973
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0049	-0.0004	-0.1739	-0.8362	-1.1606
ROW	-0.1013	-0.2235	-0.2450	-0.3280	-0.1531	-0.2119	-0.2367	-0.0457	-0.0058	-0.1337
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



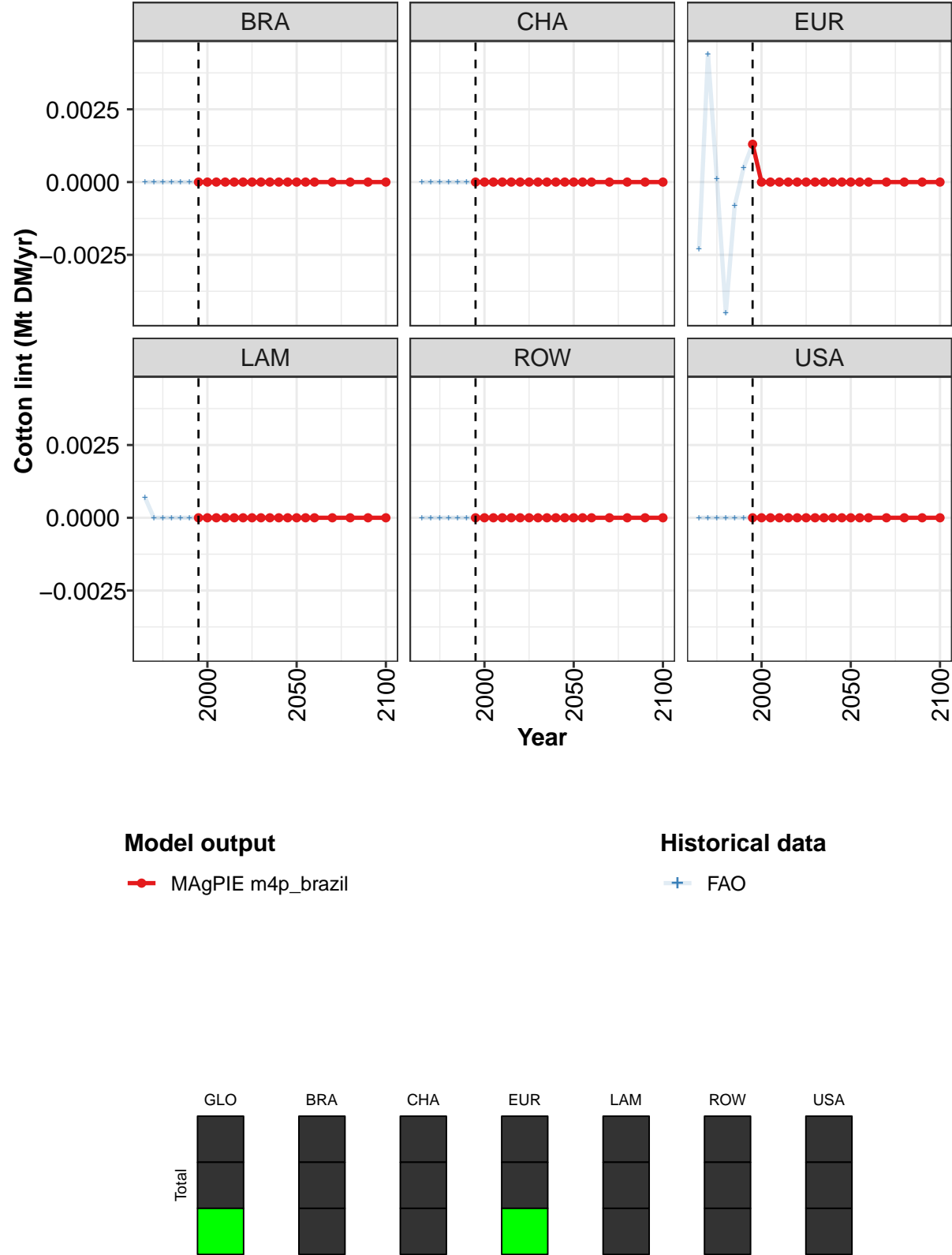


Figure 74: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Secondary products—Cotton lint (Mt DM/yr)

	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
BRA	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
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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_brazil — Demand—Domestic Balanceflow—Secondary products—Cotton lint (Mt DM/yr) [PART 1/2]

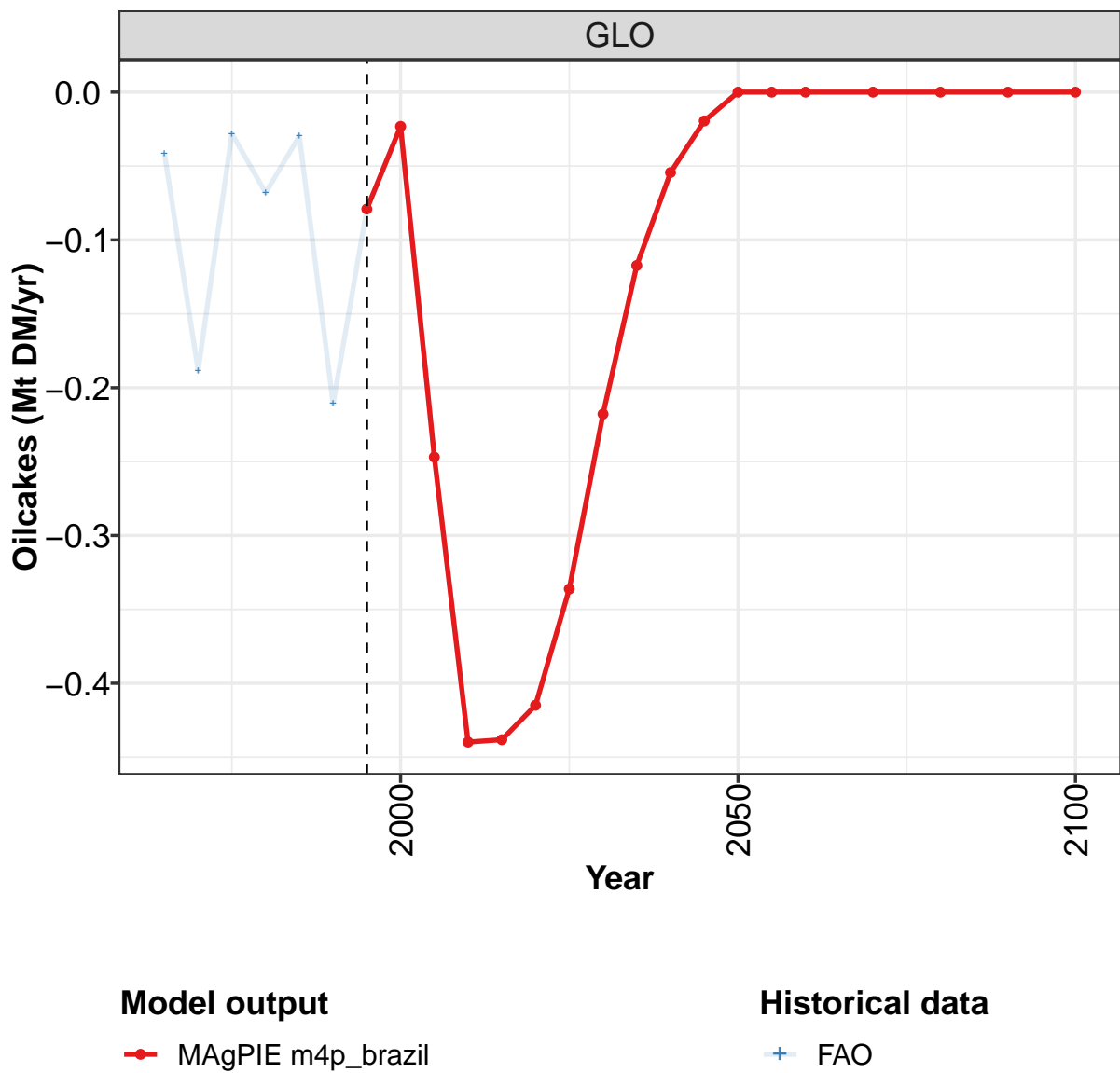
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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_brazil — 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
BRA	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
LAM	0.00070	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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



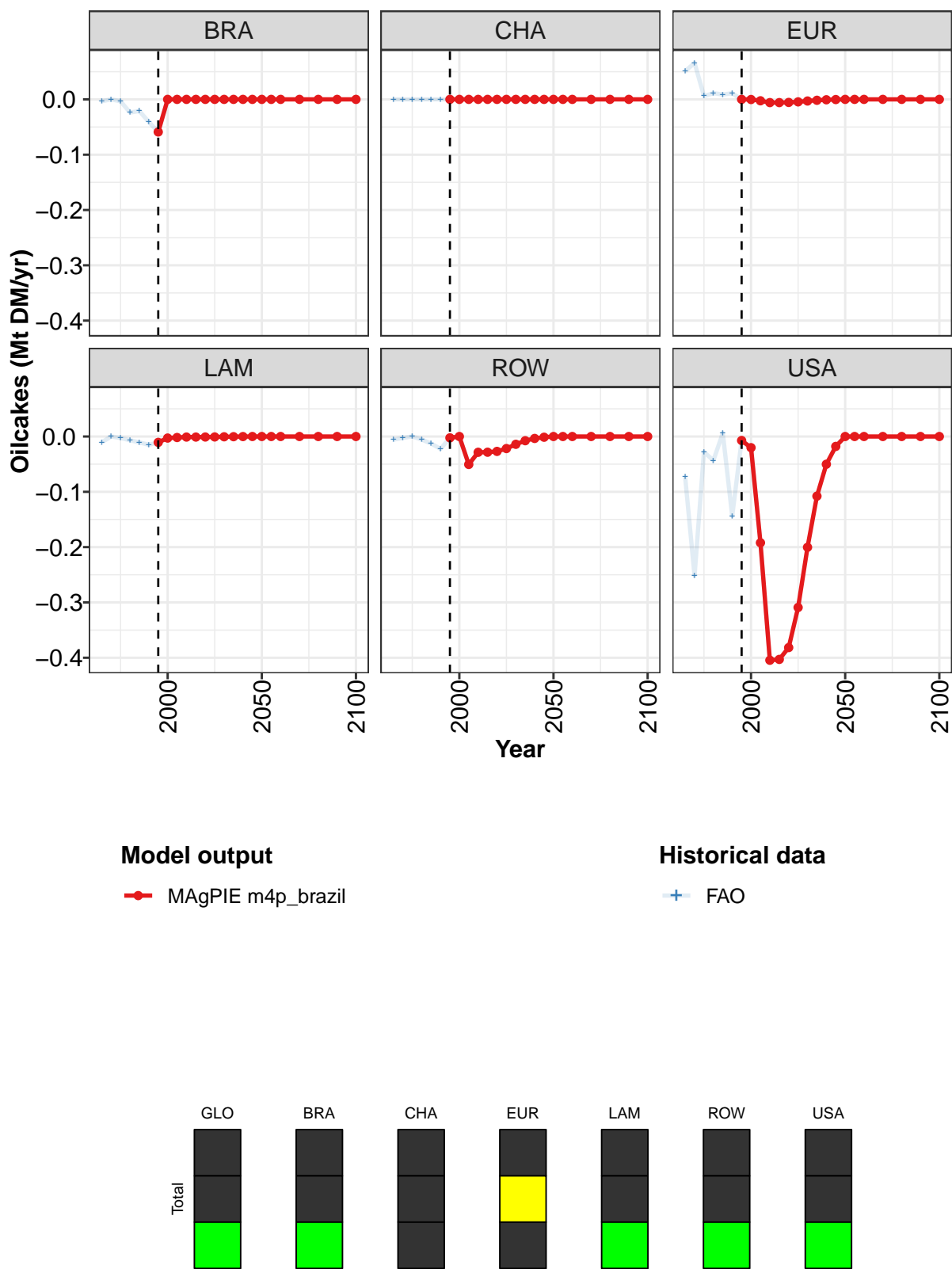


Figure 75: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Secondary products—Oilcakes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
BRA	-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
LAM	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	0
ROW	-0	0	-0	-0	-0	-0	-0	-0	-0	-0	-0
USA	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0

Table 224: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Secondary products—Oilcakes (Mt DM/yr) [PART 1/2]

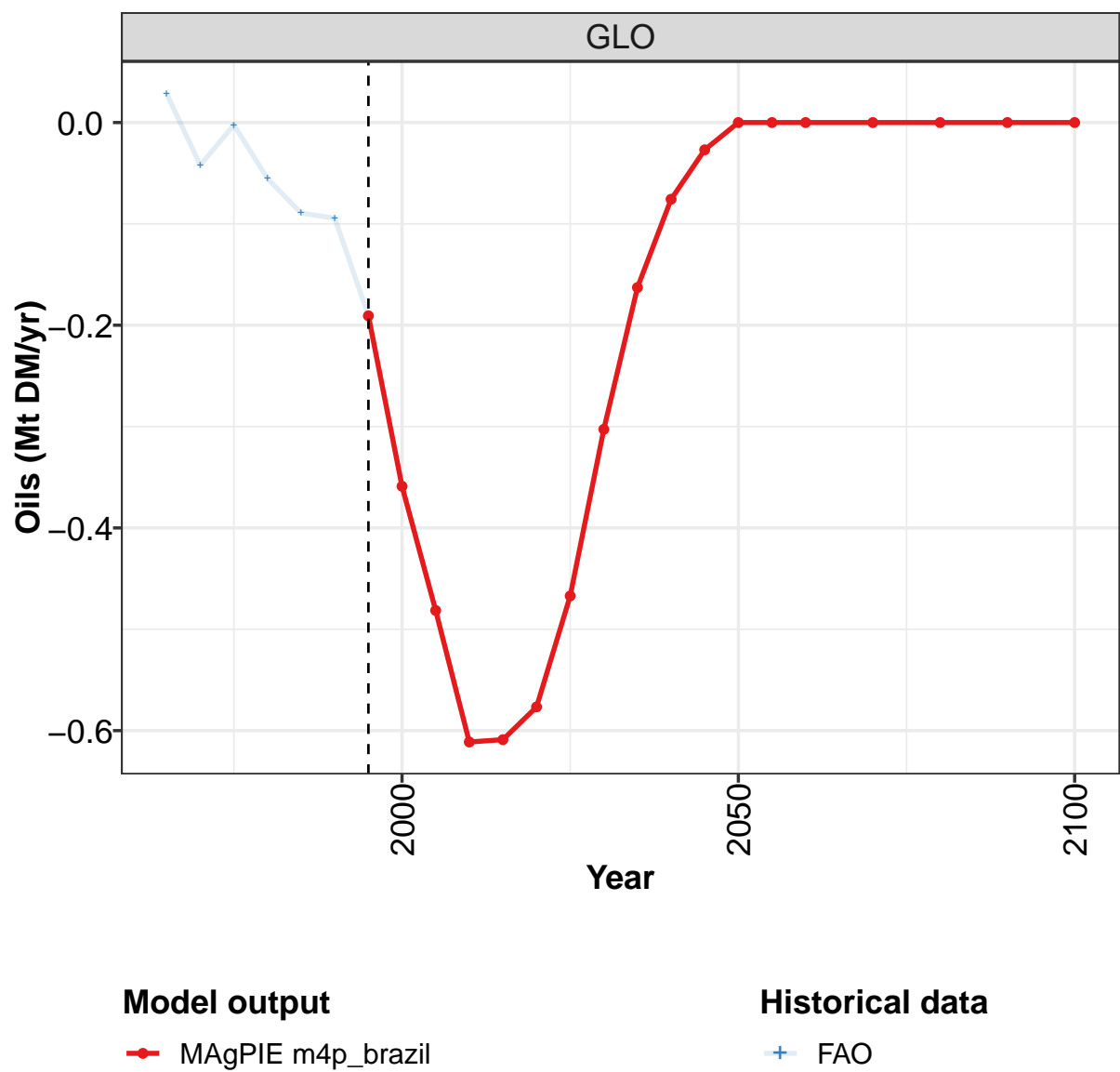
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	0	0	0	0
BRA	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0
ROW	0	0	0	0	0	0	0
USA	0	0	0	0	0	0	0

Table 225: MAgPIE m4p_brazil — 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
BRA	-0.0033	0.0000	-0.0035	-0.0237	-0.0212	-0.0408	-0.0589	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	0.0509	0.0659	0.0060	0.0112	0.0088	0.0110	0.0000	-0.0002	-0.0025	-0.0058
LAM	-0.0105	0.0000	-0.0027	-0.0068	-0.0106	-0.0150	-0.0106	-0.0028	-0.0018	-0.0010
ROW	-0.0056	-0.0026	0.0000	-0.0054	-0.0128	-0.0223	-0.0024	0.0000	-0.0505	-0.0285
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



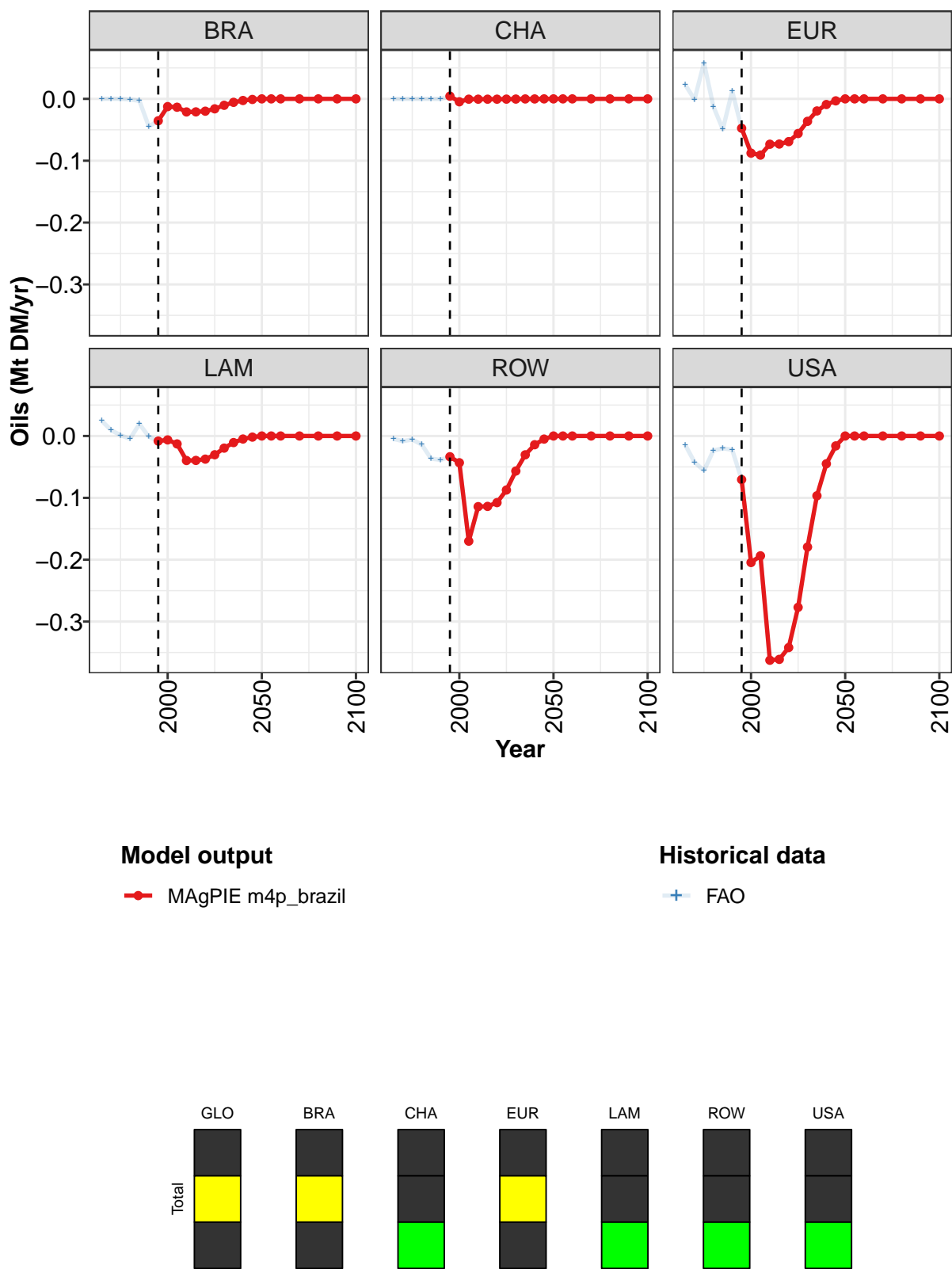


Figure 76: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	
GLO	-0.19070	-0.35890	-0.48140	-0.61120	-0.60890	-0.57660	-0.46710	-0.30270	-0.16280	-0.07570	-0.0
BRA	-0.03540	-0.01250	-0.01350	-0.02110	-0.02100	-0.01990	-0.01610	-0.01040	-0.00560	-0.00260	-0.0
CHA	0.00440	-0.00470	-0.00050	-0.00050	-0.00050	-0.00050	-0.00040	-0.00030	-0.00010	-0.00010	0.0
EUR	-0.04750	-0.08770	-0.09090	-0.07330	-0.07300	-0.06910	-0.05600	-0.03630	-0.01950	-0.00910	-0.0
LAM	-0.00820	-0.00630	-0.01280	-0.03960	-0.03950	-0.03740	-0.03030	-0.01960	-0.01060	-0.00490	-0.0
ROW	-0.03350	-0.04320	-0.17000	-0.11420	-0.11380	-0.10770	-0.08730	-0.05660	-0.03040	-0.01410	-0.0
USA	-0.07050	-0.20450	-0.19370	-0.36250	-0.36110	-0.34200	-0.27700	-0.17950	-0.09660	-0.04490	-0.0

Table 227: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Secondary products—Oils (Mt DM/yr)
[PART 1/2]

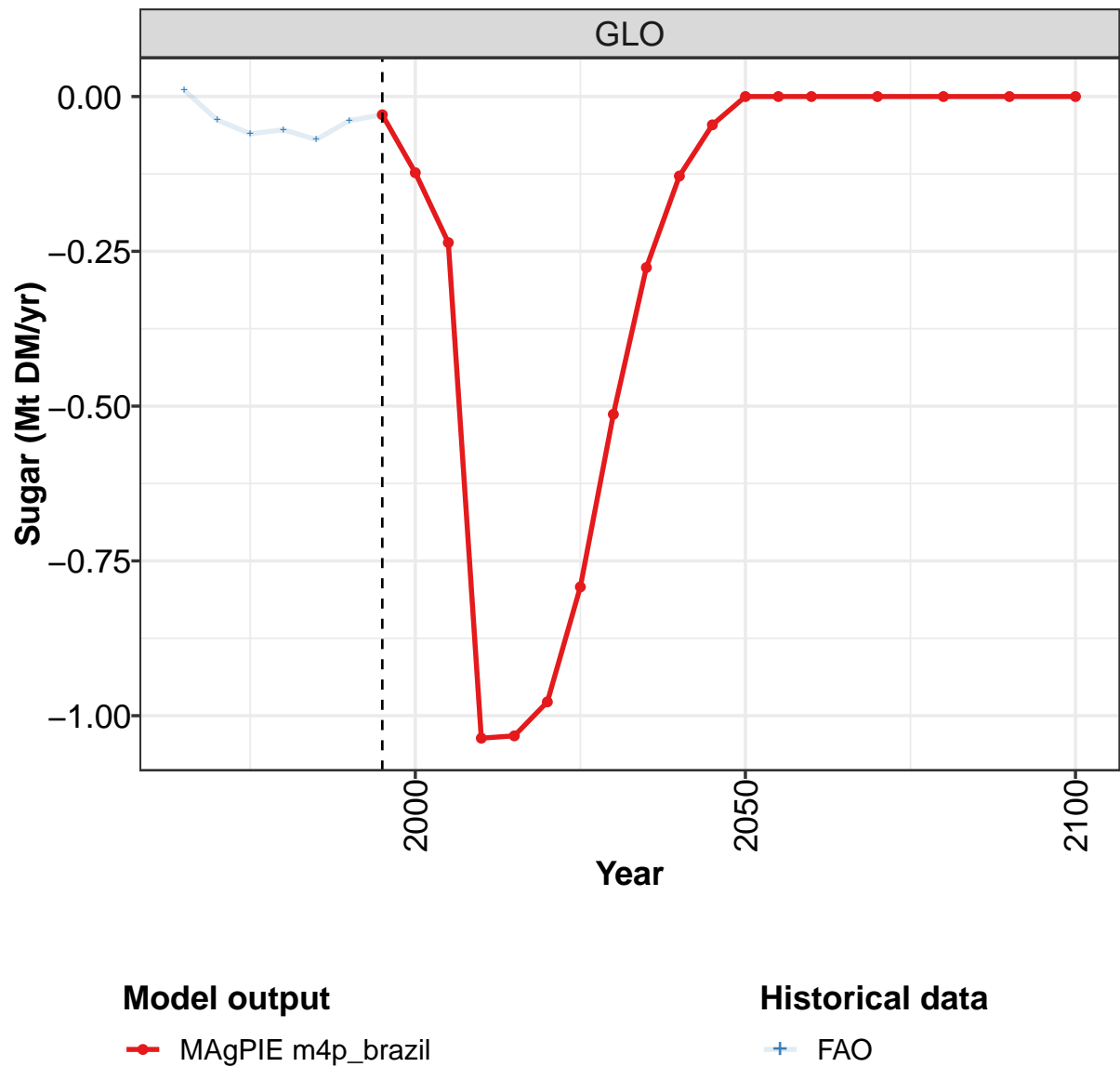
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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 228: MAgPIE m4p_brazil — 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
BRA	0.0000	0.0002	0.0000	-0.0010	-0.0031	-0.0447	-0.0354	-0.0125	-0.0135	-0.0211
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	0.0044	-0.0047	-0.0005	-0.0005
EUR	0.0229	-0.0009	0.0581	-0.0123	-0.0492	0.0124	-0.0475	-0.0877	-0.0909	-0.0733
LAM	0.0245	0.0094	0.0013	-0.0046	0.0194	-0.0011	-0.0082	-0.0063	-0.0128	-0.0396
ROW	-0.0047	-0.0084	-0.0057	-0.0139	-0.0366	-0.0386	-0.0335	-0.0432	-0.1700	-0.1142
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



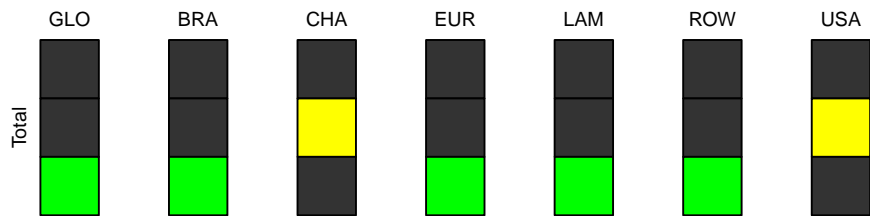
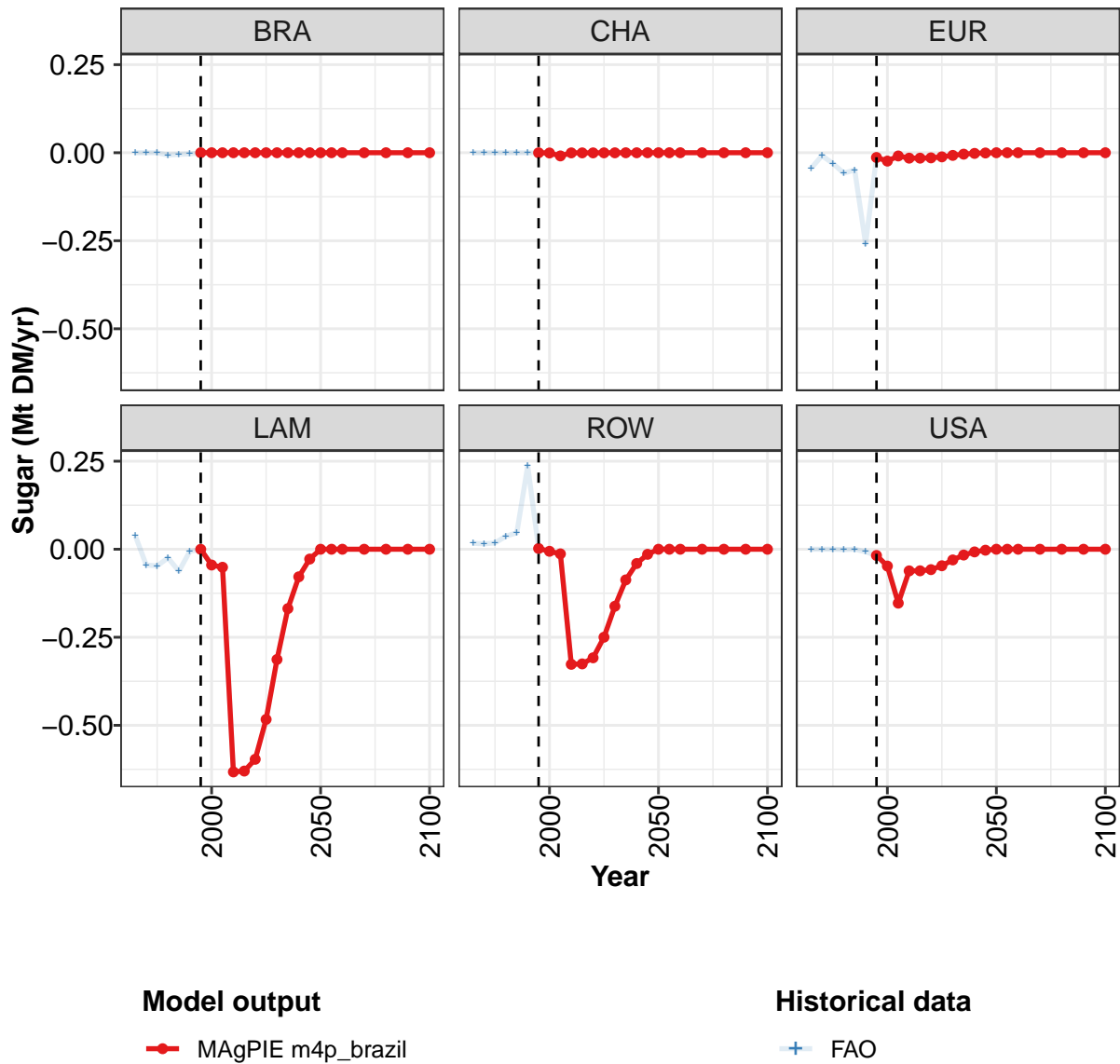


Figure 77: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	
GLO	-0.02940	-0.12300	-0.23590	-1.03630	-1.03250	-0.97770	-0.79200	-0.51320	-0.27620	-0.12840	-0.0
BRA	0.00000	0.00000	-0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0
CHA	-0.00020	-0.00080	-0.00910	-0.00040	-0.00040	-0.00040	-0.00030	-0.00020	-0.00010	-0.00010	0.0
EUR	-0.01350	-0.02380	-0.00920	-0.01540	-0.01540	-0.01460	-0.01180	-0.00760	-0.00410	-0.00190	-0.0
LAM	-0.00020	-0.04480	-0.05120	-0.63230	-0.62990	-0.59650	-0.48320	-0.31310	-0.16850	-0.07830	-0.0
ROW	0.00210	-0.00580	-0.01320	-0.32680	-0.32560	-0.30830	-0.24980	-0.16190	-0.08710	-0.04050	-0.0
USA	-0.01760	-0.04780	-0.15310	-0.06140	-0.06120	-0.05790	-0.04690	-0.03040	-0.01640	-0.00760	-0.0

Table 230: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Secondary products—Sugar (Mt DM/yr)
[PART 1/2]

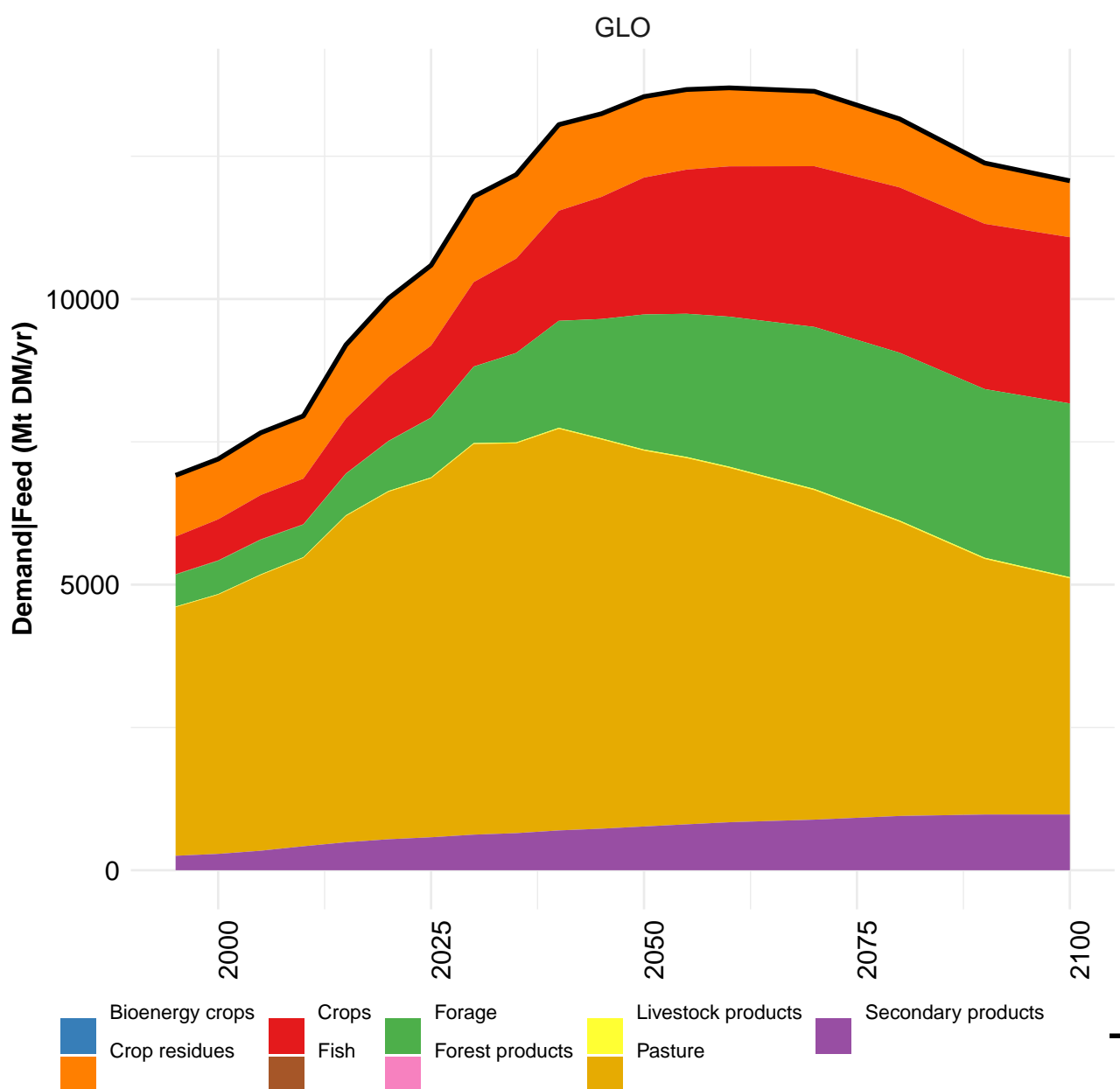
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	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

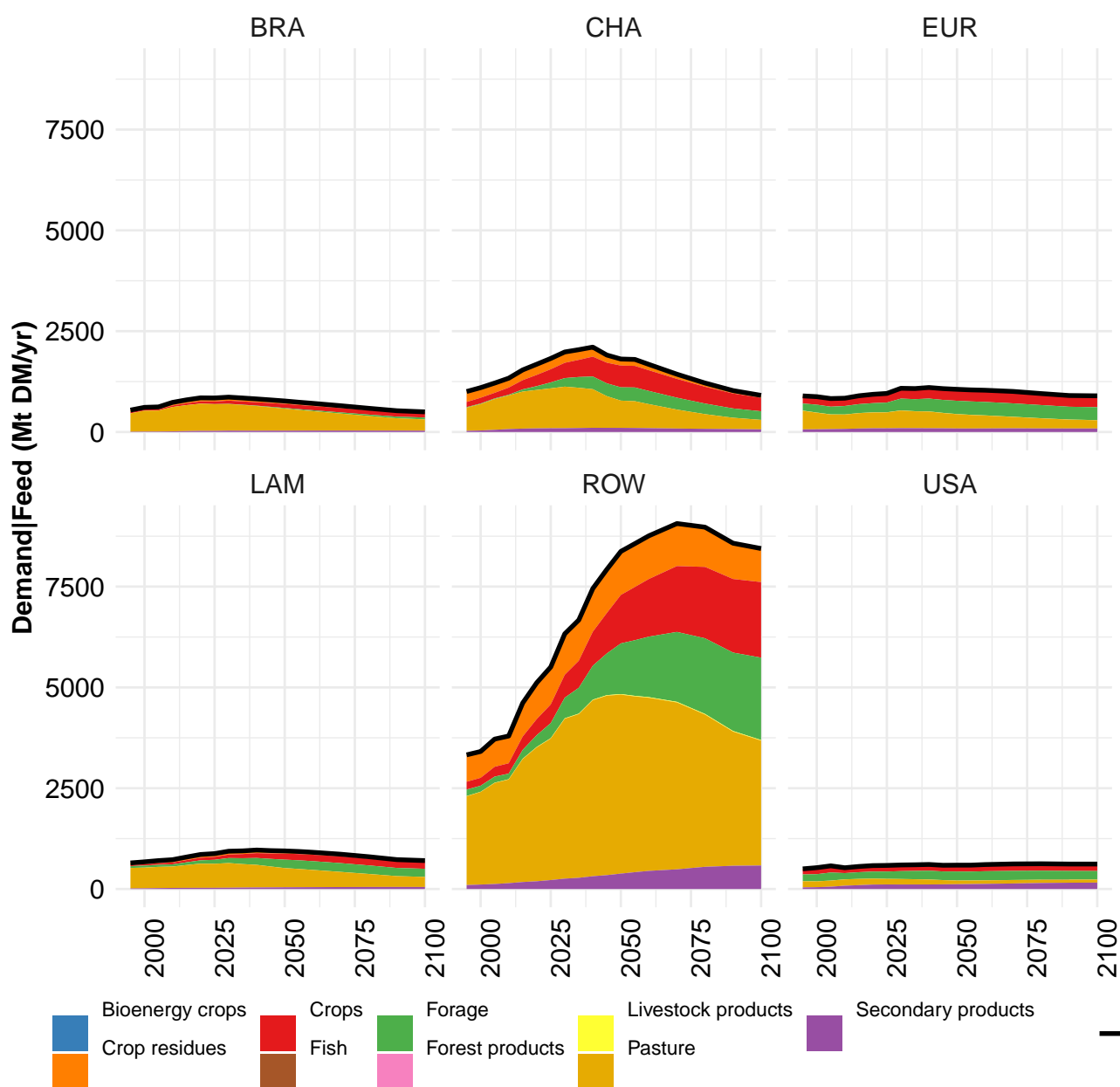
Table 231: MAgPIE m4p_brazil — Demand—Domestic Balanceflow—Secondary products—Sugar (Mt DM/yr)
[PART 2/2]

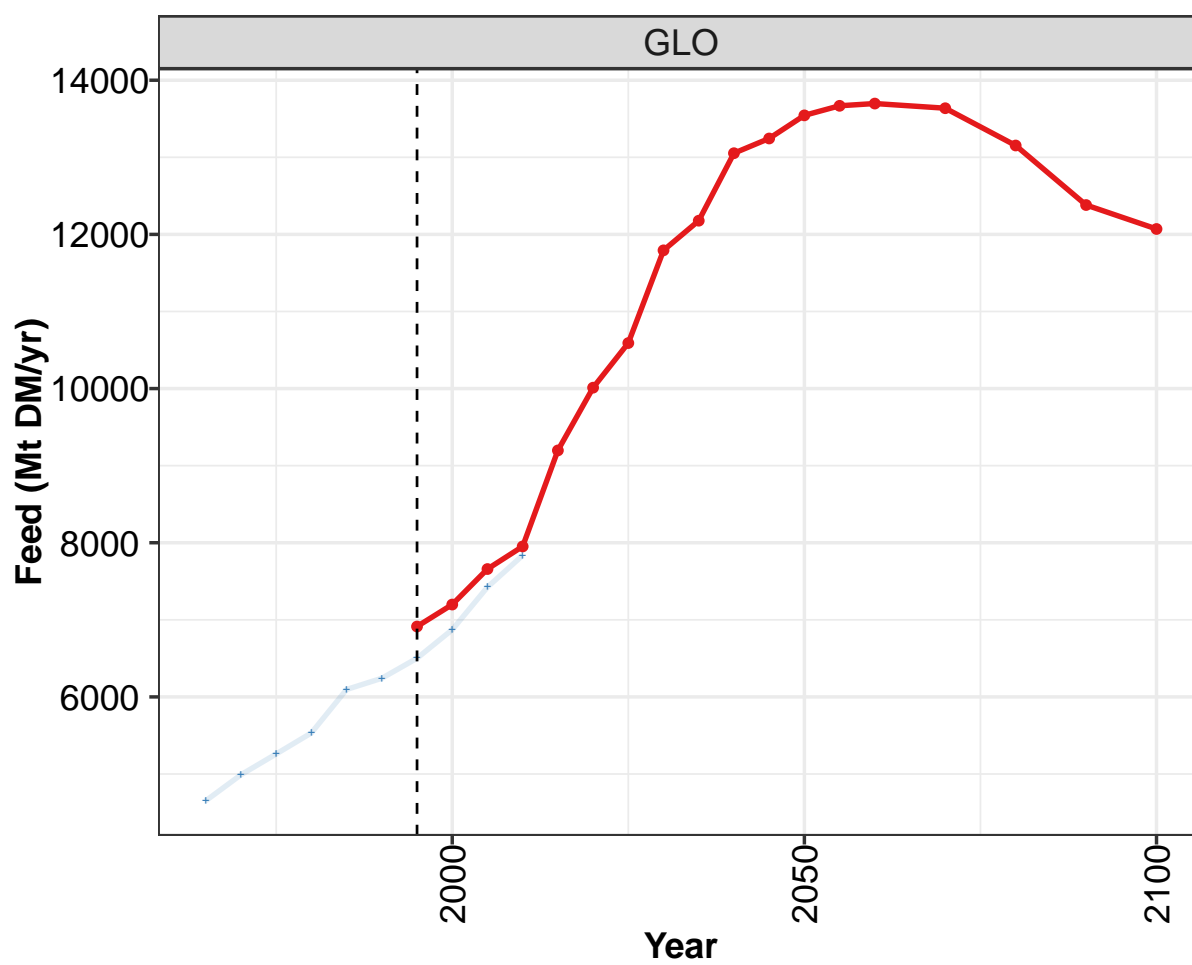
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.010	-0.038	-0.060	-0.054	-0.070	-0.039	-0.029	-0.123	-0.236	-1.036
BRA	0.000	0.000	-0.000	-0.007	-0.005	-0.004	0.000	0.000	-0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	-0.000	-0.000	-0.001	-0.009	-0.000
EUR	-0.044	-0.008	-0.031	-0.058	-0.049	-0.259	-0.013	-0.024	-0.009	-0.015
LAM	0.038	-0.045	-0.047	-0.025	-0.062	-0.006	-0.000	-0.045	-0.051	-0.632
ROW	0.017	0.015	0.018	0.037	0.046	0.237	0.002	-0.006	-0.013	-0.327
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



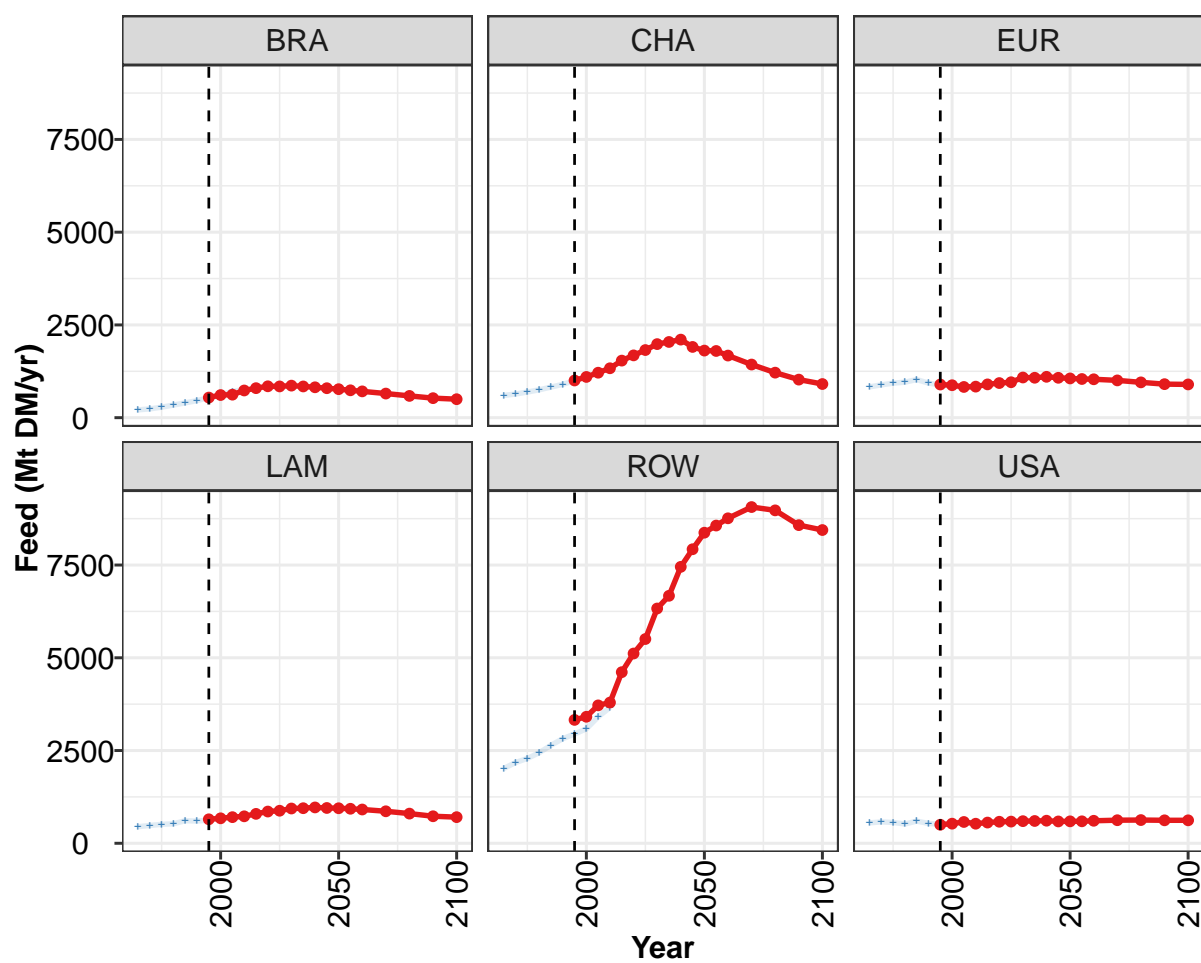


**Model output**

—●— MAgPIE m4p_brazil

Historical data

—+— FAO



Model output

—•— MAgPIE m4p_brazil

Historical data

+— FAO

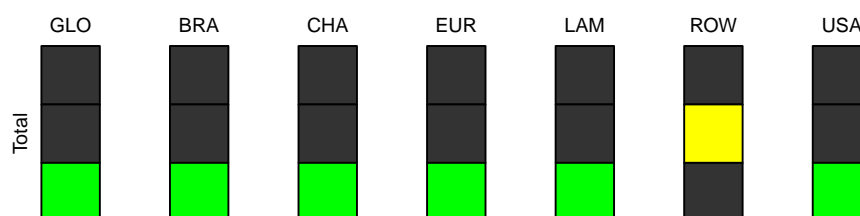


Figure 78: MAgPIE m4p.brazil — Demand—Feed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6914	7199	7659	7952	9198	10012	10591	11794	12178	13054	13244
BRA	542	611	621	734	796	847	843	864	842	820	795
CHA	1003	1099	1213	1333	1539	1680	1824	1984	2041	2105	1907
EUR	894	876	829	838	898	934	956	1084	1077	1103	1075
LAM	647	674	704	727	793	856	878	937	946	967	952
ROW	3326	3411	3718	3794	4613	5115	5506	6328	6671	7452	7926
USA	500	529	574	527	559	580	585	596	601	609	589

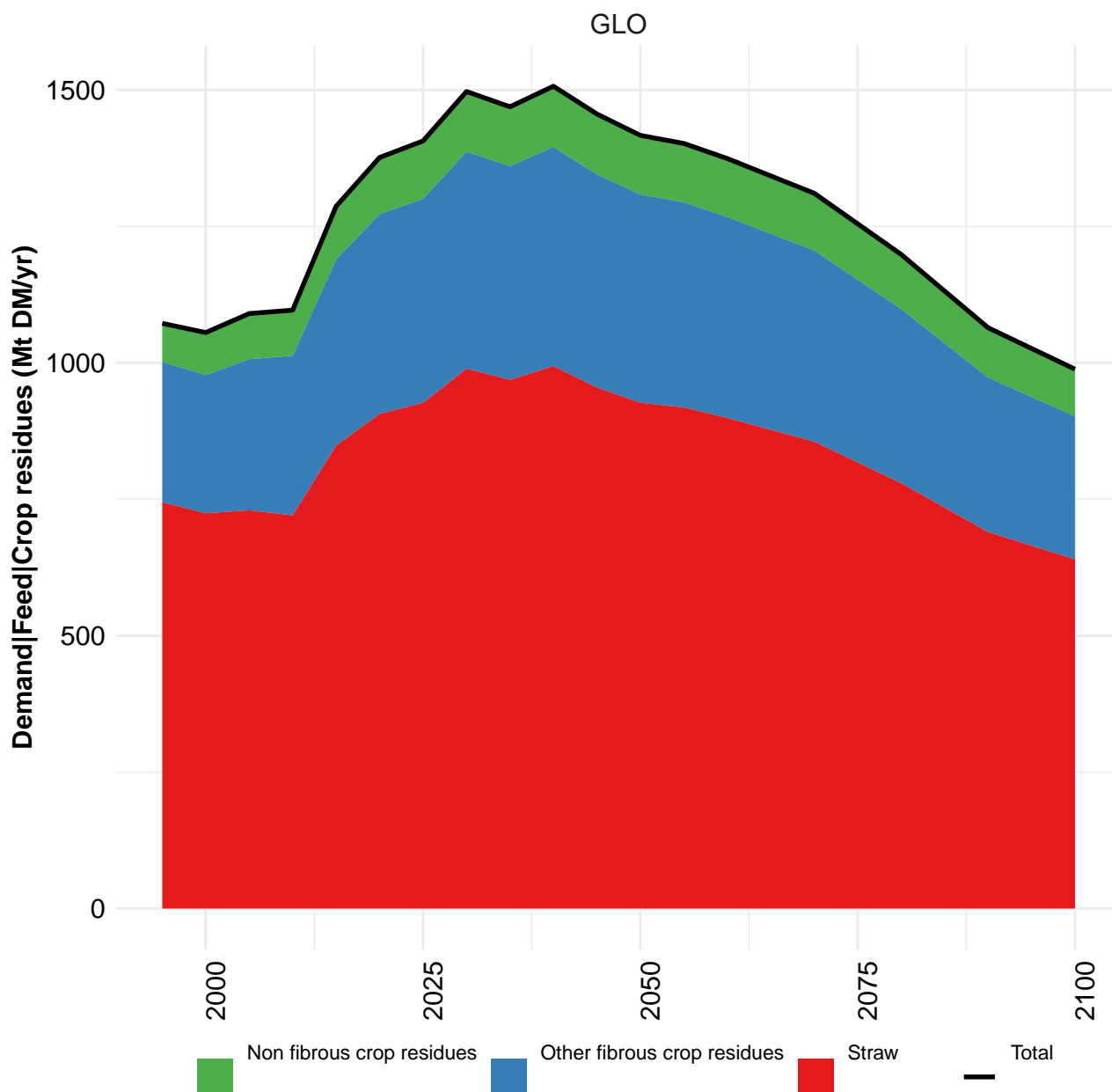
Table 233: MAgPIE m4p_brazil — Demand—Feed (Mt DM/yr) [PART 1/2]

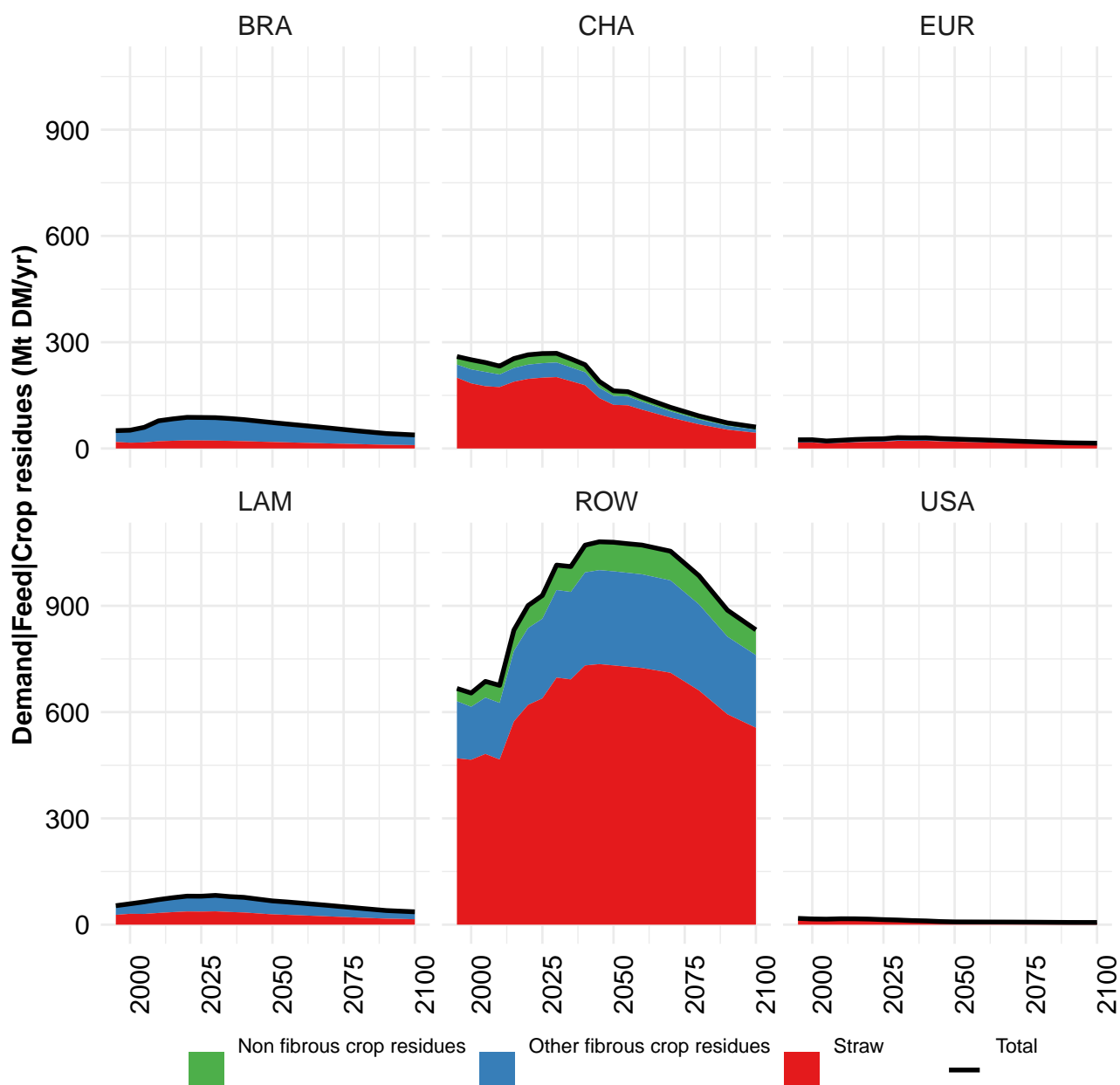
	2050	2055	2060	2070	2080	2090	2100
GLO	13544	13668	13697	13637	13153	12381	12070
BRA	769	738	710	650	587	527	499
CHA	1809	1799	1675	1433	1214	1026	908
EUR	1058	1043	1035	1006	952	904	897
LAM	944	931	910	862	800	729	705
ROW	8372	8565	8760	9063	8974	8576	8444
USA	591	592	606	622	626	619	619

Table 234: MAgPIE m4p_brazil — Demand—Feed (Mt DM/yr) [PART 2/2]

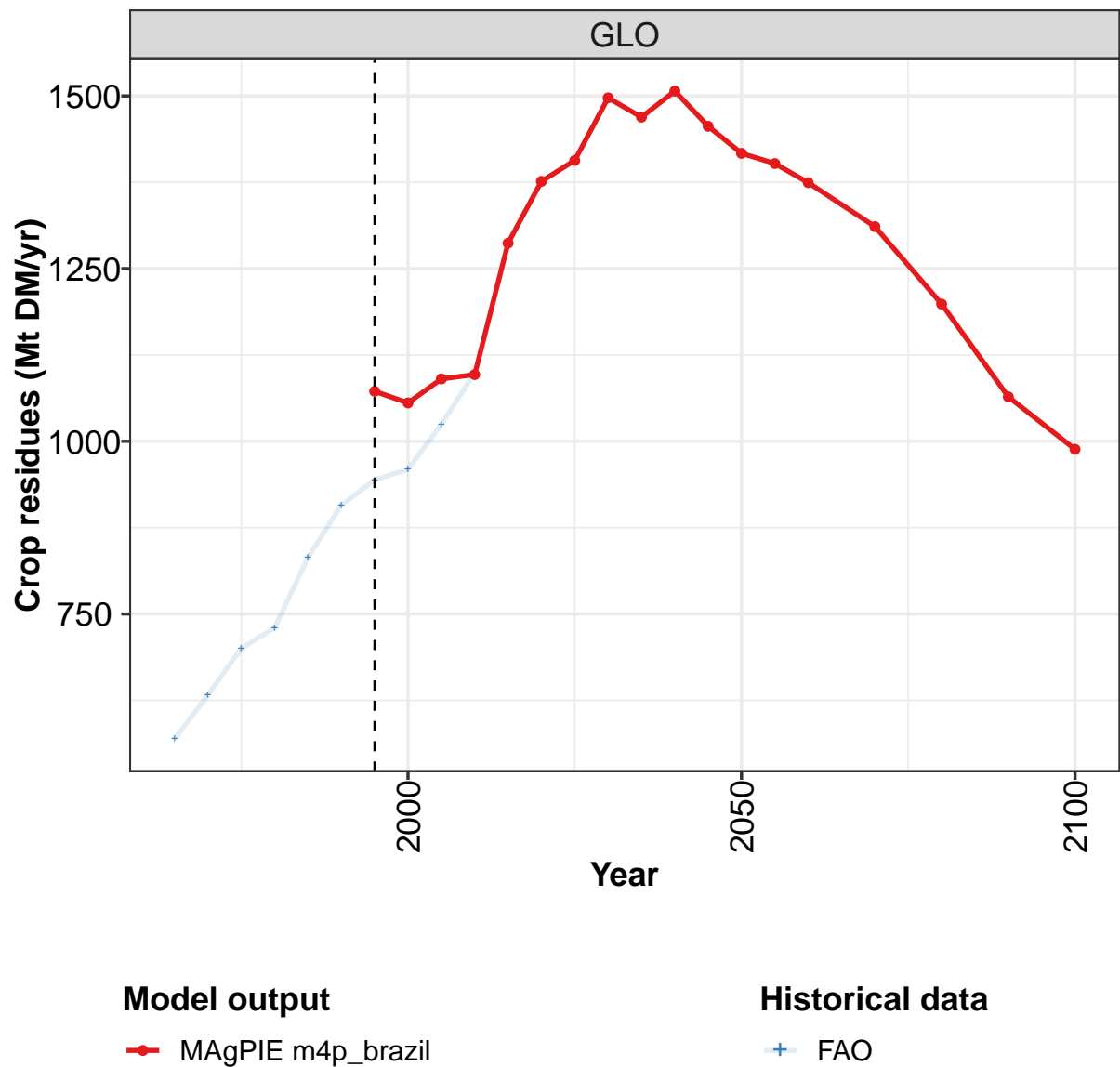
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4653	4990	5260	5533	6096	6242	6502	6872	7424	7836
BRA	210	237	283	340	400	459	544	622	704	765
CHA	600	638	690	751	824	899	997	1101	1210	1332
EUR	830	885	930	957	1027	932	881	850	826	810
LAM	447	479	510	525	608	598	624	667	699	725
ROW	2016	2175	2286	2441	2640	2819	2946	3083	3407	3660
USA	550	576	561	519	597	535	509	549	579	544

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





6.1 Crop residues



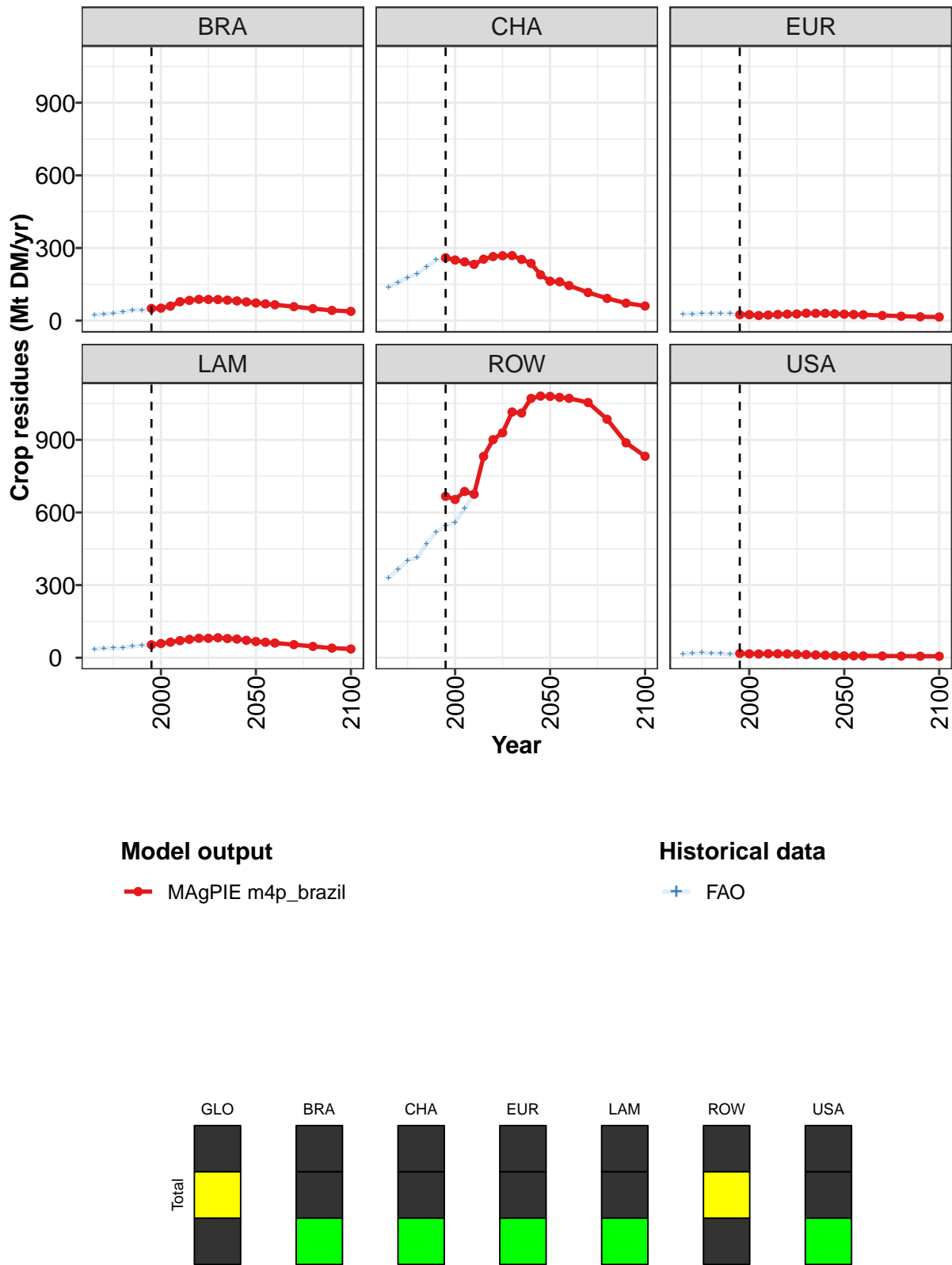


Figure 79: MAGPIE m4p_brazil — Demand—Feed—Crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1072	1056	1090	1097	1287	1376	1407	1497	1469	1507	1456
BRA	50	52	60	78	84	88	88	87	85	81	77
CHA	260	251	243	233	254	264	268	269	253	236	189
EUR	25	25	21	23	25	27	27	31	30	30	28
LAM	53	59	64	71	76	80	80	83	79	77	72
ROW	667	654	687	675	831	901	929	1015	1011	1071	1081
USA	18	16	16	17	17	16	14	13	12	11	9

Table 236: MAgPIE m4p.brazil — Demand—Feed—Crop residues (Mt DM/yr) [PART 1/2]

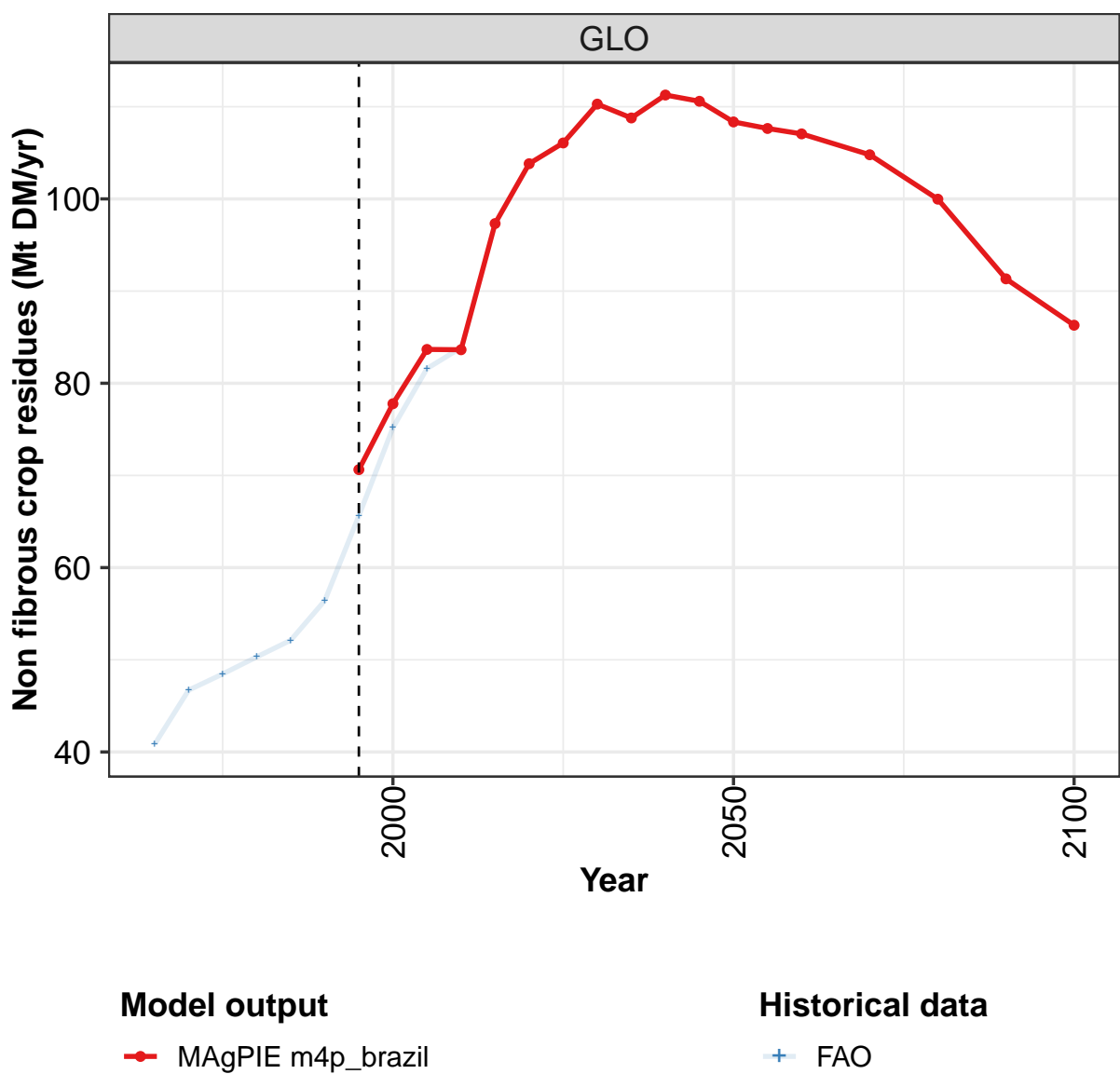
	2050	2055	2060	2070	2080	2090	2100
GLO	1417	1402	1374	1311	1199	1064	988
BRA	73	69	65	58	50	42	38
CHA	163	160	145	116	92	72	61
EUR	27	25	24	21	18	16	15
LAM	67	64	61	54	47	40	36
ROW	1079	1075	1071	1054	985	888	832
USA	8	8	8	7	7	6	6

Table 237: MAgPIE m4p.brazil — 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
BRA	24	27	30	36	44	43	50	52	67	81
CHA	139	157	178	193	222	250	255	249	241	232
EUR	26	28	30	29	29	29	24	24	21	22
LAM	34	39	40	40	49	51	52	58	64	71
ROW	329	364	401	413	471	518	545	559	616	676
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



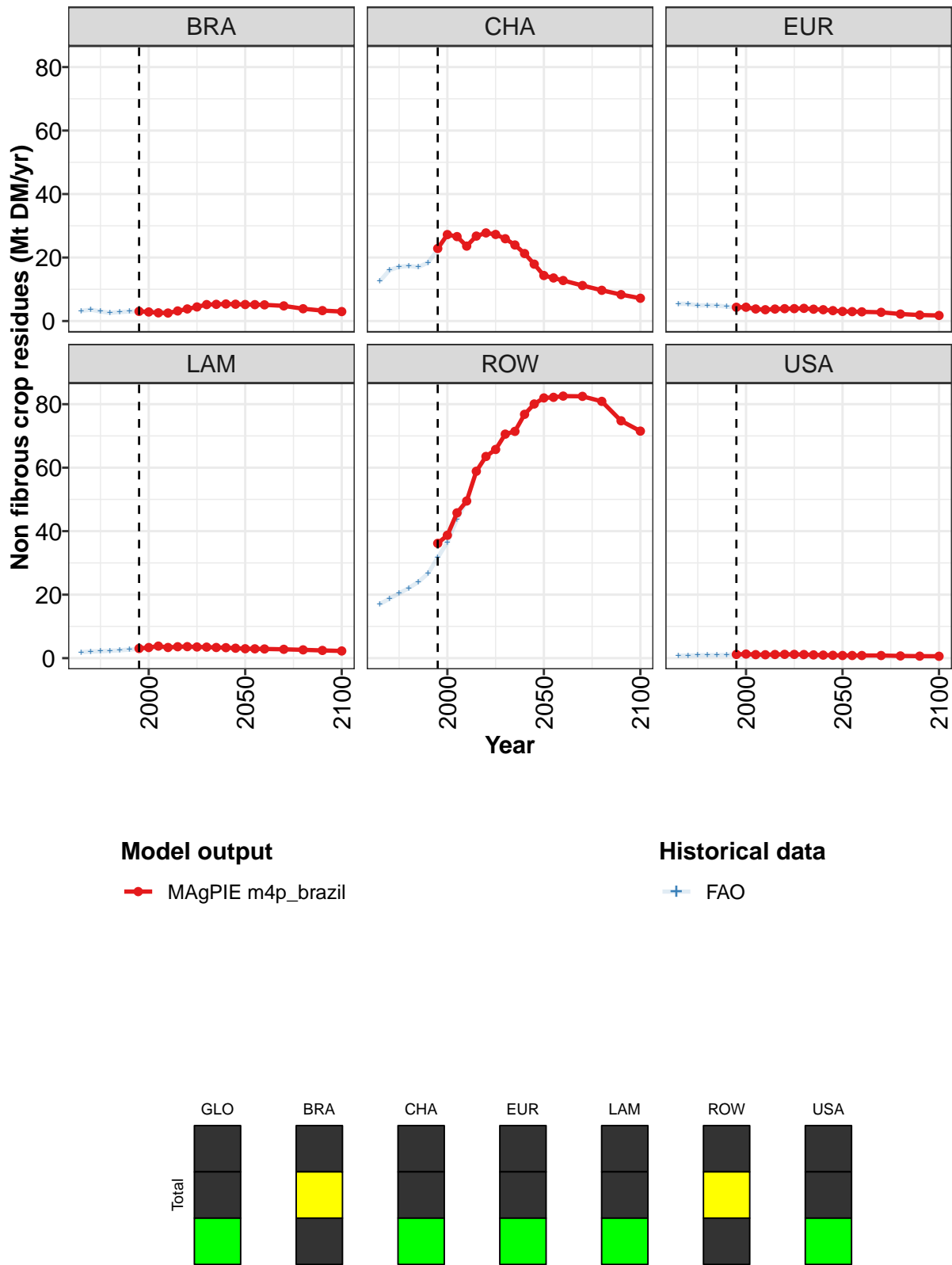


Figure 80: MAGPIE m4p_brazil — Demand—Feed—Crop residues—Non fibrous crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	71	78	84	84	97	104	106	110	109	111	111
BRA	3	3	3	3	3	4	4	5	5	5	5
CHA	23	27	27	24	27	28	27	26	24	21	18
EUR	4	4	4	4	4	4	4	4	4	4	3
LAM	3	3	4	3	4	4	4	3	3	3	3
ROW	36	39	46	49	59	64	66	71	71	77	80
USA	1	1	1	1	1	1	1	1	1	1	1

Table 239: MAgPIE m4p.brazil — Demand—Feed—Crop residues—Non fibrous crop residues (Mt DM/yr)
[PART 1/2]

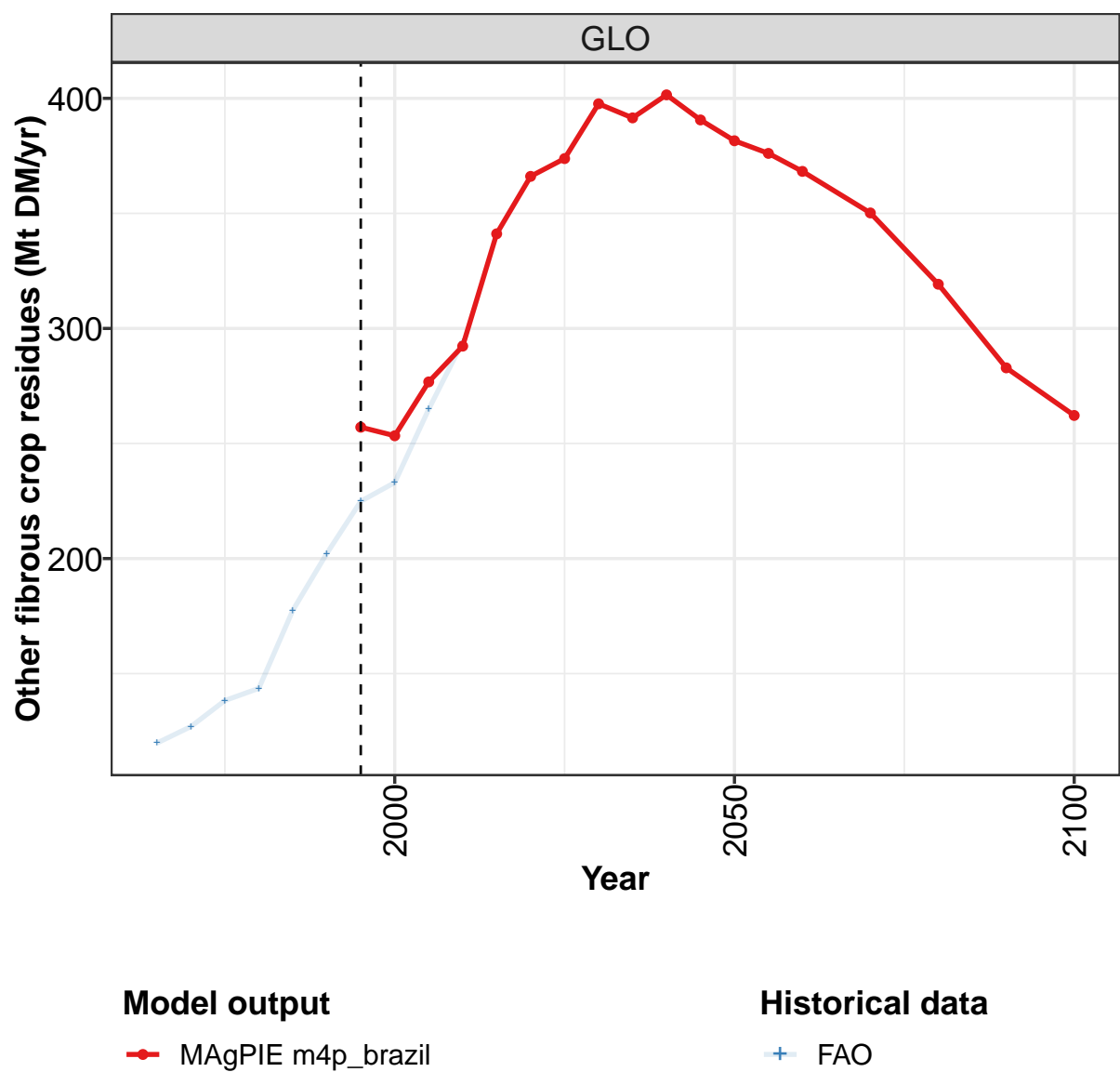
	2050	2055	2060	2070	2080	2090	2100
GLO	108	108	107	105	100	91	86
BRA	5	5	5	5	4	3	3
CHA	14	14	13	11	10	8	7
EUR	3	3	3	3	2	2	2
LAM	3	3	3	3	3	2	2
ROW	82	82	83	82	81	75	72
USA	1	1	1	1	1	1	1

Table 240: MAgPIE m4p.brazil — 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
BRA	3.2	3.6	3.0	2.6	2.8	3.0	3.1	3.0	3.1	2.8
CHA	12.5	16.0	17.1	17.4	17.0	18.4	22.5	27.1	26.5	23.6
EUR	5.4	5.4	4.9	5.0	4.9	4.6	4.2	4.2	3.6	3.4
LAM	1.9	2.1	2.2	2.3	2.5	2.7	2.9	3.2	3.5	3.4
ROW	17.0	18.8	20.4	22.1	24.0	26.7	31.7	36.5	43.8	49.5
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



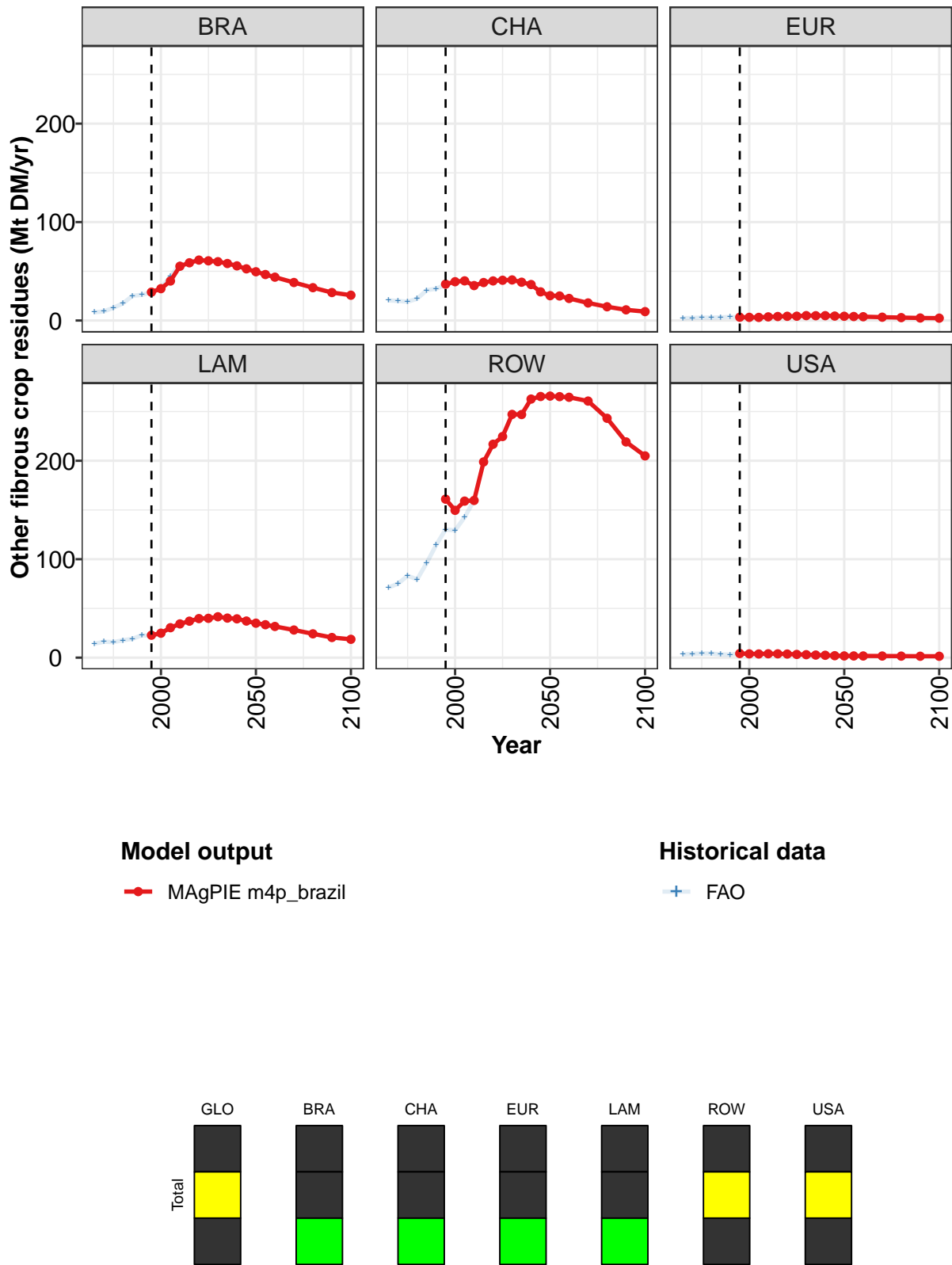


Figure 81: MAgPIE m4p_brazil — Demand—Feed—Crop residues—Other fibrous crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	257	253	277	292	341	366	374	398	392	402	391
BRA	29	32	40	55	59	61	61	60	58	56	53
CHA	37	39	40	35	39	40	41	41	39	37	29
EUR	3	3	3	4	4	4	4	5	5	5	5
LAM	23	25	30	34	37	40	40	42	40	39	37
ROW	161	150	159	160	199	217	225	247	247	263	265
USA	4	4	4	4	4	4	3	3	3	2	2

Table 242: MAgPIE m4p_brazil — Demand—Feed—Crop residues—Other fibrous crop residues (Mt DM/yr)
[PART 1/2]

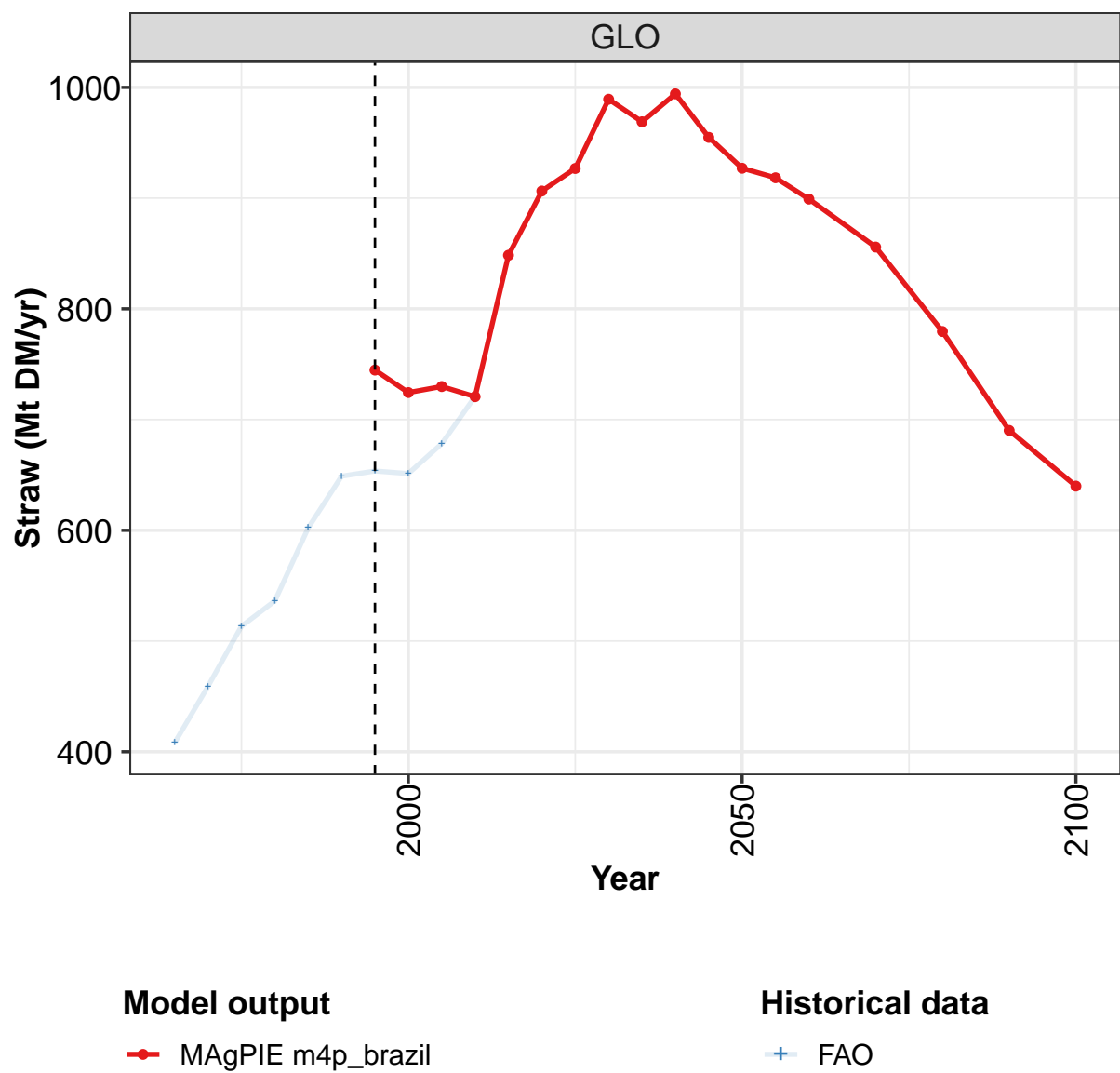
	2050	2055	2060	2070	2080	2090	2100
GLO	382	376	368	350	319	283	262
BRA	50	47	44	39	33	28	26
CHA	25	25	22	18	14	11	9
EUR	4	4	4	3	3	3	2
LAM	35	33	32	28	24	20	19
ROW	266	265	264	261	243	219	205
USA	2	2	2	2	2	1	1

Table 243: MAgPIE m4p_brazil — 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
BRA	8	9	13	17	25	26	29	33	45	57
CHA	20	20	19	22	31	32	36	39	40	35
EUR	2	3	3	3	3	4	3	3	3	4
LAM	14	16	16	18	19	23	22	24	30	34
ROW	71	75	83	79	96	114	130	129	143	160
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



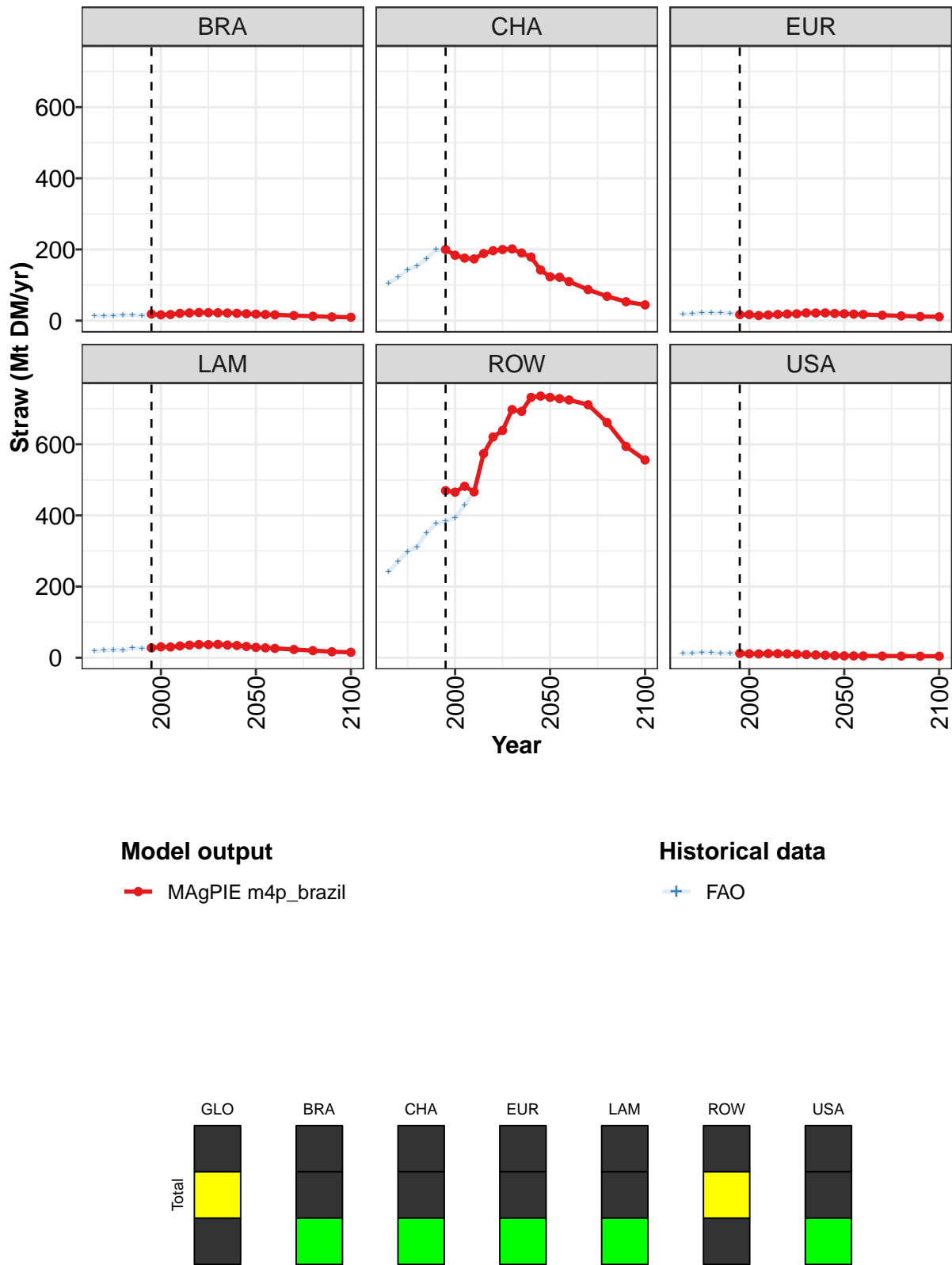


Figure 82: MAgPIE m4p_brazil — Demand—Feed—Crop residues—Straw (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	745	724	730	721	848	906	927	989	969	994	955
BRA	18	16	17	20	22	23	22	22	21	21	19
CHA	200	184	176	173	189	196	200	201	190	179	142
EUR	17	17	14	16	18	19	19	22	21	22	20
LAM	28	31	30	33	35	37	37	38	36	34	32
ROW	470	465	482	466	574	620	639	697	692	732	735
USA	12	11	11	12	12	11	10	9	8	7	6

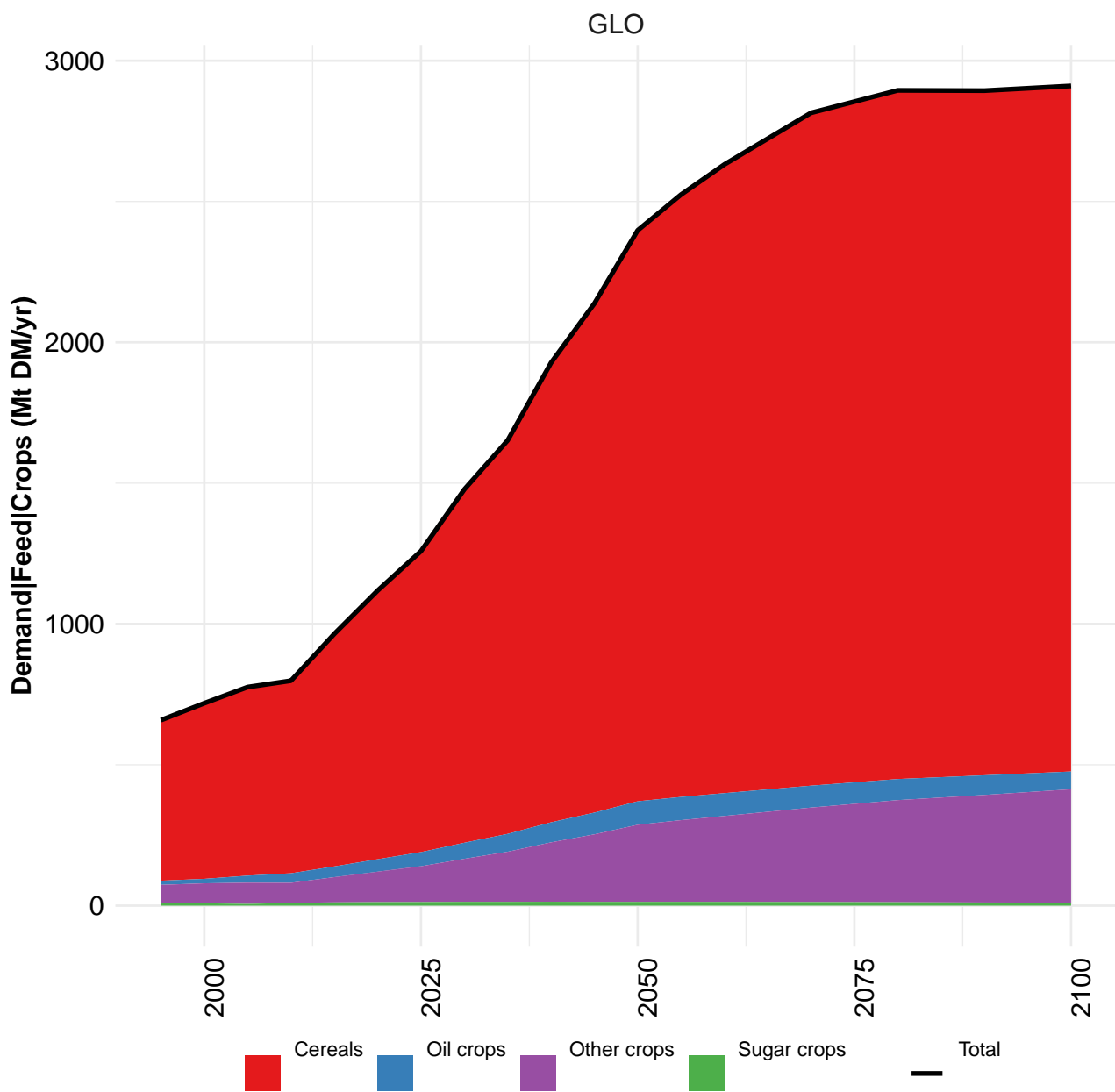
Table 245: MAgPIE m4p.brazil — Demand—Feed—Crop residues—Straw (Mt DM/yr) [PART 1/2]

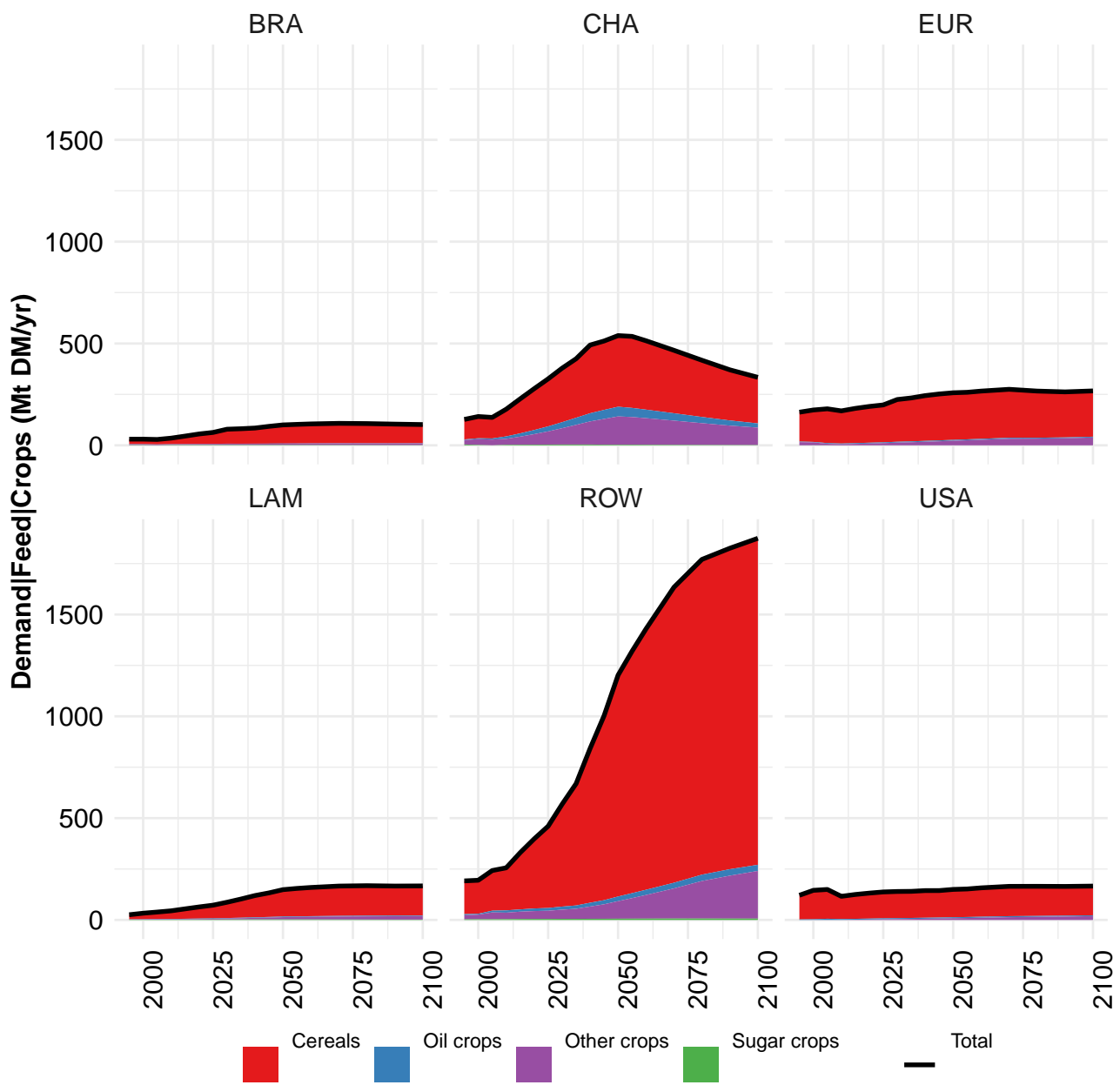
	2050	2055	2060	2070	2080	2090	2100
GLO	927	918	899	856	780	690	640
BRA	18	17	16	14	12	11	10
CHA	123	122	110	87	68	53	44
EUR	19	18	17	15	13	12	11
LAM	29	28	26	23	20	17	15
ROW	732	728	724	711	661	594	556
USA	5	5	5	5	5	4	4

Table 246: MAgPIE m4p.brazil — Demand—Feed—Crop residues—Straw (Mt DM/yr) [PART 2/2]

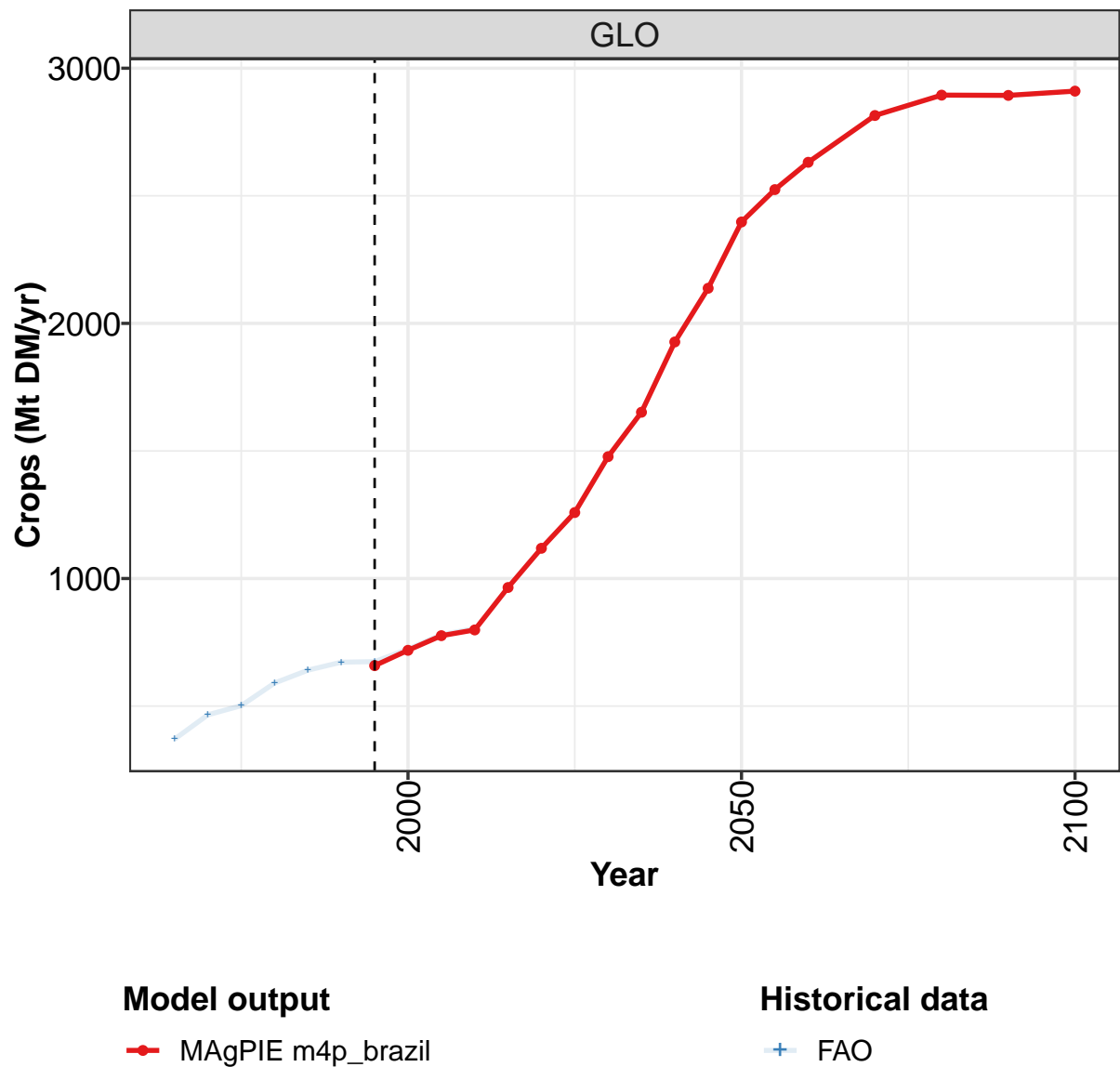
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	408	459	513	536	602	649	654	651	678	721
BRA	13	14	14	16	16	14	18	17	19	21
CHA	106	121	142	153	174	199	196	183	175	173
EUR	18	20	22	21	21	21	17	17	14	15
LAM	18	20	22	21	27	26	27	30	30	33
ROW	241	270	298	312	351	377	383	393	429	466
USA	12	13	15	14	13	11	13	12	11	12

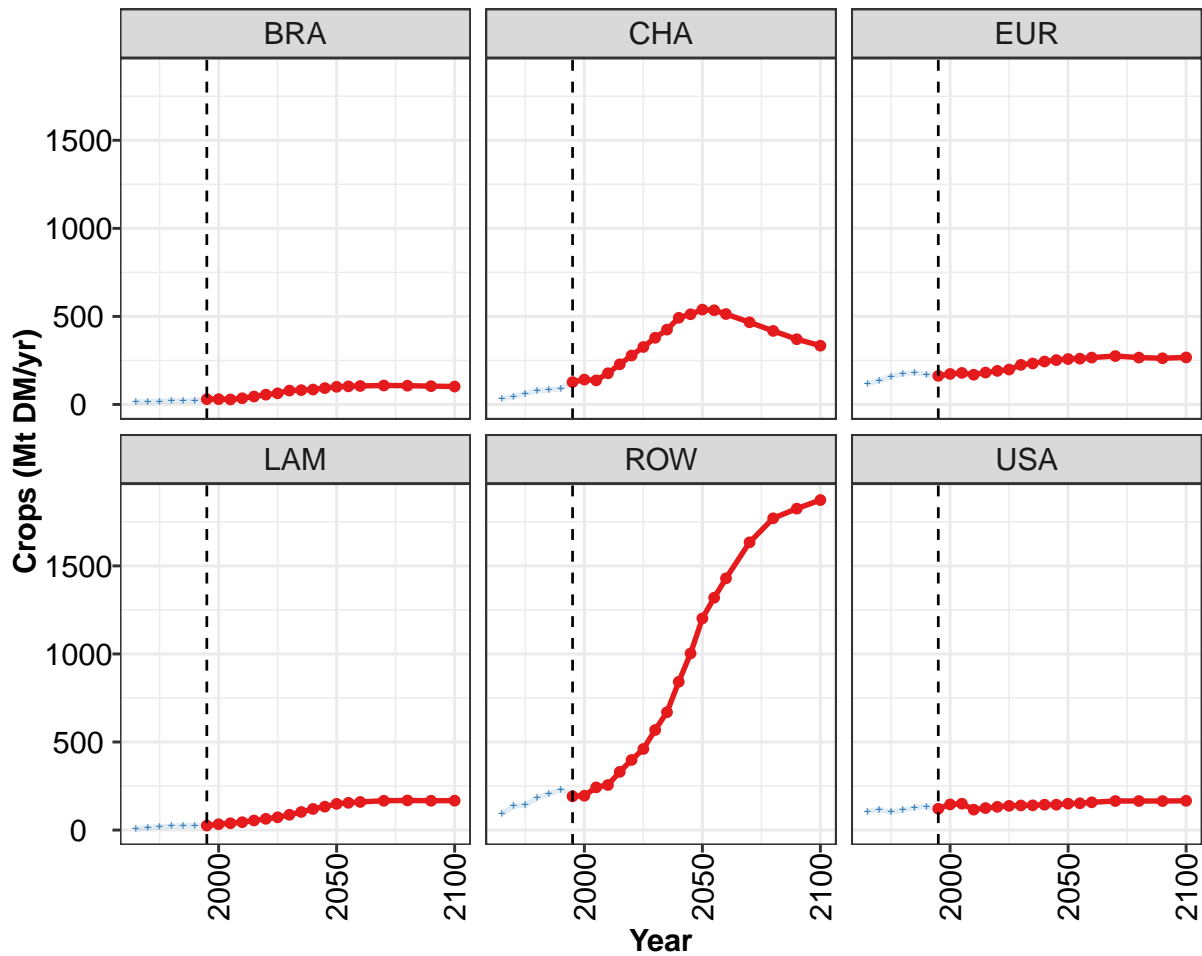
Table 247: FAO — Demand—Feed—Crop residues—Straw (Mt DM/yr)





6.2
Crops





Model output

—•— MAGPIE m4p_brazil

Historical data

+— FAO

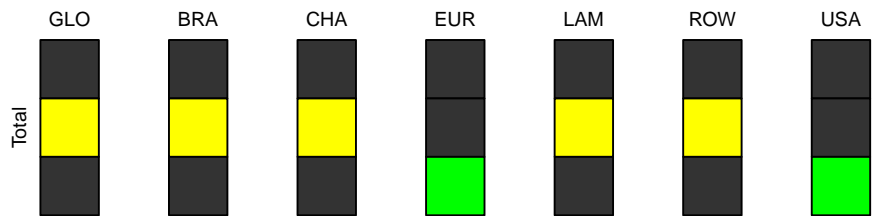


Figure 83: MAGPIE m4p_brazil — Demand—Feed—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	658	719	776	798	965	1119	1259	1478	1652	1927	2138
BRA	30	30	29	35	45	56	63	79	81	85	93
CHA	127	141	137	177	228	278	326	379	425	492	512
EUR	163	173	179	169	181	191	198	225	233	244	252
LAM	26	33	39	45	54	64	72	87	103	120	133
ROW	192	195	243	256	331	398	461	568	669	842	1003
USA	121	145	150	116	125	132	138	140	140	144	144

Table 248: MAgPIE m4p_brazil — Demand—Feed—Crops (Mt DM/yr) [PART 1/2]

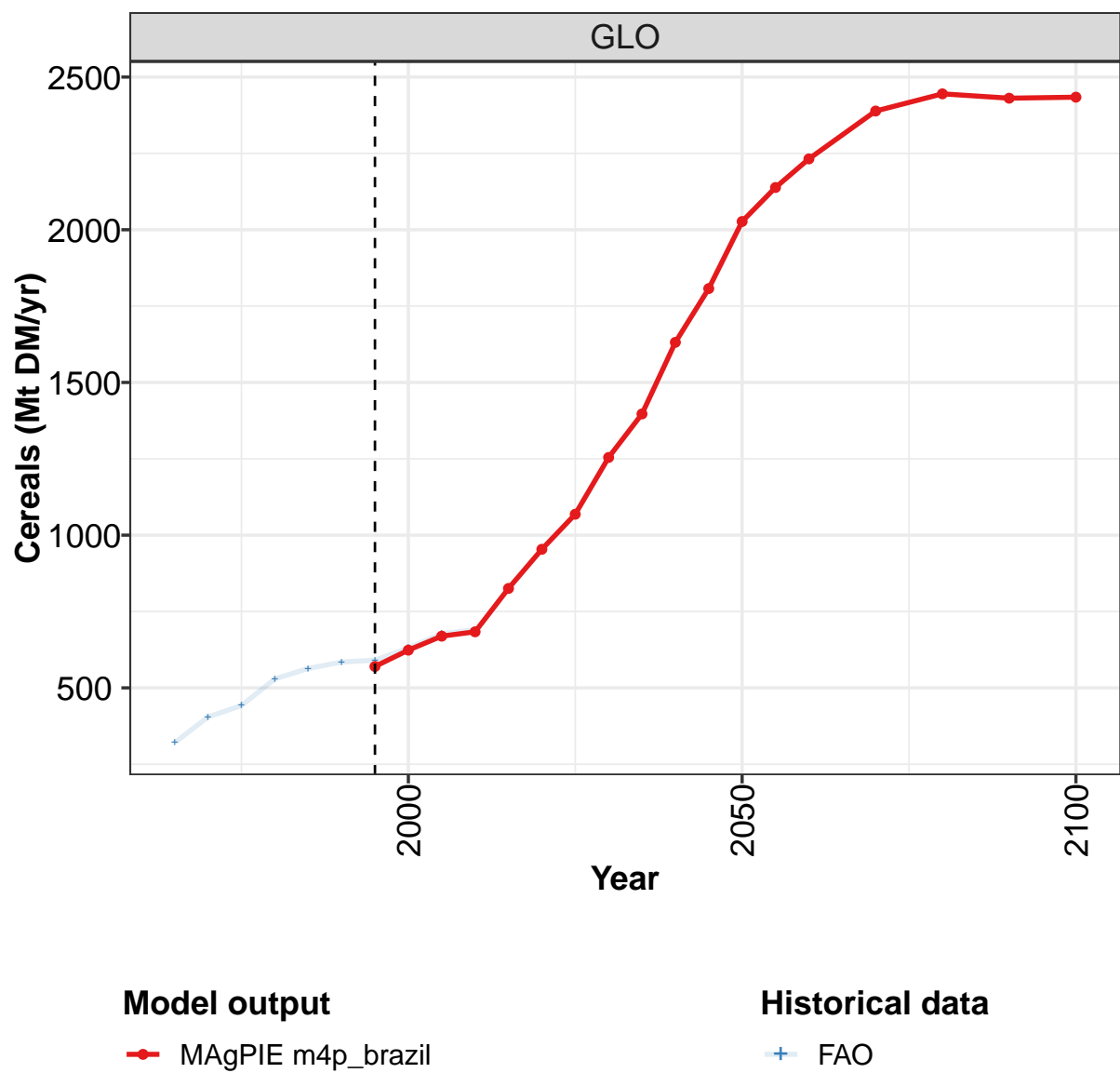
	2050	2055	2060	2070	2080	2090	2100
GLO	2398	2524	2631	2815	2895	2894	2910
BRA	100	103	105	108	107	104	102
CHA	539	535	513	467	418	371	334
EUR	258	260	266	275	266	262	267
LAM	149	155	160	166	168	166	167
ROW	1202	1319	1429	1634	1770	1825	1874
USA	150	152	158	165	165	165	166

Table 249: MAgPIE m4p_brazil — 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
BRA	14	16	18	21	21	23	31	31	32	38
CHA	32	46	60	80	82	90	129	143	139	179
EUR	118	136	159	173	181	169	161	170	178	164
LAM	9	15	19	22	24	26	27	34	39	45
ROW	92	137	142	182	205	230	203	195	239	256
USA	105	116	103	113	128	134	124	151	153	120

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

6.2.1
Cereals



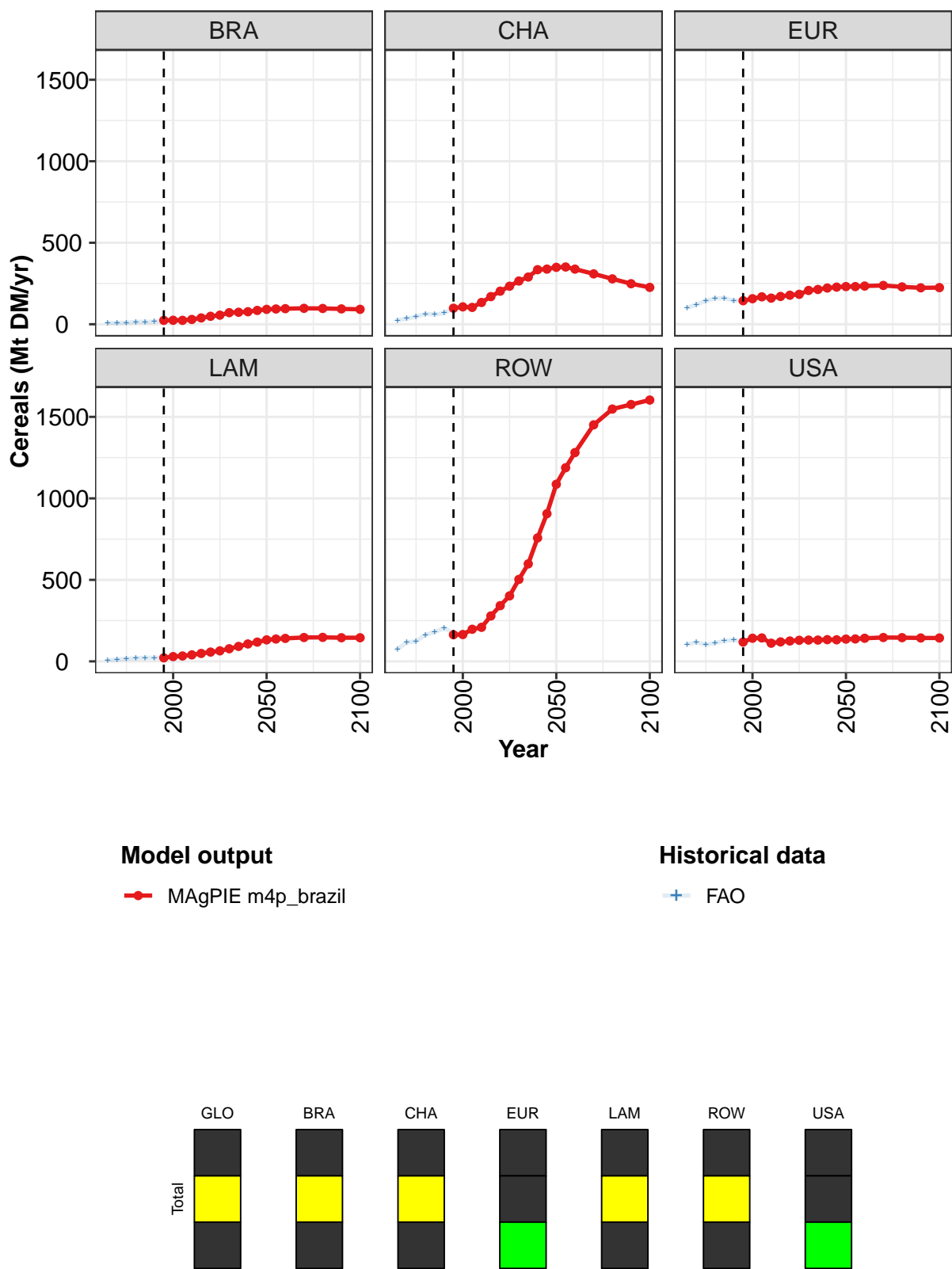


Figure 84: MAgPIE m4p_brazil — Demand—Feed—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	570	624	669	684	826	954	1069	1254	1397	1631	1807
BRA	24	24	24	29	39	49	56	71	74	77	85
CHA	98	107	103	134	169	203	233	265	290	335	338
EUR	144	157	168	160	171	178	184	207	213	222	228
LAM	22	29	33	40	49	57	65	77	92	107	118
ROW	163	165	197	209	279	342	402	503	598	758	906
USA	118	142	144	112	119	125	129	131	131	133	132

Table 251: MAgPIE m4p_brazil — Demand—Feed—Crops—Cereals (Mt DM/yr) [PART 1/2]

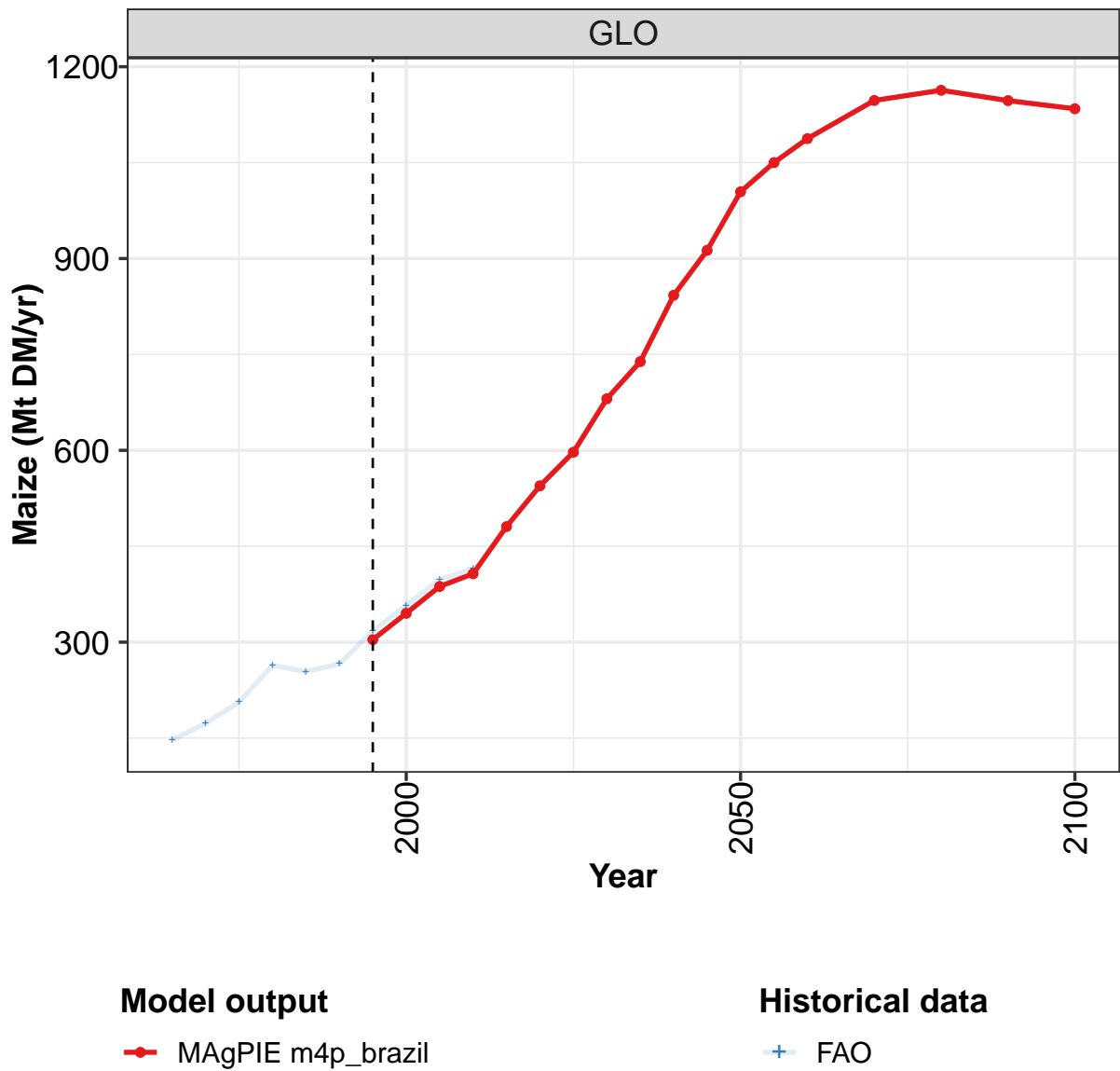
	2050	2055	2060	2070	2080	2090	2100
GLO	2027	2138	2232	2389	2445	2431	2434
BRA	91	94	96	98	97	94	92
CHA	349	351	338	309	278	249	226
EUR	231	231	234	238	229	223	225
LAM	132	137	141	146	147	145	145
ROW	1087	1188	1281	1451	1548	1576	1603
USA	137	138	142	146	145	144	143

Table 252: MAgPIE m4p_brazil — 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
BRA	7	8	10	14	15	15	25	26	27	32
CHA	24	34	47	63	60	68	100	108	105	136
EUR	102	120	144	158	160	145	145	153	168	156
LAM	7	12	16	19	22	22	23	30	34	41
ROW	75	115	123	162	181	203	176	167	197	211
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



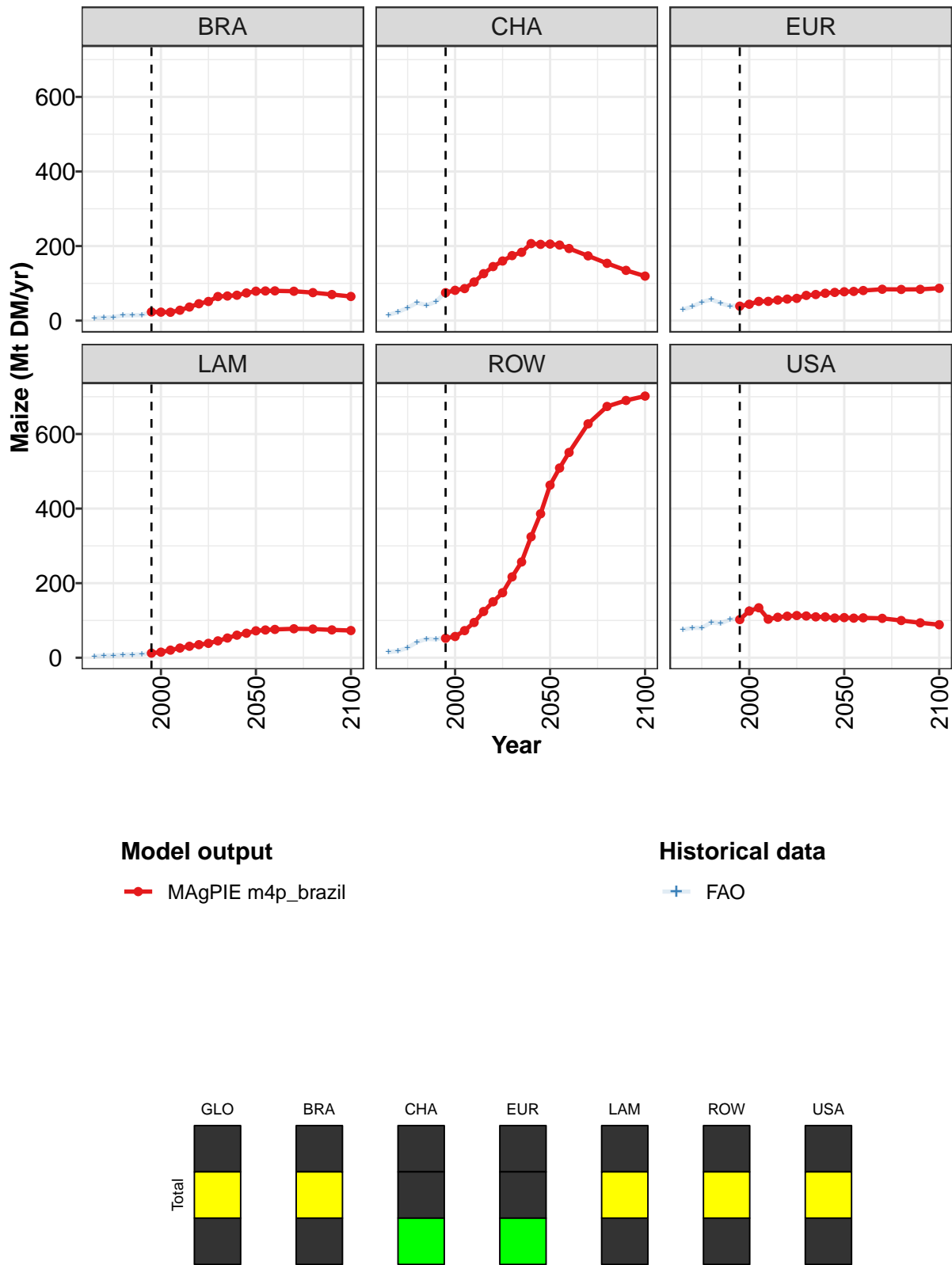


Figure 85: MAgPIE m4p_brazil — Demand—Feed—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	304	345	387	407	481	545	597	681	739	843	913
BRA	23	23	22	28	36	45	51	65	66	68	74
CHA	75	81	86	104	126	145	160	174	183	207	205
EUR	39	44	52	52	55	58	60	68	70	73	76
LAM	12	15	20	26	31	35	39	45	53	60	66
ROW	52	57	73	95	124	150	174	217	257	324	386
USA	102	125	134	103	109	111	113	112	110	110	107

Table 254: MAgPIE m4p_brazil — Demand—Feed—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

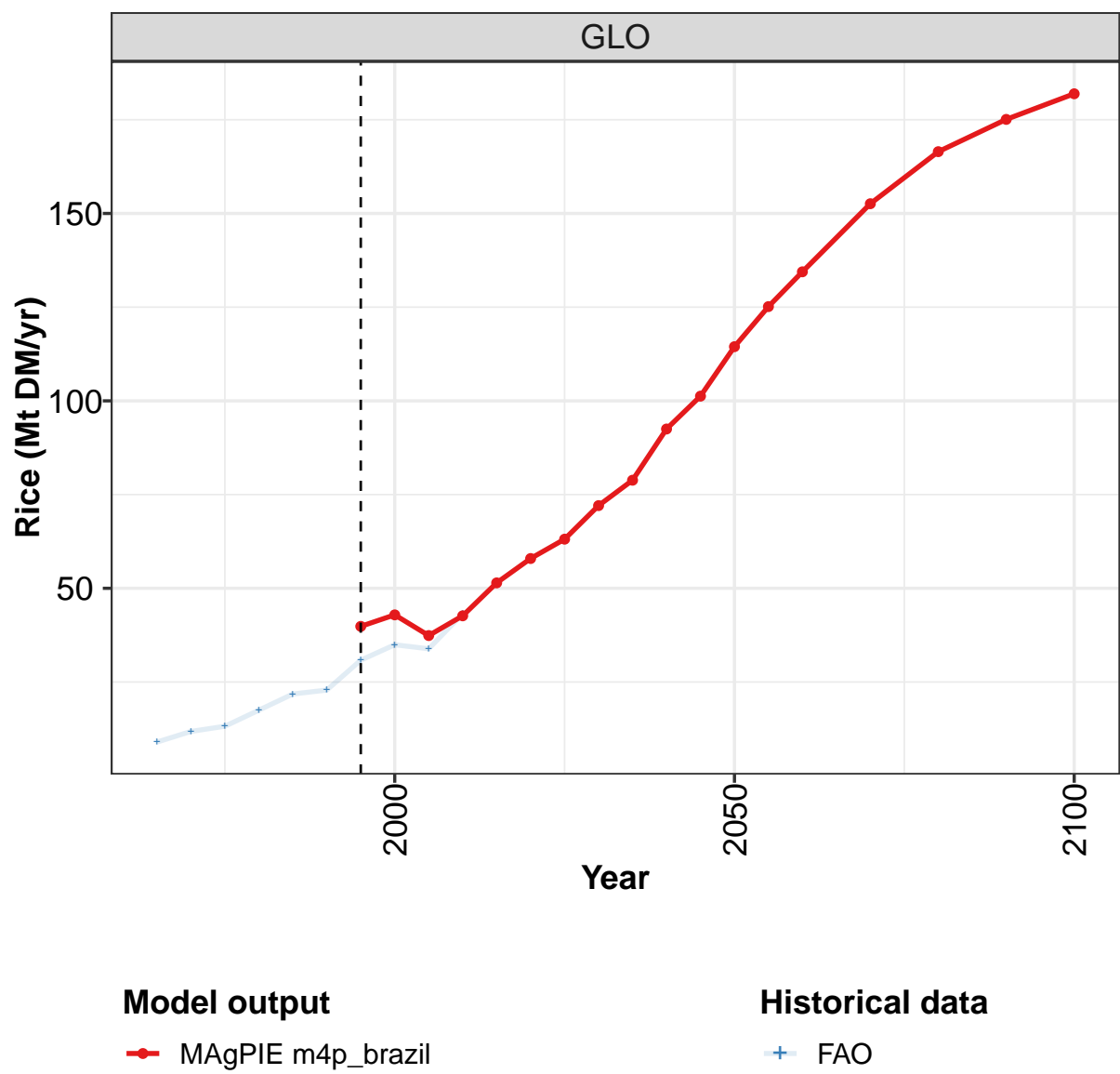
	2050	2055	2060	2070	2080	2090	2100
GLO	1004	1050	1088	1147	1163	1147	1134
BRA	79	80	80	79	75	70	65
CHA	205	203	193	174	154	135	119
EUR	77	78	81	84	84	84	87
LAM	72	74	76	78	77	75	73
ROW	463	509	551	627	674	690	702
USA	108	106	107	106	100	94	89

Table 255: MAgPIE m4p_brazil — 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
BRA	7	8	9	14	14	15	24	24	25	30
CHA	16	23	34	48	41	51	77	83	88	105
EUR	30	38	49	57	47	38	42	45	53	50
LAM	4	6	6	8	9	9	13	15	21	26
ROW	15	18	27	42	51	49	56	61	75	96
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



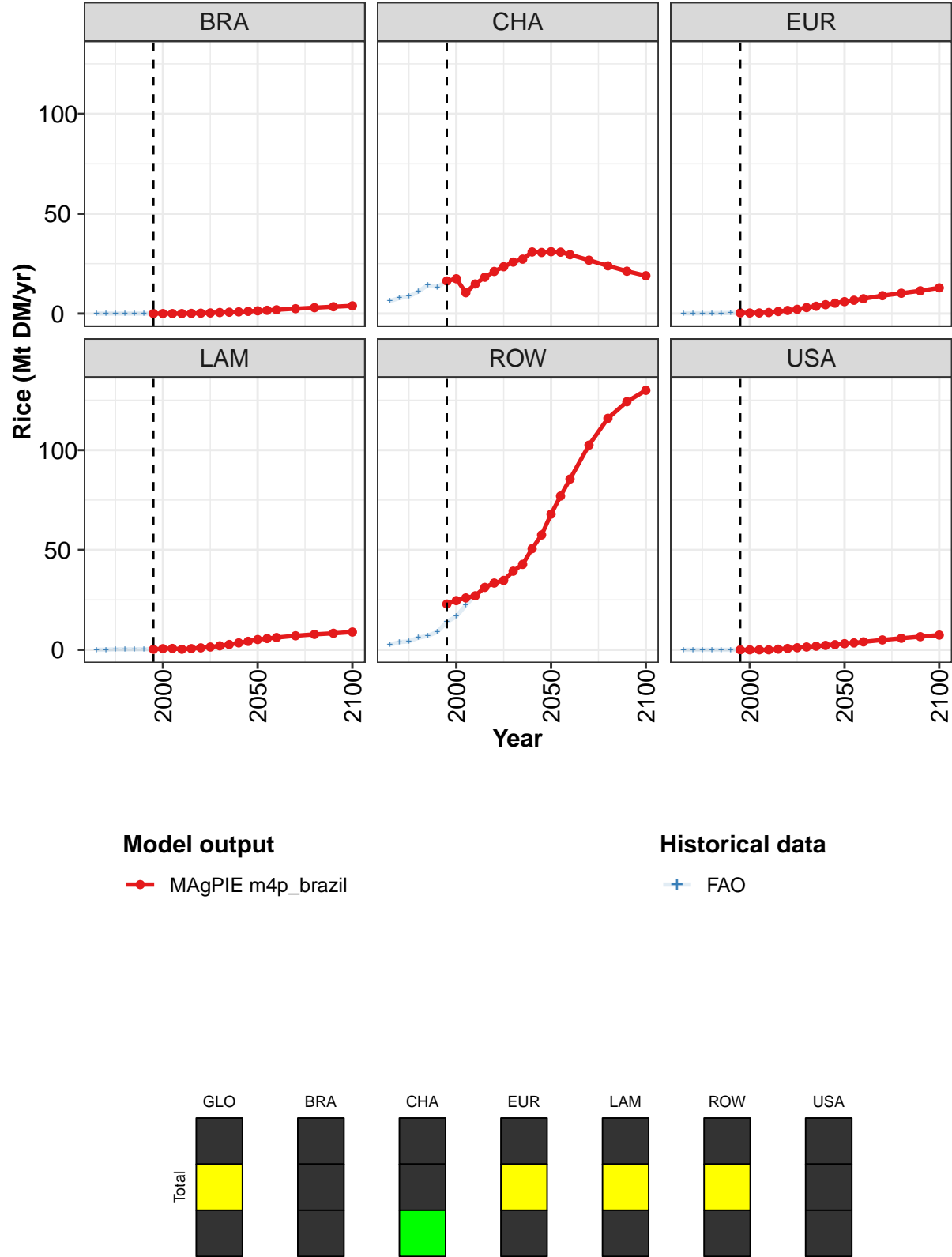


Figure 86: MAGPIE m4p_brazil — Demand—Feed—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	40	43	37	43	51	58	63	72	79	92	101
BRA	0	0	0	0	0	0	0	1	1	1	1
CHA	16	17	10	15	18	21	23	26	27	31	31
EUR	0	0	0	1	1	2	2	3	4	4	5
LAM	0	1	1	0	1	1	1	2	3	3	4
ROW	23	25	26	27	31	33	35	39	43	51	58
USA	0	0	0	0	0	1	1	1	2	2	3

Table 257: MAgPIE m4p_brazil — Demand—Feed—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

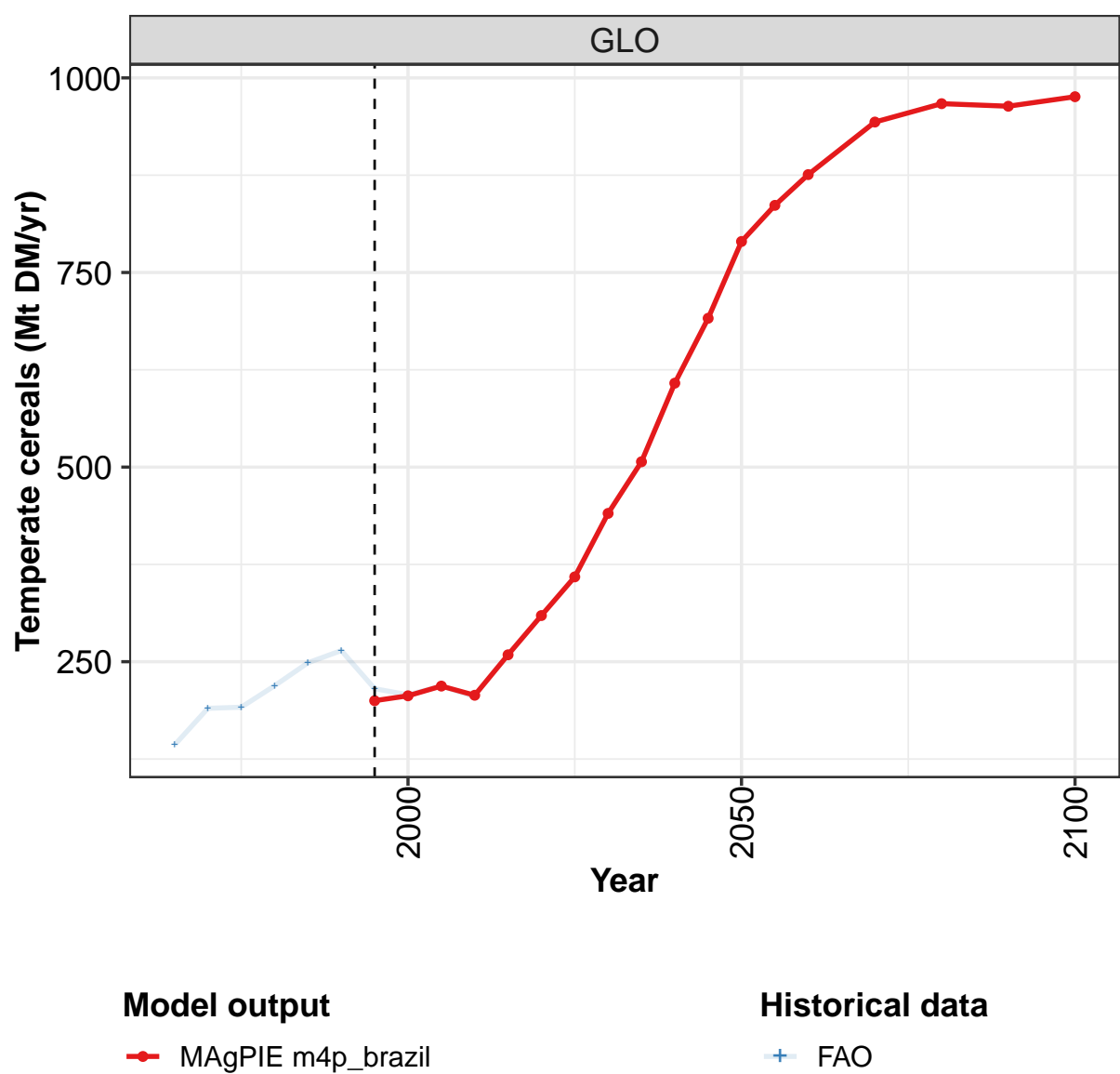
	2050	2055	2060	2070	2080	2090	2100
GLO	114	125	134	153	166	175	182
BRA	1	2	2	2	3	3	4
CHA	31	31	29	27	24	21	19
EUR	6	7	7	9	10	11	13
LAM	5	6	6	7	8	8	9
ROW	68	77	86	102	116	124	130
USA	3	3	4	5	6	7	7

Table 258: MAgPIE m4p_brazil — 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
BRA	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	0.4	0.3	0.3	0.5
LAM	0.0	0.1	0.3	0.2	0.3	0.3	0.3	0.5	0.6	0.3
ROW	2.6	3.9	4.2	6.1	7.0	9.0	14.0	16.7	22.4	27.4
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



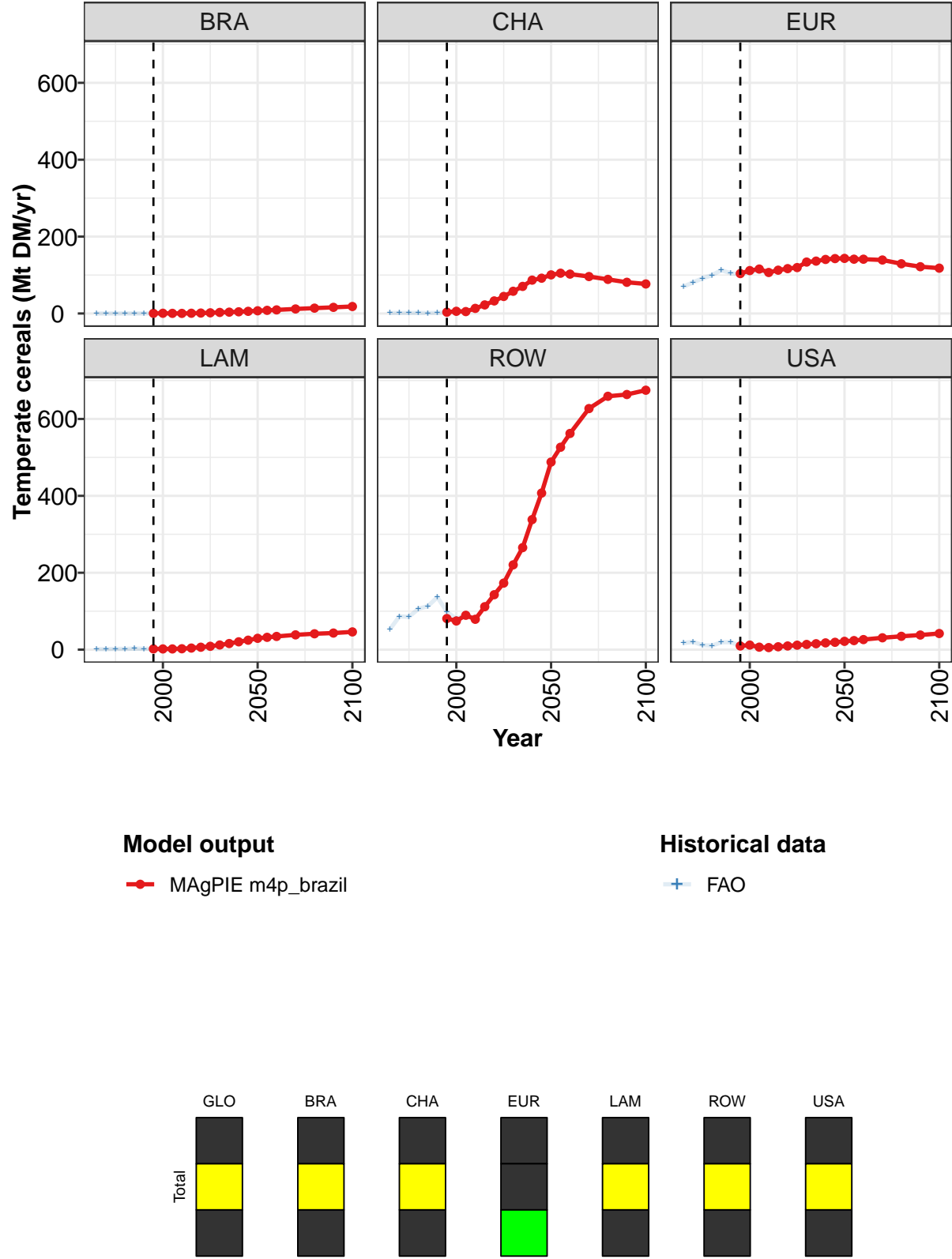


Figure 87: MAgPIE m4p_brazil — Demand—Feed—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	200	206	219	207	259	309	359	441	507	608	691
BRA	0	1	0	0	1	1	2	3	4	4	6
CHA	3	6	5	13	22	33	44	58	70	87	92
EUR	104	112	116	107	113	117	119	134	136	141	143
LAM	2	2	2	2	4	6	9	12	16	20	25
ROW	81	75	89	79	112	143	173	221	265	338	407
USA	10	12	6	5	7	10	12	14	15	18	19

Table 260: MAgPIE m4p_brazil — Demand—Feed—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 1/2]

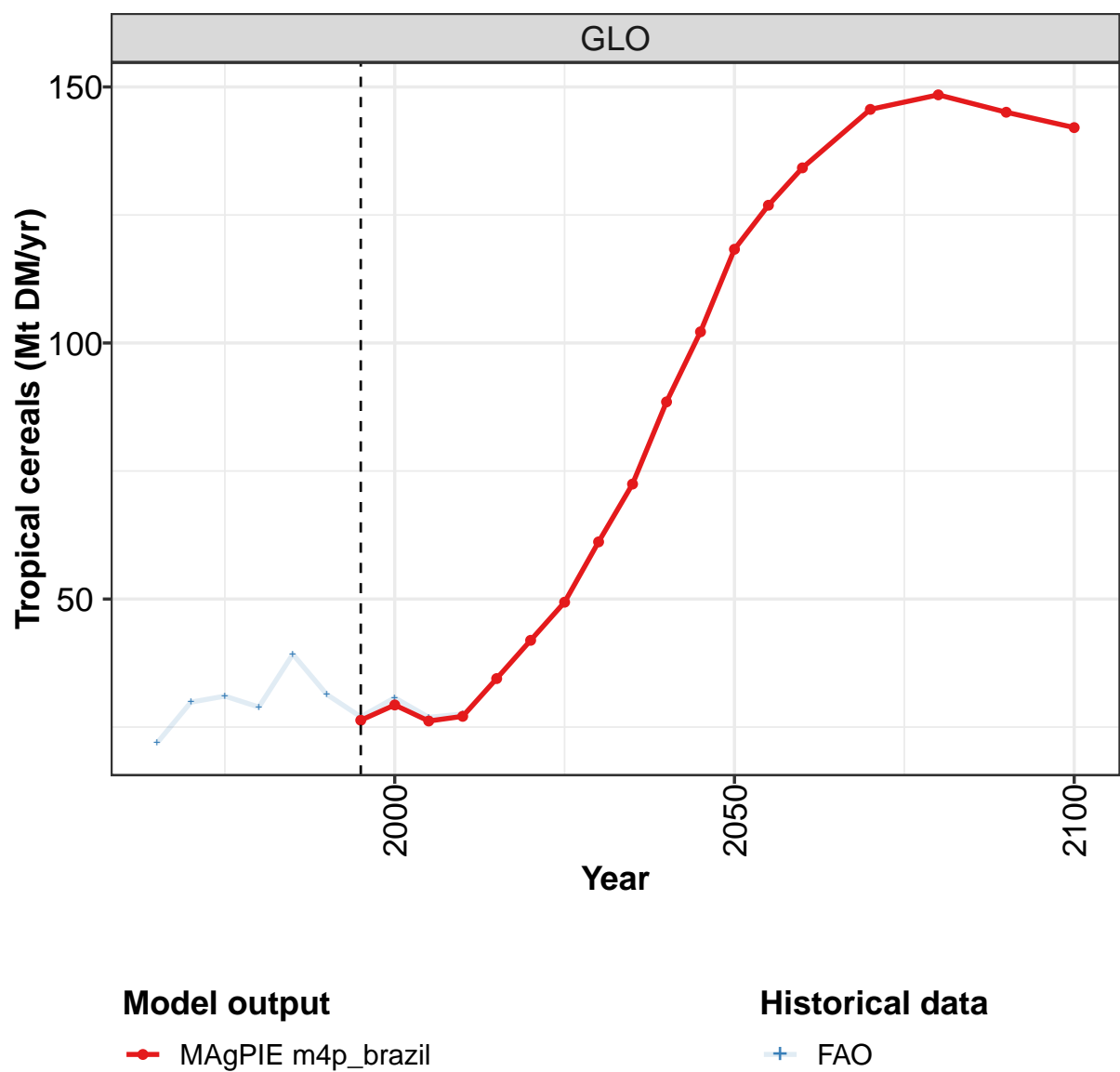
	2050	2055	2060	2070	2080	2090	2100
GLO	790	836	876	943	967	964	976
BRA	7	8	9	12	14	16	18
CHA	100	105	102	96	89	81	77
EUR	143	141	141	139	129	122	118
LAM	29	32	34	38	41	43	46
ROW	488	526	562	627	659	664	675
USA	22	24	26	31	35	38	42

Table 261: MAgPIE m4p_brazil — 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
BRA	0	0	0	0	0	0	0	1	0	0
CHA	1	1	1	1	1	2	3	6	5	14
EUR	70	81	91	99	113	105	101	107	113	104
LAM	1	1	2	2	3	2	2	2	2	2
ROW	53	86	85	106	113	136	99	80	91	80
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



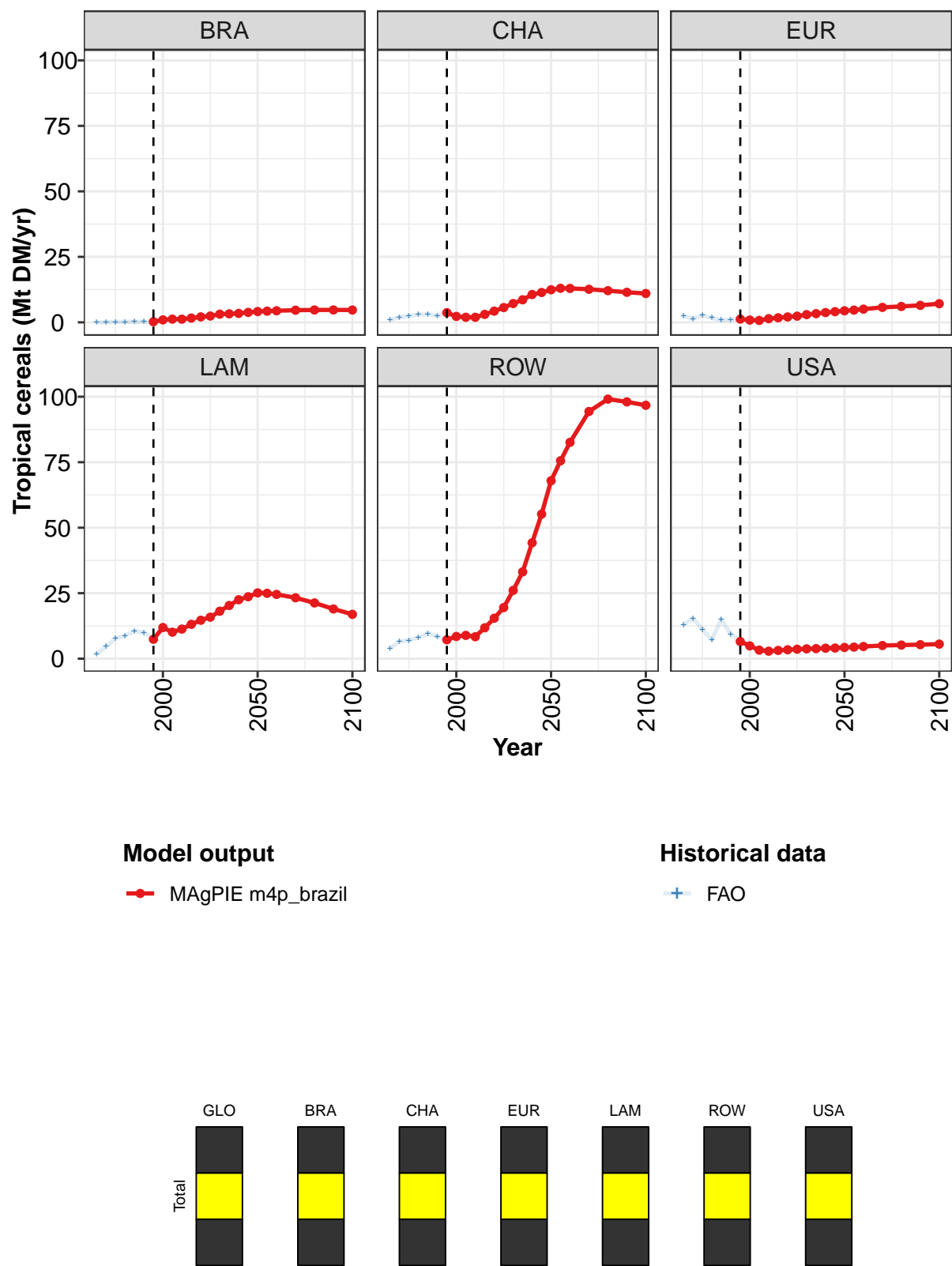


Figure 88: MAgPIE m4p_brazil — Demand—Feed—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	26	29	26	27	34	42	49	61	72	89	102
BRA	0	1	1	1	2	2	2	3	3	3	4
CHA	4	2	2	2	3	4	6	7	9	11	11
EUR	1	1	1	1	2	2	2	3	3	4	4
LAM	7	12	10	11	13	15	16	18	20	23	24
ROW	7	8	9	8	12	15	20	26	33	44	55
USA	7	5	3	3	3	3	4	4	4	4	4

Table 263: MAgPIE m4p_brazil — Demand—Feed—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

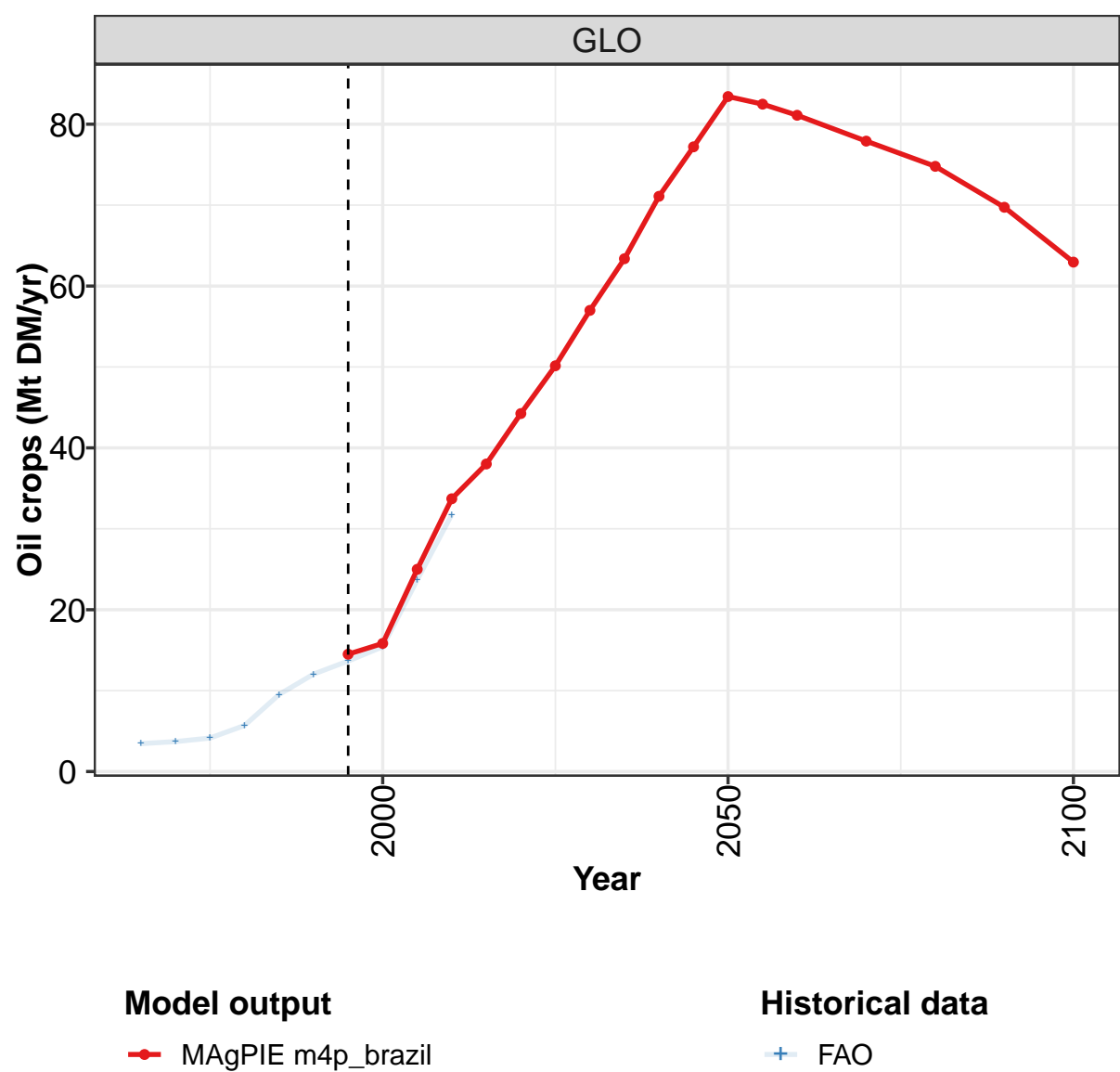
	2050	2055	2060	2070	2080	2090	2100
GLO	118	127	134	146	148	145	142
BRA	4	4	4	5	5	5	5
CHA	12	13	13	13	12	11	11
EUR	4	5	5	6	6	6	7
LAM	25	25	25	23	21	19	17
ROW	68	76	83	94	99	98	97
USA	4	4	5	5	5	5	6

Table 264: MAgPIE m4p_brazil — 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
BRA	0.0	0.0	0.2	0.2	0.2	0.2	0.2	1.0	1.4	1.3
CHA	1.1	1.9	2.4	2.9	3.1	2.5	3.7	2.3	2.0	2.0
EUR	2.4	1.4	2.6	1.7	0.8	1.0	1.2	0.9	0.7	1.4
LAM	1.7	4.6	7.7	8.8	10.6	9.9	7.9	12.7	10.6	11.5
ROW	3.9	6.6	7.0	8.1	9.6	8.4	7.2	8.8	8.9	8.5
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



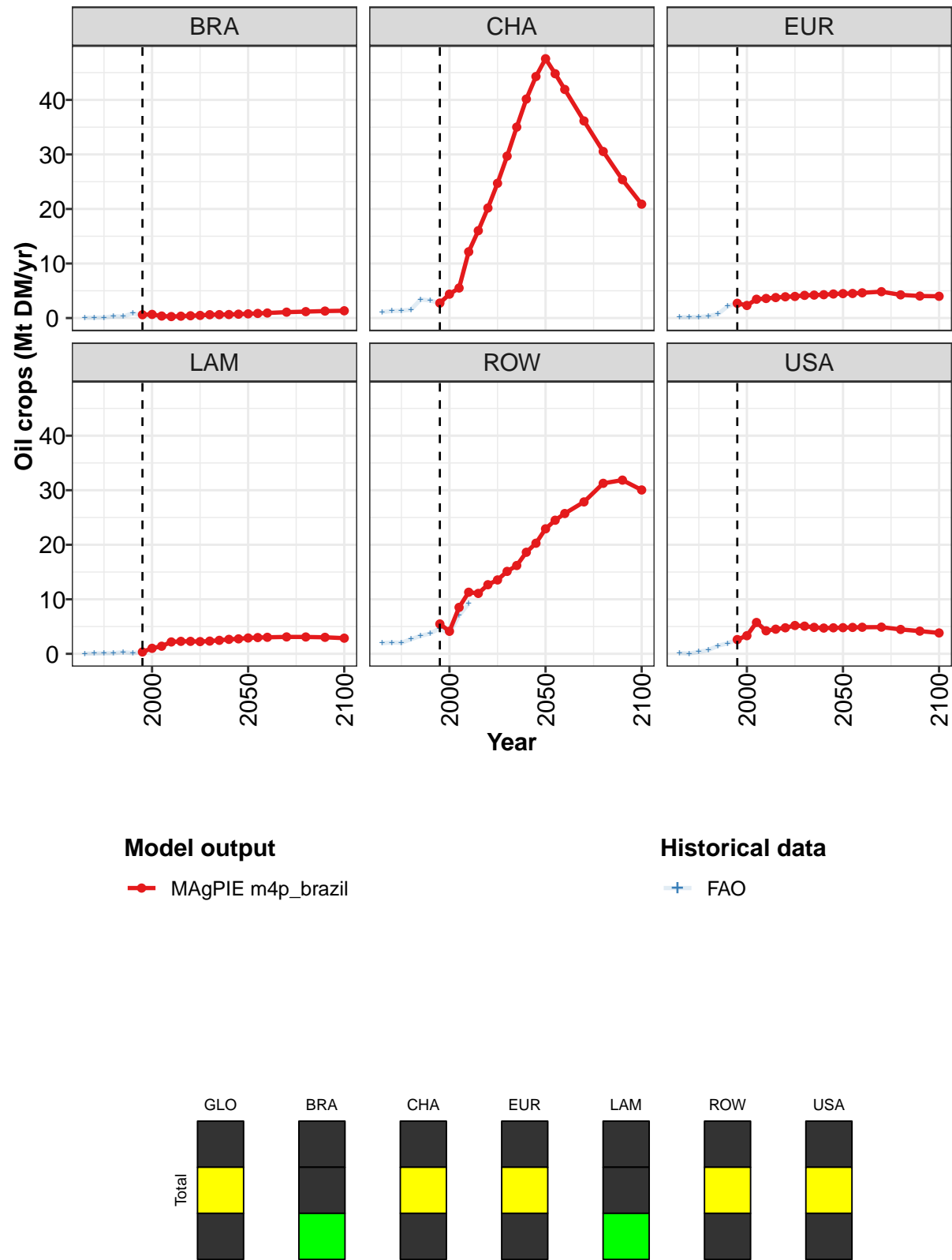


Figure 89: MAgPIE m4p_brazil — Demand—Feed—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	14.5	15.8	25.0	33.7	38.0	44.2	50.1	57.0	63.4	71.1	77.2
BRA	0.6	0.7	0.4	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.7
CHA	2.7	4.4	5.5	12.2	16.0	20.2	24.7	29.7	35.0	40.2	44.3
EUR	2.7	2.3	3.4	3.6	3.8	3.9	4.0	4.2	4.2	4.3	4.4
LAM	0.3	1.0	1.4	2.2	2.3	2.3	2.2	2.3	2.5	2.7	2.7
ROW	5.5	4.1	8.5	11.3	11.1	12.7	13.5	15.1	16.2	18.6	20.3
USA	2.6	3.3	5.7	4.2	4.5	4.8	5.2	5.1	4.9	4.7	4.8

Table 266: MAgPIE m4p_brazil — Demand—Feed—Crops—Oil crops (Mt DM/yr) [PART 1/2]

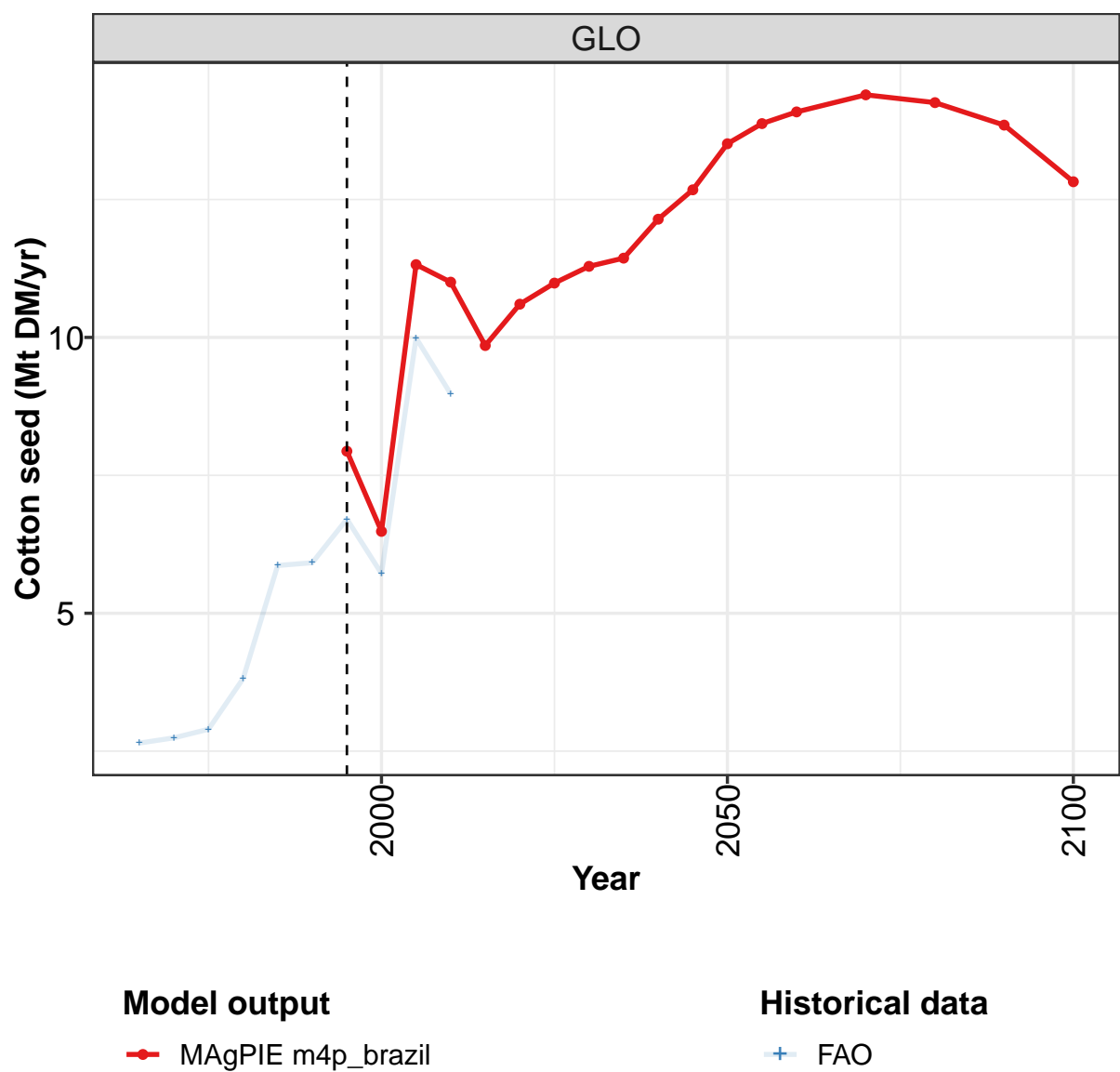
	2050	2055	2060	2070	2080	2090	2100
GLO	83.4	82.5	81.1	77.9	74.8	69.7	63.0
BRA	0.8	0.8	0.9	1.1	1.2	1.3	1.3
CHA	47.6	44.8	41.9	36.1	30.5	25.4	20.9
EUR	4.5	4.5	4.6	4.8	4.3	4.0	4.0
LAM	2.9	3.0	3.0	3.1	3.1	3.0	2.9
ROW	22.9	24.5	25.7	27.9	31.3	31.9	30.0
USA	4.8	4.8	4.9	4.9	4.5	4.2	3.8

Table 267: MAgPIE m4p_brazil — 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
BRA	0.1	0.1	0.1	0.3	0.3	0.9	0.5	0.5	0.4	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	0.8	2.1	2.8	2.4	3.4	3.5
LAM	0.0	0.1	0.1	0.1	0.3	0.1	0.4	1.1	1.5	2.2
ROW	2.0	2.1	2.0	2.7	3.3	3.7	4.7	3.7	7.0	9.2
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



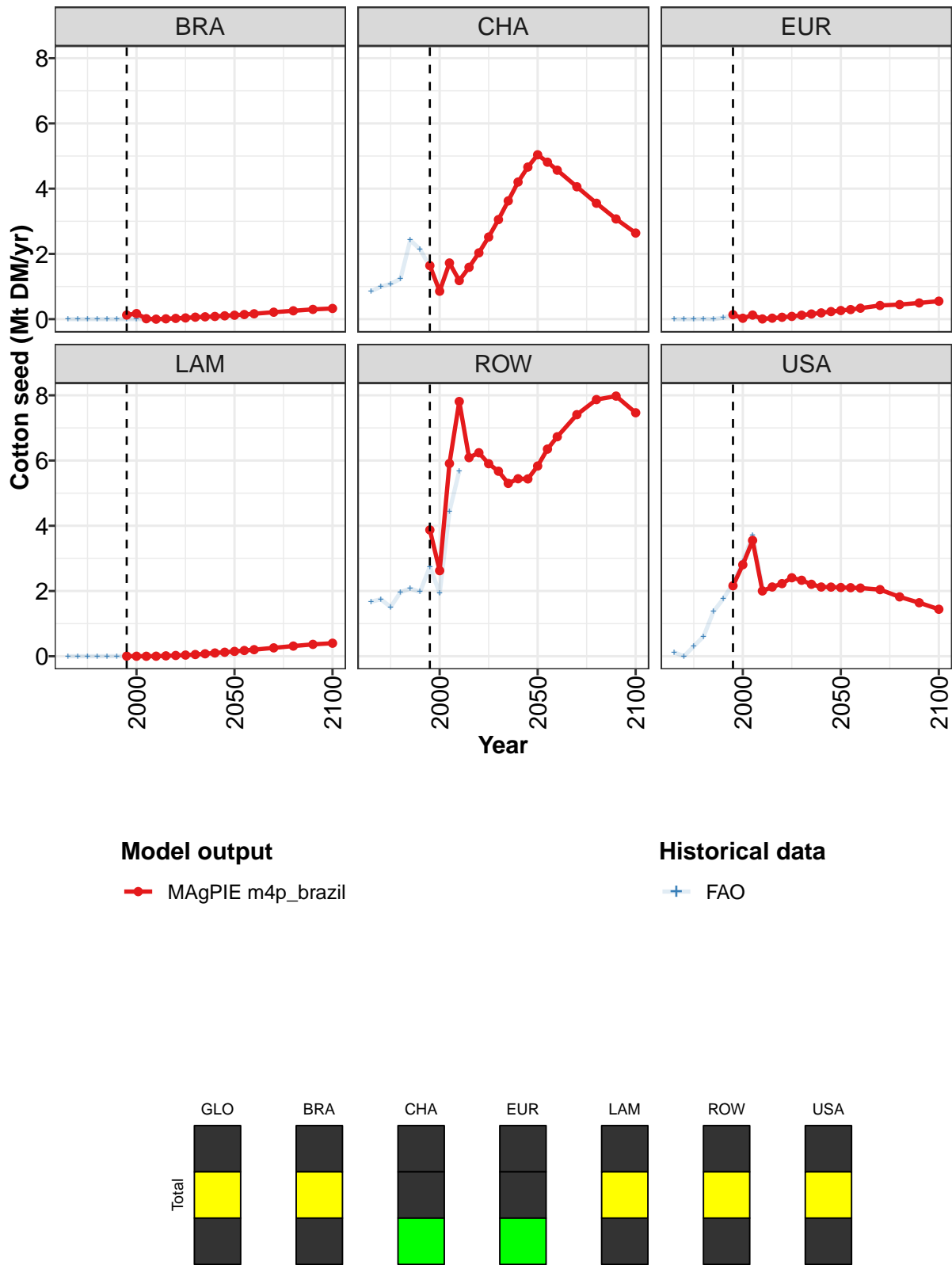


Figure 90: MAgPIE m4p.brazil — Demand—Feed—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.9	6.5	11.3	11.0	9.9	10.6	11.0	11.3	11.4	12.1	12.7
BRA	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
CHA	1.6	0.9	1.7	1.2	1.6	2.0	2.5	3.1	3.6	4.2	4.7
EUR	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
ROW	3.9	2.6	5.9	7.8	6.1	6.2	5.9	5.7	5.3	5.4	5.4
USA	2.2	2.8	3.6	2.0	2.1	2.2	2.4	2.3	2.2	2.1	2.1

Table 269: MAgPIE m4p_brazil — Demand—Feed—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

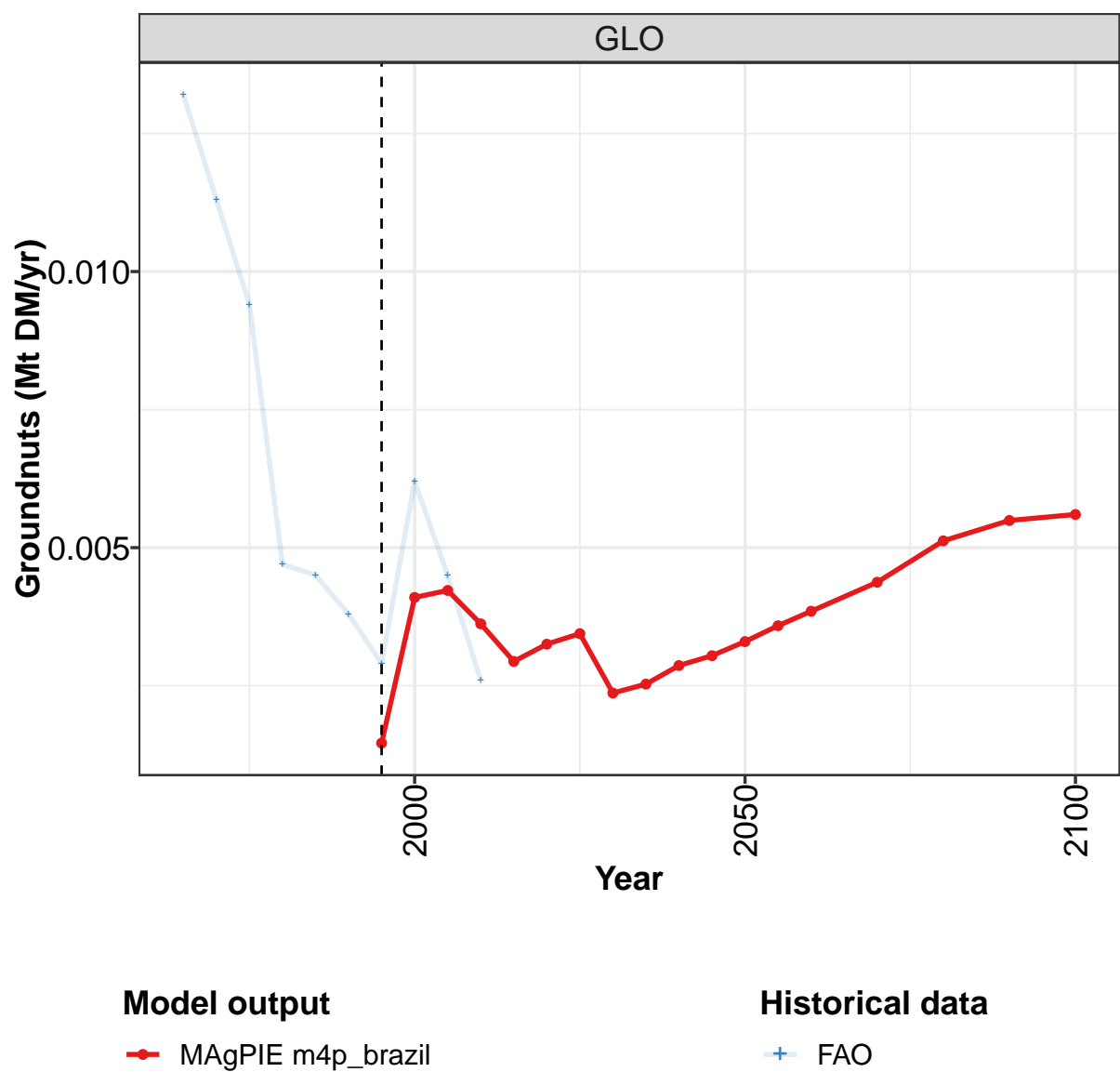
	2050	2055	2060	2070	2080	2090	2100
GLO	13.5	13.9	14.1	14.4	14.3	13.8	12.8
BRA	0.1	0.1	0.2	0.2	0.3	0.3	0.3
CHA	5.0	4.8	4.6	4.1	3.6	3.1	2.6
EUR	0.3	0.3	0.3	0.4	0.4	0.5	0.6
LAM	0.1	0.2	0.2	0.3	0.3	0.4	0.4
ROW	5.8	6.4	6.7	7.4	7.9	8.0	7.5
USA	2.1	2.1	2.1	2.0	1.8	1.6	1.4

Table 270: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	1.67	1.75	1.51	1.96	2.08	1.97	2.74	1.94	4.45	5.68
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



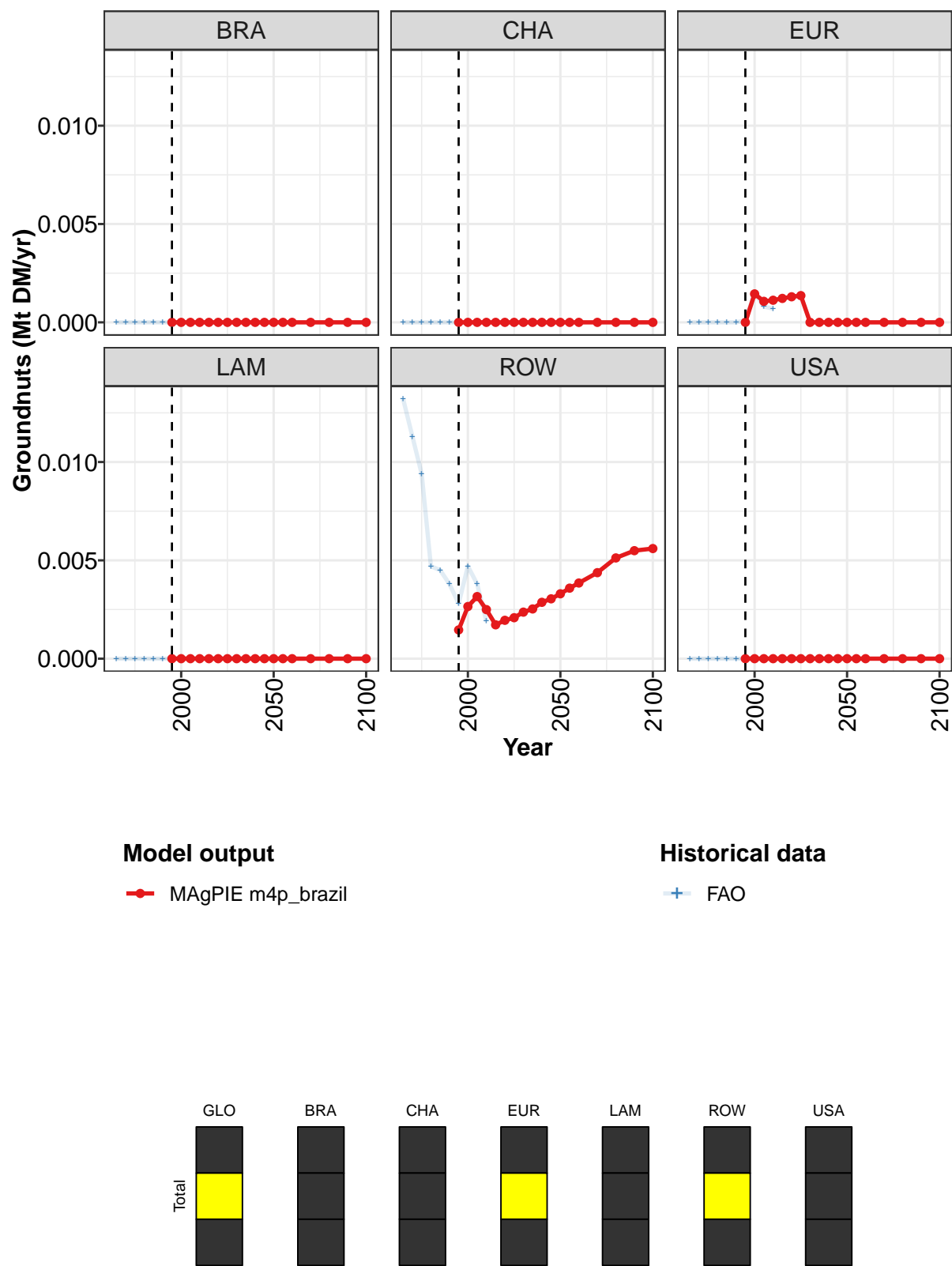


Figure 91: MAgPIE m4p_brazil — Demand—Feed—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.00146	0.00410	0.00423	0.00362	0.00294	0.00325	0.00344	0.00237	0.00253	0.00287	0.00304
BRA	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	0.00145	0.00107	0.00113	0.00122	0.00130	0.00136	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
ROW	0.00146	0.00265	0.00316	0.00250	0.00172	0.00195	0.00208	0.00237	0.00253	0.00287	0.00304
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_brazil — Demand—Feed—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

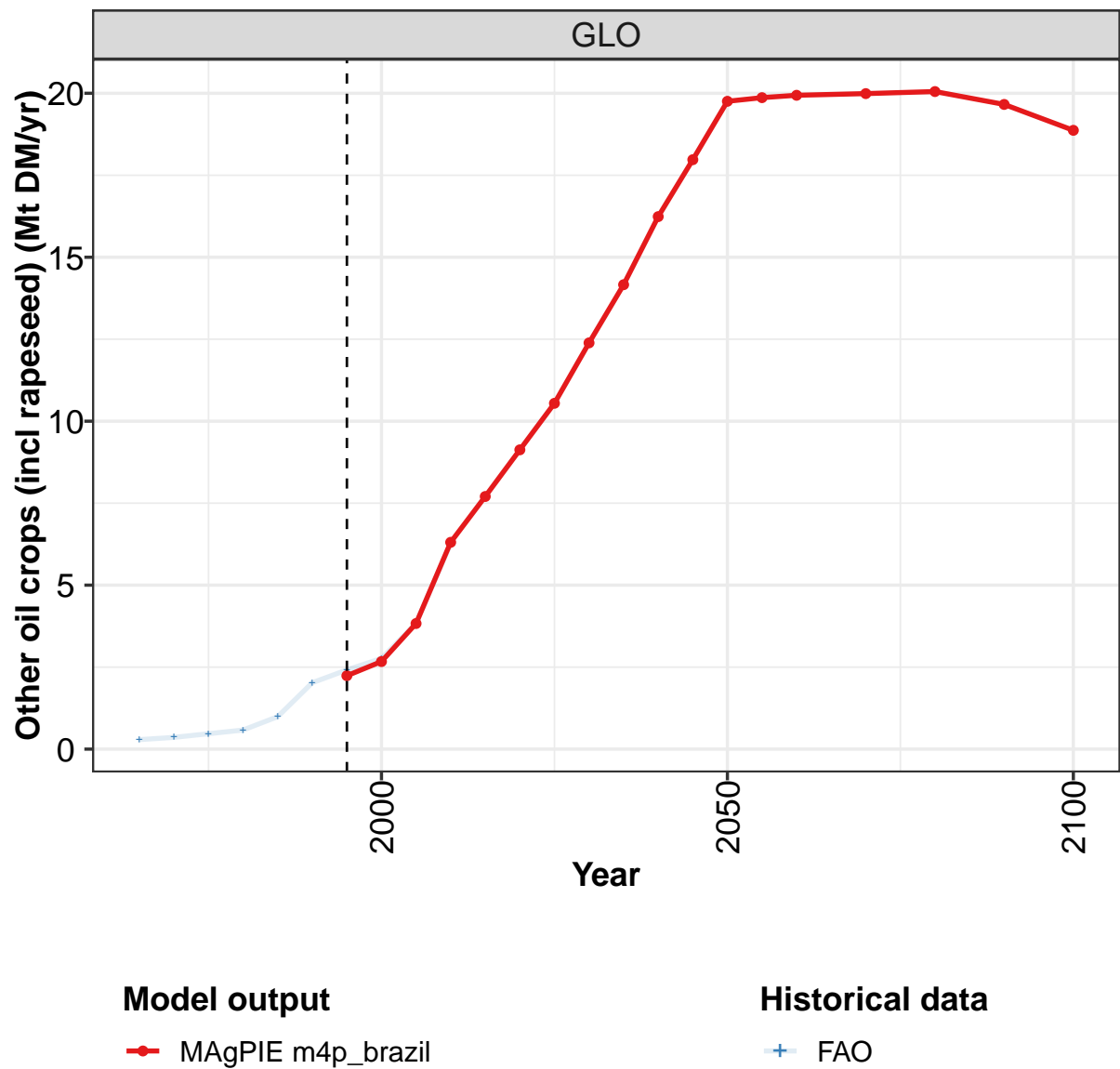
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00330	0.00359	0.00385	0.00437	0.00512	0.00549	0.00560
BRA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
CHA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EUR	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
LAM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ROW	0.00330	0.00359	0.00385	0.00437	0.00512	0.00549	0.00560
USA	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Table 273: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	0.0132	0.0113	0.0094	0.0047	0.0045	0.0038	0.0028	0.0047	0.0038	0.0019
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)



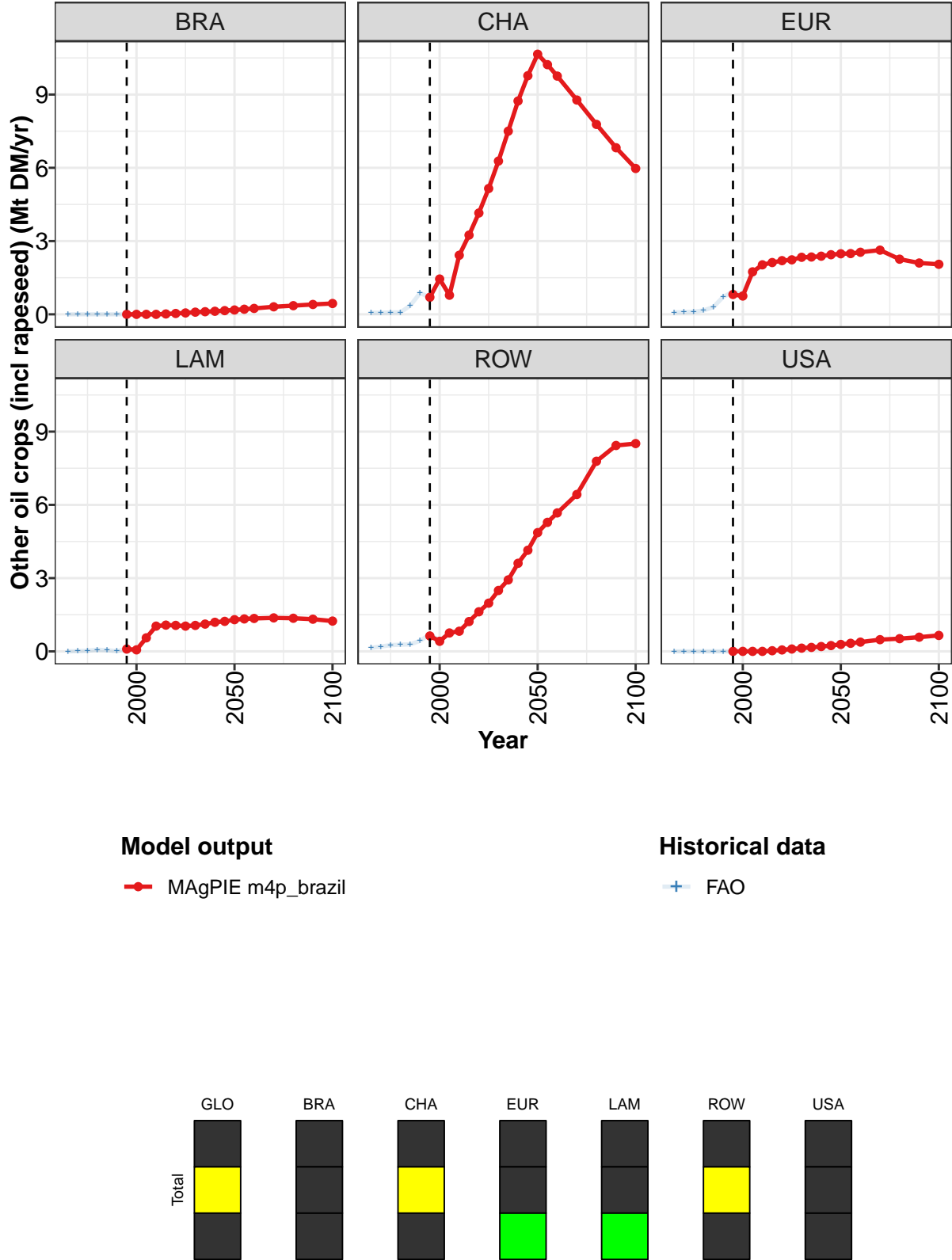


Figure 92: MAGPIE m4p_brazil — Demand—Feed—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.2	2.7	3.8	6.3	7.7	9.1	10.5	12.4	14.2	16.2	18.0
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2
CHA	0.7	1.4	0.8	2.4	3.2	4.1	5.2	6.3	7.5	8.7	9.8
EUR	0.8	0.7	1.7	2.0	2.1	2.2	2.2	2.3	2.3	2.4	2.4
LAM	0.1	0.1	0.6	1.0	1.1	1.1	1.0	1.1	1.1	1.2	1.2
ROW	0.6	0.4	0.8	0.8	1.2	1.6	2.0	2.5	2.9	3.6	4.1
USA	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2

Table 275: MAgPIE m4p_brazil — Demand—Feed—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

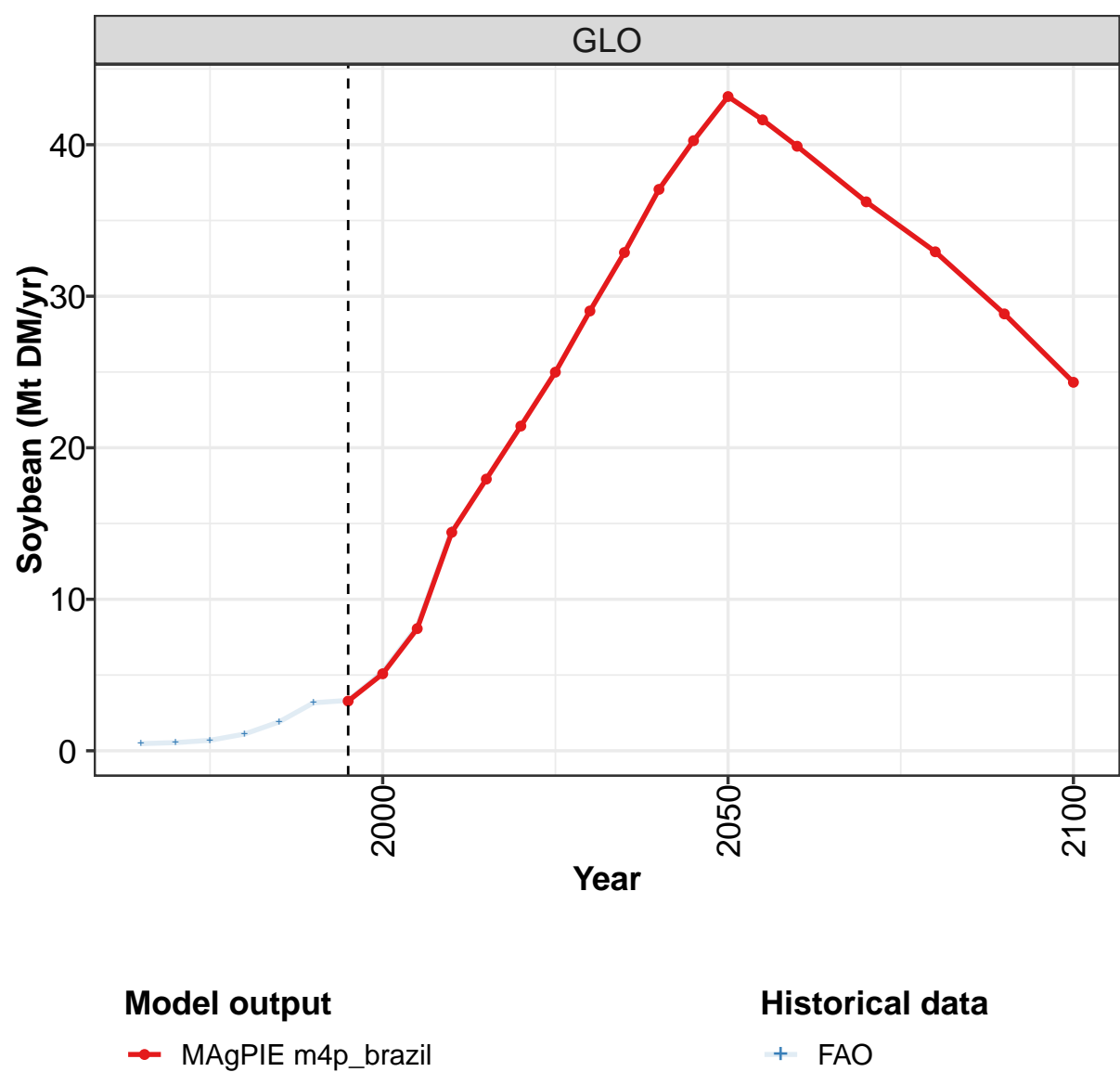
	2050	2055	2060	2070	2080	2090	2100
GLO	19.8	19.9	19.9	20.0	20.1	19.7	18.9
BRA	0.2	0.2	0.2	0.3	0.4	0.4	0.4
CHA	10.7	10.2	9.8	8.8	7.8	6.8	6.0
EUR	2.5	2.5	2.5	2.6	2.3	2.1	2.0
LAM	1.3	1.3	1.3	1.4	1.4	1.3	1.2
ROW	4.9	5.3	5.7	6.4	7.8	8.4	8.5
USA	0.3	0.3	0.4	0.5	0.5	0.6	0.7

Table 276: MAgPIE m4p_brazil — 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
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.16	0.30	0.71	0.93	0.82	1.75	1.96
LAM	0.00	0.01	0.03	0.07	0.05	0.01	0.09	0.06	0.54	1.04
ROW	0.14	0.20	0.26	0.27	0.29	0.43	0.70	0.44	0.78	0.84
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



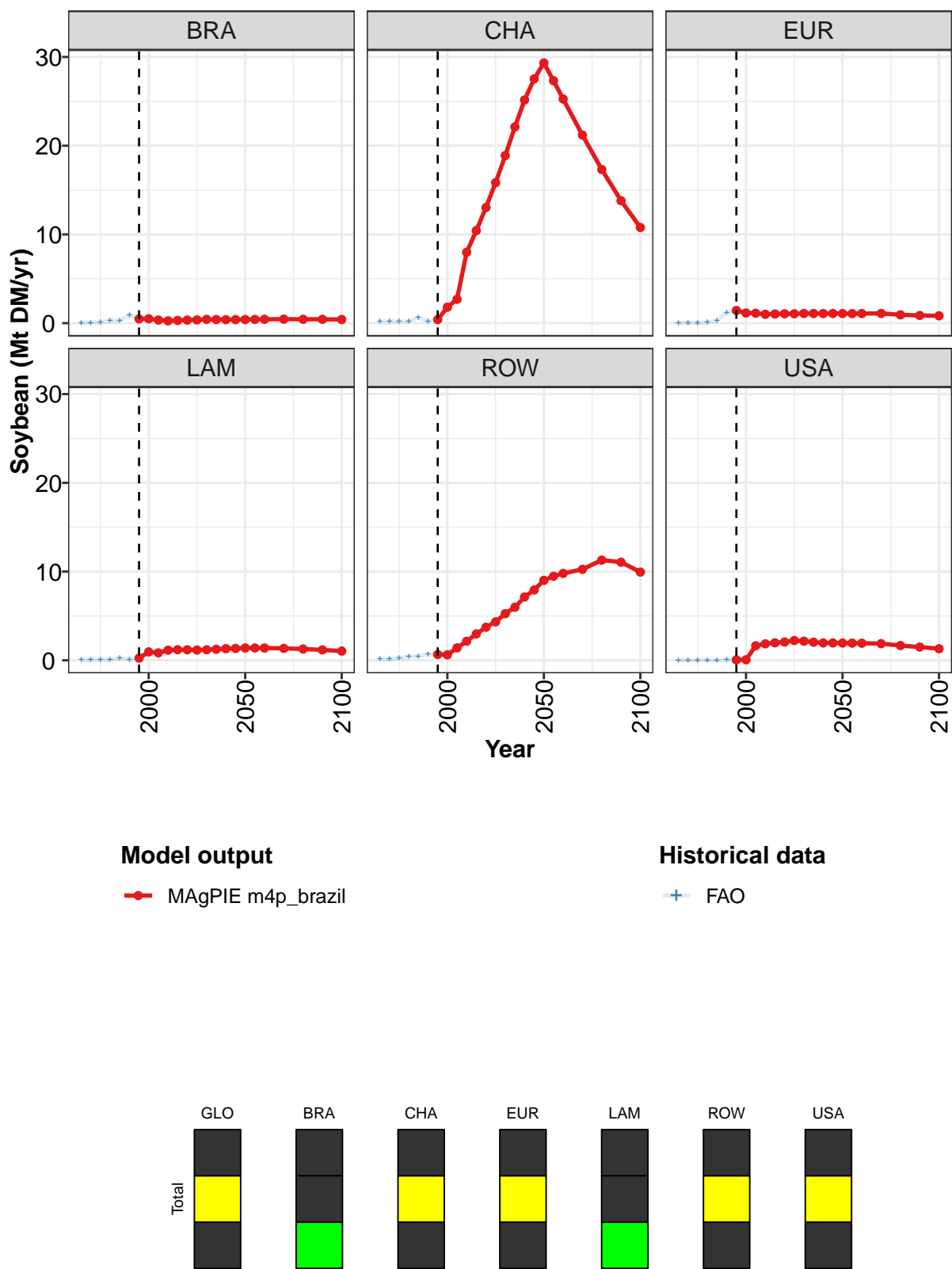


Figure 93: MAgPIE m4p.brazil — Demand—Feed—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.3	5.1	8.1	14.4	17.9	21.4	25.0	29.0	32.9	37.1	40.3
BRA	0.5	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
CHA	0.4	1.8	2.7	8.0	10.4	13.0	15.8	18.9	22.1	25.2	27.5
EUR	1.4	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1
LAM	0.2	0.9	0.8	1.1	1.2	1.2	1.2	1.2	1.2	1.3	1.3
ROW	0.7	0.6	1.4	2.1	3.0	3.7	4.3	5.3	6.0	7.1	7.9
USA	0.1	0.1	1.6	1.9	2.0	2.1	2.2	2.2	2.0	2.0	2.0

Table 278: MAgPIE m4p_brazil — Demand—Feed—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

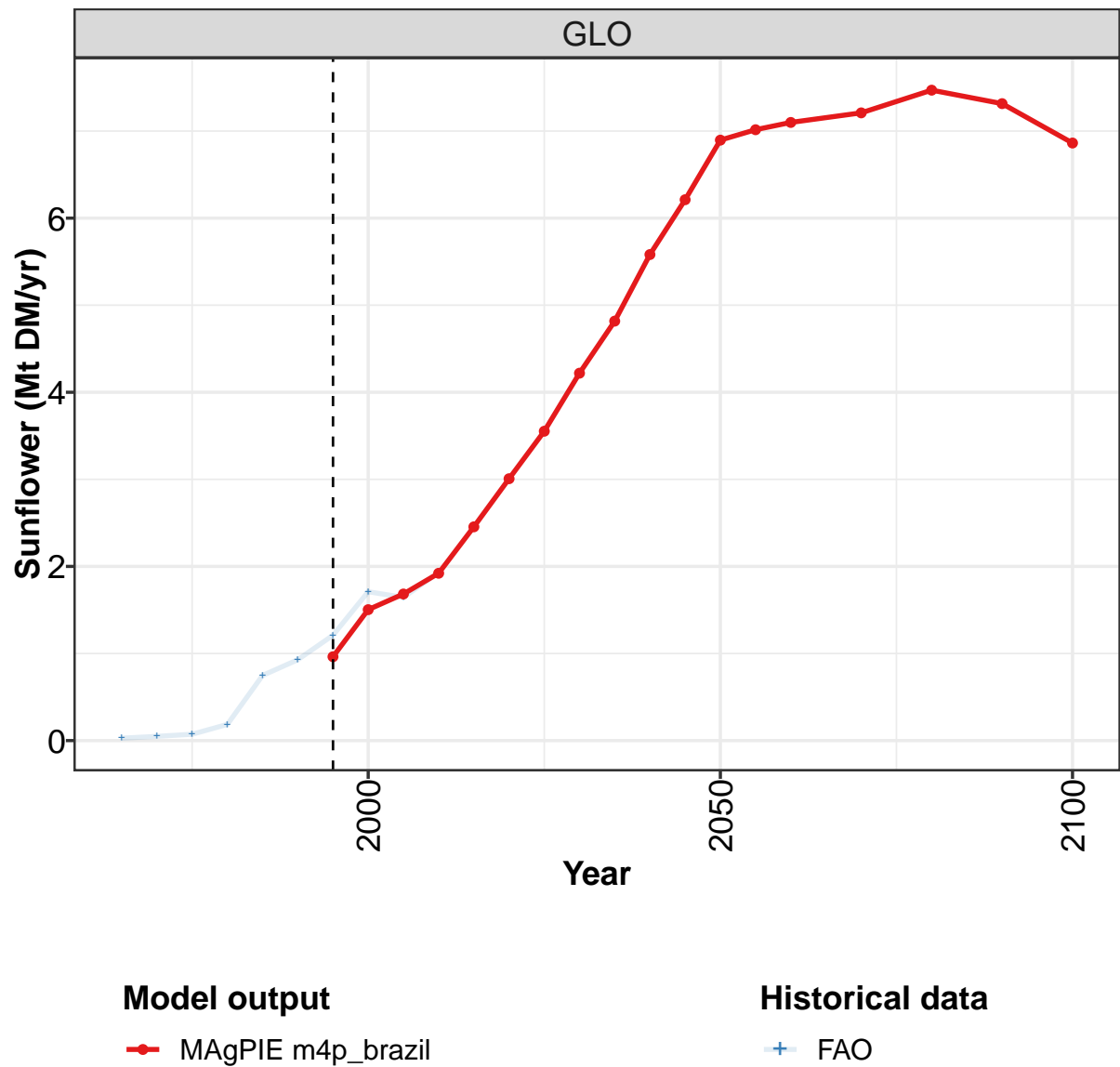
	2050	2055	2060	2070	2080	2090	2100
GLO	43.2	41.6	39.9	36.2	32.9	28.8	24.3
BRA	0.4	0.4	0.4	0.5	0.4	0.4	0.4
CHA	29.3	27.3	25.3	21.2	17.3	13.8	10.8
EUR	1.1	1.1	1.1	1.1	0.9	0.9	0.8
LAM	1.4	1.4	1.4	1.3	1.3	1.2	1.0
ROW	9.0	9.5	9.8	10.3	11.3	11.1	9.9
USA	1.9	1.9	1.9	1.9	1.7	1.5	1.3

Table 279: MAgPIE m4p_brazil — 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
BRA	0.1	0.1	0.1	0.3	0.3	0.9	0.5	0.5	0.4	0.3
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	1.0
LAM	0.0	0.1	0.1	0.1	0.3	0.1	0.3	1.0	0.9	1.2
ROW	0.1	0.1	0.2	0.4	0.5	0.7	0.7	0.7	1.4	2.2
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



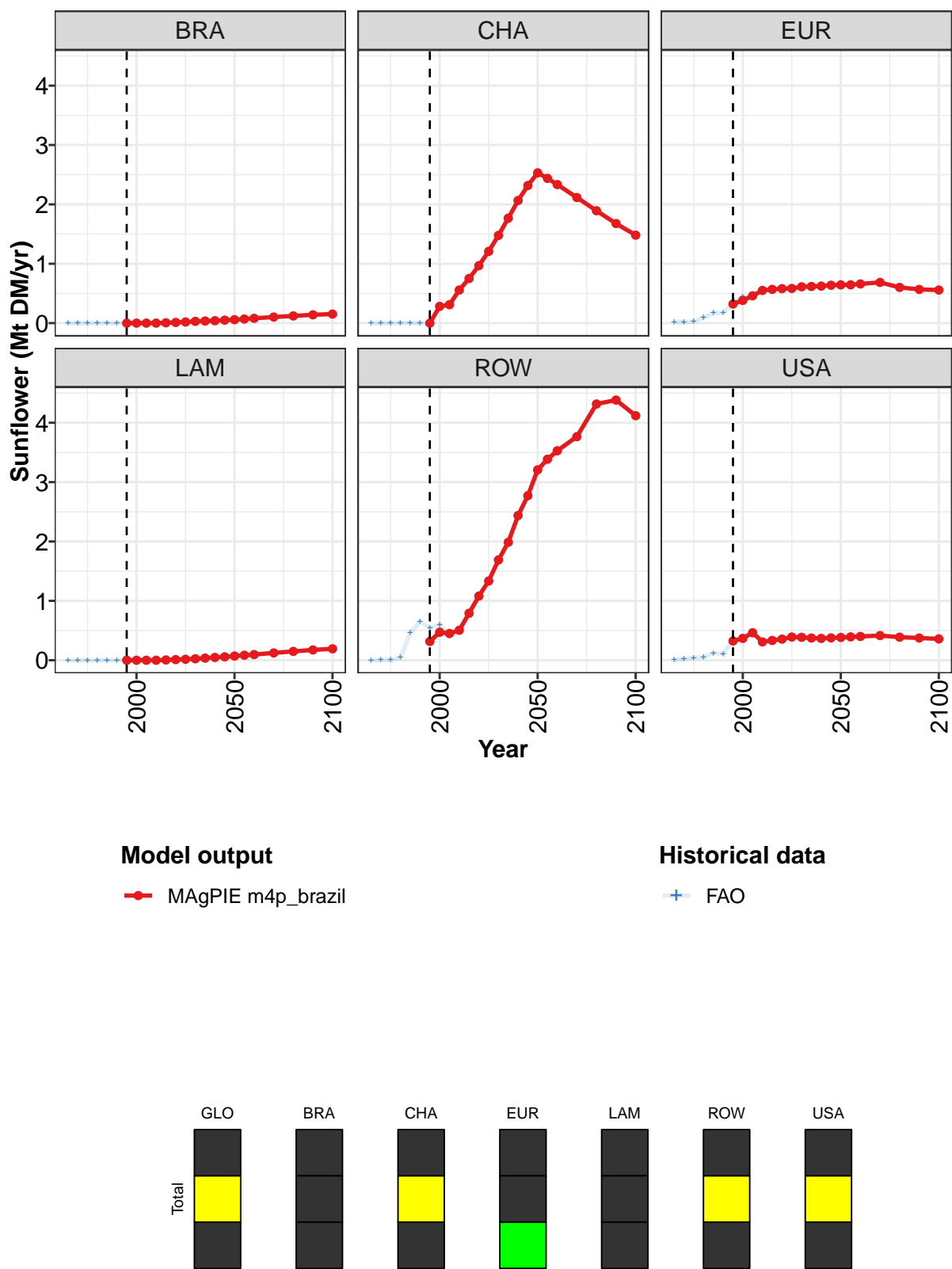


Figure 94: MAgPIE m4p_brazil — Demand—Feed—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.96	1.50	1.68	1.92	2.45	3.01	3.55	4.22	4.82	5.58	6.21
BRA	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.04	0.04	0.05
CHA	0.00	0.28	0.31	0.56	0.75	0.97	1.21	1.48	1.77	2.07	2.32
EUR	0.32	0.38	0.46	0.55	0.57	0.58	0.58	0.61	0.62	0.62	0.64
LAM	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.04	0.05	0.06
ROW	0.32	0.47	0.45	0.51	0.79	1.08	1.33	1.69	1.99	2.44	2.77
USA	0.32	0.37	0.46	0.31	0.33	0.36	0.39	0.39	0.37	0.37	0.38

Table 281: MAgPIE m4p_brazil — Demand—Feed—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

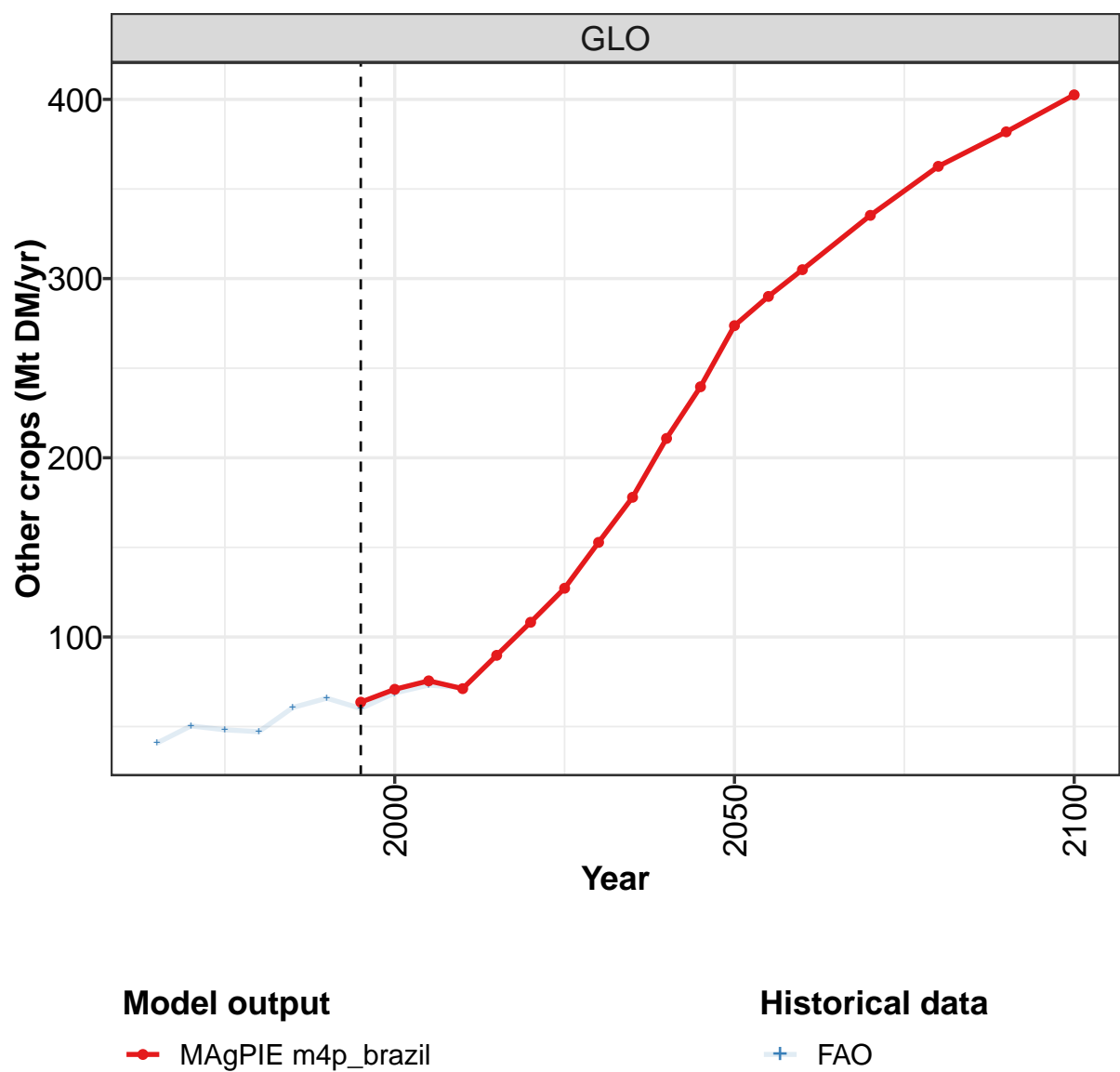
	2050	2055	2060	2070	2080	2090	2100
GLO	6.90	7.02	7.10	7.21	7.47	7.32	6.86
BRA	0.06	0.07	0.08	0.10	0.12	0.14	0.15
CHA	2.53	2.44	2.33	2.12	1.89	1.68	1.48
EUR	0.64	0.64	0.66	0.69	0.60	0.57	0.56
LAM	0.07	0.08	0.10	0.12	0.15	0.17	0.19
ROW	3.21	3.39	3.53	3.77	4.32	4.38	4.12
USA	0.38	0.39	0.40	0.42	0.39	0.37	0.36

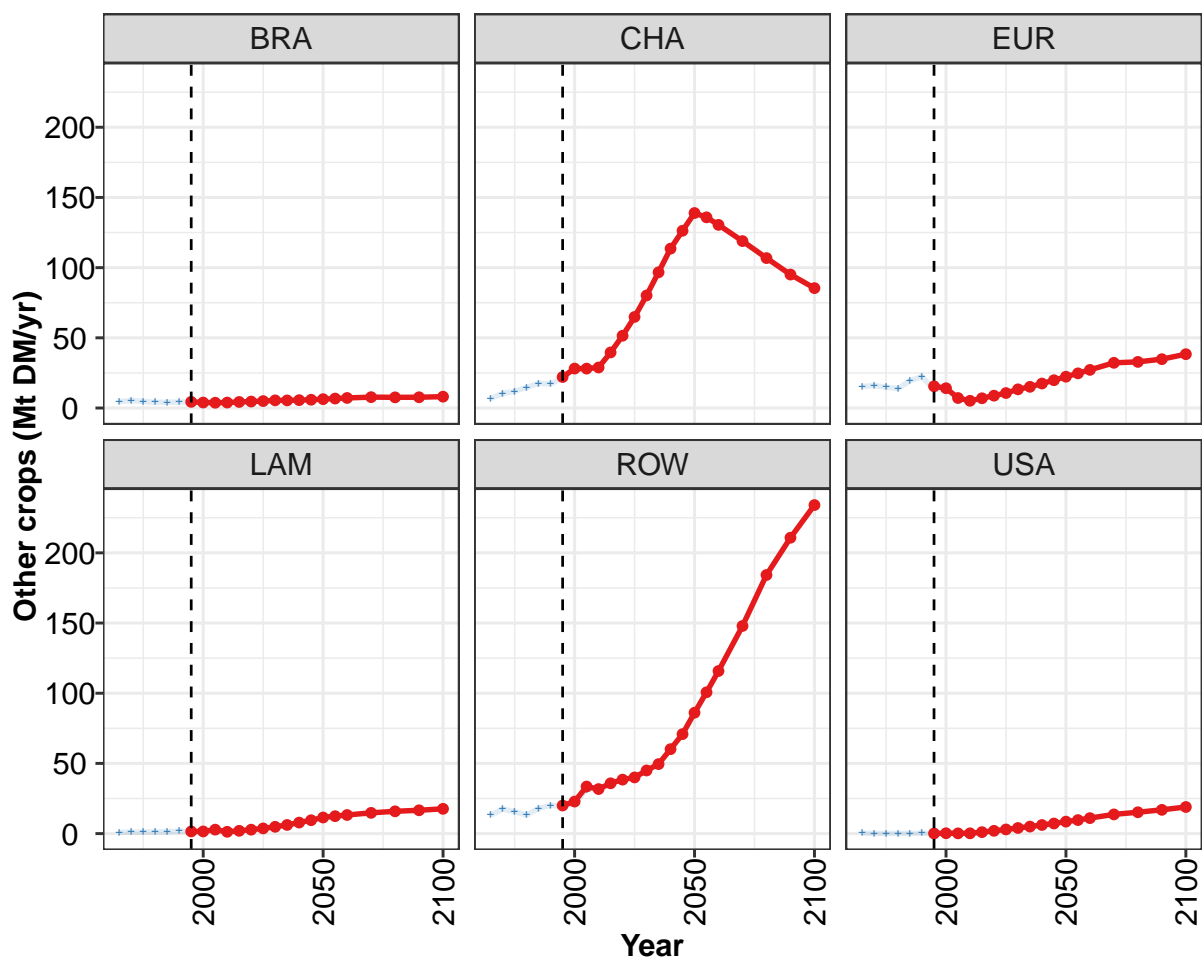
Table 282: MAgPIE m4p_brazil — Demand—Feed—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 2/2]

	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
BRA	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	0.28	0.31	0.56
EUR	0.02	0.02	0.03	0.09	0.17	0.17	0.33	0.45	0.45	0.53
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.00	0.00	0.01	0.04	0.46	0.65	0.55	0.60	0.41	0.51
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





Model output
—•— MAgPIE m4p_brazil

Historical data
—+— FAO

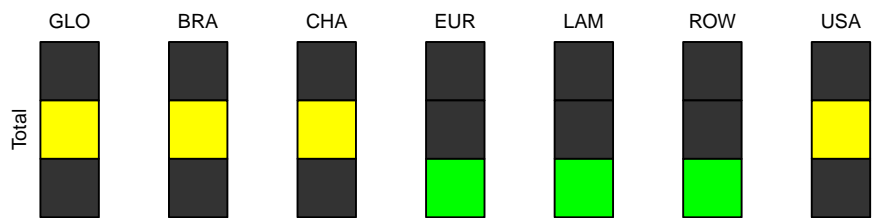


Figure 95: MAgPIE m4p_brazil — Demand—Feed—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	64	71	76	71	90	108	127	153	178	211	240
BRA	4	4	4	4	4	5	5	5	5	6	6
CHA	22	28	28	29	40	52	65	80	97	114	126
EUR	15	14	7	5	7	9	11	13	15	17	20
LAM	2	2	3	1	2	3	4	5	6	8	10
ROW	20	23	34	32	36	38	40	45	50	60	71
USA	0	0	0	0	1	2	3	4	5	6	7

Table 284: MAgPIE m4p_brazil — Demand—Feed—Crops—Other crops (Mt DM/yr) [PART 1/2]

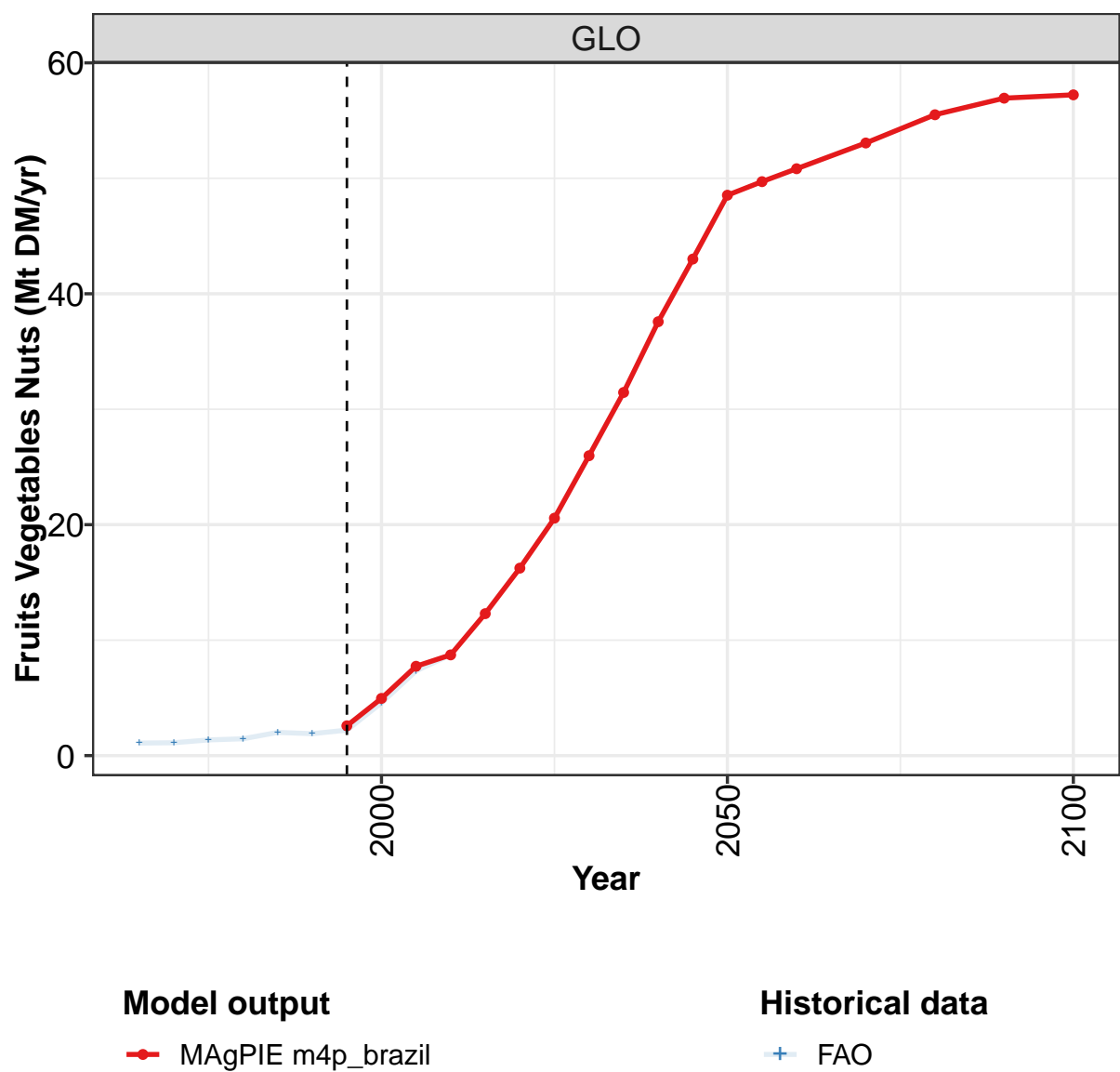
	2050	2055	2060	2070	2080	2090	2100
GLO	274	290	305	335	363	382	403
BRA	6	7	7	8	8	8	8
CHA	139	136	130	119	107	95	85
EUR	22	25	27	32	33	35	38
LAM	11	12	13	15	16	17	18
ROW	86	101	116	148	184	211	234
USA	9	10	11	14	15	17	19

Table 285: MAgPIE m4p_brazil — 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
BRA	4.5	5.3	4.7	4.1	4.1	4.3	4.4	4.1	4.5	4.4
CHA	6.8	10.4	11.9	14.7	17.6	17.1	21.6	27.9	27.9	28.9
EUR	15.3	16.0	14.8	13.9	19.5	22.3	13.2	13.8	6.8	5.0
LAM	0.9	1.0	1.0	1.2	1.3	1.7	1.5	1.5	2.4	1.3
ROW	13.1	17.5	15.6	13.2	18.0	20.2	19.2	21.2	31.4	31.9
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



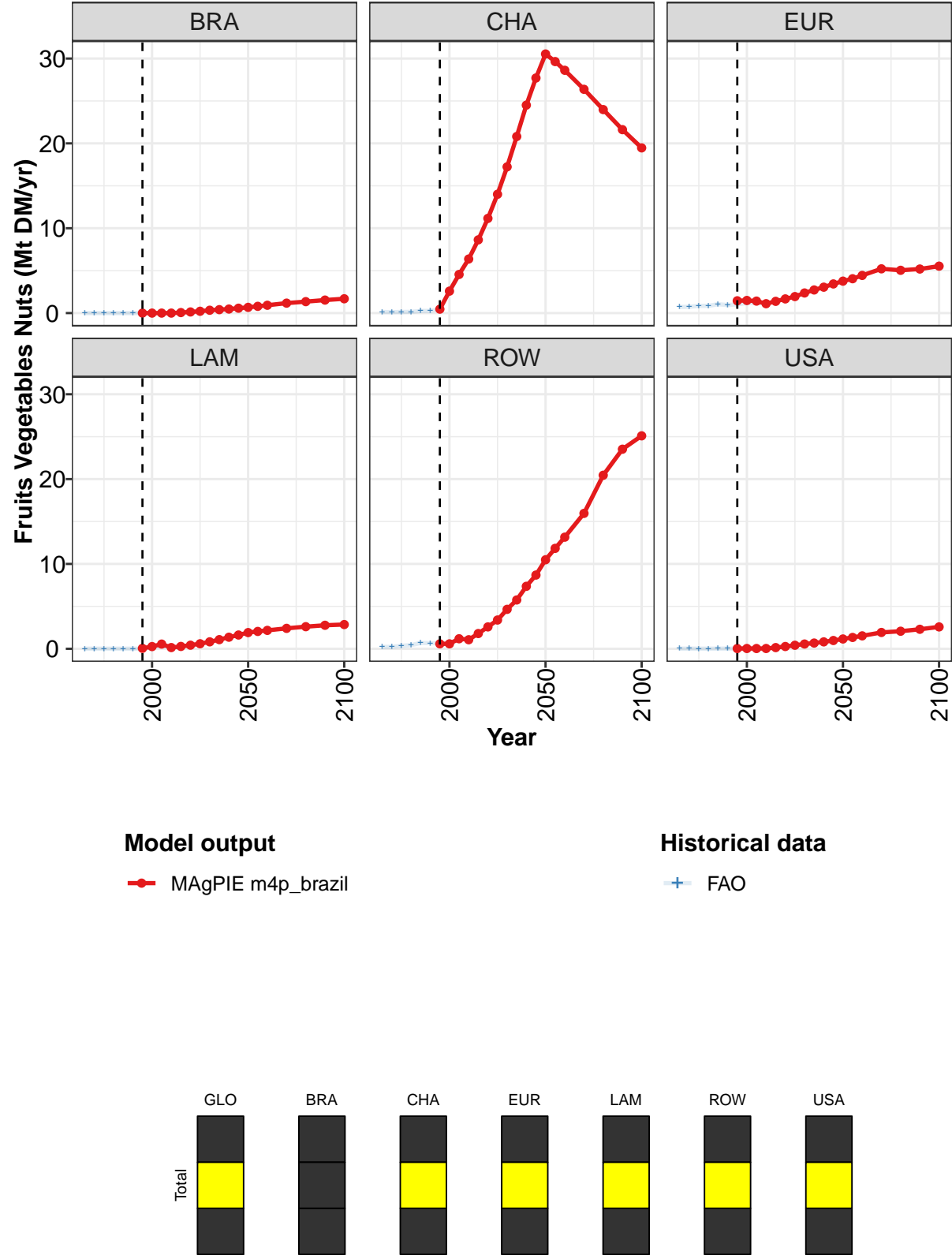


Figure 96: MAgPIE m4p_brazil — Demand—Feed—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.6	5.0	7.7	8.7	12.3	16.2	20.6	26.0	31.5	37.6	43.0
BRA	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6
CHA	0.5	2.6	4.6	6.4	8.6	11.2	14.0	17.2	20.8	24.5	27.7
EUR	1.5	1.5	1.4	1.1	1.4	1.7	1.9	2.4	2.7	3.1	3.4
LAM	0.1	0.3	0.6	0.1	0.3	0.4	0.6	0.8	1.1	1.4	1.6
ROW	0.6	0.6	1.2	1.1	1.8	2.6	3.4	4.7	5.8	7.4	8.7
USA	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.6	0.7	0.8	1.0

Table 287: MAgPIE m4p_brazil — Demand—Feed—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)
[PART 1/2]

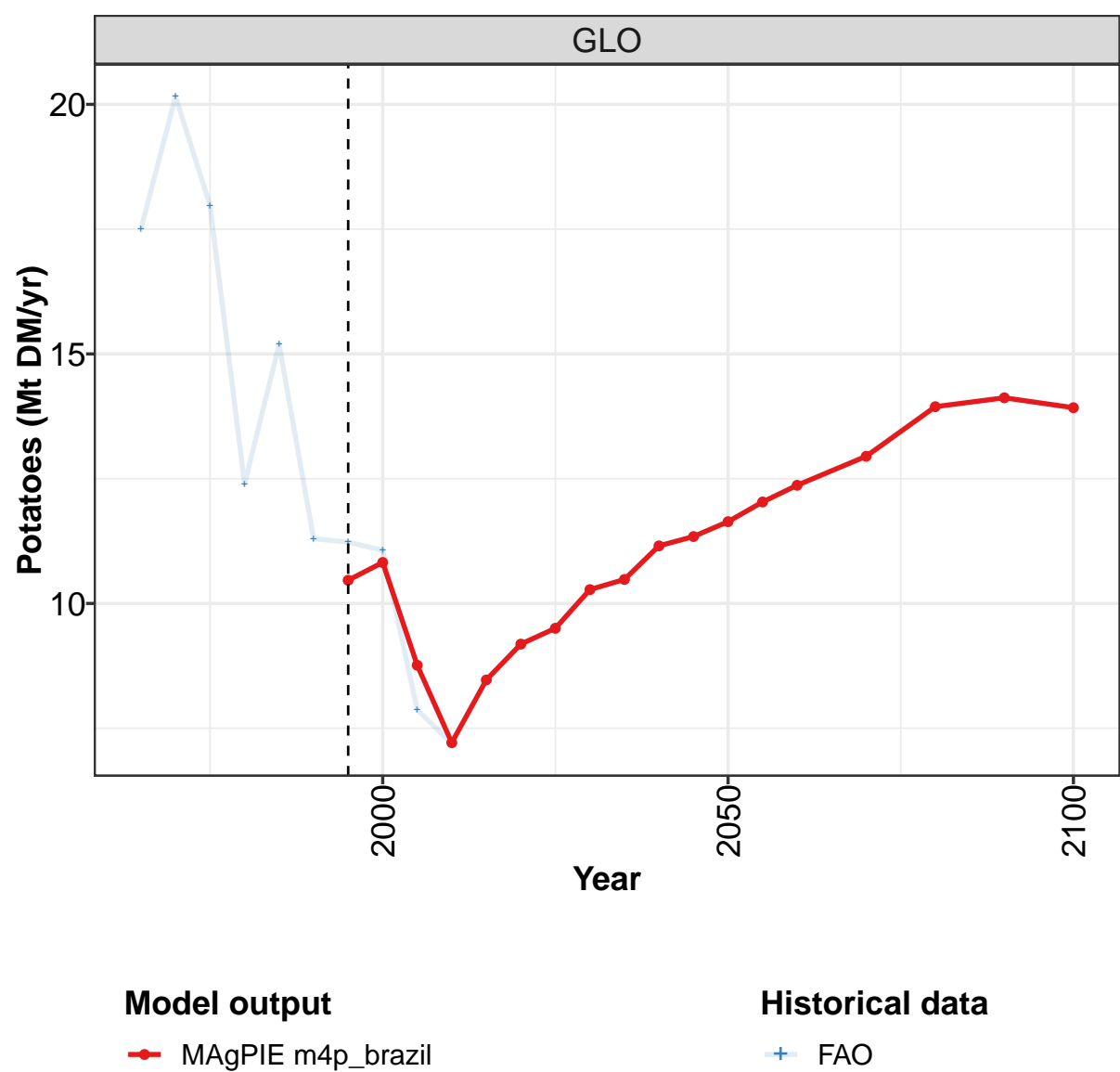
	2050	2055	2060	2070	2080	2090	2100
GLO	48.5	49.7	50.8	53.1	55.5	56.9	57.2
BRA	0.7	0.8	0.9	1.2	1.3	1.5	1.7
CHA	30.5	29.6	28.6	26.4	24.0	21.6	19.5
EUR	3.8	4.0	4.4	5.2	5.0	5.2	5.5
LAM	1.9	2.0	2.2	2.4	2.6	2.8	2.9
ROW	10.5	11.8	13.2	16.0	20.5	23.5	25.1
USA	1.2	1.3	1.5	1.9	2.1	2.3	2.6

Table 288: MAgPIE m4p_brazil — 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
BRA	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	0.71	0.74	0.86	0.85	1.04	0.95	1.03	1.18	1.22	1.08
LAM	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.16	0.35	0.14
ROW	0.21	0.23	0.35	0.43	0.69	0.66	0.67	0.63	1.21	1.10
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



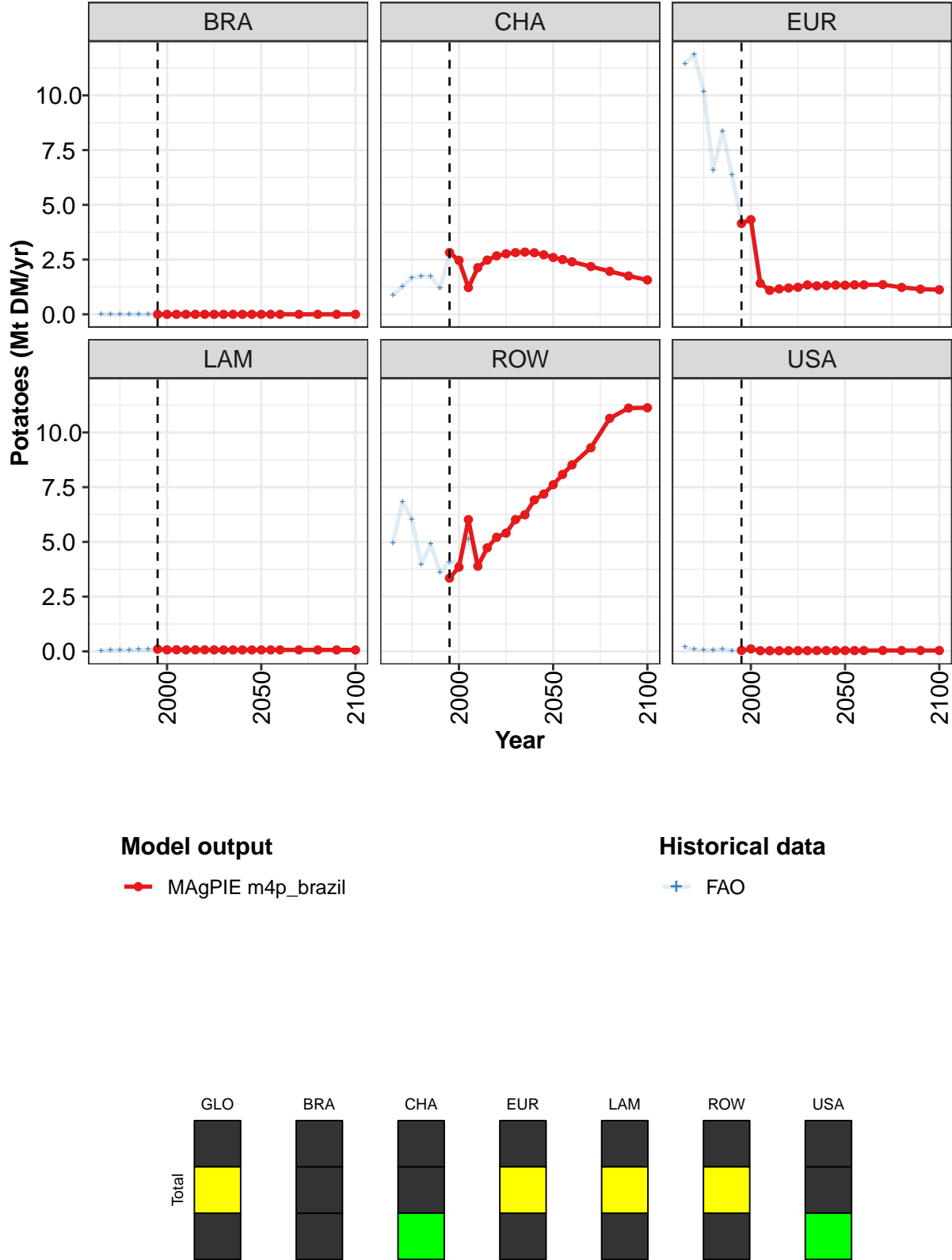


Figure 97: MAgPIE m4p_brazil — Demand—Feed—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	10.5	10.8	8.8	7.2	8.5	9.2	9.5	10.3	10.5	11.2	11.3
BRA	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	2.7	2.8	2.8	2.8	2.8	2.7
EUR	4.2	4.3	1.4	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3
LAM	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ROW	3.3	3.8	6.0	3.9	4.7	5.2	5.4	6.0	6.2	6.9	7.2
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_brazil — Demand—Feed—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

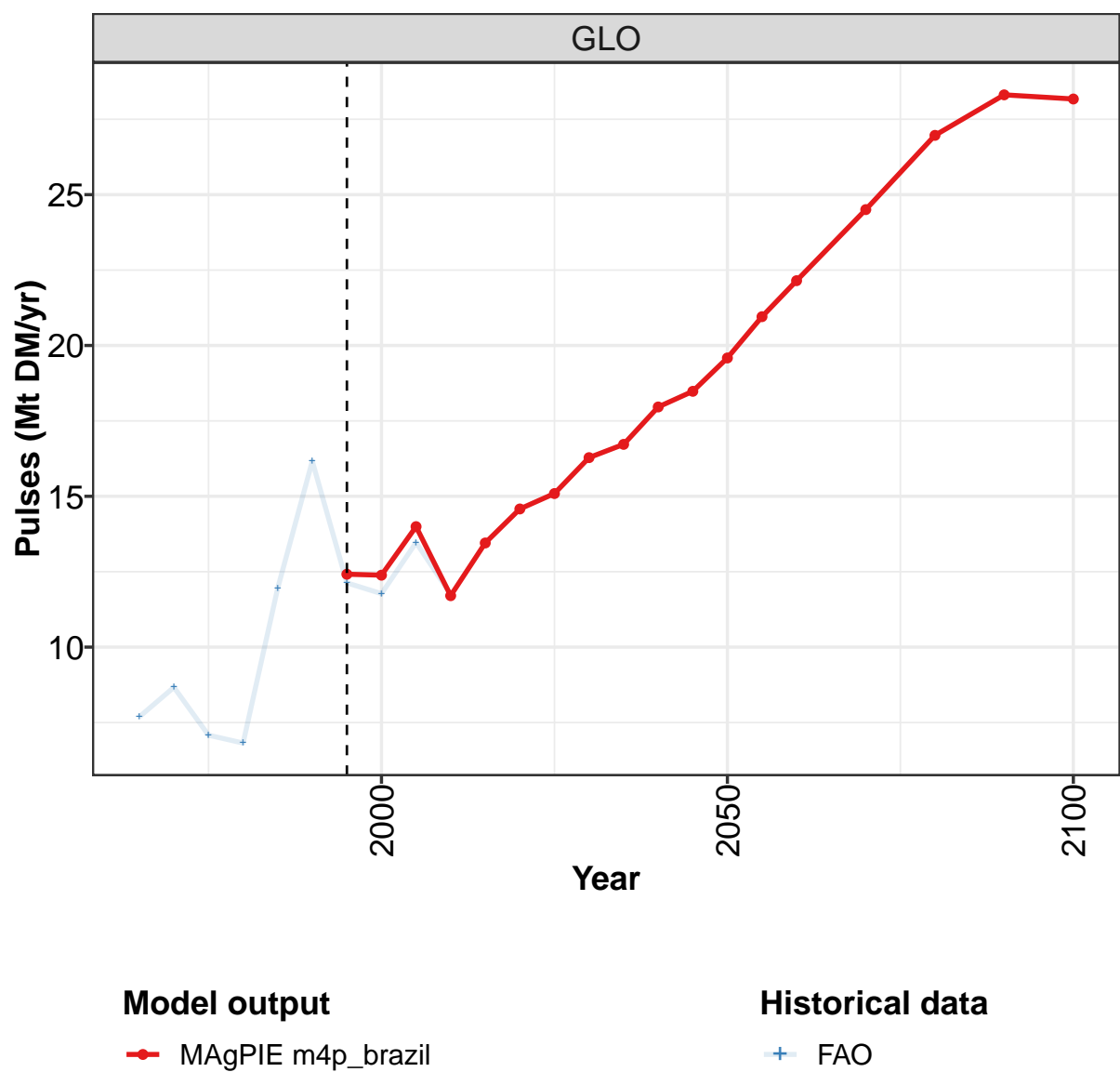
	2050	2055	2060	2070	2080	2090	2100
GLO	11.6	12.0	12.4	12.9	13.9	14.1	13.9
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	2.6	2.5	2.4	2.2	2.0	1.8	1.6
EUR	1.3	1.3	1.3	1.4	1.2	1.2	1.1
LAM	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ROW	7.6	8.1	8.5	9.3	10.6	11.1	11.1
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 291: MAgPIE m4p_brazil — 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
BRA	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	11.4	11.9	10.2	6.6	8.4	6.4	4.2	4.4	1.4	1.1
LAM	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ROW	5.0	6.8	6.0	4.0	4.9	3.6	4.1	4.1	5.1	3.9
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



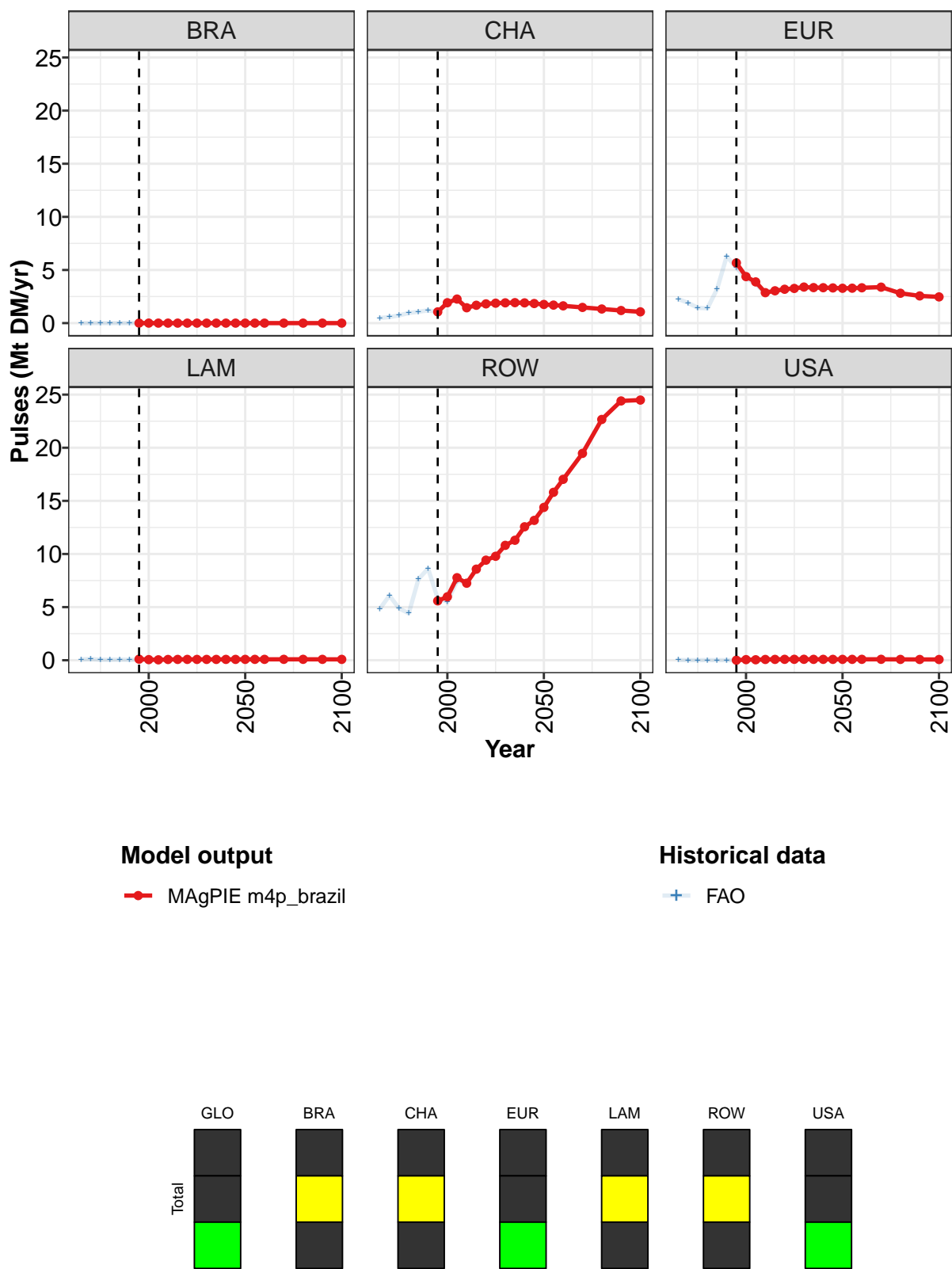


Figure 98: MAgPIE m4p_brazil — Demand—Feed—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	12.4	12.4	14.0	11.7	13.5	14.6	15.1	16.3	16.7	18.0	18.5
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	1.1	1.9	2.3	1.4	1.7	1.8	1.9	1.9	1.9	1.9	1.8
EUR	5.7	4.4	3.9	2.9	3.0	3.2	3.3	3.4	3.3	3.3	3.3
LAM	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ROW	5.6	6.0	7.8	7.2	8.6	9.4	9.8	10.8	11.3	12.6	13.2
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_brazil — Demand—Feed—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

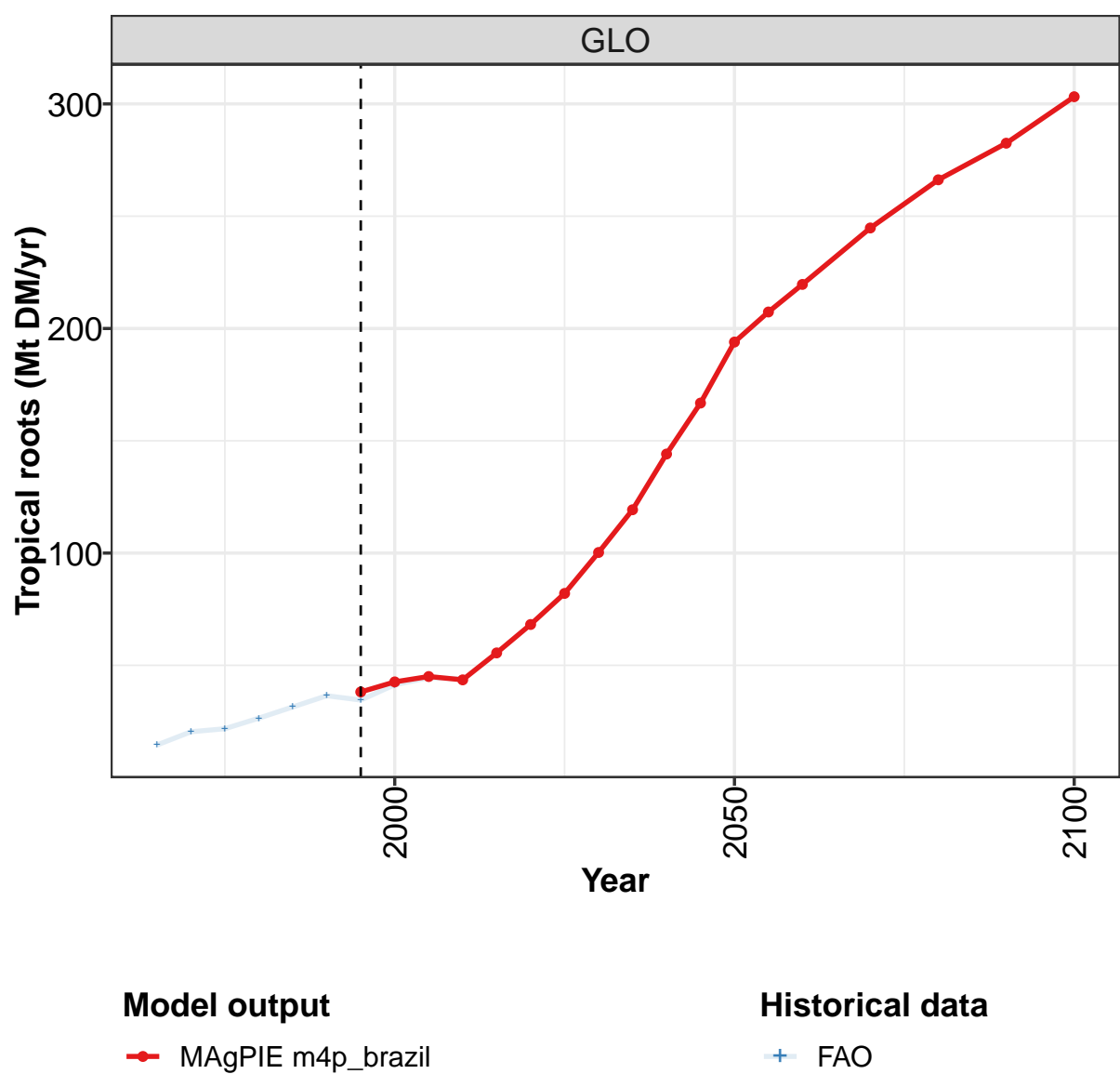
	2050	2055	2060	2070	2080	2090	2100
GLO	19.6	21.0	22.1	24.5	27.0	28.3	28.2
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	1.8	1.7	1.6	1.5	1.3	1.2	1.1
EUR	3.3	3.3	3.3	3.4	2.8	2.6	2.5
LAM	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ROW	14.4	15.8	17.0	19.5	22.7	24.4	24.5
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 294: MAgPIE m4p_brazil — 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
BRA	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	0.7	1.0	1.1	1.2	1.0	1.9	2.3	1.4
EUR	2.3	1.9	1.4	1.4	3.2	6.3	5.2	4.2	3.7	2.8
LAM	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1
ROW	4.8	6.1	4.9	4.4	7.6	8.6	5.8	5.5	7.4	7.4
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



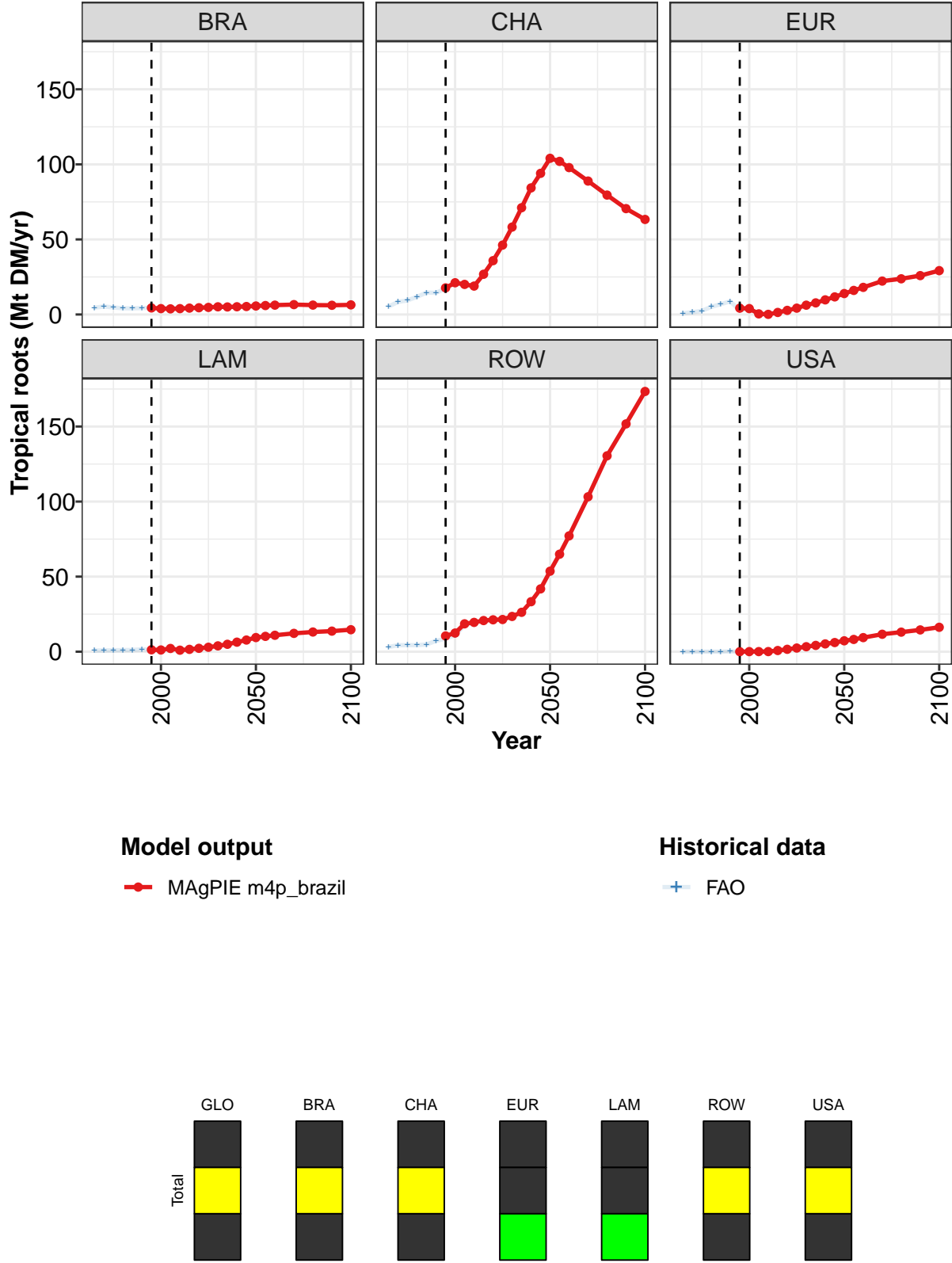


Figure 99: MAgPIE m4p_brazil — Demand—Feed—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	38	43	45	44	56	68	82	100	119	144	167
BRA	4	4	4	4	4	4	5	5	5	5	5
CHA	18	21	20	19	27	36	46	58	71	84	94
EUR	4	4	0	0	1	3	4	6	8	10	12
LAM	1	1	2	1	2	2	3	4	5	6	8
ROW	11	12	19	20	21	21	21	23	26	33	42
USA	0	0	0	0	1	2	2	3	4	5	6

Table 296: MAgPIE m4p_brazil — Demand—Feed—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	194	207	220	245	266	283	303
BRA	6	6	6	7	6	6	6
CHA	104	102	98	89	80	71	63
EUR	14	16	18	22	24	26	29
LAM	9	10	11	12	13	14	15
ROW	54	65	77	103	130	152	173
USA	7	8	9	12	13	15	16

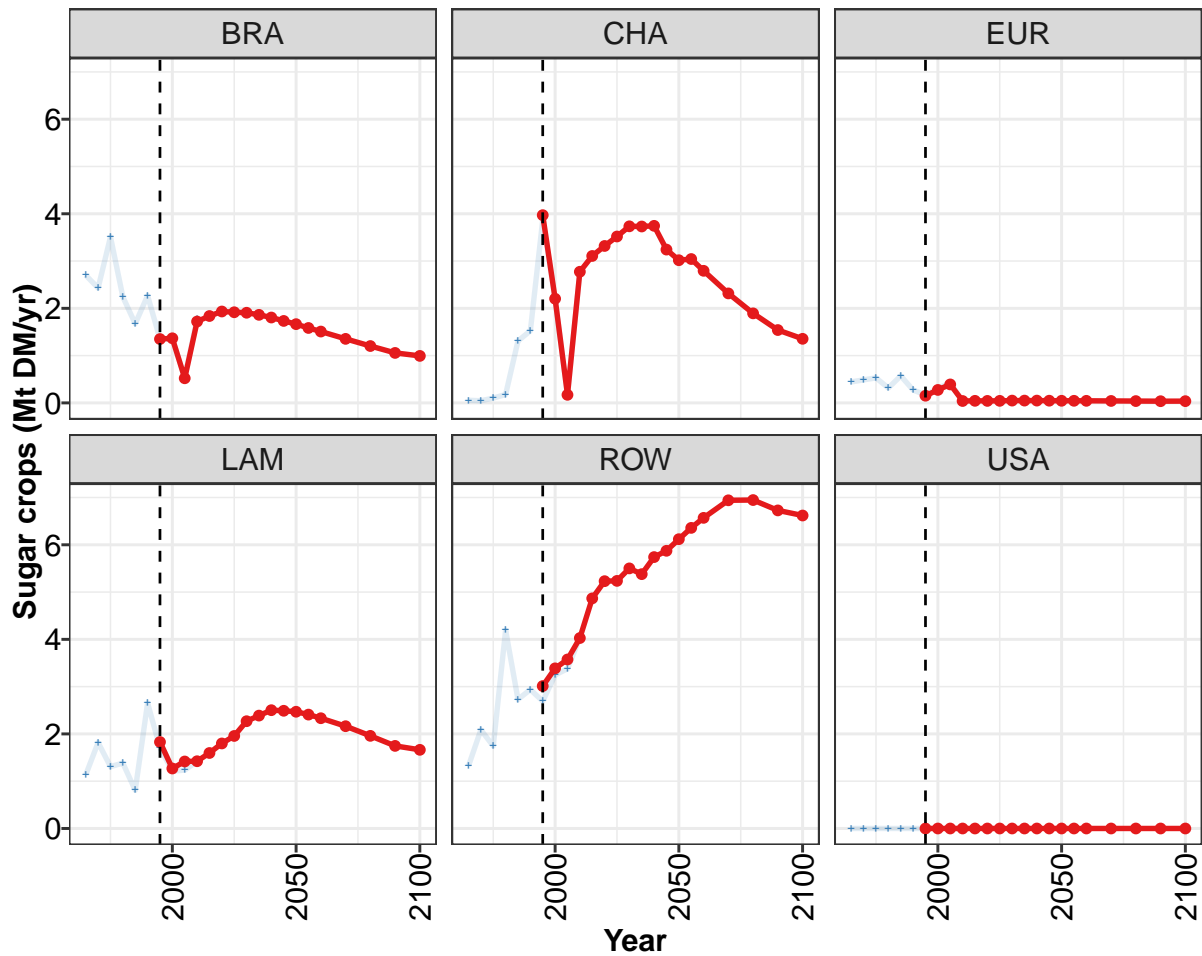
Table 297: MAgPIE m4p_brazil — Demand—Feed—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 2/2]

	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
BRA	4.5	5.3	4.7	4.1	4.1	4.3	4.4	4.1	4.5	4.4
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	8.7	2.7	4.0	0.4	0.1
LAM	0.7	0.9	0.9	1.1	1.1	1.6	1.3	1.2	1.9	1.0
ROW	3.1	4.3	4.4	4.4	4.8	7.3	8.7	11.0	17.6	19.5
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





Model output

MAgPIE m4p_brazil

Historical data

FAO

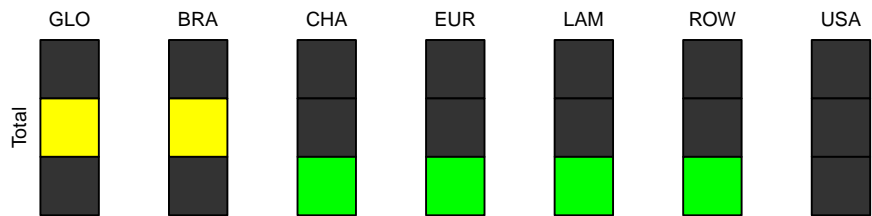


Figure 100: MAgPIE m4p_brazil — Demand—Feed—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	10.3	8.5	6.1	10.0	11.5	12.3	12.7	13.5	13.4	13.8	13.4
BRA	1.4	1.4	0.5	1.7	1.8	1.9	1.9	1.9	1.9	1.8	1.7
CHA	4.0	2.2	0.2	2.8	3.1	3.3	3.5	3.7	3.7	3.7	3.2
EUR	0.2	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.8	1.3	1.4	1.4	1.6	1.8	2.0	2.3	2.4	2.5	2.5
ROW	3.0	3.4	3.6	4.0	4.9	5.2	5.2	5.5	5.4	5.7	5.9
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 299: MAgPIE m4p_brazil — Demand—Feed—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

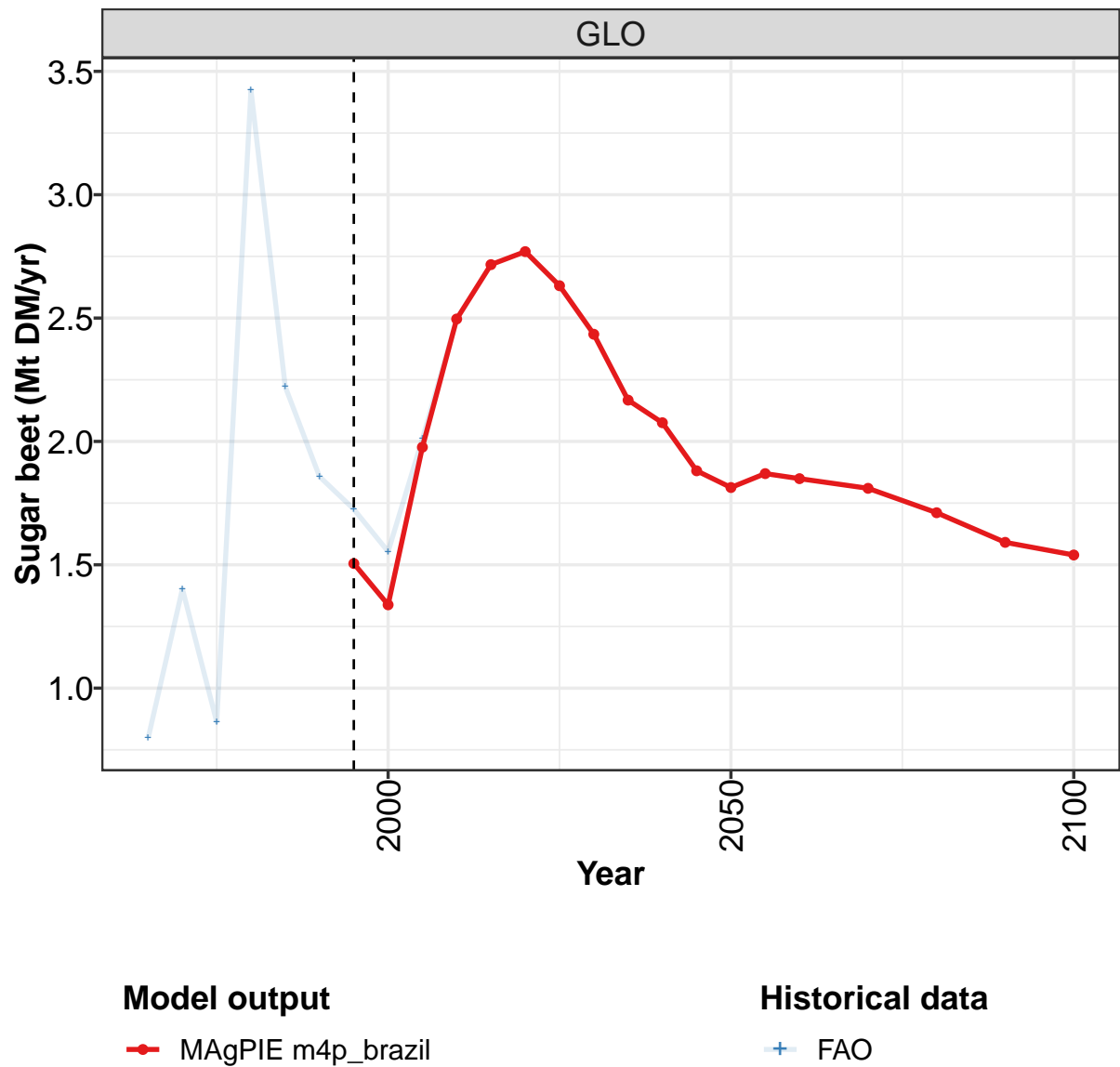
	2050	2055	2060	2070	2080	2090	2100
GLO	13.3	13.4	13.2	12.8	12.0	11.1	10.7
BRA	1.7	1.6	1.5	1.4	1.2	1.1	1.0
CHA	3.0	3.0	2.8	2.3	1.9	1.5	1.4
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	2.5	2.4	2.3	2.2	2.0	1.7	1.7
ROW	6.1	6.4	6.6	6.9	6.9	6.7	6.6
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 300: MAgPIE m4p_brazil — 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
BRA	2.7	2.4	3.5	2.2	1.7	2.3	1.4	1.4	0.5	1.8
CHA	0.1	0.0	0.1	0.2	1.3	1.5	3.9	2.2	0.2	2.8
EUR	0.4	0.5	0.5	0.3	0.6	0.3	0.2	0.3	0.4	0.0
LAM	1.1	1.8	1.3	1.4	0.8	2.7	1.7	1.2	1.2	1.4
ROW	1.3	2.1	1.7	4.2	2.7	2.9	2.7	3.2	3.4	4.0
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



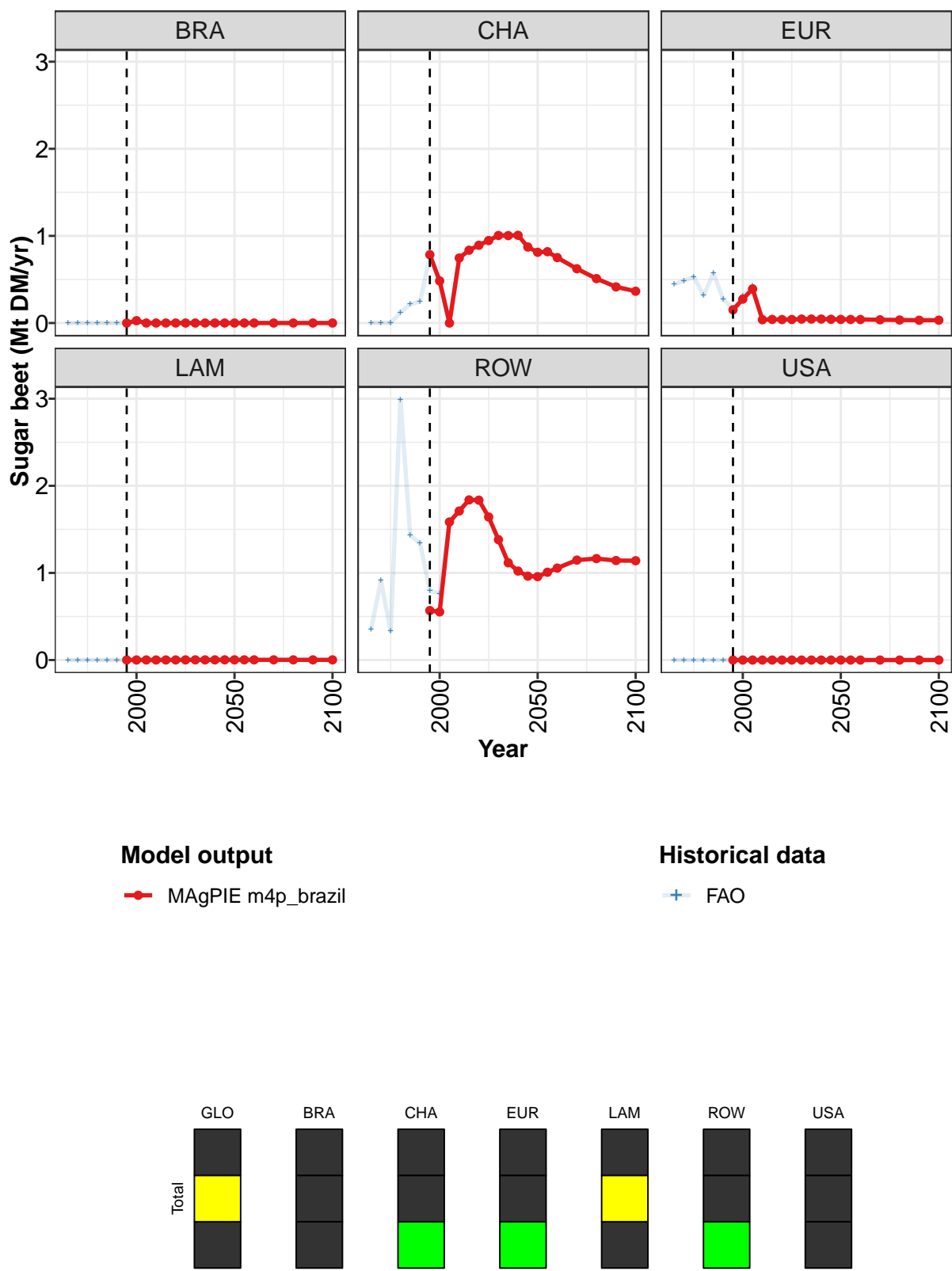


Figure 101: MAgPIE m4p_brazil — Demand—Feed—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.51	1.34	1.98	2.50	2.72	2.77	2.63	2.43	2.17	2.08	1.88
BRA	0.00	0.03	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	0.84	0.89	0.95	1.00	1.00	1.01	0.87
EUR	0.15	0.27	0.39	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.04
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.57	0.55	1.58	1.71	1.84	1.84	1.64	1.38	1.12	1.02	0.96
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_brazil — Demand—Feed—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

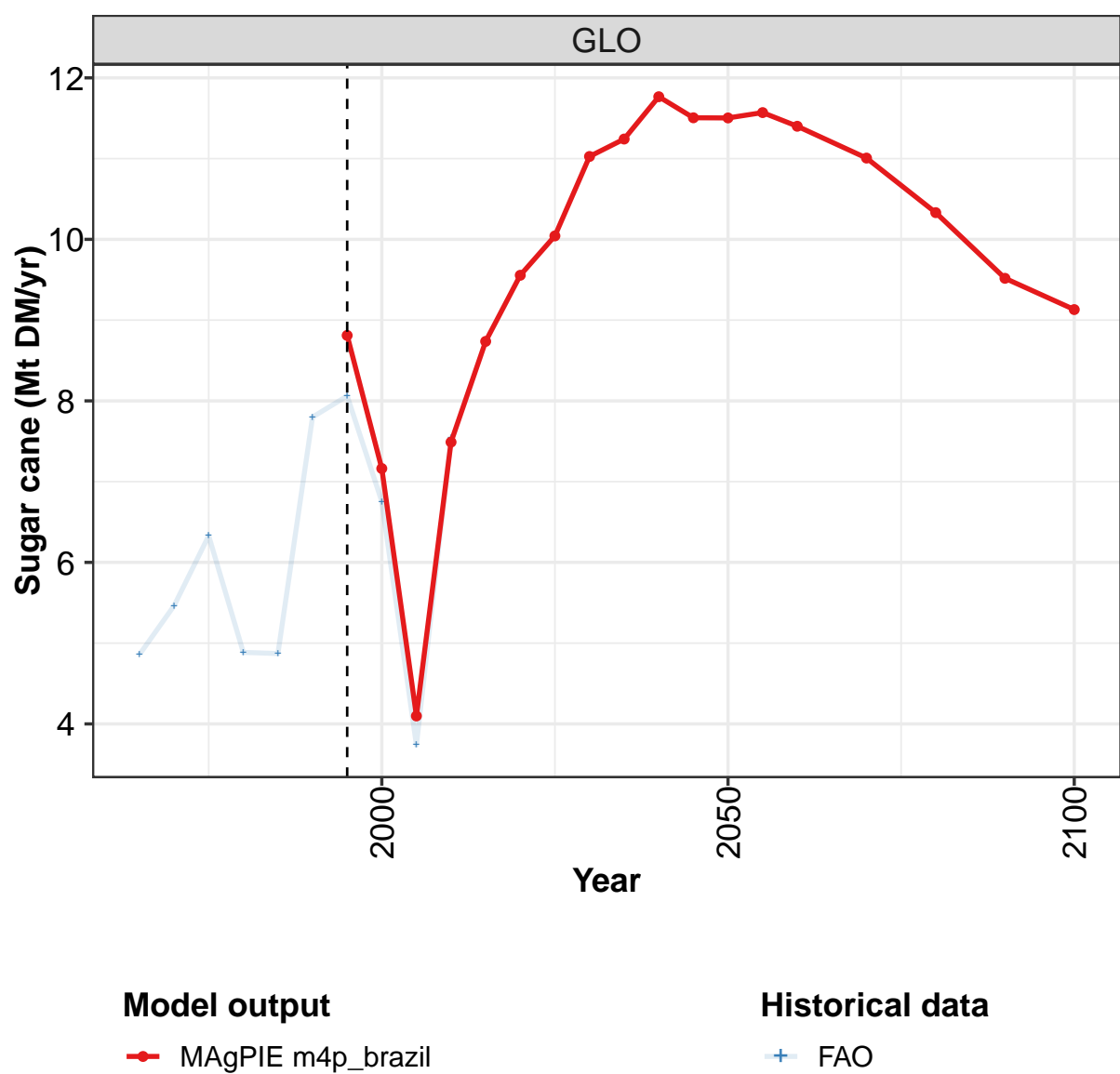
	2050	2055	2060	2070	2080	2090	2100
GLO	1.81	1.87	1.85	1.81	1.71	1.59	1.54
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.81	0.82	0.75	0.62	0.51	0.41	0.36
EUR	0.04	0.04	0.04	0.04	0.03	0.03	0.03
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.96	1.01	1.06	1.15	1.16	1.14	1.14
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 303: MAgPIE m4p_brazil — 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
BRA	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	0.12	0.22	0.24	0.76	0.48	0.00	0.74
EUR	0.44	0.49	0.53	0.32	0.57	0.27	0.17	0.31	0.43	0.04
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.35	0.91	0.33	2.99	1.43	1.34	0.79	0.76	1.58	1.71
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



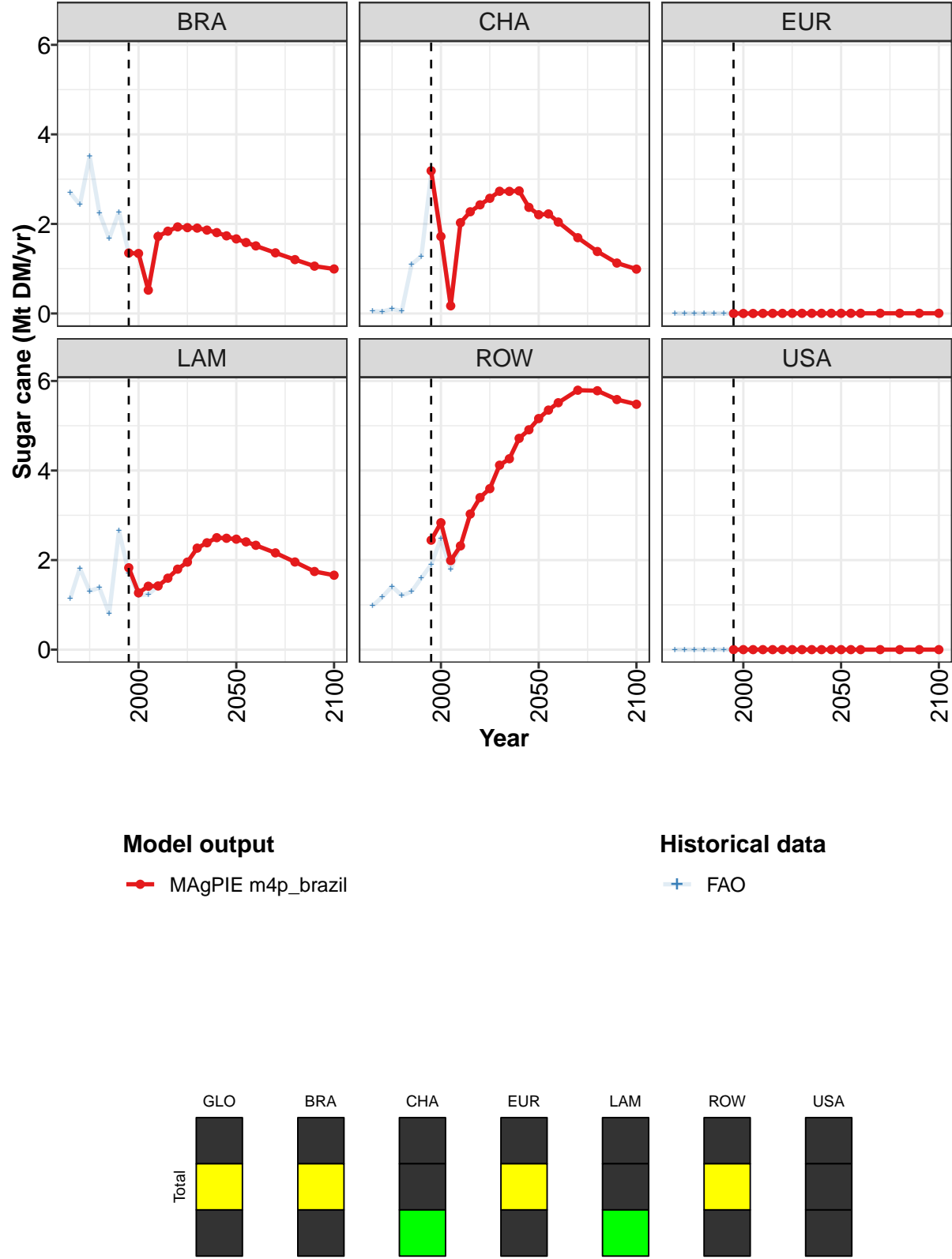


Figure 102: MAgPIE m4p_brazil — Demand—Feed—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	8.8	7.2	4.1	7.5	8.7	9.6	10.0	11.0	11.2	11.8	11.5
BRA	1.4	1.3	0.5	1.7	1.8	1.9	1.9	1.9	1.9	1.8	1.7
CHA	3.2	1.7	0.2	2.0	2.3	2.4	2.6	2.7	2.7	2.7	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
LAM	1.8	1.3	1.4	1.4	1.6	1.8	2.0	2.3	2.4	2.5	2.5
ROW	2.4	2.8	2.0	2.3	3.0	3.4	3.6	4.1	4.3	4.7	4.9
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 305: MAgPIE m4p_brazil — Demand—Feed—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 1/2]

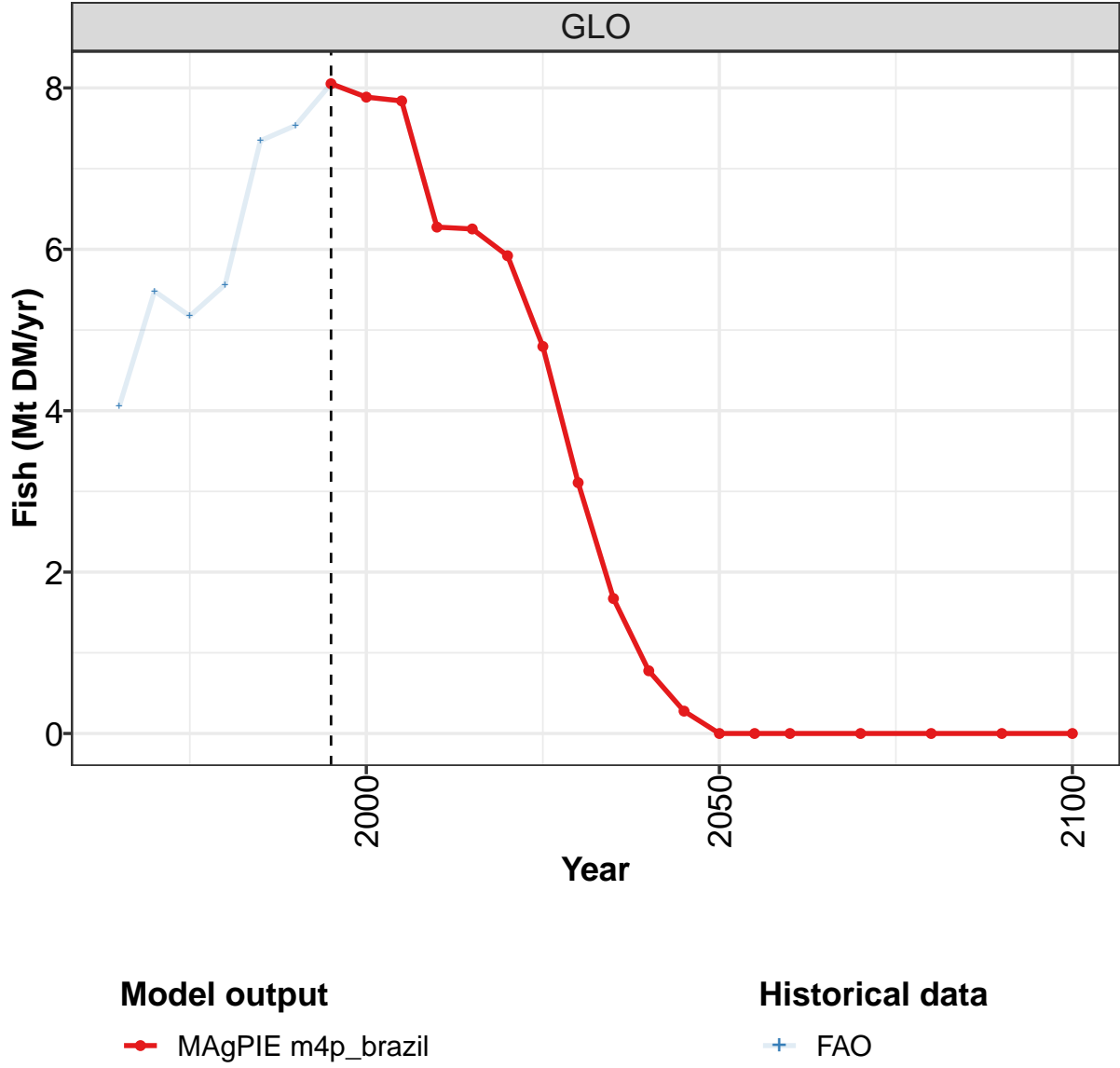
	2050	2055	2060	2070	2080	2090	2100
GLO	11.5	11.6	11.4	11.0	10.3	9.5	9.1
BRA	1.7	1.6	1.5	1.4	1.2	1.1	1.0
CHA	2.2	2.2	2.0	1.7	1.4	1.1	1.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	2.5	2.4	2.3	2.2	2.0	1.7	1.7
ROW	5.2	5.4	5.5	5.8	5.8	5.6	5.5
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 306: MAgPIE m4p_brazil — 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
BRA	2.70	2.43	3.51	2.24	1.67	2.27	1.35	1.35	0.54	1.78
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
LAM	1.13	1.82	1.31	1.38	0.81	2.65	1.71	1.21	1.23	1.42
ROW	0.97	1.17	1.41	1.21	1.30	1.60	1.90	2.48	1.79	2.32
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



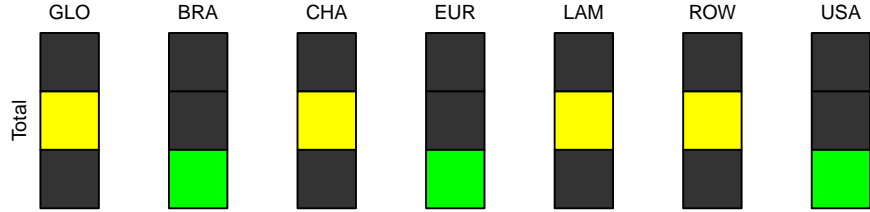
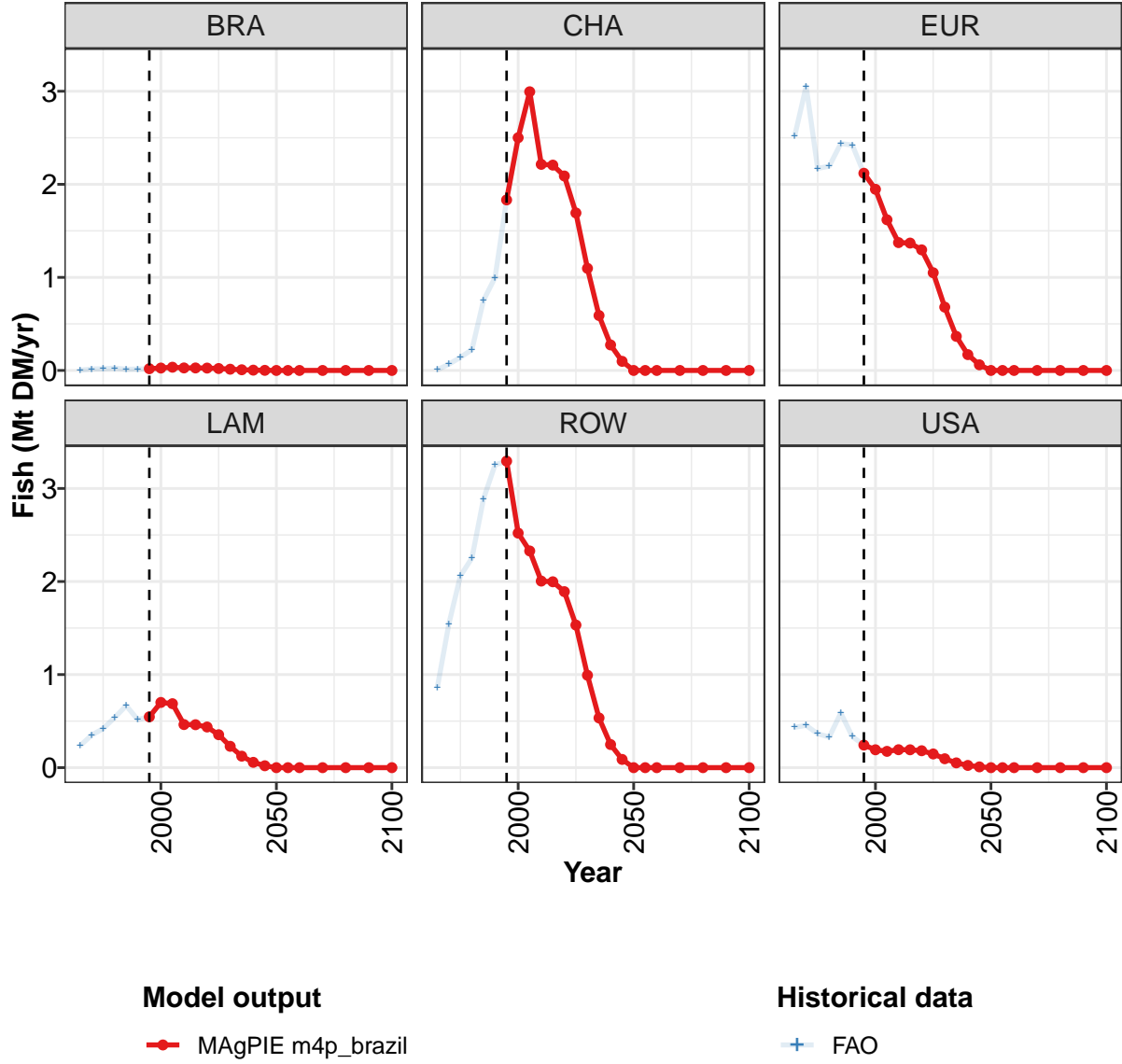


Figure 103: MAGPIE m4p.brazil — Demand—Feed—Fish (Mt DM/yr)

	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
BRA	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00
CHA	1.83	2.50	2.99	2.21	2.21	2.09	1.69	1.10	0.59	0.27	0.10
EUR	2.12	1.95	1.62	1.37	1.37	1.30	1.05	0.68	0.37	0.17	0.06
LAM	0.55	0.70	0.69	0.46	0.46	0.44	0.35	0.23	0.12	0.06	0.02
ROW	3.29	2.52	2.33	2.00	2.00	1.89	1.53	0.99	0.53	0.25	0.09
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_brazil — Demand—Feed—Fish (Mt DM/yr) [PART 1/2]

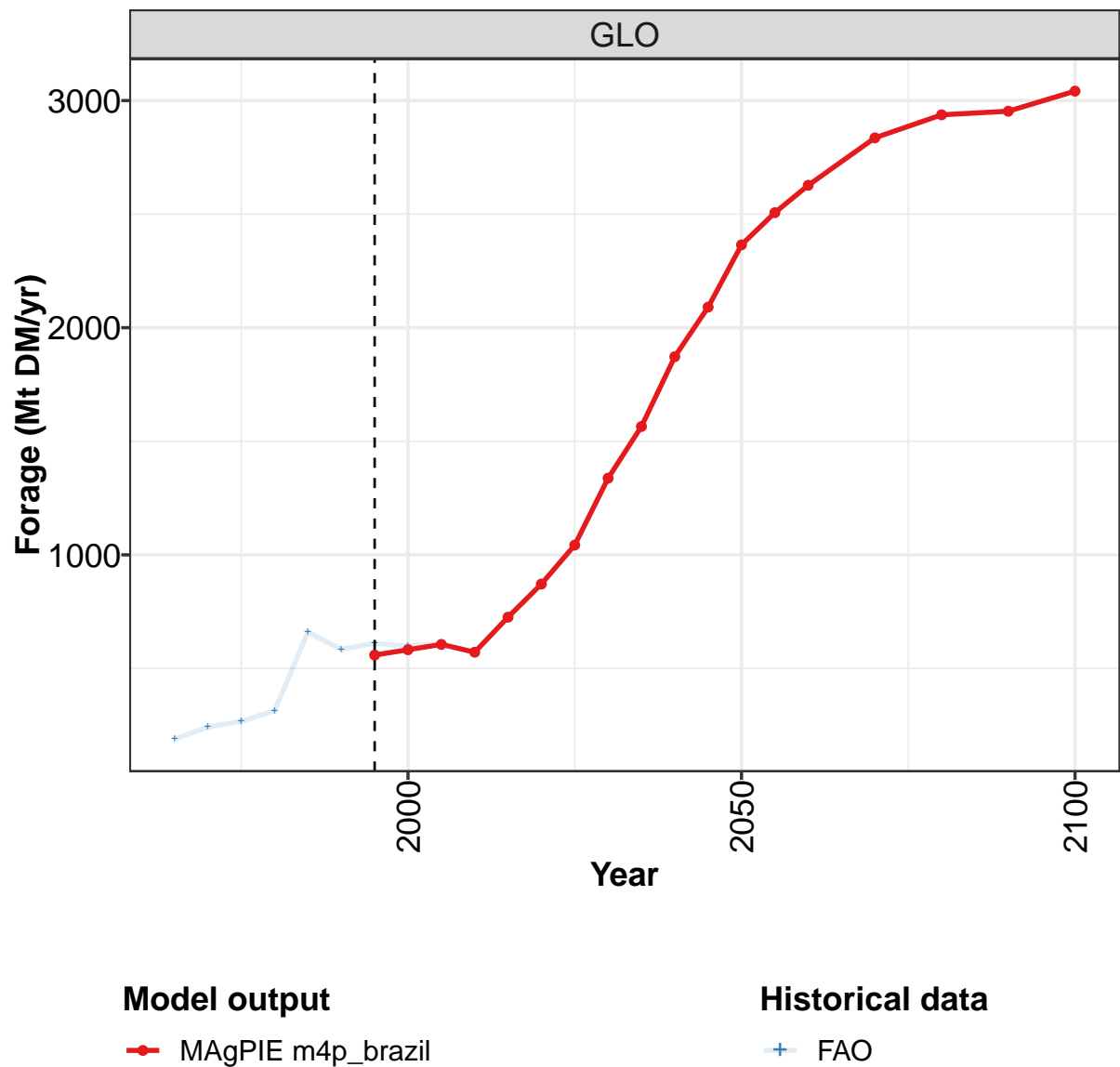
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 309: MAgPIE m4p_brazil — 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
BRA	0.00	0.02	0.02	0.02	0.01	0.01	0.02	0.03	0.03	0.03
CHA	0.01	0.07	0.14	0.22	0.75	1.00	1.83	2.50	2.99	2.21
EUR	2.52	3.05	2.17	2.19	2.44	2.42	2.12	1.95	1.62	1.37
LAM	0.24	0.35	0.42	0.54	0.67	0.52	0.55	0.70	0.69	0.46
ROW	0.86	1.54	2.06	2.25	2.89	3.25	3.29	2.52	2.33	2.00
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



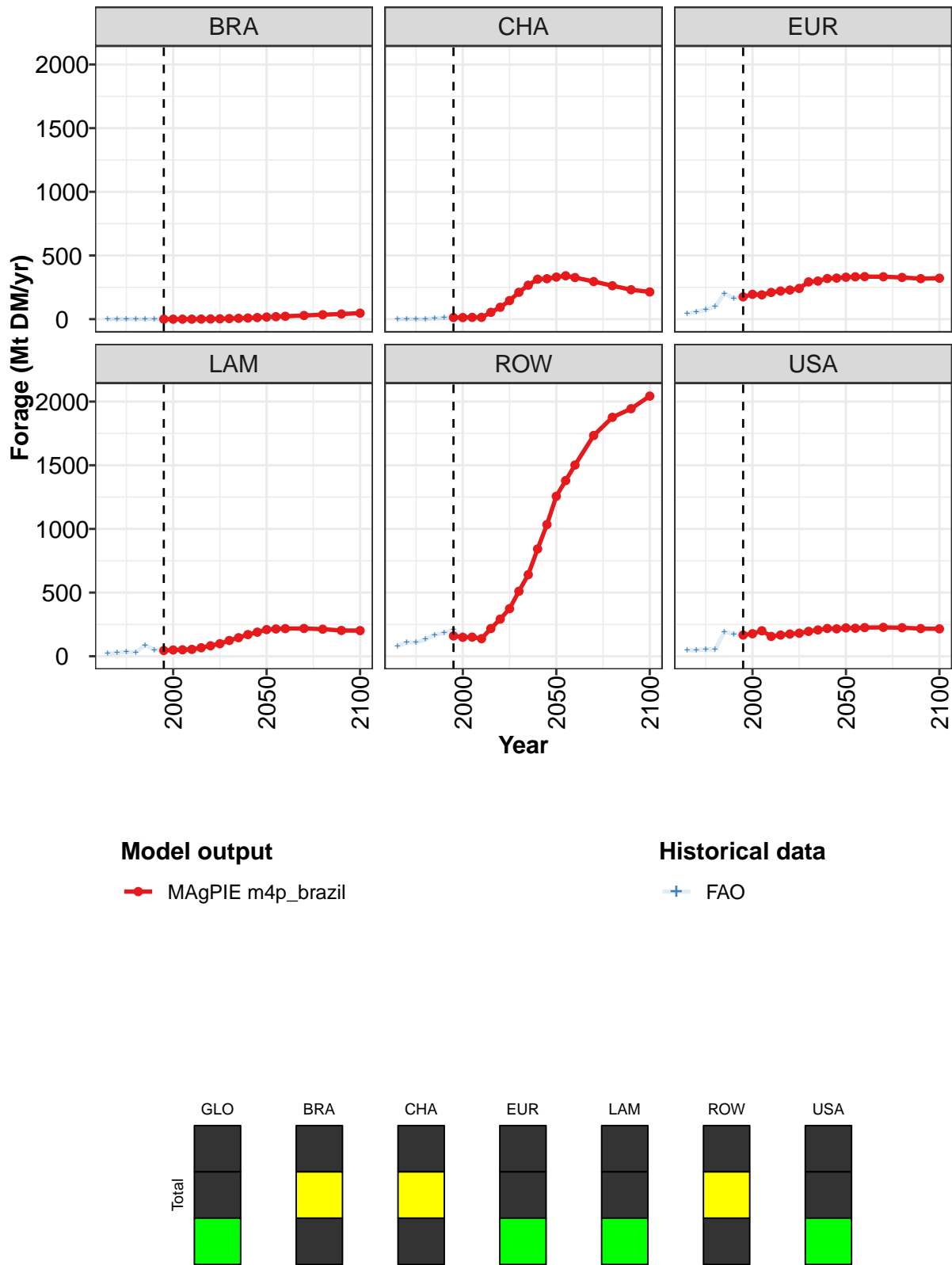


Figure 104: MAgPIE m4p_brazil — Demand—Feed—Forage (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	559	582	606	571	726	872	1043	1337	1565	1873	2091
BRA	0	0	0	0	0	1	3	4	7	9	12
CHA	13	12	14	14	53	93	146	211	267	314	318
EUR	175	195	191	210	221	228	241	292	299	319	322
LAM	45	49	51	54	67	82	98	124	146	170	189
ROW	160	149	150	138	218	292	374	510	641	843	1034
USA	167	177	200	156	167	175	181	195	207	218	215

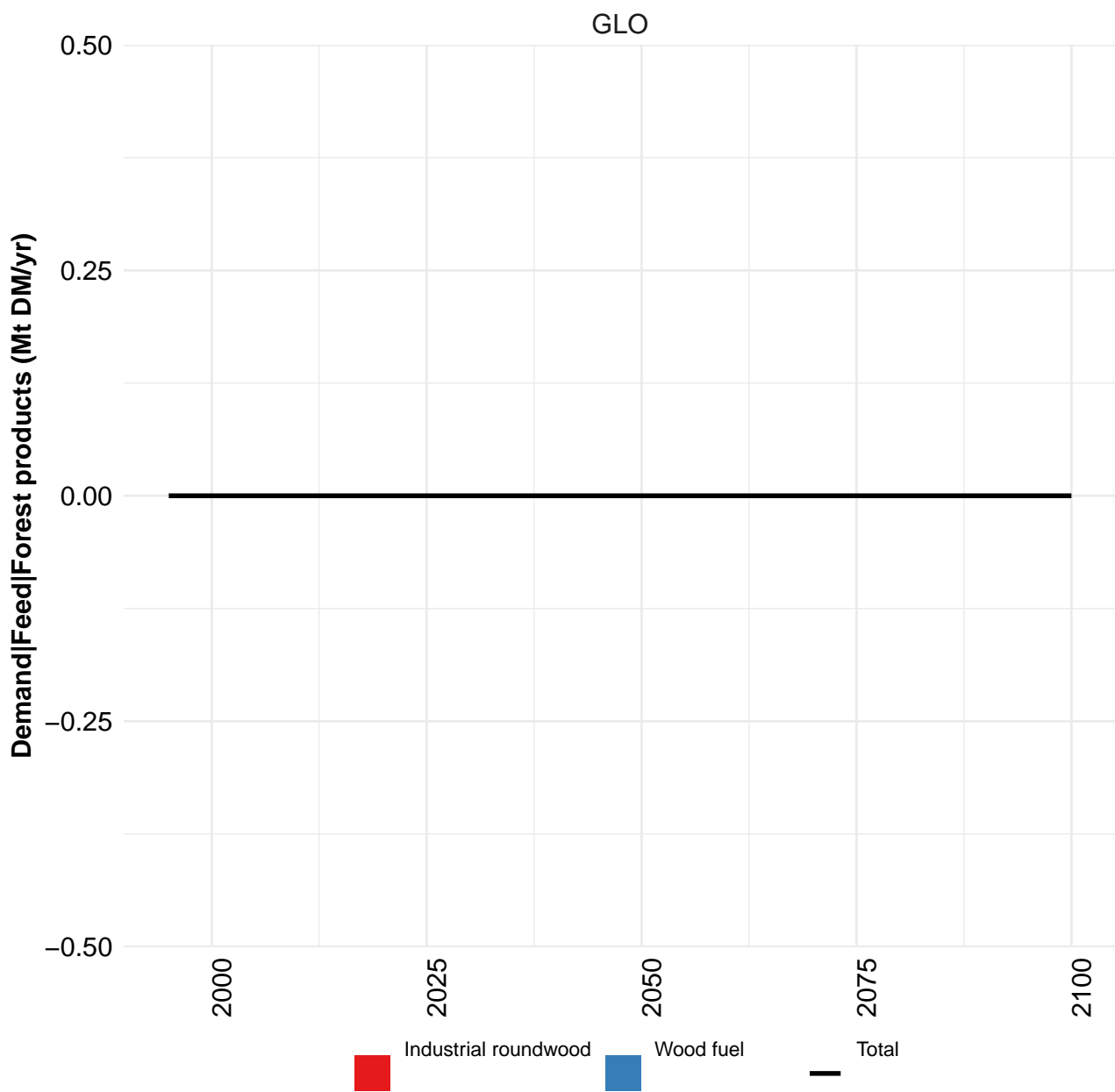
Table 311: MAgPIE m4p_brazil — Demand—Feed—Forage (Mt DM/yr) [PART 1/2]

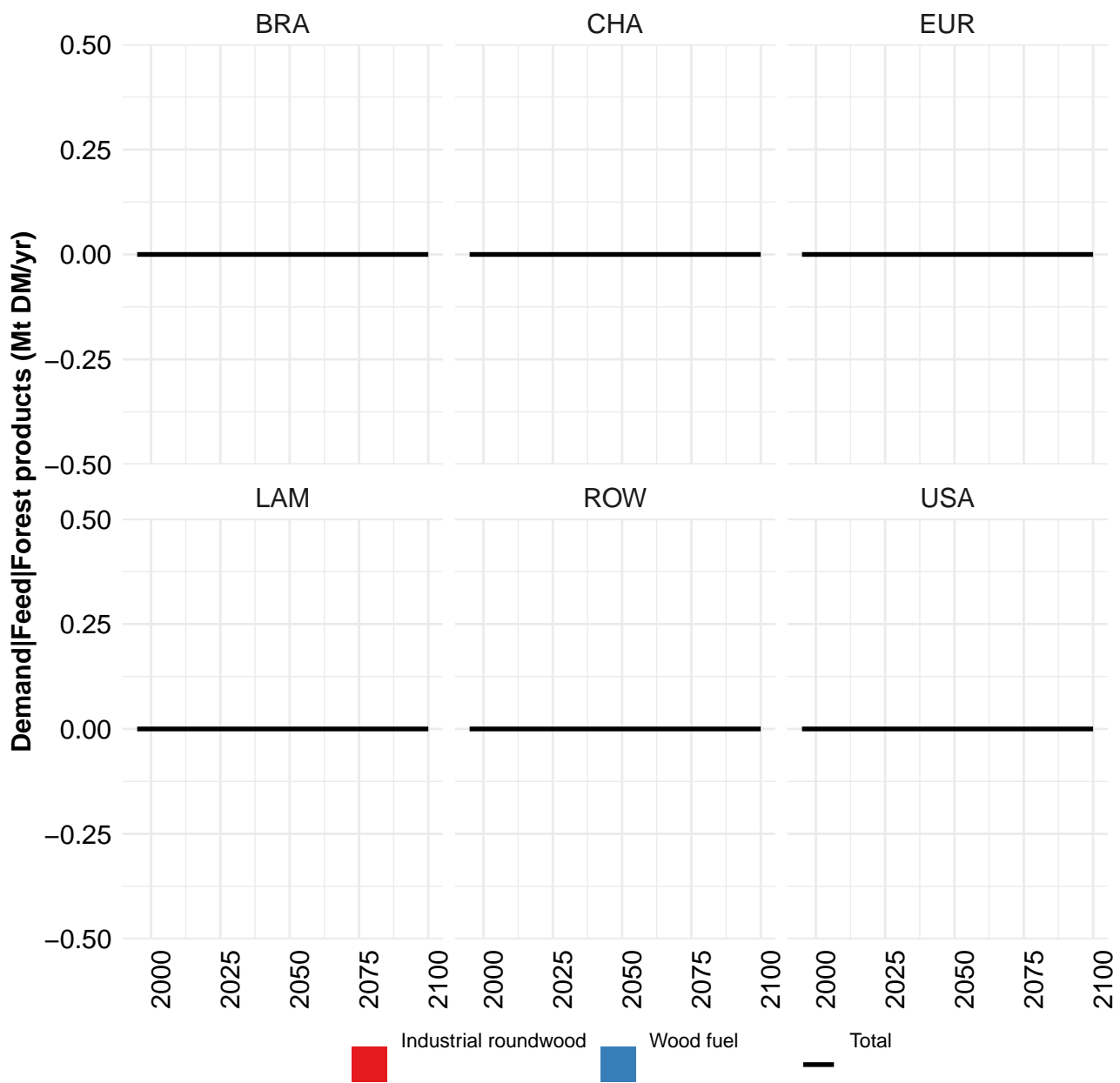
	2050	2055	2060	2070	2080	2090	2100
GLO	2365	2507	2627	2836	2937	2953	3042
BRA	16	19	22	29	35	40	47
CHA	330	340	327	295	262	231	213
EUR	329	333	334	333	327	318	321
LAM	210	214	217	218	213	203	201
ROW	1257	1380	1502	1734	1876	1944	2043
USA	223	220	225	227	224	217	215

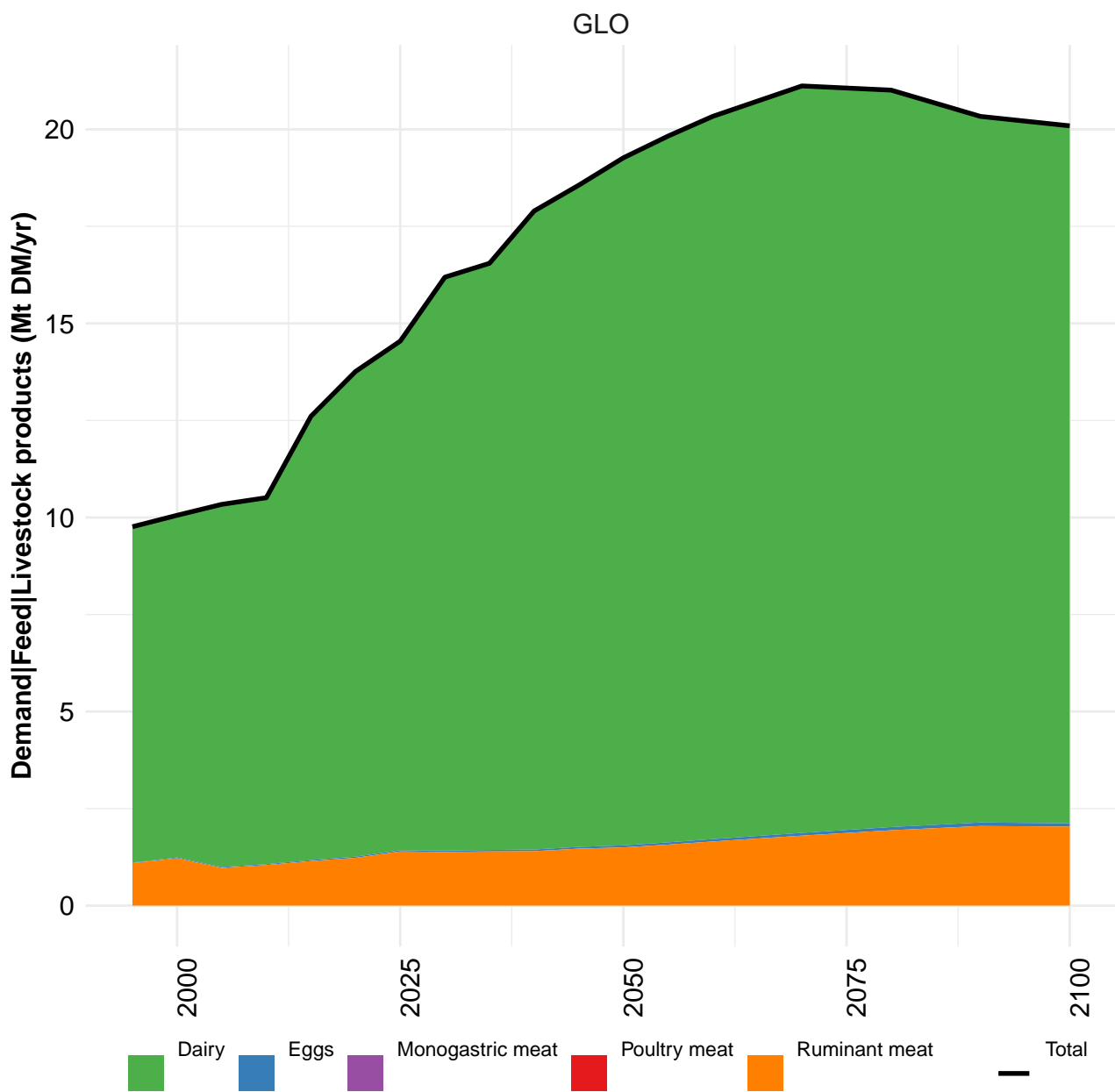
Table 312: MAgPIE m4p_brazil — Demand—Feed—Forage (Mt DM/yr) [PART 2/2]

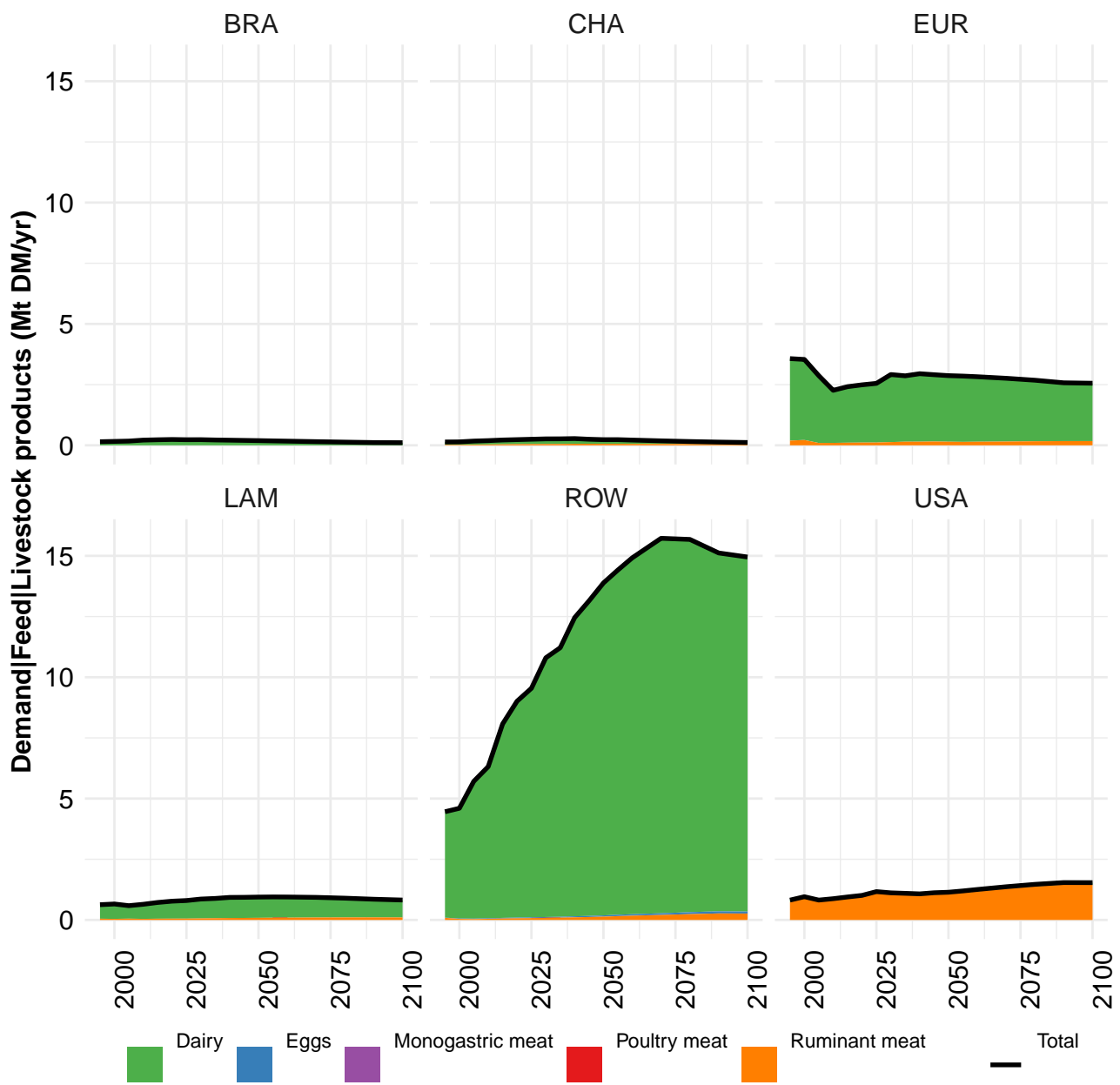
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	189	242	266	314	660	584	611	598	609	570
BRA	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	8	10	11	12	13	14
EUR	41	58	72	99	202	165	178	188	191	202
LAM	21	27	33	31	88	51	46	50	51	54
ROW	79	108	108	132	169	183	207	163	153	138
USA	47	48	54	53	192	175	170	185	201	162

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

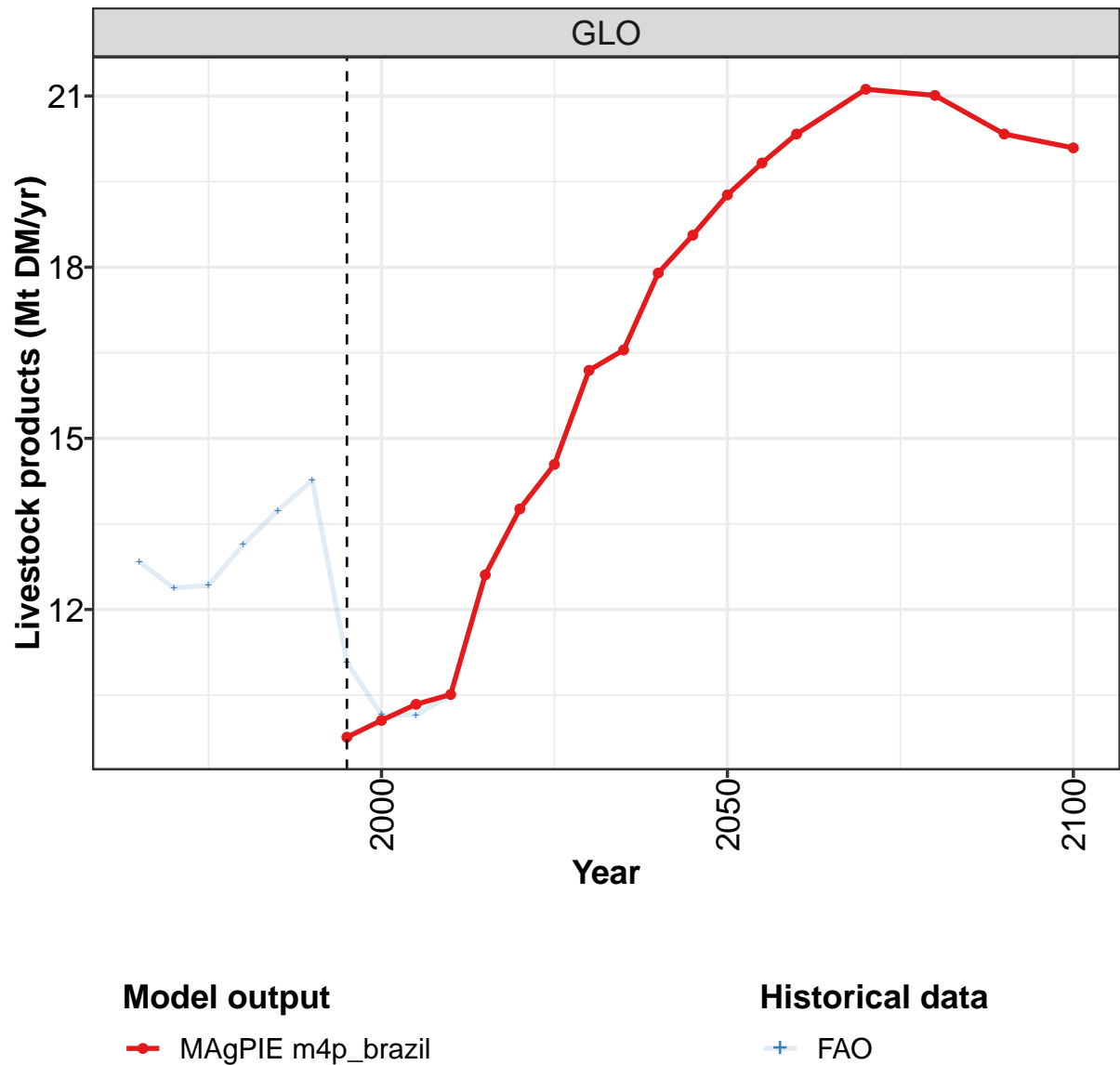








6.5 Livestock products



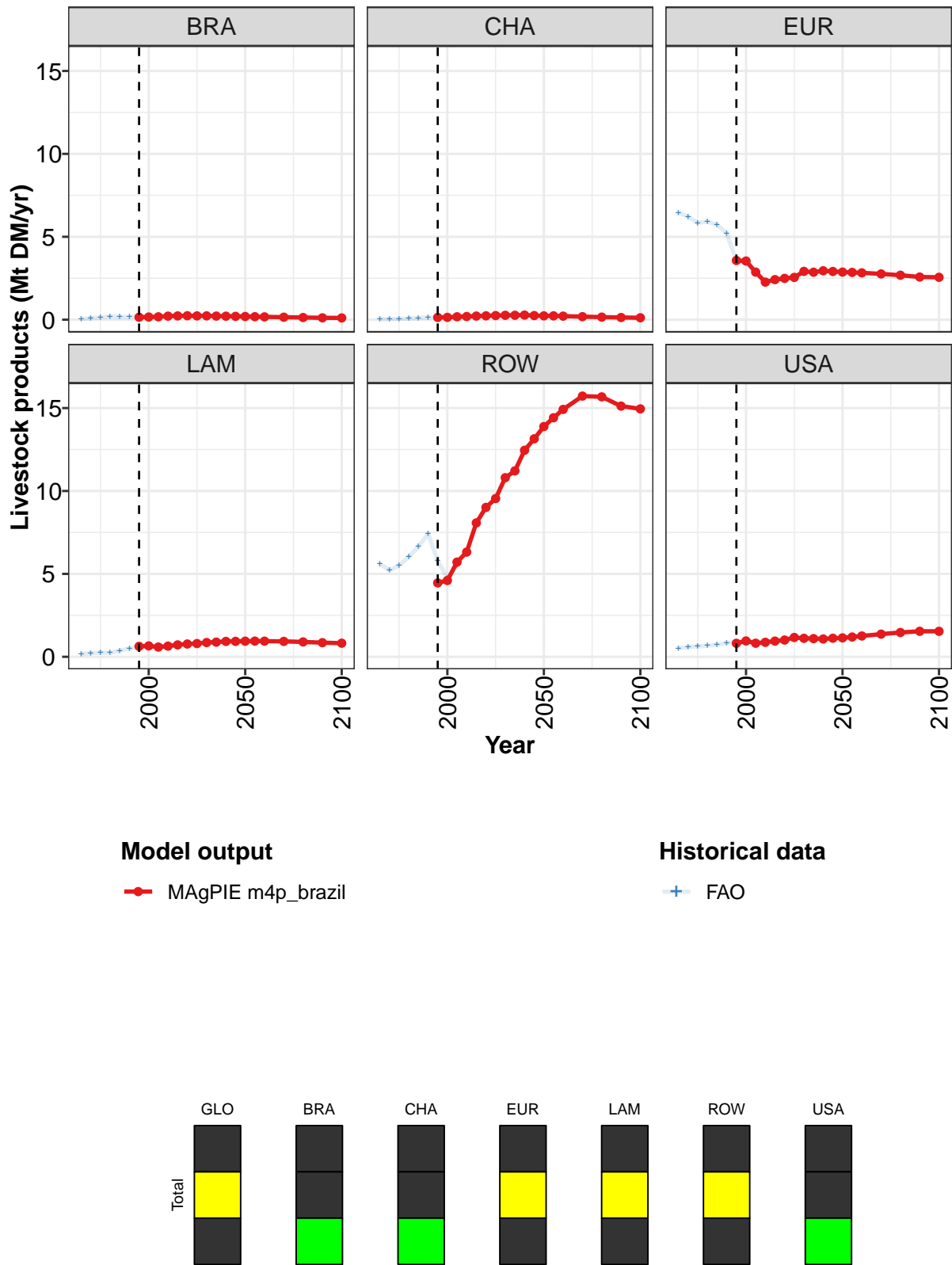


Figure 105: MAgPIE m4p_brazil — Demand—Feed—Livestock products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9.8	10.1	10.3	10.5	12.6	13.8	14.5	16.2	16.5	17.9	18.6
BRA	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2
EUR	3.6	3.5	2.9	2.3	2.4	2.5	2.6	2.9	2.9	2.9	2.9
LAM	0.6	0.7	0.6	0.6	0.7	0.8	0.8	0.9	0.9	0.9	0.9
ROW	4.5	4.6	5.7	6.3	8.1	9.0	9.5	10.8	11.2	12.5	13.1
USA	0.8	1.0	0.8	0.9	0.9	1.0	1.2	1.1	1.1	1.1	1.1

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

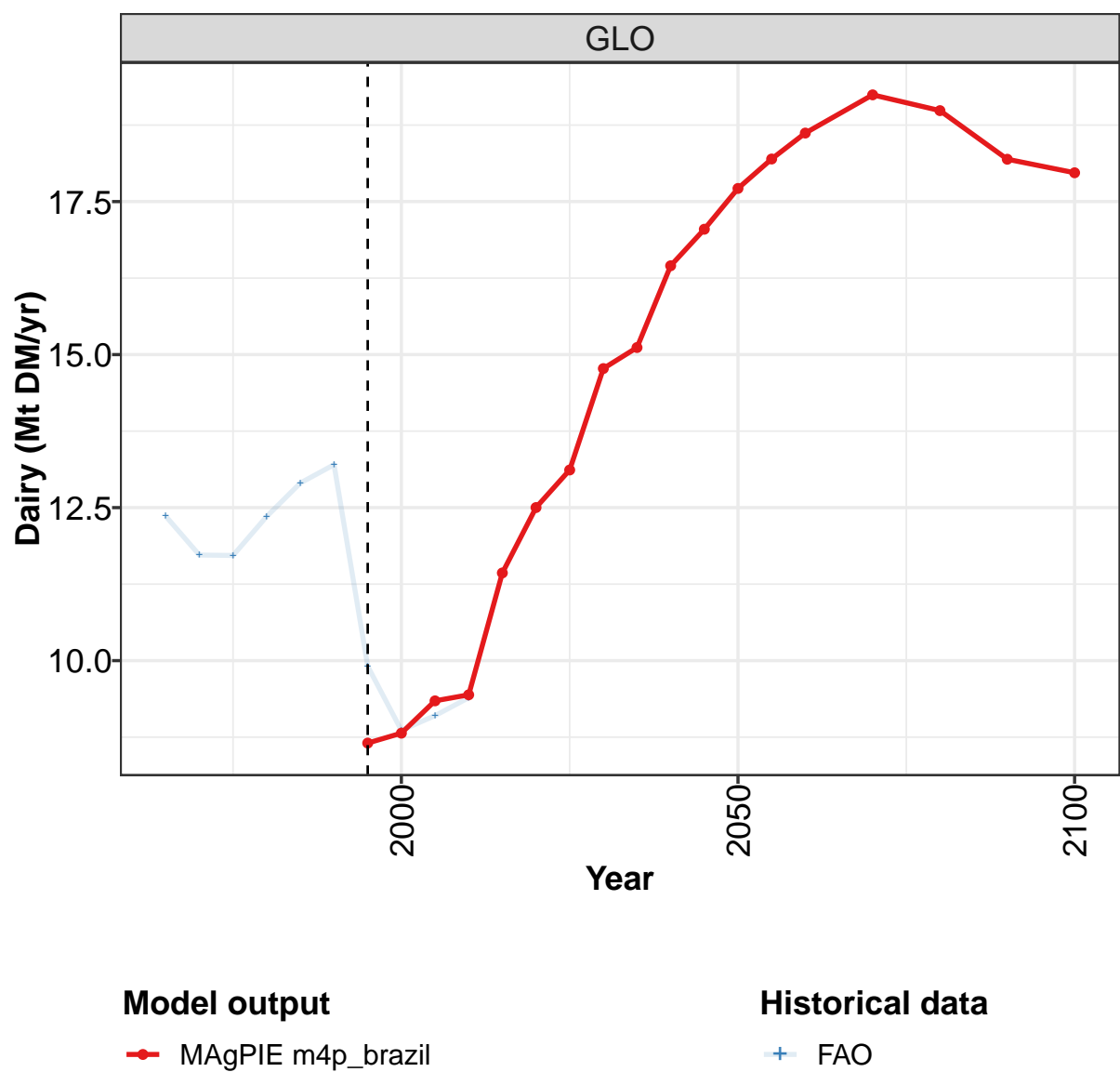
	2050	2055	2060	2070	2080	2090	2100
GLO	19.3	19.8	20.3	21.1	21.0	20.3	20.1
BRA	0.2	0.2	0.2	0.2	0.1	0.1	0.1
CHA	0.2	0.2	0.2	0.2	0.2	0.1	0.1
EUR	2.9	2.9	2.8	2.8	2.7	2.6	2.6
LAM	0.9	0.9	0.9	0.9	0.9	0.9	0.8
ROW	13.9	14.4	14.9	15.7	15.7	15.1	15.0
USA	1.1	1.2	1.3	1.4	1.5	1.5	1.5

Table 315: MAgPIE m4p.brazil — 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
BRA	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2
CHA	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
EUR	6.5	6.2	5.8	5.9	5.7	5.2	3.6	3.4	2.8	2.2
LAM	0.2	0.2	0.3	0.2	0.4	0.5	0.6	0.6	0.6	0.6
ROW	5.6	5.2	5.5	6.0	6.6	7.4	5.8	4.8	5.5	6.3
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



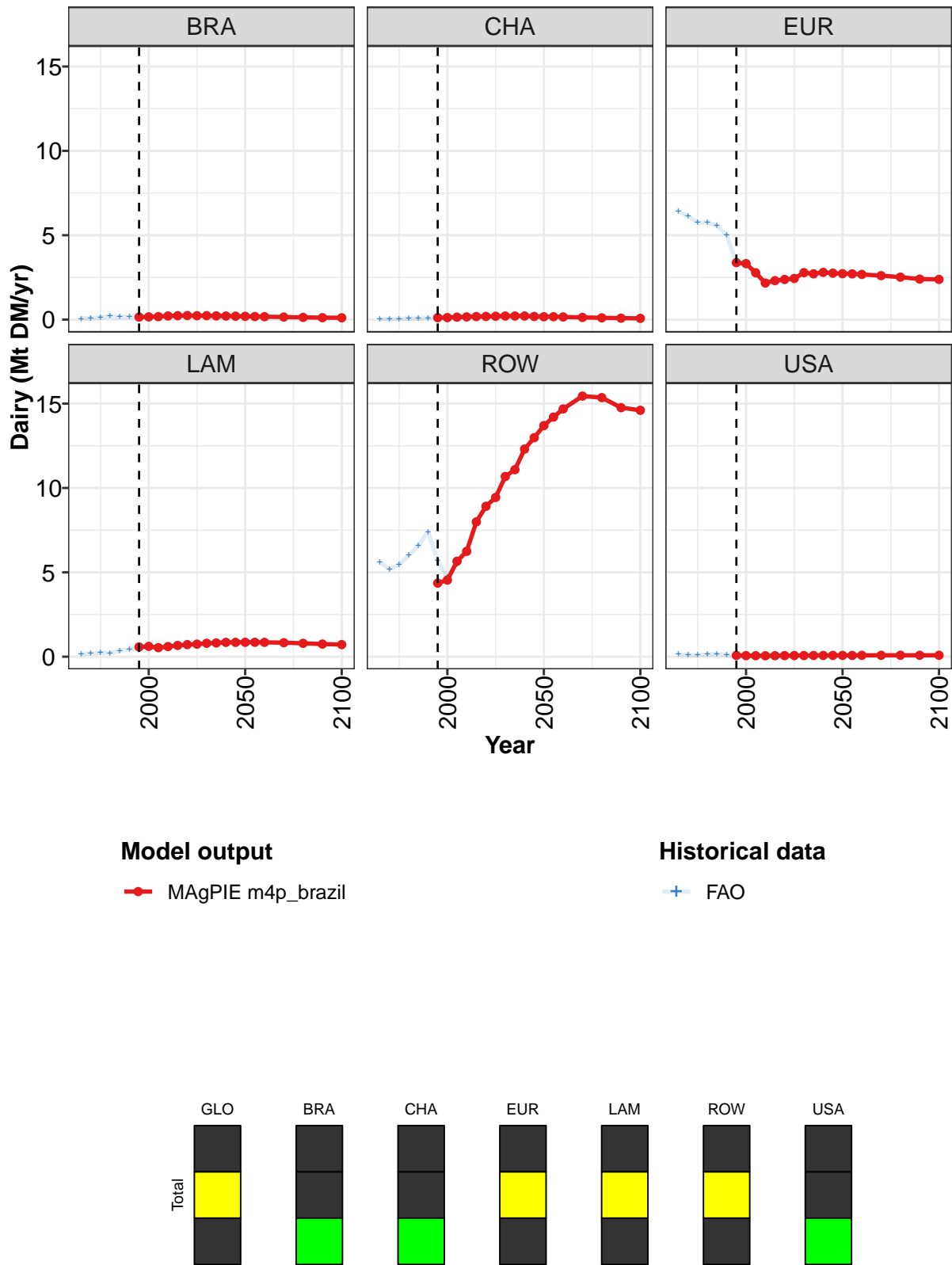


Figure 106: MAgPIE m4p.brazil — Demand—Feed—Livestock products—Dairy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	8.7	8.8	9.3	9.4	11.4	12.5	13.1	14.8	15.1	16.5	17.0
BRA	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
EUR	3.4	3.3	2.8	2.2	2.3	2.4	2.4	2.8	2.7	2.8	2.8
LAM	0.6	0.6	0.5	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9
ROW	4.4	4.5	5.7	6.2	8.0	8.9	9.4	10.7	11.1	12.3	13.0
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_brazil — Demand—Feed—Livestock products—Dairy (Mt DM/yr) [PART 1/2]

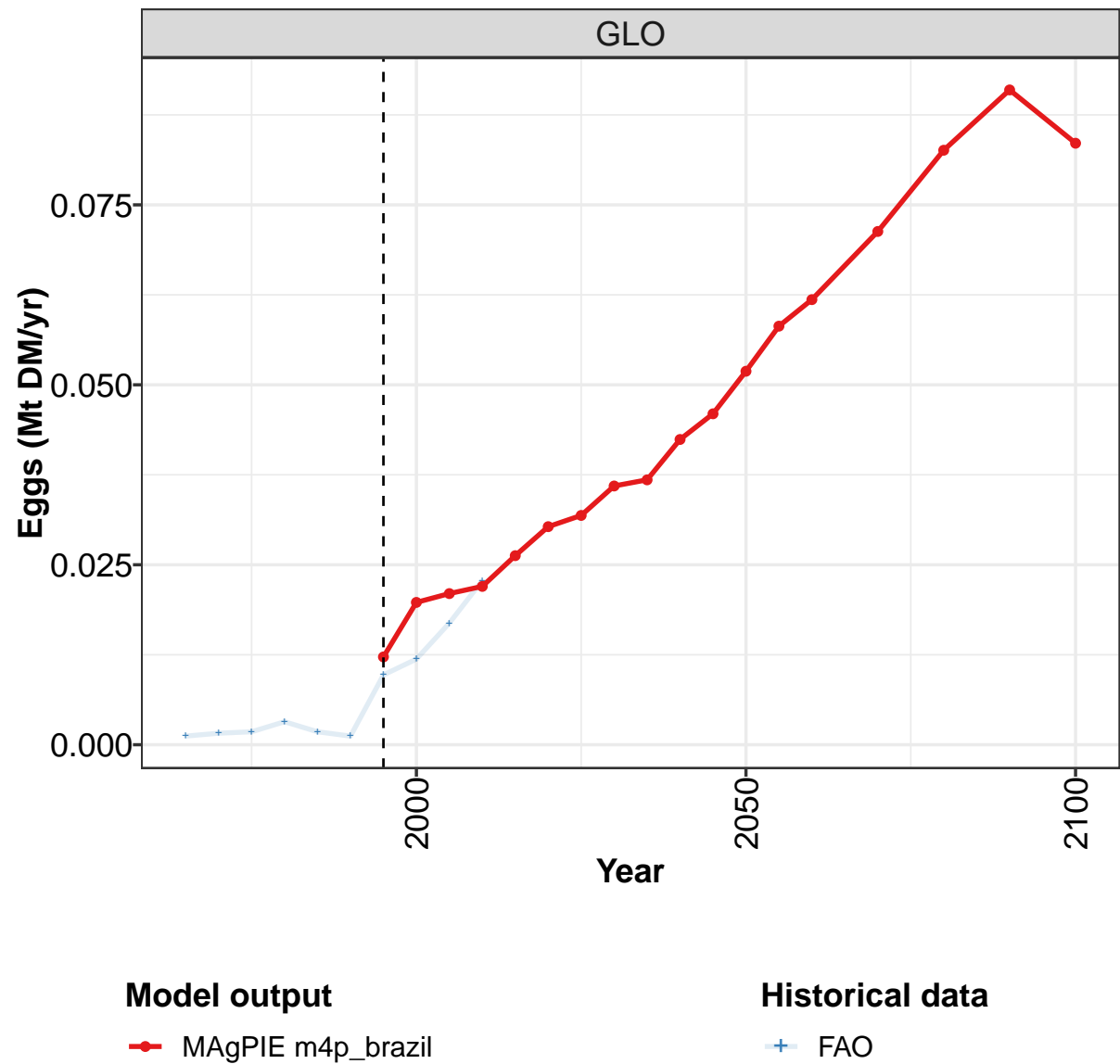
	2050	2055	2060	2070	2080	2090	2100
GLO	17.7	18.2	18.6	19.2	19.0	18.2	18.0
BRA	0.2	0.2	0.2	0.2	0.1	0.1	0.1
CHA	0.2	0.2	0.2	0.1	0.1	0.1	0.1
EUR	2.7	2.7	2.7	2.6	2.5	2.4	2.4
LAM	0.9	0.9	0.9	0.8	0.8	0.7	0.7
ROW	13.7	14.2	14.7	15.4	15.4	14.8	14.6
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 318: MAgPIE m4p_brazil — 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
BRA	0.1	0.1	0.1	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	6.4	6.1	5.8	5.8	5.6	5.0	3.4	3.2	2.7	2.1
LAM	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.6	0.5	0.6
ROW	5.6	5.2	5.5	6.0	6.6	7.4	5.7	4.7	5.5	6.3
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



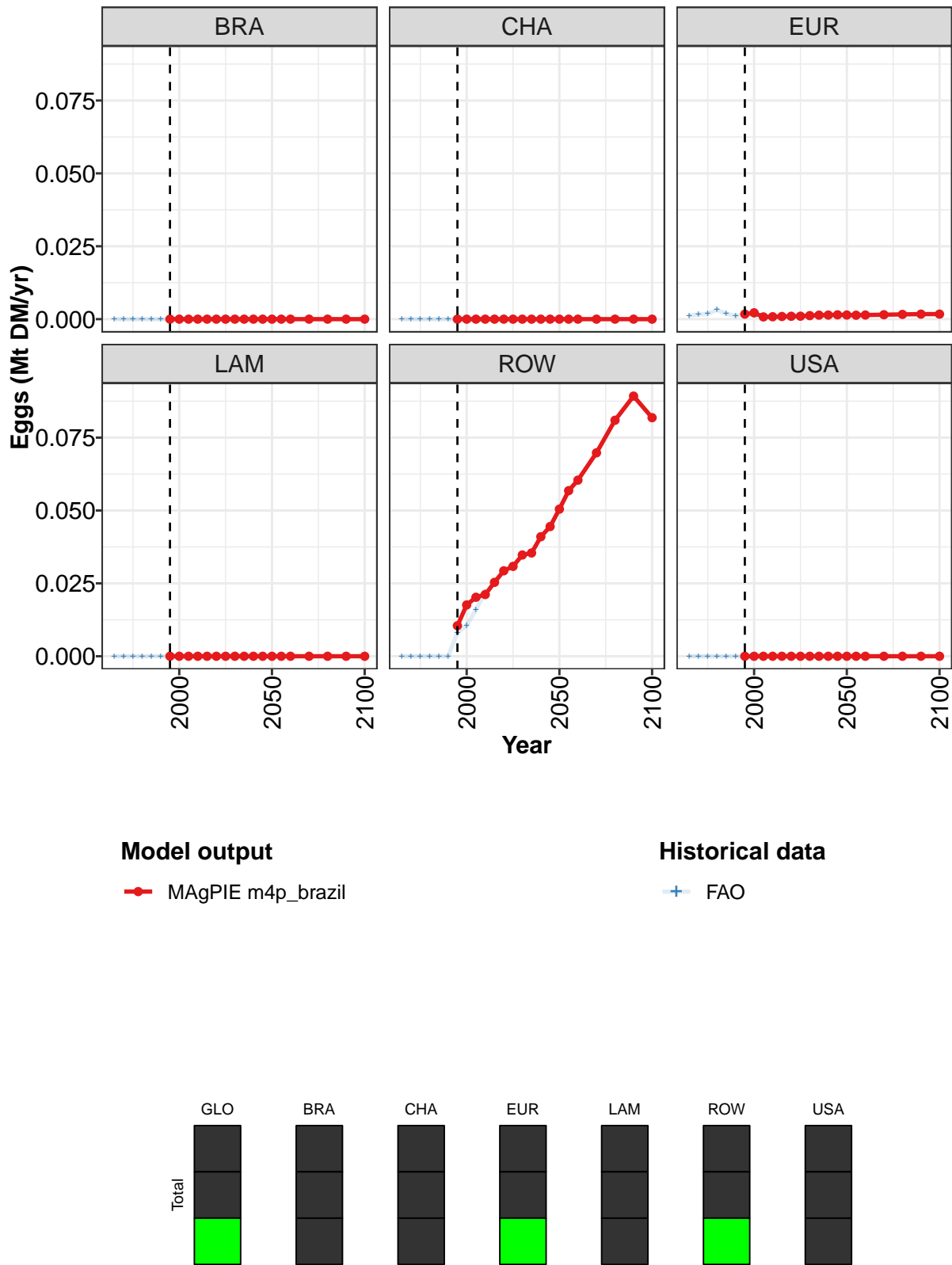


Figure 107: MAGPIE m4p_brazil — Demand—Feed—Livestock products—Eggs (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0122	0.0198	0.0210	0.0220	0.0263	0.0303	0.0319	0.0359	0.0368	0.0424	0.0460
BRA	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	0.0017	0.0022	0.0008	0.0008	0.0009	0.0010	0.0010	0.0012	0.0014	0.0014	0.0015
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	0.0105	0.0176	0.0202	0.0212	0.0254	0.0293	0.0308	0.0347	0.0354	0.0410	0.0445
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_brazil — Demand—Feed—Livestock products—Eggs (Mt DM/yr) [PART 1/2]

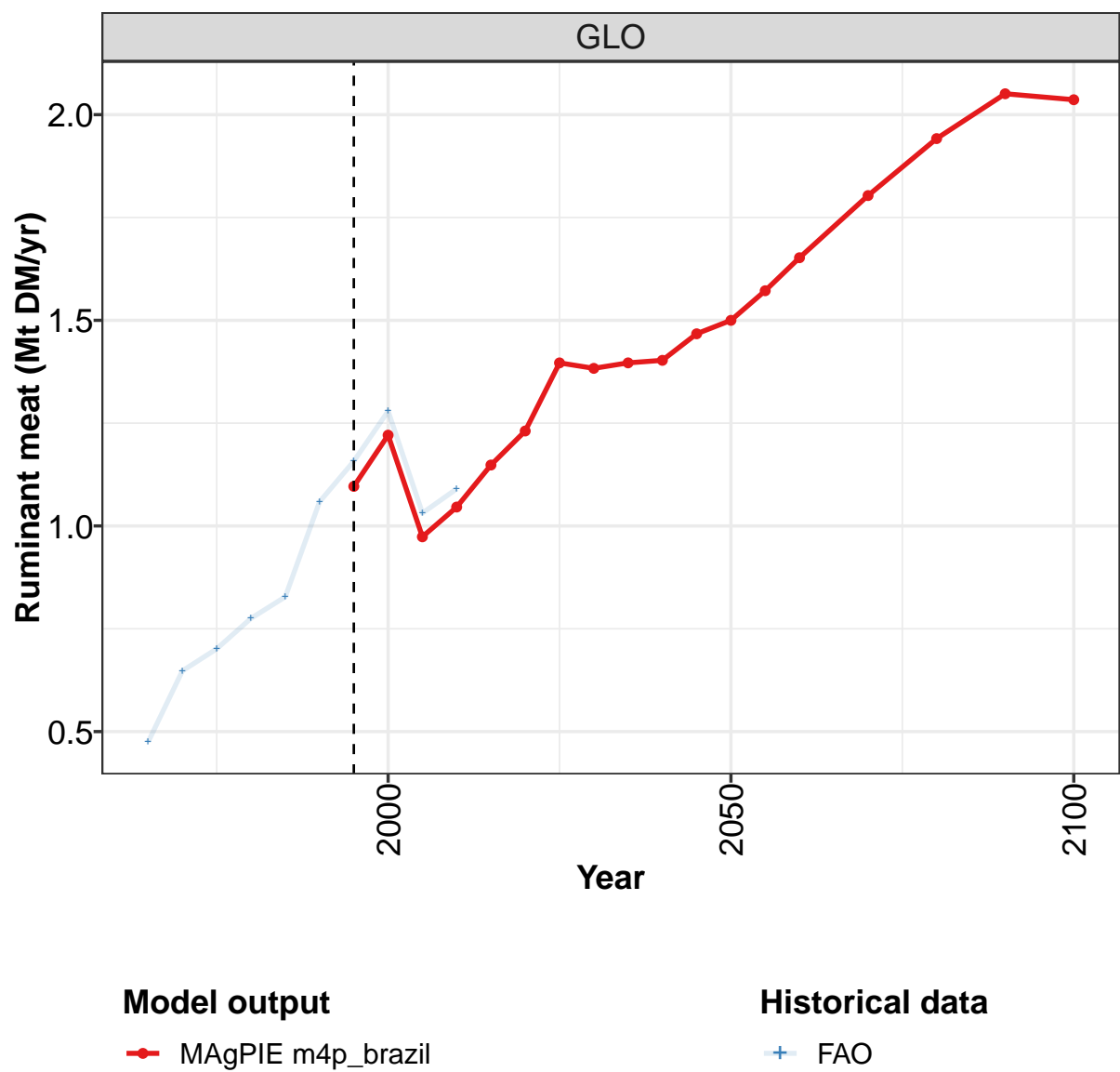
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0519	0.0582	0.0618	0.0713	0.0826	0.0910	0.0836
BRA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0014	0.0013	0.0014	0.0015	0.0016	0.0017	0.0017
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	0.0505	0.0568	0.0604	0.0698	0.0810	0.0893	0.0818
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 321: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0081	0.0105	0.0160	0.0219
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



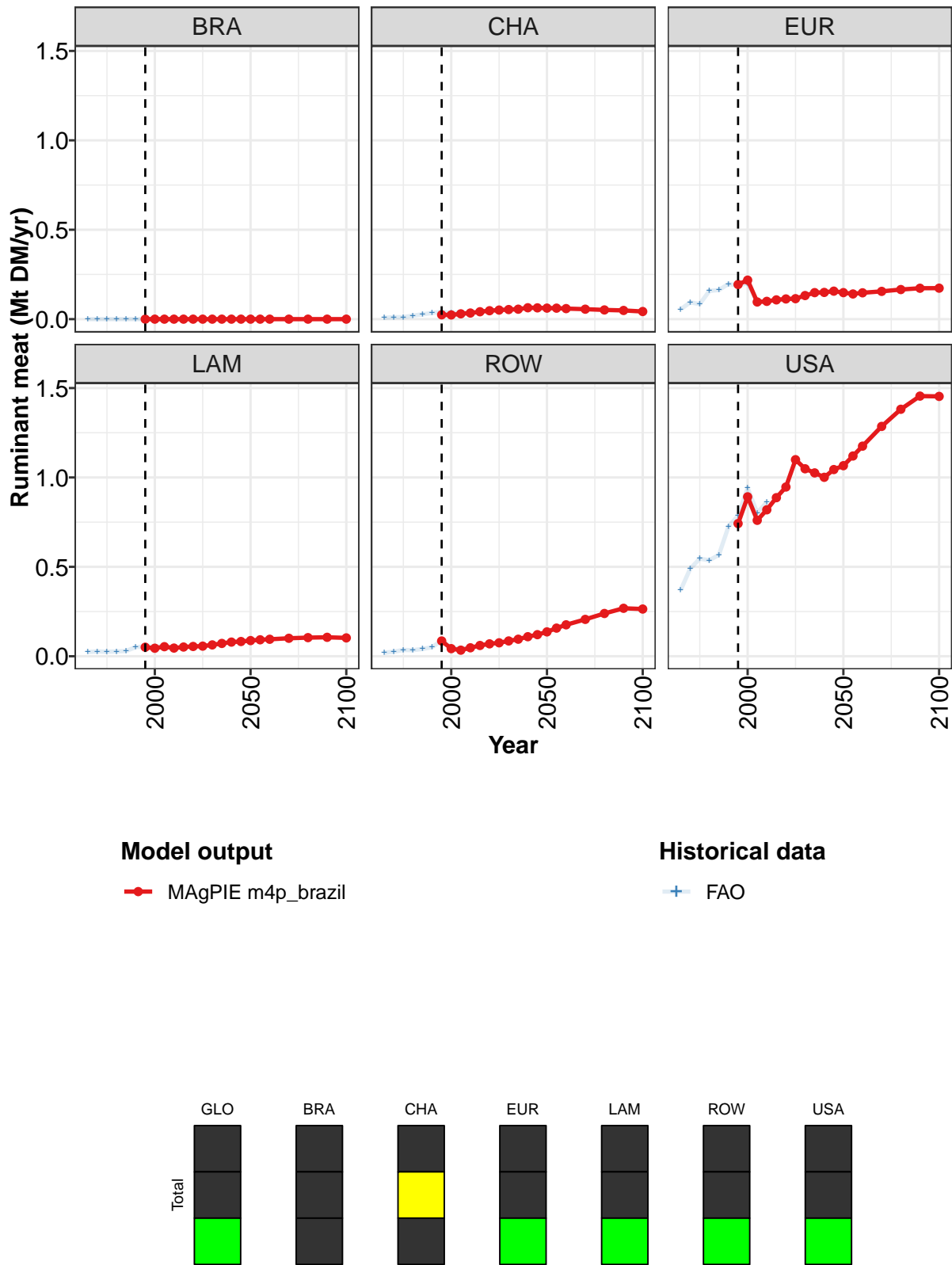


Figure 108: MAgPIE m4p_brazil — Demand—Feed—Livestock products—Ruminant meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.10	1.22	0.97	1.05	1.15	1.23	1.40	1.38	1.40	1.40	1.47
BRA	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	0.03	0.04	0.05	0.05	0.05	0.06	0.06	0.06
EUR	0.19	0.22	0.10	0.10	0.11	0.11	0.11	0.13	0.15	0.15	0.16
LAM	0.05	0.04	0.05	0.05	0.05	0.05	0.06	0.06	0.07	0.08	0.08
ROW	0.09	0.04	0.03	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12
USA	0.74	0.89	0.76	0.82	0.89	0.95	1.10	1.05	1.03	1.00	1.04

Table 323: MAgPIE m4p_brazil — Demand—Feed—Livestock products—Ruminant meat (Mt DM/yr) [PART 1/2]

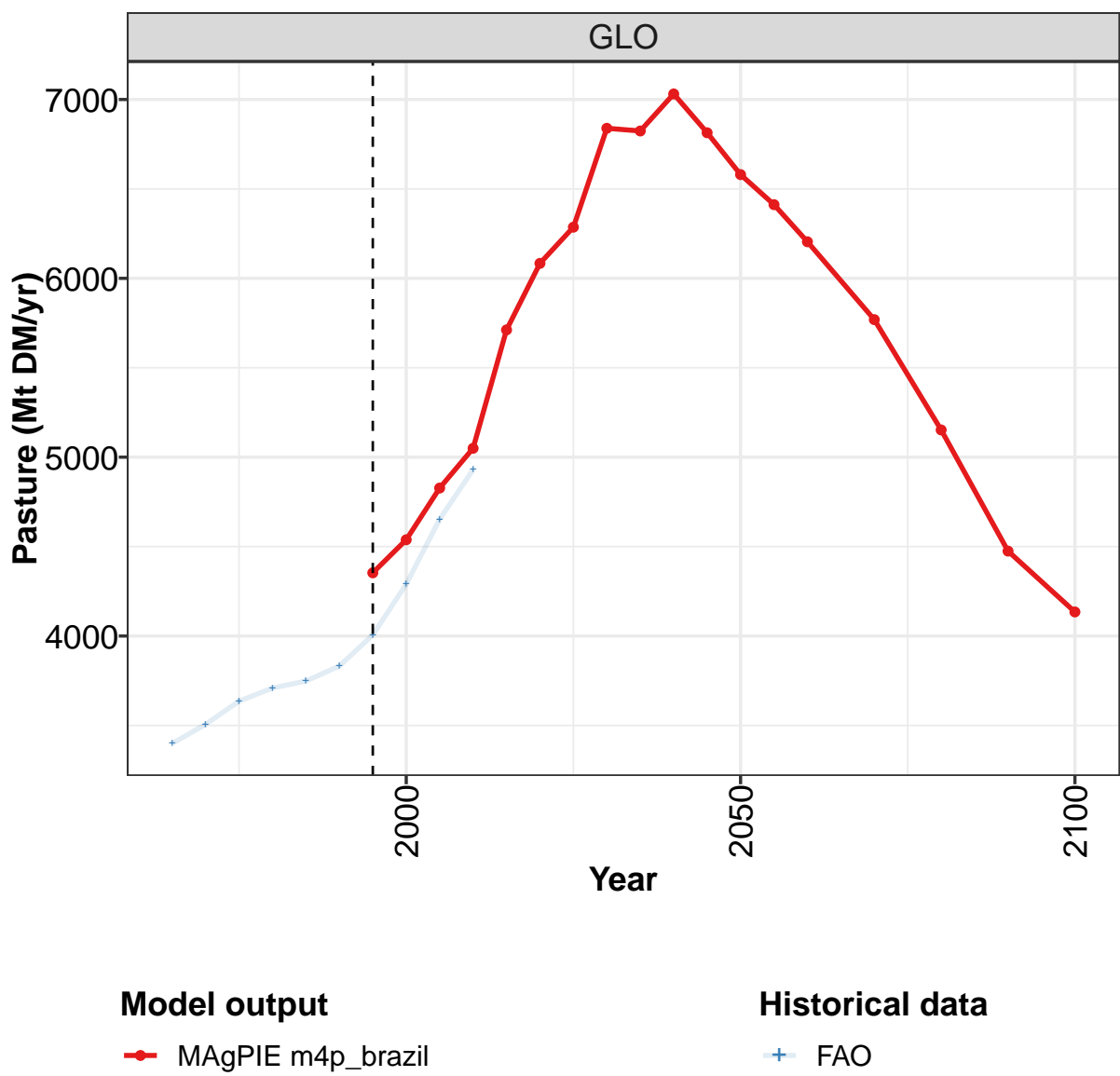
	2050	2055	2060	2070	2080	2090	2100
GLO	1.50	1.57	1.65	1.80	1.94	2.05	2.04
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.06	0.06	0.06	0.06	0.05	0.05	0.04
EUR	0.15	0.14	0.15	0.16	0.17	0.17	0.17
LAM	0.09	0.09	0.09	0.10	0.10	0.11	0.10
ROW	0.14	0.16	0.18	0.21	0.24	0.27	0.26
USA	1.07	1.12	1.18	1.29	1.38	1.46	1.45

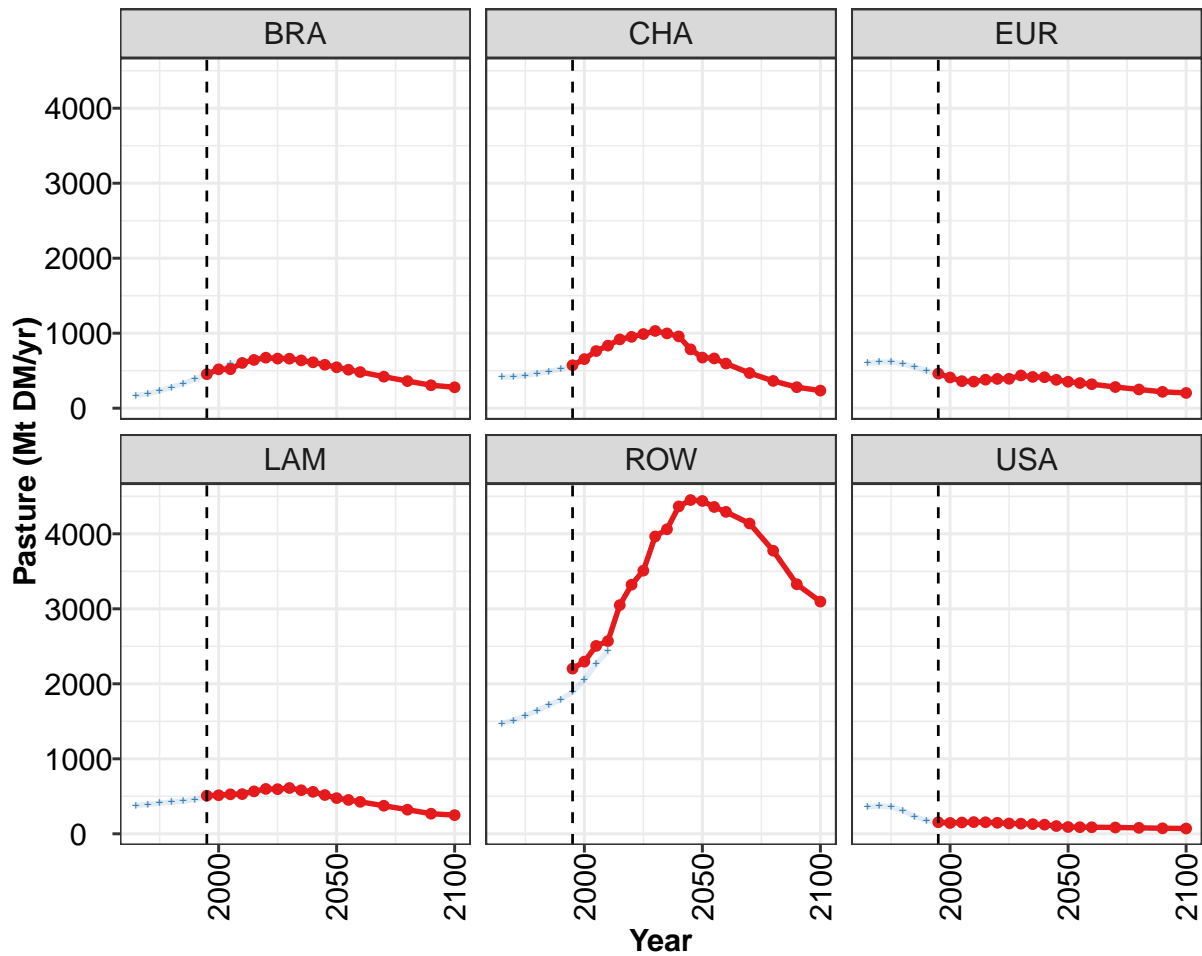
Table 324: MAgPIE m4p_brazil — Demand—Feed—Livestock products—Ruminant meat (Mt DM/yr) [PART 2/2]

	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
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
LAM	0.02	0.03	0.03	0.03	0.03	0.05	0.05	0.05	0.05	0.05
ROW	0.02	0.03	0.04	0.03	0.04	0.05	0.09	0.05	0.04	0.05
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





Model output

Historical data

MAgPIE m4p_brazil

FAO

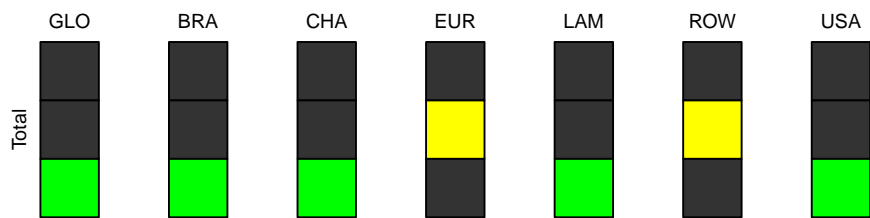


Figure 109: MAgPIE m4p_brazil — Demand—Feed—Pasture (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4353	4538	4827	5050	5712	6084	6286	6839	6824	7031	6814
BRA	454	519	521	604	644	674	662	661	638	612	579
CHA	573	655	762	835	918	952	989	1030	998	958	785
EUR	462	410	361	355	381	391	393	437	417	414	379
LAM	508	514	527	530	566	599	595	611	581	560	517
ROW	2203	2296	2506	2570	3050	3321	3509	3965	4061	4366	4451
USA	154	145	151	156	154	147	138	135	129	122	103

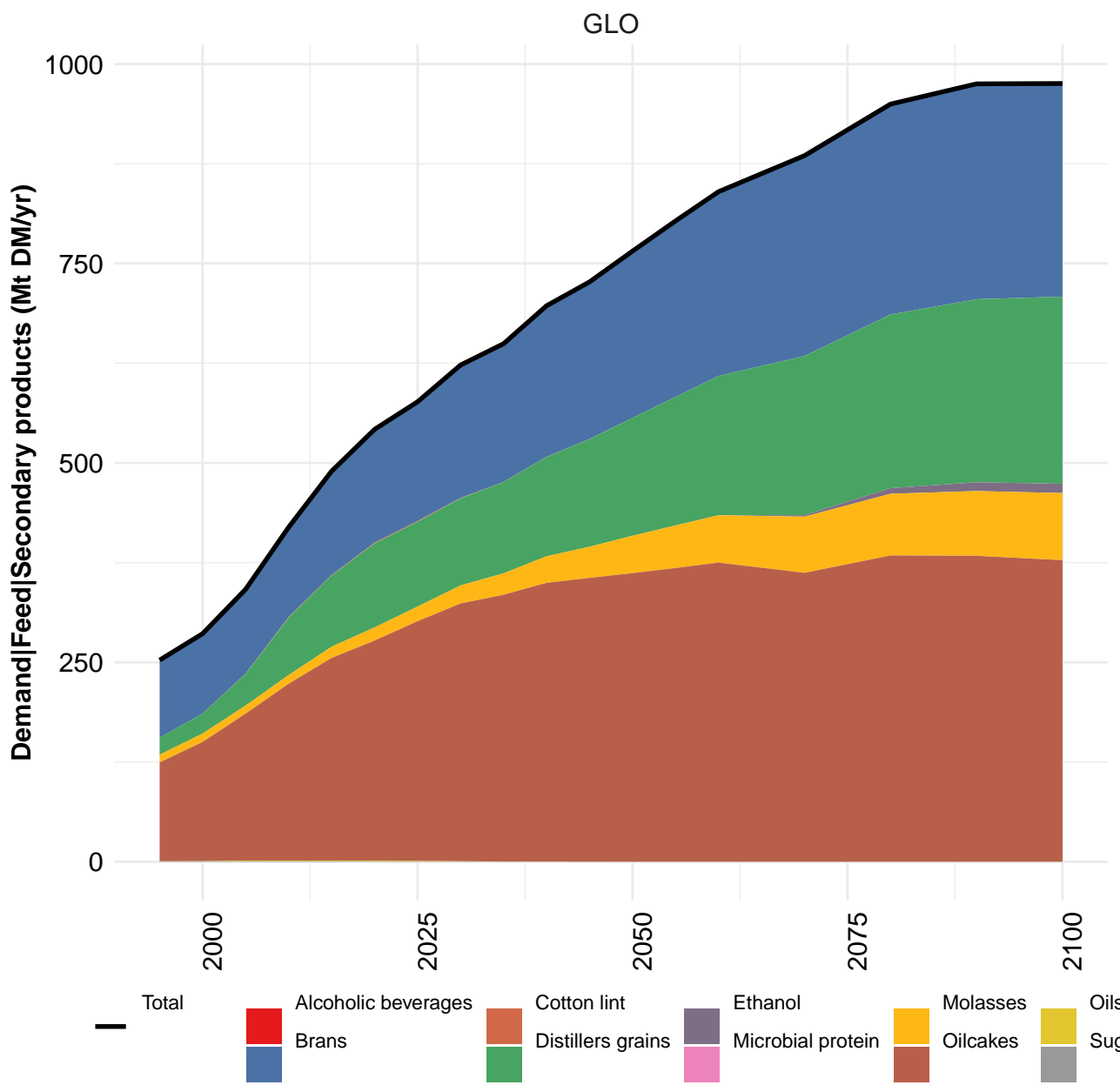
Table 326: MAgPIE m4p_brazil — Demand—Feed—Pasture (Mt DM/yr) [PART 1/2]

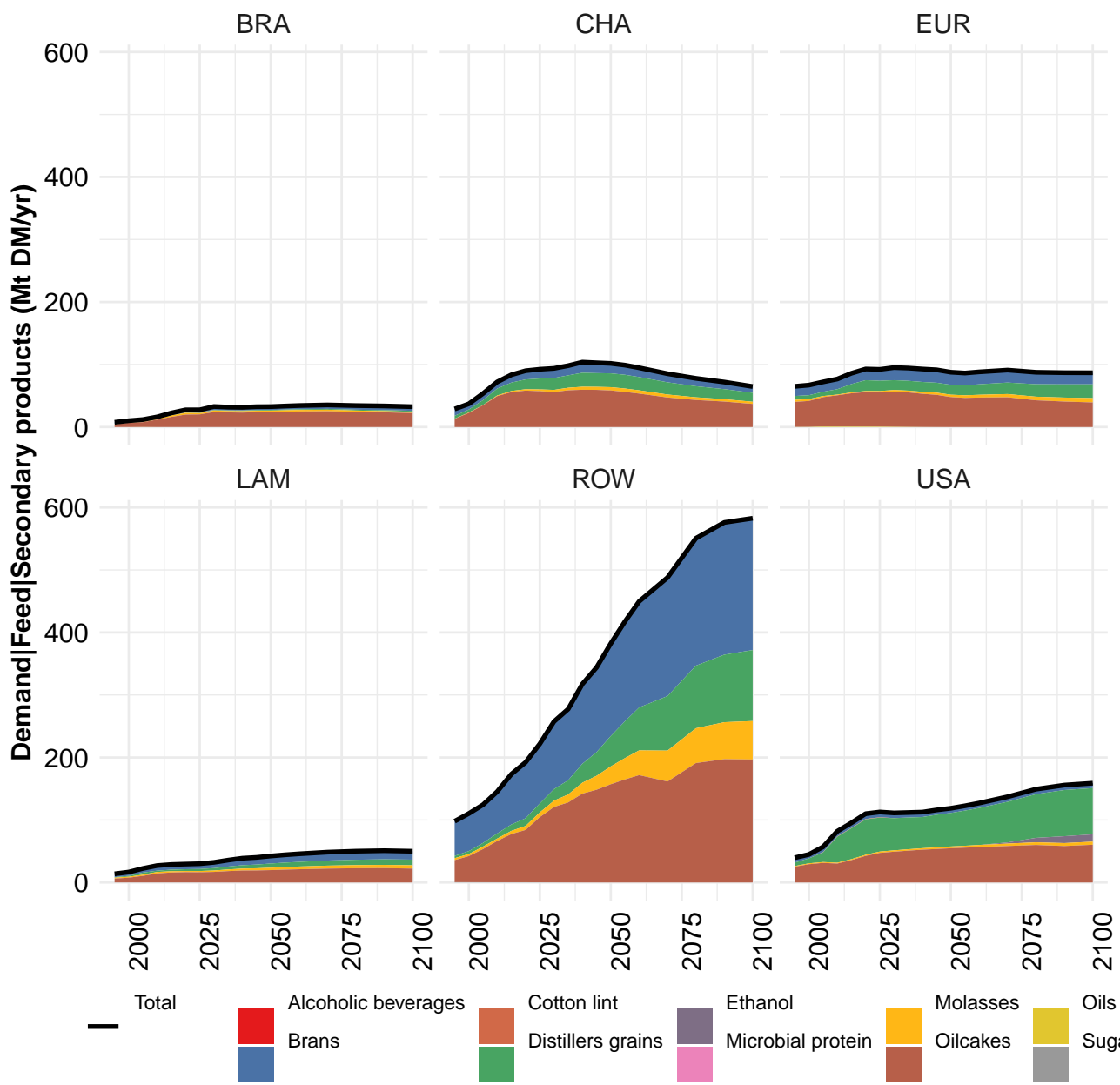
	2050	2055	2060	2070	2080	2090	2100
GLO	6580	6412	6205	5769	5152	4475	4135
BRA	546	513	482	421	362	306	279
CHA	675	664	595	469	364	281	235
EUR	353	336	320	283	250	218	204
LAM	476	452	426	374	321	268	249
ROW	4438	4358	4293	4138	3775	3328	3097
USA	91	88	88	84	80	74	71

Table 327: MAgPIE m4p_brazil — Demand—Feed—Pasture (Mt DM/yr) [PART 2/2]

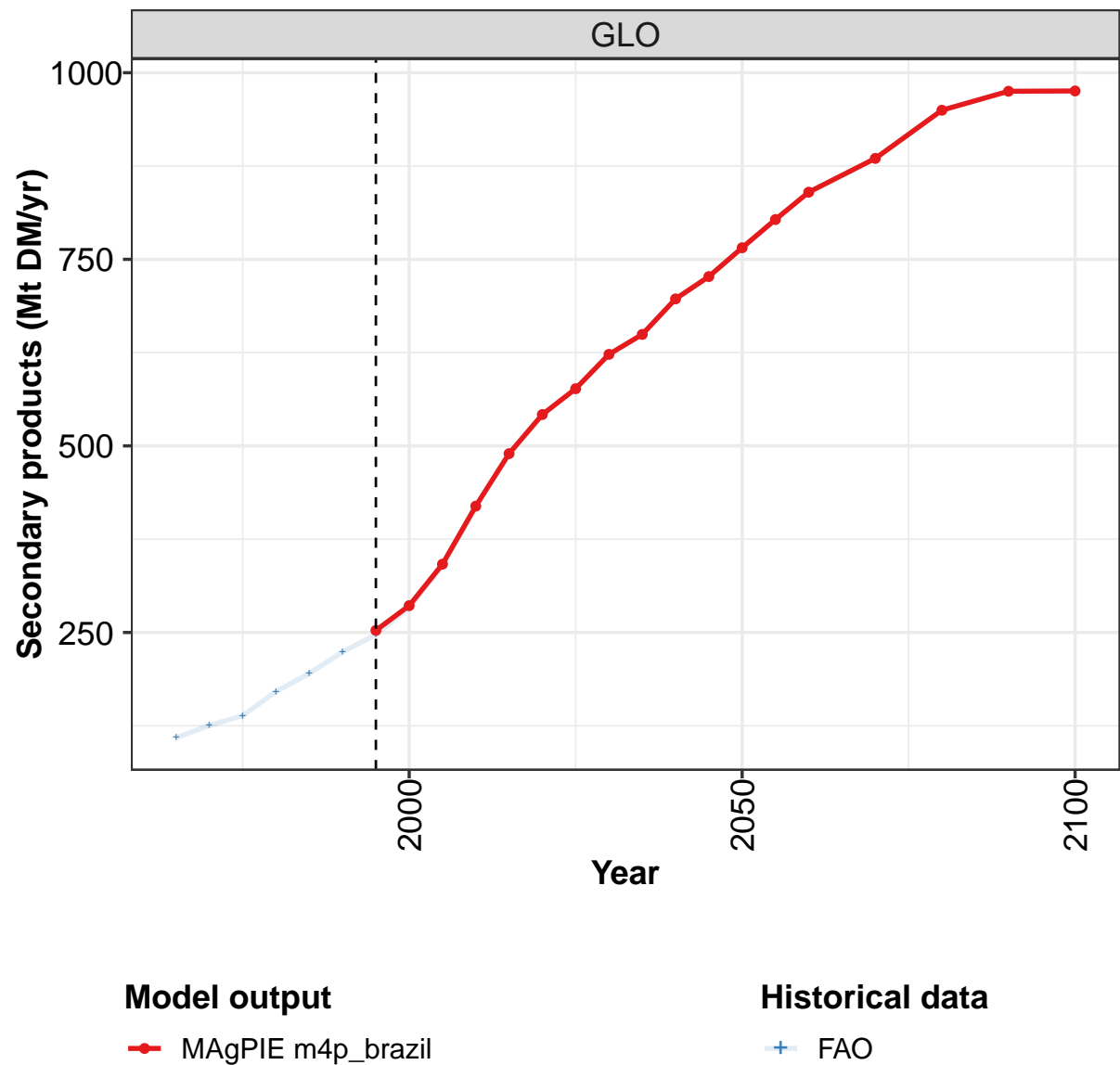
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3399	3506	3636	3709	3748	3832	4006	4290	4653	4931
BRA	170	193	232	279	330	388	455	527	591	628
CHA	414	422	438	463	490	521	572	657	760	832
EUR	604	615	617	592	547	499	449	398	361	344
LAM	378	393	411	423	435	457	485	507	521	529
ROW	1471	1512	1576	1645	1715	1790	1889	2051	2268	2436
USA	362	371	361	307	230	177	157	149	152	162

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





6.7 Secondary products



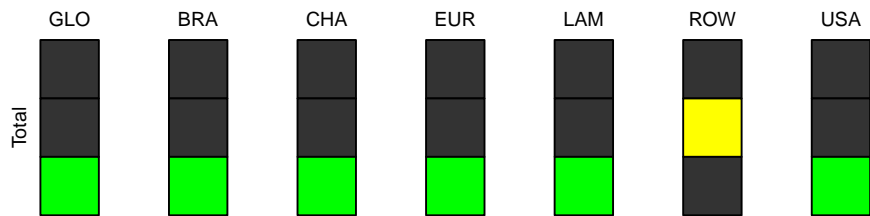
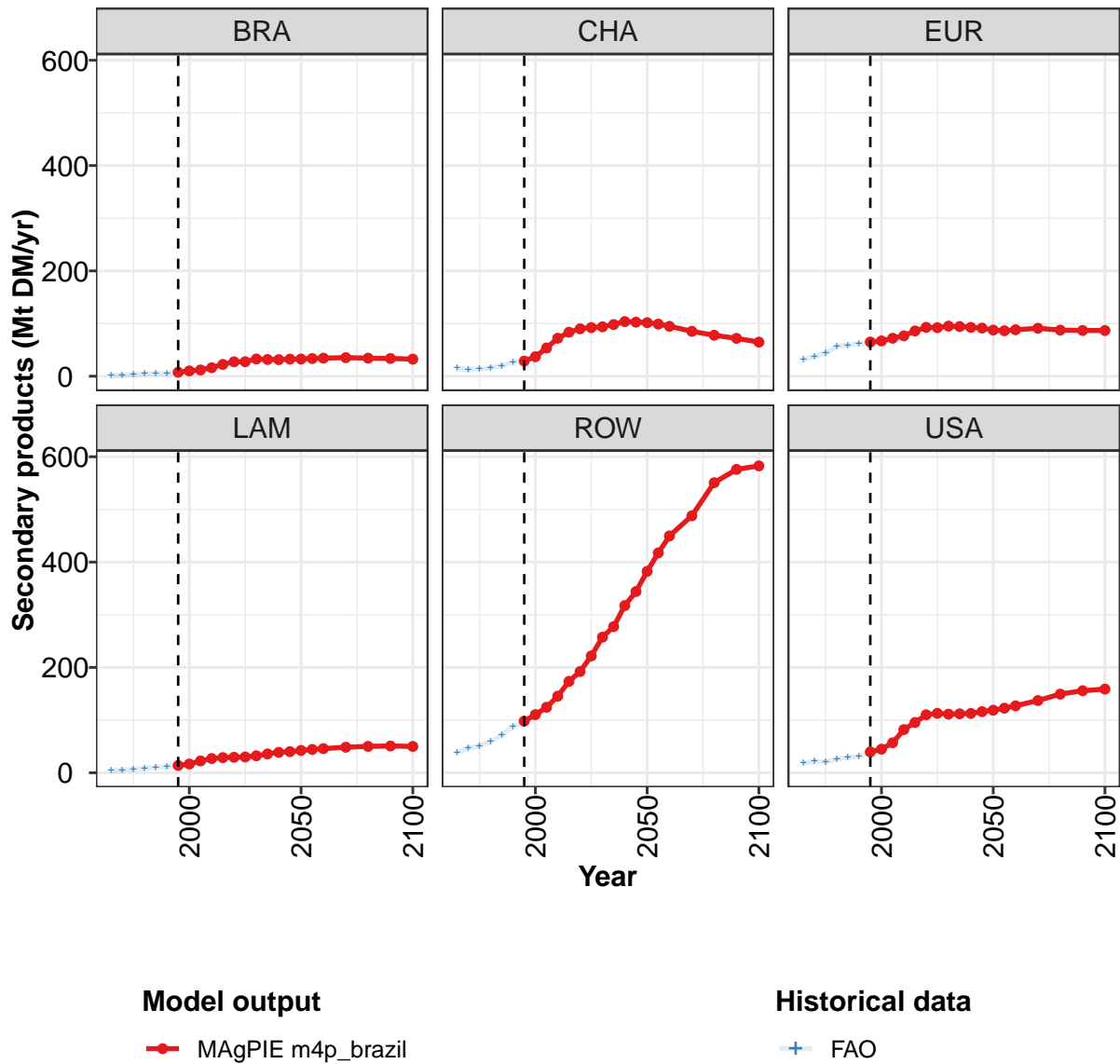


Figure 110: MAgPIE m4p_brazil — Demand—Feed—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	253	286	342	419	490	542	577	623	649	697	727
BRA	8	10	12	16	22	27	28	33	32	32	32
CHA	29	37	54	72	84	90	92	94	98	104	103
EUR	65	67	72	77	86	93	92	95	94	93	91
LAM	14	17	22	27	29	29	30	32	36	39	40
ROW	98	110	124	145	173	192	222	257	277	317	344
USA	40	45	57	82	95	110	113	111	112	113	116

Table 329: MAgPIE m4p_brazil — Demand—Feed—Secondary products (Mt DM/yr) [PART 1/2]

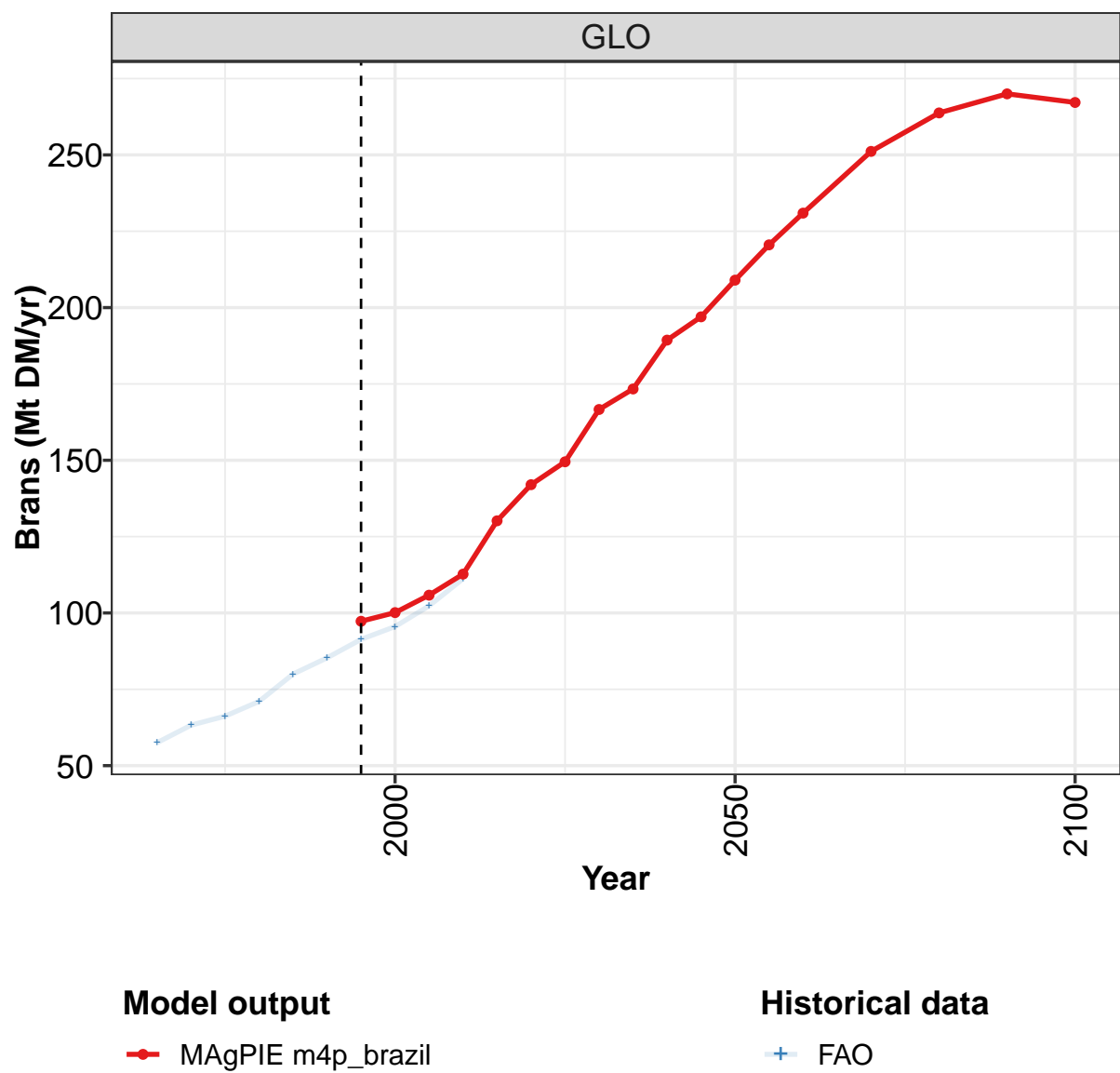
	2050	2055	2060	2070	2080	2090	2100
GLO	765	803	840	885	950	975	976
BRA	33	34	34	35	34	34	33
CHA	102	99	95	85	78	72	65
EUR	88	86	88	91	88	87	87
LAM	42	44	46	49	50	51	50
ROW	382	418	450	488	551	576	583
USA	119	123	127	137	149	156	159

Table 330: MAgPIE m4p_brazil — 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
BRA	2	2	3	5	5	5	8	10	13	17
CHA	15	13	14	16	20	26	29	38	54	72
EUR	31	37	44	57	59	62	63	65	70	75
LAM	4	5	7	8	10	12	14	17	22	25
ROW	38	46	51	59	72	88	94	108	123	146
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



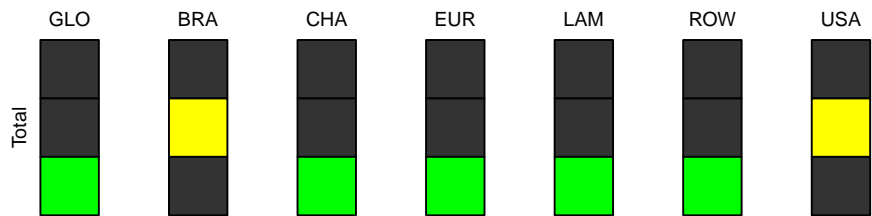
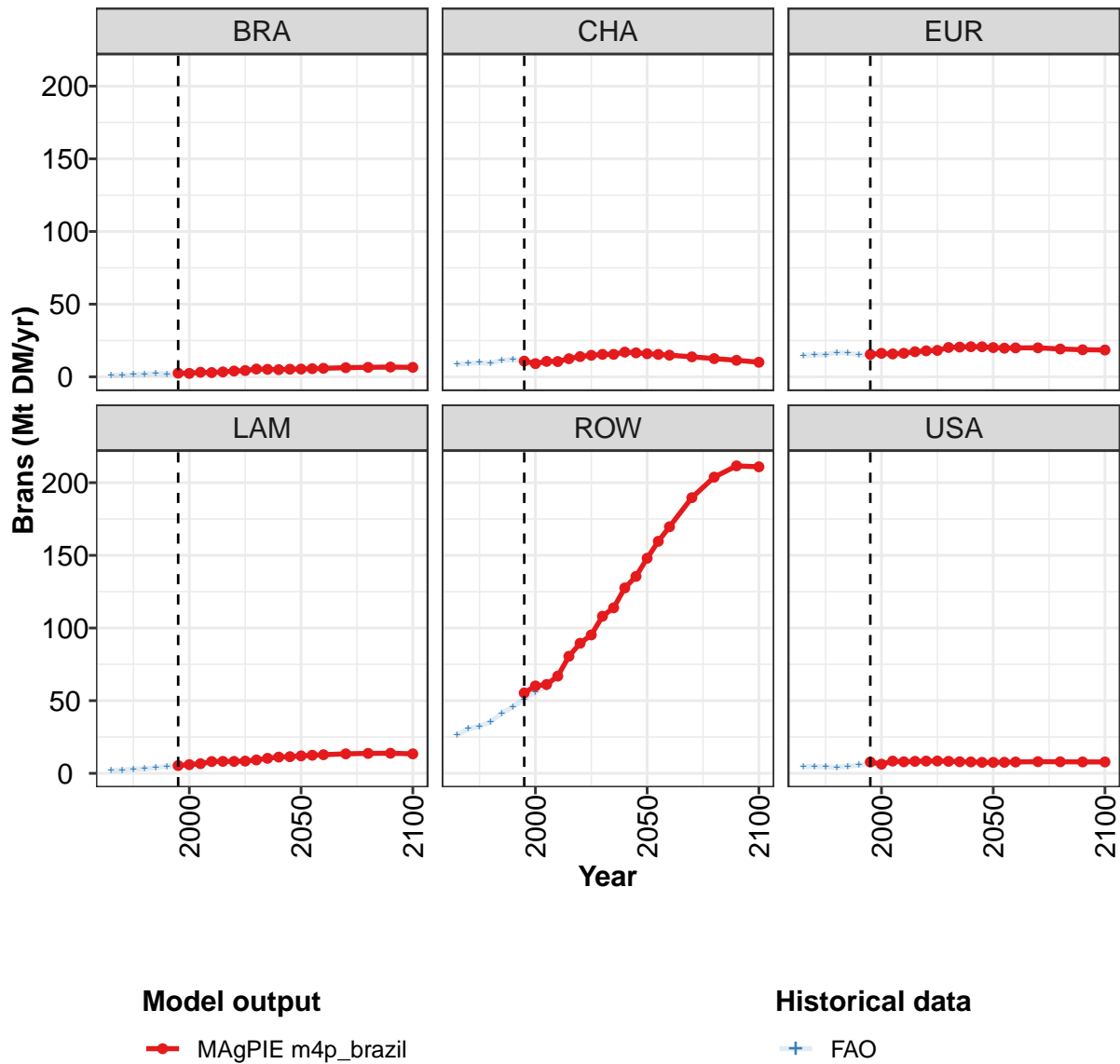


Figure 111: MAgPIE m4p_brazil — Demand—Feed—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	97	100	106	113	130	142	150	167	173	189	197
BRA	3	2	3	3	3	4	4	5	5	5	5
CHA	11	9	11	11	12	14	15	15	15	17	17
EUR	15	16	16	16	17	18	18	20	20	21	21
LAM	5	6	7	8	8	8	8	9	10	11	11
ROW	55	60	61	67	81	90	95	108	114	128	135
USA	8	6	8	8	8	8	8	8	8	8	8

Table 332: MAgPIE m4p_brazil — Demand—Feed—Secondary products—Brans (Mt DM/yr) [PART 1/2]

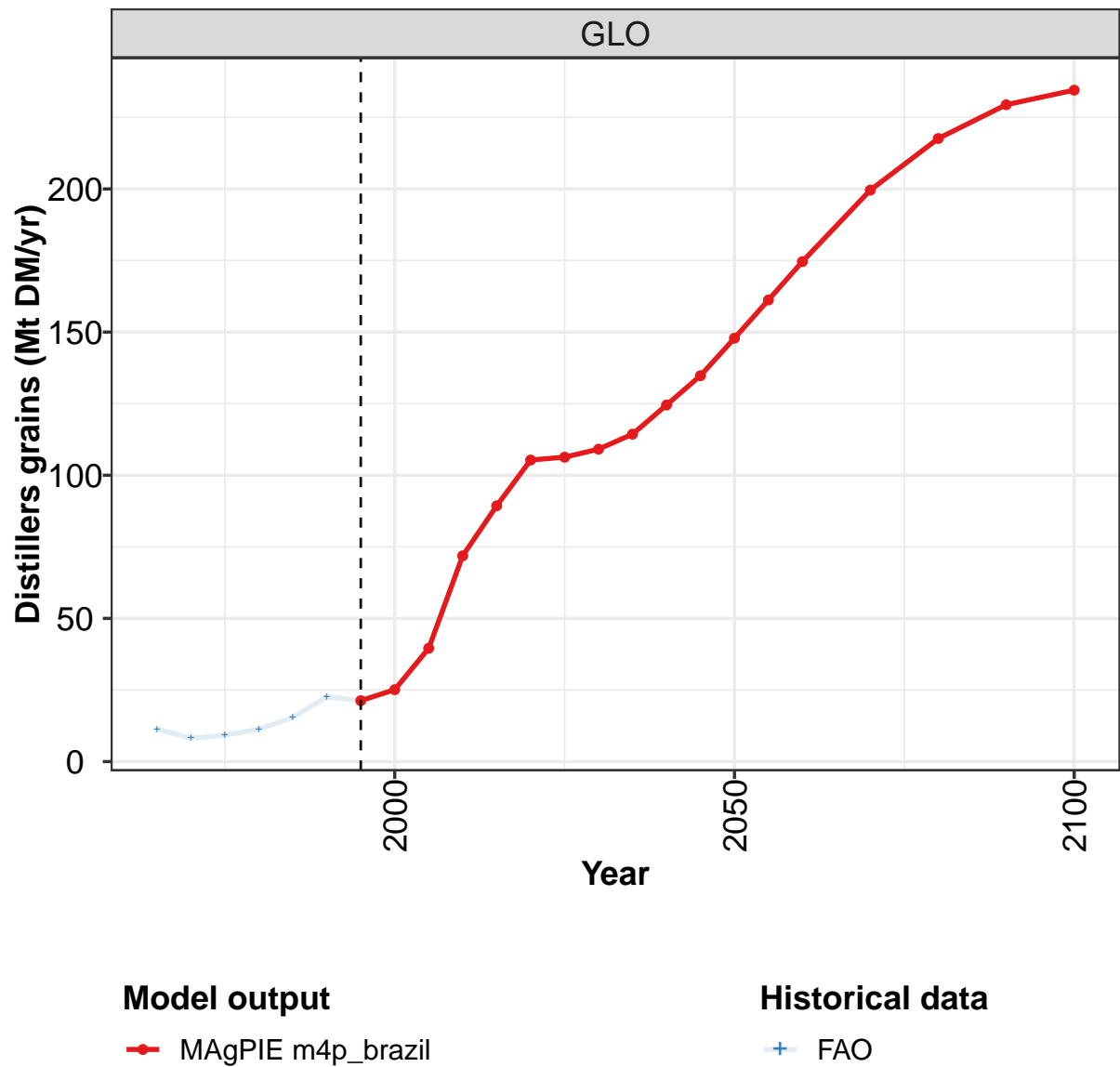
	2050	2055	2060	2070	2080	2090	2100
GLO	209	221	231	251	264	270	267
BRA	5	6	6	6	7	7	7
CHA	16	15	15	14	13	11	10
EUR	20	20	20	20	19	19	18
LAM	12	12	13	13	14	14	13
ROW	148	160	170	190	204	212	211
USA	8	8	8	8	8	8	8

Table 333: MAgPIE m4p_brazil — 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
BRA	1	1	1	2	2	2	3	2	3	3
CHA	9	9	10	9	11	12	11	9	11	11
EUR	15	15	15	17	16	15	15	15	15	16
LAM	2	2	3	3	4	5	5	6	7	7
ROW	26	31	32	36	41	46	51	56	59	67
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



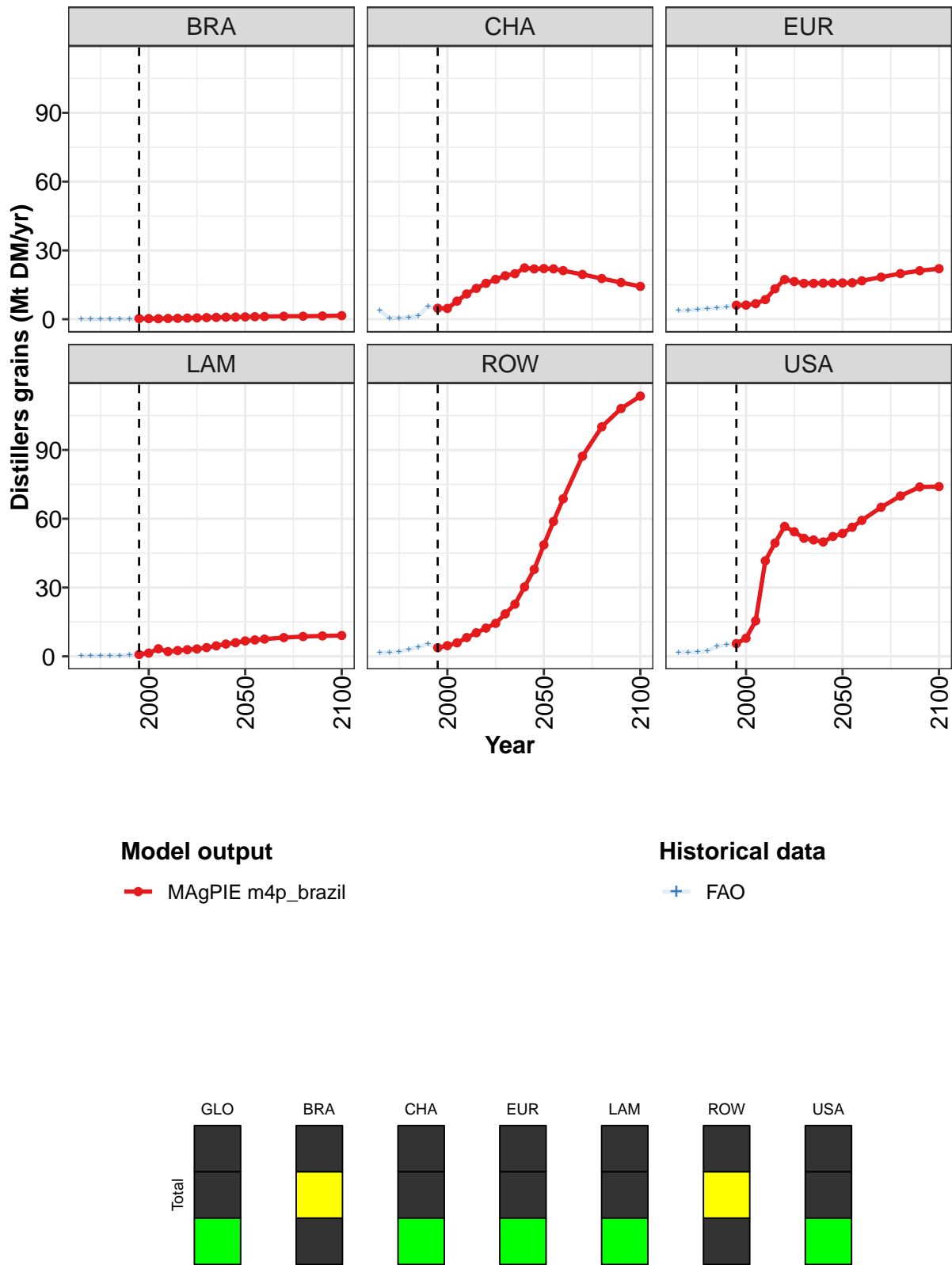


Figure 112: MAgPIE m4p_brazil — Demand—Feed—Secondary products—Distillers grains (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	21	25	40	72	89	105	106	109	114	125	135
BRA	0	0	0	0	0	0	1	1	1	1	1
CHA	5	5	8	11	13	16	17	19	20	22	22
EUR	6	6	7	9	13	17	16	16	16	16	16
LAM	1	1	3	2	3	3	3	4	5	5	6
ROW	4	5	6	8	10	12	14	19	23	30	38
USA	6	8	15	42	49	57	54	51	51	50	52

Table 335: MAgPIE m4p_brazil — Demand—Feed—Secondary products—Distillers grains (Mt DM/yr) [PART 1/2]

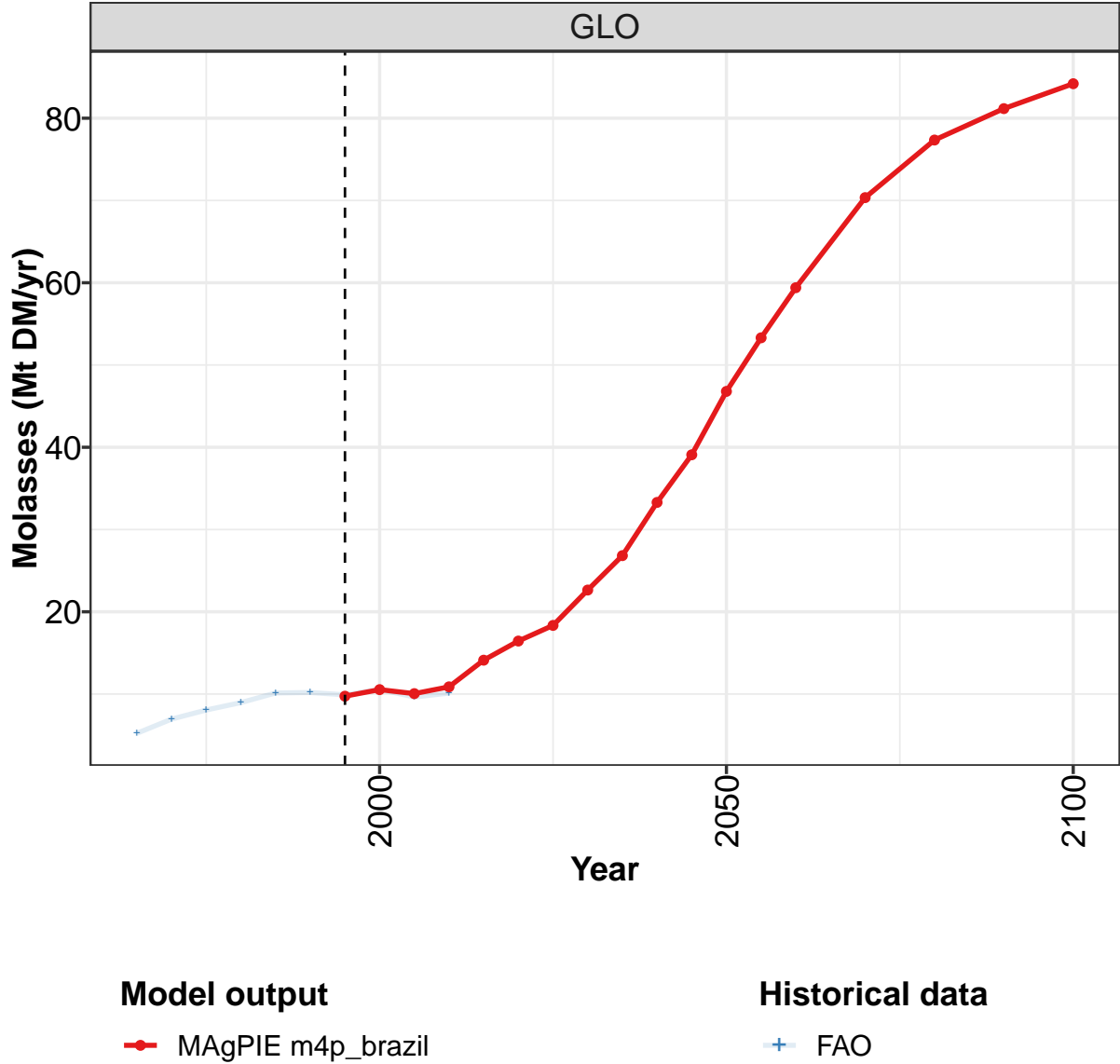
	2050	2055	2060	2070	2080	2090	2100
GLO	148	161	175	200	218	229	234
BRA	1	1	1	1	1	1	2
CHA	22	22	21	20	18	16	14
EUR	16	16	17	18	20	21	22
LAM	7	7	8	8	9	9	9
ROW	49	59	69	87	100	108	113
USA	54	56	59	65	70	74	74

Table 336: MAgPIE m4p_brazil — 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
BRA	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4
CHA	4.0	0.4	0.6	0.8	1.6	5.7	4.8	4.7	7.9	11.1
EUR	3.8	3.8	4.4	4.6	4.9	5.4	6.1	6.1	6.8	8.4
LAM	0.3	0.3	0.3	0.4	0.4	0.7	0.8	1.4	3.3	2.1
ROW	1.5	1.8	2.0	3.0	4.0	5.5	3.7	4.6	5.6	8.2
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



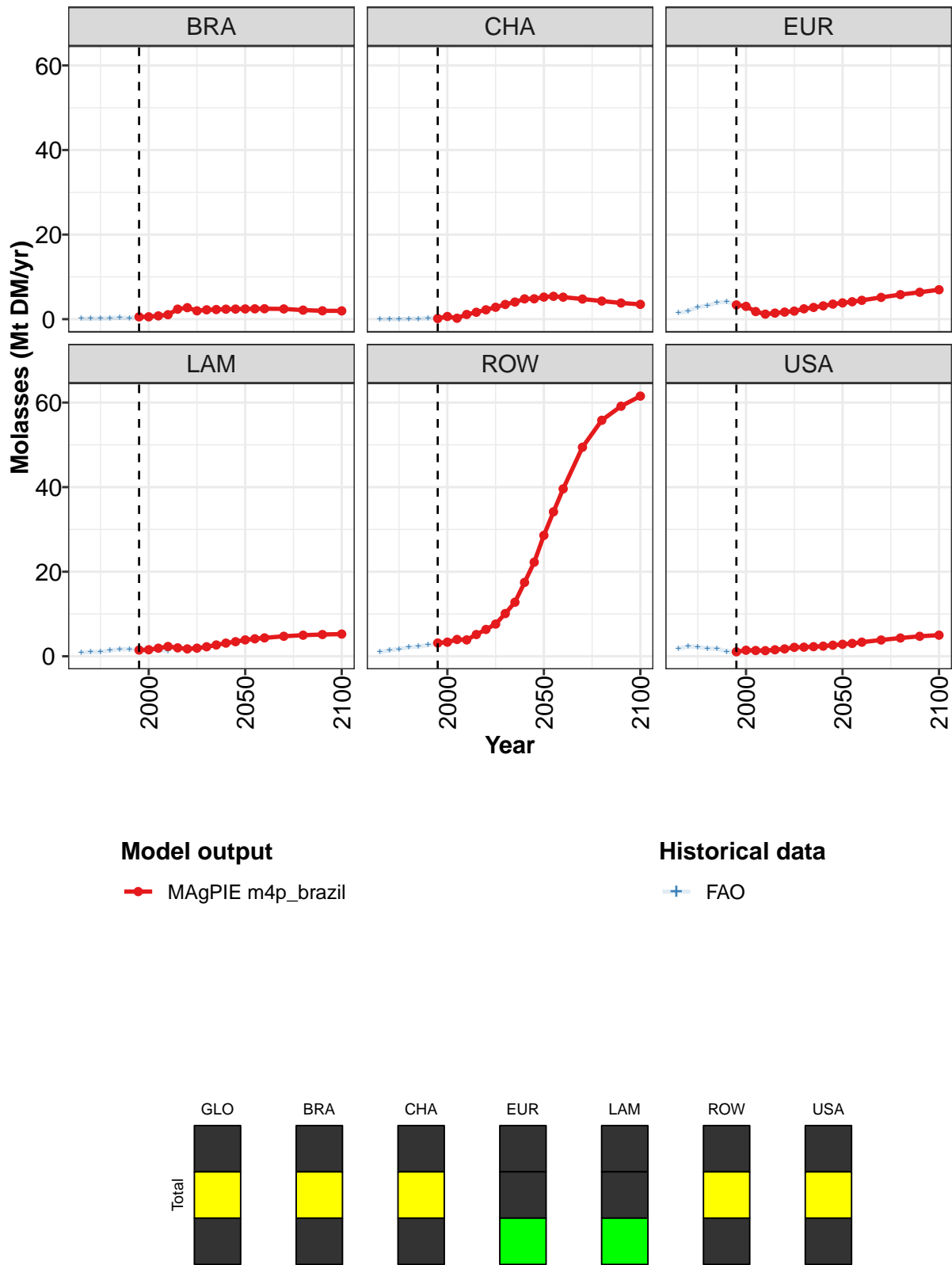


Figure 113: MAgPIE m4p_brazil — Demand—Feed—Secondary products—Molasses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9.7	10.5	10.1	10.9	14.1	16.4	18.3	22.6	26.8	33.3	39.1
BRA	0.5	0.6	0.8	1.1	2.4	2.7	2.0	2.2	2.3	2.4	2.4
CHA	0.2	0.6	0.2	1.1	1.6	2.2	2.8	3.5	4.0	4.8	4.8
EUR	3.4	3.0	1.8	1.2	1.4	1.7	1.9	2.4	2.8	3.1	3.6
LAM	1.5	1.5	1.9	2.3	2.0	1.7	1.9	2.2	2.7	3.1	3.5
ROW	3.1	3.3	4.0	3.9	5.1	6.3	7.6	10.1	12.8	17.5	22.3
USA	1.1	1.4	1.4	1.3	1.5	1.7	2.1	2.2	2.3	2.4	2.6

Table 338: MAgPIE m4p_brazil — Demand—Feed—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

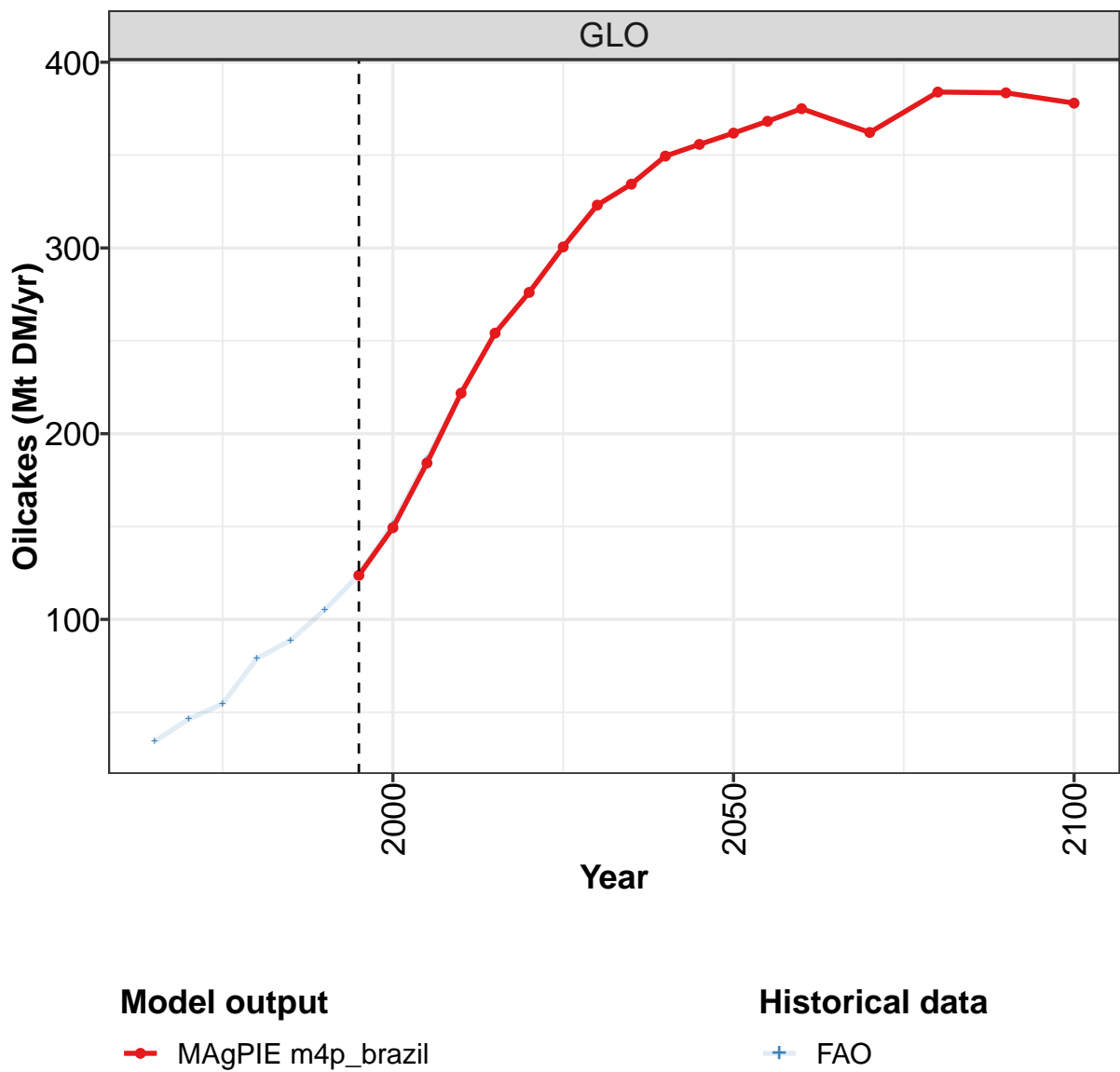
	2050	2055	2060	2070	2080	2090	2100
GLO	46.8	53.3	59.4	70.3	77.3	81.2	84.2
BRA	2.4	2.4	2.5	2.4	2.1	2.0	2.0
CHA	5.2	5.4	5.2	4.8	4.3	3.8	3.5
EUR	3.9	4.1	4.5	5.2	5.8	6.4	7.0
LAM	3.9	4.1	4.3	4.7	5.0	5.1	5.3
ROW	28.6	34.2	39.6	49.4	55.8	59.1	61.5
USA	2.8	3.0	3.3	3.8	4.3	4.7	5.0

Table 339: MAgPIE m4p_brazil — 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
BRA	0.1	0.2	0.2	0.3	0.3	0.3	0.5	0.6	0.9	1.2
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	2.9	3.2	3.9	4.1	3.5	3.0	1.8	1.2
LAM	0.9	1.0	1.1	1.4	1.7	1.7	1.5	1.6	1.5	1.3
ROW	1.0	1.5	1.7	2.1	2.3	2.7	2.9	3.3	3.8	3.9
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



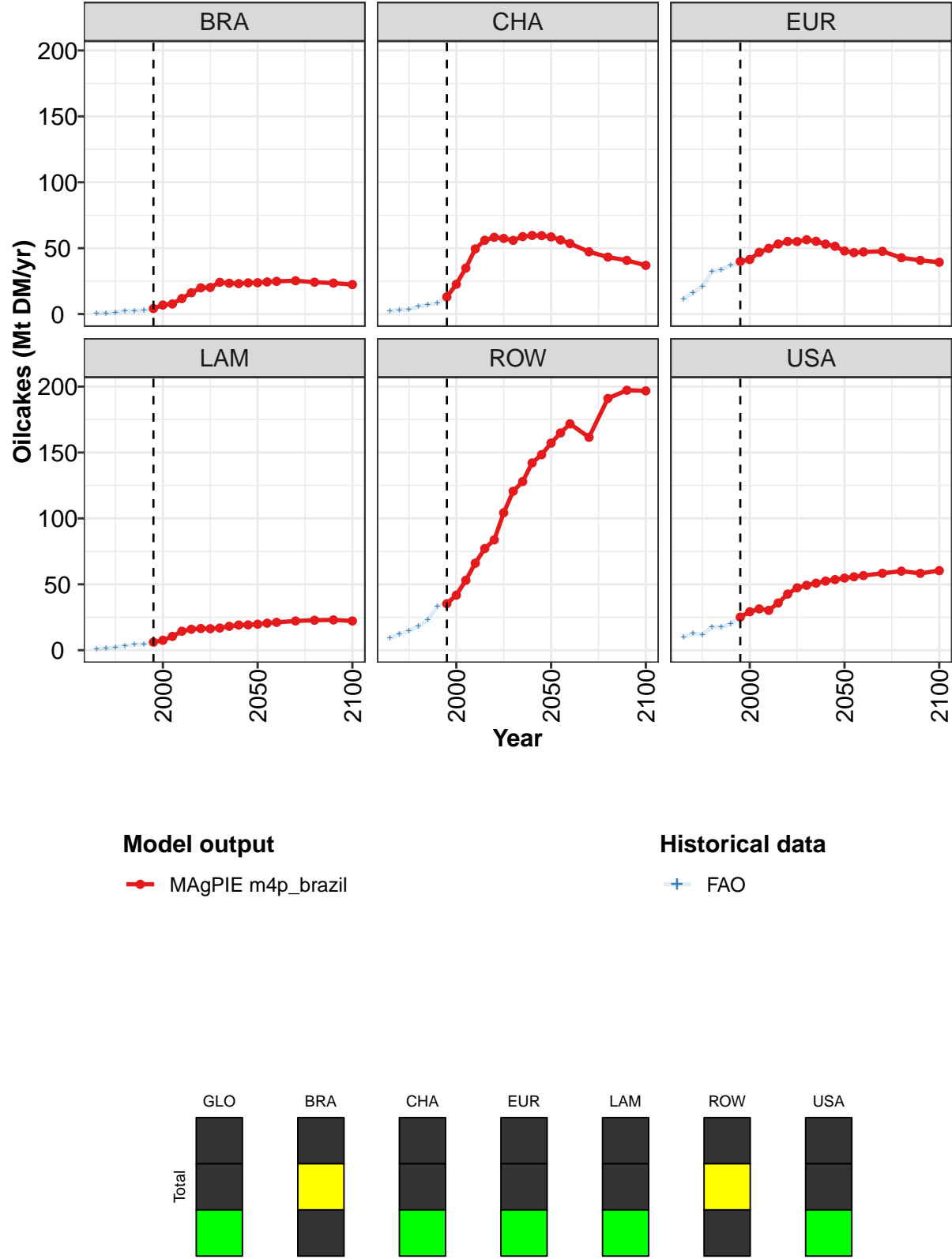


Figure 114: MAgPIE m4p_brazil — Demand—Feed—Secondary products—Oilcakes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	124	149	184	222	254	276	301	323	334	349	356
BRA	4	7	8	12	16	20	20	24	23	23	24
CHA	13	23	35	49	56	58	57	56	59	60	59
EUR	40	41	47	50	53	55	55	56	55	53	51
LAM	6	8	10	14	16	16	16	17	18	19	19
ROW	35	42	53	66	77	84	104	121	128	142	148
USA	25	29	31	30	36	43	47	49	51	52	54

Table 341: MAgPIE m4p_brazil — Demand—Feed—Secondary products—Oilcakes (Mt DM/yr) [PART 1/2]

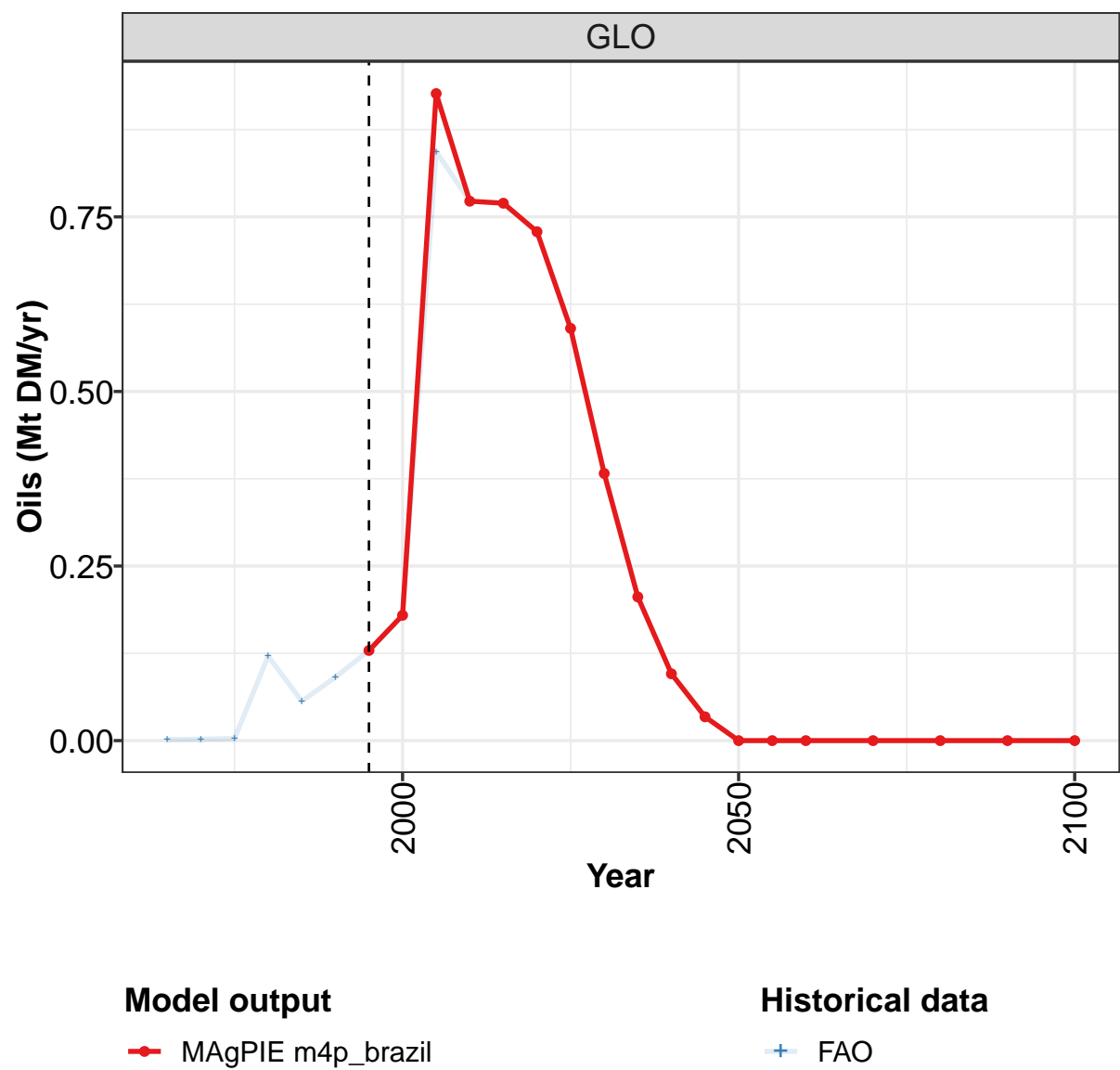
	2050	2055	2060	2070	2080	2090	2100
GLO	362	368	375	362	384	384	378
BRA	24	24	25	25	24	24	22
CHA	59	56	54	47	43	41	37
EUR	48	47	47	48	43	41	39
LAM	20	21	21	22	23	23	22
ROW	157	165	172	162	191	197	197
USA	55	56	57	58	60	58	60

Table 342: MAgPIE m4p_brazil — 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
BRA	0	1	1	2	2	3	4	7	9	13
CHA	2	3	3	6	7	8	13	23	35	49
EUR	11	16	21	32	34	37	38	41	45	48
LAM	1	1	2	3	4	4	6	8	10	15
ROW	9	12	15	18	23	33	36	43	54	67
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



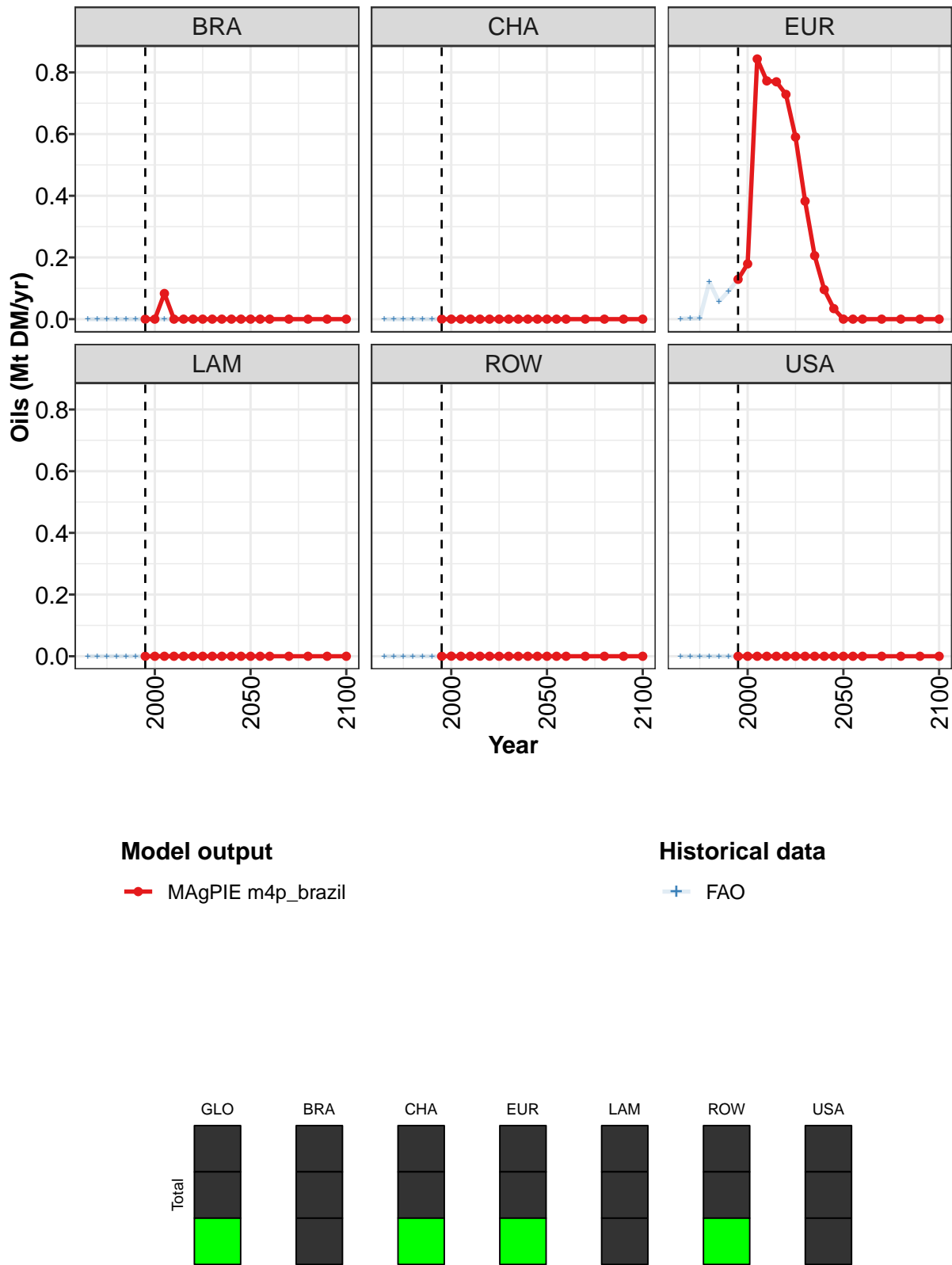


Figure 115: MAGPIE m4p_brazil — Demand—Feed—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.129	0.179	0.927	0.772	0.770	0.729	0.590	0.383	0.206	0.096	0.034
BRA	0.000	0.000	0.083	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	0.383	0.206	0.096	0.034
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	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_brazil — Demand—Feed—Secondary products—Oils (Mt DM/yr) [PART 1/2]

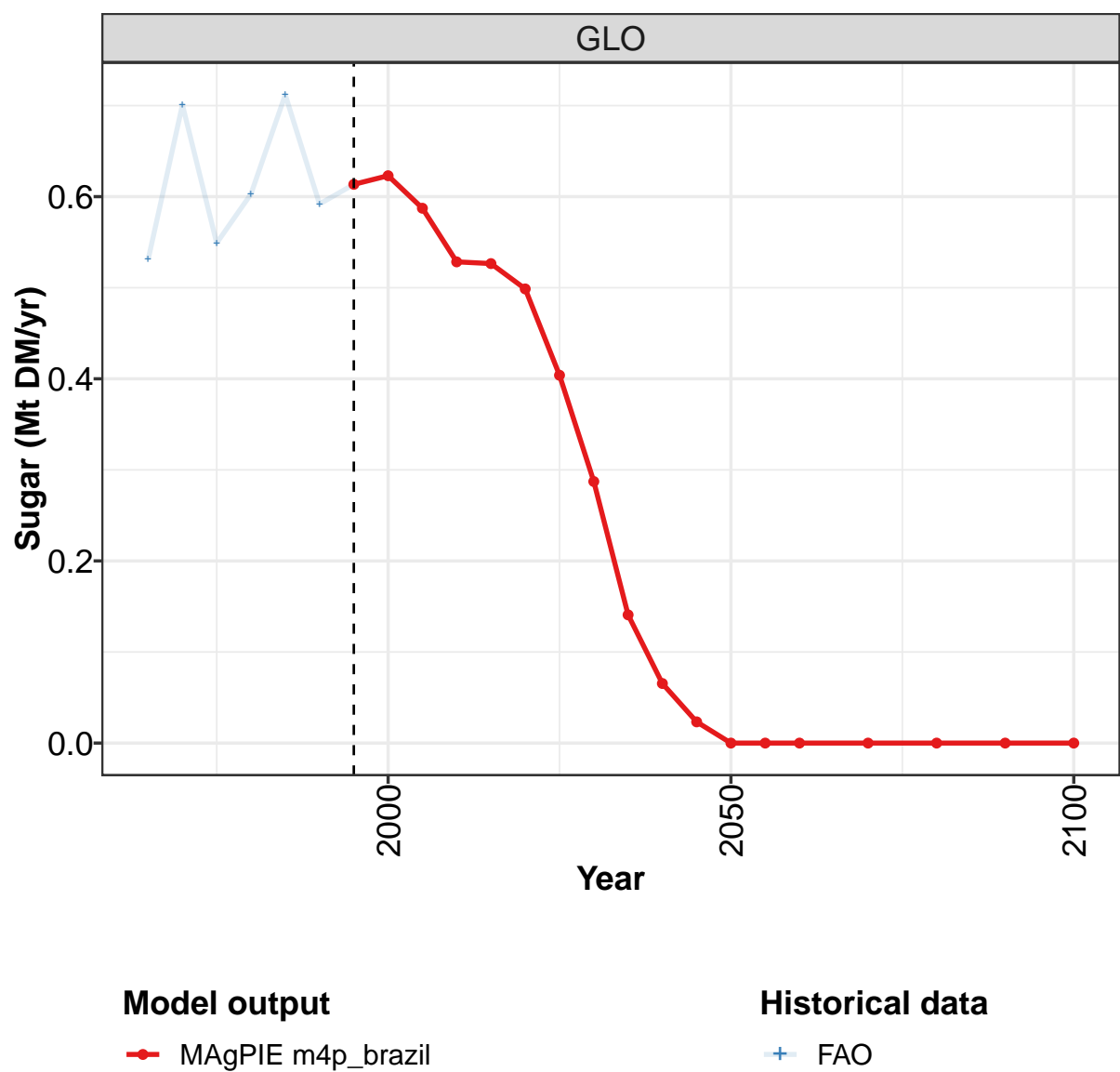
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 345: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	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



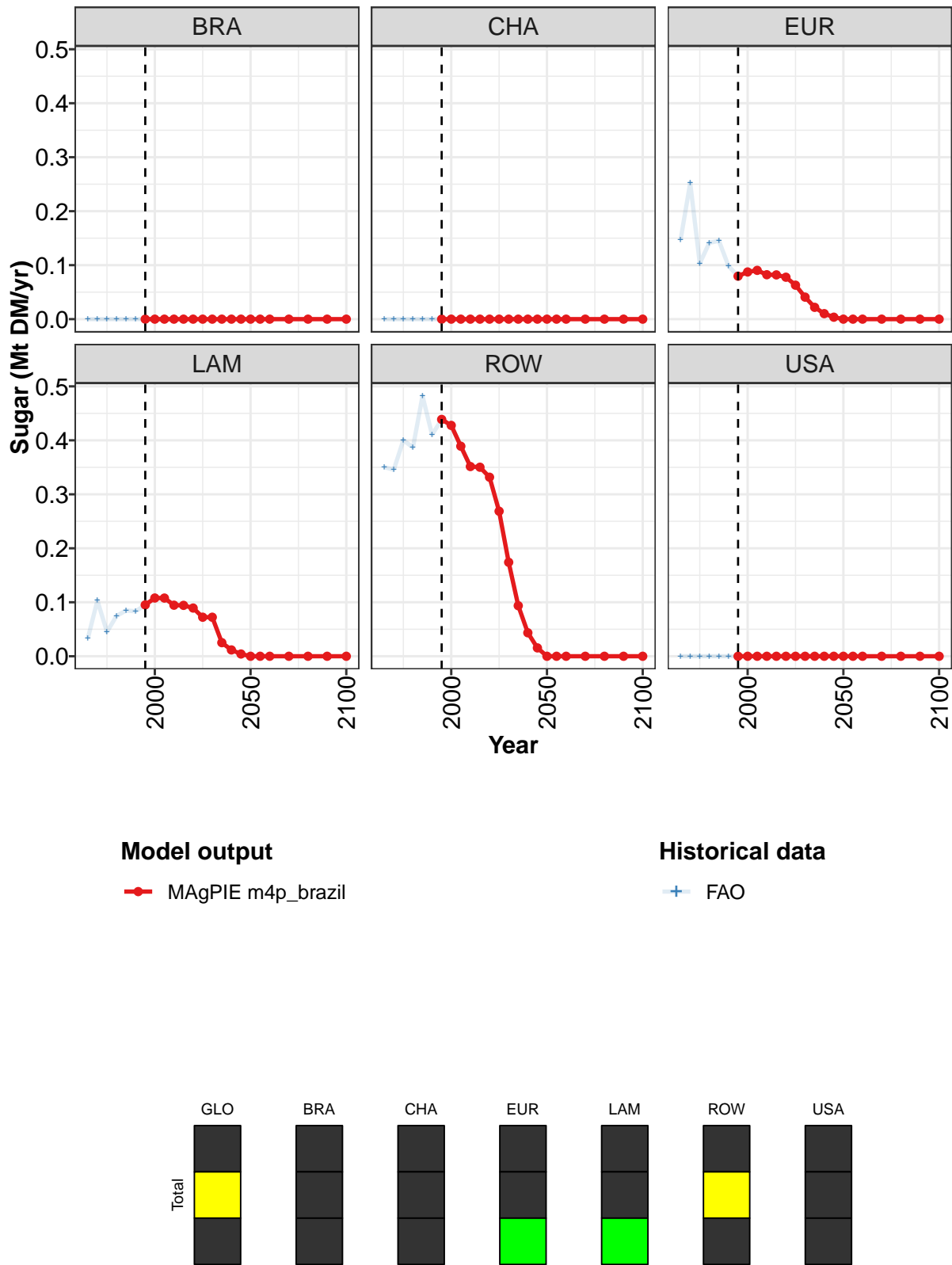


Figure 116: MAgPIE m4p_brazil — Demand—Feed—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.614	0.623	0.587	0.528	0.526	0.499	0.404	0.287	0.141	0.065	0.023
BRA	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	0.080	0.087	0.090	0.082	0.082	0.078	0.063	0.041	0.022	0.010	0.004
LAM	0.095	0.108	0.108	0.095	0.094	0.089	0.072	0.072	0.025	0.012	0.004
ROW	0.439	0.428	0.389	0.351	0.350	0.332	0.269	0.174	0.094	0.043	0.015
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_brazil — Demand—Feed—Secondary products—Sugar (Mt DM/yr) [PART 1/2]

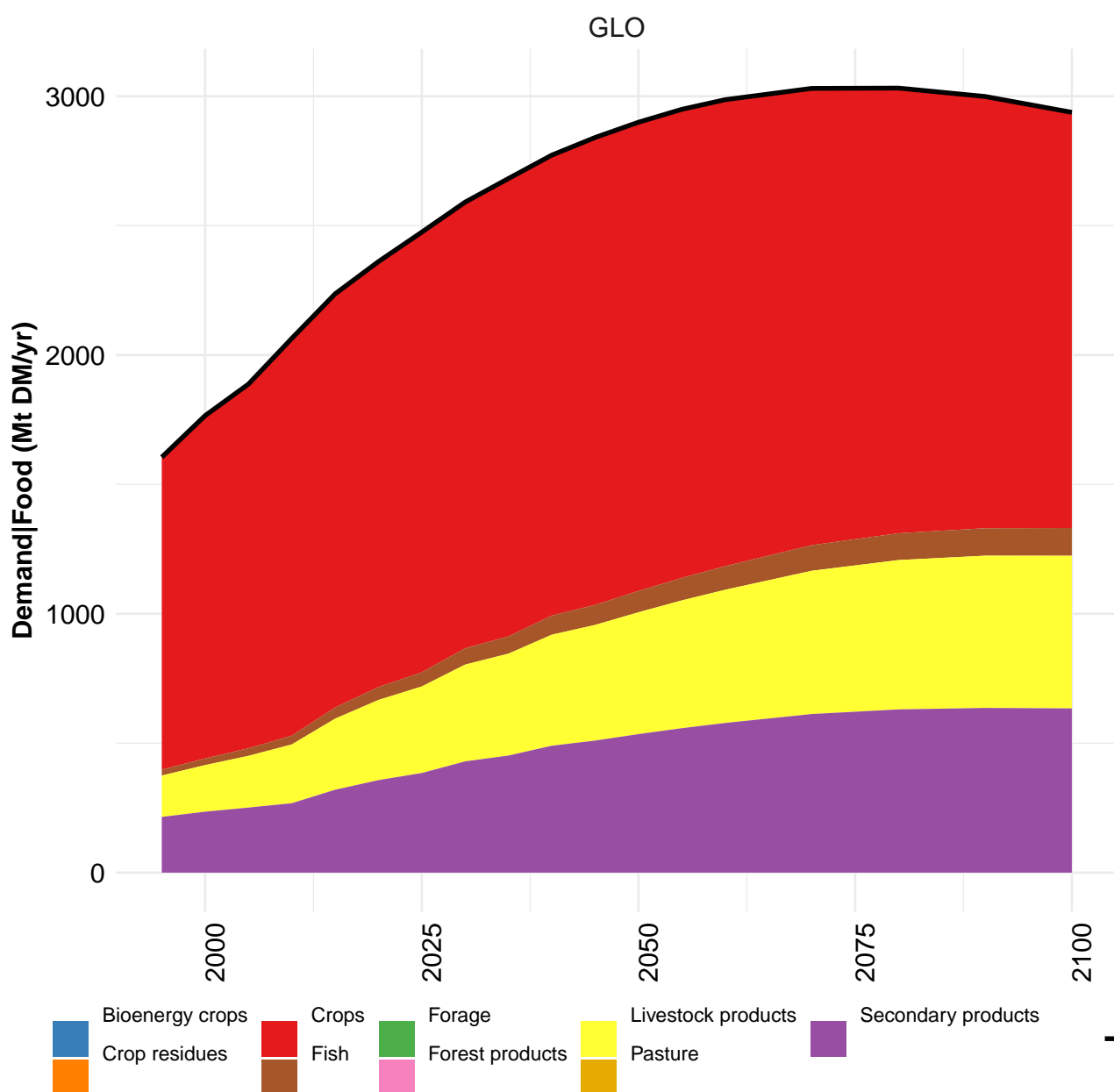
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

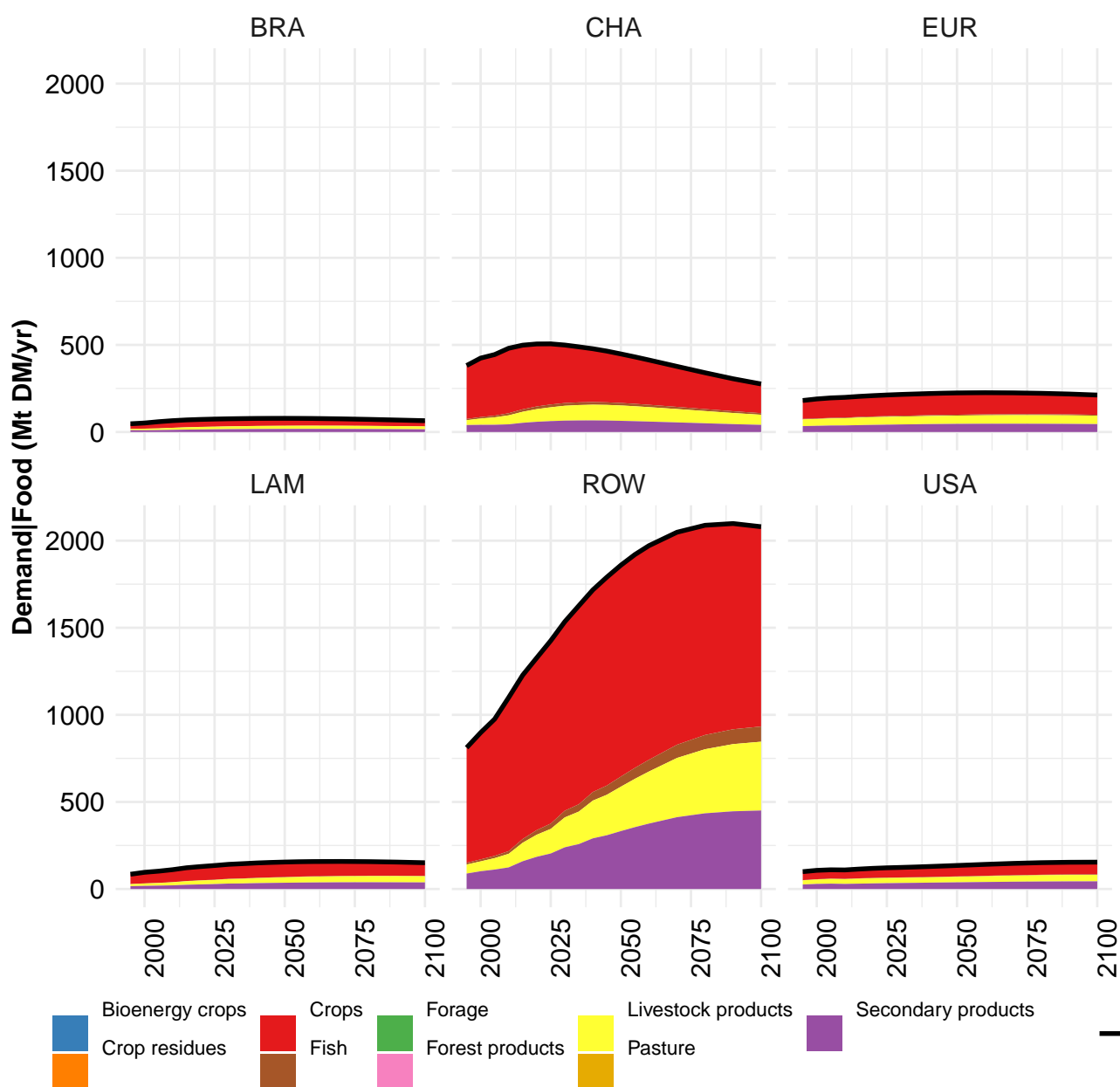
Table 348: MAgPIE m4p_brazil — Demand—Feed—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

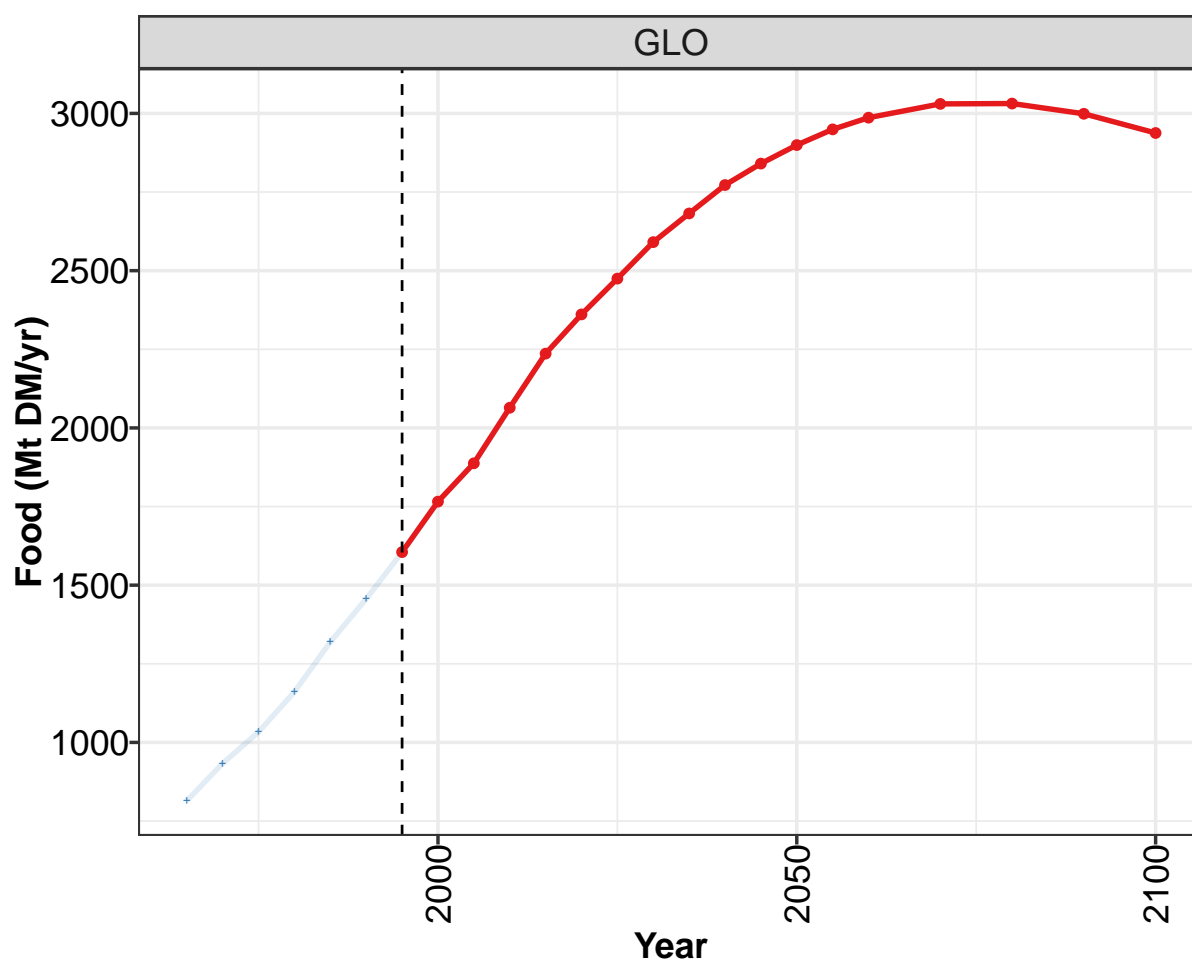
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.531	0.701	0.549	0.603	0.712	0.592	0.614	0.623	0.587	0.528
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.147	0.252	0.103	0.141	0.145	0.098	0.080	0.087	0.090	0.082
LAM	0.033	0.103	0.045	0.075	0.085	0.083	0.095	0.108	0.108	0.095
ROW	0.350	0.346	0.400	0.387	0.482	0.410	0.439	0.428	0.389	0.351
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







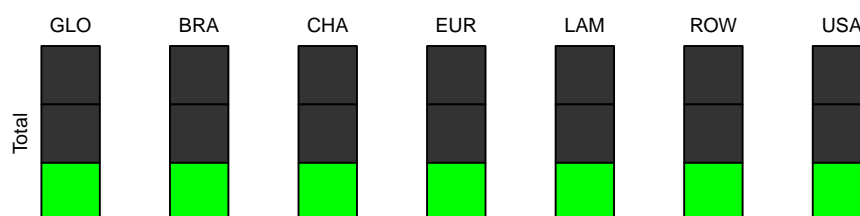
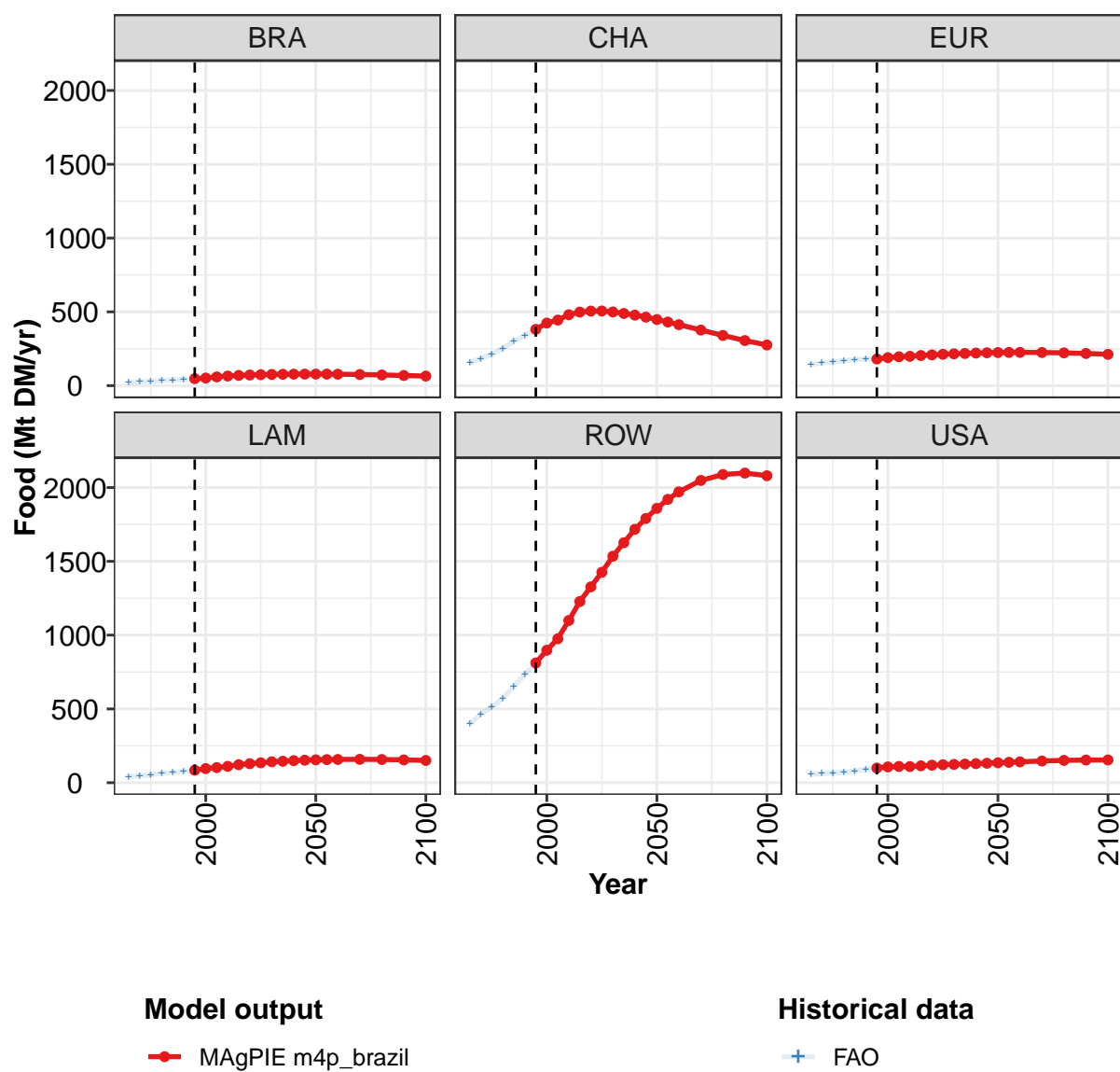


Figure 117: MAgPIE m4p_brazil — Demand—Food (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1605	1766	1888	2064	2236	2361	2475	2591	2682	2772	2841
BRA	47	51	59	65	69	72	74	76	77	78	78
CHA	382	424	444	481	498	505	506	499	489	478	464
EUR	181	190	196	199	204	209	212	216	218	221	223
LAM	85	96	102	111	122	129	135	142	145	150	153
ROW	811	898	976	1099	1228	1327	1426	1535	1626	1717	1791
USA	100	107	110	109	114	119	122	124	126	129	132

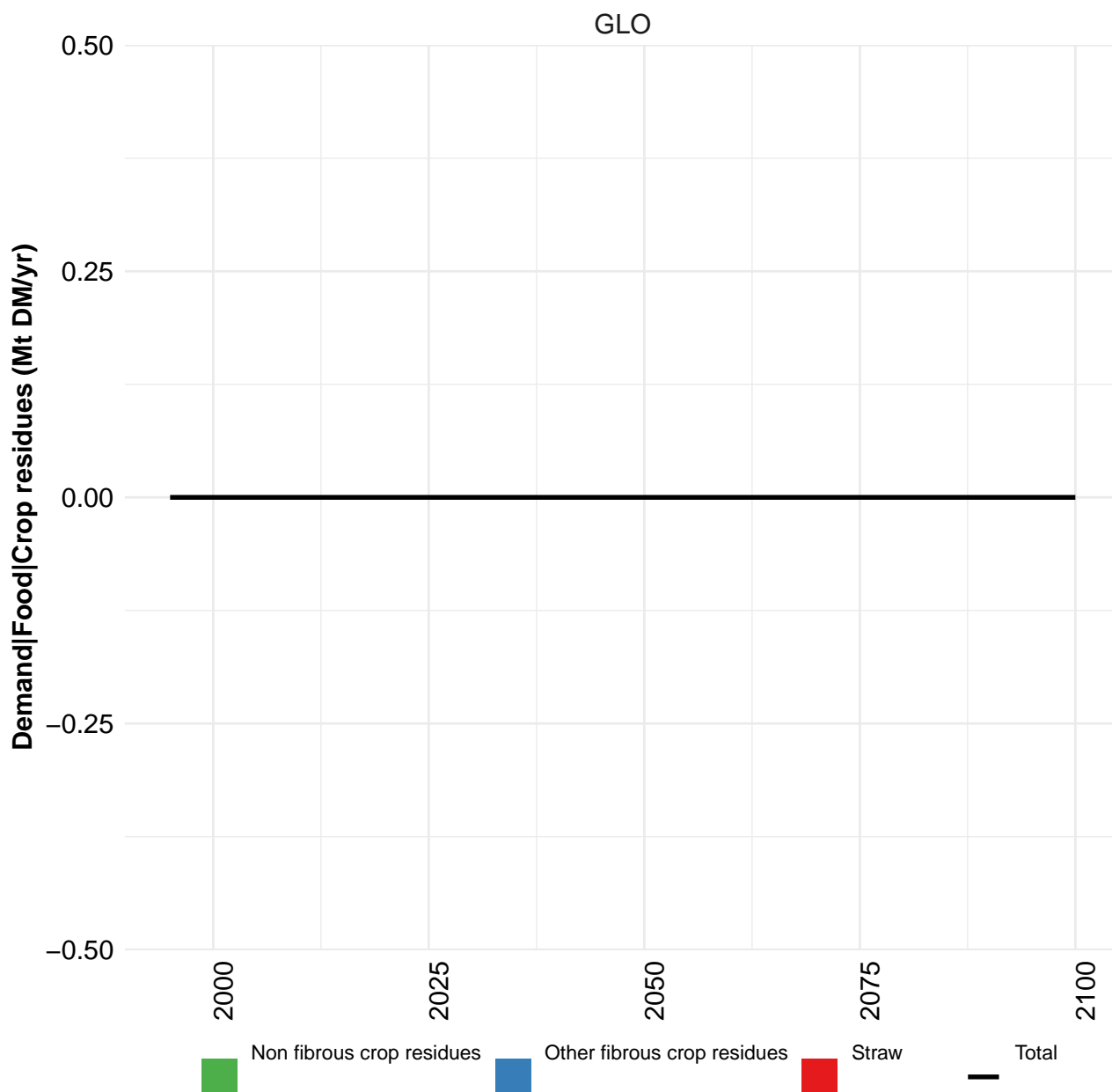
Table 350: MAgPIE m4p_brazil — Demand—Food (Mt DM/yr) [PART 1/2]

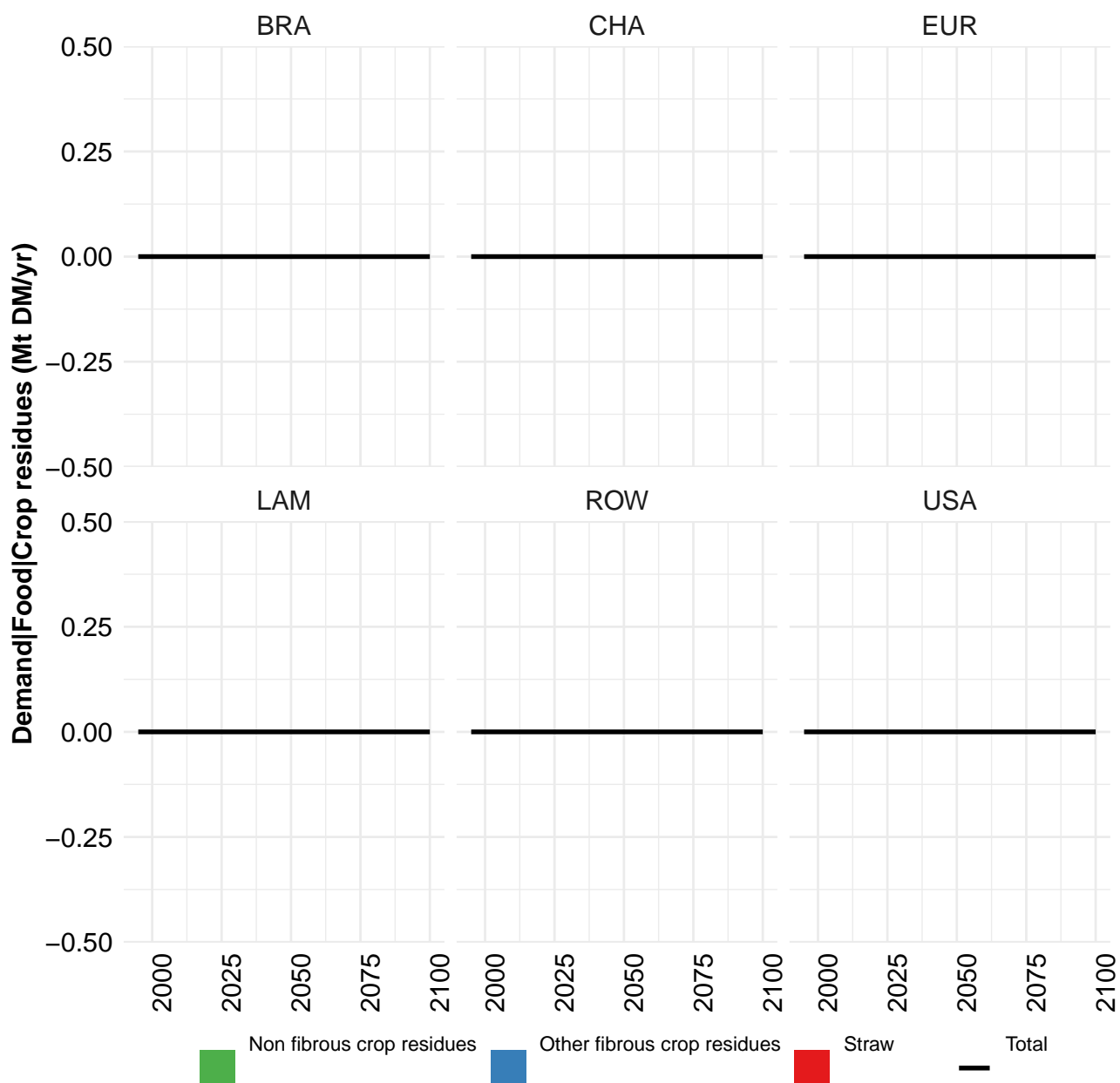
	2050	2055	2060	2070	2080	2090	2100
GLO	2899	2949	2986	3030	3031	2999	2938
BRA	78	78	78	75	72	69	65
CHA	448	431	413	377	340	306	276
EUR	224	225	226	225	222	218	212
LAM	155	157	158	158	157	155	151
ROW	1859	1920	1971	2048	2088	2098	2080
USA	135	138	141	147	151	154	154

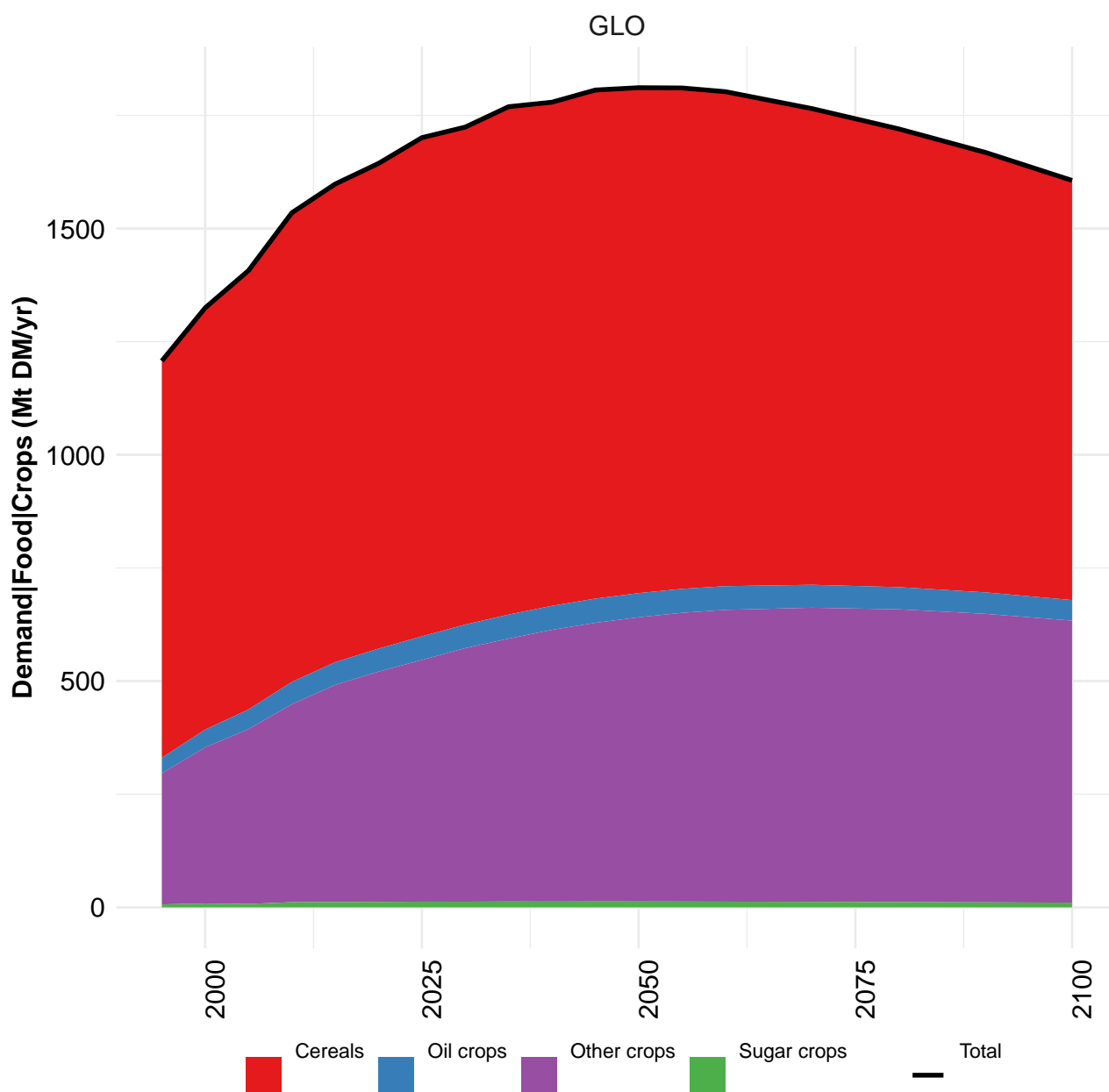
Table 351: MAgPIE m4p_brazil — Demand—Food (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	815	934	1033	1161	1319	1456	1605	1765	1888	2064
BRA	22	26	29	35	38	42	47	51	59	65
CHA	156	183	212	251	303	336	381	424	444	481
EUR	144	153	160	169	175	181	181	190	196	199
LAM	39	46	54	63	70	75	85	96	102	111
ROW	397	464	513	572	653	733	811	898	976	1099
USA	56	62	65	71	80	89	99	107	110	110

Table 352: FAO — Demand—Food (Mt DM/yr)

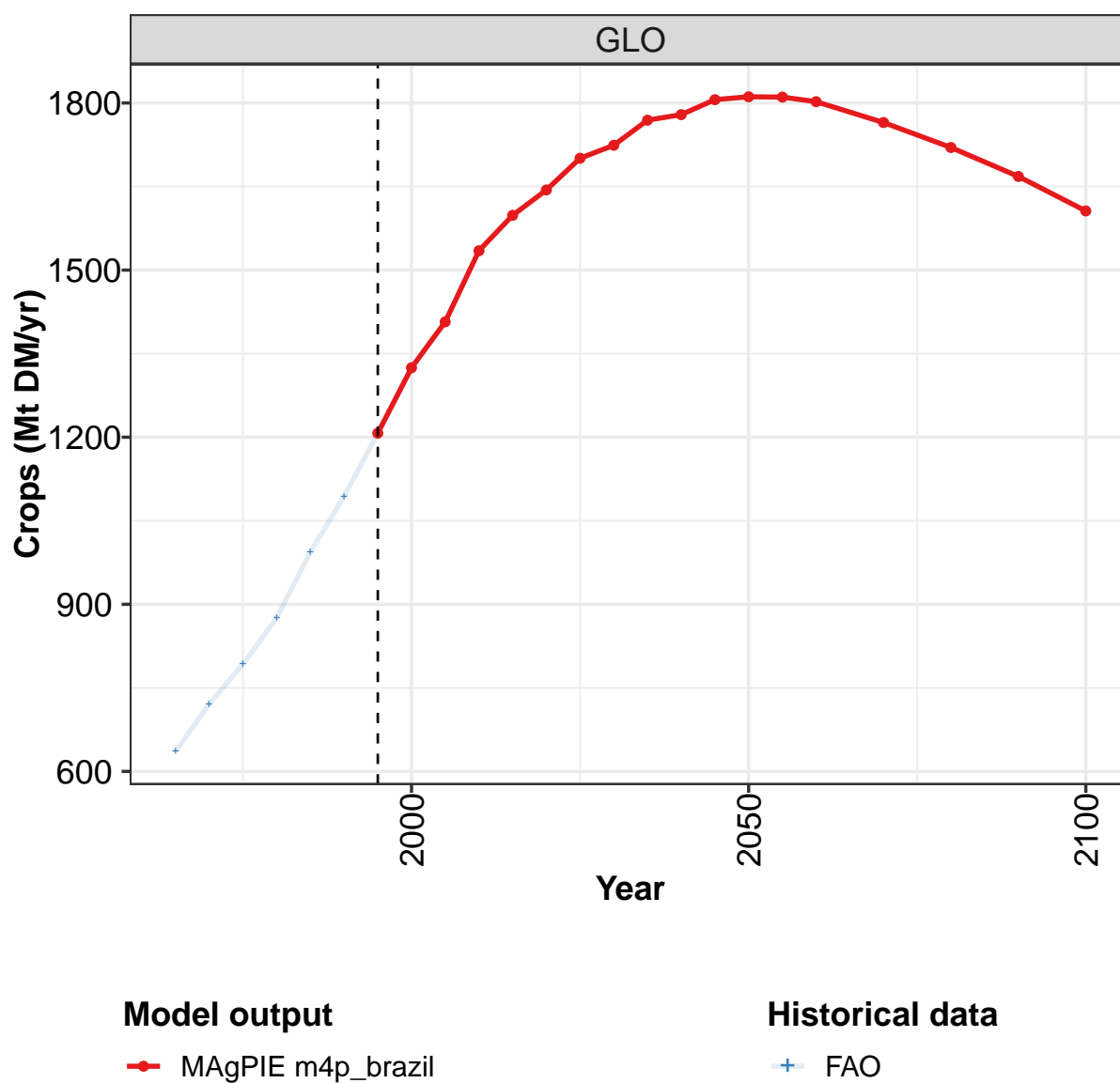








7.1 Crops





Model output

—•— MAgPIE m4p_brazil

Historical data

+— FAO

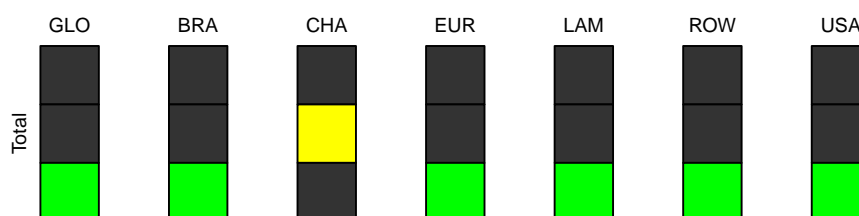


Figure 118: MAgPIE m4p_brazil — Demand—Food—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1207	1325	1407	1535	1598	1644	1701	1724	1769	1779	1806
BRA	29	32	38	41	42	43	43	43	43	43	43
CHA	307	338	351	373	368	359	348	333	319	306	294
EUR	106	112	115	116	118	120	121	122	124	124	125
LAM	56	64	67	71	76	79	82	83	85	85	86
ROW	661	728	785	882	941	989	1050	1085	1140	1160	1197
USA	49	51	51	51	53	55	56	57	59	60	61

Table 353: MAgPIE m4p_brazil — Demand—Food—Crops (Mt DM/yr) [PART 1/2]

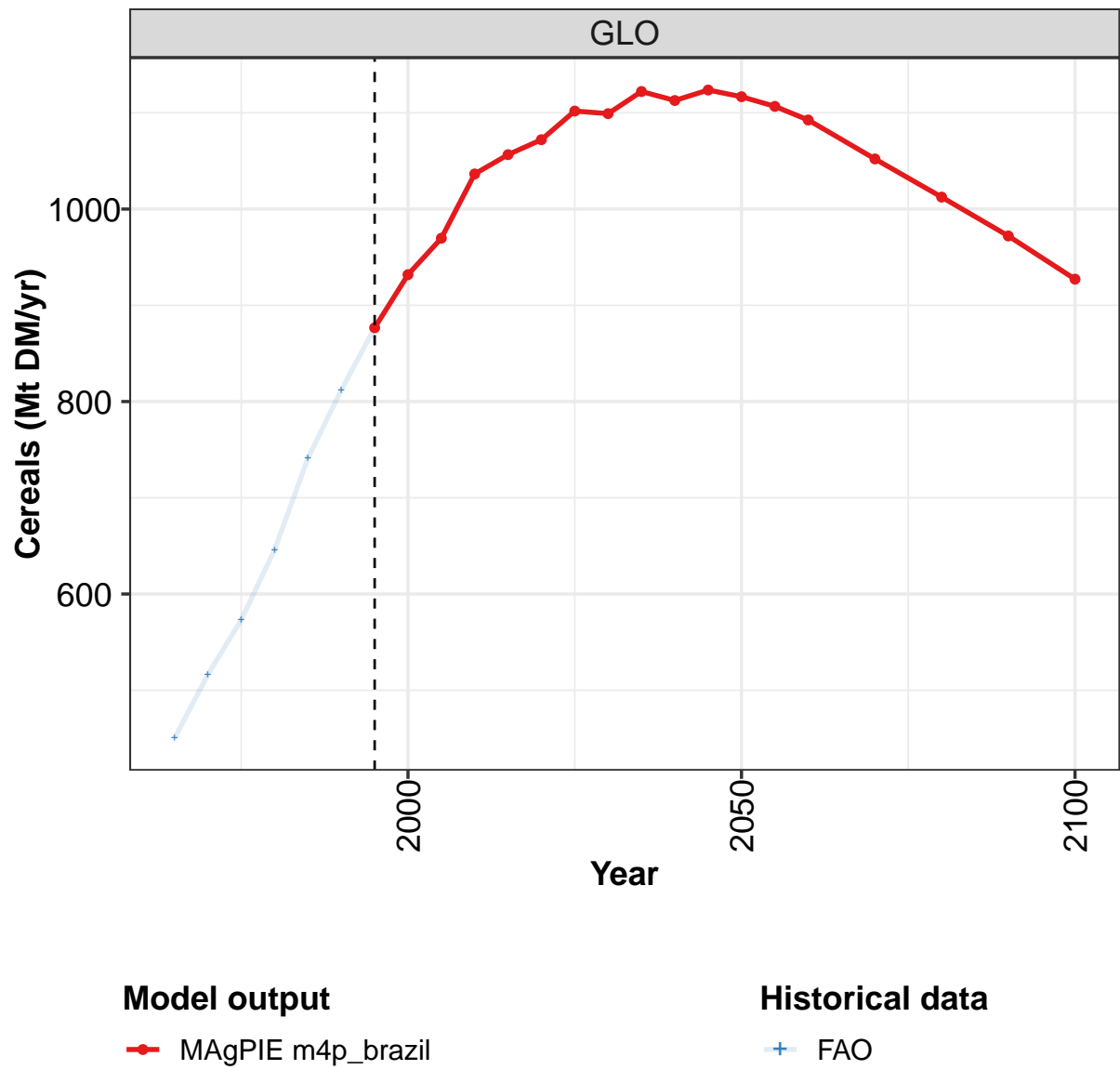
	2050	2055	2060	2070	2080	2090	2100
GLO	1811	1811	1802	1765	1720	1668	1606
BRA	42	42	41	39	37	35	32
CHA	281	270	257	232	209	186	168
EUR	125	125	125	123	120	117	113
LAM	86	85	85	83	81	78	75
ROW	1214	1225	1229	1220	1204	1181	1147
USA	63	64	65	68	69	70	70

Table 354: MAgPIE m4p_brazil — 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
BRA	16	19	20	23	26	27	29	32	38	41
CHA	144	168	192	219	259	280	307	338	351	373
EUR	93	95	96	100	103	106	106	112	115	117
LAM	28	32	37	42	47	50	56	63	67	71
ROW	329	380	418	459	522	588	661	728	785	882
USA	26	27	30	32	36	42	49	51	51	51

Table 355: FAO — Demand—Food—Crops (Mt DM/yr)

7.1.1
Cereals



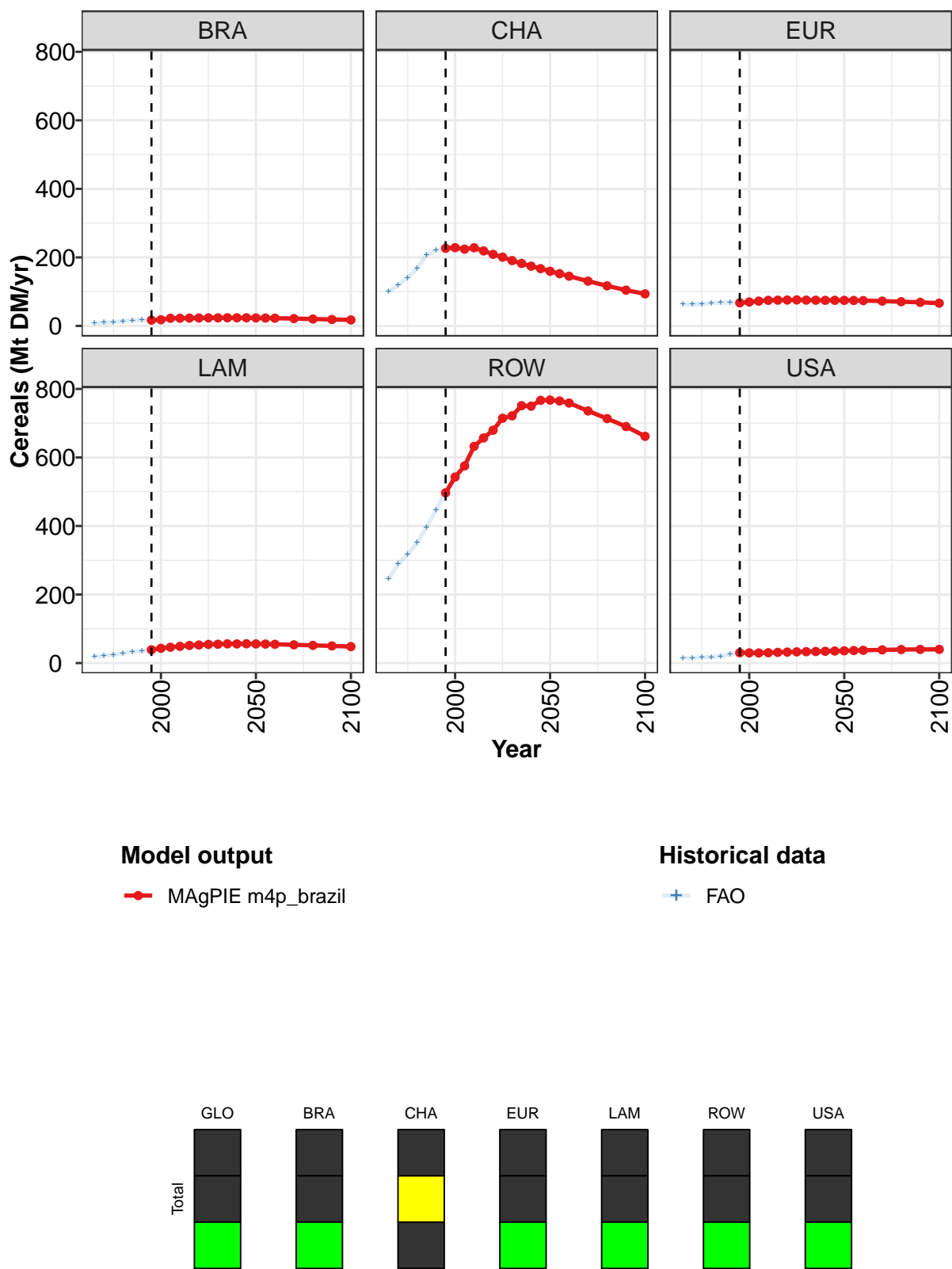


Figure 119: MAgPIE m4p_brazil — Demand—Food—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	877	932	970	1036	1057	1072	1102	1099	1122	1113	1124
BRA	17	18	22	22	23	23	24	24	24	24	24
CHA	227	228	224	228	219	209	201	191	182	174	167
EUR	67	70	72	75	75	76	76	75	75	75	75
LAM	39	43	46	49	51	53	54	55	56	56	56
ROW	497	543	575	632	657	680	715	721	751	750	767
USA	30	30	29	30	31	32	33	33	34	34	35

Table 356: MAgPIE m4p_brazil — Demand—Food—Crops—Cereals (Mt DM/yr) [PART 1/2]

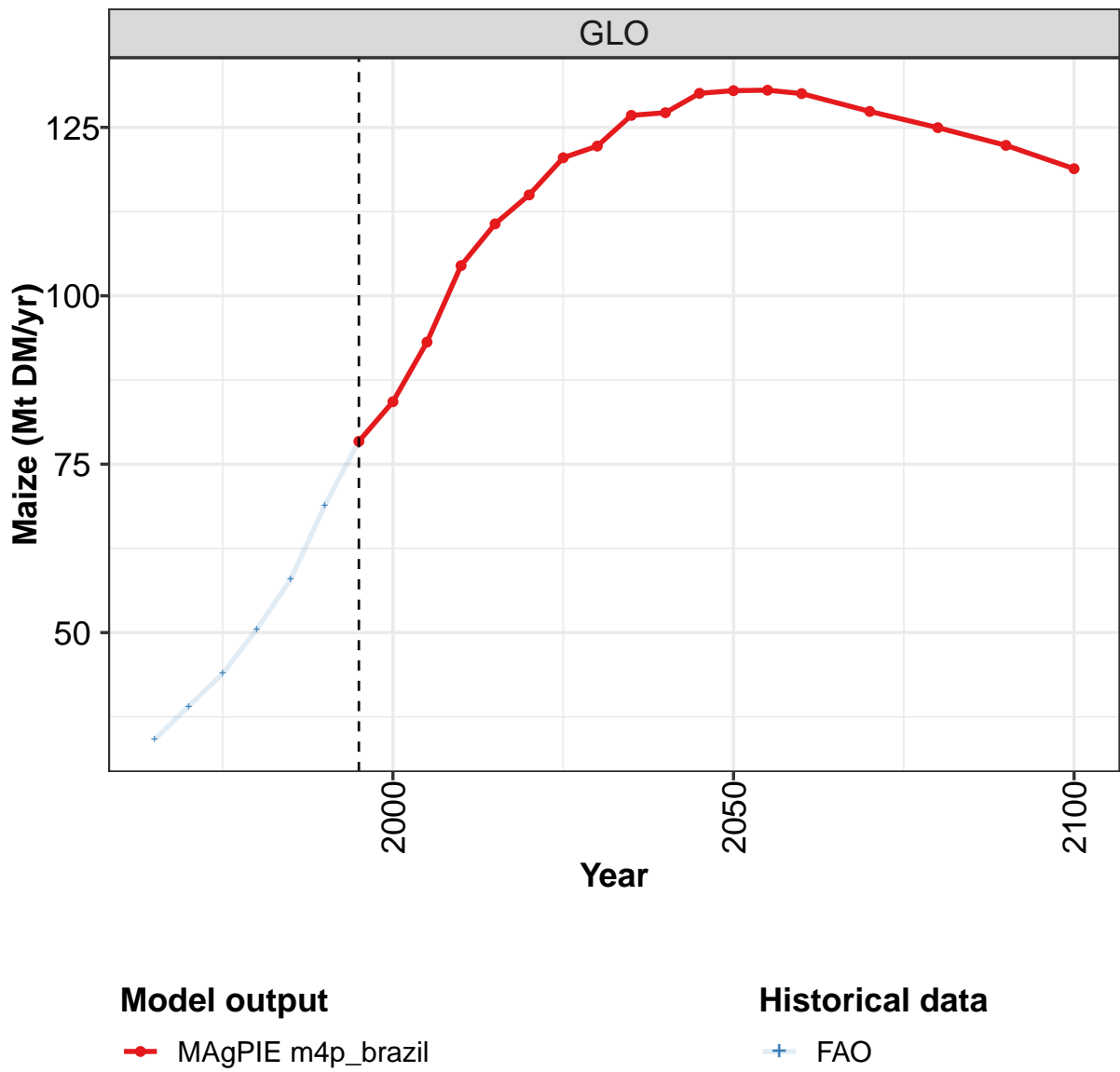
	2050	2055	2060	2070	2080	2090	2100
GLO	1117	1107	1093	1052	1012	972	927
BRA	23	23	23	21	20	19	18
CHA	160	152	145	131	117	104	94
EUR	75	74	74	72	71	69	66
LAM	56	55	55	53	52	50	48
ROW	768	765	759	736	713	690	662
USA	36	37	37	38	39	40	40

Table 357: MAgPIE m4p_brazil — 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
BRA	8	10	11	14	16	17	17	18	22	22
CHA	100	119	140	169	208	220	227	228	224	228
EUR	64	63	64	66	68	68	68	70	72	75
LAM	18	21	25	28	32	35	39	43	46	49
ROW	245	288	317	351	397	447	497	543	575	632
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



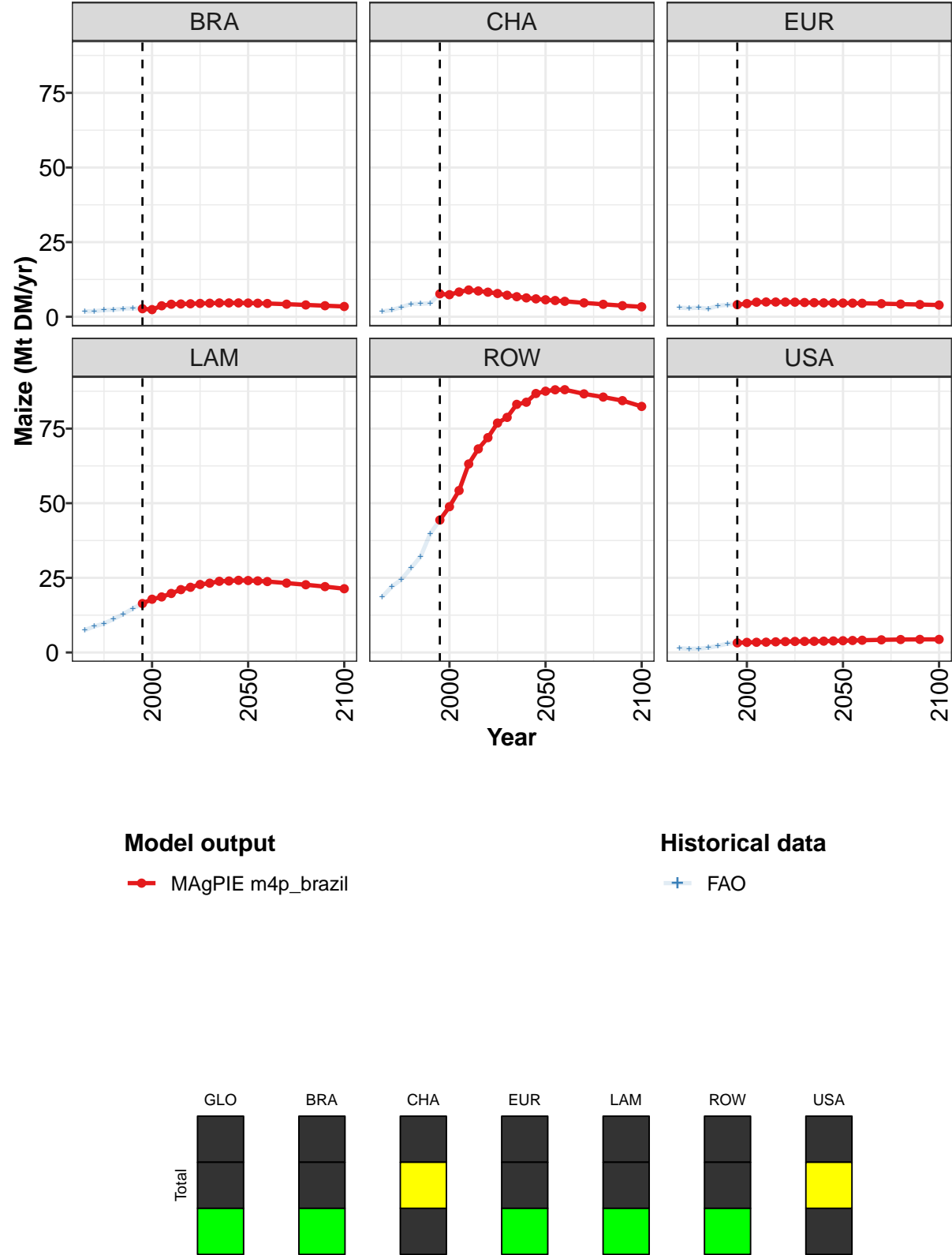


Figure 120: MAgPIE m4p_brazil — Demand—Food—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	78	84	93	104	111	115	120	122	127	127	130
BRA	3	2	4	4	4	4	4	5	5	5	5
CHA	8	7	8	9	9	8	8	7	7	6	6
EUR	4	4	5	5	5	5	5	5	5	5	5
LAM	16	18	19	20	21	22	23	23	24	24	24
ROW	44	49	54	63	68	72	77	79	83	84	87
USA	3	3	3	3	4	4	4	4	4	4	4

Table 359: MAgPIE m4p_brazil — Demand—Food—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

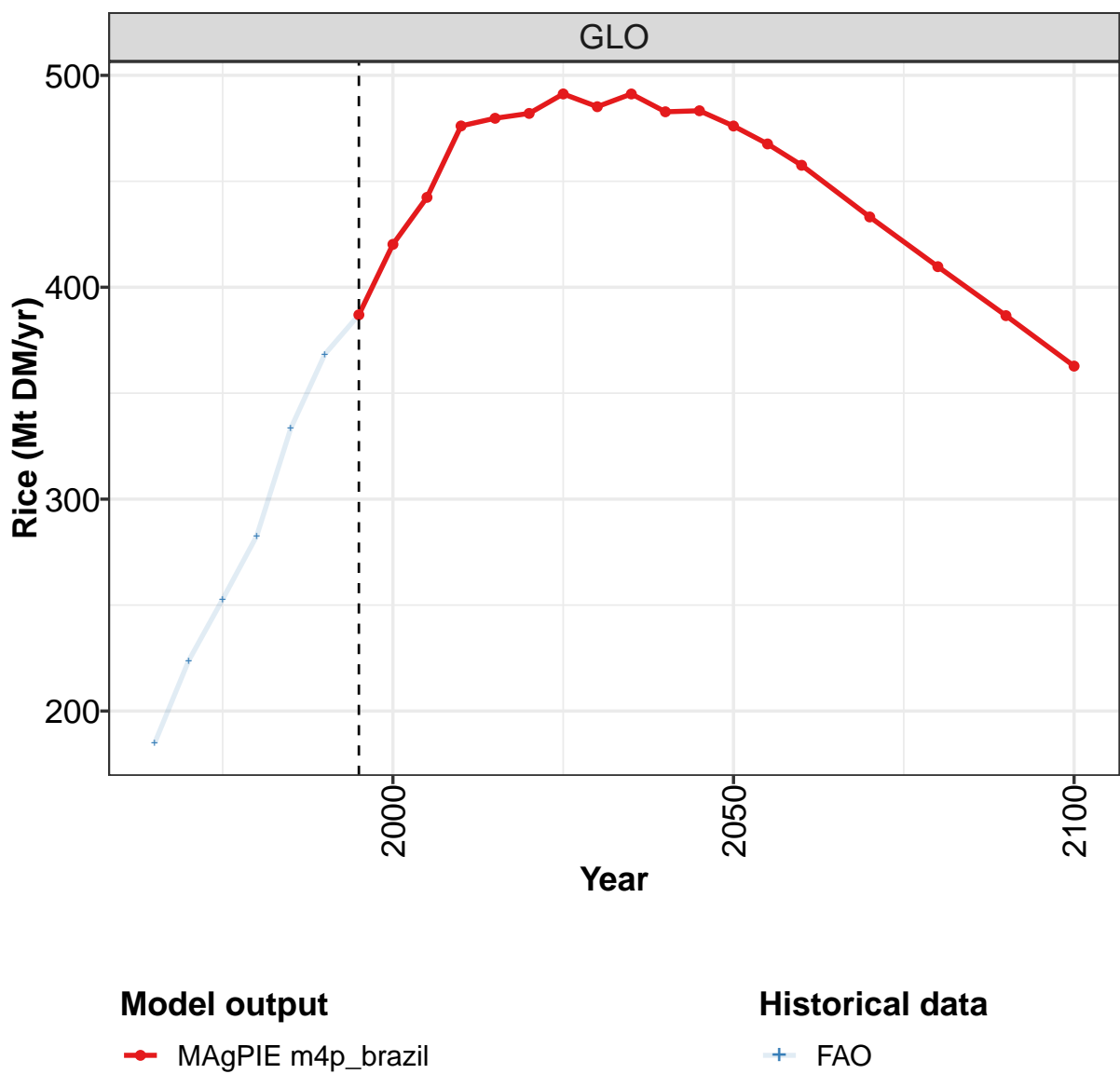
	2050	2055	2060	2070	2080	2090	2100
GLO	130	131	130	127	125	122	119
BRA	5	5	4	4	4	4	3
CHA	6	5	5	5	4	4	3
EUR	5	5	5	4	4	4	4
LAM	24	24	24	23	23	22	21
ROW	88	88	88	87	86	84	82
USA	4	4	4	4	4	4	4

Table 360: MAgPIE m4p_brazil — 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
BRA	2	2	2	2	3	3	3	2	4	4
CHA	2	2	3	4	4	5	8	7	8	9
EUR	3	3	3	3	4	4	4	4	5	5
LAM	7	9	10	11	13	15	16	18	19	20
ROW	19	22	24	28	32	40	44	49	54	63
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



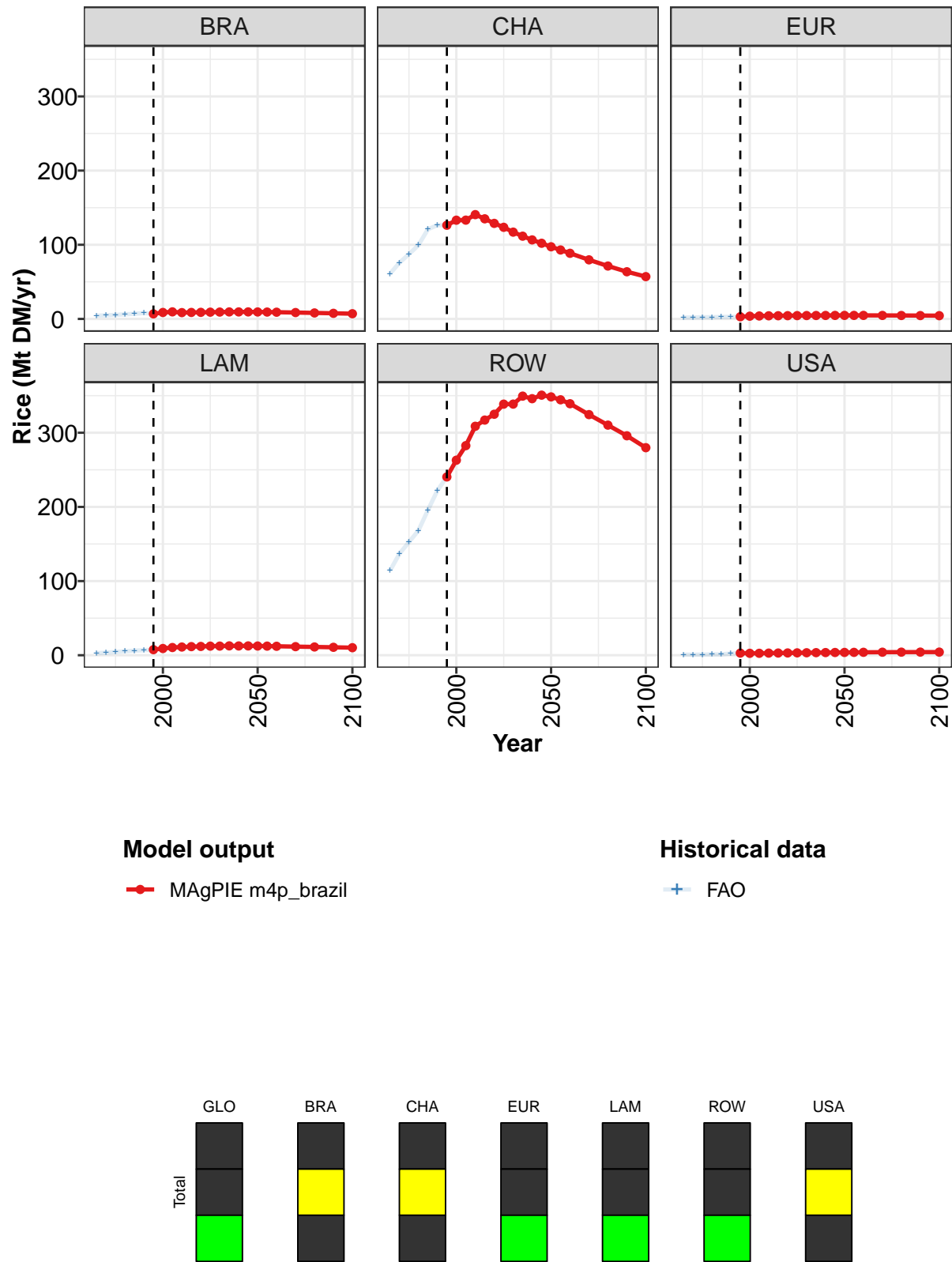


Figure 121: MAgPIE m4p_brazil — Demand—Food—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	387	420	442	476	480	482	491	485	491	483	483
BRA	7	9	10	9	9	9	9	9	9	9	9
CHA	126	133	133	141	135	129	124	117	112	107	102
EUR	3	4	4	4	4	4	4	5	5	5	5
LAM	8	9	10	11	12	12	12	12	13	13	13
ROW	240	263	283	309	317	325	339	339	349	346	351
USA	3	3	3	3	3	3	3	3	4	4	4

Table 362: MAgPIE m4p_brazil — Demand—Food—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

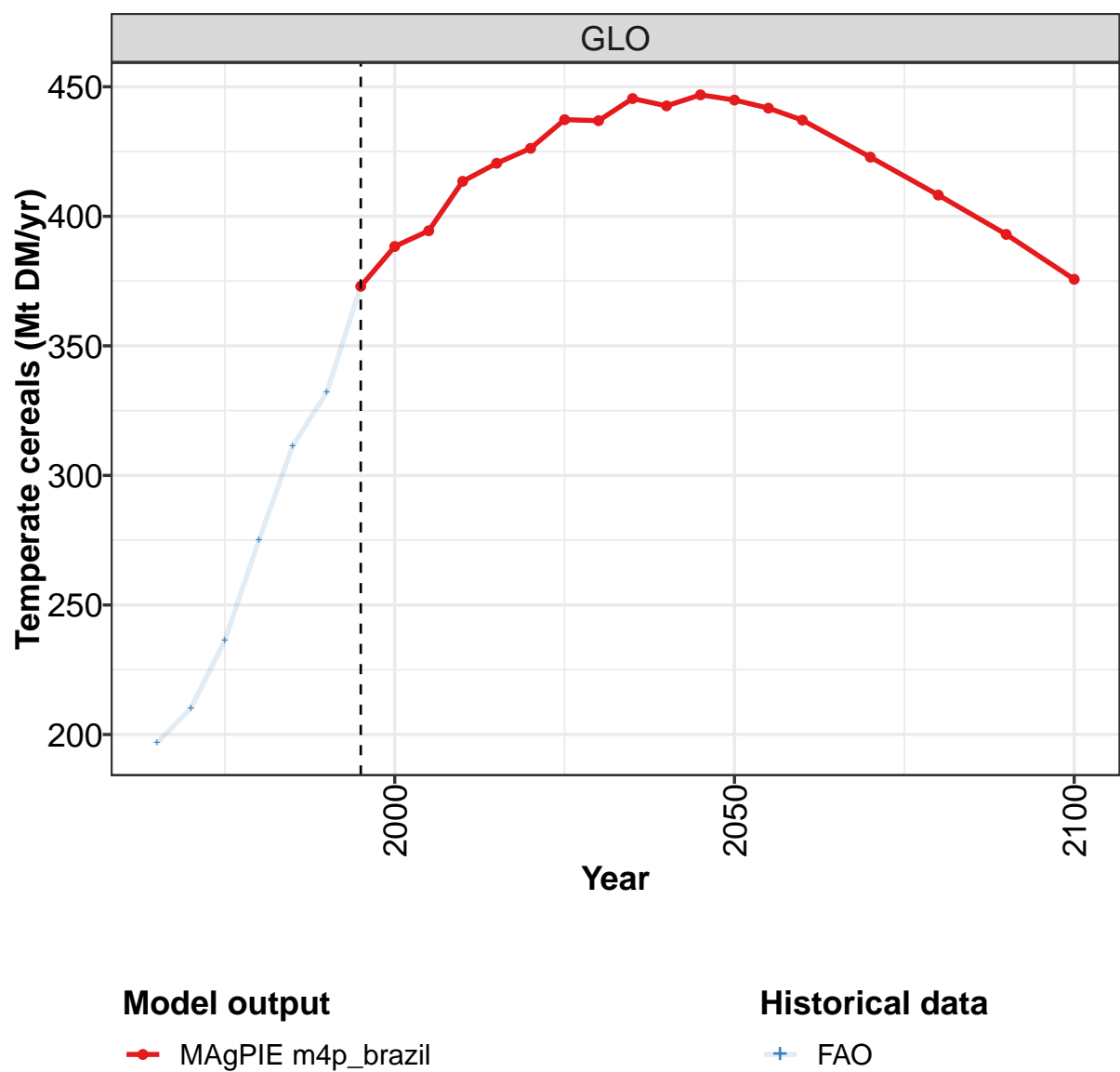
	2050	2055	2060	2070	2080	2090	2100
GLO	476	468	458	433	410	387	363
BRA	9	9	9	9	8	8	7
CHA	97	93	89	80	71	64	57
EUR	5	5	5	5	5	5	4
LAM	12	12	12	12	11	11	10
ROW	348	344	339	324	310	296	280
USA	4	4	4	4	4	4	4

Table 363: MAgPIE m4p_brazil — 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
BRA	4	5	5	6	7	8	7	9	10	9
CHA	61	76	87	99	121	126	126	133	133	141
EUR	2	2	2	2	3	3	3	4	4	4
LAM	3	3	4	5	6	7	8	9	10	11
ROW	114	137	153	168	196	222	240	263	283	309
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



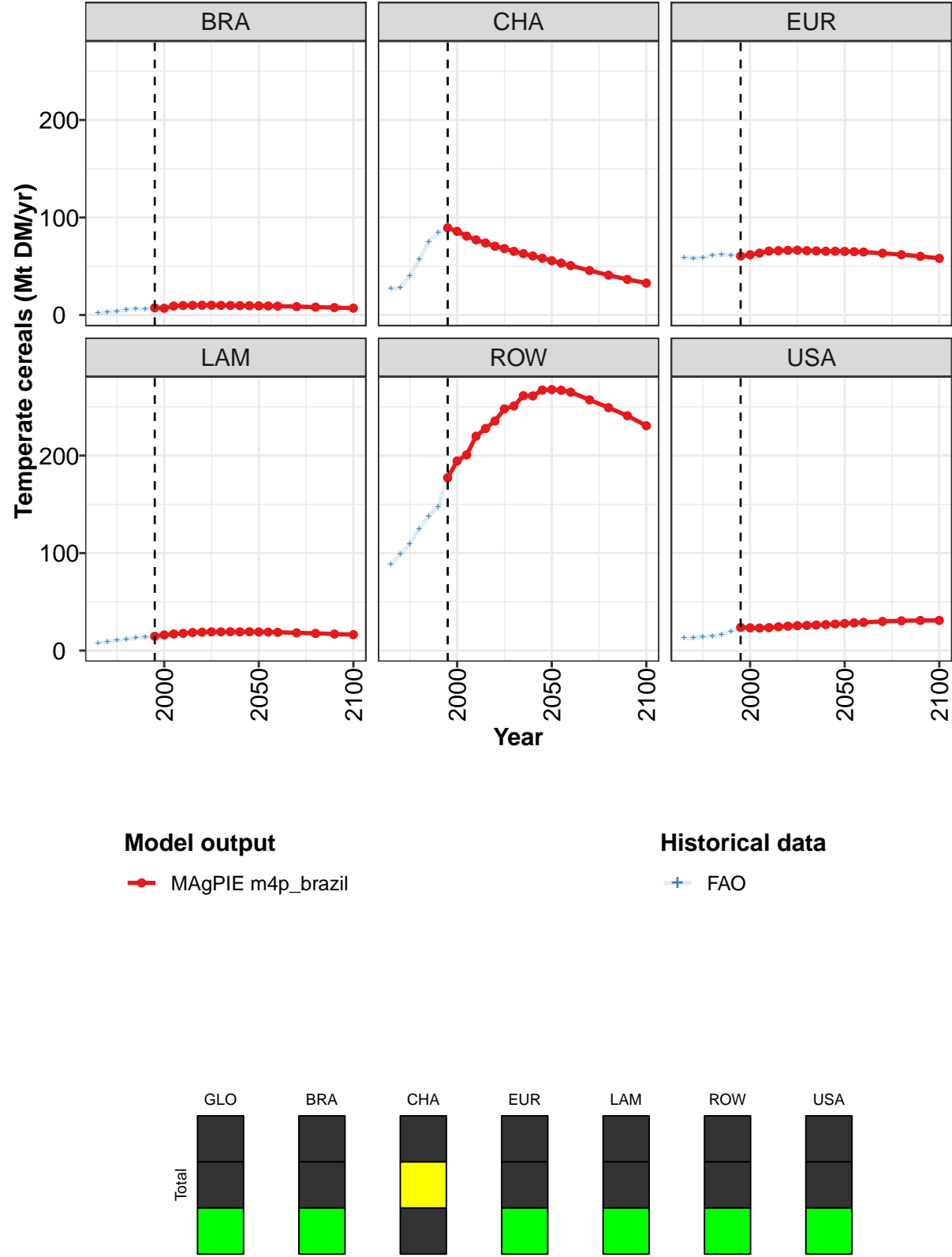


Figure 122: MAgPIE m4p_brazil — Demand—Food—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	373	388	394	413	420	426	437	437	445	443	447
BRA	7	7	9	10	10	10	10	10	10	10	10
CHA	89	86	81	77	74	71	68	65	63	61	58
EUR	60	62	63	66	66	66	67	66	66	65	65
LAM	15	16	17	18	19	19	19	19	19	19	19
ROW	177	195	201	220	228	236	248	251	261	261	267
USA	24	23	23	24	24	25	26	26	26	27	27

Table 365: MAgPIE m4p_brazil — Demand—Food—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 1/2]

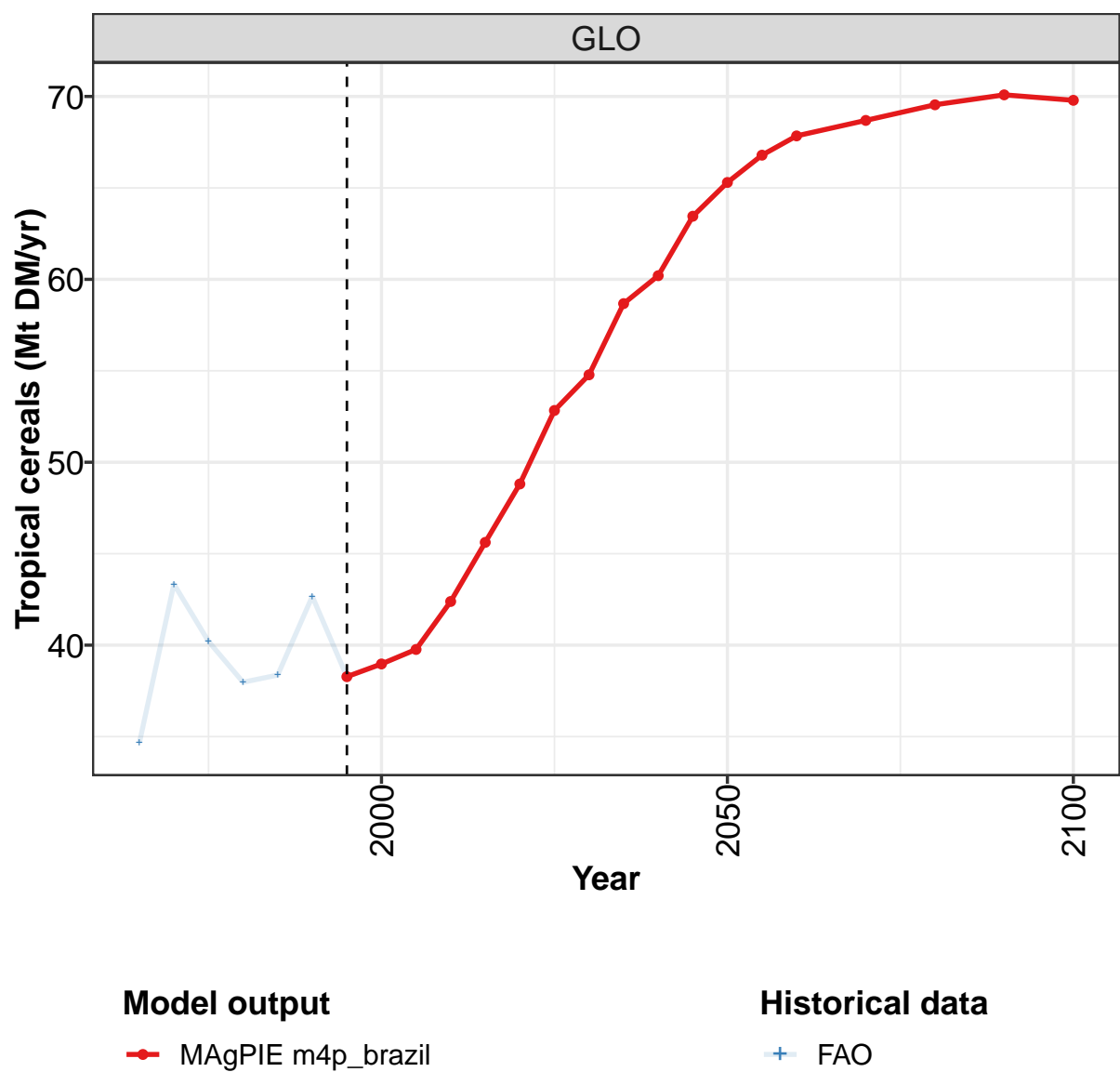
	2050	2055	2060	2070	2080	2090	2100
GLO	445	442	437	423	408	393	376
BRA	9	9	9	9	8	8	7
CHA	56	53	51	46	41	36	33
EUR	65	65	65	63	62	60	58
LAM	19	19	19	18	18	17	16
ROW	268	267	265	257	249	241	231
USA	28	28	29	30	31	31	31

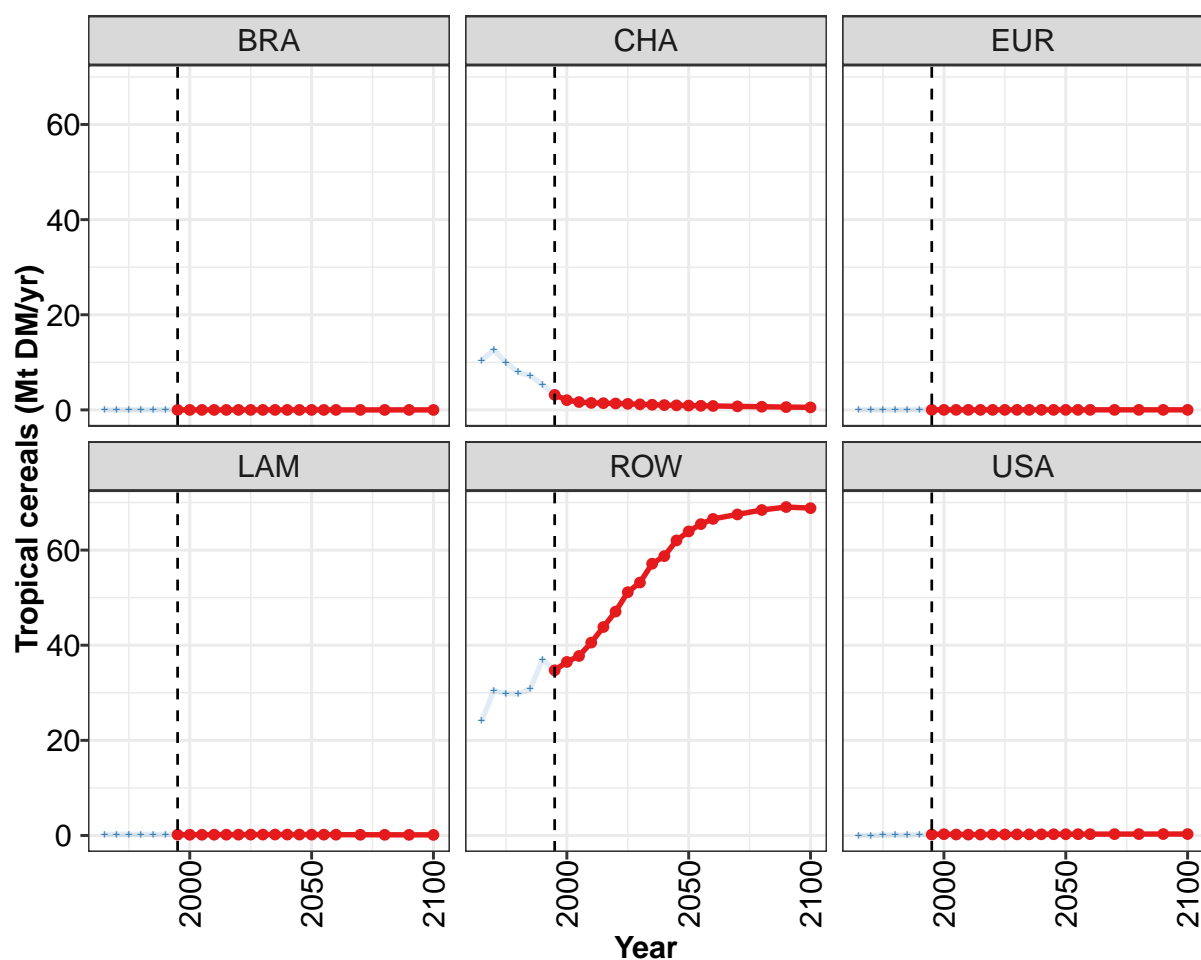
Table 366: MAgPIE m4p_brazil — Demand—Food—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	197	210	236	275	312	332	373	388	394	414
BRA	2	3	4	5	6	6	7	7	9	10
CHA	27	28	40	57	75	84	89	86	81	77
EUR	59	58	59	61	62	61	60	62	63	66
LAM	8	9	10	12	13	14	15	16	17	18
ROW	88	99	110	125	138	148	177	195	201	220
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





Model output

—●— MAgPIE m4p_brazil

Historical data

—+— FAO

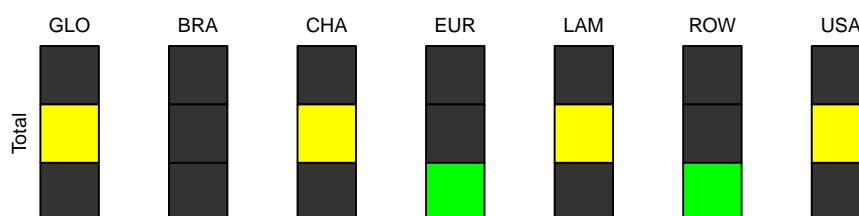


Figure 123: MAgPIE m4p_brazil — Demand—Food—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	38.3	39.0	39.8	42.4	45.6	48.8	52.8	54.8	58.7	60.2	63.5
BRA	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	2.0	1.7	1.5	1.4	1.3	1.3	1.2	1.1	1.0	1.0
EUR	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
ROW	34.7	36.5	37.7	40.6	43.8	47.1	51.1	53.2	57.1	58.7	62.0
USA	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3

Table 368: MAgPIE m4p_brazil — Demand—Food—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

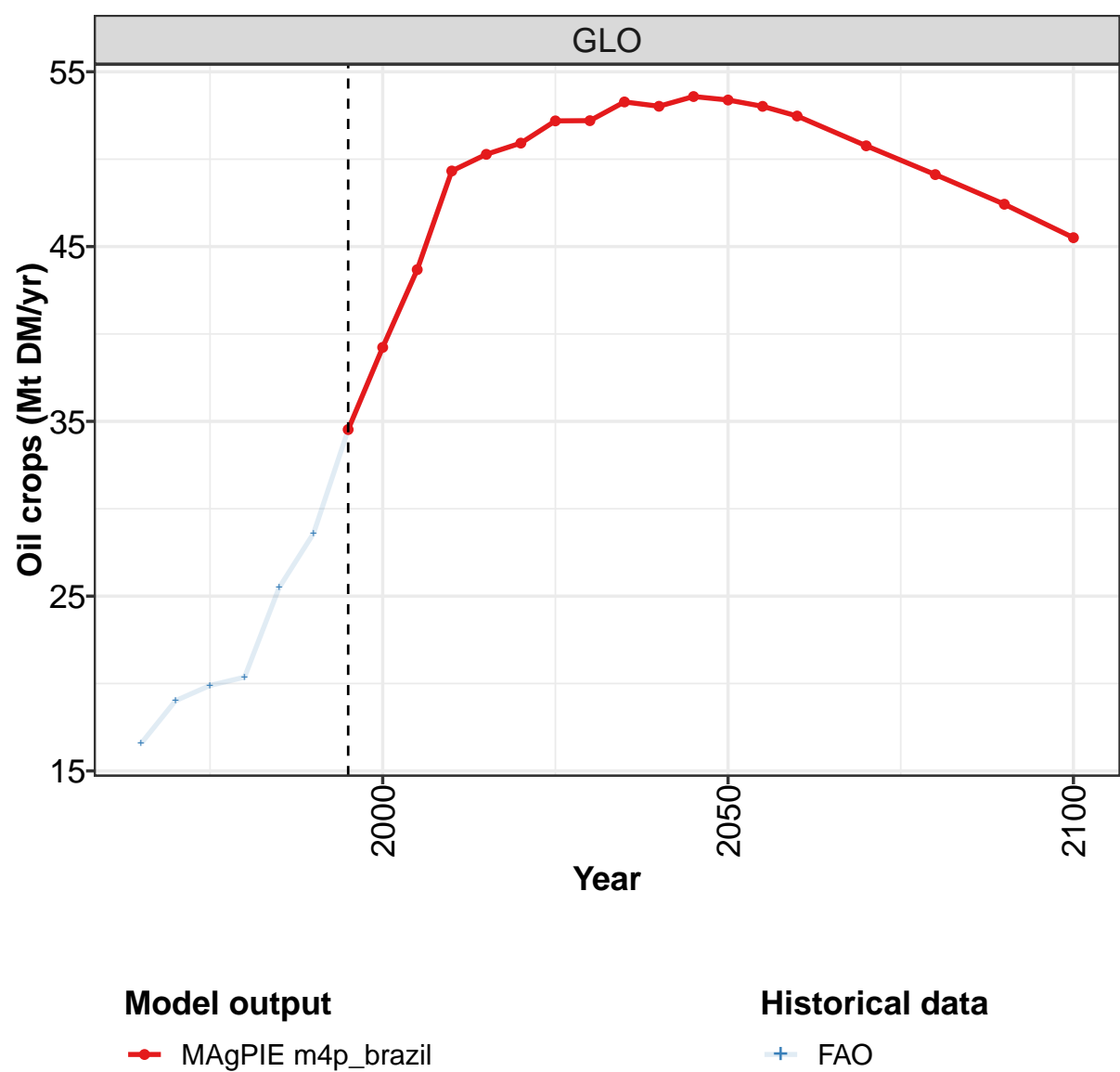
	2050	2055	2060	2070	2080	2090	2100
GLO	65.3	66.8	67.8	68.7	69.5	70.1	69.8
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.9	0.9	0.8	0.7	0.7	0.6	0.5
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.2	0.2	0.2	0.1	0.1	0.1
ROW	63.9	65.5	66.6	67.5	68.4	69.1	68.8
USA	0.3	0.3	0.3	0.3	0.3	0.3	0.3

Table 369: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
ROW	24.0	30.5	29.9	29.7	30.8	37.0	34.7	36.5	37.8	40.6
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



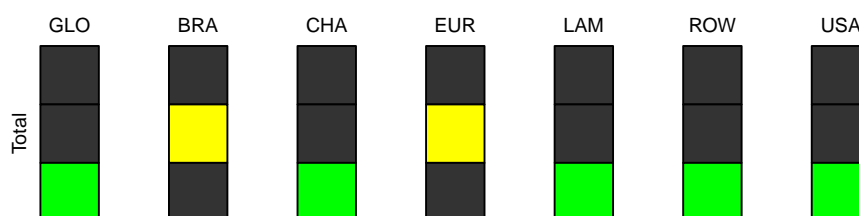
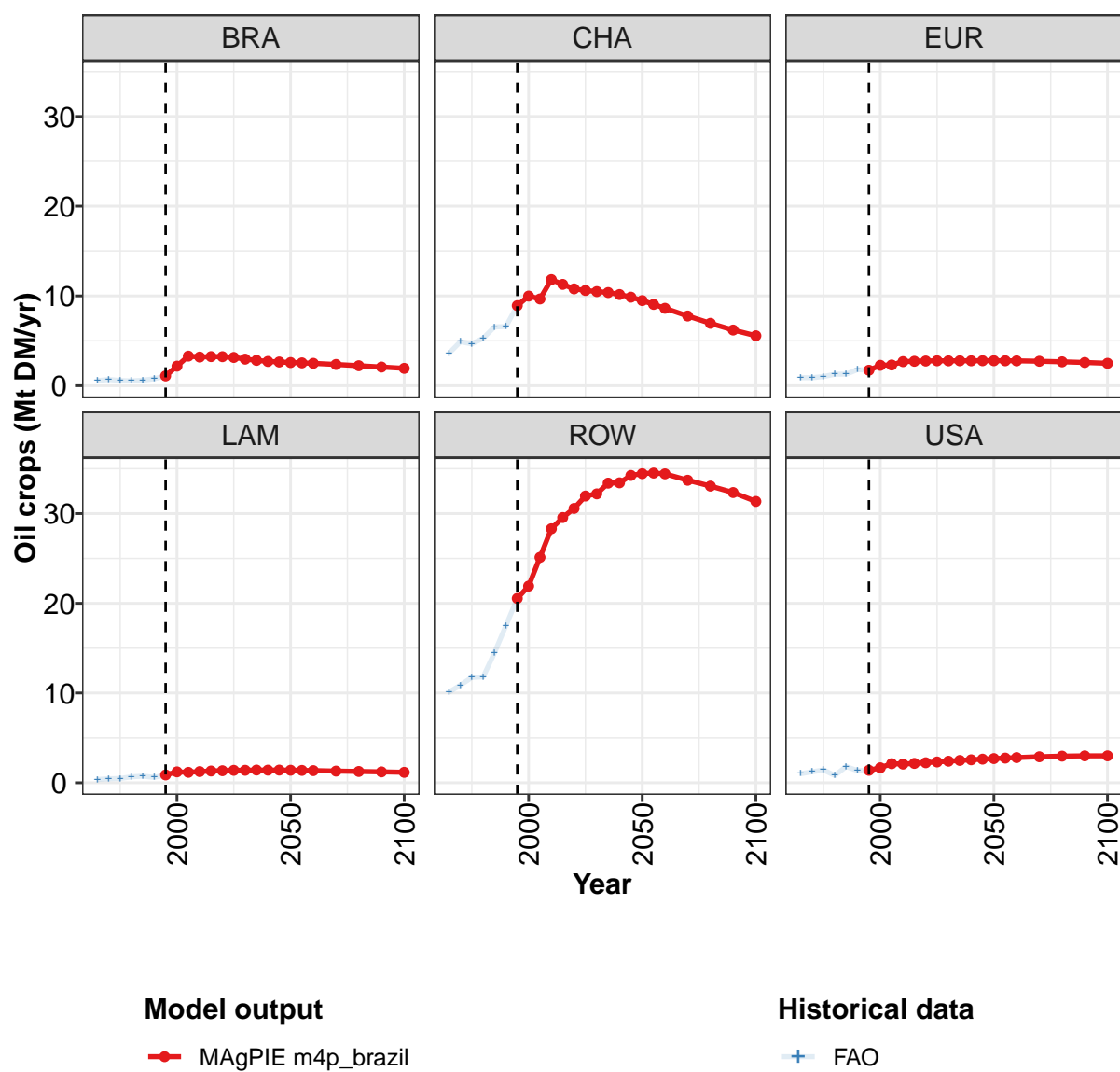


Figure 124: MAGPIE m4p_brazil — Demand—Food—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34.5	39.2	43.7	49.3	50.3	50.9	52.2	52.2	53.3	53.0	53.6
BRA	1.1	2.2	3.3	3.2	3.2	3.2	3.1	3.0	2.8	2.7	2.6
CHA	8.9	10.0	9.7	11.8	11.3	10.8	10.6	10.5	10.4	10.2	9.9
EUR	1.7	2.3	2.3	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.8
LAM	0.9	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.4	1.4
ROW	20.5	21.9	25.1	28.3	29.6	30.6	32.0	32.2	33.4	33.4	34.3
USA	1.4	1.7	2.1	2.1	2.2	2.2	2.3	2.4	2.5	2.6	2.6

Table 371: MAgPIE m4p_brazil — Demand—Food—Crops—Oil crops (Mt DM/yr) [PART 1/2]

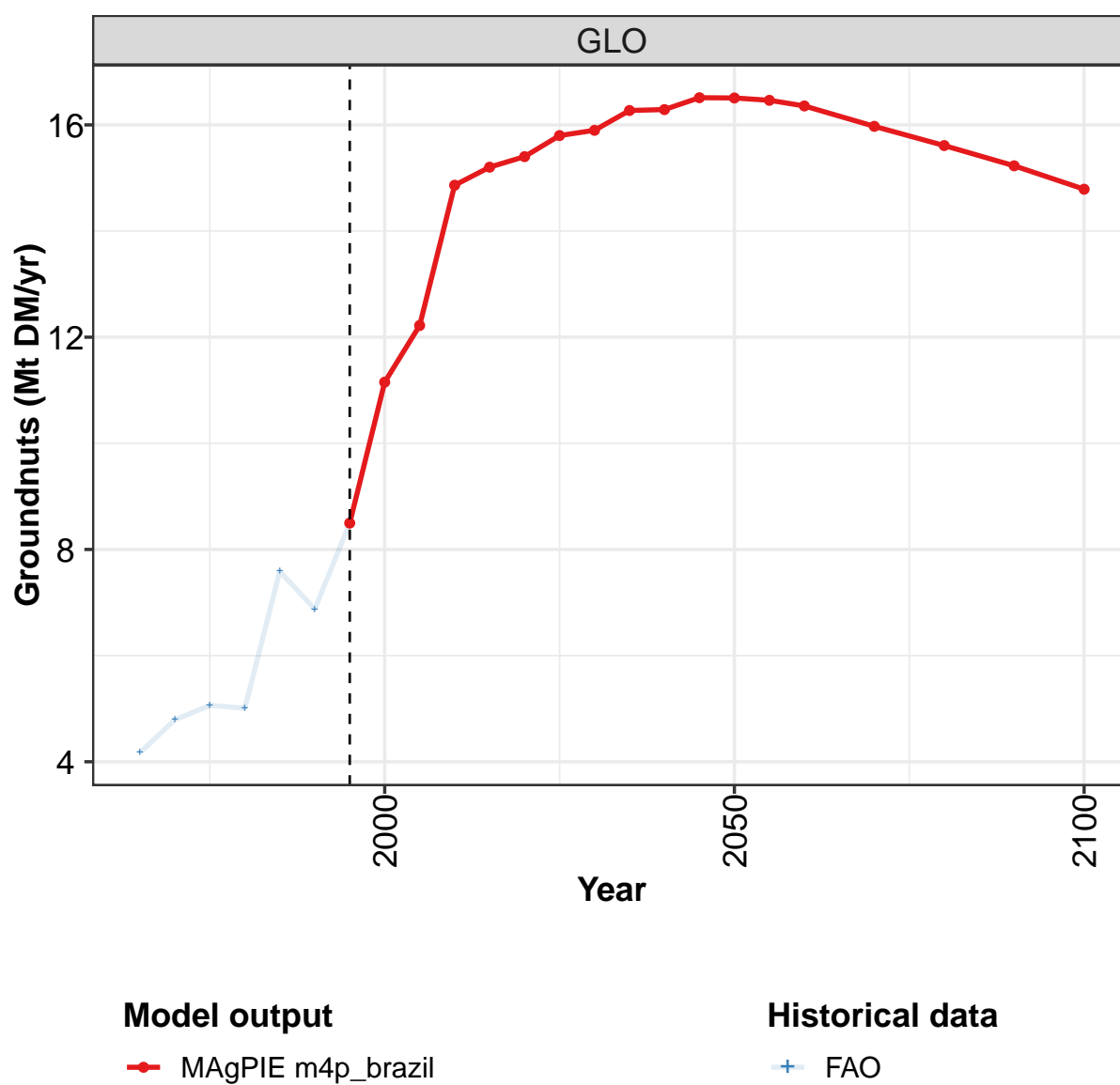
	2050	2055	2060	2070	2080	2090	2100
GLO	53.4	53.0	52.5	50.8	49.1	47.4	45.5
BRA	2.6	2.5	2.5	2.4	2.2	2.1	1.9
CHA	9.5	9.1	8.6	7.8	6.9	6.2	5.6
EUR	2.8	2.8	2.8	2.7	2.7	2.6	2.5
LAM	1.4	1.4	1.4	1.3	1.3	1.2	1.2
ROW	34.4	34.5	34.4	33.7	33.1	32.3	31.4
USA	2.7	2.8	2.8	2.9	3.0	3.0	3.0

Table 372: MAgPIE m4p_brazil — 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
BRA	0.6	0.7	0.6	0.5	0.6	0.8	1.1	2.2	3.3	3.2
CHA	3.6	4.9	4.7	5.3	6.5	6.6	8.9	10.0	9.7	11.8
EUR	0.9	0.9	1.0	1.3	1.3	1.8	1.7	2.3	2.3	2.7
LAM	0.4	0.4	0.5	0.7	0.7	0.6	0.9	1.2	1.2	1.3
ROW	10.1	10.9	11.7	11.8	14.5	17.5	20.5	21.9	25.1	28.3
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)

7.1.1.7 Oil crops—Groundnuts



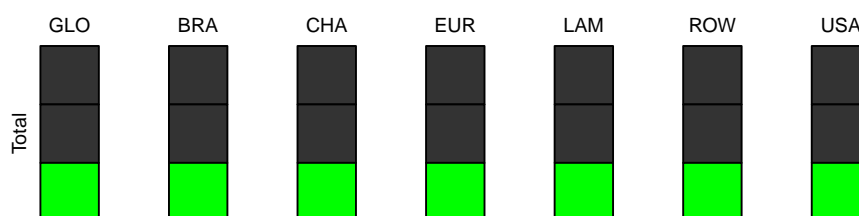
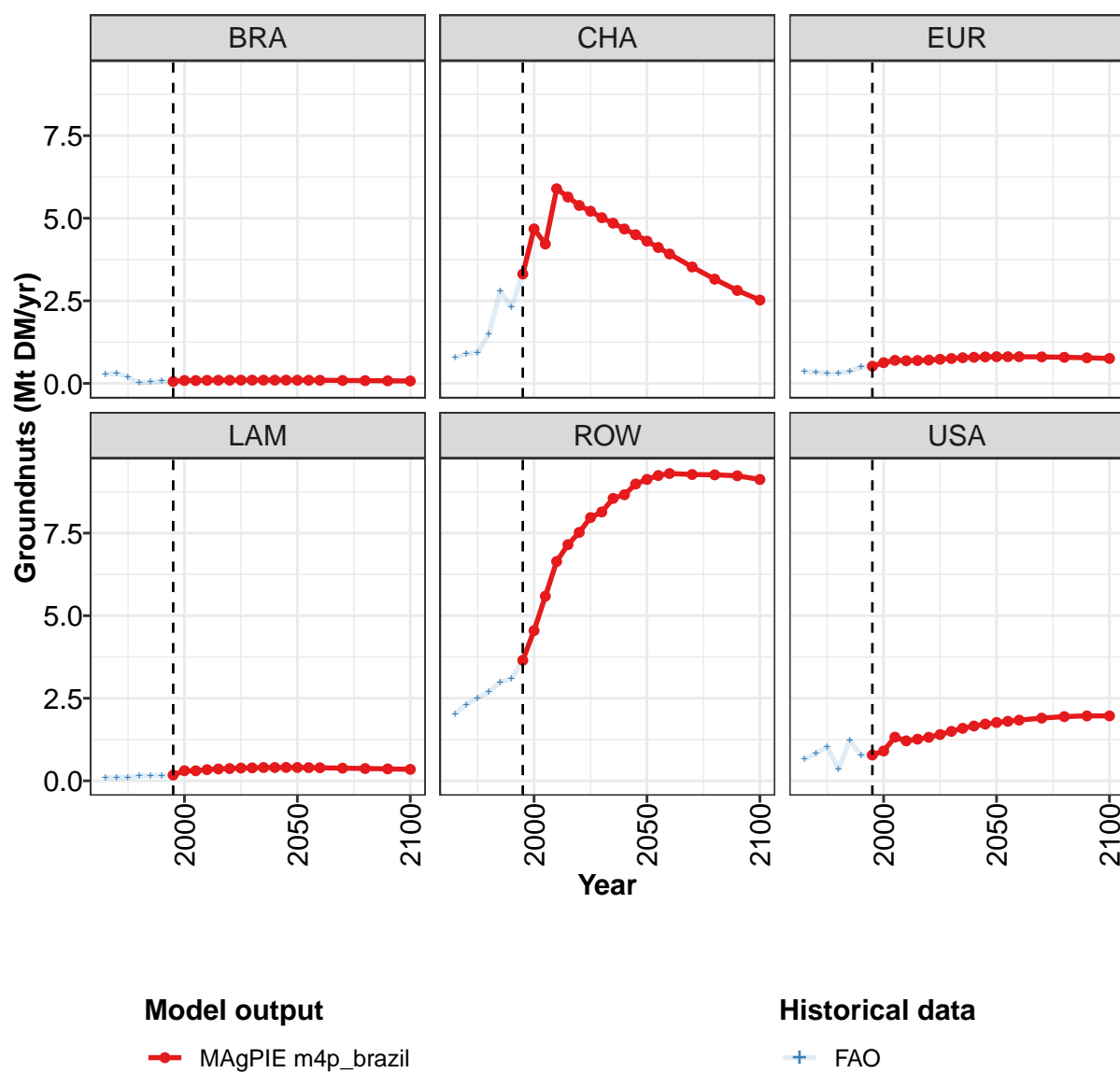


Figure 125: MAgPIE m4p_brazil — Demand—Food—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	8.5	11.2	12.2	14.9	15.2	15.4	15.8	15.9	16.3	16.3	16.5
BRA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	3.3	4.7	4.2	5.9	5.6	5.4	5.2	5.0	4.9	4.7	4.5
EUR	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
LAM	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
ROW	3.6	4.5	5.6	6.6	7.2	7.5	8.0	8.1	8.6	8.7	9.0
USA	0.8	0.9	1.3	1.2	1.3	1.3	1.4	1.5	1.6	1.7	1.7

Table 374: MAgPIE m4p_brazil — Demand—Food—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

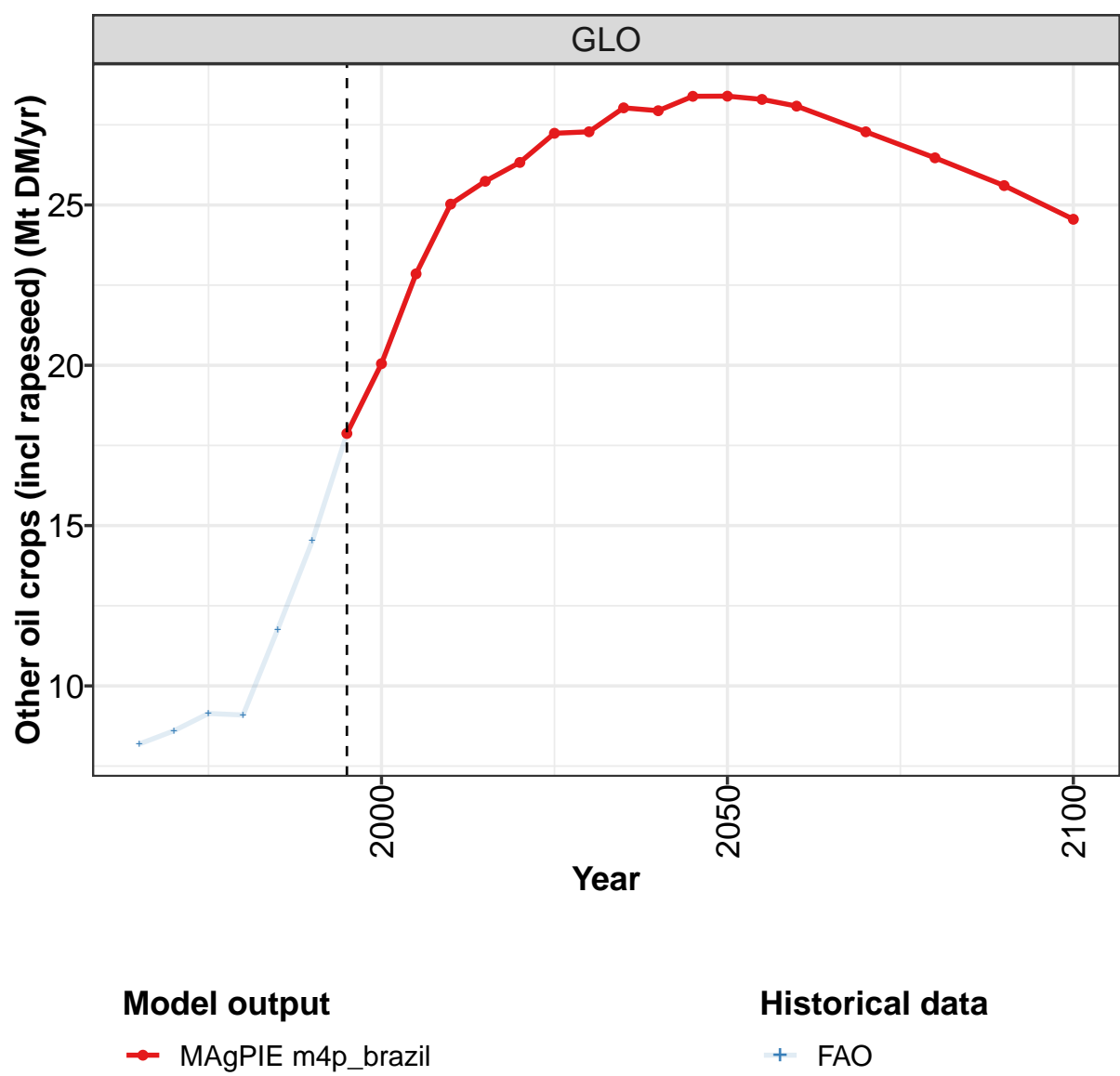
	2050	2055	2060	2070	2080	2090	2100
GLO	16.5	16.5	16.4	16.0	15.6	15.2	14.8
BRA	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	4.3	4.1	3.9	3.5	3.2	2.8	2.5
EUR	0.8	0.8	0.8	0.8	0.8	0.8	0.8
LAM	0.4	0.4	0.4	0.4	0.4	0.4	0.3
ROW	9.1	9.2	9.3	9.3	9.3	9.2	9.1
USA	1.8	1.8	1.8	1.9	1.9	2.0	2.0

Table 375: MAgPIE m4p_brazil — 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
BRA	0.3	0.3	0.2	0.0	0.0	0.1	0.1	0.1	0.1	0.1
CHA	0.8	0.9	0.9	1.5	2.8	2.3	3.3	4.7	4.2	5.9
EUR	0.4	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.7
LAM	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3
ROW	2.0	2.3	2.5	2.7	3.0	3.1	3.6	4.5	5.6	6.6
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)



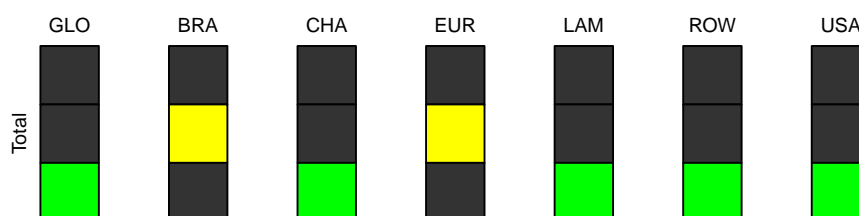
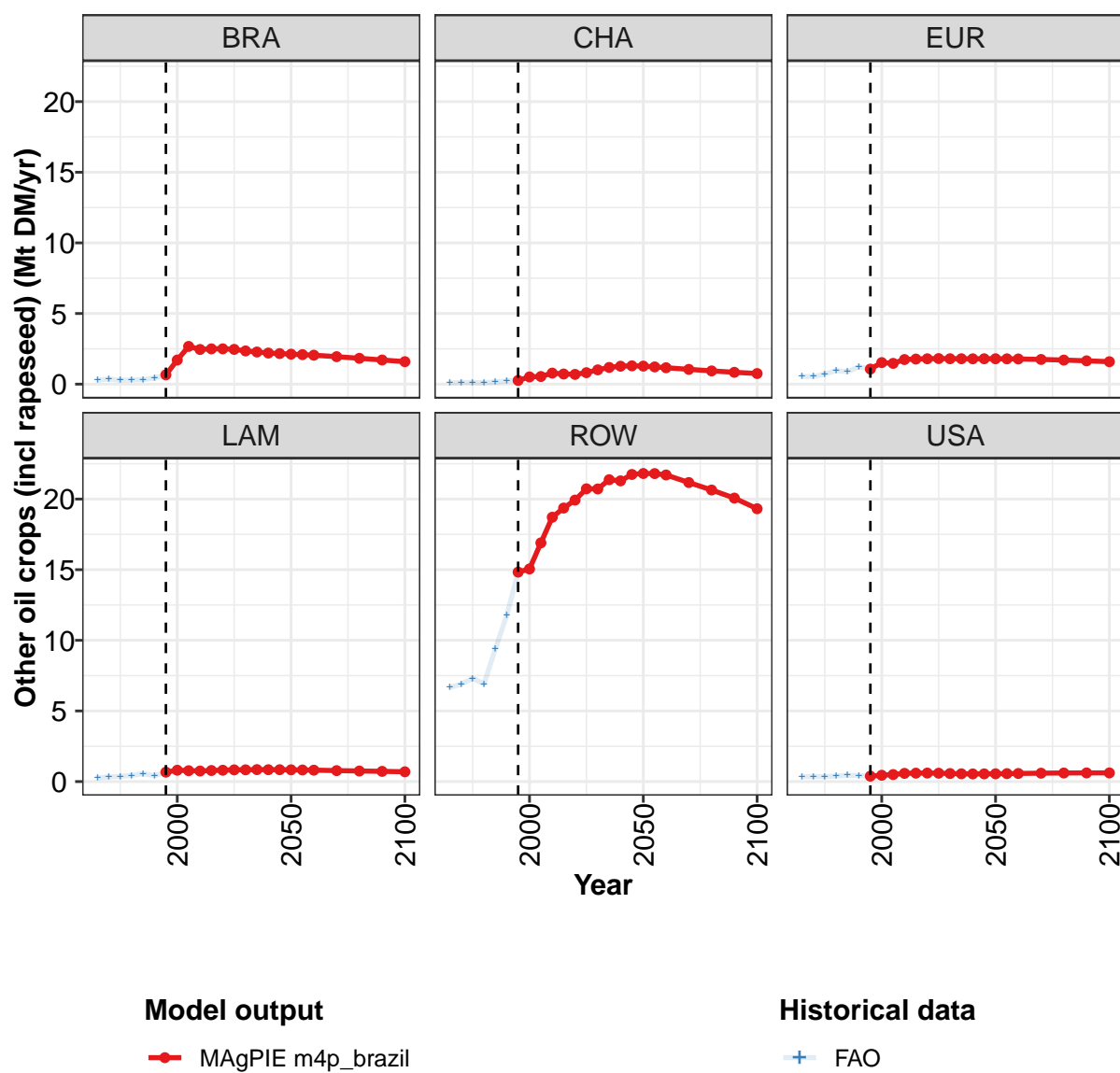


Figure 126: MAgPIE m4p_brazil — Demand—Food—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17.9	20.1	22.9	25.0	25.7	26.3	27.2	27.3	28.0	27.9	28.4
BRA	0.7	1.7	2.7	2.5	2.5	2.5	2.5	2.4	2.3	2.2	2.2
CHA	0.3	0.5	0.5	0.8	0.7	0.7	0.8	1.0	1.2	1.3	1.3
EUR	1.1	1.5	1.5	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
LAM	0.7	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
ROW	14.8	15.1	16.9	18.7	19.4	19.9	20.7	20.7	21.4	21.3	21.7
USA	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5

Table 377: MAgPIE m4p.brazil — Demand—Food—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

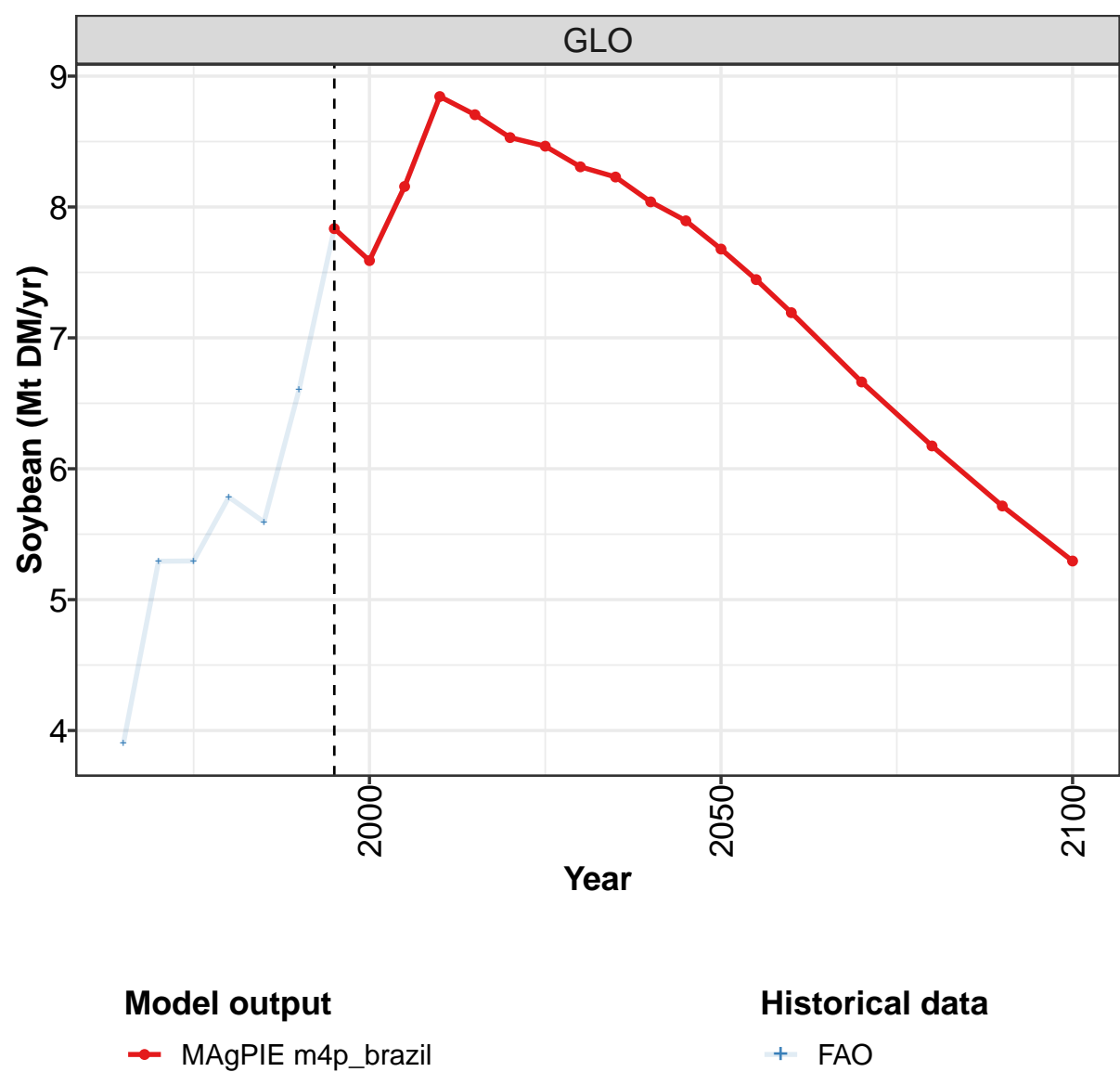
	2050	2055	2060	2070	2080	2090	2100
GLO	28.4	28.3	28.1	27.3	26.5	25.6	24.6
BRA	2.1	2.1	2.0	1.9	1.8	1.7	1.6
CHA	1.3	1.2	1.2	1.0	0.9	0.8	0.8
EUR	1.8	1.8	1.8	1.7	1.7	1.7	1.6
LAM	0.8	0.8	0.8	0.8	0.7	0.7	0.7
ROW	21.8	21.8	21.7	21.2	20.6	20.1	19.3
USA	0.6	0.6	0.6	0.6	0.6	0.6	0.6

Table 378: MAgPIE m4p.brazil — 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
BRA	0.3	0.4	0.3	0.3	0.3	0.4	0.7	1.7	2.7	2.5
CHA	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.5	0.8
EUR	0.5	0.5	0.7	1.0	0.9	1.2	1.1	1.5	1.5	1.7
LAM	0.3	0.3	0.4	0.4	0.6	0.4	0.7	0.8	0.8	0.7
ROW	6.7	6.9	7.3	6.9	9.4	11.8	14.8	15.0	16.9	18.7
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



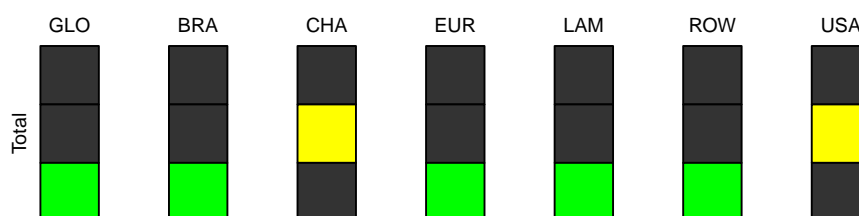
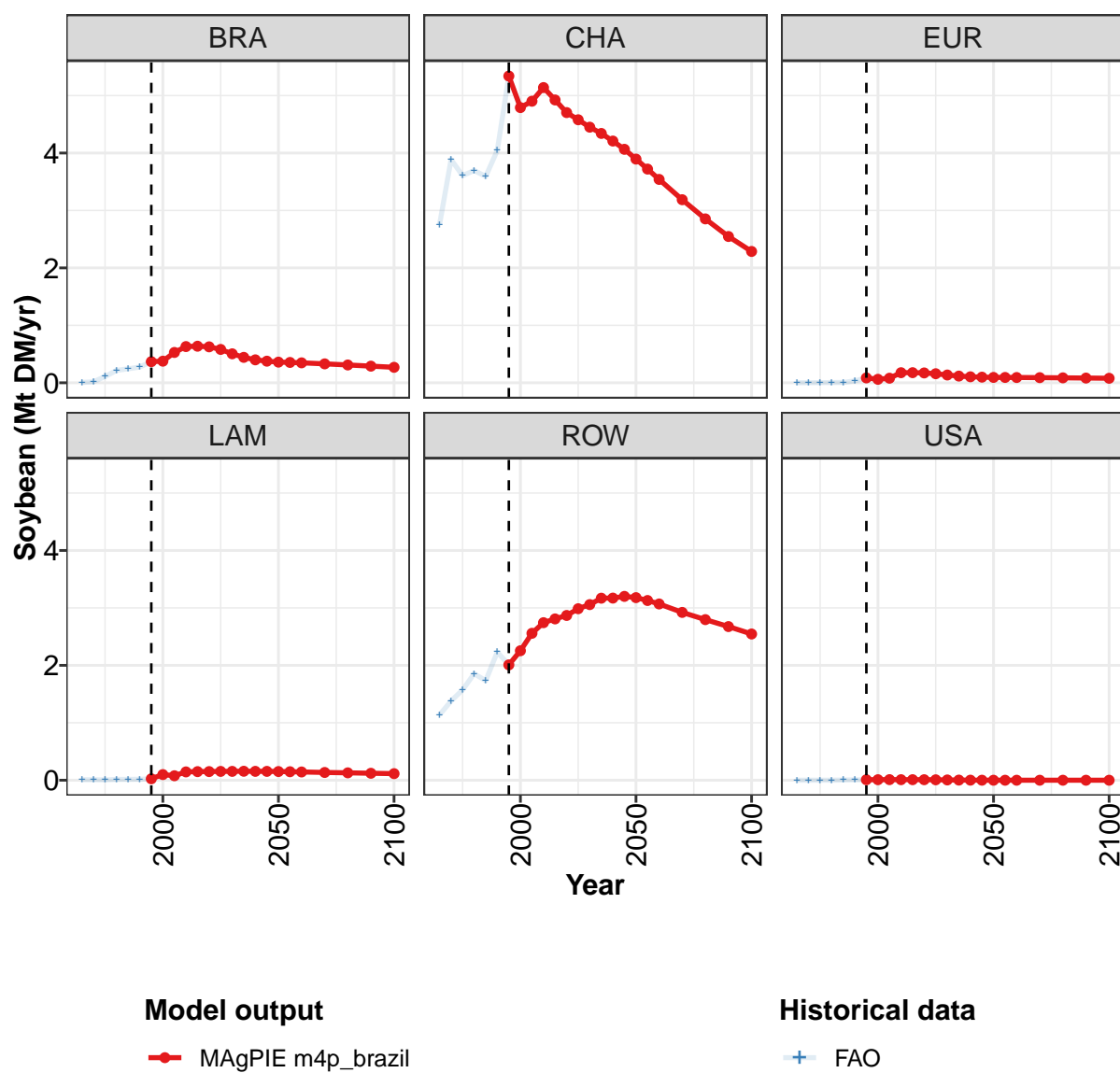


Figure 127: MAGPIE m4p_brazil — Demand—Food—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.83	7.59	8.16	8.84	8.71	8.53	8.46	8.31	8.23	8.04	7.89
BRA	0.37	0.38	0.53	0.63	0.64	0.63	0.58	0.50	0.44	0.40	0.38
CHA	5.34	4.79	4.90	5.14	4.92	4.70	4.58	4.45	4.34	4.21	4.06
EUR	0.09	0.06	0.08	0.18	0.18	0.17	0.16	0.14	0.12	0.10	0.10
LAM	0.02	0.10	0.08	0.15	0.15	0.15	0.15	0.15	0.16	0.15	0.15
ROW	2.01	2.25	2.56	2.74	2.81	2.87	2.99	3.06	3.17	3.17	3.20
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_brazil — Demand—Food—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

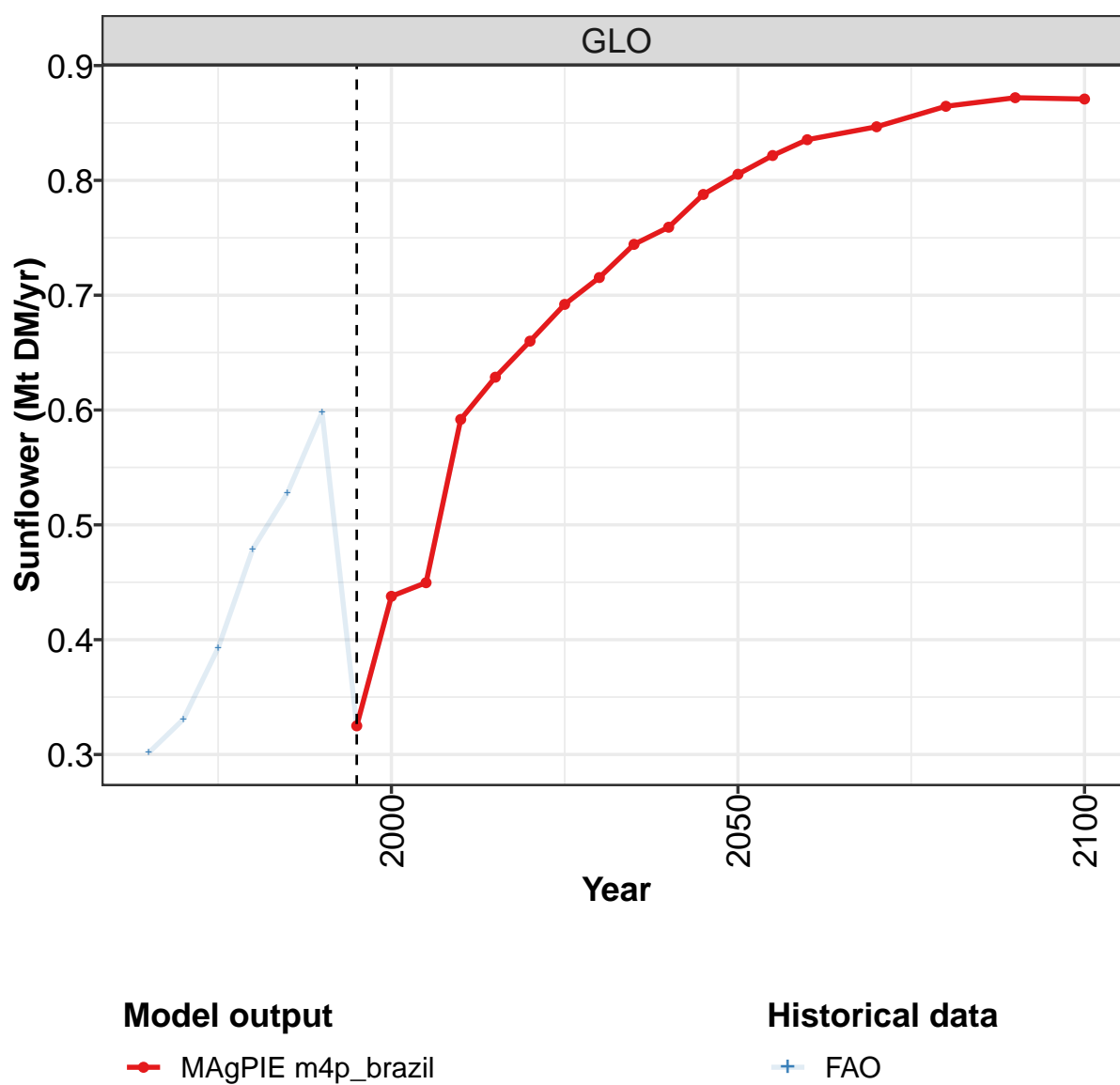
	2050	2055	2060	2070	2080	2090	2100
GLO	7.68	7.45	7.19	6.66	6.17	5.72	5.29
BRA	0.36	0.35	0.35	0.33	0.31	0.29	0.27
CHA	3.89	3.72	3.54	3.19	2.85	2.55	2.29
EUR	0.09	0.09	0.09	0.09	0.09	0.08	0.08
LAM	0.15	0.15	0.14	0.14	0.13	0.12	0.11
ROW	3.18	3.13	3.07	2.92	2.80	2.67	2.55
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

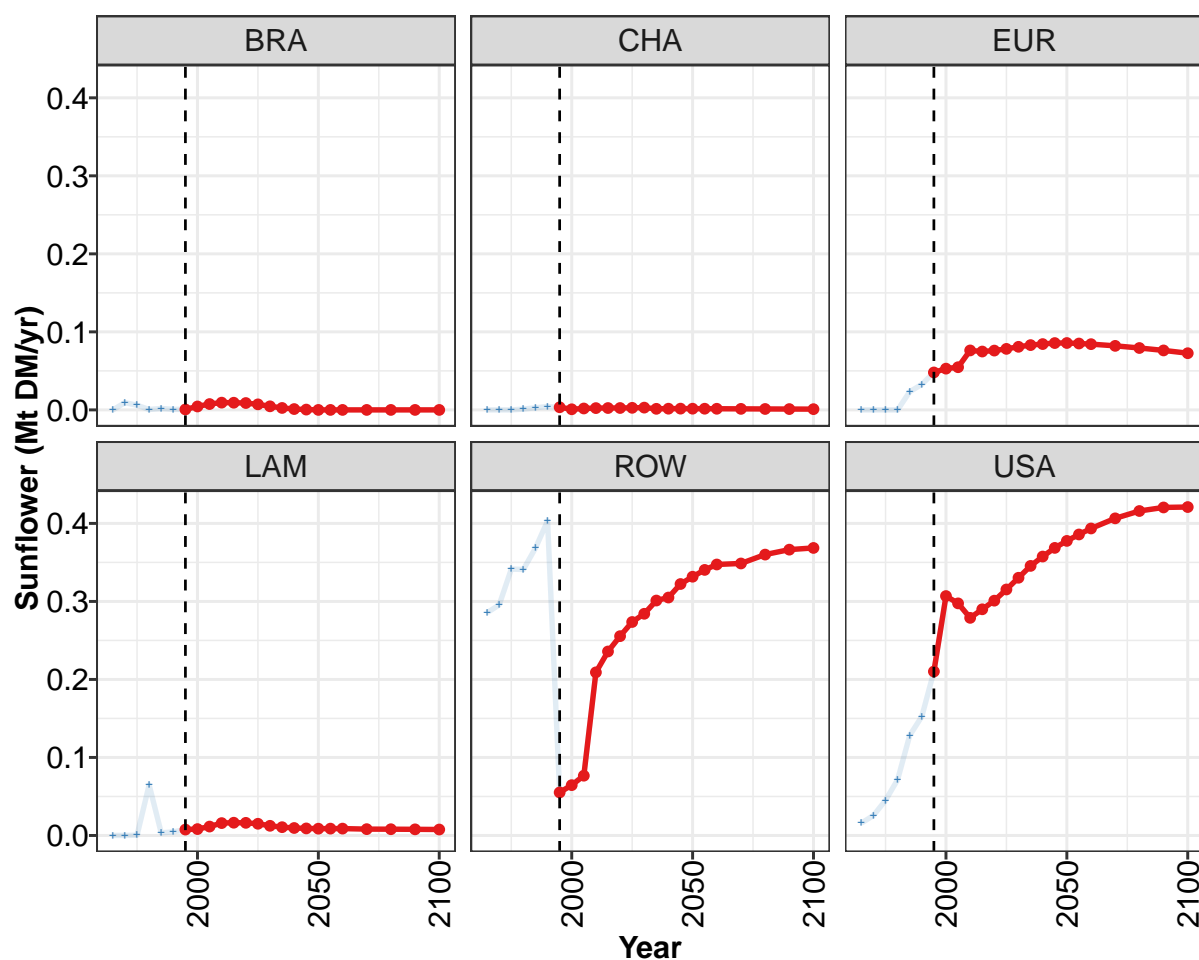
Table 381: MAgPIE m4p_brazil — Demand—Food—Crops—Oil crops—Soybean (Mt DM/yr) [PART 2/2]

	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
BRA	0.01	0.02	0.11	0.22	0.24	0.27	0.37	0.38	0.53	0.63
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	0.01	0.03	0.09	0.06	0.08	0.18
LAM	0.01	0.01	0.00	0.01	0.01	0.02	0.02	0.10	0.08	0.15
ROW	1.14	1.38	1.57	1.85	1.73	2.23	2.01	2.26	2.56	2.74
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





Model output

—•— MAGPIE m4p_brazil

Historical data

+— FAO

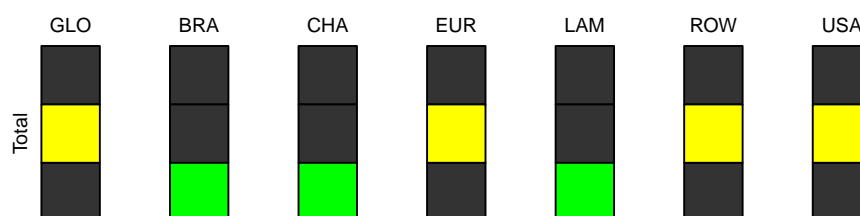


Figure 128: MAGPIE m4p_brazil — Demand—Food—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.325	0.438	0.450	0.592	0.629	0.660	0.692	0.715	0.744	0.759	0.788
BRA	0.001	0.004	0.007	0.009	0.009	0.009	0.007	0.005	0.003	0.001	0.000
CHA	0.003	0.001	0.002	0.002	0.002	0.002	0.003	0.003	0.001	0.002	0.002
EUR	0.048	0.053	0.055	0.076	0.075	0.076	0.078	0.081	0.083	0.084	0.086
LAM	0.008	0.008	0.011	0.016	0.016	0.016	0.015	0.012	0.011	0.010	0.009
ROW	0.055	0.065	0.077	0.209	0.236	0.256	0.274	0.284	0.301	0.305	0.322
USA	0.210	0.307	0.298	0.279	0.290	0.301	0.315	0.330	0.346	0.358	0.369

Table 383: MAgPIE m4p_brazil — Demand—Food—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

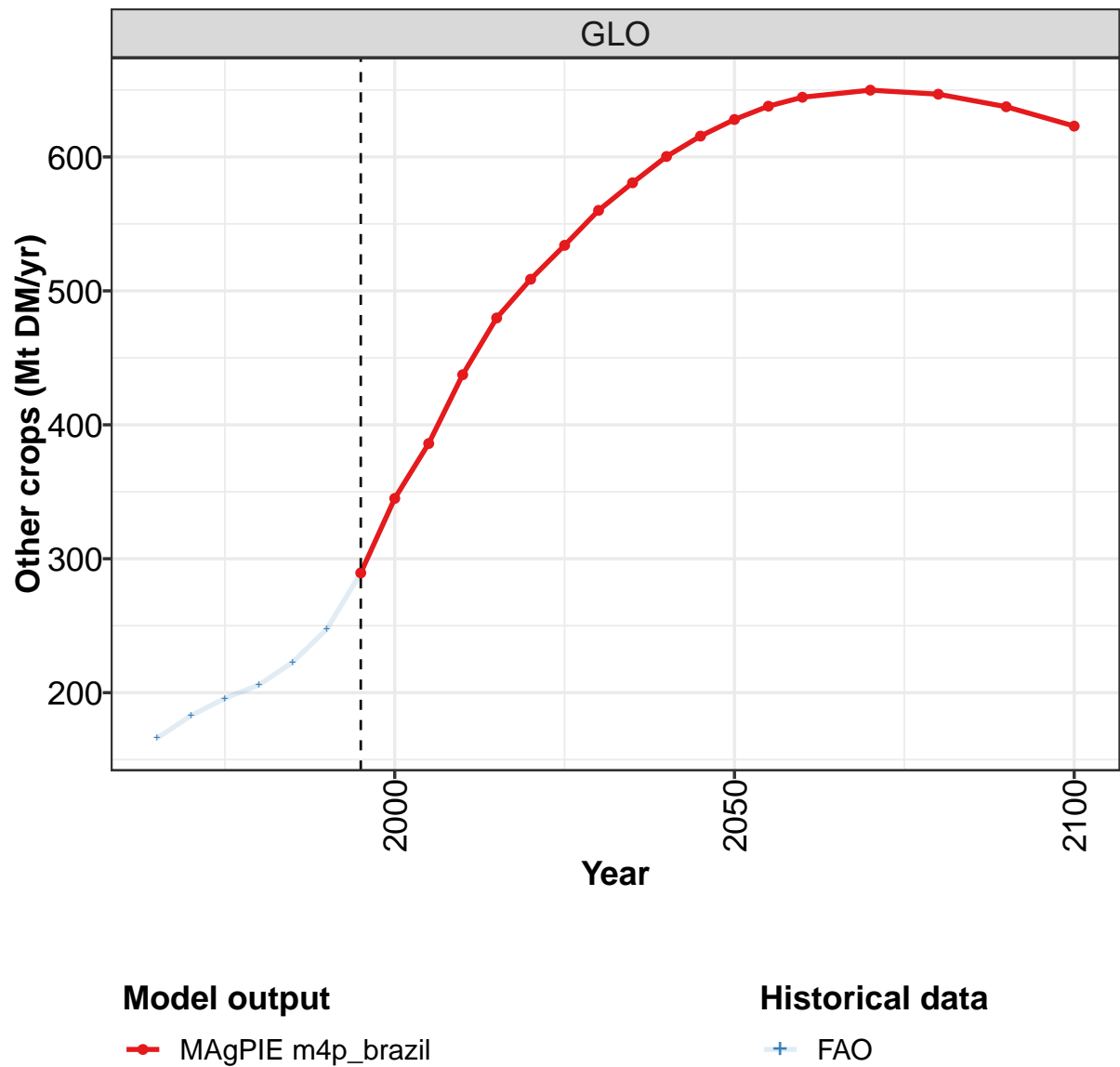
	2050	2055	2060	2070	2080	2090	2100
GLO	0.805	0.822	0.835	0.847	0.865	0.872	0.871
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.002	0.002	0.001	0.001	0.001	0.001	0.001
EUR	0.086	0.085	0.084	0.082	0.079	0.076	0.073
LAM	0.009	0.009	0.009	0.008	0.008	0.008	0.008
ROW	0.332	0.340	0.347	0.349	0.360	0.366	0.369
USA	0.378	0.386	0.394	0.407	0.416	0.420	0.421

Table 384: MAgPIE m4p_brazil — 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
BRA	0.000	0.009	0.006	0.001	0.002	0.001	0.001	0.004	0.007	0.009
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
LAM	0.000	0.000	0.000	0.065	0.003	0.005	0.008	0.008	0.011	0.016
ROW	0.286	0.296	0.341	0.341	0.368	0.403	0.055	0.065	0.078	0.210
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



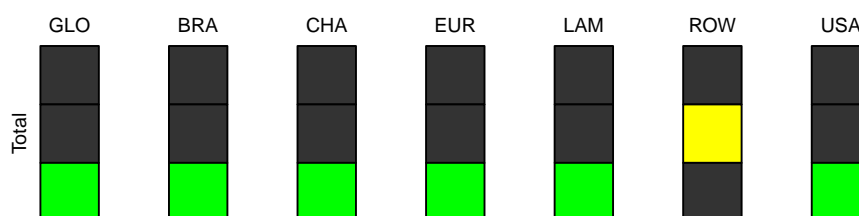
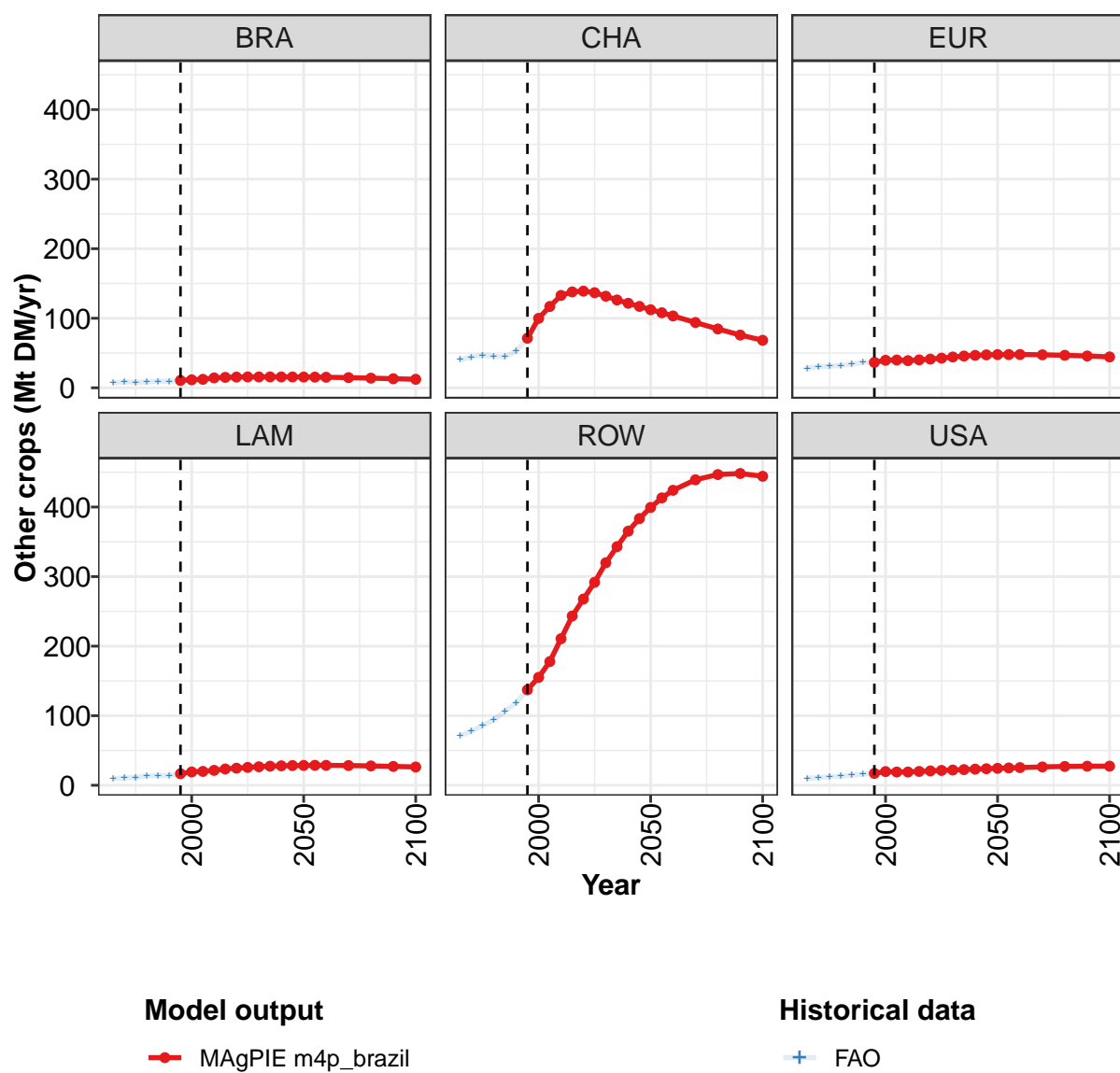


Figure 129: MAgPIE m4p_brazil — Demand—Food—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	289	345	386	437	480	509	534	560	581	600	616
BRA	11	12	12	14	15	15	16	16	16	16	16
CHA	71	100	117	133	138	139	137	132	126	122	117
EUR	37	40	40	39	40	41	43	44	46	47	47
LAM	17	19	20	21	23	25	26	27	27	28	28
ROW	137	155	178	211	243	268	292	320	343	365	383
USA	17	20	19	19	20	21	21	22	23	23	24

Table 386: MAgPIE m4p_brazil — Demand—Food—Crops—Other crops (Mt DM/yr) [PART 1/2]

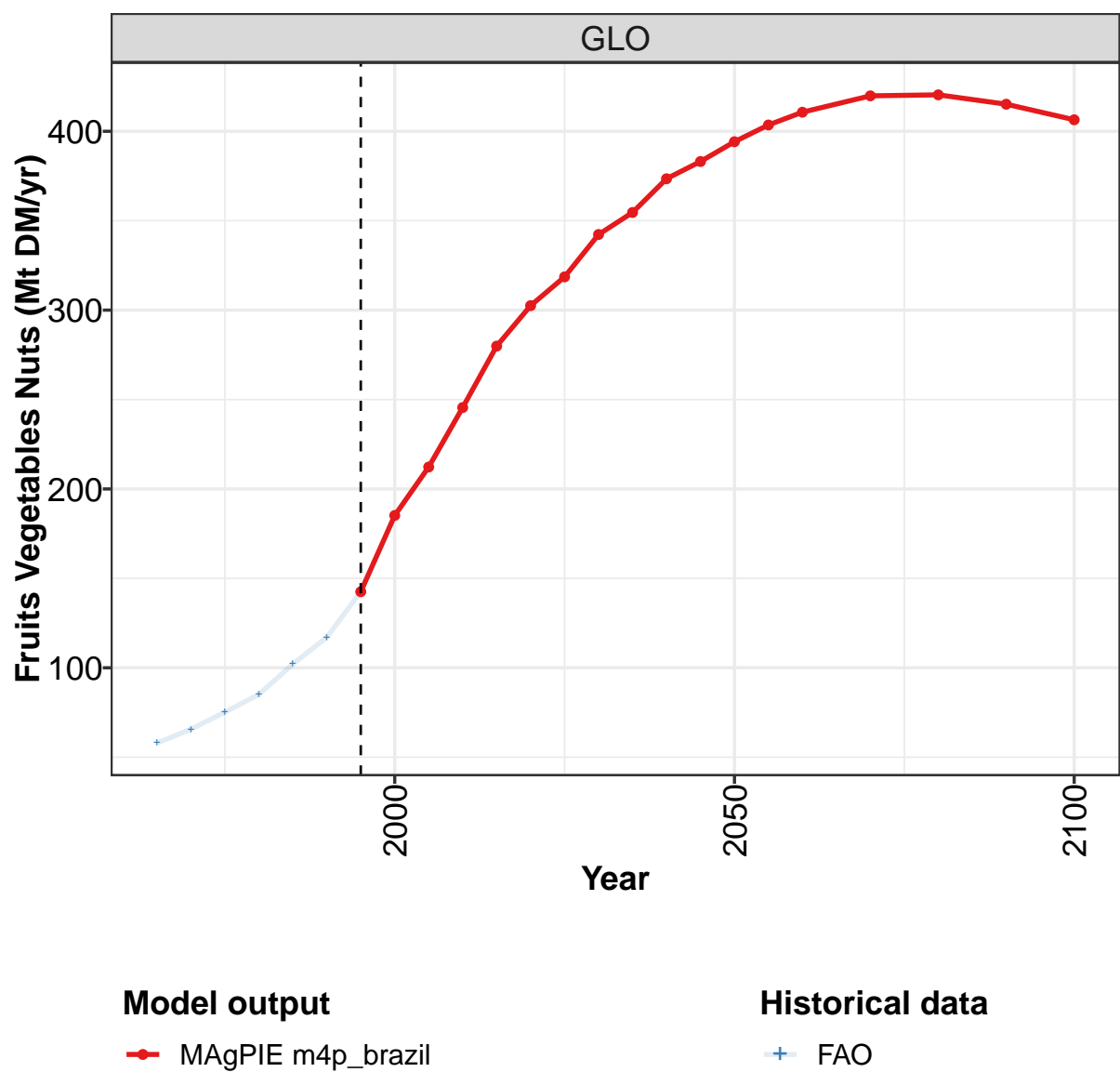
	2050	2055	2060	2070	2080	2090	2100
GLO	628	638	645	650	647	637	623
BRA	16	15	15	15	14	13	12
CHA	112	108	103	94	85	76	68
EUR	48	48	48	47	47	46	44
LAM	29	29	29	28	28	27	26
ROW	399	413	424	439	447	448	444
USA	24	25	25	26	27	27	27

Table 387: MAgPIE m4p_brazil — 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
BRA	7	8	8	8	9	9	11	12	12	14
CHA	40	44	47	45	45	53	71	100	117	133
EUR	28	31	31	32	34	37	37	40	40	39
LAM	9	11	11	13	14	14	17	19	20	21
ROW	71	78	86	94	107	119	137	155	178	211
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



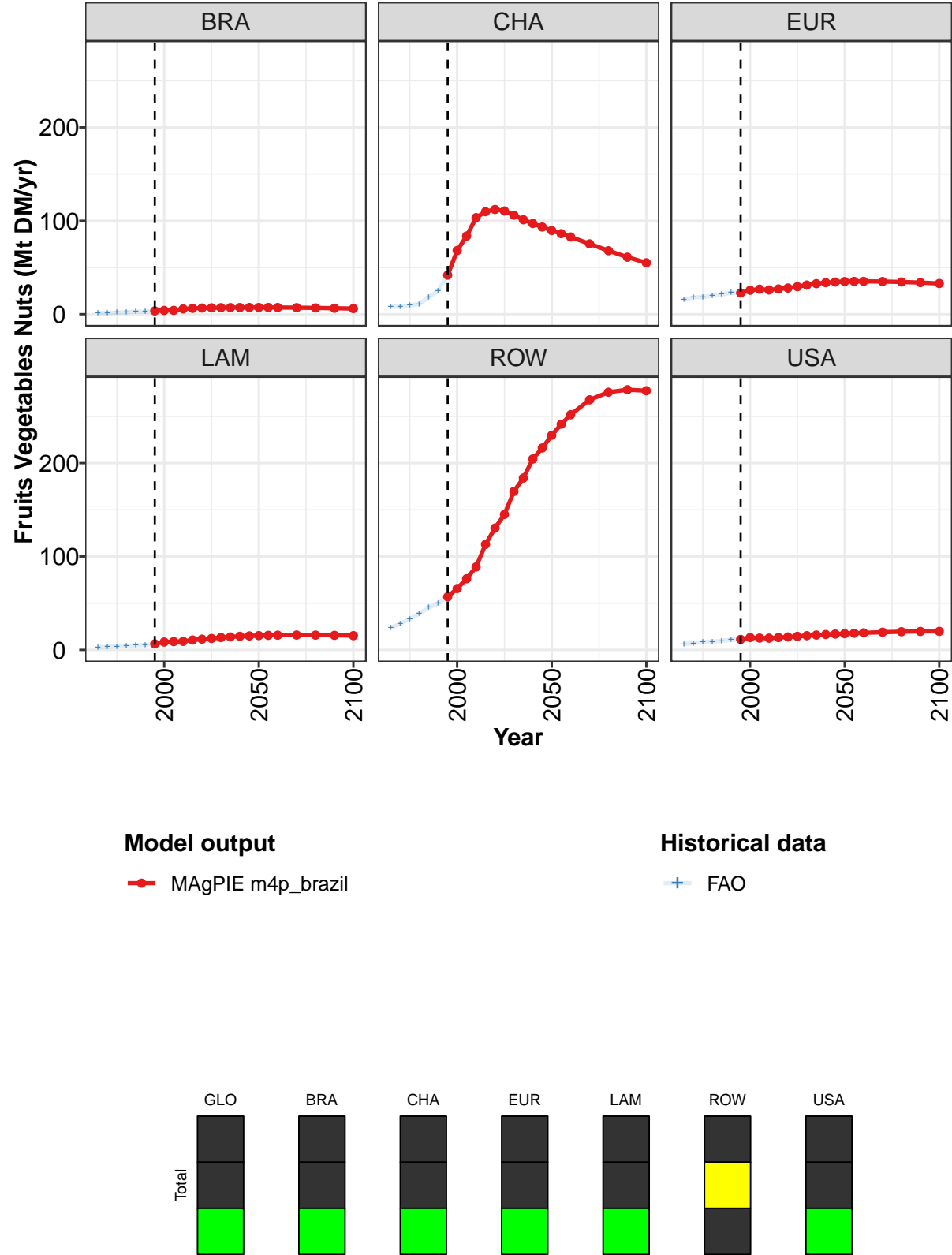


Figure 130: MAgPIE m4p_brazil — Demand—Food—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	143	185	212	246	280	303	319	342	355	373	383
BRA	4	4	4	6	6	7	7	7	7	7	7
CHA	42	68	84	103	110	112	111	106	101	97	93
EUR	23	26	27	26	27	28	29	31	33	34	34
LAM	6	8	9	9	11	12	12	13	14	15	15
ROW	57	66	76	89	113	130	145	170	184	204	216
USA	11	13	13	13	13	14	15	15	16	16	17

Table 389: MAgPIE m4p_brazil — Demand—Food—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)
[PART 1/2]

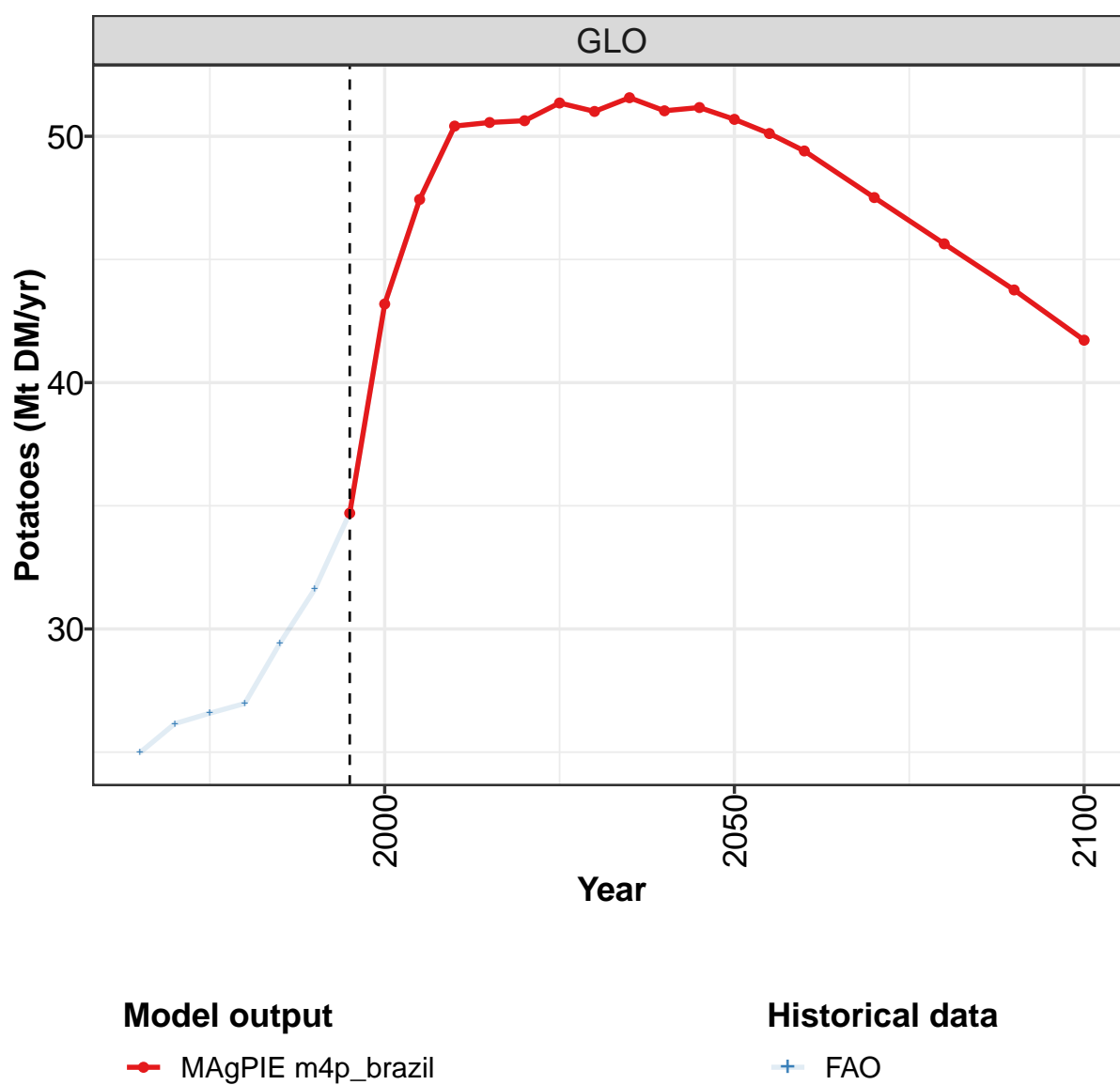
	2050	2055	2060	2070	2080	2090	2100
GLO	394	404	411	420	420	415	406
BRA	7	7	7	7	7	6	6
CHA	90	86	83	75	68	61	55
EUR	35	35	35	35	35	34	33
LAM	15	16	16	16	16	16	15
ROW	230	242	252	268	276	279	277
USA	17	18	18	19	19	20	20

Table 390: MAgPIE m4p_brazil — 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
BRA	1	1	2	2	3	3	4	4	4	6
CHA	8	8	9	11	18	25	42	68	84	103
EUR	15	18	18	20	21	23	23	26	27	26
LAM	3	3	4	5	5	5	6	8	9	9
ROW	24	28	33	39	45	50	57	66	76	89
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



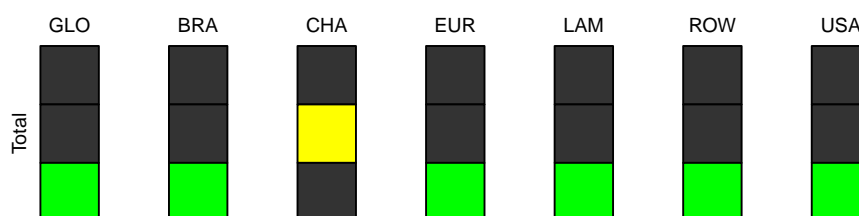
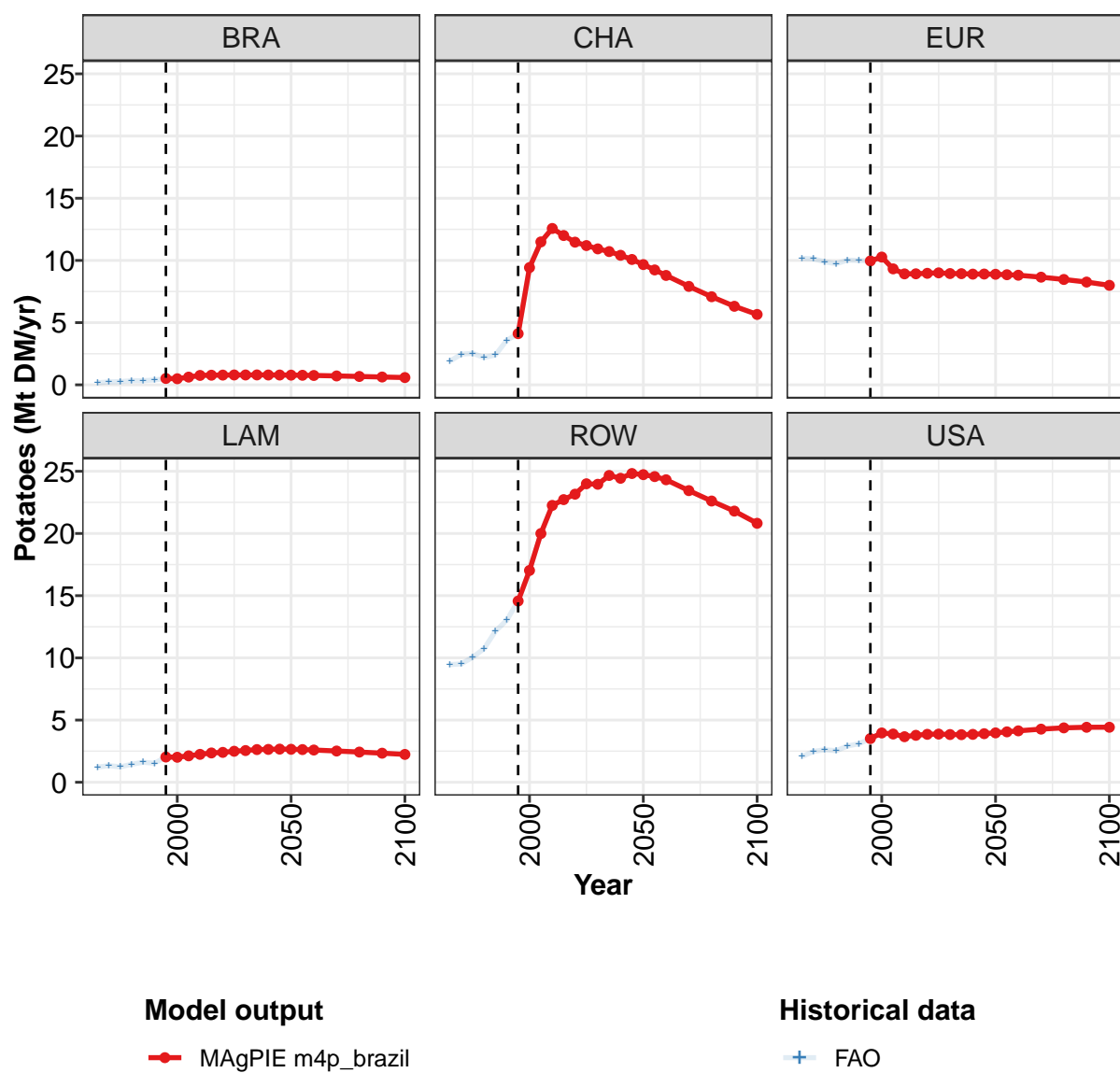


Figure 131: MAgPIE m4p_brazil — Demand—Food—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34.7	43.2	47.4	50.4	50.6	50.6	51.4	51.0	51.6	51.0	51.2
BRA	0.5	0.5	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
CHA	4.1	9.4	11.5	12.6	12.0	11.5	11.2	10.9	10.7	10.4	10.1
EUR	10.0	10.3	9.3	8.9	8.9	9.0	9.0	8.9	8.9	8.9	8.9
LAM	2.0	2.0	2.1	2.2	2.4	2.4	2.5	2.5	2.6	2.6	2.7
ROW	14.6	17.0	20.0	22.3	22.7	23.2	24.0	24.0	24.7	24.4	24.8
USA	3.5	4.0	3.9	3.7	3.8	3.9	3.9	3.8	3.8	3.9	3.9

Table 392: MAgPIE m4p_brazil — Demand—Food—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

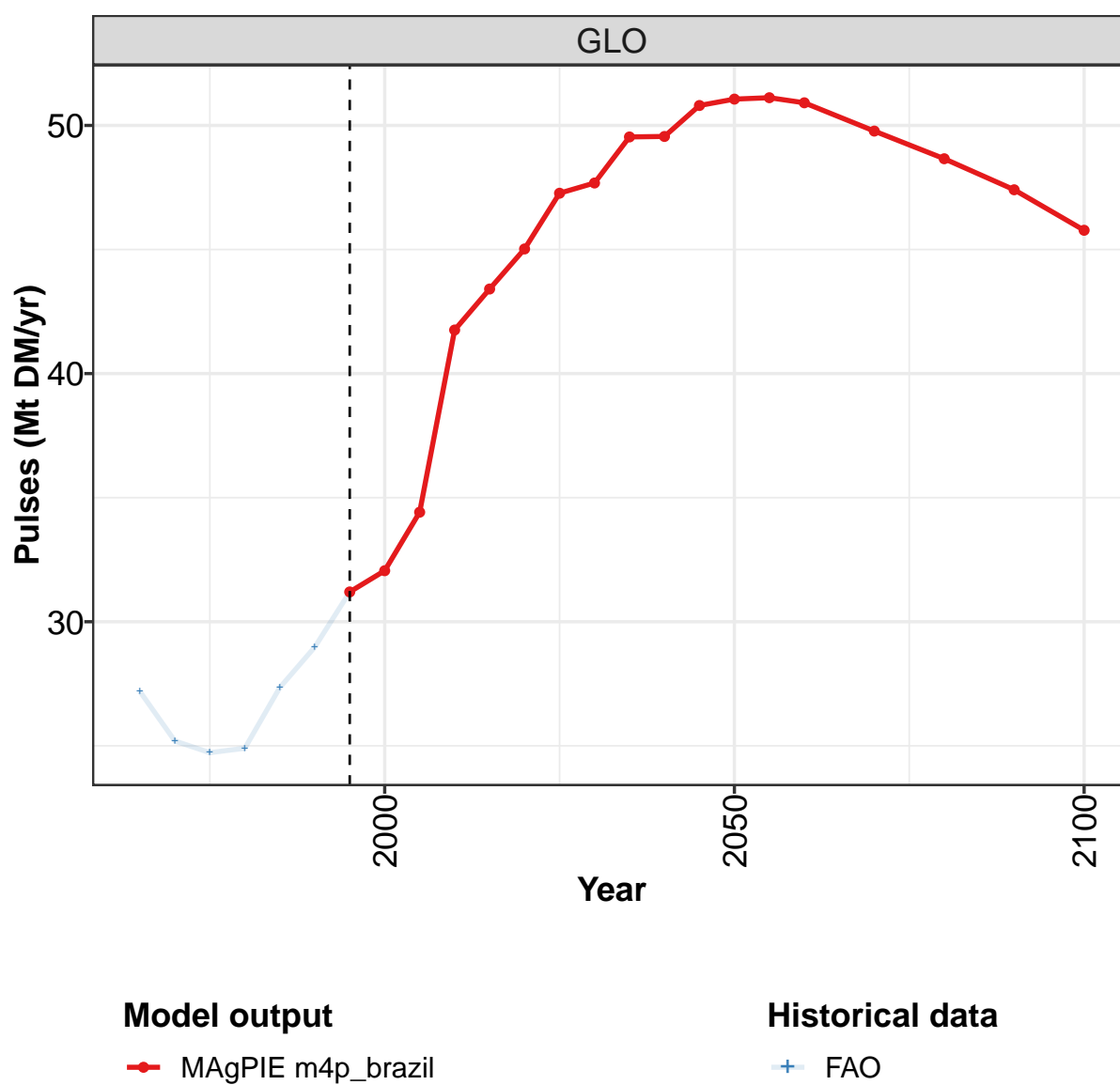
	2050	2055	2060	2070	2080	2090	2100
GLO	50.7	50.1	49.4	47.5	45.6	43.8	41.7
BRA	0.8	0.8	0.8	0.7	0.7	0.6	0.6
CHA	9.7	9.2	8.8	7.9	7.1	6.3	5.7
EUR	8.9	8.9	8.8	8.7	8.5	8.3	8.0
LAM	2.7	2.6	2.6	2.5	2.4	2.3	2.2
ROW	24.7	24.6	24.3	23.4	22.6	21.8	20.8
USA	4.0	4.1	4.1	4.3	4.4	4.4	4.4

Table 393: MAgPIE m4p_brazil — 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
BRA	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.8
CHA	1.9	2.5	2.5	2.2	2.4	3.6	4.1	9.4	11.5	12.6
EUR	10.2	10.1	9.9	9.7	10.0	10.0	10.0	10.3	9.3	8.9
LAM	1.2	1.3	1.2	1.4	1.6	1.5	2.0	2.0	2.1	2.2
ROW	9.5	9.5	10.0	10.7	12.1	13.0	14.6	17.0	20.0	22.3
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



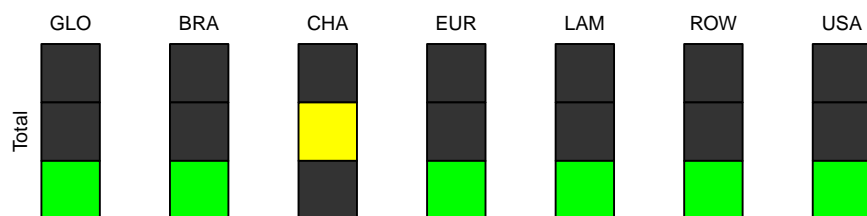
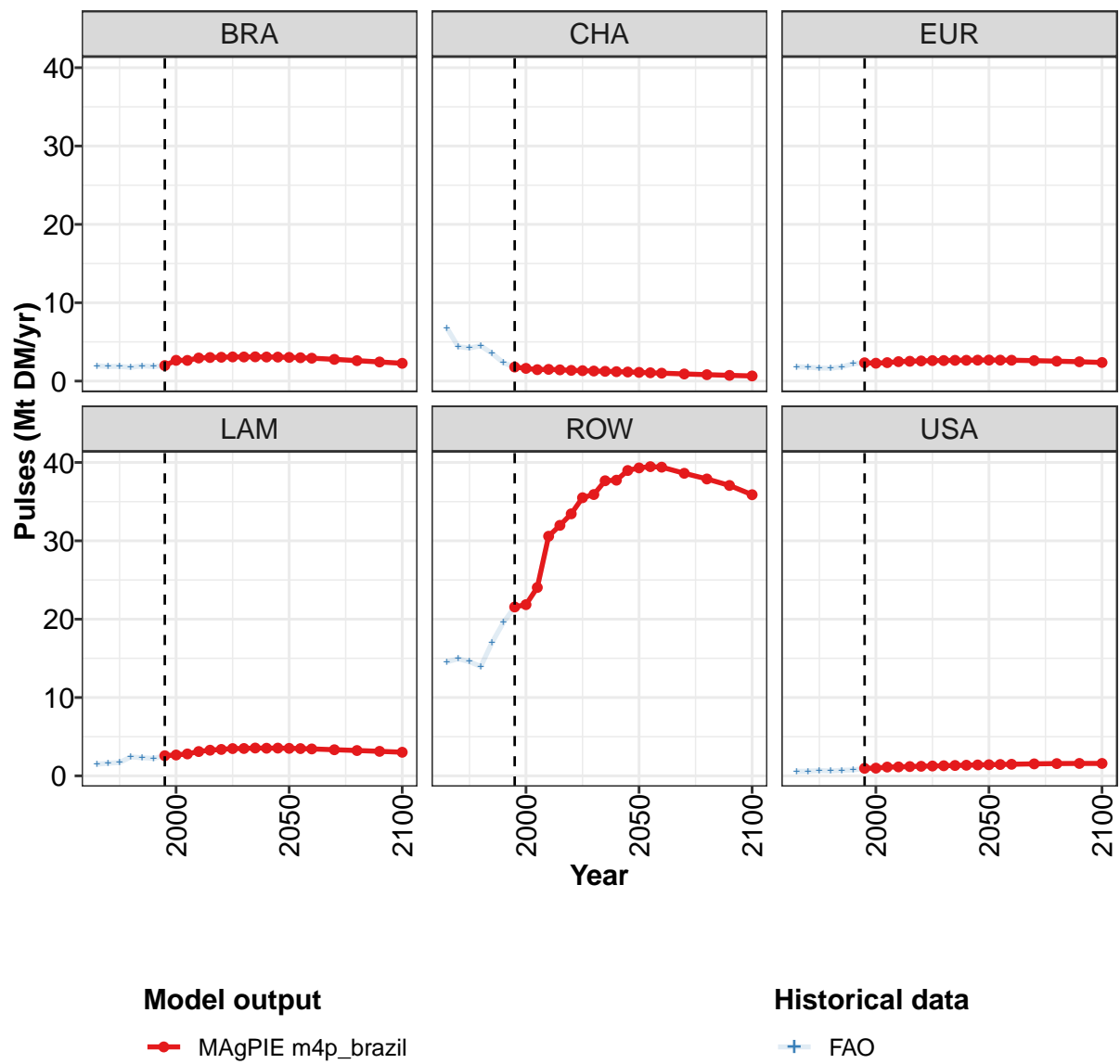


Figure 132: MAgPIE m4p_brazil — Demand—Food—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	31.2	32.1	34.4	41.8	43.4	45.0	47.3	47.7	49.5	49.6	50.8
BRA	2.0	2.6	2.6	2.9	3.0	3.0	3.1	3.1	3.1	3.1	3.1
CHA	1.8	1.6	1.5	1.5	1.4	1.4	1.3	1.3	1.2	1.2	1.2
EUR	2.3	2.3	2.4	2.5	2.5	2.6	2.6	2.6	2.6	2.7	2.7
LAM	2.6	2.7	2.8	3.1	3.3	3.4	3.5	3.5	3.6	3.5	3.5
ROW	21.6	21.9	24.0	30.6	32.0	33.4	35.5	35.9	37.7	37.7	39.0
USA	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.4	1.4

Table 395: MAgPIE m4p_brazil — Demand—Food—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

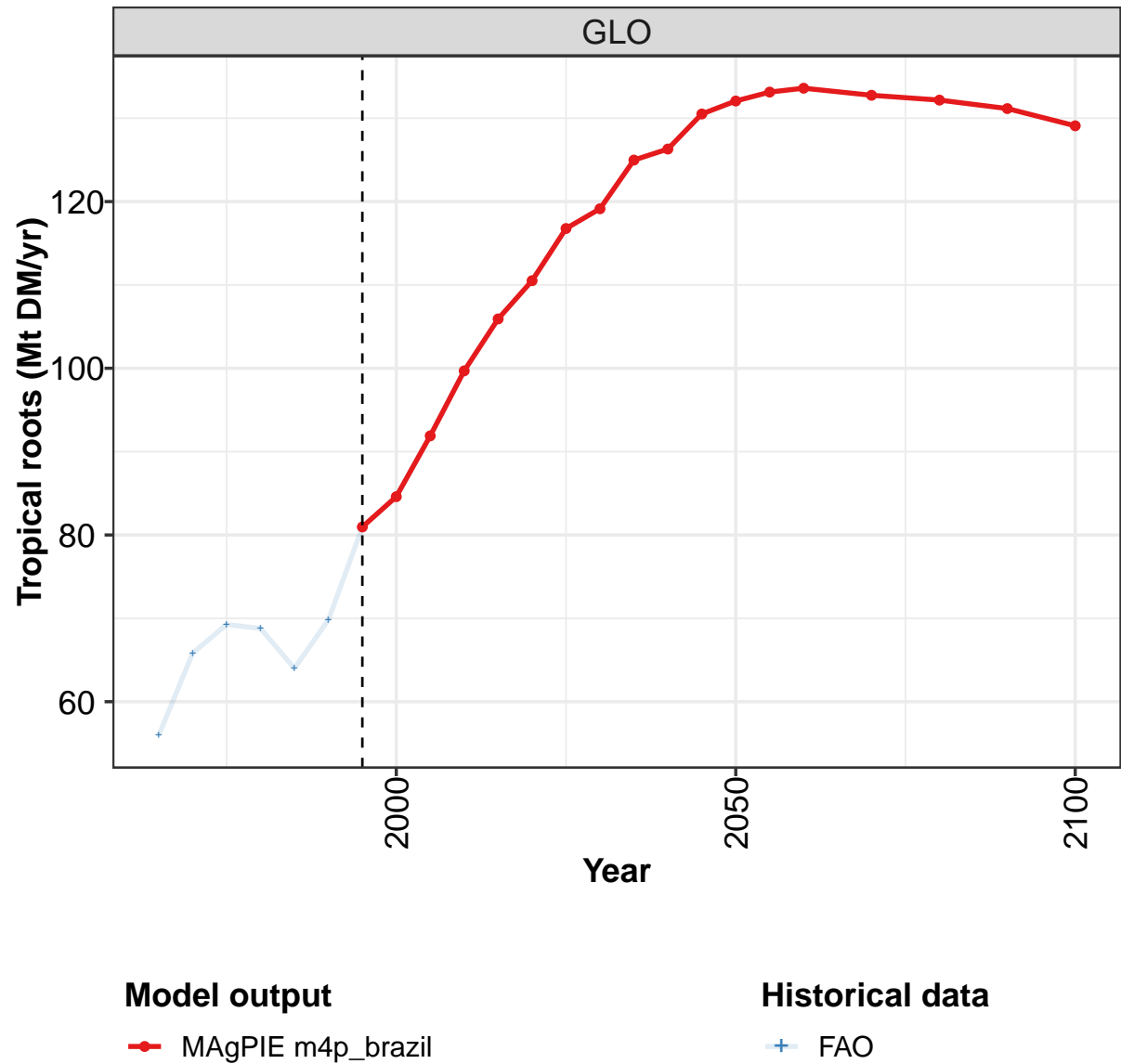
	2050	2055	2060	2070	2080	2090	2100
GLO	51.1	51.1	50.9	49.8	48.7	47.4	45.8
BRA	3.0	3.0	2.9	2.8	2.6	2.4	2.3
CHA	1.1	1.1	1.0	0.9	0.8	0.7	0.7
EUR	2.7	2.7	2.7	2.6	2.5	2.5	2.4
LAM	3.5	3.5	3.4	3.3	3.2	3.1	3.0
ROW	39.3	39.5	39.4	38.6	37.9	37.1	35.9
USA	1.4	1.5	1.5	1.5	1.6	1.6	1.6

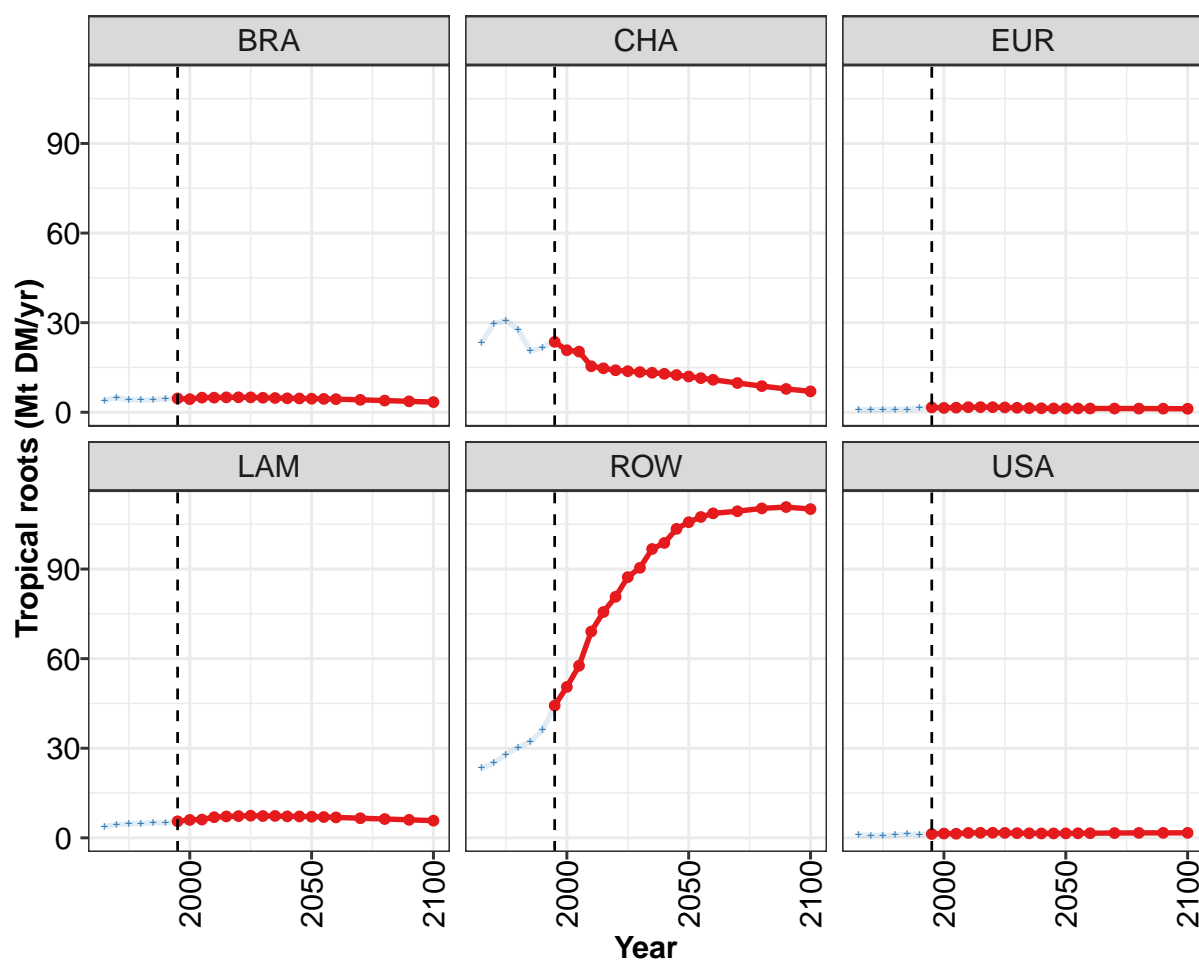
Table 396: MAgPIE m4p_brazil — Demand—Food—Crops—Other crops—Pulses (Mt DM/yr) [PART 2/2]

	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
BRA	1.9	1.9	1.9	1.8	1.9	1.9	2.0	2.6	2.6	2.9
CHA	6.8	4.4	4.2	4.5	3.5	2.3	1.8	1.6	1.5	1.5
EUR	1.8	1.8	1.7	1.6	1.8	2.2	2.3	2.3	2.4	2.5
LAM	1.5	1.6	1.7	2.4	2.3	2.2	2.6	2.7	2.8	3.1
ROW	14.5	14.9	14.6	14.0	17.0	19.6	21.6	21.9	24.0	30.6
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





Model output

—•— MAgPIE m4p_brazil

Historical data

+— FAO

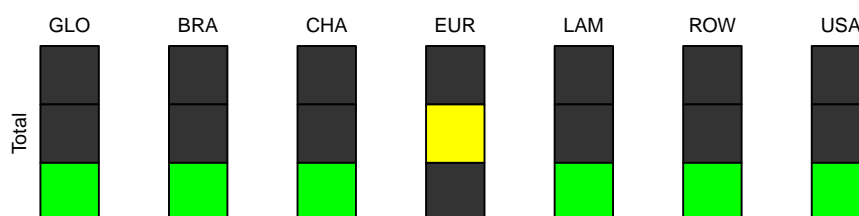


Figure 133: MAgPIE m4p_brazil — Demand—Food—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	81	85	92	100	106	111	117	119	125	126	131
BRA	5	4	5	5	5	5	5	5	5	5	5
CHA	24	21	20	15	15	14	14	13	13	13	12
EUR	2	1	2	2	2	2	2	1	1	1	1
LAM	6	6	6	7	7	7	7	7	7	7	7
ROW	44	51	58	69	76	81	87	90	97	99	103
USA	1	1	1	2	2	2	2	2	2	1	1

Table 398: MAgPIE m4p_brazil — Demand—Food—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 1/2]

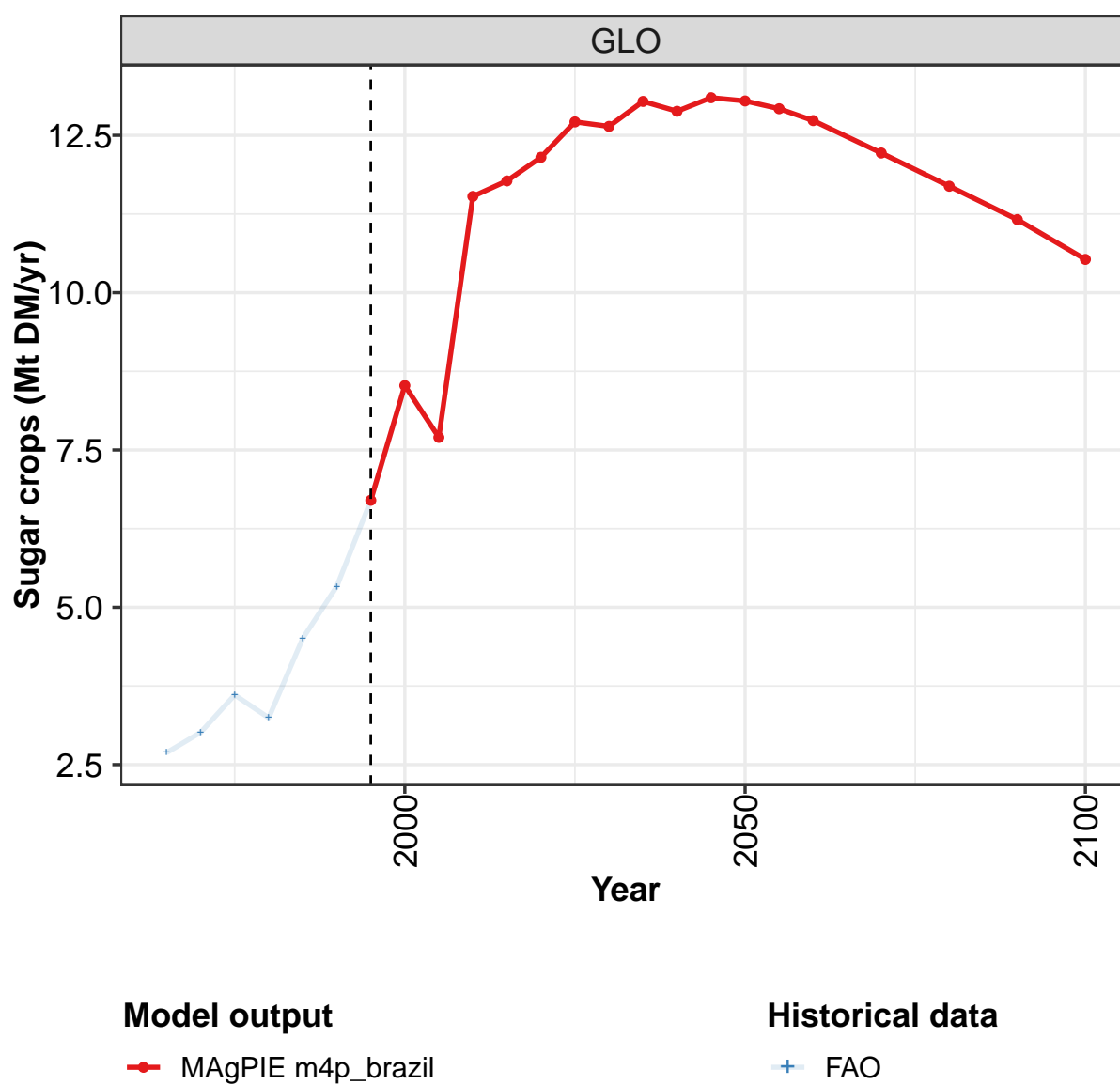
	2050	2055	2060	2070	2080	2090	2100
GLO	132	133	134	133	132	131	129
BRA	5	4	4	4	4	4	3
CHA	12	11	11	10	9	8	7
EUR	1	1	1	1	1	1	1
LAM	7	7	7	7	6	6	6
ROW	106	107	109	109	110	111	110
USA	2	2	2	2	2	2	2

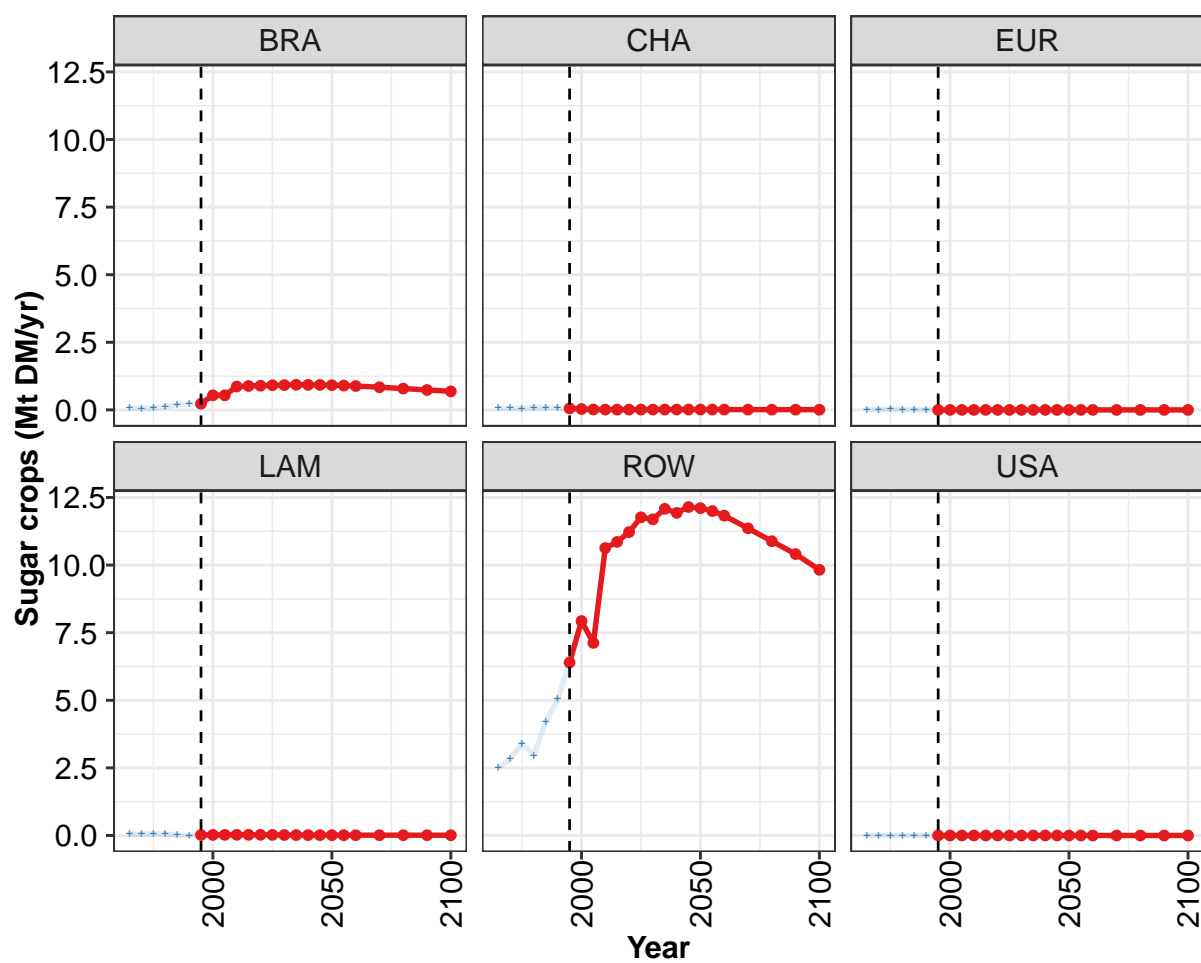
Table 399: MAgPIE m4p_brazil — Demand—Food—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 2/2]

	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
BRA	3.9	4.9	4.1	4.1	4.2	4.5	4.6	4.4	4.9	4.9
CHA	23.2	29.7	30.7	27.7	20.5	21.7	23.6	20.8	20.3	15.4
EUR	0.8	0.9	1.0	1.0	1.0	1.4	1.6	1.5	1.5	1.7
LAM	3.8	4.5	4.7	4.8	5.1	5.0	5.5	6.0	6.1	6.9
ROW	23.3	25.1	28.0	30.3	32.1	36.1	44.3	50.5	57.6	69.1
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





Model output

—•— MAGPIE m4p_brazil

Historical data

+— FAO

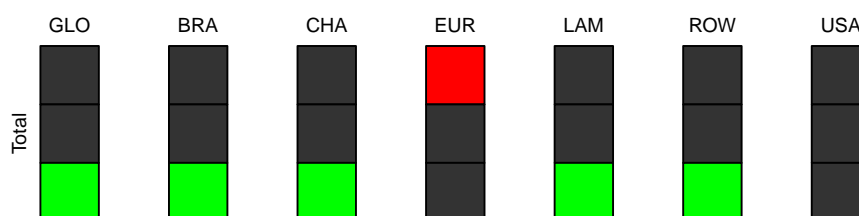


Figure 134: MAGPIE m4p_brazil — Demand—Food—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.7	8.5	7.7	11.5	11.8	12.2	12.7	12.6	13.0	12.9	13.1
BRA	0.2	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROW	6.4	7.9	7.1	10.6	10.9	11.2	11.8	11.7	12.1	11.9	12.1
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 401: MAgPIE m4p_brazil — Demand—Food—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

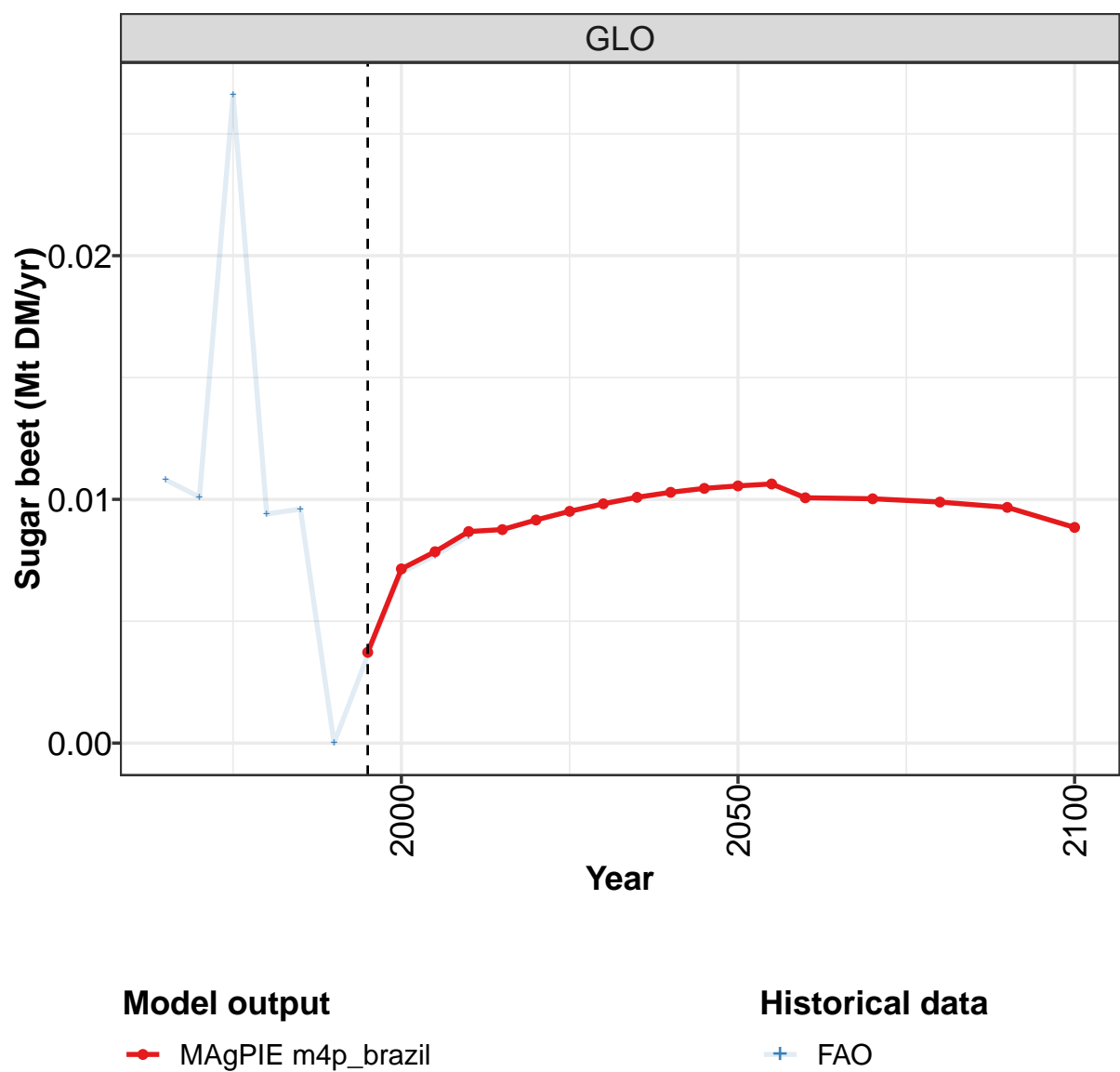
	2050	2055	2060	2070	2080	2090	2100
GLO	13.0	12.9	12.7	12.2	11.7	11.2	10.5
BRA	0.9	0.9	0.9	0.8	0.8	0.7	0.7
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROW	12.1	12.0	11.8	11.4	10.9	10.4	9.8
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 402: MAgPIE m4p_brazil — 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
BRA	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.5	0.5	0.9
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
LAM	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
ROW	2.5	2.8	3.4	3.0	4.2	5.0	6.4	7.9	7.1	10.6
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



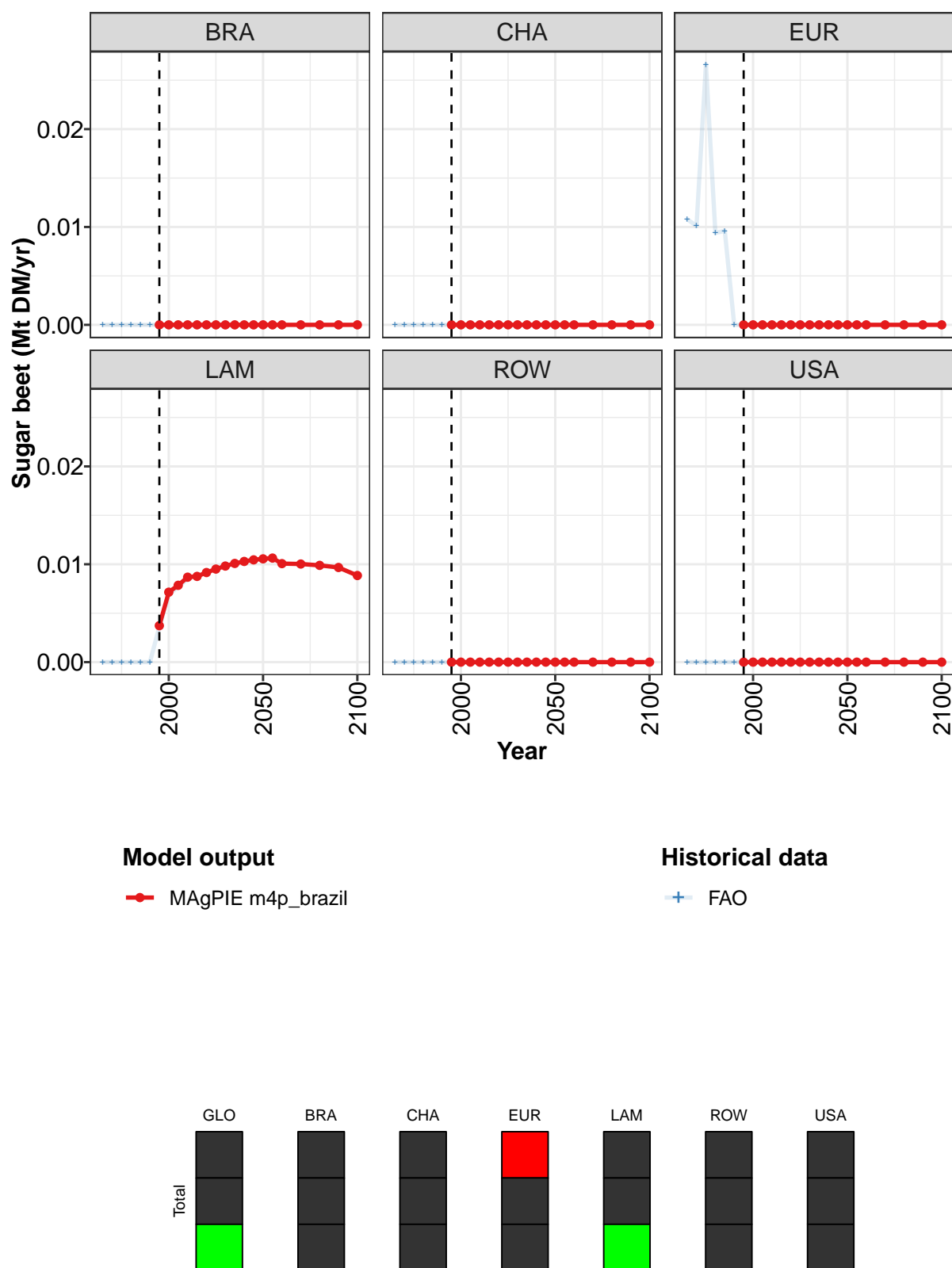


Figure 135: MAgPIE m4p_brazil — Demand—Food—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0037	0.0071	0.0079	0.0087	0.0088	0.0092	0.0095	0.0098	0.0101	0.0103	0.0105
BRA	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
LAM	0.0037	0.0071	0.0079	0.0087	0.0088	0.0092	0.0095	0.0098	0.0101	0.0103	0.0105
ROW	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_brazil — Demand—Food—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

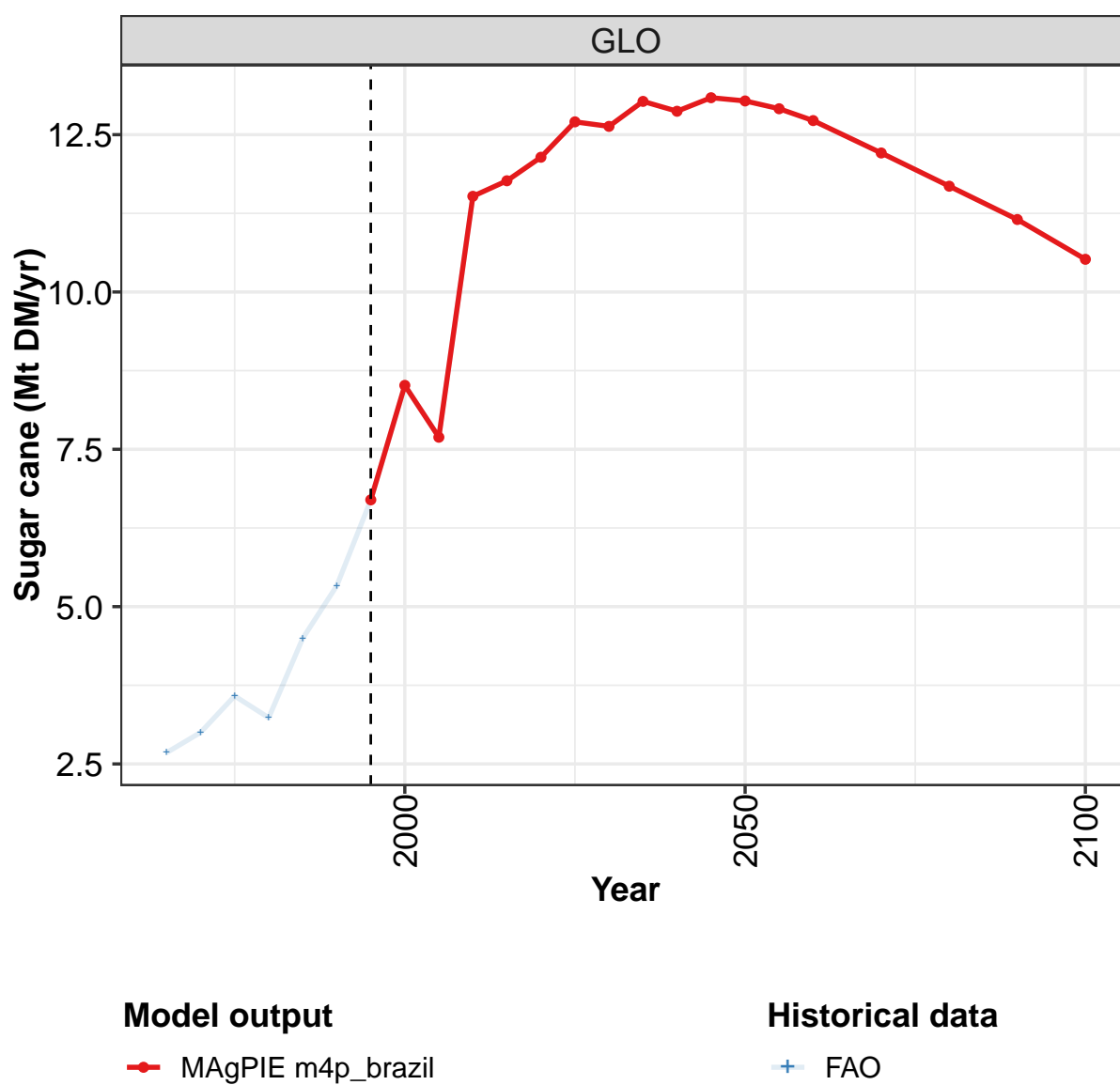
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0106	0.0106	0.0101	0.0100	0.0099	0.0097	0.0088
BRA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0106	0.0106	0.0101	0.0100	0.0099	0.0097	0.0088
ROW	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_brazil — 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
BRA	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
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0036	0.0069	0.0077	0.0085
ROW	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



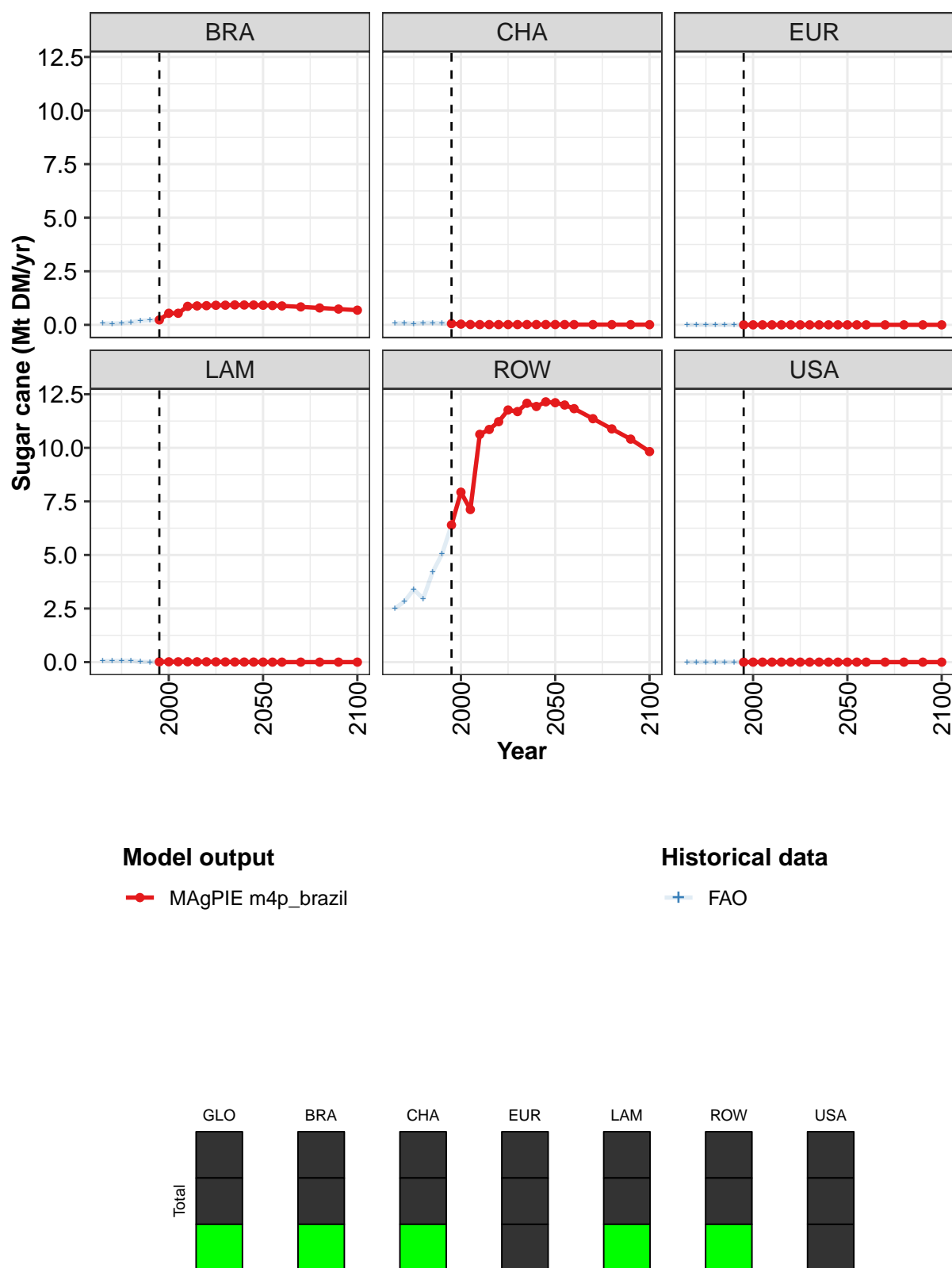


Figure 136: MAgPIE m4p_brazil — Demand—Food—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.7	8.5	7.7	11.5	11.8	12.1	12.7	12.6	13.0	12.9	13.1
BRA	0.2	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROW	6.4	7.9	7.1	10.6	10.9	11.2	11.8	11.7	12.1	11.9	12.1
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 407: MAgPIE m4p_brazil — Demand—Food—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 1/2]

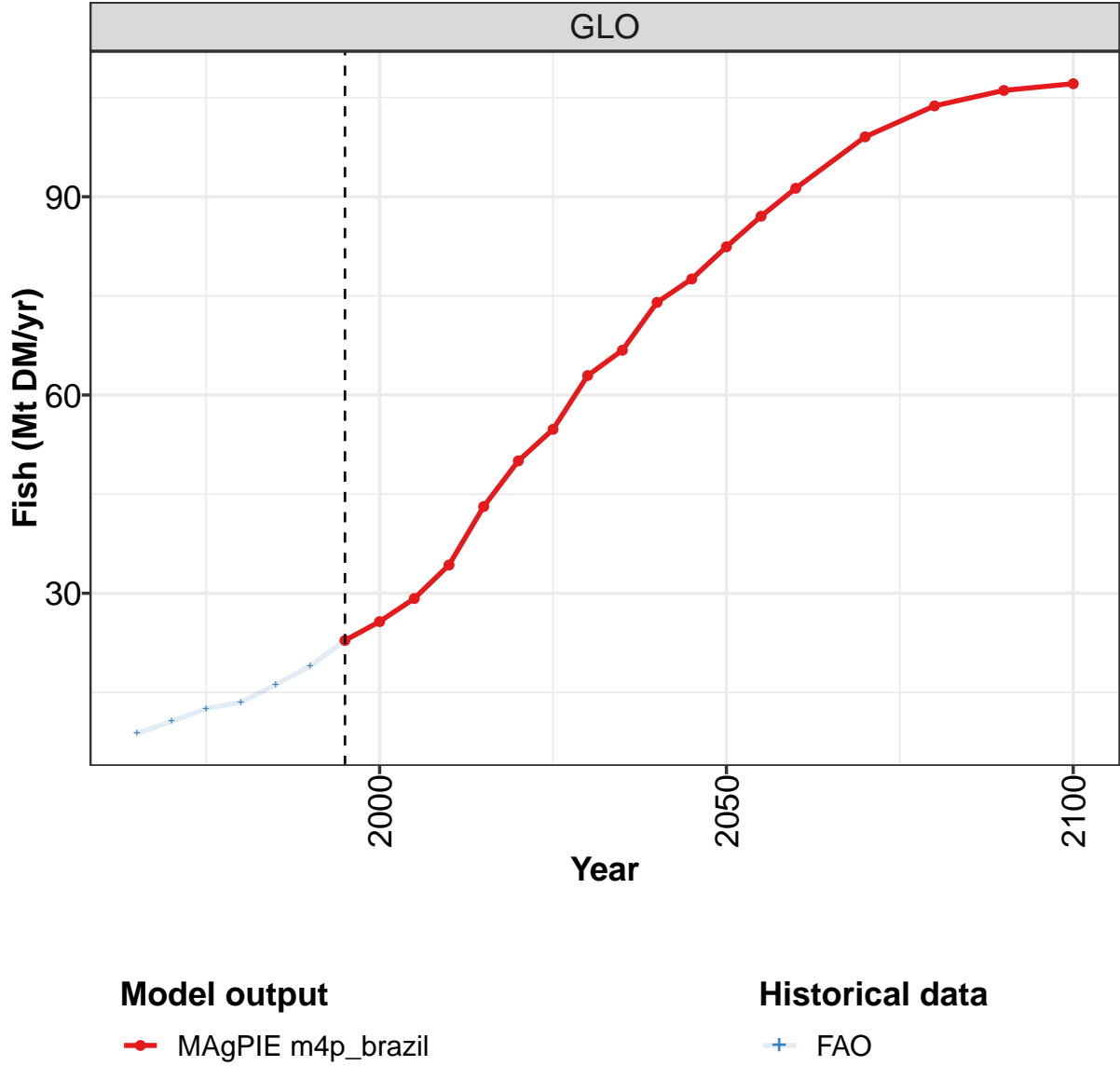
	2050	2055	2060	2070	2080	2090	2100
GLO	13.0	12.9	12.7	12.2	11.7	11.2	10.5
BRA	0.9	0.9	0.9	0.8	0.8	0.7	0.7
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROW	12.1	12.0	11.8	11.4	10.9	10.4	9.8
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 408: MAgPIE m4p_brazil — 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
BRA	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.5	0.5	0.9
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
LAM	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
ROW	2.5	2.8	3.4	3.0	4.2	5.0	6.4	7.9	7.1	10.6
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



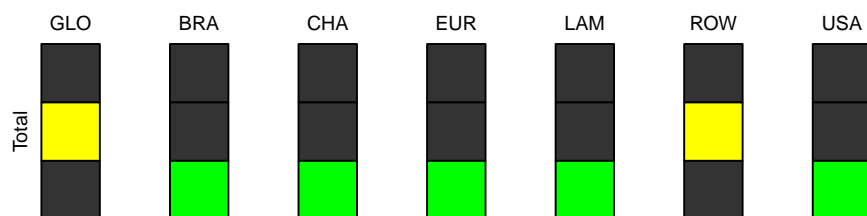
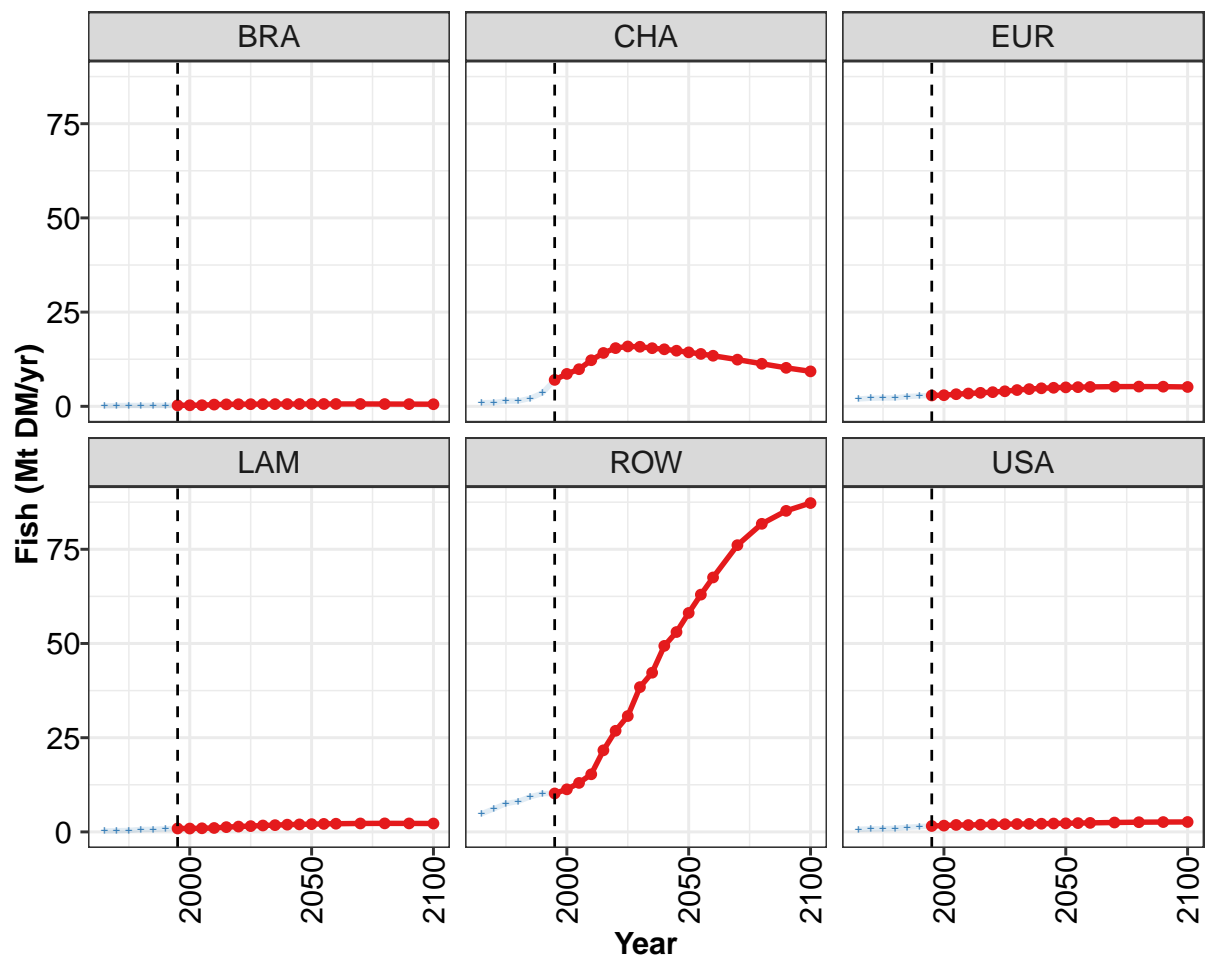


Figure 137: MAgPIE m4p_brazil — Demand—Food—Fish (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	23	26	29	34	43	50	55	63	67	74	78
BRA	0	0	0	0	1	1	1	1	1	1	1
CHA	7	9	10	12	14	15	16	16	15	15	15
EUR	3	3	3	3	4	4	4	4	5	5	5
LAM	1	1	1	1	1	1	2	2	2	2	2
ROW	10	11	13	15	22	27	31	38	42	49	53
USA	2	2	2	2	2	2	2	2	2	2	2

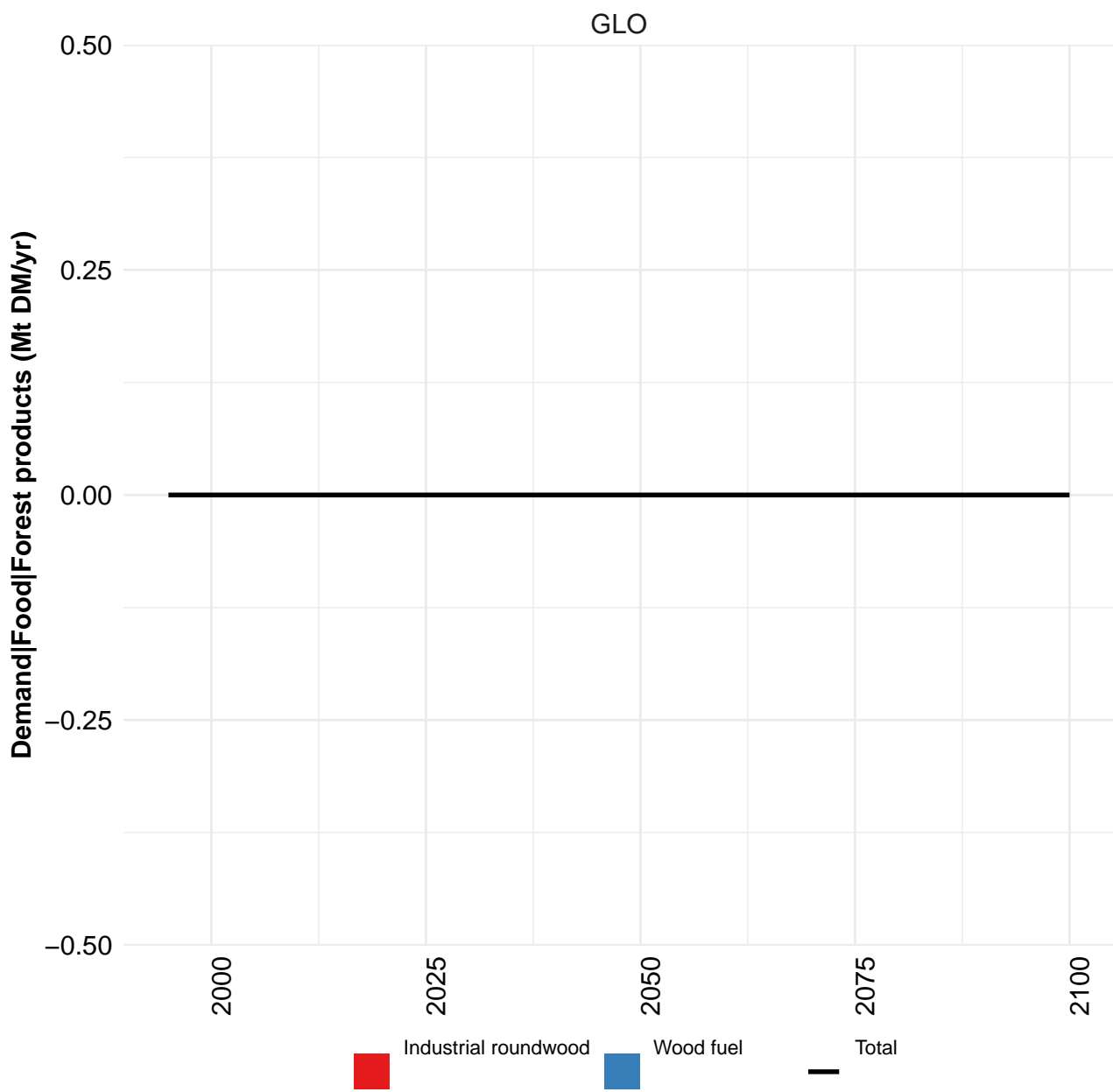
Table 410: MAgPIE m4p_brazil — Demand—Food—Fish (Mt DM/yr) [PART 1/2]

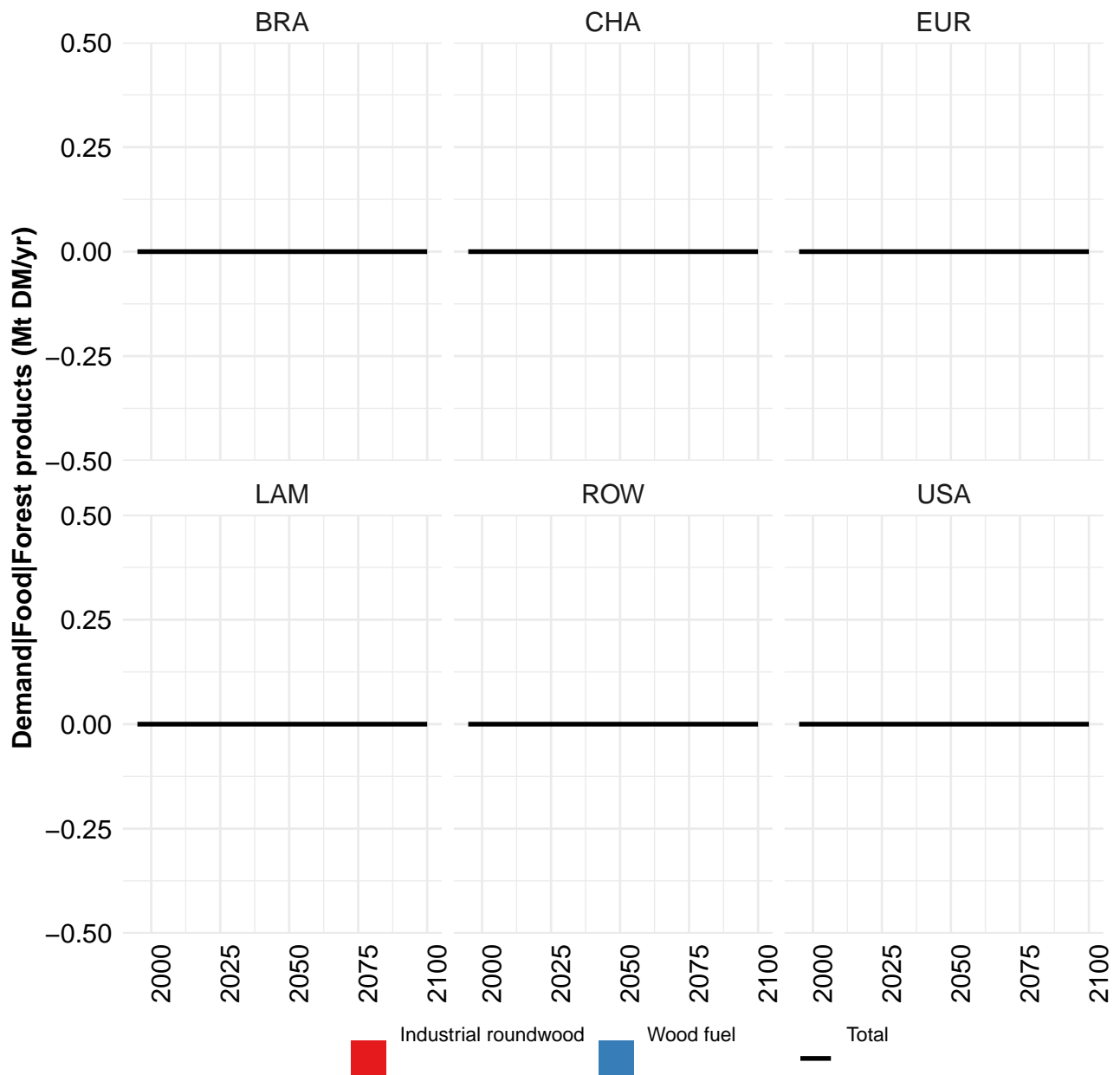
	2050	2055	2060	2070	2080	2090	2100
GLO	82	87	91	99	104	106	107
BRA	1	1	1	1	1	1	1
CHA	14	14	13	12	11	10	9
EUR	5	5	5	5	5	5	5
LAM	2	2	2	2	2	2	2
ROW	58	63	68	76	82	85	87
USA	2	2	2	2	3	3	3

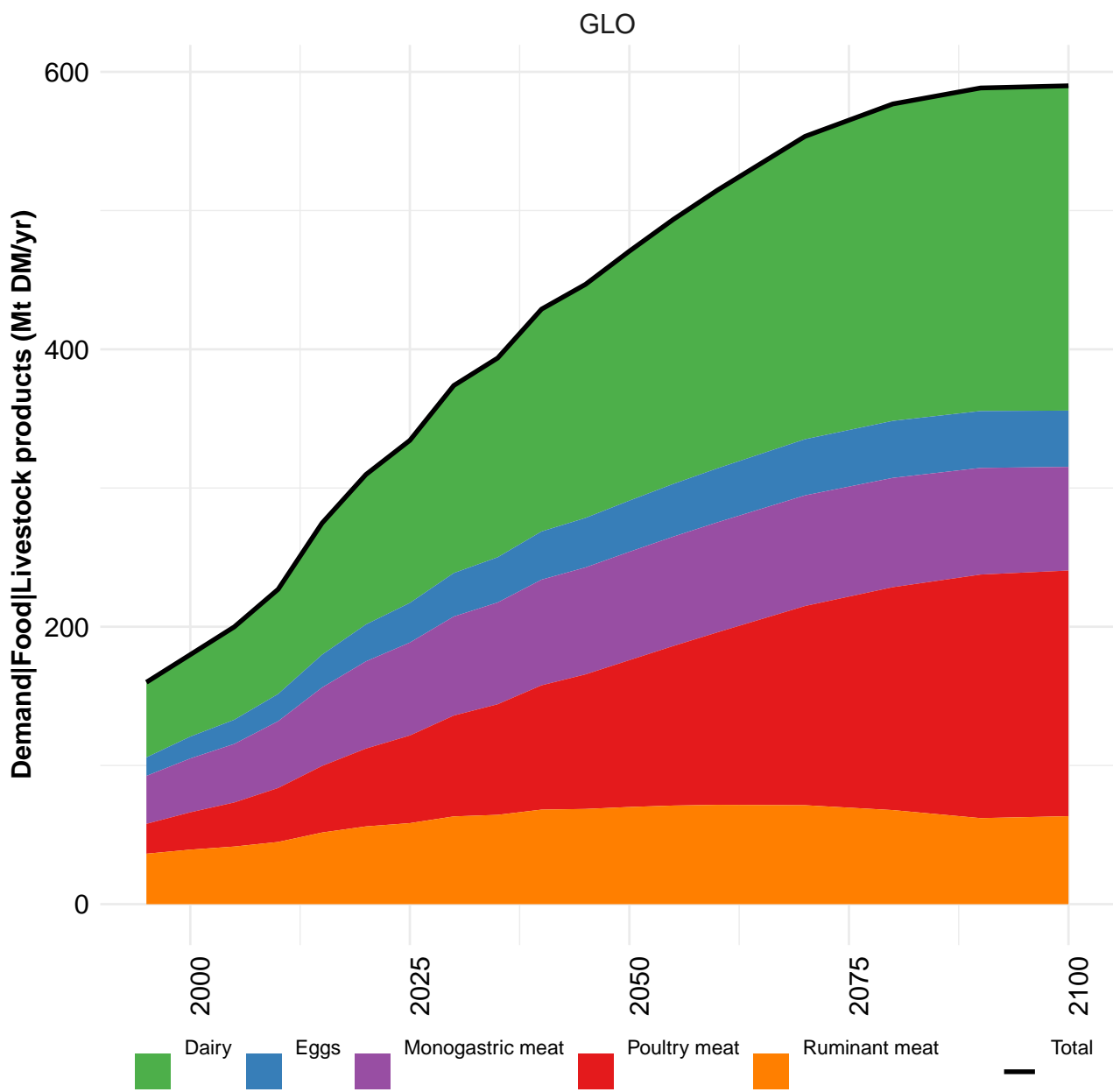
Table 411: MAgPIE m4p_brazil — Demand—Food—Fish (Mt DM/yr) [PART 2/2]

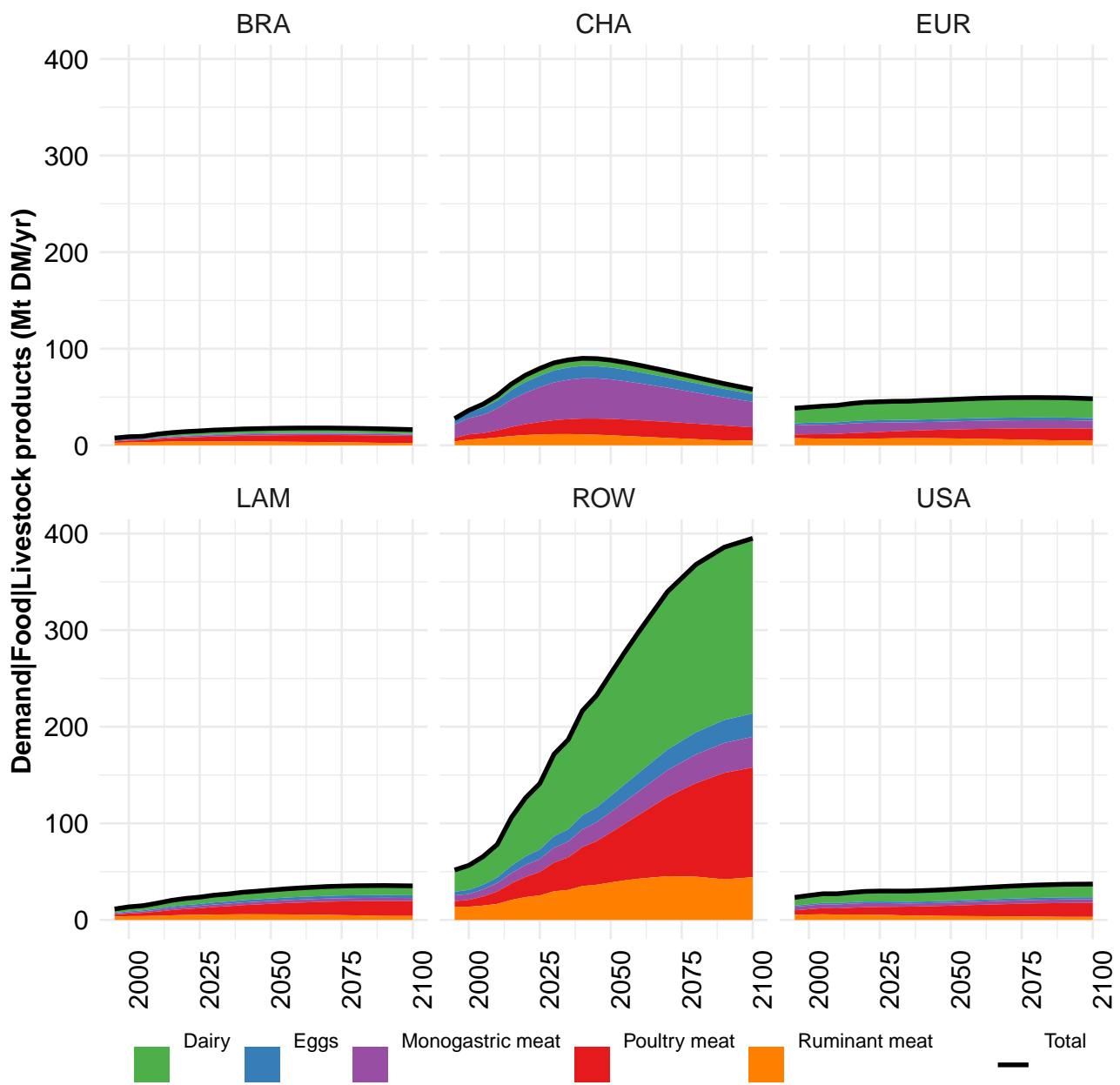
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	8.8	10.6	12.6	13.5	16.2	19.0	22.9	25.7	29.2	34.3
BRA	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.5
CHA	1.0	1.0	1.4	1.4	2.1	3.6	7.0	8.6	9.9	12.2
EUR	2.0	2.2	2.2	2.2	2.6	2.8	2.9	3.0	3.2	3.4
LAM	0.3	0.3	0.4	0.7	0.7	0.8	0.9	0.9	1.0	1.0
ROW	4.8	6.1	7.5	8.1	9.3	10.2	10.2	11.3	13.0	15.3
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)

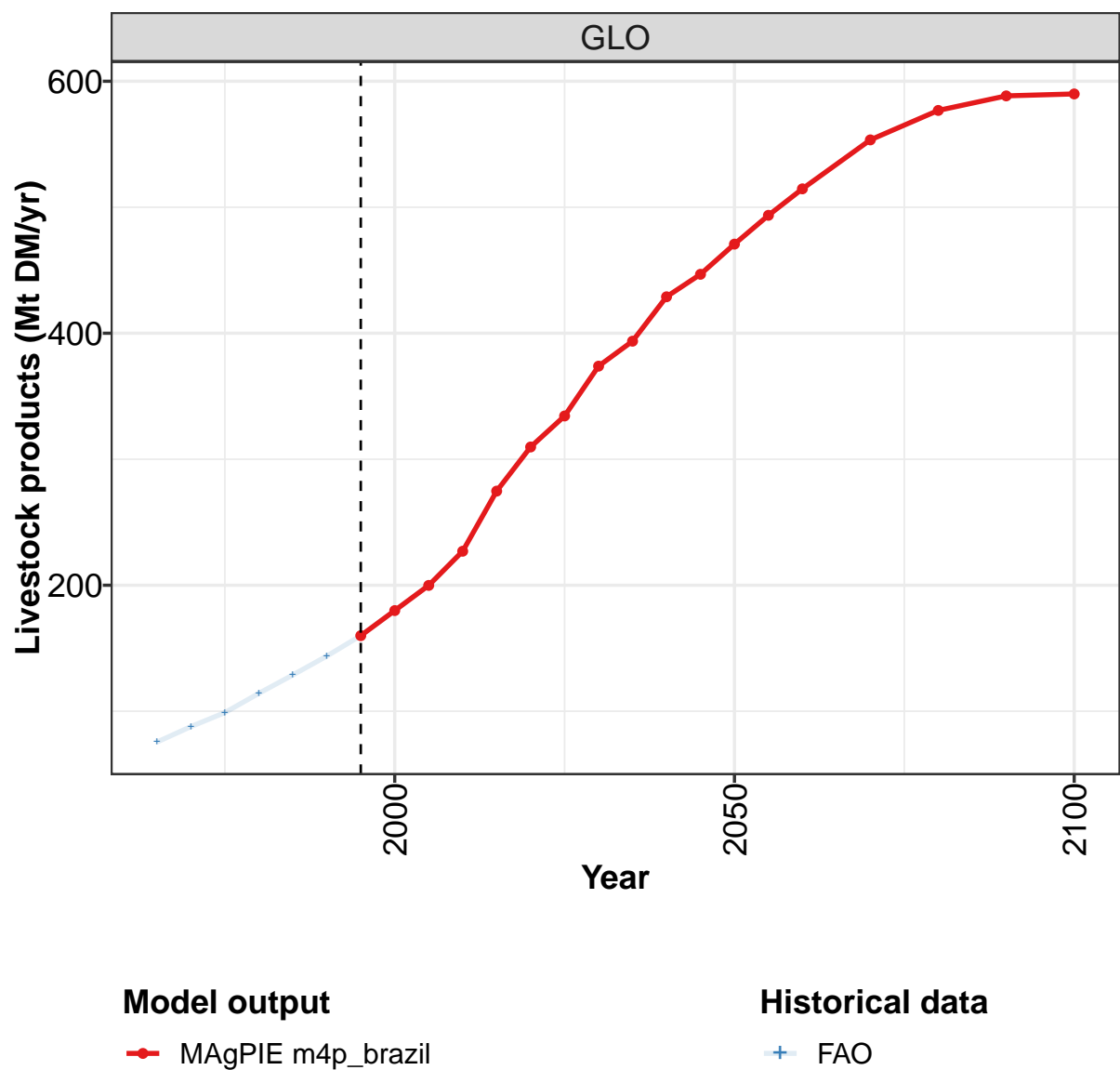








7.3 Livestock products



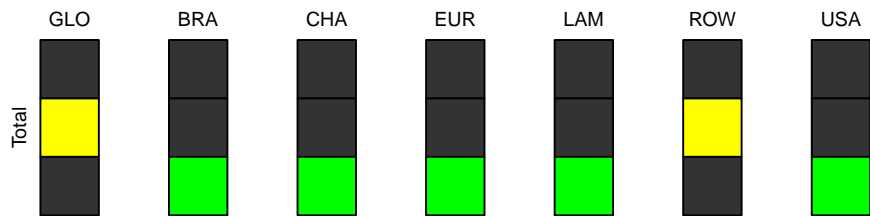
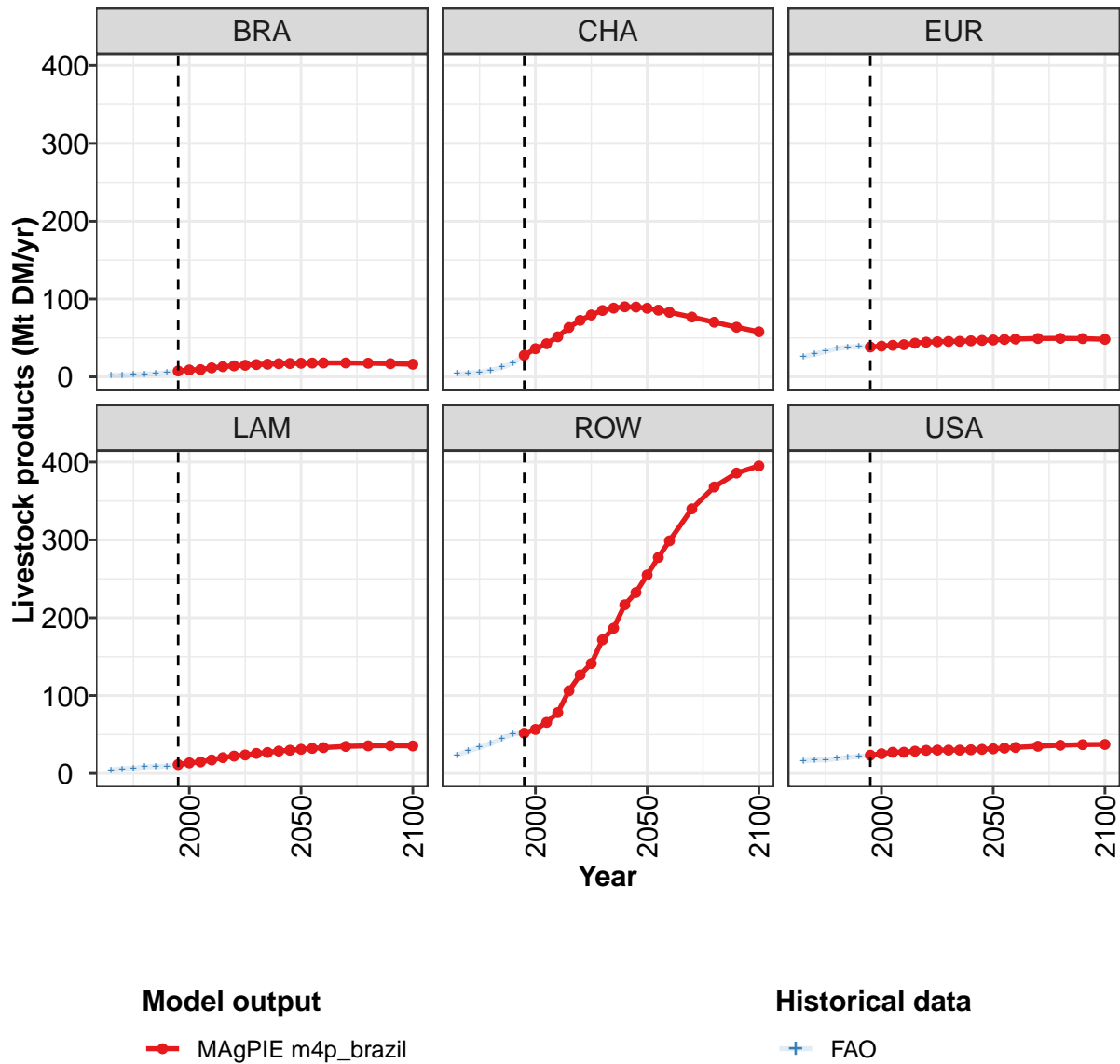


Figure 138: MAgPIE m4p_brazil — Demand—Food—Livestock products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	160	180	200	227	275	310	334	374	394	429	447
BRA	8	9	9	12	13	14	15	16	16	17	17
CHA	28	36	43	52	63	73	80	85	88	90	90
EUR	38	40	41	41	43	45	45	46	46	46	47
LAM	11	14	15	17	20	22	24	26	27	29	30
ROW	52	56	66	78	106	126	141	172	187	217	232
USA	23	25	27	27	28	30	30	30	30	30	31

Table 413: MAgPIE m4p.brazil — Demand—Food—Livestock products (Mt DM/yr) [PART 1/2]

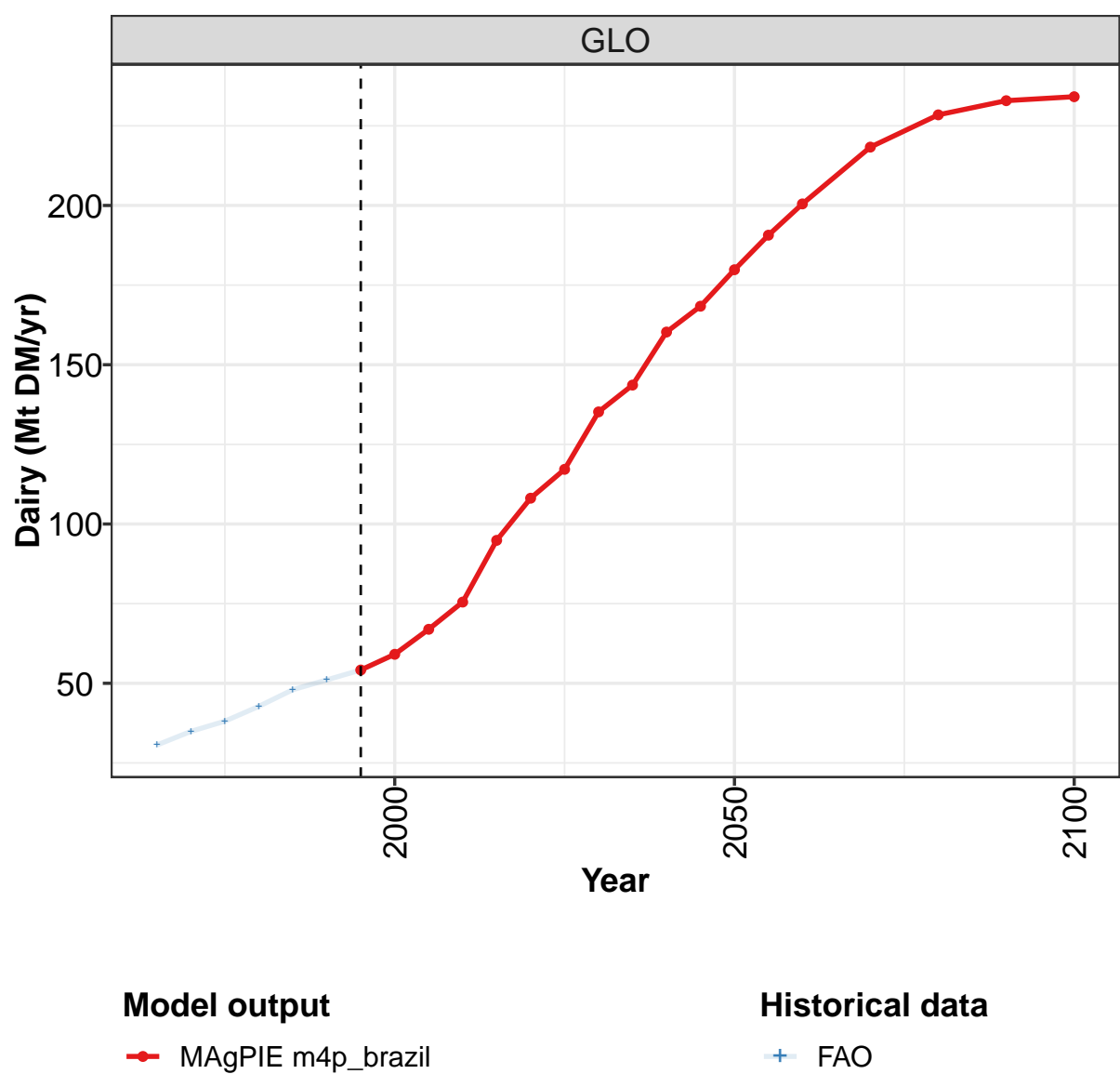
	2050	2055	2060	2070	2080	2090	2100
GLO	471	494	515	553	577	588	590
BRA	18	18	18	18	18	17	16
CHA	88	86	83	77	70	64	58
EUR	47	48	49	49	49	49	48
LAM	31	32	33	35	35	36	35
ROW	255	277	299	340	368	386	395
USA	32	32	33	35	36	37	37

Table 414: MAgPIE m4p.brazil — 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
BRA	2	2	3	4	4	5	8	9	9	12
CHA	4	4	6	8	12	18	28	36	43	52
EUR	26	29	33	36	38	39	38	39	41	41
LAM	5	6	7	8	9	9	11	14	15	17
ROW	24	29	33	38	45	51	52	56	66	78
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



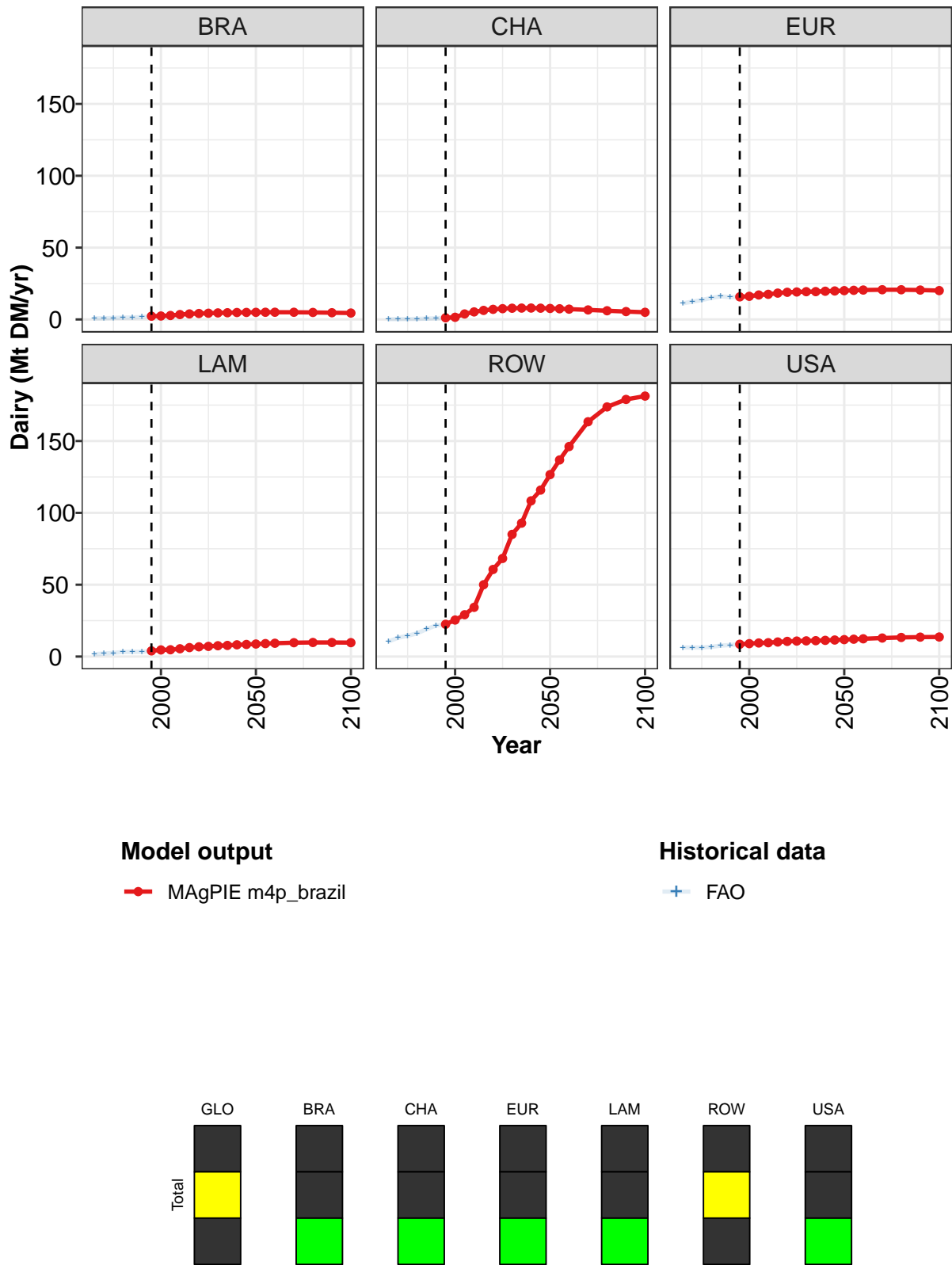


Figure 139: MAgPIE m4p.brazil — Demand—Food—Livestock products—Dairy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	54	59	67	76	95	108	117	135	144	160	168
BRA	2	2	3	3	4	4	4	5	5	5	5
CHA	1	2	4	5	6	7	8	8	8	8	8
EUR	16	16	17	17	18	19	19	19	19	20	20
LAM	4	5	5	5	6	7	7	8	8	8	8
ROW	22	25	29	34	50	61	68	85	93	108	116
USA	9	9	9	10	10	11	11	11	11	11	12

Table 416: MAgPIE m4p.brazil — Demand—Food—Livestock products—Dairy (Mt DM/yr) [PART 1/2]

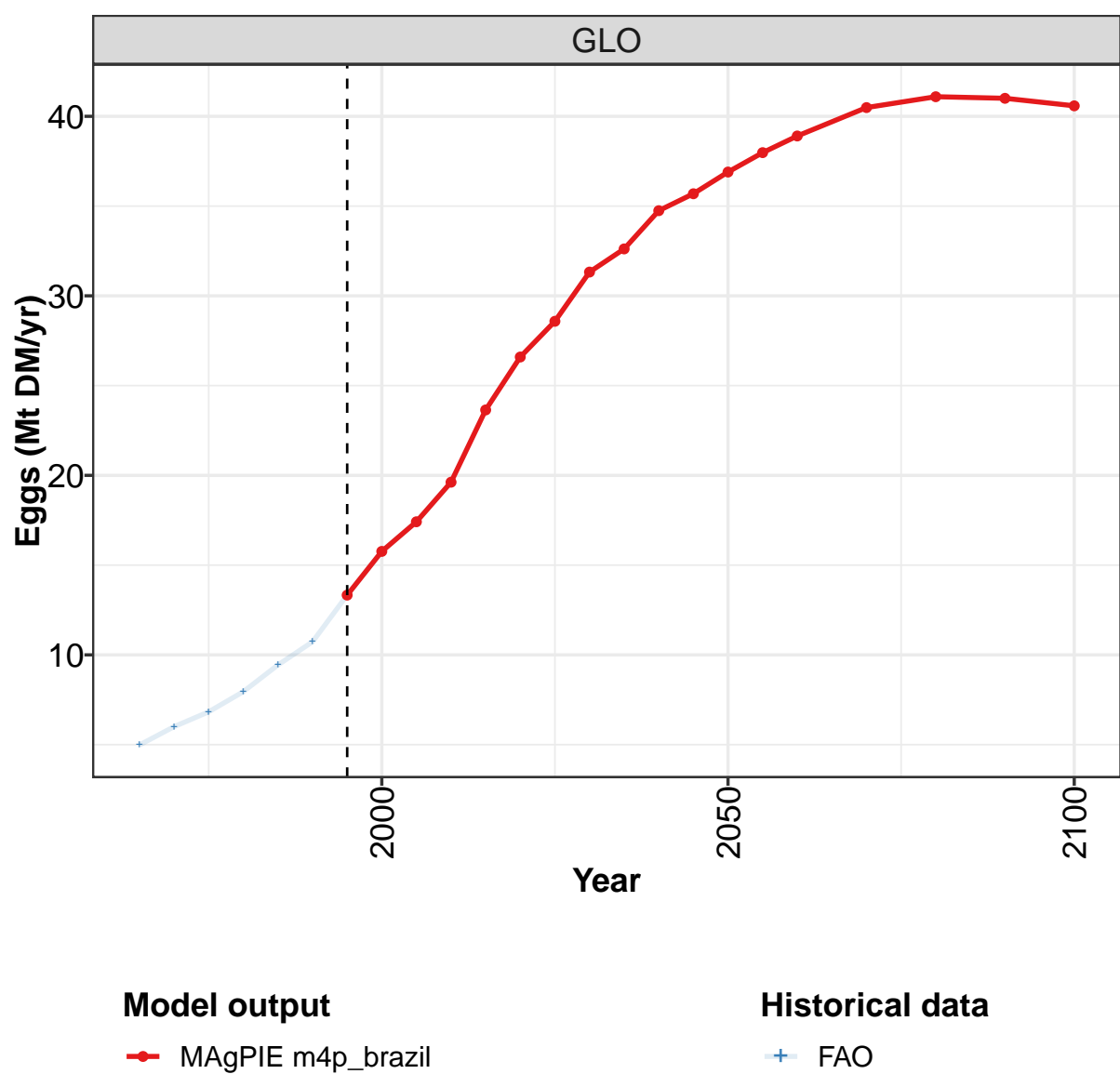
	2050	2055	2060	2070	2080	2090	2100
GLO	180	191	200	218	228	233	234
BRA	5	5	5	5	5	5	4
CHA	8	7	7	7	6	5	5
EUR	20	20	20	21	21	20	20
LAM	9	9	9	10	10	10	10
ROW	127	137	146	163	174	179	181
USA	12	12	12	13	13	14	14

Table 417: MAgPIE m4p.brazil — 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
BRA	0.8	0.8	1.1	1.3	1.3	1.7	2.3	2.4	2.8	3.4
CHA	0.2	0.2	0.3	0.4	0.6	0.9	1.2	1.5	3.8	5.3
EUR	11.2	12.4	13.5	15.0	16.1	15.5	15.7	16.1	17.0	17.5
LAM	1.6	2.1	2.5	3.2	3.3	3.3	4.0	4.6	4.7	5.4
ROW	10.5	13.1	14.5	16.2	19.1	21.6	22.5	25.4	29.1	34.3
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



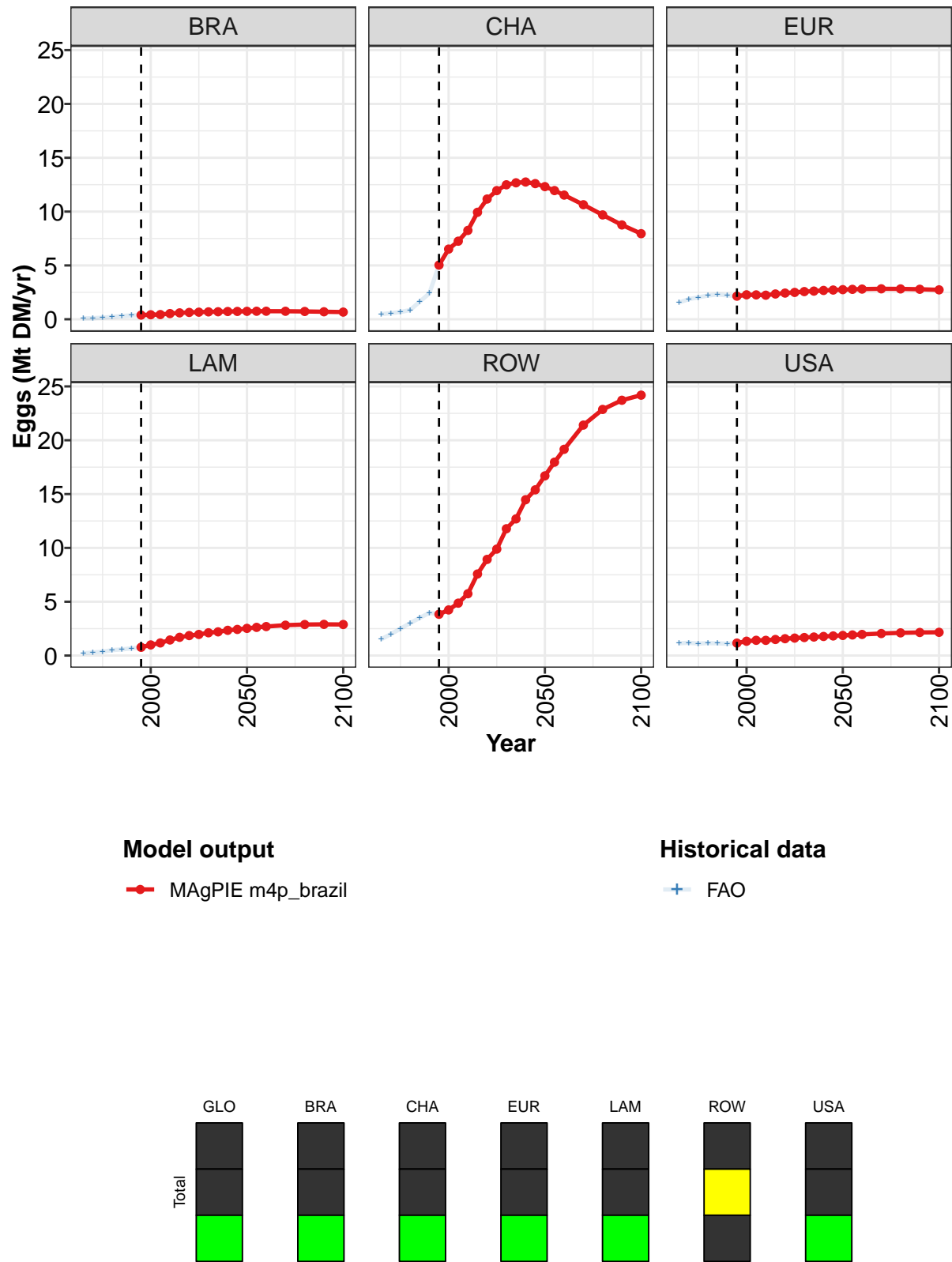


Figure 140: MAgPIE m4p.brazil — Demand—Food—Livestock products—Eggs (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	13.3	15.8	17.4	19.6	23.6	26.6	28.6	31.3	32.6	34.7	35.7
BRA	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7
CHA	5.0	6.5	7.3	8.3	9.9	11.2	12.0	12.5	12.7	12.7	12.6
EUR	2.1	2.3	2.3	2.2	2.3	2.4	2.5	2.6	2.6	2.7	2.7
LAM	0.8	1.0	1.2	1.4	1.7	1.9	2.0	2.1	2.2	2.3	2.4
ROW	3.8	4.2	4.9	5.7	7.6	8.9	9.9	11.8	12.7	14.5	15.4
USA	1.2	1.3	1.4	1.4	1.5	1.6	1.6	1.7	1.7	1.8	1.8

Table 419: MAgPIE m4p_brazil — Demand—Food—Livestock products—Eggs (Mt DM/yr) [PART 1/2]

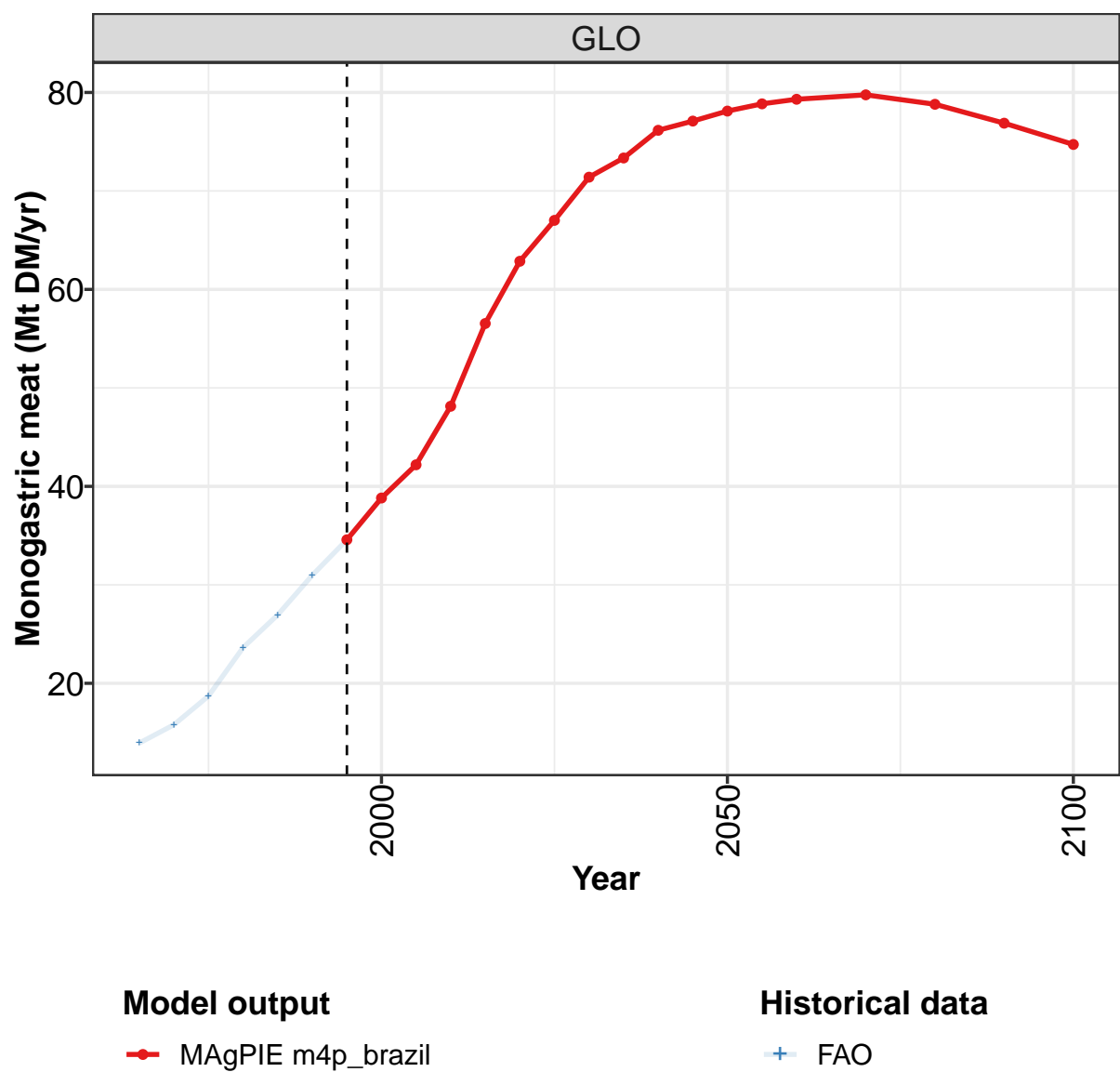
	2050	2055	2060	2070	2080	2090	2100
GLO	36.9	38.0	38.9	40.5	41.1	41.0	40.6
BRA	0.7	0.7	0.7	0.7	0.7	0.7	0.7
CHA	12.3	12.0	11.5	10.6	9.7	8.8	7.9
EUR	2.8	2.8	2.8	2.8	2.8	2.8	2.7
LAM	2.5	2.6	2.7	2.8	2.9	2.9	2.9
ROW	16.7	18.0	19.2	21.4	22.9	23.7	24.2
USA	1.9	1.9	2.0	2.0	2.1	2.1	2.2

Table 420: MAgPIE m4p_brazil — 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
BRA	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.5
CHA	0.5	0.6	0.7	0.9	1.6	2.4	5.0	6.5	7.3	8.3
EUR	1.6	1.9	2.0	2.2	2.3	2.2	2.1	2.3	2.3	2.2
LAM	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.2	1.4
ROW	1.5	2.0	2.5	3.0	3.5	4.0	3.8	4.2	4.9	5.7
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



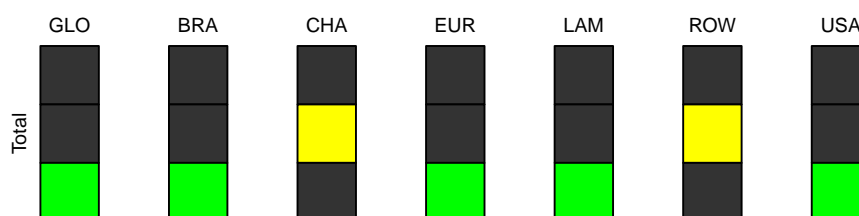
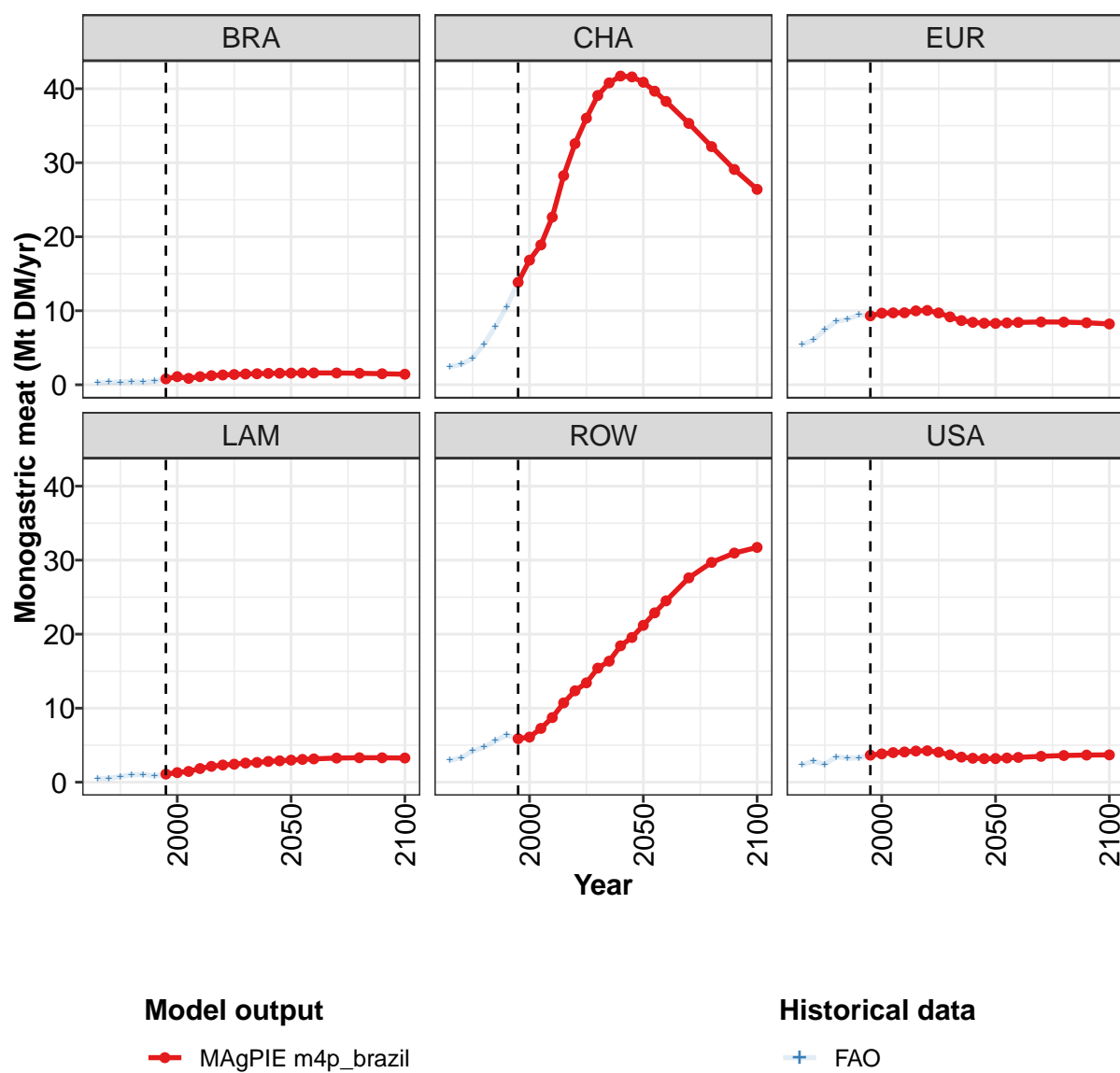


Figure 141: MAgPIE m4p_brazil — Demand—Food—Livestock products—Monogastric meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34.6	38.8	42.2	48.1	56.5	62.9	67.0	71.4	73.3	76.2	77.1
BRA	0.8	1.1	0.9	1.1	1.2	1.3	1.4	1.5	1.5	1.5	1.6
CHA	13.8	16.8	18.9	22.7	28.2	32.6	36.0	39.1	40.8	41.7	41.6
EUR	9.3	9.7	9.7	9.7	10.0	10.0	9.7	9.2	8.7	8.4	8.3
LAM	1.1	1.3	1.5	1.8	2.1	2.3	2.4	2.6	2.7	2.8	2.9
ROW	5.9	6.1	7.3	8.7	10.7	12.4	13.4	15.4	16.4	18.4	19.6
USA	3.7	3.8	4.0	4.1	4.2	4.2	4.0	3.7	3.4	3.2	3.2

Table 422: MAgPIE m4p_brazil — Demand—Food—Livestock products—Monogastric meat (Mt DM/yr)
[PART 1/2]

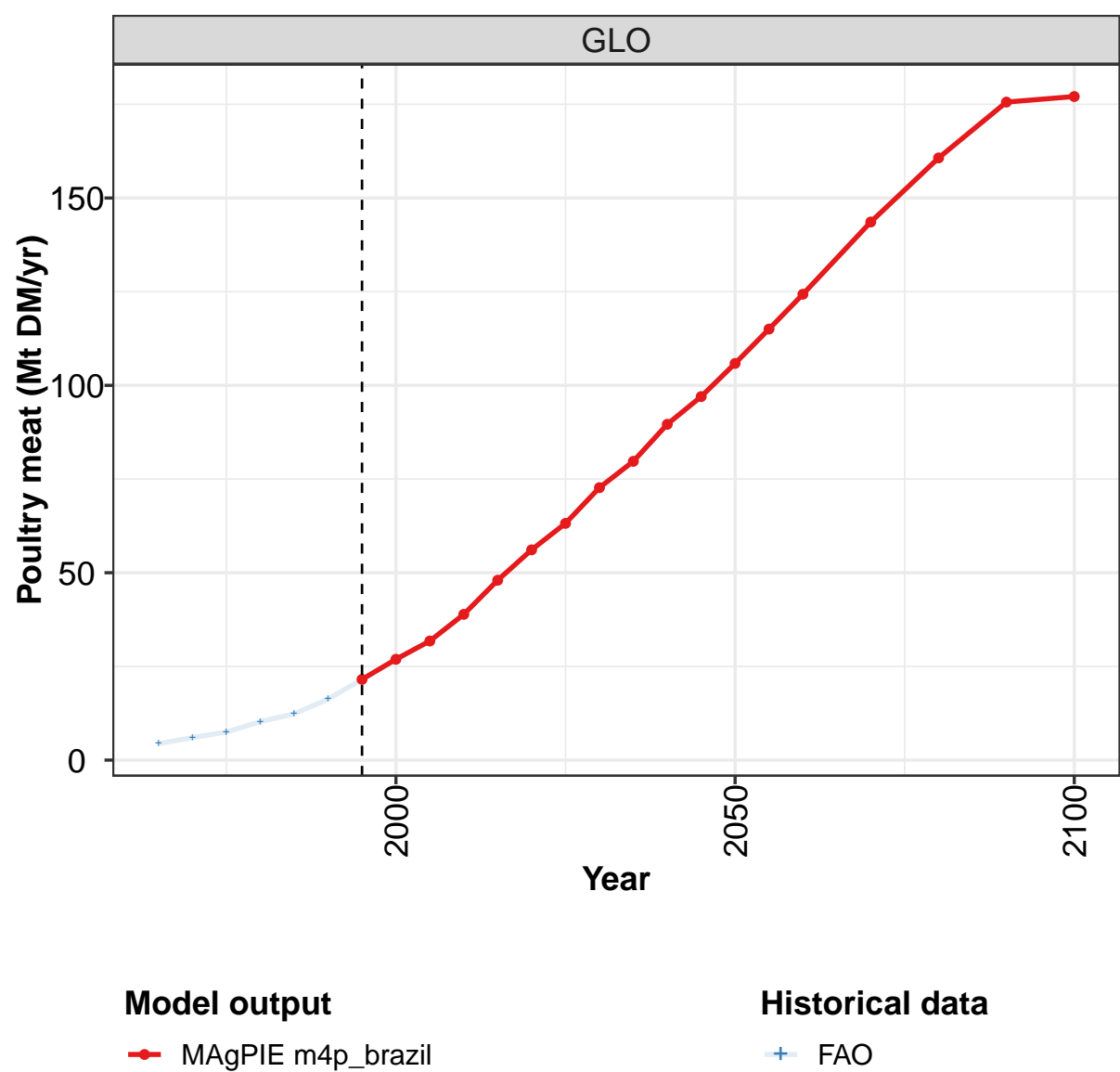
	2050	2055	2060	2070	2080	2090	2100
GLO	78.1	78.8	79.3	79.8	78.8	76.9	74.7
BRA	1.6	1.6	1.6	1.6	1.6	1.5	1.4
CHA	40.9	39.7	38.3	35.3	32.2	29.1	26.4
EUR	8.3	8.4	8.4	8.5	8.5	8.4	8.2
LAM	3.0	3.1	3.1	3.3	3.3	3.3	3.3
ROW	21.2	22.9	24.5	27.6	29.7	31.0	31.7
USA	3.2	3.3	3.4	3.5	3.6	3.7	3.7

Table 423: MAgPIE m4p_brazil — 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
BRA	0.3	0.3	0.3	0.4	0.4	0.5	0.8	1.1	0.9	1.1
CHA	2.5	2.7	3.6	5.5	7.9	10.6	13.8	16.8	18.9	22.7
EUR	5.4	6.0	7.4	8.6	8.8	9.4	9.3	9.7	9.7	9.7
LAM	0.5	0.5	0.8	1.0	1.0	0.9	1.1	1.3	1.5	1.8
ROW	2.9	3.3	4.2	4.7	5.6	6.4	5.9	6.1	7.3	8.7
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



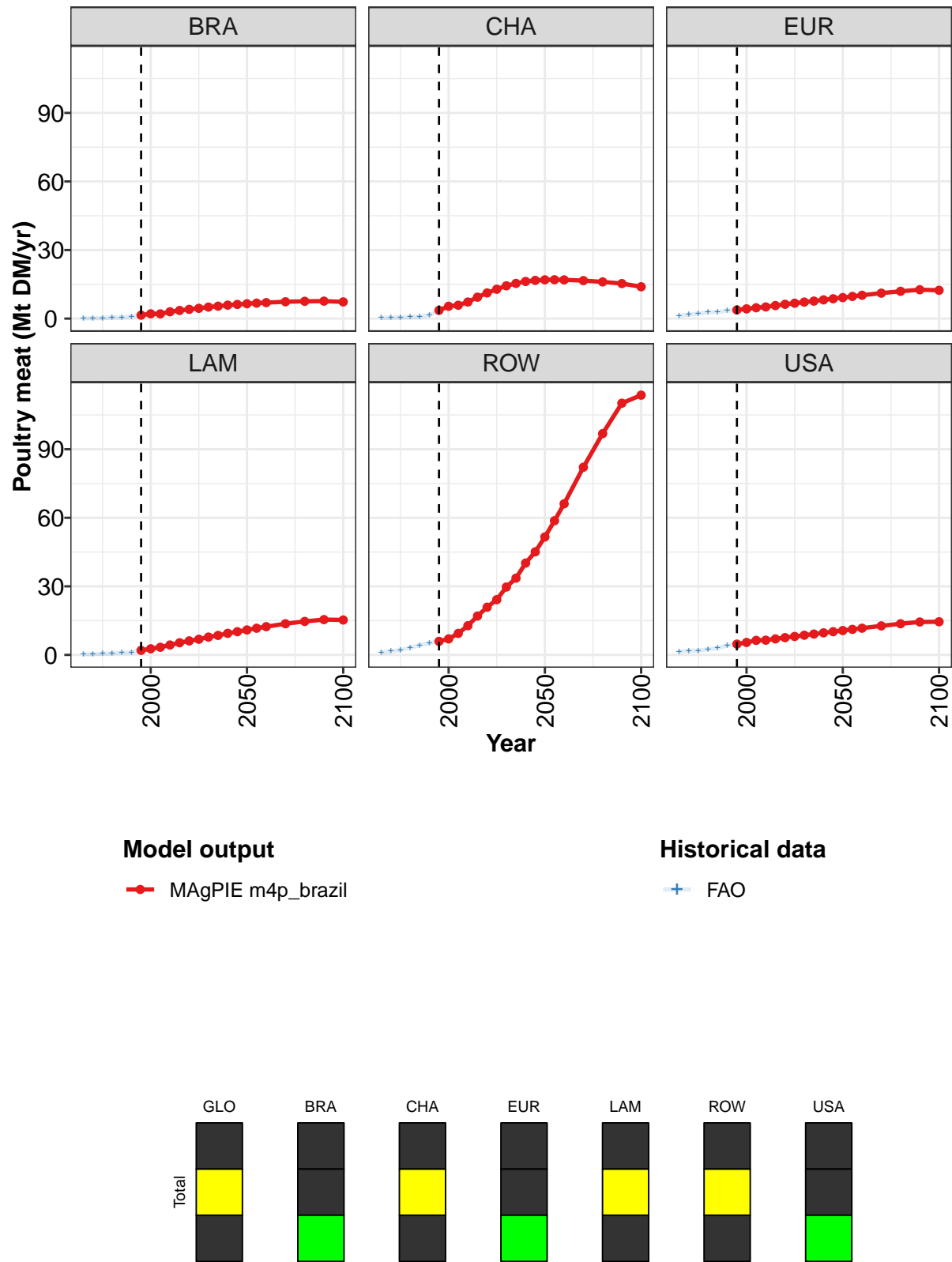


Figure 142: MAGPIE m4p_brazil — Demand—Food—Livestock products—Poultry meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	22	27	32	39	48	56	63	73	80	90	97
BRA	2	2	2	3	4	4	4	5	5	6	6
CHA	4	5	6	7	9	11	13	14	15	16	17
EUR	4	4	5	5	6	6	7	7	8	8	9
LAM	2	3	3	4	5	6	7	8	9	9	10
ROW	6	7	9	13	17	21	24	30	34	40	45
USA	5	5	6	6	7	8	8	9	9	10	10

Table 425: MAgPIE m4p_brazil — Demand—Food—Livestock products—Poultry meat (Mt DM/yr) [PART 1/2]

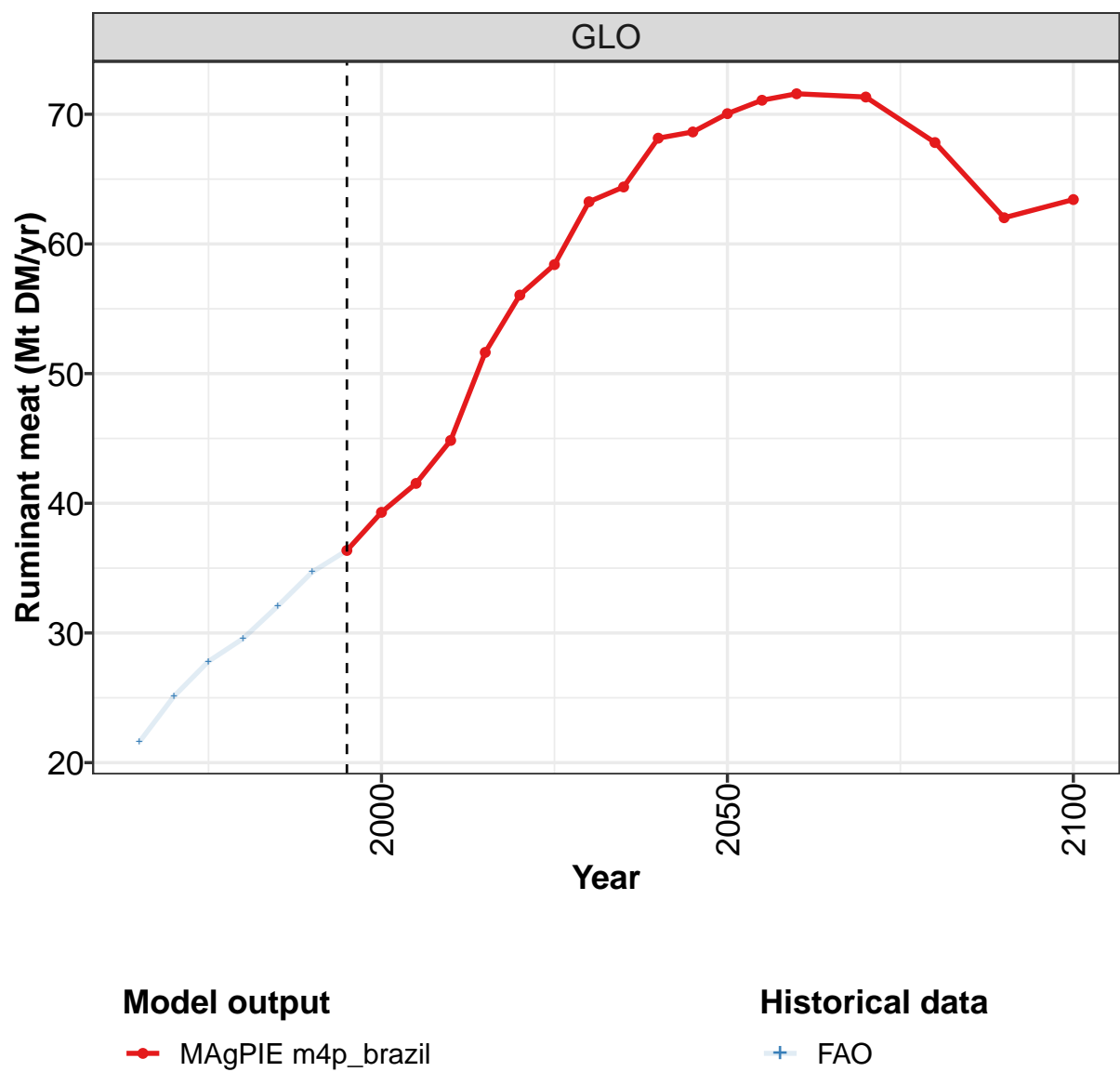
	2050	2055	2060	2070	2080	2090	2100
GLO	106	115	124	144	161	176	177
BRA	7	7	7	7	8	8	7
CHA	17	17	17	17	16	15	14
EUR	9	10	10	11	12	13	12
LAM	11	12	12	14	15	15	15
ROW	52	59	66	82	97	110	114
USA	11	11	12	13	14	14	15

Table 426: MAgPIE m4p_brazil — 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
BRA	0.1	0.2	0.2	0.5	0.5	0.9	1.5	2.1	2.1	3.0
CHA	0.3	0.4	0.5	0.7	0.8	1.6	3.6	5.4	5.8	7.3
EUR	1.2	1.7	2.2	2.7	2.9	3.4	3.8	4.3	4.7	5.1
LAM	0.2	0.4	0.5	0.7	0.9	1.1	2.0	2.7	3.4	4.3
ROW	1.0	1.6	2.1	3.2	4.2	5.2	5.9	7.0	9.4	12.8
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



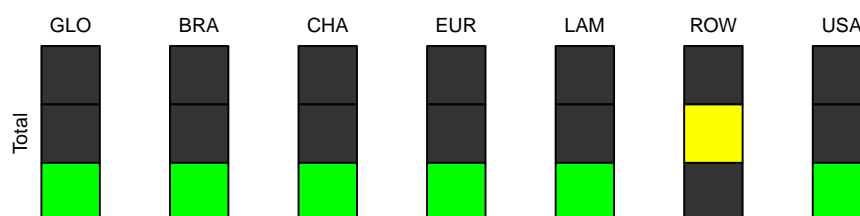
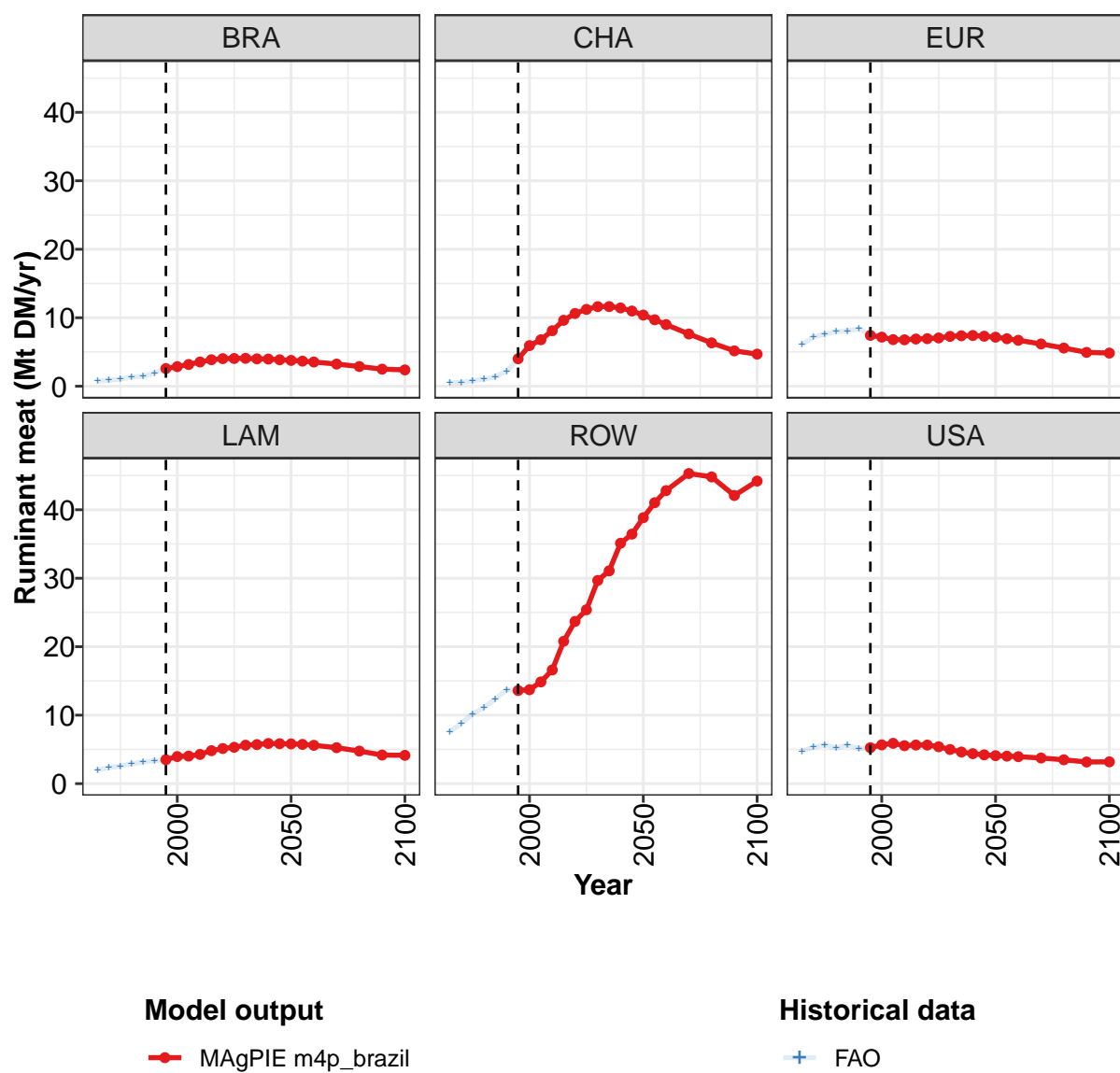


Figure 143: MAgPIE m4p_brazil — Demand—Food—Livestock products—Ruminant meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	36.4	39.3	41.5	44.8	51.6	56.1	58.4	63.3	64.4	68.2	68.6
BRA	2.6	2.9	3.2	3.5	3.9	4.0	4.1	4.1	4.0	4.0	3.9
CHA	4.0	5.9	6.8	8.1	9.6	10.6	11.2	11.6	11.6	11.4	11.0
EUR	7.4	7.2	6.8	6.8	6.9	6.9	7.0	7.3	7.4	7.4	7.3
LAM	3.5	4.0	4.0	4.3	4.8	5.1	5.3	5.6	5.7	5.9	5.8
ROW	13.6	13.7	14.9	16.6	20.8	23.7	25.4	29.7	31.1	35.1	36.4
USA	5.3	5.7	5.9	5.5	5.6	5.6	5.4	5.0	4.6	4.4	4.2

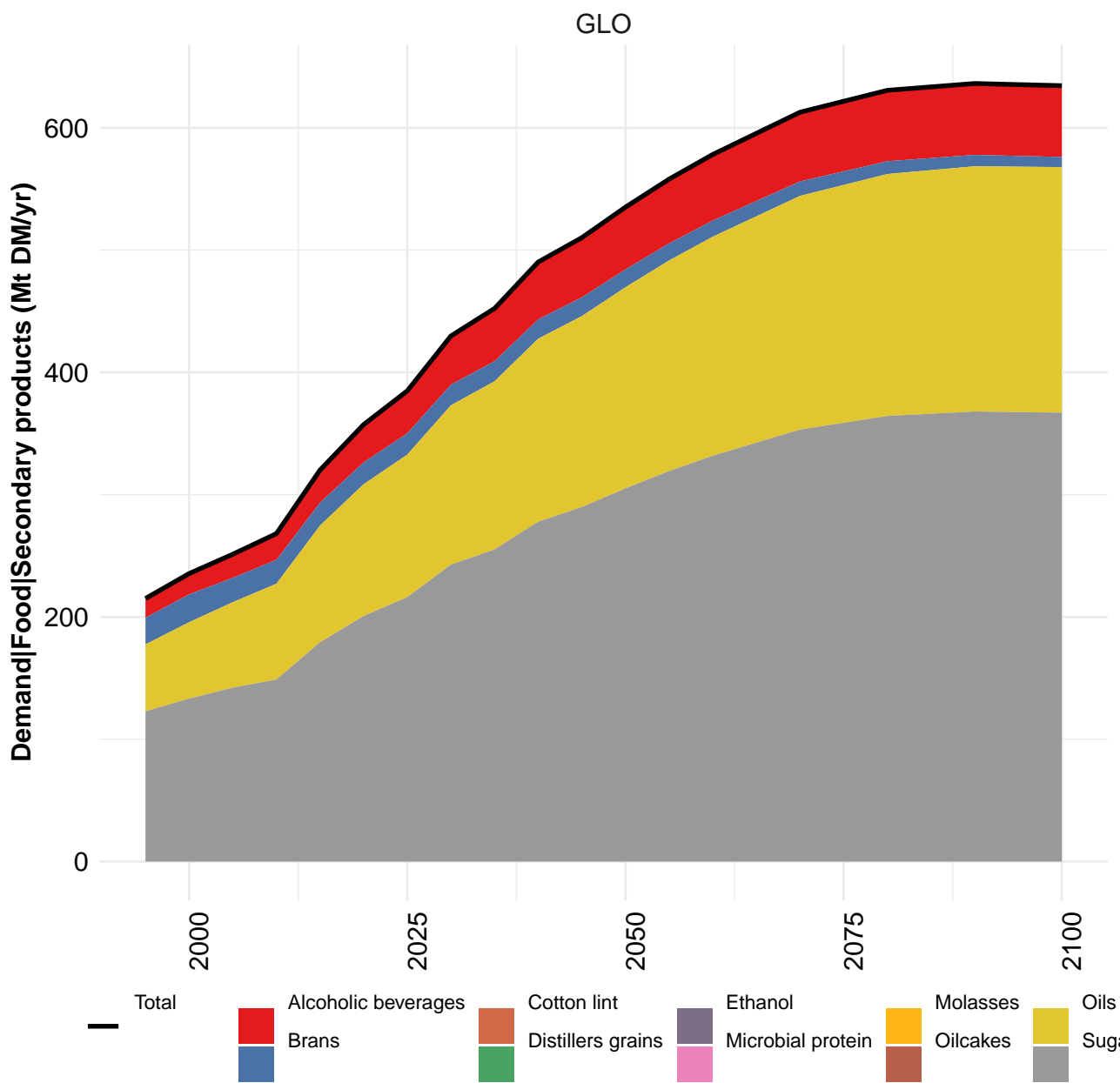
Table 428: MAgPIE m4p_brazil — Demand—Food—Livestock products—Ruminant meat (Mt DM/yr) [PART 1/2]

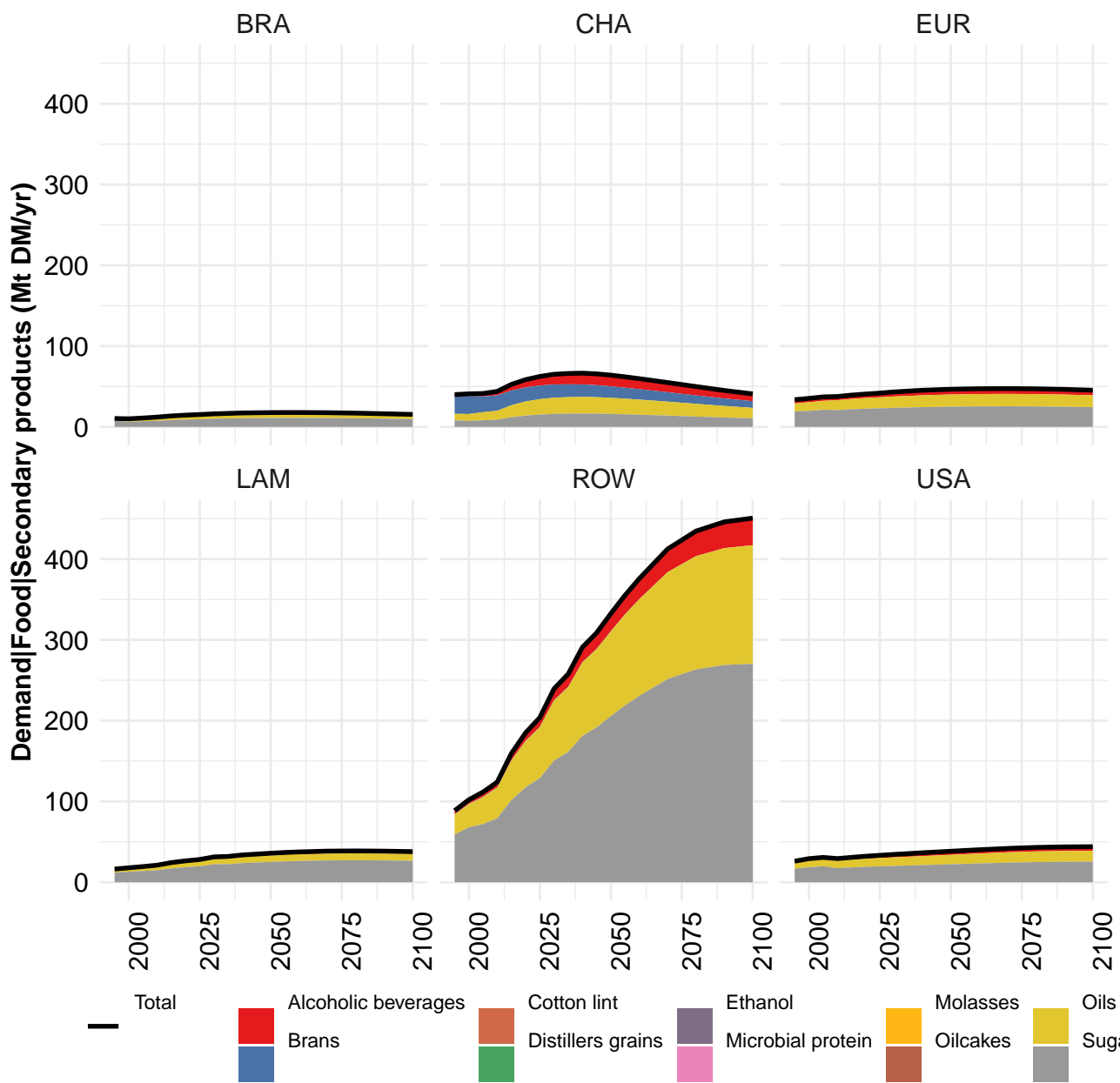
	2050	2055	2060	2070	2080	2090	2100
GLO	70.0	71.1	71.6	71.3	67.8	62.0	63.4
BRA	3.8	3.7	3.5	3.2	2.9	2.5	2.4
CHA	10.4	9.7	9.0	7.6	6.3	5.2	4.7
EUR	7.2	6.9	6.7	6.2	5.6	4.9	4.8
LAM	5.8	5.7	5.6	5.3	4.8	4.2	4.1
ROW	38.8	41.0	42.8	45.3	44.8	42.1	44.2
USA	4.1	4.0	3.9	3.7	3.5	3.2	3.2

Table 429: MAgPIE m4p_brazil — Demand—Food—Livestock products—Ruminant meat (Mt DM/yr) [PART 2/2]

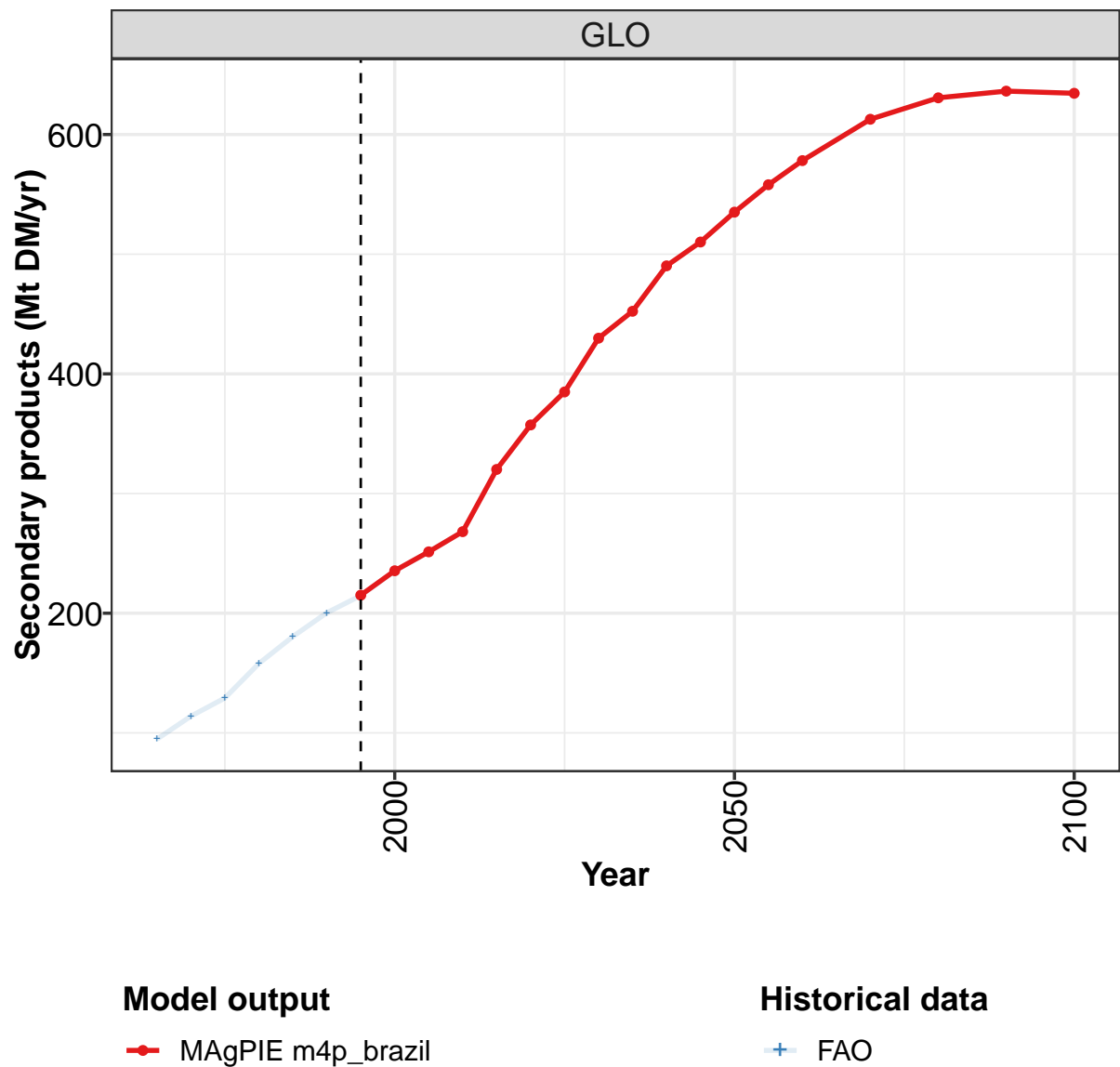
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	21.6	25.1	27.8	29.6	32.1	34.7	36.4	39.3	41.5	44.8
BRA	0.7	0.9	1.0	1.3	1.4	1.9	2.6	2.9	3.2	3.5
CHA	0.5	0.6	0.8	1.0	1.4	2.2	4.0	5.9	6.8	8.1
EUR	6.1	7.2	7.6	8.0	8.1	8.4	7.4	7.2	6.8	6.8
LAM	2.0	2.4	2.6	2.9	3.1	3.4	3.5	4.0	4.0	4.3
ROW	7.6	8.8	10.2	11.1	12.4	13.7	13.6	13.7	14.9	16.6
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



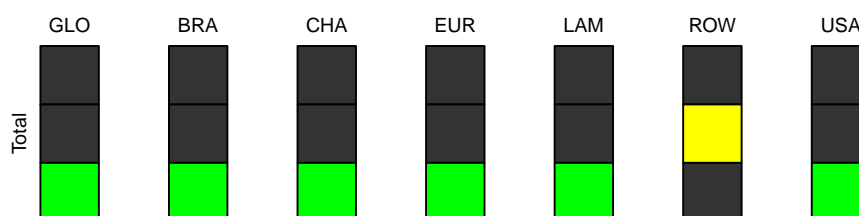
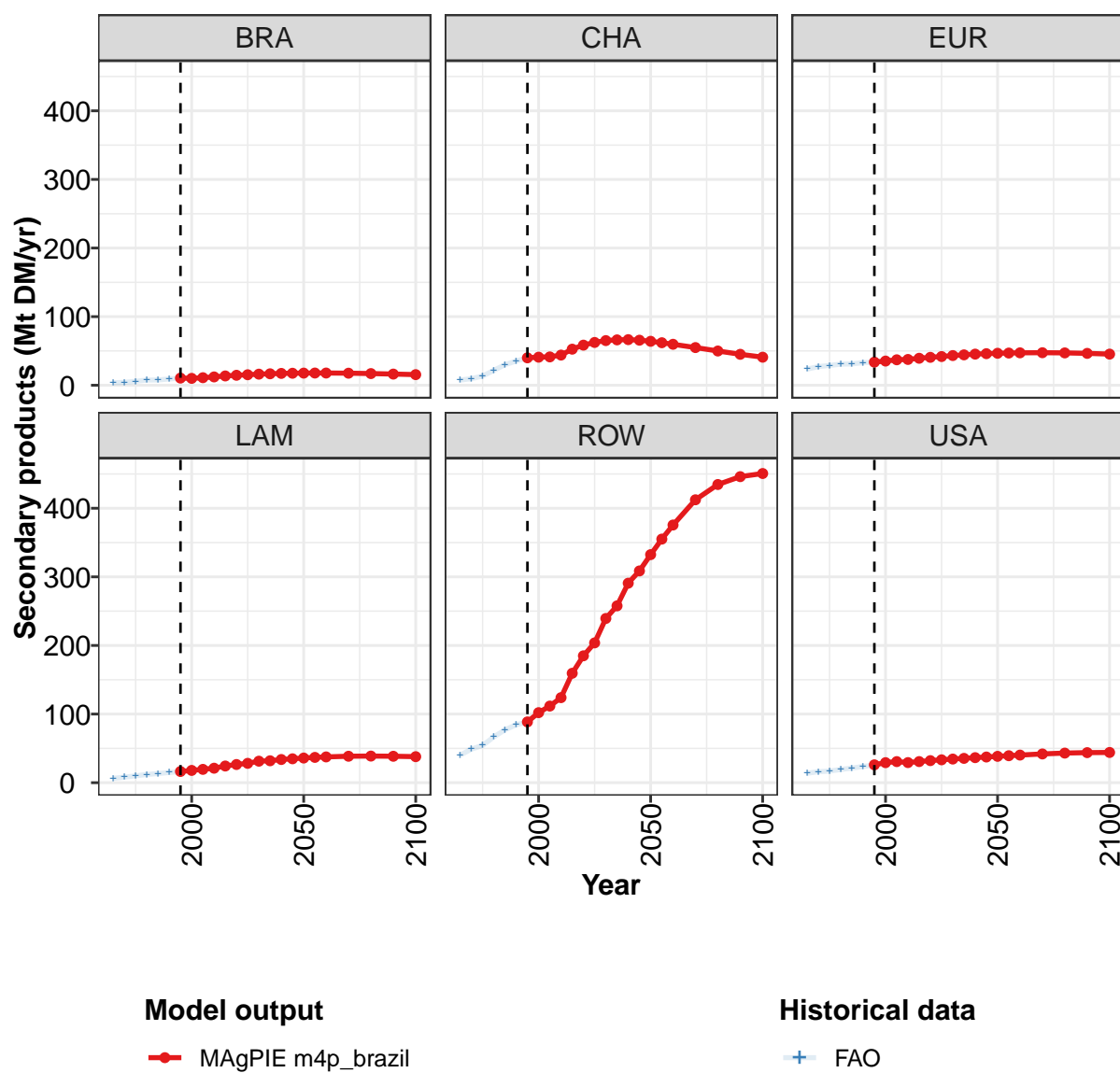


Figure 144: MAgPIE m4p_brazil — Demand—Food—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	215	235	251	268	320	357	385	430	452	490	510
BRA	10	10	11	12	14	15	15	16	17	17	18
CHA	40	41	41	44	53	58	62	65	66	67	66
EUR	34	35	37	38	39	41	42	43	44	45	46
LAM	16	18	19	21	24	26	28	31	32	34	35
ROW	89	102	112	124	159	185	204	239	258	291	309
USA	26	29	31	29	31	32	33	34	35	37	37

Table 431: MAgPIE m4p_brazil — Demand—Food—Secondary products (Mt DM/yr) [PART 1/2]

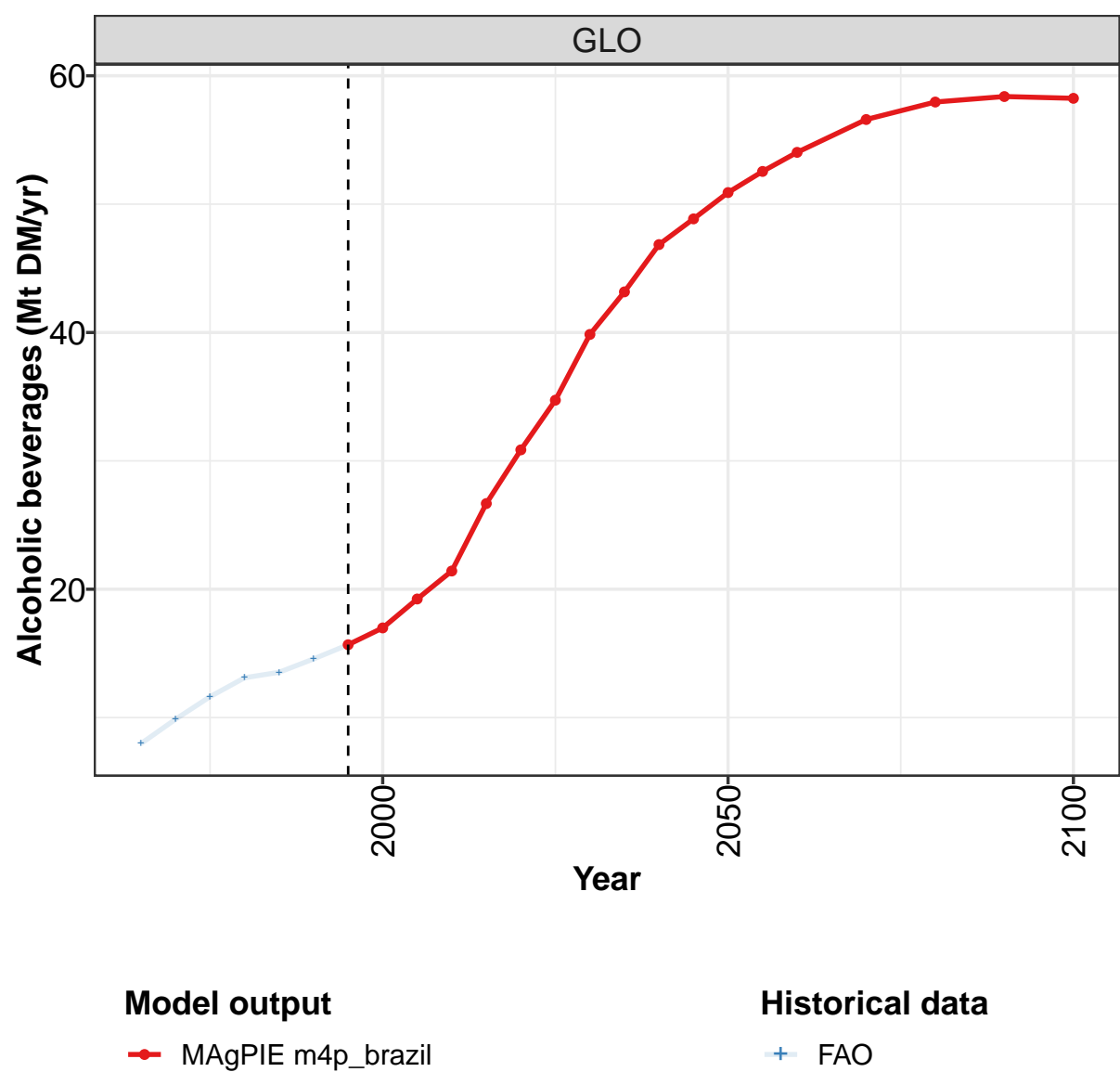
	2050	2055	2060	2070	2080	2090	2100
GLO	535	558	578	613	631	636	634
BRA	18	18	18	18	17	16	15
CHA	64	62	60	55	50	45	41
EUR	47	47	47	47	47	46	45
LAM	36	37	38	39	39	39	38
ROW	332	355	376	412	435	446	451
USA	38	39	40	42	43	44	44

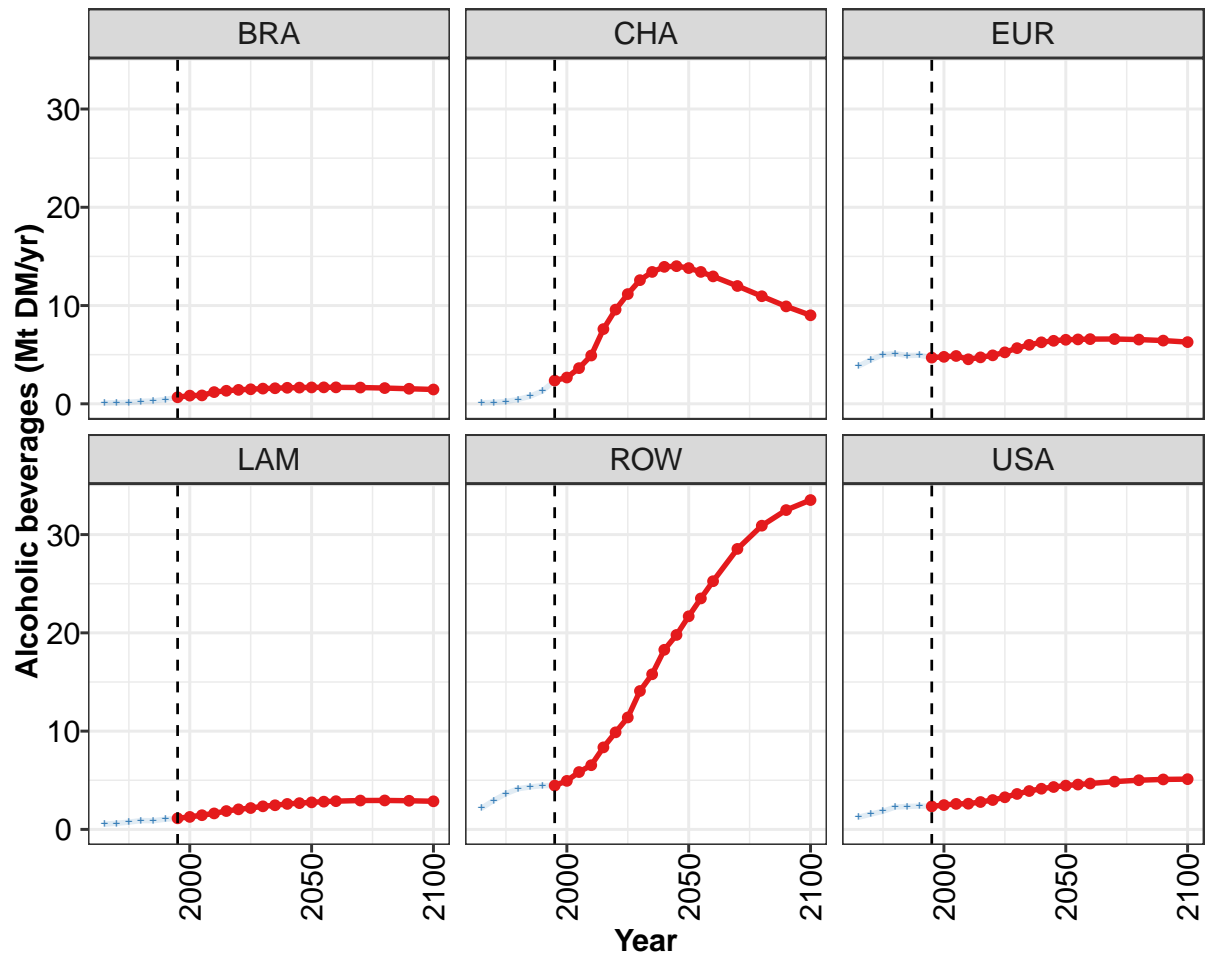
Table 432: MAgPIE m4p_brazil — Demand—Food—Secondary products (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	95	114	129	158	180	200	215	235	251	268
BRA	4	4	6	8	8	9	10	10	11	12
CHA	7	10	13	22	30	35	40	41	41	44
EUR	23	27	29	31	31	33	34	35	37	38
LAM	6	8	10	12	13	15	16	18	19	21
ROW	40	49	54	67	77	84	89	102	112	124
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





Model output

—•— MAgPIE m4p_brazil

Historical data

+— FAO

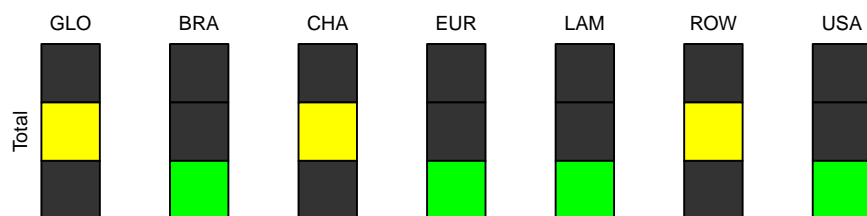


Figure 145: MAgPIE m4p_brazil — Demand—Food—Secondary products—Alcoholic beverages (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	15.7	17.0	19.2	21.4	26.7	30.9	34.7	39.8	43.2	46.8	48.9
BRA	0.7	0.8	0.9	1.2	1.3	1.4	1.5	1.5	1.6	1.6	1.7
CHA	2.4	2.7	3.6	4.9	7.6	9.6	11.2	12.6	13.4	13.9	14.0
EUR	4.7	4.8	4.9	4.5	4.7	4.9	5.2	5.7	6.0	6.3	6.4
LAM	1.1	1.3	1.4	1.6	1.9	2.0	2.2	2.3	2.5	2.6	2.7
ROW	4.5	4.9	5.8	6.5	8.3	9.9	11.4	14.1	15.8	18.3	19.8
USA	2.3	2.5	2.6	2.6	2.8	3.0	3.3	3.6	3.9	4.1	4.3

Table 434: MAgPIE m4p.brazil — Demand—Food—Secondary products—Alcoholic beverages (Mt DM/yr)
[PART 1/2]

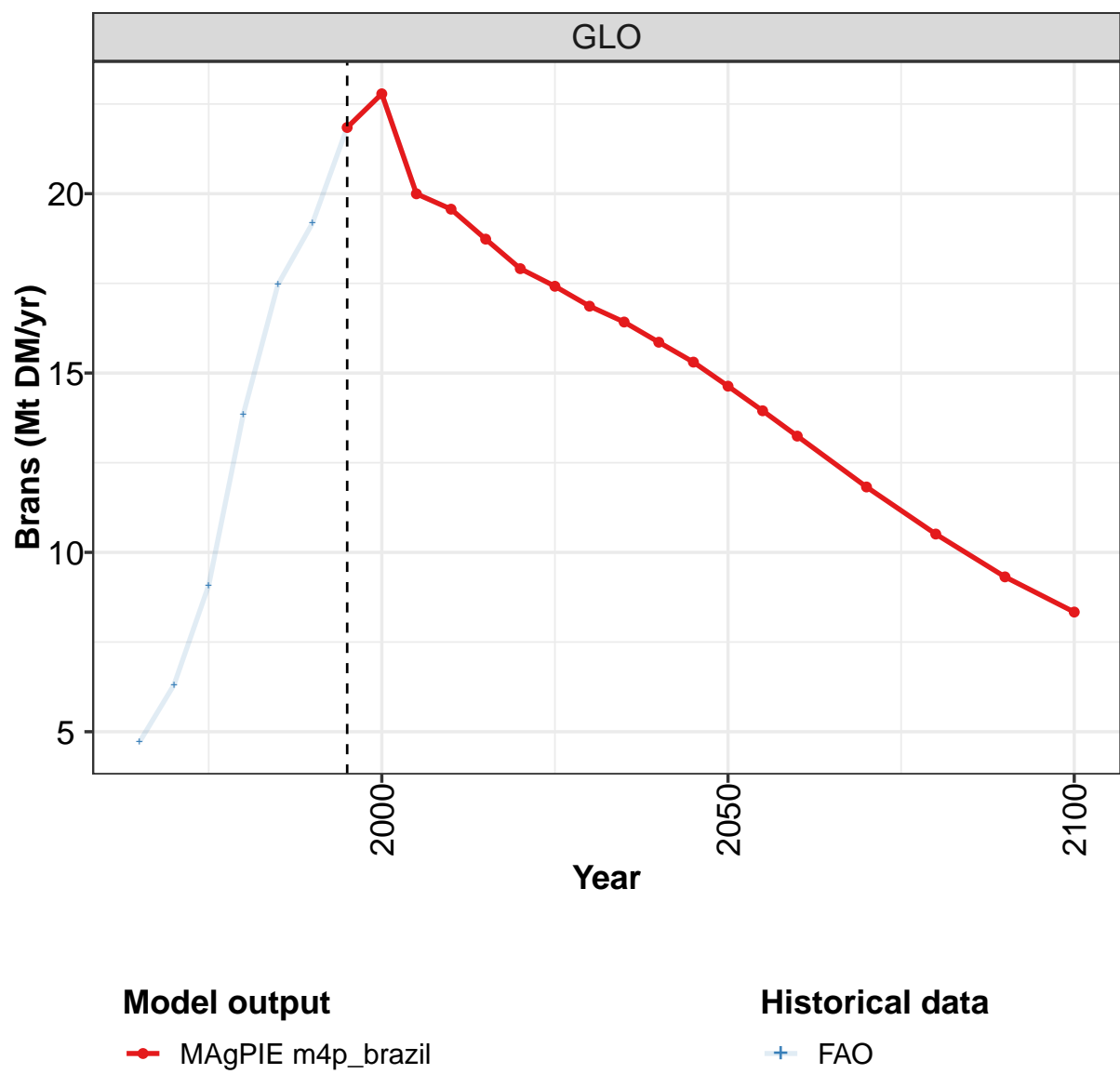
	2050	2055	2060	2070	2080	2090	2100
GLO	50.9	52.5	54.0	56.6	58.0	58.4	58.2
BRA	1.7	1.7	1.7	1.7	1.6	1.5	1.5
CHA	13.8	13.4	13.0	12.0	10.9	9.9	9.0
EUR	6.5	6.6	6.6	6.6	6.5	6.4	6.3
LAM	2.8	2.8	2.9	2.9	2.9	2.9	2.9
ROW	21.7	23.5	25.3	28.5	30.9	32.5	33.5
USA	4.5	4.6	4.7	4.9	5.0	5.1	5.1

Table 435: MAgPIE m4p.brazil — 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
BRA	0.1	0.1	0.2	0.2	0.3	0.4	0.7	0.8	0.9	1.2
CHA	0.1	0.1	0.2	0.4	0.8	1.3	2.4	2.7	3.6	4.9
EUR	3.8	4.5	5.0	5.1	4.9	4.9	4.7	4.8	4.9	4.5
LAM	0.5	0.6	0.7	0.9	0.9	1.0	1.1	1.3	1.4	1.6
ROW	2.2	3.0	3.6	4.1	4.3	4.5	4.5	4.9	5.8	6.5
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



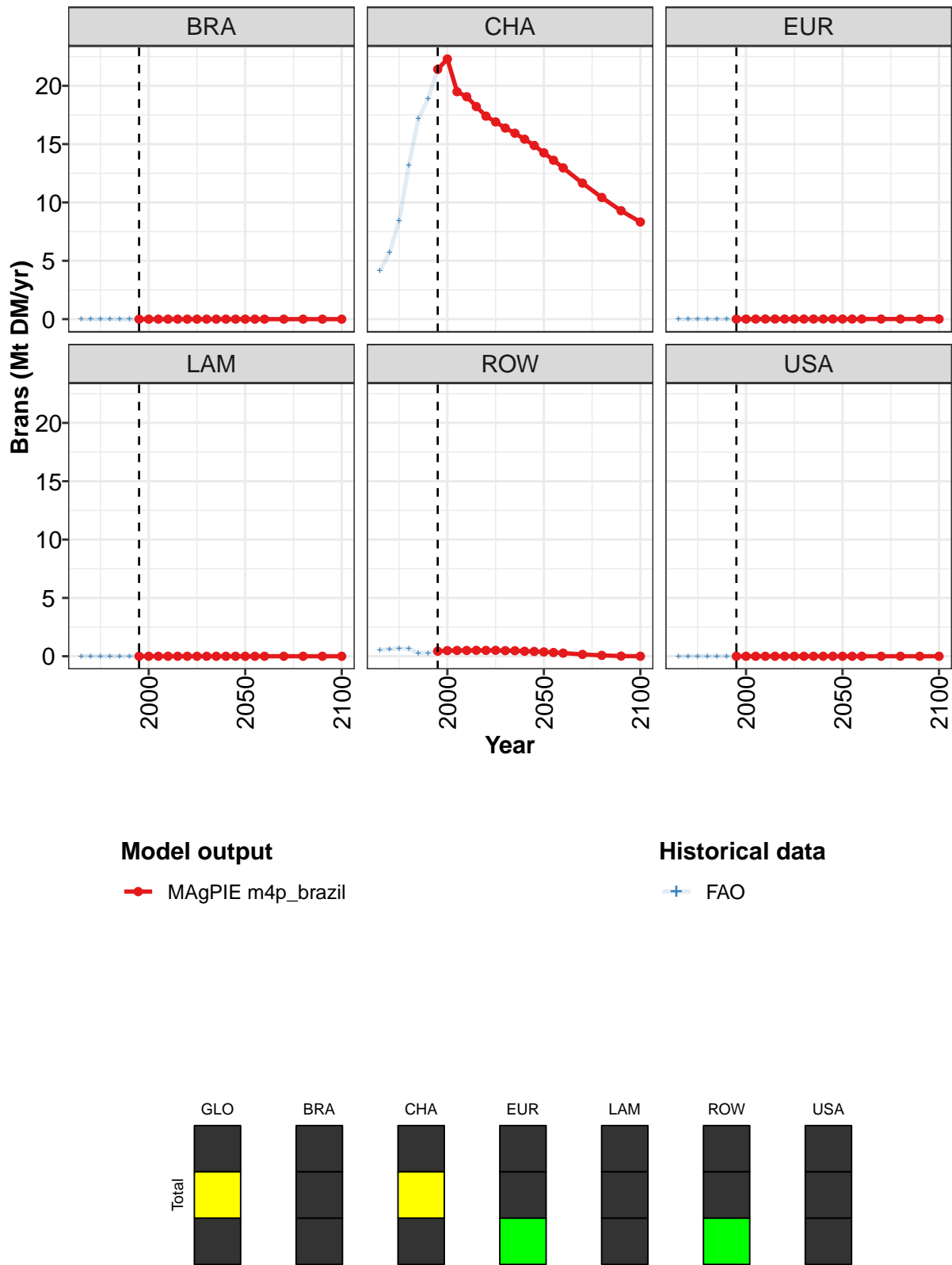


Figure 146: MAGPIE m4p_brazil — Demand—Food—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	21.8	22.8	20.0	19.6	18.7	17.9	17.4	16.9	16.4	15.9	15.3
BRA	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	18.2	17.4	16.9	16.4	15.9	15.4	14.9
EUR	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
ROW	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	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 437: MAgPIE m4p_brazil — Demand—Food—Secondary products—Brans (Mt DM/yr) [PART 1/2]

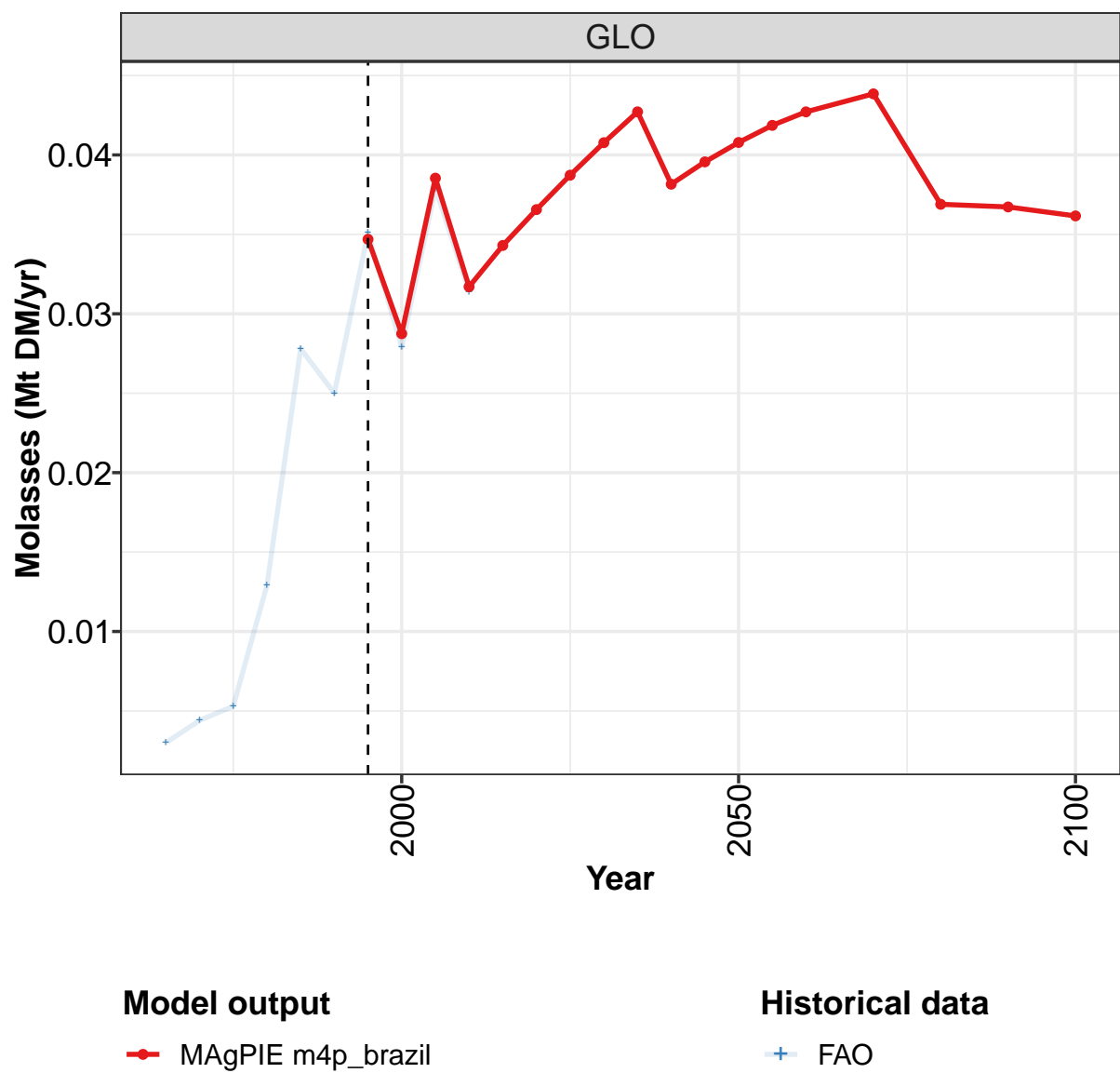
	2050	2055	2060	2070	2080	2090	2100
GLO	14.6	13.9	13.2	11.8	10.5	9.3	8.3
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	14.3	13.6	13.0	11.7	10.4	9.3	8.3
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROW	0.4	0.3	0.3	0.2	0.1	0.0	0.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 438: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROW	0.5	0.6	0.7	0.6	0.3	0.3	0.4	0.5	0.5	0.5
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



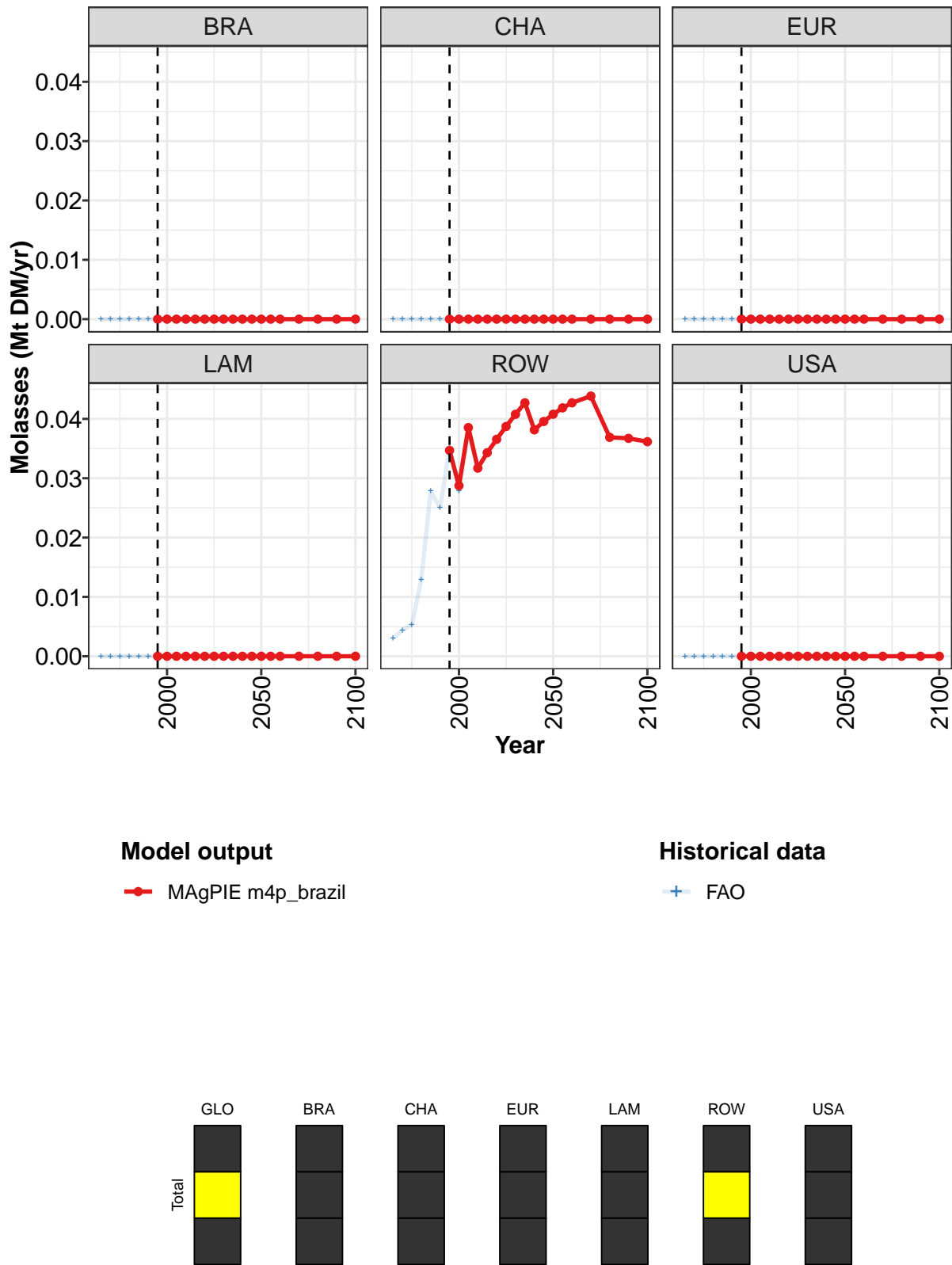


Figure 147: MAgPIE m4p_brazil — Demand—Food—Secondary products—Molasses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0347	0.0287	0.0385	0.0317	0.0343	0.0366	0.0387	0.0408	0.0427	0.0382	0.0396
BRA	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
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	0.0347	0.0287	0.0385	0.0317	0.0343	0.0366	0.0387	0.0408	0.0427	0.0382	0.0396
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_brazil — Demand—Food—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

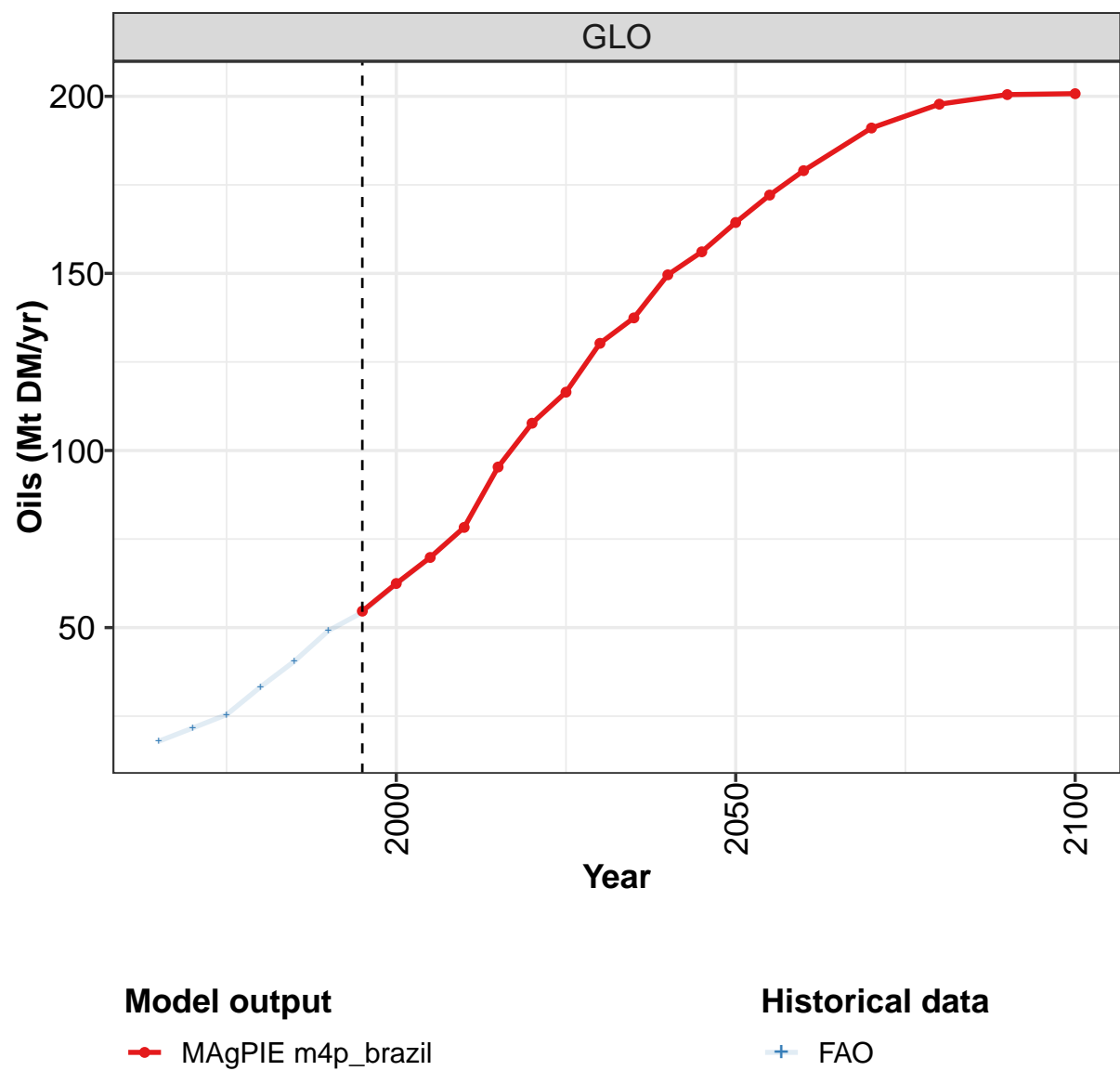
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0408	0.0419	0.0427	0.0438	0.0369	0.0367	0.0362
BRA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	0.0408	0.0419	0.0427	0.0438	0.0369	0.0367	0.0362
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 441: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	0.0030	0.0044	0.0053	0.0129	0.0278	0.0250	0.0351	0.0279	0.0379	0.0314
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



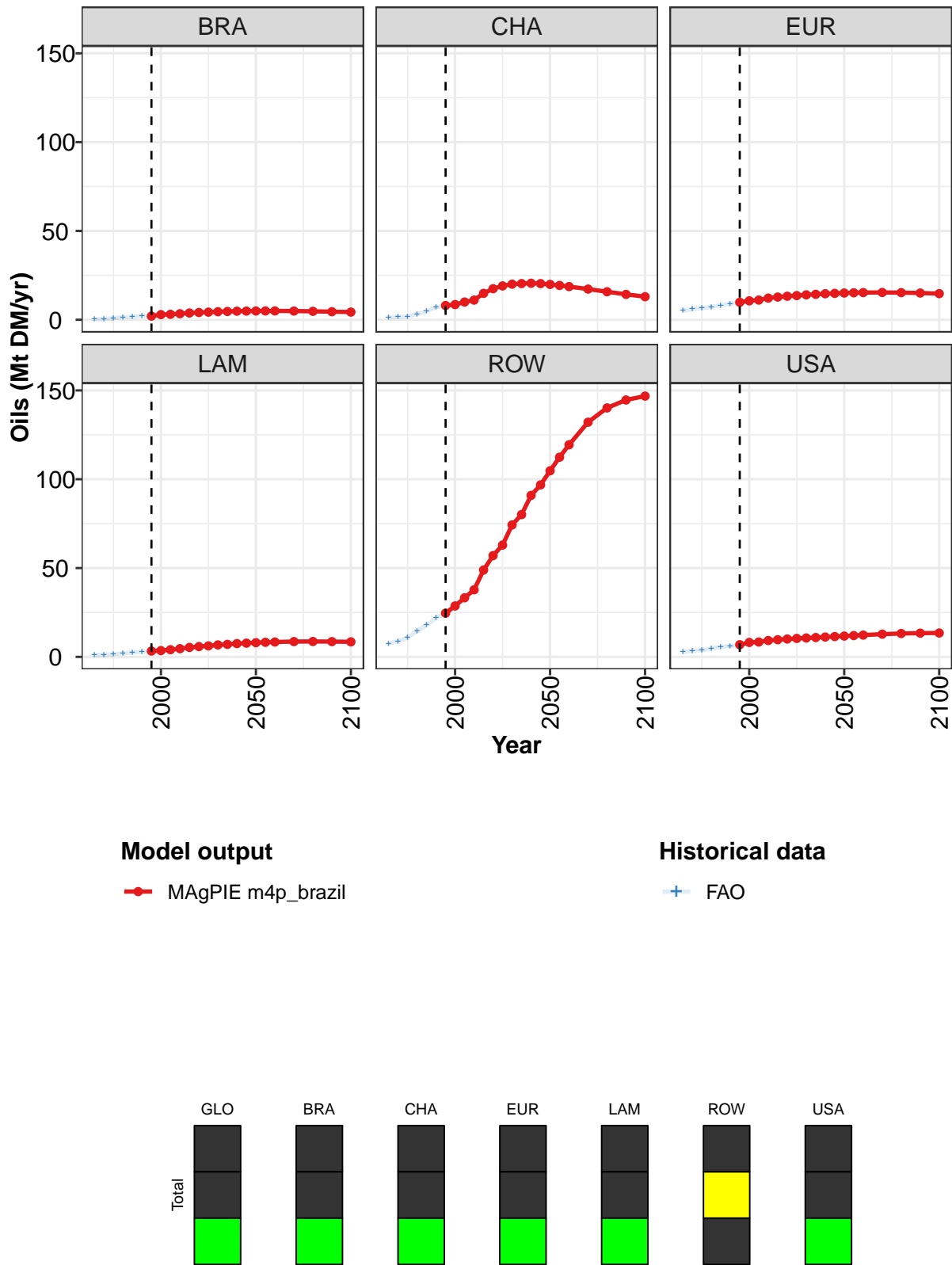


Figure 148: MAgPIE m4p_brazil — Demand—Food—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	55	62	70	78	95	108	116	130	137	150	156
BRA	2	3	3	3	4	4	4	5	5	5	5
CHA	8	9	10	11	15	17	19	20	20	21	20
EUR	10	11	11	12	13	13	14	14	14	15	15
LAM	3	4	4	5	5	6	6	7	7	7	8
ROW	25	29	33	38	49	57	63	74	80	91	97
USA	7	8	8	9	10	10	10	11	11	11	11

Table 443: MAgPIE m4p_brazil — Demand—Food—Secondary products—Oils (Mt DM/yr) [PART 1/2]

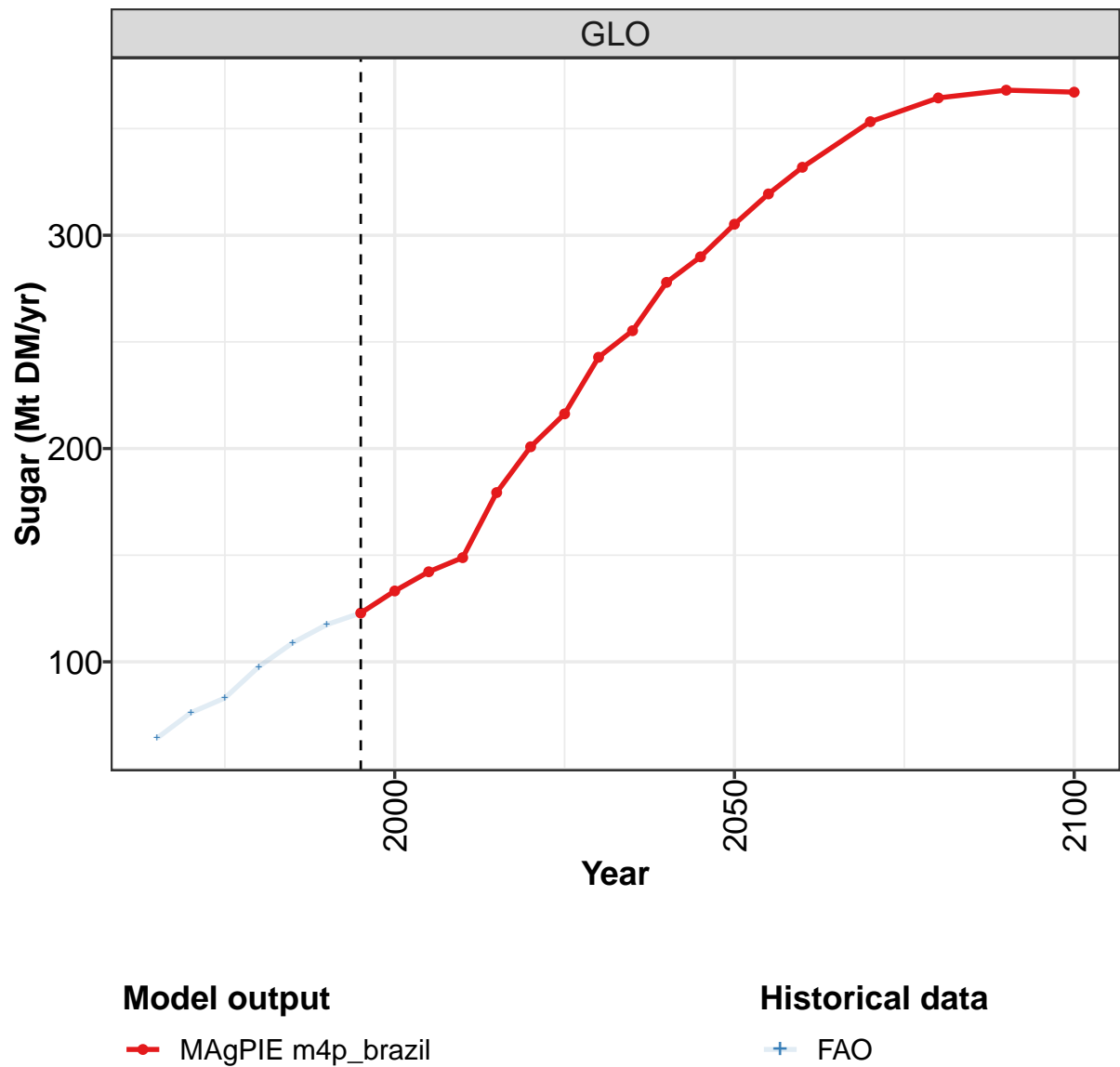
	2050	2055	2060	2070	2080	2090	2100
GLO	164	172	179	191	198	200	201
BRA	5	5	5	5	5	5	4
CHA	20	19	19	17	16	14	13
EUR	15	15	15	15	15	15	15
LAM	8	8	8	9	9	9	8
ROW	105	112	119	132	140	145	147
USA	12	12	12	13	13	13	13

Table 444: MAgPIE m4p_brazil — 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
BRA	0.4	0.5	0.9	1.4	1.7	2.2	2.1	2.9	3.1	3.4
CHA	1.3	1.6	1.9	3.2	4.7	7.1	8.0	8.6	10.0	11.1
EUR	5.1	6.0	6.5	7.3	8.0	9.1	9.8	10.7	11.1	12.2
LAM	1.0	1.2	1.5	2.0	2.5	2.8	3.3	3.5	4.0	4.6
ROW	7.5	8.8	10.8	14.6	17.9	21.9	24.6	28.7	33.3	37.8
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



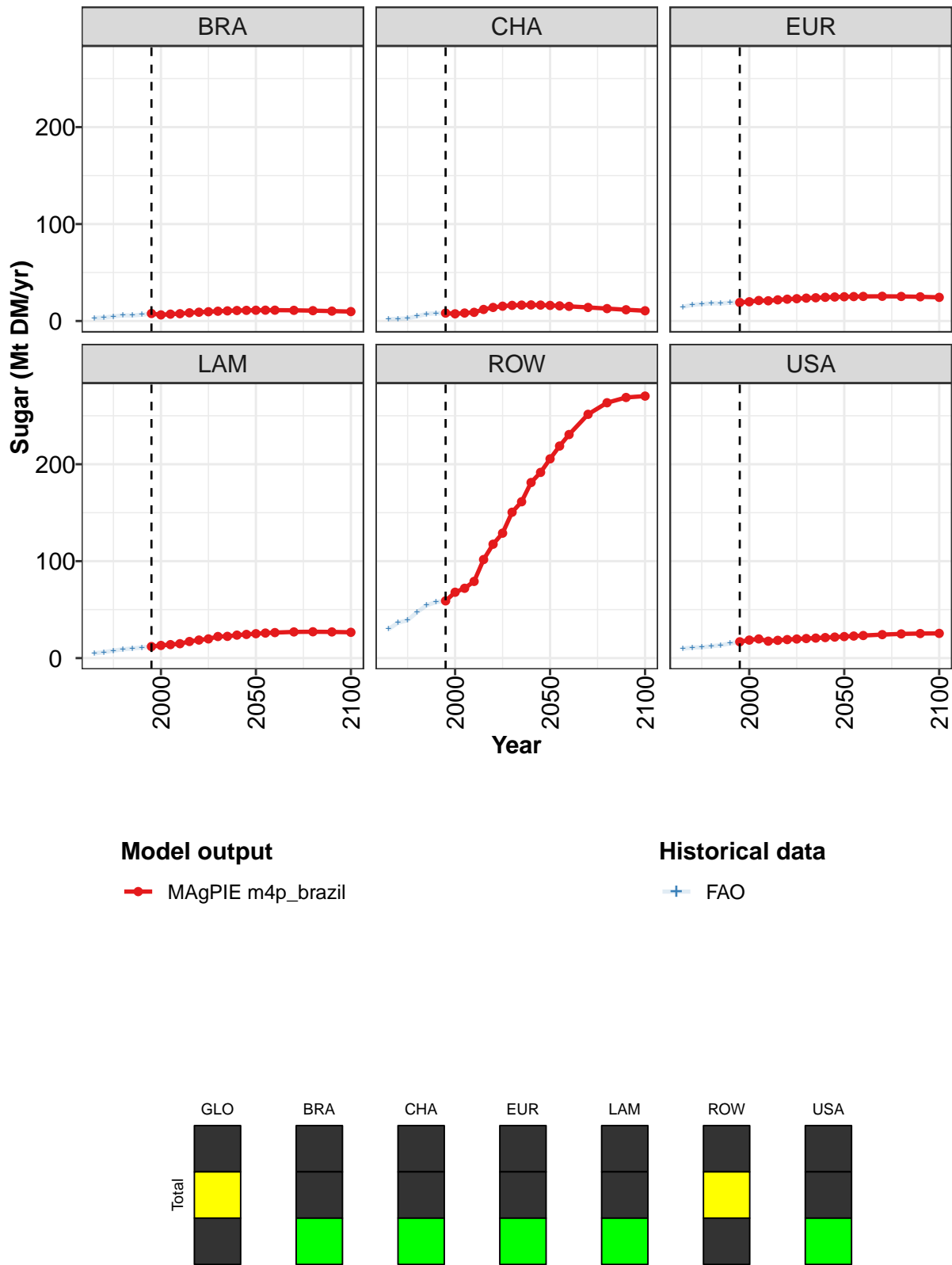


Figure 149: MAgPIE m4p_brazil — Demand—Food—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	123	133	142	149	179	201	216	243	255	278	290
BRA	8	6	7	8	8	9	10	10	10	11	11
CHA	8	7	8	9	12	14	15	16	16	17	16
EUR	19	20	21	21	22	22	23	24	24	24	25
LAM	12	13	14	15	17	19	20	22	22	24	24
ROW	59	68	72	79	102	118	129	150	161	181	192
USA	17	19	20	17	18	19	20	20	21	21	22

Table 446: MAgPIE m4p_brazil — Demand—Food—Secondary products—Sugar (Mt DM/yr) [PART 1/2]

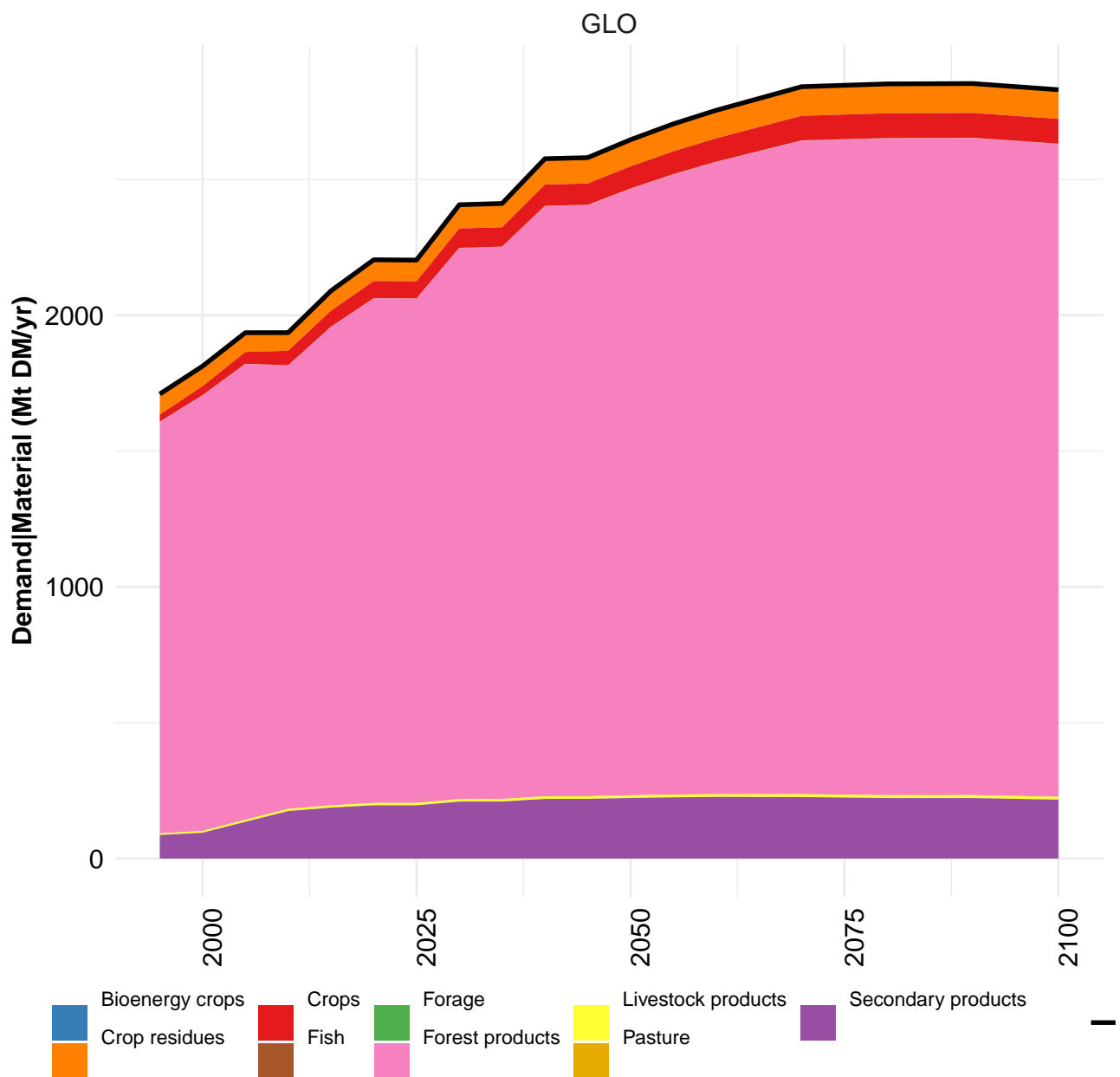
	2050	2055	2060	2070	2080	2090	2100
GLO	305	319	332	353	364	368	367
BRA	11	11	11	11	11	10	10
CHA	16	16	15	14	13	12	11
EUR	25	25	25	25	25	25	24
LAM	25	26	26	27	27	27	27
ROW	206	219	231	251	263	269	270
USA	22	23	23	24	25	25	26

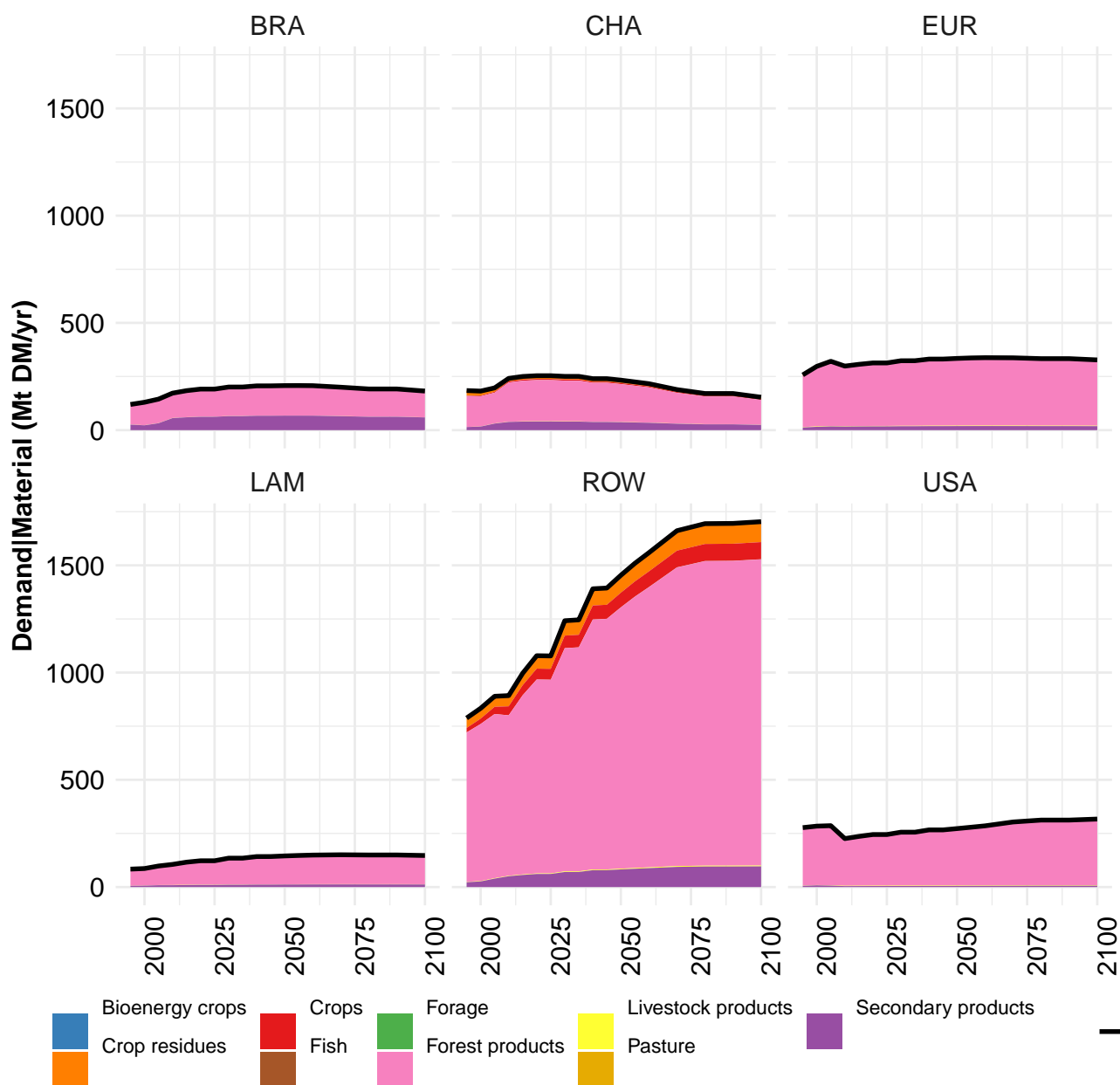
Table 447: MAgPIE m4p_brazil — Demand—Food—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

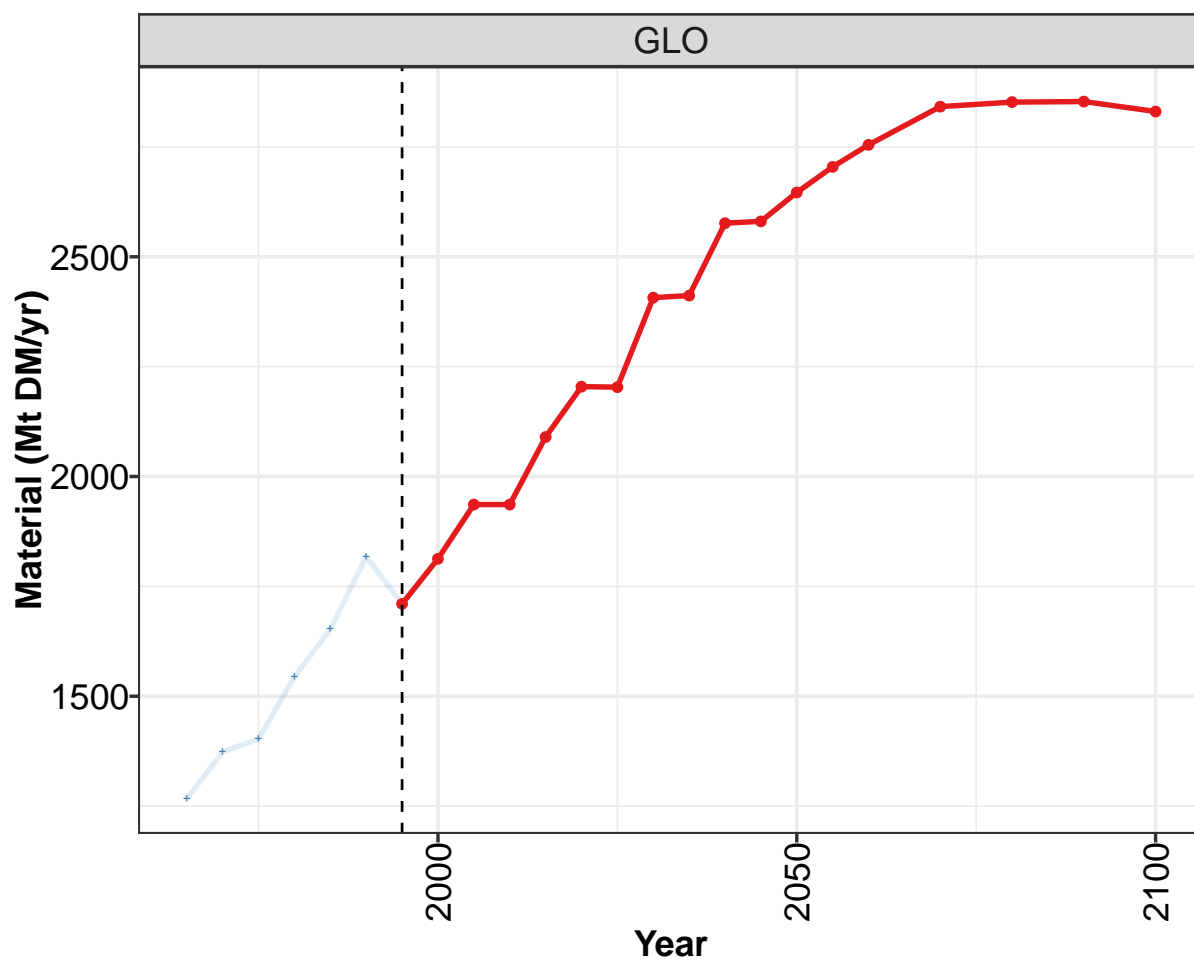
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	64	76	83	98	109	117	123	133	142	149
BRA	3	4	5	6	6	7	8	6	7	8
CHA	2	2	3	5	7	8	8	7	8	9
EUR	15	17	17	18	18	19	19	20	21	21
LAM	5	6	8	9	10	11	12	13	14	15
ROW	30	37	39	47	55	58	59	68	72	79
USA	10	11	11	12	13	15	17	19	20	17

Table 448: FAO — Demand—Food—Secondary products—Sugar (Mt DM/yr)

8 Material





**Model output**

—●— MAgPIE m4p_brazil

Historical data

—+— FAO

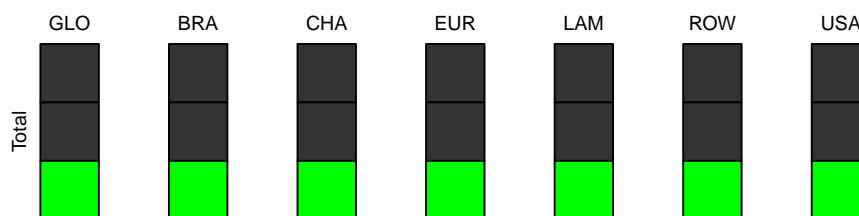
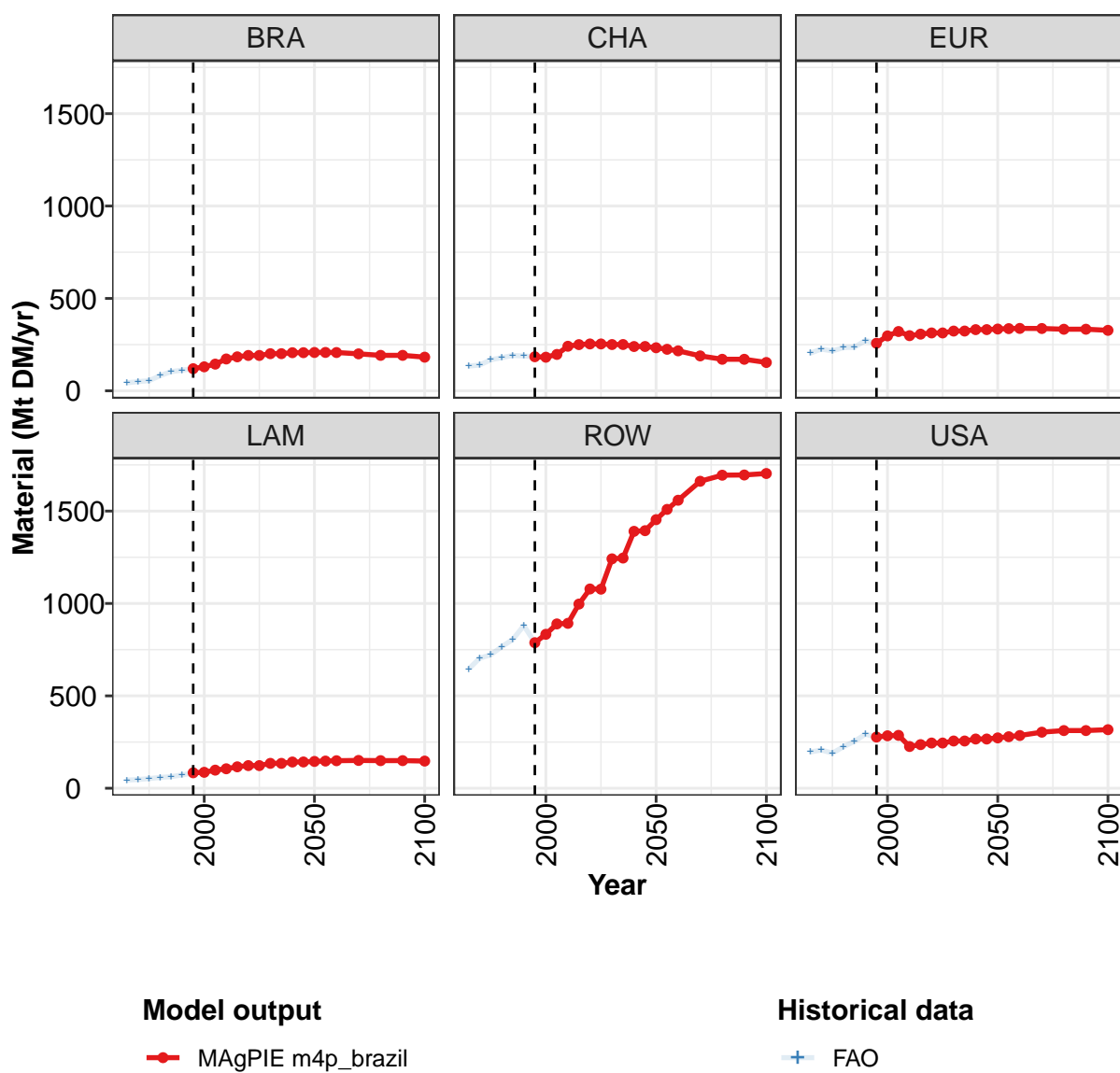


Figure 150: MAgPIE m4p_brazil — Demand—Material (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1710	1813	1936	1936	2090	2204	2203	2407	2412	2576	2581
BRA	120	130	145	172	184	191	191	201	201	206	206
CHA	184	182	197	241	250	254	254	251	251	240	240
EUR	257	297	321	299	307	313	313	323	324	331	331
LAM	84	86	98	106	116	123	123	135	135	142	142
ROW	788	833	889	893	997	1079	1078	1242	1246	1390	1394
USA	277	284	286	226	236	245	245	256	256	266	267

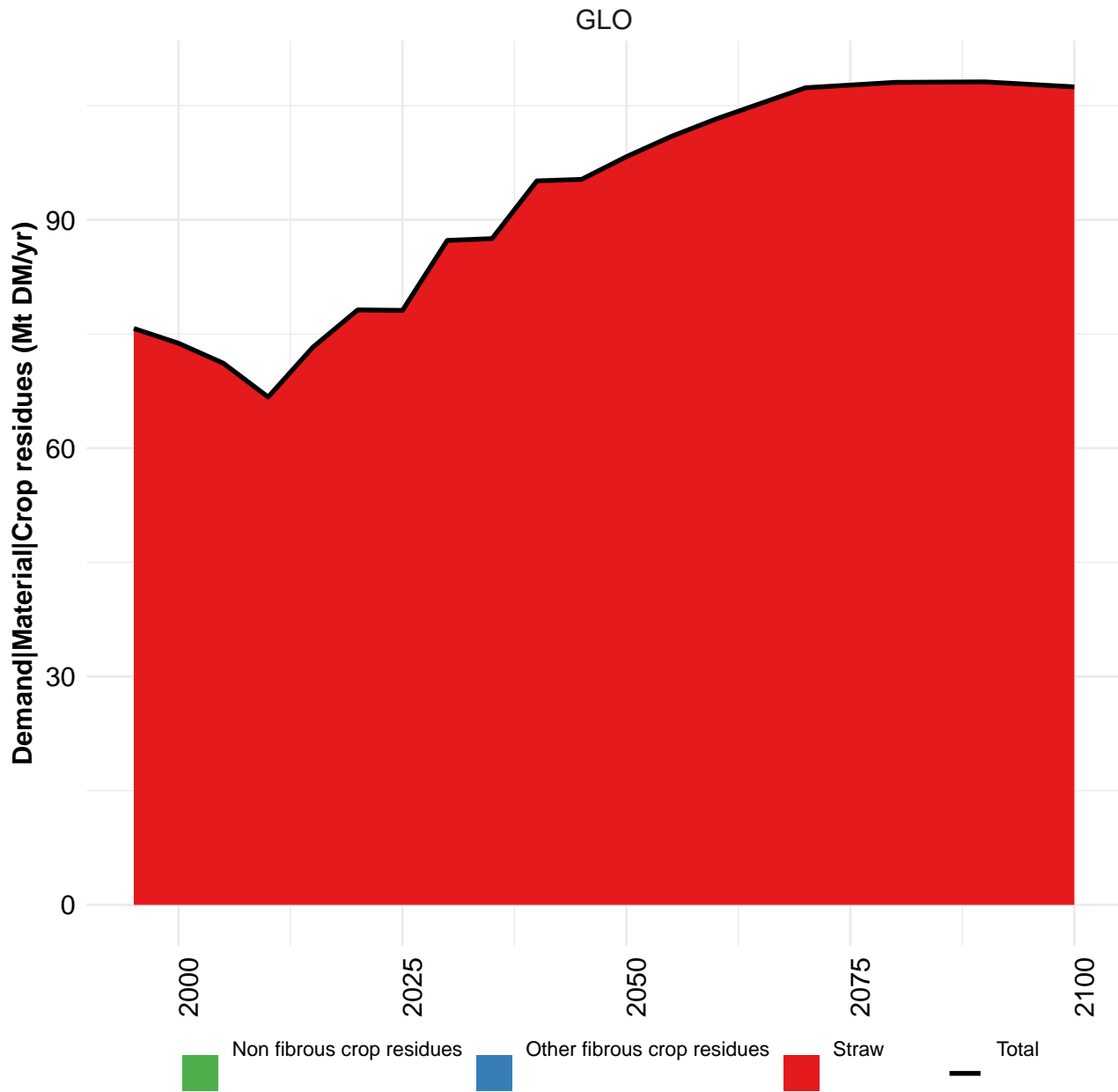
Table 449: MAgPIE m4p_brazil — Demand—Material (Mt DM/yr) [PART 1/2]

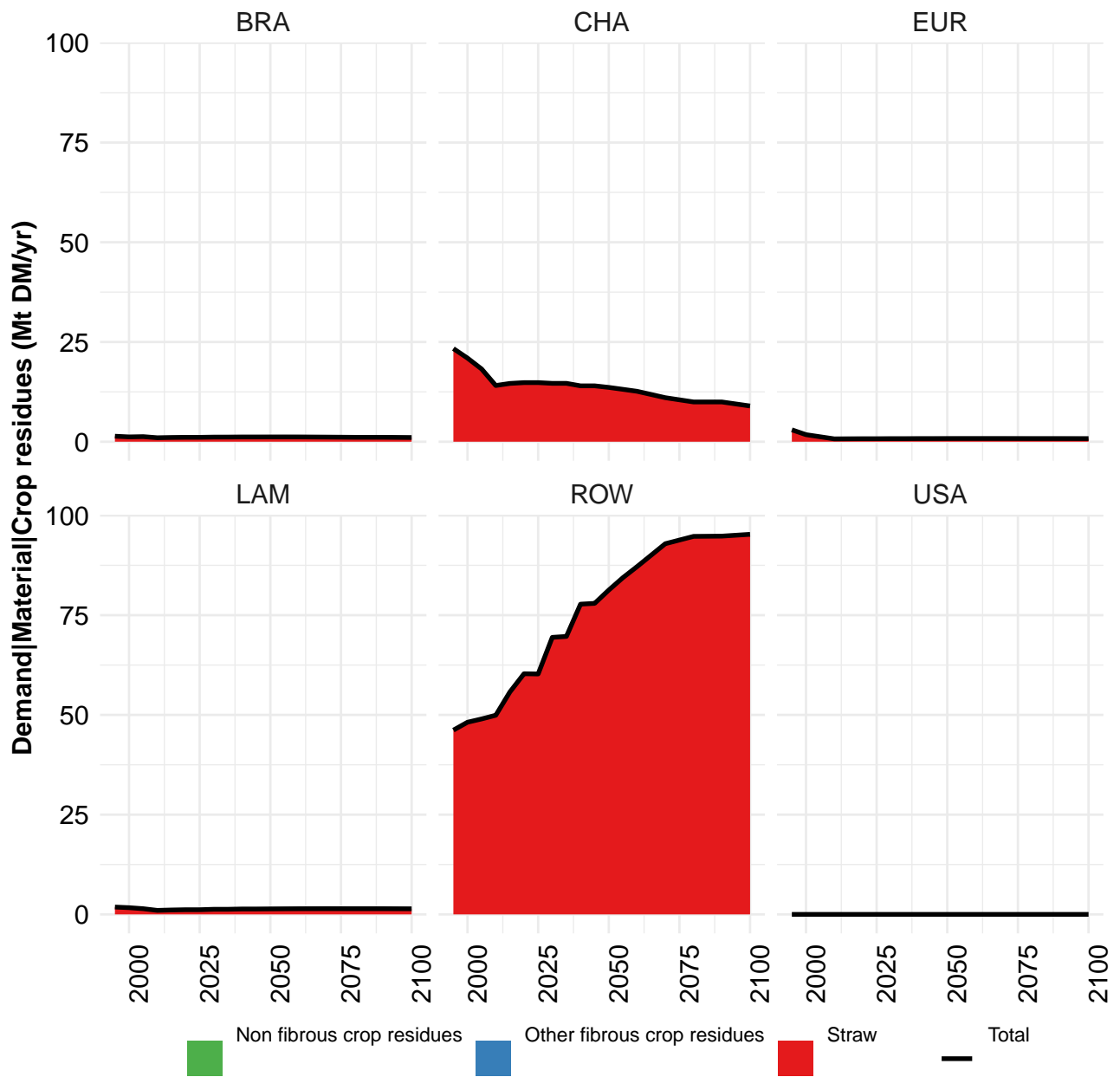
	2050	2055	2060	2070	2080	2090	2100
GLO	2646	2705	2755	2842	2852	2853	2831
BRA	208	208	207	200	192	192	182
CHA	233	225	216	189	171	171	153
EUR	334	337	338	337	333	333	327
LAM	145	147	149	151	149	150	147
ROW	1454	1509	1559	1661	1694	1695	1703
USA	273	279	285	303	312	312	317

Table 450: MAgPIE m4p_brazil — Demand—Material (Mt DM/yr) [PART 2/2]

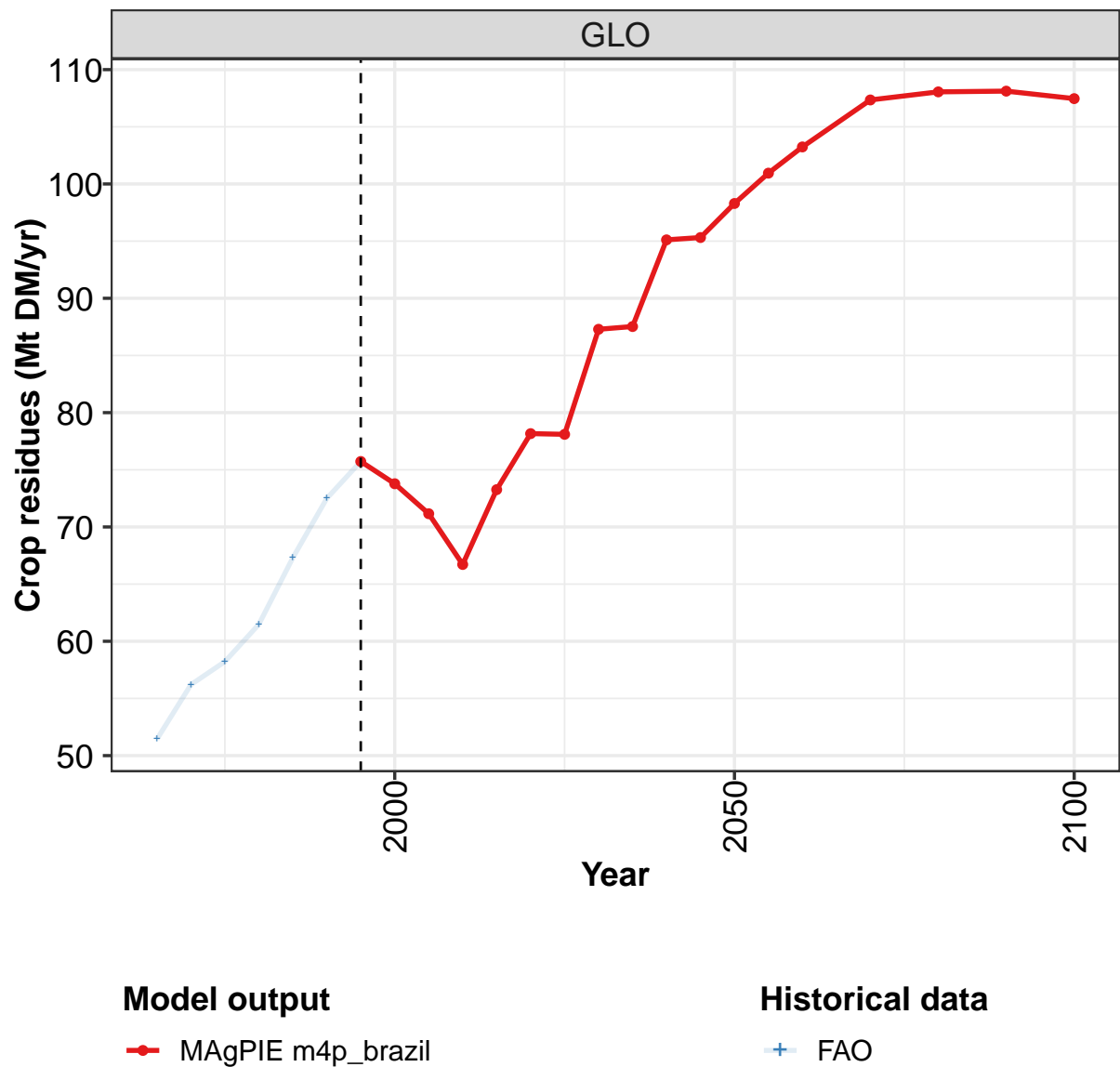
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1267	1373	1403	1544	1653	1818	1710	1813	1936	1936
BRA	43	50	55	82	104	112	120	130	145	172
CHA	134	140	168	179	191	189	184	182	197	241
EUR	204	226	216	234	236	273	257	297	321	299
LAM	44	47	52	58	63	72	84	86	98	106
ROW	645	704	722	766	806	880	788	833	889	893
USA	196	207	190	224	254	292	277	284	286	226

Table 451: FAO — Demand—Material (Mt DM/yr)





8.1 Crop residues



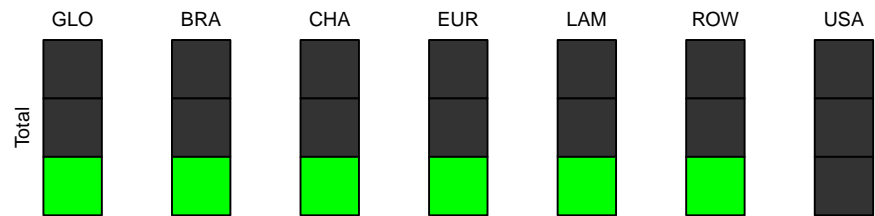
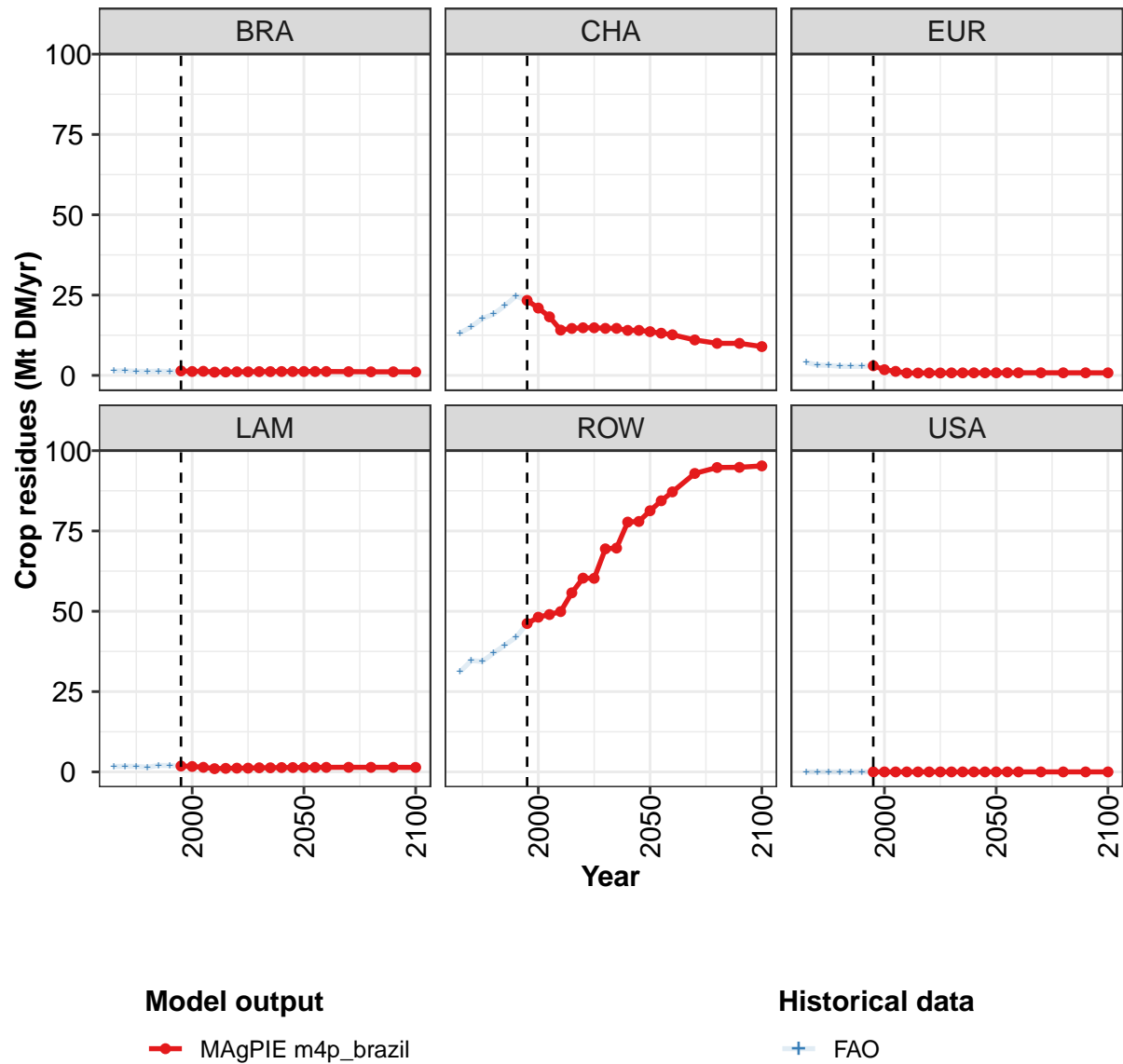


Figure 151: MAGPIE m4p_brazil — Demand—Material—Crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	76	74	71	67	73	78	78	87	88	95	95
BRA	1	1	1	1	1	1	1	1	1	1	1
CHA	23	21	18	14	15	15	15	15	15	14	14
EUR	3	2	1	1	1	1	1	1	1	1	1
LAM	2	2	1	1	1	1	1	1	1	1	1
ROW	46	48	49	50	56	60	60	69	70	78	78
USA	0	0	0	0	0	0	0	0	0	0	0

Table 452: MAgPIE m4p_brazil — Demand—Material—Crop residues (Mt DM/yr) [PART 1/2]

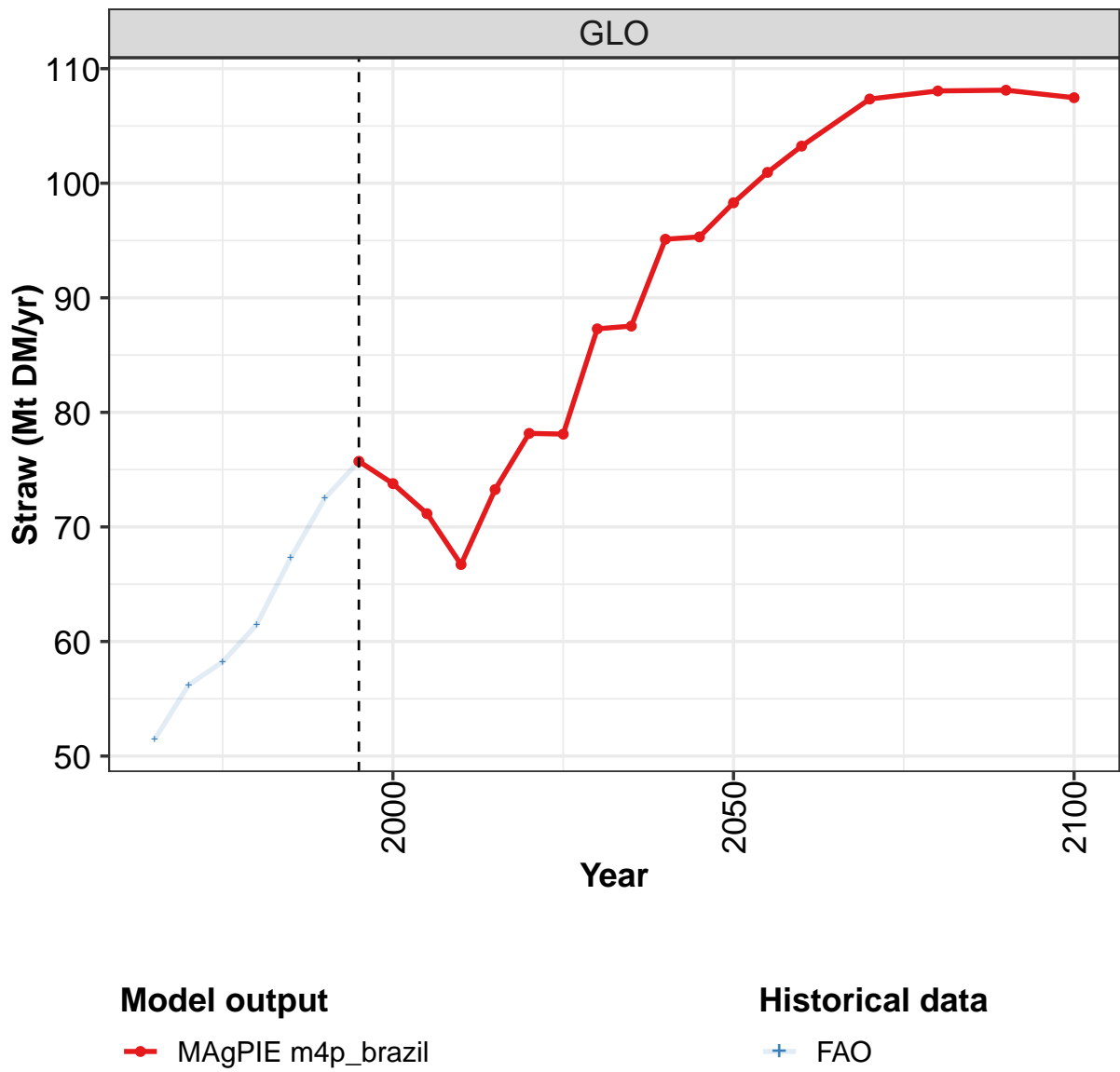
	2050	2055	2060	2070	2080	2090	2100
GLO	98	101	103	107	108	108	107
BRA	1	1	1	1	1	1	1
CHA	14	13	13	11	10	10	9
EUR	1	1	1	1	1	1	1
LAM	1	1	1	1	1	1	1
ROW	81	84	87	93	95	95	95
USA	0	0	0	0	0	0	0

Table 453: MAgPIE m4p_brazil — 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
BRA	1.4	1.4	1.3	1.2	1.3	1.2	1.4	1.2	1.3	1.0
CHA	13.2	15.1	17.7	19.1	21.7	24.7	23.3	21.0	18.2	14.1
EUR	4.0	3.2	3.1	2.8	2.8	2.8	3.0	1.8	1.2	0.7
LAM	1.7	1.8	1.7	1.4	2.0	2.0	1.8	1.7	1.4	1.0
ROW	31.2	34.6	34.4	37.0	39.5	41.9	46.2	48.2	49.0	49.9
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



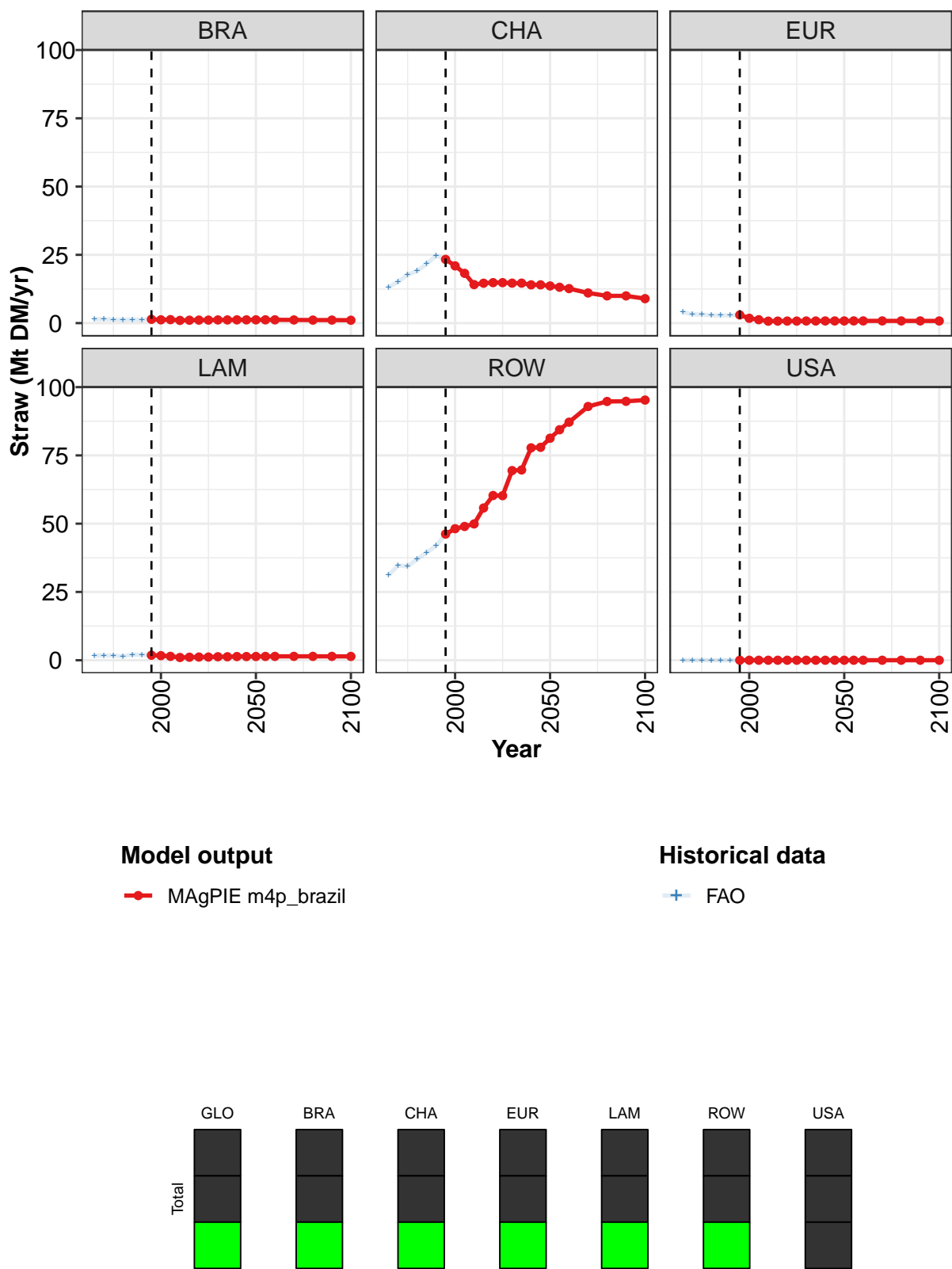


Figure 152: MAgPIE m4p_brazil — Demand—Material—Crop residues—Straw (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	76	74	71	67	73	78	78	87	88	95	95
BRA	1	1	1	1	1	1	1	1	1	1	1
CHA	23	21	18	14	15	15	15	15	15	14	14
EUR	3	2	1	1	1	1	1	1	1	1	1
LAM	2	2	1	1	1	1	1	1	1	1	1
ROW	46	48	49	50	56	60	60	69	70	78	78
USA	0	0	0	0	0	0	0	0	0	0	0

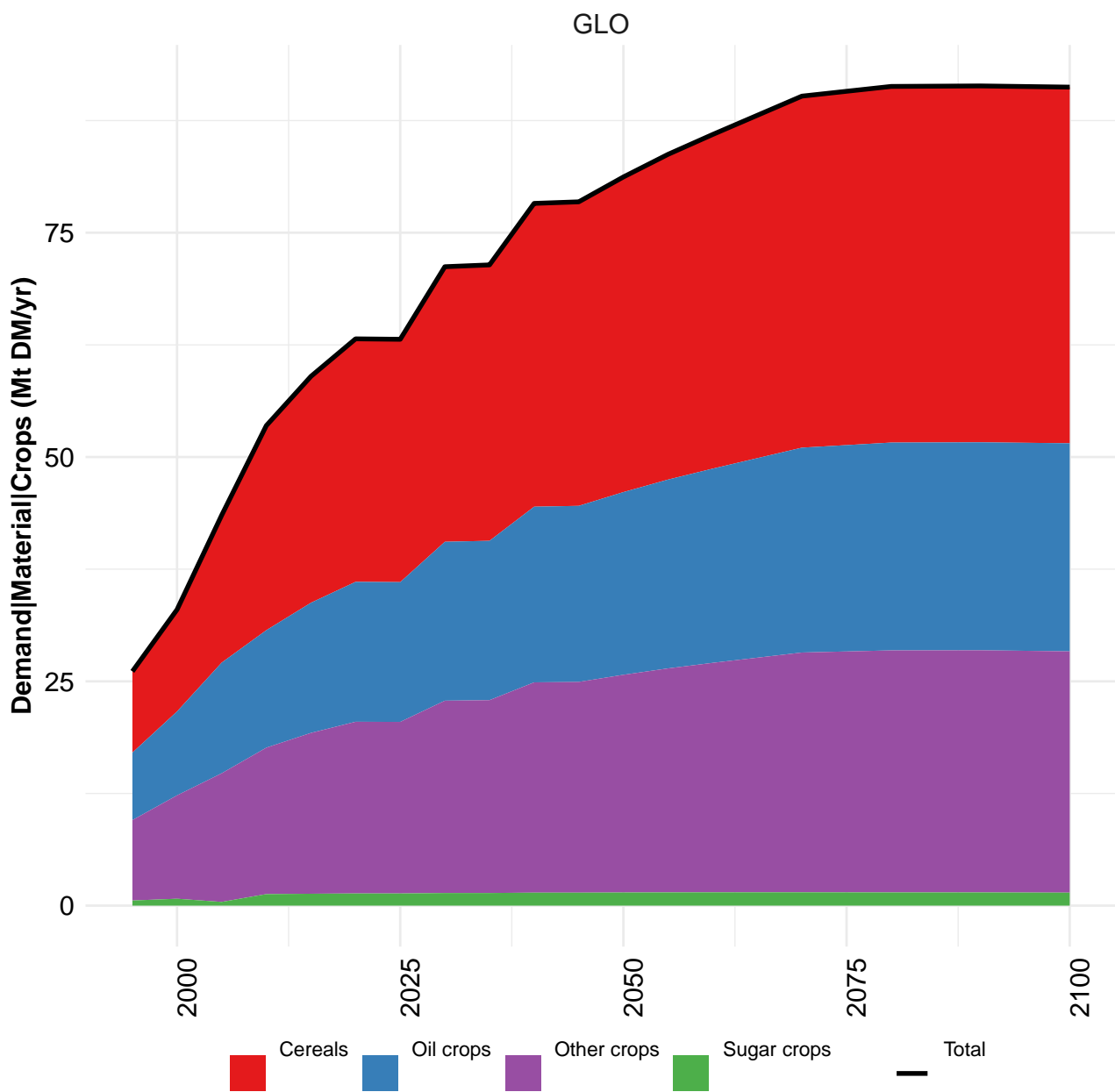
Table 455: MAgPIE m4p_brazil — Demand—Material—Crop residues—Straw (Mt DM/yr) [PART 1/2]

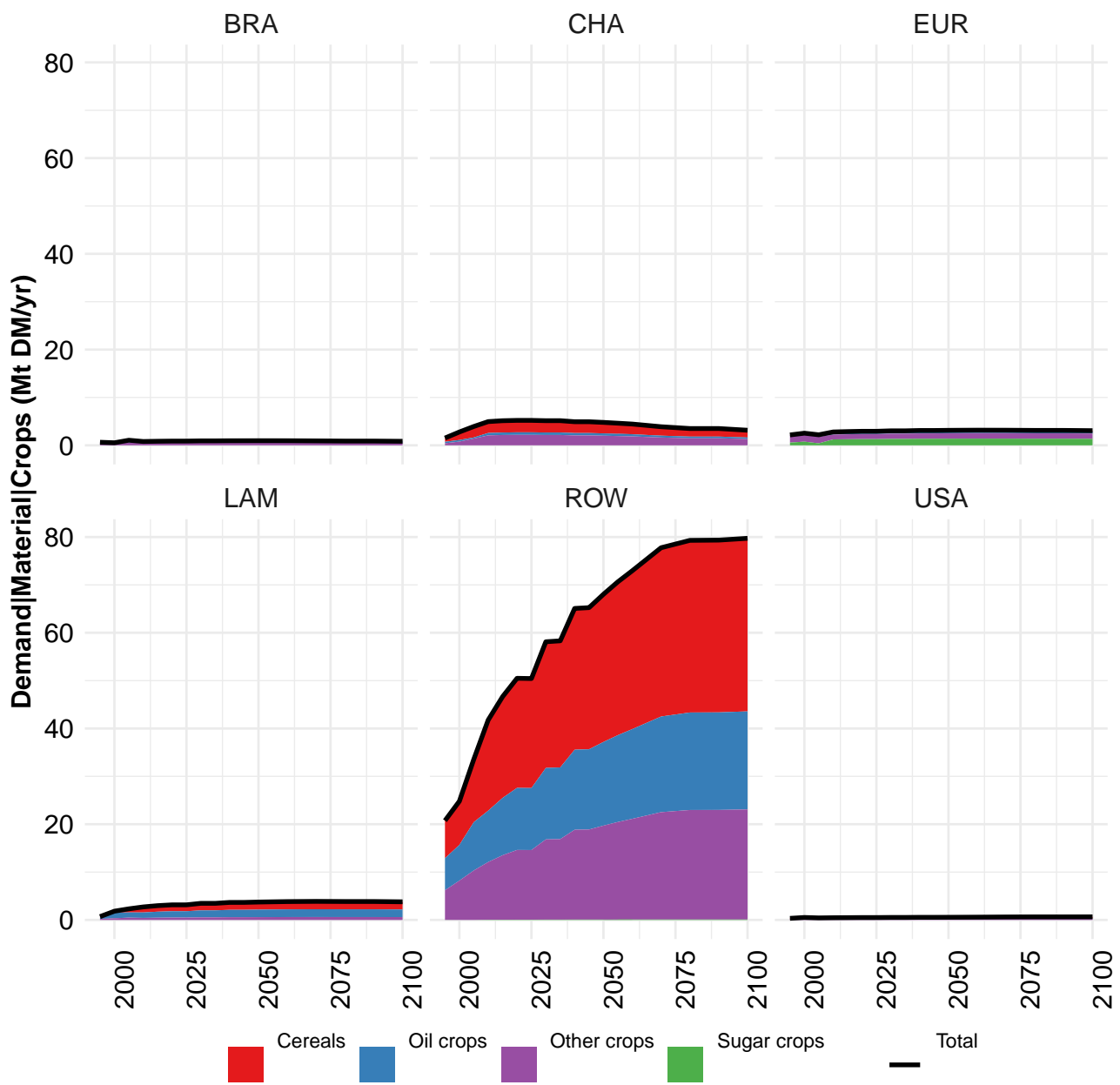
	2050	2055	2060	2070	2080	2090	2100
GLO	98	101	103	107	108	108	107
BRA	1	1	1	1	1	1	1
CHA	14	13	13	11	10	10	9
EUR	1	1	1	1	1	1	1
LAM	1	1	1	1	1	1	1
ROW	81	84	87	93	95	95	95
USA	0	0	0	0	0	0	0

Table 456: MAgPIE m4p_brazil — Demand—Material—Crop residues—Straw (Mt DM/yr) [PART 2/2]

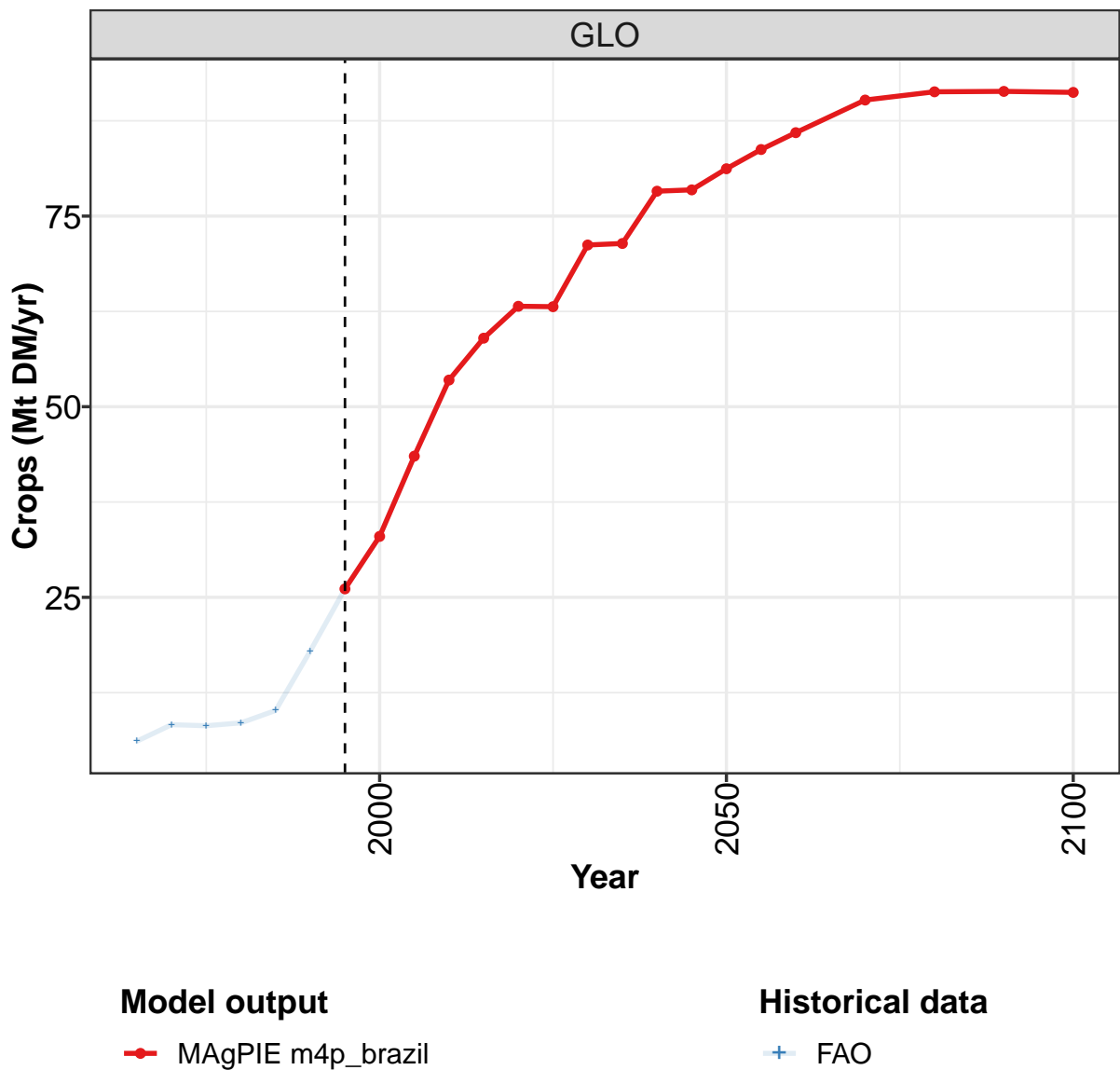
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	51.4	56.2	58.2	61.5	67.3	72.5	75.7	73.8	71.2	66.7
BRA	1.4	1.4	1.3	1.2	1.3	1.2	1.4	1.2	1.3	1.0
CHA	13.2	15.1	17.7	19.1	21.7	24.7	23.3	21.0	18.2	14.1
EUR	4.0	3.2	3.1	2.8	2.8	2.8	3.0	1.8	1.2	0.7
LAM	1.7	1.8	1.7	1.4	2.0	2.0	1.8	1.7	1.4	1.0
ROW	31.2	34.6	34.4	37.0	39.5	41.9	46.2	48.2	49.0	49.9
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



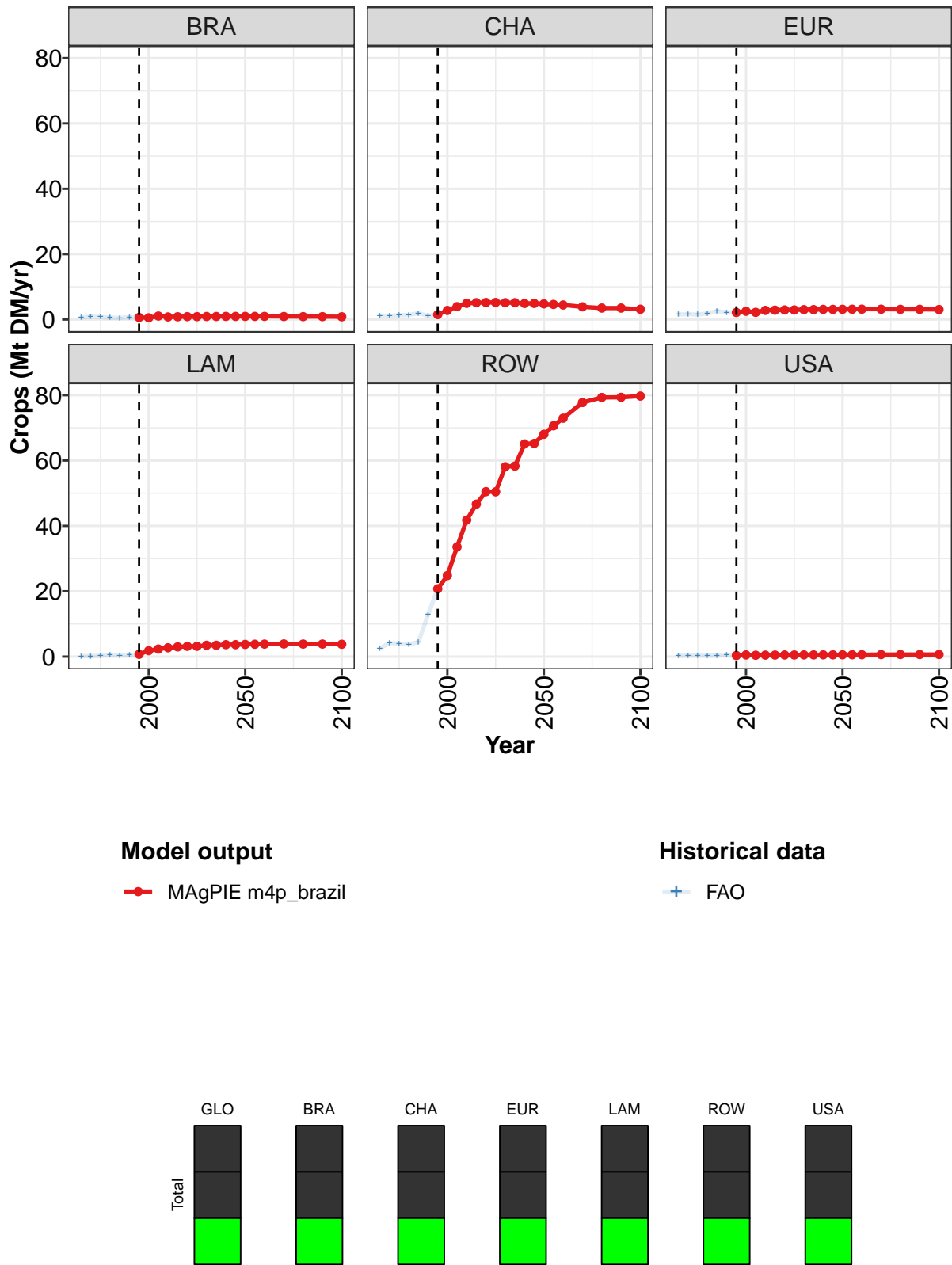


Figure 153: MAgPIE m4p_brazil — Demand—Material—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	26.1	33.0	43.5	53.5	59.0	63.2	63.1	71.2	71.4	78.3	78.4
BRA	0.6	0.5	1.1	0.8	0.9	0.9	0.9	0.9	0.9	1.0	1.0
CHA	1.5	2.8	3.9	5.0	5.1	5.2	5.2	5.1	5.1	4.9	4.9
EUR	2.2	2.5	2.2	2.8	2.9	2.9	2.9	3.0	3.0	3.1	3.1
LAM	0.7	1.8	2.3	2.7	3.0	3.2	3.2	3.5	3.5	3.7	3.7
ROW	20.7	24.8	33.6	41.8	46.7	50.5	50.4	58.1	58.3	65.1	65.2
USA	0.3	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Table 458: MAgPIE m4p_brazil — Demand—Material—Crops (Mt DM/yr) [PART 1/2]

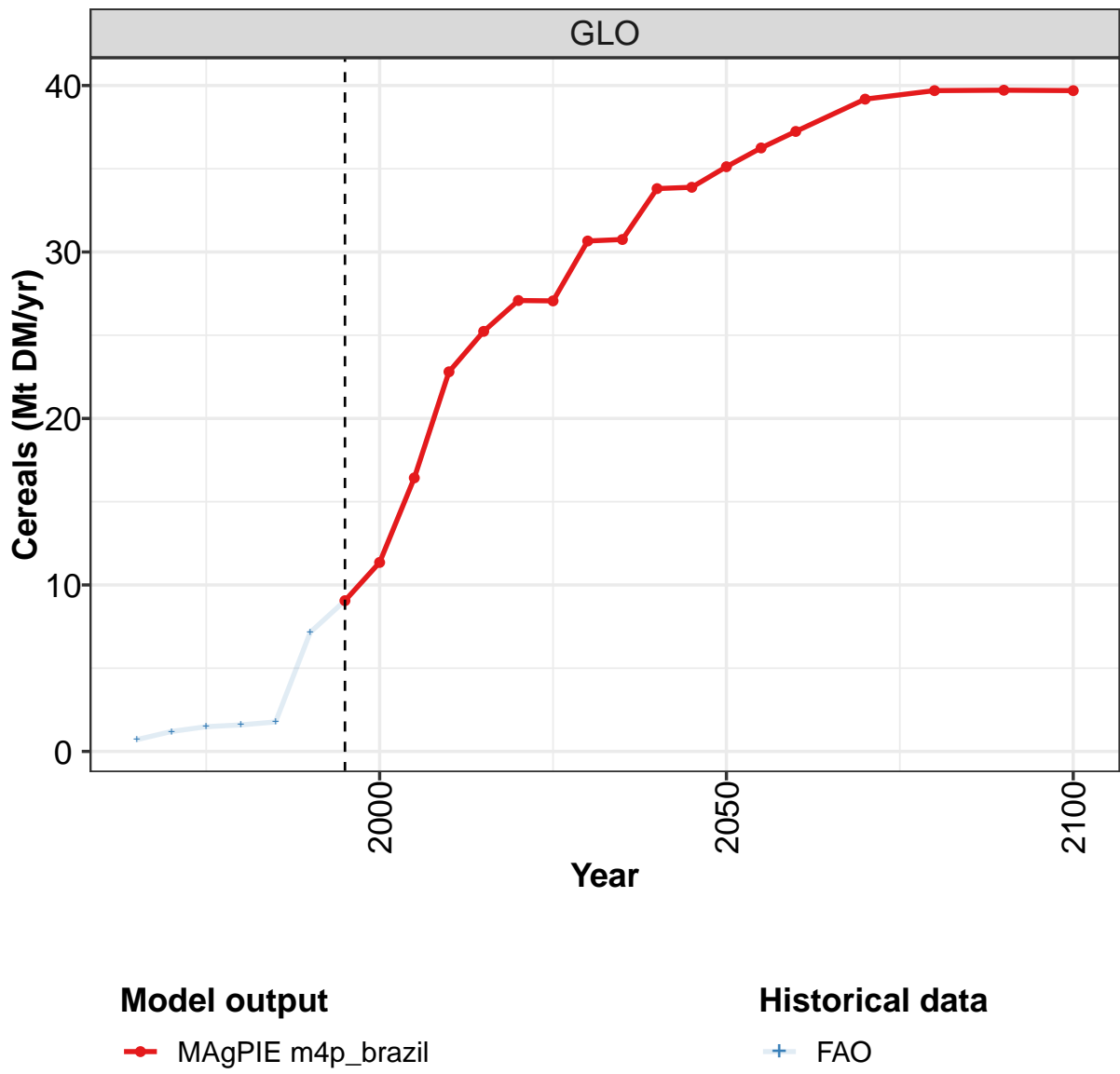
	2050	2055	2060	2070	2080	2090	2100
GLO	81.2	83.7	85.9	90.2	91.3	91.4	91.2
BRA	1.0	1.0	1.0	0.9	0.9	0.9	0.8
CHA	4.8	4.6	4.4	3.9	3.5	3.5	3.2
EUR	3.1	3.2	3.2	3.2	3.1	3.1	3.1
LAM	3.7	3.8	3.8	3.9	3.9	3.9	3.8
ROW	68.0	70.6	73.0	77.8	79.3	79.3	79.7
USA	0.6	0.6	0.6	0.6	0.6	0.6	0.7

Table 459: MAgPIE m4p_brazil — 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
BRA	0.6	0.9	0.8	0.6	0.5	0.7	0.6	0.5	1.1	0.8
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	1.9	2.6	2.2	2.2	2.5	2.2	2.8
LAM	0.1	0.2	0.3	0.6	0.3	0.5	0.7	1.8	2.3	2.7
ROW	2.5	4.2	4.0	3.8	4.5	12.9	20.7	24.8	33.6	41.8
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



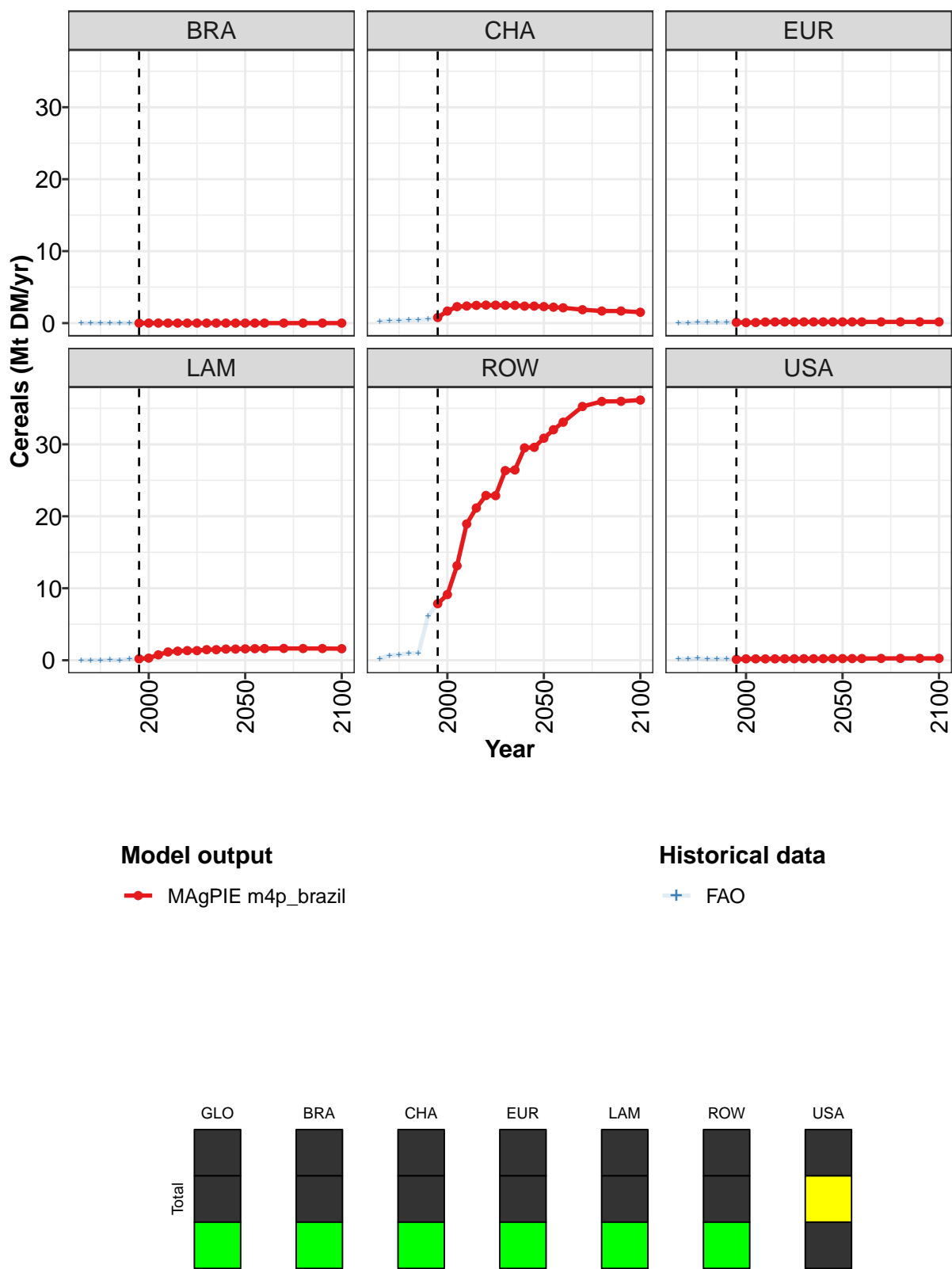


Figure 154: MAgPIE m4p_brazil — Demand—Material—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9.1	11.4	16.4	22.8	25.2	27.1	27.1	30.7	30.8	33.8	33.9
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	0.2	0.3	0.7	1.1	1.3	1.3	1.3	1.5	1.5	1.5	1.5
ROW	7.9	9.1	13.1	18.9	21.2	22.9	22.9	26.4	26.4	29.5	29.6
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.brazil — Demand—Material—Crops—Cereals (Mt DM/yr) [PART 1/2]

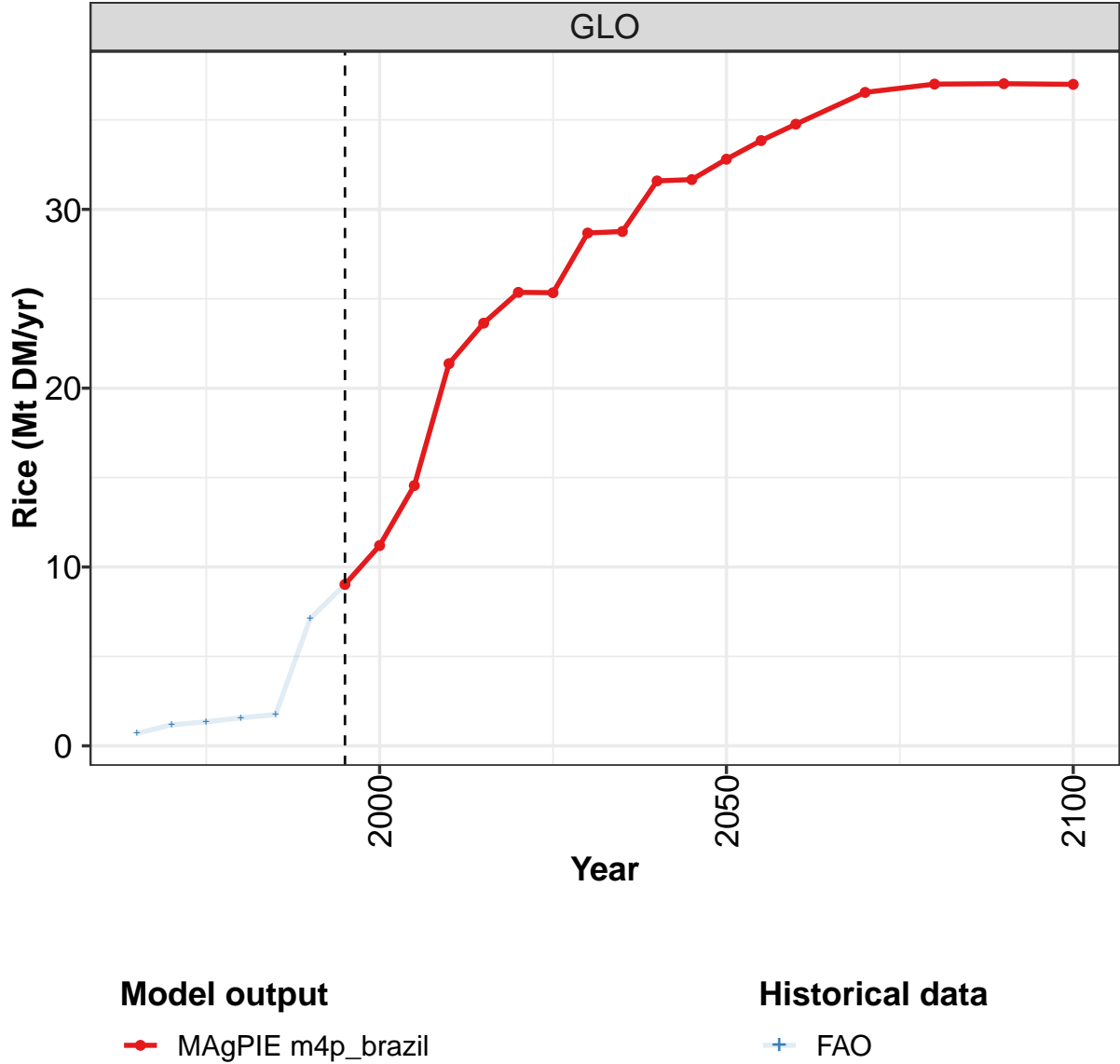
	2050	2055	2060	2070	2080	2090	2100
GLO	35.1	36.2	37.2	39.2	39.7	39.7	39.7
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	2.3	2.2	2.1	1.9	1.7	1.7	1.5
EUR	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	1.6	1.6	1.6	1.6	1.6	1.6	1.6
ROW	30.9	32.0	33.1	35.3	36.0	36.0	36.2
USA	0.2	0.2	0.2	0.2	0.3	0.3	0.3

Table 462: MAgPIE m4p.brazil — 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
BRA	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	0.4	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	0.2
LAM	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.7	1.1
ROW	0.2	0.7	0.8	1.0	1.0	6.2	7.9	9.1	13.1	18.9
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*



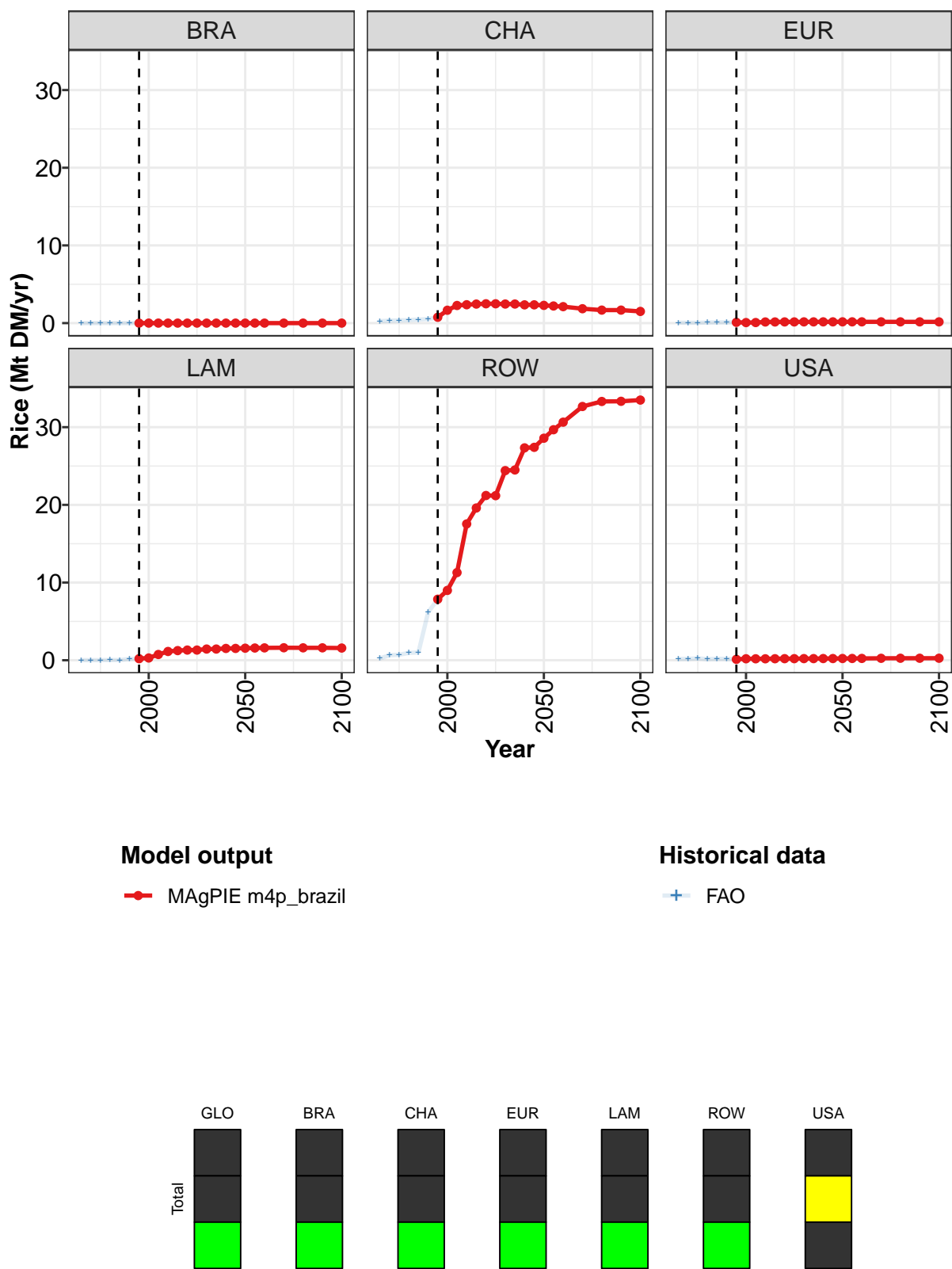


Figure 155: MAgPIE m4p_brazil — Demand—Material—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9.0	11.2	14.6	21.4	23.6	25.4	25.3	28.7	28.8	31.6	31.7
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.2	0.2	0.2
LAM	0.2	0.3	0.7	1.1	1.2	1.3	1.3	1.4	1.4	1.5	1.5
ROW	7.9	9.0	11.3	17.5	19.6	21.2	21.2	24.4	24.5	27.3	27.4
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_brazil — Demand—Material—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

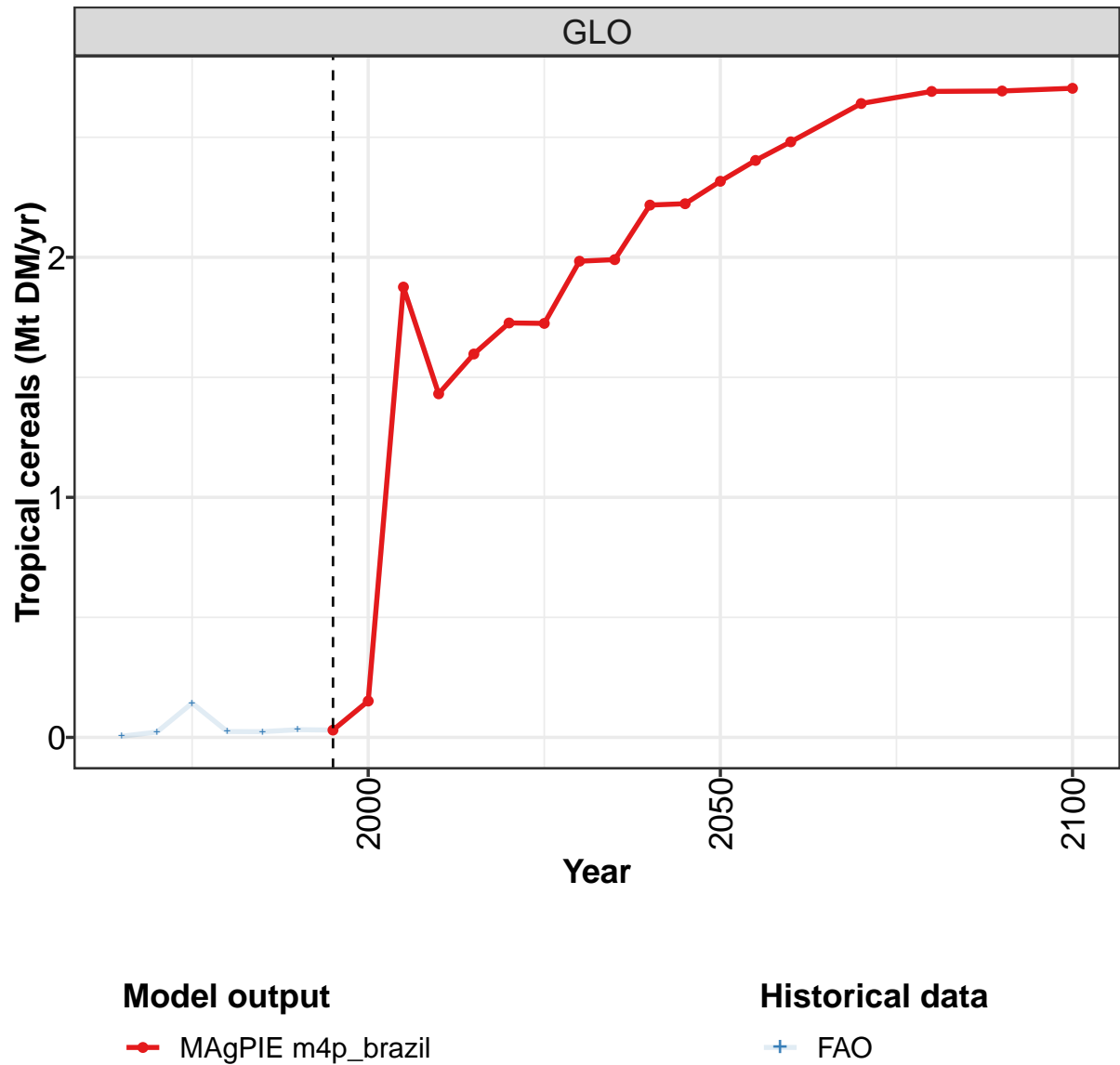
	2050	2055	2060	2070	2080	2090	2100
GLO	32.8	33.8	34.8	36.5	37.0	37.0	37.0
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	2.3	2.2	2.1	1.9	1.7	1.7	1.5
EUR	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	1.6	1.6	1.6	1.6	1.6	1.6	1.6
ROW	28.6	29.7	30.6	32.7	33.3	33.3	33.5
USA	0.2	0.2	0.2	0.2	0.3	0.3	0.3

Table 465: MAgPIE m4p_brazil — 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
BRA	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	0.3	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
LAM	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.7	1.1
ROW	0.2	0.6	0.7	0.9	1.0	6.2	7.9	9.0	11.3	17.5
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



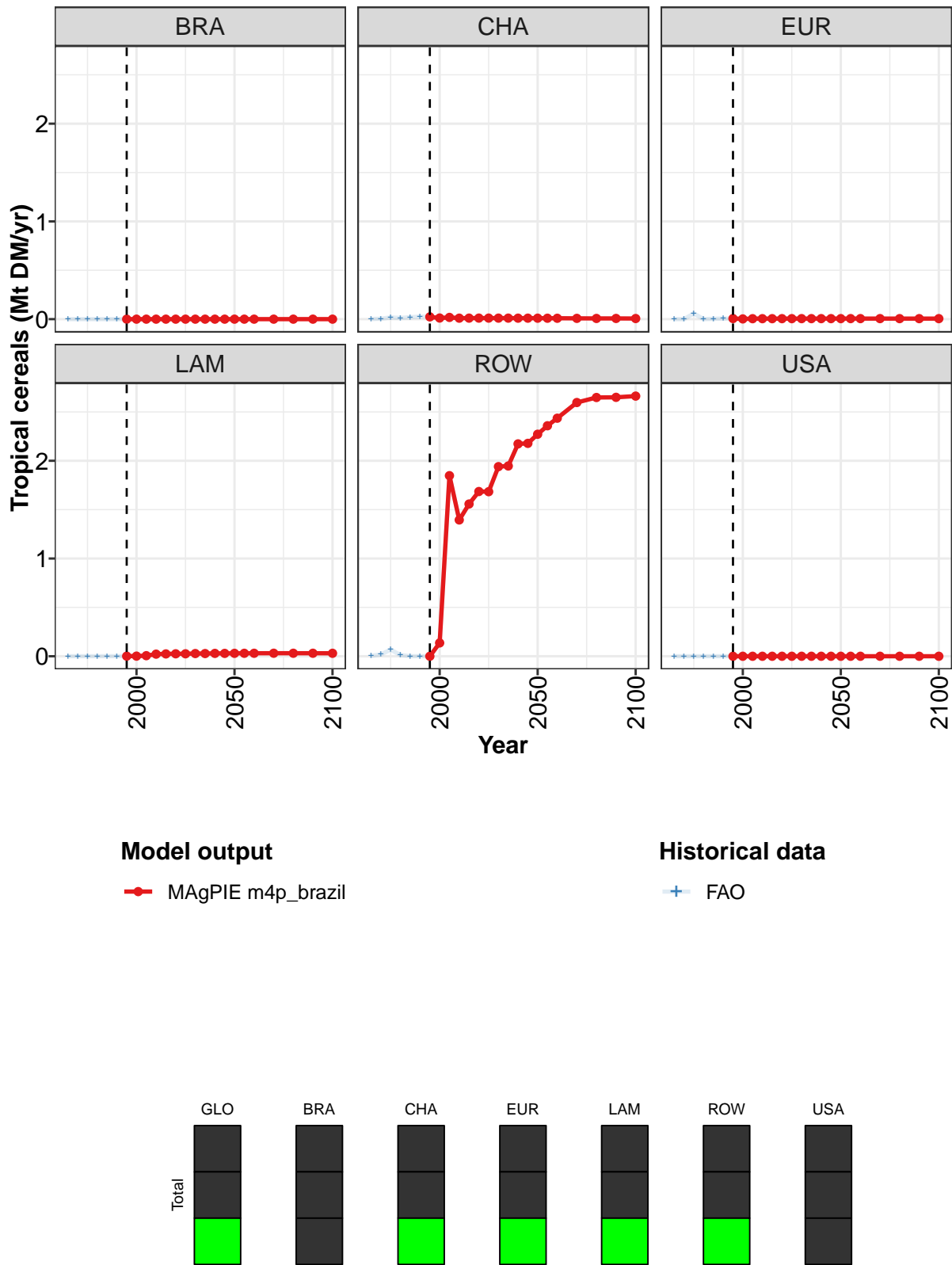


Figure 156: MAGPIE m4p_brazil — Demand—Material—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.03	0.15	1.88	1.43	1.60	1.73	1.72	1.98	1.99	2.22	2.22
BRA	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	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.00	0.00	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03
ROW	0.00	0.14	1.85	1.39	1.56	1.69	1.68	1.94	1.95	2.17	2.18
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_brazil — Demand—Material—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

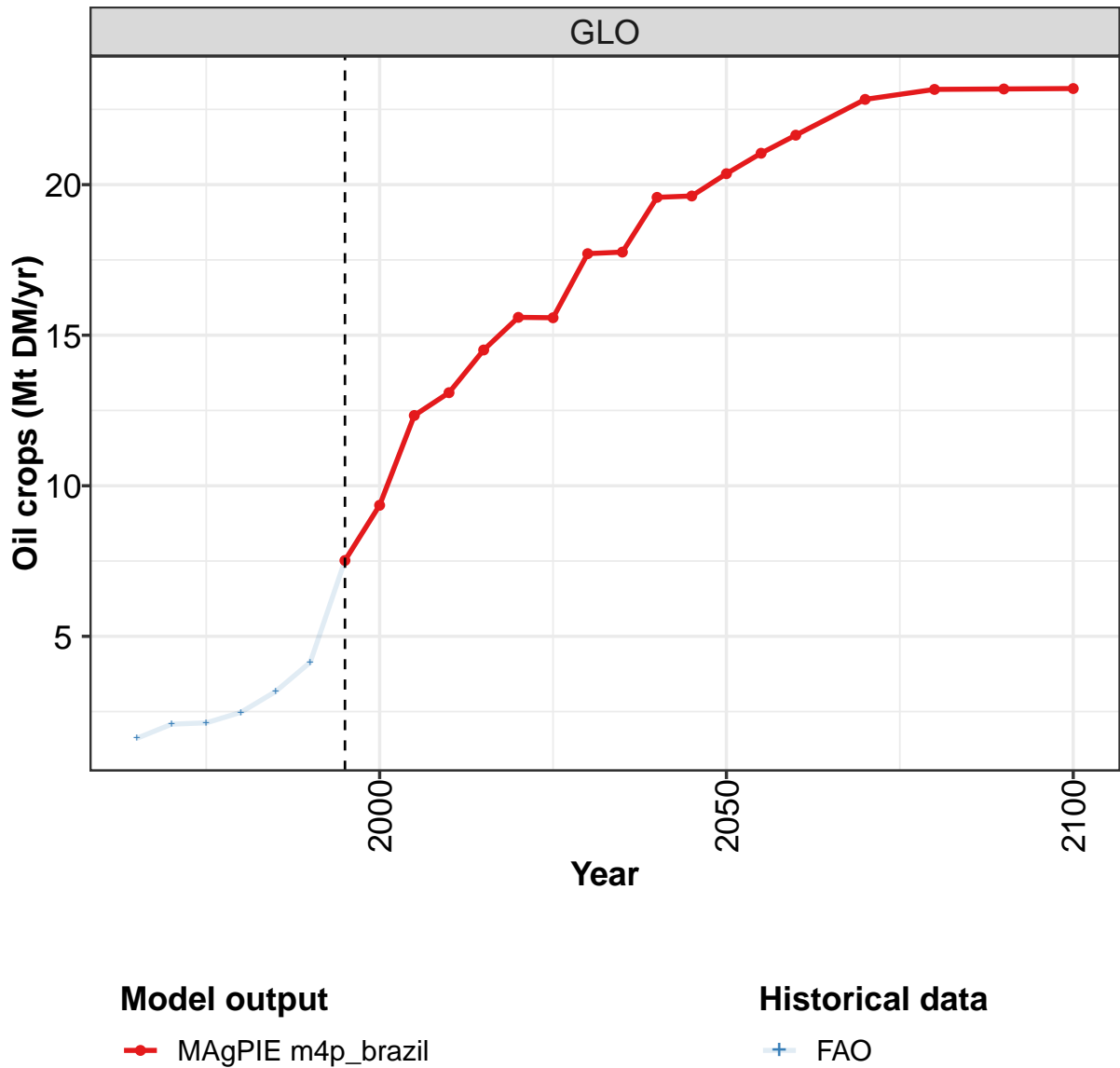
	2050	2055	2060	2070	2080	2090	2100
GLO	2.32	2.40	2.48	2.64	2.69	2.69	2.70
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.01	0.01	0.01	0.01	0.01	0.01	0.01
EUR	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.03	0.03	0.03	0.03	0.03	0.03	0.03
ROW	2.27	2.36	2.44	2.60	2.65	2.65	2.66
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 468: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02
ROW	0.00	0.02	0.07	0.01	0.00	0.00	0.00	0.14	1.85	1.39
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



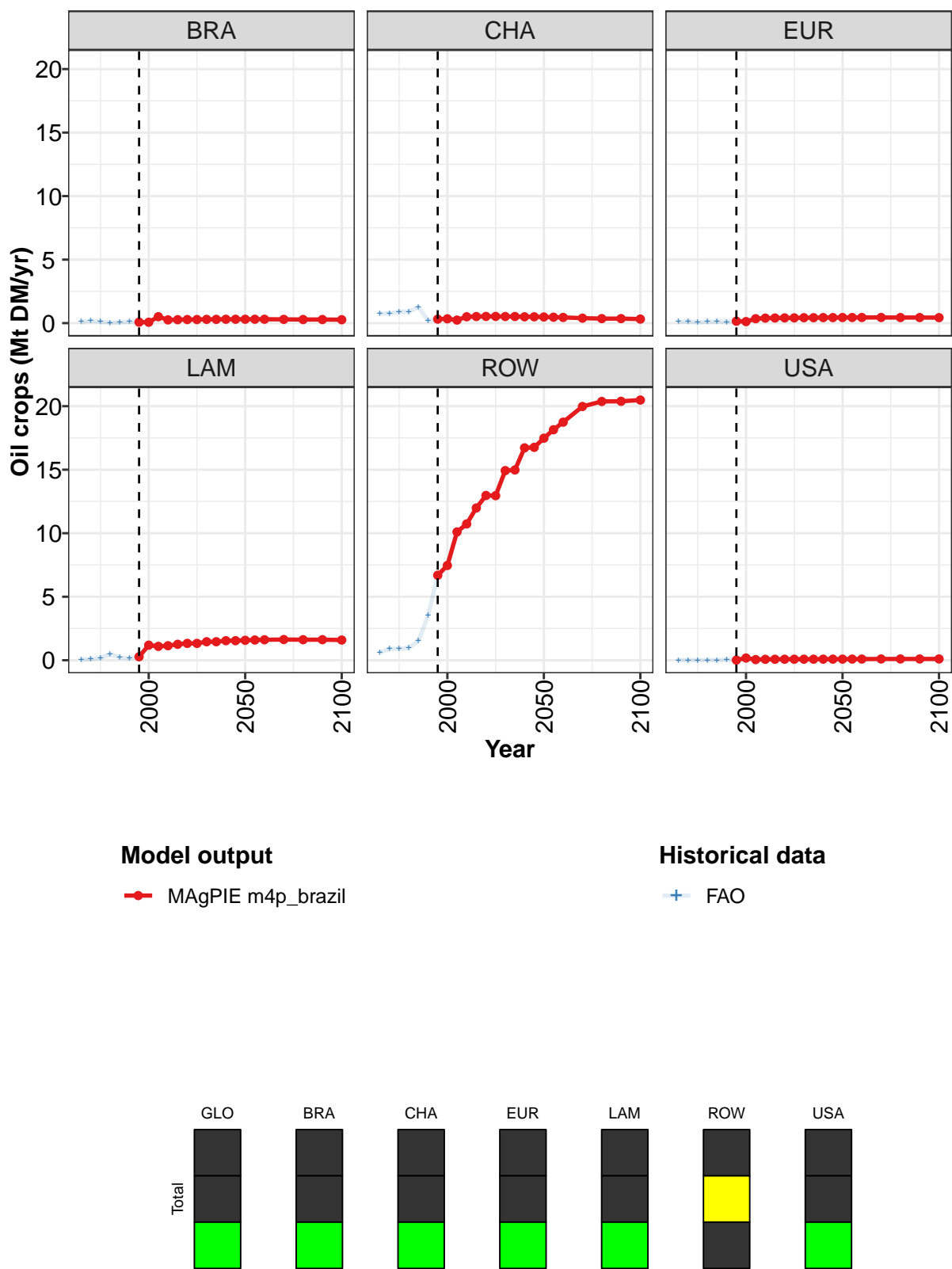


Figure 157: MAgPIE m4p_brazil — Demand—Material—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.5	9.4	12.3	13.1	14.5	15.6	15.6	17.7	17.8	19.6	19.6
BRA	0.1	0.1	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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	0.4
LAM	0.3	1.2	1.1	1.1	1.3	1.3	1.3	1.5	1.5	1.5	1.5
ROW	6.7	7.5	10.1	10.7	12.0	13.0	13.0	14.9	15.0	16.7	16.8
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_brazil — Demand—Material—Crops—Oil crops (Mt DM/yr) [PART 1/2]

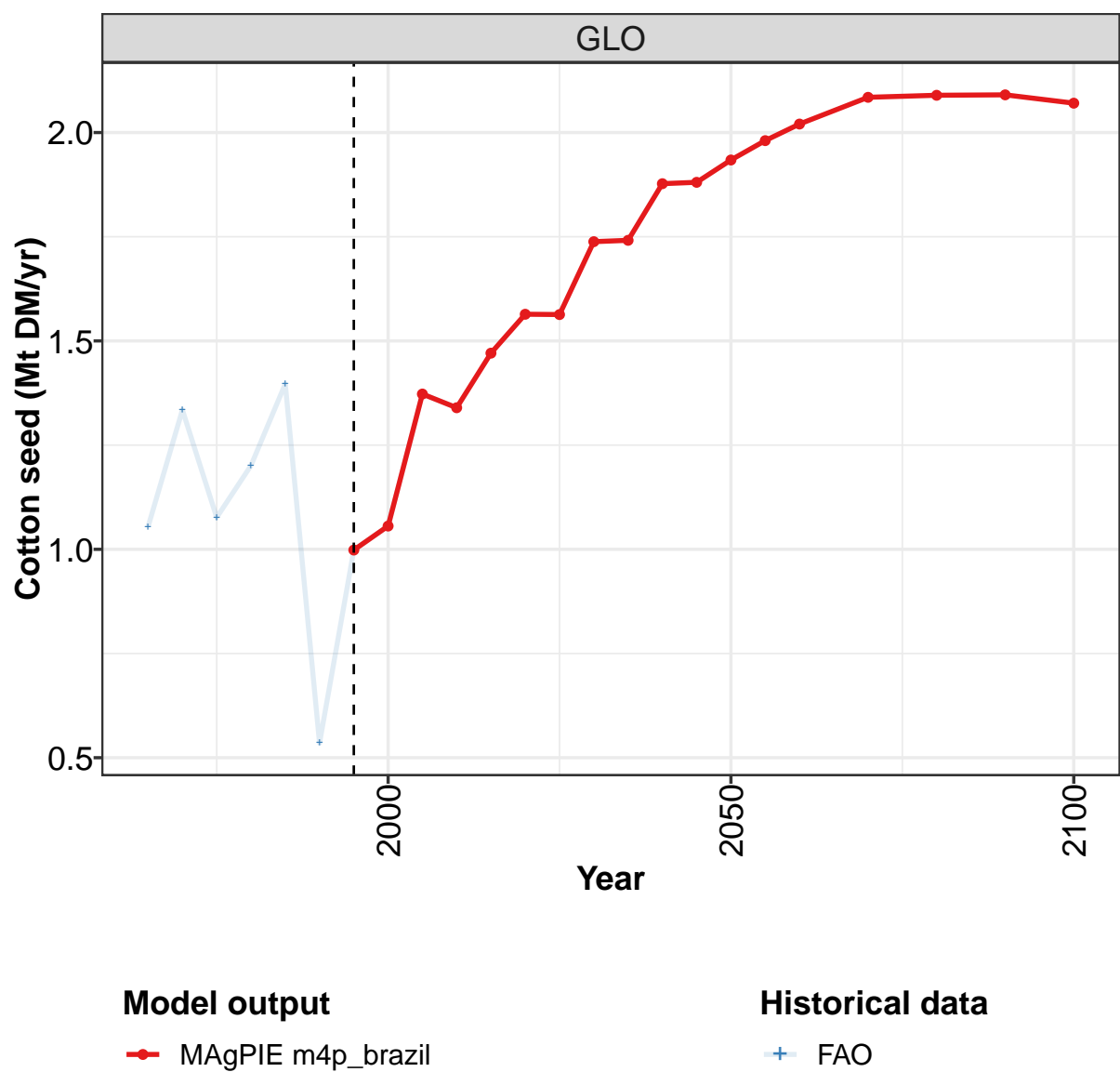
	2050	2055	2060	2070	2080	2090	2100
GLO	20.4	21.0	21.6	22.8	23.2	23.2	23.2
BRA	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CHA	0.5	0.5	0.4	0.4	0.4	0.4	0.3
EUR	0.4	0.4	0.4	0.4	0.4	0.4	0.4
LAM	1.6	1.6	1.6	1.6	1.6	1.6	1.6
ROW	17.5	18.1	18.7	20.0	20.4	20.4	20.5
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 471: MAgPIE m4p_brazil — 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
BRA	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.5	0.3
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
LAM	0.1	0.1	0.2	0.5	0.2	0.1	0.3	1.2	1.1	1.1
ROW	0.6	0.9	0.9	1.0	1.5	3.5	6.7	7.5	10.1	10.7
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



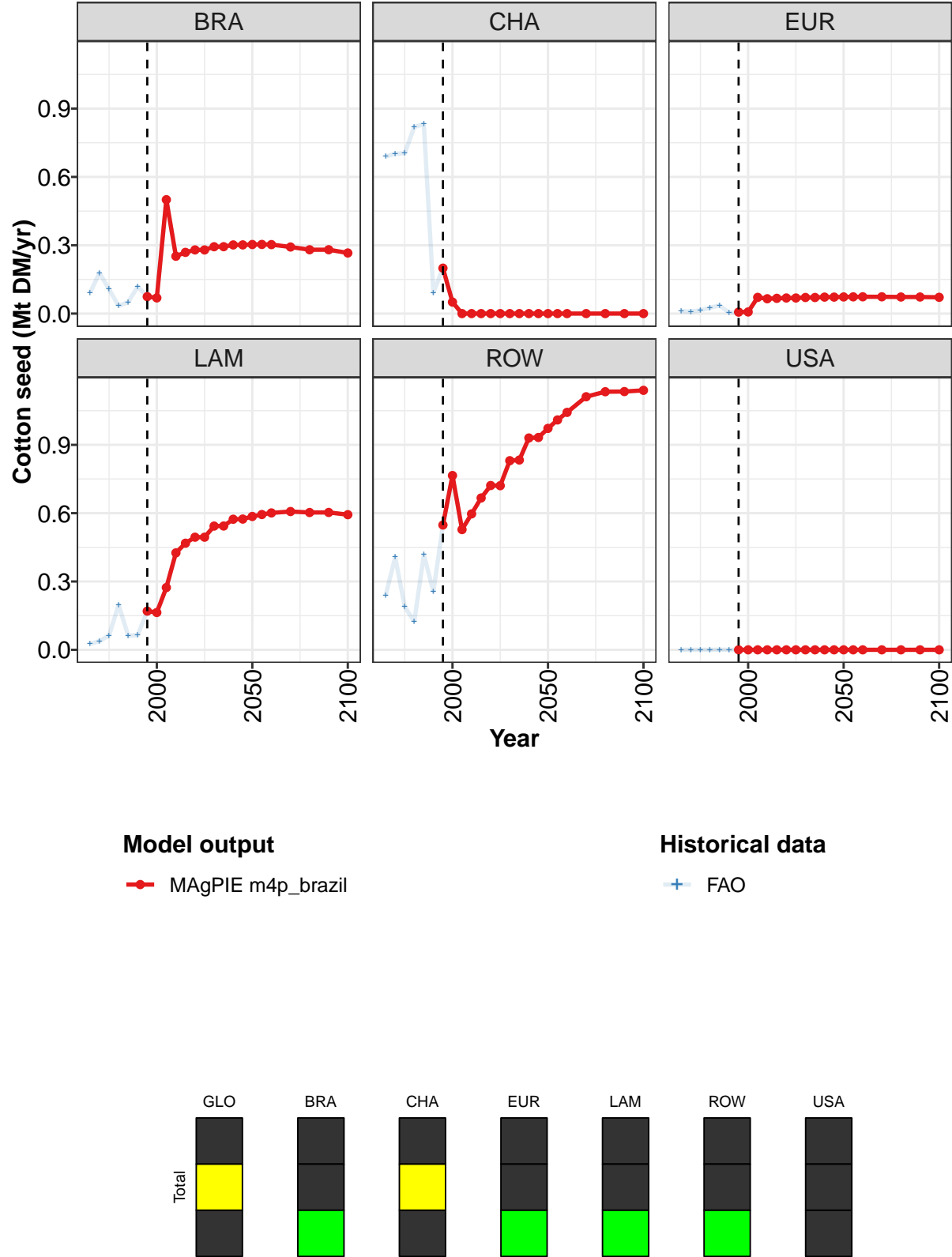


Figure 158: MAgPIE m4p_brazil — Demand—Material—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.00	1.06	1.37	1.34	1.47	1.56	1.56	1.74	1.74	1.88	1.88
BRA	0.07	0.07	0.50	0.25	0.27	0.28	0.28	0.29	0.29	0.30	0.30
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	0.07	0.07
LAM	0.17	0.16	0.27	0.43	0.47	0.49	0.49	0.54	0.54	0.57	0.57
ROW	0.55	0.77	0.53	0.60	0.67	0.72	0.72	0.83	0.83	0.93	0.93
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 473: MAgPIE m4p_brazil — Demand—Material—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

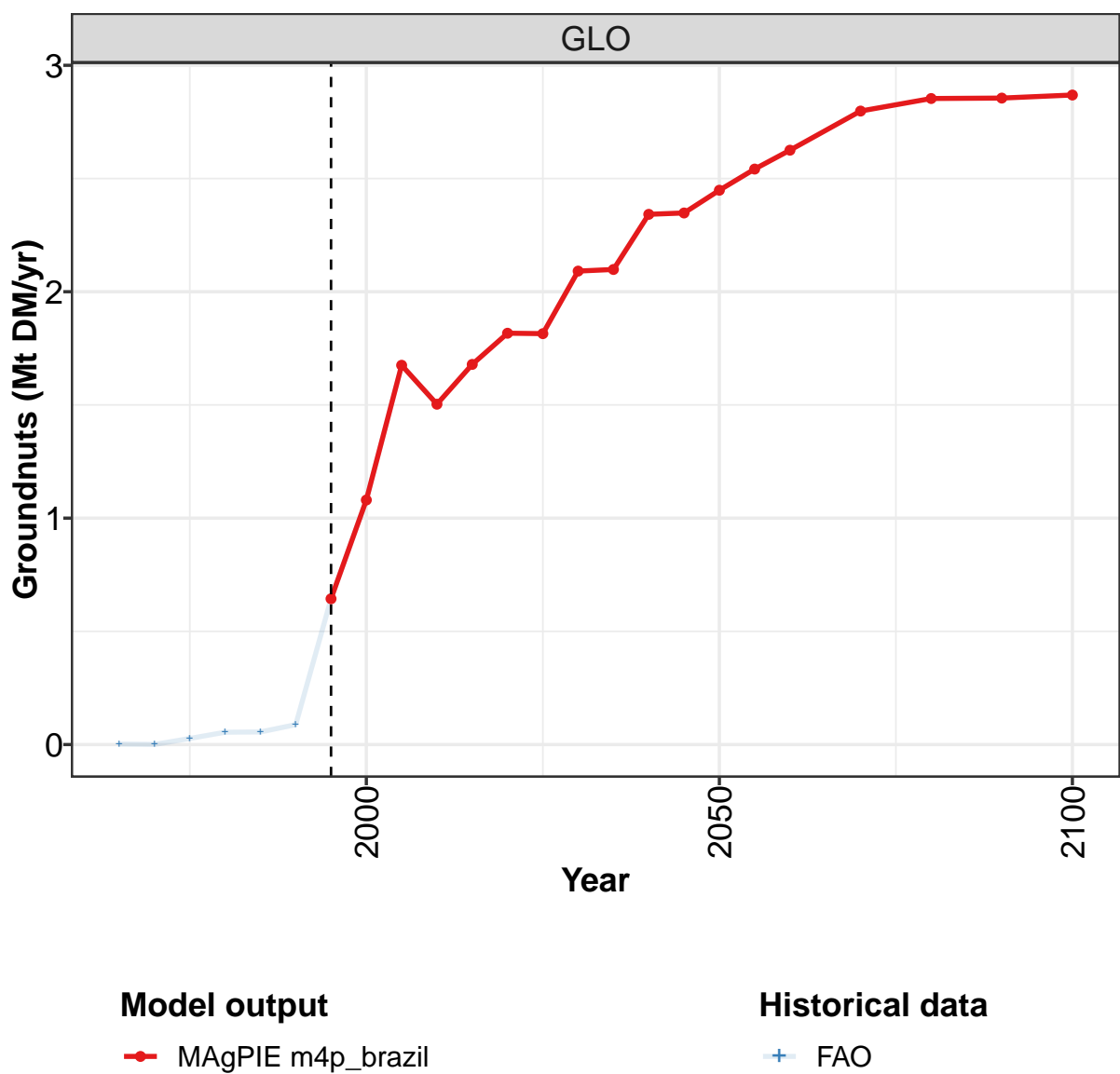
	2050	2055	2060	2070	2080	2090	2100
GLO	1.93	1.98	2.02	2.08	2.09	2.09	2.07
BRA	0.30	0.30	0.30	0.29	0.28	0.28	0.27
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.07	0.07	0.07	0.07	0.07	0.07	0.07
LAM	0.59	0.59	0.60	0.61	0.60	0.60	0.59
ROW	0.97	1.01	1.04	1.11	1.13	1.13	1.14
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 474: MAgPIE m4p_brazil — 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
BRA	0.09	0.18	0.11	0.03	0.05	0.12	0.07	0.07	0.50	0.25
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
LAM	0.03	0.04	0.06	0.20	0.06	0.06	0.17	0.16	0.27	0.43
ROW	0.24	0.41	0.19	0.12	0.42	0.26	0.55	0.77	0.53	0.60
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



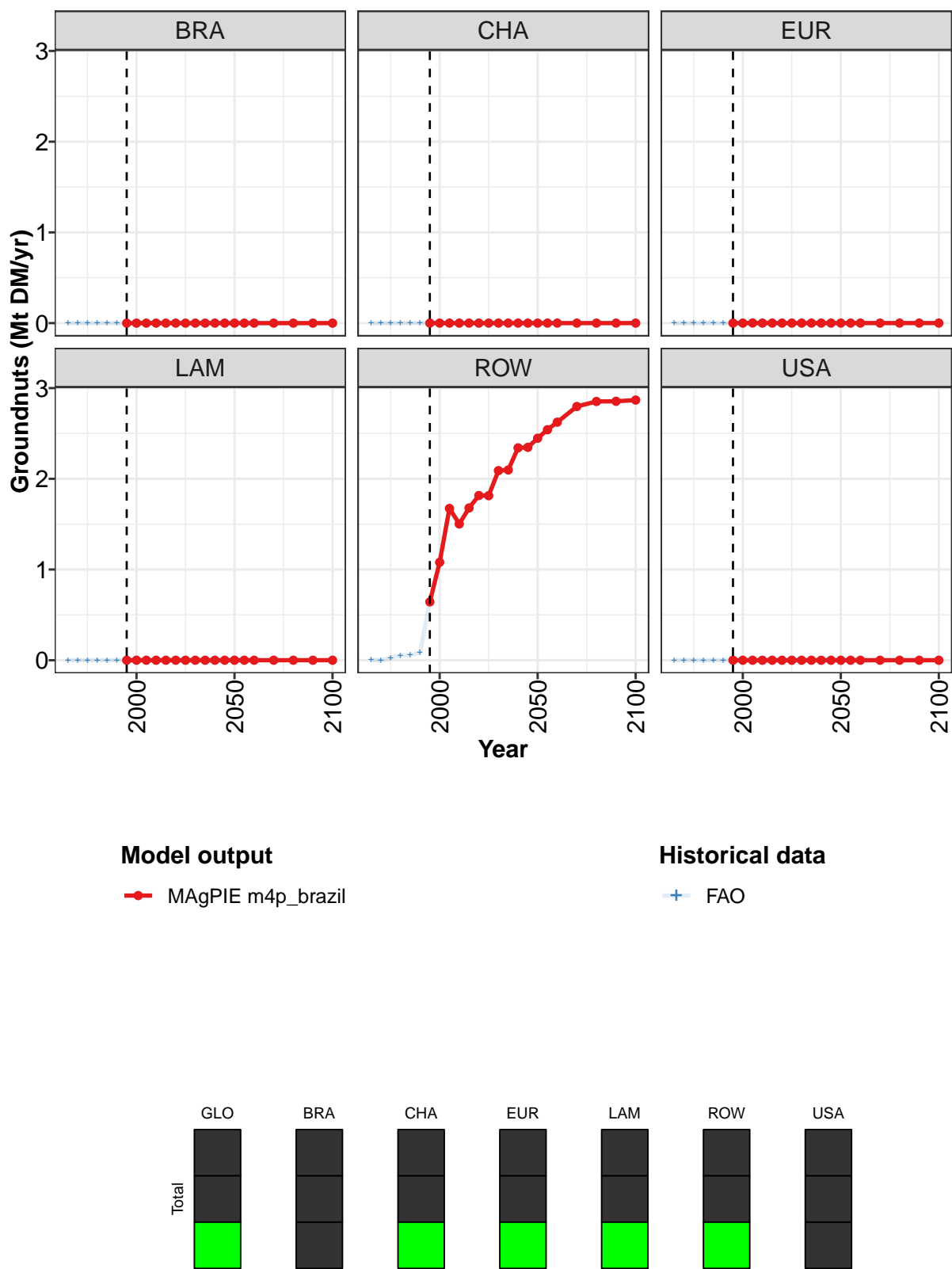


Figure 159: MAgPIE m4p_brazil — Demand—Material—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.64	1.08	1.68	1.50	1.68	1.82	1.81	2.09	2.10	2.34	2.35
BRA	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
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.64	1.08	1.67	1.50	1.68	1.82	1.81	2.09	2.10	2.34	2.35
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 476: MAgPIE m4p_brazil — Demand—Material—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

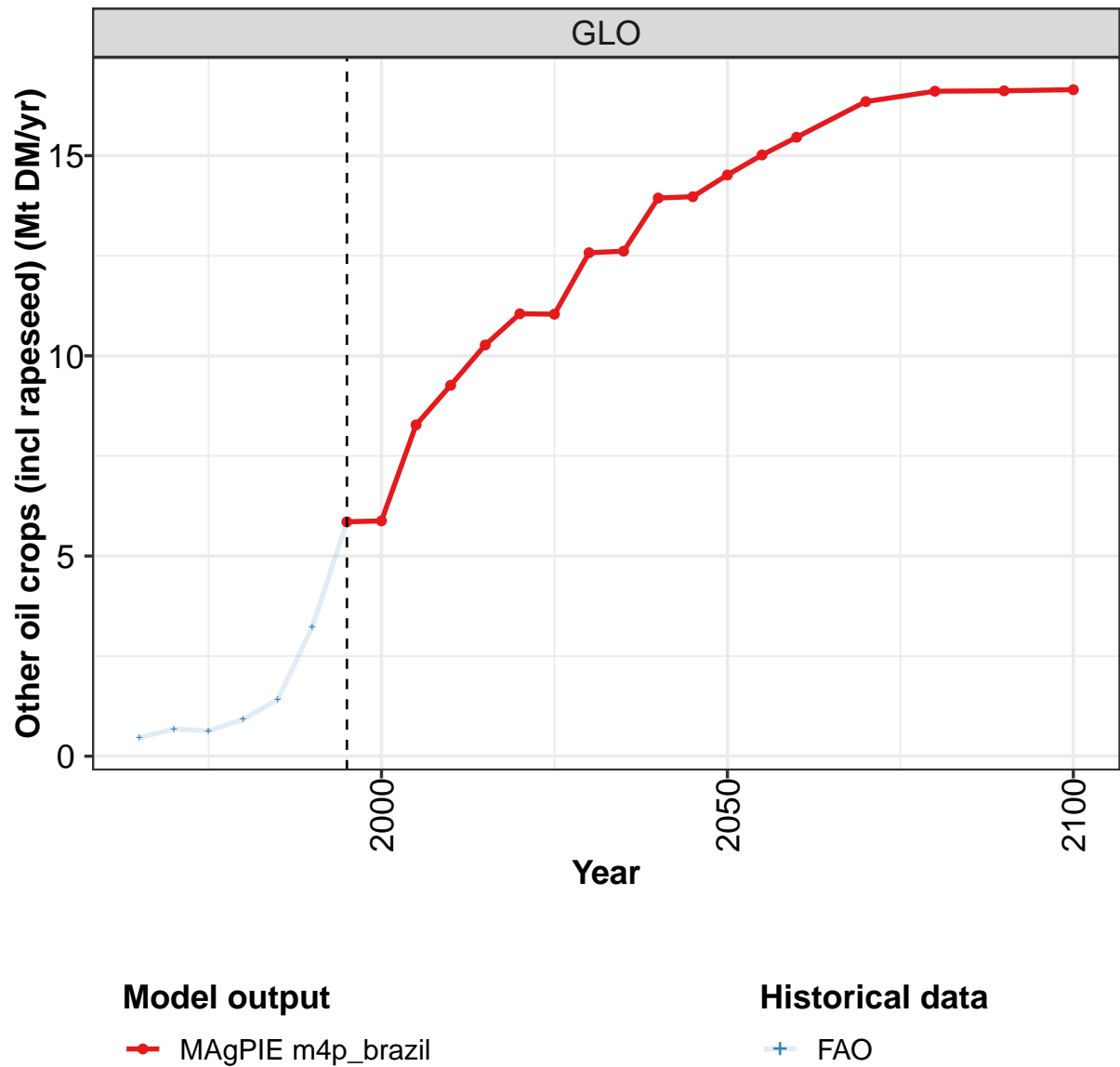
	2050	2055	2060	2070	2080	2090	2100
GLO	2.45	2.54	2.63	2.80	2.85	2.86	2.87
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	2.45	2.54	2.62	2.80	2.85	2.85	2.87
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 477: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.00	0.00	0.03	0.05	0.05	0.09	0.64	1.08	1.67	1.50
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)



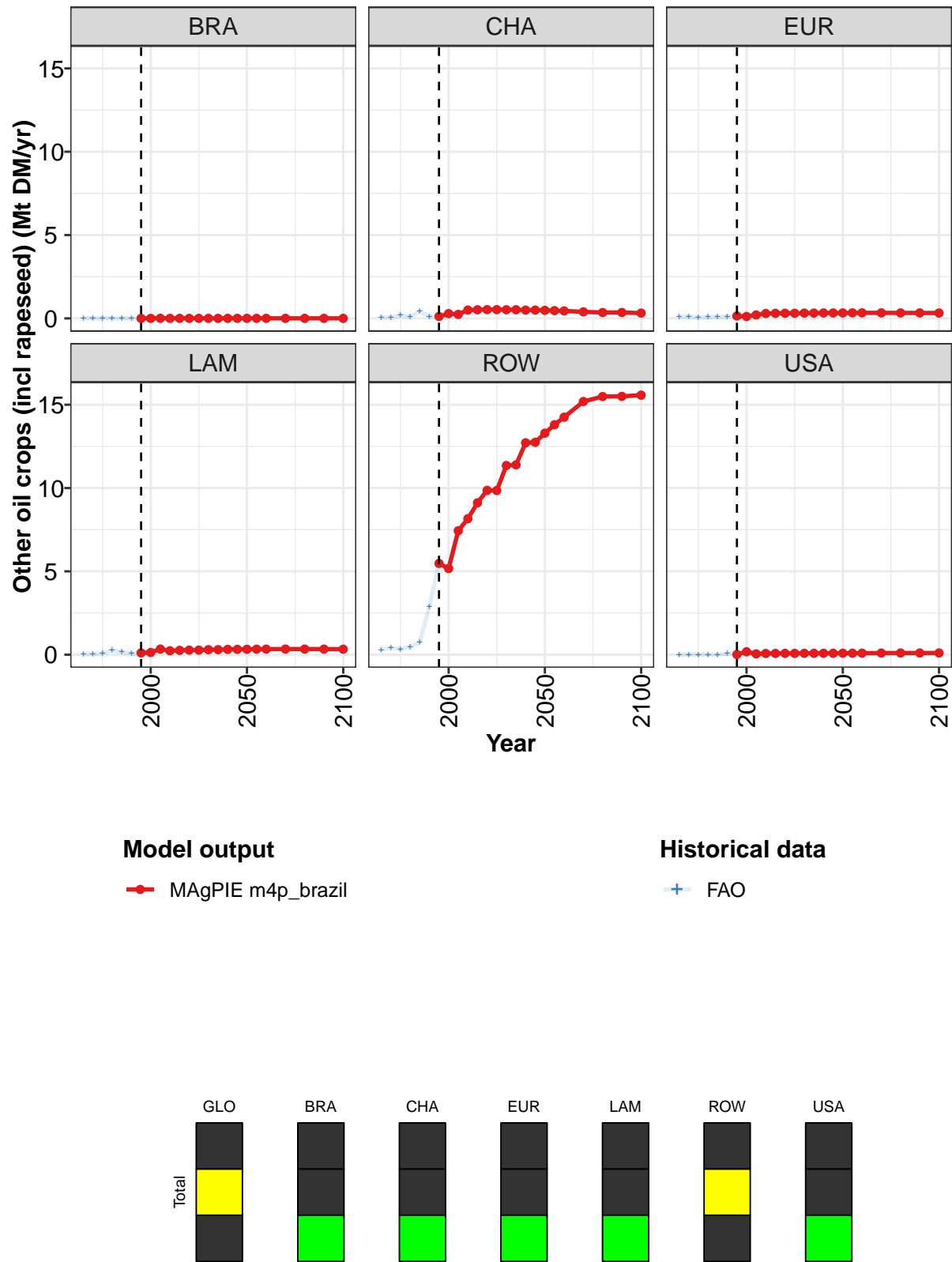


Figure 160: MAgPIE m4p_brazil — Demand—Material—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.9	5.9	8.3	9.3	10.3	11.1	11.0	12.6	12.6	13.9	14.0
BRA	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	0.3	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
LAM	0.1	0.1	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
ROW	5.5	5.2	7.4	8.2	9.1	9.9	9.9	11.4	11.4	12.7	12.7
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_brazil — Demand—Material—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

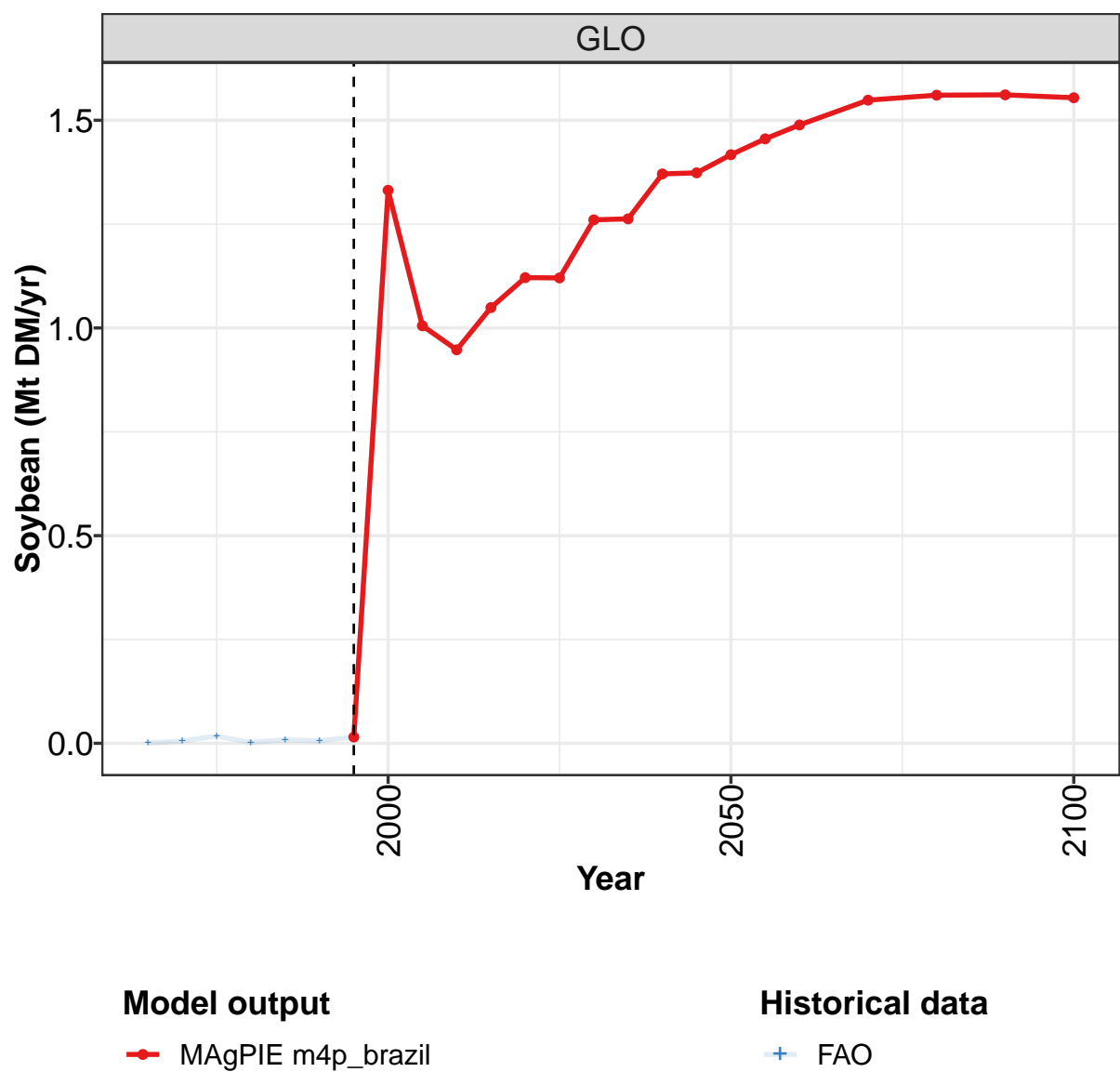
	2050	2055	2060	2070	2080	2090	2100
GLO	14.5	15.0	15.5	16.4	16.6	16.6	16.6
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.5	0.5	0.4	0.4	0.4	0.4	0.3
EUR	0.3	0.3	0.3	0.3	0.3	0.3	0.3
LAM	0.3	0.3	0.3	0.3	0.3	0.3	0.3
ROW	13.3	13.8	14.3	15.2	15.5	15.5	15.6
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 480: MAgPIE m4p_brazil — 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
BRA	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
CHA	0.05	0.06	0.18	0.08	0.42	0.10	0.11	0.29	0.24	0.50
EUR	0.10	0.12	0.05	0.08	0.09	0.10	0.14	0.11	0.21	0.29
LAM	0.03	0.05	0.08	0.28	0.15	0.08	0.11	0.13	0.34	0.24
ROW	0.26	0.44	0.31	0.48	0.75	2.89	5.48	5.17	7.44	8.16
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



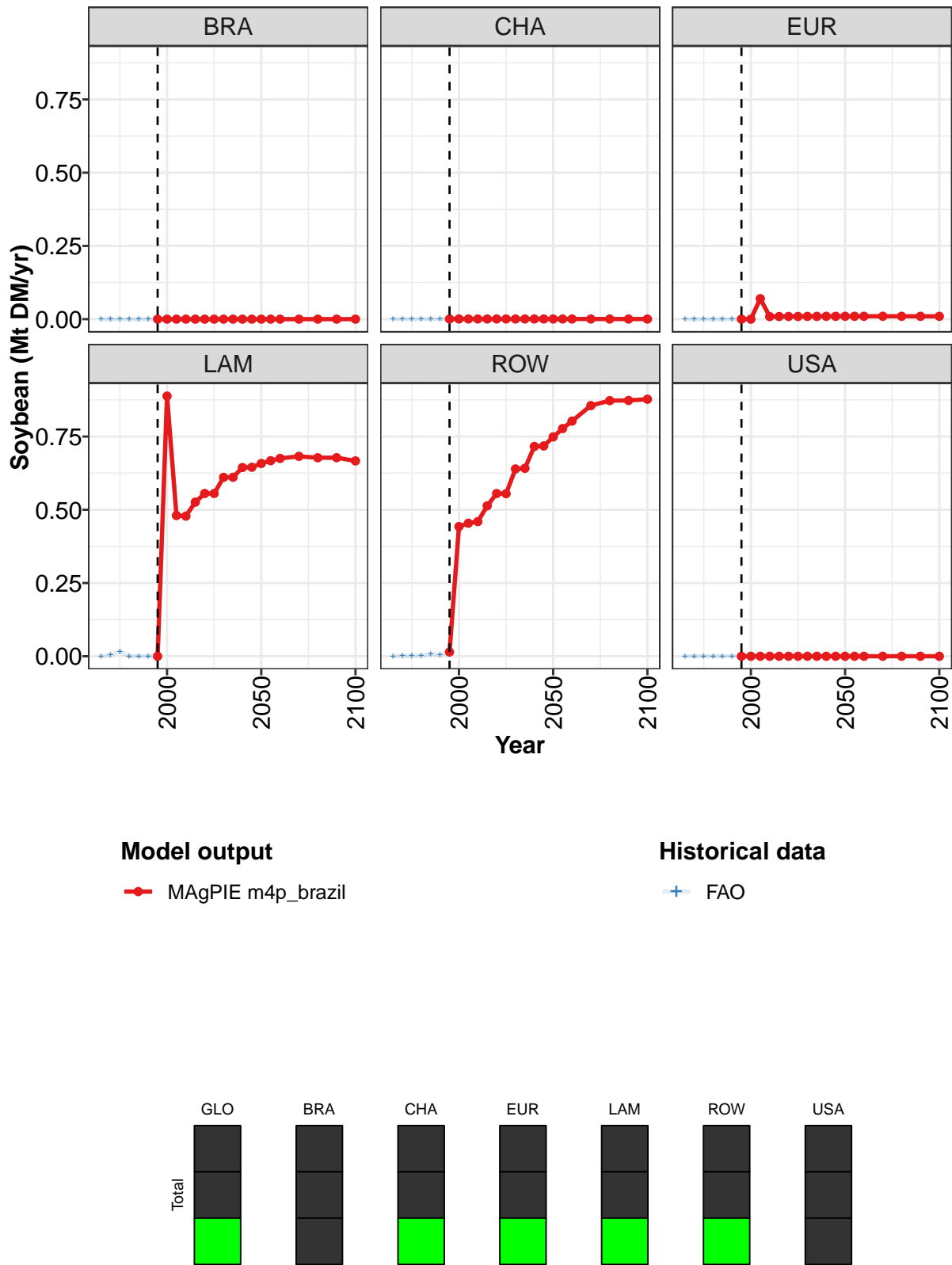


Figure 161: MAGPIE m4p.brazil — Demand—Material—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.02	1.33	1.01	0.95	1.05	1.12	1.12	1.26	1.26	1.37	1.37
BRA	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	0.07	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.00	0.89	0.48	0.48	0.53	0.56	0.56	0.61	0.61	0.64	0.65
ROW	0.01	0.44	0.45	0.46	0.51	0.56	0.55	0.64	0.64	0.72	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 482: MAgPIE m4p_brazil — Demand—Material—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

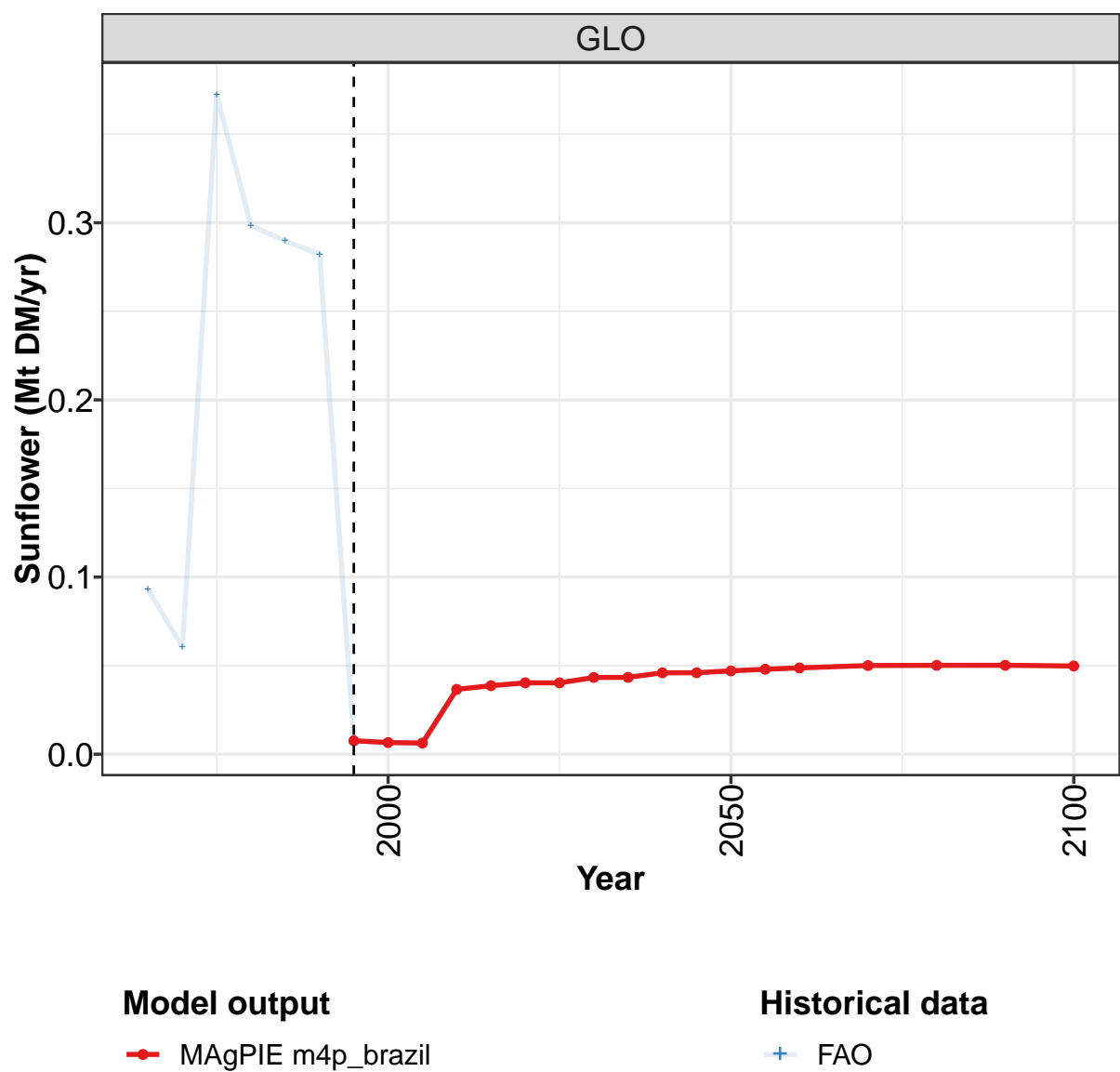
	2050	2055	2060	2070	2080	2090	2100
GLO	1.42	1.46	1.49	1.55	1.56	1.56	1.55
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.66	0.67	0.68	0.68	0.68	0.68	0.67
ROW	0.75	0.78	0.80	0.86	0.87	0.87	0.88
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 483: MAgPIE m4p_brazil — 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
BRA	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	0.07	0.01
LAM	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.89	0.48	0.48
ROW	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.44	0.45	0.46
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



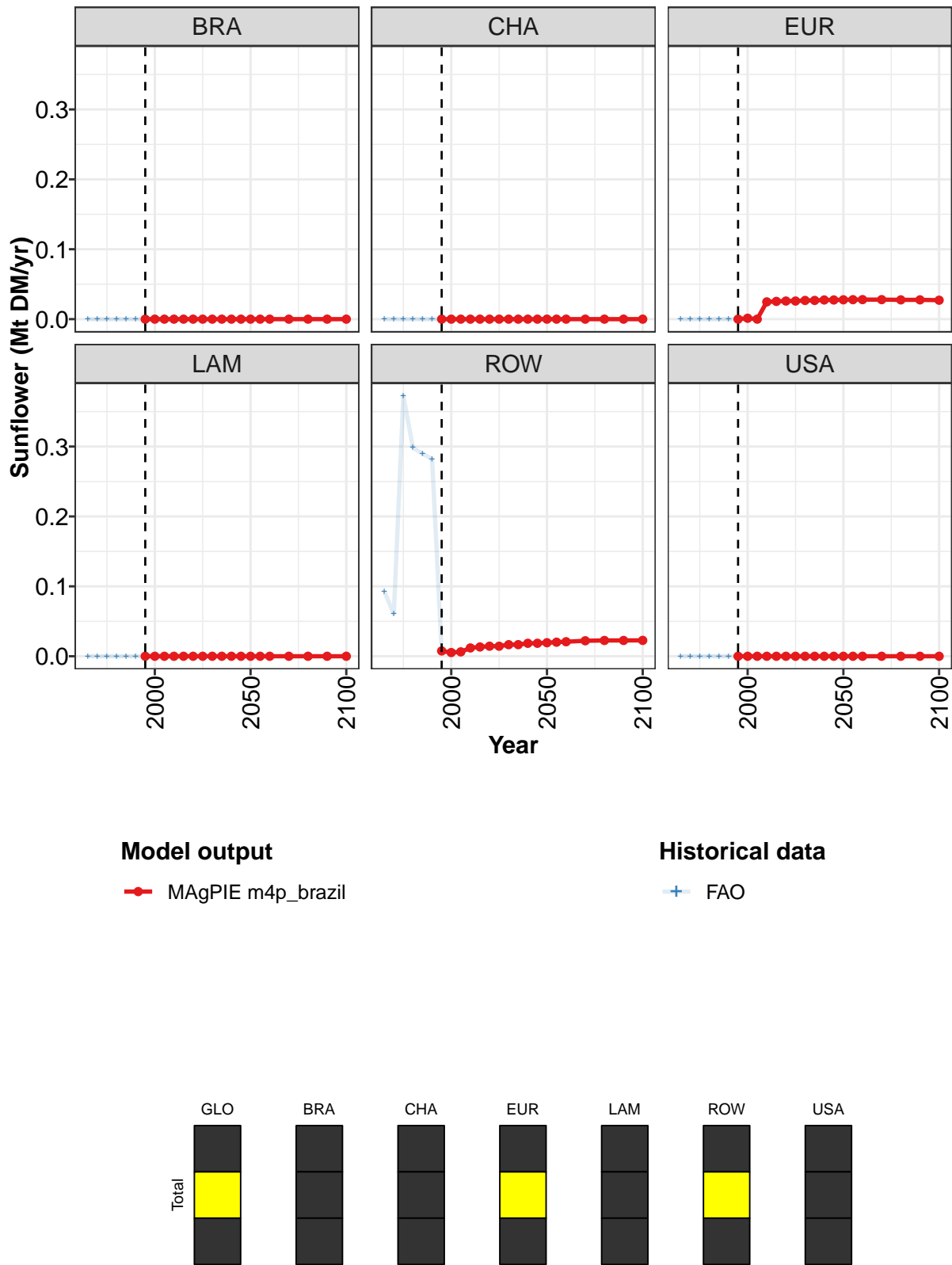


Figure 162: MAgPIE m4p_brazil — Demand—Material—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0076	0.0066	0.0063	0.0366	0.0387	0.0403	0.0403	0.0433	0.0434	0.0459	0.0460
BRA	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	0.0254	0.0259	0.0259	0.0268	0.0268	0.0274	0.0274
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	0.0076	0.0053	0.0063	0.0119	0.0133	0.0144	0.0144	0.0166	0.0166	0.0185	0.0186
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_brazil — Demand—Material—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

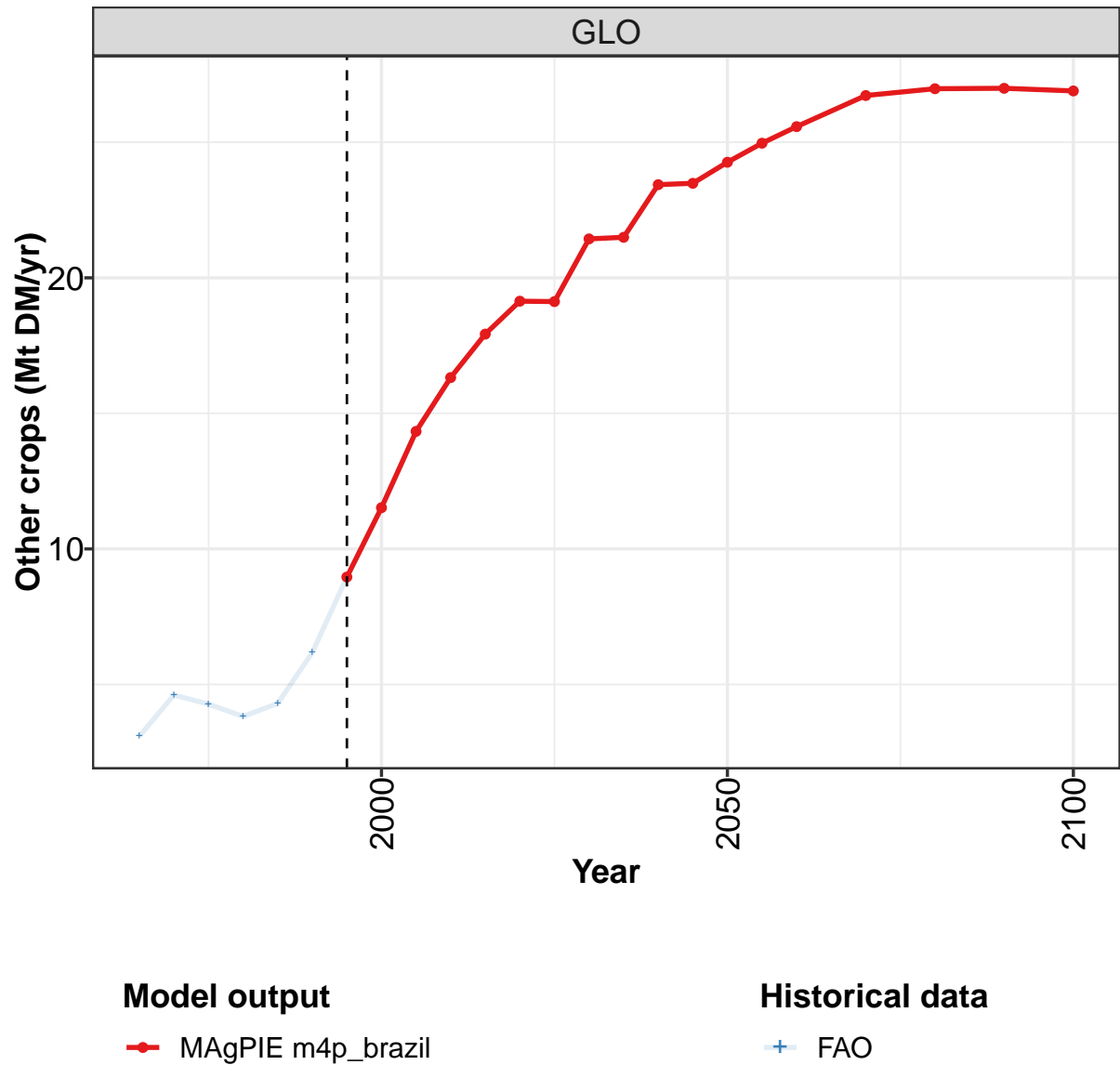
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0470	0.0480	0.0487	0.0501	0.0502	0.0502	0.0498
BRA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0277	0.0279	0.0280	0.0279	0.0276	0.0276	0.0271
LAM	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ROW	0.0194	0.0201	0.0208	0.0222	0.0226	0.0226	0.0227
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 486: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.093	0.060	0.372	0.298	0.290	0.282	0.008	0.005	0.006	0.012
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



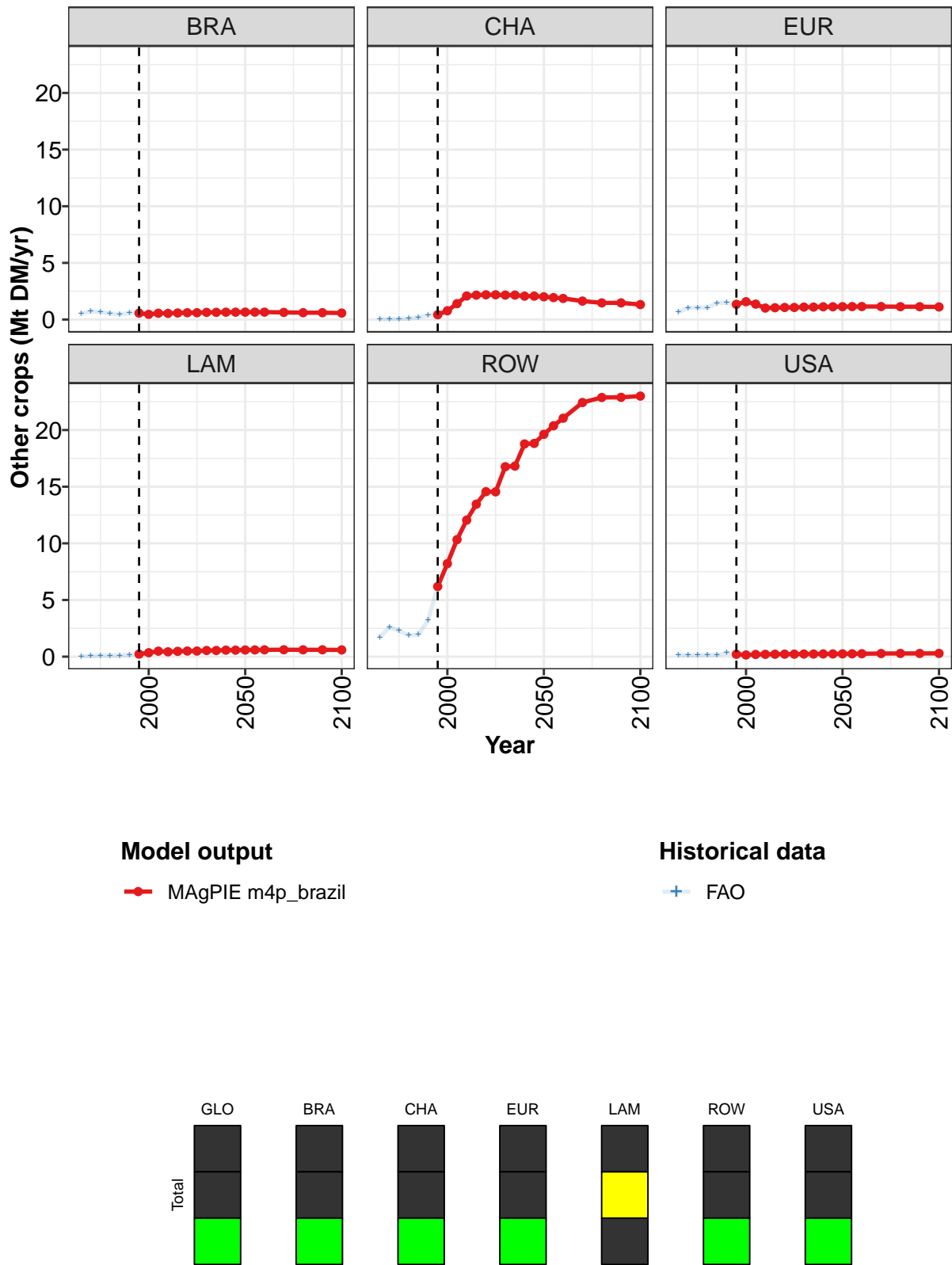


Figure 163: MAgPIE m4p_brazil — Demand—Material—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9.0	11.5	14.3	16.3	17.9	19.1	19.1	21.4	21.5	23.4	23.5
BRA	0.6	0.5	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7
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	1.6	1.4	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1
LAM	0.2	0.3	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6
ROW	6.2	8.2	10.3	12.0	13.5	14.6	14.5	16.8	16.8	18.8	18.8
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_brazil — Demand—Material—Crops—Other crops (Mt DM/yr) [PART 1/2]

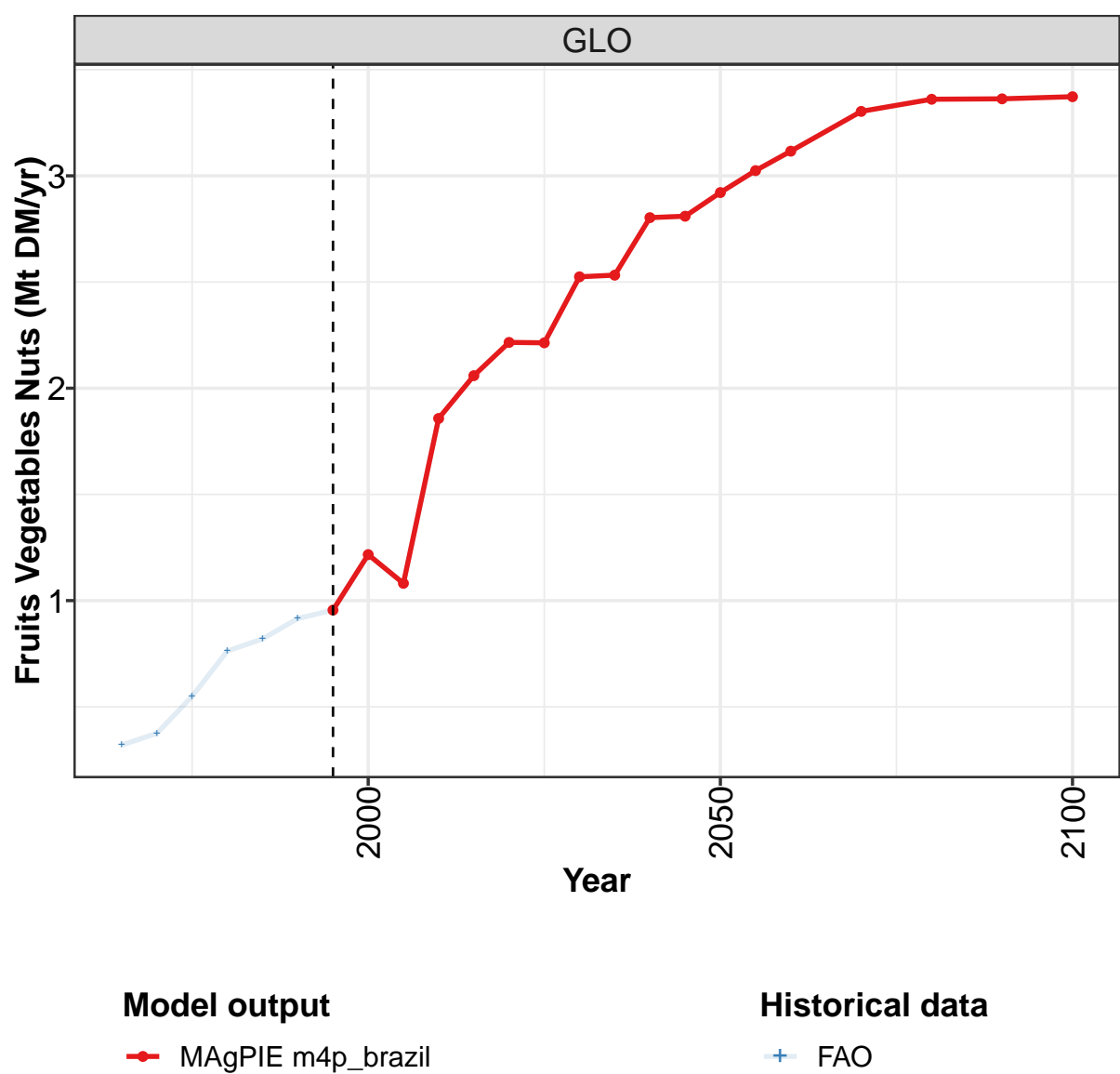
	2050	2055	2060	2070	2080	2090	2100
GLO	24.3	25.0	25.6	26.7	27.0	27.0	26.9
BRA	0.7	0.7	0.7	0.6	0.6	0.6	0.6
CHA	2.0	1.9	1.9	1.6	1.5	1.5	1.3
EUR	1.1	1.1	1.1	1.1	1.1	1.1	1.1
LAM	0.6	0.6	0.6	0.6	0.6	0.6	0.6
ROW	19.6	20.4	21.0	22.4	22.9	22.9	23.0
USA	0.2	0.3	0.3	0.3	0.3	0.3	0.3

Table 489: MAgPIE m4p_brazil — 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
BRA	0.5	0.7	0.6	0.5	0.5	0.6	0.6	0.5	0.6	0.5
CHA	0.0	0.0	0.0	0.1	0.2	0.4	0.4	0.8	1.4	2.1
EUR	0.7	1.1	1.1	1.0	1.4	1.5	1.3	1.6	1.4	1.0
LAM	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.5	0.4
ROW	1.7	2.6	2.3	1.9	1.9	3.2	6.2	8.2	10.3	12.0
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



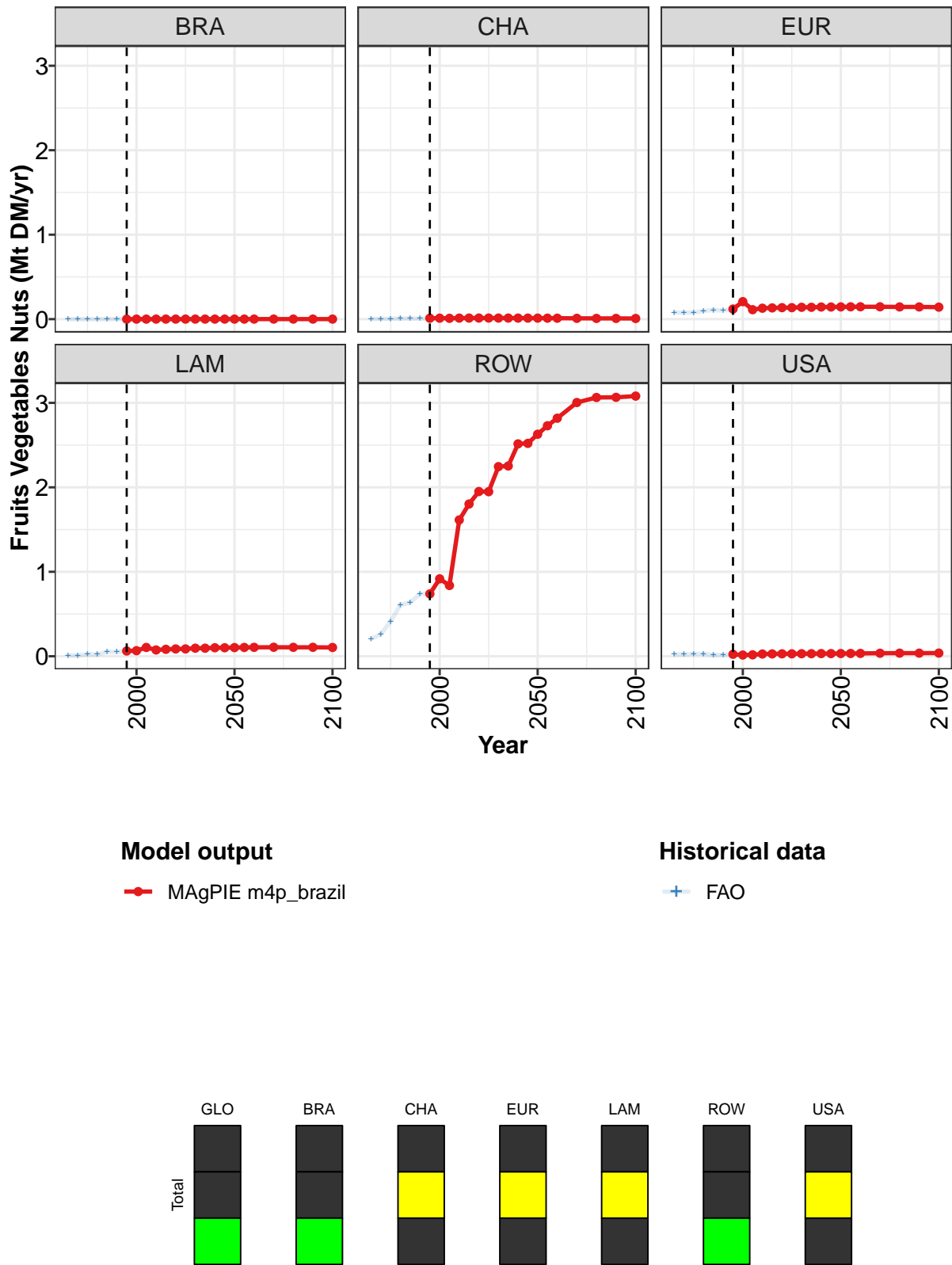


Figure 164: MAgPIE m4p_brazil — Demand—Material—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.96	1.22	1.08	1.86	2.06	2.22	2.21	2.52	2.53	2.80	2.81
BRA	0.00	0.00	0.00	0.00	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	0.01	0.01	0.01	0.01
EUR	0.12	0.21	0.11	0.13	0.13	0.14	0.14	0.14	0.14	0.14	0.14
LAM	0.06	0.07	0.10	0.07	0.08	0.09	0.09	0.10	0.10	0.10	0.10
ROW	0.74	0.92	0.84	1.61	1.80	1.95	1.95	2.25	2.25	2.51	2.52
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_brazil — Demand—Material—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 1/2]

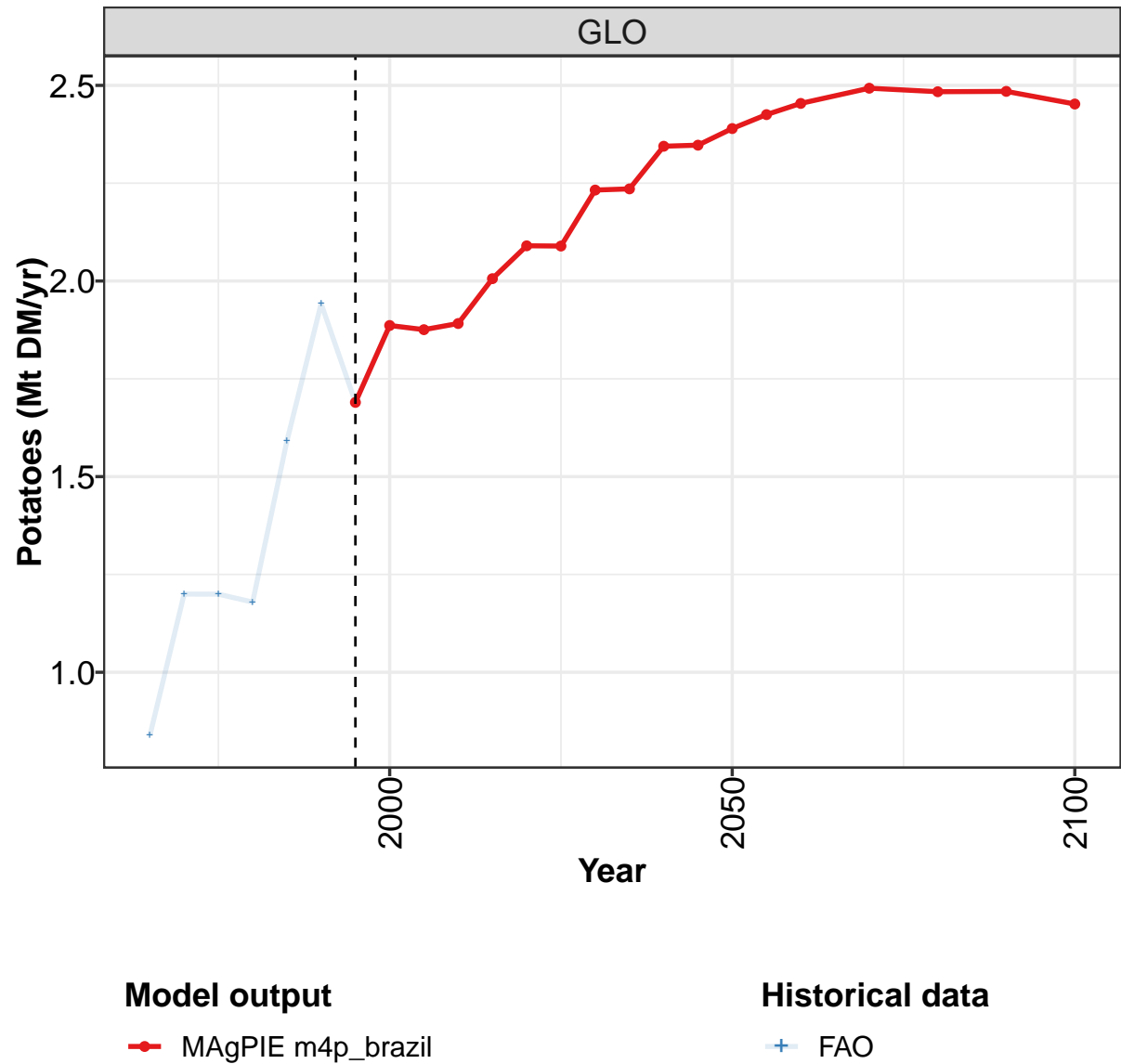
	2050	2055	2060	2070	2080	2090	2100
GLO	2.92	3.02	3.12	3.30	3.36	3.36	3.37
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.01	0.01	0.01	0.01	0.01	0.01	0.01
EUR	0.15	0.15	0.15	0.15	0.14	0.14	0.14
LAM	0.10	0.10	0.11	0.11	0.11	0.11	0.10
ROW	2.63	2.73	2.82	3.00	3.06	3.07	3.08
USA	0.03	0.03	0.03	0.04	0.04	0.04	0.04

Table 492: MAgPIE m4p_brazil — 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
BRA	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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
EUR	0.08	0.08	0.08	0.10	0.11	0.10	0.12	0.21	0.11	0.13
LAM	0.01	0.01	0.02	0.02	0.05	0.05	0.06	0.07	0.10	0.07
ROW	0.21	0.26	0.41	0.61	0.64	0.74	0.74	0.92	0.84	1.61
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



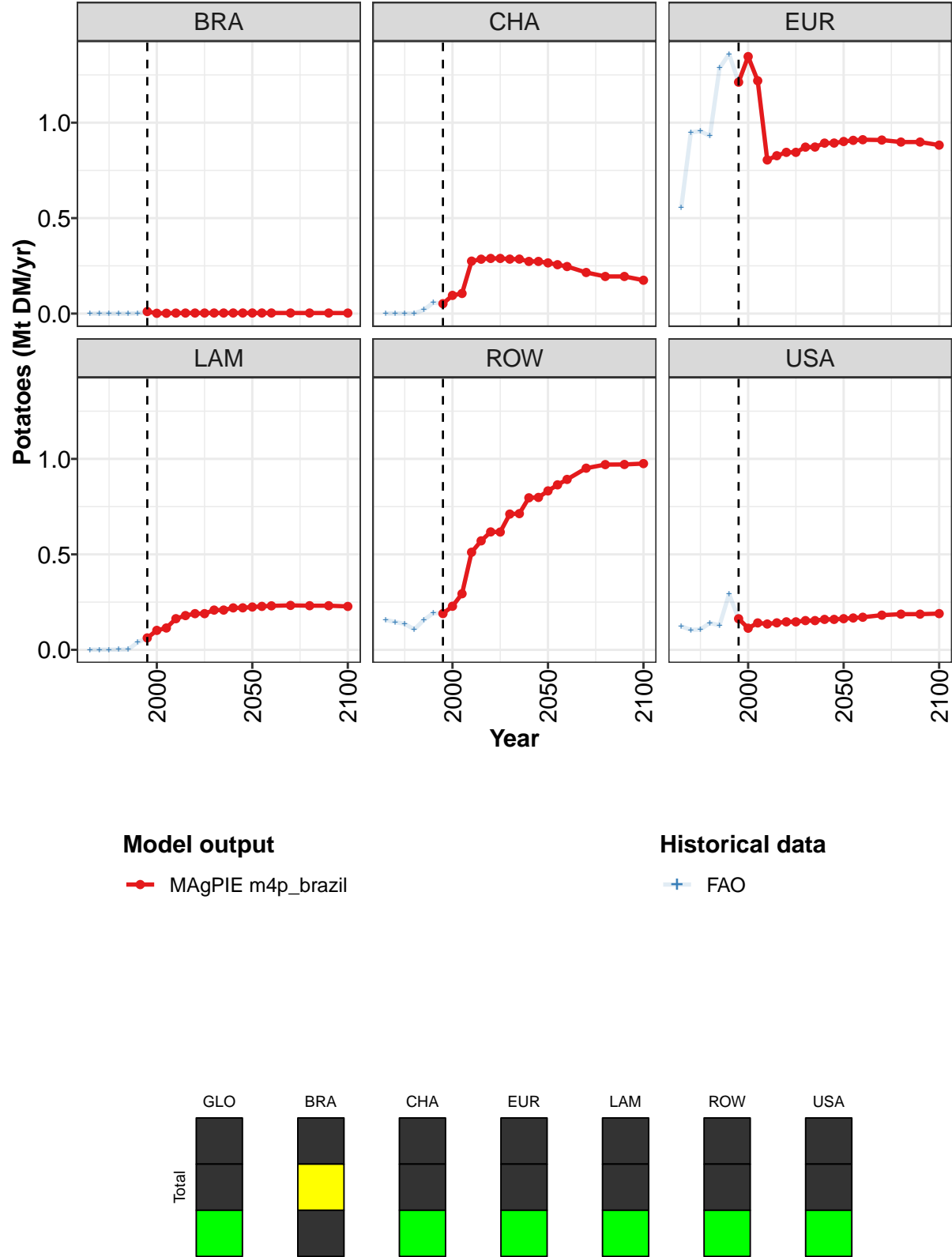


Figure 165: MAgPIE m4p_brazil — Demand—Material—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.69	1.89	1.88	1.89	2.01	2.09	2.09	2.23	2.24	2.34	2.35
BRA	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	0.28	0.29	0.29	0.29	0.29	0.27	0.27
EUR	1.21	1.35	1.22	0.80	0.83	0.84	0.84	0.87	0.87	0.89	0.89
LAM	0.06	0.10	0.11	0.16	0.18	0.19	0.19	0.21	0.21	0.22	0.22
ROW	0.19	0.23	0.29	0.51	0.57	0.62	0.62	0.71	0.71	0.80	0.80
USA	0.16	0.11	0.14	0.14	0.14	0.15	0.15	0.15	0.15	0.16	0.16

Table 494: MAgPIE m4p_brazil — Demand—Material—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

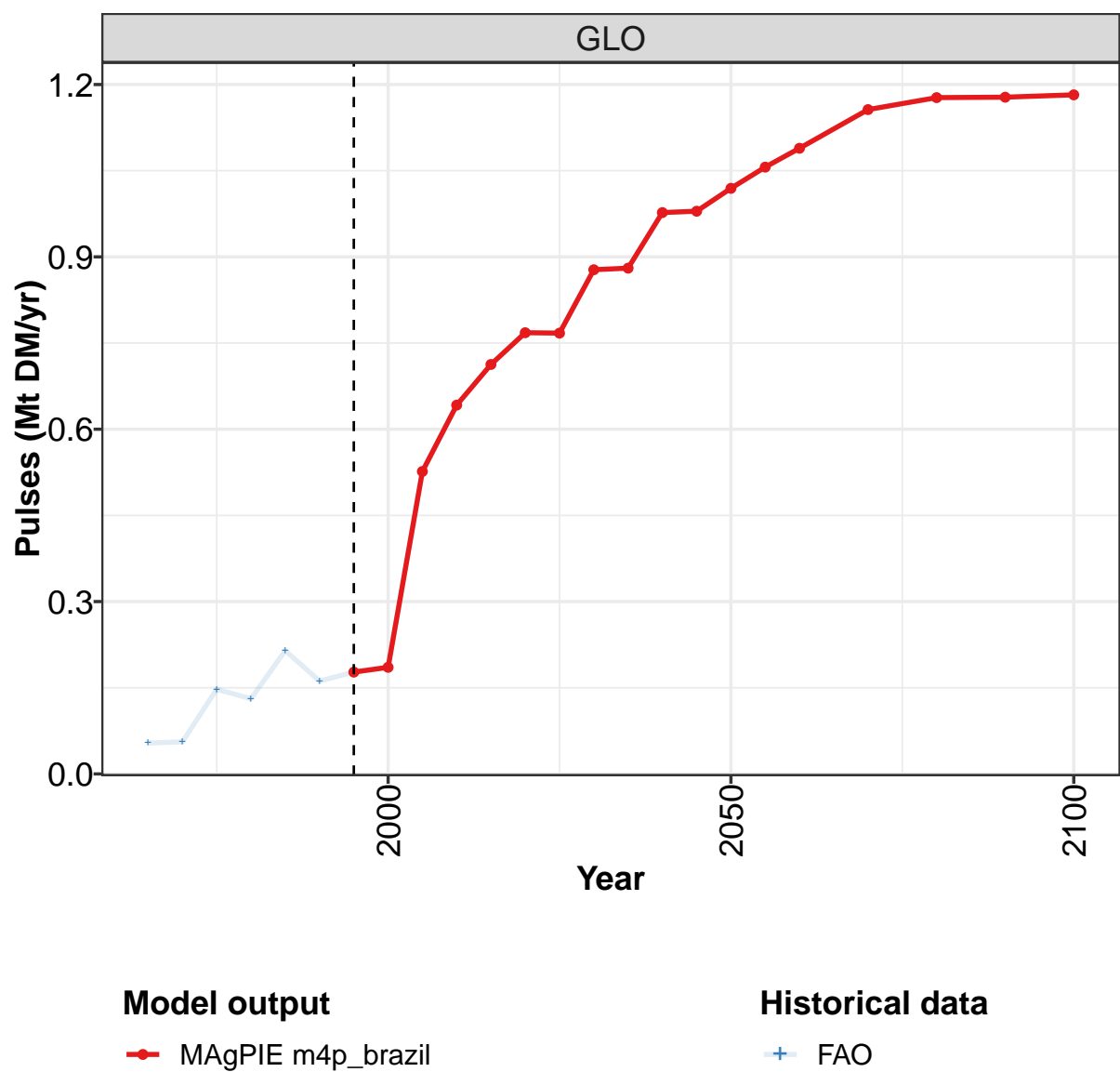
	2050	2055	2060	2070	2080	2090	2100
GLO	2.39	2.43	2.45	2.49	2.48	2.48	2.45
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.27	0.26	0.25	0.22	0.19	0.19	0.17
EUR	0.90	0.91	0.91	0.91	0.90	0.90	0.88
LAM	0.22	0.23	0.23	0.23	0.23	0.23	0.23
ROW	0.83	0.86	0.89	0.95	0.97	0.97	0.98
USA	0.16	0.17	0.17	0.18	0.19	0.19	0.19

Table 495: MAgPIE m4p_brazil — 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
BRA	0.00	0.00	0.00	0.00	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	0.56	0.95	0.96	0.93	1.29	1.36	1.21	1.35	1.22	0.80
LAM	0.00	0.00	0.00	0.00	0.00	0.04	0.06	0.10	0.11	0.16
ROW	0.16	0.15	0.14	0.11	0.16	0.19	0.19	0.23	0.29	0.51
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



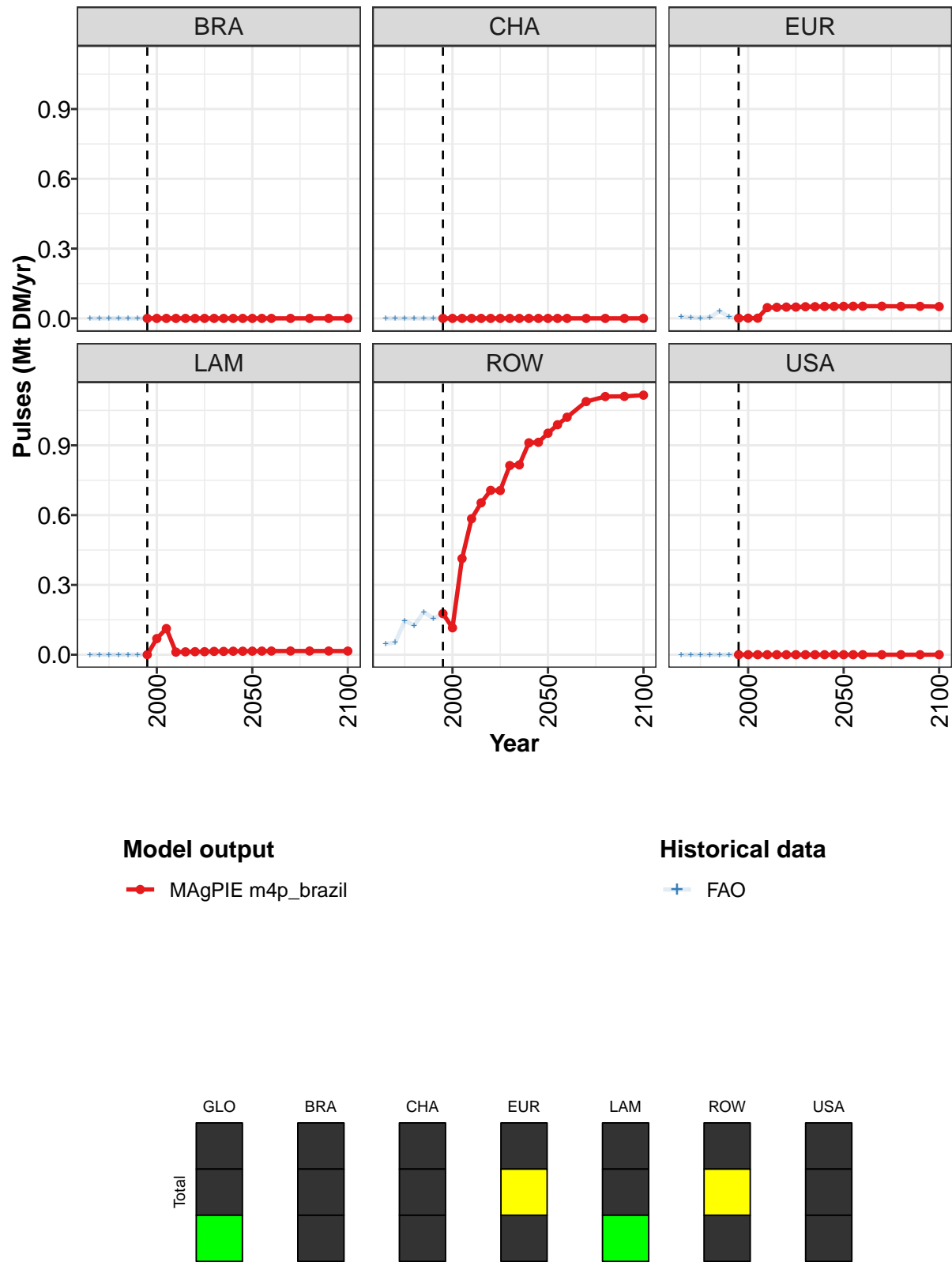


Figure 166: MAgPIE m4p_brazil — Demand—Material—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.18	0.19	0.53	0.64	0.71	0.77	0.77	0.88	0.88	0.98	0.98
BRA	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	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
LAM	0.00	0.07	0.11	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ROW	0.18	0.12	0.41	0.58	0.65	0.71	0.71	0.81	0.82	0.91	0.91
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_brazil — Demand—Material—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

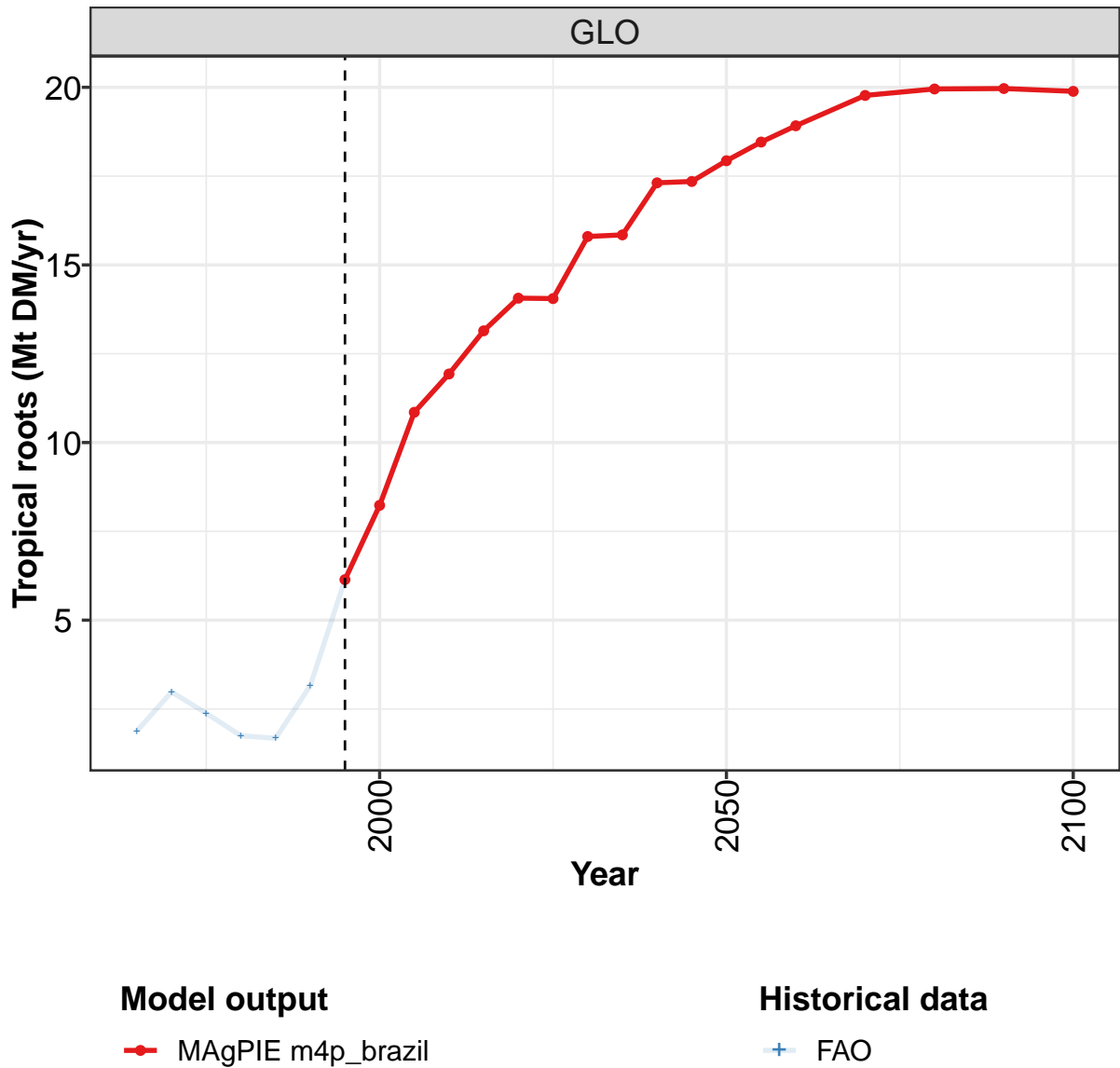
	2050	2055	2060	2070	2080	2090	2100
GLO	1.02	1.06	1.09	1.16	1.18	1.18	1.18
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.05	0.05	0.05	0.05	0.05	0.05	0.05
LAM	0.02	0.02	0.02	0.02	0.02	0.02	0.02
ROW	0.95	0.99	1.02	1.09	1.11	1.11	1.12
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 498: MAgPIE m4p_brazil — 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
BRA	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	0.007	0.004	0.002	0.005	0.031	0.006	0.001	0.001	0.001	0.046
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.069	0.112	0.011
ROW	0.047	0.052	0.145	0.126	0.183	0.155	0.176	0.116	0.413	0.585
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



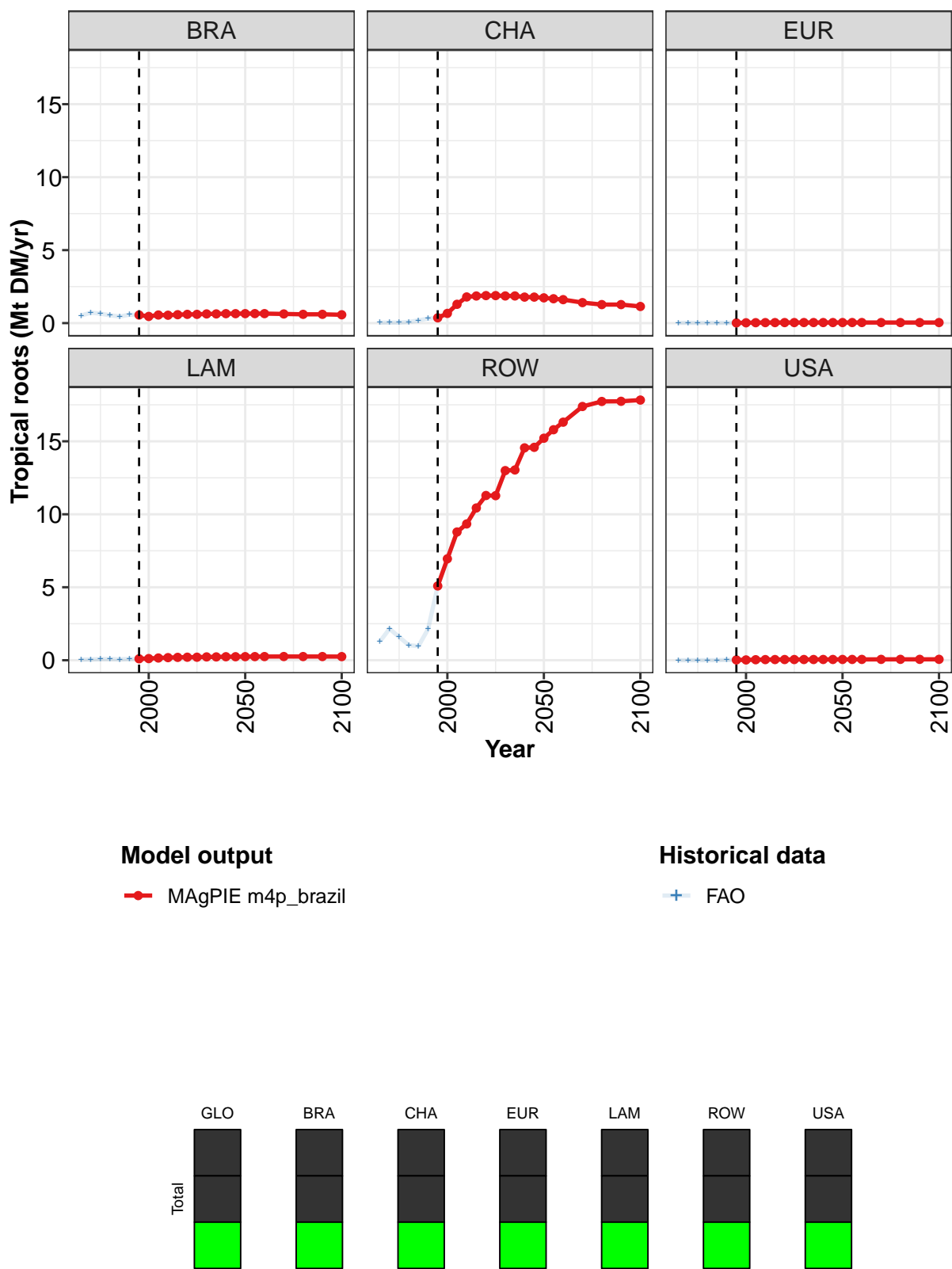


Figure 167: MAgPIE m4p_brazil — Demand—Material—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.1	8.2	10.9	11.9	13.1	14.1	14.1	15.8	15.8	17.3	17.3
BRA	0.6	0.5	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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
LAM	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
ROW	5.1	6.9	8.8	9.3	10.4	11.3	11.3	13.0	13.0	14.6	14.6
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1

Table 500: MAgPIE m4p_brazil — Demand—Material—Crops—Other crops—Tropical roots (Mt DM/yr)
[PART 1/2]

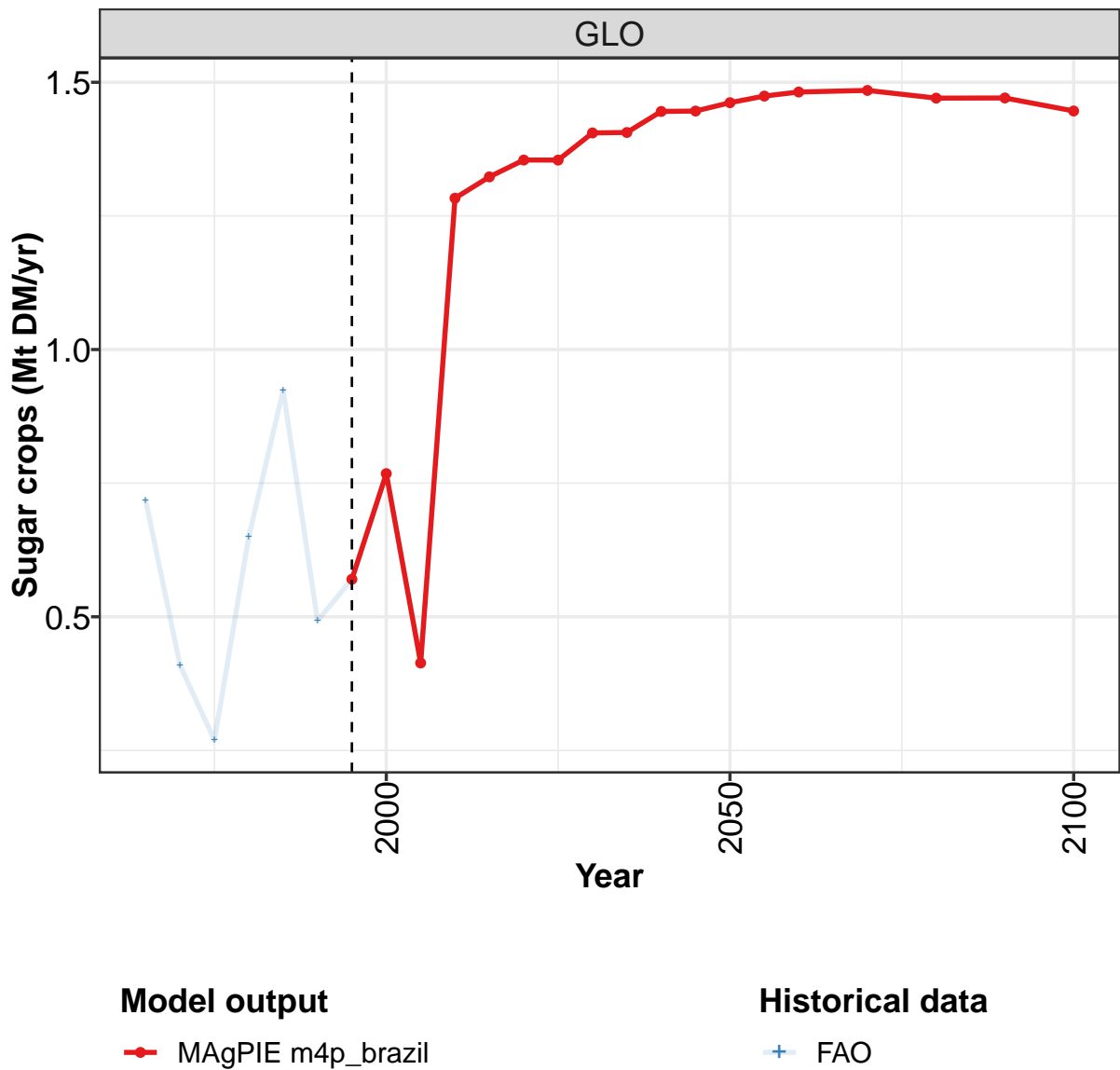
	2050	2055	2060	2070	2080	2090	2100
GLO	17.9	18.5	18.9	19.8	20.0	20.0	19.9
BRA	0.7	0.7	0.6	0.6	0.6	0.6	0.6
CHA	1.7	1.7	1.6	1.4	1.3	1.3	1.1
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.2	0.2	0.3	0.3	0.3	0.3	0.2
ROW	15.2	15.8	16.3	17.4	17.7	17.7	17.8
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table 501: MAgPIE m4p_brazil — 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
BRA	0.5	0.7	0.6	0.5	0.5	0.6	0.6	0.5	0.6	0.5
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
LAM	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
ROW	1.3	2.2	1.6	1.0	1.0	2.1	5.1	6.9	8.8	9.3
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



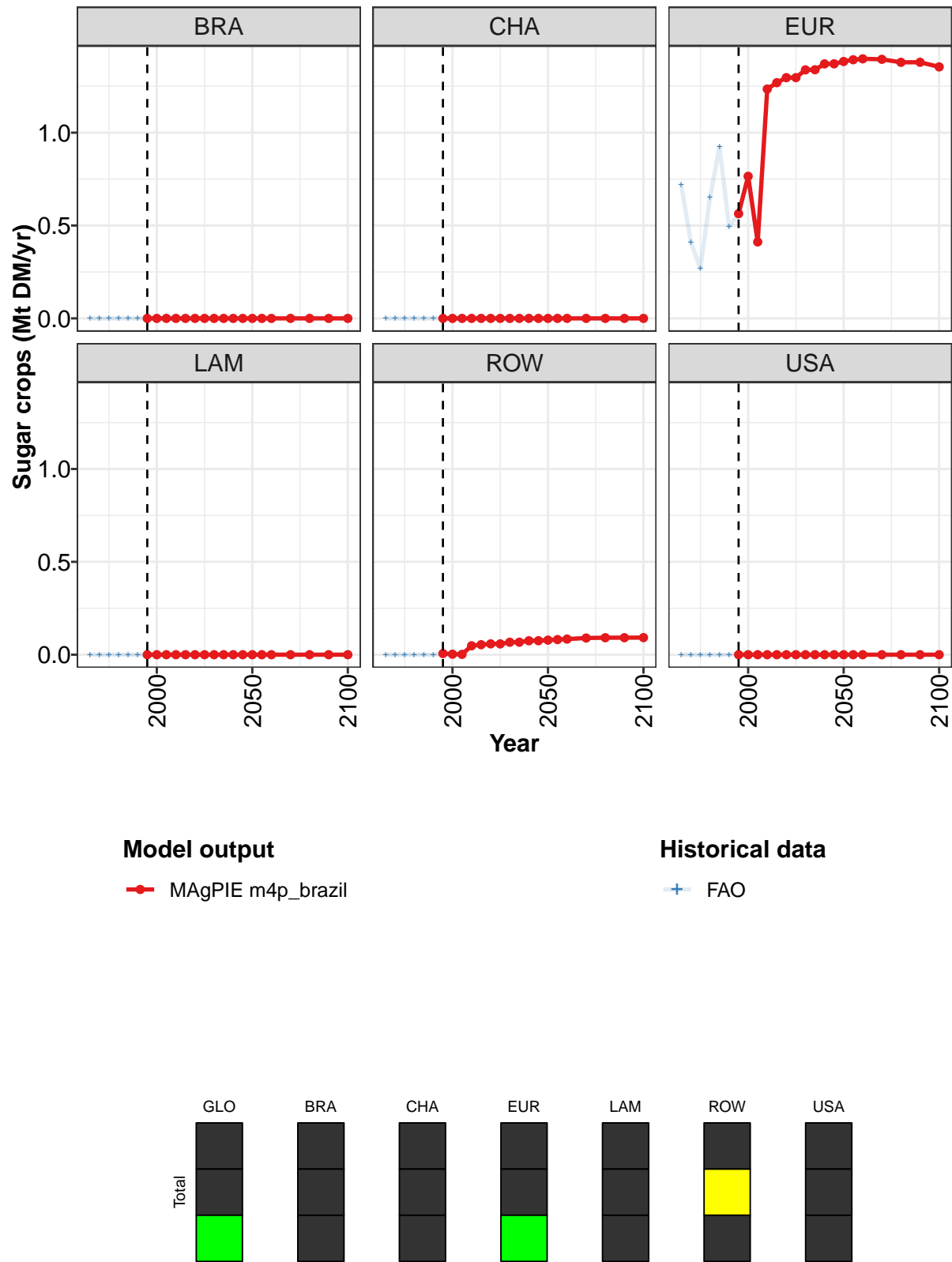


Figure 168: MAgPIE m4p_brazil — Demand—Material—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.57	0.77	0.41	1.28	1.32	1.35	1.35	1.41	1.41	1.45	1.45
BRA	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	1.27	1.30	1.30	1.34	1.34	1.37	1.37
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.01	0.00	0.00	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.08
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_brazil — Demand—Material—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

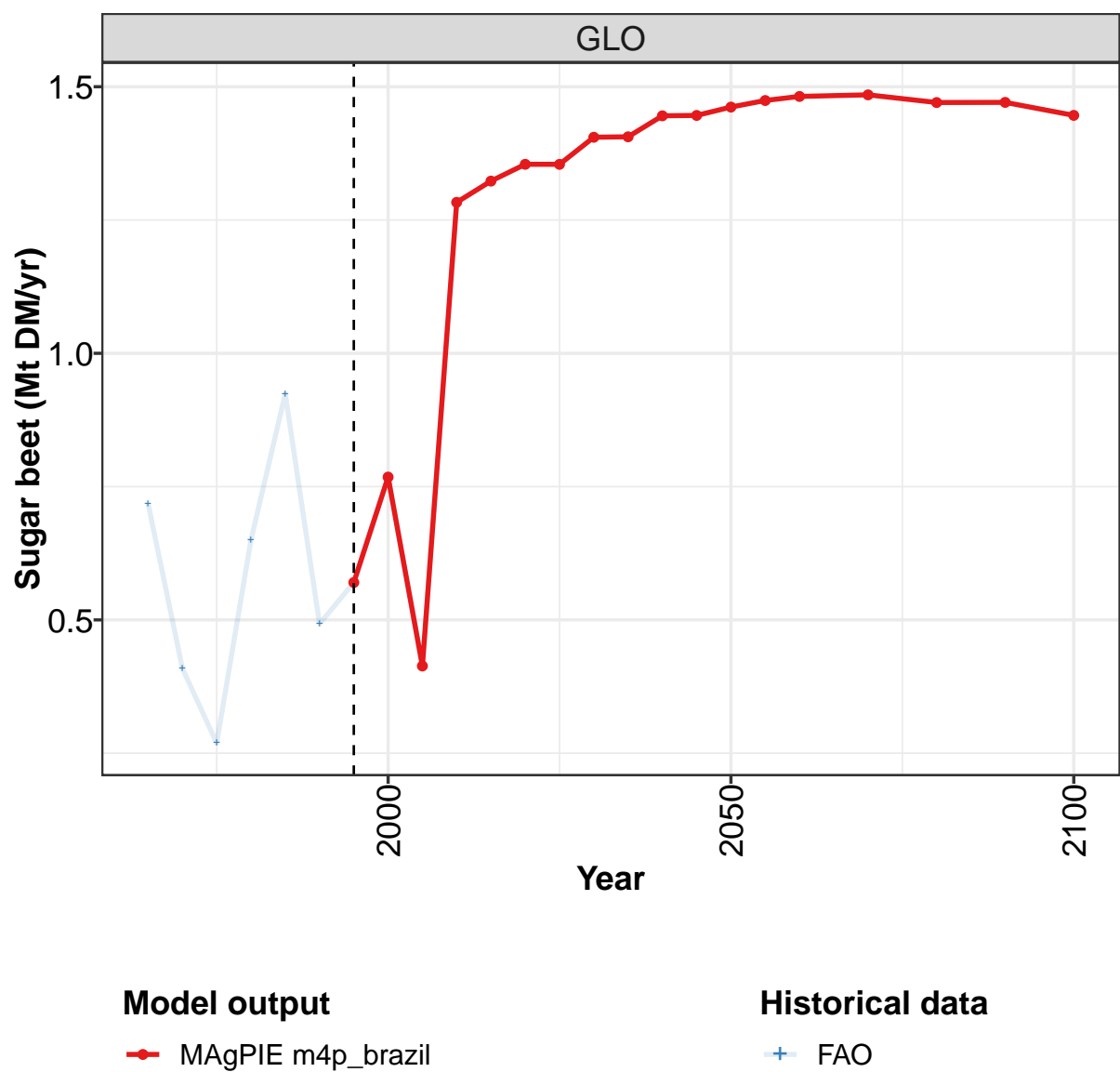
	2050	2055	2060	2070	2080	2090	2100
GLO	1.46	1.47	1.48	1.48	1.47	1.47	1.45
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	1.38	1.39	1.40	1.40	1.38	1.38	1.35
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.08	0.08	0.08	0.09	0.09	0.09	0.09
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 504: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.05
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



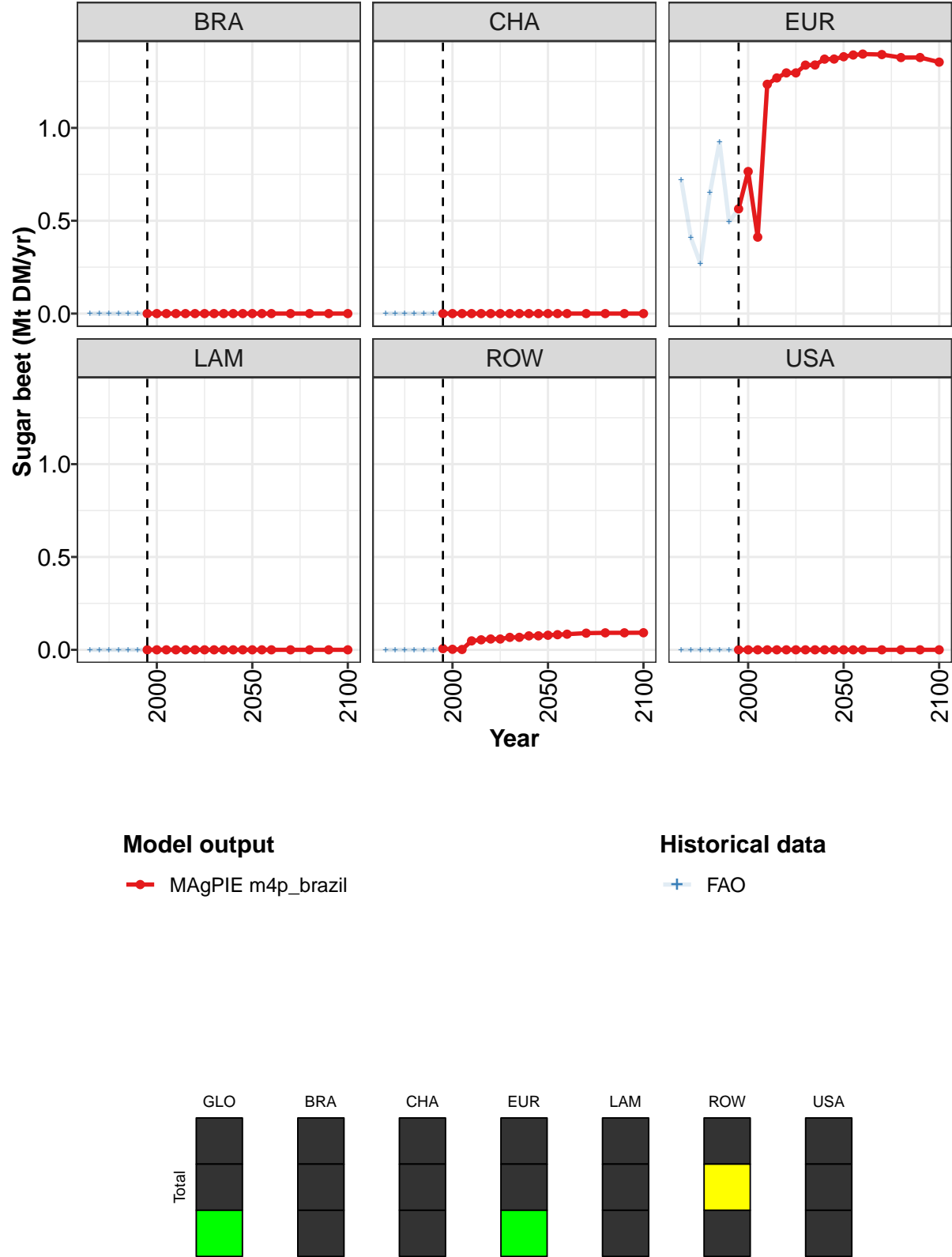


Figure 169: MAGPIE m4p_brazil — Demand—Material—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.57	0.77	0.41	1.28	1.32	1.35	1.35	1.41	1.41	1.45	1.45
BRA	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	1.27	1.30	1.30	1.34	1.34	1.37	1.37
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.01	0.00	0.00	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.08
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_brazil — Demand—Material—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

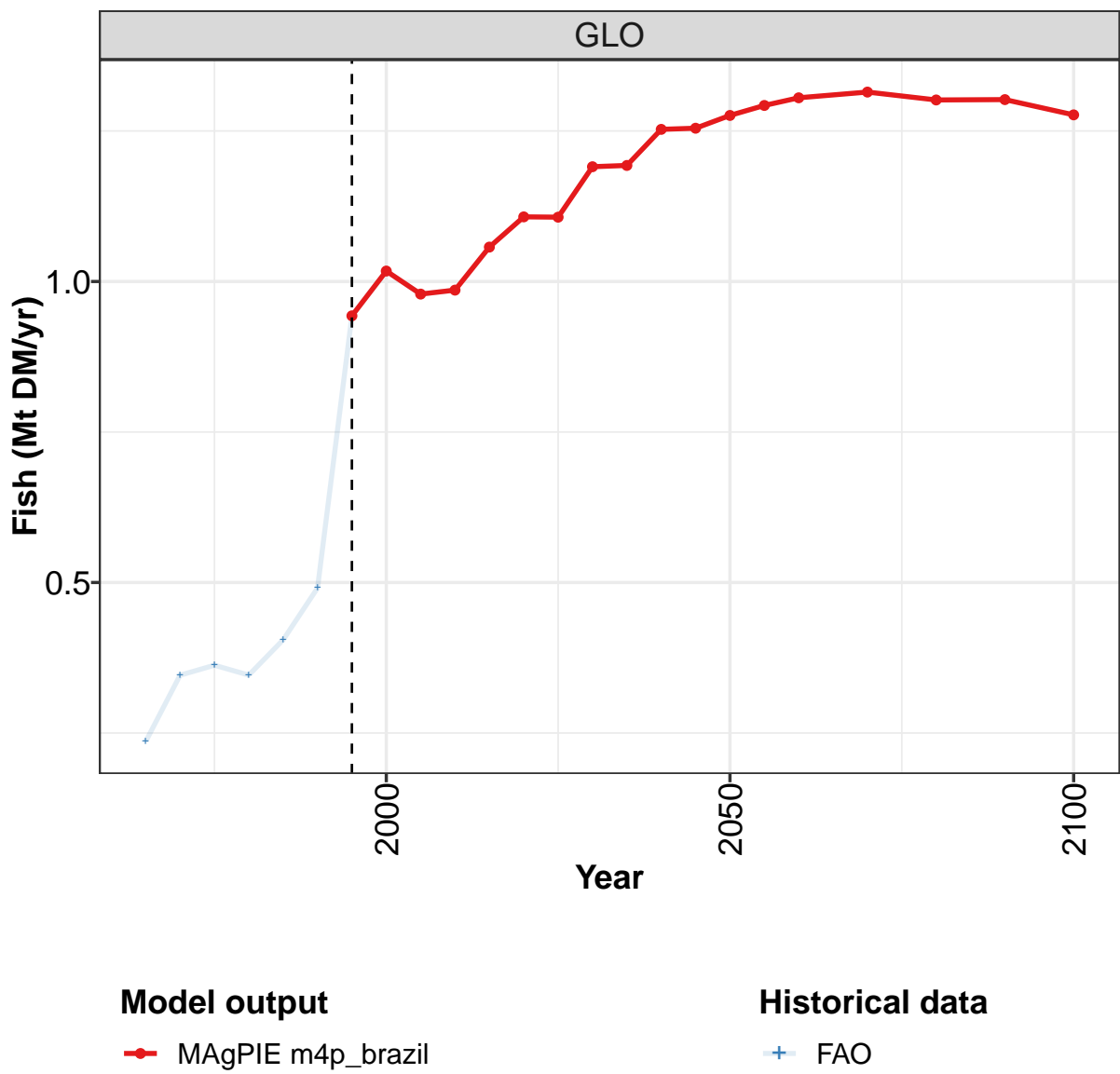
	2050	2055	2060	2070	2080	2090	2100
GLO	1.46	1.47	1.48	1.48	1.47	1.47	1.45
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	1.38	1.39	1.40	1.40	1.38	1.38	1.35
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.08	0.08	0.08	0.09	0.09	0.09	0.09
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 507: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.05
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



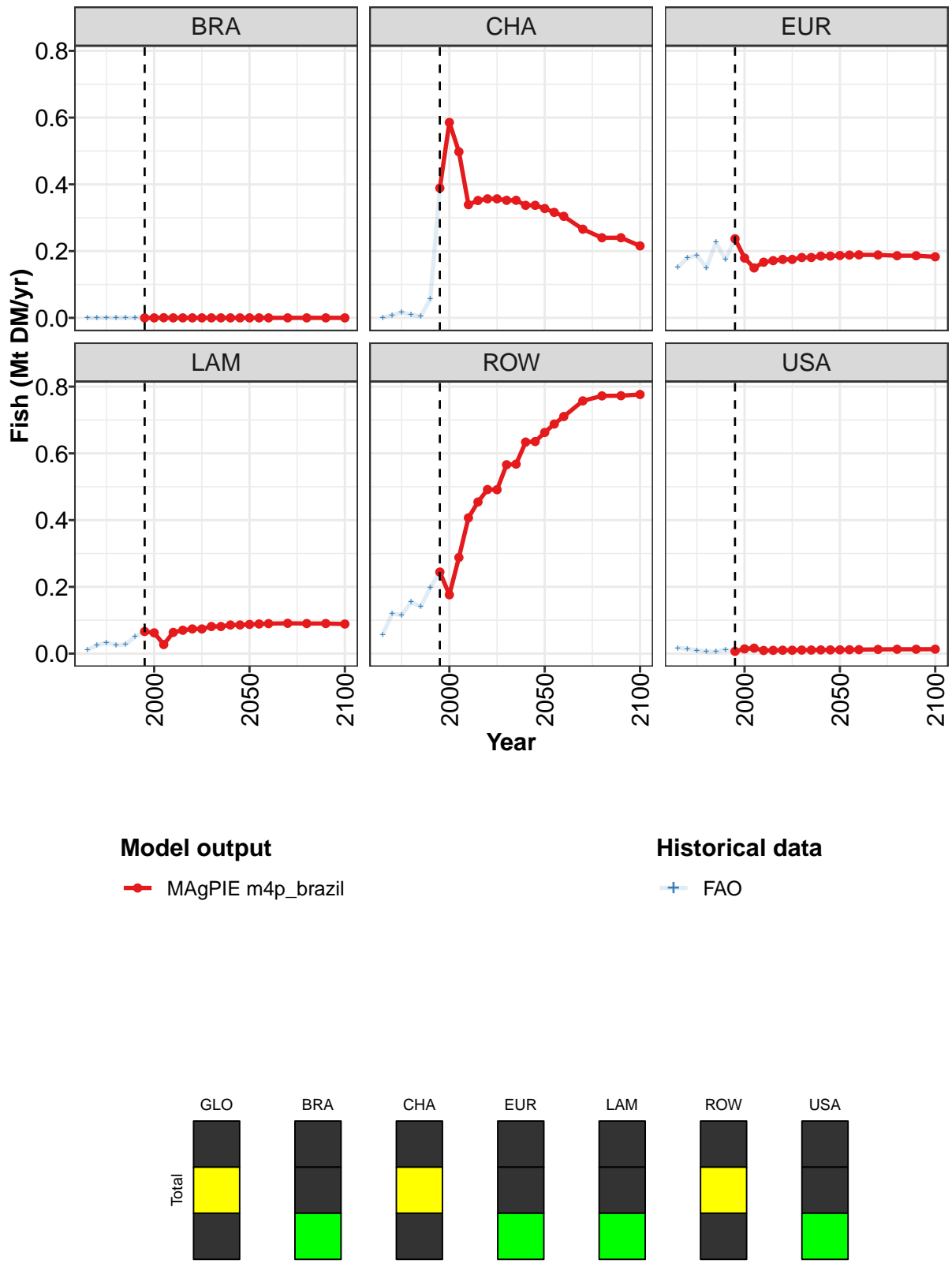


Figure 170: MAgPIE m4p_brazil — Demand—Material—Fish (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.94	1.02	0.98	0.99	1.06	1.11	1.11	1.19	1.19	1.25	1.25
BRA	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	0.59	0.50	0.34	0.35	0.36	0.36	0.35	0.35	0.34	0.34
EUR	0.24	0.18	0.15	0.17	0.17	0.18	0.18	0.18	0.18	0.19	0.19
LAM	0.07	0.06	0.03	0.06	0.07	0.07	0.07	0.08	0.08	0.09	0.09
ROW	0.24	0.18	0.29	0.41	0.45	0.49	0.49	0.57	0.57	0.63	0.64
USA	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

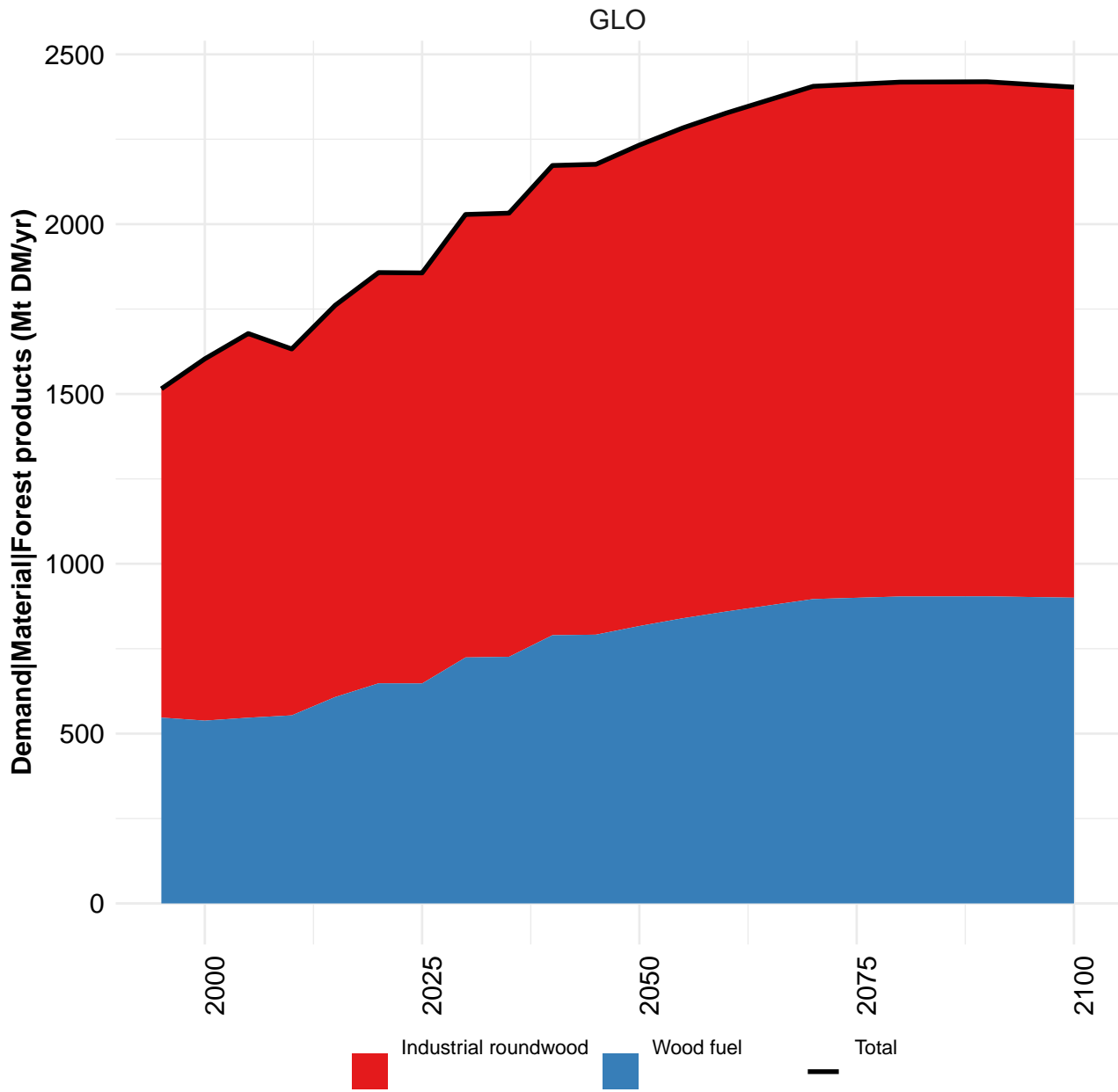
Table 509: MAgPIE m4p.brazil — Demand—Material—Fish (Mt DM/yr) [PART 1/2]

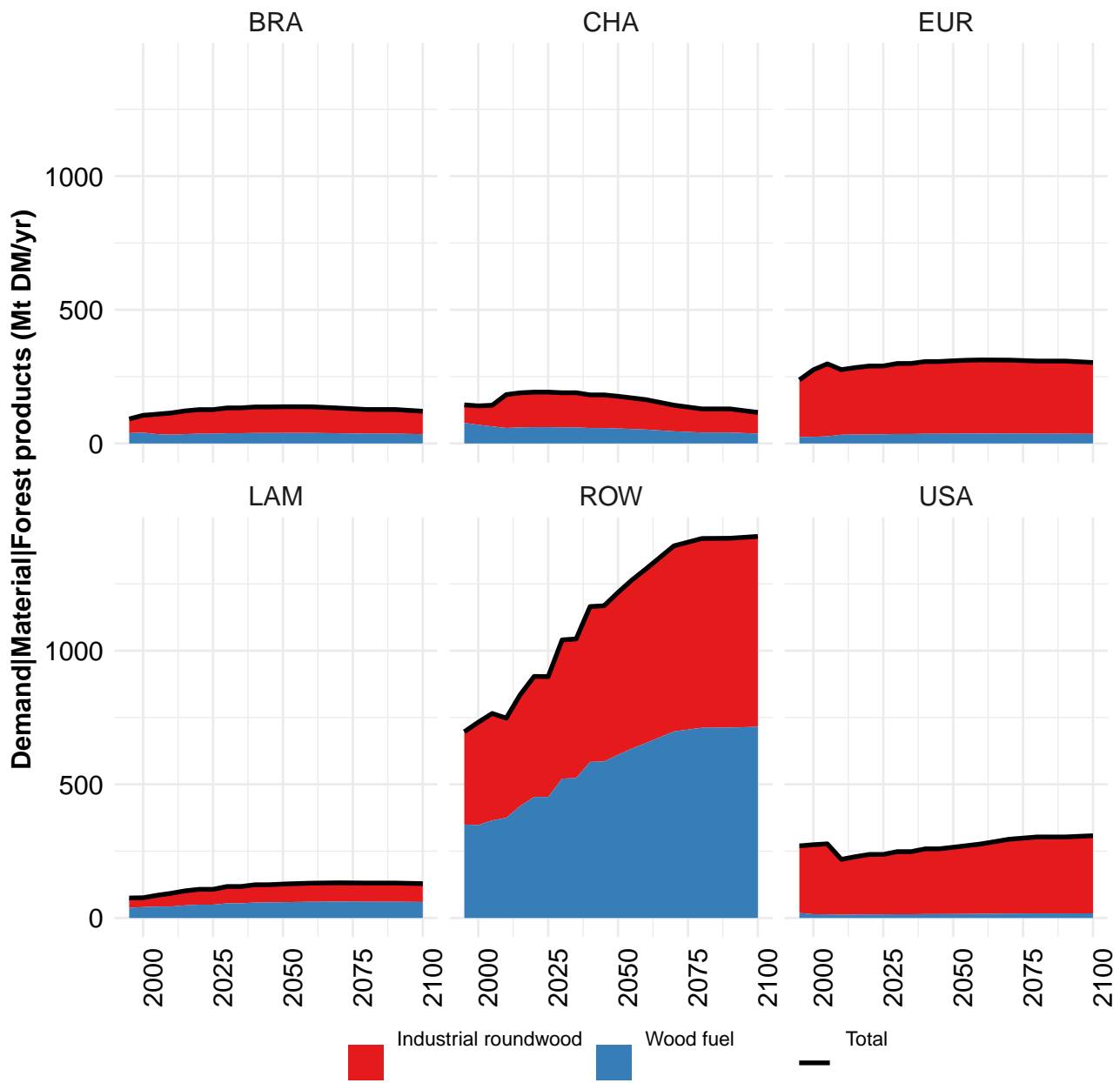
	2050	2055	2060	2070	2080	2090	2100
GLO	1.28	1.29	1.31	1.31	1.30	1.30	1.28
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.33	0.32	0.30	0.27	0.24	0.24	0.22
EUR	0.19	0.19	0.19	0.19	0.19	0.19	0.18
LAM	0.09	0.09	0.09	0.09	0.09	0.09	0.09
ROW	0.66	0.69	0.71	0.76	0.77	0.77	0.78
USA	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Table 510: MAgPIE m4p.brazil — Demand—Material—Fish (Mt DM/yr) [PART 2/2]

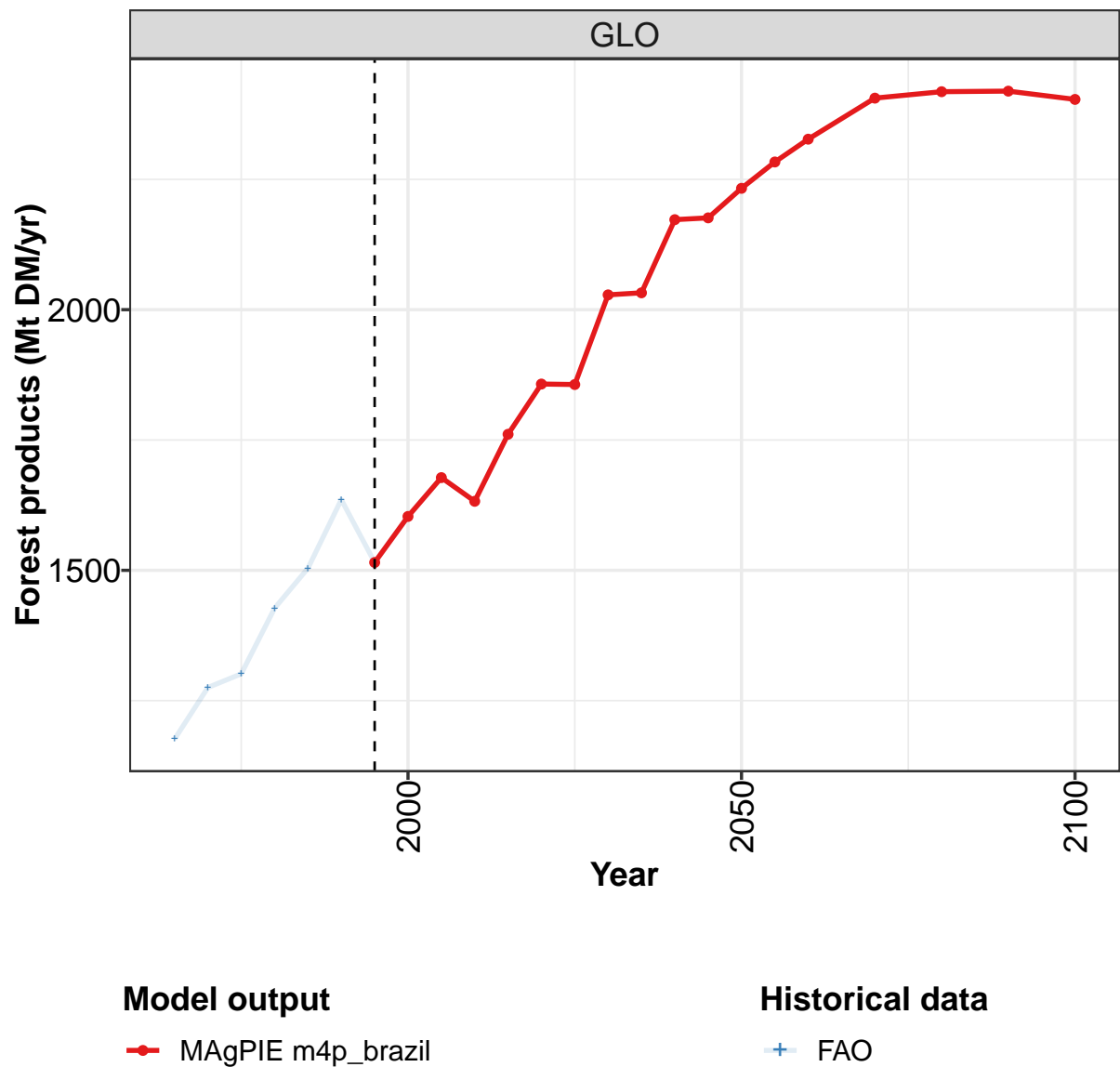
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.24	0.35	0.36	0.35	0.40	0.49	0.94	1.02	0.98	0.99
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.01	0.02	0.01	0.00	0.06	0.39	0.59	0.50	0.34
EUR	0.15	0.18	0.19	0.15	0.23	0.17	0.24	0.18	0.15	0.17
LAM	0.01	0.02	0.03	0.03	0.03	0.05	0.07	0.06	0.03	0.06
ROW	0.06	0.12	0.12	0.15	0.14	0.20	0.24	0.18	0.29	0.41
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



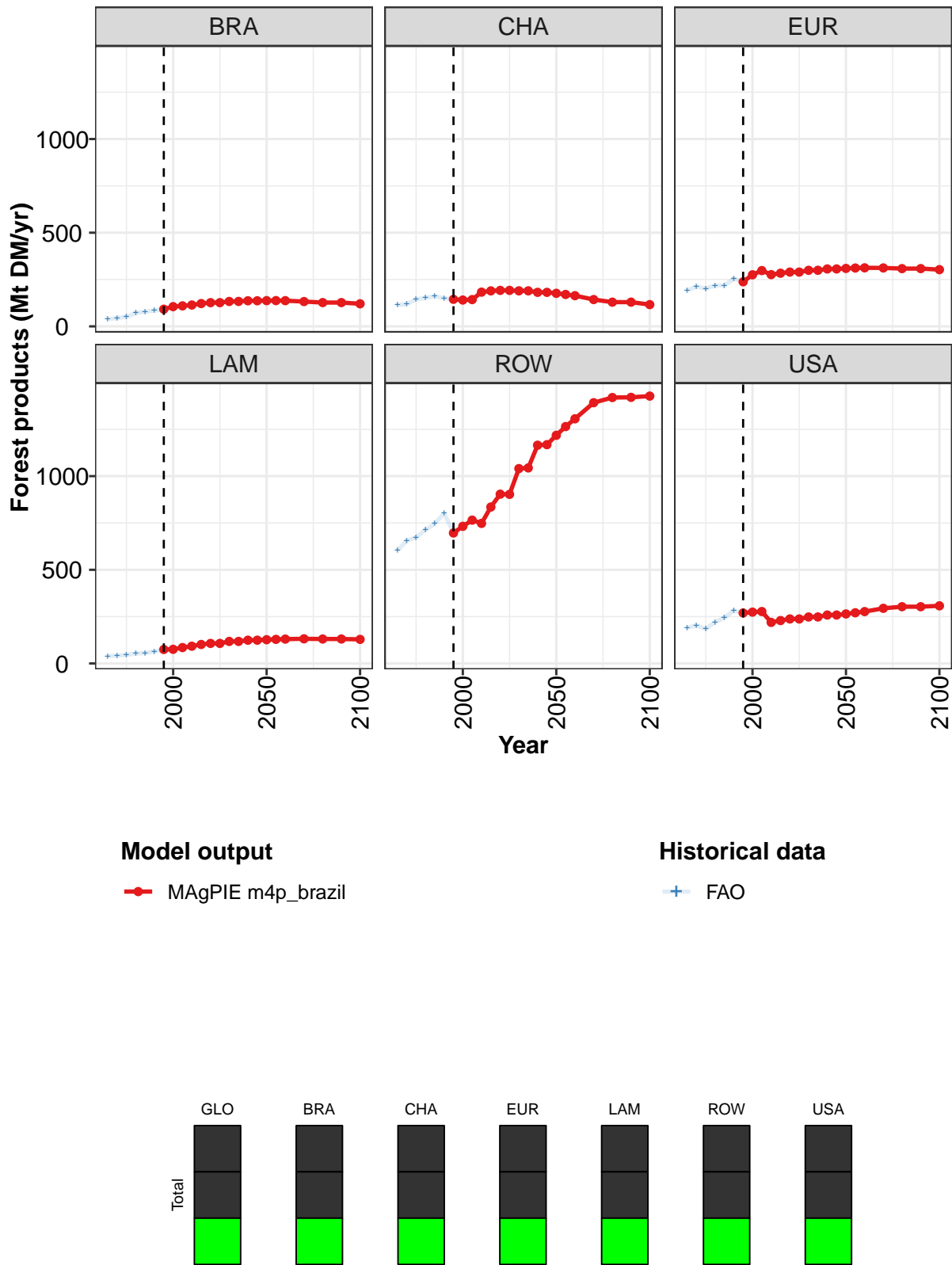


Figure 171: MAGPIE m4p_brazil — Demand—Material—Forest products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1515	1603	1678	1632	1761	1857	1856	2028	2032	2173	2176
BRA	92	105	109	114	122	127	127	133	133	137	137
CHA	144	141	143	183	189	192	192	190	190	182	182
EUR	238	275	298	276	284	290	290	299	299	306	307
LAM	75	76	85	92	101	107	107	118	118	124	124
ROW	697	732	765	748	835	904	903	1040	1044	1165	1168
USA	270	274	277	219	229	238	238	248	248	259	259

Table 512: MAgPIE m4p_brazil — Demand—Material—Forest products (Mt DM/yr) [PART 1/2]

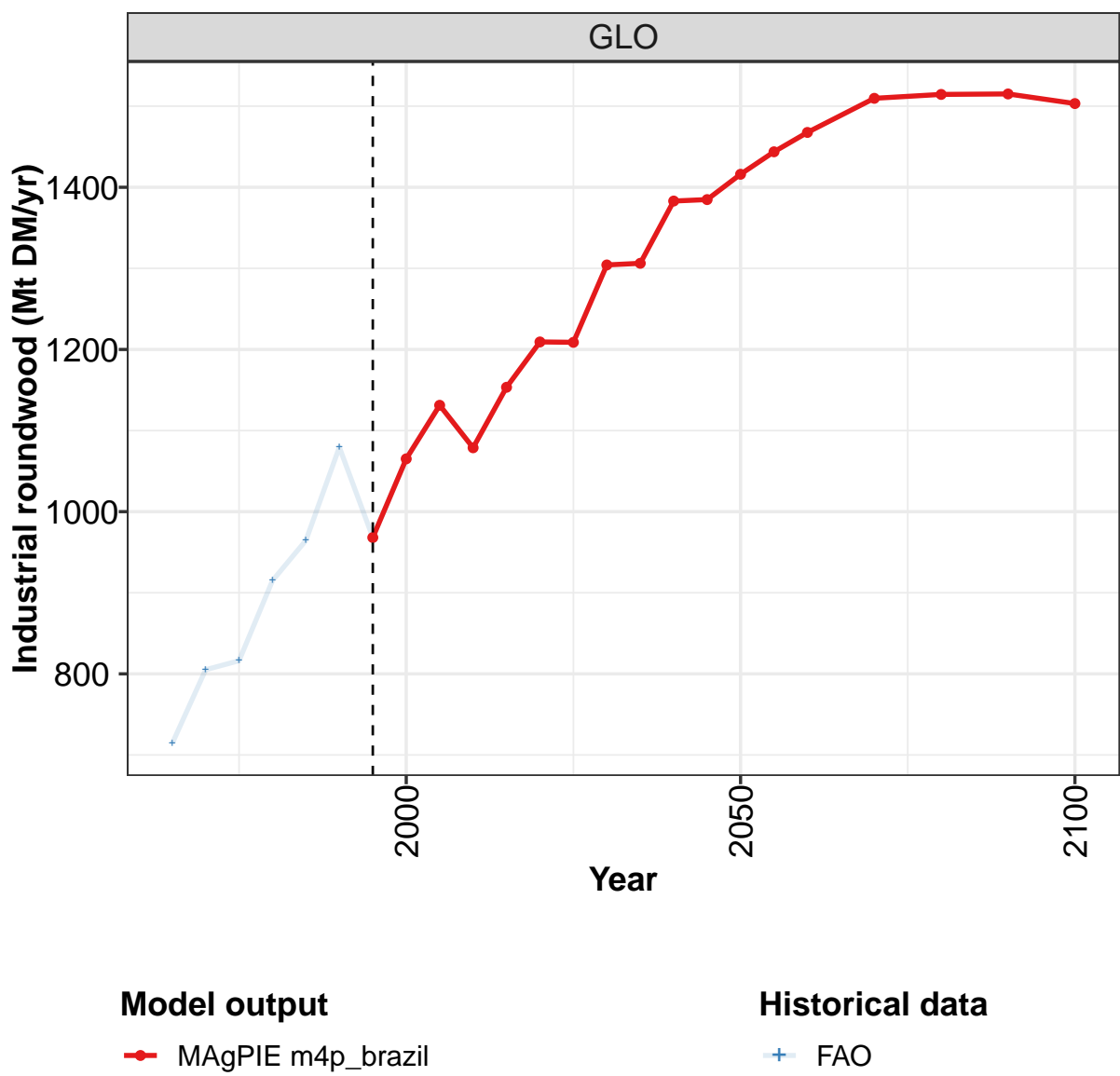
	2050	2055	2060	2070	2080	2090	2100
GLO	2233	2283	2327	2406	2418	2419	2403
BRA	137	138	137	132	127	127	121
CHA	177	170	164	143	129	129	116
EUR	309	311	313	312	308	308	303
LAM	127	129	130	132	131	131	129
ROW	1218	1265	1306	1392	1420	1421	1427
USA	265	271	277	295	303	303	308

Table 513: MAgPIE m4p_brazil — 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
BRA	39	45	50	72	78	84	92	105	109	114
CHA	113	119	144	152	160	150	144	141	143	183
EUR	191	212	202	218	219	254	238	275	298	276
LAM	39	41	47	53	56	64	75	76	85	92
ROW	603	656	673	713	746	802	697	732	765	748
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



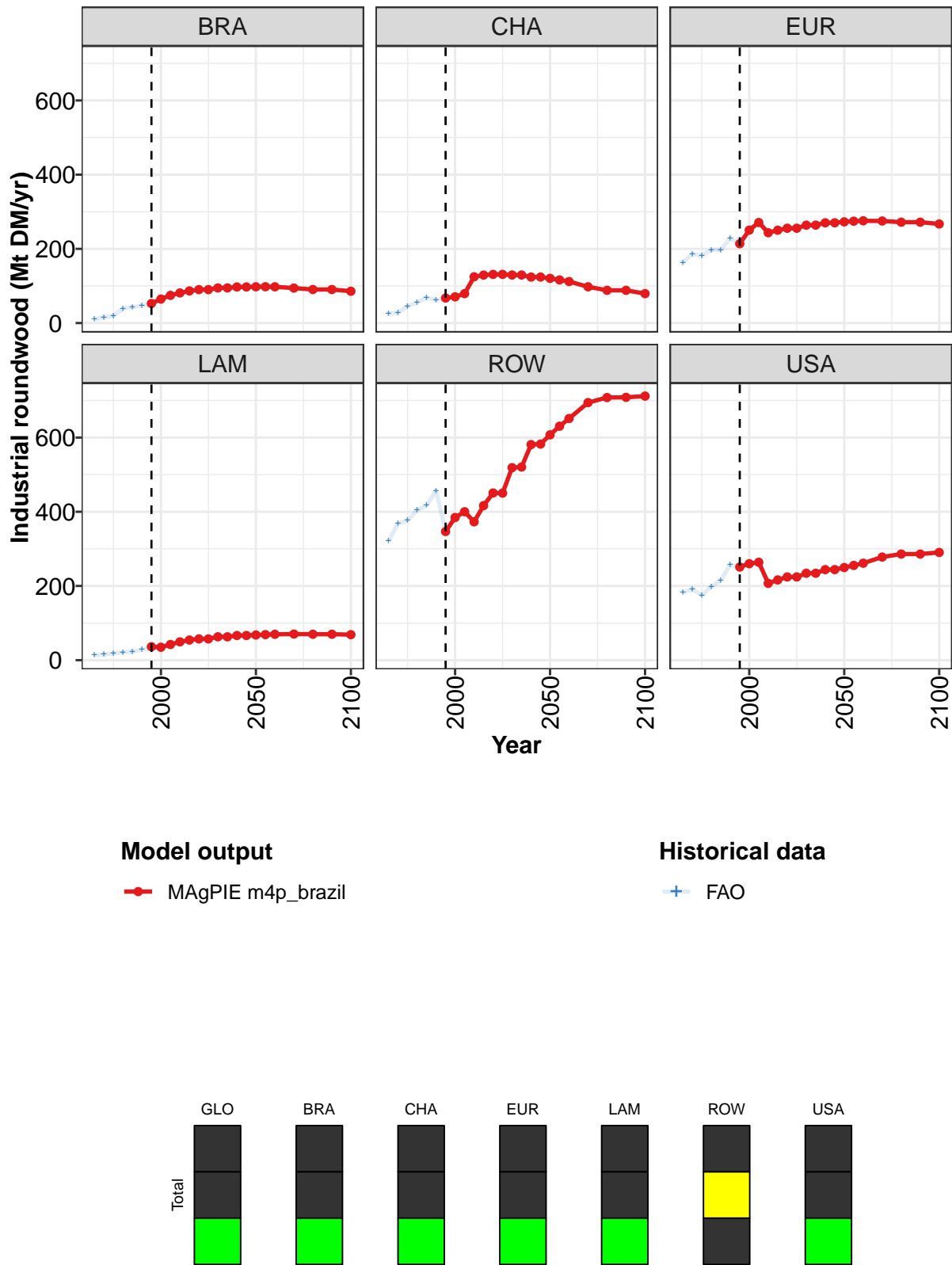


Figure 172: MAgPIE m4p_brazil — Demand—Material—Forest products—Industrial roundwood (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	968	1065	1131	1079	1153	1209	1209	1304	1306	1383	1385
BRA	53	65	75	81	87	90	90	95	95	97	97
CHA	67	71	79	125	129	131	131	130	130	124	124
EUR	214	250	271	244	250	256	256	264	264	270	270
LAM	36	35	42	49	54	57	57	63	63	66	67
ROW	347	384	400	373	417	451	450	519	521	581	583
USA	251	260	264	207	216	224	224	234	234	244	244

Table 515: MAgPIE m4p_brazil — Demand—Material—Forest products—Industrial roundwood (Mt DM/yr)
[PART 1/2]

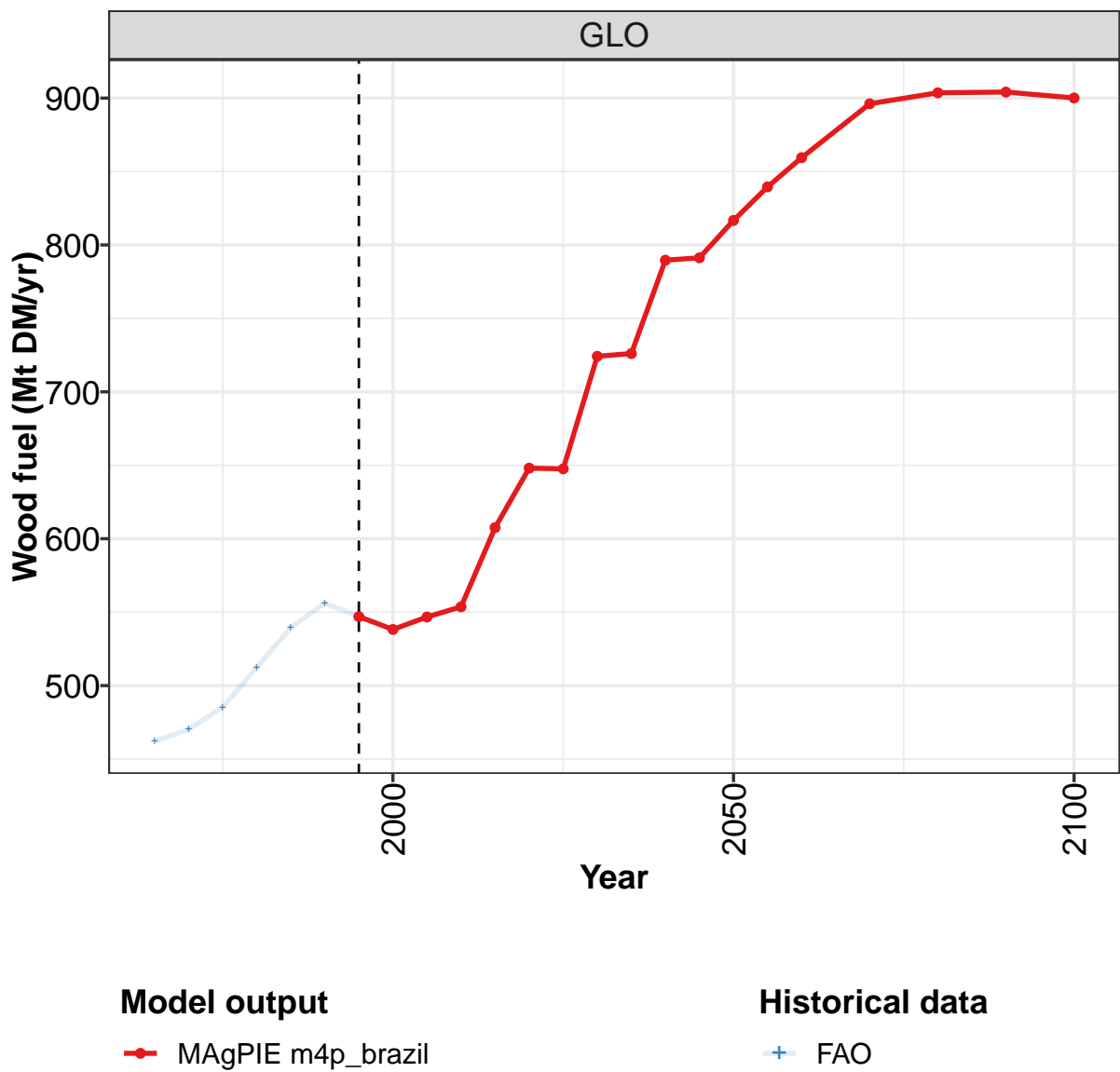
	2050	2055	2060	2070	2080	2090	2100
GLO	1416	1444	1468	1510	1514	1515	1503
BRA	98	98	98	94	90	90	86
CHA	120	116	112	98	88	88	79
EUR	273	275	276	275	272	272	267
LAM	68	69	70	70	70	70	69
ROW	607	631	651	694	708	708	712
USA	250	255	261	278	286	286	290

Table 516: MAgPIE m4p_brazil — 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
BRA	11	15	19	39	43	47	53	65	75	81
CHA	25	28	46	55	69	62	67	71	79	125
EUR	163	187	181	197	197	229	214	250	271	244
LAM	13	15	19	21	23	28	36	35	42	49
ROW	321	369	376	404	418	457	347	384	400	373
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



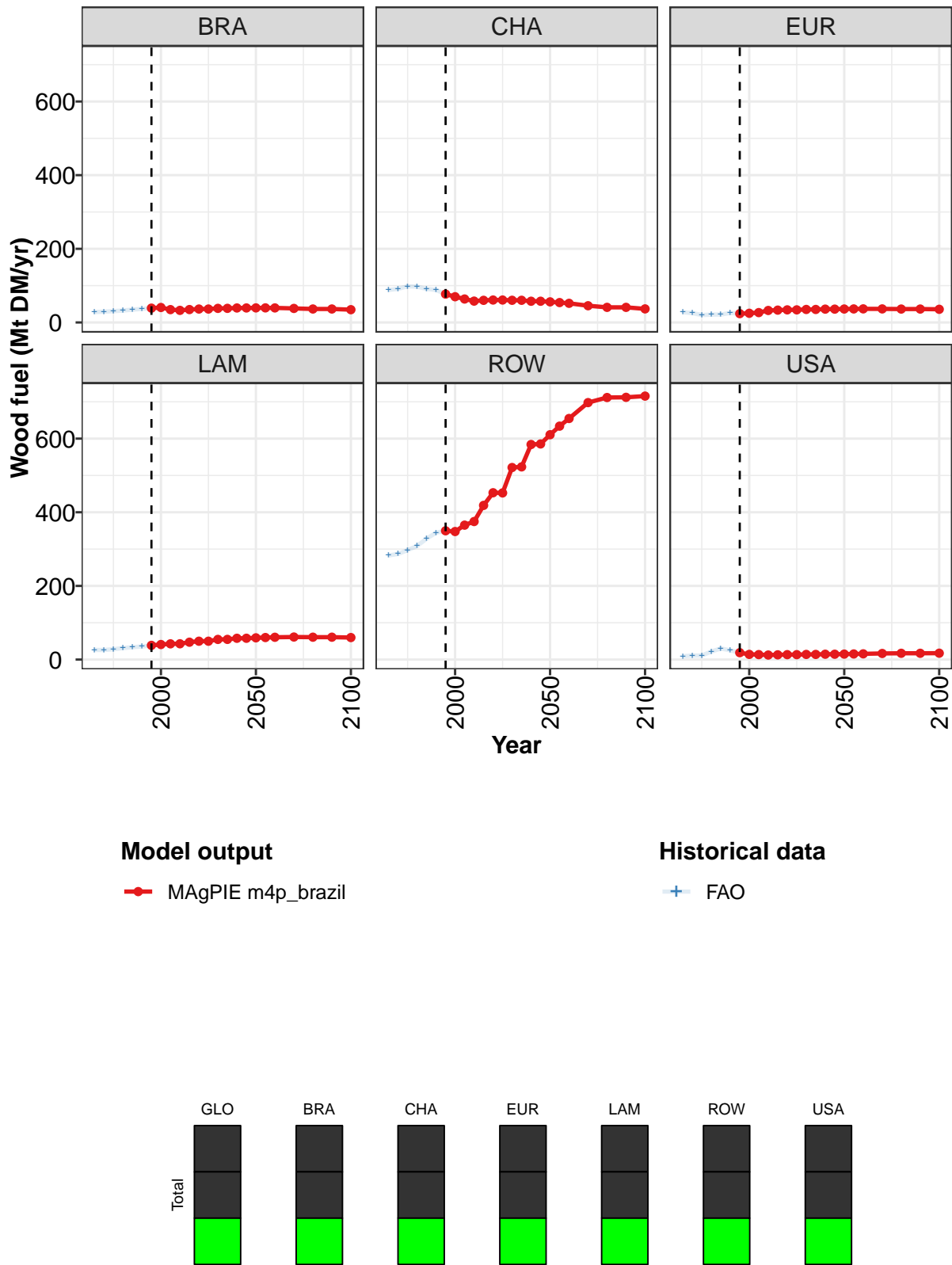


Figure 173: MAgPIE m4p_brazil — Demand—Material—Forest products—Wood fuel (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	547	538	547	554	608	648	648	724	726	790	791
BRA	39	41	35	33	35	36	36	38	38	39	39
CHA	77	70	64	58	60	61	61	60	60	58	58
EUR	24	25	27	33	34	34	34	35	35	36	36
LAM	39	41	43	43	47	50	50	55	55	58	58
ROW	350	348	365	375	419	453	453	522	523	584	586
USA	19	14	13	12	13	13	13	14	14	15	15

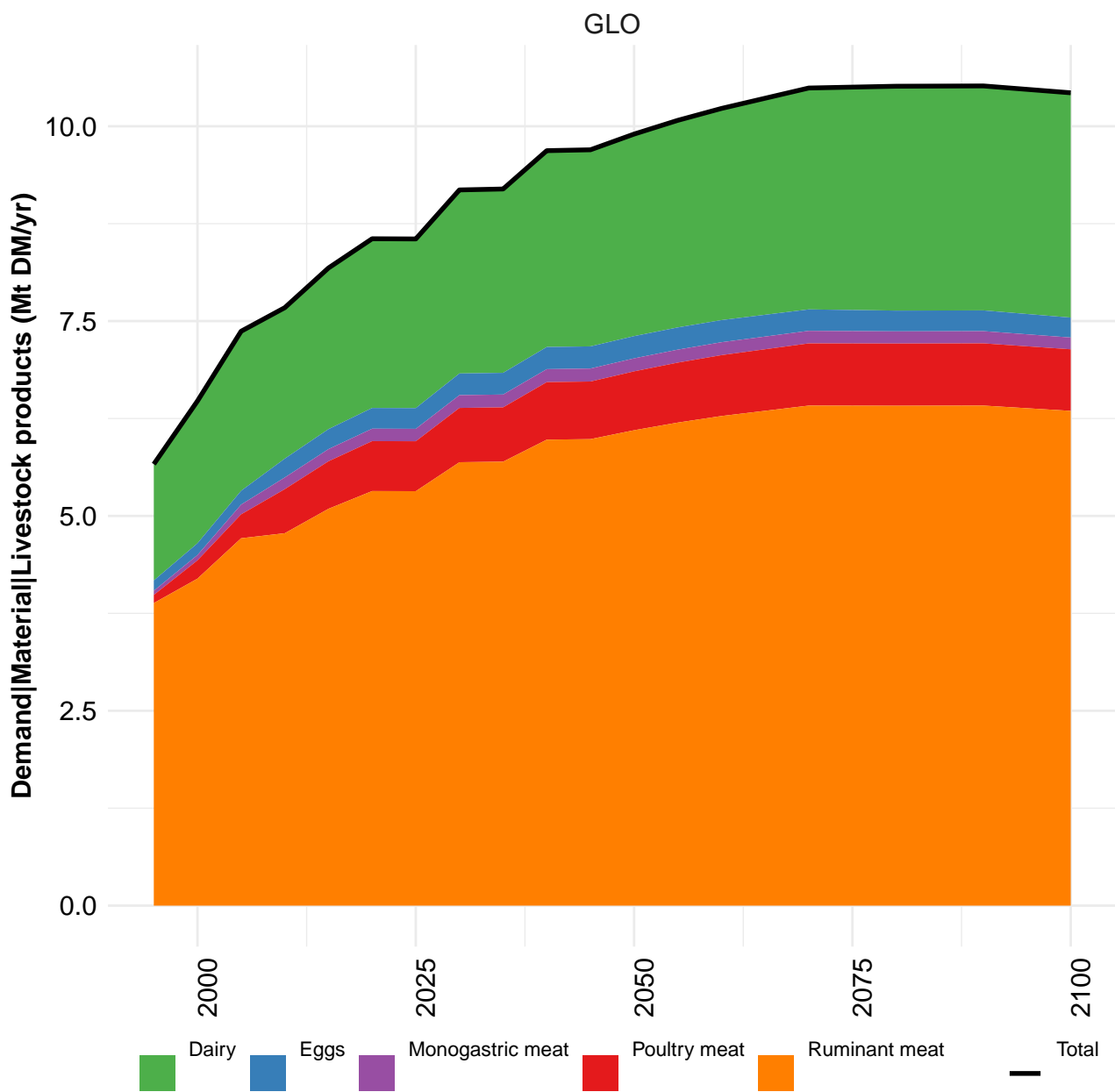
Table 518: MAgPIE m4p_brazil — Demand—Material—Forest products—Wood fuel (Mt DM/yr) [PART 1/2]

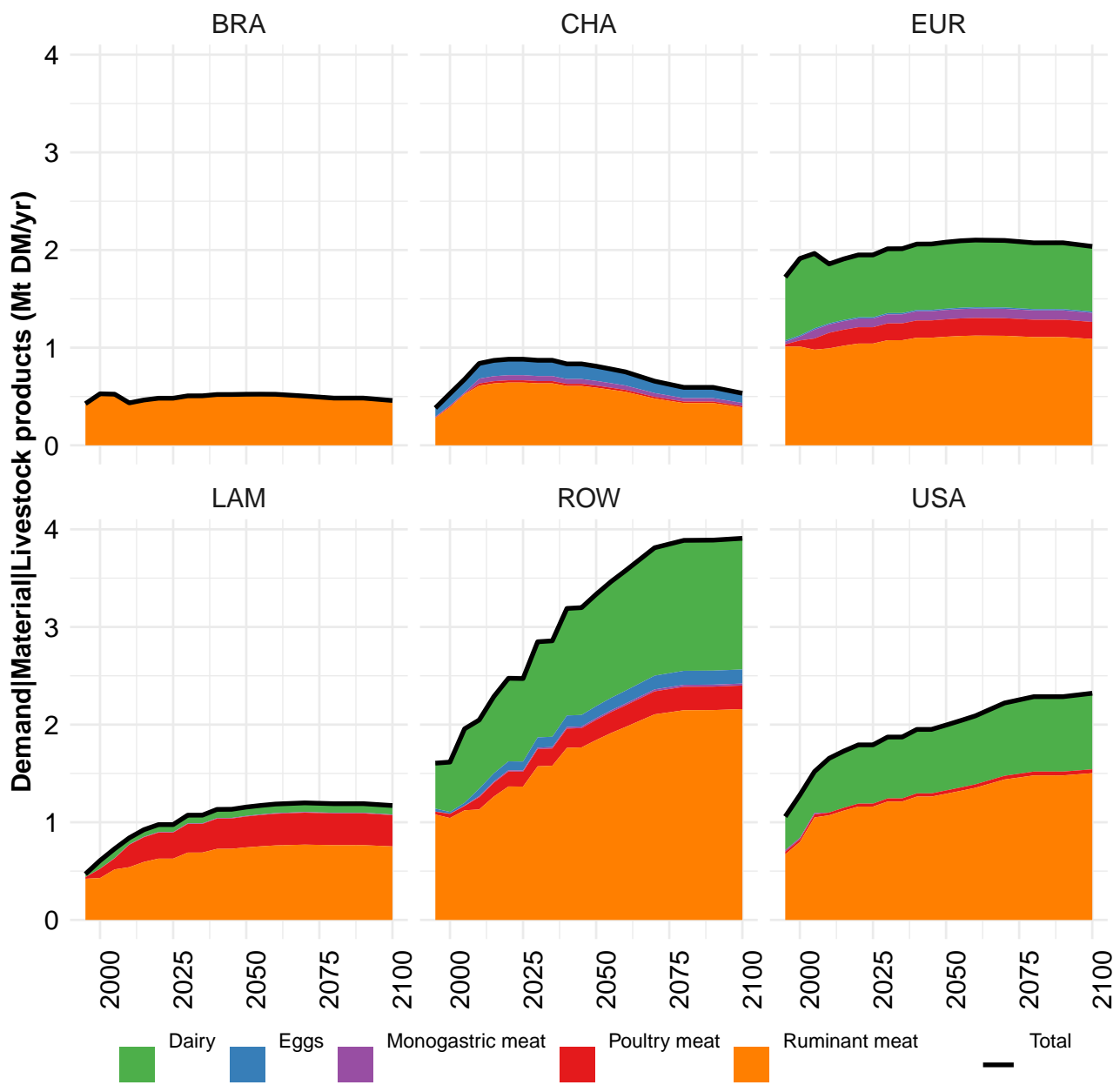
	2050	2055	2060	2070	2080	2090	2100
GLO	817	840	859	896	904	904	900
BRA	40	40	40	38	37	37	35
CHA	56	54	52	45	41	41	37
EUR	37	37	37	37	36	36	36
LAM	59	60	61	61	61	61	60
ROW	611	634	655	698	712	712	716
USA	15	15	16	17	17	17	17

Table 519: MAgPIE m4p_brazil — Demand—Material—Forest products—Wood fuel (Mt DM/yr) [PART 2/2]

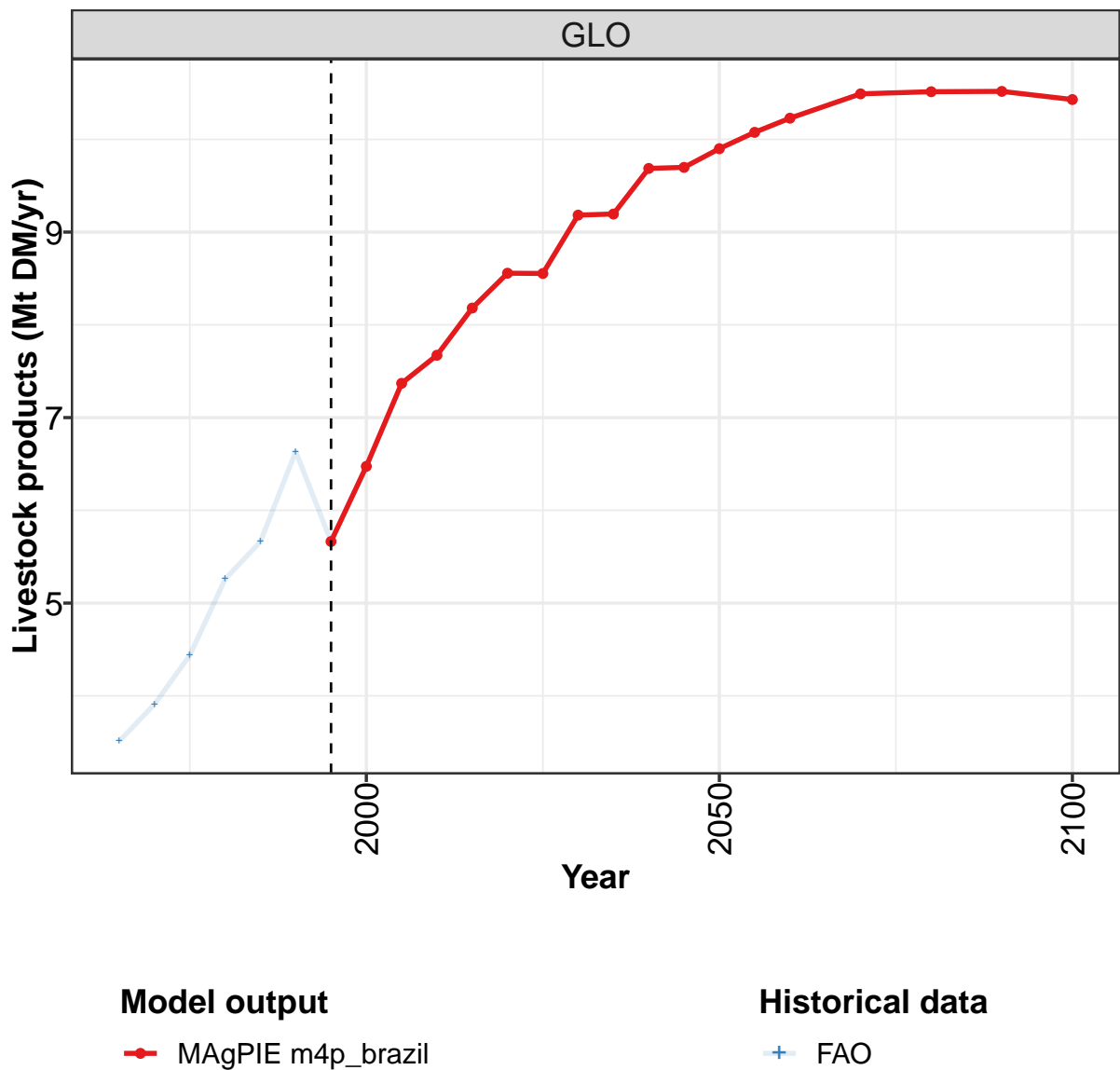
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	462	470	485	512	539	556	547	538	547	554
BRA	28	29	31	32	35	37	39	41	35	33
CHA	88	91	98	97	91	88	77	70	64	58
EUR	28	25	20	21	22	26	24	25	27	33
LAM	26	26	28	31	33	36	39	41	43	43
ROW	283	287	297	309	328	345	350	348	365	375
USA	9	11	11	22	30	25	19	14	13	12

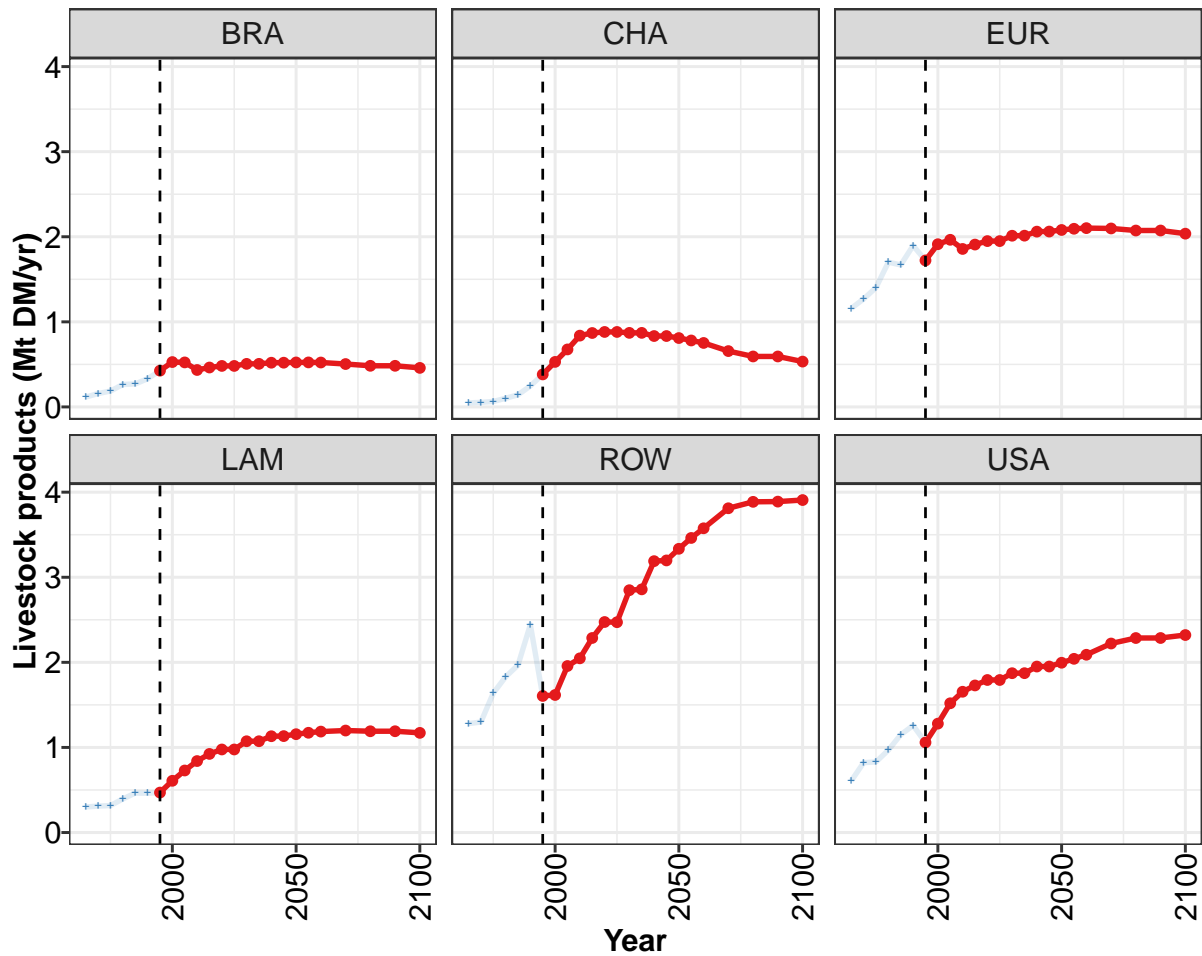
Table 520: FAO — Demand—Material—Forest products—Wood fuel (Mt DM/yr)





8.5 Livestock products





Model output

MAgPIE m4p_brazil

Historical data

FAO

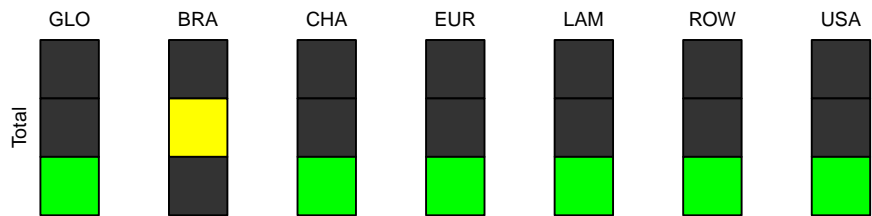


Figure 174: MAgPIE m4p_brazil — Demand—Material—Livestock products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.7	6.5	7.4	7.7	8.2	8.6	8.6	9.2	9.2	9.7	9.7
BRA	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
CHA	0.4	0.5	0.7	0.8	0.9	0.9	0.9	0.9	0.9	0.8	0.8
EUR	1.7	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1
LAM	0.5	0.6	0.7	0.8	0.9	1.0	1.0	1.1	1.1	1.1	1.1
ROW	1.6	1.6	2.0	2.0	2.3	2.5	2.5	2.8	2.9	3.2	3.2
USA	1.1	1.3	1.5	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.0

Table 521: MAgPIE m4p_brazil — Demand—Material—Livestock products (Mt DM/yr) [PART 1/2]

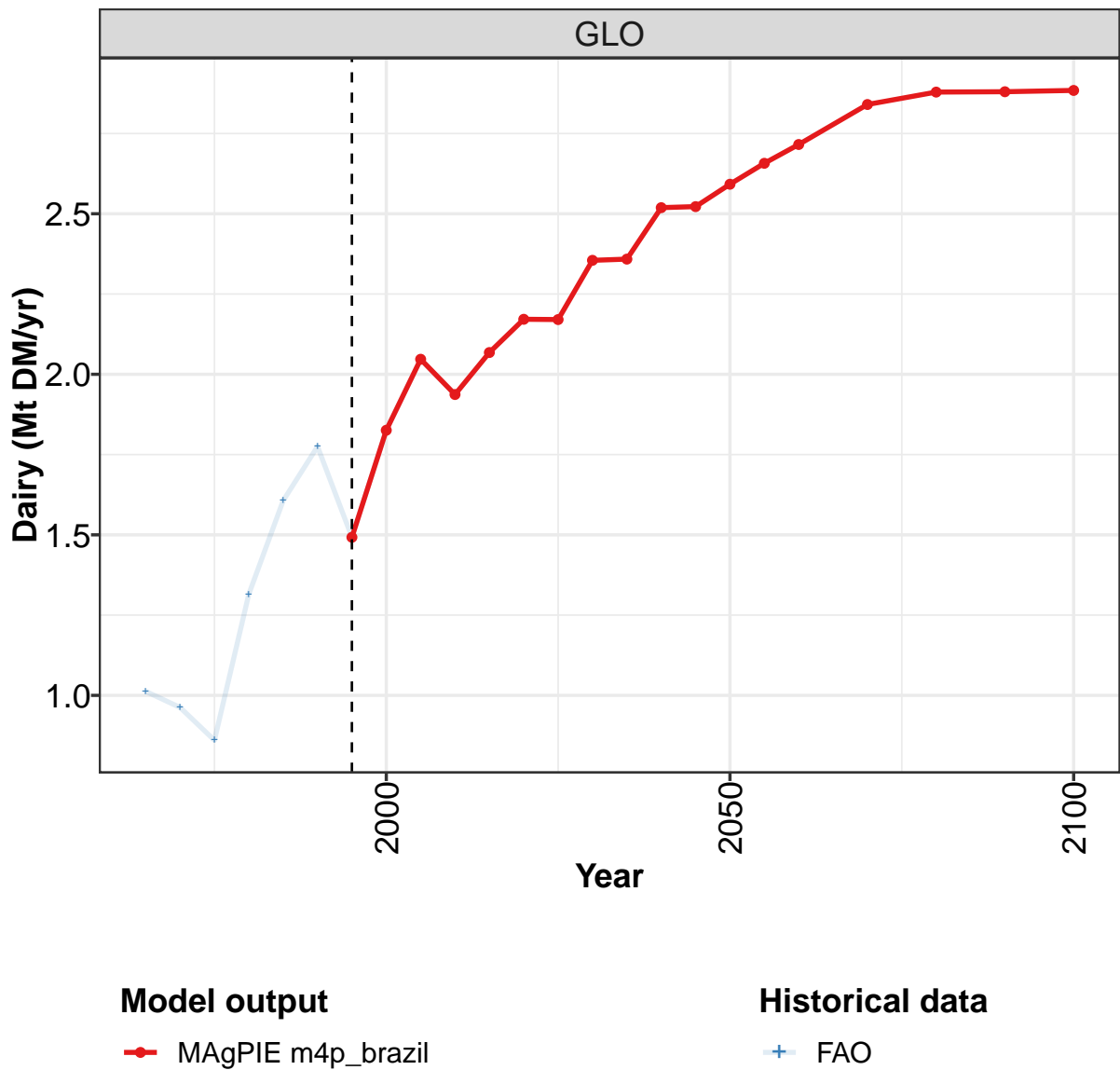
	2050	2055	2060	2070	2080	2090	2100
GLO	9.9	10.1	10.2	10.5	10.5	10.5	10.4
BRA	0.5	0.5	0.5	0.5	0.5	0.5	0.5
CHA	0.8	0.8	0.8	0.7	0.6	0.6	0.5
EUR	2.1	2.1	2.1	2.1	2.1	2.1	2.0
LAM	1.2	1.2	1.2	1.2	1.2	1.2	1.2
ROW	3.3	3.5	3.6	3.8	3.9	3.9	3.9
USA	2.0	2.0	2.1	2.2	2.3	2.3	2.3

Table 522: MAgPIE m4p_brazil — 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
BRA	0.12	0.16	0.19	0.26	0.27	0.33	0.43	0.53	0.52	0.43
CHA	0.05	0.05	0.06	0.10	0.14	0.25	0.38	0.53	0.68	0.84
EUR	1.16	1.27	1.40	1.70	1.67	1.90	1.72	1.91	1.96	1.86
LAM	0.30	0.31	0.32	0.39	0.46	0.46	0.47	0.61	0.73	0.84
ROW	1.28	1.30	1.64	1.83	1.97	2.44	1.61	1.62	1.96	2.05
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



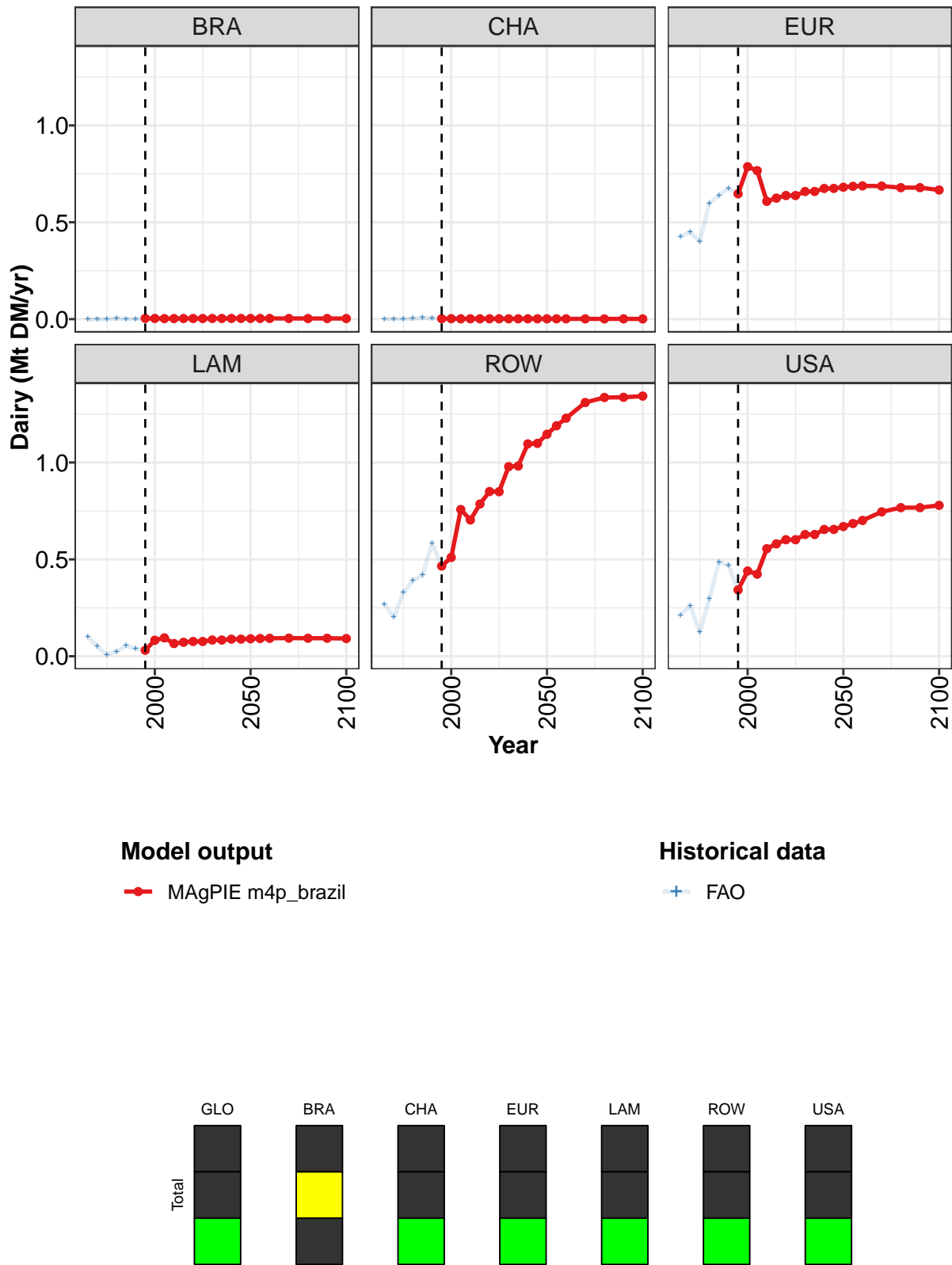


Figure 175: MAgPIE m4p_brazil — Demand—Material—Livestock products—Dairy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.49	1.83	2.05	1.94	2.07	2.17	2.17	2.35	2.36	2.52	2.52
BRA	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	0.65	0.79	0.77	0.61	0.62	0.64	0.64	0.66	0.66	0.67	0.67
LAM	0.03	0.08	0.09	0.07	0.07	0.08	0.08	0.08	0.08	0.09	0.09
ROW	0.47	0.51	0.76	0.70	0.79	0.85	0.85	0.98	0.98	1.10	1.10
USA	0.34	0.44	0.42	0.56	0.58	0.60	0.60	0.63	0.63	0.65	0.65

Table 524: MAgPIE m4p_brazil — Demand—Material—Livestock products—Dairy (Mt DM/yr) [PART 1/2]

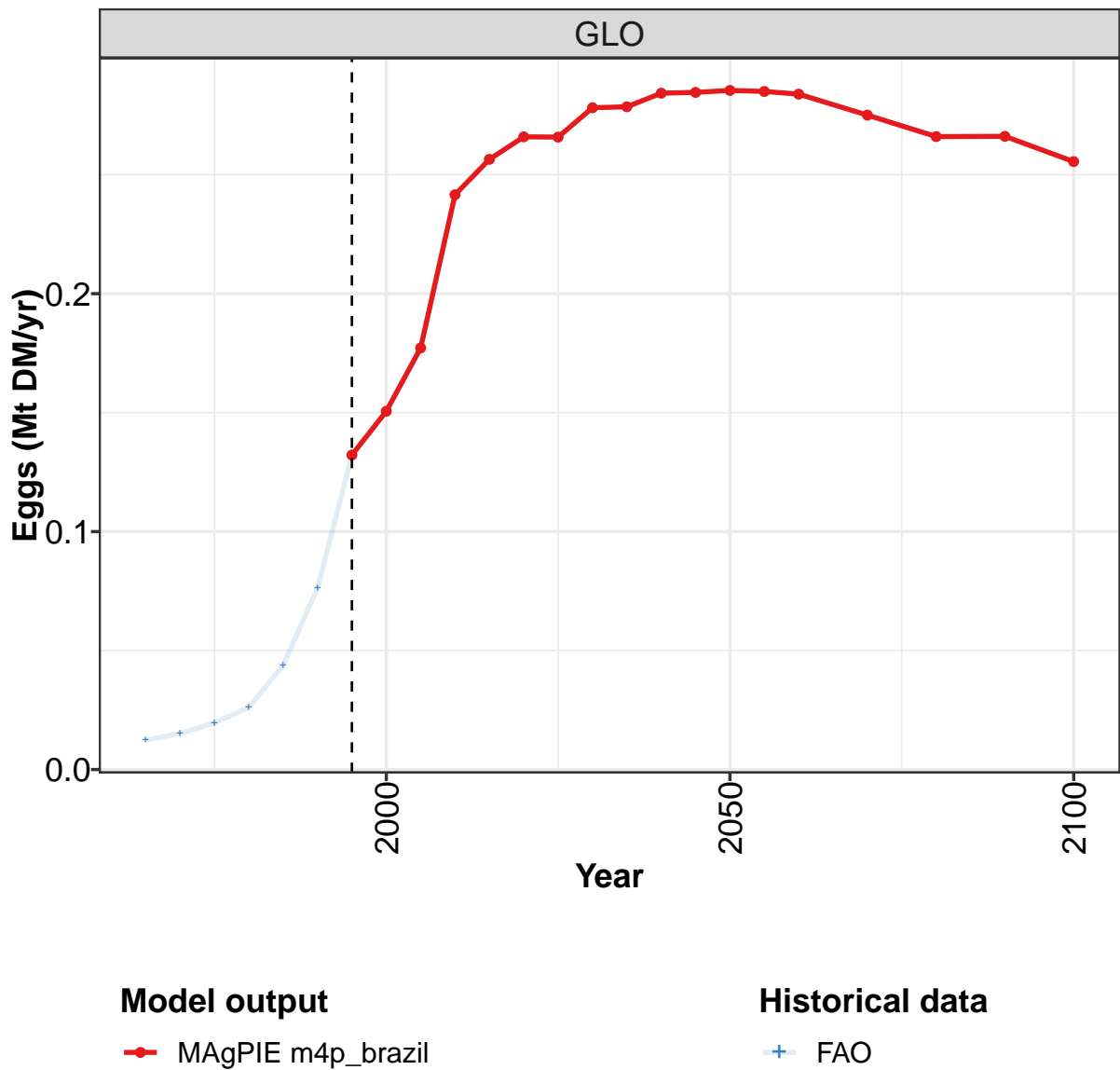
	2050	2055	2060	2070	2080	2090	2100
GLO	2.59	2.66	2.72	2.84	2.88	2.88	2.88
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.68	0.69	0.69	0.69	0.68	0.68	0.67
LAM	0.09	0.09	0.09	0.09	0.09	0.09	0.09
ROW	1.15	1.19	1.23	1.31	1.34	1.34	1.34
USA	0.67	0.69	0.70	0.75	0.77	0.77	0.78

Table 525: MAgPIE m4p_brazil — 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
BRA	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	0.01	0.00	0.00	0.00	0.00
EUR	0.43	0.45	0.40	0.60	0.64	0.68	0.65	0.79	0.77	0.61
LAM	0.10	0.05	0.01	0.02	0.05	0.04	0.03	0.08	0.09	0.07
ROW	0.27	0.20	0.33	0.39	0.42	0.58	0.47	0.51	0.76	0.70
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



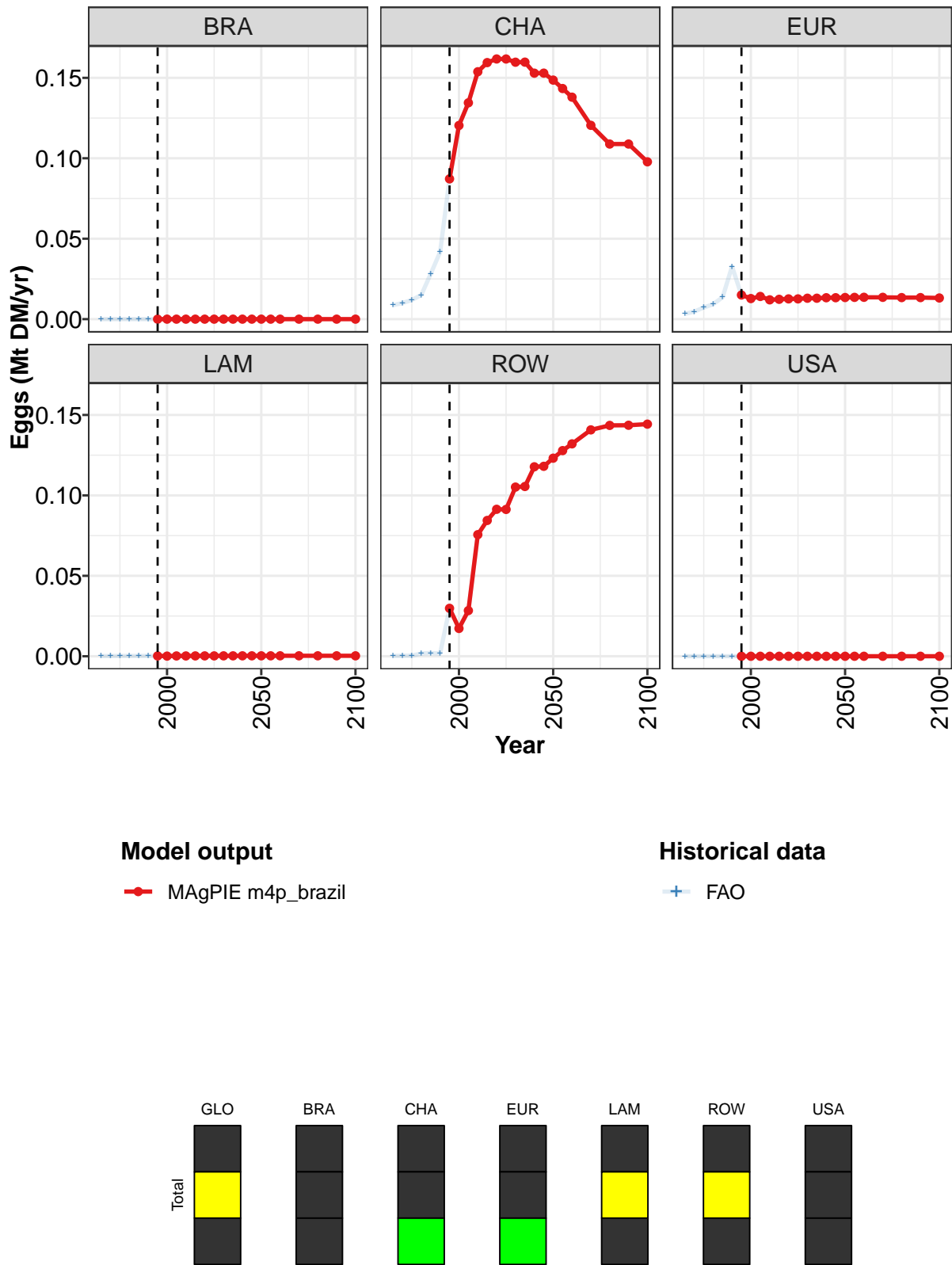


Figure 176: MAgPIE m4p_brazil — Demand—Material—Livestock products—Eggs (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.132	0.151	0.177	0.242	0.256	0.266	0.266	0.278	0.279	0.284	0.285
BRA	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	0.159	0.162	0.162	0.160	0.160	0.153	0.153
EUR	0.015	0.013	0.014	0.012	0.012	0.013	0.013	0.013	0.013	0.013	0.013
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.030	0.017	0.028	0.076	0.084	0.091	0.091	0.105	0.106	0.118	0.118
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_brazil — Demand—Material—Livestock products—Eggs (Mt DM/yr) [PART 1/2]

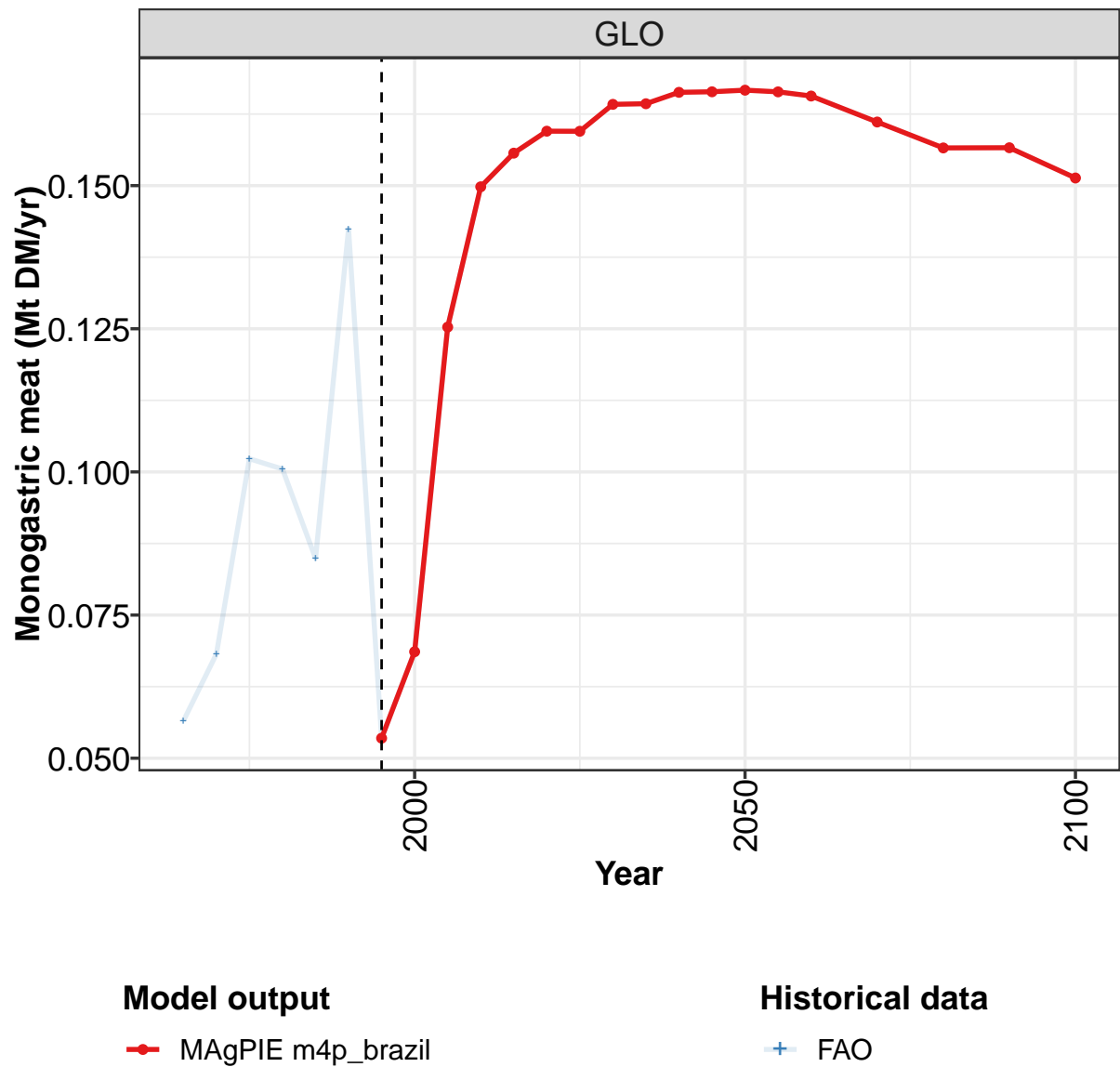
	2050	2055	2060	2070	2080	2090	2100
GLO	0.285	0.285	0.284	0.275	0.266	0.266	0.256
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.149	0.143	0.138	0.120	0.109	0.109	0.098
EUR	0.013	0.014	0.014	0.014	0.013	0.013	0.013
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.123	0.128	0.132	0.141	0.144	0.144	0.144
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 528: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.000	0.000	0.000	0.002	0.002	0.002	0.030	0.017	0.028	0.076
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



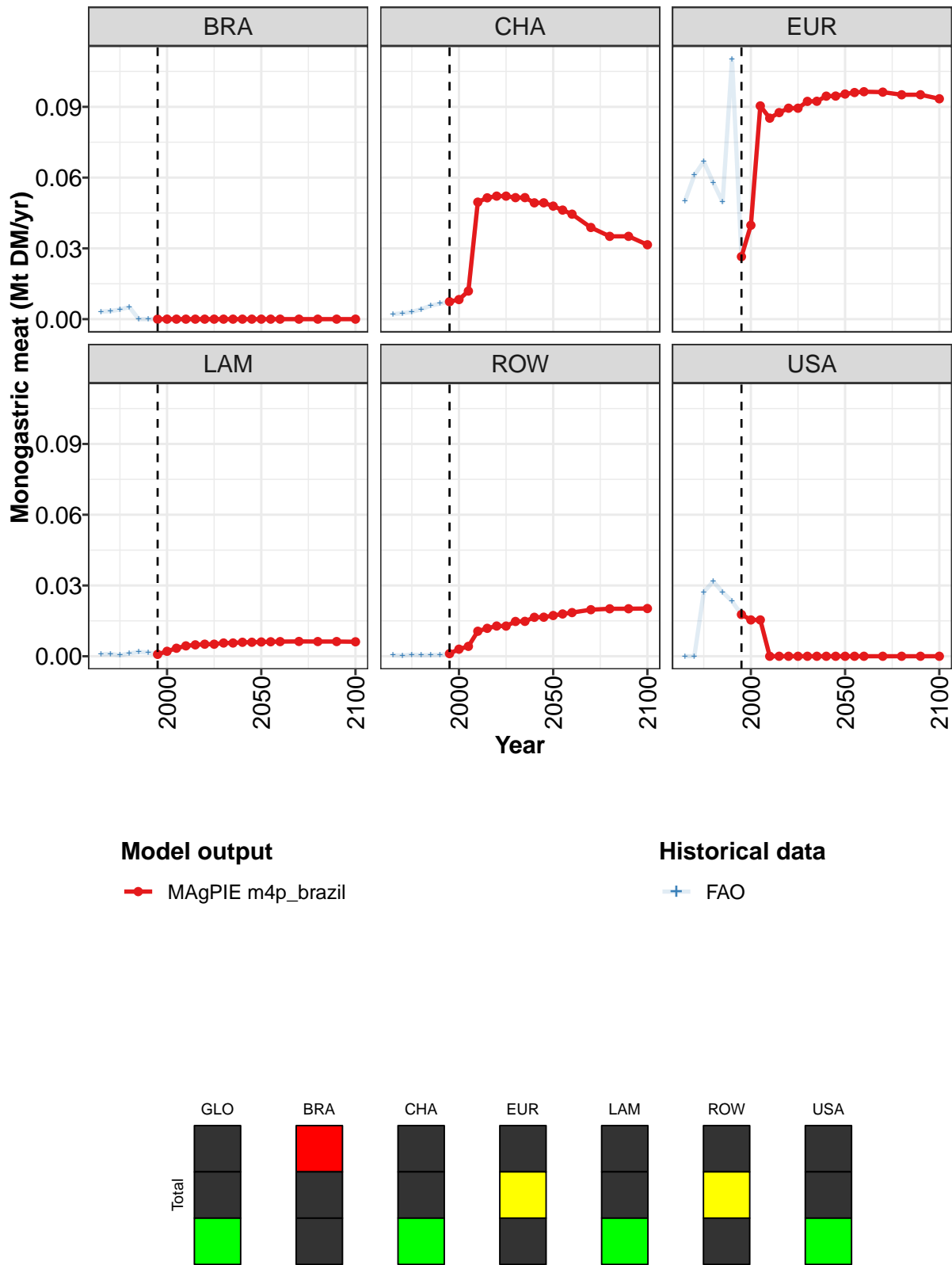


Figure 177: MAgPIE m4p_brazil — Demand—Material—Livestock products—Monogastric meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.053	0.069	0.125	0.150	0.156	0.160	0.159	0.164	0.164	0.166	0.166
BRA	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	0.051	0.052	0.052	0.052	0.052	0.049	0.049
EUR	0.026	0.040	0.090	0.085	0.088	0.089	0.089	0.092	0.092	0.095	0.095
LAM	0.001	0.002	0.003	0.004	0.005	0.005	0.005	0.006	0.006	0.006	0.006
ROW	0.001	0.003	0.004	0.011	0.012	0.013	0.013	0.015	0.015	0.017	0.017
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_brazil — Demand—Material—Livestock products—Monogastric meat (Mt DM/yr)
[PART 1/2]

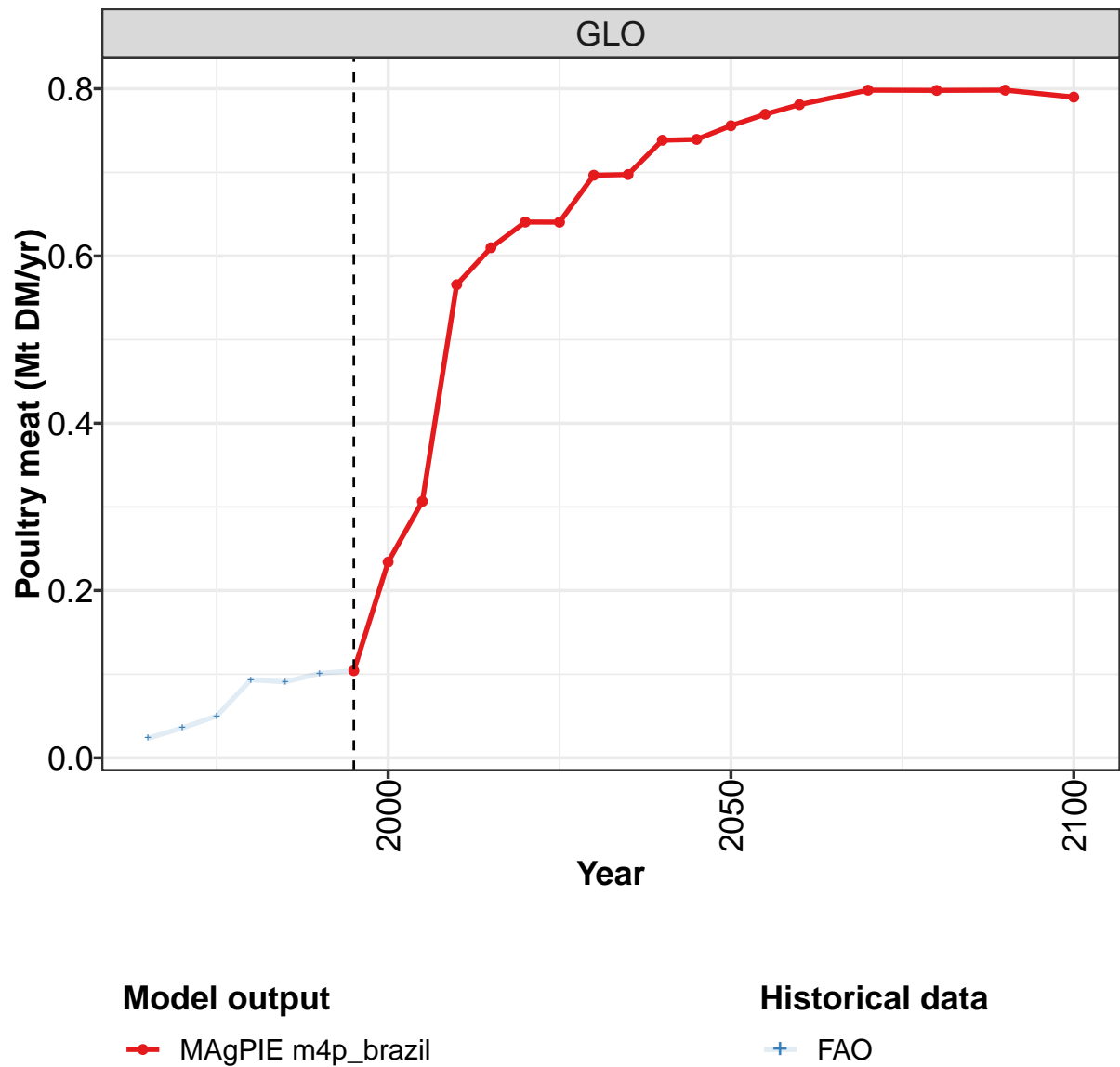
	2050	2055	2060	2070	2080	2090	2100
GLO	0.167	0.166	0.166	0.161	0.157	0.157	0.151
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.048	0.046	0.045	0.039	0.035	0.035	0.032
EUR	0.095	0.096	0.096	0.096	0.095	0.095	0.093
LAM	0.006	0.006	0.006	0.006	0.006	0.006	0.006
ROW	0.017	0.018	0.019	0.020	0.020	0.020	0.020
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 531: MAgPIE m4p_brazil — 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
BRA	0.003	0.003	0.004	0.005	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	0.085
LAM	0.001	0.001	0.000	0.001	0.002	0.002	0.001	0.002	0.003	0.004
ROW	0.000	0.000	0.001	0.000	0.001	0.001	0.001	0.003	0.004	0.011
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



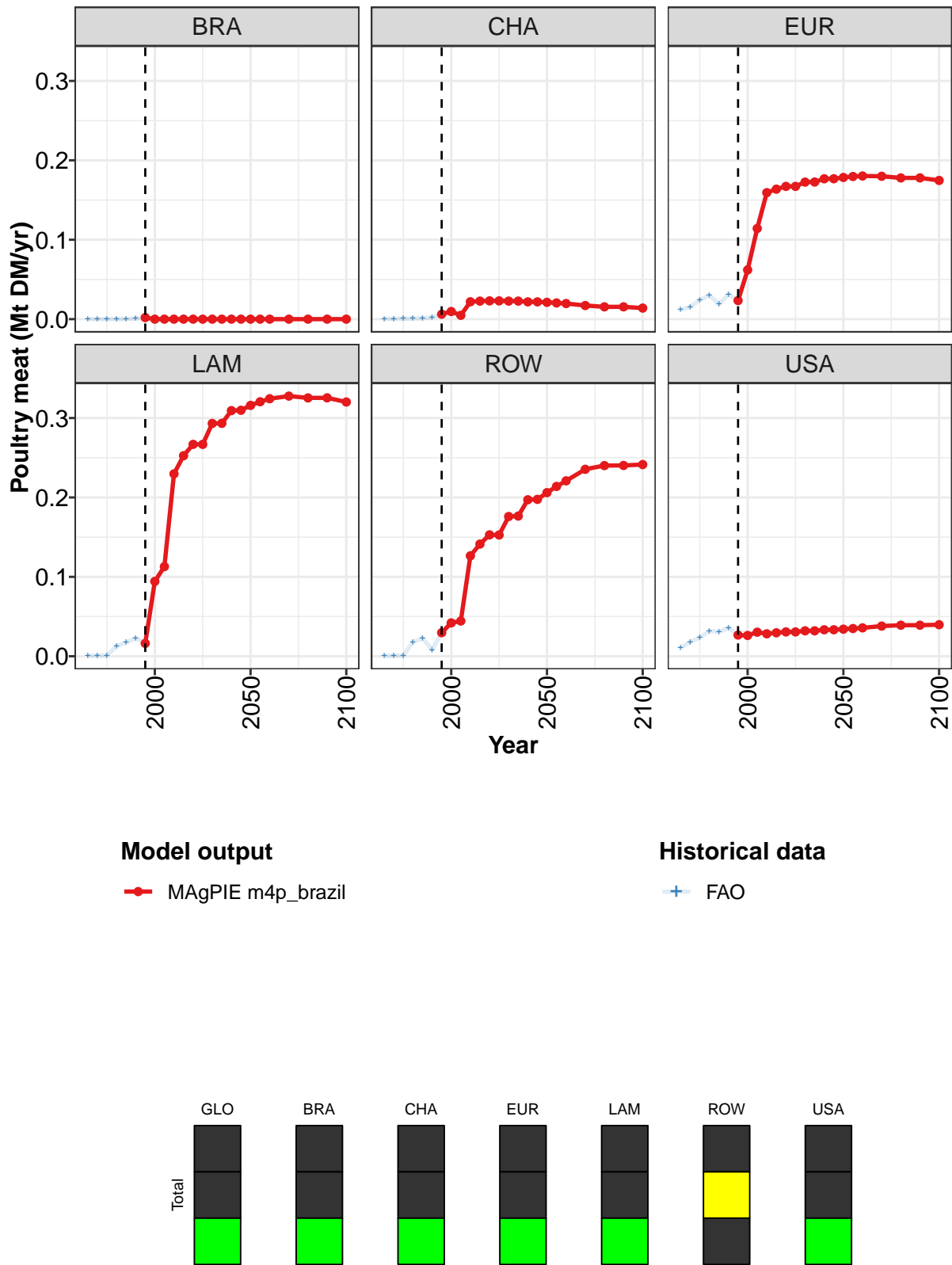


Figure 178: MAgPIE m4p_brazil — Demand—Material—Livestock products—Poultry meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.104	0.234	0.307	0.566	0.610	0.641	0.640	0.697	0.697	0.738	0.739
BRA	0.002	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	0.164	0.167	0.167	0.173	0.173	0.177	0.177
LAM	0.016	0.094	0.113	0.230	0.253	0.267	0.267	0.293	0.293	0.309	0.310
ROW	0.030	0.042	0.044	0.127	0.141	0.153	0.153	0.176	0.177	0.197	0.198
USA	0.027	0.026	0.030	0.028	0.030	0.031	0.031	0.032	0.032	0.033	0.033

Table 533: MAgPIE m4p_brazil — Demand—Material—Livestock products—Poultry meat (Mt DM/yr) [PART 1/2]

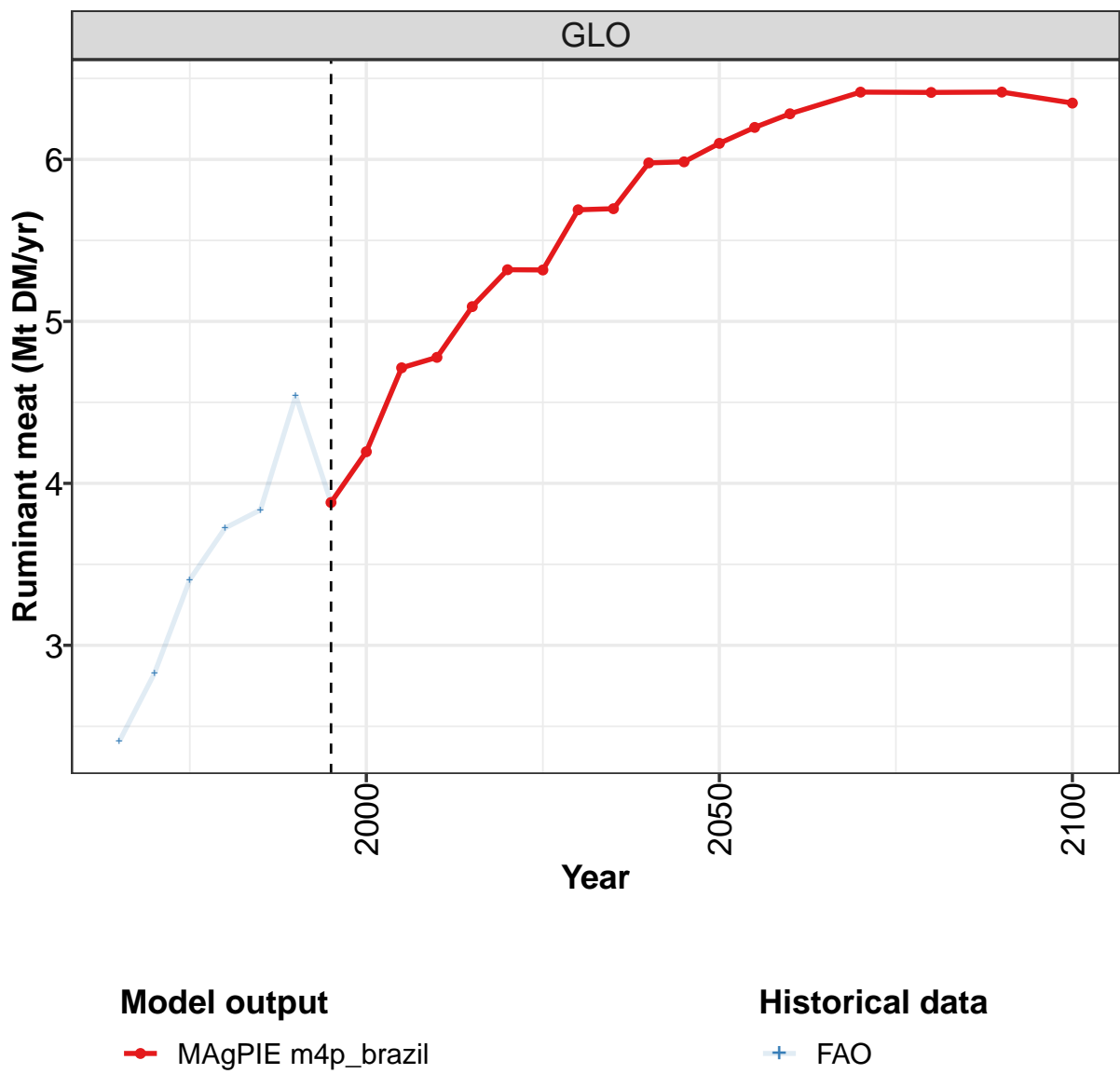
	2050	2055	2060	2070	2080	2090	2100
GLO	0.756	0.769	0.781	0.798	0.798	0.798	0.790
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.021	0.020	0.020	0.017	0.015	0.016	0.014
EUR	0.178	0.180	0.180	0.180	0.178	0.178	0.175
LAM	0.316	0.321	0.324	0.328	0.325	0.325	0.320
ROW	0.206	0.214	0.221	0.235	0.240	0.240	0.241
USA	0.034	0.035	0.036	0.038	0.039	0.039	0.040

Table 534: MAgPIE m4p_brazil — 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
BRA	0.000	0.000	0.000	0.000	0.000	0.001	0.002	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
LAM	0.001	0.001	0.001	0.013	0.017	0.023	0.016	0.094	0.113	0.230
ROW	0.001	0.001	0.001	0.018	0.023	0.008	0.030	0.042	0.044	0.127
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



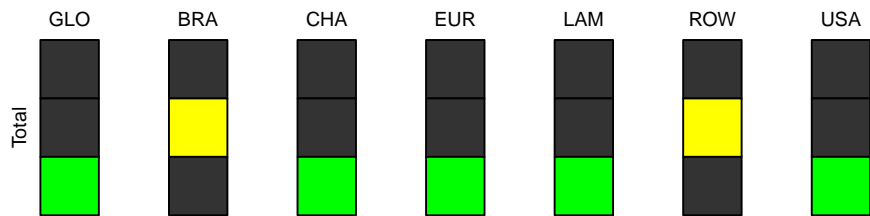
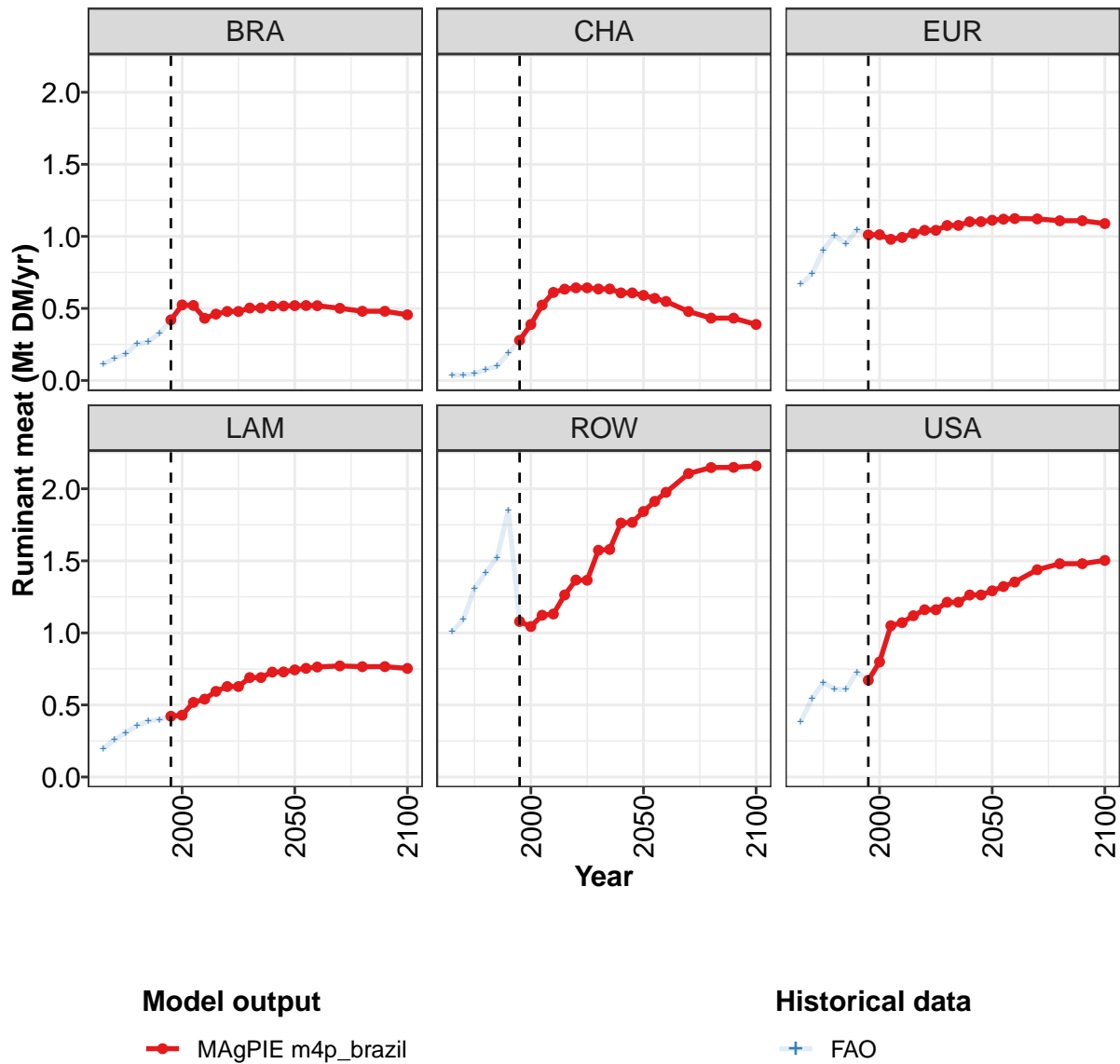


Figure 179: MAgPIE m4p_brazil — Demand—Material—Livestock products—Ruminant meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.88	4.20	4.71	4.78	5.09	5.32	5.32	5.69	5.70	5.98	5.99
BRA	0.42	0.52	0.52	0.43	0.46	0.48	0.48	0.50	0.50	0.52	0.52
CHA	0.28	0.39	0.52	0.61	0.63	0.64	0.64	0.63	0.63	0.61	0.61
EUR	1.01	1.01	0.98	0.99	1.02	1.04	1.04	1.08	1.08	1.10	1.10
LAM	0.42	0.43	0.52	0.54	0.59	0.63	0.63	0.69	0.69	0.73	0.73
ROW	1.08	1.04	1.12	1.13	1.26	1.37	1.37	1.57	1.58	1.76	1.77
USA	0.67	0.80	1.05	1.07	1.12	1.16	1.16	1.21	1.21	1.26	1.26

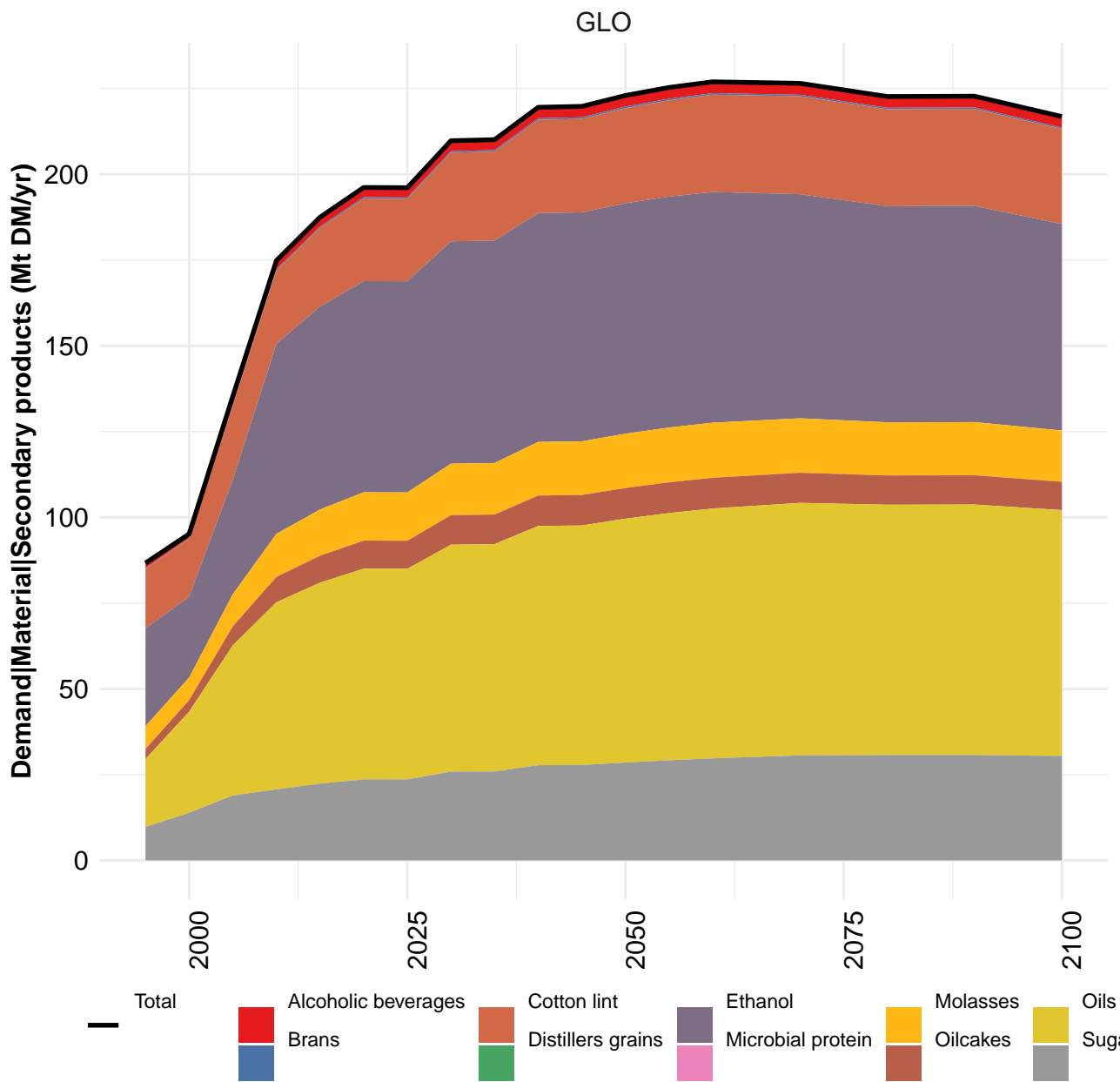
Table 536: MAgPIE m4p_brazil — Demand—Material—Livestock products—Ruminant meat (Mt DM/yr)
[PART 1/2]

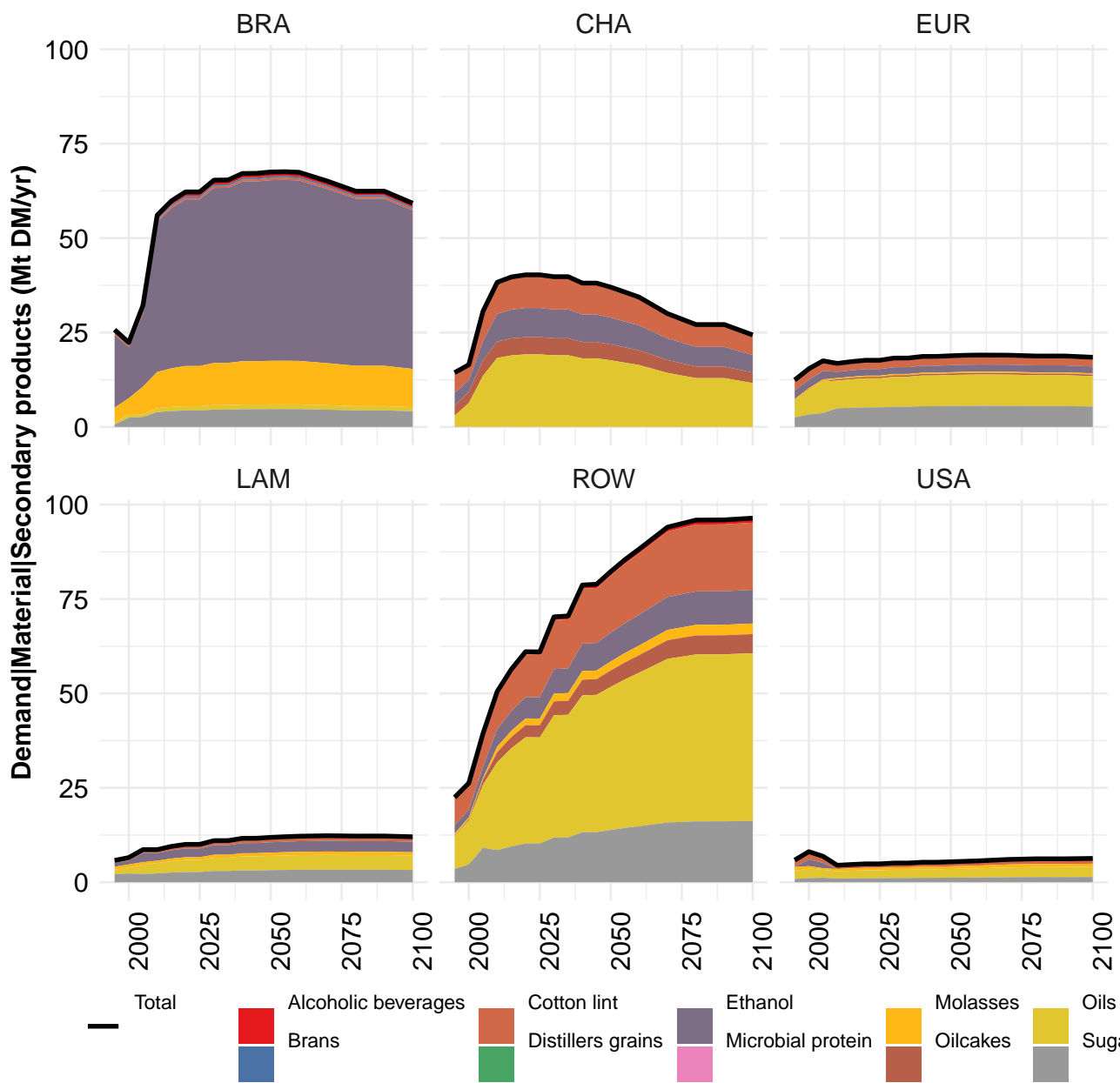
	2050	2055	2060	2070	2080	2090	2100
GLO	6.10	6.20	6.28	6.42	6.41	6.42	6.35
BRA	0.52	0.52	0.52	0.50	0.48	0.48	0.46
CHA	0.59	0.57	0.55	0.48	0.43	0.43	0.39
EUR	1.11	1.12	1.12	1.12	1.11	1.11	1.09
LAM	0.74	0.75	0.76	0.77	0.77	0.77	0.75
ROW	1.84	1.91	1.98	2.11	2.15	2.15	2.16
USA	1.29	1.32	1.35	1.44	1.48	1.48	1.50

Table 537: MAgPIE m4p_brazil — Demand—Material—Livestock products—Ruminant meat (Mt DM/yr)
[PART 2/2]

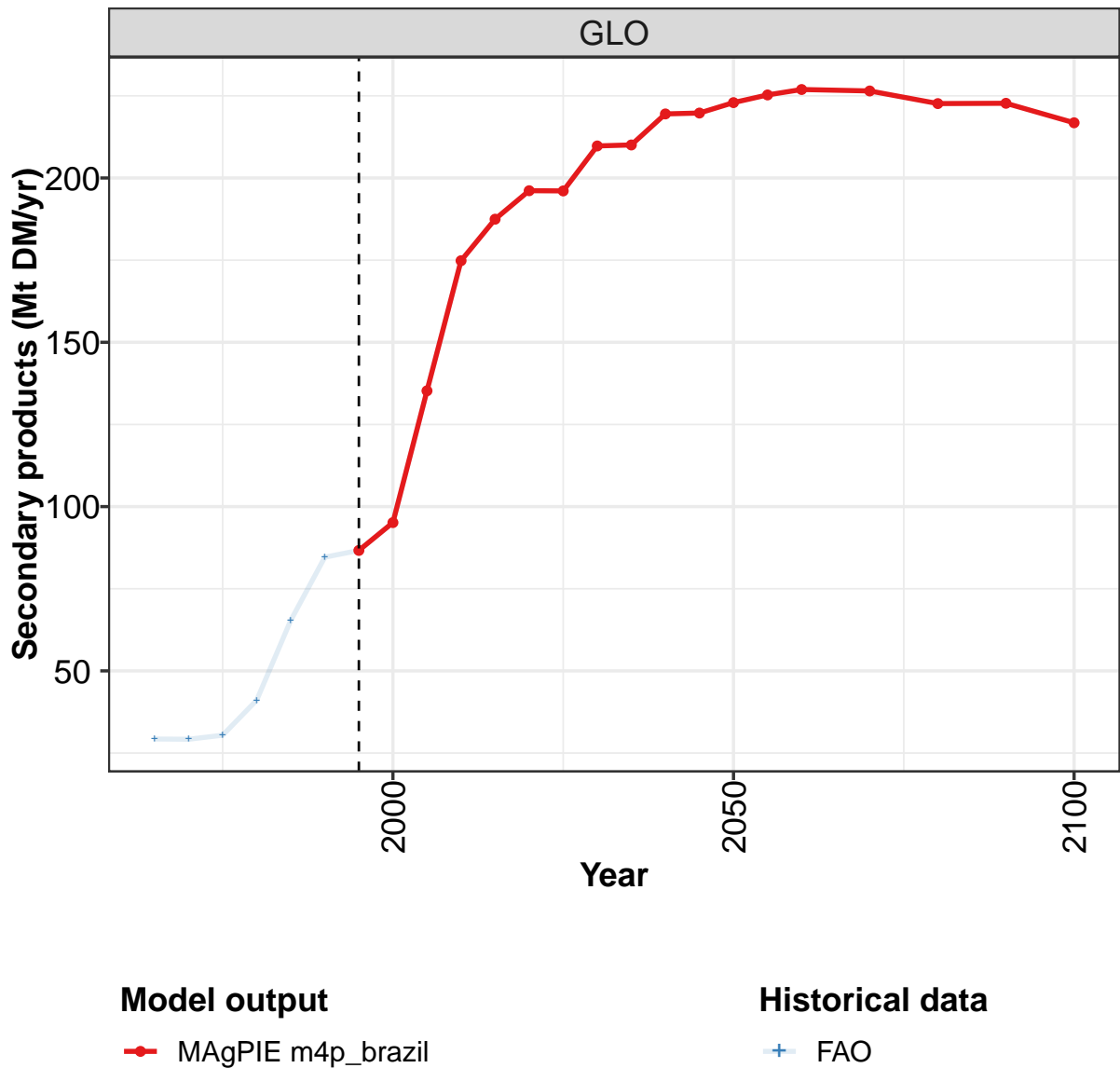
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.41	2.83	3.41	3.72	3.84	4.54	3.88	4.20	4.71	4.78
BRA	0.11	0.15	0.18	0.26	0.27	0.33	0.42	0.52	0.52	0.43
CHA	0.04	0.04	0.05	0.08	0.10	0.19	0.28	0.39	0.52	0.61
EUR	0.67	0.74	0.91	1.01	0.95	1.05	1.01	1.01	0.98	0.99
LAM	0.20	0.26	0.31	0.36	0.39	0.40	0.42	0.43	0.52	0.54
ROW	1.01	1.09	1.31	1.42	1.52	1.85	1.08	1.04	1.12	1.13
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



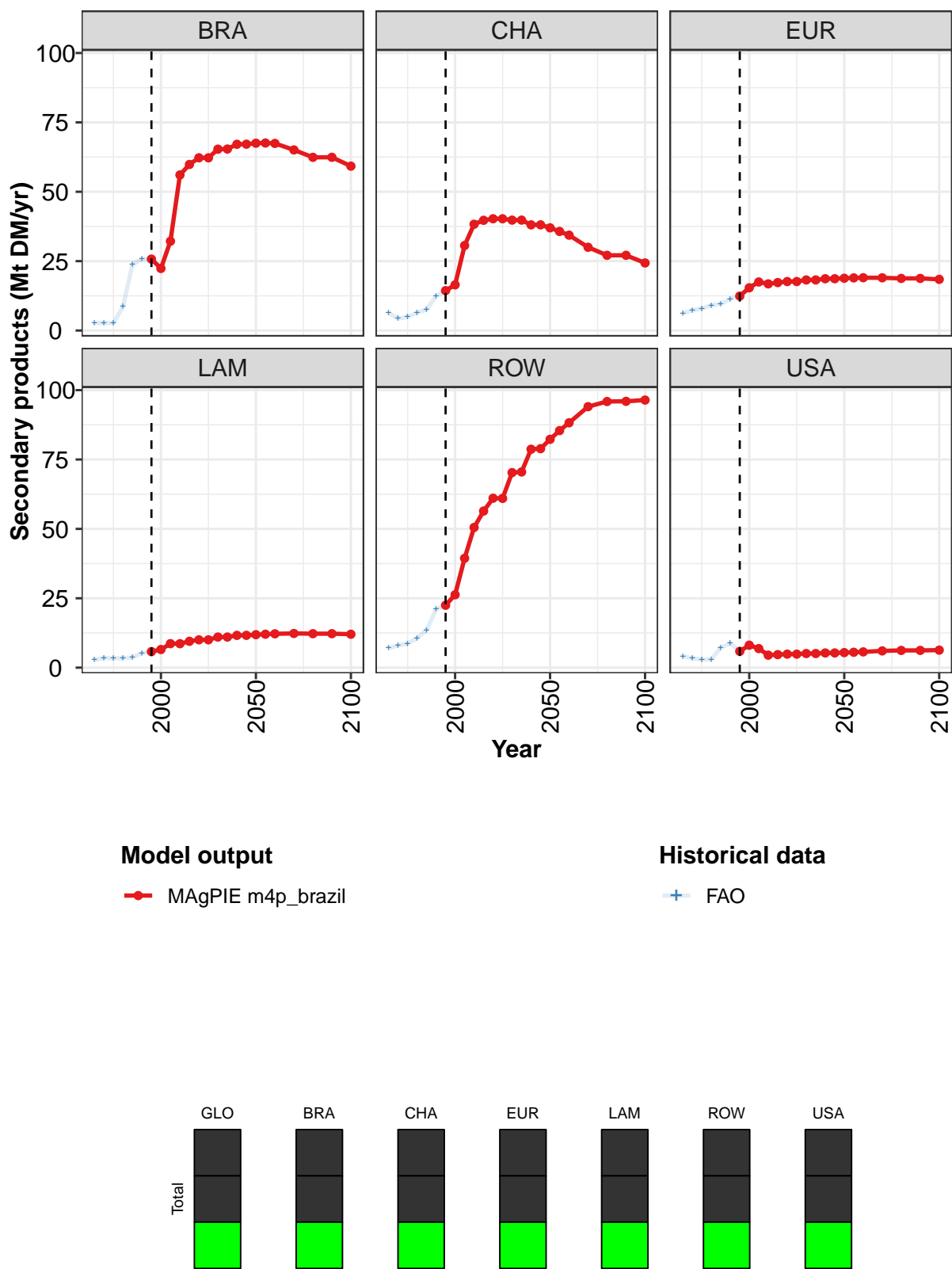


Figure 180: MAgPIE m4p_brazil — Demand—Material—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	87	95	135	175	187	196	196	210	210	219	220
BRA	26	22	32	56	60	62	62	65	65	67	67
CHA	14	16	31	38	40	40	40	40	40	38	38
EUR	12	15	18	17	17	18	18	18	18	19	19
LAM	6	7	9	9	9	10	10	11	11	12	12
ROW	22	26	39	51	56	61	61	70	71	79	79
USA	6	8	7	4	5	5	5	5	5	5	5

Table 539: MAgPIE m4p_brazil — Demand—Material—Secondary products (Mt DM/yr) [PART 1/2]

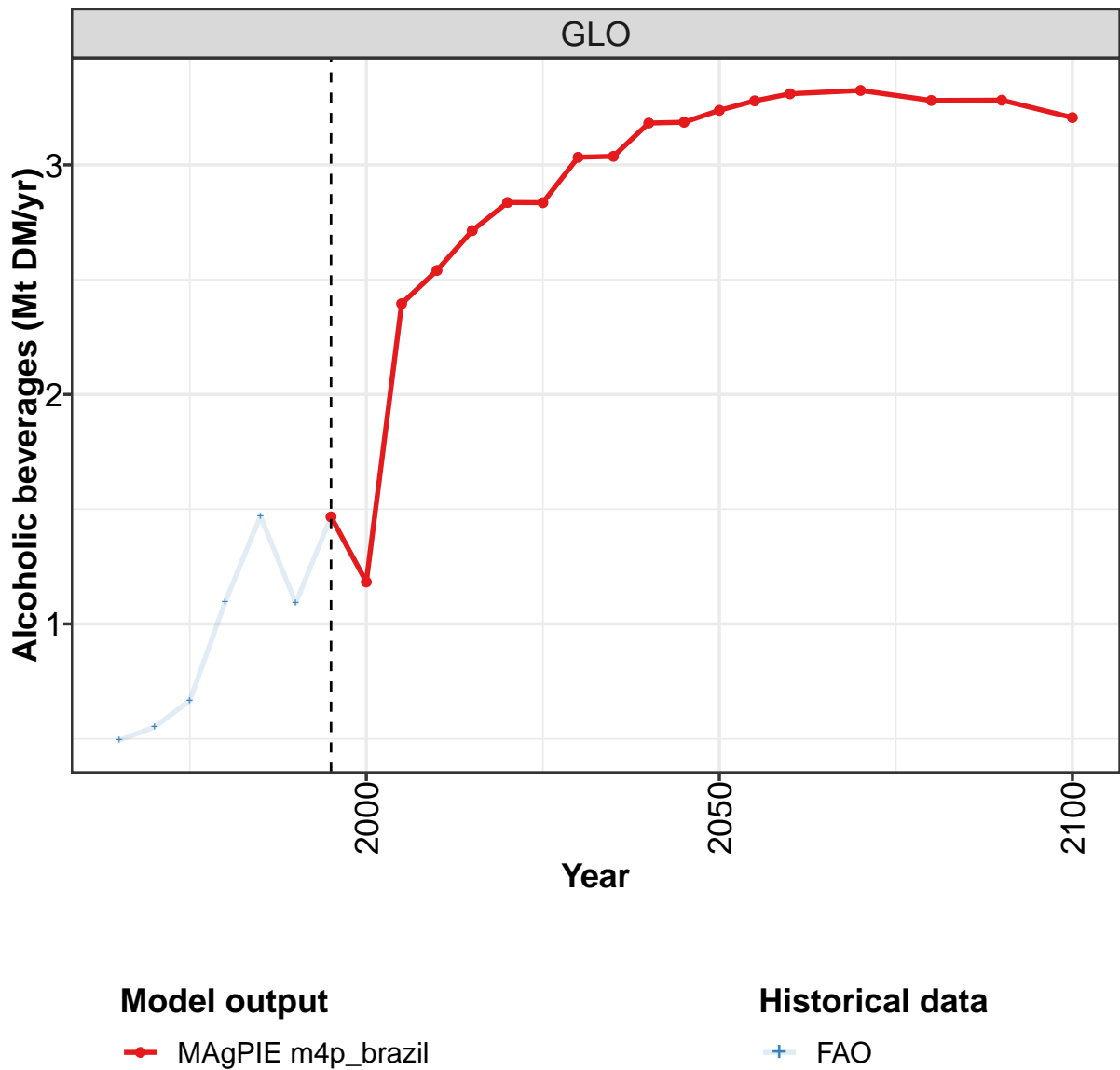
	2050	2055	2060	2070	2080	2090	2100
GLO	223	225	227	226	223	223	217
BRA	68	68	67	65	62	62	59
CHA	37	36	34	30	27	27	24
EUR	19	19	19	19	19	19	18
LAM	12	12	12	12	12	12	12
ROW	82	85	88	94	96	96	96
USA	5	6	6	6	6	6	6

Table 540: MAgPIE m4p_brazil — 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
BRA	3	3	3	9	24	26	26	22	32	56
CHA	6	4	5	6	8	12	14	16	31	38
EUR	6	7	8	9	10	11	12	15	18	17
LAM	3	4	3	3	4	5	6	7	9	9
ROW	7	8	9	11	14	21	22	26	39	51
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



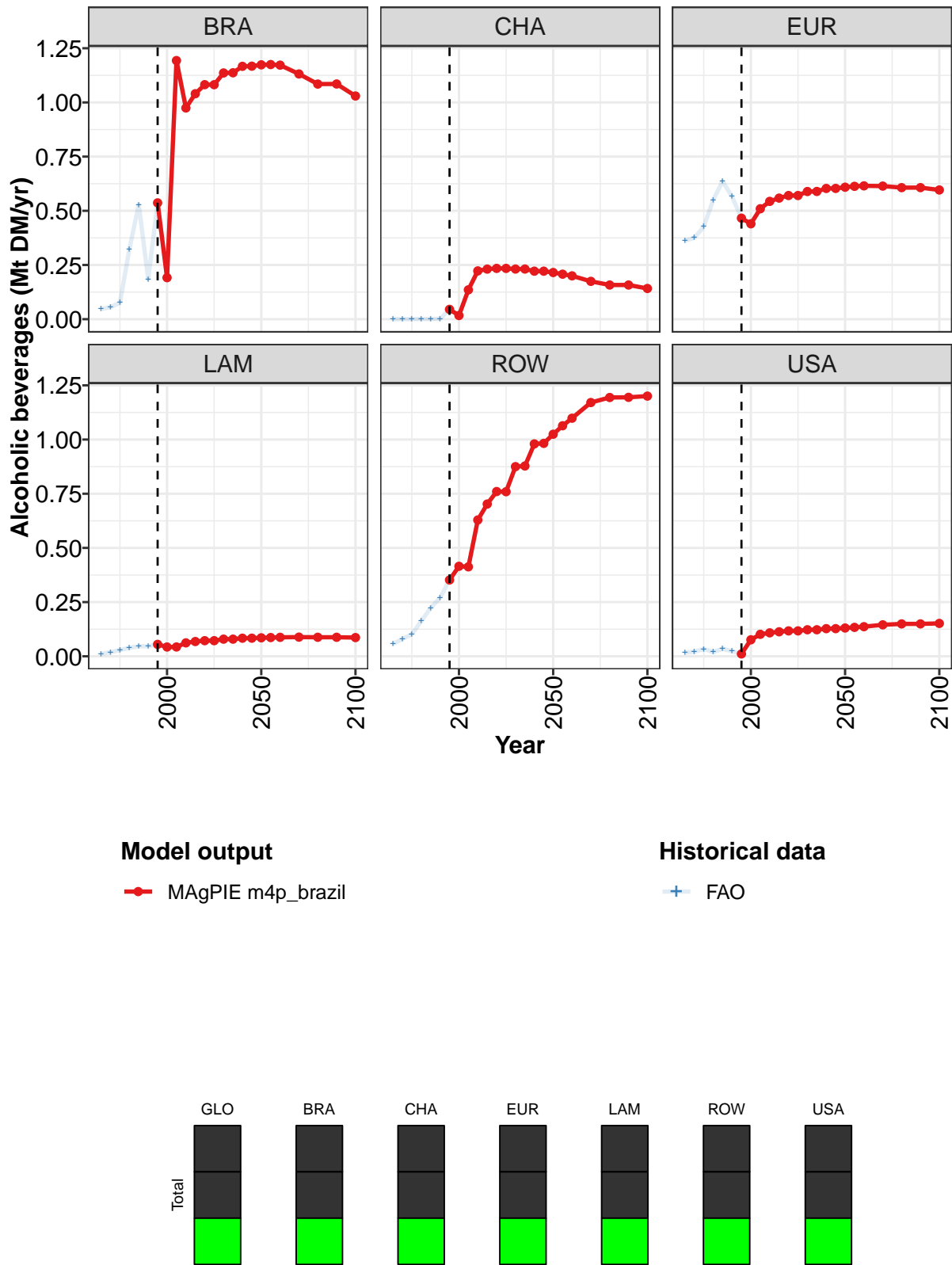


Figure 181: MAGPIE m4p_brazil — Demand—Material—Secondary products—Alcoholic beverages (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.47	1.18	2.40	2.54	2.71	2.84	2.84	3.03	3.04	3.18	3.19
BRA	0.54	0.19	1.19	0.97	1.04	1.08	1.08	1.14	1.14	1.17	1.17
CHA	0.05	0.02	0.14	0.22	0.23	0.23	0.23	0.23	0.23	0.22	0.22
EUR	0.47	0.44	0.51	0.54	0.56	0.57	0.57	0.59	0.59	0.60	0.60
LAM	0.06	0.04	0.04	0.06	0.07	0.07	0.07	0.08	0.08	0.08	0.08
ROW	0.35	0.42	0.41	0.63	0.70	0.76	0.76	0.88	0.88	0.98	0.98
USA	0.01	0.08	0.10	0.11	0.11	0.12	0.12	0.12	0.12	0.13	0.13

Table 542: MAgPIE m4p_brazil — Demand—Material—Secondary products—Alcoholic beverages (Mt DM/yr)
[PART 1/2]

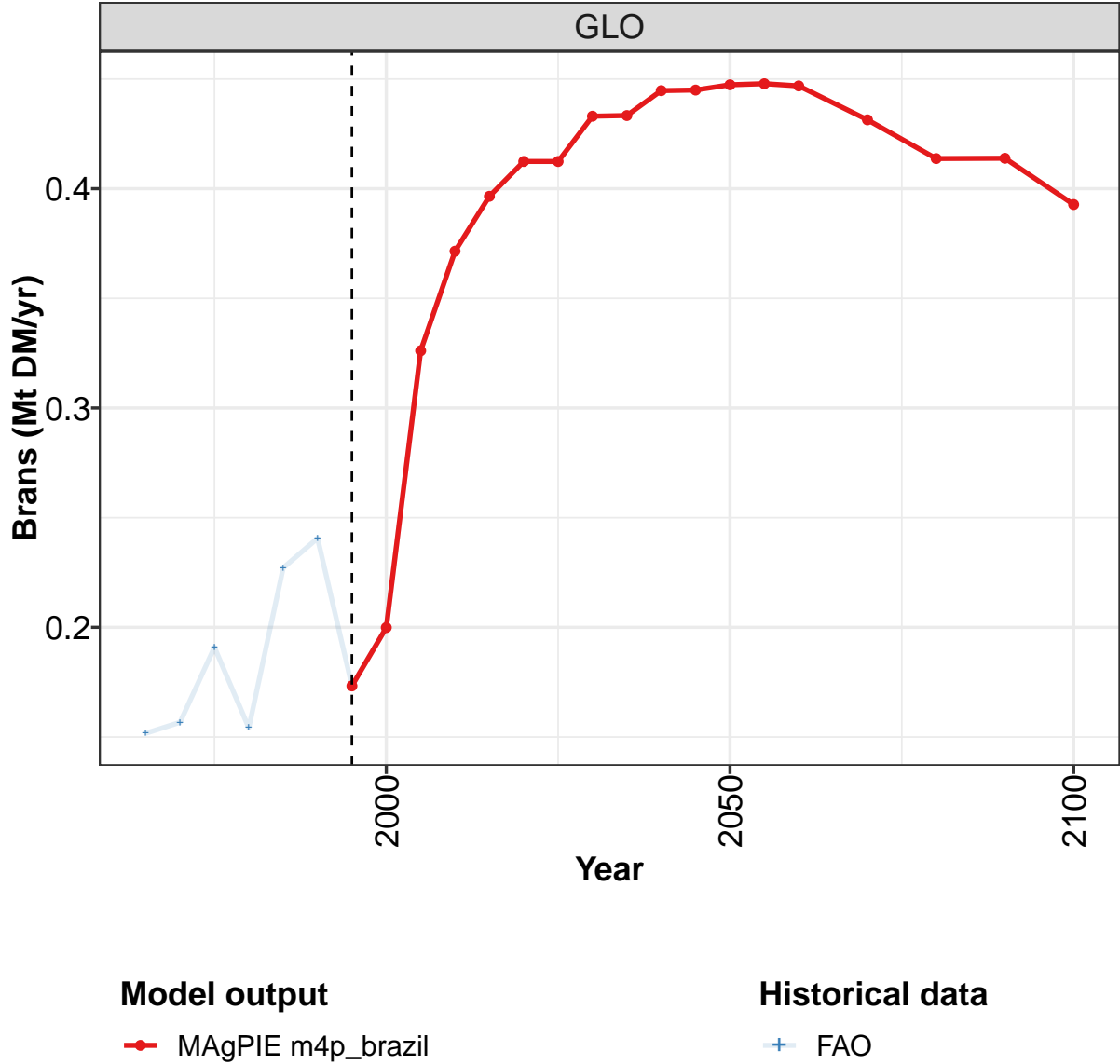
	2050	2055	2060	2070	2080	2090	2100
GLO	3.24	3.28	3.31	3.32	3.28	3.28	3.21
BRA	1.17	1.17	1.17	1.13	1.08	1.09	1.03
CHA	0.22	0.21	0.20	0.17	0.16	0.16	0.14
EUR	0.61	0.61	0.62	0.61	0.61	0.61	0.60
LAM	0.09	0.09	0.09	0.09	0.09	0.09	0.09
ROW	1.02	1.06	1.10	1.17	1.19	1.19	1.20
USA	0.13	0.13	0.14	0.15	0.15	0.15	0.15

Table 543: MAgPIE m4p_brazil — 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
BRA	0.05	0.06	0.08	0.32	0.53	0.18	0.54	0.19	1.19	0.97
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.02	0.14	0.22
EUR	0.36	0.38	0.43	0.55	0.64	0.57	0.47	0.44	0.51	0.54
LAM	0.01	0.02	0.03	0.04	0.05	0.05	0.06	0.04	0.04	0.06
ROW	0.06	0.08	0.10	0.16	0.22	0.27	0.35	0.42	0.41	0.63
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



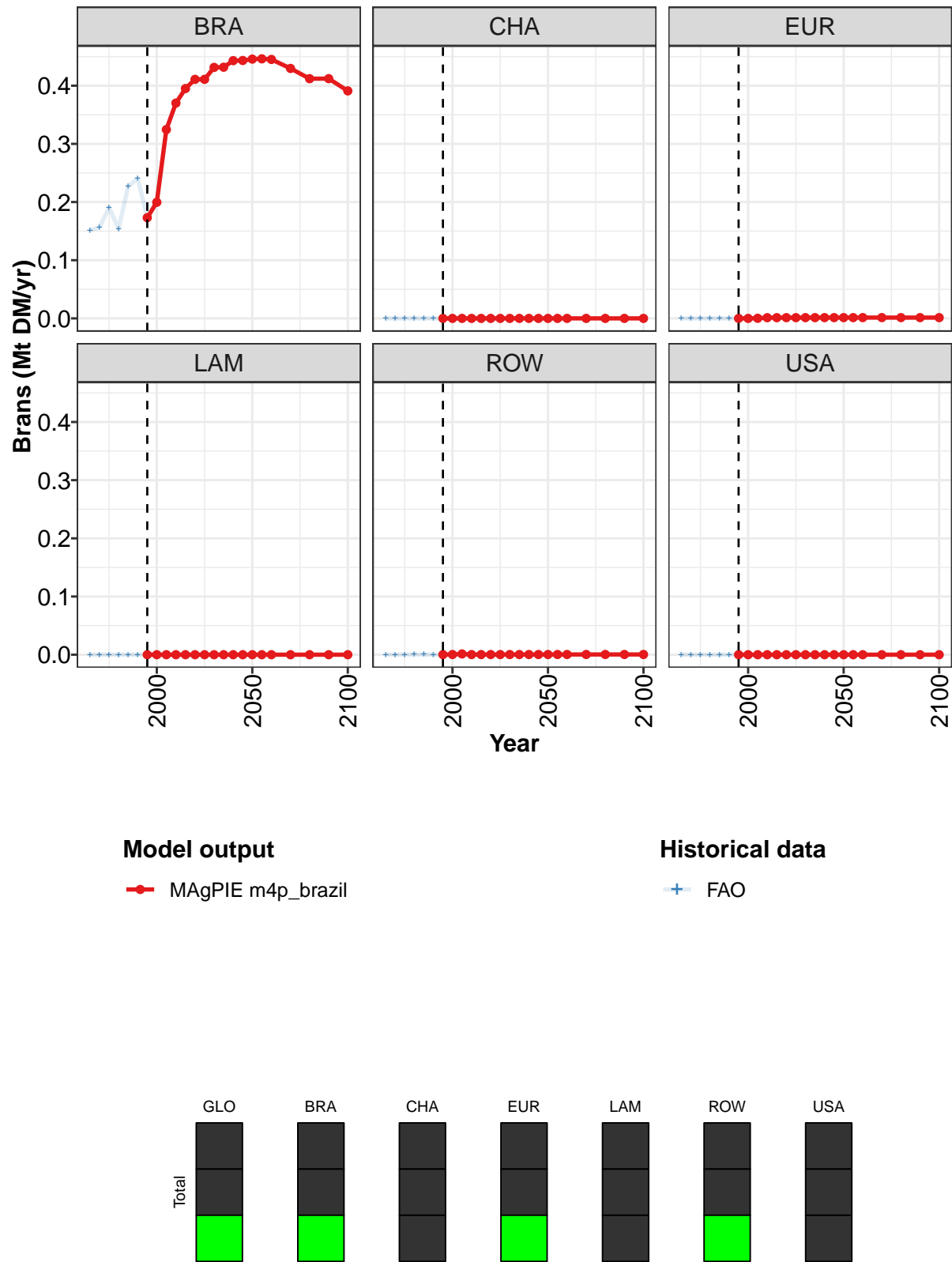


Figure 182: MAgPIE m4p_brazil — Demand—Material—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.173	0.200	0.326	0.371	0.397	0.412	0.412	0.433	0.433	0.445	0.445
BRA	0.173	0.200	0.325	0.370	0.395	0.411	0.411	0.431	0.432	0.443	0.443
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
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.000	0.000	0.001	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_brazil — Demand—Material—Secondary products—Brans (Mt DM/yr) [PART 1/2]

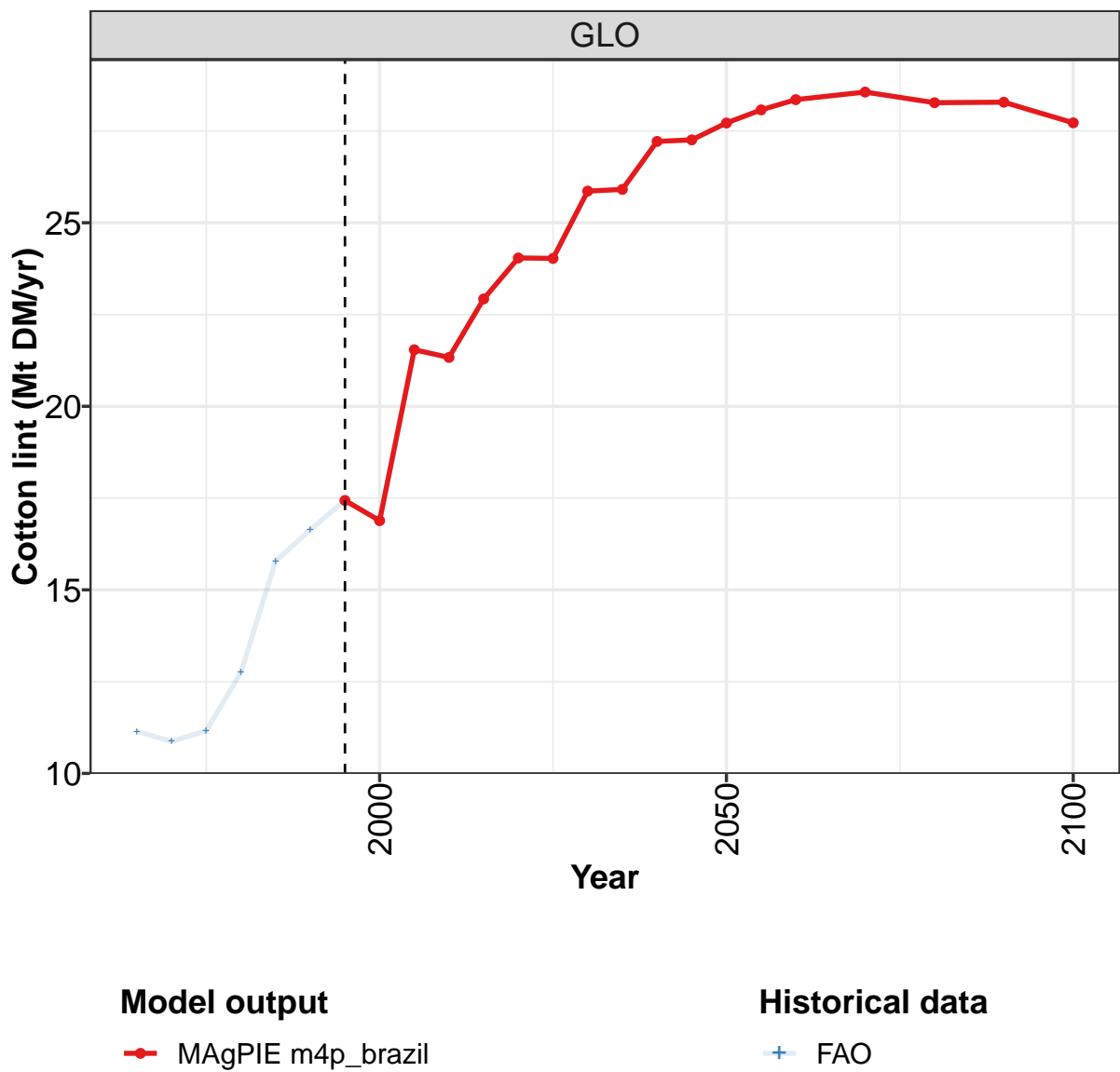
	2050	2055	2060	2070	2080	2090	2100
GLO	0.447	0.448	0.447	0.431	0.414	0.414	0.393
BRA	0.446	0.446	0.445	0.430	0.412	0.412	0.391
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.001	0.001	0.001	0.001	0.001	0.001	0.001
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.000	0.000	0.000	0.000	0.000	0.000	0.000
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 546: MAgPIE m4p_brazil — 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
BRA	0.152	0.157	0.191	0.154	0.227	0.240	0.173	0.200	0.325	0.370
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
LAM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ROW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	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



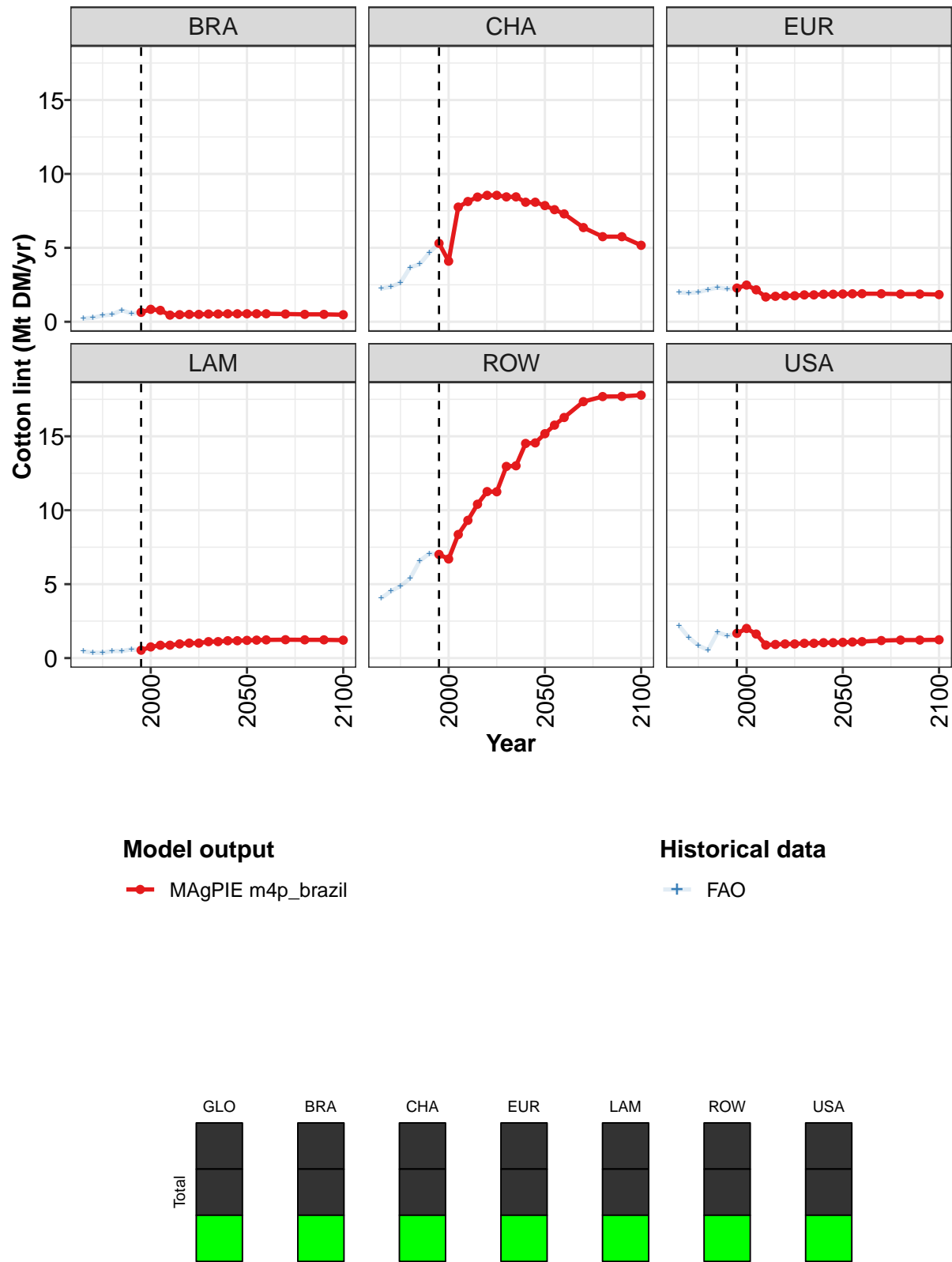


Figure 183: MAGPIE m4p_brazil — Demand—Material—Secondary products—Cotton lint (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17.4	16.9	21.5	21.3	22.9	24.0	24.0	25.9	25.9	27.2	27.3
BRA	0.6	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
CHA	5.3	4.1	7.8	8.1	8.4	8.6	8.6	8.4	8.4	8.1	8.1
EUR	2.3	2.5	2.2	1.7	1.7	1.8	1.8	1.8	1.8	1.9	1.9
LAM	0.5	0.8	0.9	0.9	1.0	1.0	1.0	1.1	1.1	1.2	1.2
ROW	7.0	6.7	8.4	9.3	10.4	11.3	11.2	13.0	13.0	14.5	14.6
USA	1.7	2.0	1.6	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0

Table 548: MAgPIE m4p_brazil — Demand—Material—Secondary products—Cotton lint (Mt DM/yr) [PART 1/2]

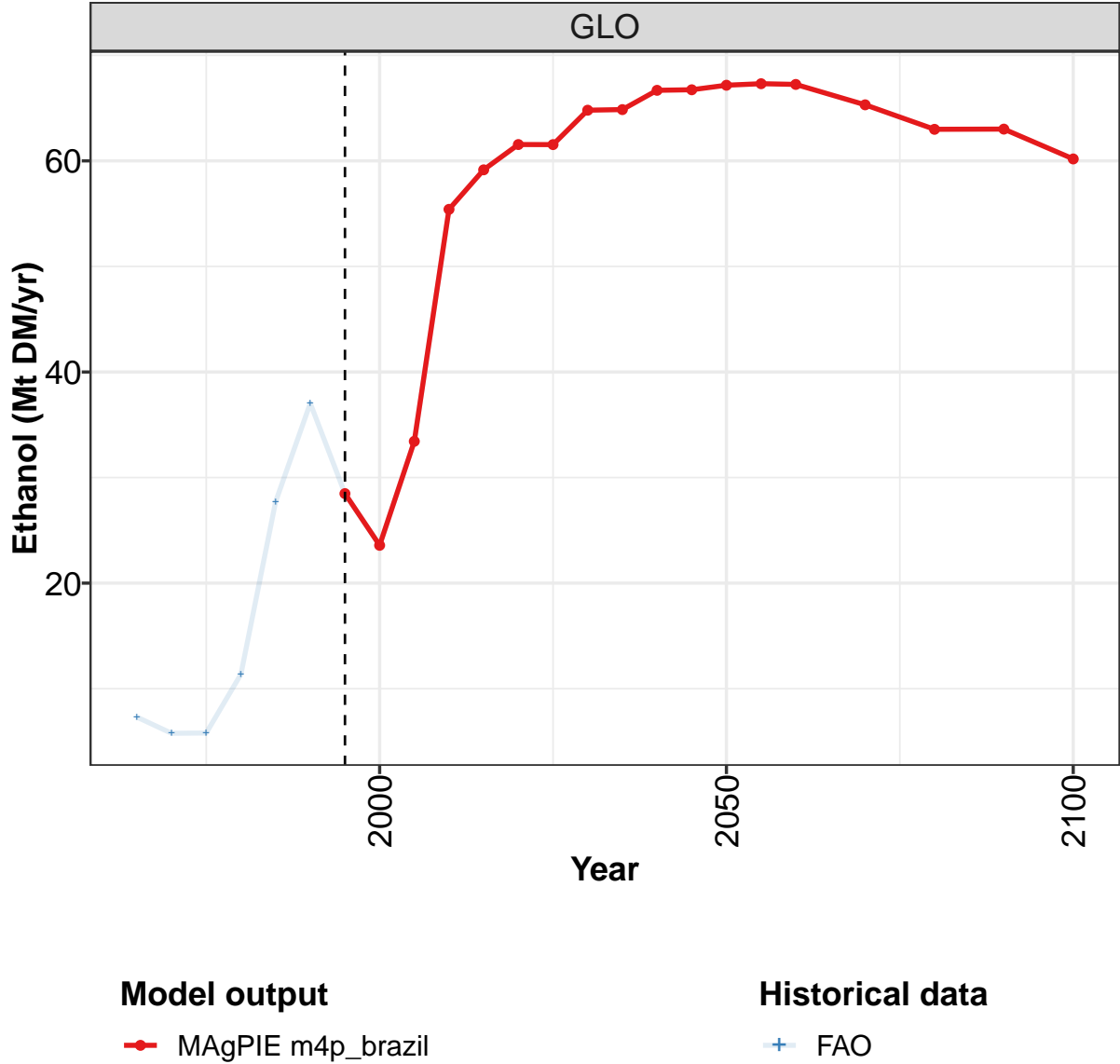
	2050	2055	2060	2070	2080	2090	2100
GLO	27.7	28.1	28.4	28.6	28.3	28.3	27.7
BRA	0.5	0.5	0.5	0.5	0.5	0.5	0.5
CHA	7.9	7.6	7.3	6.4	5.8	5.8	5.2
EUR	1.9	1.9	1.9	1.9	1.9	1.9	1.8
LAM	1.2	1.2	1.2	1.2	1.2	1.2	1.2
ROW	15.2	15.8	16.3	17.3	17.7	17.7	17.8
USA	1.1	1.1	1.1	1.2	1.2	1.2	1.2

Table 549: MAgPIE m4p_brazil — 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
BRA	0.2	0.3	0.4	0.5	0.8	0.6	0.6	0.8	0.8	0.5
CHA	2.2	2.4	2.6	3.7	3.9	4.7	5.3	4.1	7.8	8.1
EUR	2.0	2.0	2.0	2.2	2.3	2.2	2.3	2.5	2.2	1.7
LAM	0.5	0.4	0.4	0.5	0.5	0.6	0.5	0.8	0.9	0.9
ROW	4.0	4.5	4.9	5.4	6.6	7.1	7.0	6.7	8.4	9.3
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



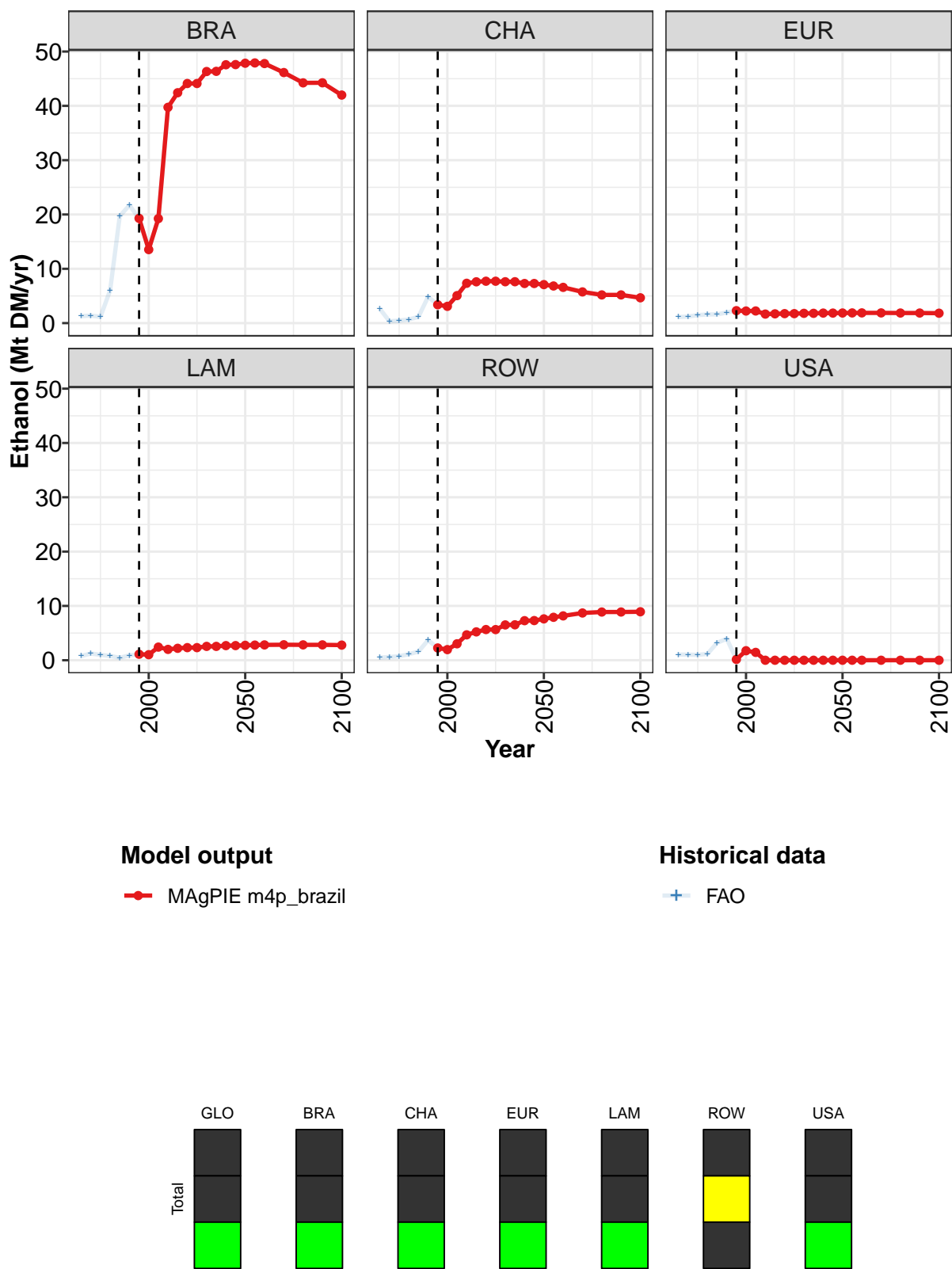


Figure 184: MAGPIE m4p_brazil — Demand—Material—Secondary products—Ethanol (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	28.5	23.6	33.4	55.4	59.2	61.5	61.5	64.8	64.9	66.7	66.7
BRA	19.3	13.5	19.2	39.7	42.4	44.1	44.1	46.3	46.4	47.6	47.6
CHA	3.4	3.1	5.1	7.3	7.6	7.7	7.7	7.6	7.6	7.3	7.3
EUR	2.3	2.2	2.2	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8
LAM	1.1	1.0	2.4	2.0	2.2	2.3	2.3	2.6	2.6	2.7	2.7
ROW	2.3	2.0	3.0	4.7	5.2	5.6	5.6	6.5	6.5	7.3	7.3
USA	0.2	1.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 551: MAgPIE m4p_brazil — Demand—Material—Secondary products—Ethanol (Mt DM/yr) [PART 1/2]

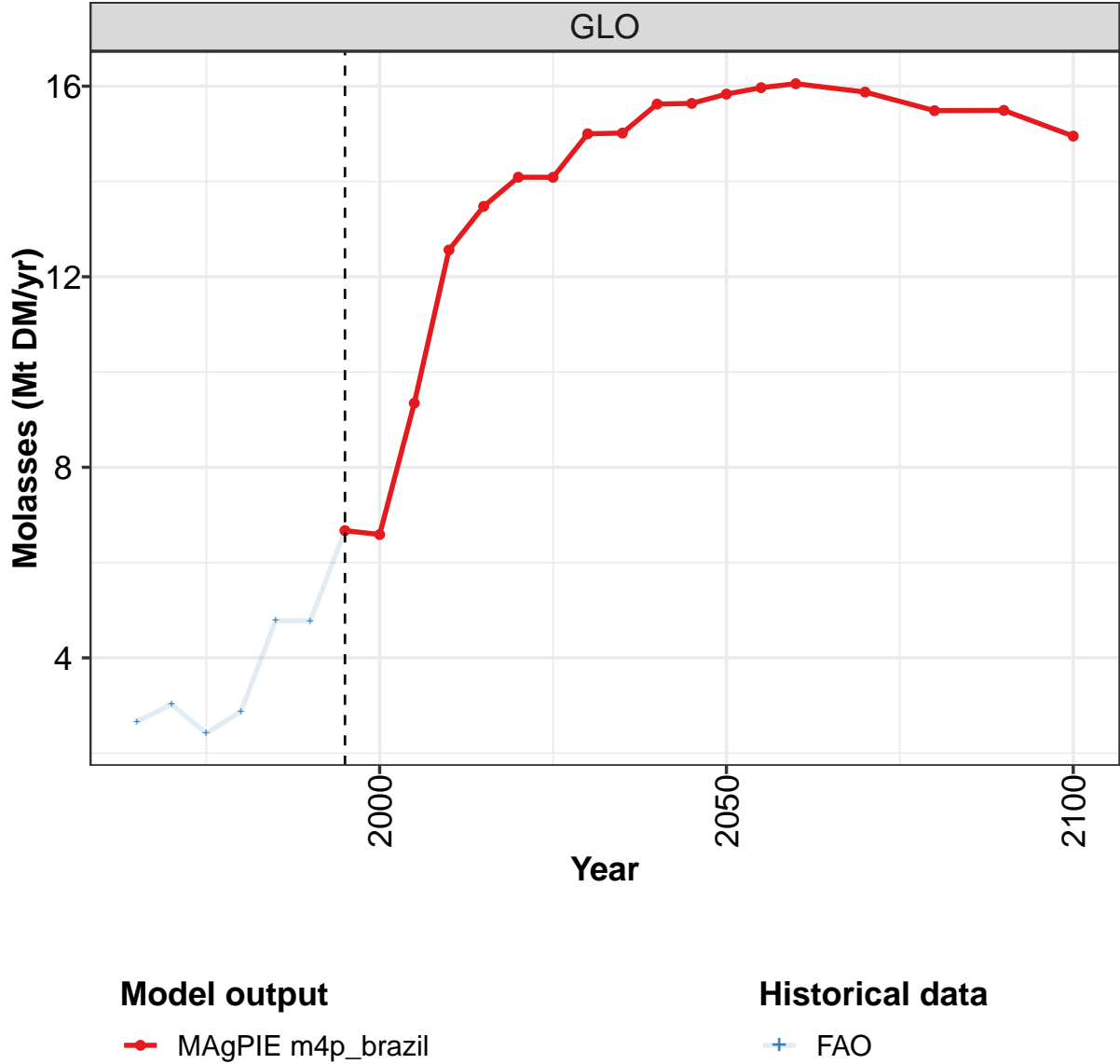
	2050	2055	2060	2070	2080	2090	2100
GLO	67.2	67.3	67.2	65.3	63.0	63.0	60.2
BRA	47.9	47.9	47.8	46.1	44.2	44.2	42.0
CHA	7.1	6.8	6.6	5.7	5.2	5.2	4.7
EUR	1.9	1.9	1.9	1.9	1.9	1.9	1.8
LAM	2.7	2.8	2.8	2.9	2.8	2.8	2.8
ROW	7.6	7.9	8.2	8.7	8.9	8.9	8.9
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 552: MAgPIE m4p_brazil — 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
BRA	1.3	1.4	1.2	6.0	19.7	21.7	19.3	13.5	19.2	39.7
CHA	2.6	0.3	0.5	0.7	1.2	4.8	3.4	3.1	5.1	7.3
EUR	1.1	1.2	1.5	1.6	1.6	2.0	2.3	2.2	2.2	1.7
LAM	0.8	1.2	1.0	0.8	0.5	0.9	1.1	1.0	2.4	2.0
ROW	0.5	0.6	0.7	1.1	1.6	3.7	2.3	2.0	3.0	4.7
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



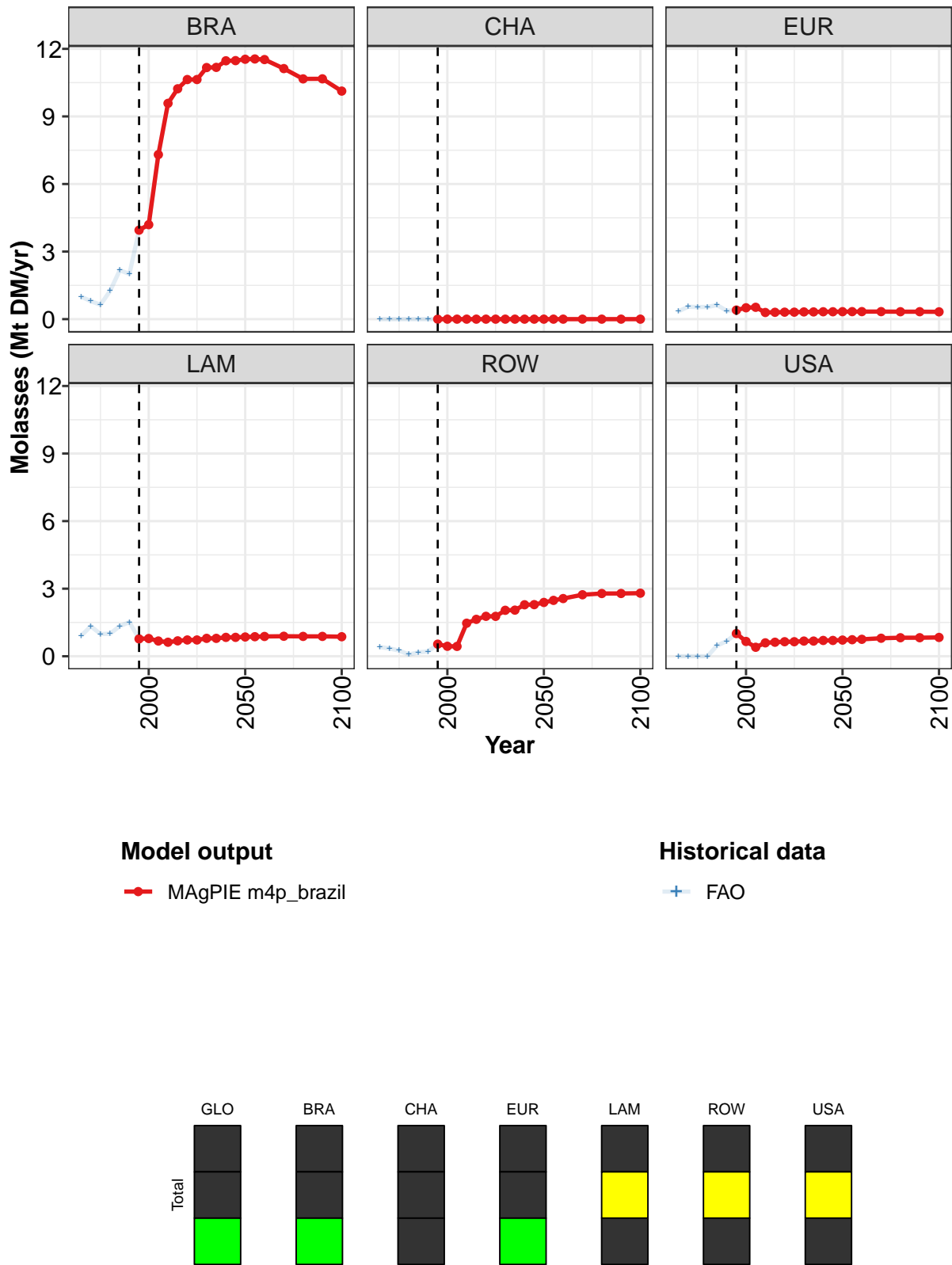


Figure 185: MAgPIE m4p_brazil — Demand—Material—Secondary products—Molasses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.7	6.6	9.3	12.6	13.5	14.1	14.1	15.0	15.0	15.6	15.6
BRA	4.0	4.2	7.3	9.6	10.2	10.6	10.6	11.2	11.2	11.5	11.5
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	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
LAM	0.8	0.8	0.7	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8
ROW	0.5	0.4	0.4	1.5	1.6	1.8	1.8	2.0	2.0	2.3	2.3
USA	1.0	0.7	0.4	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7

Table 554: MAgPIE m4p_brazil — Demand—Material—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

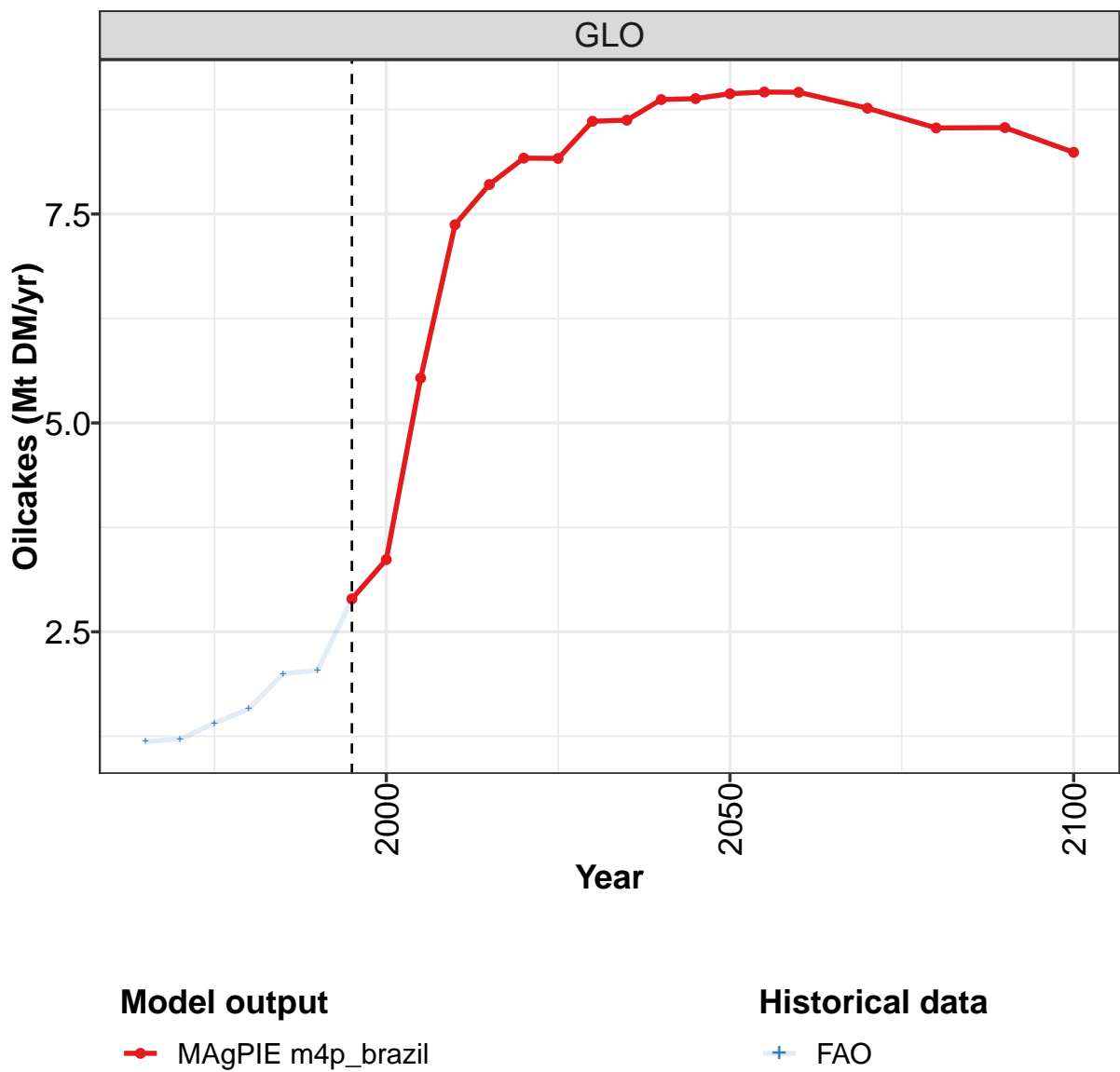
	2050	2055	2060	2070	2080	2090	2100
GLO	15.8	16.0	16.1	15.9	15.5	15.5	15.0
BRA	11.5	11.6	11.5	11.1	10.7	10.7	10.1
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.3	0.3	0.3	0.3	0.3	0.3	0.3
LAM	0.9	0.9	0.9	0.9	0.9	0.9	0.9
ROW	2.4	2.5	2.6	2.7	2.8	2.8	2.8
USA	0.7	0.7	0.8	0.8	0.8	0.8	0.8

Table 555: MAgPIE m4p_brazil — 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
BRA	1.0	0.8	0.6	1.3	2.2	2.0	4.0	4.2	7.3	9.6
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	0.5	0.5	0.3
LAM	0.9	1.3	1.0	1.0	1.3	1.5	0.8	0.8	0.7	0.6
ROW	0.4	0.3	0.3	0.1	0.2	0.2	0.5	0.4	0.4	1.5
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



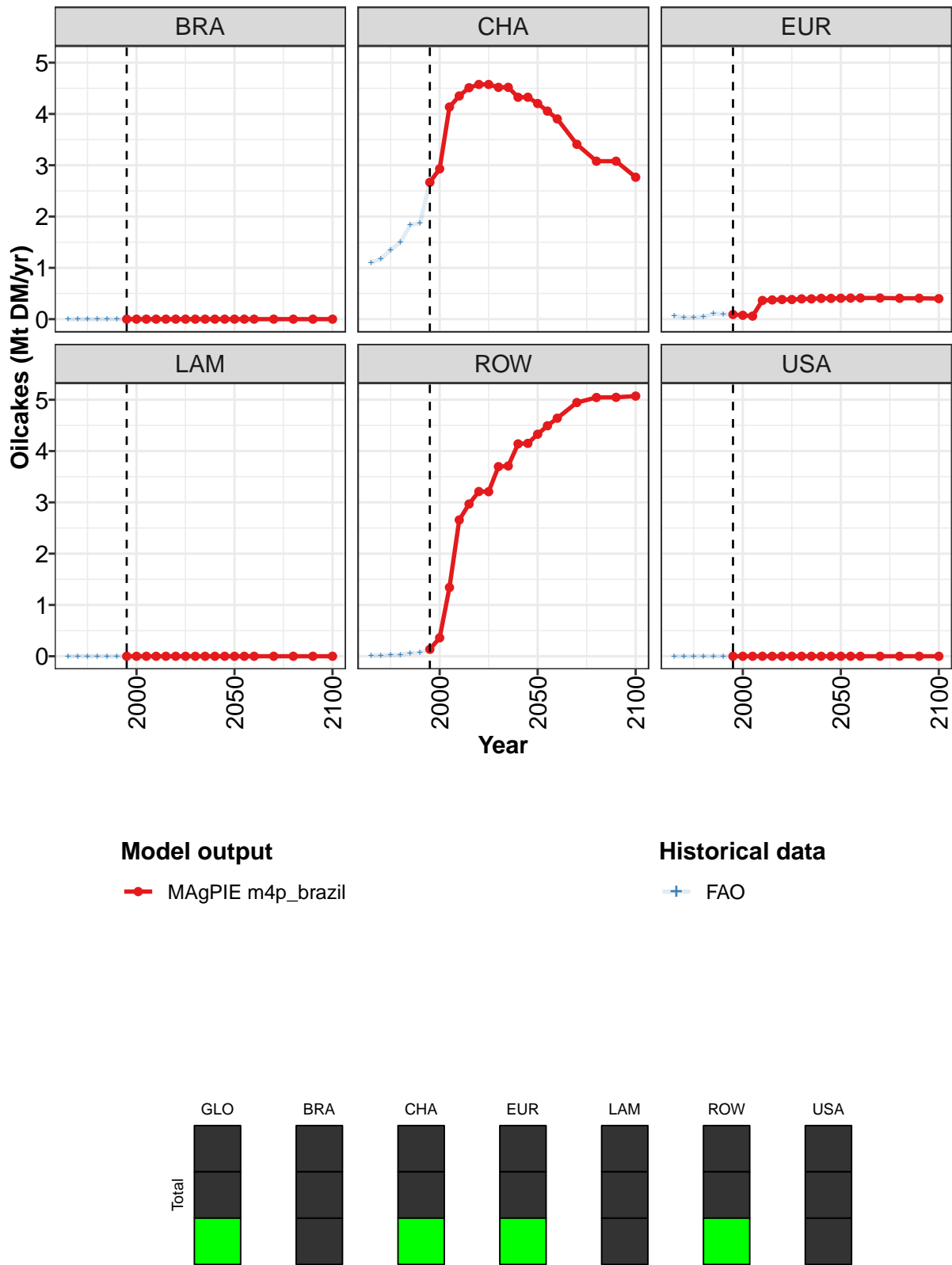


Figure 186: MAgPIE m4p_brazil — Demand—Material—Secondary products—Oilcakes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.89	3.36	5.54	7.37	7.85	8.17	8.17	8.61	8.62	8.87	8.88
BRA	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	4.51	4.58	4.58	4.52	4.52	4.33	4.33
EUR	0.09	0.08	0.06	0.36	0.37	0.38	0.38	0.39	0.39	0.40	0.40
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.13	0.36	1.34	2.66	2.97	3.21	3.21	3.70	3.71	4.14	4.15
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_brazil — Demand—Material—Secondary products—Oilcakes (Mt DM/yr) [PART 1/2]

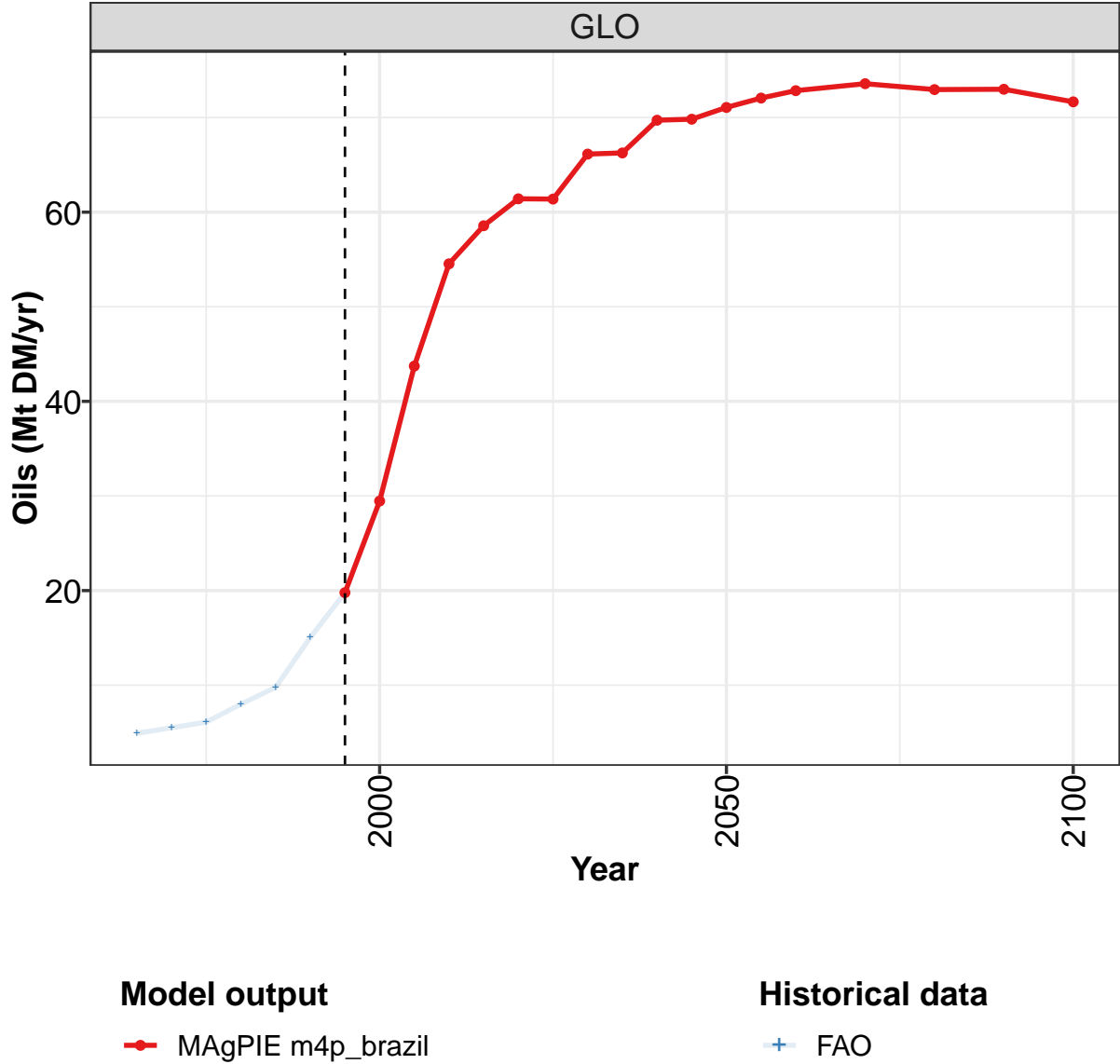
	2050	2055	2060	2070	2080	2090	2100
GLO	8.94	8.96	8.96	8.77	8.53	8.53	8.24
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	4.20	4.06	3.90	3.41	3.08	3.08	2.77
EUR	0.41	0.41	0.41	0.41	0.41	0.41	0.40
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	4.33	4.49	4.64	4.95	5.04	5.05	5.07
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 558: MAgPIE m4p_brazil — 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
BRA	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	0.08	0.06	0.36
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.01	0.01	0.02	0.03	0.06	0.07	0.13	0.36	1.34	2.66
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



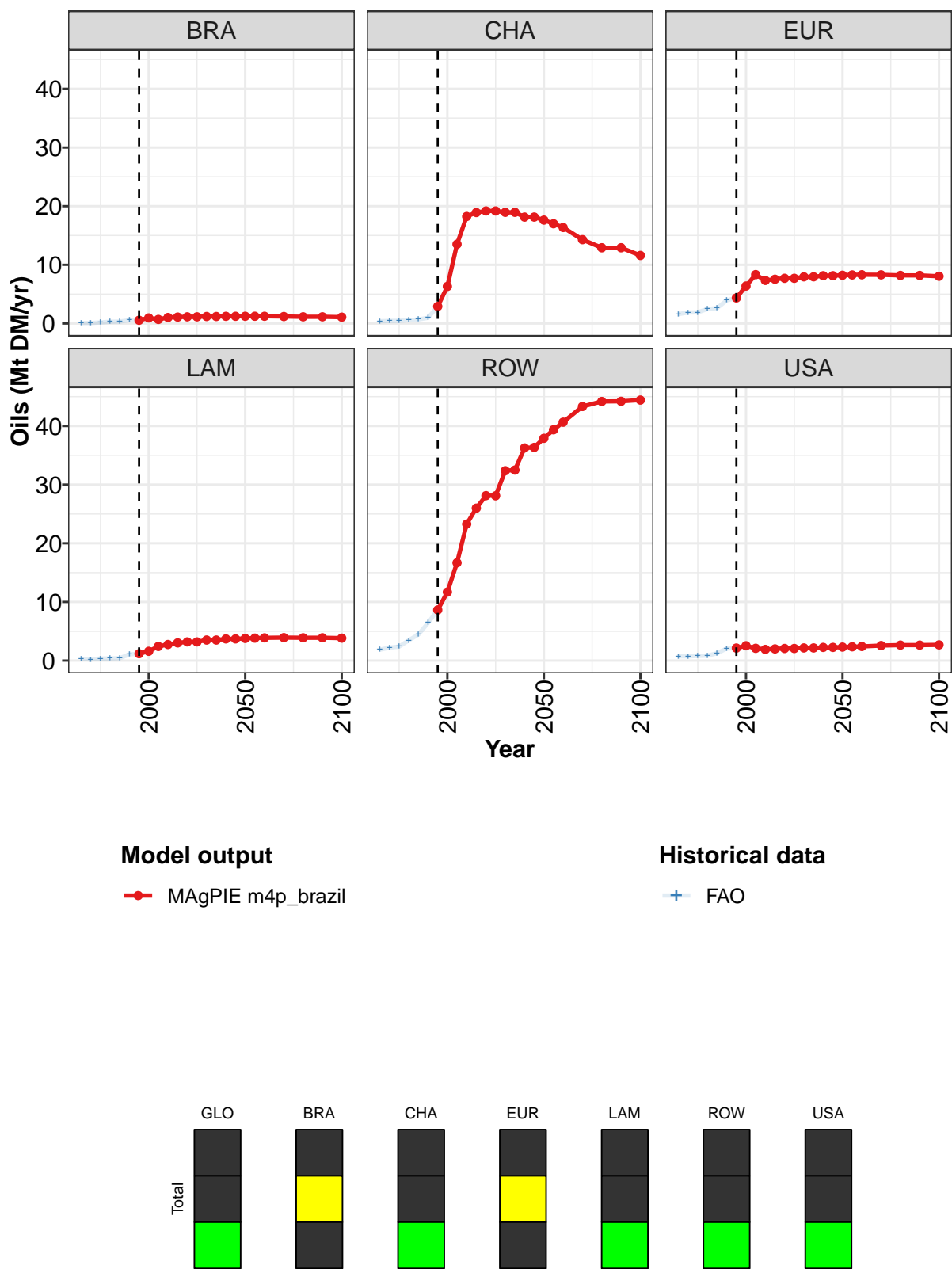


Figure 187: MAgPIE m4p_brazil — Demand—Material—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	19.8	29.5	43.7	54.5	58.6	61.4	61.4	66.1	66.3	69.7	69.8
BRA	0.6	0.9	0.7	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.2
CHA	2.9	6.3	13.5	18.2	18.9	19.2	19.2	18.9	19.0	18.1	18.1
EUR	4.4	6.4	8.3	7.3	7.5	7.7	7.7	8.0	8.0	8.1	8.1
LAM	1.2	1.6	2.4	2.7	3.0	3.2	3.2	3.5	3.5	3.7	3.7
ROW	8.6	11.7	16.7	23.3	26.0	28.1	28.1	32.4	32.5	36.3	36.4
USA	2.1	2.5	2.1	1.9	2.0	2.1	2.1	2.2	2.2	2.3	2.3

Table 560: MAgPIE m4p_brazil — Demand—Material—Secondary products—Oils (Mt DM/yr) [PART 1/2]

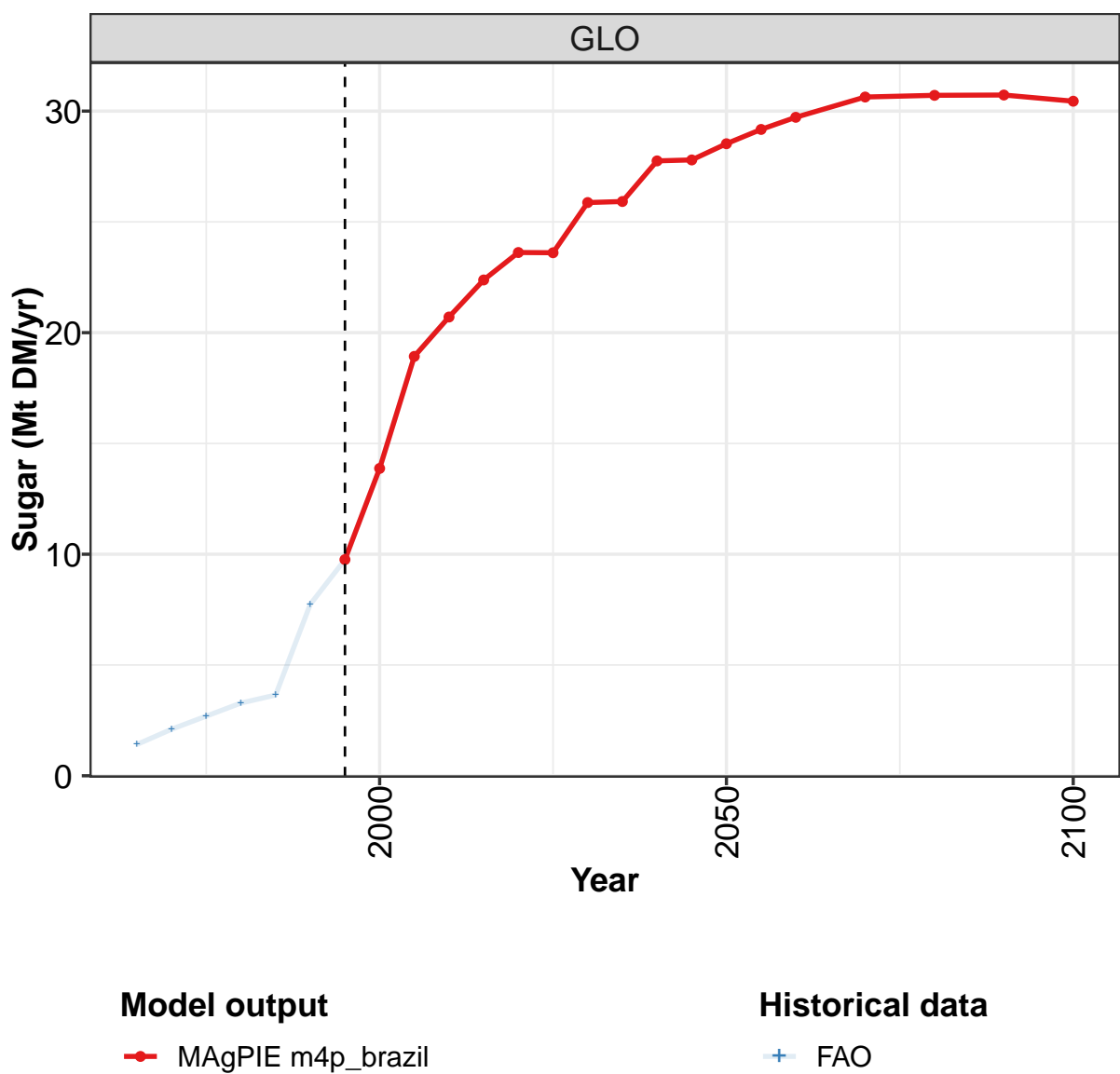
	2050	2055	2060	2070	2080	2090	2100
GLO	71.1	72.1	72.8	73.6	73.0	73.0	71.7
BRA	1.2	1.2	1.2	1.2	1.1	1.1	1.1
CHA	17.6	17.0	16.4	14.3	12.9	12.9	11.6
EUR	8.2	8.3	8.3	8.3	8.2	8.2	8.0
LAM	3.8	3.8	3.9	3.9	3.9	3.9	3.8
ROW	37.9	39.4	40.6	43.3	44.2	44.2	44.4
USA	2.3	2.4	2.4	2.6	2.6	2.6	2.7

Table 561: MAgPIE m4p_brazil — 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
BRA	0.1	0.1	0.2	0.3	0.3	0.6	0.6	0.9	0.7	1.0
CHA	0.4	0.4	0.5	0.6	0.7	1.0	2.9	6.3	13.5	18.2
EUR	1.6	1.9	1.9	2.5	2.6	3.9	4.4	6.4	8.3	7.3
LAM	0.3	0.2	0.4	0.4	0.4	1.1	1.2	1.6	2.4	2.7
ROW	1.9	2.2	2.4	3.5	4.4	6.4	8.6	11.7	16.7	23.3
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



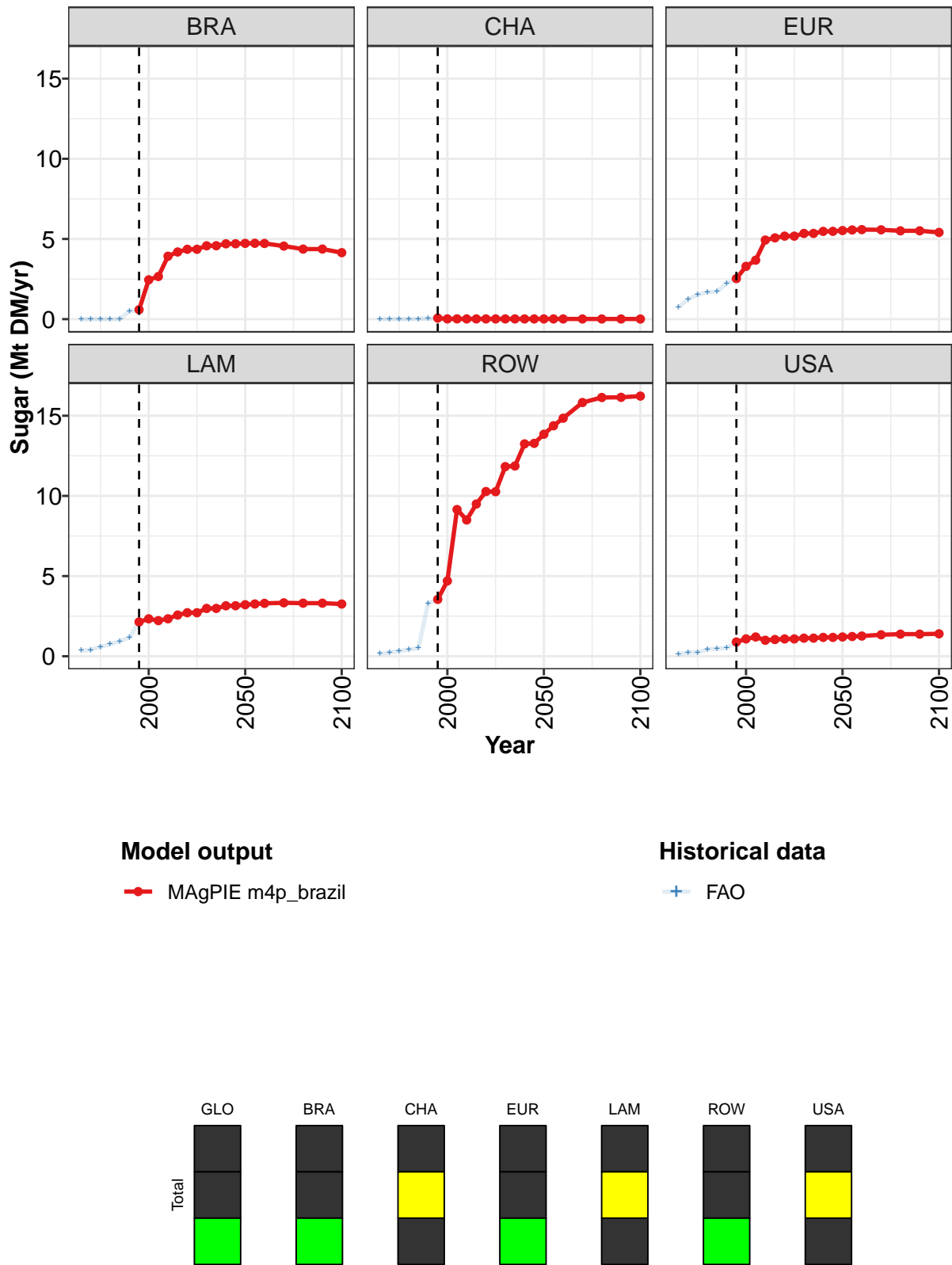


Figure 188: MAgPIE m4p_brazil — Demand—Material—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9.8	13.9	18.9	20.7	22.4	23.6	23.6	25.9	25.9	27.8	27.8
BRA	0.6	2.5	2.7	3.9	4.2	4.4	4.4	4.6	4.6	4.7	4.7
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	3.3	3.7	4.9	5.1	5.2	5.2	5.3	5.3	5.5	5.5
LAM	2.1	2.3	2.2	2.3	2.6	2.7	2.7	3.0	3.0	3.1	3.2
ROW	3.5	4.7	9.2	8.5	9.5	10.3	10.3	11.8	11.9	13.2	13.3
USA	0.9	1.1	1.2	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.2

Table 563: MAgPIE m4p_brazil — Demand—Material—Secondary products—Sugar (Mt DM/yr) [PART 1/2]

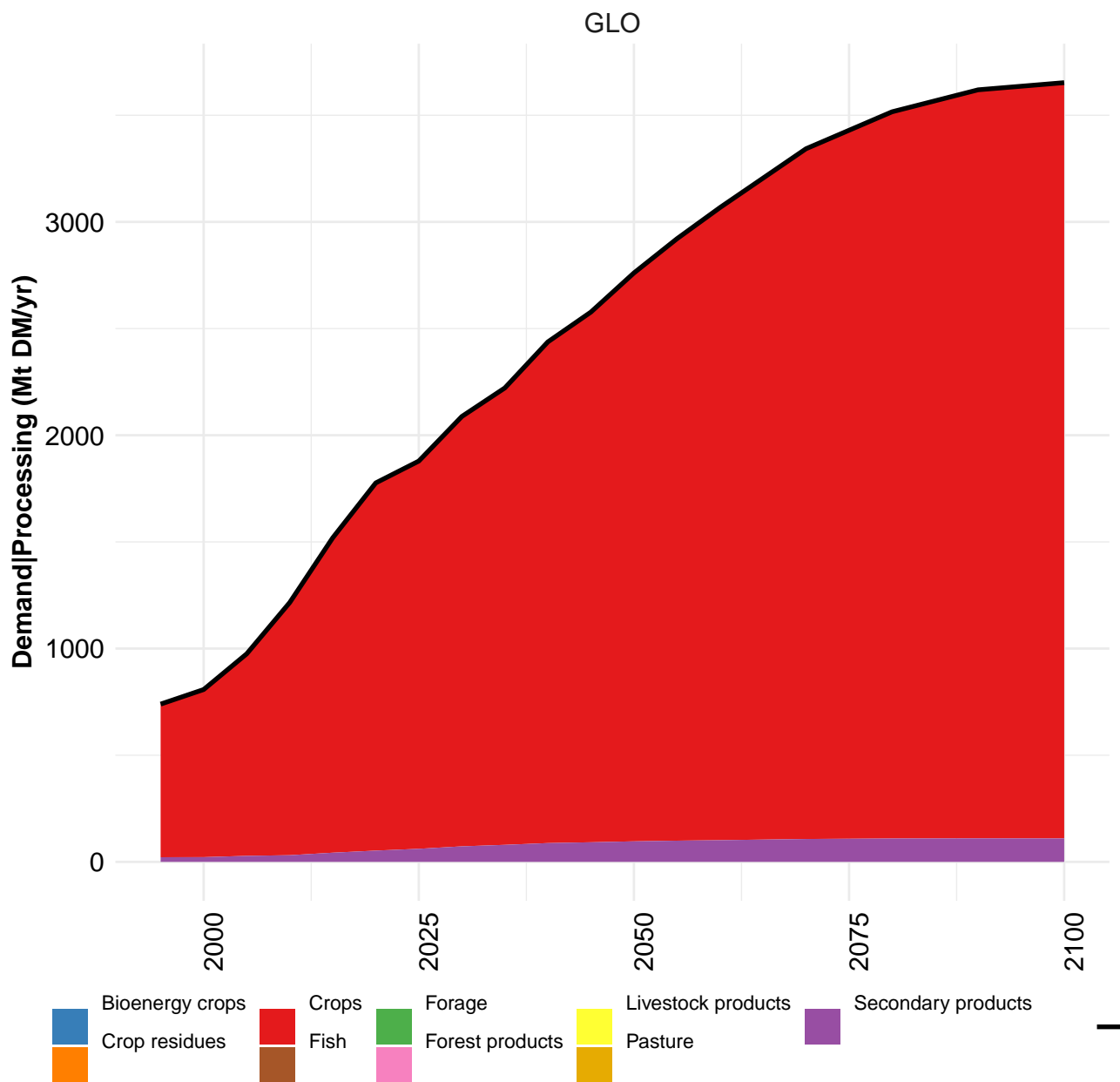
	2050	2055	2060	2070	2080	2090	2100
GLO	28.5	29.2	29.7	30.6	30.7	30.7	30.4
BRA	4.7	4.7	4.7	4.6	4.4	4.4	4.1
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	5.5	5.6	5.6	5.6	5.5	5.5	5.4
LAM	3.2	3.3	3.3	3.3	3.3	3.3	3.3
ROW	13.8	14.4	14.8	15.8	16.1	16.1	16.2
USA	1.2	1.2	1.3	1.3	1.4	1.4	1.4

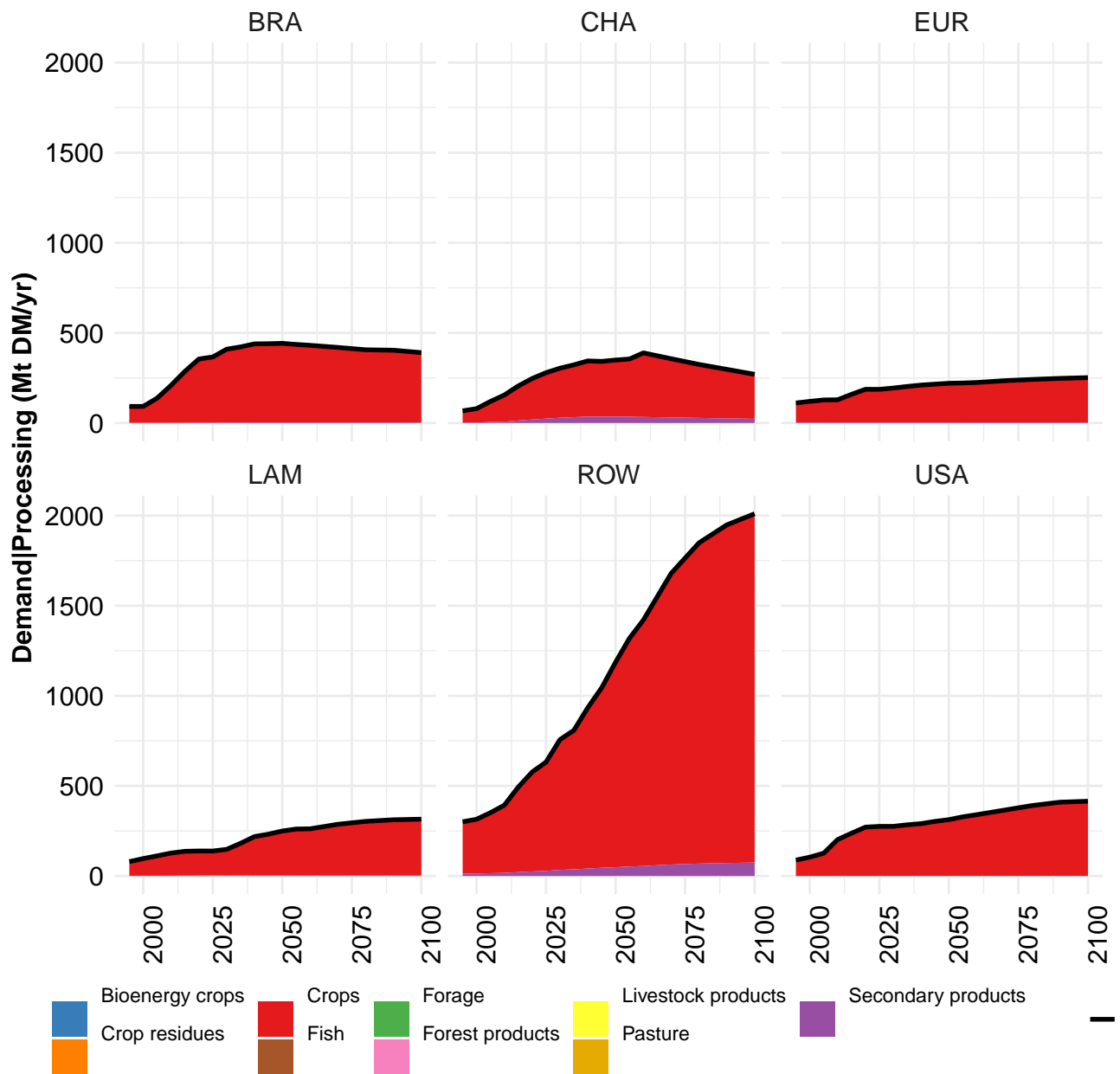
Table 564: MAgPIE m4p_brazil — Demand—Material—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

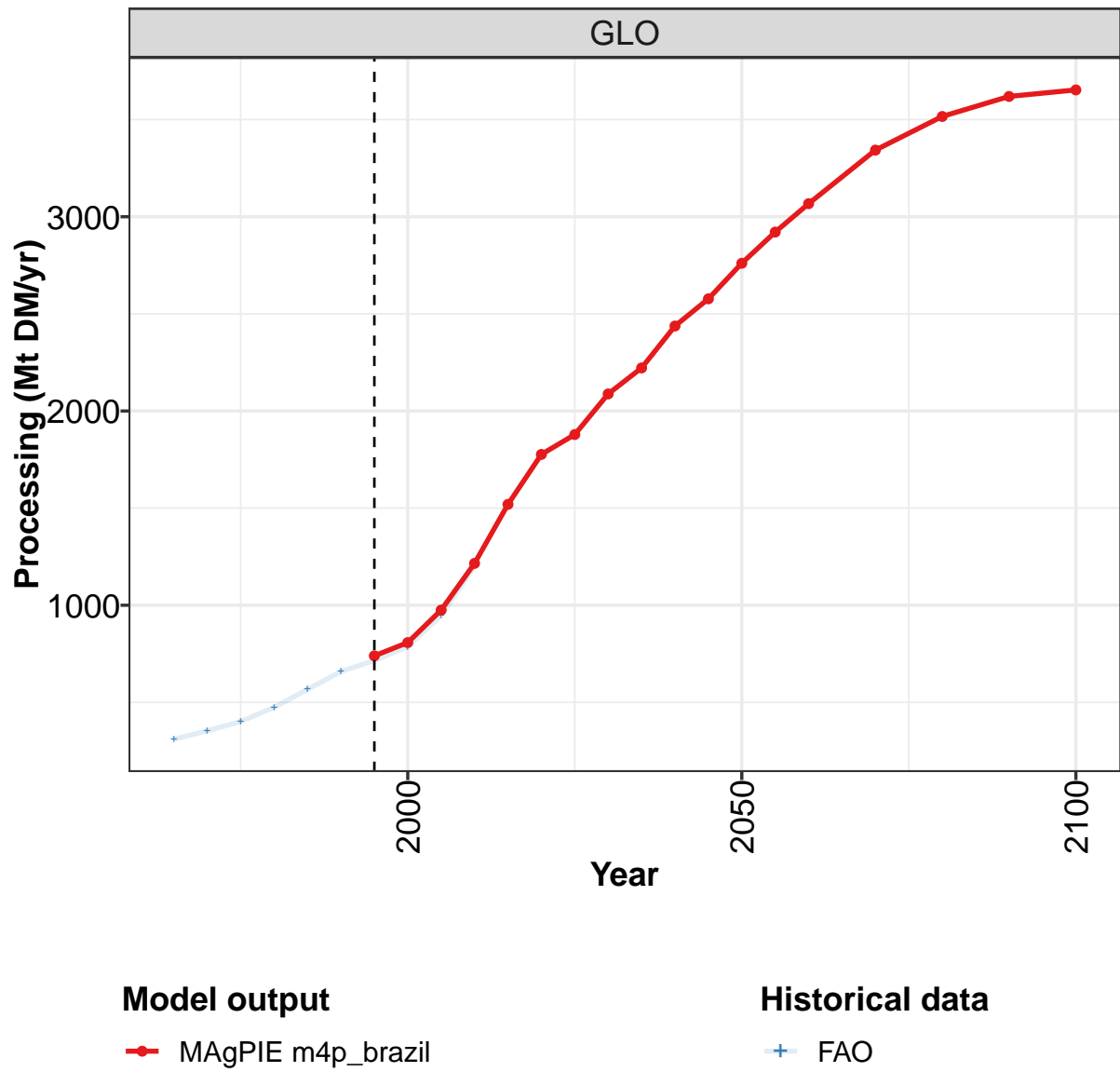
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.4	2.1	2.7	3.3	3.6	7.7	9.8	13.9	18.9	20.7
BRA	0.0	0.0	0.0	0.0	0.0	0.5	0.6	2.5	2.7	3.9
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
EUR	0.8	1.2	1.5	1.7	1.7	2.2	2.5	3.3	3.7	4.9
LAM	0.4	0.4	0.6	0.8	0.9	1.2	2.1	2.3	2.2	2.3
ROW	0.2	0.2	0.3	0.4	0.5	3.3	3.5	4.7	9.2	8.5
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







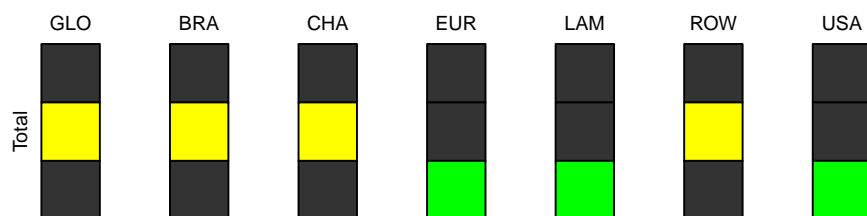
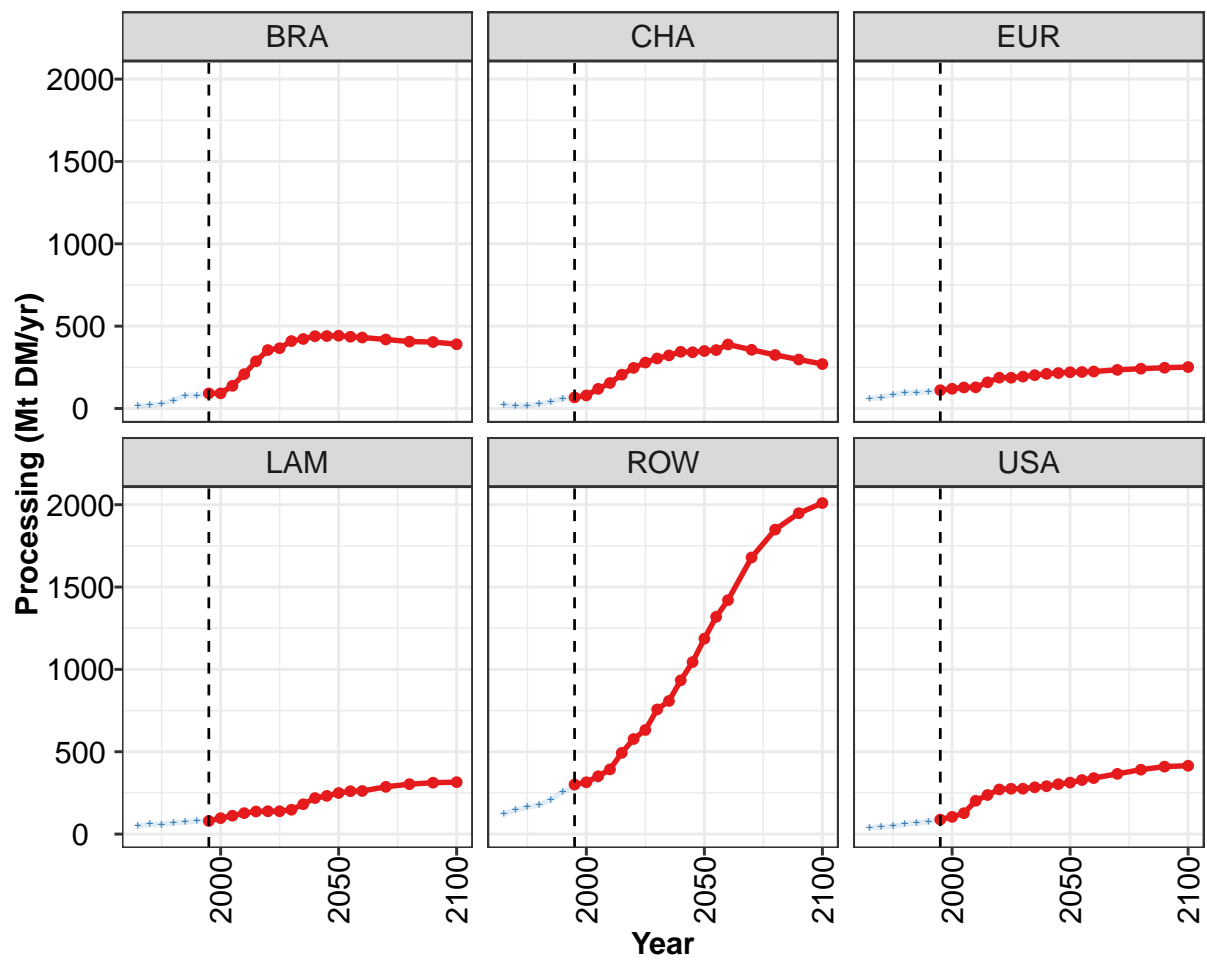


Figure 189: MAgPIE m4p_brazil — Demand—Processing (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	740	808	975	1216	1519	1776	1879	2088	2222	2438	2577
BRA	92	92	138	209	287	355	366	410	422	439	440
CHA	67	79	119	155	205	247	279	304	323	344	342
EUR	111	120	128	129	159	187	187	194	203	210	216
LAM	80	97	112	127	137	139	139	148	182	219	232
ROW	301	315	351	393	493	577	632	757	809	934	1045
USA	88	105	127	202	237	271	275	276	284	291	303

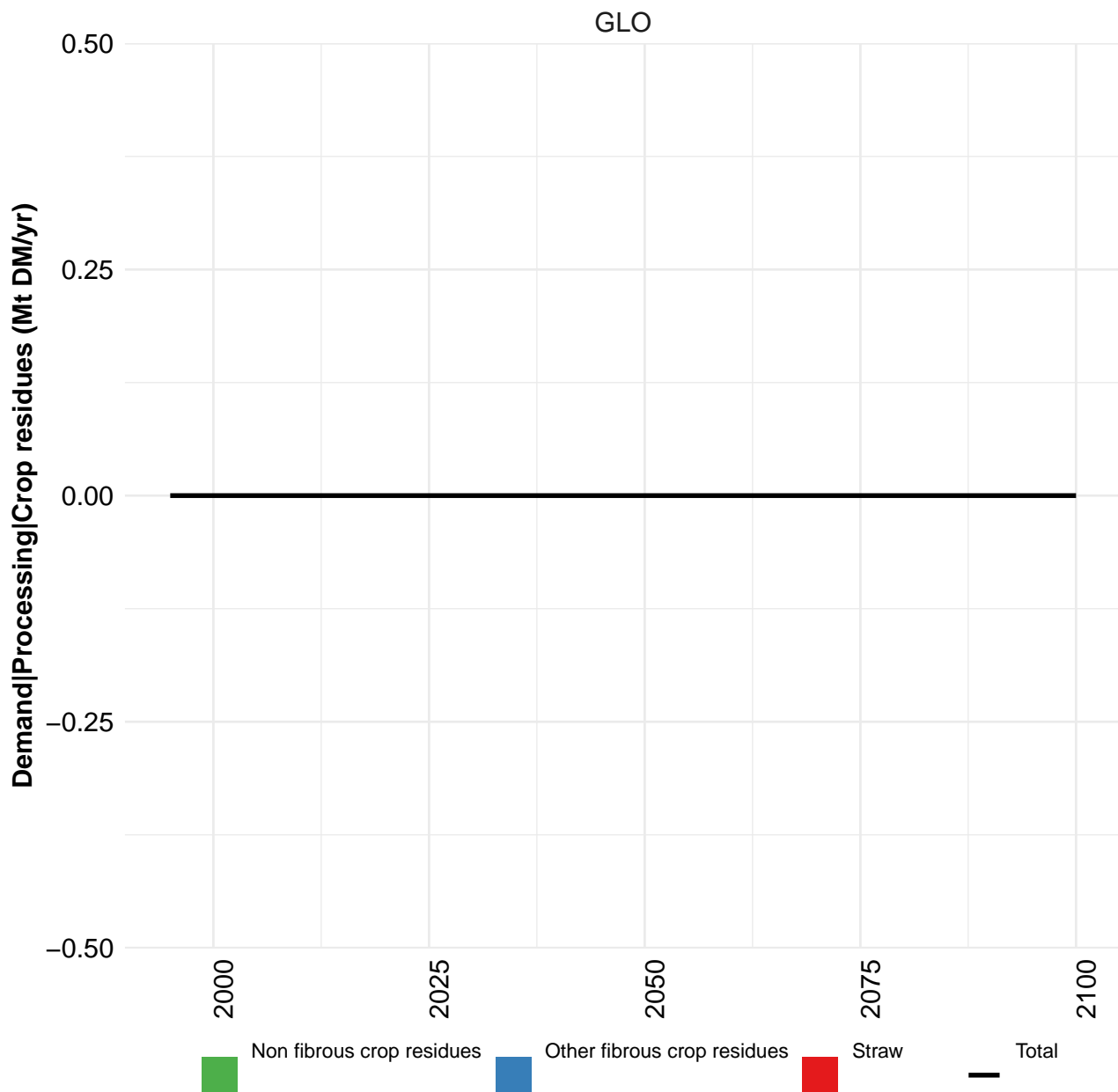
Table 566: MAgPIE m4p_brazil — Demand—Processing (Mt DM/yr) [PART 1/2]

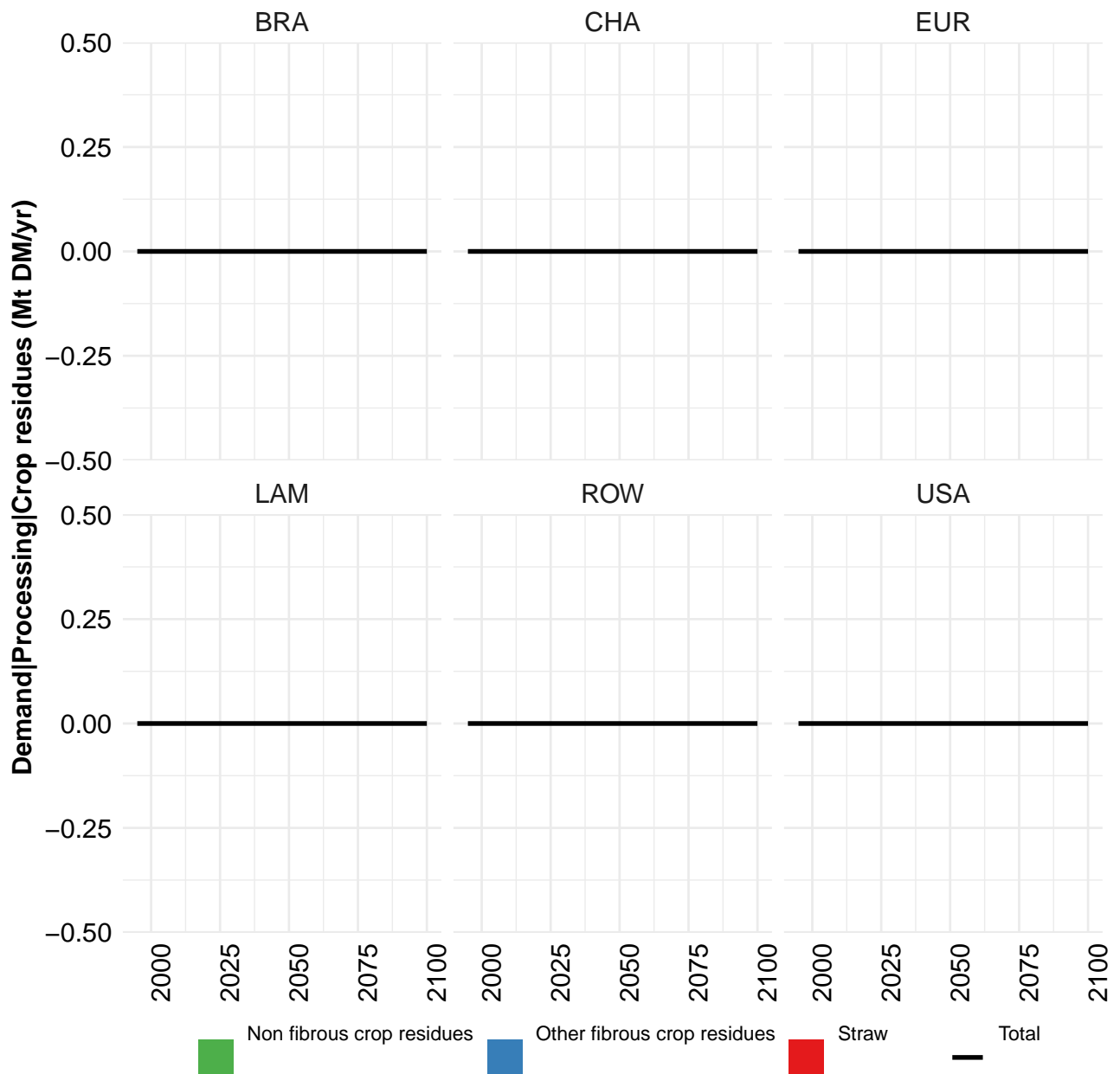
	2050	2055	2060	2070	2080	2090	2100
GLO	2761	2921	3067	3343	3516	3619	3653
BRA	442	436	431	419	406	404	390
CHA	349	355	389	357	325	298	270
EUR	220	222	225	235	242	248	252
LAM	250	261	262	287	303	312	315
ROW	1187	1319	1420	1680	1849	1948	2010
USA	313	328	340	366	391	410	415

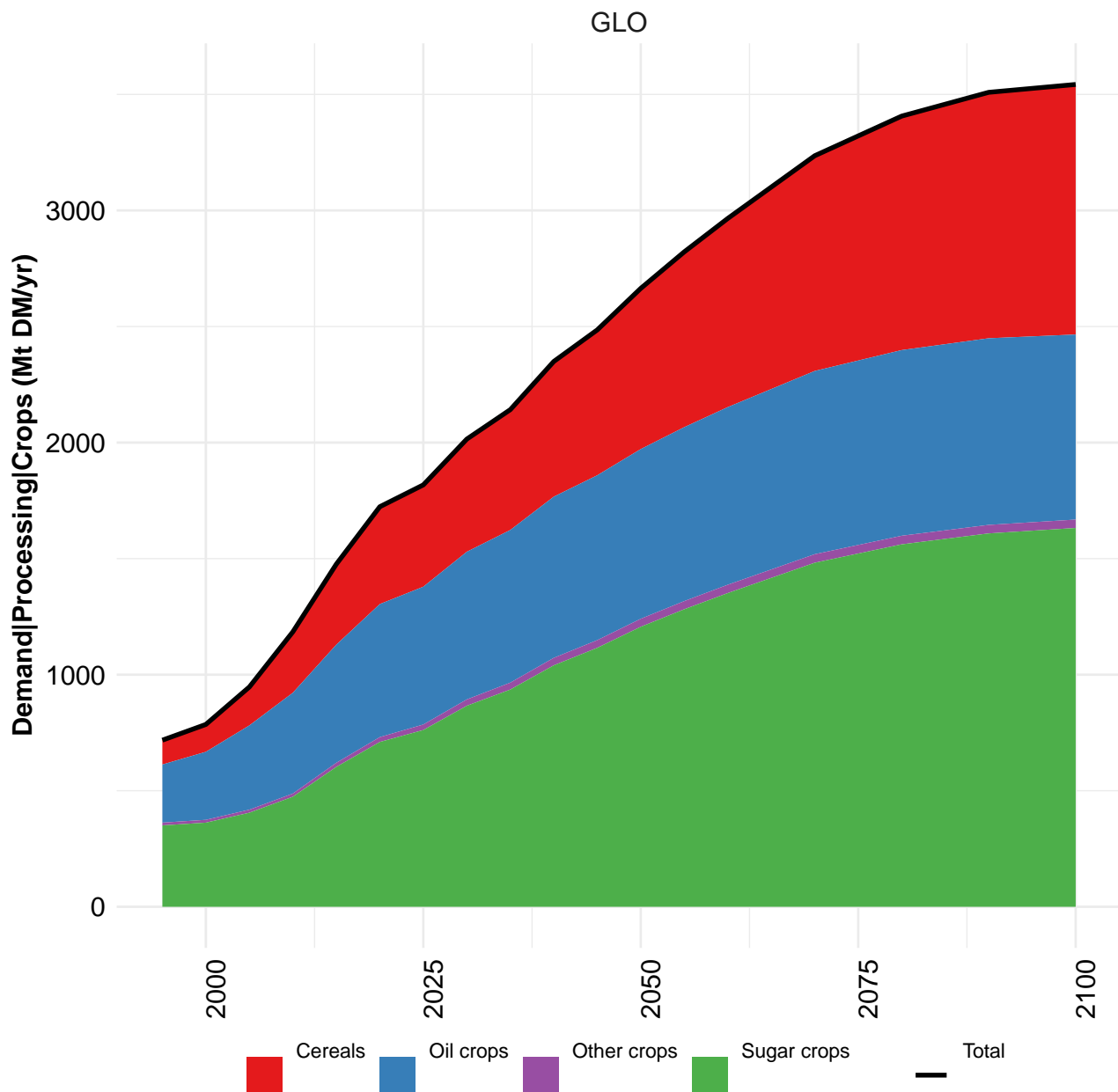
Table 567: MAgPIE m4p_brazil — Demand—Processing (Mt DM/yr) [PART 2/2]

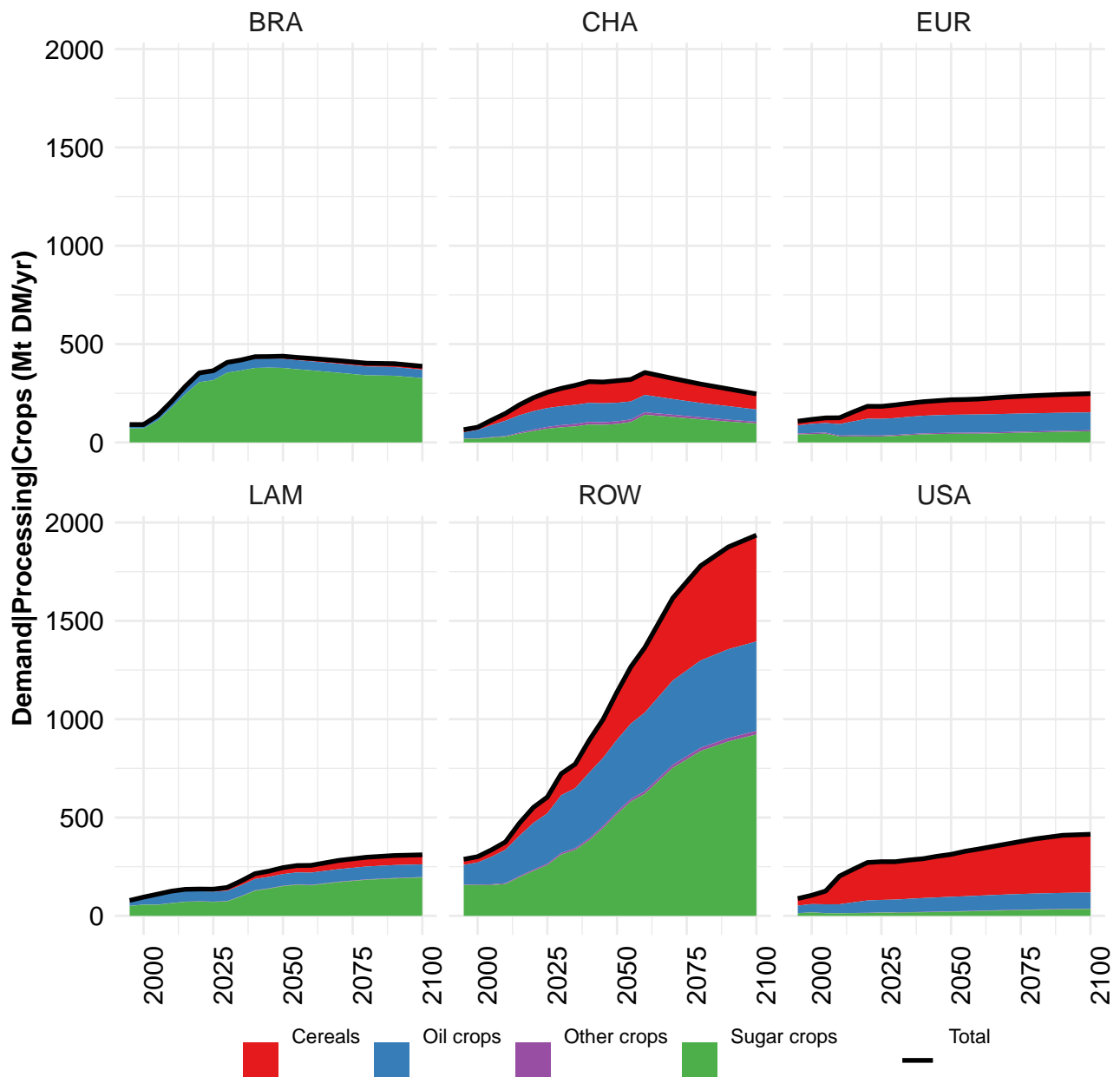
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	310	354	402	474	567	659	716	786	948	1201
BRA	17	20	27	50	80	79	93	94	144	214
CHA	23	16	19	27	42	62	67	79	119	156
EUR	60	68	84	95	95	103	105	112	116	123
LAM	50	60	59	66	72	81	80	93	109	117
ROW	122	145	164	176	210	258	282	302	331	388
USA	38	45	48	60	68	76	89	107	129	204

Table 568: FAO — Demand—Processing (Mt DM/yr)

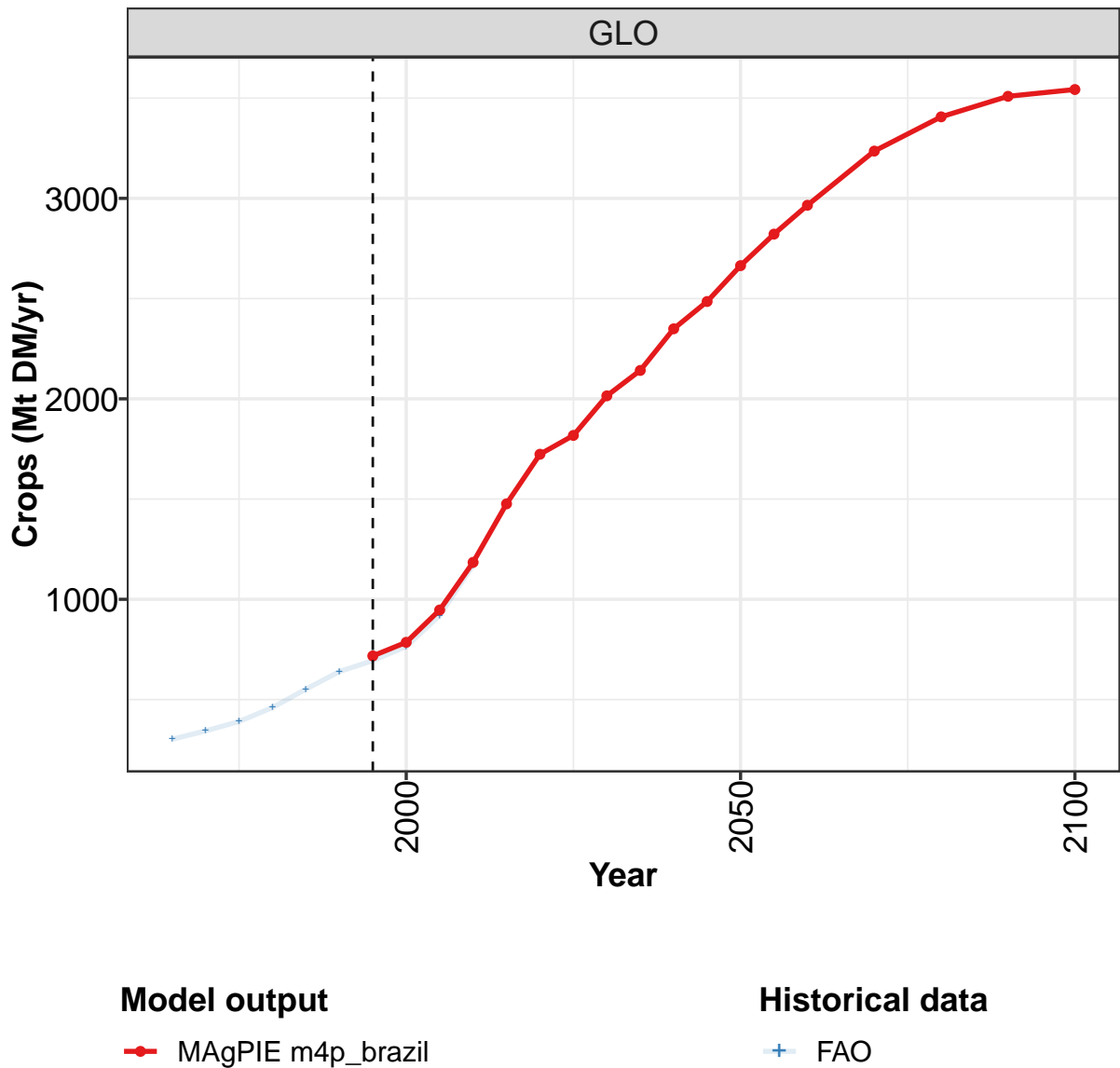








9.1 Crops



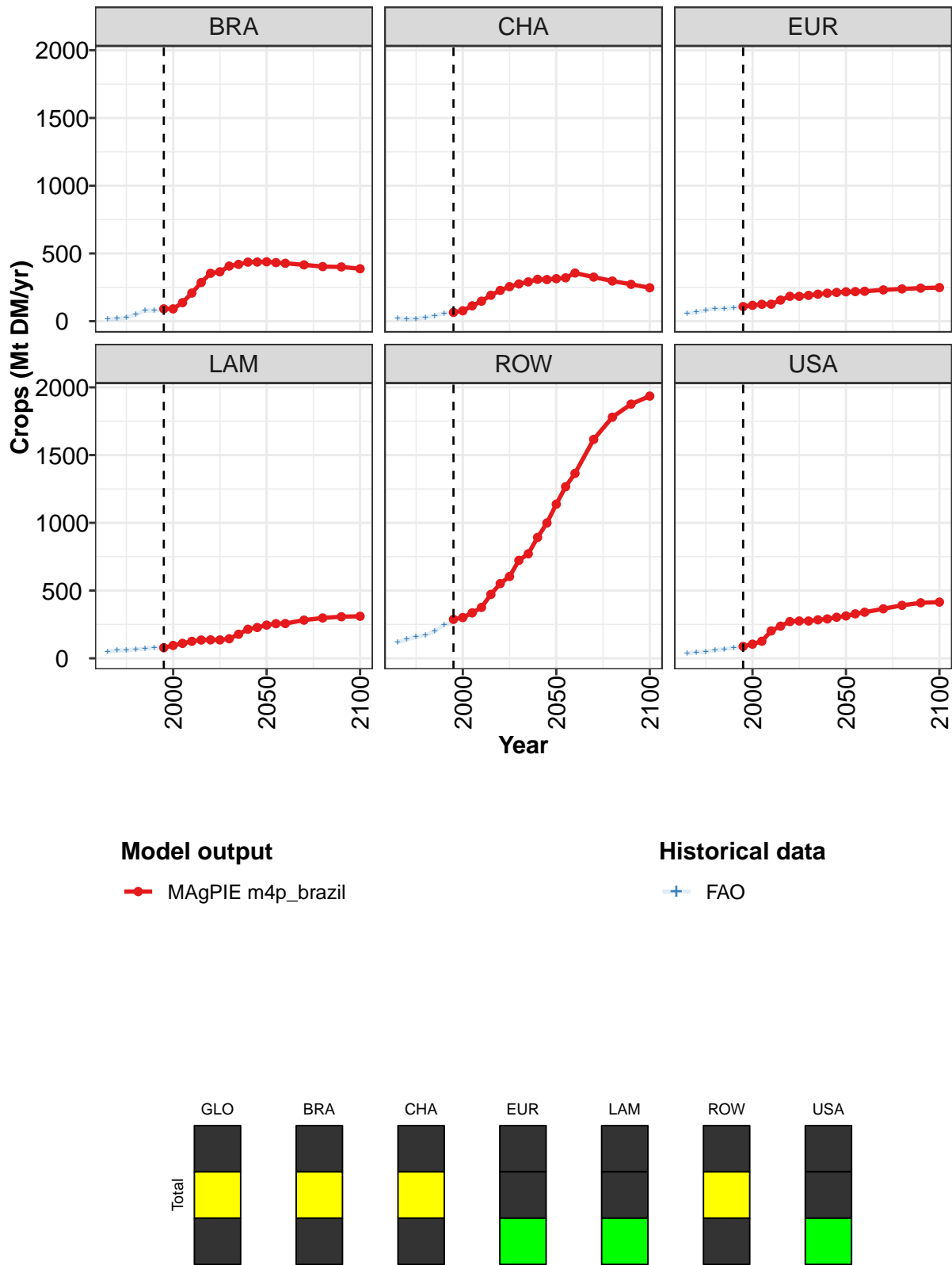


Figure 190: MAgPIE m4p_brazil — Demand—Processing—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	718	786	947	1184	1476	1724	1818	2015	2142	2349	2485
BRA	91	91	137	208	285	354	364	407	419	436	437
CHA	65	77	113	148	191	227	255	275	290	309	307
EUR	108	117	125	125	156	184	183	190	199	207	212
LAM	78	95	110	126	135	136	136	144	177	214	228
ROW	288	301	336	376	471	551	604	723	771	892	999
USA	88	104	126	202	237	271	275	275	284	291	303

Table 569: MAgPIE m4p_brazil — Demand—Processing—Crops (Mt DM/yr) [PART 1/2]

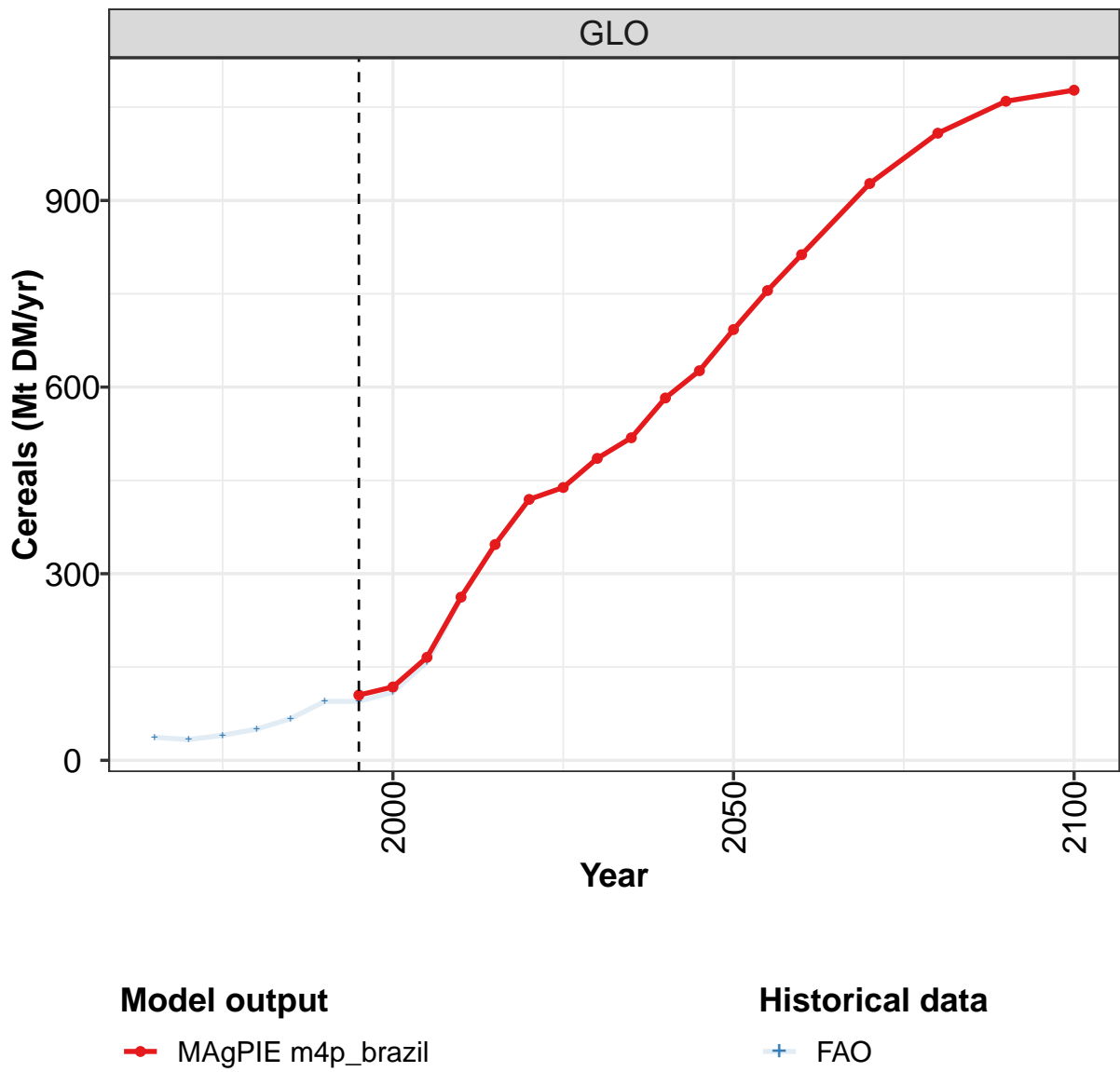
	2050	2055	2060	2070	2080	2090	2100
GLO	2664	2822	2966	3236	3407	3509	3543
BRA	438	432	427	416	403	401	387
CHA	314	320	356	326	297	272	247
EUR	217	218	221	231	238	244	248
LAM	245	256	257	282	298	307	310
ROW	1138	1267	1365	1616	1780	1876	1936
USA	313	328	340	366	391	410	415

Table 570: MAgPIE m4p_brazil — 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
BRA	17	19	27	49	79	78	92	93	143	213
CHA	23	15	18	26	40	59	65	77	113	148
EUR	58	66	82	92	93	100	101	109	113	120
LAM	49	59	58	65	71	80	79	91	107	115
ROW	118	140	158	169	201	246	268	288	316	370
USA	38	44	47	60	68	76	89	106	128	204

Table 571: FAO — Demand—Processing—Crops (Mt DM/yr)

9.1.1
Cereals



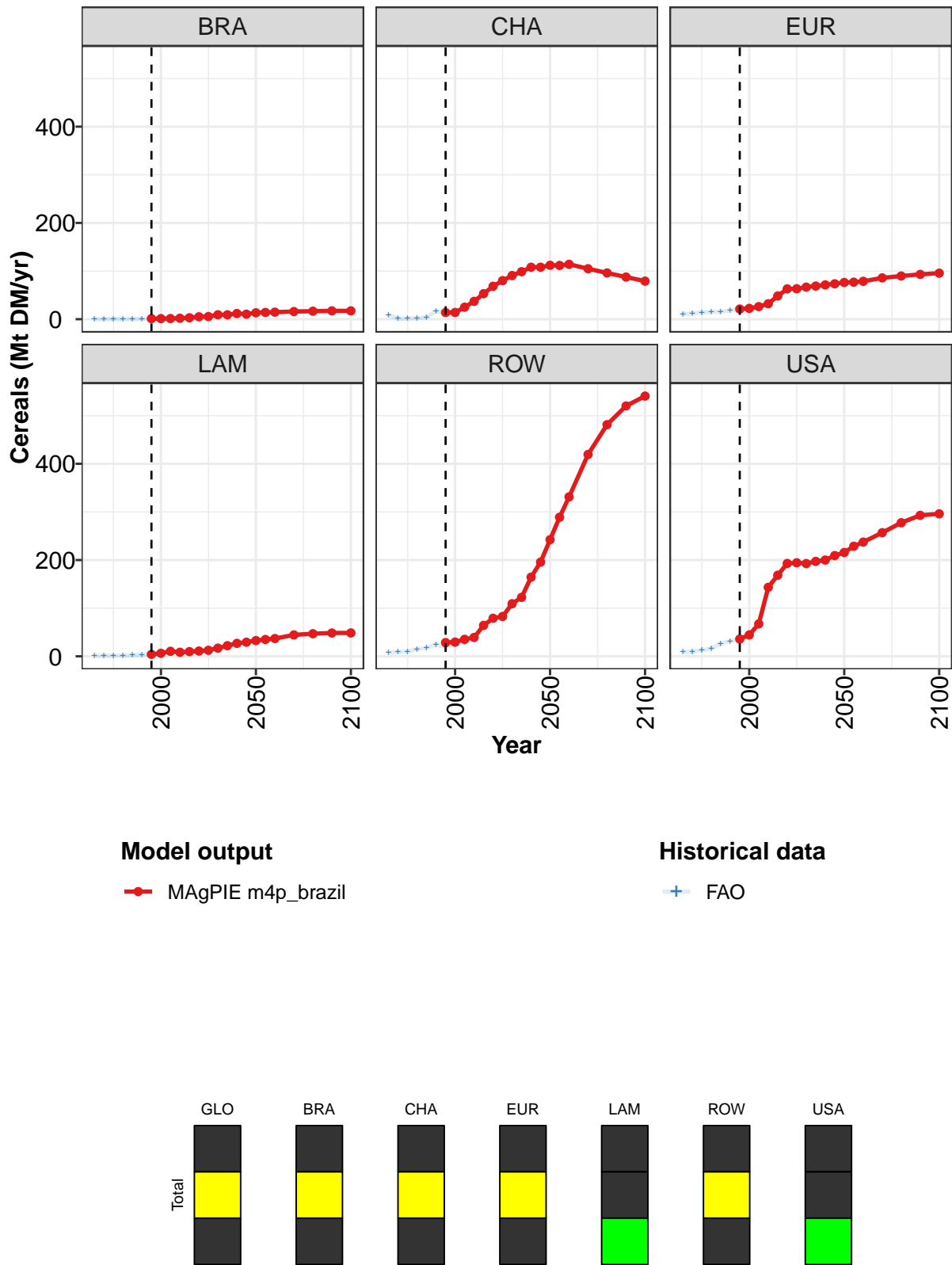


Figure 191: MAgPIE m4p_brazil — Demand—Processing—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	105	118	166	262	347	419	439	485	519	583	626
BRA	1	1	1	2	3	5	6	9	9	12	10
CHA	14	14	25	37	53	68	80	91	99	108	108
EUR	21	22	26	32	48	63	63	67	69	71	74
LAM	4	6	10	8	10	11	13	17	22	27	29
ROW	29	30	35	39	64	79	83	109	122	164	196
USA	36	44	67	143	168	193	194	193	197	200	209

Table 572: MAgPIE m4p_brazil — Demand—Processing—Crops—Cereals (Mt DM/yr) [PART 1/2]

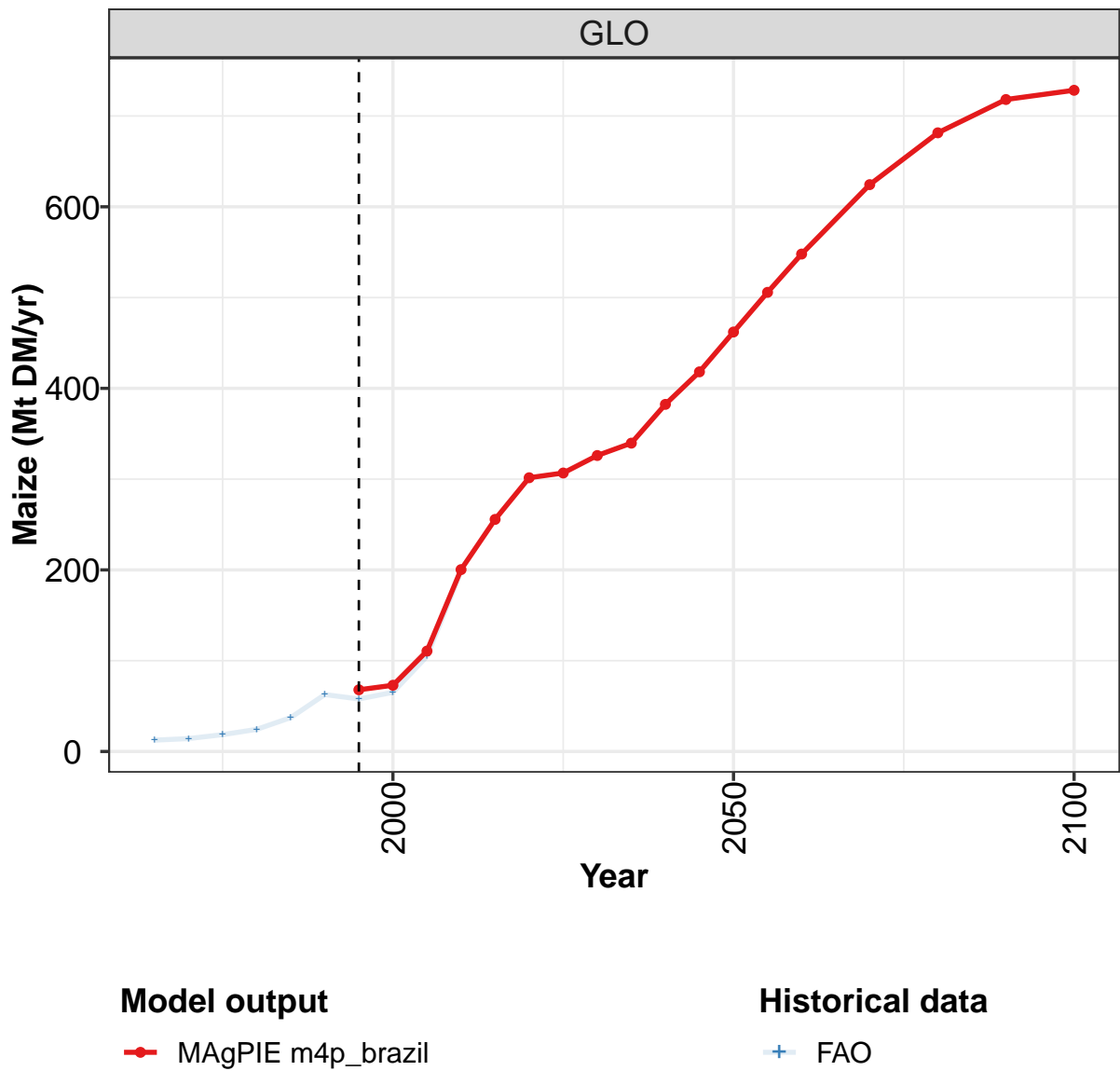
	2050	2055	2060	2070	2080	2090	2100
GLO	692	755	813	927	1008	1060	1077
BRA	13	14	15	16	17	17	17
CHA	112	112	114	105	96	88	79
EUR	76	77	79	86	90	93	96
LAM	33	35	37	44	47	48	49
ROW	242	289	331	419	481	520	541
USA	216	229	237	257	278	293	296

Table 573: MAgPIE m4p_brazil — 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
BRA	0	0	0	0	0	1	1	1	2	2
CHA	9	1	2	2	4	17	14	14	25	37
EUR	11	12	14	15	16	18	20	20	24	29
LAM	1	1	1	2	2	3	4	6	11	8
ROW	7	9	10	15	18	24	19	24	30	39
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



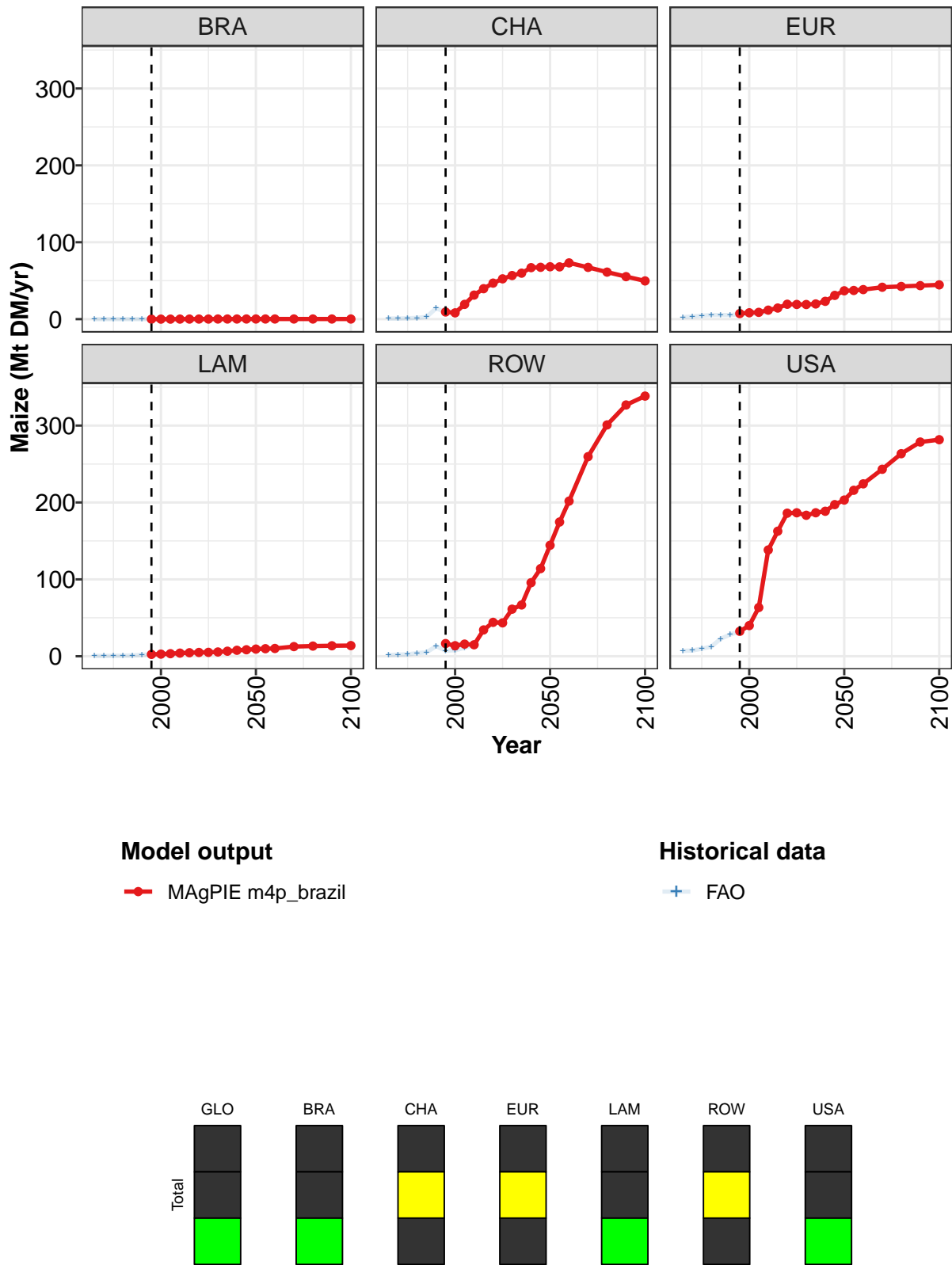


Figure 192: MAgPIE m4p_brazil — Demand—Processing—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	68	73	111	200	256	302	307	326	340	382	418
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	9	8	19	31	40	47	52	57	60	67	67
EUR	7	8	9	12	14	19	19	19	20	23	31
LAM	2	3	3	4	5	5	5	6	7	8	8
ROW	16	14	16	15	34	44	43	61	67	96	114
USA	32	40	63	138	163	186	187	183	187	189	197

Table 575: MAgPIE m4p_brazil — Demand—Processing—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

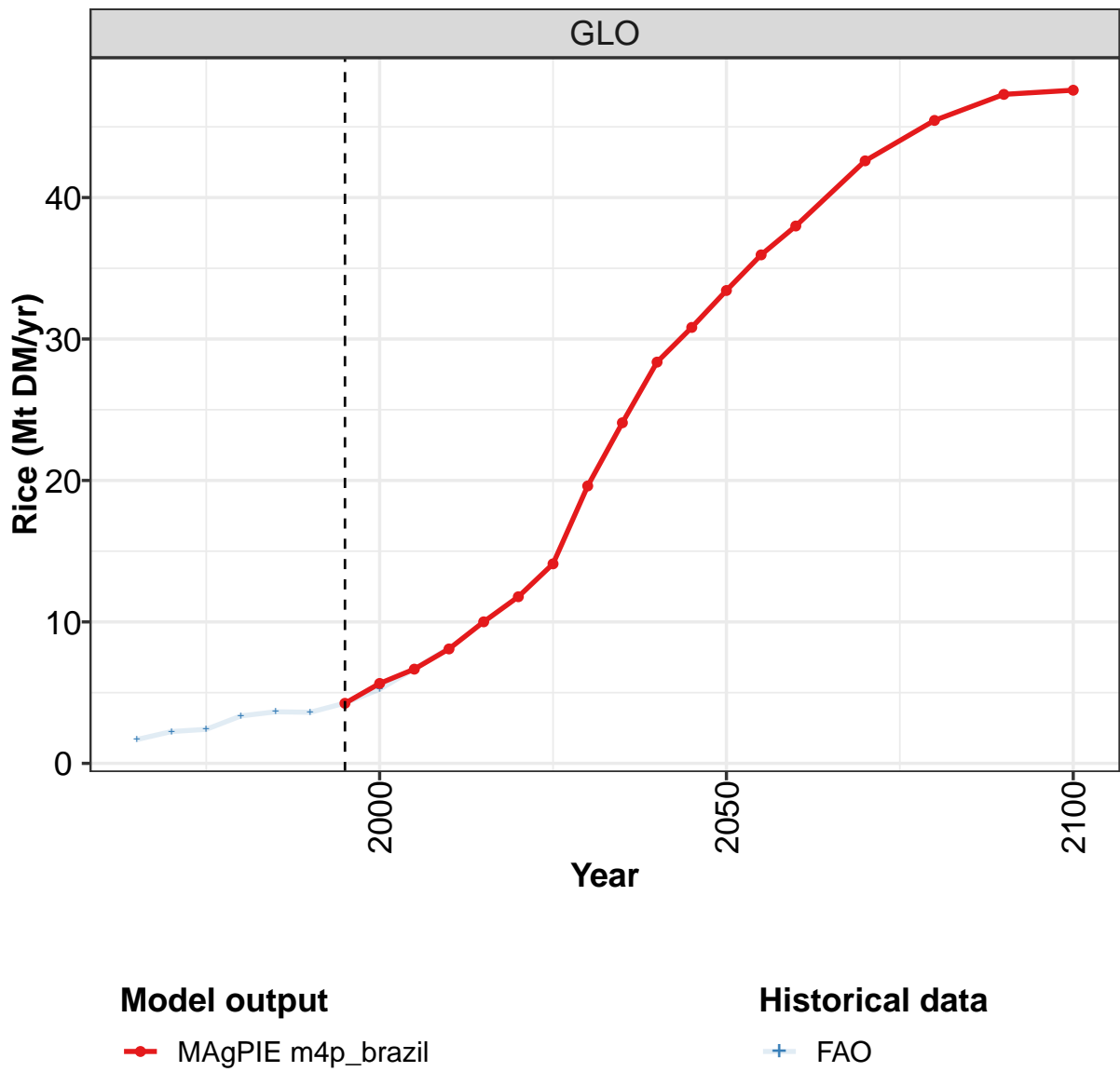
	2050	2055	2060	2070	2080	2090	2100
GLO	462	506	548	624	681	718	728
BRA	0	0	0	0	0	0	0
CHA	68	68	73	67	61	55	50
EUR	37	37	38	41	43	44	45
LAM	9	10	10	13	13	14	14
ROW	144	175	202	260	301	327	338
USA	203	216	224	243	263	279	282

Table 576: MAgPIE m4p_brazil — 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
BRA	0	0	0	0	0	0	0	0	0	0
CHA	1	1	1	2	3	14	9	8	19	31
EUR	3	3	4	5	5	5	6	6	8	9
LAM	0	0	1	1	1	2	2	3	3	4
ROW	2	2	2	4	5	13	7	8	11	15
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



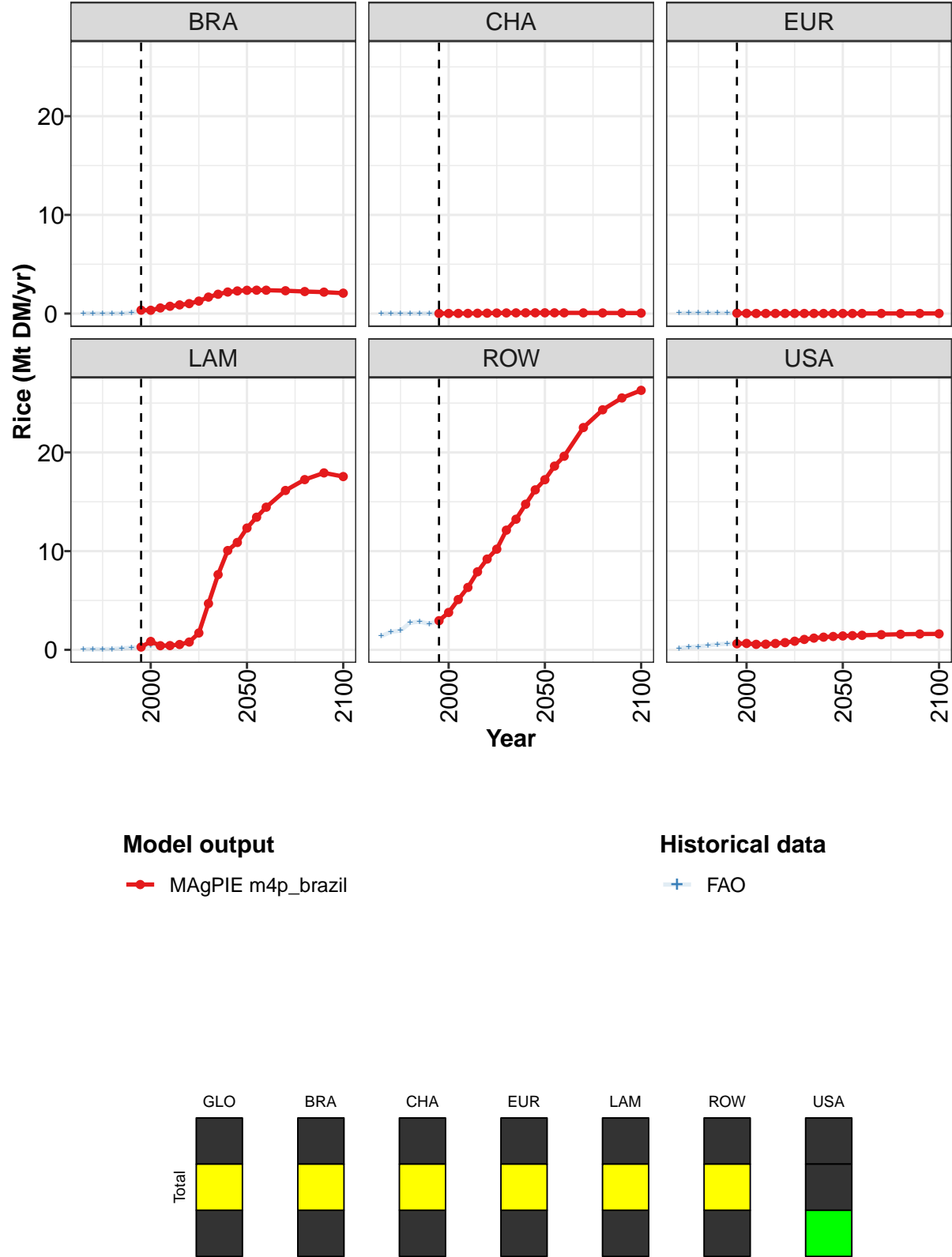


Figure 193: MAgPIE m4p_brazil — Demand—Processing—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.2	5.6	6.7	8.1	10.0	11.8	14.1	19.6	24.1	28.4	30.8
BRA	0.3	0.3	0.6	0.7	0.9	1.0	1.3	1.7	2.0	2.2	2.3
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
LAM	0.3	0.8	0.4	0.4	0.5	0.8	1.7	4.7	7.6	10.1	10.9
ROW	3.0	3.8	5.1	6.3	7.9	9.2	10.2	12.1	13.2	14.8	16.2
USA	0.6	0.6	0.6	0.6	0.6	0.7	0.9	1.1	1.2	1.3	1.4

Table 578: MAgPIE m4p_brazil — Demand—Processing—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

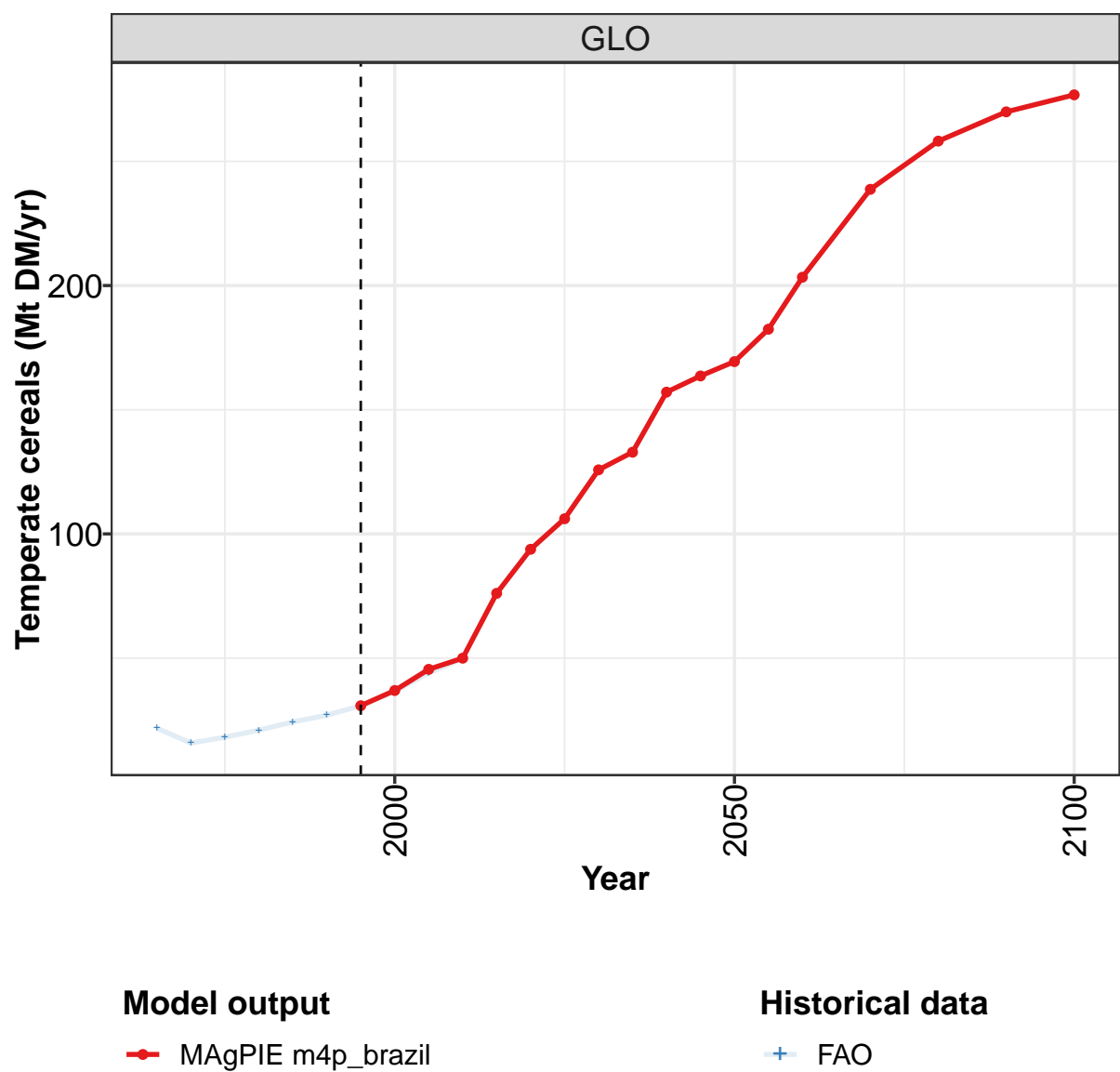
	2050	2055	2060	2070	2080	2090	2100
GLO	33.4	35.9	38.0	42.6	45.5	47.3	47.6
BRA	2.4	2.4	2.4	2.3	2.2	2.2	2.1
CHA	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	12.3	13.4	14.5	16.1	17.2	17.9	17.6
ROW	17.2	18.6	19.6	22.5	24.3	25.5	26.3
USA	1.4	1.4	1.5	1.5	1.6	1.6	1.6

Table 579: MAgPIE m4p_brazil — 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
BRA	0.03	0.01	0.00	0.01	0.01	0.09	0.35	0.34	0.65	0.77
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
LAM	0.05	0.07	0.06	0.09	0.14	0.21	0.28	0.45	0.45	0.45
ROW	1.38	1.82	1.95	2.75	2.86	2.62	2.96	3.78	5.01	6.35
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



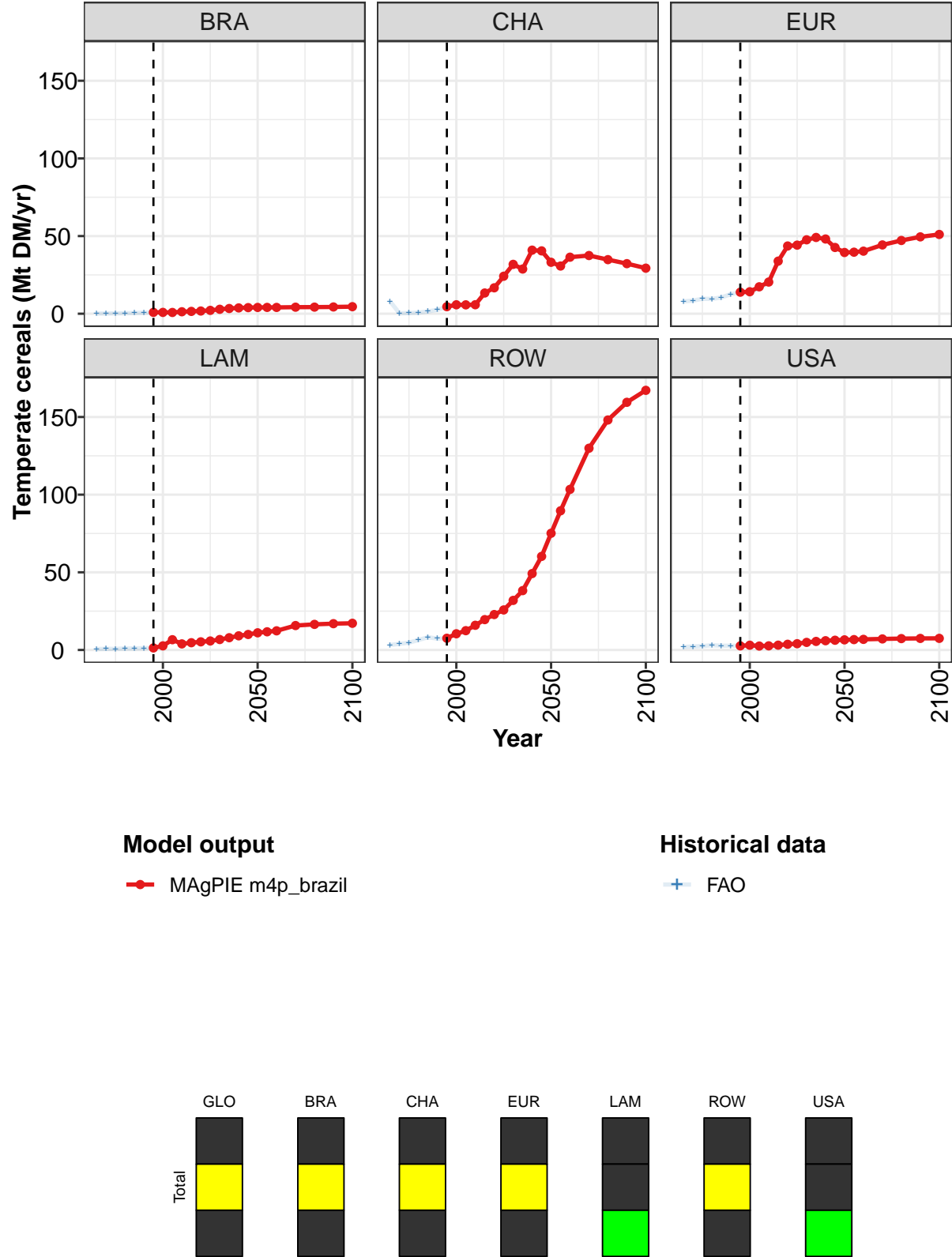


Figure 194: MAgPIE m4p_brazil — Demand—Processing—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	31	37	45	50	76	94	106	126	133	157	164
BRA	1	1	1	1	2	2	2	3	3	4	4
CHA	5	6	6	6	13	17	24	32	29	41	40
EUR	14	14	17	20	34	44	44	48	49	48	43
LAM	1	3	7	4	5	5	6	7	8	9	10
ROW	8	10	12	16	20	23	26	32	38	49	60
USA	3	3	3	3	3	4	4	5	6	6	6

Table 581: MAgPIE m4p_brazil — Demand—Processing—Crops—Cereals—Temperate cereals (Mt DM/yr)
[PART 1/2]

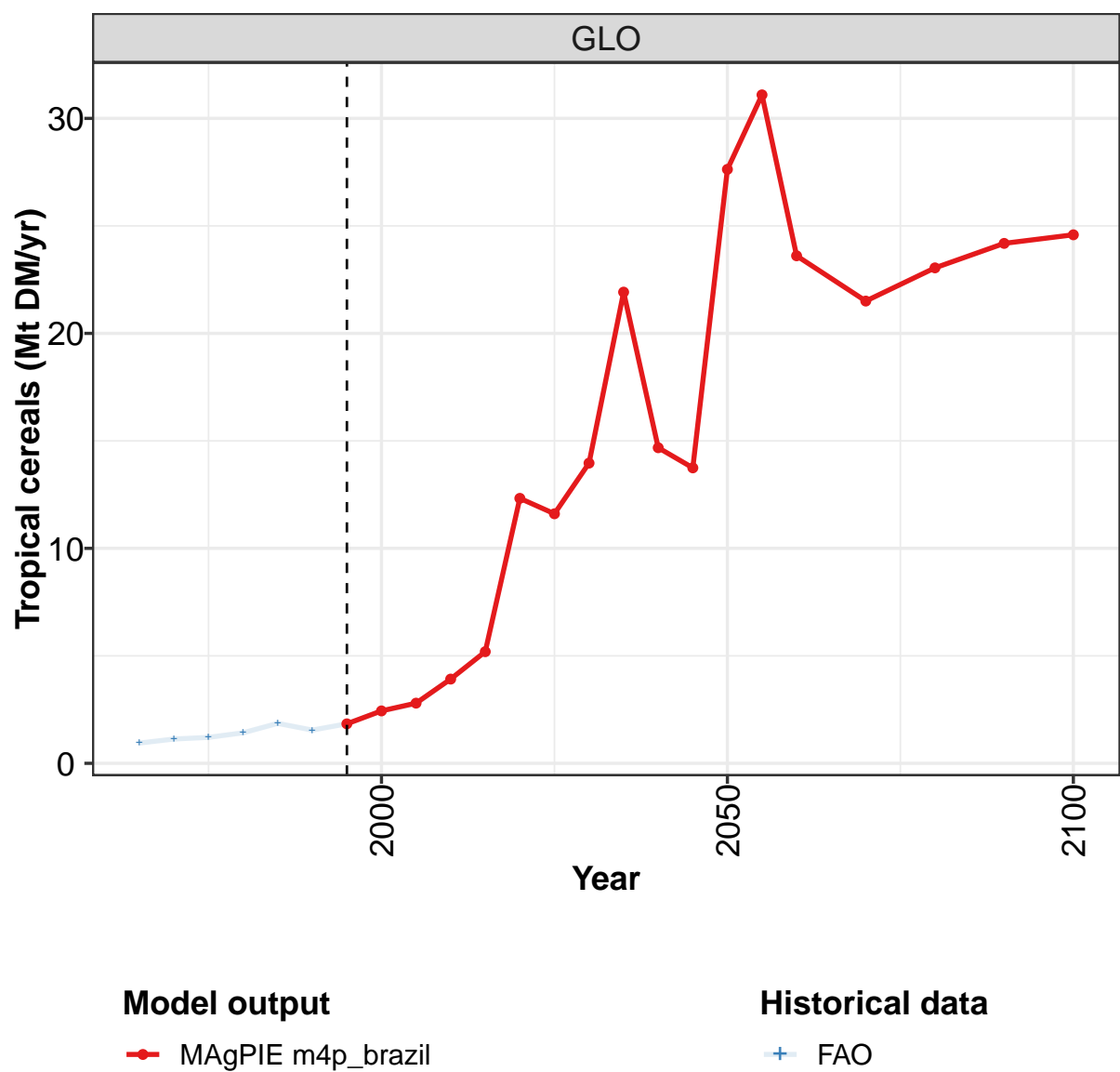
	2050	2055	2060	2070	2080	2090	2100
GLO	169	182	203	239	258	270	277
BRA	4	4	4	4	4	4	5
CHA	33	31	36	37	35	32	29
EUR	39	40	40	44	47	49	51
LAM	11	12	12	16	16	17	17
ROW	75	90	103	130	148	159	167
USA	7	7	7	7	7	7	7

Table 582: MAgPIE m4p_brazil — 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
BRA	0.1	0.1	0.2	0.3	0.5	0.7	0.9	0.9	0.9	1.3
CHA	8.0	0.3	0.4	0.7	1.5	2.5	4.5	5.7	5.7	5.8
EUR	7.9	8.5	9.6	9.5	10.5	12.6	13.9	14.0	16.2	20.0
LAM	0.6	0.7	0.7	0.9	1.0	1.2	1.3	2.6	6.7	4.0
ROW	3.2	3.9	4.7	6.4	8.2	7.3	7.6	10.4	11.9	15.9
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



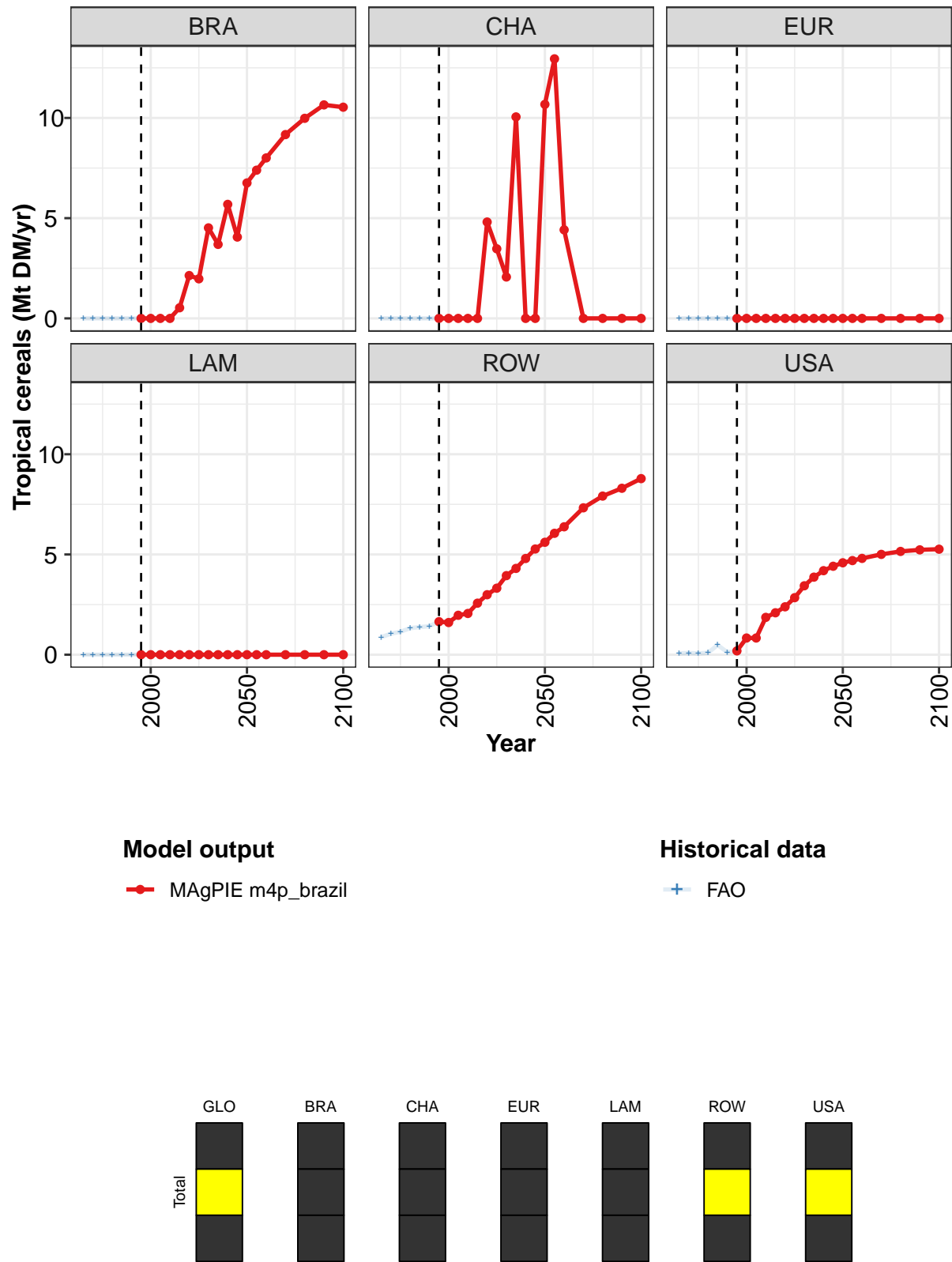


Figure 195: MAGPIE m4p_brazil — Demand—Processing—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.8	2.4	2.8	3.9	5.2	12.3	11.6	14.0	21.9	14.7	13.7
BRA	0.0	0.0	0.0	0.0	0.5	2.1	2.0	4.5	3.7	5.7	4.1
CHA	0.0	0.0	0.0	0.0	0.0	4.8	3.5	2.1	10.1	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
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROW	1.6	1.6	2.0	2.1	2.6	3.0	3.3	3.9	4.3	4.8	5.3
USA	0.2	0.8	0.8	1.9	2.1	2.4	2.8	3.4	3.9	4.2	4.4

Table 584: MAgPIE m4p.brazil — Demand—Processing—Crops—Cereals—Tropical cereals (Mt DM/yr)
[PART 1/2]

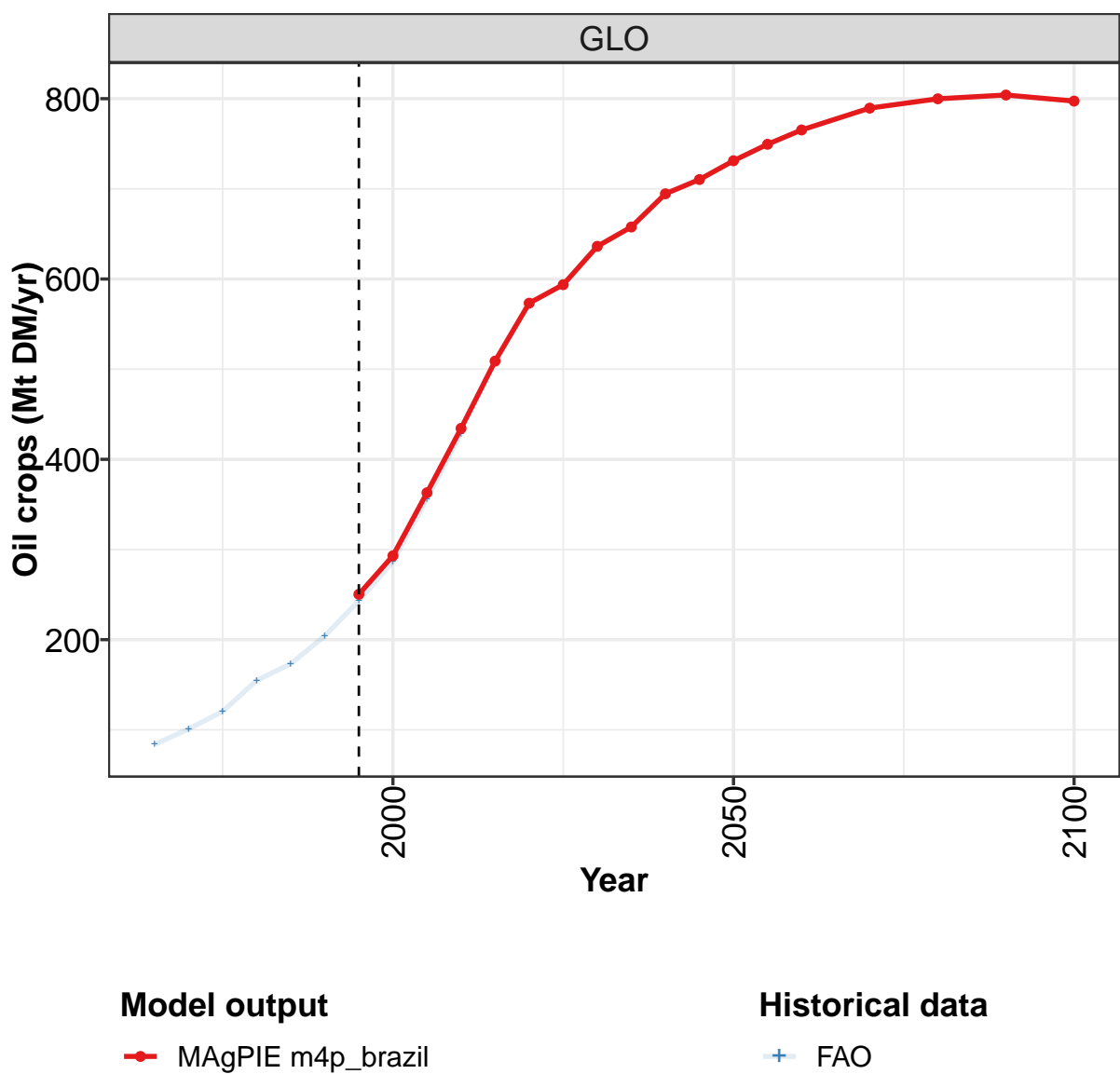
	2050	2055	2060	2070	2080	2090	2100
GLO	27.6	31.1	23.6	21.5	23.0	24.2	24.6
BRA	6.8	7.4	8.0	9.2	10.0	10.7	10.5
CHA	10.7	12.9	4.4	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROW	5.6	6.1	6.4	7.3	7.9	8.3	8.8
USA	4.6	4.7	4.8	5.0	5.2	5.2	5.3

Table 585: MAgPIE m4p.brazil — 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
BRA	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
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.87	1.05	1.14	1.33	1.38	1.42	1.65	1.61	1.93	2.06
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



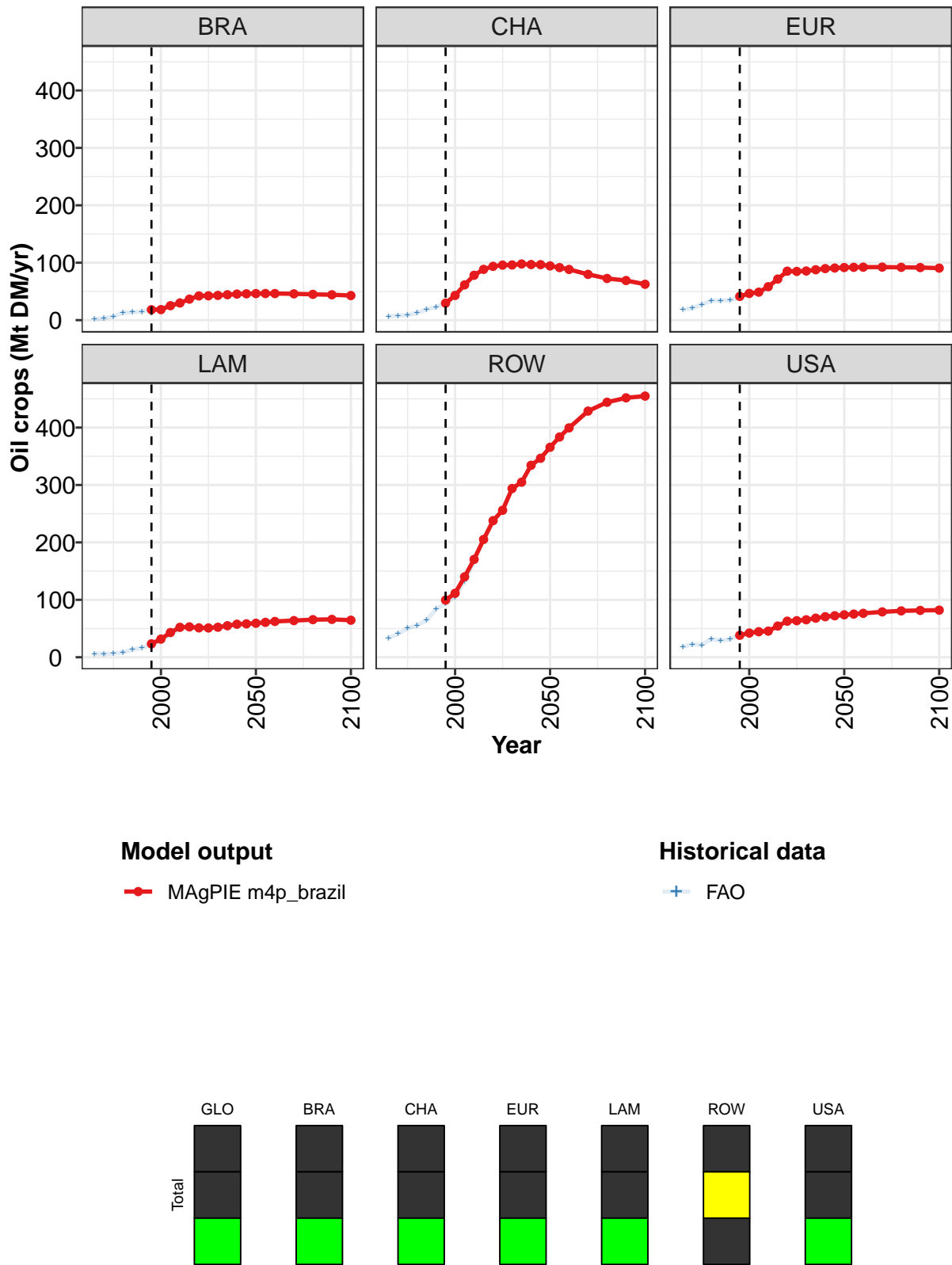


Figure 196: MAgPIE m4p_brazil — Demand—Processing—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	250	293	363	434	509	573	594	636	658	695	710
BRA	18	18	25	30	37	42	42	43	44	45	46
CHA	30	43	61	78	88	94	96	96	98	97	97
EUR	41	46	49	58	72	85	85	86	88	90	91
LAM	23	32	43	52	53	51	51	52	55	58	58
ROW	100	111	140	170	205	238	256	294	305	334	347
USA	38	42	44	45	54	63	64	65	68	71	72

Table 587: MAgPIE m4p_brazil — Demand—Processing—Crops—Oil crops (Mt DM/yr) [PART 1/2]

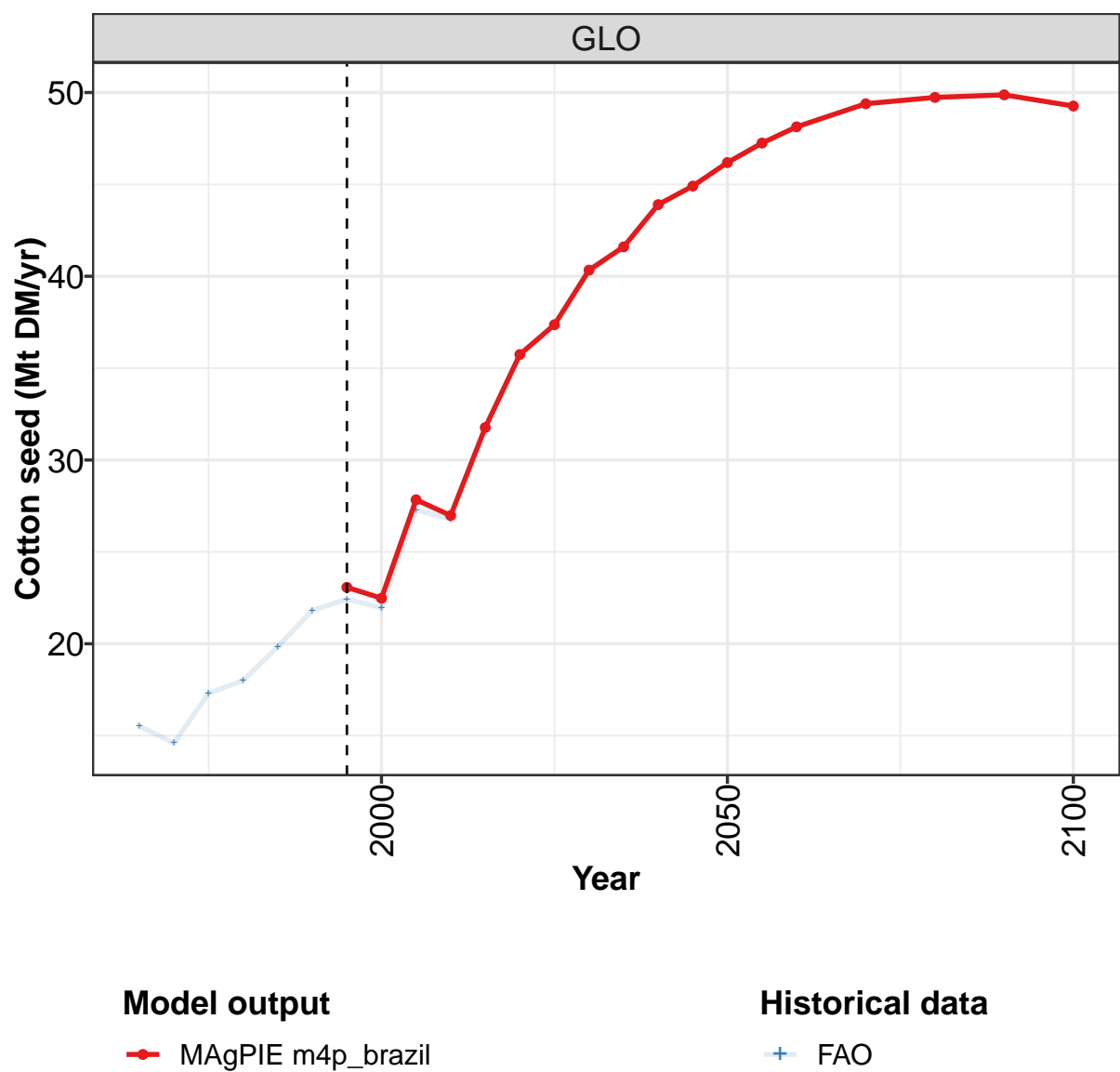
	2050	2055	2060	2070	2080	2090	2100
GLO	731	749	765	790	800	804	797
BRA	46	46	46	46	45	44	43
CHA	94	92	88	80	73	69	62
EUR	92	92	92	92	92	92	91
LAM	59	61	62	64	65	66	65
ROW	366	384	400	429	444	452	455
USA	74	75	76	79	81	82	82

Table 588: MAgPIE m4p_brazil — 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
BRA	2	3	7	12	14	15	19	20	28	33
CHA	7	8	9	12	19	22	29	43	61	78
EUR	18	21	27	34	34	35	40	46	47	57
LAM	6	6	6	9	13	17	21	29	40	48
ROW	33	41	50	55	64	84	94	105	133	167
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



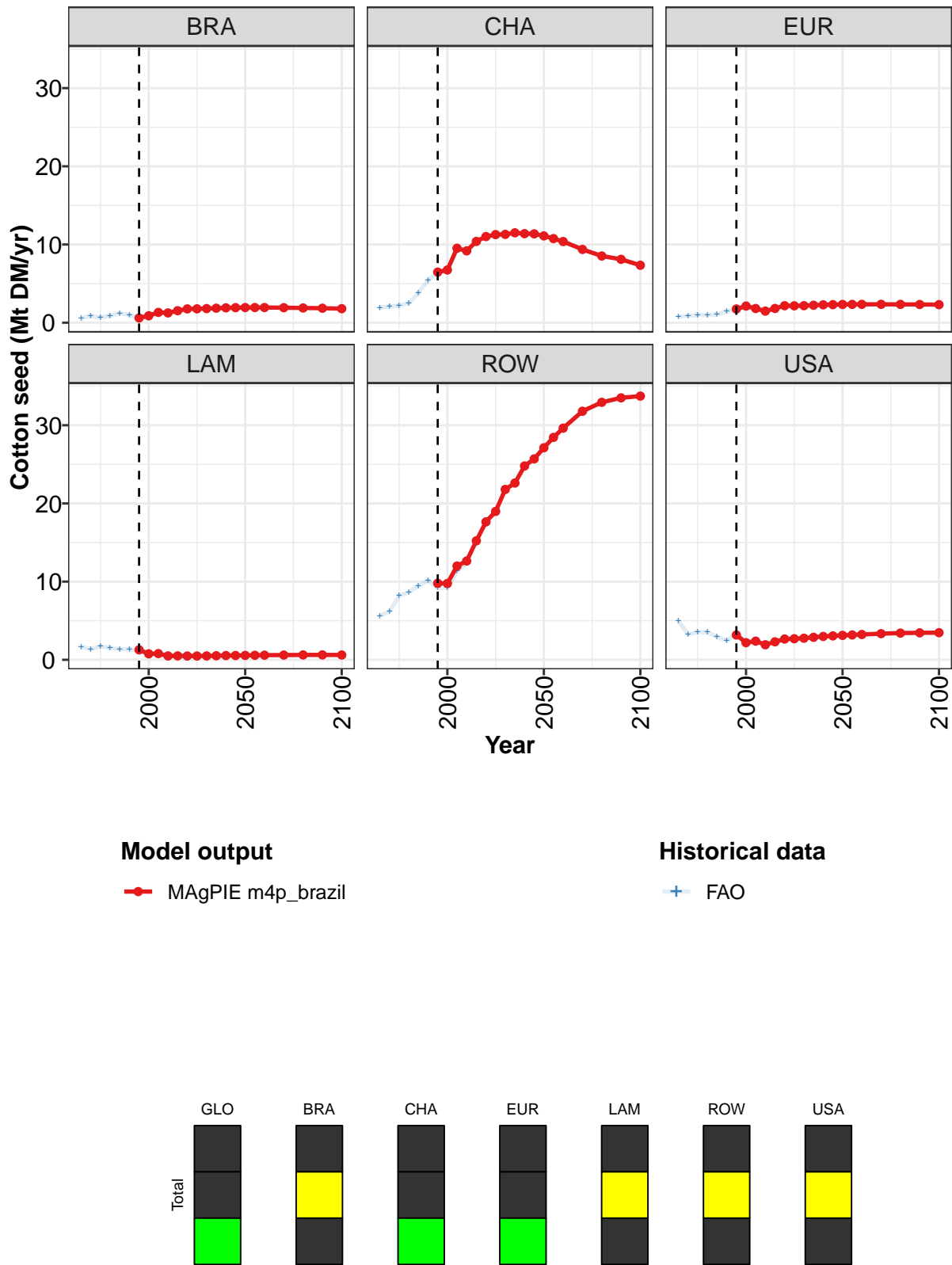


Figure 197: MAGPIE m4p_brazil — Demand—Processing—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	23.1	22.5	27.8	27.0	31.8	35.7	37.4	40.3	41.6	43.9	44.9
BRA	0.6	0.9	1.3	1.3	1.5	1.8	1.8	1.8	1.9	1.9	1.9
CHA	6.5	6.7	9.5	9.2	10.4	11.0	11.3	11.3	11.5	11.4	11.4
EUR	1.8	2.1	1.8	1.5	1.8	2.2	2.2	2.2	2.2	2.3	2.3
LAM	1.3	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6
ROW	9.8	9.8	12.0	12.6	15.2	17.6	19.0	21.8	22.6	24.8	25.7
USA	3.2	2.2	2.4	1.9	2.3	2.7	2.7	2.8	2.9	3.0	3.1

Table 590: MAgPIE m4p_brazil — Demand—Processing—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

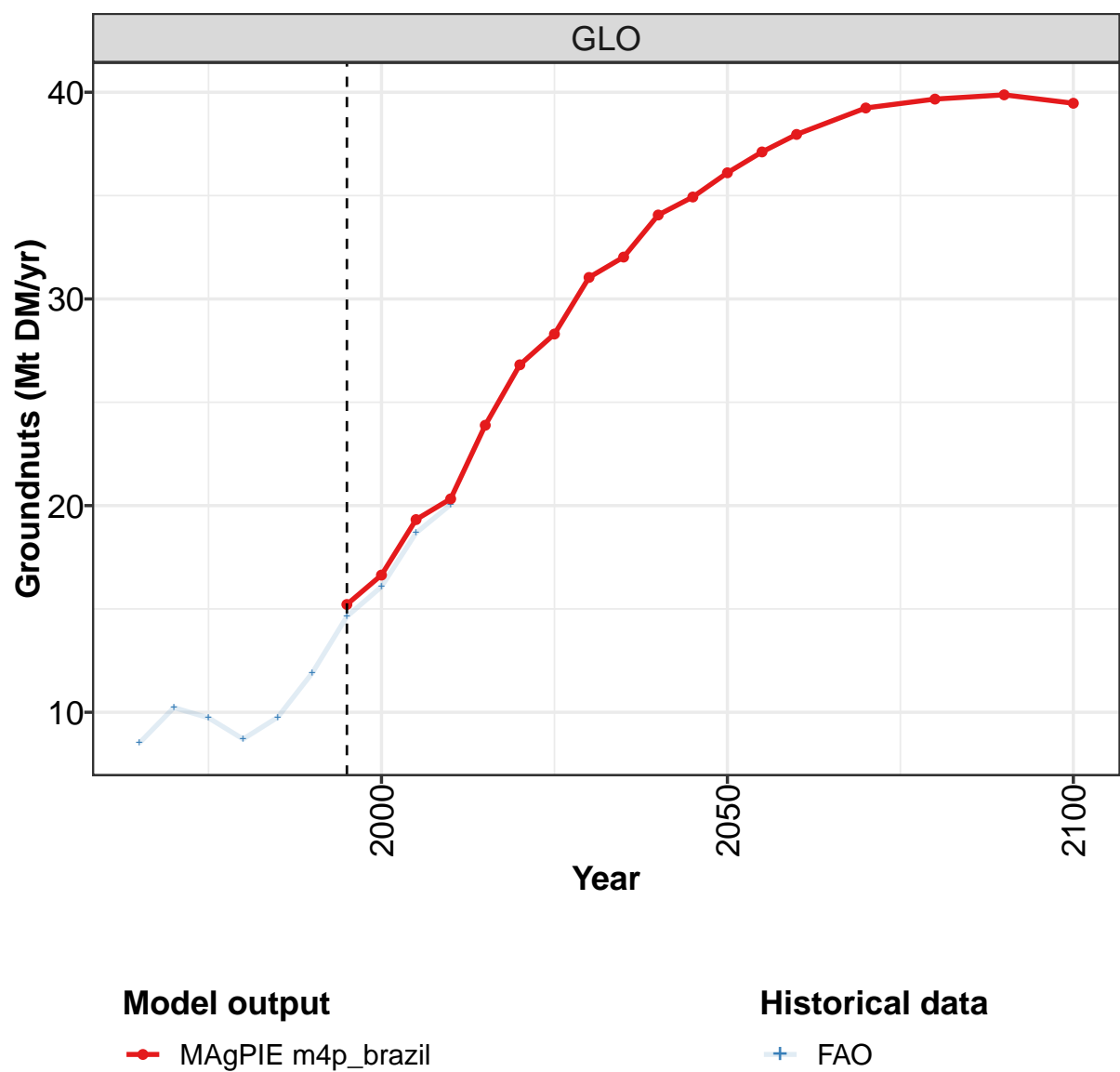
	2050	2055	2060	2070	2080	2090	2100
GLO	46.2	47.2	48.1	49.4	49.7	49.9	49.3
BRA	1.9	1.9	1.9	1.9	1.9	1.9	1.8
CHA	11.1	10.8	10.4	9.4	8.5	8.1	7.3
EUR	2.3	2.3	2.3	2.4	2.3	2.3	2.3
LAM	0.6	0.6	0.6	0.6	0.6	0.6	0.6
ROW	27.1	28.4	29.6	31.8	32.9	33.5	33.7
USA	3.1	3.2	3.2	3.3	3.4	3.5	3.5

Table 591: MAgPIE m4p_brazil — 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
BRA	0.6	0.8	0.7	0.9	1.2	1.0	0.6	1.0	1.5	1.4
CHA	1.9	2.1	2.2	2.5	3.8	5.4	6.4	6.7	9.5	9.2
EUR	0.8	0.9	1.0	0.9	1.1	1.4	1.7	2.1	1.8	1.4
LAM	1.6	1.4	1.7	1.5	1.4	1.4	1.2	0.7	0.7	0.5
ROW	5.6	6.2	8.2	8.6	9.5	10.1	9.2	9.2	11.3	12.4
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



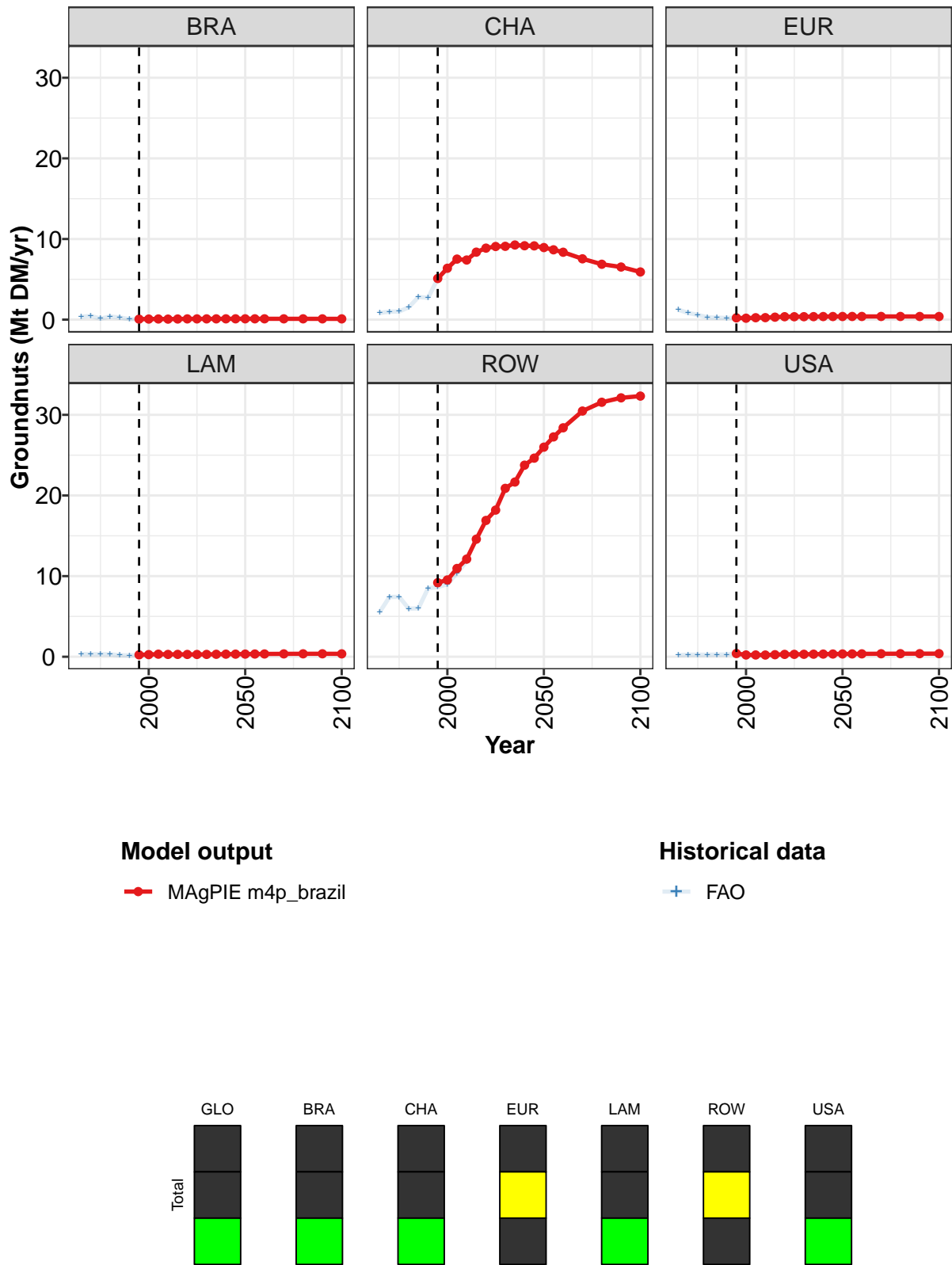


Figure 198: MAgPIE m4p_brazil — Demand—Processing—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	15.2	16.6	19.3	20.3	23.9	26.8	28.3	31.0	32.0	34.1	34.9
BRA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	5.1	6.4	7.5	7.4	8.4	8.9	9.1	9.1	9.3	9.2	9.1
EUR	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4
LAM	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
ROW	9.2	9.5	10.9	12.1	14.6	16.9	18.2	20.9	21.7	23.8	24.6
USA	0.4	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3

Table 593: MAgPIE m4p_brazil — Demand—Processing—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

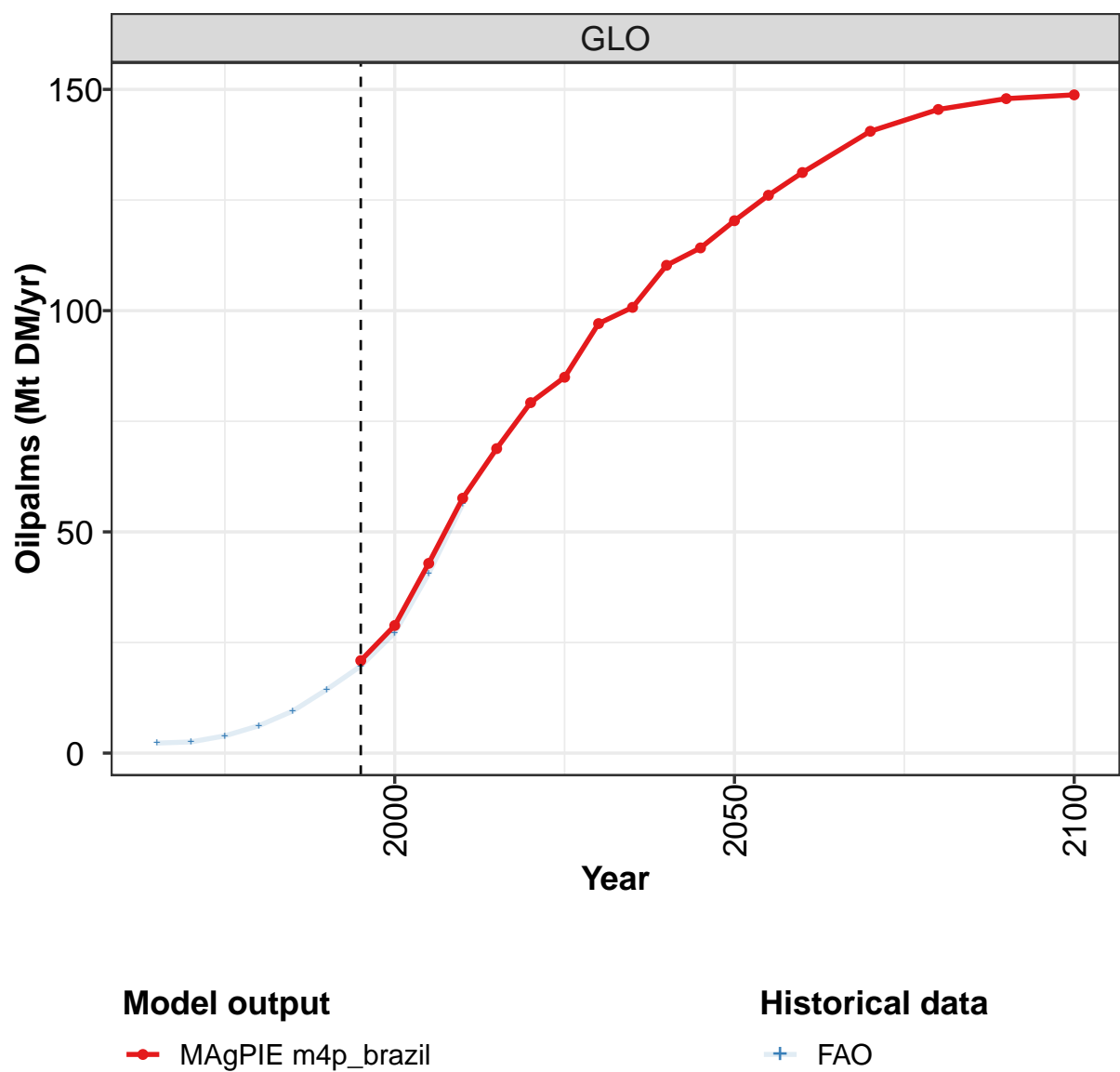
	2050	2055	2060	2070	2080	2090	2100
GLO	36.1	37.1	38.0	39.2	39.7	39.9	39.5
BRA	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	8.9	8.7	8.4	7.5	6.9	6.5	5.9
EUR	0.4	0.4	0.4	0.4	0.4	0.4	0.4
LAM	0.3	0.3	0.3	0.4	0.4	0.4	0.4
ROW	26.0	27.3	28.4	30.5	31.6	32.1	32.3
USA	0.3	0.4	0.4	0.4	0.4	0.4	0.4

Table 594: MAgPIE m4p_brazil — 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
BRA	0.4	0.5	0.1	0.4	0.3	0.1	0.1	0.1	0.1	0.1
CHA	0.8	1.0	1.0	1.5	2.8	2.7	5.1	6.3	7.5	7.4
EUR	1.2	0.8	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2
LAM	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3
ROW	5.6	7.4	7.4	6.0	6.0	8.5	8.6	9.0	10.4	11.8
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



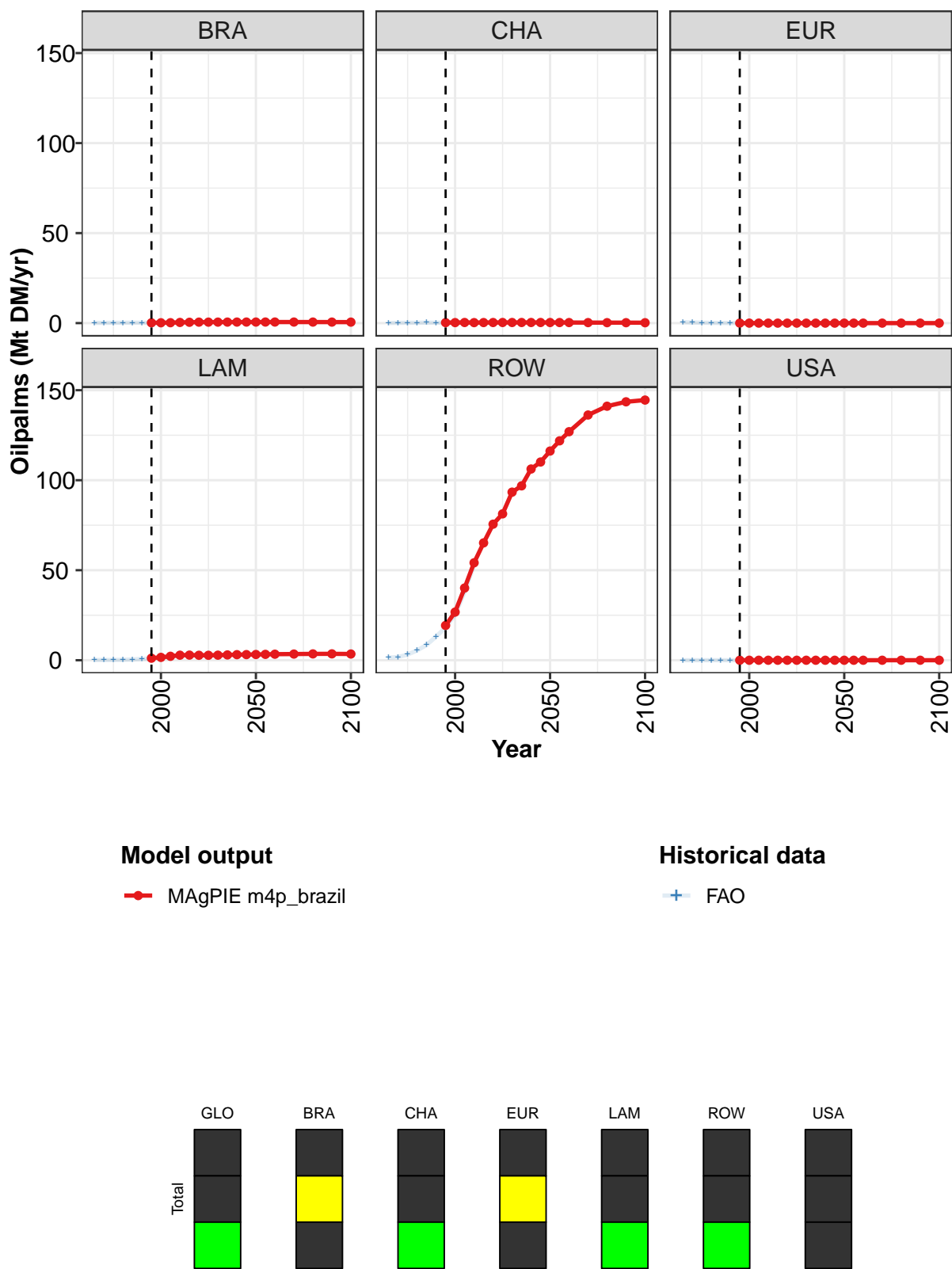


Figure 199: MAgPIE m4p.brazil — Demand—Processing—Crops—Oil crops—Oilpalms (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	21	29	43	58	69	79	85	97	101	110	114
BRA	0	0	0	0	0	1	1	1	1	1	1
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0	0	0	0	0
LAM	1	2	2	3	3	3	3	3	3	3	3
ROW	19	27	40	54	65	76	81	93	97	106	110
USA	0	0	0	0	0	0	0	0	0	0	0

Table 596: MAgPIE m4p.brazil — Demand—Processing—Crops—Oil crops—Oilpalms (Mt DM/yr) [PART 1/2]

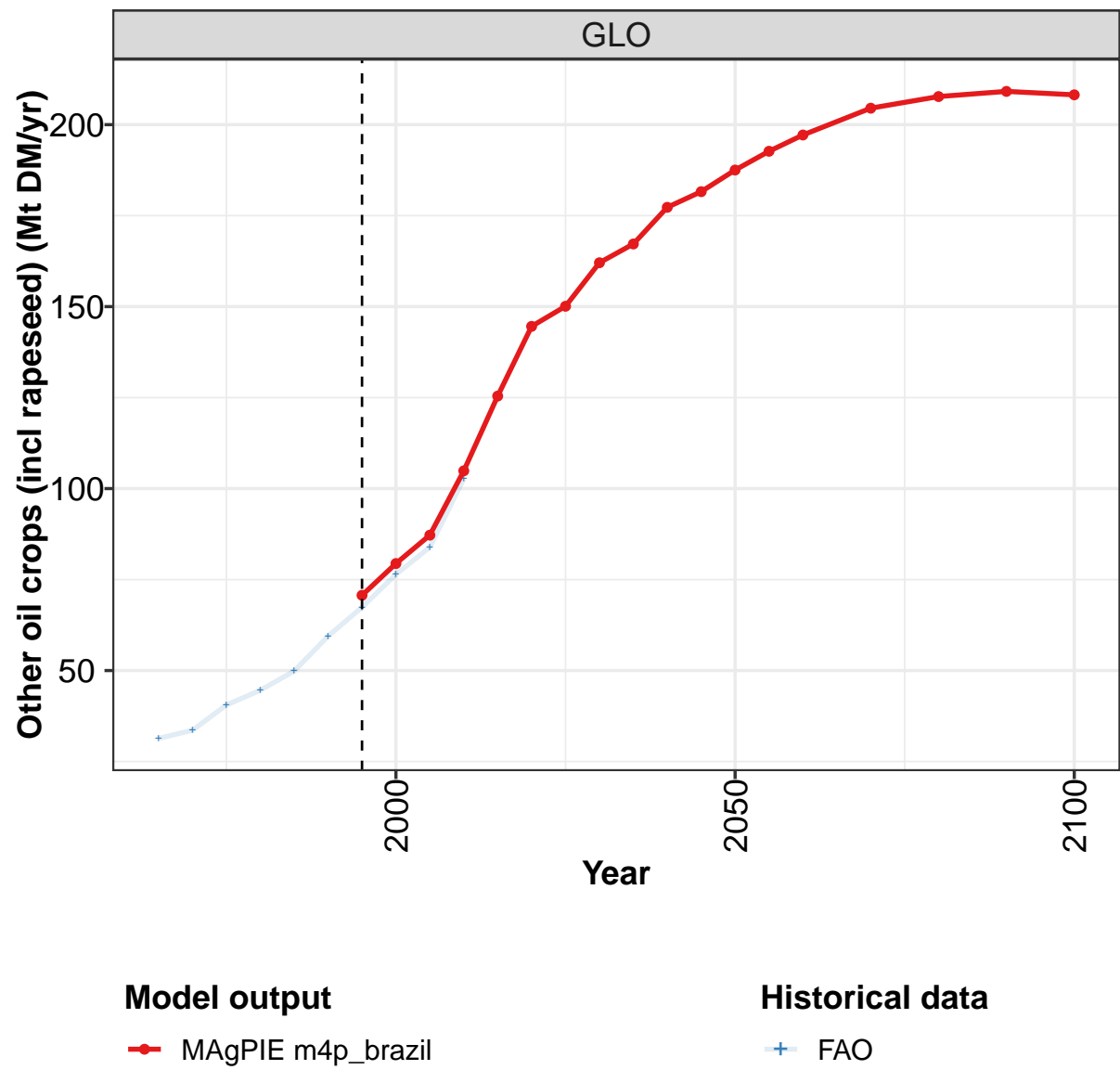
	2050	2055	2060	2070	2080	2090	2100
GLO	120	126	131	141	145	148	149
BRA	1	1	1	1	1	1	1
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
LAM	3	3	3	3	4	4	3
ROW	116	122	127	136	141	144	145
USA	0	0	0	0	0	0	0

Table 597: MAgPIE m4p.brazil — 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
BRA	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4
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
LAM	0.1	0.1	0.1	0.2	0.4	0.7	1.0	1.5	2.0	2.6
ROW	1.4	1.8	3.2	5.4	8.5	13.1	18.2	25.3	38.0	53.0
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)



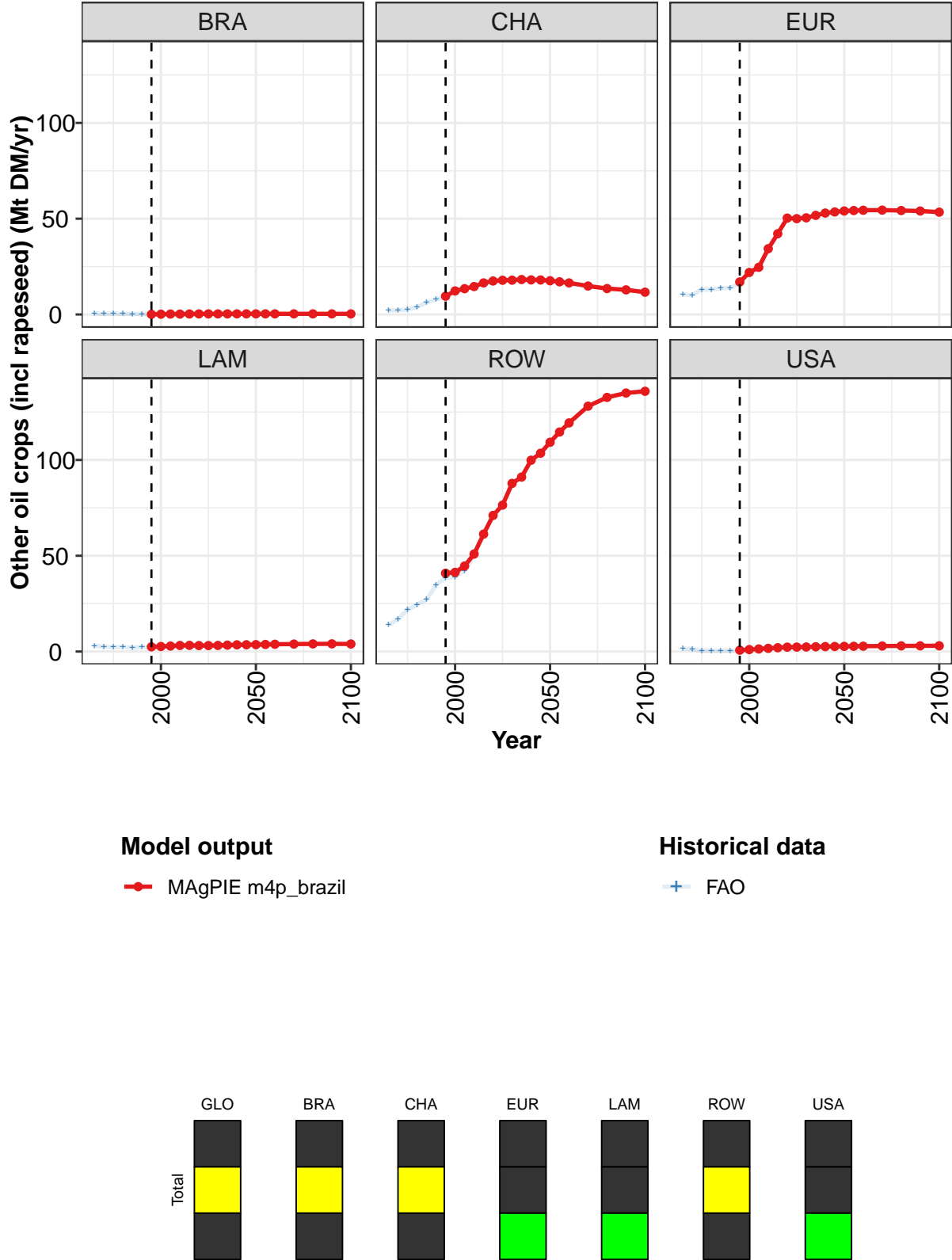


Figure 200: MAgPIE m4p_brazil — Demand—Processing—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	71	79	87	105	125	145	150	162	167	177	182
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	10	12	13	15	16	17	18	18	18	18	18
EUR	17	22	25	34	42	50	50	50	52	53	54
LAM	2	3	3	3	3	3	3	3	3	4	4
ROW	41	41	45	51	61	71	76	88	91	100	104
USA	1	1	1	2	2	2	2	2	2	3	3

Table 599: MAgPIE m4p_brazil — Demand—Processing—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

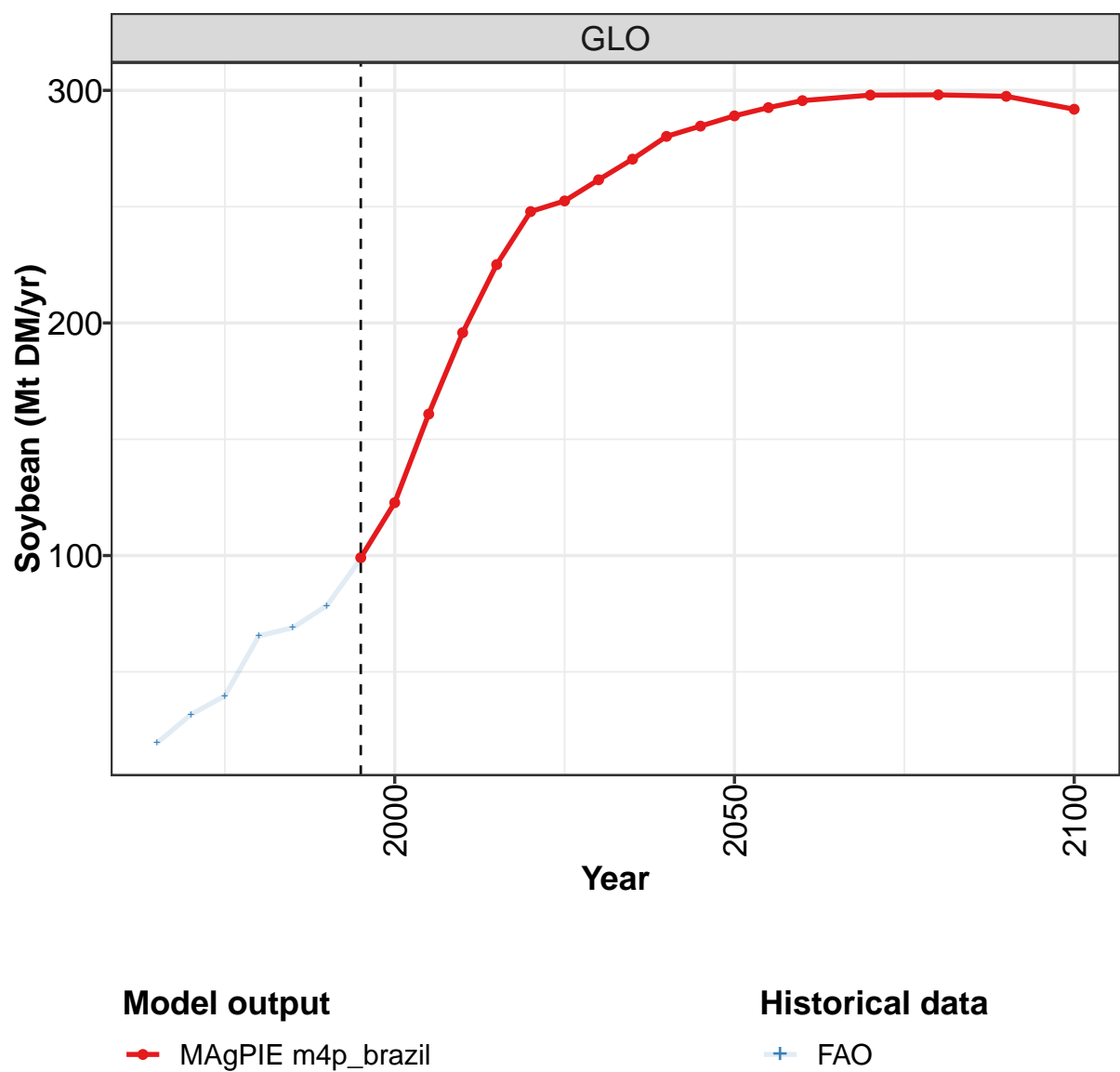
	2050	2055	2060	2070	2080	2090	2100
GLO	188	193	197	205	208	209	208
BRA	0	0	0	0	0	0	0
CHA	18	17	16	15	14	13	12
EUR	54	54	54	54	54	54	53
LAM	4	4	4	4	4	4	4
ROW	109	115	119	128	133	135	136
USA	3	3	3	3	3	3	3

Table 600: MAgPIE m4p_brazil — 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
BRA	0	0	0	0	0	0	0	0	0	0
CHA	2	2	3	4	6	8	9	12	13	15
EUR	11	10	13	13	14	14	16	22	24	33
LAM	3	3	2	2	2	2	2	2	3	3
ROW	14	17	22	24	27	35	38	39	42	50
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



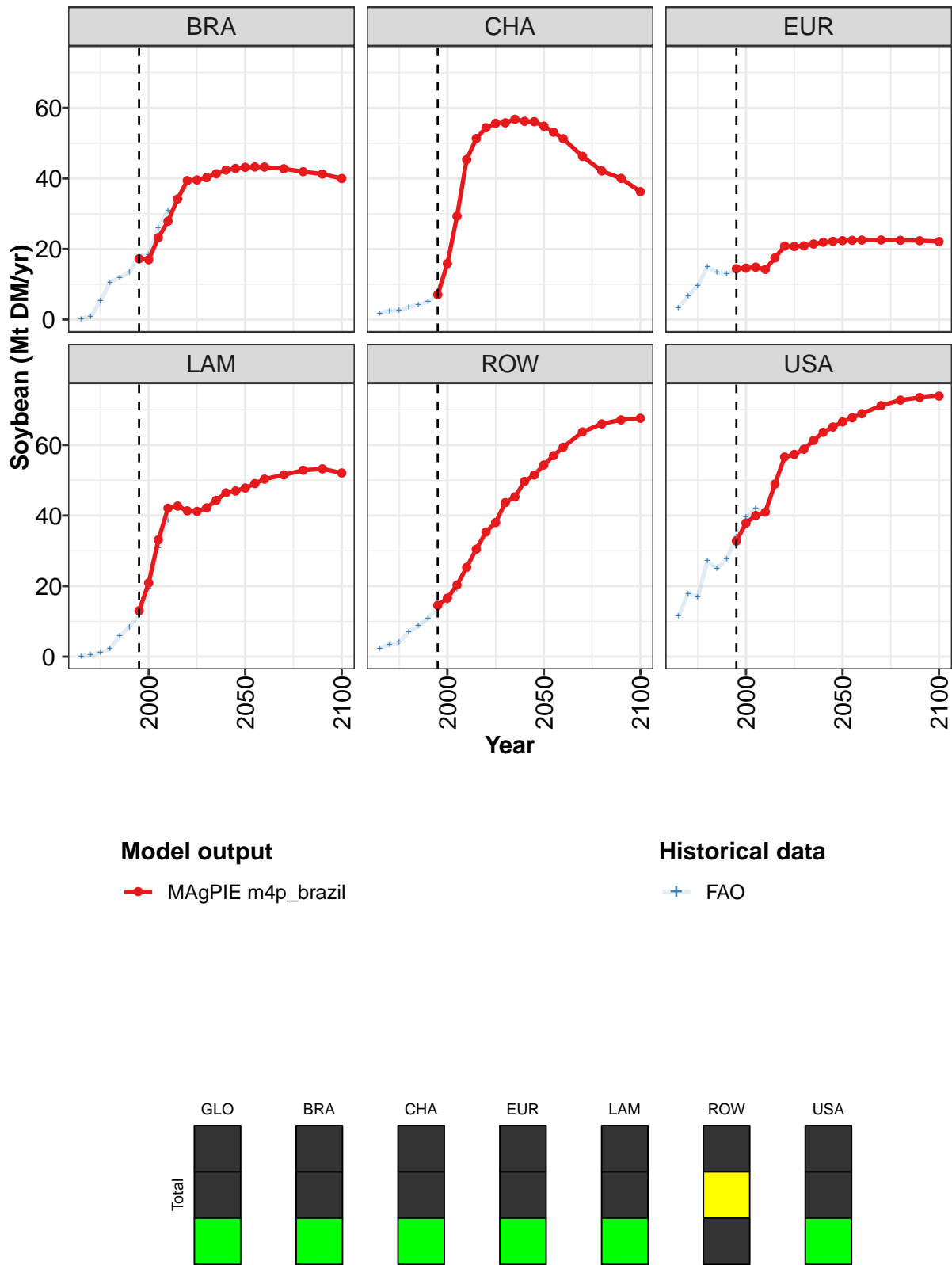


Figure 201: MAgPIE m4p_brazil — Demand—Processing—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	99	123	161	196	225	248	252	262	270	280	285
BRA	17	17	23	28	34	39	40	40	41	42	43
CHA	7	16	29	45	51	54	56	56	57	56	56
EUR	14	15	15	14	17	21	21	21	21	22	22
LAM	13	21	33	42	43	41	41	42	44	46	47
ROW	15	17	20	25	30	35	38	44	45	50	51
USA	33	38	40	41	49	57	57	59	61	64	65

Table 602: MAgPIE m4p_brazil — Demand—Processing—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

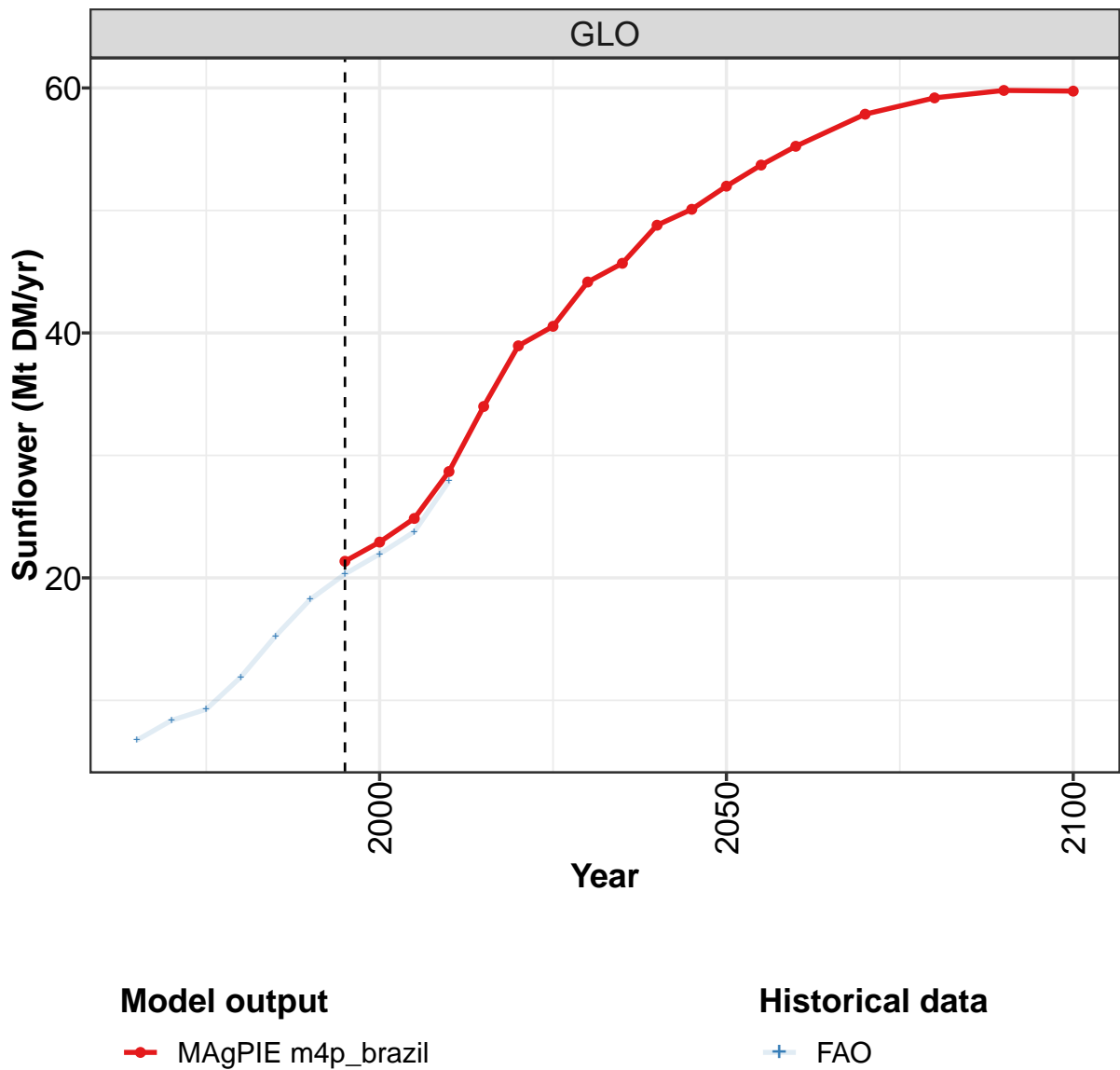
	2050	2055	2060	2070	2080	2090	2100
GLO	289	293	296	298	298	297	292
BRA	43	43	43	43	42	41	40
CHA	55	53	51	46	42	40	36
EUR	22	22	23	23	22	22	22
LAM	48	49	50	52	53	53	52
ROW	54	57	59	64	66	67	68
USA	67	68	69	71	73	73	74

Table 603: MAgPIE m4p_brazil — 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
BRA	0	1	5	11	12	13	18	18	26	31
CHA	2	2	3	3	4	5	7	16	29	45
EUR	3	7	10	15	13	13	14	14	14	14
LAM	0	0	1	2	6	8	12	19	31	39
ROW	2	4	4	7	9	11	14	16	19	25
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



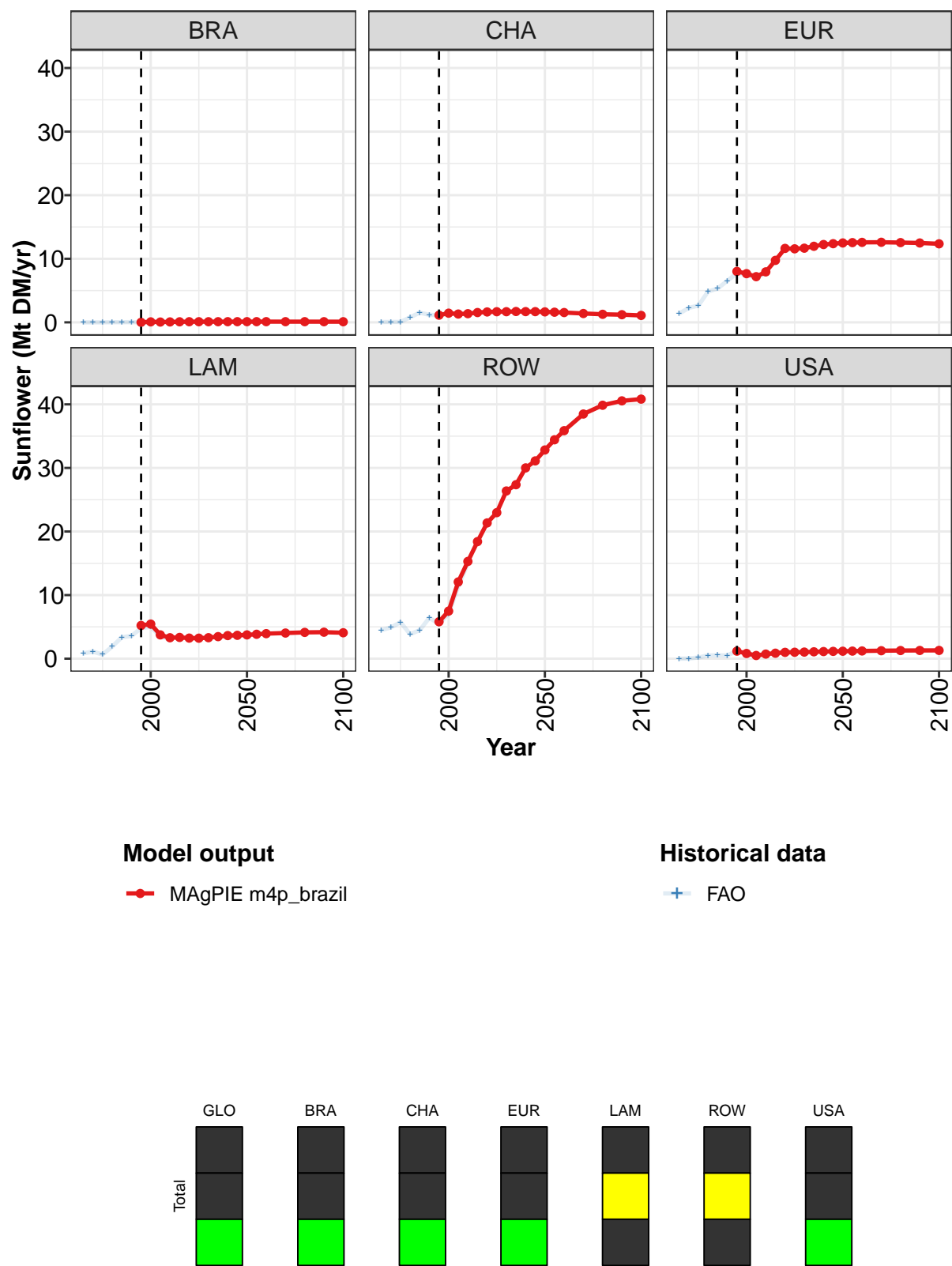


Figure 202: MAgPIE m4p_brazil — Demand—Processing—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	21.4	22.9	24.9	28.7	34.0	38.9	40.5	44.2	45.7	48.8	50.1
BRA	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	1.1	1.4	1.3	1.4	1.5	1.6	1.7	1.7	1.7	1.7	1.7
EUR	8.0	7.7	7.2	7.9	9.7	11.6	11.6	11.7	12.0	12.2	12.4
LAM	5.2	5.4	3.7	3.3	3.3	3.2	3.2	3.3	3.5	3.6	3.7
ROW	5.8	7.5	12.1	15.3	18.4	21.4	23.0	26.4	27.4	30.0	31.1
USA	1.2	0.8	0.5	0.7	0.9	1.0	1.0	1.0	1.1	1.1	1.1

Table 605: MAgPIE m4p_brazil — Demand—Processing—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

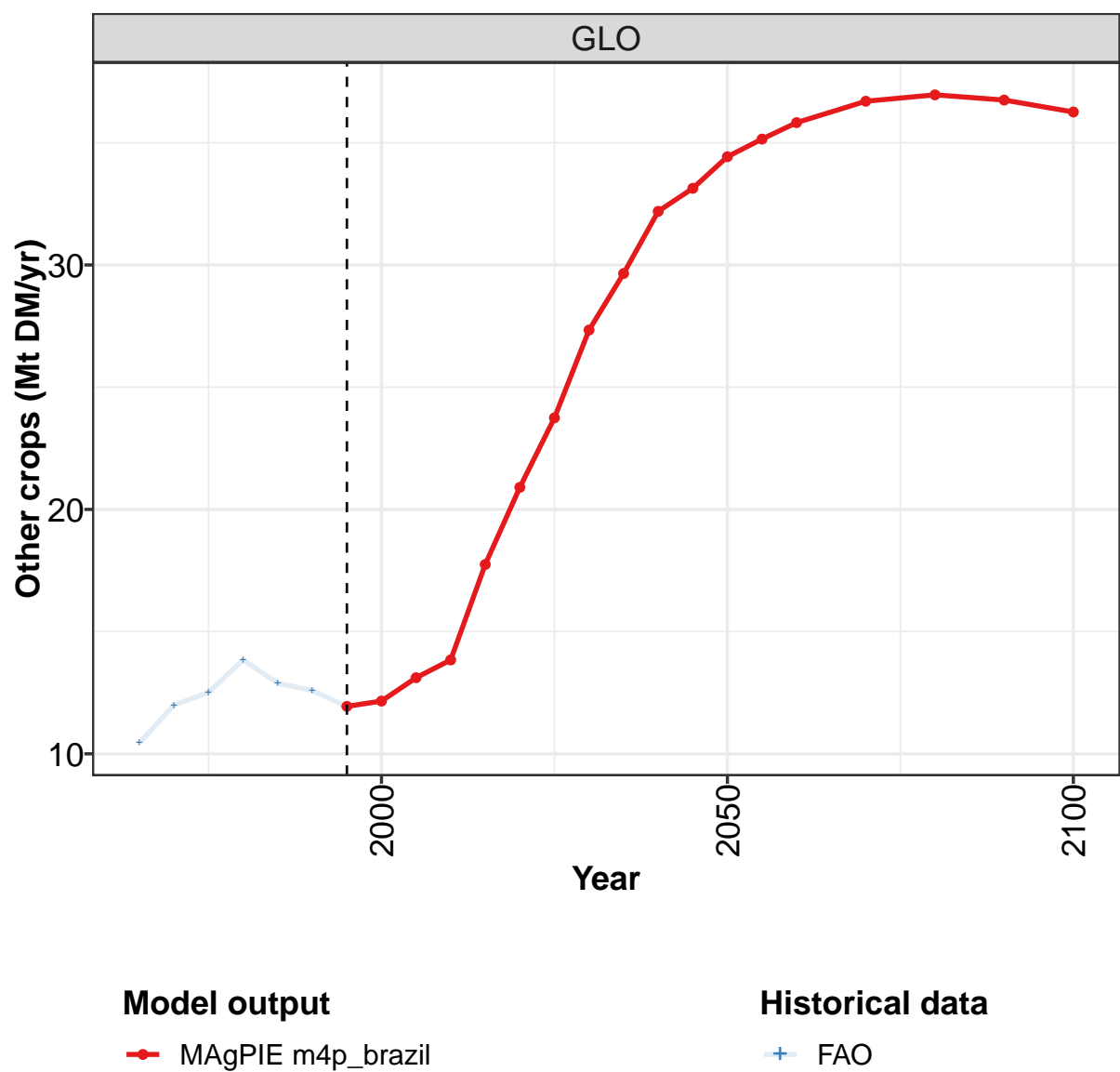
	2050	2055	2060	2070	2080	2090	2100
GLO	52.0	53.7	55.2	57.9	59.2	59.8	59.7
BRA	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	1.6	1.6	1.5	1.4	1.3	1.2	1.1
EUR	12.5	12.5	12.6	12.6	12.5	12.5	12.4
LAM	3.7	3.8	3.9	4.0	4.1	4.2	4.1
ROW	32.8	34.4	35.9	38.5	39.9	40.5	40.8
USA	1.2	1.2	1.2	1.3	1.3	1.3	1.3

Table 606: MAgPIE m4p_brazil — 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
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	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	1.4	2.3	2.6	4.8	5.3	6.5	7.7	7.5	7.0	7.7
LAM	0.8	1.1	0.7	1.9	3.4	3.6	4.8	5.0	3.5	3.0
ROW	4.5	4.9	5.7	3.8	4.5	6.4	5.5	7.1	11.4	15.0
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



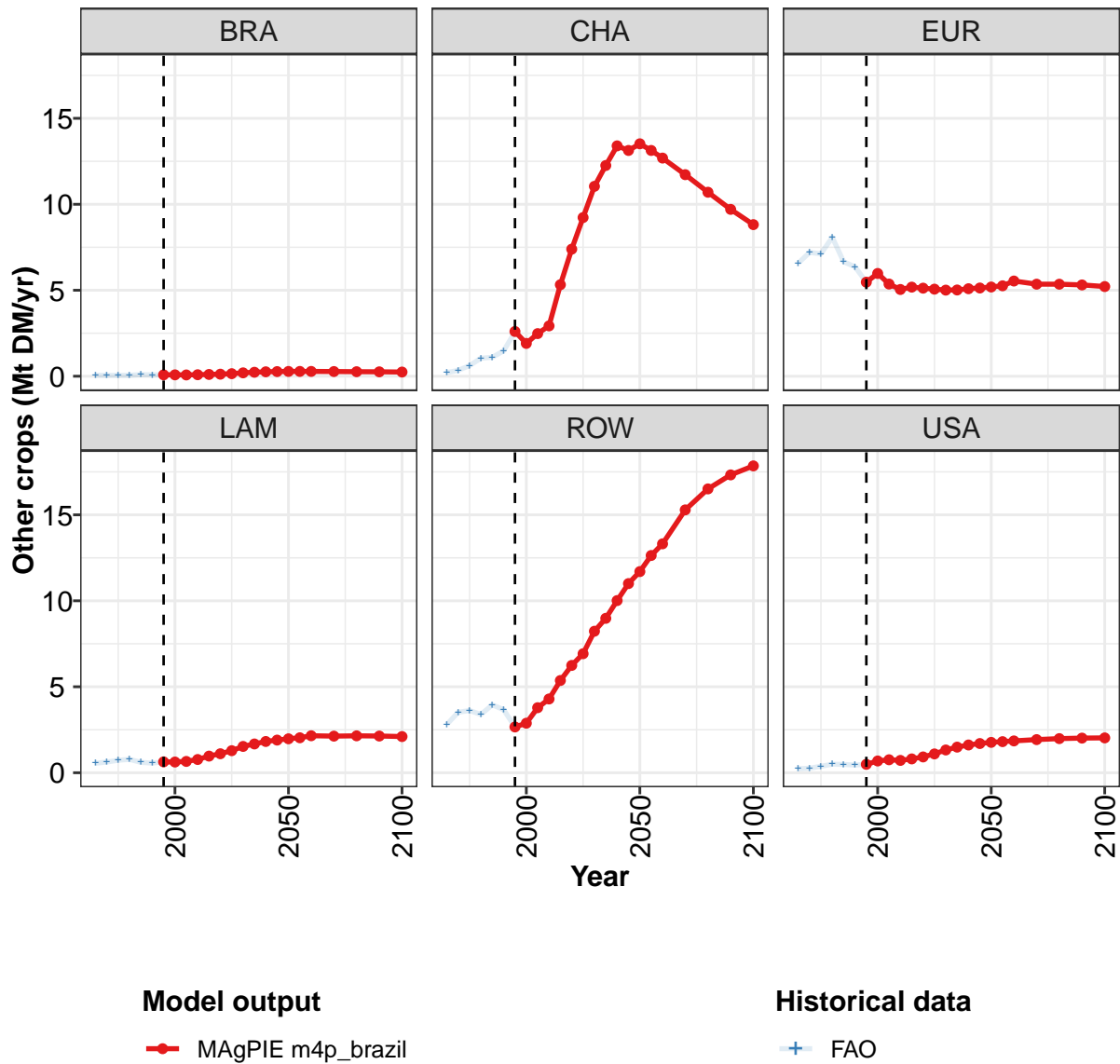


Figure 203: MAgPIE m4p_brazil — Demand—Processing—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	11.9	12.2	13.1	13.8	17.7	20.9	23.7	27.3	29.7	32.2	33.1
BRA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3
CHA	2.6	1.9	2.5	2.9	5.3	7.4	9.2	11.0	12.3	13.4	13.1
EUR	5.5	6.0	5.4	5.0	5.2	5.1	5.1	5.0	5.0	5.1	5.1
LAM	0.6	0.6	0.7	0.8	1.0	1.1	1.3	1.5	1.7	1.8	1.9
ROW	2.7	2.9	3.8	4.3	5.4	6.2	6.9	8.2	9.0	10.0	11.0
USA	0.5	0.7	0.8	0.7	0.8	0.9	1.1	1.3	1.5	1.6	1.7

Table 608: MAgPIE m4p_brazil — Demand—Processing—Crops—Other crops (Mt DM/yr) [PART 1/2]

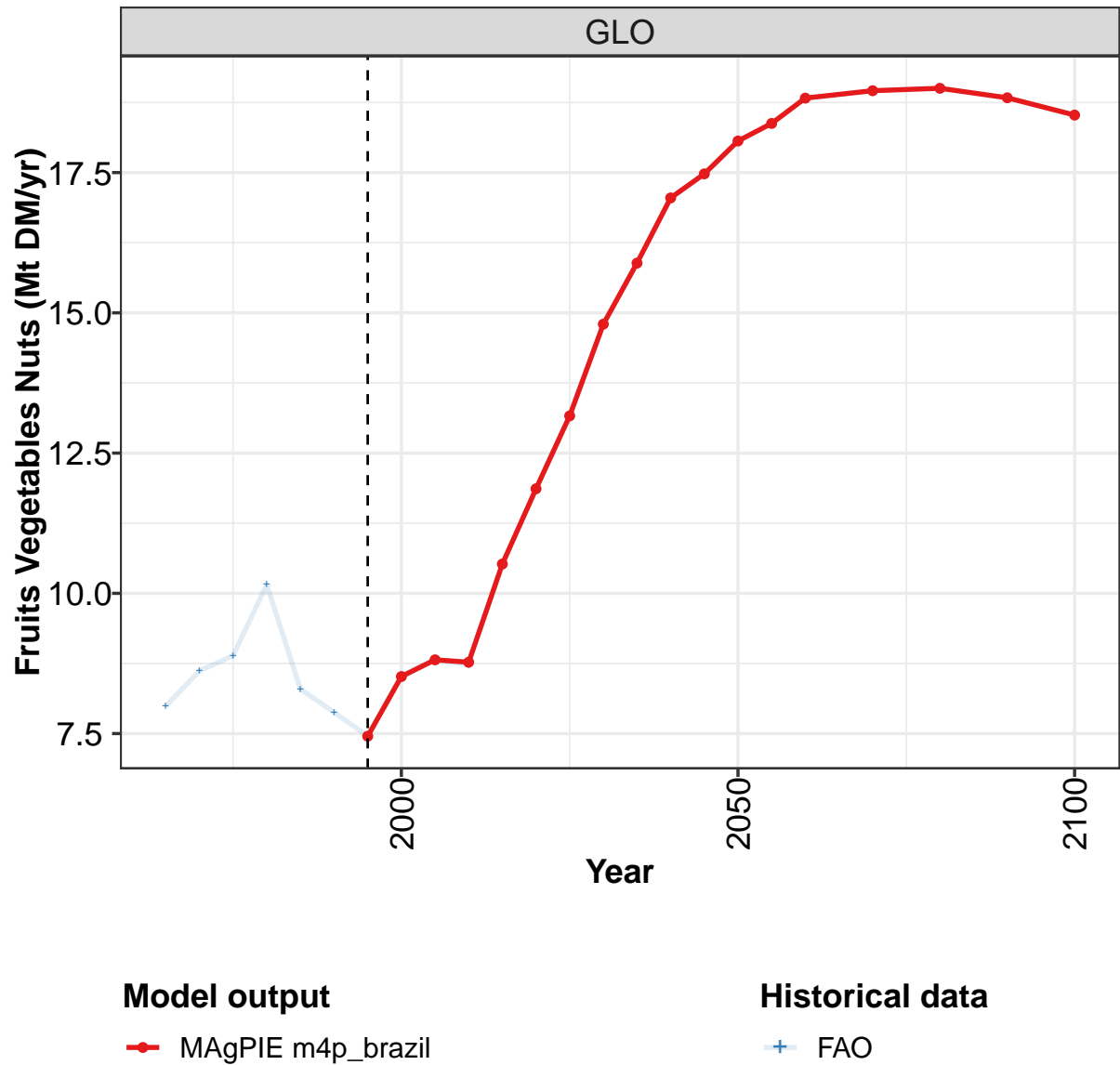
	2050	2055	2060	2070	2080	2090	2100
GLO	34.4	35.2	35.8	36.7	37.0	36.7	36.3
BRA	0.3	0.3	0.3	0.3	0.3	0.3	0.2
CHA	13.5	13.1	12.7	11.7	10.7	9.7	8.8
EUR	5.2	5.3	5.5	5.4	5.4	5.3	5.2
LAM	2.0	2.0	2.2	2.1	2.1	2.1	2.1
ROW	11.7	12.6	13.3	15.3	16.5	17.3	17.8
USA	1.8	1.8	1.9	1.9	2.0	2.0	2.0

Table 609: MAgPIE m4p_brazil — 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
BRA	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.2	0.3	0.6	1.0	1.1	1.5	2.6	1.9	2.5	3.0
EUR	6.6	7.2	7.1	8.1	6.7	6.4	5.5	6.0	5.4	4.9
LAM	0.6	0.6	0.7	0.8	0.6	0.6	0.6	0.6	0.7	0.8
ROW	2.8	3.5	3.6	3.4	3.9	3.7	2.7	2.9	3.7	4.3
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



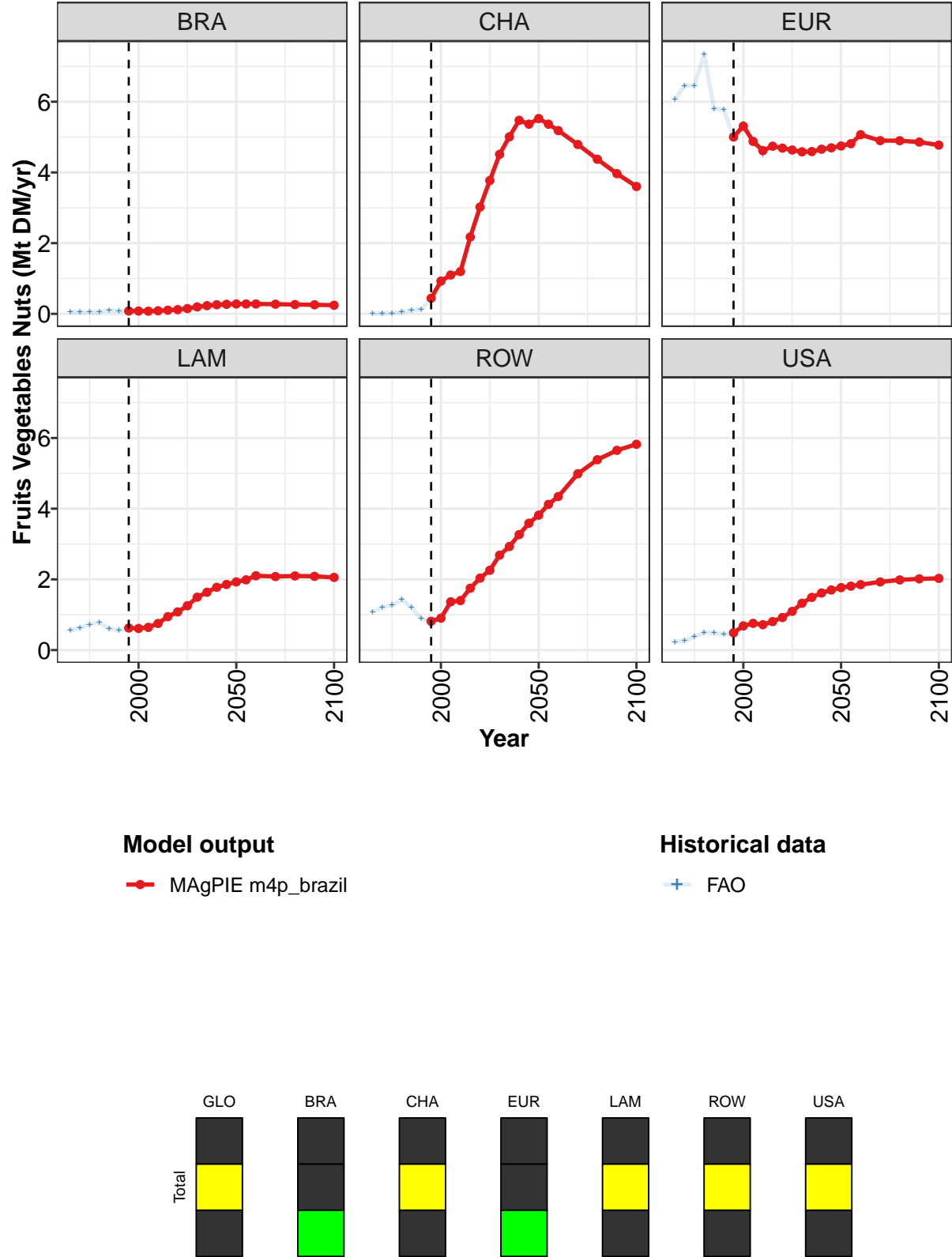


Figure 204: MAgPIE m4p_brazil — Demand—Processing—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.5	8.5	8.8	8.8	10.5	11.9	13.2	14.8	15.9	17.0	17.5
BRA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3
CHA	0.4	0.9	1.1	1.2	2.2	3.0	3.8	4.5	5.0	5.5	5.4
EUR	5.0	5.3	4.9	4.6	4.7	4.7	4.6	4.6	4.6	4.7	4.7
LAM	0.6	0.6	0.6	0.8	0.9	1.1	1.3	1.5	1.6	1.8	1.9
ROW	0.8	0.9	1.4	1.4	1.7	2.0	2.3	2.7	2.9	3.3	3.6
USA	0.5	0.7	0.8	0.7	0.8	0.9	1.1	1.3	1.5	1.6	1.7

Table 611: MAgPIE m4p.brazil — Demand—Processing—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 1/2]

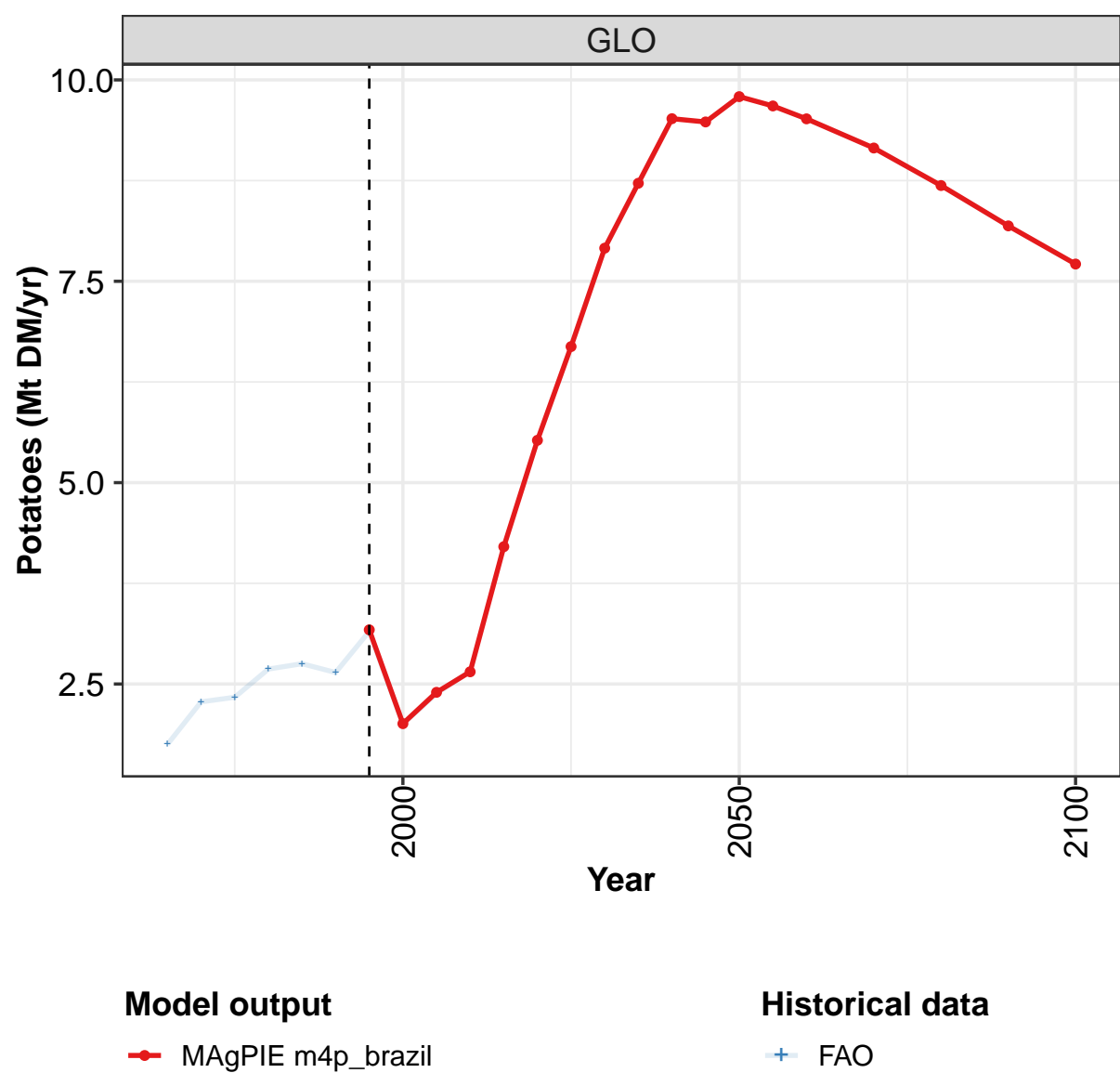
	2050	2055	2060	2070	2080	2090	2100
GLO	18.1	18.4	18.8	19.0	19.0	18.8	18.5
BRA	0.3	0.3	0.3	0.3	0.3	0.3	0.2
CHA	5.5	5.4	5.2	4.8	4.4	4.0	3.6
EUR	4.7	4.8	5.1	4.9	4.9	4.9	4.8
LAM	1.9	2.0	2.1	2.1	2.1	2.1	2.1
ROW	3.8	4.1	4.3	5.0	5.4	5.7	5.8
USA	1.8	1.8	1.9	1.9	2.0	2.0	2.0

Table 612: MAgPIE m4p.brazil — 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
BRA	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.0	0.0	0.0	0.1	0.1	0.1	0.4	0.9	1.1	1.2
EUR	6.1	6.5	6.5	7.3	5.8	5.8	5.0	5.4	4.9	4.5
LAM	0.6	0.6	0.7	0.8	0.6	0.6	0.6	0.6	0.7	0.8
ROW	1.1	1.2	1.3	1.4	1.2	0.9	0.8	0.9	1.3	1.4
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



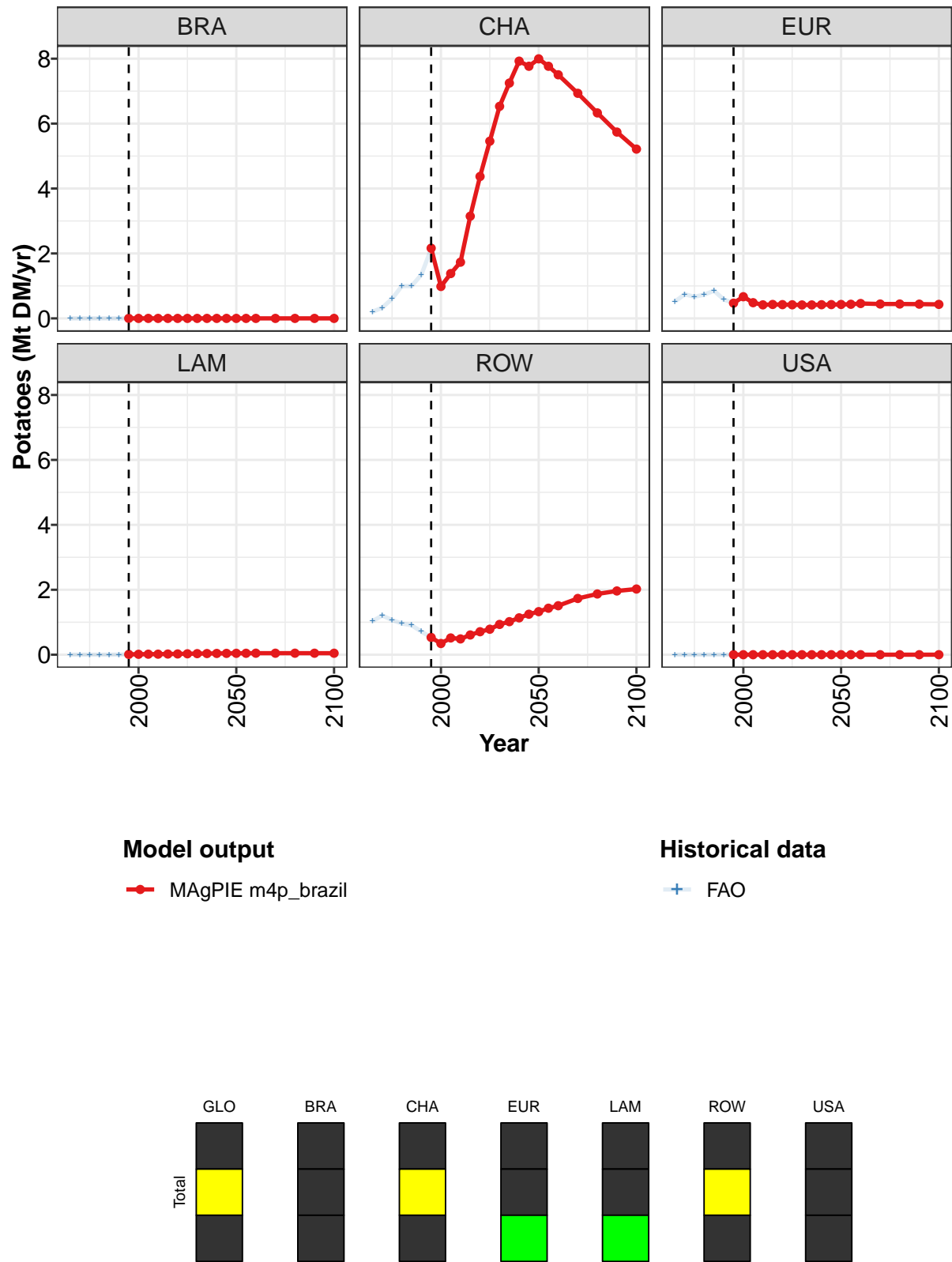


Figure 205: MAgPIE m4p_brazil — Demand—Processing—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.17	2.01	2.40	2.65	4.21	5.53	6.69	7.91	8.72	9.52	9.48
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	2.16	0.98	1.38	1.73	3.15	4.37	5.46	6.53	7.25	7.92	7.77
EUR	0.47	0.67	0.48	0.42	0.43	0.42	0.42	0.41	0.41	0.42	0.42
LAM	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.04
ROW	0.53	0.34	0.52	0.49	0.61	0.71	0.78	0.93	1.02	1.13	1.25
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_brazil — Demand—Processing—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

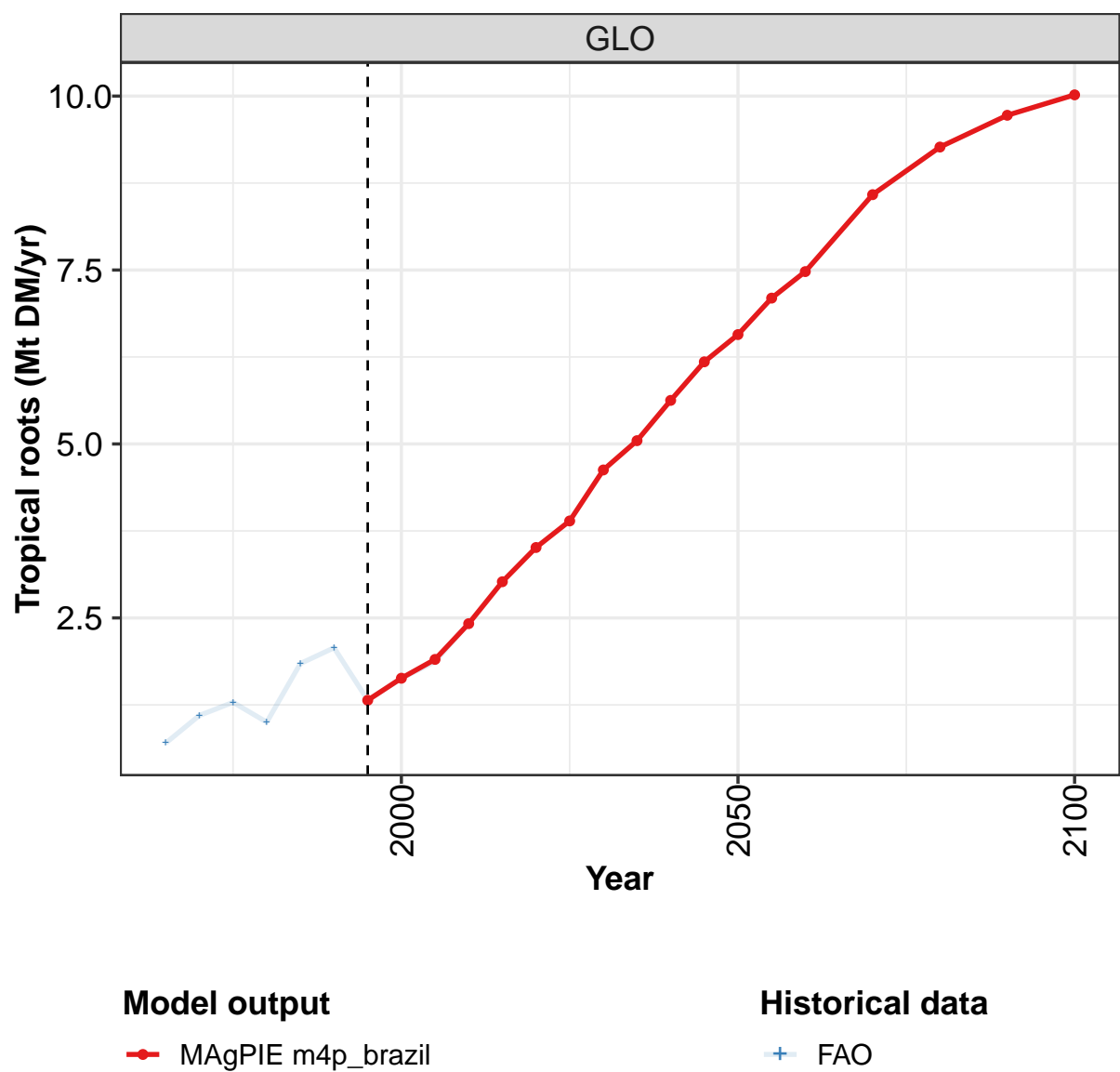
	2050	2055	2060	2070	2080	2090	2100
GLO	9.79	9.68	9.52	9.15	8.69	8.19	7.71
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	8.00	7.77	7.50	6.93	6.33	5.74	5.21
EUR	0.43	0.43	0.46	0.44	0.44	0.44	0.43
LAM	0.04	0.04	0.05	0.05	0.05	0.05	0.05
ROW	1.33	1.43	1.51	1.73	1.87	1.96	2.02
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 615: MAgPIE m4p_brazil — 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
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.20	0.33	0.60	0.99	0.99	1.34	2.14	0.97	1.37	1.74
EUR	0.52	0.74	0.67	0.73	0.85	0.58	0.47	0.67	0.48	0.41
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02
ROW	1.03	1.21	1.07	0.96	0.91	0.71	0.53	0.34	0.51	0.49
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



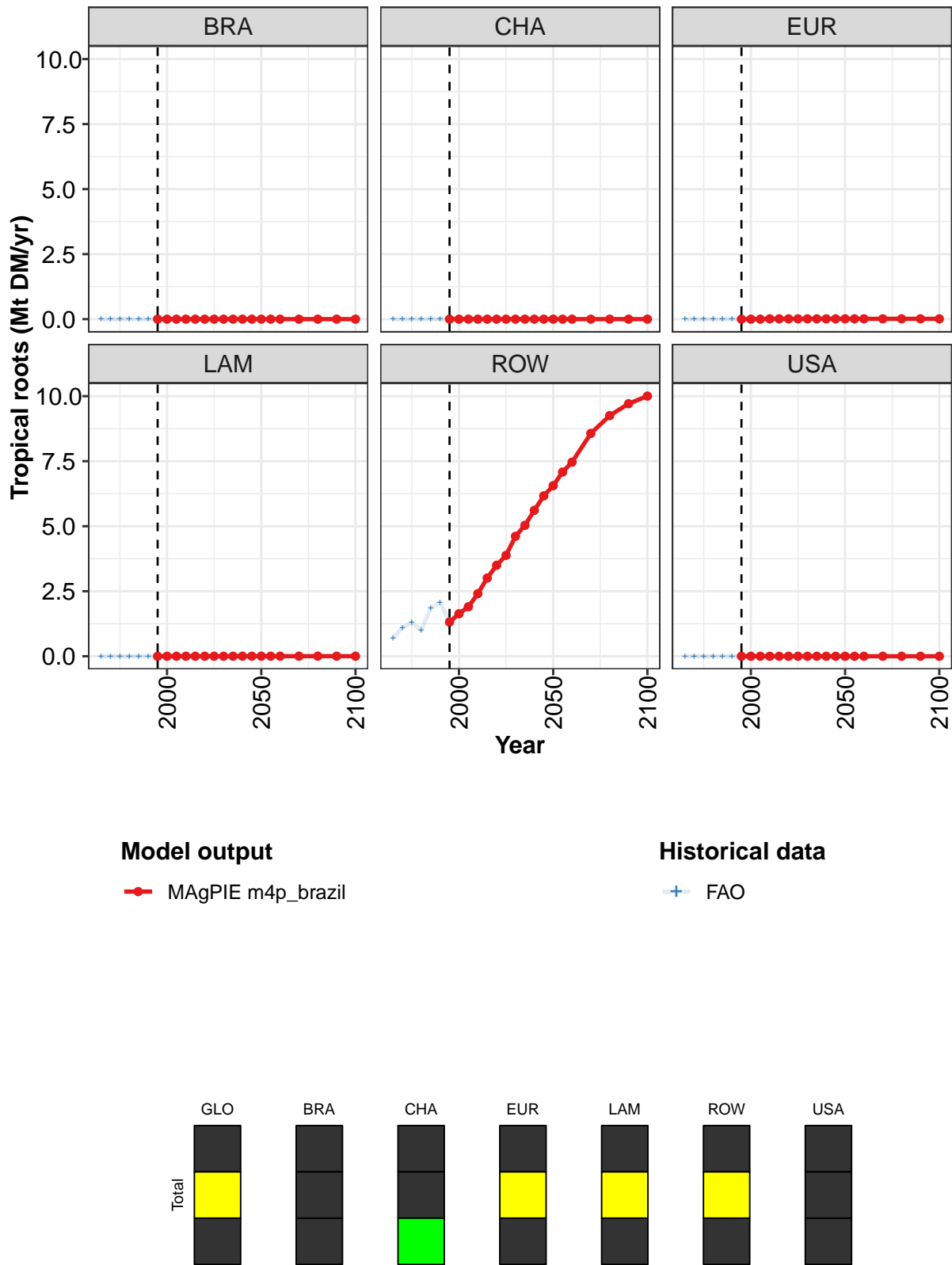


Figure 206: MAgPIE m4p_brazil — Demand—Processing—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.3	1.6	1.9	2.4	3.0	3.5	3.9	4.6	5.0	5.6	6.2
BRA	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
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROW	1.3	1.6	1.9	2.4	3.0	3.5	3.9	4.6	5.0	5.6	6.2
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 617: MAgPIE m4p.brazil — Demand—Processing—Crops—Other crops—Tropical roots (Mt DM/yr)
[PART 1/2]

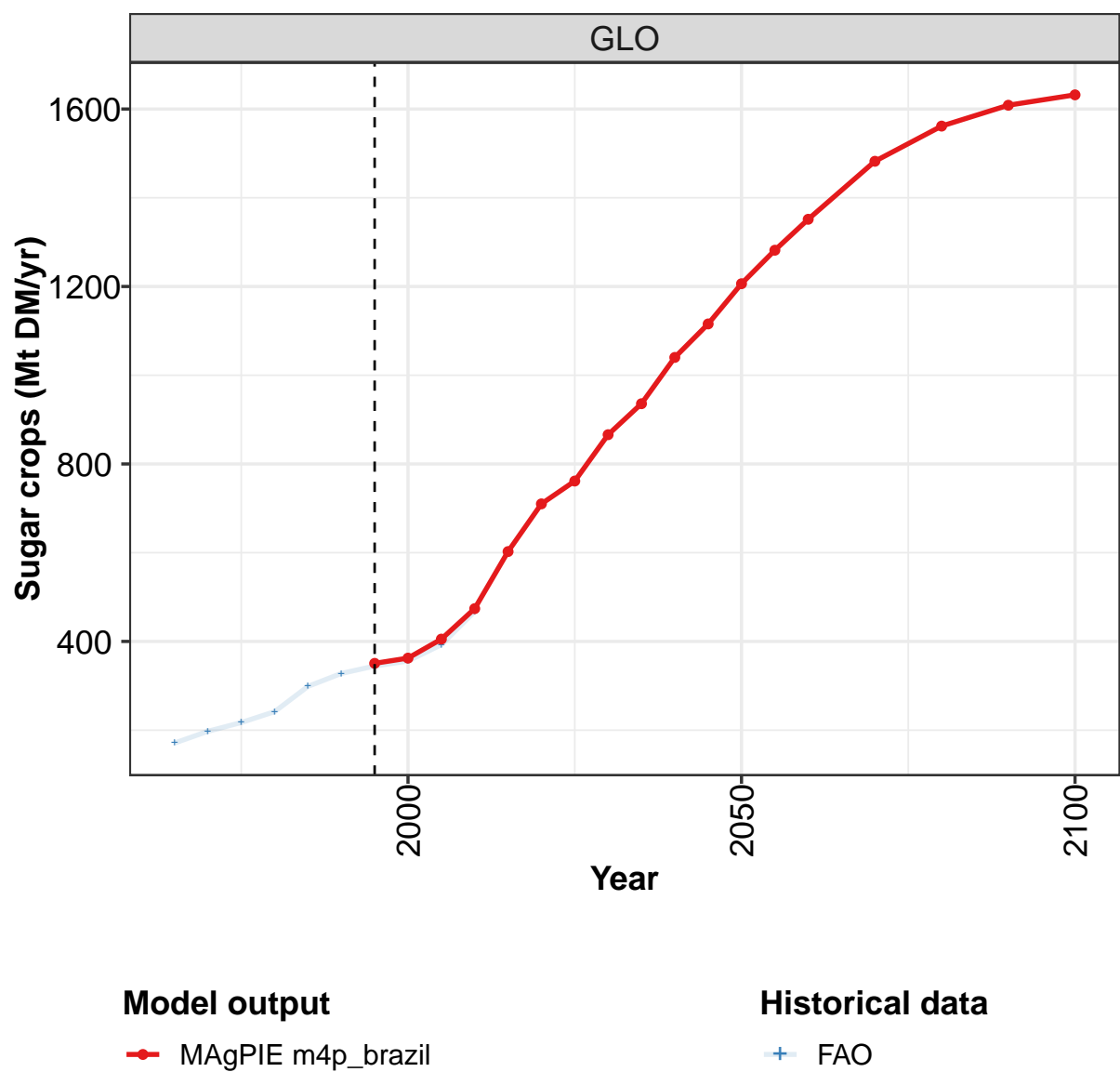
	2050	2055	2060	2070	2080	2090	2100
GLO	6.6	7.1	7.5	8.6	9.3	9.7	10.0
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROW	6.6	7.1	7.5	8.6	9.3	9.7	10.0
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 618: MAgPIE m4p.brazil — 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
BRA	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	0.01
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.70	1.10	1.29	1.00	1.84	2.07	1.32	1.63	1.87	2.41
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



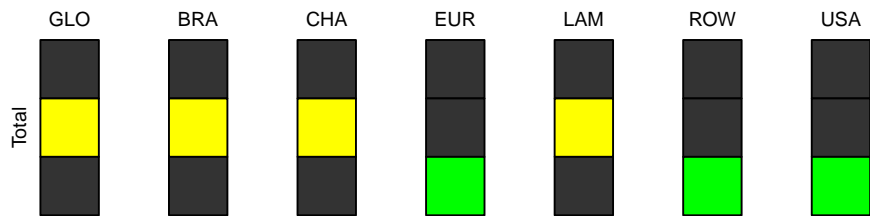
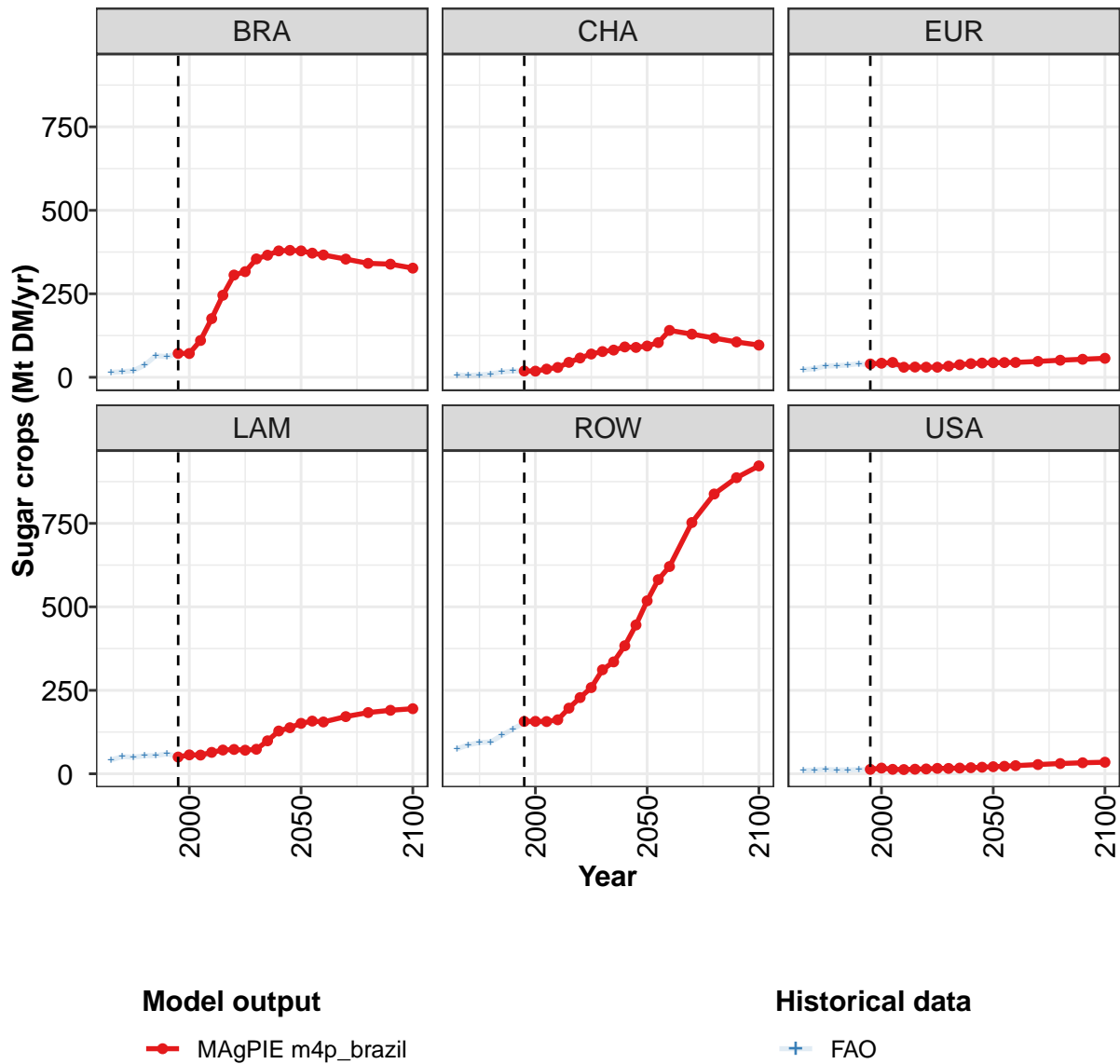


Figure 207: MAgPIE m4p_brazil — Demand—Processing—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	351	362	405	474	603	710	762	866	936	1040	1116
BRA	71	71	110	176	246	306	316	355	366	378	380
CHA	19	18	25	29	45	58	70	77	81	91	89
EUR	40	42	44	30	31	30	30	33	38	41	43
LAM	50	57	56	64	71	73	71	74	99	128	138
ROW	157	157	157	162	197	228	258	312	335	384	446
USA	13	17	13	13	14	15	16	16	17	18	20

Table 620: MAgPIE m4p_brazil — Demand—Processing—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

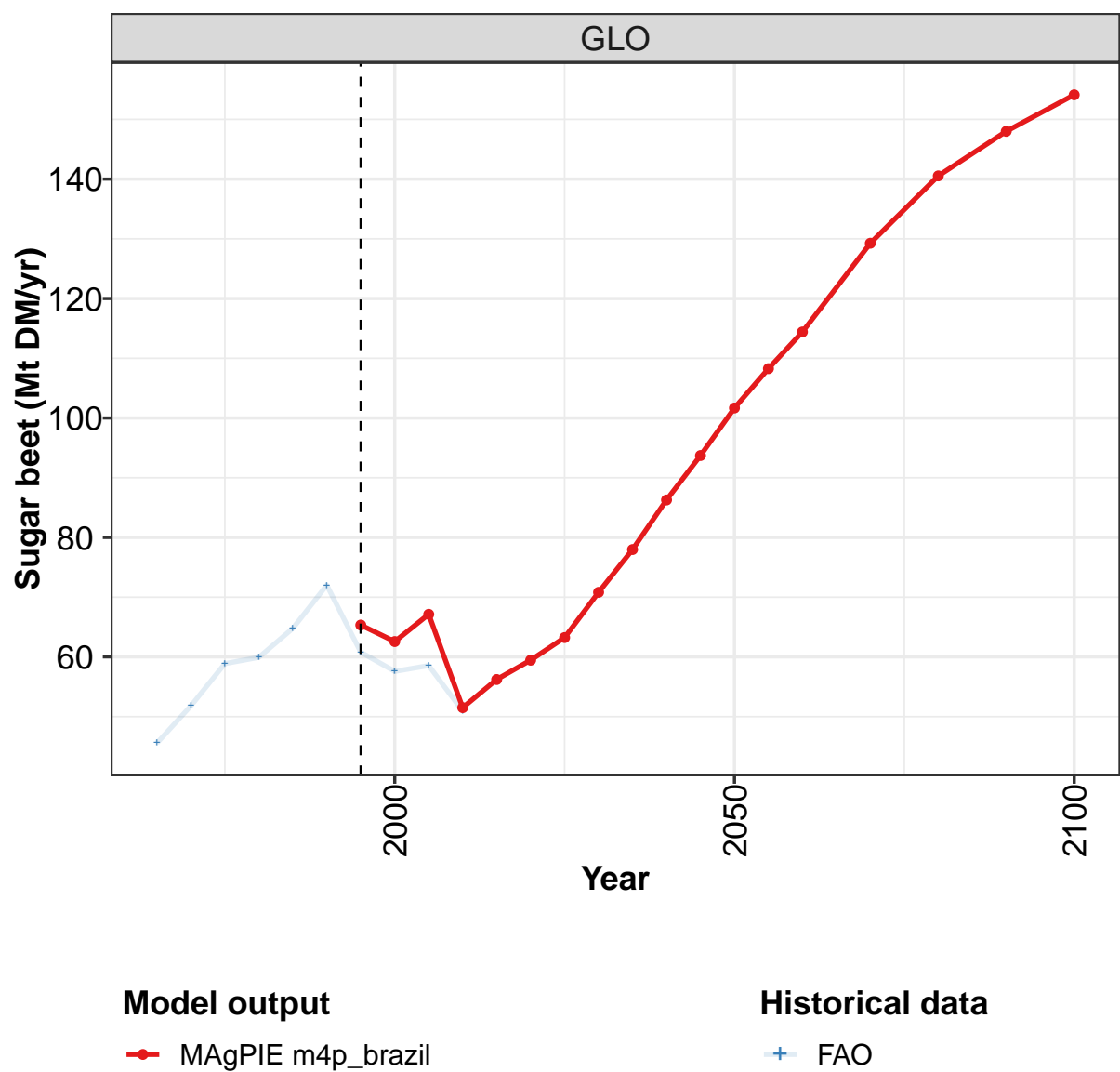
	2050	2055	2060	2070	2080	2090	2100
GLO	1206	1282	1352	1482	1562	1609	1632
BRA	379	372	366	354	341	339	327
CHA	94	104	140	129	117	106	96
EUR	44	44	44	48	51	54	57
LAM	151	158	155	171	183	190	195
ROW	518	582	621	752	838	887	922
USA	21	23	24	28	31	33	35

Table 621: MAgPIE m4p_brazil — 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
BRA	15	17	20	36	65	62	71	71	113	177
CHA	7	6	7	10	16	19	19	18	25	30
EUR	23	26	34	35	37	41	36	37	37	29
LAM	42	51	50	54	55	59	53	55	56	58
ROW	75	87	94	95	115	134	153	156	149	160
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



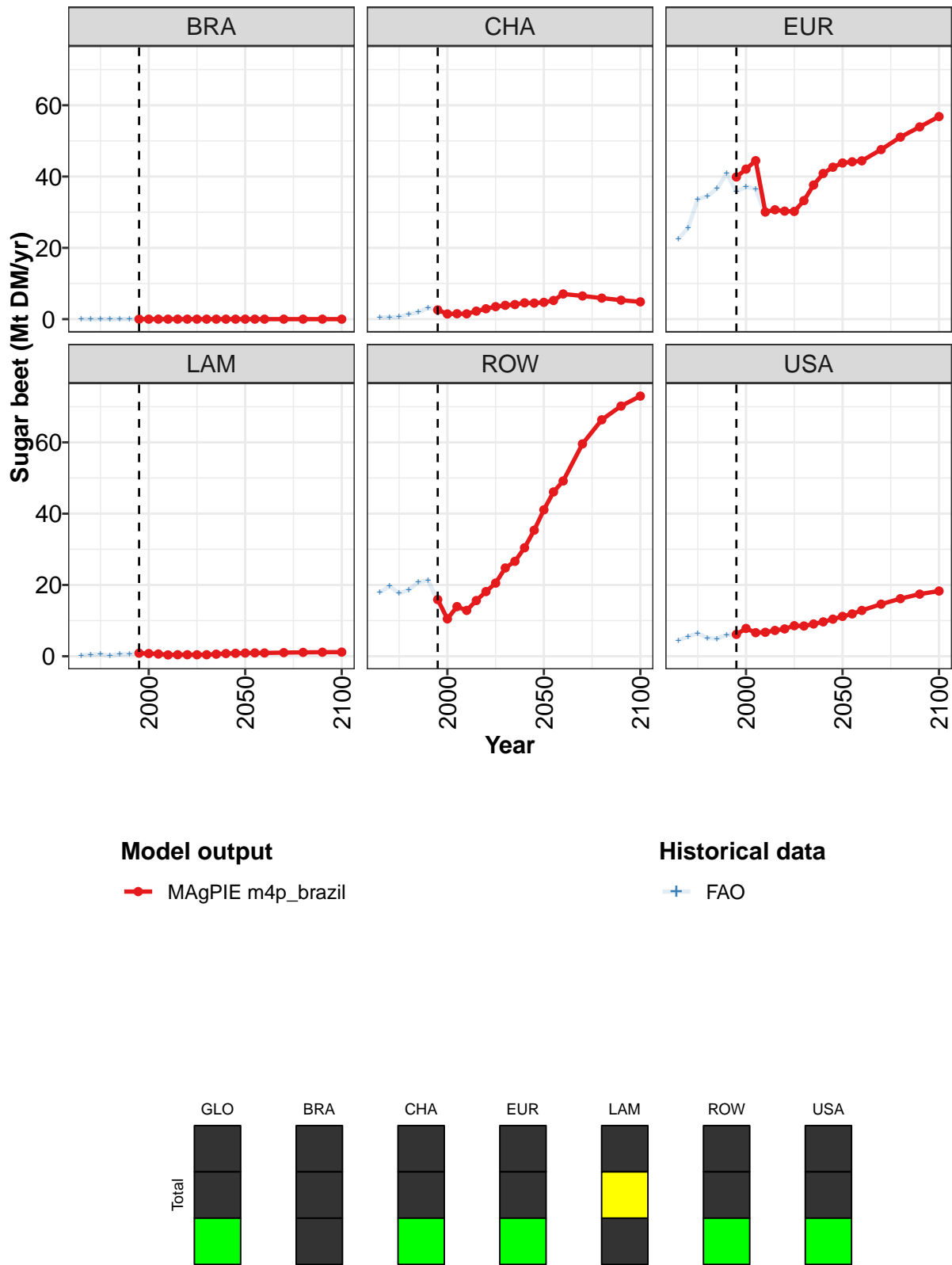


Figure 208: MAgPIE m4p_brazil — Demand—Processing—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	65	63	67	52	56	59	63	71	78	86	94
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	3	1	2	1	2	3	4	4	4	5	4
EUR	40	42	44	30	31	30	30	33	38	41	43
LAM	1	1	1	0	0	0	0	0	1	1	1
ROW	16	10	14	13	16	18	21	25	27	30	35
USA	6	8	7	7	7	8	9	8	9	10	10

Table 623: MAgPIE m4p_brazil — Demand—Processing—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

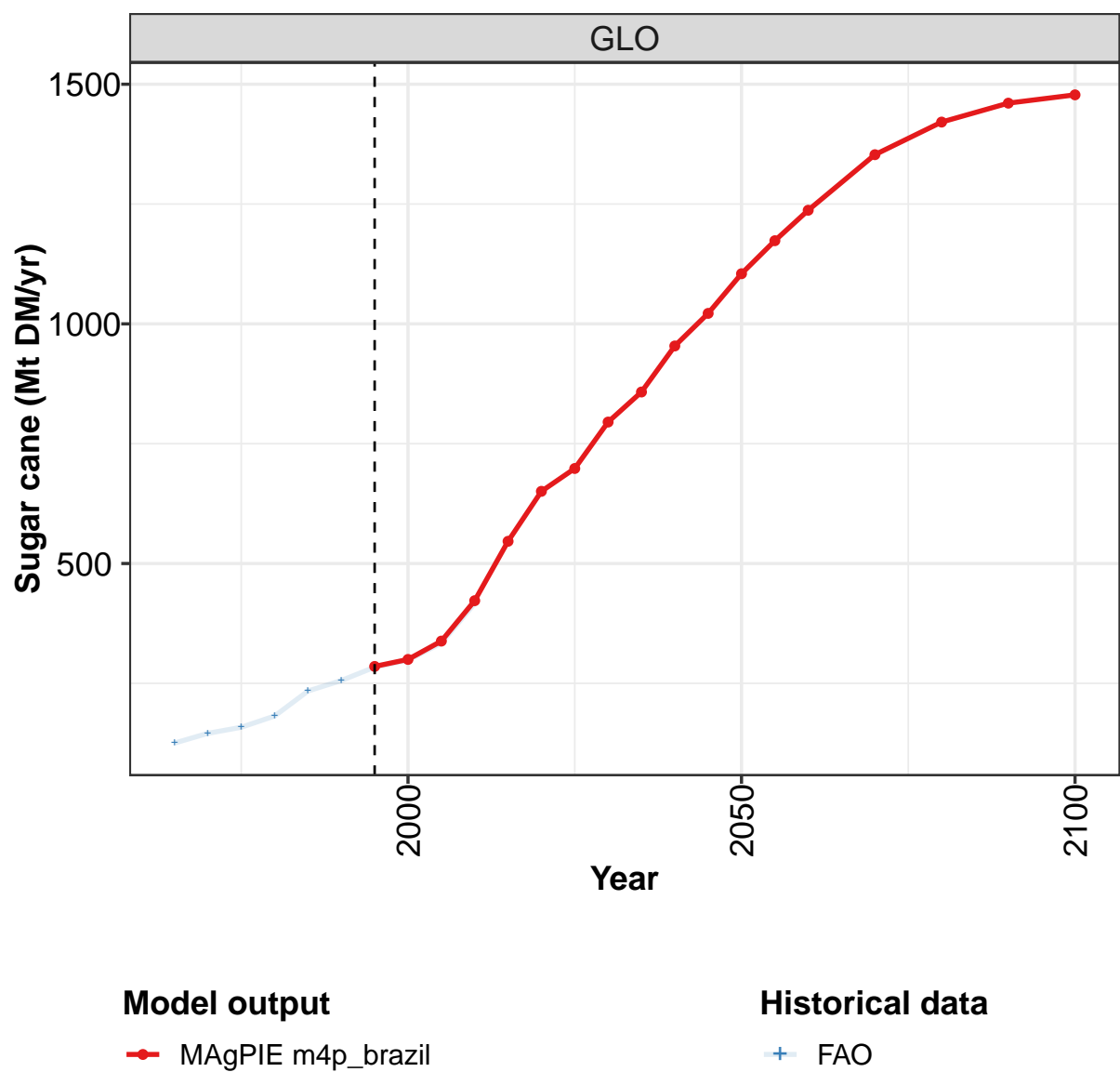
	2050	2055	2060	2070	2080	2090	2100
GLO	102	108	114	129	141	148	154
BRA	0	0	0	0	0	0	0
CHA	5	5	7	7	6	5	5
EUR	44	44	44	48	51	54	57
LAM	1	1	1	1	1	1	1
ROW	41	46	49	60	66	70	73
USA	11	12	13	15	16	17	18

Table 624: MAgPIE m4p_brazil — 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
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.5	0.5	0.6	1.4	1.9	3.2	2.6	1.5	1.5	1.5
EUR	22.5	25.6	33.6	34.5	36.7	40.9	35.7	37.1	36.5	29.4
LAM	0.3	0.5	0.5	0.2	0.6	0.6	0.9	0.7	0.6	0.3
ROW	17.9	19.7	17.7	18.7	20.7	21.3	15.5	10.4	13.3	12.7
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



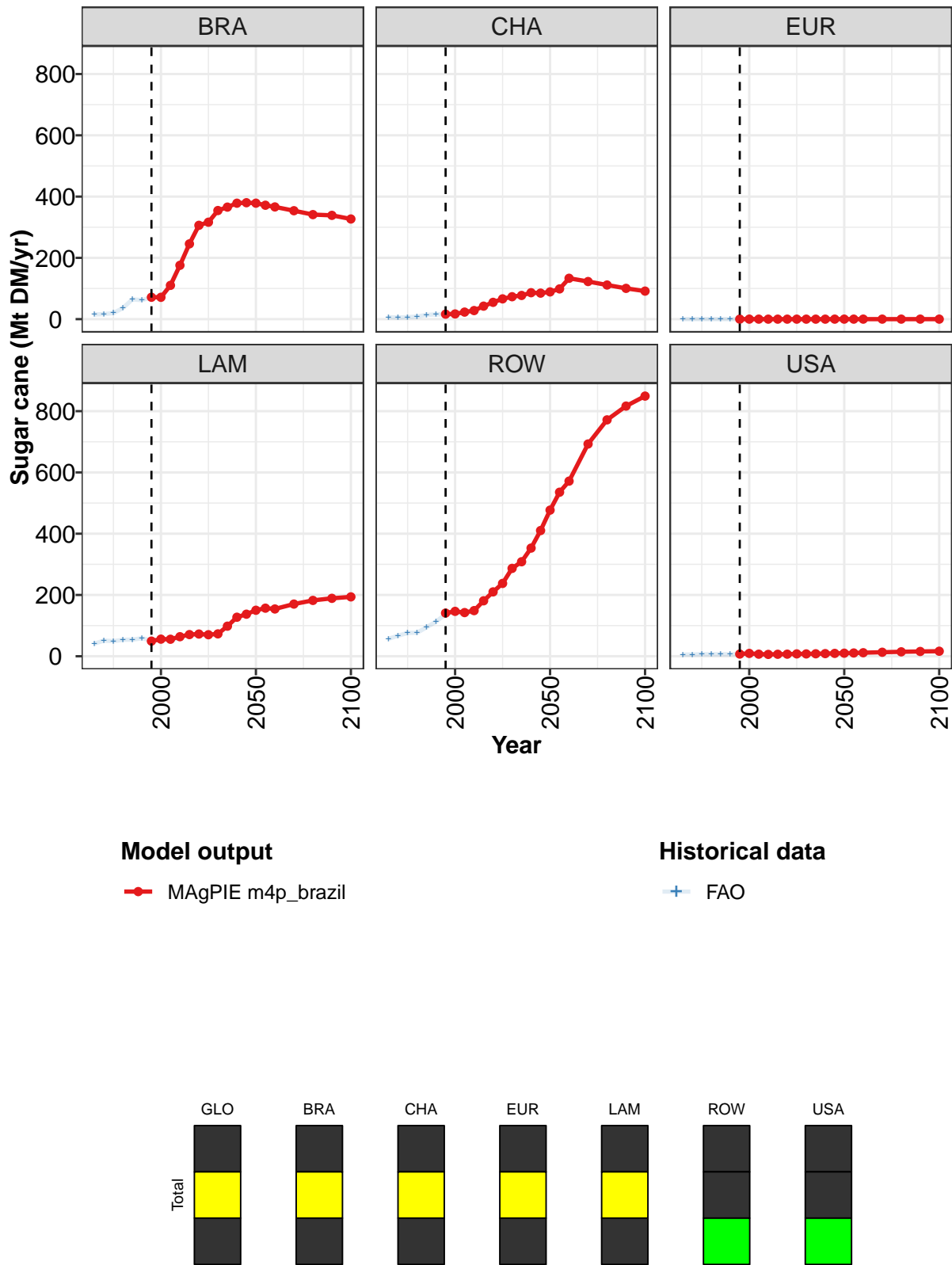


Figure 209: MAgPIE m4p_brazil — Demand—Processing—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	285	300	338	422	546	651	698	795	858	954	1022
BRA	71	71	110	176	246	306	316	355	366	378	380
CHA	16	17	23	28	42	55	66	73	77	86	85
EUR	0	0	0	0	0	0	0	0	0	0	0
LAM	49	56	55	64	71	73	70	73	98	127	137
ROW	141	147	143	149	181	210	238	287	309	353	410
USA	7	9	7	6	6	7	8	8	8	9	9

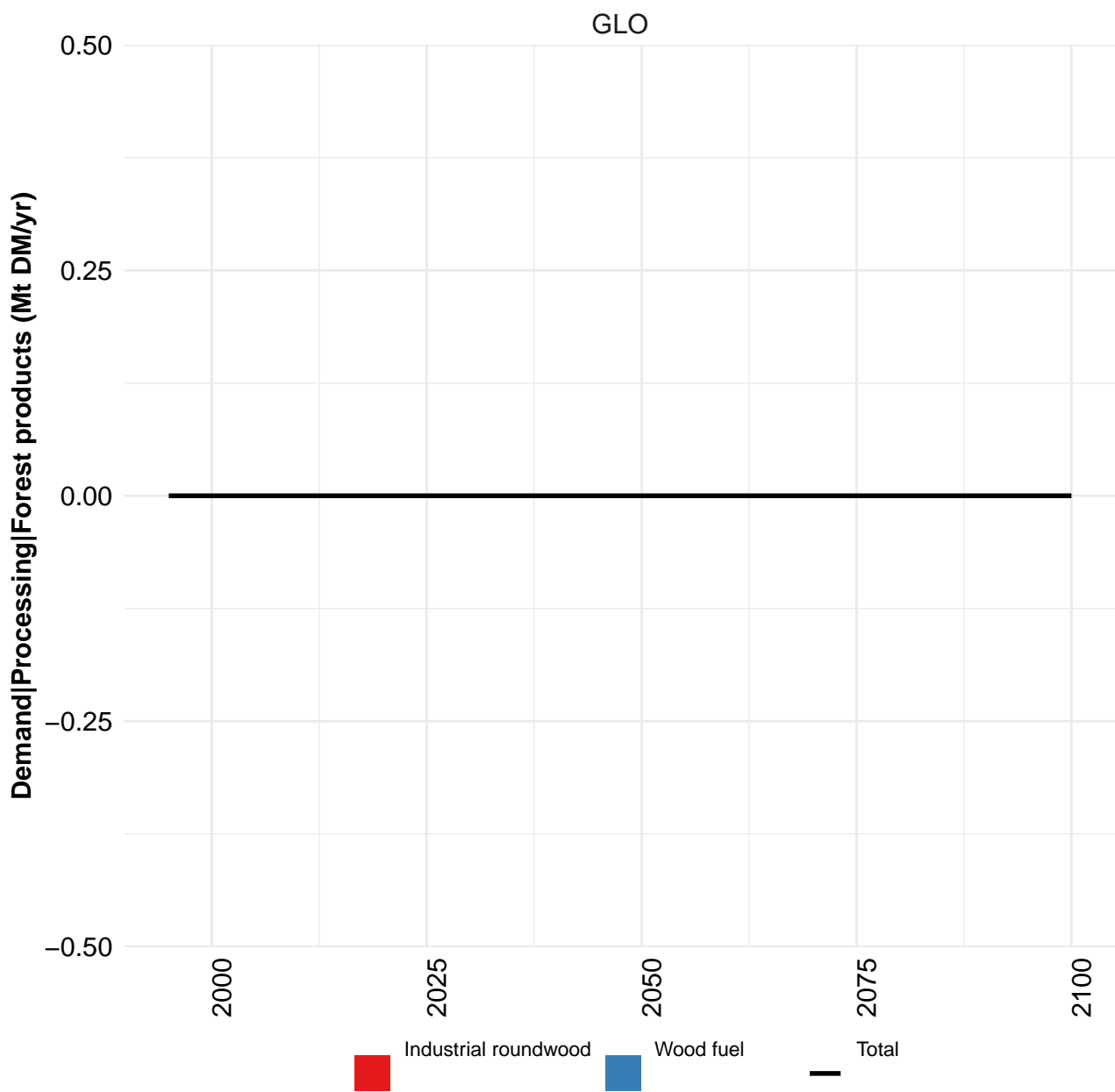
Table 626: MAgPIE m4p_brazil — Demand—Processing—Crops—Sugar crops—Sugar cane (Mt DM/yr)
[PART 1/2]

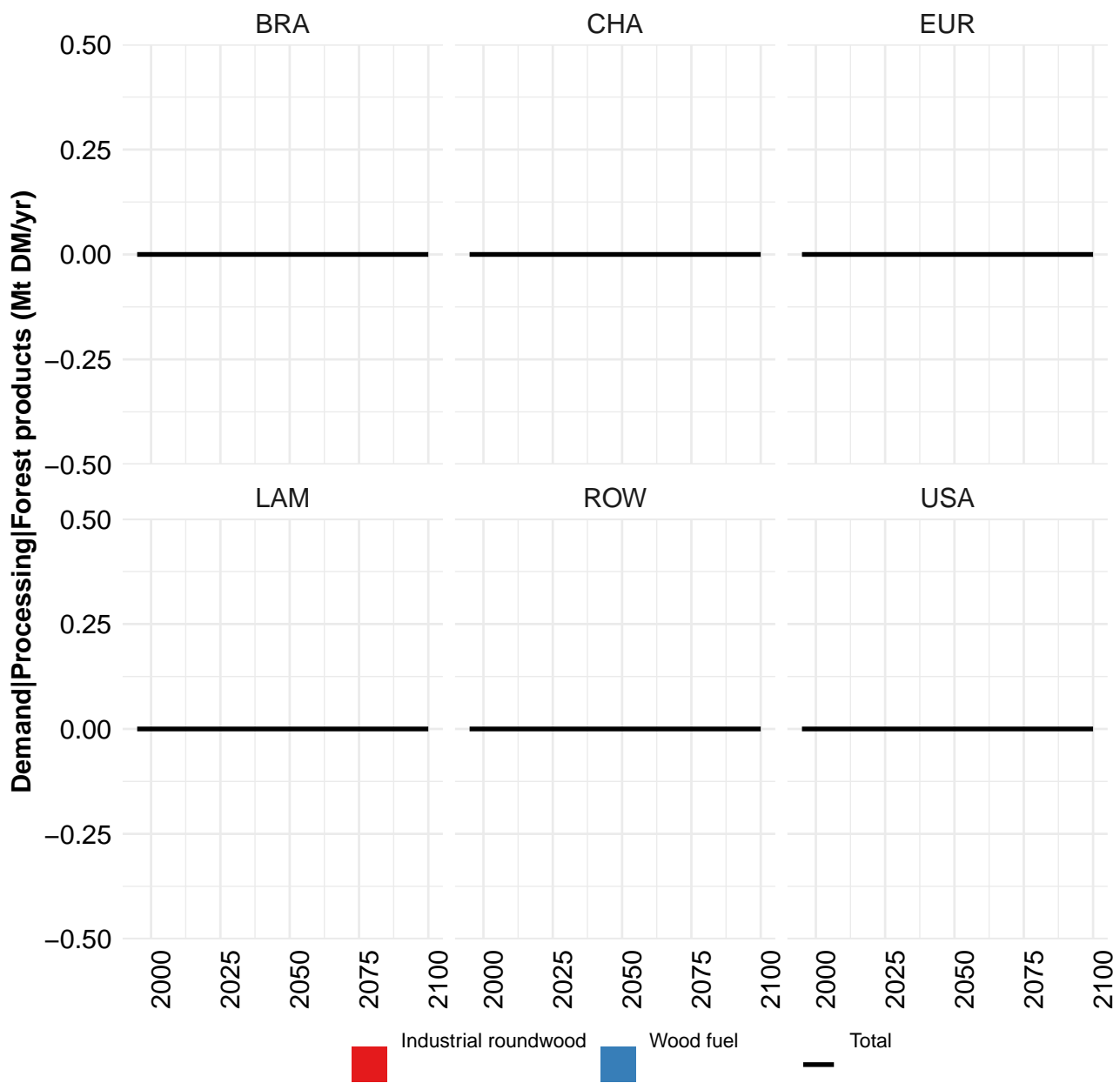
	2050	2055	2060	2070	2080	2090	2100
GLO	1105	1174	1237	1353	1421	1461	1478
BRA	379	372	366	354	341	339	327
CHA	89	99	133	123	111	100	92
EUR	0	0	0	0	0	0	0
LAM	150	157	154	170	182	189	194
ROW	477	535	572	693	772	817	849
USA	10	11	12	13	14	16	16

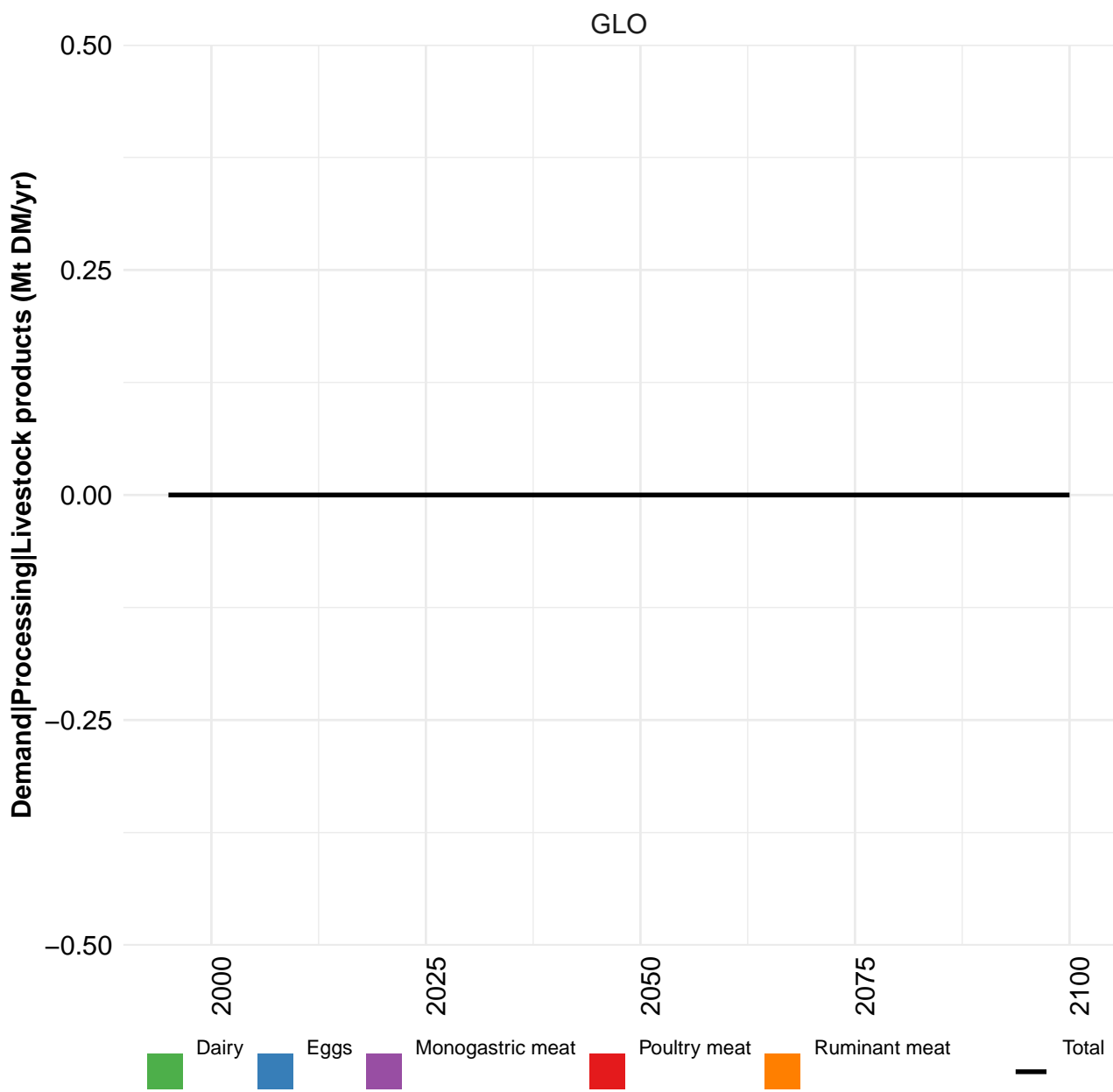
Table 627: MAgPIE m4p_brazil — Demand—Processing—Crops—Sugar crops—Sugar cane (Mt DM/yr)
[PART 2/2]

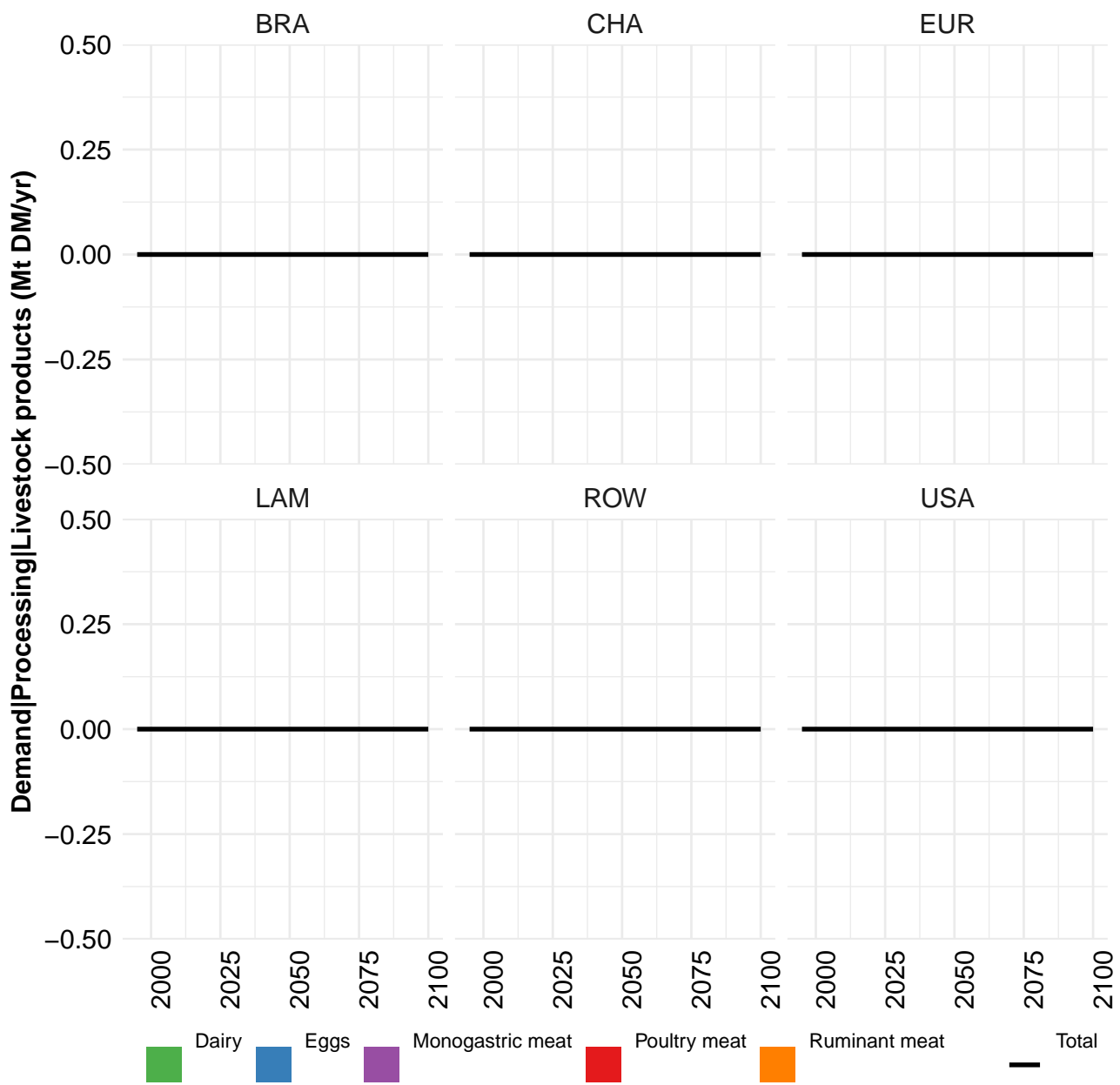
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	125	146	158	182	234	256	284	298	334	417
BRA	15	17	20	36	65	62	71	71	113	177
CHA	6	5	6	8	14	15	16	17	23	28
EUR	0	0	0	0	0	0	0	0	0	0
LAM	41	51	49	54	54	59	52	55	55	58
ROW	57	67	76	77	95	113	137	146	136	147
USA	6	6	7	6	7	6	7	9	7	6

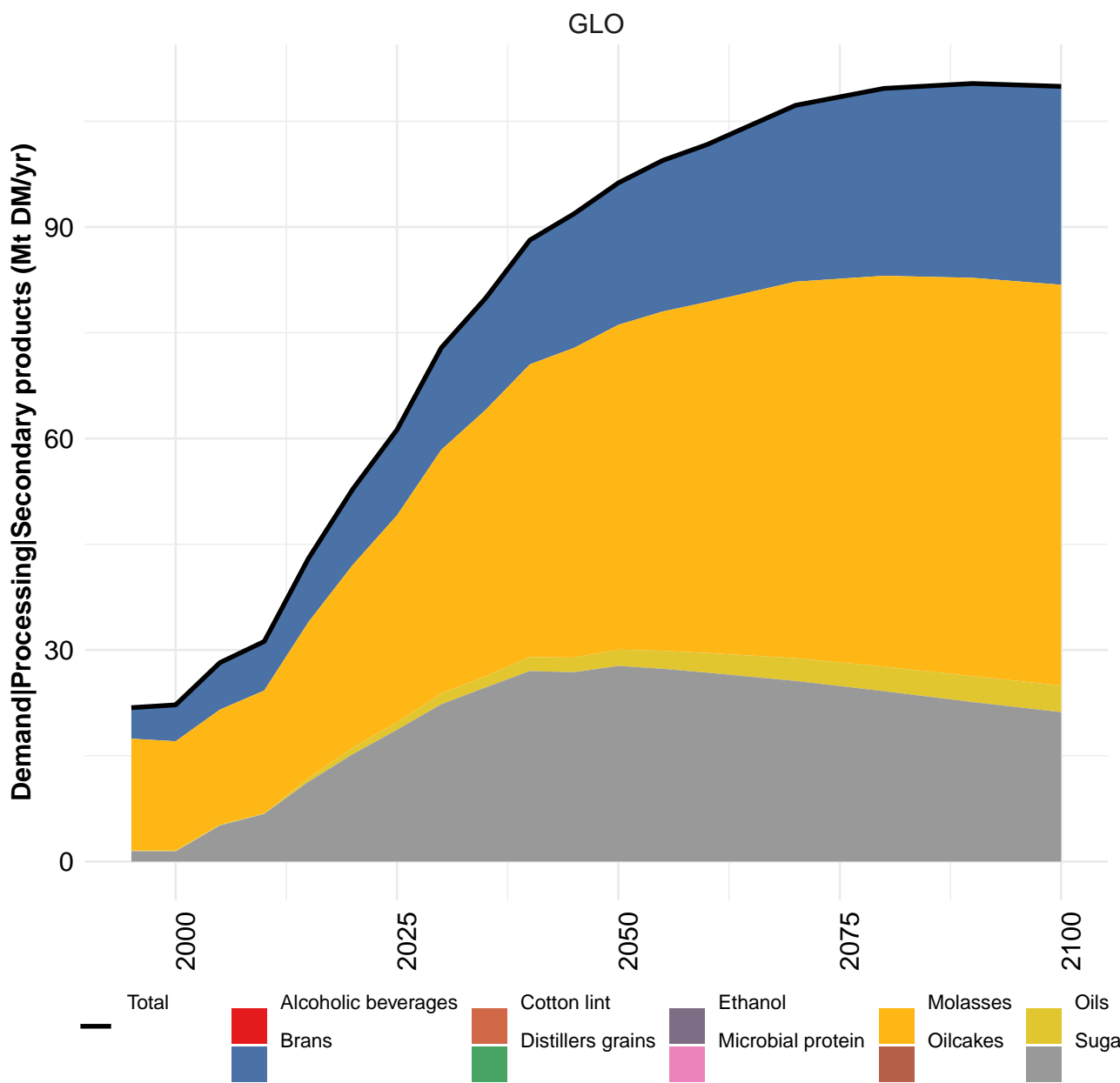
Table 628: FAO — Demand—Processing—Crops—Sugar crops—Sugar cane (Mt DM/yr)

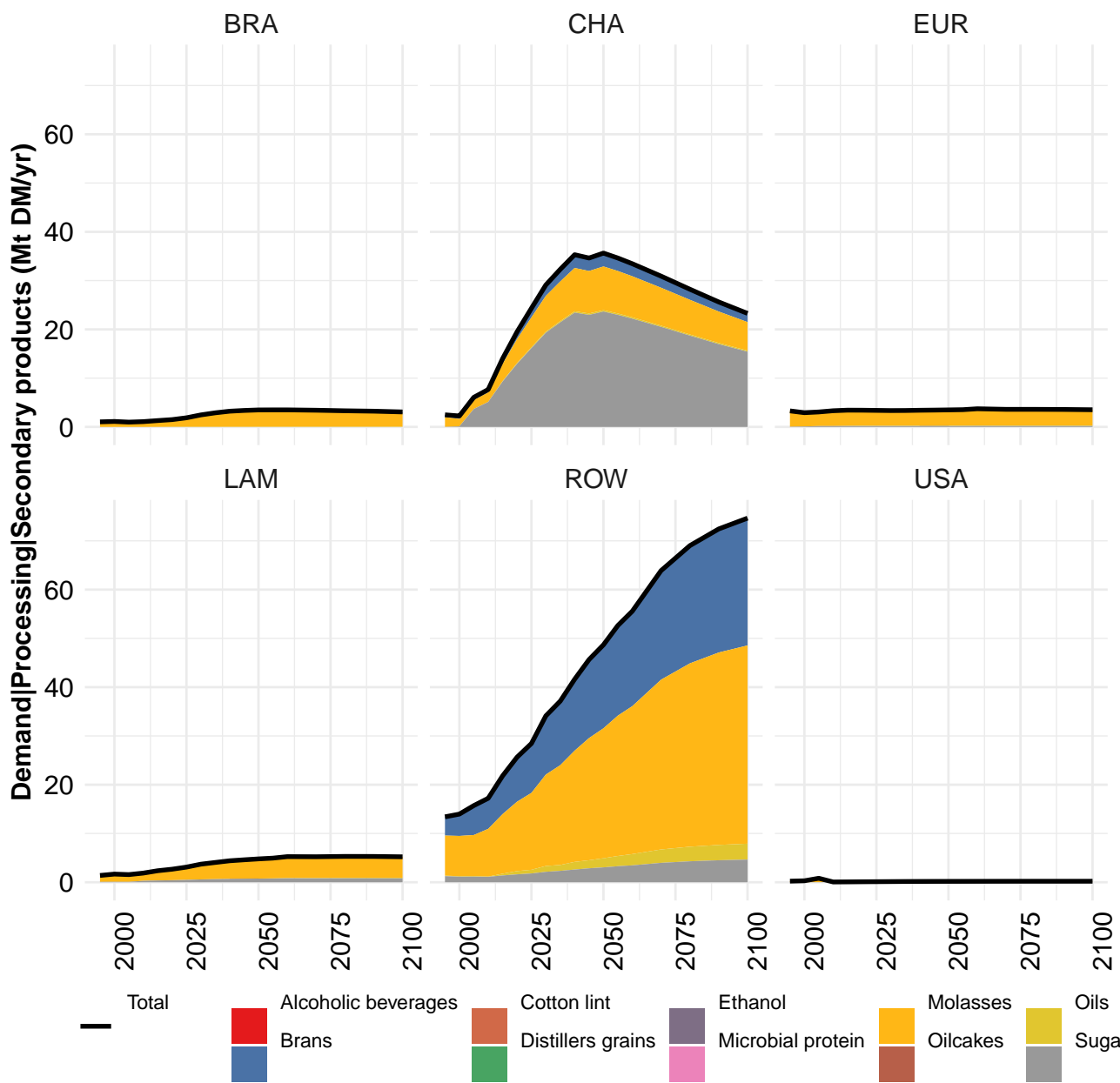




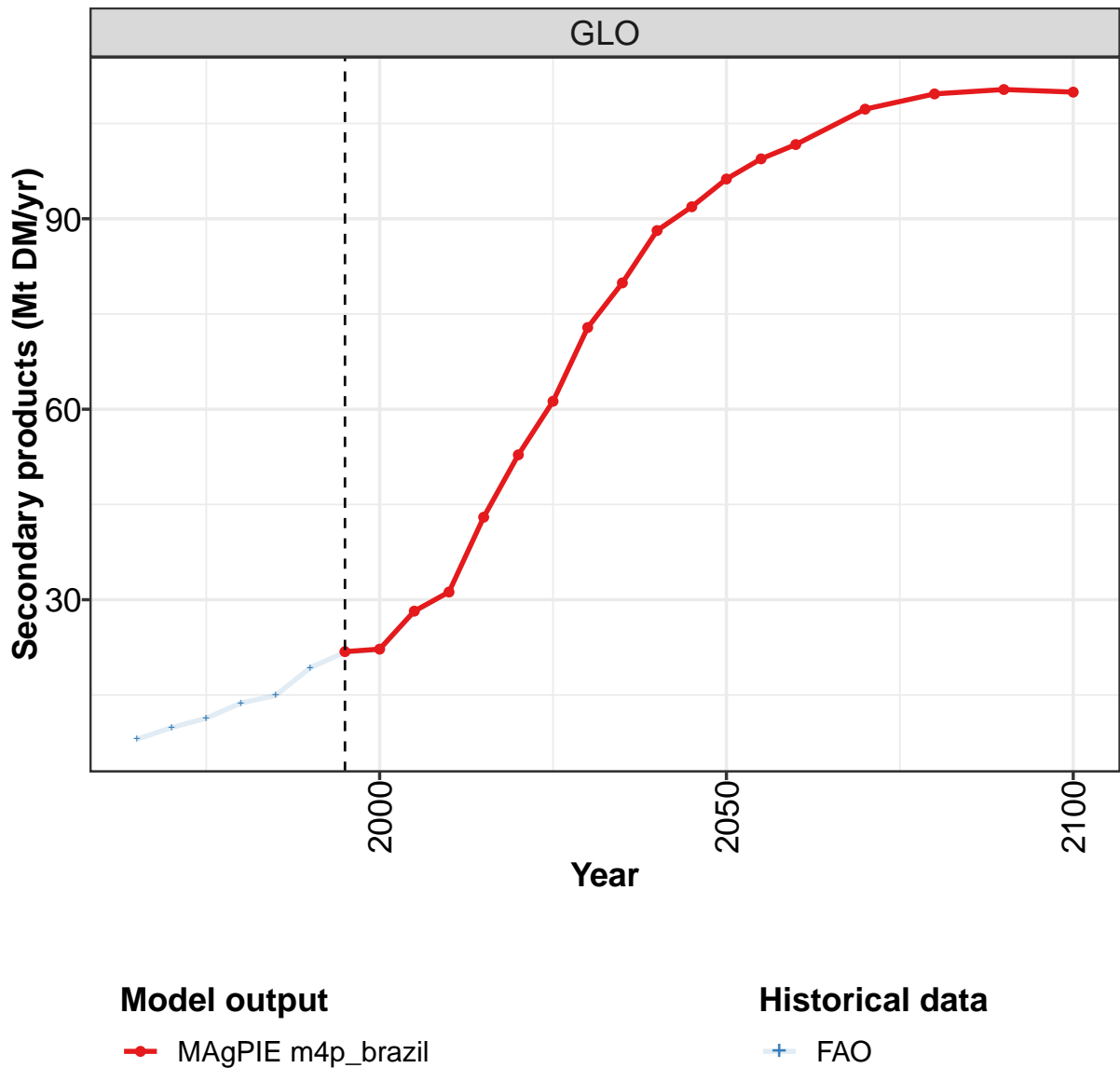








9.2
Secondary products



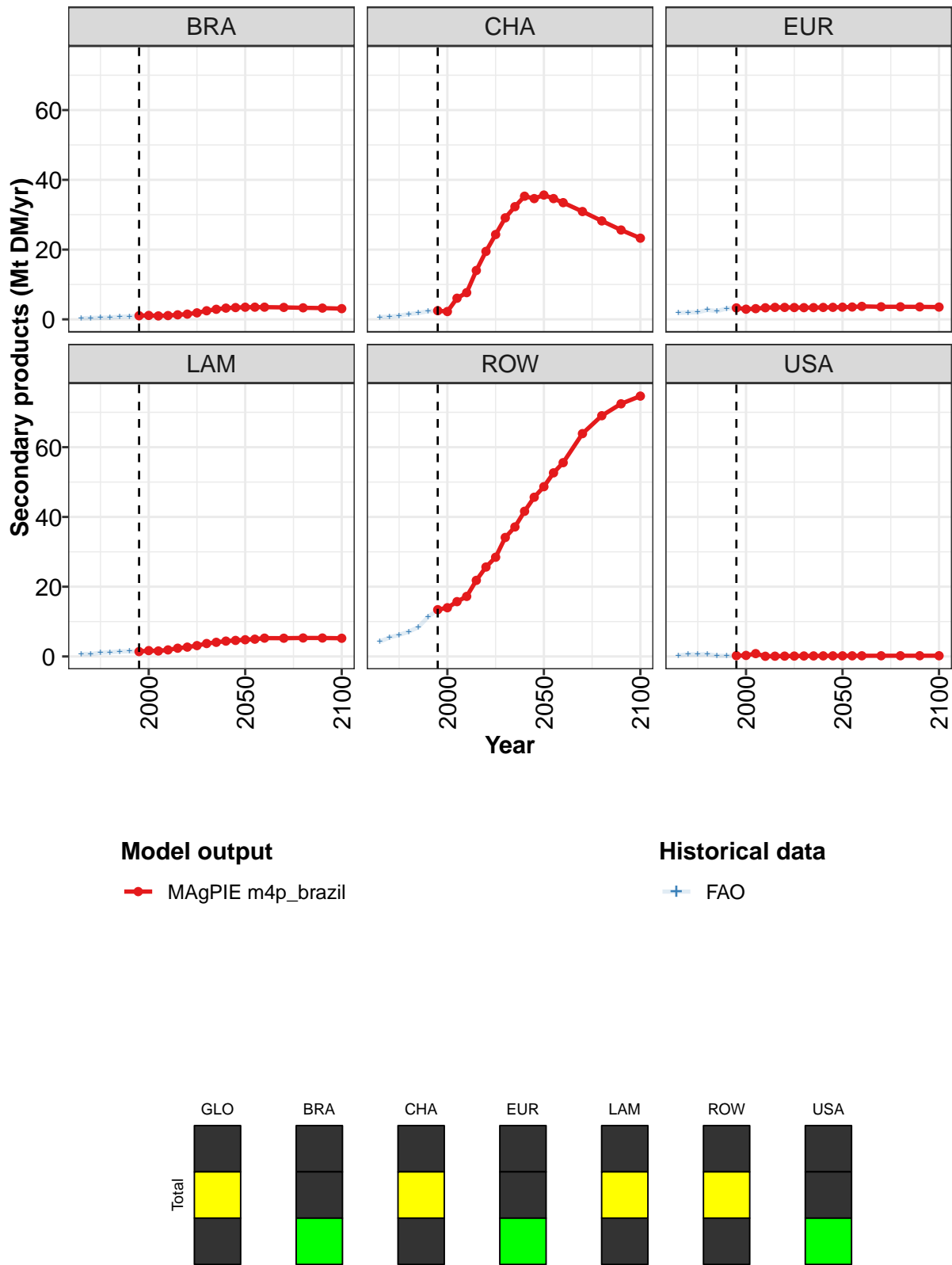


Figure 210: MAgPIE m4p_brazil — Demand—Processing—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	22	22	28	31	43	53	61	73	80	88	92
BRA	1	1	1	1	1	1	2	2	3	3	3
CHA	2	2	6	8	14	19	24	29	32	35	35
EUR	3	3	3	3	3	3	3	3	3	3	3
LAM	1	2	2	2	2	3	3	4	4	4	5
ROW	13	14	16	17	22	26	28	34	37	42	46
USA	0	0	1	0	0	0	0	0	0	0	0

Table 629: MAgPIE m4p_brazil — Demand—Processing—Secondary products (Mt DM/yr) [PART 1/2]

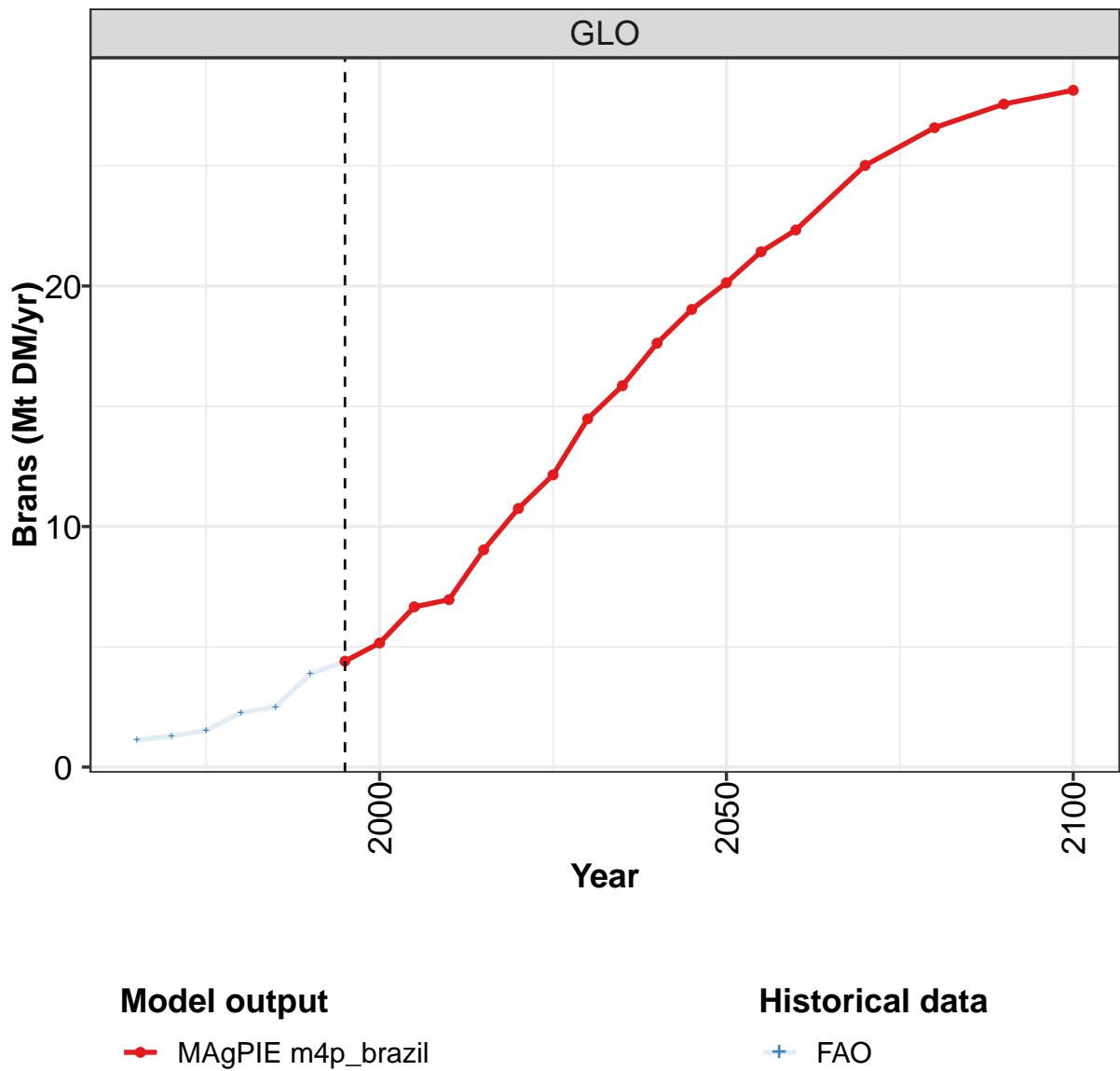
	2050	2055	2060	2070	2080	2090	2100
GLO	96	99	102	107	110	110	110
BRA	3	3	3	3	3	3	3
CHA	36	35	33	31	28	26	23
EUR	3	4	4	4	4	4	4
LAM	5	5	5	5	5	5	5
ROW	49	53	56	64	69	72	75
USA	0	0	0	0	0	0	0

Table 630: MAgPIE m4p_brazil — 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
BRA	0.3	0.4	0.5	0.5	0.7	0.8	1.0	1.1	1.1	1.1
CHA	0.6	0.7	1.0	1.5	1.8	2.3	2.4	2.2	6.0	7.7
EUR	1.9	2.0	2.0	2.7	2.4	3.1	3.3	2.9	3.1	3.2
LAM	0.7	0.7	1.1	1.2	1.4	1.5	1.4	1.6	1.7	2.0
ROW	4.2	5.4	6.2	7.1	8.4	11.3	13.3	13.9	15.3	17.2
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



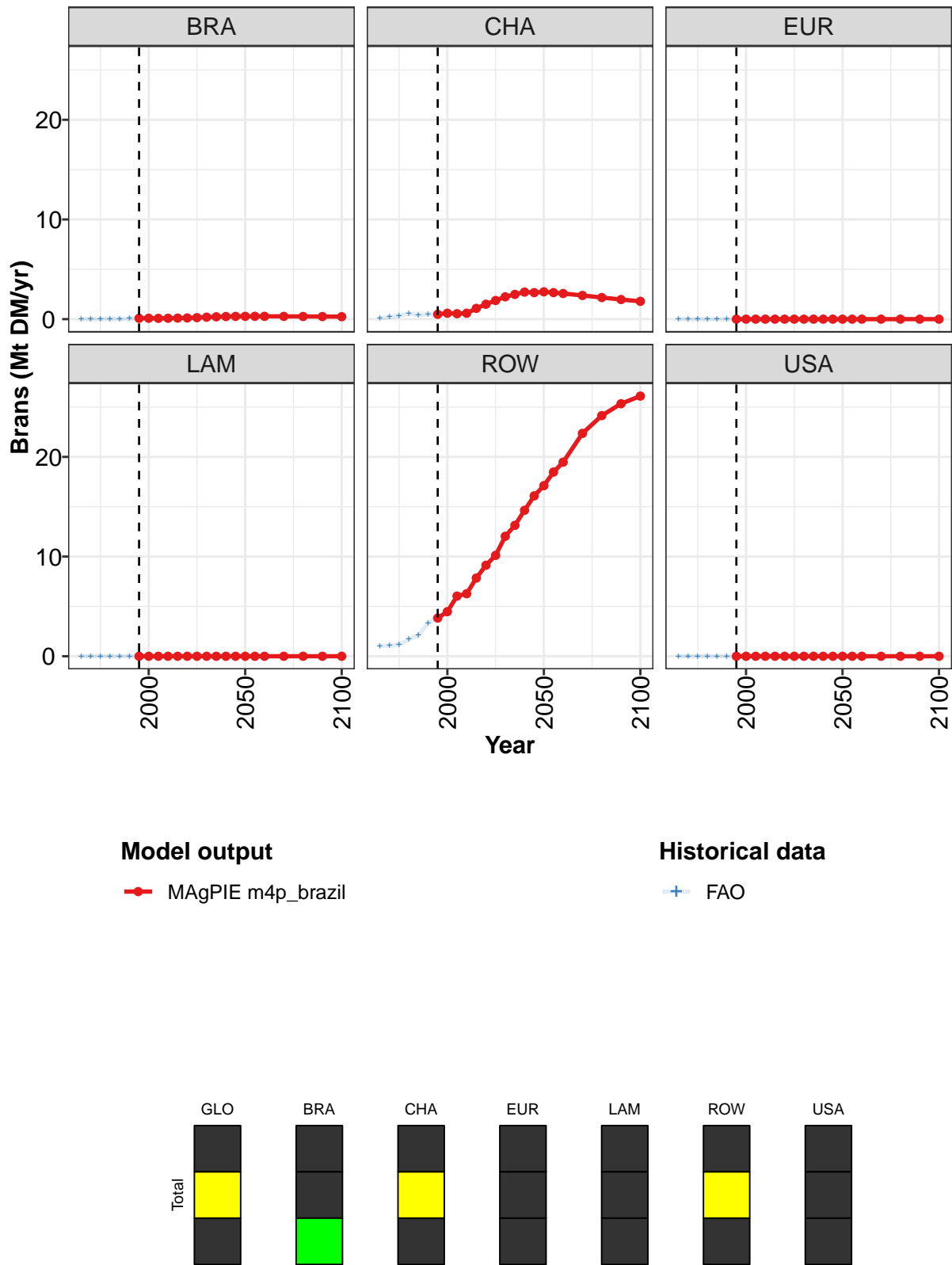


Figure 211: MAgPIE m4p_brazil — Demand—Processing—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.4	5.2	6.7	7.0	9.0	10.7	12.1	14.5	15.9	17.6	19.0
BRA	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3
CHA	0.5	0.6	0.5	0.6	1.1	1.5	1.9	2.2	2.5	2.7	2.7
EUR	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
ROW	3.8	4.5	6.0	6.3	7.8	9.1	10.1	12.0	13.1	14.6	16.1
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 632: MAgPIE m4p_brazil — Demand—Processing—Secondary products—Brans (Mt DM/yr) [PART 1/2]

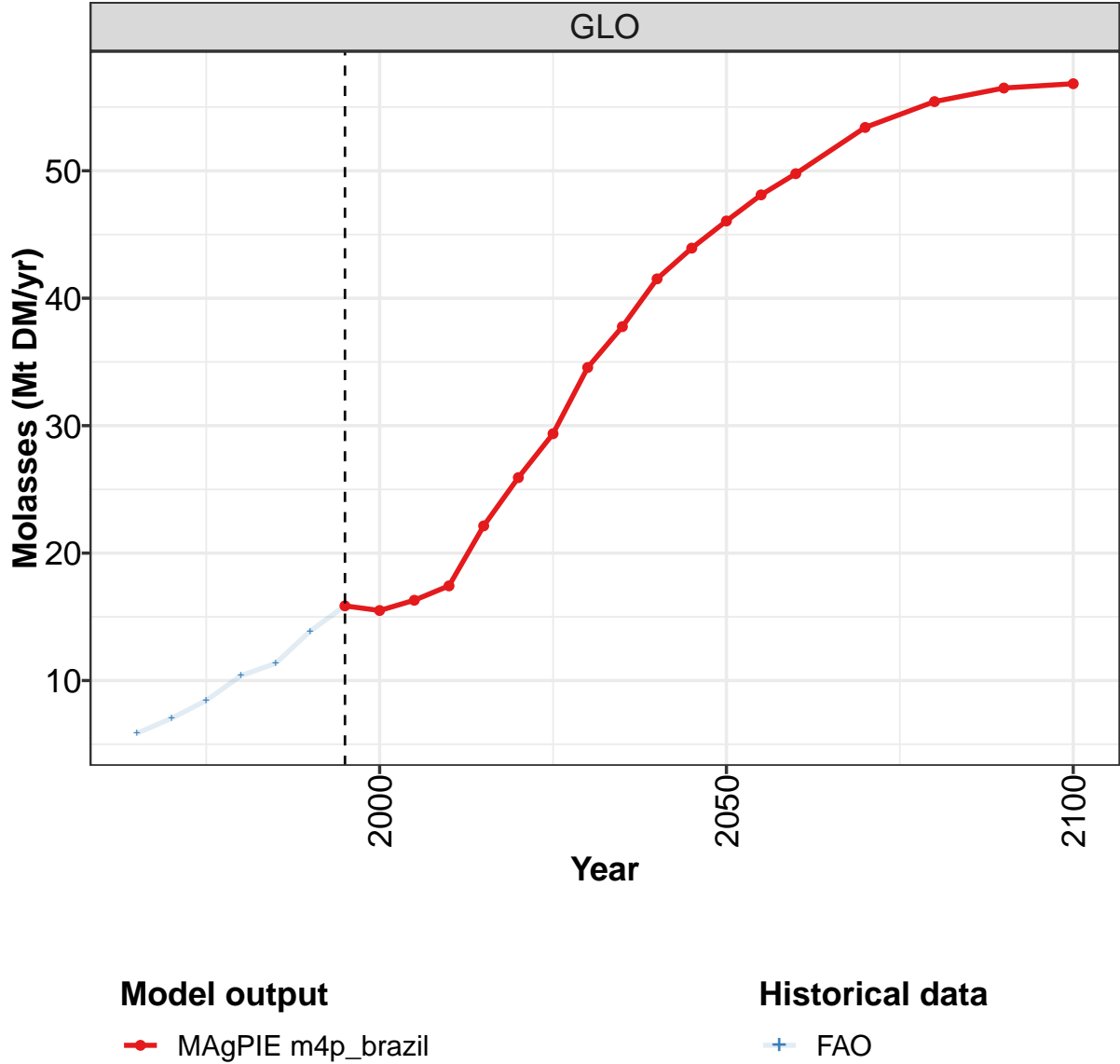
	2050	2055	2060	2070	2080	2090	2100
GLO	20.1	21.4	22.3	25.0	26.6	27.6	28.1
BRA	0.3	0.3	0.3	0.3	0.3	0.3	0.2
CHA	2.7	2.7	2.6	2.4	2.2	2.0	1.8
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROW	17.1	18.5	19.5	22.4	24.1	25.3	26.1
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 633: MAgPIE m4p_brazil — 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
BRA	0.00	0.02	0.02	0.02	0.03	0.06	0.08	0.09	0.09	0.09
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
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	1.03	1.06	1.16	1.69	2.08	3.32	3.84	4.47	5.93	6.30
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



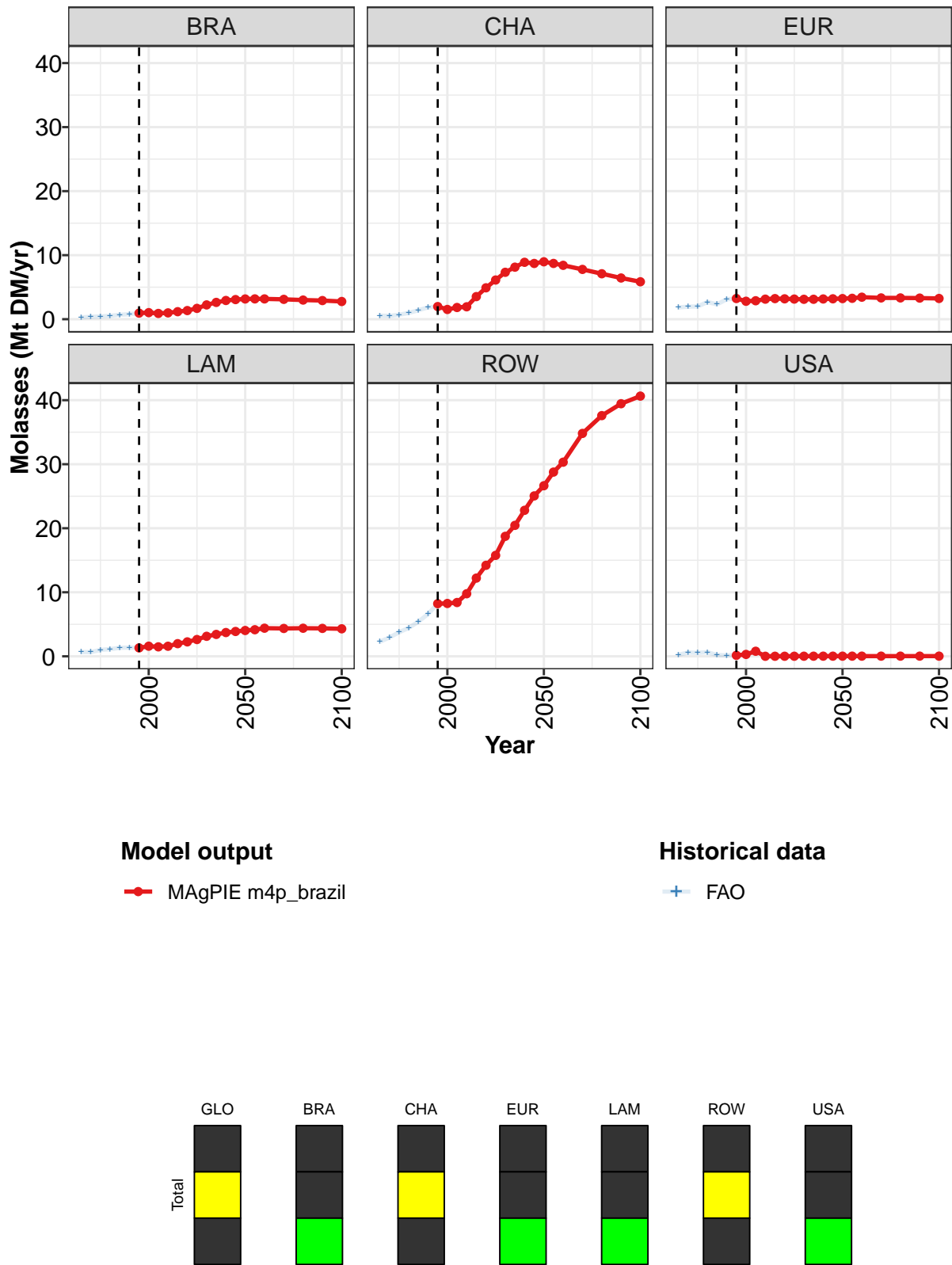


Figure 212: MAgPIE m4p_brazil — Demand—Processing—Secondary products—Molasses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	15.9	15.5	16.3	17.4	22.1	25.9	29.4	34.6	37.8	41.5	43.9
BRA	1.0	1.0	0.9	1.0	1.2	1.4	1.7	2.2	2.6	2.9	3.1
CHA	2.0	1.5	1.8	1.9	3.5	4.9	6.1	7.3	8.1	8.9	8.7
EUR	3.2	2.8	2.9	3.1	3.2	3.2	3.1	3.1	3.1	3.2	3.2
LAM	1.3	1.6	1.5	1.6	2.0	2.3	2.6	3.1	3.4	3.7	3.9
ROW	8.2	8.3	8.4	9.8	12.2	14.2	15.8	18.7	20.5	22.8	25.1
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_brazil — Demand—Processing—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

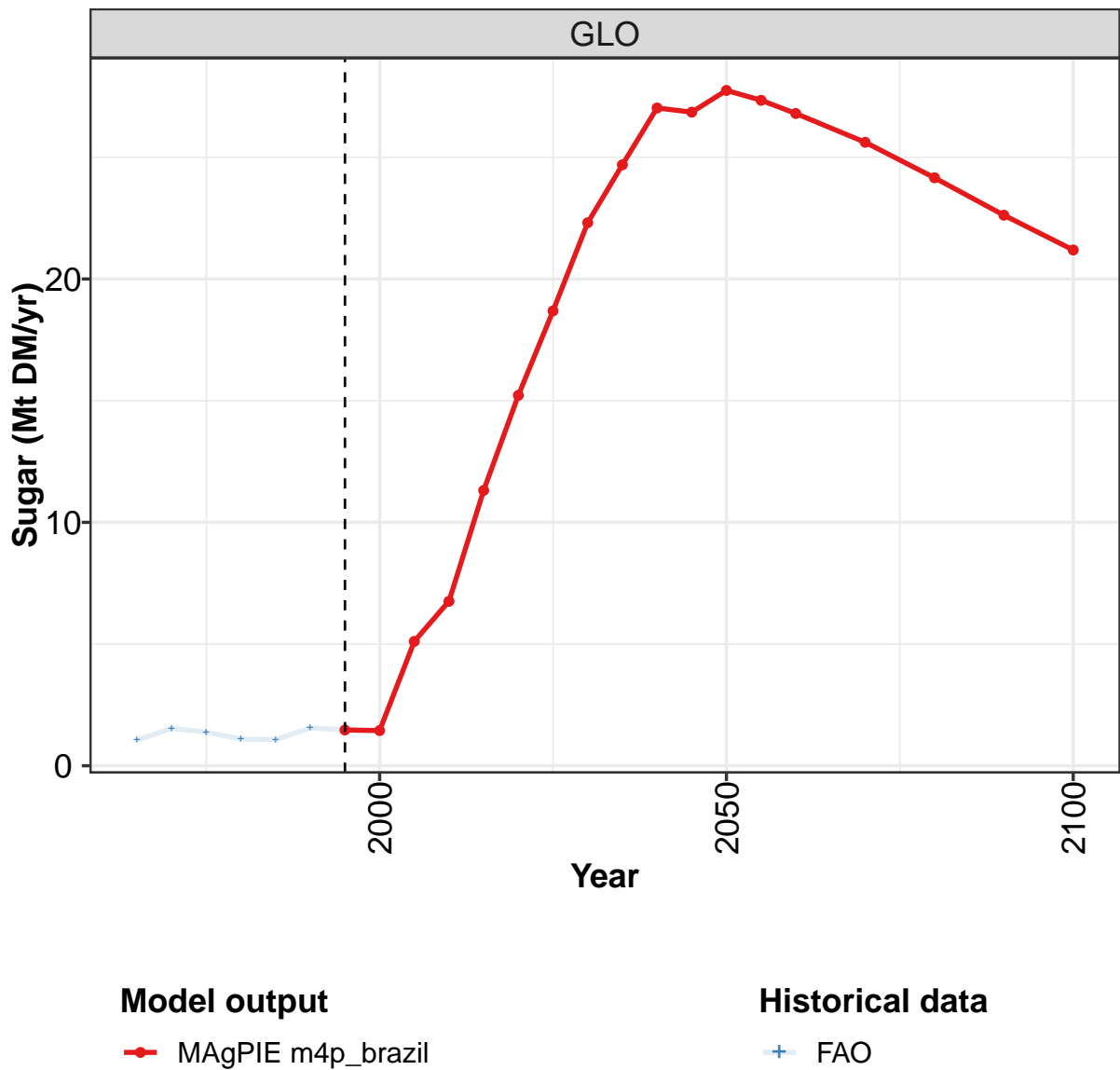
	2050	2055	2060	2070	2080	2090	2100
GLO	46.1	48.1	49.8	53.4	55.4	56.5	56.8
BRA	3.2	3.2	3.2	3.1	3.0	2.9	2.8
CHA	9.0	8.7	8.4	7.8	7.1	6.4	5.8
EUR	3.2	3.3	3.4	3.3	3.3	3.3	3.2
LAM	4.0	4.2	4.4	4.4	4.4	4.4	4.3
ROW	26.6	28.8	30.3	34.8	37.6	39.4	40.6
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 636: MAgPIE m4p_brazil — 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
BRA	0.3	0.4	0.4	0.5	0.7	0.8	1.0	1.0	1.0	1.0
CHA	0.6	0.5	0.7	1.0	1.4	1.9	2.0	1.5	1.8	2.0
EUR	1.8	2.0	2.0	2.7	2.3	3.1	3.2	2.8	2.9	3.1
LAM	0.7	0.7	1.0	1.1	1.3	1.4	1.3	1.5	1.6	1.7
ROW	2.3	2.9	3.8	4.4	5.4	6.6	8.2	8.2	8.3	9.8
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



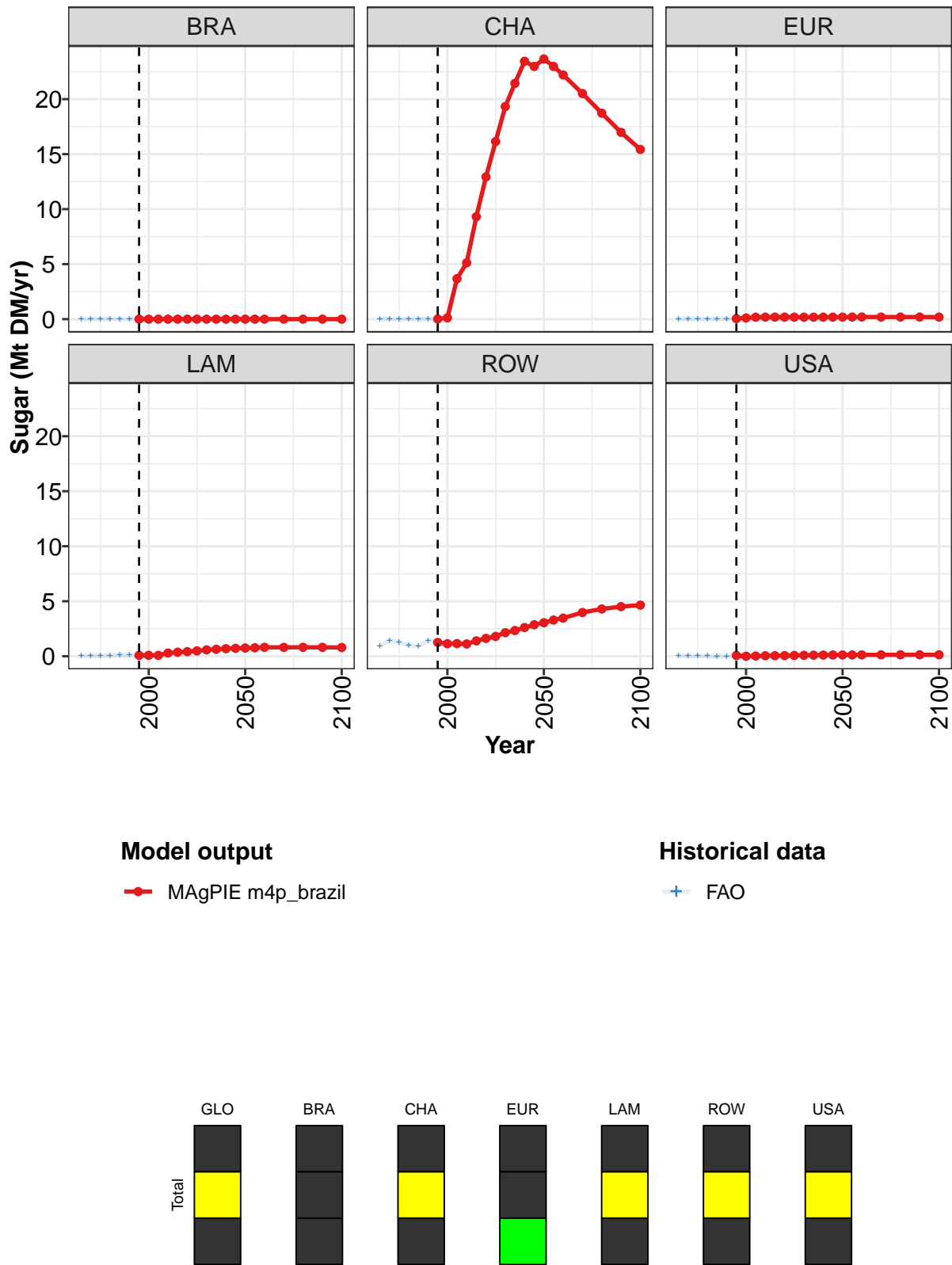


Figure 213: MAgPIE m4p_brazil — Demand—Processing—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.5	1.4	5.1	6.8	11.3	15.2	18.7	22.3	24.7	27.0	26.9
BRA	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	9.3	12.9	16.1	19.3	21.4	23.4	23.0
EUR	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	0.1	0.1	0.1	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.7
ROW	1.3	1.1	1.2	1.1	1.4	1.6	1.8	2.1	2.3	2.6	2.9
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_brazil — Demand—Processing—Secondary products—Sugar (Mt DM/yr) [PART 1/2]

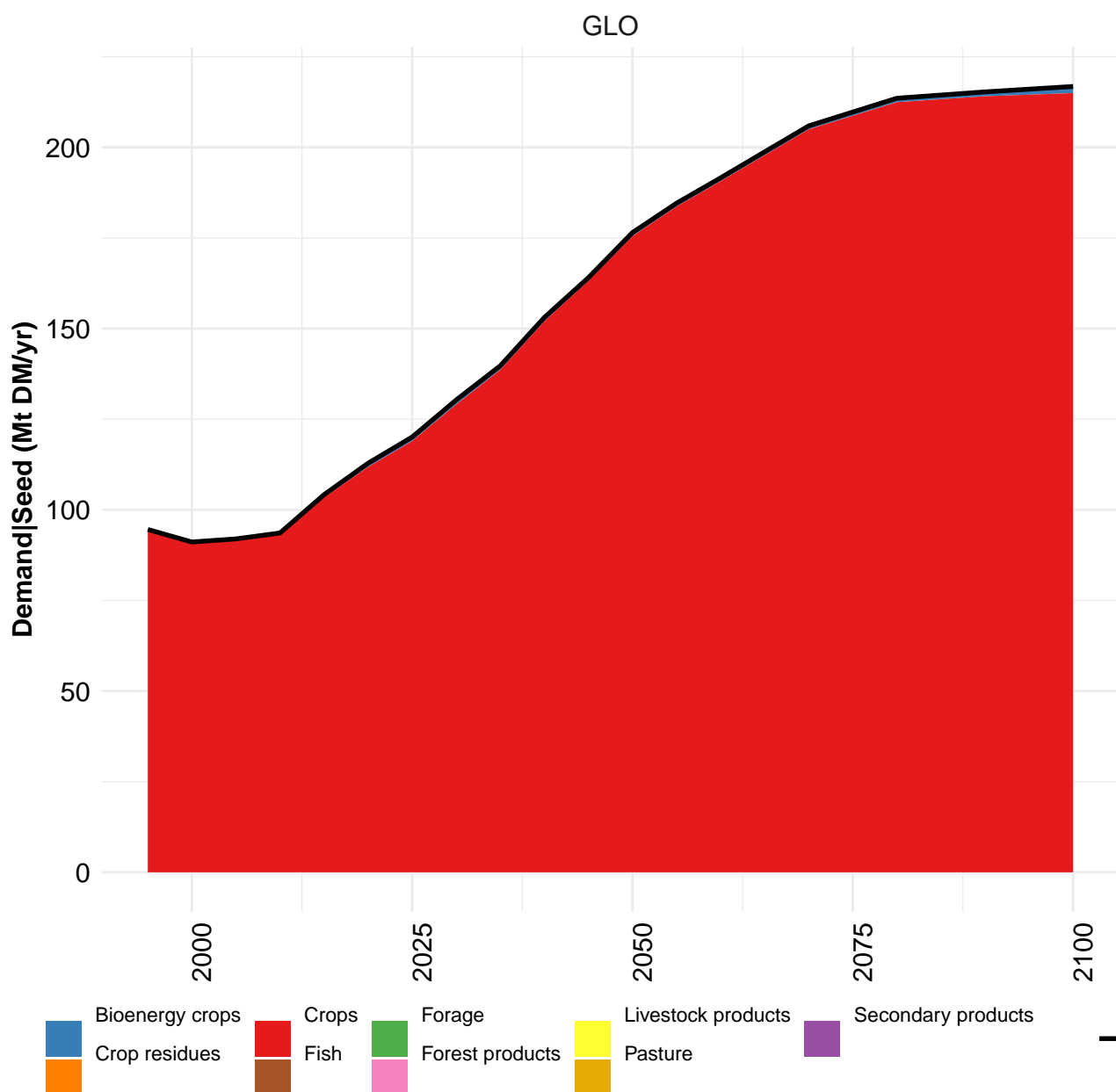
	2050	2055	2060	2070	2080	2090	2100
GLO	27.7	27.3	26.8	25.6	24.2	22.6	21.2
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	23.7	23.0	22.2	20.5	18.7	17.0	15.4
EUR	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	0.7	0.8	0.8	0.8	0.8	0.8	0.8
ROW	3.0	3.3	3.5	4.0	4.3	4.5	4.6
USA	0.1	0.1	0.1	0.1	0.1	0.1	0.1

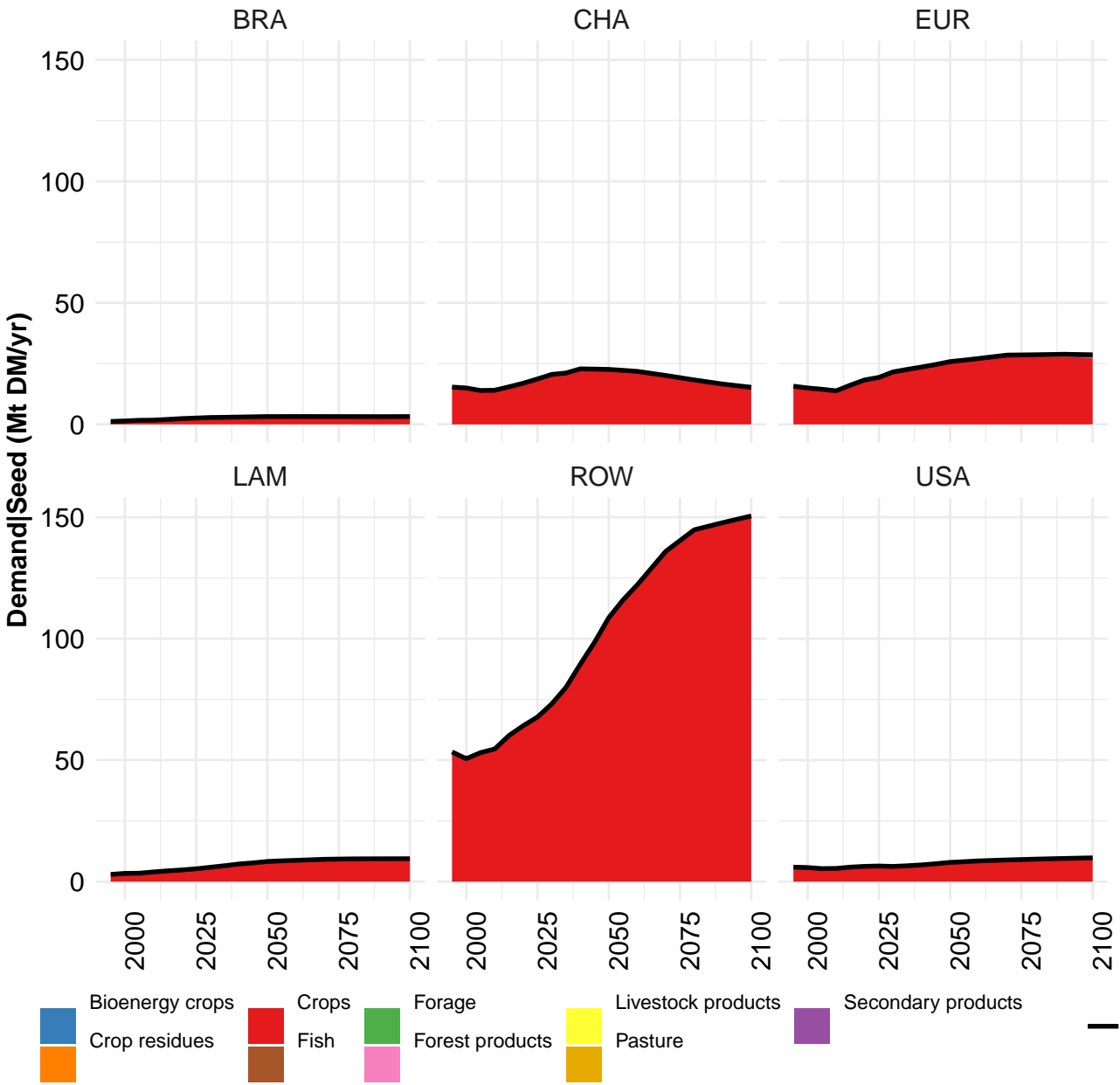
Table 639: MAgPIE m4p_brazil — Demand—Processing—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

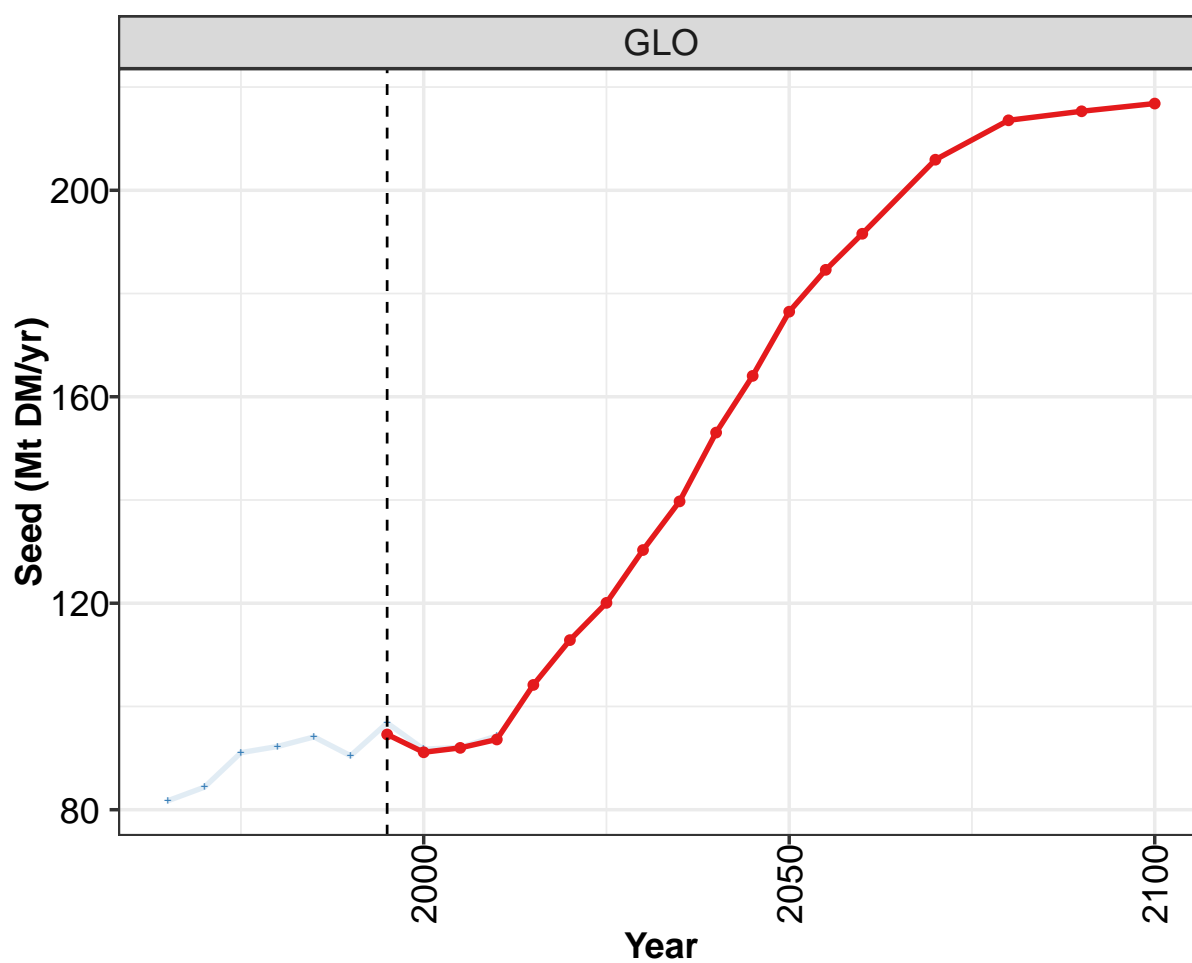
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.05	1.54	1.39	1.09	1.07	1.55	1.47	1.44	5.07	6.81
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.12	3.65	5.16
EUR	0.01	0.04	0.03	0.02	0.03	0.02	0.05	0.11	0.18	0.18
LAM	0.04	0.04	0.06	0.08	0.11	0.11	0.08	0.08	0.09	0.31
ROW	0.95	1.44	1.27	0.97	0.92	1.41	1.26	1.14	1.13	1.12
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_brazil

Historical data

—+— FAO

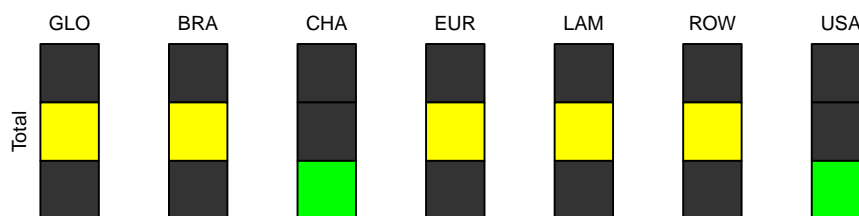
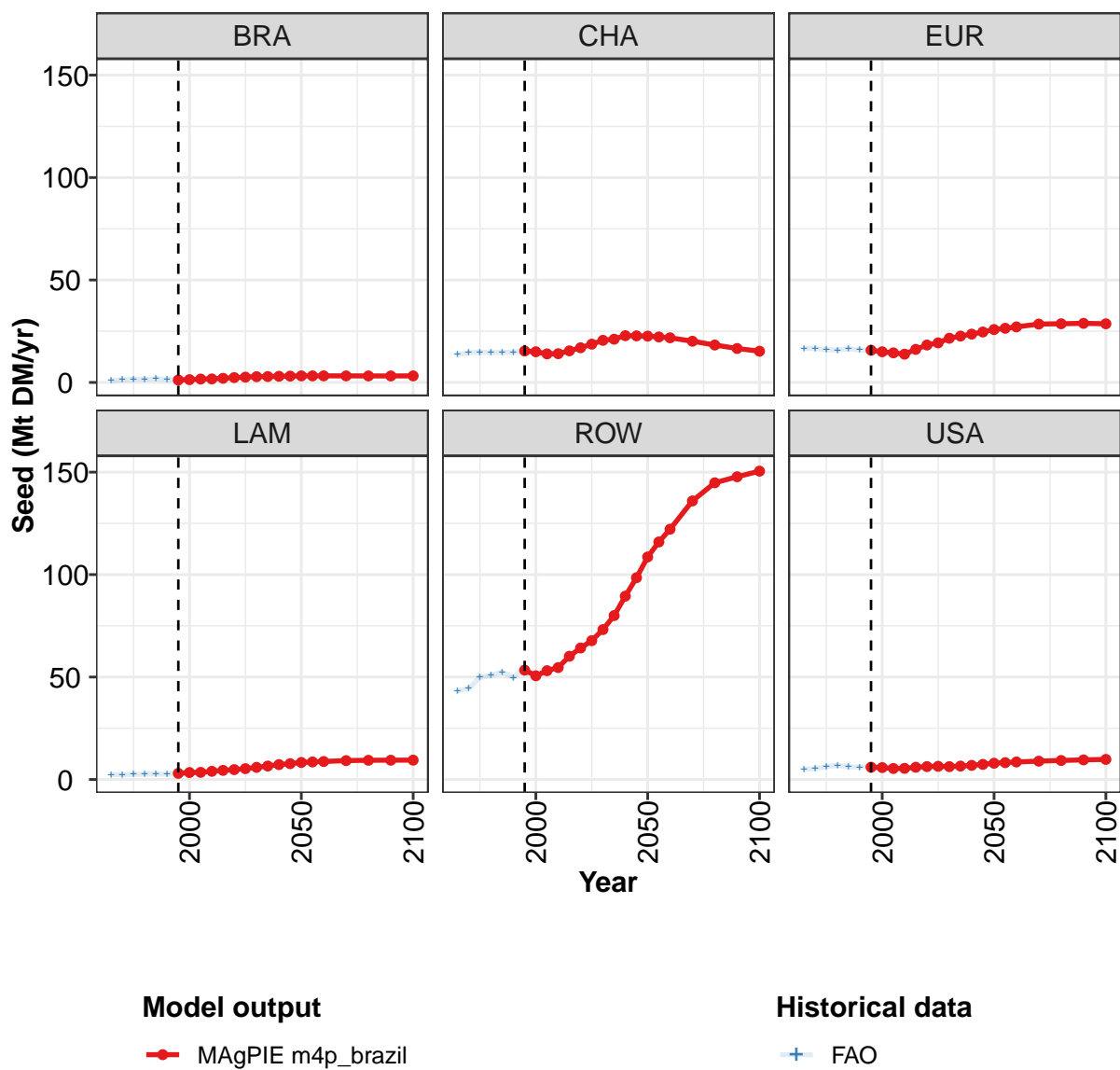


Figure 214: MAgPIE m4p_brazil — Demand—Seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	95	91	92	94	104	113	120	130	140	153	164
BRA	1	1	2	2	2	2	3	3	3	3	3
CHA	15	15	14	14	15	17	19	21	21	23	23
EUR	16	15	14	14	16	18	19	22	23	24	25
LAM	3	3	3	4	4	5	5	6	7	7	8
ROW	53	51	53	55	60	64	68	73	80	89	98
USA	6	6	5	5	6	6	6	6	7	7	7

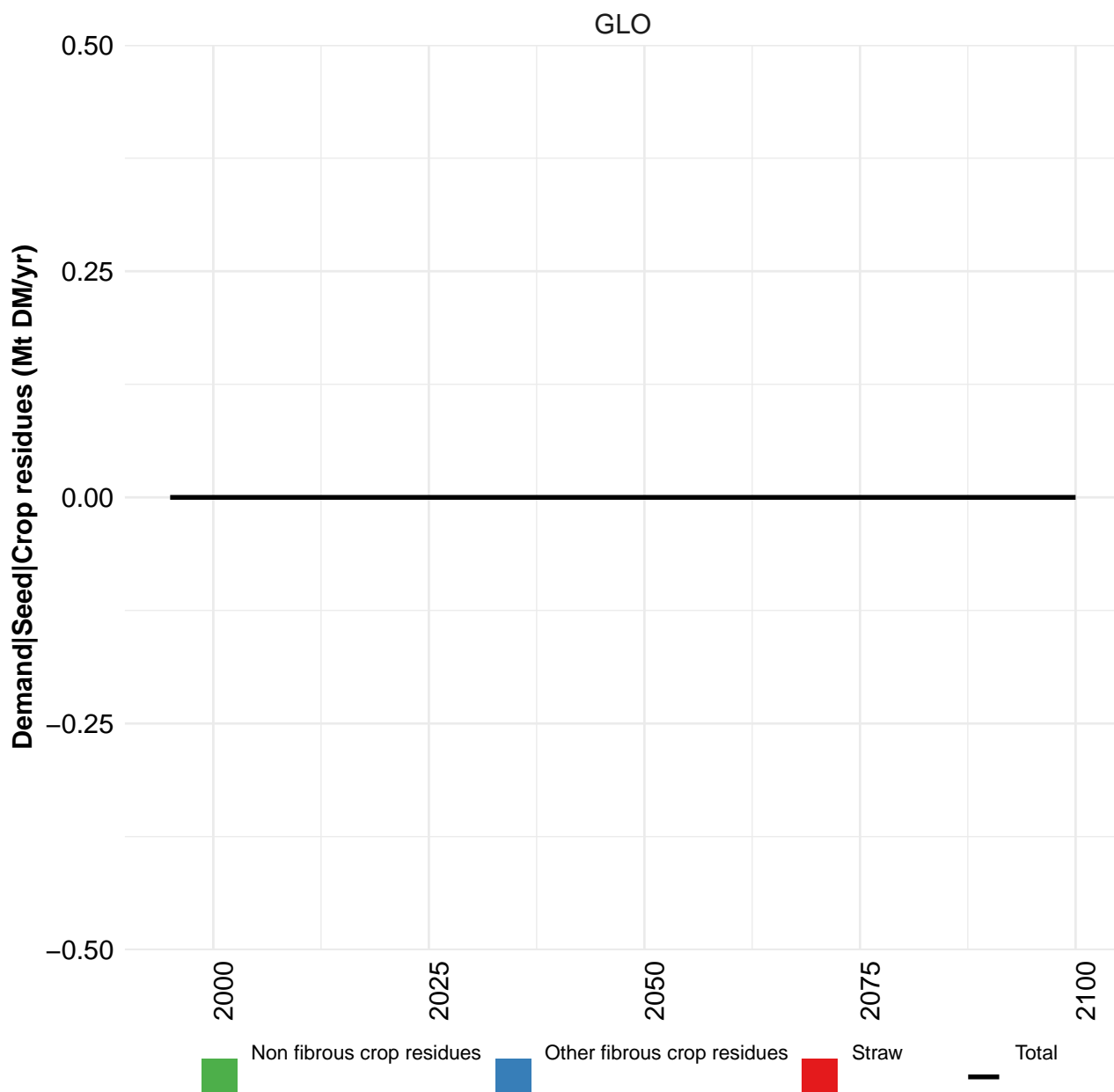
Table 641: MAgPIE m4p_brazil — Demand—Seed (Mt DM/yr) [PART 1/2]

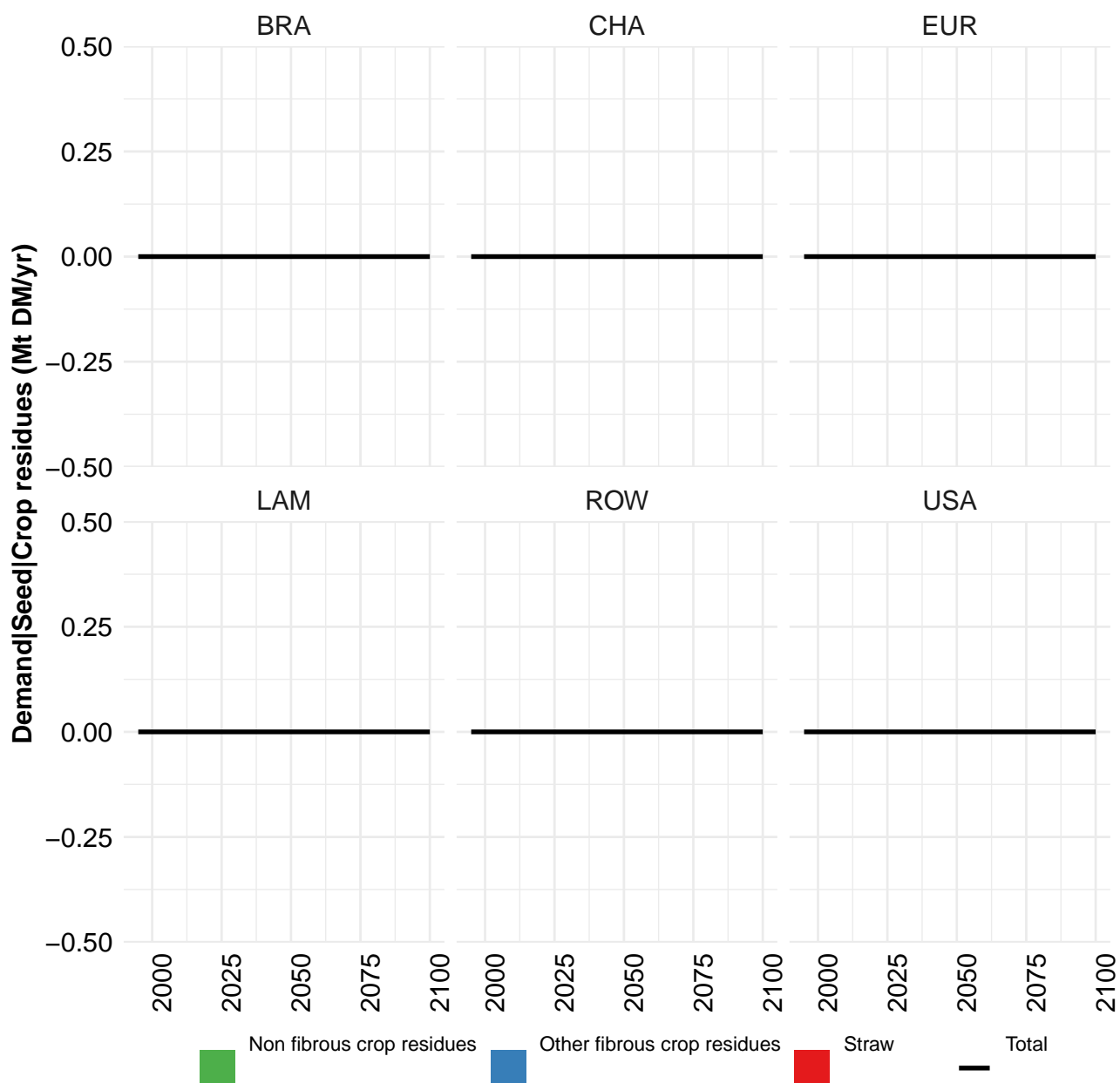
	2050	2055	2060	2070	2080	2090	2100
GLO	176	185	192	206	214	215	217
BRA	3	3	3	3	3	3	3
CHA	23	22	22	20	18	17	15
EUR	26	26	27	29	29	29	29
LAM	8	9	9	9	9	9	9
ROW	109	116	122	136	145	148	150
USA	8	8	9	9	9	10	10

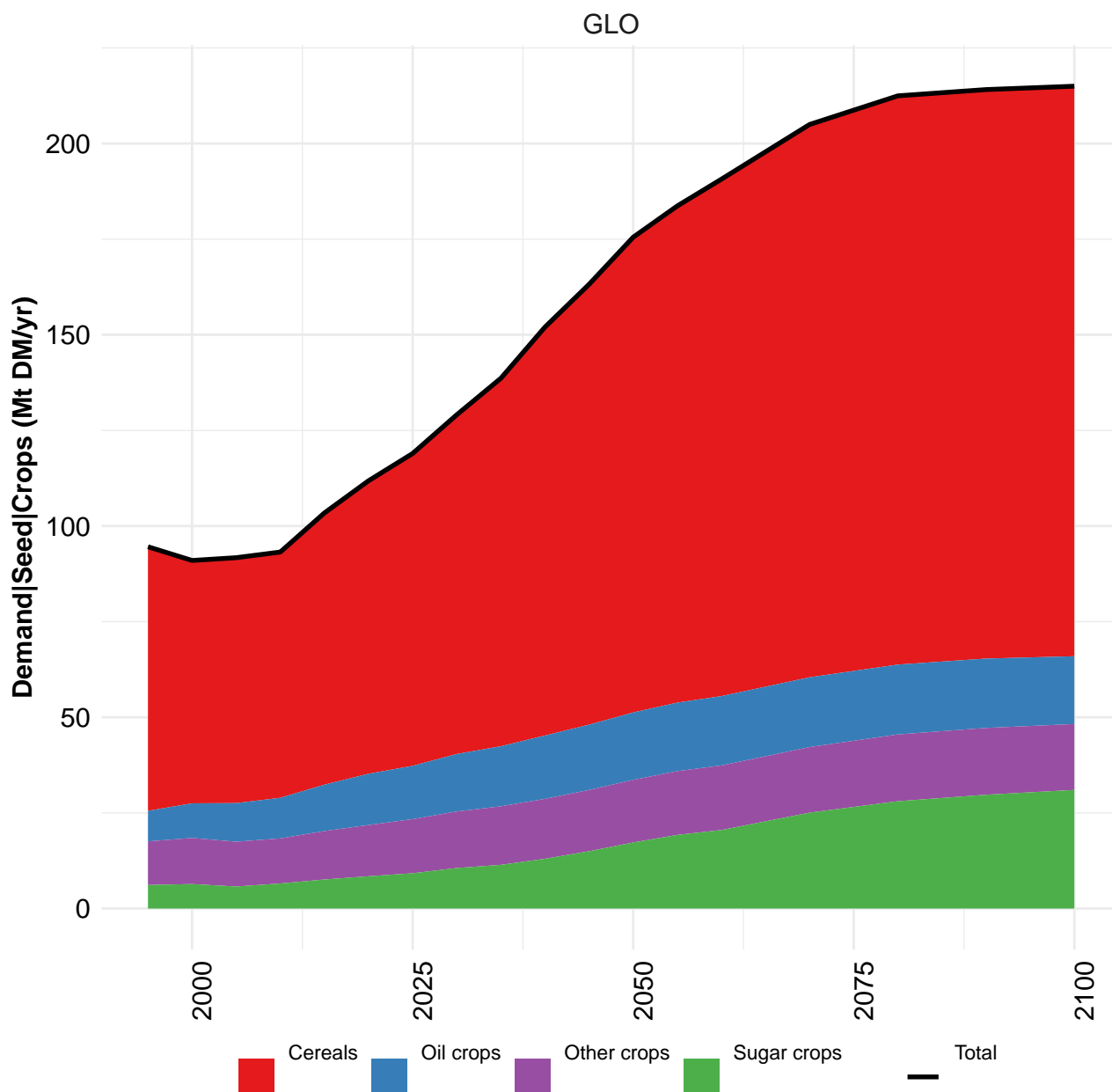
Table 642: MAgPIE m4p_brazil — Demand—Seed (Mt DM/yr) [PART 2/2]

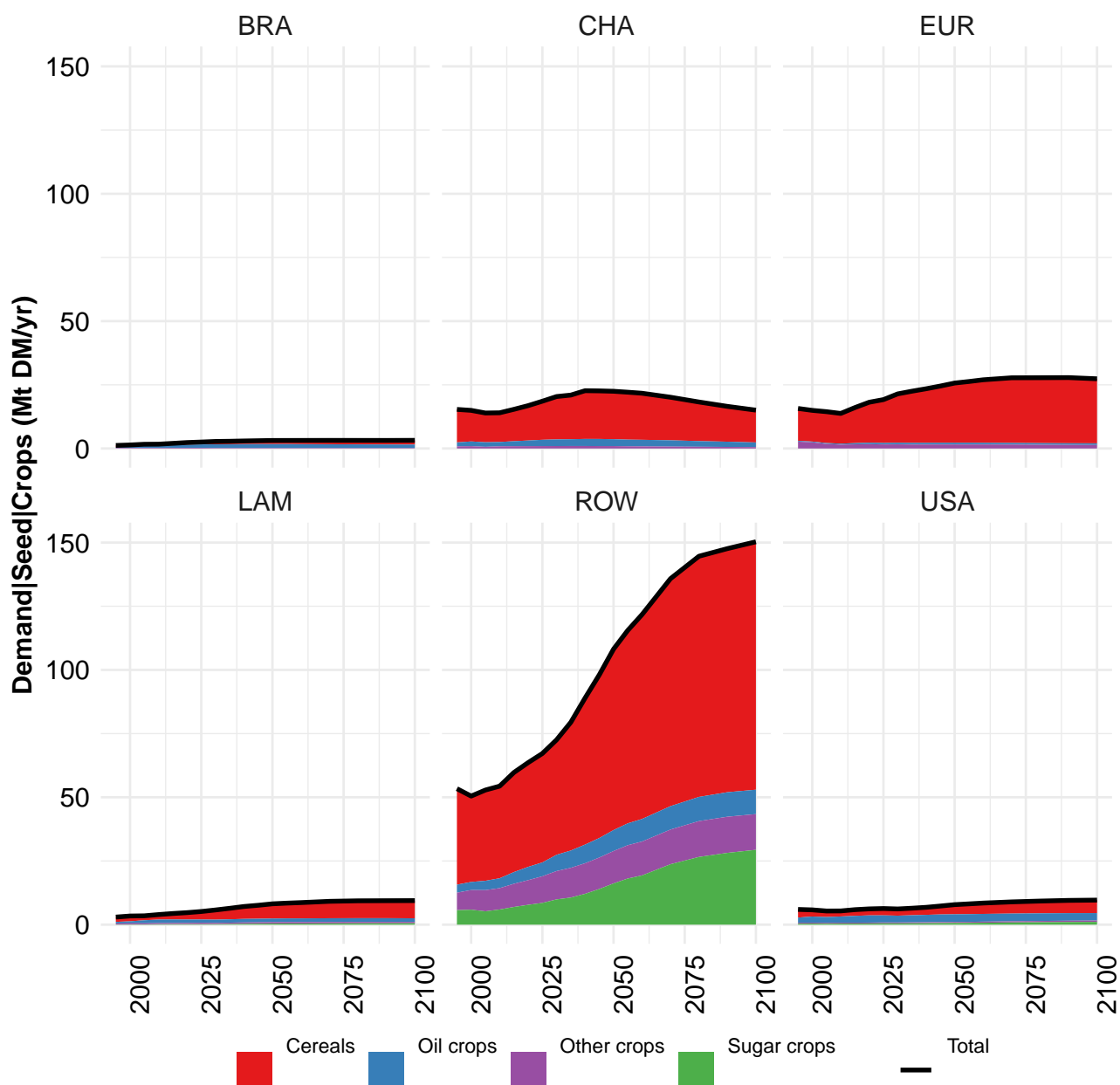
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	81.7	84.4	91.1	92.2	94.1	90.4	96.8	91.7	92.1	94.3
BRA	0.9	1.2	1.7	1.6	1.8	1.6	1.4	1.5	1.8	1.9
CHA	13.6	14.4	14.8	14.5	14.7	14.7	15.6	15.3	14.1	14.4
EUR	16.6	16.6	16.0	15.8	16.4	15.8	15.5	14.6	14.0	13.1
LAM	2.4	2.3	2.5	2.6	2.7	2.6	3.0	3.3	3.4	3.9
ROW	43.2	44.4	49.8	50.9	52.3	49.7	54.8	50.7	52.4	54.7
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)

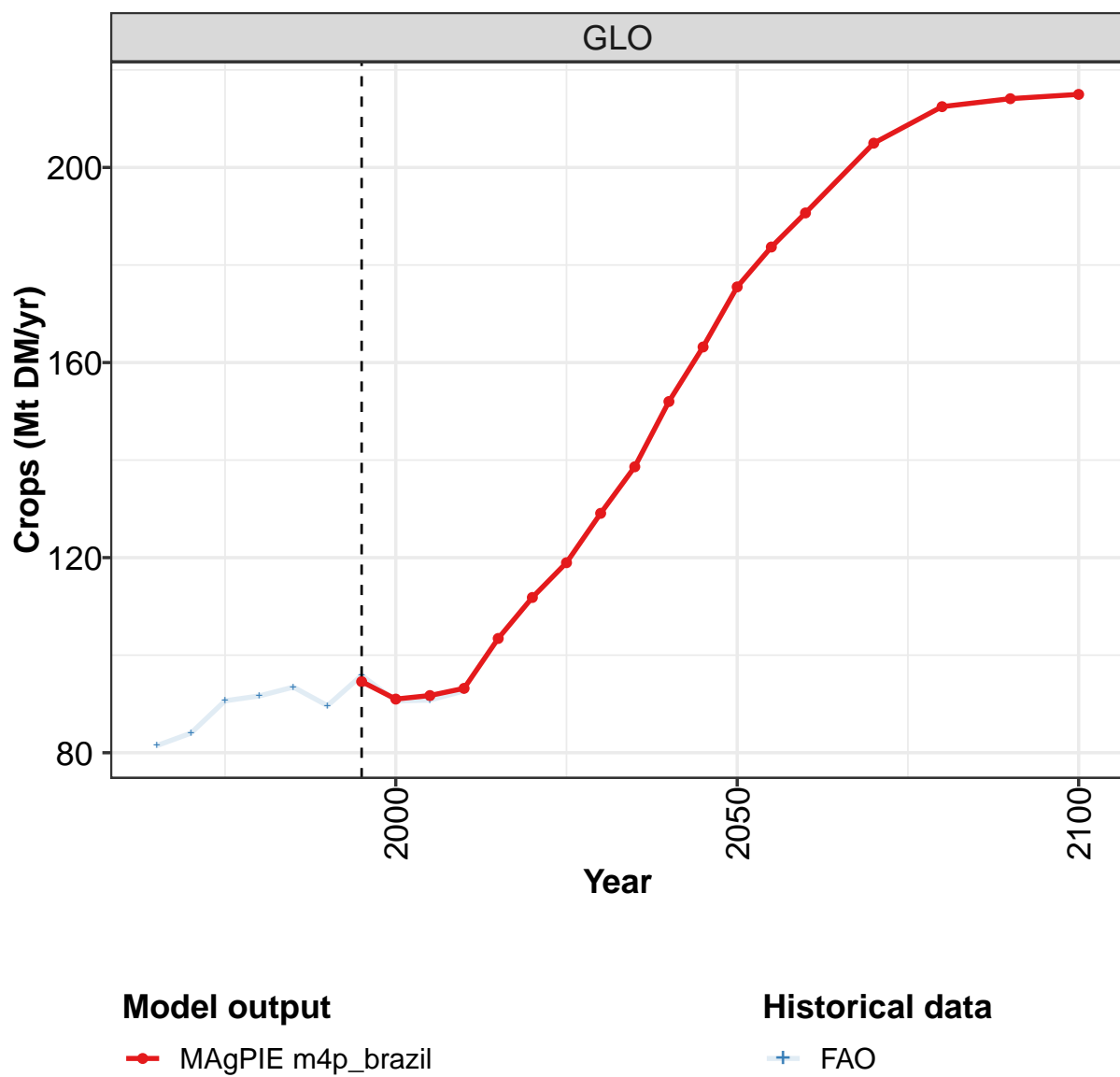








10.1 Crops



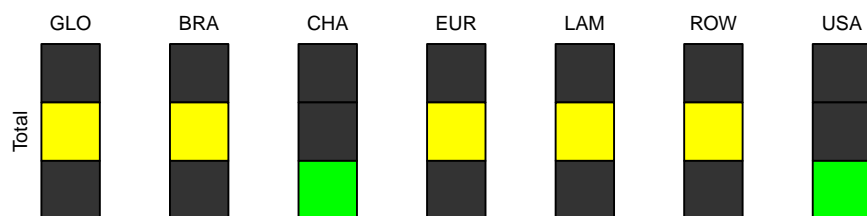
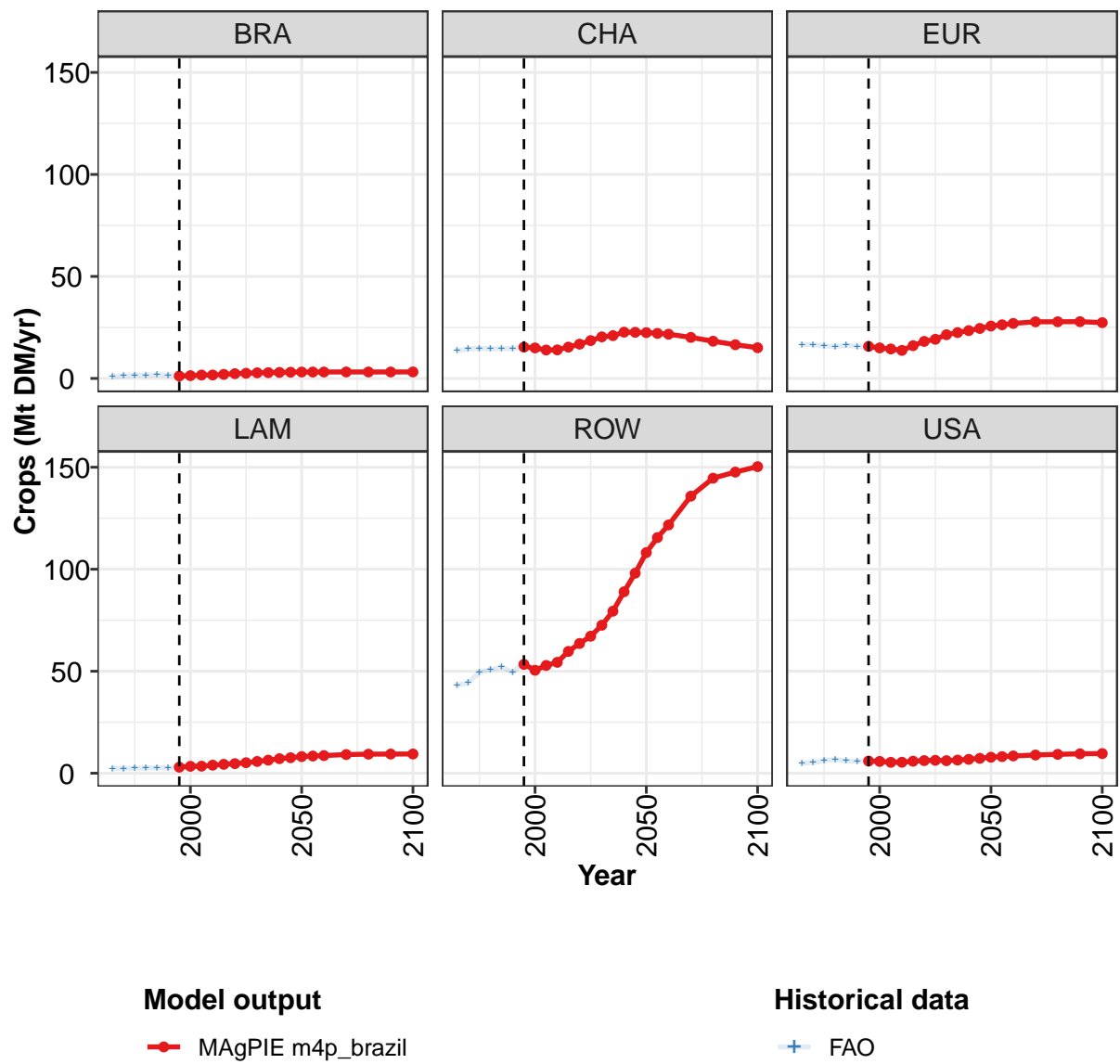


Figure 215: MAgPIE m4p_brazil — Demand—Seed—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	95	91	92	93	103	112	119	129	139	152	163
BRA	1	1	2	2	2	2	3	3	3	3	3
CHA	15	15	14	14	15	17	19	20	21	23	23
EUR	16	15	14	14	16	18	19	21	22	23	25
LAM	3	3	3	4	4	5	5	6	6	7	8
ROW	53	50	53	54	60	64	67	73	79	89	98
USA	6	6	5	5	6	6	6	6	6	7	7

Table 644: MAgPIE m4p_brazil — Demand—Seed—Crops (Mt DM/yr) [PART 1/2]

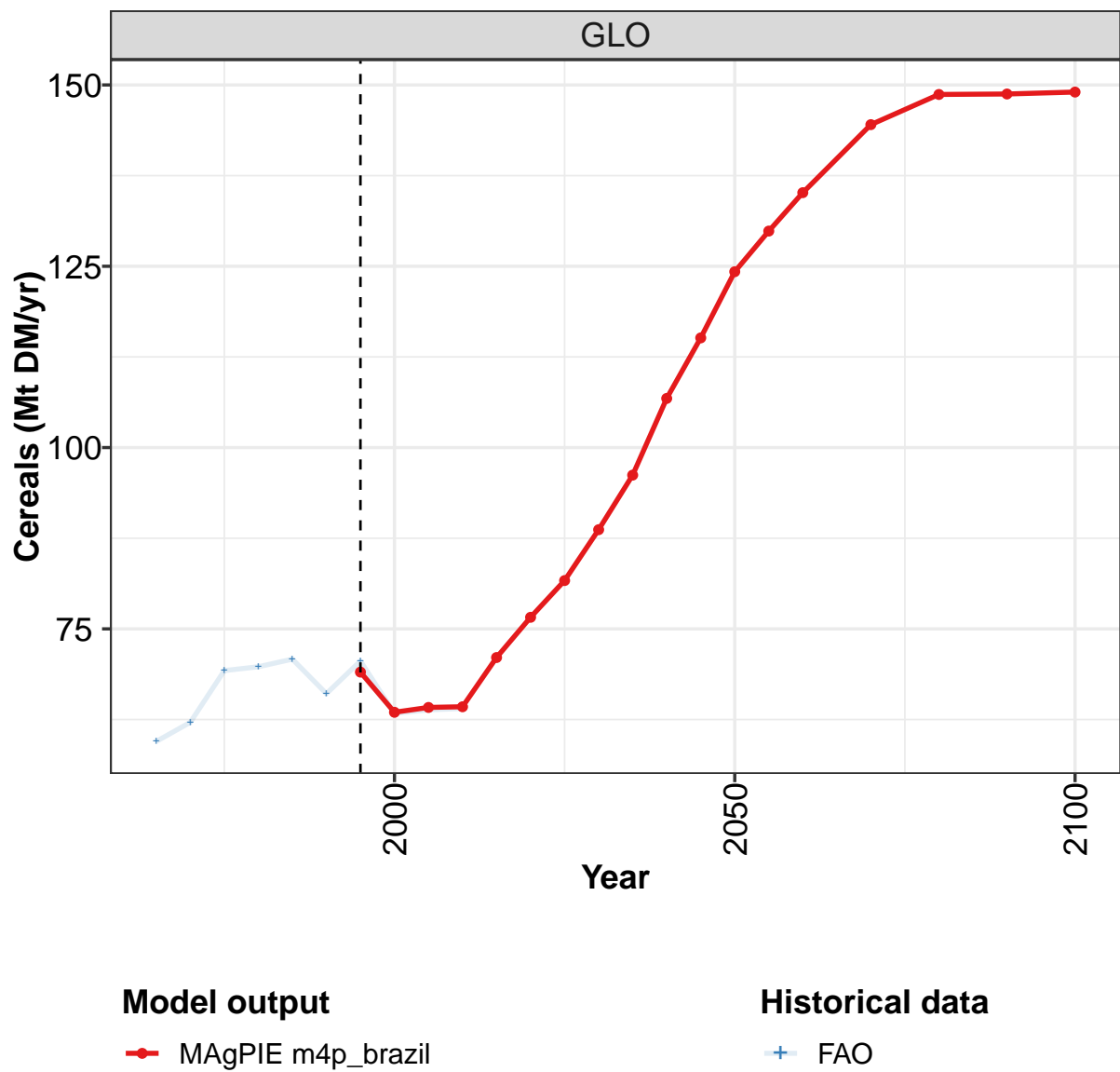
	2050	2055	2060	2070	2080	2090	2100
GLO	176	184	191	205	212	214	215
BRA	3	3	3	3	3	3	3
CHA	22	22	22	20	18	17	15
EUR	26	26	27	28	28	28	27
LAM	8	8	9	9	9	9	9
ROW	108	116	122	136	145	148	150
USA	8	8	8	9	9	10	10

Table 645: MAgPIE m4p_brazil — 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
BRA	0.9	1.2	1.7	1.6	1.7	1.5	1.3	1.4	1.7	1.8
CHA	13.6	14.4	14.8	14.4	14.6	14.7	15.5	15.1	13.9	14.1
EUR	16.5	16.6	15.9	15.6	16.3	15.7	15.3	14.4	13.8	12.9
LAM	2.4	2.3	2.5	2.6	2.7	2.5	2.9	3.2	3.3	3.8
ROW	43.1	44.3	49.6	50.7	52.1	49.4	54.5	50.3	52.0	54.1
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



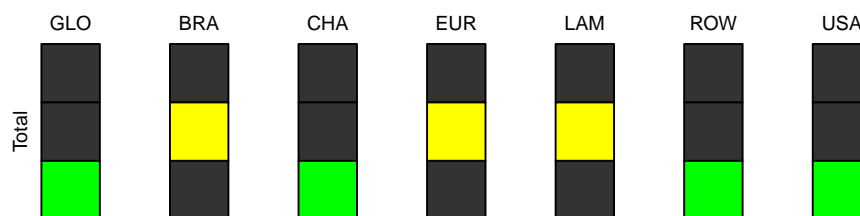
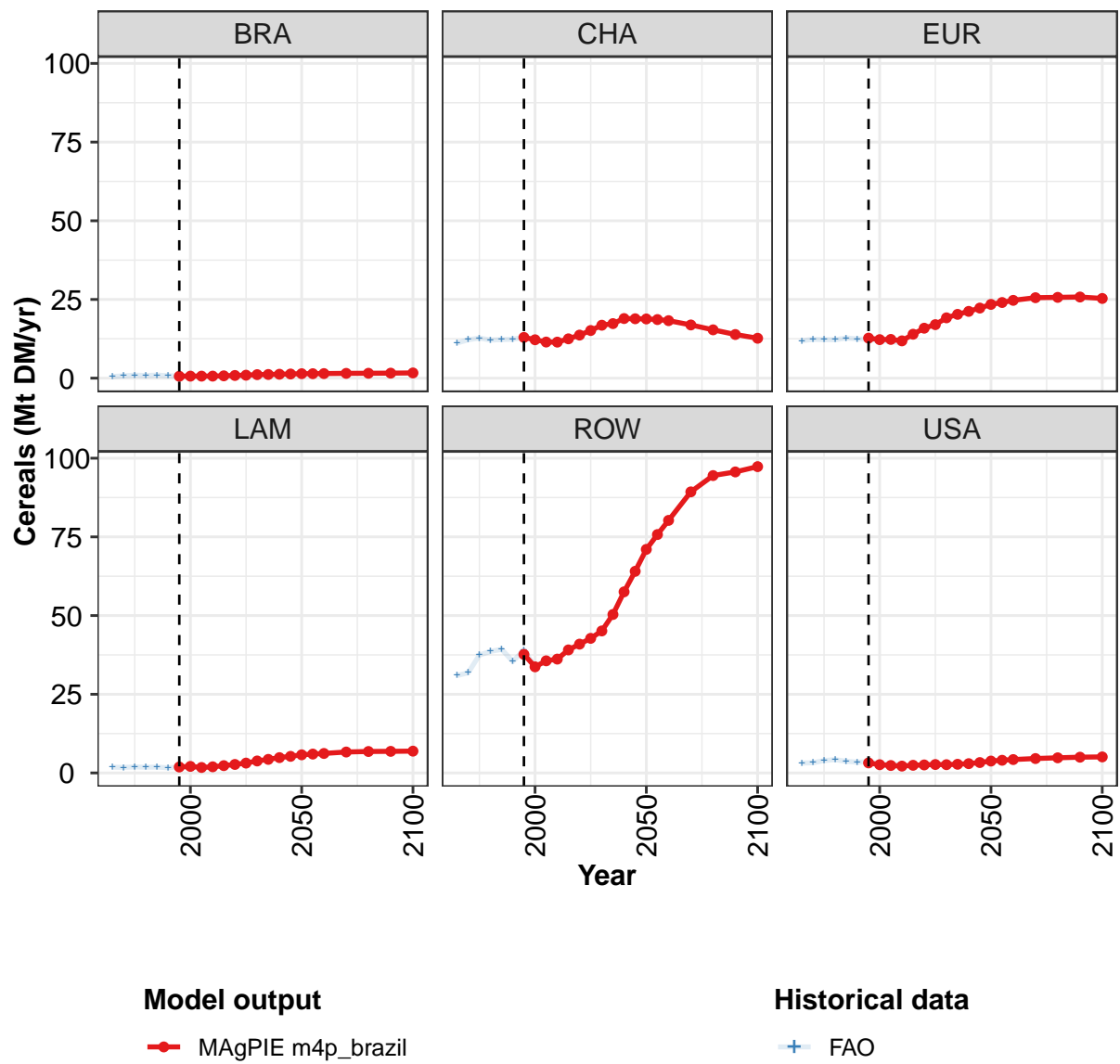


Figure 216: MAgPIE m4p_brazil — Demand—Seed—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	69	64	64	64	71	77	82	89	96	107	115
BRA	1	1	1	1	1	1	1	1	1	1	1
CHA	13	12	11	11	13	14	15	17	17	19	19
EUR	13	12	12	12	14	16	17	19	20	21	22
LAM	2	2	2	2	2	3	3	4	4	5	5
ROW	38	34	36	36	39	41	43	45	50	58	64
USA	3	3	2	2	2	3	3	3	3	3	3

Table 647: MAgPIE m4p_brazil — Demand—Seed—Crops—Cereals (Mt DM/yr) [PART 1/2]

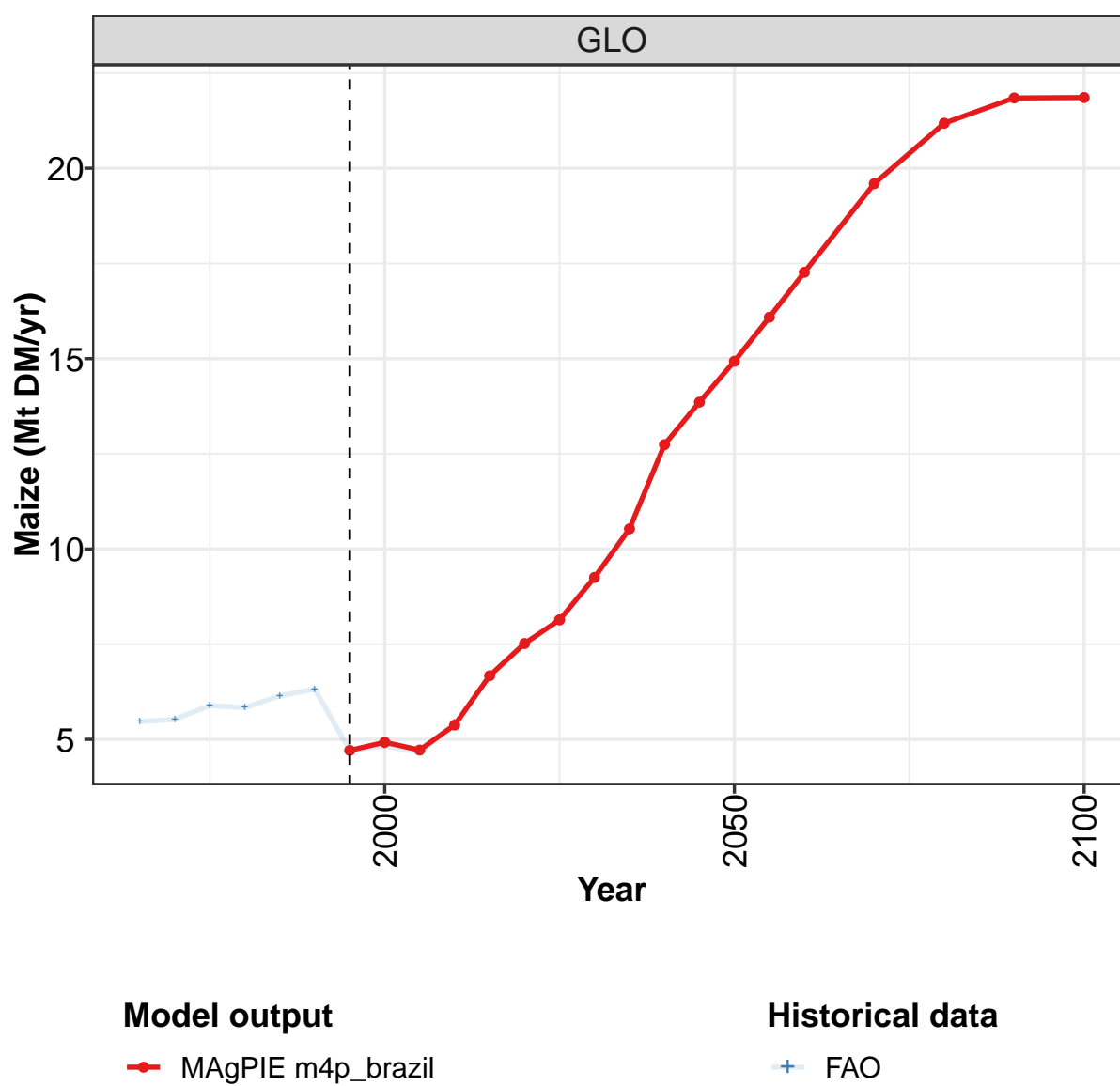
	2050	2055	2060	2070	2080	2090	2100
GLO	124	130	135	145	149	149	149
BRA	1	1	1	2	2	2	2
CHA	19	19	18	17	15	14	13
EUR	23	24	25	26	26	26	25
LAM	6	6	6	7	7	7	7
ROW	71	76	80	89	94	96	97
USA	4	4	4	5	5	5	5

Table 648: MAgPIE m4p_brazil — 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
BRA	0.5	0.7	1.0	0.8	1.0	0.8	0.7	0.7	0.7	0.7
CHA	11.2	12.2	12.7	12.1	12.2	12.4	13.0	12.3	11.5	11.6
EUR	11.9	12.3	12.2	12.2	12.8	12.5	12.4	11.8	11.7	11.0
LAM	1.8	1.8	1.9	1.8	1.9	1.6	1.9	1.9	1.8	2.0
ROW	31.0	31.8	37.5	38.6	39.3	35.4	39.0	33.8	35.4	36.1
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



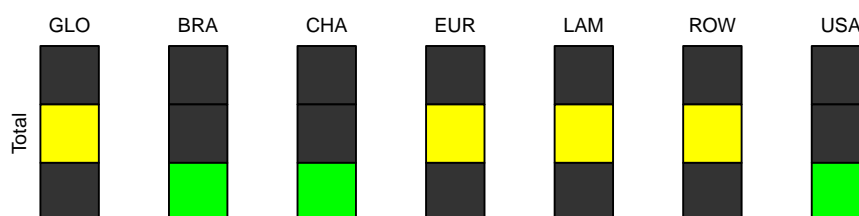
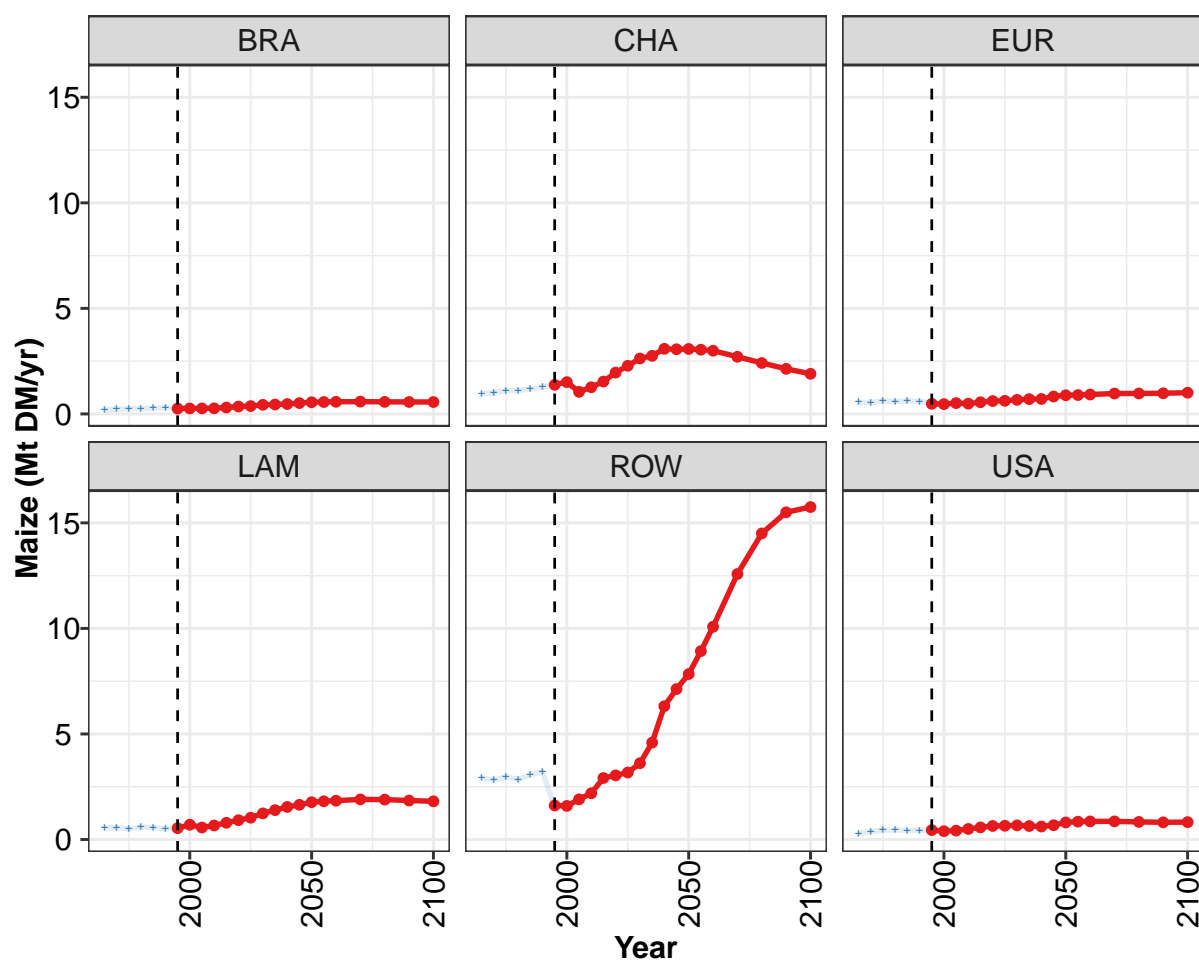


Figure 217: MAGPIE m4p_brazil — Demand—Seed—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.7	4.9	4.7	5.4	6.7	7.5	8.1	9.3	10.5	12.7	13.9
BRA	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5
CHA	1.4	1.5	1.0	1.3	1.5	2.0	2.3	2.6	2.8	3.1	3.1
EUR	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.8
LAM	0.5	0.7	0.6	0.7	0.8	0.9	1.0	1.2	1.4	1.5	1.6
ROW	1.6	1.6	1.9	2.2	2.9	3.0	3.2	3.6	4.6	6.3	7.1
USA	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.6	0.6	0.7

Table 650: MAgPIE m4p_brazil — Demand—Seed—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

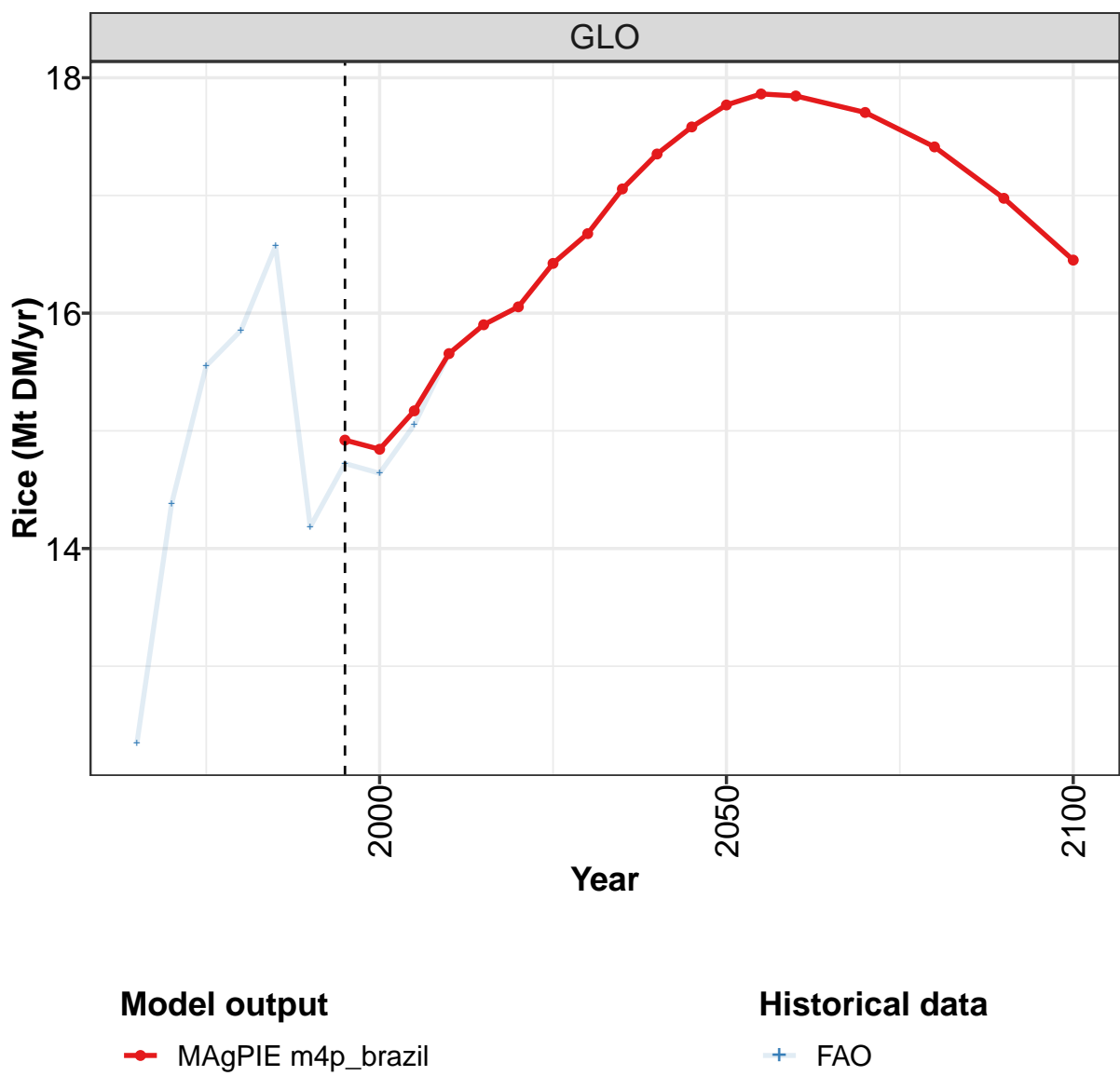
	2050	2055	2060	2070	2080	2090	2100
GLO	14.9	16.1	17.3	19.6	21.2	21.8	21.9
BRA	0.6	0.6	0.6	0.6	0.6	0.6	0.6
CHA	3.1	3.0	3.0	2.7	2.4	2.1	1.9
EUR	0.9	0.9	0.9	1.0	1.0	1.0	1.0
LAM	1.8	1.8	1.8	1.9	1.9	1.8	1.8
ROW	7.8	8.9	10.1	12.6	14.5	15.5	15.8
USA	0.8	0.8	0.9	0.9	0.8	0.8	0.8

Table 651: MAgPIE m4p_brazil — 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
BRA	0.19	0.23	0.24	0.25	0.27	0.30	0.27	0.27	0.29	0.30
CHA	0.97	1.00	1.11	1.11	1.17	1.28	1.41	1.53	1.01	1.29
EUR	0.55	0.54	0.61	0.59	0.62	0.59	0.50	0.46	0.47	0.46
LAM	0.54	0.57	0.50	0.58	0.57	0.51	0.54	0.57	0.58	0.67
ROW	2.91	2.81	2.98	2.85	3.08	3.21	1.53	1.57	1.86	2.21
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



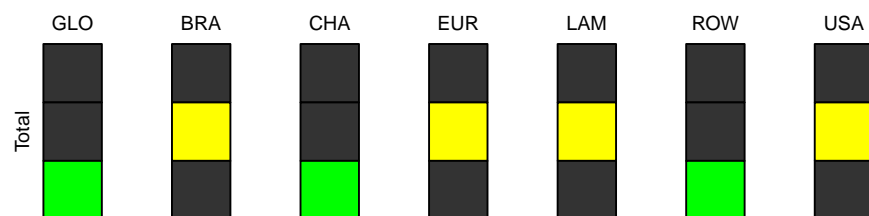
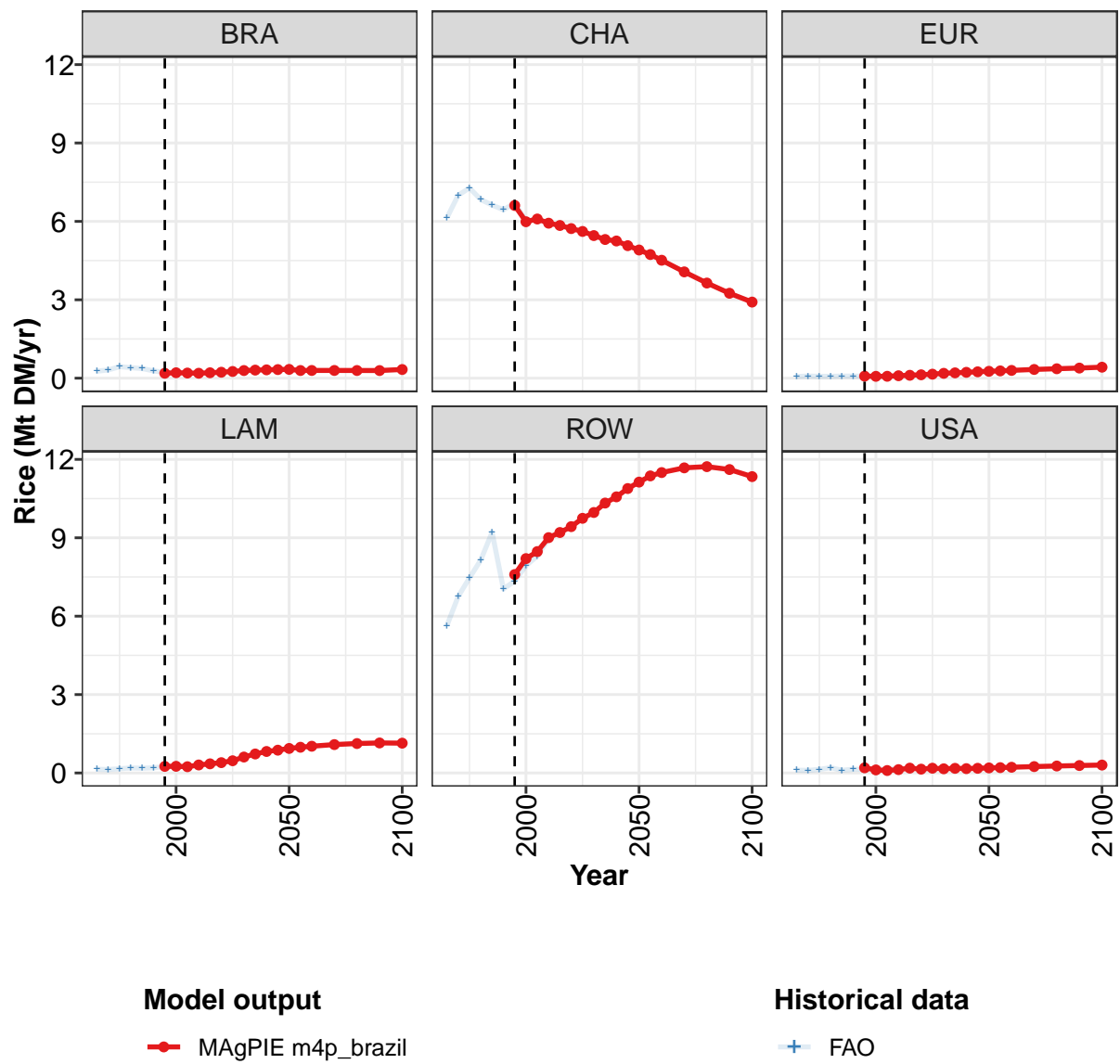


Figure 218: MAgPIE m4p_brazil — Demand—Seed—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	14.9	14.8	15.2	15.7	15.9	16.1	16.4	16.7	17.1	17.4	17.6
BRA	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
CHA	6.6	6.0	6.1	5.9	5.8	5.7	5.6	5.5	5.3	5.3	5.1
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
LAM	0.3	0.3	0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.8	0.9
ROW	7.6	8.2	8.5	9.0	9.2	9.4	9.7	10.0	10.3	10.6	10.9
USA	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2

Table 653: MAgPIE m4p.brazil — Demand—Seed—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

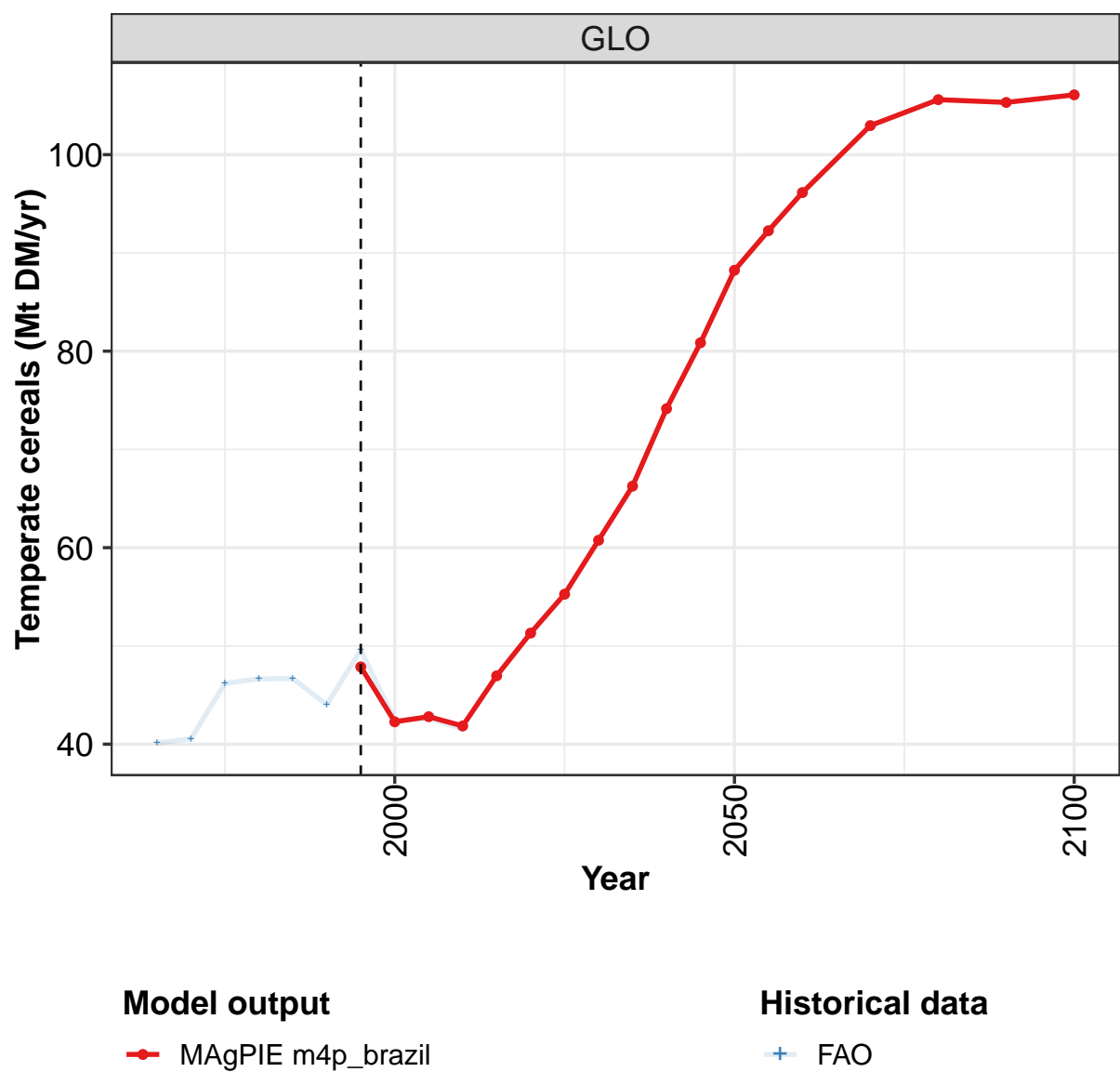
	2050	2055	2060	2070	2080	2090	2100
GLO	17.8	17.9	17.8	17.7	17.4	17.0	16.5
BRA	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CHA	4.9	4.7	4.5	4.1	3.6	3.3	2.9
EUR	0.3	0.3	0.3	0.3	0.4	0.4	0.4
LAM	0.9	1.0	1.0	1.1	1.1	1.1	1.1
ROW	11.1	11.4	11.5	11.7	11.7	11.6	11.3
USA	0.2	0.2	0.2	0.2	0.3	0.3	0.3

Table 654: MAgPIE m4p.brazil — 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
BRA	0.3	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2
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
LAM	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3
ROW	5.6	6.8	7.5	8.1	9.2	7.0	7.3	7.9	8.3	9.0
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



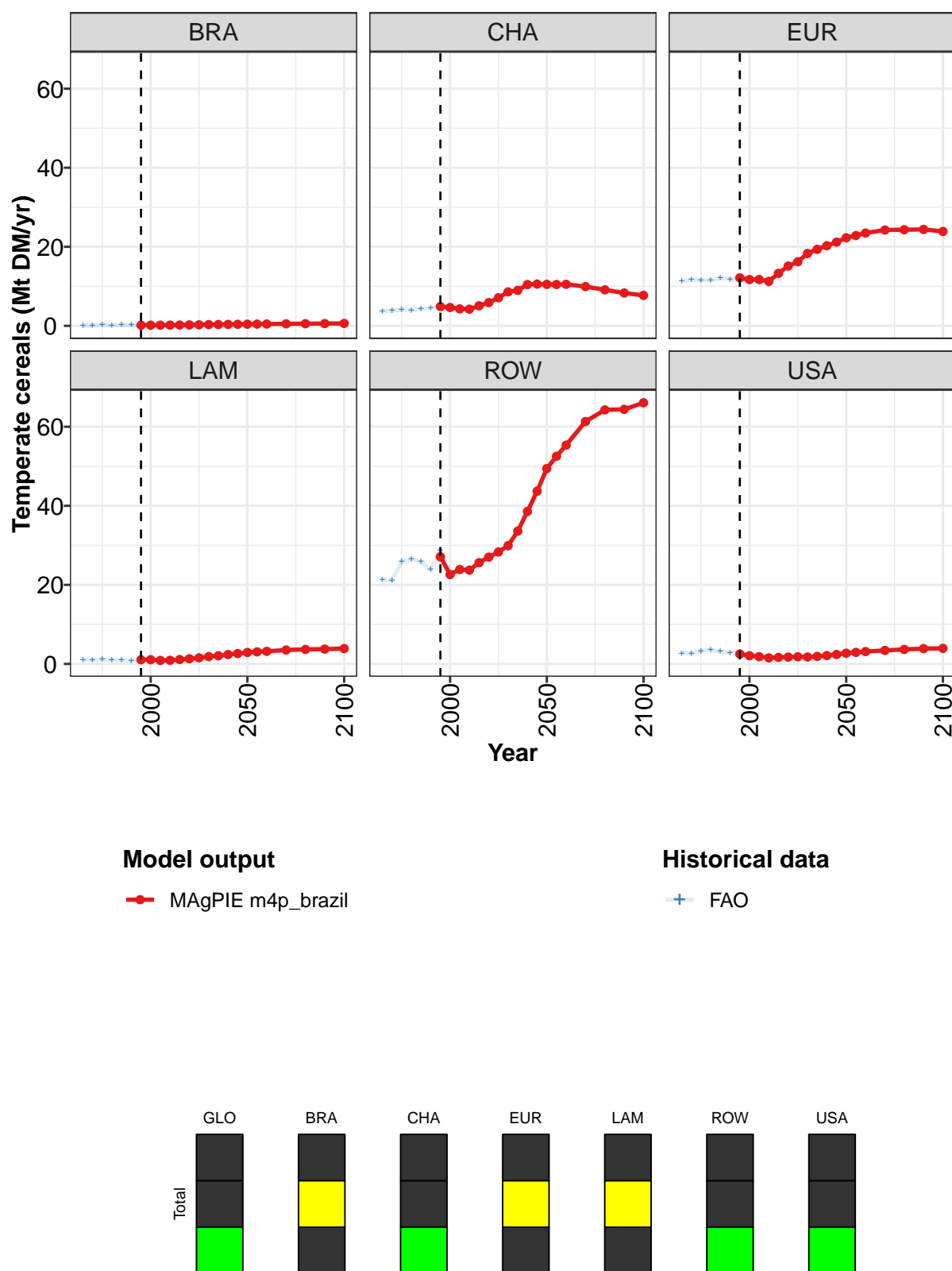


Figure 219: MAgPIE m4p_brazil — Demand—Seed—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	48	42	43	42	47	51	55	61	66	74	81
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	5	5	4	4	5	6	7	9	9	10	11
EUR	12	12	12	11	13	15	16	18	19	20	21
LAM	1	1	1	1	1	1	2	2	2	2	3
ROW	27	23	24	24	26	27	28	30	34	39	44
USA	3	2	2	2	2	2	2	2	2	2	2

Table 656: MAgPIE m4p_brazil — Demand—Seed—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 1/2]

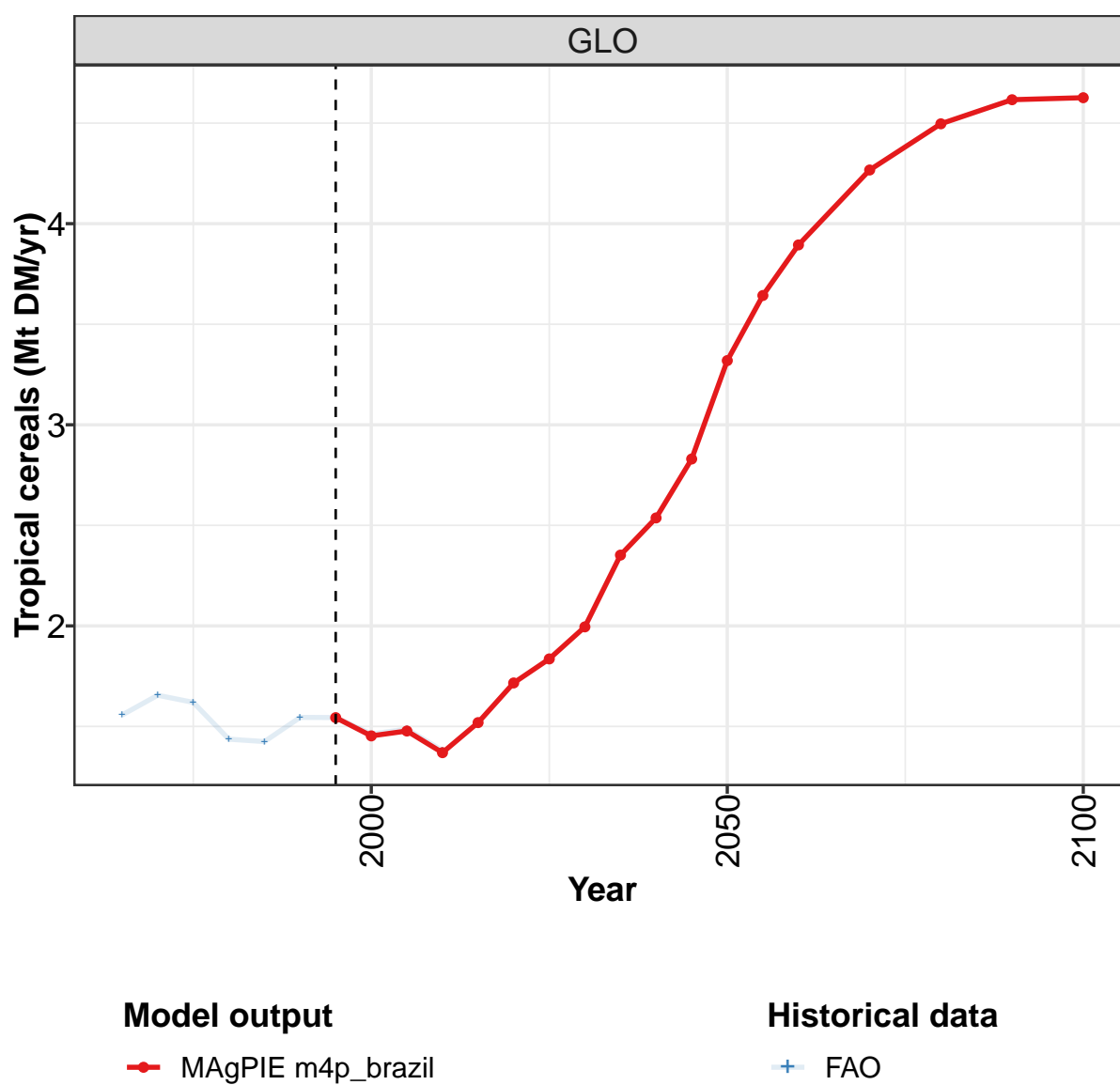
	2050	2055	2060	2070	2080	2090	2100
GLO	88	92	96	103	106	105	106
BRA	0	0	0	1	1	1	1
CHA	10	10	11	10	9	8	8
EUR	22	23	23	24	24	24	24
LAM	3	3	3	4	4	4	4
ROW	49	53	55	61	64	64	66
USA	3	3	3	3	4	4	4

Table 657: MAgPIE m4p_brazil — 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
BRA	0.1	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2
CHA	3.6	3.8	4.1	4.0	4.3	4.5	4.9	4.7	4.3	4.3
EUR	11.3	11.7	11.5	11.5	12.1	11.8	11.8	11.3	11.2	10.5
LAM	1.1	1.0	1.2	1.0	1.0	0.9	1.1	1.1	0.9	0.9
ROW	21.4	21.2	25.8	26.5	25.8	23.8	28.8	23.0	23.9	23.7
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



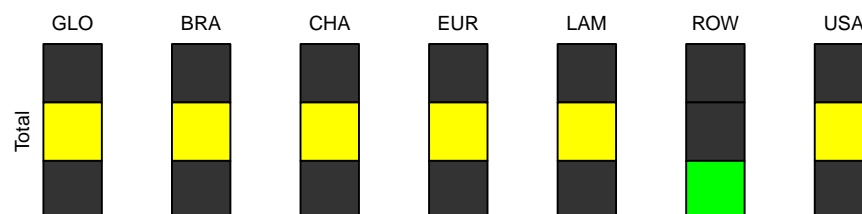
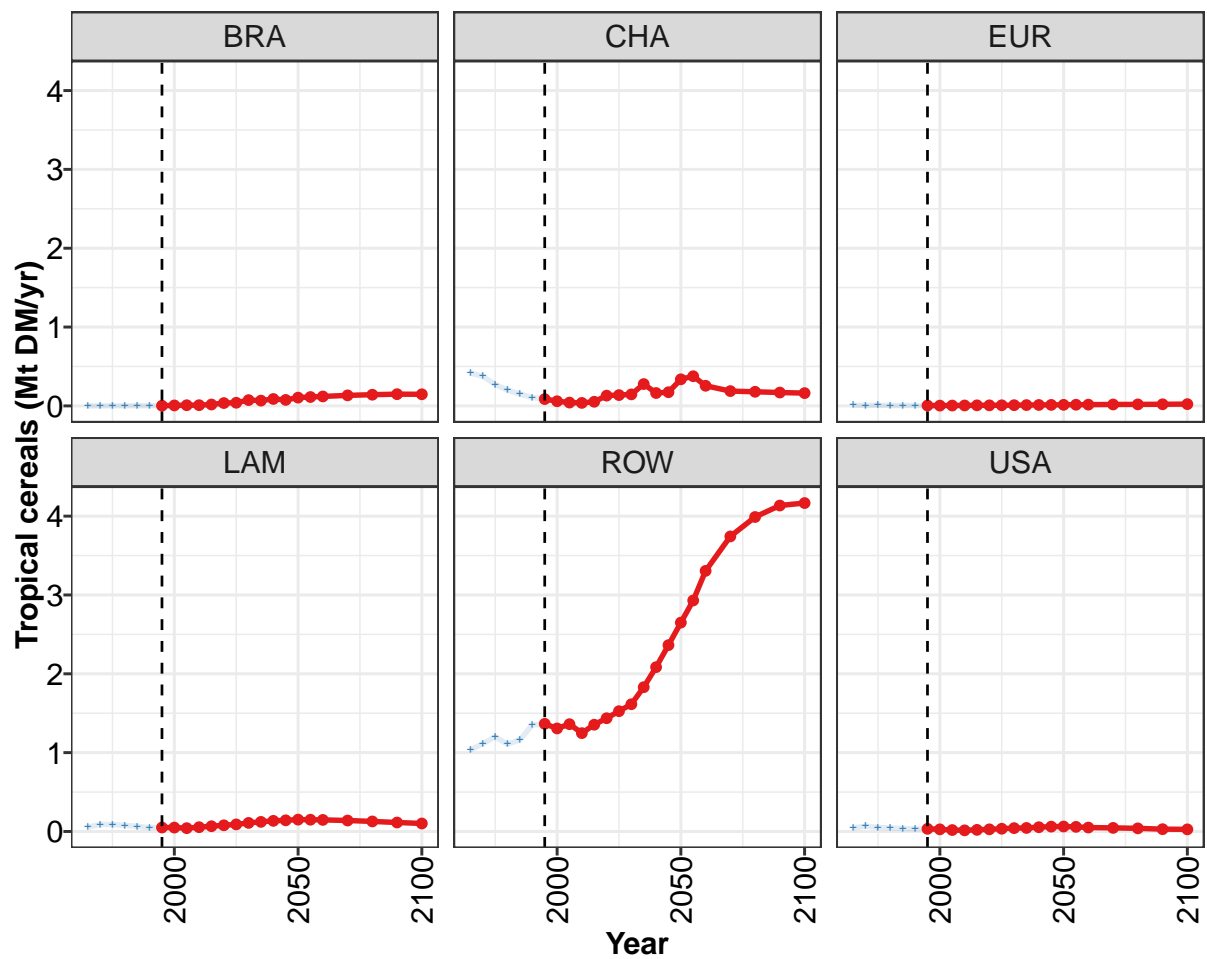


Figure 220: MAgPIE m4p_brazil — Demand—Seed—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.54	1.45	1.48	1.37	1.52	1.72	1.84	2.00	2.35	2.54	2.83
BRA	0.00	0.01	0.01	0.01	0.02	0.04	0.04	0.07	0.07	0.09	0.08
CHA	0.09	0.06	0.04	0.04	0.05	0.13	0.14	0.15	0.28	0.16	0.17
EUR	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.05	0.05	0.04	0.05	0.07	0.08	0.09	0.11	0.12	0.13	0.14
ROW	1.37	1.31	1.36	1.25	1.35	1.44	1.53	1.61	1.83	2.08	2.36
USA	0.03	0.03	0.02	0.01	0.02	0.03	0.04	0.04	0.04	0.05	0.06

Table 659: MAgPIE m4p_brazil — Demand—Seed—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

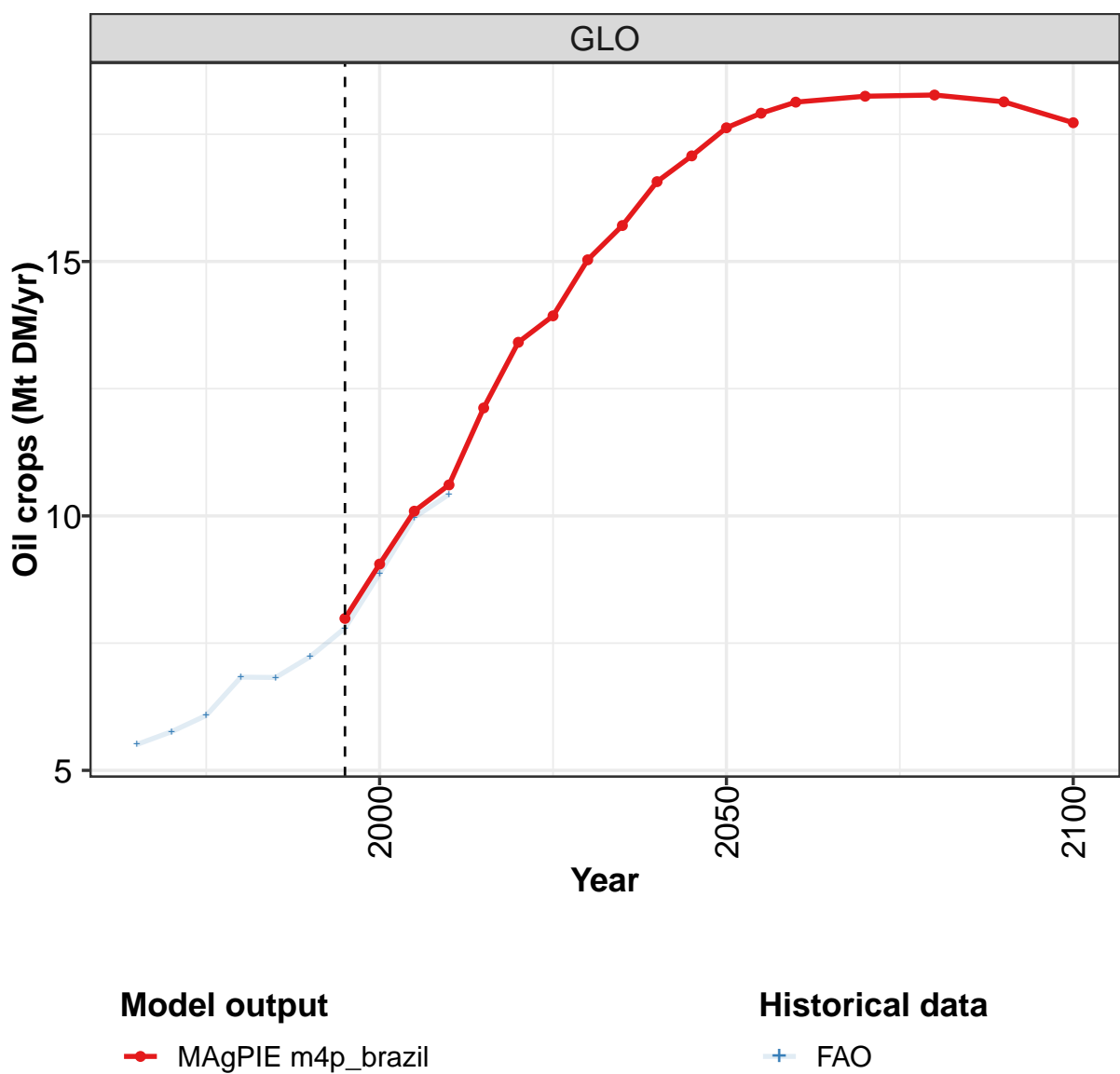
	2050	2055	2060	2070	2080	2090	2100
GLO	3.32	3.64	3.89	4.27	4.50	4.62	4.63
BRA	0.11	0.11	0.12	0.13	0.14	0.15	0.15
CHA	0.34	0.38	0.26	0.19	0.18	0.17	0.16
EUR	0.01	0.01	0.02	0.02	0.02	0.02	0.02
LAM	0.15	0.15	0.15	0.14	0.13	0.11	0.10
ROW	2.65	2.93	3.31	3.74	3.99	4.13	4.17
USA	0.06	0.06	0.05	0.05	0.04	0.03	0.03

Table 660: MAgPIE m4p_brazil — 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
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
CHA	0.42	0.38	0.27	0.20	0.15	0.11	0.09	0.06	0.04	0.04
EUR	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01
LAM	0.05	0.09	0.09	0.08	0.07	0.05	0.05	0.05	0.04	0.06
ROW	1.04	1.12	1.20	1.11	1.16	1.35	1.36	1.31	1.37	1.26
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



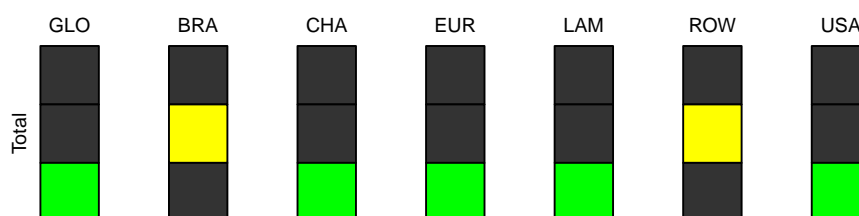
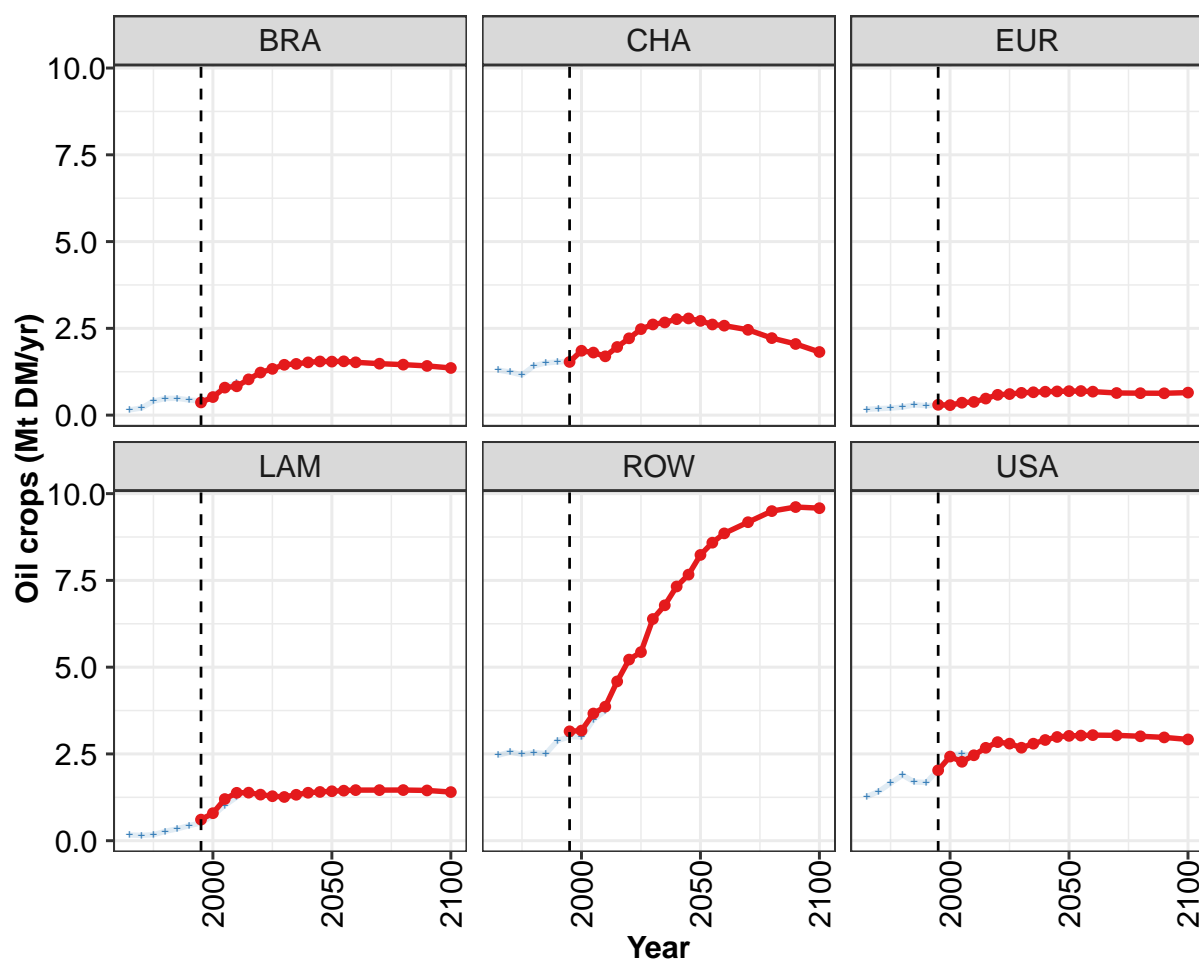


Figure 221: MAgPIE m4p_brazil — Demand—Seed—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	8.0	9.1	10.1	10.6	12.1	13.4	13.9	15.0	15.7	16.6	17.1
BRA	0.4	0.5	0.8	0.8	1.0	1.2	1.3	1.5	1.5	1.5	1.5
CHA	1.5	1.9	1.8	1.7	2.0	2.2	2.5	2.6	2.7	2.8	2.8
EUR	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.7	0.7
LAM	0.6	0.8	1.2	1.4	1.4	1.3	1.3	1.3	1.3	1.4	1.4
ROW	3.2	3.2	3.7	3.9	4.6	5.2	5.4	6.4	6.8	7.3	7.7
USA	2.0	2.4	2.3	2.5	2.7	2.8	2.8	2.7	2.8	2.9	3.0

Table 662: MAgPIE m4p_brazil — Demand—Seed—Crops—Oil crops (Mt DM/yr) [PART 1/2]

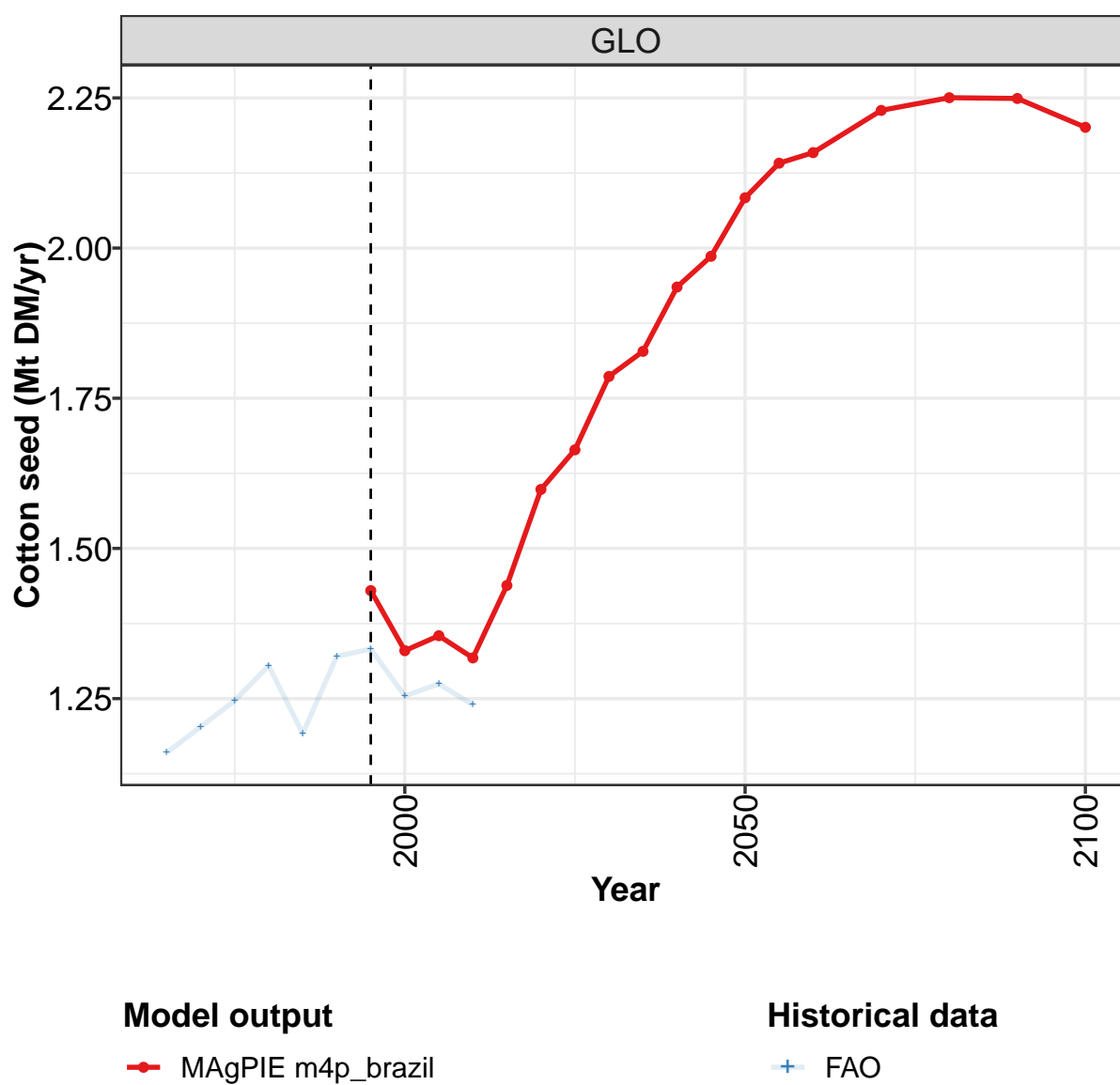
	2050	2055	2060	2070	2080	2090	2100
GLO	17.6	17.9	18.1	18.2	18.3	18.1	17.7
BRA	1.5	1.6	1.5	1.5	1.5	1.4	1.4
CHA	2.7	2.6	2.6	2.5	2.2	2.1	1.8
EUR	0.7	0.7	0.7	0.6	0.6	0.6	0.6
LAM	1.4	1.4	1.5	1.5	1.5	1.4	1.4
ROW	8.2	8.6	8.9	9.2	9.5	9.6	9.6
USA	3.0	3.0	3.0	3.0	3.0	3.0	2.9

Table 663: MAgPIE m4p_brazil — 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
BRA	0.2	0.2	0.4	0.5	0.5	0.4	0.4	0.5	0.8	0.9
CHA	1.3	1.2	1.2	1.4	1.5	1.5	1.6	1.9	1.8	1.7
EUR	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4
LAM	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.7	1.0	1.3
ROW	2.5	2.6	2.5	2.5	2.5	2.9	3.0	3.0	3.5	3.7
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



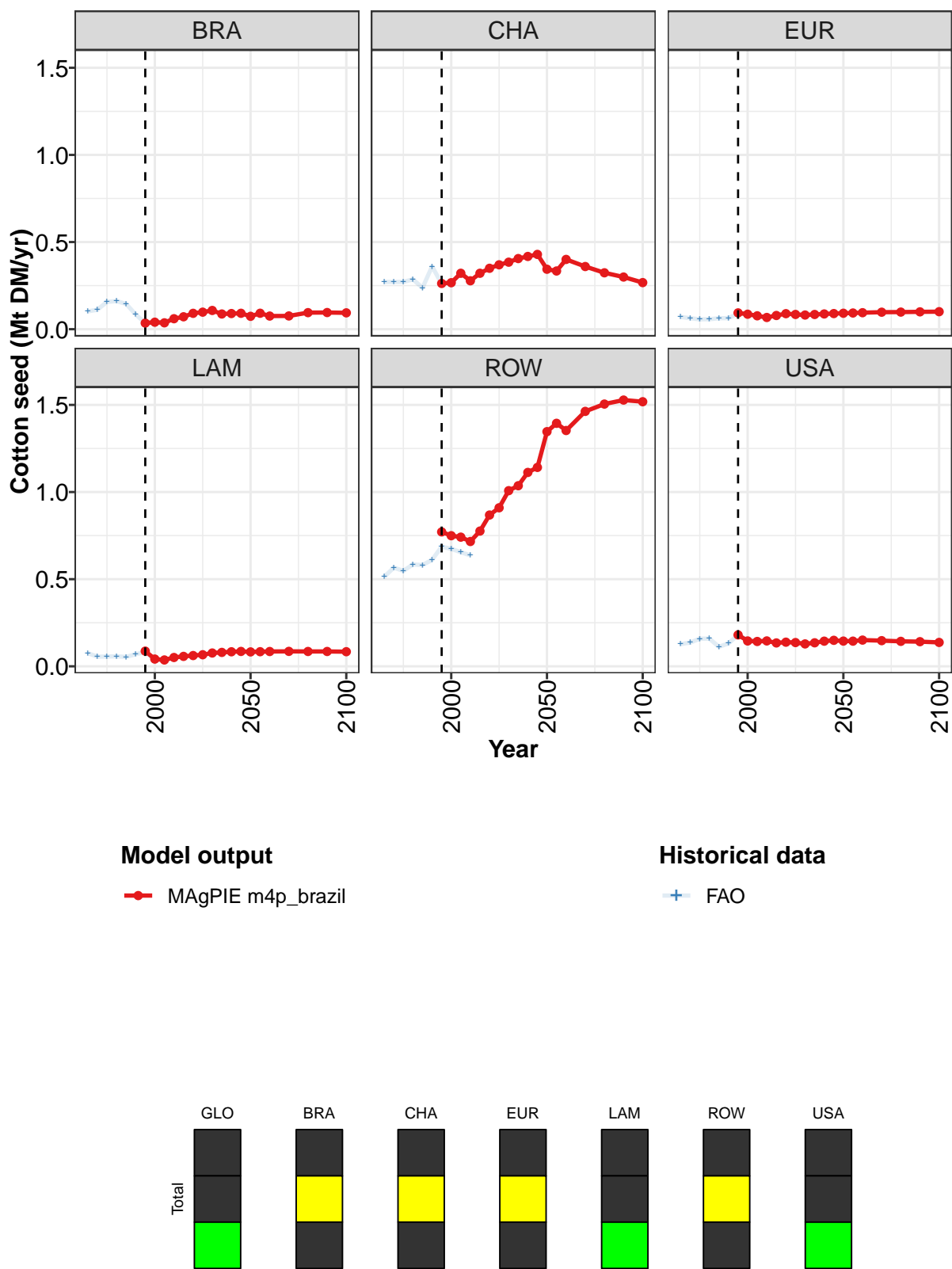


Figure 222: MAgPIE m4p_brazil — Demand—Seed—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.43	1.33	1.35	1.32	1.44	1.60	1.66	1.79	1.83	1.94	1.99
BRA	0.04	0.04	0.04	0.06	0.07	0.09	0.10	0.11	0.09	0.09	0.09
CHA	0.26	0.27	0.32	0.28	0.32	0.35	0.37	0.38	0.41	0.42	0.43
EUR	0.09	0.09	0.08	0.07	0.08	0.09	0.08	0.08	0.08	0.09	0.09
LAM	0.09	0.04	0.04	0.05	0.06	0.06	0.07	0.08	0.08	0.08	0.09
ROW	0.77	0.75	0.74	0.72	0.78	0.87	0.91	1.01	1.04	1.11	1.14
USA	0.18	0.15	0.14	0.15	0.13	0.14	0.14	0.13	0.13	0.14	0.15

Table 665: MAgPIE m4p_brazil — Demand—Seed—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

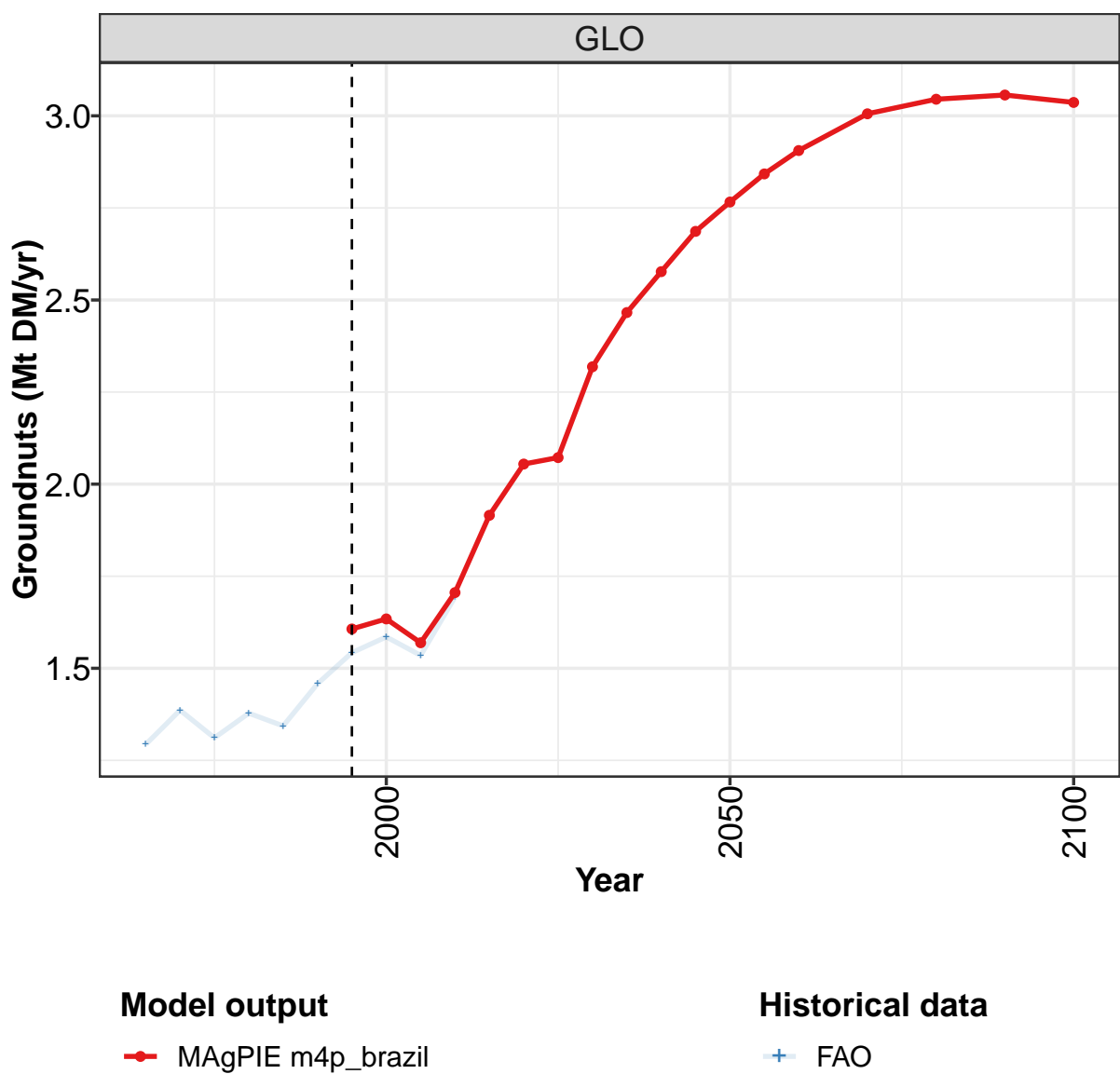
	2050	2055	2060	2070	2080	2090	2100
GLO	2.08	2.14	2.16	2.23	2.25	2.25	2.20
BRA	0.07	0.09	0.08	0.08	0.10	0.10	0.09
CHA	0.34	0.33	0.40	0.36	0.32	0.30	0.27
EUR	0.09	0.09	0.09	0.10	0.10	0.10	0.10
LAM	0.08	0.08	0.08	0.09	0.09	0.09	0.08
ROW	1.35	1.39	1.35	1.46	1.50	1.53	1.52
USA	0.14	0.14	0.15	0.15	0.14	0.14	0.14

Table 666: MAgPIE m4p_brazil — 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
BRA	0.10	0.11	0.16	0.16	0.15	0.08	0.04	0.04	0.04	0.06
CHA	0.27	0.27	0.27	0.29	0.24	0.36	0.26	0.27	0.32	0.28
EUR	0.07	0.06	0.06	0.06	0.06	0.06	0.09	0.08	0.07	0.07
LAM	0.08	0.06	0.06	0.06	0.05	0.07	0.08	0.04	0.03	0.05
ROW	0.51	0.57	0.55	0.58	0.58	0.61	0.69	0.67	0.65	0.64
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



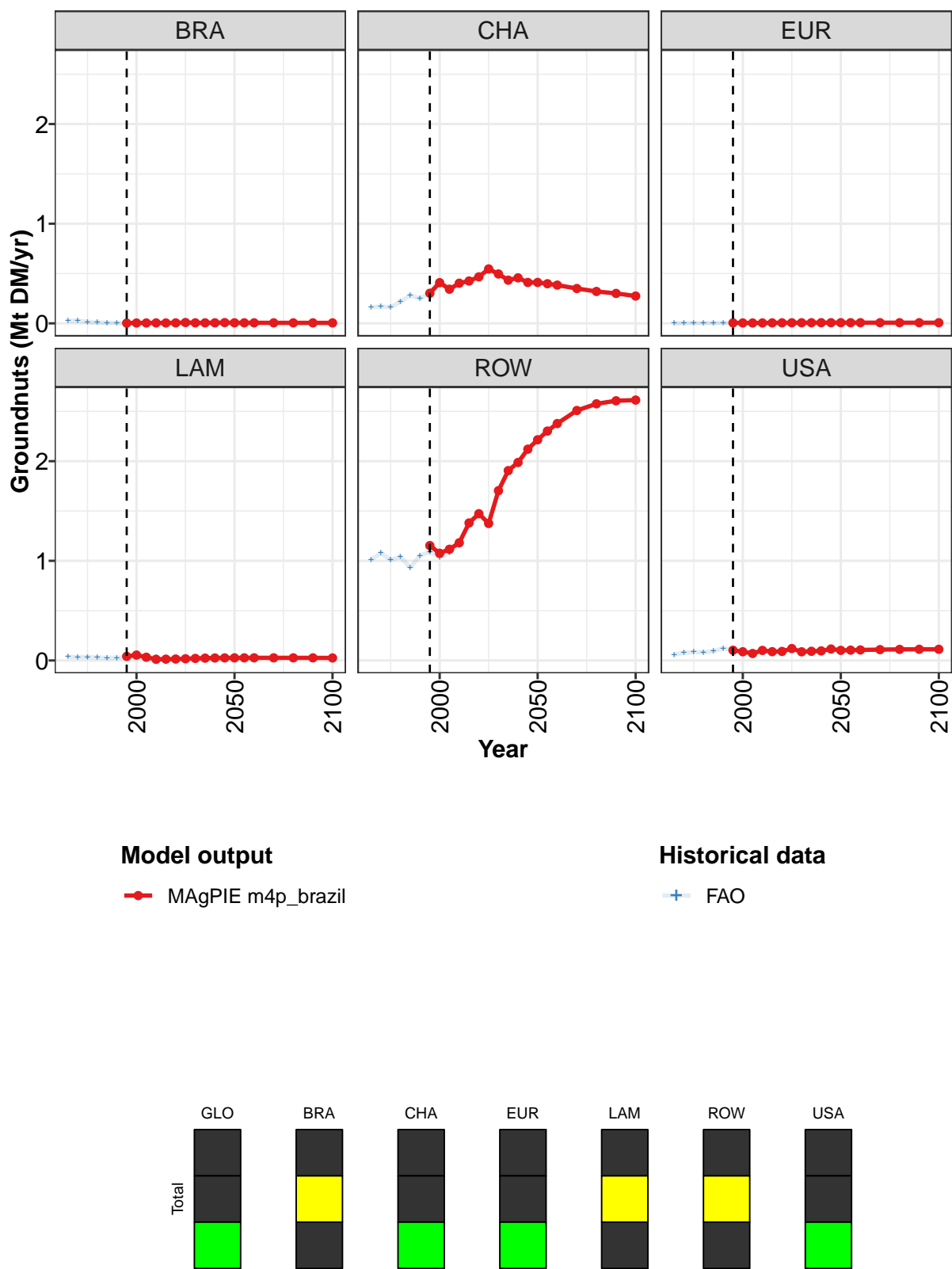


Figure 223: MAgPIE m4p_brazil — Demand—Seed—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.61	1.63	1.57	1.71	1.92	2.05	2.07	2.32	2.47	2.58	2.69
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
CHA	0.30	0.41	0.34	0.40	0.43	0.47	0.55	0.50	0.43	0.46	0.41
EUR	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.04	0.05	0.03	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03
ROW	1.15	1.08	1.12	1.18	1.38	1.47	1.37	1.70	1.91	1.99	2.12
USA	0.10	0.09	0.07	0.10	0.09	0.09	0.12	0.09	0.09	0.10	0.12

Table 668: MAgPIE m4p_brazil — Demand—Seed—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

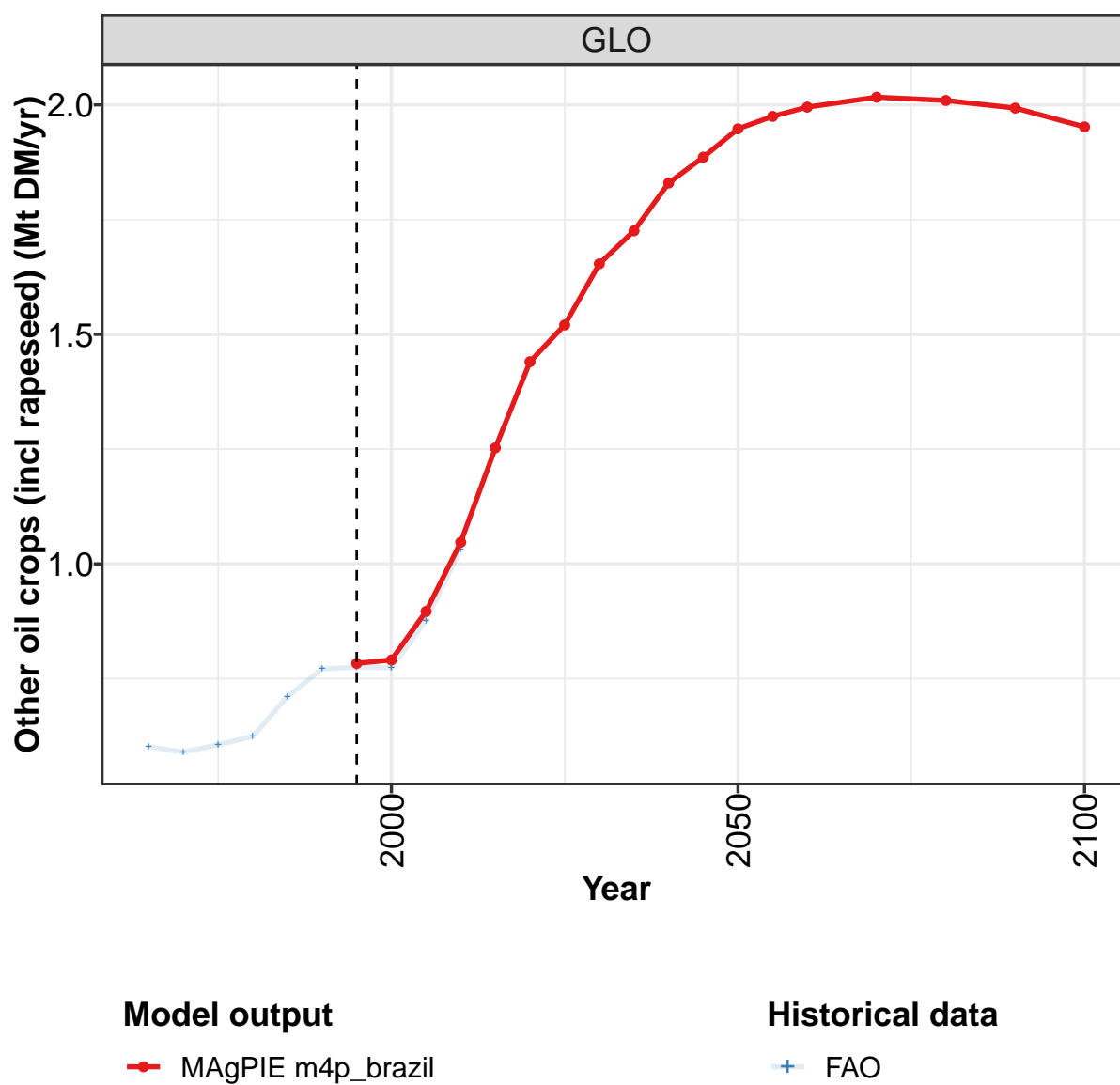
	2050	2055	2060	2070	2080	2090	2100
GLO	2.77	2.84	2.91	3.01	3.05	3.06	3.04
BRA	0.01	0.01	0.01	0.01	0.01	0.00	0.00
CHA	0.41	0.40	0.38	0.35	0.32	0.30	0.27
EUR	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LAM	0.03	0.03	0.03	0.03	0.03	0.03	0.03
ROW	2.22	2.30	2.38	2.51	2.58	2.61	2.61
USA	0.10	0.10	0.11	0.11	0.11	0.11	0.11

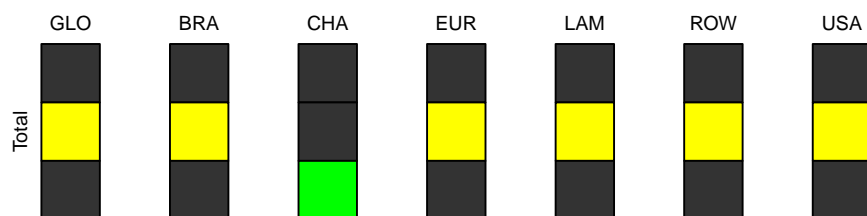
Table 669: MAgPIE m4p_brazil — Demand—Seed—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 2/2]

	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
BRA	0.02	0.03	0.01	0.01	0.01	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	0.01	0.00	0.00	0.00	0.00
LAM	0.04	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03
ROW	1.01	1.08	1.01	1.04	0.93	1.05	1.09	1.04	1.08	1.17
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)





	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.78	0.79	0.90	1.05	1.25	1.44	1.52	1.65	1.73	1.83	1.89
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.25	0.27	0.24	0.27	0.32	0.37	0.42	0.47	0.50	0.52	0.54
EUR	0.07	0.09	0.13	0.17	0.22	0.28	0.29	0.31	0.32	0.33	0.33
LAM	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
ROW	0.44	0.40	0.50	0.58	0.68	0.76	0.77	0.82	0.86	0.93	0.96
USA	0.00	0.02	0.02	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.03

Table 671: MAgPIE m4p.brazil — Demand—Seed—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

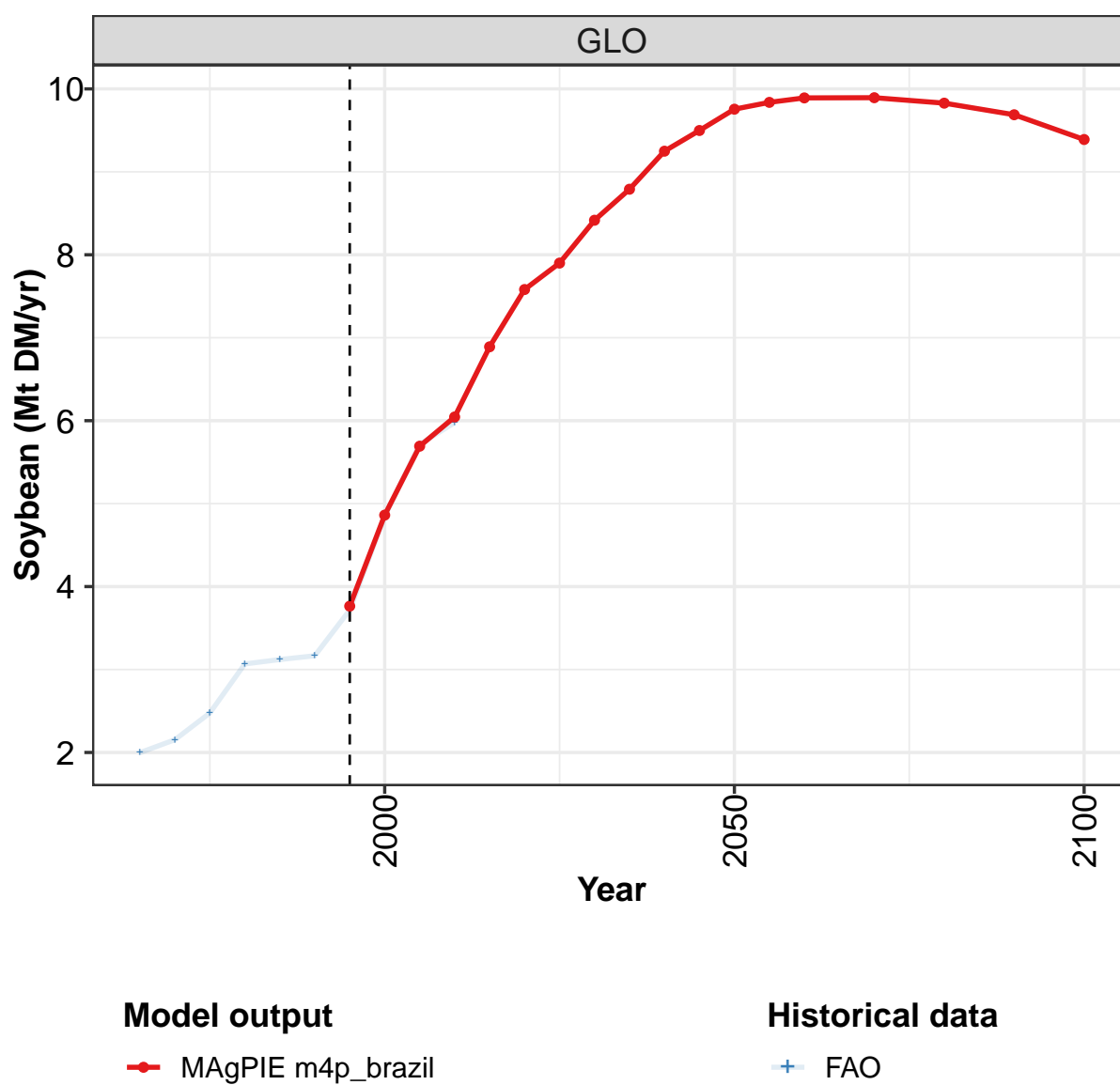
	2050	2055	2060	2070	2080	2090	2100
GLO	1.95	1.98	2.00	2.02	2.01	1.99	1.95
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.55	0.53	0.51	0.46	0.41	0.38	0.34
EUR	0.33	0.33	0.34	0.34	0.33	0.33	0.33
LAM	0.02	0.02	0.02	0.02	0.02	0.02	0.02
ROW	1.01	1.05	1.09	1.16	1.20	1.22	1.22
USA	0.03	0.04	0.04	0.04	0.04	0.04	0.04

Table 672: MAgPIE m4p.brazil — 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
BRA	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
CHA	0.08	0.07	0.09	0.14	0.19	0.25	0.27	0.27	0.23	0.27
EUR	0.07	0.07	0.08	0.07	0.09	0.10	0.07	0.09	0.13	0.17
LAM	0.04	0.04	0.03	0.04	0.03	0.02	0.01	0.01	0.01	0.01
ROW	0.37	0.38	0.38	0.35	0.38	0.40	0.42	0.38	0.48	0.56
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



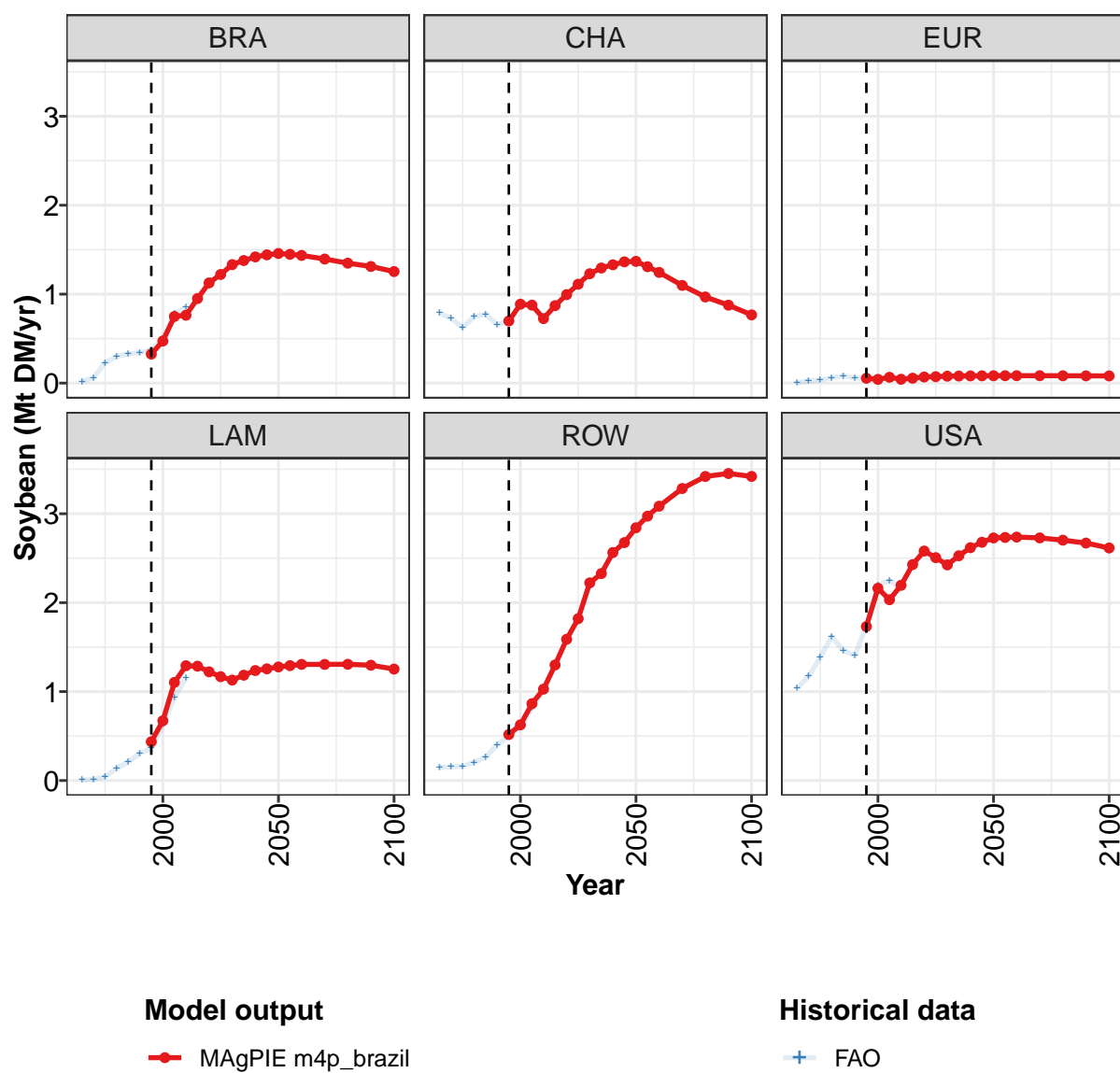


Figure 225: MAgPIE m4p_brazil — Demand—Seed—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.76	4.86	5.69	6.04	6.89	7.58	7.90	8.42	8.79	9.25	9.50
BRA	0.33	0.47	0.75	0.76	0.95	1.13	1.22	1.33	1.38	1.42	1.44
CHA	0.70	0.89	0.88	0.73	0.87	1.00	1.11	1.23	1.29	1.33	1.36
EUR	0.05	0.04	0.07	0.04	0.06	0.07	0.07	0.08	0.08	0.08	0.08
LAM	0.44	0.67	1.10	1.29	1.29	1.22	1.17	1.13	1.18	1.24	1.26
ROW	0.52	0.63	0.86	1.03	1.30	1.59	1.82	2.22	2.33	2.56	2.68
USA	1.73	2.16	2.03	2.19	2.43	2.58	2.51	2.42	2.53	2.62	2.68

Table 674: MAgPIE m4p_brazil — Demand—Seed—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

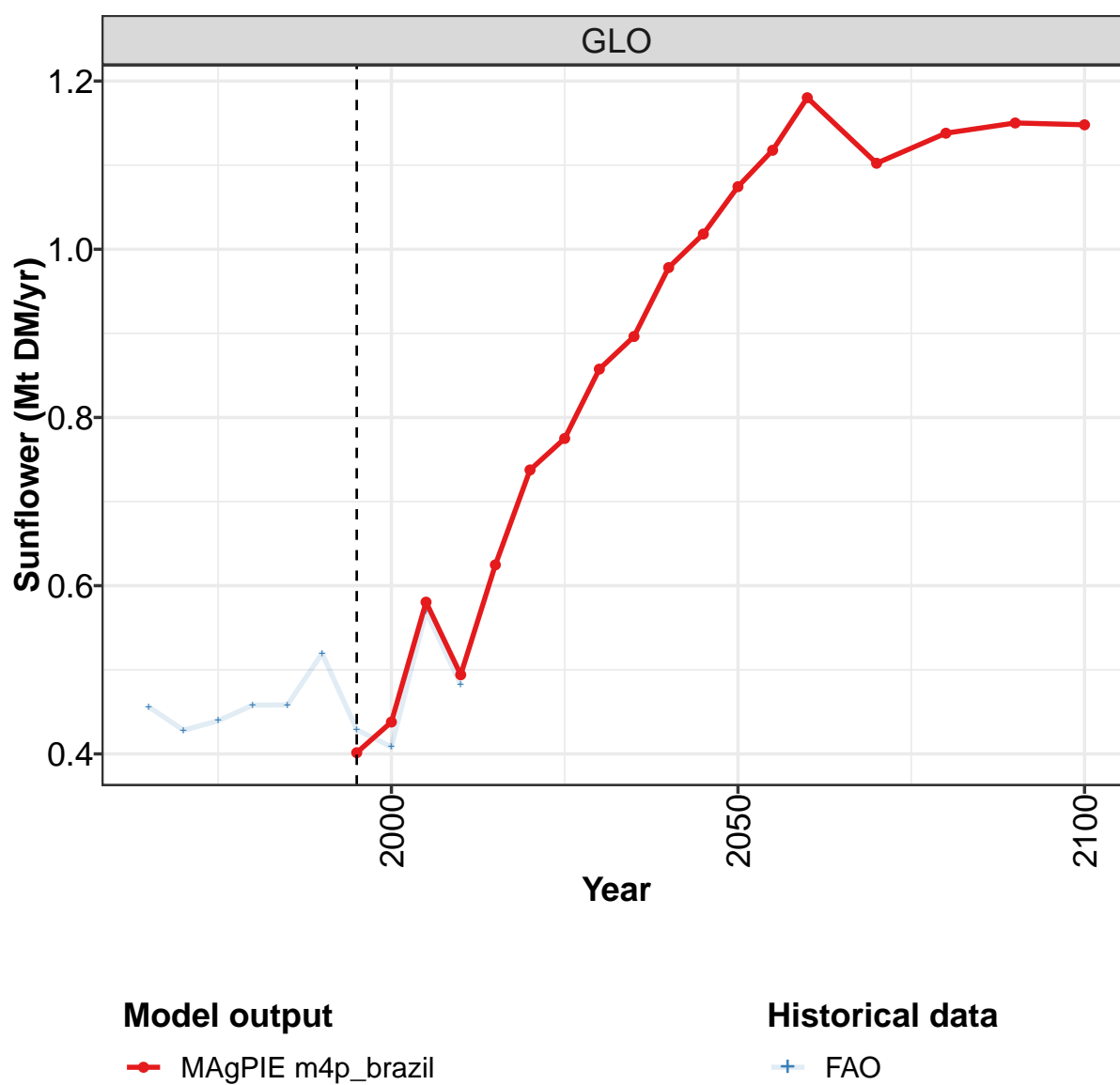
	2050	2055	2060	2070	2080	2090	2100
GLO	9.76	9.84	9.89	9.89	9.83	9.69	9.39
BRA	1.46	1.45	1.44	1.39	1.35	1.31	1.25
CHA	1.37	1.31	1.24	1.10	0.97	0.88	0.77
EUR	0.08	0.08	0.08	0.08	0.08	0.08	0.08
LAM	1.28	1.29	1.31	1.31	1.31	1.30	1.25
ROW	2.84	2.97	3.08	3.28	3.42	3.45	3.42
USA	2.73	2.73	2.74	2.73	2.70	2.67	2.61

Table 675: MAgPIE m4p_brazil — 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
BRA	0.02	0.06	0.23	0.30	0.33	0.34	0.37	0.50	0.78	0.85
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	0.08	0.06	0.05	0.04	0.06	0.04
LAM	0.01	0.01	0.04	0.14	0.21	0.30	0.36	0.63	0.94	1.15
ROW	0.15	0.15	0.16	0.20	0.26	0.40	0.50	0.60	0.82	1.02
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



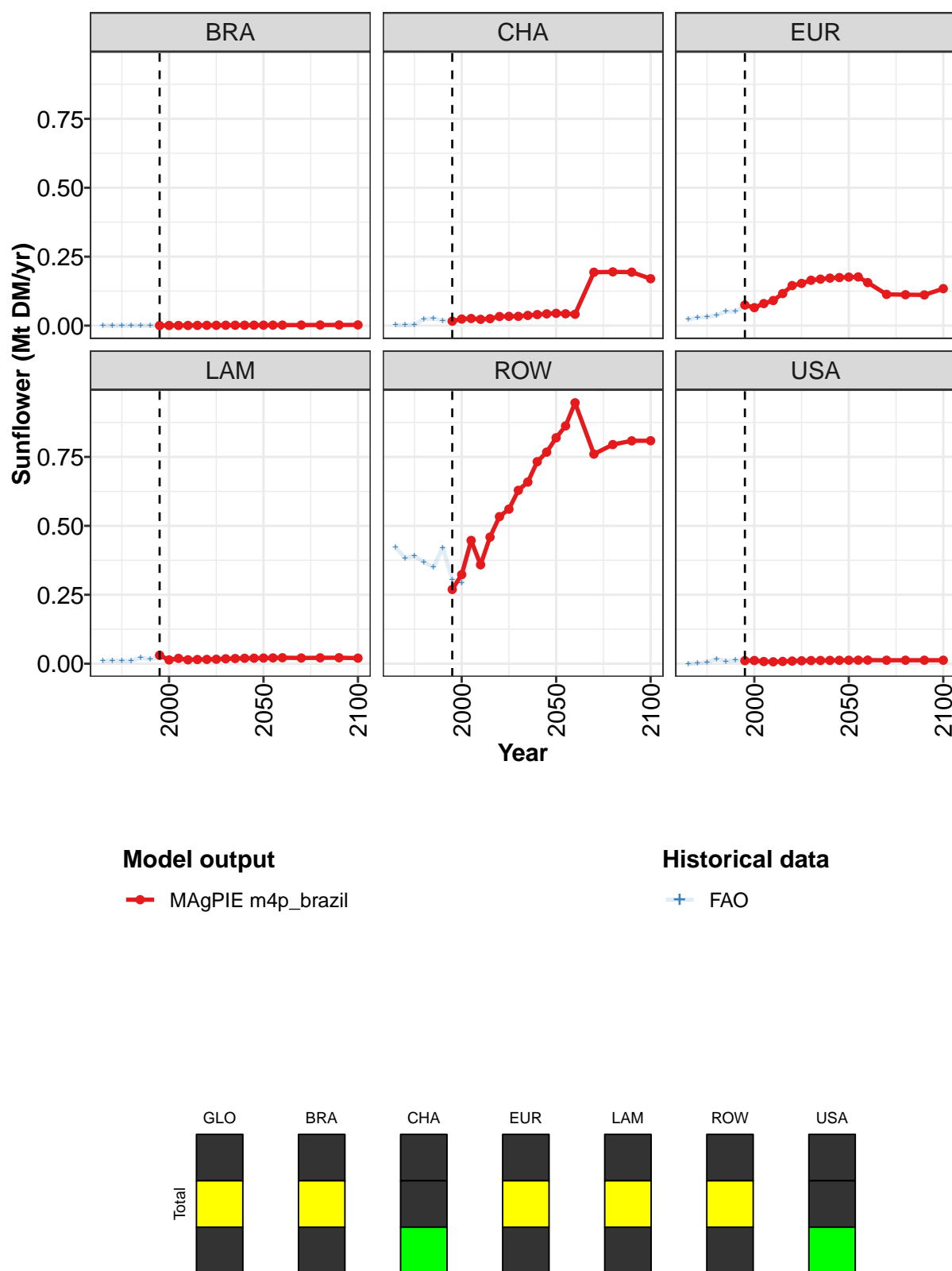


Figure 226: MAgPIE m4p_brazil — Demand—Seed—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.40	0.44	0.58	0.49	0.62	0.74	0.78	0.86	0.90	0.98	1.02
BRA	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	0.03	0.03	0.03	0.03	0.04	0.04	0.04
EUR	0.07	0.07	0.08	0.09	0.12	0.15	0.15	0.16	0.17	0.17	0.17
LAM	0.03	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02
ROW	0.27	0.32	0.45	0.36	0.46	0.53	0.56	0.63	0.66	0.73	0.77
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_brazil — Demand—Seed—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

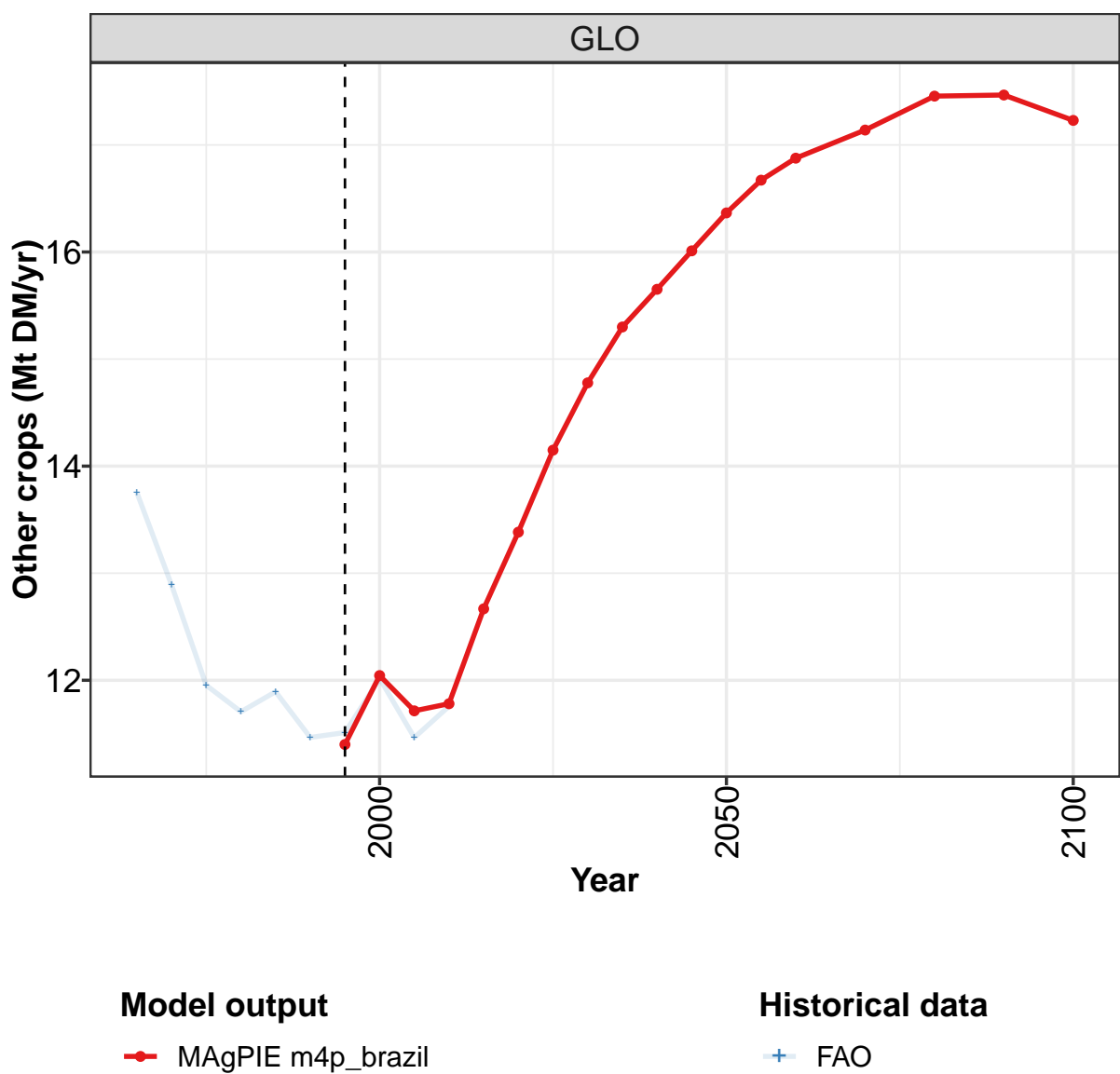
	2050	2055	2060	2070	2080	2090	2100
GLO	1.07	1.12	1.18	1.10	1.14	1.15	1.15
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.04	0.04	0.04	0.19	0.19	0.19	0.17
EUR	0.18	0.18	0.16	0.11	0.11	0.11	0.13
LAM	0.02	0.02	0.02	0.02	0.02	0.02	0.02
ROW	0.82	0.86	0.95	0.76	0.79	0.81	0.81
USA	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Table 678: MAgPIE m4p_brazil — 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
BRA	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001
CHA	0.002	0.002	0.003	0.024	0.026	0.018	0.016	0.024	0.023	0.022
EUR	0.023	0.029	0.031	0.037	0.051	0.051	0.072	0.065	0.077	0.089
LAM	0.010	0.012	0.011	0.010	0.022	0.016	0.024	0.014	0.016	0.013
ROW	0.421	0.383	0.390	0.369	0.350	0.421	0.306	0.293	0.443	0.351
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



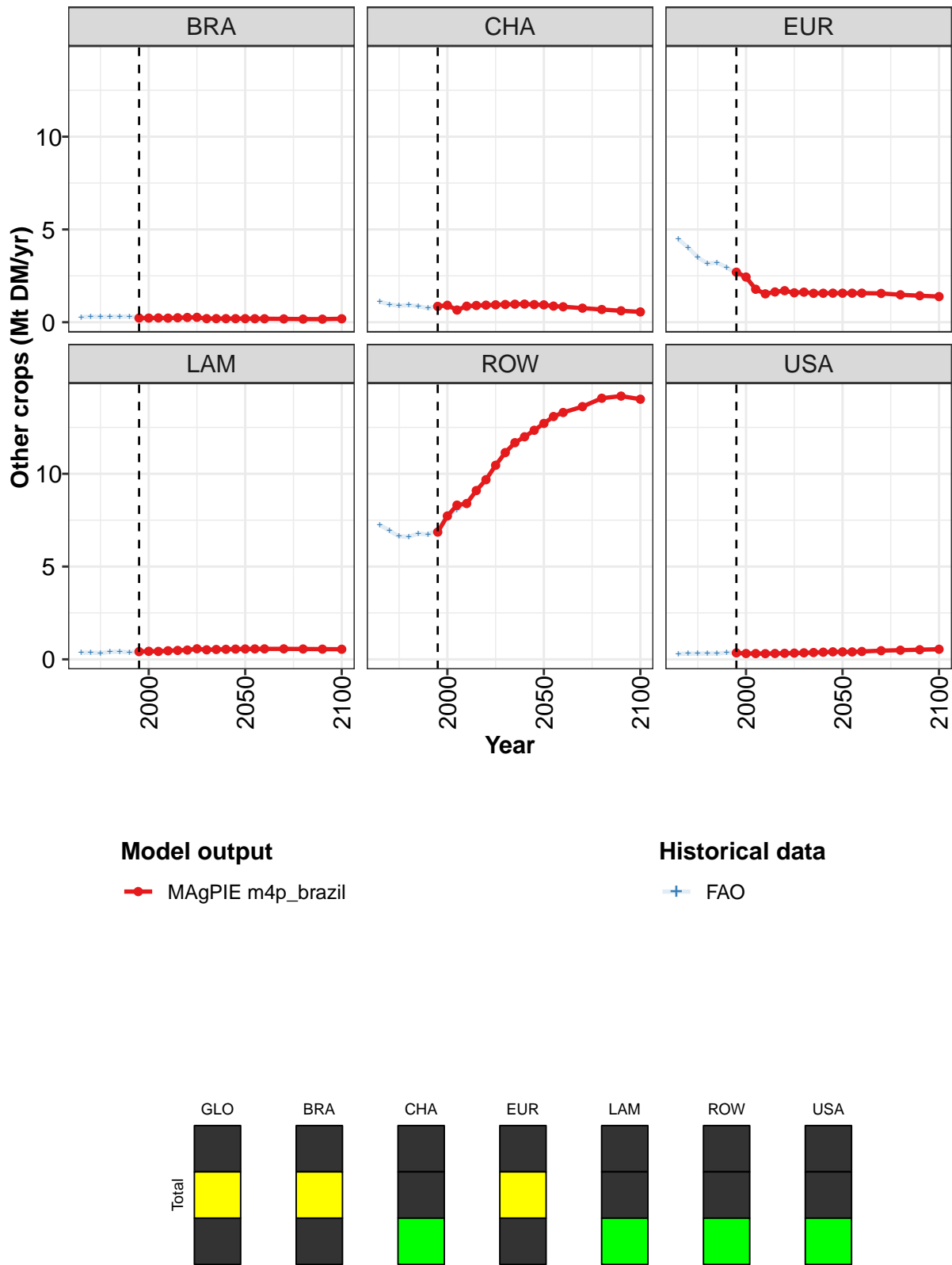


Figure 227: MAgPIE m4p_brazil — Demand—Seed—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	11.4	12.0	11.7	11.8	12.7	13.4	14.1	14.8	15.3	15.7	16.0
BRA	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2
CHA	0.9	0.9	0.7	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0
EUR	2.7	2.4	1.8	1.5	1.6	1.7	1.6	1.6	1.6	1.6	1.6
LAM	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.6
ROW	6.9	7.7	8.3	8.4	9.1	9.7	10.5	11.1	11.7	12.0	12.3
USA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4

Table 680: MAgPIE m4p_brazil — Demand—Seed—Crops—Other crops (Mt DM/yr) [PART 1/2]

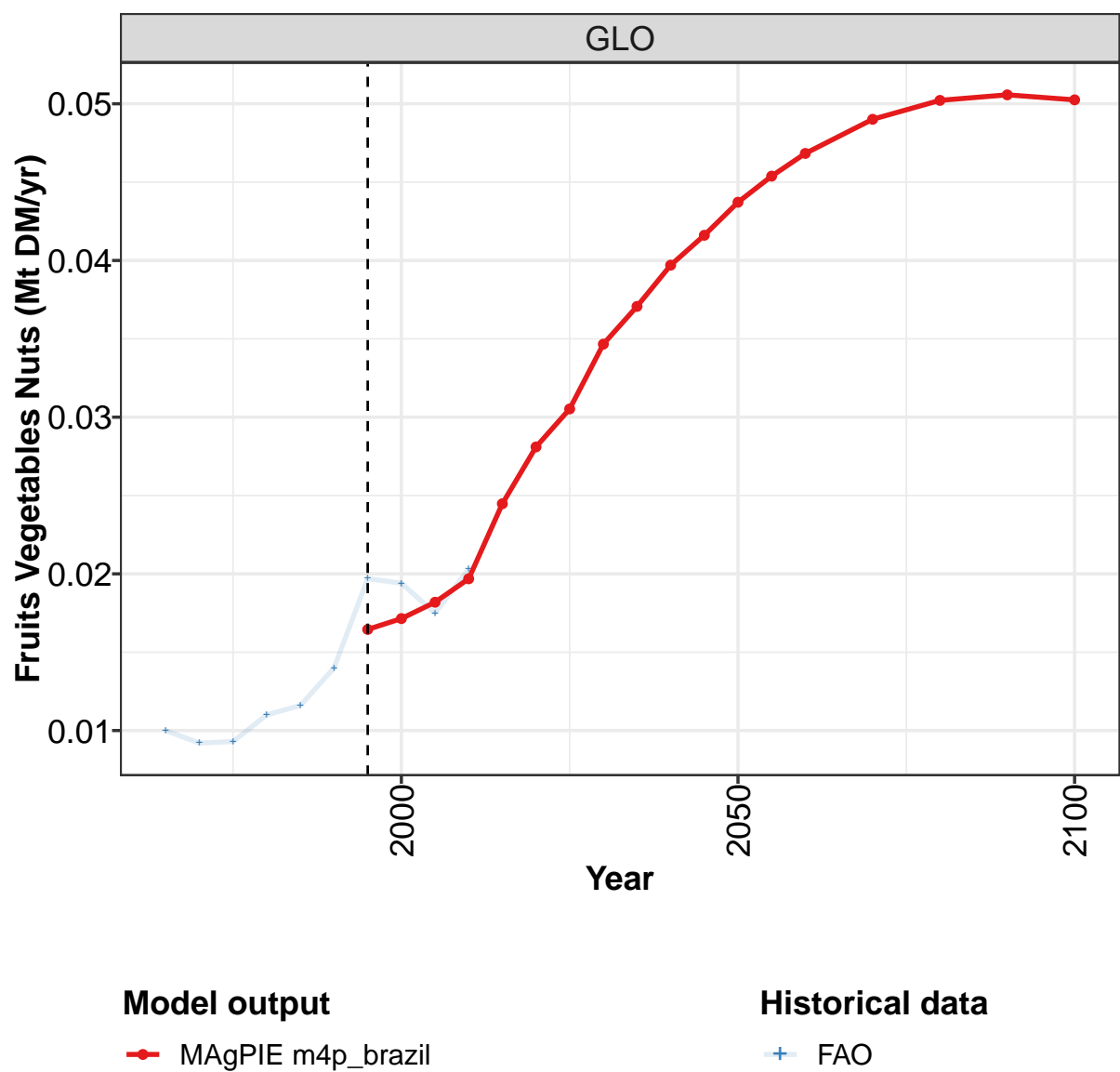
	2050	2055	2060	2070	2080	2090	2100
GLO	16.4	16.7	16.9	17.1	17.5	17.5	17.2
BRA	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	0.9	0.9	0.8	0.8	0.7	0.6	0.6
EUR	1.6	1.6	1.6	1.6	1.5	1.4	1.4
LAM	0.6	0.6	0.6	0.6	0.6	0.5	0.5
ROW	12.7	13.1	13.3	13.6	14.1	14.2	14.0
USA	0.4	0.4	0.4	0.5	0.5	0.5	0.5

Table 681: MAgPIE m4p_brazil — 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
BRA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
CHA	1.1	1.0	0.9	0.9	0.9	0.8	0.9	0.9	0.7	0.9
EUR	4.5	4.0	3.5	3.2	3.2	2.9	2.6	2.4	1.7	1.5
LAM	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5
ROW	7.2	6.9	6.6	6.6	6.8	6.7	7.0	7.7	8.1	8.4
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



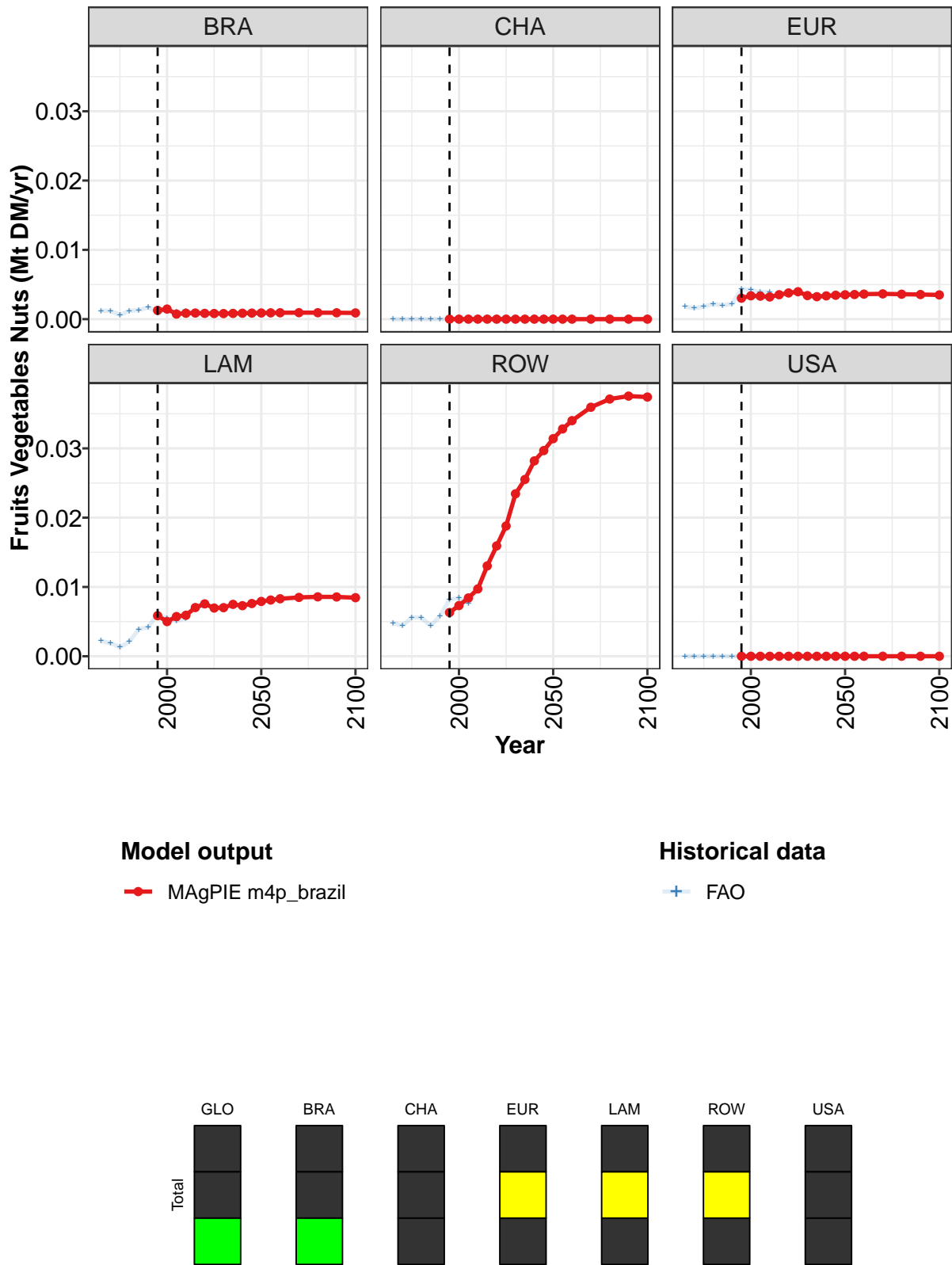


Figure 228: MAgPIE m4p_brazil — Demand—Seed—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0165	0.0171	0.0182	0.0197	0.0245	0.0281	0.0305	0.0347	0.0371	0.0397	0.0416
BRA	0.0013	0.0015	0.0007	0.0009	0.0009	0.0008	0.0008	0.0008	0.0008	0.0009	0.0009
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0030	0.0034	0.0033	0.0032	0.0035	0.0038	0.0040	0.0034	0.0032	0.0034	0.0034
LAM	0.0058	0.0050	0.0057	0.0059	0.0070	0.0076	0.0070	0.0070	0.0075	0.0073	0.0076
ROW	0.0063	0.0073	0.0084	0.0097	0.0130	0.0159	0.0188	0.0234	0.0255	0.0282	0.0297
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_brazil — Demand—Seed—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)
[PART 1/2]

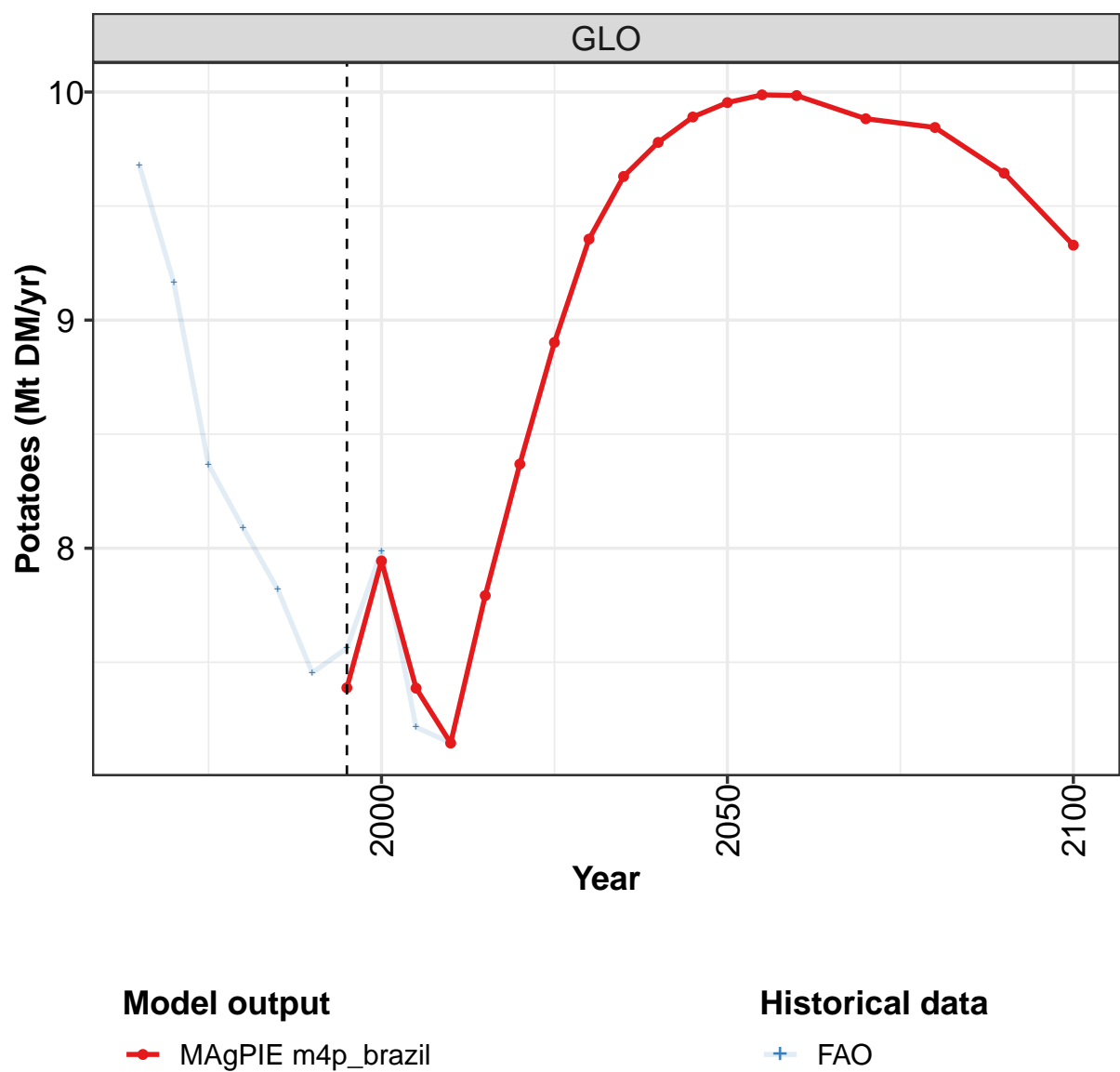
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0437	0.0454	0.0468	0.0490	0.0502	0.0506	0.0503
BRA	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009
CHA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EUR	0.0035	0.0036	0.0036	0.0036	0.0036	0.0035	0.0035
LAM	0.0079	0.0081	0.0083	0.0085	0.0086	0.0086	0.0084
ROW	0.0314	0.0328	0.0340	0.0359	0.0371	0.0375	0.0374
USA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 684: MAgPIE m4p_brazil — 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
BRA	0.0012	0.0012	0.0006	0.0012	0.0013	0.0017	0.0011	0.0013	0.0010	0.0012
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
LAM	0.0022	0.0019	0.0013	0.0021	0.0039	0.0042	0.0061	0.0055	0.0051	0.0055
ROW	0.0048	0.0044	0.0056	0.0056	0.0044	0.0058	0.0082	0.0084	0.0076	0.0098
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



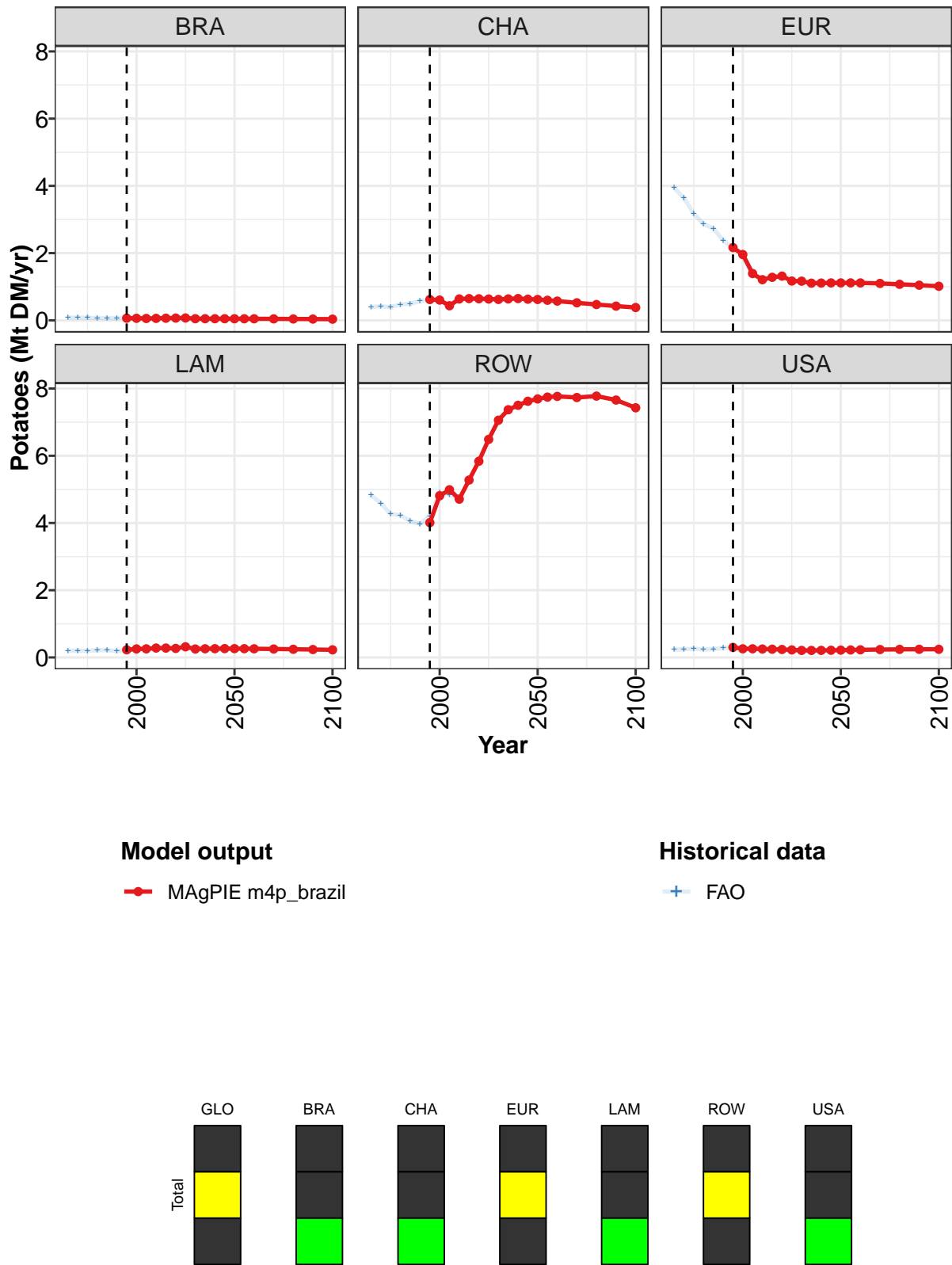


Figure 229: MAGPIE m4p_brazil — Demand—Seed—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.39	7.94	7.39	7.15	7.79	8.37	8.90	9.36	9.63	9.78	9.89
BRA	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.05	0.05	0.05	0.05
CHA	0.62	0.60	0.43	0.64	0.65	0.64	0.63	0.62	0.64	0.65	0.63
EUR	2.16	1.96	1.39	1.21	1.28	1.32	1.17	1.17	1.11	1.11	1.11
LAM	0.23	0.25	0.26	0.28	0.28	0.27	0.32	0.25	0.26	0.26	0.26
ROW	4.01	4.81	4.99	4.71	5.28	5.84	6.49	7.06	7.37	7.50	7.62
USA	0.30	0.26	0.26	0.25	0.25	0.24	0.22	0.21	0.21	0.21	0.21

Table 686: MAgPIE m4p_brazil — Demand—Seed—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

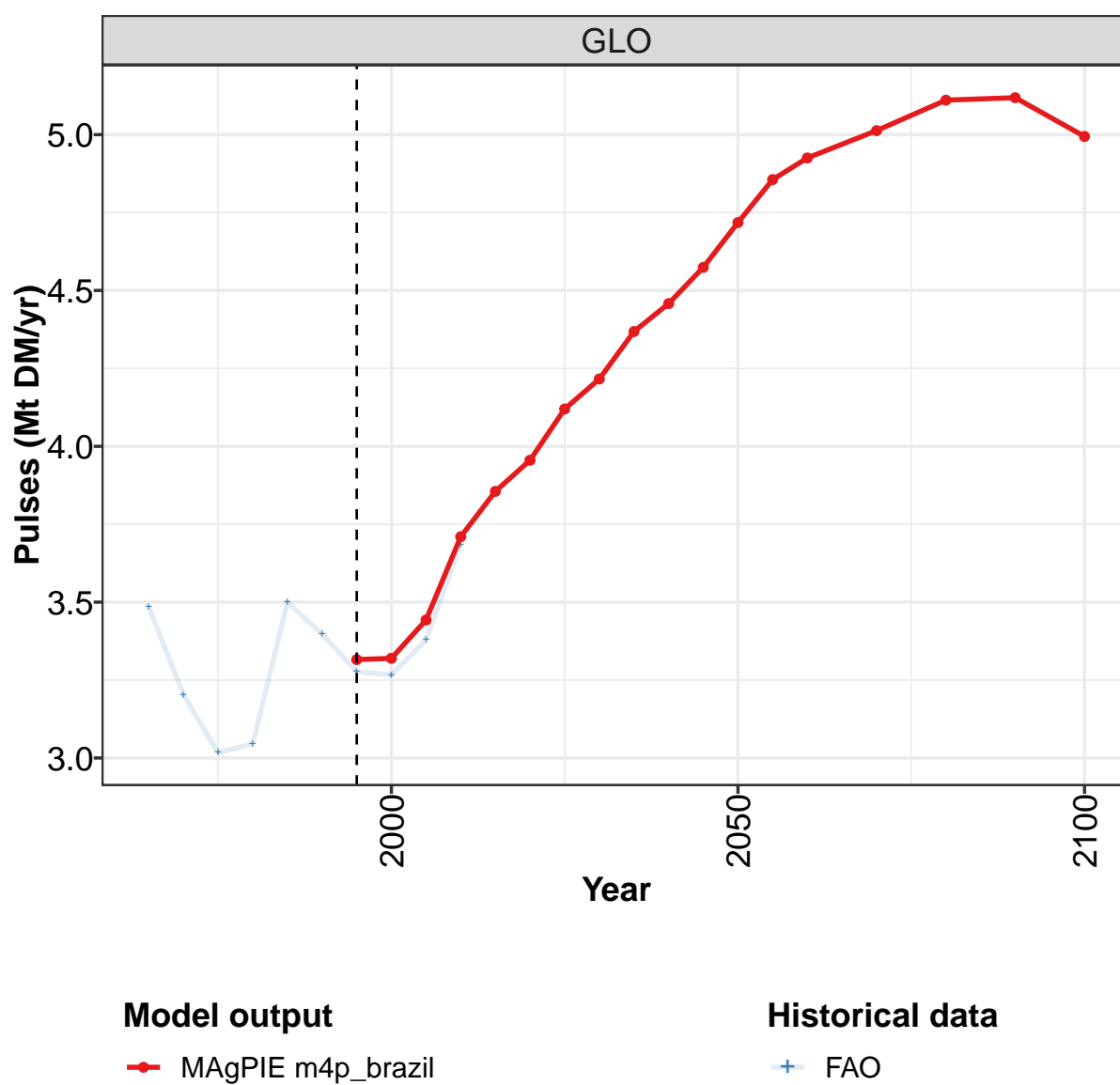
	2050	2055	2060	2070	2080	2090	2100
GLO	9.95	9.99	9.98	9.88	9.84	9.64	9.33
BRA	0.05	0.05	0.05	0.04	0.04	0.04	0.04
CHA	0.62	0.60	0.57	0.52	0.47	0.42	0.38
EUR	1.11	1.11	1.11	1.10	1.07	1.05	1.01
LAM	0.26	0.26	0.26	0.25	0.24	0.24	0.23
ROW	7.69	7.75	7.77	7.73	7.78	7.66	7.43
USA	0.22	0.22	0.23	0.23	0.24	0.24	0.24

Table 687: MAgPIE m4p_brazil — 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
BRA	0.08	0.08	0.08	0.07	0.06	0.06	0.06	0.06	0.06	0.06
CHA	0.40	0.42	0.40	0.47	0.50	0.57	0.62	0.62	0.44	0.64
EUR	3.94	3.63	3.17	2.86	2.73	2.38	2.14	1.89	1.36	1.20
LAM	0.19	0.20	0.19	0.22	0.22	0.19	0.23	0.25	0.26	0.28
ROW	4.83	4.58	4.27	4.23	4.06	3.97	4.21	4.90	4.84	4.72
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



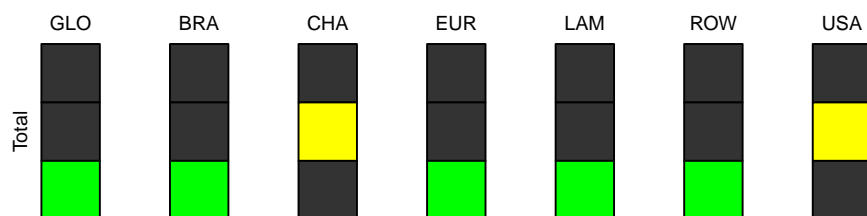
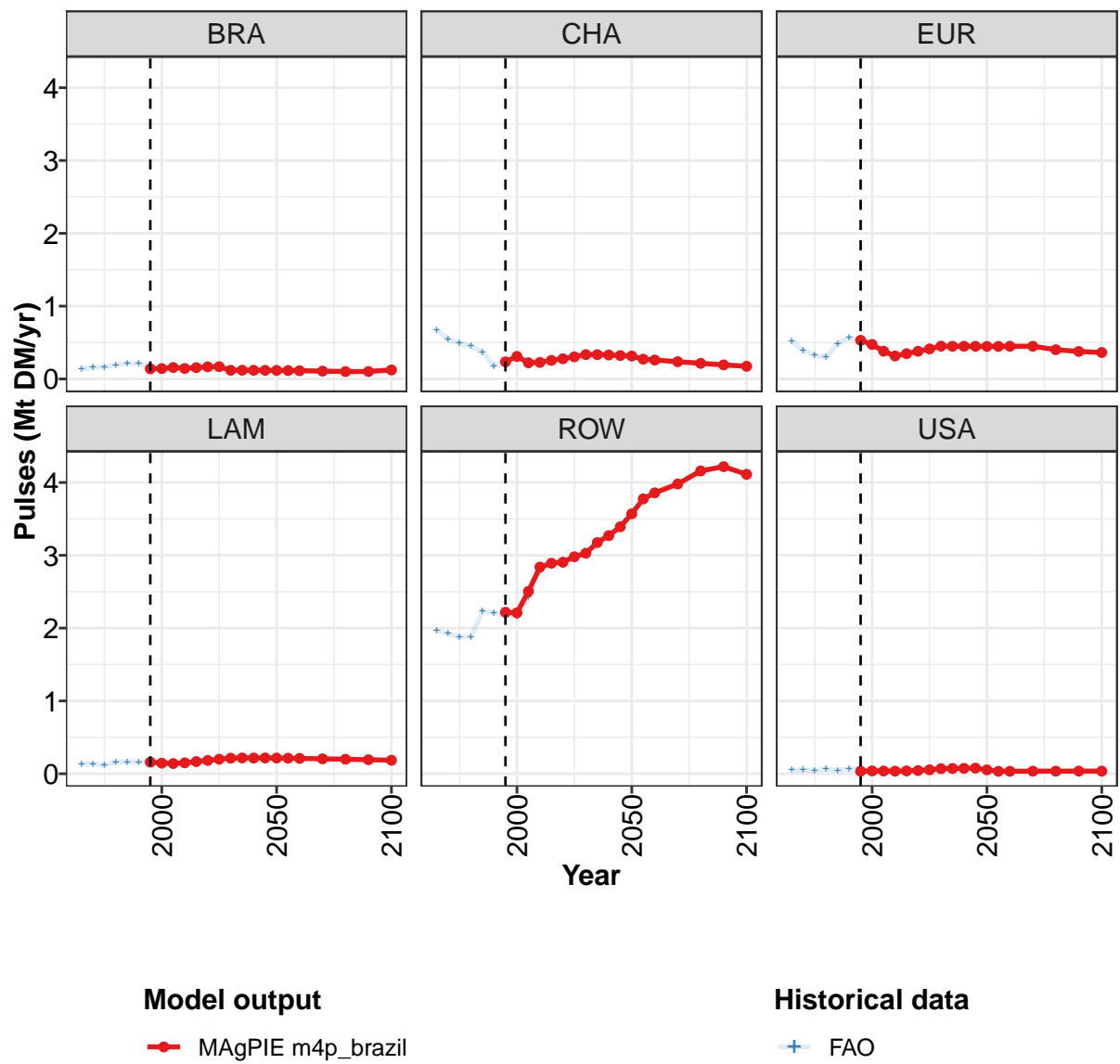


Figure 230: MAgPIE m4p_brazil — Demand—Seed—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.32	3.32	3.44	3.71	3.86	3.96	4.12	4.22	4.37	4.46	4.57
BRA	0.14	0.14	0.16	0.14	0.16	0.17	0.17	0.12	0.12	0.12	0.12
CHA	0.24	0.31	0.22	0.23	0.25	0.28	0.30	0.33	0.33	0.33	0.32
EUR	0.53	0.47	0.38	0.32	0.35	0.38	0.41	0.45	0.45	0.45	0.45
LAM	0.16	0.15	0.14	0.15	0.17	0.18	0.20	0.21	0.22	0.22	0.22
ROW	2.22	2.21	2.51	2.84	2.89	2.91	2.98	3.03	3.18	3.27	3.39
USA	0.03	0.04	0.04	0.03	0.04	0.04	0.05	0.07	0.07	0.07	0.08

Table 689: MAgPIE m4p_brazil — Demand—Seed—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

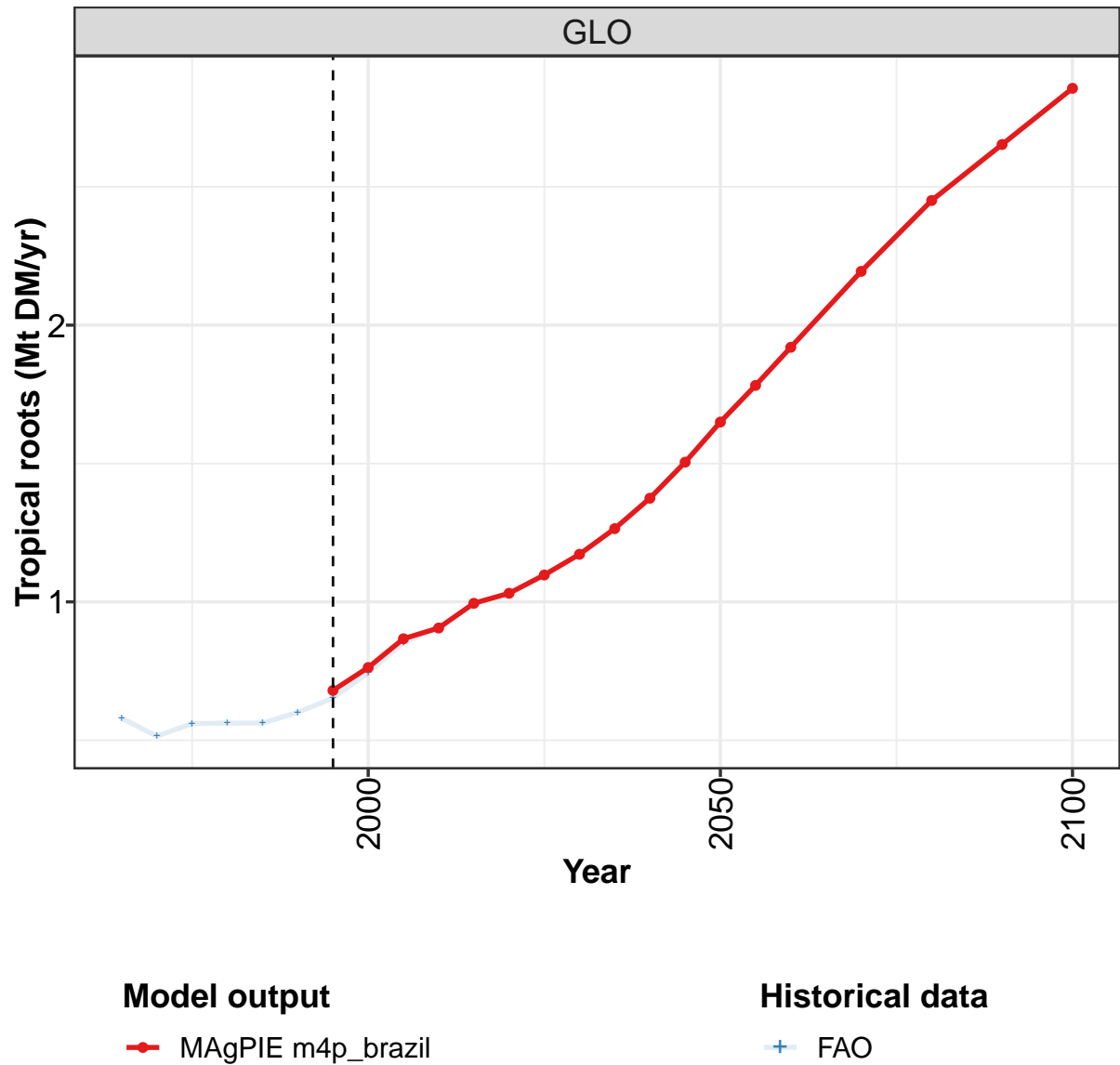
	2050	2055	2060	2070	2080	2090	2100
GLO	4.72	4.86	4.93	5.01	5.11	5.12	4.99
BRA	0.12	0.12	0.11	0.11	0.10	0.10	0.12
CHA	0.31	0.27	0.26	0.24	0.21	0.19	0.17
EUR	0.45	0.45	0.45	0.45	0.40	0.38	0.36
LAM	0.22	0.21	0.21	0.20	0.20	0.19	0.19
ROW	3.57	3.77	3.86	3.98	4.16	4.22	4.11
USA	0.05	0.03	0.03	0.04	0.04	0.04	0.04

Table 690: MAgPIE m4p_brazil — 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
BRA	0.13	0.16	0.16	0.19	0.21	0.21	0.17	0.14	0.16	0.14
CHA	0.67	0.54	0.49	0.45	0.37	0.18	0.25	0.31	0.24	0.24
EUR	0.52	0.39	0.32	0.30	0.48	0.57	0.50	0.46	0.37	0.31
LAM	0.14	0.14	0.12	0.16	0.16	0.16	0.16	0.14	0.14	0.15
ROW	1.97	1.93	1.88	1.88	2.23	2.21	2.17	2.16	2.42	2.80
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



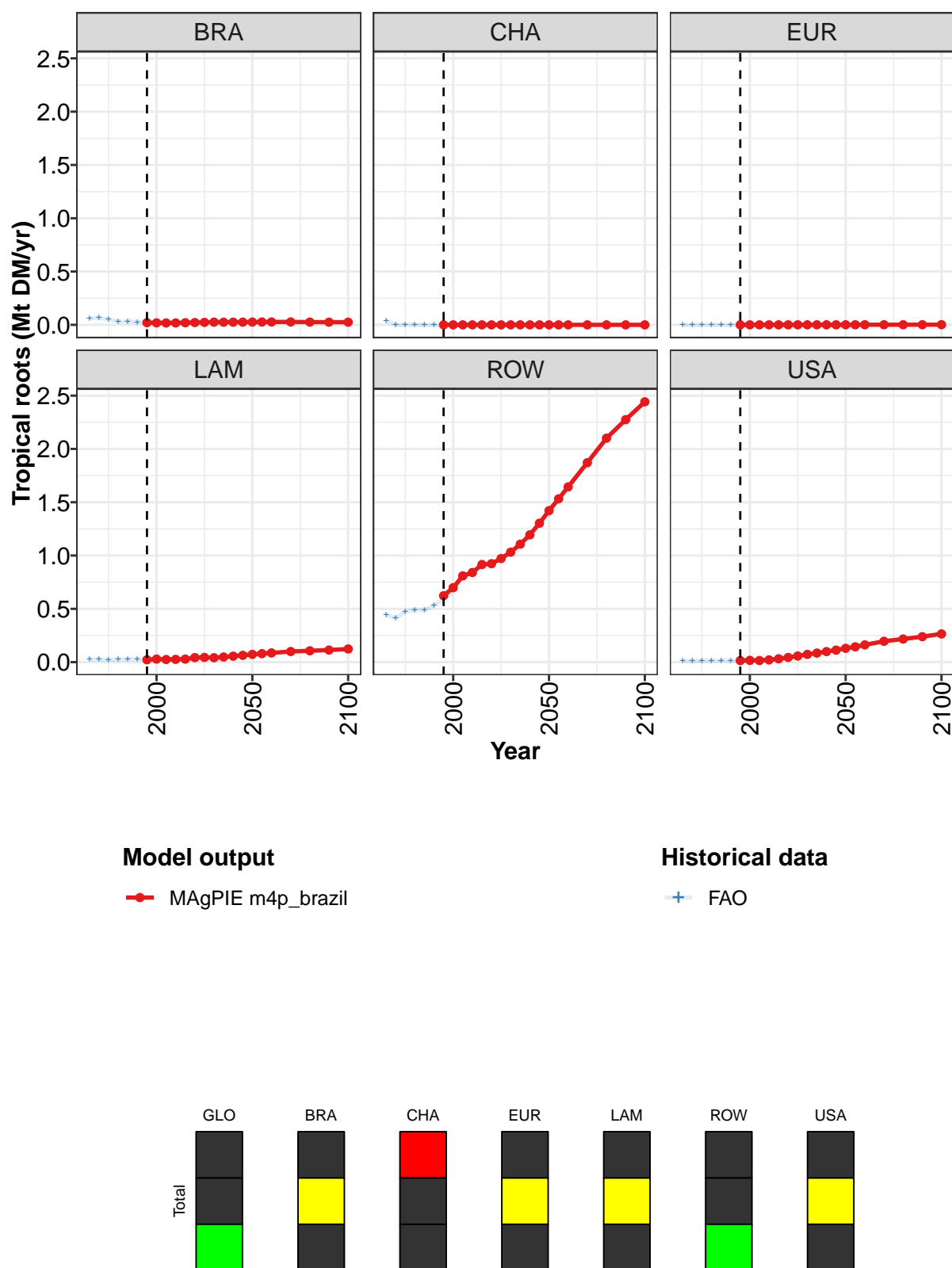


Figure 231: MAgPIE m4p_brazil — Demand—Seed—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.68	0.76	0.87	0.91	0.99	1.03	1.10	1.17	1.26	1.37	1.50
BRA	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.02	0.03	0.02	0.03	0.03	0.04	0.04	0.04	0.05	0.06	0.06
ROW	0.62	0.70	0.81	0.84	0.92	0.92	0.97	1.03	1.11	1.19	1.30
USA	0.01	0.02	0.02	0.02	0.03	0.04	0.06	0.07	0.08	0.10	0.11

Table 692: MAgPIE m4p_brazil — Demand—Seed—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 1/2]

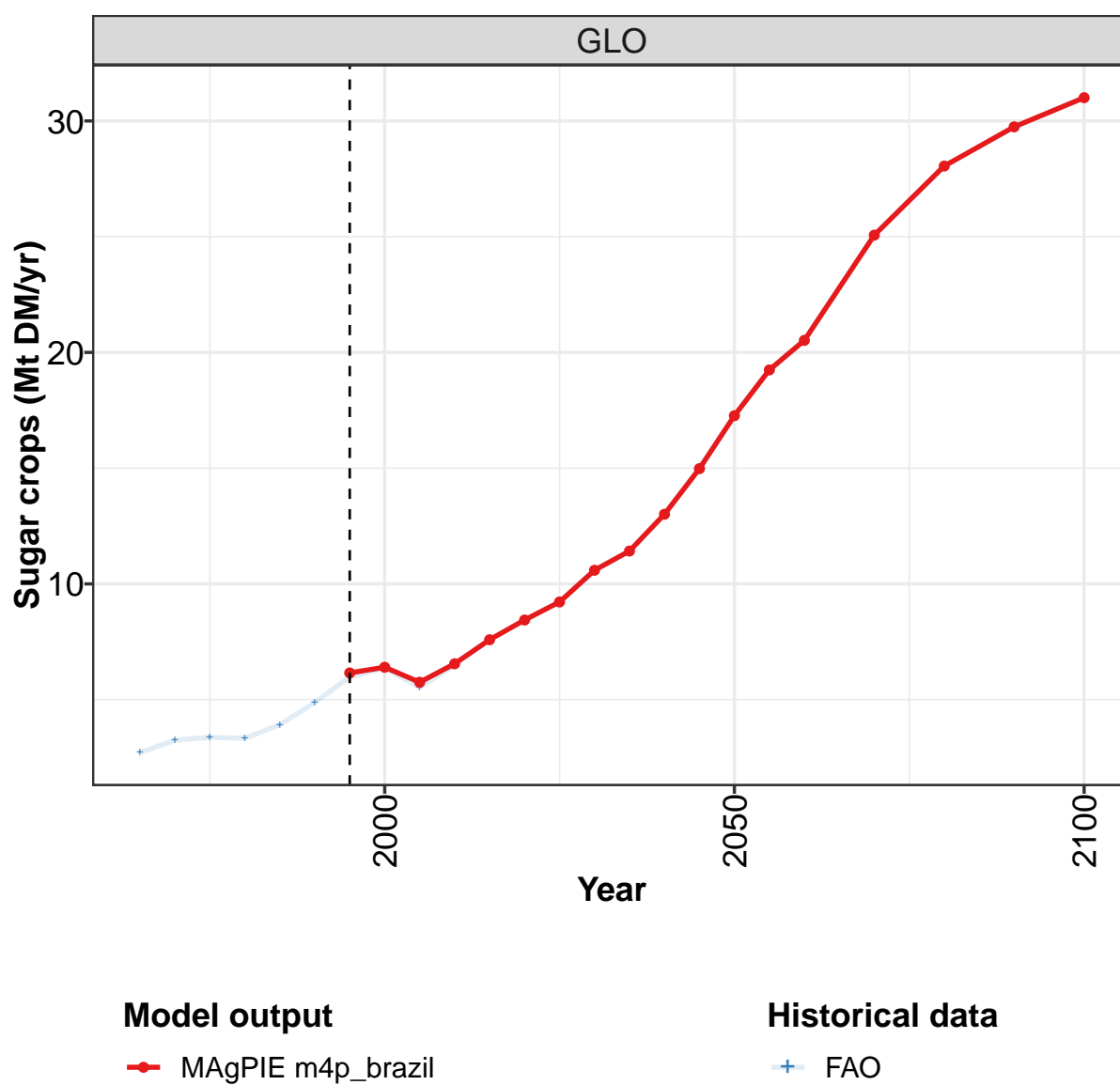
	2050	2055	2060	2070	2080	2090	2100
GLO	1.65	1.78	1.92	2.19	2.45	2.65	2.86
BRA	0.03	0.03	0.03	0.03	0.03	0.02	0.02
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.07	0.08	0.09	0.10	0.11	0.11	0.12
ROW	1.42	1.53	1.64	1.87	2.10	2.27	2.44
USA	0.13	0.14	0.16	0.20	0.22	0.24	0.26

Table 693: MAgPIE m4p_brazil — 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
BRA	0.061	0.065	0.050	0.032	0.030	0.025	0.020	0.019	0.019	0.019
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
LAM	0.024	0.025	0.024	0.024	0.027	0.029	0.022	0.030	0.025	0.026
ROW	0.442	0.412	0.473	0.490	0.488	0.530	0.596	0.679	0.793	0.838
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



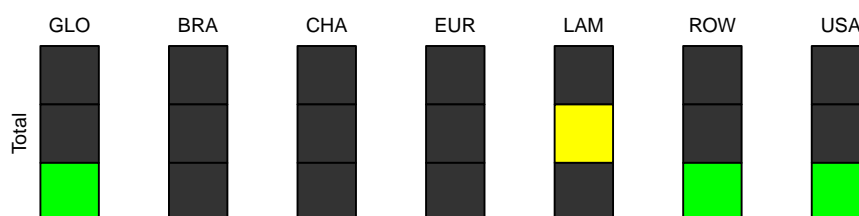
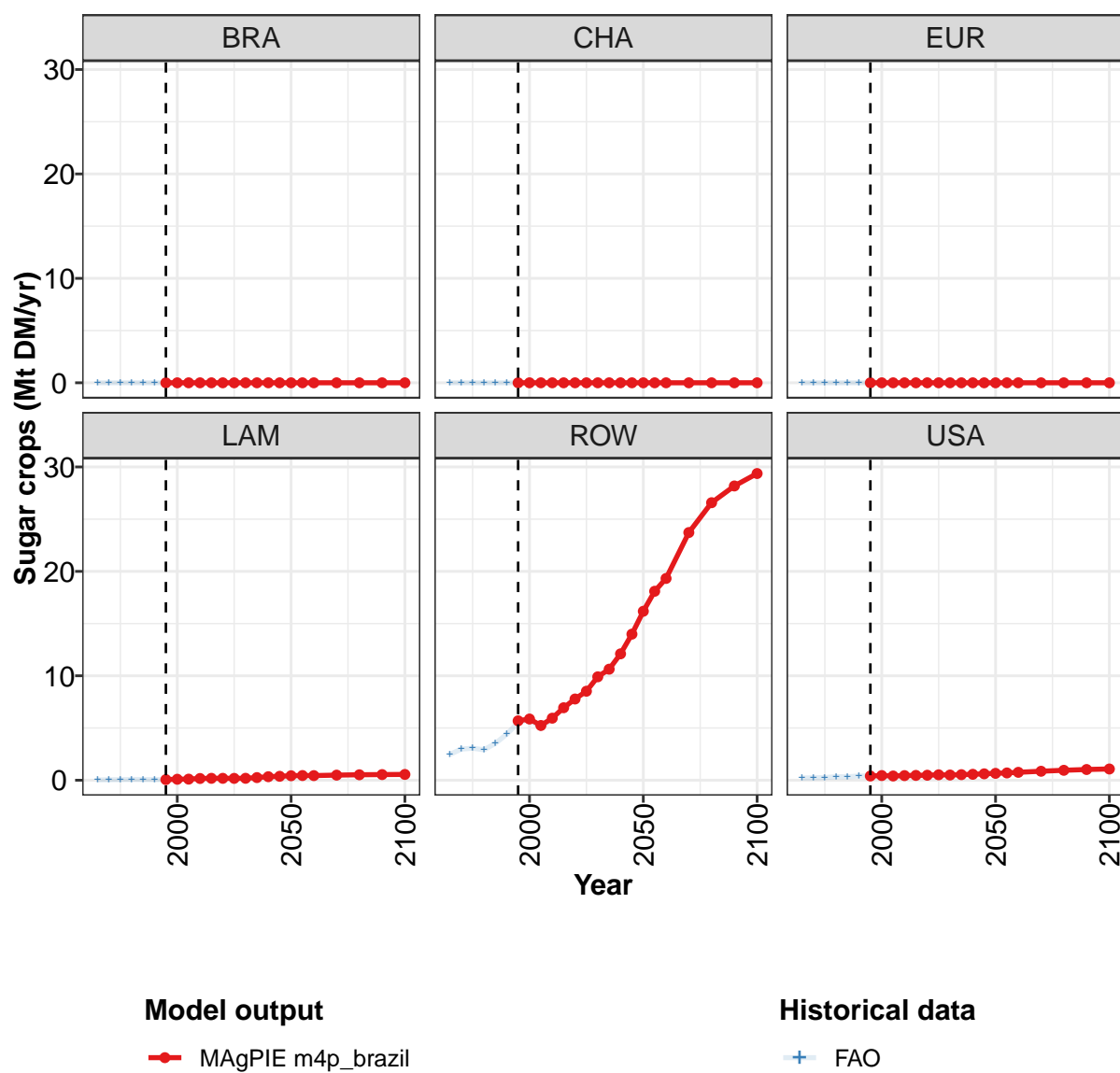


Figure 232: MAgPIE m4p_brazil — Demand—Seed—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.2	6.4	5.8	6.6	7.6	8.4	9.2	10.6	11.4	13.0	15.0
BRA	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
LAM	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4
ROW	5.7	5.9	5.2	5.9	6.9	7.8	8.5	9.9	10.6	12.1	14.0
USA	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6

Table 695: MAgPIE m4p_brazil — Demand—Seed—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

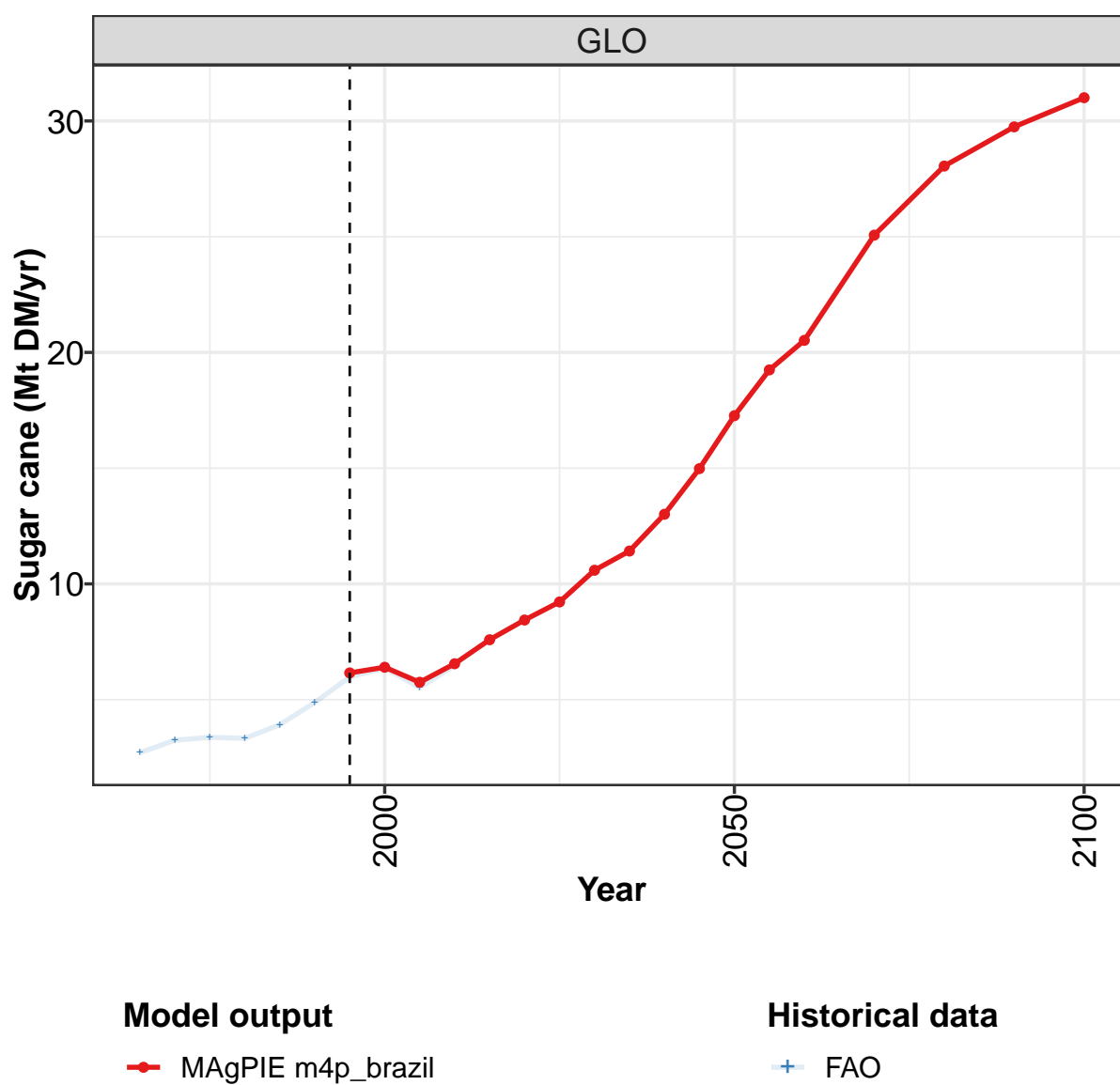
	2050	2055	2060	2070	2080	2090	2100
GLO	17.3	19.2	20.5	25.1	28.1	29.7	31.0
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.4	0.4	0.4	0.5	0.5	0.5	0.6
ROW	16.2	18.1	19.3	23.7	26.6	28.2	29.4
USA	0.7	0.7	0.8	0.9	1.0	1.0	1.1

Table 696: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.03	0.04	0.05	0.08	0.07	0.06	0.06	0.09	0.10	0.15
ROW	2.47	2.98	3.06	2.91	3.52	4.41	5.51	5.83	5.02	5.87
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



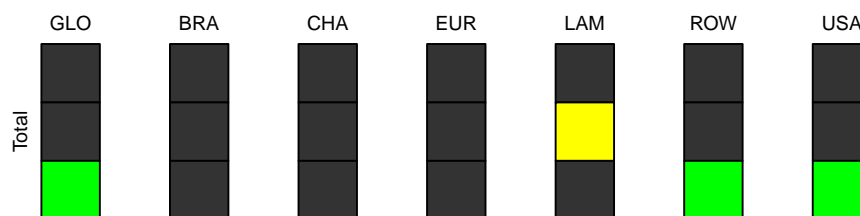
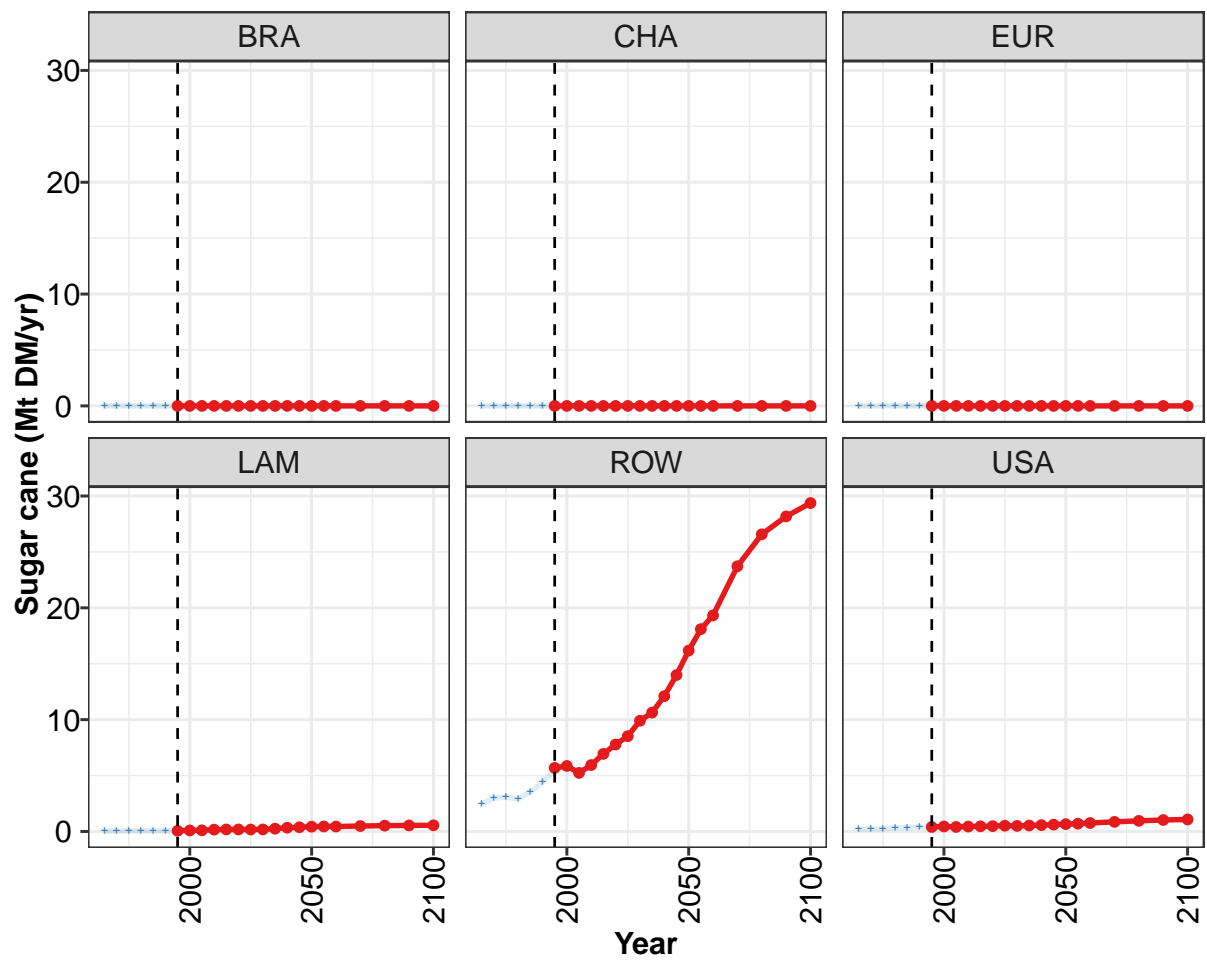


Figure 233: MAgPIE m4p_brazil — Demand—Seed—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.2	6.4	5.8	6.6	7.6	8.4	9.2	10.6	11.4	13.0	15.0
BRA	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
LAM	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4
ROW	5.7	5.9	5.2	5.9	6.9	7.8	8.5	9.9	10.6	12.1	14.0
USA	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6

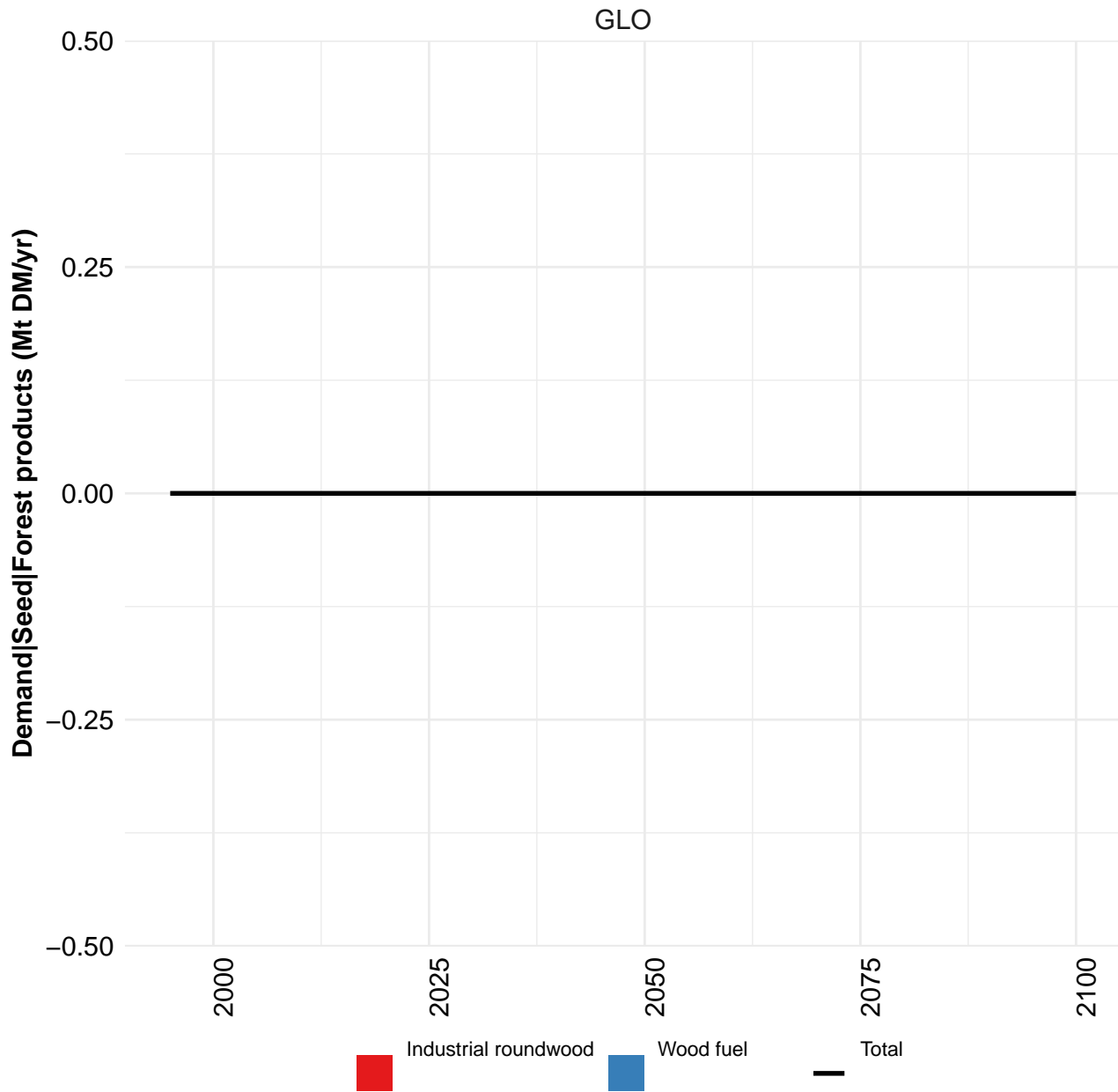
Table 698: MAgPIE m4p_brazil — Demand—Seed—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 1/2]

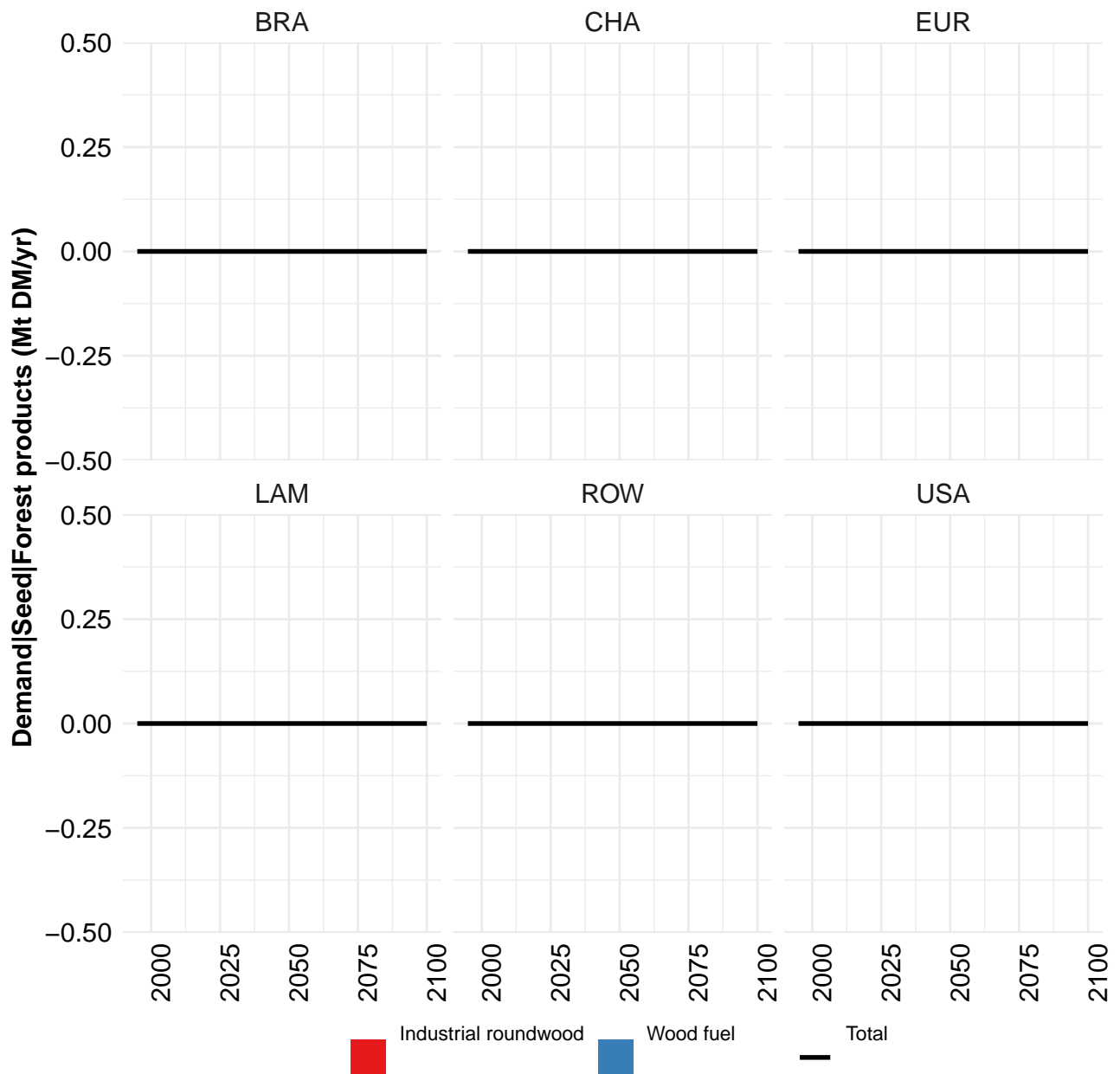
	2050	2055	2060	2070	2080	2090	2100
GLO	17.3	19.2	20.5	25.1	28.1	29.7	31.0
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.4	0.4	0.4	0.5	0.5	0.5	0.6
ROW	16.2	18.1	19.3	23.7	26.6	28.2	29.4
USA	0.7	0.7	0.8	0.9	1.0	1.0	1.1

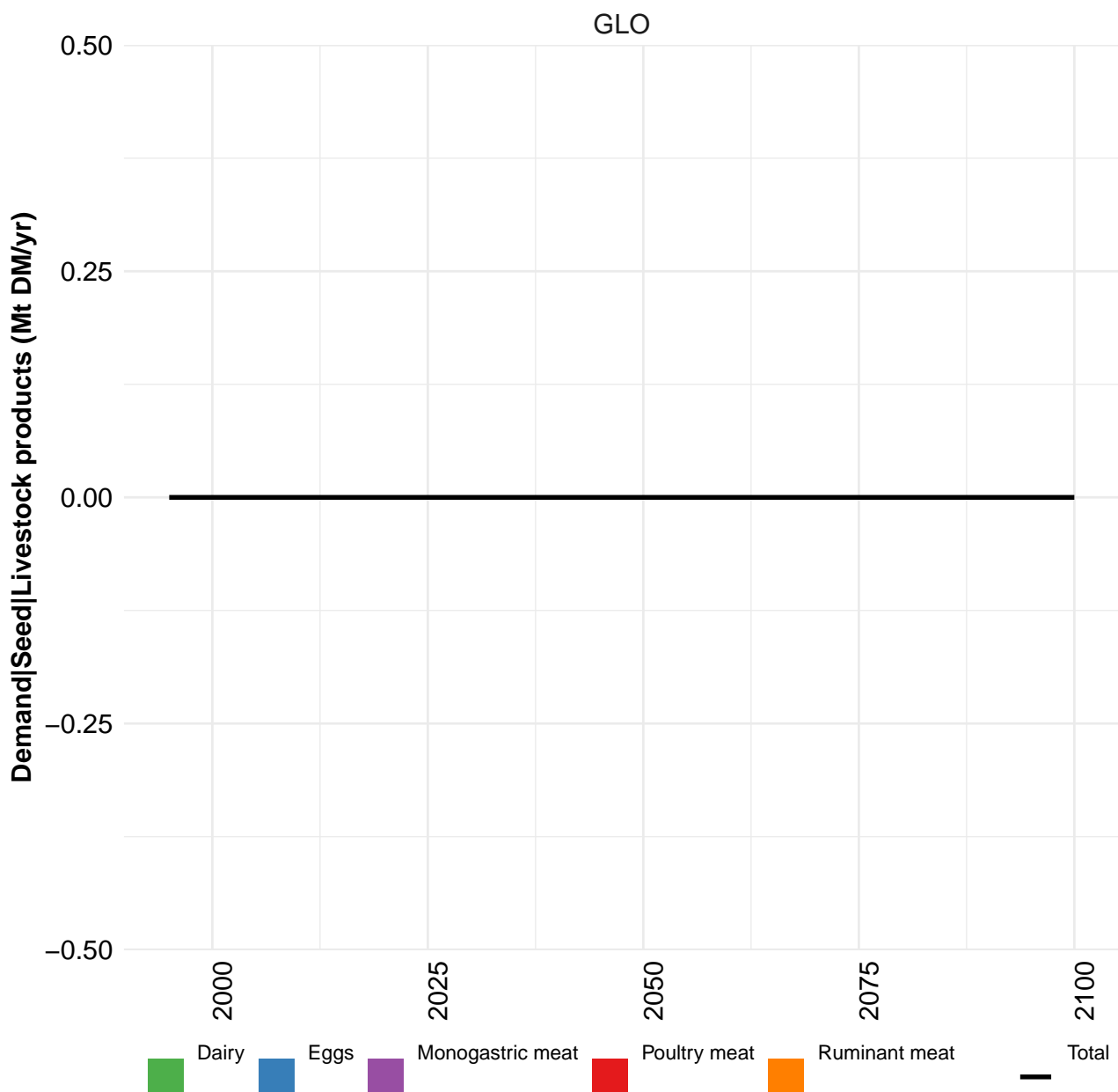
Table 699: MAgPIE m4p_brazil — Demand—Seed—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 2/2]

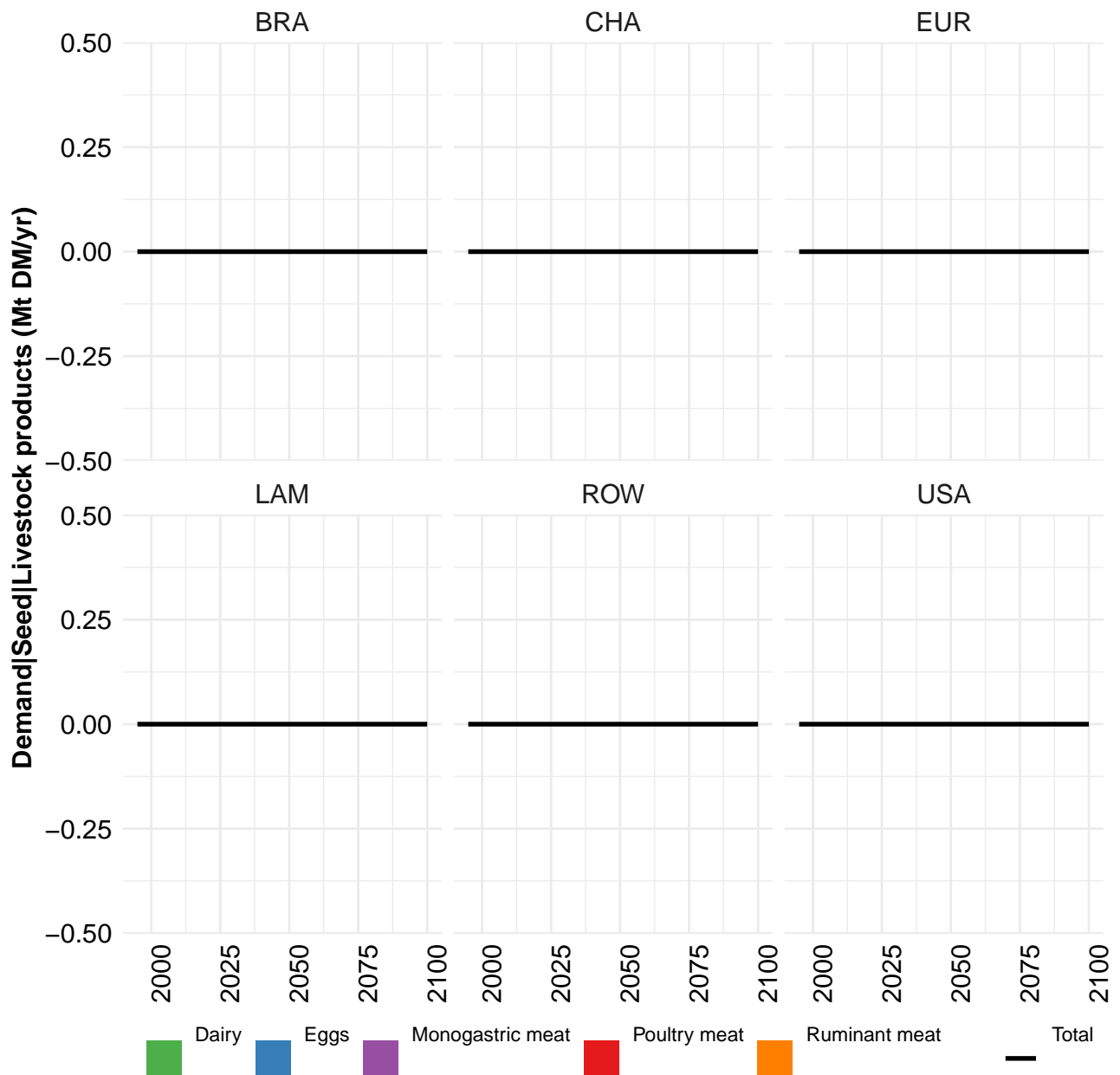
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.71	3.25	3.37	3.33	3.92	4.88	5.98	6.36	5.52	6.48
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.03	0.04	0.05	0.08	0.07	0.06	0.06	0.09	0.10	0.15
ROW	2.47	2.98	3.06	2.91	3.52	4.41	5.51	5.83	5.02	5.87
USA	0.22	0.23	0.25	0.34	0.33	0.41	0.40	0.45	0.40	0.46

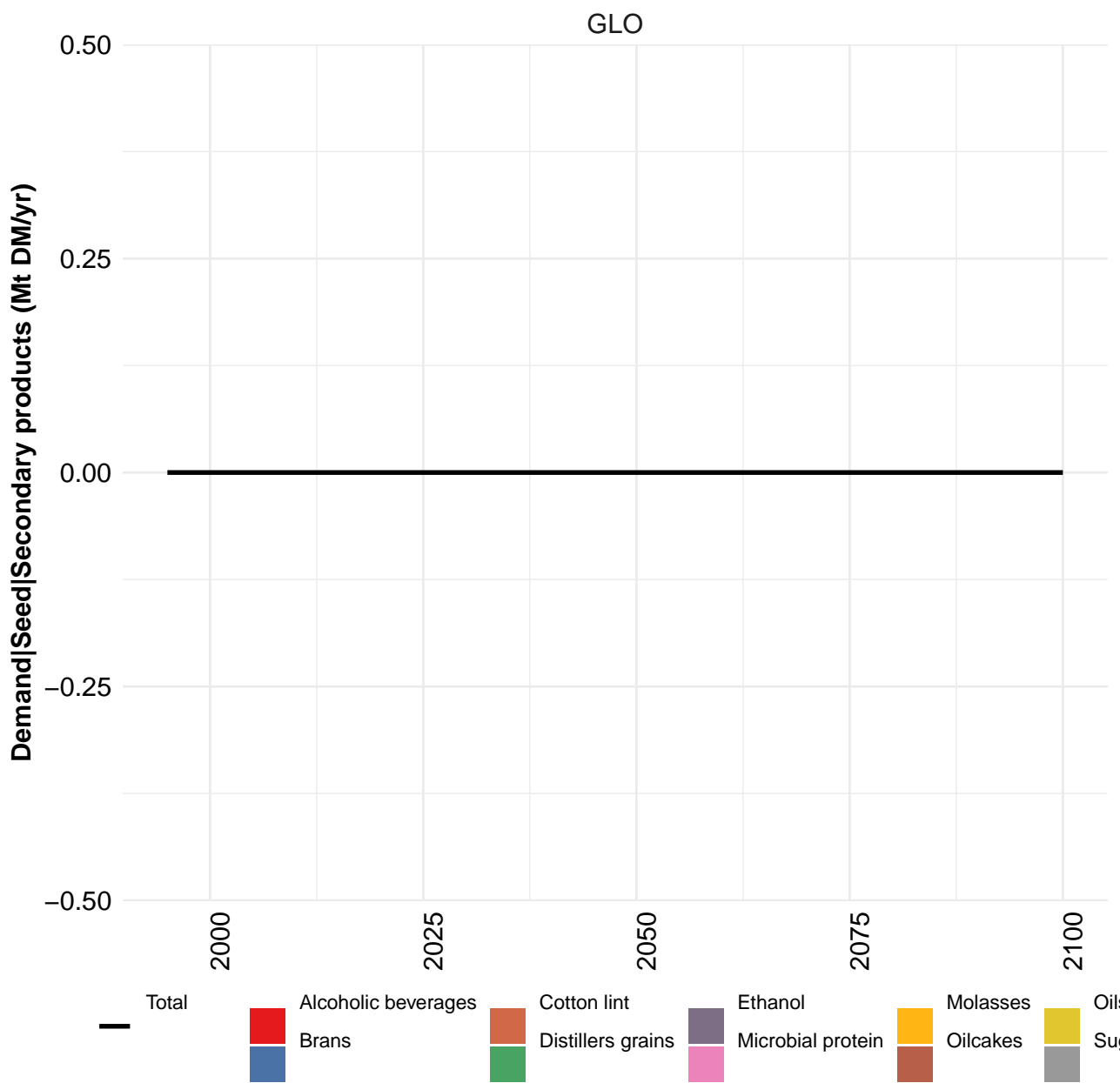
Table 700: FAO — Demand—Seed—Crops—Sugar crops—Sugar cane (Mt DM/yr)

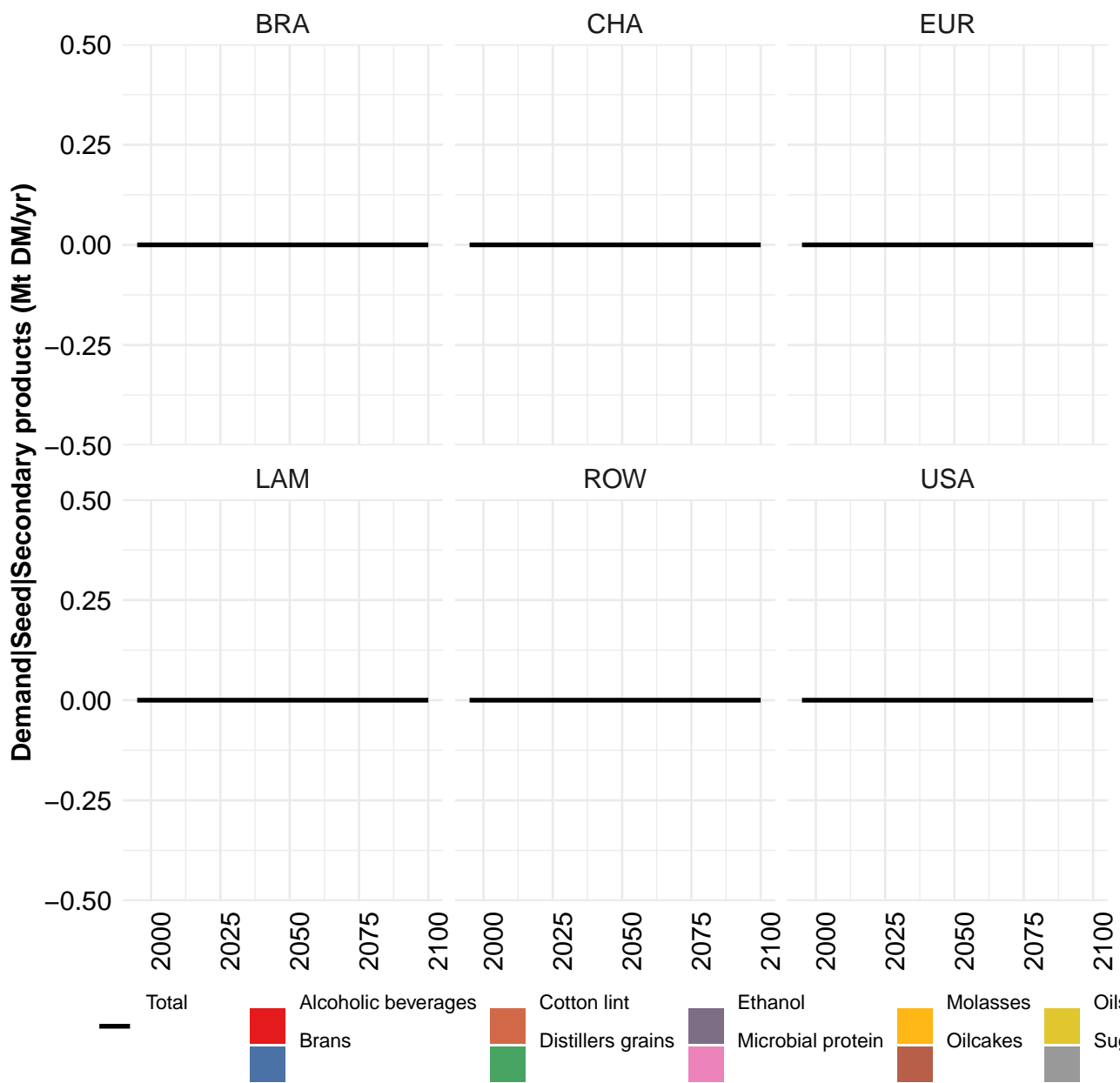








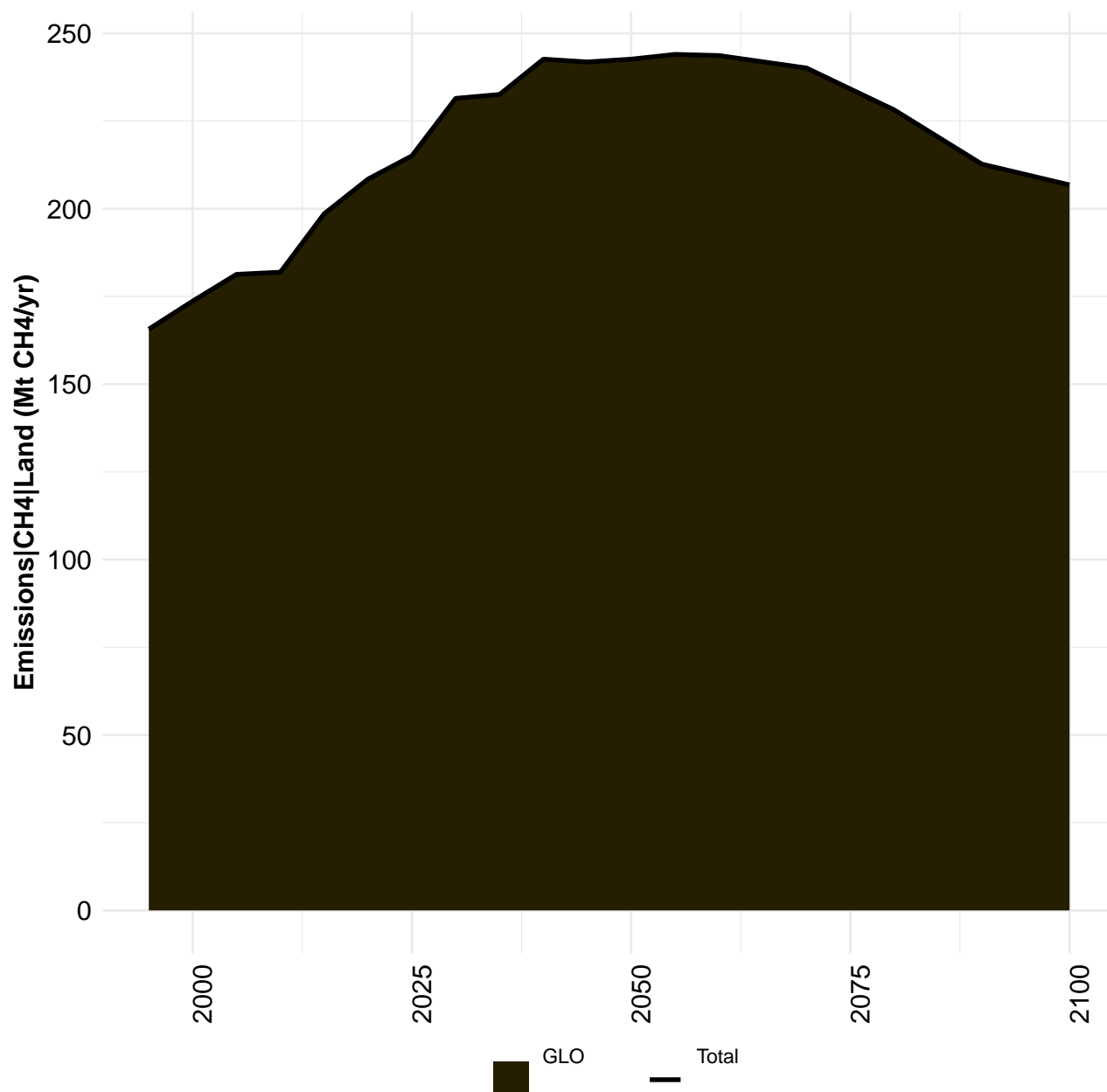


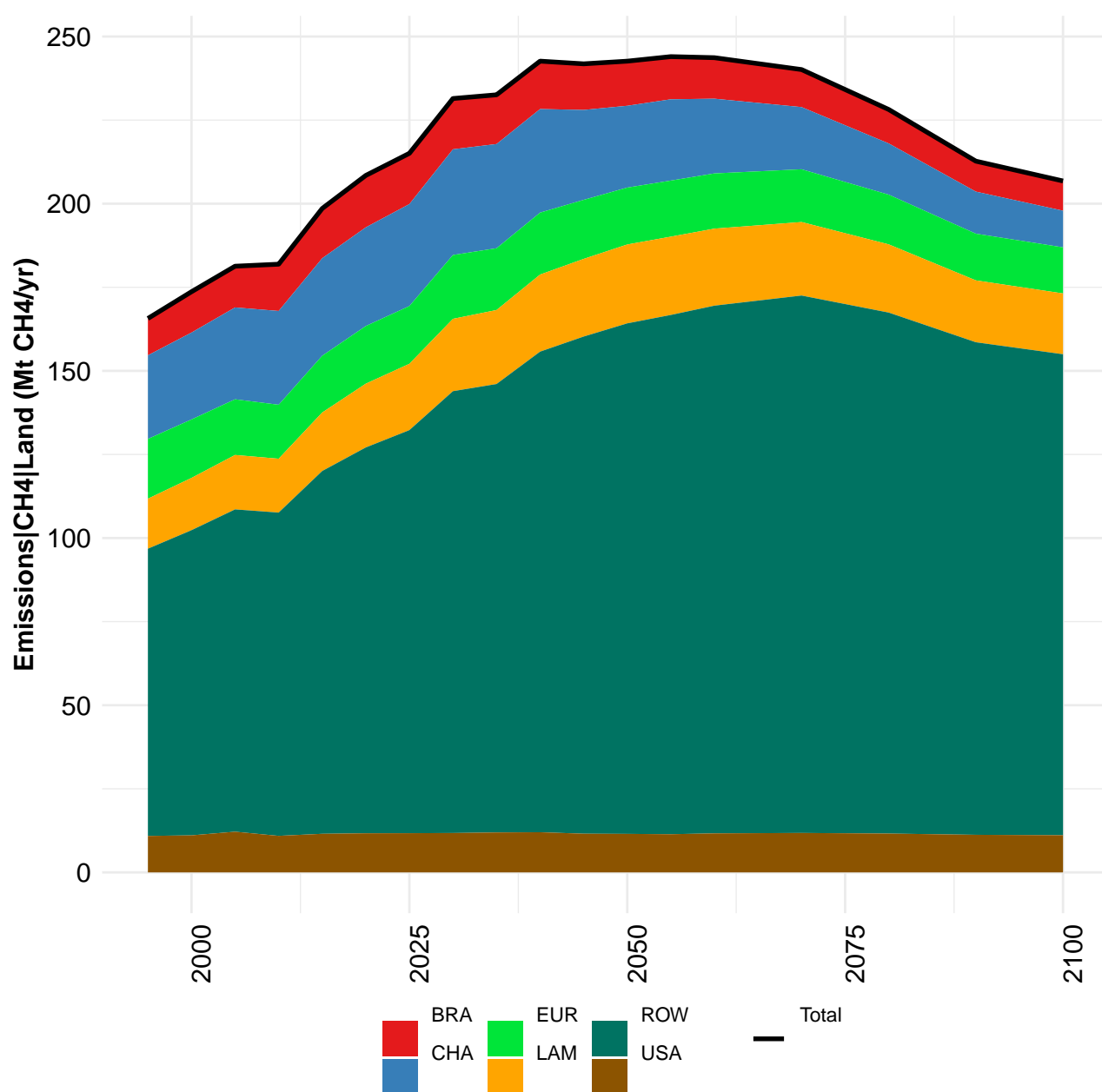


Part IV

Emissions

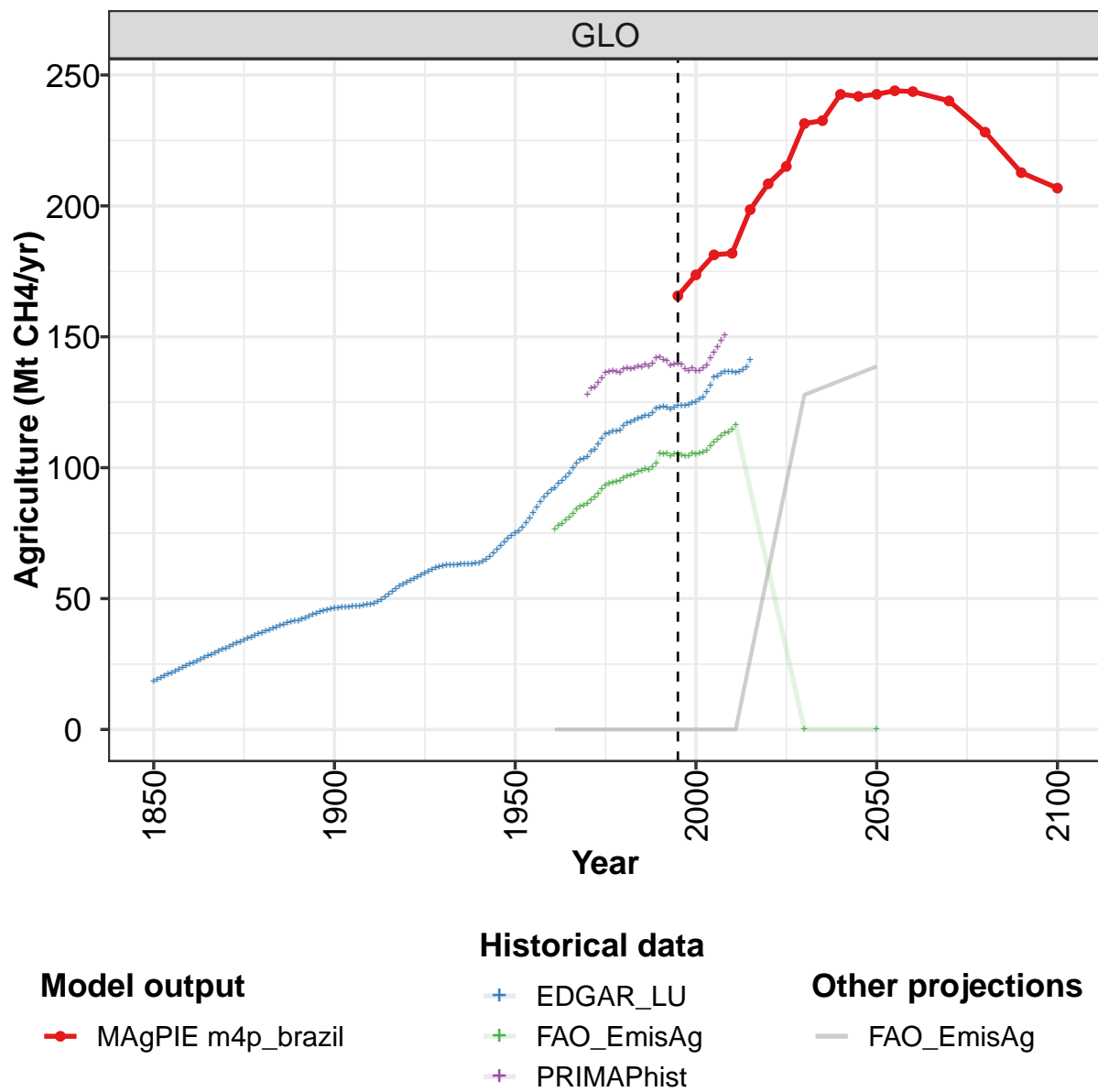
11 CH4

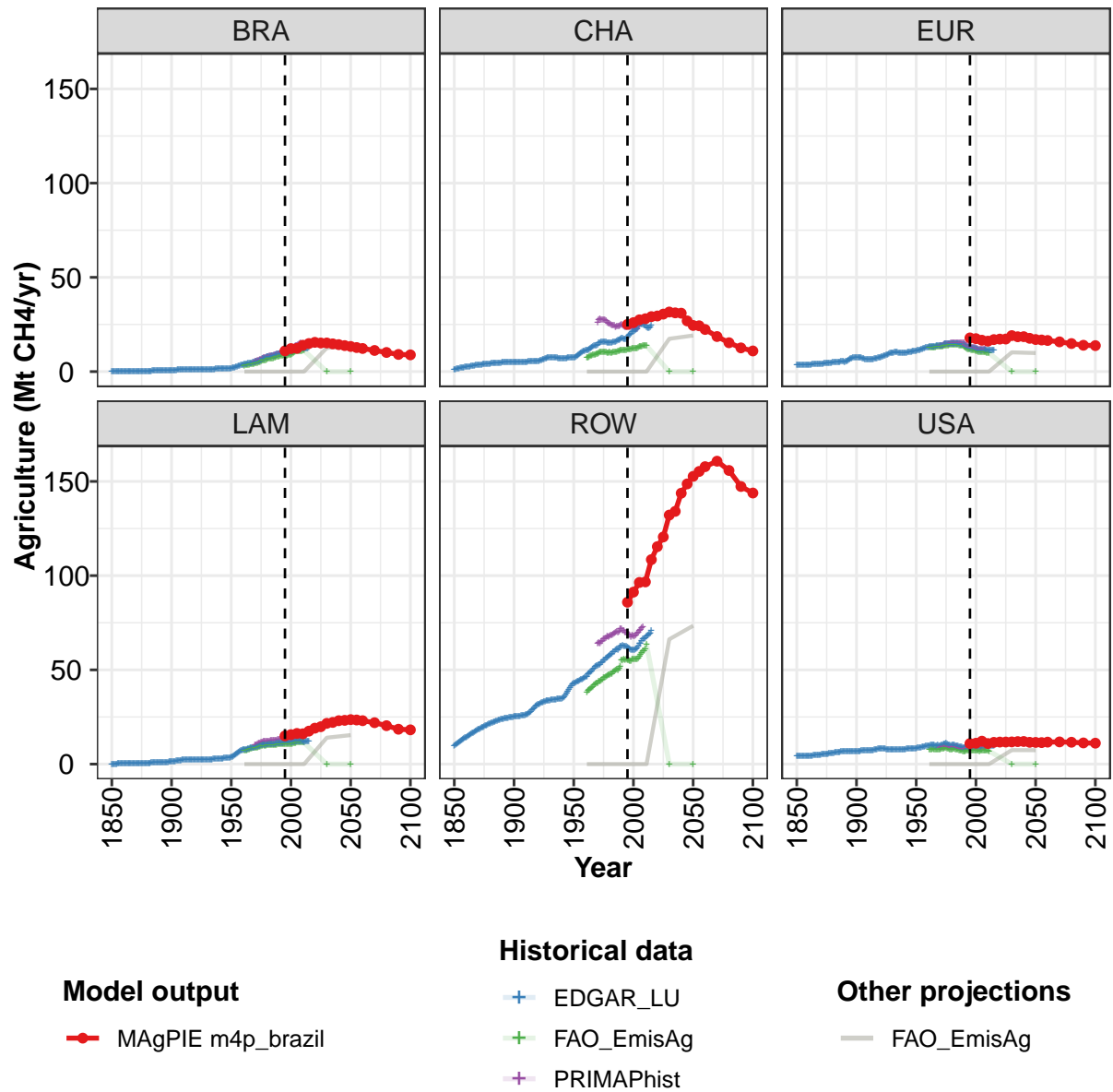




11.1 Land

11.1.1 Agriculture



Figure 234: MAGPIE m4p_brazil — Emissions—CH₄—Land—Agriculture (Mt CH₄/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	166	174	181	182	199	208	215	231	233	243	242
BRA	11	12	12	14	15	16	15	15	15	14	14
CHA	25	26	27	28	29	30	31	32	31	31	27
EUR	18	17	17	16	17	17	17	19	18	19	18
LAM	15	16	16	16	17	19	20	22	22	23	23
ROW	86	91	96	97	109	115	121	132	134	144	149
USA	11	11	12	11	12	12	12	12	12	12	12

Table 701: MAgPIE m4p_brazil — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	243	244	244	240	228	213	207
BRA	13	13	12	11	10	9	9
CHA	24	24	22	19	15	13	11
EUR	17	17	17	16	15	14	14
LAM	24	23	23	22	20	19	18
ROW	153	155	158	161	156	147	144
USA	12	11	12	12	12	11	11

Table 702: MAgPIE m4p_brazil — 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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	1	1	1	2	2	2	2	2	2	2	2
EUR	3	3	3	3	4	4	4	4	4	4	4
LAM	0	0	0	0	0	0	0	0	0	0	0
ROW	10	10	11	11	12	12	12	13	13	14	14
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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	3	3	3	3	3	3	3	3	3	3	4
EUR	4	4	4	4	4	4	4	4	4	4	4
LAM	0	0	0	0	0	0	0	0	0	0	0
ROW	15	15	16	16	16	17	17	17	18	18	19
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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	4	4	4	4	4	4	4	4	4	4	4
EUR	4	4	4	4	4	5	5	5	5	5	5
LAM	0	0	0	0	0	0	0	1	1	1	1
ROW	19	19	20	20	20	21	21	21	21	22	22
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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	4	4	4	5	5	5	5	5	5	5	5
EUR	5	5	5	5	5	5	5	5	5	6	6
LAM	1	1	1	1	1	1	1	1	1	1	1
ROW	22	23	23	23	23	23	24	24	24	24	24
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
BRA	0	0	0	1	1	1	1	1	1	1	1
CHA	5	5	5	5	5	5	5	5	5	5	5
EUR	6	7	7	7	7	8	8	8	7	7	7
LAM	1	1	1	1	1	1	1	1	1	1	2
ROW	24	25	25	25	25	25	25	25	25	25	25
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
BRA	1	1	1	1	1	1	1	1	1	1	1
CHA	5	5	5	5	5	5	5	5	5	5	5
EUR	7	7	7	6	6	6	6	6	6	7	7
LAM	2	2	2	2	2	2	2	2	2	2	2
ROW	26	26	26	26	26	26	26	27	27	28	29
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
BRA	1	1	1	1	1	1	1	1	1	1	1
CHA	5	5	5	6	6	6	6	6	6	7	7
EUR	7	7	7	7	7	8	8	8	8	9	9
LAM	2	2	2	2	2	2	2	2	2	2	2
ROW	29	30	31	31	31	32	32	32	33	33	33
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
BRA	1	1	1	1	1	1	1	1	1	1	1
CHA	7	7	8	8	8	8	7	7	7	7	7
EUR	9	10	10	10	10	10	10	10	10	10	10
LAM	2	2	2	2	2	2	3	3	3	3	3
ROW	33	34	34	34	34	34	34	34	34	34	34
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
BRA	1	1	1	1	1	1	1	2	2	2	2
CHA	7	7	7	7	7	7	7	7	7	7	7
EUR	10	10	10	10	10	10	10	10	10	11	11
LAM	3	3	3	3	3	3	3	3	3	3	3
ROW	34	35	35	35	36	36	37	38	40	41	42
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
BRA	2	2	2	2	2	2	3	3	3	3	4
CHA	7	7	8	8	8	9	9	10	10	11	11
EUR	11	11	11	11	12	12	12	12	13	13	13
LAM	3	4	4	4	5	5	6	6	7	7	7
ROW	42	43	43	43	44	44	44	45	45	46	46
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
BRA	4	4	4	4	4	4	5	5	5	5	5
CHA	11	11	11	12	12	13	13	14	14	14	14
EUR	13	13	13	13	13	13	13	14	14	14	14
LAM	8	8	8	8	8	8	9	9	9	9	9
ROW	46	47	48	48	49	49	50	51	52	52	52
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
BRA	5	6	6	6	6	7	7	7	7	8	8
CHA	15	15	15	16	16	16	16	15	15	15	15
EUR	14	14	14	15	15	14	15	15	15	15	15
LAM	9	9	9	10	10	10	10	10	10	10	11
ROW	53	53	54	54	55	55	56	57	57	58	58
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
BRA	8	8	8	8	9	9	9	9	9	9	10
CHA	15	16	16	16	16	16	17	17	17	17	17
EUR	15	15	15	15	15	14	14	14	14	14	13
LAM	11	11	11	11	11	11	11	11	11	11	11
ROW	58	59	60	60	61	61	61	62	63	63	63
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
BRA	10	10	10	10	10	10	10	10	11	11	12
CHA	17	17	18	19	20	20	21	21	22	22	23
EUR	13	13	12	12	12	12	12	12	12	11	12
LAM	11	12	12	12	11	11	12	12	12	12	12
ROW	63	62	62	61	61	61	61	60	61	61	62
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
BRA	12	12	12	12	12	12	12	12	12	12	12
CHA	24	25	25	25	25	25	24	23	23	23	23
EUR	11	11	11	11	11	11	11	11	11	11	11
LAM	12	12	12	12	12	12	12	12	12	12	12
ROW	62	64	64	66	67	66	67	68	68	69	69
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
BRA	13
CHA	24
EUR	11
LAM	12
ROW	71
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
BRA	3	3	3	4	4	4	4	4	4	4	4
CHA	7	7	8	8	8	9	9	9	9	9	10
EUR	13	13	13	13	13	13	13	13	13	13	13
LAM	7	7	7	8	8	8	8	8	8	9	9
ROW	38	39	40	40	40	41	42	43	43	43	44
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
BRA	5	5	5	5	6	6	6	6	7	7	7
CHA	10	10	10	10	10	10	10	10	10	10	10
EUR	13	14	14	14	14	14	14	14	14	14	14
LAM	9	9	9	10	10	10	10	10	10	10	10
ROW	44	44	45	46	46	46	47	47	47	48	48
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
BRA	7	7	7	7	7	8	8	8	8	9	9
CHA	10	10	10	11	11	11	11	11	11	11	11
EUR	14	14	14	14	14	14	14	13	13	12	12
LAM	10	10	10	10	10	10	10	10	10	11	11
ROW	49	49	50	50	50	51	52	55	55	56	55
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
BRA	9	9	8	9	9	9	9	9	10	10	11
CHA	11	12	12	12	12	12	12	12	12	12	13
EUR	12	12	12	11	11	11	11	11	11	10	10
LAM	11	11	11	11	11	11	11	11	11	11	11
ROW	55	55	55	55	55	56	56	56	56	55	56
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
BRA	11	11	11	11	11	11	11	0	0
CHA	13	13	13	14	14	14	14	0	0
EUR	10	10	10	10	10	10	10	0	0
LAM	11	12	12	12	12	12	11	0	0
ROW	57	58	59	60	60	61	63	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
BRA	5	6	6	6	6	6	7	7	7	7	8
CHA	26	28	28	27	28	28	28	27	26	25	25
EUR	14	14	14	14	15	15	15	15	15	15	15
LAM	10	10	11	11	11	12	12	12	12	12	12
ROW	64	64	64	65	65	67	66	67	68	68	68
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
BRA	8	8	8	8	8	9	9	9	9	9	10
CHA	25	24	24	24	24	24	24	24	25	25	25
EUR	15	15	15	15	15	15	15	15	15	15	14
LAM	12	12	12	12	12	12	12	13	13	13	13
ROW	68	68	69	69	70	70	70	71	72	72	71
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]

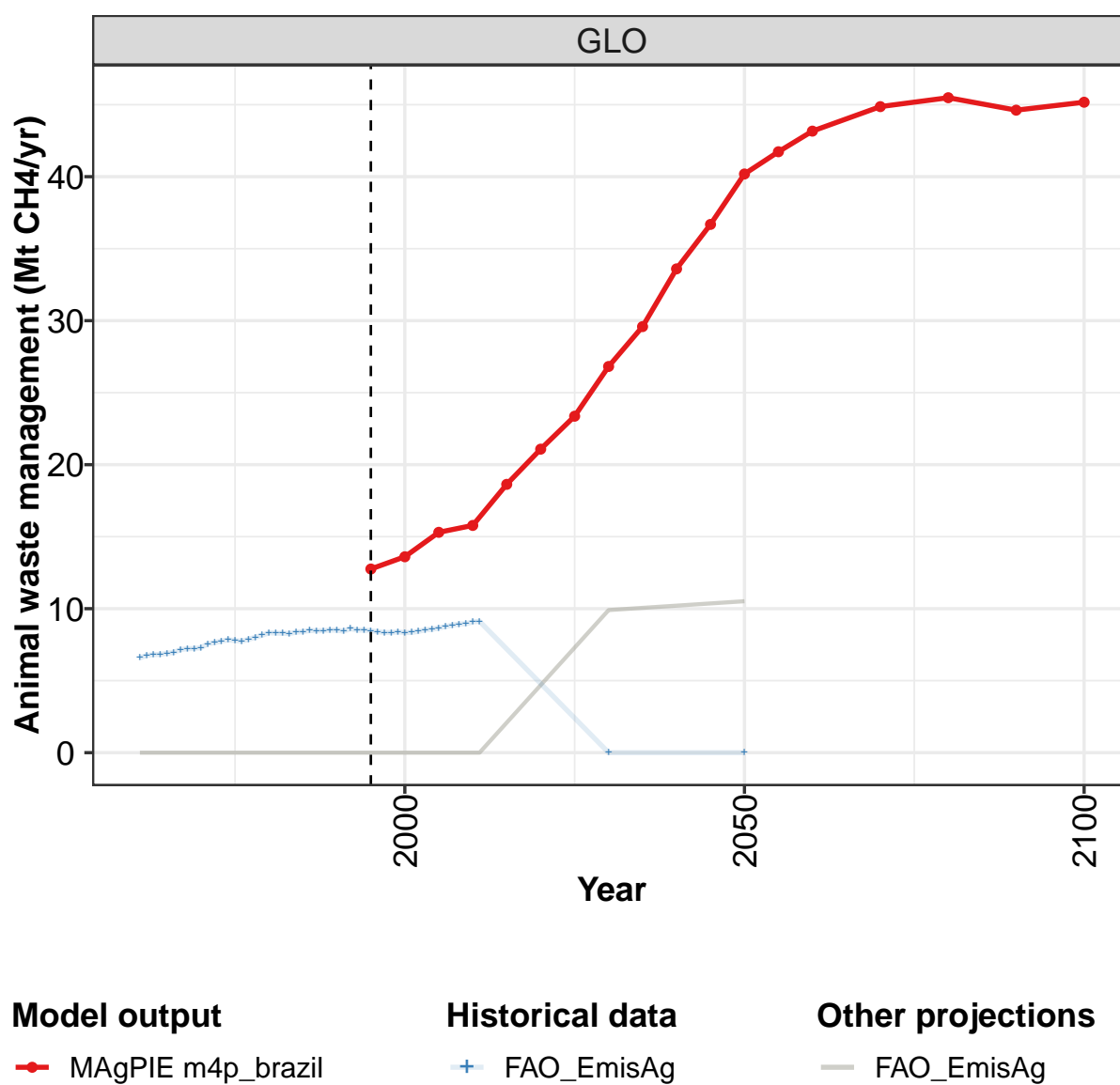
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
GLO	141	139	139	140	139	138	137	138	137	137	138
BRA	10	11	11	12	11	11	11	11	11	12	12
CHA	24	23	23	24	24	23	24	24	23	23	23
EUR	14	13	13	13	13	13	13	13	12	12	12
LAM	13	13	13	13	13	13	13	13	13	13	13
ROW	71	70	70	69	69	68	68	68	68	68	69
USA	8	9	9	9	9	9	9	9	9	9	9

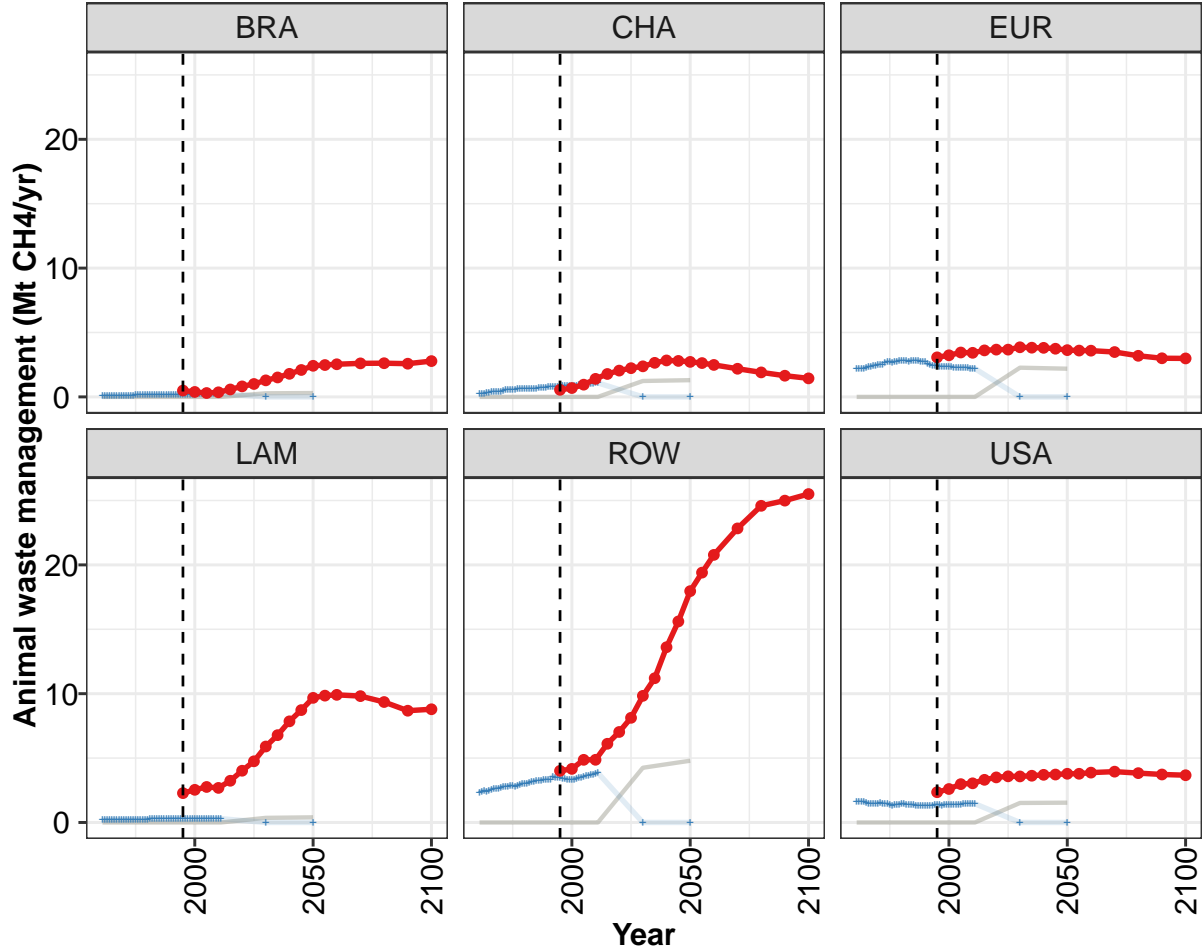
Table 726: EDGAR_LU — Emissions—CH4—Land—Agriculture (Mt CH4/yr) [PART 3/4]

	2003	2004	2005	2006	2007	2008
GLO	139	142	144	146	148	151
BRA	13	14	14	14	15	15
CHA	23	24	25	26	27	28
EUR	12	12	12	12	12	12
LAM	14	14	14	14	14	14
ROW	69	70	71	71	72	73
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 **Historical data** **Other projections**
—●— MAgPIE m4p_brazil —+— FAO_EmisAg — FAO_EmisAg

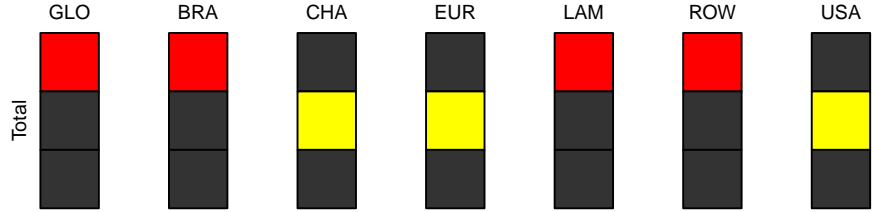


Figure 235: MAgPIE m4p.brazil — Emissions—CH4—Land—Agriculture—Animal waste management (Mt CH4/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	12.8	13.6	15.3	15.8	18.6	21.1	23.4	26.8	29.6	33.6	36.7
BRA	0.5	0.4	0.3	0.4	0.6	0.8	1.0	1.3	1.5	1.8	2.1
CHA	0.6	0.7	0.9	1.4	1.8	2.0	2.2	2.4	2.6	2.8	2.8
EUR	3.1	3.2	3.4	3.4	3.6	3.7	3.7	3.9	3.8	3.8	3.7
LAM	2.3	2.5	2.8	2.7	3.2	4.0	4.8	5.9	6.8	7.9	8.7
ROW	4.0	4.2	4.9	4.9	6.1	7.0	8.1	9.8	11.2	13.6	15.6
USA	2.4	2.6	3.0	3.0	3.3	3.5	3.6	3.6	3.6	3.7	3.7

Table 728: MAgPIE m4p_brazil — Emissions—CH4—Land—Agriculture—Animal waste management (Mt CH4/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	40.2	41.7	43.2	44.9	45.5	44.6	45.2
BRA	2.4	2.5	2.5	2.6	2.6	2.6	2.8
CHA	2.7	2.6	2.5	2.2	1.9	1.6	1.4
EUR	3.6	3.6	3.6	3.5	3.2	3.0	3.0
LAM	9.7	9.8	9.9	9.8	9.4	8.7	8.8
ROW	18.0	19.4	20.8	22.8	24.6	25.0	25.5
USA	3.8	3.8	3.9	3.9	3.8	3.7	3.7

Table 729: MAgPIE m4p_brazil — 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
BRA	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.11
CHA	0.22	0.21	0.25	0.31	0.35	0.38	0.42	0.42	0.40	0.39	0.45
EUR	2.18	2.21	2.20	2.22	2.26	2.30	2.36	2.39	2.41	2.45	2.49
LAM	0.18	0.18	0.18	0.19	0.19	0.20	0.21	0.21	0.21	0.21	0.21
ROW	2.33	2.42	2.46	2.42	2.49	2.55	2.59	2.62	2.64	2.70	2.77
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
BRA	0.11	0.12	0.12	0.13	0.13	0.14	0.14	0.14	0.15	0.15	0.15
CHA	0.53	0.55	0.54	0.55	0.58	0.59	0.60	0.62	0.65	0.63	0.61
EUR	2.51	2.64	2.69	2.69	2.68	2.71	2.76	2.79	2.81	2.80	2.80
LAM	0.22	0.22	0.23	0.23	0.24	0.24	0.24	0.24	0.25	0.25	0.25
ROW	2.81	2.81	2.83	2.83	2.80	2.84	2.92	2.97	3.00	3.04	3.08
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
BRA	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.19	0.19
CHA	0.63	0.63	0.65	0.70	0.72	0.70	0.74	0.75	0.77	0.78	0.79
EUR	2.76	2.80	2.80	2.81	2.77	2.76	2.72	2.69	2.60	2.51	2.44
LAM	0.25	0.25	0.25	0.25	0.25	0.26	0.26	0.25	0.26	0.26	0.26
ROW	3.13	3.17	3.21	3.25	3.26	3.28	3.32	3.34	3.33	3.55	3.51
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]

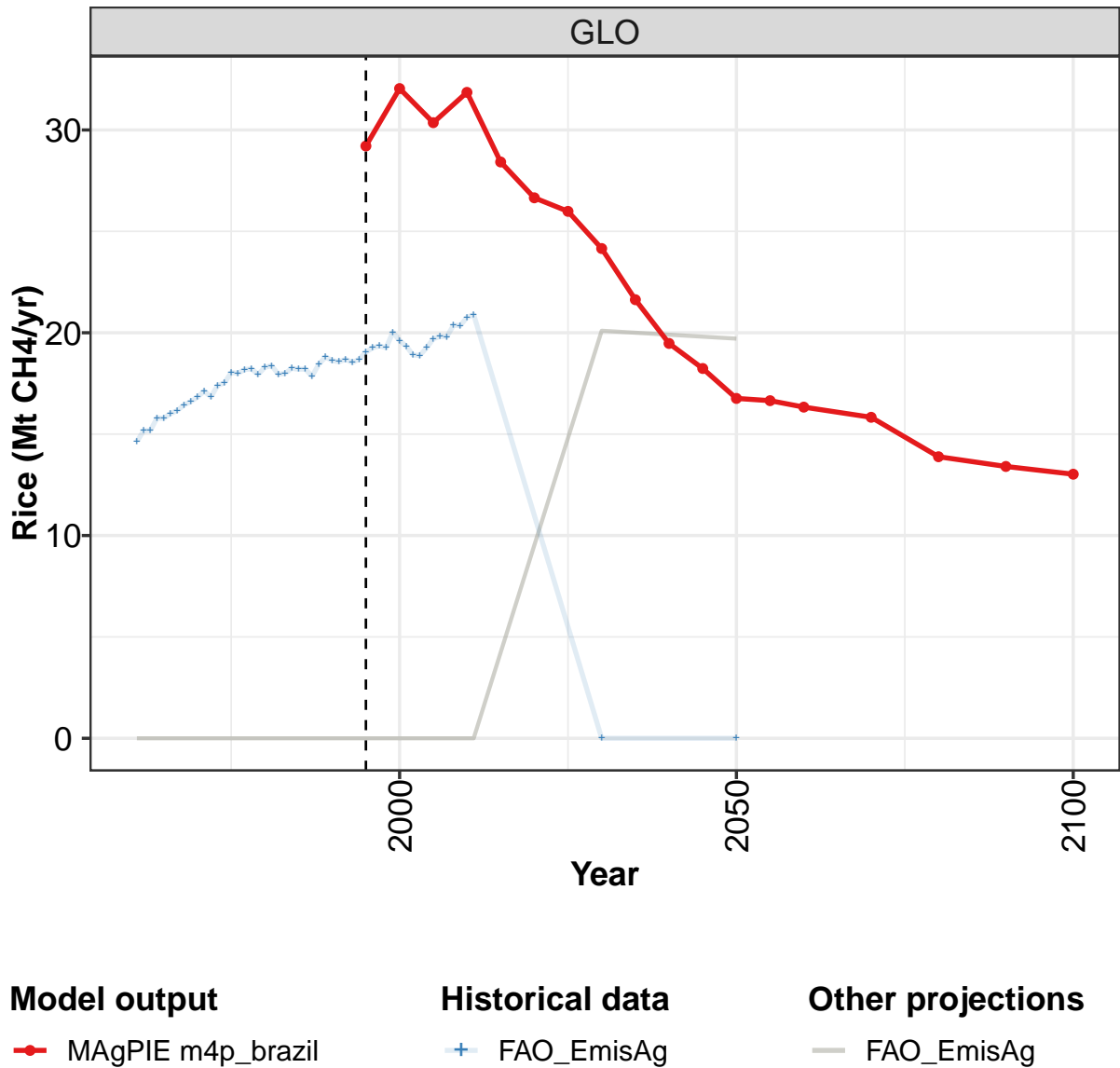
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	8.51	8.47	8.40	8.34	8.34	8.39	8.34	8.35	8.43	8.53	8.57
BRA	0.19	0.19	0.18	0.19	0.19	0.19	0.20	0.20	0.21	0.22	0.23
CHA	0.80	0.81	0.83	0.83	0.83	0.85	0.87	0.88	0.89	0.90	0.93
EUR	2.42	2.39	2.36	2.36	2.34	2.36	2.33	2.30	2.28	2.27	2.25
LAM	0.27	0.27	0.26	0.26	0.26	0.26	0.26	0.27	0.27	0.28	0.28
ROW	3.50	3.45	3.42	3.37	3.35	3.33	3.30	3.32	3.39	3.48	3.48
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
BRA	0.23	0.23	0.23	0.24	0.24	0.24	0.25	0.00	0.00
CHA	0.96	0.99	1.01	1.02	1.05	1.10	1.09	0.00	0.00
EUR	2.25	2.24	2.25	2.22	2.20	2.21	2.19	0.00	0.00
LAM	0.29	0.29	0.30	0.30	0.30	0.30	0.29	0.00	0.00
ROW	3.53	3.59	3.66	3.68	3.72	3.79	3.85	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



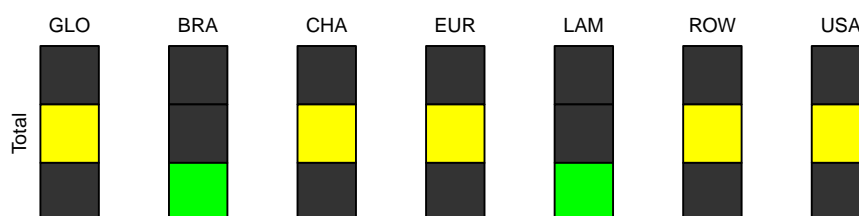
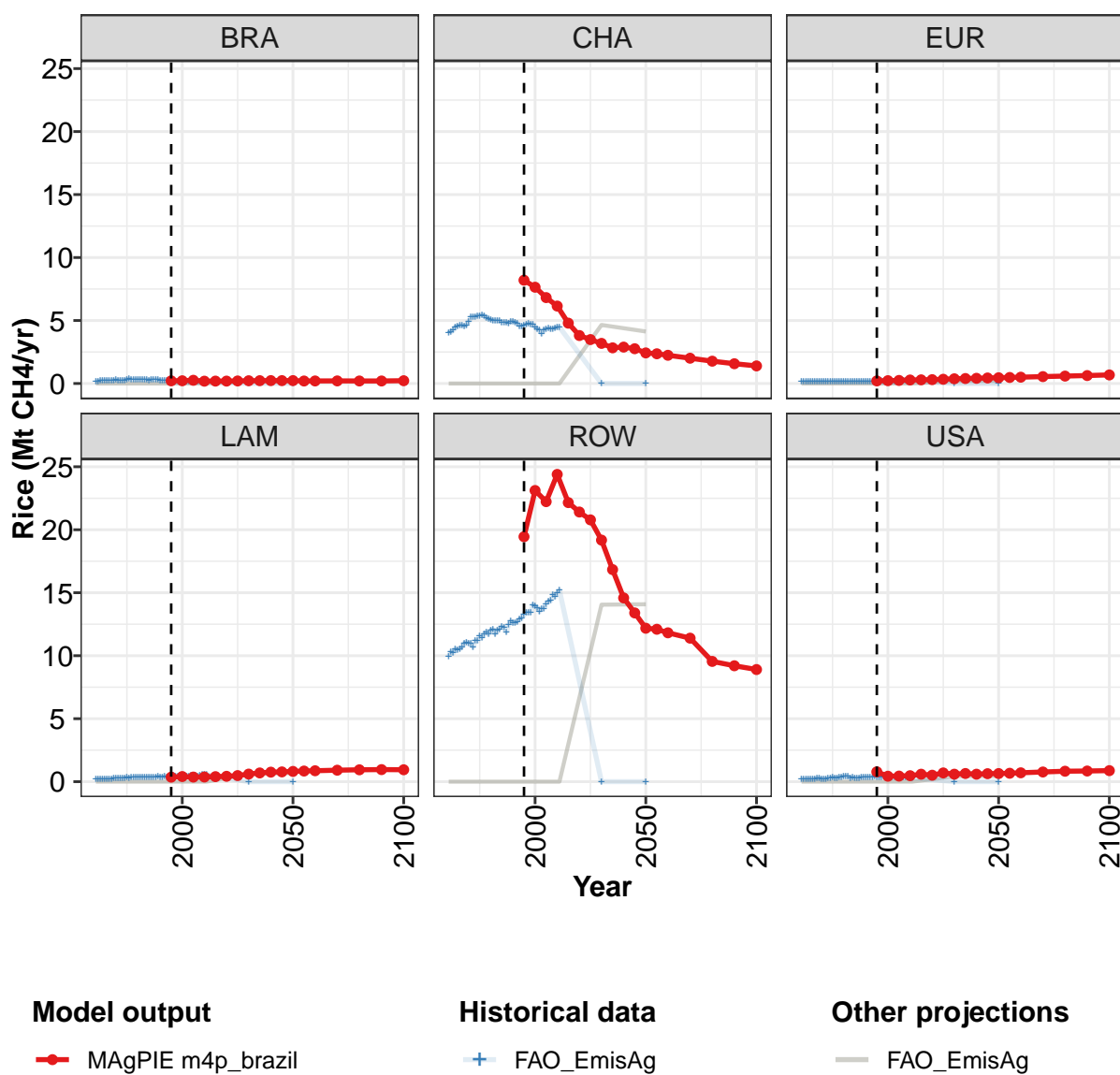


Figure 236: MAgPIE m4p_brazil — Emissions—CH₄—Land—Agriculture—Rice (Mt CH₄/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	29.2	32.0	30.4	31.9	28.4	26.7	26.0	24.2	21.6	19.5	18.2
BRA	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	8.2	7.6	6.8	6.1	4.8	3.8	3.5	3.2	2.8	2.9	2.8
EUR	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
LAM	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.8
ROW	19.4	23.1	22.2	24.4	22.2	21.4	20.8	19.2	16.8	14.6	13.4
USA	0.8	0.4	0.4	0.5	0.6	0.5	0.7	0.6	0.6	0.6	0.6

Table 735: MAgPIE m4p_brazil — Emissions—CH4—Land—Agriculture—Rice (Mt CH4/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	16.8	16.6	16.3	15.8	13.9	13.4	13.0
BRA	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	2.4	2.4	2.2	2.0	1.8	1.6	1.4
EUR	0.5	0.5	0.5	0.5	0.6	0.6	0.7
LAM	0.8	0.8	0.9	0.9	0.9	1.0	0.9
ROW	12.2	12.1	11.8	11.4	9.5	9.2	8.9
USA	0.6	0.7	0.7	0.8	0.8	0.8	0.9

Table 736: MAgPIE m4p_brazil — 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
BRA	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3
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	0.2	0.2	0.2	0.2
LAM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
ROW	9.9	10.3	10.2	10.5	10.4	10.6	10.7	11.0	11.1	11.0	11.0
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
BRA	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3
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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
ROW	10.7	11.2	11.2	11.5	11.4	11.7	11.9	11.7	12.0	12.1	11.7
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
BRA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2
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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
ROW	12.0	12.1	12.3	12.3	11.9	12.4	12.7	12.6	12.6	12.7	12.9
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]

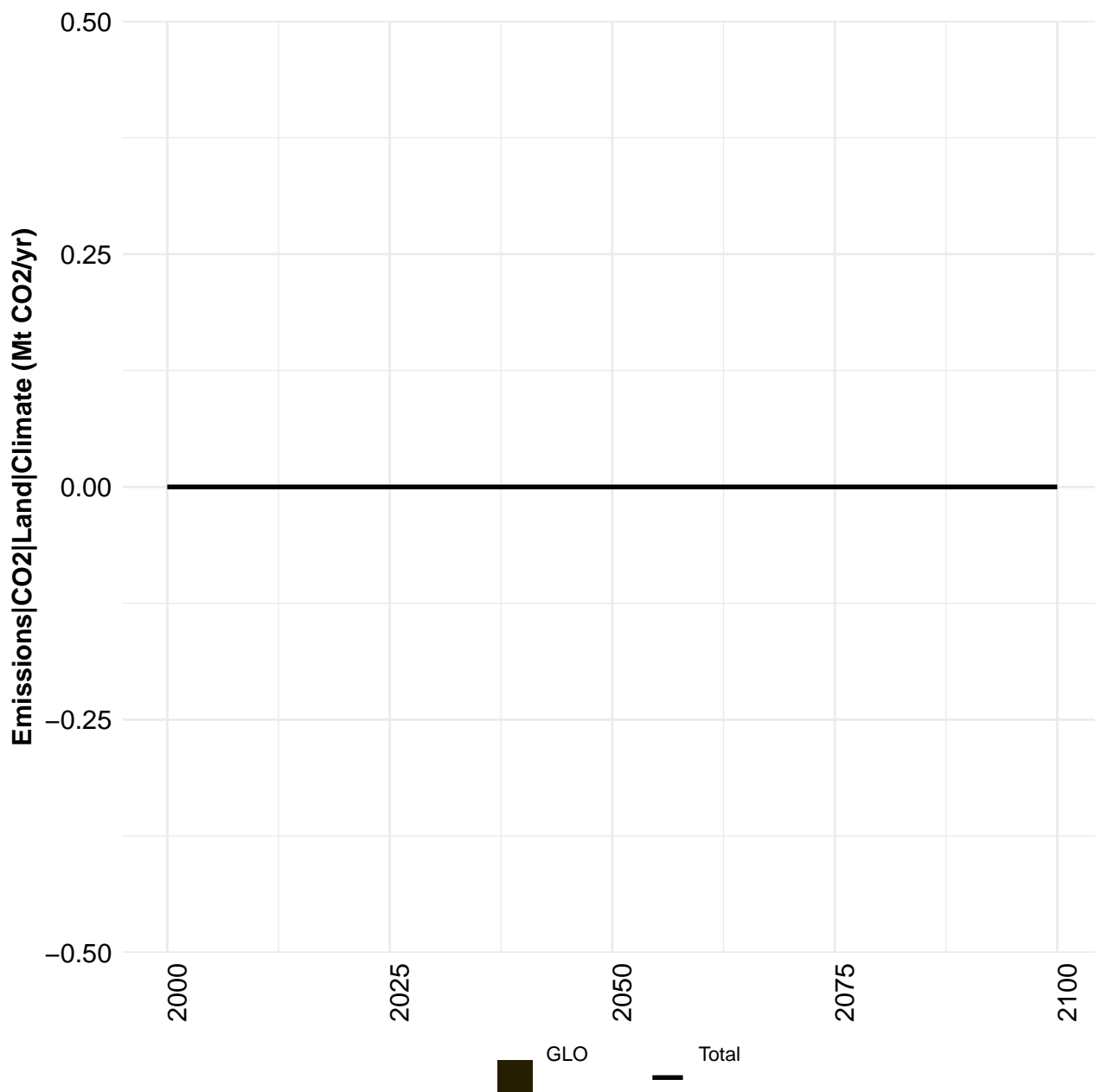
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	18.7	19.0	19.3	19.3	19.3	20.0	19.6	19.3	18.9	18.9	19.3
BRA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	4.5	4.6	4.7	4.7	4.7	4.7	4.5	4.3	4.2	4.0	4.2
EUR	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5
ROW	13.0	13.2	13.4	13.4	13.4	14.0	13.9	13.8	13.5	13.7	13.8
USA	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

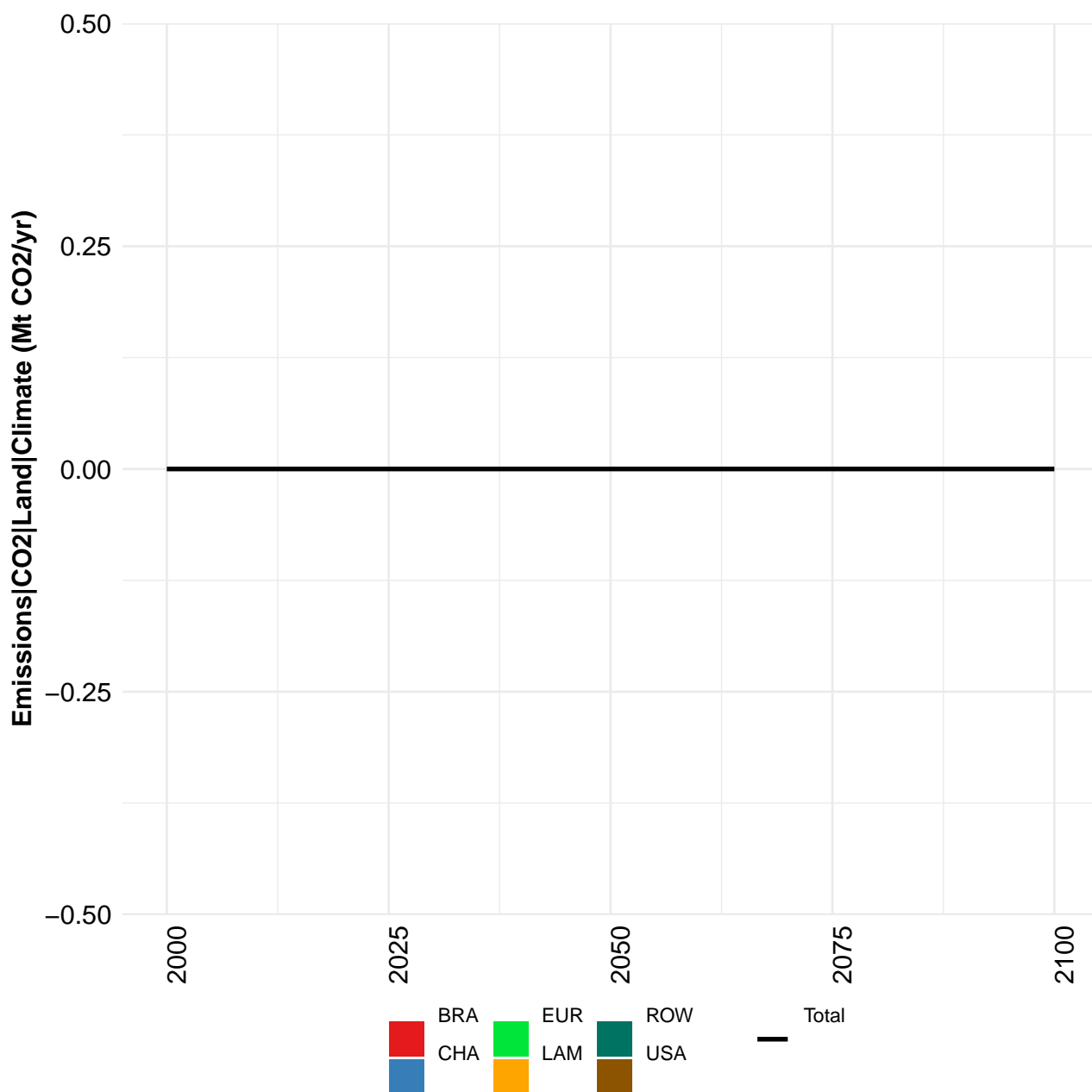
Table 740: FAO_EmisAg — Emissions—CH4—Land—Agriculture—Rice (Mt CH4/yr) [PART 4/5]

	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
BRA	0.2	0.2	0.2	0.2	0.2	0.1	0.2	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
LAM	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.0	0.0
ROW	14.1	14.3	14.4	14.8	14.7	15.0	15.2	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]

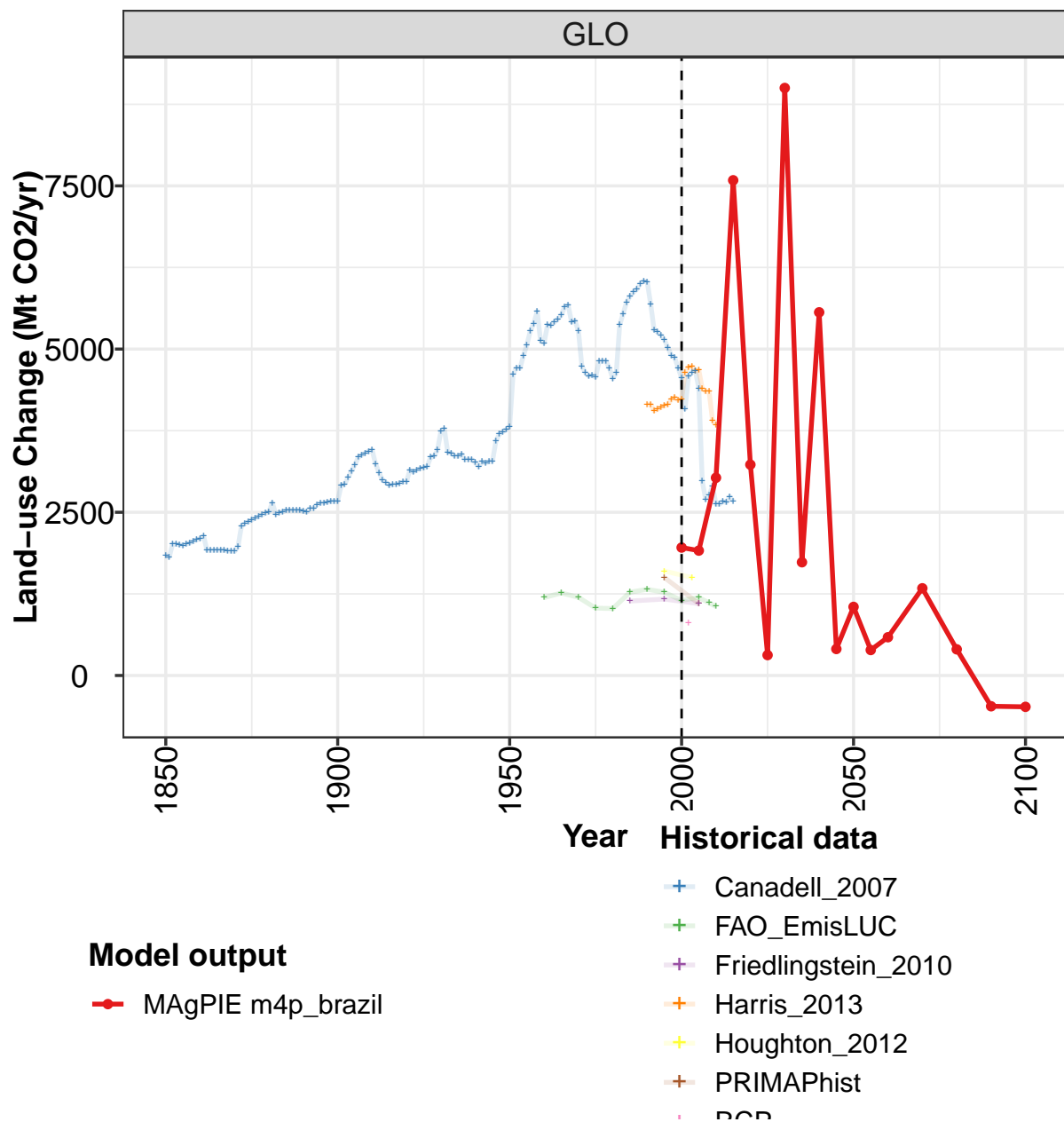
12 CO2

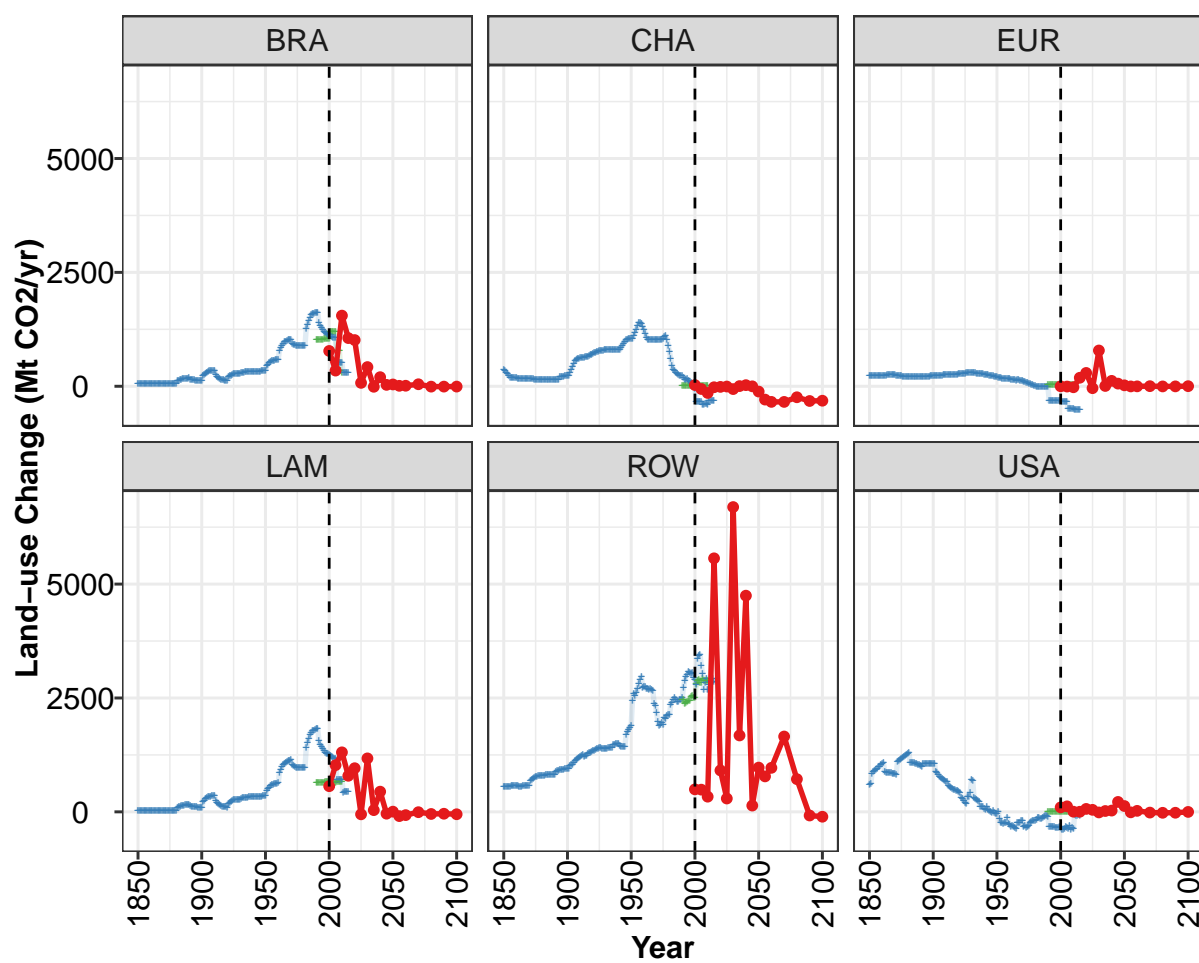




12.1 Land

12.1.1 Land-use Change





Model output

—•— MAgPIE m4p_brazil

Historical data

+ FAO_EmisLUC

+ PRIMAPhist

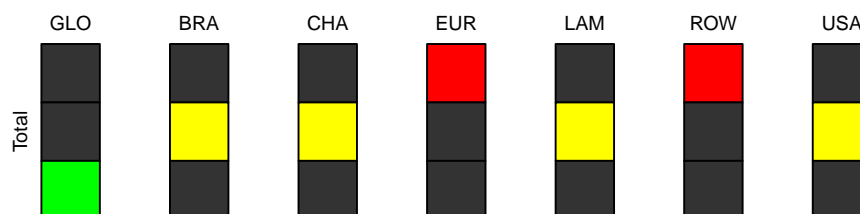


Figure 237: MAgPIE m4p_brazil — Emissions—CO₂—Land—Land-use Change (Mt CO₂/yr)

	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
GLO	1960	1913	3029	7586	3230	312	9000	1735	5563	406	1051
BRA	776	344	1551	1058	1015	75	422	-11	200	31	40
CHA	27	-59	-146	-21	-13	-5	-61	4	25	-1	-115
EUR	-0	-6	-21	187	293	-42	786	7	119	59	21
LAM	564	1025	1307	793	959	-54	1174	38	444	-40	5
ROW	494	487	334	5566	911	294	6692	1678	4747	138	972
USA	99	121	5	3	65	45	-13	19	28	218	128

Table 742: MAgPIE m4p_brazil — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 1/2]

	2055	2060	2070	2080	2090	2100
GLO	390	586	1336	401	-471	-480
BRA	10	12	44	-7	-7	-6
CHA	-292	-343	-343	-241	-323	-317
EUR	-3	-2	3	-3	-2	2
LAM	-93	-71	-7	-46	-41	-52
ROW	779	967	1655	718	-80	-106
USA	-10	22	-16	-20	-19	-1

Table 743: MAgPIE m4p_brazil — 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
BRA	61	61	60	60	59	59	59	58	58	58	57
CHA	368	336	303	268	233	196	191	186	182	179	177
EUR	224	224	224	224	224	224	224	224	224	224	223
LAM	25	25	24	24	23	23	23	22	22	22	21
ROW	561	560	561	560	561	561	563	564	565	566	567
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
BRA	58	59	59	59	59	58	58	57	56	56	56
CHA	175	173	169	167	166	165	164	163	162	162	161
EUR	237	238	241	242	244	245	247	248	249	250	231
LAM	22	23	23	23	23	23	22	21	20	20	20
ROW	574	551	556	561	566	569	573	576	578	580	684
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
BRA	56	56	56	56	56	57	57	58	59	113	129
CHA	160	160	152	150	148	147	146	147	147	147	146
EUR	228	225	223	220	219	217	215	214	212	211	210
LAM	20	19	19	19	19	20	21	22	23	85	103
ROW	713	735	753	766	778	783	789	794	796	799	801
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
BRA	141	151	160	165	168	171	174	176	146	140	136
CHA	145	144	144	143	143	142	142	142	142	142	142
EUR	208	207	207	207	208	210	211	212	213	214	215
LAM	117	129	138	144	148	152	155	157	123	117	111
ROW	803	805	810	813	815	817	818	820	881	895	906
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
BRA	132	130	128	126	125	125	124	229	259	283	304
CHA	198	204	210	216	222	228	233	238	299	363	430
EUR	216	217	218	219	220	221	222	229	231	234	236
LAM	107	104	102	100	99	98	97	218	253	281	304
ROW	915	922	929	934	938	942	945	950	1004	1023	1042
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
BRA	322	330	336	342	346	350	244	213	188	167	148
CHA	498	567	583	597	607	616	624	626	627	641	643
EUR	237	239	241	242	244	246	248	249	251	253	255
LAM	324	334	341	347	352	356	235	200	171	147	125
ROW	1066	1117	1145	1171	1195	1217	1237	1258	1217	1224	1235
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
BRA	141	136	131	127	124	200	221	238	253	266	269
CHA	644	662	681	699	717	736	745	754	763	771	779
EUR	257	259	261	262	264	266	268	269	271	273	294
LAM	118	111	106	101	97	184	209	229	245	260	264
ROW	1272	1288	1304	1319	1336	1349	1363	1377	1391	1405	1410
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
BRA	272	274	275	277	297	303	307	310	313	316	319
CHA	782	785	791	799	806	809	812	793	792	792	792
EUR	297	299	298	296	294	292	289	285	281	278	273
LAM	267	270	271	273	296	303	307	311	314	318	321
ROW	1383	1386	1390	1390	1395	1401	1407	1405	1407	1465	1477
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
BRA	322	324	327	324	324	323	322	322	327	332	338
CHA	792	792	792	792	836	881	929	977	1030	1030	1040
EUR	269	264	259	253	248	242	237	231	226	221	216
LAM	325	328	330	328	326	326	325	325	331	337	343
ROW	1484	1491	1490	1444	1438	1433	1431	1427	1693	1759	1812
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
BRA	344	350	450	482	509	531	550	561	570	578	585
CHA	1050	1050	1040	1110	1180	1250	1320	1390	1400	1370	1300
EUR	211	205	190	184	178	172	166	165	164	164	155
LAM	350	357	472	509	539	564	586	598	610	619	626
ROW	1852	1894	2449	2584	2540	2619	2710	2802	2895	2964	2720
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
BRA	591	788	847	895	933	966	983	998	1010	1020	1030
CHA	1240	1160	1070	1030	1030	1020	1020	1020	1010	1010	1010
EUR	154	142	139	136	133	131	132	131	130	129	118
LAM	633	859	927	982	1025	1063	1083	1099	1115	1128	1139
ROW	2745	2742	2692	2706	2687	2703	2677	2659	2379	2336	2173
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
BRA	937	917	901	888	879	879	881	883	885	887	891
CHA	1010	1020	1030	1030	1050	1090	1100	1030	894	755	609
EUR	108	97	86	75	63	53	41	29	16	8	-9
LAM	1030	1007	988	973	963	965	966	968	971	973	978
ROW	1979	1893	1919	1966	1910	2060	2051	2103	2132	2121	2349
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
BRA	1270	1360	1440	1510	1560	1590	1600	1610	1620	1620	1390
CHA	443	366	339	299	278	257	235	241	221	185	145
EUR	-15	-18	-17	-14	-14	-13	-11	-8	-5	-328	-328
LAM	1406	1520	1612	1689	1744	1773	1791	1804	1813	1815	1552
ROW	2402	2455	2499	2466	2426	2417	2467	2468	2494	2734	2874
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
BRA	1330	1280	1240	1200	1180	1160	1140	1130	1120	1090	1070
CHA	144	156	113	100	77	45	19	-45	-339	-340	-339
EUR	-328	-328	-328	-328	-329	-328	-328	-328	-335	-335	-334
LAM	1481	1422	1376	1333	1308	1285	1264	1250	1239	1203	1186
ROW	2968	3019	3078	3064	3022	3057	2946	2898	2786	3356	3437
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
BRA	1060	1060	518	518	518	518	518	294	294	294	294
CHA	-340	-340	-396	-396	-395	-395	-396	-312	-312	-312	-312
EUR	-335	-335	-503	-502	-503	-503	-503	-517	-517	-519	-518
LAM	1172	1166	704	699	701	703	695	429	437	438	436
ROW	3450	3204	3028	2677	2827	2930	2681	2798	2845	2831	2913
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
BRA	294
CHA	-312
EUR	-517
LAM	435
ROW	2848
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
BRA											
CHA											
EUR											
LAM											
ROW											
USA											

Table 760: RCP — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 1/2]

	2010
GLO	1057
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 761: RCP — Emissions—CO2—Land—Land-use Change (Mt CO2/yr) [PART 2/2]

	1985	1995	2005
GLO	1140	1170	1100
BRA			
CHA			
EUR			
LAM			
ROW			
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
BRA	1022	1022	1024	1026	1029	1031	1033	1036	1038	1040	1043
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	26	26	22	22	22	22	22	22	22	23	23
LAM	641	641	643	644	646	647	648	650	652	652	653
ROW	2462	2462	2365	2388	2410	2432	2445	2522	2545	2500	2508
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
BRA	1188	1190	1192	1194	1196	783	785	786	341	288
CHA	0	0	0	0	0	0	0	0	0	0
EUR	18	18	18	18	18	30	30	30	30	30
LAM	629	628	631	630	631	653	654	655	656	656
ROW	2810	2888	2893	2828	2830	2932	2878	2877	2876	2869
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
BRA		
CHA		
EUR		
LAM		
ROW		
USA		

Table 765: Canadell_2007 — Emissions—CO2—Land—Land-use Change (Mt CO2/yr)

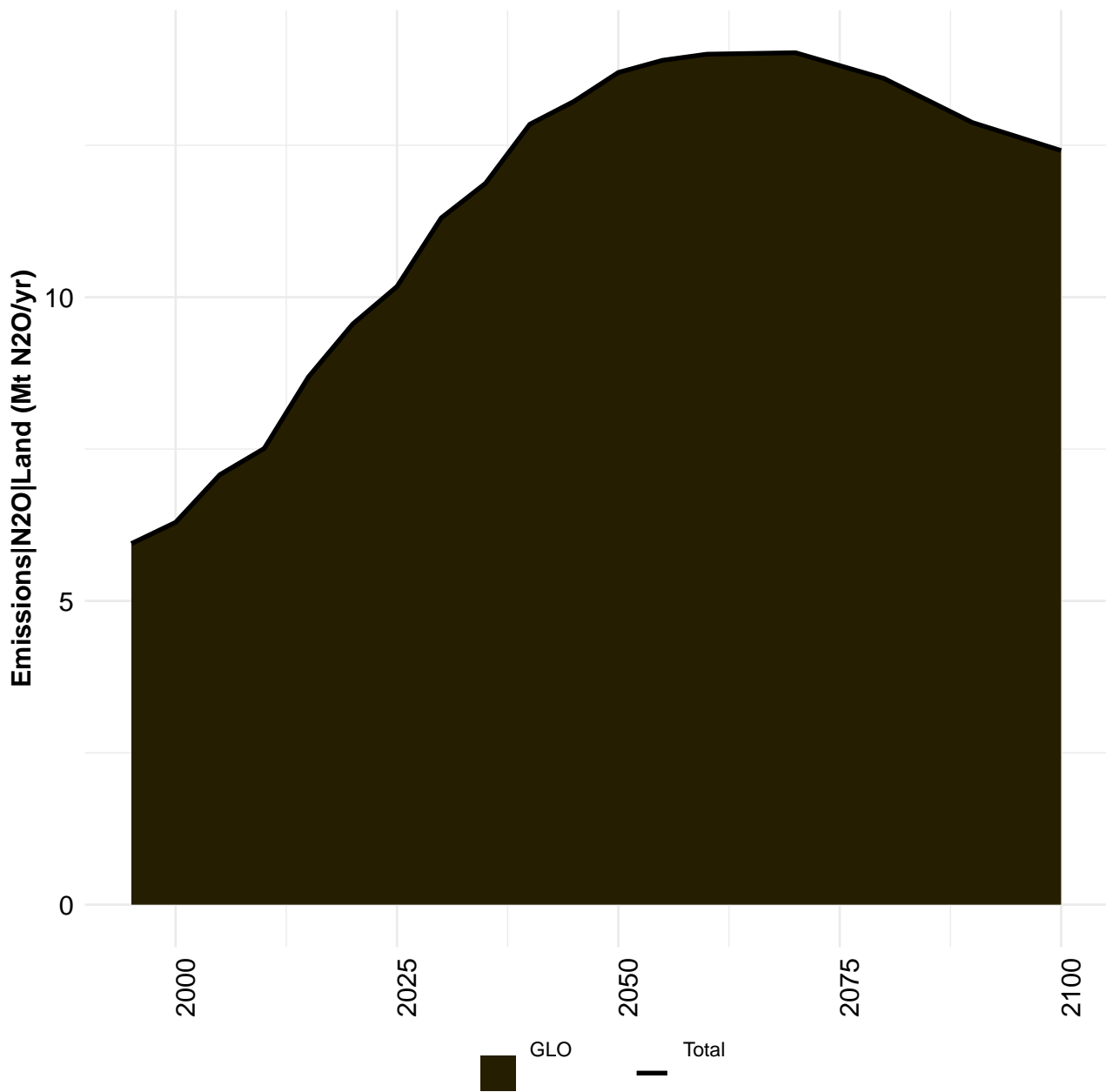
	1995	2005
GLO	1500	1100
BRA		
CHA		
EUR		
LAM		
ROW		
USA		

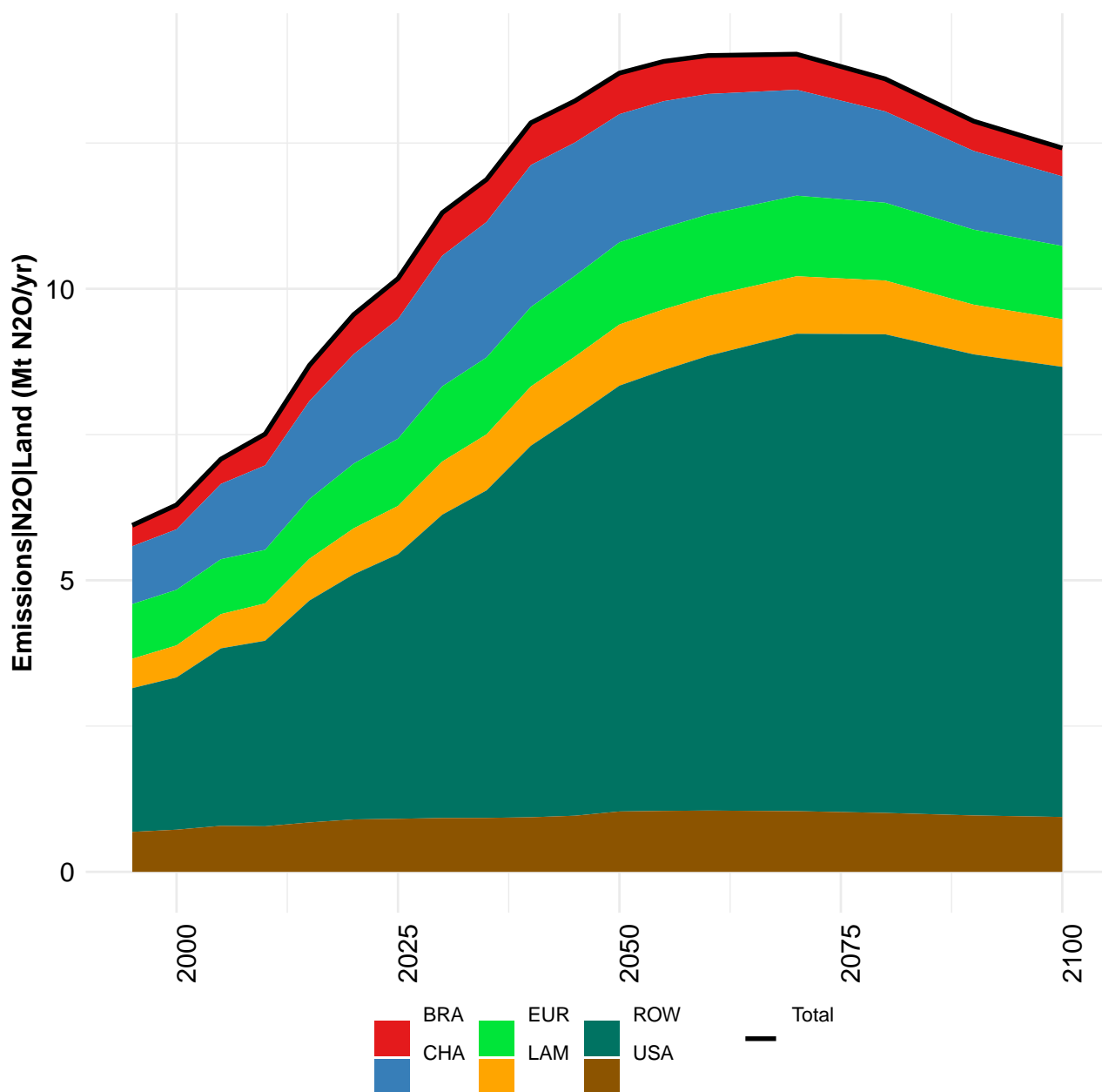
Table 766: Friedlingstein_2010 — Emissions—CO2—Land—Land-use Change (Mt CO2/yr)

	2002
GLO	810
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 767: Harris_2013 — Emissions—CO2—Land—Land-use Change (Mt CO2/yr)

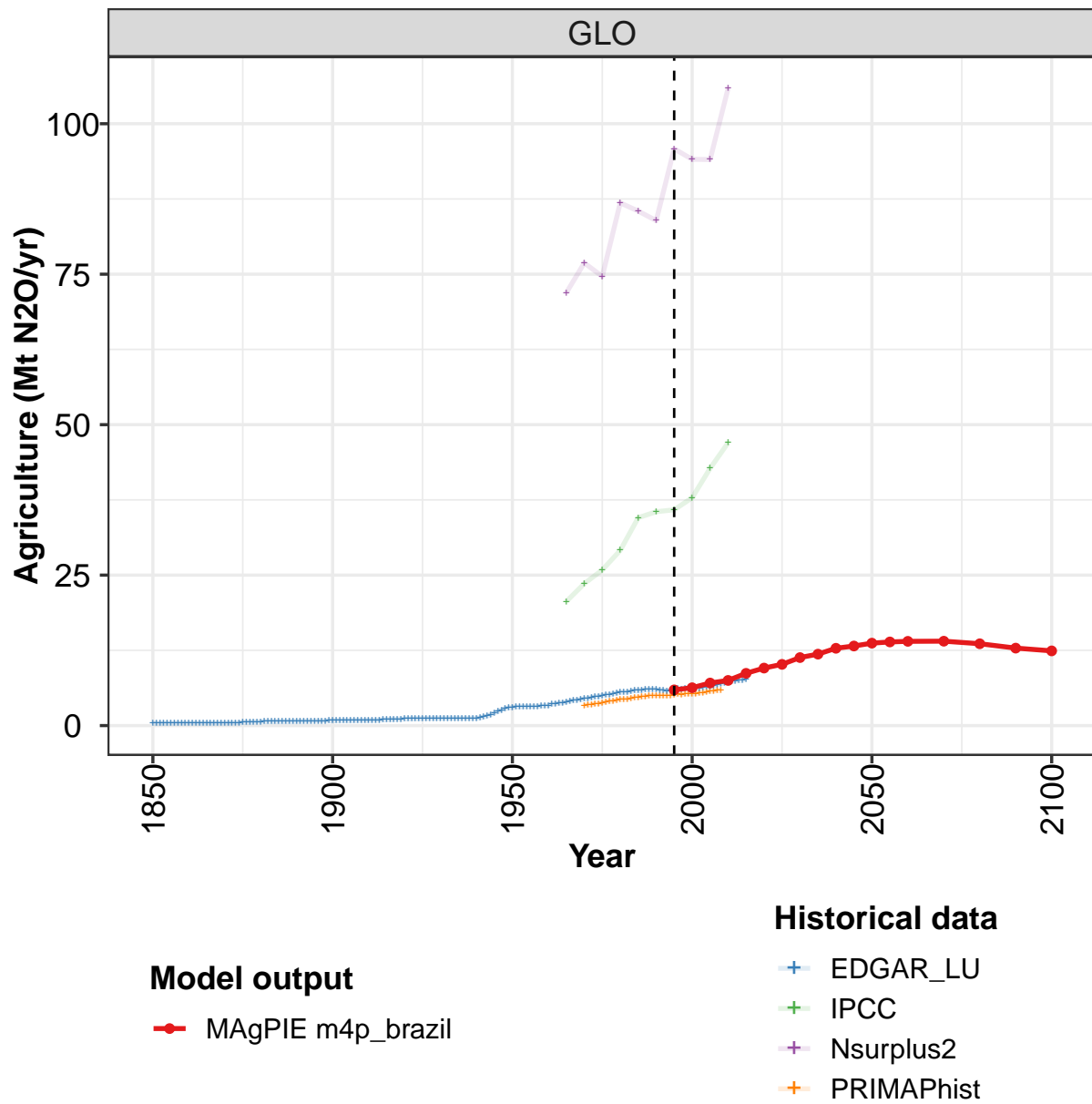
13 N2O





13.1 Land

13.1.1 Agriculture



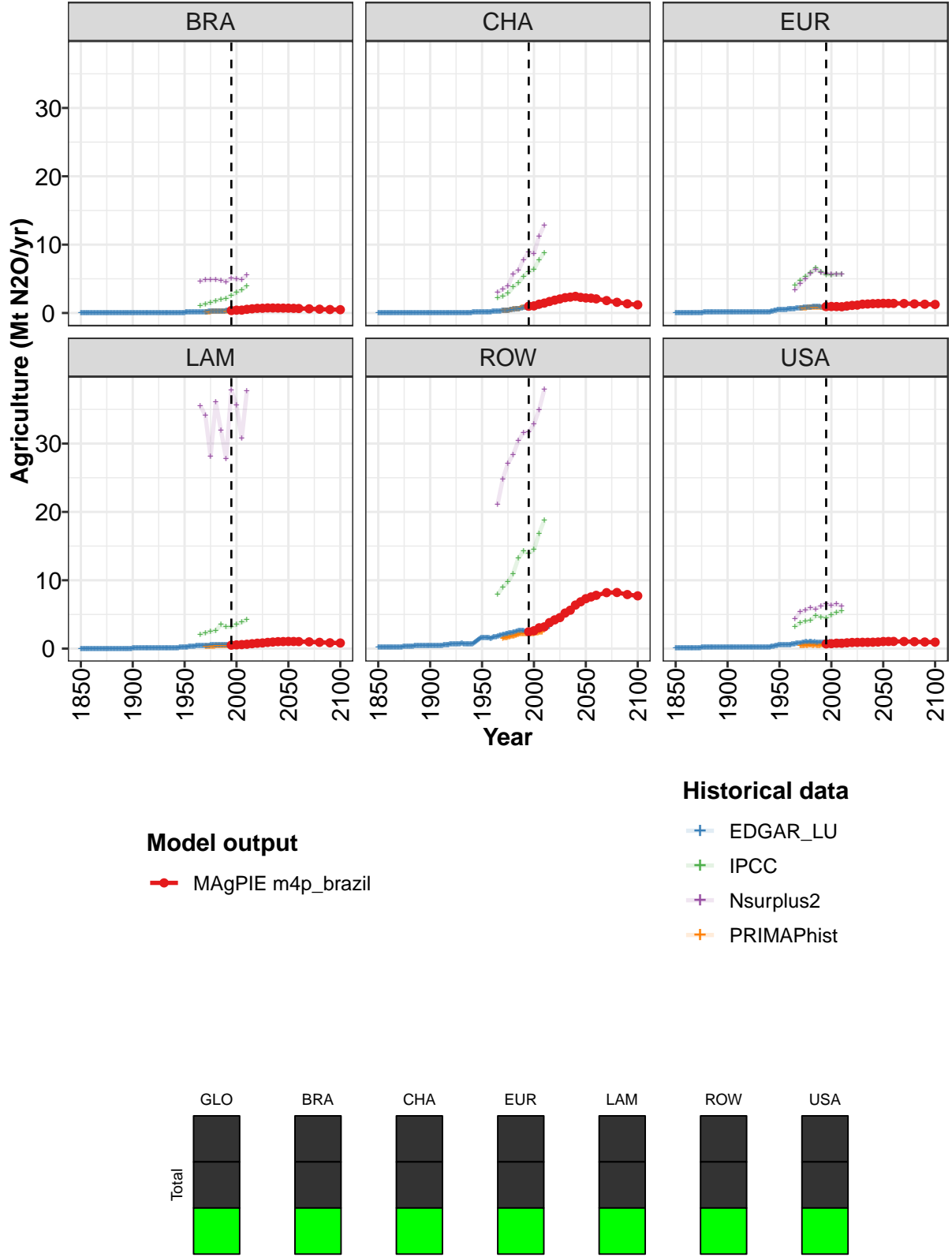


Figure 238: MAgPIE m4p_brazil — Emissions—N₂O—Land—Agriculture (Mt N₂O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.9	6.3	7.1	7.5	8.7	9.6	10.2	11.3	11.9	12.8	13.2
BRA	0.4	0.4	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7
CHA	1.0	1.0	1.3	1.4	1.7	1.9	2.1	2.2	2.3	2.4	2.3
EUR	0.9	1.0	0.9	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.4
LAM	0.5	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.0	1.0
ROW	2.5	2.6	3.0	3.2	3.8	4.2	4.5	5.2	5.6	6.4	6.8
USA	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	1.0

Table 768: MAgPIE m4p_brazil — Emissions—N₂O—Land—Agriculture (Mt N₂O/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	13.7	13.9	14.0	14.0	13.6	12.9	12.4
BRA	0.7	0.7	0.7	0.6	0.6	0.5	0.5
CHA	2.2	2.2	2.1	1.8	1.6	1.3	1.2
EUR	1.4	1.4	1.4	1.4	1.3	1.3	1.3
LAM	1.0	1.0	1.0	1.0	0.9	0.9	0.8
ROW	7.3	7.6	7.8	8.2	8.2	7.9	7.7
USA	1.0	1.0	1.1	1.0	1.0	1.0	0.9

Table 769: MAgPIE m4p_brazil — 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
BRA	0.00	0.00	0.00	0.00	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	0.01	0.01	0.01	0.01
EUR	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
LAM	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ROW	0.19	0.19	0.20	0.20	0.21	0.21	0.21	0.21	0.22	0.22	0.22
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
BRA	0.00	0.00	0.00	0.00	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	0.01	0.01	0.01	0.01
EUR	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
LAM	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ROW	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
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
BRA	0.00	0.00	0.00	0.00	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	0.01	0.01	0.02	0.02
EUR	0.05	0.06	0.06	0.06	0.07	0.07	0.08	0.08	0.08	0.08	0.08
LAM	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
ROW	0.23	0.25	0.26	0.28	0.30	0.32	0.33	0.35	0.35	0.36	0.36
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
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
CHA	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
EUR	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.08	0.09	0.09	0.10
LAM	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
ROW	0.36	0.37	0.37	0.37	0.37	0.38	0.38	0.39	0.40	0.40	0.40
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
BRA	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
CHA	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
EUR	0.10	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11
LAM	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04
ROW	0.40	0.41	0.41	0.41	0.42	0.42	0.42	0.42	0.43	0.43	0.43
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
BRA	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
CHA	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
EUR	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11
LAM	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
ROW	0.44	0.44	0.44	0.45	0.45	0.46	0.46	0.47	0.49	0.51	0.53
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
BRA	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
CHA	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
EUR	0.11	0.12	0.12	0.12	0.13	0.13	0.14	0.14	0.15	0.15	0.16
LAM	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
ROW	0.55	0.57	0.59	0.60	0.62	0.63	0.64	0.65	0.67	0.68	0.69
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
BRA	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
CHA	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06
EUR	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.18	0.17	0.17	0.17
LAM	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07
ROW	0.70	0.71	0.71	0.72	0.72	0.71	0.71	0.70	0.69	0.68	0.67
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
BRA	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.05	0.06	0.06
CHA	0.06	0.07	0.07	0.07	0.08	0.08	0.09	0.10	0.11	0.11	0.12
EUR	0.17	0.17	0.17	0.18	0.20	0.24	0.28	0.32	0.37	0.42	0.45
LAM	0.07	0.08	0.08	0.08	0.09	0.11	0.12	0.14	0.16	0.18	0.19
ROW	0.67	0.66	0.66	0.69	0.76	0.86	0.99	1.12	1.26	1.39	1.50
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
BRA	0.07	0.07	0.07	0.08	0.08	0.09	0.09	0.10	0.10	0.11	0.11
CHA	0.13	0.13	0.14	0.15	0.15	0.16	0.16	0.17	0.17	0.18	0.19
EUR	0.48	0.49	0.50	0.50	0.51	0.52	0.52	0.53	0.53	0.54	0.54
LAM	0.21	0.21	0.22	0.24	0.25	0.27	0.29	0.31	0.33	0.34	0.36
ROW	1.58	1.62	1.63	1.63	1.61	1.59	1.57	1.55	1.53	1.52	1.52
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
BRA	0.12	0.13	0.13	0.14	0.14	0.14	0.15	0.15	0.16	0.16	0.17
CHA	0.19	0.20	0.21	0.22	0.25	0.27	0.29	0.29	0.30	0.31	0.32
EUR	0.55	0.59	0.61	0.61	0.62	0.64	0.66	0.68	0.70	0.71	0.72
LAM	0.37	0.38	0.38	0.38	0.39	0.41	0.42	0.43	0.44	0.44	0.44
ROW	1.53	1.64	1.69	1.71	1.73	1.76	1.83	1.87	1.91	1.94	1.98
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
BRA	0.17	0.18	0.19	0.20	0.20	0.22	0.23	0.23	0.24	0.26	0.26
CHA	0.34	0.35	0.37	0.36	0.39	0.39	0.43	0.47	0.51	0.54	0.53
EUR	0.73	0.75	0.77	0.79	0.81	0.81	0.83	0.86	0.87	0.87	0.87
LAM	0.45	0.46	0.47	0.48	0.49	0.50	0.51	0.50	0.51	0.51	0.52
ROW	2.04	2.07	2.12	2.15	2.19	2.22	2.25	2.31	2.32	2.37	2.39
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
BRA	0.26	0.26	0.27	0.27	0.28	0.29	0.29	0.30	0.30	0.31	0.32
CHA	0.55	0.59	0.62	0.60	0.61	0.69	0.72	0.75	0.78	0.79	0.80
EUR	0.89	0.89	0.90	0.90	0.90	0.89	0.89	0.89	0.87	0.82	0.78
LAM	0.52	0.52	0.53	0.53	0.54	0.54	0.55	0.55	0.55	0.54	0.55
ROW	2.44	2.52	2.53	2.59	2.65	2.66	2.68	2.67	2.58	2.55	2.50
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
BRA	0.32	0.34	0.34	0.32	0.33	0.34	0.34	0.36	0.37	0.38	0.41
CHA	0.76	0.80	0.90	0.94	0.90	0.90	0.93	0.89	0.90	0.89	0.89
EUR	0.77	0.75	0.76	0.76	0.77	0.77	0.76	0.75	0.74	0.73	0.72
LAM	0.56	0.57	0.58	0.59	0.61	0.61	0.61	0.63	0.65	0.64	0.68
ROW	2.44	2.56	2.55	2.56	2.57	2.65	2.61	2.61	2.63	2.62	2.70
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
BRA	0.42	0.43	0.43	0.45	0.45	0.45	0.47	0.48	0.49	0.48	0.48
CHA	0.93	0.95	1.03	1.11	1.20	1.28	1.37	1.41	1.49	1.49	1.50
EUR	0.74	0.72	0.72	0.72	0.71	0.71	0.70	0.71	0.72	0.73	0.74
LAM	0.67	0.68	0.70	0.73	0.72	0.70	0.72	0.72	0.71	0.73	0.74
ROW	2.76	2.80	2.81	2.85	2.95	2.97	3.03	3.06	3.10	3.15	3.17
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
BRA	0.51
CHA	1.58
EUR	0.74
LAM	0.75
ROW	3.23
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
BRA	1.1	1.3	1.5	1.8	2.0	2.1	2.6	3.0	3.3	4.0
CHA	2.2	2.5	2.9	3.8	4.4	5.3	6.0	6.4	7.8	8.8
EUR	4.1	4.8	5.3	5.9	6.6	6.0	5.6	5.6	5.6	5.7
LAM	2.1	2.3	2.5	2.6	3.5	3.2	3.2	3.5	3.8	4.2
ROW	7.9	9.0	9.7	11.0	13.2	14.3	13.9	14.4	16.9	18.8
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
BRA	5	5	5	5	5	5	5	5	5	6
CHA	3	3	4	6	6	8	9	9	11	13
EUR	3	4	5	6	6	6	6	6	6	6
LAM	36	34	28	36	32	28	38	36	31	38
ROW	21	25	27	28	30	32	32	33	35	38
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
BRA	0.14	0.15	0.16	0.16	0.18	0.18	0.20	0.21	0.21	0.21	0.23
CHA	0.34	0.35	0.36	0.38	0.37	0.40	0.41	0.45	0.48	0.52	0.55
EUR	0.67	0.68	0.70	0.73	0.73	0.75	0.76	0.77	0.80	0.82	0.82
LAM	0.31	0.31	0.32	0.32	0.33	0.34	0.35	0.36	0.36	0.37	0.37
ROW	1.48	1.53	1.56	1.58	1.61	1.66	1.69	1.72	1.76	1.80	1.83
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
BRA	0.23	0.24	0.23	0.25	0.25	0.26	0.27	0.27	0.28	0.28	0.29
CHA	0.55	0.57	0.61	0.64	0.62	0.64	0.72	0.77	0.79	0.82	0.83
EUR	0.82	0.84	0.84	0.86	0.86	0.87	0.86	0.87	0.86	0.82	0.78
LAM	0.38	0.38	0.38	0.39	0.40	0.40	0.41	0.42	0.42	0.42	0.42
ROW	1.87	1.91	1.98	2.02	2.07	2.10	2.10	2.15	2.16	2.18	2.16
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]

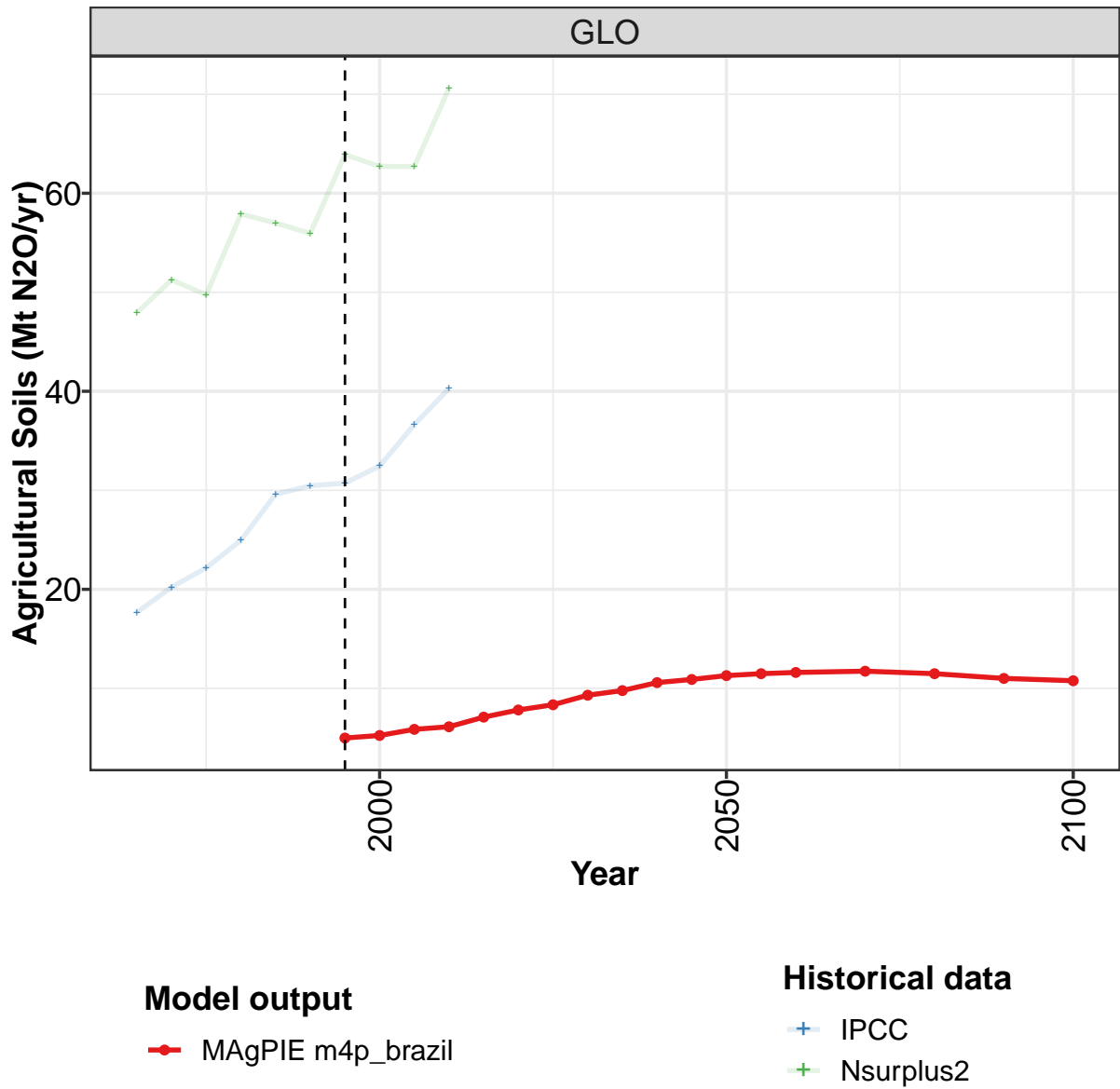
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
GLO	4.96	4.92	4.99	5.10	5.20	5.17	5.23	5.28	5.26	5.32	5.41
BRA	0.30	0.32	0.34	0.35	0.33	0.34	0.35	0.35	0.37	0.38	0.40
CHA	0.85	0.82	0.86	0.98	1.02	0.94	0.96	1.00	0.98	0.99	1.07
EUR	0.73	0.73	0.72	0.71	0.73	0.73	0.73	0.73	0.71	0.70	0.69
LAM	0.42	0.42	0.43	0.43	0.44	0.44	0.45	0.45	0.46	0.47	0.47
ROW	2.14	2.12	2.11	2.11	2.14	2.16	2.17	2.20	2.20	2.22	2.24
USA	0.51	0.51	0.54	0.53	0.55	0.56	0.56	0.55	0.54	0.55	0.55

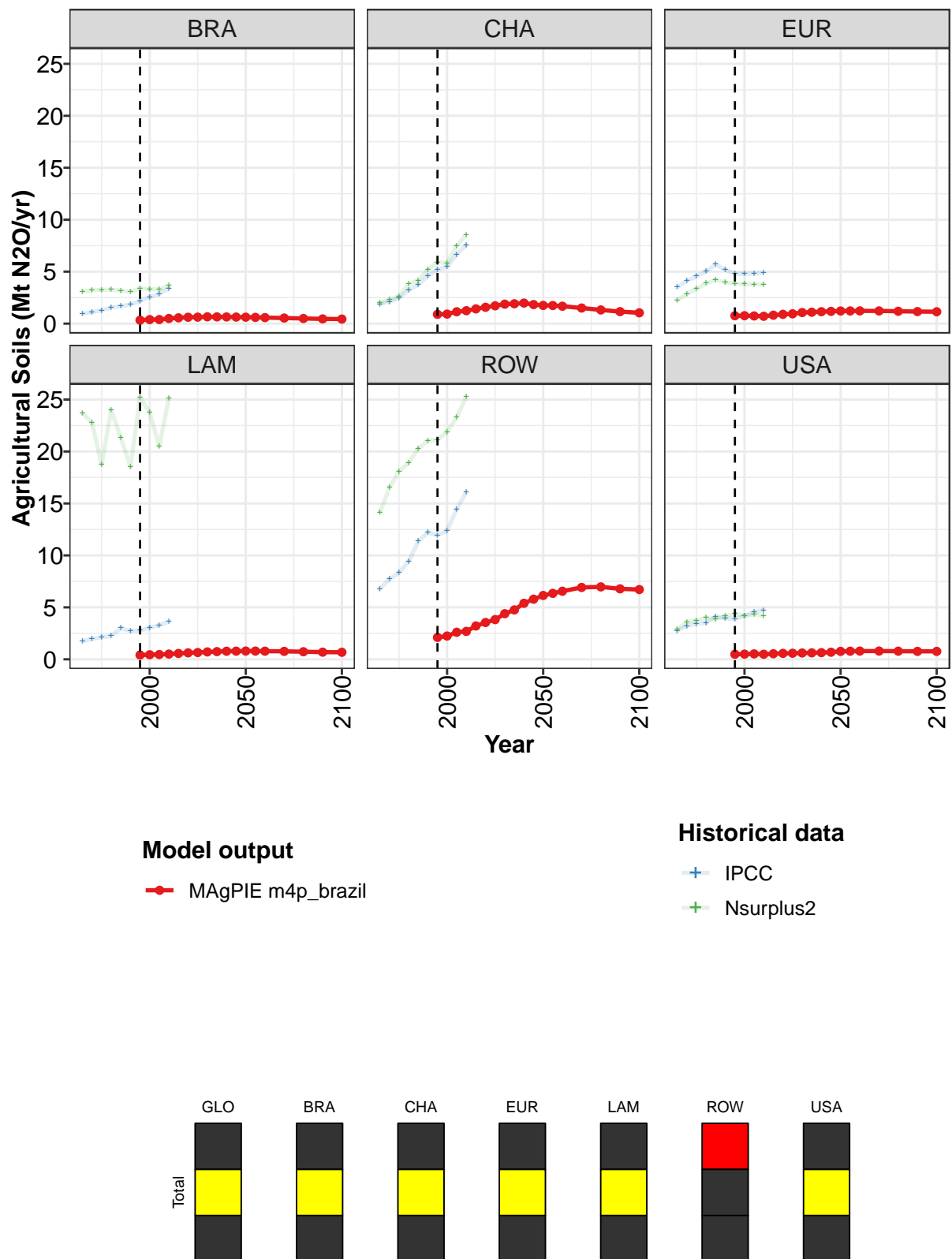
Table 790: EDGAR.LU — Emissions—N₂O—Land—Agriculture (Mt N₂O/yr) [PART 3/4]

	2003	2004	2005	2006	2007	2008
GLO	5.49	5.64	5.68	5.75	5.82	5.88
BRA	0.44	0.45	0.46	0.47	0.49	0.49
CHA	1.05	1.11	1.12	1.16	1.18	1.22
EUR	0.69	0.69	0.69	0.68	0.67	0.67
LAM	0.49	0.49	0.50	0.51	0.53	0.53
ROW	2.26	2.31	2.33	2.36	2.39	2.42
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_brazil — Emissions—N₂O—Land—Agriculture—Agricultural Soils (Mt N₂O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.0	5.2	5.9	6.1	7.1	7.8	8.3	9.3	9.8	10.6	10.9
BRA	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.6	0.6	0.6
CHA	0.9	0.9	1.1	1.2	1.4	1.6	1.7	1.9	1.9	2.0	1.8
EUR	0.8	0.8	0.7	0.7	0.8	0.9	0.9	1.1	1.1	1.1	1.2
LAM	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8
ROW	2.1	2.2	2.6	2.7	3.2	3.5	3.8	4.4	4.8	5.4	5.8
USA	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7

Table 792: MAgPIE m4p_brazil — Emissions—N2O—Land—Agriculture—Agricultural Soils (Mt N2O/yr)
[PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	11.3	11.5	11.6	11.7	11.5	11.0	10.8
BRA	0.6	0.6	0.6	0.5	0.5	0.5	0.4
CHA	1.7	1.7	1.7	1.5	1.3	1.2	1.0
EUR	1.2	1.2	1.2	1.2	1.2	1.2	1.1
LAM	0.8	0.8	0.8	0.8	0.7	0.7	0.7
ROW	6.1	6.4	6.6	6.9	7.0	6.8	6.7
USA	0.8	0.8	0.8	0.8	0.8	0.8	0.8

Table 793: MAgPIE m4p_brazil — Emissions—N2O—Land—Agriculture—Agricultural Soils (Mt N2O/yr)
[PART 2/2]

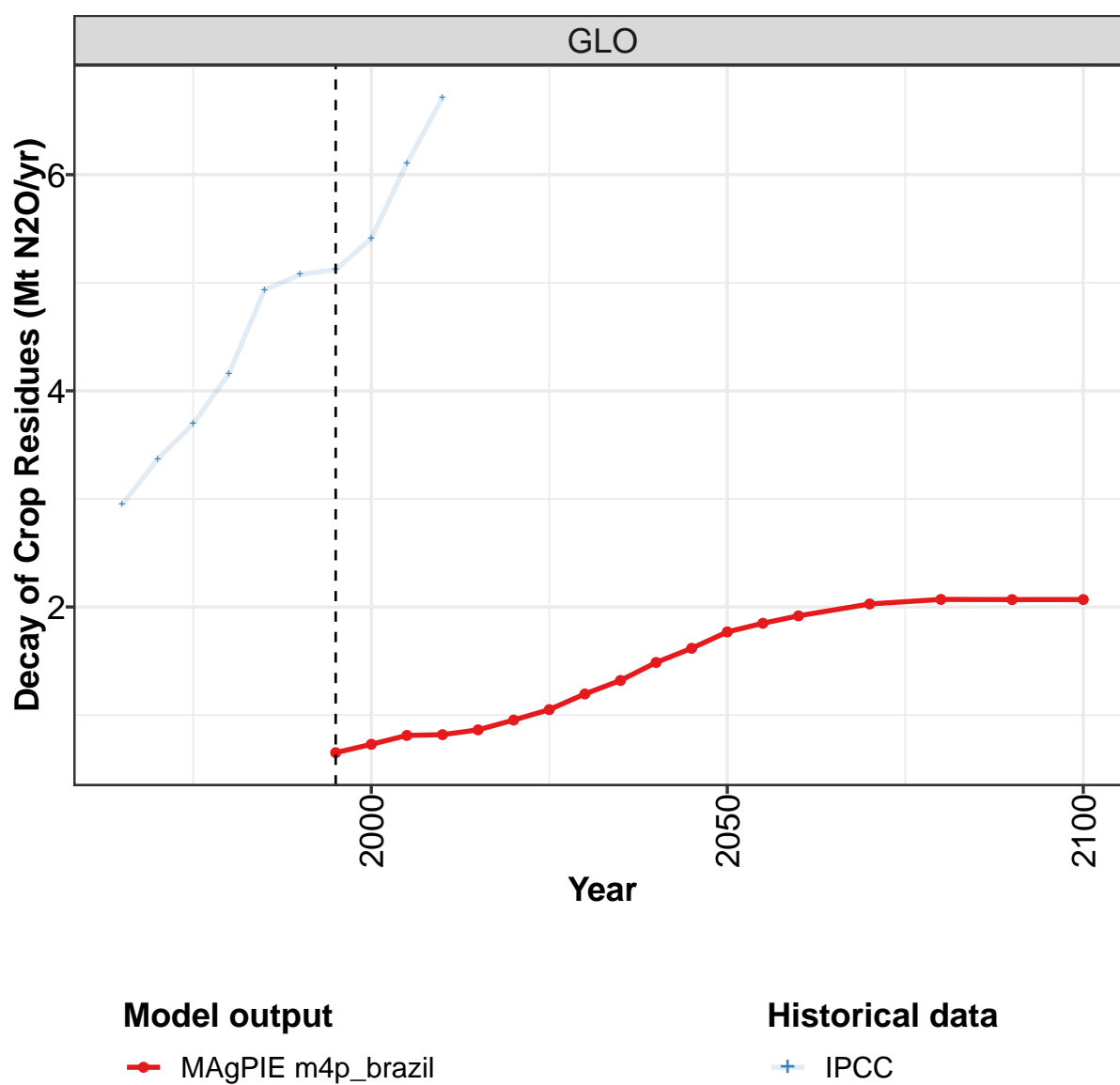
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	17.7	20.2	22.2	24.9	29.6	30.5	30.7	32.5	36.6	40.3
BRA	0.9	1.1	1.3	1.5	1.7	1.8	2.2	2.6	2.9	3.4
CHA	1.9	2.1	2.4	3.2	3.7	4.6	5.2	5.5	6.7	7.6
EUR	3.5	4.1	4.6	5.0	5.7	5.2	4.8	4.8	4.8	4.9
LAM	1.8	2.0	2.1	2.2	3.0	2.7	2.8	3.0	3.3	3.6
ROW	6.8	7.7	8.3	9.4	11.4	12.2	11.9	12.4	14.5	16.1
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
BRA	3.1	3.2	3.3	3.3	3.2	3.0	3.4	3.3	3.3	3.7
CHA	2.0	2.3	2.6	3.8	4.2	5.2	5.9	5.8	7.5	8.6
EUR	2.2	2.9	3.3	3.9	4.2	4.0	3.9	3.8	3.8	3.8
LAM	23.7	22.8	18.7	24.0	21.3	18.5	25.2	23.7	20.5	25.1
ROW	14.1	16.5	18.1	18.9	20.3	21.0	21.1	21.9	23.3	25.3
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



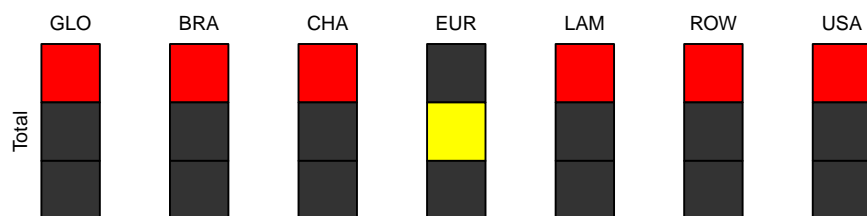
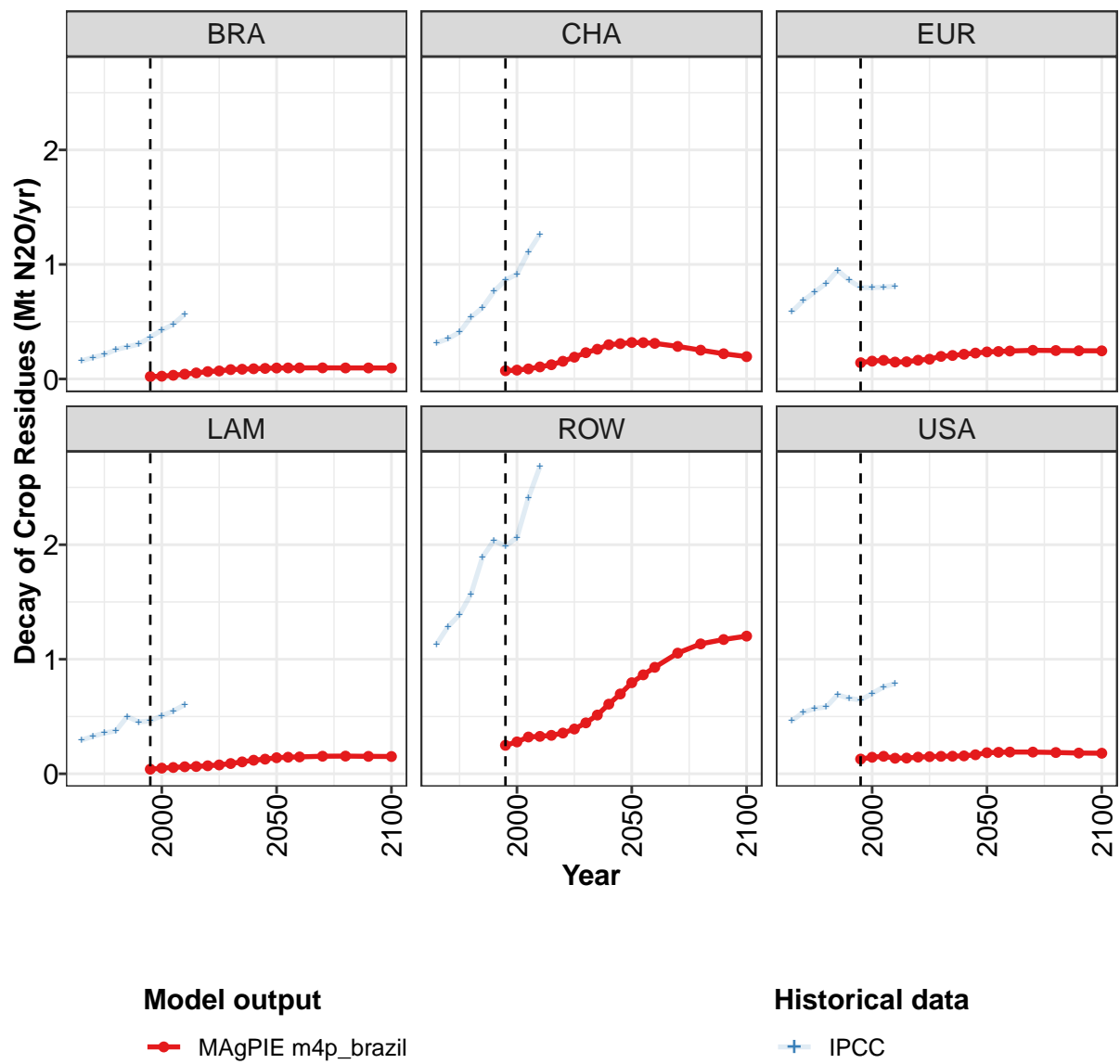


Figure 240: MAgPIE m4p_brazil — Emissions—N₂O—Land—Agriculture—Agricultural Soils—Decay of Crop Residues (Mt N₂O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.65	0.73	0.81	0.82	0.86	0.95	1.05	1.20	1.32	1.49	1.62
BRA	0.02	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.09	0.09
CHA	0.07	0.08	0.09	0.11	0.12	0.15	0.19	0.23	0.26	0.30	0.31
EUR	0.14	0.16	0.16	0.15	0.15	0.16	0.17	0.20	0.21	0.22	0.23
LAM	0.04	0.05	0.05	0.06	0.06	0.07	0.08	0.09	0.10	0.12	0.13
ROW	0.25	0.28	0.32	0.33	0.34	0.36	0.39	0.44	0.51	0.61	0.70
USA	0.13	0.14	0.15	0.14	0.14	0.15	0.15	0.15	0.15	0.16	0.17

Table 796: MAgPIE m4p_brazil — Emissions—N2O—Land—Agriculture—Agricultural Soils—Decay of Crop Residues (Mt N2O/yr) [PART 1/2]

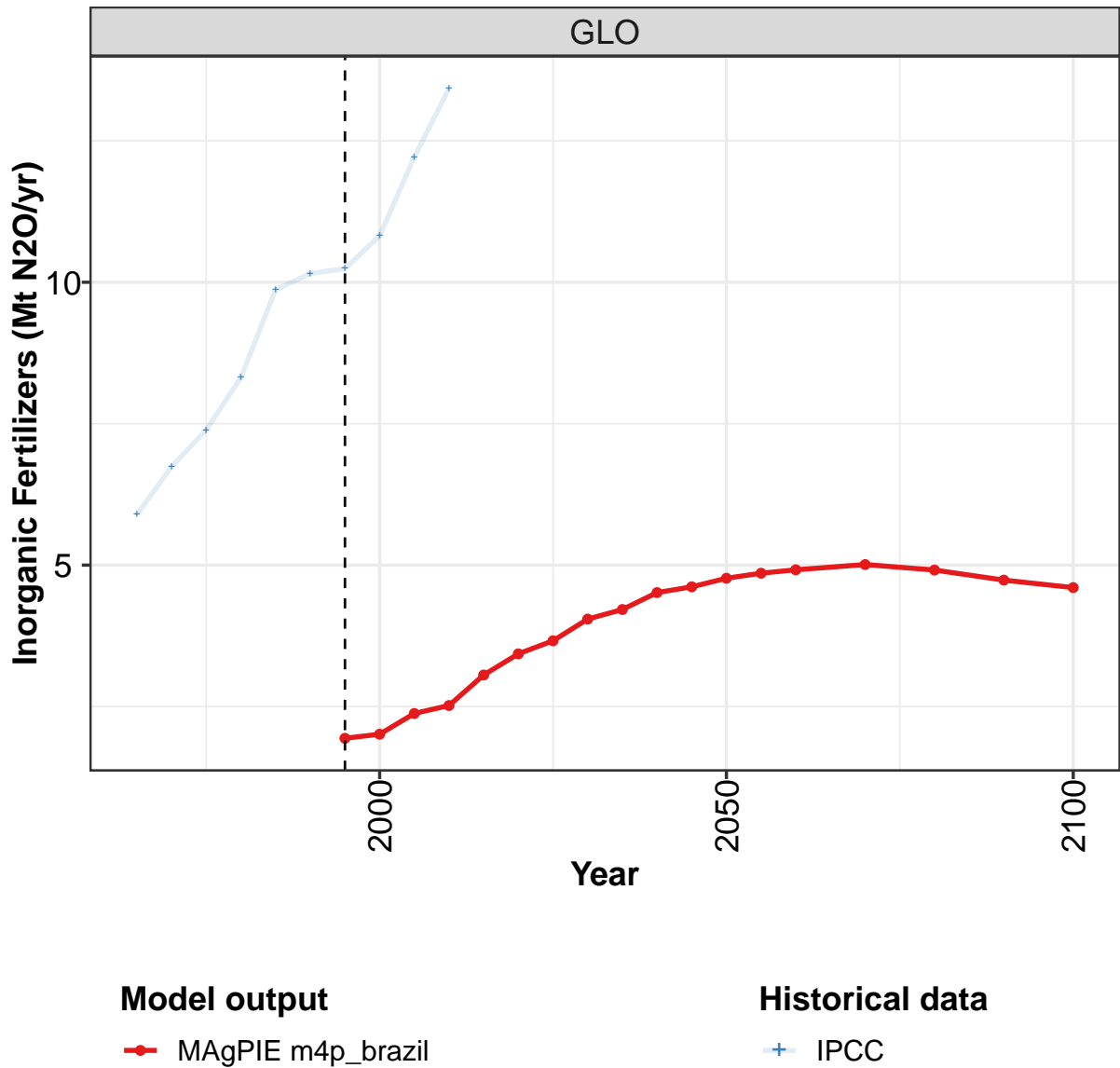
	2050	2055	2060	2070	2080	2090	2100
GLO	1.77	1.85	1.92	2.03	2.07	2.07	2.07
BRA	0.10	0.10	0.10	0.10	0.10	0.10	0.10
CHA	0.32	0.32	0.31	0.28	0.25	0.22	0.20
EUR	0.24	0.24	0.24	0.25	0.25	0.25	0.25
LAM	0.14	0.14	0.15	0.15	0.15	0.15	0.15
ROW	0.80	0.86	0.93	1.05	1.13	1.17	1.20
USA	0.18	0.19	0.19	0.19	0.19	0.18	0.18

Table 797: MAgPIE m4p_brazil — 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
BRA	0.16	0.19	0.21	0.26	0.28	0.30	0.37	0.43	0.48	0.57
CHA	0.32	0.35	0.41	0.54	0.62	0.76	0.86	0.92	1.11	1.26
EUR	0.59	0.68	0.76	0.84	0.95	0.86	0.80	0.80	0.80	0.81
LAM	0.29	0.33	0.36	0.37	0.50	0.45	0.46	0.51	0.55	0.60
ROW	1.13	1.29	1.39	1.57	1.89	2.04	1.99	2.06	2.41	2.68
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



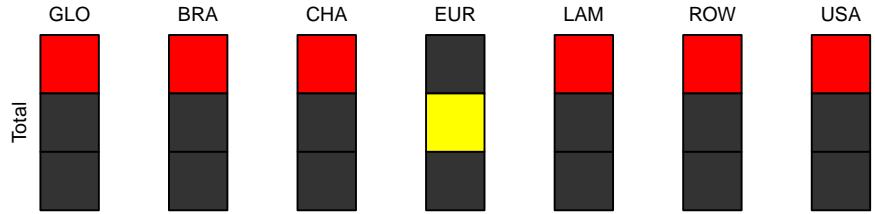
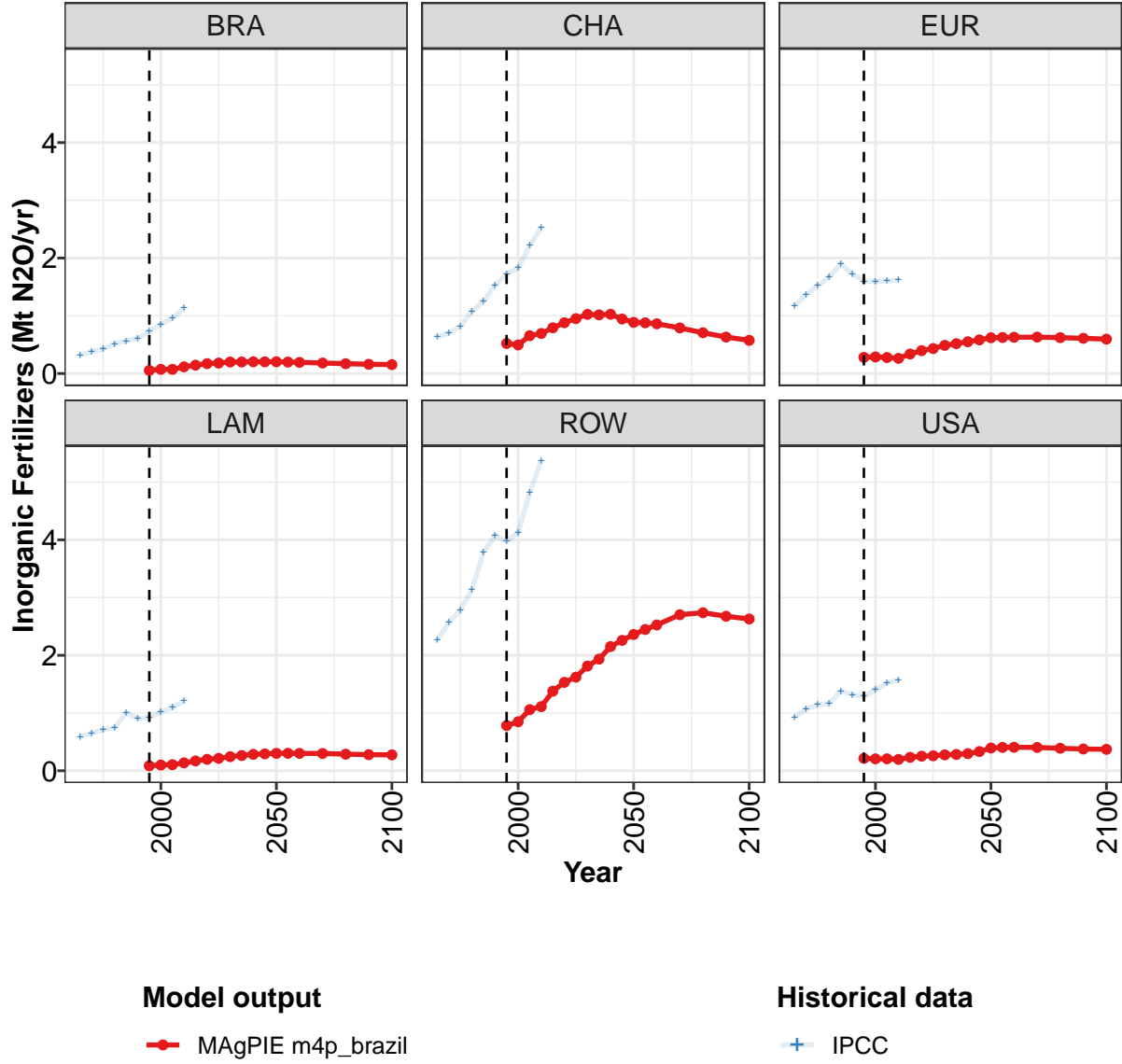


Figure 241: MAgPIE m4p_brazil — Emissions—N₂O—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt N₂O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.94	2.01	2.38	2.52	3.06	3.43	3.66	4.05	4.22	4.51	4.62
BRA	0.05	0.07	0.07	0.12	0.15	0.17	0.18	0.20	0.20	0.20	0.20
CHA	0.52	0.50	0.66	0.69	0.79	0.88	0.95	1.03	1.02	1.03	0.95
EUR	0.28	0.29	0.28	0.26	0.34	0.40	0.43	0.49	0.52	0.55	0.58
LAM	0.09	0.10	0.11	0.14	0.17	0.20	0.22	0.24	0.26	0.28	0.29
ROW	0.78	0.85	1.06	1.11	1.38	1.53	1.62	1.81	1.93	2.15	2.26
USA	0.21	0.21	0.21	0.20	0.23	0.25	0.26	0.28	0.28	0.30	0.33

Table 799: MAgPIE m4p_brazil — Emissions—N2O—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt N2O/yr) [PART 1/2]

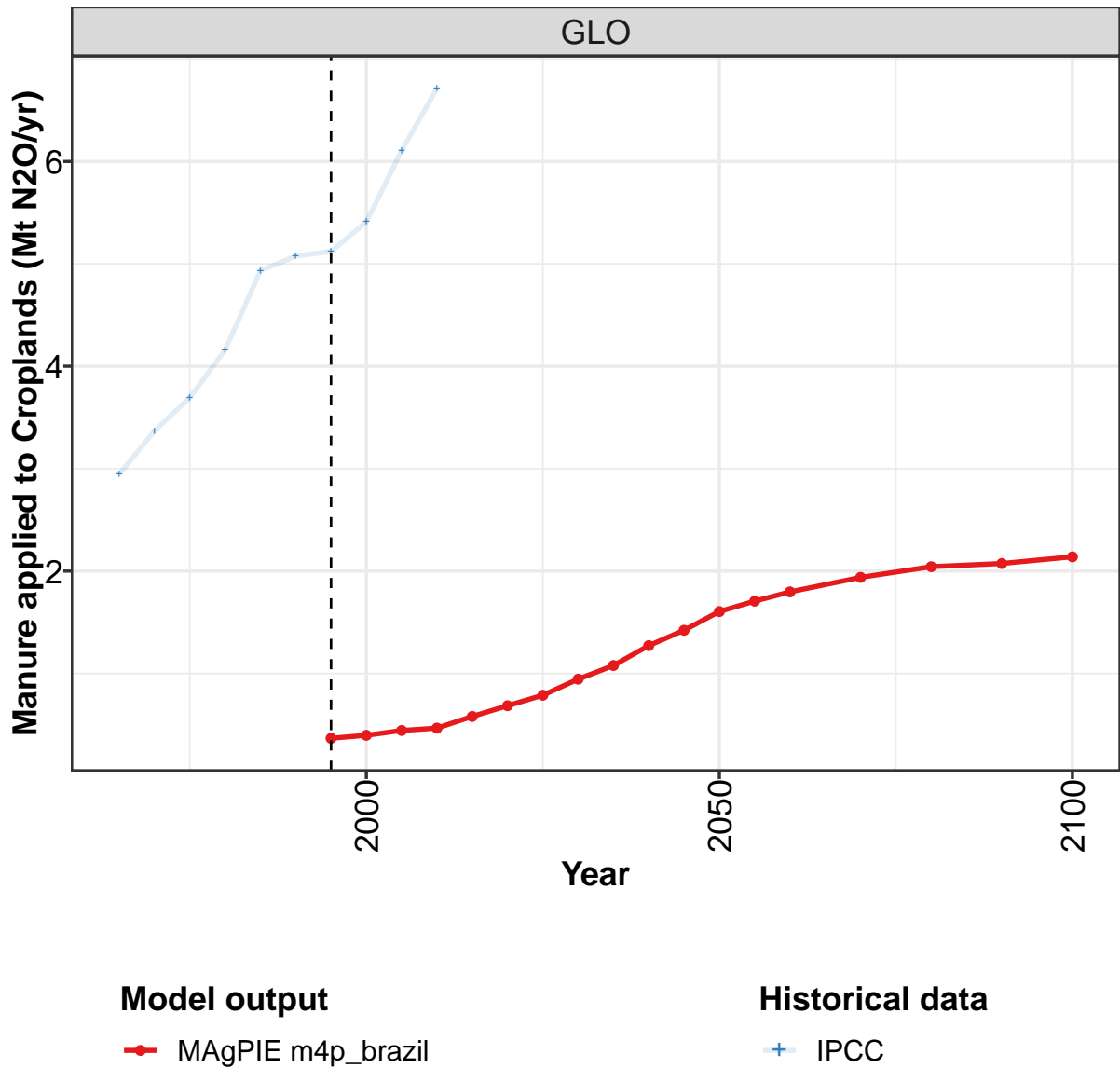
	2050	2055	2060	2070	2080	2090	2100
GLO	4.77	4.86	4.92	5.01	4.91	4.73	4.60
BRA	0.20	0.20	0.19	0.18	0.17	0.16	0.16
CHA	0.89	0.88	0.86	0.79	0.71	0.63	0.58
EUR	0.62	0.63	0.63	0.63	0.62	0.61	0.60
LAM	0.30	0.30	0.30	0.30	0.29	0.28	0.28
ROW	2.36	2.45	2.53	2.70	2.74	2.68	2.63
USA	0.39	0.40	0.41	0.40	0.39	0.38	0.37

Table 800: MAgPIE m4p_brazil — 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
BRA	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.9	1.0	1.1
CHA	0.6	0.7	0.8	1.1	1.2	1.5	1.7	1.8	2.2	2.5
EUR	1.2	1.4	1.5	1.7	1.9	1.7	1.6	1.6	1.6	1.6
LAM	0.6	0.7	0.7	0.7	1.0	0.9	0.9	1.0	1.1	1.2
ROW	2.3	2.6	2.8	3.1	3.8	4.1	4.0	4.1	4.8	5.4
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



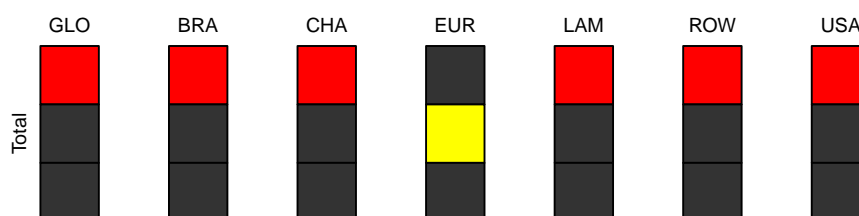
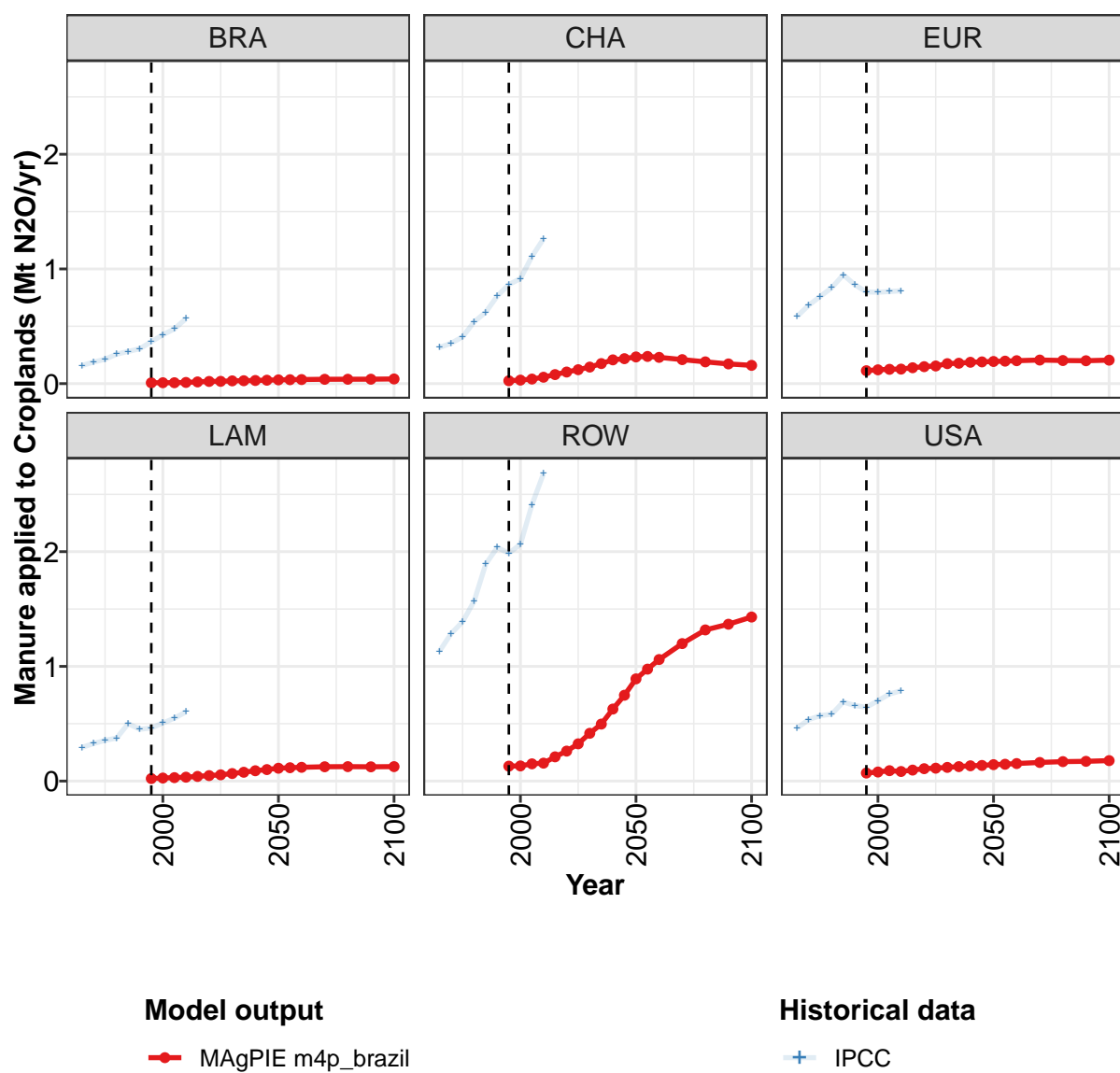


Figure 242: MAGPIE m4p_brazil — Emissions—N₂O—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt N₂O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.37	0.40	0.44	0.47	0.58	0.69	0.79	0.94	1.08	1.27	1.42
BRA	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.03
CHA	0.03	0.03	0.04	0.06	0.08	0.10	0.12	0.14	0.17	0.21	0.22
EUR	0.11	0.12	0.12	0.13	0.14	0.15	0.15	0.17	0.18	0.19	0.19
LAM	0.02	0.03	0.03	0.03	0.04	0.05	0.05	0.07	0.08	0.09	0.10
ROW	0.13	0.13	0.15	0.16	0.21	0.26	0.32	0.42	0.50	0.63	0.75
USA	0.07	0.08	0.09	0.08	0.10	0.11	0.11	0.12	0.13	0.13	0.14

Table 802: MAgPIE m4p_brazil — Emissions—N₂O—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt N₂O/yr) [PART 1/2]

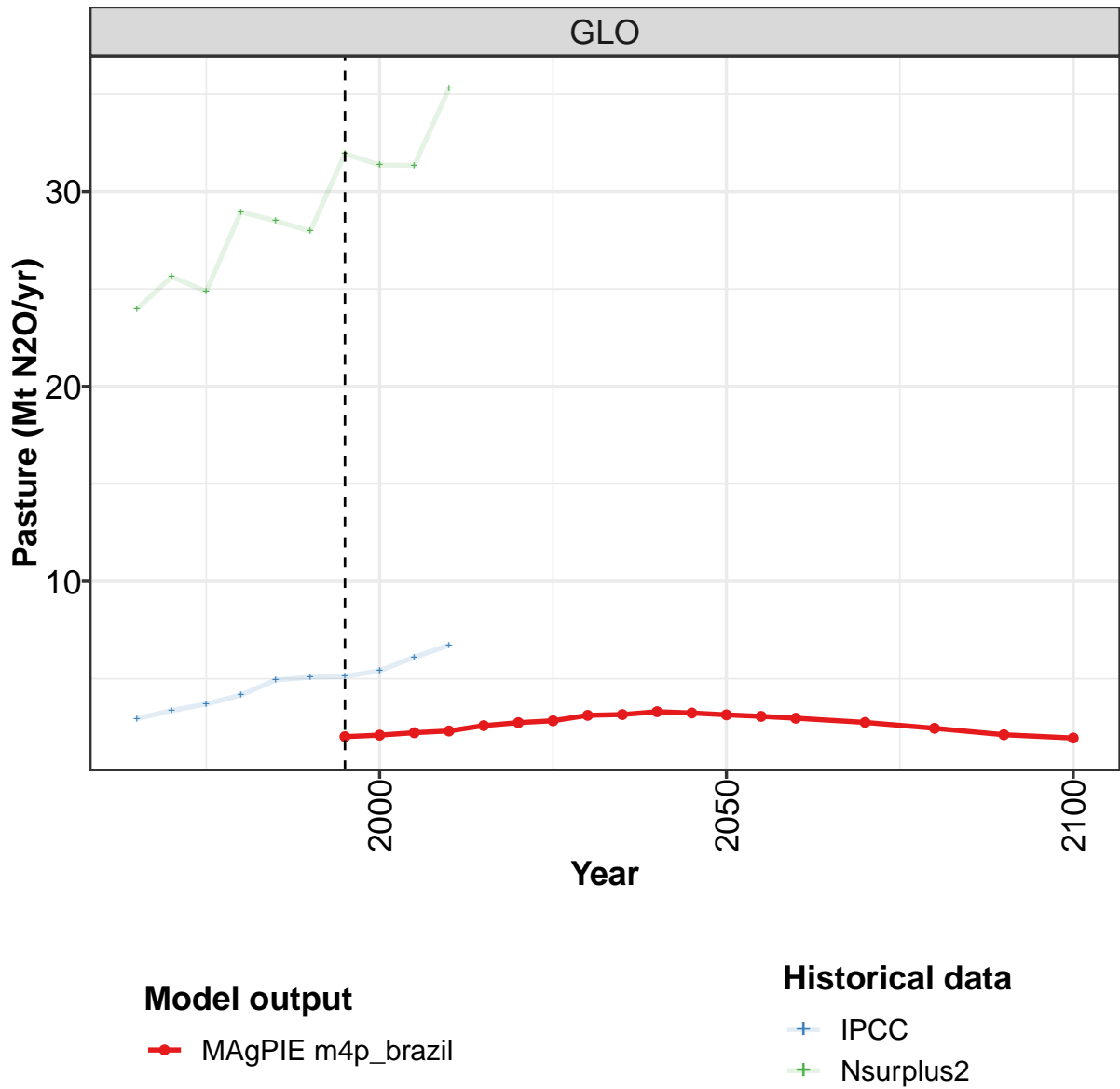
	2050	2055	2060	2070	2080	2090	2100
GLO	1.61	1.71	1.80	1.94	2.04	2.07	2.14
BRA	0.03	0.03	0.04	0.04	0.04	0.04	0.04
CHA	0.23	0.24	0.23	0.21	0.19	0.17	0.16
EUR	0.19	0.20	0.20	0.21	0.20	0.20	0.20
LAM	0.11	0.12	0.12	0.12	0.13	0.12	0.13
ROW	0.89	0.98	1.06	1.20	1.32	1.37	1.43
USA	0.14	0.15	0.15	0.16	0.17	0.17	0.18

Table 803: MAgPIE m4p_brazil — 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
BRA	0.16	0.19	0.21	0.26	0.28	0.30	0.37	0.43	0.48	0.57
CHA	0.32	0.35	0.41	0.54	0.62	0.76	0.86	0.92	1.11	1.26
EUR	0.59	0.68	0.76	0.84	0.95	0.86	0.80	0.80	0.80	0.81
LAM	0.29	0.33	0.36	0.37	0.50	0.45	0.46	0.51	0.55	0.60
ROW	1.13	1.29	1.39	1.57	1.89	2.04	1.99	2.06	2.41	2.68
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



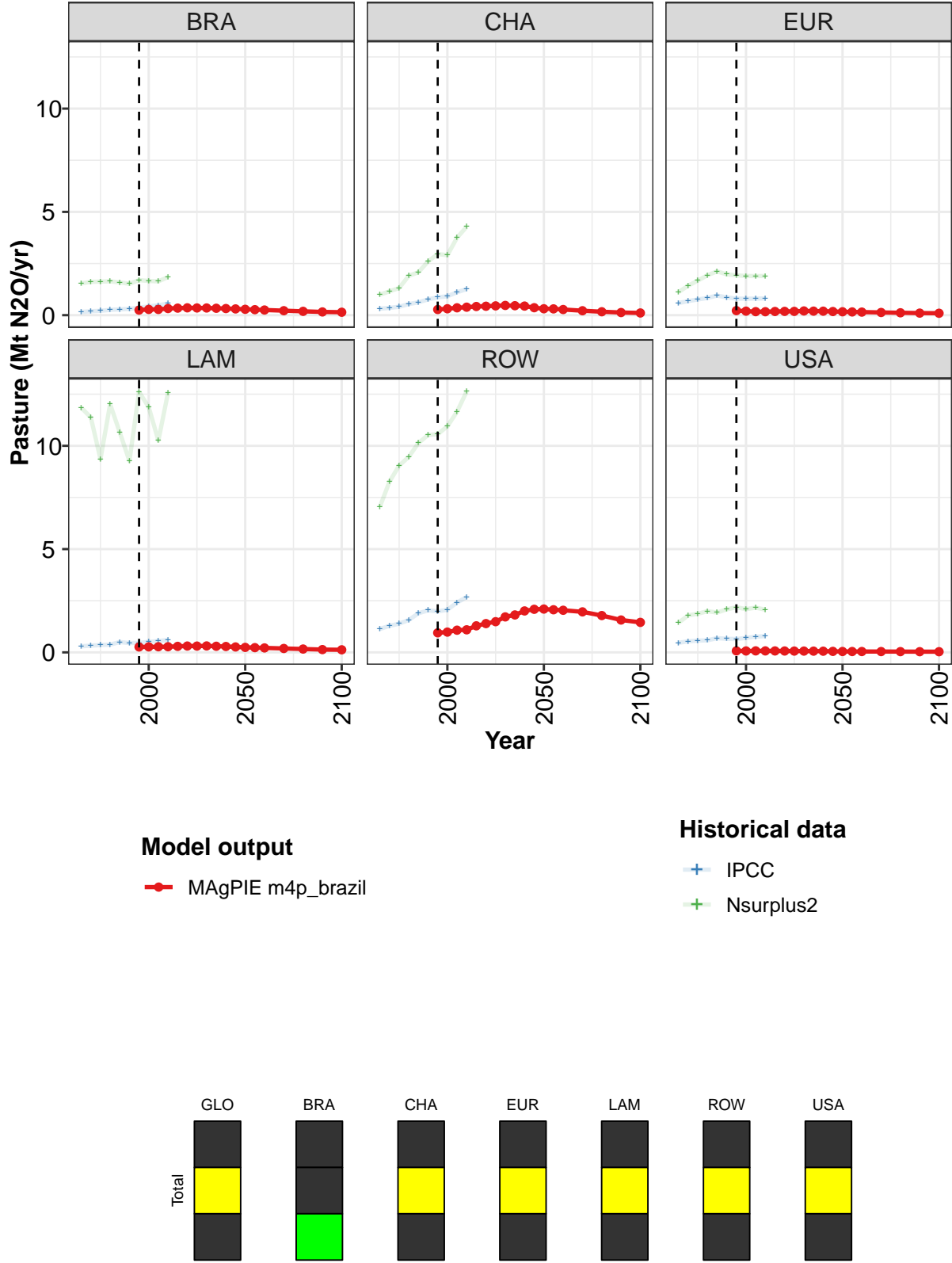


Figure 243: MAGPIE m4p_brazil — Emissions—N₂O—Land—Agriculture—Agricultural Soils—Pasture (Mt N₂O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.03	2.10	2.23	2.32	2.59	2.74	2.84	3.12	3.16	3.31	3.24
BRA	0.25	0.28	0.28	0.32	0.34	0.36	0.35	0.35	0.34	0.32	0.30
CHA	0.28	0.31	0.36	0.39	0.42	0.43	0.45	0.47	0.46	0.44	0.36
EUR	0.22	0.19	0.17	0.17	0.18	0.18	0.18	0.20	0.20	0.19	0.18
LAM	0.26	0.27	0.27	0.27	0.29	0.31	0.31	0.31	0.30	0.29	0.26
ROW	0.95	0.98	1.07	1.09	1.29	1.40	1.49	1.72	1.81	2.01	2.09
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_brazil — Emissions—N2O—Land—Agriculture—Agricultural Soils—Pasture (Mt N2O/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	3.15	3.07	2.97	2.76	2.45	2.12	1.96
BRA	0.28	0.27	0.25	0.22	0.19	0.16	0.14
CHA	0.31	0.31	0.27	0.22	0.17	0.13	0.11
EUR	0.17	0.16	0.15	0.13	0.12	0.10	0.09
LAM	0.24	0.23	0.22	0.19	0.16	0.14	0.13
ROW	2.10	2.06	2.04	1.96	1.78	1.57	1.45
USA	0.04	0.04	0.04	0.04	0.04	0.04	0.03

Table 806: MAgPIE m4p_brazil — Emissions—N2O—Land—Agriculture—Agricultural Soils—Pasture (Mt N2O/yr) [PART 2/2]

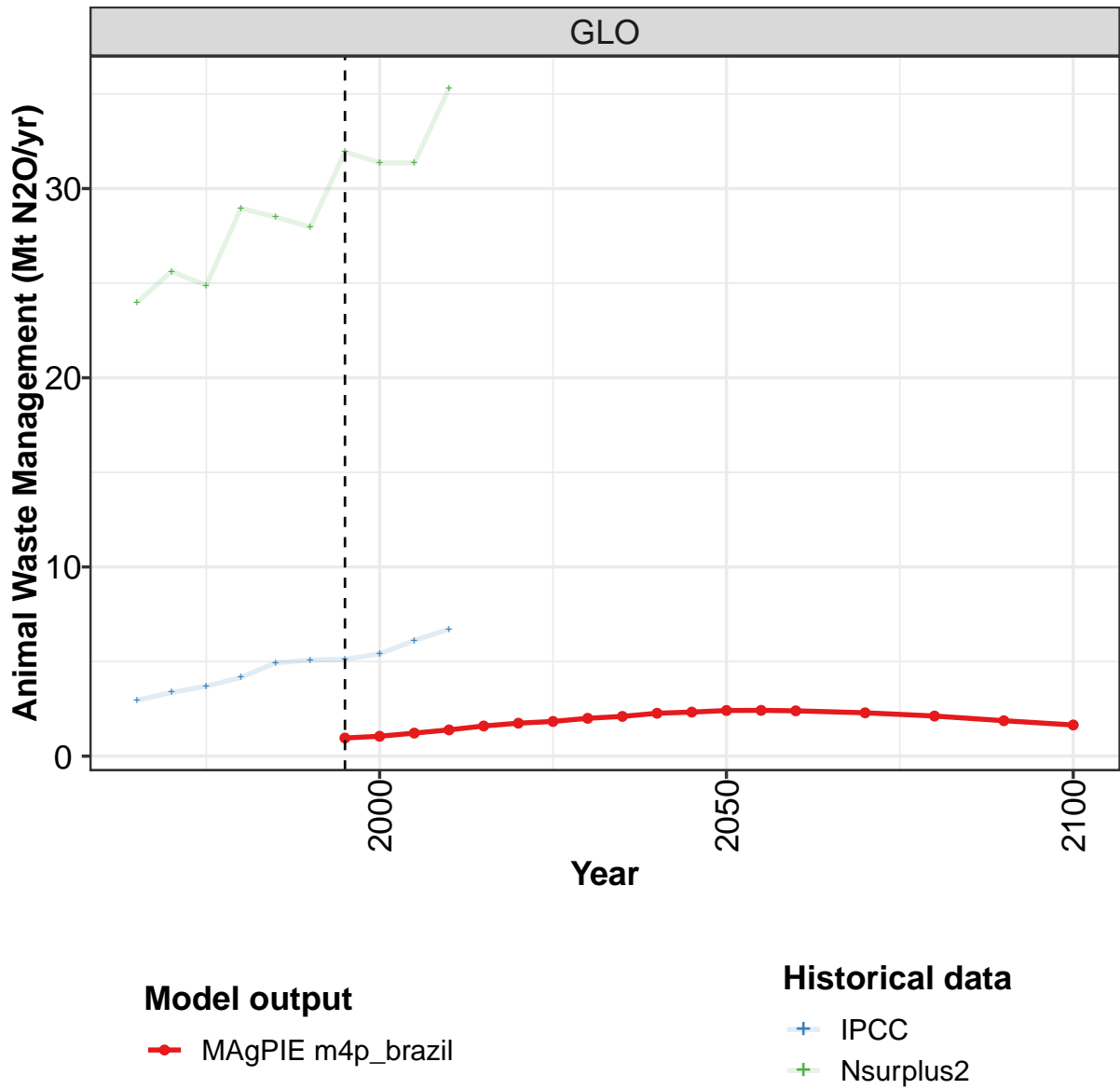
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.95	3.37	3.69	4.16	4.93	5.08	5.12	5.41	6.11	6.71
BRA	0.16	0.19	0.21	0.26	0.28	0.30	0.37	0.43	0.48	0.57
CHA	0.32	0.35	0.41	0.54	0.62	0.76	0.86	0.92	1.11	1.26
EUR	0.59	0.68	0.76	0.84	0.95	0.86	0.80	0.80	0.80	0.81
LAM	0.29	0.33	0.36	0.37	0.50	0.45	0.46	0.51	0.55	0.60
ROW	1.13	1.29	1.39	1.57	1.89	2.04	1.99	2.06	2.41	2.68
USA	0.46	0.54	0.57	0.58	0.69	0.66	0.64	0.70	0.76	0.79

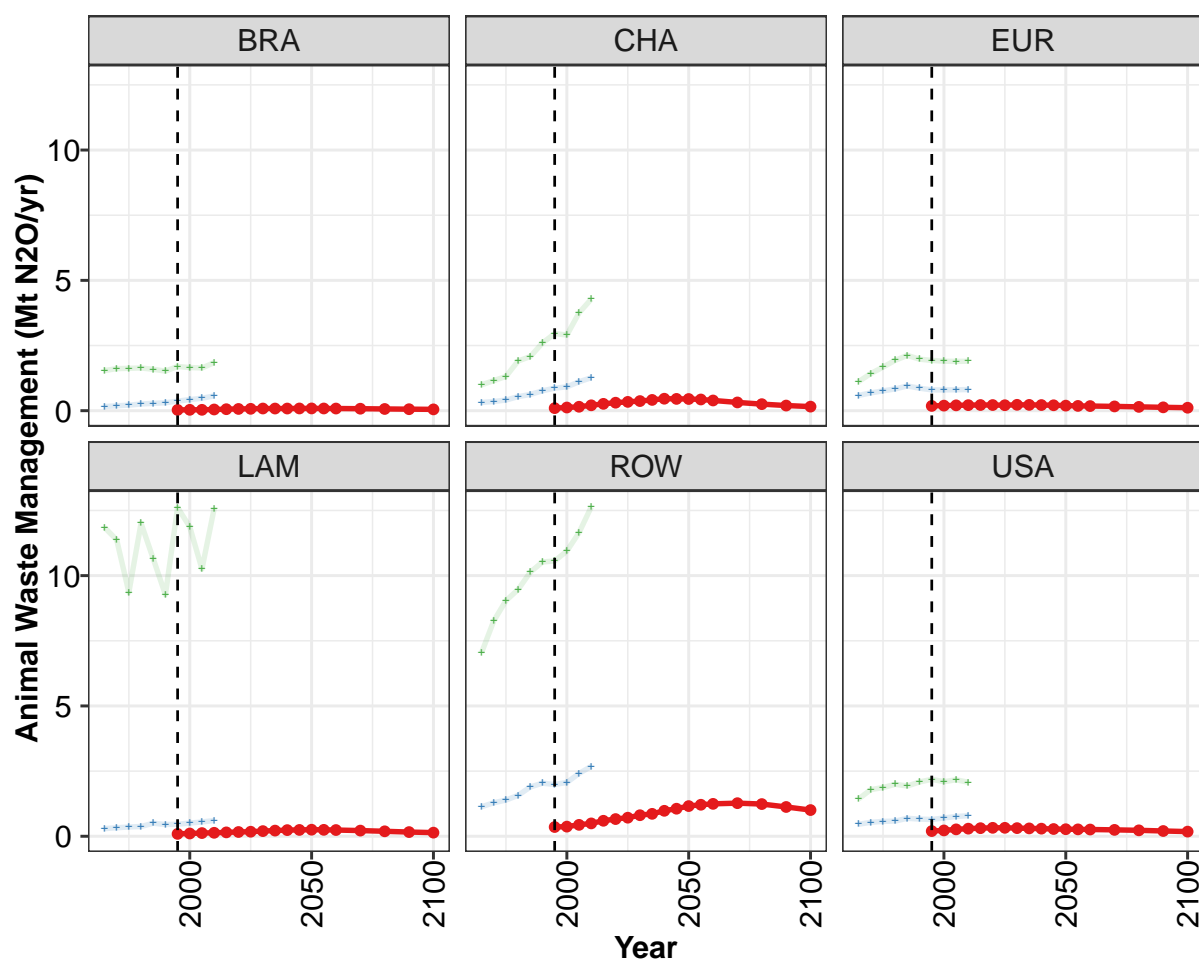
Table 807: IPCC — Emissions—N2O—Land—Agriculture—Agricultural Soils—Pasture (Mt N2O/yr)

	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
BRA	1.5	1.6	1.6	1.6	1.6	1.5	1.7	1.7	1.6	1.8
CHA	1.0	1.2	1.3	1.9	2.1	2.6	3.0	2.9	3.8	4.3
EUR	1.1	1.4	1.7	1.9	2.1	2.0	1.9	1.9	1.9	1.9
LAM	11.8	11.4	9.4	12.0	10.6	9.3	12.6	11.9	10.3	12.6
ROW	7.0	8.3	9.0	9.5	10.1	10.5	10.6	10.9	11.6	12.6
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



**Model output**

—●— MAGPIE m4p_brazil

Historical data

—+— IPCC

—+— Nsurplus2

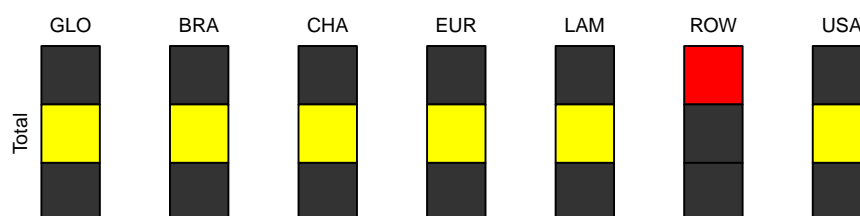


Figure 244: MAGPIE m4p_brazil — Emissions—N₂O—Land—Agriculture—Animal Waste Management (Mt N₂O/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.96	1.05	1.22	1.39	1.59	1.74	1.83	2.00	2.10	2.27	2.33
BRA	0.03	0.03	0.03	0.05	0.06	0.07	0.07	0.08	0.08	0.08	0.09
CHA	0.10	0.12	0.15	0.21	0.26	0.31	0.34	0.37	0.41	0.46	0.45
EUR	0.18	0.19	0.21	0.21	0.22	0.22	0.21	0.23	0.22	0.22	0.21
LAM	0.09	0.11	0.12	0.13	0.15	0.16	0.18	0.20	0.22	0.24	0.24
ROW	0.36	0.37	0.44	0.49	0.59	0.66	0.71	0.81	0.86	0.98	1.06
USA	0.20	0.22	0.27	0.29	0.31	0.33	0.32	0.31	0.30	0.29	0.28

Table 809: MAgPIE m4p_brazil — Emissions—N2O—Land—Agriculture—Animal Waste Management (Mt N2O/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	2.41	2.42	2.40	2.29	2.12	1.87	1.65
BRA	0.09	0.09	0.08	0.08	0.07	0.06	0.05
CHA	0.45	0.43	0.39	0.32	0.25	0.20	0.16
EUR	0.19	0.18	0.18	0.16	0.15	0.13	0.11
LAM	0.25	0.25	0.24	0.22	0.19	0.16	0.14
ROW	1.16	1.21	1.24	1.27	1.24	1.12	1.01
USA	0.27	0.26	0.26	0.25	0.23	0.20	0.18

Table 810: MAgPIE m4p_brazil — Emissions—N2O—Land—Agriculture—Animal Waste Management (Mt N2O/yr) [PART 2/2]

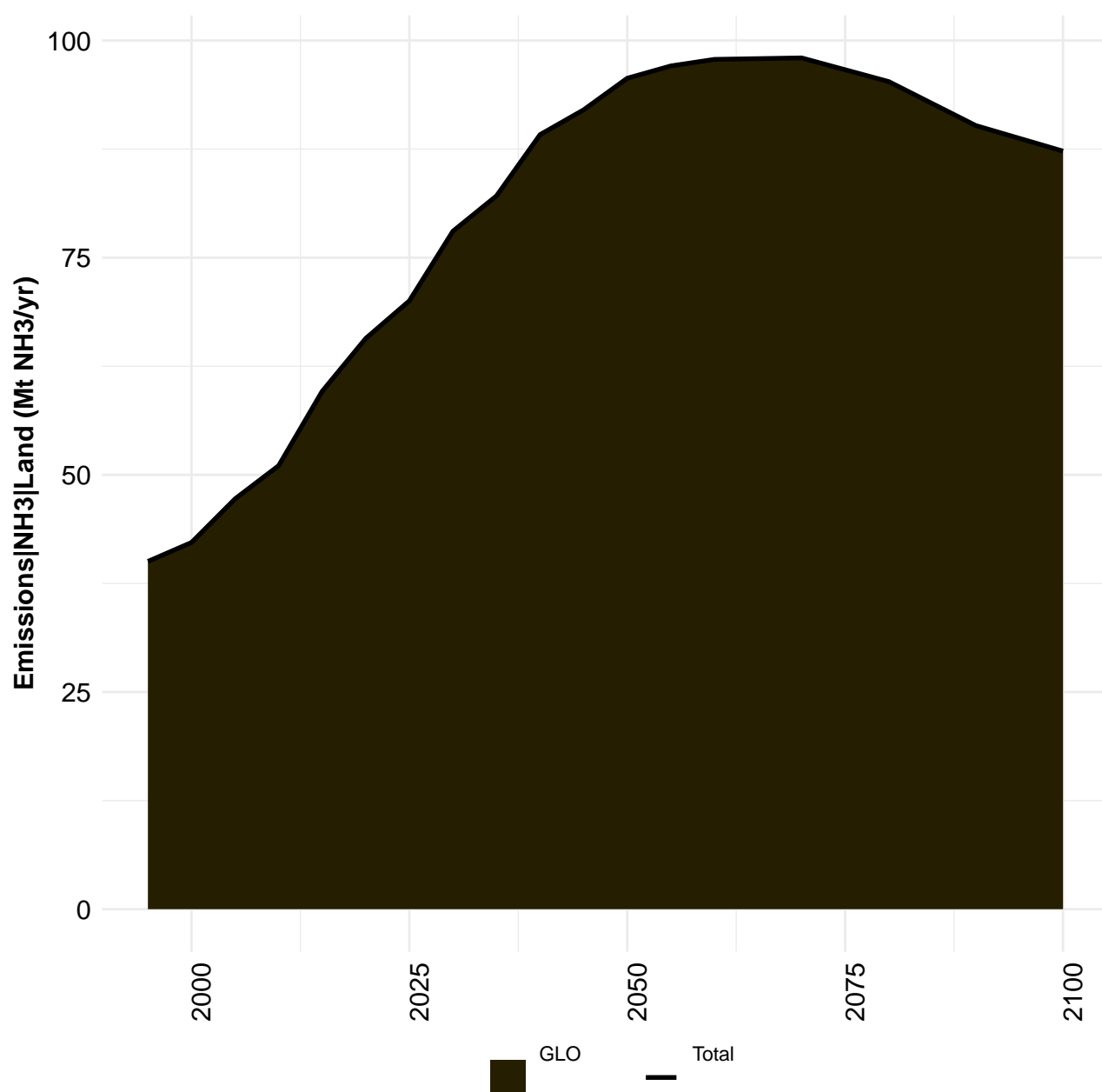
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.95	3.37	3.69	4.16	4.93	5.08	5.12	5.41	6.11	6.71
BRA	0.16	0.19	0.21	0.26	0.28	0.30	0.37	0.43	0.48	0.57
CHA	0.32	0.35	0.41	0.54	0.62	0.76	0.86	0.92	1.11	1.26
EUR	0.59	0.68	0.76	0.84	0.95	0.86	0.80	0.80	0.80	0.81
LAM	0.29	0.33	0.36	0.37	0.50	0.45	0.46	0.51	0.55	0.60
ROW	1.13	1.29	1.39	1.57	1.89	2.04	1.99	2.06	2.41	2.68
USA	0.46	0.54	0.57	0.58	0.69	0.66	0.64	0.70	0.76	0.79

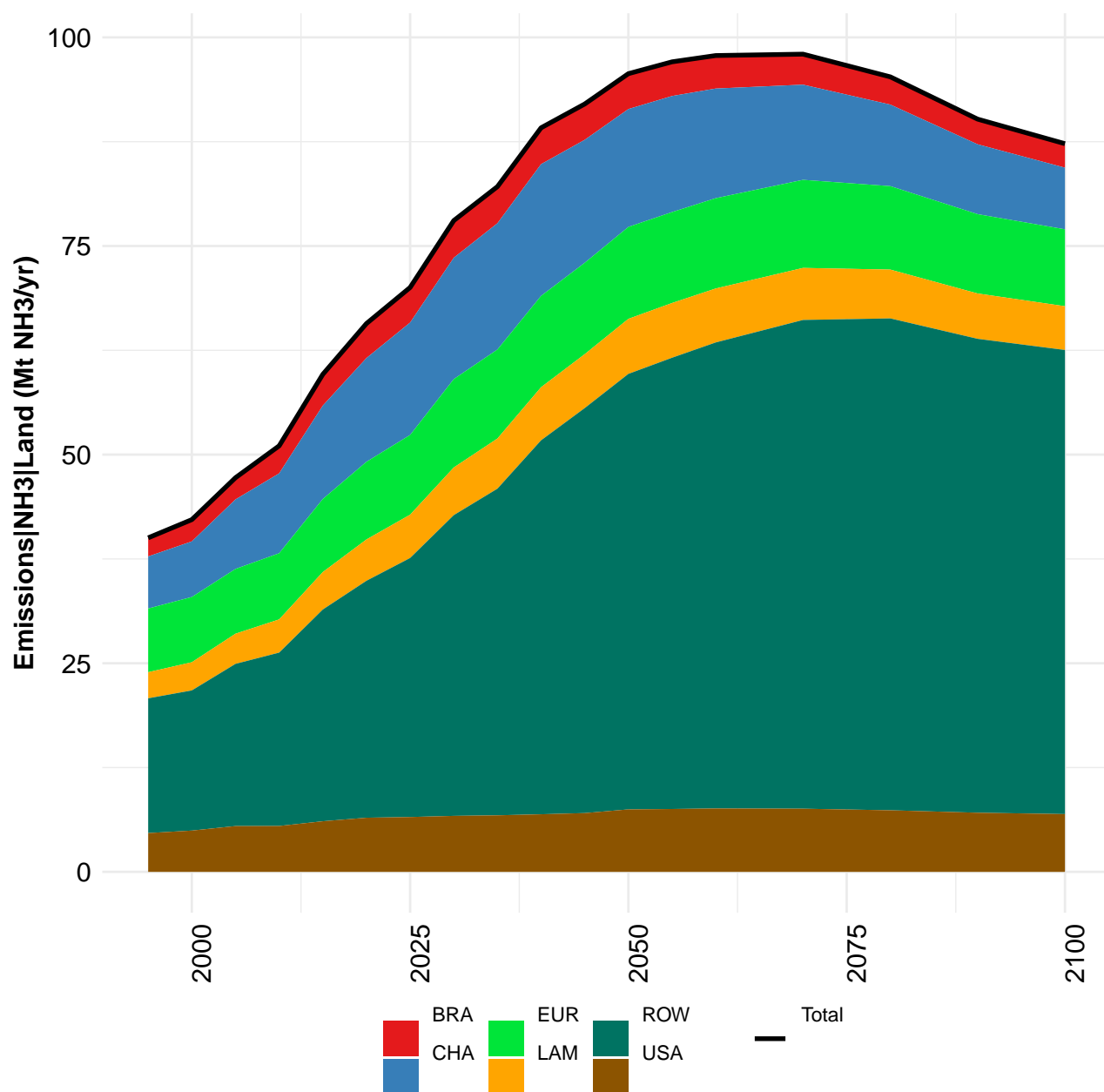
Table 811: IPCC — Emissions—N2O—Land—Agriculture—Animal Waste Management (Mt N2O/yr)

	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
BRA	1.5	1.6	1.6	1.6	1.6	1.5	1.7	1.7	1.6	1.8
CHA	1.0	1.2	1.3	1.9	2.1	2.6	3.0	2.9	3.8	4.3
EUR	1.1	1.4	1.7	1.9	2.1	2.0	1.9	1.9	1.9	1.9
LAM	11.8	11.4	9.4	12.0	10.6	9.3	12.6	11.9	10.3	12.6
ROW	7.0	8.3	9.0	9.5	10.1	10.5	10.6	10.9	11.6	12.6
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)

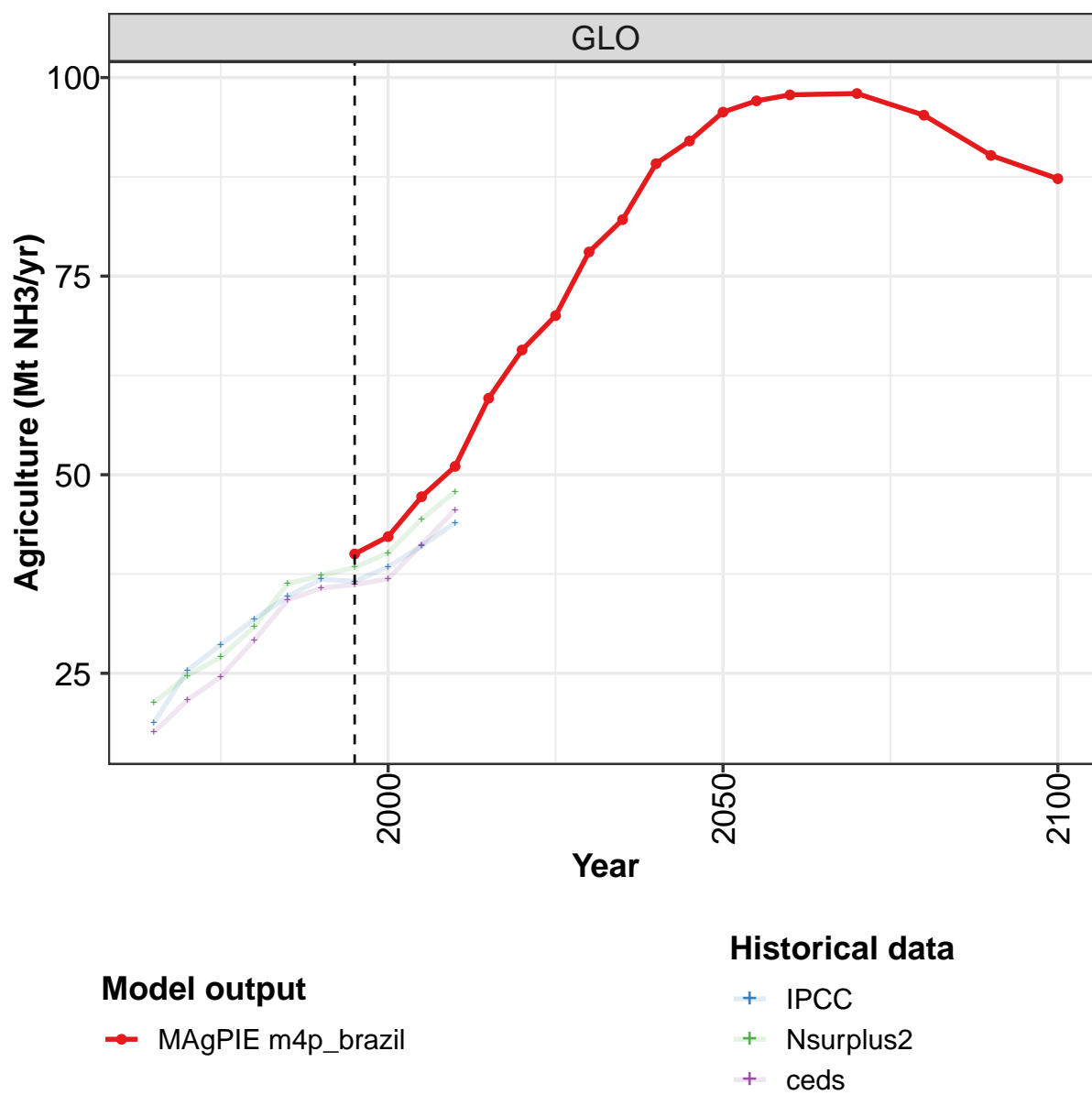
14 NH3





14.1 Land

14.1.1 Agriculture



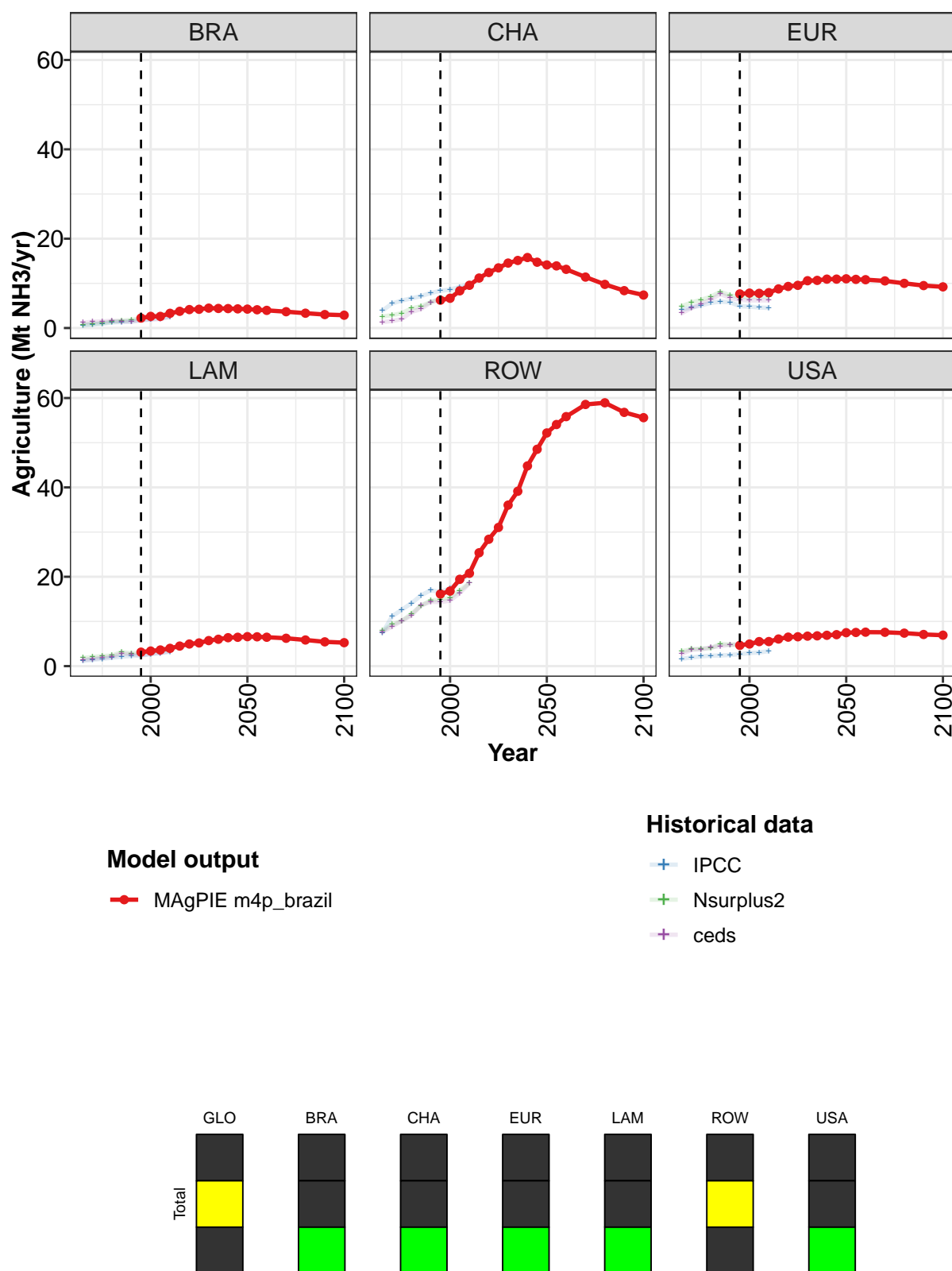


Figure 245: MAgPIE m4p_brazil — Emissions—NH3—Land—Agriculture (Mt NH3/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	40.0	42.2	47.2	51.1	59.6	65.7	70.0	78.0	82.1	89.2	92.0
BRA	2.2	2.6	2.6	3.3	3.7	4.1	4.2	4.5	4.4	4.4	4.3
CHA	6.2	6.7	8.3	9.6	11.2	12.4	13.5	14.5	15.1	15.8	14.7
EUR	7.6	7.8	7.8	7.9	8.8	9.3	9.6	10.6	10.7	10.9	11.0
LAM	3.1	3.4	3.6	4.0	4.5	5.0	5.2	5.7	6.0	6.4	6.5
ROW	16.1	16.8	19.4	20.8	25.4	28.4	31.0	36.0	39.1	44.8	48.5
USA	4.6	4.9	5.5	5.5	6.1	6.5	6.6	6.7	6.8	6.9	7.0

Table 813: MAgPIE m4p_brazil — Emissions—NH3—Land—Agriculture (Mt NH3/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	95.6	97.1	97.8	98.0	95.3	90.2	87.3
BRA	4.2	4.1	4.0	3.7	3.3	3.0	2.9
CHA	14.1	13.9	13.1	11.4	9.8	8.4	7.4
EUR	11.0	10.9	10.8	10.6	10.0	9.5	9.2
LAM	6.6	6.6	6.5	6.2	5.8	5.4	5.2
ROW	52.2	54.1	55.8	58.6	58.9	56.8	55.6
USA	7.5	7.5	7.6	7.6	7.4	7.1	6.9

Table 814: MAgPIE m4p_brazil — 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
BRA	0.5	0.8	1.0	1.3	1.3	1.5	1.8	2.0	2.3	2.4
CHA	3.9	5.5	6.1	6.6	7.1	7.8	8.3	8.6	9.2	9.8
EUR	4.1	4.6	5.1	5.6	5.9	5.8	4.9	4.8	4.6	4.5
LAM	1.2	1.4	1.6	1.9	2.1	2.3	2.4	2.7	3.0	3.2
ROW	7.4	11.1	12.6	14.1	15.8	17.0	16.5	17.4	18.9	20.6
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)

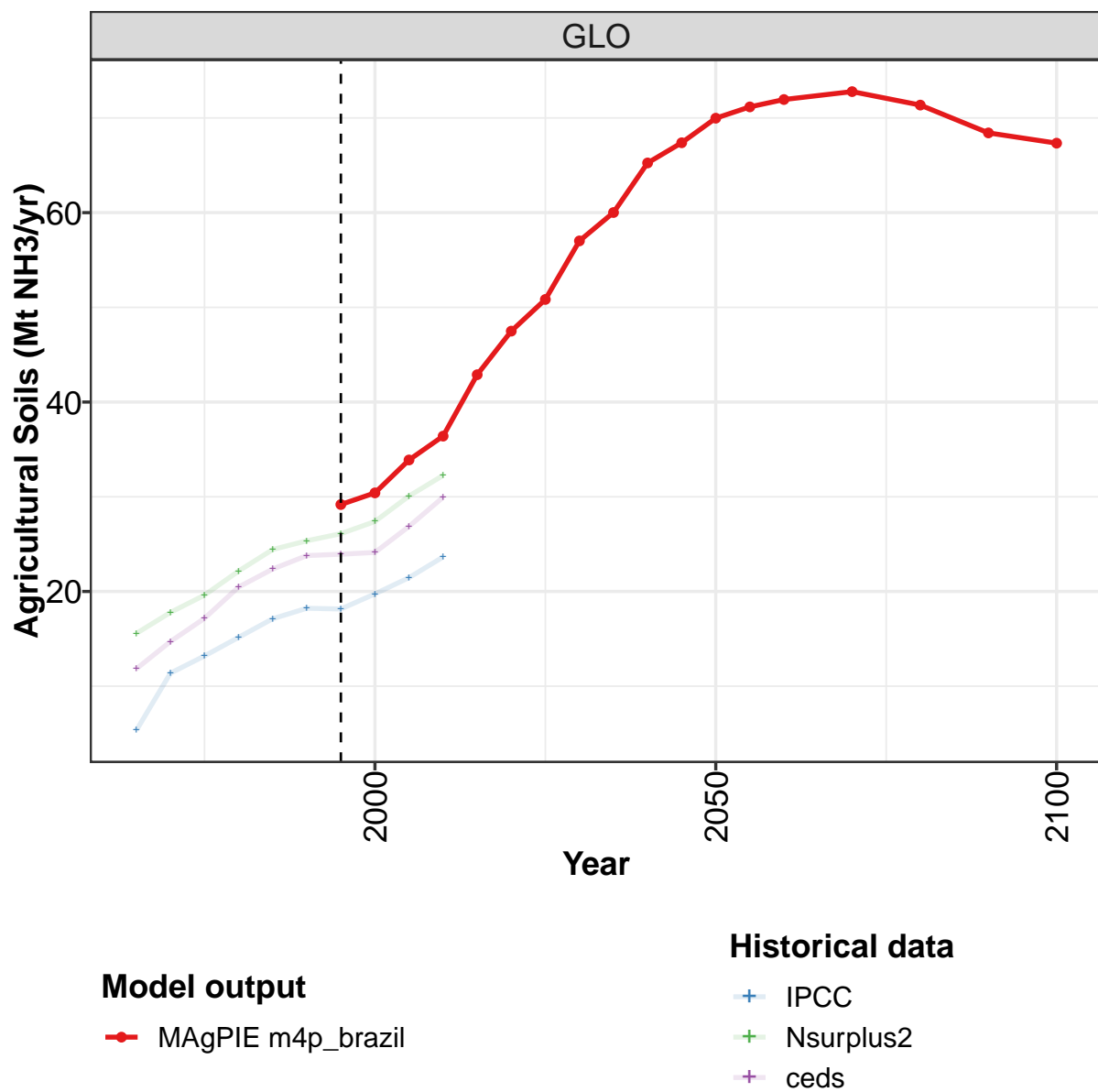
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	21.3	24.7	27.0	30.9	36.3	37.3	38.3	40.2	44.4	47.9
BRA	0.8	0.9	1.1	1.4	1.6	1.8	2.2	2.6	2.9	3.3
CHA	2.6	2.9	3.3	4.4	4.9	5.8	6.6	7.0	8.4	9.7
EUR	4.9	5.7	6.3	7.0	8.1	7.3	7.0	7.0	7.1	7.0
LAM	1.8	2.0	2.3	2.4	3.1	2.9	2.9	3.3	3.5	3.7
ROW	7.9	9.3	10.1	11.7	13.5	14.7	14.9	15.3	16.9	18.6
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
BRA	1.2	1.4	1.5	1.6	1.5	1.5	1.8	1.9	2.0	2.5
CHA	1.3	1.6	2.0	3.6	4.3	5.7	6.5	6.4	8.5	9.8
EUR	3.3	4.5	5.4	6.4	7.6	6.7	6.3	6.2	6.2	6.2
LAM	1.4	1.6	1.9	2.1	2.8	2.6	2.4	2.8	2.9	3.4
ROW	7.6	8.9	10.1	11.3	13.6	14.4	14.3	14.7	16.3	18.5
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



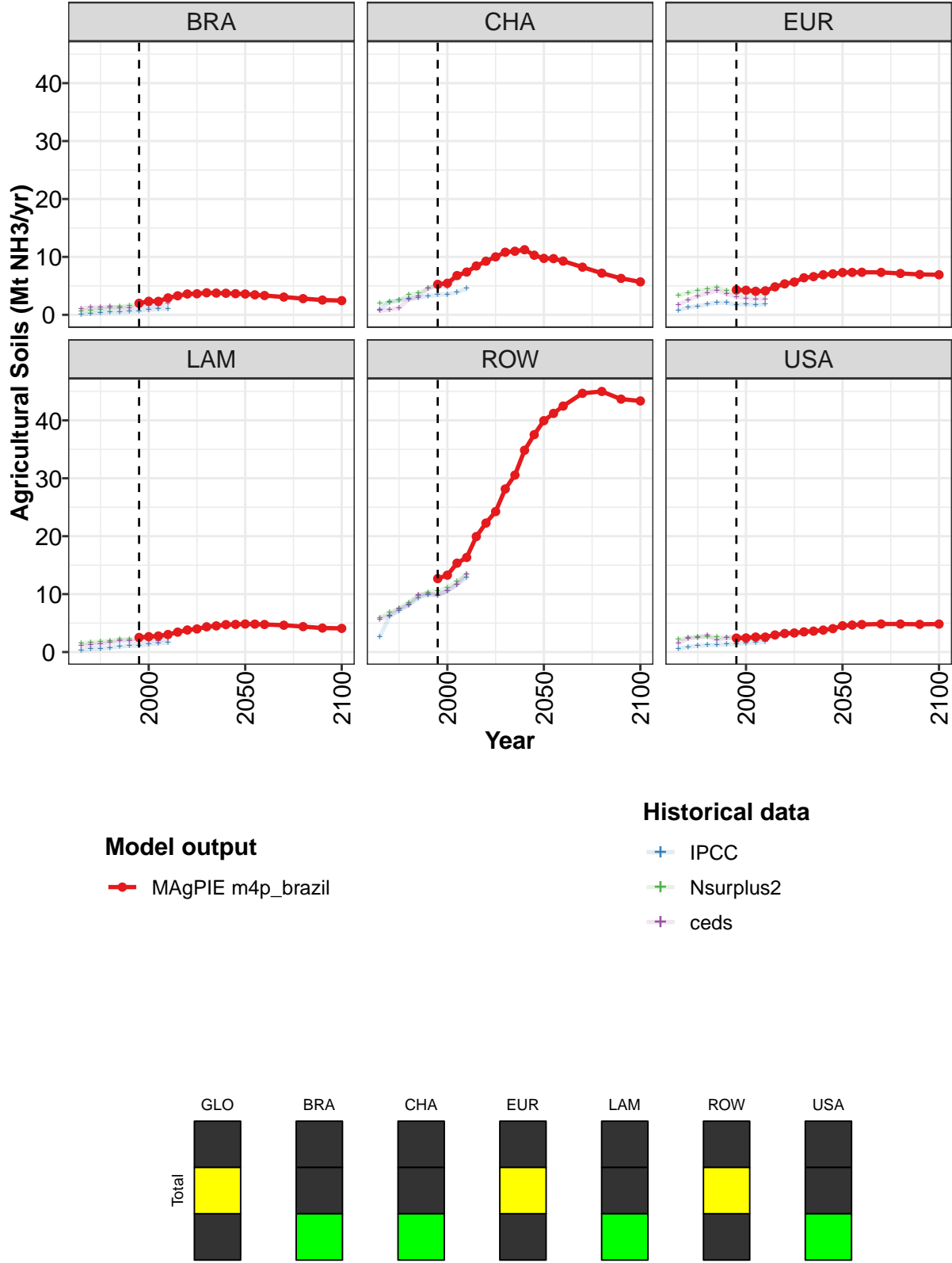


Figure 246: MAgPIE m4p_brazil — Emissions—NH3—Land—Agriculture—Agricultural Soils (Mt NH3/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	29.2	30.4	33.9	36.4	42.9	47.5	50.8	57.0	60.0	65.2	67.4
BRA	2.0	2.3	2.3	2.9	3.3	3.6	3.6	3.8	3.8	3.7	3.7
CHA	5.3	5.5	6.8	7.4	8.4	9.3	10.0	10.8	11.0	11.2	10.3
EUR	4.3	4.2	4.1	4.1	4.8	5.3	5.7	6.4	6.6	6.9	7.1
LAM	2.5	2.7	2.8	3.0	3.4	3.8	4.0	4.4	4.5	4.7	4.8
ROW	12.7	13.3	15.3	16.3	19.9	22.3	24.3	28.2	30.6	34.8	37.5
USA	2.4	2.4	2.6	2.6	2.9	3.2	3.3	3.5	3.6	3.8	4.0

Table 818: MAgPIE m4p_brazil — Emissions—NH3—Land—Agriculture—Agricultural Soils (Mt NH3/yr)
[PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	70.0	71.2	71.9	72.8	71.4	68.4	67.3
BRA	3.6	3.5	3.3	3.1	2.8	2.6	2.5
CHA	9.7	9.7	9.3	8.2	7.2	6.3	5.7
EUR	7.3	7.3	7.3	7.3	7.1	7.0	6.9
LAM	4.8	4.8	4.8	4.6	4.4	4.1	4.1
ROW	39.9	41.2	42.5	44.7	45.0	43.7	43.3
USA	4.5	4.7	4.8	4.8	4.8	4.8	4.8

Table 819: MAgPIE m4p_brazil — 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
BRA	0.1	0.3	0.3	0.5	0.5	0.6	0.7	0.9	1.0	1.0
CHA	0.9	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.9	4.5
EUR	0.8	1.3	1.5	1.8	2.1	2.1	1.7	1.8	1.8	1.8
LAM	0.3	0.5	0.6	0.8	1.0	1.1	1.1	1.3	1.5	1.6
ROW	2.7	6.2	7.1	8.1	9.3	9.9	9.8	10.6	11.7	12.9
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)

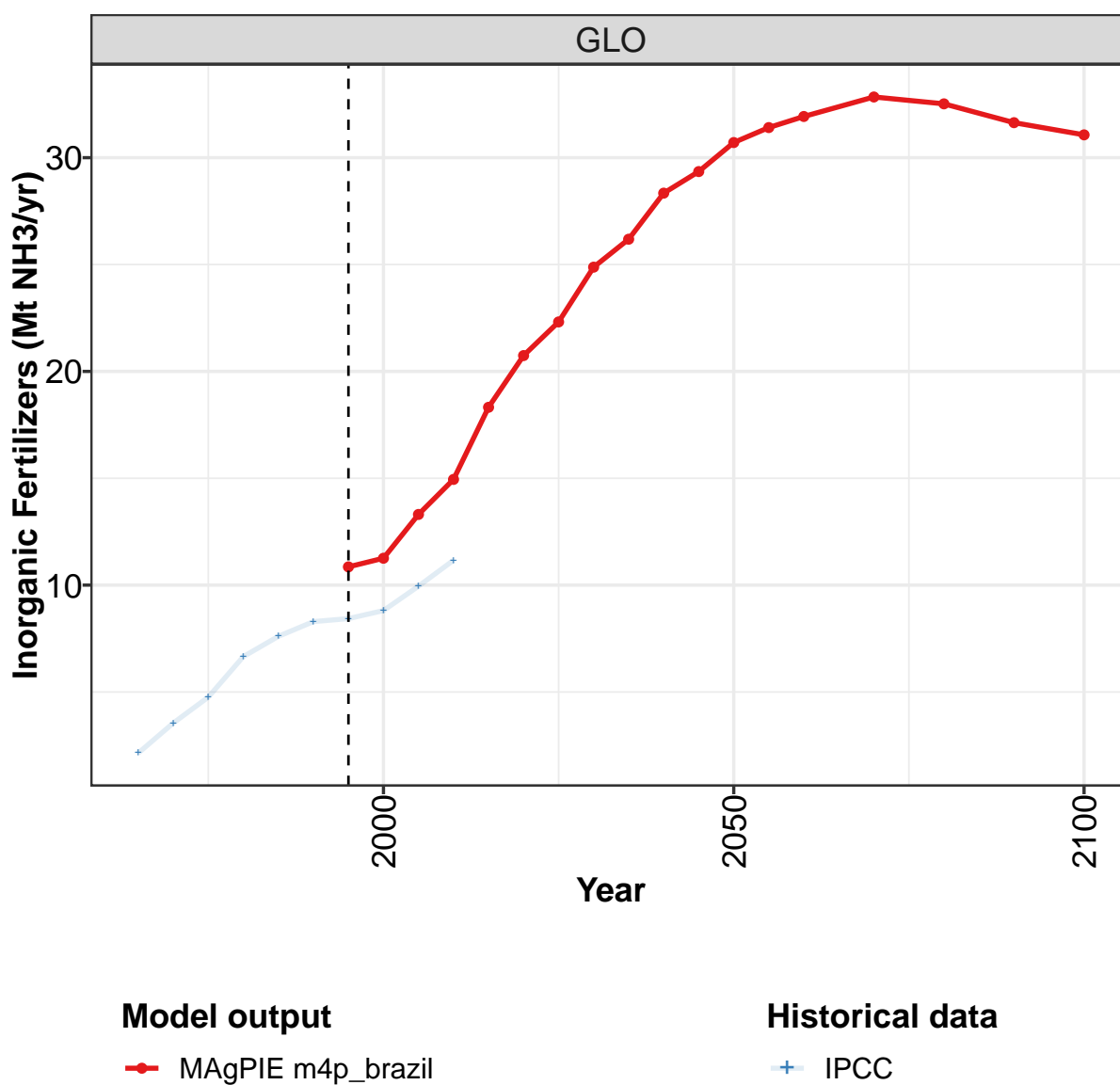
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	15.6	17.8	19.6	22.2	24.4	25.3	26.1	27.4	30.1	32.3
BRA	0.7	0.8	0.9	1.2	1.4	1.6	1.9	2.2	2.5	2.7
CHA	1.9	2.2	2.5	3.4	3.8	4.6	5.2	5.4	6.6	7.3
EUR	3.3	3.8	4.2	4.4	4.7	4.2	3.8	3.7	3.6	3.5
LAM	1.5	1.7	1.8	1.9	2.2	2.2	2.3	2.5	2.6	2.7
ROW	5.9	6.8	7.5	8.6	9.8	10.3	10.5	11.1	12.2	13.5
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
BRA	1.1	1.3	1.3	1.4	1.2	1.2	1.4	1.5	1.6	2.0
CHA	0.7	0.9	1.2	2.7	3.2	4.5	5.1	4.8	6.6	7.3
EUR	1.7	2.6	3.2	3.7	4.2	3.6	3.1	2.9	2.7	2.7
LAM	1.1	1.2	1.4	1.6	1.9	1.9	1.7	2.1	2.0	2.3
ROW	5.7	6.4	7.5	8.2	9.8	10.0	9.9	10.5	11.7	13.5
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



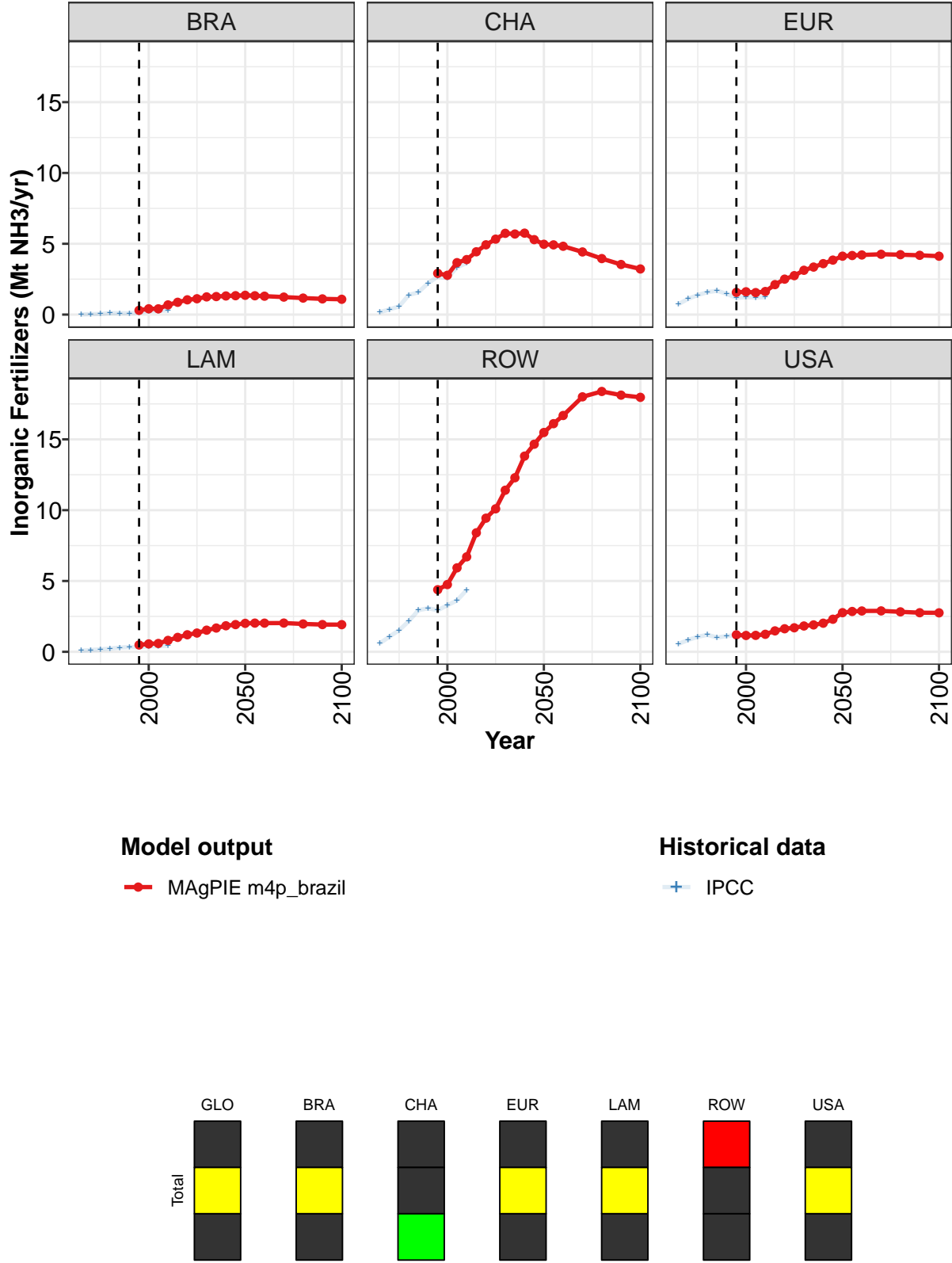


Figure 247: MAgPIE m4p_brazil — Emissions—NH₃—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NH₃/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	10.9	11.3	13.3	14.9	18.3	20.7	22.3	24.9	26.2	28.3	29.4
BRA	0.3	0.4	0.4	0.7	0.9	1.0	1.1	1.3	1.3	1.3	1.3
CHA	2.9	2.8	3.7	3.9	4.4	4.9	5.3	5.7	5.7	5.8	5.3
EUR	1.6	1.6	1.6	1.6	2.1	2.5	2.8	3.1	3.4	3.6	3.8
LAM	0.5	0.6	0.6	0.8	1.0	1.2	1.3	1.5	1.7	1.8	1.9
ROW	4.4	4.7	5.9	6.7	8.4	9.4	10.1	11.4	12.3	13.8	14.7
USA	1.2	1.2	1.2	1.2	1.5	1.6	1.7	1.8	1.9	2.0	2.3

Table 823: MAgPIE m4p.brazil — Emissions—NH3—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NH3/yr) [PART 1/2]

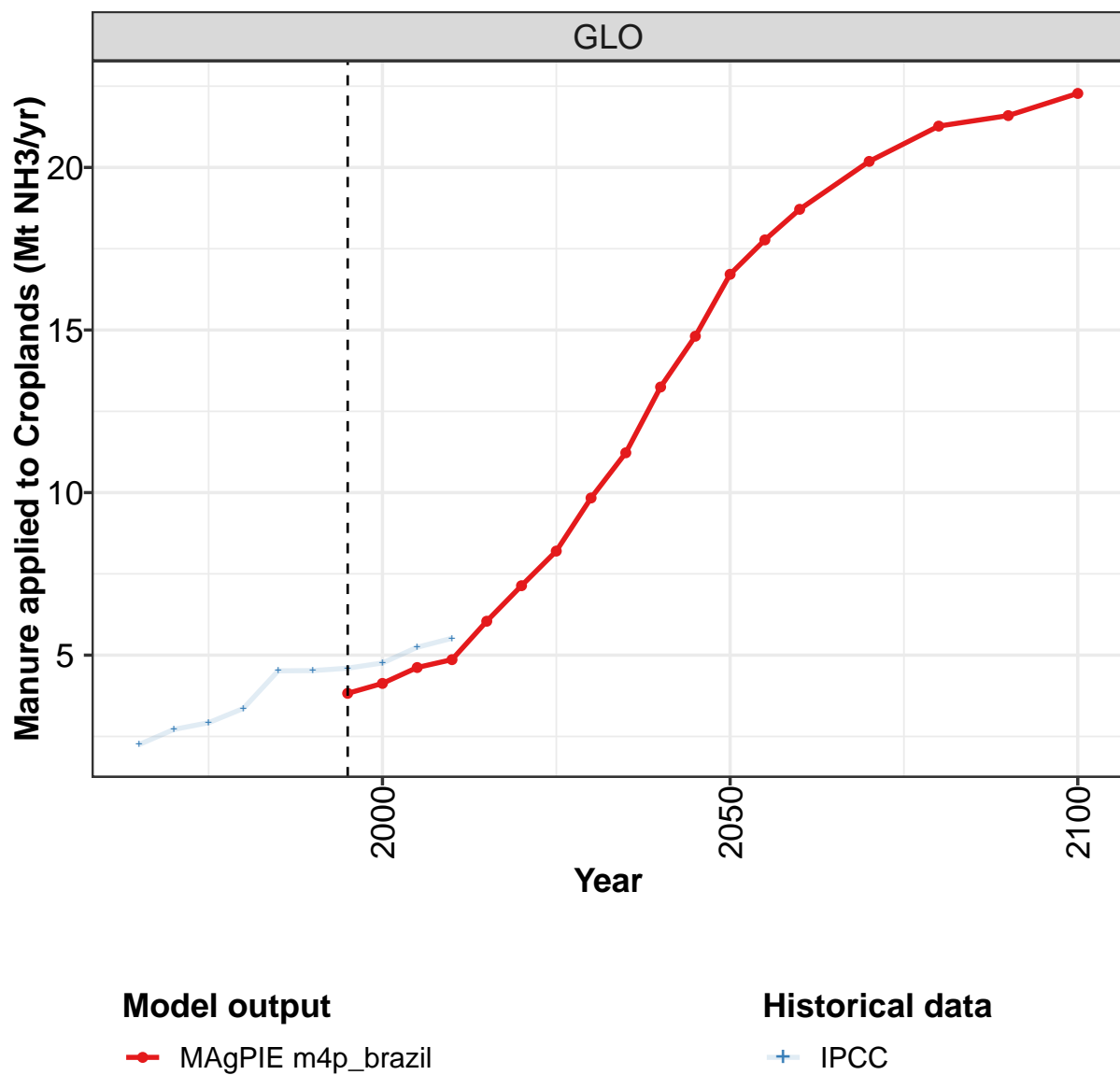
	2050	2055	2060	2070	2080	2090	2100
GLO	30.7	31.4	31.9	32.8	32.5	31.6	31.1
BRA	1.4	1.3	1.3	1.2	1.2	1.1	1.1
CHA	5.0	4.9	4.8	4.4	4.0	3.5	3.2
EUR	4.1	4.2	4.2	4.3	4.2	4.2	4.1
LAM	2.0	2.0	2.0	2.0	2.0	1.9	1.9
ROW	15.5	16.1	16.7	18.0	18.4	18.1	18.0
USA	2.8	2.8	2.9	2.9	2.8	2.8	2.8

Table 824: MAgPIE m4p.brazil — 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
BRA	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.3
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	1.4	1.6	1.7	1.5	1.2	1.2	1.2	1.2
LAM	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4
ROW	0.6	1.1	1.5	2.2	2.9	3.1	2.9	3.3	3.6	4.4
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



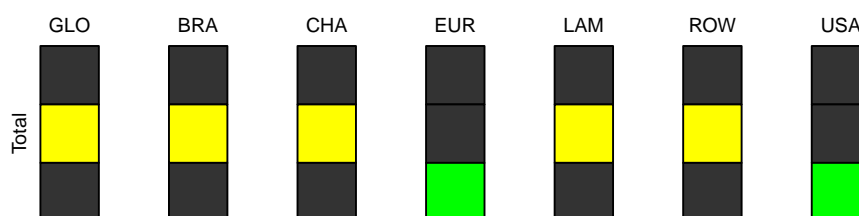
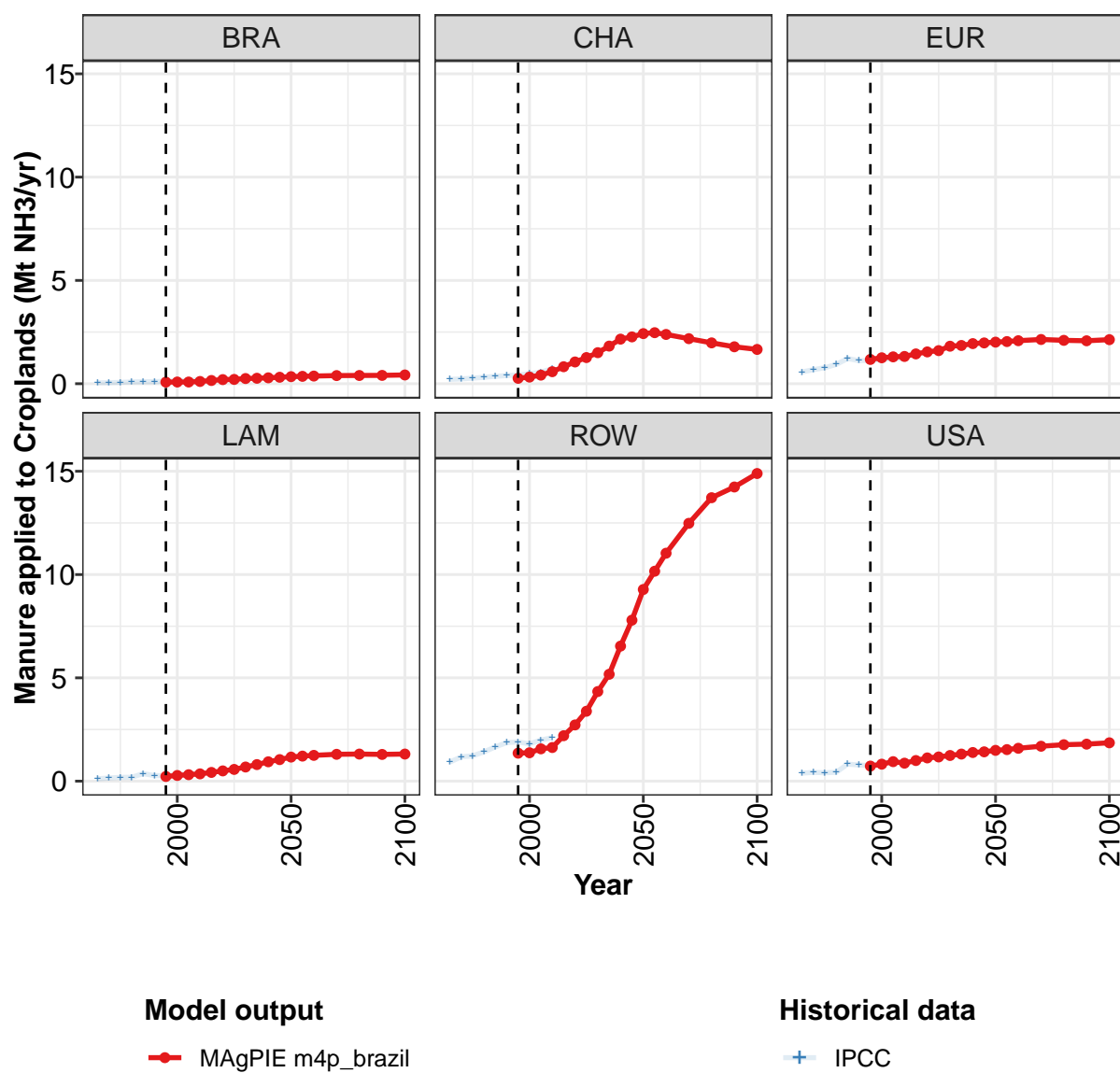


Figure 248: MAgPIE m4p_brazil — Emissions—NH₃—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NH₃/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.8	4.1	4.6	4.9	6.0	7.1	8.2	9.8	11.2	13.2	14.8
BRA	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3
CHA	0.3	0.3	0.4	0.6	0.8	1.1	1.3	1.5	1.8	2.2	2.3
EUR	1.2	1.3	1.3	1.3	1.4	1.5	1.6	1.8	1.9	1.9	2.0
LAM	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ROW	1.4	1.4	1.6	1.6	2.2	2.7	3.4	4.3	5.2	6.5	7.8
USA	0.7	0.8	0.9	0.9	1.0	1.1	1.2	1.2	1.3	1.4	1.4

Table 826: MAgPIE m4p.brazil — Emissions—NH3—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NH3/yr) [PART 1/2]

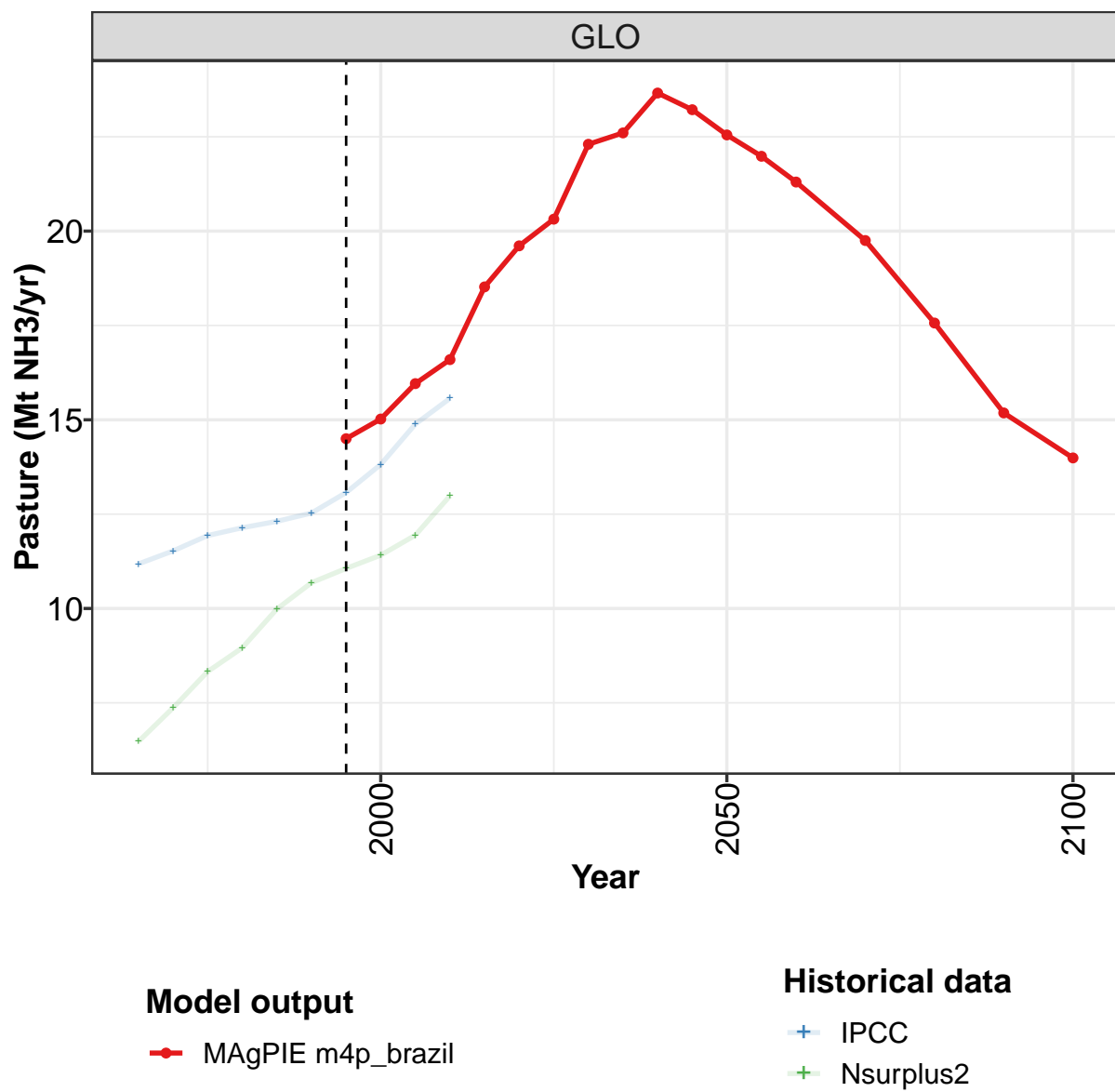
	2050	2055	2060	2070	2080	2090	2100
GLO	16.7	17.8	18.7	20.2	21.3	21.6	22.3
BRA	0.3	0.4	0.4	0.4	0.4	0.4	0.4
CHA	2.4	2.5	2.4	2.2	2.0	1.8	1.7
EUR	2.0	2.0	2.1	2.1	2.1	2.1	2.1
LAM	1.2	1.2	1.2	1.3	1.3	1.3	1.3
ROW	9.3	10.2	11.0	12.5	13.7	14.2	14.9
USA	1.5	1.5	1.6	1.7	1.8	1.8	1.9

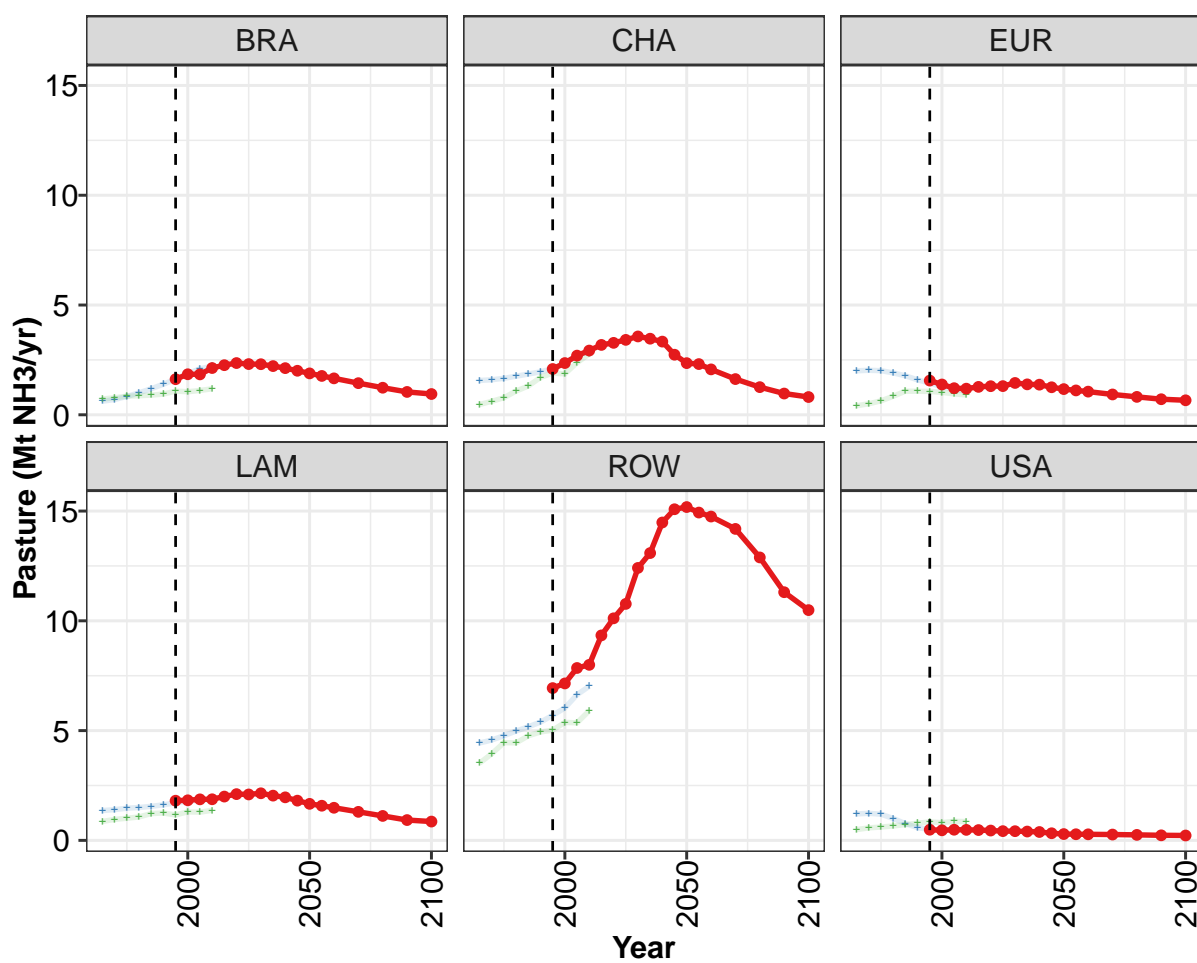
Table 827: MAgPIE m4p.brazil — Emissions—NH3—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NH3/yr) [PART 2/2]

	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
BRA	0.05	0.05	0.06	0.09	0.10	0.10	0.12	0.13	0.15	0.19
CHA	0.21	0.23	0.27	0.31	0.36	0.39	0.43	0.48	0.57	0.73
EUR	0.57	0.68	0.78	0.93	1.22	1.12	1.13	1.16	1.22	1.21
LAM	0.12	0.15	0.18	0.19	0.36	0.27	0.26	0.31	0.35	0.39
ROW	0.92	1.18	1.22	1.42	1.66	1.87	1.90	1.80	1.99	2.11
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





Model output

—•— MAGPIE m4p_brazil

Historical data

+ IPCC

+ Nsurplus2

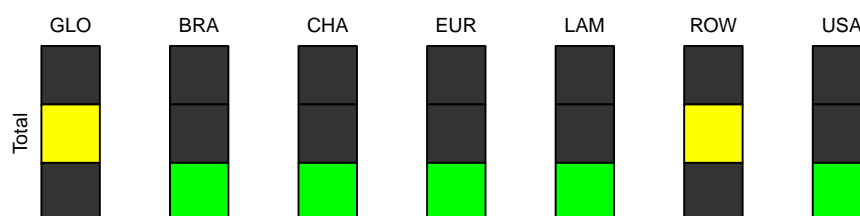


Figure 249: MAGPIE m4p_brazil — Emissions—NH3—Land—Agriculture—Agricultural Soils—Pasture (Mt NH3/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	14.5	15.0	16.0	16.6	18.5	19.6	20.3	22.3	22.6	23.7	23.2
BRA	1.6	1.8	1.8	2.1	2.3	2.4	2.3	2.3	2.2	2.1	2.0
CHA	2.1	2.4	2.7	2.9	3.2	3.3	3.4	3.6	3.5	3.3	2.7
EUR	1.6	1.4	1.2	1.2	1.3	1.3	1.3	1.5	1.4	1.4	1.3
LAM	1.8	1.8	1.9	1.9	2.0	2.1	2.1	2.1	2.0	2.0	1.8
ROW	6.9	7.1	7.9	8.0	9.3	10.1	10.8	12.4	13.1	14.5	15.1
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_brazil — 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	21.3	19.8	17.6	15.2	14.0
BRA	1.9	1.8	1.7	1.4	1.2	1.0	0.9
CHA	2.4	2.3	2.1	1.6	1.3	1.0	0.8
EUR	1.2	1.1	1.1	0.9	0.8	0.7	0.7
LAM	1.7	1.6	1.5	1.3	1.1	0.9	0.9
ROW	15.2	14.9	14.8	14.2	12.9	11.3	10.5
USA	0.3	0.3	0.3	0.3	0.3	0.2	0.2

Table 830: MAgPIE m4p_brazil — Emissions—NH3—Land—Agriculture—Agricultural Soils—Pasture (Mt NH3/yr) [PART 2/2]

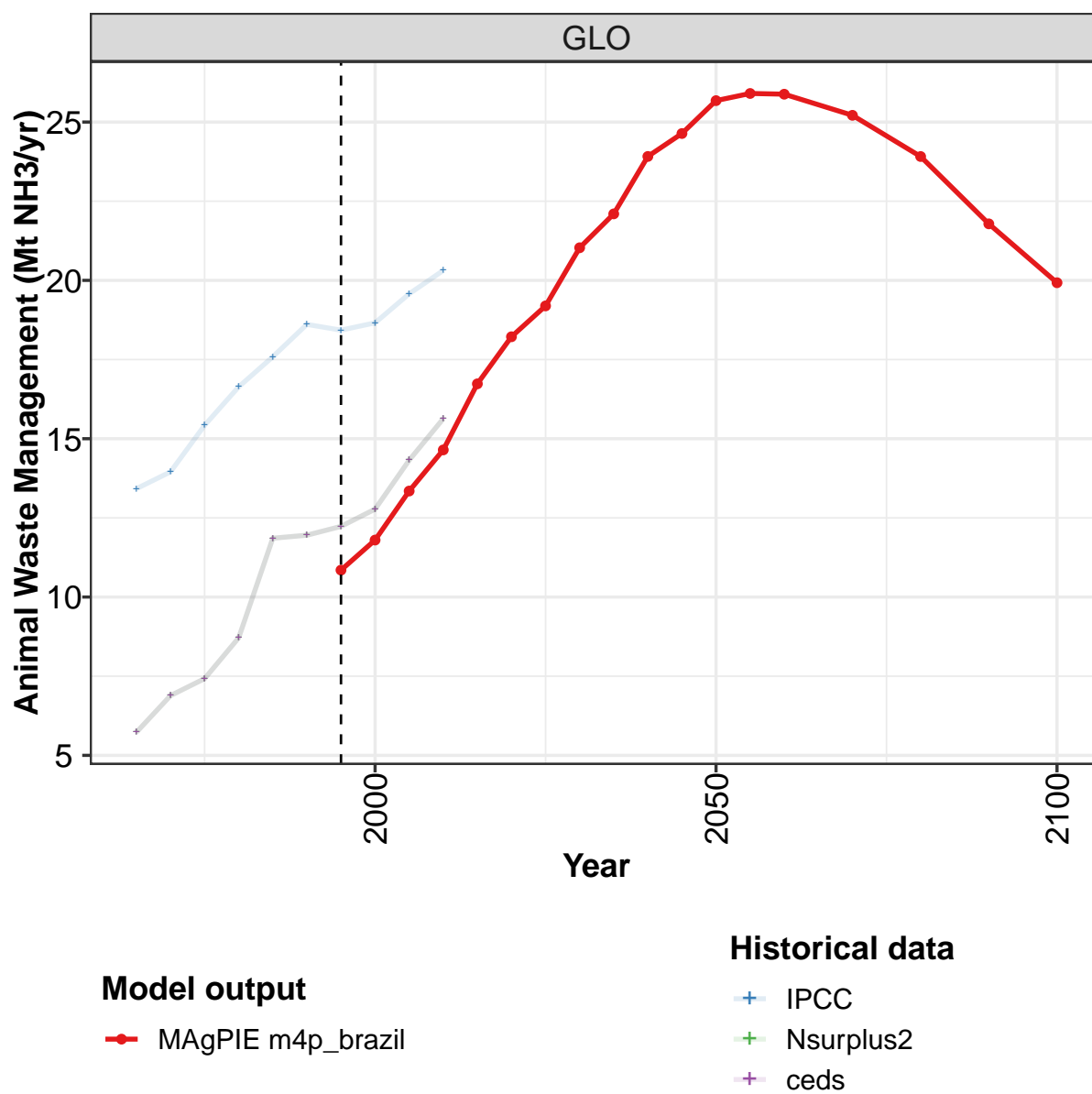
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	11.2	11.5	11.9	12.1	12.3	12.5	13.1	13.8	14.9	15.6
BRA	0.6	0.7	0.8	1.0	1.2	1.4	1.6	1.9	2.1	2.2
CHA	1.6	1.6	1.7	1.8	1.9	2.0	2.1	2.4	2.7	2.9
EUR	2.0	2.0	2.0	1.9	1.8	1.6	1.4	1.3	1.2	1.1
LAM	1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.8	1.8	1.8
ROW	4.4	4.6	4.8	5.0	5.2	5.4	5.7	6.0	6.6	7.0
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
BRA	0.7	0.8	0.8	0.9	0.9	0.9	1.1	1.0	1.1	1.2
CHA	0.5	0.6	0.8	1.1	1.3	1.7	1.9	1.9	2.4	2.8
EUR	0.4	0.5	0.6	0.8	1.1	1.1	1.1	1.0	1.0	0.9
LAM	0.9	1.0	1.0	1.1	1.2	1.2	1.2	1.3	1.3	1.4
ROW	3.5	3.9	4.4	4.4	4.8	4.9	5.0	5.4	5.4	5.9
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



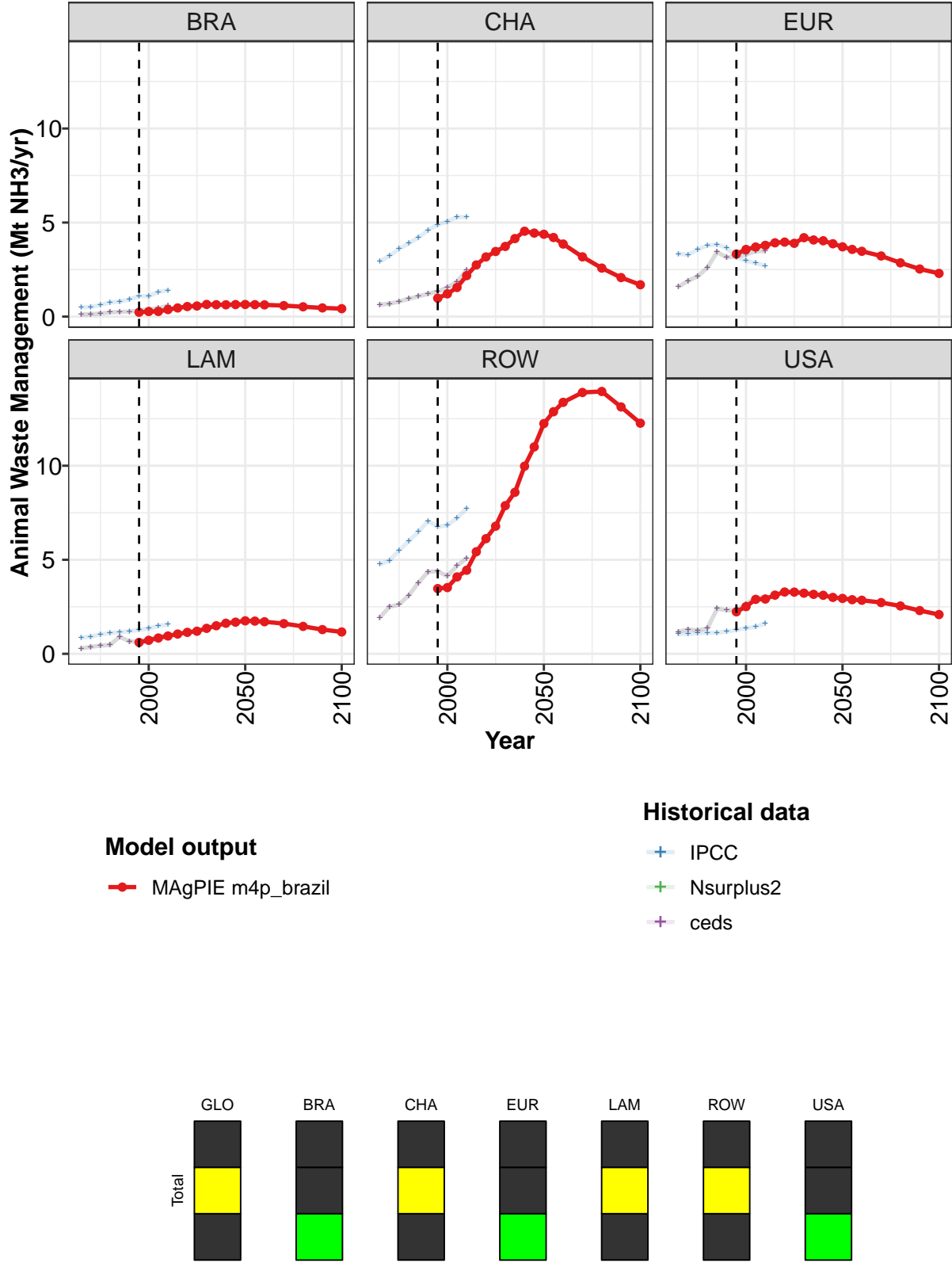


Figure 250: MAgPIE m4p_brazil — Emissions—NH3—Land—Agriculture—Animal Waste Management (Mt NH3/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	10.8	11.8	13.3	14.6	16.7	18.2	19.2	21.0	22.1	23.9	24.6
BRA	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6
CHA	1.0	1.2	1.5	2.2	2.7	3.2	3.5	3.7	4.1	4.5	4.4
EUR	3.3	3.6	3.7	3.8	3.9	4.0	3.9	4.2	4.1	4.0	3.9
LAM	0.6	0.7	0.8	0.9	1.1	1.1	1.2	1.4	1.5	1.6	1.7
ROW	3.5	3.5	4.1	4.4	5.4	6.1	6.8	7.9	8.6	10.0	11.0
USA	2.2	2.5	2.9	2.9	3.1	3.3	3.3	3.2	3.2	3.1	3.0

Table 833: MAgPIE m4p_brazil — Emissions—NH3—Land—Agriculture—Animal Waste Management (Mt NH3/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	25.7	25.9	25.9	25.2	23.9	21.8	19.9
BRA	0.6	0.6	0.6	0.6	0.5	0.5	0.4
CHA	4.4	4.2	3.9	3.2	2.6	2.1	1.7
EUR	3.7	3.6	3.5	3.2	2.9	2.5	2.3
LAM	1.8	1.7	1.7	1.6	1.5	1.3	1.2
ROW	12.2	12.9	13.4	13.9	14.0	13.1	12.3
USA	2.9	2.9	2.8	2.7	2.5	2.3	2.1

Table 834: MAgPIE m4p_brazil — 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
BRA	0.5	0.5	0.6	0.7	0.8	0.9	1.1	1.1	1.3	1.4
CHA	2.9	3.2	3.6	3.9	4.2	4.6	4.9	5.1	5.3	5.3
EUR	3.3	3.3	3.6	3.8	3.8	3.7	3.1	3.0	2.8	2.7
LAM	0.9	0.9	1.0	1.1	1.2	1.2	1.3	1.3	1.5	1.6
ROW	4.8	5.0	5.5	6.0	6.5	7.1	6.8	6.8	7.2	7.7
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)

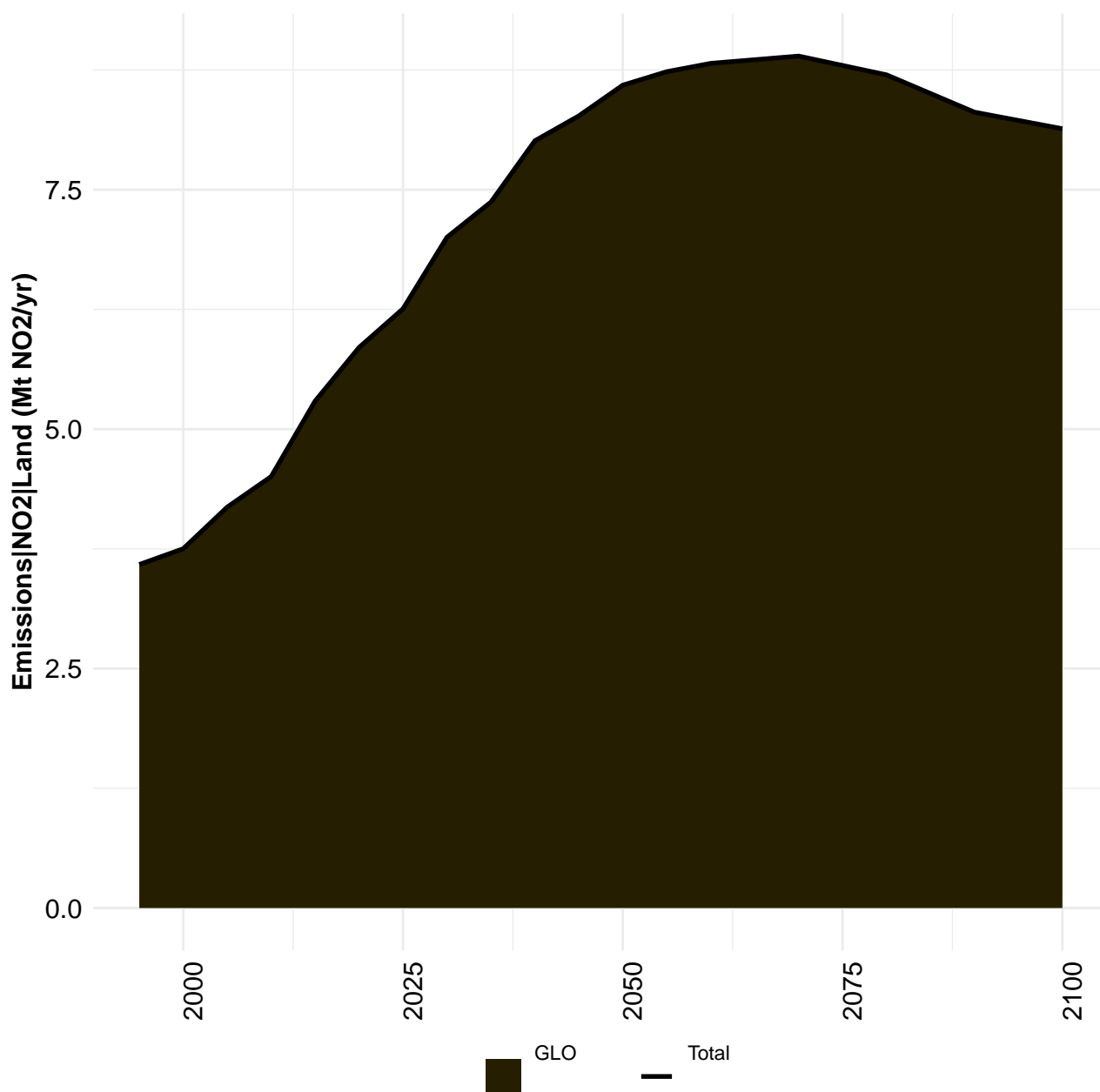
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	5.7	6.9	7.4	8.7	11.9	12.0	12.2	12.8	14.3	15.6
BRA	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.6
CHA	0.6	0.7	0.8	0.9	1.1	1.2	1.3	1.6	1.8	2.5
EUR	1.6	1.9	2.1	2.6	3.4	3.1	3.2	3.3	3.5	3.5
LAM	0.3	0.4	0.4	0.5	0.9	0.7	0.7	0.8	0.9	1.0
ROW	1.9	2.5	2.6	3.1	3.8	4.4	4.4	4.1	4.7	5.1
USA	1.2	1.3	1.2	1.4	2.4	2.3	2.3	2.6	3.0	3.0

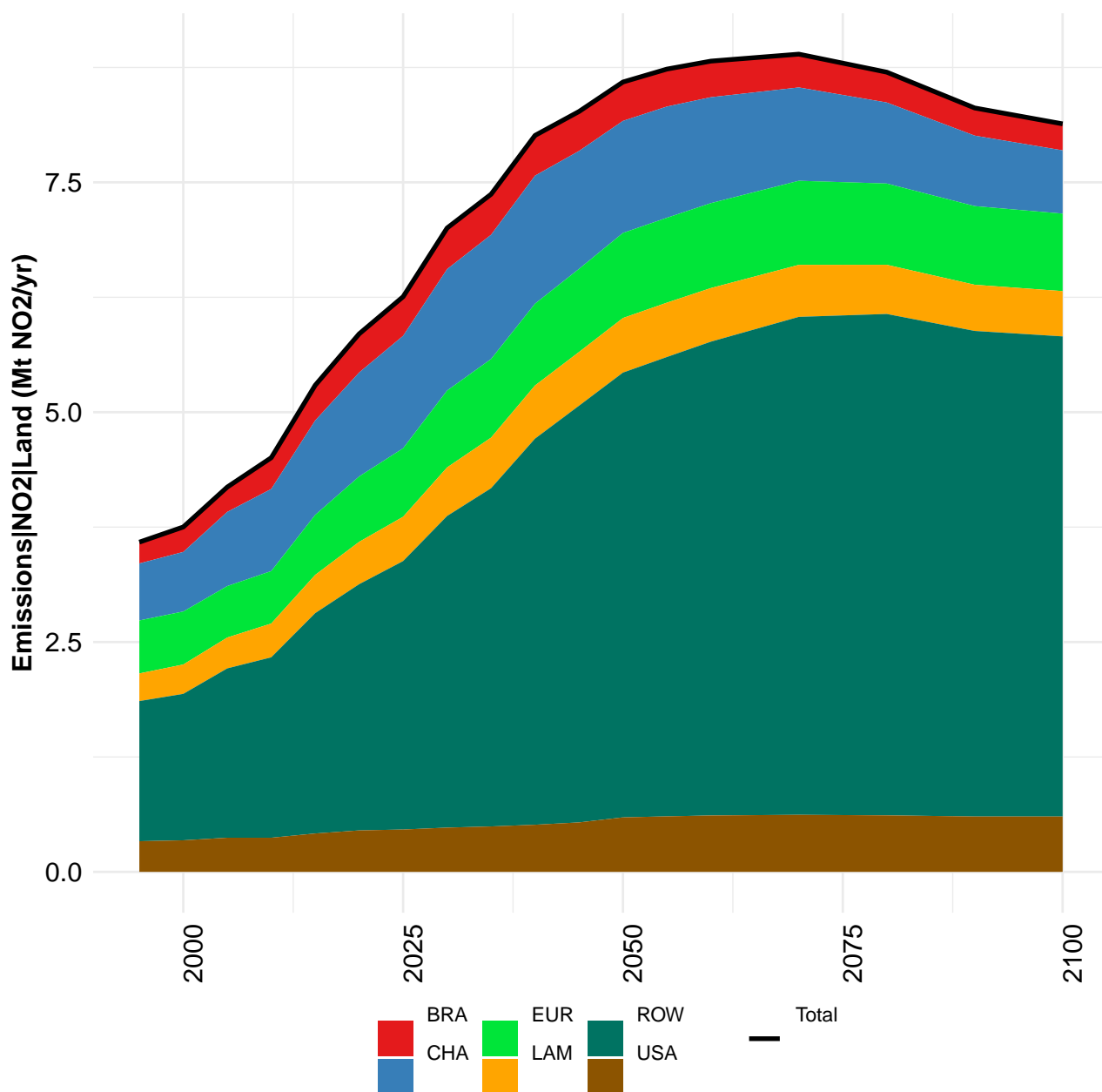
Table 836: IPCC — Emissions—NH3—Land—Agriculture—Animal Waste Management (Mt NH3/yr)

	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
BRA	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.6
CHA	0.6	0.7	0.8	0.9	1.1	1.2	1.3	1.6	1.8	2.5
EUR	1.6	1.9	2.1	2.6	3.4	3.1	3.2	3.3	3.5	3.5
LAM	0.3	0.4	0.4	0.5	0.9	0.7	0.7	0.8	0.9	1.0
ROW	1.9	2.5	2.6	3.1	3.8	4.4	4.4	4.1	4.7	5.1
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)

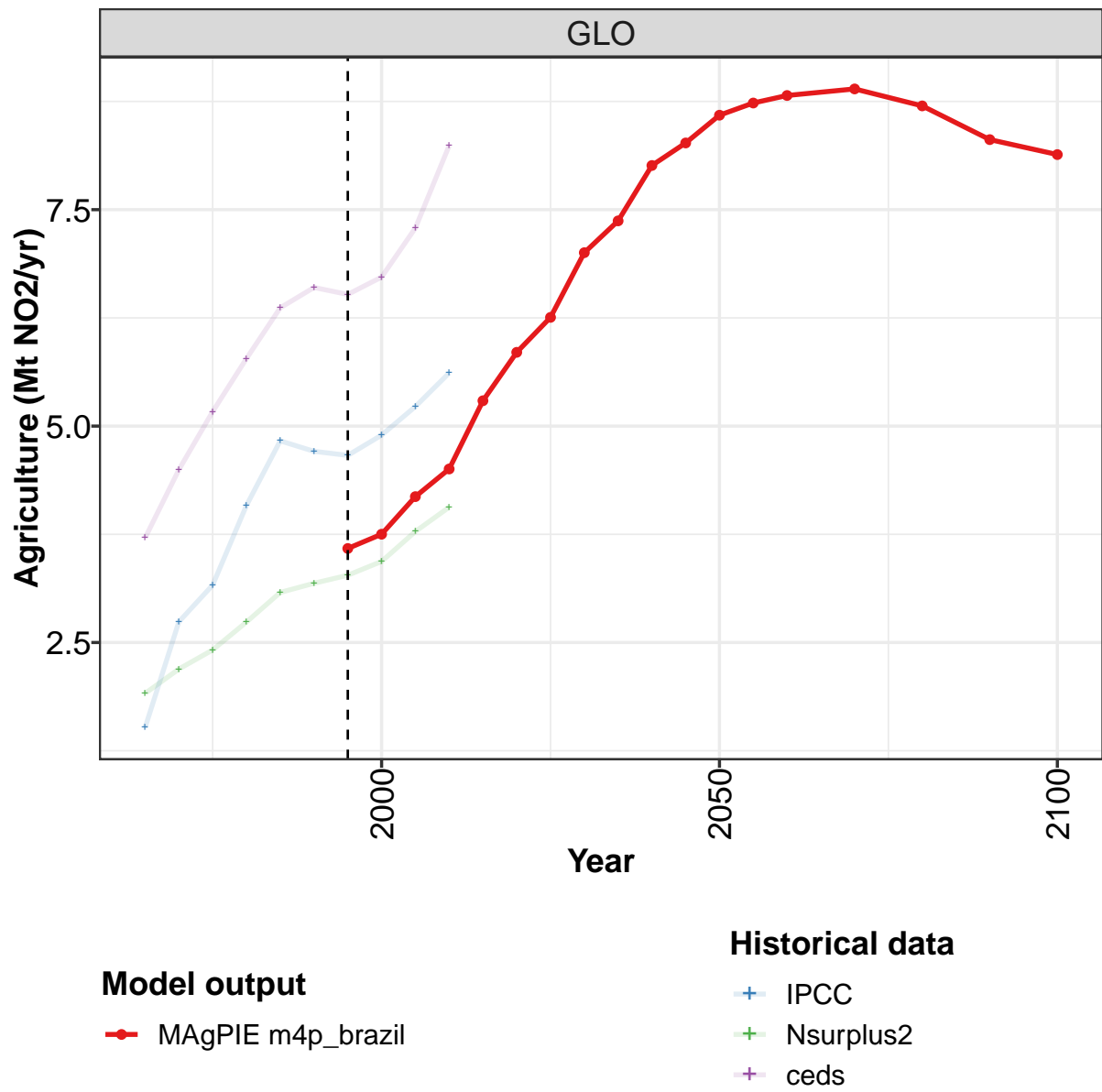
15 NO2





15.1 Land

15.1.1 Agriculture



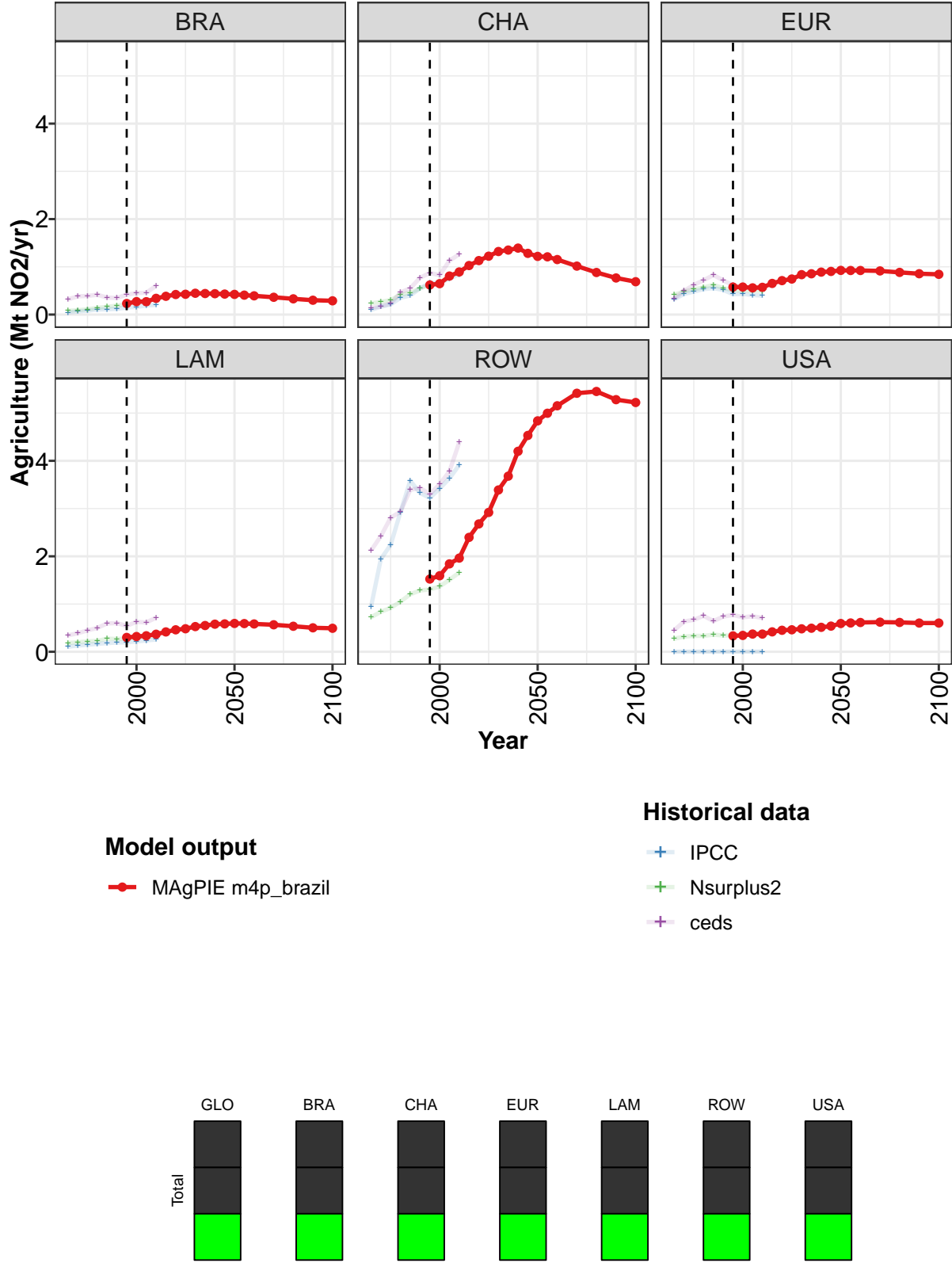


Figure 251: MAgPIE m4p_brazil — Emissions—NO2—Land—Agriculture (Mt NO2/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.59	3.75	4.19	4.50	5.29	5.85	6.26	7.00	7.37	8.01	8.27
BRA	0.23	0.27	0.27	0.34	0.38	0.42	0.43	0.45	0.44	0.44	0.43
CHA	0.62	0.65	0.81	0.89	1.03	1.13	1.22	1.32	1.35	1.39	1.28
EUR	0.58	0.58	0.56	0.57	0.65	0.71	0.74	0.84	0.85	0.89	0.90
LAM	0.30	0.32	0.34	0.37	0.42	0.46	0.48	0.53	0.55	0.58	0.58
ROW	1.52	1.59	1.84	1.96	2.40	2.68	2.92	3.39	3.68	4.20	4.53
USA	0.33	0.34	0.37	0.37	0.42	0.45	0.46	0.48	0.49	0.51	0.54

Table 838: MAgPIE m4p_brazil — Emissions—NO2—Land—Agriculture (Mt NO2/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	8.59	8.73	8.82	8.89	8.70	8.31	8.14
BRA	0.42	0.41	0.39	0.36	0.33	0.30	0.29
CHA	1.22	1.21	1.15	1.02	0.88	0.77	0.69
EUR	0.93	0.92	0.92	0.91	0.88	0.86	0.84
LAM	0.59	0.59	0.58	0.57	0.53	0.50	0.49
ROW	4.84	5.00	5.15	5.42	5.45	5.28	5.22
USA	0.59	0.60	0.61	0.62	0.61	0.60	0.60

Table 839: MAgPIE m4p_brazil — 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
BRA	0.04	0.07	0.08	0.11	0.11	0.12	0.15	0.16	0.19	0.20
CHA	0.10	0.17	0.21	0.35	0.40	0.55	0.66	0.66	0.75	0.84
EUR	0.32	0.43	0.48	0.53	0.55	0.52	0.43	0.43	0.41	0.40
LAM	0.11	0.13	0.15	0.16	0.18	0.19	0.20	0.22	0.24	0.26
ROW	0.95	1.94	2.24	2.92	3.58	3.33	3.22	3.42	3.63	3.91
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)

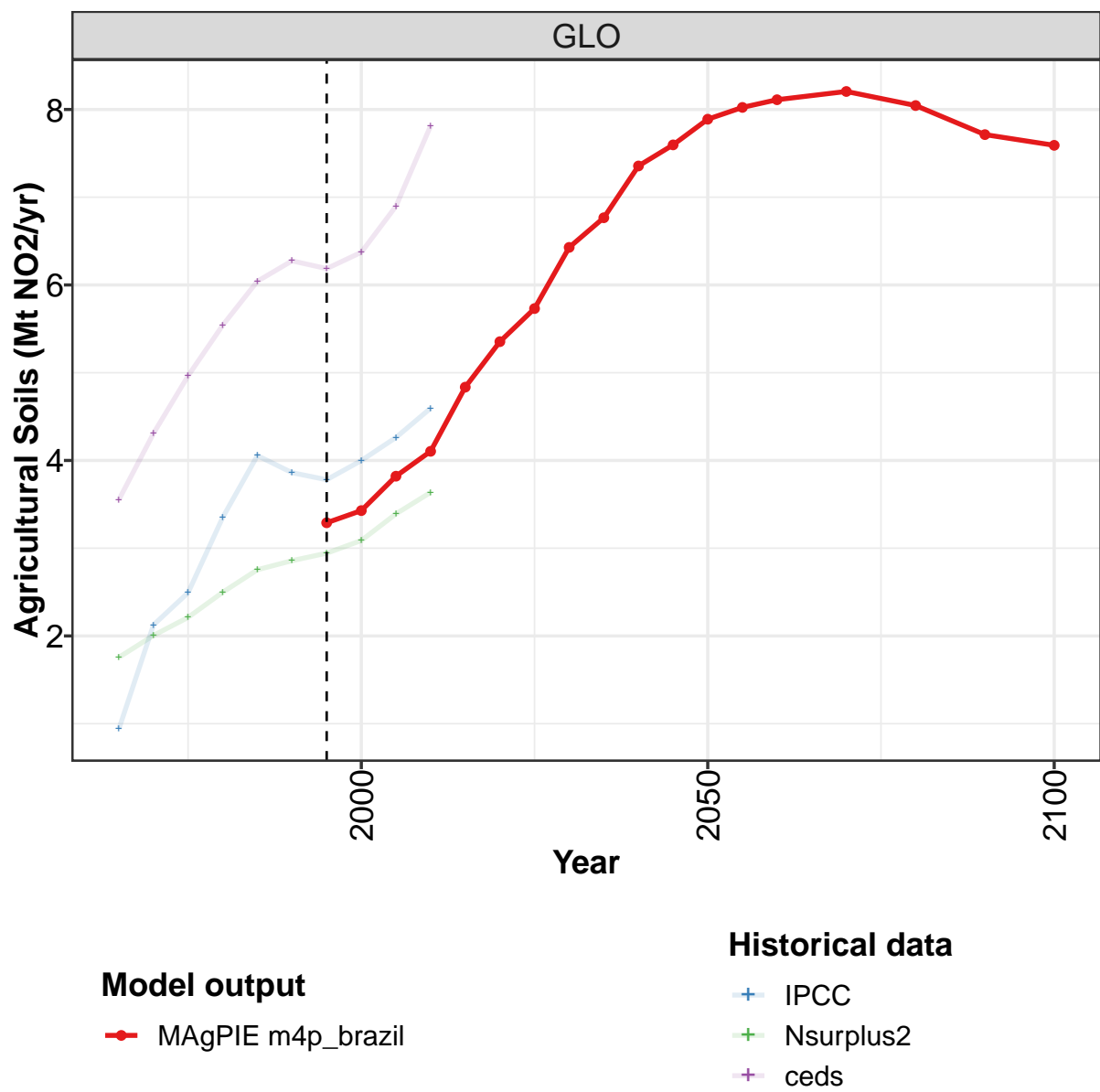
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.91	2.19	2.41	2.74	3.08	3.18	3.28	3.44	3.78	4.06
BRA	0.08	0.09	0.11	0.14	0.16	0.19	0.22	0.26	0.29	0.32
CHA	0.24	0.27	0.31	0.41	0.46	0.55	0.62	0.66	0.79	0.89
EUR	0.42	0.48	0.53	0.57	0.62	0.56	0.51	0.50	0.50	0.49
LAM	0.18	0.20	0.22	0.23	0.27	0.27	0.28	0.30	0.32	0.33
ROW	0.72	0.84	0.92	1.05	1.20	1.28	1.31	1.37	1.51	1.66
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
BRA	0.32	0.38	0.39	0.41	0.36	0.35	0.42	0.45	0.46	0.60
CHA	0.14	0.17	0.23	0.46	0.55	0.77	0.87	0.83	1.13	1.27
EUR	0.34	0.49	0.62	0.72	0.83	0.72	0.61	0.59	0.56	0.56
LAM	0.34	0.39	0.45	0.50	0.59	0.60	0.54	0.63	0.61	0.72
ROW	2.12	2.42	2.81	2.94	3.39	3.43	3.30	3.51	3.78	4.39
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



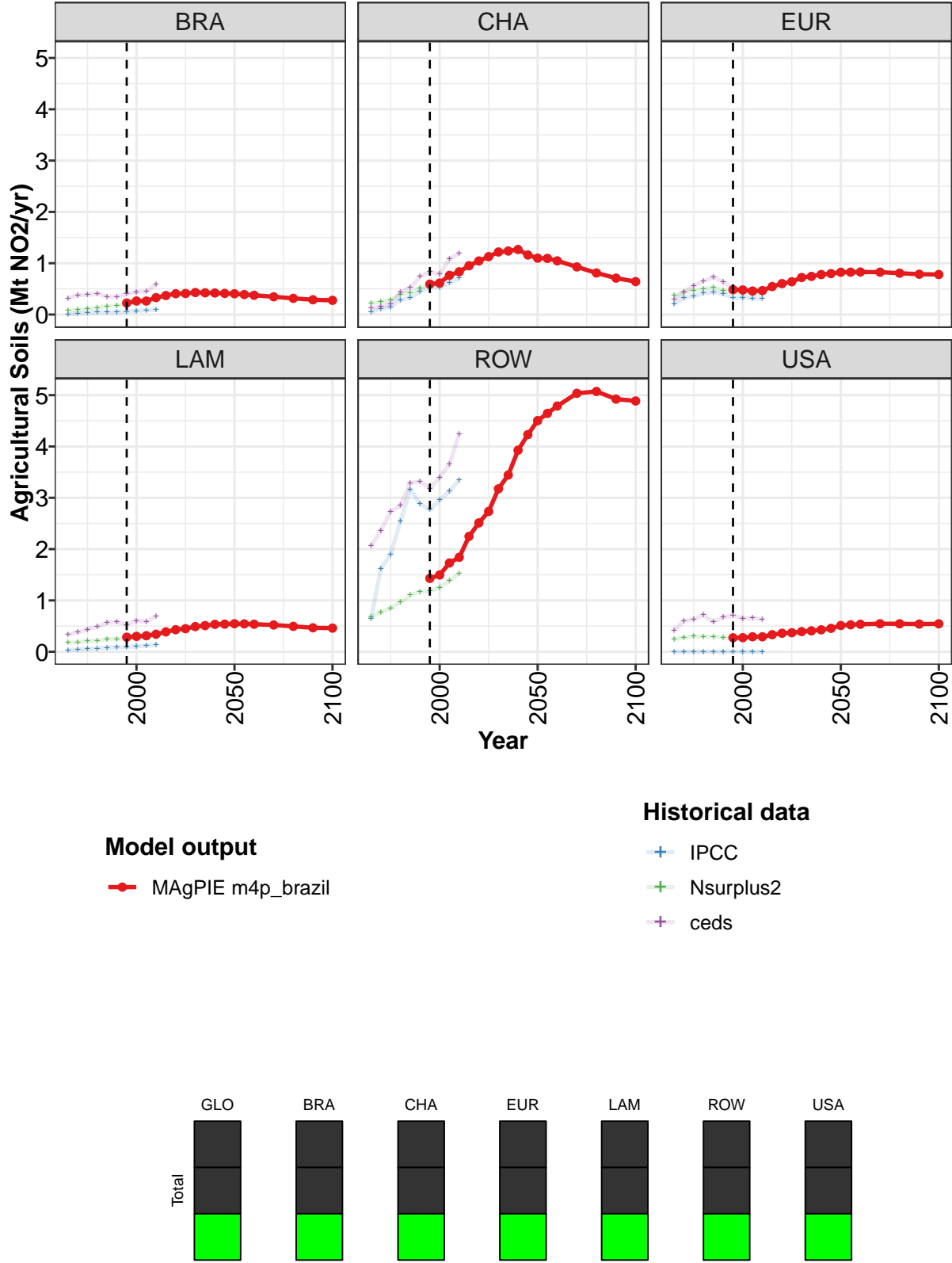


Figure 252: MAgPIE m4p_brazil — Emissions—NO2—Land—Agriculture—Agricultural Soils (Mt NO2/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.29	3.43	3.82	4.10	4.84	5.35	5.73	6.43	6.77	7.36	7.60
BRA	0.23	0.26	0.26	0.33	0.37	0.41	0.41	0.43	0.42	0.42	0.41
CHA	0.59	0.61	0.76	0.83	0.95	1.04	1.13	1.22	1.24	1.27	1.16
EUR	0.49	0.48	0.46	0.47	0.54	0.60	0.64	0.72	0.74	0.78	0.80
LAM	0.28	0.30	0.31	0.34	0.39	0.43	0.45	0.49	0.51	0.53	0.54
ROW	1.43	1.50	1.73	1.84	2.25	2.51	2.73	3.17	3.44	3.93	4.23
USA	0.27	0.27	0.29	0.29	0.33	0.36	0.37	0.39	0.41	0.43	0.46

Table 843: MAgPIE m4p_brazil — Emissions—NO2—Land—Agriculture—Agricultural Soils (Mt NO2/yr)
[PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	7.89	8.02	8.11	8.21	8.04	7.71	7.59
BRA	0.41	0.39	0.38	0.35	0.32	0.29	0.28
CHA	1.10	1.09	1.05	0.93	0.81	0.71	0.64
EUR	0.82	0.83	0.83	0.83	0.81	0.79	0.78
LAM	0.55	0.54	0.54	0.52	0.50	0.47	0.46
ROW	4.50	4.65	4.79	5.04	5.07	4.92	4.89
USA	0.51	0.52	0.54	0.55	0.55	0.54	0.54

Table 844: MAgPIE m4p_brazil — 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
BRA	0.01	0.02	0.03	0.04	0.04	0.05	0.06	0.07	0.09	0.09
CHA	0.05	0.11	0.15	0.28	0.32	0.45	0.54	0.53	0.62	0.71
EUR	0.21	0.33	0.36	0.41	0.44	0.40	0.32	0.33	0.31	0.31
LAM	0.03	0.04	0.06	0.07	0.08	0.09	0.09	0.11	0.12	0.14
ROW	0.65	1.62	1.89	2.54	3.17	2.88	2.77	2.96	3.13	3.35
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)

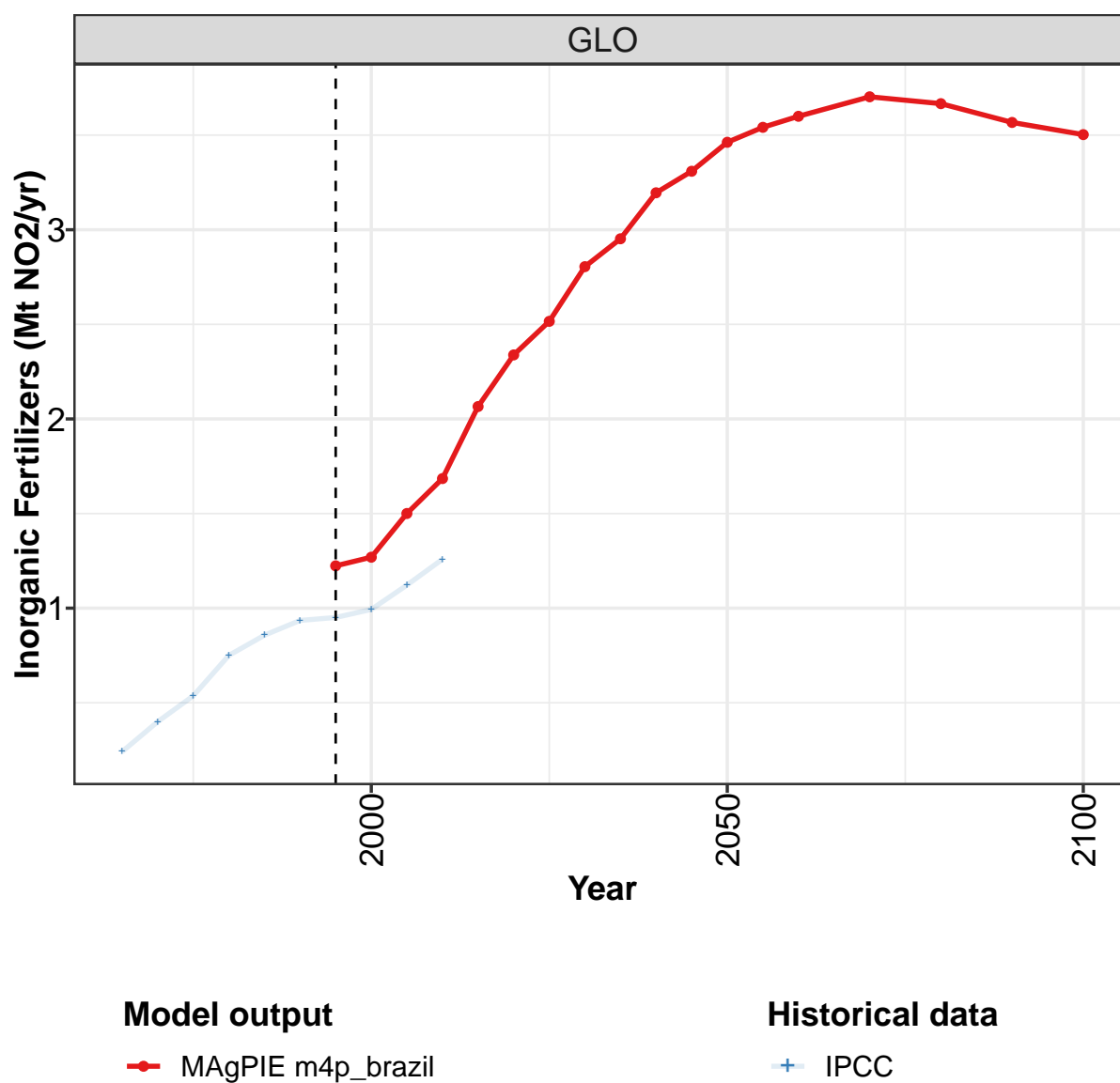
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.76	2.01	2.21	2.50	2.75	2.86	2.94	3.09	3.39	3.64
BRA	0.08	0.09	0.11	0.13	0.16	0.18	0.21	0.25	0.28	0.31
CHA	0.22	0.25	0.28	0.39	0.43	0.52	0.59	0.61	0.74	0.82
EUR	0.37	0.43	0.47	0.50	0.53	0.47	0.42	0.41	0.40	0.40
LAM	0.17	0.19	0.21	0.22	0.25	0.25	0.26	0.28	0.29	0.30
ROW	0.67	0.77	0.85	0.96	1.10	1.16	1.19	1.25	1.38	1.52
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
BRA	0.31	0.38	0.38	0.41	0.35	0.34	0.41	0.44	0.45	0.59
CHA	0.12	0.16	0.21	0.44	0.52	0.74	0.83	0.79	1.08	1.20
EUR	0.29	0.44	0.56	0.65	0.74	0.63	0.53	0.50	0.47	0.47
LAM	0.34	0.38	0.44	0.49	0.57	0.58	0.53	0.61	0.59	0.69
ROW	2.07	2.35	2.74	2.85	3.29	3.31	3.18	3.40	3.65	4.25
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



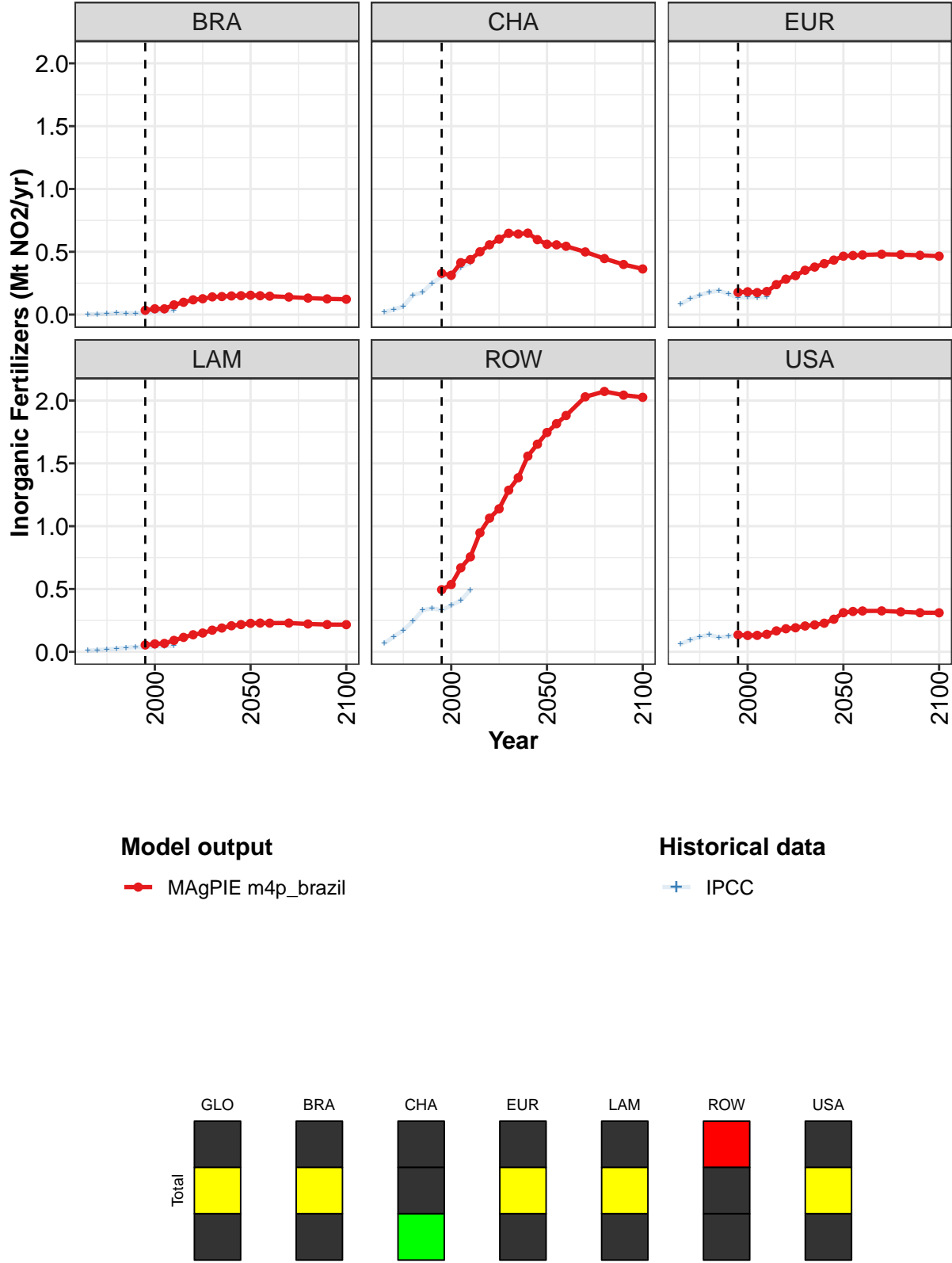


Figure 253: MAgPIE m4p_brazil — Emissions—NO₂—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NO₂/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.22	1.27	1.50	1.69	2.07	2.34	2.52	2.81	2.95	3.20	3.31
BRA	0.03	0.05	0.05	0.08	0.10	0.12	0.13	0.14	0.14	0.15	0.15
CHA	0.33	0.31	0.41	0.44	0.50	0.56	0.60	0.65	0.64	0.65	0.60
EUR	0.18	0.18	0.18	0.18	0.24	0.28	0.31	0.35	0.38	0.41	0.43
LAM	0.05	0.06	0.07	0.09	0.11	0.14	0.15	0.17	0.19	0.21	0.22
ROW	0.49	0.54	0.67	0.76	0.95	1.06	1.14	1.29	1.39	1.56	1.65
USA	0.14	0.13	0.13	0.14	0.17	0.18	0.19	0.21	0.21	0.23	0.26

Table 848: MAgPIE m4p_brazil — Emissions—NO2—Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NO2/yr) [PART 1/2]

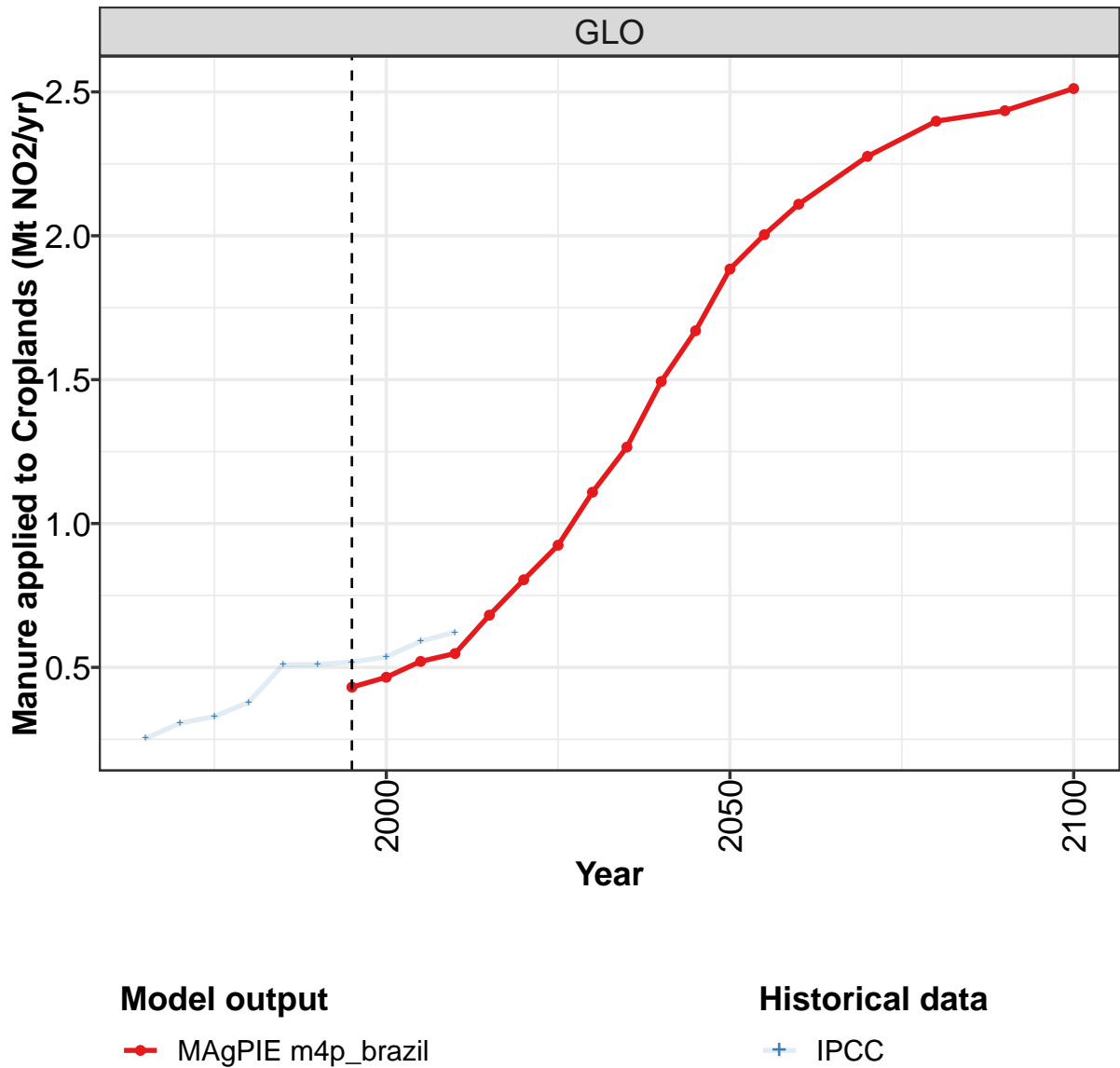
	2050	2055	2060	2070	2080	2090	2100
GLO	3.46	3.54	3.60	3.70	3.67	3.57	3.50
BRA	0.15	0.15	0.15	0.14	0.13	0.13	0.12
CHA	0.56	0.56	0.54	0.50	0.45	0.40	0.36
EUR	0.47	0.47	0.47	0.48	0.48	0.47	0.47
LAM	0.23	0.23	0.23	0.23	0.22	0.22	0.22
ROW	1.75	1.82	1.88	2.03	2.07	2.04	2.03
USA	0.31	0.32	0.33	0.33	0.32	0.31	0.31

Table 849: MAgPIE m4p_brazil — 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
BRA	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.03	0.03	0.03
CHA	0.02	0.04	0.07	0.16	0.18	0.25	0.30	0.29	0.38	0.41
EUR	0.08	0.13	0.16	0.18	0.19	0.17	0.13	0.14	0.14	0.14
LAM	0.01	0.01	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.05
ROW	0.07	0.12	0.17	0.24	0.33	0.35	0.33	0.37	0.41	0.49
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



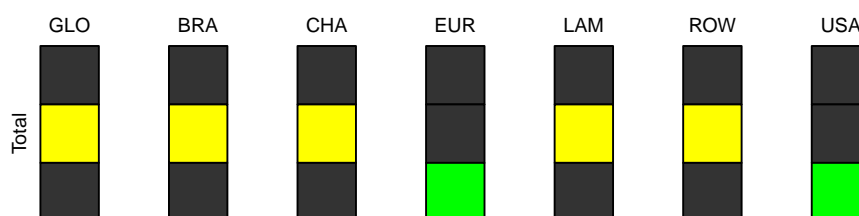
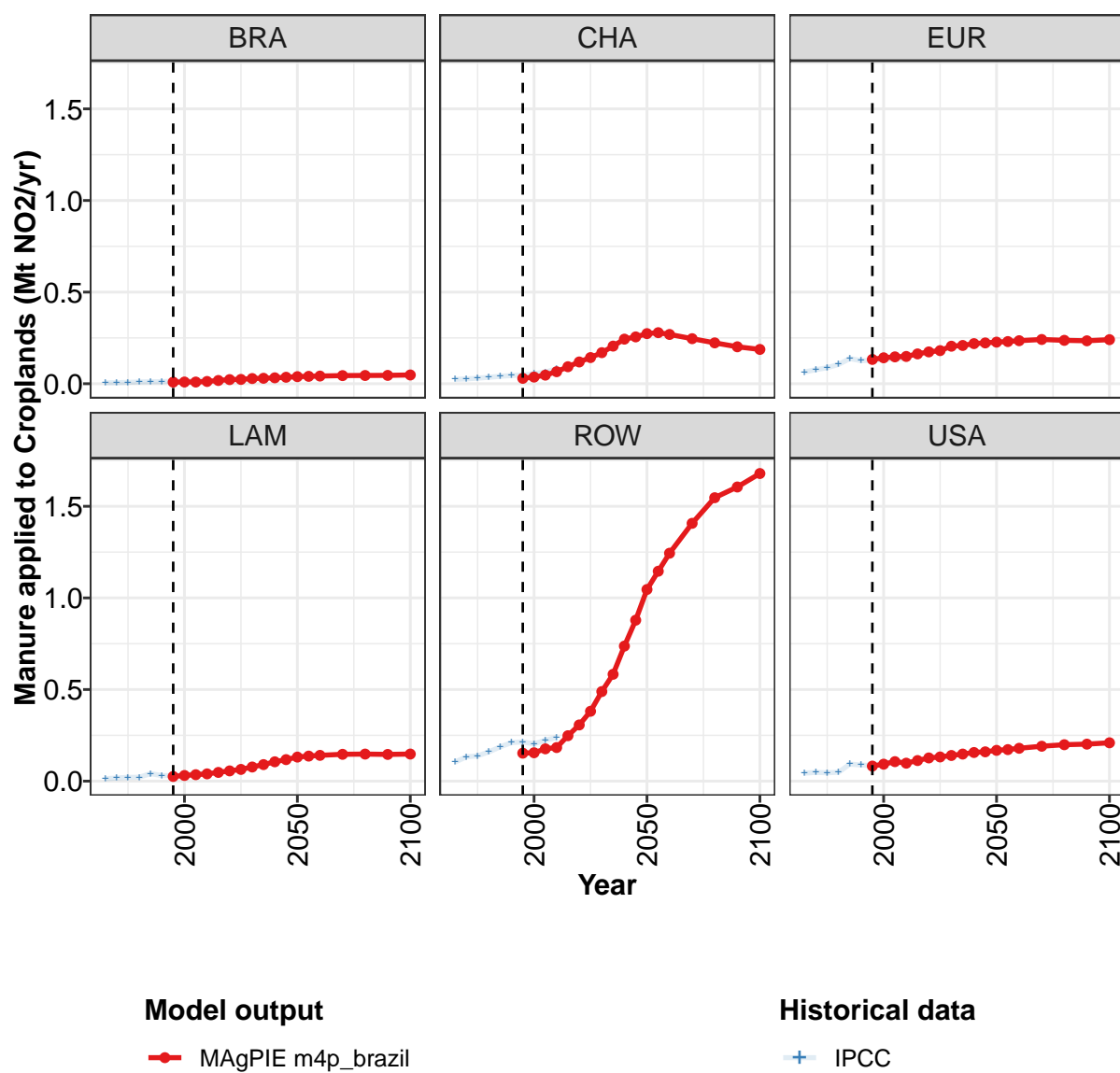


Figure 254: MAgPIE m4p_brazil — Emissions—NO₂—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NO₂/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.43	0.47	0.52	0.55	0.68	0.80	0.92	1.11	1.27	1.49	1.67
BRA	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.04
CHA	0.03	0.04	0.05	0.07	0.09	0.12	0.14	0.17	0.21	0.24	0.26
EUR	0.13	0.14	0.15	0.15	0.16	0.17	0.18	0.20	0.21	0.22	0.22
LAM	0.03	0.03	0.04	0.04	0.05	0.06	0.06	0.08	0.09	0.11	0.12
ROW	0.15	0.15	0.18	0.18	0.25	0.31	0.38	0.49	0.58	0.74	0.88
USA	0.08	0.09	0.11	0.10	0.11	0.13	0.13	0.14	0.15	0.16	0.16

Table 851: MAgPIE m4p_brazil — Emissions—NO2—Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NO2/yr) [PART 1/2]

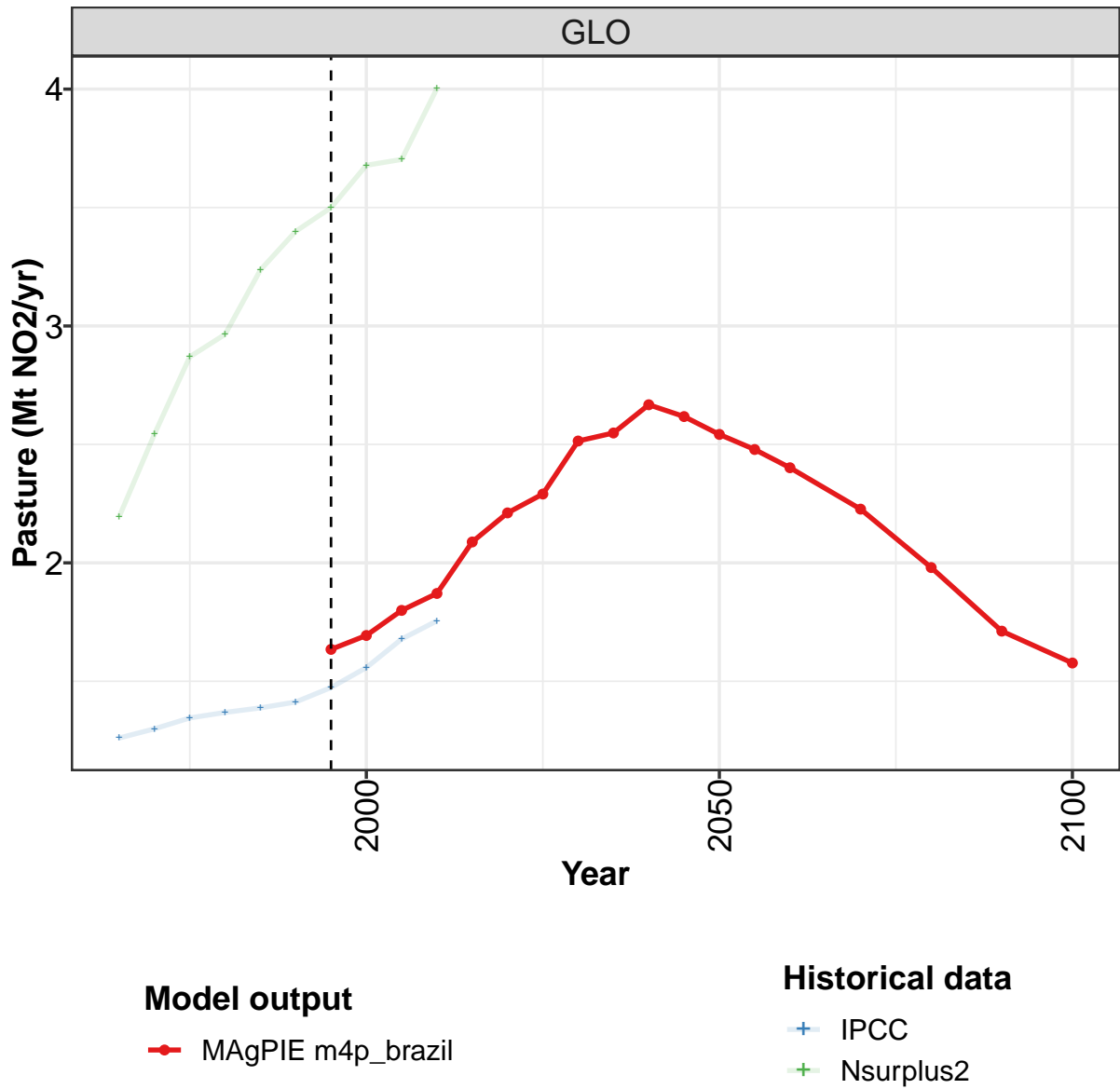
	2050	2055	2060	2070	2080	2090	2100
GLO	1.88	2.00	2.11	2.28	2.40	2.43	2.51
BRA	0.04	0.04	0.04	0.04	0.04	0.05	0.05
CHA	0.27	0.28	0.27	0.25	0.22	0.20	0.19
EUR	0.23	0.23	0.23	0.24	0.24	0.23	0.24
LAM	0.13	0.14	0.14	0.15	0.15	0.15	0.15
ROW	1.05	1.15	1.24	1.41	1.55	1.61	1.68
USA	0.17	0.17	0.18	0.19	0.20	0.20	0.21

Table 852: MAgPIE m4p_brazil — 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
BRA	0.005	0.006	0.007	0.010	0.011	0.011	0.014	0.015	0.017	0.022
CHA	0.024	0.026	0.030	0.035	0.040	0.044	0.048	0.054	0.064	0.082
EUR	0.064	0.077	0.087	0.105	0.137	0.126	0.127	0.131	0.137	0.137
LAM	0.013	0.017	0.021	0.021	0.041	0.030	0.030	0.035	0.040	0.044
ROW	0.104	0.133	0.138	0.160	0.187	0.210	0.214	0.203	0.224	0.237
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



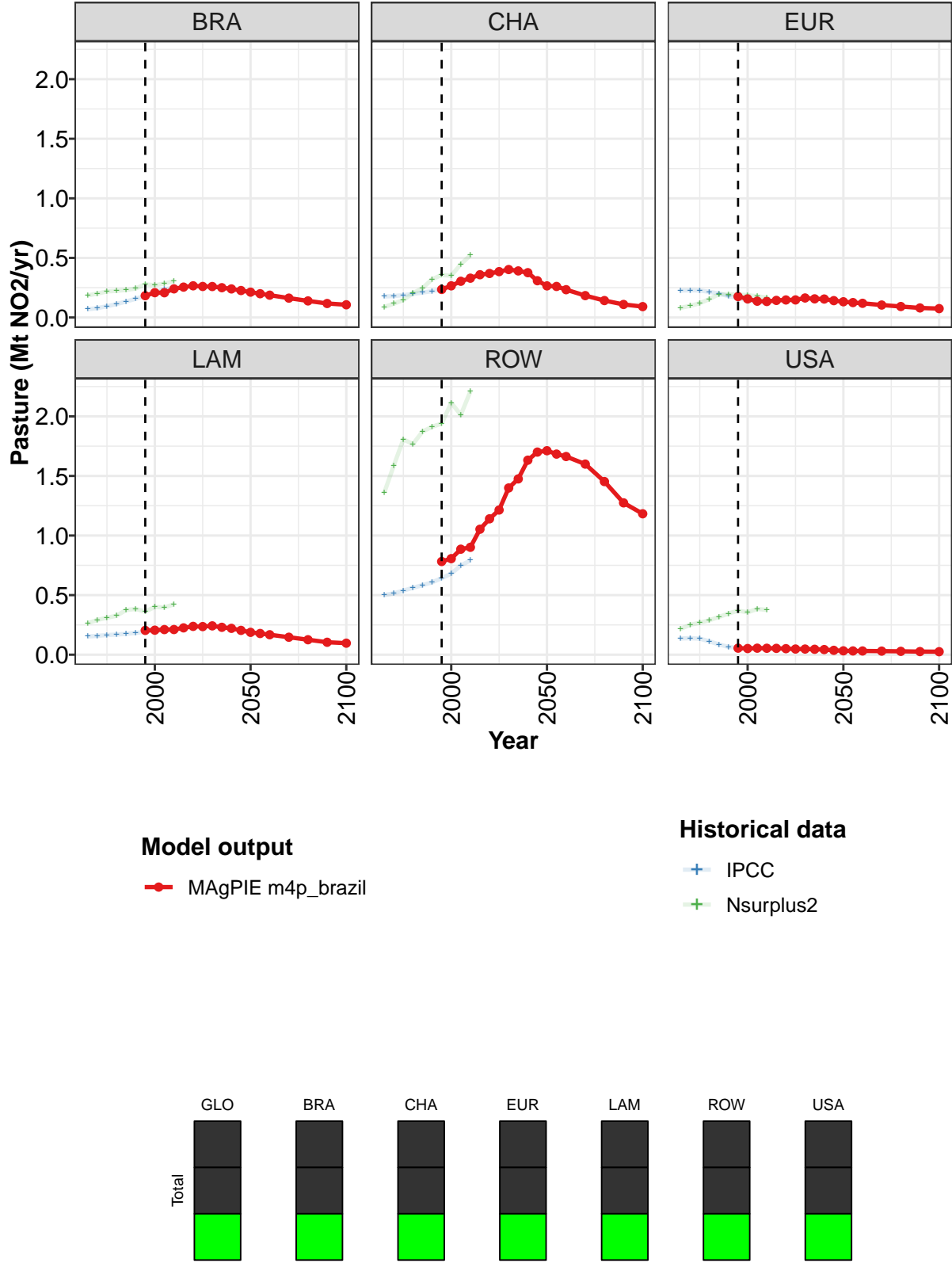


Figure 255: MAgPIE m4p_brazil — Emissions—NO2—Land—Agriculture—Agricultural Soils—Pasture (Mt NO2/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.63	1.69	1.80	1.87	2.09	2.21	2.29	2.51	2.55	2.67	2.62
BRA	0.18	0.21	0.21	0.24	0.25	0.27	0.26	0.26	0.25	0.24	0.23
CHA	0.24	0.27	0.30	0.33	0.36	0.37	0.38	0.40	0.39	0.38	0.31
EUR	0.18	0.16	0.14	0.13	0.14	0.15	0.15	0.16	0.16	0.15	0.14
LAM	0.20	0.21	0.21	0.21	0.23	0.24	0.24	0.24	0.23	0.22	0.20
ROW	0.78	0.81	0.89	0.90	1.05	1.14	1.21	1.40	1.48	1.63	1.70
USA	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04

Table 854: MAgPIE m4p_brazil — 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	2.40	2.23	1.98	1.71	1.58
BRA	0.21	0.20	0.19	0.16	0.14	0.12	0.11
CHA	0.27	0.26	0.23	0.18	0.14	0.11	0.09
EUR	0.13	0.13	0.12	0.10	0.09	0.08	0.07
LAM	0.19	0.18	0.17	0.15	0.13	0.10	0.10
ROW	1.71	1.68	1.66	1.60	1.45	1.27	1.18
USA	0.03	0.03	0.03	0.03	0.03	0.03	0.03

Table 855: MAgPIE m4p_brazil — Emissions—NO2—Land—Agriculture—Agricultural Soils—Pasture (Mt NO2/yr) [PART 2/2]

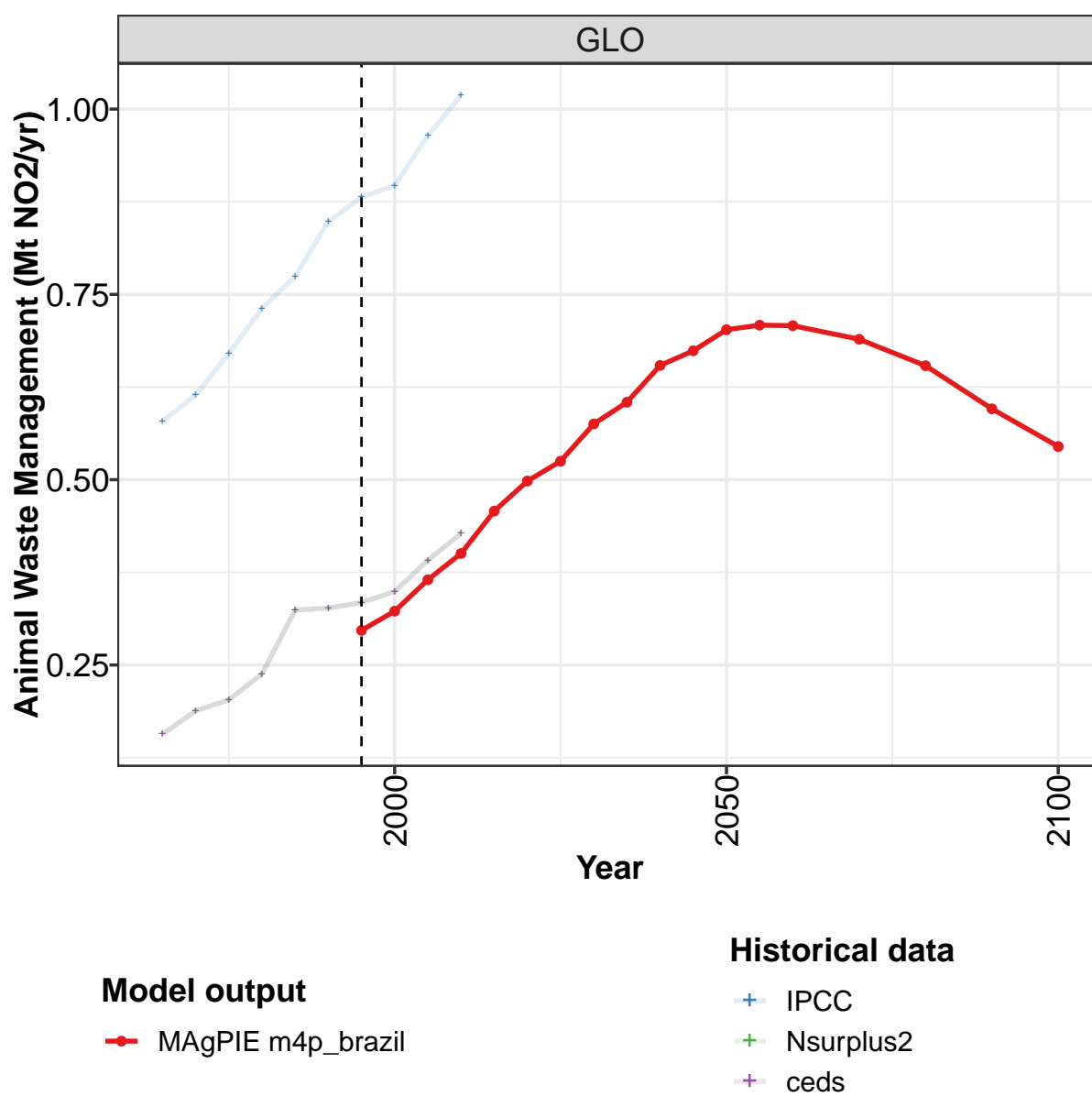
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.26	1.30	1.35	1.37	1.39	1.41	1.47	1.56	1.68	1.76
BRA	0.07	0.08	0.09	0.11	0.13	0.16	0.18	0.21	0.24	0.25
CHA	0.18	0.18	0.19	0.20	0.21	0.22	0.24	0.27	0.30	0.33
EUR	0.23	0.23	0.23	0.22	0.20	0.18	0.16	0.14	0.13	0.12
LAM	0.15	0.16	0.17	0.17	0.17	0.18	0.19	0.20	0.21	0.21
ROW	0.50	0.52	0.54	0.56	0.58	0.61	0.64	0.68	0.75	0.79
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
BRA	0.19	0.20	0.22	0.22	0.23	0.24	0.28	0.27	0.29	0.31
CHA	0.09	0.12	0.15	0.20	0.25	0.32	0.36	0.35	0.45	0.52
EUR	0.08	0.10	0.12	0.15	0.20	0.19	0.19	0.19	0.18	0.17
LAM	0.26	0.29	0.31	0.33	0.38	0.38	0.36	0.40	0.40	0.42
ROW	1.36	1.59	1.81	1.77	1.87	1.91	1.94	2.11	2.01	2.21
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



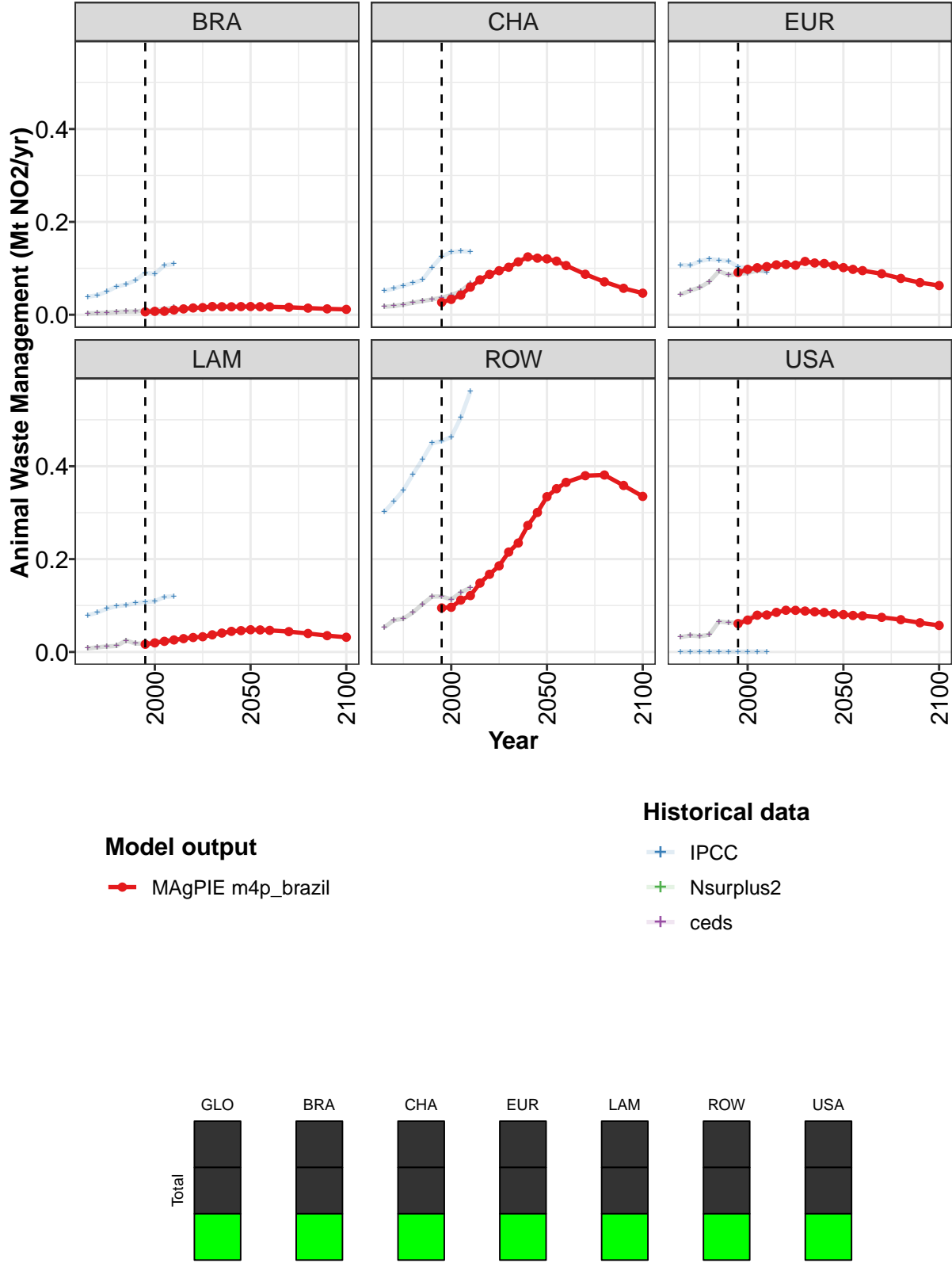


Figure 256: MAgPIE m4p_brazil — Emissions—NO₂—Land—Agriculture—Animal Waste Management (Mt NO₂/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.297	0.323	0.365	0.400	0.458	0.498	0.525	0.575	0.605	0.654	0.674
BRA	0.006	0.007	0.007	0.010	0.013	0.015	0.015	0.018	0.017	0.017	0.018
CHA	0.027	0.033	0.042	0.060	0.075	0.087	0.095	0.102	0.114	0.125	0.122
EUR	0.091	0.098	0.101	0.104	0.107	0.108	0.107	0.115	0.112	0.110	0.106
LAM	0.017	0.020	0.023	0.026	0.029	0.031	0.033	0.037	0.041	0.044	0.046
ROW	0.095	0.096	0.112	0.121	0.148	0.167	0.185	0.215	0.235	0.273	0.301
USA	0.061	0.069	0.079	0.080	0.085	0.090	0.090	0.088	0.086	0.085	0.082

Table 858: MAgPIE m4p_brazil — Emissions—NO2—Land—Agriculture—Animal Waste Management (Mt NO2/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	0.702	0.708	0.708	0.689	0.654	0.596	0.545
BRA	0.018	0.017	0.017	0.016	0.014	0.013	0.012
CHA	0.120	0.116	0.106	0.087	0.071	0.057	0.046
EUR	0.102	0.098	0.095	0.088	0.078	0.069	0.063
LAM	0.048	0.047	0.047	0.044	0.040	0.035	0.032
ROW	0.334	0.352	0.365	0.380	0.381	0.359	0.335
USA	0.081	0.079	0.078	0.075	0.070	0.063	0.057

Table 859: MAgPIE m4p_brazil — 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
BRA	0.04	0.04	0.05	0.06	0.07	0.07	0.09	0.09	0.11	0.11
CHA	0.05	0.06	0.06	0.07	0.08	0.10	0.13	0.13	0.14	0.14
EUR	0.11	0.11	0.12	0.12	0.12	0.12	0.10	0.10	0.10	0.09
LAM	0.08	0.09	0.09	0.10	0.10	0.11	0.11	0.11	0.12	0.12
ROW	0.30	0.32	0.35	0.38	0.41	0.45	0.45	0.46	0.50	0.56
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
BRA	0.003	0.004	0.005	0.006	0.007	0.007	0.009	0.010	0.012	0.015
CHA	0.017	0.019	0.022	0.026	0.030	0.033	0.037	0.042	0.051	0.068
EUR	0.043	0.052	0.059	0.071	0.094	0.086	0.087	0.090	0.095	0.095
LAM	0.008	0.010	0.012	0.013	0.025	0.018	0.018	0.021	0.025	0.028
ROW	0.053	0.068	0.072	0.085	0.103	0.119	0.120	0.113	0.128	0.139
USA	0.032	0.035	0.034	0.037	0.066	0.063	0.063	0.072	0.081	0.082

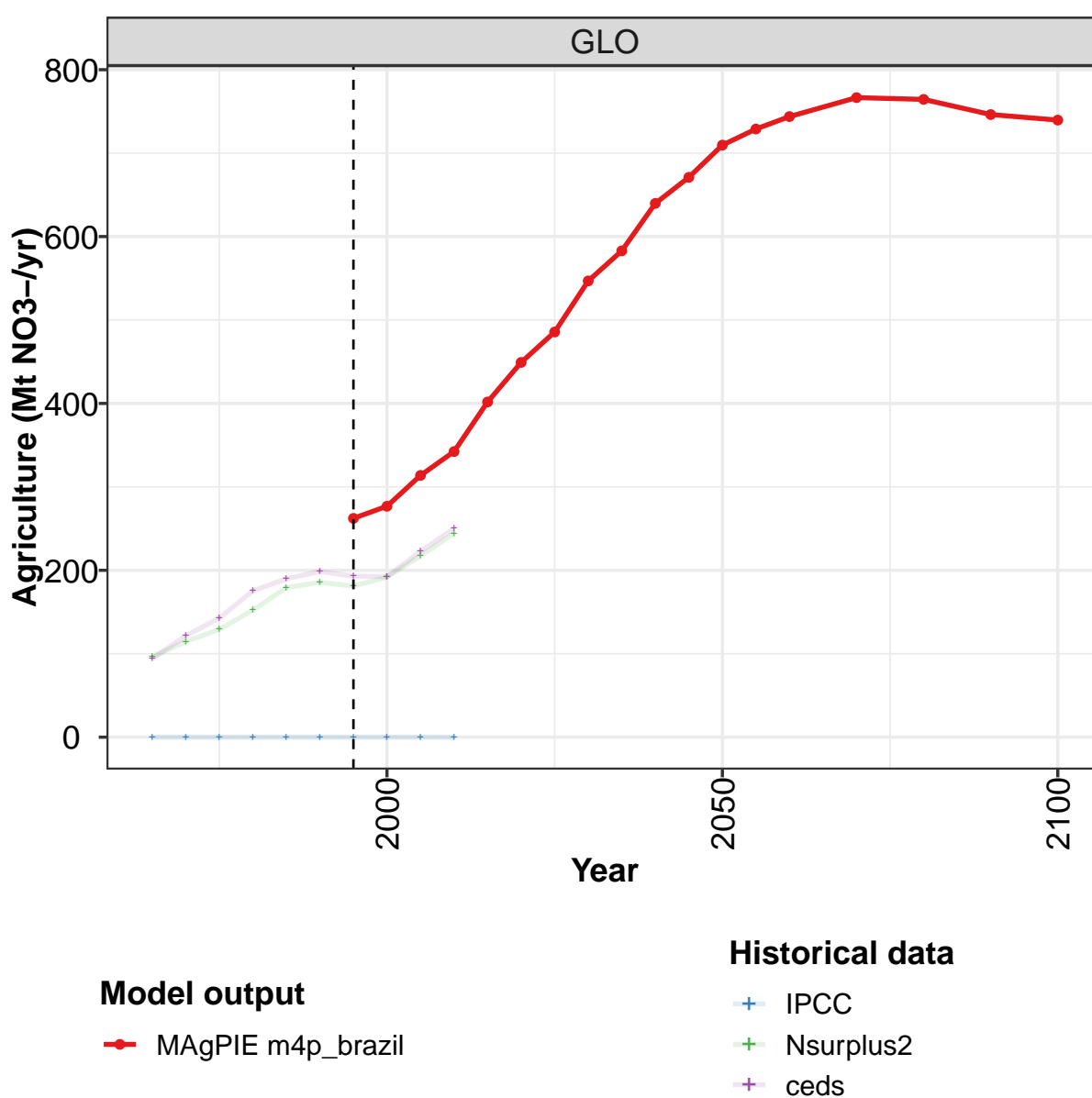
Table 861: IPCC — Emissions—NO2—Land—Agriculture—Animal Waste Management (Mt NO2/yr)

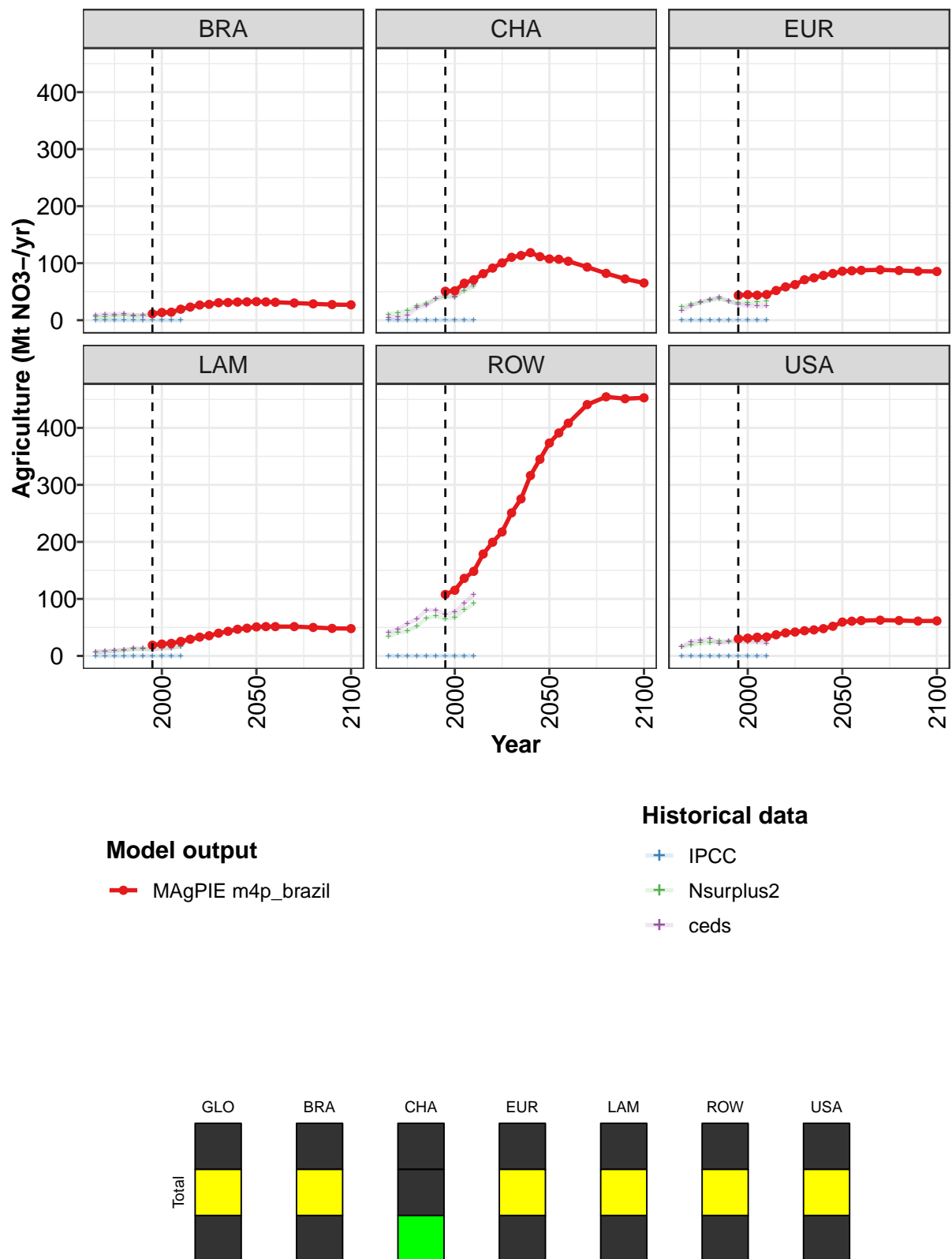
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.157	0.188	0.203	0.238	0.324	0.327	0.334	0.349	0.391	0.427
BRA	0.003	0.004	0.005	0.006	0.007	0.007	0.009	0.010	0.012	0.015
CHA	0.017	0.019	0.022	0.026	0.030	0.033	0.037	0.042	0.051	0.068
EUR	0.043	0.052	0.059	0.071	0.094	0.086	0.087	0.090	0.095	0.095
LAM	0.008	0.010	0.012	0.013	0.025	0.018	0.018	0.021	0.025	0.028
ROW	0.053	0.068	0.072	0.085	0.103	0.119	0.120	0.113	0.128	0.139
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_brazil — Emissions—NO3Land—Agriculture (Mt NO₃-/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	262	277	314	342	402	449	486	547	583	640	671
BRA	11	14	14	19	23	27	28	31	31	32	32
CHA	51	51	65	71	82	91	101	110	113	118	111
EUR	44	45	44	45	52	58	62	71	74	79	82
LAM	19	21	22	25	29	33	35	40	43	47	49
ROW	108	115	136	148	179	199	217	251	275	316	345
USA	30	31	33	33	37	40	42	44	46	48	52

Table 863: MAgPIE m4p_brazil — Emissions—NO3Land—Agriculture (Mt NO3-/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	710	729	744	767	764	746	740
BRA	33	32	31	30	29	27	27
CHA	107	107	103	93	82	72	65
EUR	86	87	87	88	87	86	85
LAM	51	51	51	51	50	48	48
ROW	373	391	408	441	454	451	453
USA	59	61	62	63	62	61	61

Table 864: MAgPIE m4p_brazil — 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
BRA	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
LAM	0	0	0	0	0	0	0	0	0	0
ROW	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)

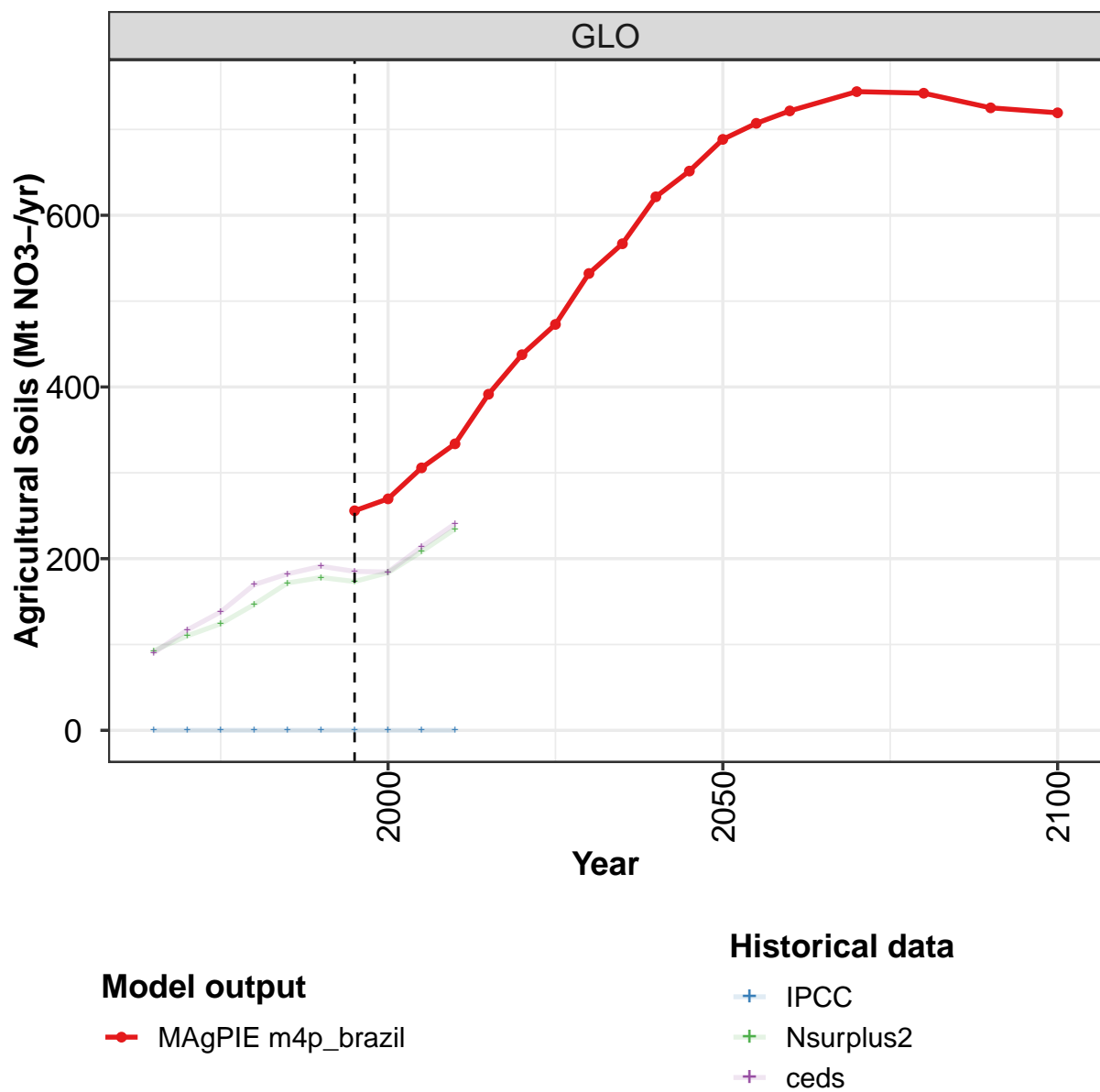
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	97	115	129	152	179	186	181	192	217	244
BRA	5	6	7	8	8	8	10	12	13	16
CHA	11	13	16	25	29	37	40	42	51	59
EUR	23	27	31	35	38	33	31	31	31	33
LAM	7	8	9	10	12	12	12	13	14	16
ROW	35	41	44	52	66	70	65	68	81	92
USA	16	19	22	23	26	25	24	26	27	28

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
BRA	8	10	10	11	9	8	10	12	11	16
CHA	5	6	8	22	26	38	43	40	57	62
EUR	17	26	32	36	40	33	28	26	25	25
LAM	7	8	9	11	13	13	12	14	14	17
ROW	41	47	56	65	80	80	73	76	92	107
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



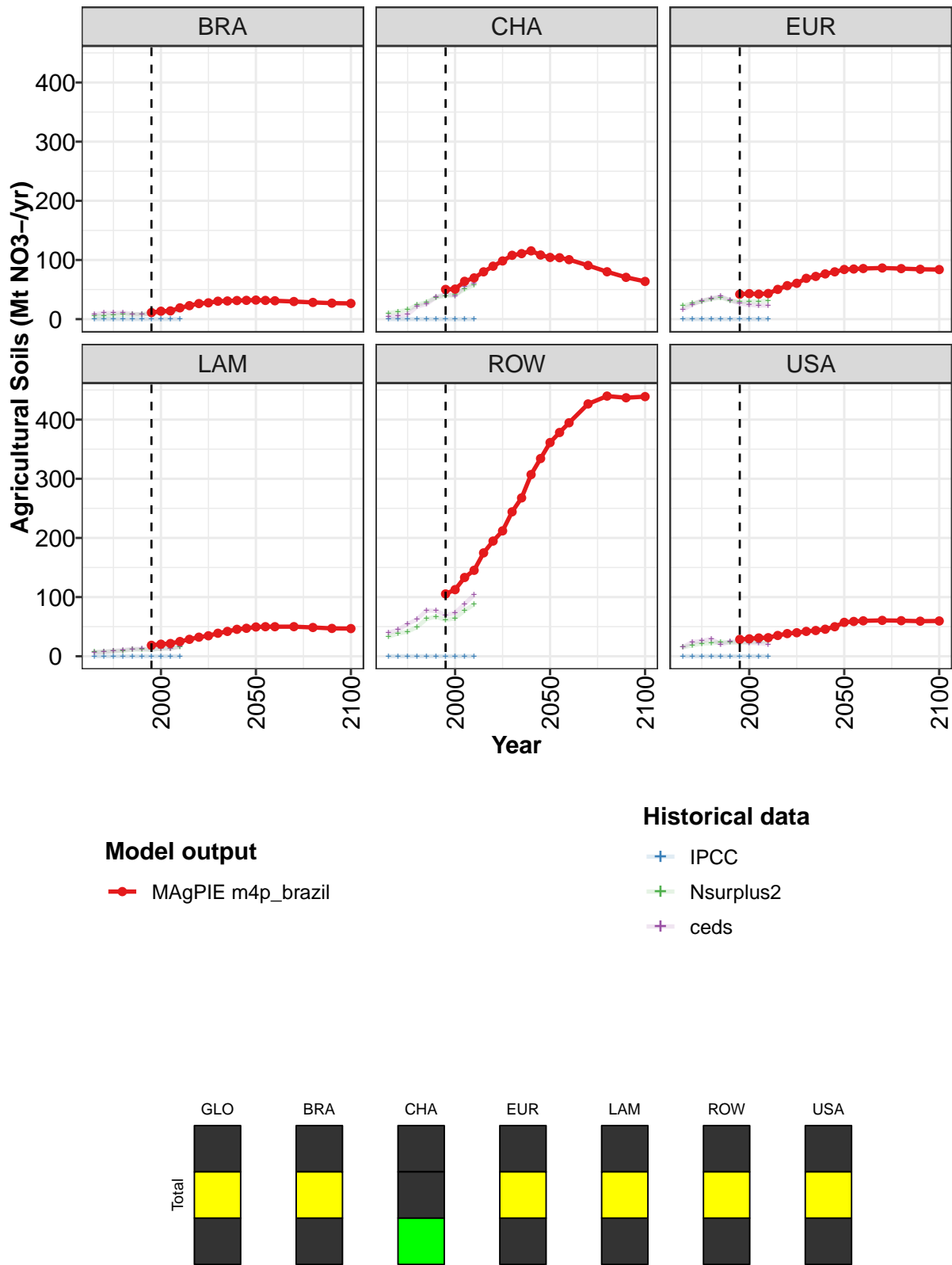


Figure 258: MAgPIE m4p_brazil — Emissions—NO3Land—Agriculture—Agricultural Soils (Mt NO3-/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	256	270	306	334	392	438	473	532	567	622	652
BRA	11	13	14	19	23	26	28	30	31	31	32
CHA	50	51	64	70	80	89	98	108	111	115	108
EUR	42	43	42	43	50	57	61	69	72	76	80
LAM	19	20	22	25	29	32	35	39	42	46	47
ROW	105	113	133	145	175	195	212	244	268	307	334
USA	28	29	31	31	35	38	40	42	44	46	50

Table 868: MAgPIE m4p_brazil — Emissions—NO3Land—Agriculture—Agricultural Soils (Mt NO3-/yr)
[PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	688	707	722	744	742	725	719
BRA	32	32	31	30	28	27	27
CHA	104	104	101	91	80	71	64
EUR	84	85	86	86	85	84	84
LAM	49	50	50	50	49	47	47
ROW	361	378	395	426	440	437	439
USA	57	59	60	61	60	59	60

Table 869: MAgPIE m4p_brazil — 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
BRA	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
LAM	0	0	0	0	0	0	0	0	0	0
ROW	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)

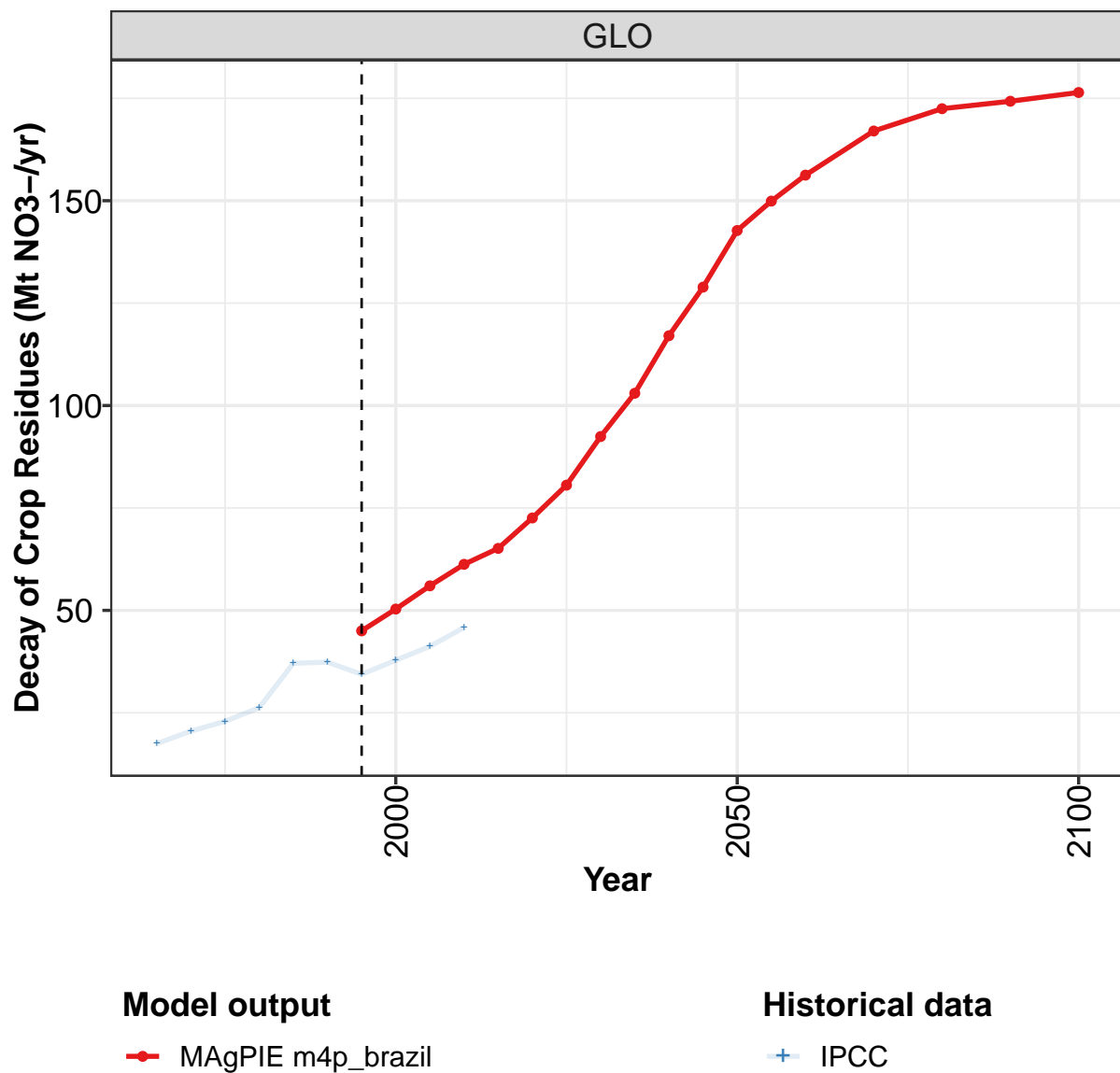
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	93	110	124	147	172	178	173	184	208	235
BRA	5	6	7	8	8	8	10	12	13	16
CHA	10	13	16	24	29	37	39	41	50	58
EUR	22	26	30	34	37	32	29	30	30	31
LAM	7	8	8	9	11	11	11	13	14	16
ROW	33	39	42	49	63	67	61	64	77	88
USA	15	18	22	22	24	23	23	24	25	26

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
BRA	8	10	10	11	9	8	10	11	11	16
CHA	4	5	8	21	25	37	43	39	56	61
EUR	16	25	31	35	38	32	26	24	23	23
LAM	6	7	9	10	12	12	11	14	13	17
ROW	40	45	54	63	77	77	69	73	88	103
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



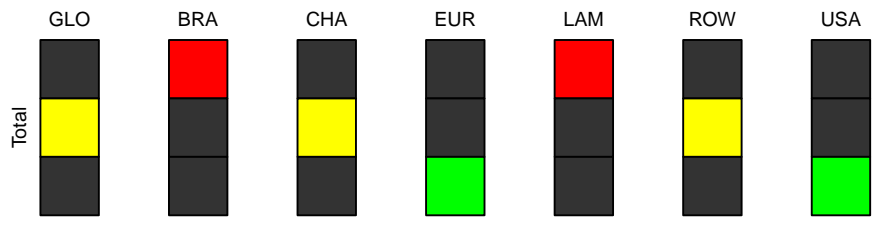
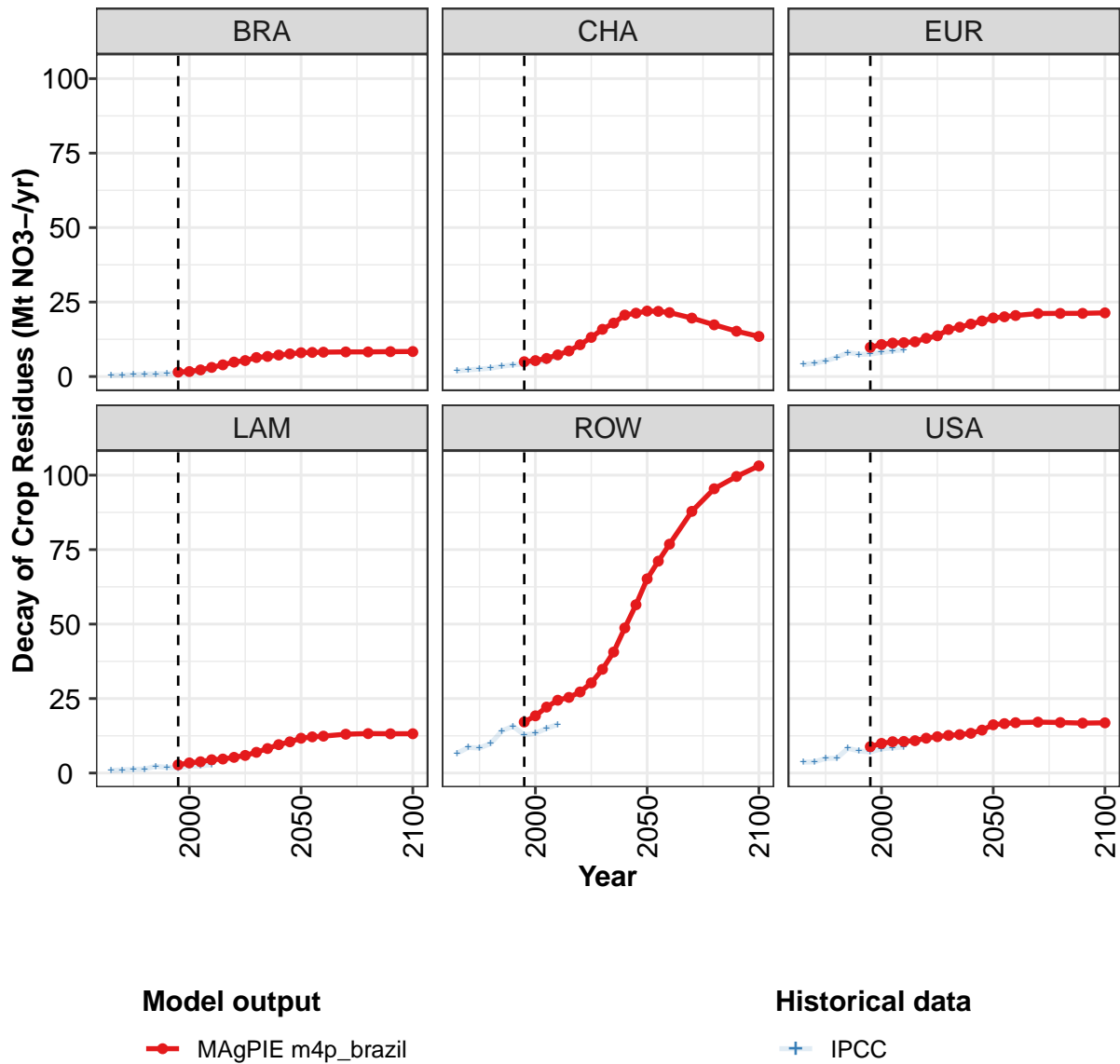


Figure 259: MAgPIE m4p_brazil — Emissions—NO₃Land—Agriculture—Agricultural Soils—Decay of Crop Residues (Mt NO₃-yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	45	50	56	61	65	73	81	92	103	117	129
BRA	1	2	2	3	4	5	5	6	7	7	8
CHA	5	5	6	7	9	11	13	16	18	21	21
EUR	10	11	11	11	12	13	14	16	17	18	19
LAM	3	3	4	4	5	5	6	7	8	10	10
ROW	17	19	22	24	25	27	30	35	41	49	56
USA	9	10	11	11	11	12	12	13	13	13	14

Table 873: MAgPIE m4p_brazil — Emissions—NO3Land—Agriculture—Agricultural Soils—Decay of Crop Residues (Mt NO3-/yr) [PART 1/2]

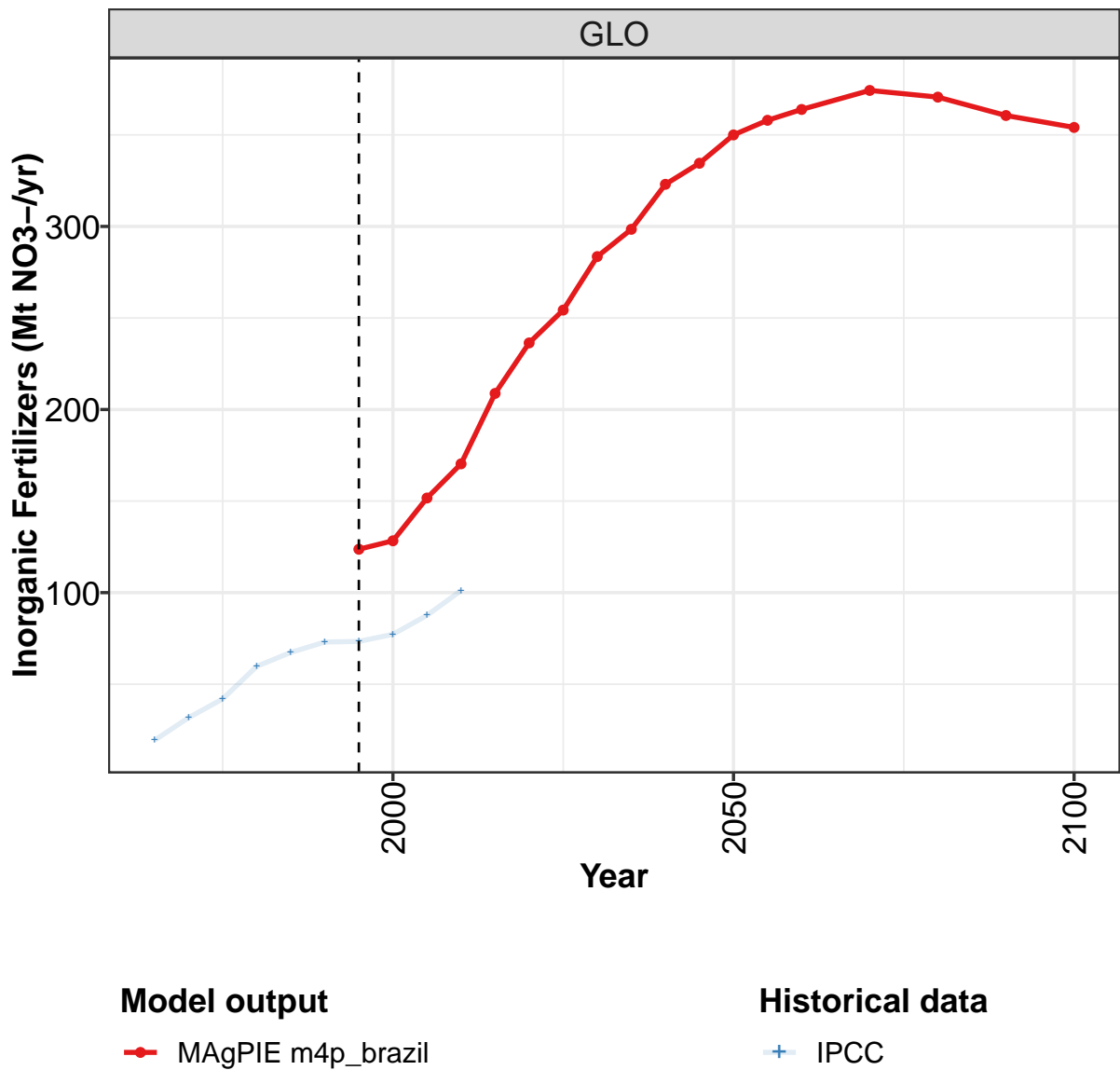
	2050	2055	2060	2070	2080	2090	2100
GLO	143	150	156	167	172	174	176
BRA	8	8	8	8	8	8	8
CHA	22	22	21	20	17	15	13
EUR	20	20	20	21	21	21	21
LAM	12	12	12	13	13	13	13
ROW	65	71	77	88	95	100	103
USA	16	17	17	17	17	17	17

Table 874: MAgPIE m4p_brazil — 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
BRA	0.4	0.5	0.6	0.8	0.9	0.9	1.1	1.2	1.6	2.2
CHA	1.9	2.2	2.5	2.8	3.5	3.9	4.2	4.7	5.2	6.8
EUR	4.0	4.4	5.2	6.4	8.1	7.4	7.5	8.1	8.6	9.0
LAM	0.9	1.0	1.3	1.3	2.3	1.9	1.7	2.3	2.4	2.8
ROW	6.7	8.6	8.4	9.9	14.1	15.7	12.8	13.4	15.0	16.3
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



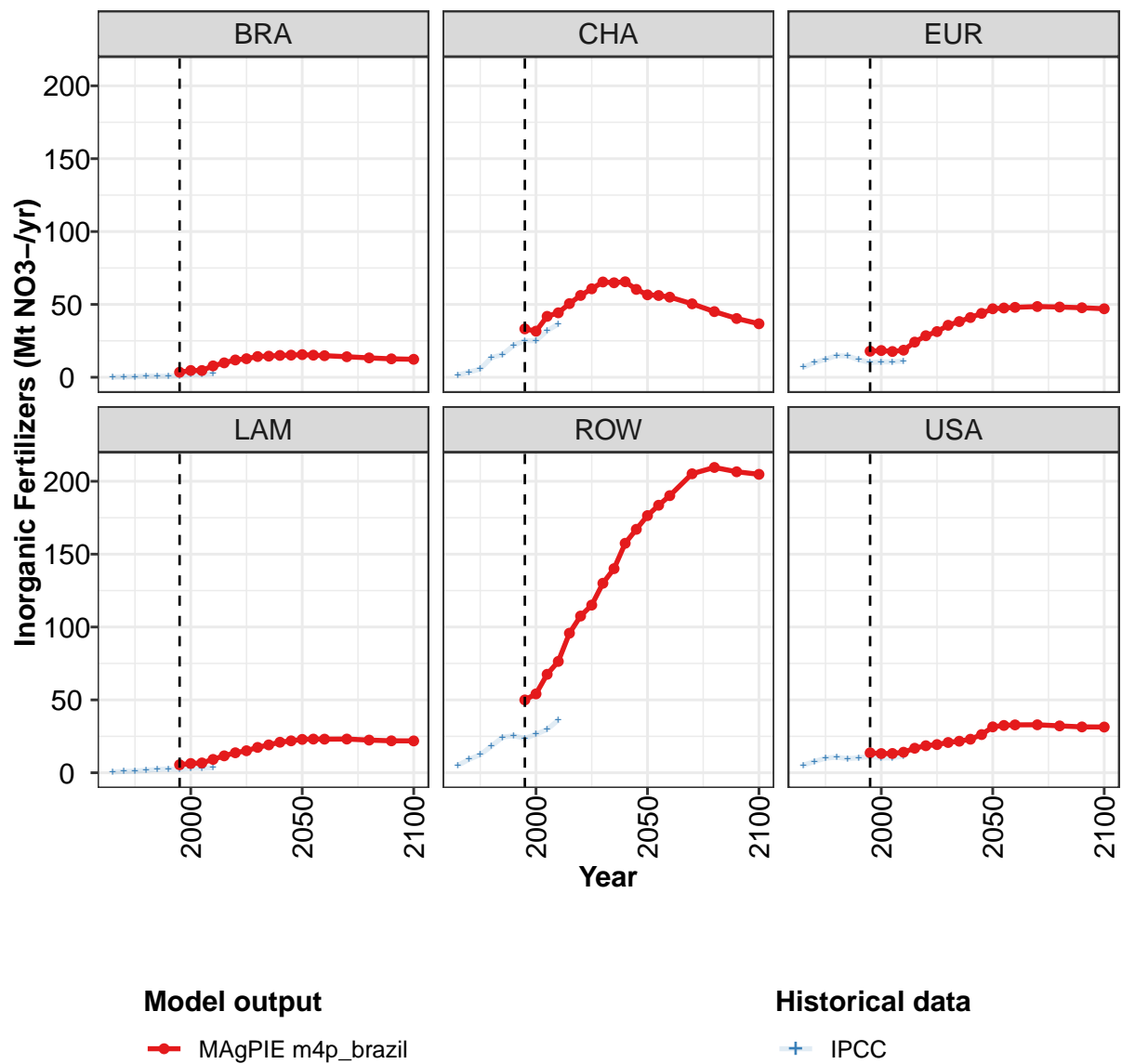


Figure 260: MAgPIE m4p_brazil — Emissions—NO3Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NO₃-/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	124	128	152	170	209	236	254	284	298	323	335
BRA	3	5	5	8	10	12	13	14	15	15	15
CHA	33	32	42	44	51	56	61	65	65	66	60
EUR	18	18	18	19	24	29	31	36	38	41	44
LAM	6	6	7	9	12	14	15	17	19	21	22
ROW	50	54	68	76	96	108	115	130	140	157	167
USA	14	13	13	14	17	19	19	21	22	23	26

Table 876: MAgPIE m4p_brazil — Emissions—NO3Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NO3-/yr) [PART 1/2]

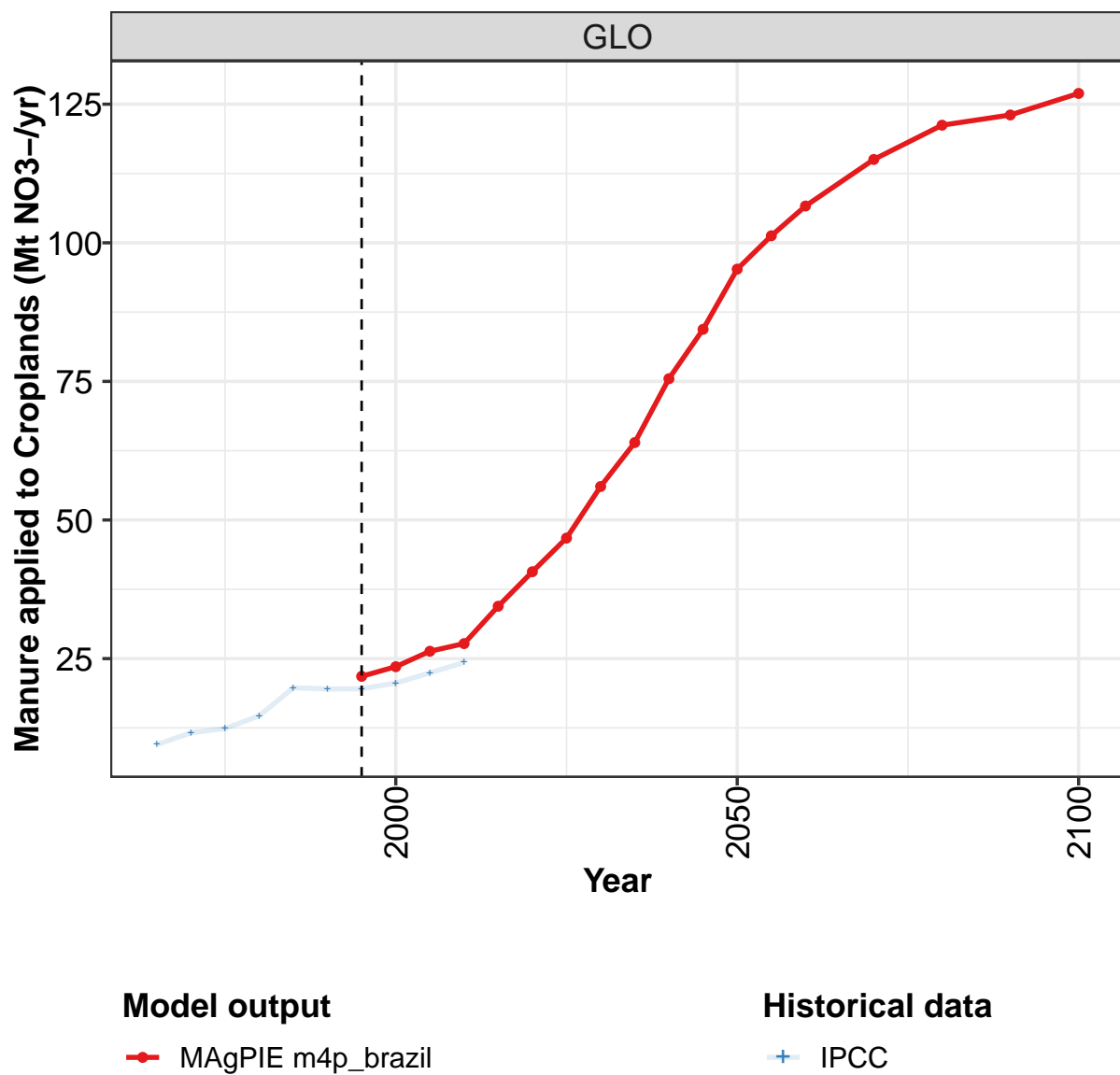
	2050	2055	2060	2070	2080	2090	2100
GLO	350	358	364	374	371	361	354
BRA	16	15	15	14	13	13	12
CHA	57	56	55	50	45	40	37
EUR	47	48	48	49	48	48	47
LAM	23	23	23	23	22	22	22
ROW	176	184	190	205	210	207	205
USA	31	32	33	33	32	31	31

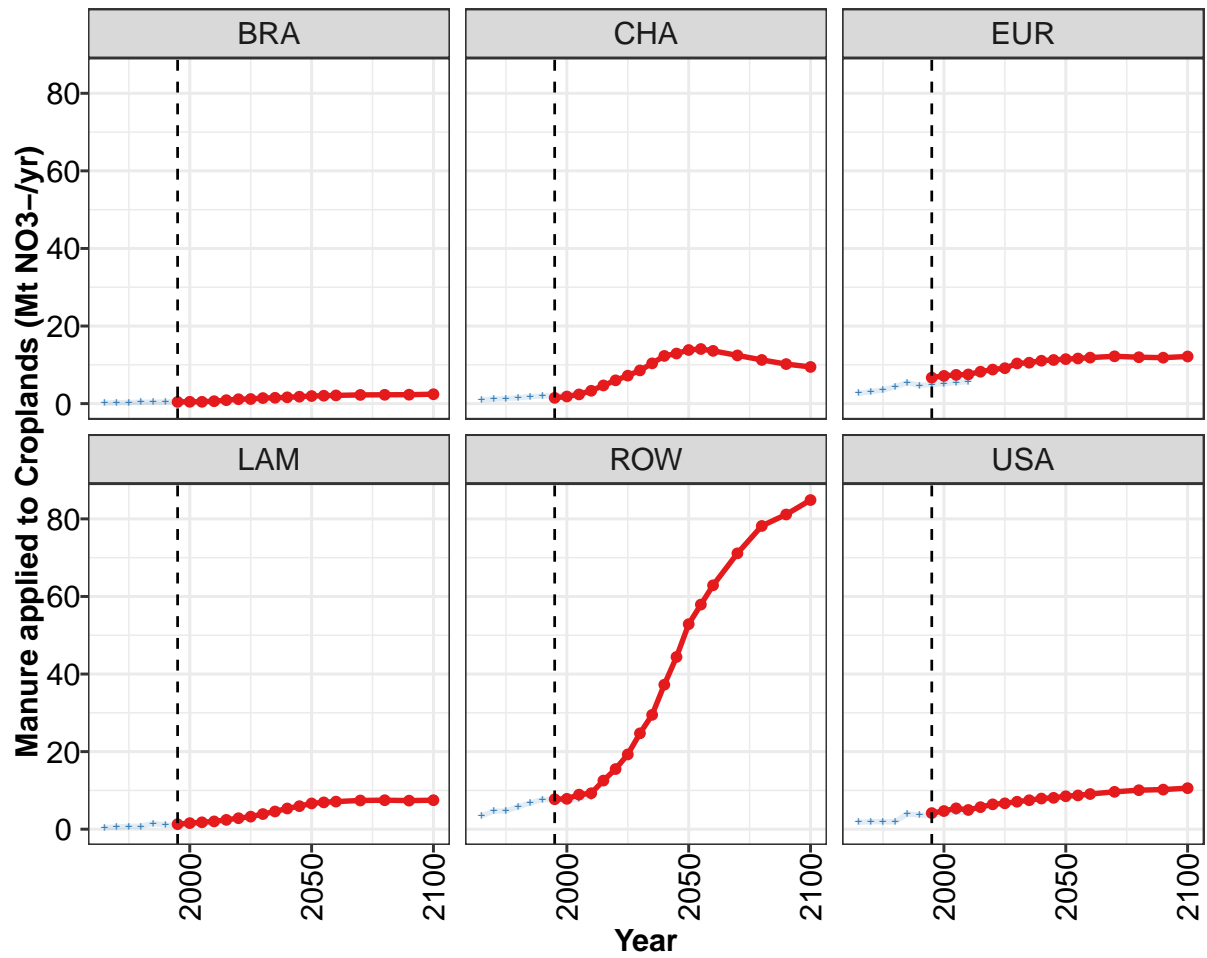
Table 877: MAgPIE m4p_brazil — Emissions—NO3Land—Agriculture—Agricultural Soils—Inorganic Fertilizers (Mt NO3-/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	19	32	42	60	67	73	73	77	88	101
BRA	0	0	0	1	1	1	1	2	2	2
CHA	2	4	6	13	16	22	25	25	32	37
EUR	7	10	12	15	15	12	10	11	11	11
LAM	1	1	1	2	2	3	2	3	3	3
ROW	5	9	12	18	24	25	24	26	30	36
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





Model output

—•— MAGPIE m4p_brazil

Historical data

+ IPCC

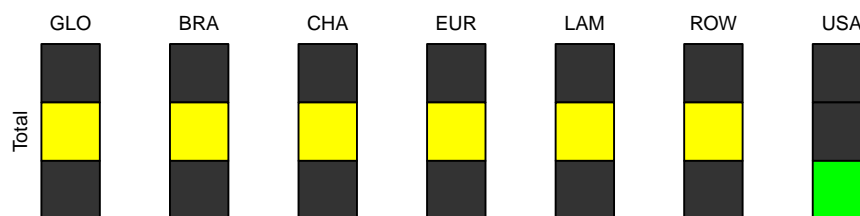


Figure 261: MAGPIE m4p_brazil — Emissions—NO₃Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NO₃-yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	22	24	26	28	34	41	47	56	64	75	84
BRA	0	0	0	1	1	1	1	1	2	2	2
CHA	1	2	2	3	5	6	7	9	10	12	13
EUR	7	7	7	8	8	9	9	10	11	11	11
LAM	1	2	2	2	2	3	3	4	5	5	6
ROW	8	8	9	9	13	16	19	25	29	37	44
USA	4	5	5	5	6	6	7	7	7	8	8

Table 879: MAgPIE m4p.brazil — Emissions—NO3Land—Agriculture—Agricultural Soils—Manure applied to Croplands (Mt NO3-/yr) [PART 1/2]

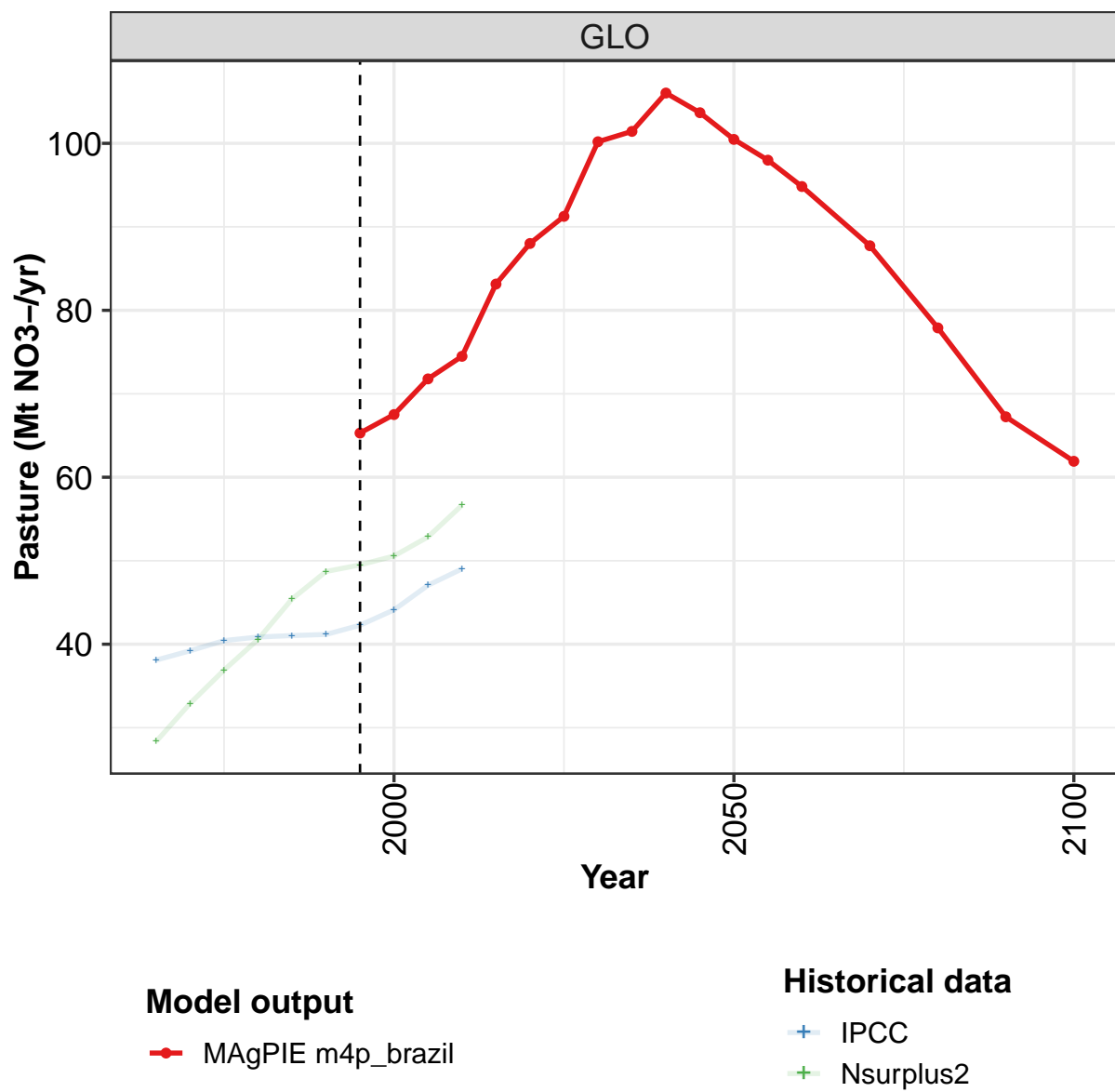
	2050	2055	2060	2070	2080	2090	2100
GLO	95	101	107	115	121	123	127
BRA	2	2	2	2	2	2	2
CHA	14	14	14	12	11	10	9
EUR	11	12	12	12	12	12	12
LAM	7	7	7	7	7	7	7
ROW	53	58	63	71	78	81	85
USA	8	9	9	10	10	10	11

Table 880: MAgPIE m4p.brazil — 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
BRA	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.8
CHA	1.0	1.1	1.3	1.5	1.8	2.0	2.0	2.3	2.7	3.7
EUR	2.7	3.1	3.5	4.4	5.4	4.7	4.9	5.2	5.5	5.7
LAM	0.4	0.6	0.7	0.7	1.5	1.1	1.0	1.3	1.3	1.5
ROW	3.4	4.7	4.7	5.8	6.8	7.7	7.6	7.2	7.9	8.5
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



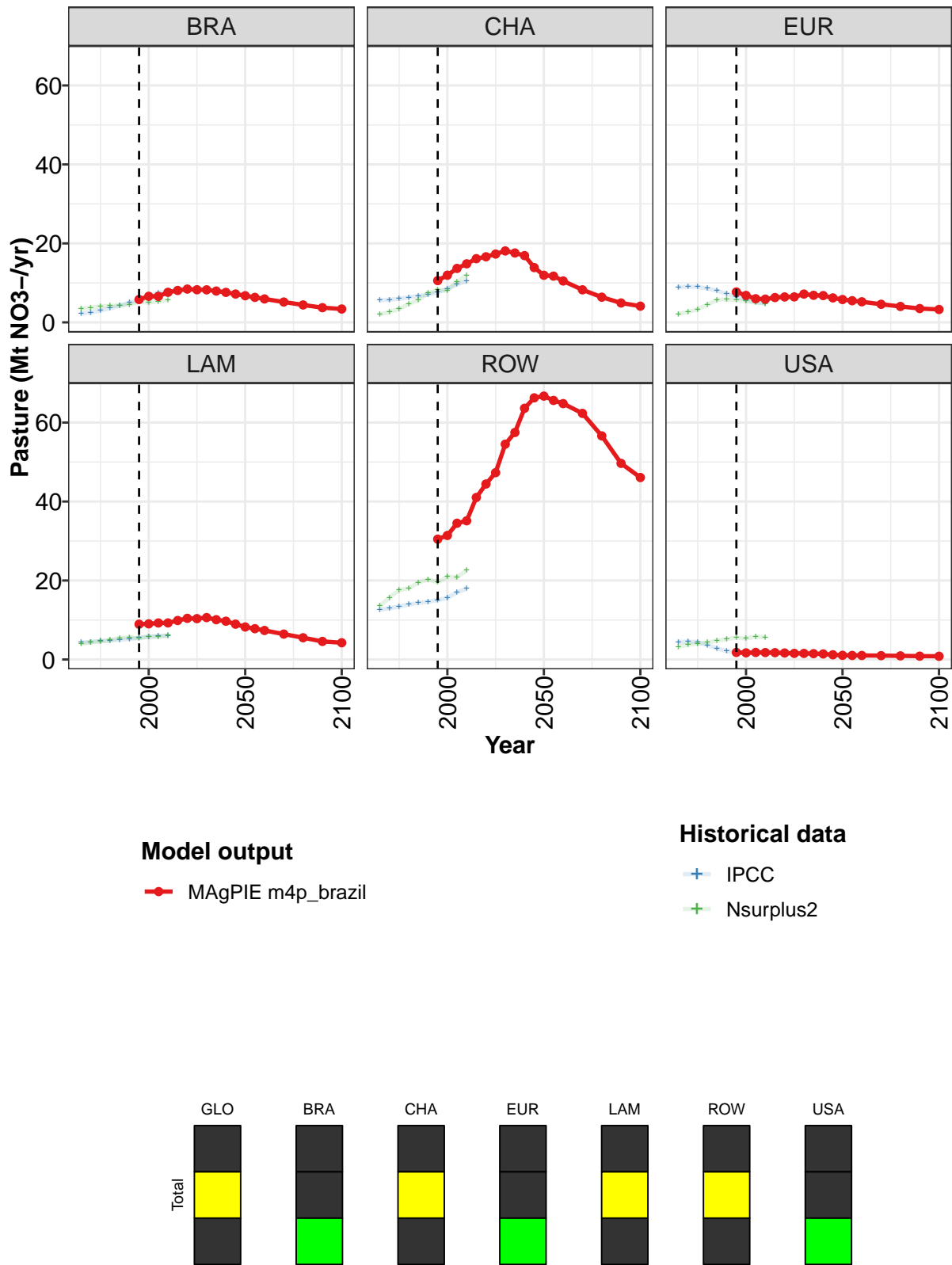


Figure 262: MAgPIE m4p_brazil — Emissions—NO3Land—Agriculture—Agricultural Soils—Pasture (Mt NO3-/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	65	68	72	74	83	88	91	100	101	106	104
BRA	6	7	7	8	8	8	8	8	8	8	7
CHA	11	12	14	15	16	17	17	18	18	17	14
EUR	8	7	6	6	6	6	6	7	7	7	6
LAM	9	9	9	9	10	10	10	11	10	10	9
ROW	30	31	35	35	41	44	47	55	57	64	66
USA	2	2	2	2	2	2	2	2	1	1	1

Table 882: MAgPIE m4p_brazil — Emissions—NO3Land—Agriculture—Agricultural Soils—Pasture (Mt NO3-/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	100	98	95	88	78	67	62
BRA	7	6	6	5	4	4	3
CHA	12	12	10	8	6	5	4
EUR	6	5	5	5	4	4	3
LAM	8	8	7	6	6	5	4
ROW	67	66	65	62	57	50	46
USA	1	1	1	1	1	1	1

Table 883: MAgPIE m4p_brazil — Emissions—NO3Land—Agriculture—Agricultural Soils—Pasture (Mt NO3-/yr) [PART 2/2]

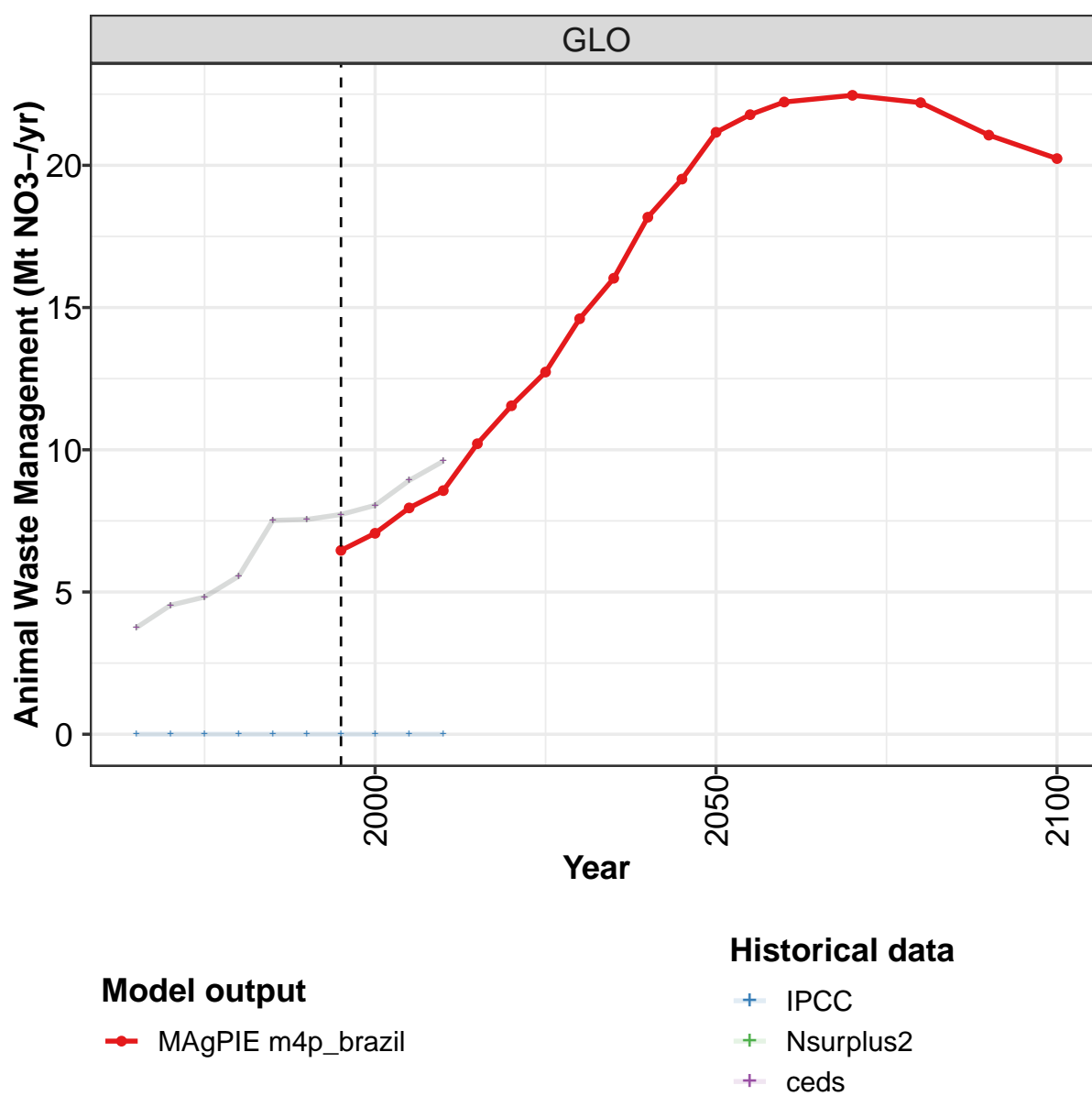
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	38.1	39.2	40.4	40.9	41.0	41.2	42.3	44.1	47.1	49.0
BRA	2.2	2.5	3.0	3.6	4.2	5.0	5.8	6.7	7.5	7.9
CHA	5.6	5.7	6.0	6.3	6.7	7.1	7.6	8.5	9.7	10.4
EUR	8.9	9.1	9.0	8.6	8.0	7.2	6.5	5.7	5.2	4.9
LAM	4.3	4.5	4.7	4.8	5.0	5.2	5.5	5.8	5.9	6.0
ROW	12.6	12.9	13.4	13.9	14.3	14.6	15.1	15.6	17.0	18.0
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
BRA	3.4	3.7	4.1	4.2	4.3	4.5	5.2	5.0	5.3	5.7
CHA	2.0	2.7	3.4	4.7	5.7	7.4	8.2	8.1	10.3	12.0
EUR	2.1	2.6	3.3	4.5	5.7	5.8	5.7	5.4	5.0	4.7
LAM	4.0	4.4	4.6	4.9	5.5	5.6	5.3	5.8	5.7	6.1
ROW	13.5	15.7	17.5	18.0	19.5	20.3	19.6	20.9	20.8	22.6
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



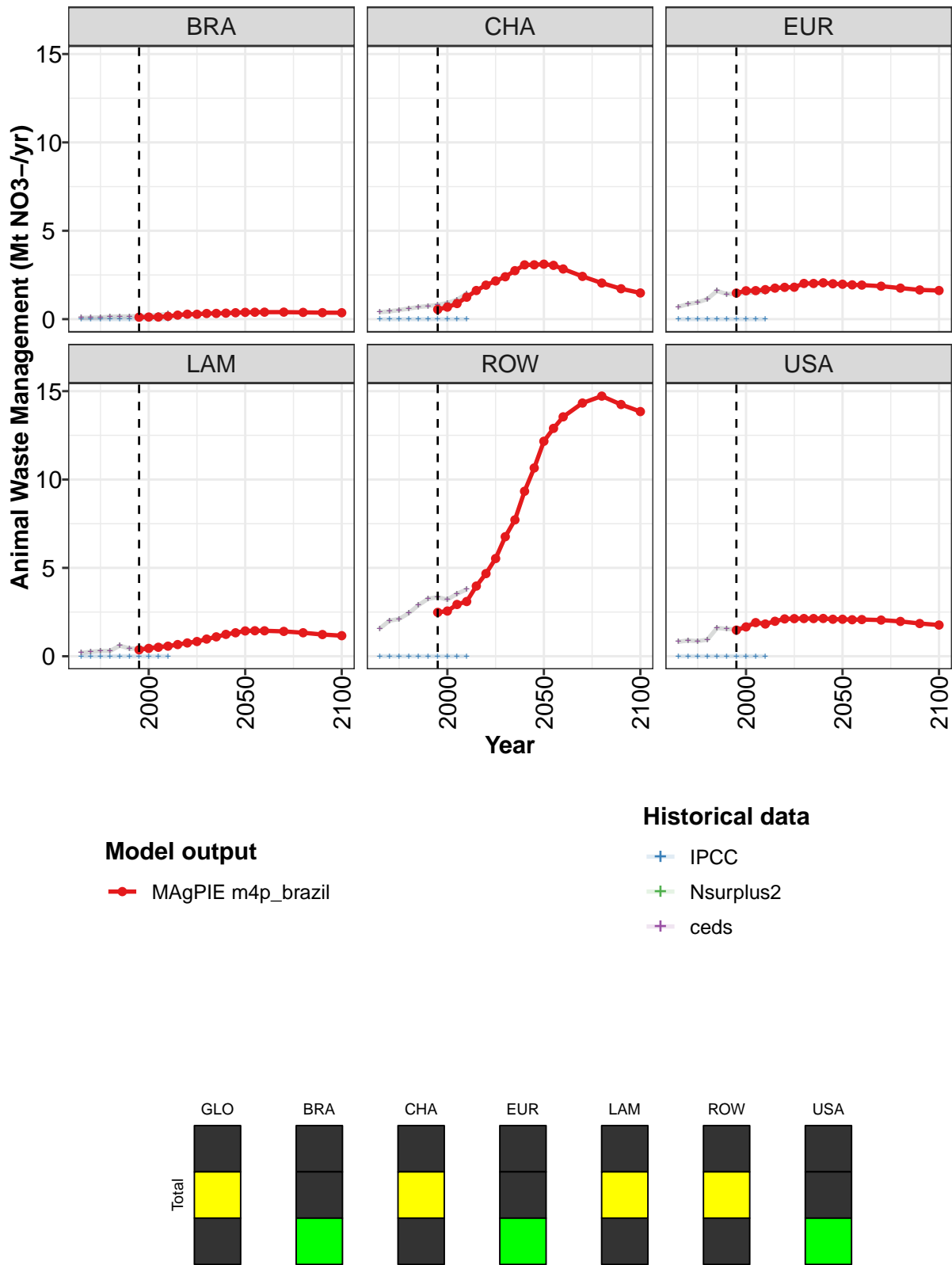


Figure 263: MAGPIE m4p_brazil — Emissions—NO₃Land—Agriculture—Animal Waste Management (Mt NO₃-/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.5	7.1	8.0	8.6	10.2	11.5	12.7	14.6	16.0	18.2	19.5
BRA	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4
CHA	0.5	0.7	0.9	1.2	1.6	1.9	2.2	2.4	2.7	3.1	3.1
EUR	1.5	1.6	1.6	1.7	1.8	1.8	1.8	2.0	2.0	2.1	2.0
LAM	0.4	0.4	0.5	0.6	0.7	0.8	0.8	1.0	1.1	1.2	1.3
ROW	2.5	2.6	2.9	3.1	4.0	4.7	5.5	6.8	7.7	9.3	10.7
USA	1.5	1.7	1.9	1.8	2.0	2.1	2.1	2.1	2.1	2.1	2.1

Table 886: MAgPIE m4p_brazil — Emissions—NO3Land—Agriculture—Animal Waste Management (Mt NO3-/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	21.2	21.8	22.2	22.5	22.2	21.1	20.2
BRA	0.4	0.4	0.4	0.4	0.4	0.4	0.4
CHA	3.1	3.0	2.8	2.4	2.0	1.7	1.5
EUR	2.0	1.9	1.9	1.9	1.8	1.7	1.6
LAM	1.4	1.4	1.4	1.4	1.3	1.2	1.2
ROW	12.2	12.9	13.5	14.3	14.7	14.2	13.8
USA	2.1	2.1	2.1	2.0	2.0	1.9	1.8

Table 887: MAgPIE m4p_brazil — 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
BRA	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
LAM	0	0	0	0	0	0	0	0	0	0
ROW	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
BRA	0.07	0.08	0.10	0.13	0.15	0.15	0.19	0.20	0.24	0.30
CHA	0.39	0.44	0.51	0.60	0.68	0.74	0.80	0.92	1.10	1.45
EUR	0.70	0.86	0.95	1.14	1.60	1.42	1.43	1.48	1.53	1.55
LAM	0.19	0.25	0.30	0.30	0.60	0.44	0.43	0.51	0.57	0.63
ROW	1.57	2.02	2.11	2.44	2.89	3.25	3.35	3.20	3.53	3.78
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
BRA	0.07	0.08	0.10	0.13	0.15	0.15	0.19	0.20	0.24	0.30
CHA	0.39	0.44	0.51	0.60	0.68	0.74	0.80	0.92	1.10	1.45
EUR	0.70	0.86	0.95	1.14	1.60	1.42	1.43	1.48	1.53	1.55
LAM	0.19	0.25	0.30	0.30	0.60	0.44	0.43	0.51	0.57	0.63
ROW	1.57	2.02	2.11	2.44	2.89	3.25	3.35	3.20	3.53	3.78
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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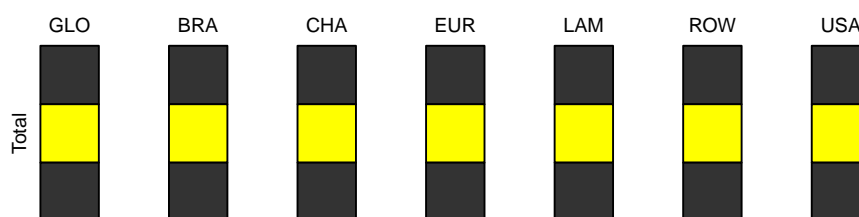


Figure 264: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	521	485	496	523	561	554	515	572	533	581	560
BRA	444	723	420	759	733	728	698	774	707	739	692
CHA	689	792	870	1015	849	762	773	835	810	811	837
EUR	776	789	746	693	718	731	724	745	713	749	707
LAM	596	417	466	518	543	549	533	563	493	516	526
ROW	383	279	294	294	415	437	384	446	416	485	458
USA	778	909	948	865	907	861	780	927	843	877	848

Table 891: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	588	592	613	640	643	648	636
BRA	717	700	742	735	695	690	659
CHA	858	832	788	759	744	724	715
EUR	746	750	779	788	772	762	709
LAM	538	556	573	593	574	564	580
ROW	490	500	536	578	593	606	601
USA	909	982	996	1050	1032	1018	936

Table 892: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure (USD/capita) [PART 2/2]

33.1.1 Crops

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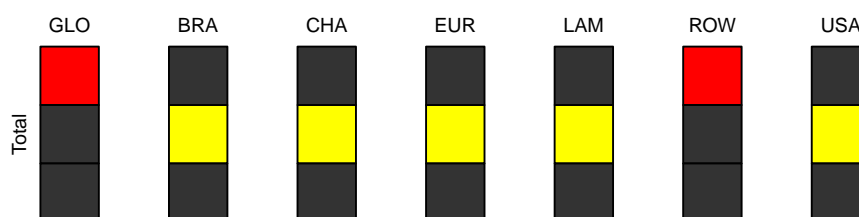


Figure 265: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Crops (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	138	167	171	185	161	156	149	146	140	141	137
BRA	154	182	178	193	176	169	165	161	162	159	158
CHA	201	269	288	330	267	247	240	238	231	224	225
EUR	71	179	168	158	162	163	162	163	161	158	155
LAM	123	122	116	108	111	113	110	108	107	103	104
ROW	124	128	134	147	130	129	124	120	115	120	116
USA	172	200	186	178	180	173	162	162	162	158	155

Table 893: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Crops (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	135	131	127	124	120	117	114
BRA	162	159	161	160	146	145	142
CHA	224	218	206	197	192	186	183
EUR	158	159	159	160	156	153	150
LAM	99	99	99	98	95	92	93
ROW	114	110	107	107	104	102	100
USA	163	163	162	163	162	161	159

Table 894: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Crops (USD/capita) [PART 2/2]

33.1.2 Crops—Cereals

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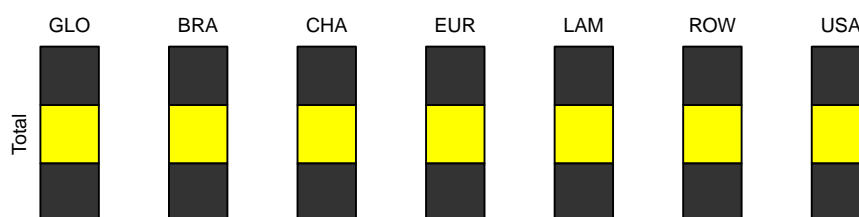


Figure 266: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Crops—Cereals (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	65.8	67.9	67.0	71.7	53.8	52.1	48.9	46.9	43.7	42.4	40.7
BRA	35.2	38.1	43.1	41.5	29.0	26.4	25.4	25.8	25.7	26.4	25.8
CHA	85.6	90.1	81.5	83.5	44.5	35.0	32.5	32.8	30.4	30.2	30.2
EUR	35.8	30.9	28.5	25.9	29.7	29.9	29.3	31.6	30.3	32.9	31.4
LAM	43.8	35.6	31.4	29.4	30.3	31.9	29.8	28.9	28.5	27.5	28.0
ROW	70.3	73.4	75.6	83.3	65.3	65.3	60.7	56.6	52.1	49.3	46.8
USA	31.6	33.9	30.4	30.8	30.2	25.9	23.6	25.6	26.4	28.4	26.7

Table 895: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Crops—Cereals (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	40.3	37.9	36.5	35.4	33.3	31.6	29.7
BRA	27.9	26.9	27.6	27.2	22.9	22.3	20.7
CHA	30.0	27.3	22.8	18.3	17.3	16.0	15.6
EUR	33.7	34.9	35.2	35.9	33.7	31.8	30.2
LAM	23.0	23.0	22.7	22.1	20.9	18.9	20.1
ROW	45.8	42.4	40.9	39.7	36.9	34.9	32.2
USA	31.6	31.4	31.7	32.6	32.8	32.4	31.7

Table 896: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Crops—Cereals (USD/capita) [PART 2/2]

33.1.3 Crops—Oil crops

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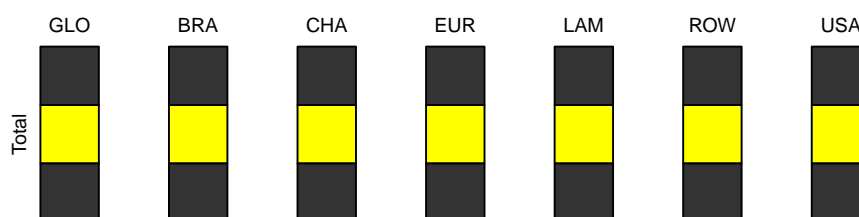


Figure 267: MAgPIE m4p.brazil — Household Expenditure—Food—Expenditure—Crops—Oil crops (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.0	7.2	7.9	8.3	7.6	7.3	7.0	6.3	5.8	5.9	5.6
BRA	3.5	7.6	11.5	9.2	7.4	6.1	5.3	4.1	4.4	4.1	4.2
CHA	5.1	6.9	6.4	7.9	5.7	4.7	4.2	4.3	4.0	4.0	3.9
EUR	2.1	2.9	2.6	3.2	3.0	3.0	2.8	2.5	2.5	2.5	2.4
LAM	2.7	3.4	3.2	3.1	2.8	2.7	2.5	2.1	2.0	1.9	1.9
ROW	9.6	8.7	9.9	10.1	9.5	9.5	9.0	8.0	7.2	7.3	6.9
USA	3.3	3.4	4.2	4.1	4.4	4.1	3.4	3.6	3.5	3.6	3.4

Table 897: MAgPIE m4p.brazil — Household Expenditure—Food—Expenditure—Crops—Oil crops (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	5.1	4.6	4.4	4.2	4.0	3.9	3.9
BRA	4.7	4.6	4.8	4.6	3.7	3.6	3.4
CHA	4.0	3.7	3.4	3.2	3.0	2.9	2.8
EUR	2.5	2.5	2.5	2.5	2.3	2.2	2.1
LAM	1.7	1.6	1.6	1.5	1.4	1.4	1.4
ROW	6.0	5.3	5.1	4.8	4.5	4.5	4.4
USA	3.9	3.8	3.8	3.8	3.7	3.6	3.5

Table 898: MAgPIE m4p.brazil — Household Expenditure—Food—Expenditure—Crops—Oil crops (USD/capita) [PART 2/2]

33.1.4 Crops—Other crops

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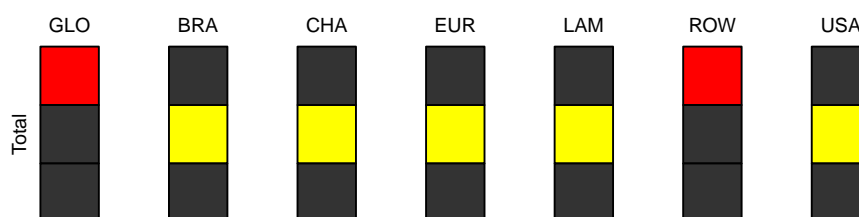


Figure 268: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Crops—Other crops (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	65	92	96	104	99	96	93	92	91	92	91
BRA	115	136	123	142	139	136	134	131	131	128	128
CHA	110	172	200	239	217	207	203	201	197	190	190
EUR	33	145	137	129	129	130	130	129	128	122	121
LAM	77	83	81	76	78	78	78	77	76	74	74
ROW	44	45	48	53	54	54	54	55	56	63	62
USA	137	162	152	143	146	143	135	133	132	126	125

Table 899: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Crops—Other crops (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	89	88	86	85	83	81	80
BRA	129	127	129	128	119	119	118
CHA	190	187	180	176	172	167	165
EUR	122	121	121	122	120	119	118
LAM	74	74	74	75	73	72	72
ROW	62	62	61	62	62	63	63
USA	128	127	127	127	126	125	124

Table 900: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Crops—Other crops (USD/capita) [PART 2/2]

33.1.5 Crops—Sugar crops

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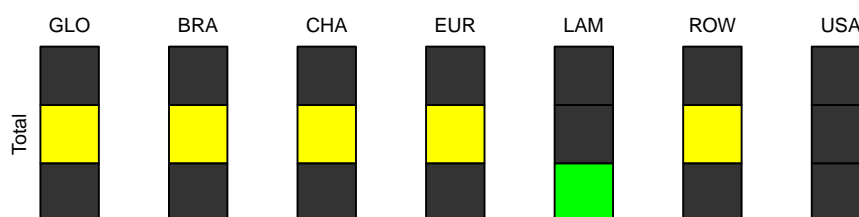


Figure 269: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Crops—Sugar crops (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.156	0.189	0.162	0.226	0.210	0.208	0.204	0.196	0.209	0.226	0.221
BRA	0.094	0.245	0.197	0.322	0.295	0.279	0.271	0.261	0.256	0.248	0.243
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
LAM	0.003	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.004	0.004
ROW	0.275	0.322	0.271	0.370	0.338	0.330	0.319	0.302	0.319	0.340	0.329
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_brazil — Household Expenditure—Food—Expenditure—Crops—Sugar crops (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	0.210	0.206	0.208	0.200	0.191	0.186	0.175
BRA	0.238	0.203	0.183	0.172	0.148	0.146	0.145
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
LAM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
ROW	0.308	0.300	0.300	0.284	0.267	0.257	0.239
USA	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 902: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Crops—Sugar crops (USD/capita) [PART 2/2]

33.1.6 Fish

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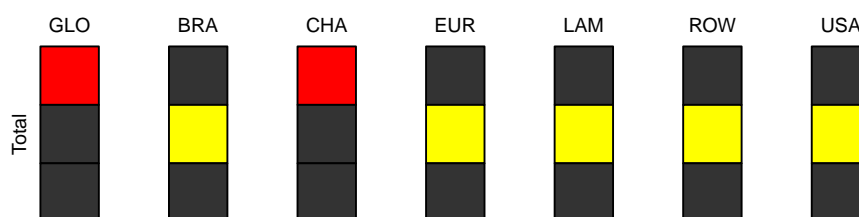


Figure 270: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Fish (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.1	5.3	5.6	6.2	7.2	8.0	8.3	9.2	9.5	10.2	10.5
BRA	2.0	1.9	1.9	2.7	2.9	3.1	3.1	3.2	3.1	3.2	3.3
CHA	5.2	6.5	6.9	8.7	10.1	11.2	11.9	12.4	12.7	13.0	13.2
EUR	7.1	7.8	8.9	8.9	9.1	9.2	9.1	9.2	9.0	9.2	9.2
LAM	4.8	4.2	3.5	3.4	3.8	4.1	4.2	4.4	4.4	4.6	4.7
ROW	4.8	4.7	4.9	5.3	6.6	7.5	7.9	9.2	9.6	10.6	11.0
USA	5.9	5.8	7.4	7.2	7.3	7.3	7.2	7.3	7.0	7.1	7.1

Table 903: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Fish (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	10.9	11.4	11.8	12.8	13.4	14.0	14.5
BRA	3.3	3.4	3.4	3.5	3.6	3.6	3.7
CHA	13.3	13.4	13.5	13.8	13.9	14.0	14.1
EUR	9.3	9.4	9.5	9.7	9.9	10.0	10.1
LAM	4.8	4.9	5.0	5.1	5.3	5.3	5.4
ROW	11.7	12.3	12.9	14.2	15.1	15.8	16.4
USA	7.1	7.1	7.1	7.1	7.2	7.2	7.2

Table 904: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Fish (USD/capita) [PART 2/2]

33.1.7 Livestock products

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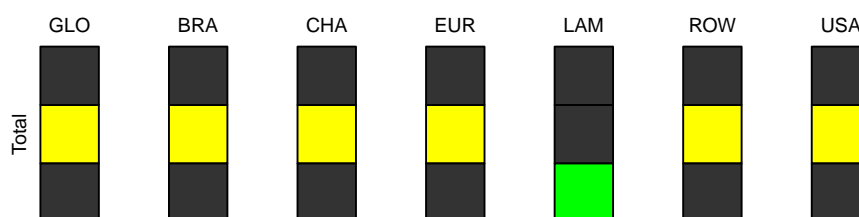


Figure 271: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Livestock products (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	296	237	244	248	290	280	245	301	269	311	293
BRA	224	466	172	483	415	417	388	467	397	431	385
CHA	380	434	502	559	436	337	344	397	377	379	401
EUR	538	433	404	390	349	360	354	375	347	387	349
LAM	406	231	282	343	348	338	324	354	285	308	317
ROW	199	93	100	87	213	230	182	240	215	273	248
USA	453	547	575	419	444	411	349	491	409	445	424

Table 905: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Livestock products (USD/capita) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	322	330	353	378	382	388	376
BRA	406	394	431	442	415	414	375
CHA	421	404	375	355	344	330	325
EUR	386	390	418	429	419	413	364
LAM	334	352	368	386	369	362	376
ROW	281	291	325	358	370	381	374
USA	467	541	556	604	589	580	504

Table 906: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Livestock products (USD/capita) [PART 2/2]

33.1.8 Secondary products

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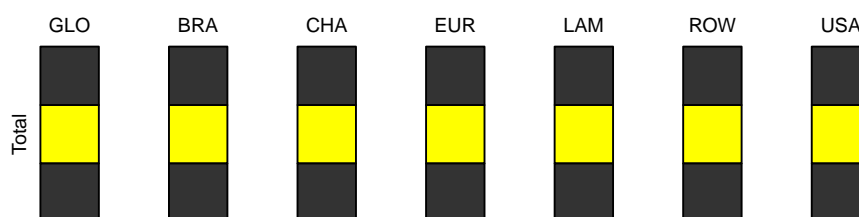


Figure 272: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Secondary products (USD/capita)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	81	76	75	84	103	111	111	116	115	119	119
BRA	64	72	68	80	140	139	142	143	145	146	146
CHA	103	83	74	117	136	167	178	187	188	195	198
EUR	159	170	165	136	199	198	199	198	196	196	194
LAM	61	59	65	64	80	94	95	97	97	100	101
ROW	56	54	55	54	66	70	71	76	76	82	83
USA	148	157	180	260	275	270	261	267	265	267	262

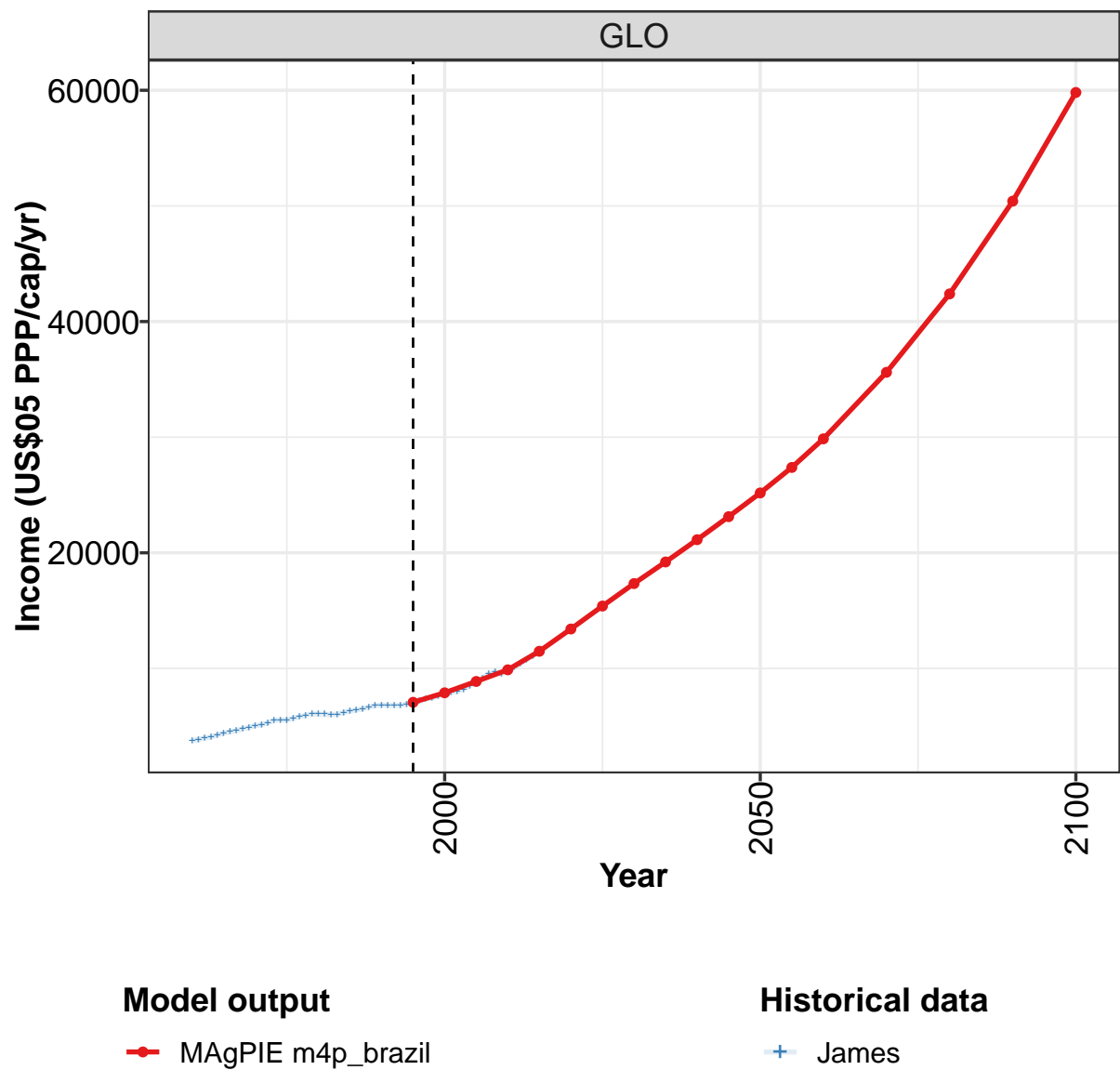
Table 907: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Secondary products (USD/capita) [PART 1/2]

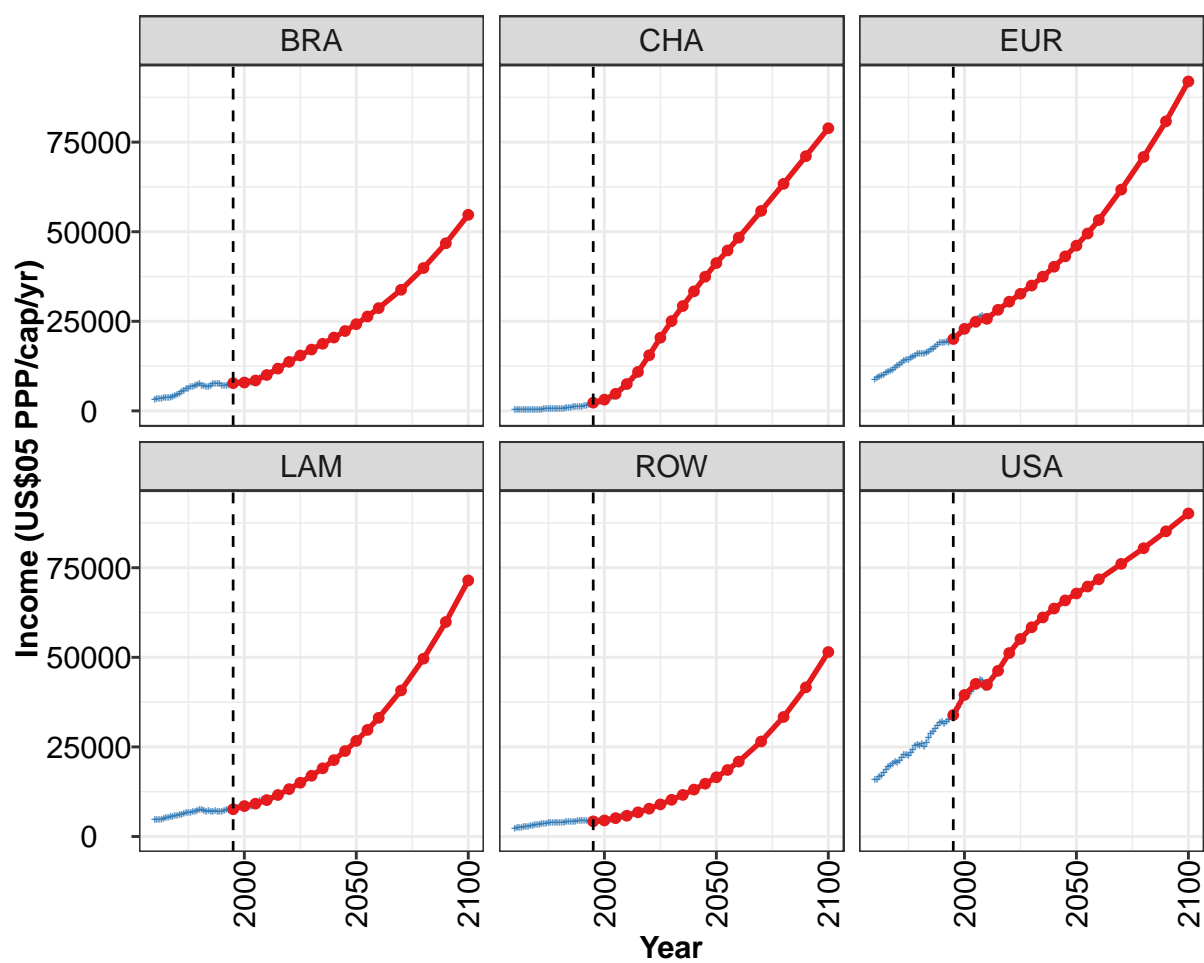
	2050	2055	2060	2070	2080	2090	2100
GLO	119	119	121	125	128	129	131
BRA	146	144	146	130	131	128	139
CHA	199	197	194	193	194	193	193
EUR	193	192	192	189	188	186	185
LAM	100	100	101	103	104	104	105
ROW	85	87	91	99	104	107	111
USA	272	271	271	276	273	269	266

Table 908: MAgPIE m4p_brazil — Household Expenditure—Food—Expenditure—Secondary products (USD/capita) [PART 2/2]

Part VIII

Income





Model output

—•— MAgPIE m4p_brazil

Historical data

+ James

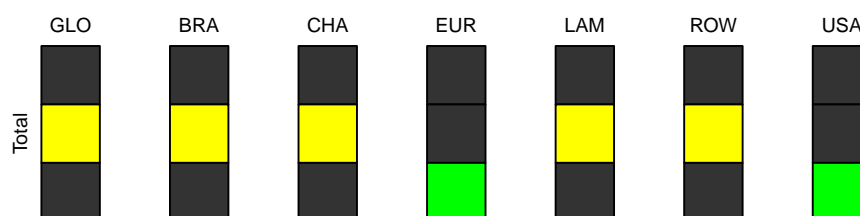


Figure 273: MAgPIE m4p_brazil — Income (US\$05 PPP/cap/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7073	7892	8875	9881	11486	13412	15396	17340	19209	21134	23129
BRA	7745	7925	8486	10023	11808	13682	15462	17128	18744	20472	22294
CHA	2294	3145	4773	7508	10894	15528	20422	25076	29275	33376	37446
EUR	20064	22900	24866	25691	28213	30484	32688	34990	37481	40235	43128
LAM	7604	8485	9162	10159	11588	13227	15010	16949	19039	21325	23851
ROW	4227	4482	5119	5801	6742	7769	8955	10243	11602	13097	14732
USA	33906	39506	42583	42310	46247	51202	55133	58387	61135	63617	65878

Table 909: MAgPIE m4p_brazil — Income (US\$05 PPP/cap/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	25179	27383	29857	35611	42390	50413	59813
BRA	24208	26353	28687	33797	39872	46782	54731
CHA	41262	44765	48364	55818	63360	71103	78890
EUR	46131	49508	53265	61752	70875	80803	91940
LAM	26668	29745	33117	40757	49621	59864	71449
ROW	16523	18565	20910	26519	33358	41632	51474
USA	67814	69760	71774	76070	80449	85163	90160

Table 910: MAgPIE m4p_brazil — 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
BRA	3141	3379	3455	3489	3526	3600	3658	3736	4001	4173	4457
CHA	348	288	283	303	331	363	382	360	346	373	408
EUR	8767	9118	9423	9757	10179	10509	10849	11145	11593	12087	12527
LAM	4571	4635	4708	4775	5033	5171	5272	5380	5520	5662	5827
ROW	2260	2341	2401	2440	2607	2694	2786	2878	3027	3154	3309
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
BRA	4813	5205	5715	6034	6159	6612	6733	6875	7172	7581	7067
CHA	425	430	459	461	482	481	506	558	597	633	664
EUR	12887	13354	13990	14272	14235	14788	15137	15516	15940	16069	15968
LAM	5947	6097	6309	6512	6560	6679	6843	6998	7237	7395	7547
ROW	3387	3471	3638	3677	3689	3806	3867	3927	3956	3938	3958
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
BRA	6982	6615	6764	7043	7546	7621	7452	7491	7124	7105	6977
CHA	714	773	866	955	1021	1117	1208	1229	1267	1359	1514
EUR	16014	16242	16592	16937	17369	17824	18439	18917	19143	19141	19179
LAM	7307	6982	7070	7002	6986	7053	7028	6947	7021	7218	7424
ROW	3960	3994	4040	4086	4118	4165	4279	4365	4423	4404	4269
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
BRA	7268	7554	7745	7794	7934	7829	7721	7925	7928	8033	7969
CHA	1725	1909	2077	2250	2388	2524	2689	2882	3092	3350	3669
EUR	19090	19499	20038	20442	21006	21574	22074	22874	23187	23458	23742
LAM	7499	7691	7522	7703	8087	8244	8171	8407	8328	8181	8271
ROW	4193	4158	4217	4295	4348	4256	4333	4472	4516	4595	4721
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
BRA	8320	8486	8742	9179	9523	9448	10023	10336	10664	11003	11361
CHA	4033	4488	5001	5643	6136	6648	7242	7833	8469	9153	9892
EUR	24342	24840	25616	26333	26441	25245	25665	26047	26545	27079	27630
LAM	8632	9088	9529	9925	10164	9772	10091	10357	10652	10946	11239
ROW	4913	5109	5320	5560	5672	5595	5792	5964	6153	6341	6536
USA	41454	42583	43308	43723	43333	41589	42310	42916	43809	44665	45482

Table 915: James — Income (US\$05 PPP/cap/yr) [PART 5/6]

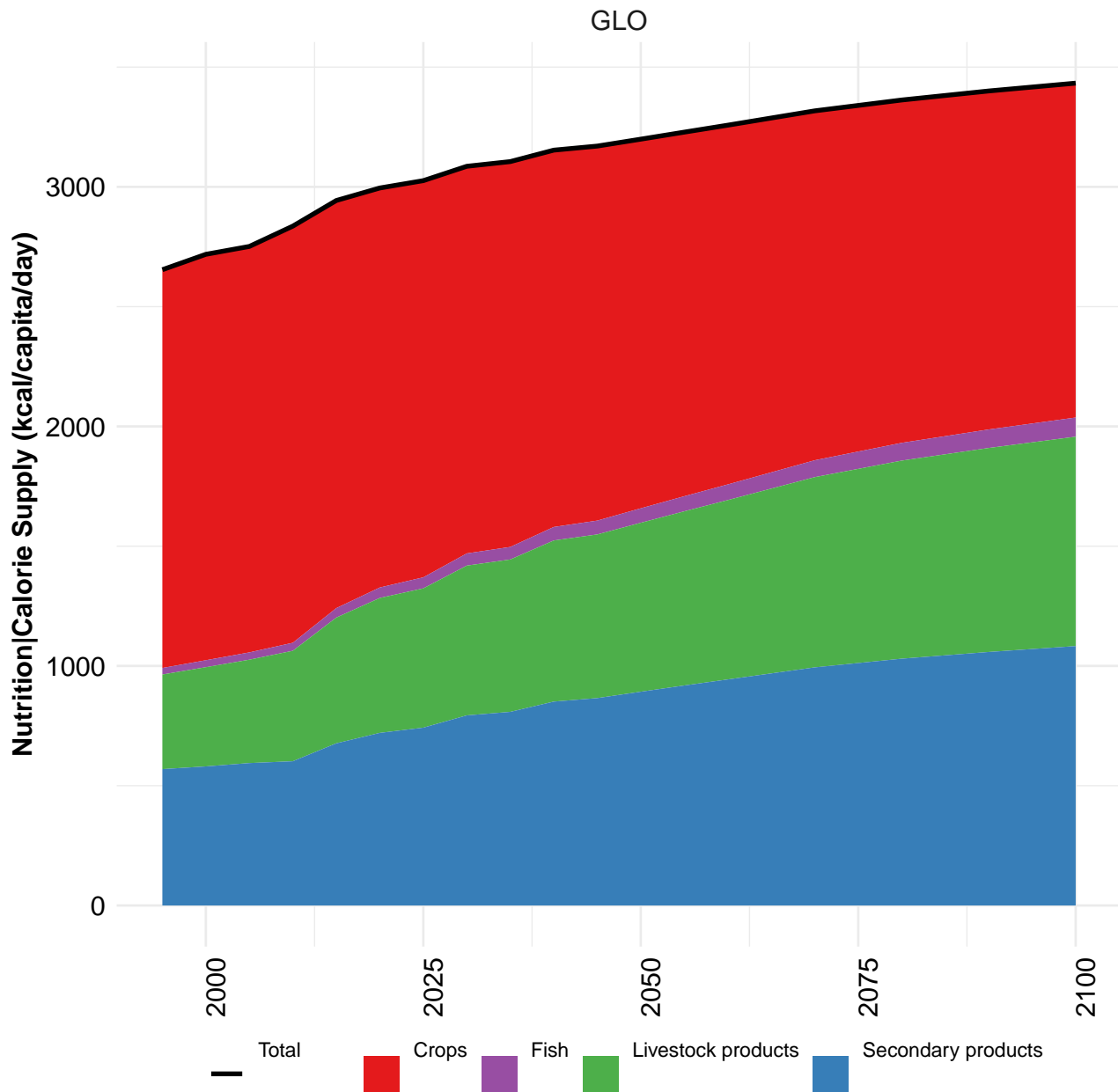
	2015
GLO	11446
BRA	11808
CHA	10690
EUR	28188
LAM	11528
ROW	6740
USA	46247

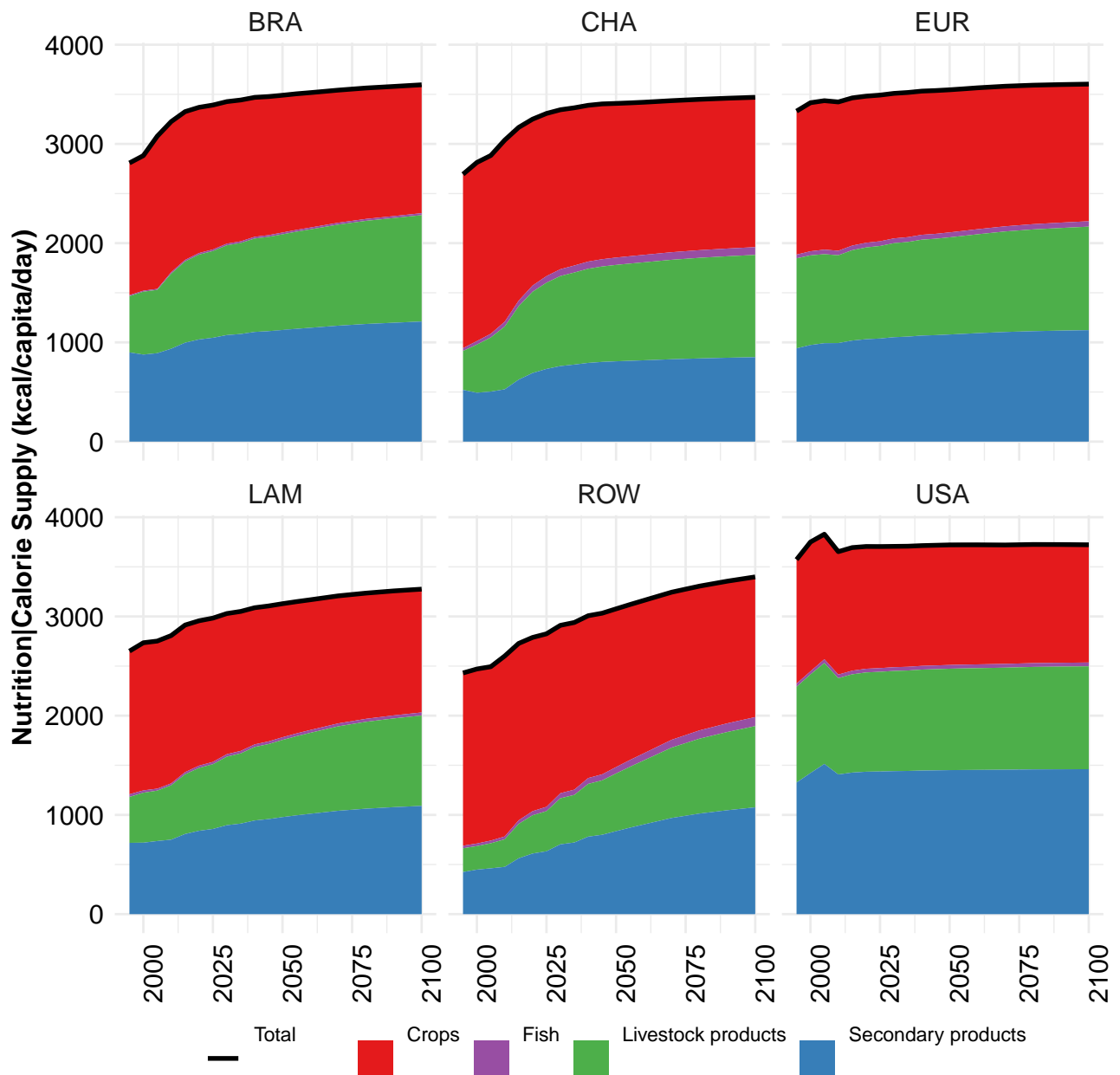
Table 916: James — Income (US\$05 PPP/cap/yr) [PART 6/6]

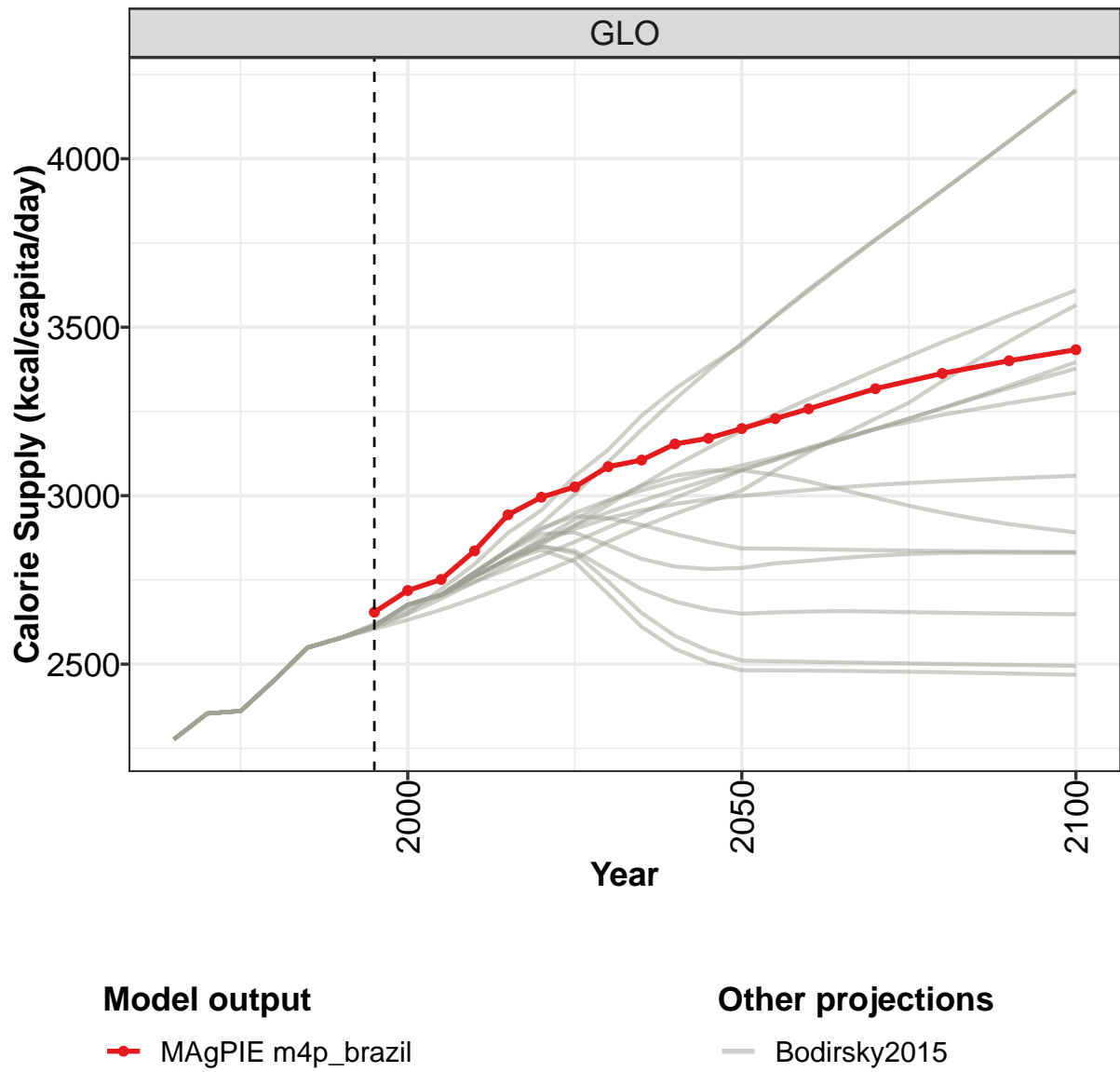
Part IX

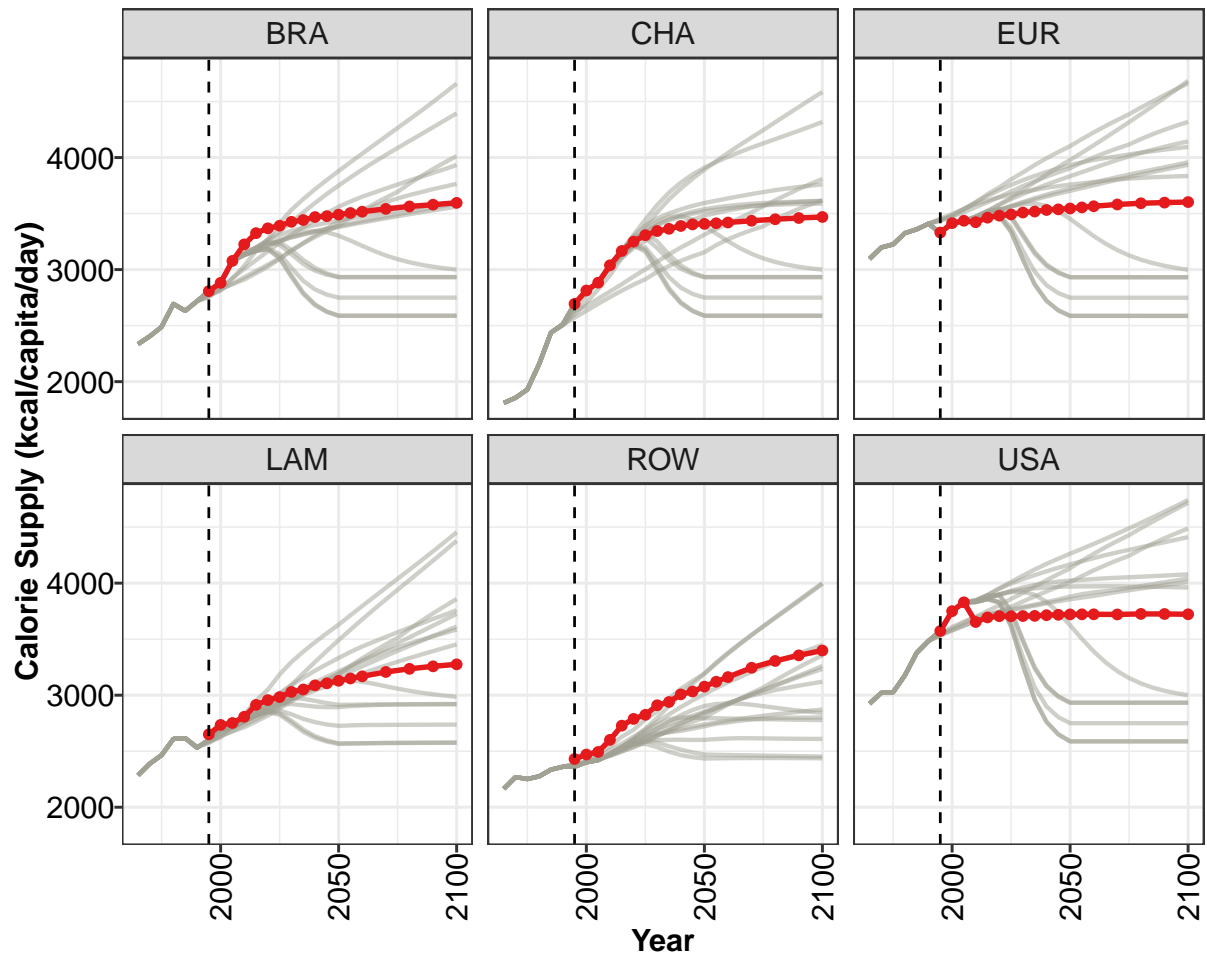
Nutrition

34 Calorie Supply







**Model output**

—•— MAgPIE m4p_brazil

Other projections

— Bodirsky2015

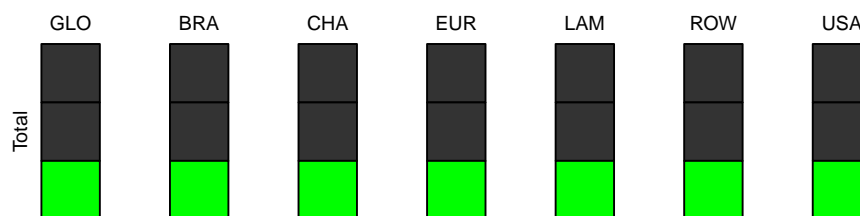


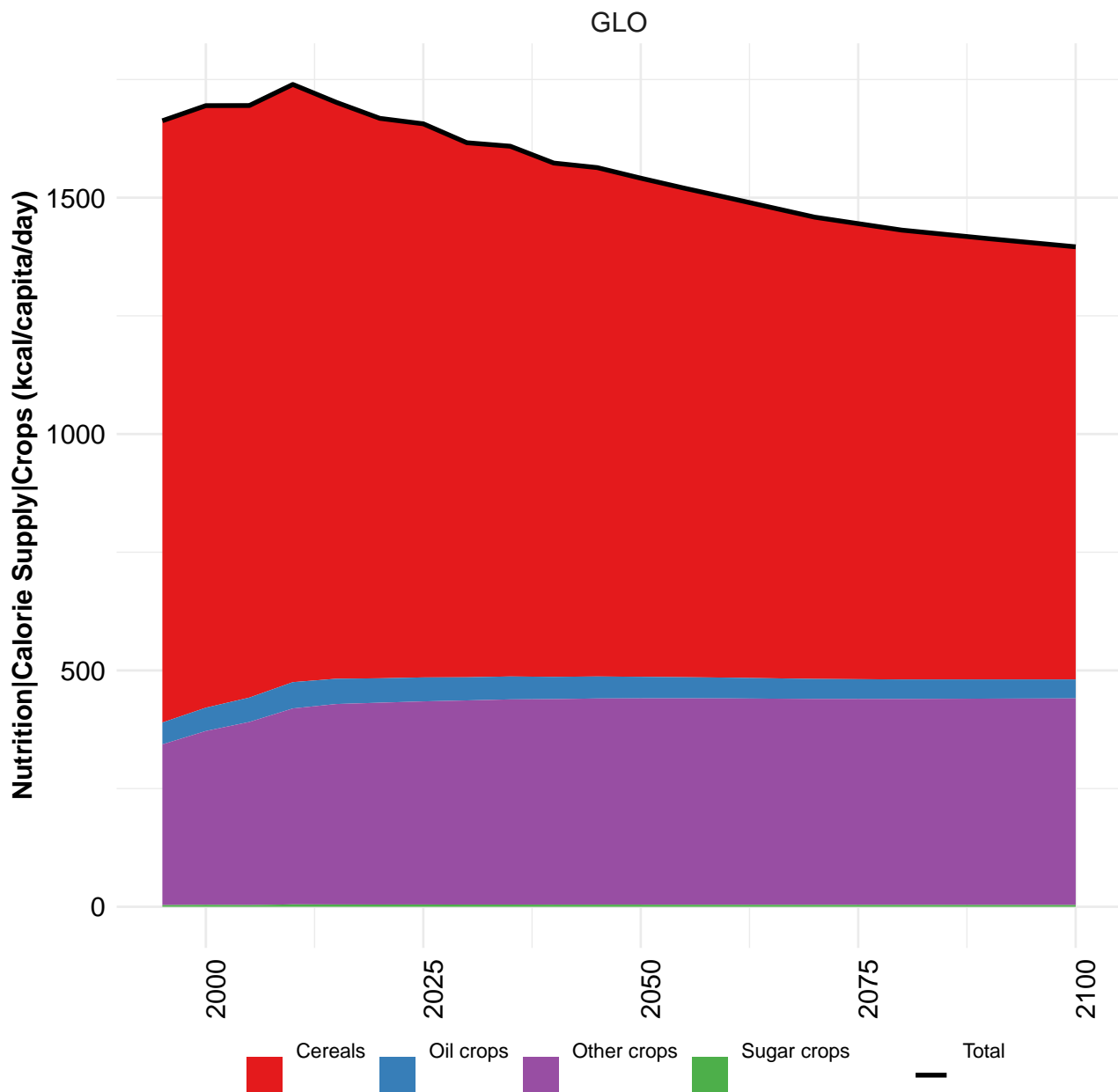
Figure 274: MAgPIE m4p_brazil — Nutrition—Calorie Supply (kcal/capita/day)

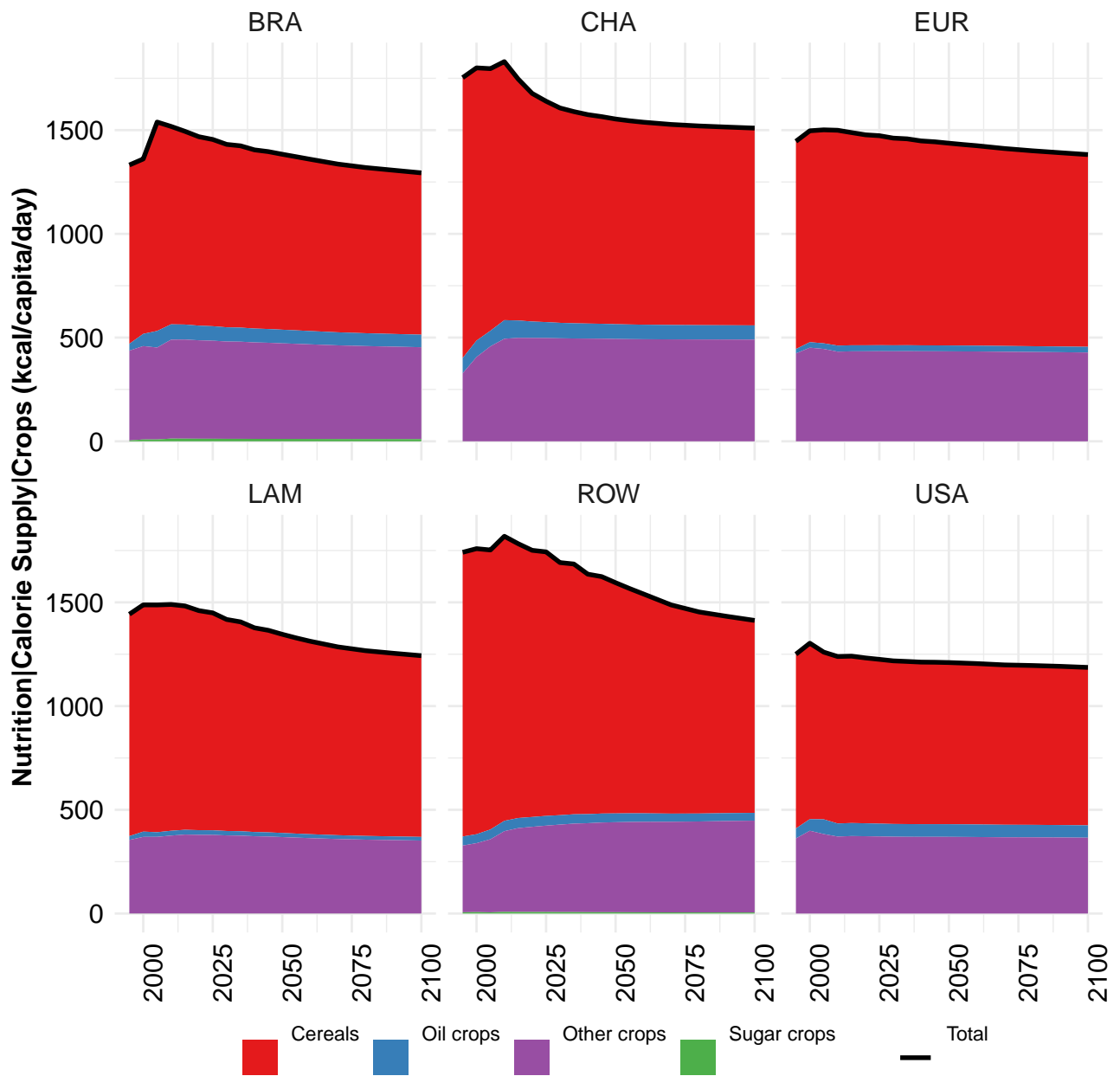
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2654	2719	2751	2836	2943	2995	3026	3086	3106	3153	3170
BRA	2808	2882	3078	3225	3325	3369	3392	3426	3443	3469	3477
CHA	2694	2813	2883	3039	3166	3250	3307	3344	3364	3389	3403
EUR	3331	3415	3436	3423	3464	3482	3492	3510	3519	3532	3538
LAM	2651	2735	2752	2807	2913	2956	2983	3029	3051	3088	3106
ROW	2430	2470	2494	2601	2728	2789	2825	2911	2939	3007	3033
USA	3573	3750	3829	3653	3694	3705	3705	3706	3708	3714	3718

Table 917: MAgPIE m4p_brazil — Nutrition—Calorie Supply (kcal/capita/day) [PART 1/2]

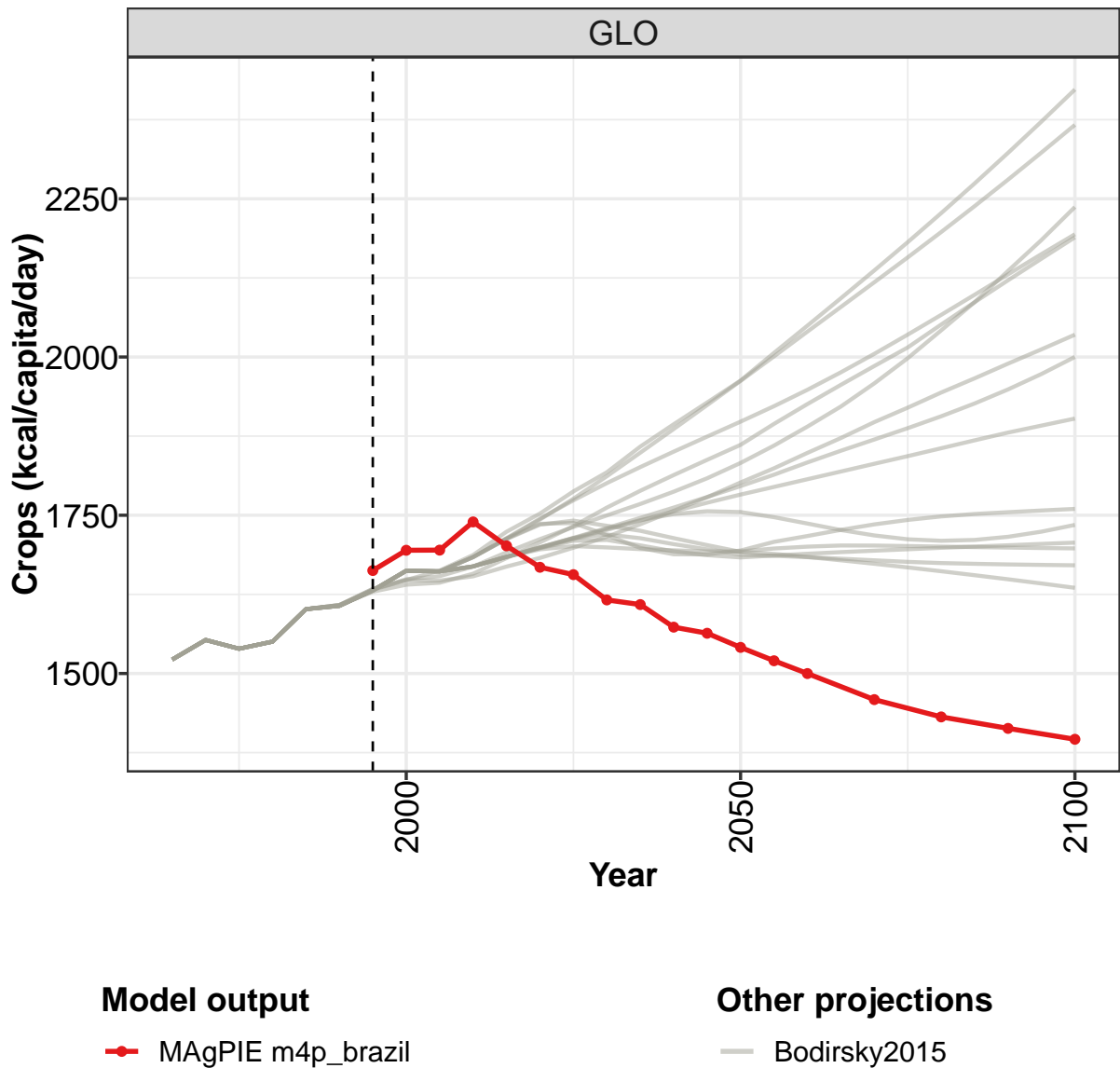
	2050	2055	2060	2070	2080	2090	2100
GLO	3199	3229	3258	3317	3363	3400	3433
BRA	3491	3505	3517	3542	3564	3580	3596
CHA	3408	3414	3420	3436	3449	3461	3470
EUR	3546	3555	3565	3581	3592	3598	3603
LAM	3129	3149	3168	3207	3235	3258	3275
ROW	3077	3120	3162	3245	3306	3356	3399
USA	3721	3722	3722	3721	3725	3725	3722

Table 918: MAgPIE m4p_brazil — Nutrition—Calorie Supply (kcal/capita/day) [PART 2/2]





34.1 Crops



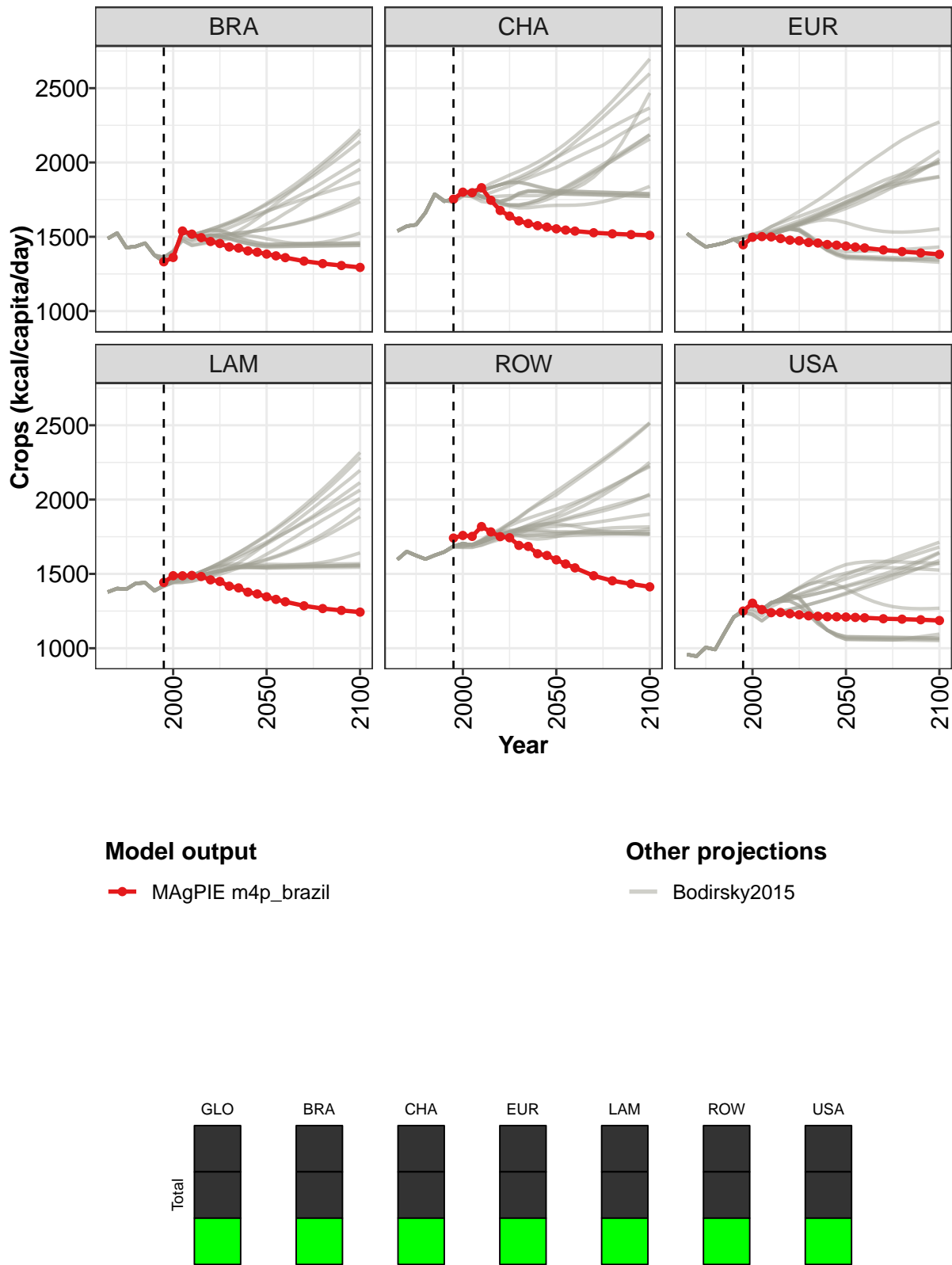


Figure 275: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Crops (kcal/capita/day)

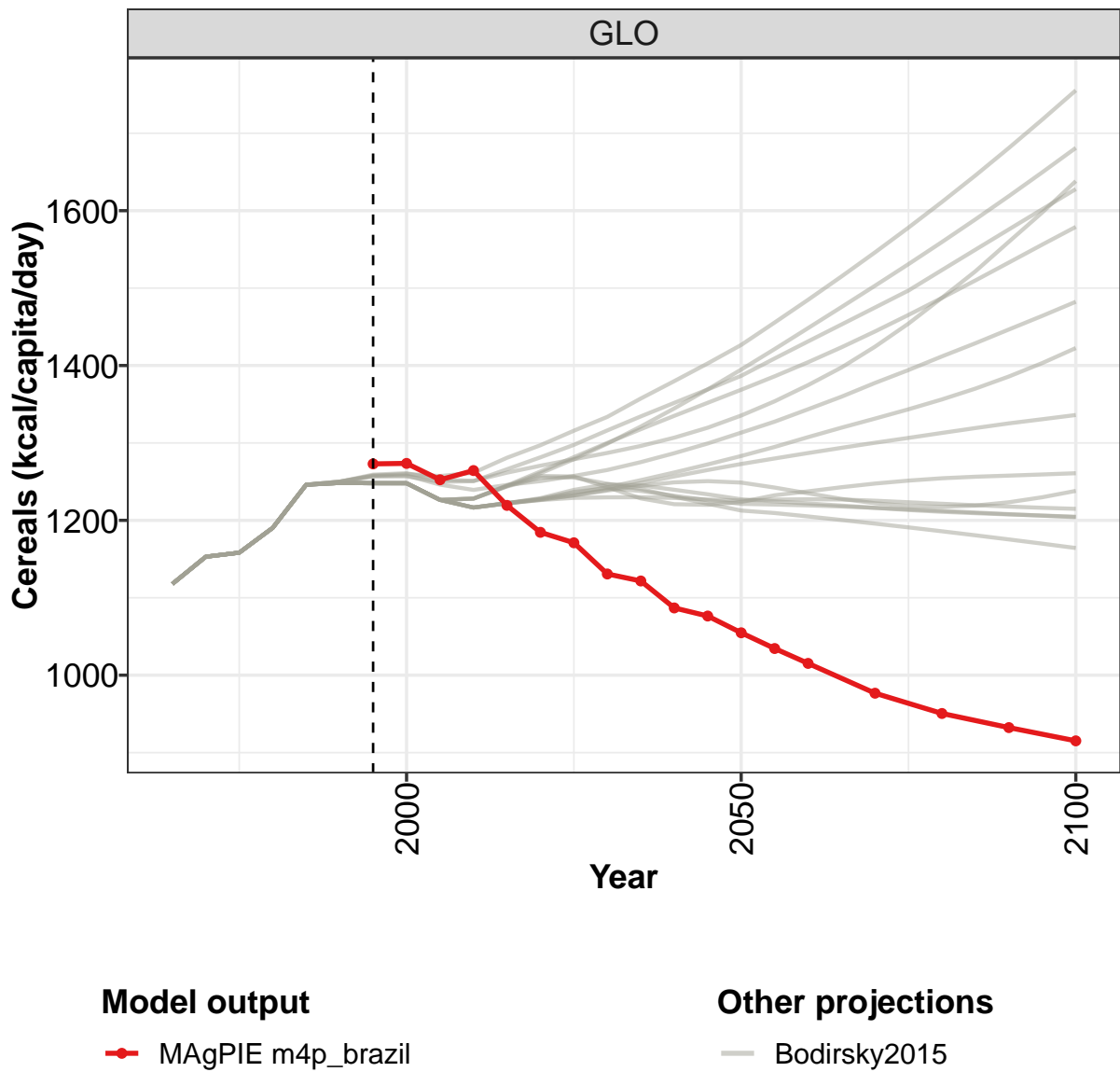
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1663	1695	1695	1739	1702	1668	1656	1616	1609	1573	1564
BRA	1332	1361	1539	1518	1494	1468	1455	1431	1424	1405	1396
CHA	1753	1800	1796	1830	1746	1677	1639	1607	1589	1575	1565
EUR	1446	1497	1501	1499	1488	1478	1473	1462	1458	1448	1444
LAM	1443	1488	1487	1490	1483	1460	1449	1417	1406	1377	1365
ROW	1741	1759	1752	1819	1782	1751	1743	1692	1685	1636	1624
USA	1250	1303	1260	1239	1241	1232	1225	1218	1215	1212	1211

Table 919: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Crops (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1541	1520	1500	1459	1431	1413	1396
BRA	1384	1372	1360	1336	1320	1307	1294
CHA	1554	1545	1538	1527	1520	1515	1510
EUR	1437	1431	1425	1411	1401	1391	1382
LAM	1346	1328	1313	1285	1267	1254	1243
ROW	1595	1567	1541	1488	1454	1433	1413
USA	1210	1207	1205	1198	1196	1192	1186

Table 920: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Crops (kcal/capita/day) [PART 2/2]

34.1.1 Cereals



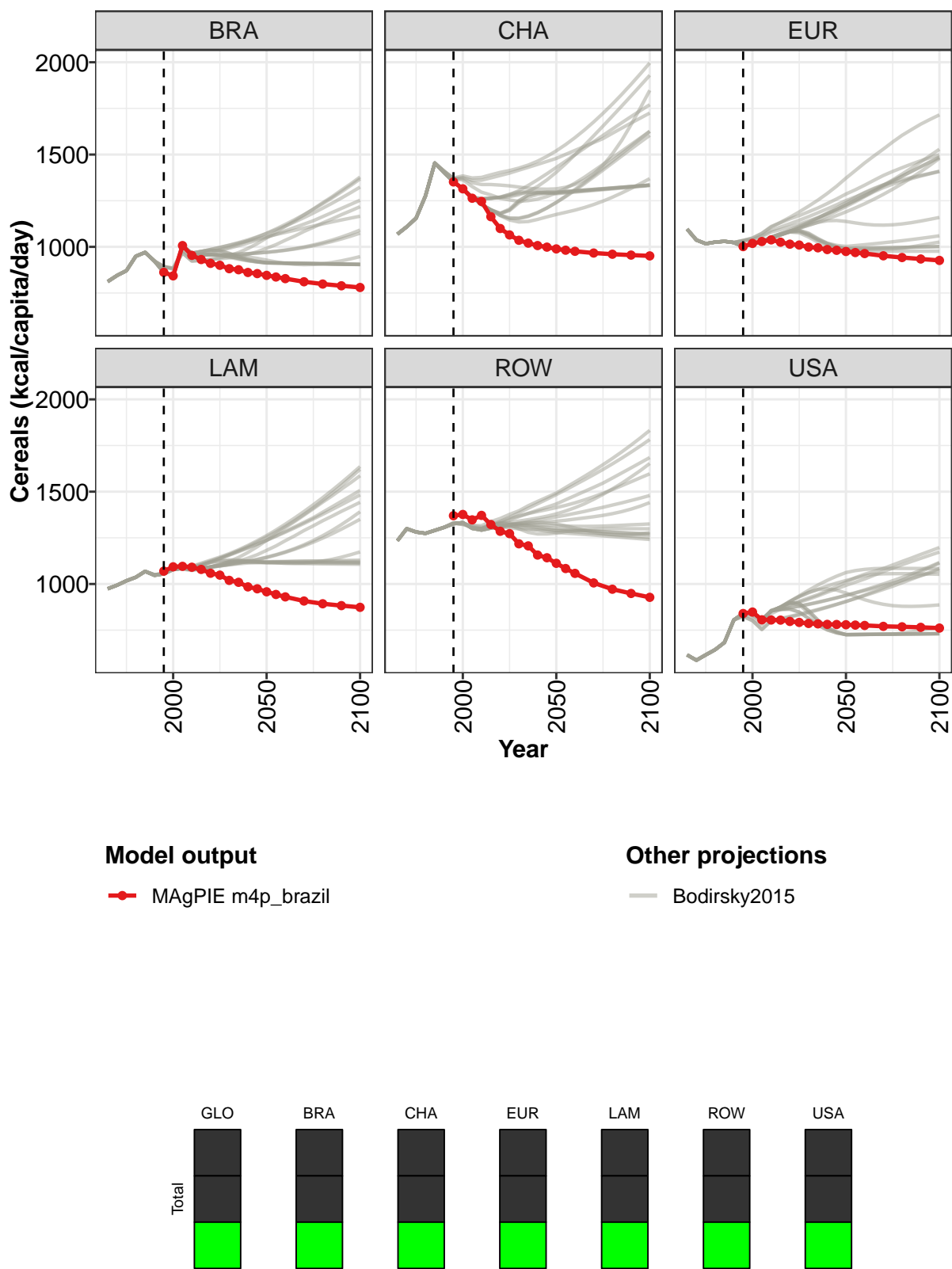


Figure 276: MAgPIE m4p.brazil — Nutrition—Calorie Supply—Crops—Cereals (kcal/capita/day)

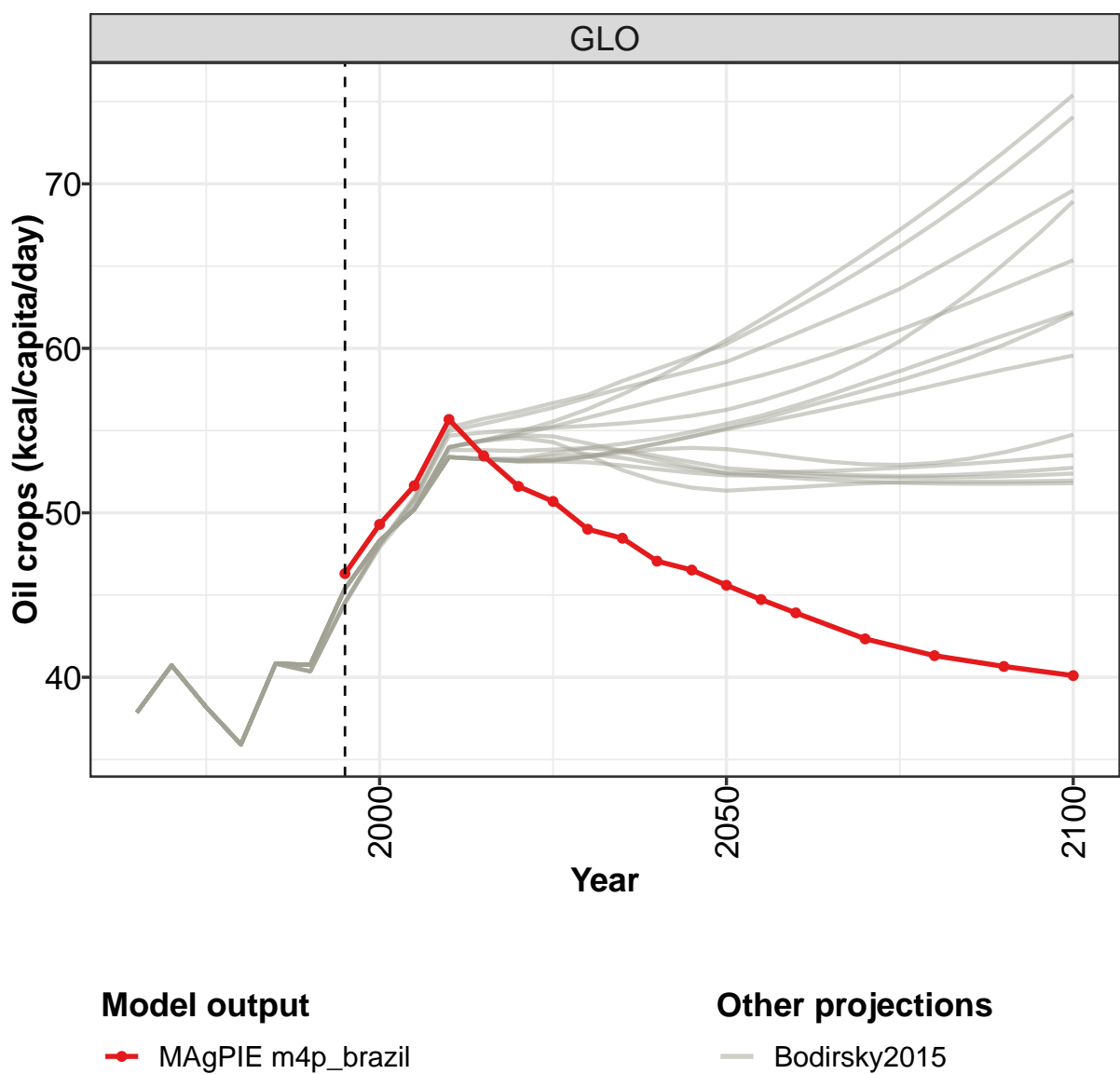
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1273	1274	1252	1264	1219	1185	1171	1131	1122	1087	1076
BRA	862	843	1007	954	931	911	900	882	876	861	855
CHA	1352	1315	1263	1246	1163	1100	1065	1036	1020	1007	999
EUR	1001	1019	1029	1038	1025	1015	1010	999	995	985	981
LAM	1070	1093	1096	1091	1079	1058	1048	1020	1009	984	974
ROW	1370	1377	1347	1372	1322	1285	1273	1218	1206	1157	1142
USA	840	848	806	805	804	797	792	786	784	781	781

Table 921: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Crops—Cereals (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1055	1034	1015	977	951	932	915
BRA	846	837	828	811	799	789	780
CHA	989	982	976	967	960	956	951
EUR	975	969	964	952	942	934	927
LAM	958	943	930	908	893	883	874
ROW	1112	1084	1058	1006	972	949	928
USA	779	777	775	771	768	765	761

Table 922: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Crops—Cereals (kcal/capita/day) [PART 2/2]

34.1.2 Oil crops



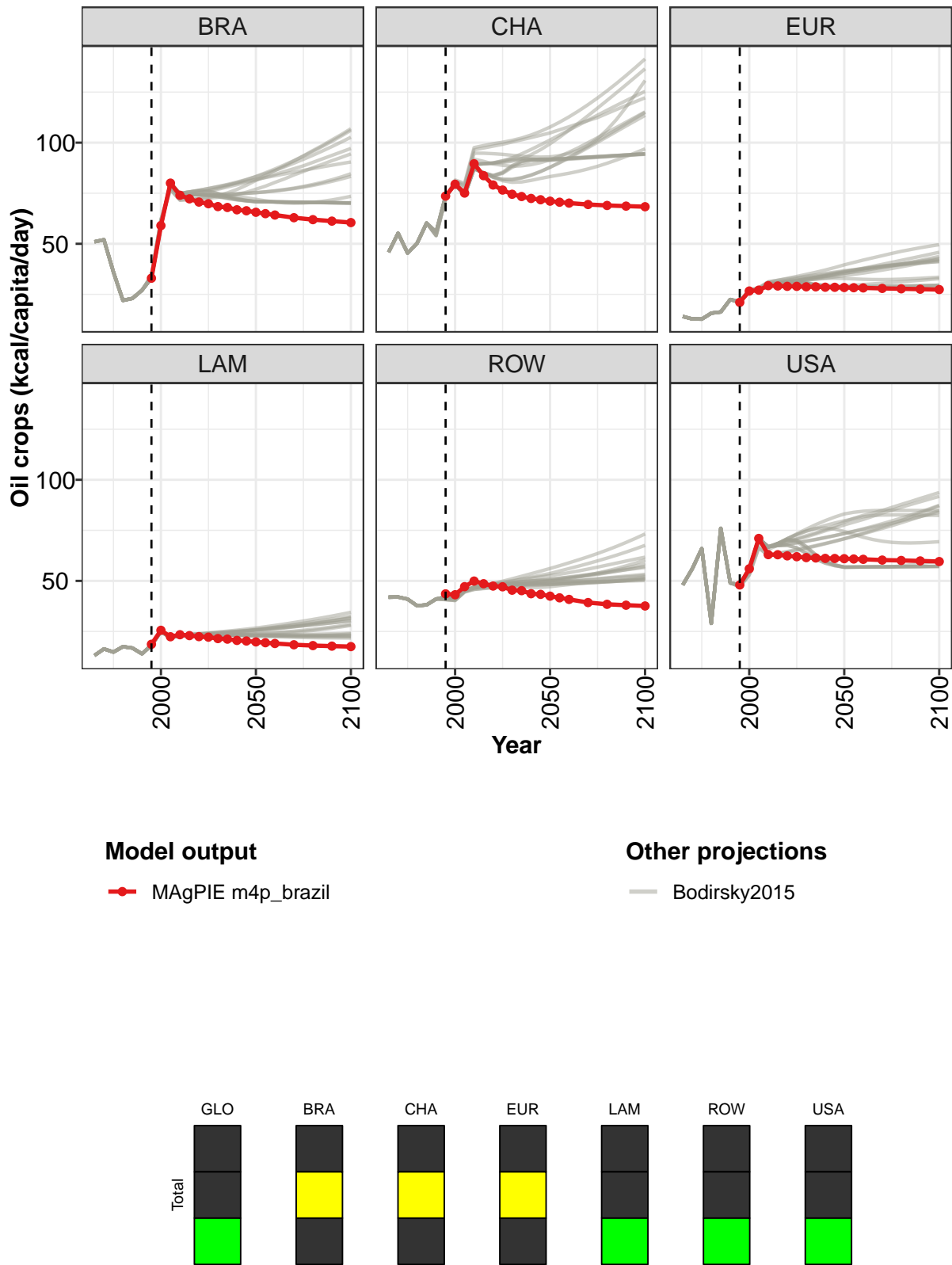


Figure 277: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Crops—Oil crops (kcal/capita/day)

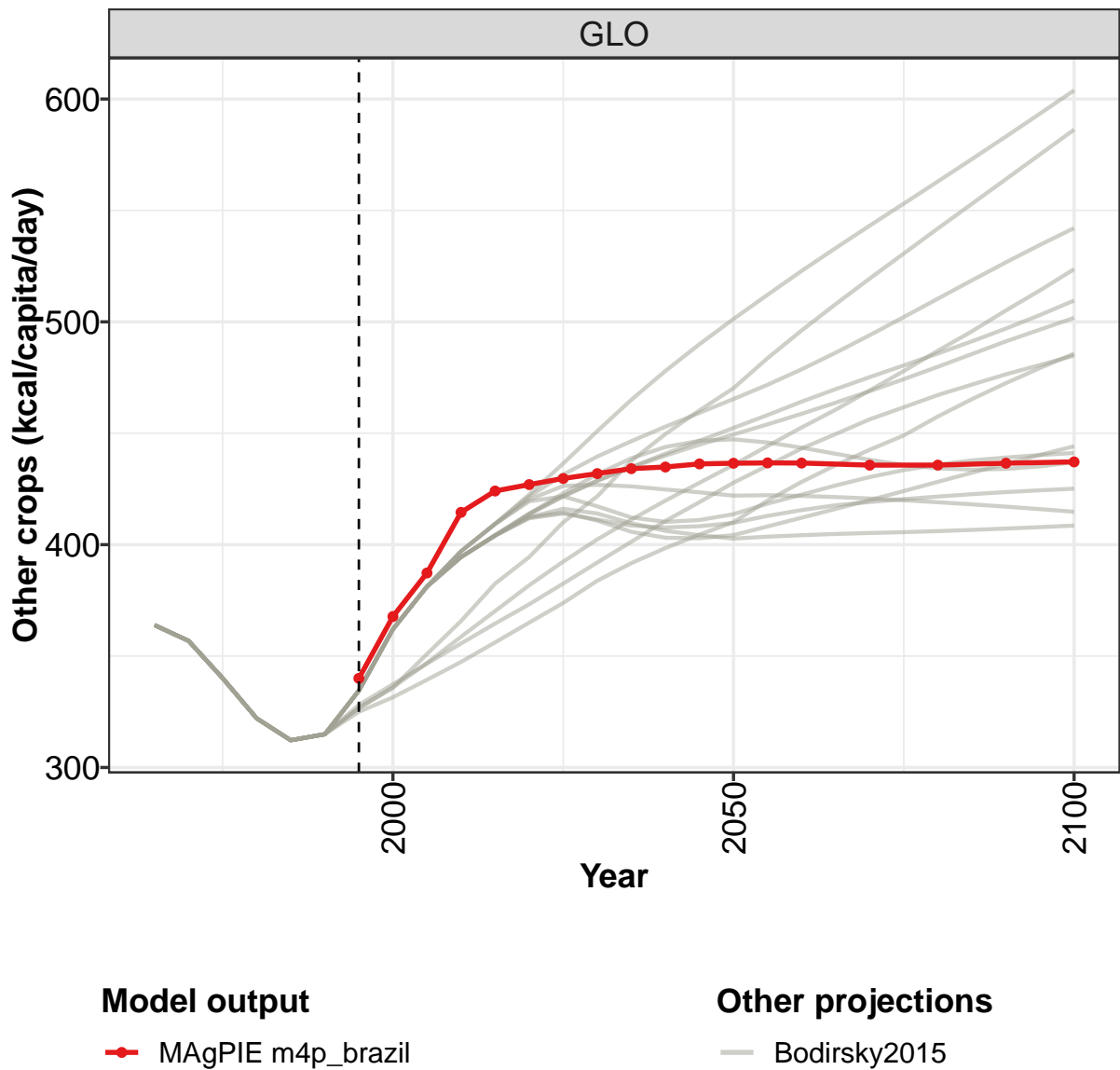
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	46.3	49.3	51.6	55.7	53.5	51.6	50.7	49.0	48.5	47.1	46.5
BRA	33.0	59.0	80.0	74.0	72.2	70.6	69.8	68.4	68.0	66.8	66.3
CHA	73.6	79.4	75.1	89.6	83.7	79.1	76.6	74.5	73.4	72.4	71.8
EUR	21.0	26.6	27.1	29.3	29.1	29.0	29.0	28.7	28.7	28.5	28.5
LAM	18.7	25.6	22.4	23.4	23.0	22.5	22.2	21.5	21.2	20.6	20.3
ROW	43.6	43.2	47.2	49.9	48.6	47.5	47.1	45.4	45.2	43.7	43.3
USA	48.0	56.0	71.0	63.0	62.9	62.4	62.0	61.5	61.4	61.1	61.1

Table 923: MAgPIE m4p.brazil — Nutrition—Calorie Supply—Crops—Oil crops (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	45.6	44.7	43.9	42.3	41.3	40.7	40.1
BRA	65.6	64.9	64.2	62.9	61.9	61.2	60.5
CHA	71.1	70.6	70.1	69.4	69.0	68.6	68.3
EUR	28.4	28.3	28.2	27.9	27.7	27.6	27.4
LAM	19.8	19.4	19.1	18.4	18.0	17.8	17.5
ROW	42.5	41.6	40.9	39.3	38.4	38.0	37.6
USA	61.0	60.8	60.7	60.3	60.1	59.9	59.6

Table 924: MAgPIE m4p.brazil — Nutrition—Calorie Supply—Crops—Oil crops (kcal/capita/day) [PART 2/2]

34.1.3 Other crops



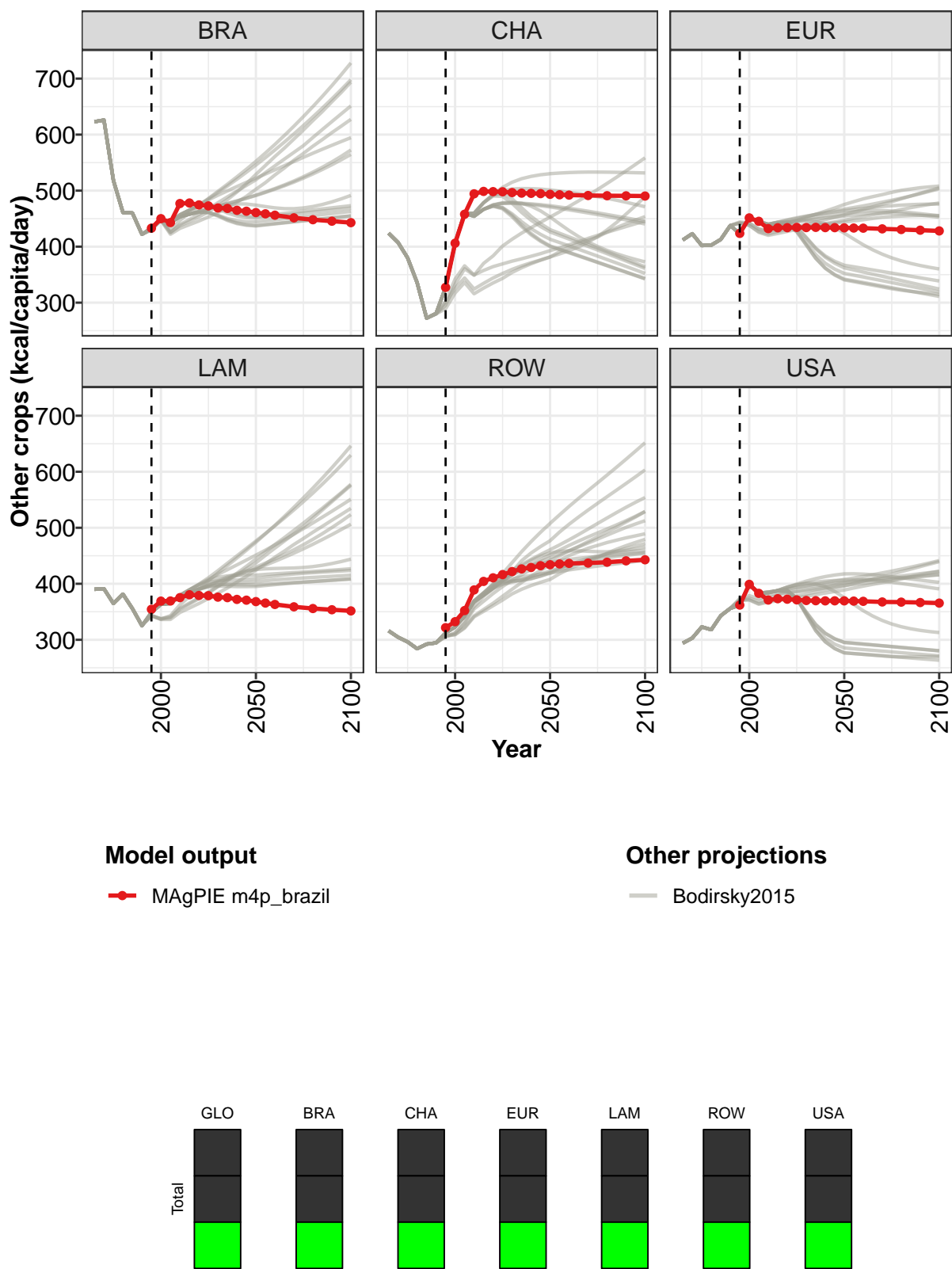


Figure 278: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Crops—Other crops (kcal/capita/day)

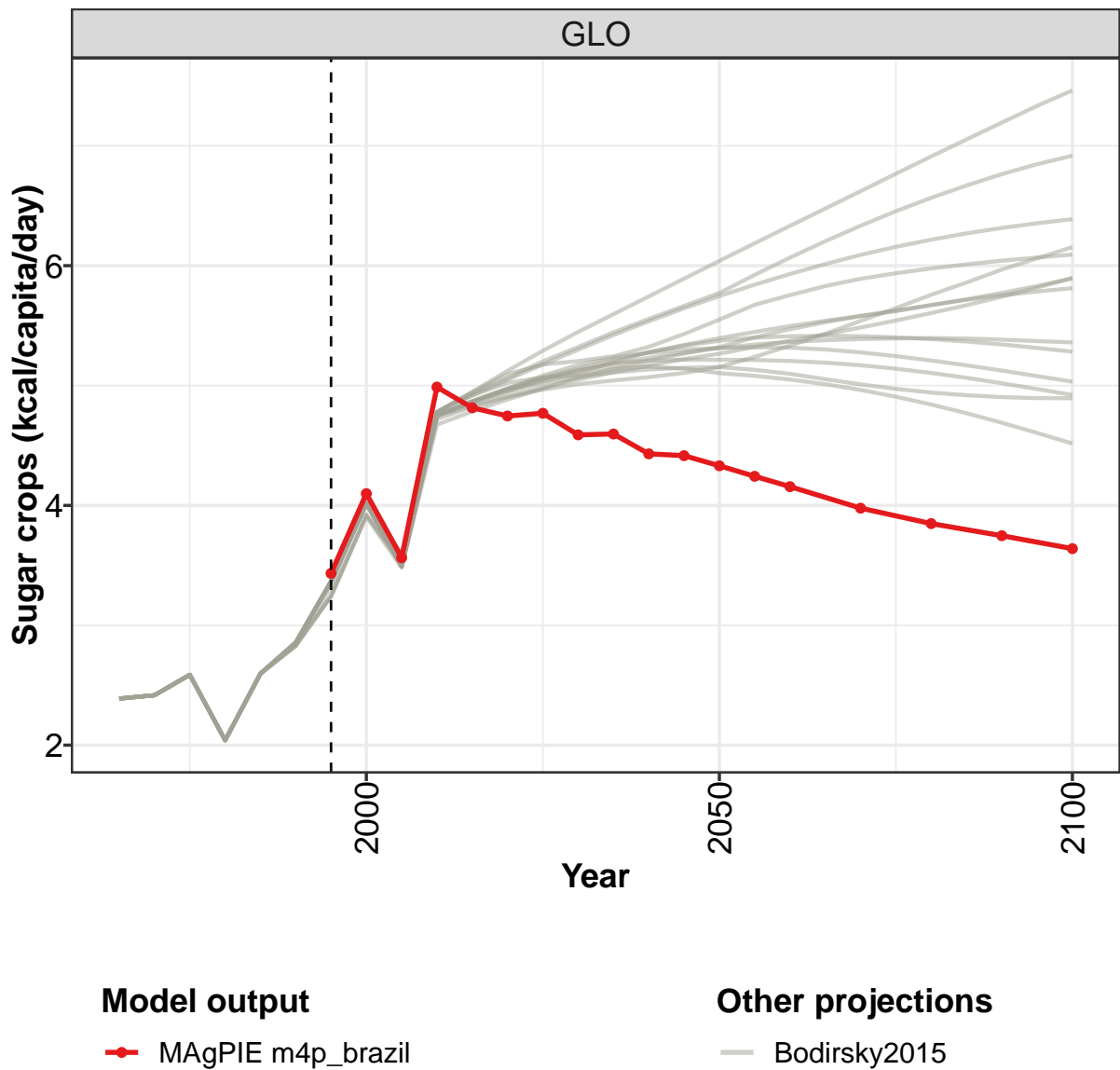
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	340	368	387	415	424	427	430	432	434	435	436
BRA	433	450	443	477	478	475	473	469	468	465	463
CHA	327	406	458	494	499	498	498	497	496	495	495
EUR	424	451	445	432	434	434	434	434	434	434	434
LAM	354	369	369	375	380	379	379	376	375	372	371
ROW	322	332	352	389	404	411	416	422	427	429	432
USA	362	399	383	371	373	372	371	370	370	370	370

Table 925: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Crops—Other crops (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	437	437	437	436	436	437	437
BRA	461	459	456	451	448	445	443
CHA	493	493	492	491	491	491	490
EUR	434	433	433	432	431	429	428
LAM	368	366	363	359	356	354	352
ROW	434	435	436	437	438	441	443
USA	370	369	369	368	367	367	366

Table 926: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Crops—Other crops (kcal/capita/day) [PART 2/2]

34.1.4 Sugar crops



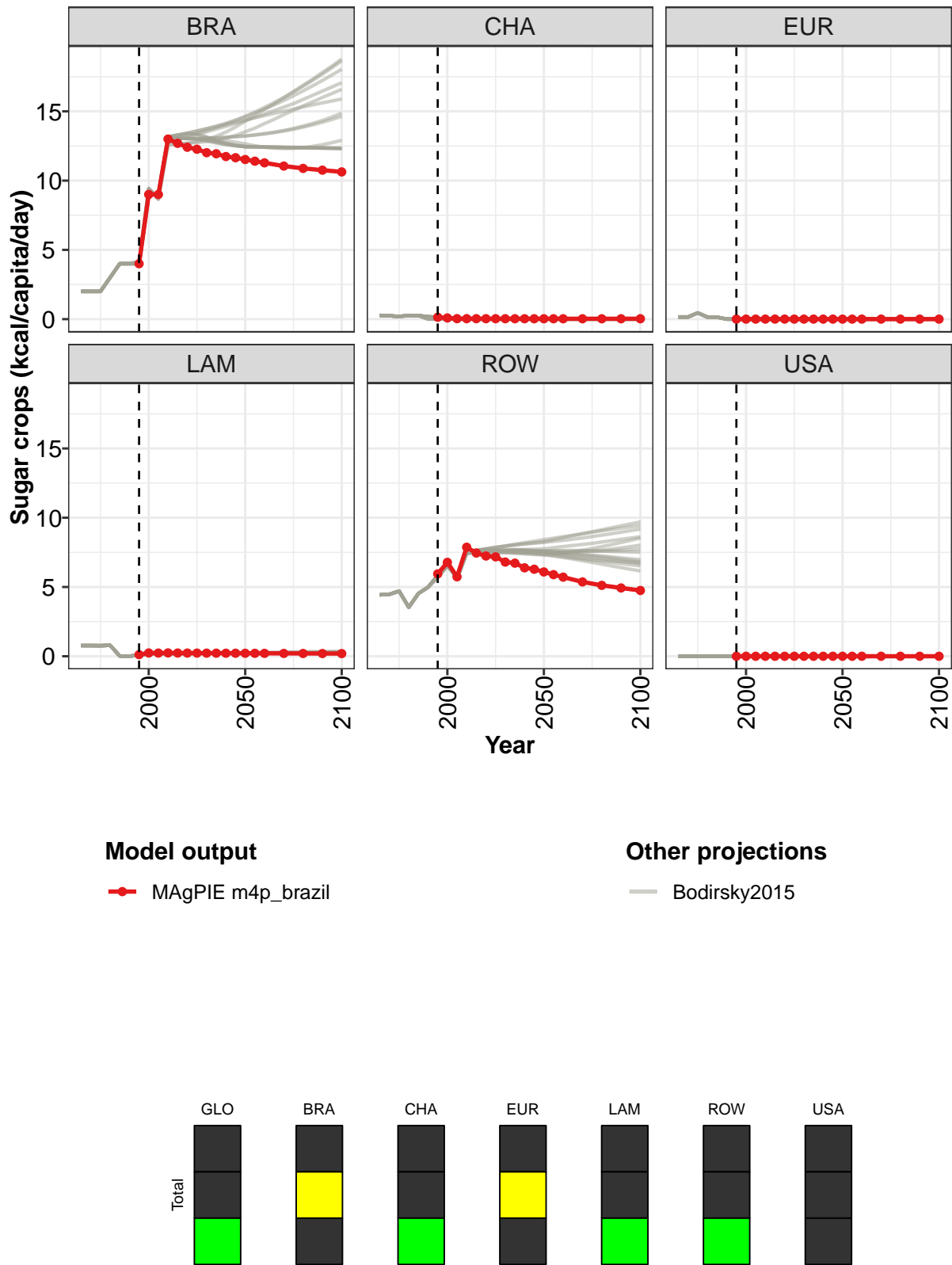


Figure 279: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Crops—Sugar crops (kcal/capita/day)

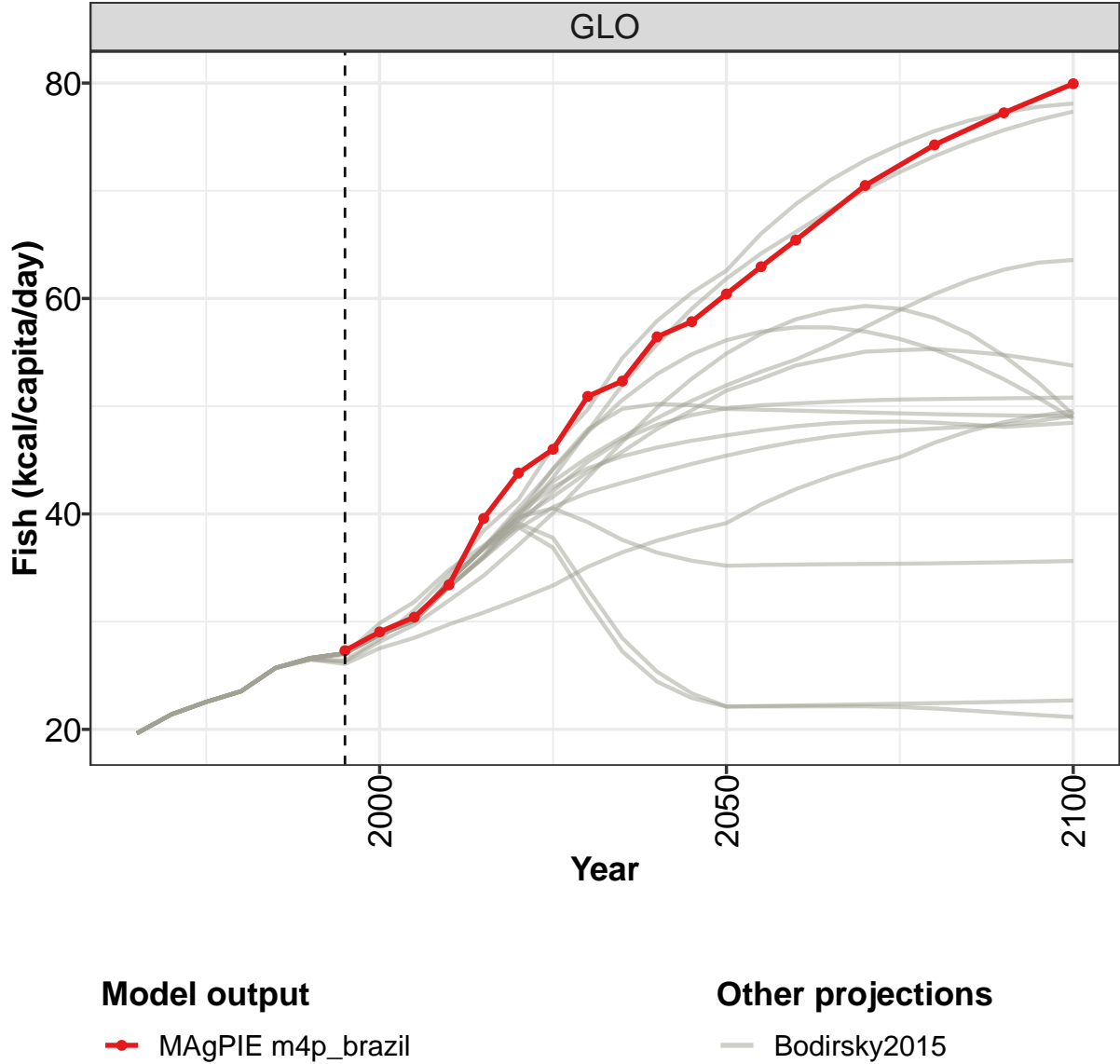
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.4	4.1	3.6	5.0	4.8	4.7	4.8	4.6	4.6	4.4	4.4
BRA	4.0	9.0	9.0	13.0	12.7	12.4	12.3	12.0	11.9	11.7	11.7
CHA	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
ROW	5.9	6.8	5.7	7.9	7.5	7.2	7.2	6.8	6.7	6.4	6.3
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 927: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Crops—Sugar crops (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	4.3	4.2	4.2	4.0	3.8	3.7	3.6
BRA	11.5	11.4	11.3	11.1	10.9	10.8	10.6
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
LAM	0.2	0.2	0.2	0.2	0.2	0.2	0.2
ROW	6.1	5.9	5.7	5.4	5.1	4.9	4.7
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 928: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Crops—Sugar crops (kcal/capita/day) [PART 2/2]

34.2 Fish



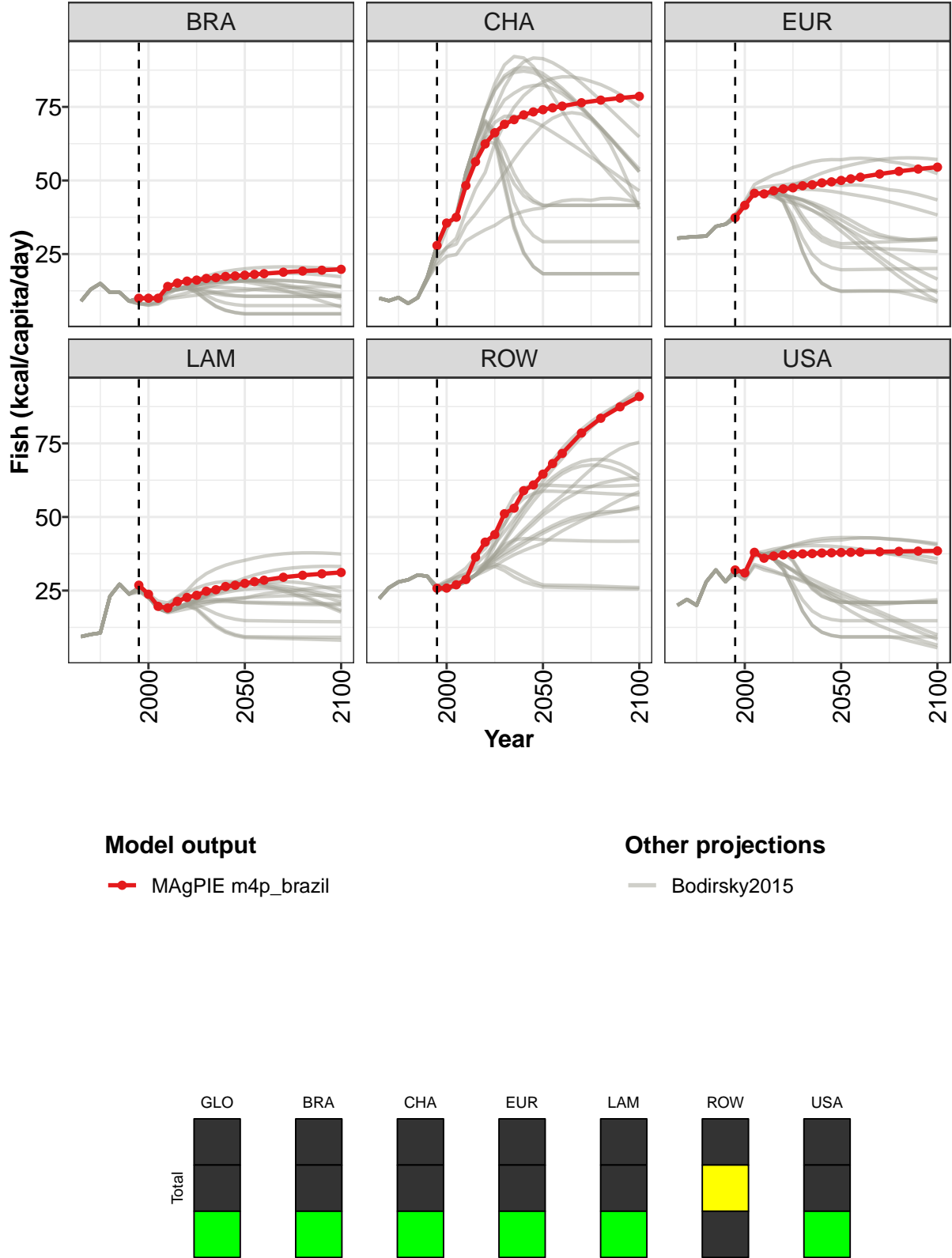


Figure 280: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Fish (kcal/capita/day)

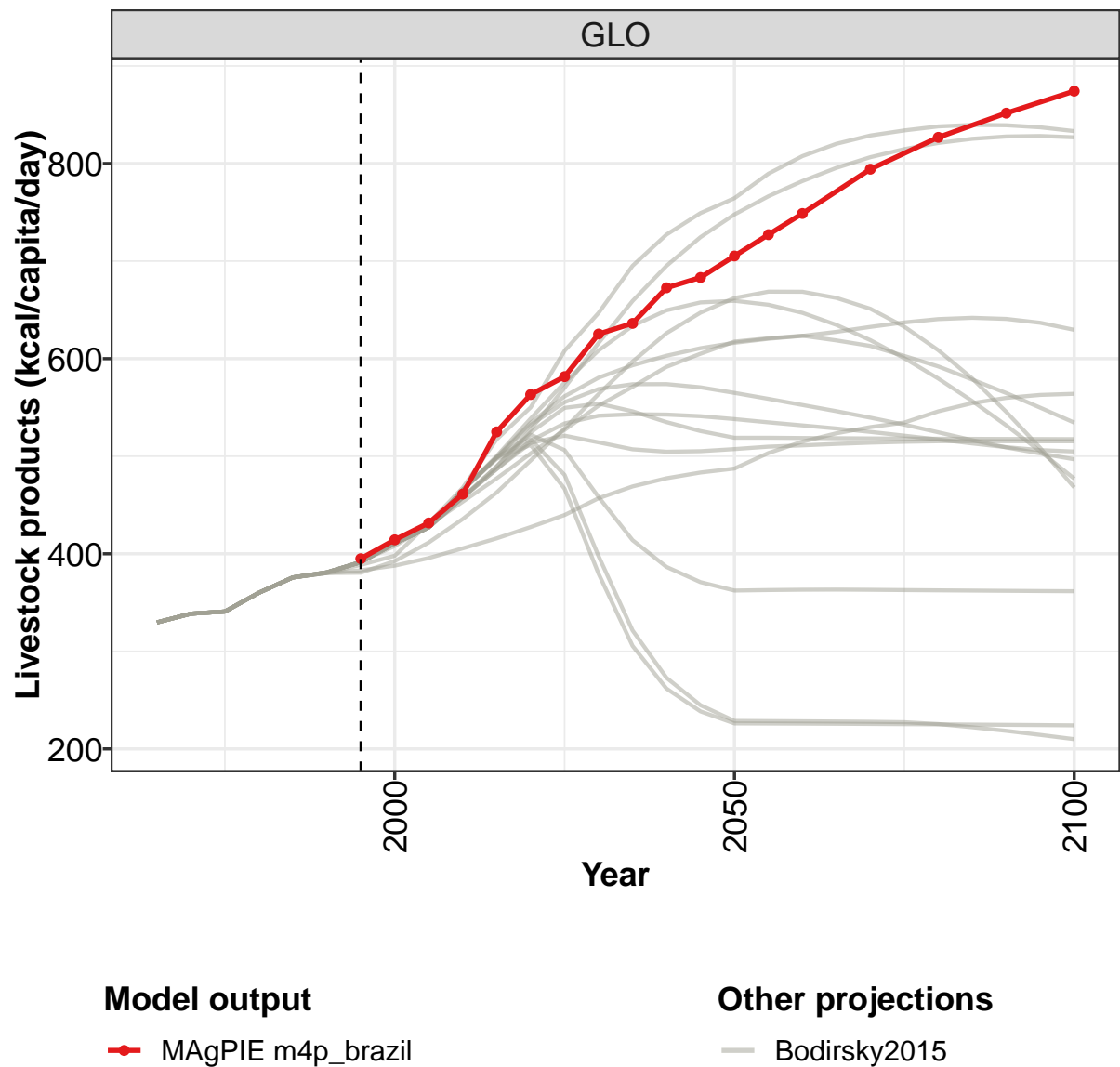
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	27.3	29.0	30.4	33.4	39.6	43.8	46.0	50.9	52.3	56.4	57.8
BRA	10.0	10.0	10.0	14.0	15.2	15.8	16.2	16.7	17.0	17.4	17.6
CHA	27.9	35.5	37.5	48.3	56.4	62.4	66.2	69.1	70.7	72.3	73.3
EUR	37.4	41.5	45.7	45.5	46.5	47.1	47.5	48.2	48.6	49.2	49.5
LAM	26.8	23.8	19.6	19.1	21.3	22.7	23.4	24.8	25.3	26.4	26.8
ROW	25.8	25.8	27.0	28.8	36.4	41.5	44.0	51.1	53.0	58.9	60.9
USA	32.0	31.0	38.0	36.0	36.7	37.1	37.3	37.5	37.6	37.8	37.8

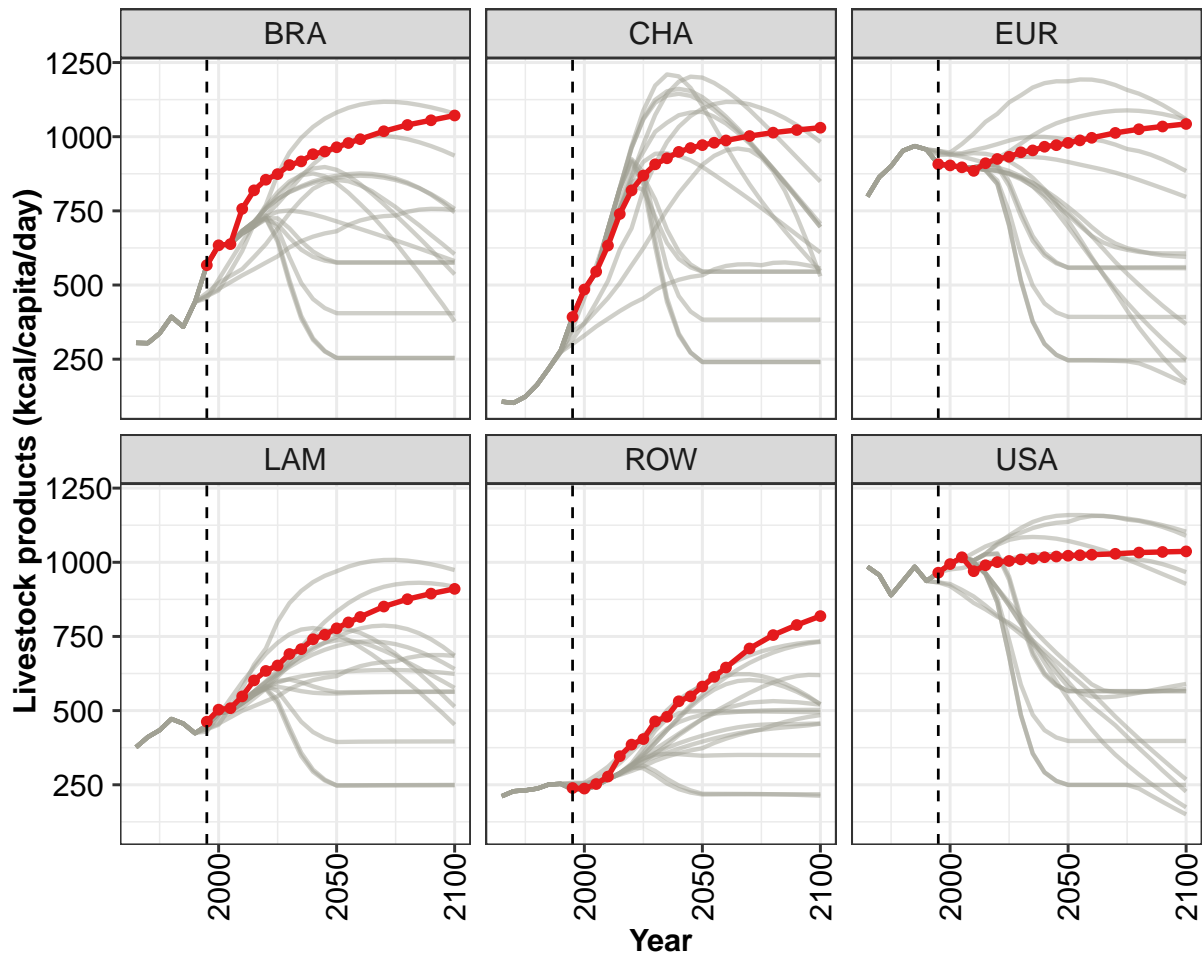
Table 929: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Fish (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	60.4	63.0	65.4	70.5	74.3	77.2	79.9
BRA	17.8	18.1	18.3	18.8	19.2	19.5	19.8
CHA	74.1	74.7	75.3	76.4	77.3	78.0	78.6
EUR	50.0	50.6	51.1	52.2	53.1	53.9	54.5
LAM	27.5	28.0	28.5	29.5	30.2	30.7	31.2
ROW	64.6	68.2	71.6	78.5	83.5	87.4	90.9
USA	37.9	38.0	38.1	38.2	38.3	38.4	38.5

Table 930: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Fish (kcal/capita/day) [PART 2/2]

34.3 Livestock products





Model output
—●— MAgPIE m4p_brazil

Other projections
— Bodirsky2015

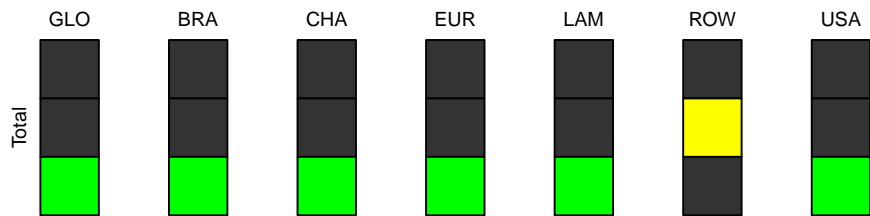


Figure 281: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Livestock products (kcal/capita/day)

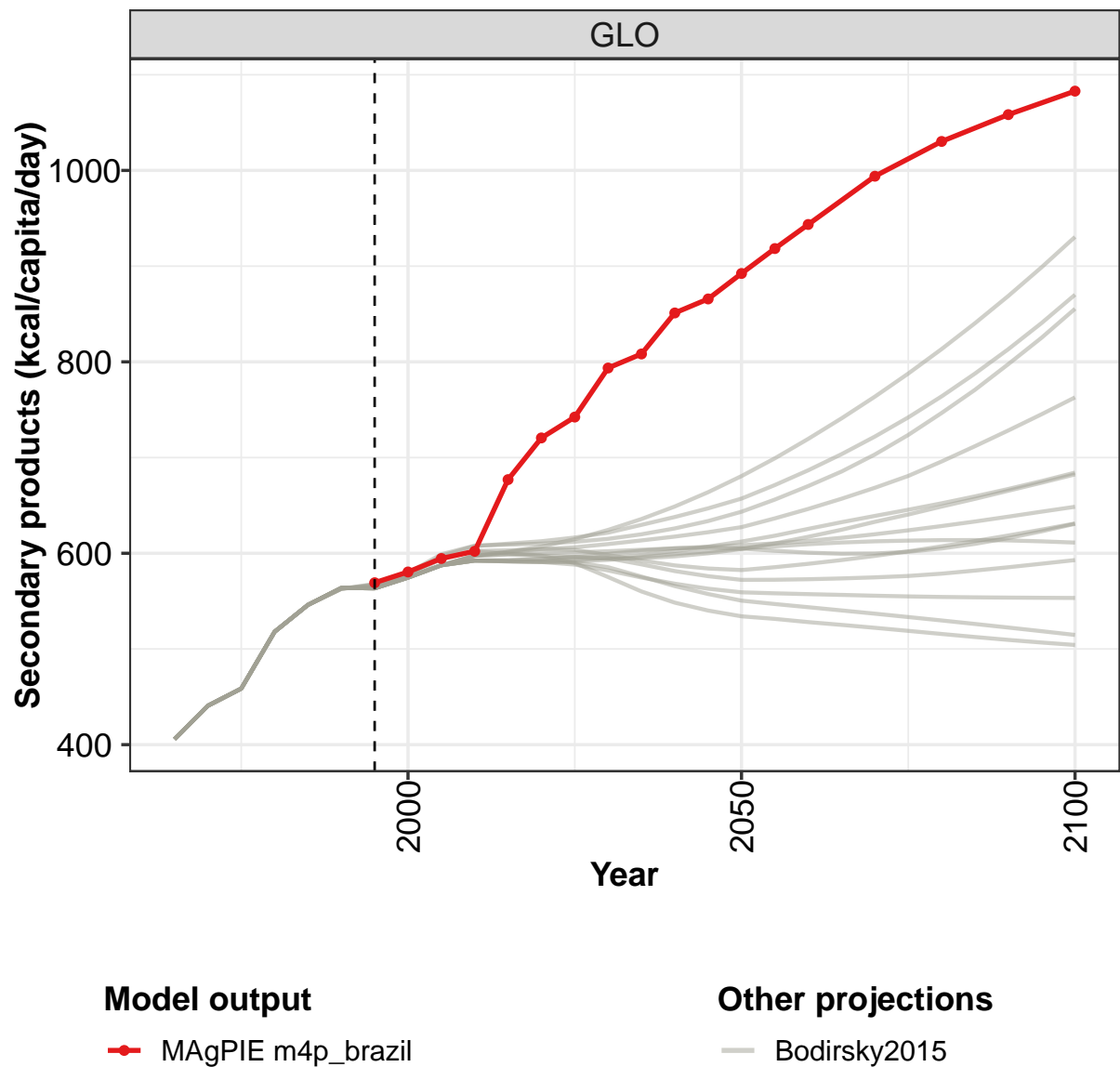
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	395	414	432	461	525	563	582	625	636	673	683
BRA	567	634	638	757	819	855	874	905	917	941	950
CHA	392	485	545	633	740	819	869	907	927	949	962
EUR	907	903	897	885	911	925	932	948	954	966	971
LAM	463	503	508	548	602	634	652	691	707	741	756
ROW	239	237	253	278	346	385	404	464	479	532	548
USA	965	994	1017	970	990	1001	1005	1010	1012	1017	1019

Table 931: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Livestock products (kcal/capita/day) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	705	727	749	794	827	852	874
BRA	964	979	992	1018	1040	1055	1072
CHA	972	980	987	1002	1014	1023	1030
EUR	979	988	996	1013	1025	1034	1043
LAM	777	797	816	851	876	894	910
ROW	581	614	645	709	755	789	819
USA	1022	1024	1026	1029	1033	1035	1037

Table 932: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Livestock products (kcal/capita/day) [PART 2/2]

34.4 Secondary products



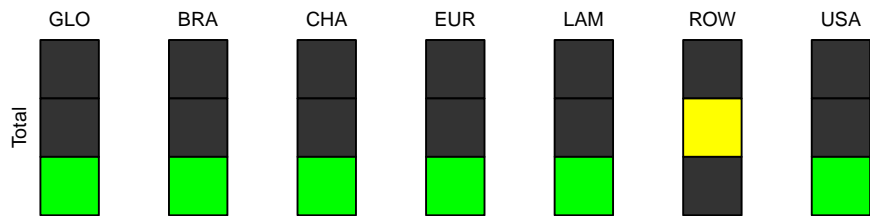


Figure 282: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Secondary products (kcal/capita/day)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	569	580	595	602	677	721	742	794	808	851	866
BRA	899	877	891	936	997	1030	1047	1074	1085	1106	1113
CHA	521	493	504	527	625	691	732	761	777	793	803
EUR	940	973	992	993	1018	1032	1039	1052	1058	1069	1073
LAM	718	720	737	751	808	840	859	896	913	944	958
ROW	424	449	462	476	563	611	634	704	722	781	800
USA	1326	1422	1514	1408	1427	1435	1438	1441	1443	1447	1449

Table 933: MAgPIE m4p_brazil — Nutrition—Calorie Supply—Secondary products (kcal/capita/day) [PART 1/2]

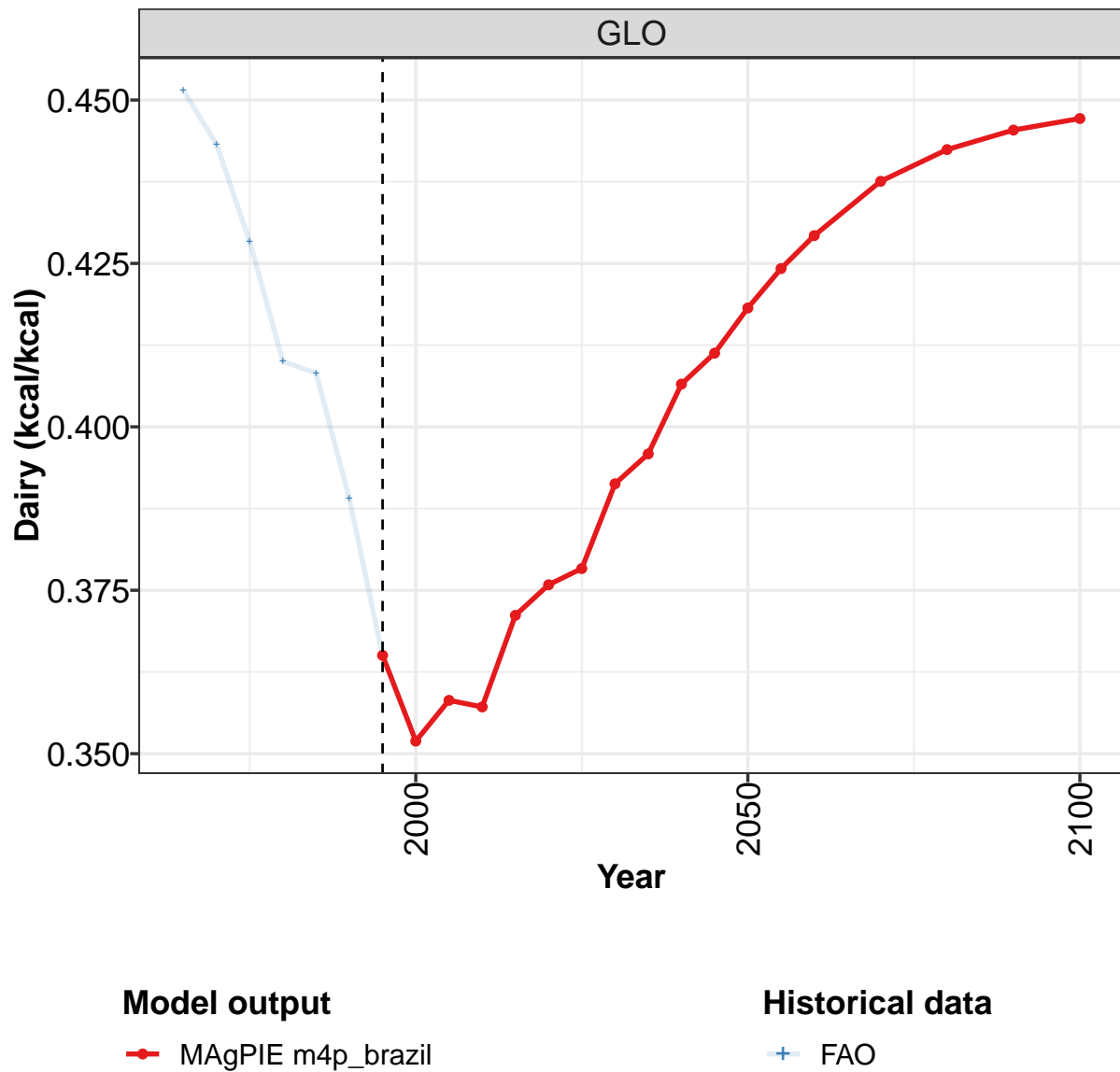
	2050	2055	2060	2070	2080	2090	2100
GLO	892	918	944	994	1030	1058	1083
BRA	1125	1137	1147	1168	1185	1198	1210
CHA	809	814	819	830	838	845	851
EUR	1079	1086	1093	1105	1113	1119	1123
LAM	978	996	1011	1042	1062	1078	1091
ROW	836	871	904	969	1014	1047	1076
USA	1451	1452	1454	1455	1459	1460	1461

Table 934: MAgPIE m4p_brazil — 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



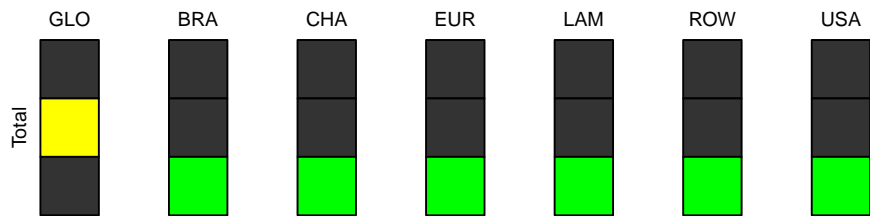
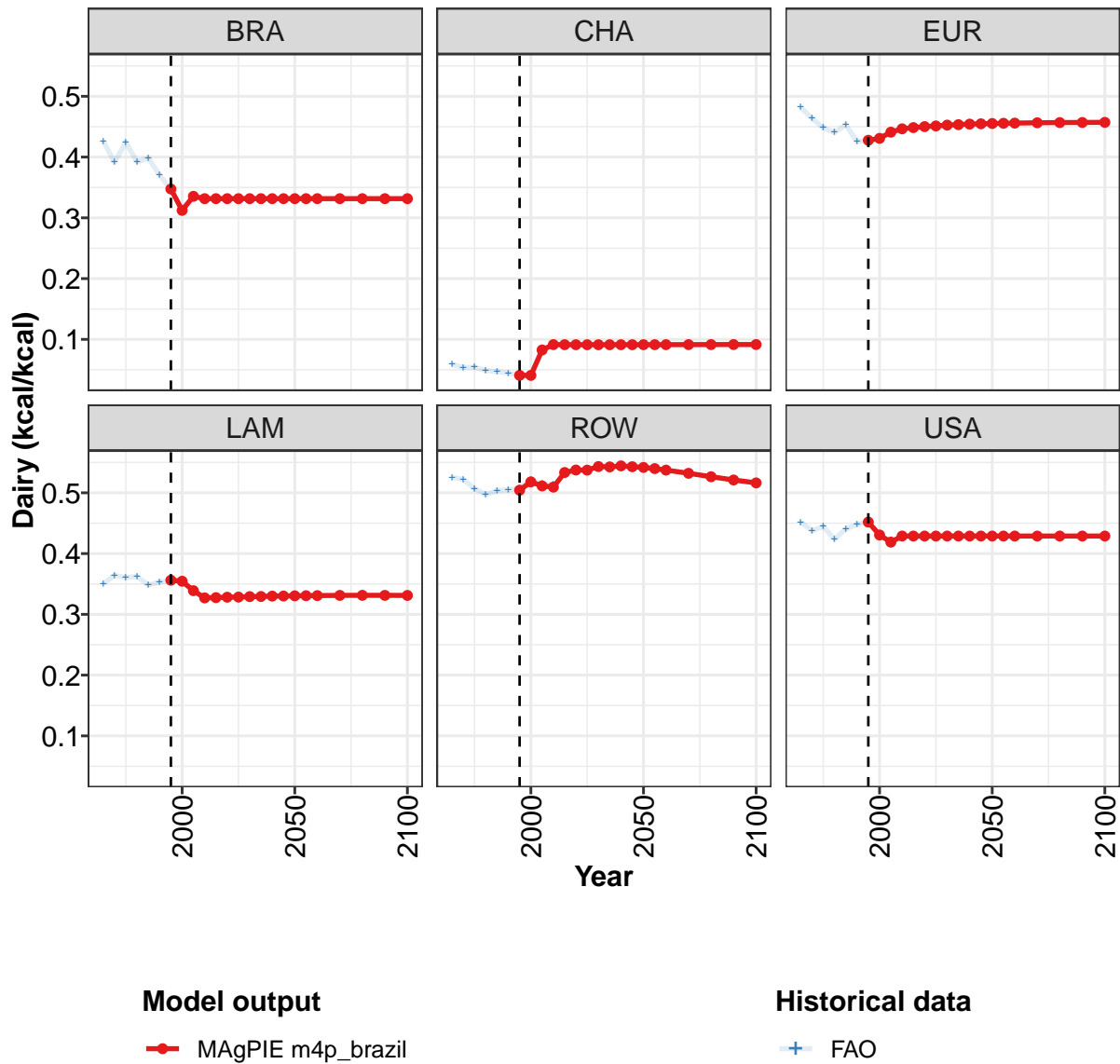


Figure 283: MAgPIE m4p_brazil — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Dairy (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.365	0.352	0.358	0.357	0.371	0.376	0.378	0.391	0.396	0.407	0.411
BRA	0.347	0.312	0.335	0.332	0.332	0.332	0.332	0.332	0.332	0.332	0.332
CHA	0.041	0.041	0.083	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.091
EUR	0.428	0.431	0.441	0.446	0.448	0.450	0.451	0.453	0.453	0.454	0.455
LAM	0.356	0.355	0.339	0.327	0.328	0.328	0.328	0.329	0.329	0.330	0.330
ROW	0.504	0.518	0.511	0.509	0.533	0.537	0.537	0.543	0.543	0.544	0.543
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_brazil — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Dairy (kcal/kcal) [PART 1/2]

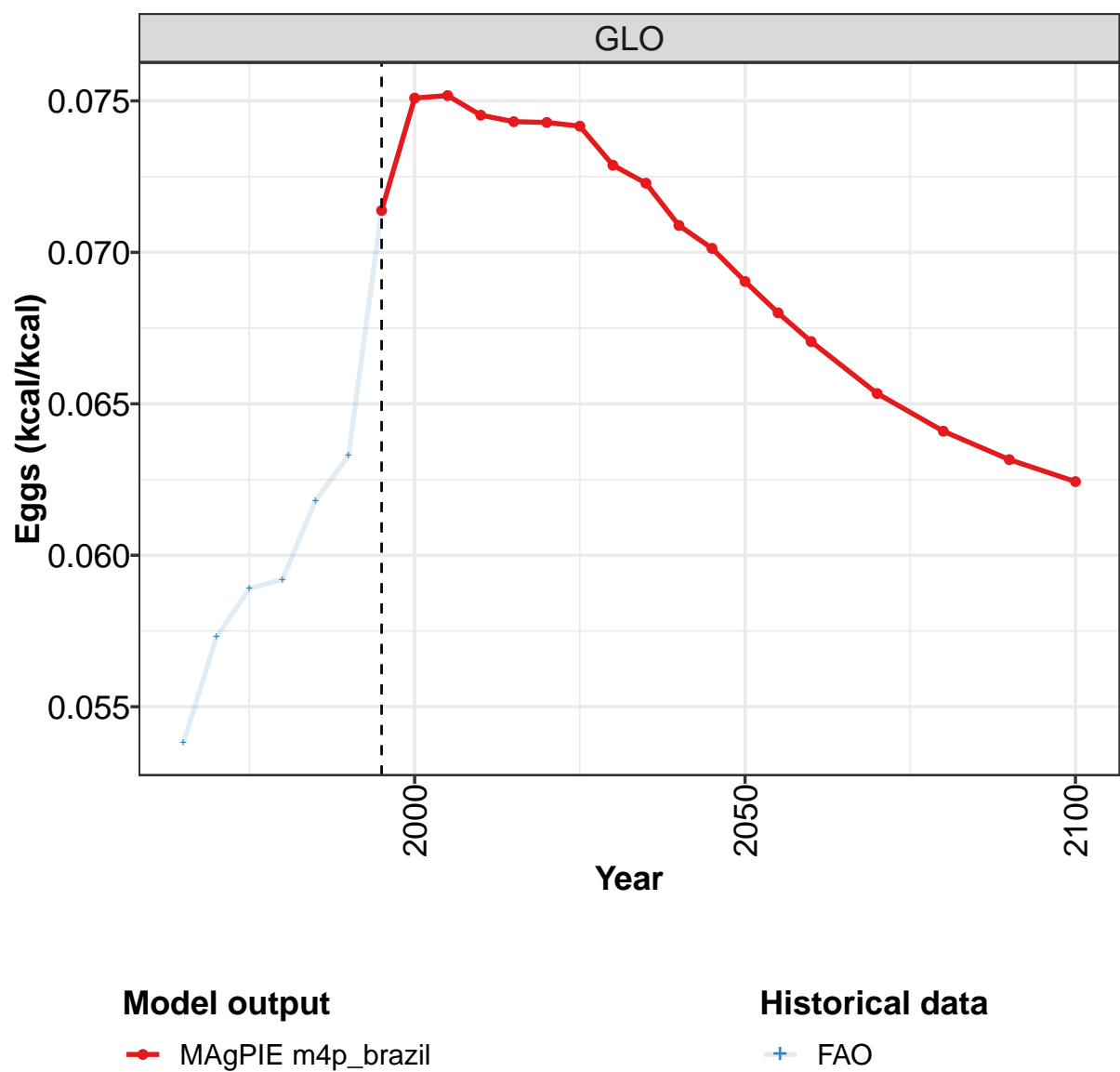
	2050	2055	2060	2070	2080	2090	2100
GLO	0.418	0.424	0.429	0.438	0.442	0.445	0.447
BRA	0.332	0.332	0.332	0.332	0.332	0.332	0.332
CHA	0.091	0.091	0.091	0.091	0.091	0.092	0.092
EUR	0.455	0.456	0.456	0.456	0.457	0.457	0.457
LAM	0.330	0.331	0.331	0.331	0.331	0.331	0.331
ROW	0.542	0.540	0.537	0.532	0.526	0.521	0.516
USA	0.429	0.429	0.429	0.429	0.429	0.429	0.429

Table 936: MAgPIE m4p_brazil — 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
BRA	0.426	0.391	0.424	0.392	0.398	0.370	0.347	0.312	0.335	0.332
CHA	0.059	0.054	0.054	0.049	0.047	0.045	0.041	0.041	0.083	0.091
EUR	0.482	0.464	0.448	0.440	0.453	0.425	0.428	0.431	0.441	0.447
LAM	0.350	0.364	0.360	0.362	0.348	0.353	0.356	0.355	0.339	0.327
ROW	0.525	0.522	0.507	0.497	0.504	0.505	0.507	0.522	0.515	0.513
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



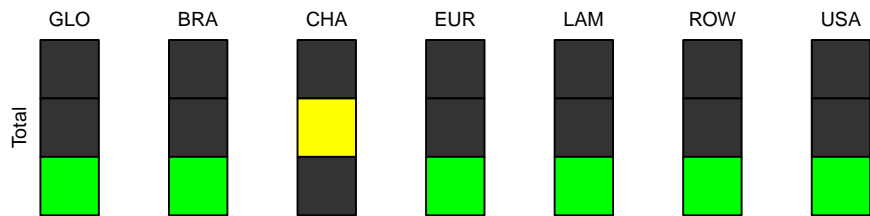
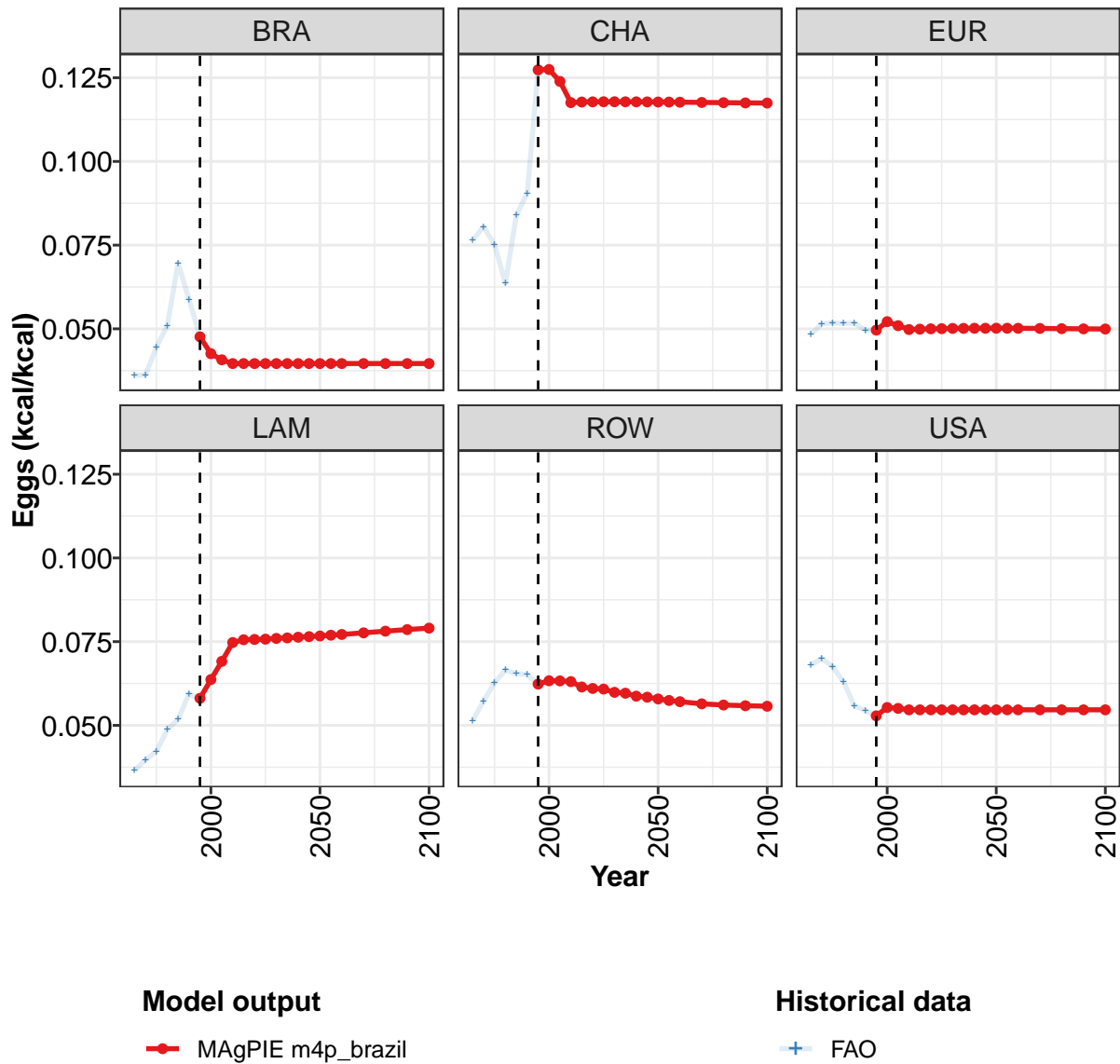


Figure 284: MAgPIE m4p_brazil — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Eggs (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.071	0.075	0.075	0.075	0.074	0.074	0.074	0.073	0.072	0.071	0.070
BRA	0.048	0.043	0.041	0.040	0.040	0.040	0.040	0.040	0.040	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	0.050	0.052	0.051	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
LAM	0.058	0.064	0.069	0.075	0.076	0.076	0.076	0.076	0.076	0.076	0.077
ROW	0.062	0.063	0.063	0.063	0.061	0.061	0.061	0.060	0.060	0.059	0.058
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_brazil — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Eggs (kcal/kcal) [PART 1/2]

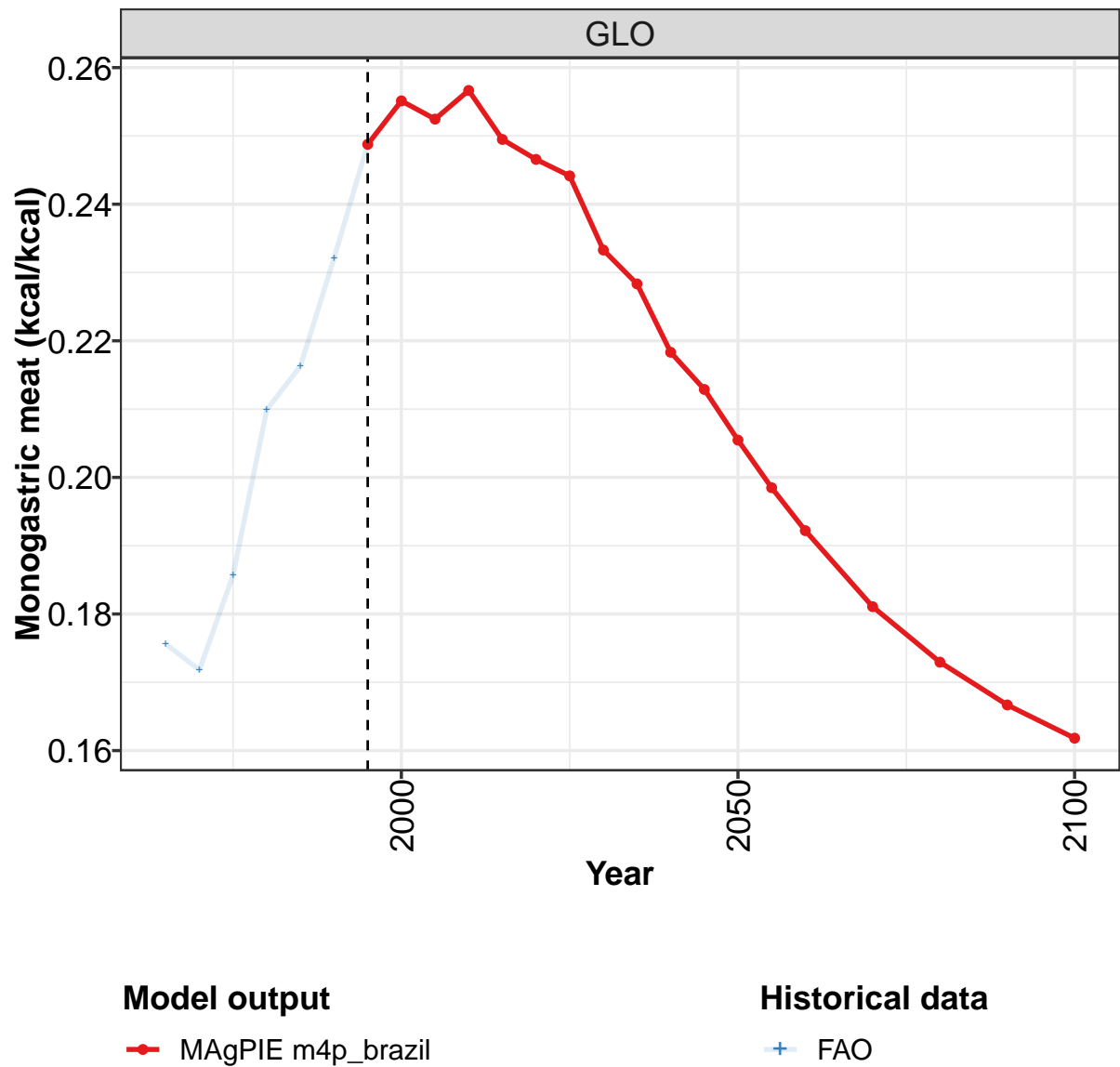
	2050	2055	2060	2070	2080	2090	2100
GLO	0.069	0.068	0.067	0.065	0.064	0.063	0.062
BRA	0.040	0.040	0.040	0.040	0.040	0.040	0.040
CHA	0.118	0.118	0.118	0.118	0.118	0.117	0.117
EUR	0.050	0.050	0.050	0.050	0.050	0.050	0.050
LAM	0.077	0.077	0.077	0.078	0.078	0.079	0.079
ROW	0.058	0.057	0.057	0.056	0.056	0.056	0.056
USA	0.055	0.055	0.055	0.055	0.055	0.055	0.055

Table 939: MAgPIE m4p_brazil — 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
BRA	0.036	0.036	0.044	0.051	0.070	0.059	0.048	0.043	0.041	0.040
CHA	0.076	0.081	0.075	0.064	0.084	0.090	0.127	0.128	0.124	0.118
EUR	0.048	0.051	0.052	0.052	0.052	0.050	0.050	0.052	0.051	0.050
LAM	0.036	0.040	0.042	0.049	0.052	0.059	0.058	0.063	0.069	0.075
ROW	0.051	0.057	0.063	0.067	0.065	0.065	0.062	0.063	0.063	0.063
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



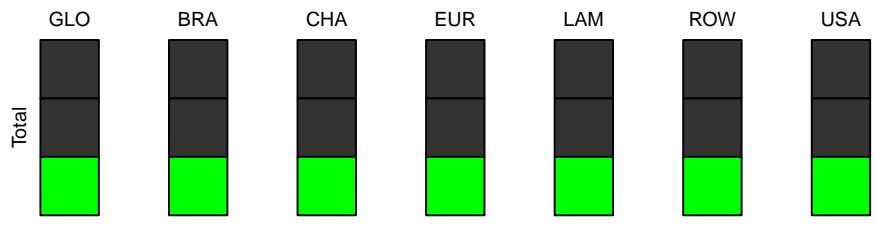
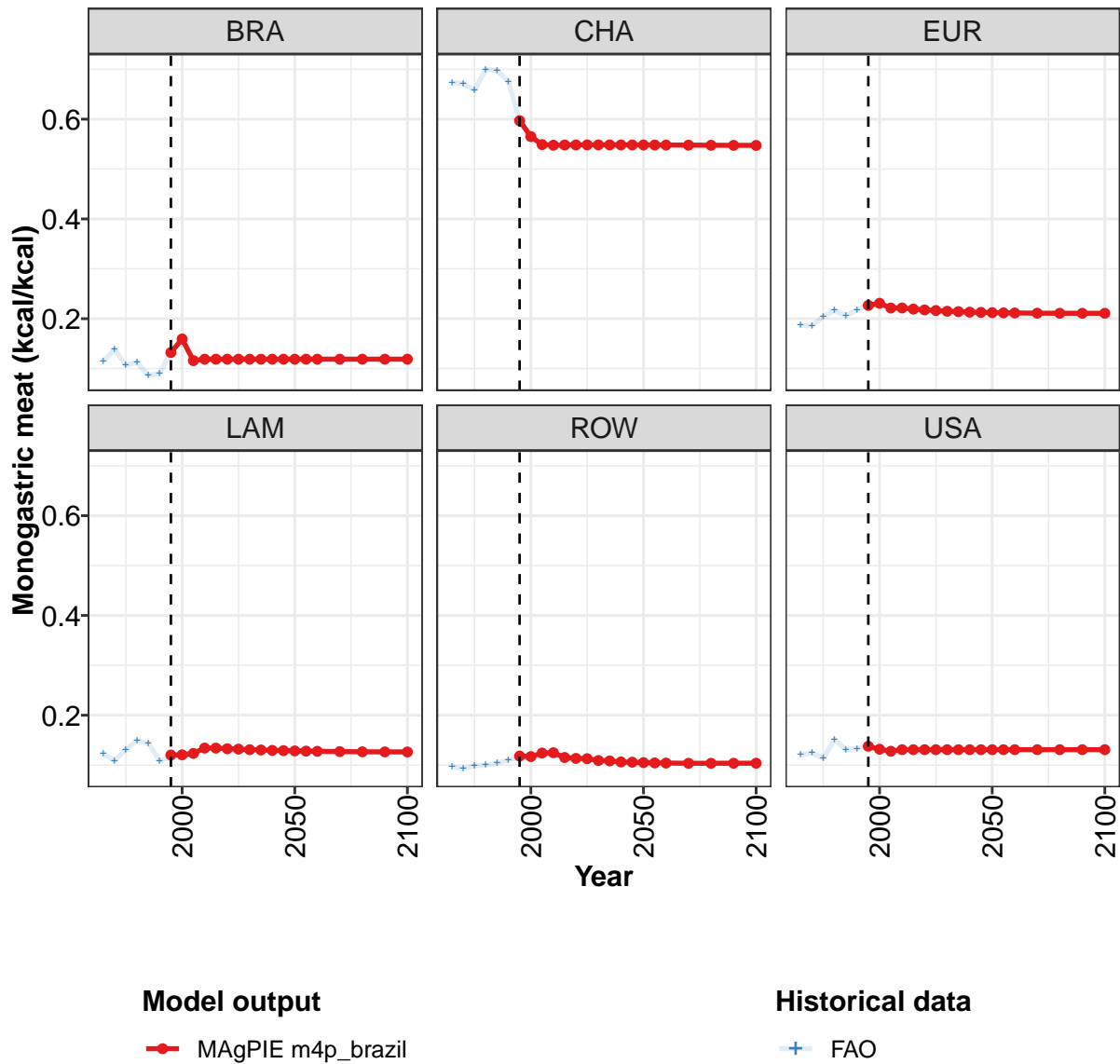


Figure 285: MAGPIE m4p_brazil — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Monogastric meat (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.249	0.255	0.252	0.257	0.249	0.247	0.244	0.233	0.228	0.218	0.213
BRA	0.132	0.159	0.116	0.119	0.119	0.119	0.119	0.119	0.119	0.119	0.119
CHA	0.597	0.565	0.549	0.548	0.548	0.548	0.549	0.549	0.549	0.548	0.548
EUR	0.227	0.231	0.221	0.222	0.219	0.218	0.216	0.215	0.214	0.213	0.213
LAM	0.120	0.121	0.124	0.134	0.134	0.133	0.132	0.131	0.130	0.129	0.129
ROW	0.118	0.117	0.124	0.125	0.115	0.113	0.113	0.109	0.108	0.106	0.106
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_brazil — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Monogastric meat (kcal/kcal) [PART 1/2]

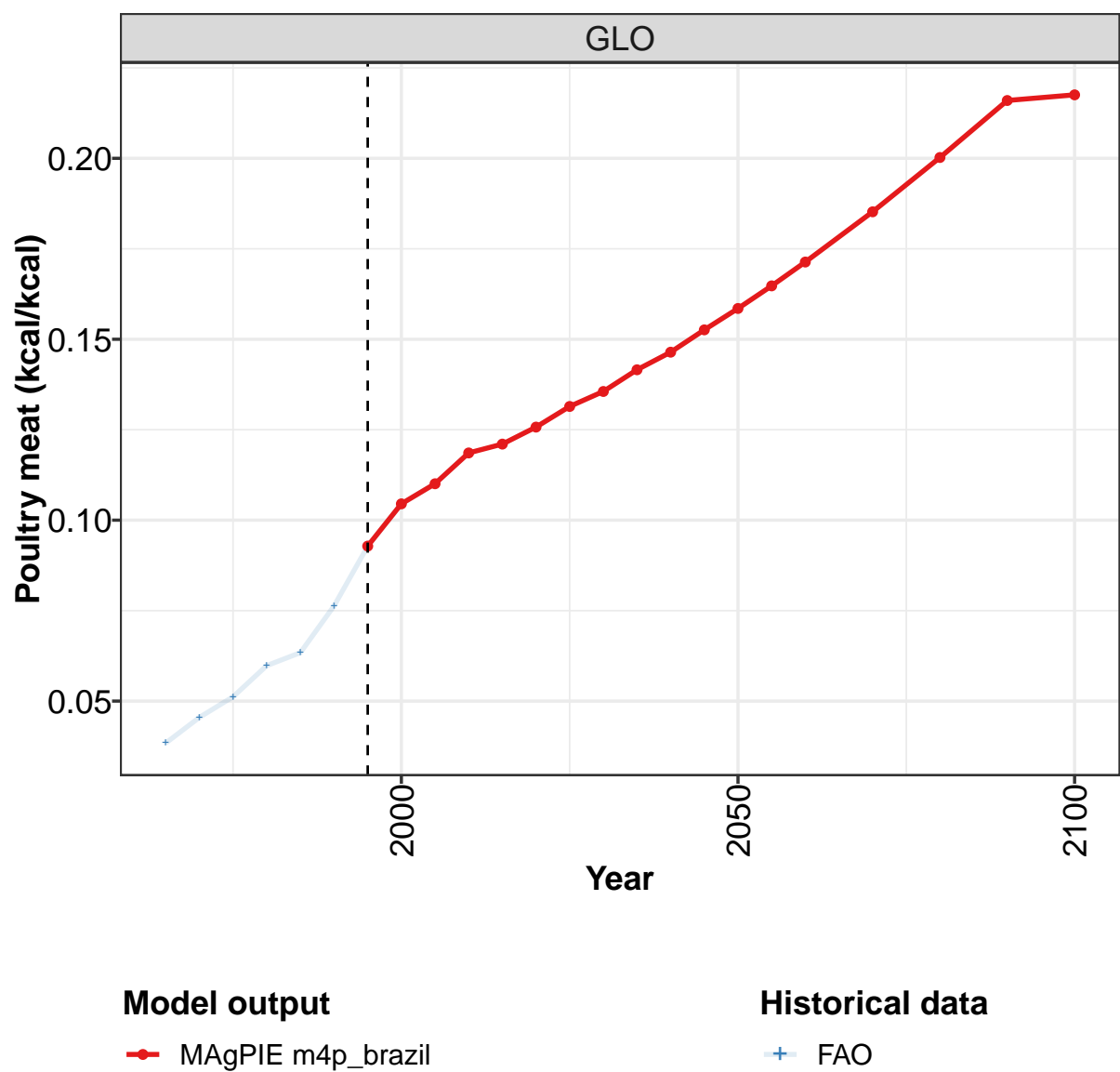
	2050	2055	2060	2070	2080	2090	2100
GLO	0.205	0.198	0.192	0.181	0.173	0.167	0.162
BRA	0.119	0.119	0.119	0.119	0.119	0.119	0.119
CHA	0.548	0.548	0.548	0.548	0.548	0.548	0.547
EUR	0.212	0.212	0.211	0.211	0.211	0.211	0.211
LAM	0.128	0.128	0.128	0.127	0.127	0.127	0.126
ROW	0.105	0.104	0.104	0.104	0.104	0.104	0.104
USA	0.131	0.131	0.131	0.131	0.131	0.131	0.131

Table 942: MAgPIE m4p_brazil — 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
BRA	0.115	0.138	0.107	0.112	0.086	0.090	0.132	0.159	0.116	0.119
CHA	0.673	0.671	0.658	0.700	0.698	0.676	0.597	0.565	0.549	0.548
EUR	0.187	0.185	0.204	0.216	0.206	0.218	0.227	0.231	0.221	0.222
LAM	0.122	0.109	0.131	0.149	0.144	0.108	0.117	0.117	0.120	0.132
ROW	0.097	0.092	0.099	0.100	0.104	0.110	0.115	0.114	0.121	0.121
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



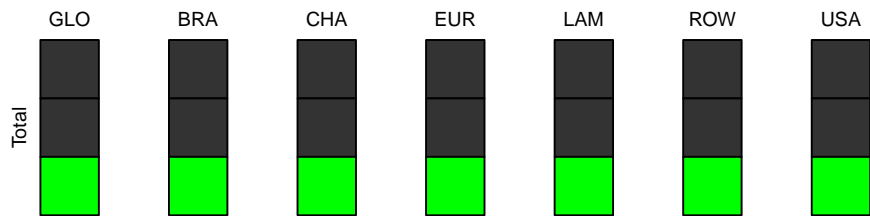
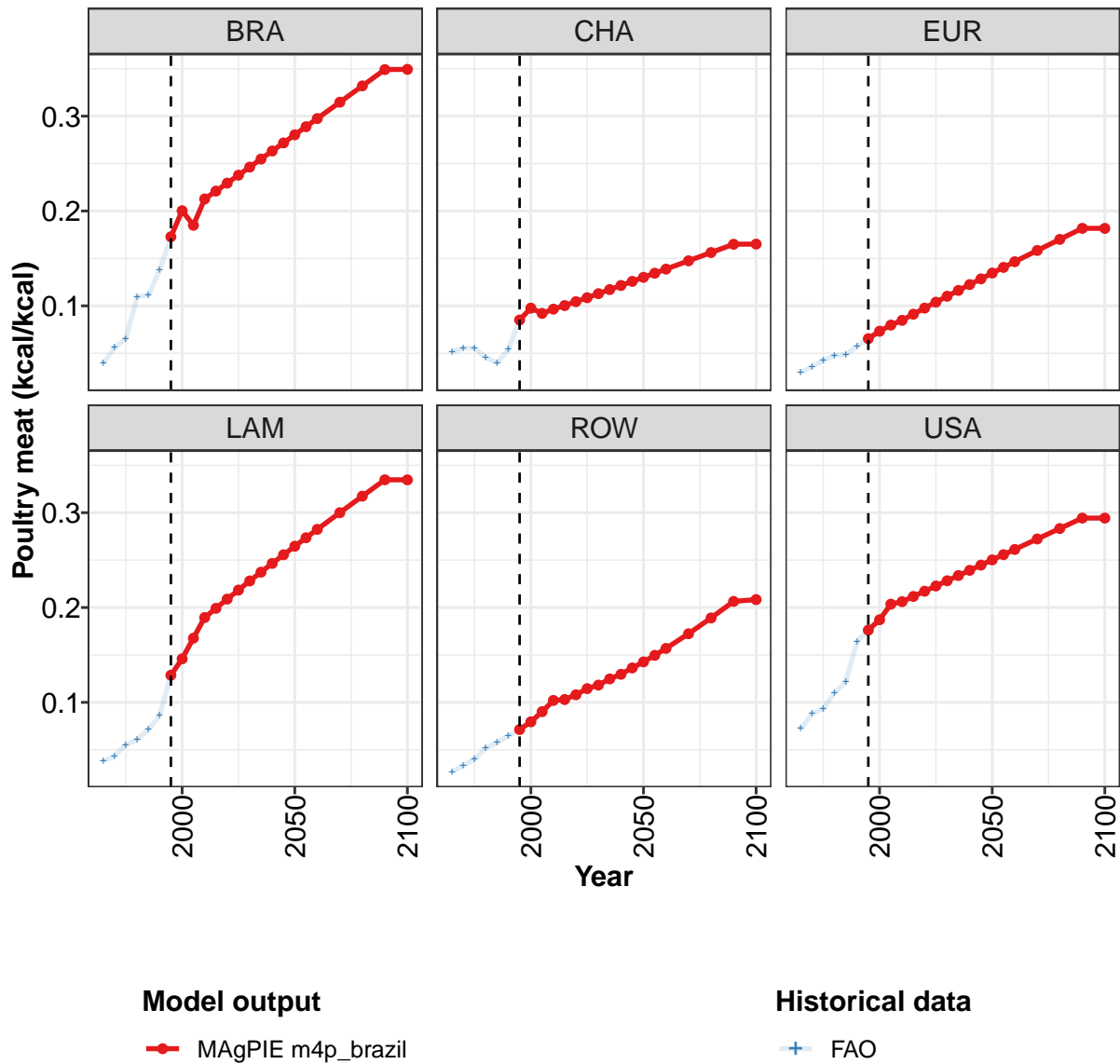


Figure 286: MAgPIE m4p_brazil — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Poultry meat (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.093	0.105	0.110	0.119	0.121	0.126	0.131	0.136	0.142	0.146	0.153
BRA	0.173	0.200	0.185	0.213	0.221	0.229	0.238	0.246	0.255	0.263	0.272
CHA	0.085	0.098	0.092	0.097	0.100	0.104	0.109	0.113	0.117	0.121	0.126
EUR	0.065	0.073	0.080	0.085	0.091	0.098	0.104	0.110	0.116	0.122	0.128
LAM	0.129	0.146	0.168	0.189	0.199	0.209	0.218	0.228	0.237	0.247	0.256
ROW	0.071	0.080	0.090	0.102	0.103	0.108	0.114	0.118	0.125	0.130	0.136
USA	0.176	0.187	0.204	0.206	0.212	0.217	0.223	0.228	0.234	0.239	0.245

Table 944: MAgPIE m4p_brazil — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Poultry meat (kcal/kcal) [PART 1/2]

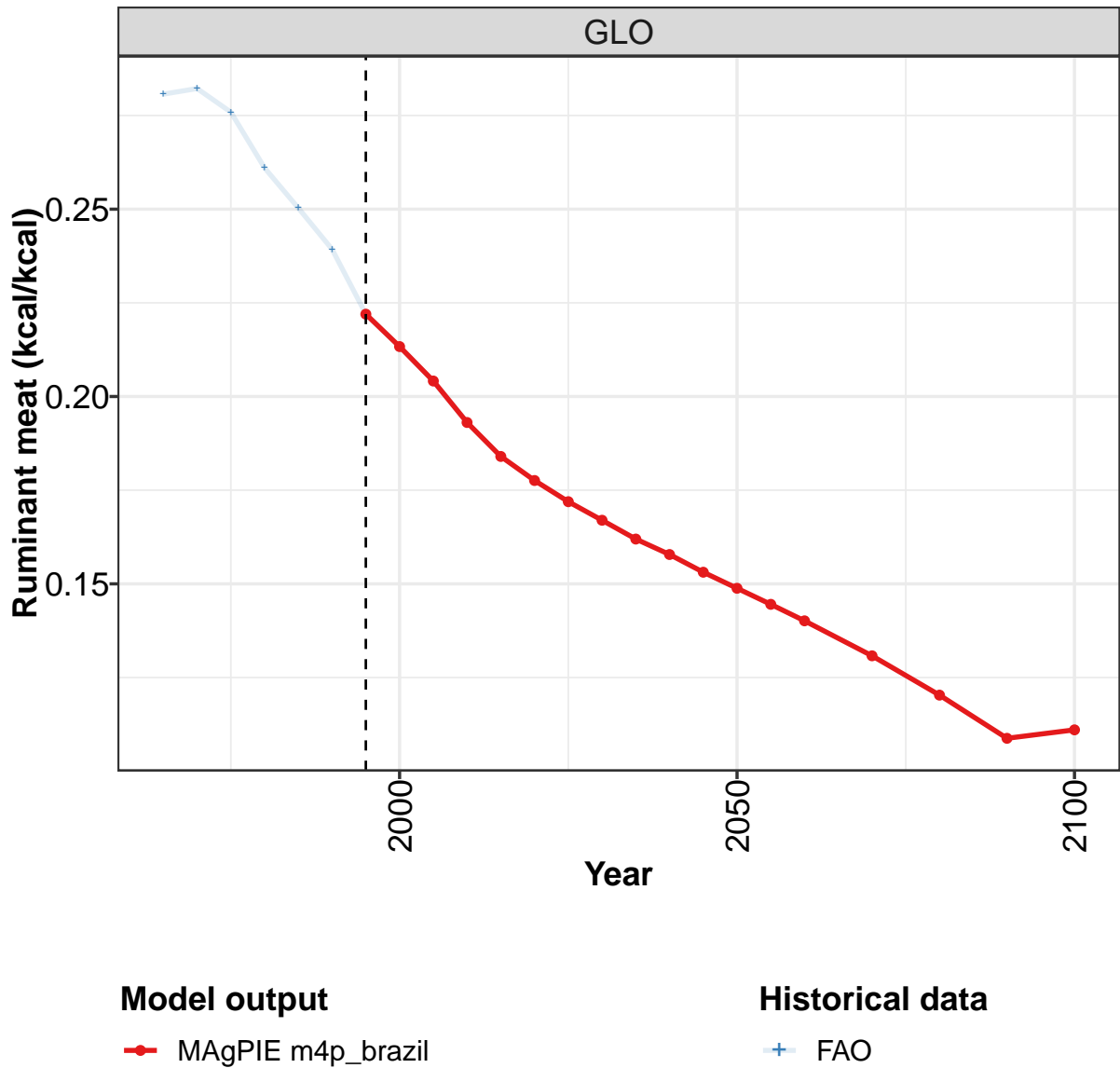
	2050	2055	2060	2070	2080	2090	2100
GLO	0.159	0.165	0.171	0.185	0.200	0.216	0.218
BRA	0.280	0.289	0.297	0.315	0.332	0.349	0.349
CHA	0.130	0.134	0.139	0.147	0.156	0.165	0.165
EUR	0.135	0.141	0.147	0.158	0.170	0.182	0.182
LAM	0.265	0.274	0.282	0.300	0.317	0.335	0.335
ROW	0.143	0.150	0.157	0.172	0.189	0.206	0.208
USA	0.250	0.256	0.261	0.272	0.283	0.294	0.294

Table 945: MAgPIE m4p_brazil — 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
BRA	0.039	0.056	0.065	0.109	0.111	0.138	0.173	0.200	0.185	0.213
CHA	0.052	0.055	0.055	0.045	0.040	0.054	0.085	0.098	0.092	0.097
EUR	0.030	0.036	0.042	0.048	0.049	0.057	0.065	0.073	0.080	0.085
LAM	0.038	0.043	0.055	0.061	0.071	0.086	0.130	0.147	0.169	0.191
ROW	0.027	0.033	0.040	0.051	0.058	0.065	0.071	0.079	0.090	0.102
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



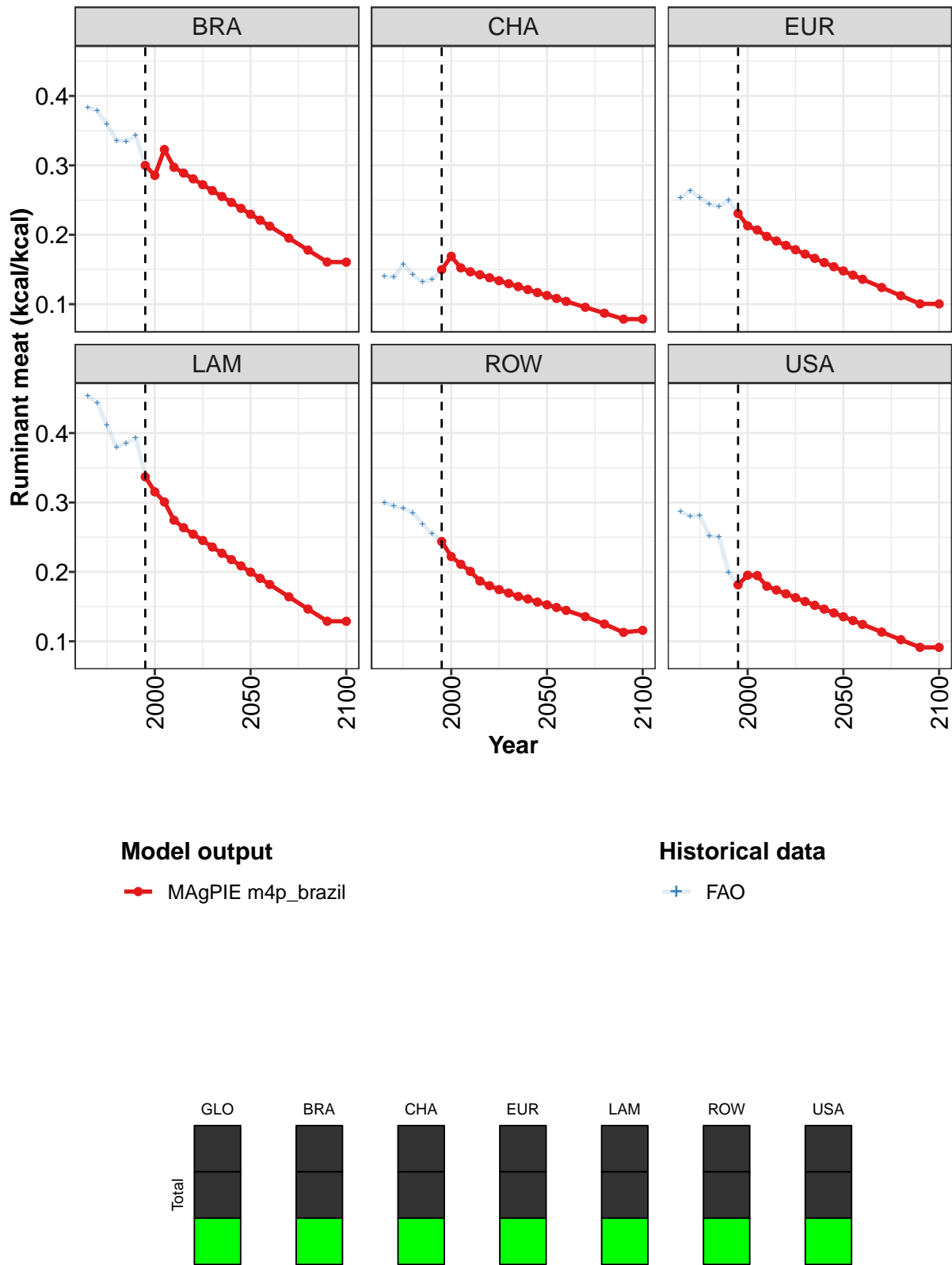


Figure 287: MAgPIE m4p_brazil — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Ruminant meat (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.222	0.213	0.204	0.193	0.184	0.178	0.172	0.167	0.162	0.158	0.153
BRA	0.300	0.285	0.323	0.297	0.289	0.281	0.272	0.264	0.255	0.247	0.238
CHA	0.150	0.169	0.152	0.147	0.142	0.138	0.134	0.130	0.125	0.121	0.117
EUR	0.231	0.213	0.207	0.198	0.191	0.185	0.178	0.172	0.166	0.160	0.154
LAM	0.337	0.315	0.301	0.275	0.264	0.254	0.245	0.236	0.227	0.218	0.209
ROW	0.244	0.222	0.211	0.201	0.187	0.180	0.174	0.169	0.165	0.161	0.157
USA	0.181	0.195	0.195	0.179	0.174	0.168	0.163	0.157	0.152	0.146	0.141

Table 947: MAgPIE m4p_brazil — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Ruminant meat (kcal/kcal) [PART 1/2]

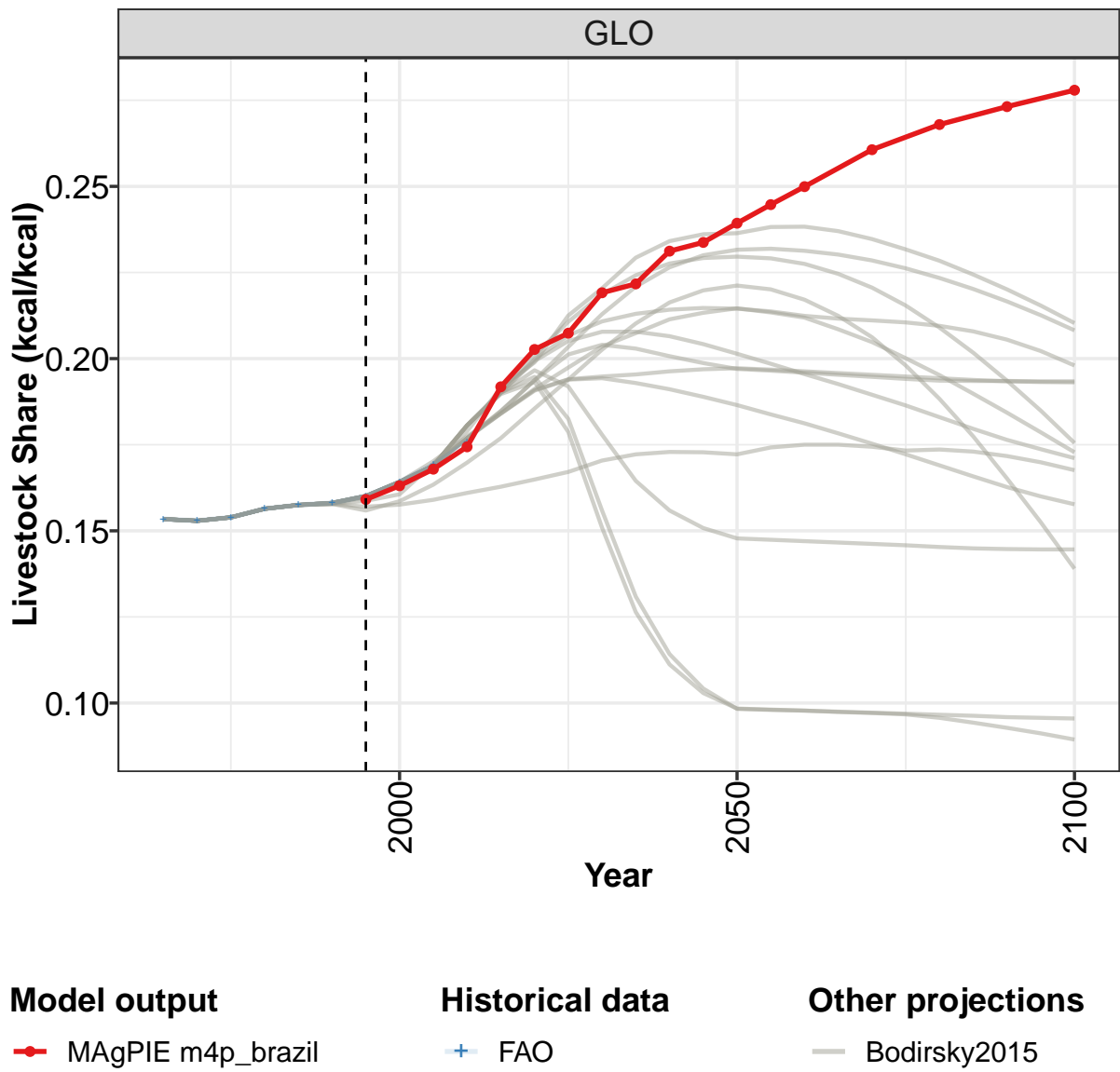
	2050	2055	2060	2070	2080	2090	2100
GLO	0.149	0.145	0.140	0.131	0.120	0.109	0.111
BRA	0.230	0.221	0.212	0.195	0.178	0.161	0.161
CHA	0.113	0.108	0.104	0.096	0.087	0.078	0.078
EUR	0.148	0.142	0.136	0.124	0.112	0.100	0.100
LAM	0.200	0.191	0.182	0.164	0.146	0.129	0.129
ROW	0.153	0.149	0.145	0.135	0.125	0.113	0.116
USA	0.135	0.130	0.124	0.113	0.102	0.091	0.091

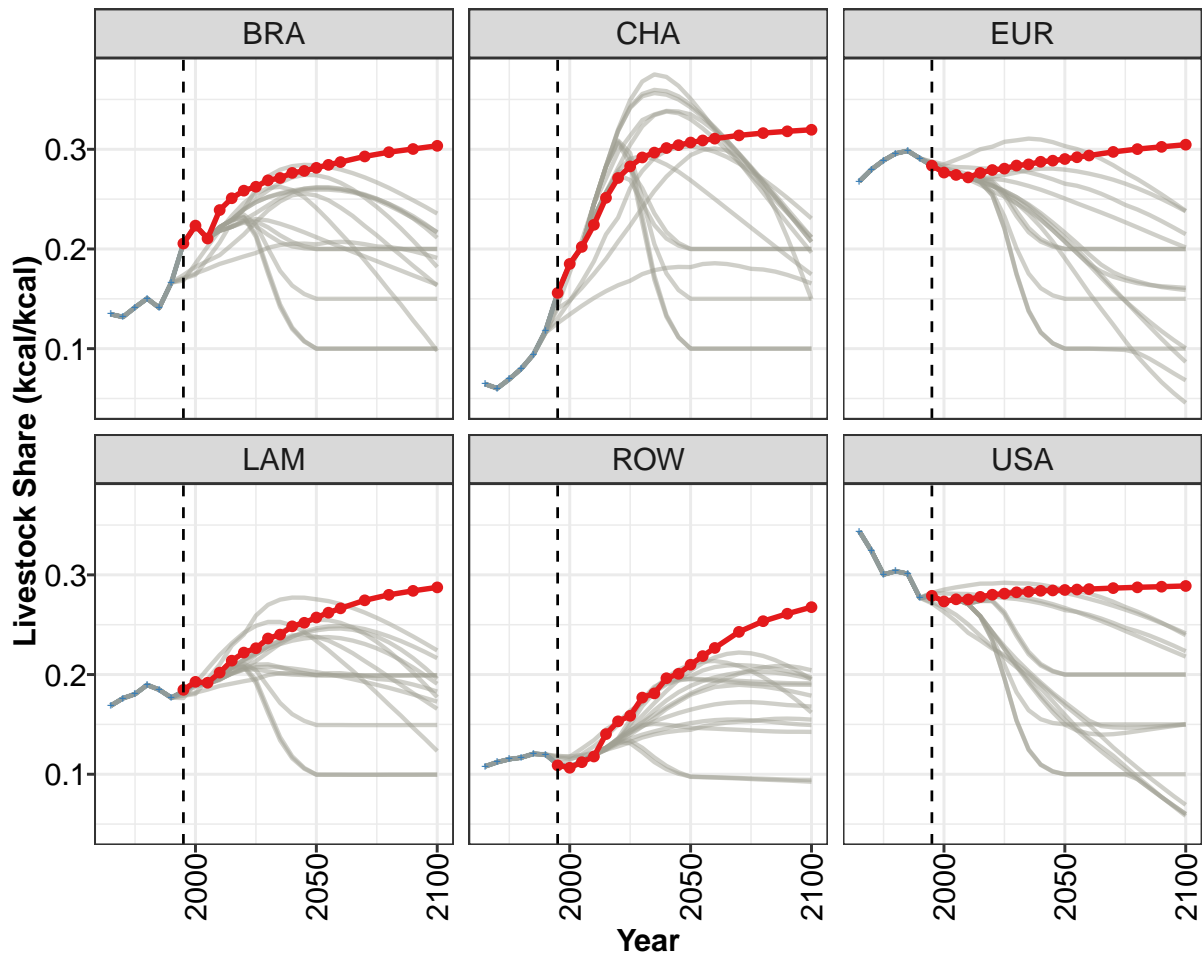
Table 948: MAgPIE m4p_brazil — Nutrition—Dietary Composition—Livestock Demand Structure—Livestock products—Ruminant meat (kcal/kcal) [PART 2/2]

	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
BRA	0.384	0.378	0.359	0.336	0.334	0.343	0.300	0.285	0.323	0.297
CHA	0.140	0.139	0.158	0.142	0.132	0.135	0.150	0.169	0.152	0.147
EUR	0.253	0.263	0.254	0.244	0.241	0.249	0.231	0.213	0.207	0.198
LAM	0.453	0.444	0.411	0.379	0.385	0.393	0.340	0.318	0.303	0.276
ROW	0.299	0.295	0.291	0.285	0.269	0.255	0.244	0.222	0.211	0.201
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





Model output **Historical data** **Other projections**
—●— MAGPIE m4p_brazil —+— FAO — Bodirsky2015

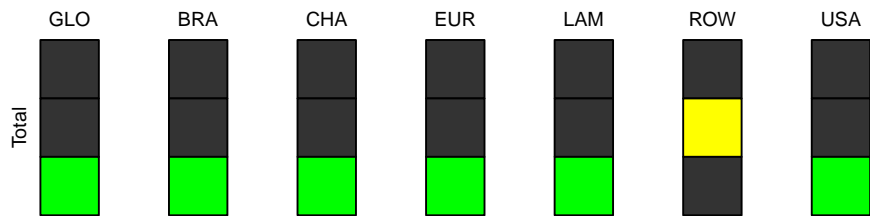


Figure 288: MAGPIE m4p_brazil — Nutrition—Dietary Composition—Livestock Share (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.159	0.163	0.168	0.174	0.192	0.203	0.207	0.219	0.222	0.231	0.234
BRA	0.205	0.223	0.211	0.239	0.251	0.259	0.262	0.269	0.271	0.276	0.278
CHA	0.156	0.185	0.202	0.224	0.251	0.271	0.283	0.292	0.297	0.301	0.304
EUR	0.284	0.277	0.274	0.272	0.276	0.279	0.281	0.284	0.285	0.287	0.289
LAM	0.185	0.193	0.192	0.202	0.214	0.222	0.226	0.236	0.240	0.248	0.252
ROW	0.109	0.106	0.112	0.118	0.140	0.153	0.159	0.177	0.181	0.196	0.201
USA	0.279	0.273	0.276	0.275	0.278	0.280	0.281	0.283	0.283	0.284	0.284

Table 950: MAgPIE m4p_brazil — Nutrition—Dietary Composition—Livestock Share (kcal/kcal) [PART 1/2]

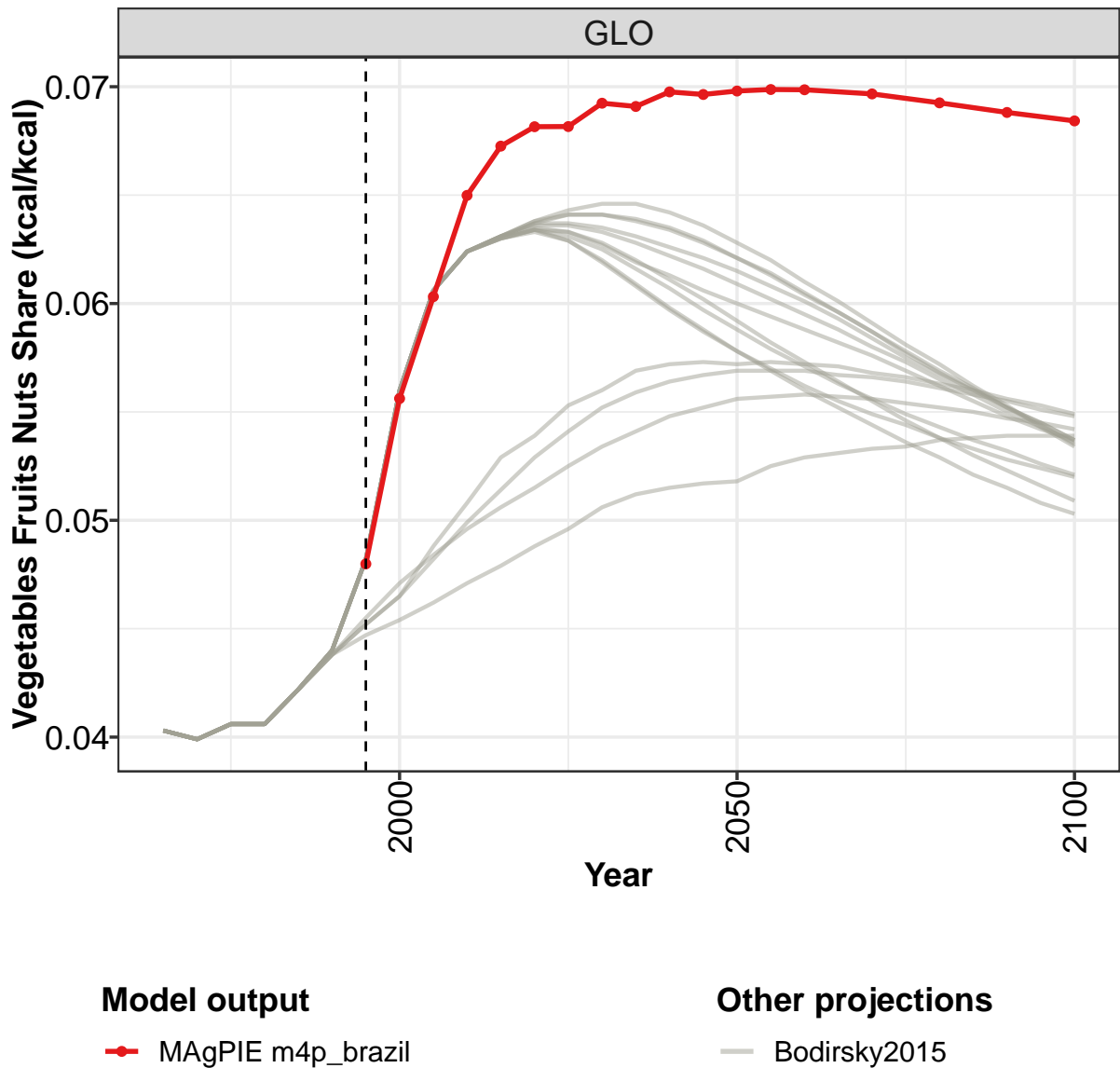
	2050	2055	2060	2070	2080	2090	2100
GLO	0.239	0.245	0.250	0.261	0.268	0.273	0.278
BRA	0.281	0.284	0.287	0.293	0.297	0.300	0.304
CHA	0.307	0.309	0.311	0.314	0.316	0.318	0.320
EUR	0.290	0.292	0.294	0.297	0.300	0.302	0.305
LAM	0.257	0.262	0.266	0.274	0.280	0.284	0.287
ROW	0.210	0.219	0.227	0.243	0.254	0.261	0.268
USA	0.285	0.285	0.286	0.287	0.288	0.288	0.289

Table 951: MAgPIE m4p_brazil — 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
BRA	0.135	0.132	0.141	0.150	0.141	0.166	0.205	0.224	0.210	0.239
CHA	0.065	0.060	0.069	0.080	0.094	0.118	0.156	0.185	0.202	0.224
EUR	0.268	0.280	0.289	0.296	0.298	0.291	0.284	0.277	0.274	0.272
LAM	0.169	0.176	0.180	0.190	0.185	0.177	0.183	0.191	0.191	0.201
ROW	0.108	0.112	0.115	0.117	0.120	0.120	0.110	0.107	0.113	0.119
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



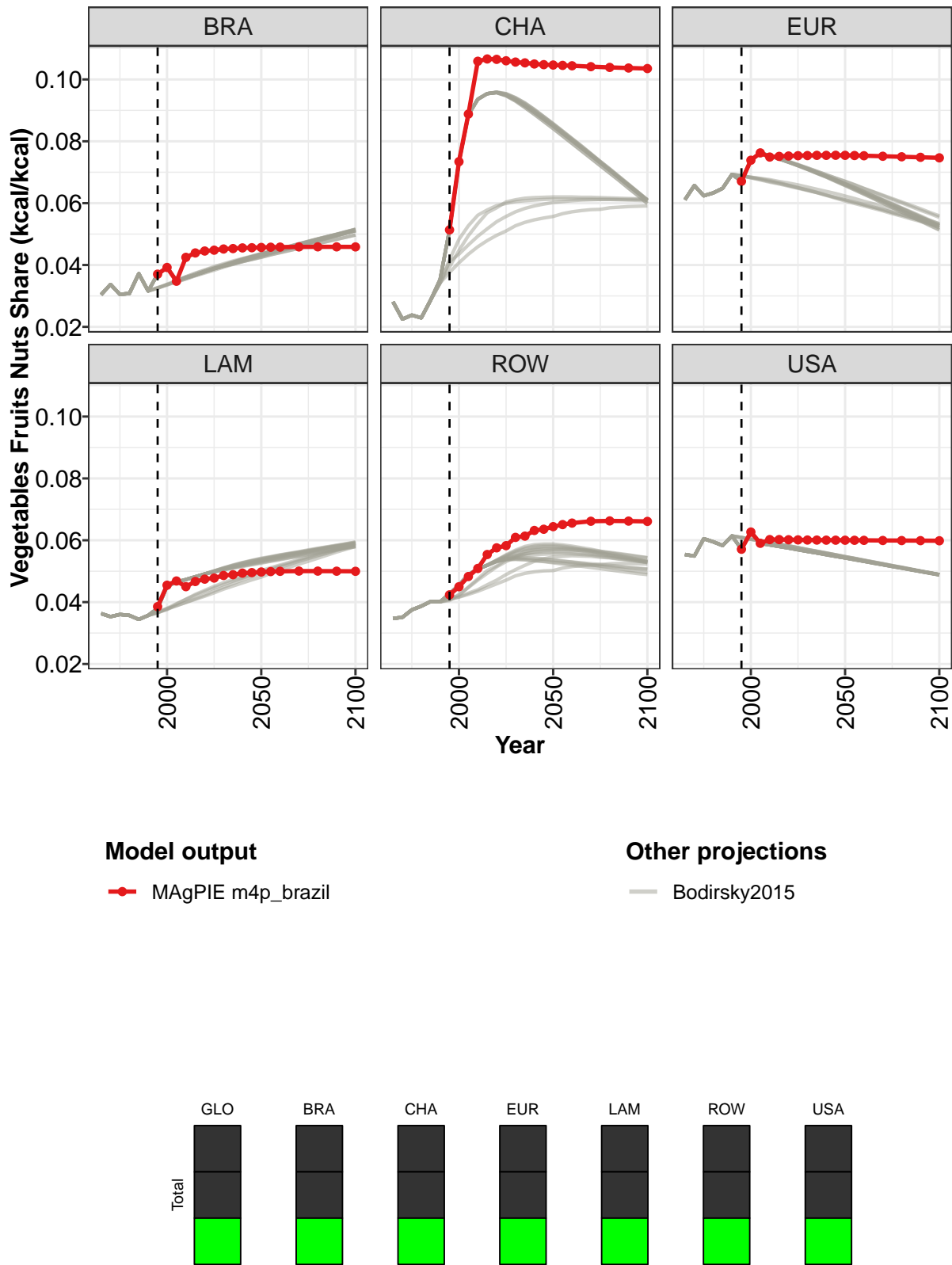


Figure 289: MAgPIE m4p_brazil — Nutrition—Dietary Composition—Vegetables Fruits Nuts Share (kcal/kcal)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.048	0.056	0.060	0.065	0.067	0.068	0.068	0.069	0.069	0.070	0.070
BRA	0.037	0.039	0.035	0.042	0.044	0.045	0.045	0.045	0.045	0.046	0.046
CHA	0.051	0.073	0.089	0.106	0.107	0.106	0.106	0.106	0.105	0.105	0.105
EUR	0.067	0.074	0.076	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
LAM	0.039	0.045	0.047	0.045	0.047	0.047	0.048	0.049	0.049	0.049	0.050
ROW	0.042	0.045	0.048	0.051	0.055	0.058	0.058	0.061	0.061	0.063	0.064
USA	0.057	0.063	0.059	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060

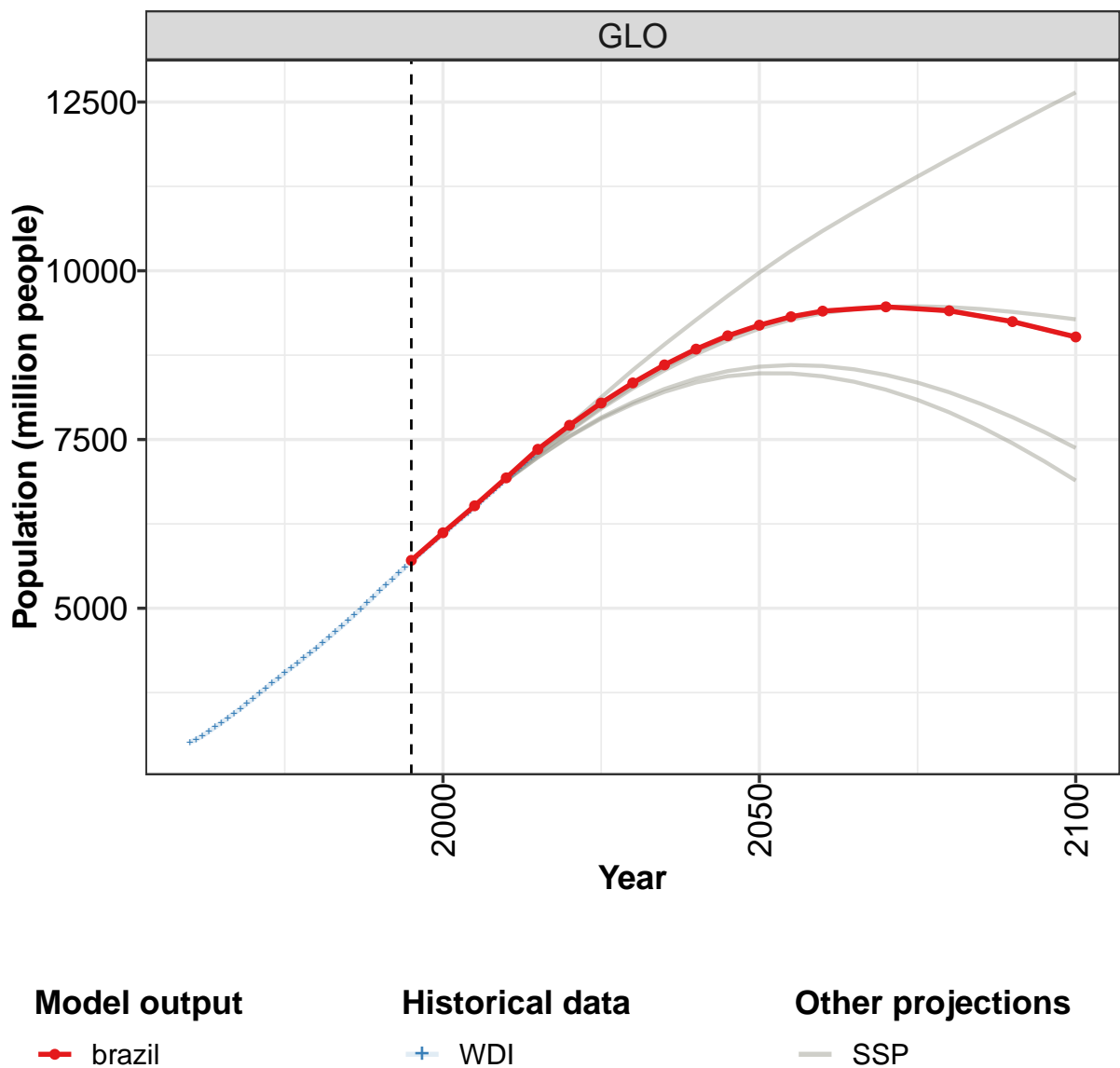
Table 953: MAgPIE m4p_brazil — Nutrition—Dietary Composition—Vegetables Fruits Nuts Share (kcal/kcal)
[PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	0.070	0.070	0.070	0.070	0.069	0.069	0.068
BRA	0.046	0.046	0.046	0.046	0.046	0.046	0.046
CHA	0.105	0.105	0.104	0.104	0.104	0.104	0.104
EUR	0.075	0.075	0.075	0.075	0.075	0.075	0.075
LAM	0.050	0.050	0.050	0.050	0.050	0.050	0.050
ROW	0.064	0.065	0.066	0.066	0.066	0.066	0.066
USA	0.060	0.060	0.060	0.060	0.060	0.060	0.060

Table 954: MAgPIE m4p_brazil — Nutrition—Dietary Composition—Vegetables Fruits Nuts Share (kcal/kcal)
[PART 2/2]

Part X

Population



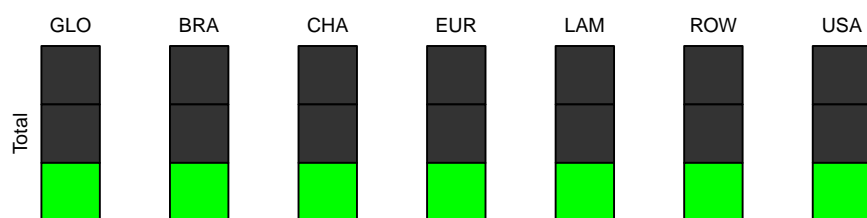
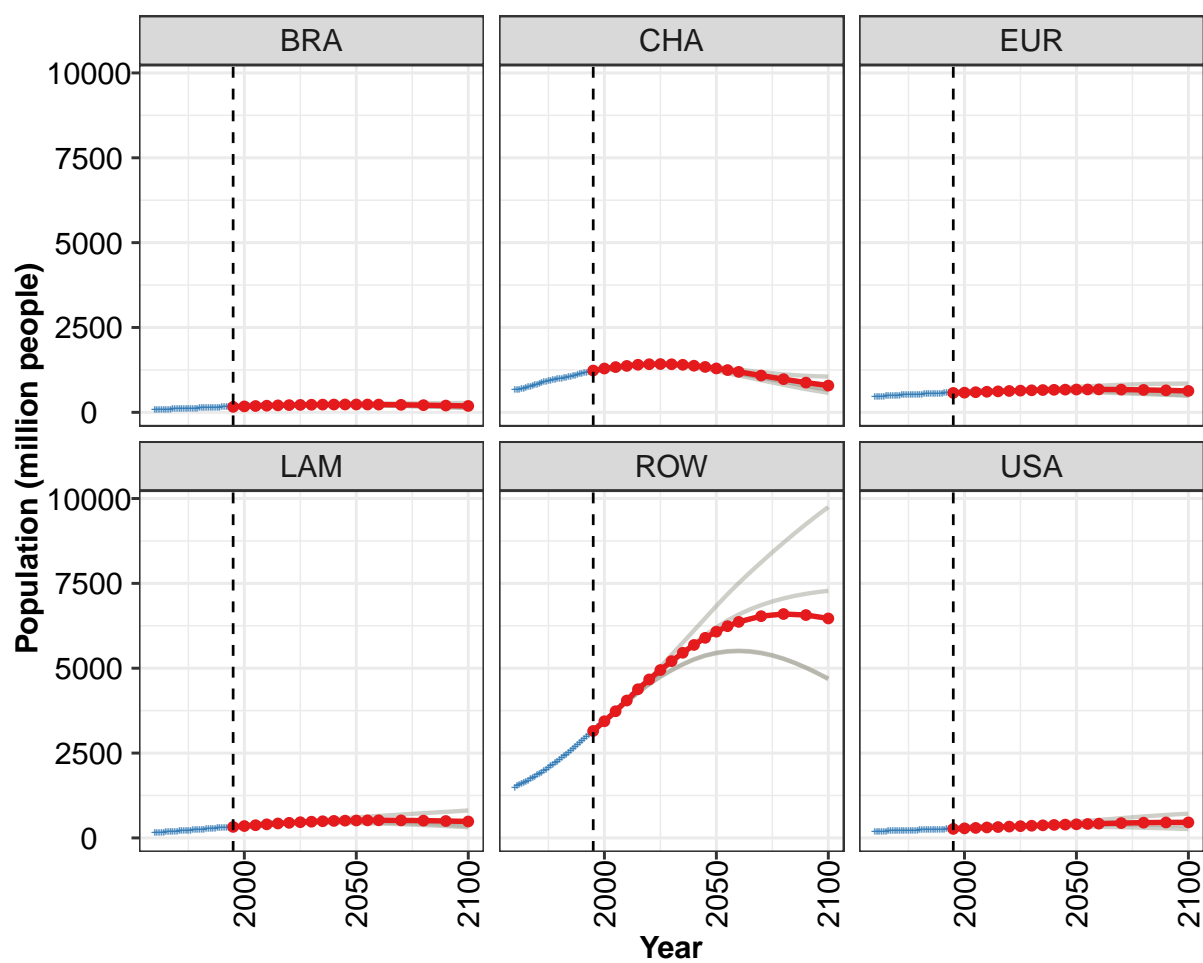


Figure 290: MAgPIE m4p_brazil — Population (million people)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5710	6118	6518	6932	7356	7711	8041	8339	8606	8839	9037
BRA	162	175	187	197	206	213	219	224	228	231	232
CHA	1233	1292	1334	1368	1402	1418	1423	1418	1401	1374	1338
EUR	572	581	594	607	619	630	640	650	657	664	669
LAM	325	351	375	401	426	446	463	479	491	502	509
ROW	3152	3438	3733	4049	4381	4670	4947	5209	5456	5686	5896
USA	266	282	296	309	321	334	347	360	372	383	393

Table 955: MAgPIE m4p_brazil — Population (million people) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	9194	9319	9403	9465	9407	9247	9020
BRA	232	231	229	222	212	200	188
CHA	1294	1246	1193	1085	978	876	790
EUR	673	675	675	670	661	648	631
LAM	514	518	519	517	510	499	485
ROW	6078	6238	6366	6534	6597	6567	6467
USA	402	412	421	438	450	456	459

Table 956: MAgPIE m4p_brazil — 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
BRA	72	74	77	79	81	83	86	88	91	93	95
CHA	670	664	669	686	702	719	739	758	779	800	823
EUR	453	458	462	467	472	476	480	484	488	492	496
LAM	148	152	156	161	165	169	174	178	183	187	192
ROW	1491	1525	1558	1592	1626	1662	1698	1735	1772	1812	1851
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
BRA	98	100	103	105	108	110	113	116	118	121	124
CHA	845	866	886	905	921	935	948	961	974	987	999
EUR	499	503	507	510	514	517	520	523	526	529	532
LAM	197	202	207	212	217	222	227	232	237	242	248
ROW	1892	1934	1976	2021	2066	2111	2158	2206	2255	2305	2357
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
BRA	127	130	133	136	138	141	144	147	149	152	155
CHA	1014	1029	1042	1057	1073	1090	1108	1125	1141	1157	1171
EUR	534	536	539	541	543	546	548	551	561	563	566
LAM	253	258	263	269	274	279	285	290	296	301	307
ROW	2410	2464	2519	2575	2632	2689	2747	2806	2865	2923	2979
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
BRA	157	160	162	165	168	170	173	175	178	180	182
CHA	1185	1198	1211	1224	1237	1249	1260	1270	1279	1288	1296
EUR	568	570	572	574	575	577	579	581	583	585	588
LAM	313	318	324	329	334	340	345	350	354	359	364
ROW	3035	3092	3151	3208	3265	3322	3379	3436	3495	3553	3612
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
BRA	185	187	189	191	193	195	197	199	201	202	204
CHA	1303	1311	1318	1325	1332	1339	1345	1352	1358	1365	1372
EUR	591	594	596	599	602	605	607	608	610	613	616
LAM	369	374	379	384	389	395	400	405	410	415	420
ROW	3671	3731	3793	3855	3918	3983	4048	4113	4175	4241	4308
USA	293	296	298	301	304	307	309	312	314	316	319

Table 961: WDI — Population (million people) [PART 5/6]

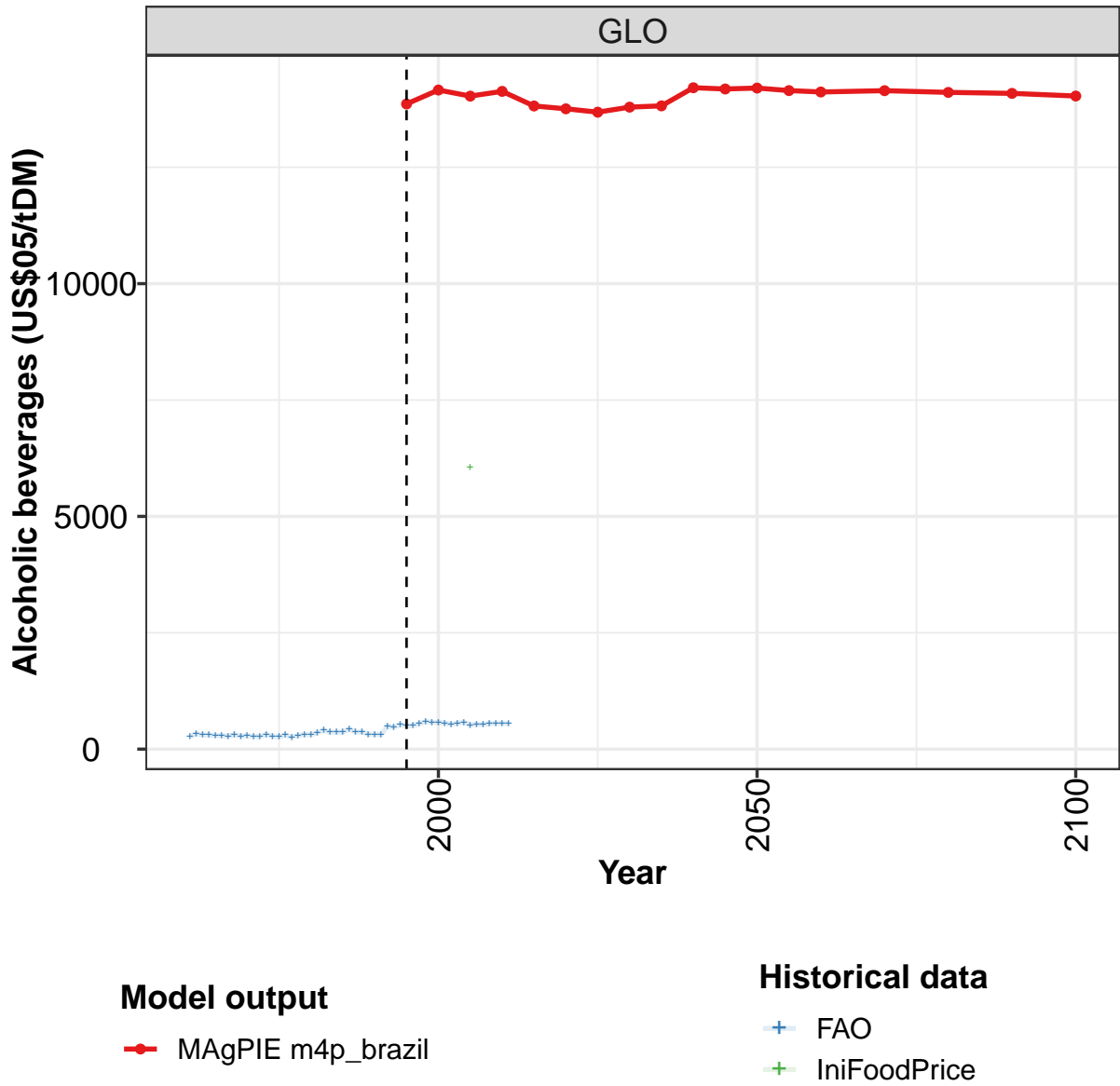
	2015	2016
GLO	7325	7412
BRA	206	208
CHA	1379	1387
EUR	618	622
LAM	425	430
ROW	4375	4443
USA	321	323

Table 962: WDI — Population (million people) [PART 6/6]

Part XI
Prices

36 Agriculture

36.1 Alcoholic beverages



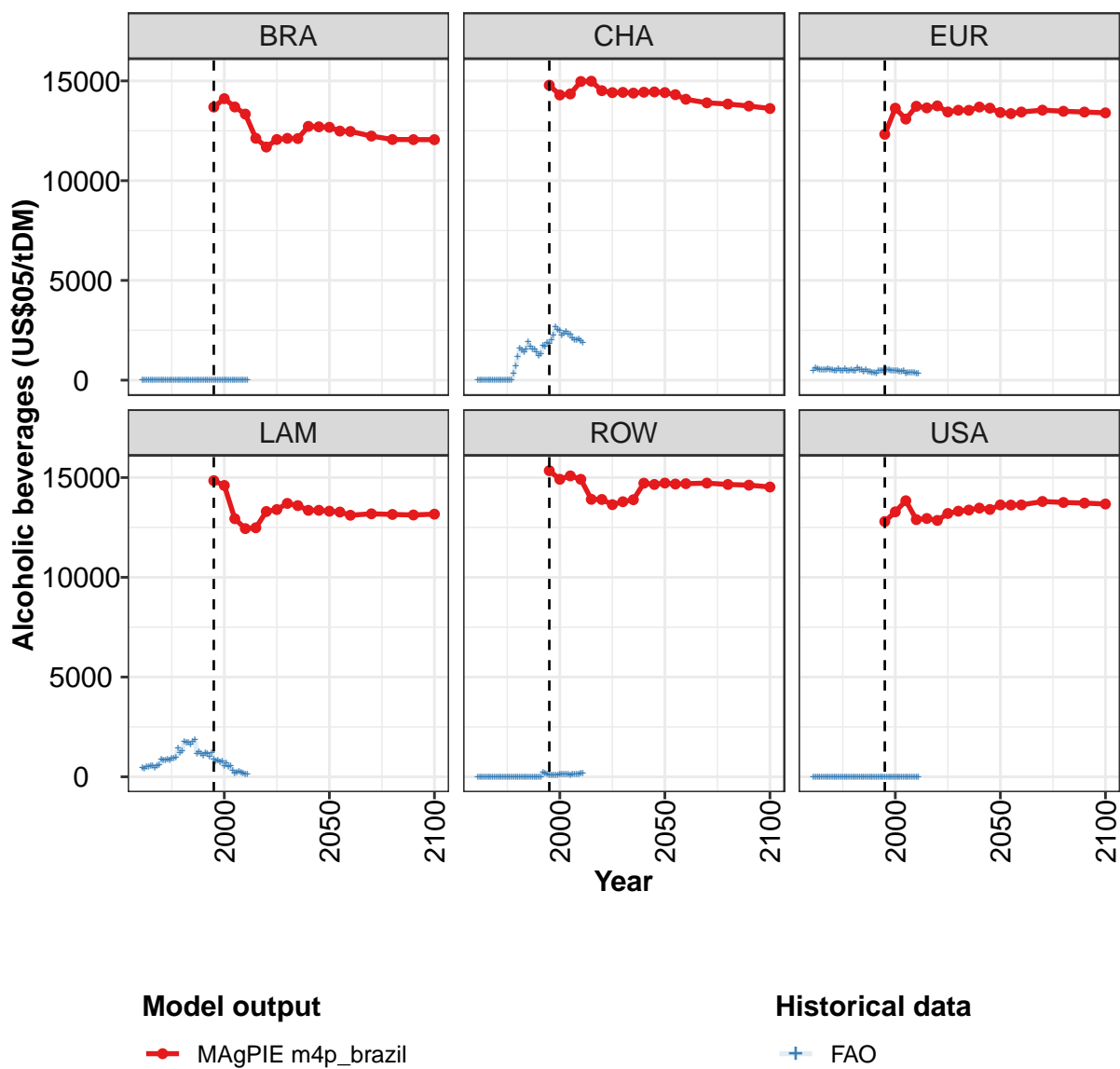


Figure 291: MAgPIE m4p_brazil — Prices—Agriculture—Alcoholic beverages (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	13860	14160	14029	14131	13817	13757	13684	13792	13820	14209	14182
BRA	13692	14110	13695	13338	12125	11687	12064	12120	12111	12723	12700
CHA	14787	14295	14348	14973	14987	14511	14413	14427	14389	14435	14450
EUR	12326	13633	13088	13730	13648	13750	13446	13531	13527	13691	13636
LAM	14846	14604	12937	12441	12483	13299	13398	13706	13595	13358	13359
ROW	15345	14915	15085	14912	13910	13903	13643	13789	13890	14719	14655
USA	12798	13282	13840	12894	12949	12852	13200	13316	13372	13470	13402

Table 963: MAgPIE m4p_brazil — Prices—Agriculture—Alcoholic beverages (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	14202	14148	14118	14146	14109	14088	14031
BRA	12677	12487	12467	12235	12064	12057	12056
CHA	14417	14313	14081	13901	13841	13741	13618
EUR	13418	13362	13442	13535	13479	13441	13400
LAM	13315	13272	13111	13184	13151	13126	13167
ROW	14726	14676	14694	14722	14654	14620	14527
USA	13630	13622	13629	13802	13753	13721	13675

Table 964: MAgPIE m4p_brazil — 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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	493	596	560	537	522	514	509	572	506	507	482
LAM	460	425	481	497	551	535	468	560	601	852	820
ROW	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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	0	0	328	702	1159	1601	1498
EUR	477	562	470	468	544	465	463	501	456	466	597
LAM	818	863	842	918	942	984	1442	1204	1295	1751	1696
ROW	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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	1392	1532	1898	1698	1559	1532	1412	1230	1311	1731	1678
EUR	495	501	413	509	430	419	363	390	334	490	479
LAM	1730	1639	1755	1833	1159	1250	1167	1039	1187	1167	1000
ROW	0	0	0	0	0	0	0	0	0	208	162
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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	1875	1841	2023	2245	2672	2530	2474	2260	2328	2437	2310
EUR	485	503	519	505	485	477	460	461	431	420	491
LAM	1182	860	784	830	724	756	531	694	515	527	334
ROW	145	99	84	86	81	91	106	114	106	110	113
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
BRA	0	0	0	0	0	0	0
CHA	2271	2101	2007	1996	2046	1982	1872
EUR	351	373	368	372	373	320	344
LAM	179	230	247	211	171	129	140
ROW	95	127	129	125	129	189	167
USA	0	0	0	0	0	0	0

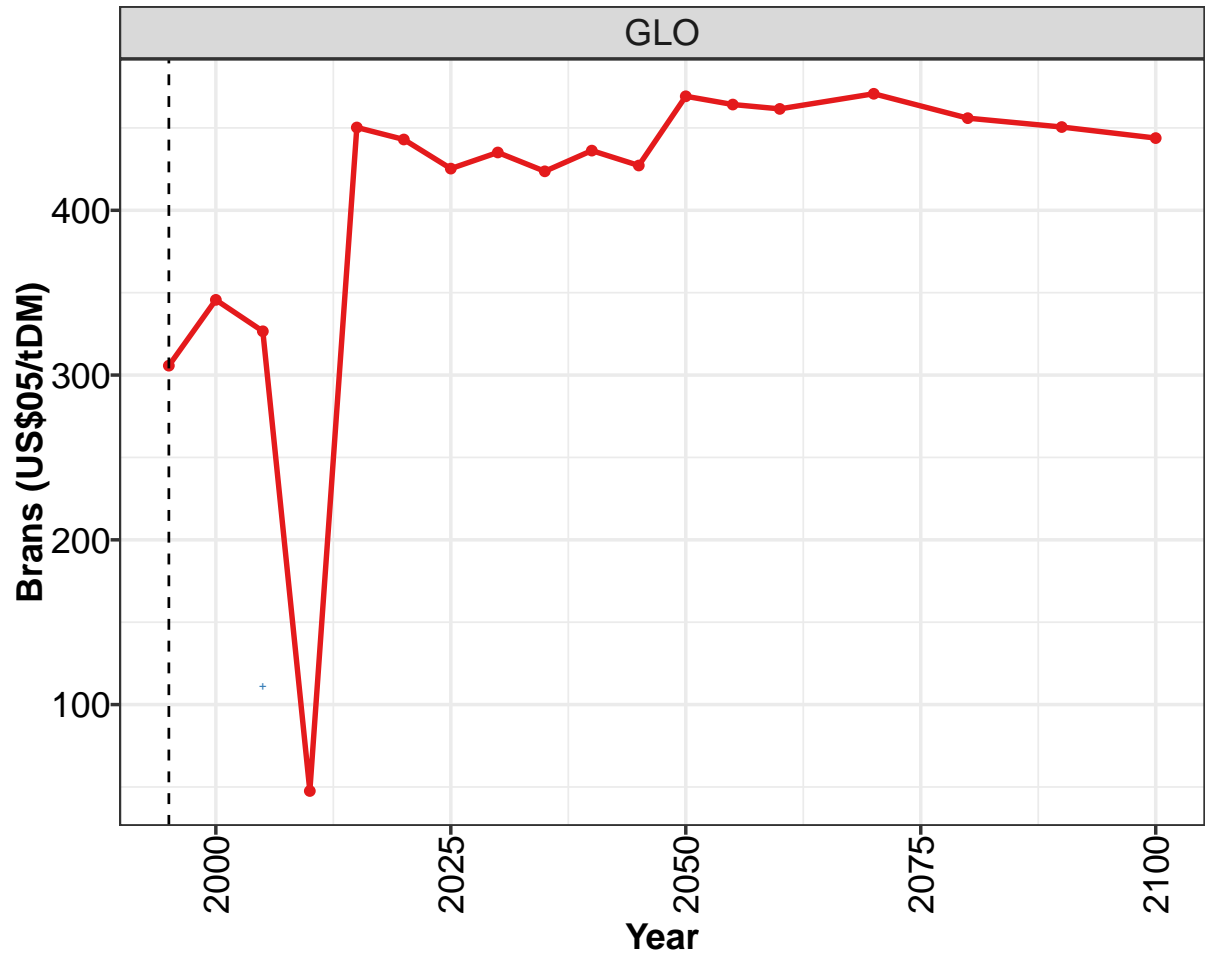
Table 969: FAO — Prices—Agriculture—Alcoholic beverages (US\$05/tDM) [PART 5/5]

	2005
GLO	6054
BRA	
CHA	
EUR	
LAM	
ROW	
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?



Model output

MAgPIE m4p_brazil

Historical data

IniFoodPrice

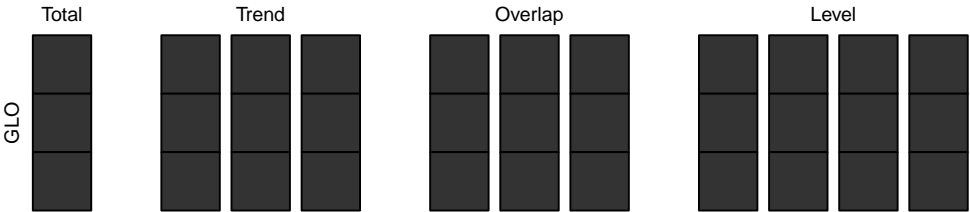


Figure 292: MAgPIE m4p_brazil — Prices—Agriculture—Brans (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	306	346	327	48	450	443	425	435	424	436	427

Table 971: MAgPIE m4p_brazil — Prices—Agriculture—Brans (US\$05/tDM) [PART 1/2]

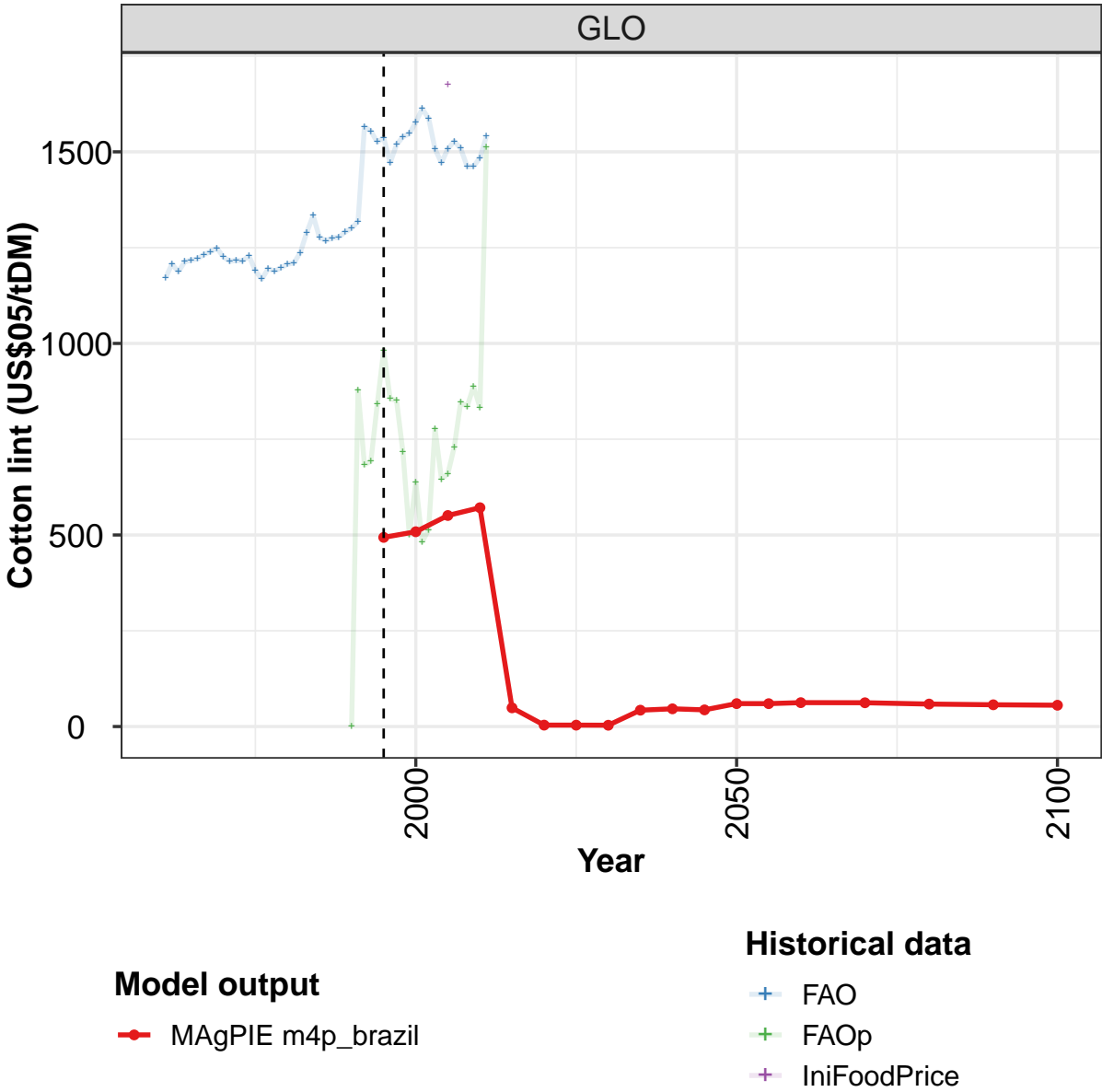
	2050	2055	2060	2070	2080	2090	2100
GLO	469	464	462	471	456	451	444

Table 972: MAgPIE m4p_brazil — 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



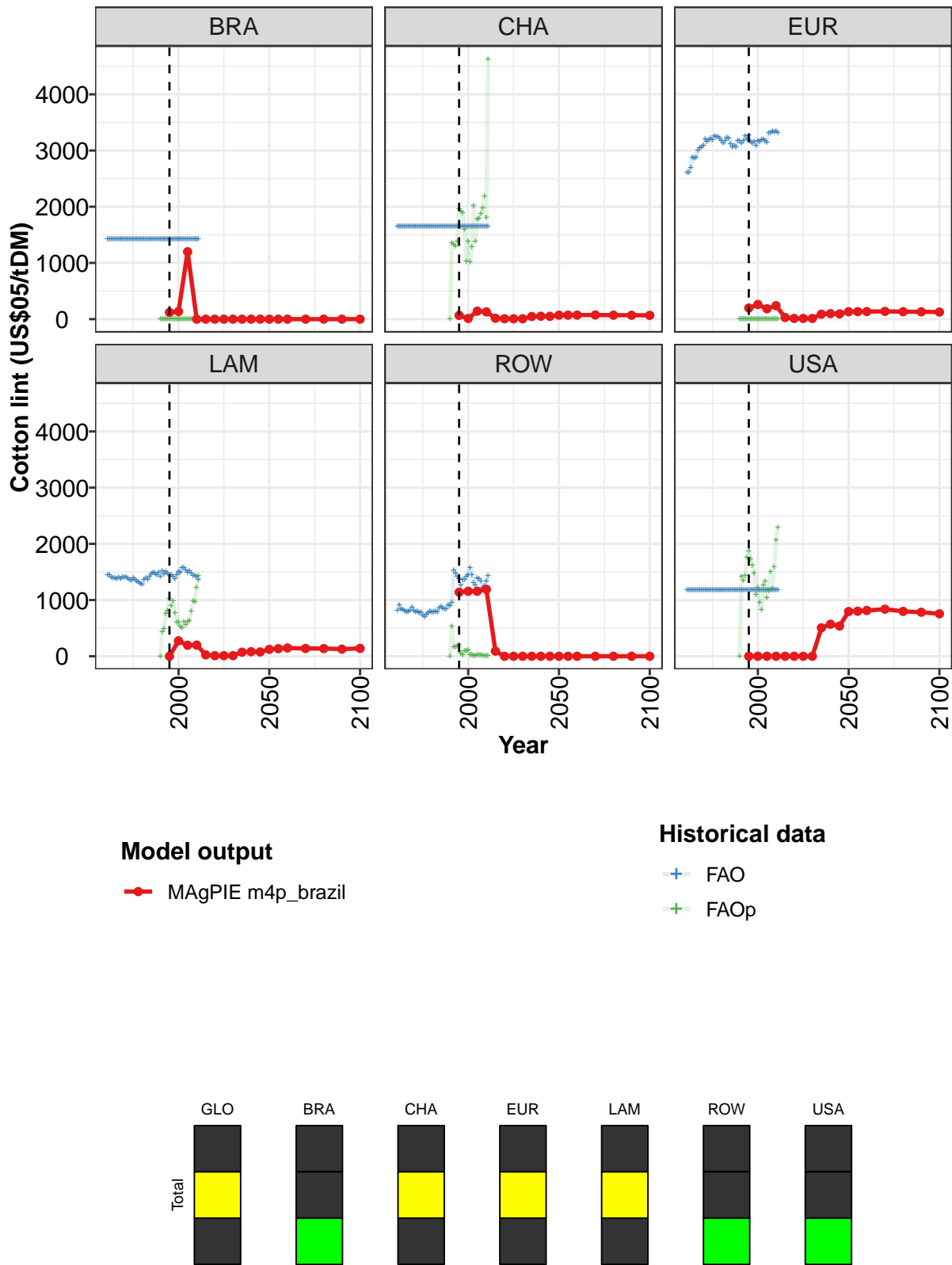


Figure 293: MAgPIE m4p_brazil — Prices—Agriculture—Cotton lint (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	494	508	551	571	49	4	4	3	43	46	44
BRA	119	136	1200	0	0	0	0	0	0	0	0
CHA	66	12	142	129	16	7	7	7	47	52	50
EUR	198	260	185	239	30	13	12	12	88	98	93
LAM	0	275	196	199	25	10	10	10	73	81	77
ROW	1140	1156	1157	1191	92	0	0	0	0	0	0
USA	0	0	0	0	0	0	0	0	505	570	538

Table 974: MAgPIE m4p_brazil — Prices—Agriculture—Cotton lint (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	60	60	62	62	59	57	56
BRA	0	0	0	0	0	0	0
CHA	71	71	72	74	71	70	67
EUR	132	133	135	138	132	130	126
LAM	122	135	147	138	137	127	140
ROW	0	0	0	0	0	0	0
USA	796	802	814	837	799	783	756

Table 975: MAgPIE m4p_brazil — 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
BRA	1424	1424	1424	1424	1424	1424	1424	1424	1424	1424	1424
CHA	1651	1650	1651	1651	1651	1651	1651	1651	1651	1651	1651
EUR	2603	2604	2699	2884	2870	2872	3004	3048	3064	3092	3206
LAM	1442	1446	1404	1395	1388	1381	1402	1383	1400	1410	1408
ROW	807	910	837	827	820	778	800	809	865	810	789
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
BRA	1424	1424	1424	1424	1424	1424	1424	1424	1424	1424	1424
CHA	1652	1652	1652	1652	1652	1652	1652	1652	1652	1652	1652
EUR	3157	3189	3208	3186	3252	3244	3244	3218	3171	3124	3177
LAM	1386	1364	1353	1396	1369	1333	1317	1294	1285	1368	1394
ROW	803	768	783	728	701	743	772	796	789	784	804
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
BRA	1424	1424	1424	1424	1424	1424	1424	1424	1424	1424	1424
CHA	1652	1652	1652	1652	1652	1652	1652	1652	1652	1652	1652
EUR	3236	3219	3120	3062	3090	3058	3177	3167	3128	3167	3256
LAM	1364	1412	1467	1496	1477	1443	1487	1425	1519	1455	1500
ROW	779	856	877	858	839	845	906	902	948	1527	1471
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
BRA	1424	1424	1424	1424	1424	1424	1424	1424	1424	1424	1424
CHA	1652	1652	1652	1652	1652	1652	1652	1652	1652	1652	1652
EUR	3202	3276	3156	3131	3162	3091	3174	3165	3193	3199	3167
LAM	1474	1451	1445	1419	1381	1441	1510	1486	1569	1570	1531
ROW	1419	1376	1265	1362	1358	1426	1454	1569	1443	1301	1262
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
BRA	1424	1424	1424	1424	1424	1424	1424
CHA	1652	1652	1652	1652	1652	1652	1652
EUR	3147	3307	3316	3346	3326	3347	3319
LAM	1495	1512	1483	1430	1434	1417	1367
ROW	1386	1374	1338	1217	1249	1341	1427
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
BRA	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	1	1	1	2	2	1	1	1	0
LAM	0	437	489	753	820	1019	899	978	770	600	597
ROW	0	531	168	165	181	203	45	22	101	96	106
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]

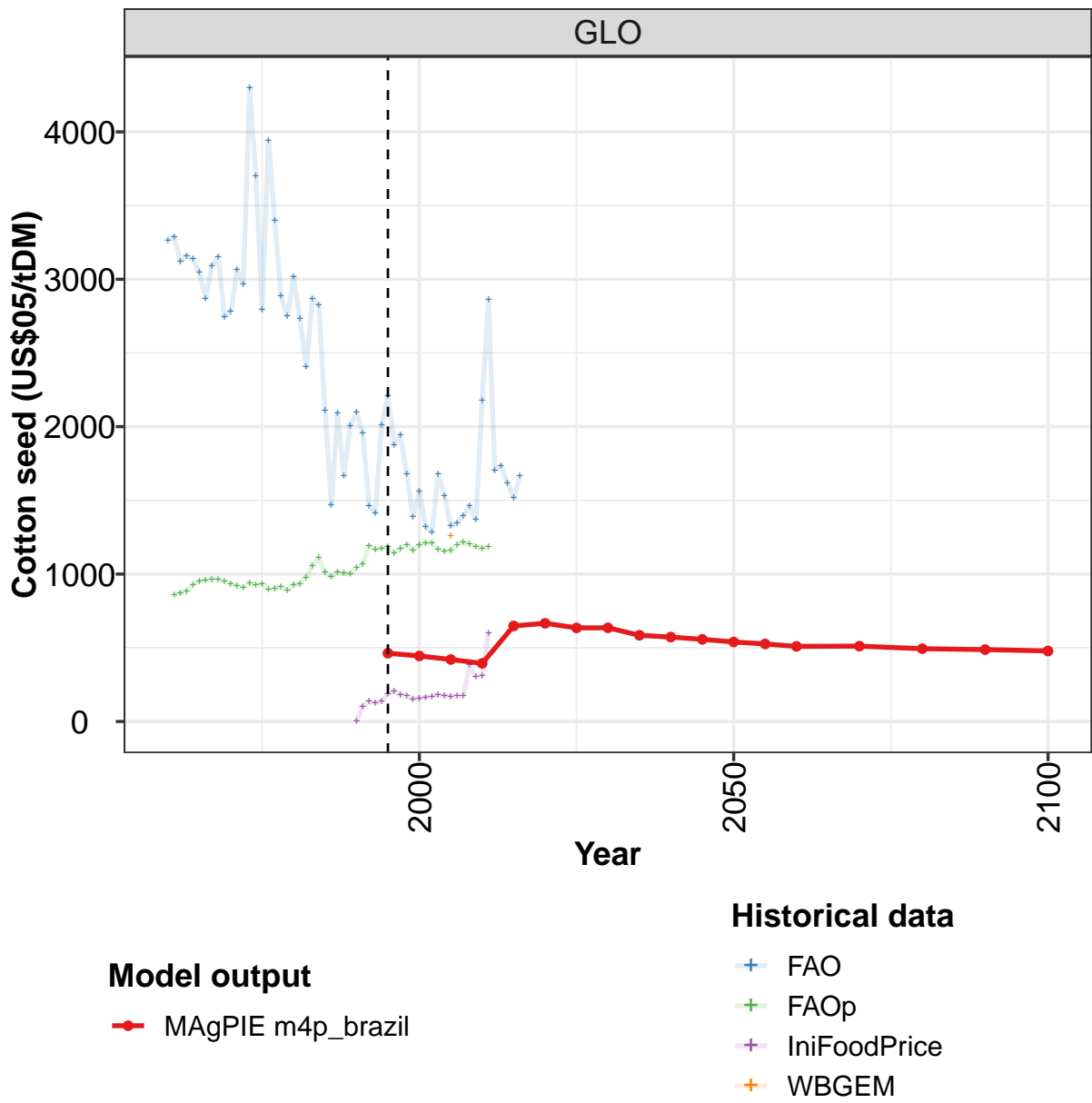
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	482	514	777	646	660	730	847	835	888	833	1512
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	1016	1284	2021	1377	1781	1798	1879	1981	2188	1805	4630
EUR	1	0	0	0	0	0	0	0	0	0	0
LAM	528	497	610	562	610	635	801	980	972	1228	1435
ROW	30	23	10	11	20	20	21	17	4	4	9
USA	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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 983: IniFoodPrice — Prices—Agriculture—Cotton lint (US\$05/tDM)

36.4 Cotton seed



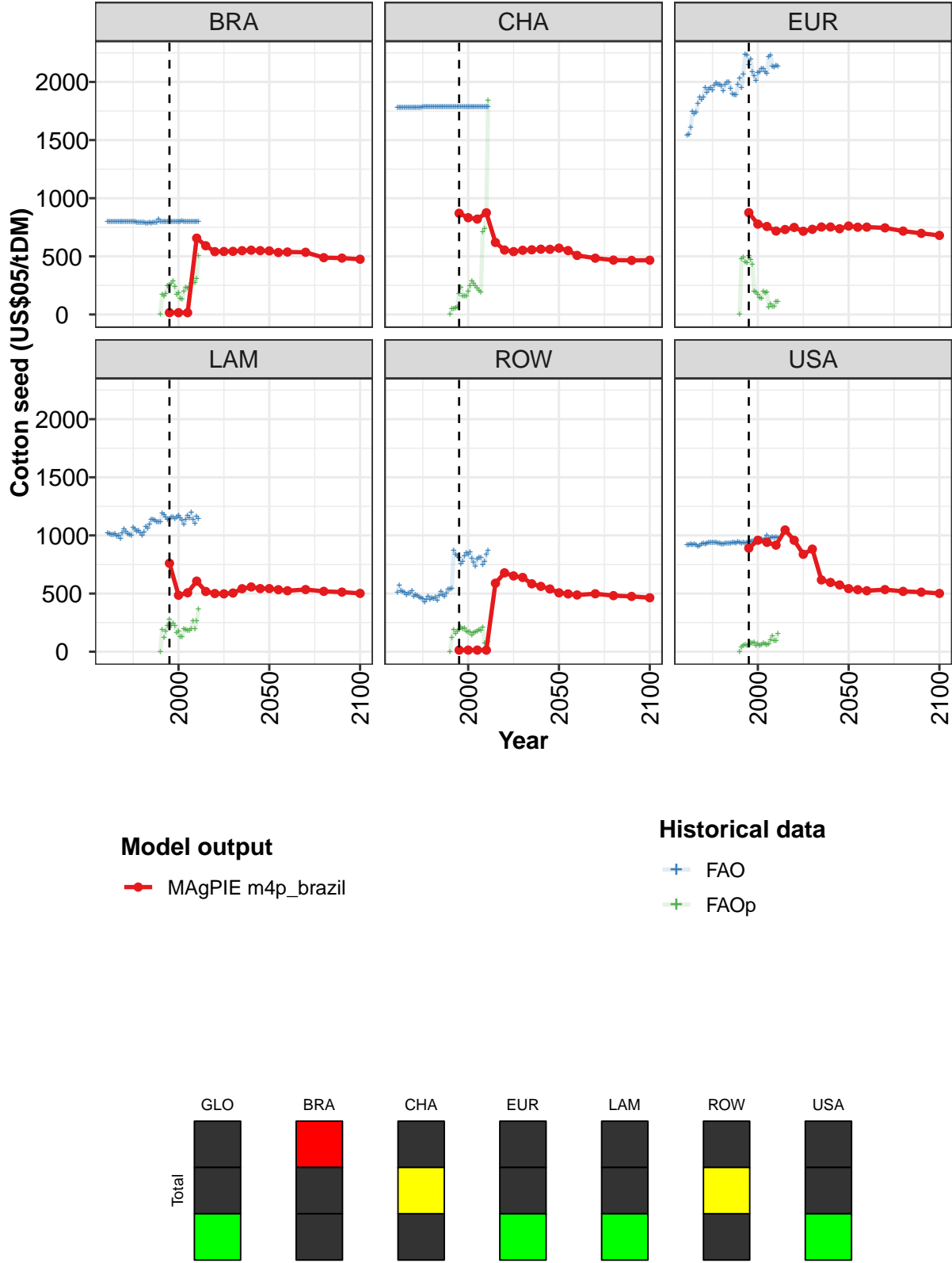


Figure 294: MAgPIE m4p_brazil — Prices—Agriculture—Cotton seed (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	463	445	420	394	648	666	635	635	585	573	557
BRA	16	16	15	657	591	540	542	543	549	553	549
CHA	871	832	820	875	620	554	541	552	556	562	561
EUR	876	777	757	718	731	749	716	733	752	752	738
LAM	761	486	507	607	518	500	498	505	542	557	543
ROW	14	14	14	13	589	678	652	639	584	562	539
USA	891	959	941	917	1047	958	838	882	617	596	574

Table 984: MAgPIE m4p_brazil — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	539	526	509	511	494	487	478
BRA	547	533	537	535	489	485	475
CHA	571	550	508	484	468	465	467
EUR	761	751	751	745	717	698	680
LAM	543	534	525	535	519	513	501
ROW	506	497	488	498	482	475	464
USA	542	533	524	534	519	512	501

Table 985: MAgPIE m4p_brazil — 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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
USA											

Table 990: WBGEM — Prices—Agriculture—Cotton seed (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	1518	1666
BRA		
CHA		
EUR		
LAM		
ROW		
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
BRA	799	800	799	800	799	800	800	799	799	800	800
CHA	1782	1781	1782	1782	1782	1783	1783	1782	1783	1782	1783
EUR	1541	1549	1606	1743	1728	1741	1812	1868	1847	1870	1953
LAM	1020	1014	1005	1004	1013	993	1001	973	1020	1055	1036
ROW	506	568	525	513	507	486	501	504	525	476	487
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
BRA	800	800	800	800	800	788	788	788	789	789	786
CHA	1783	1783	1783	1783	1783	1783	1783	1783	1783	1783	1783
EUR	1910	1935	1951	1929	1971	1991	1976	1979	1962	1924	1976
LAM	1016	1006	999	1065	1052	1035	1043	1017	999	1024	1078
ROW	484	468	462	454	425	448	476	450	465	457	469
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
BRA	787	789	787	789	788	789	819	800	800	799	800
CHA	1783	1783	1783	1783	1783	1783	1783	1783	1783	1783	1783
EUR	1999	1995	1940	1892	1891	1887	1974	2030	1947	2064	2238
LAM	1060	1096	1136	1137	1131	1114	1114	1118	1188	1177	1158
ROW	441	482	518	490	474	502	539	539	544	872	837
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
BRA	800	800	800	800	800	800	800	800	801	800	800
CHA	1783	1783	1783	1783	1783	1783	1783	1783	1783	1783	1783
EUR	2231	2146	2197	2084	2052	2012	2081	2083	2117	2111	2083
LAM	1139	1146	1156	1158	1143	1159	1173	1147	1129	1096	1135
ROW	821	807	757	777	824	850	838	855	800	769	737
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
BRA	800	800	800	800	800	800	800
CHA	1786	1783	1783	1783	1783	1783	1783
EUR	2076	2216	2228	2133	2127	2143	2136
LAM	1170	1147	1201	1134	1101	1163	1144
ROW	797	812	806	748	775	837	870
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
BRA	0	168	160	179	243	250	266	288	236	172	186
CHA	0	45	52	57	64	180	233	159	159	161	198
EUR	0	480	491	453	446	505	473	428	198	193	170
LAM	0	190	123	176	226	278	225	244	222	162	172
ROW	0	123	187	155	174	192	209	199	203	174	166
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]

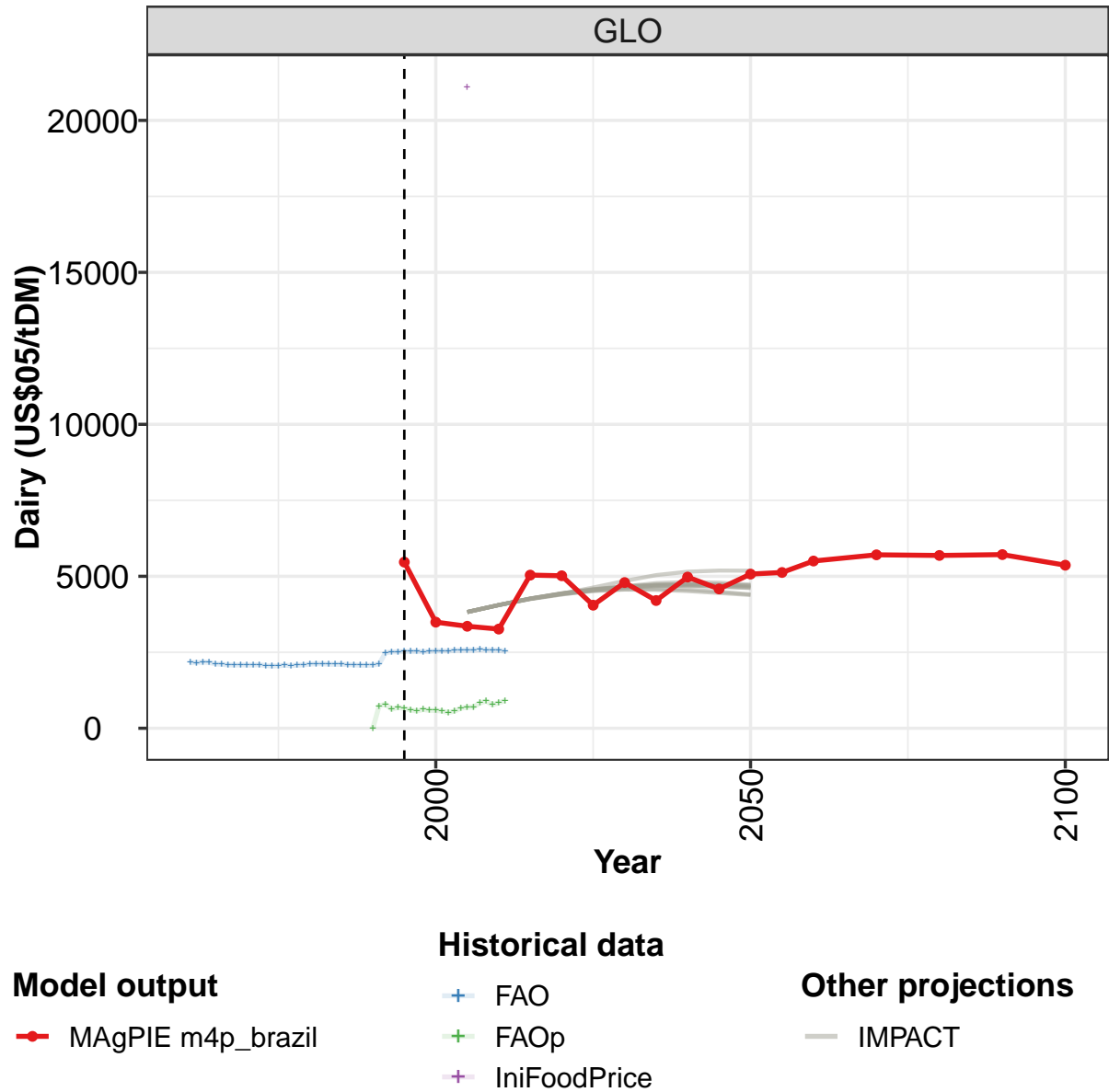
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	164	171	180	177	170	172	176	382	304	308	602
BRA	140	131	196	233	222	235	269	308	272	311	508
CHA	244	290	267	244	224	206	191	711	739	852	1839
EUR	146	139	196	184	193	60	89	66	72	110	110
LAM	129	126	196	186	183	182	197	267	192	262	366
ROW	165	143	163	167	173	192	184	208	71	76	86
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 999: IniFoodPrice — Prices—Agriculture—Cotton seed (US\$05/tDM)

36.5 Dairy



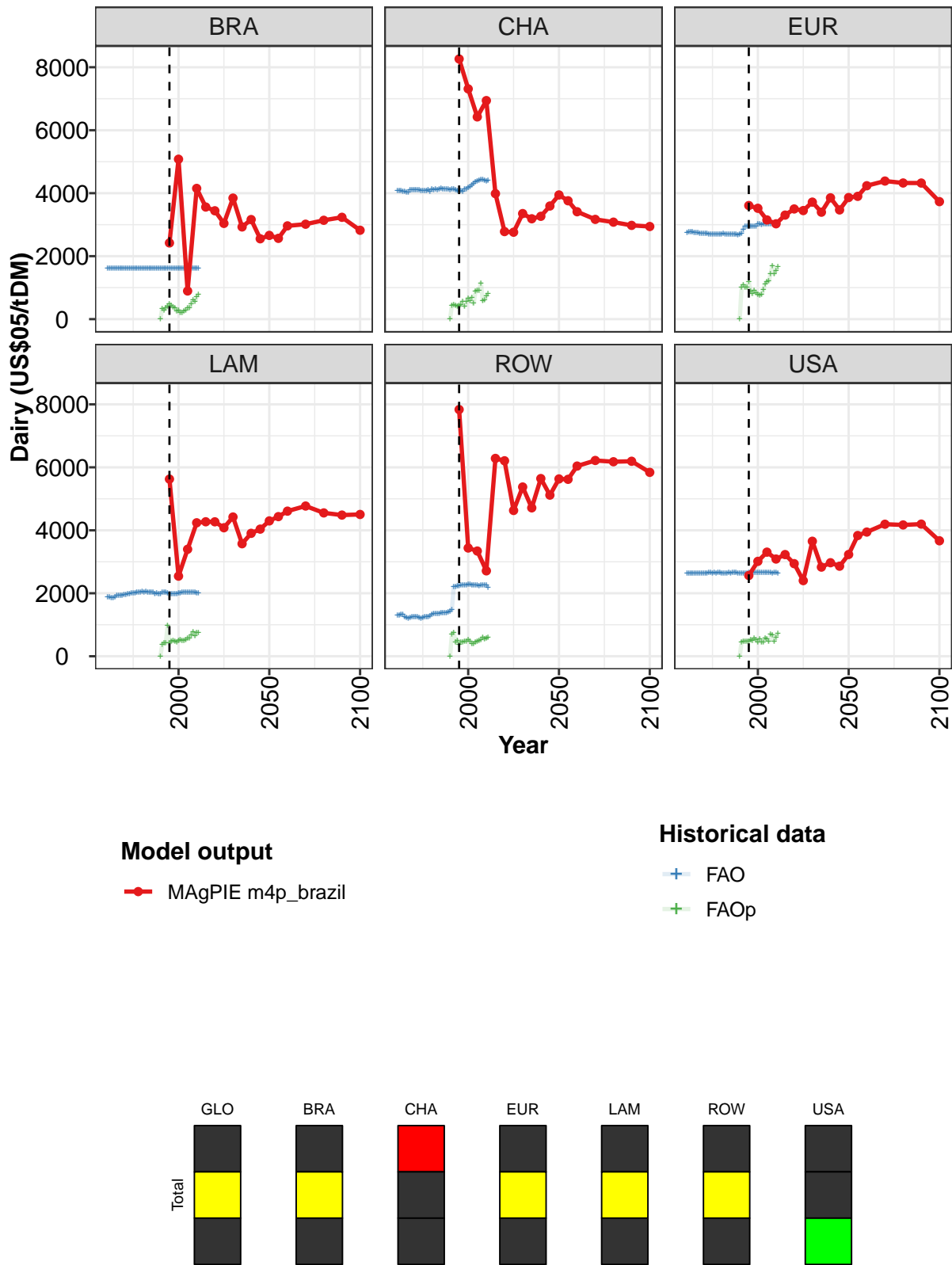


Figure 295: MAgPIE m4p_brazil — Prices—Agriculture—Dairy (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5468	3491	3356	3264	5039	5018	4050	4795	4203	4975	4584
BRA	2421	5079	894	4152	3561	3442	3041	3845	2929	3163	2552
CHA	8263	7313	6423	6941	3986	2781	2761	3354	3188	3266	3594
EUR	3608	3521	3151	3029	3305	3499	3448	3716	3397	3854	3469
LAM	5626	2545	3398	4239	4271	4270	4081	4423	3573	3904	4038
ROW	7835	3437	3342	2712	6284	6209	4630	5375	4713	5644	5117
USA	2565	3014	3307	3088	3230	2941	2402	3652	2831	2970	2860

Table 1000: MAgPIE m4p_brazil — Prices—Agriculture—Dairy (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	5073	5126	5503	5706	5686	5714	5365
BRA	2659	2566	2962	3015	3139	3235	2823
CHA	3945	3759	3411	3169	3081	2978	2942
EUR	3862	3900	4237	4386	4324	4322	3732
LAM	4298	4435	4609	4771	4553	4484	4504
ROW	5631	5619	6040	6218	6178	6193	5841
USA	3232	3834	3944	4193	4170	4196	3667

Table 1001: MAgPIE m4p_brazil — 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
BRA	1620	1619	1622	1622	1622	1622	1620	1621	1618	1618	1617
CHA	4077	4080	4075	4061	4053	4038	4029	4112	4110	4108	4110
EUR	2757	2760	2765	2761	2750	2747	2733	2726	2722	2720	2719
LAM	1870	1875	1861	1853	1880	1917	1937	1928	1940	1959	1954
ROW	1292	1294	1332	1326	1252	1233	1210	1220	1252	1247	1253
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
BRA	1617	1616	1617	1618	1618	1617	1614	1614	1615	1615	1618
CHA	4107	4093	4088	4084	4080	4079	4110	4051	4139	4102	4126
EUR	2717	2707	2697	2701	2704	2698	2697	2704	2707	2712	2705
LAM	1971	1988	2002	2003	2004	2031	2041	2037	2048	2039	2048
ROW	1261	1219	1201	1224	1258	1243	1256	1280	1316	1353	1359
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
BRA	1618	1618	1618	1619	1619	1619	1619	1620	1621	1621	1621
CHA	4115	4121	4143	4141	4128	4121	4119	4113	4126	4136	4106
EUR	2691	2691	2688	2685	2685	2686	2678	2687	2724	2855	2947
LAM	2029	2035	2042	2031	1989	2000	1969	1983	2022	2026	2031
ROW	1345	1355	1375	1376	1373	1378	1398	1416	1468	2199	2216
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
BRA	1621	1622	1622	1622	1622	1622	1622	1622	1622	1622	1622
CHA	4082	4058	4071	4054	4126	4138	4176	4211	4256	4315	4366
EUR	2953	2956	2958	2954	2949	2955	3015	3012	3007	3015	3015
LAM	1998	1980	1978	1982	1987	1985	2006	2012	2028	2030	2039
ROW	2224	2242	2261	2265	2262	2267	2273	2273	2264	2269	2256
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
BRA	1622	1622	1622	1622	1622	1622	1623
CHA	4391	4410	4423	4423	4393	4386	4398
EUR	3014	3016	3014	3018	3016	3022	3022
LAM	2018	2026	2027	2037	2028	2014	1999
ROW	2258	2240	2259	2261	2255	2250	2188
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
BRA	0	328	287	344	418	486	434	382	350	243	279
CHA	0	436	457	434	408	436	458	566	402	548	645
EUR	0	999	1091	1003	1006	1173	886	798	901	845	779
LAM	0	371	429	425	973	409	474	494	481	452	493
ROW	0	692	755	442	504	371	444	456	478	482	531
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
BRA	211	195	243	269	344	364	489	603	564	699	789
CHA	570	686	495	876	919	908	1146	592	619	744	802
EUR	750	771	930	1118	1179	1203	1445	1696	1436	1546	1659
LAM	530	491	495	518	578	578	680	764	644	739	746
ROW	481	403	405	436	467	493	531	598	545	576	606
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
BRA	
CHA	
EUR	
LAM	
ROW	
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?

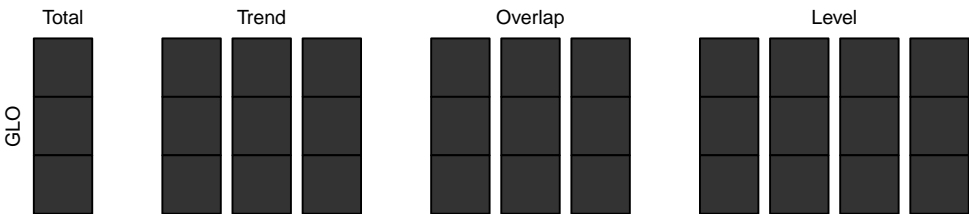
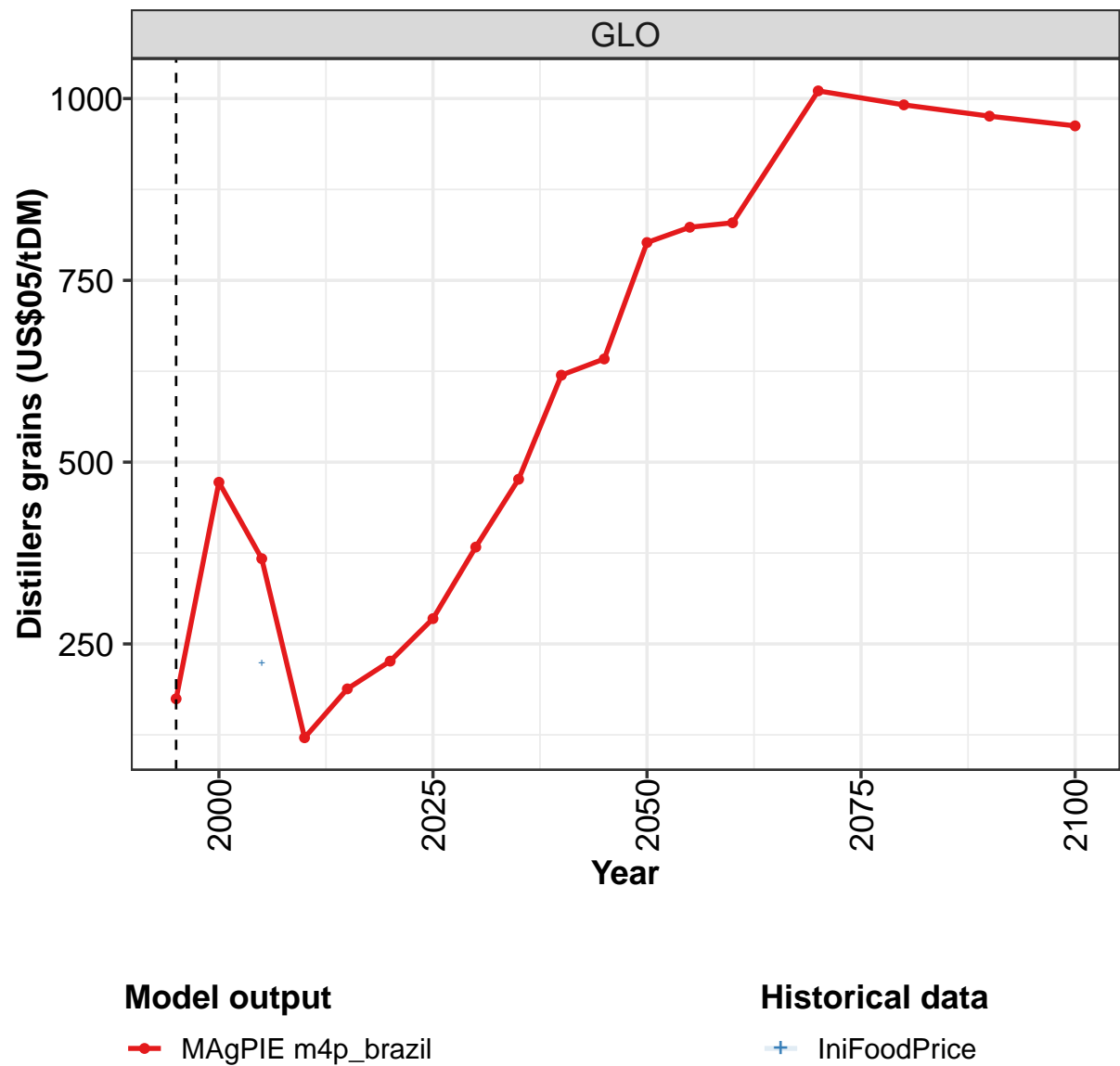


Figure 296: MAgPIE m4p.brazil — Prices—Agriculture—Distillers grains (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	175	472	367	121	188	226	285	383	476	620	642

Table 1010: MAgPIE m4p_brazil — Prices—Agriculture—Distillers grains (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	802	823	829	1011	991	976	962

Table 1011: MAgPIE m4p_brazil — 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

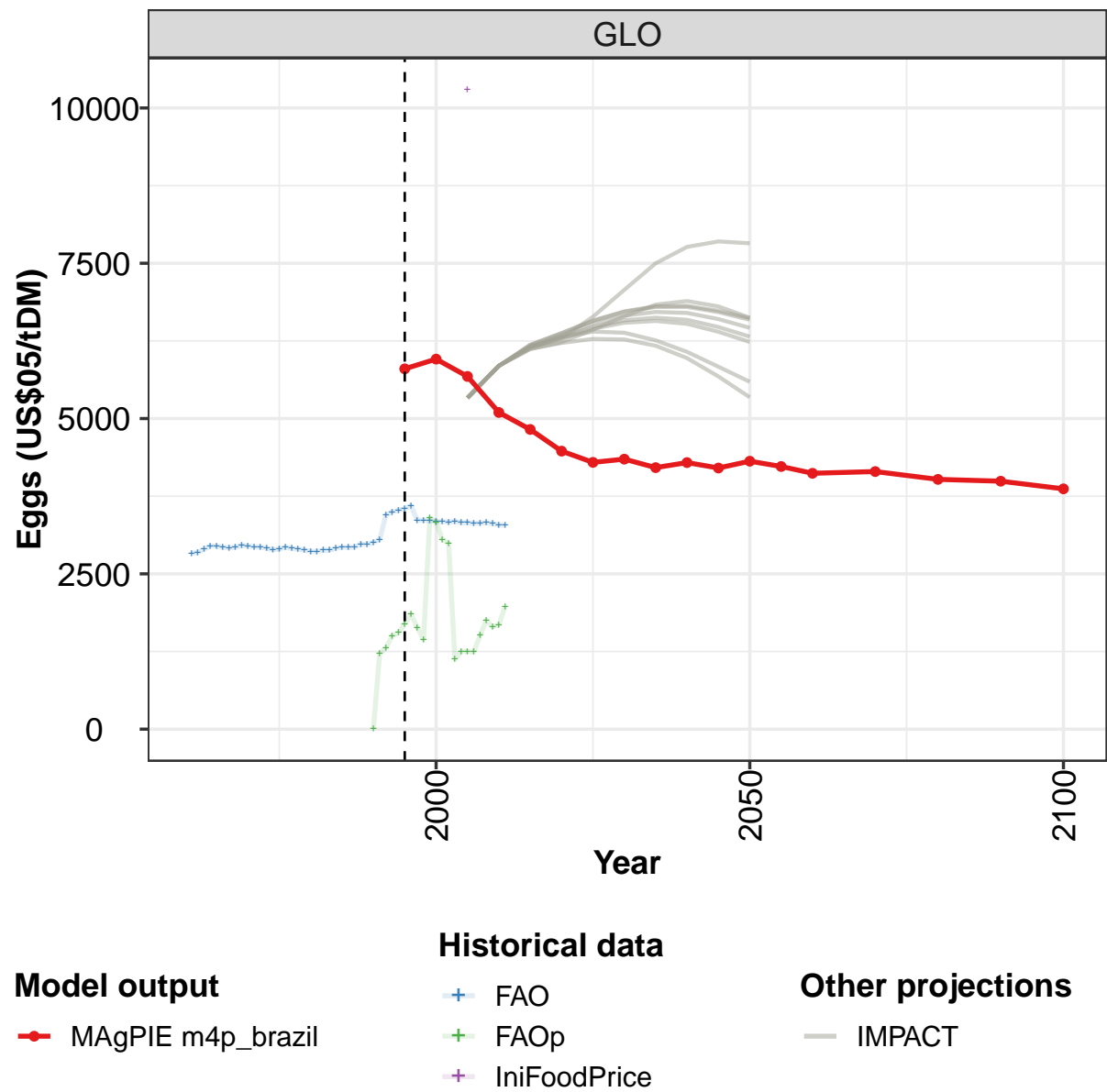




Figure 297: MAgPIE m4p_brazil — Prices—Agriculture—Eggs (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5800	5958	5678	5099	4825	4476	4295	4347	4210	4291	4204
BRA	4919	6250	6020	7002	4987	4670	4509	4463	4370	4312	4233
CHA	5299	5313	4625	5100	4627	3937	3776	3758	3583	3575	3573
EUR	6418	6317	6471	6702	4038	3885	3753	3900	3758	3898	3711
LAM	5784	5884	5874	5540	5021	4509	4490	4344	4350	4232	4207
ROW	5962	6267	6420	4438	5347	5343	5089	4993	4804	4826	4636
USA	6692	7603	7157	4169	4362	4127	3733	4832	4897	5786	5678

Table 1013: MAgPIE m4p_brazil — Prices—Agriculture—Eggs (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	4314	4229	4119	4147	4021	3992	3868
BRA	4285	4031	4083	4157	3378	3339	3056
CHA	3458	3229	2876	2603	2529	2413	2363
EUR	4215	4277	4317	4540	4317	4163	3959
LAM	4166	4183	4154	4092	3943	3752	3815
ROW	4781	4658	4584	4526	4321	4290	4113
USA	6223	6613	6704	7924	7721	7629	7013

Table 1014: MAgPIE m4p_brazil — 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
BRA	1951	1952	1953	1954	1955	1956	1956	1956	1957	1957	1958
CHA	4018	4013	4008	4000	3968	3965	3991	3957	3934	3930	3965
EUR	3625	3645	3698	3706	3739	3760	3758	3752	3743	3743	3751
LAM	2796	2877	2882	2898	2881	2882	2864	2864	2880	2860	2896
ROW	2410	2442	2519	2679	2666	2553	2560	2585	2655	2625	2563
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
BRA	1959	1959	1960	1963	1964	1958	1960	1957	1955	1951	1949
CHA	3942	3969	3952	3954	3948	3906	3951	3888	3893	3900	3907
EUR	3772	3755	3754	3780	3804	3793	3781	3785	3742	3756	3756
LAM	2898	2950	2932	2971	3000	2994	3028	3020	2920	2951	2976
ROW	2521	2455	2399	2386	2424	2393	2372	2353	2360	2332	2361
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
BRA	1944	1946	1946	1946	1948	1944	1945	1943	1945	1948	1947
CHA	3866	3904	3935	3941	3941	3967	3961	3966	3986	3979	3988
EUR	3771	3768	3754	3761	3753	3804	3787	3789	3795	3975	4112
LAM	2945	2942	2935	2897	2931	2928	2875	2858	2846	2886	2922
ROW	2360	2365	2355	2355	2385	2385	2395	2450	2500	3480	3504
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
BRA	1948	1941	1936	1932	1931	1930	1916	1913	1919	1921	1918
CHA	4003	4005	4058	3496	3499	3502	3504	3504	3487	3510	3511
EUR	4086	4092	4111	4124	4118	4133	4188	4167	4209	4273	4189
LAM	2935	2949	2988	2992	2998	2967	2959	2990	2935	2928	2904
ROW	3497	3508	3489	3483	3466	3444	3399	3393	3382	3368	3336
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
BRA	1913	1913	1910	1901	1889	1873	1867
CHA	3517	3515	3516	3521	3522	3513	3522
EUR	4236	4228	4241	4229	4250	4172	4217
LAM	2919	2904	2891	2887	2856	2847	2836
ROW	3322	3314	3327	3310	3273	3256	3229
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
BRA	0	1150	1190	1856	2961	2664	3002	2806	2104	1407	1528
CHA	0	1179	1423	1303	1019	1179	1359	1055	993	6215	6286
EUR	0	1424	1611	1584	1536	1610	1893	1695	1721	1460	1580
LAM	0	1165	1371	1562	1596	1541	1756	1761	1568	1382	1377
ROW	0	1061	1083	1617	2060	2431	2597	2389	1954	1676	1297
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
BRA	1251	553	764	850	1041	1070	1303	1577	1418	1590	2003
CHA	5765	5662	784	987	1030	976	1290	1447	1477	1535	2056
EUR	1486	1601	2082	2085	2026	2175	2476	2739	2675	2249	2455
LAM	1404	1277	1340	1408	1394	1289	1470	1828	1688	1872	1891
ROW	1166	1179	1101	1239	1358	1312	1332	1600	1449	1575	1672
USA	993	898	1255	1218	758	878	1862	2385	1782	1867	2082

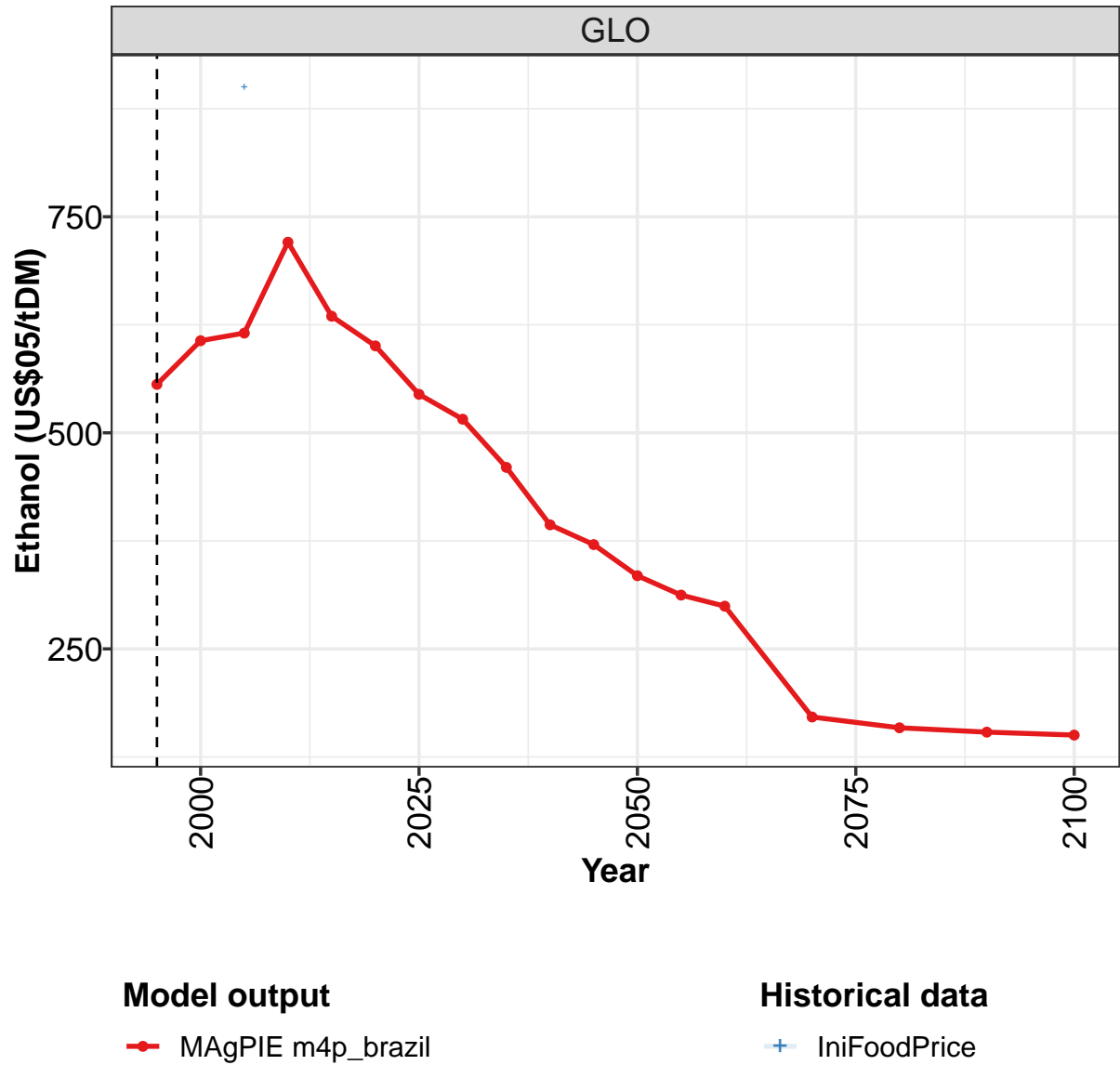
Table 1021: FAOp — Prices—Agriculture—Eggs (US\$05/tDM) [PART 2/3]

	2005
GLO	10291
BRA	
CHA	
EUR	
LAM	
ROW	
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?



Model output

MAgPIE m4p_brazil

Historical data

IniFoodPrice

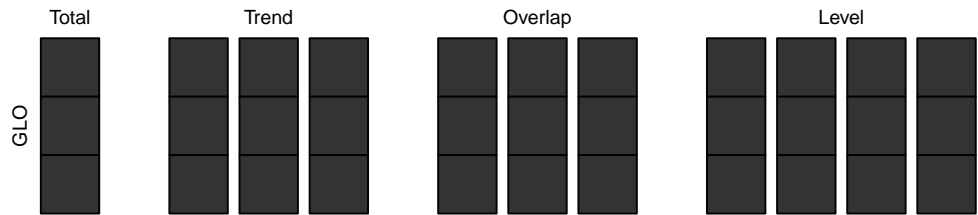


Figure 298: MAgPIE m4p_brazil — Prices—Agriculture—Ethanol (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	556	607	615	721	635	601	545	516	460	394	371

Table 1023: MAgPIE m4p_brazil — Prices—Agriculture—Ethanol (US\$05/tDM) [PART 1/2]

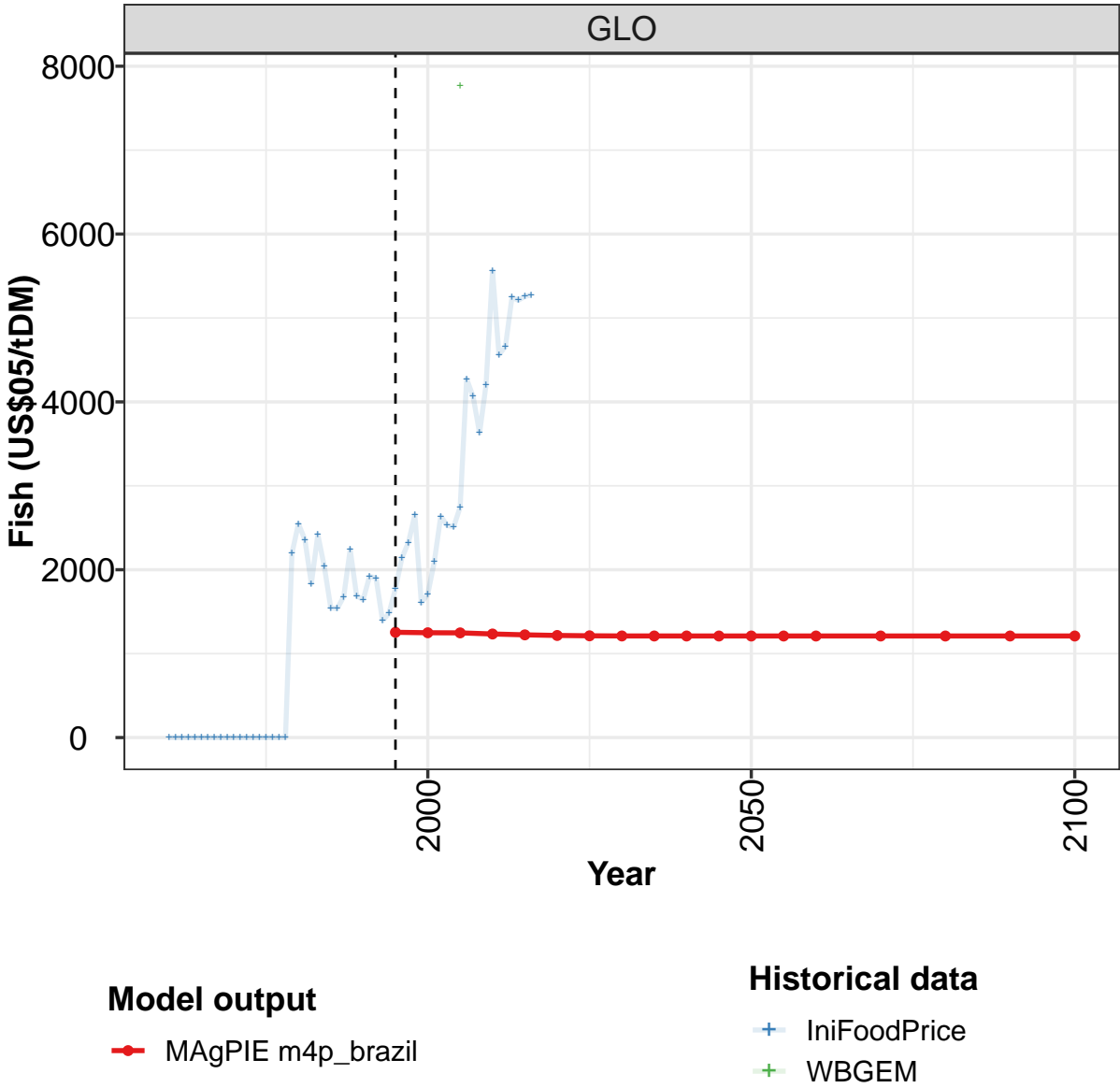
	2050	2055	2060	2070	2080	2090	2100
GLO	335	312	299	171	159	154	150

Table 1024: MAgPIE m4p_brazil — Prices—Agriculture—Ethanol (US\$05/tDM) [PART 2/2]

	2005
GLO	900

Table 1025: IniFoodPrice — Prices—Agriculture—Ethanol (US\$05/tDM)

36.9 Fish



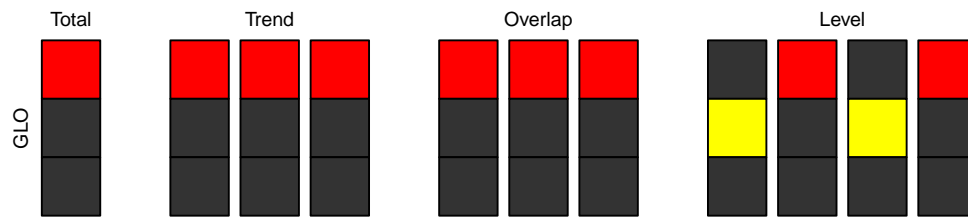


Figure 299: MAgPIE m4p_brazil — Prices—Agriculture—Fish (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1254	1249	1247	1234	1224	1217	1213	1211	1211	1210	1210

Table 1026: MAgPIE m4p_brazil — Prices—Agriculture—Fish (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1210	1210	1210	1210	1210	1210	1210

Table 1027: MAgPIE m4p_brazil — 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]

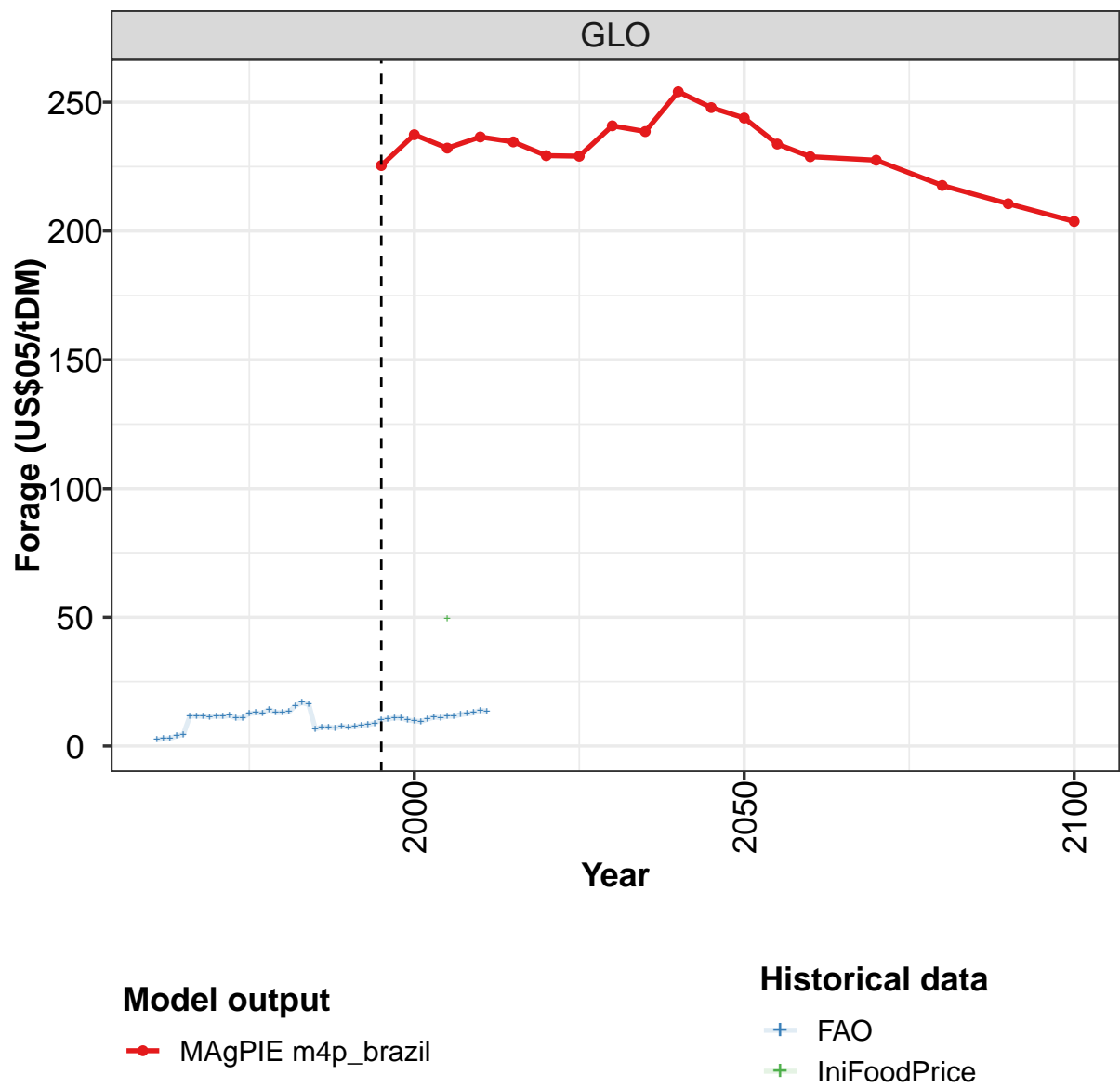
	2015	2016
GLO	5256	5275

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



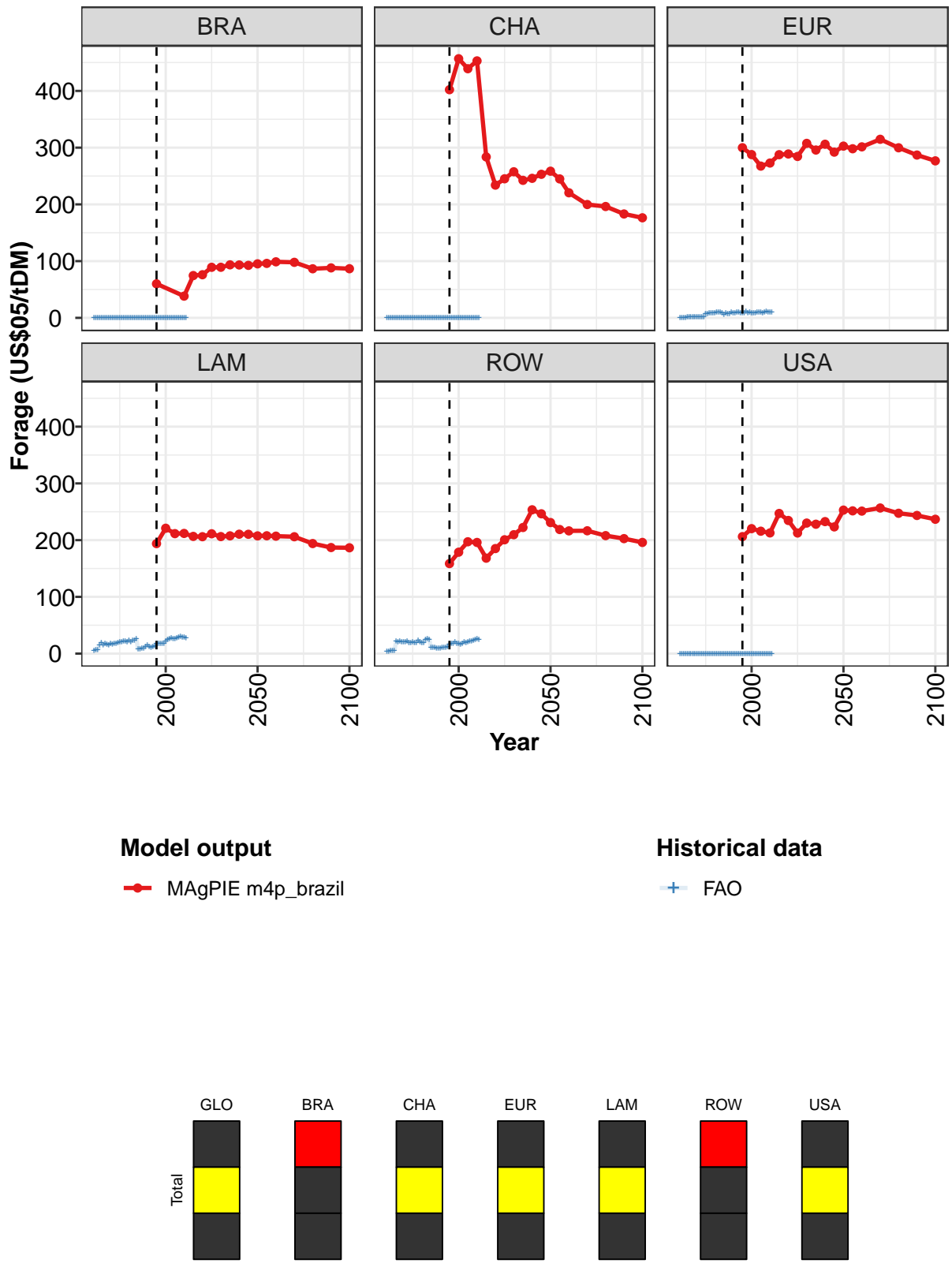


Figure 300: MAgPIE m4p_brazil — Prices—Agriculture—Forage (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	225	237	232	237	235	229	229	241	239	254	248
BRA	60			38	75	76	89	89	93	93	93
CHA	402	457	439	453	284	234	245	258	242	246	253
EUR	300	288	267	273	288	289	285	308	296	306	292
LAM	194	221	211	212	207	206	211	206	208	210	210
ROW	159	179	197	196	168	185	201	210	222	253	246
USA	206	220	216	213	247	235	213	230	228	233	223

Table 1035: MAgPIE m4p_brazil — Prices—Agriculture—Forage (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	244	234	229	228	218	211	204
BRA	95	96	99	98	87	88	87
CHA	258	245	220	200	196	183	176
EUR	303	298	301	315	300	287	277
LAM	207	208	207	206	194	187	187
ROW	231	219	216	217	208	203	196
USA	253	252	251	257	247	243	237

Table 1036: MAgPIE m4p_brazil — Prices—Agriculture—Forage (US\$05/tDM) [PART 2/2]

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
GLO	2.5	2.8	3.0	3.9	4.4	11.6	11.7	11.5	11.4	11.6	11.4
BRA	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	0.5	0.7	0.7	1.0	1.1	1.1	1.0	1.6	1.5	1.2
LAM	5.5	6.5	7.1	15.0	18.9	15.6	17.6	16.0	15.2	18.1	16.8
ROW	3.6	4.2	4.7	4.6	5.1	21.1	20.5	21.3	20.3	20.4	20.6
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1037: FAO — Prices—Agriculture—Forage (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	11.8	10.8	10.9	12.6	12.9	12.8	14.2	13.0	13.0	13.2	15.7
BRA	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	1.1	1.1	1.1	7.6	6.7	8.1	7.9	8.1	8.8	9.9	9.8
LAM	18.1	18.1	19.2	20.1	20.2	22.4	21.6	20.1	23.6	20.8	23.0
ROW	21.8	18.6	19.2	19.8	19.0	19.5	22.7	20.9	18.8	19.6	24.4
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1038: FAO — Prices—Agriculture—Forage (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	16.8	16.1	6.7	7.4	7.3	7.0	7.7	7.3	7.5	7.9	8.3
BRA	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	9.8	8.7	6.0	7.9	6.8	7.5	9.4	8.3	8.0	9.6	10.2
LAM	23.6	25.4	7.4	7.6	8.6	8.9	12.2	14.2	12.7	10.8	12.2
ROW	26.2	25.3	10.0	10.8	11.0	9.4	9.7	9.3	10.2	10.7	11.1
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1039: FAO — Prices—Agriculture—Forage (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	8.9	10.2	10.4	10.9	10.9	10.1	9.8	9.5	10.4	11.2	11.0
BRA	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	9.1	8.6	9.2	10.8	9.2	9.6	7.8	8.3	8.7	9.4	9.6
LAM	13.6	18.1	18.0	17.2	17.7	18.0	22.0	24.2	26.3	27.4	26.7
ROW	12.7	16.8	18.0	18.3	19.9	17.5	17.2	15.6	18.1	19.8	19.2
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1040: FAO — Prices—Agriculture—Forage (US\$05/tDM) [PART 4/5]

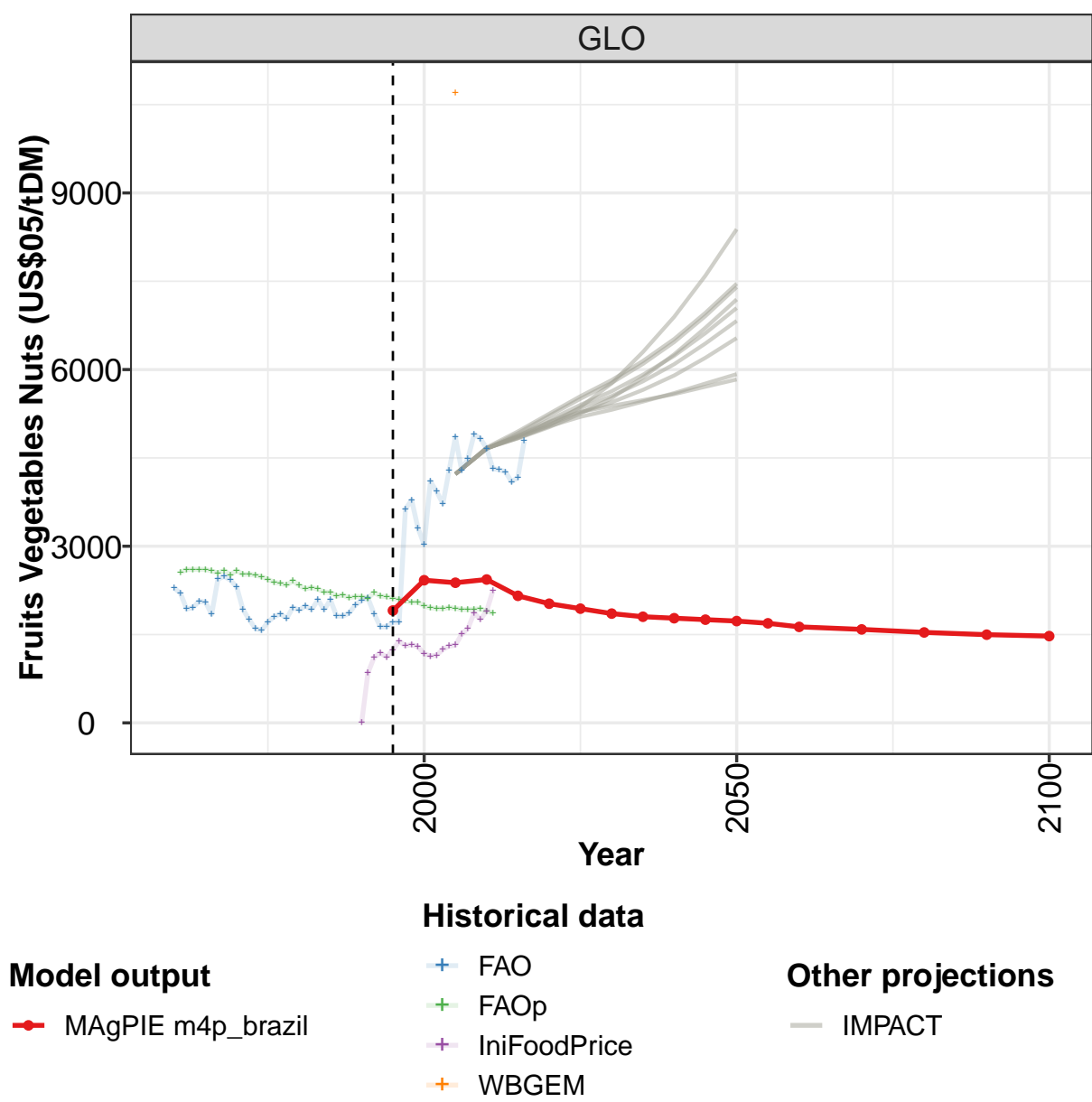
	2005	2006	2007	2008	2009	2010	2011
GLO	11.5	11.6	12.2	12.5	12.9	13.9	13.5
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	10.1	8.3	9.7	10.6	10.4	10.2	9.4
LAM	26.1	28.0	28.3	29.6	28.4	28.9	27.6
ROW	20.6	21.7	22.2	22.6	24.3	25.5	25.1
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1041: FAO — Prices—Agriculture—Forage (US\$05/tDM) [PART 5/5]

	2005
GLO	50
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1042: IniFoodPrice — Prices—Agriculture—Forage (US\$05/tDM)

36.11
Fruits Vegetables Nuts



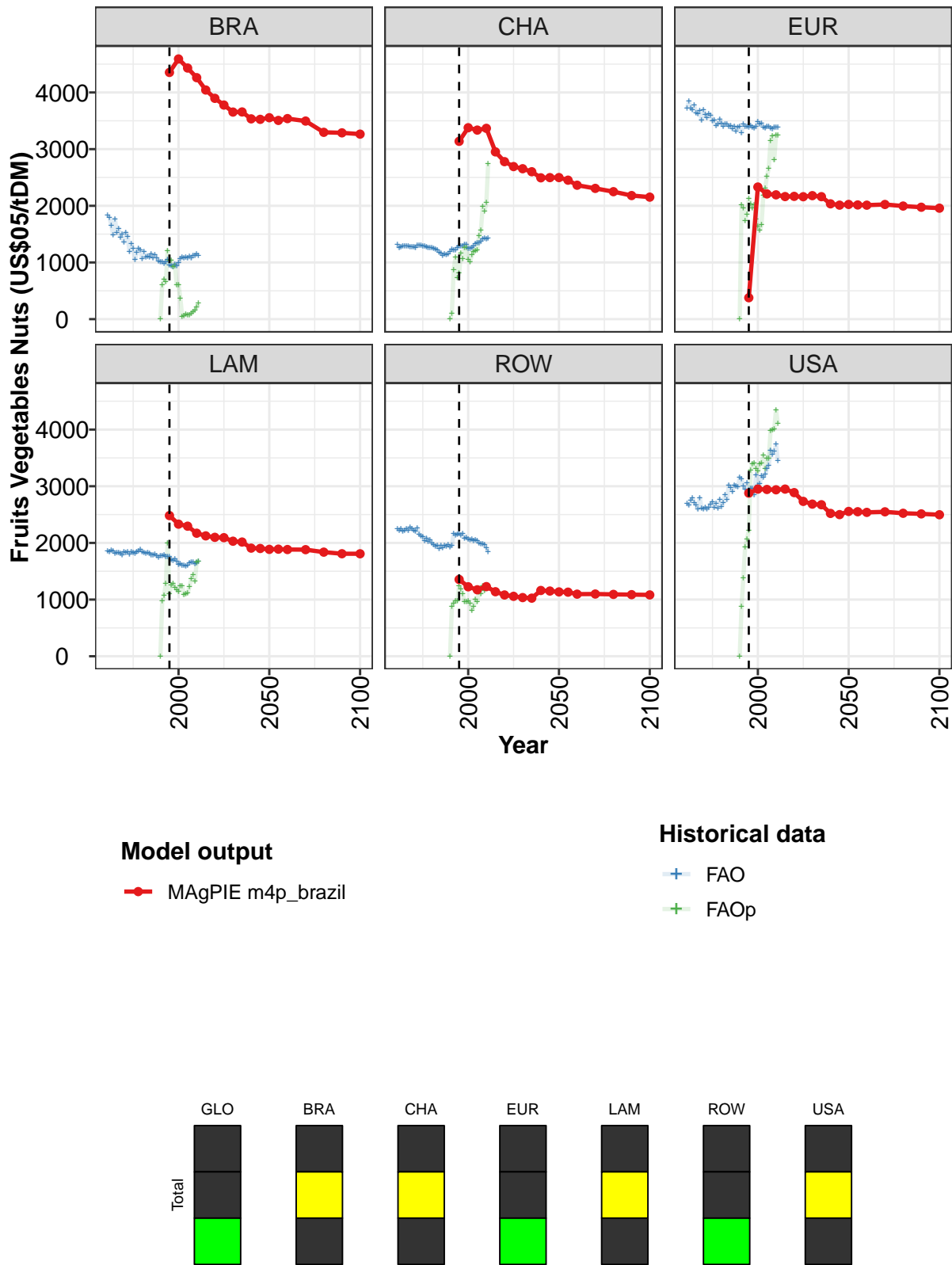


Figure 301: MAgPIE m4p_brazil — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1908	2422	2380	2435	2158	2024	1940	1856	1803	1777	1753
BRA	4353	4591	4432	4262	4044	3897	3778	3654	3656	3534	3526
CHA	3138	3378	3336	3367	2952	2779	2692	2654	2601	2494	2497
EUR	378	2331	2210	2194	2163	2167	2161	2179	2161	2035	2012
LAM	2482	2331	2295	2171	2124	2099	2093	2030	2016	1908	1902
ROW	1355	1226	1173	1229	1139	1081	1058	1035	1025	1161	1151
USA	2879	2950	2943	2938	2950	2888	2733	2685	2674	2521	2500

Table 1043: MAgPIE m4p.brazil — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1729	1691	1630	1587	1536	1497	1474
BRA	3554	3507	3539	3495	3297	3288	3265
CHA	2498	2452	2363	2307	2249	2181	2153
EUR	2024	2015	2011	2024	1996	1975	1958
LAM	1886	1890	1883	1881	1837	1809	1808
ROW	1136	1131	1096	1098	1092	1087	1083
USA	2556	2551	2539	2549	2523	2512	2497

Table 1044: MAgPIE m4p.brazil — 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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
USA											

Table 1049: WBGEM — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	4170	4788
BRA		
CHA		
EUR		
LAM		
ROW		
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
BRA	1833	1792	1647	1489	1769	1527	1601	1437	1497	1353	1529
CHA	1308	1254	1280	1294	1292	1290	1287	1273	1278	1275	1259
EUR	3722	3842	3718	3697	3771	3639	3619	3672	3506	3687	3612
LAM	1852	1842	1868	1848	1820	1823	1830	1809	1791	1843	1823
ROW	2242	2217	2251	2202	2220	2247	2212	2269	2249	2223	2202
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
BRA	1450	1192	1327	1245	1047	1181	1246	1211	1068	1184	1091
CHA	1295	1300	1295	1284	1283	1271	1263	1257	1256	1249	1234
EUR	3546	3616	3600	3501	3512	3410	3442	3529	3460	3402	3443
LAM	1834	1798	1846	1824	1813	1845	1860	1881	1837	1831	1819
ROW	2260	2152	2121	2112	2040	2085	2026	2051	2000	1964	1937
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
BRA	1105	1098	1154	1076	1130	1076	1028	1011	1013	986	1012
CHA	1219	1177	1167	1126	1142	1138	1152	1192	1225	1213	1223
EUR	3441	3402	3419	3357	3405	3309	3383	3392	3285	3434	3395
LAM	1823	1815	1778	1780	1794	1772	1748	1777	1775	1787	1756
ROW	1956	1895	1946	1914	1951	1939	1960	1928	1950	2161	2139
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
BRA	1044	951	944	921	972	944	991	1064	1095	1074	1086
CHA	1256	1284	1291	1290	1315	1316	1248	1244	1256	1290	1325
EUR	3395	3383	3406	3386	3365	3398	3489	3439	3452	3387	3373
LAM	1754	1751	1705	1687	1720	1670	1617	1629	1597	1605	1585
ROW	2154	2156	2139	2157	2084	2089	2064	2057	2058	2038	2057
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
BRA	1075	1099	1075	1126	1122	1143	1125
CHA	1338	1341	1365	1412	1426	1408	1423
EUR	3405	3401	3375	3351	3389	3385	3386
LAM	1605	1649	1653	1654	1628	1642	1677
ROW	2038	1990	1983	1985	1963	1916	1847
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
BRA	0	598	701	653	1208	1038	1032	925	941	604	608
CHA	0	100	870	1085	735	807	1164	1057	1258	1260	1055
EUR	0	2011	1955	1738	1841	2122	2030	1964	2012	1769	1632
LAM	0	969	1069	1280	1997	1105	1253	1279	1209	1167	1135
ROW	0	871	935	979	974	1237	1181	1097	963	963	970
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]

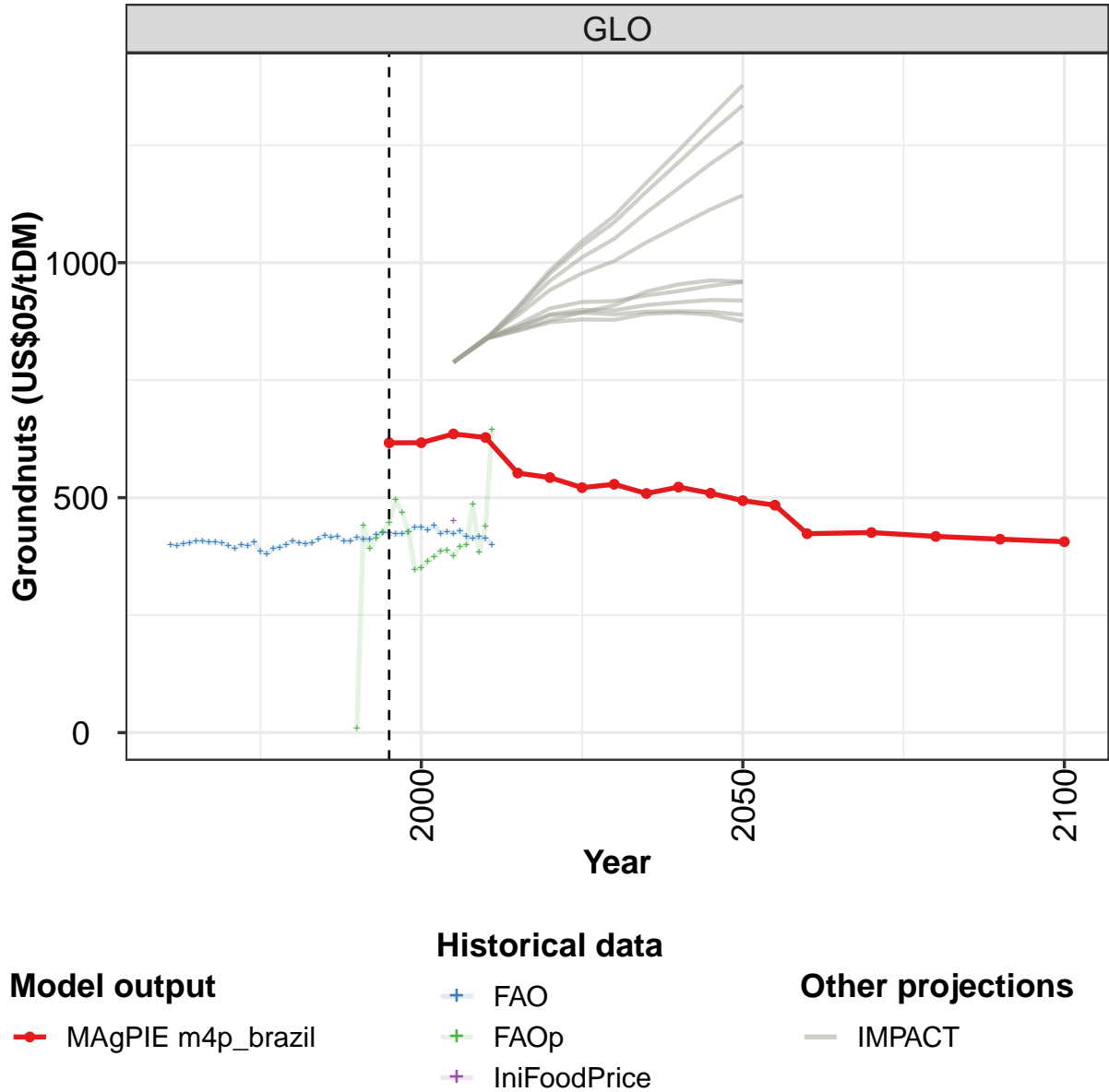
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	1133	1150	1247	1304	1320	1505	1601	1867	1757	1901	2245
BRA	370	48	55	84	74	74	100	132	156	205	275
CHA	1011	1129	1186	1206	1224	1470	1571	1993	1909	2050	2744
EUR	1566	1661	2185	2305	2522	2664	3146	3237	2804	3248	3248
LAM	1242	1240	1081	1097	1113	1223	1367	1433	1317	1660	1671
ROW	932	806	877	1000	965	1134	1104	1242	1162	1229	1212
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1058: IniFoodPrice — Prices—Agriculture—Fruits Vegetables Nuts (US\$05/tDM)

36.12 Groundnuts



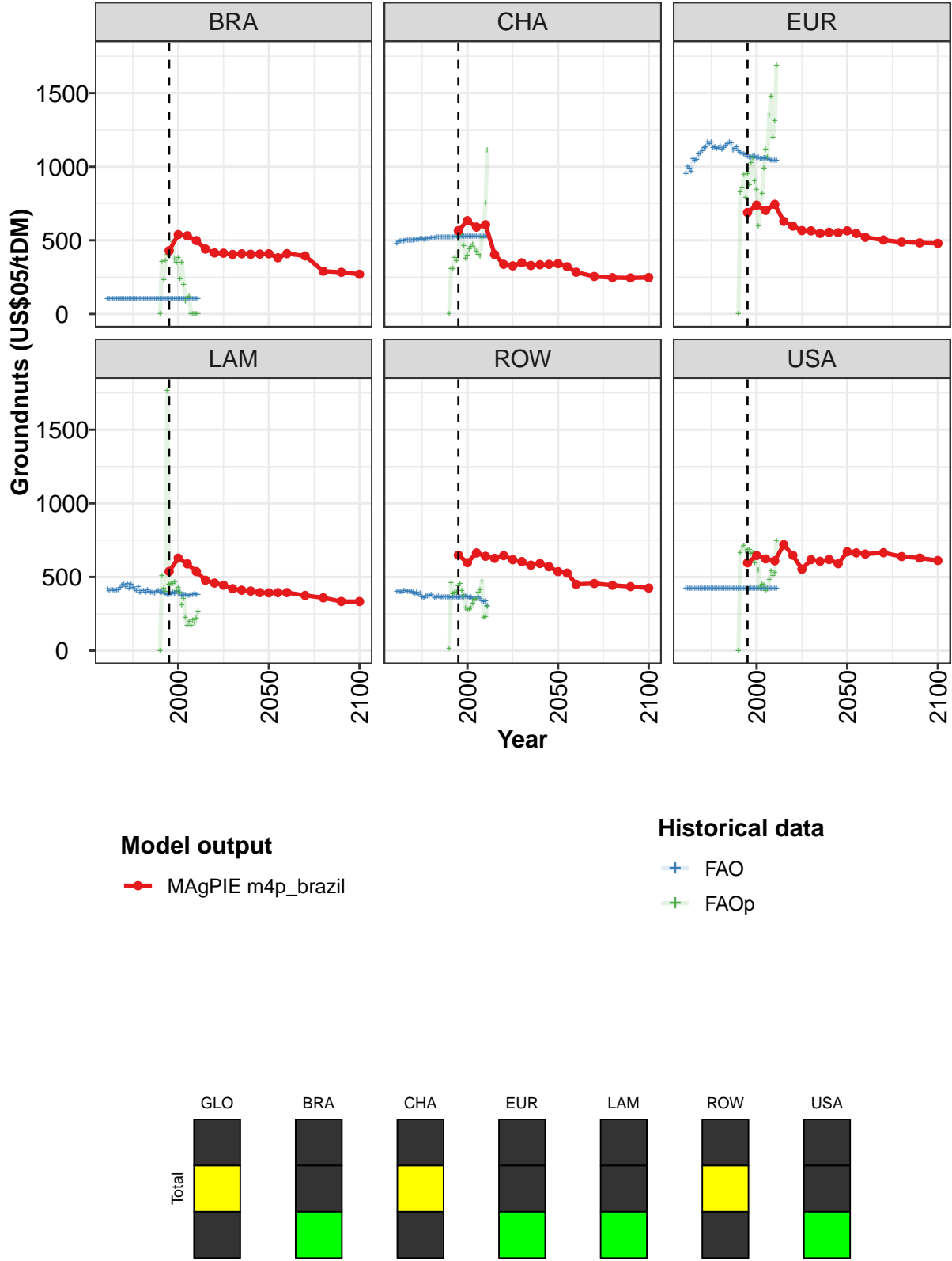


Figure 302: MAGPIE m4p.brazil — Prices—Agriculture—Groundnuts (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	617	617	636	628	552	543	521	528	509	522	509
BRA	430	539	531	498	441	415	413	404	409	406	407
CHA	566	634	590	606	404	337	327	348	329	335	337
EUR	689	739	703	744	629	597	566	564	547	555	552
LAM	538	628	589	537	478	459	444	421	410	405	394
ROW	649	598	664	641	627	645	618	605	581	592	570
USA	596	646	623	610	719	648	553	618	607	619	590

Table 1059: MAgPIE m4p_brazil — Prices—Agriculture—Groundnuts (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	494	484	423	426	418	412	406
BRA	409	382	410	394	291	283	270
CHA	342	321	284	255	247	245	248
EUR	565	547	521	502	488	483	480
LAM	393	394	394	375	359	334	333
ROW	536	527	450	456	444	435	425
USA	672	664	656	665	639	629	612

Table 1060: MAgPIE m4p_brazil — 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
BRA	105	105	105	105	105	105	105	105	105	105	105
CHA	481	487	497	496	497	504	498	501	502	501	507
EUR	950	1000	989	970	1053	1042	1048	1084	1089	1109	1129
LAM	419	405	418	413	405	414	413	427	446	450	435
ROW	402	401	401	397	407	407	401	402	400	394	384
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
BRA	105	105	105	105	105	105	105	105	105	105	105
CHA	506	506	509	509	505	509	509	513	517	518	518
EUR	1132	1165	1156	1167	1129	1134	1125	1127	1140	1118	1128
LAM	455	422	452	427	416	405	433	394	408	404	393
ROW	394	382	390	363	358	370	368	376	379	371	360
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
BRA	105	105	105	105	105	105	105	105	105	105	105
CHA	521	520	522	522	520	521	523	524	522	522	524
EUR	1145	1158	1164	1163	1111	1124	1134	1108	1094	1089	1086
LAM	410	399	396	398	389	404	407	398	397	404	388
ROW	365	367	361	366	364	365	364	362	359	365	362
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
BRA	105	105	105	105	105	105	105	105	105	105	105
CHA	525	524	525	525	526	526	526	527	526	526	527
EUR	1080	1068	1064	1062	1069	1071	1061	1066	1052	1052	1058
LAM	379	381	383	396	385	400	392	396	375	382	382
ROW	365	359	366	366	364	369	366	358	363	355	355
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
BRA	105	105	105	105	105	105	105
CHA	527	526	527	527	527	527	527
EUR	1057	1056	1050	1042	1045	1044	1041
LAM	373	375	379	378	384	382	382
ROW	355	361	351	334	332	338	303
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
BRA	0	354	230	360	403	395	422	487	369	348	381
CHA	0	309	307	384	359	418	539	541	463	379	401
EUR	0	829	854	947	788	949	878	1027	1057	905	842
LAM	0	511	422	400	1764	451	456	456	465	407	427
ROW	16	460	382	397	396	438	452	406	376	287	275
USA	0	664	703	713	678	687	687	658	666	596	643

Table 1066: FAOp — Prices—Agriculture—Groundnuts (US\$05/tDM) [PART 1/3]

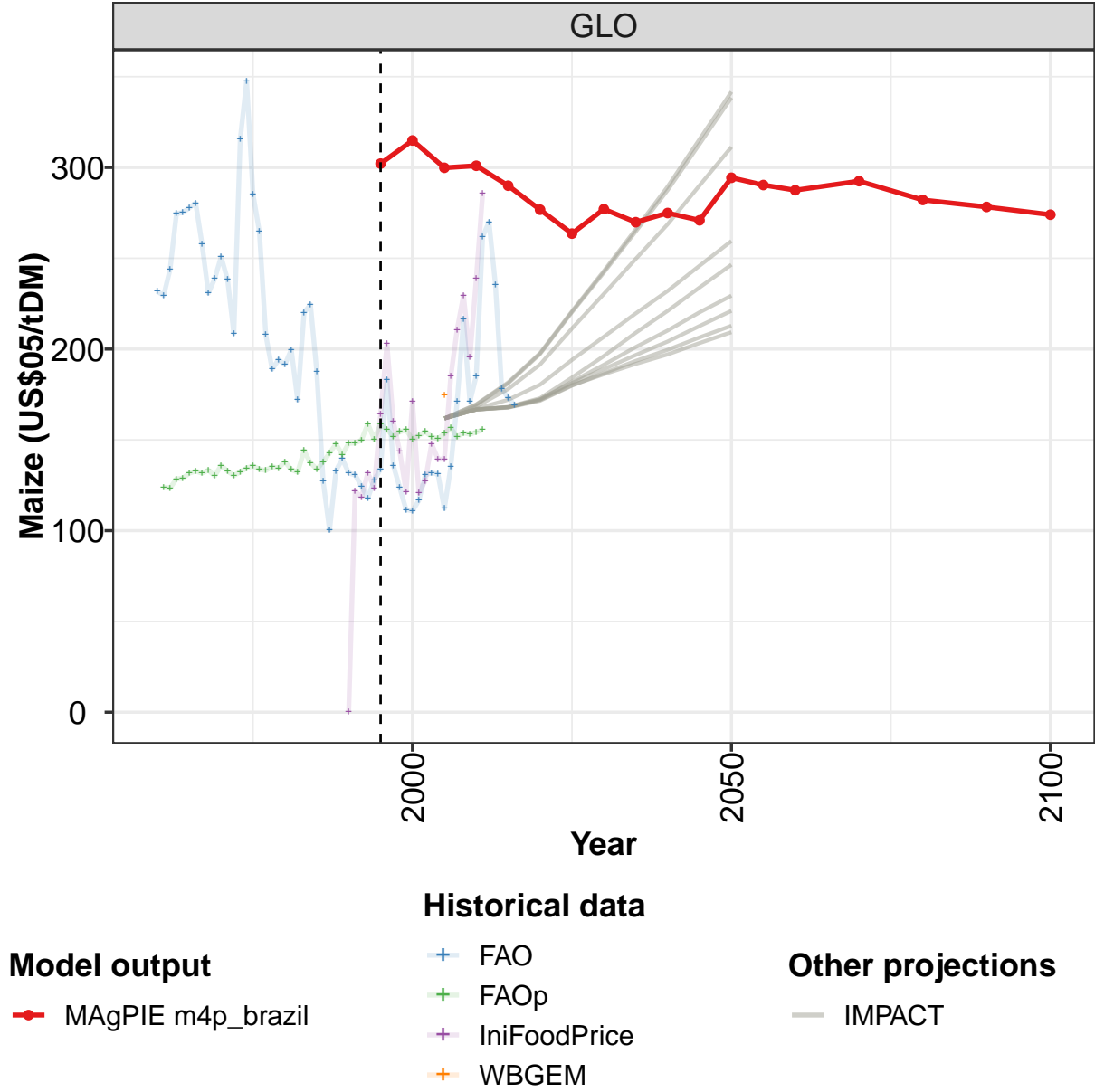
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	364	373	386	388	377	395	401	486	385	438	644
BRA	238	351	201	88	106	120	0	0	0	0	0
CHA	440	455	473	446	422	404	394	519	590	751	1115
EUR	598	721	819	987	1116	1065	1347	1479	1197	1311	1689
LAM	398	311	355	225	169	200	169	207	185	217	266
ROW	283	290	321	345	351	395	409	473	226	231	299
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1068: IniFoodPrice — Prices—Agriculture—Groundnuts (US\$05/tDM)

36.13 Maize



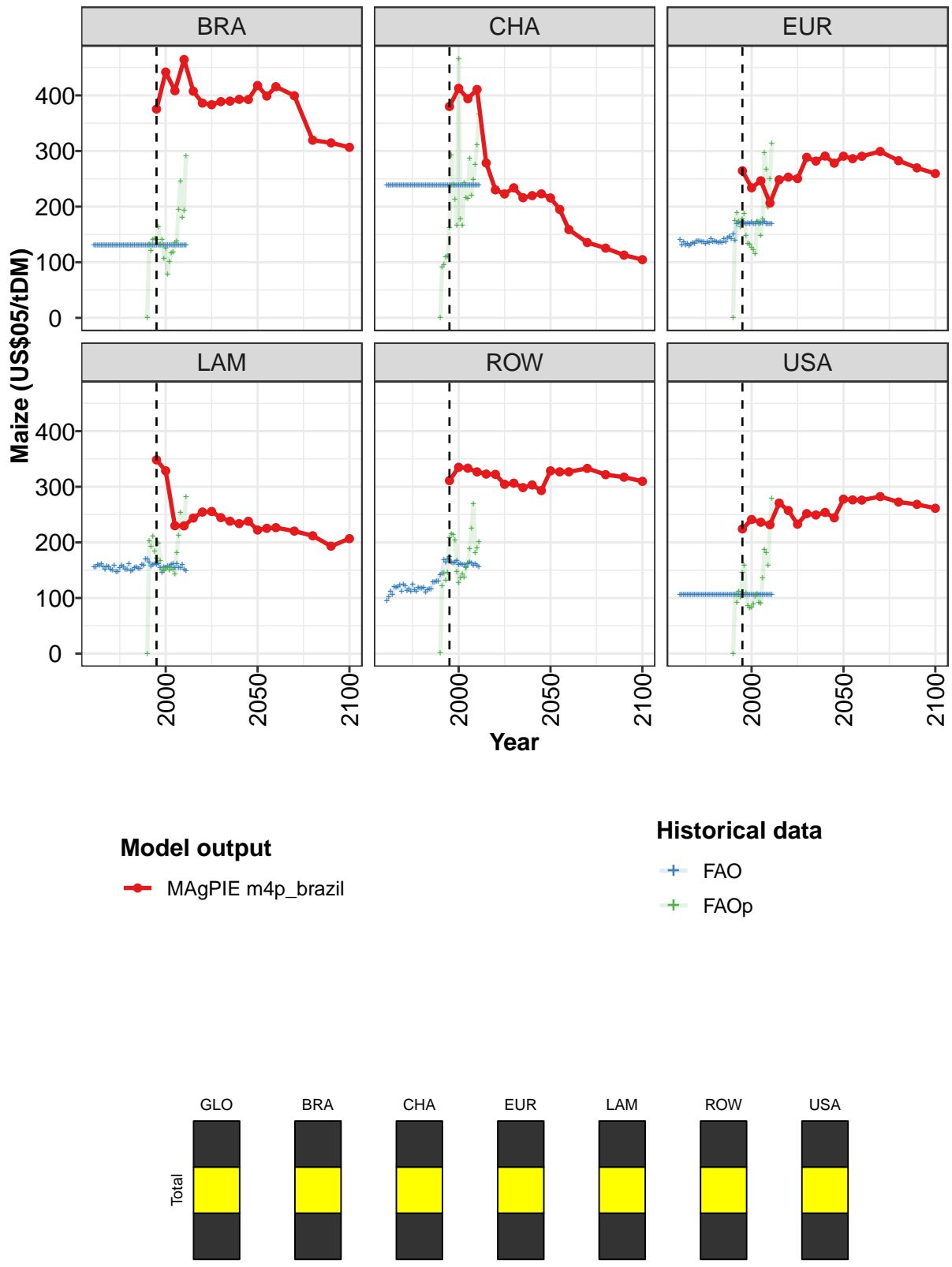


Figure 303: MAgPIE m4p_brazil — Prices—Agriculture—Maize (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	302	315	300	301	290	277	264	277	270	275	271
BRA	375	442	408	465	408	386	383	389	390	393	393
CHA	380	413	394	411	278	230	223	234	216	220	223
EUR	264	234	246	206	248	253	250	289	282	291	278
LAM	348	329	230	230	244	255	256	244	238	234	238
ROW	311	335	333	327	323	322	304	306	298	303	293
USA	224	241	236	232	271	257	233	252	249	254	244

Table 1069: MAgPIE m4p_brazil — Prices—Agriculture—Maize (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	294	290	287	292	282	278	274
BRA	418	399	416	399	319	315	307
CHA	216	195	159	135	125	113	105
EUR	291	286	290	299	283	270	259
LAM	222	225	227	220	212	193	207
ROW	329	327	327	333	322	317	310
USA	278	276	276	282	273	268	261

Table 1070: MAgPIE m4p_brazil — 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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
USA											

Table 1075: WBGEM — Prices—Agriculture—Maize (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	173	169
BRA		
CHA		
EUR		
LAM		
ROW		
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
BRA	130	130	130	130	130	130	130	130	130	130	130
CHA	239	238	239	239	239	239	239	239	239	239	239
EUR	141	131	137	130	133	129	132	135	133	138	138
LAM	156	156	159	159	161	156	152	157	156	151	150
ROW	94	102	112	106	120	119	120	122	112	124	121
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
BRA	130	130	130	130	130	130	130	130	130	130	130
CHA	238	238	238	238	238	239	239	239	239	239	239
EUR	137	136	136	133	136	135	142	137	138	137	135
LAM	158	147	147	154	159	156	152	151	161	148	150
ROW	113	116	111	125	115	112	118	118	118	119	110
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
BRA	130	130	130	130	130	130	130	130	130	130	130
CHA	238	238	238	238	238	238	238	238	238	238	238
EUR	137	136	142	137	143	147	142	150	139	168	171
LAM	154	156	153	152	159	158	170	169	164	158	160
ROW	114	115	116	129	129	130	130	142	144	169	164
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
BRA	130	130	130	130	130	130	130	130	130	130	130
CHA	238	238	238	238	239	239	239	239	239	239	239
EUR	170	170	170	169	170	169	172	169	169	173	170
LAM	161	160	161	154	146	155	154	156	157	160	161
ROW	170	175	164	163	164	166	160	161	160	160	156
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
BRA	130	130	130	130	130	130	130
CHA	239	239	239	239	239	239	239
EUR	171	170	174	169	169	169	169
LAM	154	162	154	154	160	152	148
ROW	161	164	163	159	161	158	156
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
BRA	0	132	121	141	142	140	164	132	140	106	125
CHA	0	91	96	110	111	162	293	240	212	166	466
EUR	0	174	188	173	163	178	188	147	134	132	126
LAM	0	202	193	211	184	171	199	167	149	149	154
ROW	0	121	145	132	145	208	215	214	204	147	127
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
BRA	79	101	117	118	135	137	195	245	180	193	291
CHA	177	166	243	215	215	286	220	248	276	310	365
EUR	122	116	172	172	148	177	296	267	199	249	314
LAM	154	150	154	152	143	181	213	254	227	231	281
ROW	136	143	138	154	162	188	225	270	182	189	201
USA	89	103	108	92	90	136	188	182	159	232	278

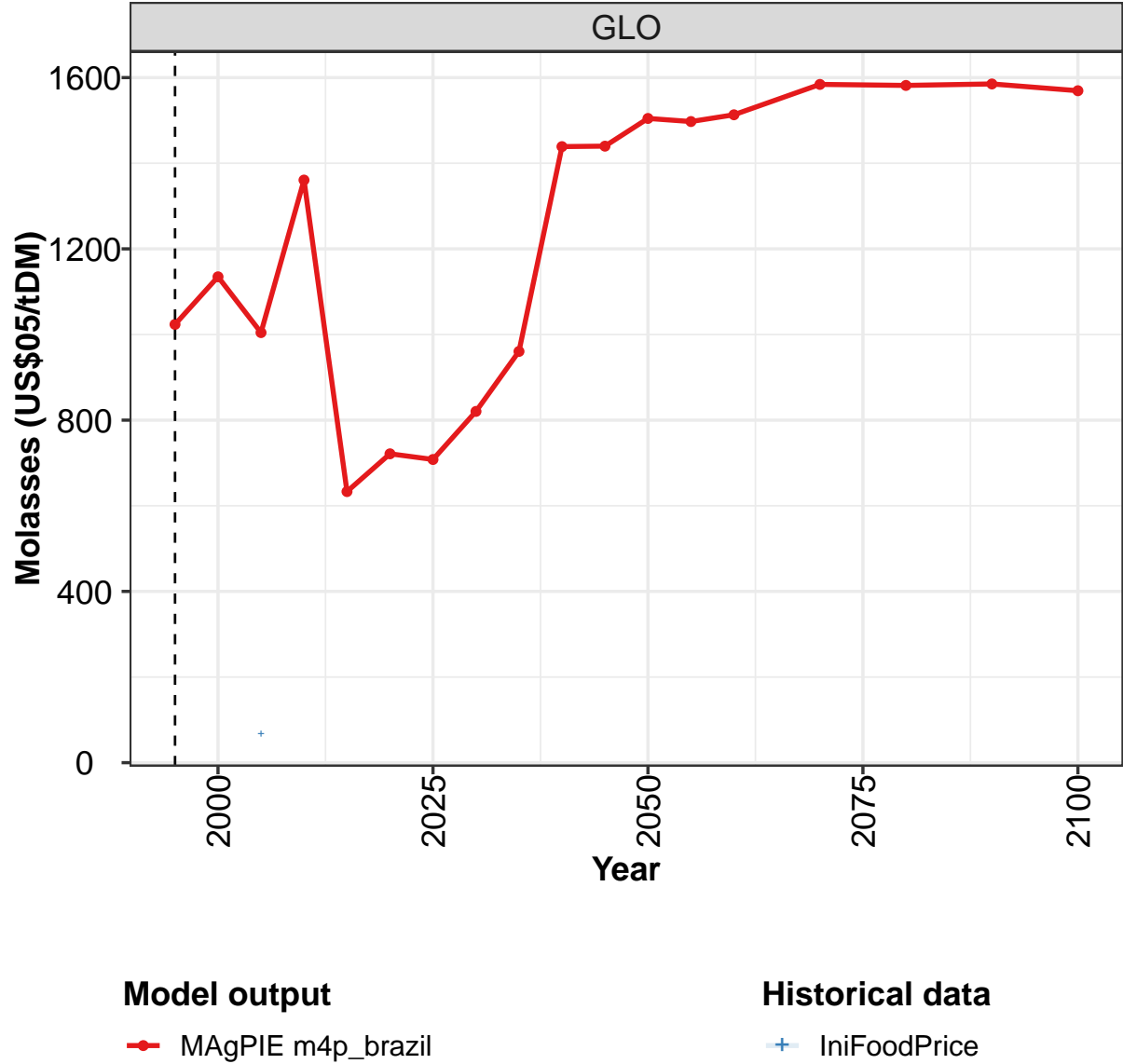
Table 1083: FAOp — Prices—Agriculture—Maize (US\$05/tDM) [PART 2/3]

	2005
GLO	174
BRA	
CHA	
EUR	
LAM	
ROW	
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?



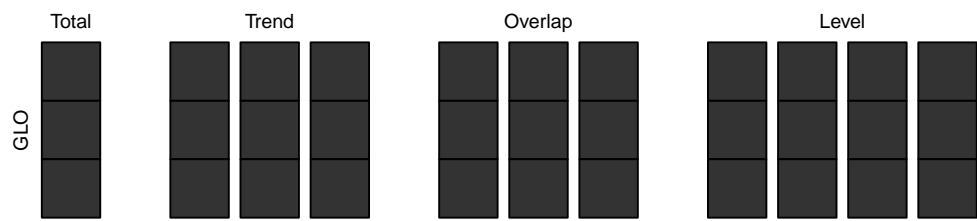


Figure 304: MAgPIE m4p_brazil — Prices—Agriculture—Molasses (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1024	1135	1004	1361	633	721	708	820	960	1439	1440

Table 1085: MAgPIE m4p_brazil — Prices—Agriculture—Molasses (US\$05/tDM) [PART 1/2]

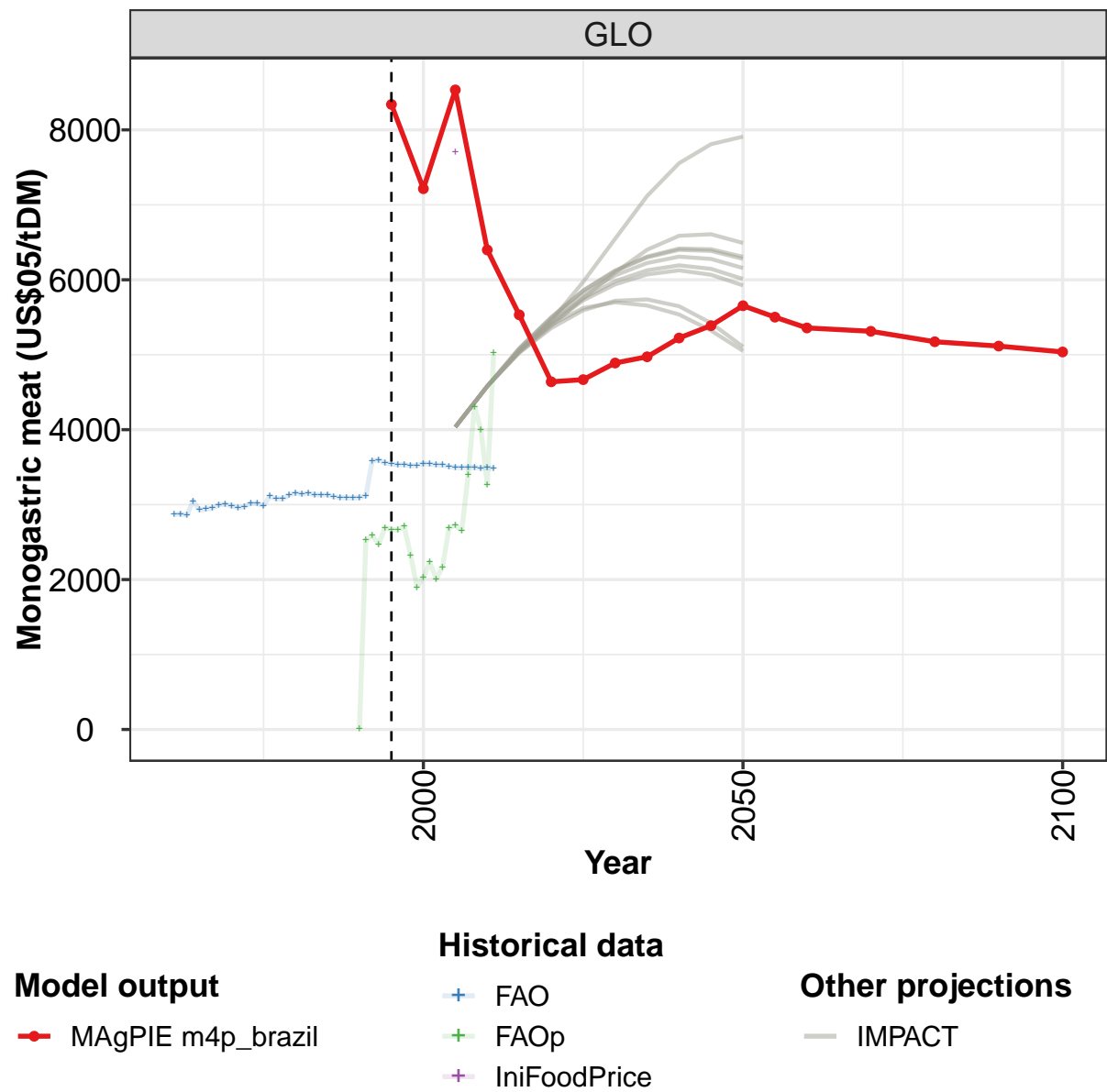
	2050	2055	2060	2070	2080	2090	2100
GLO	1505	1497	1513	1584	1582	1585	1569

Table 1086: MAgPIE m4p_brazil — 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



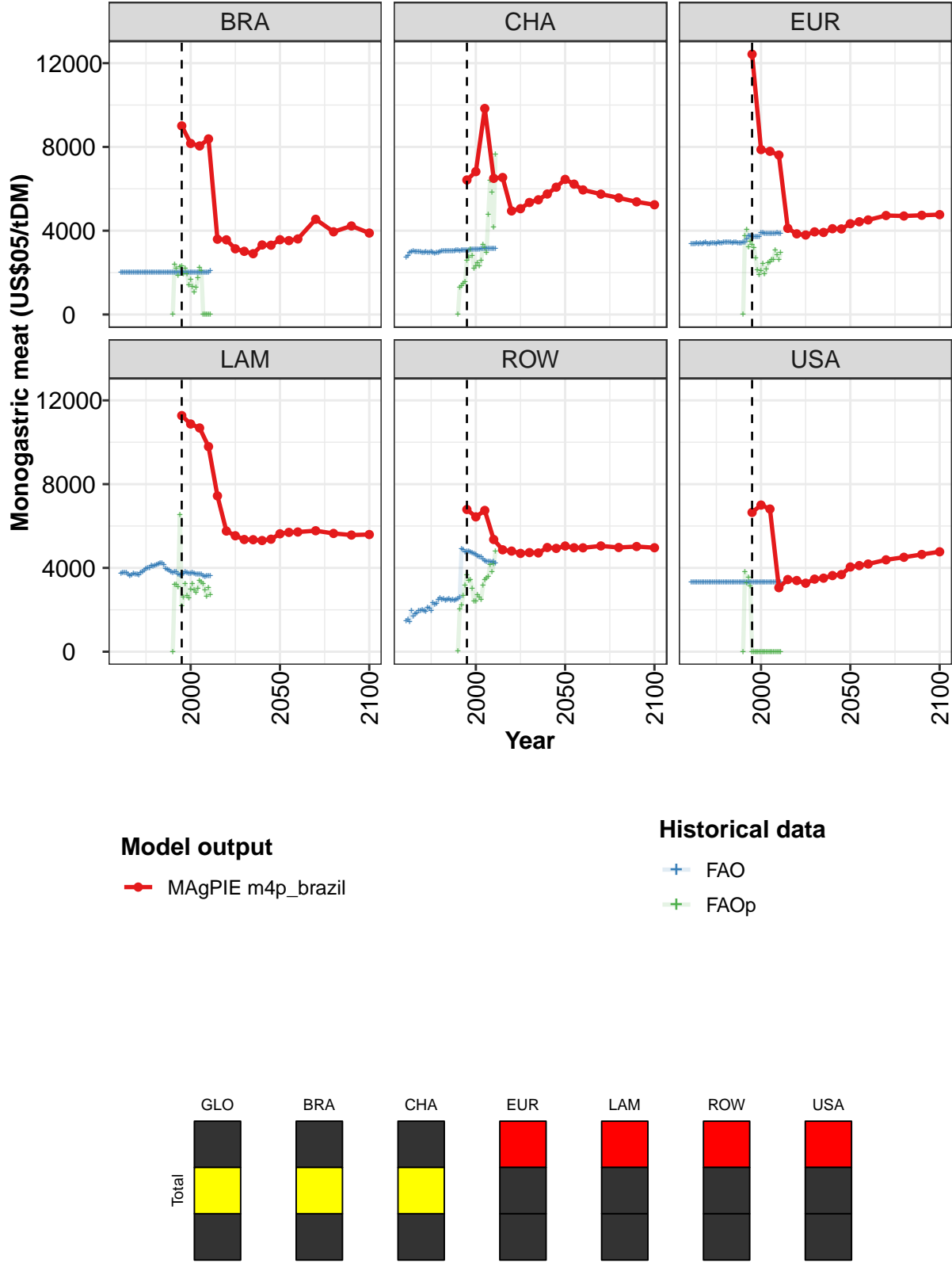


Figure 305: MAGPIE m4p_brazil — Prices—Agriculture—Monogastric meat (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	8339	7215	8533	6398	5532	4639	4668	4889	4973	5223	5388
BRA	9006	8167	8047	8382	3593	3565	3136	3015	2903	3320	3308
CHA	6422	6822	9836	6501	6542	4945	5051	5348	5475	5753	6078
EUR	12427	7874	7793	7613	4114	3850	3796	3945	3917	4096	4085
LAM	11274	10873	10682	9794	7441	5762	5536	5356	5347	5308	5372
ROW	6790	6438	6745	5357	4865	4804	4694	4732	4716	4974	4933
USA	6651	7002	6811	3057	3445	3398	3269	3464	3510	3634	3682

Table 1088: MAgPIE m4p_brazil — Prices—Agriculture—Monogastric meat (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	5654	5502	5357	5313	5173	5115	5037
BRA	3571	3528	3607	4545	3948	4226	3888
CHA	6452	6223	5948	5746	5567	5379	5239
EUR	4334	4427	4514	4726	4702	4737	4768
LAM	5630	5697	5715	5776	5646	5569	5594
ROW	5045	4963	4960	5049	4975	5022	4964
USA	4045	4112	4187	4386	4509	4642	4771

Table 1089: MAgPIE m4p_brazil — 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
BRA	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010
CHA	2741	2801	2942	2998	3016	3009	3005	2995	2978	2951	2969
EUR	3368	3385	3376	3409	3362	3393	3379	3398	3429	3388	3376
LAM	3745	3788	3786	3784	3680	3634	3673	3734	3713	3712	3659
ROW	1454	1531	1443	1972	1680	1793	1845	1942	1952	2006	1939
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
BRA	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010
CHA	2980	2955	2969	2999	2951	2926	2949	2962	3007	3014	3022
EUR	3395	3417	3391	3389	3445	3428	3395	3432	3441	3433	3451
LAM	3784	3802	3885	3950	3994	3989	4103	4076	4125	4153	4186
ROW	1935	2095	2085	1955	2331	2243	2296	2473	2557	2490	2508
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
BRA	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010
CHA	3020	3022	3028	3026	3026	3044	3052	3050	3048	3058	3065
EUR	3445	3426	3433	3438	3427	3420	3414	3433	3443	3617	3753
LAM	4239	4222	4147	3957	3918	3887	3798	3769	3806	3806	3694
ROW	2444	2470	2538	2466	2473	2458	2486	2512	2604	4891	4857
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
BRA	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010
CHA	3067	3069	3066	3095	3114	3122	3119	3116	3122	3130	3129
EUR	3749	3717	3704	3715	3705	3717	3892	3893	3869	3867	3863
LAM	3655	3709	3717	3814	3761	3724	3740	3756	3738	3706	3700
ROW	4774	4799	4774	4738	4705	4669	4624	4566	4521	4514	4419
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
BRA	2010	2010	2010	2010	2010	2010	2099
CHA	3132	3134	3137	3145	3148	3151	3150
EUR	3869	3876	3874	3873	3884	3880	3880
LAM	3694	3679	3605	3576	3613	3619	3606
ROW	4324	4294	4305	4304	4270	4286	4216
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
BRA	0	2390	2196	1875	2281	2297	1933	2186	1949	1392	1650
CHA	0	1304	1353	1486	1544	2568	2719	3105	2813	2196	2296
EUR	0	3764	4055	3203	3499	3338	3186	2698	2119	1889	2081
LAM	0	3199	3192	3079	6549	2194	2604	3241	2668	2552	2980
ROW	20	2044	2218	2692	3172	3661	3410	3428	3004	2413	2396
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
BRA	1346	1067	1302	1732	2221	2078	0	0	0	0	0
CHA	2475	2327	2566	3325	3187	2945	4761	6384	5843	4162	7642
EUR	2408	1928	2162	2452	2513	2610	2596	3076	2833	2624	2955
LAM	3254	2951	2822	3024	3382	3320	3237	2924	2647	3061	2714
ROW	2701	2593	2490	3154	3448	3510	3599	4154	3826	4171	4810
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
BRA	
CHA	
EUR	
LAM	
ROW	
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?

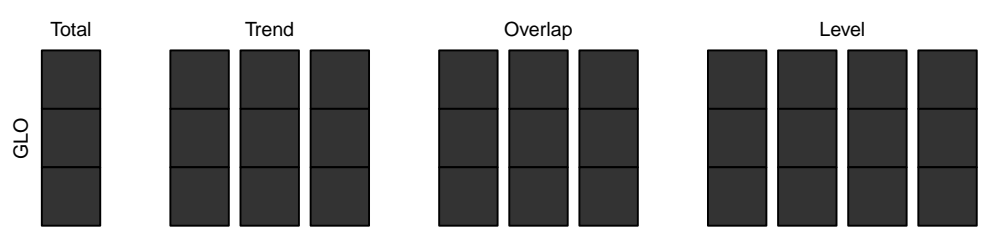
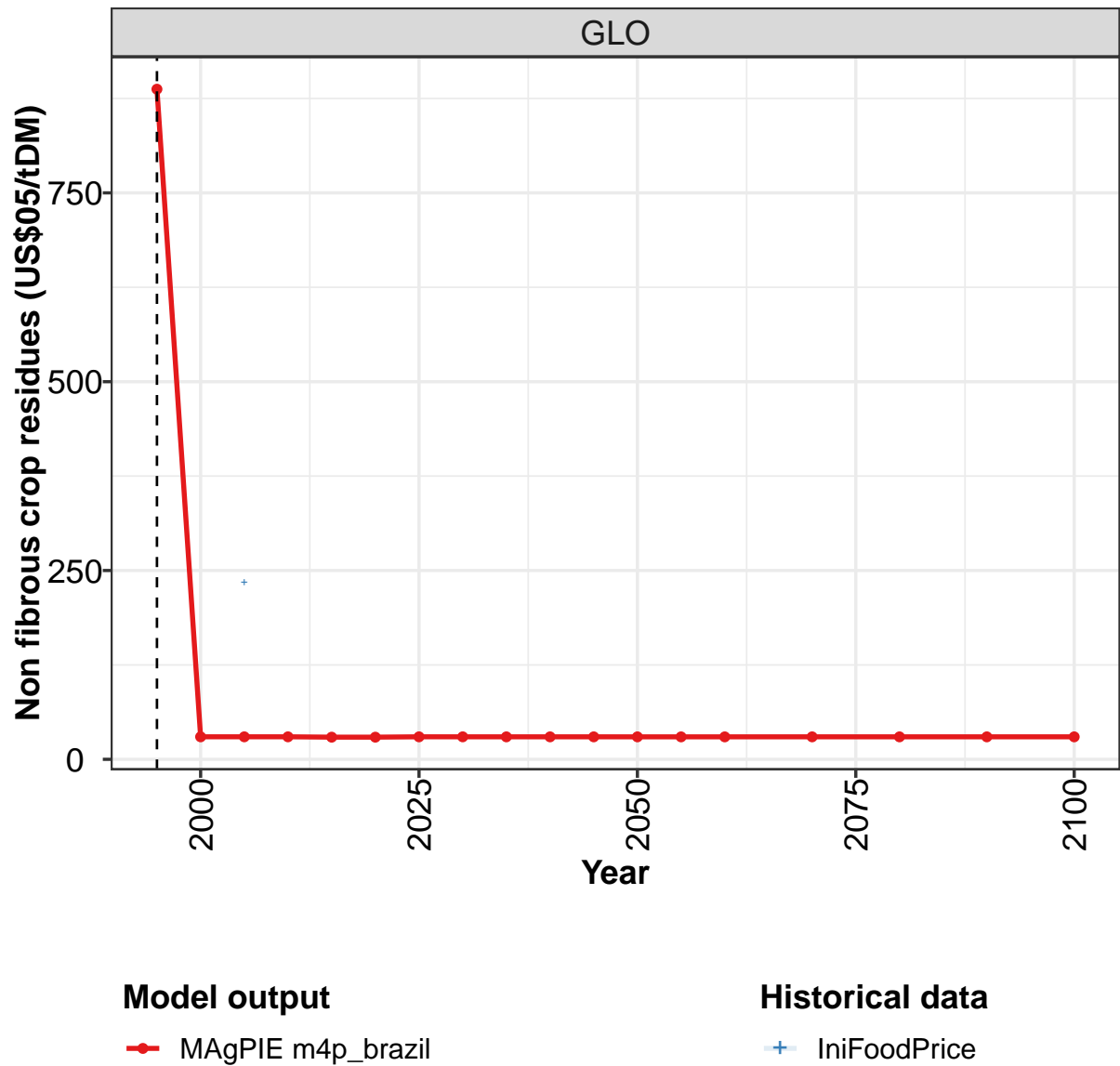


Figure 306: MAgPIE m4p_brazil — Prices—Agriculture—Non fibrous crop residues (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	887	30	30	30	29	29	30	30	30	30	30

Table 1098: MAgPIE m4p_brazil — Prices—Agriculture—Non fibrous crop residues (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	30	30	30	30	30	30	30

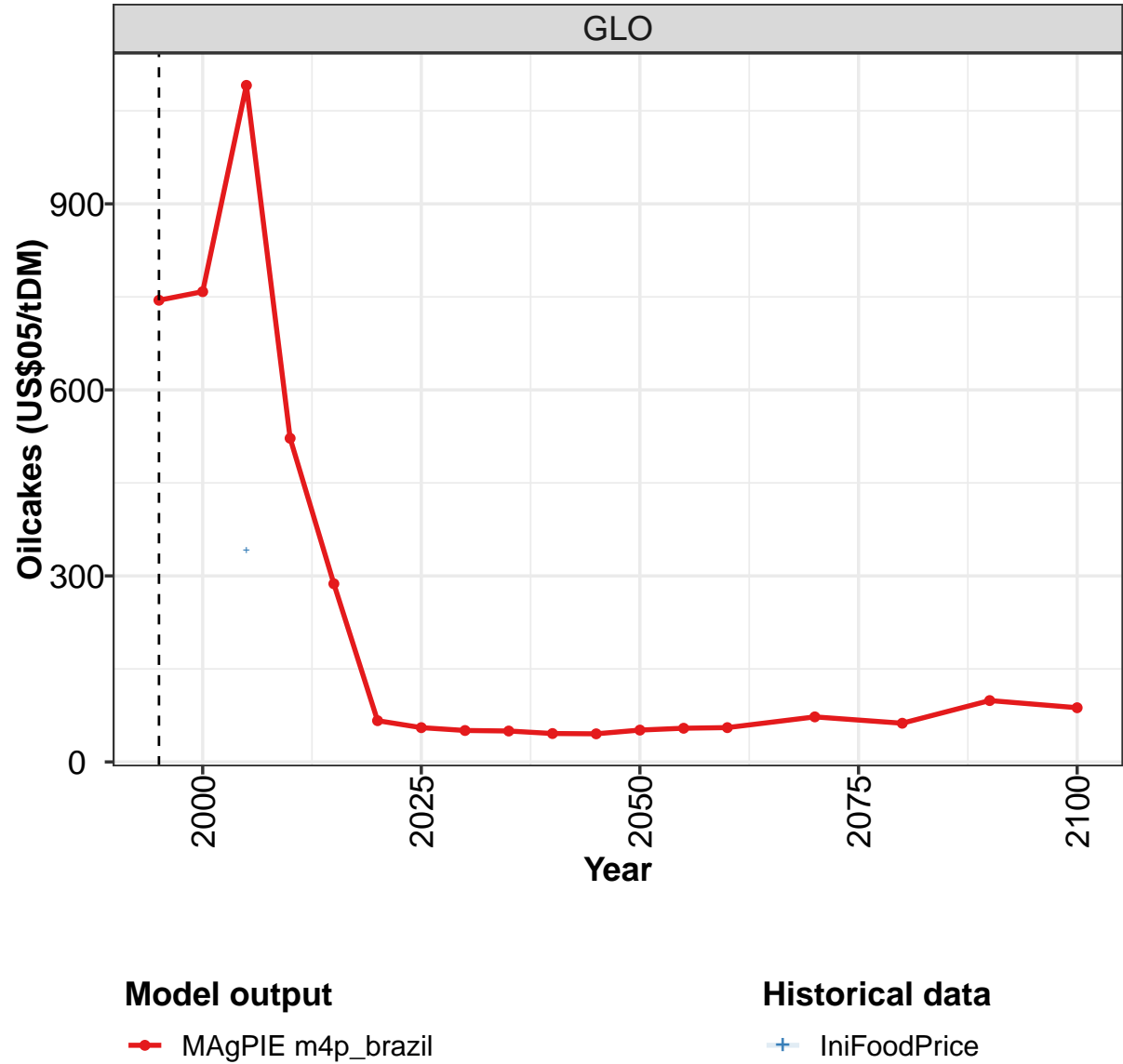
Table 1099: MAgPIE m4p_brazil — Prices—Agriculture—Non fibrous crop residues (US\$05/tDM) [PART 2/2]

	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_brazil

Historical data

+ IniFoodPrice

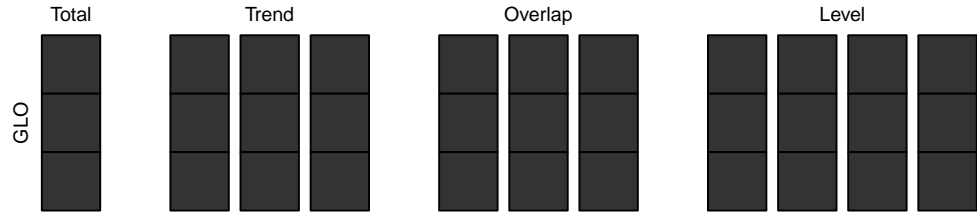


Figure 307: MAGPIE m4p_brazil — Prices—Agriculture—Oilcakes (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	745	758	1091	522	287	67	55	51	50	46	45

Table 1101: MAgPIE m4p_brazil — Prices—Agriculture—Oilcakes (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	51	54	55	73	62	99	87

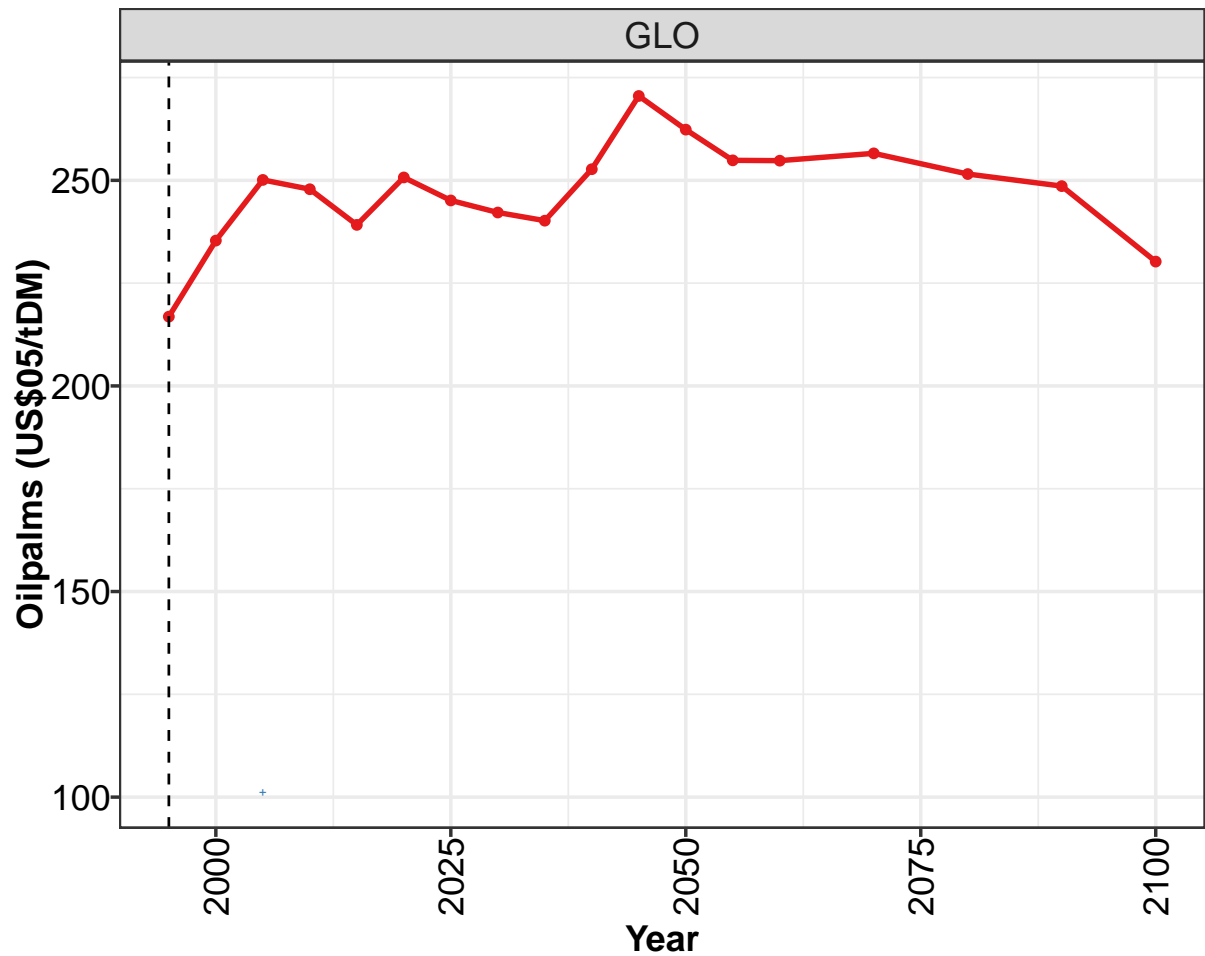
Table 1102: MAgPIE m4p_brazil — Prices—Agriculture—Oilcakes (US\$05/tDM) [PART 2/2]

	2005
GLO	341

Table 1103: IniFoodPrice — Prices—Agriculture—Oilcakes (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_brazil

Historical data

IniFoodPrice

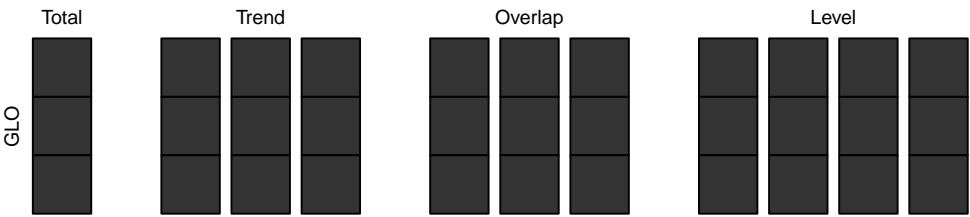


Figure 308: MAgPIE m4p_brazil — Prices—Agriculture—Oilpalms (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	217	235	250	248	239	251	245	242	240	253	271

Table 1104: MAgPIE m4p.brazil — Prices—Agriculture—Oilpalms (US\$05/tDM) [PART 1/2]

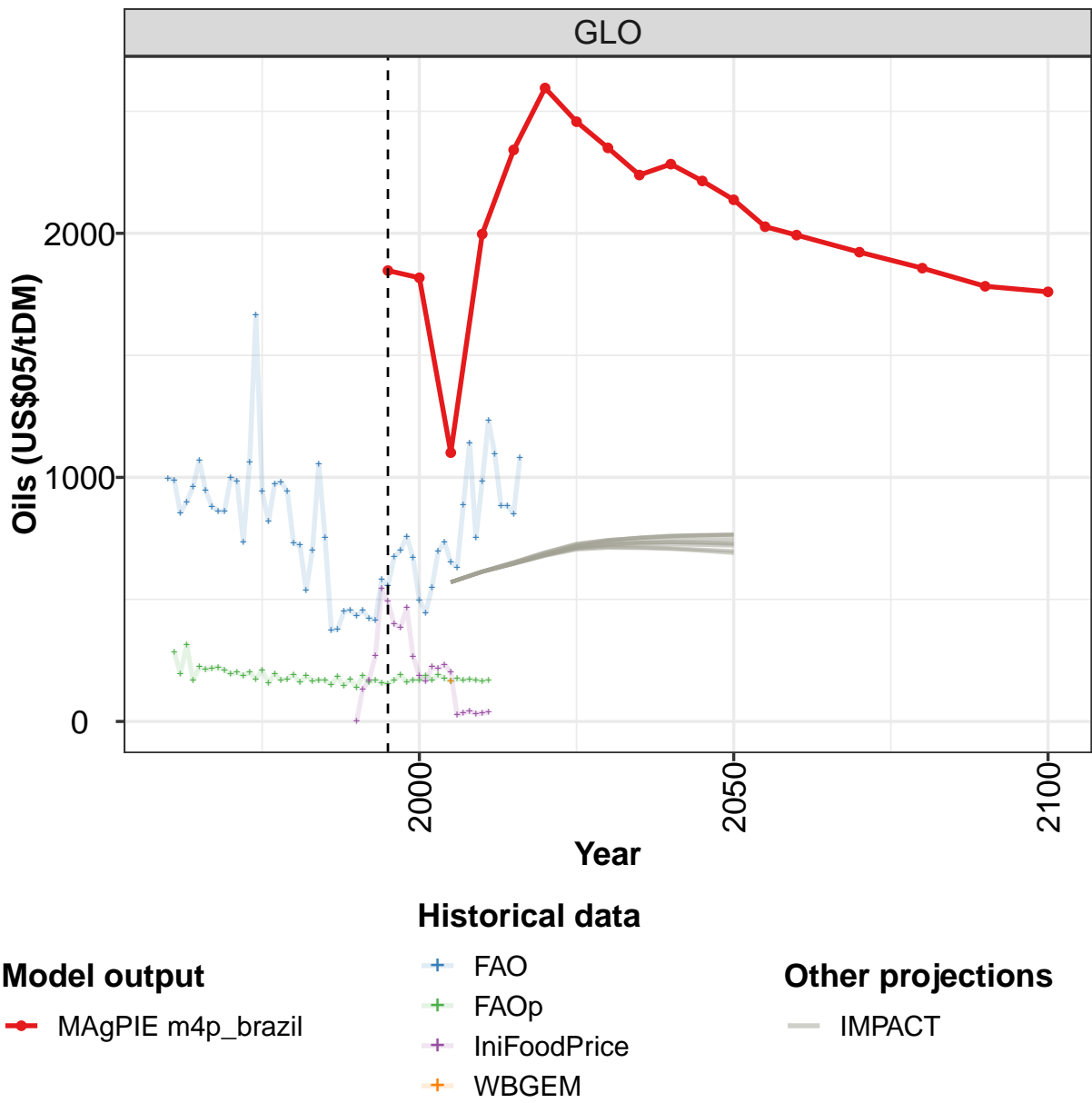
	2050	2055	2060	2070	2080	2090	2100
GLO	262	255	255	257	252	249	230

Table 1105: MAgPIE m4p.brazil — Prices—Agriculture—Oilpalms (US\$05/tDM) [PART 2/2]

	2005
GLO	101

Table 1106: IniFoodPrice — Prices—Agriculture—Oilpalms (US\$05/tDM)

36.19 Oils



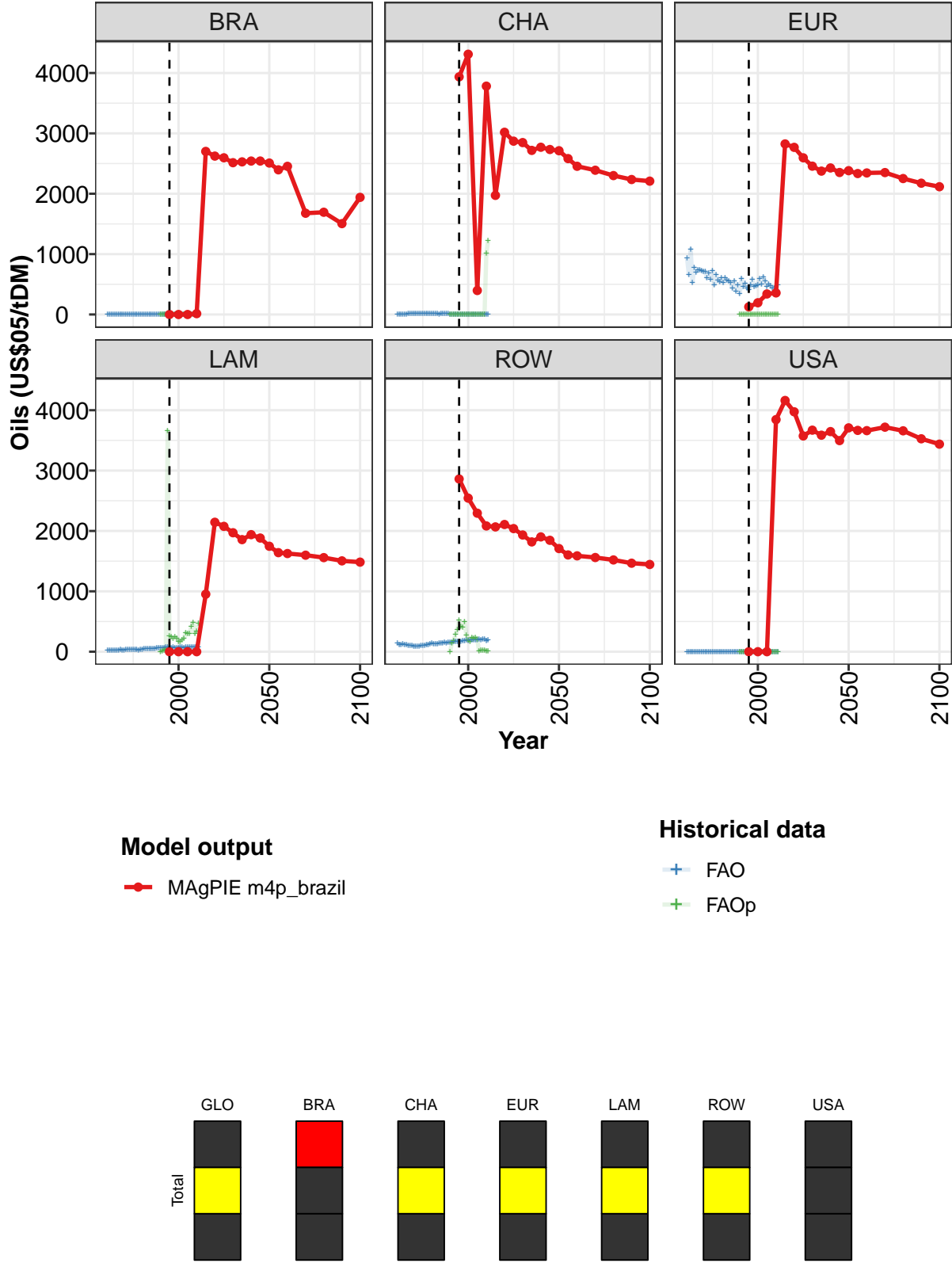


Figure 309: MAgPIE m4p_brazil — Prices—Agriculture—Oils (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1847	1818	1101	1997	2342	2595	2457	2350	2239	2284	2215
BRA	0	0	0	14	2701	2624	2596	2515	2528	2542	2542
CHA	3937	4311	397	3782	1973	3018	2871	2848	2718	2770	2733
EUR	126	194	340	358	2825	2769	2595	2457	2375	2427	2352
LAM	0	0	0	0	952	2144	2076	1971	1856	1939	1883
ROW	2861	2544	2294	2083	2067	2107	2039	1933	1819	1902	1845
USA	0	0	0	3845	4161	3974	3574	3670	3586	3646	3497

Table 1107: MAgPIE m4p_brazil — Prices—Agriculture—Oils (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	2137	2027	1993	1923	1857	1783	1760
BRA	2509	2397	2454	1677	1693	1505	1940
CHA	2713	2582	2455	2390	2301	2236	2209
EUR	2382	2335	2345	2351	2252	2175	2117
LAM	1747	1641	1626	1599	1559	1505	1484
ROW	1709	1603	1588	1560	1520	1466	1445
USA	3708	3666	3662	3719	3659	3527	3438

Table 1108: MAgPIE m4p_brazil — 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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
USA											

Table 1113: WBGEM — Prices—Agriculture—Oils (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	851	1081
BRA		
CHA		
EUR		
LAM		
ROW		
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
BRA	1	1	1	2	2	2	2	2	2	1	1
CHA	8	7	6	6	5	7	8	10	11	12	13
EUR	929	660	1084	532	771	697	733	741	726	708	710
LAM	21	20	22	23	21	22	26	31	29	26	32
ROW	138	120	119	121	118	121	103	103	106	88	89
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
BRA	1	1	1	1	1	1	1	1	0	0	1
CHA	15	15	15	14	16	15	13	12	10	9	8
EUR	600	679	581	717	491	652	562	543	600	522	605
LAM	39	36	33	29	29	30	27	30	34	45	45
ROW	93	92	99	100	107	109	110	127	138	123	133
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
BRA	1	1	1	1	1	2	2	2	3	2	2
CHA	8	7	9	10	8	8	8	6	6	6	6
EUR	561	550	526	431	555	388	493	346	596	454	509
LAM	43	47	44	49	55	56	64	61	61	62	71
ROW	122	135	145	145	149	145	155	152	155	161	168
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
BRA	2	2	2	2	2	2	3	2	2	2	2
CHA	6	6	5	5	4	4	4	4	3	3	3
EUR	436	414	482	581	458	474	493	590	496	620	550
LAM	71	64	63	69	64	57	65	74	68	62	71
ROW	170	171	171	177	174	192	185	194	199	198	194
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
BRA	3	3	3	3	4	4	4
CHA	3	3	3	3	3	2	2
EUR	466	498	478	435	428	461	481
LAM	71	69	70	74	80	73	75
ROW	195	203	198	208	202	186	192
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
BRA	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
LAM	0	6	16	38	3660	256	243	213	239	224	167
ROW	0	143	183	287	357	515	414	402	489	274	191
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
BRA	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
LAM	163	190	223	314	296	304	411	477	302	337	471
ROW	166	229	219	231	200	13	17	20	18	13	13
USA	0	0	0	0	0	0	0	0	0	0	0

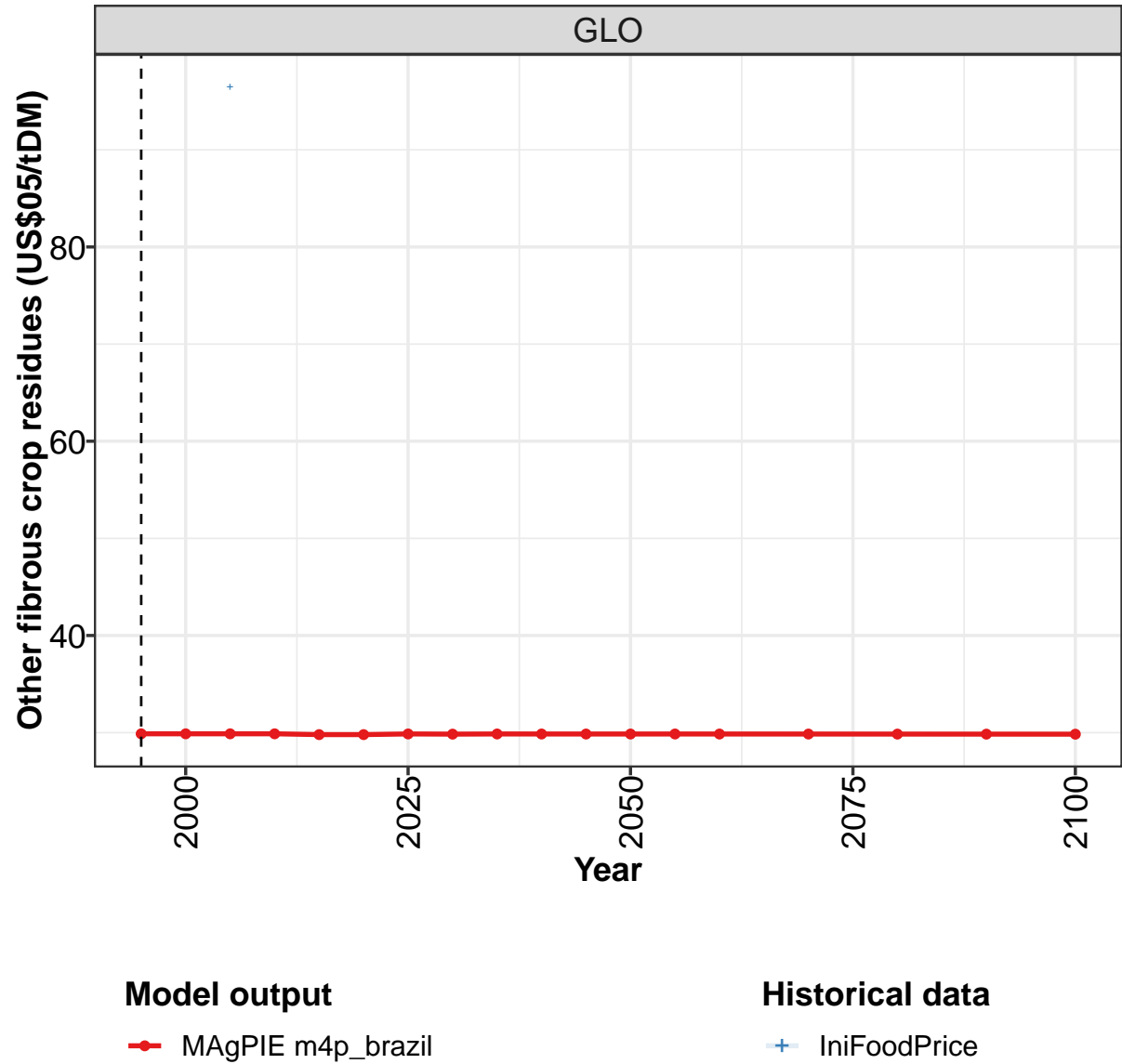
Table 1121: FAOp — Prices—Agriculture—Oils (US\$05/tDM) [PART 2/3]

	2005
GLO	164
BRA	
CHA	
EUR	
LAM	
ROW	
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?



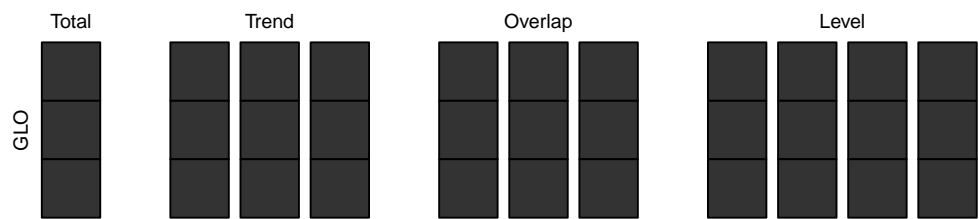


Figure 310: MAgPIE m4p_brazil — Prices—Agriculture—Other fibrous crop residues (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	29.9	29.9	29.9	29.9	29.8	29.8	29.9	29.8	29.9	29.9	29.9

Table 1123: MAgPIE m4p_brazil — Prices—Agriculture—Other fibrous crop residues (US\$05/tDM) [PART 1/2]

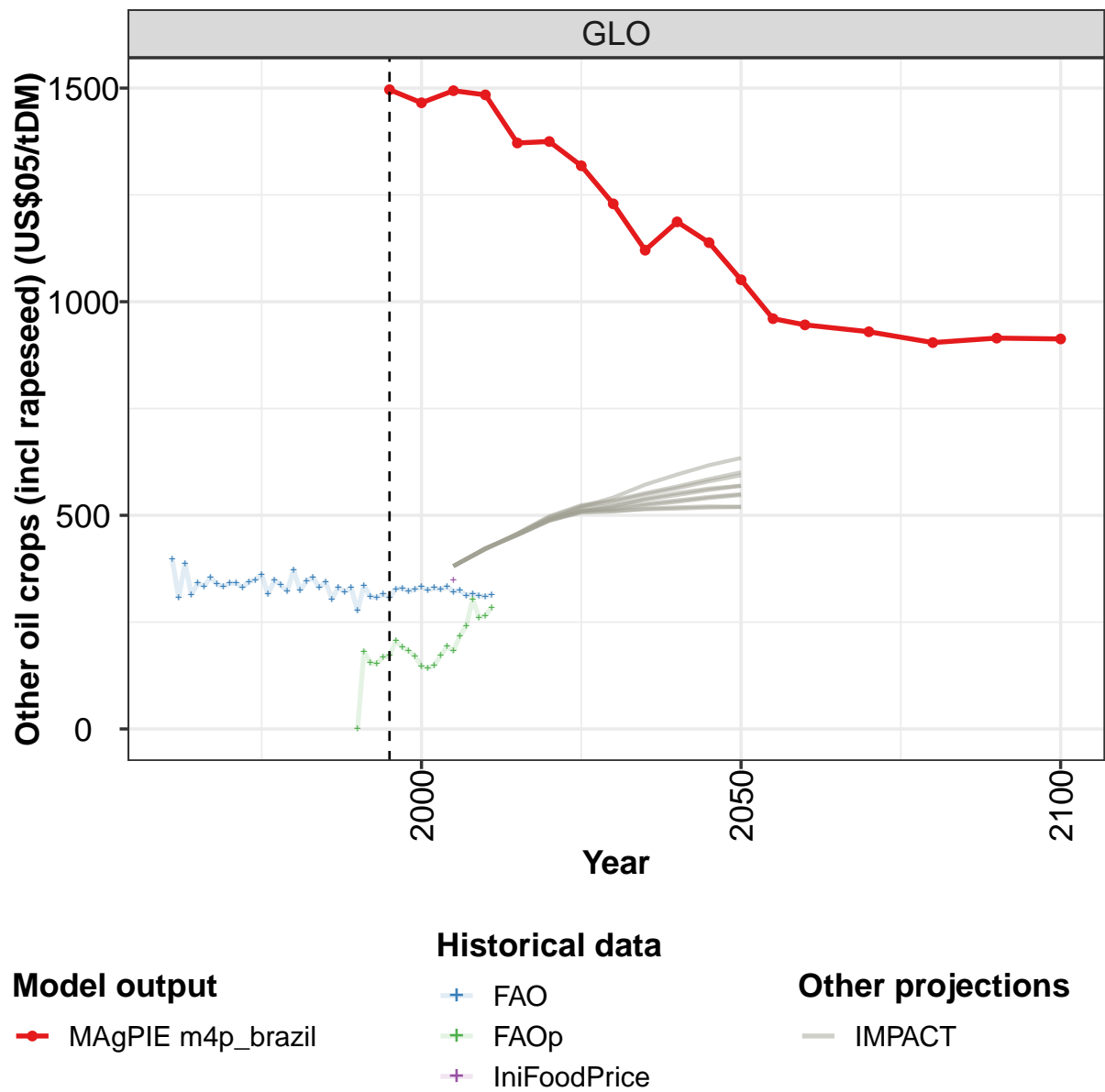
	2050	2055	2060	2070	2080	2090	2100
GLO	29.9	29.9	29.9	29.9	29.9	29.8	29.8

Table 1124: MAgPIE m4p_brazil — 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)



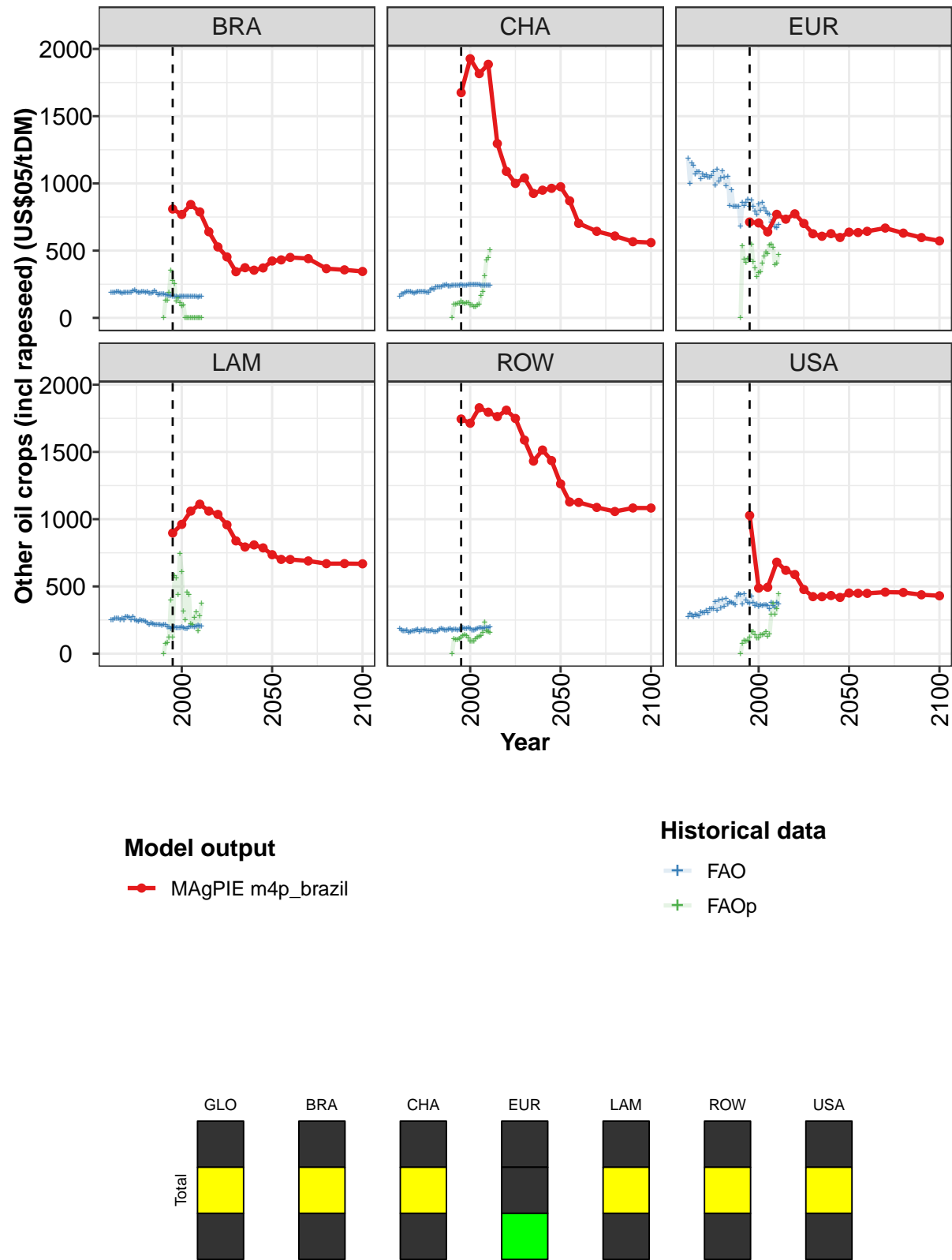


Figure 311: MAgPIE m4p_brazil — Prices—Agriculture—Other oil crops (incl rapeseed) (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1496	1466	1494	1484	1372	1375	1318	1229	1121	1187	1138
BRA	810	769	843	788	640	528	453	343	373	355	371
CHA	1675	1927	1816	1886	1296	1090	1000	1041	926	950	963
EUR	713	706	639	770	734	774	702	625	607	626	598
LAM	897	962	1060	1111	1060	1035	958	839	793	809	786
ROW	1745	1714	1828	1796	1763	1811	1749	1588	1432	1514	1436
USA	1028	488	494	680	620	588	477	424	424	432	418

Table 1126: MAgPIE m4p.brazil — Prices—Agriculture—Other oil crops (incl rapeseed) (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1051	960	946	930	904	915	913
BRA	423	431	450	441	366	357	345
CHA	975	870	703	644	609	566	560
EUR	637	635	644	668	630	597	572
LAM	736	701	700	690	669	670	668
ROW	1263	1128	1125	1087	1057	1083	1083
USA	451	449	448	458	455	438	430

Table 1127: MAgPIE m4p.brazil — 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
BRA	188	189	187	192	194	186	185	189	191	189	190
CHA	161	175	174	190	196	195	196	187	185	189	196
EUR	1184	998	1149	1132	1070	1086	1087	1032	1071	1049	1063
LAM	250	251	262	261	262	250	260	249	274	275	270
ROW	185	174	167	167	172	158	163	171	166	176	179
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
BRA	191	199	205	196	187	187	195	195	191	193	184
CHA	196	195	192	192	189	187	204	215	209	229	230
EUR	1045	1042	1058	1087	984	1103	1015	1039	1094	1044	983
LAM	250	277	253	246	241	250	244	247	239	229	218
ROW	162	172	174	179	166	169	170	172	161	163	169
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
BRA	184	187	198	188	173	176	177	176	172	170	165
CHA	227	229	239	239	245	236	236	243	243	244	243
EUR	1053	834	952	826	827	828	829	680	855	834	859
LAM	226	219	214	217	218	213	210	213	214	197	195
ROW	179	186	180	175	172	183	186	175	181	181	176
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
BRA	164	161	162	159	156	157	159	159	159	157	158
CHA	241	245	244	242	243	245	247	247	247	244	247
EUR	882	827	874	829	795	768	845	801	856	818	793
LAM	189	194	197	189	191	191	197	194	184	188	196
ROW	180	180	191	187	185	193	186	175	172	180	186
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
BRA	158	157	157	157	156	157	157
CHA	245	243	241	244	244	243	243
EUR	777	767	709	726	678	668	696
LAM	201	201	200	203	206	206	206
ROW	193	191	187	191	190	193	197
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
BRA	0	127	128	187	352	278	251	124	145	112	89
CHA	0	99	101	104	108	122	110	104	114	113	95
EUR	0	534	434	409	442	436	547	418	373	308	338
LAM	0	72	82	123	399	119	578	560	438	741	607
ROW	0	110	103	106	112	121	135	139	135	115	94
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
BRA	94	0	0	0	0	0	0	0	0	0	0
CHA	94	84	80	97	100	164	193	311	427	447	506
EUR	340	404	455	489	479	540	548	524	396	403	469
LAM	313	253	458	438	220	218	268	307	166	278	372
ROW	90	92	110	120	126	134	154	235	166	160	157
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
BRA	
CHA	
EUR	
LAM	
ROW	
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?

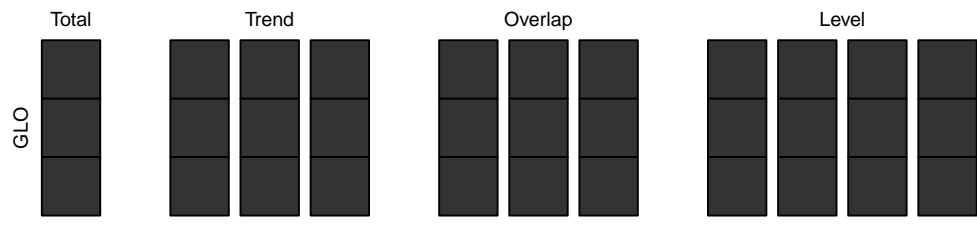
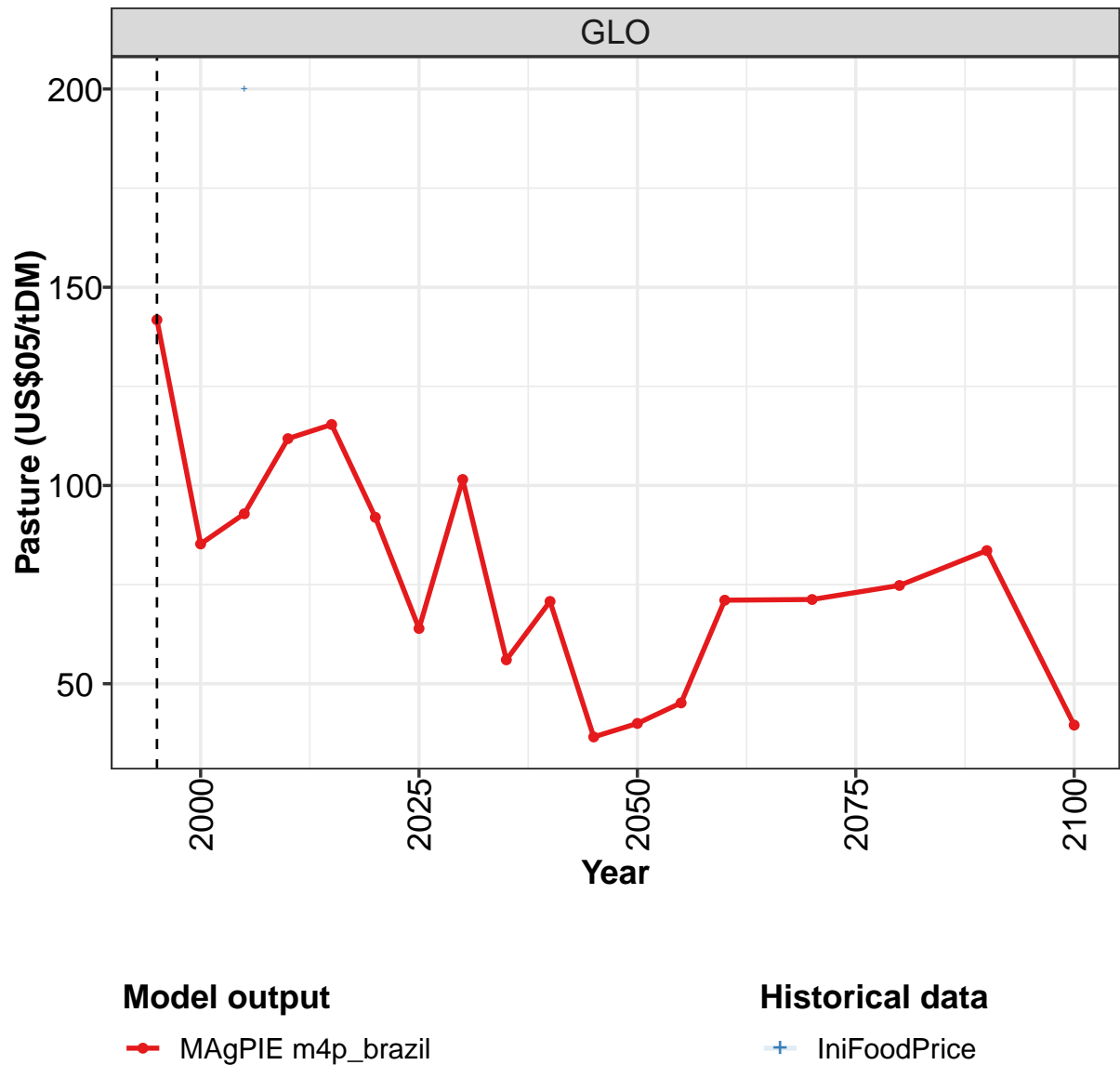


Figure 312: MAgPIE m4p_brazil — Prices—Agriculture—Pasture (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	142	85	93	112	115	92	64	102	56	71	37

Table 1136: MAgPIE m4p_brazil — Prices—Agriculture—Pasture (US\$05/tDM) [PART 1/2]

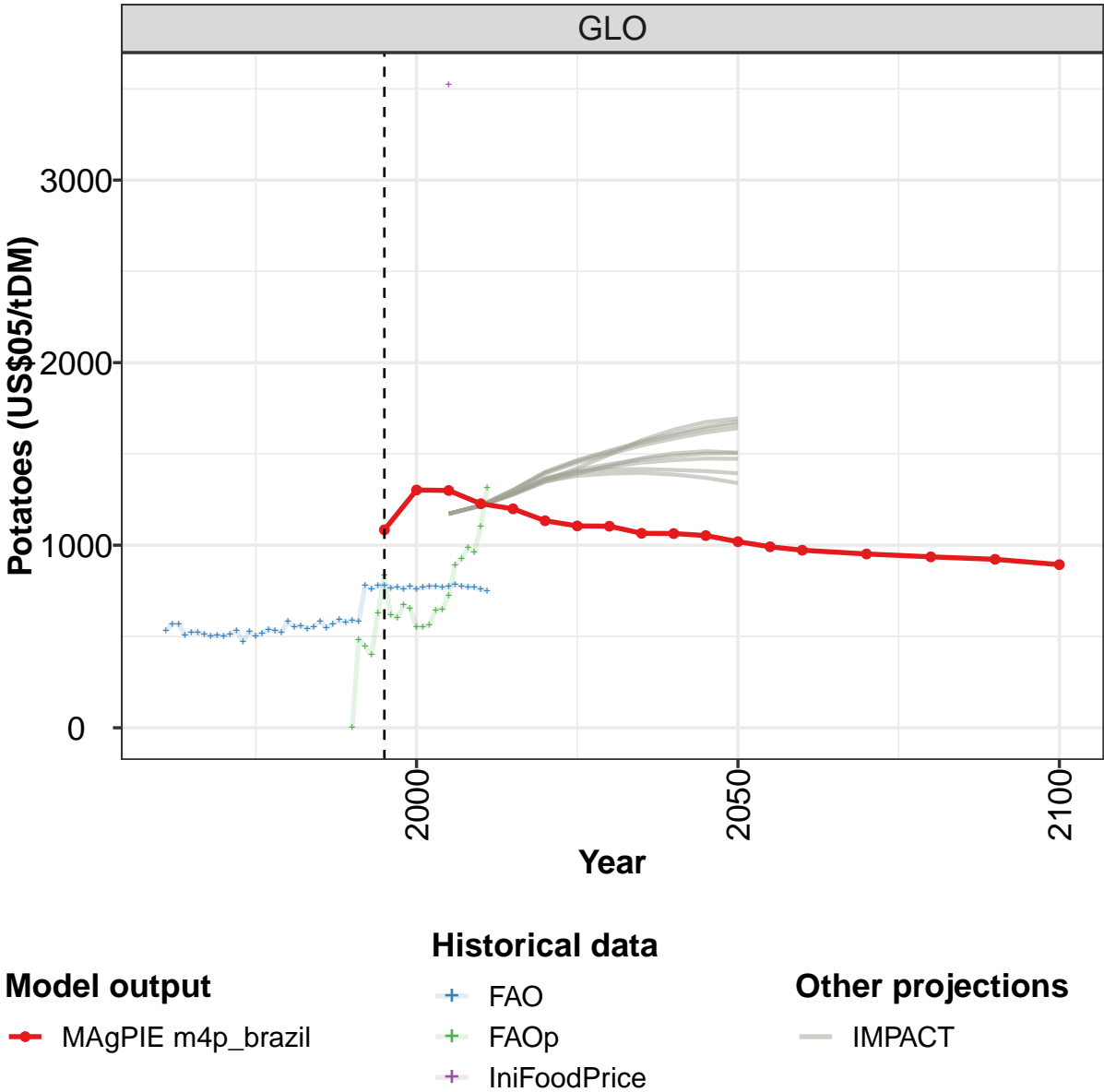
	2050	2055	2060	2070	2080	2090	2100
GLO	40	45	71	71	75	84	40

Table 1137: MAgPIE m4p_brazil — Prices—Agriculture—Pasture (US\$05/tDM) [PART 2/2]

	2005
GLO	200

Table 1138: IniFoodPrice — Prices—Agriculture—Pasture (US\$05/tDM)

36.23 Potatoes



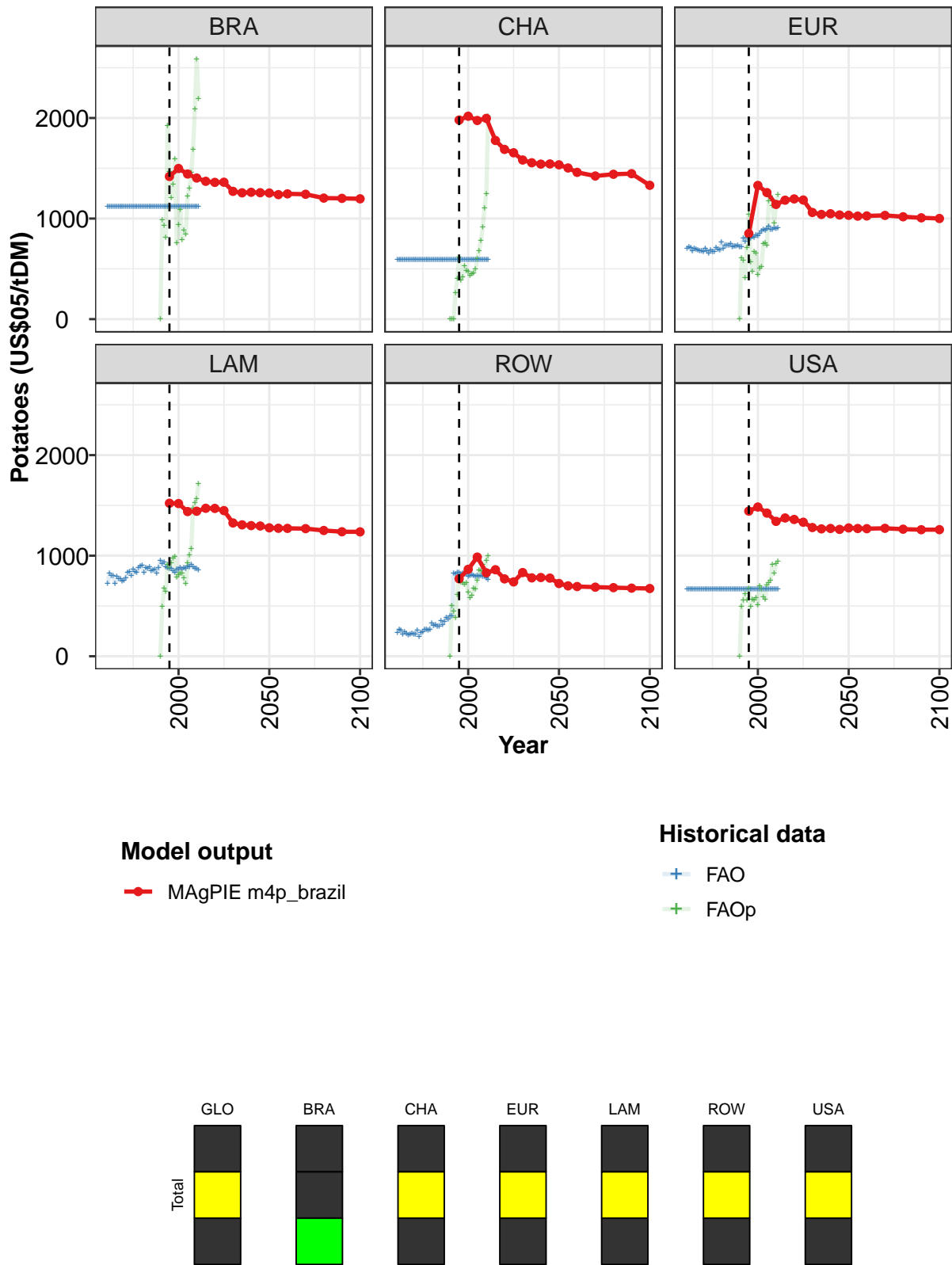


Figure 313: MAGPIE m4p_brazil — Prices—Agriculture—Potatoes (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1084	1302	1300	1227	1199	1134	1105	1104	1065	1064	1053
BRA	1419	1498	1443	1403	1371	1360	1361	1271	1256	1261	1257
CHA	1980	2018	1975	1996	1777	1688	1654	1582	1555	1541	1543
EUR	851	1330	1258	1141	1183	1196	1185	1061	1041	1048	1036
LAM	1521	1519	1439	1442	1471	1470	1448	1325	1307	1299	1295
ROW	770	864	986	830	860	769	739	832	779	783	777
USA	1443	1484	1423	1341	1375	1360	1333	1280	1267	1271	1262

Table 1139: MAgPIE m4p_brazil — Prices—Agriculture—Potatoes (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1019	992	973	952	936	923	894
BRA	1254	1238	1246	1242	1204	1201	1197
CHA	1535	1503	1460	1423	1441	1446	1331
EUR	1033	1024	1026	1032	1018	1008	1001
LAM	1277	1273	1272	1269	1251	1238	1237
ROW	723	700	693	687	682	677	674
USA	1276	1270	1269	1272	1264	1258	1259

Table 1140: MAgPIE m4p_brazil — 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
BRA	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122
CHA	590	590	590	590	590	590	590	590	590	590	590
EUR	702	717	713	675	703	691	686	679	678	674	702
LAM	723	822	802	799	726	789	769	766	749	756	776
ROW	232	266	254	218	239	223	213	220	230	220	219
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
BRA	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122
CHA	590	590	590	590	589	590	590	590	590	590	590
EUR	677	654	683	669	674	711	694	687	768	703	737
LAM	836	837	804	862	844	832	878	892	903	831	881
ROW	261	197	236	240	268	269	260	263	326	305	316
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
BRA	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122
CHA	590	590	590	590	590	590	590	590	590	590	590
EUR	736	734	746	717	726	725	732	714	720	801	770
LAM	873	886	852	855	862	825	876	947	918	938	891
ROW	294	301	348	315	347	387	366	396	400	823	813
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
BRA	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122	1122
CHA	590	590	590	590	590	590	590	590	590	590	590
EUR	814	811	805	823	810	838	824	853	876	887	880
LAM	876	871	874	847	835	863	866	881	864	883	871
ROW	832	832	813	821	818	815	797	804	808	804	793
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
BRA	1122	1122	1122	1122	1122	1122	1122
CHA	590	590	590	590	590	590	590
EUR	896	924	891	894	908	903	906
LAM	894	885	912	891	874	873	856
ROW	802	796	797	795	789	777	763
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
BRA	0	985	928	813	1920	1466	1207	1341	1594	756	936
CHA	0	0	0	262	405	612	385	419	532	483	477
EUR	0	606	580	410	709	1042	568	476	669	655	442
LAM	0	493	675	647	913	876	930	974	993	785	808
ROW	0	504	444	381	612	775	734	728	716	730	638
USA	0	495	555	618	559	677	491	564	559	577	509

Table 1146: FAOp — Prices—Agriculture—Potatoes (US\$05/tDM) [PART 1/3]

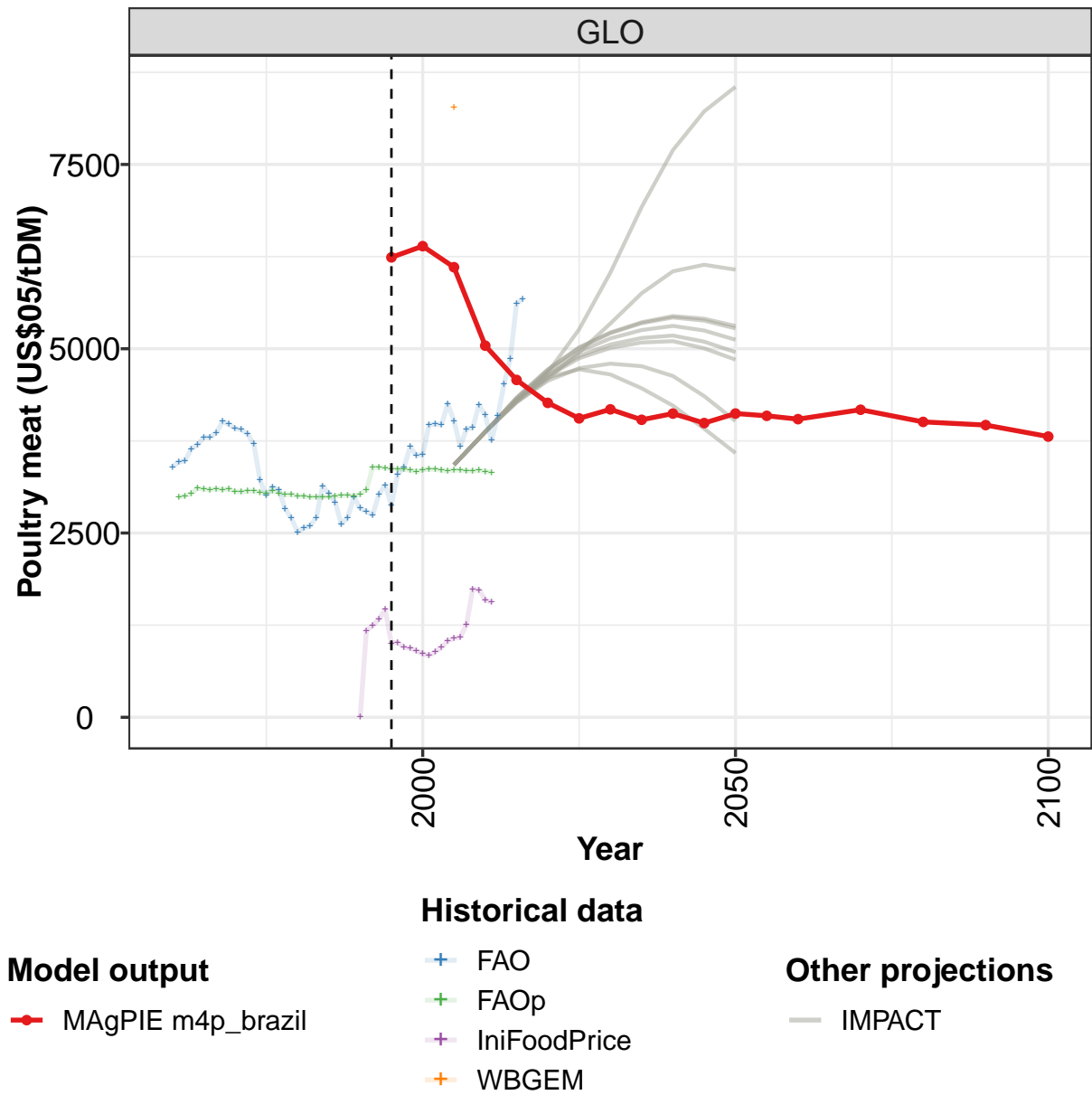
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	553	564	645	648	725	893	926	987	960	1102	1317
BRA	1087	792	885	844	1225	1297	1459	1690	2087	2587	2189
CHA	434	450	461	494	599	678	782	915	1104	1248	2014
EUR	506	521	747	759	736	1173	1226	1126	955	1142	1237
LAM	828	821	776	719	923	1009	1066	1473	1528	1562	1712
ROW	583	606	675	664	755	854	847	910	837	953	996
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1148: IniFoodPrice — Prices—Agriculture—Potatoes (US\$05/tDM)

36.24
Poultry meat



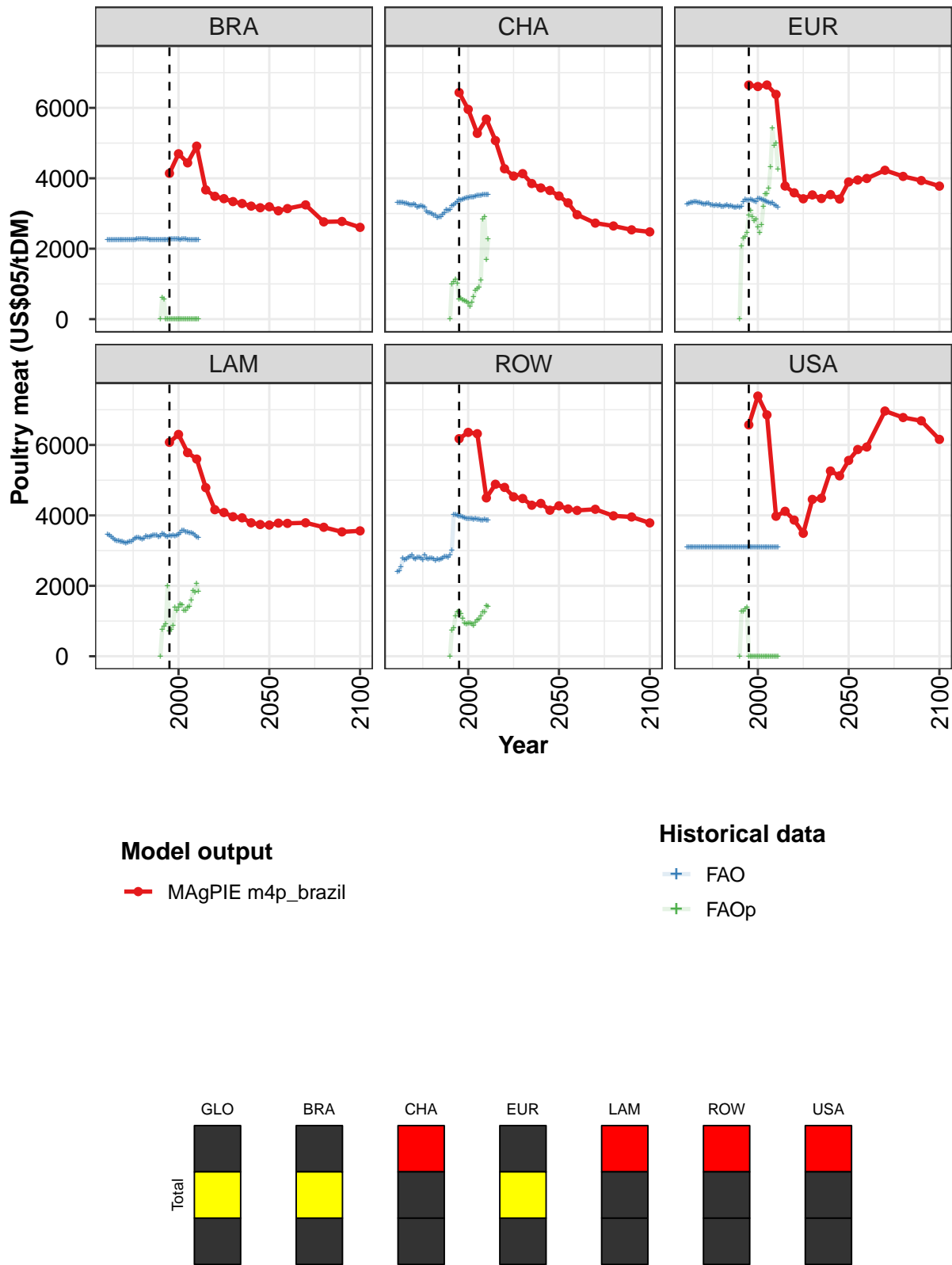


Figure 314: MAGPIE m4p.brazil — Prices—Agriculture—Poultry meat (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6239	6392	6106	5042	4577	4266	4055	4177	4036	4120	3992
BRA	4141	4696	4438	4913	3670	3489	3422	3339	3283	3210	3164
CHA	6435	5957	5276	5681	5072	4271	4063	4132	3851	3726	3655
EUR	6649	6606	6650	6382	3780	3588	3418	3528	3425	3538	3411
LAM	6077	6299	5784	5600	4788	4162	4082	3962	3931	3790	3741
ROW	6178	6358	6320	4498	4885	4795	4527	4480	4289	4340	4147
USA	6572	7389	6854	3976	4117	3868	3493	4454	4486	5260	5123

Table 1149: MAgPIE m4p_brazil — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	4121	4090	4045	4172	4007	3964	3809
BRA	3191	3076	3140	3245	2763	2774	2607
CHA	3498	3303	2966	2727	2646	2536	2478
EUR	3896	3953	3995	4228	4054	3936	3777
LAM	3725	3780	3774	3791	3663	3532	3561
ROW	4272	4182	4141	4174	3988	3956	3787
USA	5561	5871	5942	6964	6780	6687	6158

Table 1150: MAgPIE m4p_brazil — 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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
USA											

Table 1155: WBGEM — Prices—Agriculture—Poultry meat (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	5608	5678
BRA		
CHA		
EUR		
LAM		
ROW		
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
BRA	2245	2244	2248	2248	2253	2253	2254	2255	2256	2259	2258
CHA	3302	3312	3318	3314	3290	3282	3269	3252	3250	3255	3231
EUR	3264	3280	3306	3319	3334	3324	3318	3302	3298	3270	3269
LAM	3460	3436	3401	3353	3290	3268	3278	3256	3250	3221	3213
ROW	2392	2431	2527	2787	2743	2755	2808	2823	2863	2782	2758
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
BRA	2259	2261	2258	2257	2263	2264	2267	2268	2268	2269	2269
CHA	3177	3202	3211	3195	3171	3060	3026	3028	3005	2948	2940
EUR	3281	3279	3245	3238	3230	3232	3229	3236	3203	3202	3209
LAM	3227	3254	3255	3301	3347	3361	3361	3348	3326	3345	3405
ROW	2797	2814	2781	2735	2868	2787	2757	2782	2781	2759	2723
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
BRA	2267	2261	2262	2262	2262	2263	2262	2263	2262	2262	2262
CHA	2875	2895	2908	2982	3007	3105	3082	3113	3210	3242	3298
EUR	3236	3206	3218	3194	3179	3180	3190	3178	3203	3331	3392
LAM	3379	3379	3401	3438	3427	3435	3393	3418	3469	3455	3403
ROW	2756	2749	2765	2791	2820	2816	2814	2881	3006	4019	4014
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
BRA	2262	2265	2265	2265	2266	2267	2265	2263	2264	2264	2264
CHA	3336	3402	3383	3396	3427	3441	3451	3461	3460	3472	3480
EUR	3375	3376	3392	3370	3353	3323	3411	3419	3405	3380	3362
LAM	3393	3424	3419	3440	3410	3426	3464	3502	3578	3567	3534
ROW	4008	3982	3979	3960	3932	3917	3911	3904	3899	3882	3902
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
BRA	2258	2258	2253	2252	2251	2252	2254
CHA	3501	3502	3515	3533	3537	3541	3537
EUR	3332	3313	3289	3302	3249	3212	3180
LAM	3518	3497	3497	3485	3435	3382	3361
ROW	3885	3881	3864	3862	3877	3874	3857
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
BRA	0	612	555	0	0	0	0	0	0	0	0
CHA	0	1000	1049	1137	1026	556	587	541	526	492	457
EUR	0	2062	2287	2343	2451	2951	3077	2914	2785	2846	2622
LAM	0	755	849	917	2003	704	758	868	1382	1298	1391
ROW	2	745	794	1151	1247	1284	1197	1082	937	905	933
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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	352	481	643	806	849	908	1115	2842	2902	1691	2266
EUR	2447	2668	3189	3555	3555	3706	4314	5414	4919	4992	4244
LAM	1485	1464	1297	1296	1383	1420	1601	1867	1809	2060	1835
ROW	946	917	876	951	1031	1048	1150	1256	1251	1436	1416
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1164: IniFoodPrice — Prices—Agriculture—Poultry meat (US\$05/tDM)

36.25 Pulses

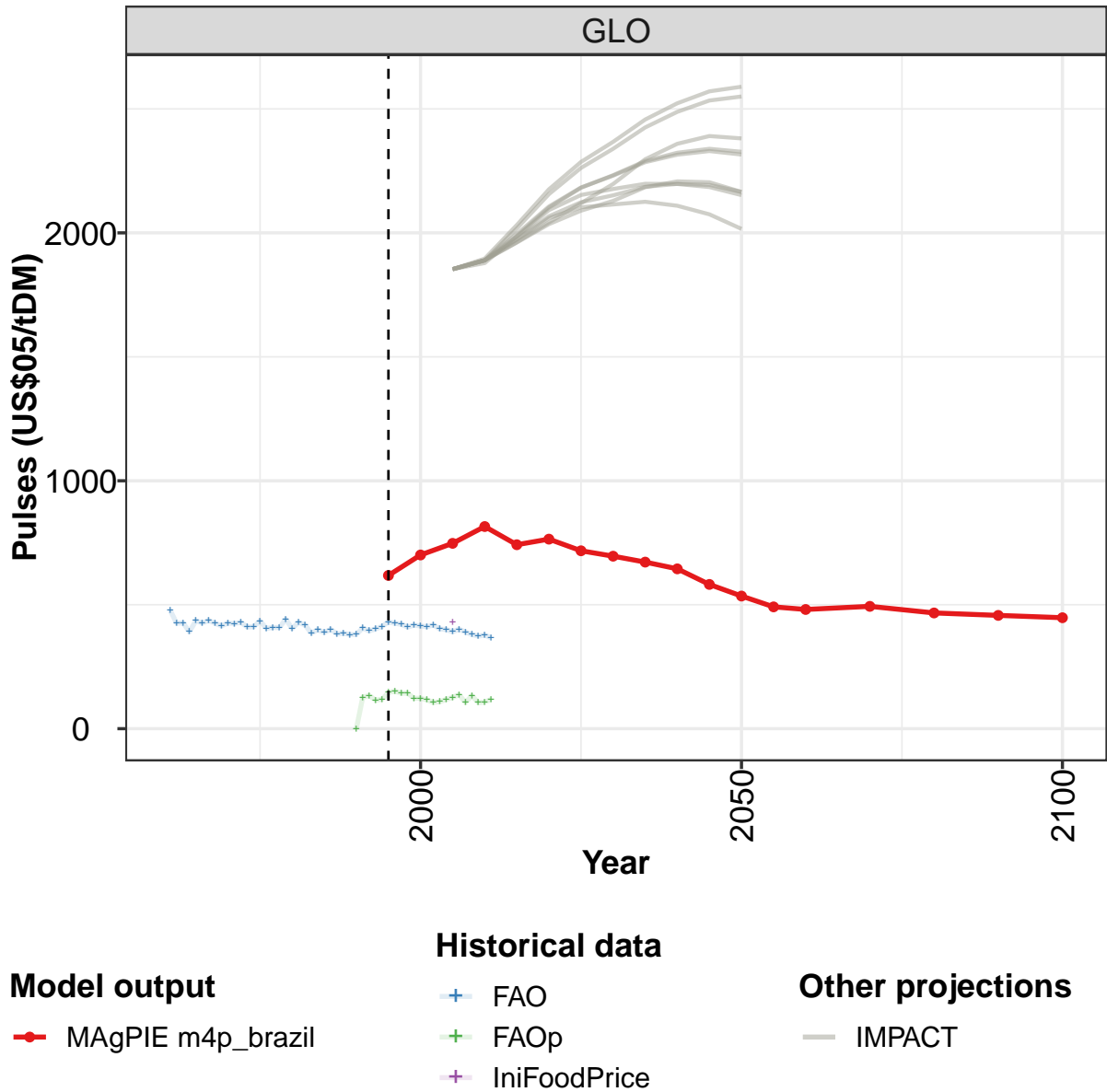




Figure 315: MAgPIE m4p_brazil — Prices—Agriculture—Pulses (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	618	701	748	815	742	765	718	696	672	645	582
BRA	885	1127	1018	952	776	727	735	738	726	728	701
CHA	573	660	767	814	502	356	309	321	280	299	323
EUR	402	419	371	361	345	385	354	310	292	315	300
LAM	533	514	426	361	359	354	350	358	332	321	292
ROW	681	760	833	914	849	886	828	799	770	727	645
USA	378	433	437	428	420	465	374	424	426	452	424

Table 1165: MAgPIE m4p.brazil — Prices—Agriculture—Pulses (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	535	491	481	494	467	457	448
BRA	728	659	685	675	483	471	453
CHA	350	328	250	259	238	248	216
EUR	326	324	333	346	321	300	284
LAM	285	298	302	291	254	231	241
ROW	574	520	507	521	497	486	477
USA	504	496	490	507	503	471	447

Table 1166: MAgPIE m4p.brazil — 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
BRA	538	538	538	539	539	538	537	538	537	538	537
CHA	433	435	433	431	432	434	434	435	437	438	434
EUR	658	624	649	643	631	660	654	650	647	657	667
LAM	622	619	610	617	614	628	629	626	630	630	636
ROW	441	364	362	308	379	345	358	361	343	362	354
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
BRA	536	537	537	538	538	539	539	540	541	542	541
CHA	436	437	437	437	434	436	432	431	432	434	437
EUR	691	687	645	650	679	645	654	662	641	652	630
LAM	648	647	658	648	640	656	643	673	625	625	630
ROW	360	336	340	372	343	340	339	383	323	357	343
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
BRA	542	541	542	541	542	541	540	541	542	543	543
CHA	439	439	443	441	439	444	443	447	437	441	454
EUR	603	568	543	529	503	476	449	439	437	457	448
LAM	643	671	622	633	619	615	625	620	609	611	613
ROW	310	325	313	334	308	312	324	315	361	344	354
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
BRA	543	543	542	543	544	544	543	543	543	543	543
CHA	451	457	456	456	456	465	465	465	460	463	466
EUR	449	489	481	455	442	452	468	487	494	486	486
LAM	609	626	614	605	592	587	574	591	593	581	566
ROW	365	388	379	382	369	379	372	364	367	348	354
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
BRA	543	543	543	543	543	544	543
CHA	464	462	460	463	463	461	458
EUR	501	527	544	533	522	499	522
LAM	563	576	555	571	548	541	506
ROW	341	350	342	328	322	334	321
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
BRA	0	444	428	583	733	569	626	582	973	448	358
CHA	0	27	28	32	24	37	51	51	63	40	45
EUR	0	155	169	141	136	210	190	154	148	137	145
LAM	0	275	235	286	281	247	294	293	327	272	280
ROW	0	115	124	103	107	136	139	135	134	117	116
USA	0	234	305	320	332	310	445	332	341	281	226

Table 1172: FAOp — Prices—Agriculture—Pulses (US\$05/tDM) [PART 1/3]

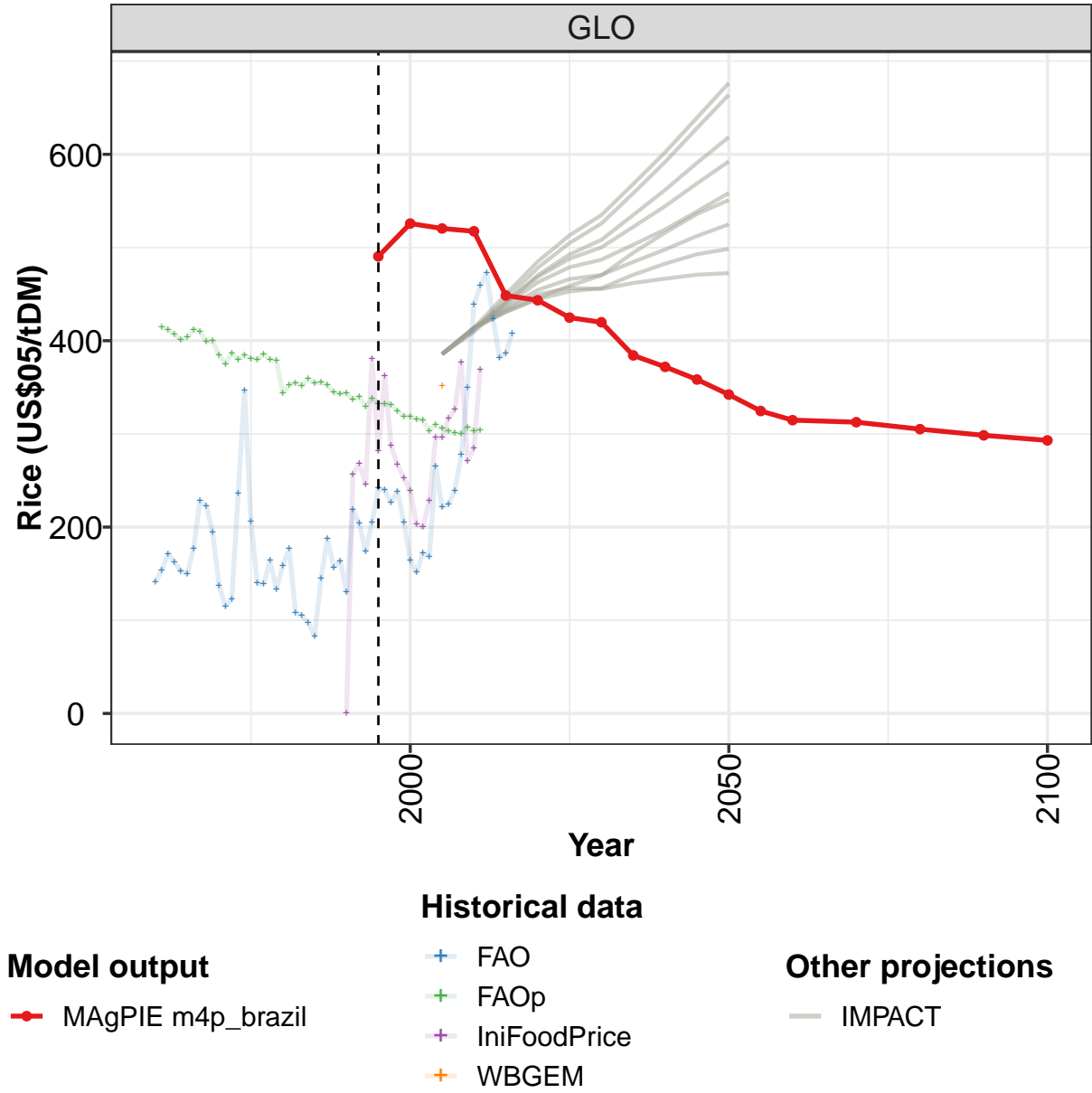
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	116	106	109	118	126	137	106	133	105	107	118
BRA	434	420	468	416	570	580	707	1361	855	1054	1070
CHA	48	52	53	59	61	117	141	182	145	204	254
EUR	115	127	137	153	164	174	211	223	201	206	214
LAM	271	270	253	256	284	285	296	385	376	355	377
ROW	111	95	98	107	114	120	73	90	68	69	78
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1174: IniFoodPrice — Prices—Agriculture—Pulses (US\$05/tDM)

36.26 Rice



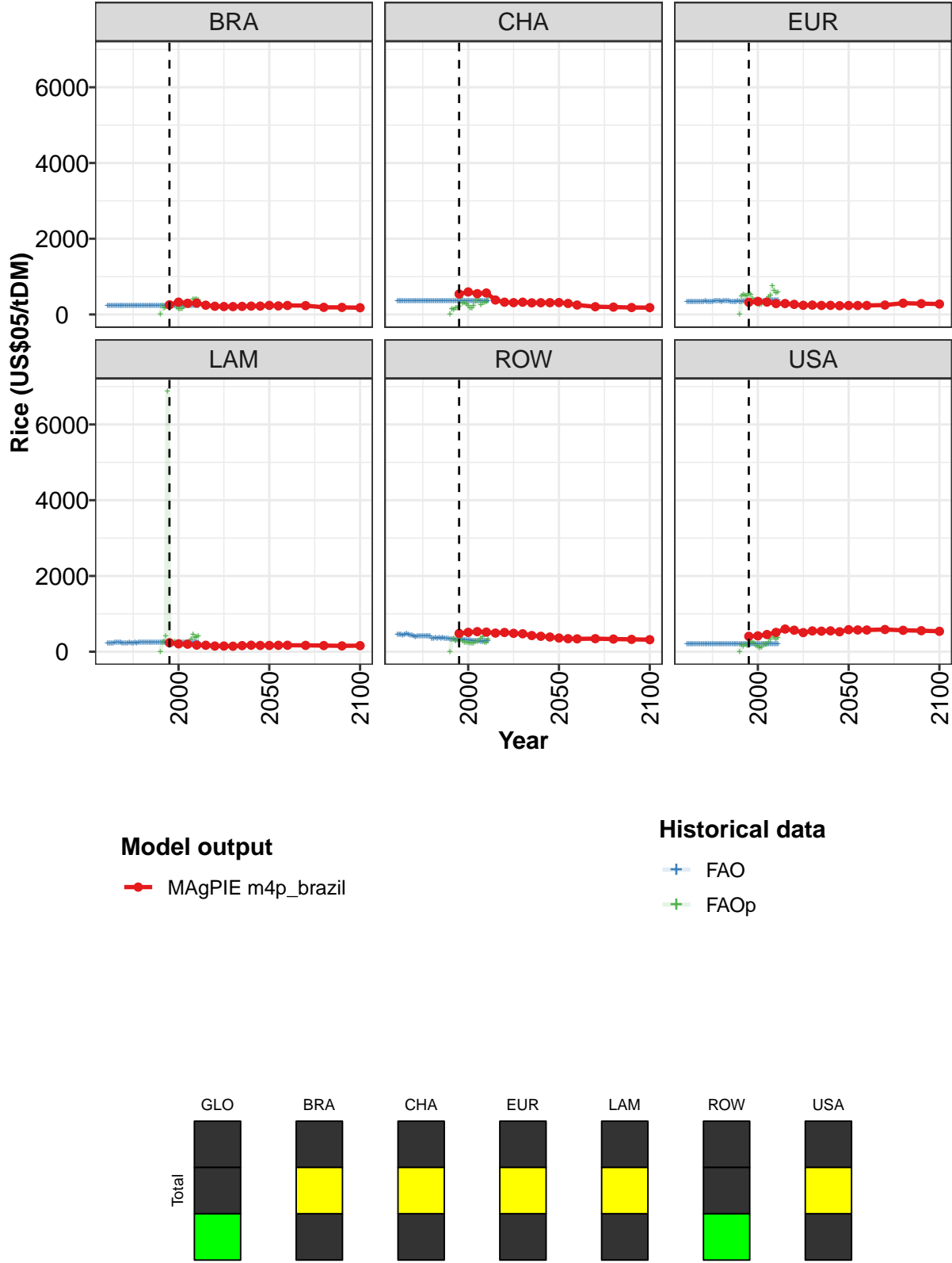


Figure 316: MAgPIE m4p_brazil — Prices—Agriculture—Rice (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	490	526	520	517	448	443	425	420	384	372	358
BRA	256	326	296	300	245	217	210	208	213	221	222
CHA	541	595	550	568	382	325	313	325	308	311	312
EUR	323	345	328	288	289	267	243	248	238	241	232
LAM	236	208	198	174	170	150	149	145	161	170	165
ROW	481	511	530	516	492	508	485	473	426	407	388
USA	406	418	453	509	598	568	505	548	542	550	525

Table 1175: MAgPIE m4p_brazil — Prices—Agriculture—Rice (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	342	325	315	313	305	298	293
BRA	240	227	238	234	189	187	179
CHA	315	291	250	205	195	184	181
EUR	237	236	238	249	298	286	276
LAM	165	169	170	167	162	154	159
ROW	362	343	339	344	333	325	317
USA	582	574	573	586	565	554	539

Table 1176: MAgPIE m4p_brazil — 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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
USA											

Table 1181: WBGEM — Prices—Agriculture—Rice (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	386	408
BRA		
CHA		
EUR		
LAM		
ROW		
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
BRA	241	241	241	241	241	241	241	241	241	241	241
CHA	353	355	357	358	358	359	359	358	359	360	361
EUR	341	346	339	330	342	346	343	341	337	344	349
LAM	219	219	223	228	238	240	238	242	232	223	229
ROW	454	453	446	438	451	465	458	438	437	414	396
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
BRA	241	241	241	241	241	241	241	241	241	241	241
CHA	360	362	361	361	360	361	362	362	363	363	363
EUR	339	343	345	344	351	351	353	357	341	353	354
LAM	233	235	233	228	239	233	242	246	244	242	240
ROW	418	405	416	409	408	416	405	405	343	358	362
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
BRA	241	241	241	241	241	241	241	241	241	241	241
CHA	363	364	364	365	365	365	365	366	366	366	366
EUR	358	350	348	346	344	345	353	338	333	348	349
LAM	250	242	242	235	246	240	240	247	247	248	244
ROW	353	367	359	360	355	342	339	338	328	332	317
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
BRA	241	241	241	241	241	241	241	241	241	241	241
CHA	366	366	367	366	367	367	366	367	366	366	367
EUR	342	341	342	341	345	347	349	348	348	348	356
LAM	234	233	227	226	232	228	238	244	245	237	238
ROW	332	322	320	319	308	301	301	298	296	283	290
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
BRA	241	241	241	241	241	241	241
CHA	367	367	368	367	367	367	367
EUR	368	376	371	380	372	379	379
LAM	243	242	245	247	241	252	252
ROW	285	279	276	276	286	281	281
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
BRA	0	226	179	200	230	222	237	245	285	181	156
CHA	0	140	136	170	168	209	438	302	316	268	234
EUR	0	482	535	513	488	538	532	419	388	354	270
LAM	0	235	257	405	6872	218	234	240	255	203	200
ROW	0	329	352	285	315	328	326	281	238	250	247
USA	0	192	149	202	171	232	244	254	225	151	143

Table 1188: FAOp — Prices—Agriculture—Rice (US\$05/tDM) [PART 1/3]

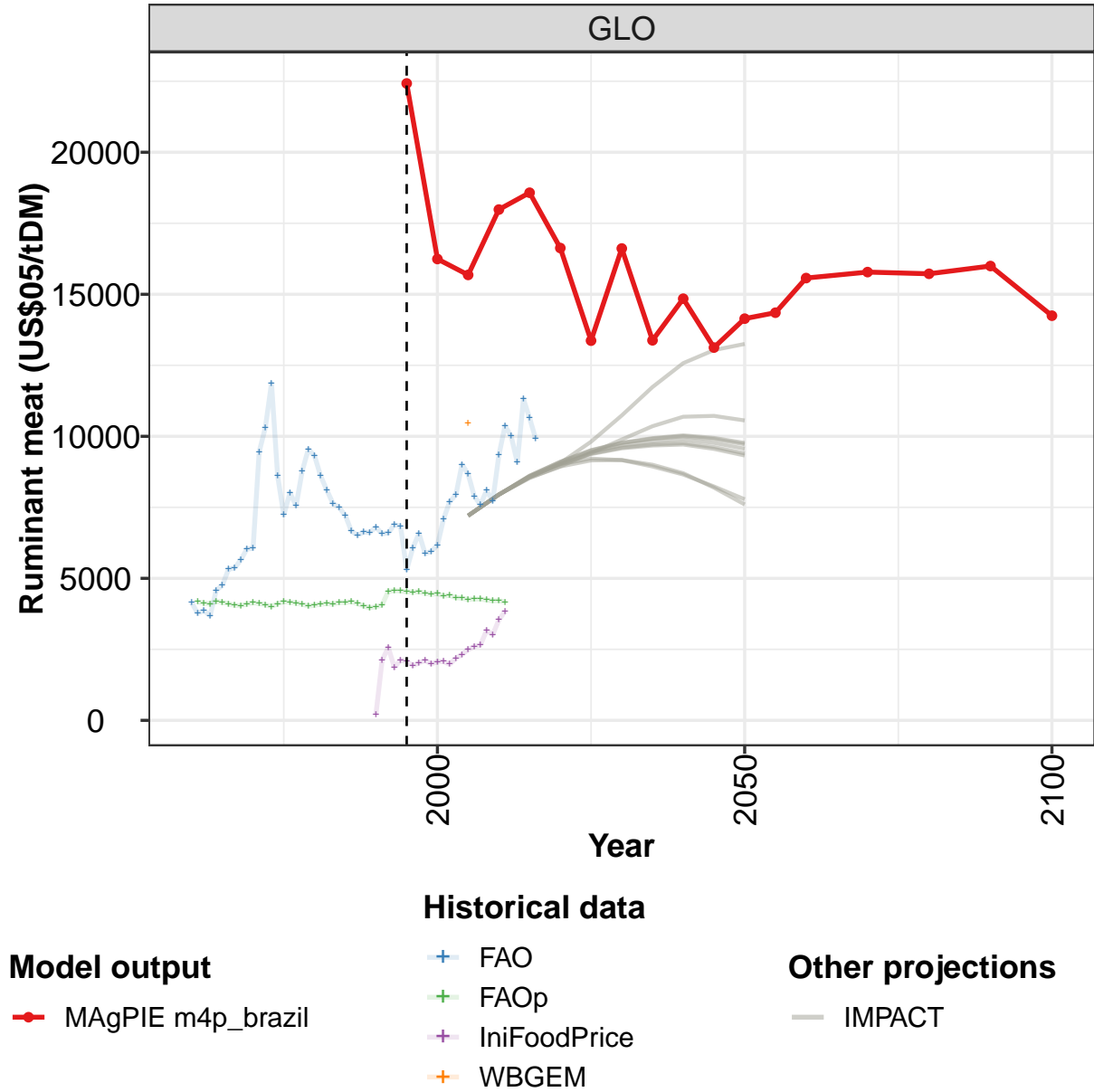
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	203	200	228	296	296	316	326	376	271	284	369
BRA	143	153	219	250	234	240	295	410	390	408	384
CHA	173	160	236	358	366	377	259	317	324	338	460
EUR	256	266	313	320	317	455	504	746	639	572	590
LAM	206	184	188	240	242	238	336	451	368	397	419
ROW	220	223	226	273	271	294	355	395	235	251	327
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1190: IniFoodPrice — Prices—Agriculture—Rice (US\$05/tDM)

36.27 Ruminant meat



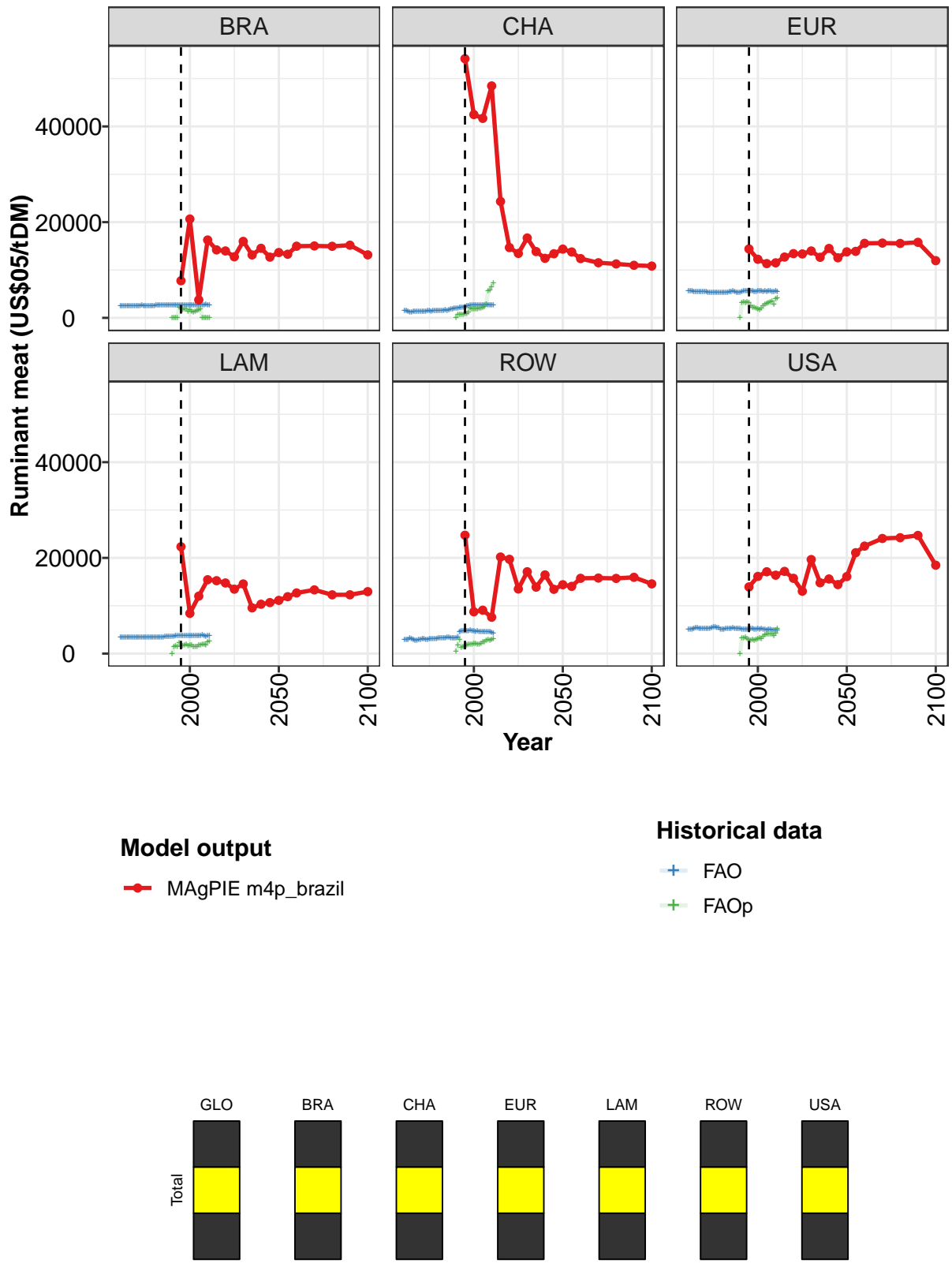


Figure 317: MAgPIE m4p_brazil — Prices—Agriculture—Ruminant meat (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	22424	16243	15682	17984	18576	16629	13368	16613	13379	14845	13124
BRA	7755	20654	3758	16267	14199	13984	12760	15984	13148	14535	12691
CHA	54149	42483	41686	48467	24324	14689	13465	16689	13853	12444	13396
EUR	14402	12242	11338	11500	12709	13422	13356	13978	12658	14505	12552
LAM	22334	8415	12016	15437	15237	14761	13465	14556	9558	10318	10662
ROW	24740	8740	9074	7601	20186	19711	13503	17105	13892	16443	13433
USA	13940	16130	17102	16388	17177	15738	13042	19653	14803	15596	14422

Table 1191: MAgPIE m4p_brazil — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	14143	14352	15572	15782	15722	15995	14247
BRA	13649	13296	14975	15028	14952	15182	13165
CHA	14368	13770	12384	11516	11269	10983	10824
EUR	13796	13893	15576	15629	15553	15784	11951
LAM	11123	11891	12678	13319	12287	12292	12943
ROW	14396	14052	15735	15790	15715	15946	14572
USA	16098	21085	22463	24061	24221	24698	18474

Table 1192: MAgPIE m4p_brazil — 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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
USA											

Table 1197: WBGEM — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	10644	9909
BRA		
CHA		
EUR		
LAM		
ROW		
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
BRA	2514	2492	2496	2507	2520	2485	2491	2517	2535	2527	2510
CHA	1581	1498	1319	1226	1219	1259	1281	1302	1341	1338	1326
EUR	5576	5573	5585	5445	5406	5498	5473	5424	5486	5536	5464
LAM	3389	3382	3361	3392	3411	3413	3401	3370	3365	3357	3414
ROW	2978	2928	2927	3203	3086	2839	2736	2780	2913	2988	3006
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
BRA	2560	2601	2553	2554	2564	2548	2551	2557	2559	2575	2591
CHA	1304	1366	1429	1481	1404	1423	1473	1456	1536	1537	1548
EUR	5283	5275	5324	5316	5321	5307	5250	5249	5303	5308	5296
LAM	3371	3374	3403	3412	3397	3389	3381	3390	3418	3425	3435
ROW	3046	2914	2973	3064	3053	3104	3136	3133	3192	3287	3310
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
BRA	2612	2652	2651	2650	2629	2647	2676	2675	2678	2695	2662
CHA	1575	1583	1548	1603	1757	1844	1945	1970	2067	2097	2226
EUR	5310	5442	5418	5549	5408	5300	5282	5358	5477	5619	5655
LAM	3454	3438	3422	3506	3537	3544	3515	3635	3656	3671	3679
ROW	3275	3309	3376	3340	3314	3266	3188	3200	3338	4645	4766
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
BRA	2660	2713	2725	2691	2637	2656	2639	2641	2646	2638	2659
CHA	2231	2343	2429	2570	2620	2616	2663	2650	2653	2679	2708
EUR	5659	5664	5623	5647	5507	5478	5631	5617	5620	5521	5591
LAM	3705	3701	3678	3710	3734	3692	3694	3722	3734	3734	3700
ROW	4793	4767	4769	4810	4817	4798	4771	4601	4666	4555	4581
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
BRA	2715	2733	2725	2724	2743	2727	2723
CHA	2705	2700	2749	2730	2727	2706	2703
EUR	5536	5555	5579	5511	5470	5550	5527
LAM	3704	3774	3856	3672	3643	3751	3772
ROW	4547	4515	4502	4517	4508	4458	4297
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
BRA	0	0	0	0	2124	1983	1740	1769	1761	1351	1588
CHA	0	629	640	703	639	851	891	1116	1971	1748	1863
EUR	0	3195	3382	3122	3390	3220	2483	2219	2230	1983	1818
LAM	0	1356	1576	1497	2218	1669	1653	1784	1855	1659	1711
ROW	521	1775	2834	1281	1413	1627	1712	1965	1974	1911	2009
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
BRA	1358	1218	1354	1481	1713	1859	0	0	0	0	0
CHA	1834	1866	1952	1979	2122	2353	2835	5672	5837	6521	7271
EUR	1740	2001	2507	2802	2906	3101	3353	3404	2765	3979	4084
LAM	1707	1434	1483	1513	1733	1752	1918	1947	1805	2362	2579
ROW	2085	1882	1953	2116	2345	2481	2699	2837	2767	2996	3053
USA	3281	3060	3657	3944	4114	4004	4124	4085	3674	4228	5180

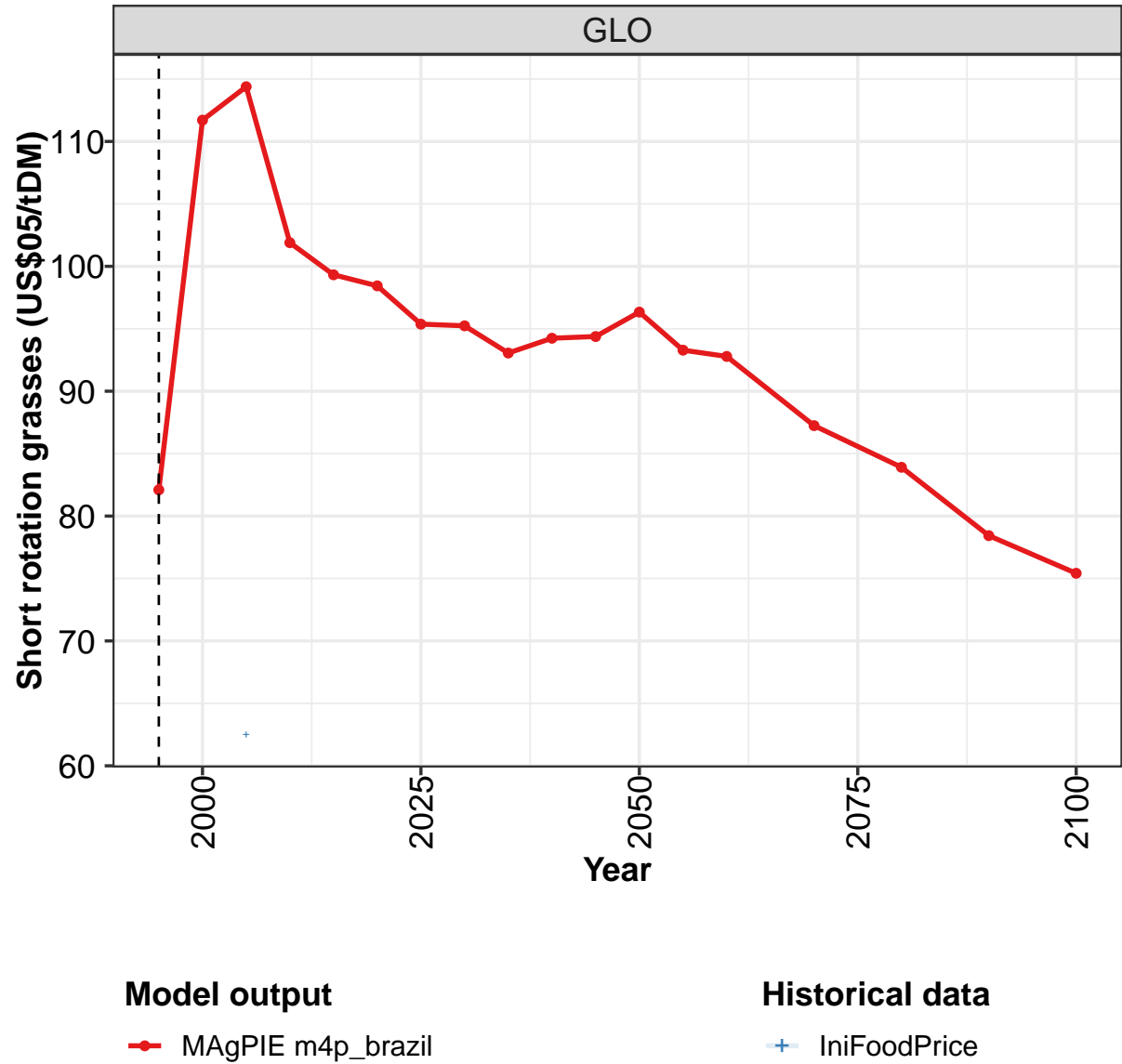
Table 1205: FAOp — Prices—Agriculture—Ruminant meat (US\$05/tDM) [PART 2/3]

	2005
GLO	10464
BRA	
CHA	
EUR	
LAM	
ROW	
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?



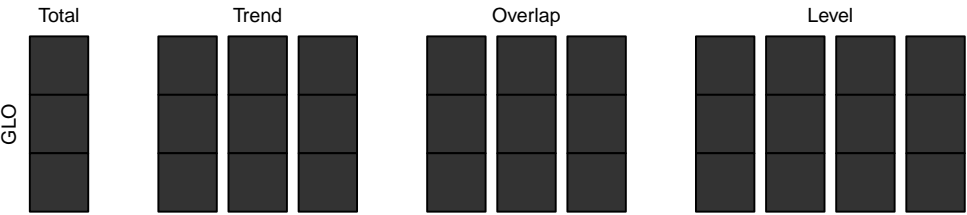


Figure 318: MAgPIE m4p_brazil — Prices—Agriculture—Short rotation grasses (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	82	112	114	102	99	98	95	95	93	94	94

Table 1207: MAgPIE m4p_brazil — Prices—Agriculture—Short rotation grasses (US\$05/tDM) [PART 1/2]

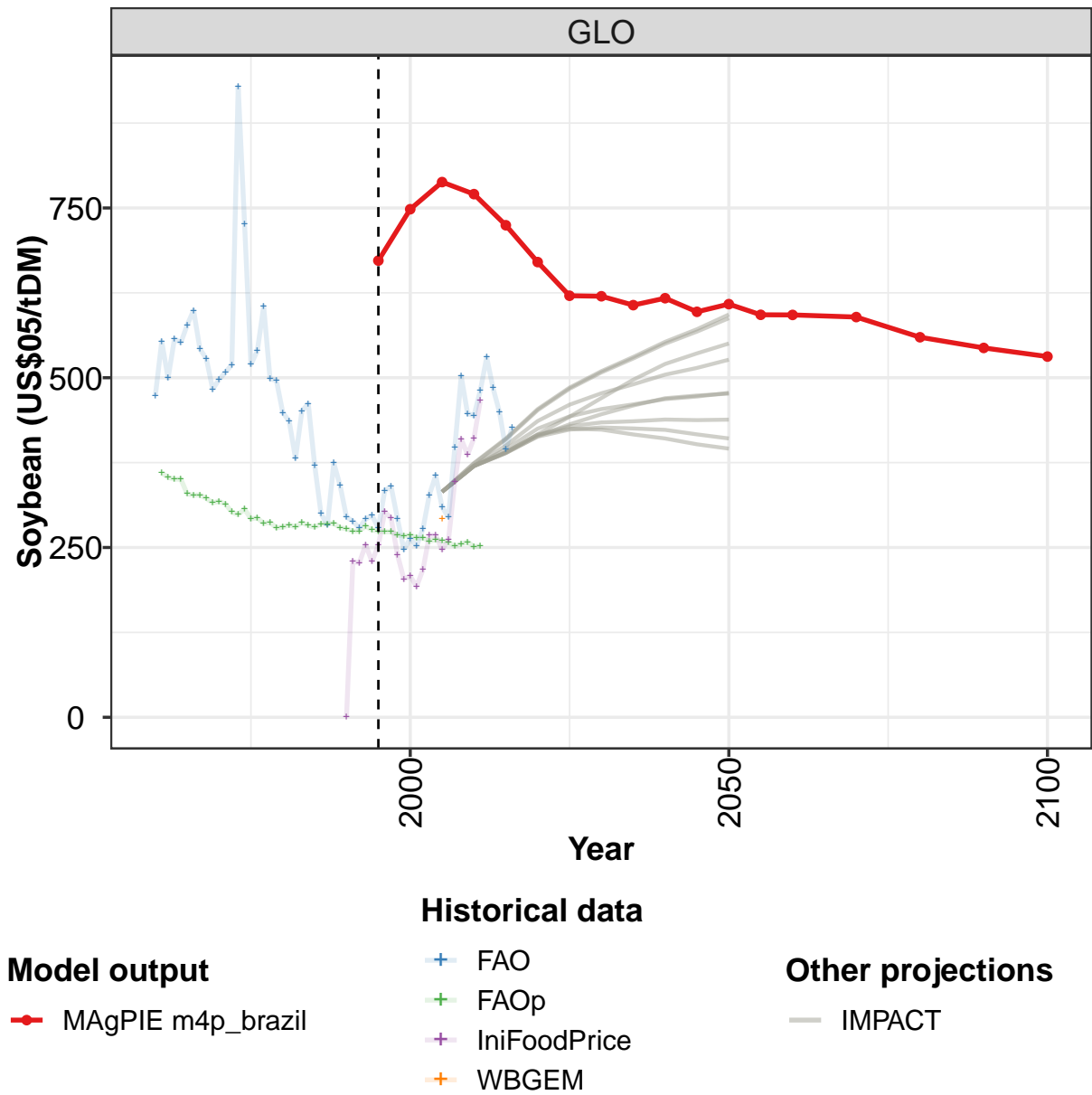
	2050	2055	2060	2070	2080	2090	2100
GLO	96	93	93	87	84	78	75

Table 1208: MAgPIE m4p_brazil — 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



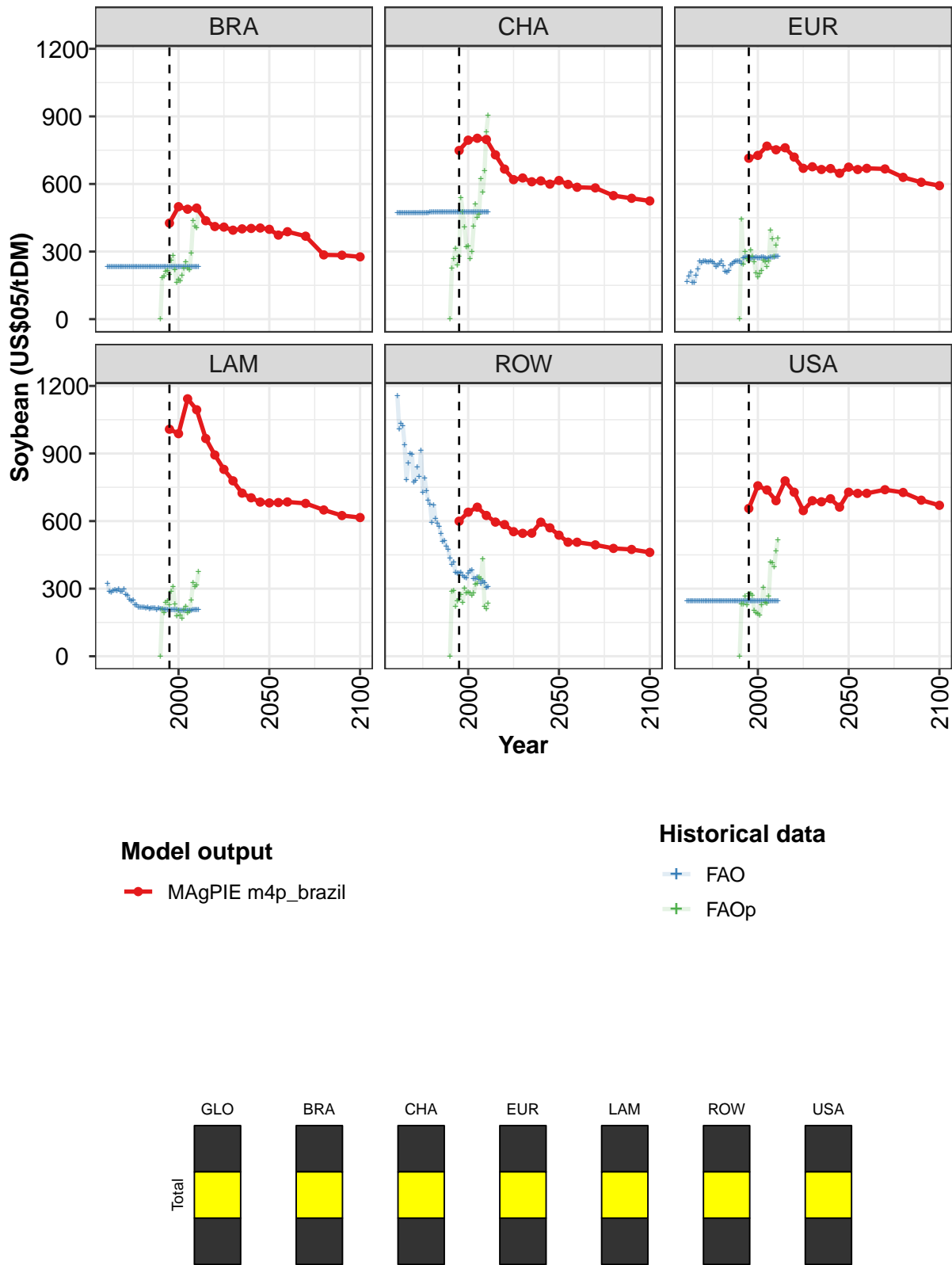


Figure 319: MAGPIE m4p_brazil — Prices—Agriculture—Soybean (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	673	748	788	770	725	670	621	620	607	617	597
BRA	426	499	488	493	437	411	409	395	401	403	405
CHA	749	794	803	797	729	666	619	627	610	614	599
EUR	714	727	768	752	761	719	670	676	664	668	647
LAM	1008	988	1143	1094	967	893	829	779	724	703	684
ROW	600	640	662	625	596	584	553	546	546	595	570
USA	656	757	738	691	779	728	647	691	686	699	662

Table 1210: MAgPIE m4p_brazil — Prices—Agriculture—Soybean (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	608	593	593	589	560	544	531
BRA	399	373	388	368	285	284	277
CHA	615	598	585	583	548	536	525
EUR	675	664	669	667	629	608	592
LAM	681	682	685	679	649	625	616
ROW	537	506	506	495	479	474	461
USA	728	723	723	739	727	693	670

Table 1211: MAgPIE m4p_brazil — 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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
USA											

Table 1216: WBGEM — Prices—Agriculture—Soybean (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	395	427
BRA		
CHA		
EUR		
LAM		
ROW		
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
BRA	232	232	232	232	232	232	232	232	232	232	232
CHA	472	472	472	472	471	472	471	471	472	472	472
EUR	167	191	206	163	163	193	222	256	251	258	256
LAM	321	286	284	291	295	289	298	288	286	297	274
ROW	1155	1009	1032	1021	937	784	856	898	896	774	781
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
BRA	232	232	232	232	232	232	232	232	232	232	232
CHA	471	472	471	472	472	472	473	474	474	475	475
EUR	254	253	257	253	245	231	238	245	257	236	211
LAM	268	253	244	250	229	226	218	218	216	216	215
ROW	841	797	913	728	791	732	691	675	595	670	611
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
BRA	232	232	232	232	232	232	232	232	232	232	232
CHA	475	475	475	475	475	475	475	475	475	475	475
EUR	206	215	239	247	253	255	255	258	247	271	276
LAM	216	211	213	213	213	208	215	210	210	208	208
ROW	589	575	543	507	512	486	474	433	408	419	371
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
BRA	232	232	232	232	232	232	232	232	232	232	232
CHA	475	475	475	476	476	476	476	476	476	476	476
EUR	276	276	272	270	271	273	271	273	276	276	270
LAM	208	206	205	206	205	205	204	205	204	205	205
ROW	369	370	371	357	350	348	367	378	381	343	342
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
BRA	232	232	232	232	232	232	232
CHA	476	476	476	476	476	476	476
EUR	268	273	274	276	275	277	279
LAM	204	204	205	205	205	206	207
ROW	351	338	323	334	326	305	310
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
BRA	0	183	191	211	215	199	261	280	218	163	176
CHA	0	226	268	315	238	278	539	475	408	320	324
EUR	0	444	244	298	268	257	307	278	253	203	187
LAM	0	205	193	239	245	229	287	307	232	180	201
ROW	0	289	292	221	245	251	274	240	303	279	285
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
BRA	169	193	226	255	225	217	294	438	413	405	480
CHA	268	301	411	510	452	465	622	564	656	832	905
EUR	201	214	261	253	232	258	394	355	277	326	360
LAM	181	168	205	222	192	199	249	326	309	316	375
ROW	280	271	280	318	321	352	343	432	222	211	234
USA	181	229	304	238	234	266	418	412	396	467	517

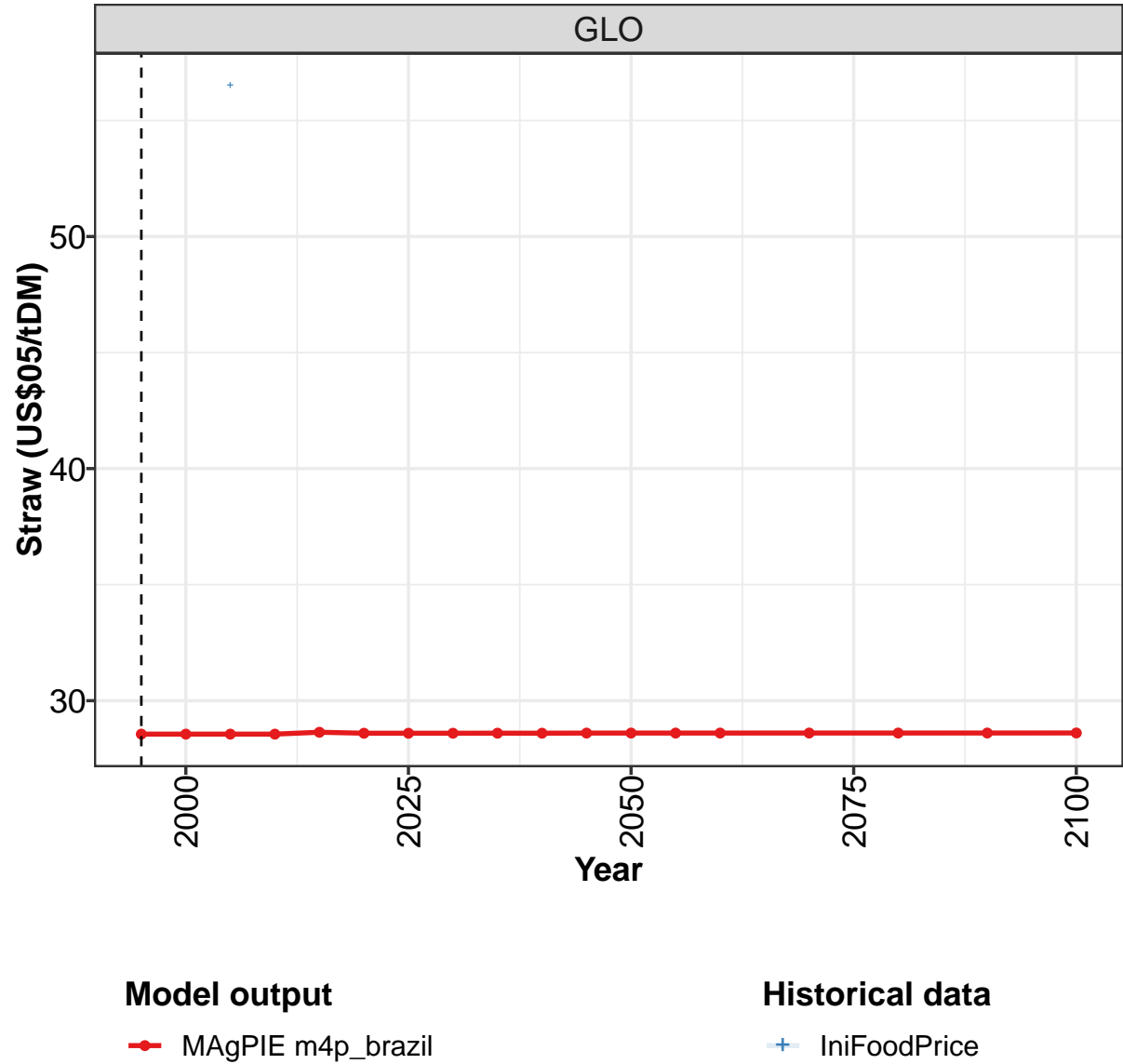
Table 1224: FAOp — Prices—Agriculture—Soybean (US\$05/tDM) [PART 2/3]

	2005
GLO	293
BRA	
CHA	
EUR	
LAM	
ROW	
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?



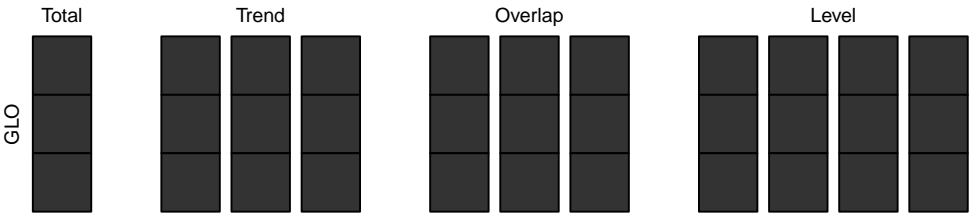


Figure 320: MAgPIE m4p_brazil — Prices—Agriculture—Straw (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6

Table 1226: MAgPIE m4p_brazil — Prices—Agriculture—Straw (US\$05/tDM) [PART 1/2]

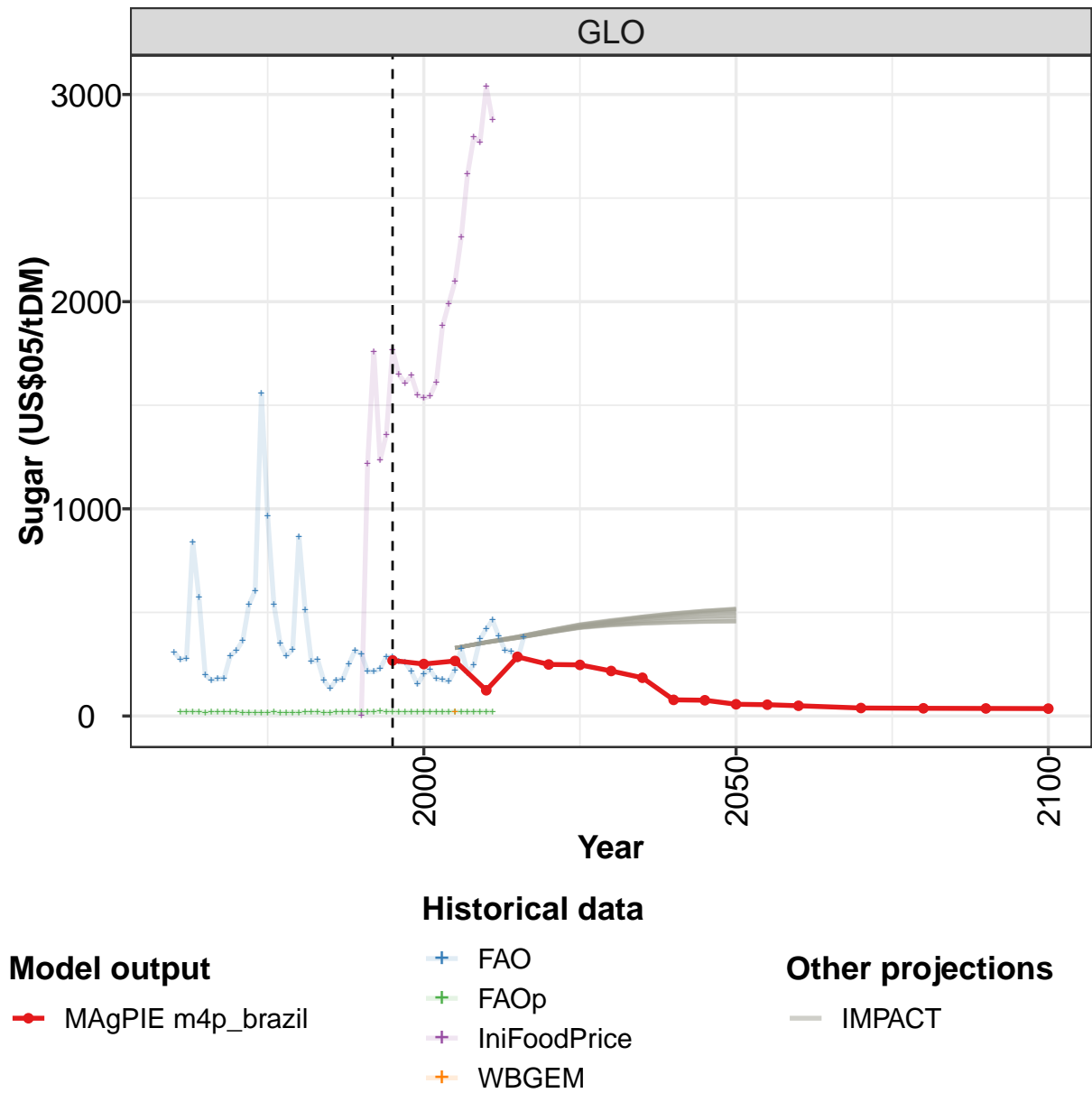
	2050	2055	2060	2070	2080	2090	2100
GLO	28.6	28.6	28.6	28.6	28.6	28.6	28.6

Table 1227: MAgPIE m4p_brazil — 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



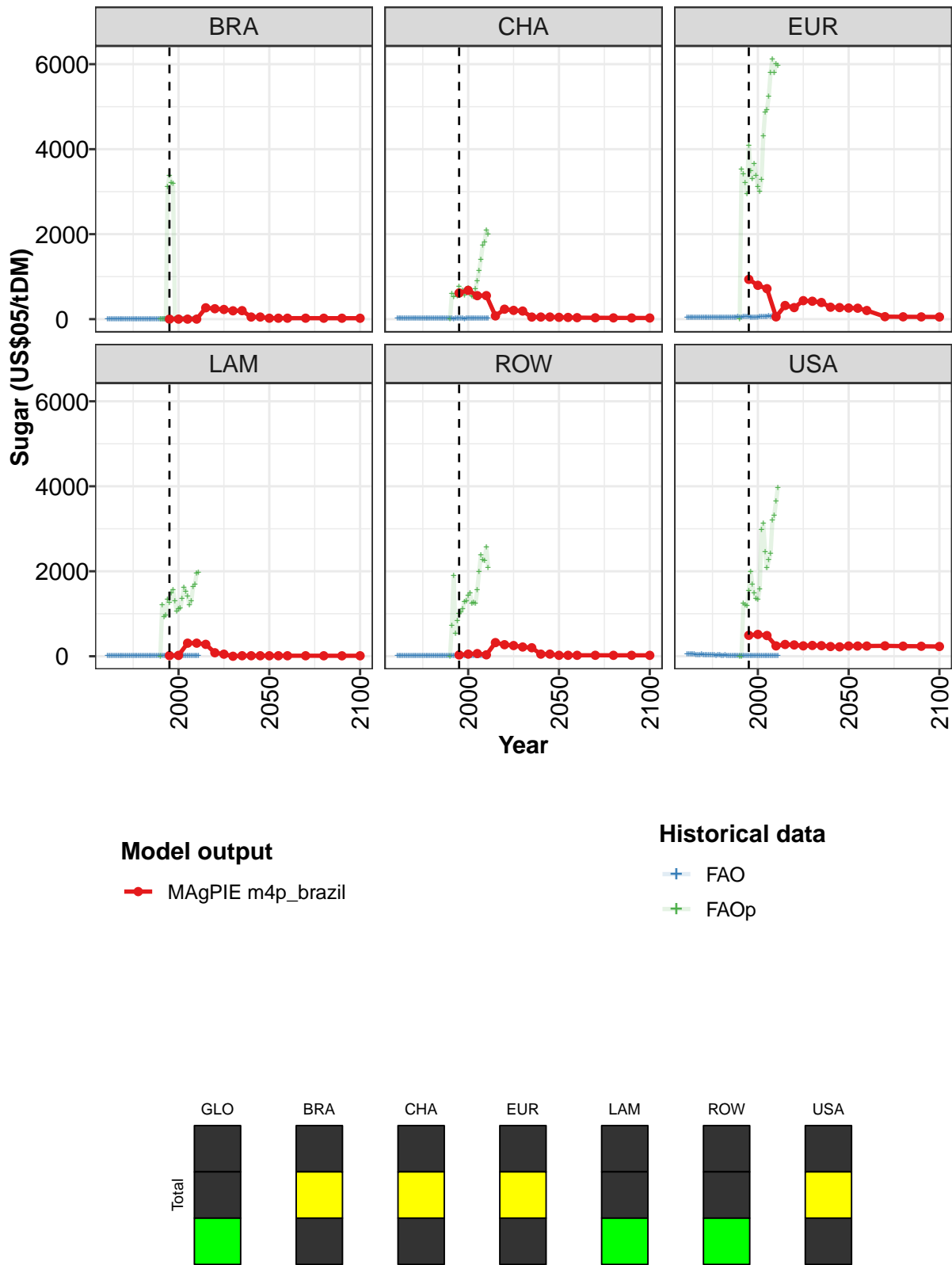


Figure 321: MAgPIE m4p_brazil — Prices—Agriculture—Sugar (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	268	251	266	124	286	249	247	217	185	78	76
BRA	0	1	0	1	267	245	228	196	200	50	50
CHA	615	677	552	553	77	234	206	190	49	50	50
EUR	936	796	717	54	321	272	435	422	392	281	272
LAM	15	20	308	308	281	83	49	0	12	12	12
ROW	31	50	63	34	321	272	252	218	200	50	50
USA	493	514	487	244	278	266	245	254	250	229	222

Table 1229: MAgPIE m4p_brazil — Prices—Agriculture—Sugar (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	57	55	49	39	37	36	36
BRA	22	22	22	23	22	22	21
CHA	43	40	35	32	30	28	27
EUR	262	257	203	58	55	53	51
LAM	12	12	12	12	11	11	11
ROW	22	22	22	23	22	22	21
USA	242	241	240	245	238	235	229

Table 1230: MAgPIE m4p_brazil — 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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
USA											

Table 1235: WBGEM — Prices—Agriculture—Sugar (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	271	380
BRA		
CHA		
EUR		
LAM		
ROW		
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	18.2	20.5	21.3	19.4	17.3	18.0	18.5	18.8	18.4	18.4	17.4
BRA	4.0	4.2	4.1	3.8	3.1	3.5	3.1	3.1	2.8	2.3	2.1
CHA	19.1	24.1	21.1	15.0	11.7	12.2	14.4	14.7	18.5	18.1	18.3
EUR	31.6	36.2	38.9	37.4	37.4	37.4	40.3	44.0	37.1	46.5	38.0
LAM	8.0	10.0	9.9	10.7	9.7	10.3	8.9	10.0	9.6	8.5	8.7
ROW	11.4	13.7	12.7	10.8	10.4	10.9	11.6	11.0	10.5	10.6	11.2
USA	57.6	54.7	51.8	46.7	41.0	39.7	35.1	28.5	42.6	35.2	28.5

Table 1237: FAO — Prices—Agriculture—Sugar (US\$05/tDM) [PART 1/5]

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
GLO	17.3	17.4	17.0	16.2	18.8	14.9	16.1	17.2	17.3	17.7	17.7
BRA	1.9	1.3	1.1	1.8	1.5	1.2	1.6	2.0	1.4	1.5	1.3
CHA	18.6	14.7	13.2	15.2	13.8	12.0	11.9	15.6	16.6	13.9	14.0
EUR	34.5	35.2	39.5	34.4	48.4	31.7	31.5	34.0	34.8	33.0	41.3
LAM	11.1	10.9	11.2	10.6	10.9	10.4	11.3	11.4	12.8	13.2	10.1
ROW	11.4	11.5	11.1	10.7	10.4	9.7	11.2	11.6	12.3	13.8	11.1
USA	28.6	32.6	25.8	22.8	23.0	21.8	27.7	27.9	21.7	18.7	22.6

Table 1238: FAO — Prices—Agriculture—Sugar (US\$05/tDM) [PART 2/5]

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
GLO	18.4	16.9	16.3	18.8	18.5	18.6	18.9	17.9	18.4	20.4	21.9
BRA	1.4	2.2	3.0	3.3	3.2	3.5	4.0	3.9	3.9	3.7	3.6
CHA	15.9	14.1	13.1	14.1	19.5	16.7	15.4	13.8	12.3	10.6	13.0
EUR	46.2	41.3	37.4	44.5	43.4	47.0	51.6	44.8	48.5	50.4	53.0
LAM	12.6	9.8	10.1	13.1	12.4	12.3	12.1	12.9	13.3	13.5	14.7
ROW	11.4	11.7	12.5	12.8	12.6	12.0	10.8	10.9	11.5	15.9	16.9
USA	19.6	14.6	12.5	15.8	16.7	15.7	13.1	13.9	14.9	14.4	14.6

Table 1239: FAO — Prices—Agriculture—Sugar (US\$05/tDM) [PART 3/5]

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	21.1	21.8	18.7	18.5	19.2	19.4	19.7	20.3	19.0	19.0	19.8
BRA	2.7	2.6	2.8	2.4	1.9	1.9	2.5	2.1	2.0	2.2	2.3
CHA	14.3	12.8	12.6	12.5	11.1	15.6	18.4	14.3	12.2	14.0	15.6
EUR	51.6	62.6	44.2	43.4	48.4	48.5	47.3	56.3	51.0	61.0	57.9
LAM	14.4	13.1	11.4	12.6	12.8	14.9	14.0	13.3	13.4	13.3	13.1
ROW	17.7	16.2	16.2	16.3	17.2	16.9	16.9	18.4	17.2	15.3	17.0
USA	13.2	12.8	11.8	10.9	11.8	10.8	11.6	10.2	9.2	9.6	10.0

Table 1240: FAO — Prices—Agriculture—Sugar (US\$05/tDM) [PART 4/5]

	2005	2006	2007	2008	2009	2010	2011
GLO	21.3	20.9	19.0	19.7	21.0	20.6	19.6
BRA	2.3	2.2	2.2	2.3	2.2	1.9	2.2
CHA	16.0	13.7	11.9	15.4	17.6	17.6	17.2
EUR	58.6	71.2	63.6	69.8	63.7	70.5	68.3
LAM	15.0	15.5	14.1	13.2	12.7	13.8	14.4
ROW	20.5	19.1	17.5	17.7	21.3	20.3	16.2
USA	8.9	8.0	7.8	8.5	7.9	9.1	7.8

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
BRA	0	0	0	0	3108	3371	3200	3197	0	0	0
CHA	0	599	532	596	544	763	608	675	567	715	729
EUR	0	3523	3418	3213	2952	4090	3488	3307	3648	3378	3120
LAM	0	1207	928	963	1340	1253	1490	1564	1295	1064	1116
ROW	0	722	1886	531	837	998	1047	1113	1285	1299	1433
USA	0	0	1237	1212	1187	1540	1997	1691	1484	1349	1342

Table 1242: FAOp — Prices—Agriculture—Sugar (US\$05/tDM) [PART 1/3]

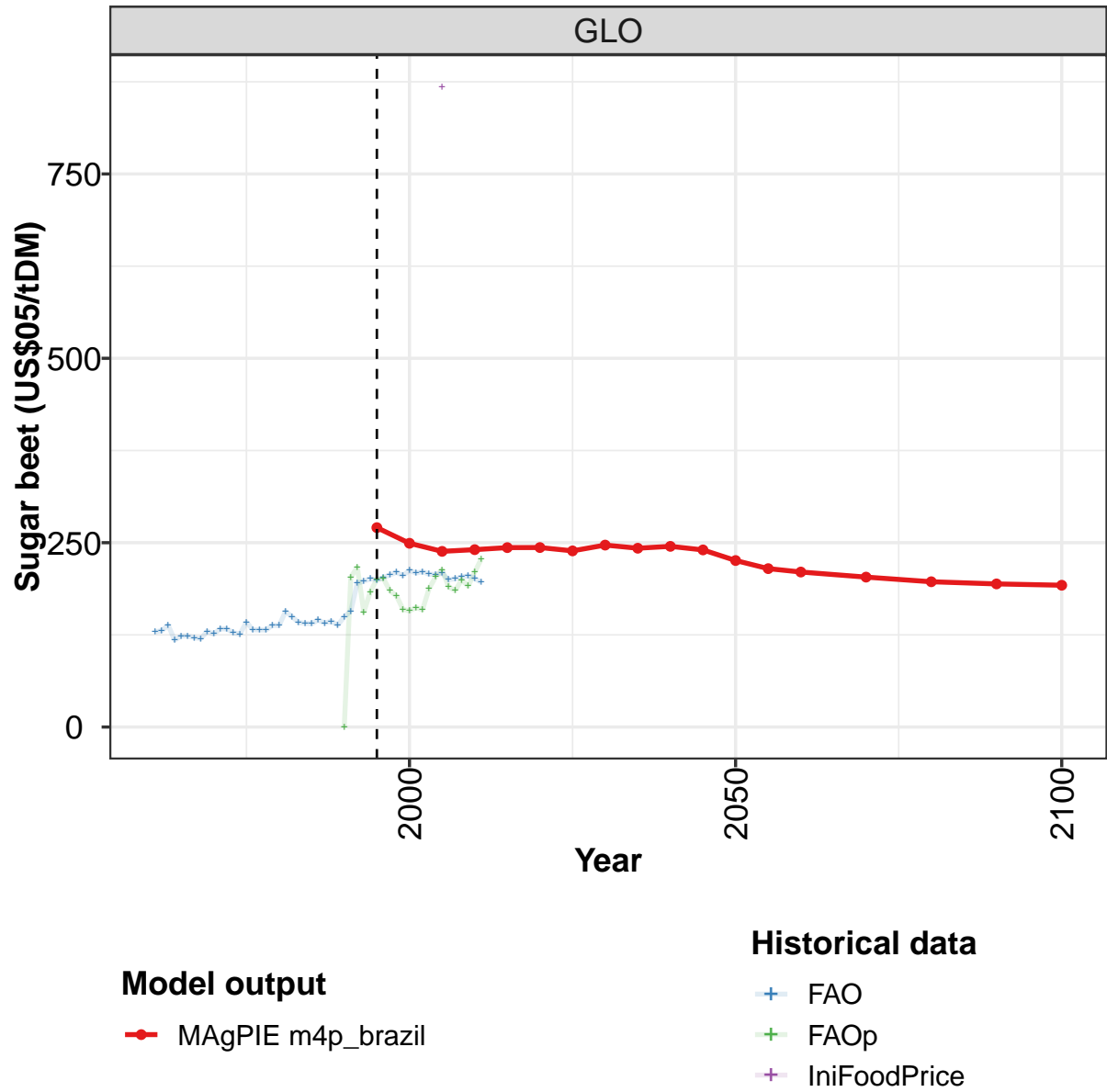
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	1544	1611	1884	1991	2097	2312	2615	2793	2770	3038	2875
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	608	543	520	711	905	1132	1401	1745	1813	2097	1998
EUR	2999	3281	4317	4872	4927	5239	5798	6123	5795	6003	5968
LAM	1127	1363	1621	1524	1410	1212	1292	1630	1697	1943	1964
ROW	1492	1235	1269	1239	1565	1981	2376	2270	2245	2566	2084
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1244: IniFoodPrice — Prices—Agriculture—Sugar (US\$05/tDM)

36.32 Sugar beet



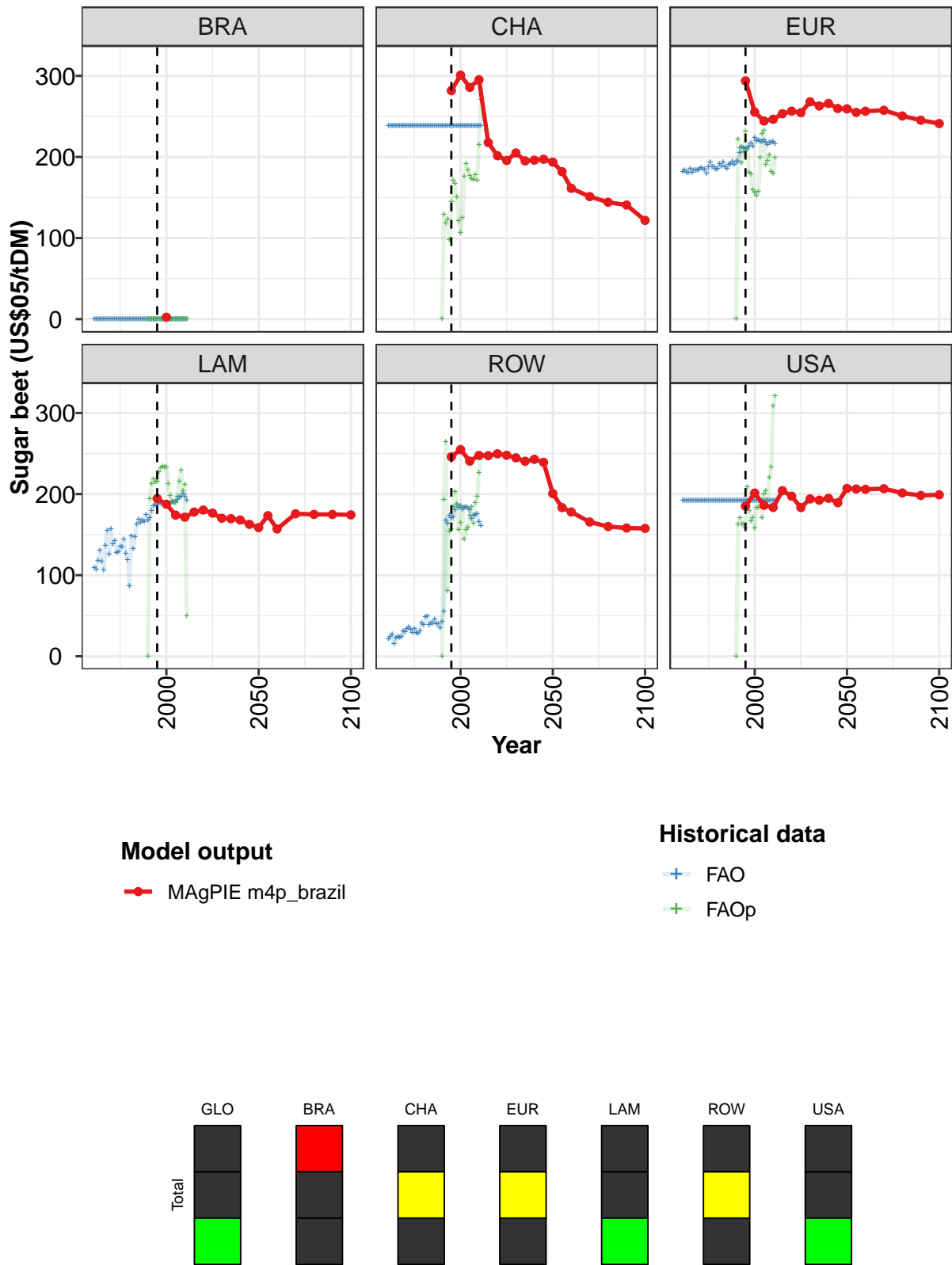


Figure 322: MAgPIE m4p_brazil — Prices—Agriculture—Sugar beet (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	270	249	238	241	243	243	239	247	242	245	240
BRA	2										
CHA	282	301	286	295	218	202	196	205	195	196	197
EUR	294	255	244	246	253	257	255	268	263	266	260
LAM	194	187	174	172	178	180	177	170	170	168	163
ROW	246	255	241	248	247	250	248	245	240	243	239
USA	185	201	186	184	204	197	183	194	192	195	189

Table 1245: MAgPIE m4p_brazil — Prices—Agriculture—Sugar beet (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	226	215	210	203	197	194	192
BRA							
CHA	194	182	161	151	144	141	122
EUR	259	255	256	258	251	245	241
LAM	159	173	157	176	175	175	174
ROW	201	183	178	166	160	158	158
USA	207	206	206	207	201	198	199

Table 1246: MAgPIE m4p_brazil — 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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	239	239	239	239	239	239	239	239	239	239	239
EUR	181	184	181	181	186	181	184	183	184	185	187
LAM	109	107	118	131	117	106	136	155	126	157	138
ROW	21	25	27	15	22	24	23	24	31	30	34
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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	239	239	239	239	239	239	239	239	239	239	239
EUR	185	185	180	188	194	188	188	184	186	191	188
LAM	143	128	129	135	134	144	127	119	87	148	132
ROW	36	33	29	34	29	28	31	40	39	48	49
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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	239	239	239	239	239	239	239	239	239	239	239
EUR	193	188	185	190	192	195	190	194	194	205	212
LAM	148	163	169	165	167	166	174	168	171	179	185
ROW	38	40	41	45	40	40	35	43	56	168	164
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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	239	239	239	239	239	239	239	239	239	239	239
EUR	211	210	211	213	217	213	224	220	221	219	219
LAM	187	188	189	188	188	188	188	188	188	190	190
ROW	174	171	172	181	188	183	185	181	183	184	182
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
BRA	0	0	0	0	0	0	0
CHA	239	239	239	239	239	239	239
EUR	221	218	215	218	218	218	216
LAM	191	193	196	197	201	197	193
ROW	180	170	174	174	175	165	161
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
BRA	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	222	211	193	206	231	209	181	179	159	156
LAM	0	194	213	219	215	215	227	232	234	233	233
ROW	0	194	264	80	154	157	184	203	187	156	165
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]

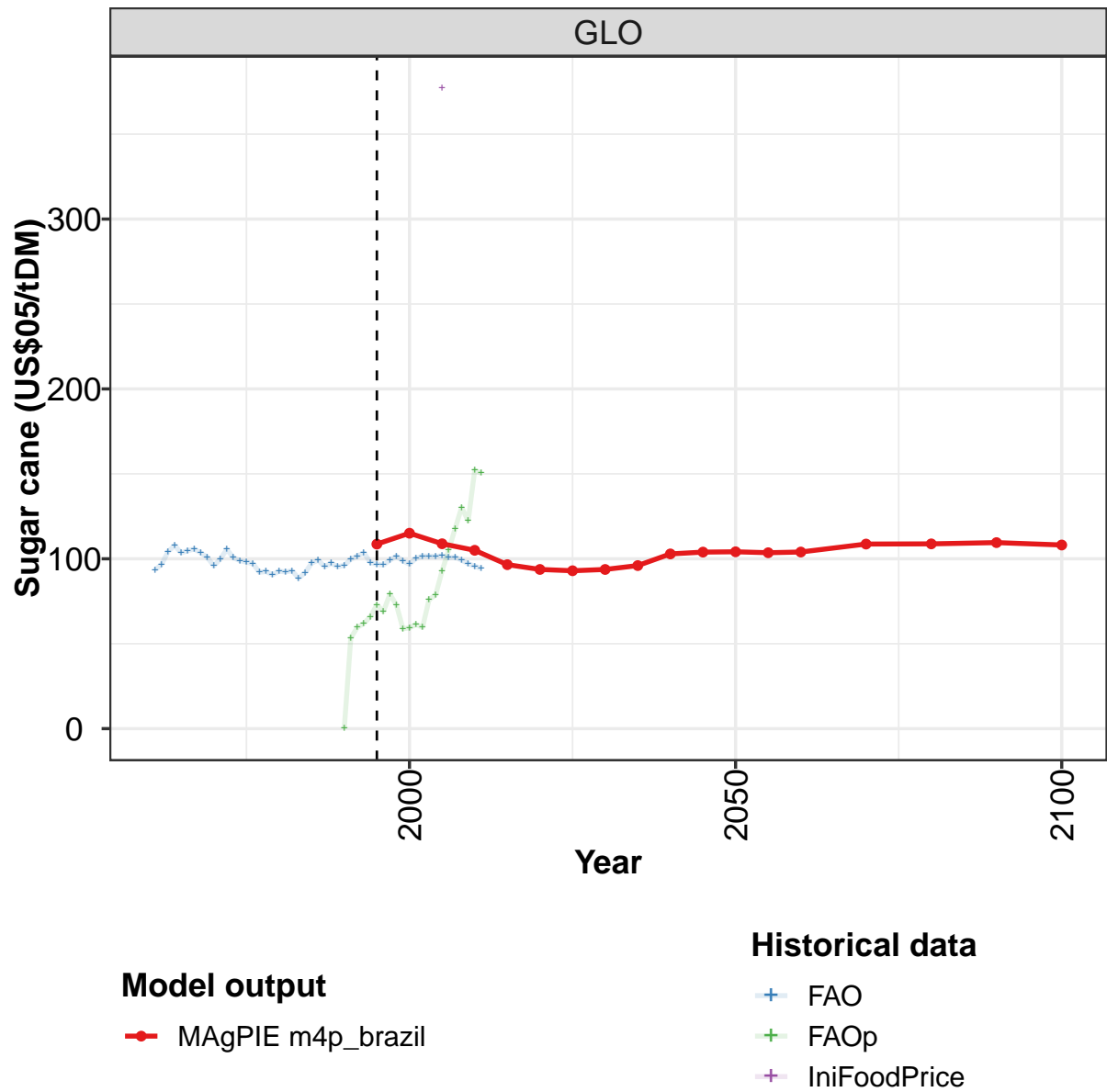
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	162	159	188	203	213	190	185	200	191	210	228
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	125	176	192	183	177	173	172	178	171	215	271
EUR	152	157	199	229	233	191	195	202	181	179	200
LAM	213	198	191	190	189	197	216	230	204	212	50
ROW	183	144	156	159	174	184	164	189	197	226	245
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1254: IniFoodPrice — Prices—Agriculture—Sugar beet (US\$05/tDM)

36.33
Sugar cane



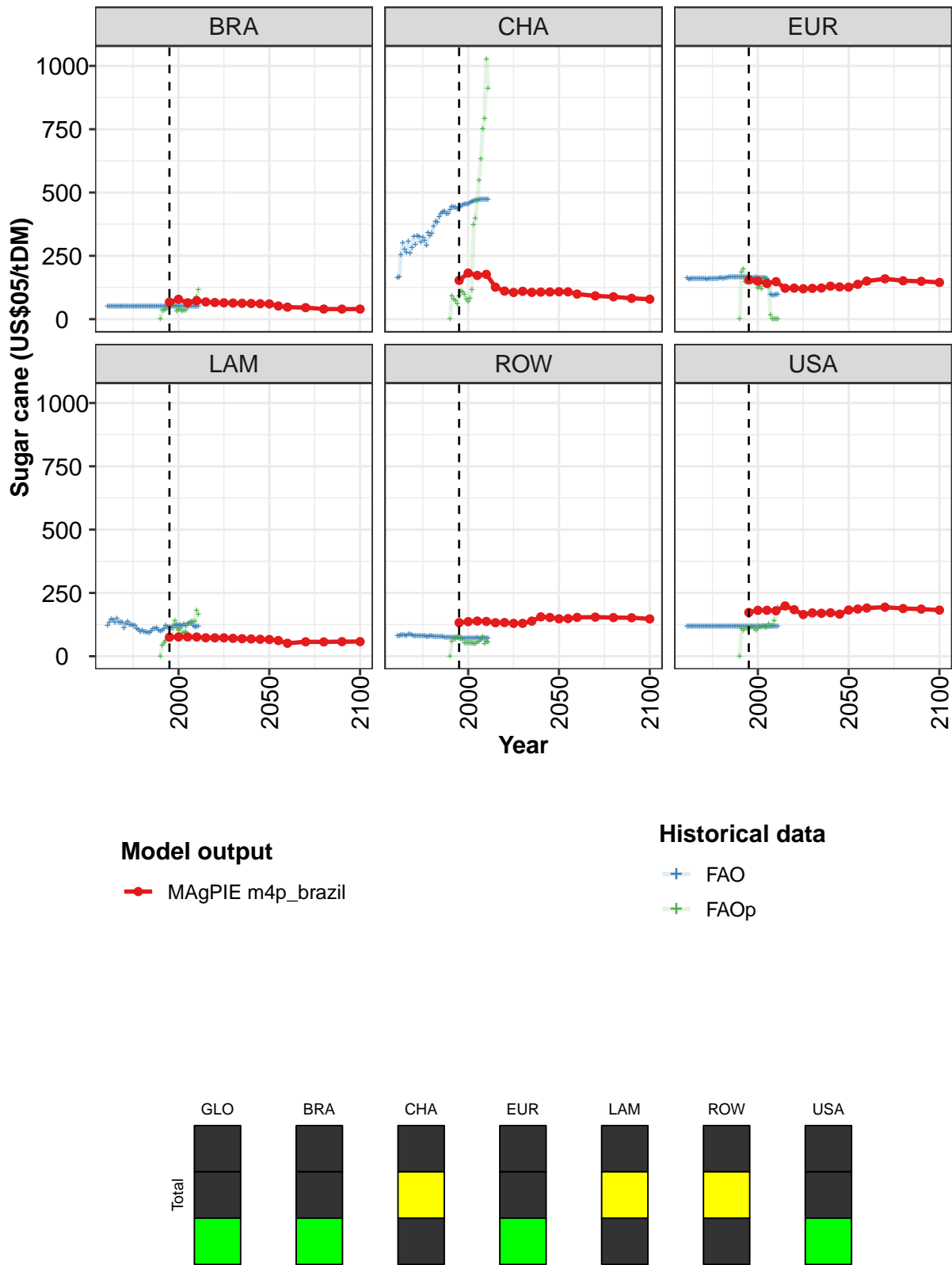


Figure 323: MAgPIE m4p_brazil — Prices—Agriculture—Sugar cane (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	109	115	109	105	97	94	93	94	96	103	104
BRA	67	78	65	72	68	66	64	64	63	62	61
CHA	153	182	173	177	126	111	105	110	106	107	107
EUR	155	150	141	148	122	123	120	122	123	130	127
LAM	75	76	76	76	73	73	73	71	69	68	67
ROW	133	137	139	137	132	133	130	130	139	156	153
USA	173	181	182	180	199	184	165	171	170	172	166

Table 1255: MAgPIE m4p_brazil — Prices—Agriculture—Sugar cane (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	104	104	104	109	109	110	108
BRA	60	52	47	45	40	40	40
CHA	108	108	99	92	88	82	79
EUR	126	137	150	159	152	149	145
LAM	66	62	51	57	57	58	58
ROW	148	149	153	155	153	152	147
USA	183	186	190	194	188	186	182

Table 1256: MAgPIE m4p_brazil — 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
BRA	50	50	50	50	50	50	50	50	50	50	50
CHA	163	166	255	302	275	263	306	260	281	325	293
EUR	162	157	158	158	160	159	159	159	160	159	160
LAM	121	135	145	142	133	148	134	135	133	110	129
ROW	80	81	82	85	82	81	86	85	82	80	80
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
BRA	50	50	50	50	50	50	50	50	50	50	50
CHA	328	326	305	322	309	290	341	328	339	367	385
EUR	158	161	158	160	160	159	160	162	163	161	163
LAM	137	124	126	120	121	110	106	97	102	95	96
ROW	81	81	79	79	80	78	78	79	80	78	77
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
BRA	50	50	50	50	50	50	50	50	50	50	50
CHA	383	404	417	423	426	416	417	432	444	440	442
EUR	164	165	165	165	165	165	165	166	165	165	165
LAM	94	92	99	107	107	112	104	98	101	107	120
ROW	76	77	77	76	74	75	75	74	73	73	74
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
BRA	50	50	50	50	50	50	50	50	50	50	50
CHA	436	442	446	452	455	455	455	461	464	466	469
EUR	165	164	162	163	164	165	164	164	164	164	163
LAM	114	114	113	111	121	124	121	125	118	127	121
ROW	73	71	72	72	72	71	71	72	71	71	72
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
BRA	50	50	50	50	50	50	50
CHA	470	472	472	472	473	472	472
EUR	161	150	99	94	93	97	98
LAM	127	129	129	121	116	119	118
ROW	73	72	71	70	71	71	70
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
BRA	0	35	36	38	46	52	55	58	54	31	38
CHA	0	92	80	74	61	91	109	108	98	78	69
EUR	0	186	198	147	148	169	163	146	146	144	124
LAM	0	42	53	63	73	71	69	121	141	112	102
ROW	0	60	69	69	73	80	69	69	53	51	52
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]

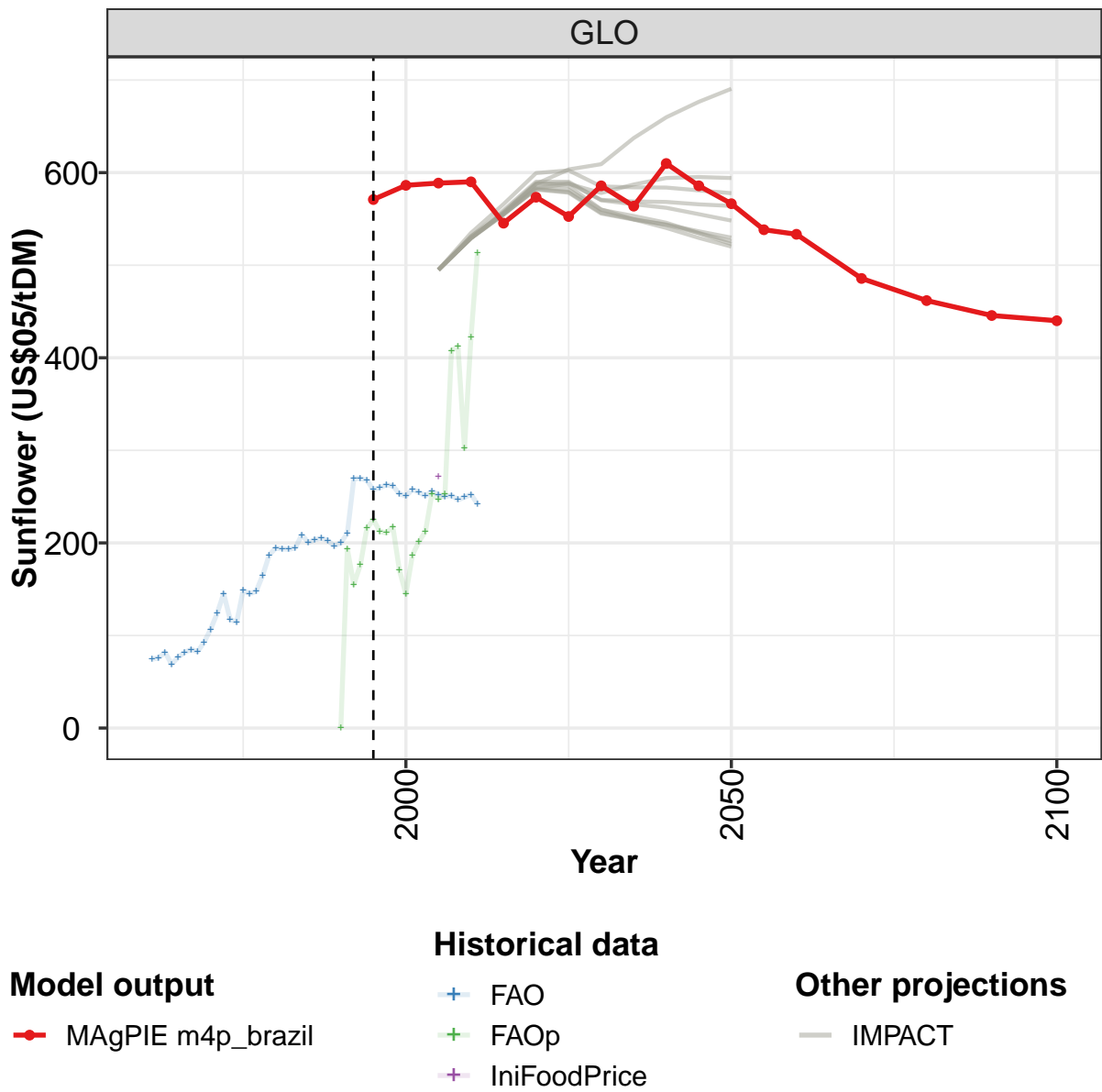
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	61	60	76	79	93	105	118	130	122	152	150
BRA	39	33	36	36	48	67	71	64	68	89	115
CHA	83	117	373	397	465	549	634	752	793	1027	912
EUR	130	119	160	156	152	130	17	0	0	0	0
LAM	109	90	92	97	127	129	137	137	137	181	165
ROW	51	53	50	50	55	57	65	79	50	58	57
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1264: IniFoodPrice — Prices—Agriculture—Sugar cane (US\$05/tDM)

36.34 Sunflower



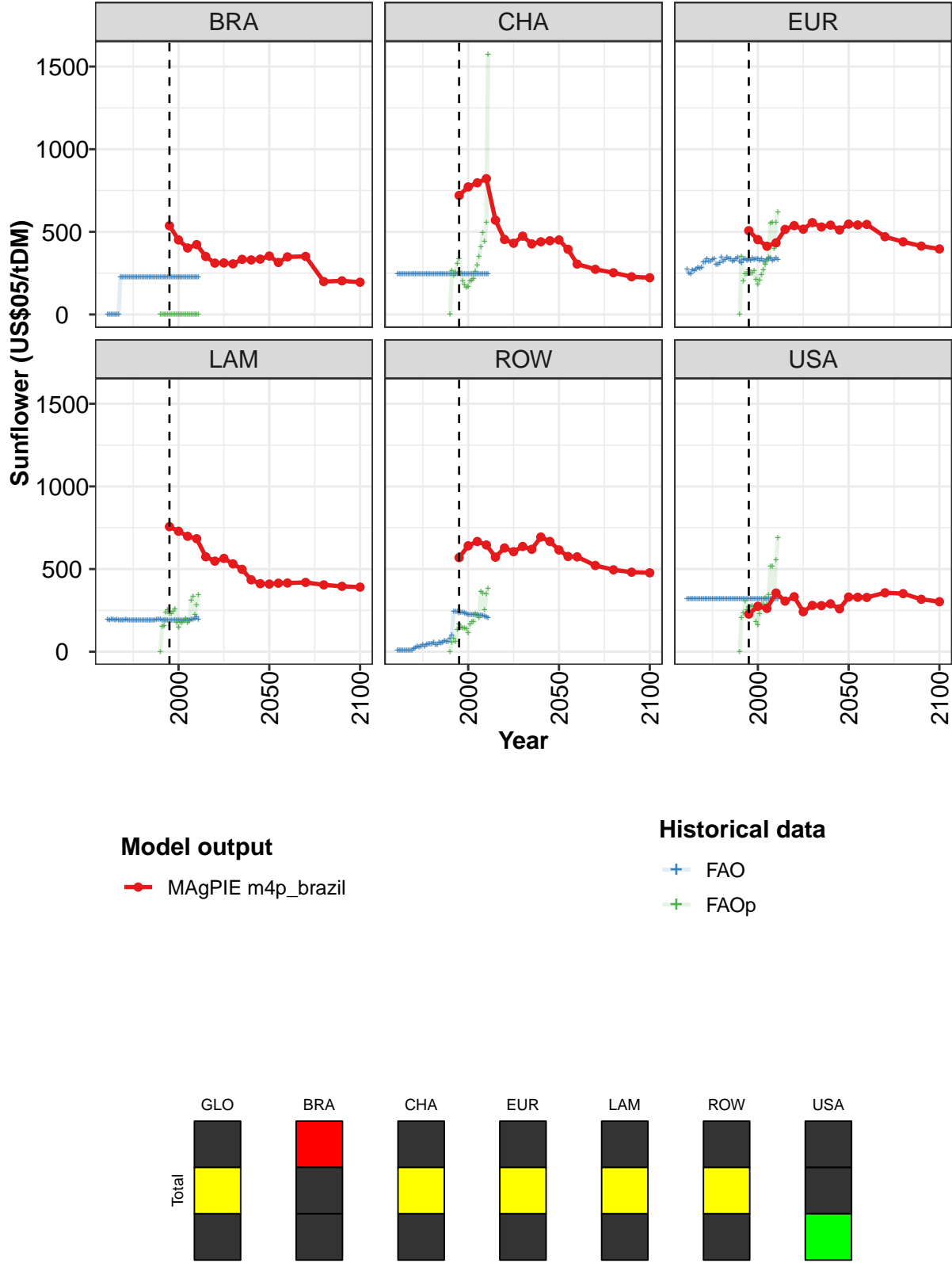


Figure 324: MAgPIE m4p_brazil — Prices—Agriculture—Sunflower (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	571	586	589	590	545	573	553	586	564	610	586
BRA	537	451	402	423	351	311	312	307	334	330	335
CHA	720	772	797	822	571	454	431	474	427	440	446
EUR	507	453	413	433	515	538	516	556	529	541	512
LAM	757	729	698	684	574	548	564	532	498	435	411
ROW	569	641	667	646	572	628	605	637	620	694	667
USA	228	275	262	355	306	333	242	280	279	290	259

Table 1265: MAgPIE m4p_brazil — Prices—Agriculture—Sunflower (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	566	538	533	486	462	446	440
BRA	354	315	349	351	199	203	195
CHA	451	394	305	273	253	228	222
EUR	547	541	545	470	440	414	396
LAM	409	414	416	419	404	395	391
ROW	616	576	574	522	495	481	477
USA	330	329	328	356	351	317	303

Table 1266: MAgPIE m4p_brazil — 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
BRA	0	0	0	0	0	0	0	226	228	227	227
CHA	245	245	245	245	245	245	245	245	245	245	245
EUR	274	250	247	268	265	273	285	277	283	316	317
LAM	193	192	195	195	192	194	191	191	191	190	194
ROW	9	7	10	6	7	7	7	7	10	17	24
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
BRA	227	227	227	228	226	226	228	227	227	227	227
CHA	245	245	245	245	245	245	245	245	245	245	245
EUR	338	322	322	332	336	301	300	310	347	321	329
LAM	192	191	190	191	191	191	191	191	190	190	190
ROW	34	28	31	40	34	41	45	44	47	57	42
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
BRA	227	227	227	227	227	227	227	227	227	227	227
CHA	245	245	245	245	245	245	245	245	245	245	245
EUR	346	336	336	323	328	336	343	321	311	332	334
LAM	189	189	190	190	191	194	197	196	191	191	191
ROW	44	58	52	57	64	62	61	81	100	243	242
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
BRA	228	226	227	227	227	227	227	227	227	227	227
CHA	245	245	245	245	245	245	245	245	245	245	245
EUR	325	333	324	339	333	334	337	328	336	323	323
LAM	190	190	191	190	191	190	190	191	191	191	191
ROW	243	235	239	237	235	230	224	224	225	222	225
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
BRA	227	227	227	227	227	227	227
CHA	245	245	245	245	245	245	245
EUR	332	334	343	327	332	340	331
LAM	191	191	197	197	202	210	197
ROW	223	218	221	218	213	208	207
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
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	0	262	234	255	306	334	250	200	177	162	170
EUR	0	353	203	243	247	270	251	248	264	212	183
LAM	0	151	159	237	251	230	231	243	260	175	148
ROW	0	56	80	60	131	167	145	142	142	139	112
USA	0	206	231	305	254	273	273	275	252	178	163

Table 1272: FAOp — Prices—Agriculture—Sunflower (US\$05/tDM) [PART 1/3]

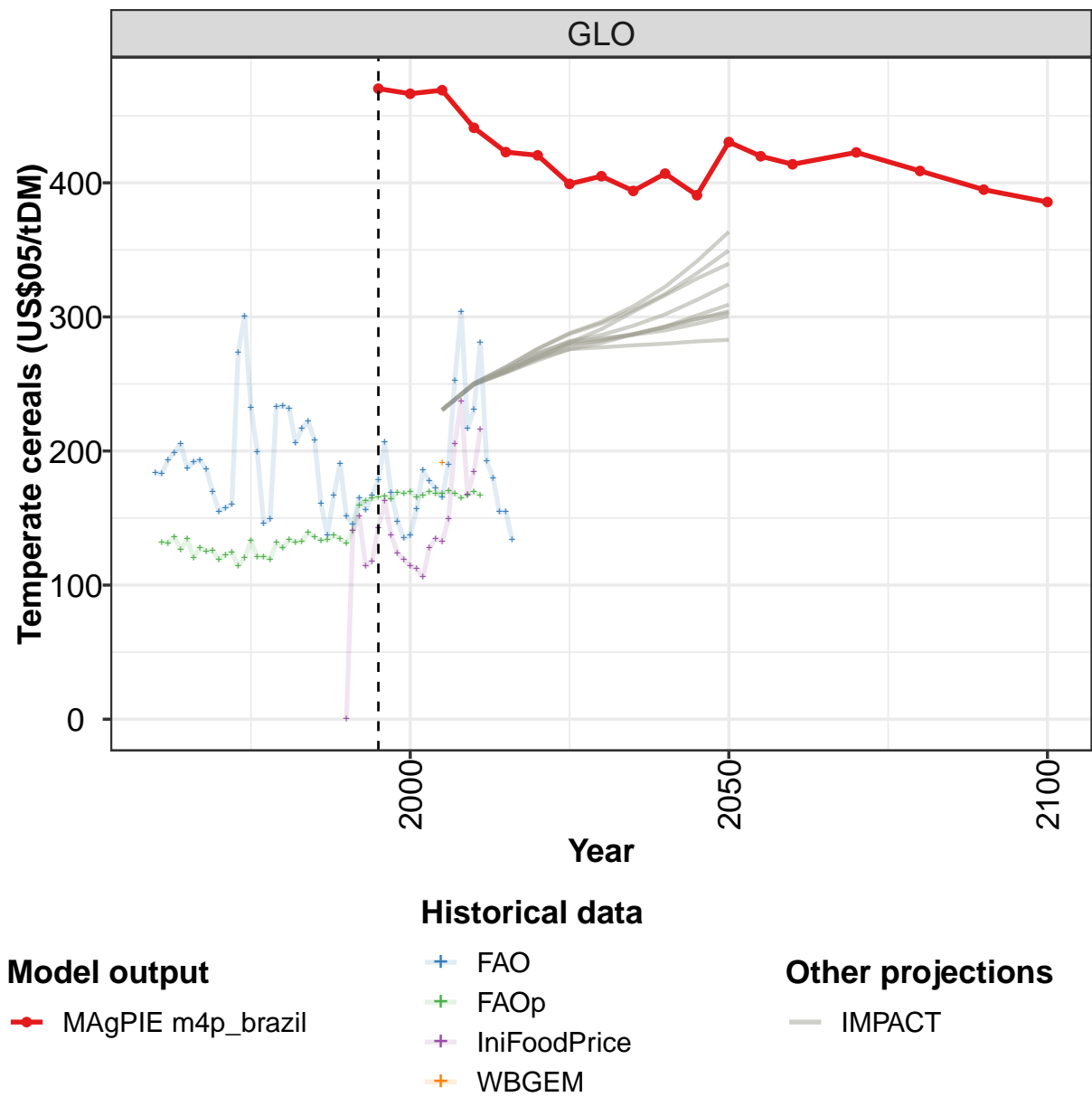
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	187	201	212	253	247	253	408	412	302	422	514
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	200	207	217	257	300	349	409	495	441	556	1575
EUR	208	241	269	303	322	346	553	556	397	558	621
LAM	179	174	185	199	174	185	310	333	226	282	343
ROW	165	179	181	229	220	207	365	355	252	346	384
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1274: IniFoodPrice — Prices—Agriculture—Sunflower (US\$05/tDM)

36.35 Temperate cereals



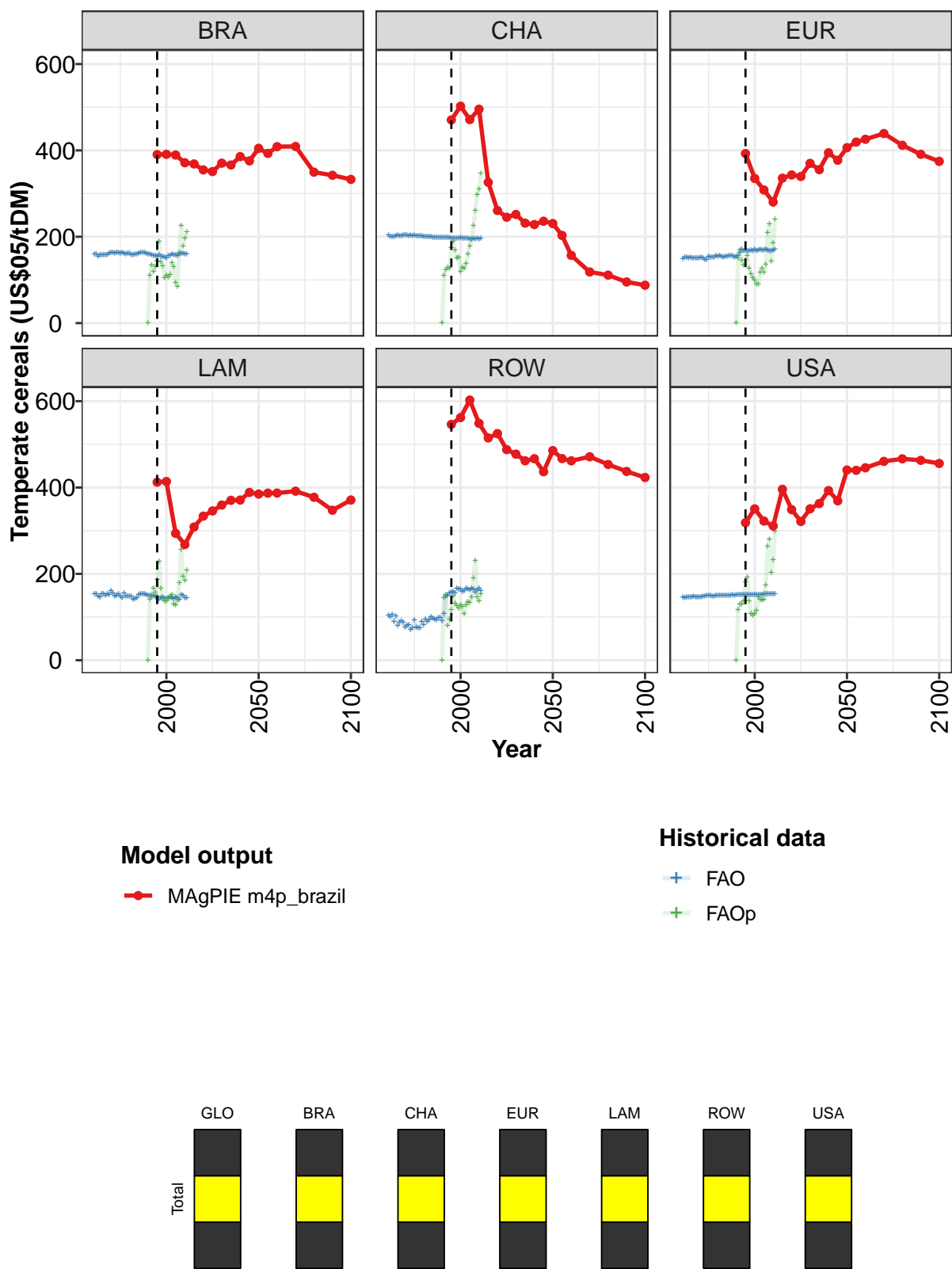


Figure 325: MAgPIE m4p_brazil — Prices—Agriculture—Temperate cereals (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	470	466	469	441	423	421	399	405	394	407	391
BRA	390	391	389	371	369	355	351	371	366	386	376
CHA	471	502	471	495	326	261	245	252	232	228	236
EUR	393	335	308	280	336	343	340	370	355	395	377
LAM	412	414	294	268	309	334	346	359	370	371	389
ROW	546	562	603	549	515	525	488	477	462	467	437
USA	319	351	322	311	396	349	321	351	363	393	369

Table 1275: MAgPIE m4p_brazil — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	430	420	414	423	409	395	386
BRA	405	393	409	409	350	342	333
CHA	231	203	157	118	111	95	88
EUR	406	419	426	439	412	391	375
LAM	385	387	387	392	377	347	371
ROW	486	467	462	471	453	437	423
USA	441	440	446	461	467	463	456

Table 1276: MAgPIE m4p_brazil — 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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
USA											

Table 1281: WBGEM — Prices—Agriculture—Temperate cereals (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	155	134
BRA		
CHA		
EUR		
LAM		
ROW		
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
BRA	159	160	155	159	158	158	159	158	162	163	164
CHA	204	201	201	201	201	203	202	202	204	204	203
EUR	148	152	153	151	152	151	151	150	150	152	152
LAM	153	154	148	145	154	154	151	154	152	161	155
ROW	103	100	106	89	102	81	87	90	88	76	80
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
BRA	162	163	164	161	163	161	160	162	162	158	159
CHA	203	203	203	203	202	201	202	201	201	201	200
EUR	151	147	147	154	153	152	152	156	154	156	154
LAM	148	150	153	148	145	155	149	148	149	148	141
ROW	83	70	74	93	77	75	74	89	82	95	90
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
BRA	159	160	161	163	163	163	161	159	159	159	157
CHA	200	200	199	198	199	198	198	198	198	199	198
EUR	152	154	154	156	156	156	152	153	156	163	171
LAM	143	145	152	153	154	153	152	150	151	149	149
ROW	94	101	97	94	93	98	98	90	107	148	150
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
BRA	157	155	158	155	153	153	151	156	157	159	158
CHA	197	197	197	197	197	197	198	196	196	197	196
EUR	168	167	168	166	168	167	171	168	169	171	169
LAM	147	148	141	144	146	142	143	144	147	144	143
ROW	155	157	159	155	166	164	165	159	161	167	165
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
BRA	158	155	160	161	161	160	160
CHA	195	195	196	196	196	195	196
EUR	170	171	169	167	167	169	171
LAM	146	144	141	151	150	144	145
ROW	163	166	164	158	162	167	161
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
BRA	0	111	134	119	131	144	190	141	132	105	110
CHA	0	111	124	128	127	175	190	169	150	152	119
EUR	0	151	170	145	133	146	156	127	114	106	99
LAM	0	141	146	167	158	186	229	166	143	136	136
ROW	0	145	152	80	95	118	149	132	127	121	127
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]

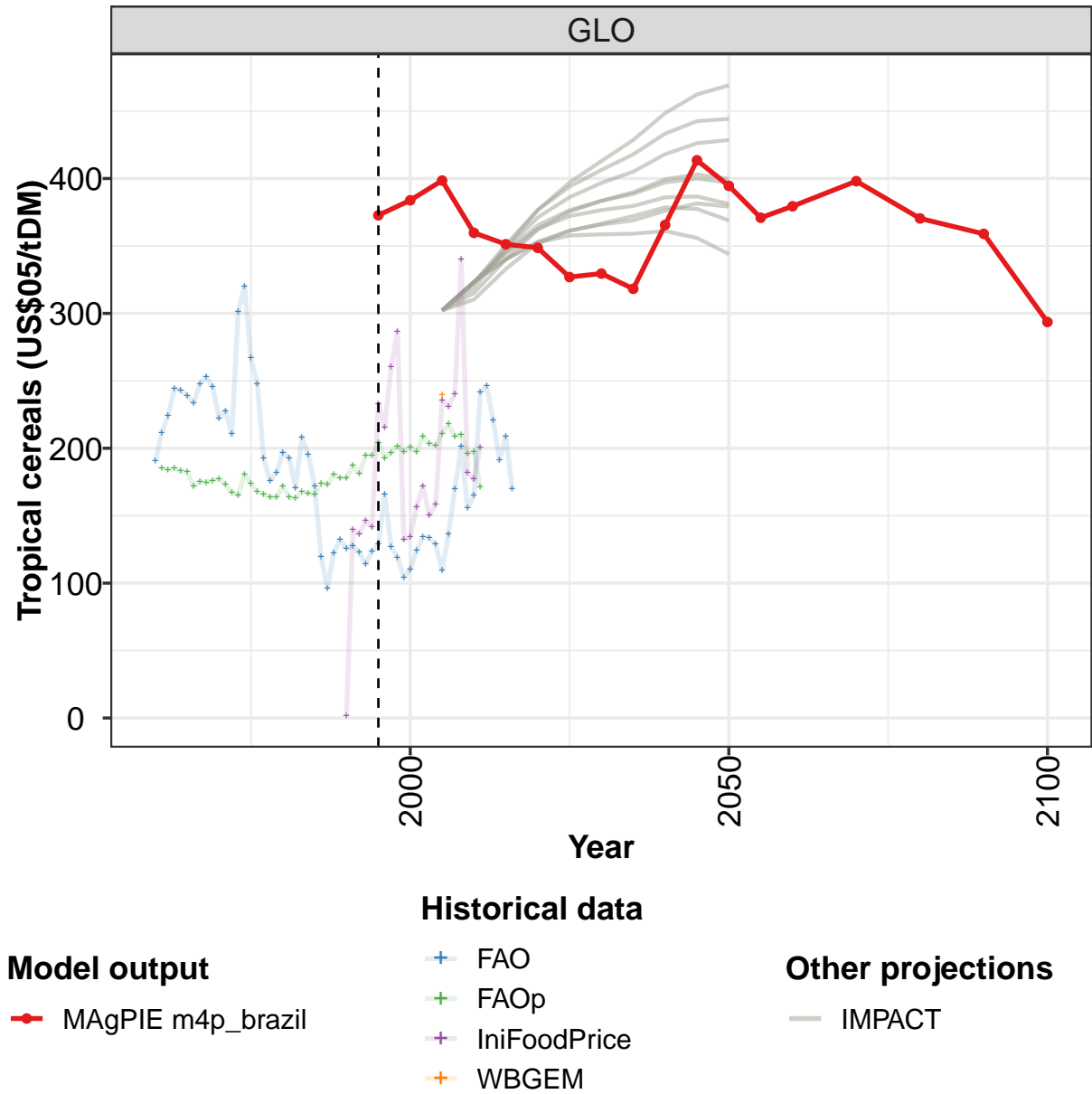
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	112	106	128	135	132	149	205	237	168	184	216
BRA	106	112	139	130	93	85	164	225	178	197	211
CHA	129	127	137	159	179	193	225	260	298	310	346
EUR	91	90	118	127	117	136	209	229	143	185	241
LAM	143	147	152	130	128	139	179	255	195	184	208
ROW	124	107	128	136	133	146	190	230	147	138	153
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1290: IniFoodPrice — Prices—Agriculture—Temperate cereals (US\$05/tDM)

36.36 Tropical cereals



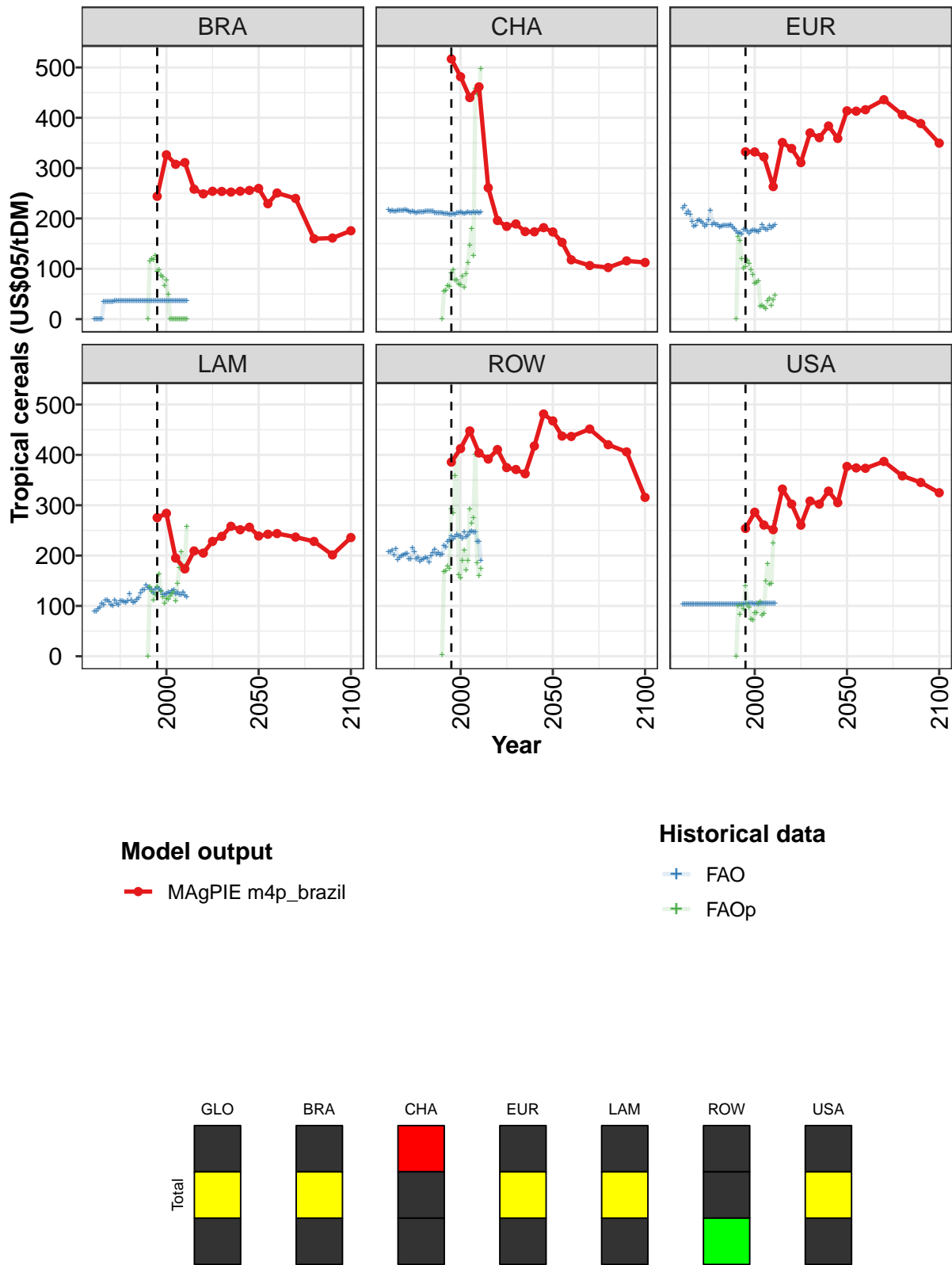


Figure 326: MAgPIE m4p_brazil — Prices—Agriculture—Tropical cereals (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	373	384	398	360	351	349	327	330	318	366	413
BRA	244	326	308	311	258	249	254	254	252	254	256
CHA	517	482	440	461	261	196	184	189	174	174	182
EUR	332	332	322	263	351	339	311	370	360	384	359
LAM	275	284	195	174	209	205	228	238	258	251	256
ROW	386	412	448	404	392	411	375	371	363	418	481
USA	254	286	261	251	332	302	260	308	302	328	305

Table 1291: MAgPIE m4p_brazil — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	395	371	379	398	370	359	294
BRA	260	229	251	240	160	161	176
CHA	173	153	118	107	103	116	113
EUR	414	413	416	436	406	388	350
LAM	239	242	244	237	228	201	236
ROW	467	437	437	451	420	406	316
USA	377	374	373	387	358	345	325

Table 1292: MAgPIE m4p_brazil — 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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
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
BRA											
CHA											
EUR											
LAM											
ROW											
USA											

Table 1297: WBGEM — Prices—Agriculture—Tropical cereals (US\$05/tDM) [PART 5/6]

	2015	2016
GLO	209	170
BRA		
CHA		
EUR		
LAM		
ROW		
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
BRA	0	0	0	0	0	34	34	34	34	34	34
CHA	217	214	215	215	214	216	216	216	216	217	216
EUR	221	224	209	214	208	194	184	186	195	197	193
LAM	89	89	94	96	105	101	110	111	108	103	101
ROW	206	207	210	202	213	192	196	199	201	203	204
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
BRA	36	36	36	36	36	36	36	36	36	36	36
CHA	214	213	214	212	210	213	213	213	213	214	215
EUR	190	184	187	197	216	187	191	188	188	183	184
LAM	112	105	102	110	110	108	107	110	124	111	107
ROW	193	193	215	206	193	196	189	192	194	196	194
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
BRA	36	36	36	36	36	36	36	36	36	36	36
CHA	214	214	215	212	211	210	212	211	209	209	210
EUR	186	186	185	186	188	183	180	175	170	171	169
LAM	108	112	117	125	132	132	141	136	135	132	126
ROW	187	199	206	212	202	206	200	202	221	216	228
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
BRA	36	36	36	36	36	36	36	36	36	36	36
CHA	207	208	209	208	211	211	212	211	210	210	212
EUR	177	177	174	171	175	176	176	175	173	178	187
LAM	133	137	134	130	123	122	124	128	125	130	132
ROW	231	238	233	237	241	239	239	234	247	236	241
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
BRA	36	36	36	36	36	36	36
CHA	211	211	213	211	212	210	212
EUR	181	177	178	185	180	184	188
LAM	124	128	123	123	127	121	117
ROW	246	248	247	247	228	228	190
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
BRA	0	115	120	118	126	95	97	87	83	66	78
CHA	0	56	57	66	64	92	98	77	78	70	67
EUR	0	164	156	119	101	105	117	110	98	88	71
LAM	0	137	128	112	123	138	164	128	117	106	114
ROW	3	167	169	179	174	292	285	358	403	162	156
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]

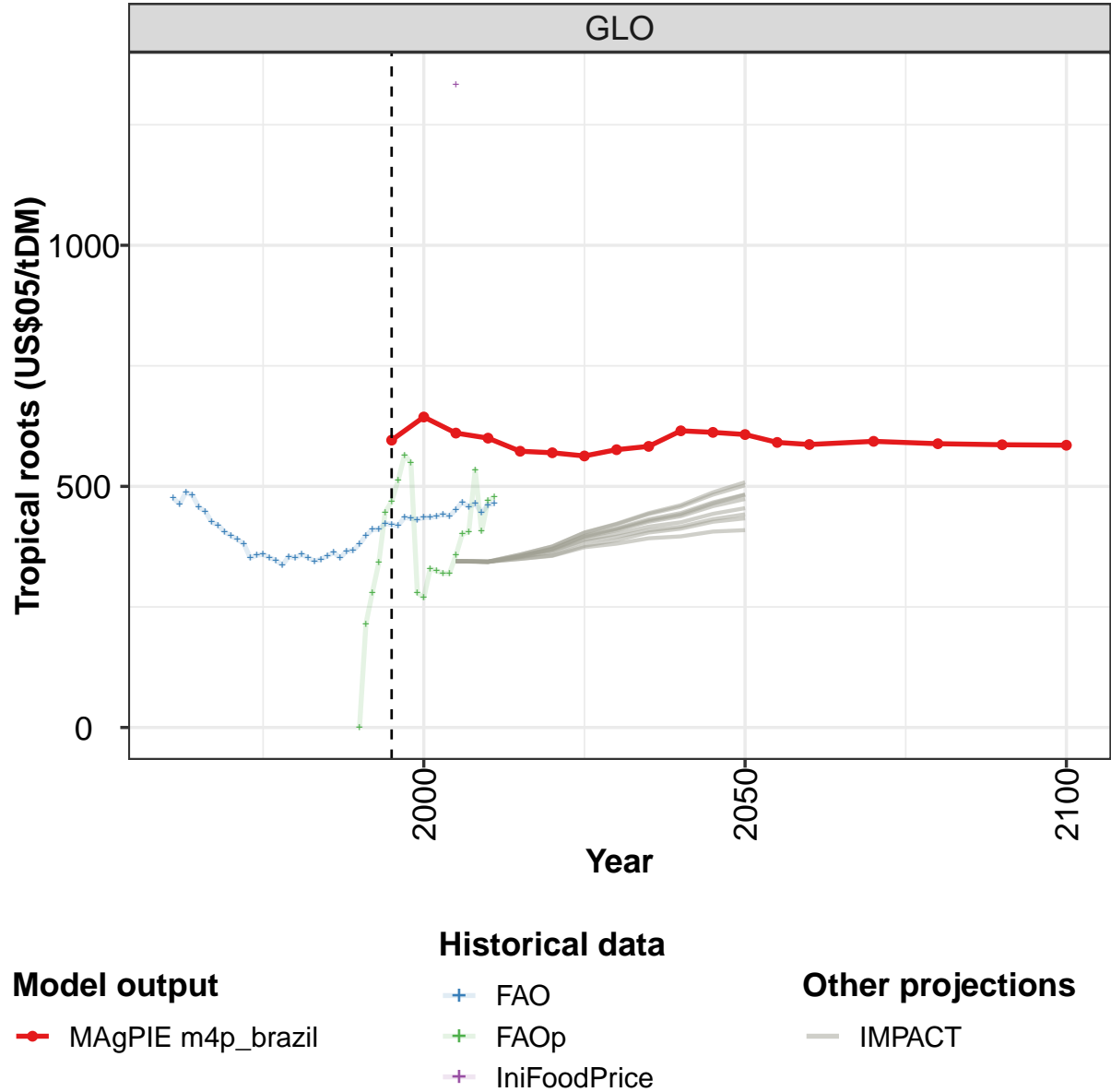
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	157	172	150	158	235	231	240	340	182	177	201
BRA	48	0	0	0	0	0	0	0	0	0	0
CHA	84	63	90	112	147	180	126	458	447	446	498
EUR	73	76	25	27	23	21	37	42	28	39	48
LAM	112	119	125	127	109	144	175	207	170	178	257
ROW	190	210	171	191	293	264	274	401	185	159	174
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1306: IniFoodPrice — Prices—Agriculture—Tropical cereals (US\$05/tDM)

36.37 Tropical roots



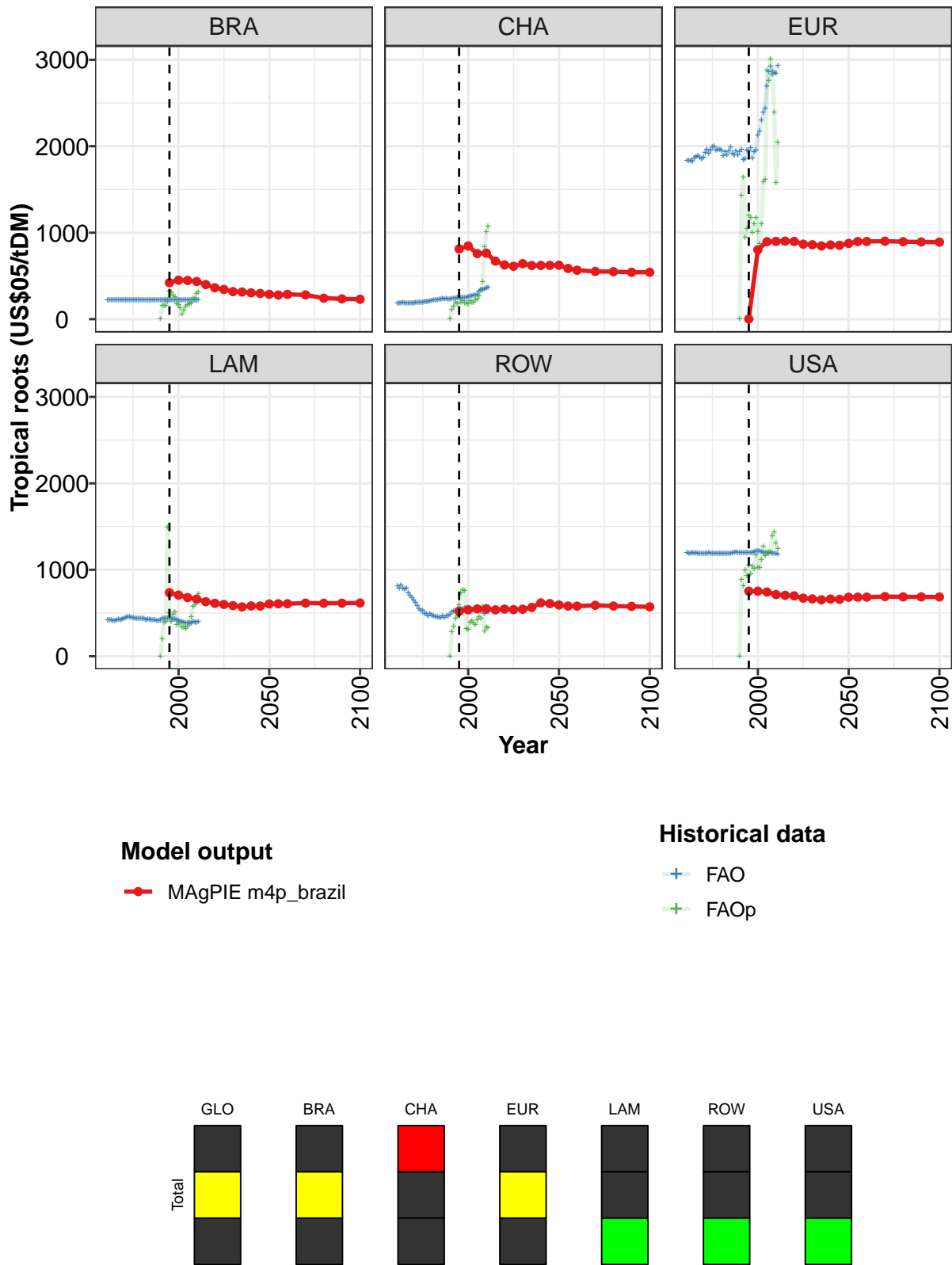


Figure 327: MAgPIE m4p_brazil — Prices—Agriculture—Tropical roots (US\$05/tDM)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	596	644	611	600	573	570	563	576	583	615	612
BRA	422	451	447	436	400	363	343	318	314	304	297
CHA	811	847	758	764	671	627	611	641	620	621	622
EUR	2	801	895	899	902	899	867	861	847	858	854
LAM	736	708	679	661	631	613	600	586	571	582	581
ROW	519	537	548	550	537	545	539	544	565	617	609
USA	753	752	743	713	705	699	672	664	653	662	658

Table 1307: MAgPIE m4p_brazil — Prices—Agriculture—Tropical roots (US\$05/tDM) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	608	591	587	593	589	586	585
BRA	288	278	287	280	242	234	230
CHA	624	586	566	552	549	542	542
EUR	876	897	899	902	896	893	891
LAM	605	607	608	615	614	614	616
ROW	593	581	580	589	581	576	571
USA	683	684	684	690	687	687	686

Table 1308: MAgPIE m4p_brazil — 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
BRA	220	220	220	219	220	220	221	220	220	221	221
CHA	185	185	188	189	187	183	184	188	188	188	192
EUR	1830	1836	1834	1827	1861	1876	1886	1867	1851	1873	1927
LAM	421	423	421	412	410	420	427	420	423	434	448
ROW	809	789	820	782	776	785	726	698	673	649	618
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
BRA	222	219	219	219	219	218	217	217	218	218	218
CHA	196	189	194	195	199	199	200	208	213	223	223
EUR	1959	1913	1952	1985	1996	1954	1962	1961	1956	1893	1935
LAM	454	454	444	446	439	434	436	440	435	433	419
ROW	584	549	526	525	495	490	467	490	475	469	460
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
BRA	218	219	219	218	219	219	219	219	218	220	219
CHA	222	226	230	237	231	235	230	230	236	242	239
EUR	1897	1941	1988	1914	1894	1941	1898	1930	1966	1842	1854
LAM	426	427	419	422	417	412	407	416	436	436	440
ROW	451	446	450	463	449	460	464	487	507	520	527
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
BRA	219	218	220	219	219	219	218	219	219	220	219
CHA	246	245	235	252	248	246	258	264	268	277	277
EUR	1952	1943	1977	1866	1931	1953	2126	2168	2304	2397	2435
LAM	439	438	435	424	428	418	414	405	396	389	381
ROW	543	549	544	547	552	554	551	543	541	538	526
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
BRA	219	219	219	219	219	219	220
CHA	285	321	341	337	351	363	365
EUR	2691	2858	2922	2830	2854	2845	2935
LAM	384	393	383	398	392	393	400
ROW	543	538	516	522	490	508	509
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
BRA	0	153	154	161	203	321	312	272	254	179	167
CHA	0	107	143	189	172	271	196	215	186	185	175
EUR	0	1428	1644	946	1042	1199	1172	1004	1098	1172	1013
LAM	0	203	391	404	1495	500	401	480	511	367	378
ROW	1	280	346	435	461	592	727	768	761	322	306
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]

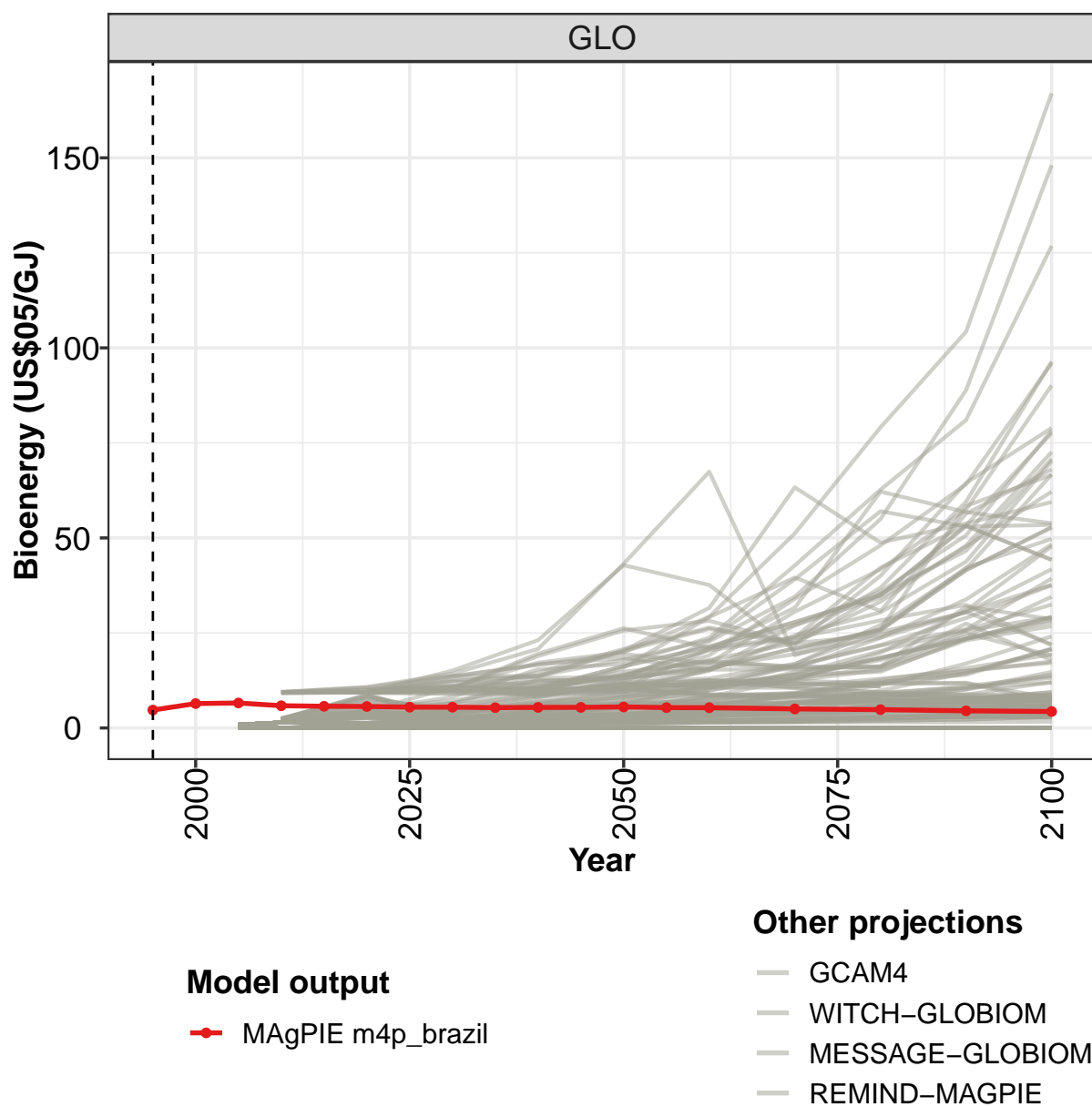
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GLO	329	325	320	320	357	401	406	534	407	471	478
BRA	126	60	101	145	163	172	187	237	239	292	314
CHA	209	189	197	223	227	266	328	434	836	1008	1076
EUR	874	1103	1583	1609	2874	2757	3010	2869	2393	1573	2043
LAM	378	338	333	316	342	377	451	574	588	640	724
ROW	395	406	383	367	417	456	434	575	286	335	325
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
BRA	
CHA	
EUR	
LAM	
ROW	
USA	

Table 1316: IniFoodPrice — Prices—Agriculture—Tropical roots (US\$05/tDM)

37 Bioenergy



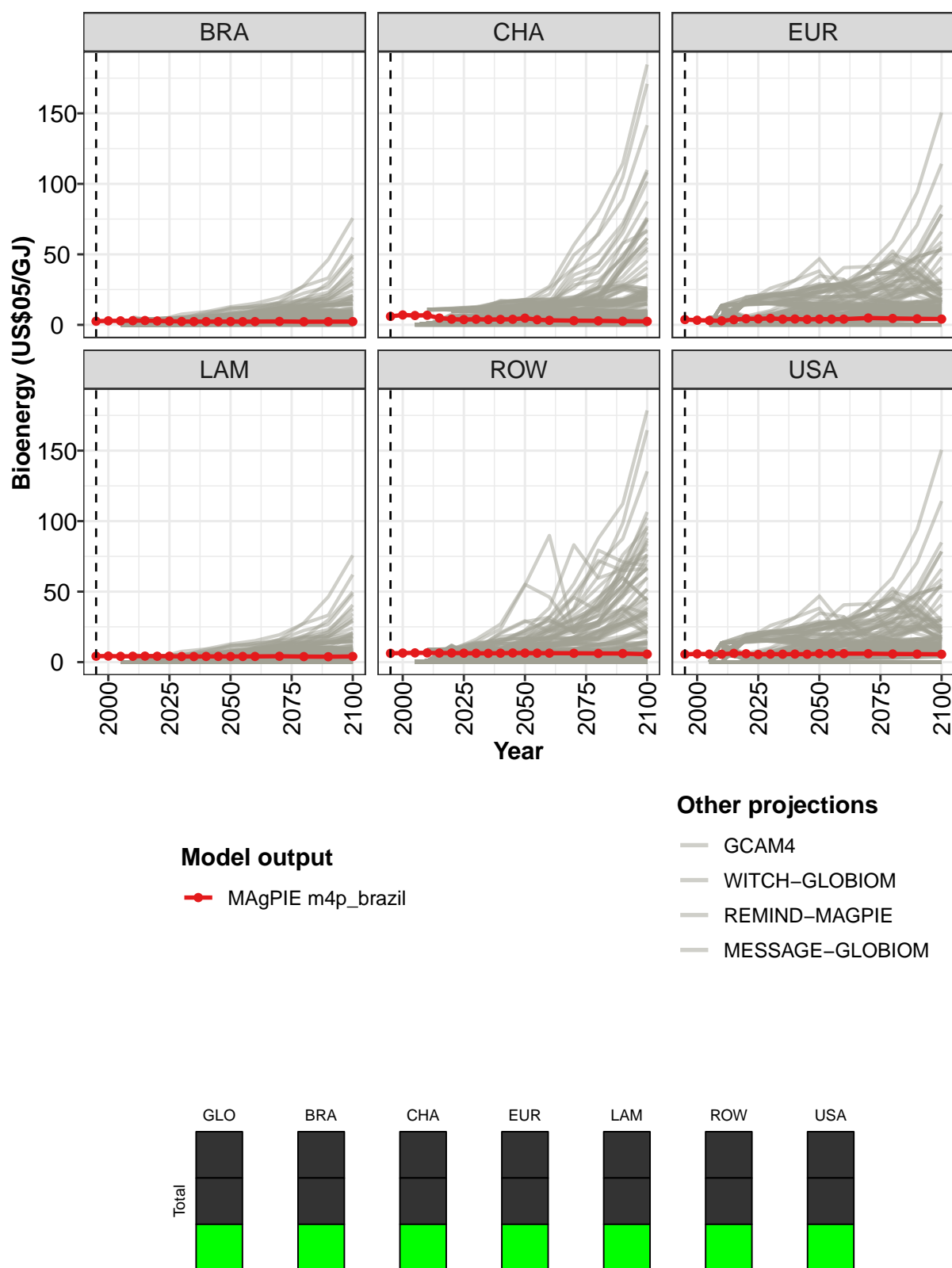


Figure 328: MAgPIE m4p_brazil — Prices—Bioenergy (US\$05/GJ)

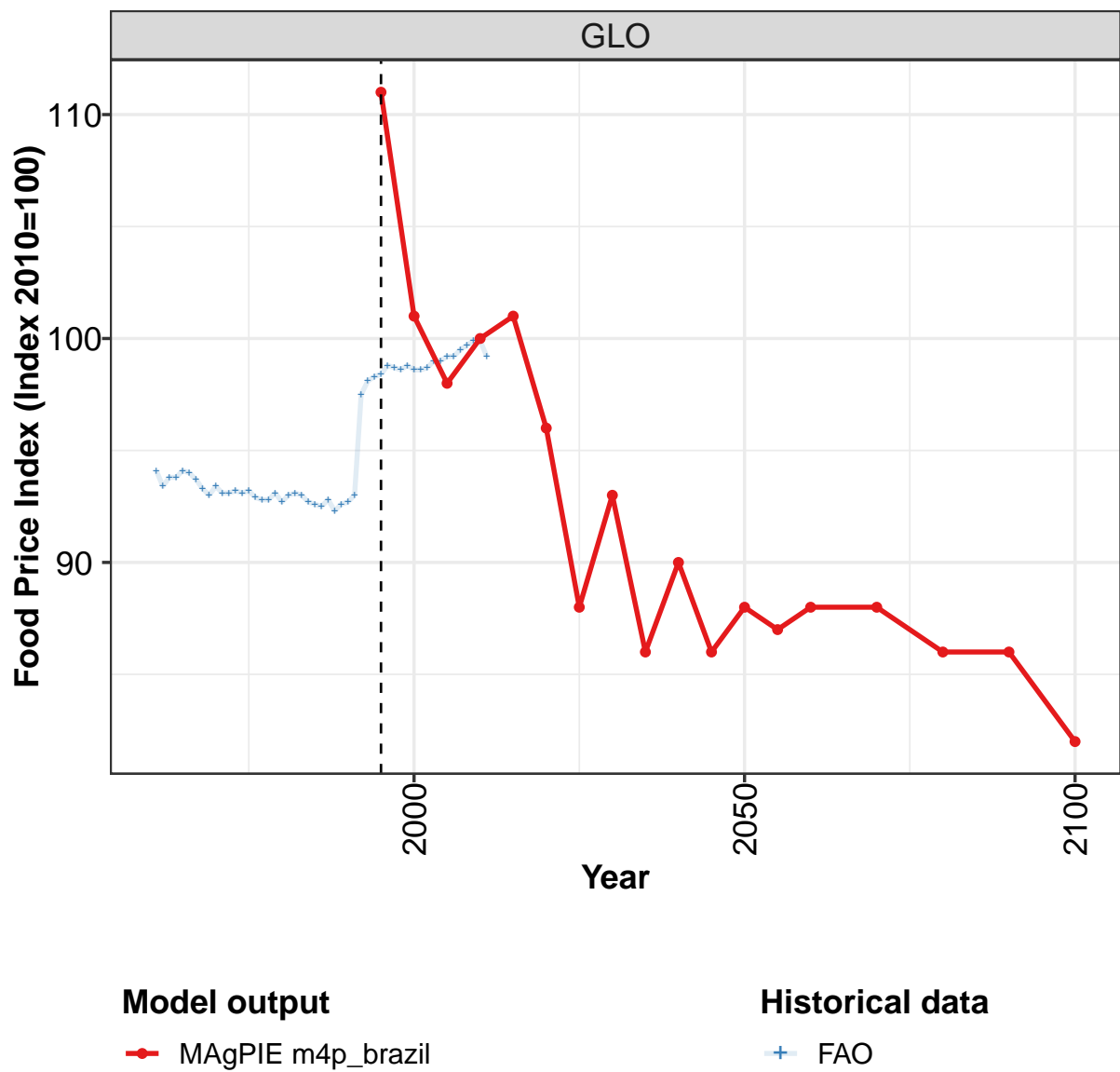
	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.72	6.42	6.57	5.85	5.71	5.66	5.48	5.47	5.35	5.41	5.42
BRA	2.58	2.83	2.82	2.94	3.06	2.75	2.59	2.37	2.32	2.31	2.28
CHA	6.00	7.00	6.61	6.79	4.82	4.02	3.72	3.99	3.75	3.85	3.95
EUR	3.74	3.28	3.06	2.83	3.68	4.32	4.21	4.58	4.02	4.15	3.87
LAM	4.20	4.30	4.10	4.16	4.26	4.17	4.19	3.98	3.97	4.04	4.05
ROW	6.26	6.42	6.57	6.56	6.42	6.46	6.35	6.27	6.23	6.34	6.47
USA	5.52	5.85	5.66	5.58	6.20	5.95	5.43	5.70	5.63	5.72	5.57

Table 1317: MAgPIE m4p_brazil — Prices—Bioenergy (US\$05/GJ) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	5.53	5.36	5.33	5.01	4.82	4.51	4.33
BRA	2.35	2.26	2.32	2.41	2.21	2.27	2.30
CHA	4.73	3.65	3.19	2.95	2.84	2.58	2.45
EUR	4.07	4.03	4.05	4.85	4.54	4.29	4.09
LAM	3.99	4.03	4.03	4.15	3.92	3.82	4.01
ROW	6.42	6.35	6.35	6.26	6.17	6.10	5.65
USA	6.05	6.02	6.01	6.01	5.80	5.69	5.54

Table 1318: MAgPIE m4p_brazil — Prices—Bioenergy (US\$05/GJ) [PART 2/2]

38 Food Price Index



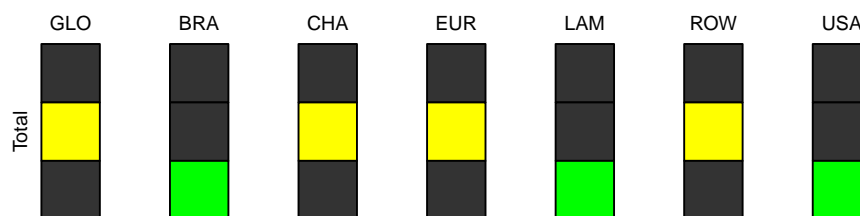
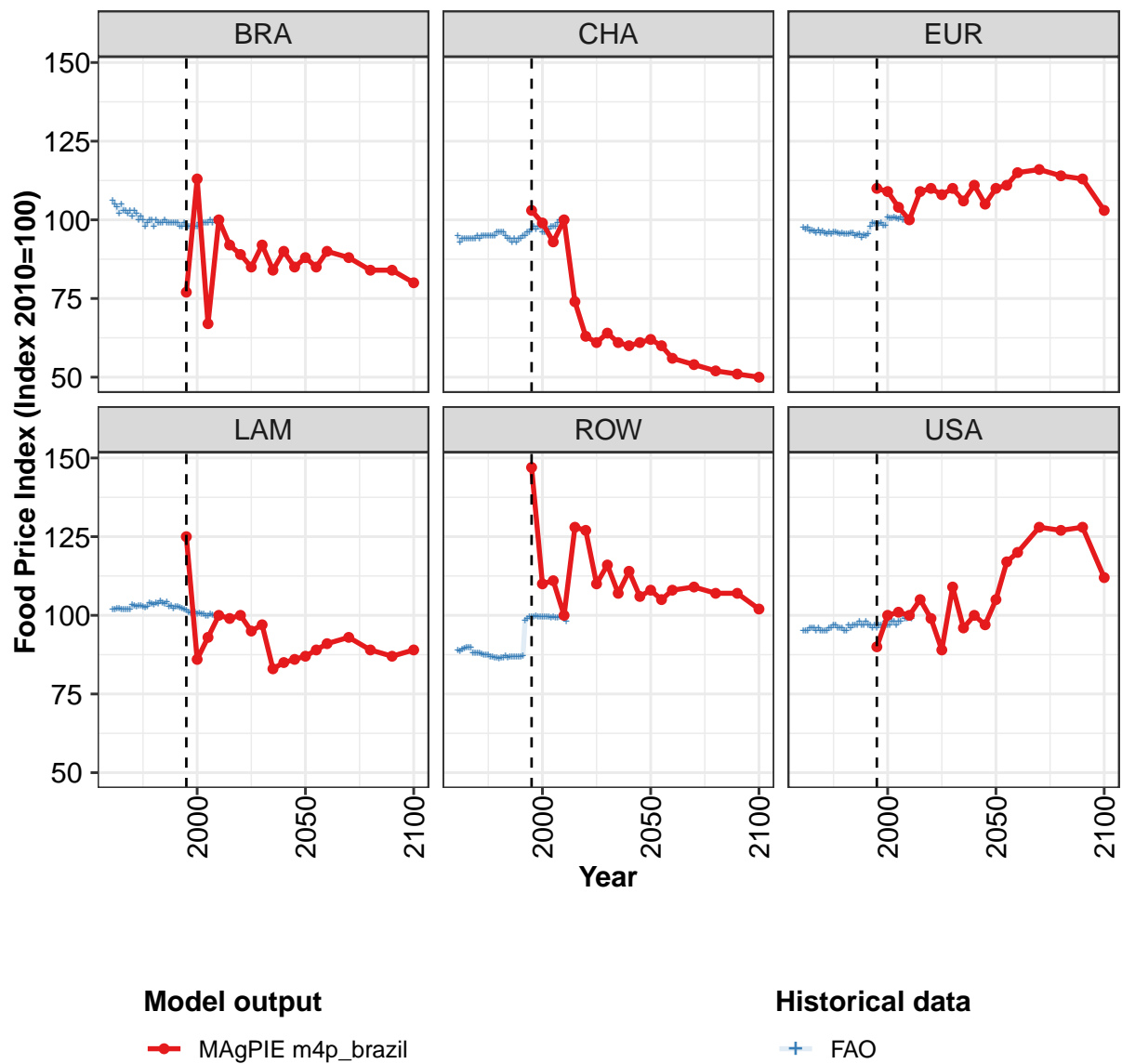


Figure 329: MAgPIE m4p_brazil — Prices—Food Price Index (Index 2010=100)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	111	101	98	100	101	96	88	93	86	90	86
BRA	77	113	67	100	92	89	85	92	84	90	85
CHA	103	99	93	100	74	63	61	64	61	60	61
EUR	110	109	104	100	109	110	108	110	106	111	105
LAM	125	86	93	100	99	100	95	97	83	85	86
ROW	147	110	111	100	128	127	110	116	107	114	106
USA	90	100	101	100	105	99	89	109	96	100	97

Table 1319: MAgPIE m4p_brazil — Prices—Food Price Index (Index 2010=100) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	88	87	88	88	86	86	82
BRA	88	85	90	88	84	84	80
CHA	62	60	56	54	52	51	50
EUR	110	111	115	116	114	113	103
LAM	87	89	91	93	89	87	89
ROW	108	105	108	109	107	107	102
USA	105	117	120	128	127	128	112

Table 1320: MAgPIE m4p_brazil — 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
BRA	106	105	104	102	105	103	103	102	103	101	103
CHA	95	93	94	94	94	94	94	94	94	95	94
EUR	98	97	98	96	97	96	96	97	96	96	96
LAM	102	102	102	102	102	102	102	102	102	103	103
ROW	89	89	89	90	90	90	90	88	88	88	88
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
BRA	102	100	101	100	98	99	100	100	98	100	99
CHA	95	95	95	95	95	95	95	96	96	96	96
EUR	95	96	96	96	96	96	96	96	96	96	96
LAM	103	103	103	103	103	103	104	104	104	104	104
ROW	88	87	87	87	87	87	86	86	86	86	86
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
BRA	99	99	100	99	99	99	99	99	99	98	98
CHA	95	94	94	93	94	93	94	94	95	95	96
EUR	96	96	95	95	96	94	95	95	96	98	99
LAM	105	104	104	104	103	103	102	103	103	102	102
ROW	87	87	87	87	87	87	87	87	87	98	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
BRA	99	98	98	98	98	98	98	99	99	99	99
CHA	96	97	98	97	98	98	96	96	96	97	98
EUR	99	99	99	99	98	98	101	100	100	101	100
LAM	102	102	101	101	101	101	100	101	100	100	100
ROW	99	99	100	100	100	100	100	100	100	99	99
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
BRA	99	100	99	100	100	100	100
CHA	98	98	99	100	100	100	100
EUR	100	101	100	100	100	100	100
LAM	100	100	100	100	99	100	100
ROW	100	99	99	100	100	100	98
USA	98	98	100	99	99	100	99

Table 1325: FAO — Prices—Food Price Index (Index 2010=100) [PART 5/5]

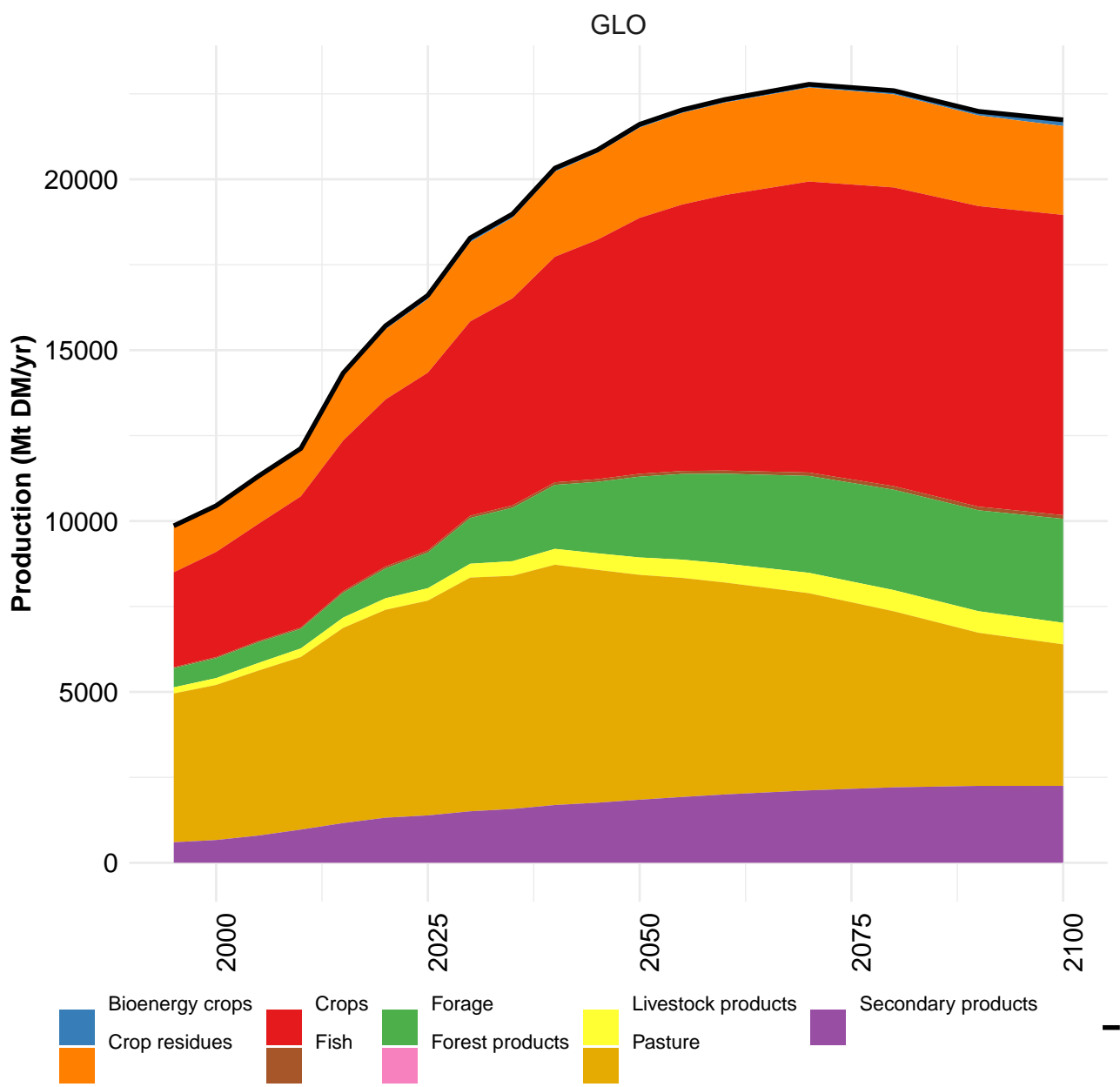
39 GHG Emission

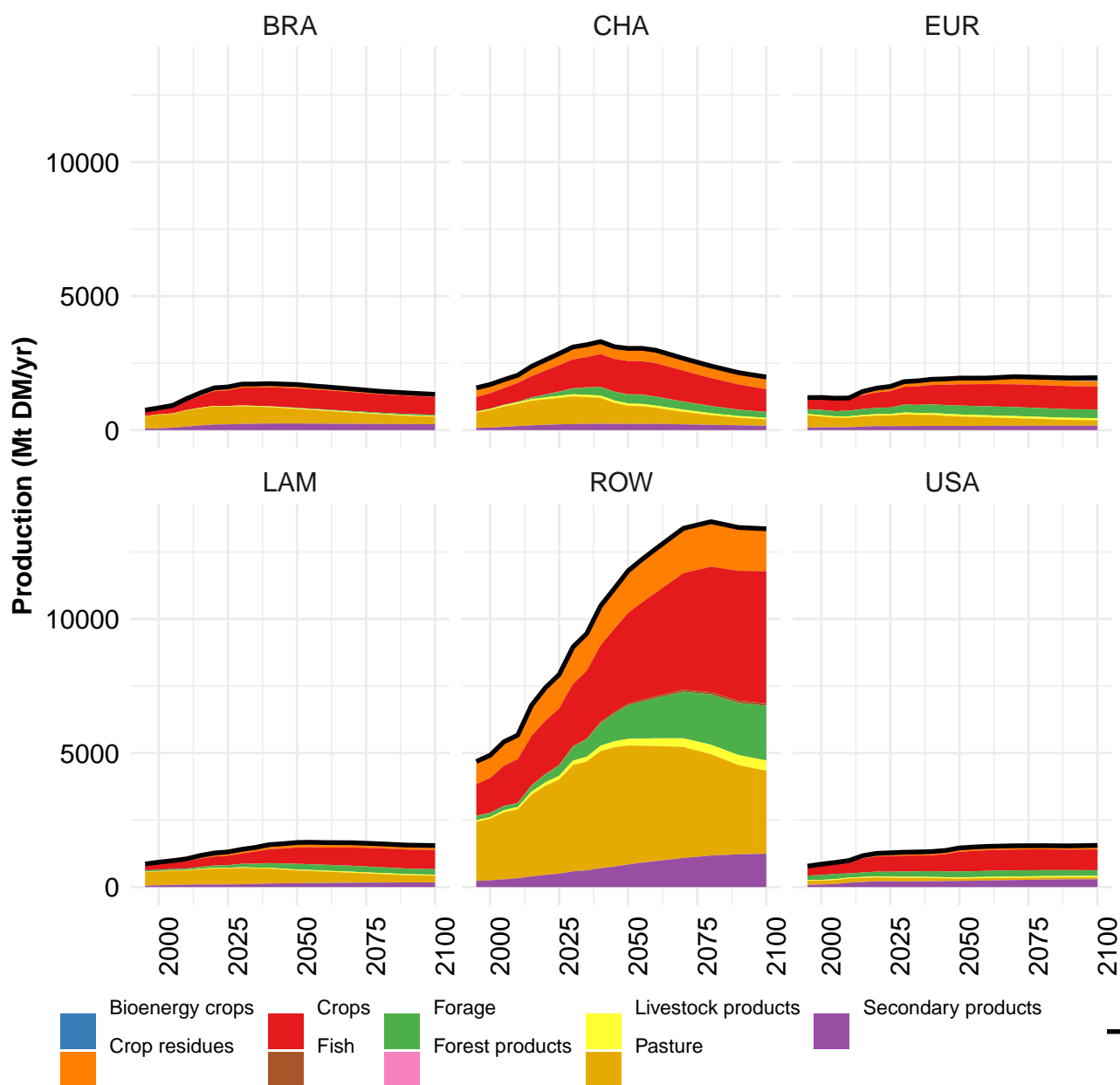
40 Land

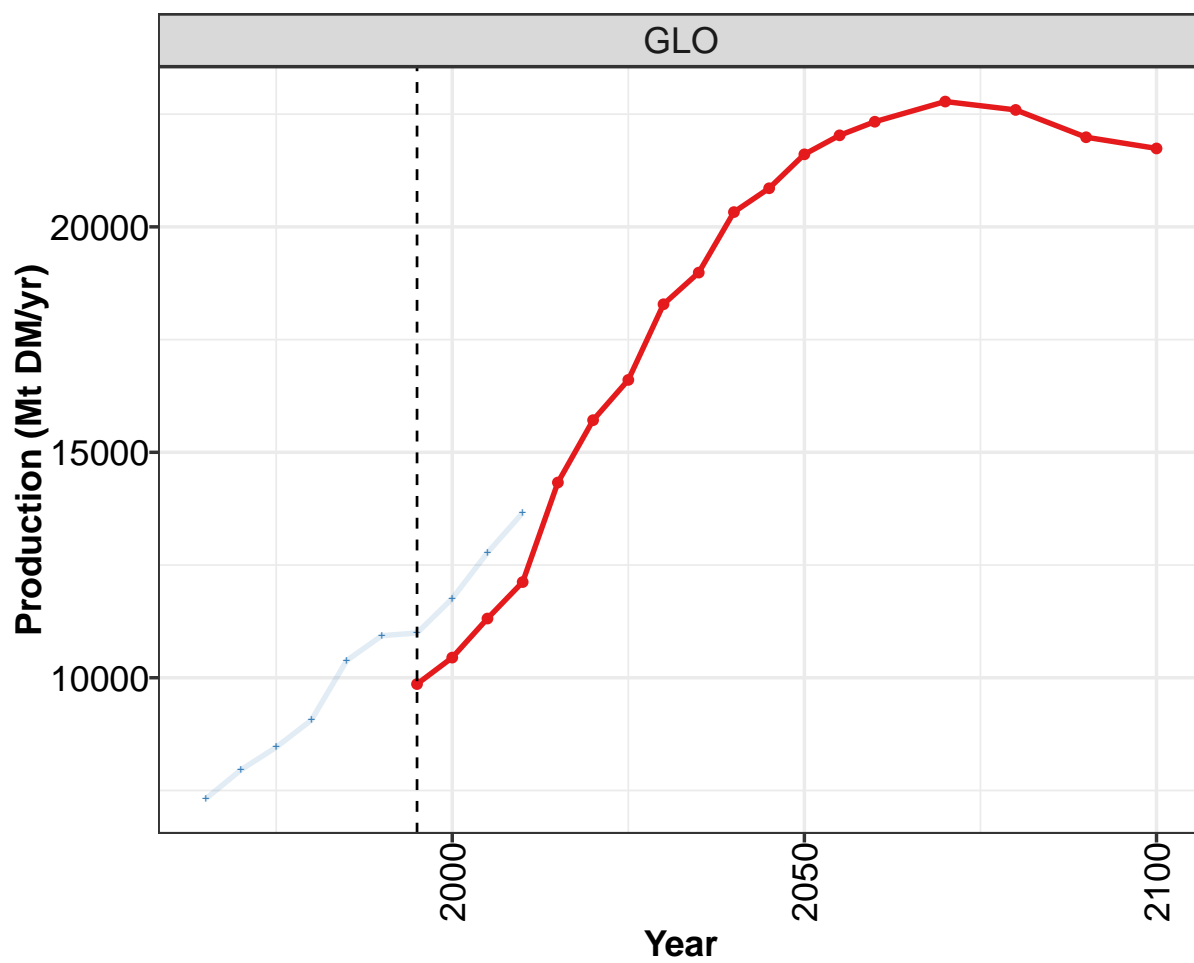
41 Water

Part XII

Production







Model output

—●— MAgPIE m4p_brazil

Historical data

—+— FAO

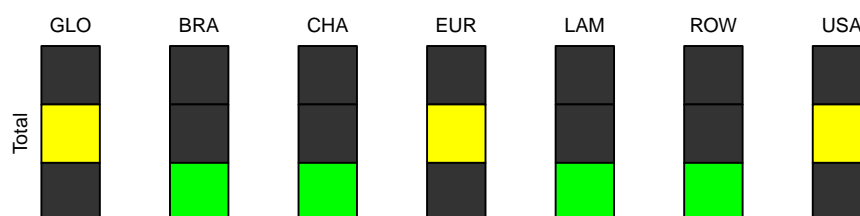


Figure 330: MAGPIE m4p_brazil — Production (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	9861	10448	11314	12123	14331	15713	16606	18284	18986	20328	20857
BRA	747	830	922	1173	1389	1575	1611	1717	1720	1736	1717
CHA	1578	1701	1881	2047	2375	2617	2854	3100	3184	3303	3111
EUR	1214	1219	1192	1198	1442	1565	1628	1809	1839	1896	1912
LAM	860	929	984	1052	1177	1269	1311	1406	1478	1582	1616
ROW	4683	4915	5419	5665	6779	7431	7926	8952	9456	10486	11136
USA	780	854	916	989	1170	1257	1277	1300	1308	1325	1365

Table 1326: MAgPIE m4p_brazil — Production (Mt DM/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	21609	22030	22332	22779	22594	21988	21740
BRA	1701	1655	1618	1536	1448	1386	1336
CHA	3048	3052	2979	2676	2390	2143	1982
EUR	1940	1941	1943	1994	1969	1946	1954
LAM	1661	1669	1658	1652	1614	1565	1549
ROW	11799	12222	12618	13382	13630	13412	13364
USA	1460	1491	1517	1540	1543	1536	1555

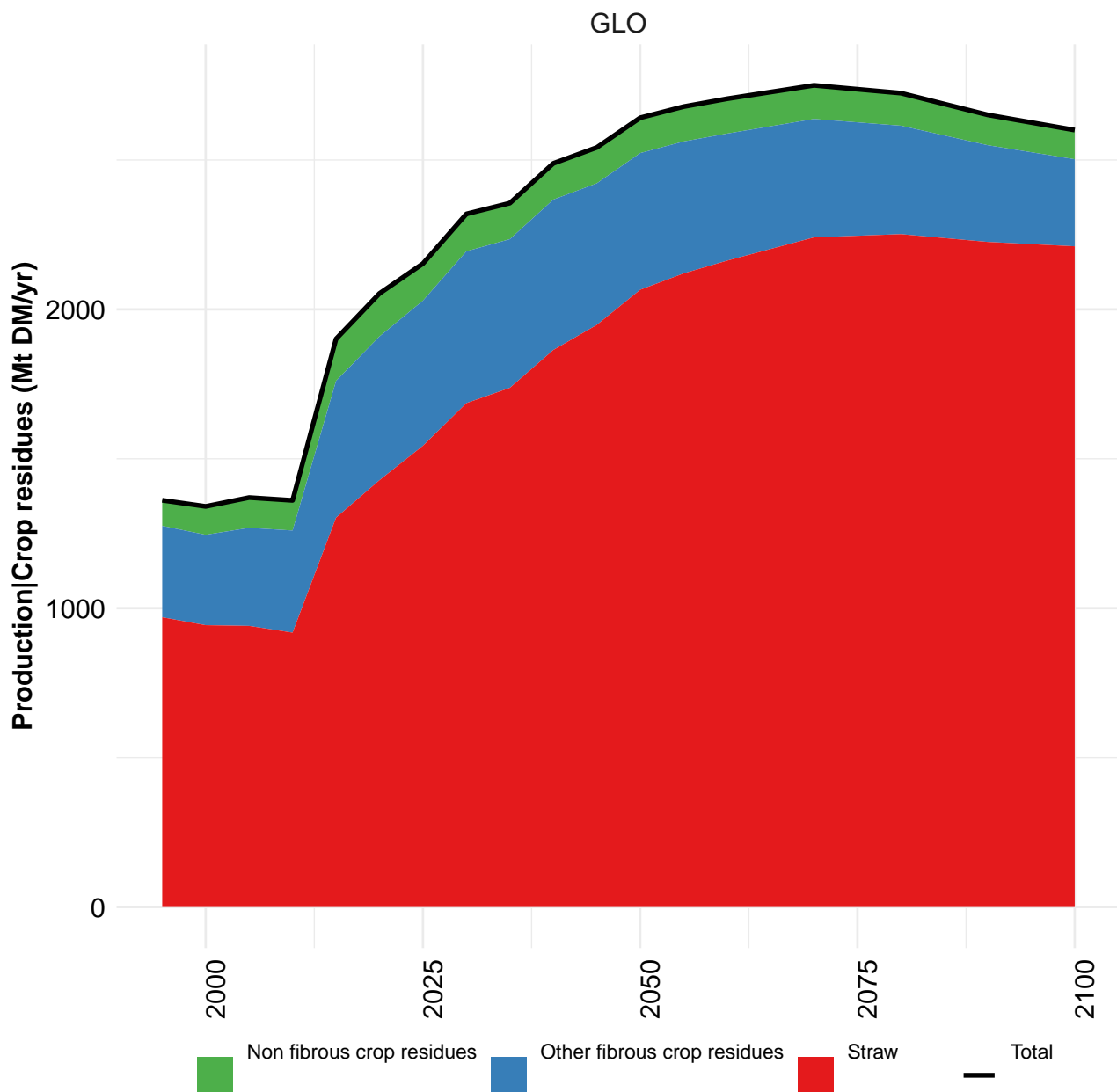
Table 1327: MAgPIE m4p_brazil — Production (Mt DM/yr) [PART 2/2]

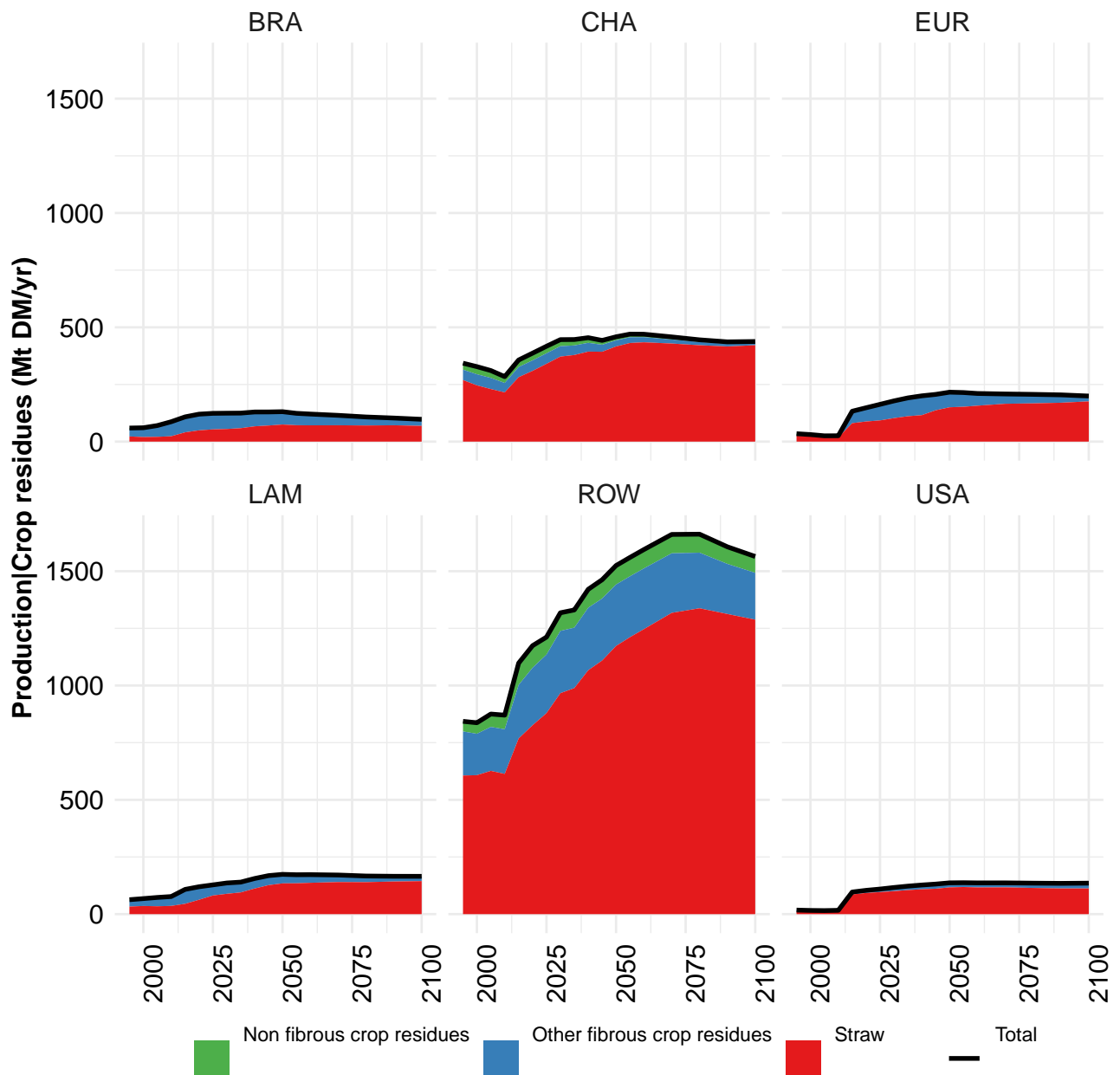
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	7317	7958	8459	9061	10381	10933	10993	11756	12774	13658
BRA	308	350	414	531	652	718	849	952	1126	1332
CHA	961	1042	1160	1264	1439	1599	1716	1836	1998	2207
EUR	1212	1293	1358	1428	1548	1516	1417	1443	1443	1420
LAM	613	670	705	738	853	864	911	984	1055	1122
ROW	3341	3676	3842	4099	4716	5119	5028	5368	5915	6337
USA	882	927	980	1000	1172	1117	1072	1174	1237	1241

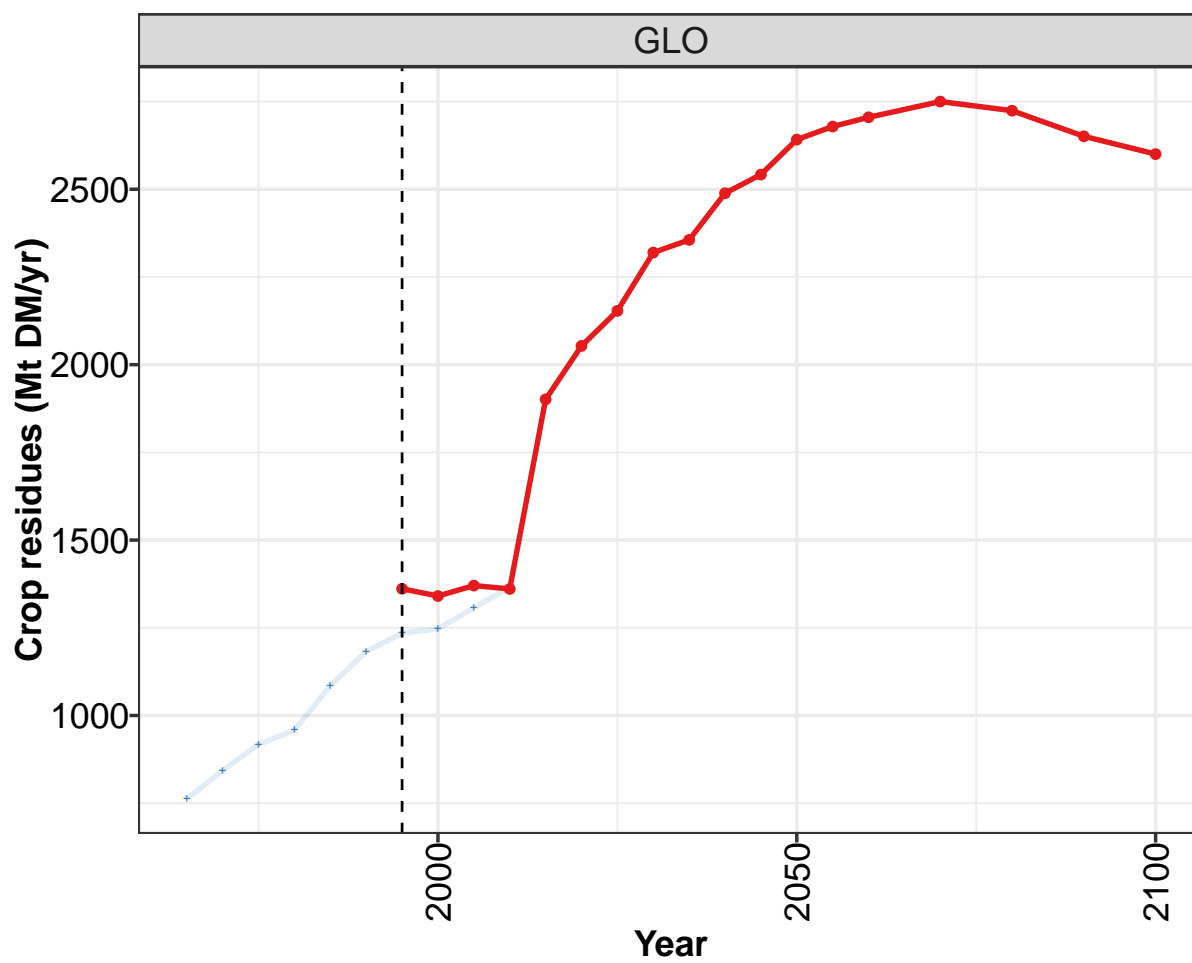
Table 1328: FAO — Production (Mt DM/yr)

42 Bioenergy crops

43 Crop residues



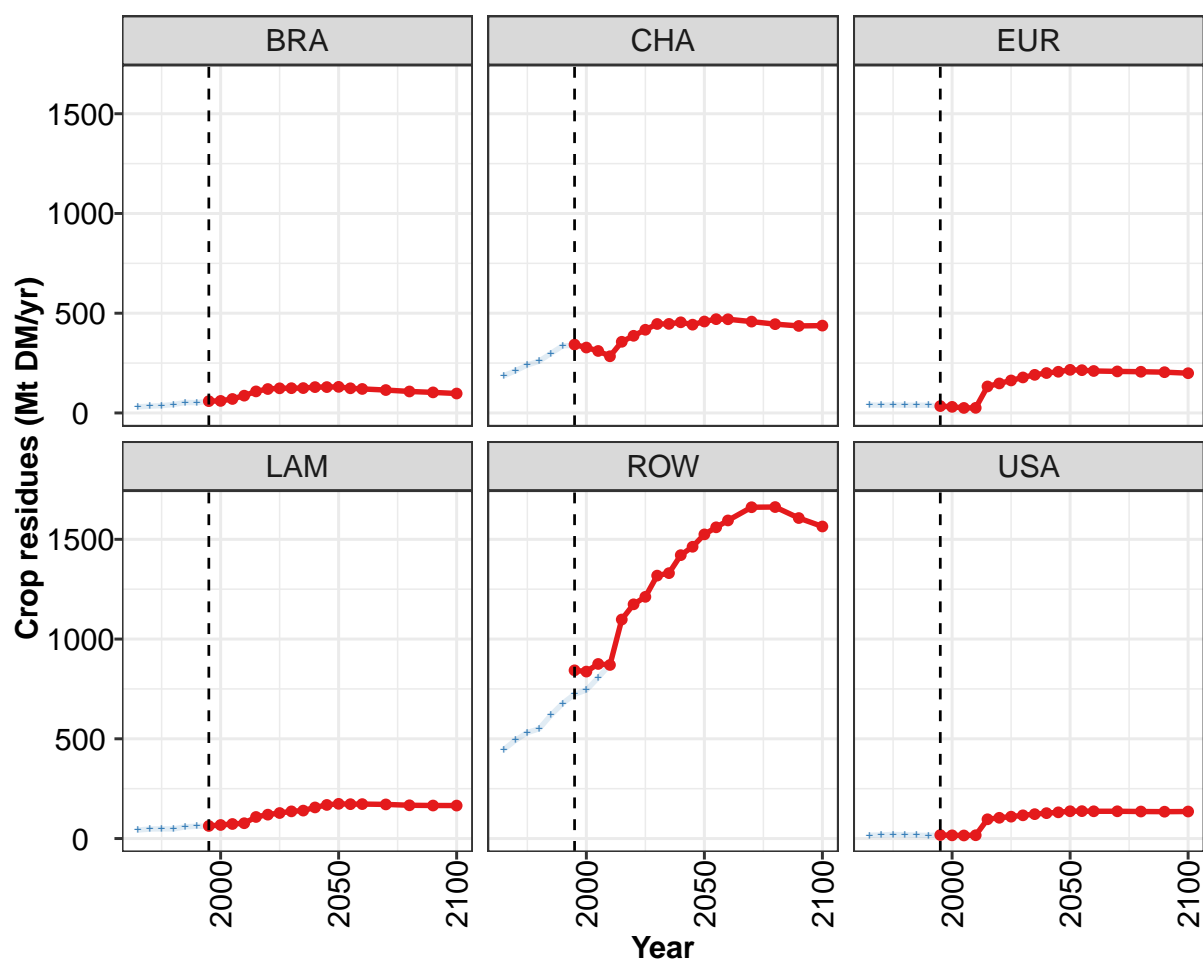


**Model output**

—●— MAgPIE m4p_brazil

Historical data

—+— FAO



Model output

—●— MAGPIE m4p_brazil

Historical data

—+— FAO

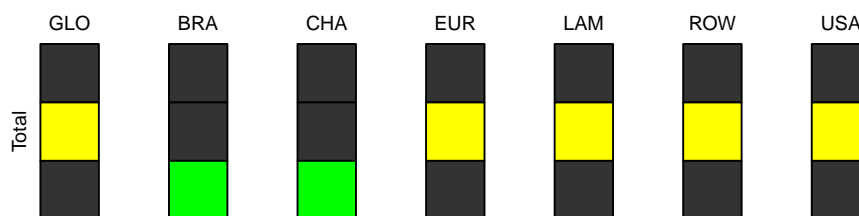


Figure 331: MAGPIE m4p_brazil — Production—Crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1361	1341	1370	1361	1901	2053	2153	2320	2356	2489	2542
BRA	59	61	70	87	108	120	124	124	125	130	130
CHA	343	328	311	284	357	387	417	446	447	455	443
EUR	35	31	25	26	133	148	163	178	191	200	207
LAM	63	68	73	77	108	120	128	136	140	156	169
ROW	843	837	875	870	1098	1174	1212	1318	1331	1421	1463
USA	18	16	16	17	97	104	110	117	122	127	131

Table 1329: MAgPIE m4p.brazil — Production—Crop residues (Mt DM/yr) [PART 1/2]

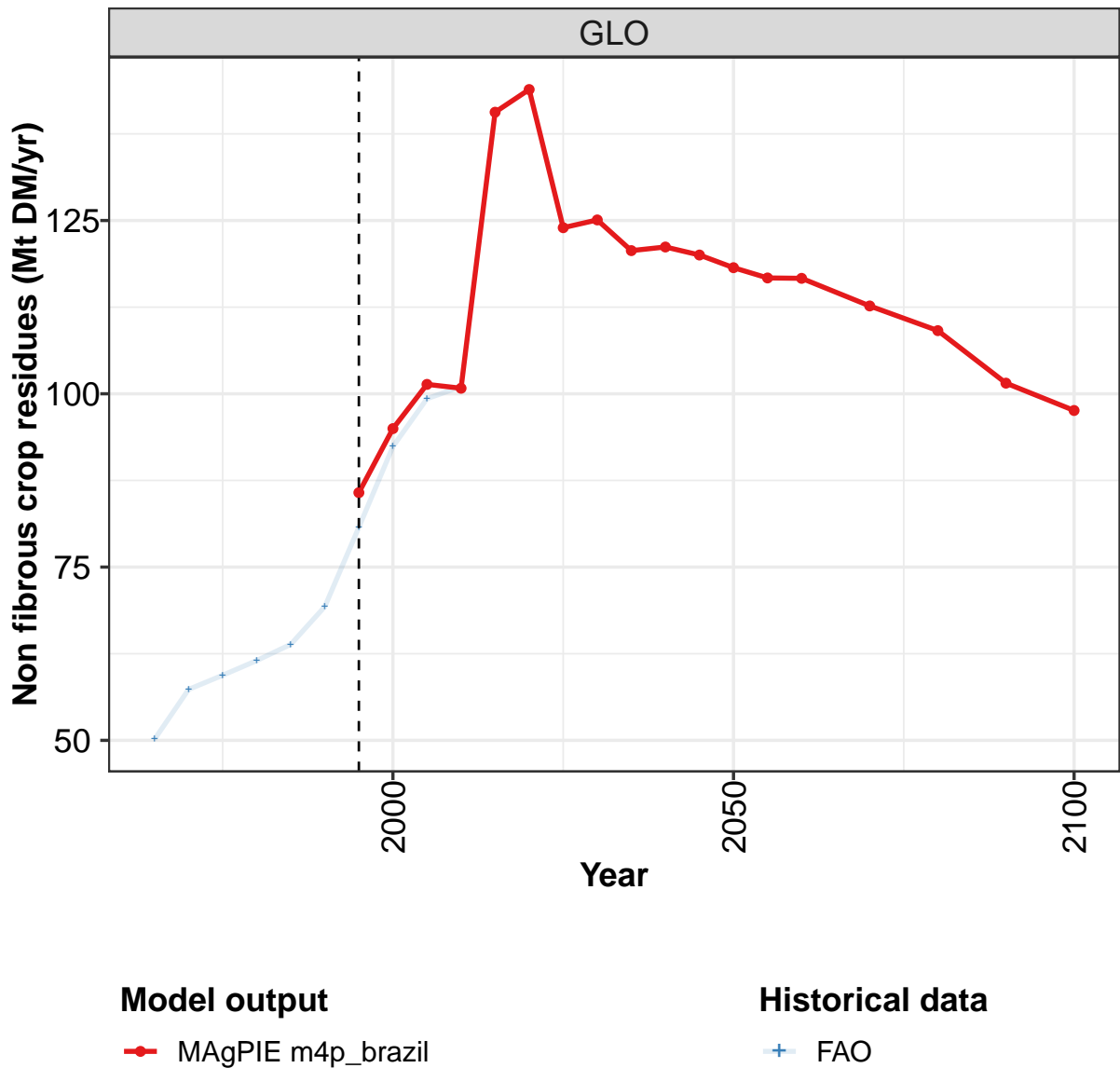
	2050	2055	2060	2070	2080	2090	2100
GLO	2641	2679	2705	2750	2724	2651	2600
BRA	131	124	121	115	108	103	98
CHA	458	470	470	458	445	436	438
EUR	216	215	211	208	207	204	199
LAM	174	172	173	171	167	166	165
ROW	1525	1560	1595	1661	1662	1607	1564
USA	137	137	137	137	136	135	136

Table 1330: MAgPIE m4p.brazil — 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
BRA	31	34	37	42	53	52	59	61	77	90
CHA	186	212	240	260	299	337	339	327	310	284
EUR	40	39	40	39	39	39	34	30	25	25
LAM	43	48	49	48	59	62	61	67	72	77
ROW	446	493	531	550	619	678	723	744	806	873
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



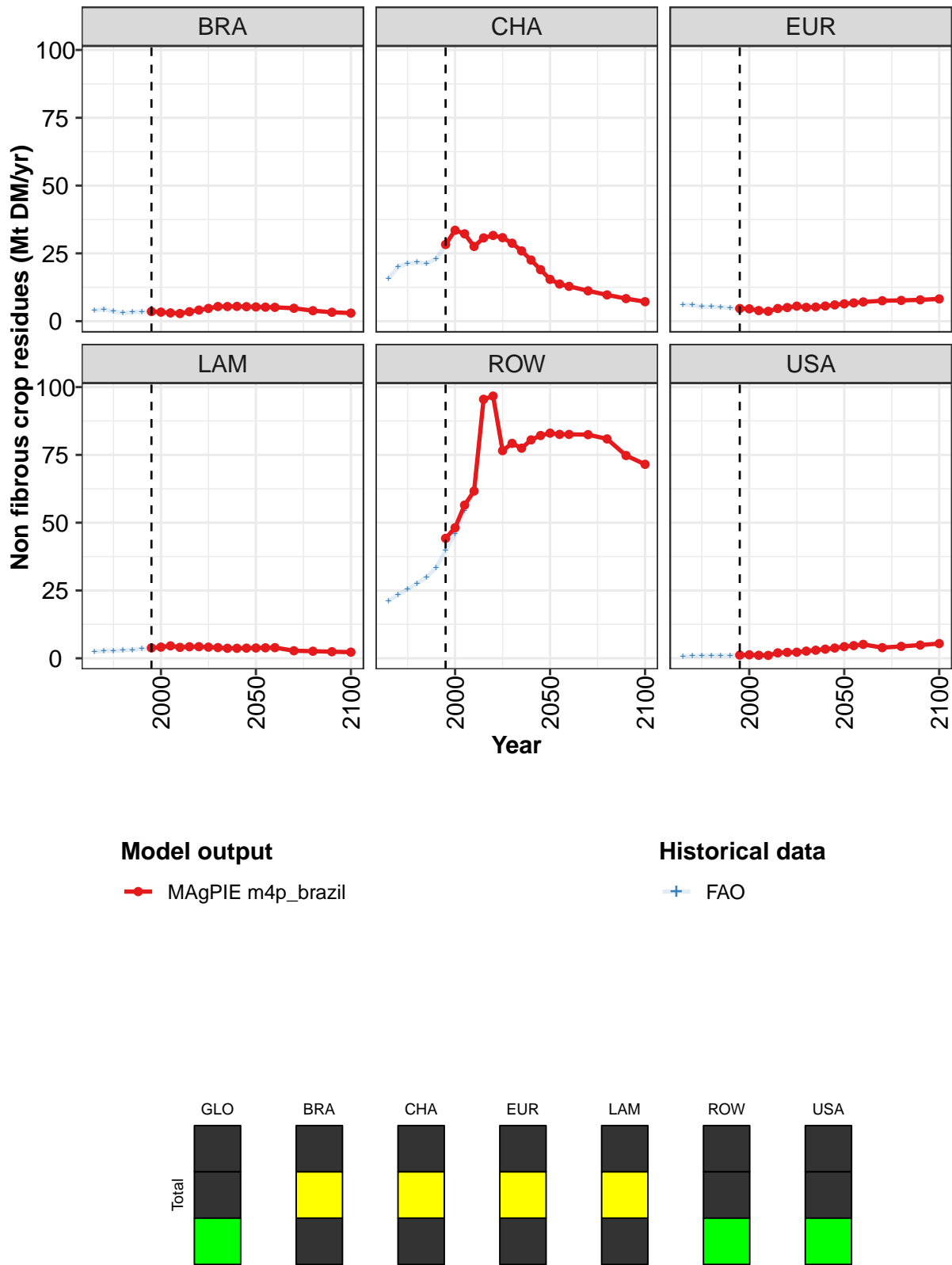


Figure 332: MAgPIE m4p_brazil — Production—Crop residues—Non fibrous crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	86	95	101	101	141	144	124	125	121	121	120
BRA	4	3	3	3	3	4	5	5	5	5	5
CHA	28	34	32	28	31	32	31	29	26	23	19
EUR	5	5	4	4	5	5	6	5	5	6	6
LAM	4	4	5	4	4	4	4	4	4	4	4
ROW	44	48	56	62	96	97	77	79	77	81	82
USA	1	1	1	1	2	2	2	3	3	3	4

Table 1332: MAgPIE m4p_brazil — Production—Crop residues—Non fibrous crop residues (Mt DM/yr) [PART 1/2]

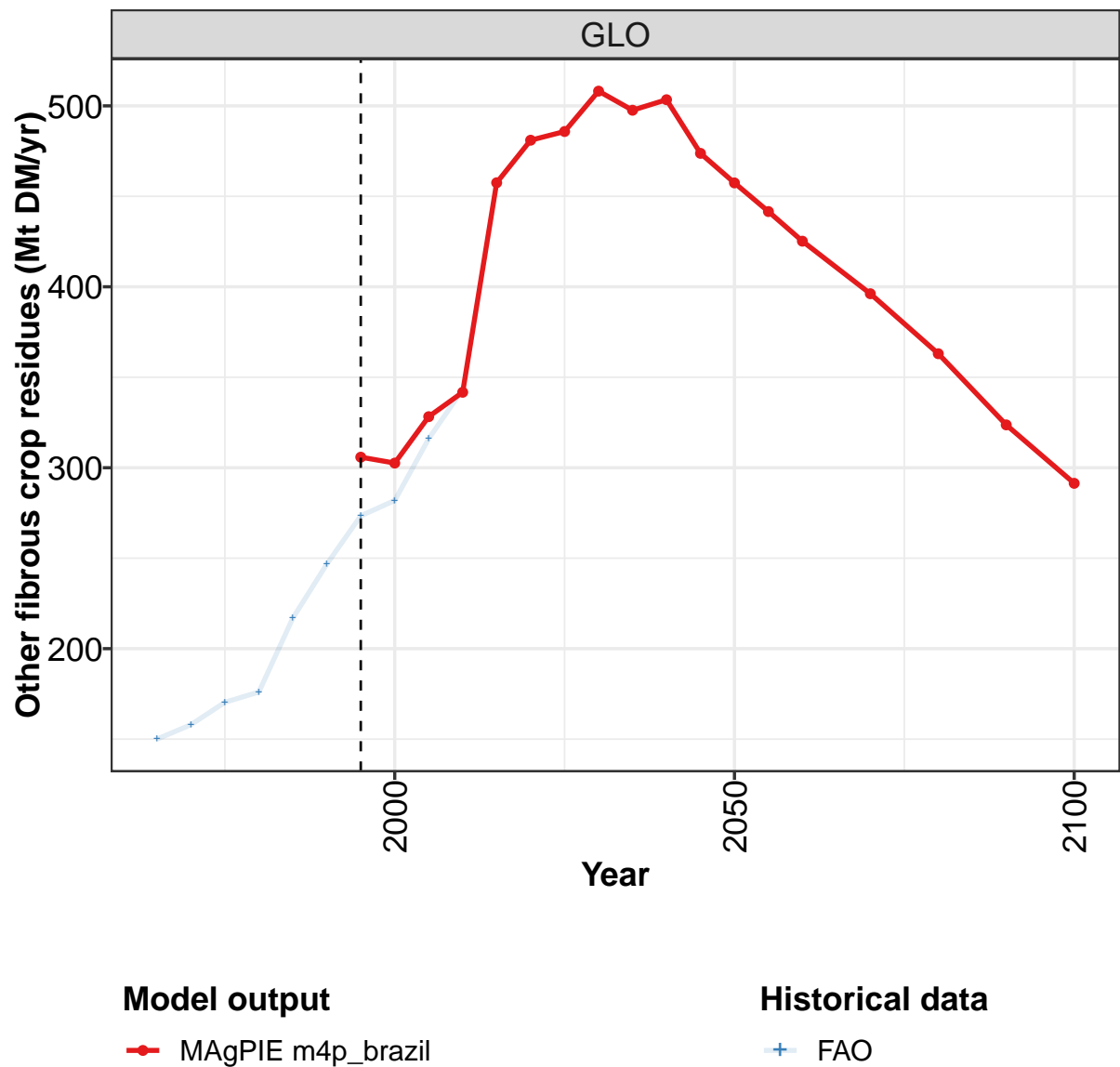
	2050	2055	2060	2070	2080	2090	2100
GLO	118	117	117	113	109	102	98
BRA	5	5	5	5	4	3	3
CHA	15	14	13	11	10	8	7
EUR	6	7	7	8	8	8	8
LAM	4	4	4	3	3	2	2
ROW	83	83	83	82	81	75	72
USA	4	5	5	4	4	5	5

Table 1333: MAgPIE m4p_brazil — 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
BRA	4	4	4	3	3	4	4	3	4	3
CHA	16	20	21	22	21	23	28	33	32	28
EUR	6	6	5	5	5	5	5	4	4	4
LAM	2	3	3	3	3	3	4	4	4	4
ROW	21	23	25	28	30	33	40	46	54	62
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



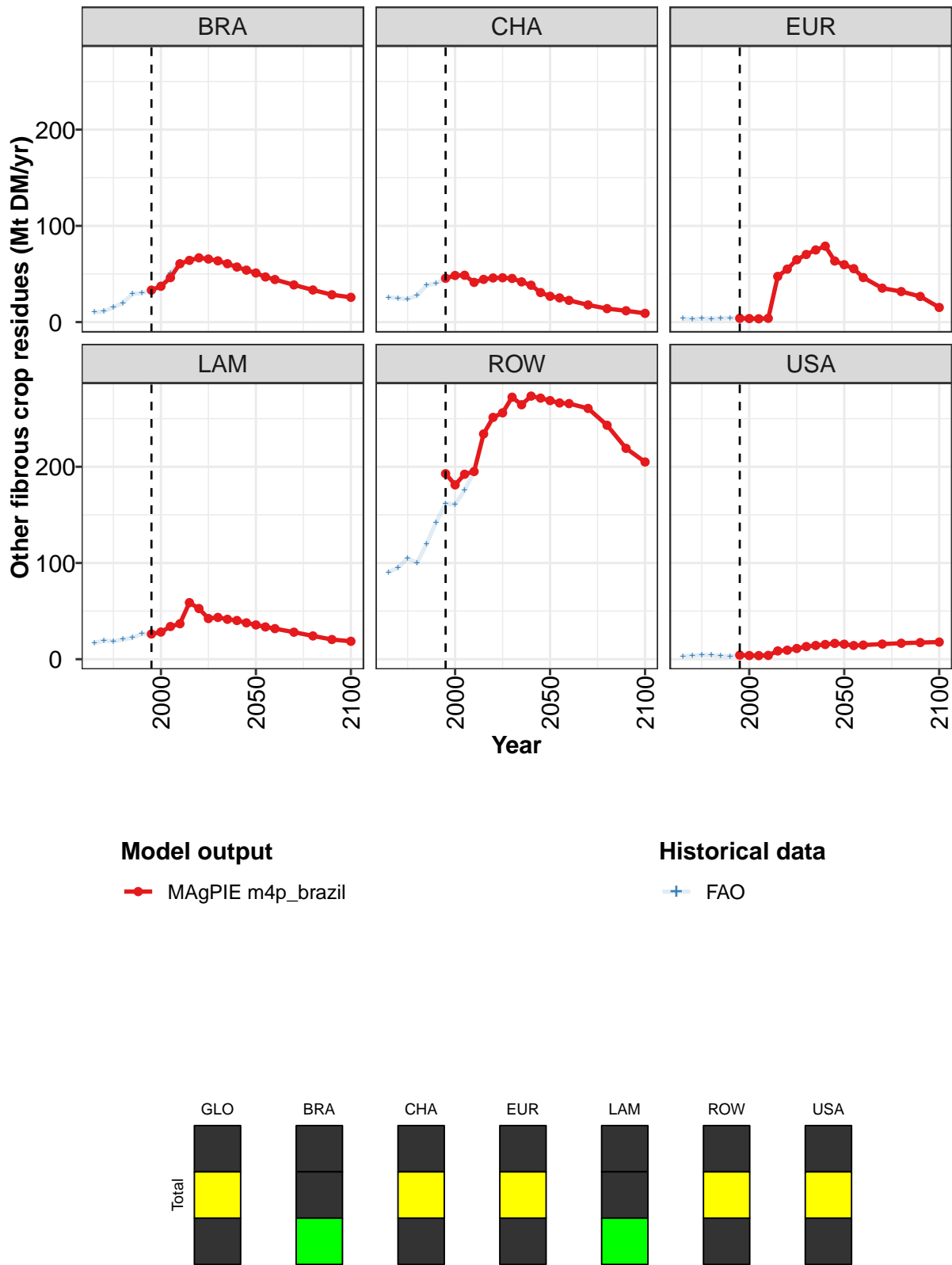


Figure 333: MAgPIE m4p_brazil — Production—Crop residues—Other fibrous crop residues (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	306	303	328	342	458	481	486	508	498	503	474
BRA	33	37	46	61	64	67	66	64	61	57	54
CHA	46	48	49	41	44	46	46	45	42	38	31
EUR	4	4	3	4	47	55	65	70	75	79	63
LAM	26	28	34	37	59	53	42	43	41	40	38
ROW	193	181	192	195	234	251	256	272	264	273	271
USA	4	4	4	4	9	9	11	13	14	15	16

Table 1335: MAgPIE m4p_brazil — Production—Crop residues—Other fibrous crop residues (Mt DM/yr)
[PART 1/2]

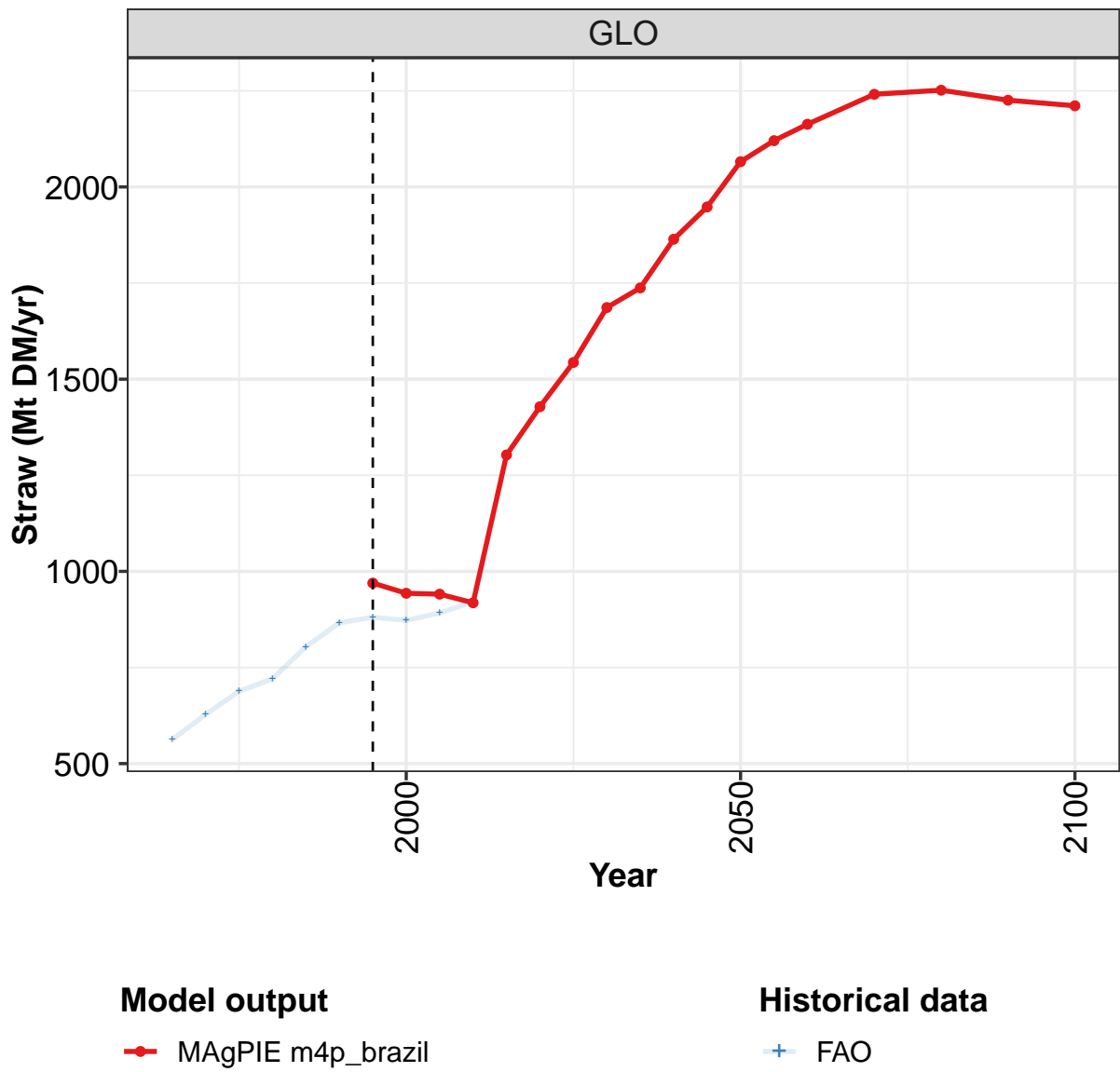
	2050	2055	2060	2070	2080	2090	2100
GLO	457	442	425	396	363	324	291
BRA	51	47	44	39	33	28	26
CHA	27	25	23	18	14	12	9
EUR	60	56	46	35	32	27	15
LAM	36	34	32	28	24	20	19
ROW	269	266	266	261	243	219	205
USA	16	14	15	16	17	17	18

Table 1336: MAgPIE m4p_brazil — 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
BRA	10	11	15	20	29	30	33	38	51	62
CHA	26	25	24	28	38	40	45	48	48	41
EUR	4	3	4	4	4	4	4	4	3	4
LAM	17	19	19	21	22	27	25	28	34	37
ROW	90	95	105	100	120	142	162	161	176	195
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



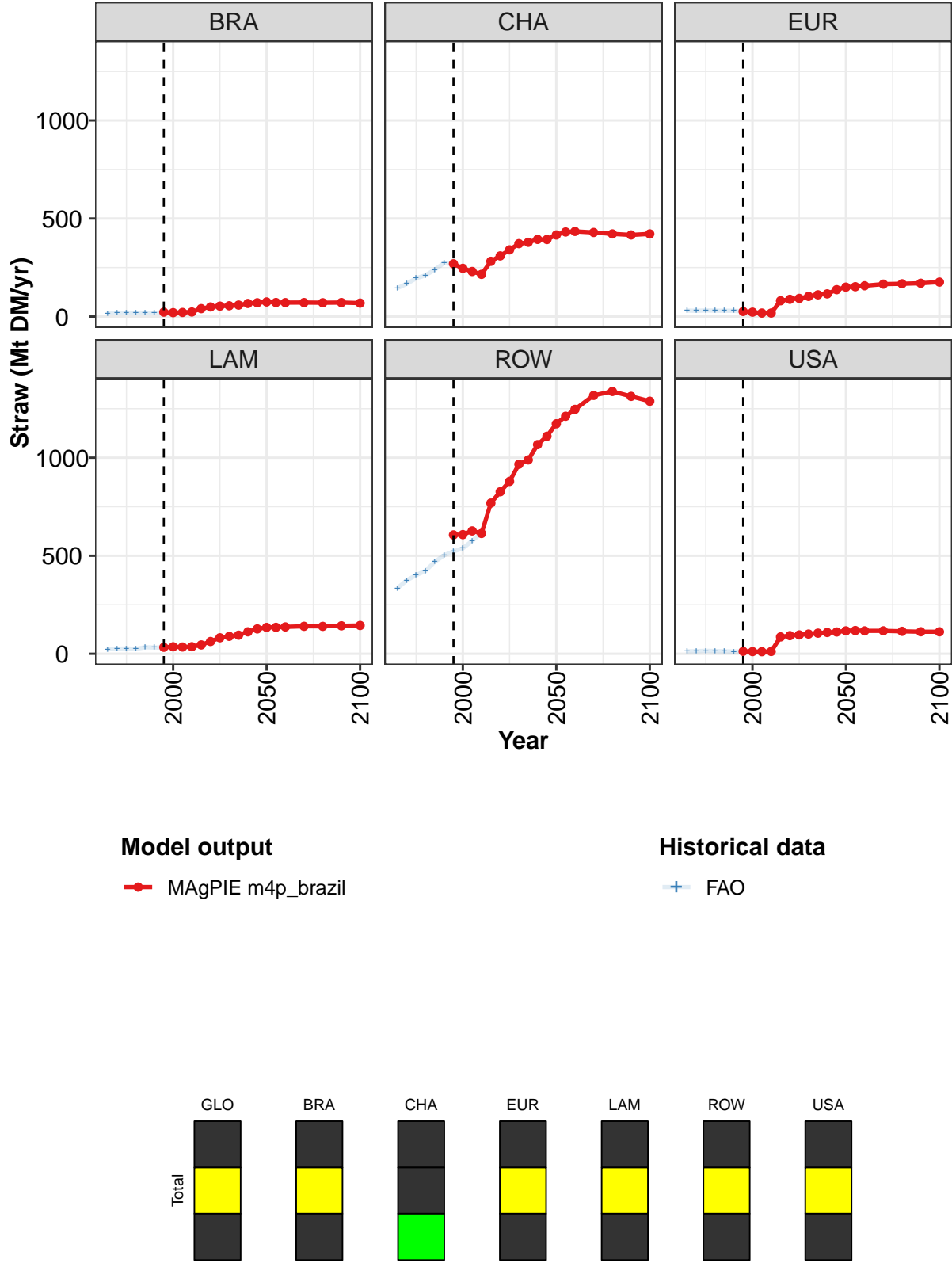


Figure 334: MAgPIE m4p_brazil — Production—Crop residues—Straw (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	970	943	941	918	1303	1428	1543	1686	1737	1864	1948
BRA	23	20	21	23	41	49	53	55	59	67	70
CHA	269	246	230	215	282	309	340	372	379	394	393
EUR	26	23	18	18	81	88	93	103	111	116	137
LAM	33	36	34	36	45	63	82	89	95	112	127
ROW	606	608	627	614	768	826	879	967	989	1067	1109
USA	12	11	11	12	86	93	96	101	105	109	111

Table 1338: MAgPIE m4p.brazil — Production—Crop residues—Straw (Mt DM/yr) [PART 1/2]

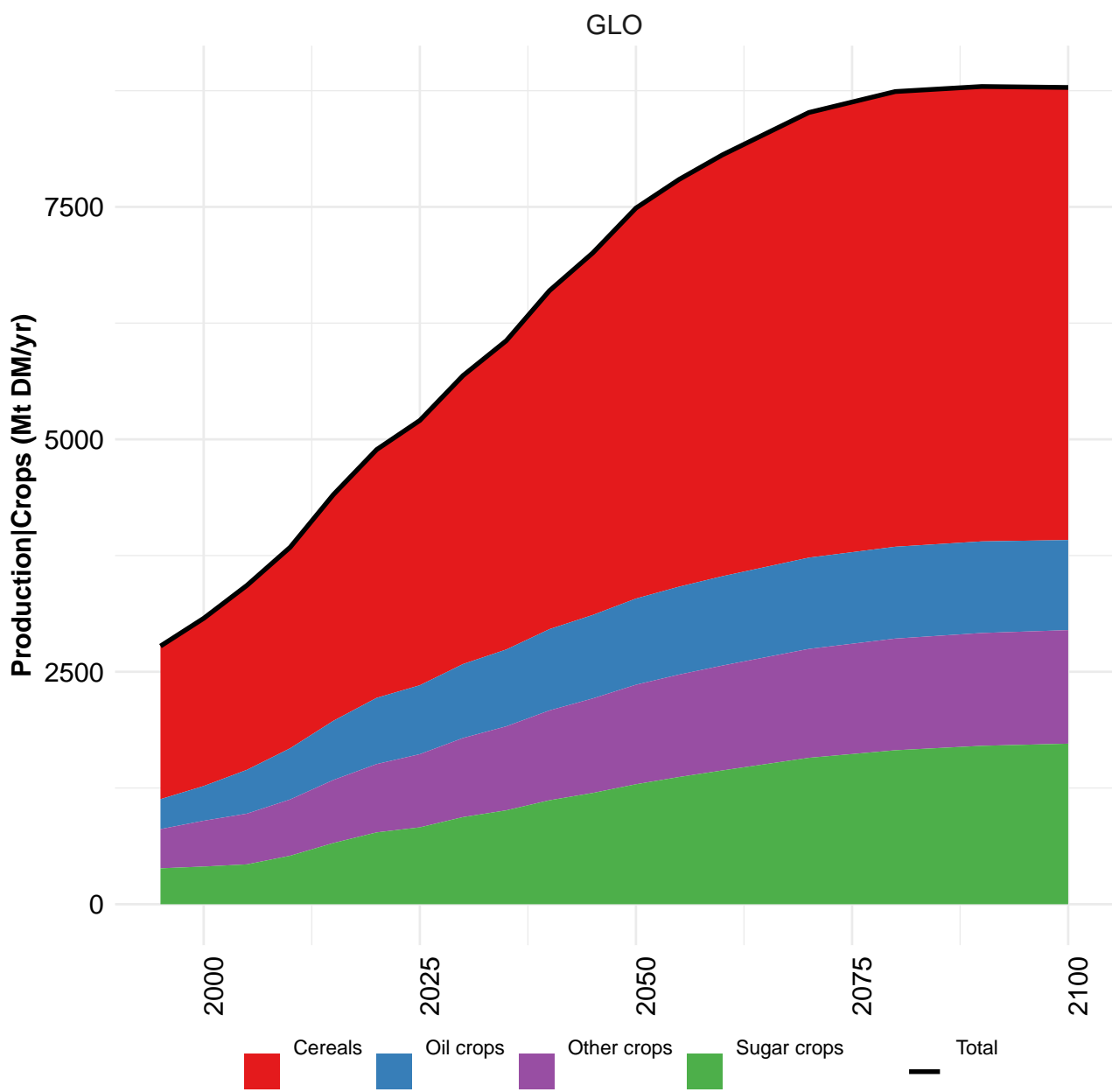
	2050	2055	2060	2070	2080	2090	2100
GLO	2066	2120	2163	2241	2252	2226	2211
BRA	75	72	71	71	71	71	69
CHA	416	431	434	429	422	416	422
EUR	150	152	157	165	167	170	176
LAM	135	135	137	140	140	143	144
ROW	1173	1211	1246	1318	1338	1313	1288
USA	117	119	117	117	115	113	112

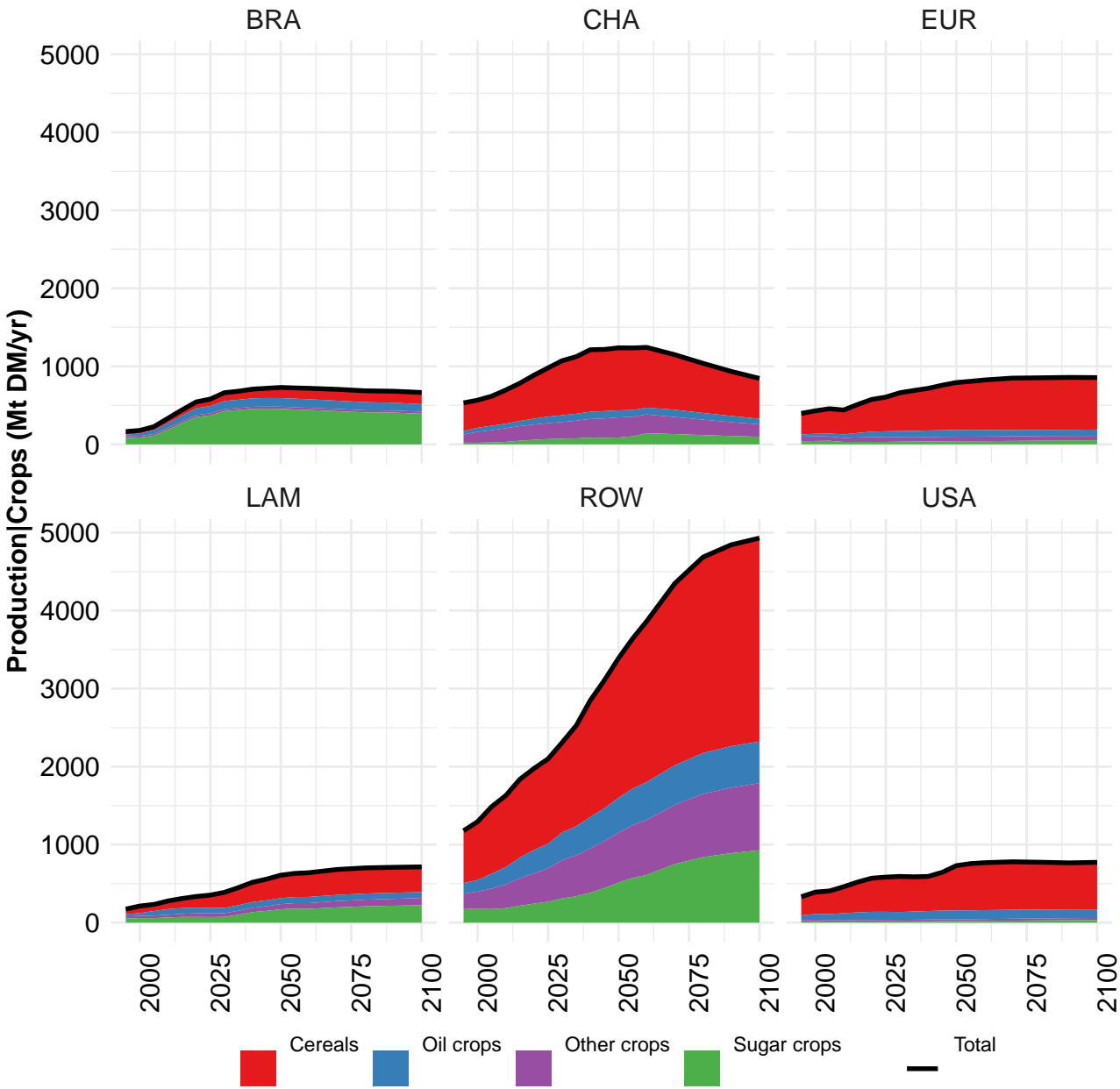
Table 1339: MAgPIE m4p.brazil — Production—Crop residues—Straw (Mt DM/yr) [PART 2/2]

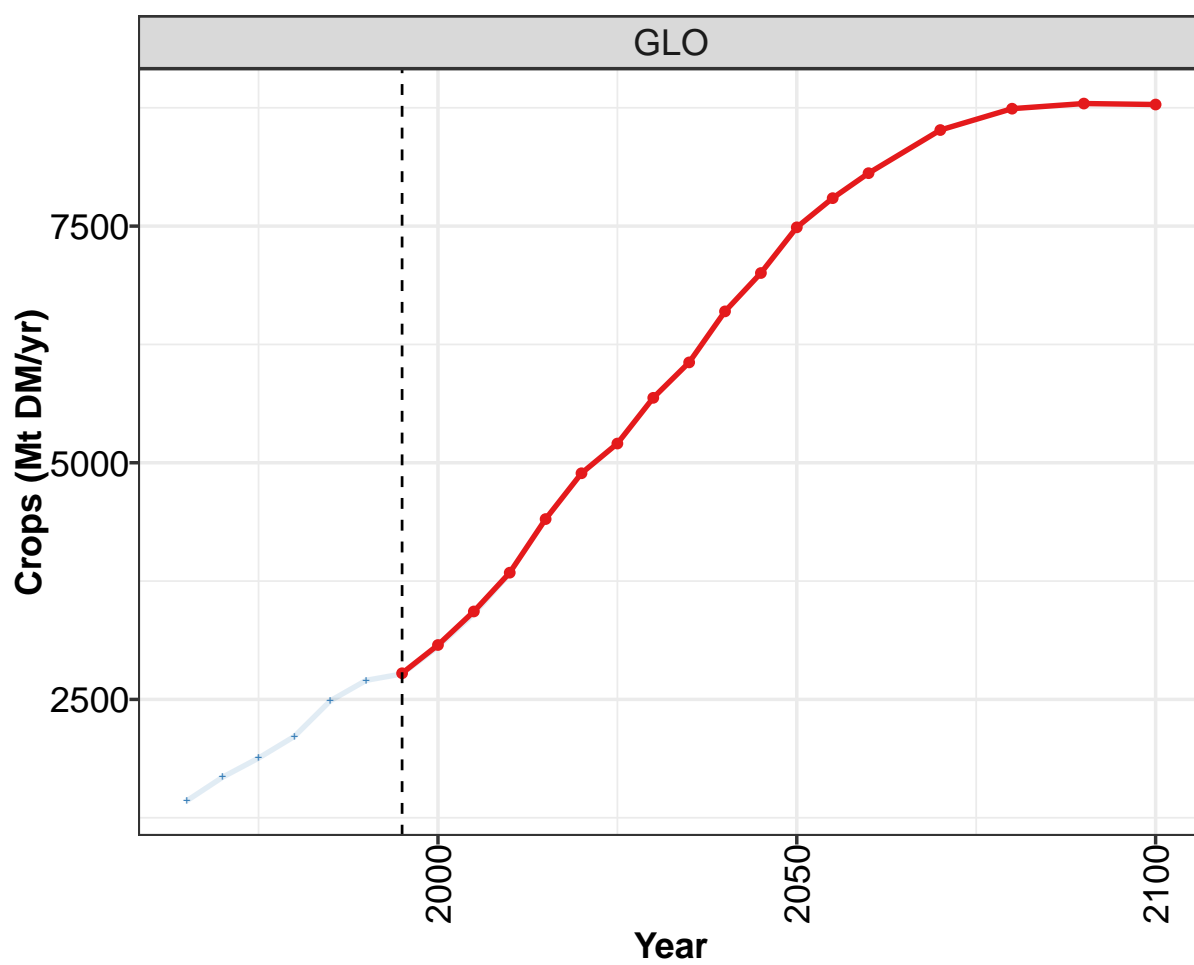
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	563	628	688	721	804	866	881	873	892	921
BRA	17	18	18	19	20	18	23	20	23	24
CHA	145	167	195	210	239	274	266	246	230	215
EUR	31	29	31	30	30	29	26	22	18	18
LAM	23	26	27	25	33	32	32	35	34	36
ROW	335	374	401	422	469	502	522	538	576	616
USA	12	13	15	14	13	11	13	12	11	12

Table 1340: FAO — Production—Crop residues—Straw (Mt DM/yr)

44 Crops



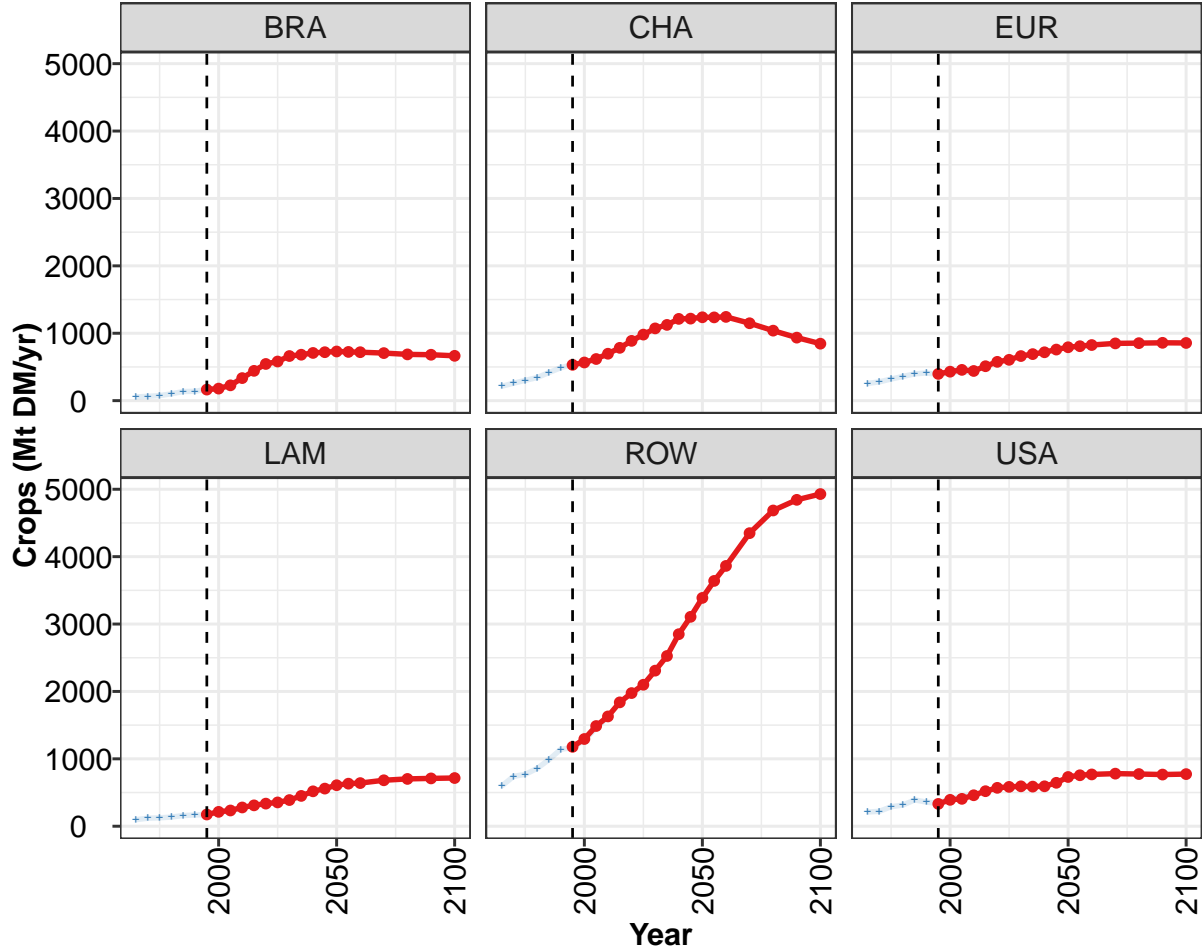


**Model output**

—●— MAgPIE m4p_brazil

Historical data

—+— FAO



Model output

—•— MAgPIE m4p_brazil

Historical data

+— FAO

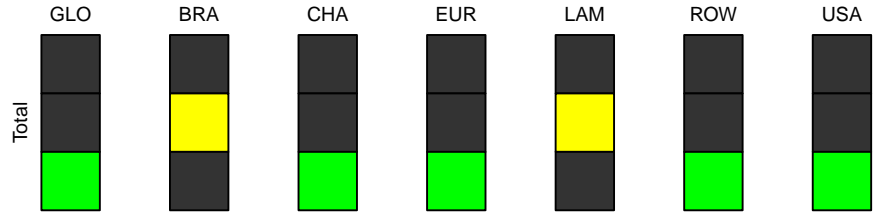


Figure 335: MAgPIE m4p_brazil — Production—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2777	3075	3429	3839	4405	4889	5203	5686	6061	6599	7005
BRA	164	179	227	335	442	545	581	662	682	708	719
CHA	532	567	618	696	784	887	980	1072	1124	1213	1217
EUR	397	430	457	440	511	576	606	662	691	718	758
LAM	174	213	234	278	310	336	353	389	450	518	559
ROW	1178	1294	1487	1629	1838	1976	2099	2309	2526	2850	3107
USA	331	392	406	460	520	570	584	592	588	593	645

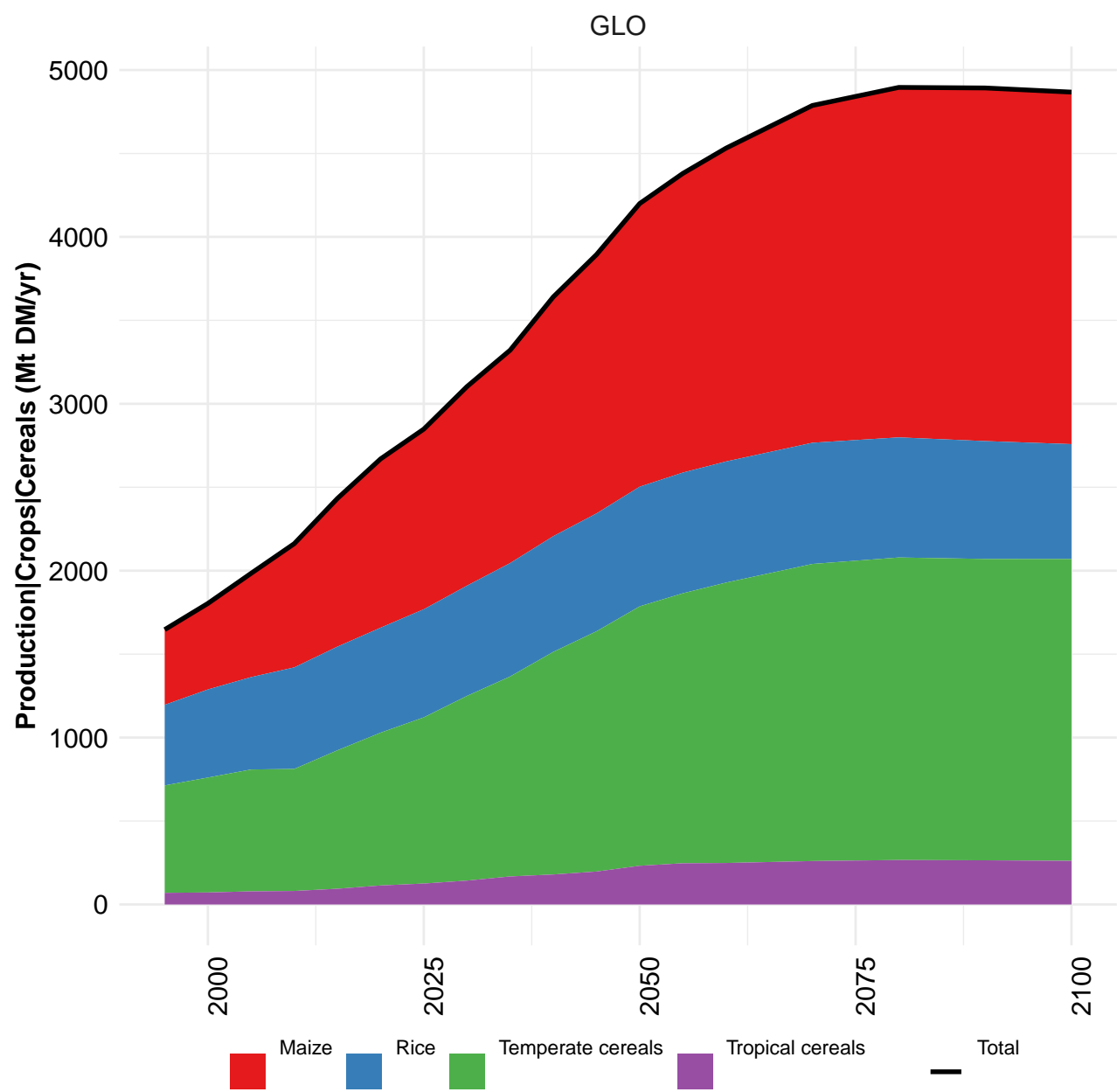
Table 1341: MAgPIE m4p_brazil — Production—Crops (Mt DM/yr) [PART 1/2]

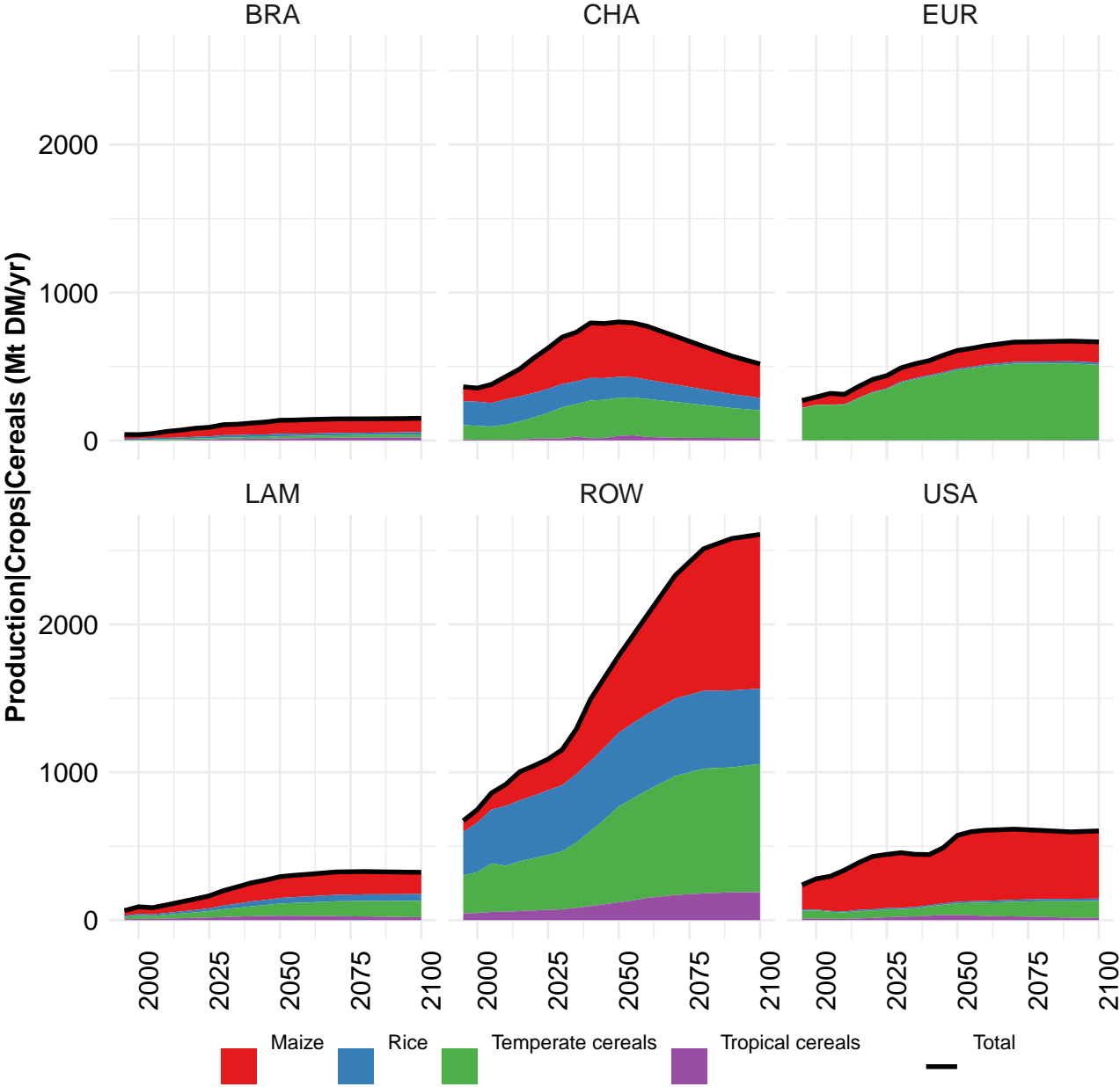
	2050	2055	2060	2070	2080	2090	2100
GLO	7487	7796	8059	8515	8741	8795	8785
BRA	730	723	719	706	687	681	665
CHA	1237	1236	1243	1149	1039	935	846
EUR	793	808	826	850	853	858	856
LAM	609	632	641	682	702	710	715
ROW	3388	3640	3863	4349	4685	4843	4929
USA	731	757	769	780	774	767	773

Table 1342: MAgPIE m4p_brazil — 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
BRA	56	63	75	101	135	138	171	182	237	349
CHA	214	258	301	342	417	488	536	569	615	702
EUR	256	278	320	359	397	410	386	413	429	417
LAM	97	119	124	136	158	166	172	201	226	266
ROW	597	740	770	858	988	1141	1166	1276	1457	1621
USA	210	221	289	314	390	358	338	415	440	475

Table 1343: FAO — Production—Crops (Mt DM/yr)





44.1 Cereals

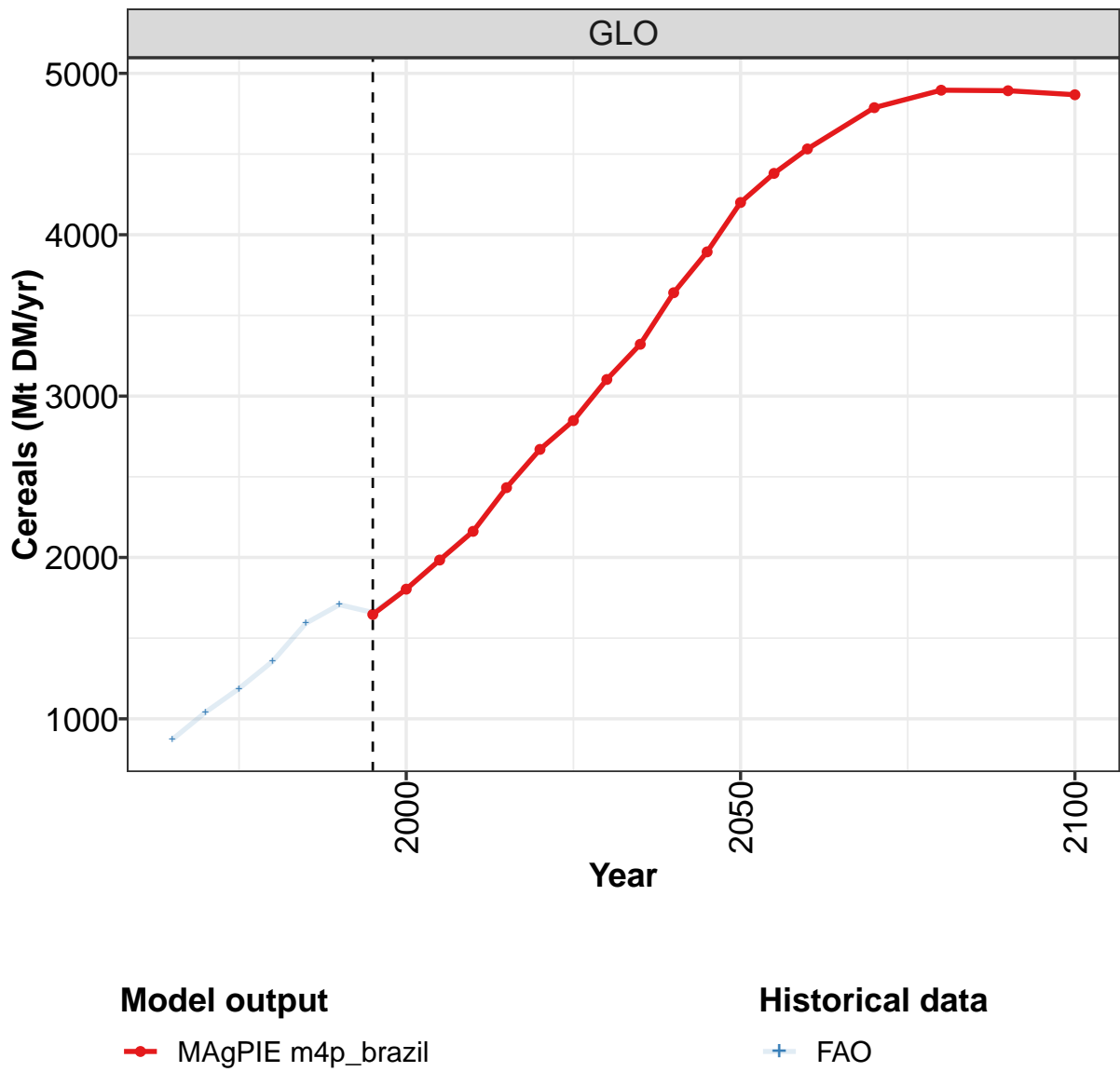




Figure 336: MAgPIE m4p_brazil — Production—Crops—Cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1647	1804	1984	2162	2433	2670	2848	3103	3321	3641	3894
BRA	40	39	46	61	70	82	89	106	110	118	125
CHA	362	354	379	431	483	558	624	698	731	794	791
EUR	270	293	318	312	365	412	438	490	518	540	576
LAM	65	90	84	103	123	143	164	199	226	253	271
ROW	672	747	860	917	1003	1044	1088	1153	1291	1493	1641
USA	238	280	296	338	388	431	445	456	445	443	490

Table 1344: MAgPIE m4p_brazil — Production—Crops—Cereals (Mt DM/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	4200	4380	4532	4788	4896	4892	4868
BRA	136	138	141	146	146	147	150
CHA	801	795	772	705	636	571	517
EUR	608	622	640	665	668	672	666
LAM	294	303	310	326	329	326	324
ROW	1787	1923	2060	2331	2511	2580	2608
USA	574	599	608	615	607	597	603

Table 1345: MAgPIE m4p_brazil — 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
BRA	18	21	23	29	32	29	44	40	49	66
CHA	142	176	214	245	297	354	366	356	376	436
EUR	165	178	215	251	275	280	266	284	300	290
LAM	33	42	48	48	65	58	65	81	86	104
ROW	353	460	469	544	619	711	674	739	851	917
USA	162	164	219	238	305	275	244	301	322	353

Table 1346: FAO — Production—Crops—Cereals (Mt DM/yr)

44.1.1 Maize

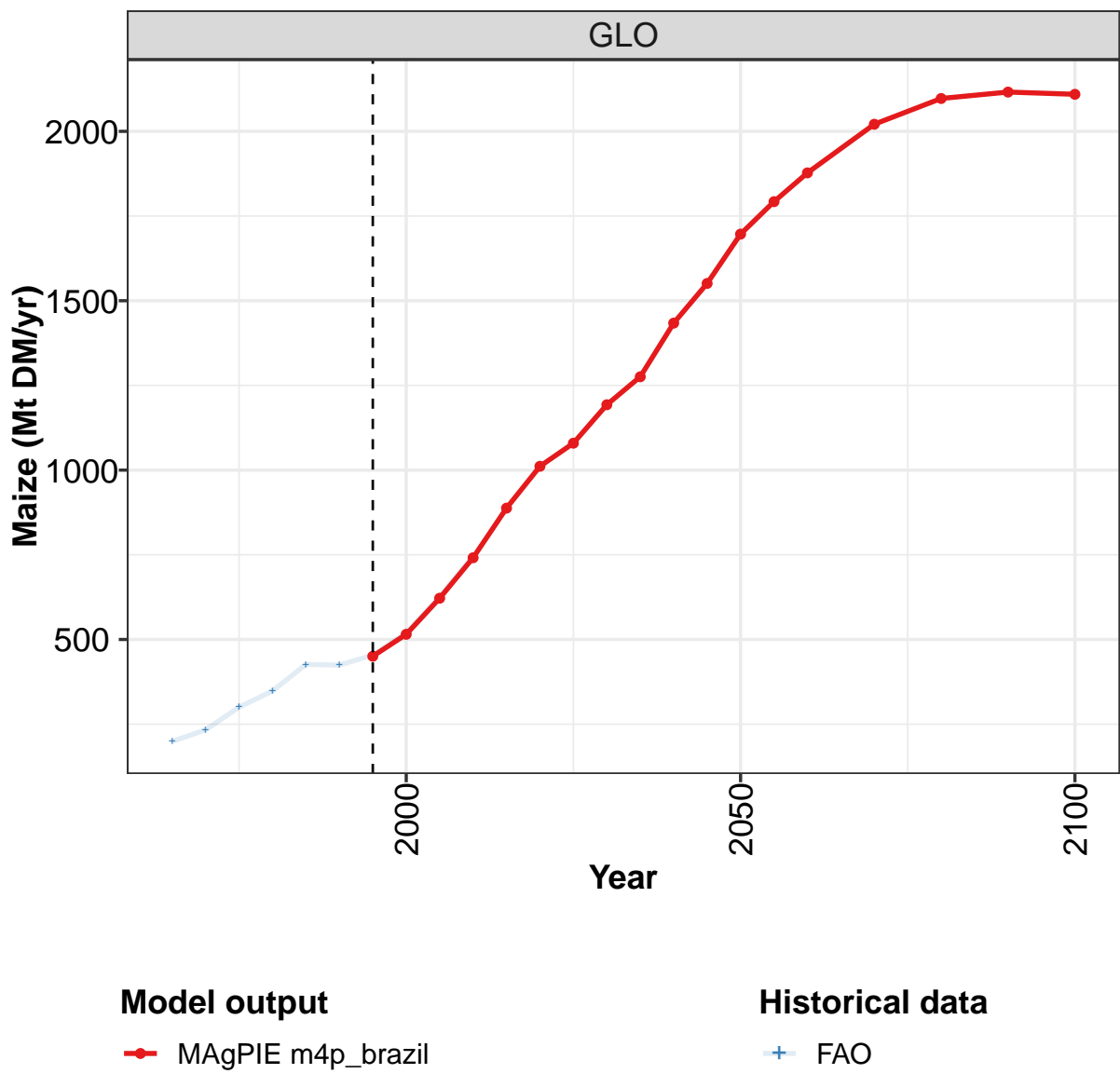




Figure 337: MAgPIE m4p_brazil — Production—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	451	515	622	741	888	1011	1079	1193	1276	1434	1551
BRA	29	27	28	44	50	58	61	71	73	77	84
CHA	97	92	126	152	185	236	275	317	332	372	369
EUR	49	53	76	68	77	85	86	93	98	99	115
LAM	34	49	46	54	64	75	84	101	113	125	134
ROW	76	87	112	145	193	201	210	239	304	418	472
USA	166	208	234	278	319	357	363	372	355	343	377

Table 1347: MAgPIE m4p_brazil — Production—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

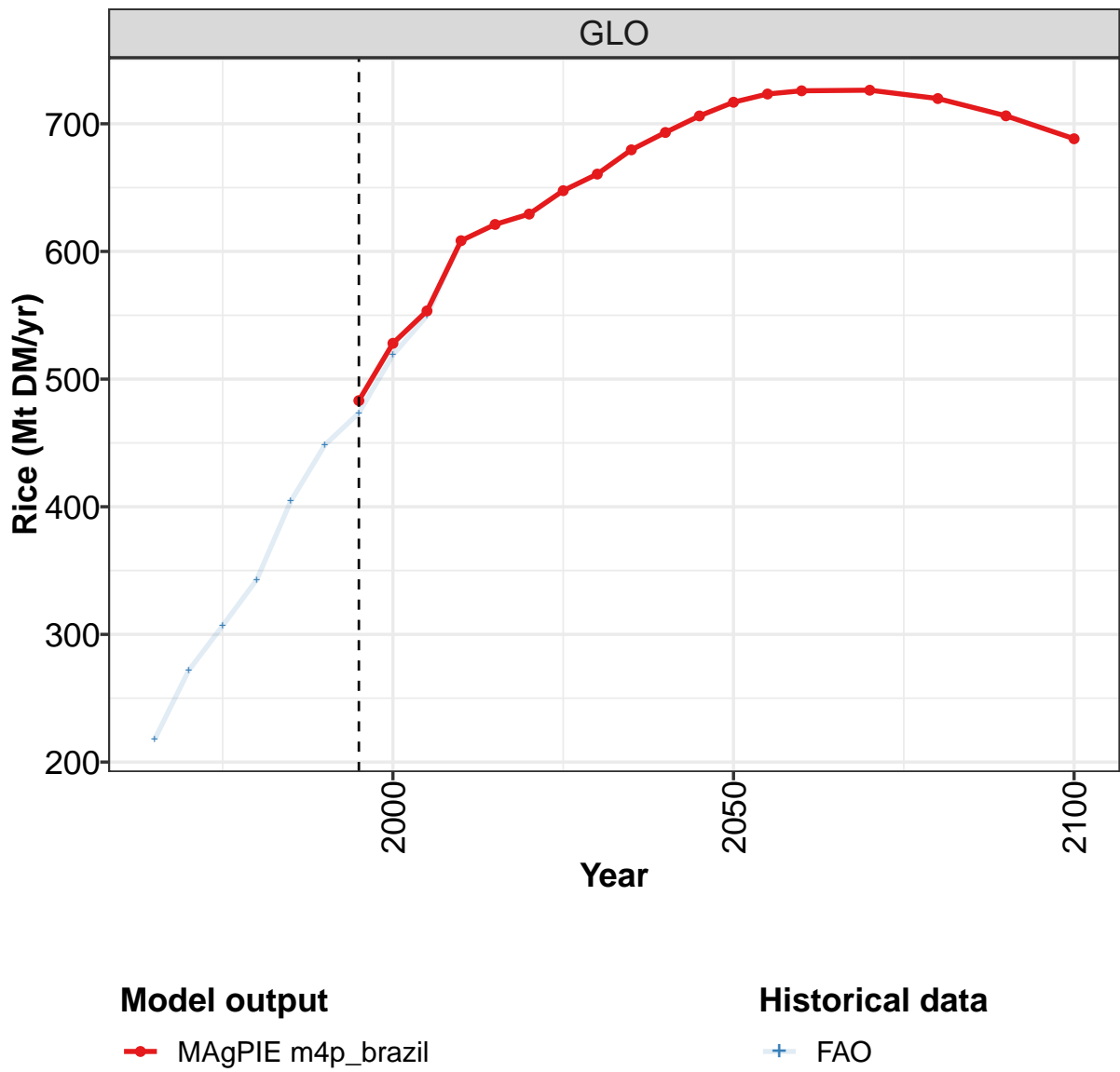
	2050	2055	2060	2070	2080	2090	2100
GLO	1697	1792	1877	2021	2097	2116	2109
BRA	91	93	94	96	94	93	92
CHA	371	367	361	326	291	257	229
EUR	123	124	128	134	135	136	140
LAM	144	147	149	154	154	150	147
ROW	519	591	667	833	960	1027	1043
USA	449	470	478	477	464	453	458

Table 1348: MAgPIE m4p_brazil — 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
BRA	11	13	14	18	19	19	32	28	31	49
CHA	21	29	42	55	56	86	99	93	123	156
EUR	24	34	43	47	54	41	51	52	69	64
LAM	17	21	19	22	29	25	34	39	46	54
ROW	35	44	51	58	69	77	72	86	110	147
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



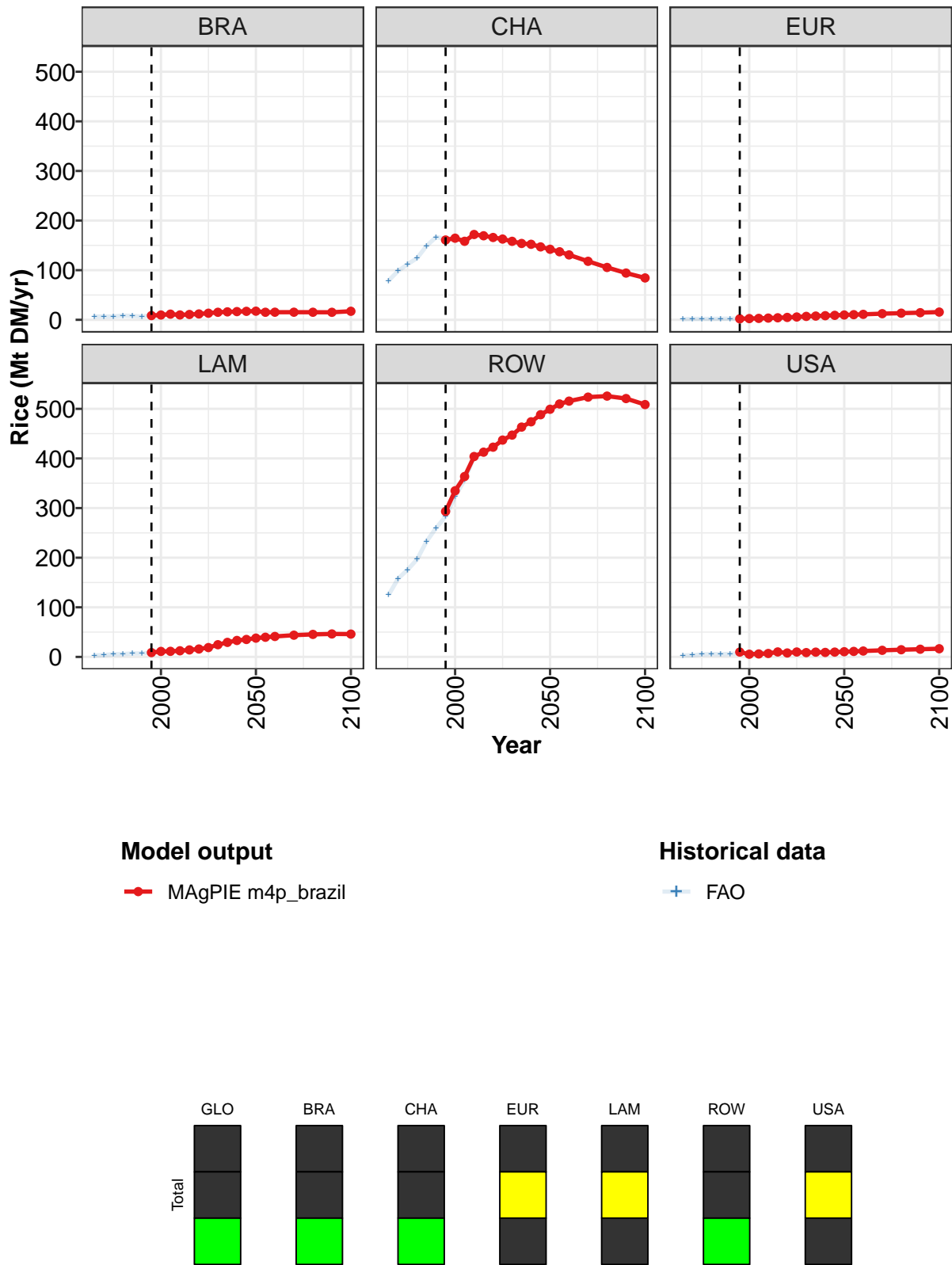


Figure 338: MAGPIE m4p_brazil — Production—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	483	528	553	608	621	629	648	661	680	693	706
BRA	9	10	11	10	11	12	13	15	16	17	17
CHA	161	164	158	172	169	166	163	158	154	152	147
EUR	2	2	3	3	4	5	6	7	8	8	9
LAM	9	11	11	12	14	16	19	25	29	33	35
ROW	293	335	364	404	413	423	437	447	463	474	488
USA	10	5	6	7	10	8	10	9	10	9	10

Table 1350: MAgPIE m4p_brazil — Production—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

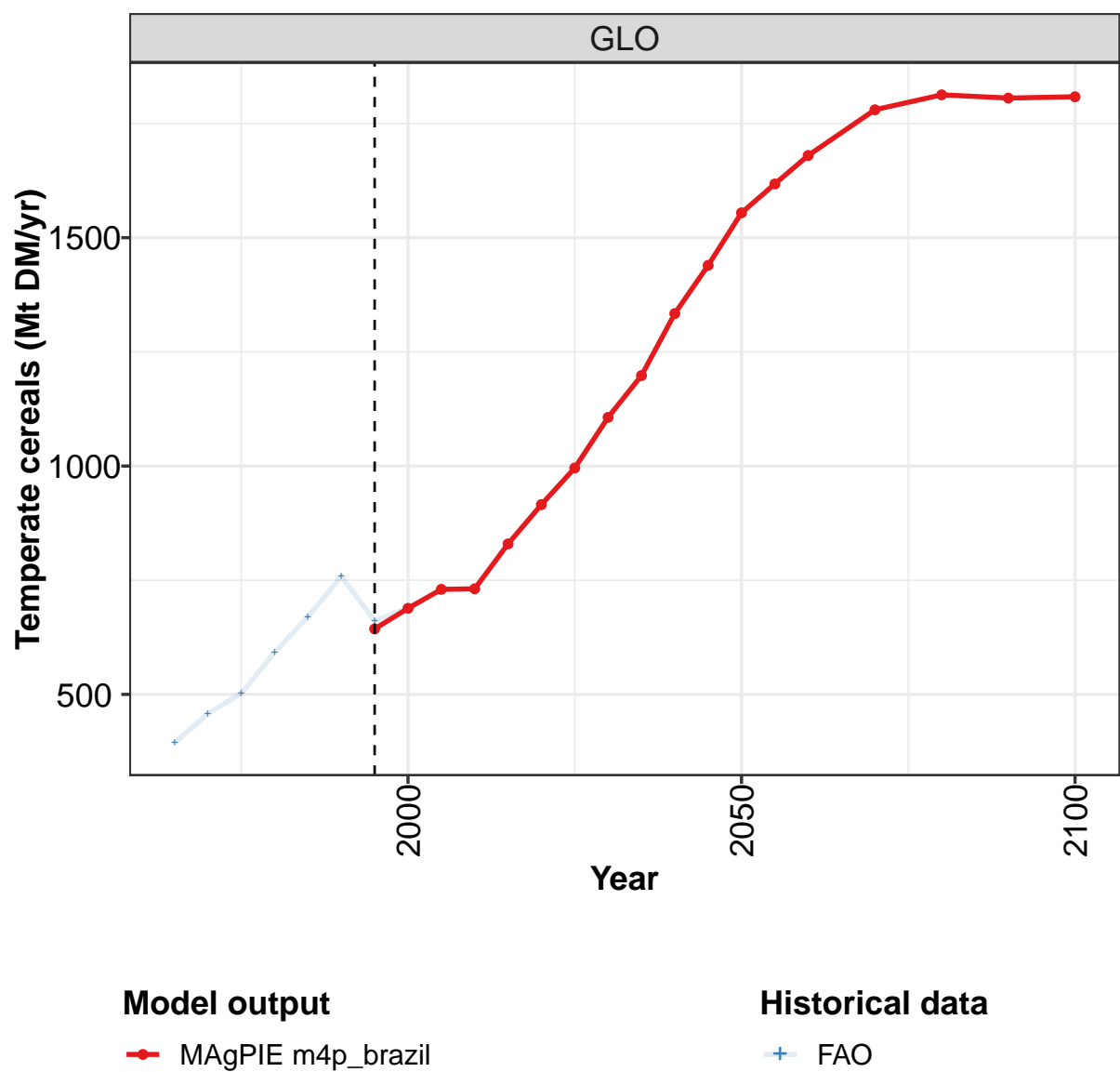
	2050	2055	2060	2070	2080	2090	2100
GLO	717	723	726	726	720	706	688
BRA	17	15	15	15	15	15	17
CHA	142	137	131	118	106	94	84
EUR	10	10	11	12	13	14	16
LAM	38	40	41	44	45	46	46
ROW	499	510	516	524	526	521	509
USA	11	11	12	13	14	16	16

Table 1351: MAgPIE m4p_brazil — 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
BRA	7	7	7	9	8	6	10	10	11	10
CHA	79	98	112	124	149	167	163	165	158	172
EUR	1	2	2	2	2	2	2	2	3	3
LAM	3	4	5	6	7	7	9	11	11	12
ROW	125	158	176	197	233	260	283	323	357	402
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



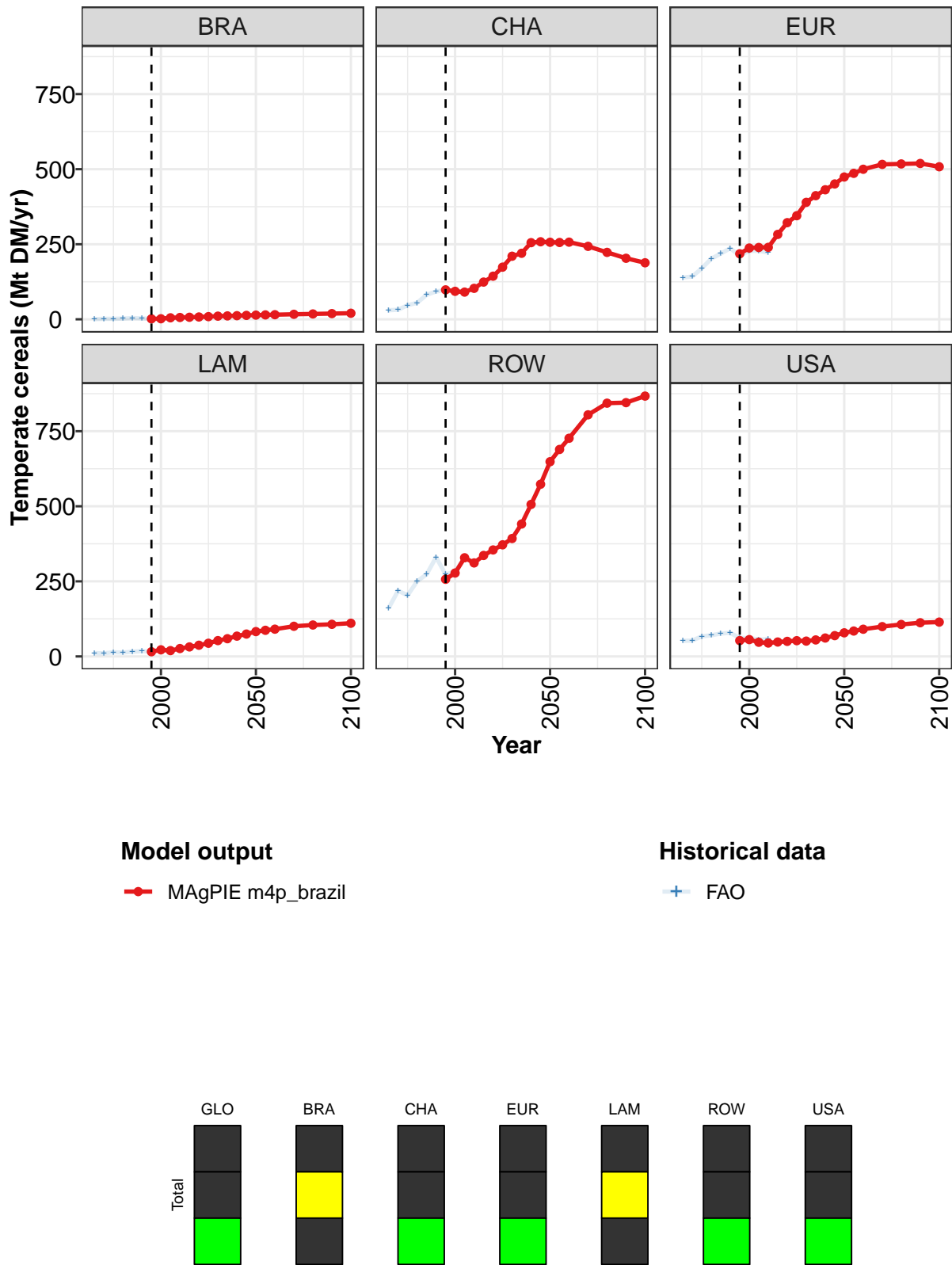


Figure 339: MAgPIE m4p.brazil — Production—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	643	688	730	731	830	916	996	1107	1198	1334	1439
BRA	2	2	5	6	7	8	9	11	11	12	13
CHA	98	93	91	103	124	144	174	210	220	255	258
EUR	218	237	239	240	283	322	345	389	412	431	451
LAM	16	22	19	26	32	37	44	53	59	68	75
ROW	257	278	329	311	336	355	372	393	441	506	573
USA	53	56	47	45	48	50	52	51	55	61	69

Table 1353: MAgPIE m4p.brazil — Production—Crops—Cereals—Temperate cereals (Mt DM/yr) [PART 1/2]

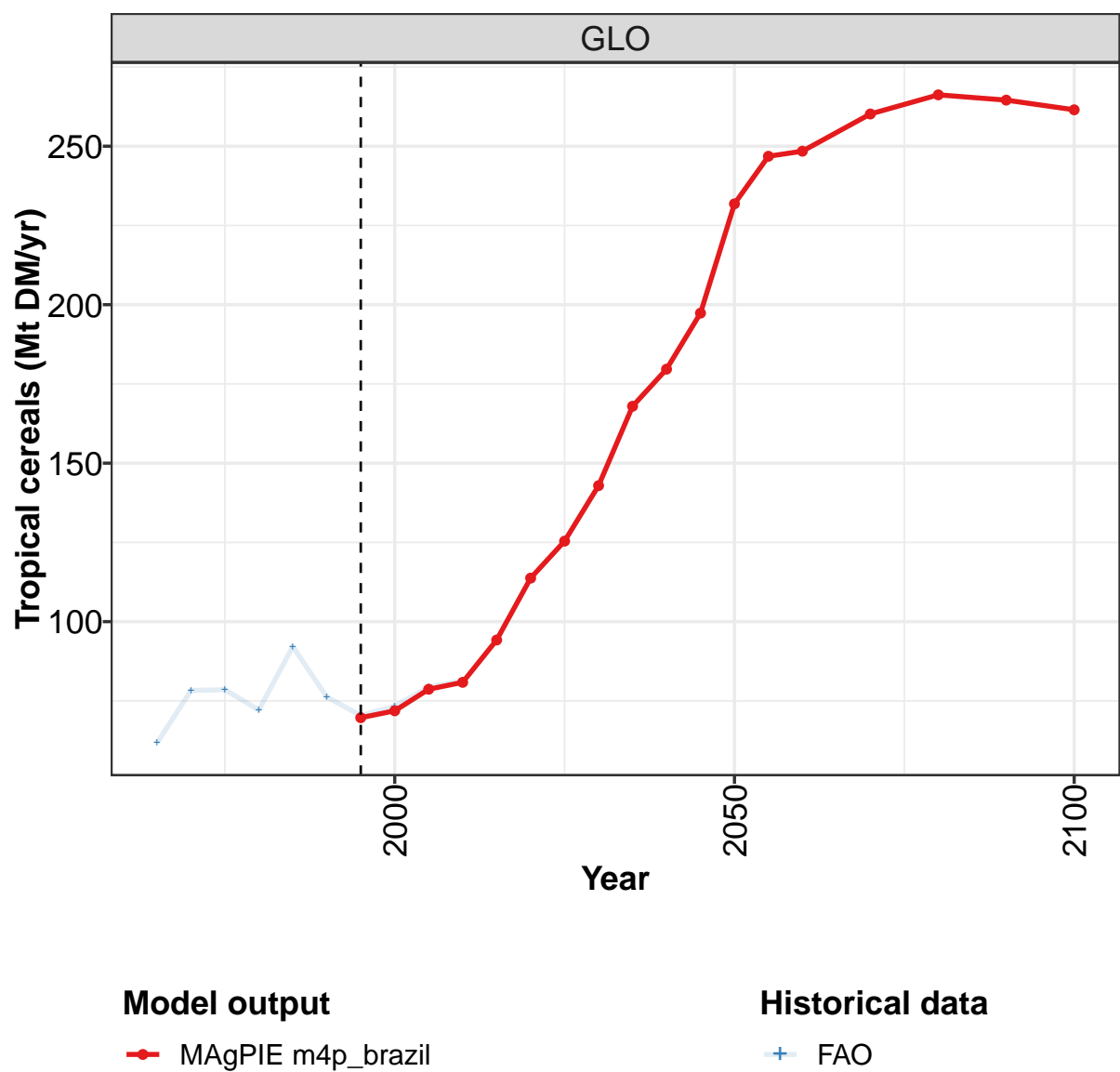
	2050	2055	2060	2070	2080	2090	2100
GLO	1554	1618	1680	1780	1813	1806	1809
BRA	14	15	15	17	18	19	20
CHA	257	256	257	243	223	203	188
EUR	474	486	500	516	517	519	508
LAM	83	87	91	100	105	107	111
ROW	649	689	727	805	843	845	867
USA	79	85	91	99	106	112	114

Table 1354: MAgPIE m4p.brazil — 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
BRA	1	2	2	3	4	3	2	2	5	6
CHA	30	32	47	55	81	93	98	94	91	105
EUR	139	142	170	202	219	236	212	228	228	222
LAM	11	10	14	13	16	18	16	22	19	26
ROW	161	219	203	250	273	330	273	282	329	311
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



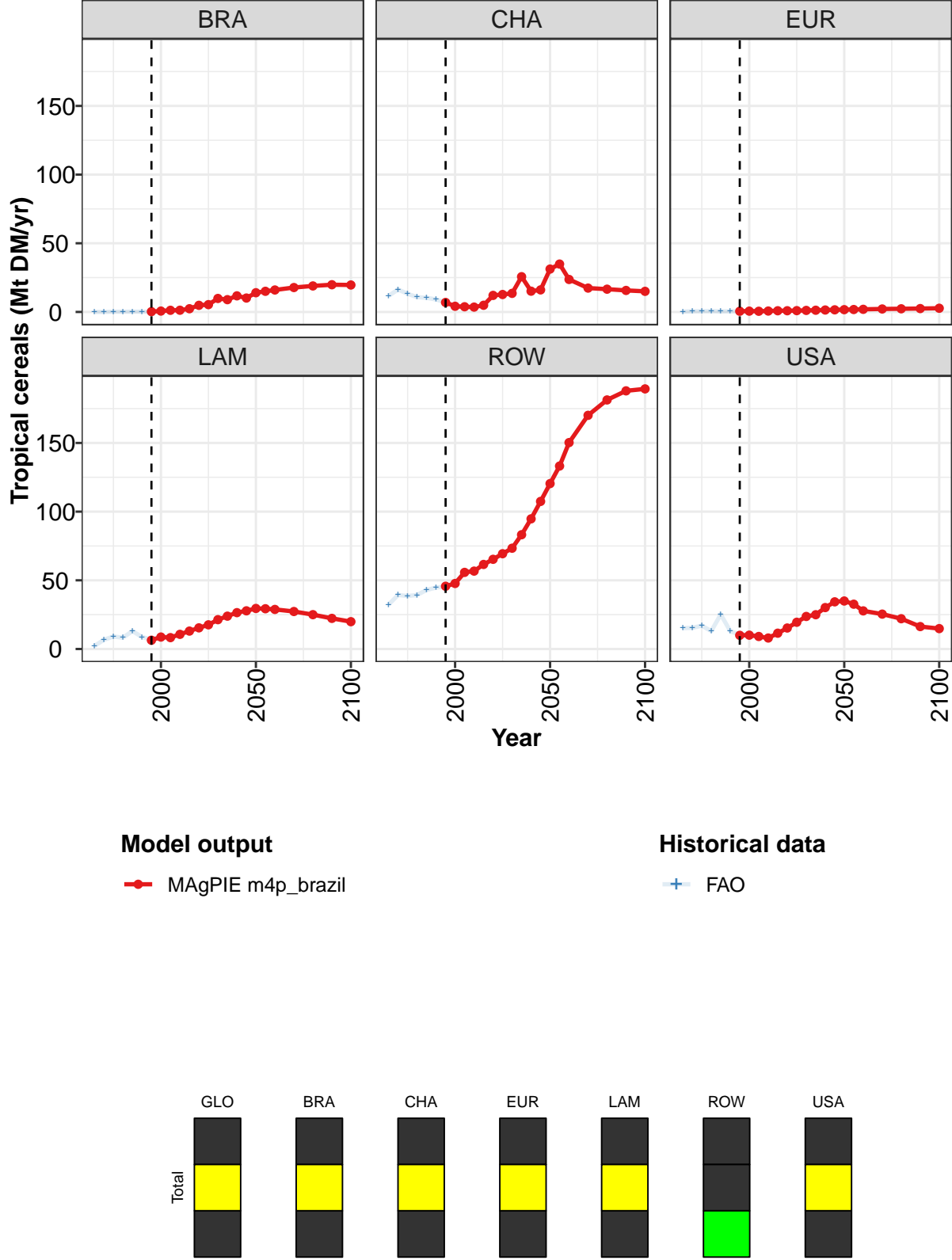


Figure 340: MAgPIE m4p_brazil — Production—Crops—Cereals—Tropical cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	70	72	79	81	94	114	125	143	168	180	197
BRA	0	1	1	1	2	5	5	10	9	12	10
CHA	7	4	4	4	5	12	13	14	26	15	16
EUR	1	1	1	1	1	1	1	1	1	1	2
LAM	6	9	8	11	13	15	18	21	24	26	28
ROW	46	48	56	57	62	65	69	73	83	95	107
USA	10	10	9	8	12	15	19	24	25	30	34

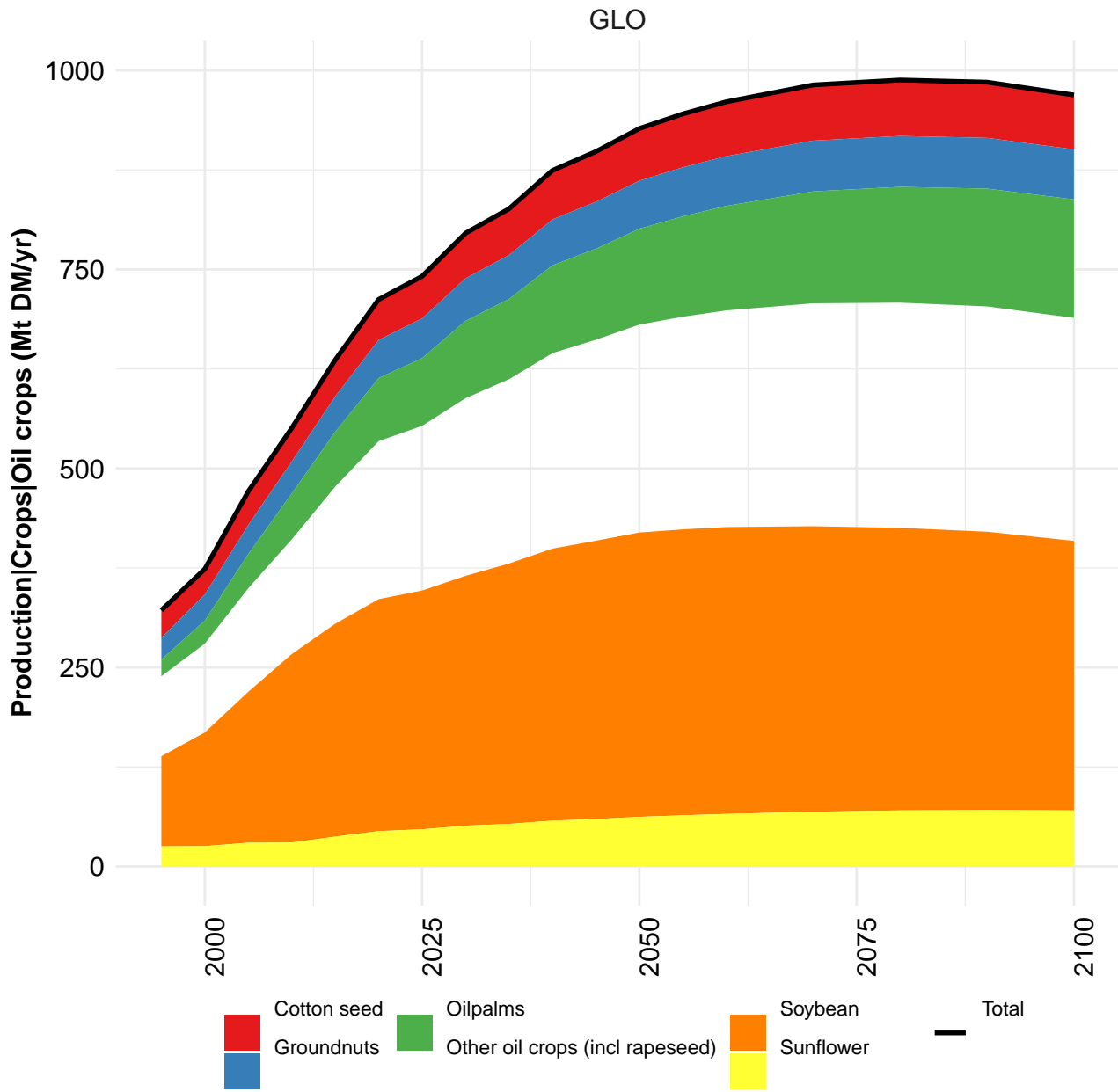
Table 1356: MAgPIE m4p_brazil — Production—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

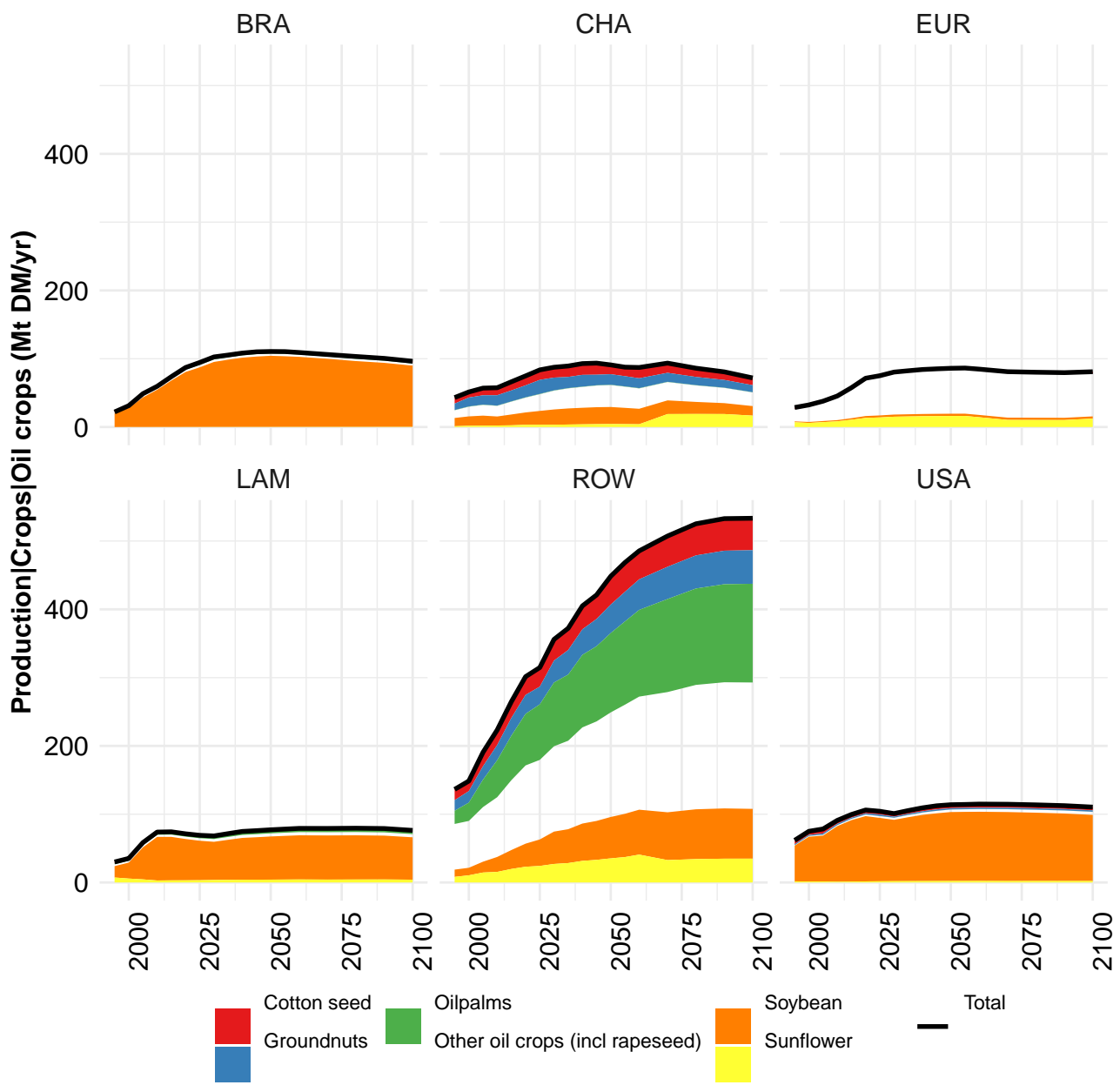
	2050	2055	2060	2070	2080	2090	2100
GLO	232	247	248	260	266	265	261
BRA	14	15	16	18	19	20	20
CHA	31	35	24	17	17	16	15
EUR	2	2	2	2	2	2	3
LAM	30	29	29	27	25	22	20
ROW	120	133	150	170	181	188	189
USA	35	33	28	25	22	16	15

Table 1357: MAgPIE m4p_brazil — Production—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 2/2]

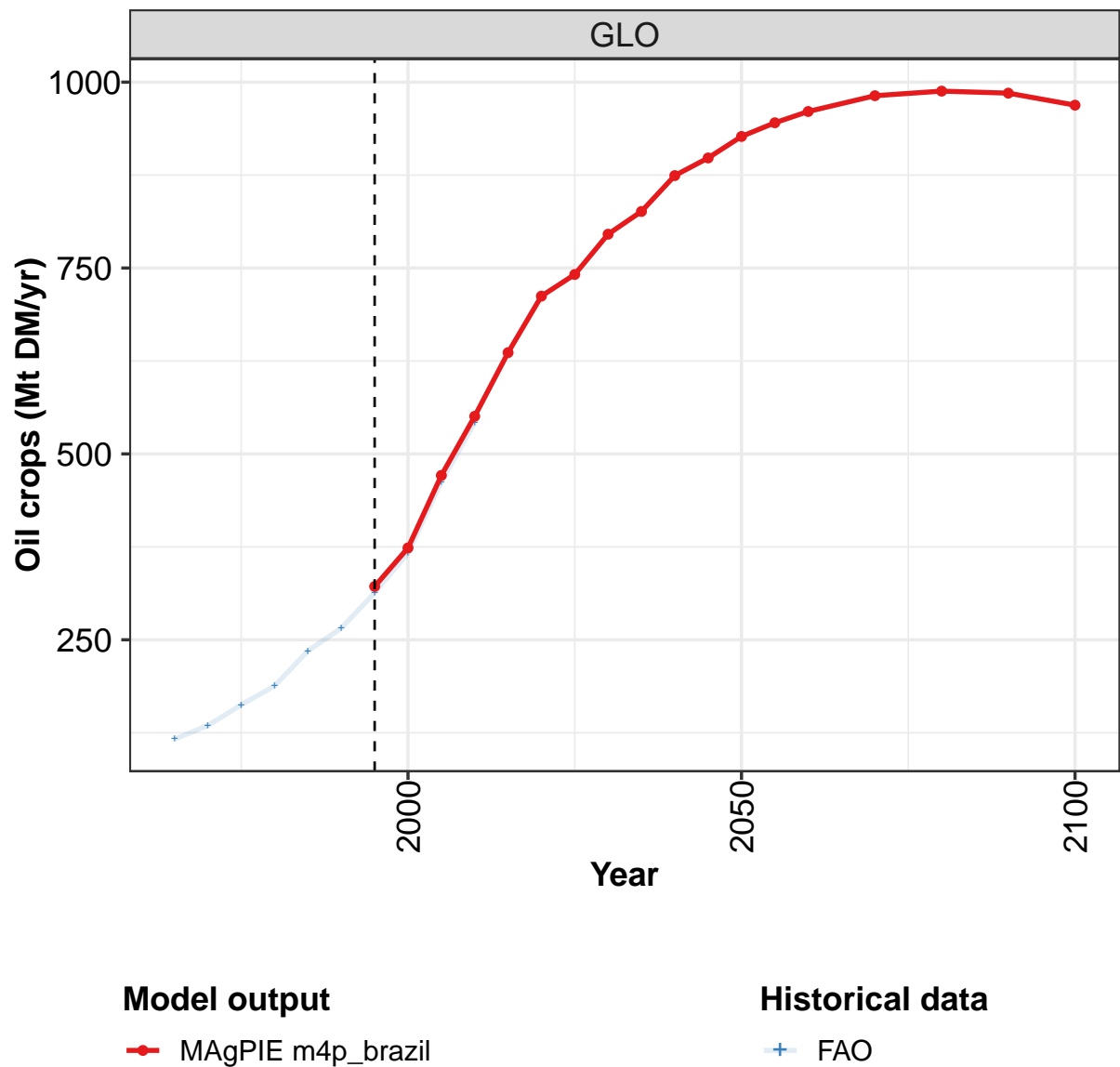
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	61.7	78.3	78.5	72.1	92.1	76.2	70.4	73.3	79.4	81.4
BRA	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.7	1.3	1.3
CHA	11.7	16.3	13.2	10.8	10.3	9.1	6.9	4.2	3.8	3.5
EUR	0.3	0.5	0.6	0.6	0.4	0.5	0.5	0.6	0.5	0.6
LAM	2.2	6.7	9.1	8.2	13.1	8.7	6.8	9.3	8.7	10.8
ROW	32.4	39.3	38.5	39.3	43.0	44.7	45.5	47.9	56.0	57.0
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



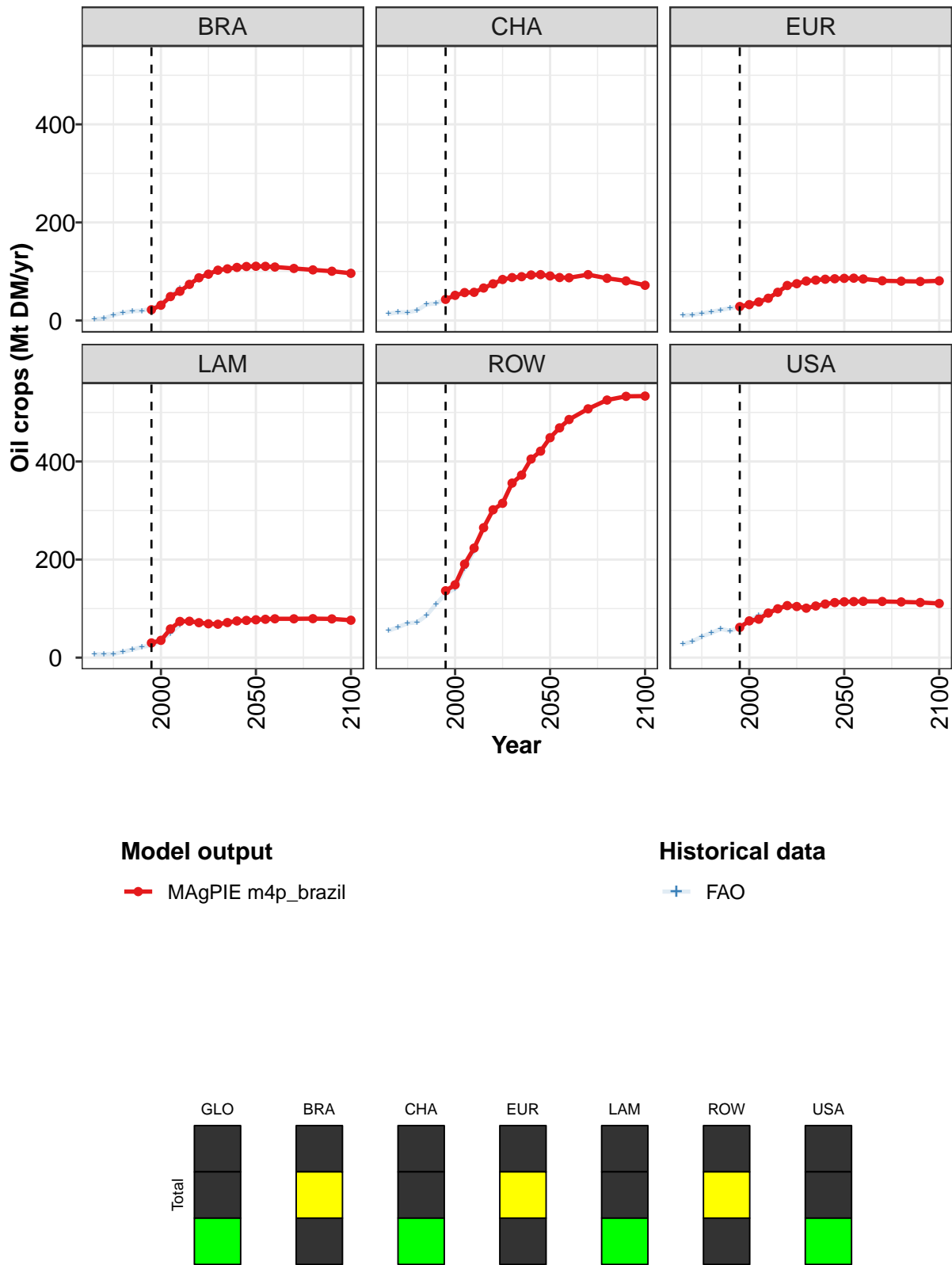


Figure 341: MAgPIE m4p_brazil — Production—Crops—Oil crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	322	374	471	551	636	712	741	796	826	874	898
BRA	22	31	49	60	74	87	95	103	105	108	110
CHA	43	51	57	58	66	75	84	88	89	93	94
EUR	29	32	38	45	58	71	75	80	82	84	85
LAM	30	35	58	74	74	71	69	68	72	75	76
ROW	136	149	191	223	265	301	315	356	372	405	421
USA	62	75	78	91	100	106	104	101	105	109	112

Table 1359: MAgPIE m4p_brazil — Production—Crops—Oil crops (Mt DM/yr) [PART 1/2]

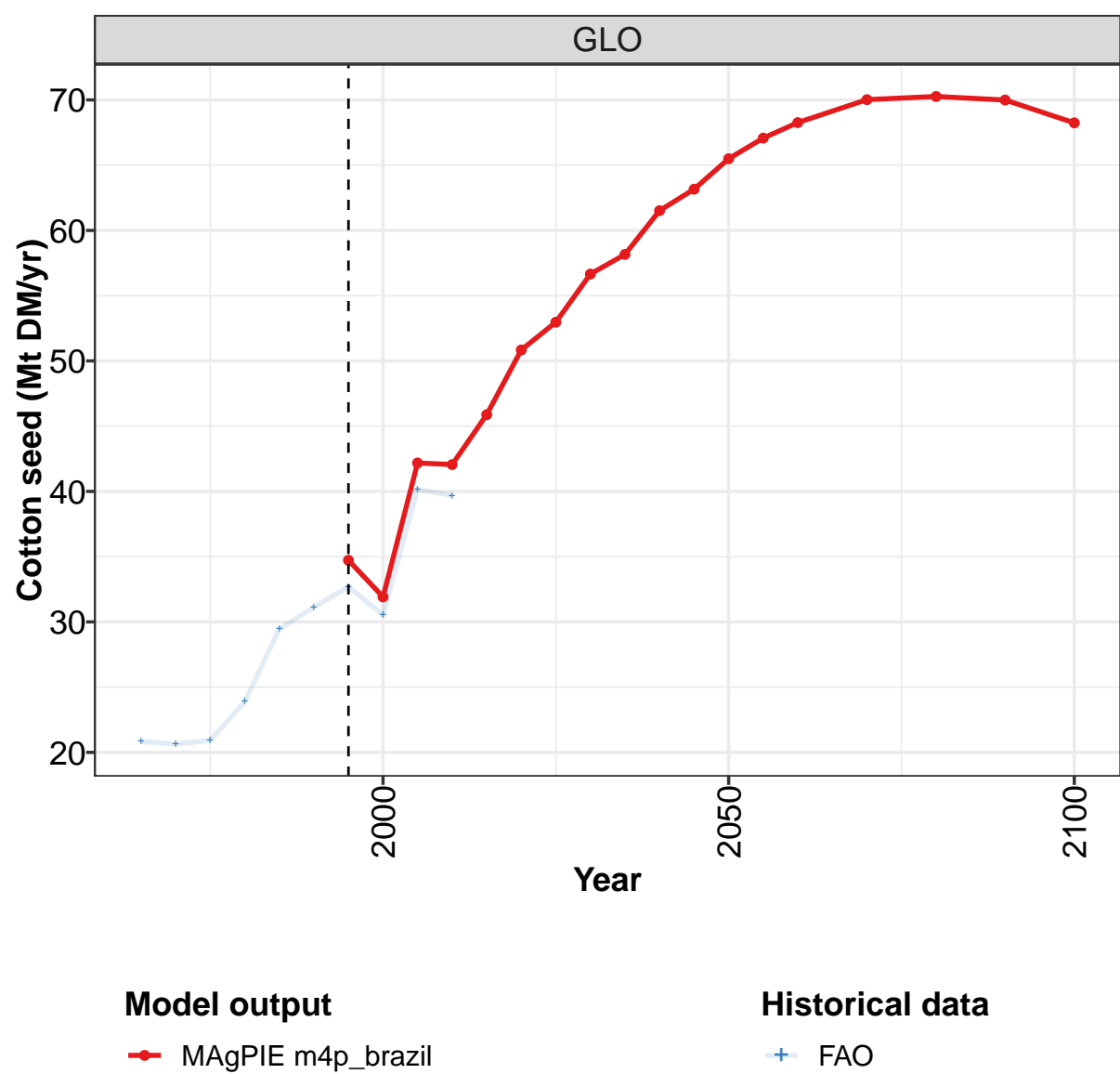
	2050	2055	2060	2070	2080	2090	2100
GLO	927	945	961	982	988	985	969
BRA	111	110	109	106	103	101	96
CHA	91	88	87	94	86	81	72
EUR	86	86	85	81	80	80	81
LAM	77	78	79	79	79	79	76
ROW	448	468	486	507	525	533	533
USA	114	114	115	115	114	112	110

Table 1360: MAgPIE m4p_brazil — 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
BRA	3	4	11	16	19	20	25	33	51	66
CHA	14	17	17	21	33	35	44	52	56	57
EUR	10	12	15	18	21	25	28	32	37	44
LAM	7	7	7	12	17	22	25	33	50	67
ROW	55	62	70	72	86	109	130	141	182	217
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



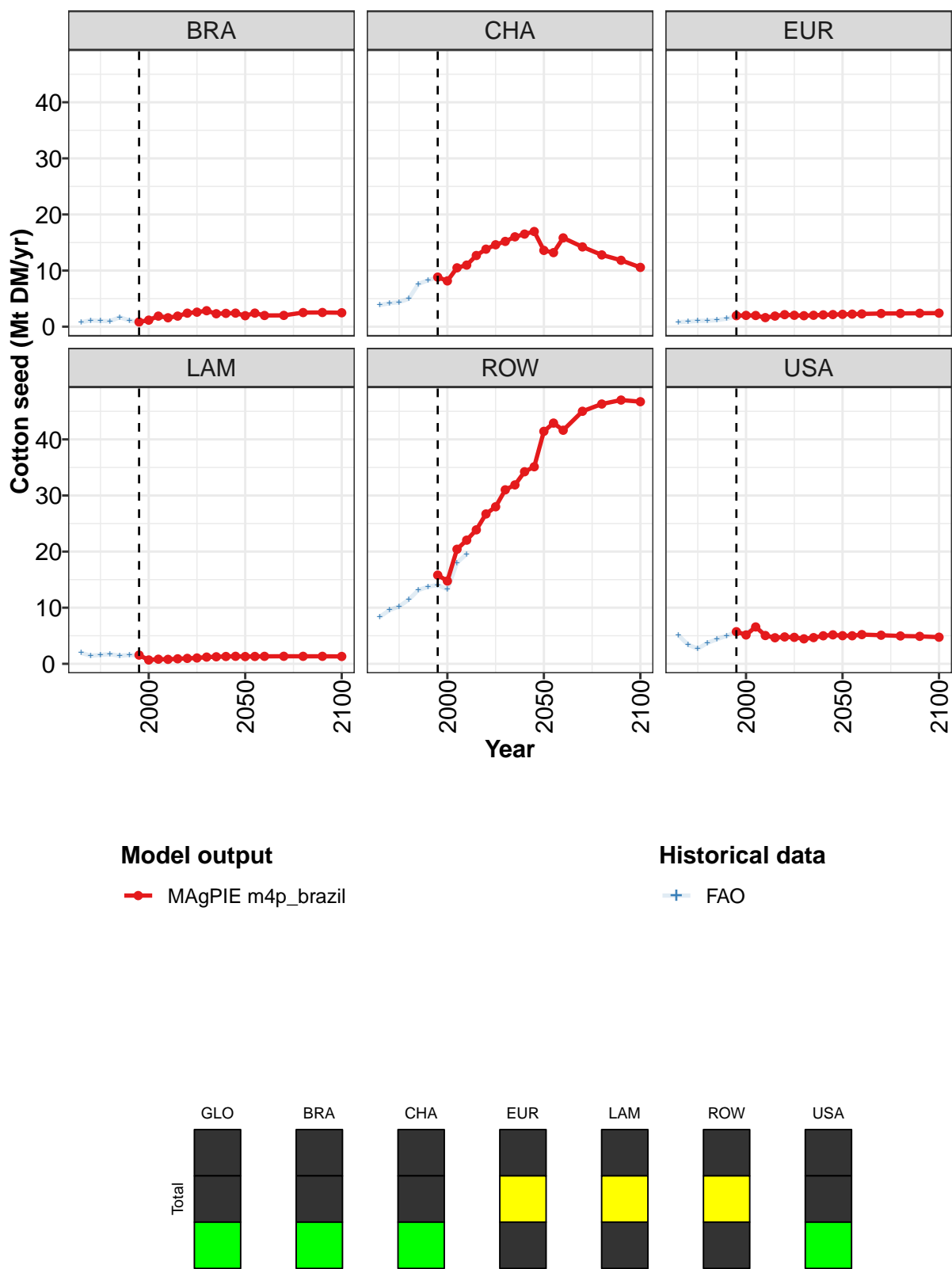


Figure 342: MAgPIE m4p.brazil — Production—Crops—Oil crops—Cotton seed (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34.7	31.9	42.2	42.1	45.9	50.8	53.0	56.7	58.2	61.5	63.2
BRA	0.8	1.2	1.9	1.6	1.9	2.4	2.6	2.8	2.3	2.4	2.4
CHA	8.8	8.2	10.5	11.0	12.7	13.8	14.6	15.2	16.0	16.5	17.0
EUR	2.0	2.0	2.0	1.6	1.9	2.1	2.0	2.0	2.0	2.1	2.2
LAM	1.6	0.7	0.8	0.8	0.9	1.0	1.0	1.2	1.3	1.3	1.3
ROW	15.8	14.8	20.4	22.0	23.9	26.7	28.0	31.0	31.9	34.2	35.1
USA	5.7	5.1	6.6	5.0	4.6	4.8	4.7	4.4	4.7	5.0	5.2

Table 1362: MAgPIE m4p_brazil — Production—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

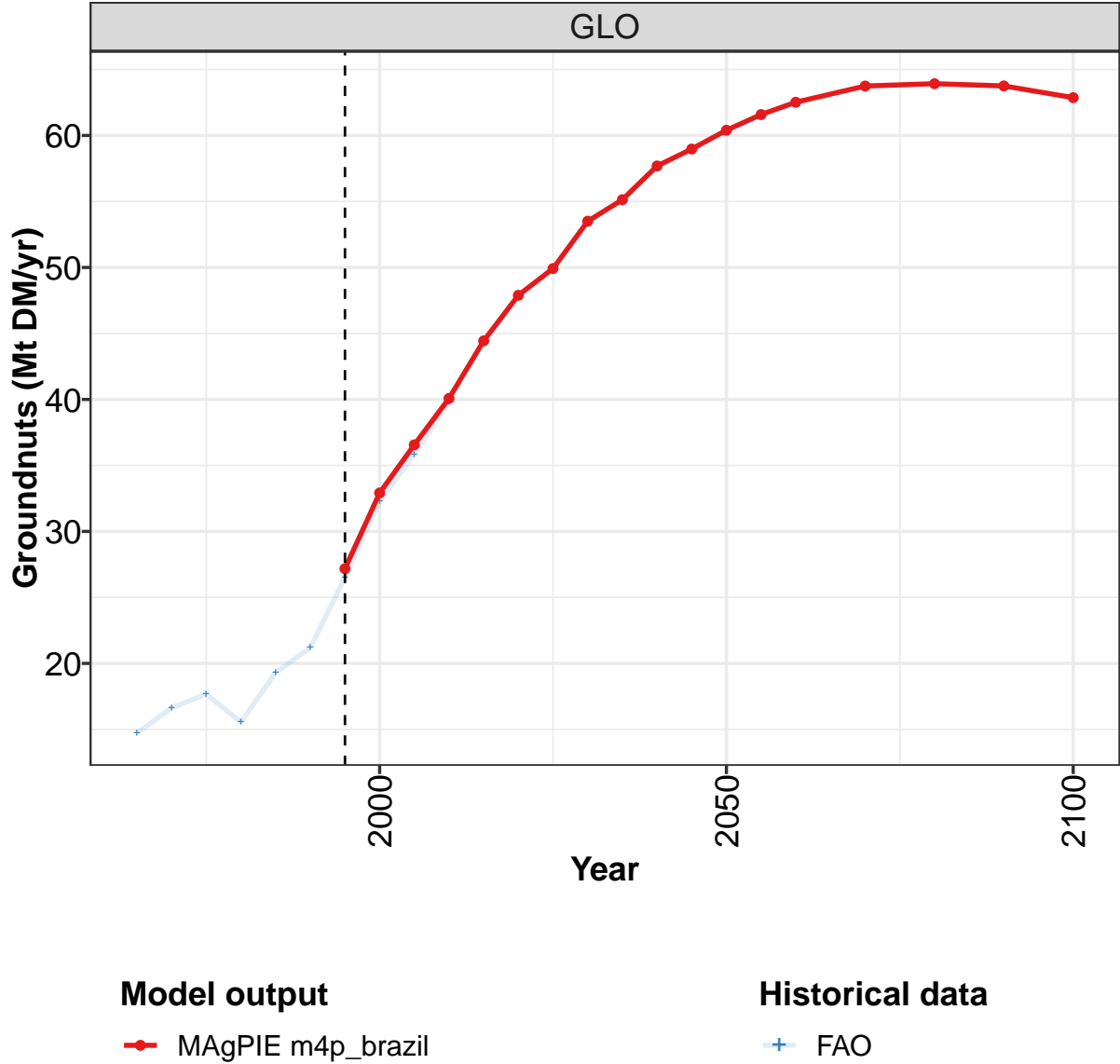
	2050	2055	2060	2070	2080	2090	2100
GLO	65.5	67.1	68.3	70.0	70.3	70.0	68.2
BRA	2.0	2.4	2.0	2.0	2.5	2.5	2.5
CHA	13.6	13.2	15.8	14.2	12.8	11.8	10.6
EUR	2.2	2.2	2.3	2.3	2.4	2.4	2.4
LAM	1.3	1.3	1.3	1.3	1.3	1.3	1.3
ROW	41.4	42.9	41.6	45.0	46.3	47.0	46.7
USA	5.0	5.0	5.2	5.1	5.0	4.9	4.7

Table 1363: MAgPIE m4p_brazil — 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
BRA	0.8	1.1	1.0	1.0	1.7	1.1	0.8	1.2	2.1	1.7
CHA	3.9	4.2	4.4	5.0	7.6	8.3	8.8	8.1	10.5	11.0
EUR	0.8	0.9	1.0	1.1	1.2	1.4	1.9	2.0	1.9	1.6
LAM	1.9	1.4	1.6	1.7	1.4	1.6	1.4	0.6	0.8	0.8
ROW	8.4	9.6	10.2	11.4	13.1	13.7	14.1	13.3	18.0	19.6
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



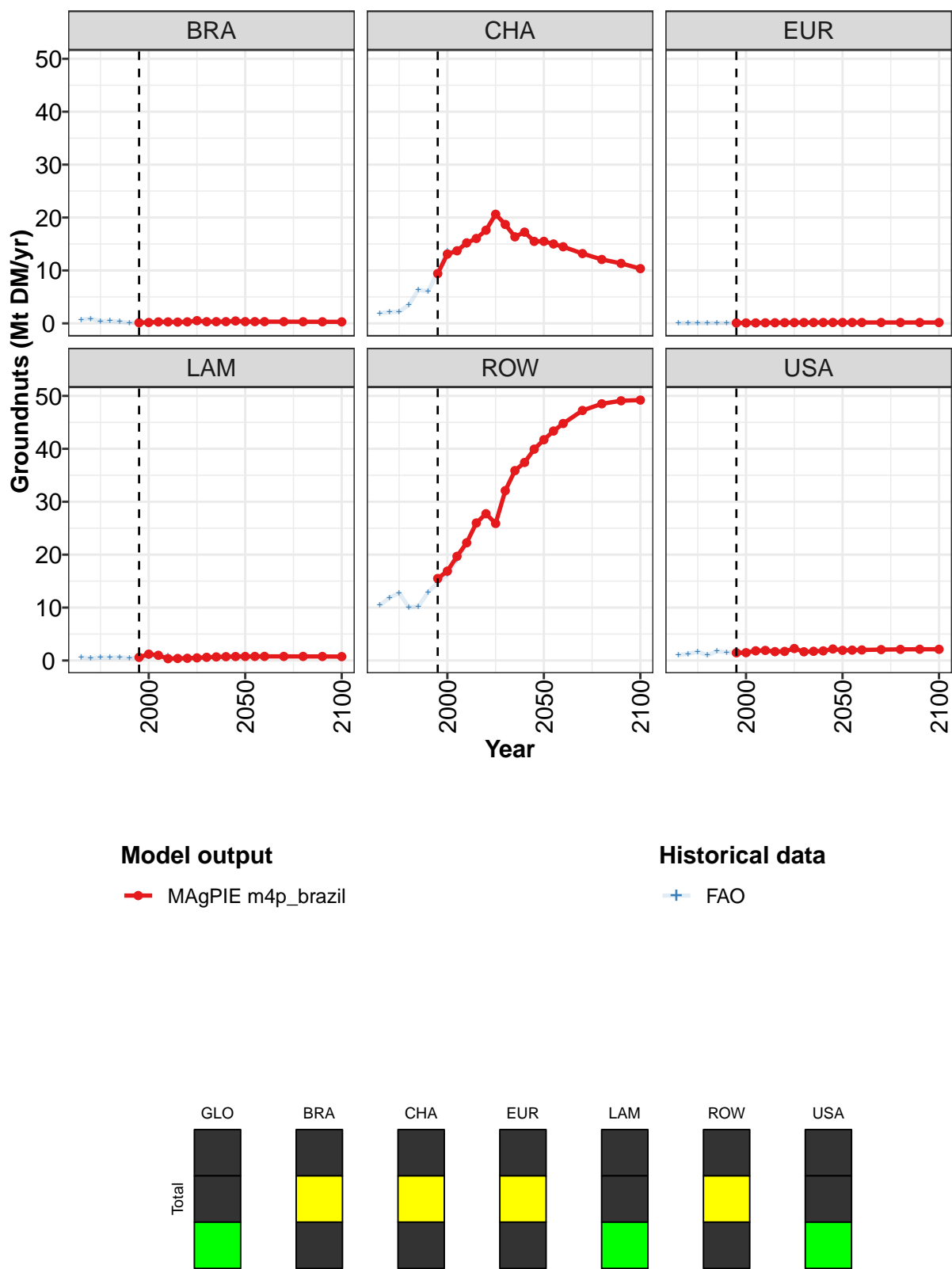


Figure 343: MAgPIE m4p_brazil — Production—Crops—Oil crops—Groundnuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	27.2	32.9	36.6	40.1	44.4	47.9	49.9	53.5	55.1	57.7	59.0
BRA	0.1	0.2	0.3	0.3	0.2	0.3	0.5	0.3	0.3	0.3	0.5
CHA	9.4	13.1	13.7	15.2	16.0	17.6	20.6	18.7	16.4	17.2	15.5
EUR	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
LAM	0.6	1.2	1.0	0.3	0.4	0.4	0.5	0.6	0.7	0.7	0.8
ROW	15.5	16.9	19.7	22.2	26.0	27.7	25.9	32.1	35.9	37.4	39.9
USA	1.5	1.5	1.8	1.9	1.7	1.7	2.3	1.6	1.7	1.8	2.2

Table 1365: MAgPIE m4p_brazil — Production—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

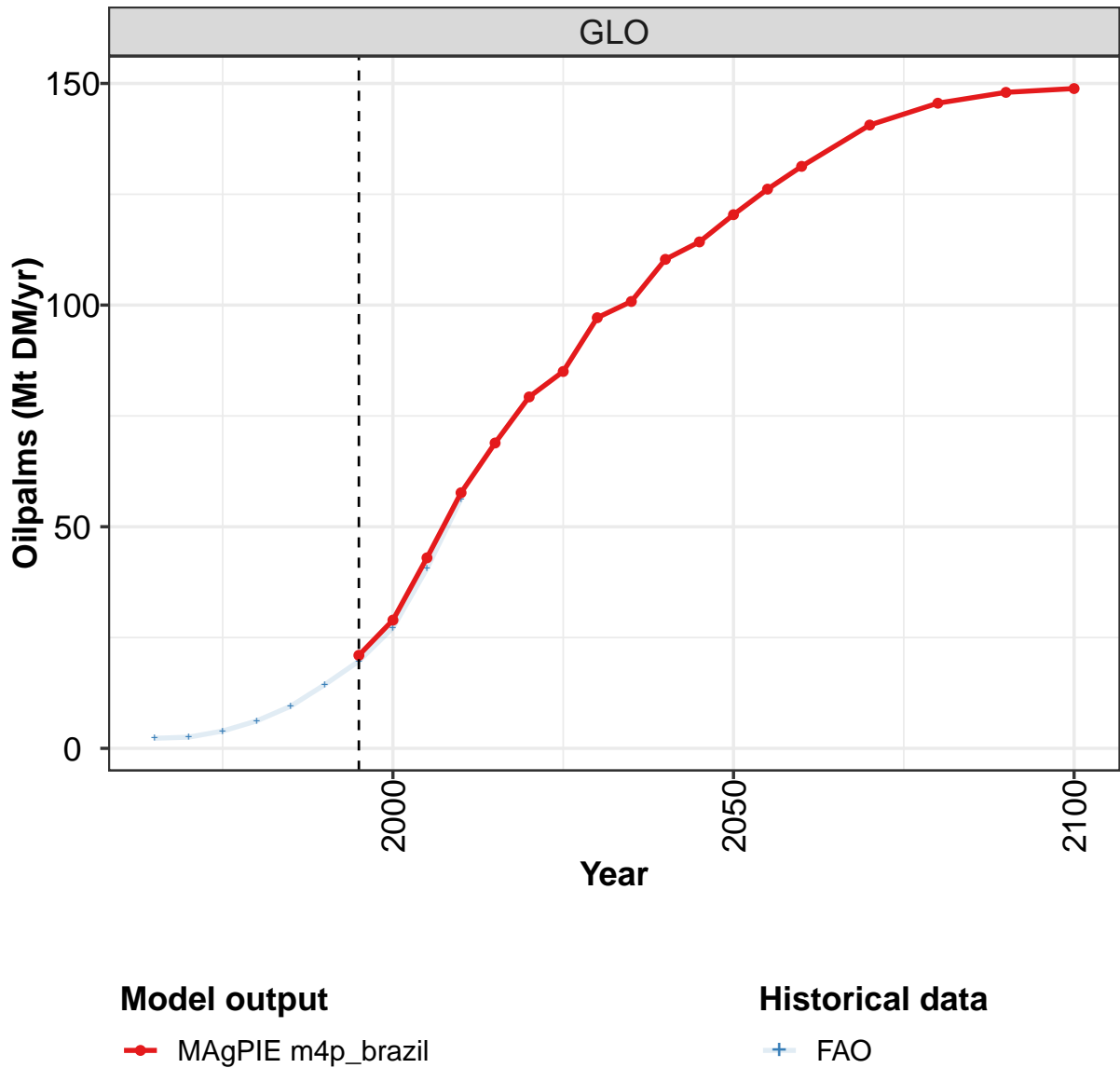
	2050	2055	2060	2070	2080	2090	2100
GLO	60.4	61.6	62.5	63.7	63.9	63.8	62.9
BRA	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CHA	15.5	15.0	14.5	13.2	12.1	11.3	10.3
EUR	0.2	0.2	0.2	0.2	0.2	0.2	0.2
LAM	0.8	0.8	0.8	0.8	0.8	0.8	0.7
ROW	41.7	43.4	44.8	47.2	48.5	49.1	49.2
USA	1.9	2.0	2.0	2.1	2.1	2.1	2.1

Table 1366: MAgPIE m4p_brazil — 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
BRA	0.7	0.9	0.4	0.5	0.3	0.1	0.2	0.2	0.3	0.2
CHA	1.9	2.1	2.2	3.5	6.3	6.0	9.7	13.6	13.5	14.8
EUR	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.6	0.4	0.6	0.5	0.6	0.5	0.4	0.7	0.8	0.9
ROW	10.4	11.9	12.8	10.1	10.2	12.9	14.6	16.3	19.1	22.0
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



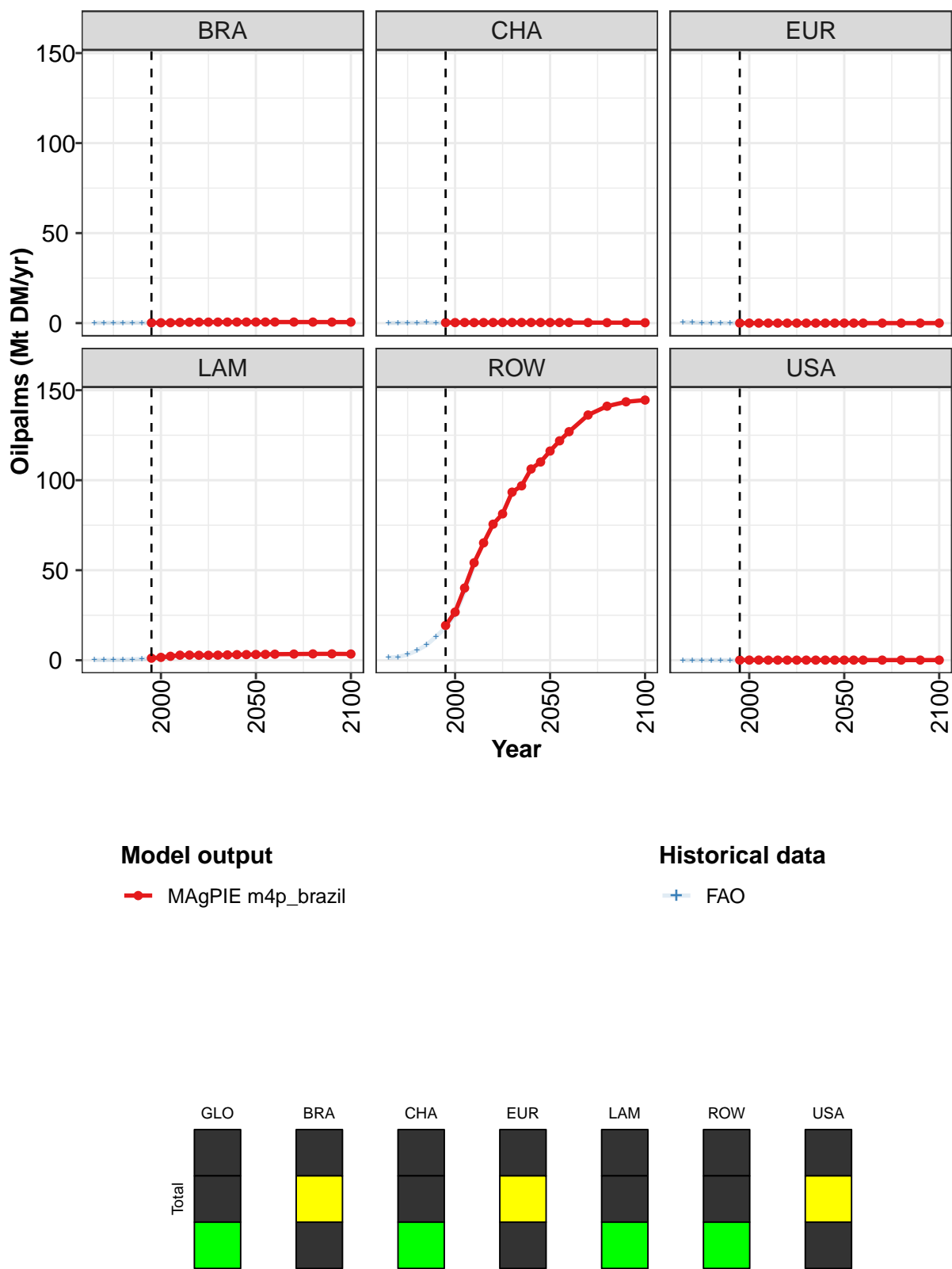


Figure 344: MAGPIE m4p_brazil — Production—Crops—Oil crops—Oilpalms (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	21	29	43	58	69	79	85	97	101	110	114
BRA	0	0	0	0	0	1	1	1	1	1	1
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0	0	0	0	0
LAM	1	2	2	3	3	3	3	3	3	3	3
ROW	19	27	40	54	65	76	81	93	97	106	110
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1368: MAgPIE m4p_brazil — Production—Crops—Oil crops—Oilpalms (Mt DM/yr) [PART 1/2]

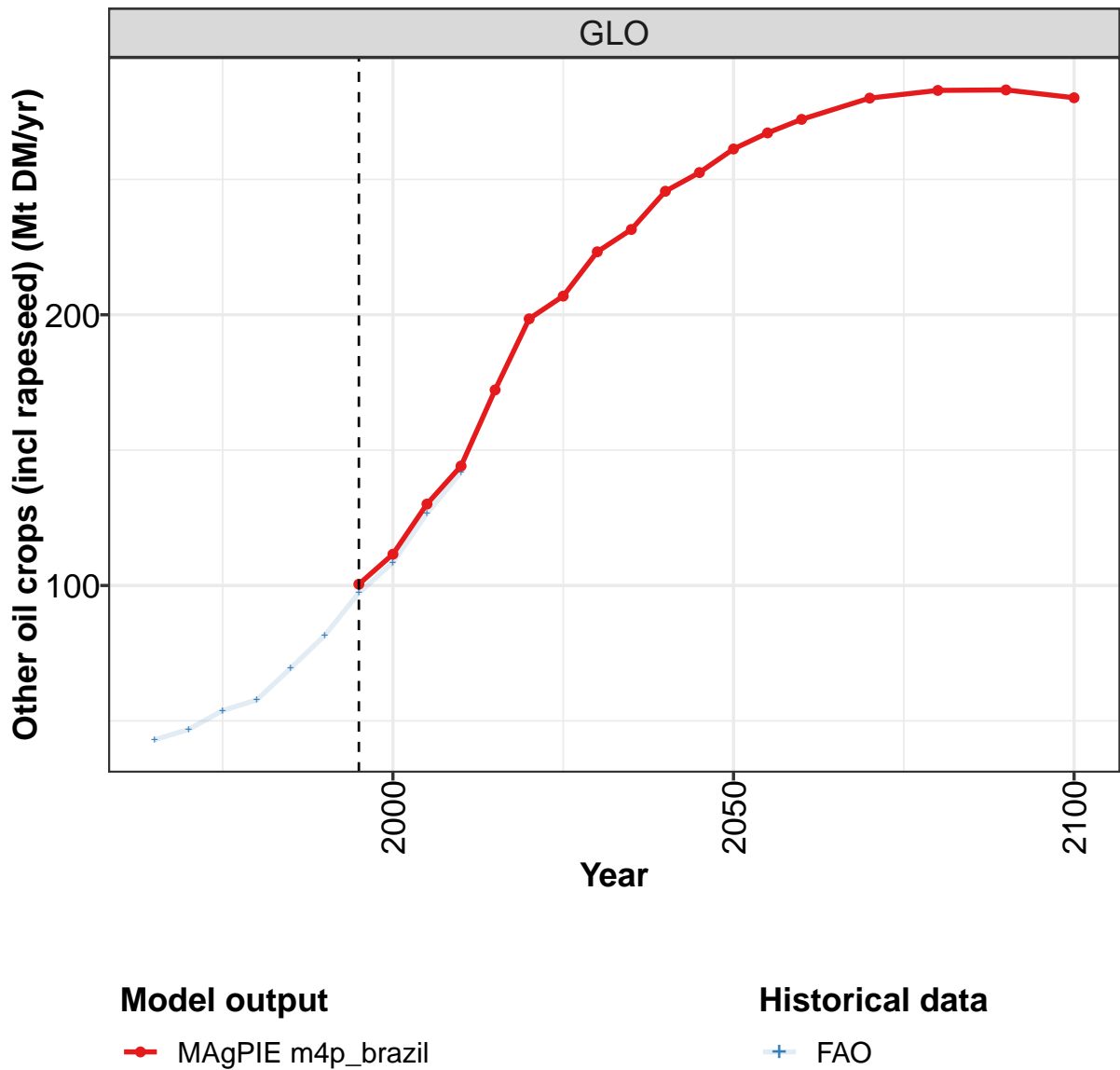
	2050	2055	2060	2070	2080	2090	2100
GLO	120	126	131	141	146	148	149
BRA	1	1	1	1	1	1	1
CHA	0	0	0	0	0	0	0
EUR	0	0	0	0	0	0	0
LAM	3	3	3	3	4	4	3
ROW	116	122	127	136	141	144	145
USA	0	0	0	0	0	0	0

Table 1369: MAgPIE m4p_brazil — 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
BRA	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4
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
LAM	0.1	0.1	0.1	0.2	0.4	0.7	1.0	1.5	2.0	2.6
ROW	1.4	1.8	3.2	5.4	8.5	13.1	18.2	25.3	38.0	53.0
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)



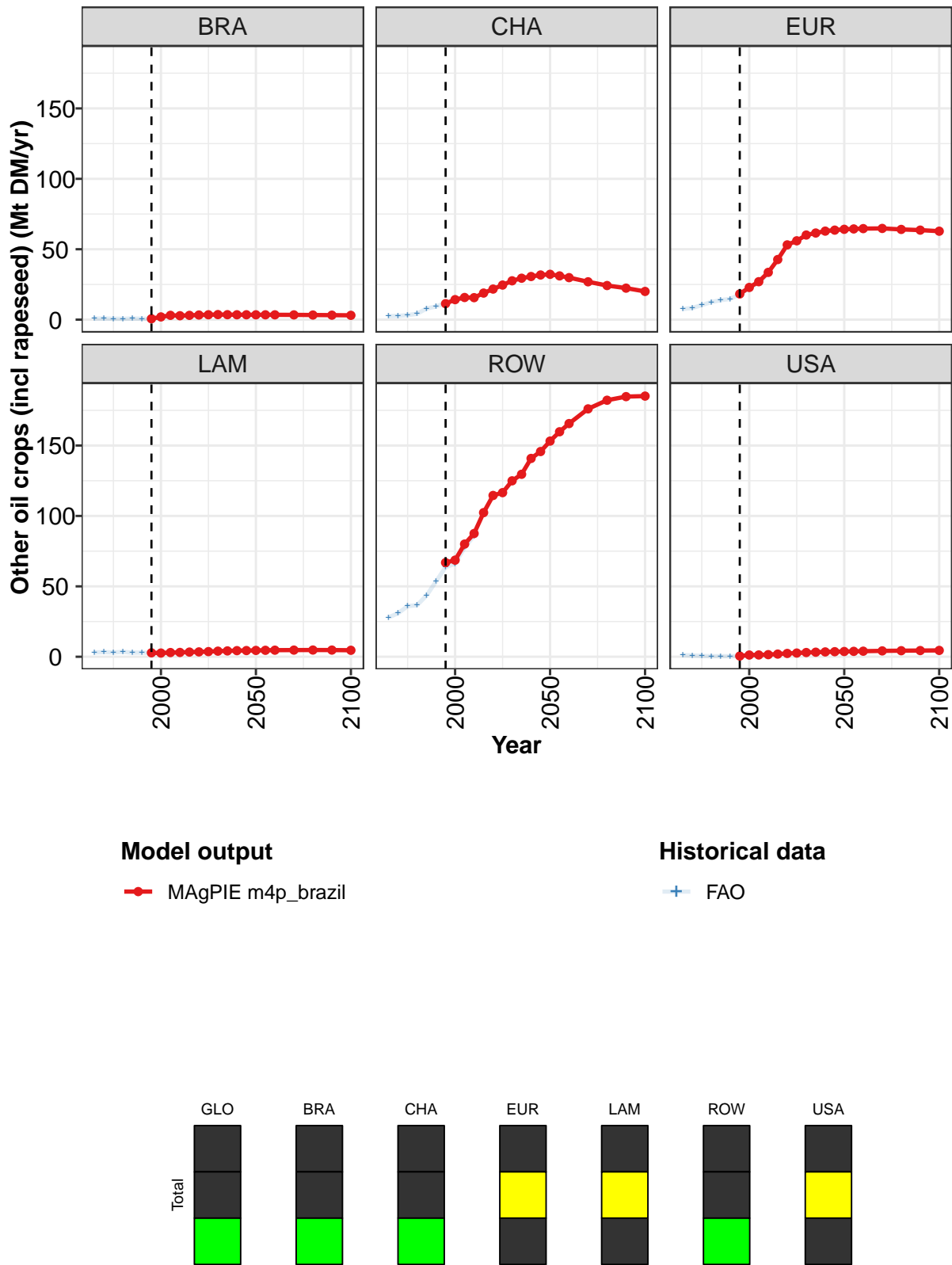


Figure 345: MAgPIE m4p_brazil — Production—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	100	112	130	144	172	199	207	223	232	246	253
BRA	1	2	3	3	3	3	3	4	4	3	3
CHA	11	14	16	16	19	22	25	28	29	31	32
EUR	18	23	27	34	43	53	56	60	62	63	64
LAM	3	3	3	3	3	3	4	4	4	4	4
ROW	67	69	80	88	102	115	117	125	130	141	146
USA	1	1	1	2	2	2	3	3	3	3	4

Table 1371: MAgPIE m4p_brazil — Production—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)
[PART 1/2]

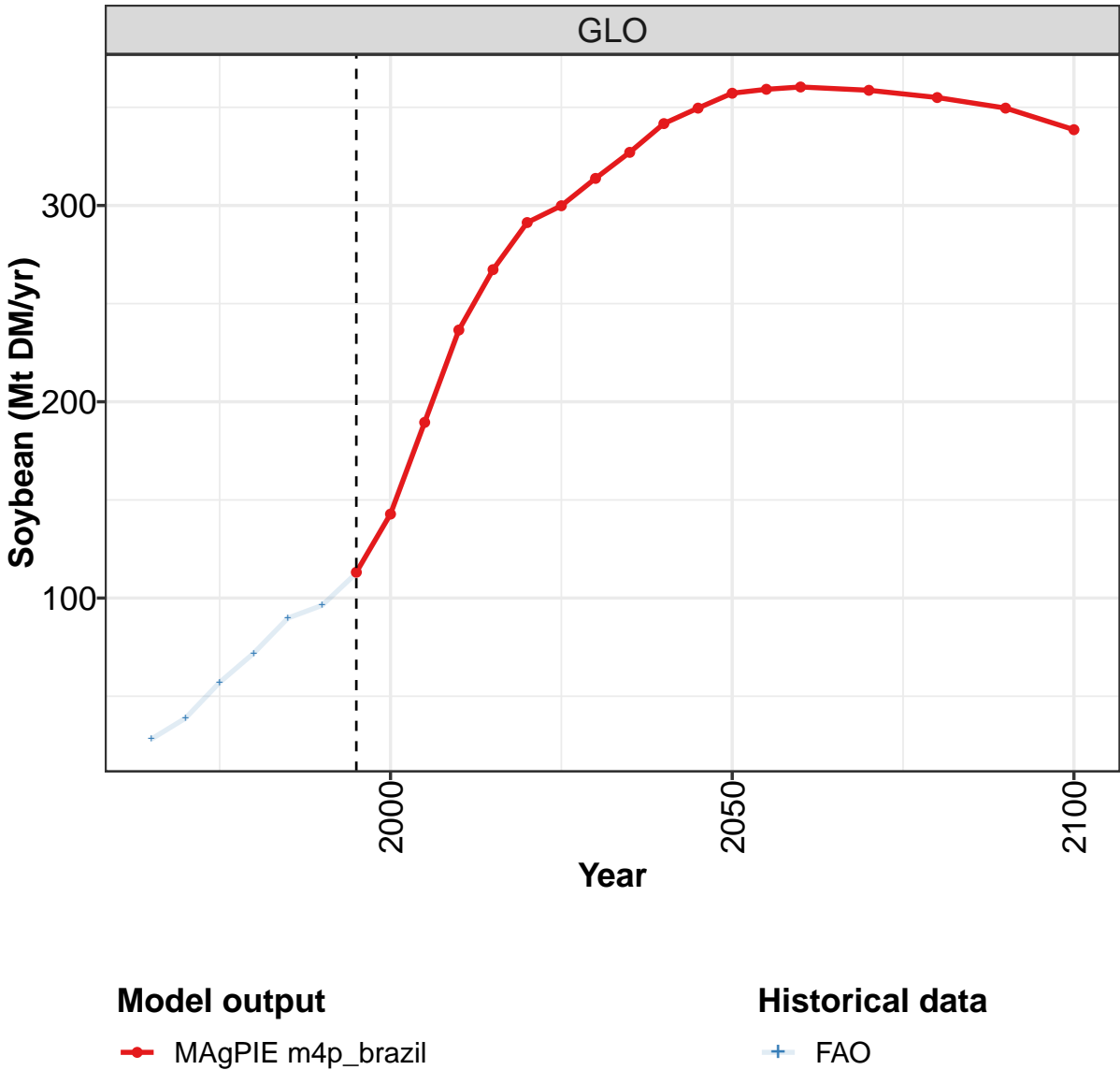
	2050	2055	2060	2070	2080	2090	2100
GLO	261	267	272	280	283	283	280
BRA	3	3	3	3	3	3	3
CHA	32	31	30	27	24	22	20
EUR	64	64	65	65	64	64	63
LAM	5	5	5	5	5	5	5
ROW	153	160	166	176	182	185	185
USA	4	4	4	4	4	4	5

Table 1372: MAgPIE m4p_brazil — 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
BRA	1	1	1	1	1	1	1	2	3	3
CHA	2	3	3	4	8	9	12	14	16	16
EUR	8	8	10	12	14	15	18	22	26	33
LAM	3	3	3	3	3	3	3	3	3	3
ROW	28	31	36	37	44	54	64	66	78	86
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



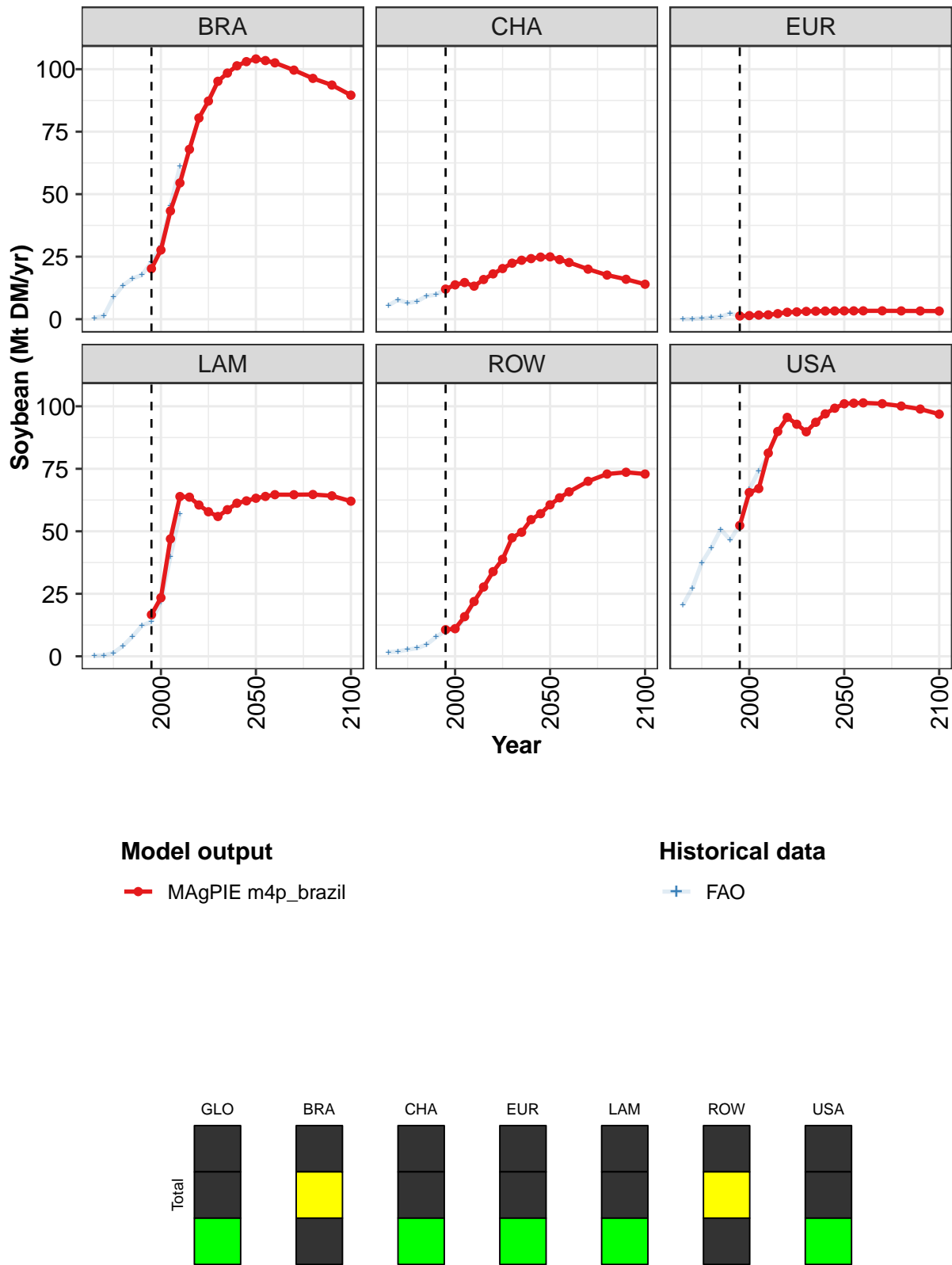


Figure 346: MAgPIE m4p_brazil — Production—Crops—Oil crops—Soybean (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	113	143	190	237	267	291	300	314	327	342	350
BRA	20	28	43	54	68	80	87	95	98	101	103
CHA	12	14	15	13	16	18	20	22	24	24	25
EUR	1	1	2	2	2	3	3	3	3	3	3
LAM	17	23	47	64	64	61	58	56	59	61	62
ROW	11	11	16	22	28	34	39	47	50	55	57
USA	52	65	67	81	90	96	93	90	94	97	99

Table 1374: MAgPIE m4p_brazil — Production—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

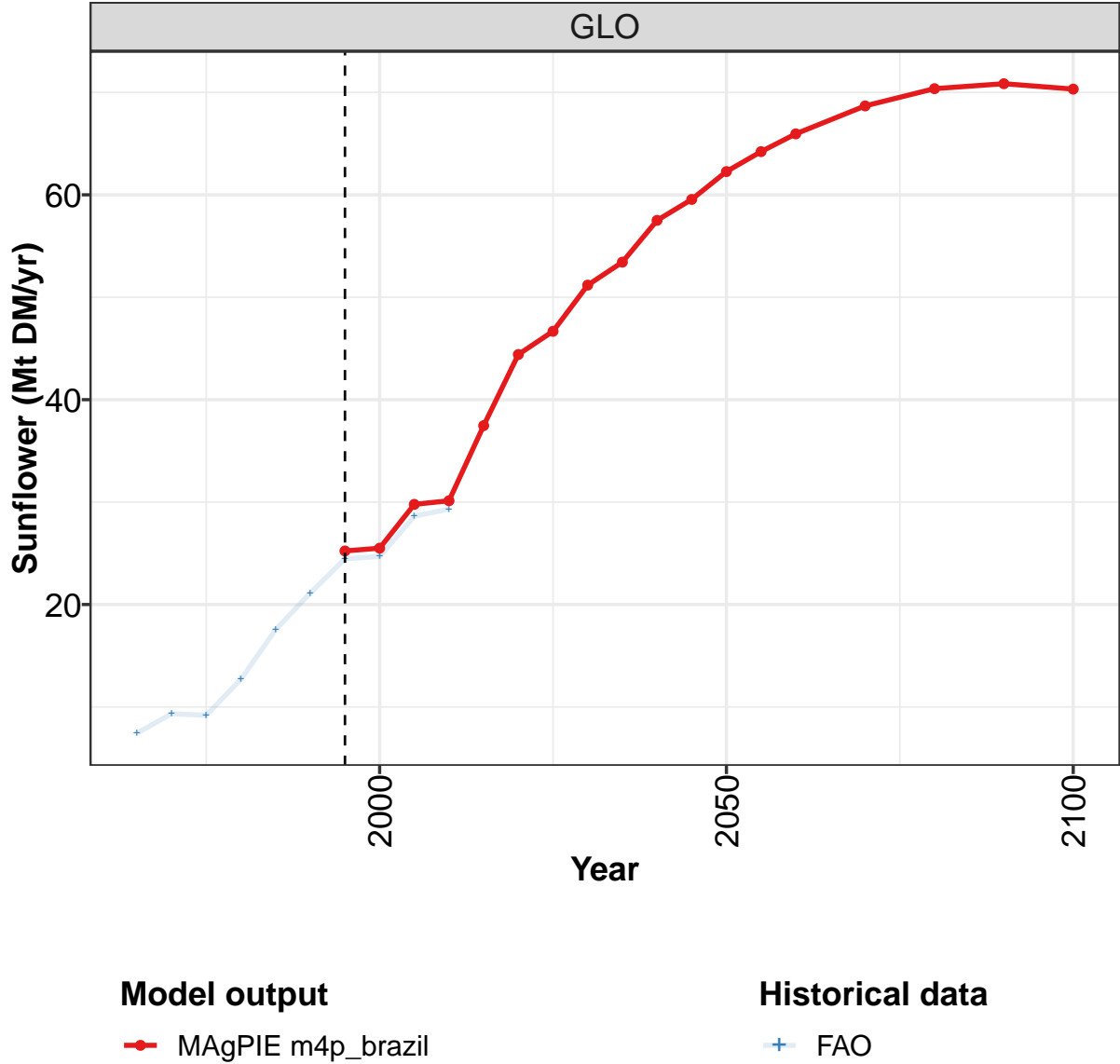
	2050	2055	2060	2070	2080	2090	2100
GLO	357	359	360	359	355	350	339
BRA	104	103	103	100	96	94	90
CHA	25	24	23	20	18	16	14
EUR	3	3	3	3	3	3	3
LAM	63	64	65	65	65	64	62
ROW	61	63	66	70	73	74	73
USA	101	101	101	101	100	99	97

Table 1375: MAgPIE m4p_brazil — 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
BRA	0	1	9	13	16	18	23	29	45	61
CHA	6	8	6	7	9	10	12	14	15	13
EUR	0	0	0	1	1	2	1	1	2	2
LAM	0	0	1	4	8	12	14	22	40	57
ROW	2	2	3	3	5	8	10	11	15	22
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



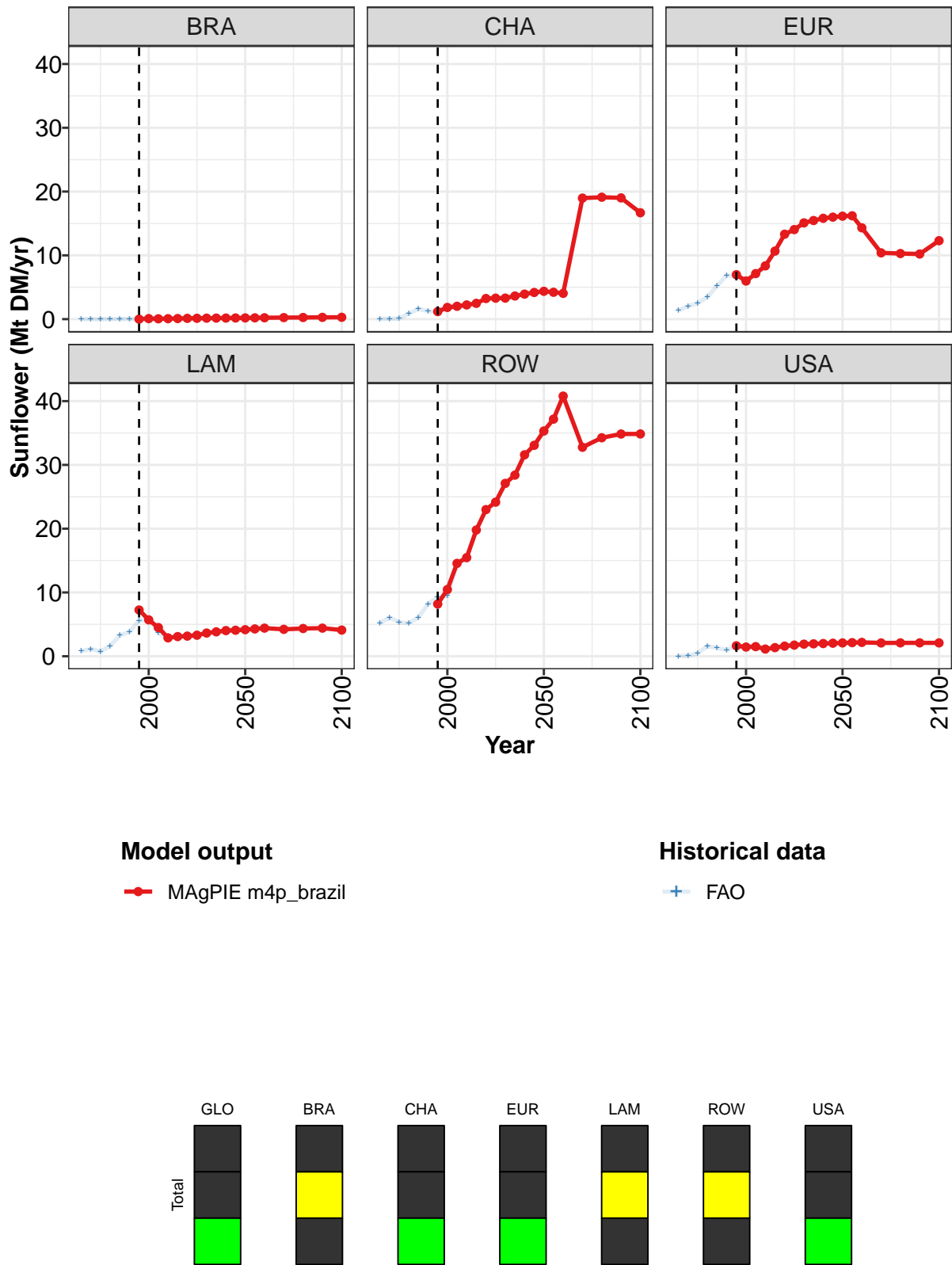


Figure 347: MAgPIE m4p_brazil — Production—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	25.2	25.5	29.8	30.1	37.5	44.4	46.7	51.2	53.4	57.5	59.6
BRA	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
CHA	1.2	1.8	2.0	2.2	2.5	3.2	3.3	3.3	3.6	3.9	4.2
EUR	7.0	6.0	7.1	8.4	10.7	13.3	14.0	15.1	15.5	15.8	16.0
LAM	7.3	5.7	4.5	2.9	3.1	3.2	3.3	3.6	3.8	4.0	4.1
ROW	8.2	10.5	14.6	15.5	19.8	23.0	24.2	27.1	28.4	31.6	33.1
USA	1.6	1.4	1.5	1.1	1.4	1.6	1.7	1.9	1.9	2.0	2.0

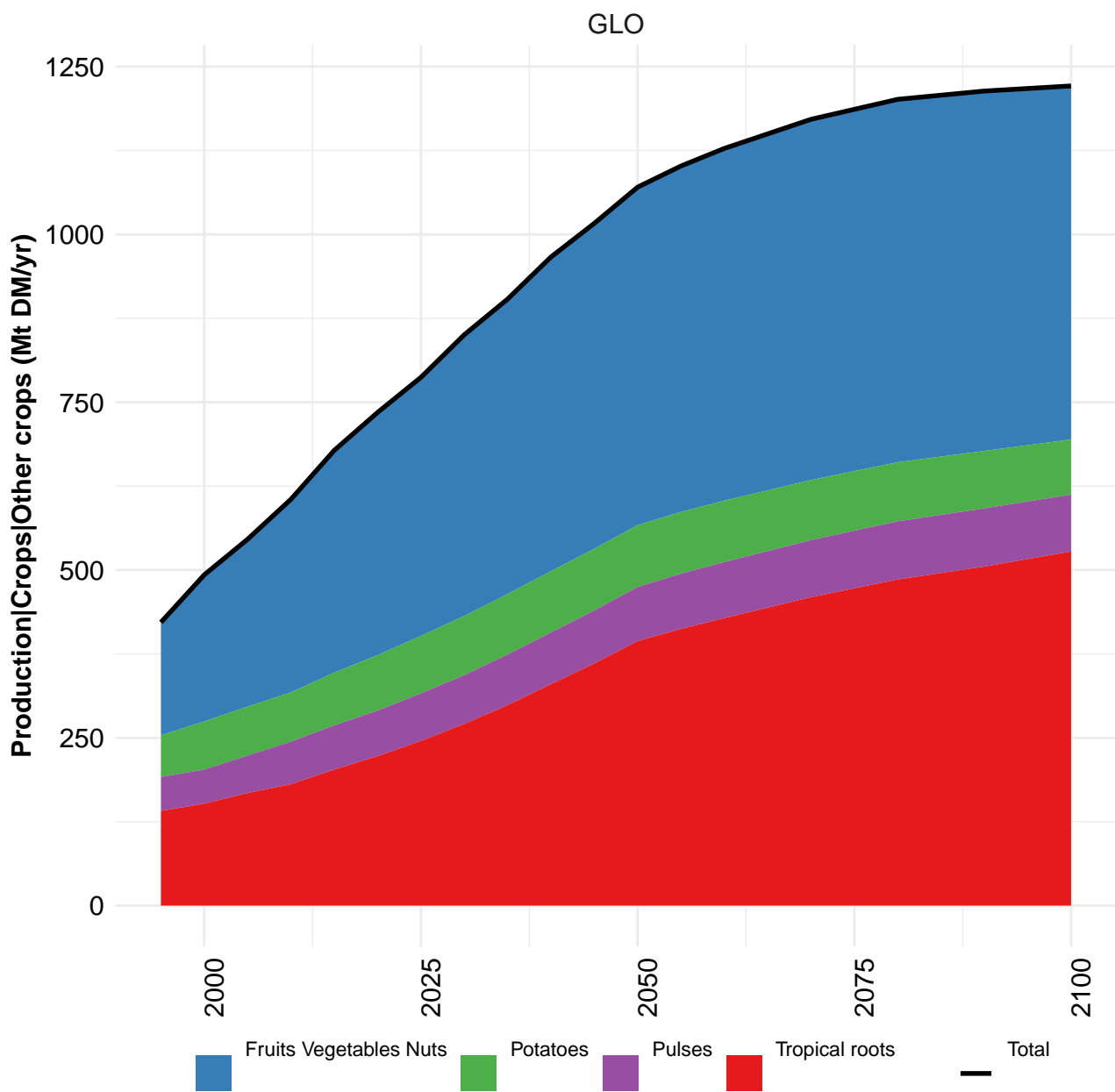
Table 1377: MAgPIE m4p_brazil — Production—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

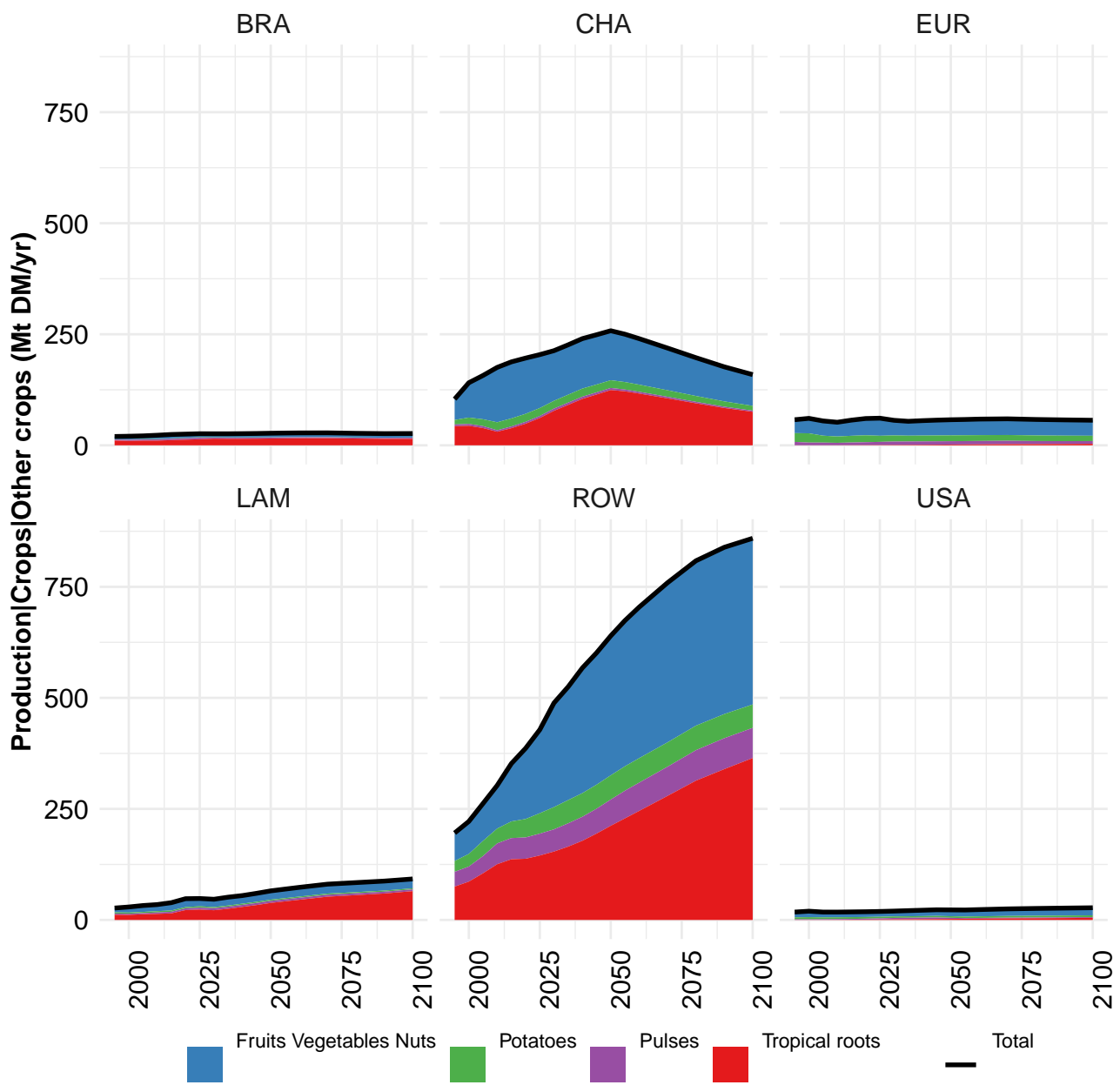
	2050	2055	2060	2070	2080	2090	2100
GLO	62.3	64.2	66.0	68.7	70.4	70.9	70.3
BRA	0.2	0.2	0.2	0.2	0.3	0.3	0.3
CHA	4.4	4.2	4.0	19.0	19.1	19.0	16.7
EUR	16.1	16.2	14.3	10.4	10.3	10.2	12.3
LAM	4.2	4.3	4.4	4.2	4.4	4.4	4.1
ROW	35.3	37.2	40.8	32.8	34.3	34.8	34.9
USA	2.1	2.1	2.2	2.1	2.1	2.1	2.1

Table 1378: MAgPIE m4p_brazil — Production—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 2/2]

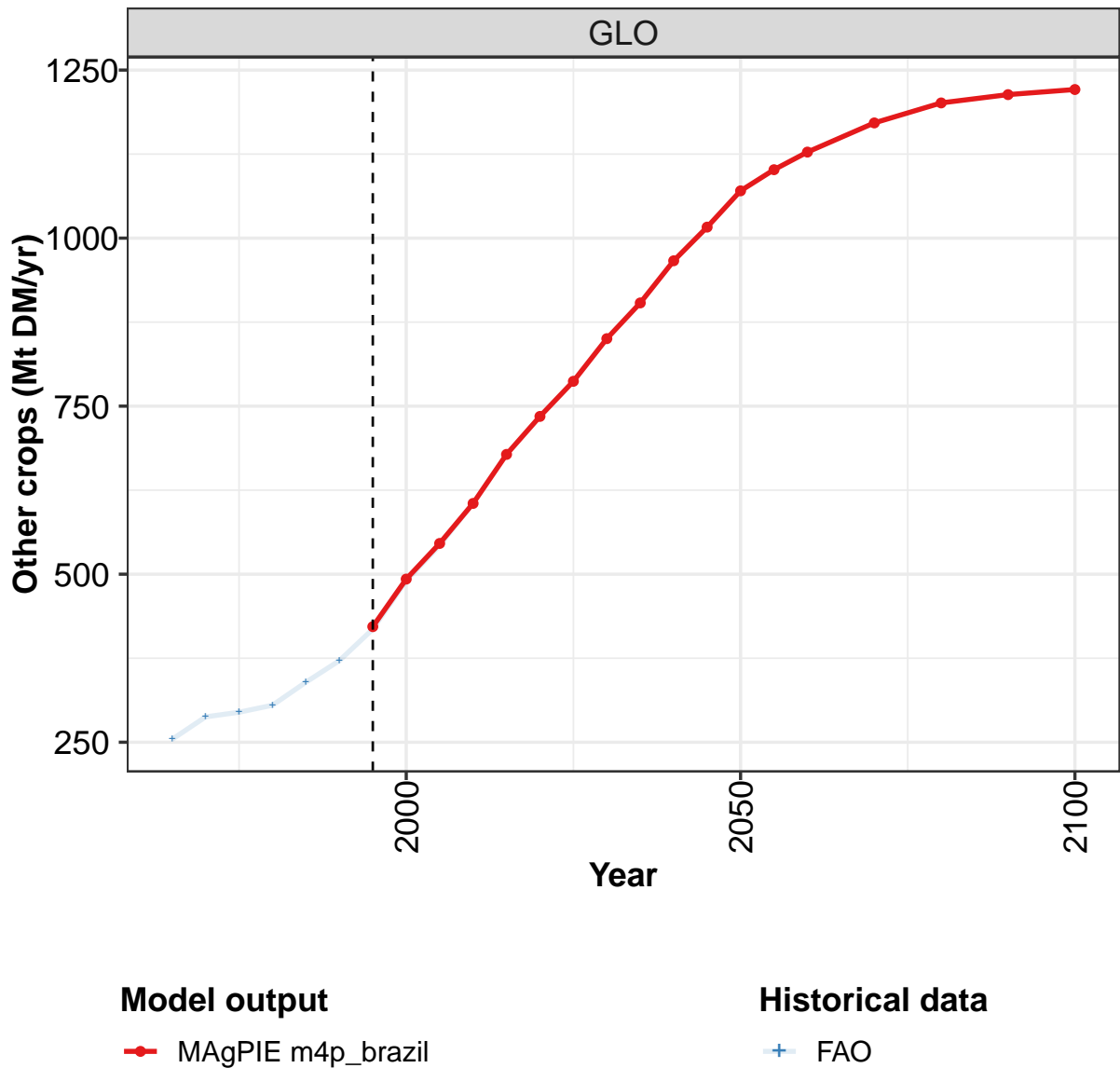
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	7.4	9.3	9.2	12.7	17.5	21.1	24.5	24.7	28.6	29.3
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
CHA	0.1	0.1	0.1	0.8	1.6	1.2	1.2	1.8	1.8	2.1
EUR	1.4	2.0	2.5	3.5	5.2	6.9	6.7	5.9	6.9	8.2
LAM	0.8	1.1	0.7	1.6	3.3	3.8	5.6	5.9	3.7	2.6
ROW	5.2	6.0	5.3	5.2	6.1	8.2	9.3	9.5	14.4	15.1
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



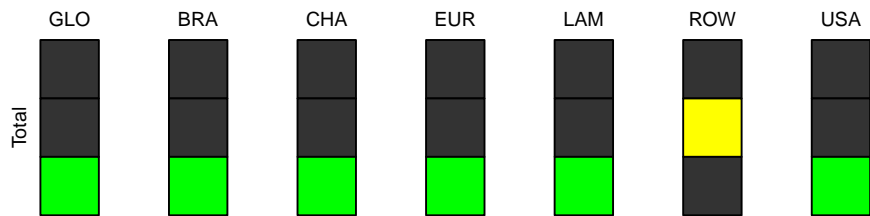
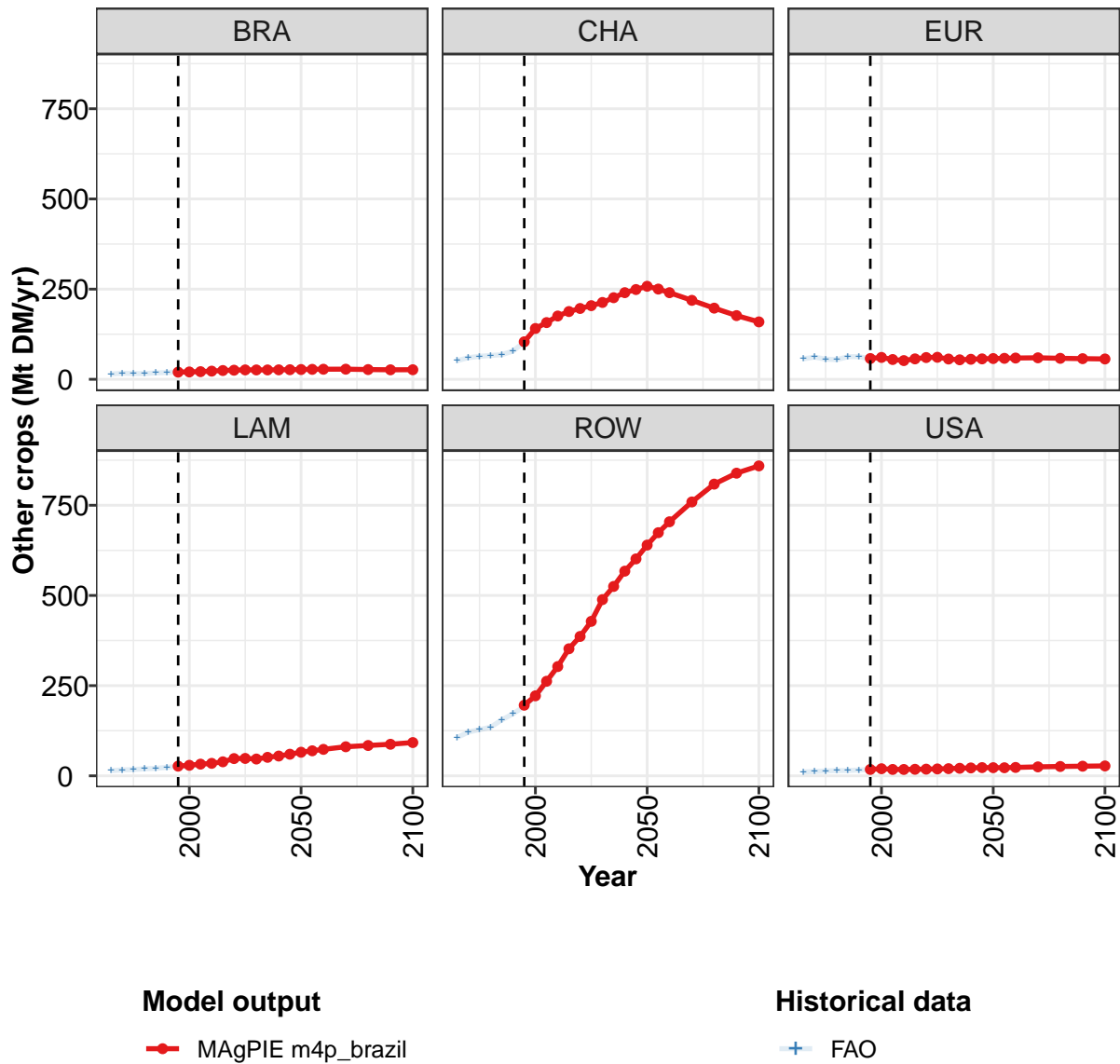


Figure 348: MAgPIE m4p_brazil — Production—Crops—Other crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	422	493	546	605	678	735	787	850	904	966	1016
BRA	20	20	21	23	24	25	26	26	26	26	27
CHA	104	141	157	175	188	196	204	213	226	240	249
EUR	58	61	55	52	57	60	61	56	54	56	57
LAM	27	29	32	35	39	48	48	47	51	55	60
ROW	196	222	262	303	352	386	428	489	525	567	601
USA	18	20	18	18	18	19	19	20	21	22	23

Table 1380: MAgPIE m4p_brazil — Production—Crops—Other crops (Mt DM/yr) [PART 1/2]

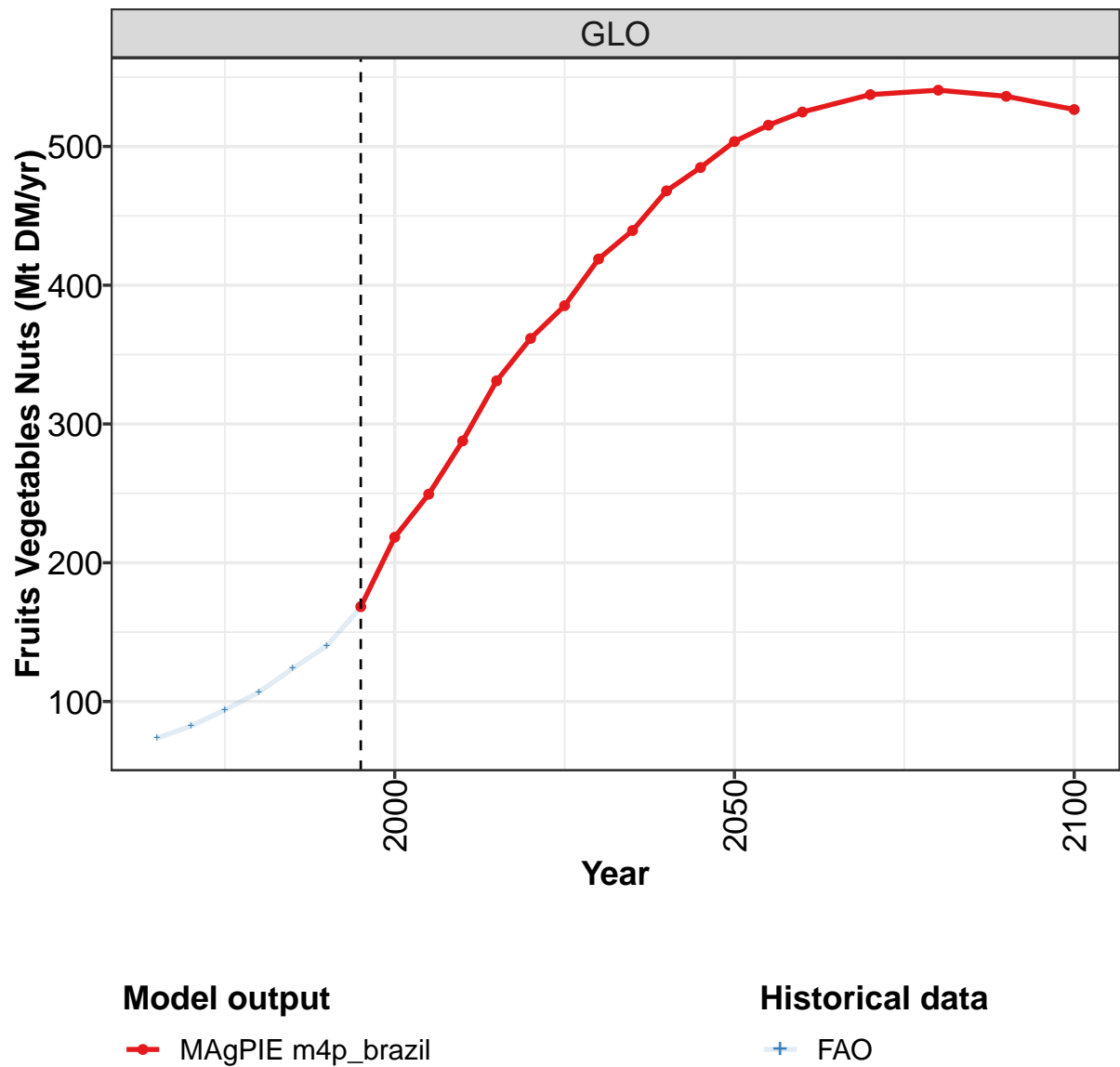
	2050	2055	2060	2070	2080	2090	2100
GLO	1070	1102	1128	1171	1201	1213	1221
BRA	27	28	28	28	27	26	27
CHA	258	250	240	219	197	177	159
EUR	58	58	59	60	58	57	56
LAM	65	69	73	81	84	88	92
ROW	640	674	704	759	809	839	859
USA	23	22	23	25	26	27	27

Table 1381: MAgPIE m4p_brazil — 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
BRA	15	17	16	16	18	19	21	21	22	23
CHA	52	60	64	66	68	78	104	141	158	176
EUR	57	62	56	54	63	63	56	60	54	52
LAM	14	16	18	20	21	23	27	30	33	35
ROW	106	121	128	135	155	172	193	220	258	302
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



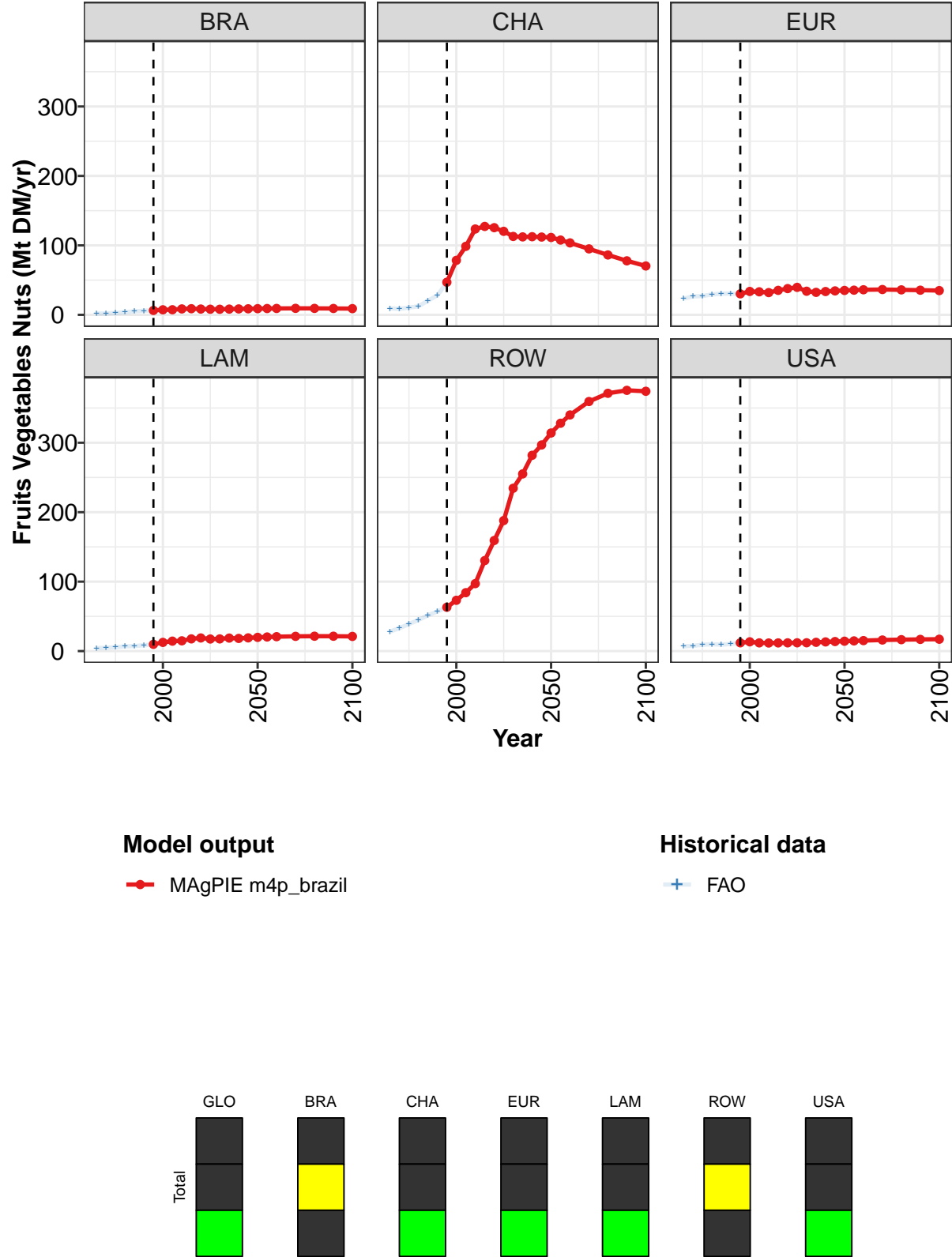


Figure 349: MAgPIE m4p.brazil — Production—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	168	218	249	288	331	362	385	419	439	468	485
BRA	6	7	7	9	9	8	8	8	8	9	9
CHA	47	78	99	124	127	126	120	113	112	113	112
EUR	30	34	33	32	35	38	40	34	32	34	34
LAM	10	13	14	15	18	19	17	18	19	18	19
ROW	63	73	84	97	130	159	188	234	255	282	297
USA	12	13	12	12	12	12	12	12	13	13	14

Table 1383: MAgPIE m4p_brazil — Production—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr)
[PART 1/2]

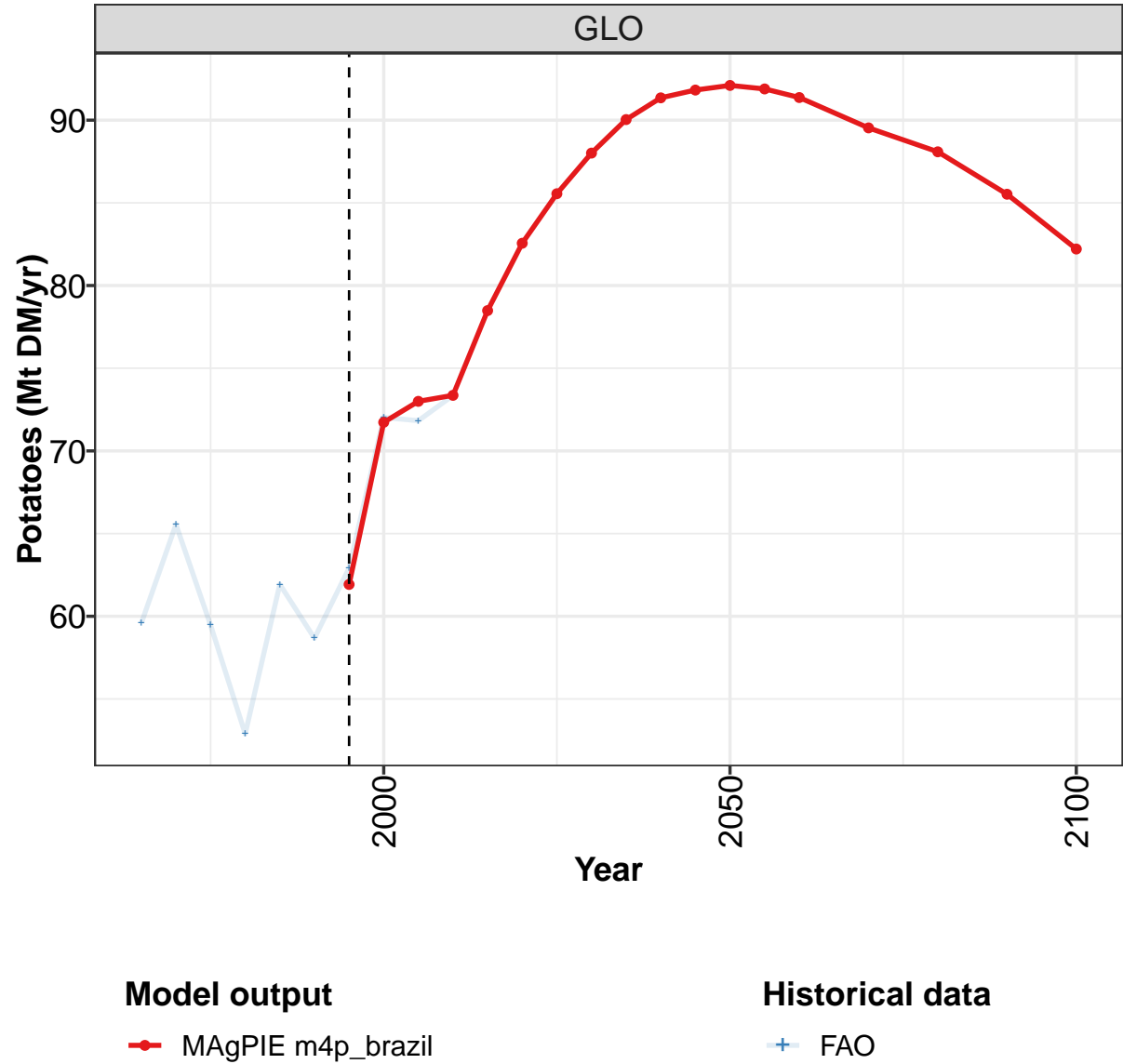
	2050	2055	2060	2070	2080	2090	2100
GLO	504	515	525	537	541	536	527
BRA	9	9	9	9	9	9	9
CHA	111	108	104	95	86	78	70
EUR	35	36	36	36	36	35	35
LAM	20	20	21	21	21	21	21
ROW	314	328	340	359	371	375	374
USA	14	15	15	16	16	17	17

Table 1384: MAgPIE m4p_brazil — 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
BRA	2	2	3	4	5	6	7	8	8	9
CHA	9	9	10	12	20	28	47	78	98	123
EUR	23	26	27	29	30	31	30	33	33	32
LAM	4	5	6	7	7	8	10	12	14	15
ROW	28	33	39	45	51	57	63	73	84	98
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



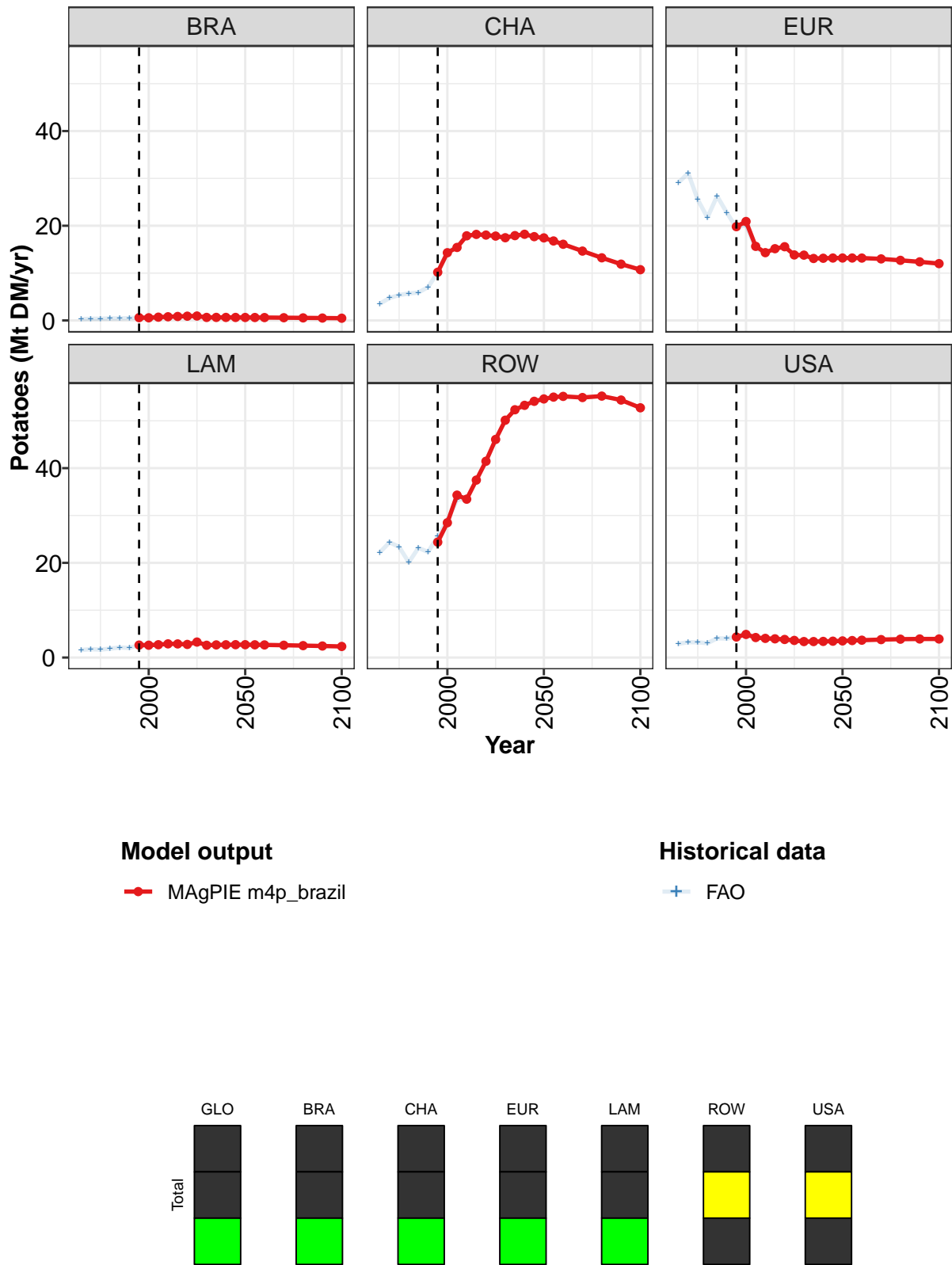


Figure 350: MAgPIE m4p_brazil — Production—Crops—Other crops—Potatoes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	61.9	71.7	73.0	73.4	78.5	82.6	85.6	88.0	90.0	91.4	91.8
BRA	0.6	0.6	0.7	0.8	0.8	0.9	0.9	0.6	0.6	0.6	0.6
CHA	10.2	14.3	15.4	17.9	18.2	18.0	17.8	17.5	17.9	18.2	17.7
EUR	19.8	20.9	15.6	14.3	15.2	15.6	13.8	13.8	13.1	13.1	13.2
LAM	2.6	2.6	2.7	2.9	2.9	2.8	3.3	2.6	2.7	2.7	2.7
ROW	24.4	28.5	34.3	33.4	37.5	41.5	46.1	50.1	52.3	53.3	54.1
USA	4.3	4.9	4.2	4.0	4.0	3.8	3.6	3.4	3.4	3.4	3.5

Table 1386: MAgPIE m4p_brazil — Production—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

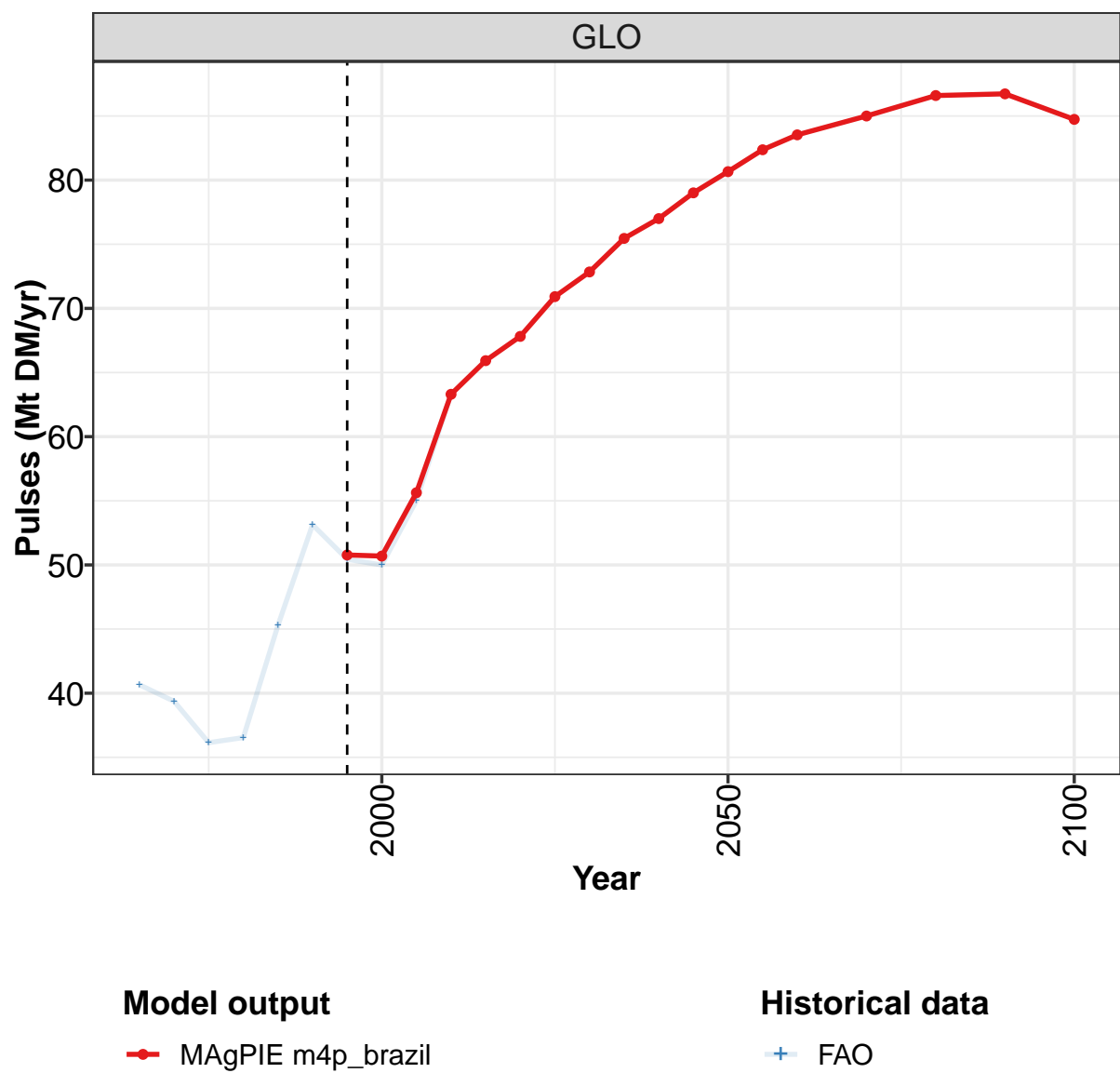
	2050	2055	2060	2070	2080	2090	2100
GLO	92.1	91.9	91.4	89.5	88.1	85.5	82.2
BRA	0.6	0.6	0.6	0.6	0.5	0.5	0.5
CHA	17.4	16.8	16.1	14.7	13.2	11.9	10.7
EUR	13.2	13.2	13.2	13.0	12.7	12.4	12.0
LAM	2.7	2.7	2.7	2.6	2.5	2.4	2.3
ROW	54.6	55.0	55.2	54.9	55.2	54.4	52.8
USA	3.5	3.6	3.7	3.8	3.9	3.9	3.9

Table 1387: MAgPIE m4p_brazil — 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
BRA	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.8
CHA	3.5	4.7	5.4	5.7	5.9	7.0	10.1	14.6	15.6	18.0
EUR	29.1	31.1	25.5	21.7	26.3	22.8	19.6	20.2	15.3	14.2
LAM	1.6	1.8	1.7	1.9	2.1	2.0	2.6	2.6	2.7	2.9
ROW	22.2	24.3	23.4	20.1	23.2	22.3	25.6	29.0	33.3	33.5
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



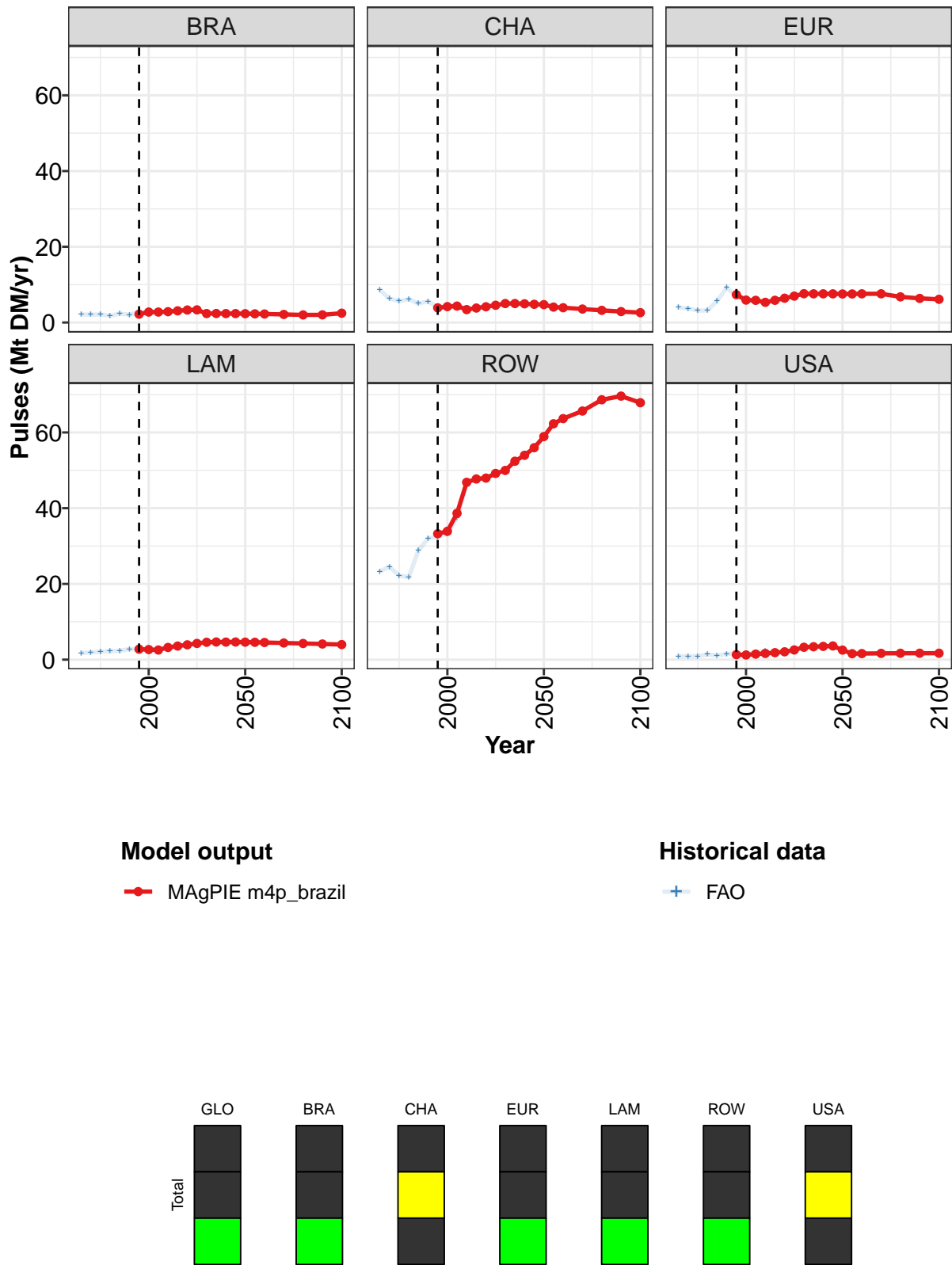


Figure 351: MAgPIE m4p.brazil — Production—Crops—Other crops—Pulses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	50.8	50.7	55.6	63.3	65.9	67.8	70.9	72.8	75.5	77.0	79.0
BRA	2.2	2.8	2.8	2.9	3.1	3.3	3.4	2.4	2.4	2.4	2.4
CHA	3.9	4.2	4.3	3.4	3.8	4.2	4.6	5.0	5.0	4.9	4.8
EUR	7.4	5.9	5.9	5.3	5.9	6.4	7.0	7.6	7.6	7.6	7.6
LAM	2.8	2.7	2.5	3.2	3.6	3.9	4.3	4.6	4.7	4.6	4.7
ROW	33.3	33.9	38.7	46.8	47.7	47.9	49.2	50.0	52.4	54.0	56.0
USA	1.3	1.2	1.5	1.6	1.8	2.1	2.6	3.3	3.4	3.5	3.6

Table 1389: MAgPIE m4p_brazil — Production—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

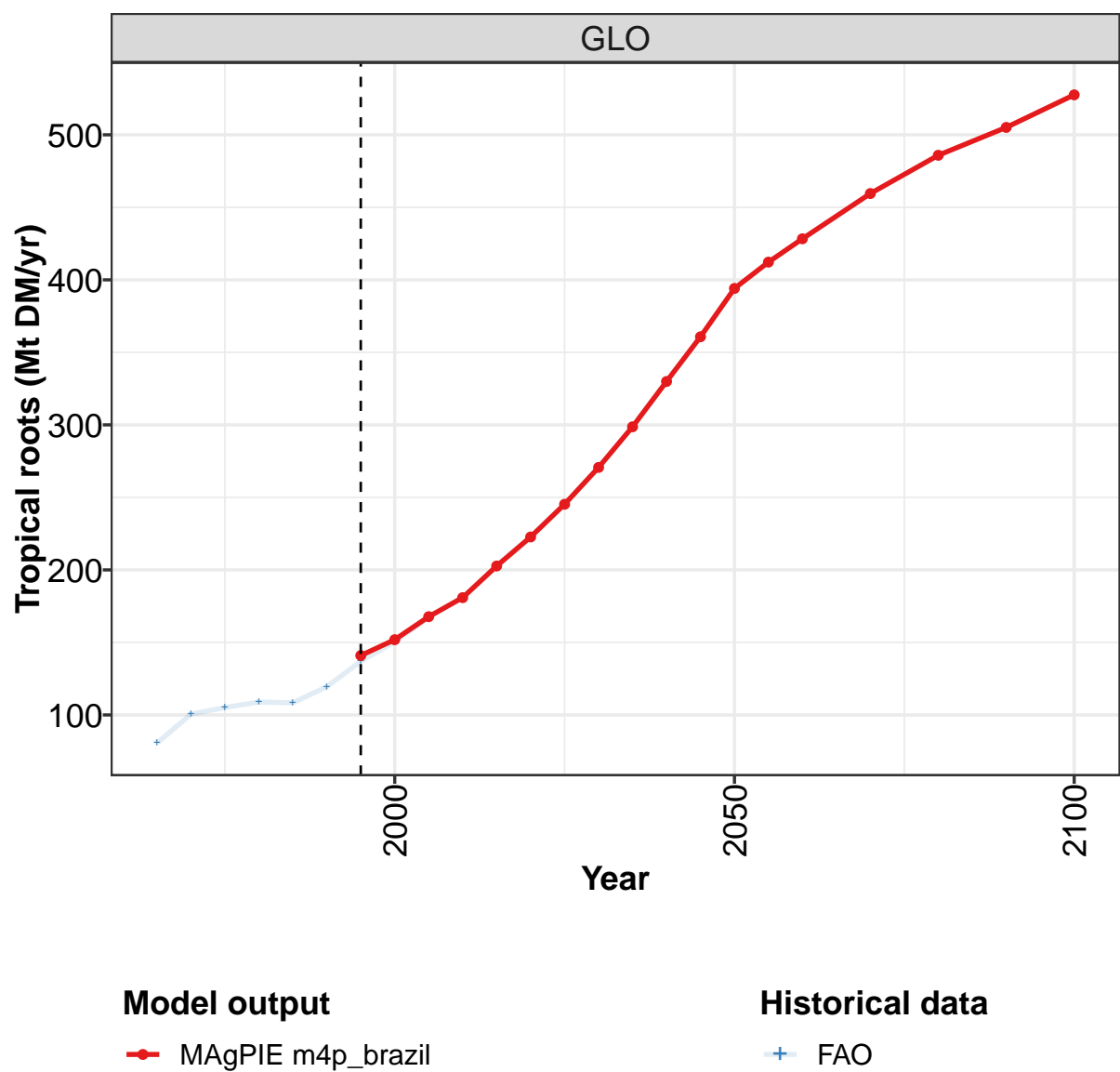
	2050	2055	2060	2070	2080	2090	2100
GLO	80.7	82.4	83.5	85.0	86.6	86.7	84.7
BRA	2.3	2.3	2.3	2.1	2.0	2.0	2.5
CHA	4.7	4.1	3.9	3.6	3.2	2.9	2.6
EUR	7.5	7.6	7.6	7.6	6.8	6.4	6.1
LAM	4.6	4.6	4.5	4.4	4.3	4.1	4.0
ROW	58.9	62.3	63.7	65.7	68.6	69.6	67.9
USA	2.5	1.6	1.6	1.7	1.7	1.7	1.7

Table 1390: MAgPIE m4p_brazil — 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
BRA	2.1	2.1	2.1	1.8	2.3	2.1	2.7	2.8	2.8	2.9
CHA	8.6	6.3	5.6	6.1	5.0	5.6	4.1	4.3	4.7	3.5
EUR	4.0	3.7	3.1	3.2	5.7	9.2	6.9	5.7	5.7	5.2
LAM	1.8	1.9	2.1	2.2	2.3	2.8	2.7	2.6	2.5	3.2
ROW	23.3	24.5	22.2	21.8	28.8	32.0	32.5	33.2	37.3	46.2
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



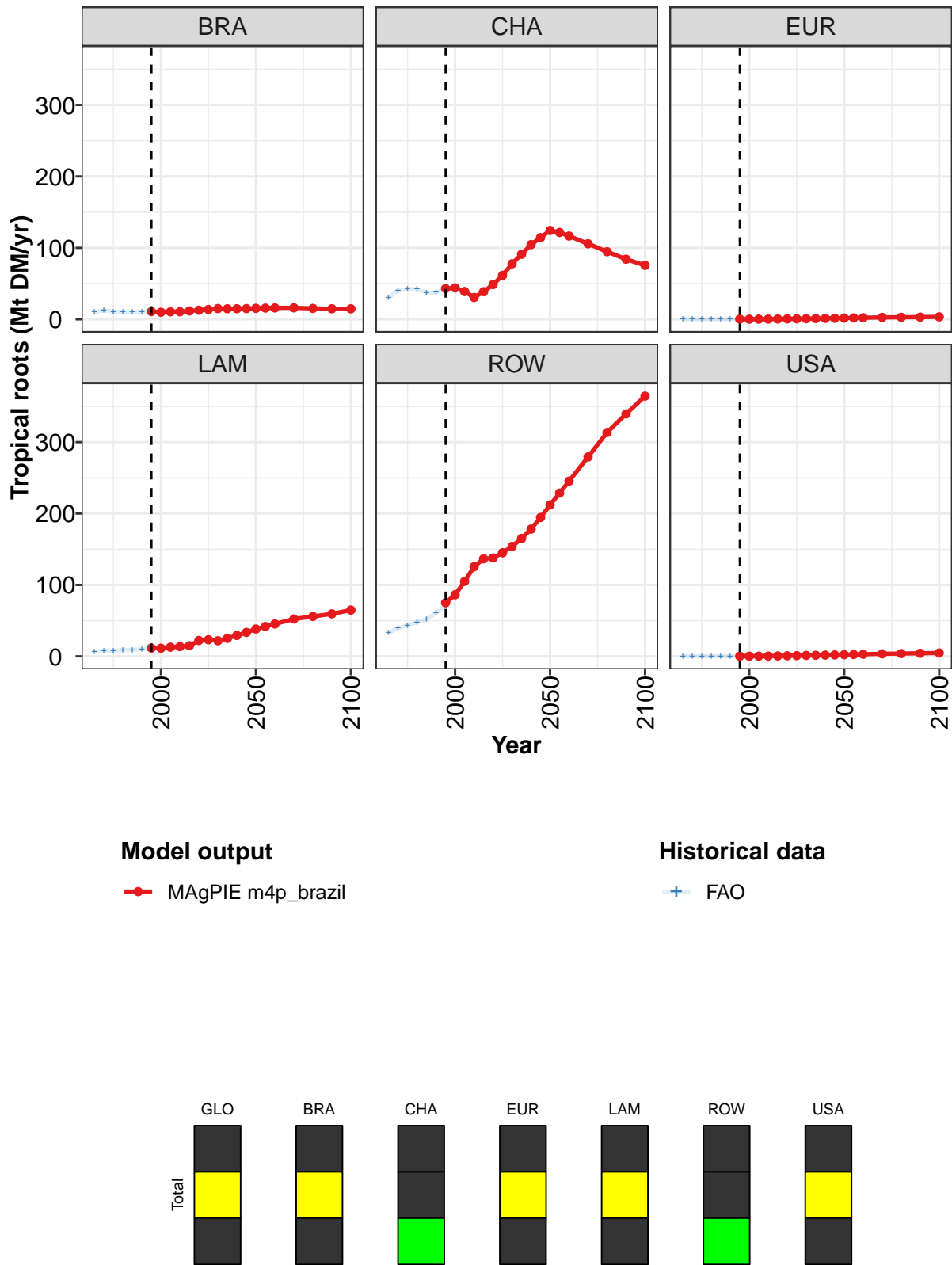


Figure 352: MAgPIE m4p_brazil — Production—Crops—Other crops—Tropical roots (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	141	152	168	181	203	223	245	271	299	330	361
BRA	11	10	10	11	12	13	14	15	15	15	15
CHA	43	44	39	31	39	49	62	78	91	105	114
EUR	0	0	0	0	0	1	1	1	1	1	1
LAM	12	11	13	14	15	22	23	22	25	29	34
ROW	75	86	105	125	137	138	145	154	165	178	194
USA	0	0	0	0	1	1	1	1	2	2	2

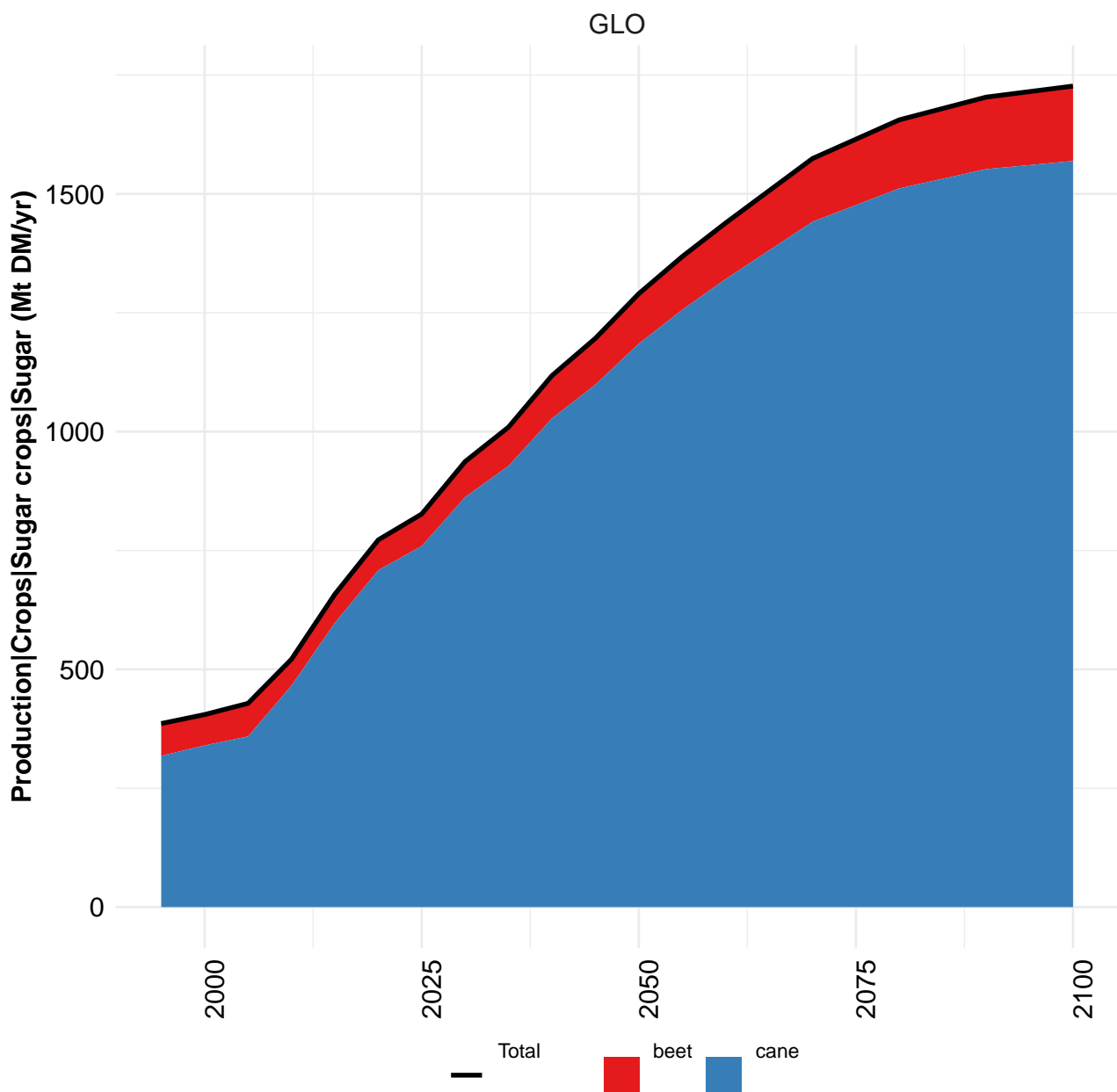
Table 1392: MAgPIE m4p.brazil — Production—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 1/2]

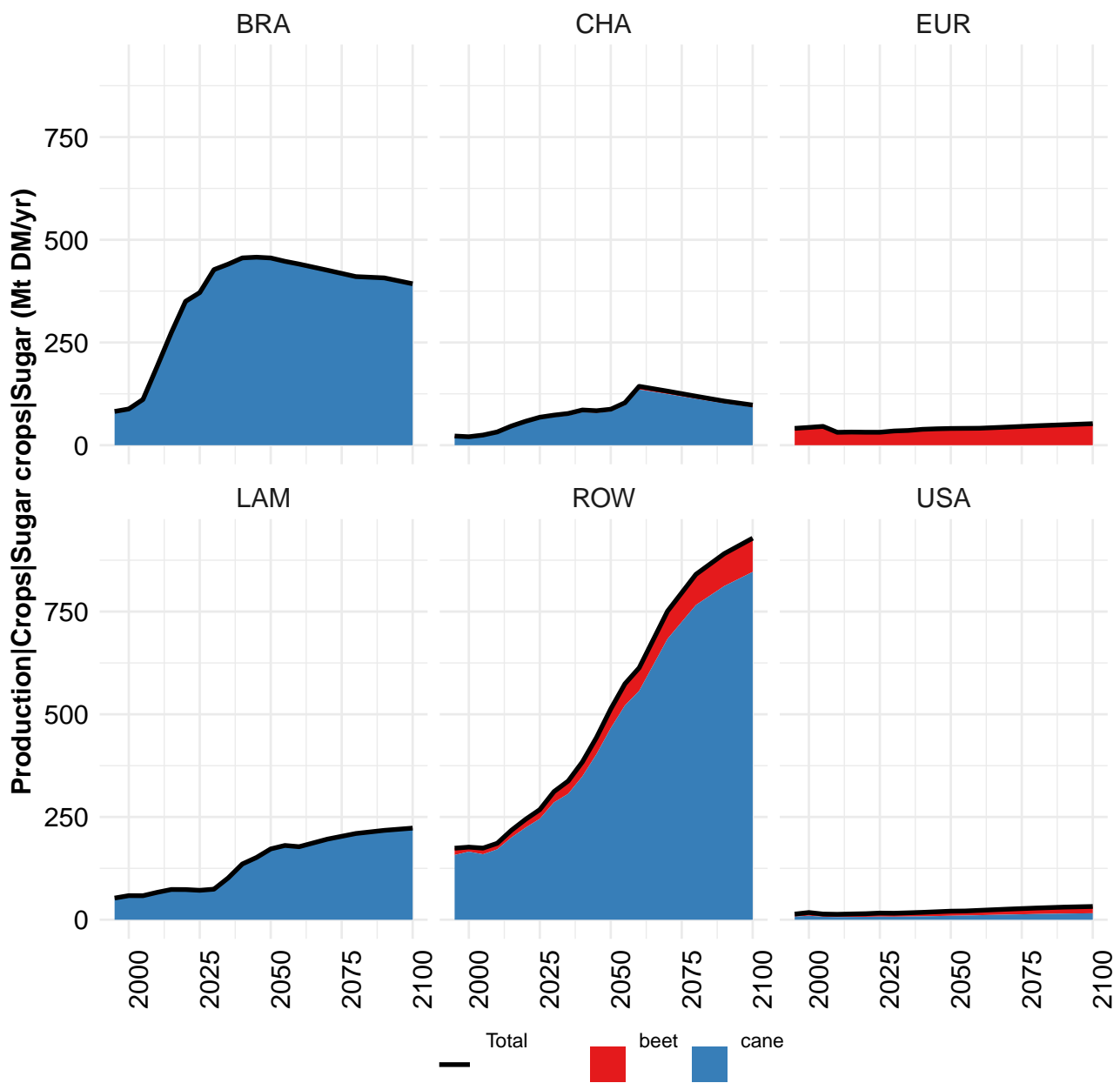
	2050	2055	2060	2070	2080	2090	2100
GLO	394	412	428	460	486	505	528
BRA	15	16	16	16	15	15	15
CHA	124	122	117	106	95	84	75
EUR	2	2	2	3	3	3	3
LAM	38	42	45	52	56	60	65
ROW	212	229	245	279	314	340	364
USA	2	3	3	4	4	4	5

Table 1393: MAgPIE m4p.brazil — Production—Crops—Other crops—Tropical roots (Mt DM/yr) [PART 2/2]

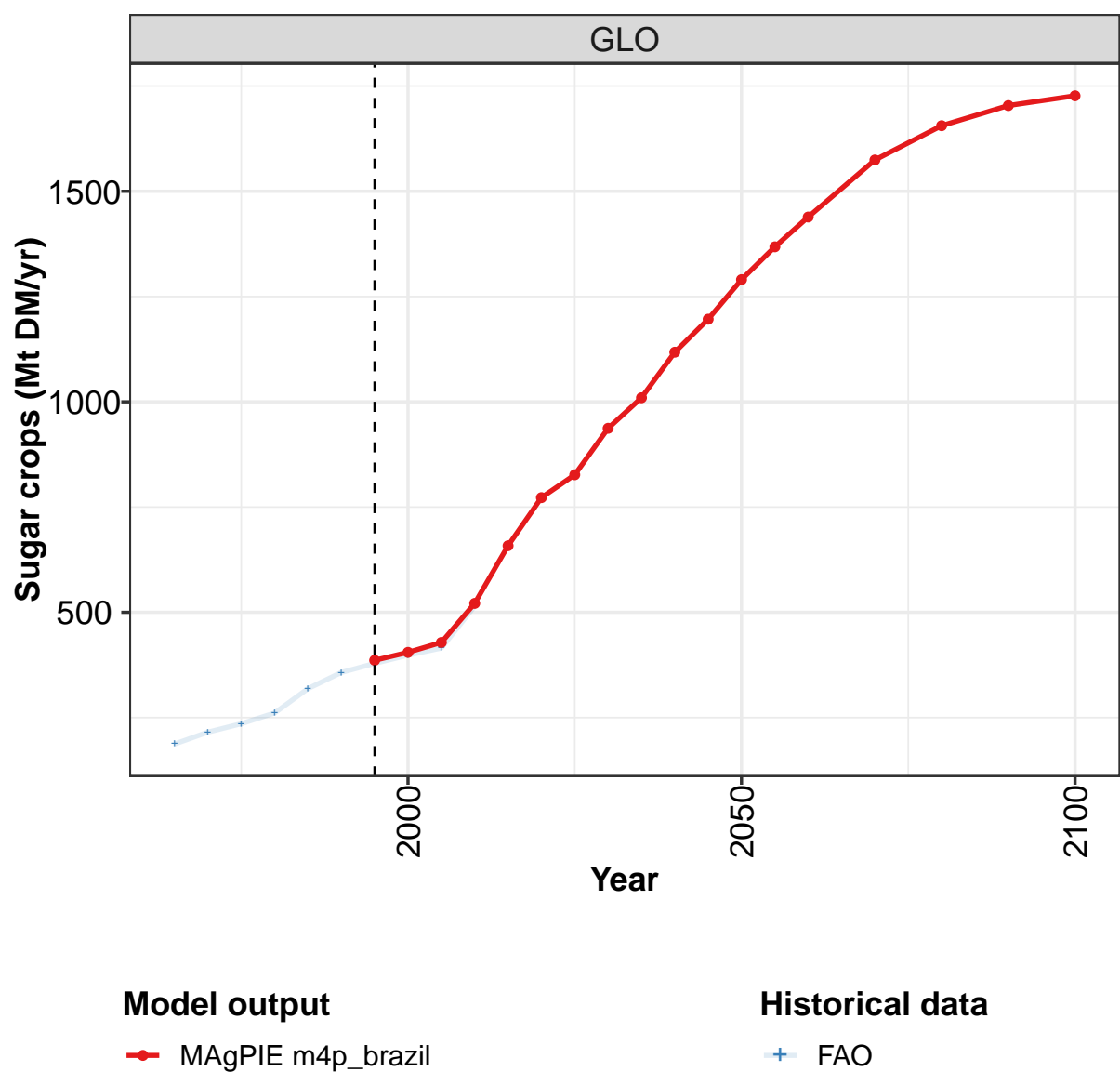
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	81	101	105	109	108	119	137	150	167	181
BRA	10	12	11	10	10	10	11	10	11	11
CHA	30	40	42	42	37	38	43	44	39	31
EUR	0	0	0	0	0	0	0	0	0	0
LAM	7	8	8	9	9	10	11	12	13	14
ROW	33	39	44	48	52	61	72	84	103	125
USA	0	0	0	0	0	0	0	0	0	0

Table 1394: FAO — Production—Crops—Other crops—Tropical roots (Mt DM/yr)





44.4 Sugar crops



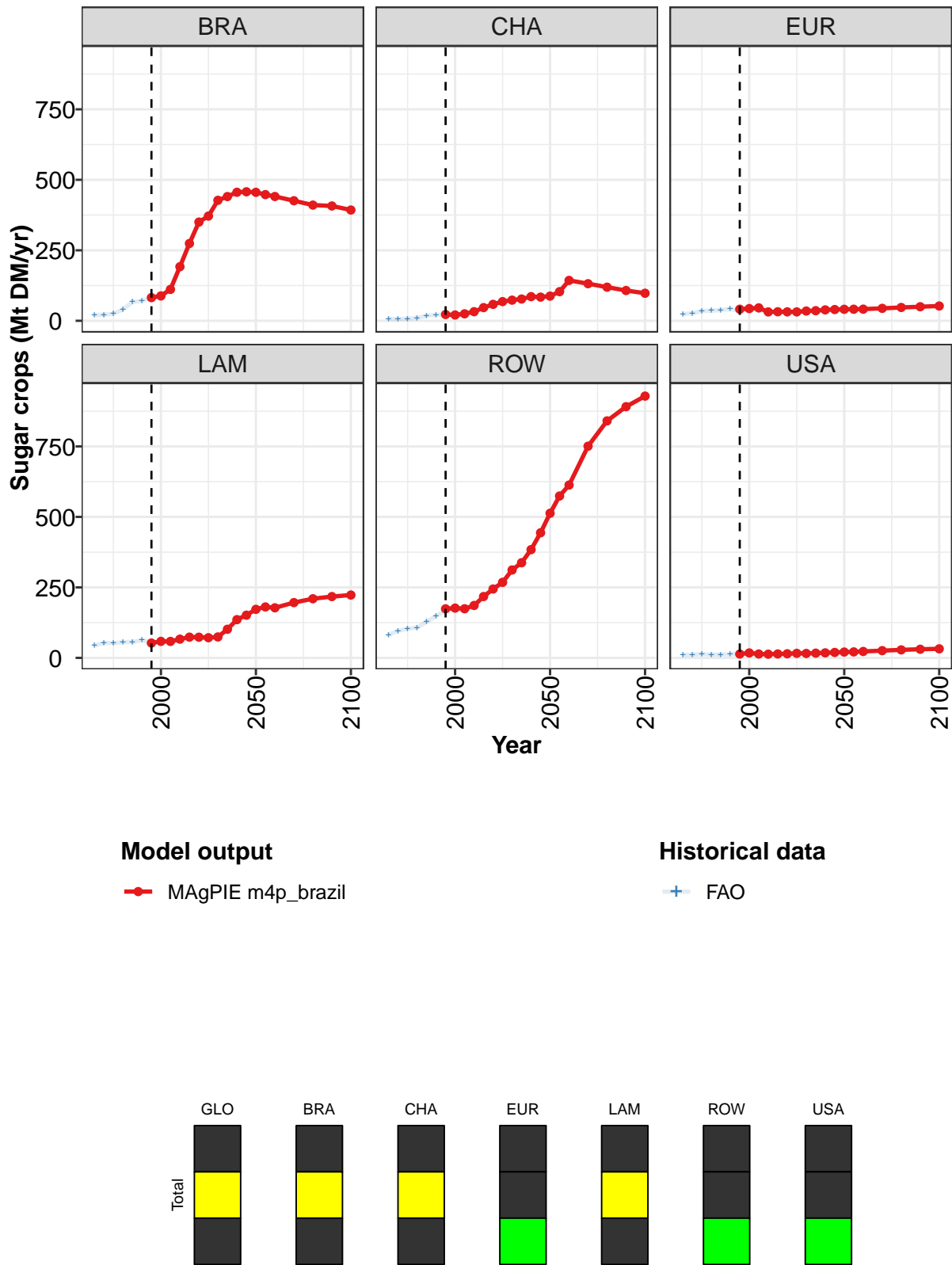


Figure 353: MAgPIE m4p_brazil — Production—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	386	405	429	521	658	772	827	937	1010	1118	1196
BRA	82	88	111	192	274	350	371	427	441	456	458
CHA	22	21	25	32	47	58	68	73	77	86	84
EUR	41	43	46	31	32	32	32	35	36	39	40
LAM	53	59	58	67	74	73	72	74	102	136	152
ROW	174	177	174	186	218	244	268	312	338	384	444
USA	14	18	14	13	14	15	16	16	17	18	19

Table 1395: MAgPIE m4p_brazil — Production—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

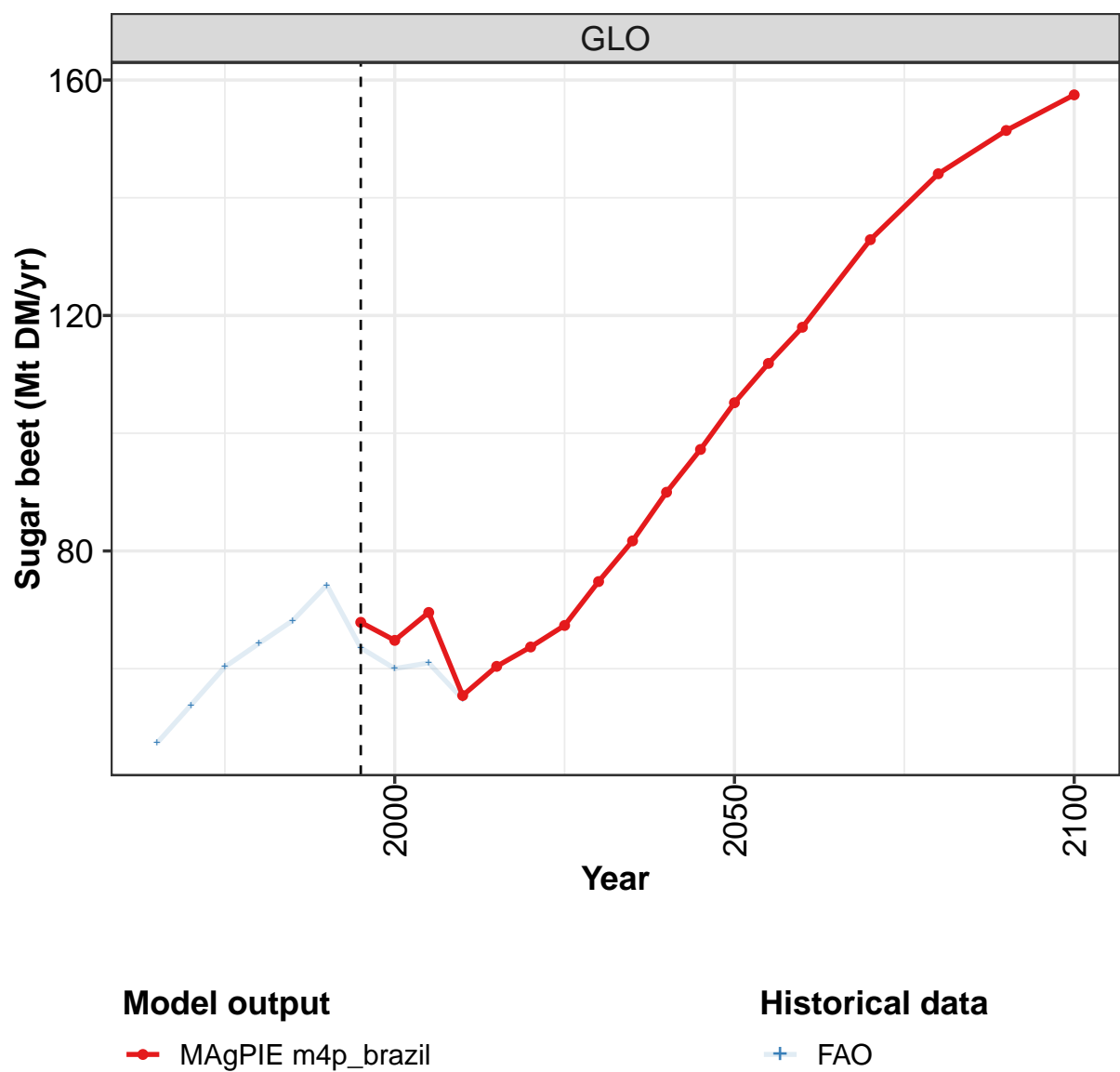
	2050	2055	2060	2070	2080	2090	2100
GLO	1290	1368	1439	1574	1656	1704	1727
BRA	456	448	441	426	410	407	393
CHA	88	103	143	132	119	107	98
EUR	41	41	41	44	47	50	52
LAM	172	181	178	196	210	217	223
ROW	513	574	613	751	841	891	929
USA	21	21	23	26	28	31	32

Table 1396: MAgPIE m4p_brazil — 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
BRA	20	22	25	40	67	71	82	88	114	194
CHA	7	6	7	10	18	21	22	21	26	32
EUR	24	27	35	36	38	41	37	38	38	31
LAM	43	54	52	56	56	63	55	57	57	60
ROW	82	96	103	107	128	149	169	176	167	184
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



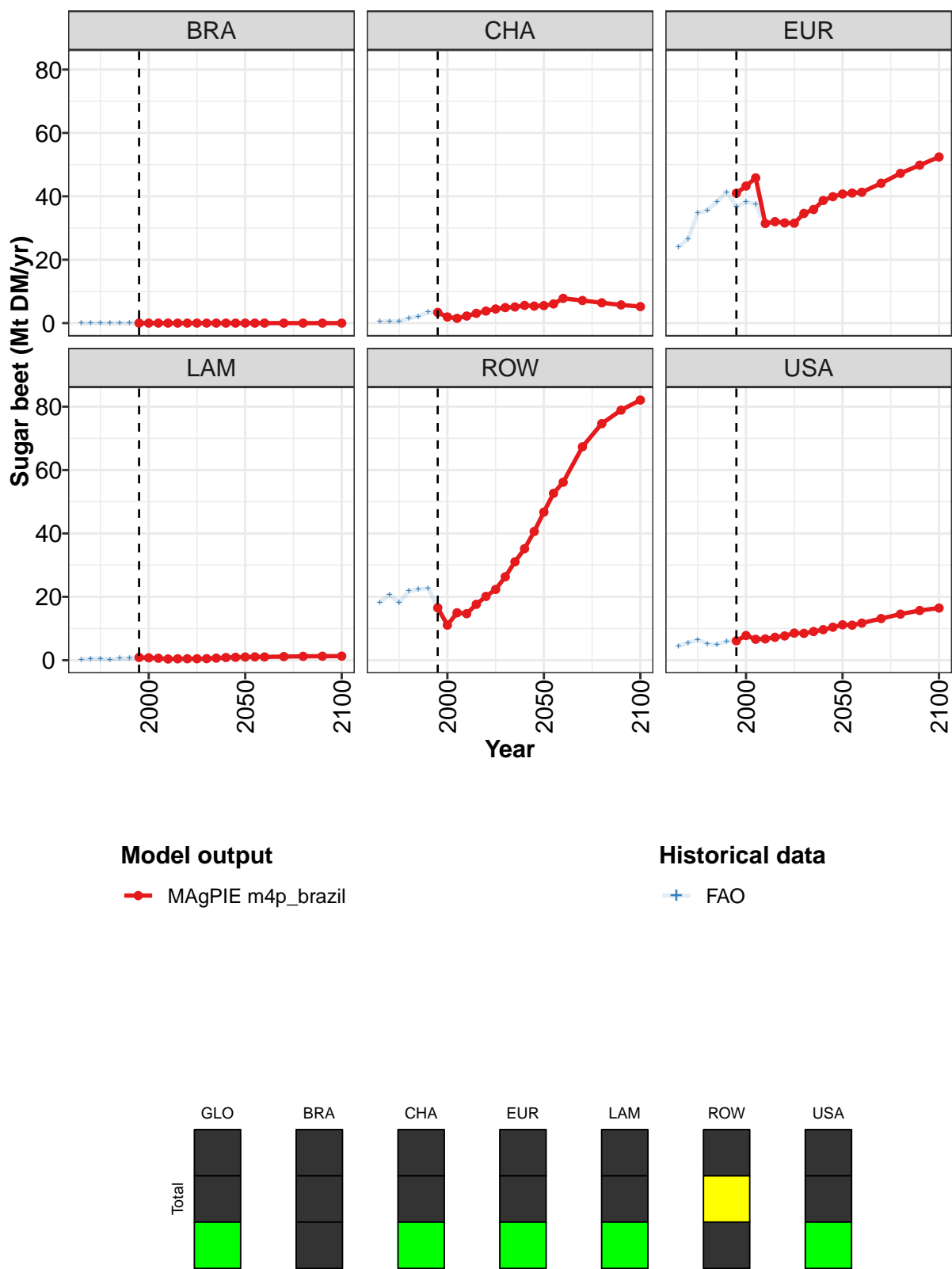


Figure 354: MAgPIE m4p_brazil — Production—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	68	65	70	55	60	64	67	75	82	90	97
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	3	2	2	2	3	4	4	5	5	6	5
EUR	41	43	46	31	32	32	32	35	36	39	40
LAM	1	1	1	0	0	0	0	0	1	1	1
ROW	17	11	15	15	18	20	22	26	31	35	41
USA	6	8	7	7	7	8	9	8	9	10	10

Table 1398: MAgPIE m4p_brazil — Production—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

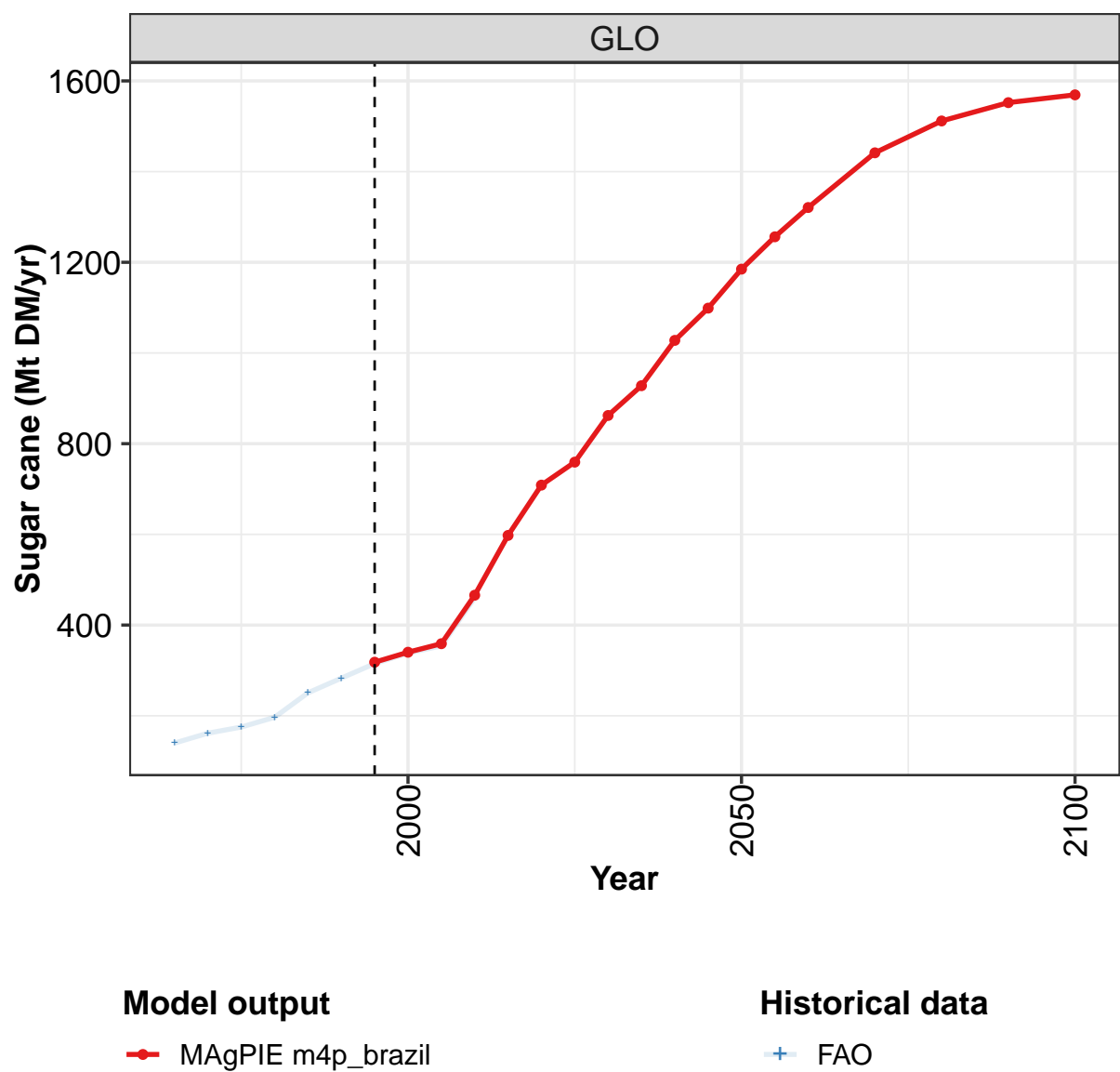
	2050	2055	2060	2070	2080	2090	2100
GLO	105	112	118	133	144	151	157
BRA	0	0	0	0	0	0	0
CHA	6	6	8	7	6	6	5
EUR	41	41	41	44	47	50	52
LAM	1	1	1	1	1	1	1
ROW	47	53	56	67	75	79	82
USA	11	11	12	13	15	16	16

Table 1399: MAgPIE m4p_brazil — 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
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.5	0.5	0.6	1.5	2.1	3.5	3.4	1.9	1.9	2.2
EUR	23.9	26.6	34.7	35.6	38.3	41.3	36.7	38.2	37.6	30.7
LAM	0.3	0.5	0.5	0.2	0.6	0.6	0.9	0.7	0.6	0.4
ROW	18.3	20.7	18.1	21.8	22.3	22.8	16.5	11.3	14.3	14.6
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



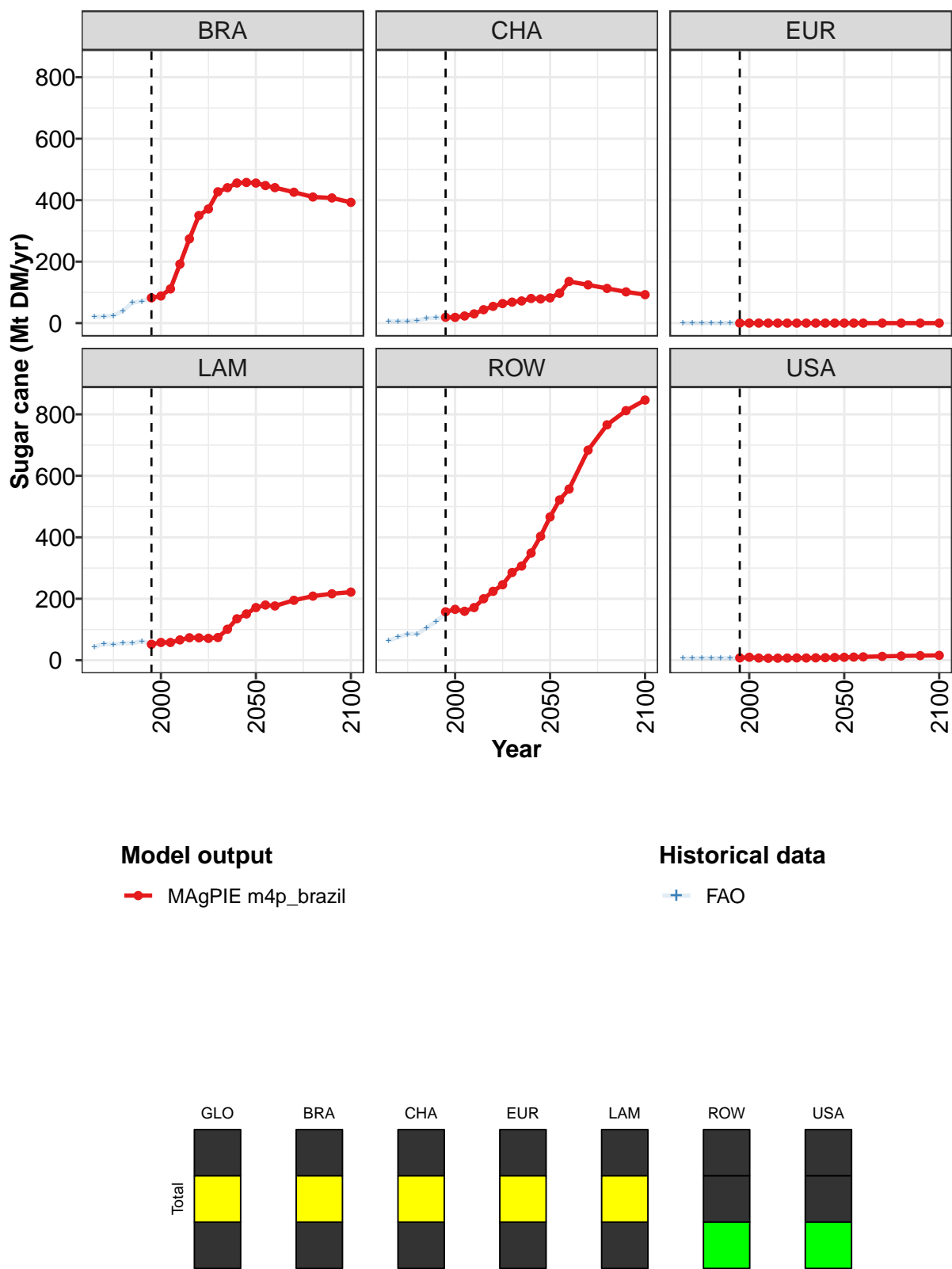


Figure 355: MAgPIE m4p_brazil — Production—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	318	340	359	466	598	709	759	862	928	1028	1099
BRA	82	88	111	192	274	350	371	427	441	456	458
CHA	19	19	23	30	44	54	64	68	72	80	79
EUR	0	0	0	0	0	0	0	0	0	0	0
LAM	52	58	58	66	73	73	71	74	101	135	151
ROW	158	166	159	171	200	224	246	285	307	349	403
USA	8	10	7	6	7	7	8	7	8	8	9

Table 1401: MAgPIE m4p_brazil — Production—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 1/2]

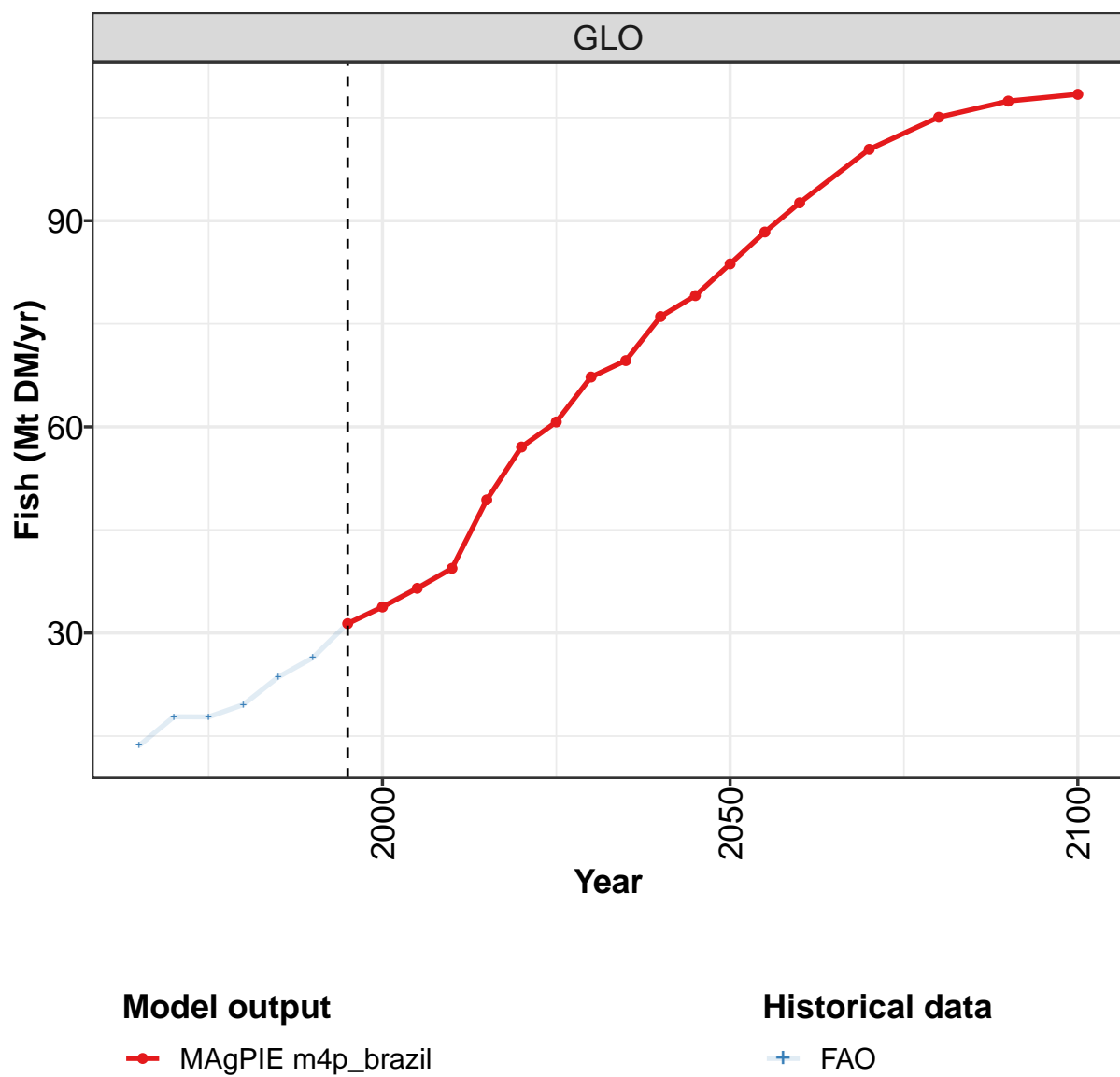
	2050	2055	2060	2070	2080	2090	2100
GLO	1185	1256	1321	1442	1512	1552	1569
BRA	456	448	441	426	410	407	393
CHA	82	97	135	124	113	102	93
EUR	0	0	0	0	0	0	0
LAM	171	180	177	195	209	216	222
ROW	466	522	557	684	766	812	847
USA	10	10	11	13	14	15	16

Table 1402: MAgPIE m4p_brazil — 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
BRA	20	22	25	40	67	71	82	88	114	194
CHA	6	5	7	9	16	17	19	19	24	30
EUR	0	0	0	0	0	0	0	0	0	0
LAM	43	53	51	56	56	62	54	57	57	60
ROW	64	75	85	85	105	126	153	164	152	169
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



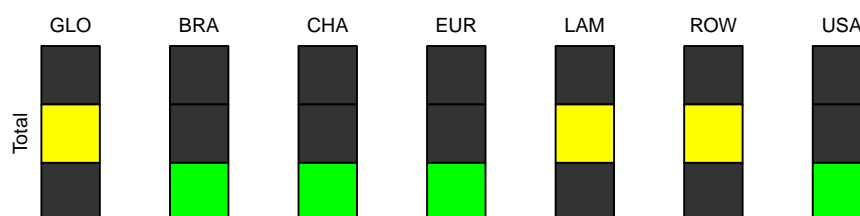
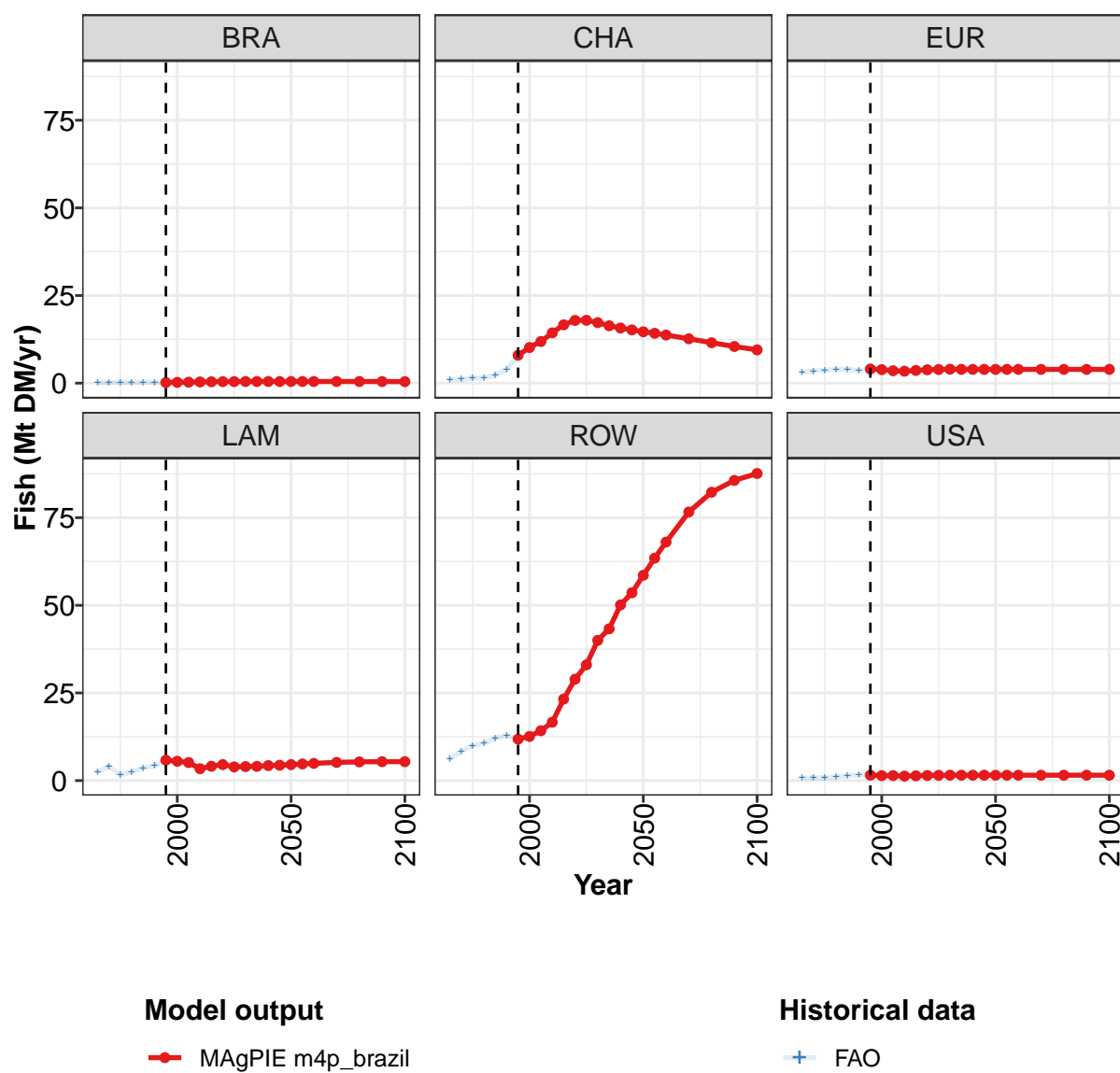


Figure 356: MAgPIE m4p_brazil — Production—Fish (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	31	34	37	39	49	57	61	67	70	76	79
BRA	0	0	0	0	0	0	0	0	0	0	0
CHA	8	10	12	14	17	18	18	17	16	16	15
EUR	4	4	4	3	4	4	4	4	4	4	4
LAM	6	6	5	3	4	5	4	4	4	4	4
ROW	12	13	14	17	23	29	33	40	43	50	54
USA	2	1	1	1	1	1	2	2	2	2	2

Table 1404: MAgPIE m4p_brazil — Production—Fish (Mt DM/yr) [PART 1/2]

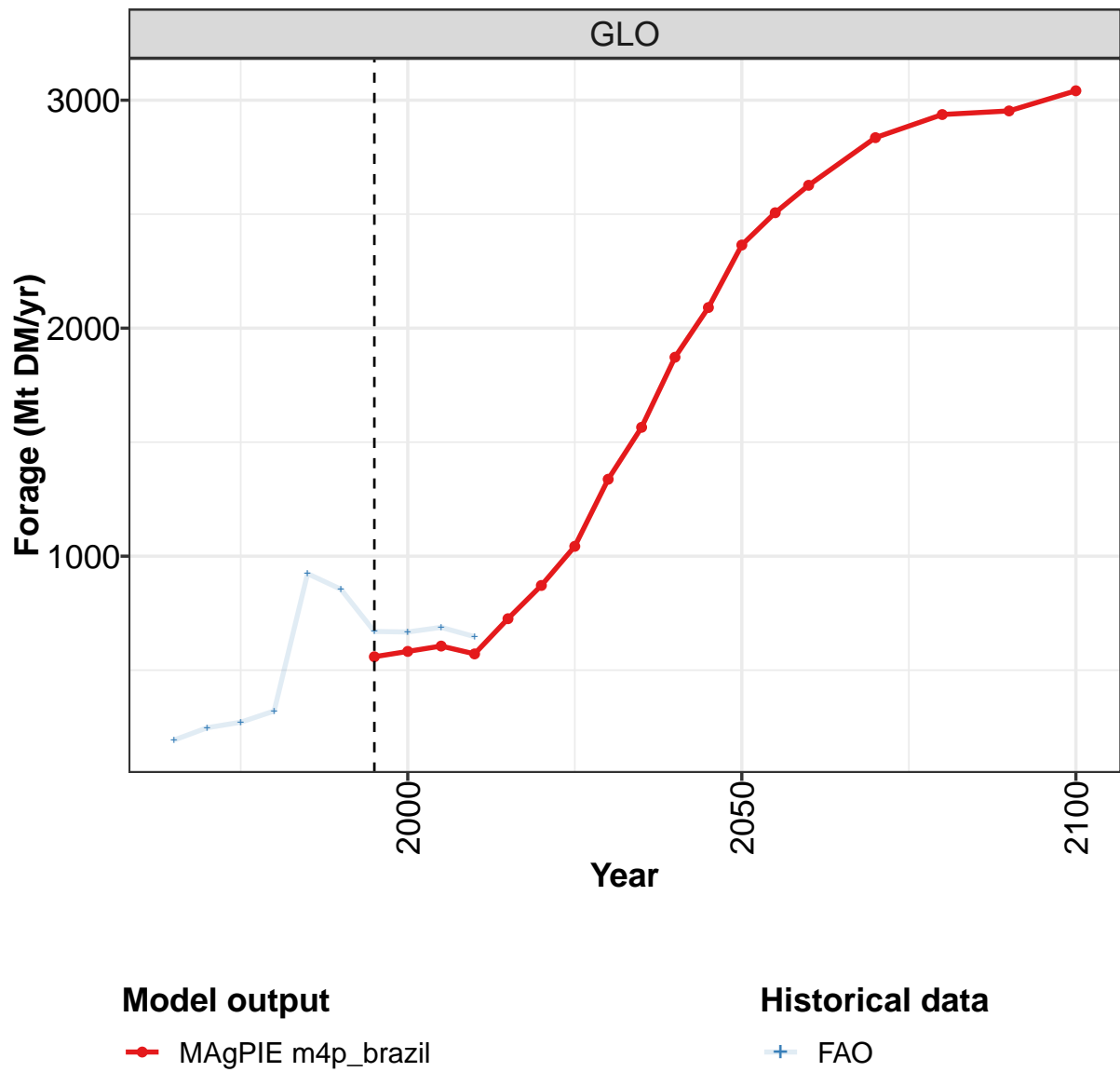
	2050	2055	2060	2070	2080	2090	2100
GLO	84	88	93	100	105	107	108
BRA	0	0	0	0	0	0	0
CHA	15	14	14	13	12	10	9
EUR	4	4	4	4	4	4	4
LAM	5	5	5	5	5	5	5
ROW	59	63	68	77	82	86	88
USA	2	2	2	2	2	2	2

Table 1405: MAgPIE m4p_brazil — 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
BRA	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3
CHA	1.0	1.1	1.5	1.5	2.3	3.9	8.0	10.1	11.9	14.3
EUR	3.1	3.5	3.7	3.8	4.0	3.5	4.1	3.9	3.5	3.4
LAM	2.4	4.0	1.6	2.4	3.5	4.3	5.8	5.5	5.2	3.4
ROW	6.3	8.3	10.0	10.5	12.1	12.9	11.8	12.7	14.2	16.7
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



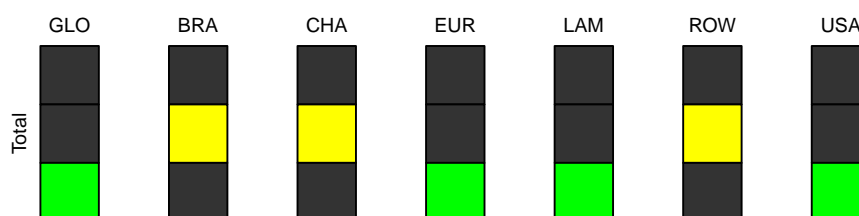
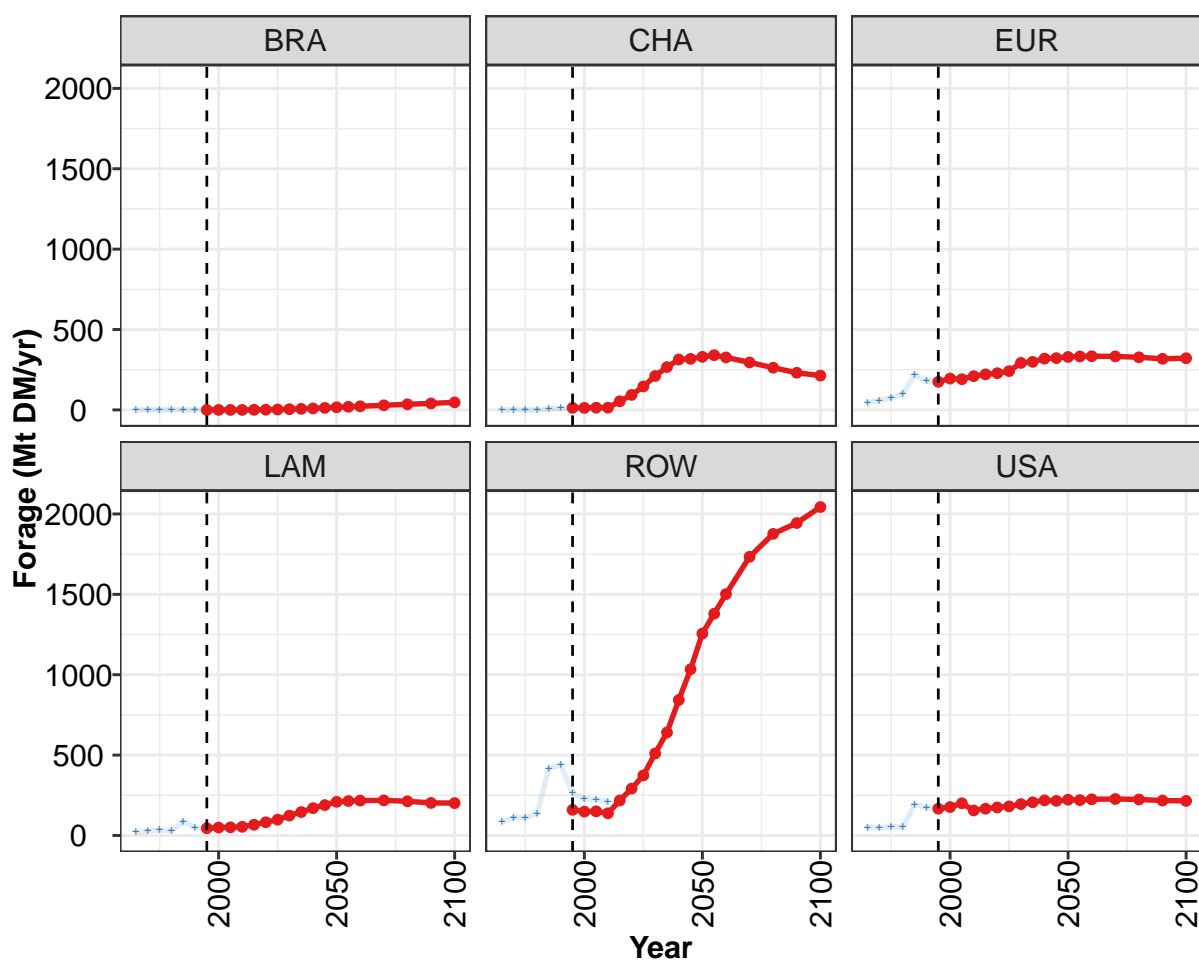


Figure 357: MAgPIE m4p_brazil — Production—Forage (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	559	582	606	571	726	872	1043	1337	1565	1873	2091
BRA	0	0	0	0	0	1	3	4	7	9	12
CHA	13	12	14	14	53	93	146	211	267	314	318
EUR	175	195	191	210	221	228	241	292	299	319	322
LAM	45	49	51	54	67	82	98	124	146	170	189
ROW	160	149	150	138	218	292	374	510	641	843	1034
USA	167	177	200	156	167	175	181	195	207	218	215

Table 1407: MAgPIE m4p_brazil — Production—Forage (Mt DM/yr) [PART 1/2]

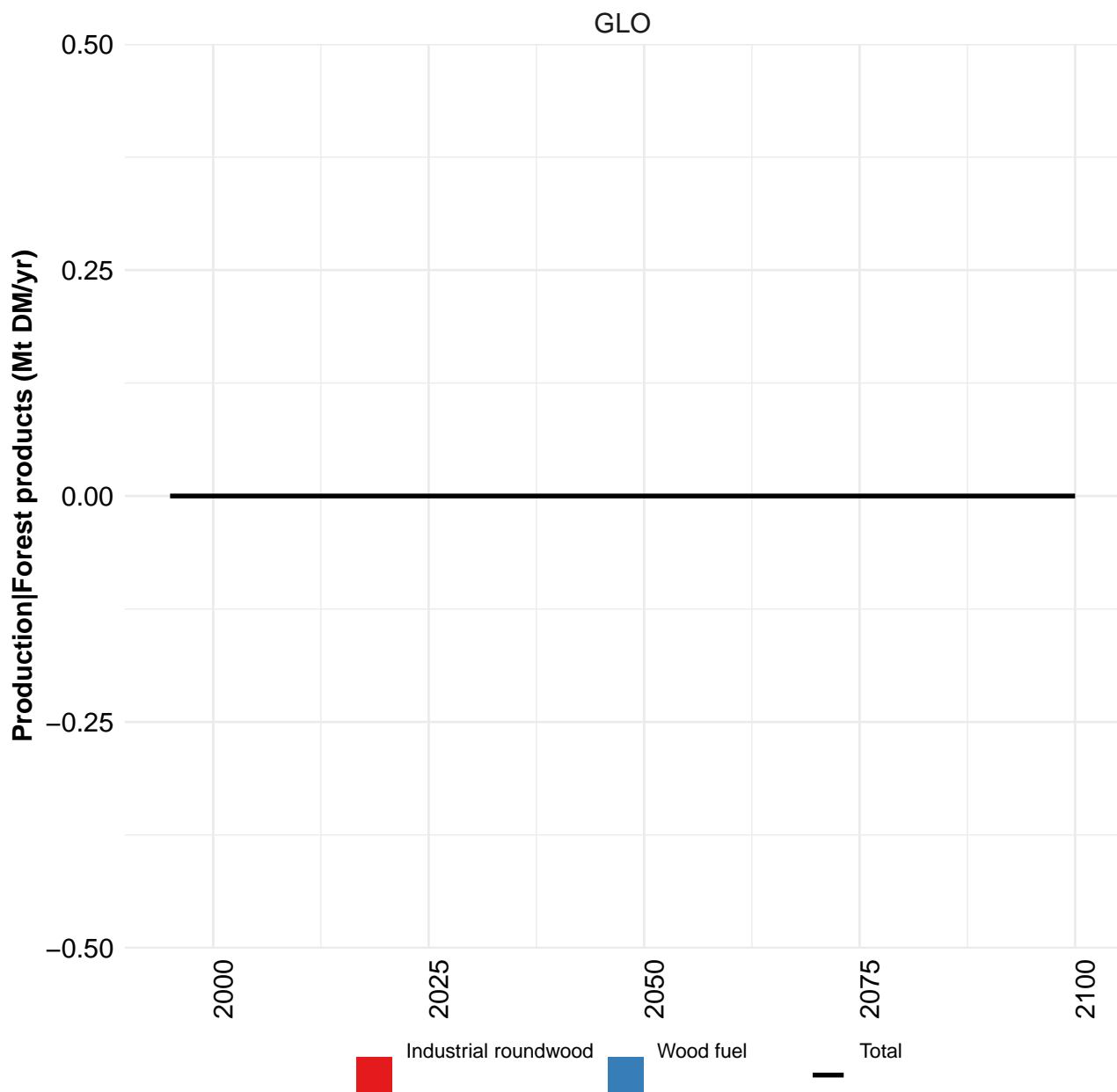
	2050	2055	2060	2070	2080	2090	2100
GLO	2365	2507	2627	2836	2937	2953	3042
BRA	16	19	22	29	35	40	47
CHA	330	340	327	295	262	231	213
EUR	329	333	334	333	327	318	321
LAM	210	214	217	218	213	203	201
ROW	1257	1380	1502	1734	1876	1944	2043
USA	223	220	225	227	224	217	215

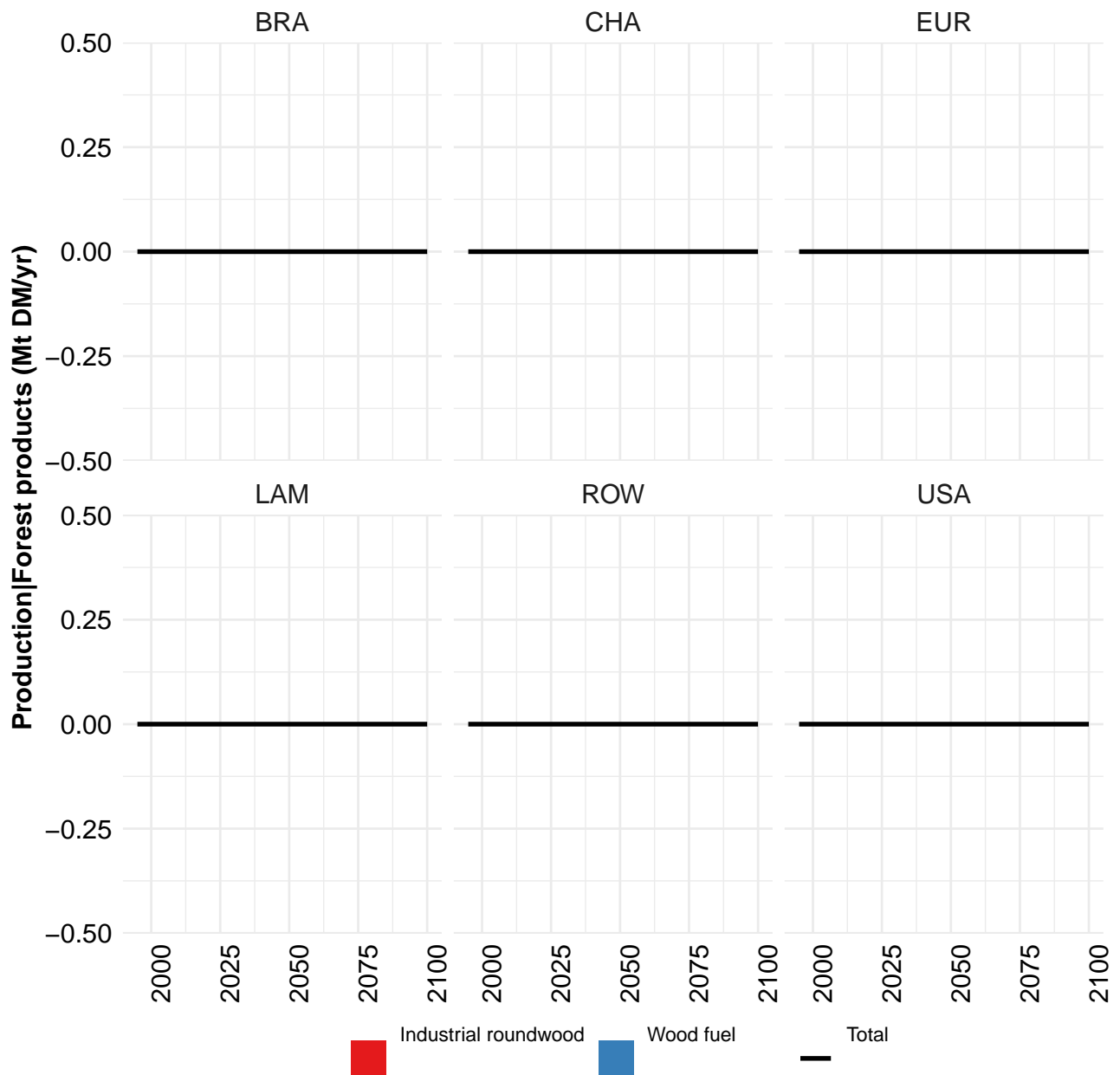
Table 1408: MAgPIE m4p_brazil — Production—Forage (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	193	247	272	321	923	855	670	667	688	647
BRA	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	8	10	11	12	13	14
EUR	42	59	74	100	217	179	180	192	198	209
LAM	21	27	33	31	88	51	46	50	51	54
ROW	83	113	111	137	418	439	263	229	224	209
USA	47	48	54	53	193	175	170	185	201	162

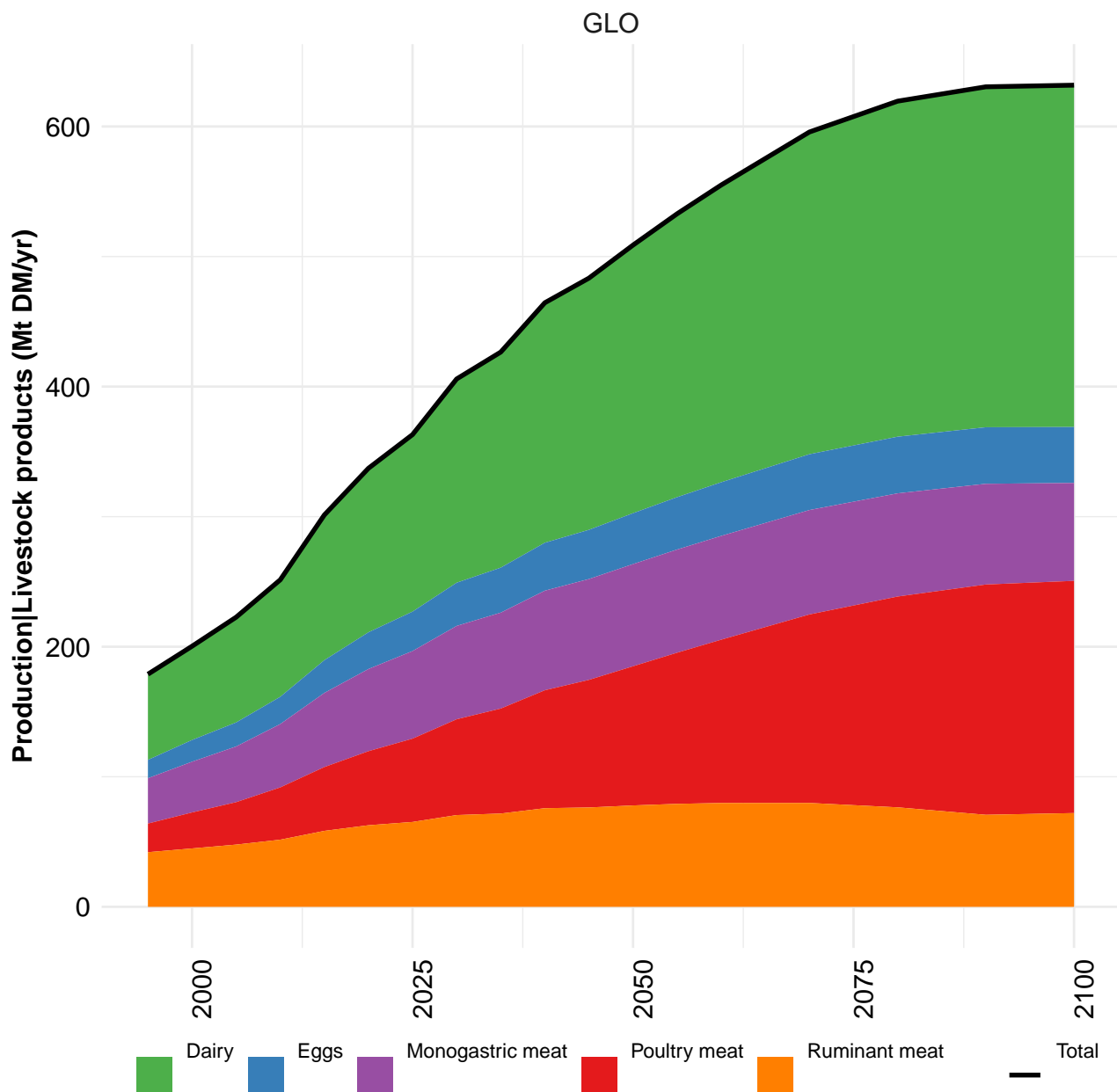
Table 1409: FAO — Production—Forage (Mt DM/yr)

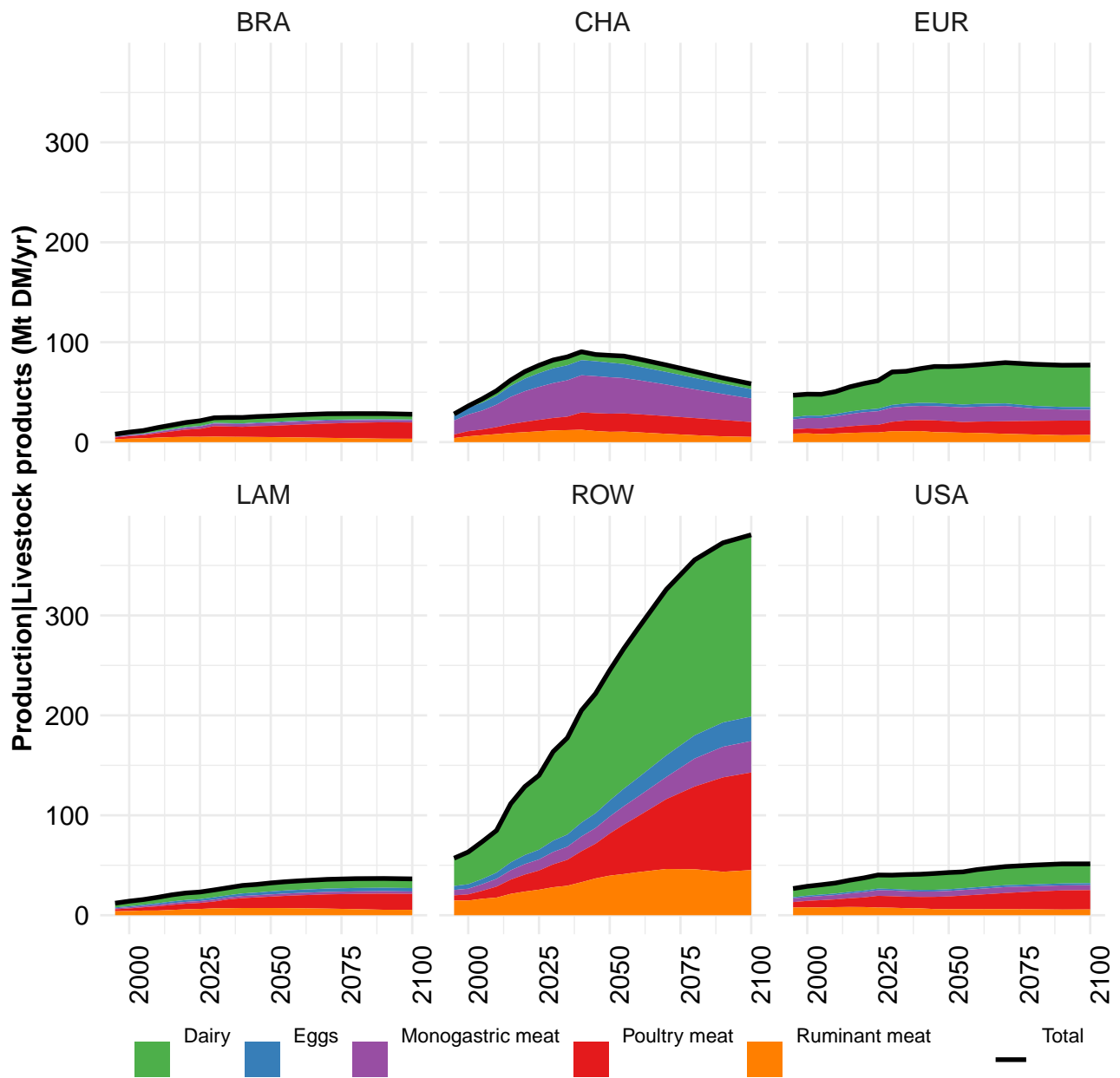
47 Forest products

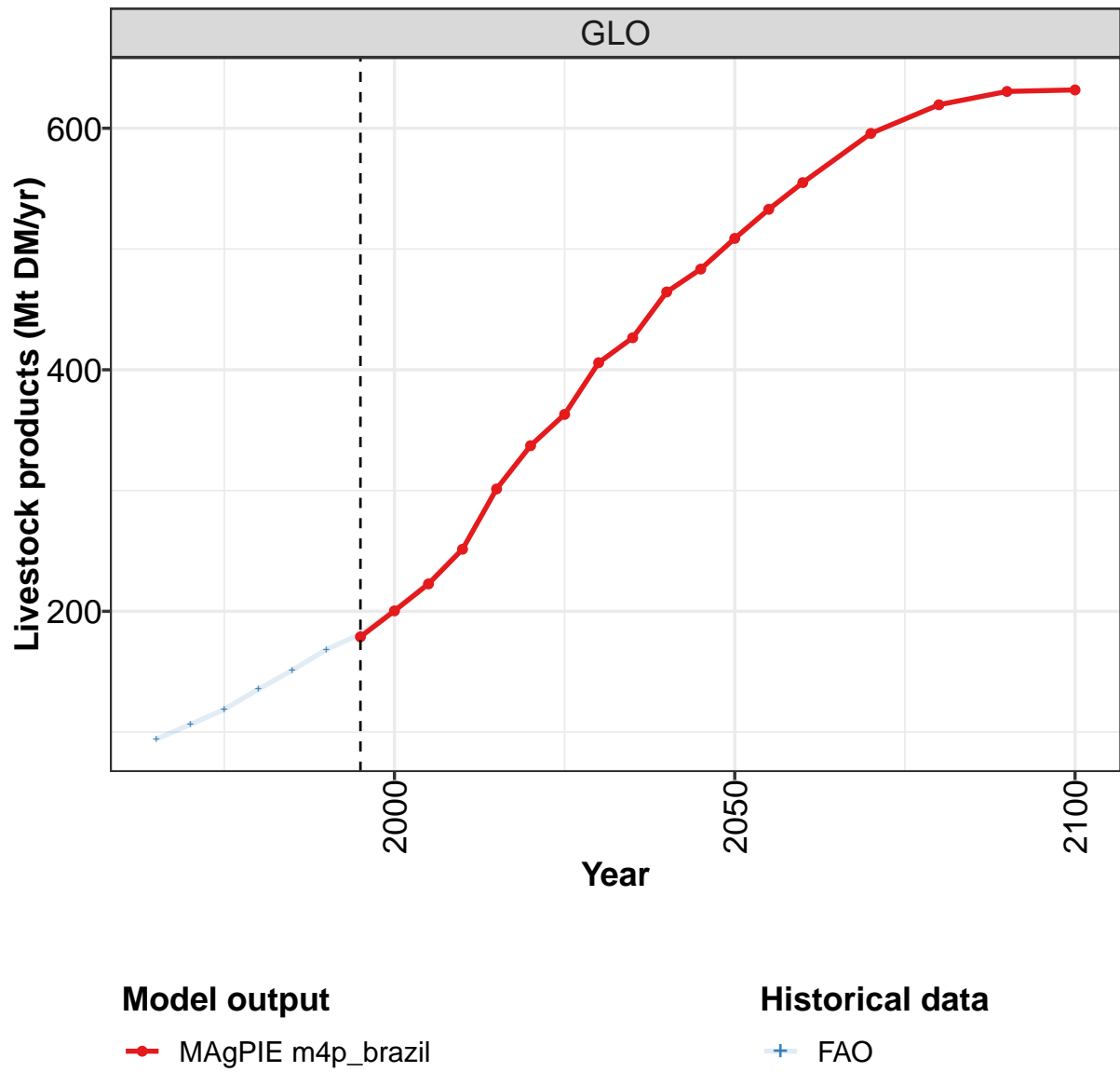




48 Livestock products







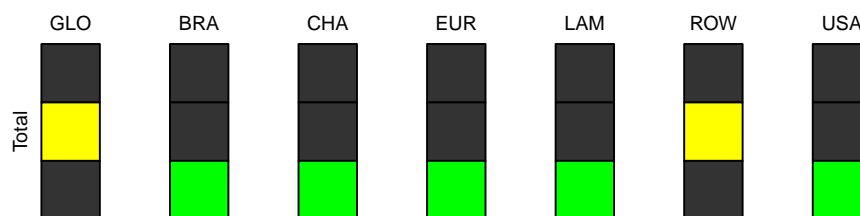
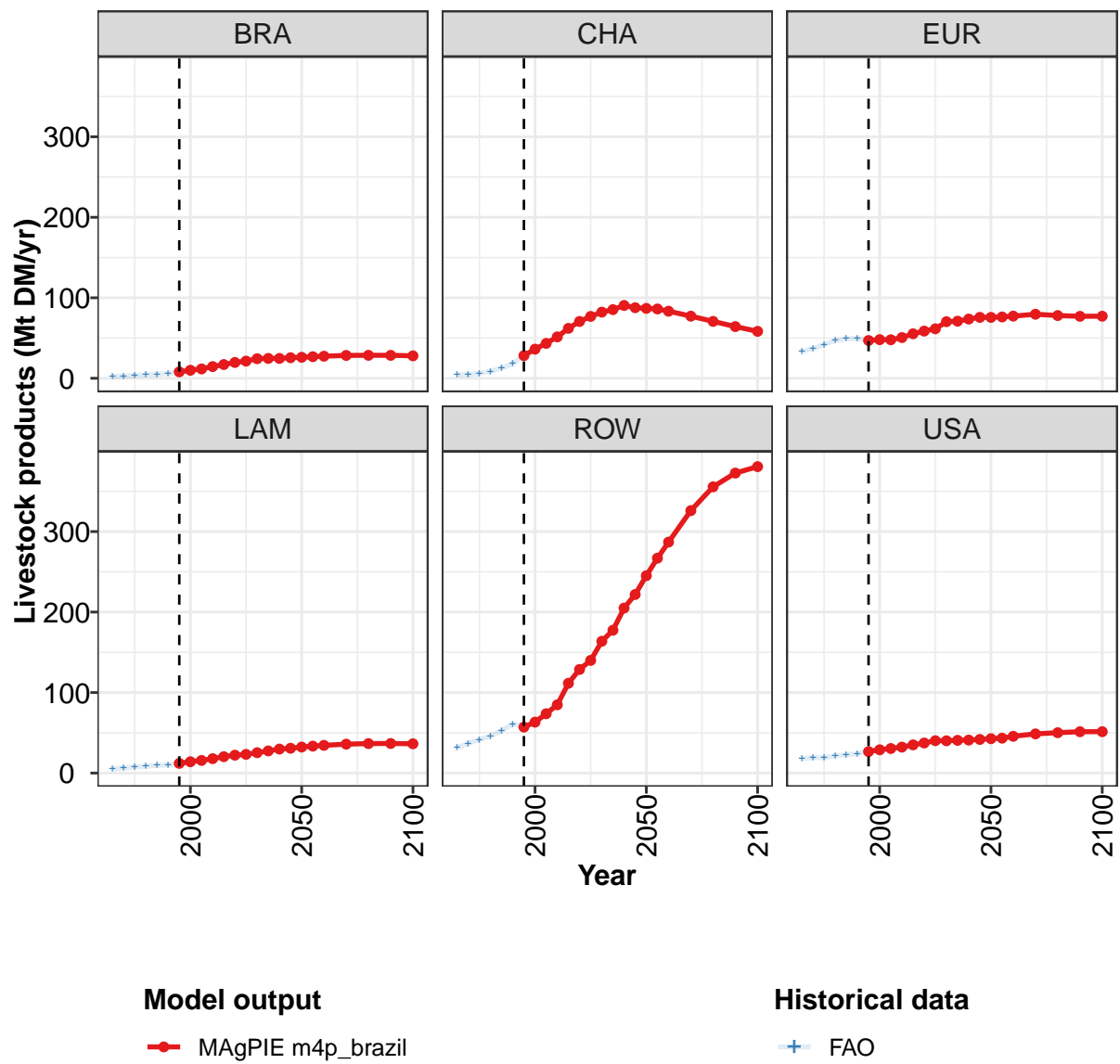


Figure 358: MAgPIE m4p_brazil — Production—Livestock products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	179	200	223	251	301	337	363	406	427	464	483
BRA	8	10	12	15	17	20	21	24	25	25	26
CHA	28	36	43	51	62	71	77	82	85	90	88
EUR	47	48	48	51	55	59	61	70	71	74	76
LAM	12	14	16	18	20	22	23	25	28	30	31
ROW	57	63	74	85	112	129	140	164	177	205	222
USA	27	29	30	32	35	37	40	40	41	41	42

Table 1410: MAgPIE m4p.brazil — Production—Livestock products (Mt DM/yr) [PART 1/2]

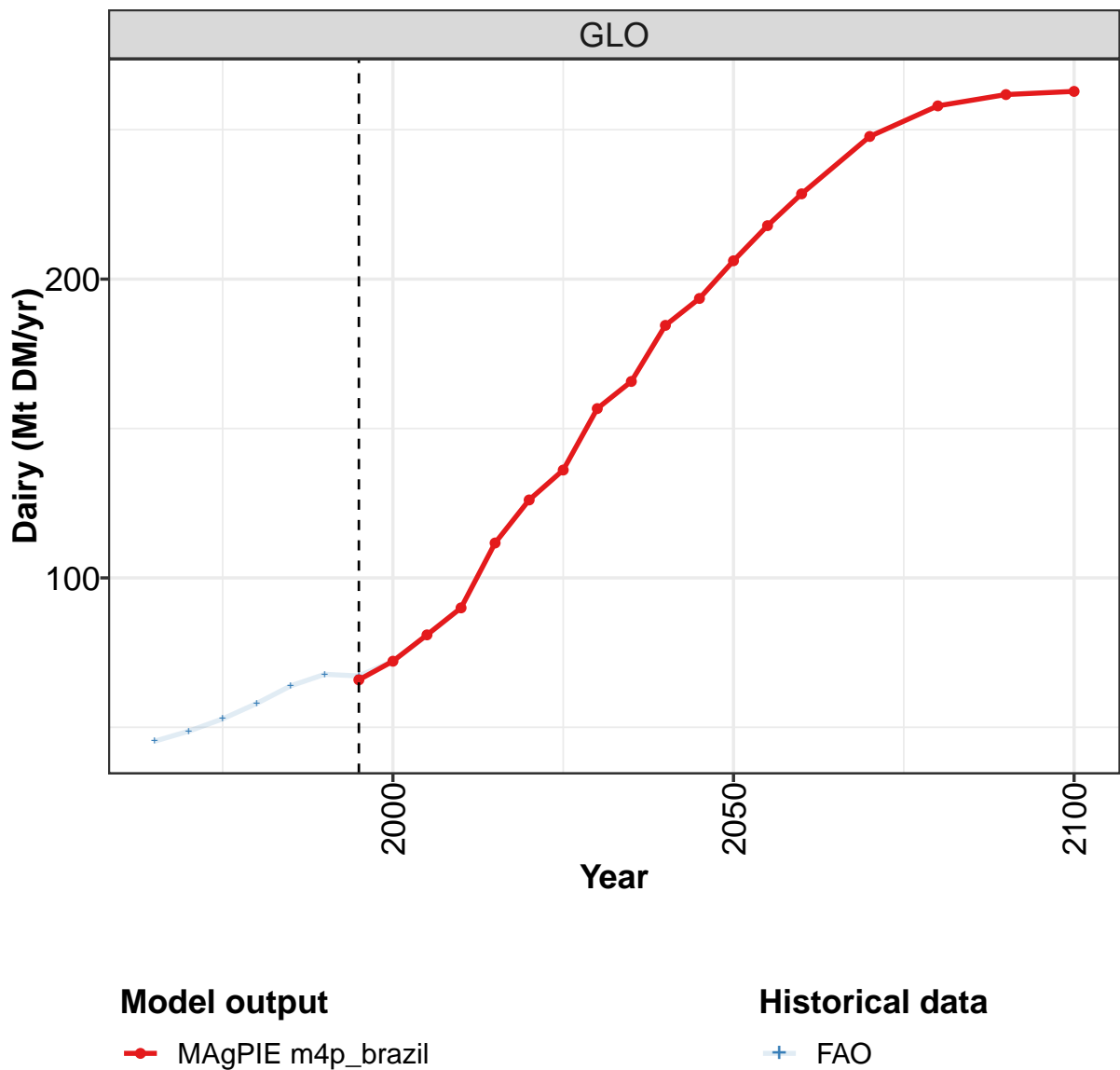
	2050	2055	2060	2070	2080	2090	2100
GLO	509	533	555	596	619	630	632
BRA	26	27	27	28	29	29	28
CHA	87	86	83	77	71	64	58
EUR	76	76	77	80	78	77	77
LAM	32	33	34	36	37	37	36
ROW	245	267	287	326	356	373	381
USA	43	43	46	49	50	51	51

Table 1411: MAgPIE m4p.brazil — 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
BRA	2	3	3	4	5	6	8	10	13	15
CHA	4	5	6	9	13	18	28	36	44	52
EUR	33	37	42	47	49	49	47	48	48	49
LAM	5	6	7	8	9	10	12	14	16	18
ROW	32	37	42	46	53	61	59	63	73	85
USA	18	19	19	21	23	24	27	30	31	33

Table 1412: FAO — Production—Livestock products (Mt DM/yr)

48.1 Dairy



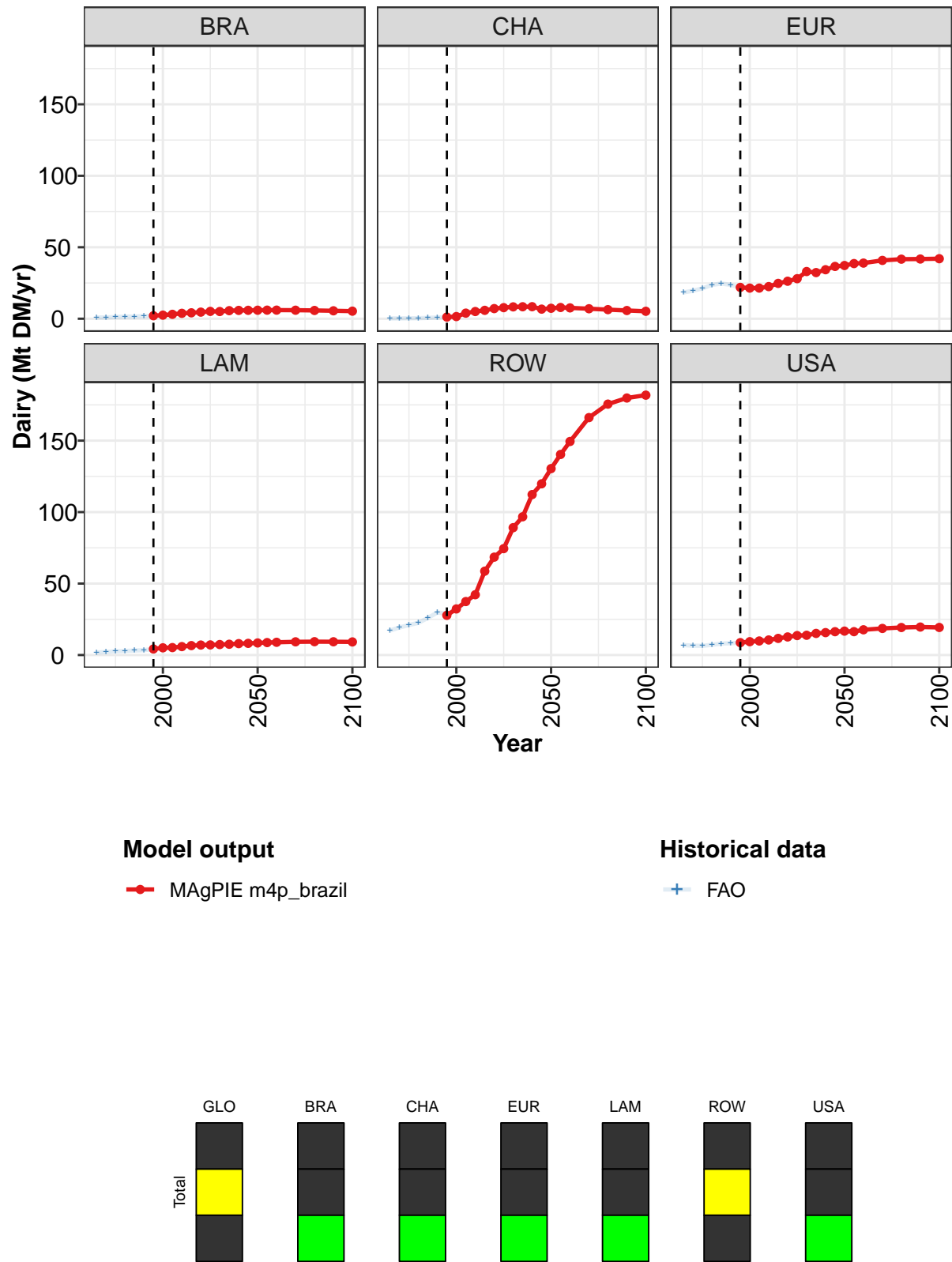


Figure 359: MAgPIE m4p_brazil — Production—Livestock products—Dairy (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	66	72	81	90	112	126	136	157	166	185	194
BRA	2	3	3	4	4	5	5	5	6	6	6
CHA	1	2	4	5	6	7	8	8	8	8	7
EUR	22	21	21	22	25	26	28	33	32	34	37
LAM	4	5	5	6	7	7	7	7	8	8	8
ROW	28	32	37	42	59	68	74	89	97	112	120
USA	9	9	10	11	12	13	14	14	15	16	16

Table 1413: MAgPIE m4p.brazil — Production—Livestock products—Dairy (Mt DM/yr) [PART 1/2]

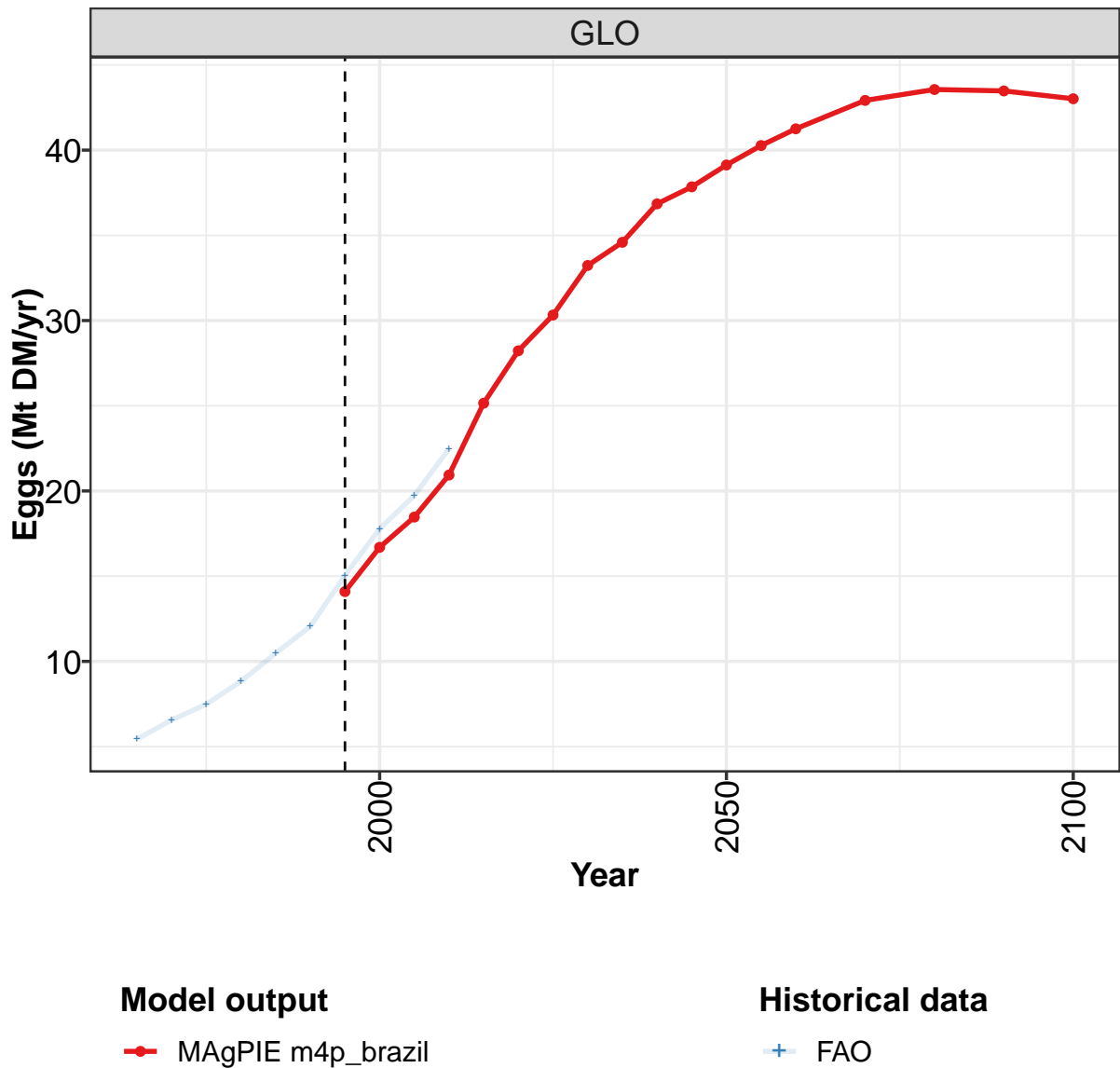
	2050	2055	2060	2070	2080	2090	2100
GLO	206	218	229	248	258	262	263
BRA	6	6	6	6	6	6	5
CHA	7	8	8	7	6	6	5
EUR	37	39	39	41	42	42	42
LAM	8	9	9	9	9	9	9
ROW	130	140	149	166	176	180	182
USA	17	16	18	19	19	20	19

Table 1414: MAgPIE m4p.brazil — 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
BRA	0.8	0.9	1.2	1.5	1.5	1.8	2.1	2.5	3.1	3.8
CHA	0.2	0.2	0.3	0.4	0.6	0.9	1.2	1.5	3.9	5.0
EUR	18.4	19.6	21.2	23.7	24.6	23.7	22.0	21.9	21.9	22.1
LAM	1.7	2.1	2.6	2.8	3.2	3.4	4.2	5.0	5.2	5.9
ROW	17.2	19.3	21.0	22.5	26.0	29.7	29.1	31.8	36.6	42.4
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



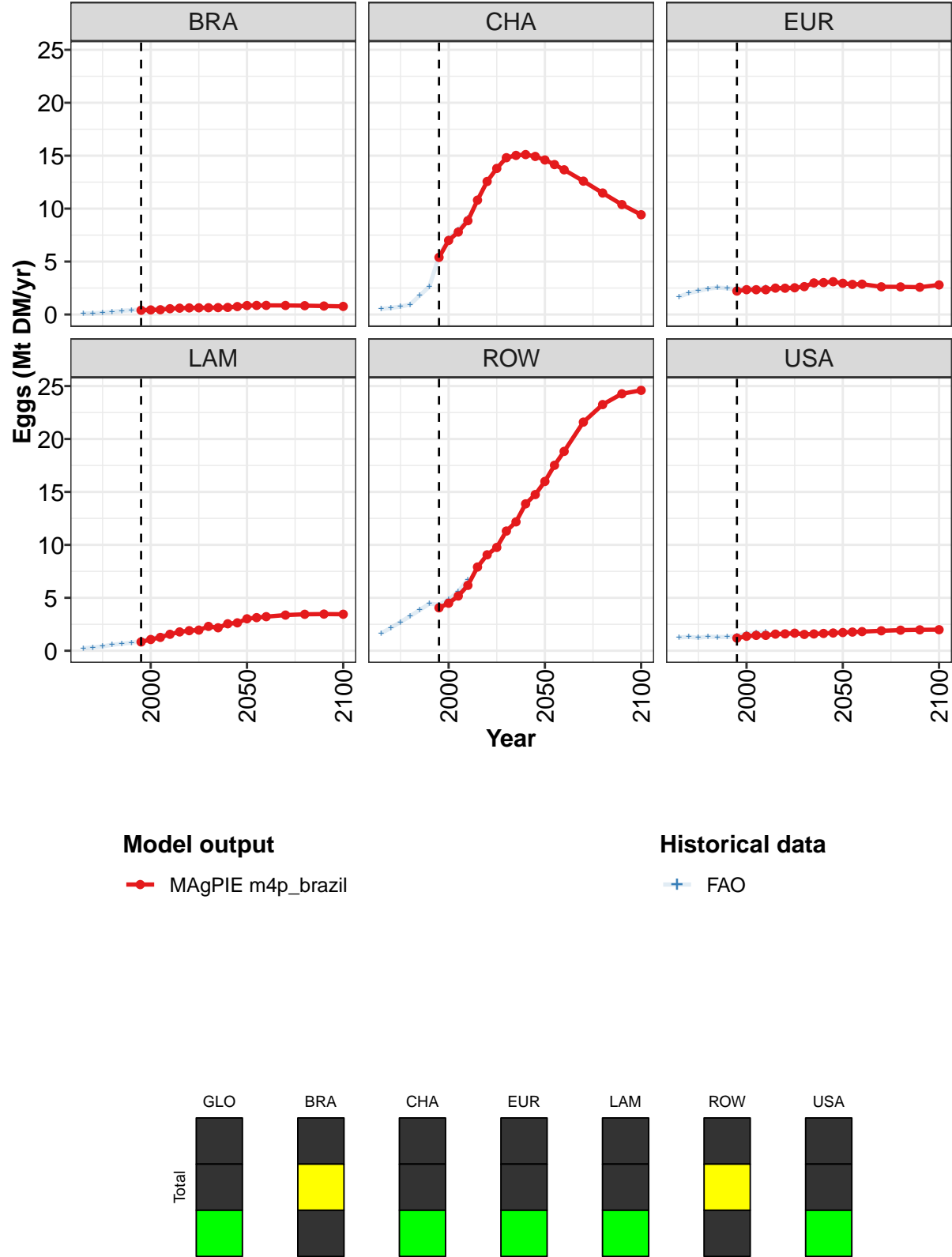


Figure 360: MAgPIE m4p_brazil — Production—Livestock products—Eggs (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	14.1	16.7	18.5	20.9	25.2	28.2	30.3	33.2	34.6	36.8	37.8
BRA	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7
CHA	5.4	7.0	7.8	8.9	10.8	12.6	13.8	14.8	15.0	15.1	14.9
EUR	2.2	2.3	2.3	2.3	2.5	2.5	2.5	2.6	3.0	3.0	3.1
LAM	0.8	1.1	1.3	1.6	1.8	1.9	2.0	2.3	2.2	2.5	2.6
ROW	4.1	4.5	5.2	6.2	7.9	9.1	9.8	11.3	12.2	13.9	14.8
USA	1.2	1.4	1.5	1.5	1.6	1.6	1.7	1.5	1.6	1.6	1.7

Table 1416: MAgPIE m4p_brazil — Production—Livestock products—Eggs (Mt DM/yr) [PART 1/2]

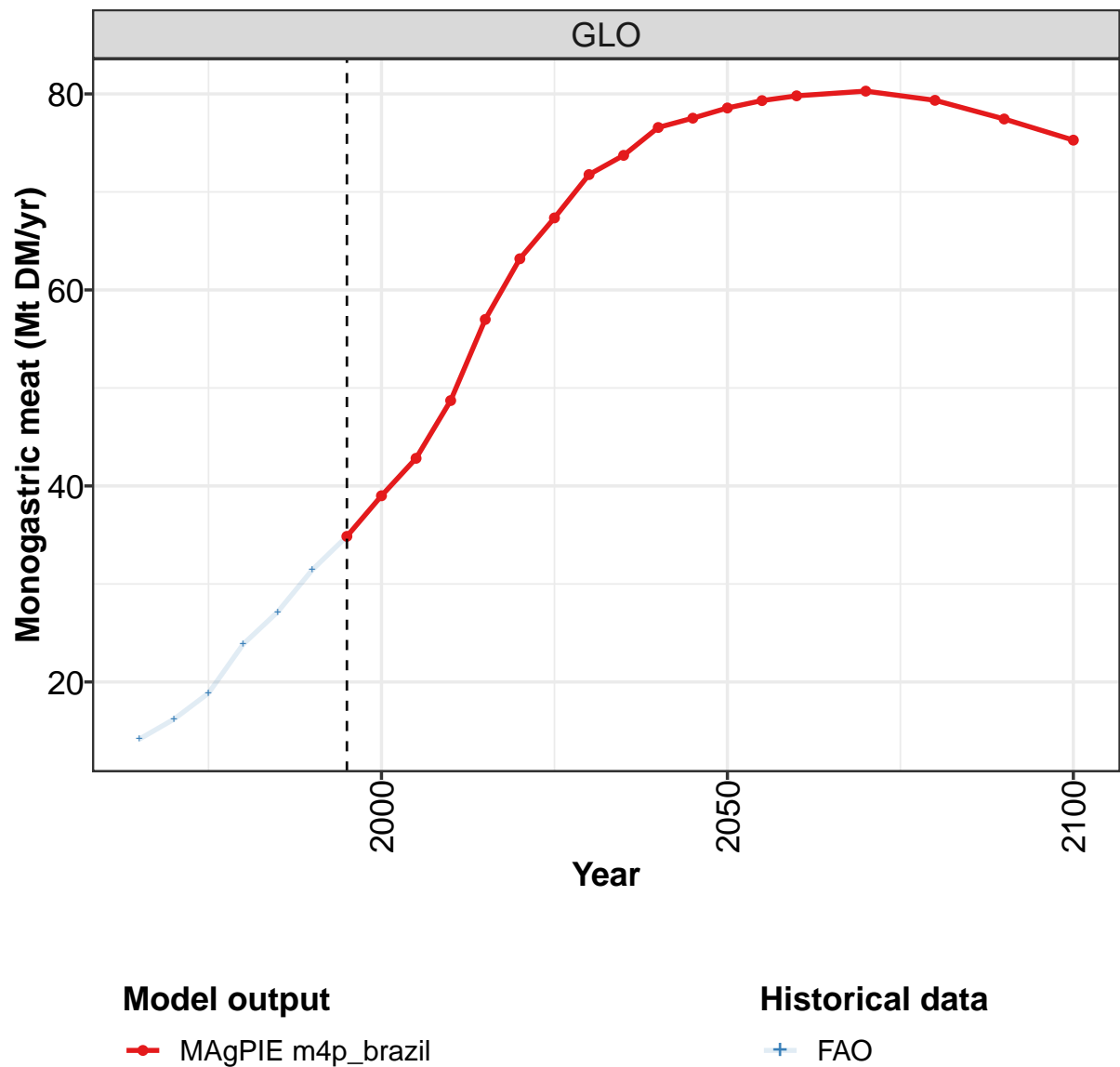
	2050	2055	2060	2070	2080	2090	2100
GLO	39.1	40.3	41.2	42.9	43.6	43.5	43.0
BRA	0.8	0.9	0.9	0.9	0.8	0.8	0.8
CHA	14.6	14.2	13.7	12.6	11.5	10.4	9.4
EUR	2.9	2.8	2.9	2.6	2.6	2.6	2.8
LAM	3.0	3.1	3.2	3.4	3.4	3.5	3.4
ROW	16.0	17.5	18.8	21.6	23.3	24.3	24.6
USA	1.7	1.8	1.8	1.9	1.9	2.0	2.0

Table 1417: MAgPIE m4p_brazil — 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
BRA	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.7
CHA	0.5	0.6	0.7	0.9	1.8	2.6	5.5	7.2	8.0	9.1
EUR	1.7	2.0	2.2	2.4	2.5	2.5	2.4	2.5	2.5	2.5
LAM	0.2	0.3	0.4	0.6	0.7	0.8	0.9	1.2	1.4	1.7
ROW	1.6	2.2	2.7	3.3	3.8	4.5	4.3	4.8	5.6	6.7
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



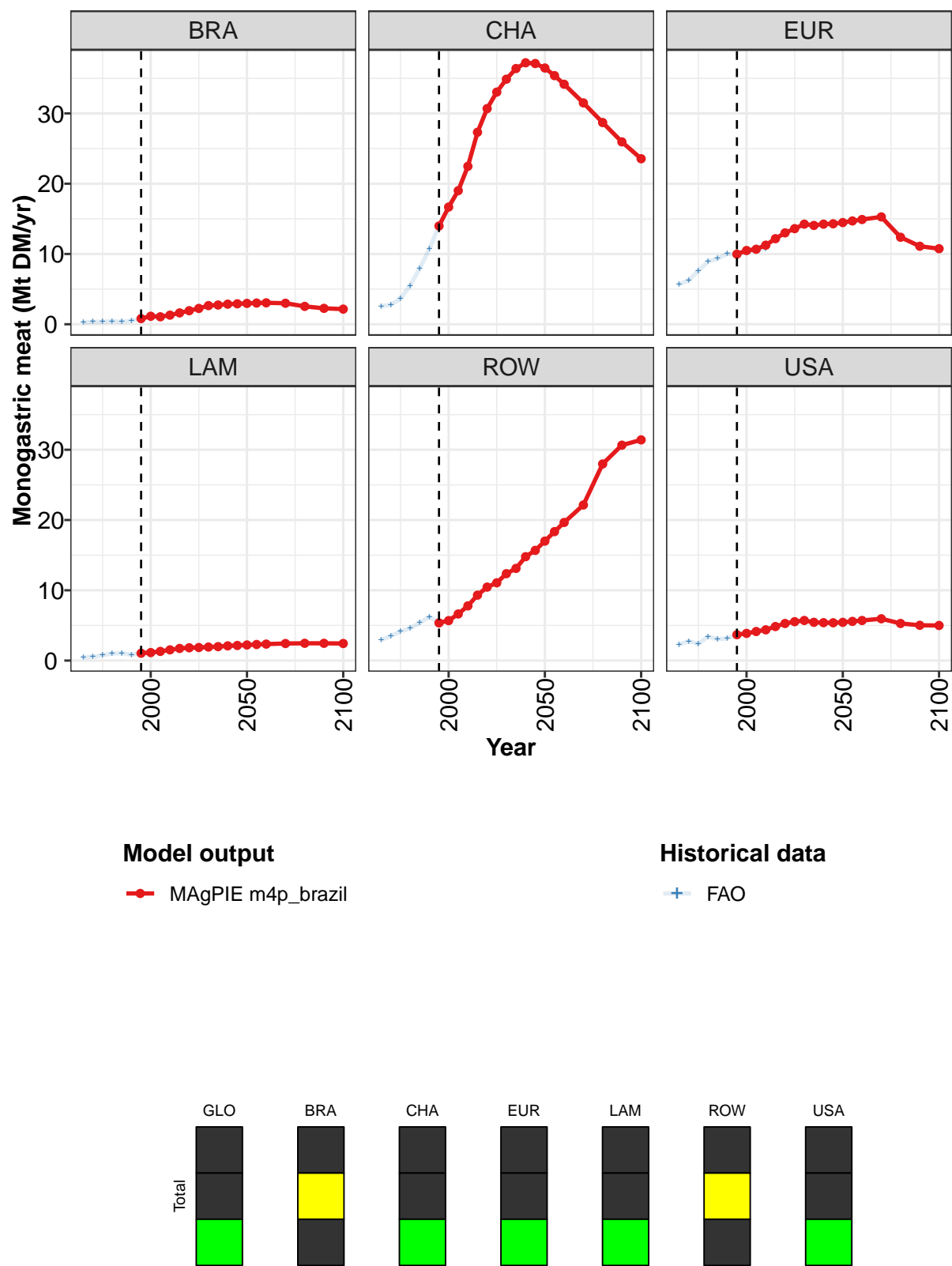


Figure 361: MAgPIE m4p_brazil — Production—Livestock products—Monogastric meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	34.9	39.0	42.8	48.7	57.0	63.2	67.4	71.8	73.7	76.6	77.5
BRA	0.8	1.1	1.1	1.3	1.6	1.9	2.3	2.7	2.7	2.9	2.9
CHA	14.0	16.7	19.0	22.5	27.3	30.7	33.0	34.9	36.4	37.2	37.1
EUR	10.0	10.5	10.7	11.3	12.2	13.0	13.6	14.2	14.1	14.2	14.3
LAM	1.0	1.1	1.3	1.5	1.7	1.8	1.9	1.9	2.0	2.1	2.1
ROW	5.4	5.7	6.6	7.8	9.3	10.5	11.1	12.4	13.1	14.8	15.7
USA	3.7	3.9	4.1	4.4	4.8	5.3	5.5	5.7	5.4	5.4	5.4

Table 1419: MAgPIE m4p_brazil — Production—Livestock products—Monogastric meat (Mt DM/yr) [PART 1/2]

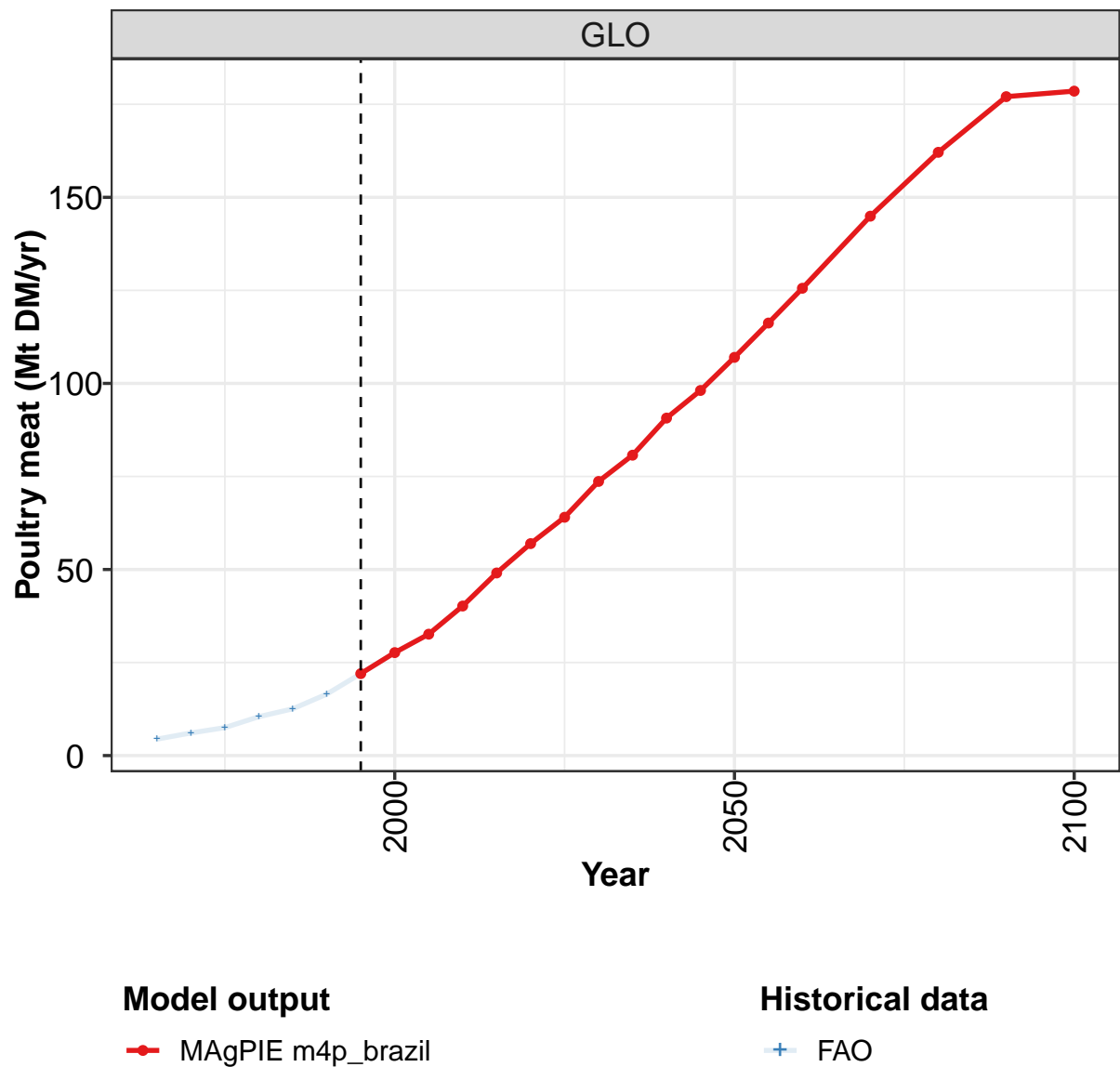
	2050	2055	2060	2070	2080	2090	2100
GLO	78.6	79.3	79.8	80.3	79.3	77.4	75.3
BRA	3.0	3.0	3.0	3.0	2.5	2.3	2.2
CHA	36.5	35.4	34.2	31.5	28.7	26.0	23.6
EUR	14.5	14.7	14.9	15.3	12.4	11.1	10.7
LAM	2.2	2.3	2.3	2.4	2.5	2.5	2.4
ROW	17.0	18.4	19.7	22.1	28.0	30.7	31.4
USA	5.4	5.6	5.7	5.9	5.3	5.0	5.0

Table 1420: MAgPIE m4p_brazil — 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
BRA	0.3	0.3	0.3	0.4	0.4	0.5	0.8	1.2	1.3	1.5
CHA	2.5	2.8	3.6	5.5	8.0	10.7	14.1	16.7	19.0	22.5
EUR	5.7	6.3	7.6	8.9	9.4	10.0	9.9	10.4	10.4	10.8
LAM	0.5	0.5	0.7	1.0	1.0	0.8	1.0	1.1	1.3	1.5
ROW	2.9	3.5	4.1	4.6	5.4	6.2	5.4	5.7	6.6	7.8
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



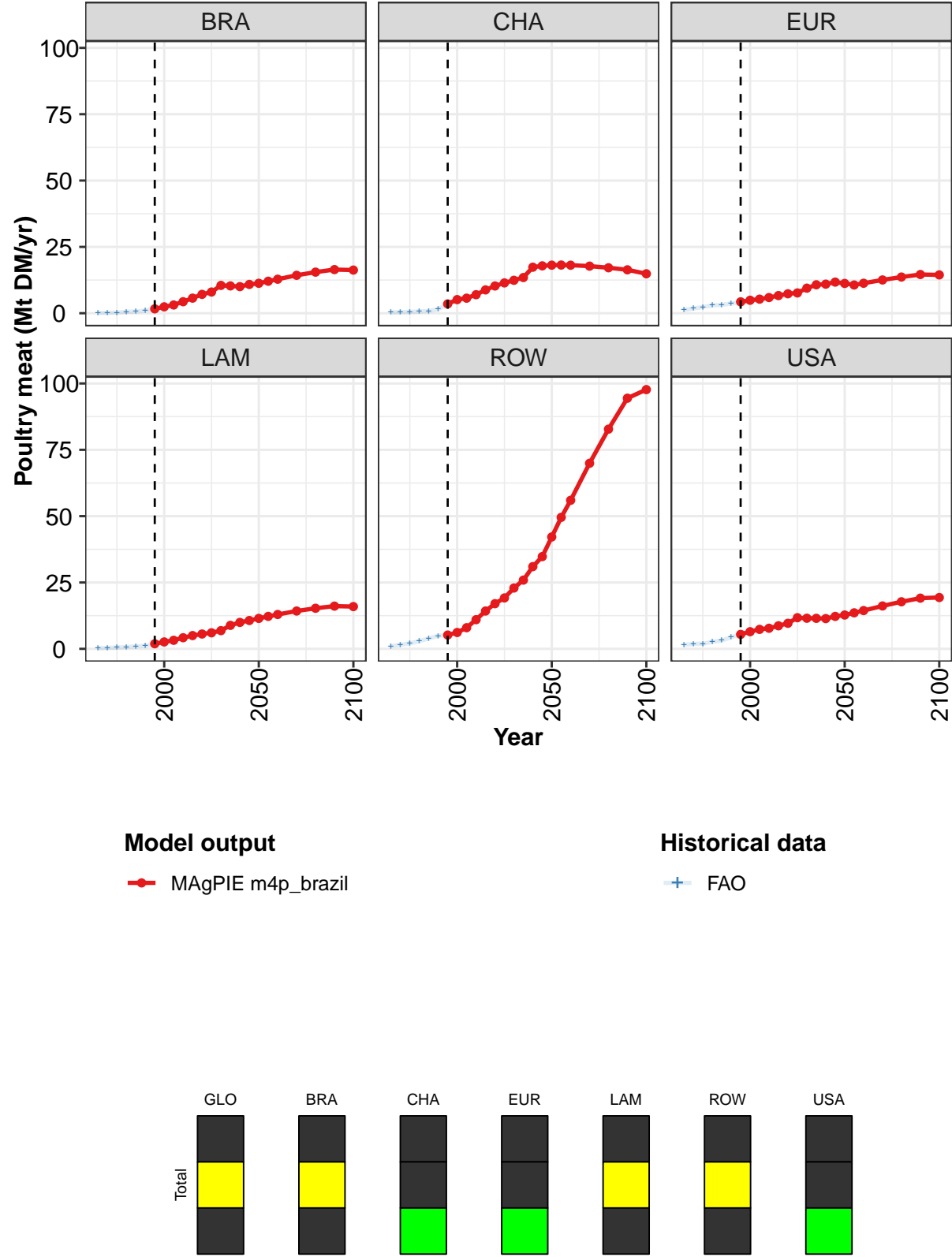


Figure 362: MAGPIE m4p_brazil — Production—Livestock products—Poultry meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	22	28	33	40	49	57	64	74	81	91	98
BRA	2	2	3	4	6	7	8	10	10	10	11
CHA	4	5	6	7	9	10	11	12	13	17	18
EUR	4	5	5	6	7	7	8	9	11	11	12
LAM	2	3	3	4	5	6	6	7	9	10	11
ROW	5	6	8	11	14	17	19	23	26	31	35
USA	5	6	7	8	9	10	12	12	11	11	12

Table 1422: MAgPIE m4p_brazil — Production—Livestock products—Poultry meat (Mt DM/yr) [PART 1/2]

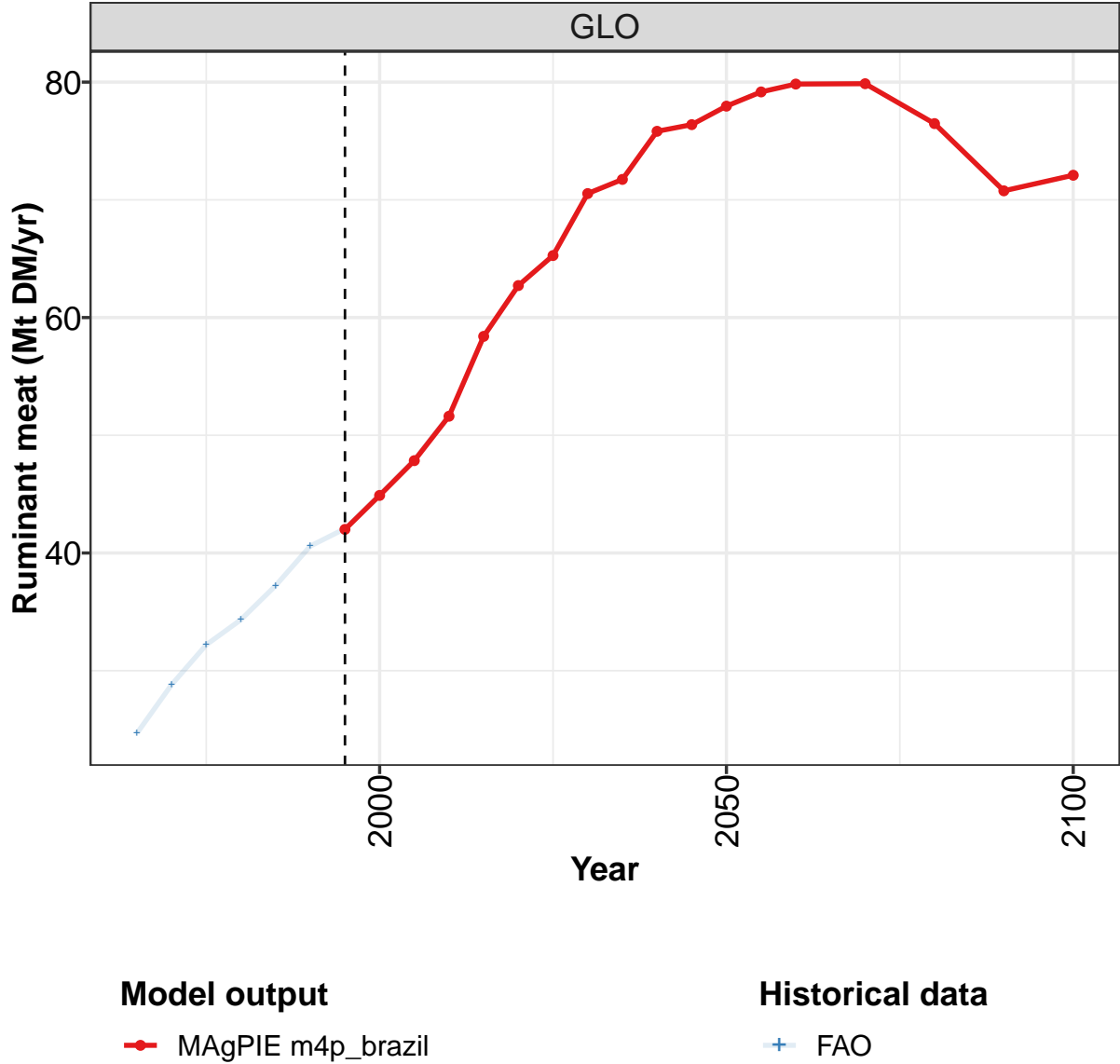
	2050	2055	2060	2070	2080	2090	2100
GLO	107	116	126	145	162	177	179
BRA	11	12	13	14	15	16	16
CHA	18	18	18	18	17	16	15
EUR	11	11	11	13	14	15	14
LAM	11	12	13	14	15	16	16
ROW	42	50	56	70	83	94	98
USA	13	14	14	16	18	19	19

Table 1423: MAgPIE m4p_brazil — 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
BRA	0.1	0.2	0.2	0.6	0.6	1.0	1.7	2.5	3.3	4.5
CHA	0.3	0.4	0.5	0.7	0.8	1.5	3.5	5.1	5.7	7.0
EUR	1.2	1.8	2.3	3.0	3.1	3.6	4.1	4.7	4.9	5.6
LAM	0.2	0.3	0.5	0.7	0.9	1.1	1.9	2.6	3.2	4.2
ROW	1.0	1.5	2.0	2.9	3.9	4.9	5.2	6.1	8.0	10.9
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



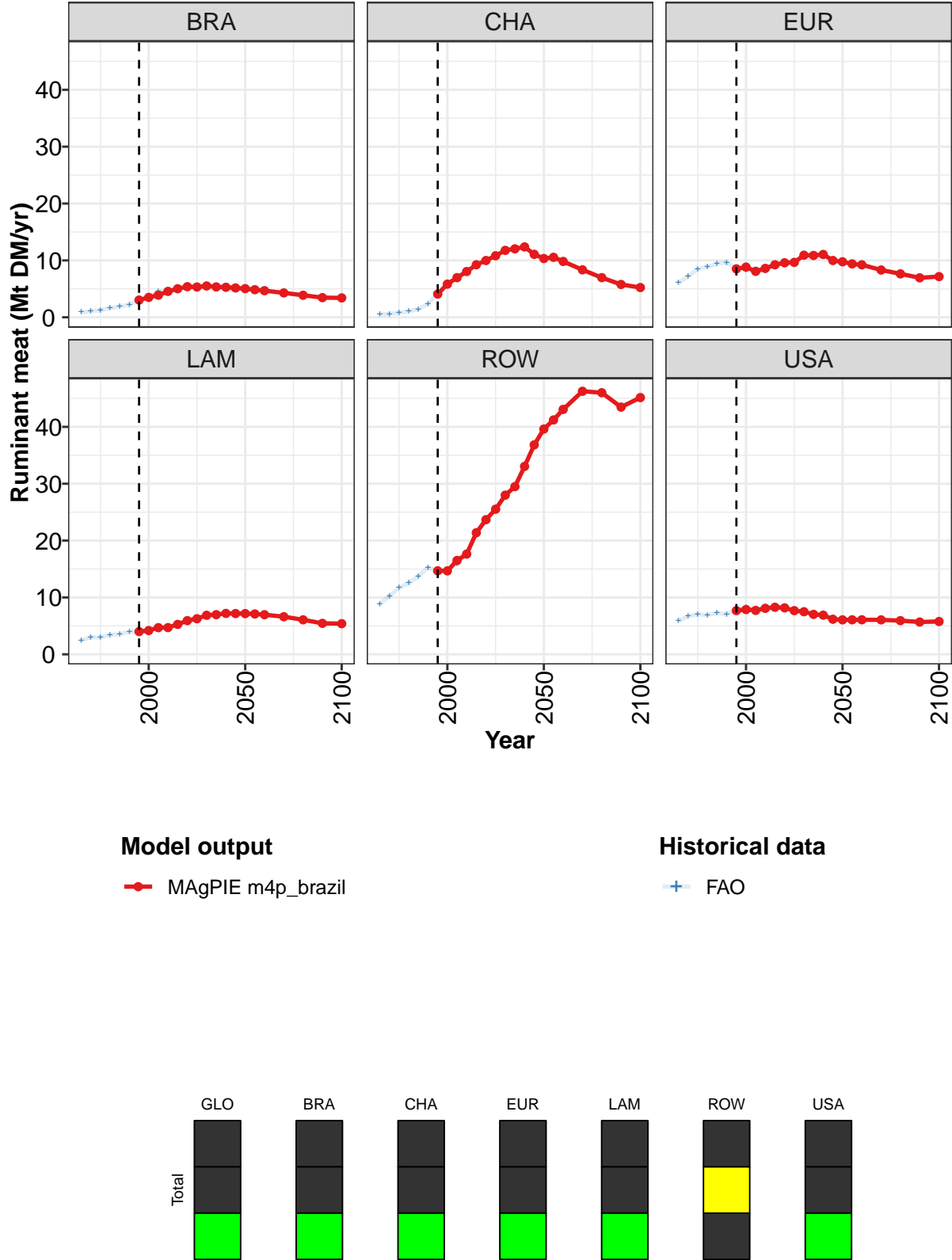


Figure 363: MAgPIE m4p_brazil — Production—Livestock products—Ruminant meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	42.0	44.9	47.8	51.6	58.4	62.7	65.3	70.5	71.7	75.8	76.4
BRA	3.0	3.5	3.9	4.6	5.0	5.4	5.3	5.5	5.3	5.3	5.2
CHA	4.1	5.8	7.0	8.0	9.2	10.0	10.8	11.8	12.0	12.4	11.1
EUR	8.5	8.8	8.1	8.6	9.2	9.6	9.7	10.9	10.9	11.1	10.0
LAM	4.0	4.2	4.7	4.7	5.3	5.9	6.3	6.9	7.0	7.2	7.2
ROW	14.7	14.7	16.5	17.6	21.4	23.7	25.5	28.0	29.5	33.0	36.8
USA	7.7	7.9	7.7	8.1	8.3	8.2	7.7	7.5	7.0	6.9	6.2

Table 1425: MAgPIE m4p_brazil — Production—Livestock products—Ruminant meat (Mt DM/yr) [PART 1/2]

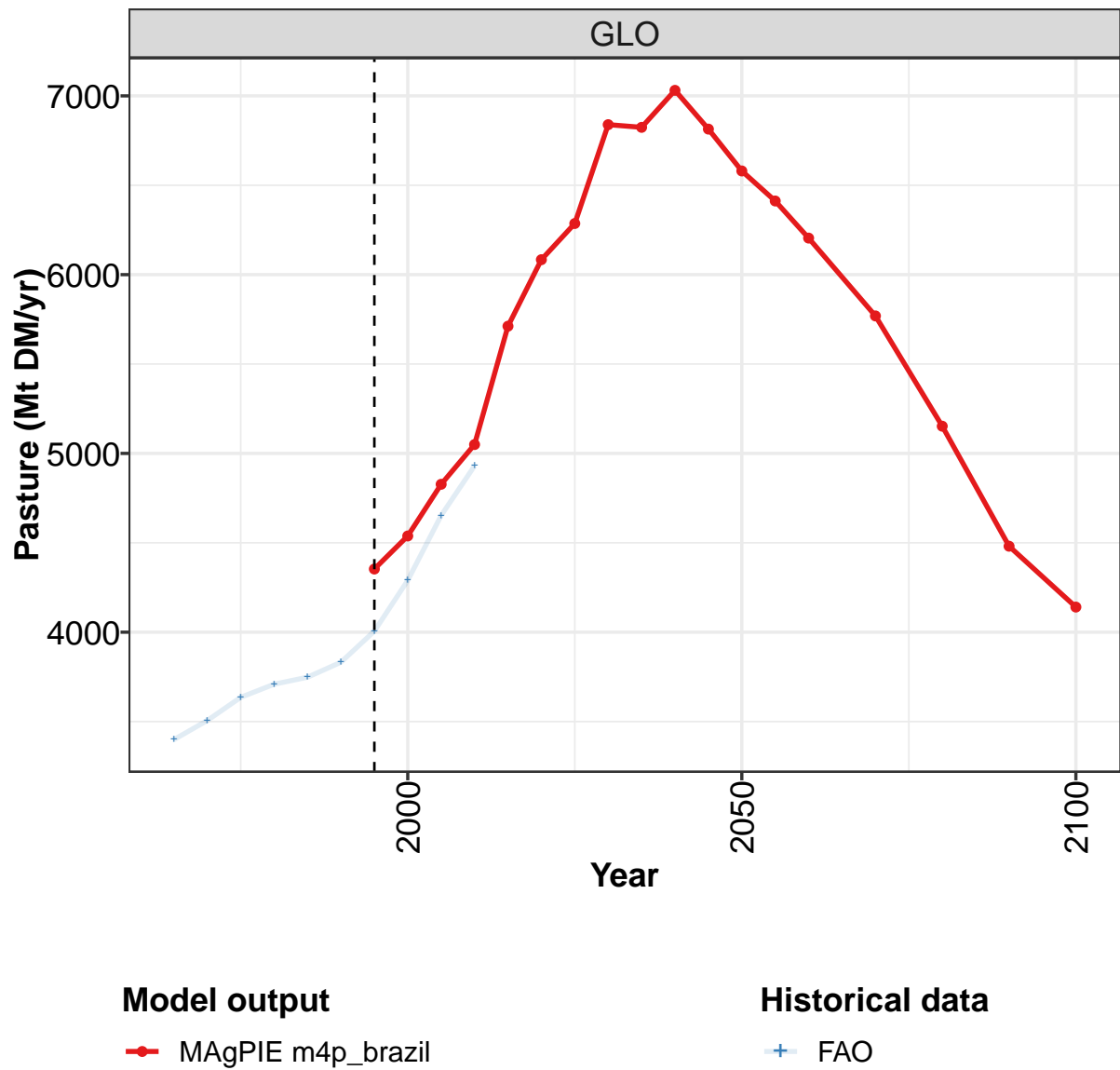
	2050	2055	2060	2070	2080	2090	2100
GLO	78.0	79.2	79.8	79.9	76.5	70.8	72.1
BRA	5.0	4.9	4.7	4.3	3.9	3.5	3.4
CHA	10.3	10.5	9.8	8.3	7.0	5.8	5.2
EUR	9.8	9.4	9.2	8.3	7.6	6.9	7.2
LAM	7.2	7.1	7.0	6.6	6.1	5.4	5.4
ROW	39.6	41.2	43.1	46.3	46.0	43.5	45.1
USA	6.1	6.1	6.1	6.1	5.9	5.7	5.8

Table 1426: MAgPIE m4p_brazil — 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
BRA	0.9	1.1	1.2	1.6	1.9	2.2	3.0	3.6	4.5	4.8
CHA	0.5	0.6	0.8	1.0	1.4	2.4	4.1	5.8	6.9	8.0
EUR	6.0	7.2	8.4	8.9	9.4	9.6	8.5	8.4	8.0	8.2
LAM	2.5	3.0	3.0	3.4	3.5	4.0	4.0	4.2	4.7	4.7
ROW	8.9	10.2	11.7	12.5	13.7	15.3	14.6	14.7	16.0	17.6
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



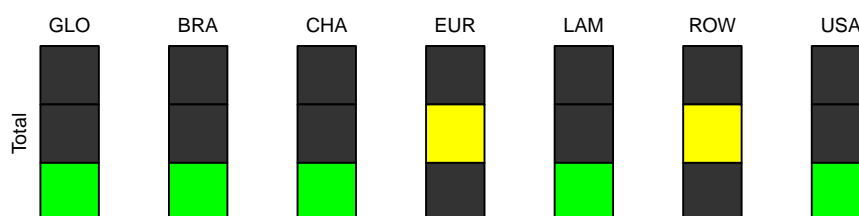
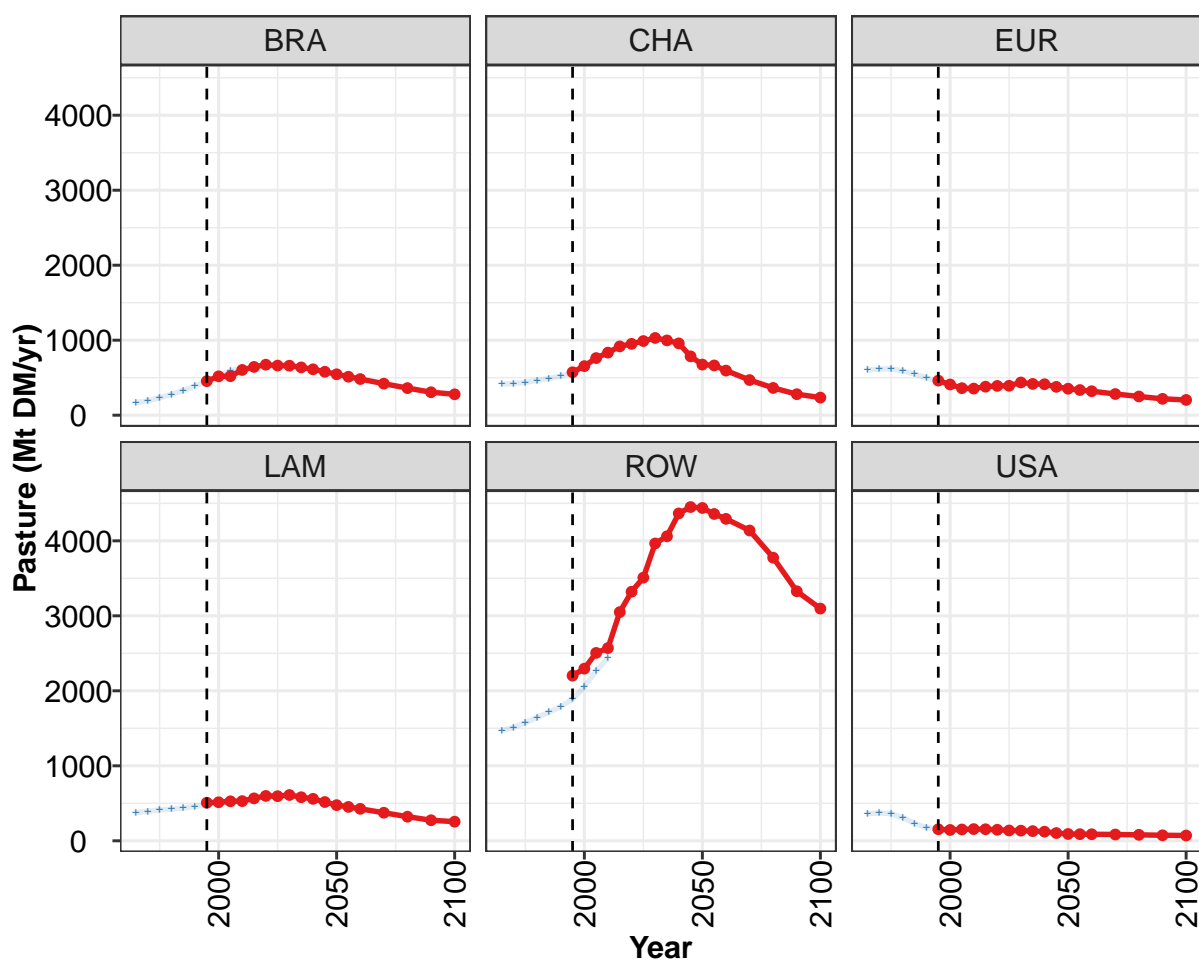


Figure 364: MAgPIE m4p_brazil — Production—Pasture (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4353	4538	4827	5050	5712	6084	6286	6839	6824	7031	6814
BRA	454	519	521	604	644	674	662	661	638	612	579
CHA	573	655	762	835	918	952	989	1030	998	958	785
EUR	462	410	361	355	381	391	393	437	417	414	379
LAM	508	514	527	530	566	599	595	611	581	560	517
ROW	2203	2296	2506	2570	3050	3321	3509	3965	4061	4366	4451
USA	154	145	151	156	154	147	138	135	129	122	103

Table 1428: MAgPIE m4p_brazil — Production—Pasture (Mt DM/yr) [PART 1/2]

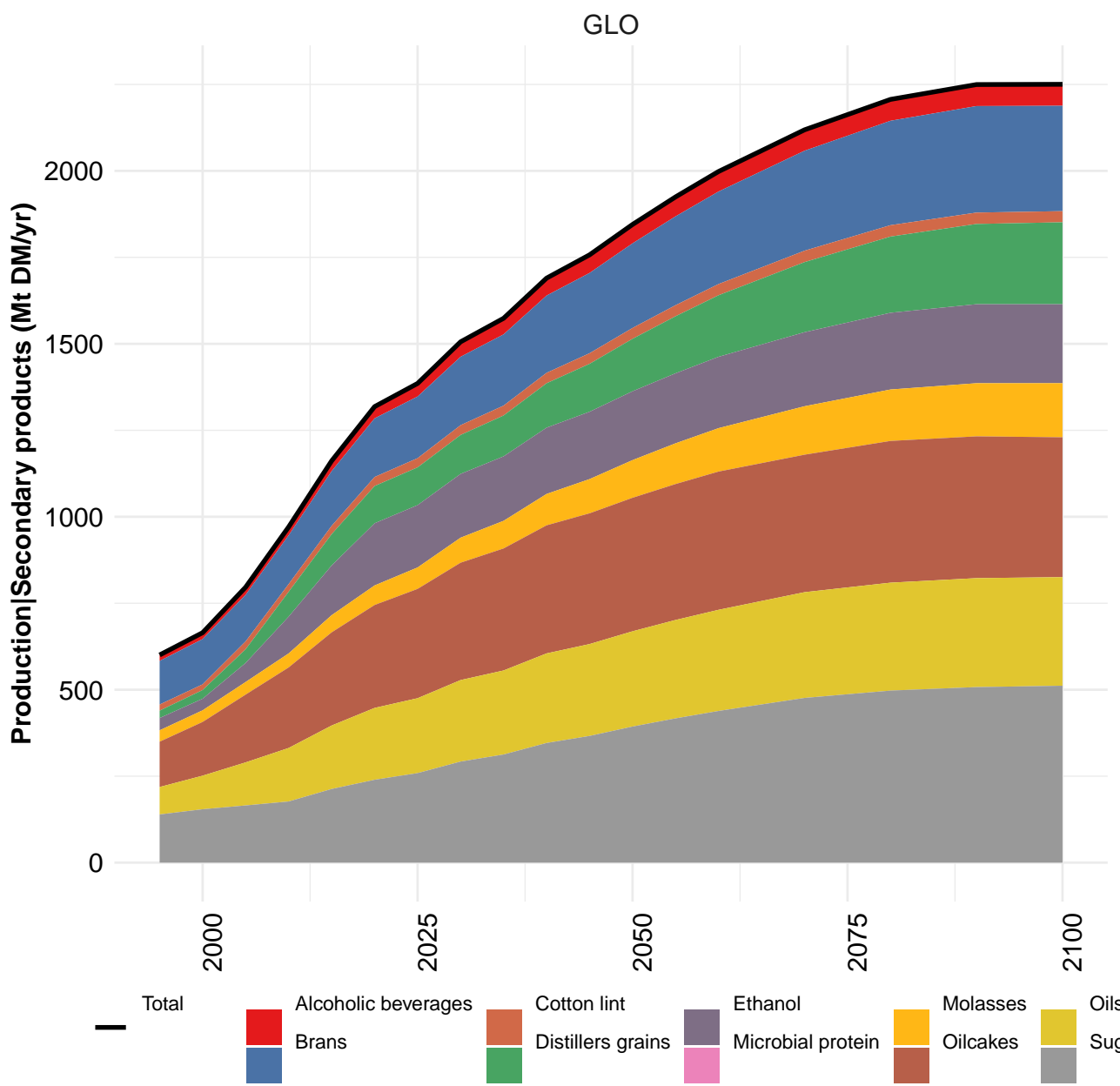
	2050	2055	2060	2070	2080	2090	2100
GLO	6580	6412	6205	5769	5152	4481	4141
BRA	546	513	482	421	362	306	279
CHA	675	664	595	469	364	281	235
EUR	353	336	320	283	250	218	204
LAM	476	452	426	374	321	274	255
ROW	4438	4358	4293	4138	3775	3328	3097
USA	91	88	88	84	80	74	71

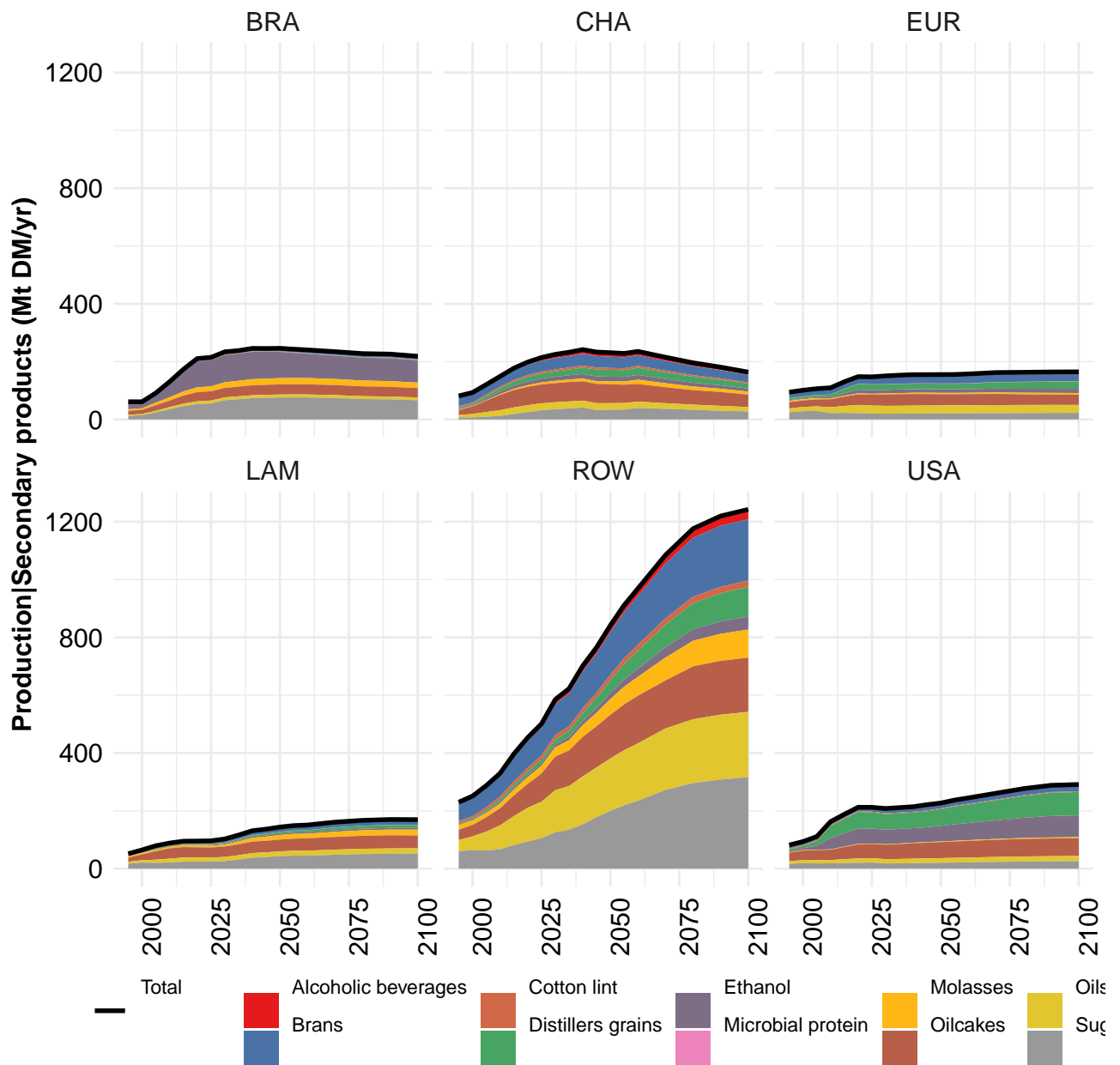
Table 1429: MAgPIE m4p_brazil — Production—Pasture (Mt DM/yr) [PART 2/2]

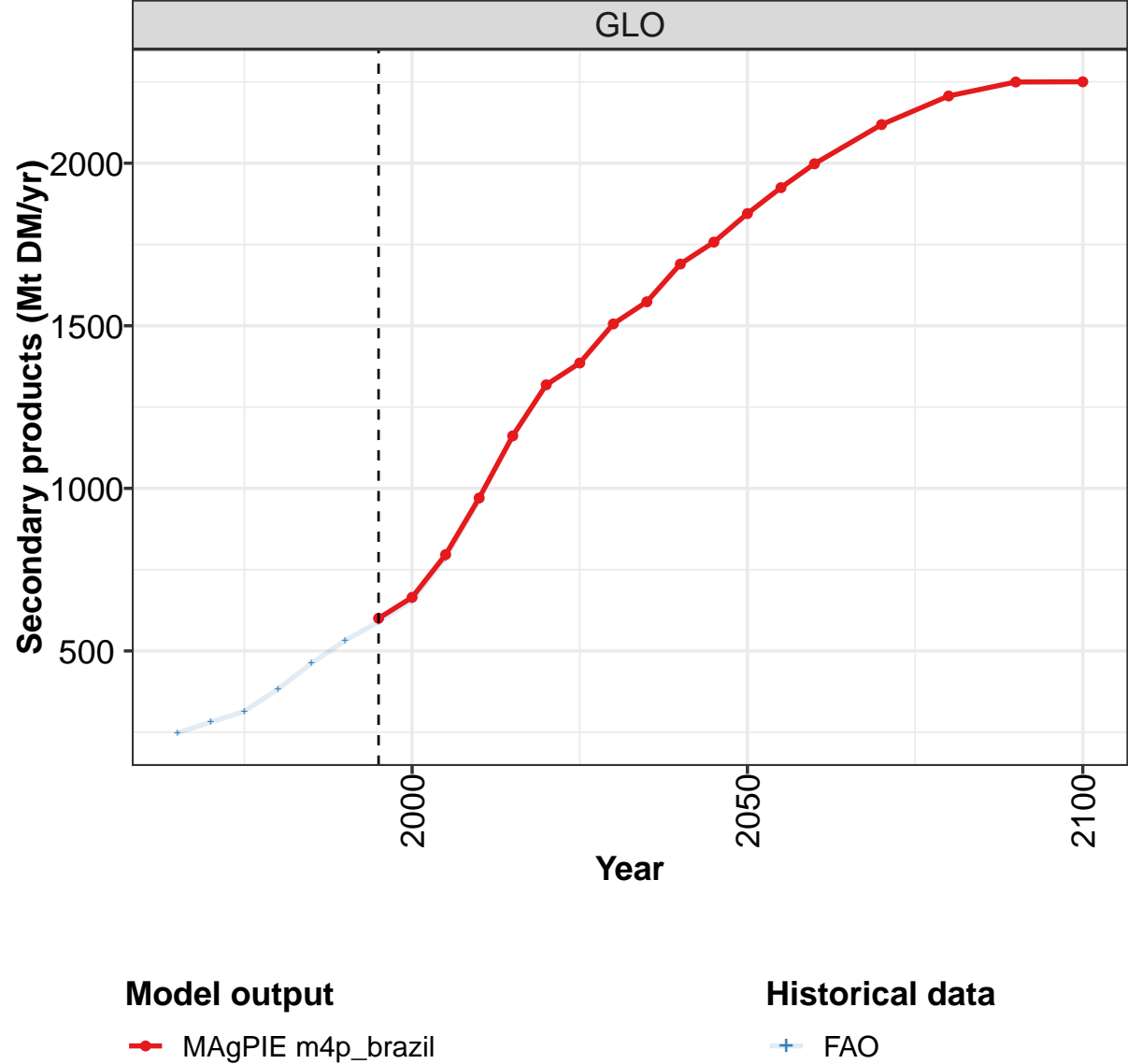
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3399	3506	3636	3709	3748	3832	4006	4290	4653	4931
BRA	170	193	232	279	330	388	455	527	591	628
CHA	414	422	438	463	490	521	572	657	760	832
EUR	604	615	617	592	547	499	449	398	361	344
LAM	378	393	411	423	435	457	485	507	521	529
ROW	1471	1512	1576	1645	1715	1790	1889	2051	2268	2436
USA	362	371	361	307	230	177	157	149	152	162

Table 1430: FAO — Production—Pasture (Mt DM/yr)

50 Secondary products







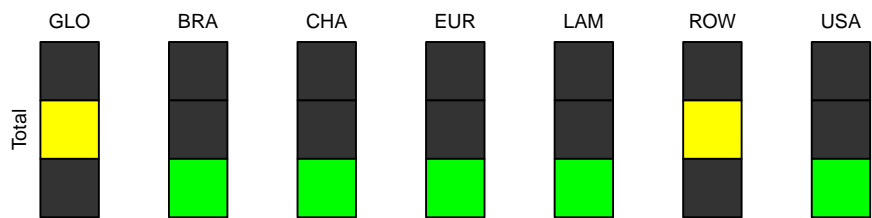
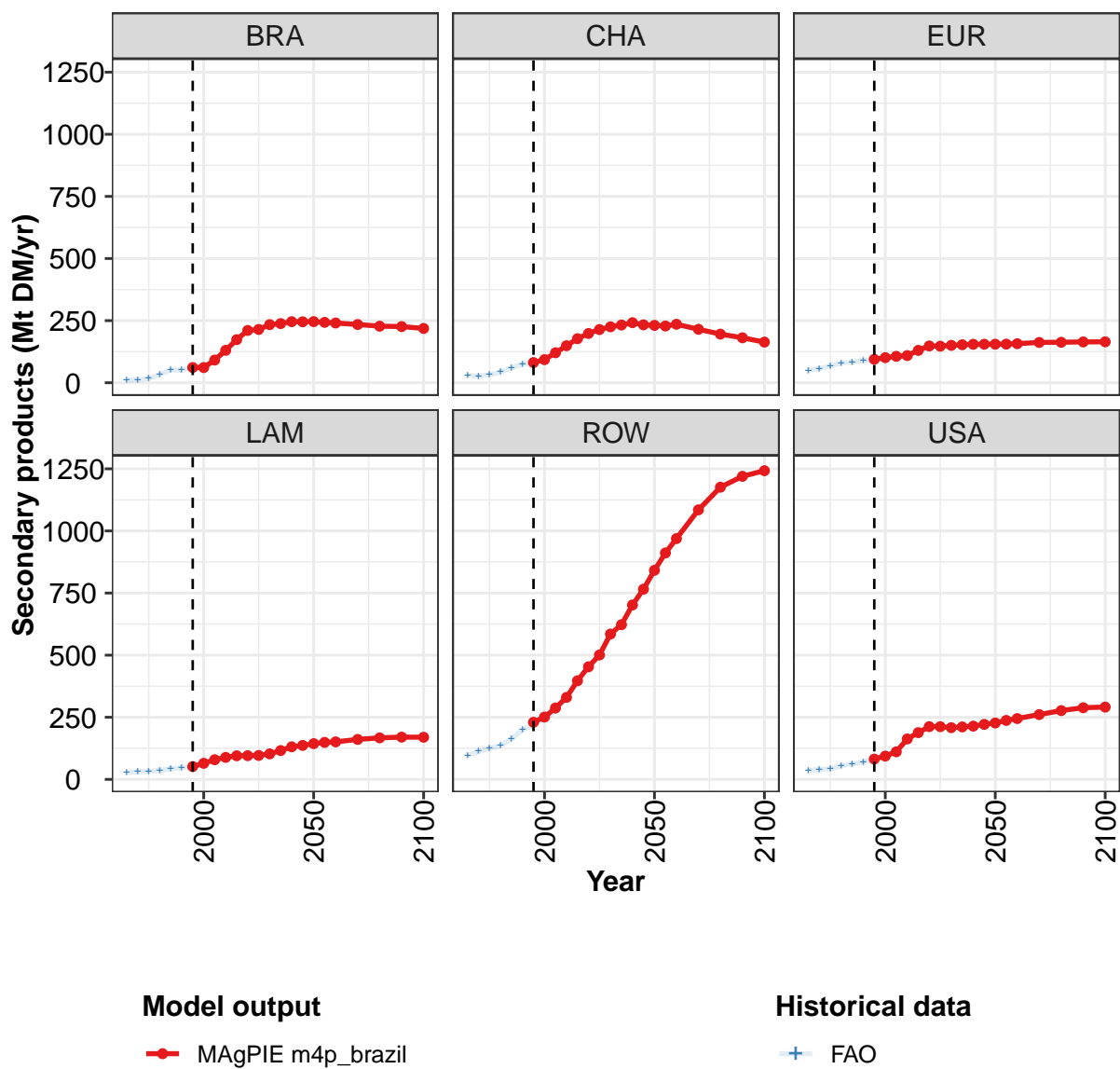


Figure 365: MAgPIE m4p_brazil — Production—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	600	665	796	970	1161	1318	1386	1506	1574	1690	1757
BRA	61	61	91	131	173	211	215	234	238	246	245
CHA	81	93	121	149	177	198	214	225	232	242	233
EUR	94	101	106	109	130	148	147	151	153	155	155
LAM	52	65	79	89	95	96	96	103	116	131	137
ROW	230	251	288	330	397	453	501	585	623	702	766
USA	82	94	111	163	188	212	212	208	211	214	221

Table 1431: MAgPIE m4p_brazil — Production—Secondary products (Mt DM/yr) [PART 1/2]

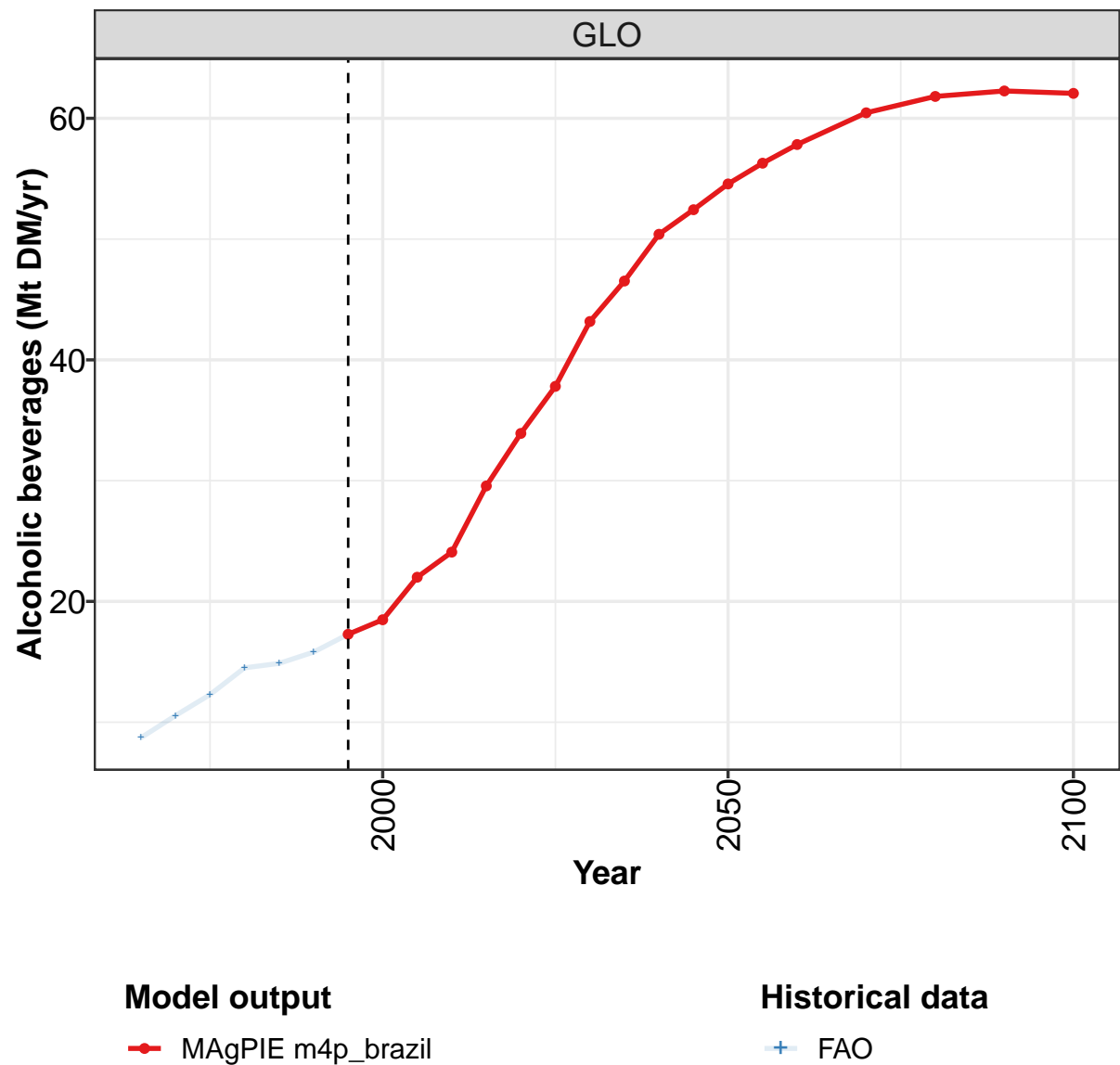
	2050	2055	2060	2070	2080	2090	2100
GLO	1845	1925	1998	2119	2207	2250	2250
BRA	246	243	240	234	228	226	219
CHA	231	228	235	215	196	181	164
EUR	155	156	157	162	163	164	165
LAM	144	149	151	161	167	170	170
ROW	842	911	969	1085	1176	1220	1243
USA	227	237	245	261	277	288	291

Table 1432: MAgPIE m4p_brazil — 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
BRA	10	12	17	33	51	51	63	65	98	135
CHA	30	27	32	43	60	75	81	93	120	149
EUR	50	57	67	80	83	89	91	97	100	106
LAM	27	31	32	36	43	48	52	63	77	83
ROW	95	113	124	135	164	199	219	243	276	326
USA	35	40	42	56	62	70	83	96	114	164

Table 1433: FAO — Production—Secondary products (Mt DM/yr)

50.1 Alcoholic beverages



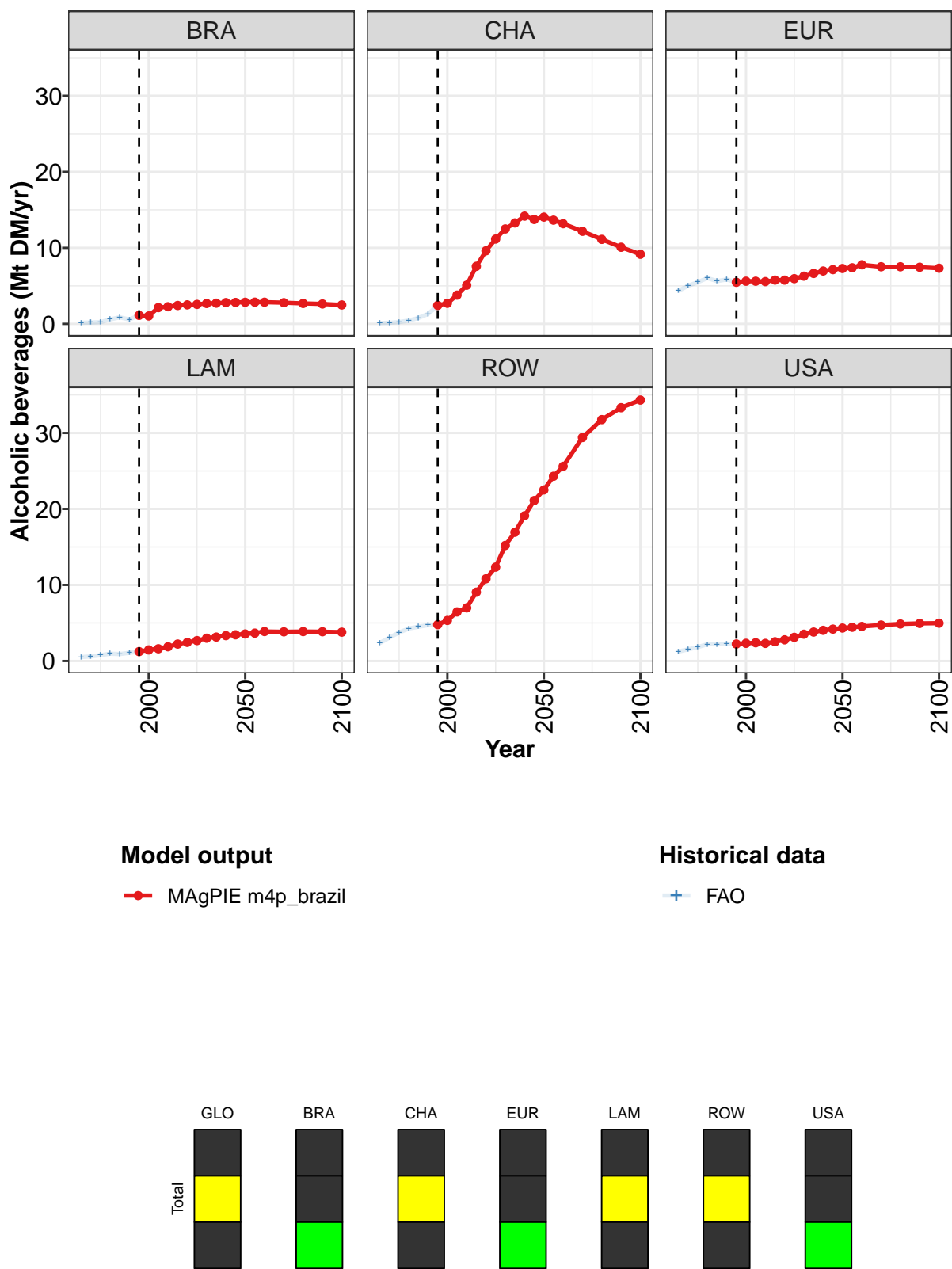


Figure 366: MAgPIE m4p_brazil — Production—Secondary products—Alcoholic beverages (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17.3	18.5	22.0	24.1	29.6	33.9	37.8	43.2	46.5	50.4	52.4
BRA	1.1	1.0	2.1	2.3	2.4	2.5	2.6	2.7	2.7	2.8	2.8
CHA	2.4	2.7	3.8	5.1	7.6	9.6	11.2	12.5	13.3	14.2	13.7
EUR	5.5	5.6	5.6	5.6	5.8	5.8	5.9	6.3	6.6	7.0	7.1
LAM	1.2	1.5	1.6	1.9	2.2	2.4	2.7	3.0	3.1	3.3	3.4
ROW	4.8	5.3	6.5	7.0	9.1	10.8	12.3	15.2	16.9	19.1	21.1
USA	2.2	2.3	2.4	2.3	2.5	2.8	3.1	3.5	3.8	4.0	4.2

Table 1434: MAgPIE m4p_brazil — Production—Secondary products—Alcoholic beverages (Mt DM/yr) [PART 1/2]

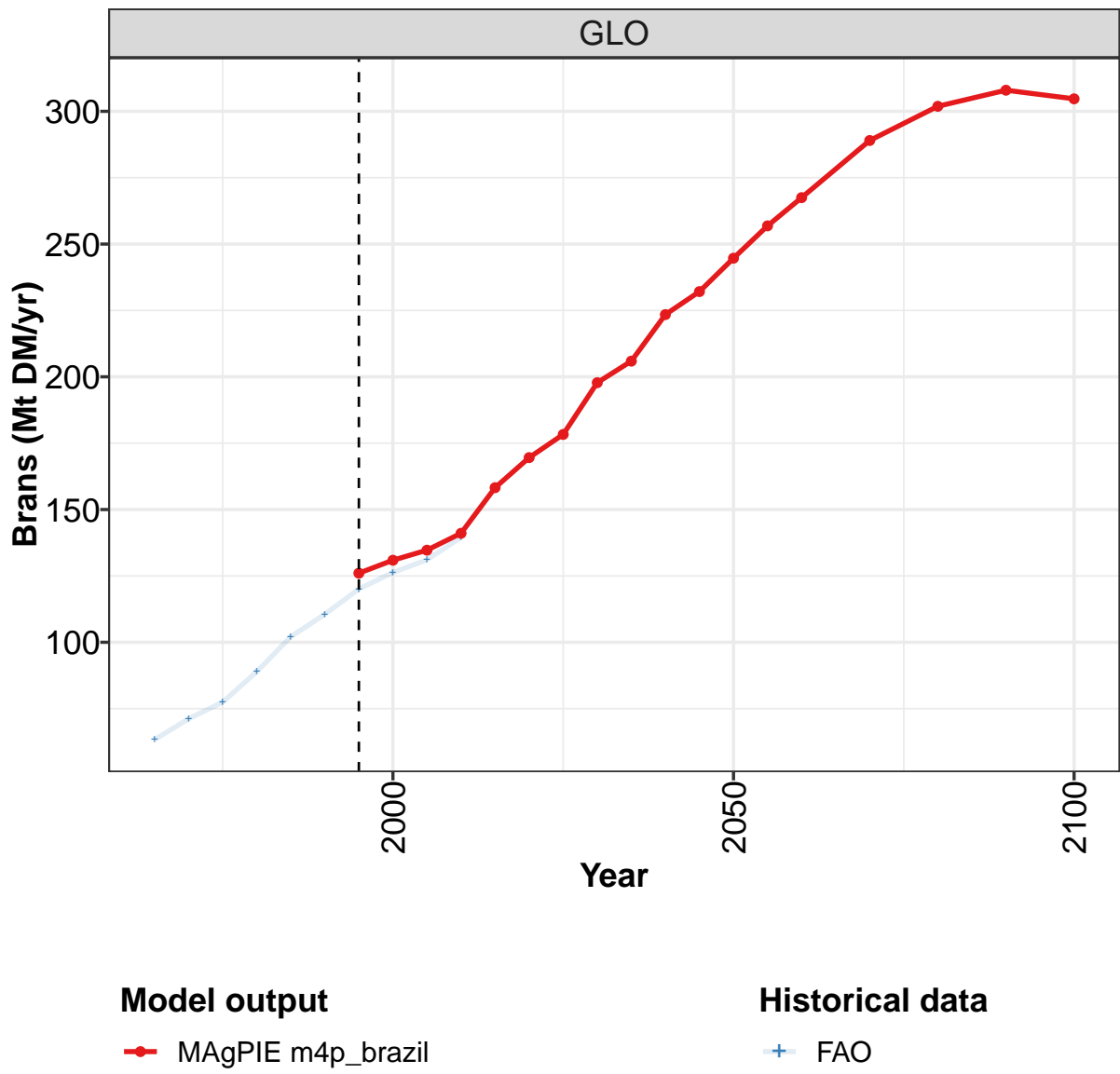
	2050	2055	2060	2070	2080	2090	2100
GLO	54.6	56.3	57.8	60.5	61.8	62.3	62.1
BRA	2.8	2.9	2.9	2.8	2.7	2.6	2.5
CHA	14.0	13.6	13.2	12.2	11.1	10.1	9.2
EUR	7.3	7.4	7.8	7.5	7.5	7.5	7.3
LAM	3.6	3.7	3.9	3.8	3.9	3.8	3.8
ROW	22.5	24.3	25.6	29.4	31.8	33.3	34.3
USA	4.3	4.4	4.5	4.7	4.9	4.9	5.0

Table 1435: MAgPIE m4p_brazil — 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
BRA	0.1	0.2	0.2	0.6	0.9	0.6	1.1	1.0	2.2	2.3
CHA	0.1	0.1	0.2	0.4	0.8	1.3	2.4	2.7	3.8	5.1
EUR	4.4	5.0	5.5	6.0	5.6	5.8	5.5	5.7	5.6	5.4
LAM	0.5	0.6	0.8	1.0	0.9	1.1	1.2	1.4	1.7	1.9
ROW	2.4	3.1	3.7	4.3	4.5	4.7	4.8	5.3	6.3	7.0
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



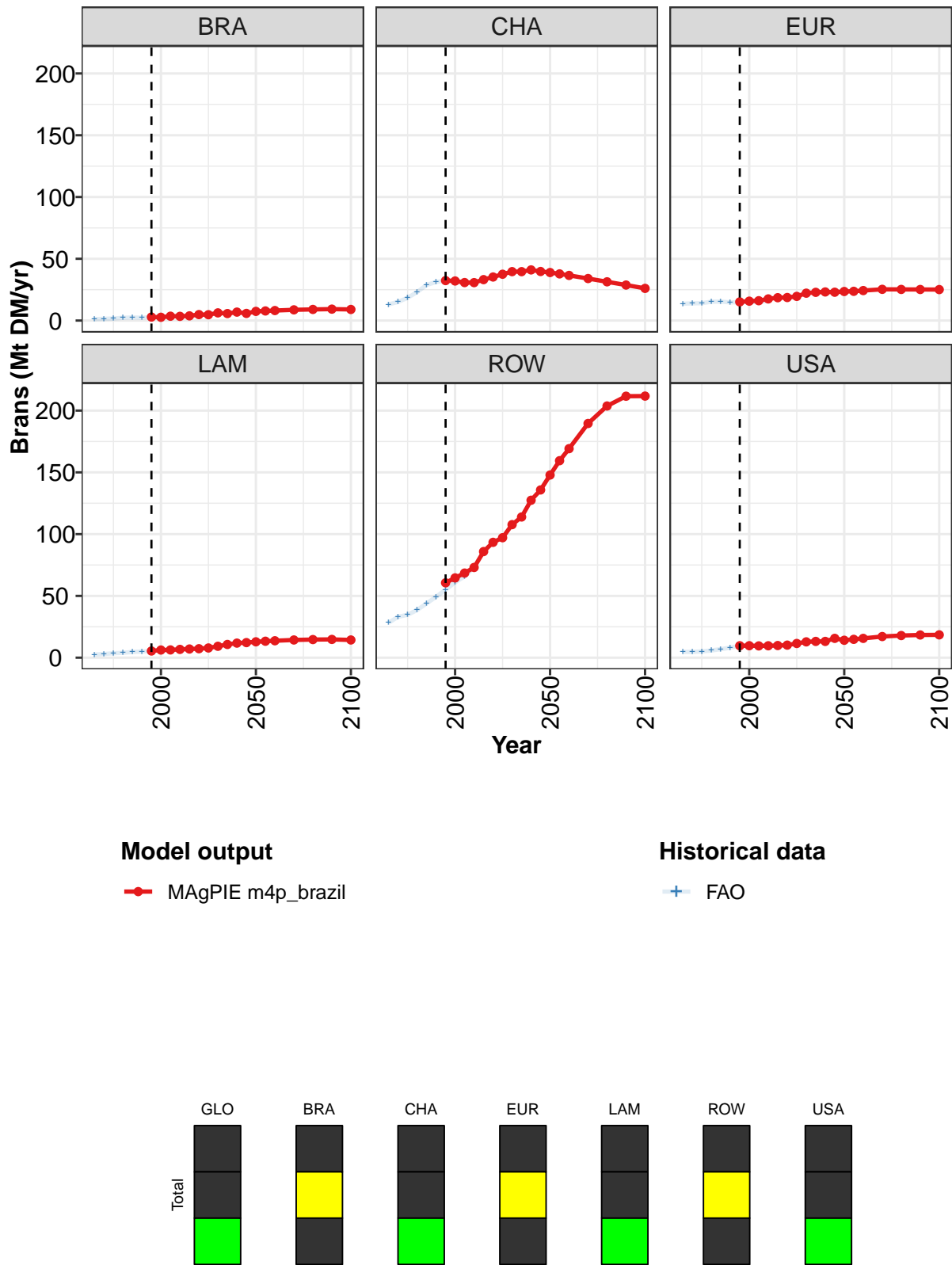


Figure 367: MAgPIE m4p_brazil — Production—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	126	131	135	141	158	170	178	198	206	223	232
BRA	3	3	4	3	4	5	5	6	6	7	6
CHA	32	32	31	31	33	35	38	40	40	41	40
EUR	15	16	16	18	19	19	20	22	23	23	23
LAM	5	6	6	7	7	7	8	9	11	12	12
ROW	61	65	68	73	86	93	97	108	114	127	136
USA	10	10	10	10	10	10	12	13	13	13	16

Table 1437: MAgPIE m4p_brazil — Production—Secondary products—Brans (Mt DM/yr) [PART 1/2]

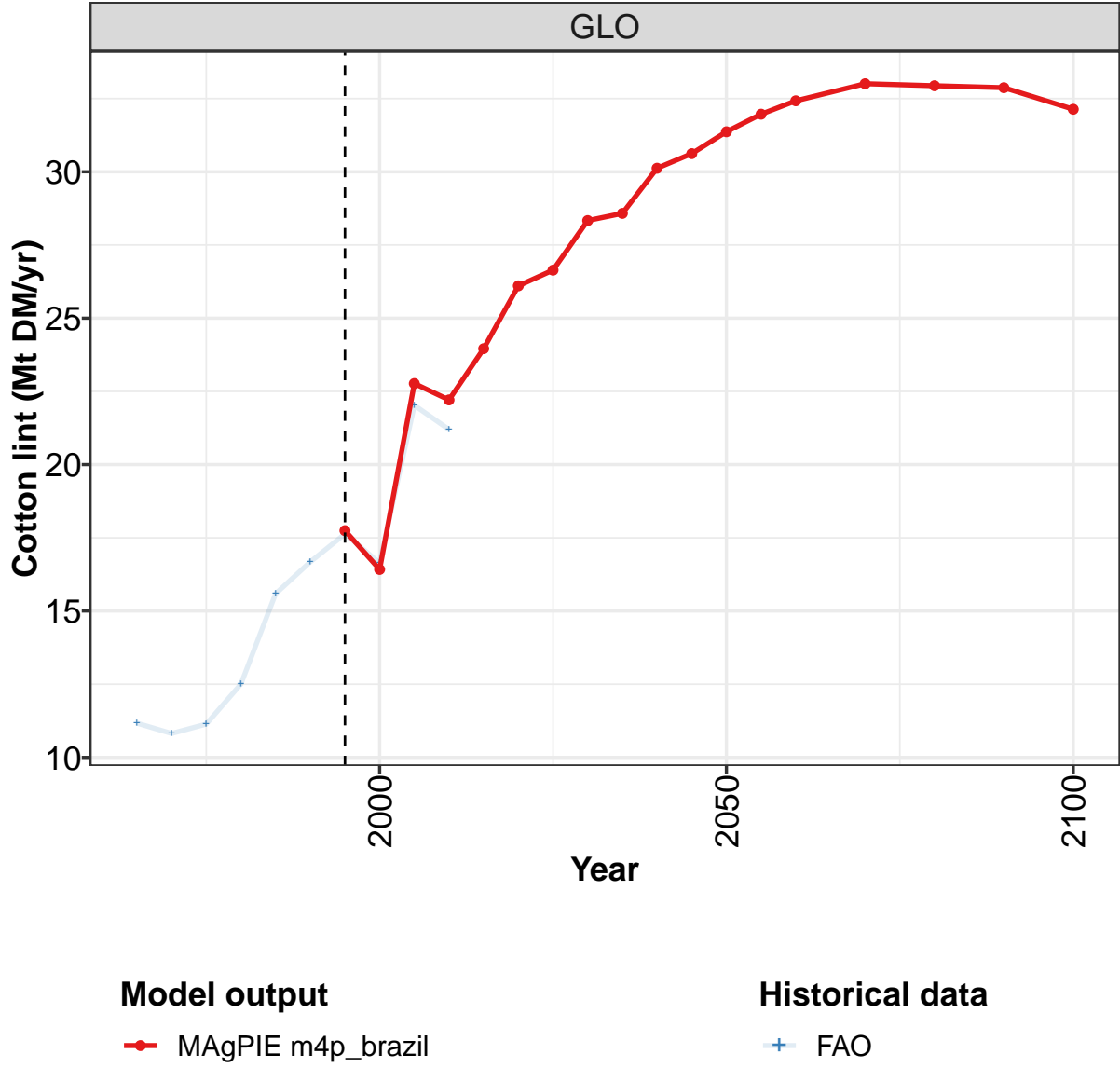
	2050	2055	2060	2070	2080	2090	2100
GLO	245	257	267	289	302	308	305
BRA	7	8	8	9	9	9	9
CHA	39	38	37	34	31	29	26
EUR	24	24	24	25	25	25	25
LAM	13	13	14	14	15	15	14
ROW	148	159	169	190	204	212	212
USA	14	15	16	17	18	18	18

Table 1438: MAgPIE m4p_brazil — 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
BRA	1	1	2	2	2	2	3	3	4	3
CHA	13	15	18	23	29	31	32	32	31	31
EUR	14	14	14	15	15	15	15	15	15	16
LAM	3	3	4	4	5	5	5	6	6	7
ROW	28	33	35	39	44	49	55	61	66	73
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



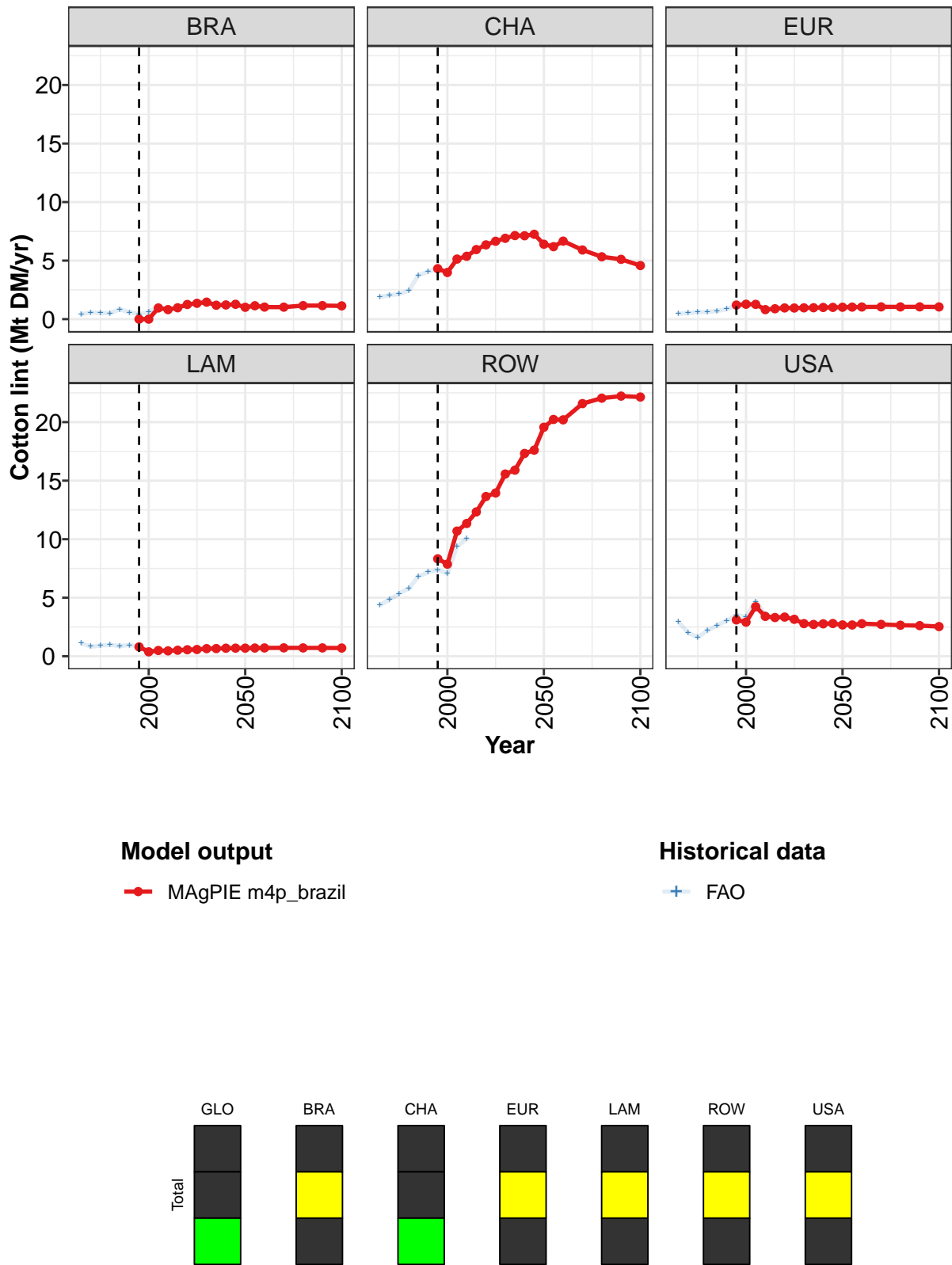


Figure 368: MAGPIE m4p_brazil — Production—Secondary products—Cotton lint (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17.7	16.4	22.8	22.2	24.0	26.1	26.6	28.3	28.6	30.1	30.6
BRA	0.0	0.0	1.0	0.8	1.0	1.3	1.4	1.5	1.2	1.2	1.3
CHA	4.3	4.0	5.1	5.4	5.9	6.3	6.7	6.9	7.1	7.1	7.2
EUR	1.2	1.3	1.3	0.8	0.9	1.0	1.0	1.0	1.0	1.0	1.0
LAM	0.8	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7
ROW	8.3	7.9	10.7	11.3	12.3	13.6	13.9	15.6	15.9	17.3	17.6
USA	3.1	2.9	4.2	3.4	3.3	3.3	3.2	2.8	2.7	2.8	2.8

Table 1440: MAgPIE m4p_brazil — Production—Secondary products—Cotton lint (Mt DM/yr) [PART 1/2]

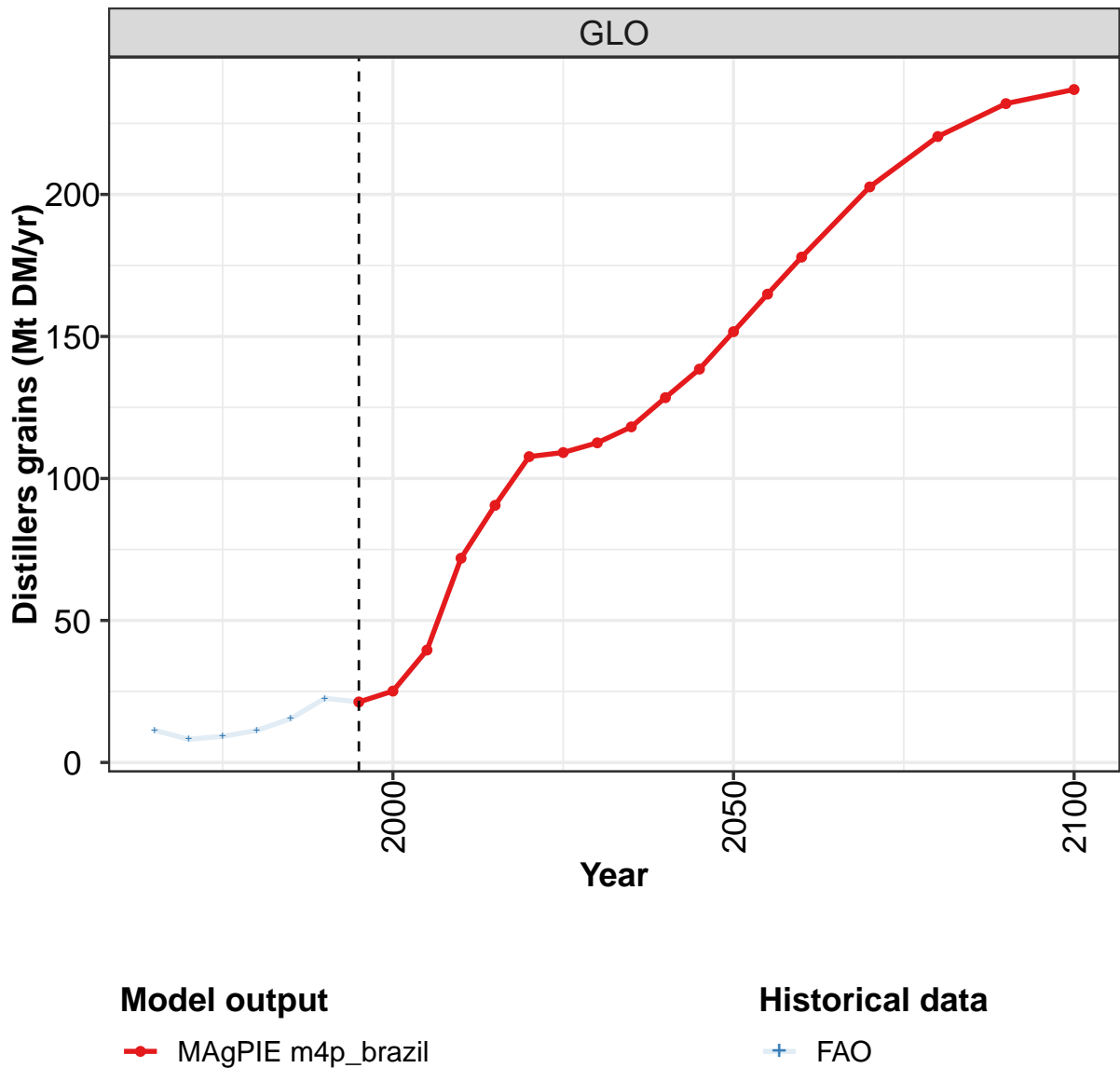
	2050	2055	2060	2070	2080	2090	2100
GLO	31.4	32.0	32.4	33.0	32.9	32.9	32.1
BRA	1.0	1.1	1.0	1.0	1.2	1.2	1.1
CHA	6.4	6.2	6.7	5.9	5.3	5.1	4.6
EUR	1.0	1.0	1.0	1.0	1.0	1.1	1.0
LAM	0.7	0.7	0.7	0.7	0.7	0.7	0.7
ROW	19.6	20.2	20.2	21.6	22.0	22.2	22.1
USA	2.7	2.7	2.8	2.7	2.7	2.6	2.5

Table 1441: MAgPIE m4p_brazil — 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
BRA	0.4	0.6	0.5	0.5	0.8	0.6	0.4	0.6	1.1	0.9
CHA	1.9	2.1	2.1	2.4	3.7	4.1	4.3	4.0	5.1	5.4
EUR	0.5	0.5	0.6	0.6	0.7	0.9	1.2	1.3	1.2	0.9
LAM	1.1	0.8	0.9	1.0	0.9	1.0	0.8	0.4	0.5	0.5
ROW	4.4	4.8	5.3	5.8	6.8	7.2	7.4	7.1	9.4	10.0
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



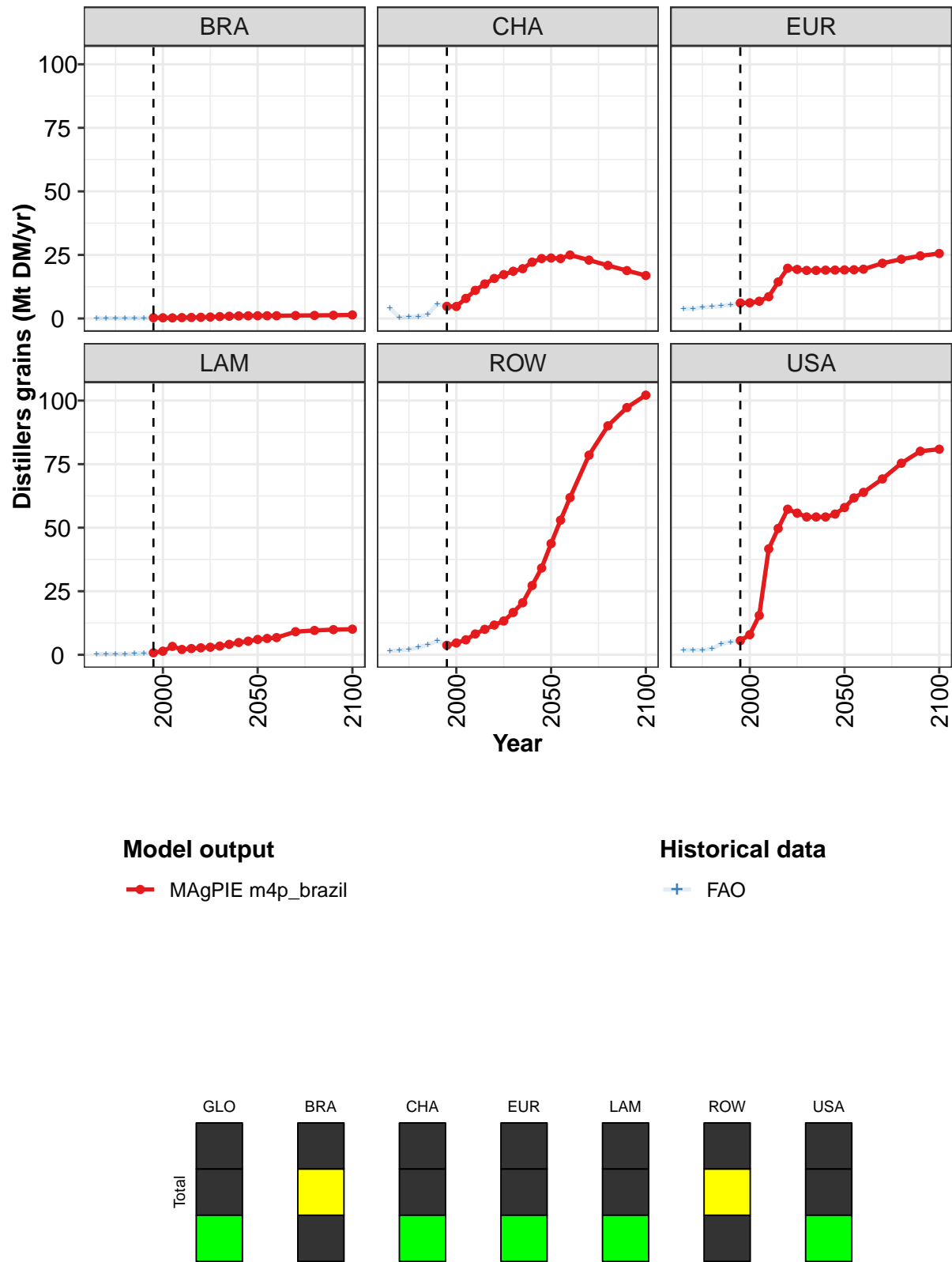


Figure 369: MAgPIE m4p_brazil — Production—Secondary products—Distillers grains (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	21	25	40	72	91	108	109	113	118	128	139
BRA	0	0	0	0	0	0	1	1	1	1	1
CHA	5	5	8	11	14	16	17	19	20	22	24
EUR	6	6	7	9	14	20	19	19	19	19	19
LAM	1	1	3	2	2	3	3	3	4	5	5
ROW	4	5	6	8	10	12	13	17	20	27	34
USA	6	8	15	42	50	57	56	54	54	54	55

Table 1443: MAgPIE m4p_brazil — Production—Secondary products—Distillers grains (Mt DM/yr) [PART 1/2]

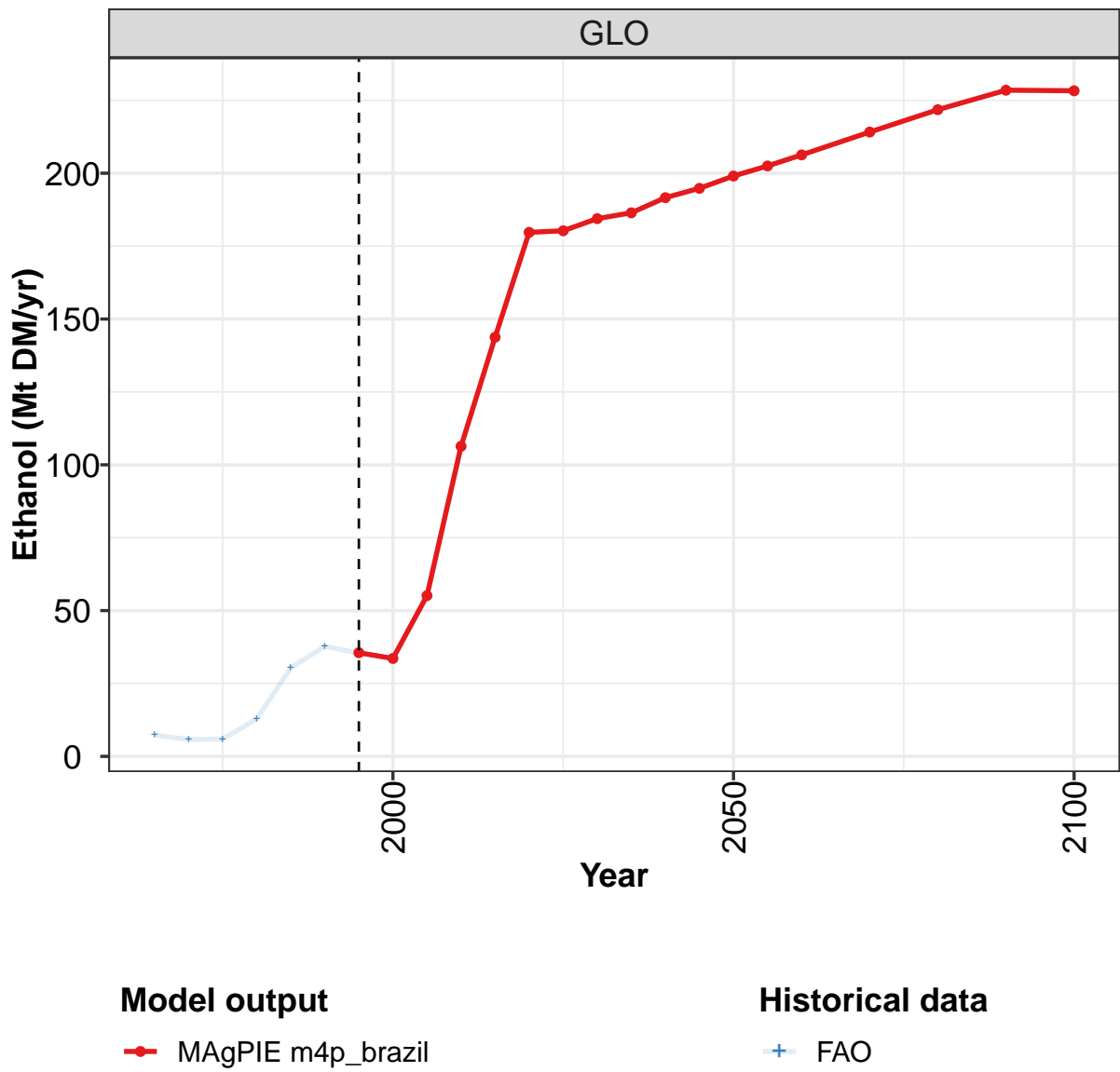
	2050	2055	2060	2070	2080	2090	2100
GLO	152	165	178	203	220	232	237
BRA	1	1	1	1	1	1	1
CHA	24	24	25	23	21	19	17
EUR	19	19	19	22	23	25	26
LAM	6	6	7	9	10	10	10
ROW	44	53	62	79	90	97	102
USA	58	62	64	69	75	80	81

Table 1444: MAgPIE m4p_brazil — 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
BRA	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4
CHA	4.0	0.4	0.6	0.8	1.6	5.7	4.8	4.7	7.9	11.1
EUR	3.8	3.8	4.4	4.6	4.9	5.4	6.1	6.1	6.8	8.4
LAM	0.3	0.3	0.3	0.4	0.4	0.7	0.8	1.4	3.3	2.1
ROW	1.5	1.8	2.0	3.0	4.0	5.5	3.7	4.6	5.6	8.2
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



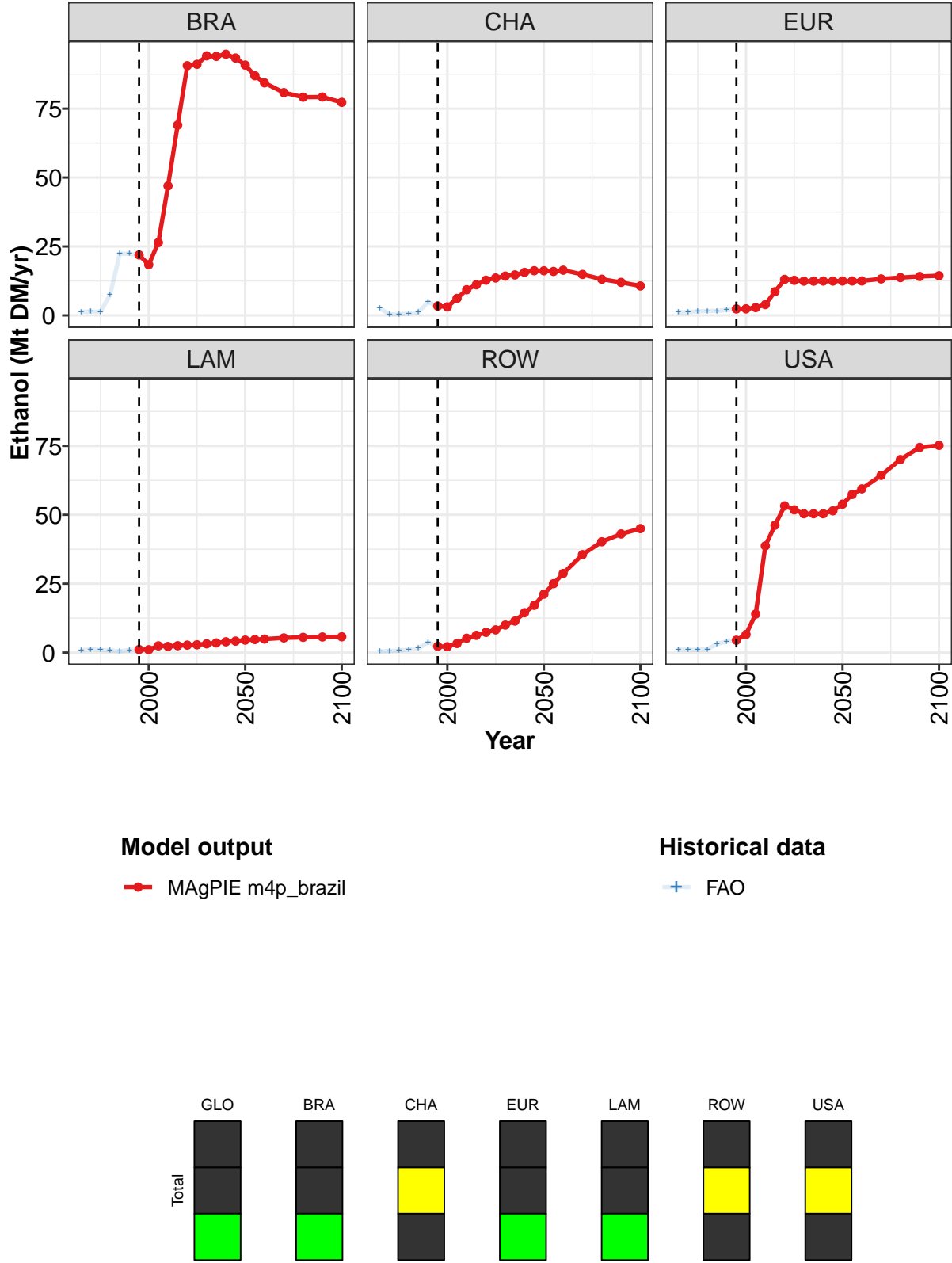


Figure 370: MAgPIE m4p_brazil — Production—Secondary products—Ethanol (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	36	34	55	106	144	180	180	184	186	192	195
BRA	22	18	26	47	69	91	91	94	94	95	93
CHA	3	3	6	9	11	13	14	14	15	16	16
EUR	2	2	3	4	9	13	13	12	12	12	12
LAM	1	1	2	2	2	3	3	3	4	4	4
ROW	2	2	3	5	6	7	8	10	11	14	17
USA	4	7	14	39	46	53	52	50	50	50	51

Table 1446: MAgPIE m4p.brazil — Production—Secondary products—Ethanol (Mt DM/yr) [PART 1/2]

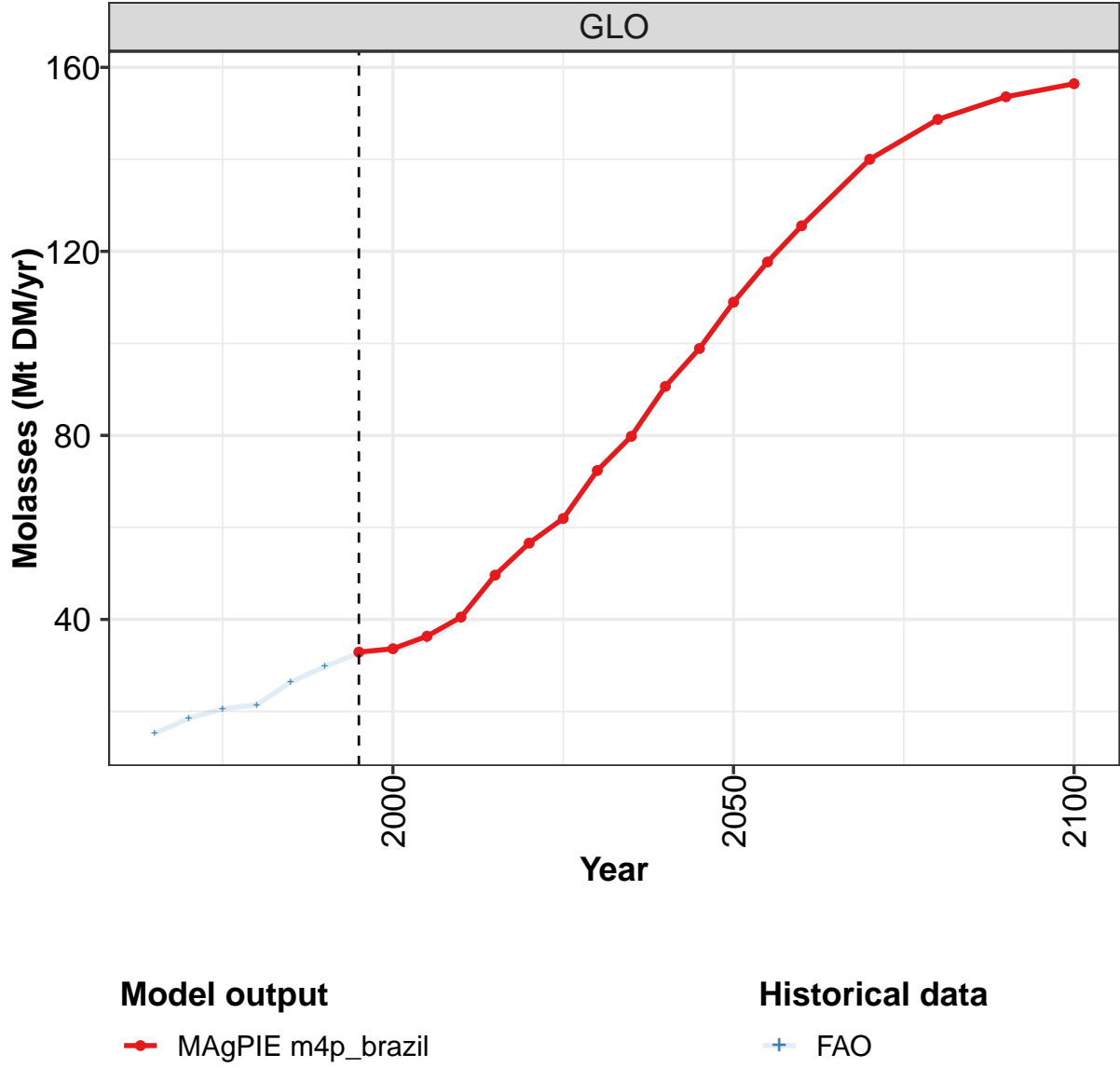
	2050	2055	2060	2070	2080	2090	2100
GLO	199	202	206	214	222	228	228
BRA	91	87	84	81	79	79	77
CHA	16	16	16	15	13	12	11
EUR	12	12	12	13	14	14	14
LAM	5	5	5	5	6	6	6
ROW	21	25	29	36	40	43	45
USA	54	57	59	64	70	74	75

Table 1447: MAgPIE m4p.brazil — 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
BRA	1	1	1	8	22	22	22	18	26	47
CHA	3	0	0	1	1	5	3	3	6	9
EUR	1	1	1	2	2	2	2	2	3	4
LAM	1	1	1	1	0	1	1	1	2	2
ROW	0	1	1	1	2	4	2	2	3	5
USA	1	1	1	1	3	4	4	7	14	39

Table 1448: FAO — Production—Secondary products—Ethanol (Mt DM/yr)

50.6 Molasses



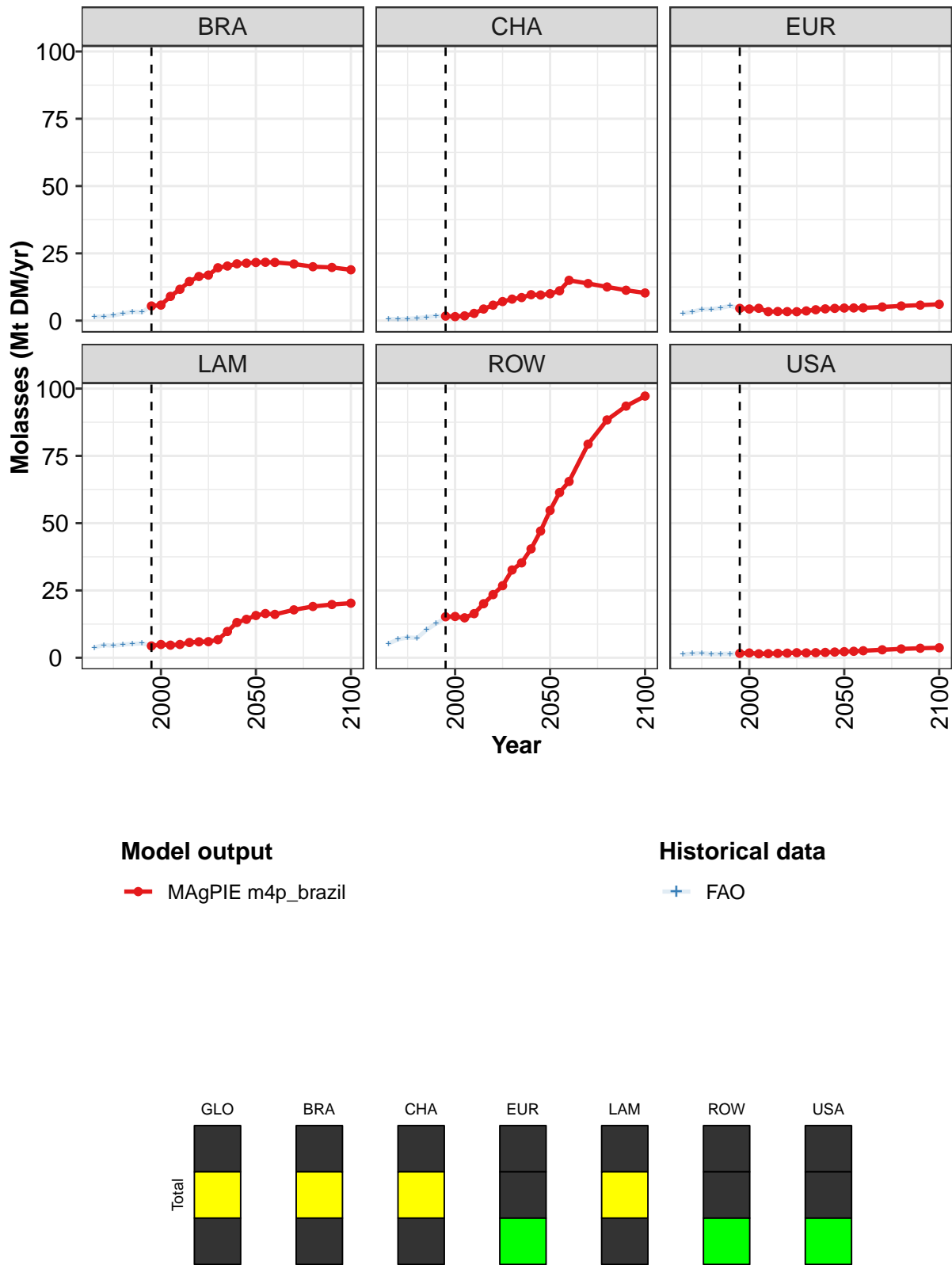


Figure 371: MAGPIE m4p_brazil — Production—Secondary products—Molasses (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	33	34	36	41	50	57	62	72	80	91	99
BRA	5	6	9	12	15	16	17	20	20	21	21
CHA	2	1	2	3	4	6	7	8	9	10	10
EUR	5	4	5	3	3	3	3	4	4	4	5
LAM	4	5	5	5	6	6	6	7	10	13	14
ROW	15	15	15	16	20	23	27	33	35	40	47
USA	2	2	1	2	2	2	2	2	2	2	2

Table 1449: MAgPIE m4p_brazil — Production—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

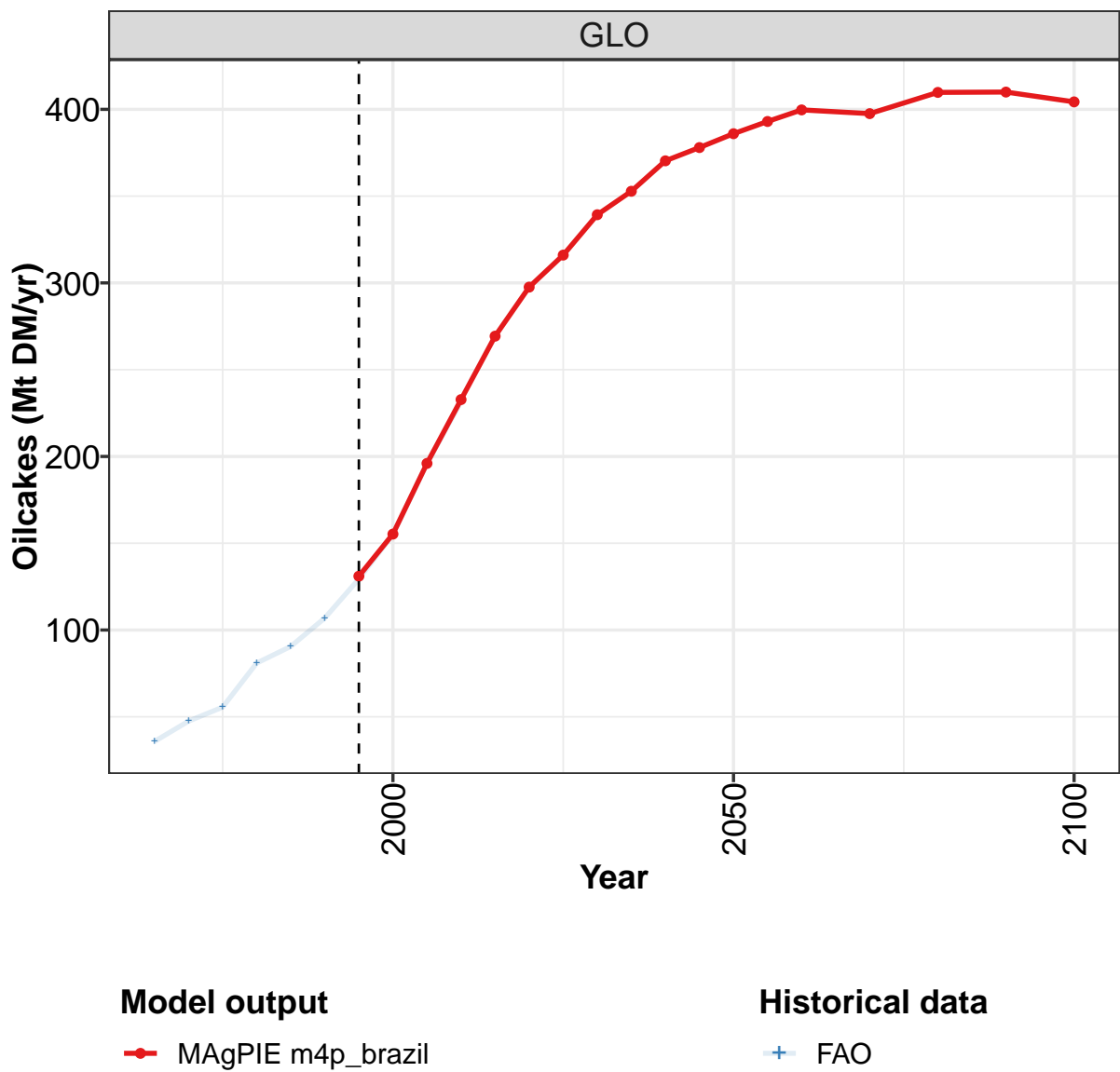
	2050	2055	2060	2070	2080	2090	2100
GLO	109	118	126	140	149	154	156
BRA	22	22	22	21	20	20	19
CHA	10	11	15	14	13	11	10
EUR	5	5	5	5	5	6	6
LAM	16	16	16	18	19	20	20
ROW	55	61	65	79	88	93	97
USA	2	2	3	3	3	4	4

Table 1450: MAgPIE m4p_brazil — 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
BRA	1.4	1.6	1.9	2.6	3.3	3.1	5.5	5.8	9.3	11.8
CHA	0.6	0.6	0.7	0.9	1.3	1.7	1.7	1.5	1.8	2.7
EUR	2.8	3.2	4.2	4.2	4.8	5.5	4.5	4.1	4.2	3.3
LAM	3.8	4.7	4.5	4.9	5.2	5.3	4.6	4.8	4.6	4.3
ROW	5.3	6.9	7.5	7.3	10.4	12.7	14.8	15.3	14.1	16.2
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



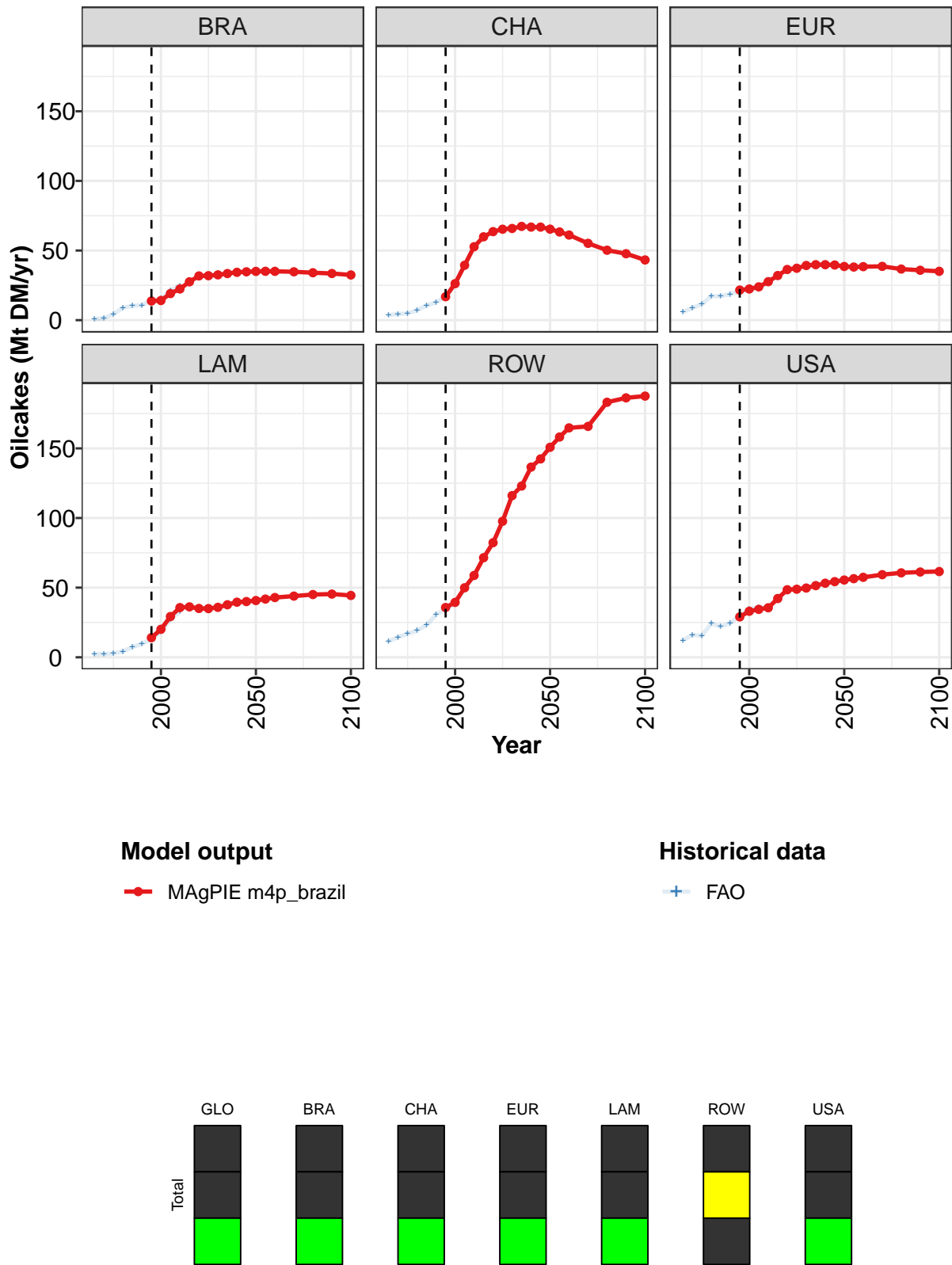


Figure 372: MAgPIE m4p.brazil — Production—Secondary products—Oilcakes (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	131	155	196	233	269	298	316	339	353	370	378
BRA	14	14	19	22	28	32	32	33	33	34	35
CHA	17	26	39	53	60	64	65	66	67	67	67
EUR	22	22	24	28	32	36	37	39	40	40	40
LAM	14	20	29	36	36	35	35	36	38	40	40
ROW	36	39	50	59	71	82	98	116	123	137	142
USA	29	33	34	36	42	48	49	50	51	53	54

Table 1452: MAgPIE m4p_brazil — Production—Secondary products—Oilcakes (Mt DM/yr) [PART 1/2]

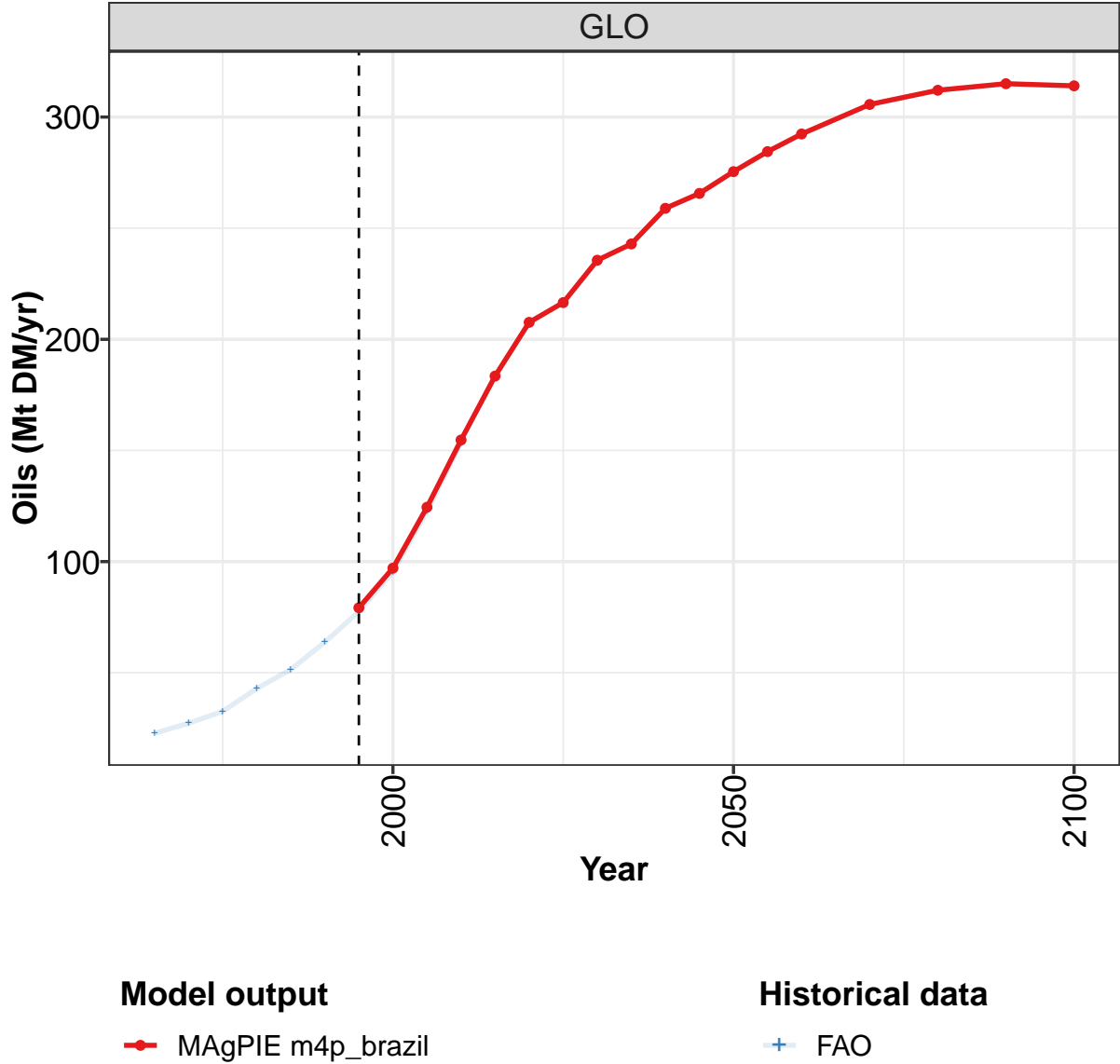
	2050	2055	2060	2070	2080	2090	2100
GLO	386	393	400	398	410	410	404
BRA	35	35	35	35	34	34	32
CHA	65	63	61	55	50	48	43
EUR	39	38	38	39	37	36	35
LAM	41	42	43	44	45	45	44
ROW	151	158	165	166	183	186	188
USA	55	56	57	59	61	61	62

Table 1453: MAgPIE m4p_brazil — 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
BRA	1	1	4	9	10	11	14	15	21	25
CHA	4	4	5	7	10	13	17	26	39	53
EUR	6	9	11	17	17	19	21	22	23	27
LAM	2	2	3	4	7	10	13	19	27	33
ROW	12	14	17	19	23	31	35	39	49	59
USA	12	16	15	24	22	24	30	35	36	36

Table 1454: FAO — Production—Secondary products—Oilcakes (Mt DM/yr)

50.8 Oils



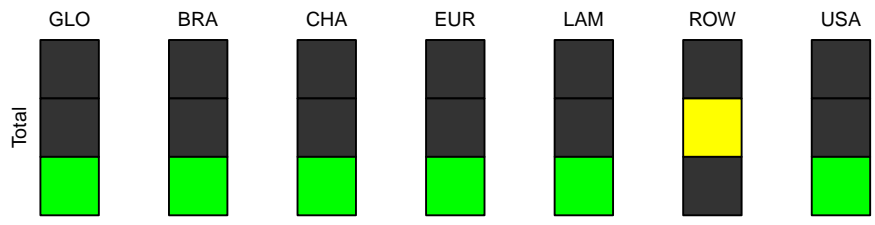
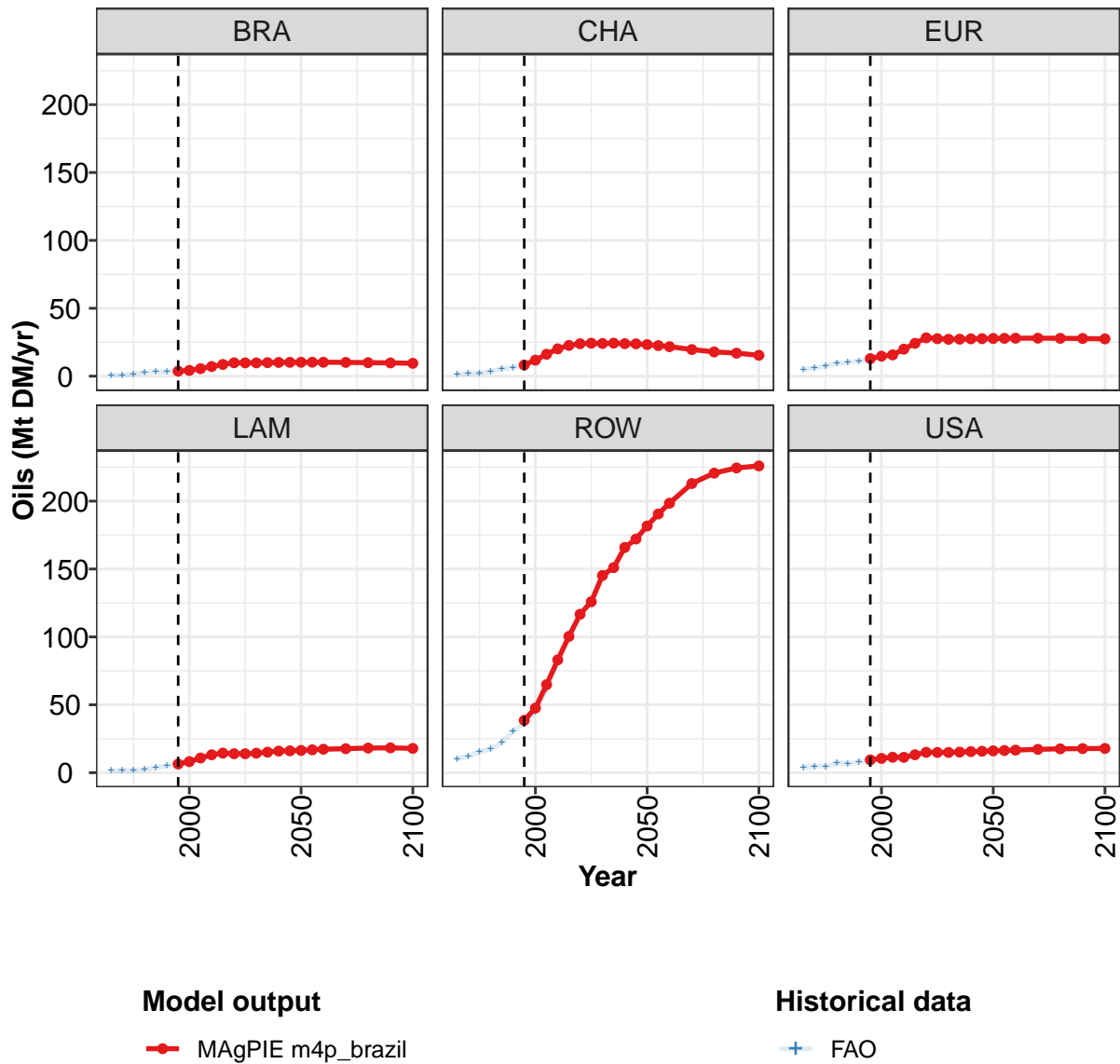


Figure 373: MAgPIE m4p.brazil — Production—Secondary products—Oils (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	79	97	124	155	183	208	217	236	243	259	266
BRA	4	4	6	7	9	10	10	10	10	10	10
CHA	8	12	16	20	23	24	24	24	24	24	24
EUR	13	15	16	20	24	28	28	27	27	28	28
LAM	6	8	11	13	14	14	14	14	15	16	16
ROW	39	48	65	83	100	117	126	145	151	166	172
USA	9	11	11	11	13	15	15	15	15	16	16

Table 1455: MAgPIE m4p_brazil — Production—Secondary products—Oils (Mt DM/yr) [PART 1/2]

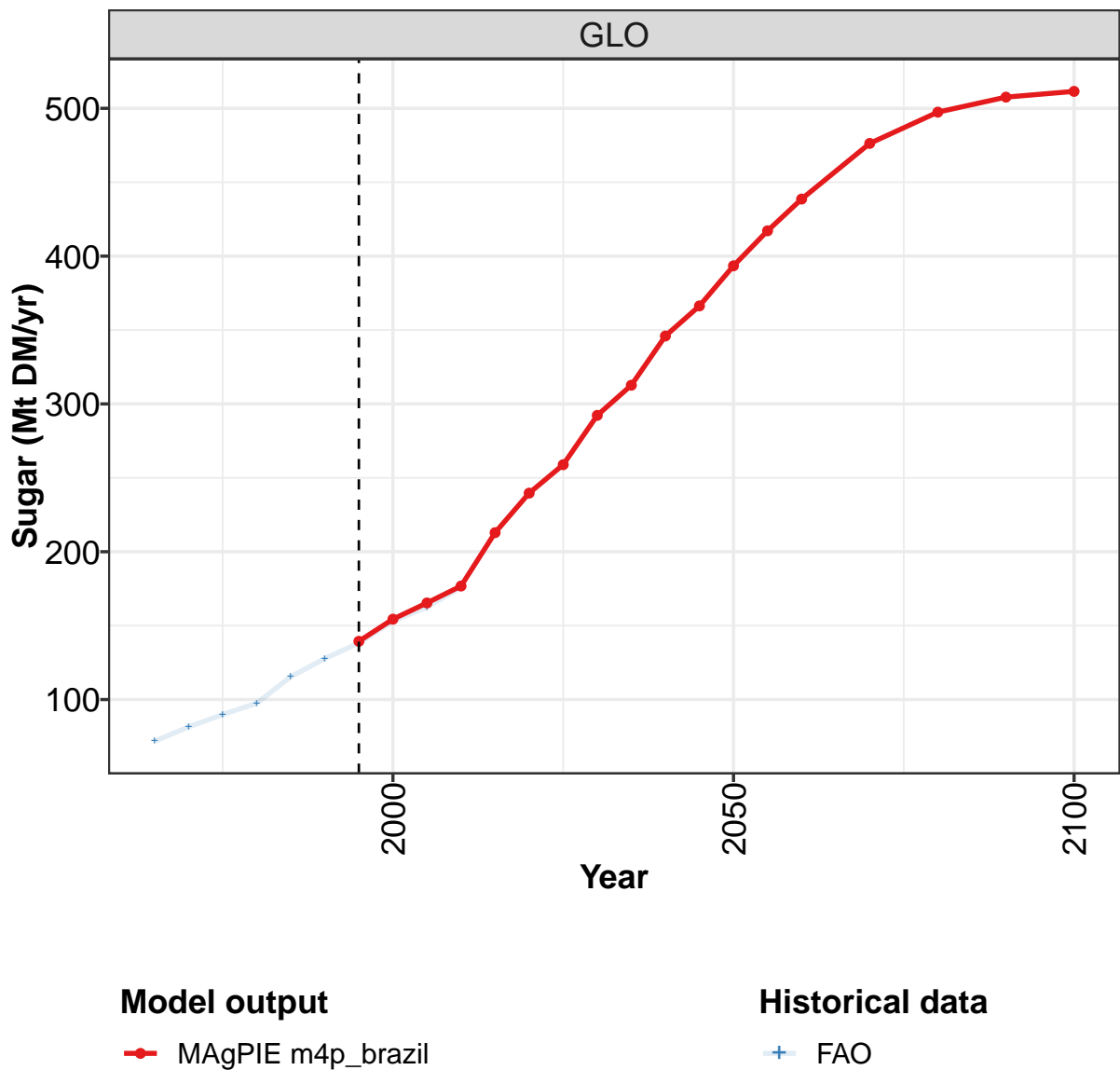
	2050	2055	2060	2070	2080	2090	2100
GLO	275	284	292	306	312	315	314
BRA	10	10	10	10	10	10	9
CHA	23	23	22	20	18	17	15
EUR	28	28	28	28	28	28	27
LAM	16	17	17	18	18	18	18
ROW	182	191	198	213	221	224	226
USA	16	16	17	17	18	18	18

Table 1456: MAgPIE m4p_brazil — 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
BRA	1	1	2	3	3	3	4	5	7	8
CHA	2	2	2	3	5	6	8	12	16	20
EUR	5	6	7	9	10	11	13	15	16	20
LAM	2	2	2	2	4	5	6	9	11	13
ROW	10	12	15	17	22	31	36	45	61	81
USA	4	5	5	7	7	8	10	11	12	11

Table 1457: FAO — Production—Secondary products—Oils (Mt DM/yr)

50.9 Sugar



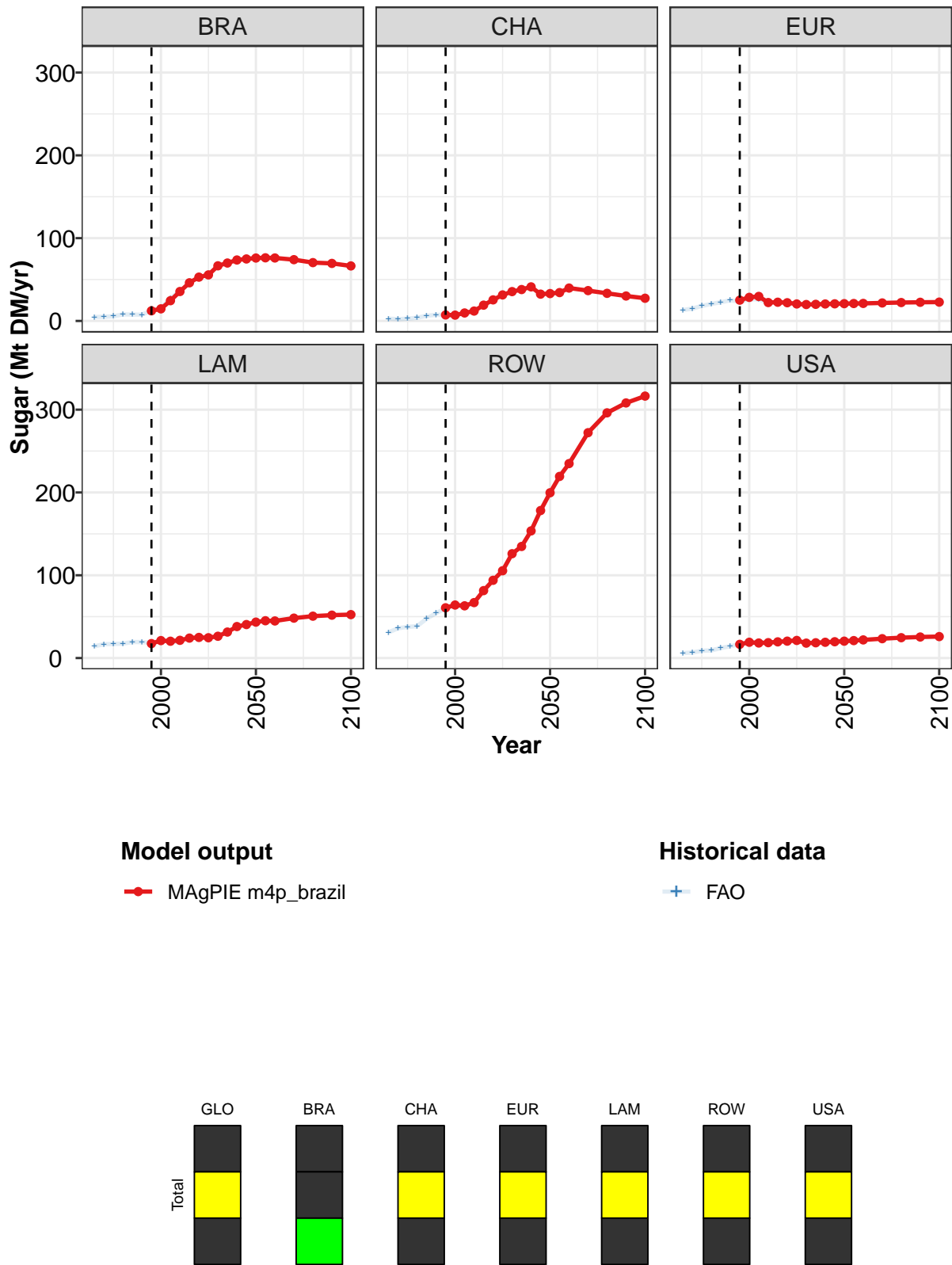


Figure 374: MAgPIE m4p_brazil — Production—Secondary products—Sugar (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	139	154	165	177	213	240	259	292	313	346	366
BRA	12	15	24	36	46	53	56	67	70	74	75
CHA	7	7	10	12	19	25	31	35	38	41	32
EUR	25	28	30	22	23	22	21	20	20	20	21
LAM	17	21	20	21	24	25	25	26	31	38	40
ROW	61	64	63	67	81	94	105	126	135	154	178
USA	17	19	18	19	20	20	21	18	18	19	20

Table 1458: MAgPIE m4p_brazil — Production—Secondary products—Sugar (Mt DM/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	393	417	439	476	497	508	511
BRA	76	76	76	74	70	69	66
CHA	33	34	40	37	33	30	27
EUR	21	21	21	22	22	23	23
LAM	43	45	45	48	51	52	52
ROW	200	219	235	272	296	308	316
USA	20	21	22	23	25	25	26

Table 1459: MAgPIE m4p_brazil — Production—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

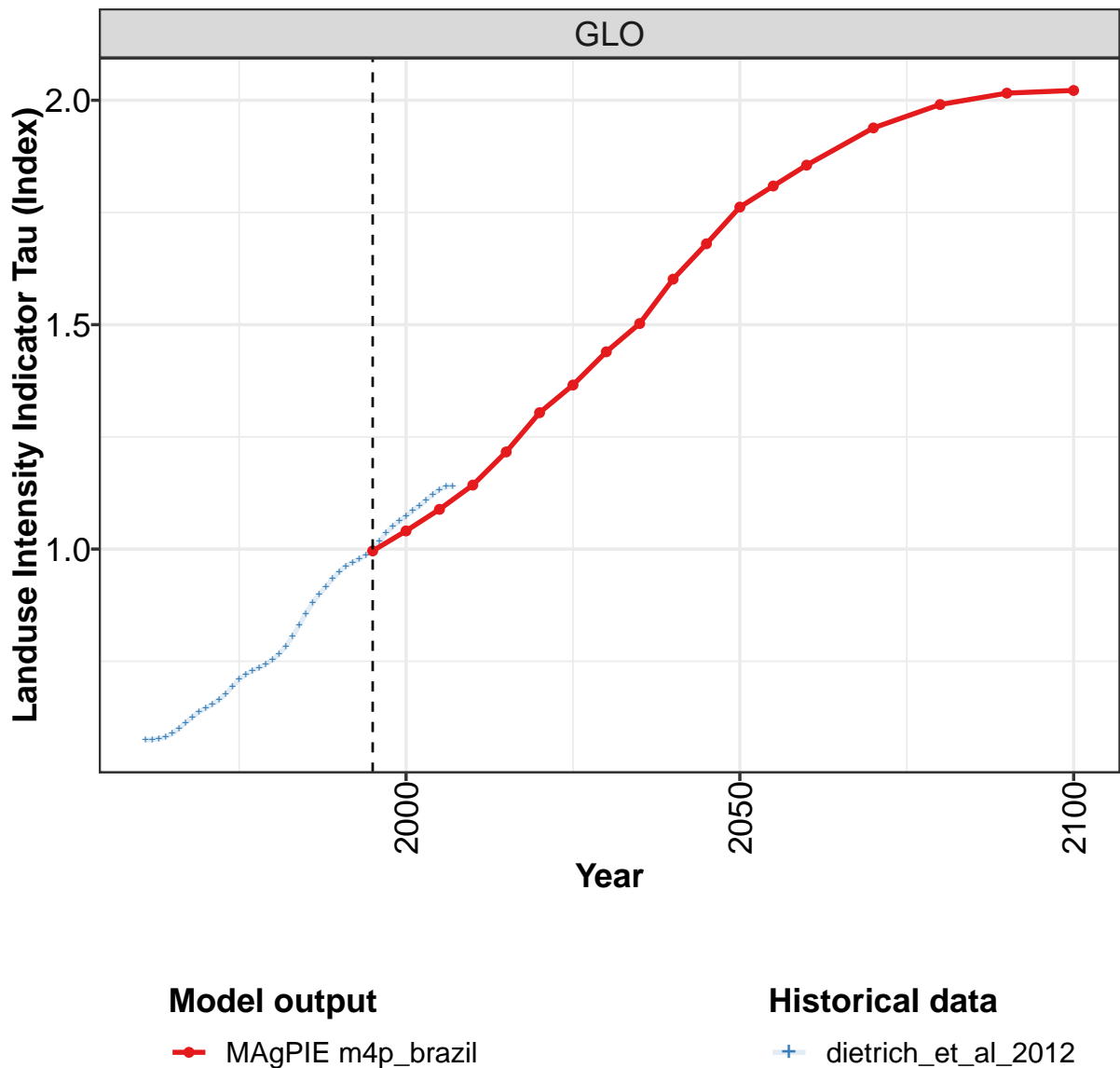
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	72	81	90	97	115	128	138	153	163	176
BRA	5	5	6	8	8	7	13	16	27	37
CHA	3	2	3	4	6	7	7	7	10	12
EUR	13	15	18	21	23	25	23	26	26	22
LAM	14	17	17	17	19	19	18	21	20	19
ROW	31	36	38	38	47	54	60	64	62	67
USA	6	7	9	9	12	14	17	19	18	20

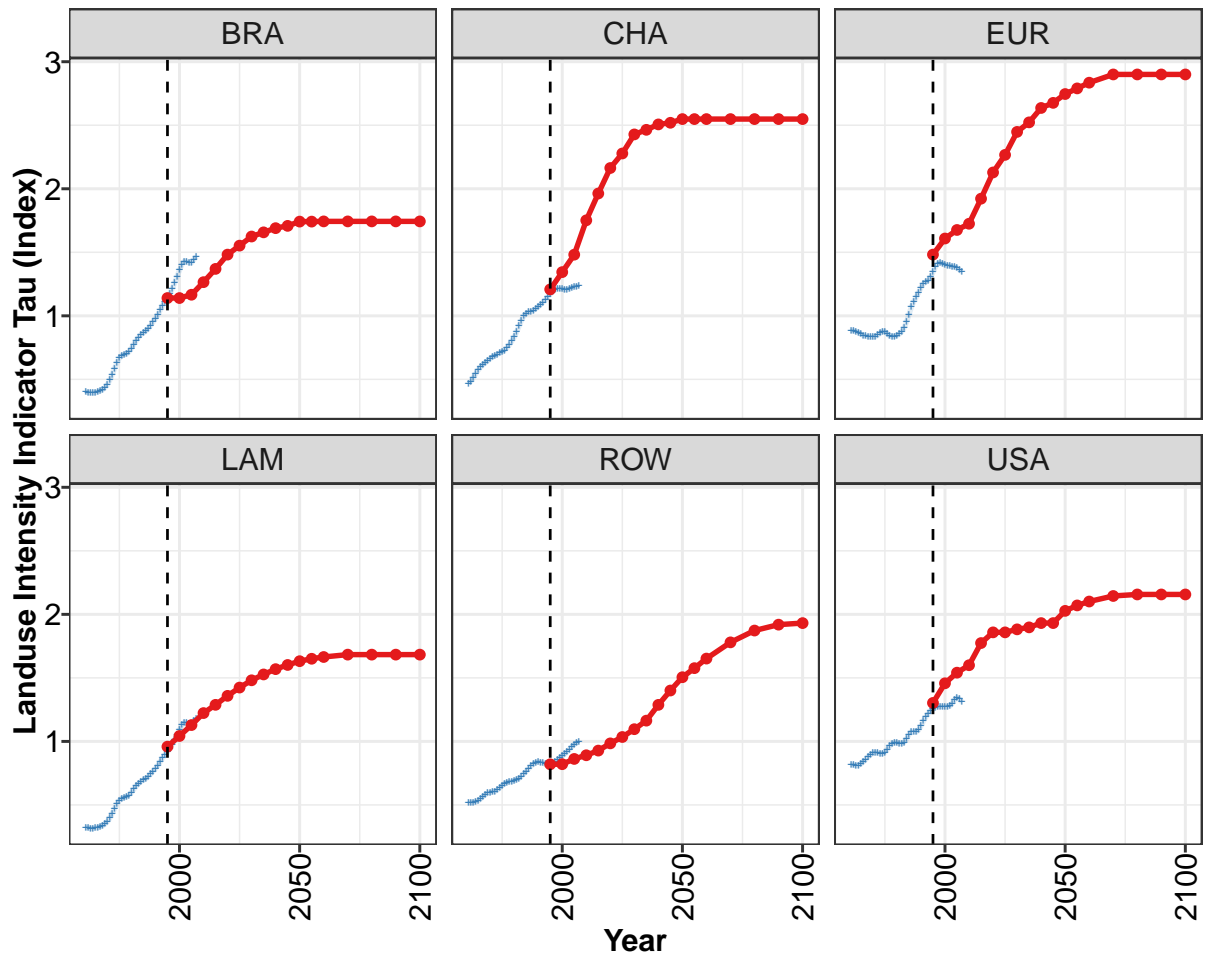
Table 1460: FAO — Production—Secondary products—Sugar (Mt DM/yr)

Part XIII

Productivity

51 Landuse Intensity Indicator Tau





Model output
—•— MAgPIE m4p_brazil

Historical data
—+— dietrich_et_al_2012



Figure 375: MAgPIE m4p_brazil — Productivity—Landuse Intensity Indicator Tau (Index)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.00	1.04	1.09	1.14	1.22	1.30	1.37	1.44	1.50	1.60	1.68
BRA	1.14	1.14	1.17	1.27	1.37	1.48	1.55	1.62	1.66	1.69	1.71
CHA	1.21	1.34	1.48	1.75	1.96	2.16	2.28	2.43	2.46	2.51	2.52
EUR	1.48	1.61	1.68	1.72	1.92	2.13	2.27	2.45	2.52	2.64	2.68
LAM	0.96	1.04	1.13	1.22	1.29	1.36	1.42	1.48	1.53	1.57	1.60
ROW	0.82	0.82	0.86	0.89	0.93	0.98	1.03	1.10	1.16	1.29	1.40
USA	1.30	1.46	1.54	1.60	1.77	1.86	1.86	1.88	1.90	1.93	1.93

Table 1461: MAgPIE m4p_brazil — Productivity—Landuse Intensity Indicator Tau (Index) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1.76	1.81	1.86	1.94	1.99	2.02	2.02
BRA	1.74	1.74	1.74	1.74	1.74	1.74	1.74
CHA	2.55	2.55	2.55	2.55	2.55	2.55	2.55
EUR	2.75	2.79	2.84	2.90	2.90	2.90	2.90
LAM	1.63	1.65	1.66	1.68	1.68	1.68	1.68
ROW	1.51	1.58	1.65	1.78	1.87	1.92	1.93
USA	2.03	2.07	2.10	2.14	2.16	2.16	2.16

Table 1462: MAgPIE m4p_brazil — 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
BRA	0.40	0.40	0.39	0.39	0.40	0.40	0.41	0.42	0.43	0.46	0.49
CHA	0.47	0.48	0.51	0.54	0.57	0.60	0.61	0.63	0.65	0.66	0.68
EUR	0.89	0.88	0.88	0.87	0.86	0.85	0.84	0.84	0.83	0.83	0.84
LAM	0.32	0.32	0.32	0.31	0.32	0.32	0.33	0.34	0.35	0.37	0.40
ROW	0.52	0.52	0.52	0.52	0.53	0.55	0.56	0.58	0.59	0.60	0.60
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
BRA	0.54	0.59	0.63	0.67	0.69	0.69	0.70	0.72	0.74	0.78	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	0.85	0.86	0.88	0.88	0.86	0.84	0.84	0.84	0.85	0.86	0.88
LAM	0.43	0.47	0.51	0.54	0.55	0.56	0.56	0.58	0.60	0.62	0.65
ROW	0.61	0.62	0.63	0.65	0.67	0.68	0.68	0.68	0.69	0.70	0.71
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
BRA	0.83	0.85	0.87	0.88	0.90	0.92	0.95	0.98	1.01	1.05	1.08
CHA	0.96	1.00	1.02	1.03	1.04	1.04	1.06	1.07	1.09	1.11	1.13
EUR	0.91	0.95	1.01	1.07	1.11	1.15	1.18	1.22	1.25	1.27	1.28
LAM	0.67	0.68	0.70	0.71	0.72	0.74	0.76	0.79	0.81	0.84	0.87
ROW	0.73	0.74	0.76	0.78	0.80	0.82	0.83	0.84	0.84	0.83	0.82
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]

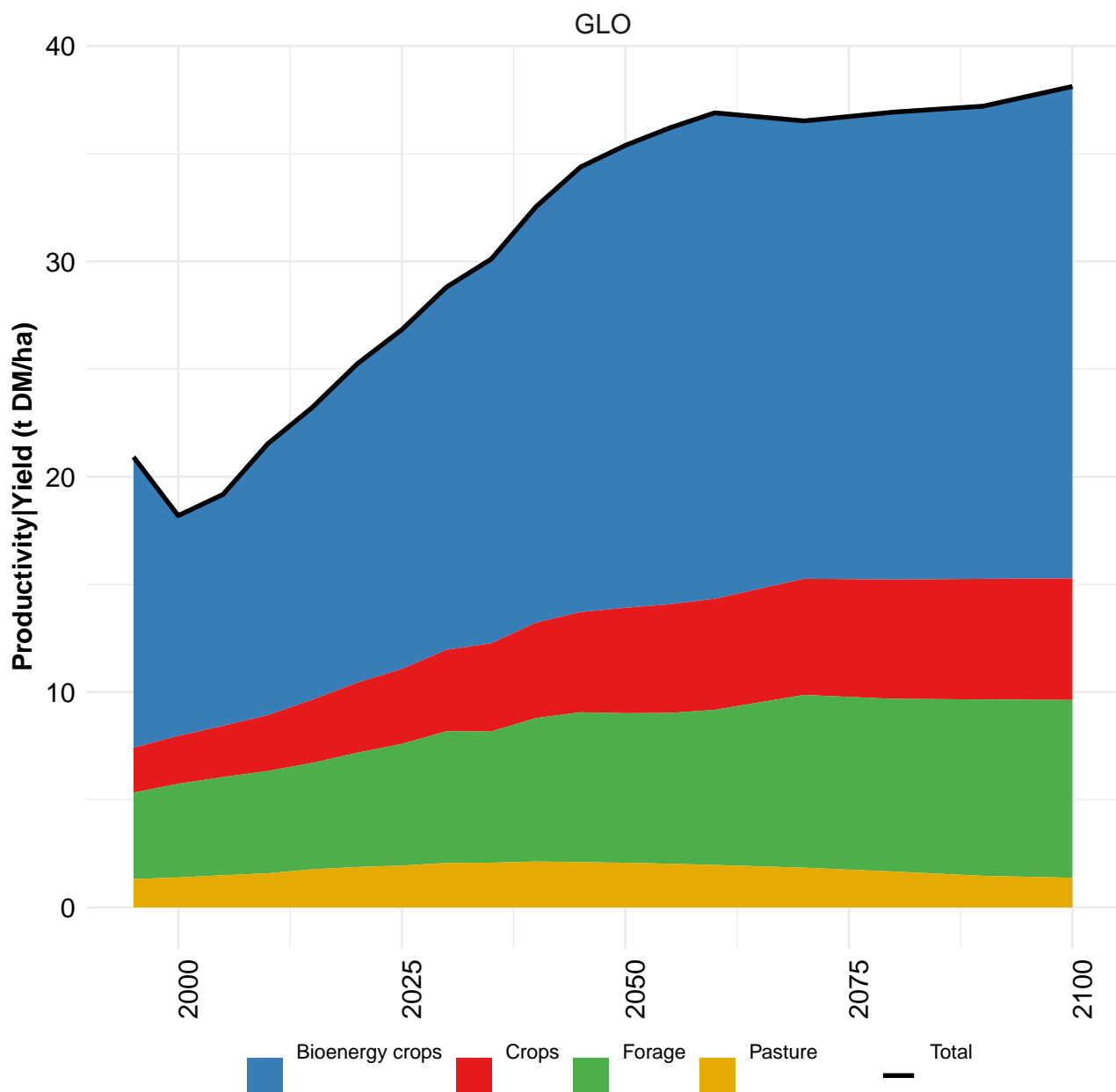
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
GLO	0.99	1.00	1.02	1.04	1.05	1.06	1.07	1.09	1.10	1.11	1.12
BRA	1.11	1.14	1.18	1.22	1.26	1.31	1.36	1.40	1.43	1.43	1.42
CHA	1.15	1.17	1.19	1.21	1.22	1.21	1.21	1.21	1.21	1.21	1.22
EUR	1.30	1.34	1.38	1.41	1.42	1.41	1.40	1.40	1.39	1.39	1.38
LAM	0.90	0.92	0.94	0.98	1.01	1.05	1.09	1.13	1.15	1.15	1.14
ROW	0.82	0.82	0.83	0.84	0.85	0.87	0.88	0.90	0.92	0.94	0.96
USA	1.24	1.25	1.27	1.27	1.28	1.27	1.27	1.27	1.28	1.30	1.33

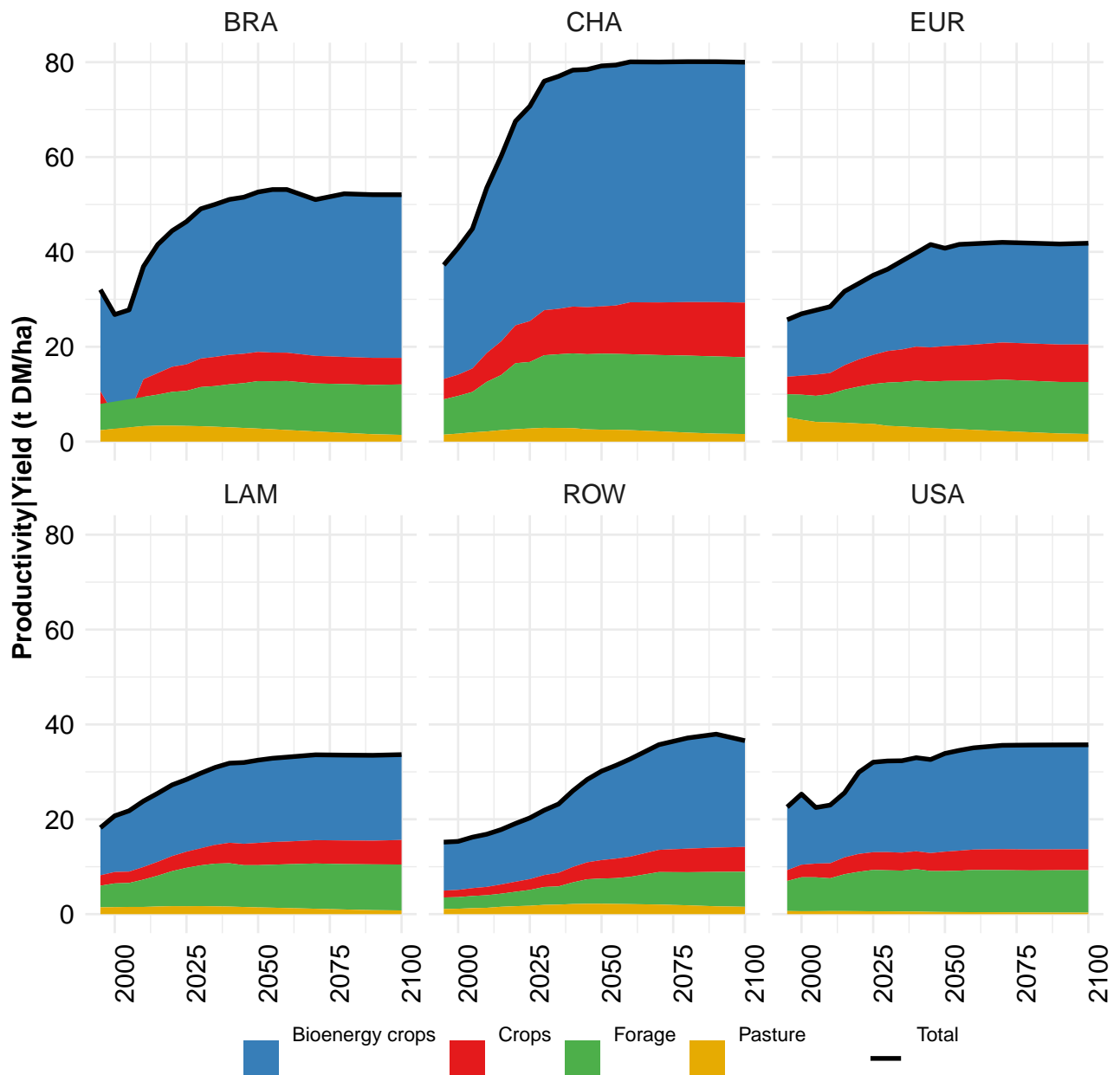
Table 1466: dietrich_et_al.2012 — Productivity—Landuse Intensity Indicator Tau (Index) [PART 4/5]

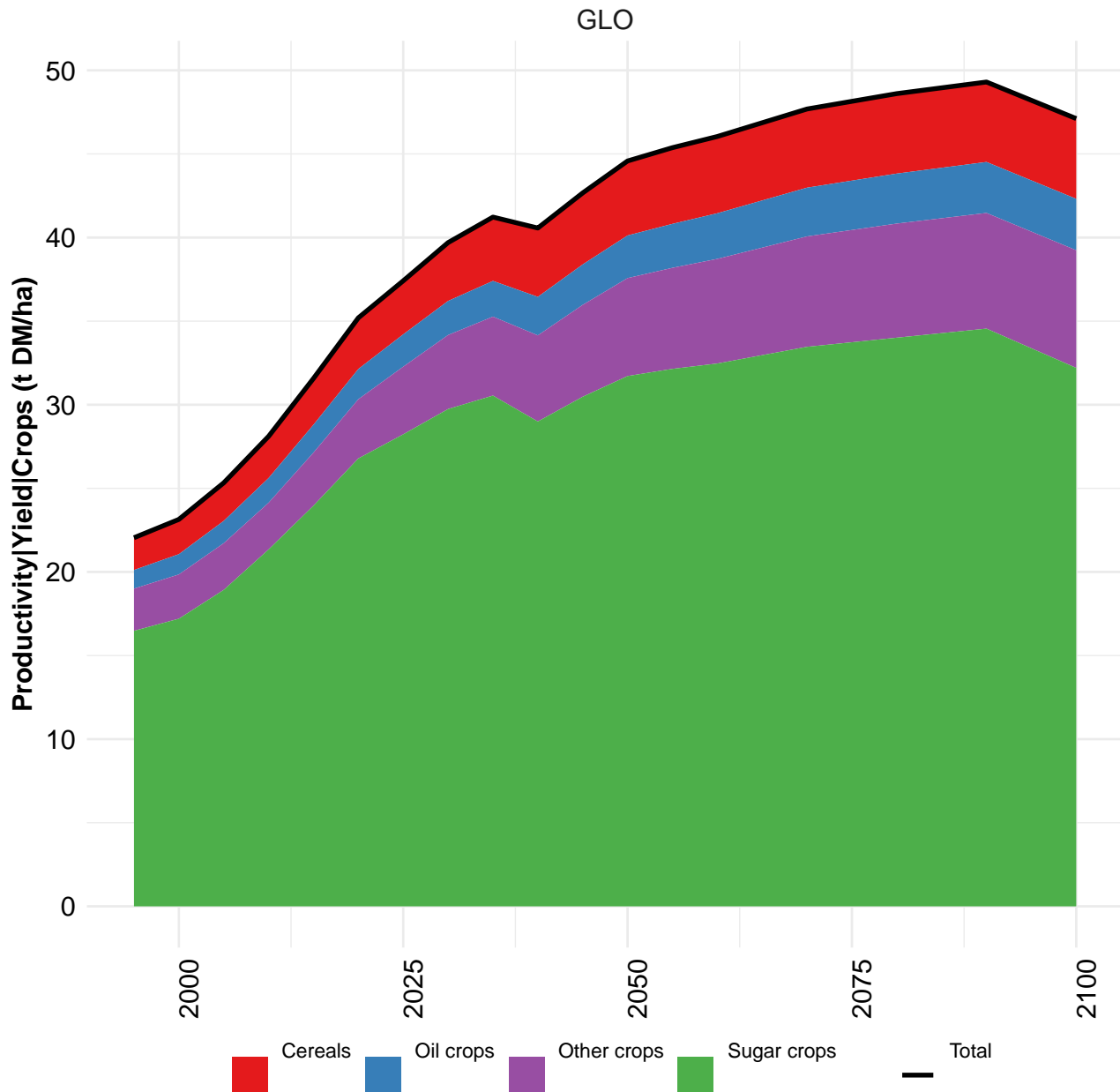
	2005	2006	2007
GLO	1.13	1.14	1.14
BRA	1.42	1.44	1.47
CHA	1.23	1.23	1.24
EUR	1.38	1.36	1.35
LAM	1.14	1.16	1.18
ROW	0.98	0.99	0.99
USA	1.34	1.33	1.31

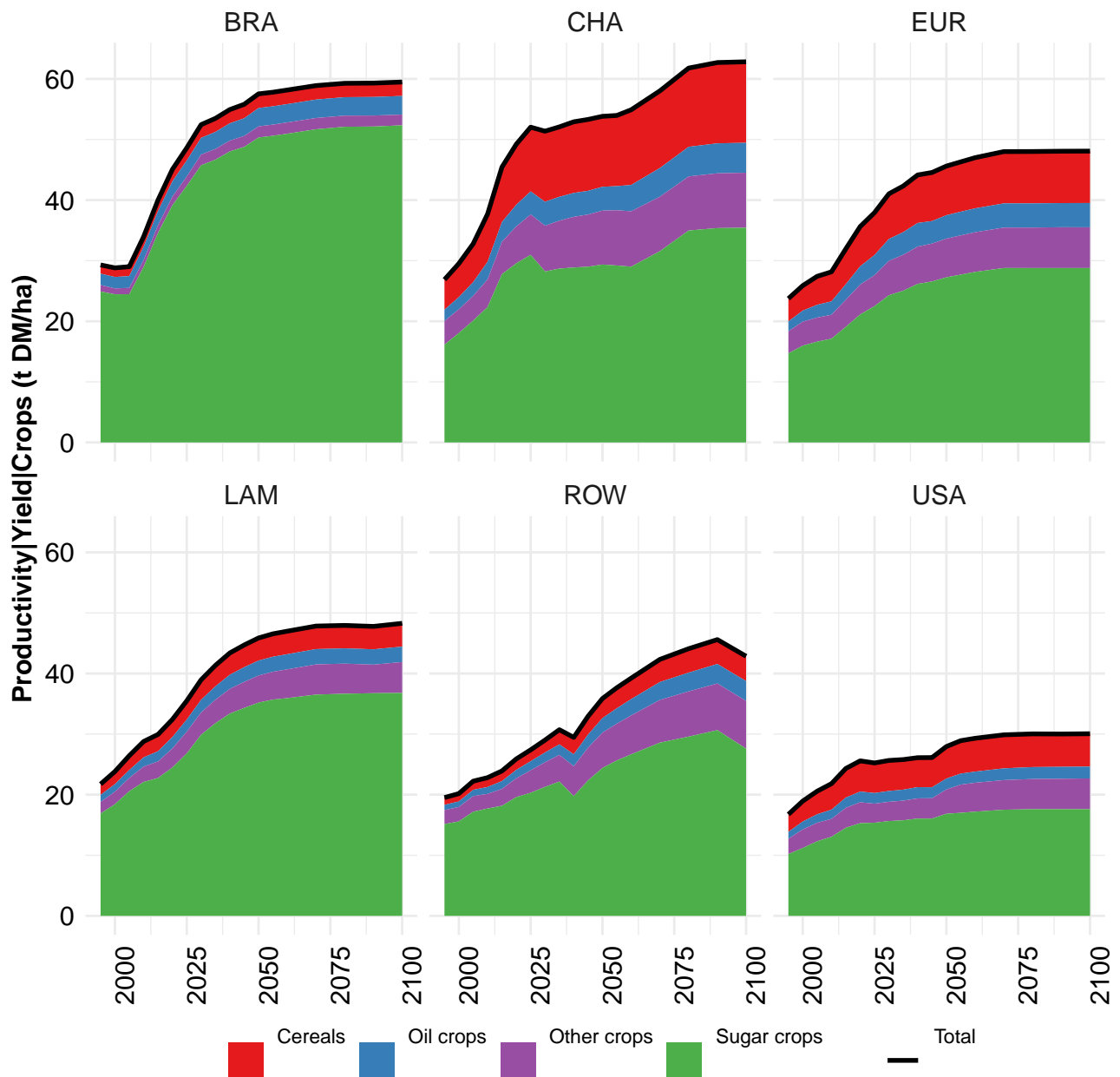
Table 1467: dietrich_et_al.2012 — Productivity—Landuse Intensity Indicator Tau (Index) [PART 5/5]

52 Yield

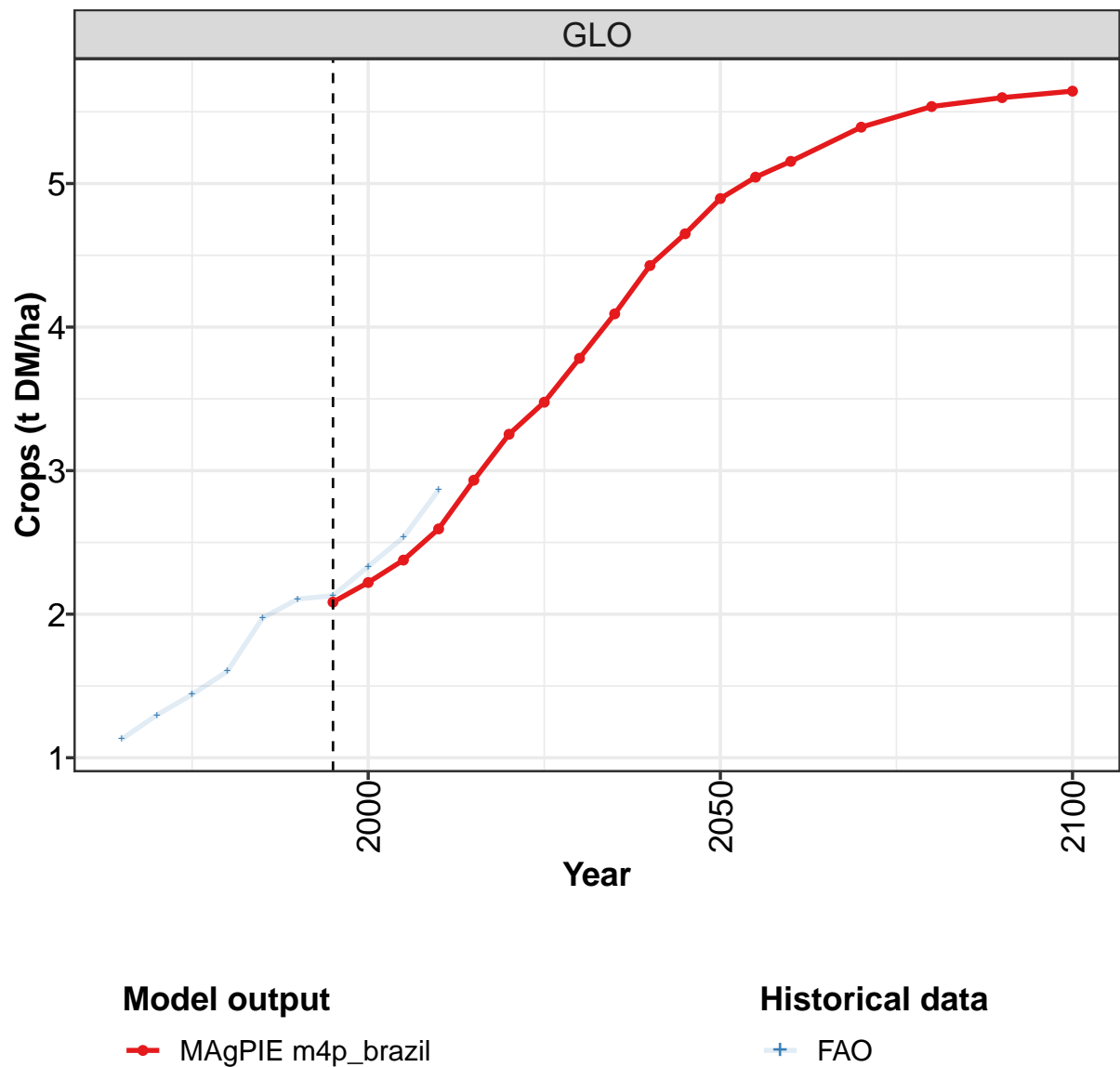








52.1 Crops



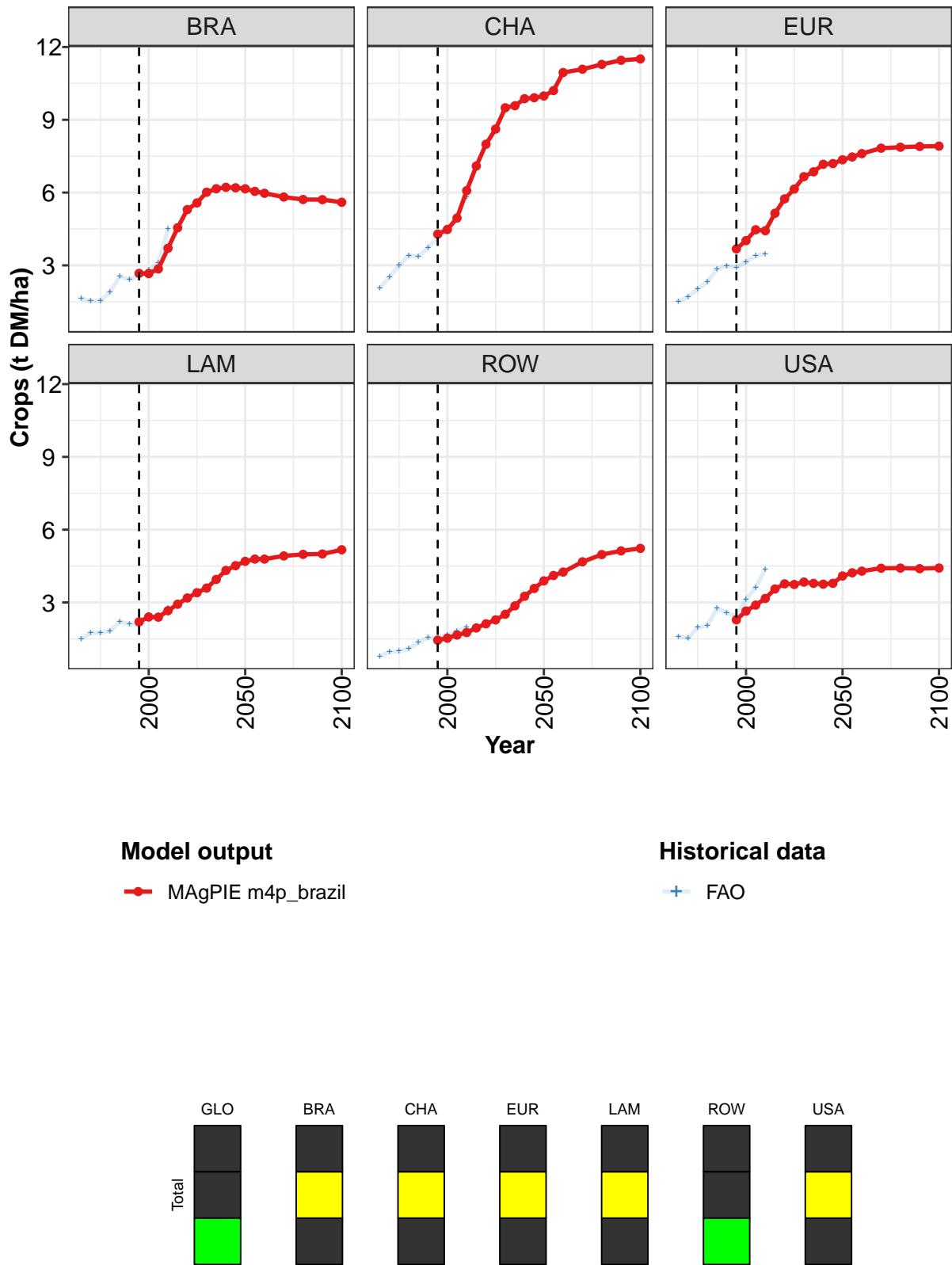


Figure 376: MAgPIE m4p_brazil — Productivity—Yield—Crops (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.1	2.2	2.4	2.6	2.9	3.3	3.5	3.8	4.1	4.4	4.7
BRA	2.7	2.7	2.9	3.7	4.6	5.3	5.6	6.0	6.2	6.2	6.2
CHA	4.3	4.5	5.0	6.1	7.1	8.0	8.6	9.5	9.6	9.9	9.9
EUR	3.7	4.0	4.5	4.4	5.1	5.7	6.1	6.7	6.9	7.2	7.2
LAM	2.2	2.4	2.4	2.7	2.9	3.2	3.4	3.6	4.0	4.3	4.5
ROW	1.4	1.5	1.7	1.8	2.0	2.1	2.3	2.5	2.9	3.3	3.6
USA	2.3	2.6	2.9	3.2	3.6	3.8	3.7	3.8	3.8	3.8	3.8

Table 1468: MAgPIE m4p_brazil — Productivity—Yield—Crops (t DM/ha) [PART 1/2]

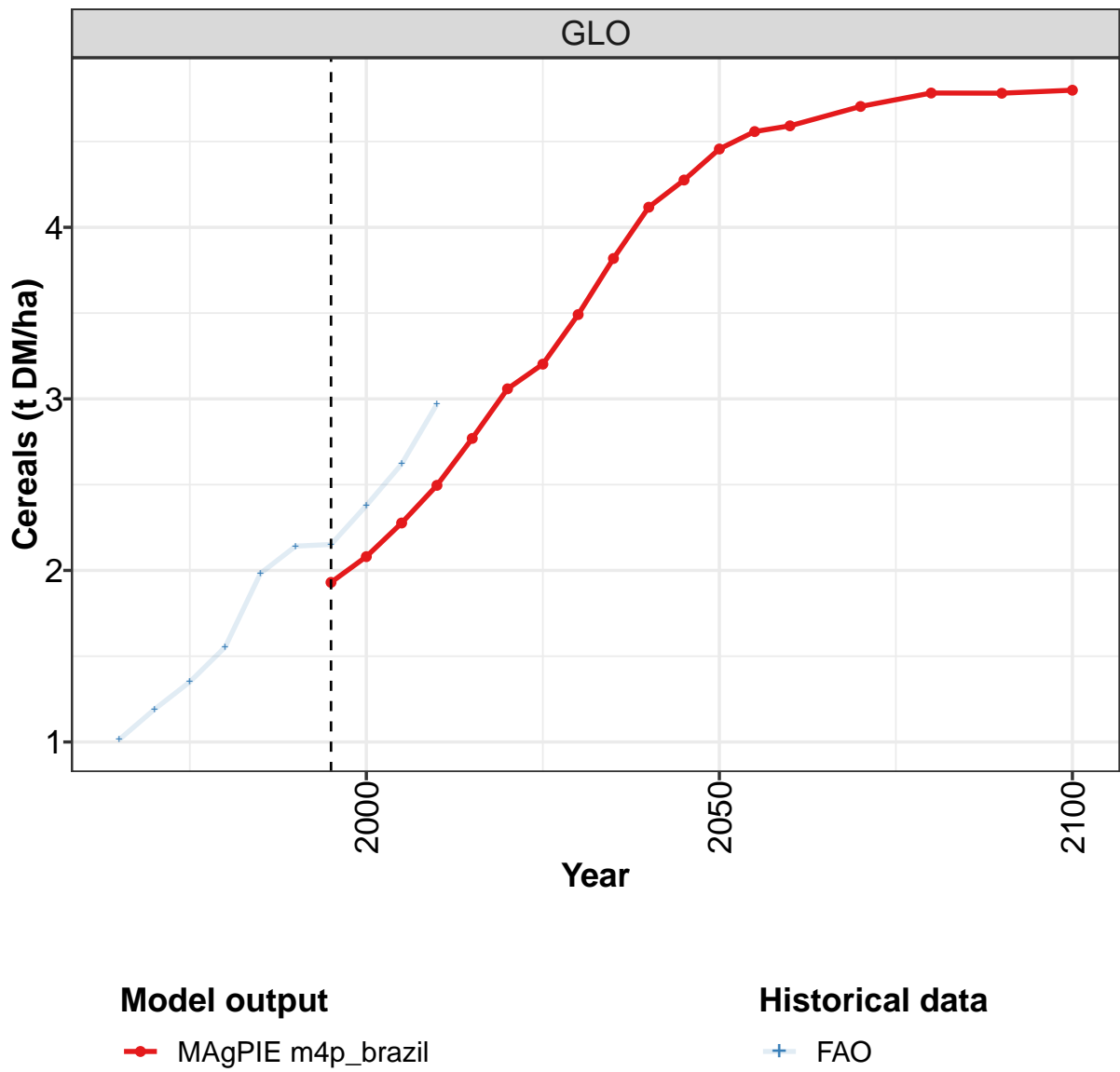
	2050	2055	2060	2070	2080	2090	2100
GLO	4.9	5.0	5.2	5.4	5.5	5.6	5.6
BRA	6.2	6.1	6.0	5.8	5.7	5.7	5.6
CHA	10.0	10.2	10.9	11.1	11.3	11.5	11.5
EUR	7.4	7.5	7.6	7.8	7.9	7.9	7.9
LAM	4.7	4.8	4.8	4.9	5.0	5.0	5.2
ROW	3.9	4.1	4.3	4.7	5.0	5.1	5.2
USA	4.1	4.2	4.3	4.4	4.4	4.4	4.4

Table 1469: MAgPIE m4p_brazil — 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
BRA	1.63	1.54	1.54	1.91	2.54	2.41	2.61	2.80	3.10	4.51
CHA	2.05	2.52	2.99	3.41	3.35	3.74	4.15	4.43	4.97	5.80
EUR	1.52	1.70	2.02	2.34	2.85	2.97	2.90	3.15	3.40	3.48
LAM	1.50	1.74	1.74	1.83	2.20	2.11	2.08	2.33	2.48	2.77
ROW	0.78	0.96	0.99	1.10	1.36	1.54	1.55	1.66	1.81	1.99
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



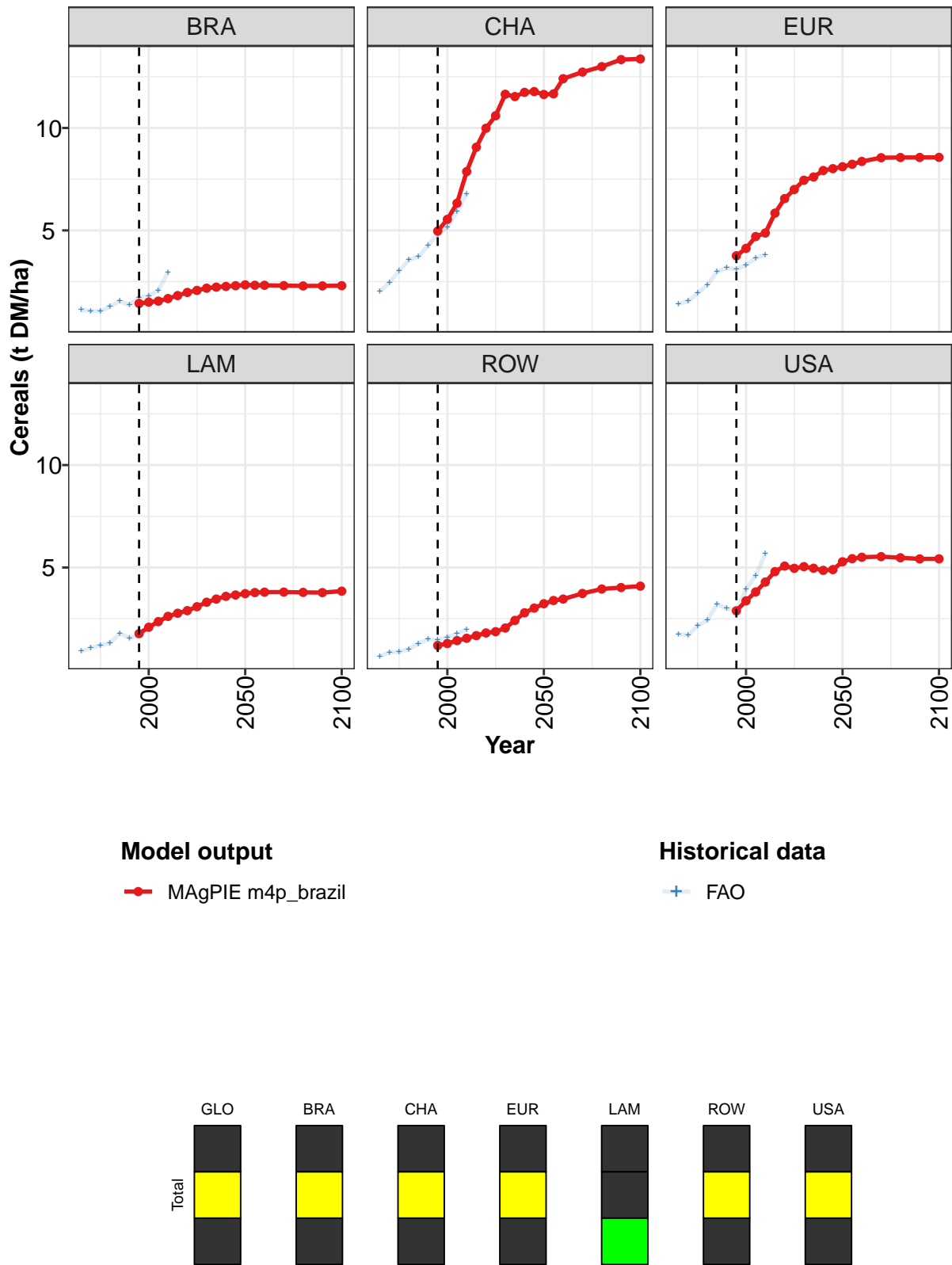


Figure 377: MAGPIE m4p_brazil — Productivity—Yield—Crops—Cereals (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.9	2.1	2.3	2.5	2.8	3.1	3.2	3.5	3.8	4.1	4.3
BRA	1.4	1.5	1.5	1.7	1.8	2.0	2.1	2.2	2.2	2.3	2.3
CHA	5.0	5.5	6.3	7.9	9.1	10.0	10.6	11.6	11.5	11.7	11.8
EUR	3.8	4.1	4.7	4.9	5.8	6.6	7.0	7.4	7.6	7.9	8.0
LAM	1.8	2.1	2.4	2.6	2.8	2.9	3.1	3.3	3.5	3.6	3.7
ROW	1.2	1.3	1.4	1.5	1.7	1.8	1.9	2.0	2.4	2.8	3.0
USA	2.9	3.4	3.8	4.3	4.8	5.1	5.0	5.0	5.0	4.9	4.9

Table 1471: MAgPIE m4p_brazil — Productivity—Yield—Crops—Cereals (t DM/ha) [PART 1/2]

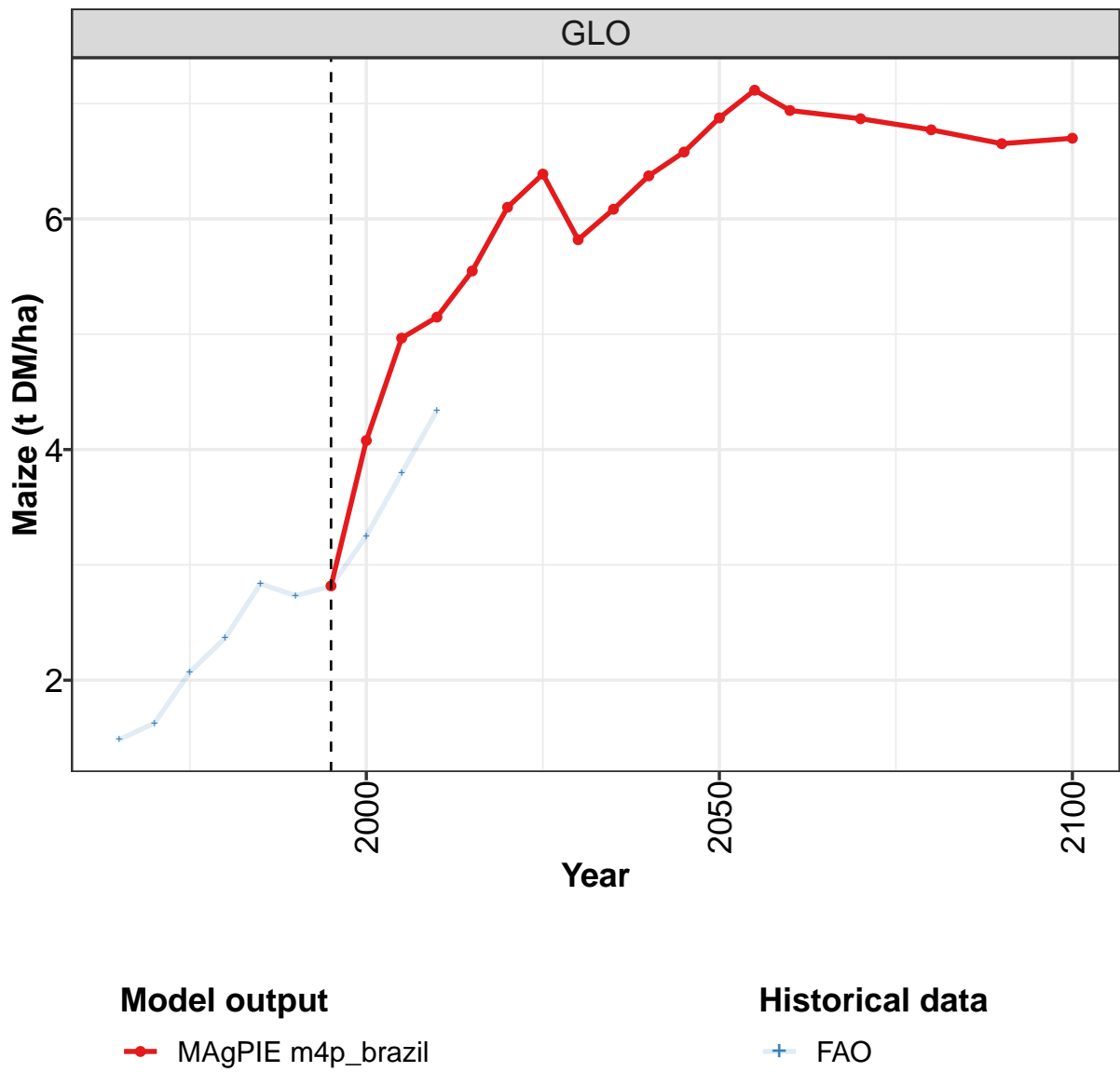
	2050	2055	2060	2070	2080	2090	2100
GLO	4.5	4.6	4.6	4.7	4.8	4.8	4.8
BRA	2.3	2.3	2.3	2.3	2.3	2.3	2.3
CHA	11.6	11.7	12.4	12.7	13.0	13.3	13.4
EUR	8.1	8.2	8.4	8.5	8.6	8.6	8.6
LAM	3.7	3.8	3.8	3.8	3.8	3.8	3.8
ROW	3.2	3.4	3.5	3.7	4.0	4.0	4.1
USA	5.3	5.4	5.5	5.5	5.5	5.4	5.4

Table 1472: MAgPIE m4p_brazil — 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
BRA	1.13	1.07	1.05	1.28	1.54	1.36	1.72	1.79	2.07	2.96
CHA	2.01	2.47	3.02	3.56	3.71	4.26	4.82	5.15	5.92	6.79
EUR	1.40	1.54	1.94	2.34	2.99	3.17	3.12	3.31	3.64	3.81
LAM	0.91	1.09	1.21	1.32	1.78	1.56	1.69	2.02	2.24	2.67
ROW	0.67	0.86	0.88	1.01	1.29	1.49	1.46	1.60	1.77	1.97
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



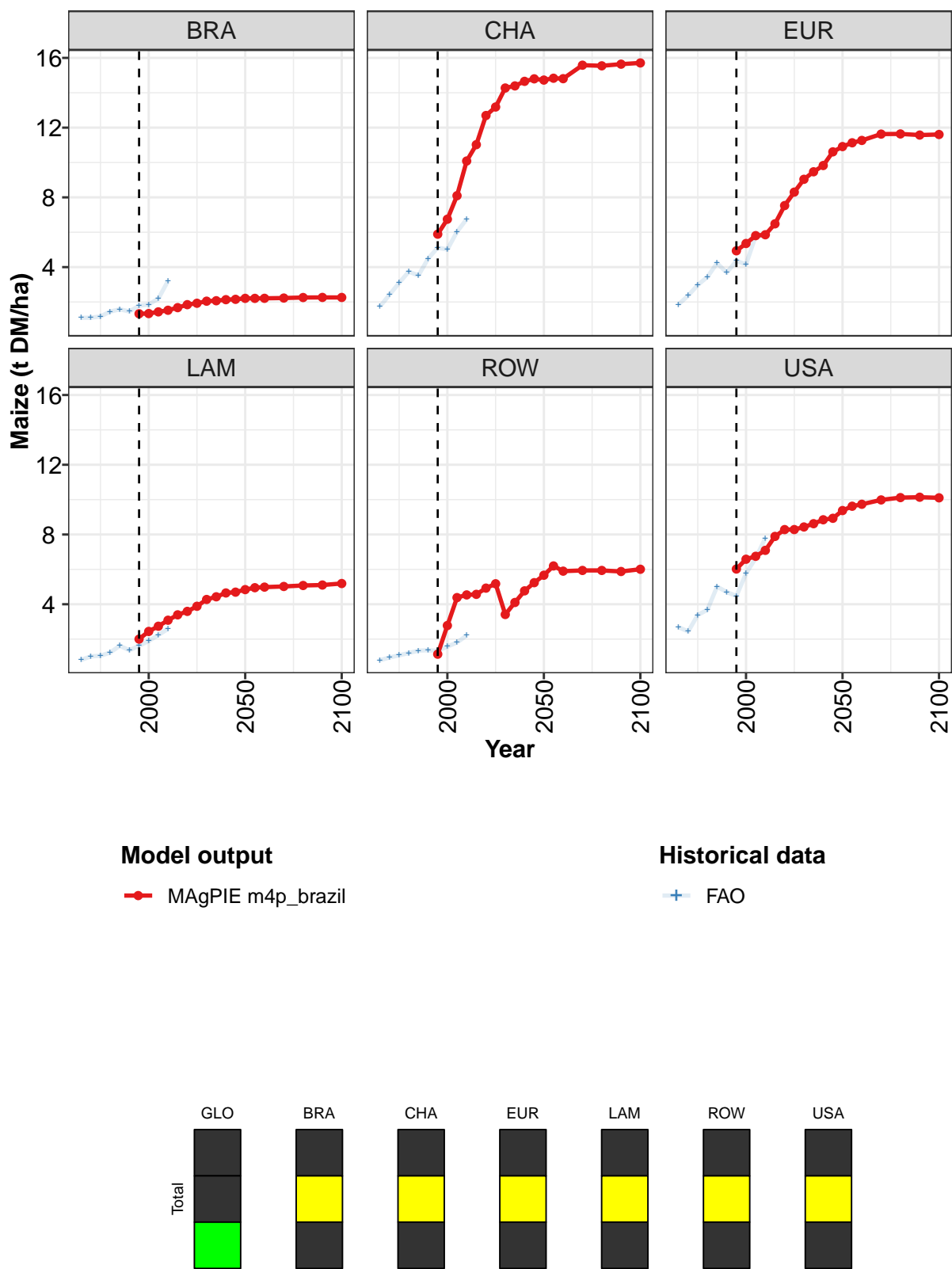


Figure 378: MAgPIE m4p_brazil — Productivity—Yield—Crops—Cereals—Maize (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.8	4.1	5.0	5.1	5.5	6.1	6.4	5.8	6.1	6.4	6.6
BRA	1.3	1.3	1.4	1.5	1.7	1.8	1.9	2.0	2.1	2.1	2.2
CHA	5.9	6.7	8.1	10.1	11.0	12.7	13.2	14.3	14.4	14.7	14.8
EUR	4.9	5.4	5.8	5.9	6.5	7.5	8.3	9.0	9.5	9.8	10.6
LAM	2.0	2.4	2.7	3.1	3.4	3.6	3.9	4.3	4.4	4.6	4.7
ROW	1.1	2.8	4.4	4.5	4.6	4.9	5.2	3.4	4.1	4.8	5.2
USA	6.0	6.6	6.7	7.1	7.9	8.3	8.3	8.4	8.6	8.8	8.9

Table 1474: MAgPIE m4p_brazil — Productivity—Yield—Crops—Cereals—Maize (t DM/ha) [PART 1/2]

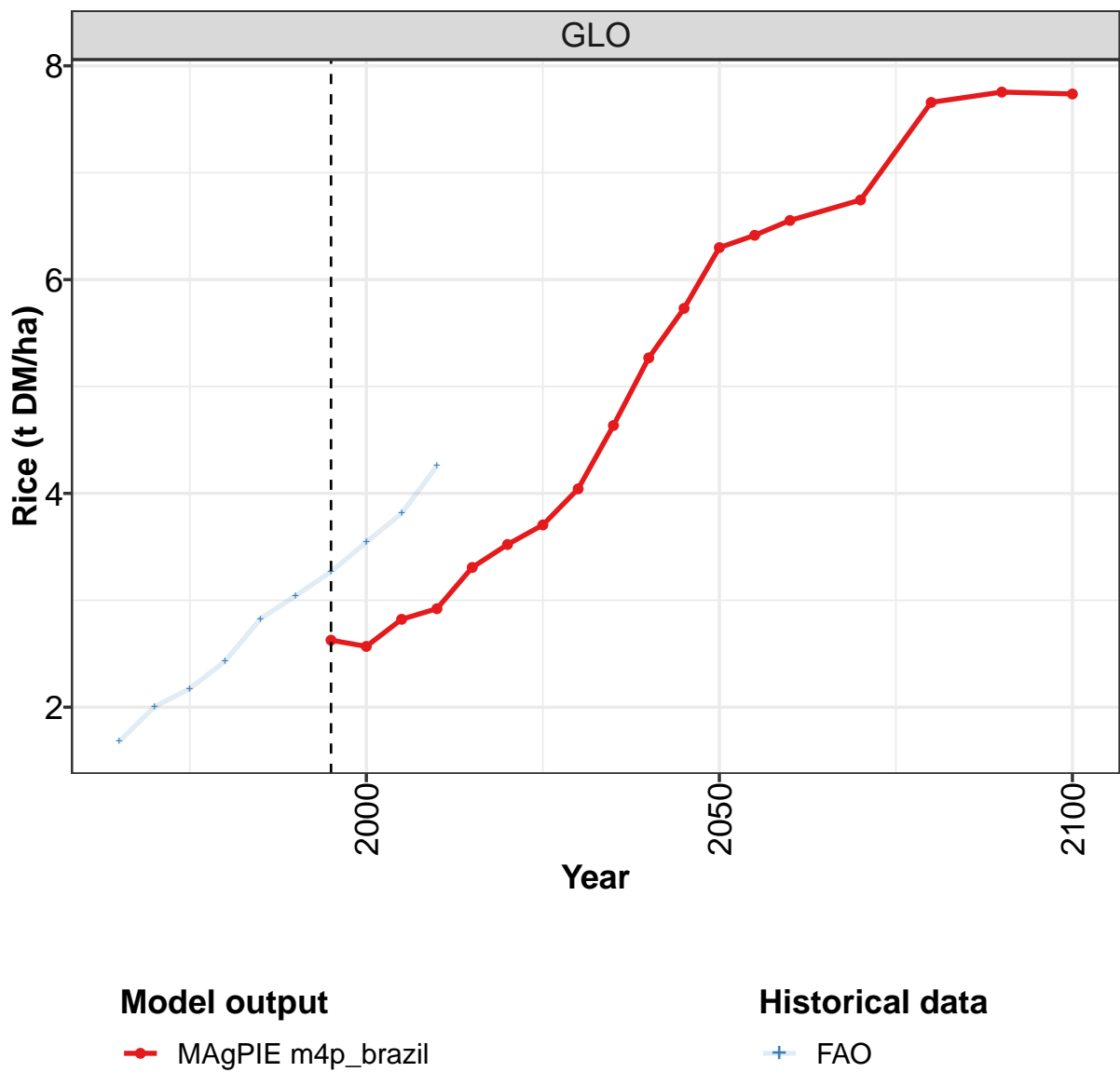
	2050	2055	2060	2070	2080	2090	2100
GLO	6.9	7.1	6.9	6.9	6.8	6.7	6.7
BRA	2.2	2.2	2.2	2.2	2.3	2.3	2.3
CHA	14.7	14.8	14.8	15.6	15.5	15.6	15.7
EUR	10.9	11.1	11.3	11.6	11.6	11.6	11.6
LAM	4.8	4.9	5.0	5.0	5.1	5.1	5.2
ROW	5.7	6.2	5.9	5.9	5.9	5.9	6.0
USA	9.4	9.6	9.7	10.0	10.1	10.1	10.1

Table 1475: MAgPIE m4p_brazil — 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
BRA	1.09	1.10	1.17	1.45	1.58	1.46	1.79	1.86	2.19	3.21
CHA	1.73	2.42	3.10	3.74	3.52	4.49	5.11	5.02	6.03	6.75
EUR	1.86	2.36	2.98	3.44	4.23	3.68	4.36	4.15	5.79	5.81
LAM	0.81	1.01	1.05	1.23	1.62	1.36	1.62	1.89	2.24	2.59
ROW	0.79	0.95	1.07	1.20	1.34	1.36	1.33	1.57	1.81	2.21
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



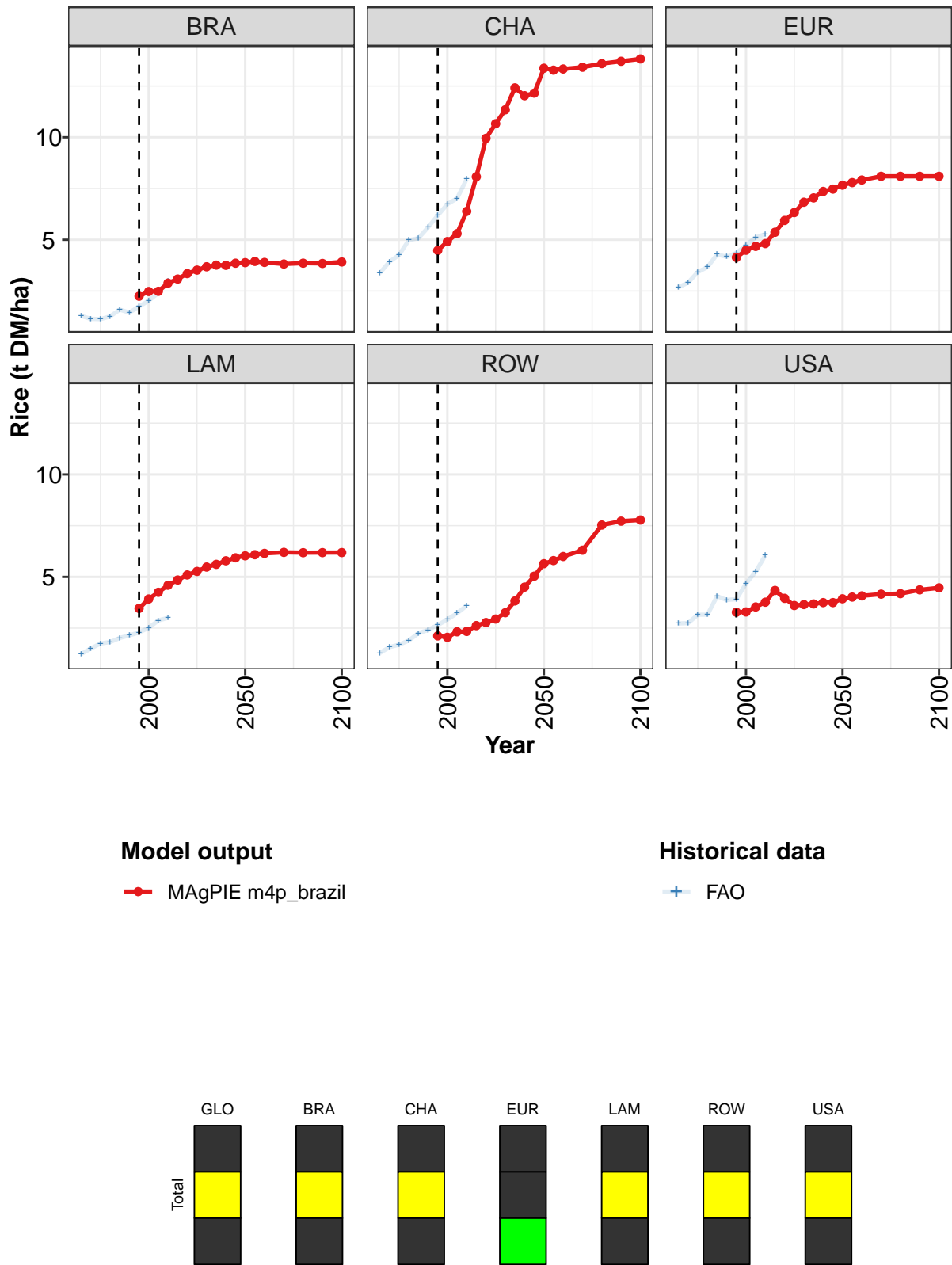


Figure 379: MAgPIE m4p_brazil — Productivity—Yield—Crops—Cereals—Rice (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.6	2.6	2.8	2.9	3.3	3.5	3.7	4.0	4.6	5.3	5.7
BRA	2.2	2.5	2.5	2.9	3.1	3.4	3.5	3.7	3.8	3.8	3.9
CHA	4.5	4.9	5.3	6.4	8.1	9.9	10.7	11.3	12.4	12.0	12.2
EUR	4.1	4.5	4.7	4.8	5.4	5.9	6.3	6.8	7.0	7.4	7.5
LAM	3.5	3.9	4.2	4.6	4.8	5.1	5.3	5.5	5.6	5.8	5.9
ROW	2.1	2.1	2.3	2.3	2.6	2.8	2.9	3.3	3.8	4.5	5.0
USA	3.3	3.3	3.5	3.8	4.3	4.0	3.6	3.6	3.7	3.7	3.7

Table 1477: MAgPIE m4p_brazil — Productivity—Yield—Crops—Cereals—Rice (t DM/ha) [PART 1/2]

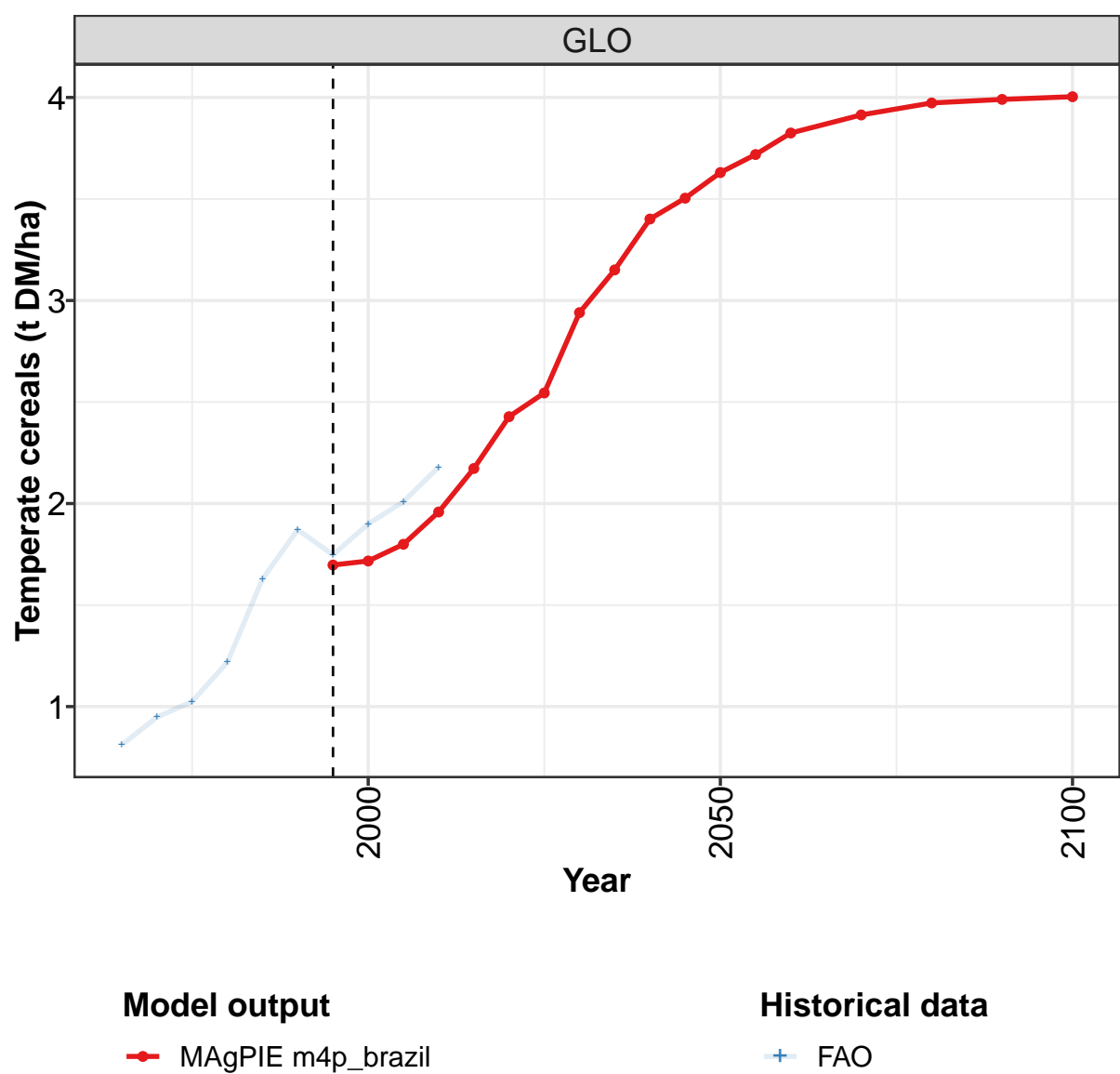
	2050	2055	2060	2070	2080	2090	2100
GLO	6.3	6.4	6.6	6.7	7.7	7.8	7.7
BRA	3.9	3.9	3.9	3.8	3.9	3.8	3.9
CHA	13.4	13.3	13.3	13.4	13.6	13.7	13.8
EUR	7.7	7.8	7.9	8.1	8.1	8.1	8.1
LAM	6.0	6.1	6.1	6.2	6.2	6.2	6.2
ROW	5.6	5.8	6.0	6.3	7.5	7.7	7.8
USA	3.9	4.0	4.1	4.2	4.2	4.4	4.5

Table 1478: MAgPIE m4p_brazil — Productivity—Yield—Crops—Cereals—Rice (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.68	2.00	2.17	2.43	2.83	3.04	3.27	3.54	3.81	4.26
BRA	1.28	1.14	1.13	1.26	1.59	1.45	1.74	2.03	2.40	3.00
CHA	3.38	3.93	4.26	4.98	5.08	5.61	6.19	6.74	7.02	7.96
EUR	2.68	2.91	3.43	3.67	4.28	4.17	4.36	4.73	5.12	5.28
LAM	1.24	1.50	1.75	1.82	2.02	2.14	2.29	2.51	2.87	3.00
ROW	1.29	1.57	1.69	1.89	2.25	2.41	2.65	2.92	3.23	3.59
USA	2.73	2.75	3.15	3.15	4.06	3.87	3.91	4.67	5.25	6.05

Table 1479: FAO — Productivity—Yield—Crops—Cereals—Rice (t DM/ha)

52.1.4 Cereals—Temperate cereals



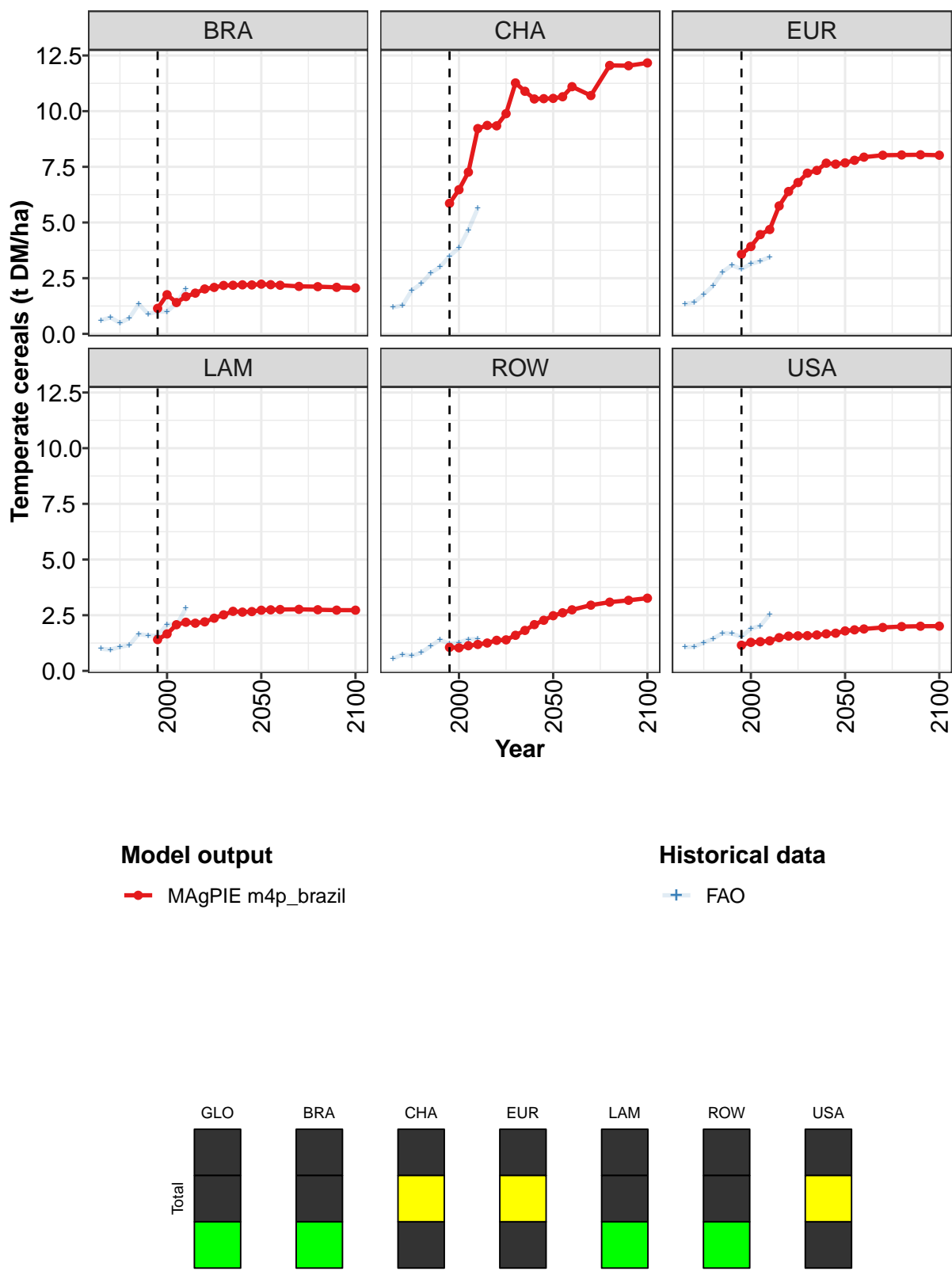


Figure 380: MAGPIE m4p_brazil — Productivity—Yield—Crops—Cereals—Temperate cereals (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.7	1.7	1.8	2.0	2.2	2.4	2.5	2.9	3.2	3.4	3.5
BRA	1.1	1.8	1.4	1.7	1.8	2.0	2.1	2.2	2.2	2.2	2.2
CHA	5.9	6.5	7.3	9.2	9.4	9.3	9.9	11.3	10.9	10.5	10.6
EUR	3.6	3.9	4.5	4.7	5.7	6.4	6.8	7.2	7.3	7.7	7.6
LAM	1.4	1.7	2.1	2.2	2.1	2.2	2.4	2.5	2.7	2.6	2.7
ROW	1.1	1.0	1.1	1.2	1.3	1.4	1.4	1.6	1.8	2.1	2.3
USA	1.2	1.3	1.3	1.3	1.5	1.6	1.6	1.6	1.6	1.7	1.7

Table 1480: MAgPIE m4p_brazil — Productivity—Yield—Crops—Cereals—Temperate cereals (t DM/ha)
[PART 1/2]

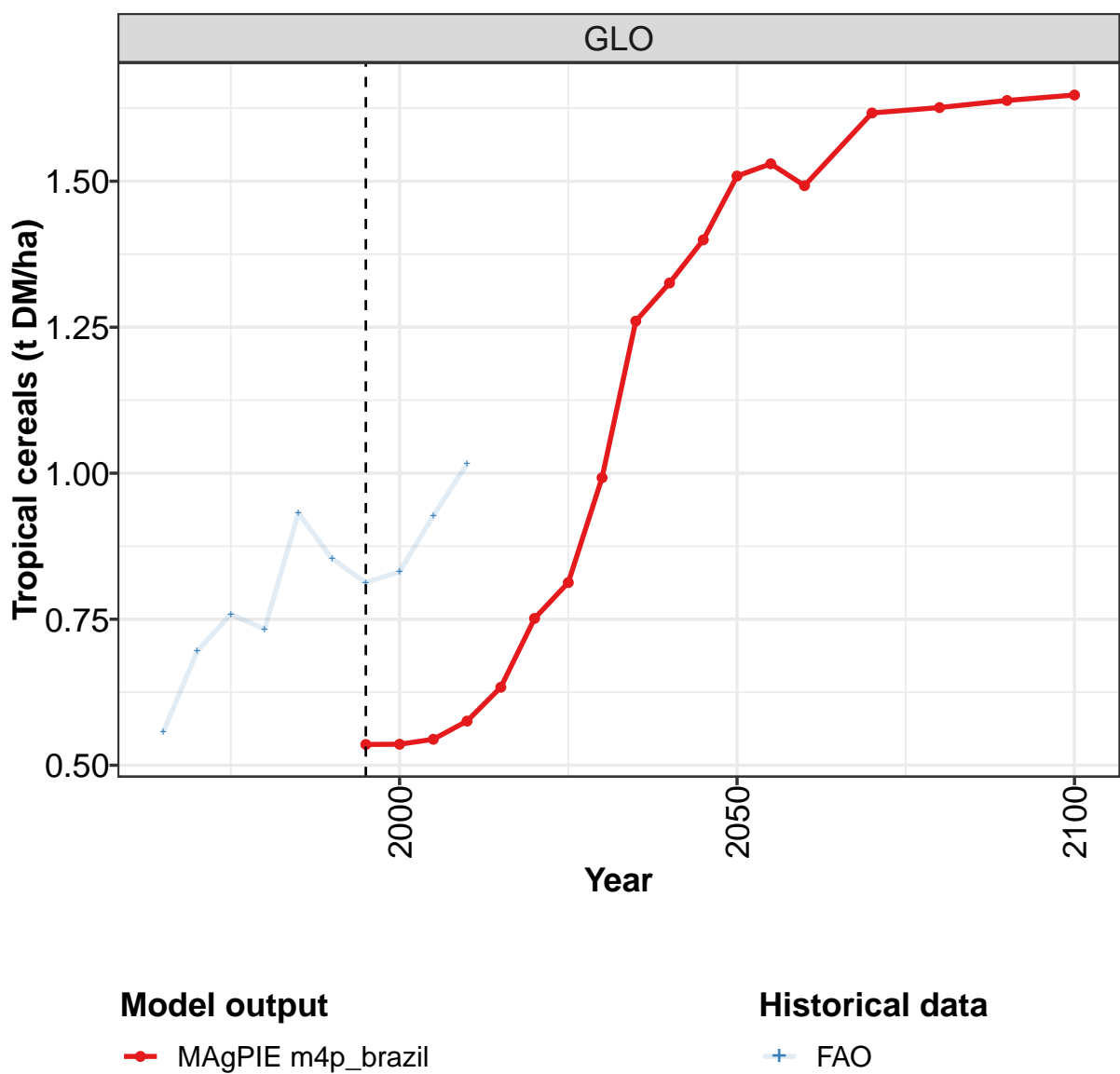
	2050	2055	2060	2070	2080	2090	2100
GLO	3.6	3.7	3.8	3.9	4.0	4.0	4.0
BRA	2.2	2.2	2.2	2.1	2.1	2.1	2.1
CHA	10.6	10.6	11.1	10.7	12.1	12.0	12.2
EUR	7.7	7.8	7.9	8.0	8.0	8.0	8.0
LAM	2.7	2.7	2.8	2.8	2.7	2.7	2.7
ROW	2.5	2.6	2.7	3.0	3.1	3.2	3.3
USA	1.8	1.8	1.9	1.9	2.0	2.0	2.0

Table 1481: MAgPIE m4p_brazil — 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
BRA	0.61	0.74	0.49	0.71	1.33	0.89	1.00	1.00	1.38	2.03
CHA	1.19	1.28	1.96	2.25	2.73	3.01	3.49	3.86	4.66	5.64
EUR	1.34	1.42	1.77	2.17	2.78	3.09	2.91	3.15	3.26	3.46
LAM	0.99	0.95	1.08	1.16	1.65	1.59	1.57	2.09	2.06	2.81
ROW	0.54	0.74	0.68	0.82	1.12	1.40	1.21	1.27	1.42	1.44
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



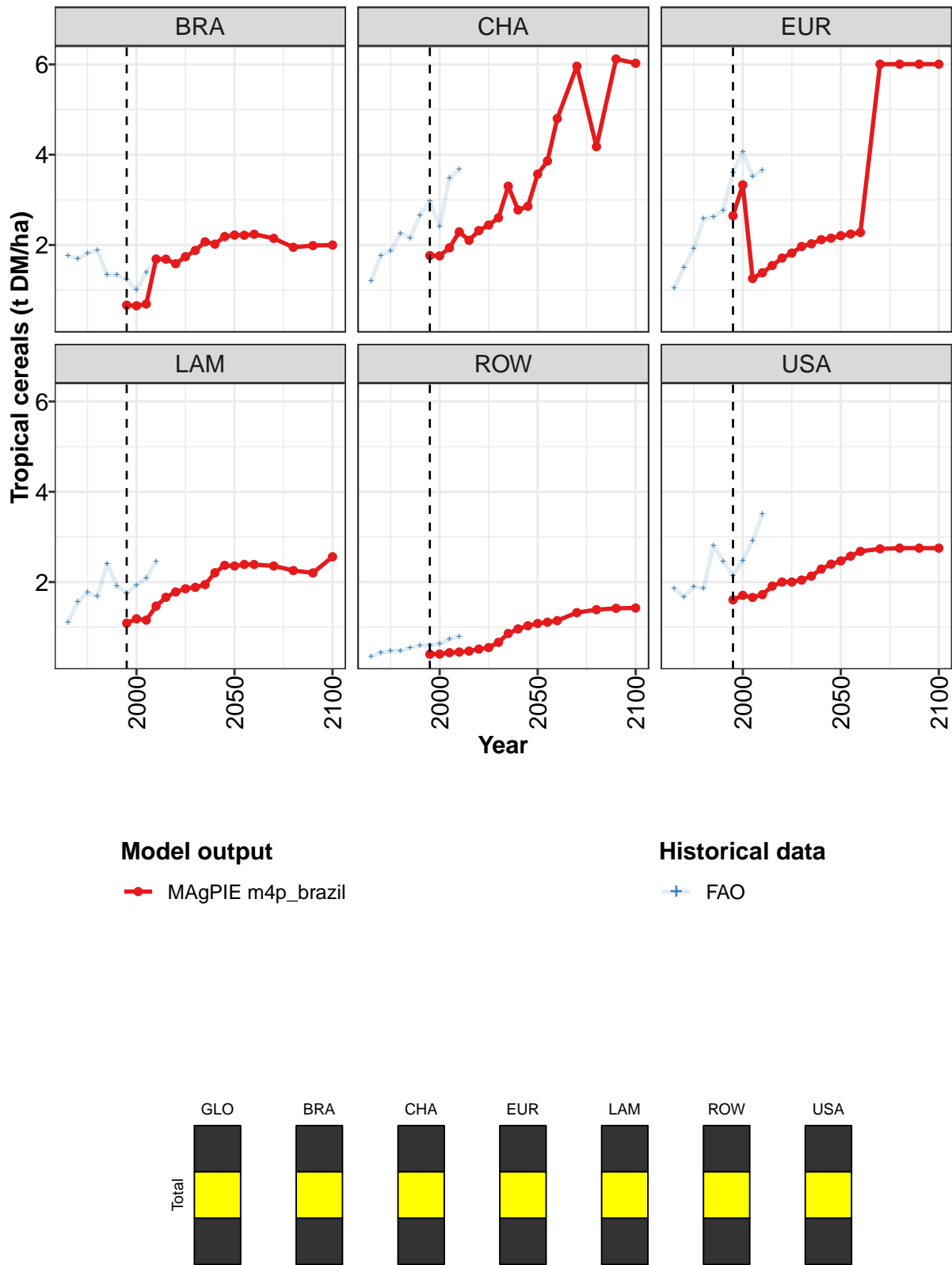


Figure 381: MAGPIE m4p_brazil — Productivity—Yield—Crops—Cereals—Tropical cereals (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.54	0.54	0.54	0.58	0.63	0.75	0.81	0.99	1.26	1.33	1.40
BRA	0.67	0.65	0.69	1.69	1.69	1.59	1.74	1.88	2.07	2.02	2.19
CHA	1.77	1.76	1.94	2.29	2.10	2.32	2.44	2.60	3.30	2.78	2.86
EUR	2.65	3.33	1.26	1.39	1.54	1.71	1.82	1.97	2.03	2.12	2.15
LAM	1.09	1.19	1.16	1.47	1.66	1.78	1.85	1.88	1.94	2.21	2.37
ROW	0.40	0.41	0.44	0.45	0.47	0.52	0.55	0.67	0.86	0.96	1.03
USA	1.61	1.71	1.66	1.72	1.91	2.00	2.00	2.05	2.13	2.29	2.40

Table 1483: MAgPIE m4p.brazil — Productivity—Yield—Crops—Cereals—Tropical cereals (t DM/ha) [PART 1/2]

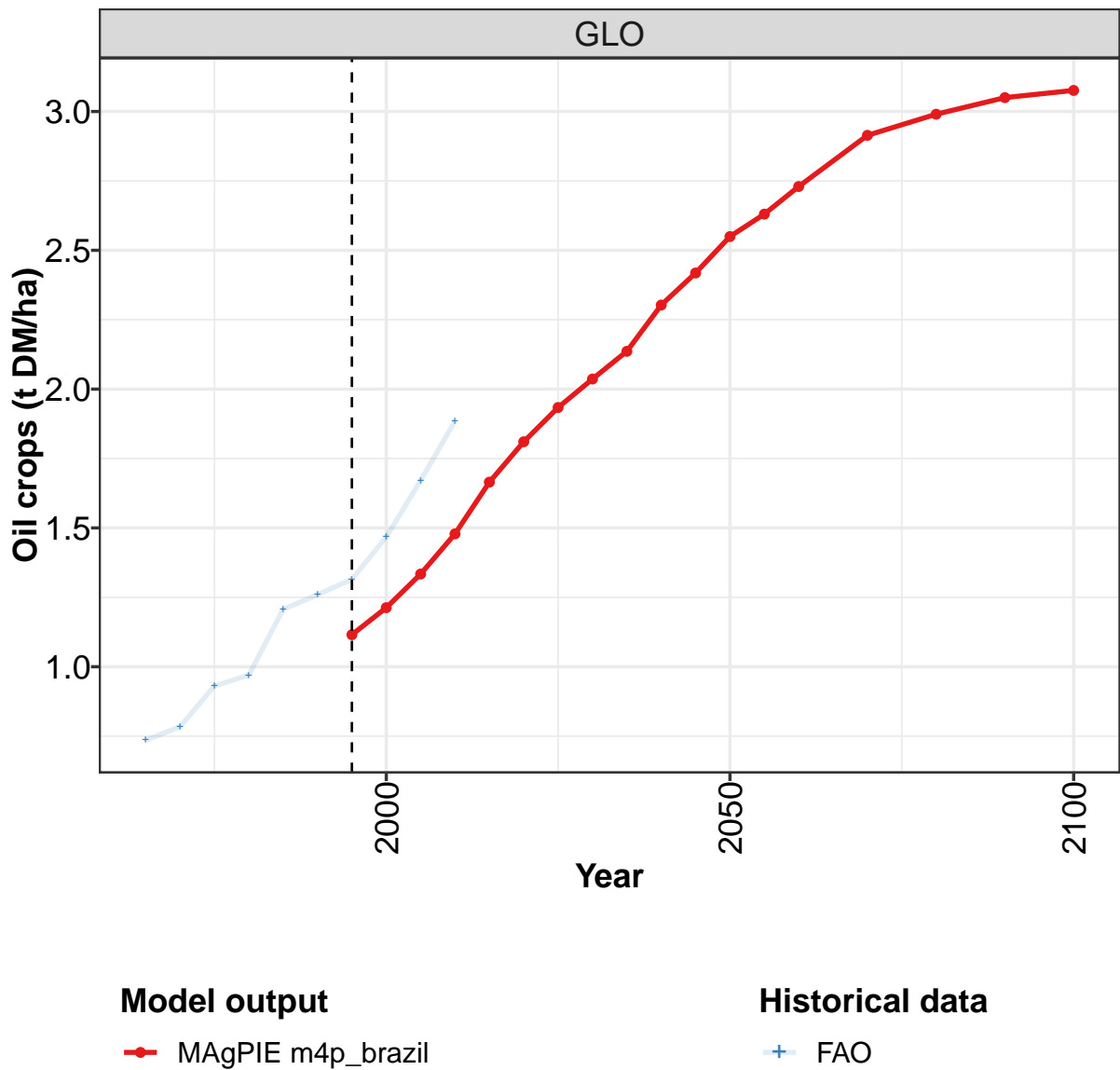
	2050	2055	2060	2070	2080	2090	2100
GLO	1.51	1.53	1.49	1.62	1.63	1.64	1.65
BRA	2.22	2.22	2.24	2.15	1.95	1.99	2.00
CHA	3.57	3.86	4.80	5.96	4.18	6.12	6.02
EUR	2.21	2.24	2.28	6.00	6.00	6.00	6.00
LAM	2.36	2.39	2.39	2.36	2.26	2.20	2.56
ROW	1.08	1.11	1.15	1.32	1.39	1.42	1.43
USA	2.47	2.57	2.68	2.74	2.75	2.75	2.75

Table 1484: MAgPIE m4p.brazil — 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
BRA	1.76	1.69	1.81	1.88	1.34	1.33	1.24	1.01	1.39	1.70
CHA	1.20	1.77	1.86	2.26	2.16	2.67	2.97	2.41	3.48	3.67
EUR	1.04	1.50	1.92	2.58	2.62	2.76	3.61	4.06	3.51	3.65
LAM	1.11	1.55	1.77	1.68	2.41	1.91	1.75	1.94	2.09	2.46
ROW	0.36	0.44	0.47	0.48	0.54	0.59	0.60	0.63	0.74	0.80
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



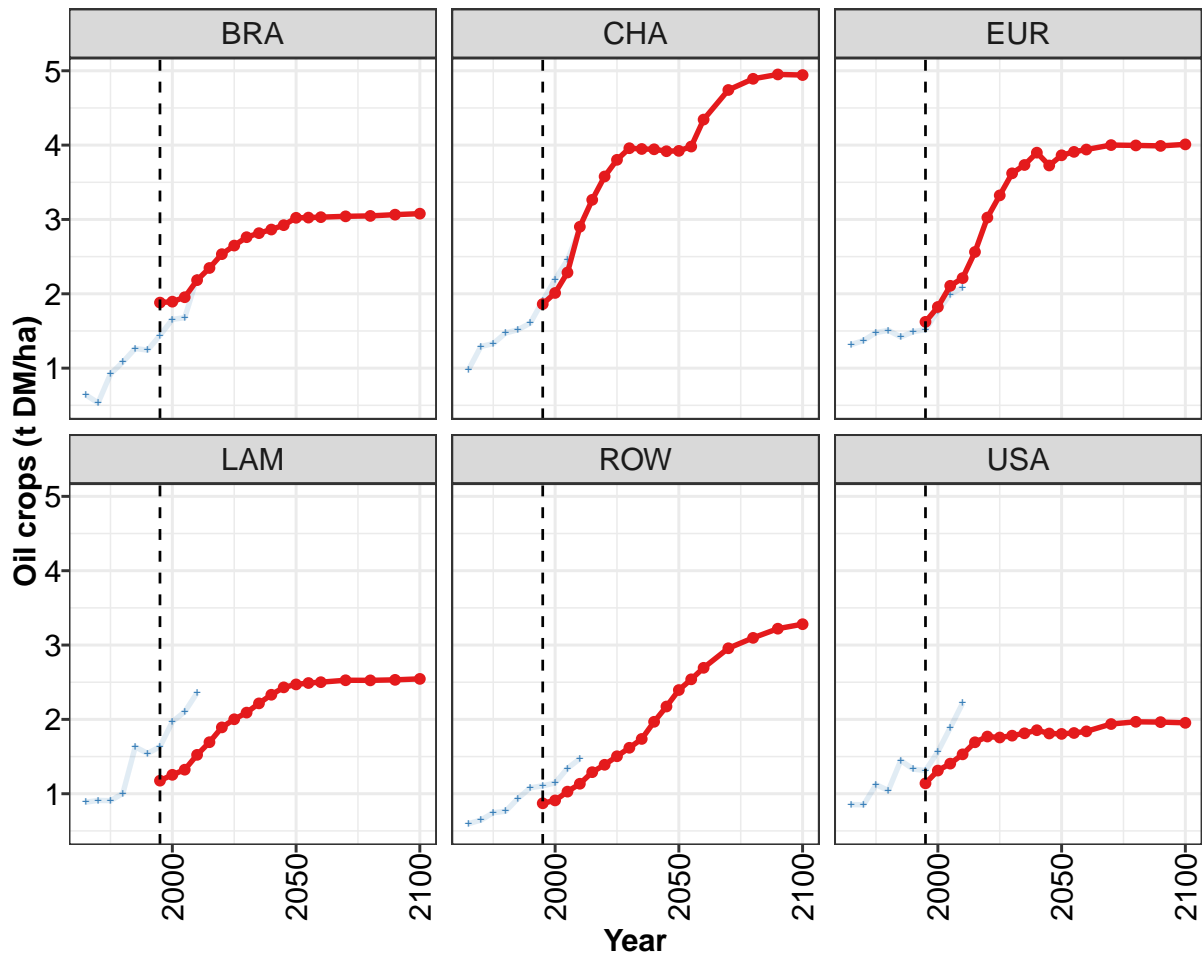


Figure 382: MAgPIE m4p_brazil — Productivity—Yield—Crops—Oil crops (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.12	1.21	1.33	1.48	1.66	1.81	1.93	2.04	2.14	2.30	2.42
BRA	1.88	1.89	1.95	2.18	2.35	2.53	2.65	2.76	2.82	2.86	2.92
CHA	1.86	2.01	2.29	2.90	3.26	3.58	3.80	3.96	3.95	3.94	3.92
EUR	1.62	1.82	2.11	2.21	2.56	3.03	3.32	3.62	3.73	3.90	3.73
LAM	1.18	1.25	1.32	1.52	1.69	1.89	2.00	2.09	2.22	2.33	2.43
ROW	0.87	0.91	1.03	1.13	1.29	1.39	1.50	1.62	1.74	1.97	2.17
USA	1.14	1.31	1.41	1.53	1.69	1.77	1.76	1.78	1.81	1.85	1.81

Table 1486: MAgPIE m4p.brazil — Productivity—Yield—Crops—Oil crops (t DM/ha) [PART 1/2]

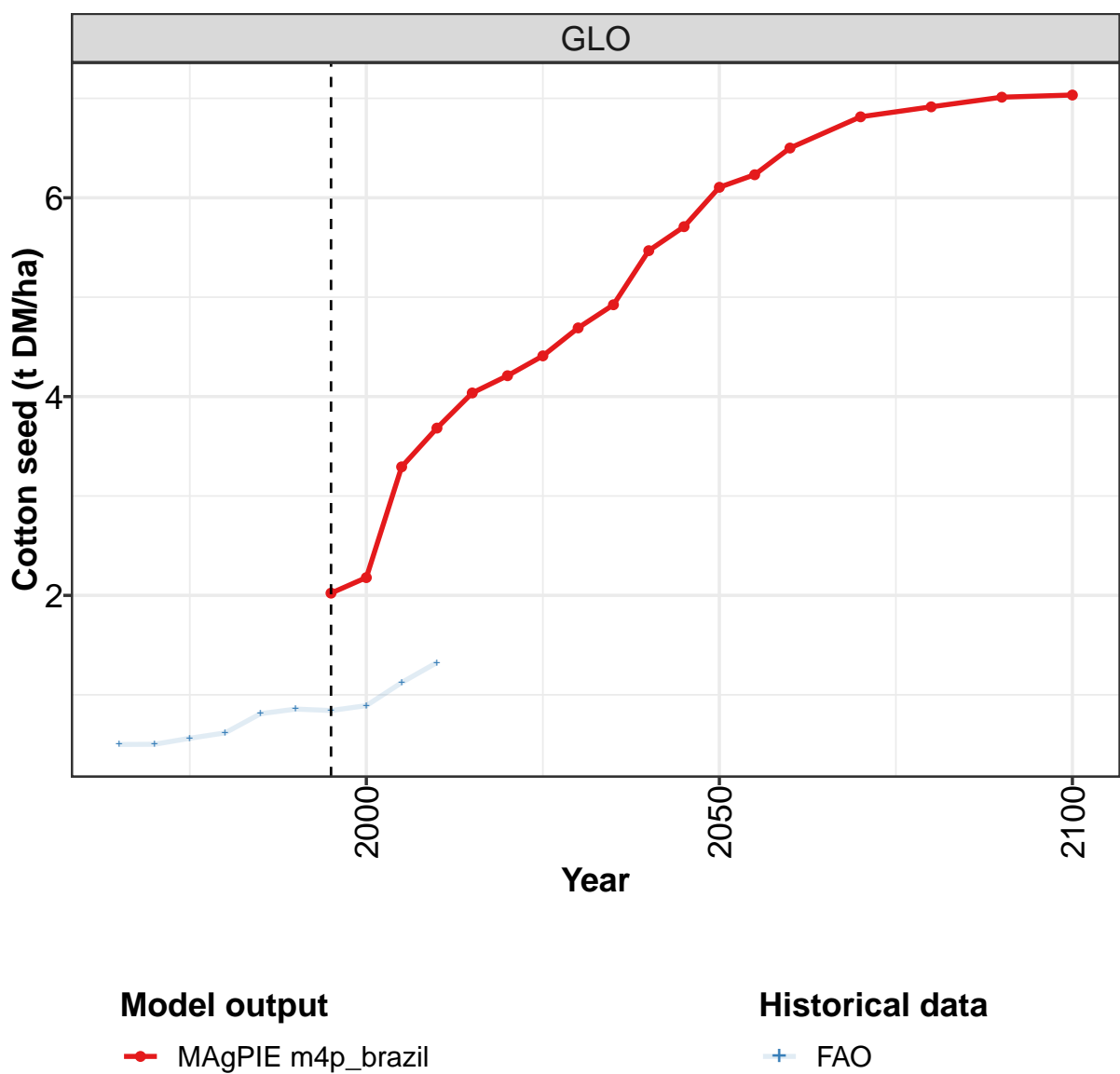
	2050	2055	2060	2070	2080	2090	2100
GLO	2.55	2.63	2.73	2.91	2.99	3.05	3.08
BRA	3.02	3.03	3.03	3.04	3.05	3.06	3.08
CHA	3.92	3.98	4.34	4.74	4.89	4.95	4.94
EUR	3.86	3.91	3.94	4.00	4.00	3.99	4.01
LAM	2.47	2.49	2.50	2.53	2.53	2.53	2.54
ROW	2.40	2.54	2.69	2.96	3.10	3.22	3.28
USA	1.80	1.82	1.84	1.94	1.97	1.96	1.95

Table 1487: MAgPIE m4p.brazil — 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
BRA	0.64	0.53	0.92	1.08	1.26	1.24	1.44	1.66	1.68	2.22
CHA	0.98	1.29	1.33	1.47	1.52	1.61	1.91	2.19	2.46	2.88
EUR	1.32	1.37	1.48	1.51	1.42	1.49	1.52	1.77	1.99	2.08
LAM	0.89	0.91	0.91	1.00	1.63	1.54	1.63	1.97	2.10	2.36
ROW	0.60	0.65	0.74	0.76	0.94	1.08	1.11	1.14	1.34	1.47
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



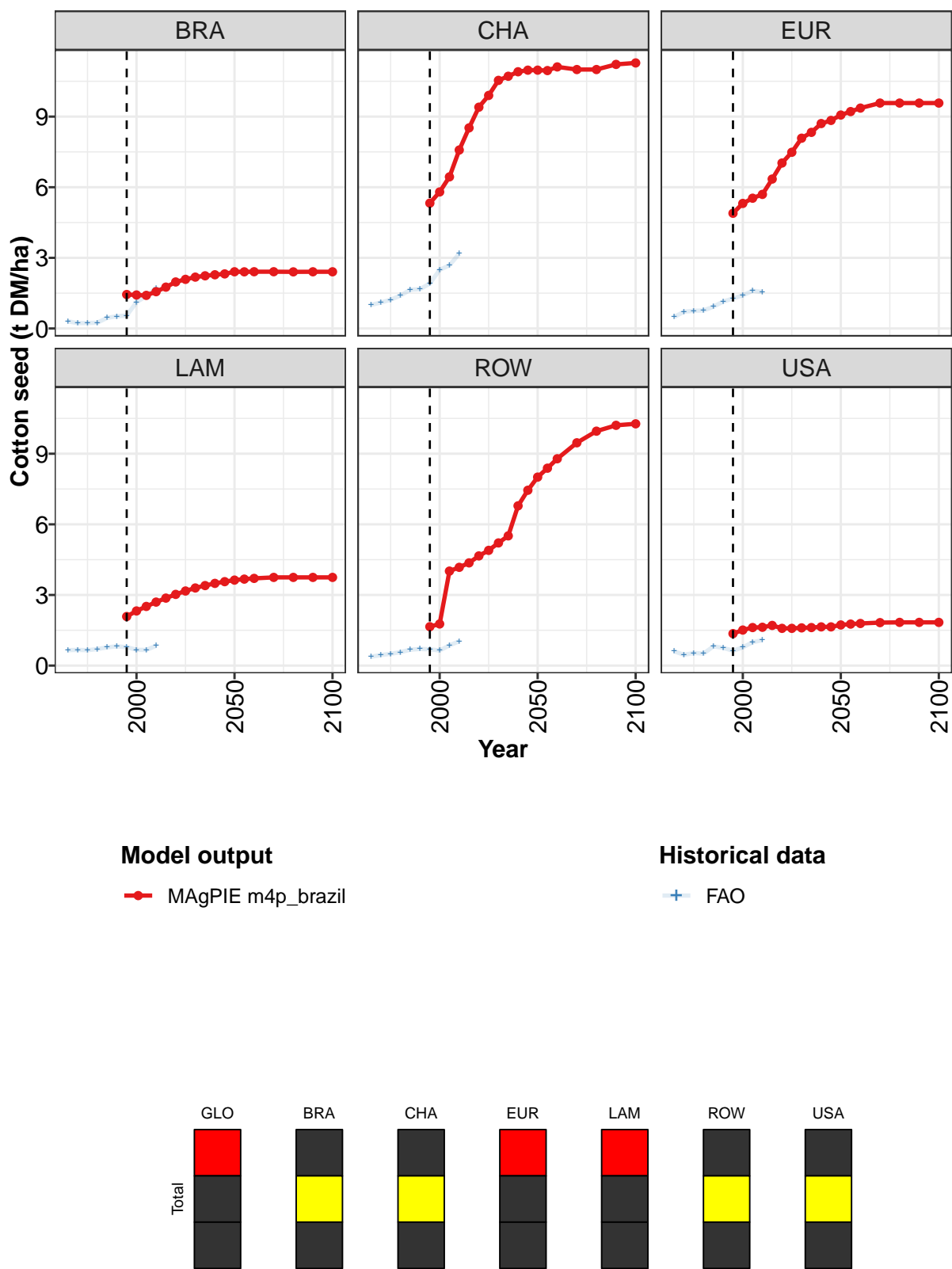


Figure 383: MAGPIE m4p_brazil — Productivity—Yield—Crops—Oil crops—Cotton seed (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.0	2.2	3.3	3.7	4.0	4.2	4.4	4.7	4.9	5.5	5.7
BRA	1.4	1.4	1.4	1.6	1.8	2.0	2.1	2.2	2.2	2.3	2.3
CHA	5.3	5.8	6.4	7.6	8.5	9.4	9.9	10.5	10.7	10.9	11.0
EUR	4.9	5.3	5.5	5.7	6.3	7.0	7.5	8.1	8.3	8.7	8.8
LAM	2.1	2.3	2.5	2.7	2.9	3.0	3.2	3.3	3.4	3.5	3.6
ROW	1.7	1.8	4.0	4.2	4.4	4.7	4.9	5.2	5.5	6.8	7.4
USA	1.4	1.5	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6

Table 1489: MAgPIE m4p_brazil — Productivity—Yield—Crops—Oil crops—Cotton seed (t DM/ha) [PART 1/2]

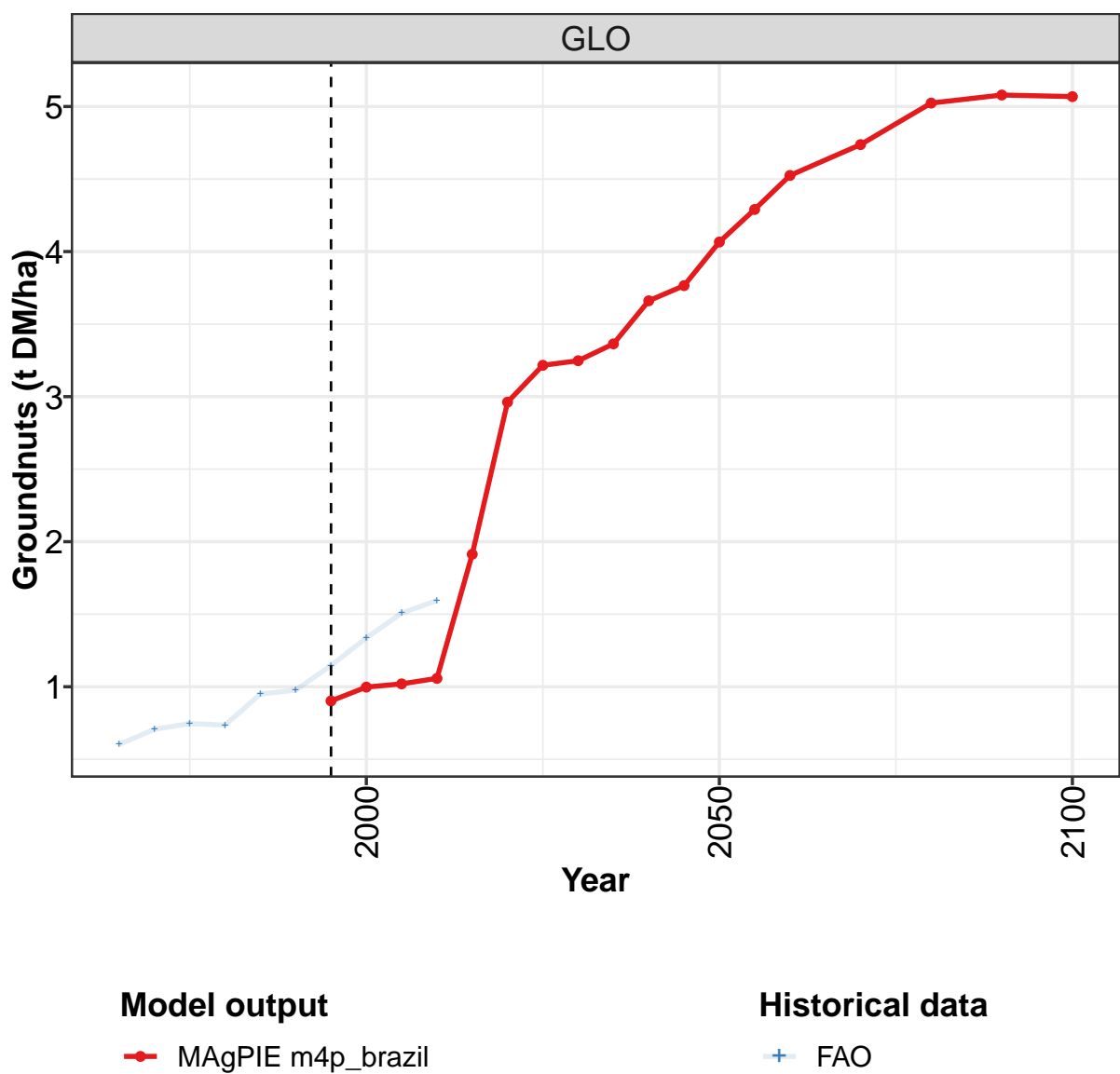
	2050	2055	2060	2070	2080	2090	2100
GLO	6.1	6.2	6.5	6.8	6.9	7.0	7.0
BRA	2.4	2.4	2.4	2.4	2.4	2.4	2.4
CHA	11.0	11.0	11.1	11.0	11.0	11.2	11.3
EUR	9.1	9.2	9.4	9.6	9.6	9.6	9.6
LAM	3.6	3.7	3.7	3.7	3.7	3.7	3.7
ROW	8.0	8.4	8.8	9.5	10.0	10.2	10.3
USA	1.7	1.8	1.8	1.8	1.8	1.8	1.8

Table 1490: MAgPIE m4p_brazil — 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
BRA	0.30	0.23	0.23	0.25	0.45	0.52	0.55	1.12	1.38	1.72
CHA	1.00	1.10	1.22	1.40	1.64	1.67	1.91	2.49	2.68	3.18
EUR	0.49	0.71	0.75	0.77	0.93	1.14	1.27	1.41	1.60	1.55
LAM	0.66	0.67	0.65	0.70	0.77	0.82	0.78	0.67	0.66	0.84
ROW	0.38	0.45	0.50	0.57	0.67	0.71	0.69	0.64	0.86	1.04
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



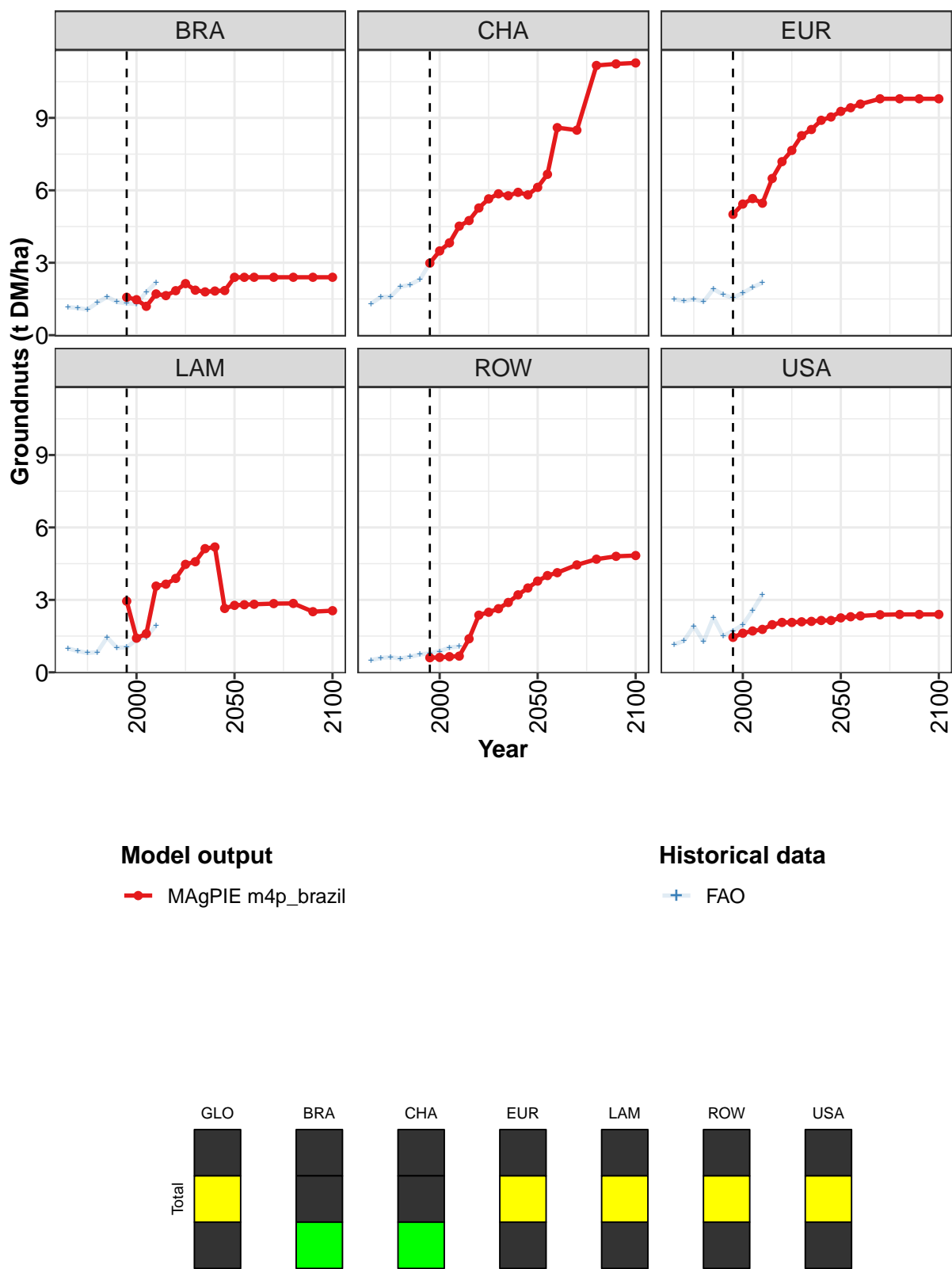


Figure 384: MAGPIE m4p_brazil — Productivity—Yield—Crops—Oil crops—Groundnuts (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.9	1.0	1.0	1.1	1.9	3.0	3.2	3.2	3.4	3.7	3.8
BRA	1.6	1.5	1.2	1.7	1.6	1.8	2.1	1.9	1.8	1.8	1.8
CHA	3.0	3.5	3.8	4.5	4.7	5.3	5.6	5.9	5.8	5.9	5.8
EUR	5.0	5.4	5.7	5.5	6.5	7.2	7.7	8.3	8.5	8.9	9.0
LAM	2.9	1.4	1.6	3.6	3.7	3.9	4.5	4.6	5.1	5.2	2.6
ROW	0.6	0.6	0.6	0.7	1.4	2.4	2.5	2.6	2.9	3.2	3.5
USA	1.4	1.6	1.7	1.8	2.0	2.1	2.1	2.1	2.1	2.1	2.1

Table 1492: MAgPIE m4p_brazil — Productivity—Yield—Crops—Oil crops—Groundnuts (t DM/ha) [PART 1/2]

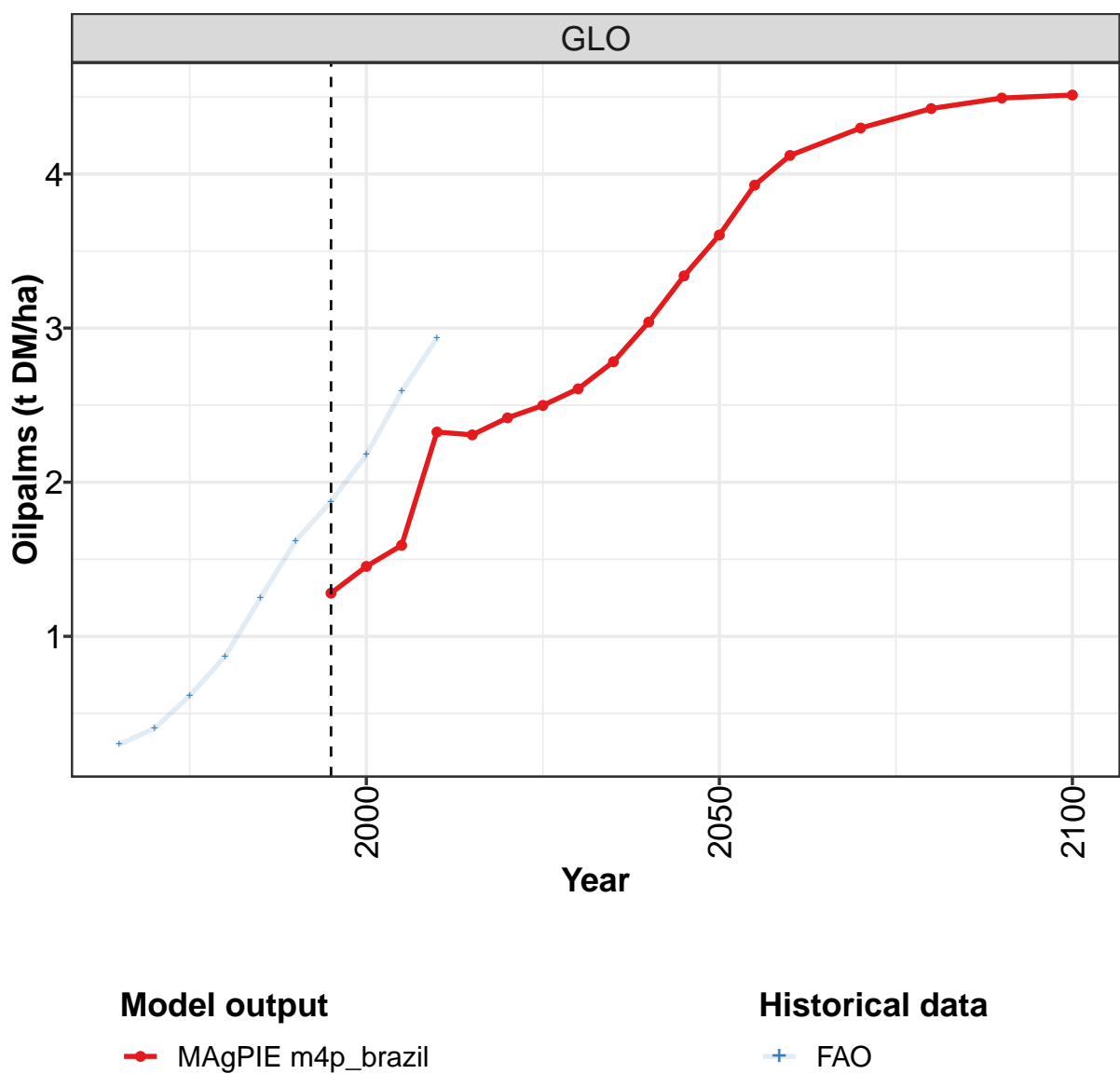
	2050	2055	2060	2070	2080	2090	2100
GLO	4.1	4.3	4.5	4.7	5.0	5.1	5.1
BRA	2.4	2.4	2.4	2.4	2.4	2.4	2.4
CHA	6.1	6.7	8.6	8.5	11.2	11.2	11.3
EUR	9.3	9.4	9.6	9.8	9.8	9.8	9.8
LAM	2.8	2.8	2.8	2.8	2.9	2.5	2.6
ROW	3.8	4.0	4.1	4.4	4.7	4.8	4.8
USA	2.3	2.3	2.3	2.4	2.4	2.4	2.4

Table 1493: MAgPIE m4p_brazil — 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
BRA	1.16	1.13	1.06	1.34	1.59	1.38	1.32	1.29	1.79	2.17
CHA	1.31	1.58	1.59	2.00	2.09	2.32	2.98	3.46	3.73	4.55
EUR	1.50	1.41	1.50	1.39	1.91	1.68	1.54	1.75	1.98	2.17
LAM	0.99	0.88	0.80	0.83	1.45	1.02	1.03	1.35	1.46	1.94
ROW	0.50	0.60	0.63	0.57	0.64	0.74	0.80	0.87	1.03	1.07
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



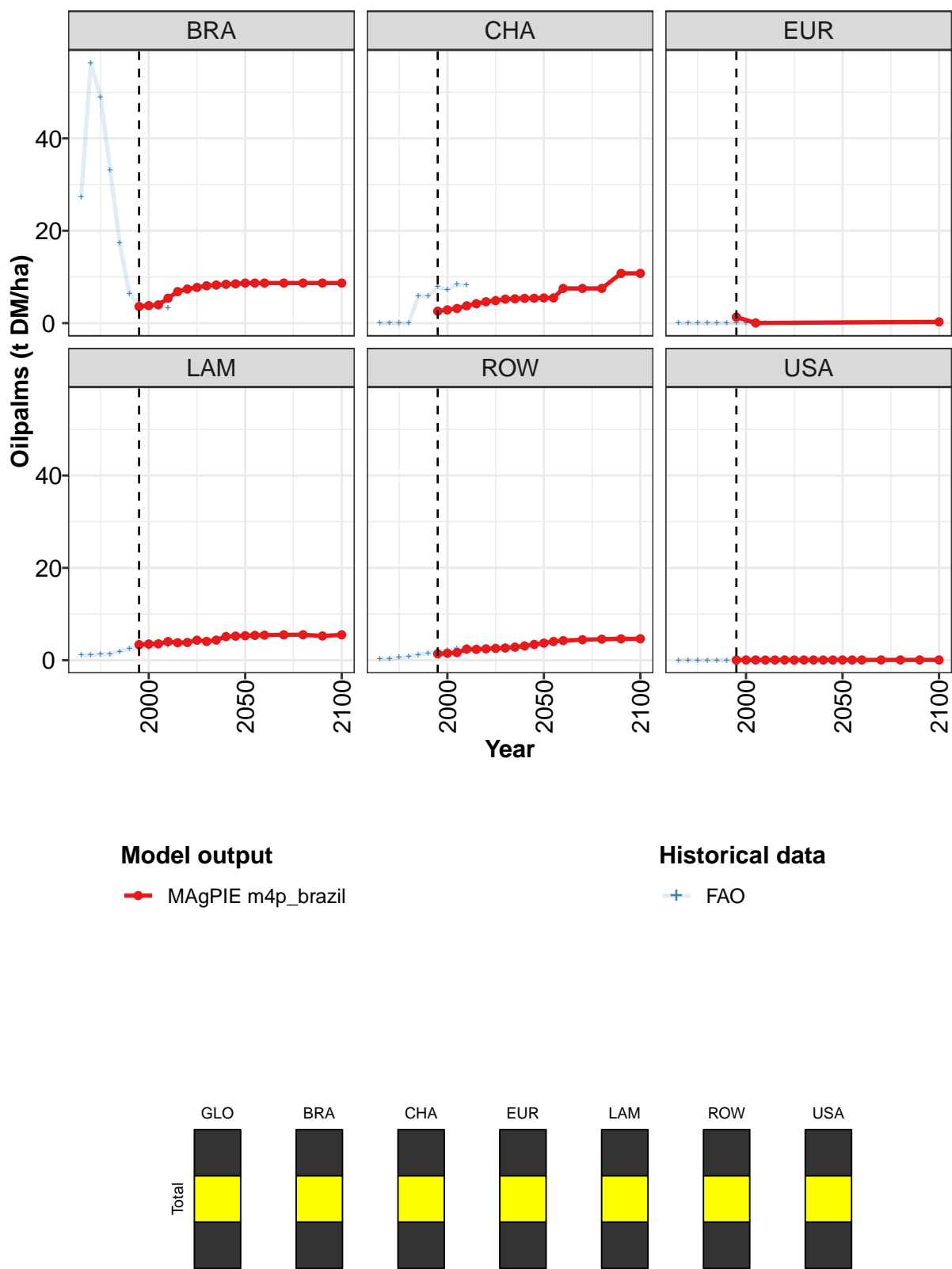


Figure 385: MAgPIE m4p_brazil — Productivity—Yield—Crops—Oil crops—Oilpalms (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1	1	2	2	2	2	2	3	3	3	3
BRA	4	4	4	5	7	7	8	8	8	8	9
CHA	3	3	3	4	4	5	5	5	5	5	5
EUR	1		0								
LAM	3	4	4	4	4	4	4	4	4	5	5
ROW	1	2	2	2	2	2	3	3	3	3	3
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1495: MAgPIE m4p.brazil — Productivity—Yield—Crops—Oil crops—Oilpalms (t DM/ha) [PART 1/2]

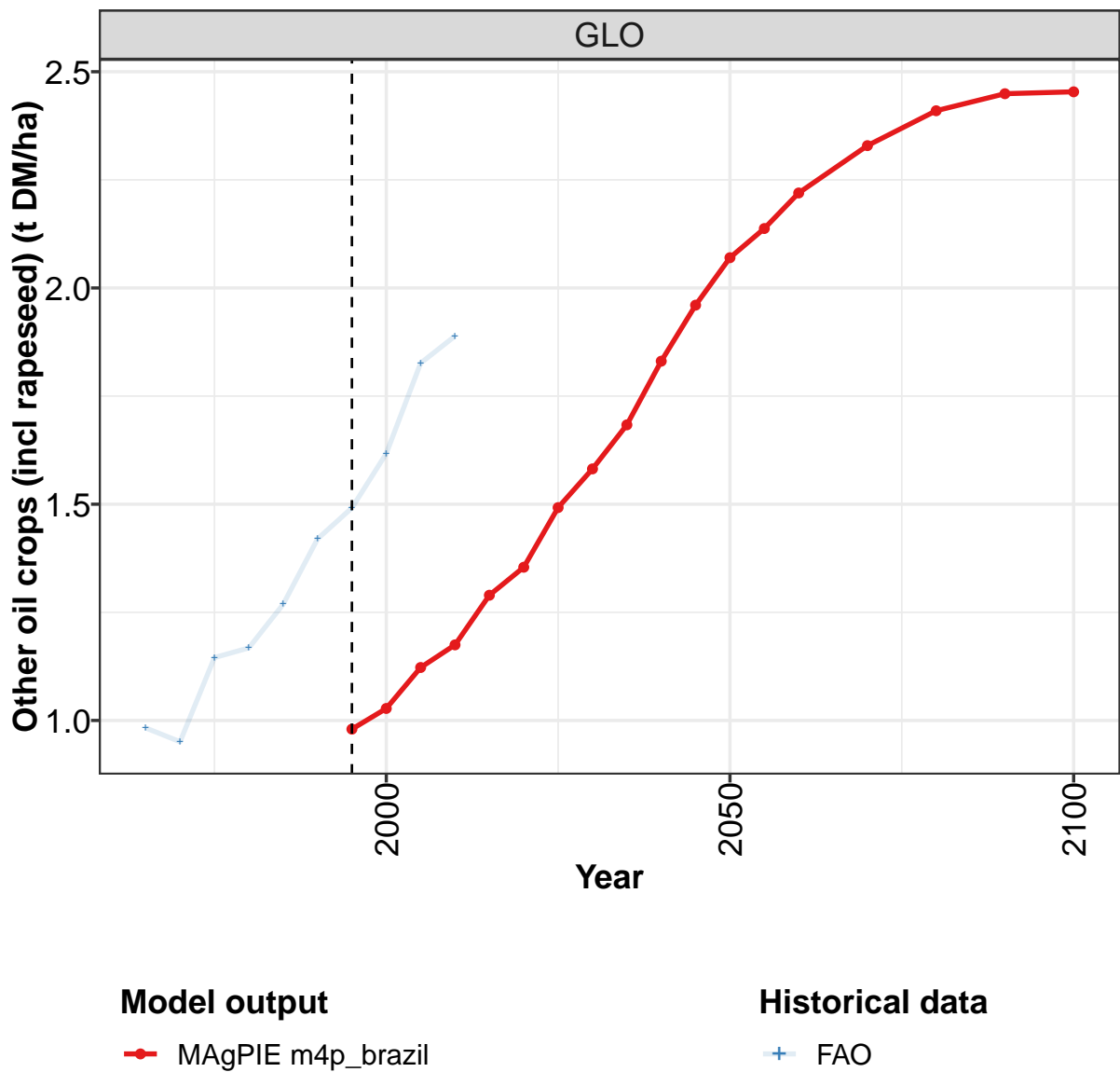
	2050	2055	2060	2070	2080	2090	2100
GLO	4	4	4	4	4	4	5
BRA	9	9	9	9	9	9	9
CHA	5	5	8	8	8	11	11
EUR							0
LAM	5	5	5	6	6	5	6
ROW	4	4	4	4	5	5	5
USA	0	0	0	0	0	0	0

Table 1496: MAgPIE m4p.brazil — Productivity—Yield—Crops—Oil crops—Oilpalms (t DM/ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.3	0.4	0.6	0.9	1.2	1.6	1.9	2.2	2.6	2.9
BRA	27.2	56.3	49.0	33.2	17.3	6.3	4.0	3.7	4.0	3.3
CHA	0.0	0.0	0.0	0.0	5.9	5.8	7.9	7.2	8.4	8.2
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	1.1	1.2	1.3	1.3	1.9	2.5	2.5	2.7	3.3	3.2
ROW	0.3	0.4	0.6	0.8	1.2	1.5	1.8	2.1	2.5	2.9
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1497: FAO — Productivity—Yield—Crops—Oil crops—Oilpalms (t DM/ha)

52.1.10 Oil crops—Other oil crops (incl rapeseed)



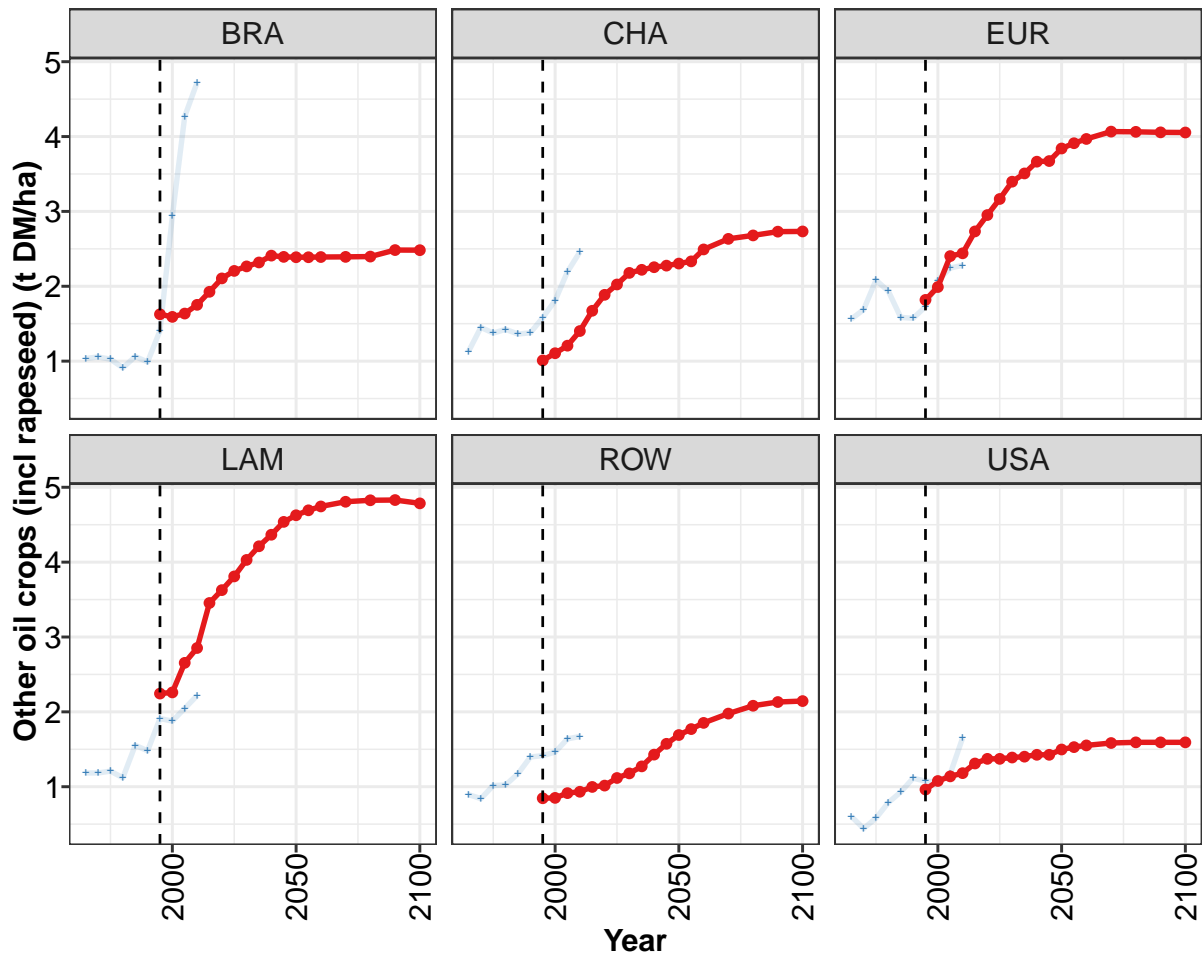


Figure 386: MAGPIE m4p_brazil — Productivity—Yield—Crops—Oil crops—Other oil crops (incl rapeseed) (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.98	1.03	1.12	1.17	1.29	1.35	1.49	1.58	1.68	1.83	1.96
BRA	1.63	1.59	1.64	1.75	1.93	2.11	2.21	2.27	2.32	2.41	2.39
CHA	1.01	1.11	1.21	1.40	1.67	1.89	2.02	2.18	2.22	2.25	2.28
EUR	1.82	1.99	2.40	2.44	2.73	2.95	3.17	3.40	3.51	3.66	3.67
LAM	2.24	2.26	2.65	2.85	3.45	3.63	3.81	4.03	4.21	4.37	4.54
ROW	0.85	0.85	0.91	0.93	1.00	1.02	1.12	1.18	1.27	1.43	1.57
USA	0.96	1.08	1.14	1.18	1.31	1.37	1.37	1.39	1.40	1.43	1.43

Table 1498: MAgPIE m4p_brazil — Productivity—Yield—Crops—Oil crops—Other oil crops (incl rapeseed) (t DM/ha) [PART 1/2]

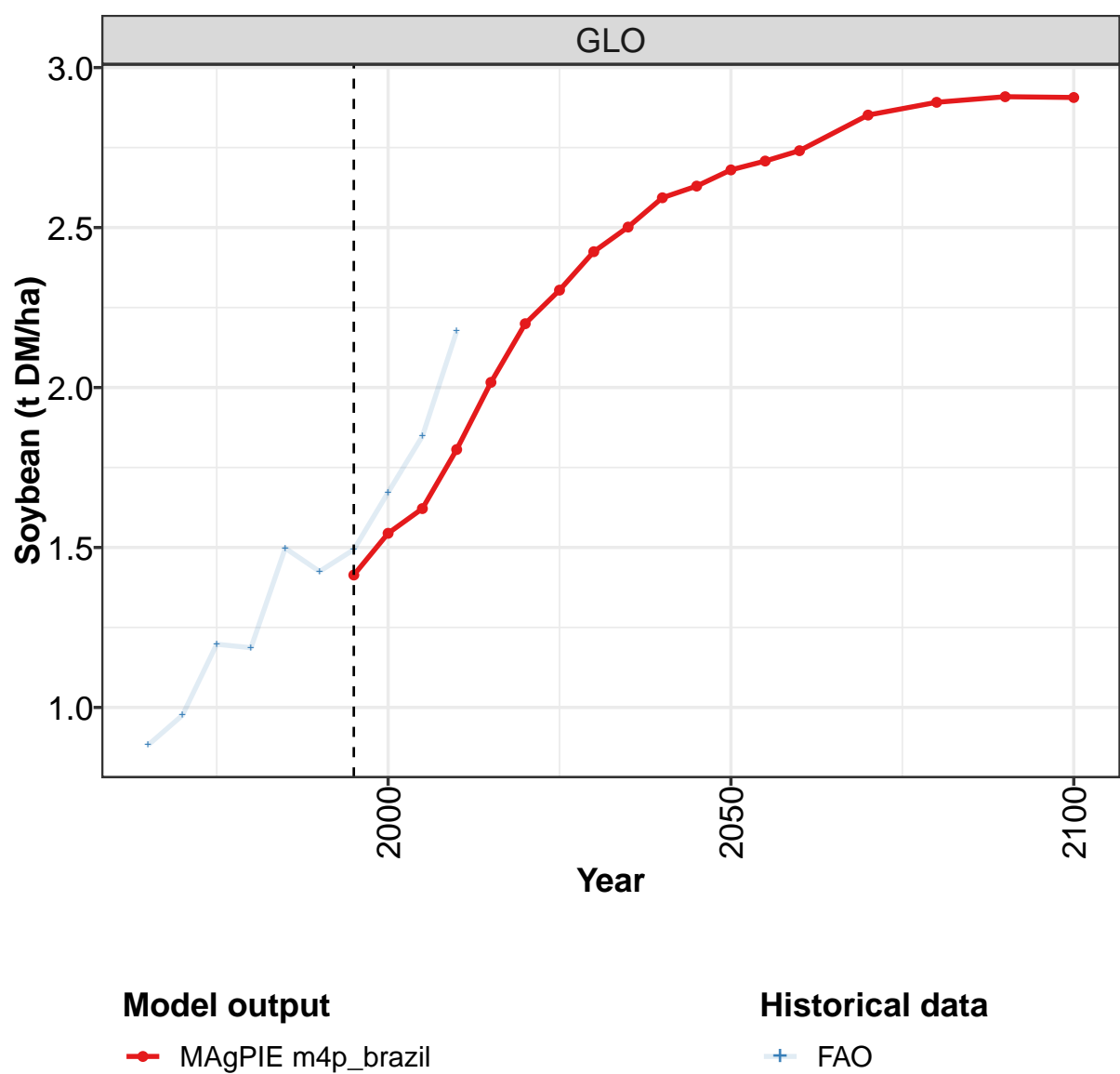
	2050	2055	2060	2070	2080	2090	2100
GLO	2.07	2.14	2.22	2.33	2.41	2.45	2.45
BRA	2.39	2.39	2.39	2.39	2.40	2.48	2.48
CHA	2.30	2.33	2.49	2.63	2.68	2.73	2.73
EUR	3.84	3.91	3.97	4.07	4.06	4.06	4.05
LAM	4.63	4.69	4.74	4.81	4.83	4.83	4.79
ROW	1.69	1.77	1.85	1.98	2.08	2.13	2.14
USA	1.50	1.53	1.55	1.58	1.59	1.59	1.59

Table 1499: MAgPIE m4p_brazil — 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	0.98	0.95	1.15	1.17	1.27	1.42	1.49	1.62	1.83	1.89
BRA	1.04	1.06	1.03	0.91	1.06	0.99	1.41	2.94	4.27	4.72
CHA	1.13	1.45	1.37	1.42	1.36	1.38	1.58	1.81	2.19	2.46
EUR	1.56	1.69	2.08	1.93	1.58	1.57	1.73	2.08	2.24	2.28
LAM	1.18	1.18	1.21	1.12	1.55	1.48	1.91	1.88	2.05	2.22
ROW	0.89	0.84	1.02	1.02	1.17	1.40	1.42	1.46	1.64	1.67
USA	0.60	0.44	0.58	0.79	0.93	1.11	1.07	1.06	1.17	1.65

Table 1500: FAO — Productivity—Yield—Crops—Oil crops—Other oil crops (incl rapeseed) (t DM/ha)

52.1.11 Oil crops—Soybean



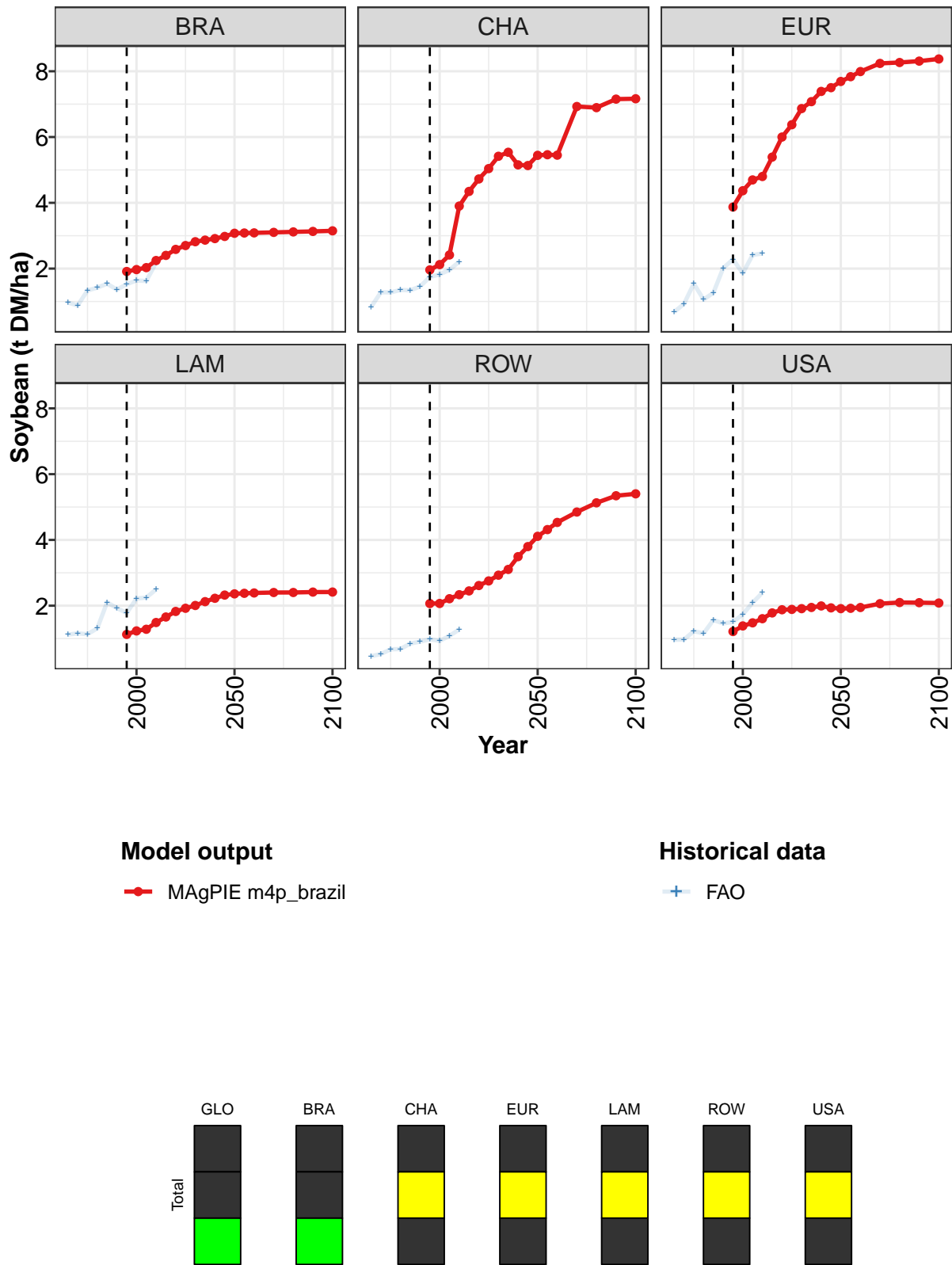


Figure 387: MAgPIE m4p_brazil — Productivity—Yield—Crops—Oil crops—Soybean (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.41	1.54	1.62	1.81	2.02	2.20	2.30	2.42	2.50	2.59	2.63
BRA	1.91	1.97	2.03	2.25	2.40	2.58	2.70	2.82	2.87	2.91	2.98
CHA	1.96	2.12	2.41	3.90	4.35	4.73	5.04	5.42	5.54	5.15	5.13
EUR	3.87	4.37	4.70	4.80	5.39	6.00	6.37	6.87	7.08	7.39	7.50
LAM	1.13	1.23	1.28	1.49	1.66	1.83	1.92	2.01	2.12	2.23	2.32
ROW	2.07	2.07	2.21	2.33	2.45	2.61	2.75	2.93	3.10	3.49	3.80
USA	1.22	1.39	1.48	1.61	1.78	1.88	1.89	1.91	1.95	1.99	1.93

Table 1501: MAgPIE m4p_brazil — Productivity—Yield—Crops—Oil crops—Soybean (t DM/ha) [PART 1/2]

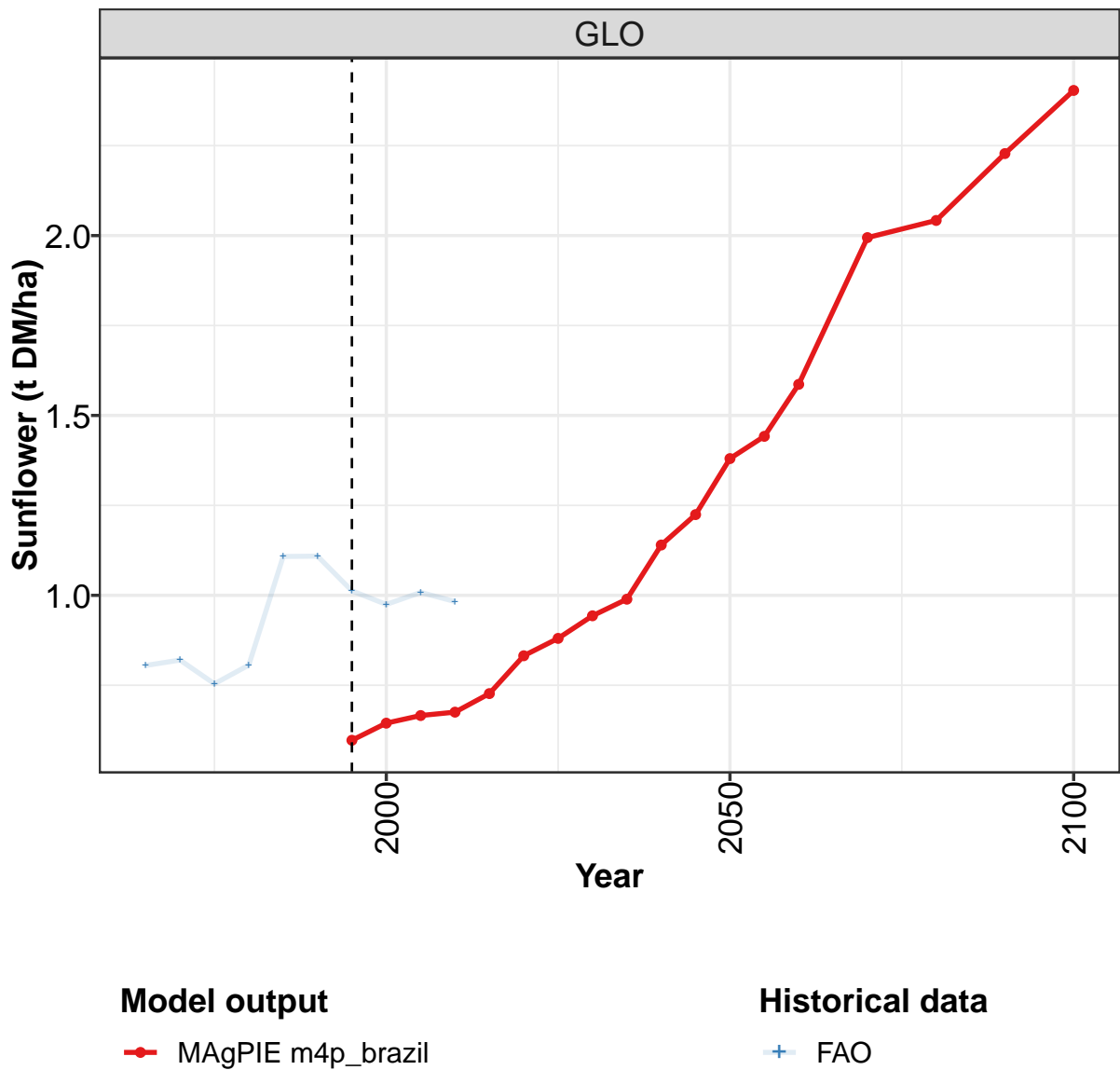
	2050	2055	2060	2070	2080	2090	2100
GLO	2.68	2.71	2.74	2.85	2.89	2.91	2.91
BRA	3.07	3.08	3.09	3.10	3.12	3.13	3.15
CHA	5.44	5.46	5.45	6.93	6.89	7.15	7.16
EUR	7.69	7.84	7.99	8.24	8.27	8.31	8.37
LAM	2.36	2.38	2.39	2.40	2.40	2.41	2.42
ROW	4.11	4.31	4.53	4.85	5.13	5.34	5.40
USA	1.91	1.92	1.95	2.06	2.10	2.09	2.08

Table 1502: MAgPIE m4p_brazil — 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
BRA	0.97	0.88	1.33	1.42	1.54	1.36	1.53	1.64	1.62	2.18
CHA	0.83	1.28	1.28	1.35	1.34	1.46	1.74	1.82	1.96	2.21
EUR	0.68	0.93	1.54	1.06	1.27	2.02	2.28	1.86	2.41	2.46
LAM	1.12	1.16	1.13	1.31	2.10	1.93	1.78	2.22	2.25	2.49
ROW	0.46	0.53	0.67	0.68	0.85	0.91	0.98	0.93	1.08	1.28
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



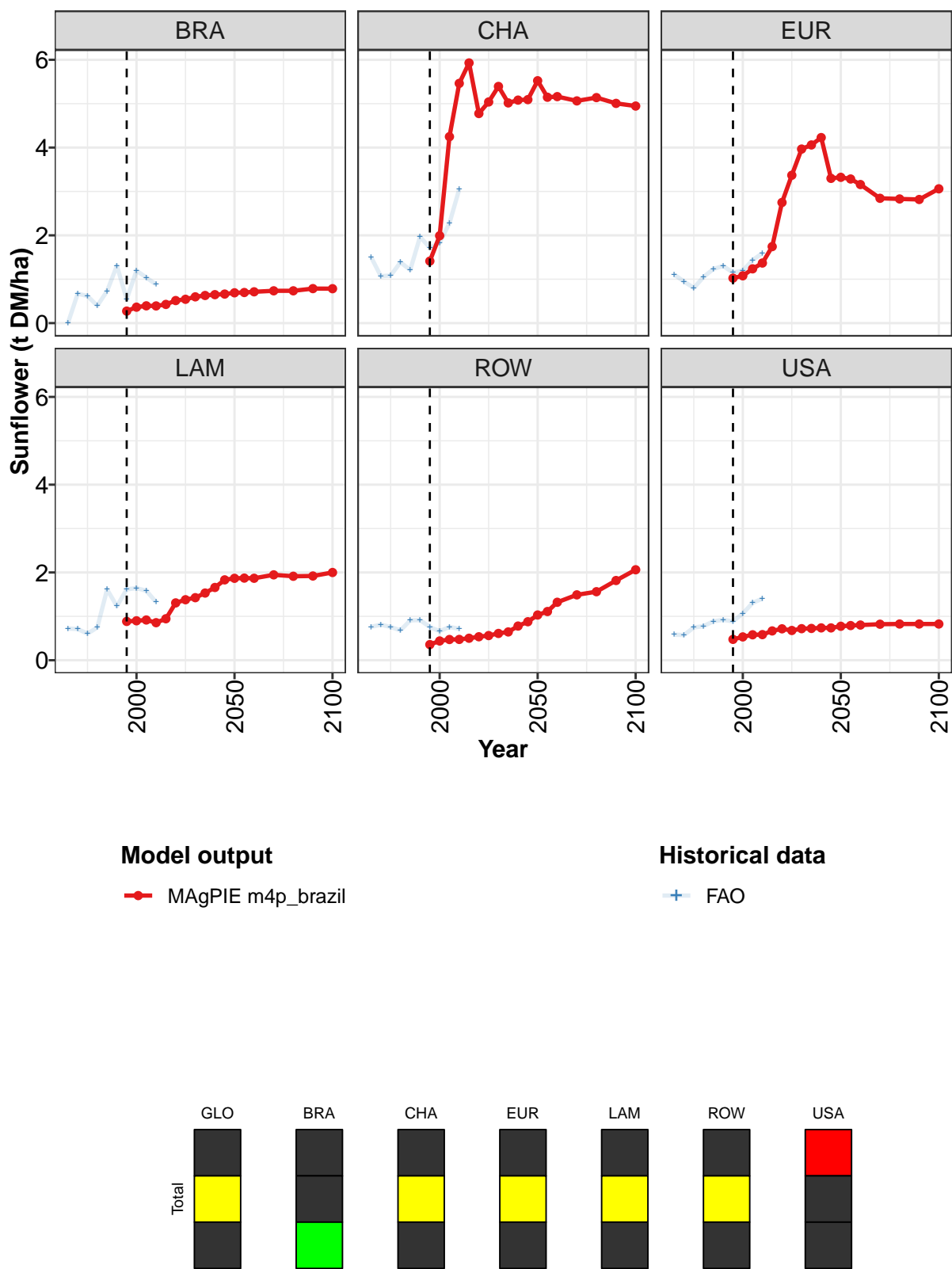


Figure 388: MAgPIE m4p_brazil — Productivity—Yield—Crops—Oil crops—Sunflower (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.60	0.64	0.67	0.68	0.73	0.83	0.88	0.94	0.99	1.14	1.22
BRA	0.27	0.36	0.39	0.39	0.43	0.51	0.54	0.60	0.63	0.65	0.66
CHA	1.41	1.99	4.25	5.46	5.93	4.78	5.04	5.39	5.02	5.08	5.09
EUR	1.02	1.08	1.24	1.37	1.74	2.75	3.37	3.97	4.06	4.23	3.30
LAM	0.88	0.90	0.92	0.86	0.95	1.31	1.38	1.43	1.53	1.66	1.83
ROW	0.36	0.44	0.47	0.47	0.50	0.53	0.56	0.61	0.64	0.78	0.88
USA	0.48	0.53	0.58	0.58	0.67	0.72	0.68	0.72	0.72	0.74	0.74

Table 1504: MAgPIE m4p_brazil — Productivity—Yield—Crops—Oil crops—Sunflower (t DM/ha) [PART 1/2]

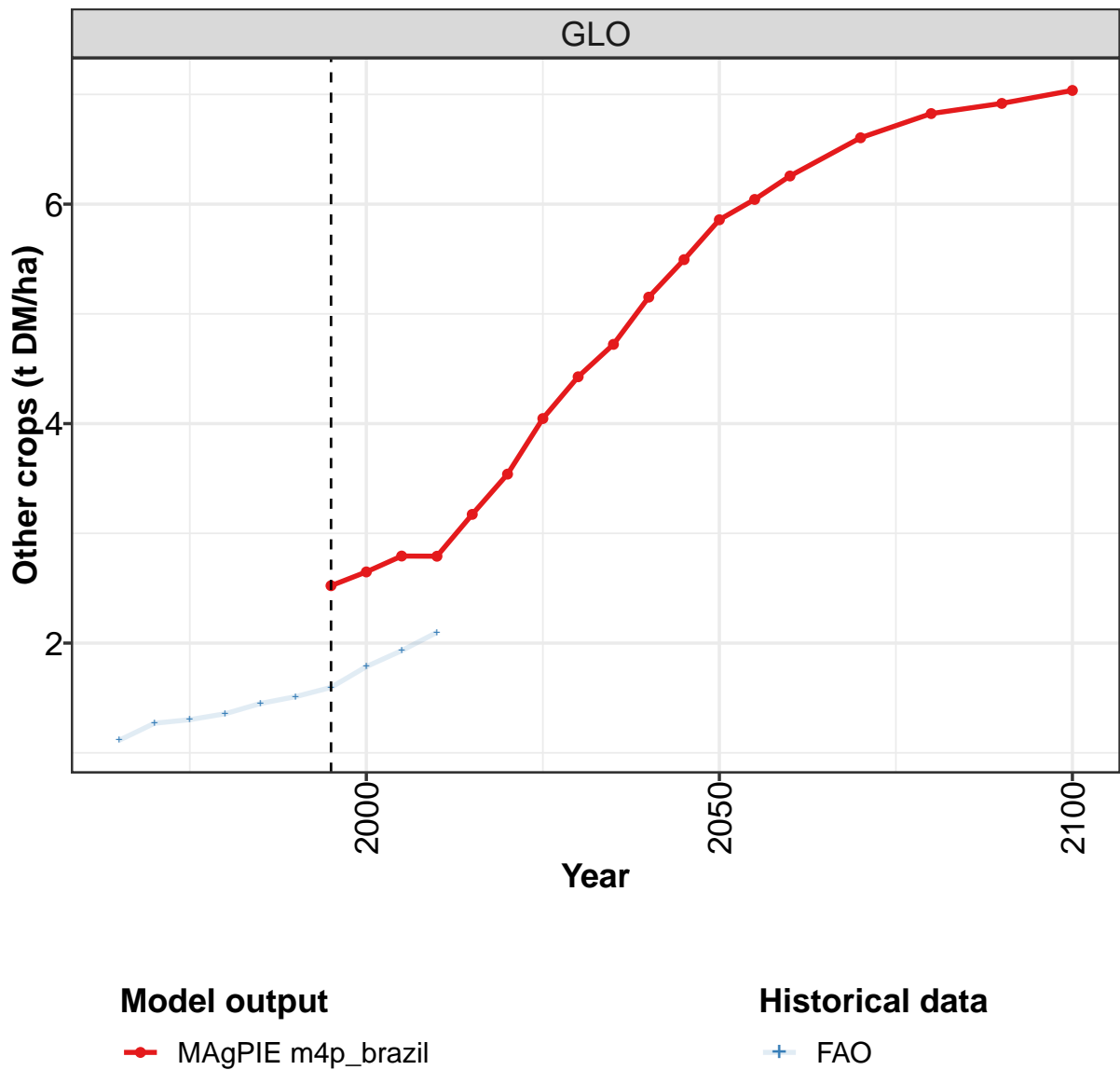
	2050	2055	2060	2070	2080	2090	2100
GLO	1.38	1.44	1.59	1.99	2.04	2.23	2.40
BRA	0.69	0.70	0.71	0.74	0.74	0.79	0.78
CHA	5.52	5.15	5.16	5.06	5.14	5.01	4.95
EUR	3.32	3.28	3.16	2.84	2.83	2.82	3.06
LAM	1.87	1.87	1.87	1.95	1.91	1.92	2.00
ROW	1.03	1.11	1.32	1.49	1.56	1.82	2.06
USA	0.77	0.79	0.80	0.82	0.83	0.83	0.83

Table 1505: MAgPIE m4p_brazil — 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
BRA	0.00	0.67	0.62	0.40	0.73	1.31	0.54	1.20	1.04	0.88
CHA	1.50	1.07	1.08	1.39	1.21	1.97	1.72	1.83	2.28	3.05
EUR	1.11	0.95	0.80	1.05	1.23	1.30	1.15	1.20	1.43	1.59
LAM	0.72	0.71	0.61	0.75	1.61	1.23	1.62	1.64	1.58	1.32
ROW	0.76	0.81	0.76	0.68	0.91	0.91	0.76	0.66	0.76	0.72
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



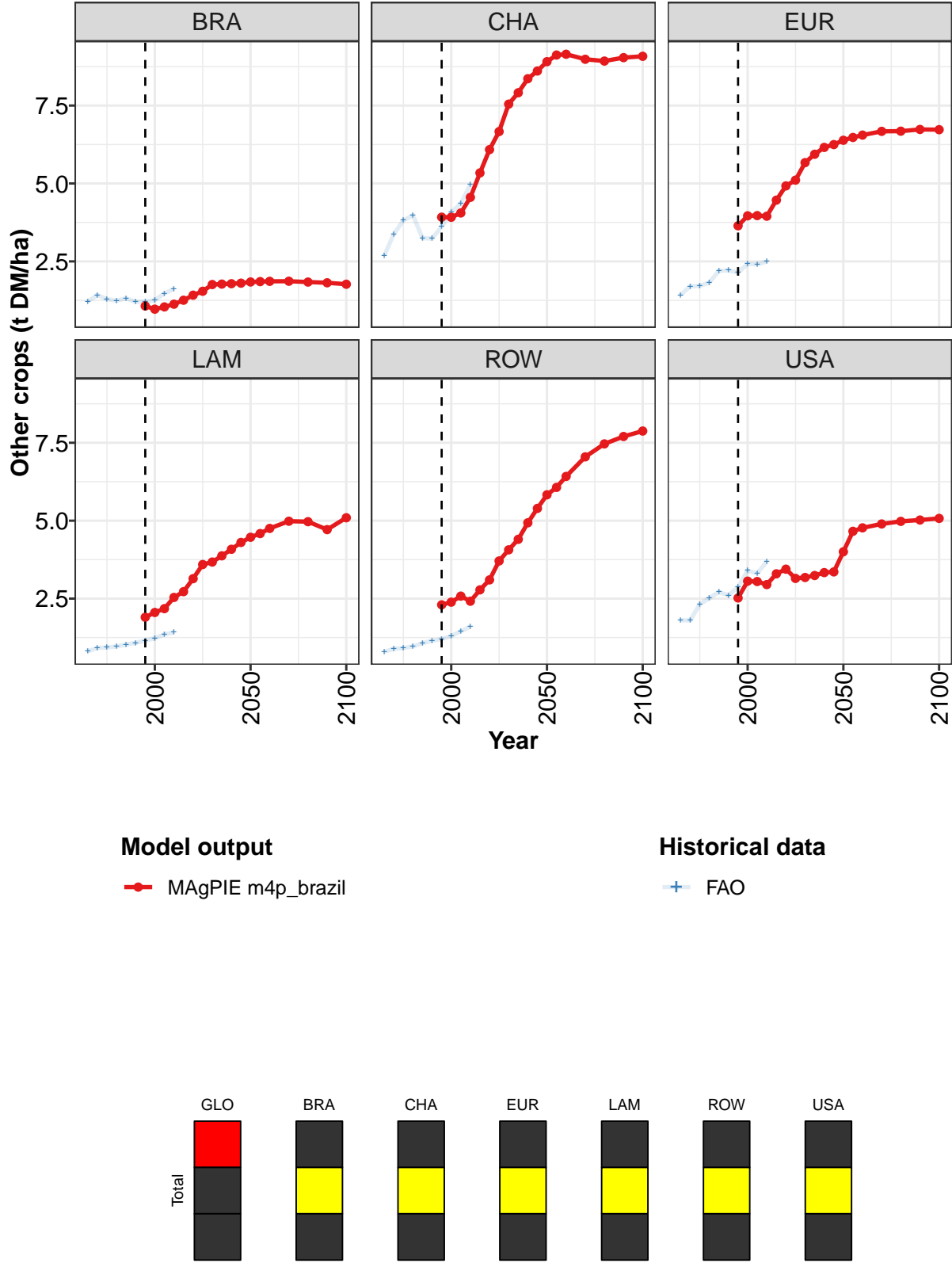


Figure 389: MAgPIE m4p_brazil — Productivity—Yield—Crops—Other crops (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.52	2.65	2.79	2.79	3.17	3.54	4.05	4.43	4.72	5.15	5.49
BRA	1.07	0.97	1.04	1.13	1.26	1.42	1.54	1.76	1.77	1.78	1.80
CHA	3.92	3.92	4.05	4.56	5.34	6.09	6.67	7.55	7.91	8.36	8.61
EUR	3.64	3.96	3.97	3.95	4.47	4.92	5.11	5.67	5.94	6.16	6.25
LAM	1.90	2.06	2.18	2.54	2.72	3.14	3.59	3.67	3.87	4.08	4.30
ROW	2.30	2.39	2.58	2.42	2.78	3.10	3.71	4.06	4.40	4.93	5.39
USA	2.52	3.06	3.05	2.95	3.30	3.44	3.15	3.18	3.24	3.33	3.36

Table 1507: MAgPIE m4p_brazil — Productivity—Yield—Crops—Other crops (t DM/ha) [PART 1/2]

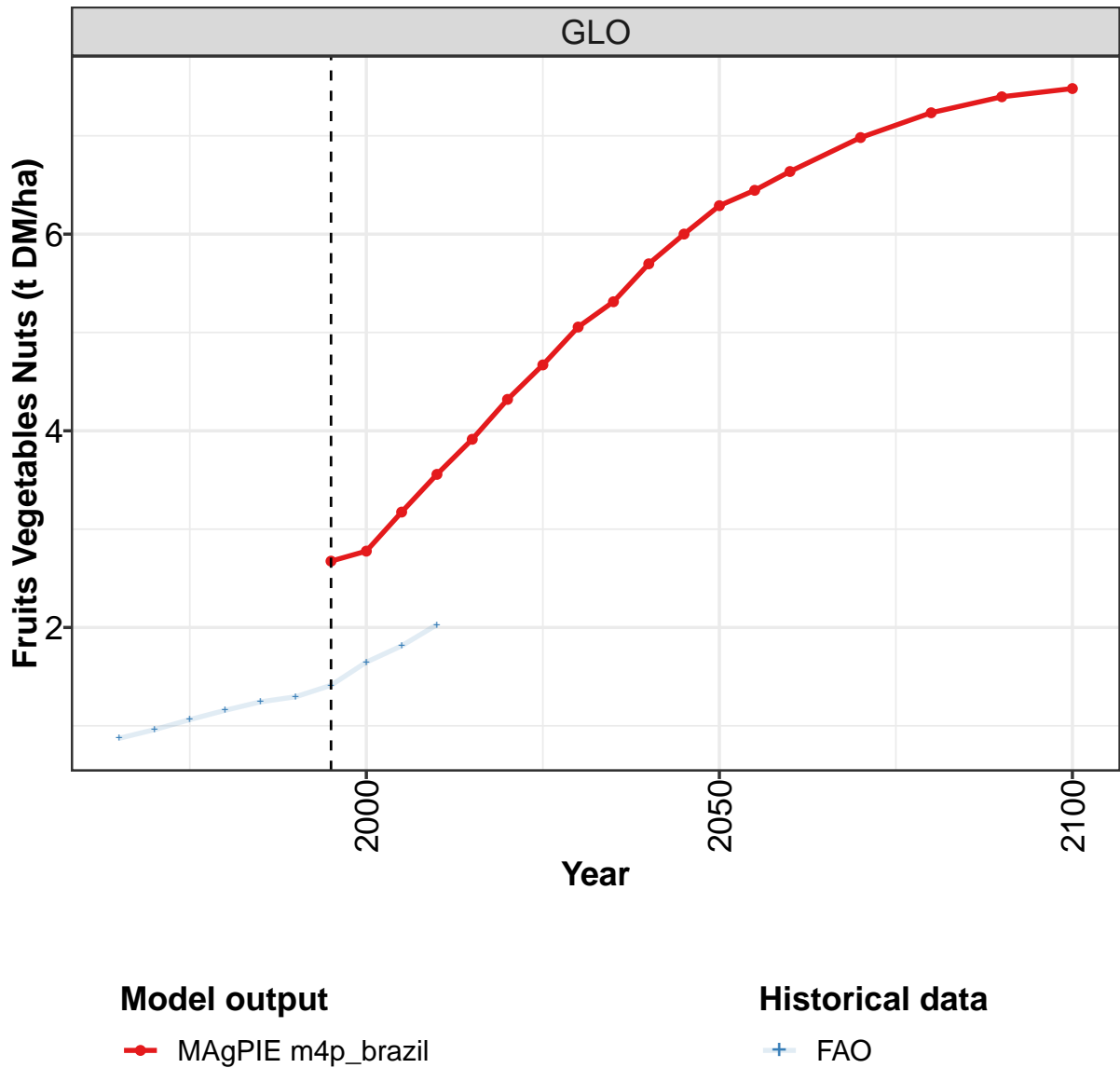
	2050	2055	2060	2070	2080	2090	2100
GLO	5.86	6.04	6.26	6.60	6.83	6.92	7.04
BRA	1.84	1.85	1.86	1.86	1.84	1.81	1.77
CHA	8.91	9.12	9.15	8.99	8.93	9.04	9.08
EUR	6.39	6.48	6.55	6.67	6.68	6.73	6.73
LAM	4.47	4.59	4.75	4.98	4.97	4.71	5.10
ROW	5.83	6.07	6.42	7.05	7.46	7.70	7.88
USA	4.00	4.66	4.77	4.89	4.98	5.02	5.07

Table 1508: MAgPIE m4p_brazil — 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
BRA	1.22	1.42	1.29	1.24	1.31	1.20	1.20	1.25	1.47	1.62
CHA	2.68	3.38	3.81	3.98	3.25	3.23	3.61	4.08	4.36	4.97
EUR	1.42	1.70	1.71	1.82	2.20	2.21	2.14	2.42	2.41	2.49
LAM	0.81	0.92	0.93	0.96	1.03	1.08	1.15	1.23	1.35	1.42
ROW	0.80	0.89	0.91	0.96	1.07	1.15	1.20	1.30	1.45	1.60
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



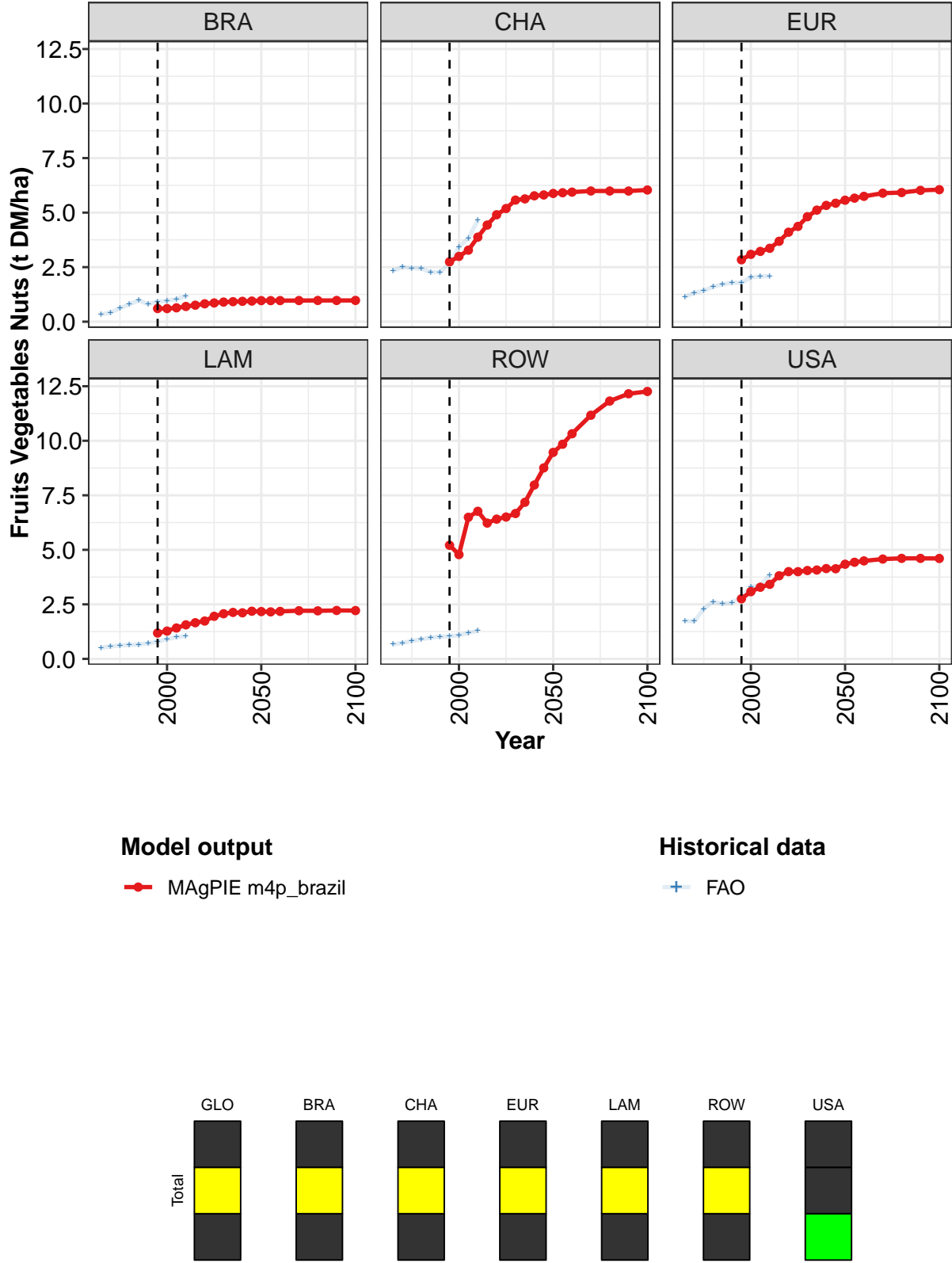


Figure 390: MAgPIE m4p_brazil — Productivity—Yield—Crops—Other crops—Fruits Vegetables Nuts (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.7	2.8	3.2	3.6	3.9	4.3	4.7	5.1	5.3	5.7	6.0
BRA	0.6	0.6	0.6	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9
CHA	2.7	3.0	3.3	3.9	4.4	4.9	5.2	5.6	5.6	5.8	5.8
EUR	2.8	3.1	3.2	3.4	3.7	4.1	4.4	4.8	5.1	5.3	5.4
LAM	1.2	1.3	1.4	1.6	1.7	1.7	2.0	2.1	2.1	2.1	2.2
ROW	5.2	4.8	6.5	6.8	6.2	6.4	6.5	6.7	7.2	8.0	8.8
USA	2.8	3.1	3.3	3.4	3.8	4.0	4.0	4.1	4.1	4.1	4.1

Table 1510: MAgPIE m4p_brazil — Productivity—Yield—Crops—Other crops—Fruits Vegetables Nuts (t DM/ha) [PART 1/2]

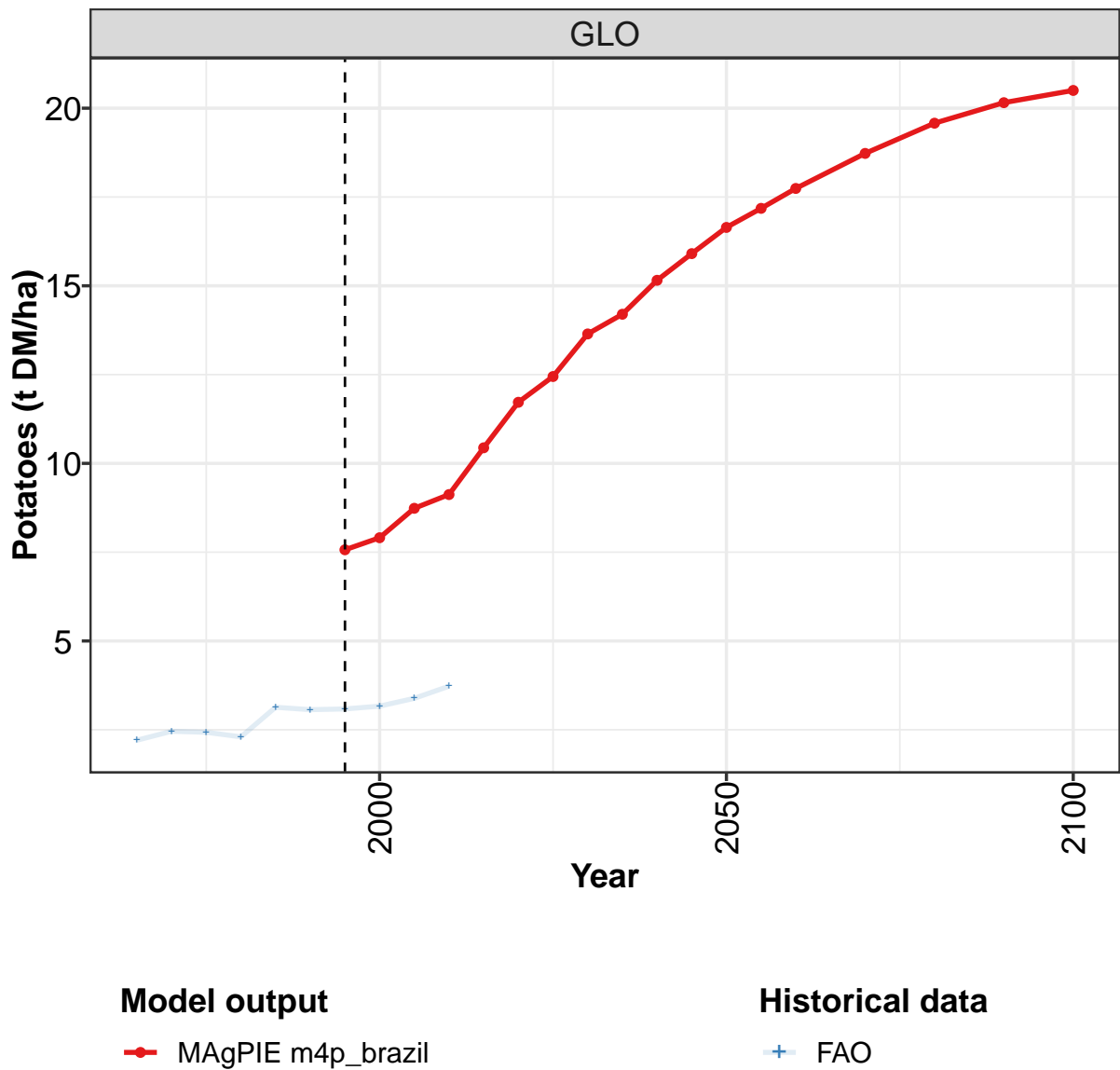
	2050	2055	2060	2070	2080	2090	2100
GLO	6.3	6.4	6.6	7.0	7.2	7.4	7.5
BRA	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CHA	5.9	5.9	5.9	6.0	6.0	6.0	6.0
EUR	5.6	5.7	5.7	5.9	5.9	6.0	6.1
LAM	2.2	2.2	2.2	2.2	2.2	2.2	2.2
ROW	9.5	9.8	10.3	11.2	11.8	12.2	12.3
USA	4.3	4.4	4.5	4.6	4.6	4.6	4.6

Table 1511: MAgPIE m4p_brazil — 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
BRA	0.33	0.42	0.62	0.80	0.98	0.80	0.91	0.97	1.03	1.17
CHA	2.33	2.50	2.46	2.44	2.27	2.27	2.67	3.43	3.83	4.64
EUR	1.13	1.33	1.41	1.61	1.70	1.79	1.78	2.04	2.07	2.09
LAM	0.52	0.57	0.62	0.64	0.66	0.71	0.79	0.90	1.00	1.05
ROW	0.67	0.73	0.82	0.90	0.97	1.02	1.04	1.08	1.19	1.29
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



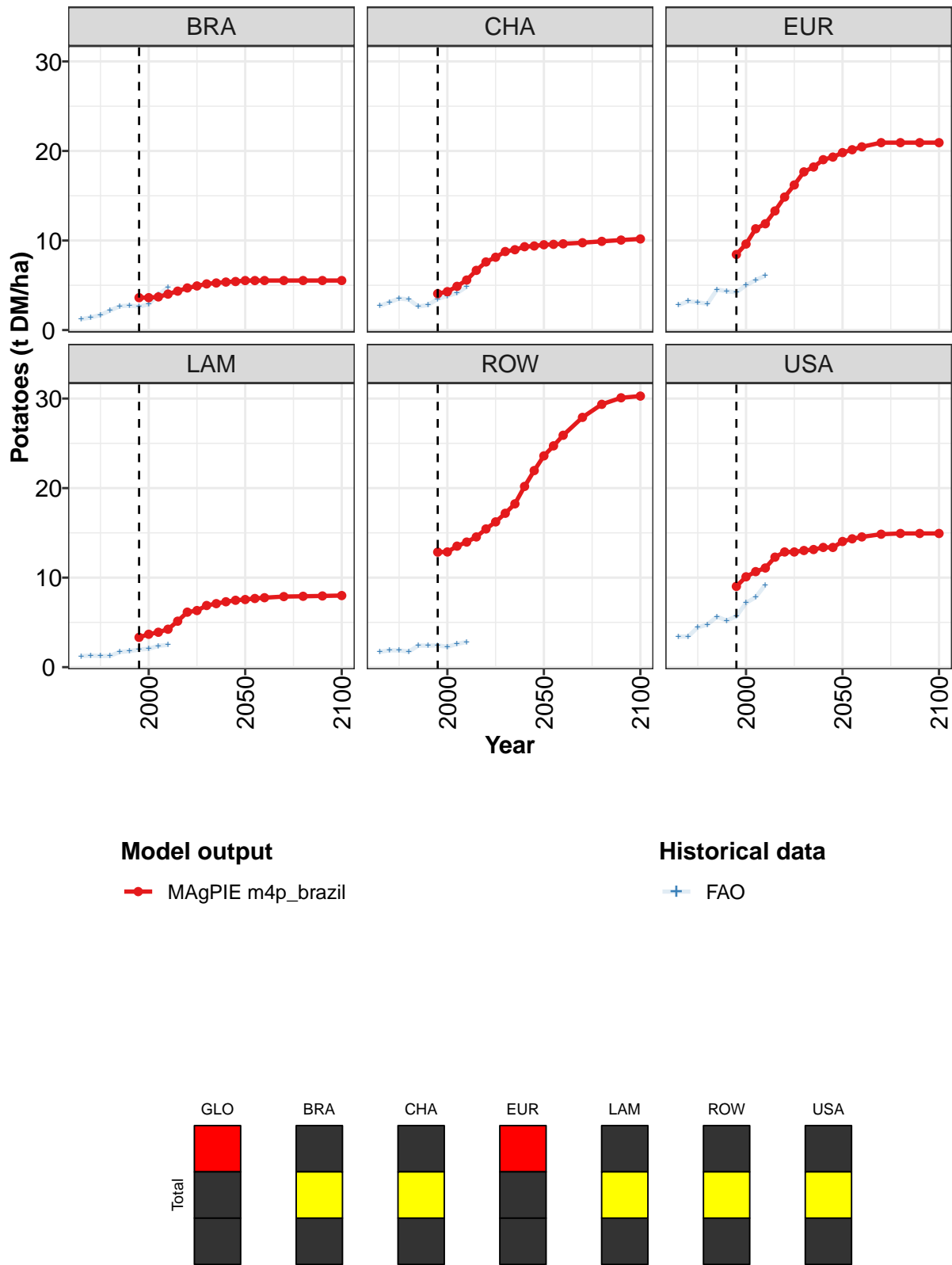


Figure 391: MAgPIE m4p_brazil — Productivity—Yield—Crops—Other crops—Potatoes (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	7.6	7.9	8.7	9.1	10.4	11.7	12.4	13.6	14.2	15.2	15.9
BRA	3.6	3.6	3.7	4.0	4.3	4.7	4.9	5.2	5.3	5.4	5.4
CHA	4.1	4.3	4.9	5.6	6.7	7.6	8.1	8.8	9.0	9.3	9.4
EUR	8.4	9.6	11.3	11.9	13.3	14.9	16.2	17.7	18.2	19.0	19.3
LAM	3.3	3.7	3.9	4.2	5.1	6.1	6.3	6.9	7.1	7.3	7.5
ROW	12.9	12.9	13.5	14.0	14.5	15.4	16.2	17.2	18.2	20.2	22.0
USA	9.0	10.1	10.7	11.1	12.3	12.9	12.9	13.0	13.1	13.4	13.4

Table 1513: MAgPIE m4p_brazil — Productivity—Yield—Crops—Other crops—Potatoes (t DM/ha) [PART 1/2]

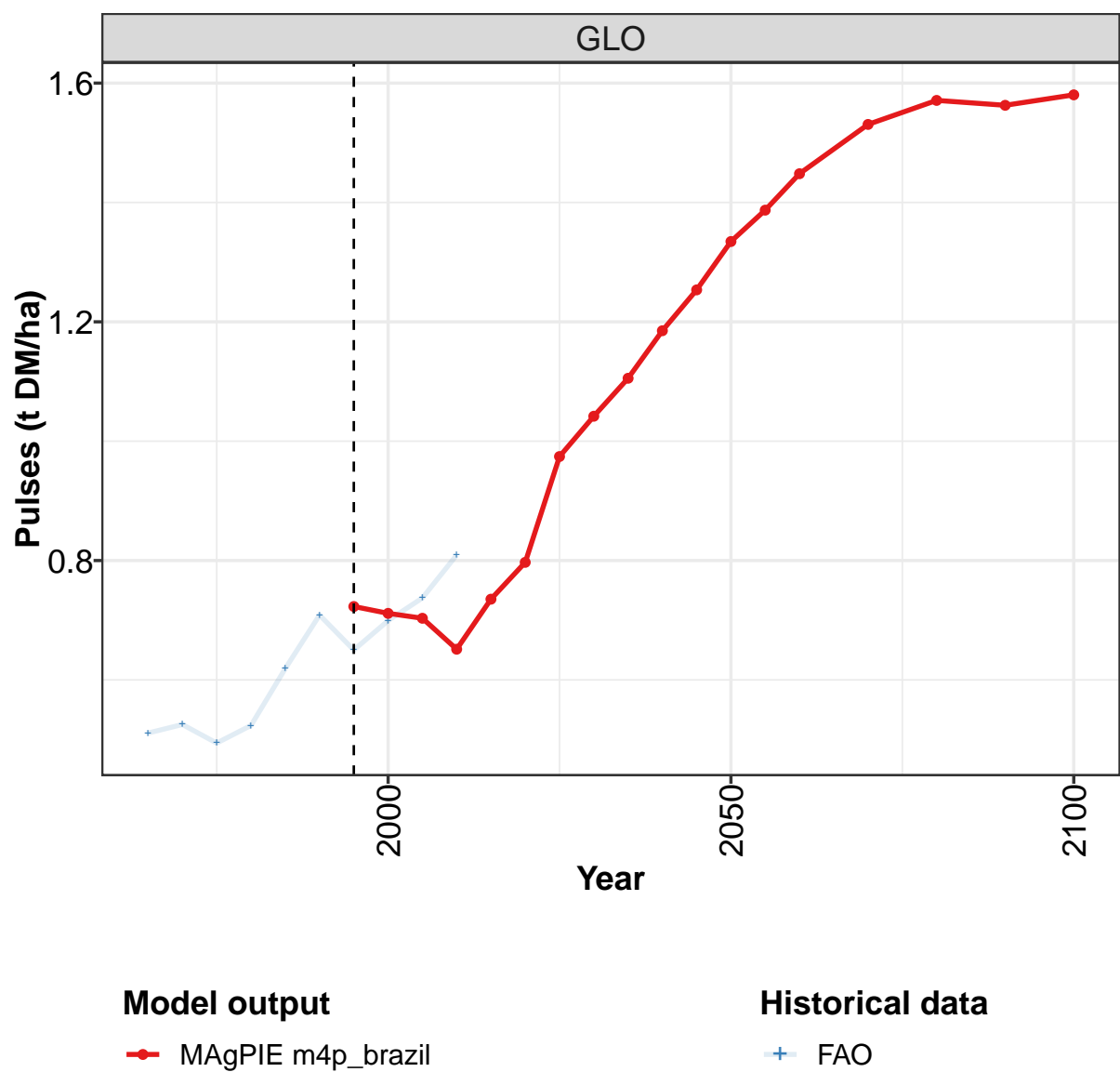
	2050	2055	2060	2070	2080	2090	2100
GLO	16.6	17.2	17.7	18.7	19.6	20.2	20.5
BRA	5.5	5.5	5.5	5.5	5.5	5.5	5.5
CHA	9.5	9.6	9.6	9.8	9.9	10.1	10.2
EUR	19.8	20.1	20.5	20.9	20.9	20.9	20.9
LAM	7.6	7.7	7.8	7.9	7.9	8.0	8.0
ROW	23.6	24.7	25.9	27.9	29.4	30.1	30.3
USA	14.0	14.3	14.5	14.8	14.9	14.9	14.9

Table 1514: MAgPIE m4p_brazil — 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
BRA	1.22	1.41	1.68	2.18	2.66	2.74	2.62	2.88	3.97	4.75
CHA	2.69	3.11	3.52	3.41	2.63	2.80	3.48	3.83	4.14	4.84
EUR	2.78	3.22	3.09	2.94	4.52	4.34	4.22	5.00	5.59	6.06
LAM	1.23	1.30	1.24	1.25	1.70	1.79	1.97	2.05	2.38	2.50
ROW	1.73	1.88	1.88	1.74	2.42	2.40	2.44	2.27	2.59	2.82
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



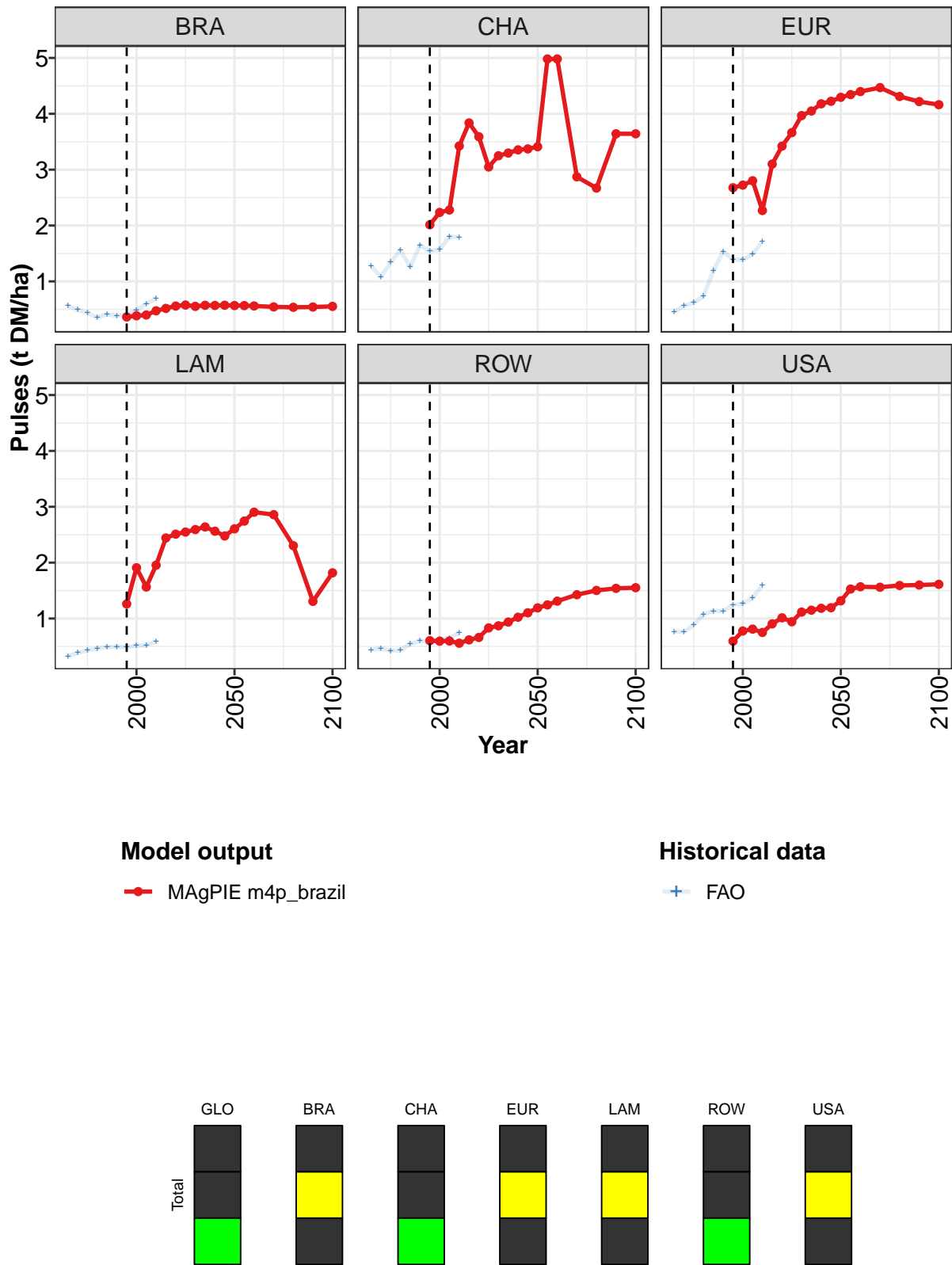


Figure 392: MAGPIE m4p.brazil — Productivity—Yield—Crops—Other crops—Pulses (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.72	0.71	0.70	0.65	0.74	0.80	0.97	1.04	1.11	1.19	1.25
BRA	0.36	0.38	0.40	0.47	0.52	0.56	0.58	0.55	0.57	0.57	0.57
CHA	2.01	2.23	2.28	3.42	3.84	3.59	3.05	3.25	3.30	3.35	3.37
EUR	2.68	2.72	2.80	2.27	3.10	3.42	3.66	3.97	4.05	4.18	4.22
LAM	1.26	1.91	1.56	1.95	2.44	2.51	2.55	2.59	2.64	2.56	2.48
ROW	0.60	0.59	0.60	0.56	0.62	0.66	0.83	0.87	0.94	1.02	1.10
USA	0.59	0.78	0.81	0.75	0.90	1.01	0.94	1.11	1.15	1.18	1.19

Table 1516: MAgPIE m4p.brazil — Productivity—Yield—Crops—Other crops—Pulses (t DM/ha) [PART 1/2]

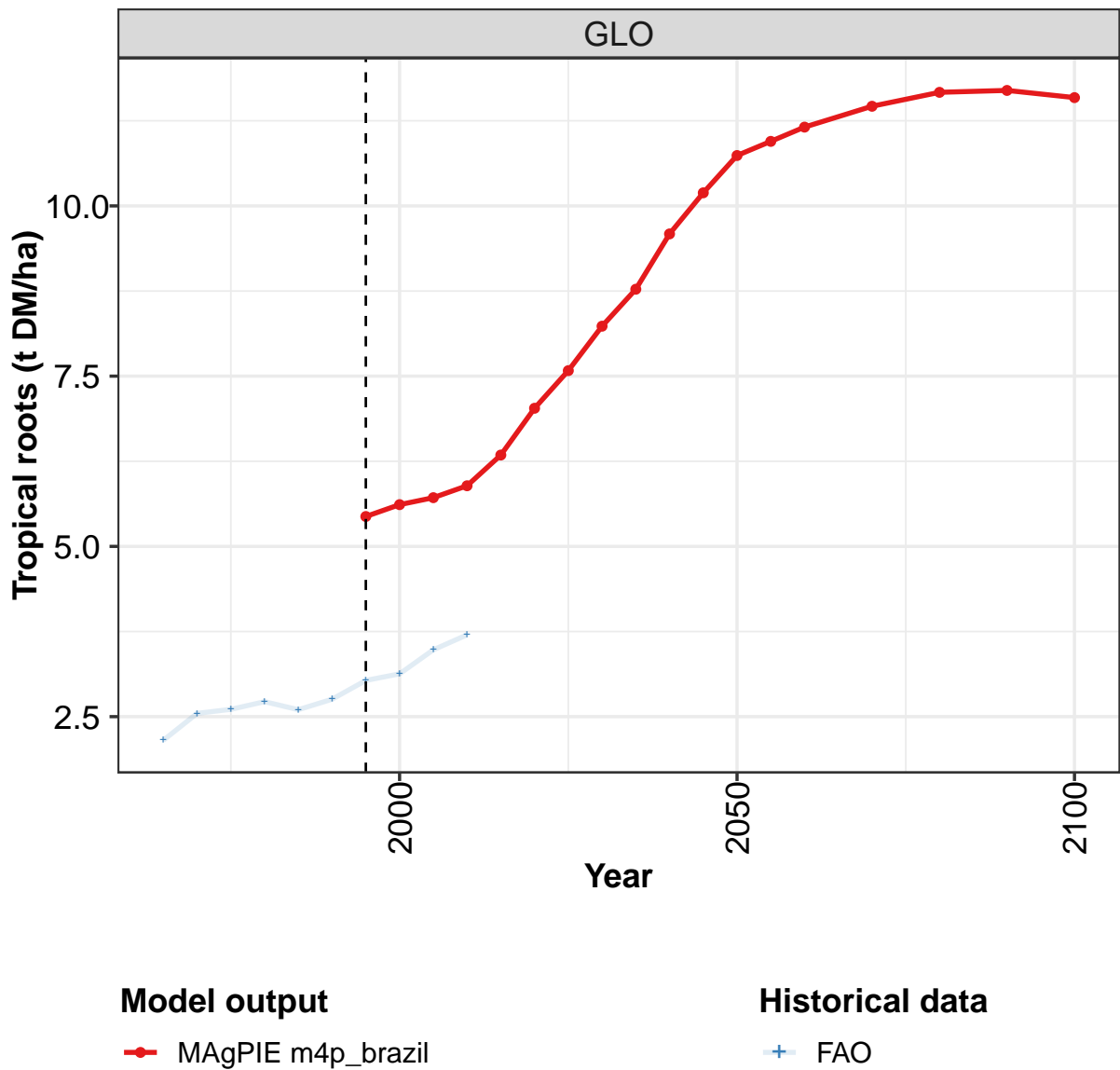
	2050	2055	2060	2070	2080	2090	2100
GLO	1.33	1.39	1.45	1.53	1.57	1.56	1.58
BRA	0.57	0.57	0.56	0.54	0.54	0.54	0.55
CHA	3.41	4.98	4.98	2.87	2.67	3.64	3.64
EUR	4.29	4.34	4.40	4.47	4.31	4.22	4.16
LAM	2.61	2.74	2.90	2.86	2.30	1.31	1.82
ROW	1.19	1.24	1.31	1.43	1.50	1.54	1.55
USA	1.32	1.53	1.57	1.56	1.59	1.60	1.61

Table 1517: MAgPIE m4p.brazil — 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
BRA	0.56	0.49	0.44	0.35	0.41	0.38	0.41	0.49	0.60	0.69
CHA	1.28	1.08	1.34	1.56	1.26	1.65	1.54	1.57	1.80	1.79
EUR	0.46	0.56	0.62	0.74	1.19	1.54	1.39	1.38	1.48	1.71
LAM	0.32	0.39	0.43	0.46	0.49	0.49	0.49	0.51	0.52	0.59
ROW	0.43	0.47	0.42	0.43	0.54	0.60	0.57	0.63	0.65	0.74
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



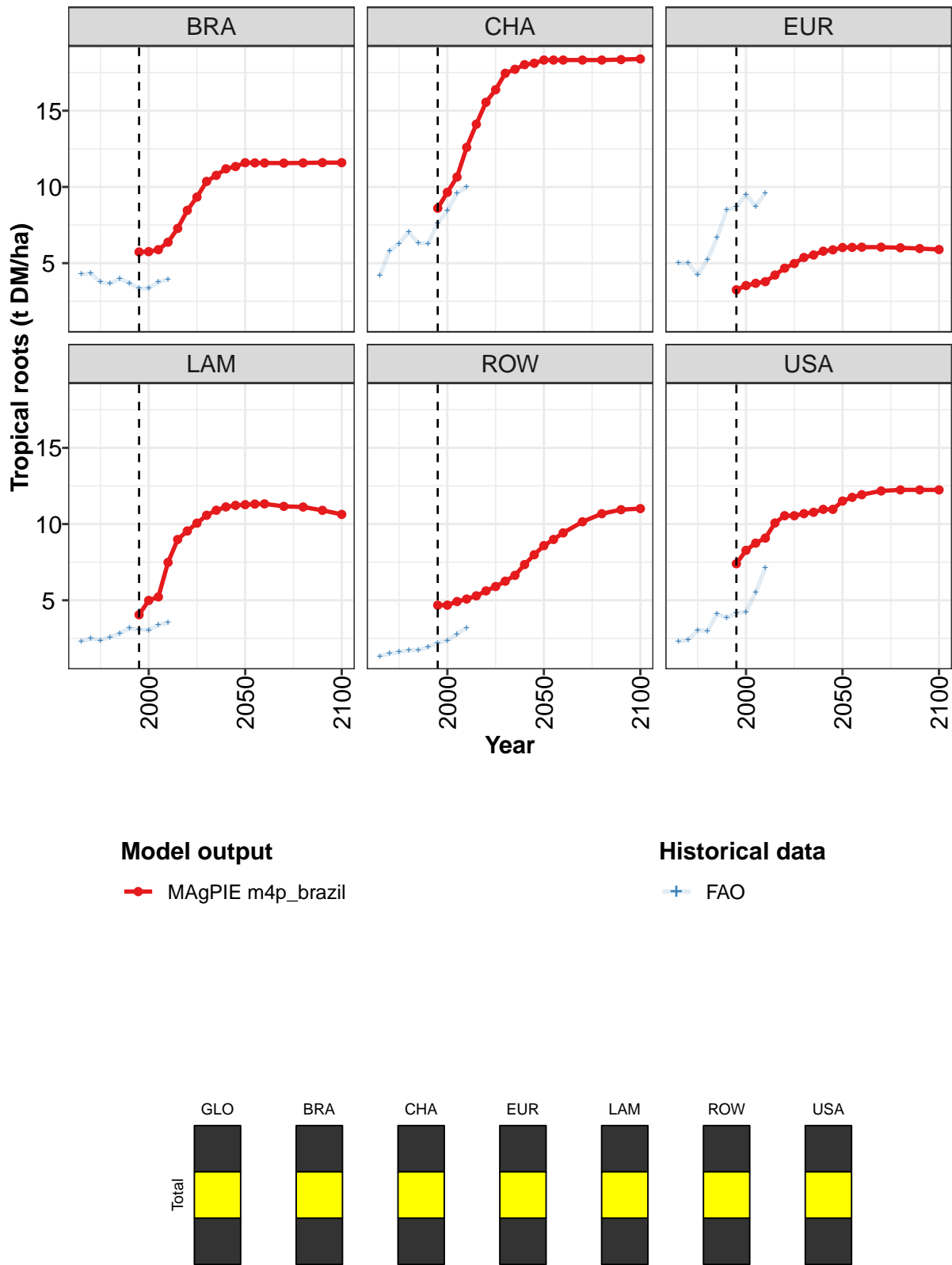


Figure 393: MAGPIE m4p_brazil — Productivity—Yield—Crops—Other crops—Tropical roots (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.4	5.6	5.7	5.9	6.3	7.0	7.6	8.2	8.8	9.6	10.2
BRA	5.7	5.8	5.9	6.4	7.3	8.5	9.3	10.4	10.8	11.2	11.3
CHA	8.6	9.6	10.7	12.6	14.1	15.6	16.4	17.5	17.7	18.0	18.1
EUR	3.3	3.5	3.7	3.8	4.2	4.7	5.0	5.4	5.5	5.8	5.9
LAM	4.1	5.0	5.2	7.5	9.0	9.5	10.1	10.6	10.9	11.1	11.2
ROW	4.7	4.7	4.9	5.1	5.3	5.6	5.9	6.3	6.6	7.3	8.0
USA	7.4	8.3	8.7	9.1	10.1	10.5	10.5	10.7	10.8	11.0	11.0

Table 1519: MAgPIE m4p_brazil — Productivity—Yield—Crops—Other crops—Tropical roots (t DM/ha)
[PART 1/2]

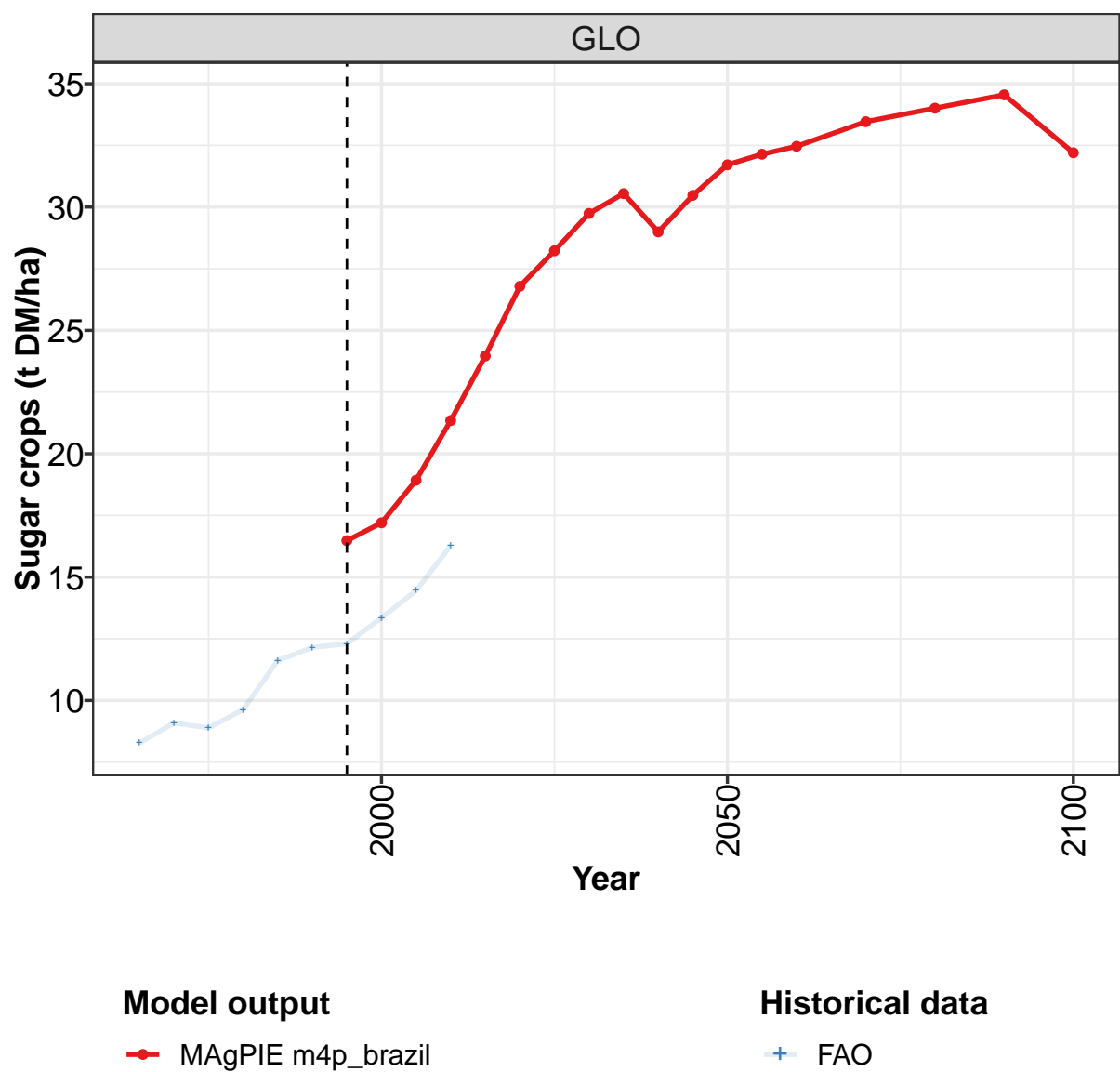
	2050	2055	2060	2070	2080	2090	2100
GLO	10.7	10.9	11.2	11.5	11.7	11.7	11.6
BRA	11.6	11.6	11.6	11.6	11.6	11.6	11.6
CHA	18.3	18.3	18.3	18.3	18.3	18.4	18.4
EUR	6.0	6.0	6.0	6.1	6.0	6.0	5.9
LAM	11.3	11.3	11.3	11.2	11.1	10.9	10.6
ROW	8.6	9.0	9.4	10.1	10.7	10.9	11.0
USA	11.5	11.8	11.9	12.2	12.2	12.2	12.2

Table 1520: MAgPIE m4p_brazil — Productivity—Yield—Crops—Other crops—Tropical roots (t DM/ha)
[PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	2.15	2.55	2.61	2.72	2.60	2.76	3.03	3.13	3.48	3.70
BRA	4.28	4.33	3.76	3.66	3.98	3.69	3.35	3.34	3.76	3.94
CHA	4.19	5.78	6.29	7.02	6.32	6.29	7.62	8.43	9.57	9.99
EUR	5.01	5.01	4.22	5.23	6.67	8.48	8.69	9.50	8.73	9.61
LAM	2.31	2.49	2.38	2.58	2.83	3.17	3.07	3.05	3.37	3.54
ROW	1.33	1.50	1.60	1.72	1.73	1.94	2.20	2.35	2.79	3.20
USA	2.30	2.40	3.04	2.99	4.11	3.84	4.18	4.24	5.50	7.12

Table 1521: FAO — Productivity—Yield—Crops—Other crops—Tropical roots (t DM/ha)

52.1.18 Sugar crops



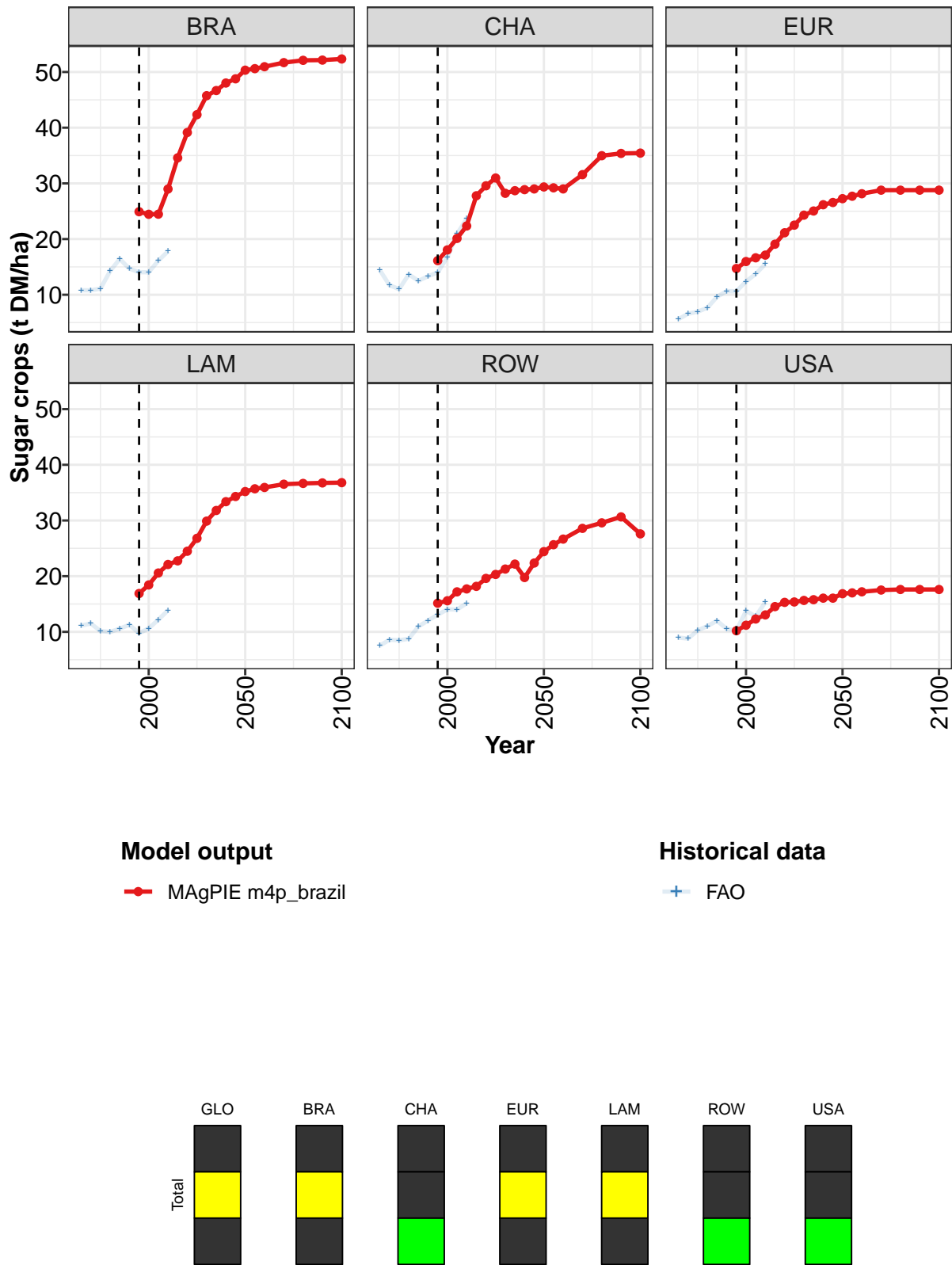


Figure 394: MAgPIE m4p_brazil — Productivity—Yield—Crops—Sugar crops (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	16.5	17.2	18.9	21.3	24.0	26.8	28.2	29.7	30.5	29.0	30.5
BRA	24.9	24.4	24.5	29.0	34.6	39.1	42.3	45.7	46.7	48.0	48.8
CHA	16.1	18.1	20.1	22.4	27.8	29.6	31.0	28.2	28.7	28.9	29.0
EUR	14.7	16.0	16.6	17.1	19.1	21.1	22.5	24.3	25.0	26.2	26.6
LAM	16.9	18.4	20.6	22.1	22.8	24.5	26.8	29.9	31.8	33.4	34.3
ROW	15.1	15.6	17.2	17.7	18.2	19.6	20.3	21.3	22.2	19.8	22.4
USA	10.2	11.2	12.3	13.0	14.5	15.3	15.4	15.6	15.8	16.1	16.1

Table 1522: MAgPIE m4p.brazil — Productivity—Yield—Crops—Sugar crops (t DM/ha) [PART 1/2]

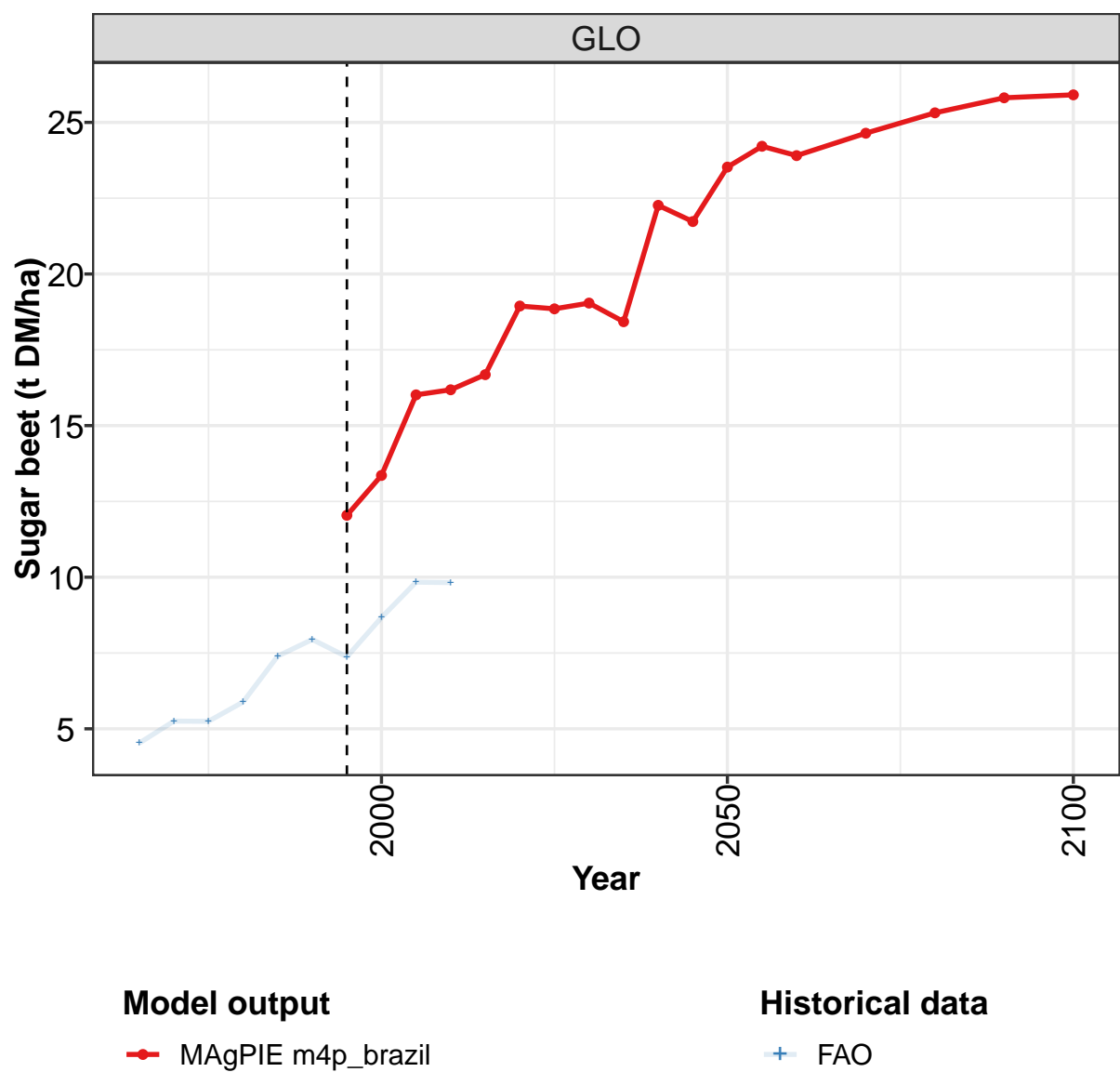
	2050	2055	2060	2070	2080	2090	2100
GLO	31.7	32.1	32.5	33.5	34.0	34.6	32.2
BRA	50.3	50.6	51.0	51.7	52.1	52.1	52.3
CHA	29.4	29.2	29.0	31.6	35.0	35.4	35.4
EUR	27.3	27.7	28.1	28.8	28.8	28.8	28.8
LAM	35.2	35.7	35.9	36.5	36.7	36.8	36.8
ROW	24.4	25.7	26.7	28.6	29.6	30.7	27.6
USA	16.9	17.0	17.2	17.5	17.6	17.6	17.6

Table 1523: MAgPIE m4p.brazil — 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
BRA	10.8	10.8	11.1	14.3	16.4	14.7	14.0	14.0	16.1	17.8
CHA	14.4	11.7	11.0	13.7	12.5	13.3	14.0	16.8	20.9	23.7
EUR	5.6	6.6	7.0	7.7	9.6	10.7	10.6	12.4	13.7	15.5
LAM	11.1	11.5	10.2	10.0	10.6	11.3	9.8	10.6	12.2	13.9
ROW	7.5	8.6	8.5	8.8	11.0	12.0	13.1	14.0	14.0	15.1
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



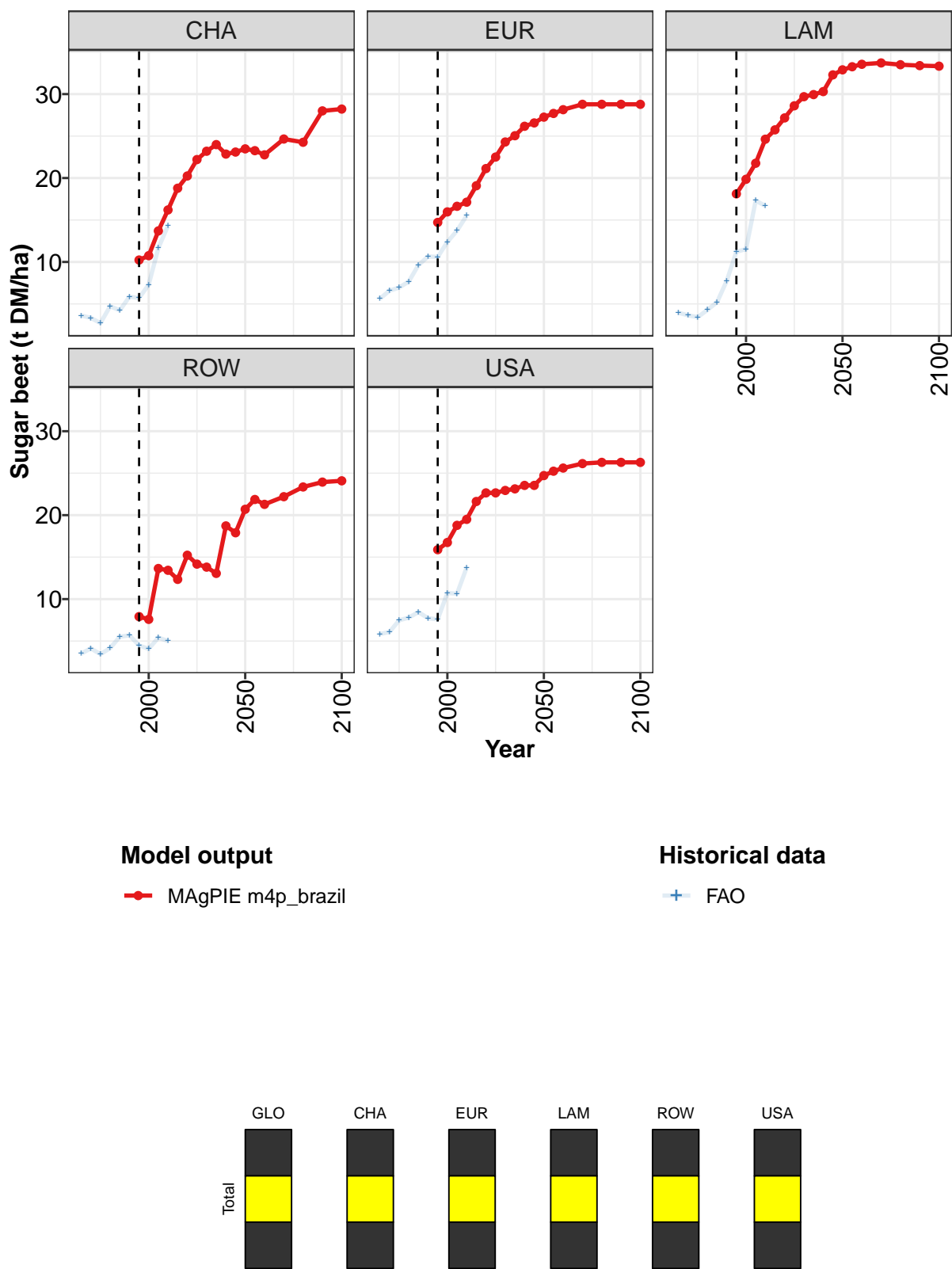


Figure 395: MAgPIE m4p_brazil — Productivity—Yield—Crops—Sugar crops—Sugar beet (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	12.0	13.4	16.0	16.2	16.7	18.9	18.9	19.0	18.4	22.3	21.7
CHA	10.2	10.8	13.7	16.2	18.8	20.2	22.2	23.2	24.0	22.9	23.1
EUR	14.7	16.0	16.6	17.1	19.1	21.1	22.5	24.3	25.0	26.2	26.6
LAM	18.1	19.9	21.8	24.6	25.7	27.2	28.6	29.7	29.9	30.3	32.3
ROW	7.9	7.6	13.6	13.4	12.3	15.2	14.2	13.8	13.1	18.7	17.9
USA	15.9	16.7	18.8	19.5	21.6	22.7	22.7	22.9	23.1	23.5	23.5

Table 1525: MAgPIE m4p_brazil — Productivity—Yield—Crops—Sugar crops—Sugar beet (t DM/ha) [PART 1/2]

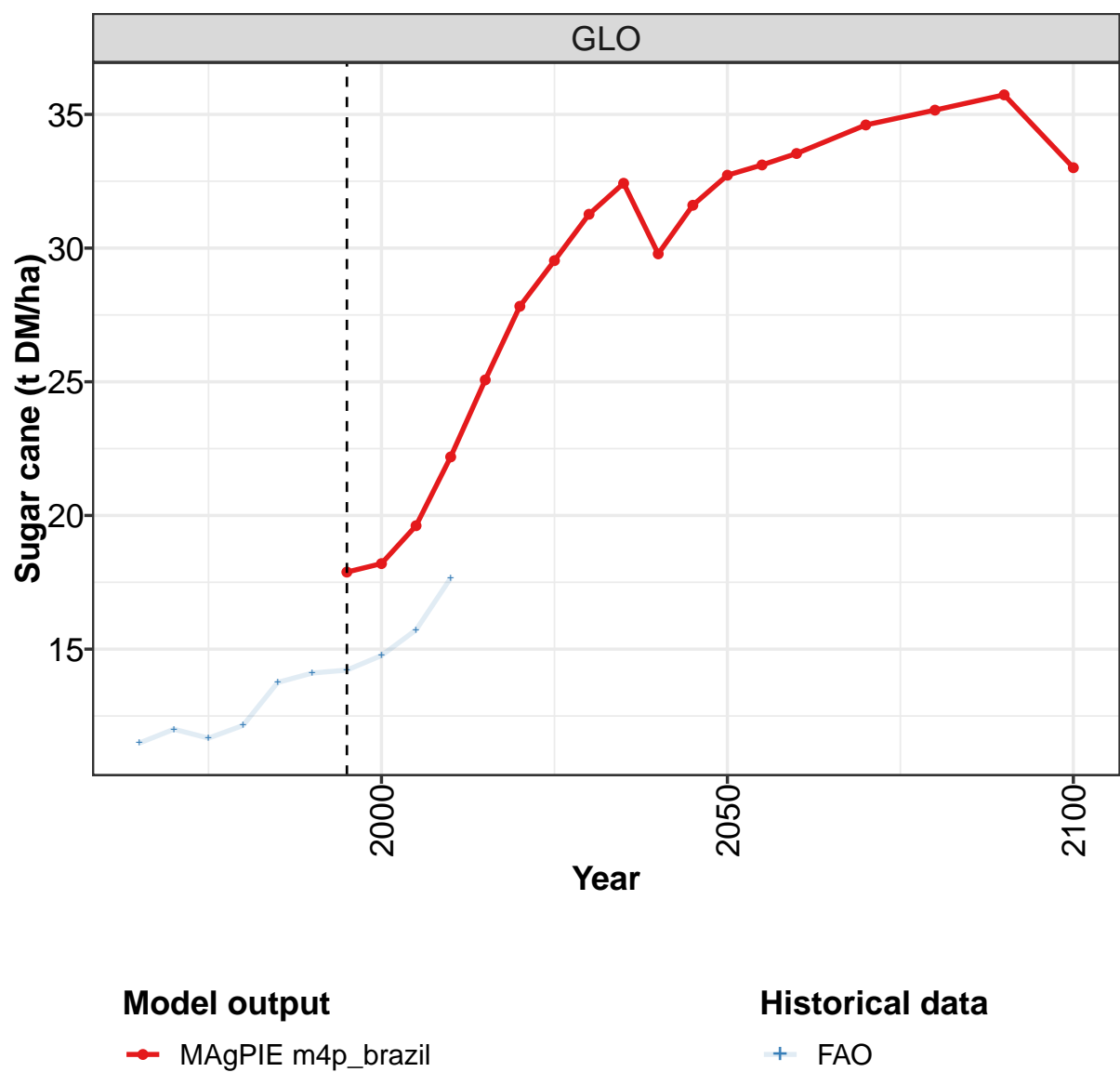
	2050	2055	2060	2070	2080	2090	2100
GLO	23.5	24.2	23.9	24.6	25.3	25.8	25.9
CHA	23.5	23.3	22.8	24.6	24.3	28.0	28.2
EUR	27.3	27.7	28.1	28.8	28.8	28.8	28.8
LAM	32.9	33.3	33.6	33.7	33.5	33.4	33.3
ROW	20.7	21.9	21.3	22.2	23.4	23.9	24.1
USA	24.7	25.2	25.6	26.1	26.3	26.3	26.3

Table 1526: MAgPIE m4p_brazil — 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
CHA	3.6	3.3	2.7	4.7	4.2	5.9	5.7	7.3	11.7	14.3
EUR	5.6	6.6	6.9	7.7	9.6	10.7	10.6	12.4	13.7	15.5
LAM	4.0	3.6	3.4	4.3	5.2	7.8	11.2	11.5	17.3	16.7
ROW	3.5	4.1	3.4	4.2	5.5	5.7	4.5	4.1	5.4	5.0
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



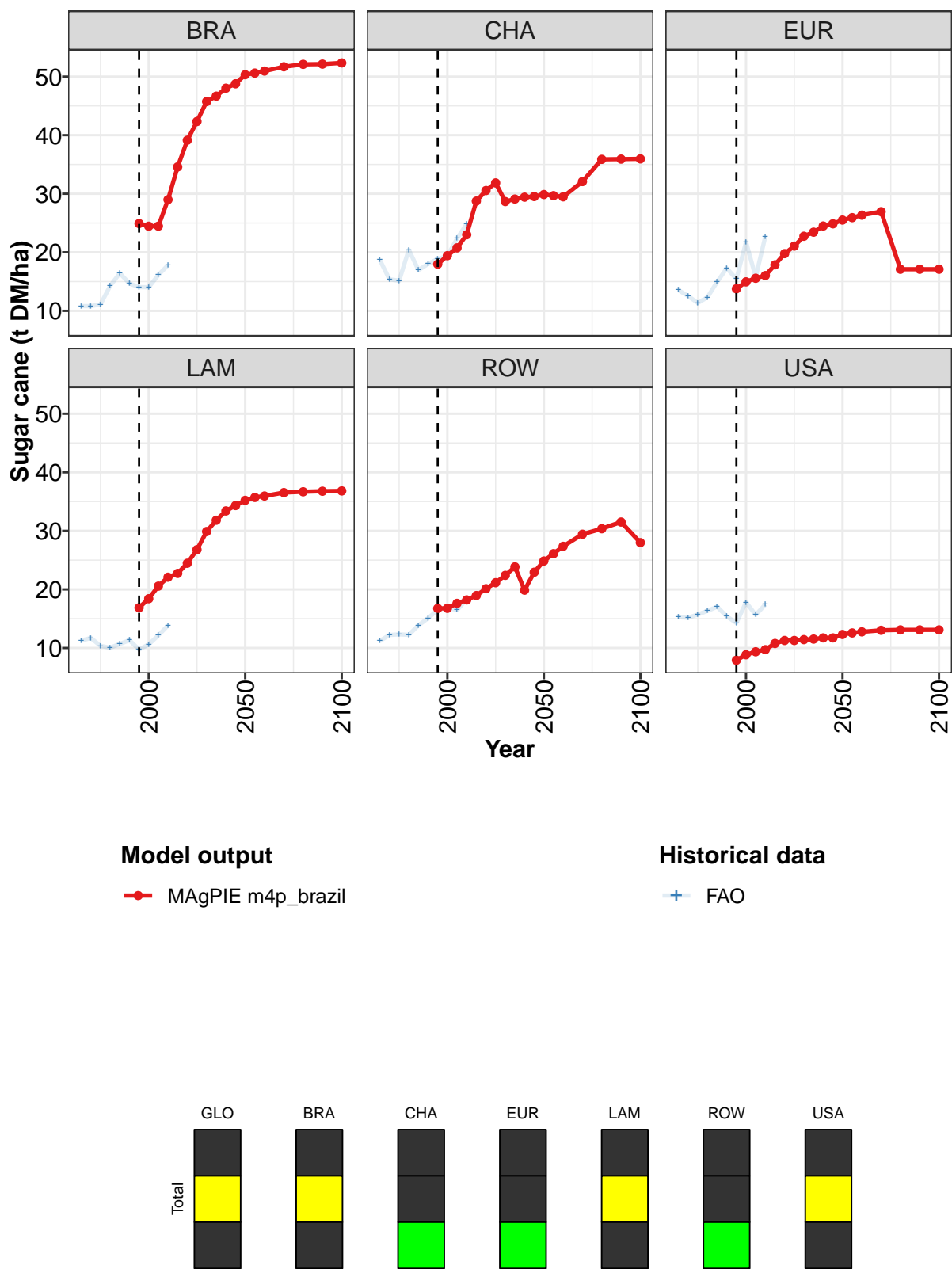


Figure 396: MAgPIE m4p_brazil — Productivity—Yield—Crops—Sugar crops—Sugar cane (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17.9	18.2	19.6	22.2	25.1	27.8	29.5	31.3	32.4	29.8	31.6
BRA	24.9	24.4	24.5	29.0	34.6	39.1	42.3	45.7	46.7	48.0	48.8
CHA	18.0	19.4	20.8	23.0	28.7	30.6	31.8	28.7	29.1	29.4	29.5
EUR	13.8	14.9	15.6	16.0	17.9	19.8	21.1	22.7	23.4	24.5	24.9
LAM	16.9	18.4	20.6	22.1	22.7	24.5	26.8	29.9	31.8	33.4	34.3
ROW	16.8	16.8	17.6	18.2	19.0	20.1	21.1	22.4	23.9	19.9	22.9
USA	7.9	8.8	9.4	9.7	10.8	11.3	11.3	11.4	11.5	11.7	11.7

Table 1528: MAgPIE m4p.brazil — Productivity—Yield—Crops—Sugar crops—Sugar cane (t DM/ha) [PART 1/2]

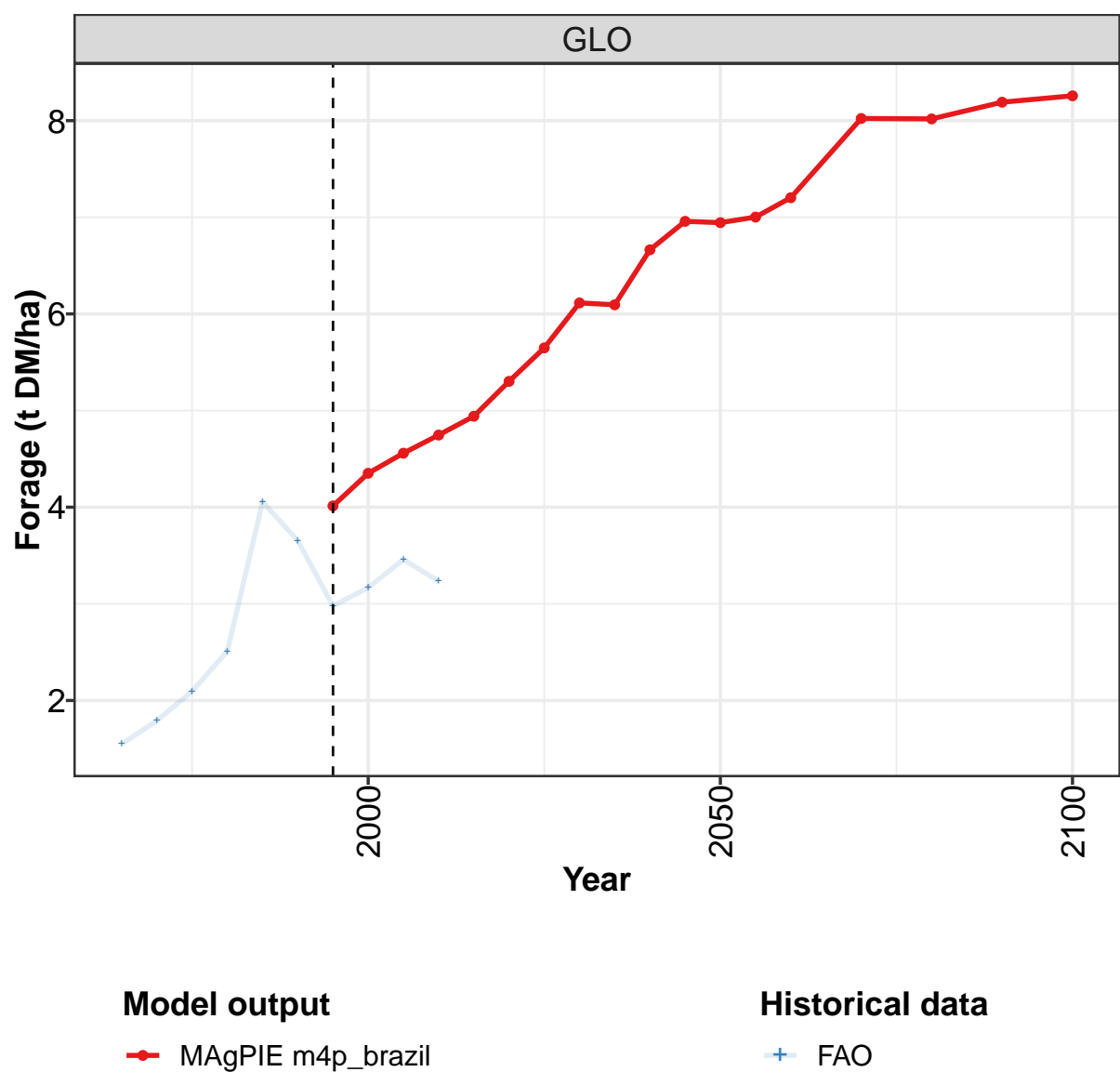
	2050	2055	2060	2070	2080	2090	2100
GLO	32.7	33.1	33.5	34.6	35.2	35.7	33.0
BRA	50.3	50.6	51.0	51.7	52.1	52.1	52.3
CHA	29.9	29.7	29.5	32.1	35.9	35.9	36.0
EUR	25.5	25.9	26.3	26.9	17.1	17.1	17.1
LAM	35.2	35.7	35.9	36.5	36.7	36.8	36.8
ROW	24.9	26.1	27.4	29.4	30.4	31.5	28.0
USA	12.3	12.6	12.8	13.0	13.1	13.1	13.1

Table 1529: MAgPIE m4p.brazil — 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
BRA	10.8	10.8	11.1	14.3	16.4	14.7	14.0	14.0	16.1	17.8
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
LAM	11.3	11.7	10.4	10.0	10.7	11.3	9.7	10.6	12.1	13.8
ROW	11.2	12.2	12.3	12.2	13.9	15.1	16.5	16.9	16.5	18.3
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



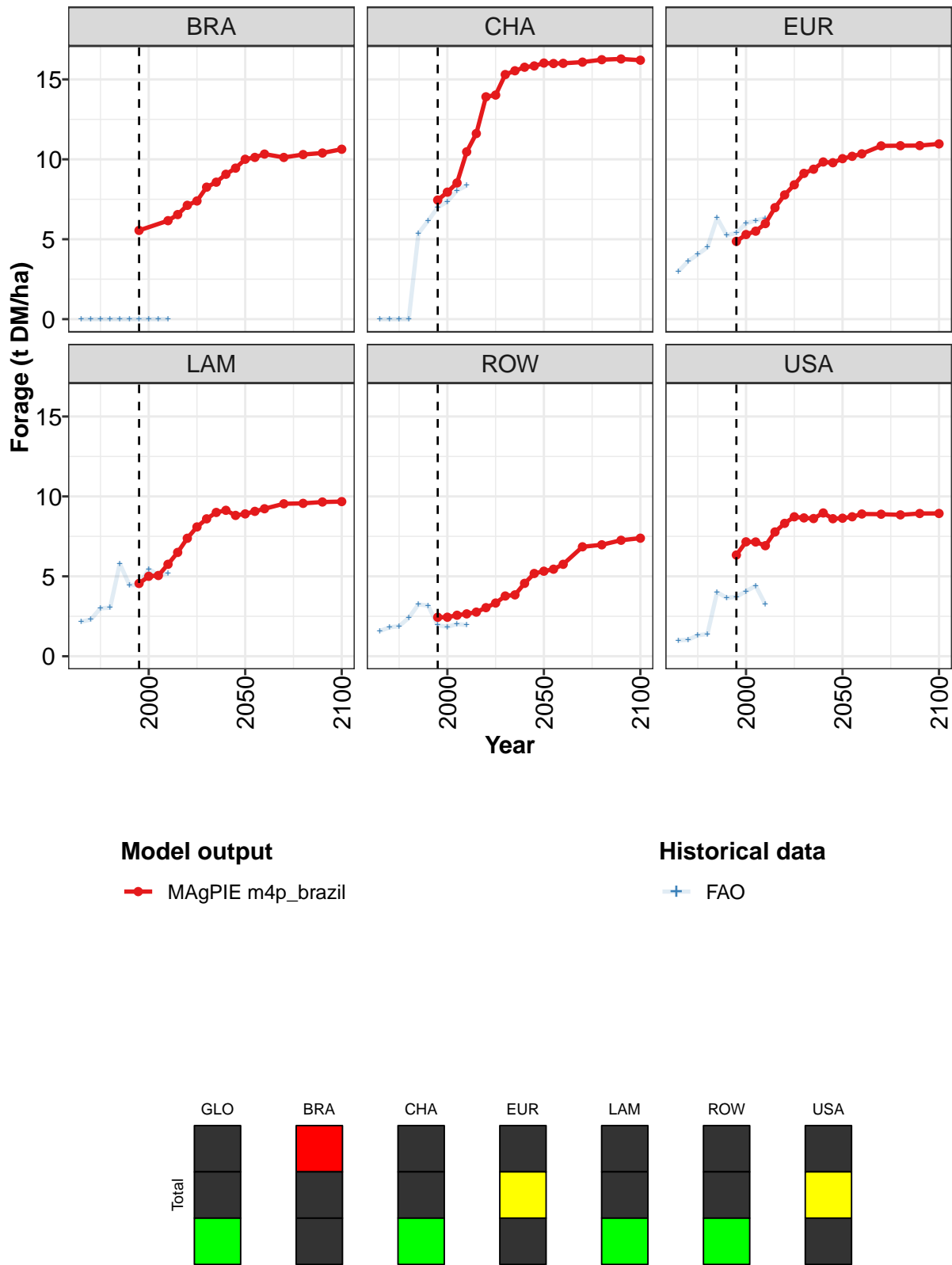


Figure 397: MAGPIE m4p.brazil — Productivity—Yield—Forage (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4	4	5	5	5	5	6	6	6	7	7
BRA	6			6	7	7	7	8	9	9	9
CHA	7	8	9	10	12	14	14	15	16	16	16
EUR	5	5	6	6	7	8	8	9	9	10	10
LAM	5	5	5	6	6	7	8	9	9	9	9
ROW	2	2	3	3	3	3	3	4	4	5	5
USA	6	7	7	7	8	8	9	9	9	9	9

Table 1531: MAgPIE m4p_brazil — Productivity—Yield—Forage (t DM/ha) [PART 1/2]

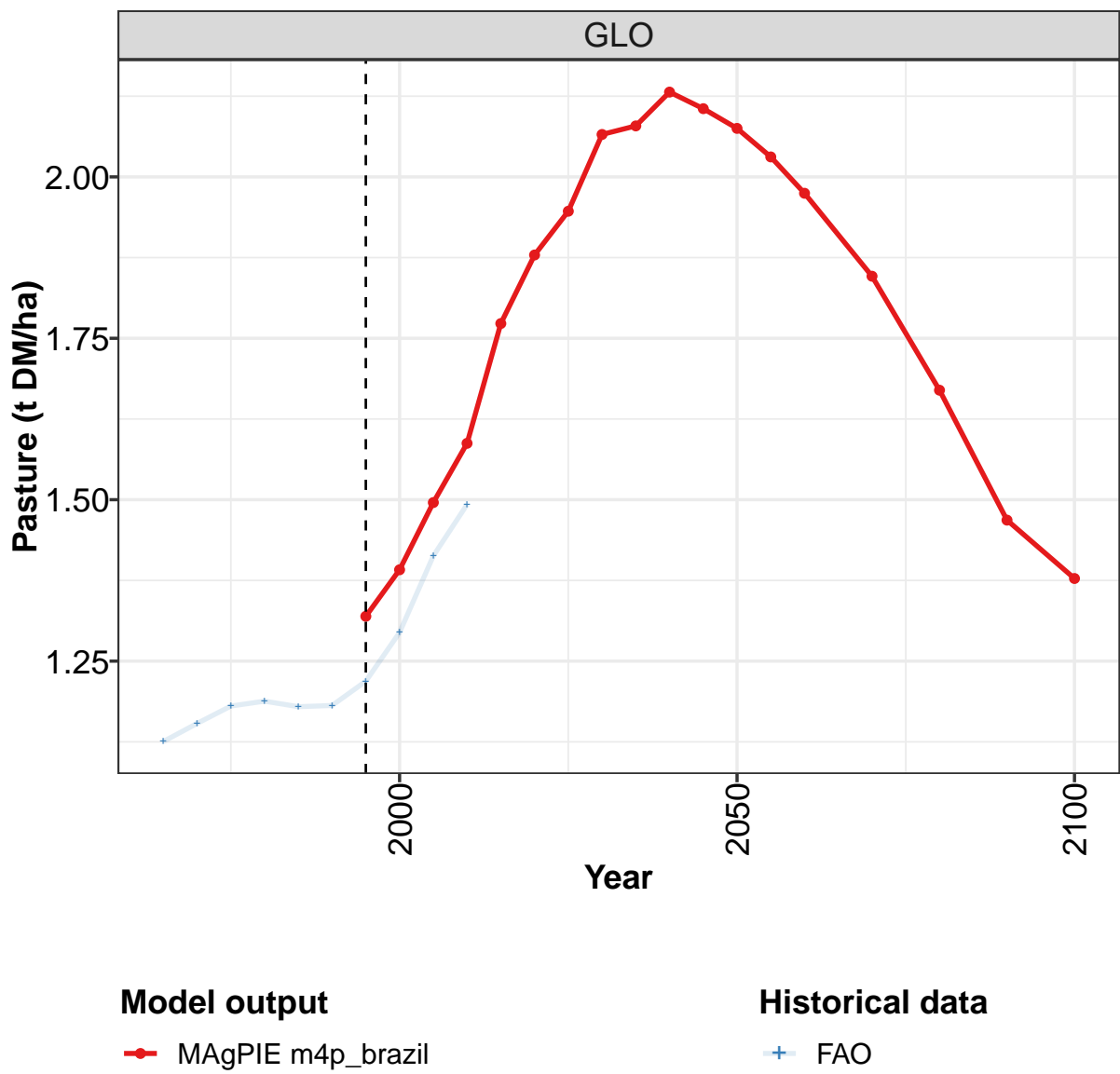
	2050	2055	2060	2070	2080	2090	2100
GLO	7	7	7	8	8	8	8
BRA	10	10	10	10	10	10	11
CHA	16	16	16	16	16	16	16
EUR	10	10	10	11	11	11	11
LAM	9	9	9	10	10	10	10
ROW	5	5	6	7	7	7	7
USA	9	9	9	9	9	9	9

Table 1532: MAgPIE m4p_brazil — 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
BRA	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	5.36	6.15	6.99	7.36	8.05	8.36
EUR	2.99	3.62	4.05	4.49	6.33	5.25	5.40	6.00	6.17	6.32
LAM	2.17	2.30	3.00	3.04	5.79	4.46	4.45	5.45	5.10	5.17
ROW	1.58	1.81	1.88	2.40	3.24	3.17	1.94	1.84	2.02	1.95
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



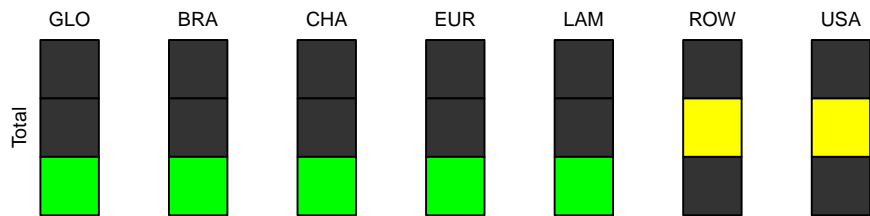
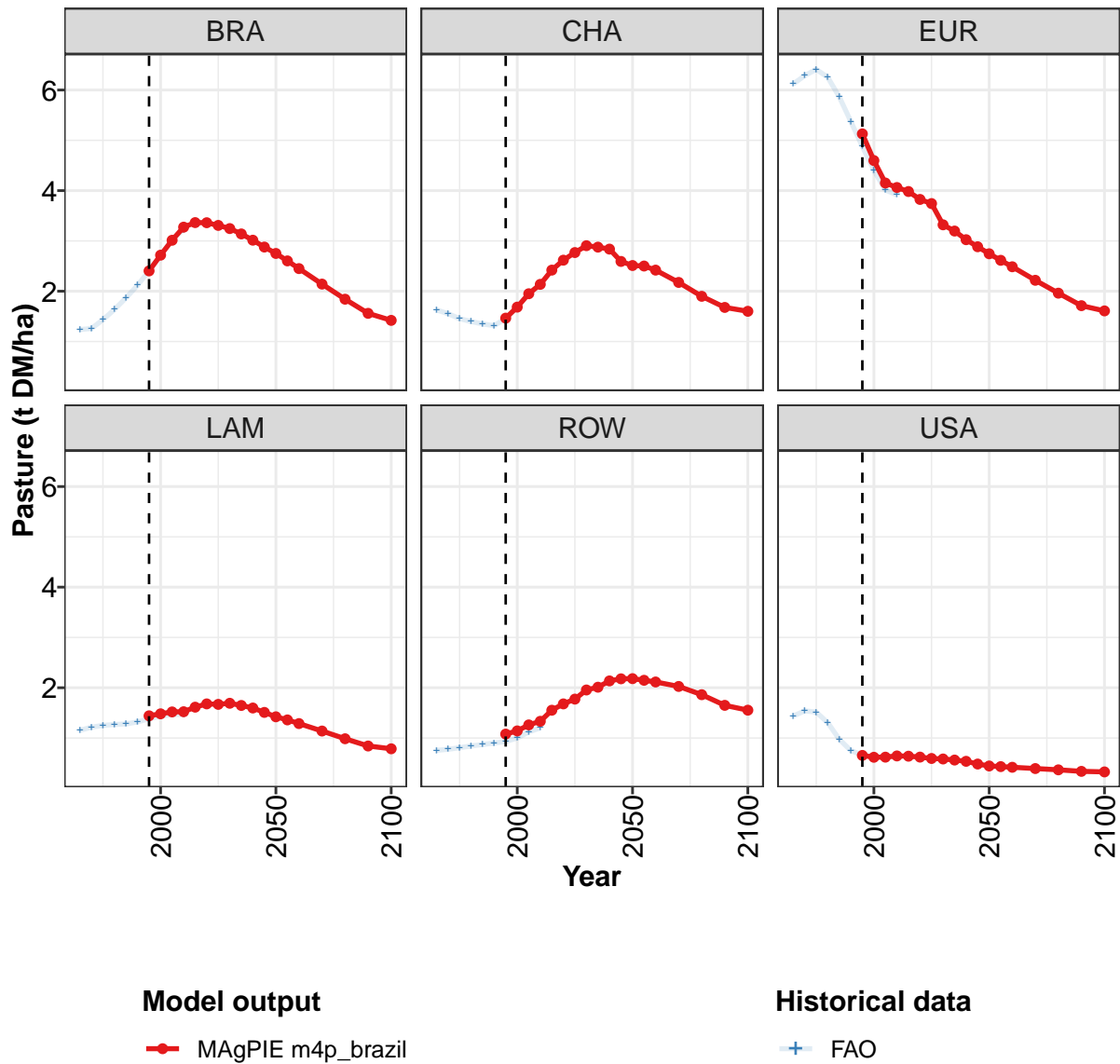


Figure 398: MAgPIE m4p.brazil — Productivity—Yield—Pasture (t DM/ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.32	1.39	1.50	1.59	1.77	1.88	1.95	2.07	2.08	2.13	2.11
BRA	2.40	2.72	3.01	3.27	3.36	3.36	3.31	3.25	3.14	3.01	2.88
CHA	1.46	1.68	1.95	2.14	2.42	2.62	2.77	2.91	2.88	2.84	2.59
EUR	5.13	4.60	4.15	4.06	3.98	3.82	3.74	3.32	3.20	3.02	2.88
LAM	1.44	1.48	1.52	1.52	1.61	1.68	1.67	1.69	1.65	1.60	1.51
ROW	1.08	1.14	1.26	1.33	1.55	1.68	1.77	1.96	2.01	2.14	2.18
USA	0.65	0.62	0.62	0.64	0.64	0.62	0.59	0.58	0.56	0.54	0.48

Table 1534: MAgPIE m4p_brazil — Productivity—Yield—Pasture (t DM/ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	2.08	2.03	1.97	1.85	1.67	1.47	1.38
BRA	2.75	2.60	2.45	2.14	1.84	1.56	1.42
CHA	2.51	2.50	2.42	2.17	1.90	1.68	1.60
EUR	2.75	2.61	2.49	2.22	1.96	1.71	1.61
LAM	1.42	1.36	1.29	1.14	0.99	0.84	0.79
ROW	2.18	2.15	2.11	2.03	1.86	1.65	1.55
USA	0.44	0.43	0.42	0.39	0.37	0.34	0.33

Table 1535: MAgPIE m4p_brazil — Productivity—Yield—Pasture (t DM/ha) [PART 2/2]

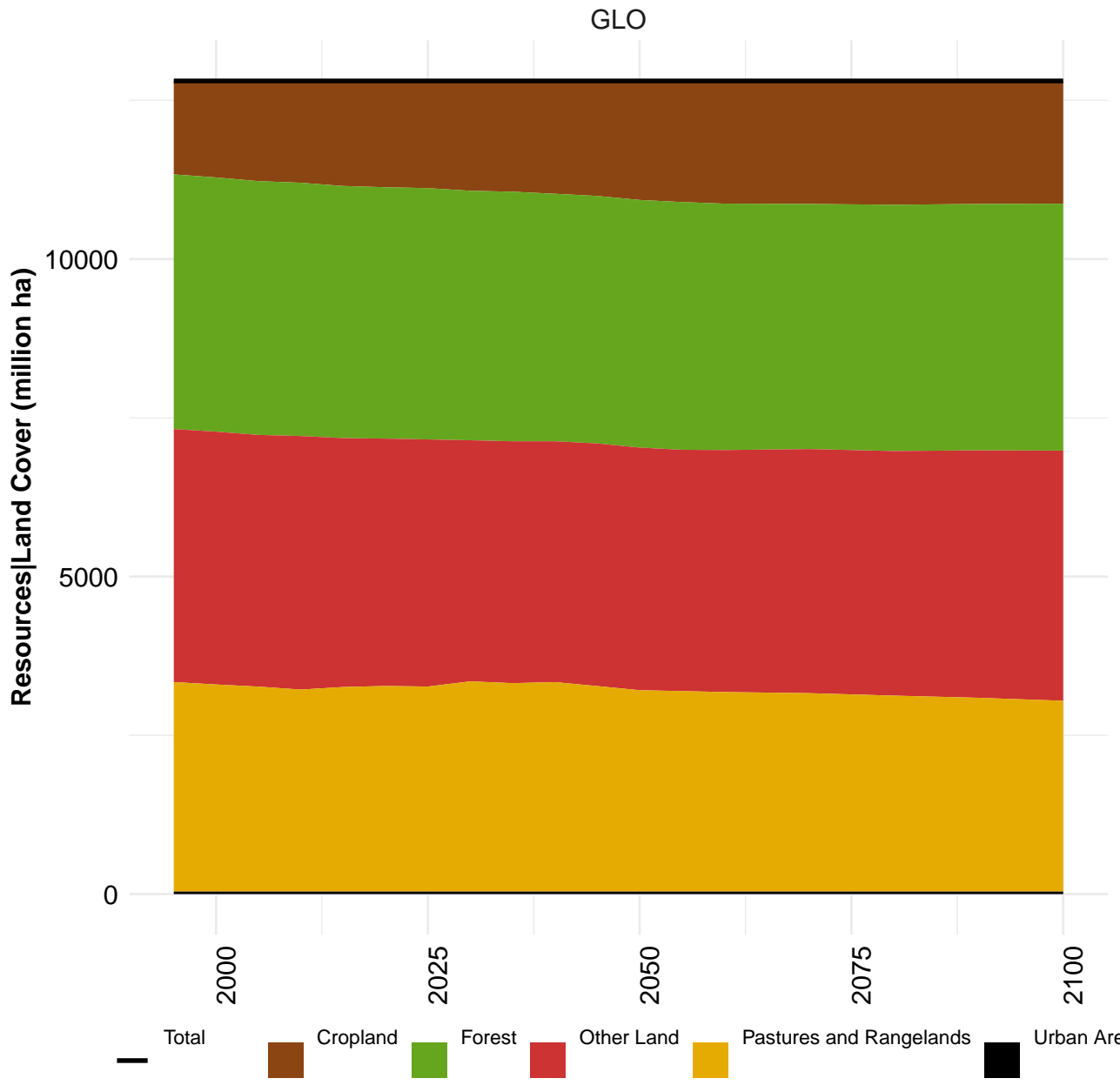
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.13	1.15	1.18	1.19	1.18	1.18	1.22	1.29	1.41	1.49
BRA	1.24	1.26	1.43	1.64	1.87	2.12	2.41	2.70	3.04	3.23
CHA	1.63	1.55	1.45	1.40	1.35	1.32	1.46	1.69	1.96	2.14
EUR	6.12	6.29	6.41	6.25	5.86	5.38	4.88	4.40	4.01	3.92
LAM	1.15	1.21	1.25	1.27	1.28	1.32	1.38	1.43	1.47	1.47
ROW	0.76	0.78	0.81	0.84	0.87	0.90	0.93	1.00	1.12	1.20
USA	1.44	1.54	1.52	1.30	0.98	0.75	0.66	0.63	0.62	0.65

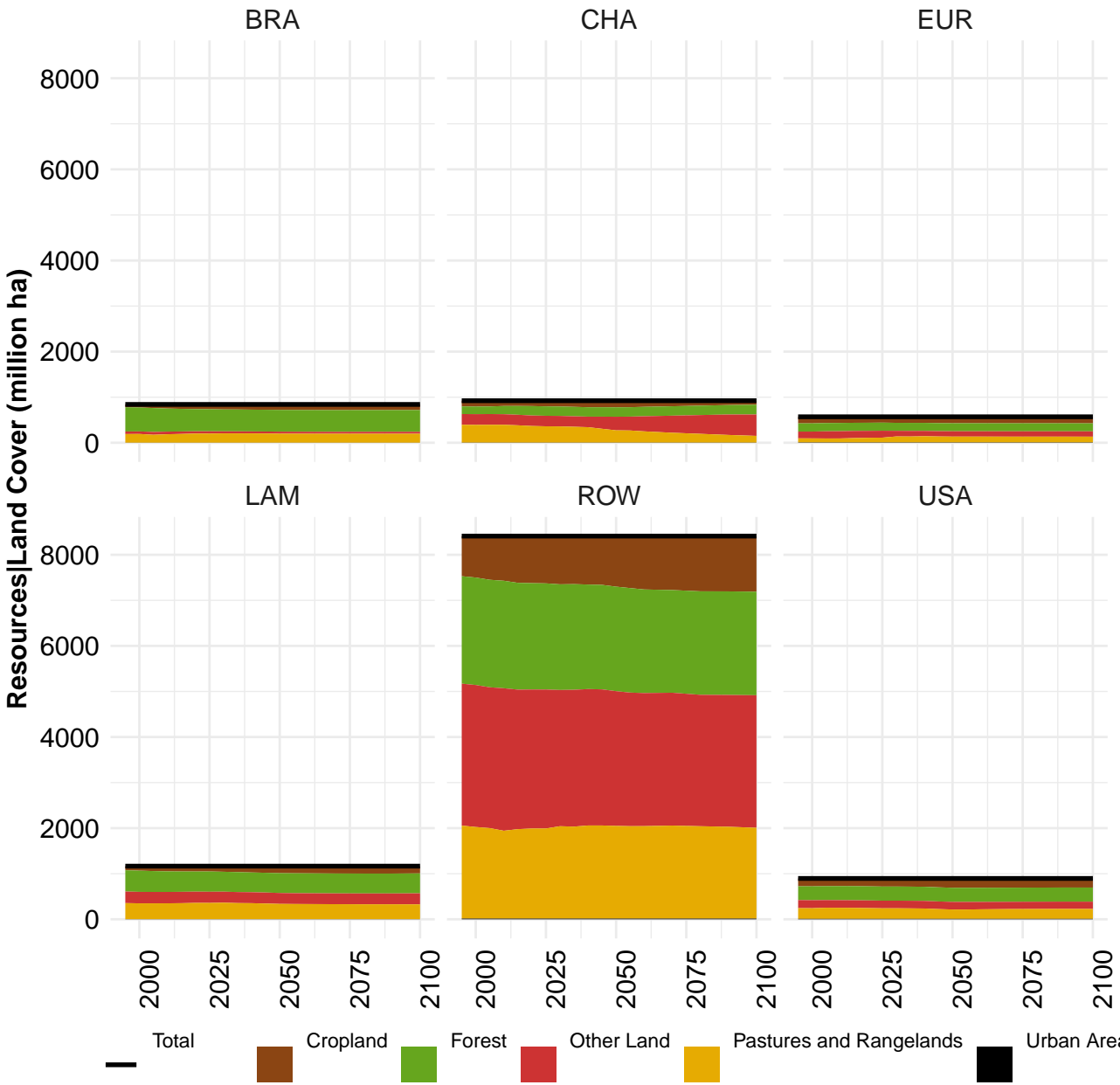
Table 1536: FAO — Productivity—Yield—Pasture (t DM/ha)

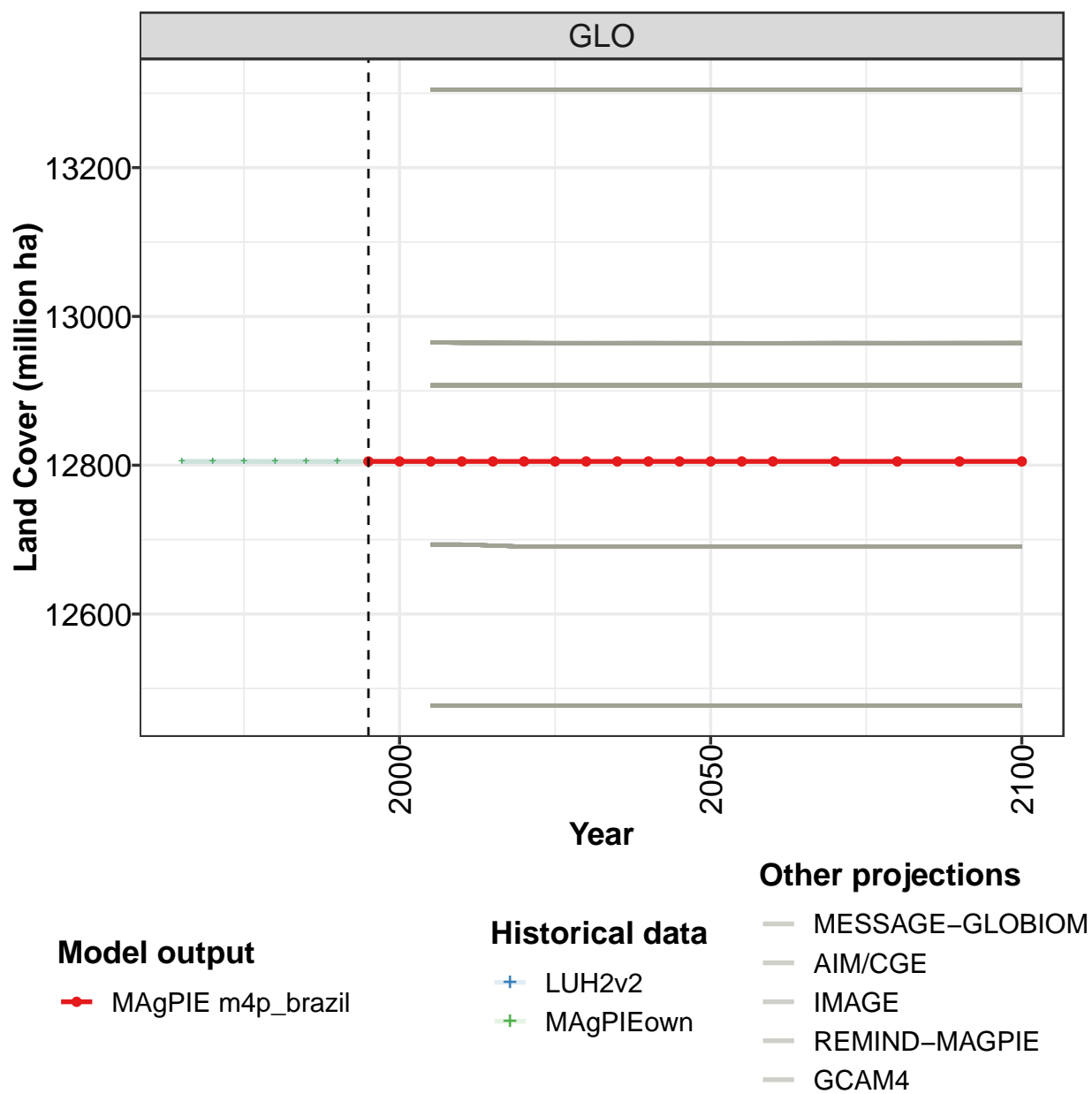
53 Yield-increasing technological change

Part XIV
Resources

54 Land Cover







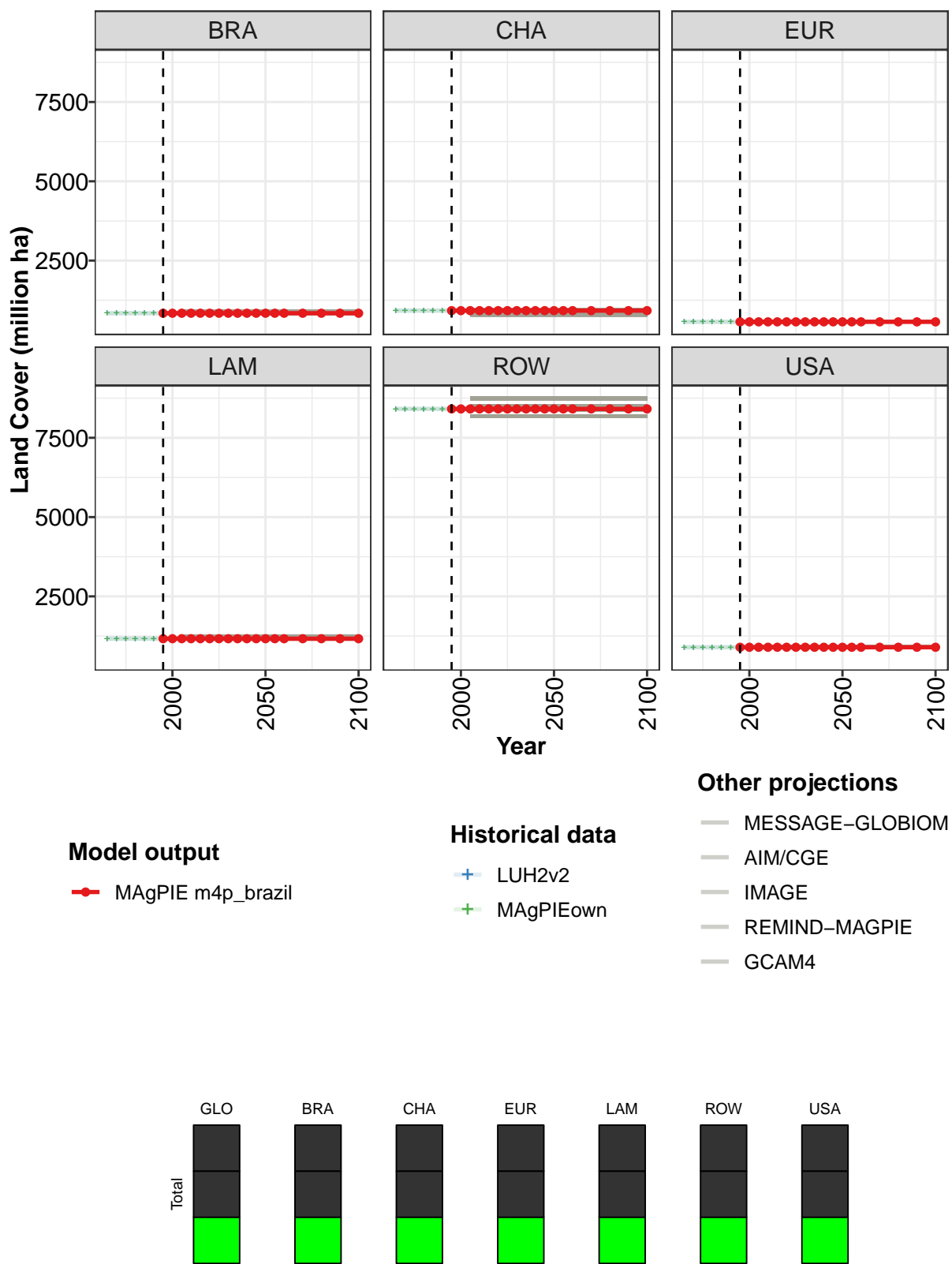


Figure 399: MAgPIE m4p_brazil — Resources—Land Cover (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	12805	12805	12805	12805	12805	12805	12805	12805	12805	12805	12805
BRA	841	841	841	841	841	841	841	841	841	841	841
CHA	922	922	922	922	922	922	922	922	922	922	922
EUR	569	569	569	569	569	569	569	569	569	569	569
LAM	1166	1166	1166	1166	1166	1166	1166	1166	1166	1166	1166
ROW	8410	8410	8410	8410	8410	8410	8410	8410	8410	8410	8410
USA	896	896	896	896	896	896	896	896	896	896	896

Table 1537: MAgPIE m4p_brazil — Resources—Land Cover (million ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	12805	12805	12805	12805	12805	12805	12805
BRA	841	841	841	841	841	841	841
CHA	922	922	922	922	922	922	922
EUR	569	569	569	569	569	569	569
LAM	1166	1166	1166	1166	1166	1166	1166
ROW	8410	8410	8410	8410	8410	8410	8410
USA	896	896	896	896	896	896	896

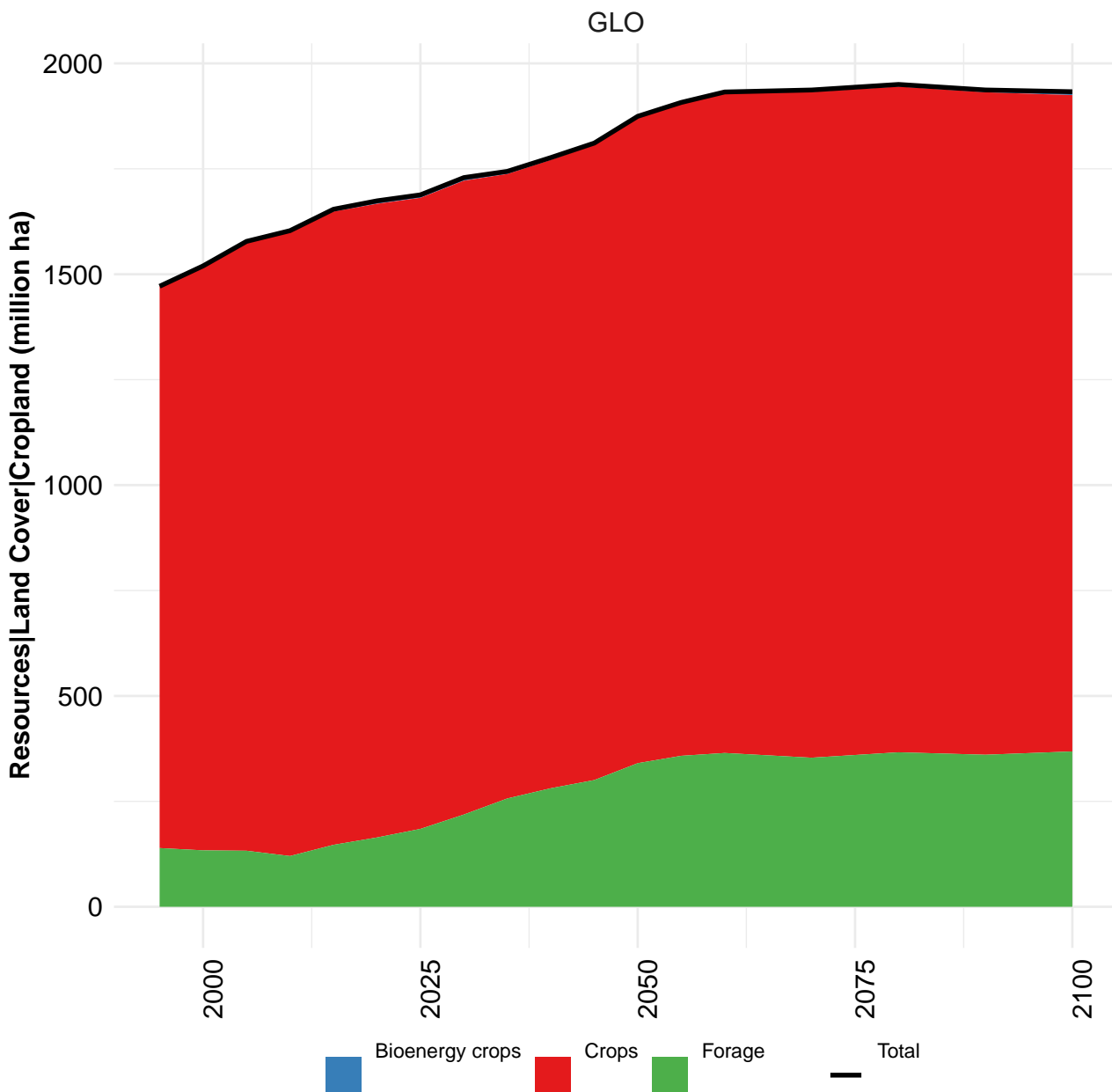
Table 1538: MAgPIE m4p_brazil — Resources—Land Cover (million ha) [PART 2/2]

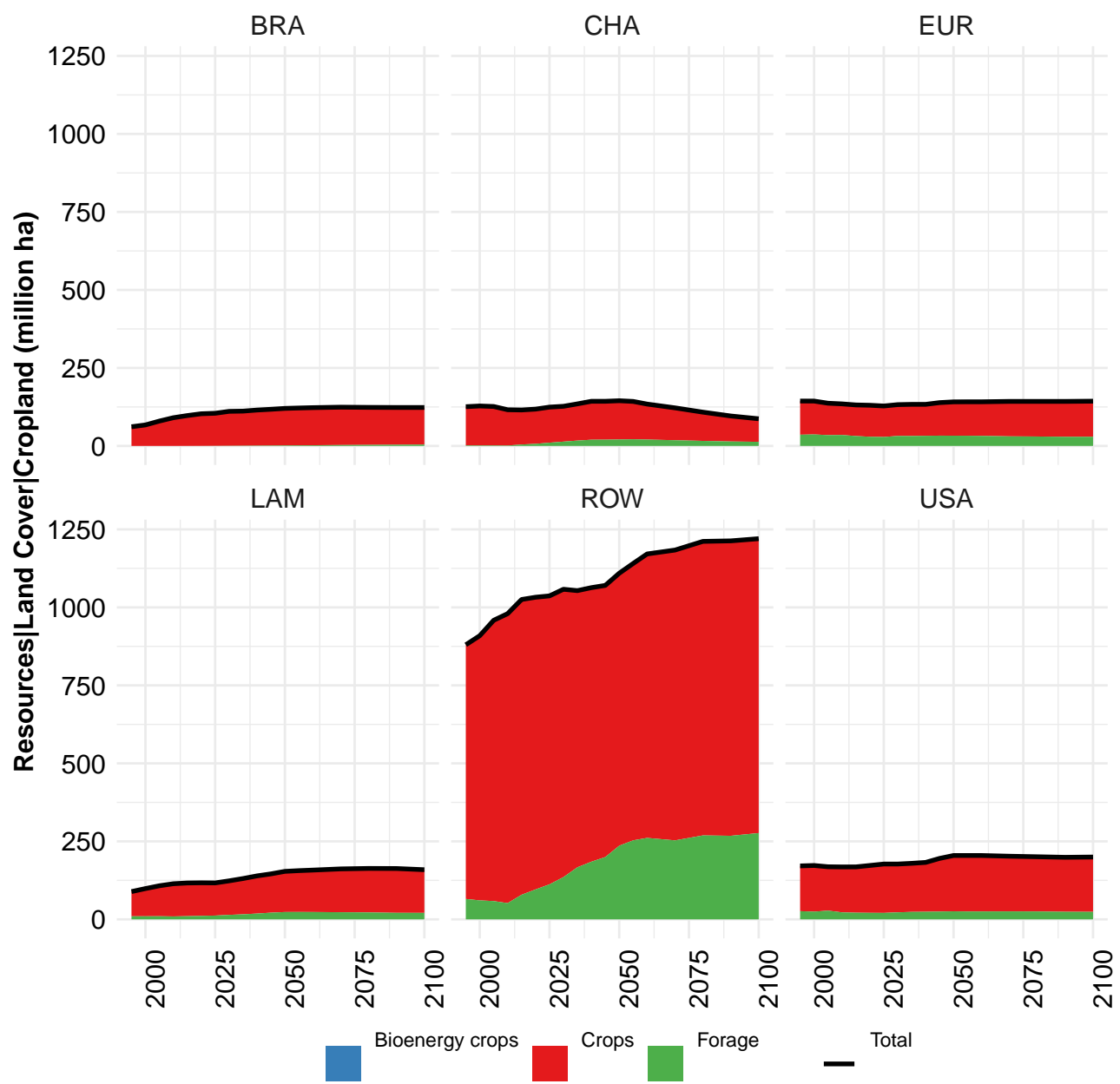
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	12805	12805	12805	12805	12805	12805	12805	12805	12805	12805
BRA	841	841	841	841	841	841	841	841	841	841
CHA	922	922	922	922	922	922	922	922	922	922
EUR	569	569	569	569	569	569	569	569	569	569
LAM	1166	1166	1166	1166	1166	1166	1166	1166	1166	1166
ROW	8410	8410	8410	8410	8410	8410	8410	8410	8410	8410
USA	896	896	896	896	896	896	896	896	896	896

Table 1539: LUH2v2 — Resources—Land Cover (million ha)

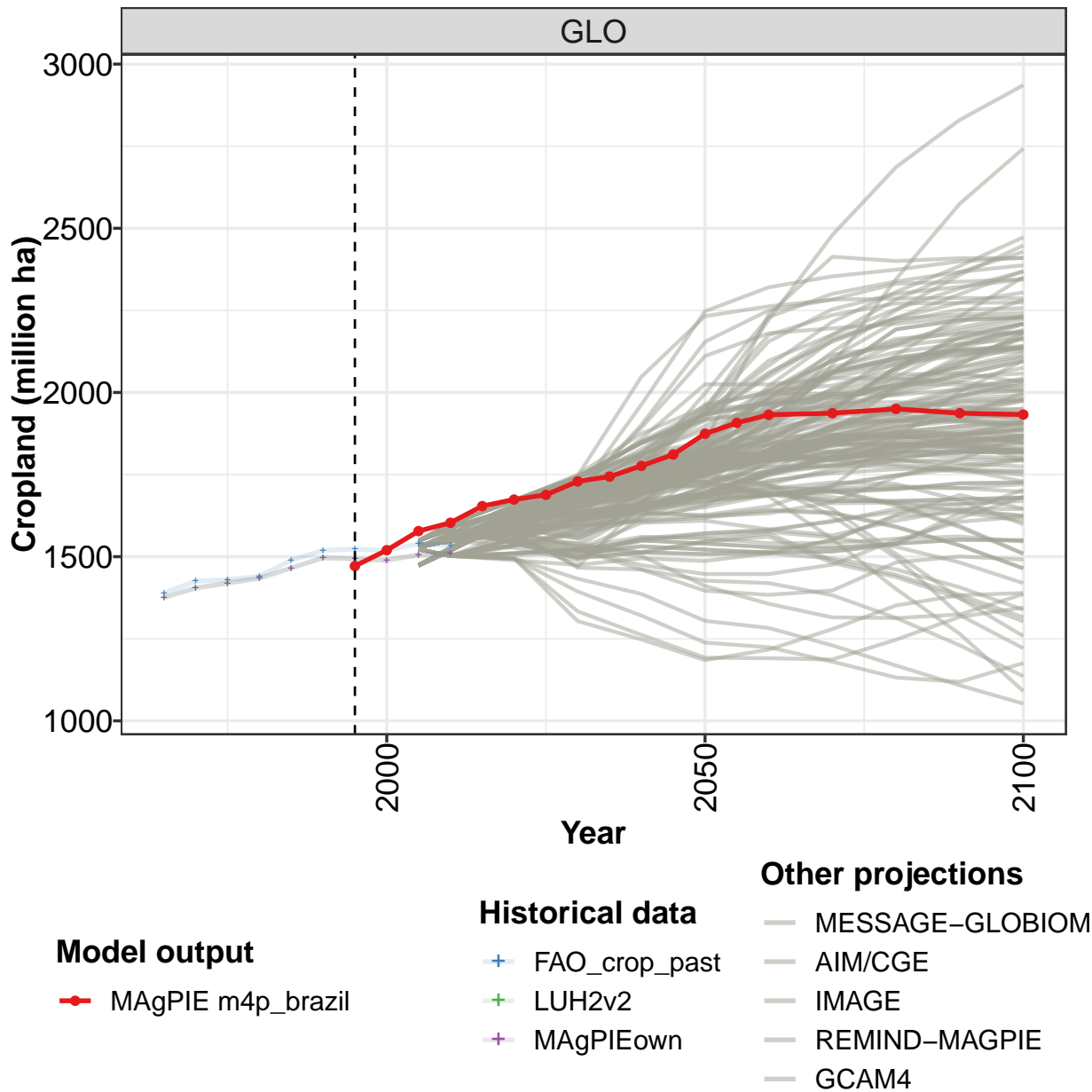
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	12805	12805	12805	12805	12805	12805	12805	12805	12805	12805
BRA	841	841	841	841	841	841	841	841	841	841
CHA	922	922	922	922	922	922	922	922	922	922
EUR	569	569	569	569	569	569	569	569	569	569
LAM	1166	1166	1166	1166	1166	1166	1166	1166	1166	1166
ROW	8410	8410	8410	8410	8410	8410	8410	8410	8410	8410
USA	896	896	896	896	896	896	896	896	896	896

Table 1540: MAgPIEown — Resources—Land Cover (million ha)





54.1 Cropland



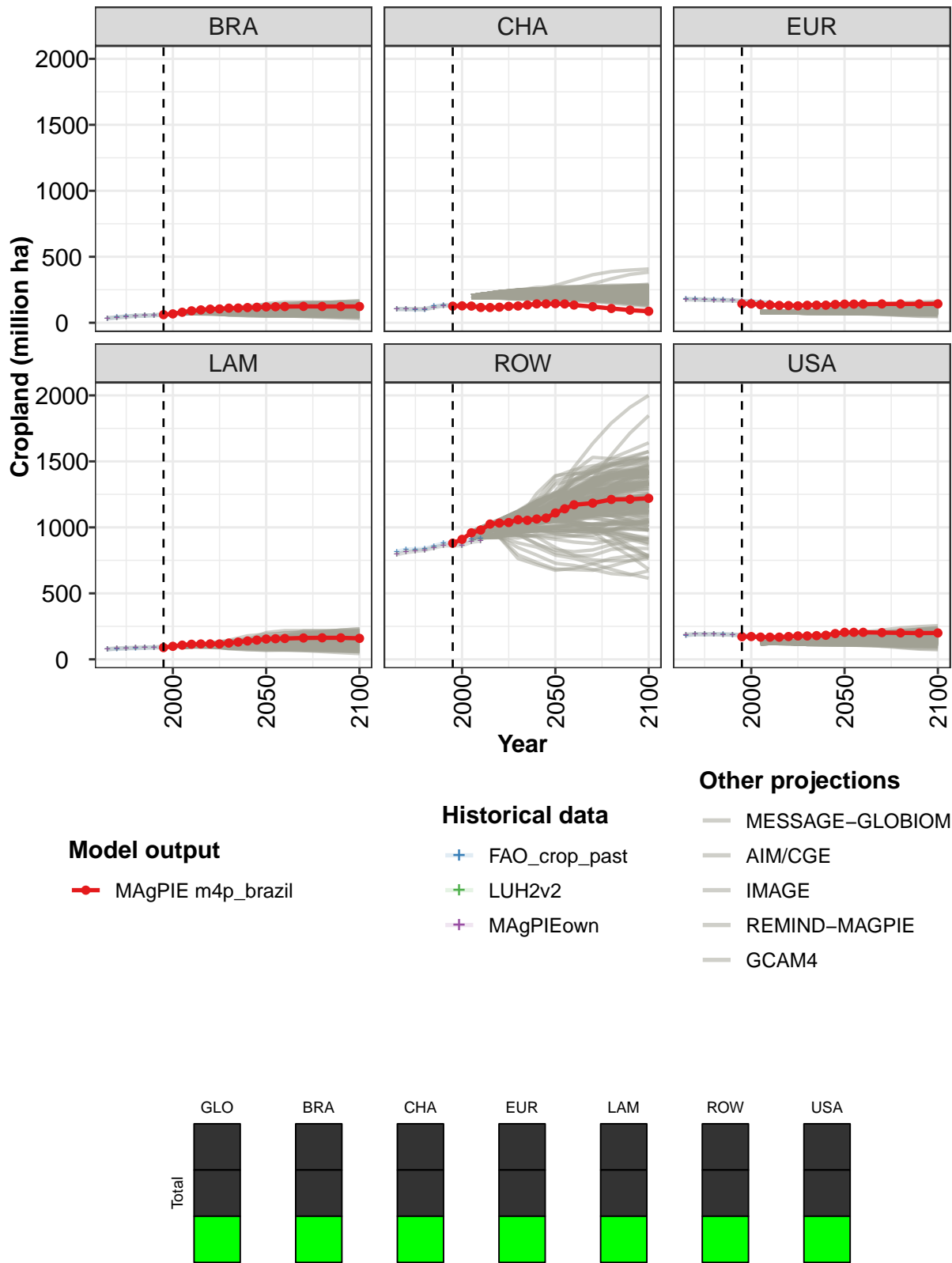


Figure 400: MAgPIE m4p_brazil — Resources—Land Cover—Cropland (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1471	1520	1578	1603	1654	1674	1688	1729	1744	1777	1811
BRA	61	67	80	90	97	103	105	111	112	115	117
CHA	126	128	126	116	115	118	124	127	135	143	143
EUR	144	144	137	135	131	130	128	132	133	133	139
LAM	89	99	108	114	117	117	117	123	131	139	146
ROW	880	909	959	980	1025	1033	1037	1058	1054	1063	1070
USA	171	173	169	168	168	173	177	177	180	183	195

Table 1541: MAgPIE m4p_brazil — Resources—Land Cover—Cropland (million ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	1874	1907	1932	1937	1950	1937	1933
BRA	120	122	123	124	124	123	123
CHA	145	143	134	122	108	96	87
EUR	141	141	141	143	143	143	143
LAM	154	156	158	162	163	163	159
ROW	1109	1141	1171	1184	1212	1213	1220
USA	205	205	205	202	201	199	200

Table 1542: MAgPIE m4p_brazil — 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
BRA	34	41	48	53	53	57	66	65	76	77
CHA	105	103	101	100	126	132	131	130	125	123
EUR	182	179	176	175	174	172	166	163	157	152
LAM	75	80	82	84	87	90	93	96	101	107
ROW	816	831	834	837	859	879	883	887	911	917
USA	179	190	188	191	190	188	184	178	168	159

Table 1543: FAO_crop_past — Resources—Land Cover—Cropland (million ha)

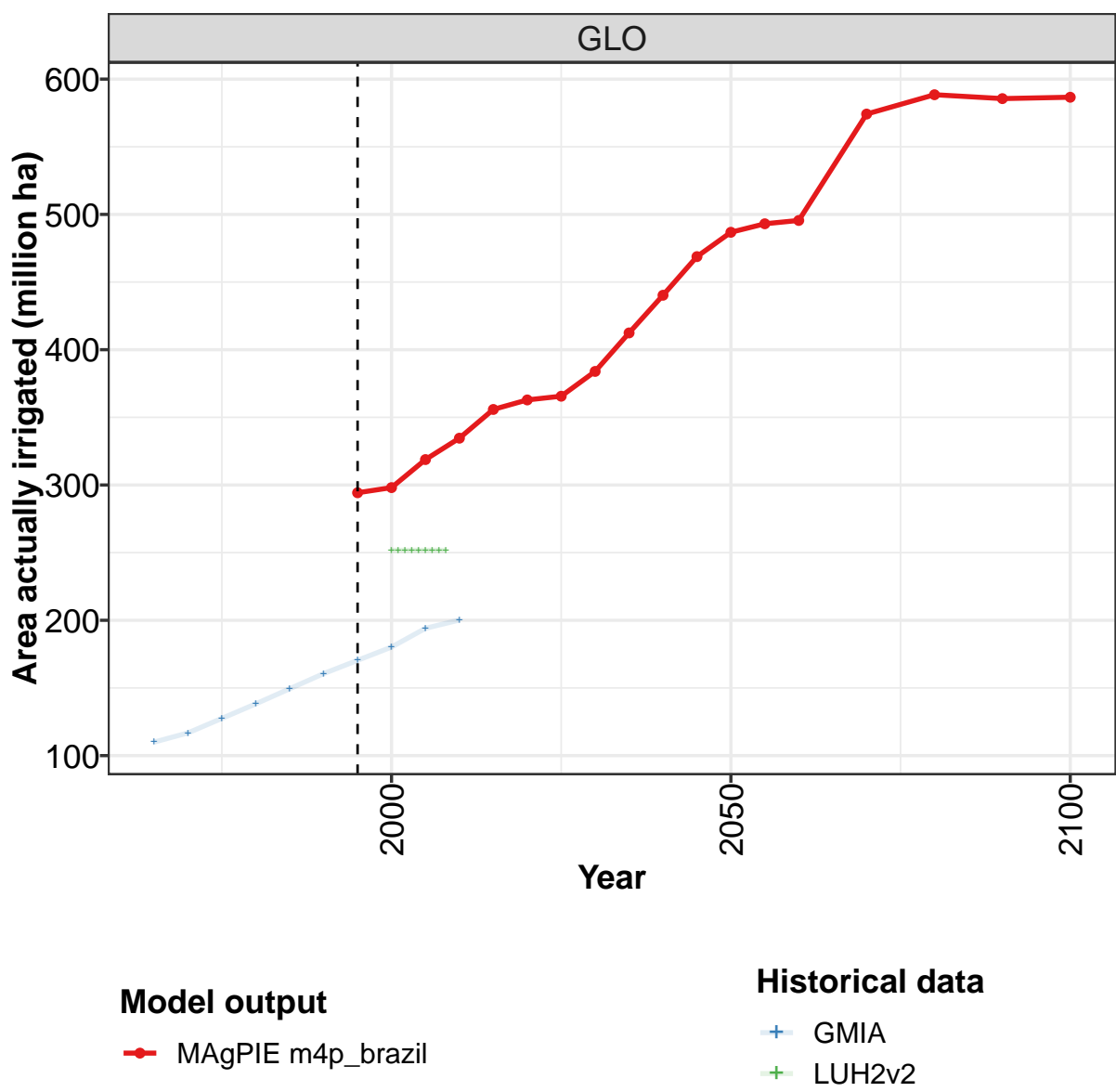
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1376	1404	1419	1434	1465	1497	1493	1489	1506	1510
BRA	34	41	47	52	55	57	61	65	68	77
CHA	104	104	104	103	117	130	129	128	130	122
EUR	177	175	174	172	170	169	164	160	153	149
LAM	78	83	85	88	89	91	93	95	97	105
ROW	796	812	820	829	846	864	864	864	890	899
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
BRA	34	41	47	52	55	57	61	65	68	77
CHA	104	104	104	103	117	130	129	128	130	122
EUR	177	175	174	172	170	169	164	160	153	149
LAM	78	83	85	88	89	91	93	95	97	105
ROW	796	812	820	829	846	864	864	864	890	899
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



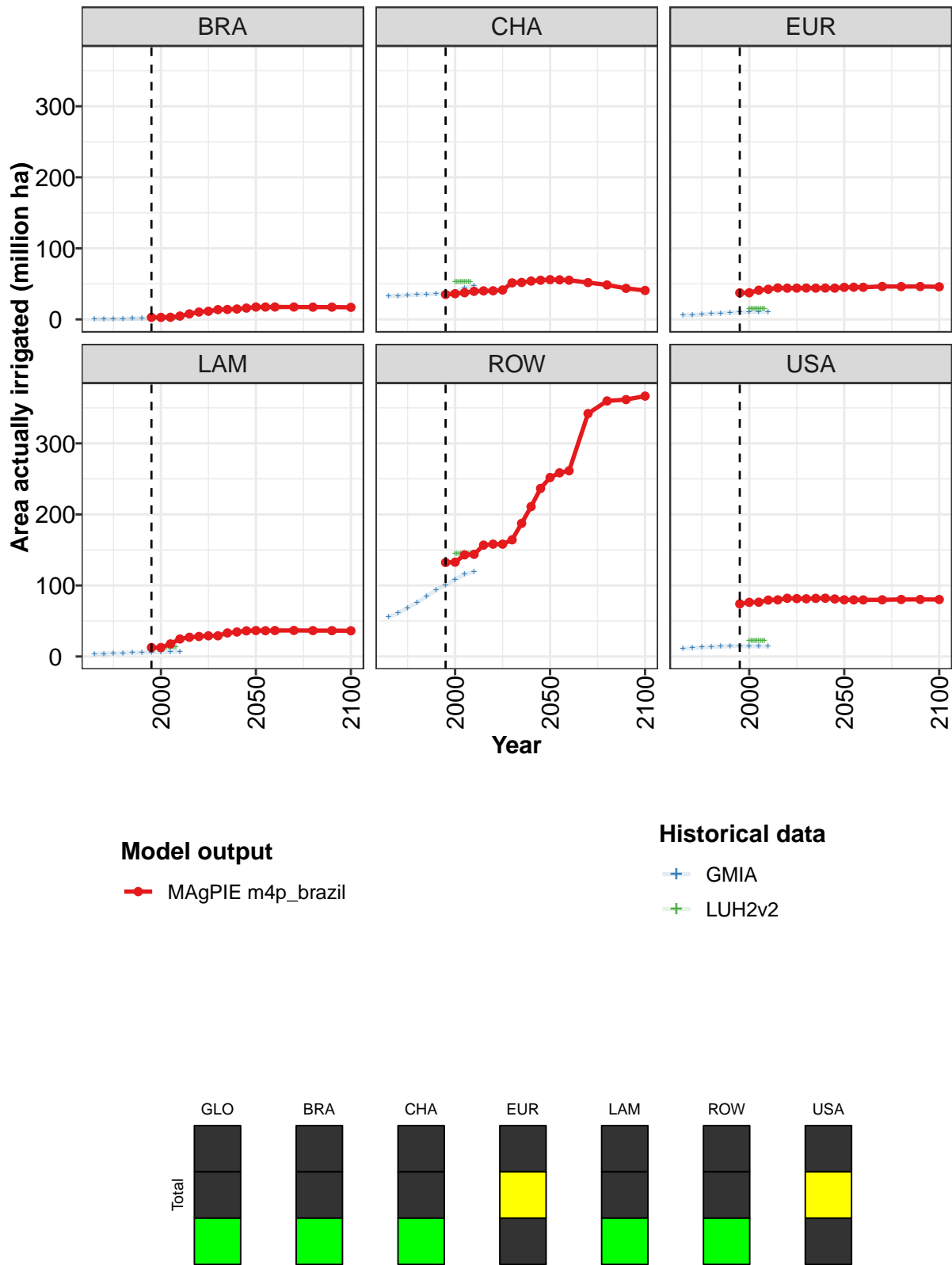


Figure 401: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Area actually irrigated (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	294	298	319	335	356	363	366	384	412	440	469
BRA	3	3	3	5	8	10	11	14	14	15	16
CHA	35	36	38	40	40	40	41	51	52	54	55
EUR	37	37	41	42	44	44	44	44	44	44	44
LAM	13	13	18	25	27	28	29	29	33	34	36
ROW	132	133	143	144	157	158	158	164	187	211	237
USA	74	76	76	79	80	82	82	81	82	82	81

Table 1546: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Area actually irrigated (million ha)
[PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	487	493	496	574	588	586	587
BRA	17	17	17	17	17	17	17
CHA	56	56	55	52	48	44	41
EUR	45	45	45	46	46	46	46
LAM	37	36	37	37	36	36	36
ROW	252	259	261	342	360	362	367
USA	80	80	80	80	80	80	80

Table 1547: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Area actually irrigated (million ha)
[PART 2/2]

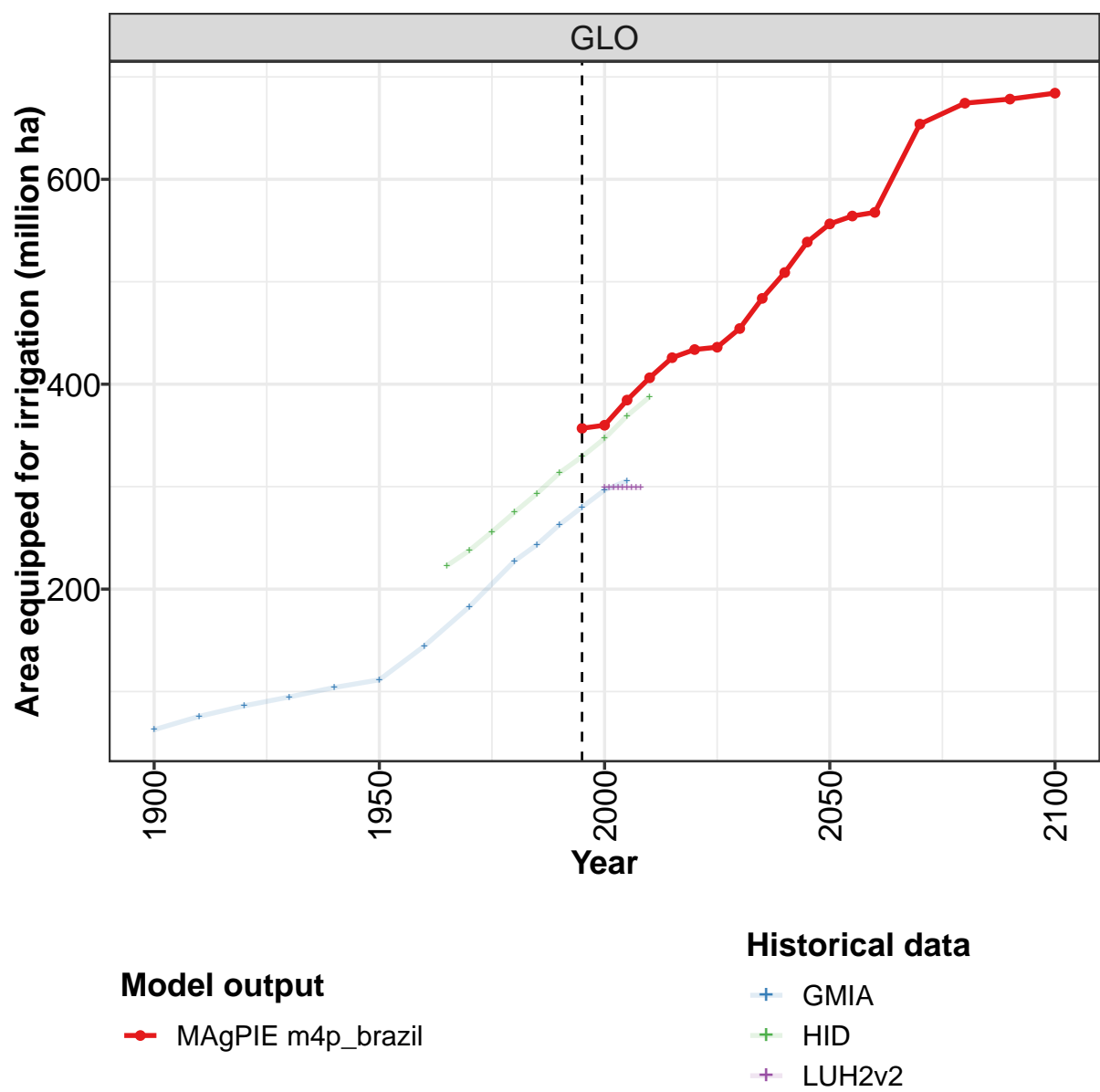
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	110	117	128	138	149	161	170	180	194	200
BRA	0	0	1	1	1	1	2	2	2	2
CHA	33	33	34	35	35	36	37	39	44	47
EUR	6	6	7	8	9	10	10	11	11	11
LAM	4	4	4	5	5	6	6	6	7	7
ROW	56	61	68	76	85	93	101	108	116	119
USA	11	12	13	14	14	15	15	15	14	14

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
BRA	3	3	3	3	3	3	3	3	3
CHA	53	53	53	53	53	53	53	53	53
EUR	15	15	15	15	15	15	15	15	15
LAM	13	13	13	13	13	13	13	13	13
ROW	145	145	145	145	145	145	145	145	145
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



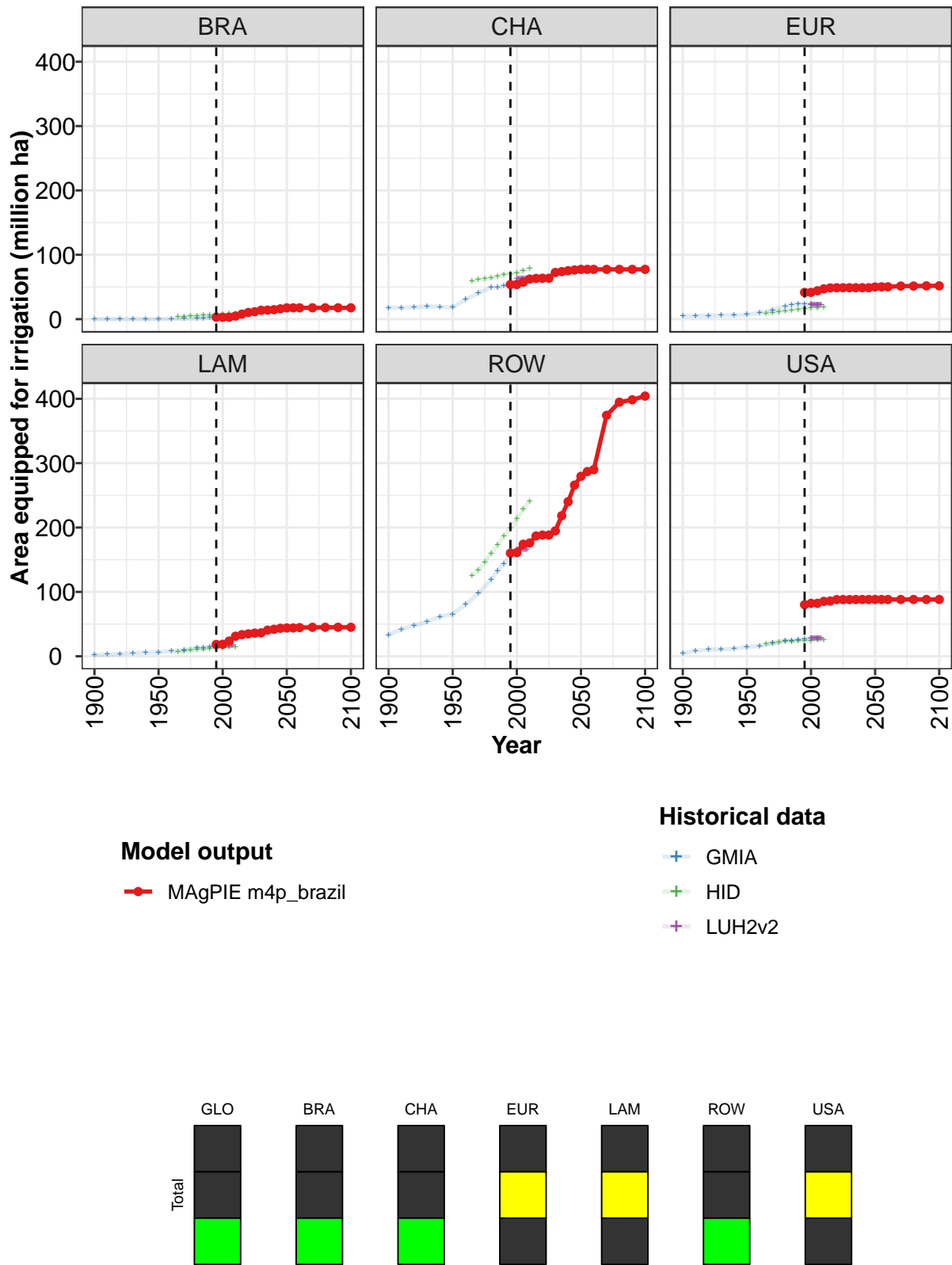


Figure 402: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Area equipped for irrigation (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	357	360	385	406	426	434	436	454	484	509	539
BRA	3	3	3	5	8	10	11	14	14	15	16
CHA	54	54	57	62	63	64	64	72	74	75	76
EUR	42	42	44	47	49	49	49	49	49	49	49
LAM	18	19	24	31	34	35	36	36	41	42	43
ROW	160	161	174	176	187	188	188	195	218	240	266
USA	80	82	82	85	86	88	88	88	88	88	88

Table 1550: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Area equipped for irrigation (million ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	556	564	568	654	674	678	684
BRA	18	18	18	18	18	18	18
CHA	77	77	77	77	77	77	77
EUR	50	50	50	51	51	52	52
LAM	44	44	45	45	45	45	45
ROW	280	287	290	374	395	398	404
USA	88	88	88	88	88	88	88

Table 1551: MAgPIE m4p_brazil — 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
BRA	0	0	0	0	0	0	0	1	1	2	2
CHA	18	18	18	20	19	18	30	40	49	49	52
EUR	5	5	6	6	6	7	10	14	20	22	24
LAM	2	3	4	5	6	6	8	10	13	14	15
ROW	33	42	48	53	62	65	80	98	119	133	144
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
BRA	3	3	4
CHA	54	59	62
EUR	23	24	22
LAM	16	17	17
ROW	157	166	172
USA	26	28	28

Table 1553: HID — Resources—Land Cover—Cropland—Area equipped for irrigation (million ha) [PART 2/2]

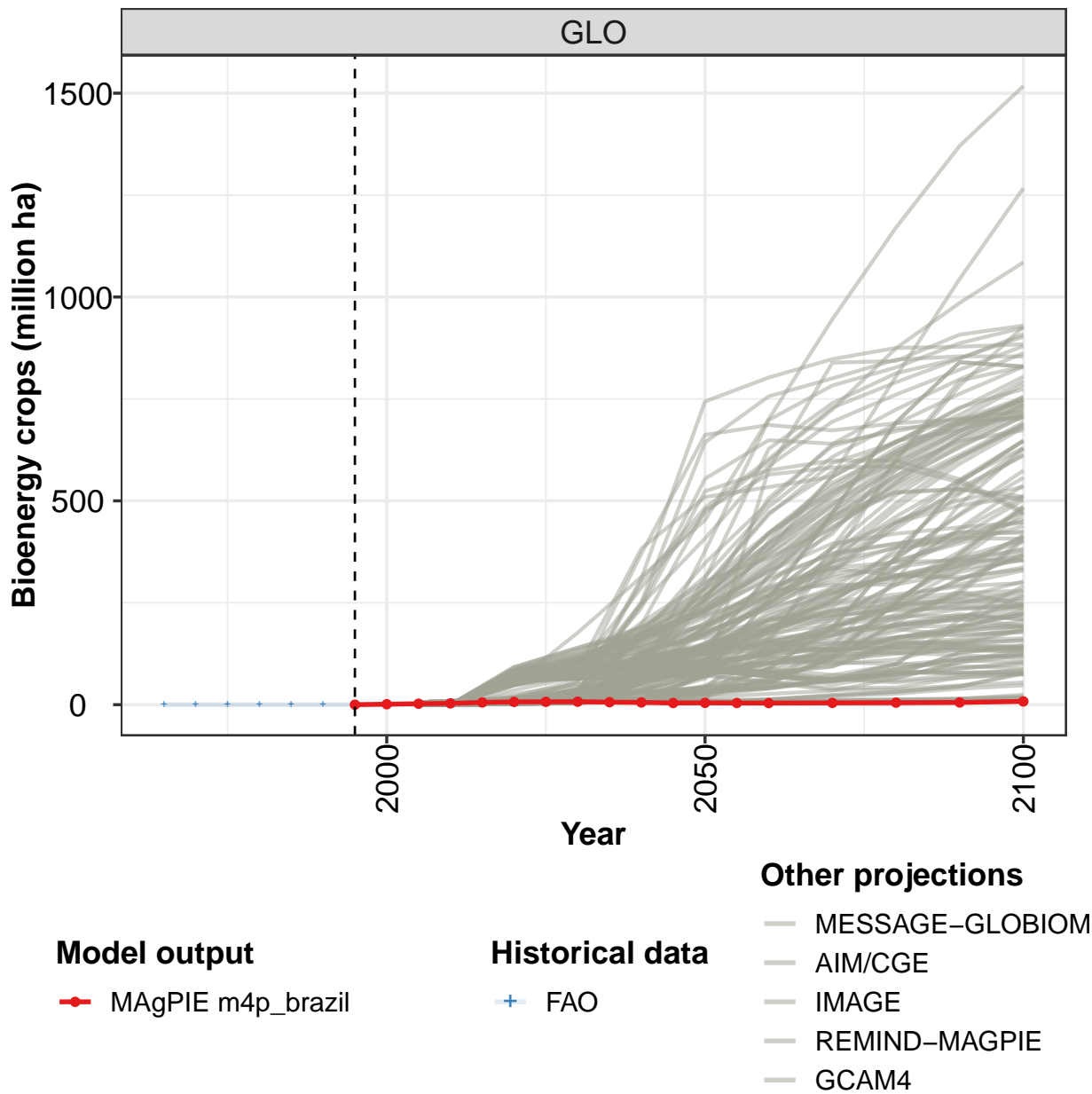
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	223	238	256	275	293	313	329	347	369	388
BRA	3	4	5	5	6	7	7	8	9	9
CHA	59	62	63	64	66	70	70	72	76	79
EUR	9	10	11	13	14	15	16	17	18	18
LAM	7	8	9	10	11	12	12	13	14	15
ROW	125	134	147	160	173	187	199	213	228	241
USA	19	20	22	23	23	24	24	25	25	25

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
BRA	3	3	3	3	3	3	3	3	3
CHA	62	62	62	62	62	62	62	62	62
EUR	23	23	23	23	23	23	23	23	23
LAM	17	17	17	17	17	17	17	17	17
ROW	166	166	166	166	166	166	166	166	166
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



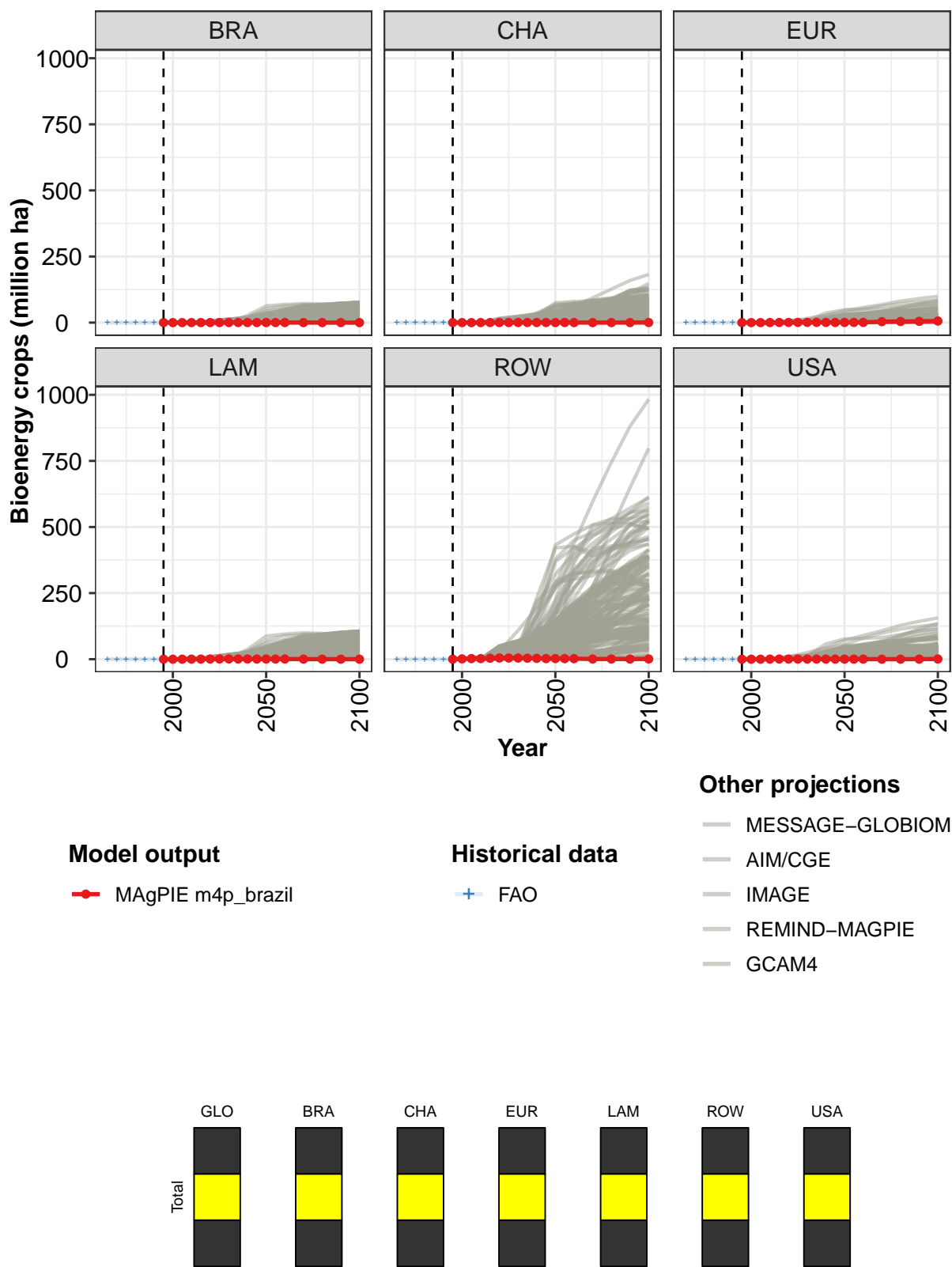


Figure 403: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Bioenergy crops (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.00	1.23	2.35	3.23	5.51	6.94	7.01	7.29	6.20	5.47	4.13
BRA	0.00	0.00	0.00	0.06	0.11	0.16	0.18	0.20	0.18	0.18	0.15
CHA	0.00	0.00	0.00	0.10	0.18	0.25	0.28	0.33	0.32	0.31	0.25
EUR	0.00	0.00	0.00	0.25	0.48	0.69	0.76	0.89	0.72	0.68	0.53
LAM	0.00	0.00	0.00	0.21	0.45	0.68	0.80	0.94	0.83	0.78	0.63
ROW	0.00	1.23	2.35	2.27	3.73	4.59	4.48	4.42	3.72	3.14	2.28
USA	0.00	0.00	0.00	0.34	0.56	0.57	0.52	0.51	0.43	0.39	0.29

Table 1556: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Bioenergy crops (million ha) [PART 1/2]

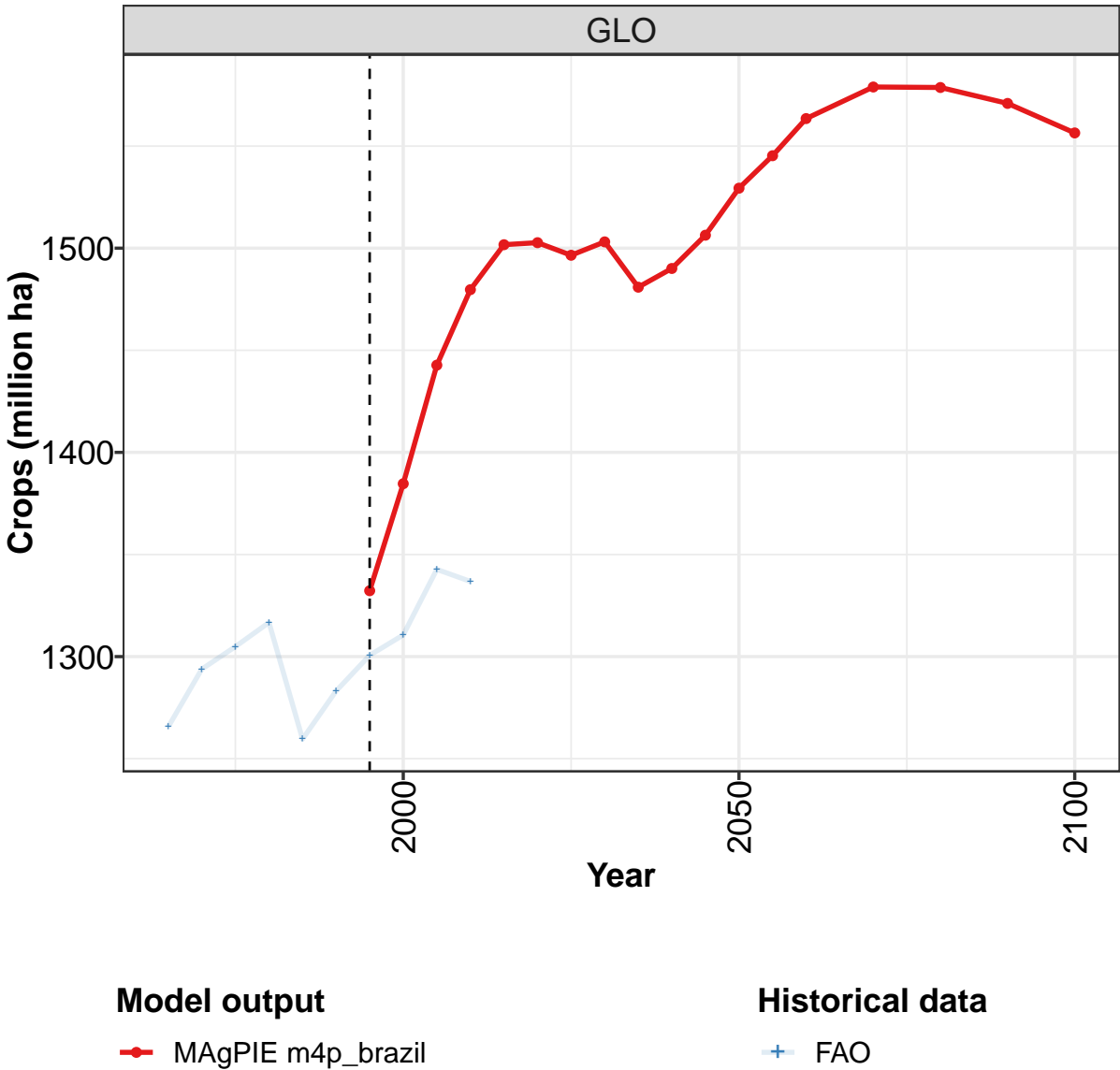
	2050	2055	2060	2070	2080	2090	2100
GLO	4.54	4.11	4.00	4.45	5.01	5.49	7.98
BRA	0.16	0.15	0.15	0.07	0.02	0.00	0.00
CHA	0.28	0.25	0.23	0.00	0.04	0.09	0.36
EUR	0.67	0.64	0.68	3.54	4.10	4.77	5.99
LAM	0.70	0.65	0.63	0.27	0.09	0.00	0.02
ROW	2.40	2.12	2.02	0.57	0.72	0.52	0.89
USA	0.33	0.30	0.30	0.00	0.04	0.11	0.72

Table 1557: MAgPIE m4p_brazil — 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
BRA	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
LAM	0	0	0	0	0	0	0	0	0	0
ROW	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



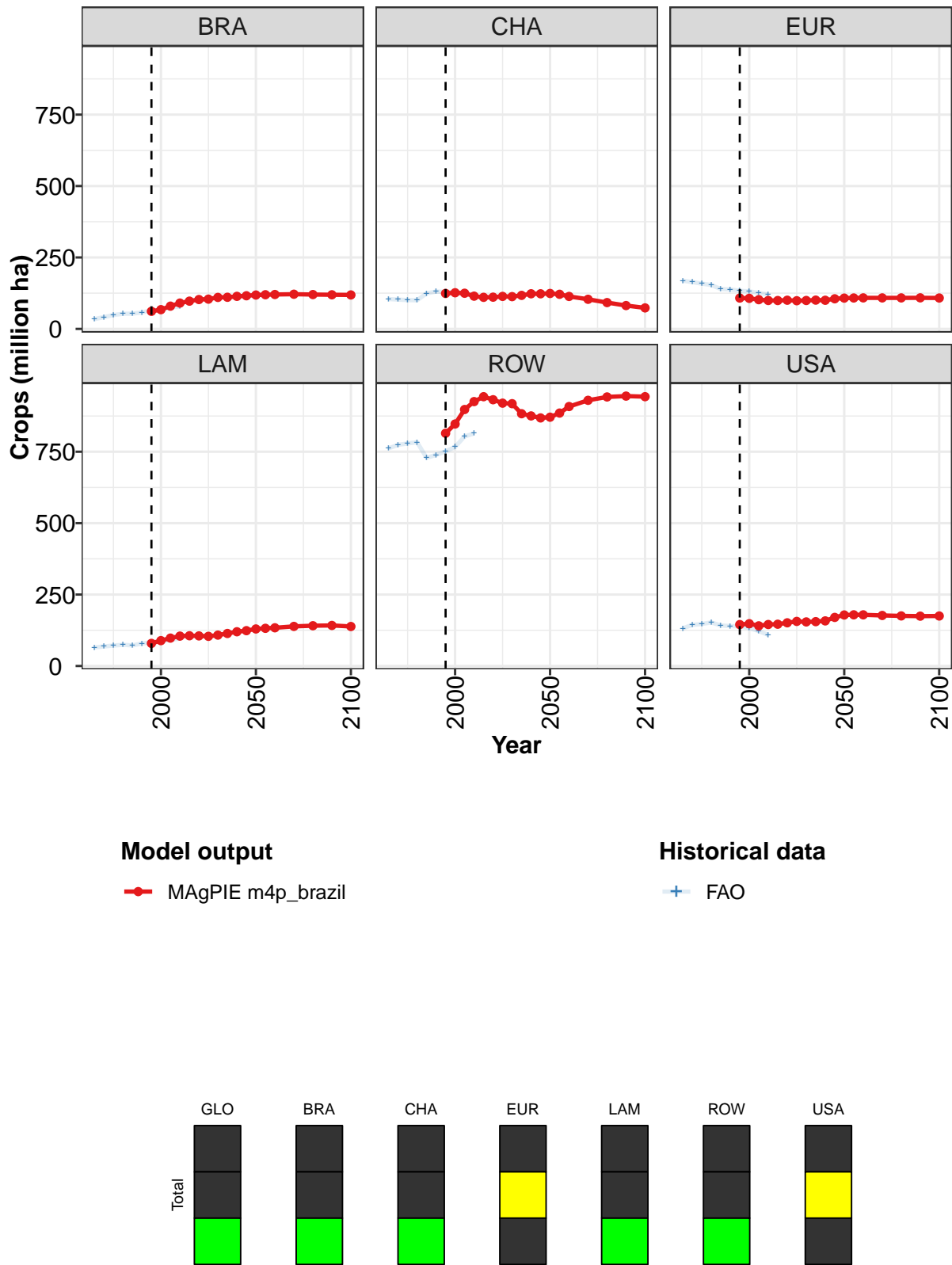


Figure 404: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1332	1385	1443	1480	1502	1503	1497	1503	1481	1490	1506
BRA	61	67	80	90	97	103	104	110	111	114	116
CHA	124	126	125	115	110	111	114	113	117	123	123
EUR	108	107	102	99	99	100	99	99	101	100	105
LAM	79	89	98	105	106	105	104	108	114	120	124
ROW	815	847	898	926	943	932	920	918	883	875	868
USA	145	148	141	145	146	151	156	154	155	158	170

Table 1559: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops (million ha) [PART 1/2]

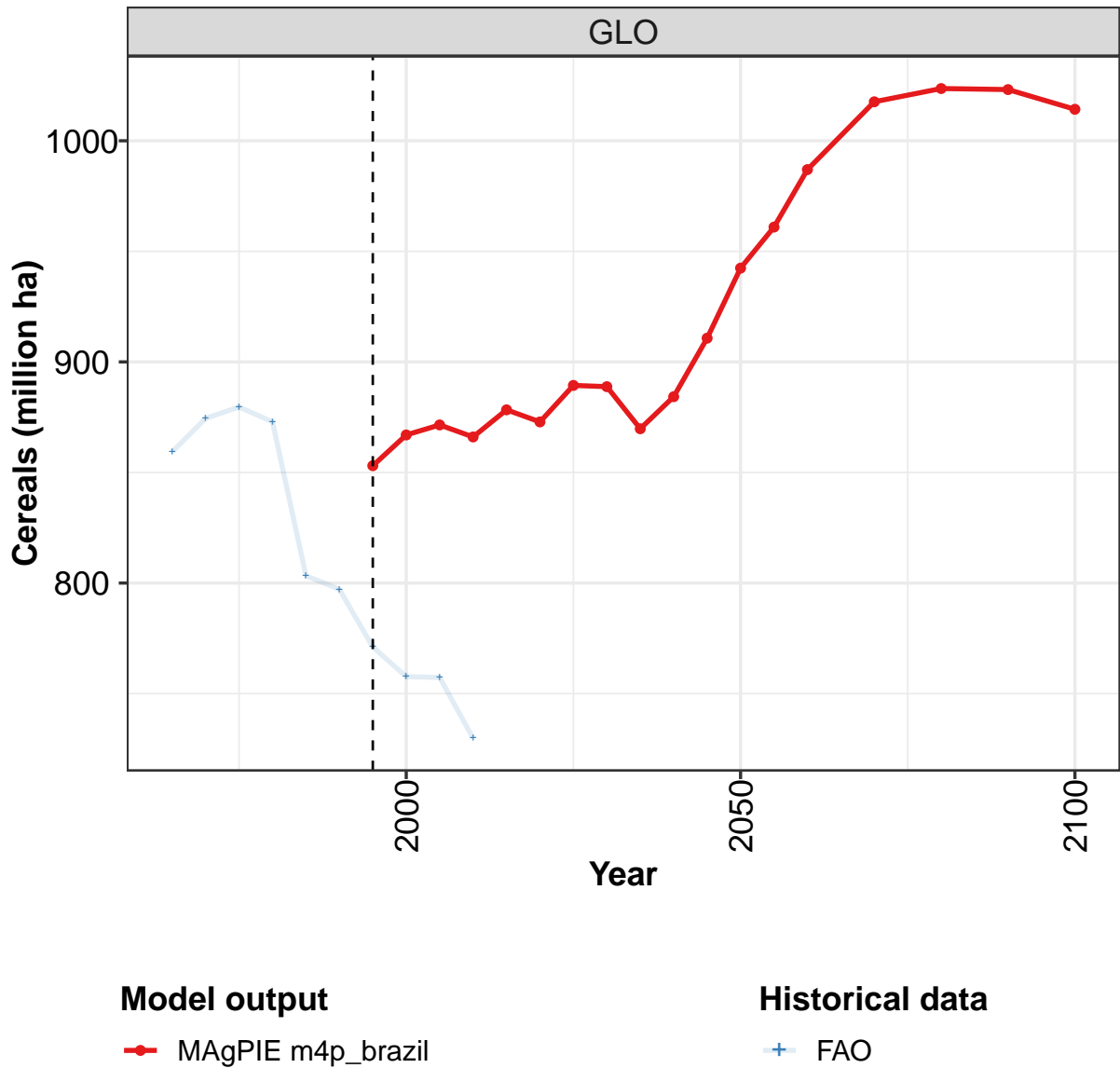
	2050	2055	2060	2070	2080	2090	2100
GLO	1529	1545	1563	1579	1579	1571	1556
BRA	119	120	120	121	120	119	119
CHA	124	121	114	104	92	82	73
EUR	108	108	109	108	108	109	108
LAM	130	132	134	139	141	142	138
ROW	871	885	908	930	942	945	943
USA	179	179	179	177	175	174	175

Table 1560: MAgPIE m4p_brazil — 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
BRA	34	41	48	53	53	57	66	65	76	77
CHA	105	103	101	100	124	131	129	128	124	121
EUR	169	164	158	154	140	138	133	131	126	120
LAM	65	68	72	74	72	79	83	86	91	96
ROW	762	774	779	783	729	739	751	767	804	814
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



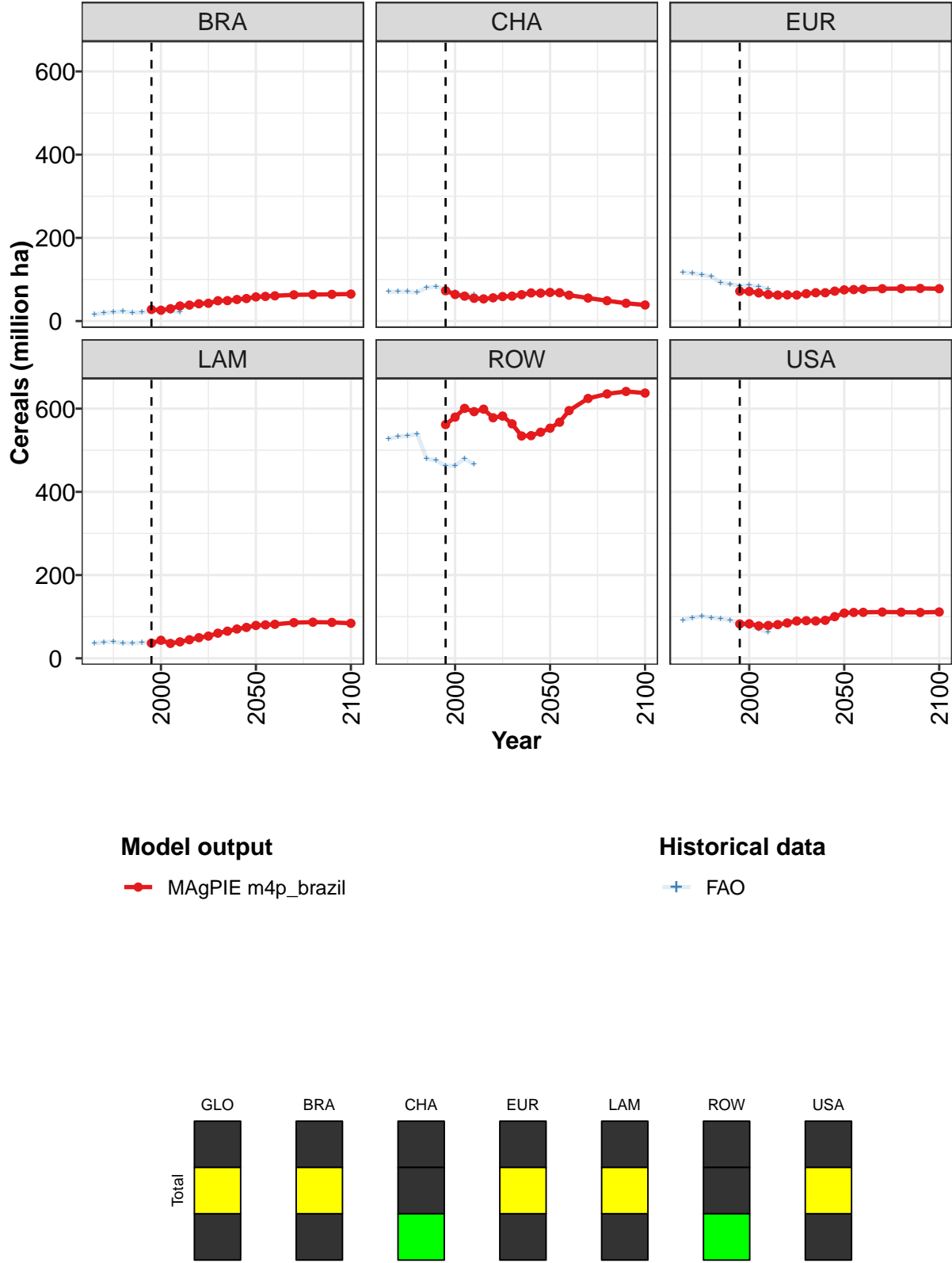


Figure 405: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Cereals (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	853	867	872	866	878	873	889	889	870	884	911
BRA	28	26	30	36	38	42	43	49	49	52	54
CHA	73	64	60	55	53	56	59	60	63	68	67
EUR	72	71	68	64	62	63	63	66	68	68	72
LAM	36	43	36	40	45	49	53	60	65	70	74
ROW	562	580	601	593	599	578	582	563	534	535	543
USA	83	83	78	79	81	85	90	90	90	91	100

Table 1562: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Cereals (million ha) [PART 1/2]

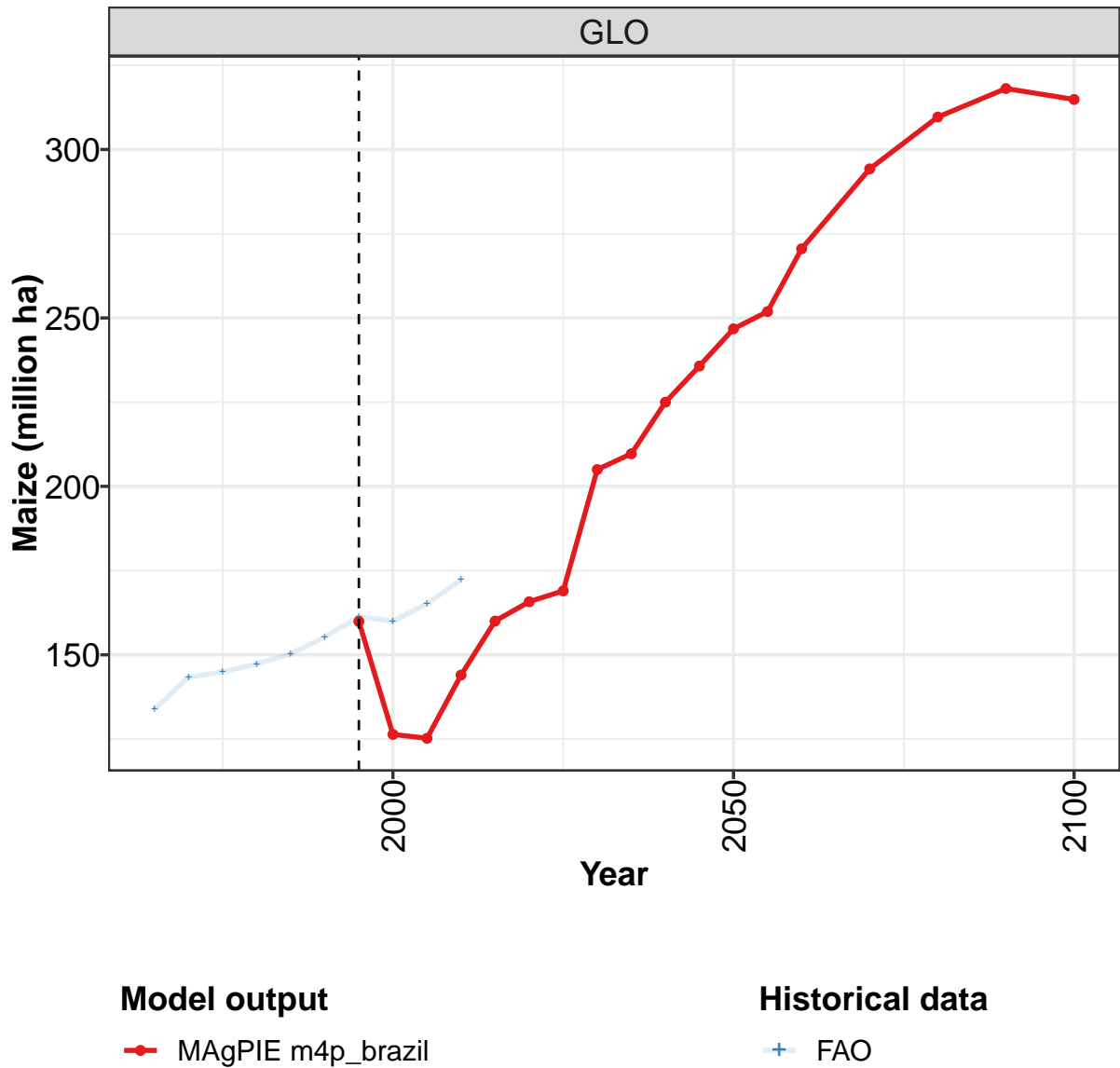
	2050	2055	2060	2070	2080	2090	2100
GLO	942	961	987	1018	1024	1023	1014
BRA	58	59	61	63	64	64	65
CHA	69	68	62	55	49	43	39
EUR	75	76	77	78	78	78	78
LAM	79	80	82	86	87	86	84
ROW	553	567	595	624	635	641	637
USA	109	110	110	111	111	110	111

Table 1563: MAgPIE m4p_brazil — 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
BRA	16	19	22	23	20	21	25	22	24	22
CHA	71	71	71	69	80	83	76	69	64	64
EUR	117	115	111	107	92	89	85	86	82	76
LAM	36	39	40	37	36	37	39	40	38	39
ROW	528	533	535	539	480	476	462	463	480	466
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



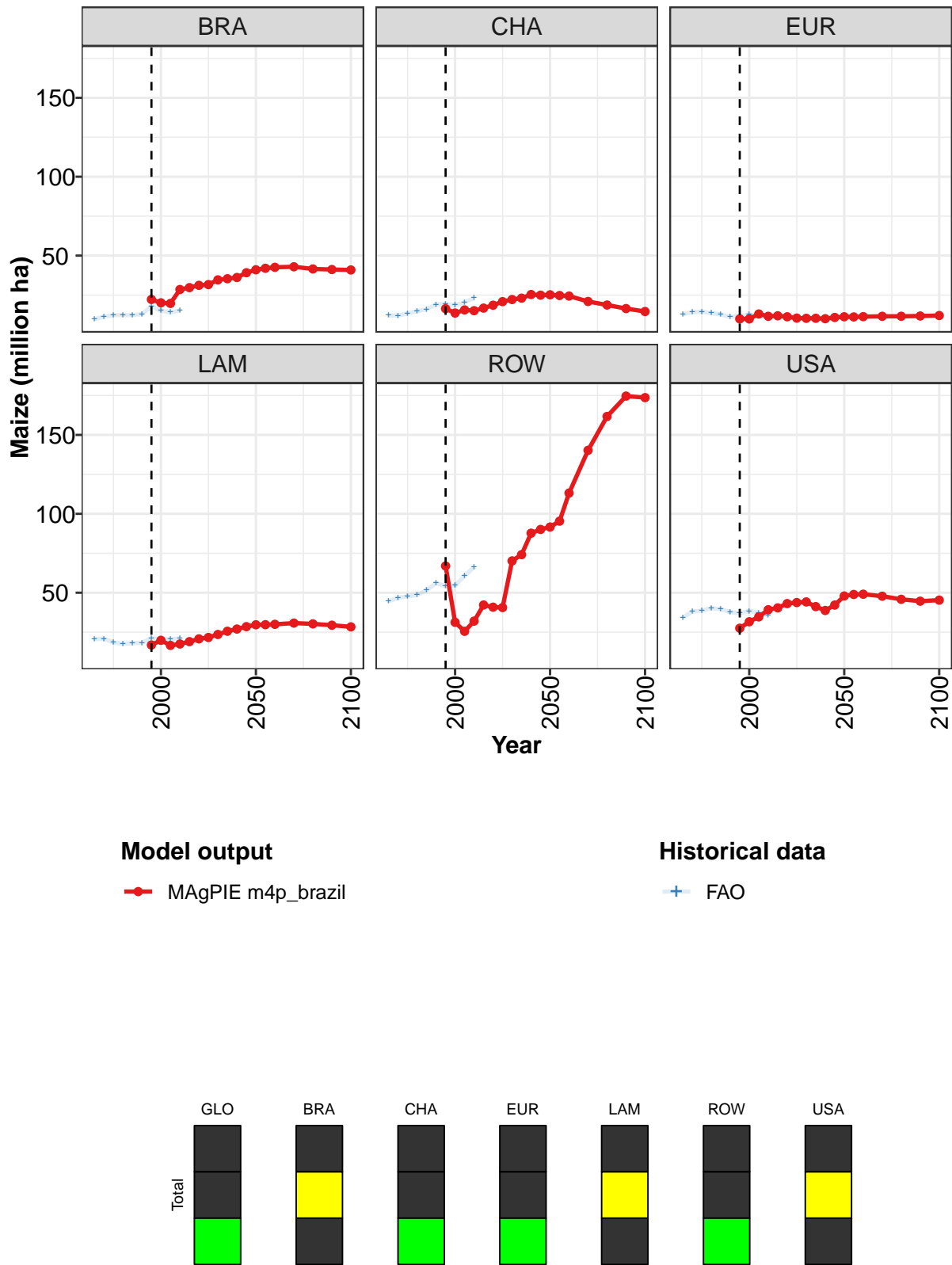


Figure 406: MAGPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Cereals—Maize (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	160	126	125	144	160	166	169	205	210	225	236
BRA	22	20	20	29	30	31	32	35	35	36	39
CHA	16	14	16	15	17	19	21	22	23	25	25
EUR	10	10	13	12	12	11	10	10	10	10	11
LAM	17	20	17	18	19	21	22	24	26	27	29
ROW	67	31	26	32	42	41	41	70	74	88	90
USA	28	32	35	39	40	43	44	44	41	39	42

Table 1565: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Cereals—Maize (million ha)
[PART 1/2]

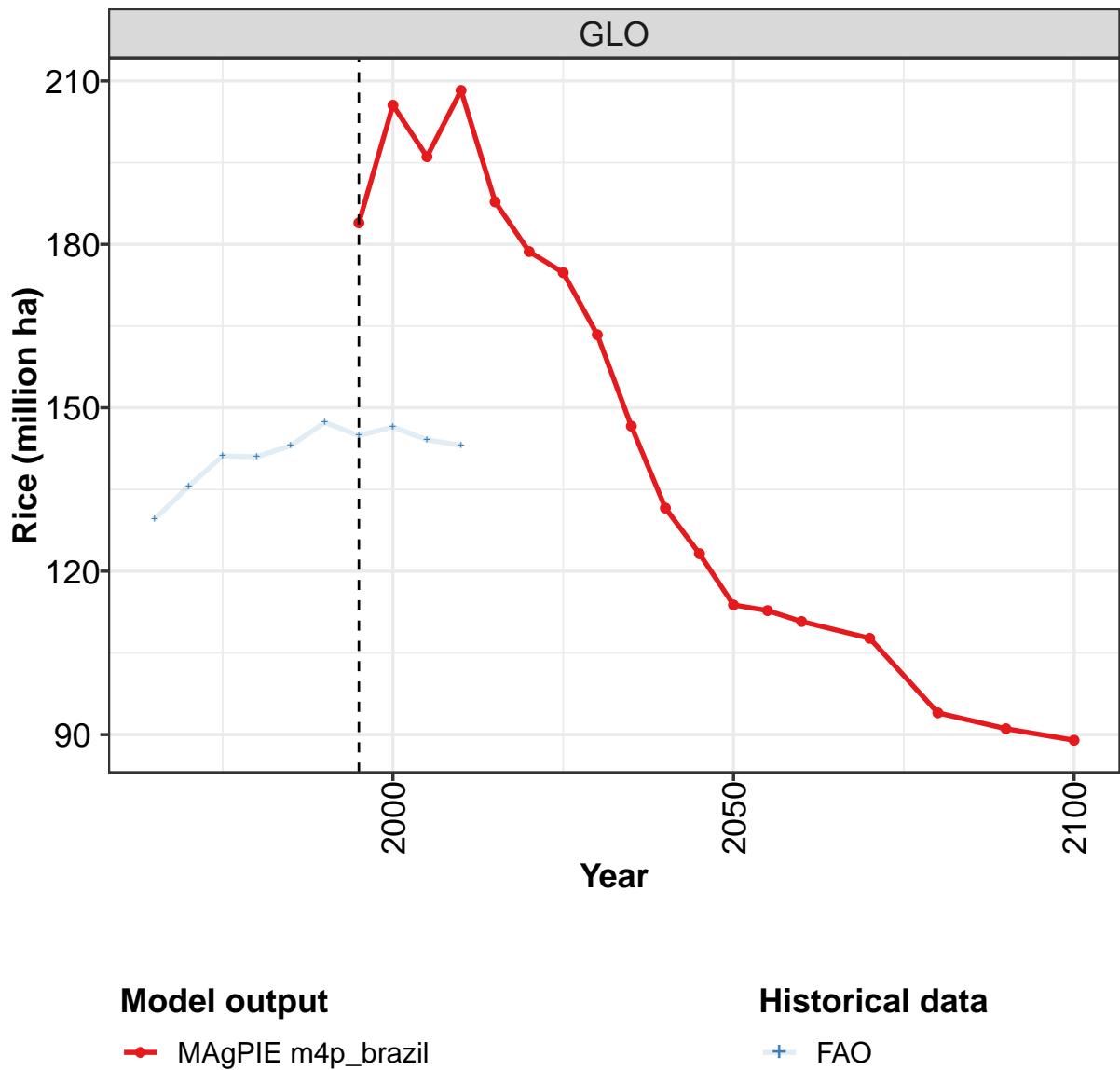
	2050	2055	2060	2070	2080	2090	2100
GLO	247	252	271	294	310	318	315
BRA	41	42	43	43	42	41	41
CHA	25	25	24	21	19	16	15
EUR	11	11	11	12	12	12	12
LAM	30	30	30	31	30	29	28
ROW	92	95	113	140	162	175	174
USA	48	49	49	48	46	45	45

Table 1566: MAgPIE m4p_brazil — 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
BRA	10	11	12	12	12	13	18	15	14	15
CHA	12	12	13	15	16	19	19	19	20	23
EUR	13	14	14	14	13	11	12	13	12	11
LAM	21	21	18	18	18	18	21	21	21	21
ROW	45	47	48	49	52	56	54	55	61	66
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



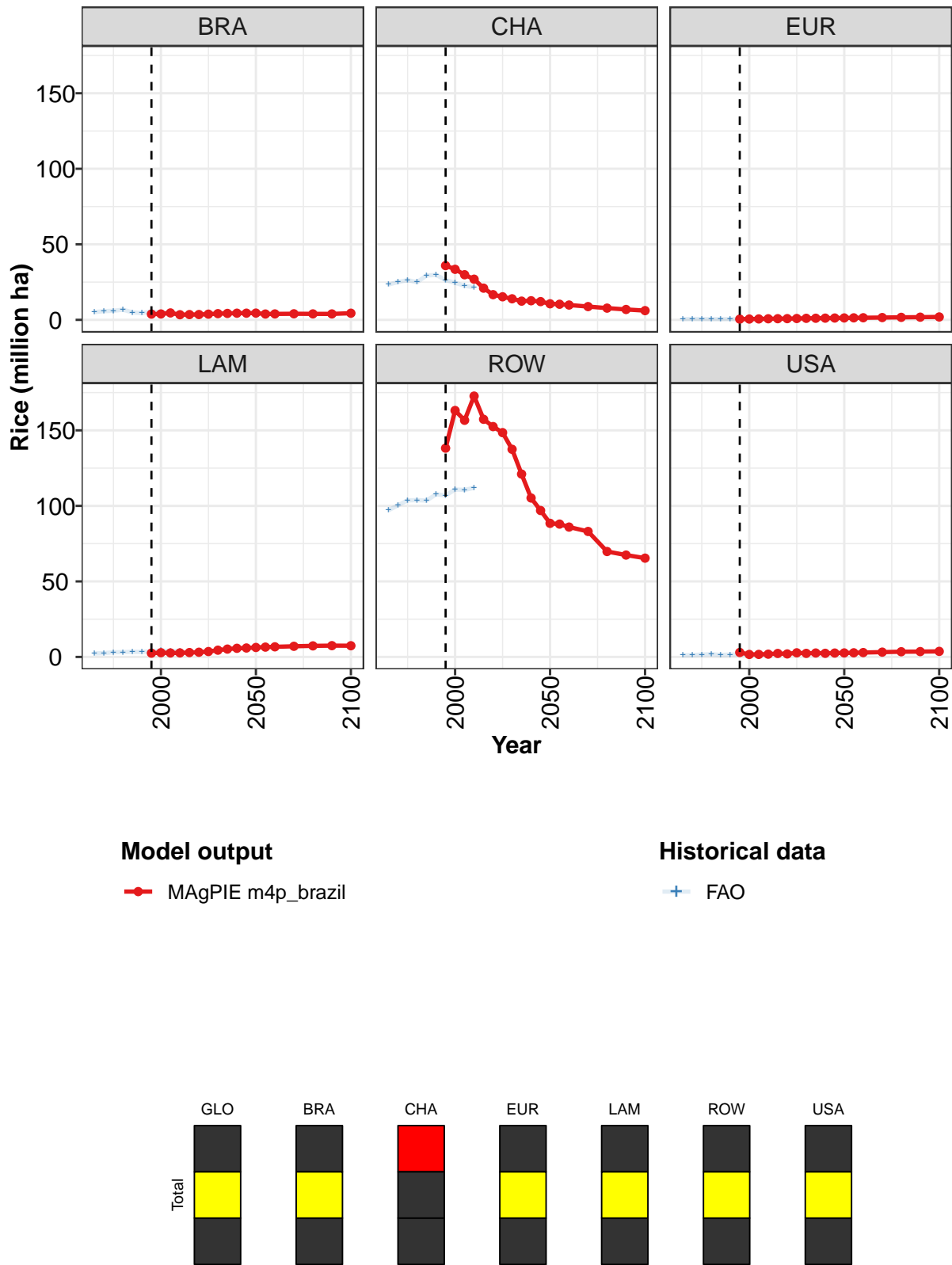


Figure 407: MAGPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Cereals—Rice (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	184	206	196	208	188	179	175	163	147	132	123
BRA	4	4	5	3	3	4	4	4	4	4	4
CHA	36	33	30	27	21	17	15	14	12	13	12
EUR	0	1	1	1	1	1	1	1	1	1	1
LAM	3	3	3	3	3	3	4	4	5	6	6
ROW	138	163	157	173	157	152	149	137	121	105	97
USA	3	2	2	2	2	2	3	2	3	2	3

Table 1568: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Cereals—Rice (million ha)
[PART 1/2]

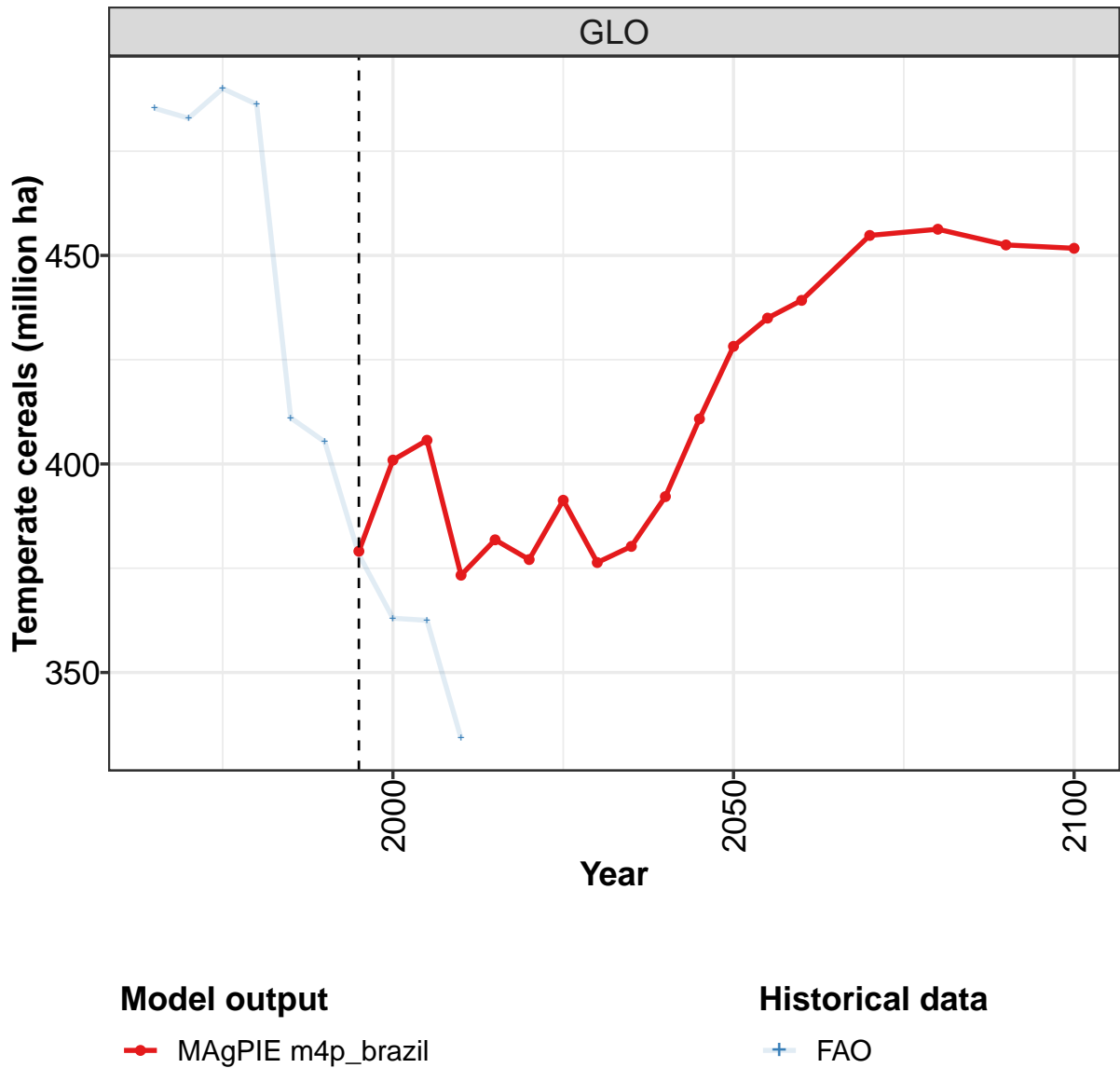
	2050	2055	2060	2070	2080	2090	2100
GLO	114	113	111	108	94	91	89
BRA	4	4	4	4	4	4	4
CHA	11	10	10	9	8	7	6
EUR	1	1	1	2	2	2	2
LAM	6	7	7	7	7	7	7
ROW	88	88	86	83	70	67	65
USA	3	3	3	3	3	4	4

Table 1569: MAgPIE m4p_brazil — 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
BRA	5	6	6	7	5	4	6	5	5	3
CHA	23	25	26	25	29	30	26	24	23	22
EUR	1	1	1	0	0	1	0	1	1	1
LAM	2	3	3	3	3	3	4	4	4	4
ROW	97	100	104	104	104	108	107	111	111	112
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



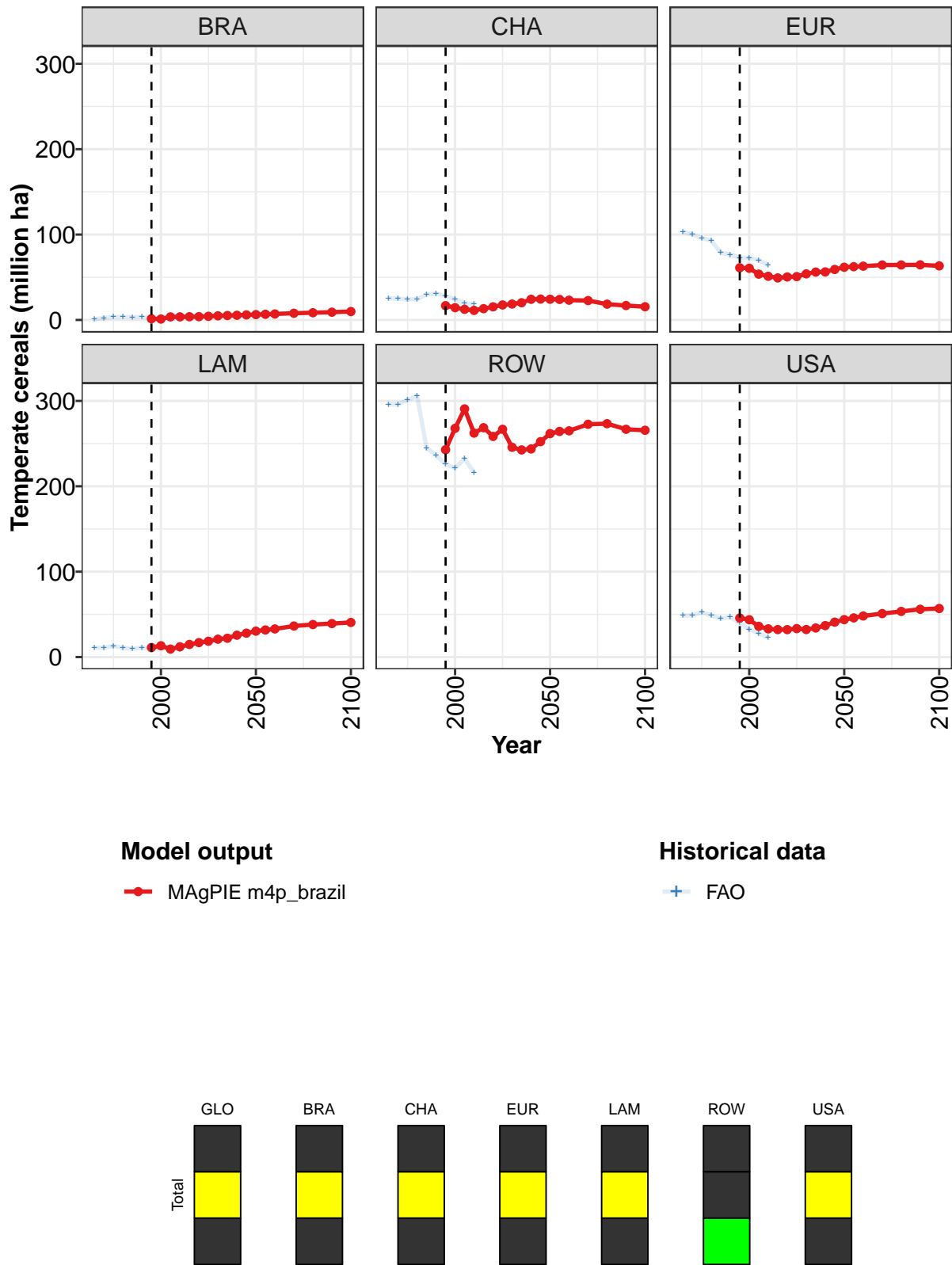


Figure 408: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Cereals—Temperate cereals (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	379	401	406	373	382	377	391	376	380	392	411
BRA	1	1	4	4	4	4	4	5	5	5	6
CHA	17	14	12	11	13	15	18	19	20	24	24
EUR	61	61	54	51	49	50	51	54	56	56	59
LAM	11	13	9	12	15	17	19	21	22	26	28
ROW	243	268	291	262	269	258	267	246	243	244	252
USA	46	44	36	33	32	32	33	32	34	37	41

Table 1571: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Cereals—Temperate cereals (million ha) [PART 1/2]

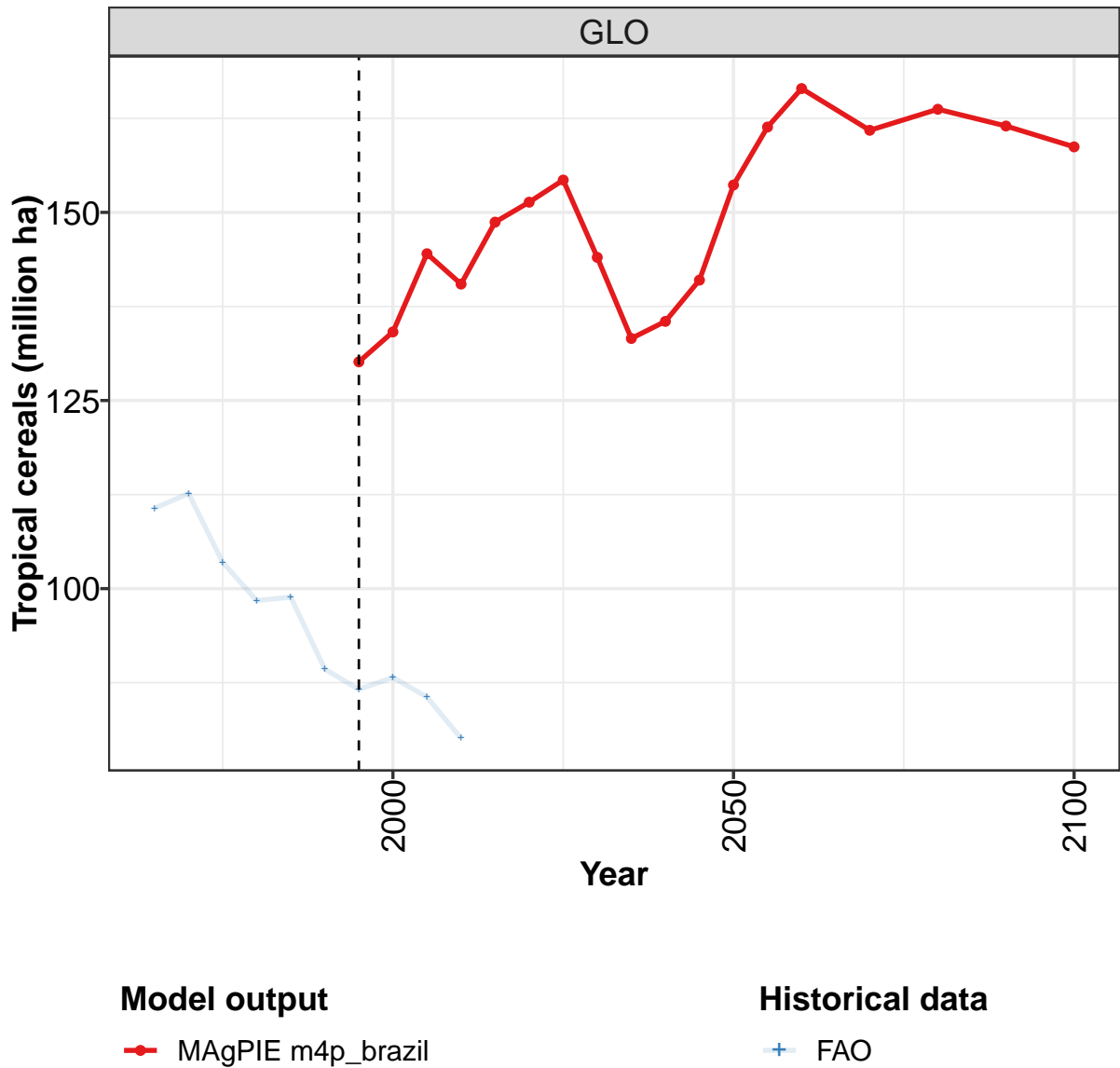
	2050	2055	2060	2070	2080	2090	2100
GLO	428	435	439	455	456	453	452
BRA	6	7	7	8	8	9	10
CHA	24	24	23	23	18	17	15
EUR	62	62	63	64	64	65	63
LAM	30	32	33	36	38	39	41
ROW	262	264	265	273	273	267	266
USA	44	46	48	51	53	56	57

Table 1572: MAgPIE m4p_brazil — 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
BRA	1	2	3	4	3	3	2	2	4	3
CHA	25	25	24	24	30	31	28	24	19	19
EUR	104	100	96	93	79	77	73	72	70	64
LAM	11	11	13	11	10	11	10	11	9	9
ROW	296	296	301	306	245	236	226	221	232	216
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



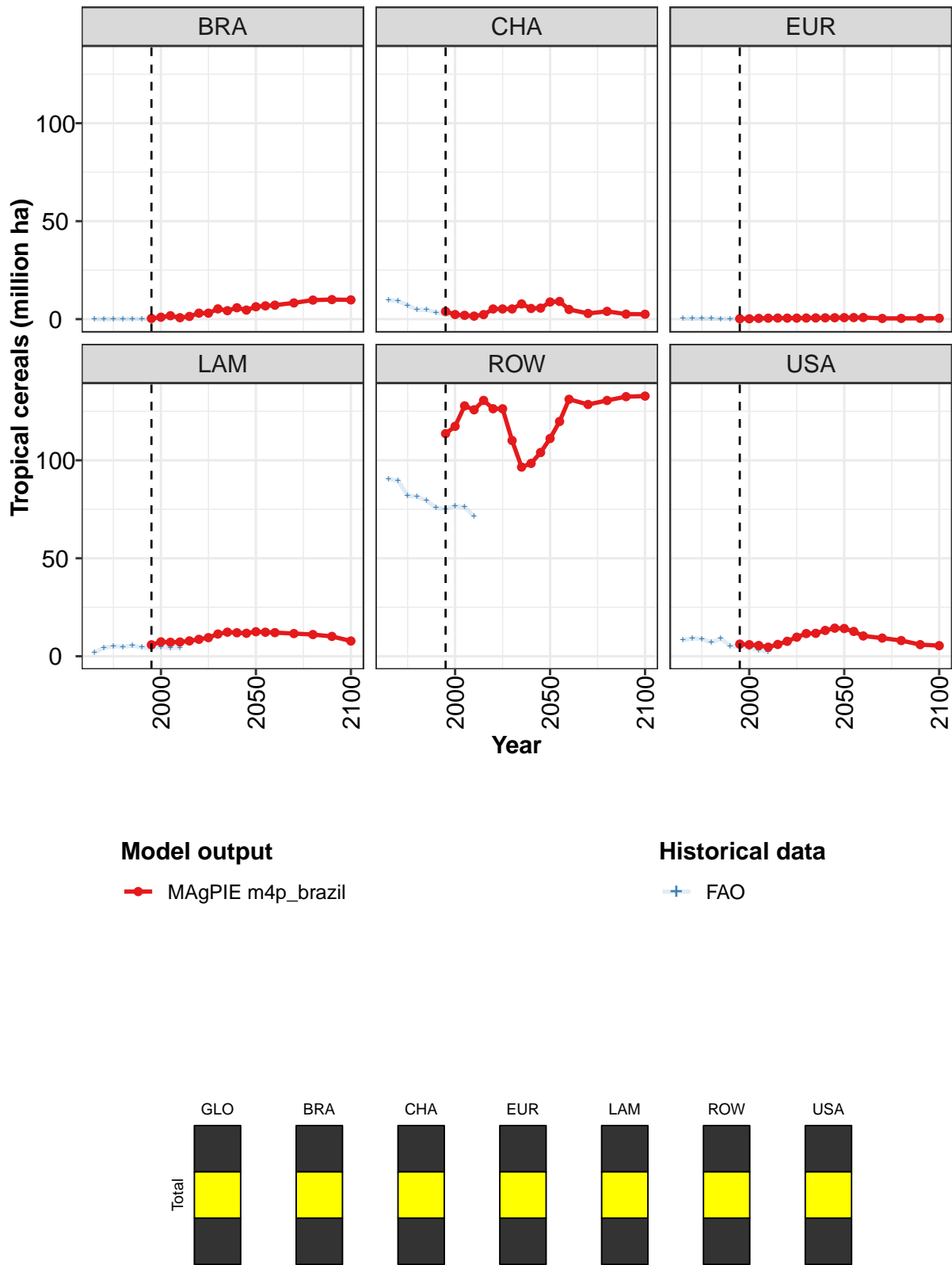


Figure 409: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Cereals—Tropical cereals (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	130	134	145	140	149	151	154	144	133	136	141
BRA	0	1	2	1	1	3	3	5	4	6	5
CHA	4	2	2	2	2	5	5	5	8	5	6
EUR	0	0	0	0	1	1	1	1	1	1	1
LAM	6	7	7	7	8	9	9	11	12	12	12
ROW	114	117	128	126	131	126	126	110	97	98	104
USA	6	6	5	5	6	8	10	12	12	13	14

Table 1574: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Cereals—Tropical cereals (million ha) [PART 1/2]

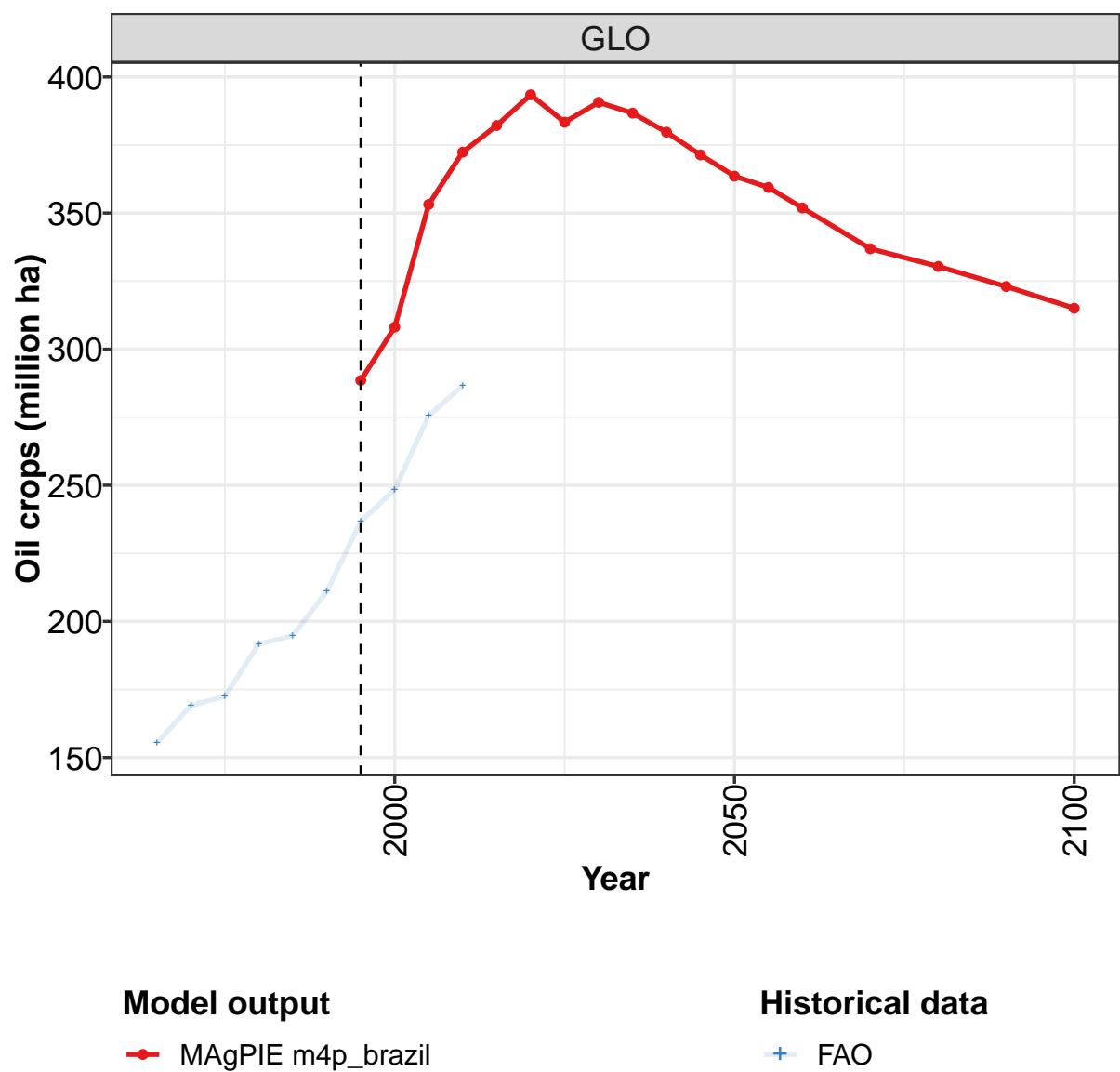
	2050	2055	2060	2070	2080	2090	2100
GLO	154	161	166	161	164	161	159
BRA	6	7	7	8	10	10	10
CHA	9	9	5	3	4	3	2
EUR	1	1	1	0	0	0	0
LAM	13	12	12	12	11	10	8
ROW	111	120	131	128	131	132	133
USA	14	13	10	9	8	6	5

Table 1575: MAgPIE m4p_brazil — 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
BRA	0	0	0	0	0	0	0	1	1	1
CHA	10	9	7	5	5	3	2	2	1	1
EUR	0	0	0	0	0	0	0	0	0	0
LAM	2	4	5	5	5	5	4	5	4	4
ROW	90	90	82	81	79	76	75	77	76	72
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



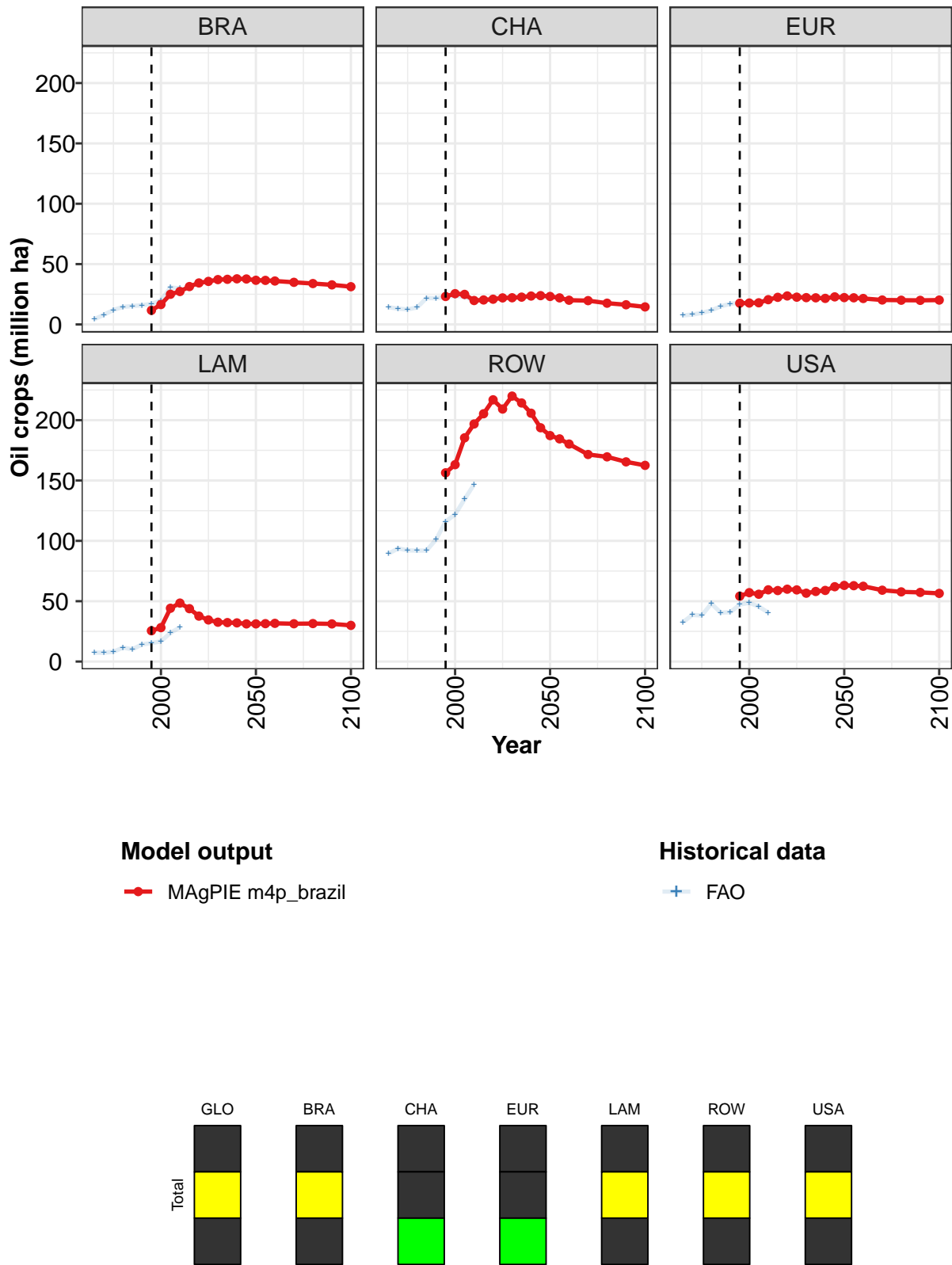


Figure 410: MAGPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Oil crops (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	289	308	353	372	382	393	383	391	387	380	371
BRA	12	16	25	27	31	34	36	37	37	38	38
CHA	23	26	25	20	20	21	22	22	23	24	24
EUR	18	18	18	21	22	24	23	22	22	22	23
LAM	26	28	44	48	44	38	34	33	32	32	31
ROW	156	163	185	197	205	217	209	220	214	206	194
USA	54	57	56	59	59	60	59	57	58	59	62

Table 1577: MAgPIE m4p.brazil — Resources—Land Cover—Cropland—Crops—Oil crops (million ha) [PART 1/2]

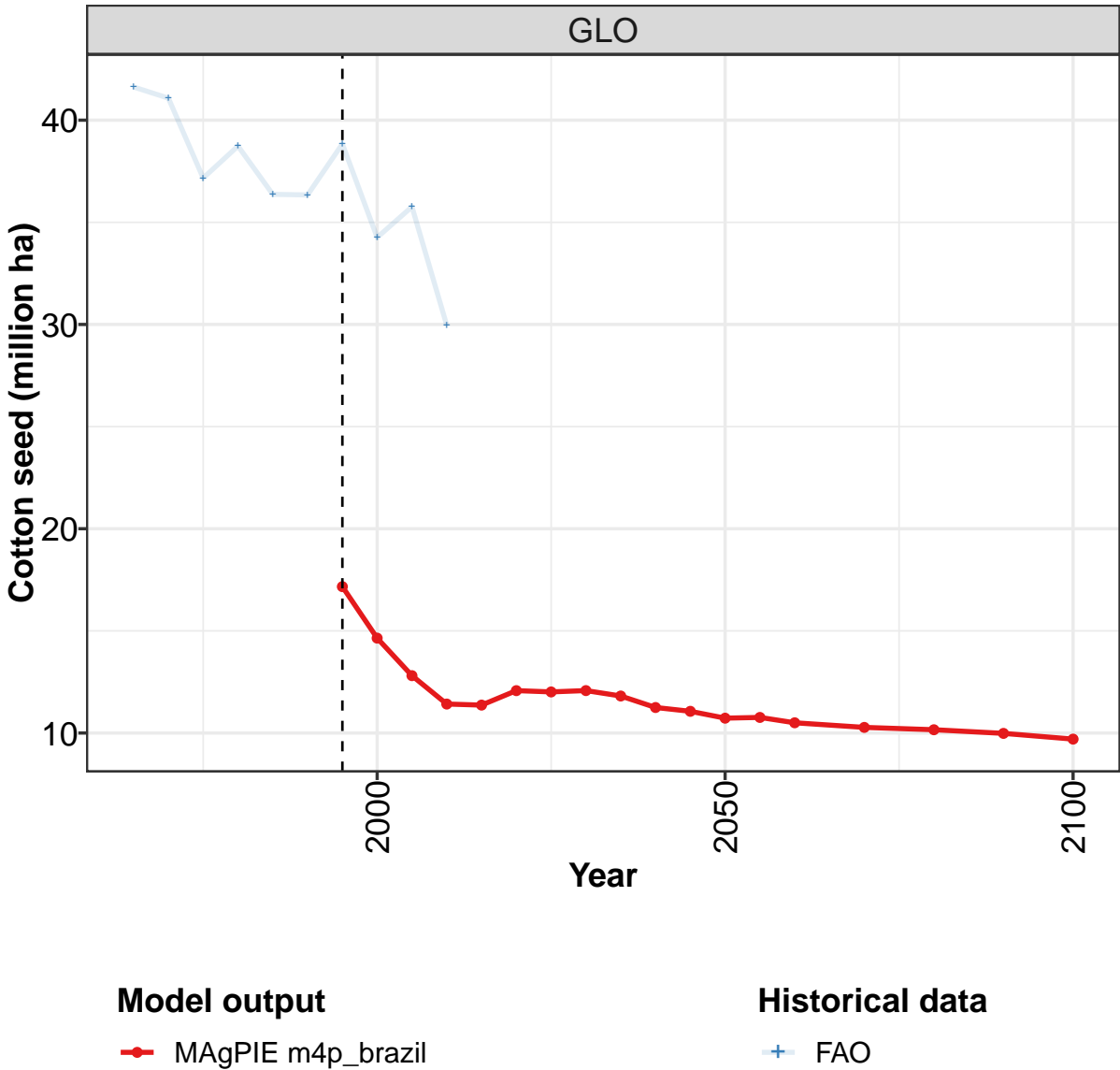
	2050	2055	2060	2070	2080	2090	2100
GLO	364	359	352	337	330	323	315
BRA	37	37	36	35	34	33	31
CHA	23	22	20	20	18	16	15
EUR	22	22	22	20	20	20	20
LAM	31	31	32	31	31	31	30
ROW	187	185	180	172	170	165	163
USA	63	63	62	59	58	57	56

Table 1578: MAgPIE m4p.brazil — 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
BRA	4	8	12	15	15	16	17	20	31	30
CHA	14	13	12	14	22	22	23	24	23	20
EUR	7	8	10	12	15	17	18	18	18	21
LAM	7	7	8	12	10	14	15	17	24	28
ROW	89	94	92	92	92	101	116	122	135	147
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



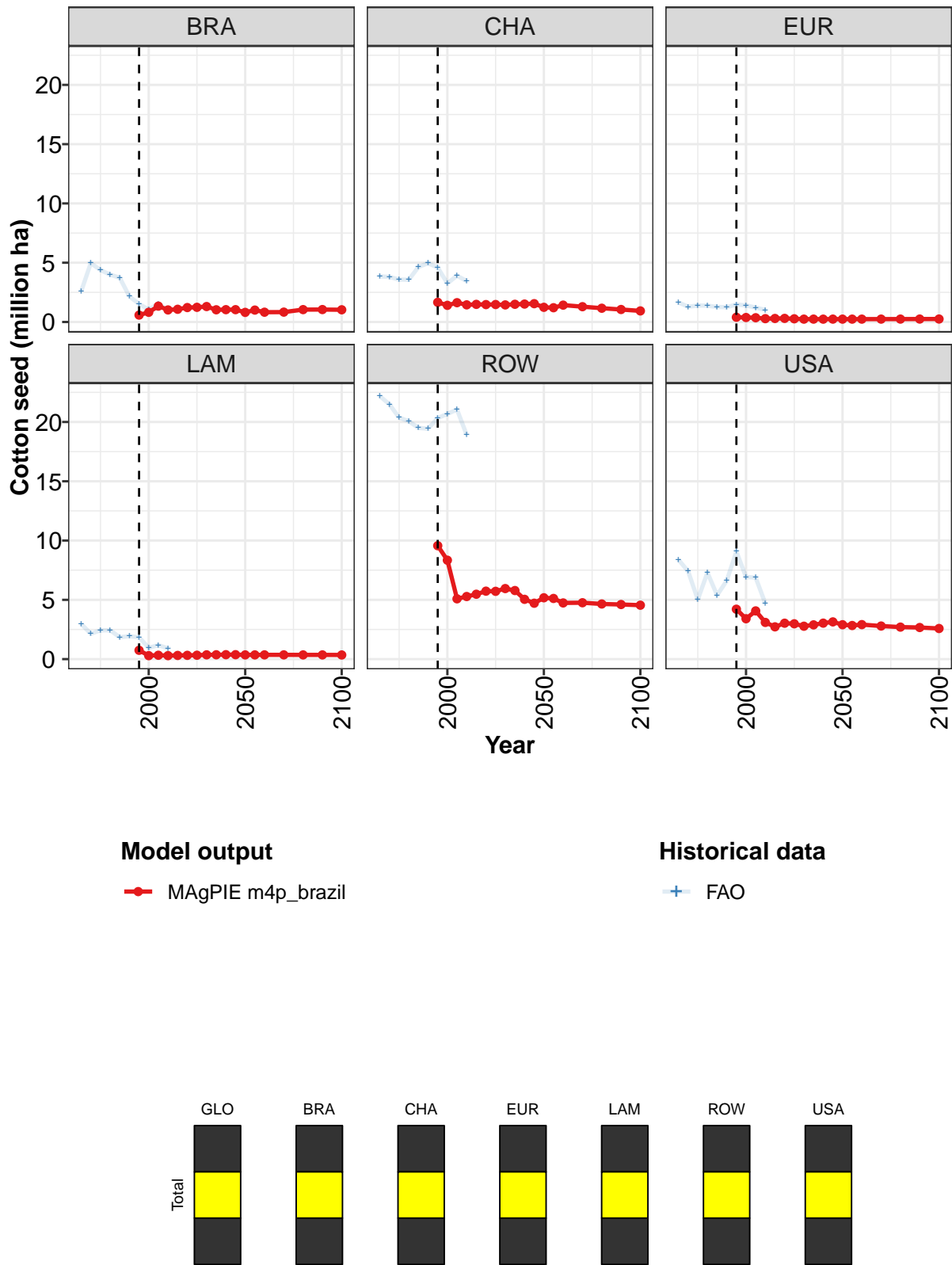


Figure 411: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Oil crops—Cotton seed (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17.2	14.6	12.8	11.4	11.4	12.1	12.0	12.1	11.8	11.2	11.1
BRA	0.6	0.8	1.3	1.0	1.1	1.2	1.2	1.3	1.0	1.0	1.0
CHA	1.7	1.4	1.6	1.4	1.5	1.5	1.5	1.4	1.5	1.5	1.5
EUR	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
LAM	0.7	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
ROW	9.6	8.3	5.1	5.3	5.5	5.7	5.7	6.0	5.8	5.0	4.7
USA	4.2	3.4	4.1	3.1	2.7	3.0	3.0	2.8	2.9	3.0	3.1

Table 1580: MAGPIE m4p.brazil — Resources—Land Cover—Cropland—Crops—Oil crops—Cotton seed (million ha) [PART 1/2]

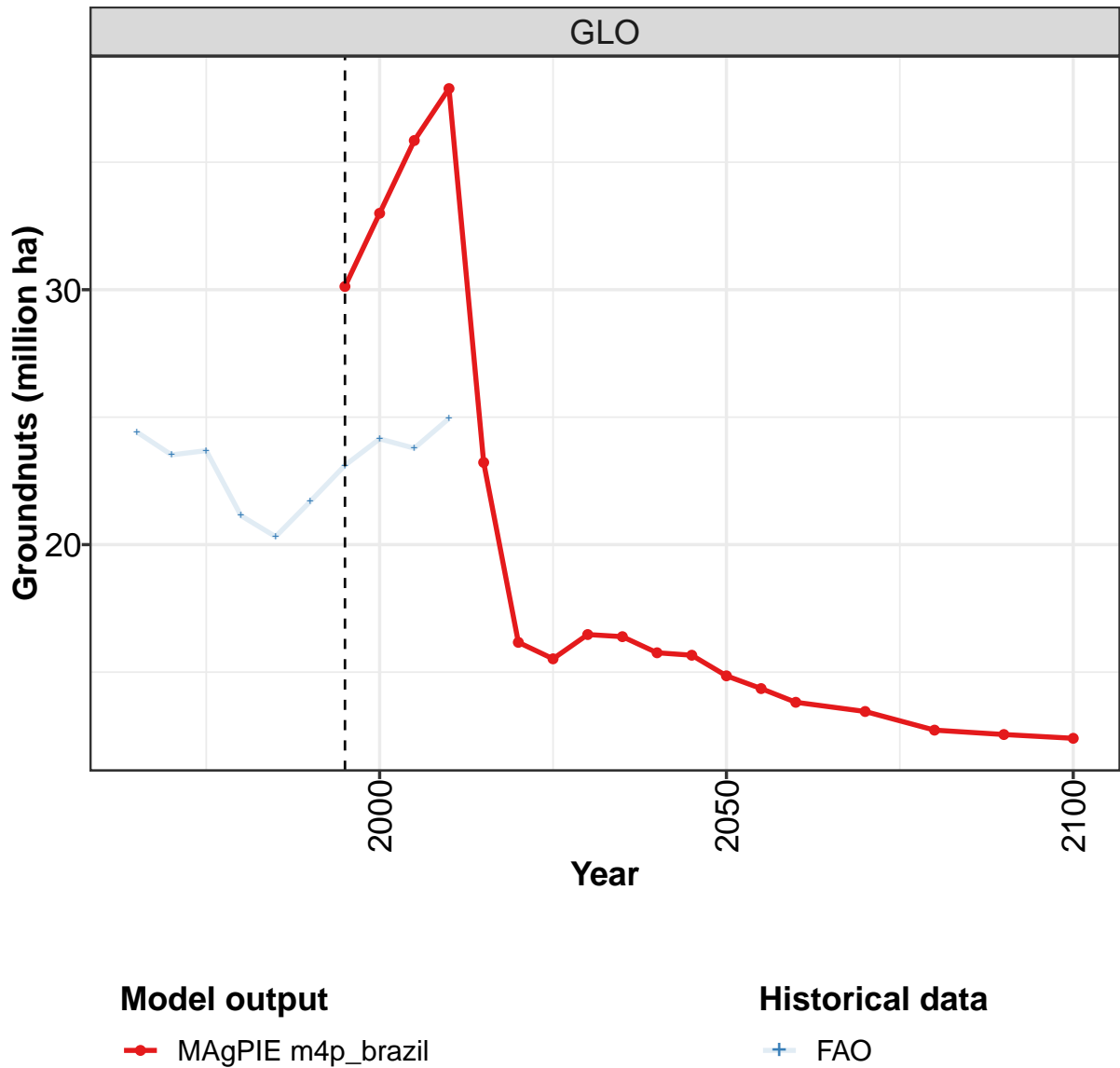
	2050	2055	2060	2070	2080	2090	2100
GLO	10.7	10.8	10.5	10.3	10.2	10.0	9.7
BRA	0.8	1.0	0.8	0.8	1.0	1.0	1.0
CHA	1.2	1.2	1.4	1.3	1.2	1.1	0.9
EUR	0.2	0.2	0.2	0.2	0.2	0.2	0.3
LAM	0.4	0.4	0.4	0.4	0.4	0.4	0.4
ROW	5.2	5.1	4.7	4.8	4.6	4.6	4.5
USA	2.9	2.8	2.9	2.8	2.7	2.7	2.6

Table 1581: MAGPIE m4p.brazil — 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
BRA	2.6	5.0	4.4	4.0	3.7	2.2	1.5	1.0	1.5	1.0
CHA	3.8	3.8	3.6	3.6	4.6	5.0	4.6	3.3	3.9	3.4
EUR	1.7	1.3	1.4	1.4	1.3	1.3	1.5	1.4	1.2	1.0
LAM	3.0	2.1	2.4	2.4	1.8	1.9	1.8	0.9	1.2	0.9
ROW	22.2	21.5	20.4	20.1	19.5	19.4	20.3	20.7	21.0	18.9
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



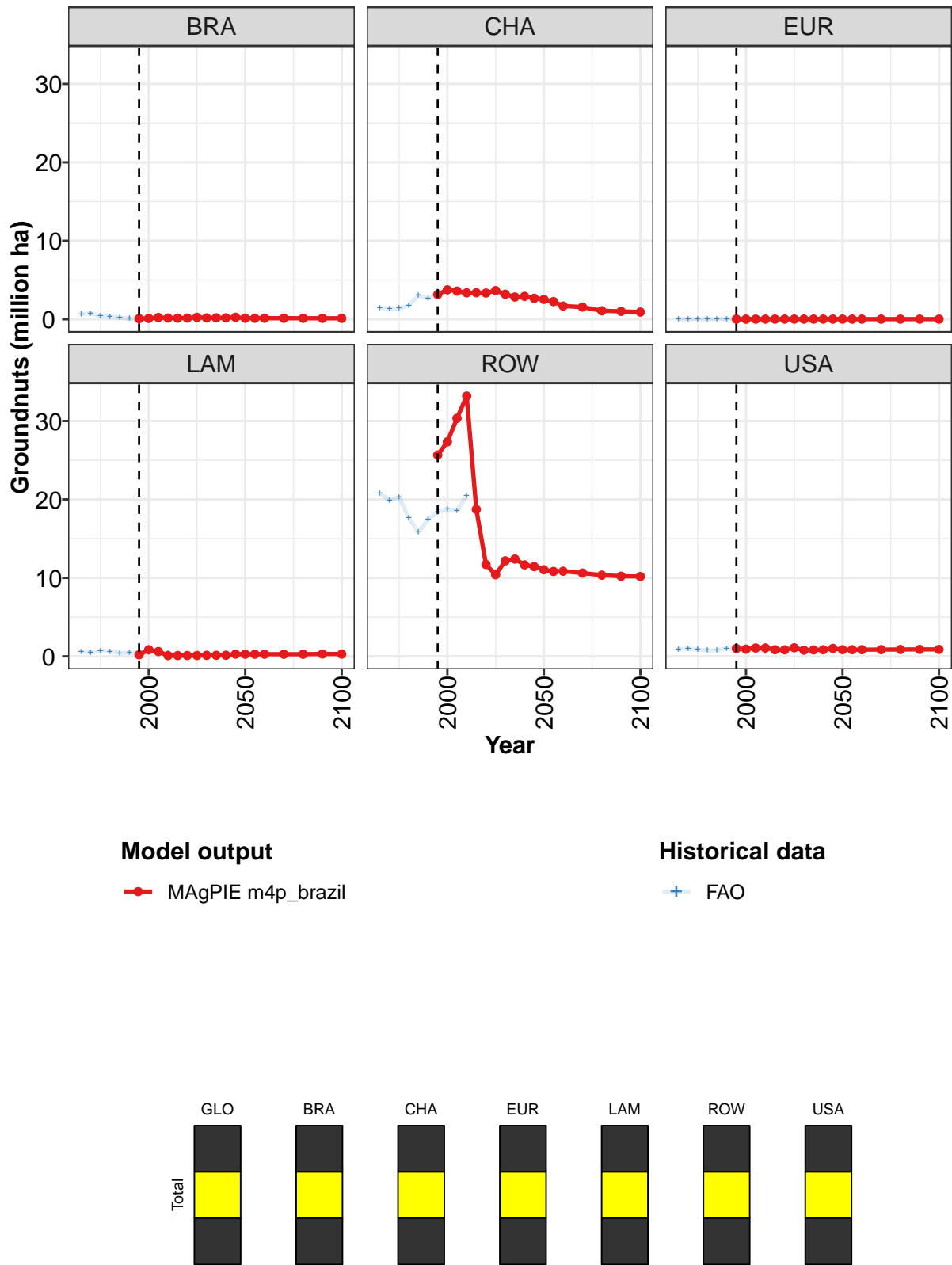


Figure 412: MAGPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Oil crops—Groundnuts (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	30.1	33.0	35.9	37.9	23.2	16.2	15.5	16.5	16.4	15.8	15.7
BRA	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2
CHA	3.2	3.8	3.6	3.4	3.4	3.3	3.7	3.2	2.8	2.9	2.7
EUR	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	0.9	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
ROW	25.7	27.4	30.3	33.2	18.7	11.7	10.4	12.2	12.4	11.7	11.4
USA	1.0	0.9	1.1	1.1	0.8	0.8	1.1	0.8	0.8	0.8	1.0

Table 1583: MAgPIE m4p.brazil — Resources—Land Cover—Cropland—Crops—Oil crops—Groundnuts (million ha) [PART 1/2]

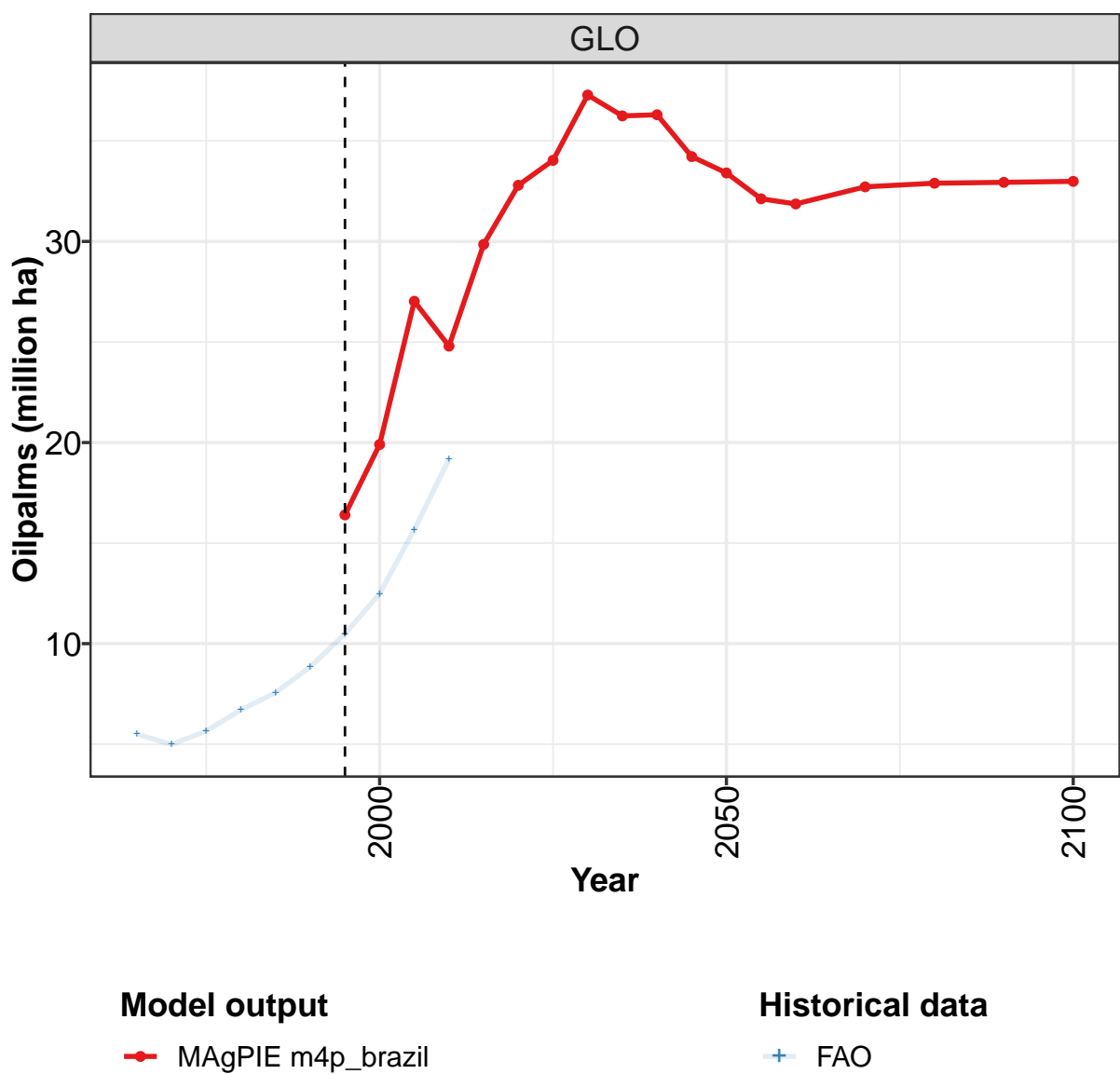
	2050	2055	2060	2070	2080	2090	2100
GLO	14.9	14.4	13.8	13.5	12.7	12.6	12.4
BRA	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	2.5	2.3	1.7	1.6	1.1	1.0	0.9
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.3	0.3	0.3	0.3	0.3	0.3	0.3
ROW	11.0	10.8	10.9	10.6	10.4	10.2	10.2
USA	0.9	0.9	0.9	0.9	0.9	0.9	0.9

Table 1584: MAgPIE m4p.brazil — 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
BRA	0.6	0.8	0.4	0.3	0.2	0.1	0.1	0.1	0.2	0.1
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	0.1	0.0	0.0	0.0
LAM	0.6	0.5	0.7	0.6	0.4	0.5	0.4	0.5	0.5	0.5
ROW	20.8	19.9	20.3	17.6	15.8	17.5	18.4	18.8	18.6	20.5
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



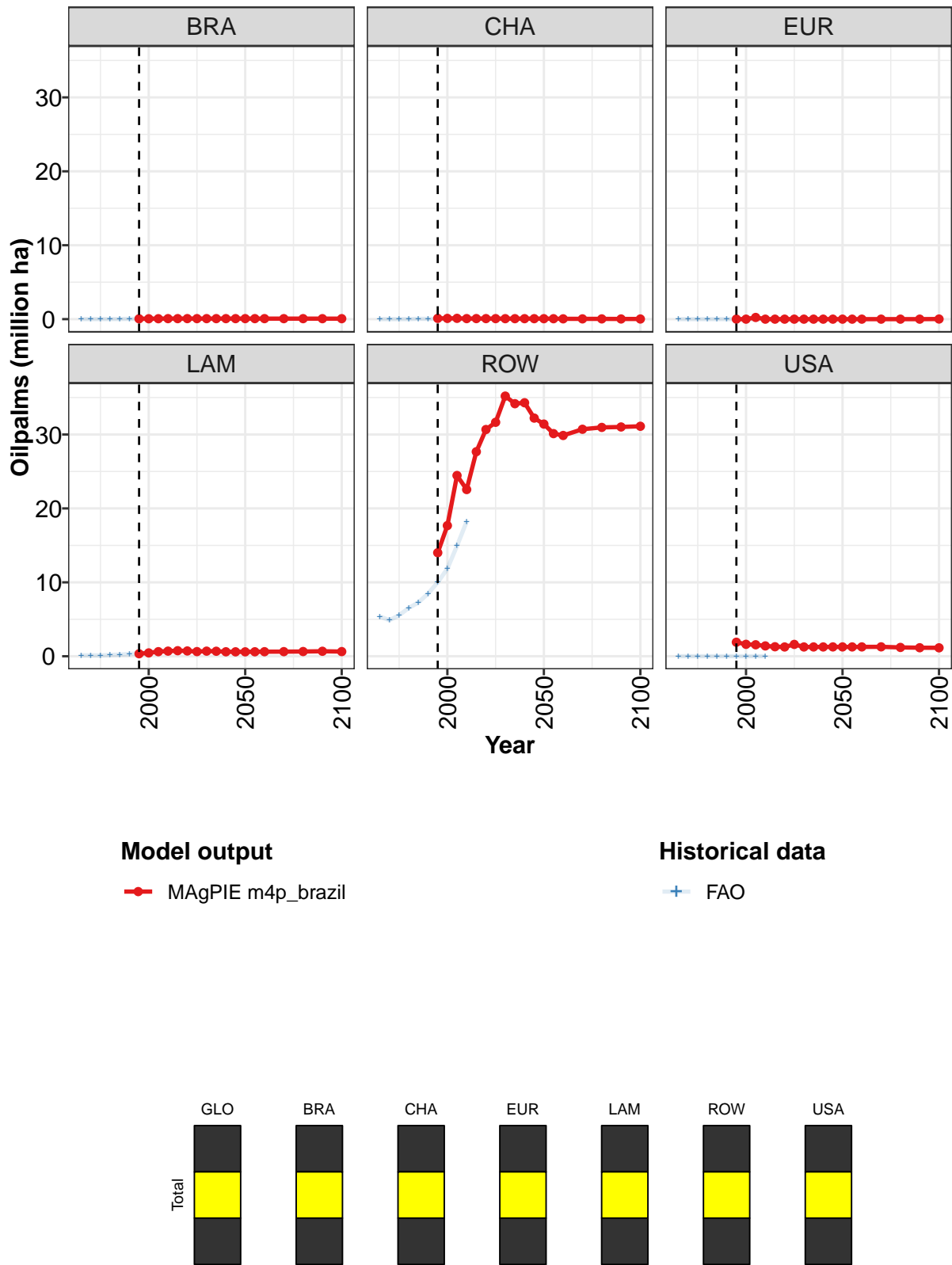


Figure 413: MAGPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Oil crops—Oilpalms (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	16.4	19.9	27.0	24.8	29.9	32.8	34.0	37.3	36.2	36.3	34.2
BRA	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.3	0.5	0.6	0.7	0.8	0.7	0.6	0.7	0.7	0.6	0.6
ROW	14.0	17.7	24.5	22.6	27.7	30.7	31.7	35.2	34.2	34.3	32.2
USA	1.9	1.6	1.6	1.4	1.3	1.3	1.6	1.3	1.3	1.3	1.3

Table 1586: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Oil crops—Oilpalms (million ha) [PART 1/2]

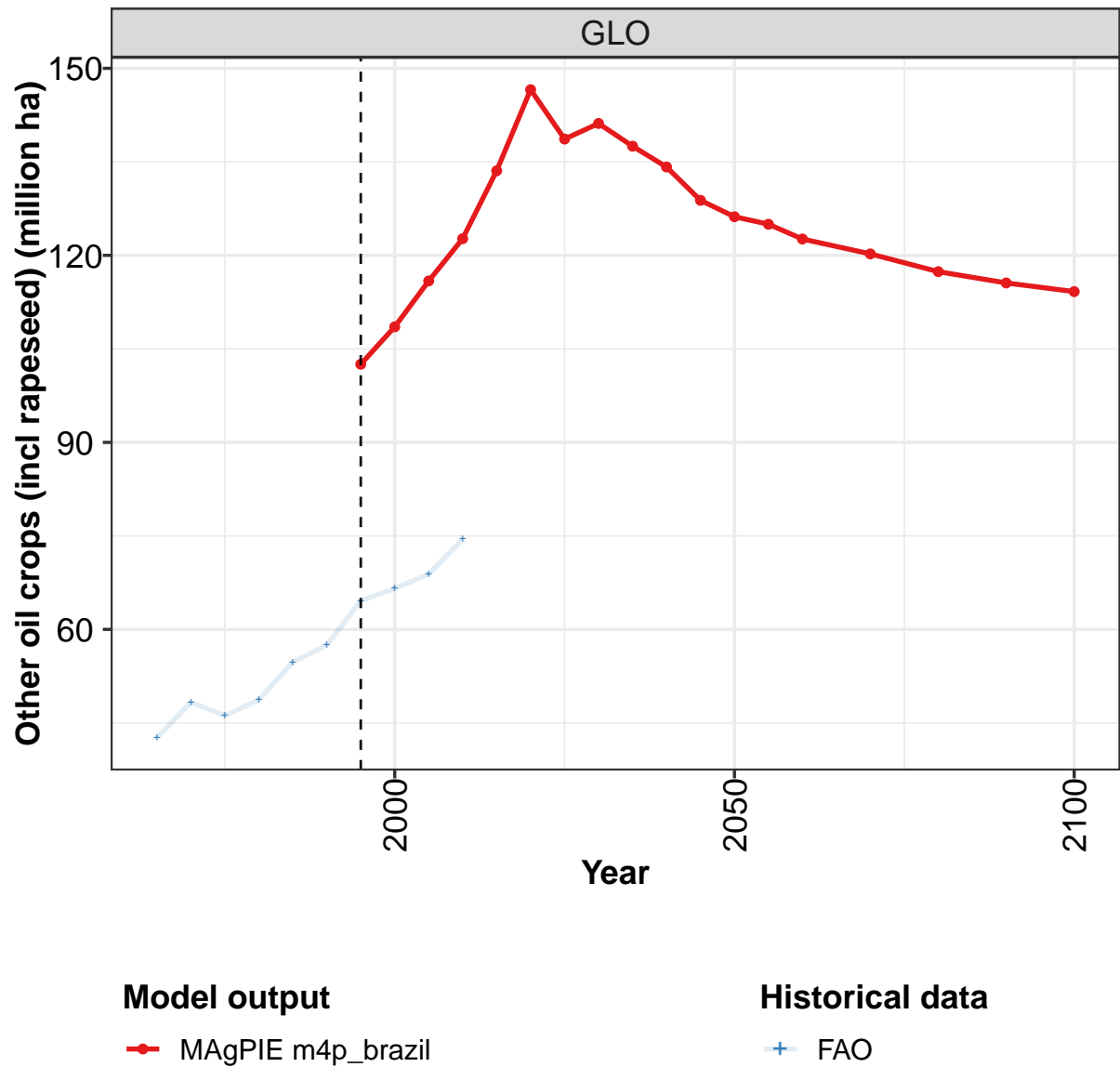
	2050	2055	2060	2070	2080	2090	2100
GLO	33.4	32.1	31.9	32.7	32.9	32.9	33.0
BRA	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHA	0.1	0.1	0.0	0.0	0.0	0.0	0.0
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	0.6	0.6	0.6	0.6	0.6	0.7	0.6
ROW	31.4	30.1	29.9	30.7	31.0	31.0	31.1
USA	1.3	1.3	1.3	1.3	1.2	1.2	1.1

Table 1587: MAgPIE m4p_brazil — 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
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
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
LAM	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.8
ROW	5.4	4.9	5.5	6.5	7.3	8.5	10.0	11.9	14.9	18.2
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)



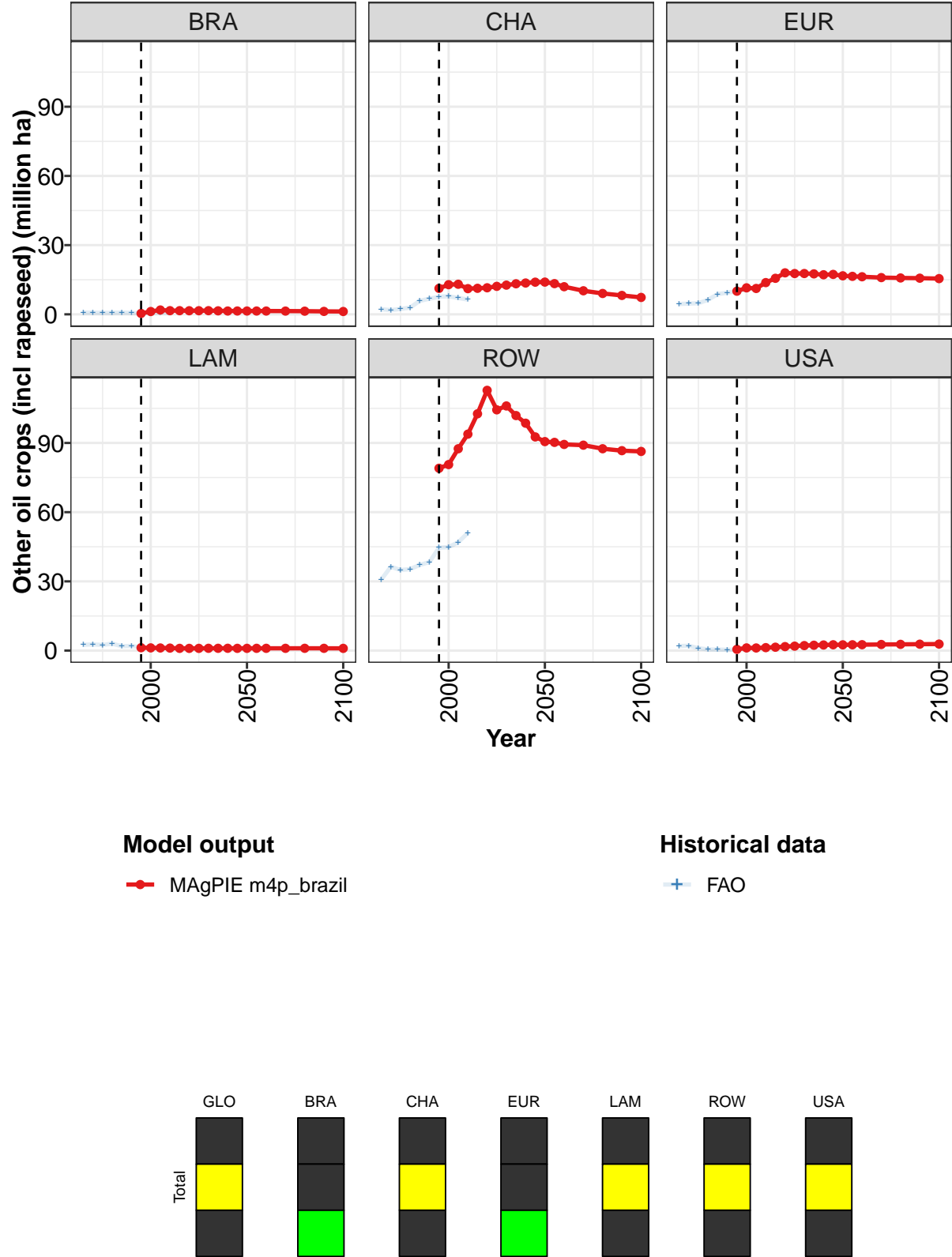


Figure 414: MAGPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Oil crops—Other oil crops (incl rapeseed) (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	103	109	116	123	134	147	139	141	138	134	129
BRA	0	1	2	2	2	2	2	2	2	1	1
CHA	11	13	13	11	11	12	12	13	13	14	14
EUR	10	11	11	14	16	18	18	18	18	17	17
LAM	1	1	1	1	1	1	1	1	1	1	1
ROW	79	81	87	94	103	113	104	106	102	99	93
USA	1	1	1	1	1	2	2	2	2	2	3

Table 1589: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Oil crops—Other oil crops (incl rapeseed) (million ha) [PART 1/2]

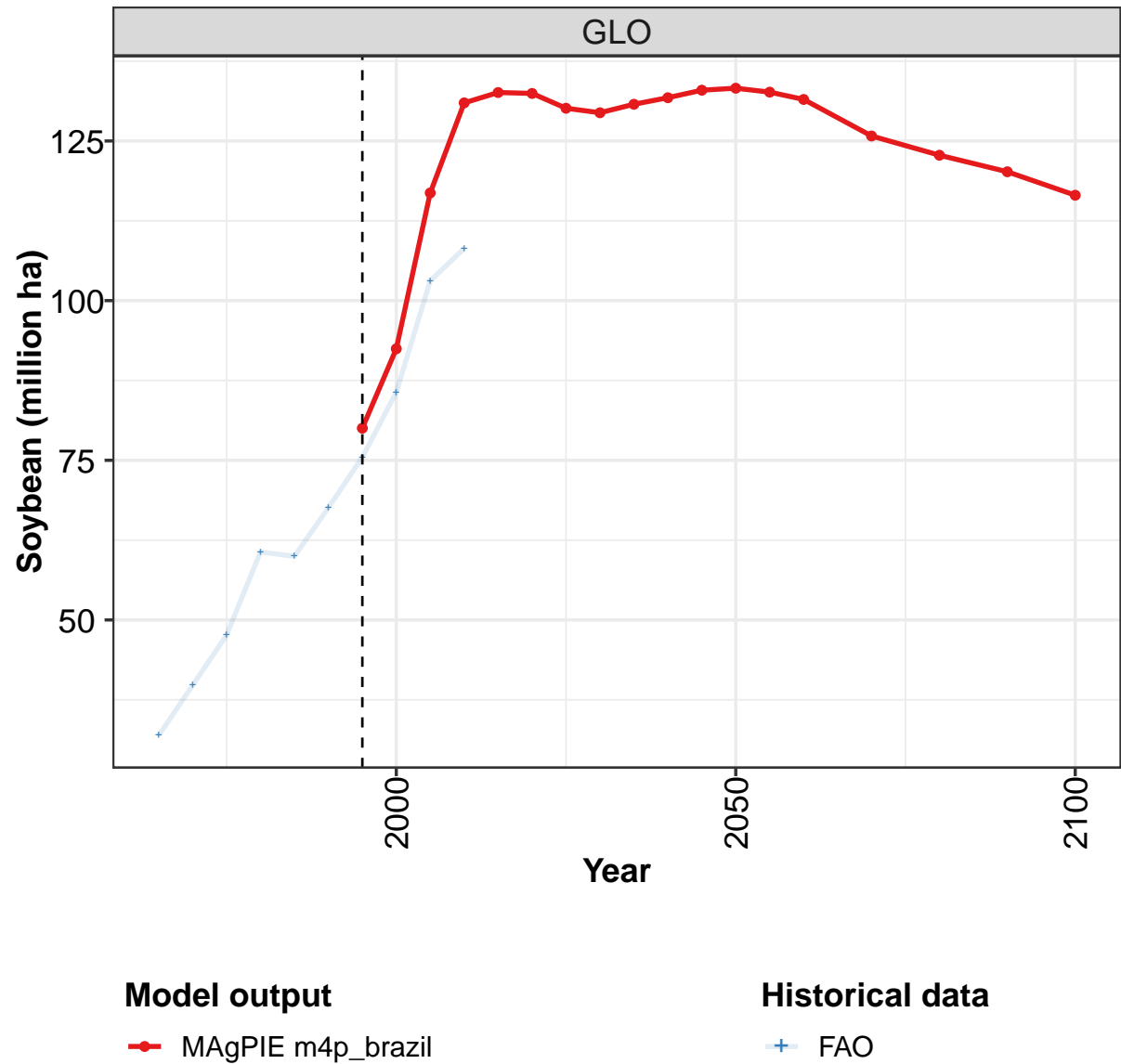
	2050	2055	2060	2070	2080	2090	2100
GLO	126	125	123	120	117	116	114
BRA	1	1	1	1	1	1	1
CHA	14	13	12	10	9	8	7
EUR	17	16	16	16	16	16	15
LAM	1	1	1	1	1	1	1
ROW	91	90	89	89	87	87	86
USA	2	3	3	3	3	3	3

Table 1590: MAgPIE m4p_brazil — 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
BRA	0.7	0.7	0.6	0.7	0.7	0.6	0.5	0.7	0.7	0.6
CHA	2.2	1.8	2.3	2.9	5.8	6.8	7.6	7.8	7.1	6.4
EUR	4.5	4.7	4.8	6.3	8.7	9.4	10.1	10.7	11.5	14.2
LAM	2.5	2.7	2.4	3.0	1.9	2.0	1.3	1.3	1.4	1.3
ROW	30.8	36.4	34.9	35.3	37.1	38.3	44.6	44.9	47.0	51.0
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



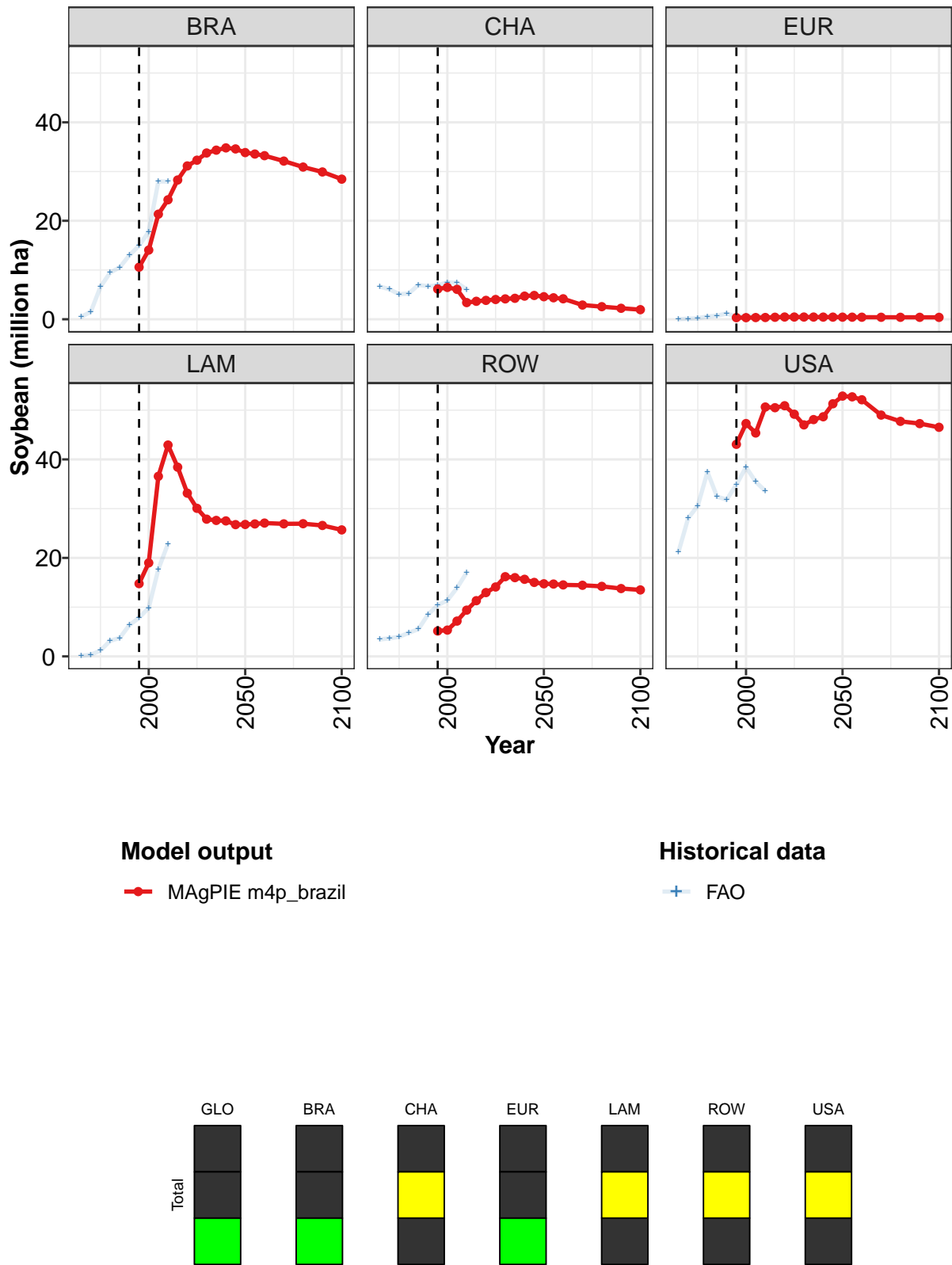


Figure 415: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Oil crops—Soybean (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	80	92	117	131	133	132	130	129	131	132	133
BRA	11	14	21	24	28	31	32	34	34	35	35
CHA	6	6	6	3	4	4	4	4	4	5	5
EUR	0	0	0	0	0	0	0	0	0	0	0
LAM	15	19	37	43	38	33	30	28	28	28	27
ROW	5	5	7	9	11	13	14	16	16	16	15
USA	43	47	45	51	51	51	49	47	48	49	51

Table 1592: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Oil crops—Soybean (million ha) [PART 1/2]

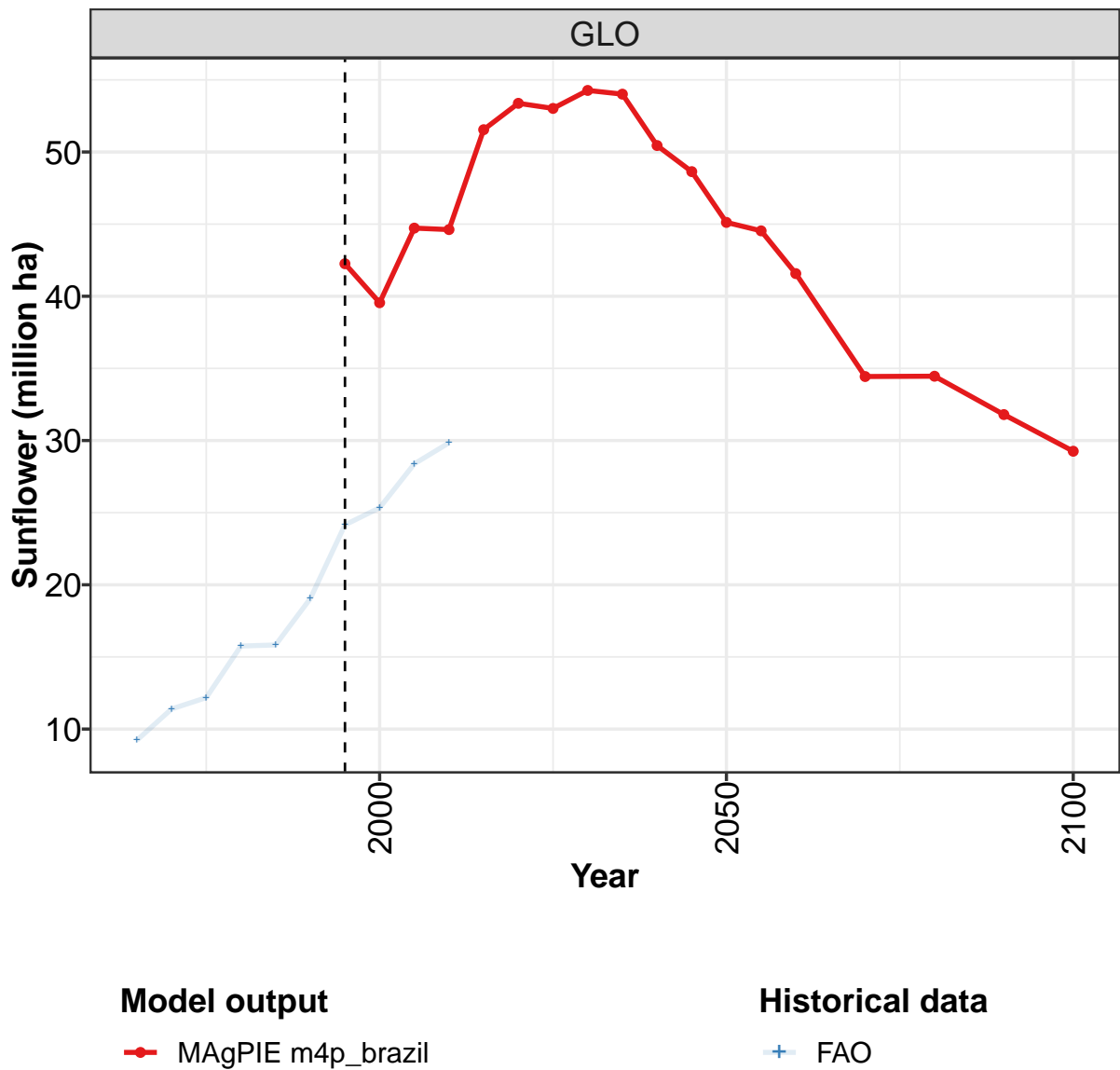
	2050	2055	2060	2070	2080	2090	2100
GLO	133	133	132	126	123	120	117
BRA	34	34	33	32	31	30	28
CHA	5	4	4	3	3	2	2
EUR	0	0	0	0	0	0	0
LAM	27	27	27	27	27	27	26
ROW	15	15	15	14	14	14	13
USA	53	53	52	49	48	47	47

Table 1593: MAgPIE m4p_brazil — 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
BRA	0	2	7	9	11	13	15	18	28	28
CHA	7	6	5	5	7	7	7	8	7	6
EUR	0	0	0	1	1	1	1	1	1	1
LAM	0	0	1	3	4	6	8	10	18	23
ROW	3	4	4	5	6	9	10	11	14	17
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



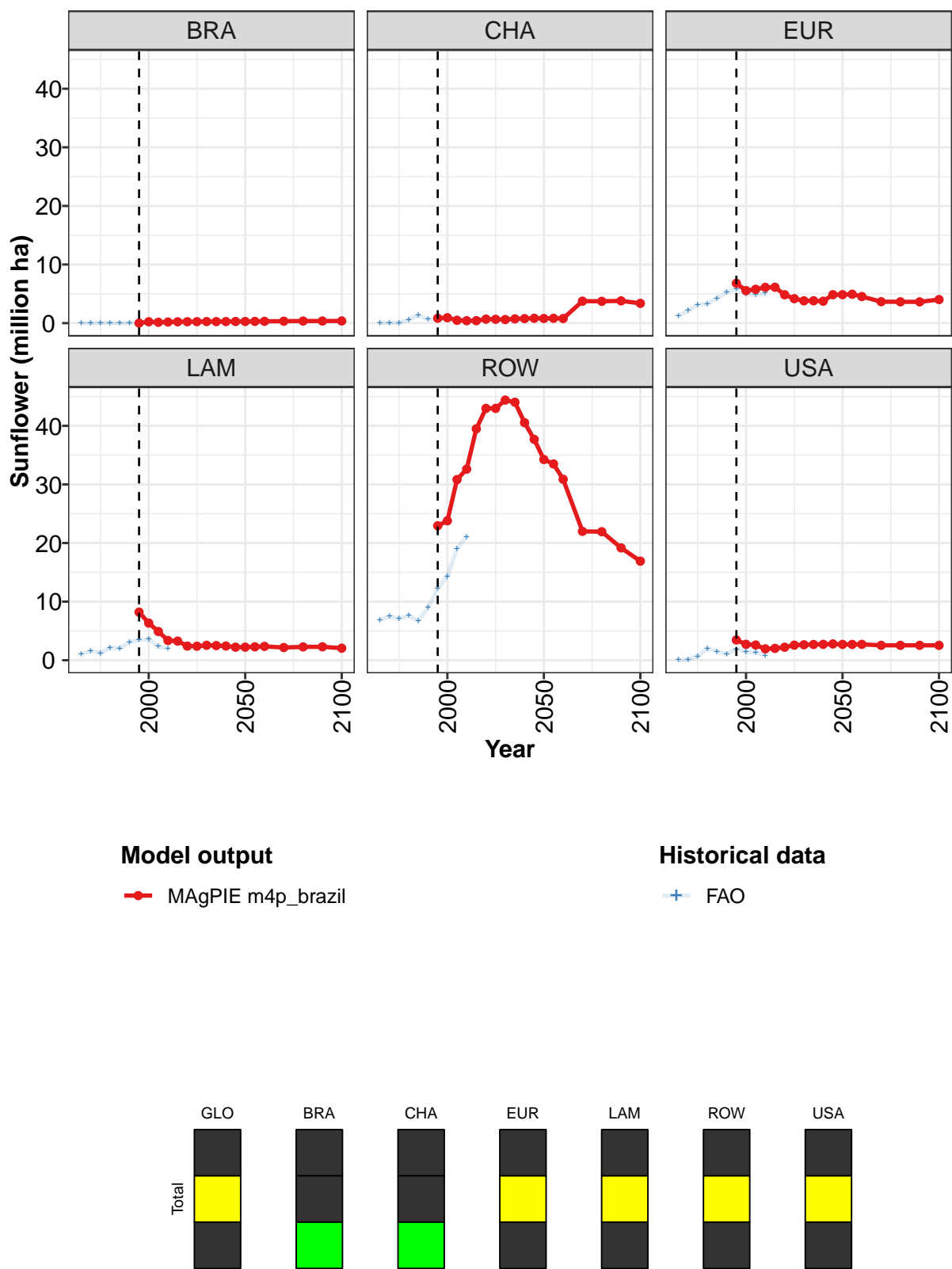


Figure 416: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Oil crops—Sunflower (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	42.3	39.6	44.7	44.6	51.5	53.4	53.0	54.3	54.0	50.4	48.6
BRA	0.0	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
CHA	0.8	0.9	0.5	0.4	0.4	0.7	0.7	0.6	0.7	0.8	0.8
EUR	6.8	5.5	5.8	6.1	6.1	4.8	4.2	3.8	3.8	3.7	4.8
LAM	8.2	6.3	4.9	3.4	3.3	2.4	2.4	2.6	2.5	2.4	2.2
ROW	22.9	23.8	30.8	32.6	39.5	43.0	43.0	44.4	44.0	40.5	37.7
USA	3.5	2.7	2.6	1.9	2.0	2.2	2.6	2.6	2.7	2.7	2.8

Table 1595: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Oil crops—Sunflower (million ha) [PART 1/2]

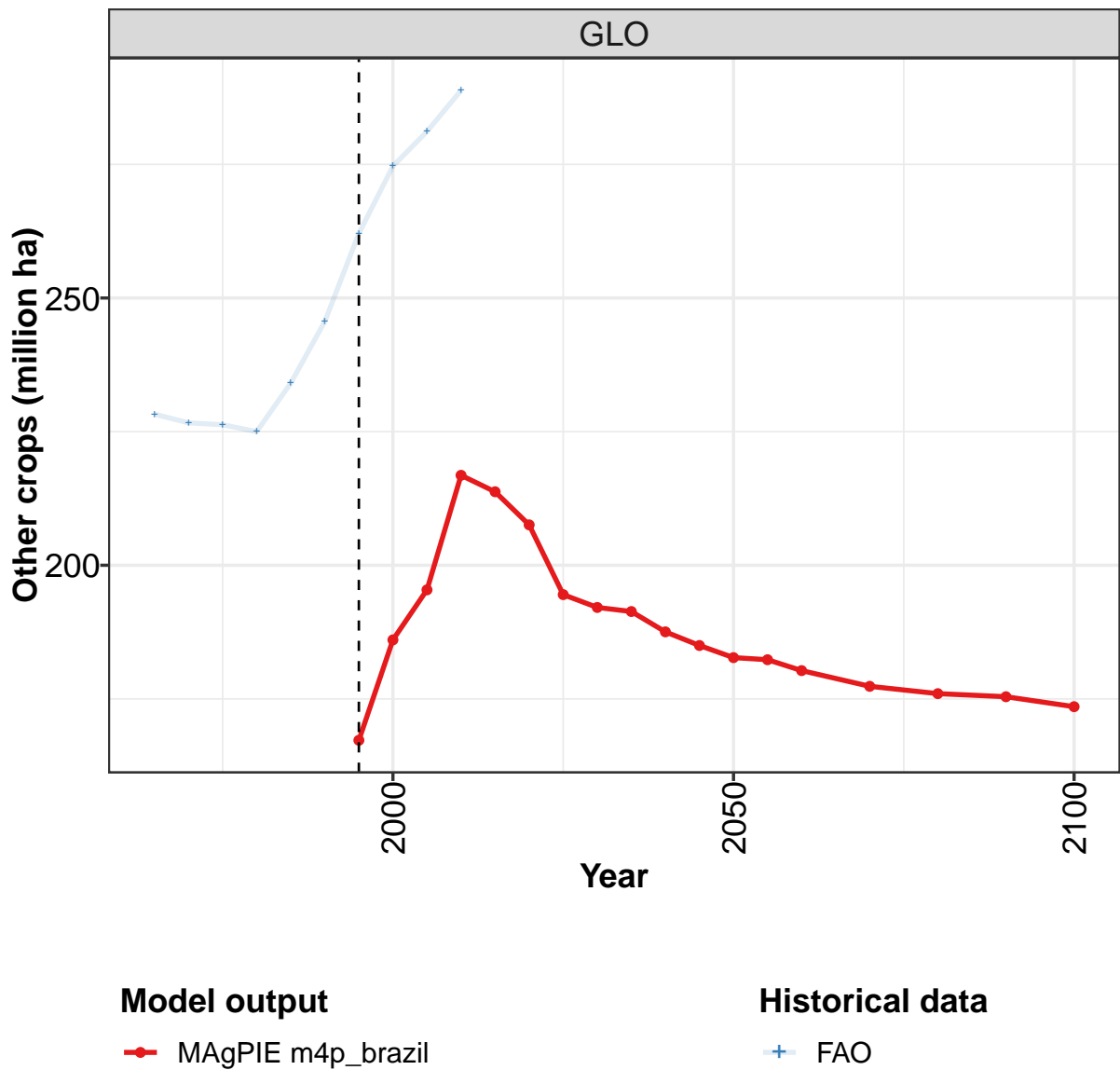
	2050	2055	2060	2070	2080	2090	2100
GLO	45.1	44.5	41.6	34.4	34.5	31.8	29.3
BRA	0.3	0.3	0.3	0.3	0.4	0.4	0.4
CHA	0.8	0.8	0.8	3.7	3.7	3.8	3.4
EUR	4.9	4.9	4.5	3.7	3.6	3.6	4.0
LAM	2.2	2.3	2.4	2.2	2.3	2.3	2.1
ROW	34.3	33.5	30.9	22.0	21.9	19.2	16.9
USA	2.7	2.7	2.7	2.5	2.5	2.5	2.5

Table 1596: MAgPIE m4p_brazil — 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
BRA	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1
CHA	0.0	0.1	0.1	0.6	1.3	0.6	0.7	1.0	0.8	0.7
EUR	1.2	2.1	3.1	3.3	4.2	5.3	5.8	5.0	4.8	5.1
LAM	1.1	1.6	1.2	2.1	2.0	3.1	3.5	3.6	2.3	2.0
ROW	6.8	7.5	7.1	7.6	6.7	9.0	12.3	14.3	19.1	21.1
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



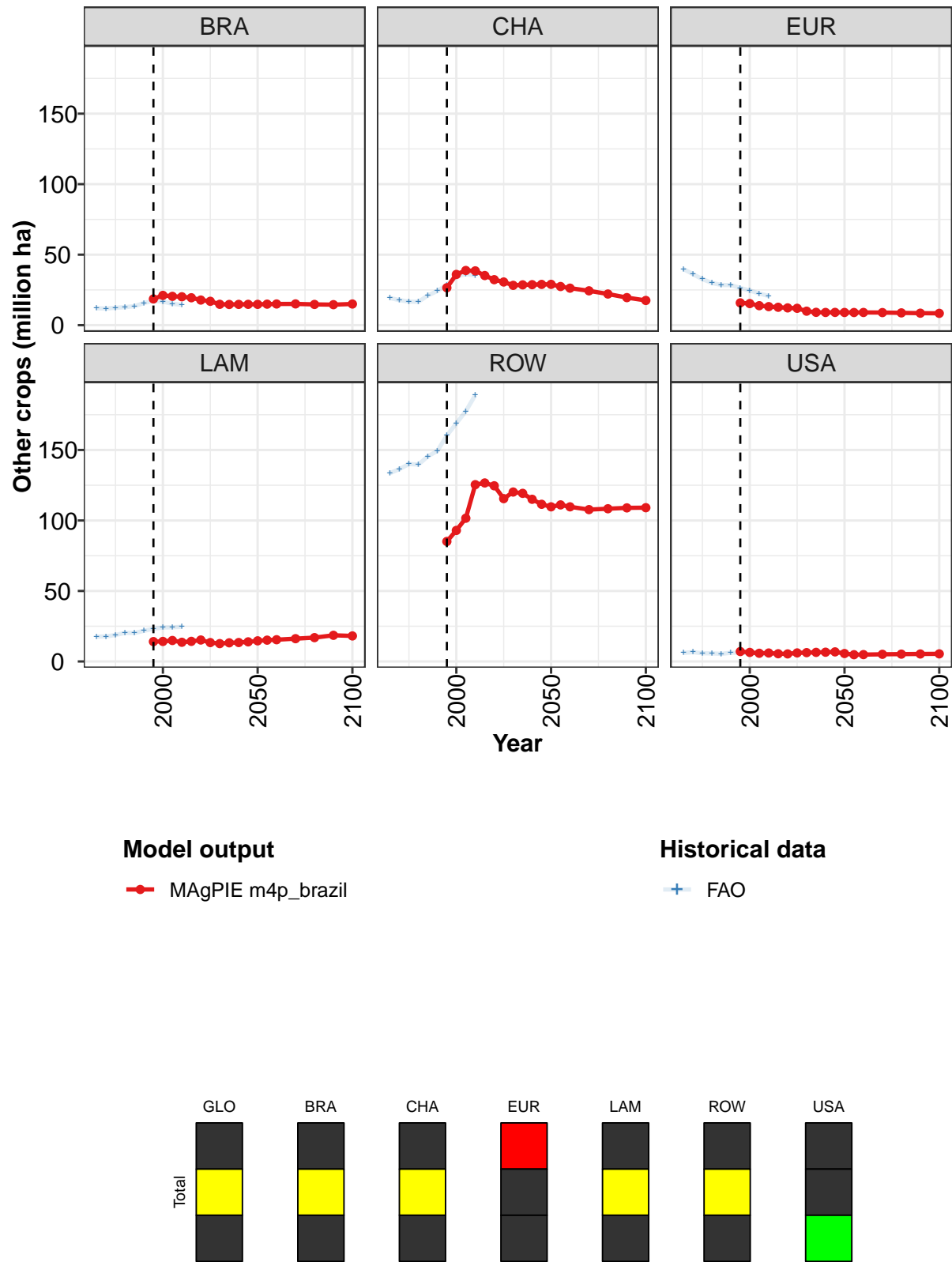


Figure 417: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Other crops (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	167	186	195	217	214	208	195	192	191	188	185
BRA	19	21	20	20	19	18	17	15	15	15	15
CHA	27	36	39	39	35	32	31	28	29	29	29
EUR	16	15	14	13	13	12	12	10	9	9	9
LAM	14	14	15	14	14	15	13	13	13	13	14
ROW	85	93	102	125	127	125	115	120	119	115	111
USA	7	6	6	6	6	5	6	6	6	7	7

Table 1598: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Other crops (million ha)
[PART 1/2]

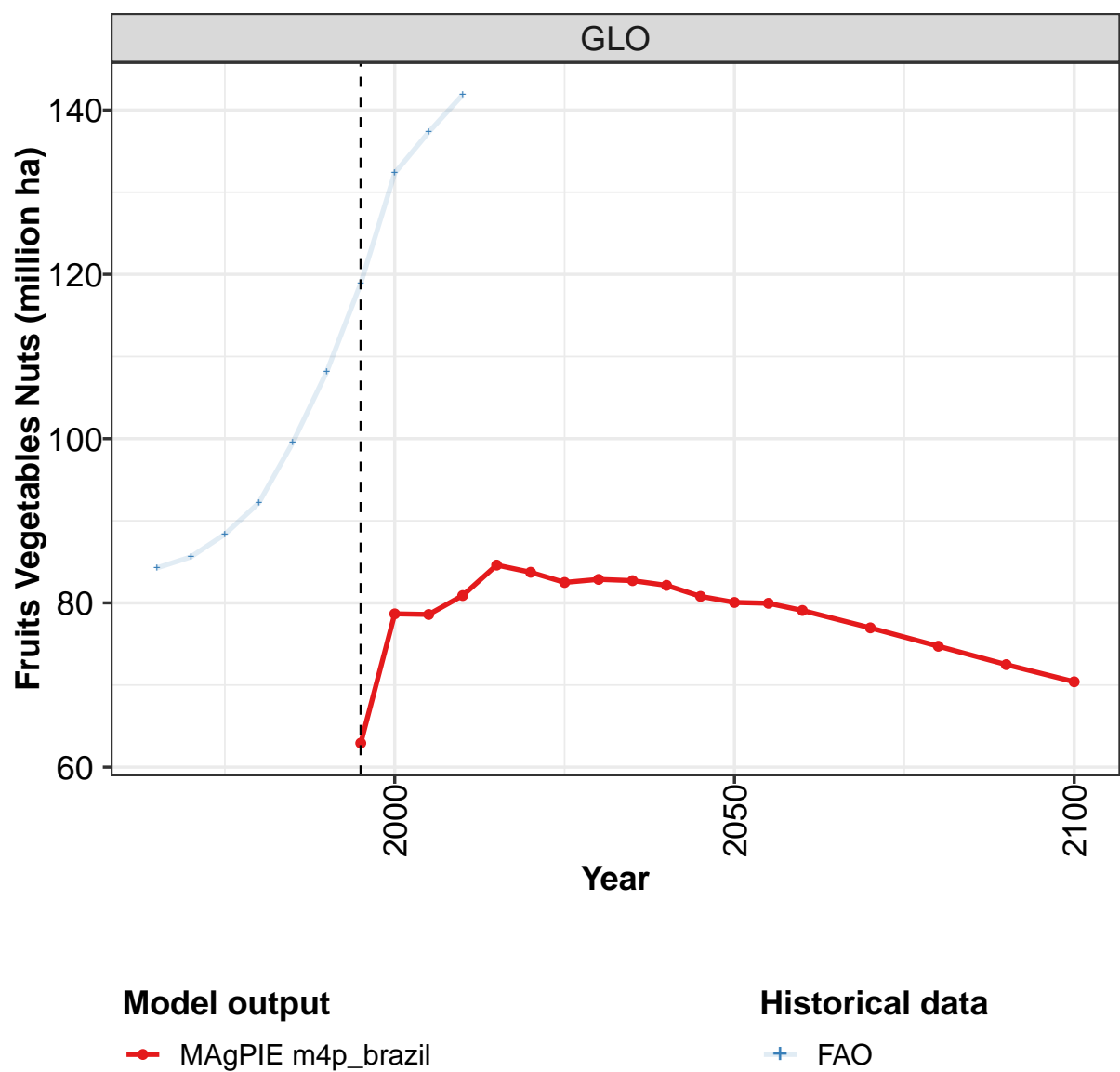
	2050	2055	2060	2070	2080	2090	2100
GLO	183	182	180	177	176	175	174
BRA	15	15	15	15	15	15	15
CHA	29	27	26	24	22	20	18
EUR	9	9	9	9	9	9	8
LAM	15	15	15	16	17	19	18
ROW	110	111	110	108	108	109	109
USA	6	5	5	5	5	5	5

Table 1599: MAgPIE m4p_brazil — 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
BRA	12	12	12	13	13	16	17	17	15	14
CHA	19	18	17	17	21	24	29	34	36	35
EUR	40	36	33	30	28	28	26	25	22	21
LAM	18	18	19	20	20	22	23	24	24	25
ROW	134	136	140	140	145	149	160	169	178	189
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



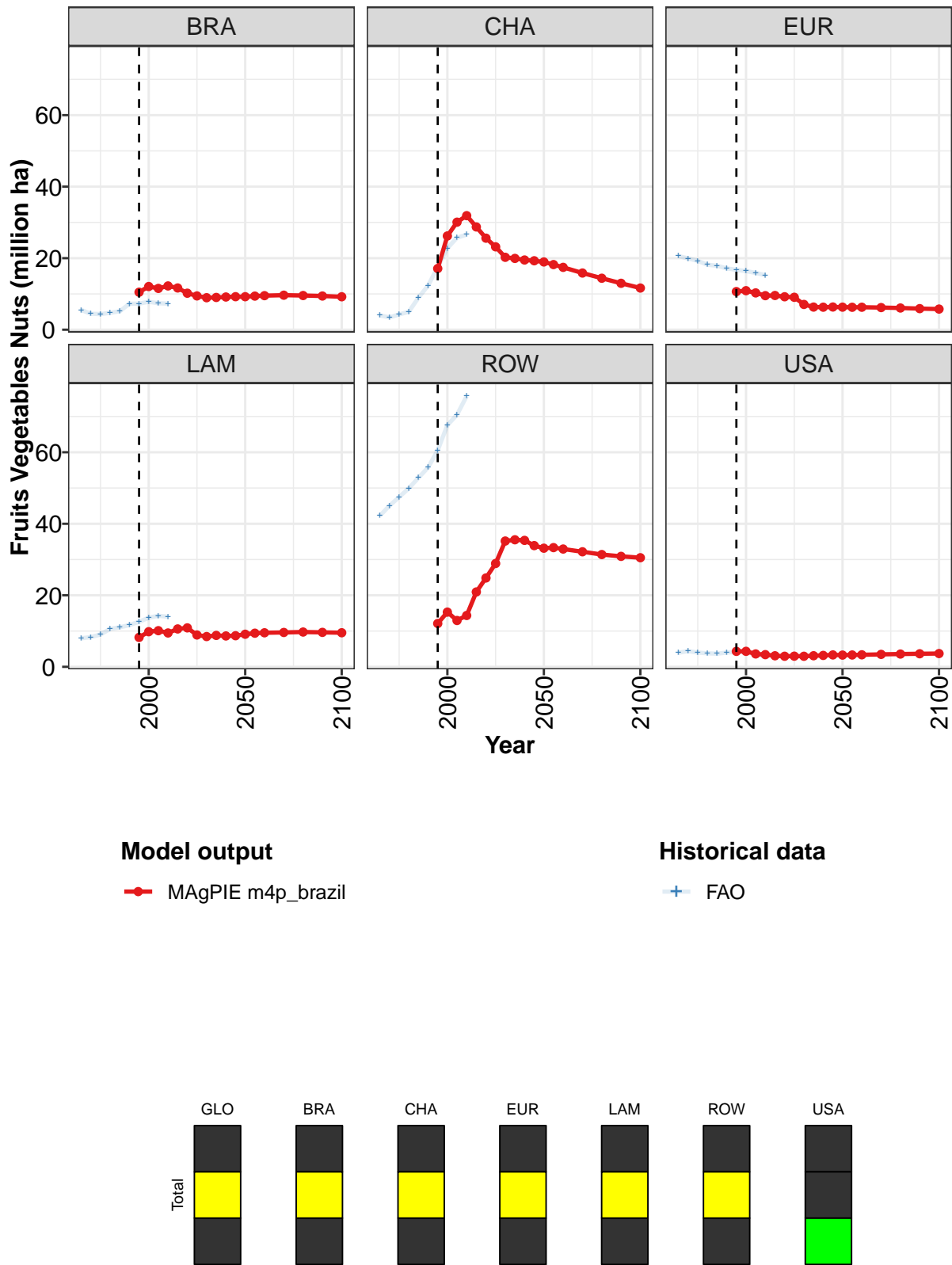


Figure 418: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Other crops—Fruits Vegetables Nuts (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	62.9	78.7	78.6	80.9	84.6	83.7	82.5	82.9	82.7	82.1	80.8
BRA	10.5	12.1	11.5	12.2	11.7	10.2	9.5	8.9	9.0	9.1	9.2
CHA	17.1	26.2	30.1	31.9	28.7	25.6	23.2	20.2	19.9	19.5	19.3
EUR	10.7	10.9	10.3	9.5	9.6	9.2	9.1	7.1	6.3	6.3	6.3
LAM	8.2	9.8	10.1	9.5	10.6	10.9	8.9	8.5	8.8	8.6	8.7
ROW	12.1	15.3	13.0	14.4	20.9	24.9	28.9	35.2	35.5	35.4	33.9
USA	4.3	4.3	3.6	3.4	3.1	3.0	3.0	3.0	3.1	3.2	3.3

Table 1601: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Other crops—Fruits Vegetables Nuts (million ha) [PART 1/2]

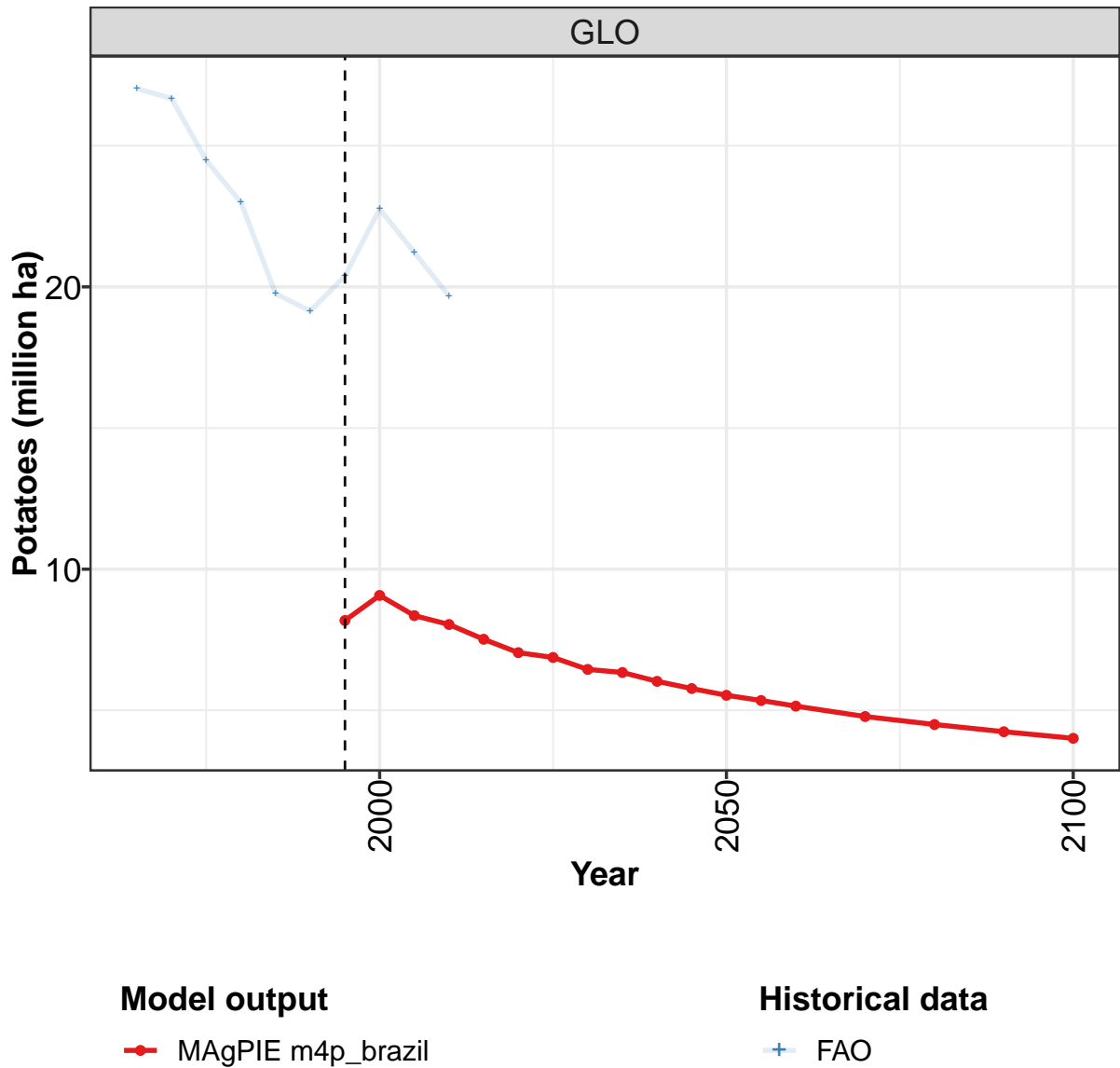
	2050	2055	2060	2070	2080	2090	2100
GLO	80.1	79.9	79.1	77.0	74.7	72.5	70.4
BRA	9.2	9.4	9.5	9.7	9.6	9.4	9.2
CHA	19.0	18.2	17.4	15.9	14.4	13.0	11.7
EUR	6.3	6.3	6.3	6.2	6.1	5.9	5.8
LAM	9.1	9.4	9.5	9.6	9.7	9.6	9.5
ROW	33.2	33.3	32.9	32.2	31.4	30.9	30.5
USA	3.3	3.3	3.4	3.5	3.6	3.7	3.7

Table 1602: MAgPIE m4p_brazil — 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
BRA	6	4	4	5	5	7	7	8	7	7
CHA	4	3	4	5	9	12	18	23	26	27
EUR	21	20	19	18	18	17	17	16	16	15
LAM	8	8	9	11	11	12	13	14	14	14
ROW	42	45	47	50	53	56	61	68	70	76
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



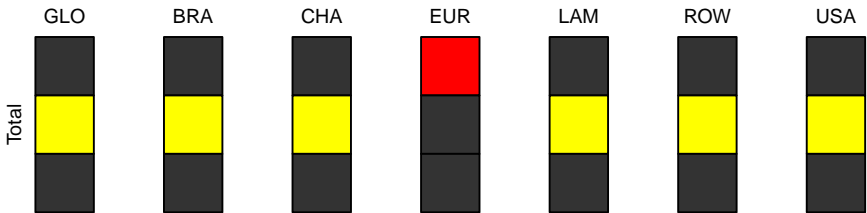
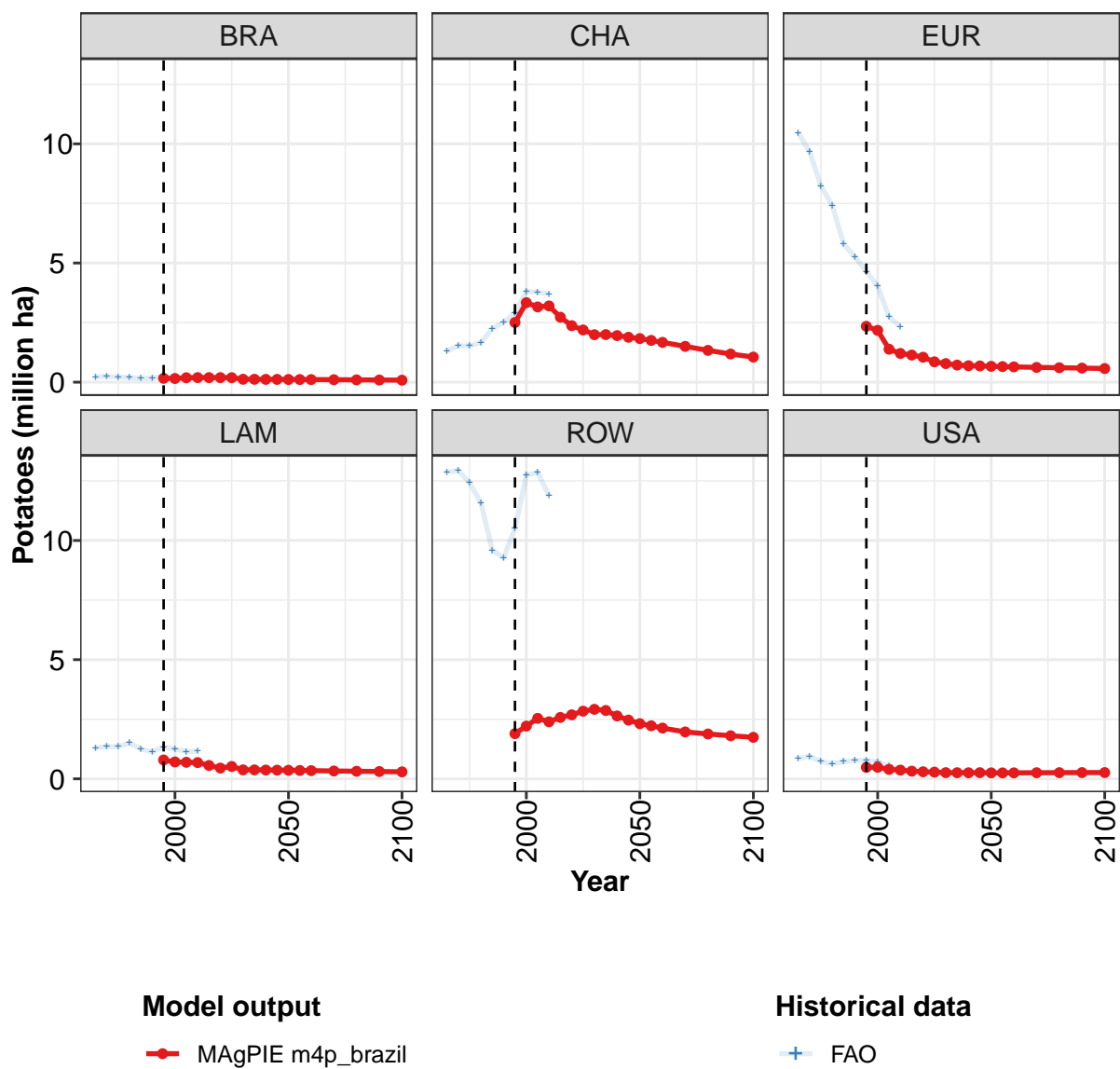


Figure 419: MAGPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Other crops—Potatoes (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	8.18	9.07	8.36	8.04	7.52	7.04	6.87	6.45	6.34	6.03	5.77
BRA	0.16	0.16	0.19	0.19	0.19	0.19	0.19	0.12	0.12	0.12	0.12
CHA	2.51	3.34	3.16	3.20	2.73	2.37	2.19	1.99	2.00	1.96	1.89
EUR	2.35	2.17	1.38	1.21	1.14	1.05	0.85	0.78	0.72	0.69	0.68
LAM	0.79	0.71	0.69	0.68	0.56	0.45	0.52	0.38	0.38	0.37	0.36
ROW	1.90	2.21	2.54	2.39	2.58	2.69	2.84	2.92	2.87	2.64	2.46
USA	0.48	0.48	0.40	0.37	0.32	0.30	0.28	0.26	0.26	0.25	0.26

Table 1604: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Other crops—Potatoes (million ha) [PART 1/2]

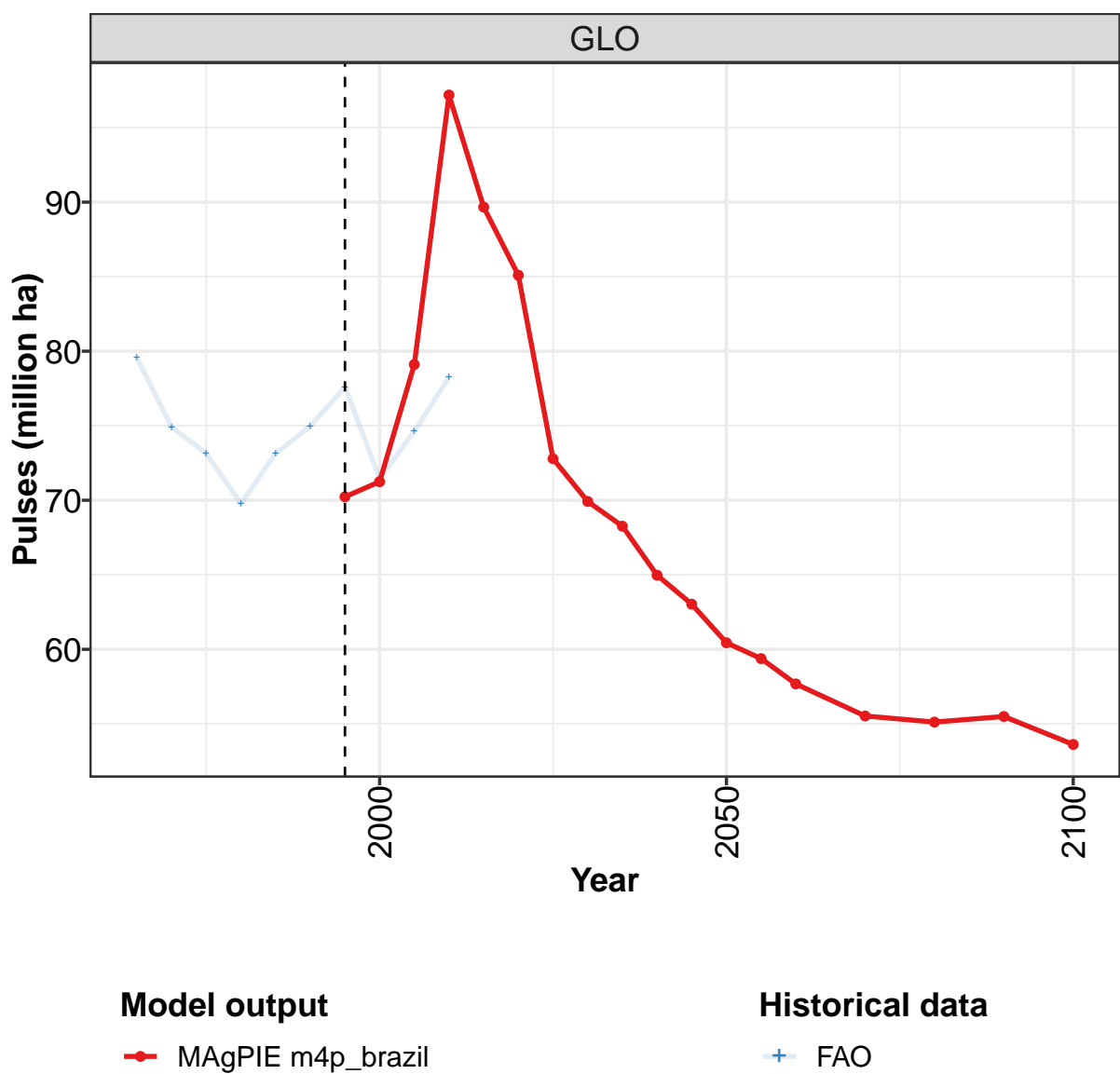
	2050	2055	2060	2070	2080	2090	2100
GLO	5.53	5.35	5.15	4.78	4.50	4.24	4.01
BRA	0.11	0.11	0.11	0.10	0.10	0.09	0.09
CHA	1.83	1.75	1.67	1.50	1.34	1.18	1.05
EUR	0.67	0.65	0.64	0.62	0.61	0.59	0.57
LAM	0.36	0.35	0.34	0.33	0.32	0.31	0.29
ROW	2.31	2.23	2.13	1.97	1.88	1.81	1.74
USA	0.25	0.25	0.25	0.26	0.26	0.26	0.26

Table 1605: MAgPIE m4p_brazil — 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
BRA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CHA	1.3	1.5	1.5	1.7	2.2	2.5	2.9	3.8	3.8	3.7
EUR	10.5	9.7	8.2	7.4	5.8	5.3	4.6	4.0	2.7	2.3
LAM	1.3	1.4	1.3	1.5	1.3	1.1	1.3	1.3	1.1	1.2
ROW	12.9	12.9	12.4	11.6	9.6	9.3	10.5	12.7	12.9	11.9
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



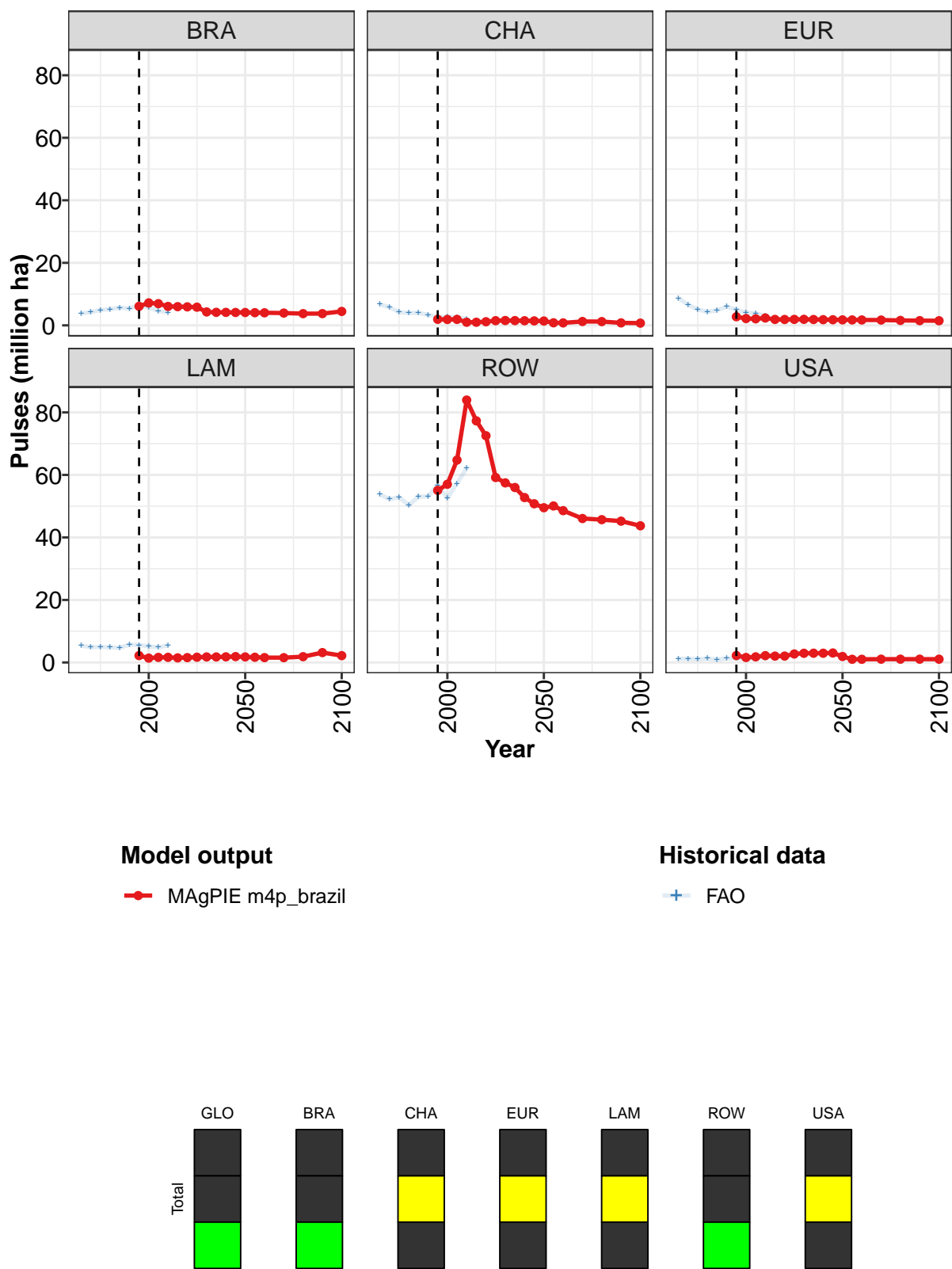


Figure 420: MAGPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Other crops—Pulses (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	70.2	71.2	79.1	97.2	89.7	85.1	72.8	69.9	68.3	65.0	63.0
BRA	6.1	7.2	6.9	6.1	6.0	5.9	5.8	4.3	4.2	4.2	4.1
CHA	1.9	1.9	1.9	1.0	1.0	1.2	1.5	1.5	1.5	1.5	1.4
EUR	2.7	2.2	2.1	2.4	1.9	1.9	1.9	1.9	1.9	1.8	1.8
LAM	2.2	1.4	1.6	1.6	1.5	1.6	1.7	1.8	1.8	1.8	1.9
ROW	55.1	57.0	64.7	83.9	77.3	72.5	59.2	57.5	56.0	52.8	50.8
USA	2.2	1.6	1.8	2.2	2.0	2.0	2.7	2.9	3.0	3.0	3.0

Table 1607: MAgPIE m4p.brazil — Resources—Land Cover—Cropland—Crops—Other crops—Pulses (million ha) [PART 1/2]

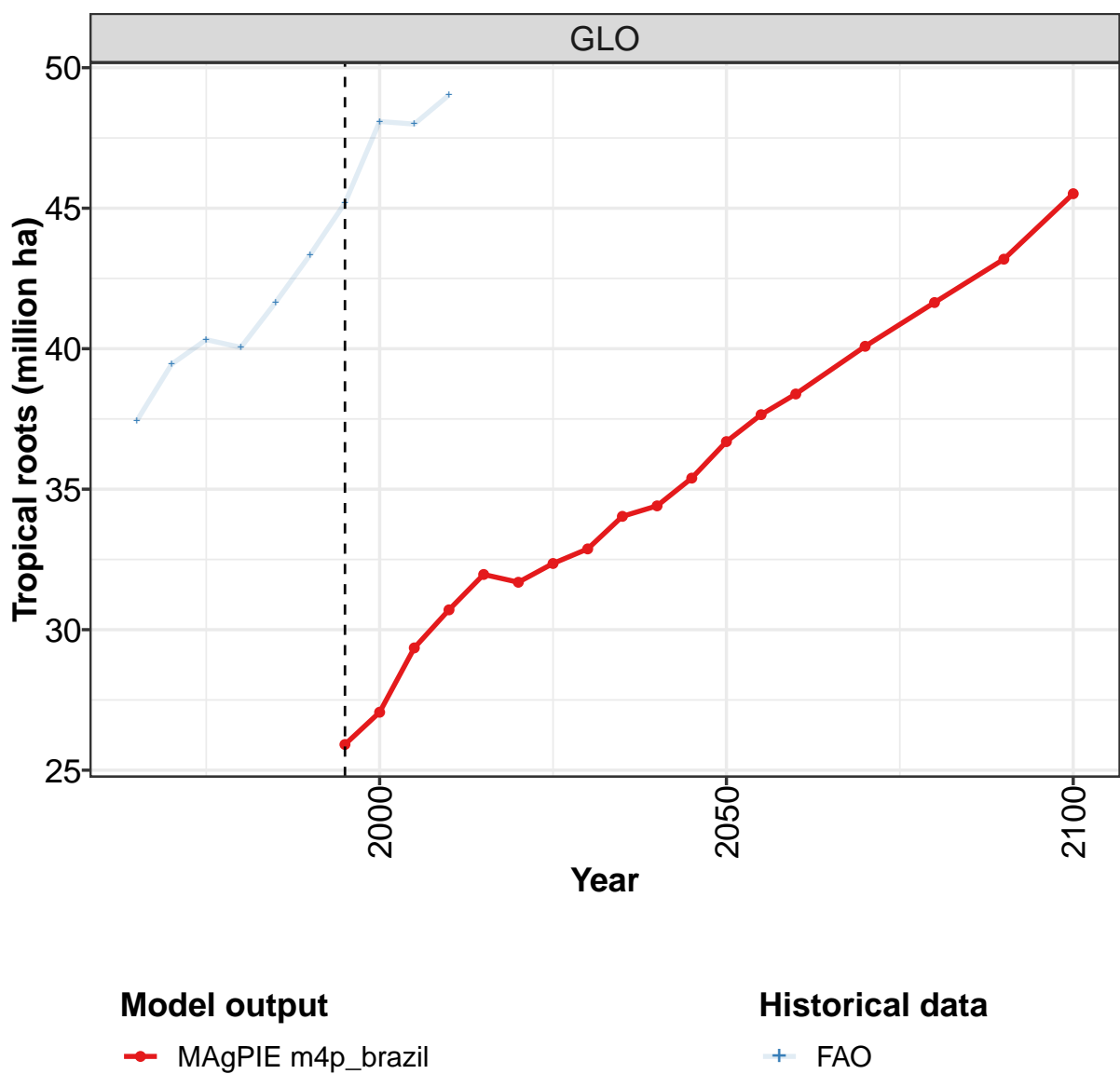
	2050	2055	2060	2070	2080	2090	2100
GLO	60.4	59.4	57.7	55.5	55.1	55.5	53.6
BRA	4.1	4.1	4.0	3.9	3.7	3.8	4.5
CHA	1.4	0.8	0.8	1.2	1.2	0.8	0.7
EUR	1.8	1.7	1.7	1.7	1.6	1.5	1.5
LAM	1.8	1.7	1.6	1.5	1.9	3.2	2.2
ROW	49.5	50.1	48.6	46.1	45.7	45.2	43.7
USA	1.9	1.0	1.0	1.1	1.1	1.1	1.0

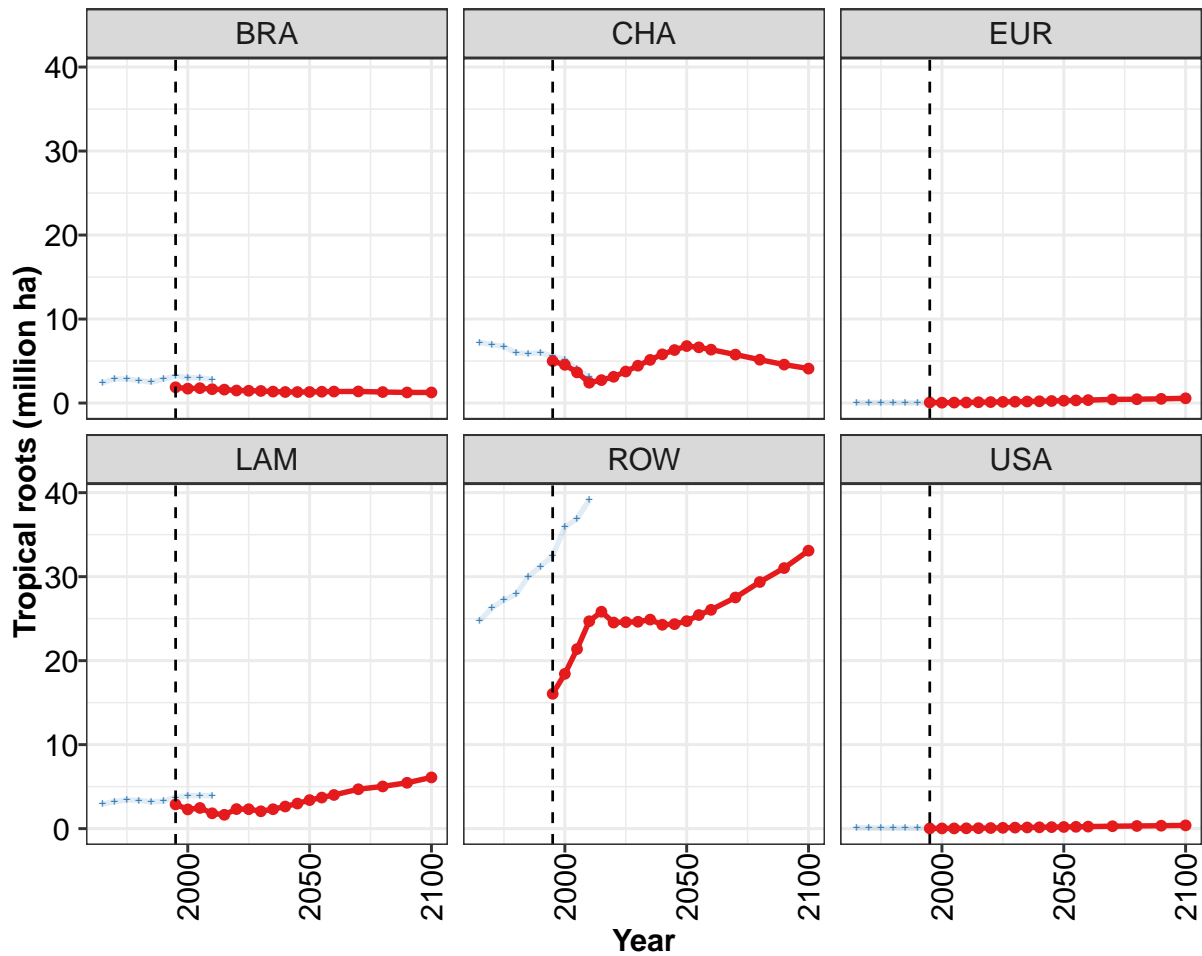
Table 1608: MAgPIE m4p.brazil — Resources—Land Cover—Cropland—Crops—Other crops—Pulses (million ha) [PART 2/2]

	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
BRA	3.8	4.2	4.9	5.2	5.7	5.4	6.5	5.7	4.6	4.1
CHA	6.7	5.8	4.2	3.9	4.0	3.4	2.6	2.7	2.6	2.0
EUR	8.7	6.6	5.1	4.3	4.8	6.0	5.0	4.1	3.8	3.0
LAM	5.4	4.9	5.0	4.8	4.7	5.7	5.6	5.2	4.8	5.4
ROW	53.8	52.2	52.9	50.3	53.0	53.2	56.7	52.7	57.3	62.2
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





Model output

MAgPIE m4p_brazil

Historical data

FAO

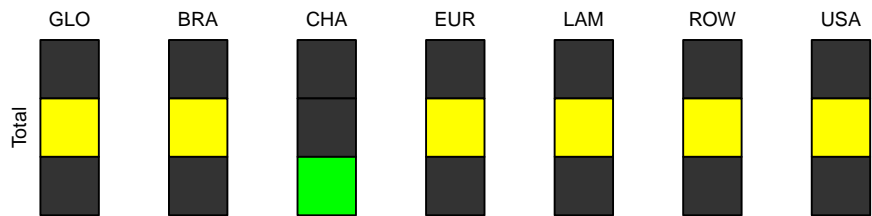


Figure 421: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Other crops—Tropical roots (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	25.9	27.1	29.4	30.7	32.0	31.7	32.4	32.9	34.0	34.4	35.4
BRA	1.9	1.7	1.8	1.7	1.6	1.5	1.5	1.4	1.4	1.3	1.3
CHA	5.0	4.6	3.7	2.4	2.7	3.1	3.8	4.5	5.1	5.8	6.3
EUR	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
LAM	2.9	2.3	2.5	1.8	1.7	2.3	2.3	2.1	2.3	2.6	3.0
ROW	16.1	18.4	21.4	24.7	25.8	24.5	24.6	24.6	24.9	24.3	24.3
USA	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2

Table 1610: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Other crops—Tropical roots (million ha) [PART 1/2]

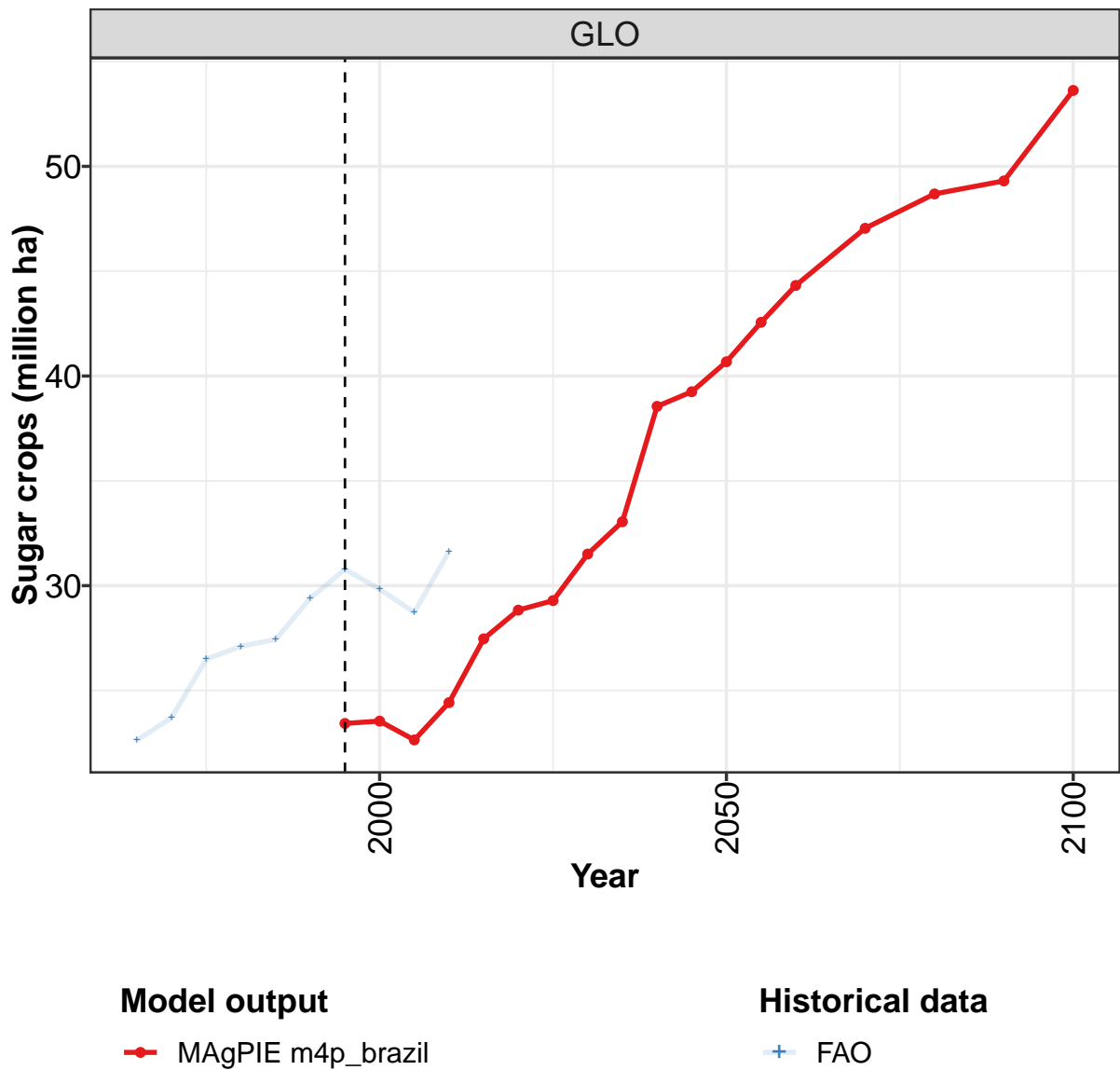
	2050	2055	2060	2070	2080	2090	2100
GLO	36.7	37.7	38.4	40.1	41.6	43.2	45.5
BRA	1.3	1.4	1.4	1.4	1.3	1.3	1.3
CHA	6.8	6.6	6.4	5.8	5.2	4.6	4.1
EUR	0.3	0.3	0.4	0.4	0.5	0.5	0.6
LAM	3.4	3.7	4.0	4.7	5.0	5.5	6.1
ROW	24.7	25.4	26.0	27.5	29.4	31.0	33.1
USA	0.2	0.2	0.2	0.3	0.3	0.4	0.4

Table 1611: MAgPIE m4p_brazil — 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
BRA	2.4	2.9	2.9	2.7	2.5	2.8	3.2	3.0	3.0	2.8
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
LAM	2.9	3.2	3.4	3.4	3.2	3.3	3.7	3.9	3.9	3.9
ROW	24.7	26.2	27.2	27.9	30.0	31.2	32.5	35.9	36.9	39.1
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



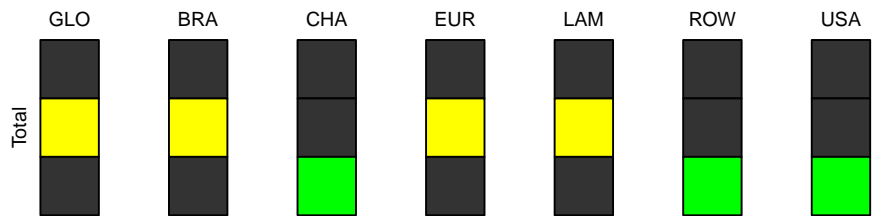
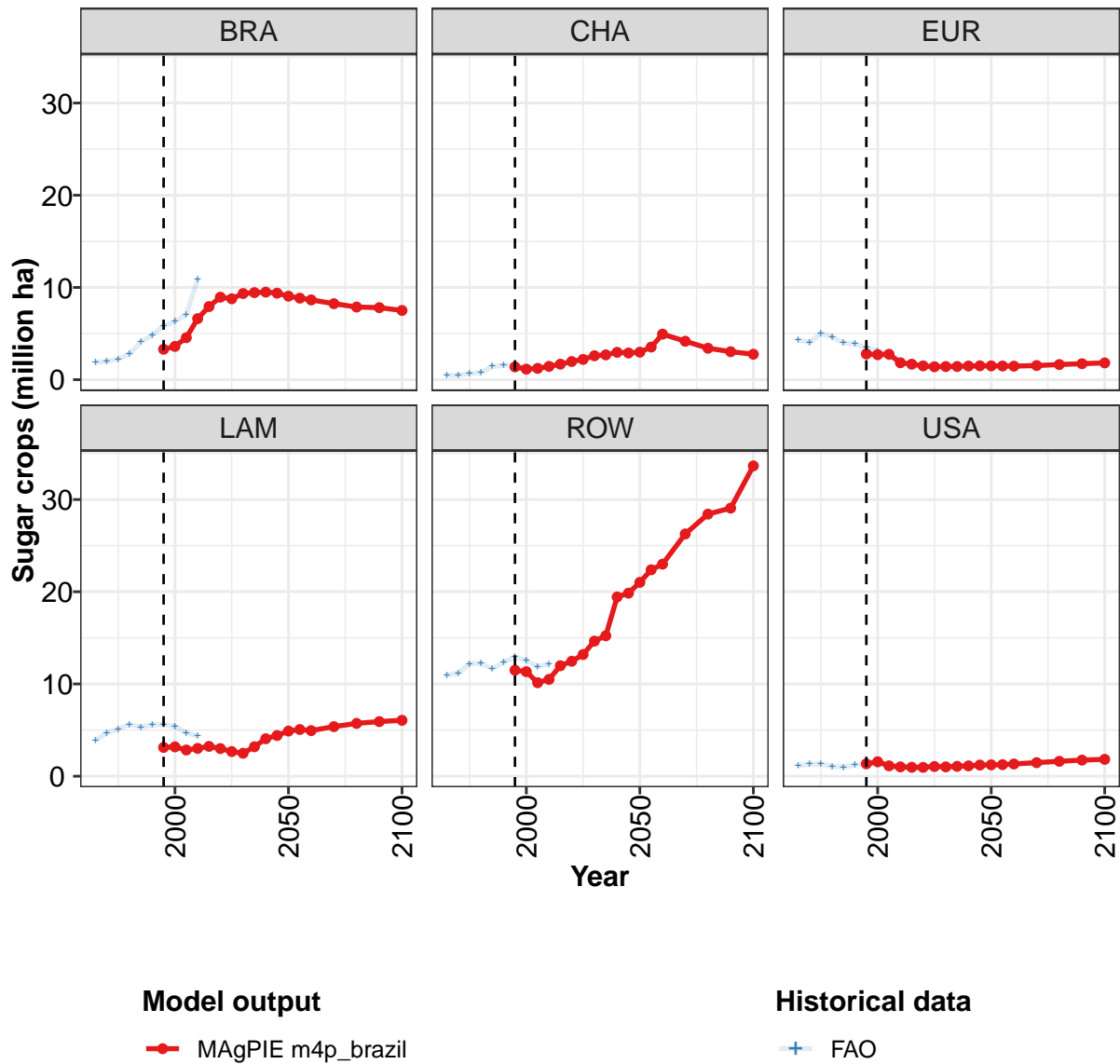


Figure 422: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Sugar crops (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	23.4	23.5	22.6	24.4	27.5	28.8	29.3	31.5	33.1	38.6	39.2
BRA	3.3	3.6	4.6	6.6	7.9	8.9	8.8	9.3	9.4	9.5	9.4
CHA	1.4	1.1	1.2	1.4	1.7	2.0	2.2	2.6	2.7	3.0	2.9
EUR	2.8	2.7	2.8	1.8	1.7	1.5	1.4	1.4	1.4	1.5	1.5
LAM	3.1	3.2	2.8	3.0	3.2	3.0	2.7	2.5	3.2	4.1	4.4
ROW	11.5	11.3	10.1	10.5	12.0	12.5	13.2	14.7	15.2	19.4	19.8
USA	1.3	1.6	1.1	1.0	1.0	1.0	1.1	1.0	1.1	1.1	1.2

Table 1613: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Sugar crops (million ha)
[PART 1/2]

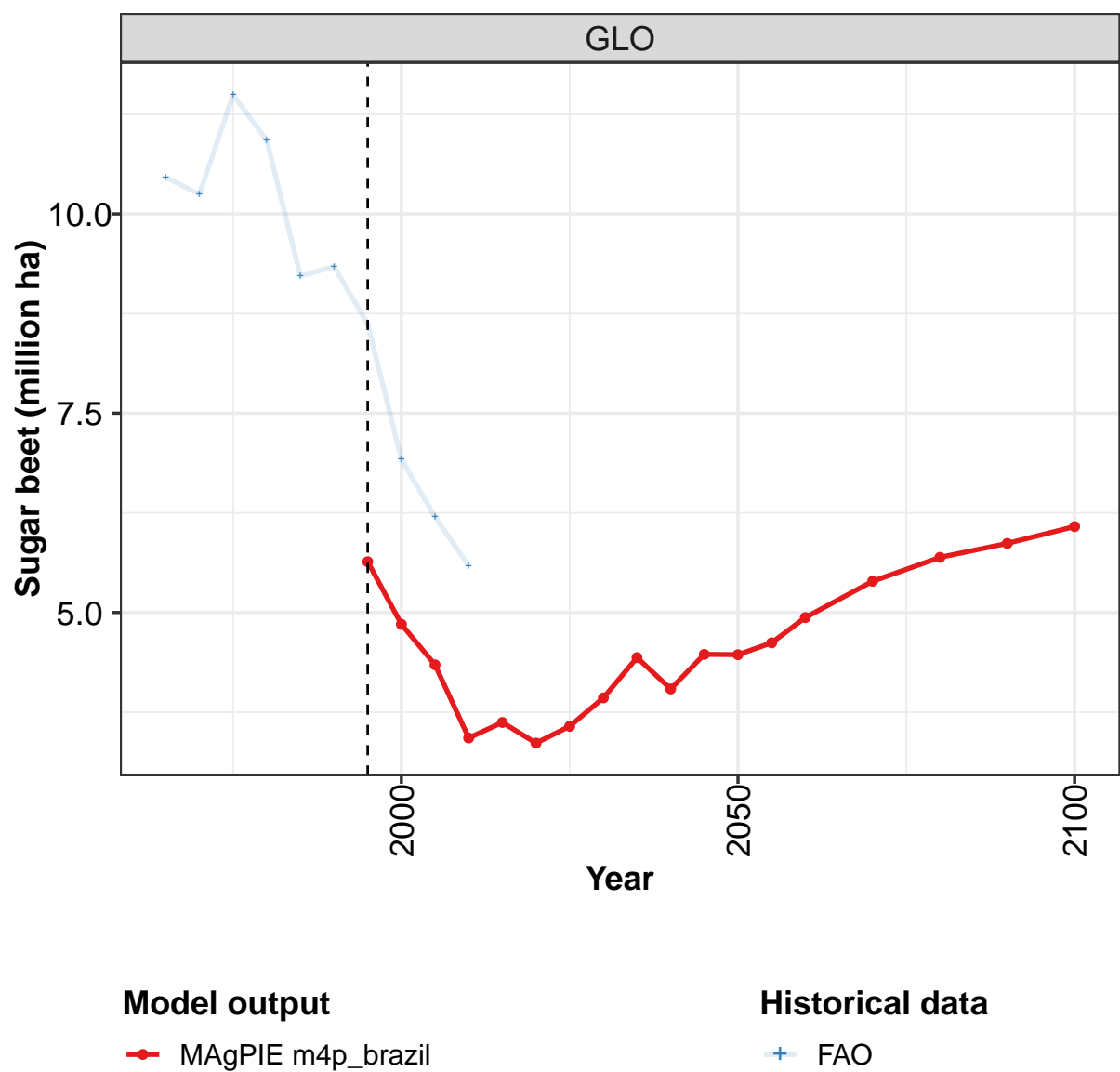
	2050	2055	2060	2070	2080	2090	2100
GLO	40.7	42.6	44.3	47.0	48.7	49.3	53.6
BRA	9.1	8.8	8.7	8.2	7.9	7.8	7.5
CHA	3.0	3.5	4.9	4.2	3.4	3.0	2.8
EUR	1.5	1.5	1.5	1.5	1.6	1.7	1.8
LAM	4.9	5.1	4.9	5.4	5.7	5.9	6.1
ROW	21.0	22.4	23.0	26.3	28.4	29.1	33.6
USA	1.2	1.3	1.3	1.5	1.6	1.7	1.8

Table 1614: MAgPIE m4p_brazil — 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
BRA	1.9	2.0	2.2	2.8	4.1	4.8	5.8	6.3	7.1	10.9
CHA	0.5	0.5	0.7	0.7	1.4	1.5	1.6	1.2	1.2	1.4
EUR	4.3	4.1	5.0	4.6	4.0	3.9	3.5	3.1	2.7	2.0
LAM	3.9	4.7	5.1	5.6	5.3	5.6	5.6	5.4	4.7	4.3
ROW	10.9	11.2	12.2	12.2	11.6	12.3	12.9	12.5	11.9	12.2
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



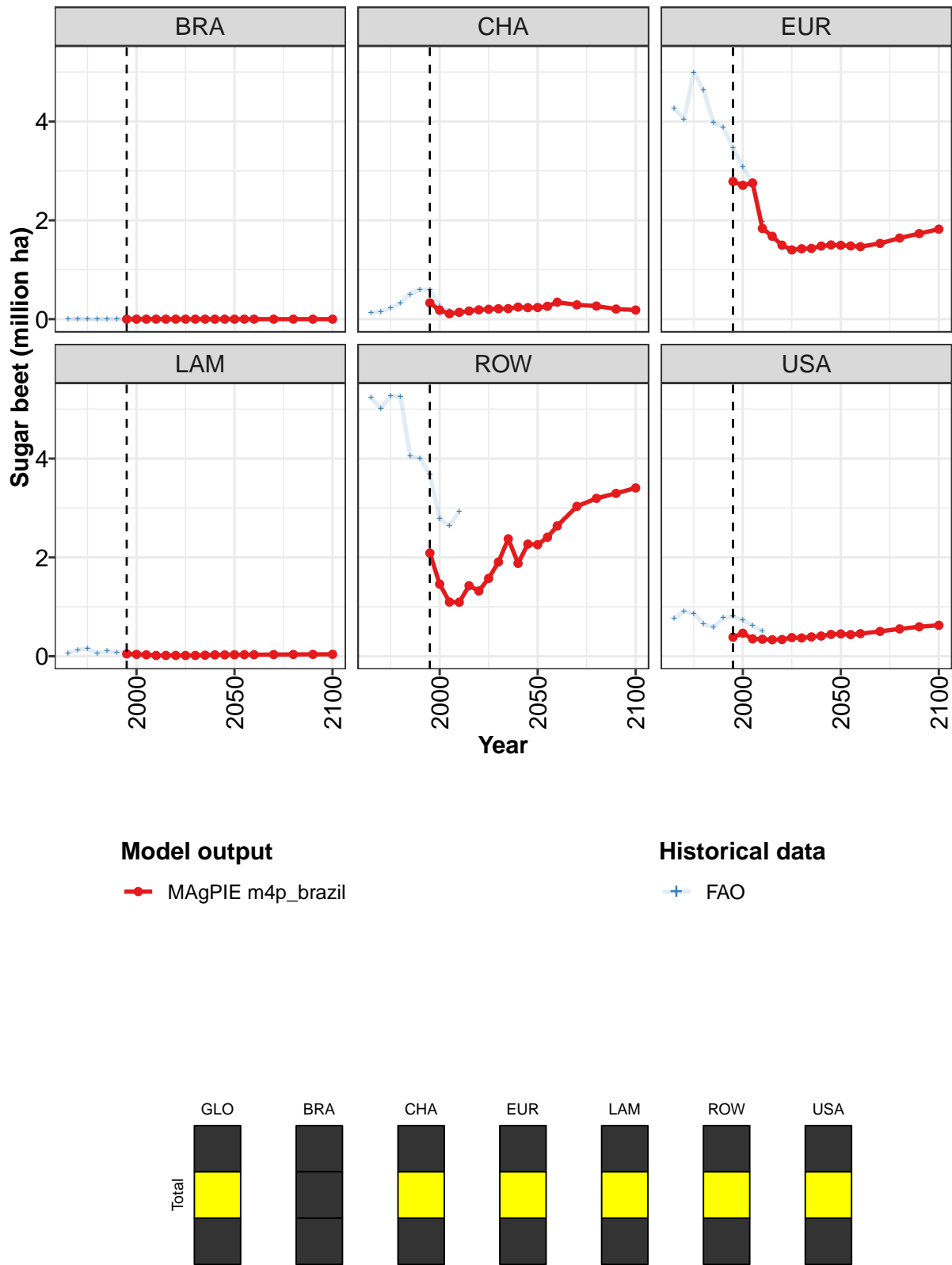


Figure 423: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Sugar crops—Sugar beet (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.64	4.85	4.34	3.43	3.62	3.36	3.57	3.93	4.43	4.04	4.48
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.33	0.18	0.11	0.14	0.16	0.19	0.20	0.21	0.21	0.24	0.23
EUR	2.79	2.71	2.76	1.83	1.68	1.50	1.40	1.42	1.43	1.48	1.50
LAM	0.05	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03
ROW	2.09	1.46	1.10	1.09	1.43	1.32	1.58	1.91	2.38	1.88	2.27
USA	0.39	0.47	0.35	0.34	0.33	0.34	0.38	0.37	0.39	0.41	0.44

Table 1616: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Sugar crops—Sugar beet (million ha) [PART 1/2]

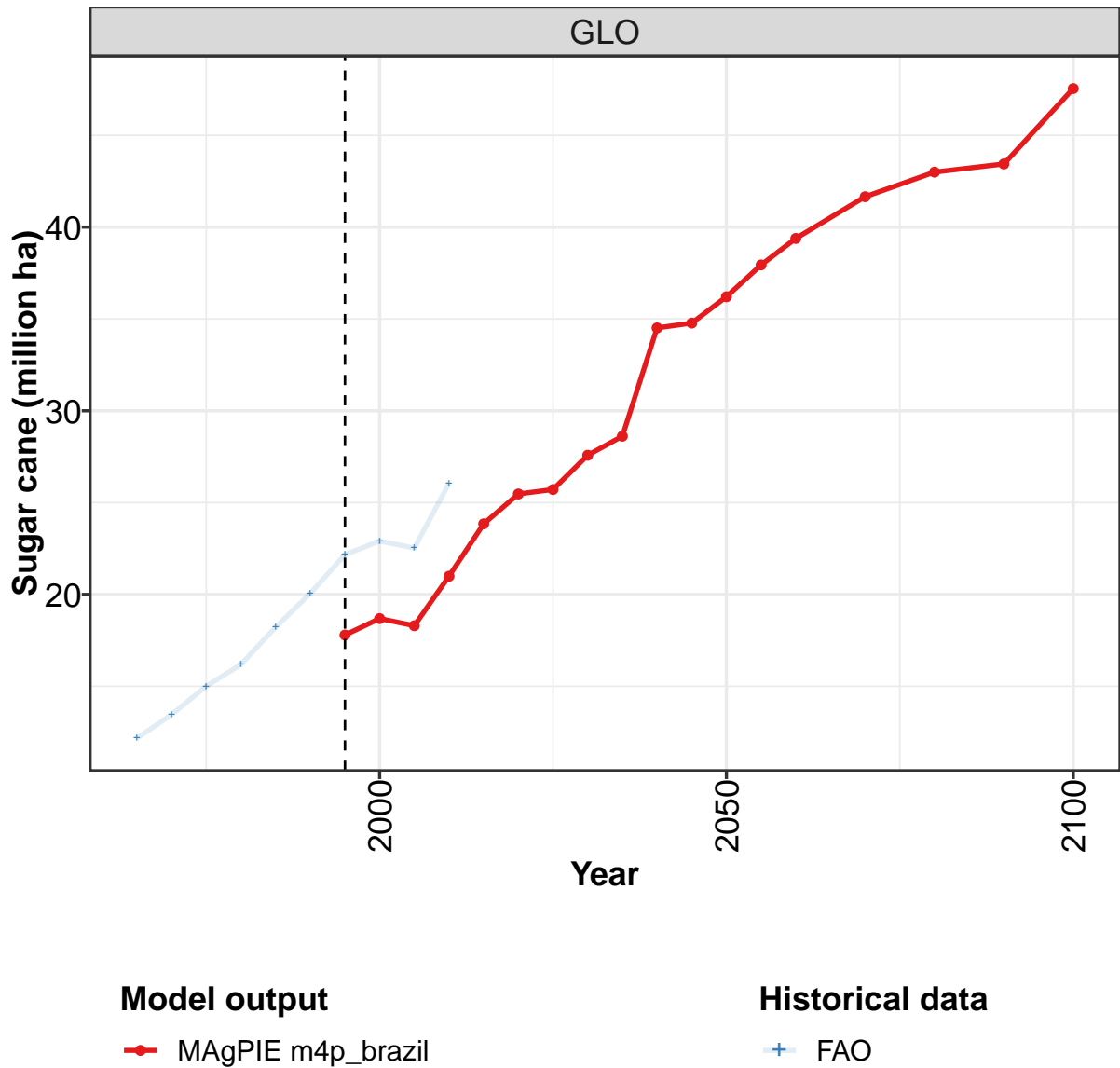
	2050	2055	2060	2070	2080	2090	2100
GLO	4.47	4.62	4.94	5.39	5.69	5.87	6.08
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.24	0.26	0.34	0.29	0.26	0.20	0.18
EUR	1.49	1.48	1.47	1.53	1.64	1.73	1.82
LAM	0.03	0.03	0.03	0.03	0.04	0.04	0.04
ROW	2.26	2.41	2.64	3.03	3.20	3.30	3.41
USA	0.45	0.44	0.46	0.50	0.55	0.60	0.63

Table 1617: MAgPIE m4p_brazil — 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
BRA	0.0	0.0	0.0	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	4.3	4.0	5.0	4.6	4.0	3.9	3.5	3.1	2.7	2.0
LAM	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0
ROW	5.2	5.0	5.3	5.3	4.1	4.0	3.7	2.8	2.6	2.9
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



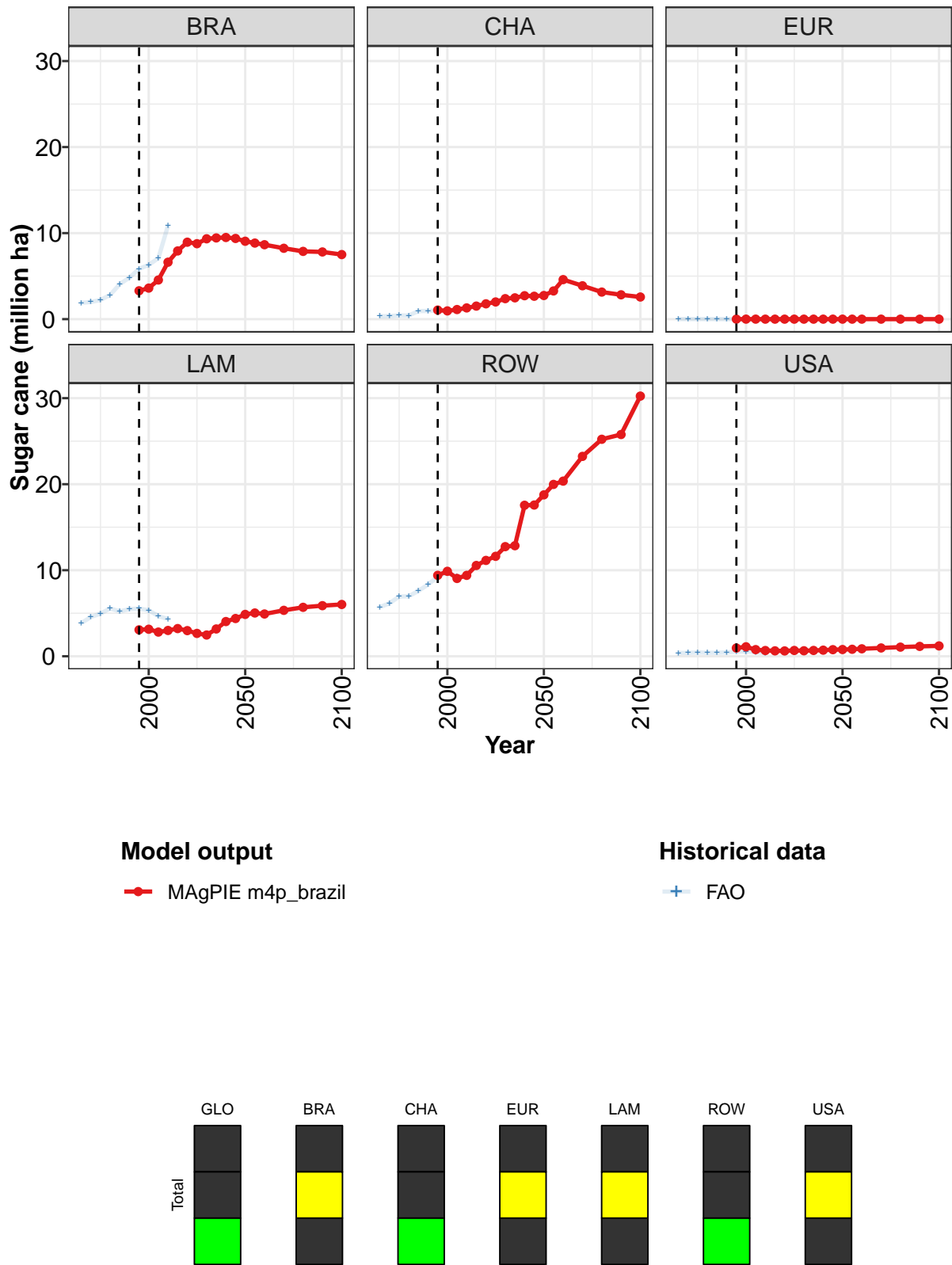


Figure 424: MAGPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Sugar crops—Sugar cane (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17.8	18.7	18.3	21.0	23.8	25.5	25.7	27.6	28.6	34.5	34.8
BRA	3.3	3.6	4.6	6.6	7.9	8.9	8.8	9.3	9.4	9.5	9.4
CHA	1.1	1.0	1.1	1.3	1.5	1.8	2.0	2.4	2.5	2.7	2.7
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	3.1	3.1	2.8	3.0	3.2	3.0	2.7	2.5	3.2	4.0	4.4
ROW	9.4	9.9	9.0	9.4	10.6	11.1	11.6	12.7	12.9	17.6	17.6
USA	1.0	1.1	0.8	0.7	0.6	0.6	0.7	0.6	0.7	0.7	0.8

Table 1619: MAgPIE m4p_brazil — Resources—Land Cover—Cropland—Crops—Sugar crops—Sugar cane (million ha) [PART 1/2]

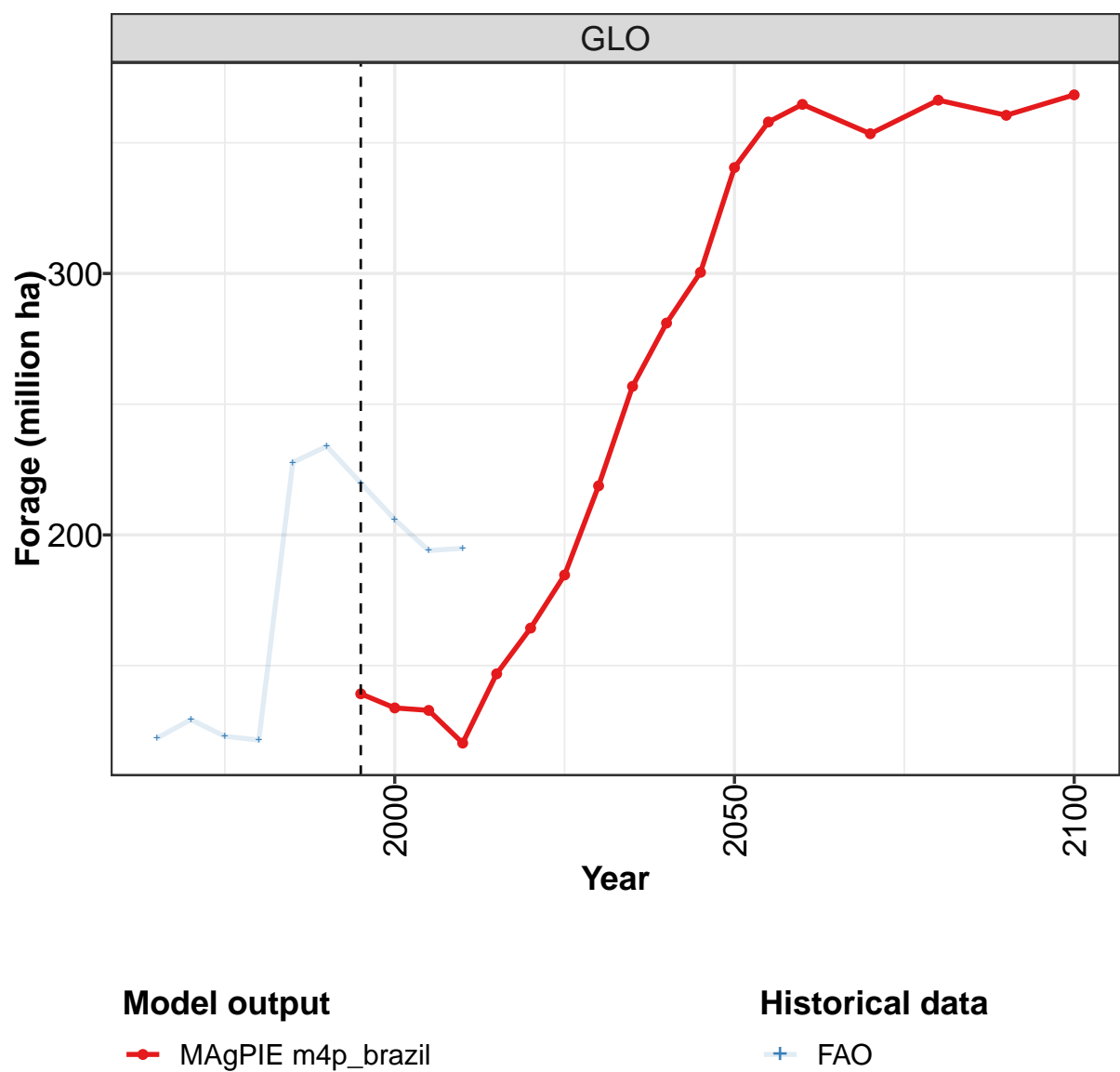
	2050	2055	2060	2070	2080	2090	2100
GLO	36.2	37.9	39.4	41.7	43.0	43.4	47.5
BRA	9.1	8.8	8.7	8.2	7.9	7.8	7.5
CHA	2.7	3.3	4.6	3.9	3.1	2.8	2.6
EUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAM	4.9	5.0	4.9	5.3	5.7	5.9	6.0
ROW	18.8	20.0	20.4	23.2	25.2	25.8	30.2
USA	0.8	0.8	0.9	1.0	1.1	1.1	1.2

Table 1620: MAgPIE m4p_brazil — 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
BRA	1.9	2.0	2.2	2.8	4.1	4.8	5.8	6.3	7.1	10.9
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
LAM	3.8	4.6	5.0	5.6	5.2	5.5	5.5	5.3	4.7	4.3
ROW	5.7	6.2	6.9	7.0	7.6	8.3	9.2	9.7	9.3	9.2
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



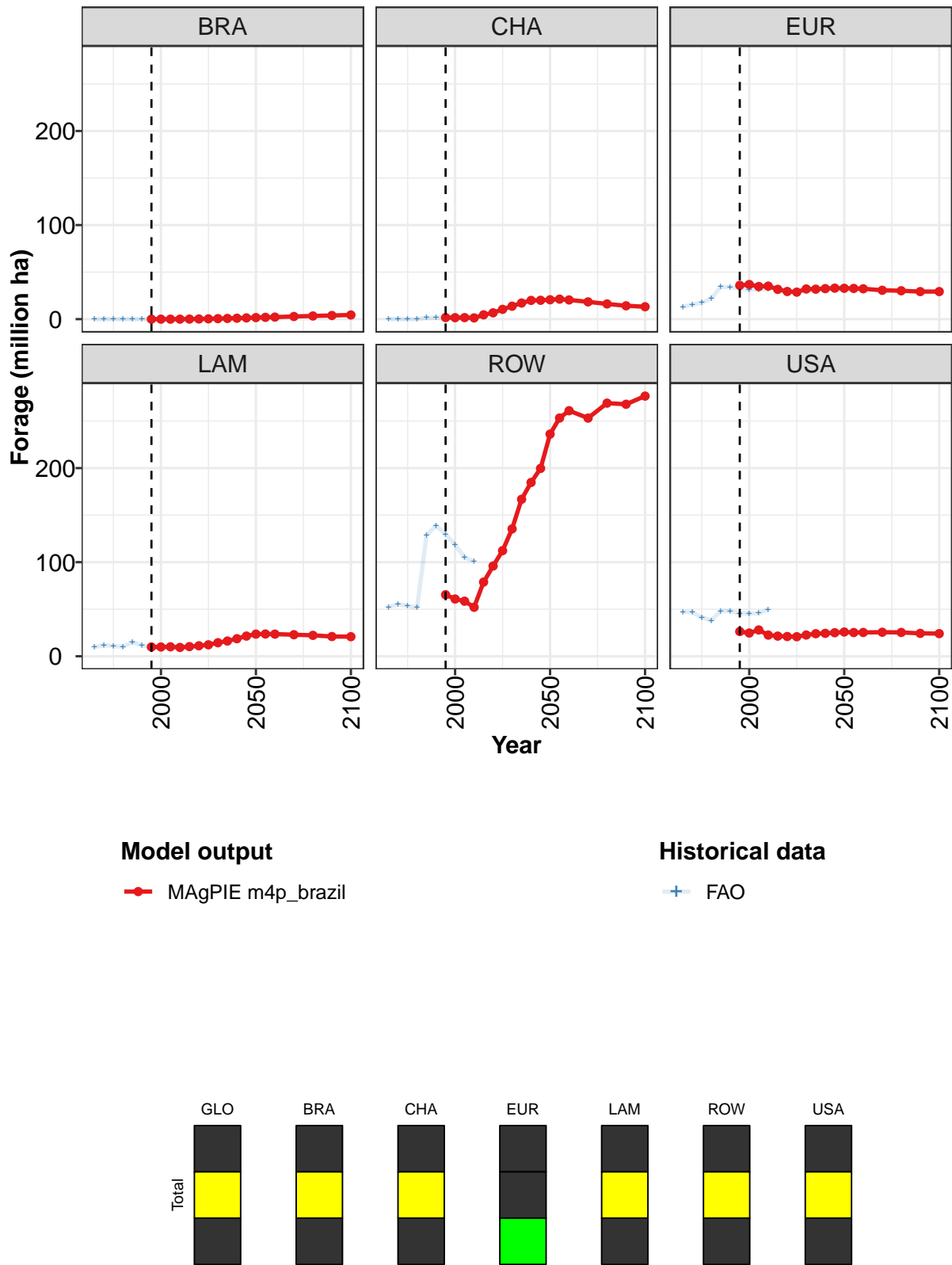


Figure 425: MAGPIE m4p_brazil — Resources—Land Cover—Cropland—Forage (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	139	134	133	120	147	164	185	219	257	281	300
BRA	0	0	0	0	0	0	0	1	1	1	1
CHA	2	2	2	1	5	7	10	14	17	20	20
EUR	36	37	35	35	32	29	29	32	32	32	33
LAM	10	10	10	9	10	11	12	14	16	19	21
ROW	65	61	59	52	79	96	112	135	167	185	200
USA	26	25	28	22	21	21	21	23	24	24	25

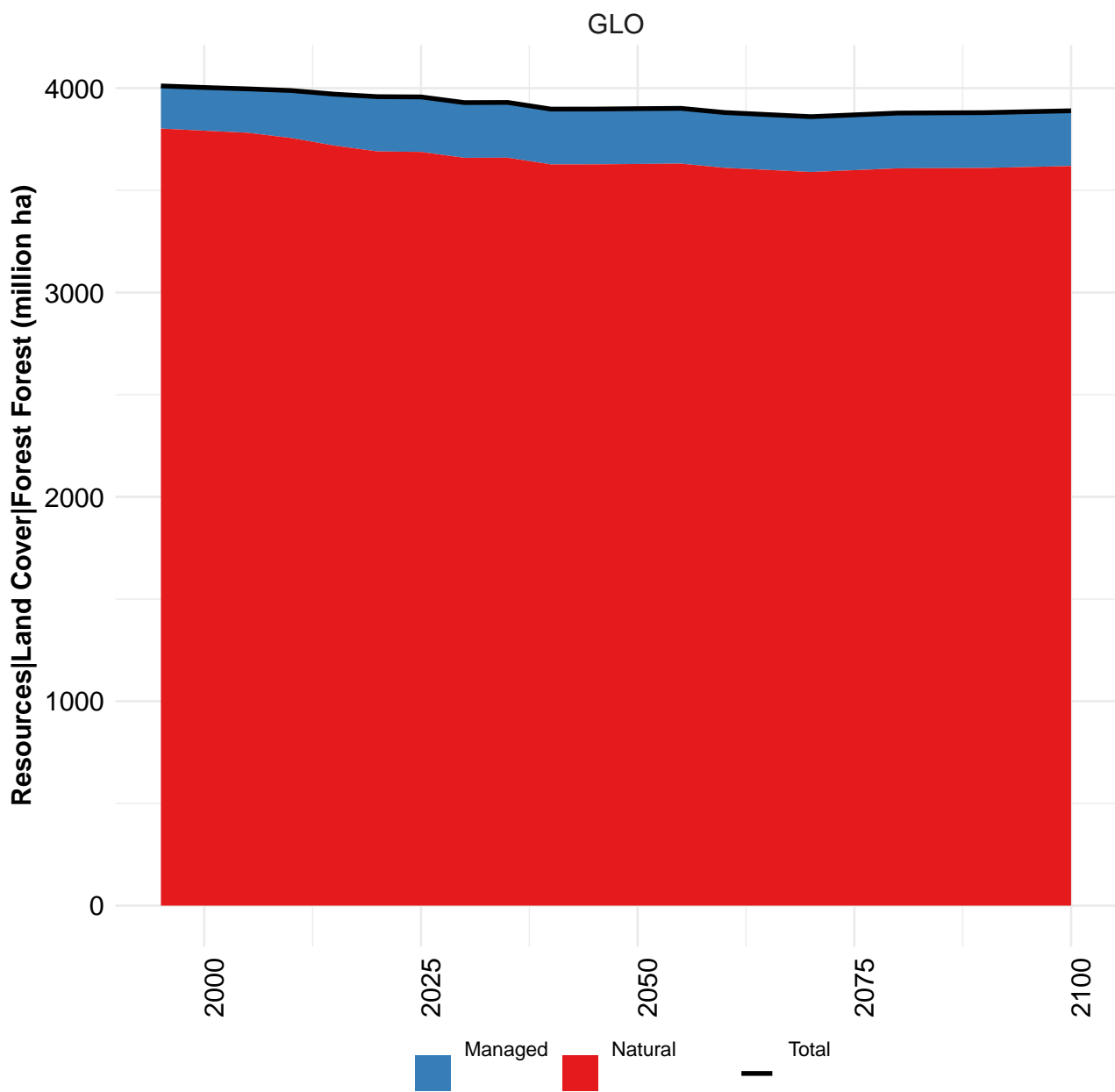
Table 1622: MAgPIE m4p.brazil — Resources—Land Cover—Cropland—Forage (million ha) [PART 1/2]

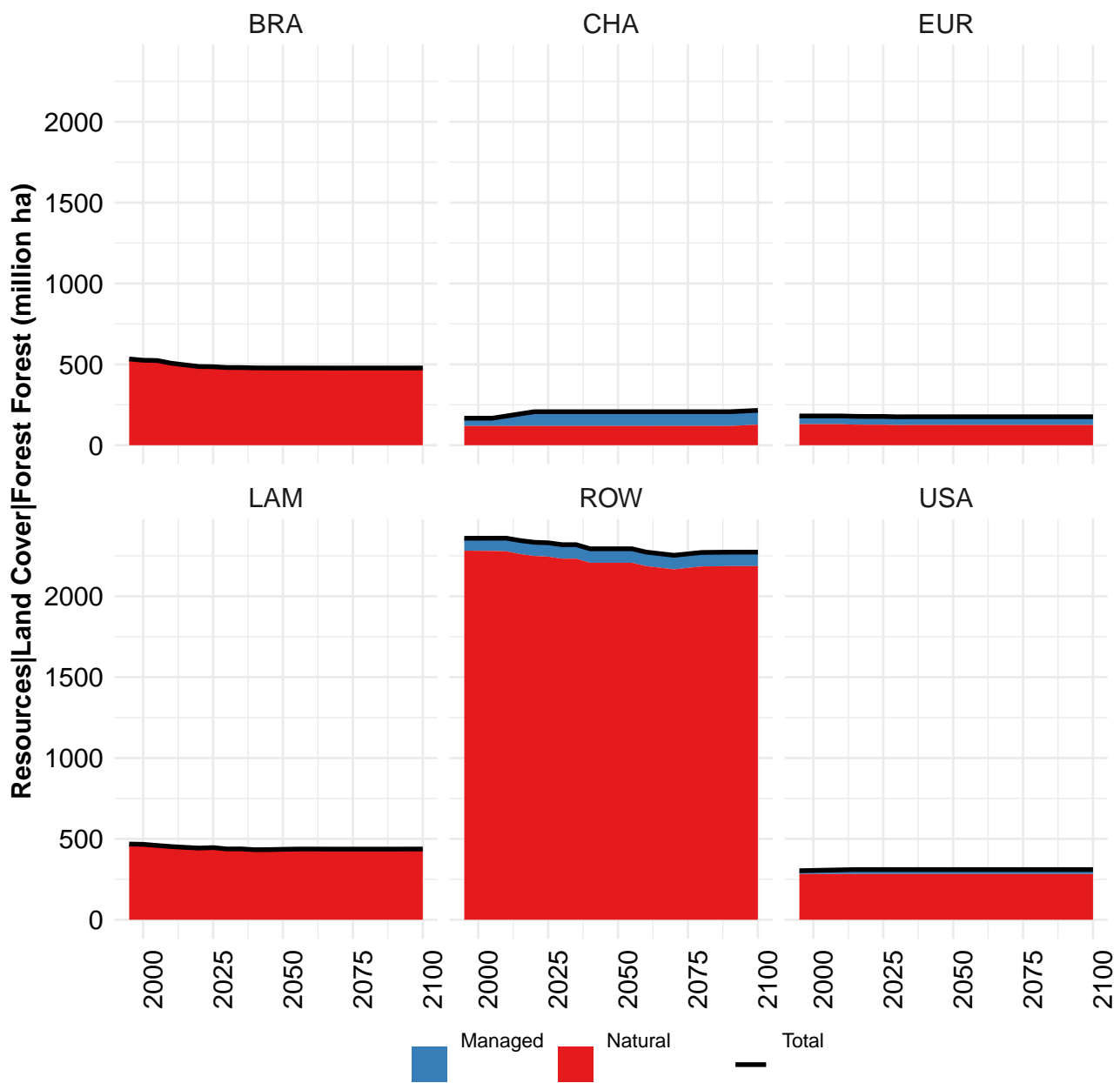
	2050	2055	2060	2070	2080	2090	2100
GLO	341	358	365	353	366	361	368
BRA	2	2	2	3	3	4	4
CHA	21	21	20	18	16	14	13
EUR	33	33	32	31	30	29	29
LAM	24	24	24	23	22	21	21
ROW	236	253	261	253	269	268	277
USA	26	25	25	26	25	24	24

Table 1623: MAgPIE m4p.brazil — Resources—Land Cover—Cropland—Forage (million ha) [PART 2/2]

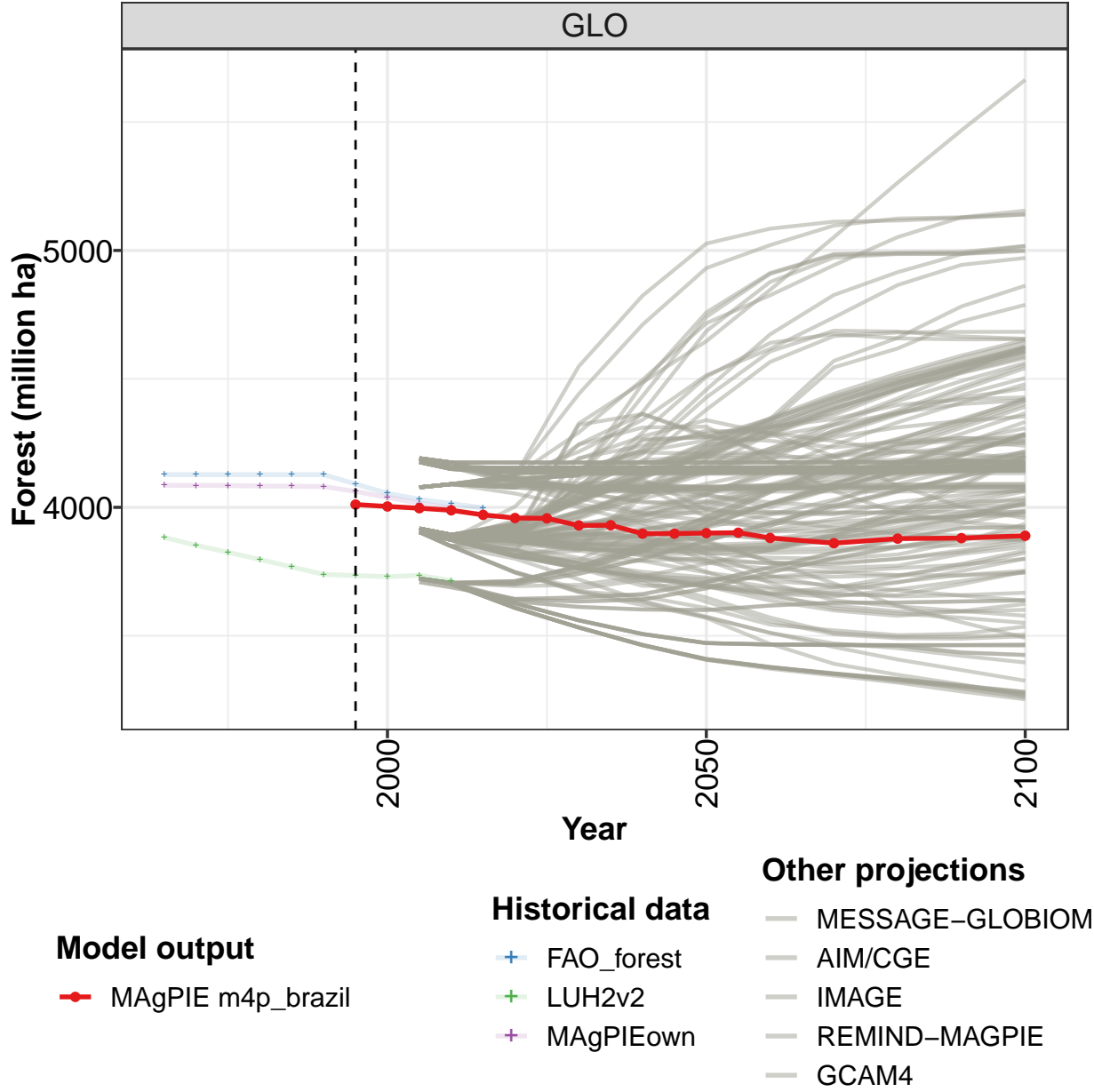
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	122	129	123	122	228	234	220	206	194	195
BRA	0	0	0	0	0	0	0	0	0	0
CHA	0	0	0	0	2	2	2	2	2	2
EUR	13	16	17	22	34	34	33	31	31	32
LAM	10	12	11	10	15	11	10	9	10	10
ROW	52	55	53	52	129	139	130	118	105	101
USA	47	47	41	38	48	48	46	45	46	50

Table 1624: FAO — Resources—Land Cover—Cropland—Forage (million ha)





54.2 Forest



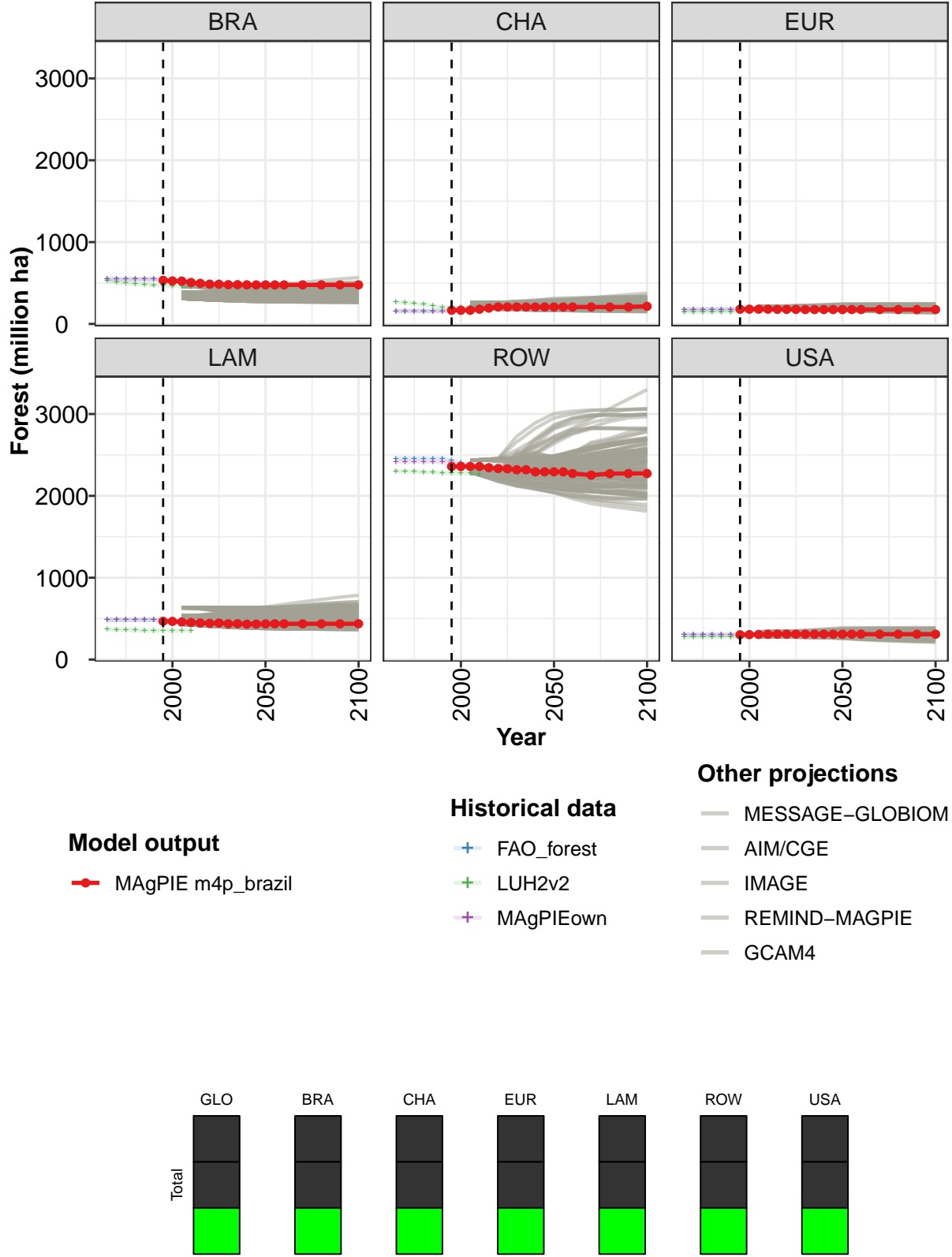


Figure 426: MAgPIE m4p_brazil — Resources—Land Cover—Forest (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4011	4003	3997	3988	3971	3958	3957	3930	3930	3898	3898
BRA	533	525	524	507	497	486	485	480	480	478	477
CHA	167	167	167	180	194	207	207	207	207	207	207
EUR	181	181	181	181	179	178	178	176	176	176	176
LAM	468	466	459	452	447	443	446	437	438	433	433
ROW	2359	2359	2359	2359	2344	2334	2331	2319	2319	2294	2294
USA	303	305	307	308	310	310	310	310	310	310	310

Table 1625: MAgPIE m4p_brazil — Resources—Land Cover—Forest (million ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	3900	3901	3881	3861	3878	3880	3889
BRA	477	477	477	477	477	477	477
CHA	207	207	207	207	207	207	215
EUR	176	176	176	176	176	176	176
LAM	435	437	437	437	437	437	437
ROW	2294	2294	2273	2253	2271	2273	2273
USA	310	310	310	310	310	310	310

Table 1626: MAgPIE m4p_brazil — 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
BRA	547	547	547	547	547	547	534	521	507	498	494
CHA	157	157	157	157	157	157	167	177	193	201	208
EUR	178	178	178	178	178	178	182	185	188	191	194
LAM	486	486	486	486	486	486	476	466	457	448	442
ROW	2458	2458	2458	2458	2458	2458	2429	2401	2382	2368	2351
USA	302	302	302	302	302	302	303	304	305	309	310

Table 1627: FAO_forest — Resources—Land Cover—Forest (million ha)

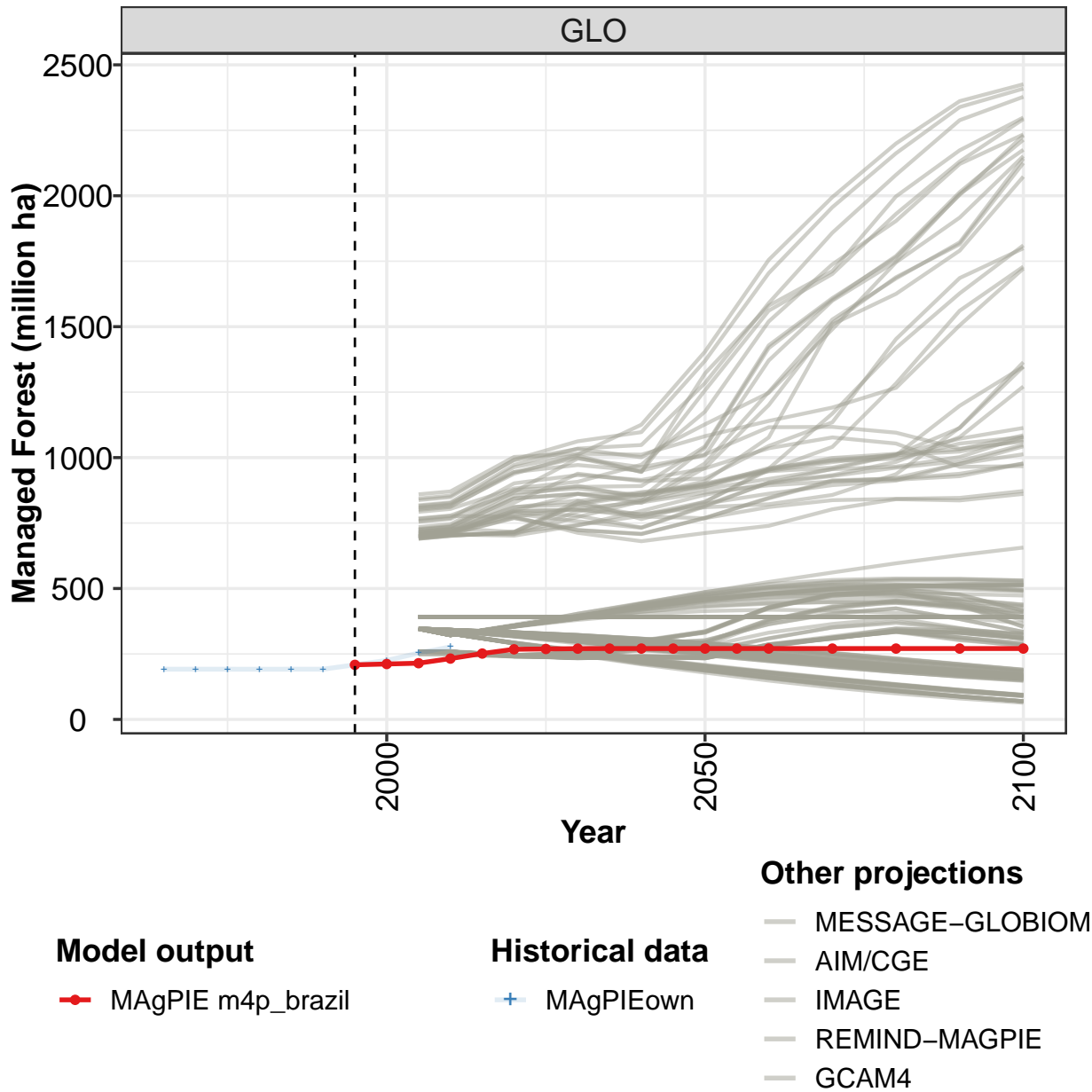
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3883	3852	3825	3797	3768	3739	3735	3730	3736	3715
BRA	527	509	498	488	482	477	470	462	460	454
CHA	267	261	249	237	220	203	204	206	204	207
EUR	144	145	146	147	148	149	151	154	155	155
LAM	370	367	363	359	356	354	353	353	355	354
ROW	2302	2297	2294	2291	2285	2279	2278	2276	2279	2260
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
BRA	547	547	547	547	547	547	534	521	507	498
CHA	157	157	157	157	157	157	167	177	193	201
EUR	177	177	177	177	177	177	181	185	188	191
LAM	484	484	484	484	484	483	474	465	456	446
ROW	2418	2418	2418	2416	2415	2414	2402	2387	2368	2352
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



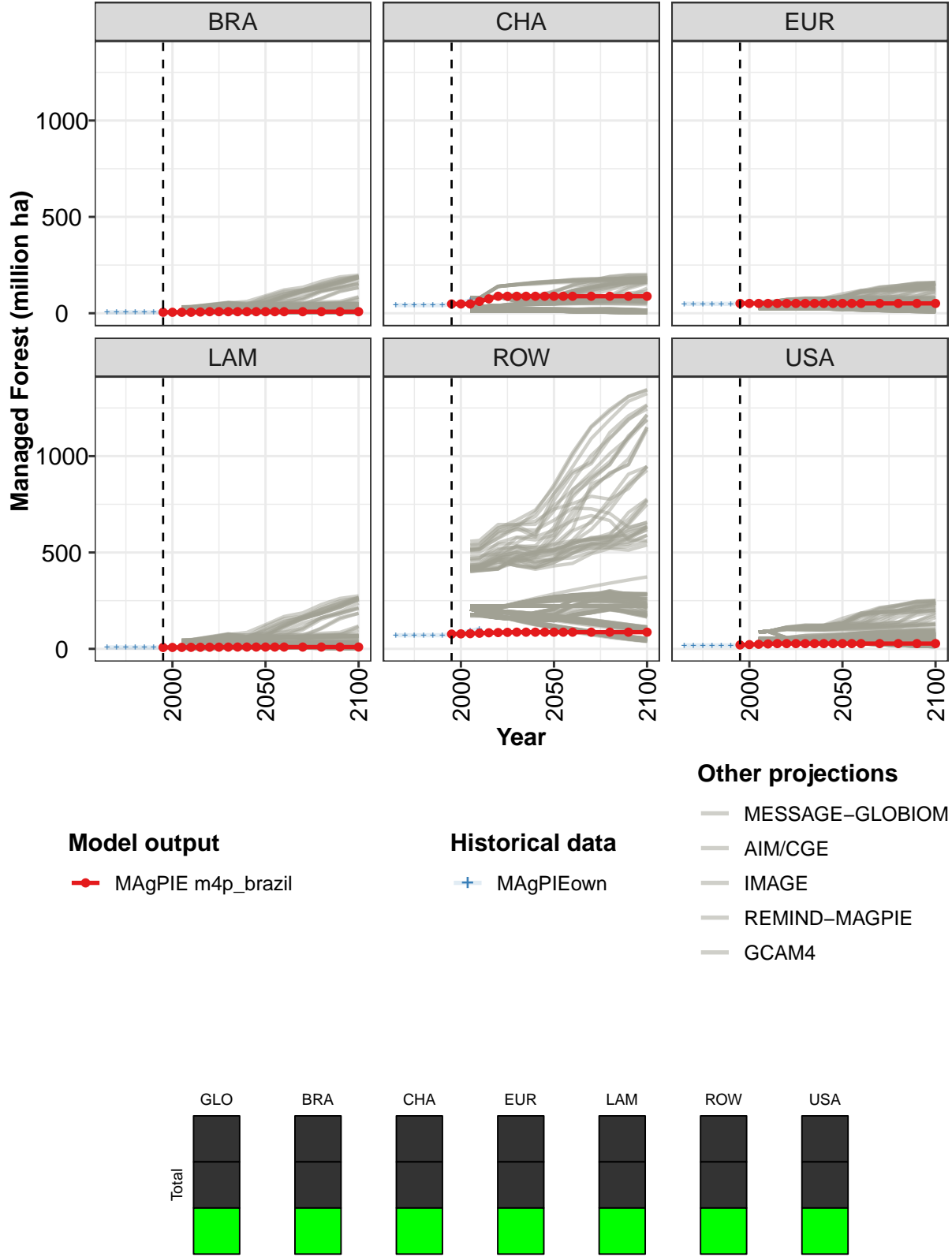


Figure 427: MAgPIE m4p_brazil — Resources—Land Cover—Forest—Managed Forest (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	209	212	215	232	252	268	269	270	271	271	271
BRA	5	5	5	5	7	8	8	8	8	8	8
CHA	48	48	48	62	75	88	88	88	88	88	88
EUR	51	51	51	51	51	51	51	51	51	51	51
LAM	7	7	8	8	8	9	9	9	9	9	9
ROW	77	78	79	81	83	85	86	87	87	87	87
USA	20	22	24	26	27	27	27	27	27	27	27

Table 1630: MAgPIE m4p_brazil — Resources—Land Cover—Forest—Managed Forest (million ha) [PART 1/2]

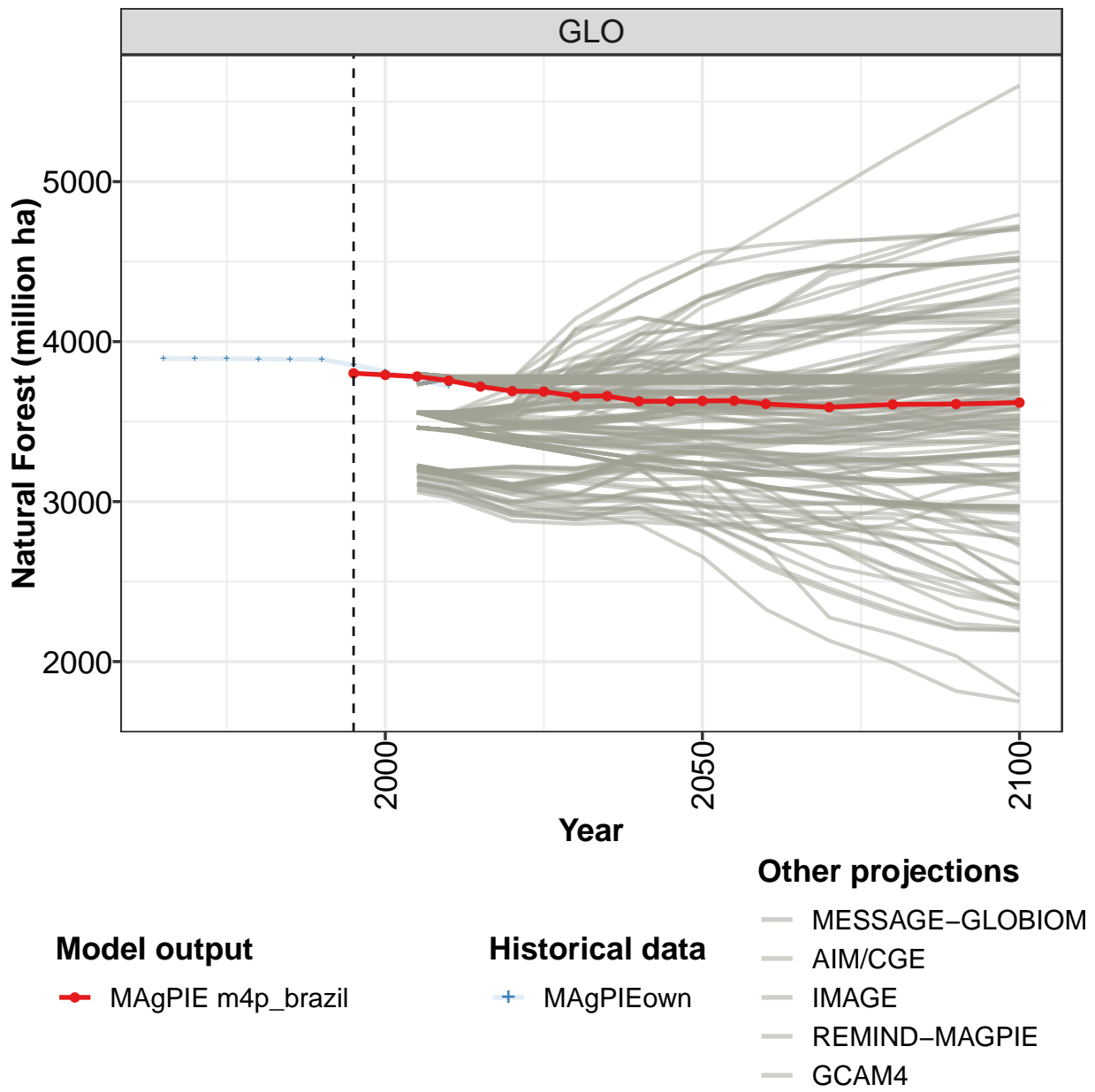
	2050	2055	2060	2070	2080	2090	2100
GLO	271	271	271	271	271	271	271
BRA	8	8	8	8	8	8	8
CHA	88	88	88	88	88	88	88
EUR	51	51	51	51	51	51	51
LAM	9	9	9	9	9	9	9
ROW	87	87	87	87	87	87	87
USA	27	27	27	27	27	27	27

Table 1631: MAgPIE m4p_brazil — 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
BRA	5	5	5	5	5	5	5	5	6	7
CHA	42	42	42	42	42	42	48	54	67	73
EUR	49	49	49	49	49	49	51	53	57	60
LAM	7	7	7	7	7	7	7	7	6	8
ROW	71	71	71	71	71	71	77	83	93	103
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



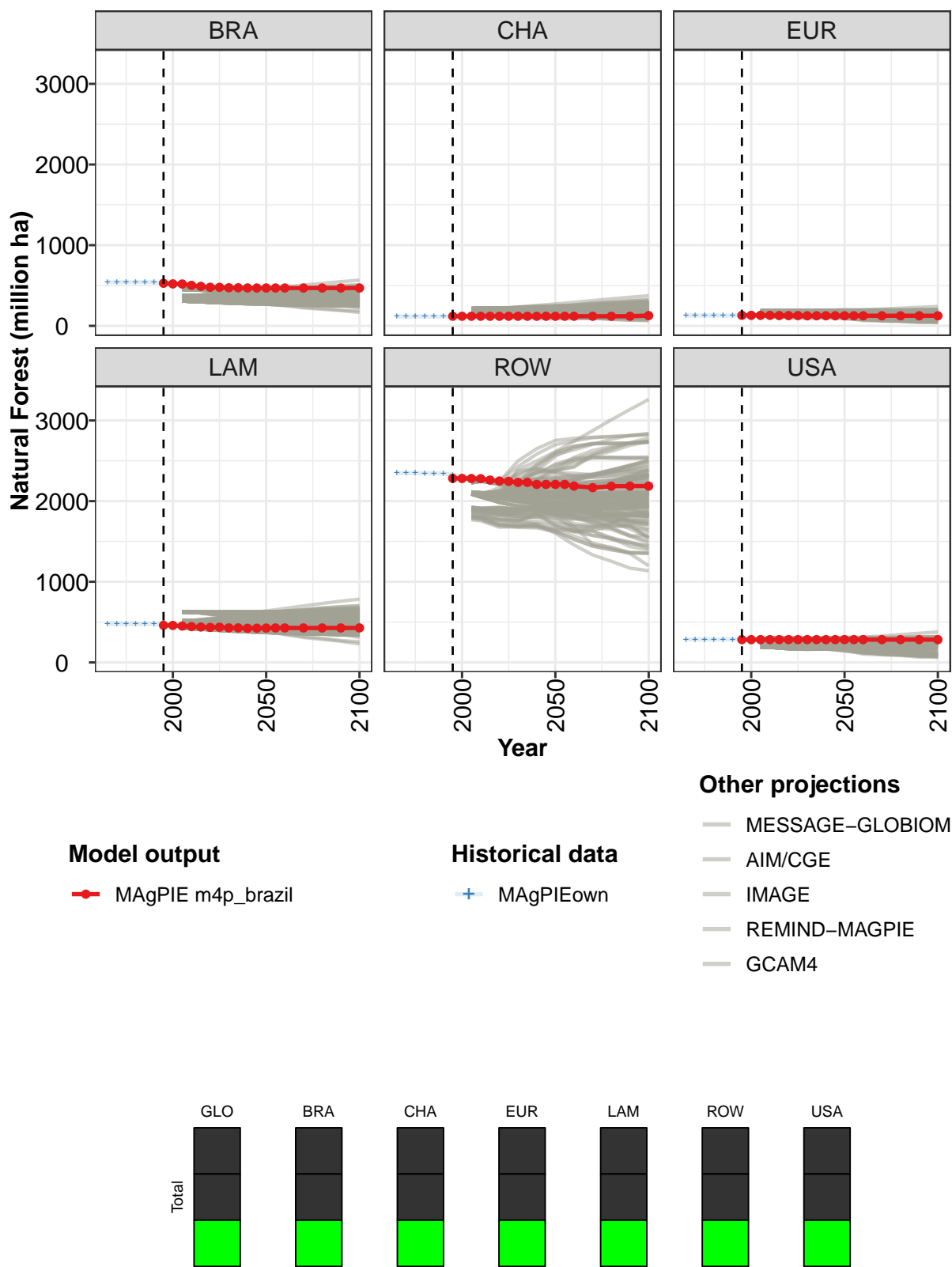


Figure 428: MAGPIE m4p_brazil — Resources—Land Cover—Forest—Natural Forest (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3802	3792	3782	3756	3719	3691	3688	3659	3660	3627	3627
BRA	528	520	519	502	490	478	477	472	472	470	469
CHA	119	119	119	119	119	119	119	119	119	119	119
EUR	130	130	130	130	127	127	127	125	125	125	125
LAM	461	459	451	444	439	434	437	428	429	423	424
ROW	2282	2281	2280	2278	2261	2249	2245	2233	2233	2207	2207
USA	283	283	283	283	283	283	283	283	283	283	283

Table 1633: MAgPIE m4p_brazil — Resources—Land Cover—Forest—Natural Forest (million ha) [PART 1/2]

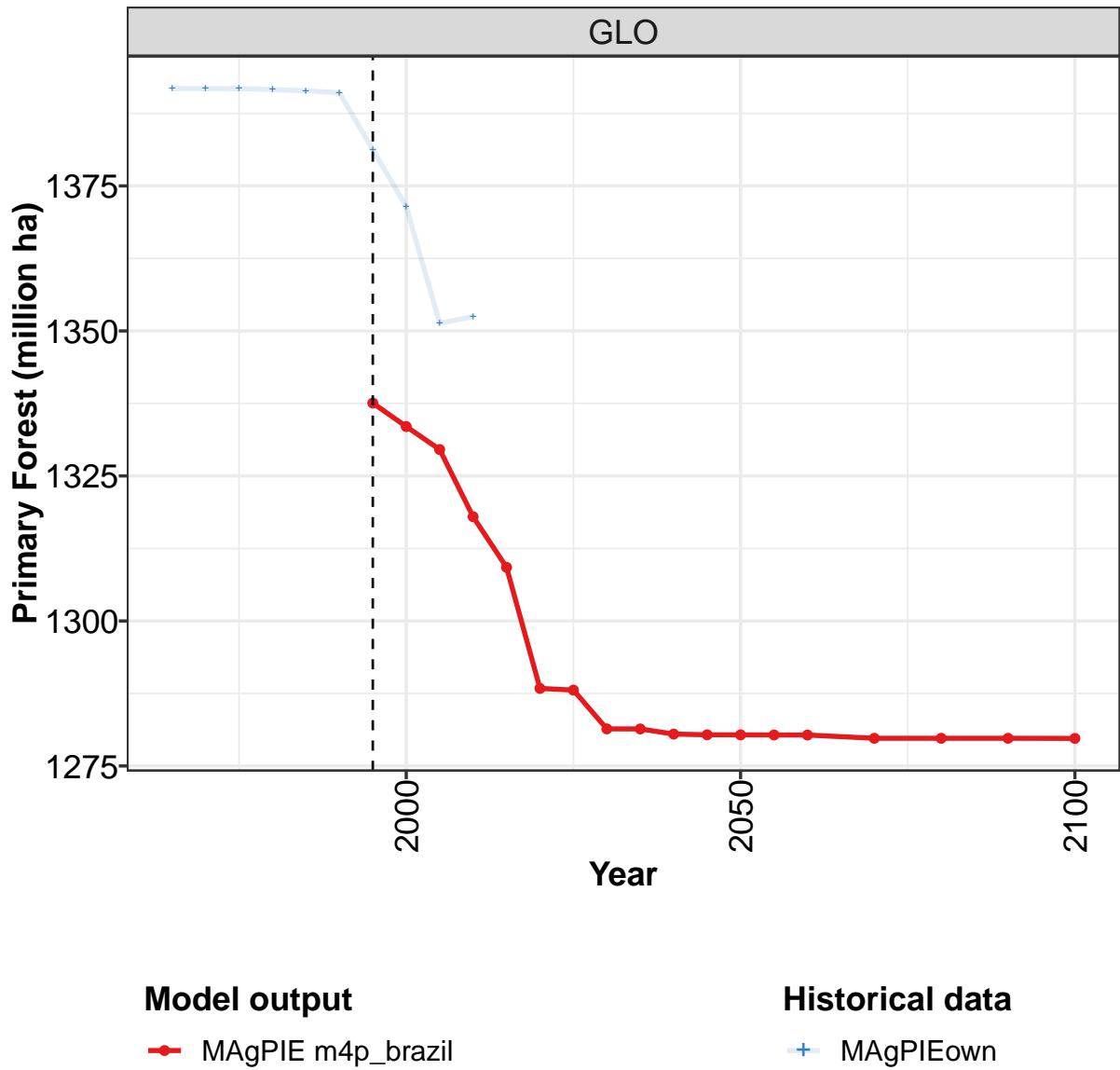
	2050	2055	2060	2070	2080	2090	2100
GLO	3629	3631	3610	3590	3608	3610	3619
BRA	469	469	469	469	469	469	469
CHA	119	119	119	119	119	119	127
EUR	125	125	125	125	125	125	125
LAM	426	428	428	427	427	427	428
ROW	2207	2207	2187	2167	2185	2186	2186
USA	283	283	283	283	283	283	283

Table 1634: MAgPIE m4p_brazil — 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
BRA	542	542	542	542	542	542	529	516	501	491
CHA	115	115	115	115	115	115	119	123	126	128
EUR	128	128	128	128	129	129	130	132	131	131
LAM	477	477	477	476	476	476	467	458	449	439
ROW	2348	2347	2347	2345	2344	2343	2326	2304	2275	2249
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



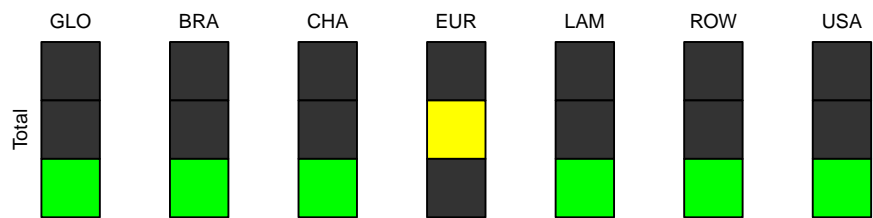
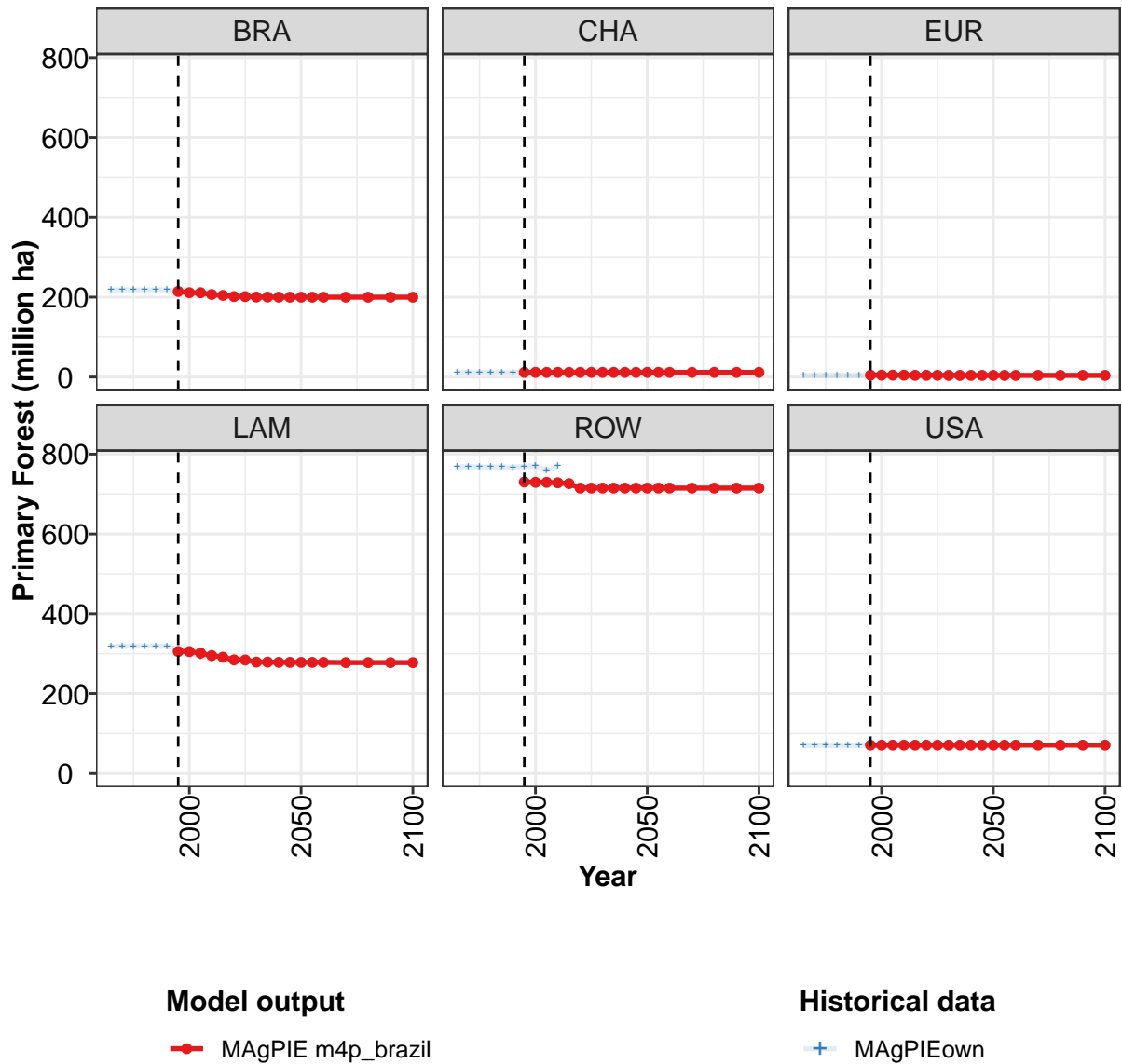


Figure 429: MAgPIE m4p_brazil — Resources—Land Cover—Forest—Natural Forest—Primary Forest (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1338	1334	1330	1318	1309	1288	1288	1281	1281	1281	1280
BRA	214	211	211	207	205	202	201	200	200	200	200
CHA	12	12	12	12	12	12	12	12	12	12	12
EUR	5	5	5	5	4	4	4	4	4	4	4
LAM	306	305	302	296	291	285	284	279	279	279	279
ROW	730	729	729	728	726	715	715	715	715	715	715
USA	71	71	71	71	71	71	71	71	71	71	71

Table 1636: MAgPIE m4p.brazil — Resources—Land Cover—Forest—Natural Forest—Primary Forest (million ha) [PART 1/2]

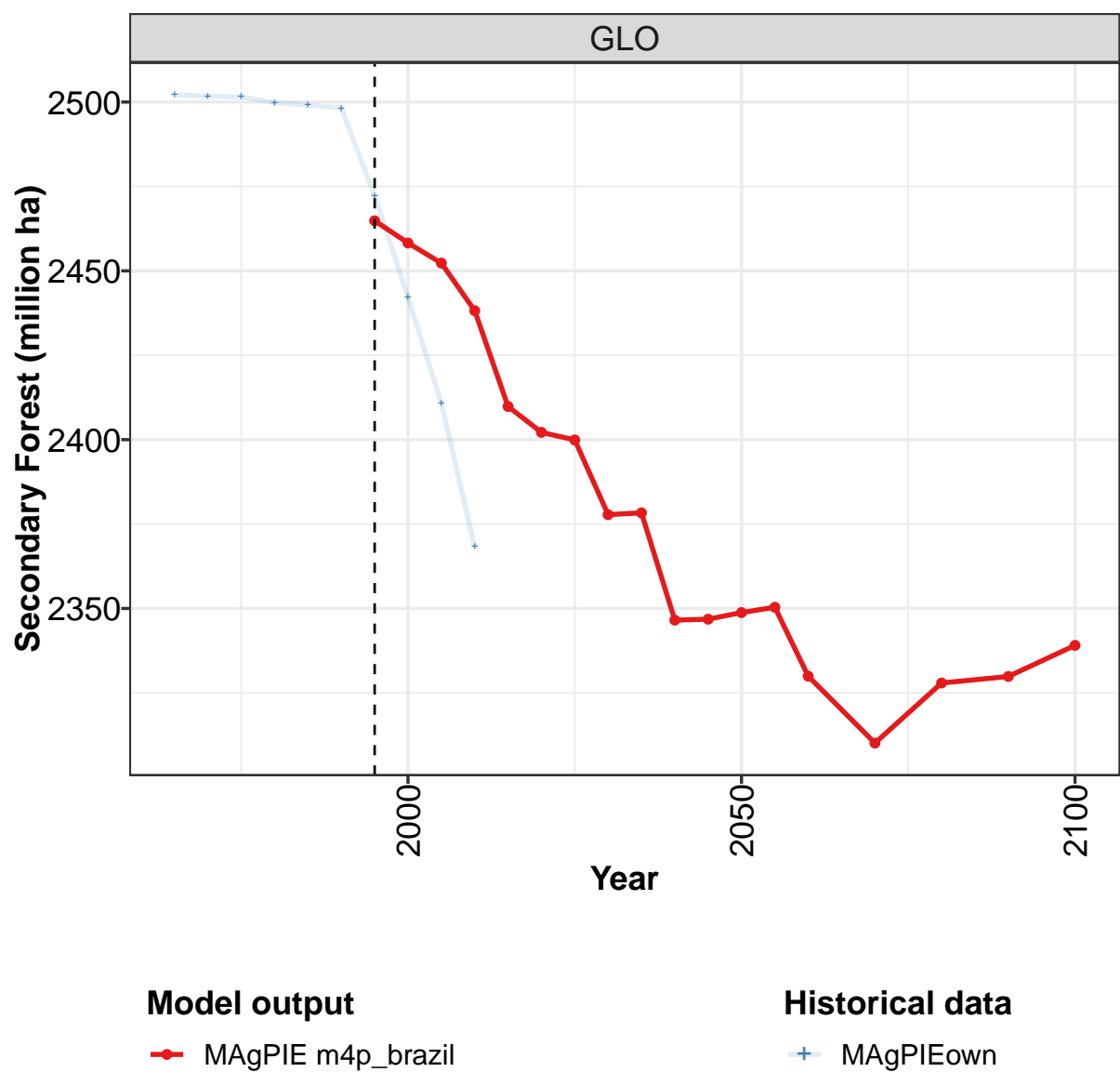
	2050	2055	2060	2070	2080	2090	2100
GLO	1280	1280	1280	1280	1280	1280	1280
BRA	200	200	200	200	200	200	200
CHA	12	12	12	12	12	12	12
EUR	4	4	4	4	4	4	4
LAM	279	279	279	278	278	278	278
ROW	715	715	715	715	715	715	715
USA	71	71	71	71	71	71	71

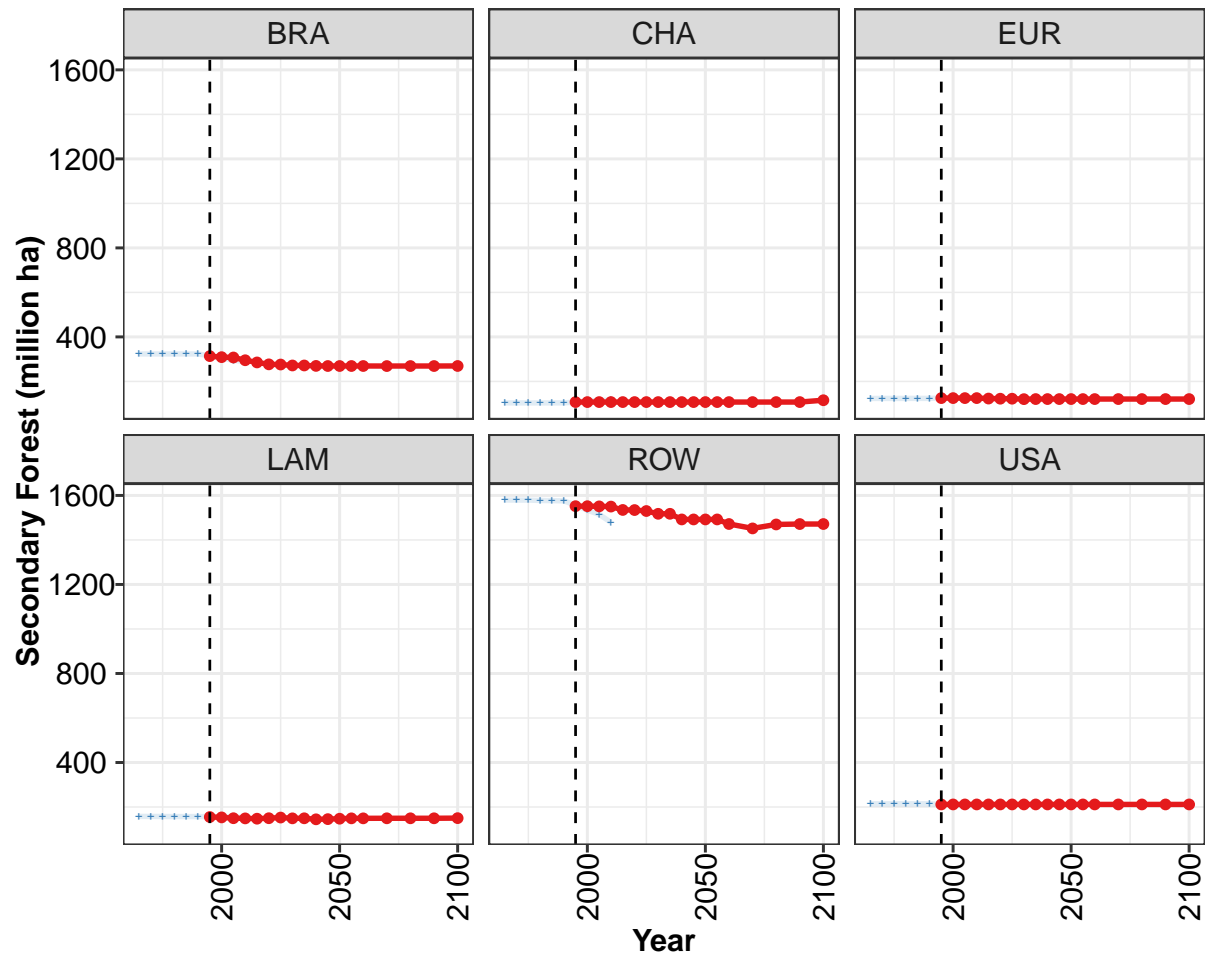
Table 1637: MAgPIE m4p.brazil — Resources—Land Cover—Forest—Natural Forest—Primary Forest (million ha) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1392	1392	1392	1392	1391	1391	1381	1371	1351	1352
BRA	218	218	218	218	218	218	214	210	207	203
CHA	12	12	12	12	12	12	12	12	12	12
EUR	5	5	5	5	5	5	5	5	5	5
LAM	319	319	319	319	319	319	310	302	293	287
ROW	768	768	768	768	768	768	769	771	759	770
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





Model output
—•— MAgPIE m4p_brazil

Historical data
+ MAgPIEown

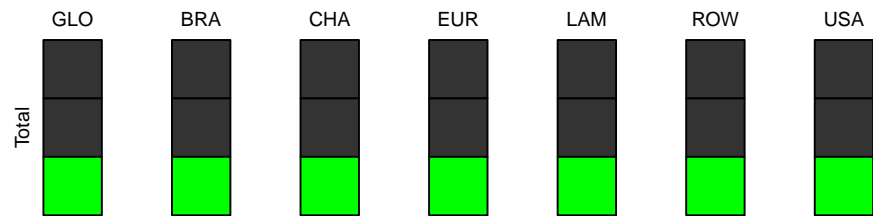


Figure 430: MAgPIE m4p_brazil — Resources—Land Cover—Forest—Natural Forest—Secondary Forest (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2465	2458	2452	2438	2410	2402	2400	2378	2378	2347	2347
BRA	314	309	308	295	285	277	276	272	272	270	269
CHA	107	107	107	107	107	107	107	107	107	107	107
EUR	125	125	125	125	123	122	122	120	121	121	121
LAM	155	153	150	149	148	150	153	149	149	145	146
ROW	1552	1552	1551	1550	1535	1534	1530	1518	1518	1492	1492
USA	212	212	212	212	212	212	212	212	212	212	212

Table 1639: MAgPIE m4p_brazil — Resources—Land Cover—Forest—Natural Forest—Secondary Forest (million ha) [PART 1/2]

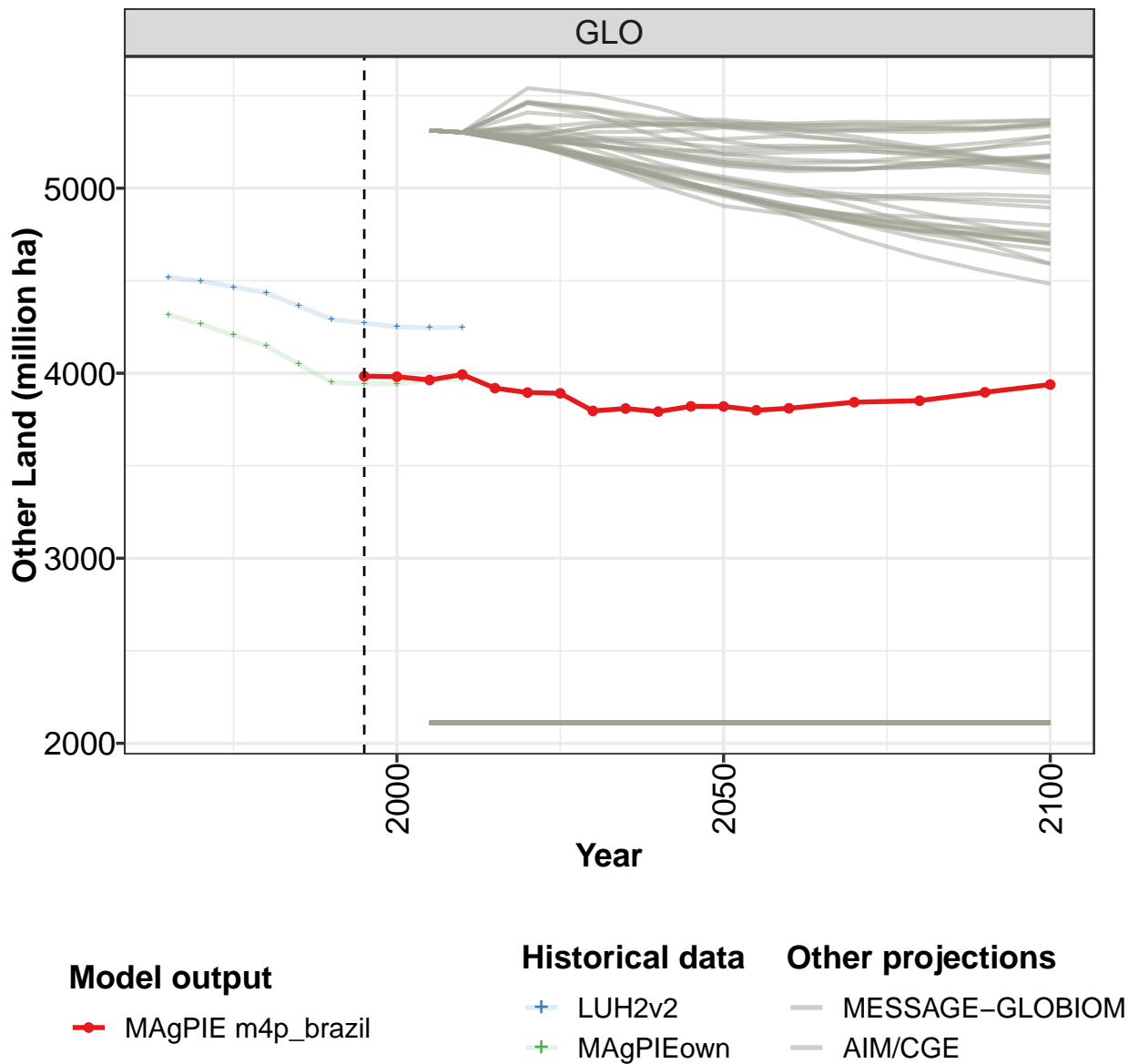
	2050	2055	2060	2070	2080	2090	2100
GLO	2349	2350	2330	2310	2328	2330	2339
BRA	269	269	269	269	269	269	269
CHA	107	107	107	107	107	107	116
EUR	121	121	121	121	121	121	121
LAM	148	149	149	149	149	149	150
ROW	1492	1492	1472	1452	1470	1472	1472
USA	212	212	212	212	212	212	212

Table 1640: MAgPIE m4p_brazil — 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
BRA	323	323	323	323	323	323	315	306	295	289
CHA	104	104	104	104	104	104	107	111	114	116
EUR	123	124	124	124	124	124	126	127	126	125
LAM	158	158	157	157	157	157	157	156	156	151
ROW	1579	1579	1579	1577	1577	1576	1556	1534	1515	1479
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



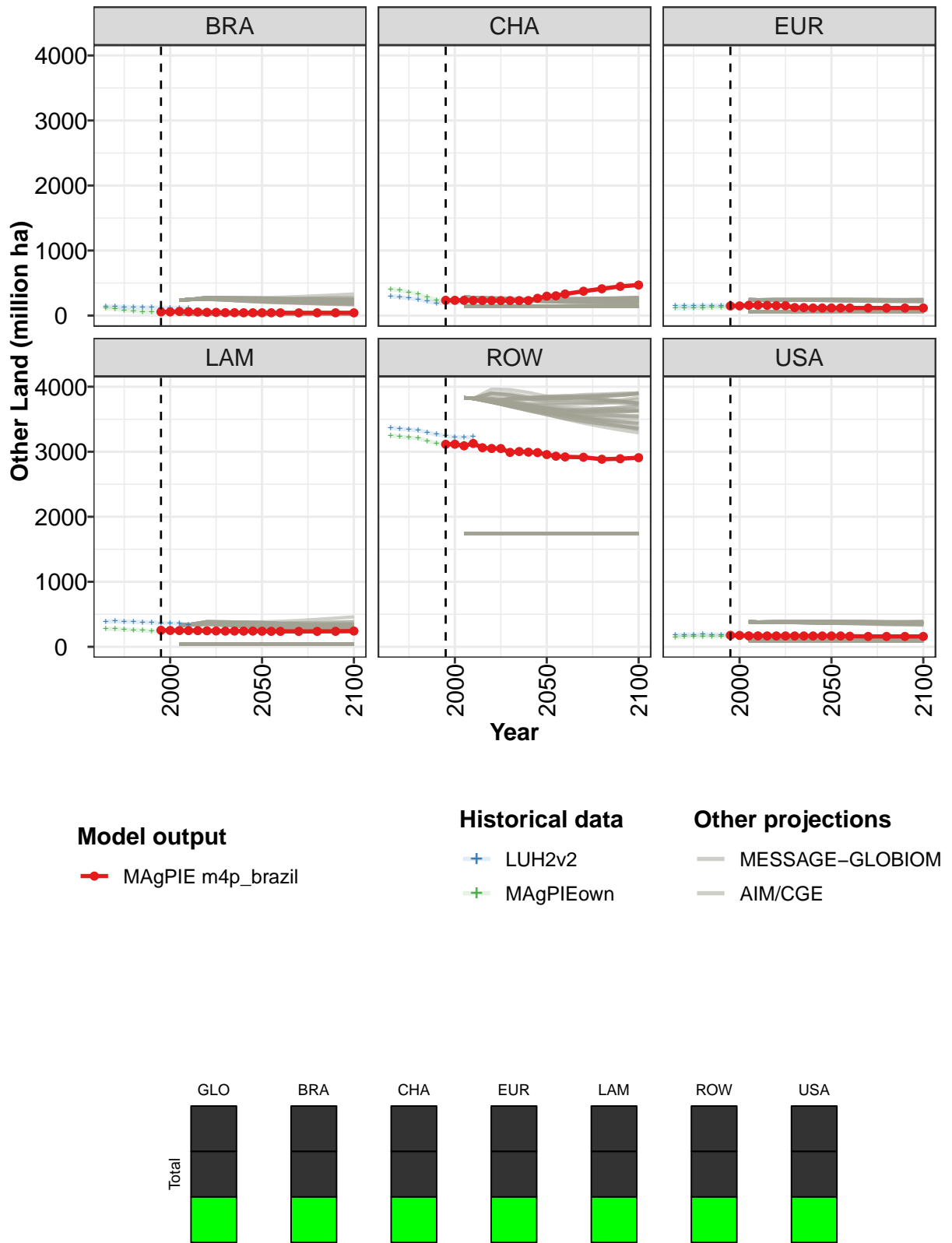


Figure 431: MAgPIE m4p_brazil — Resources—Land Cover—Other Land (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3984	3981	3964	3993	3919	3896	3892	3796	3809	3793	3821
BRA	56	56	63	57	54	49	49	45	44	43	43
CHA	235	235	234	232	231	230	230	230	230	231	266
EUR	148	149	158	160	157	152	152	123	123	117	117
LAM	254	251	250	249	249	247	244	241	242	241	242
ROW	3114	3116	3091	3127	3062	3050	3050	2990	3003	2994	2987
USA	177	175	168	168	167	167	167	167	167	167	167

Table 1642: MAgPIE m4p_brazil — Resources—Land Cover—Other Land (million ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	3821	3800	3811	3844	3852	3897	3939
BRA	43	43	42	41	42	42	42
CHA	298	304	332	374	412	449	470
EUR	117	117	116	116	117	117	117
LAM	240	238	237	237	237	238	243
ROW	2956	2932	2920	2915	2885	2892	2909
USA	167	167	162	160	160	159	159

Table 1643: MAgPIE m4p_brazil — Resources—Land Cover—Other Land (million ha) [PART 2/2]

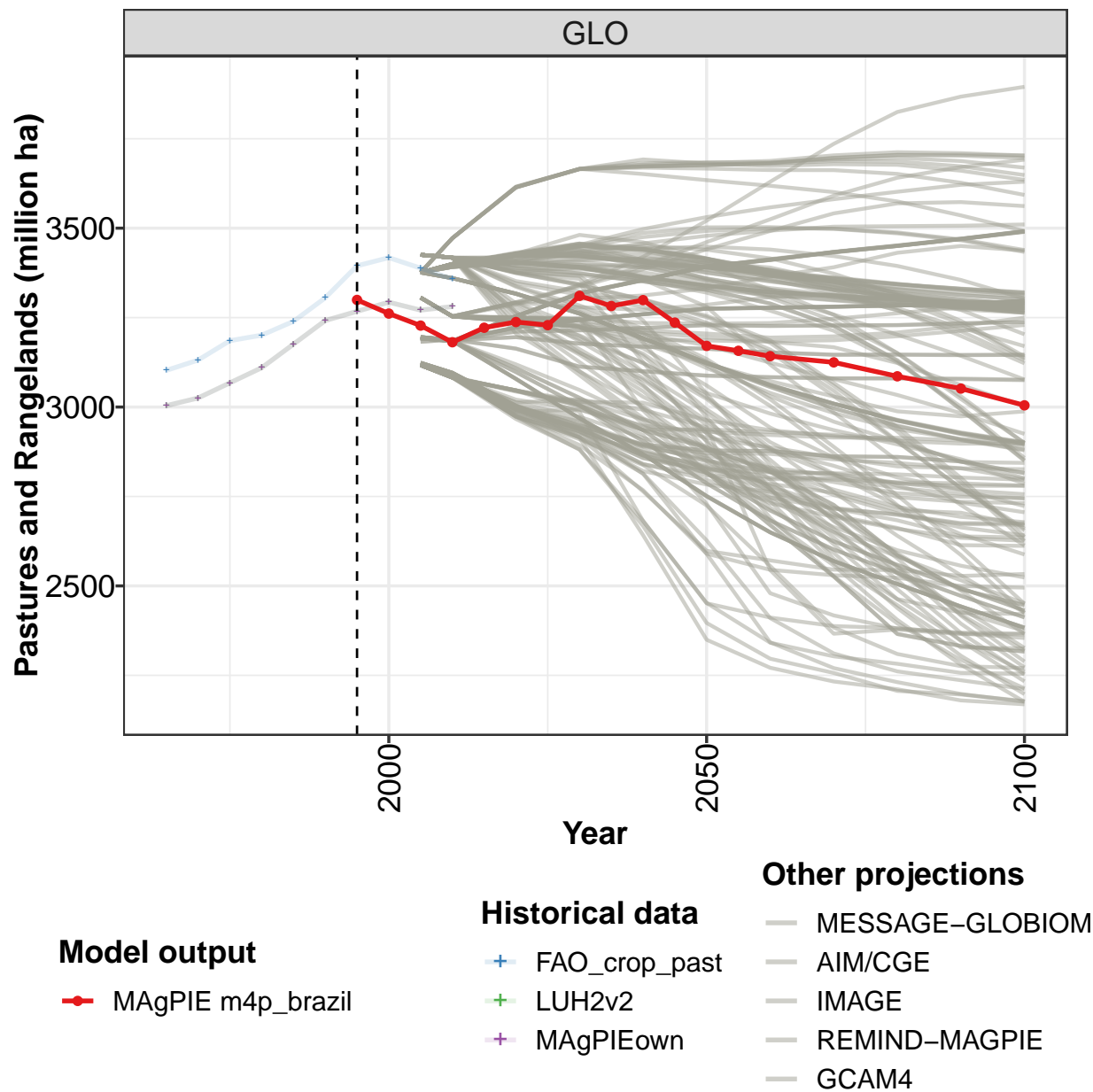
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4519	4498	4466	4434	4363	4292	4271	4250	4246	4248
BRA	141	136	133	129	126	123	120	117	116	113
CHA	295	285	268	250	221	192	194	197	196	200
EUR	146	147	149	151	152	153	156	159	165	170
LAM	390	392	388	384	379	373	367	361	356	343
ROW	3369	3352	3342	3331	3298	3265	3244	3222	3221	3229
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
BRA	121	99	84	70	61	53	55	58	69	68
CHA	406	389	359	329	283	237	231	225	207	206
EUR	113	115	118	121	123	124	126	128	133	135
LAM	276	275	267	260	251	243	246	250	256	251
ROW	3252	3231	3218	3207	3169	3131	3119	3112	3132	3137
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



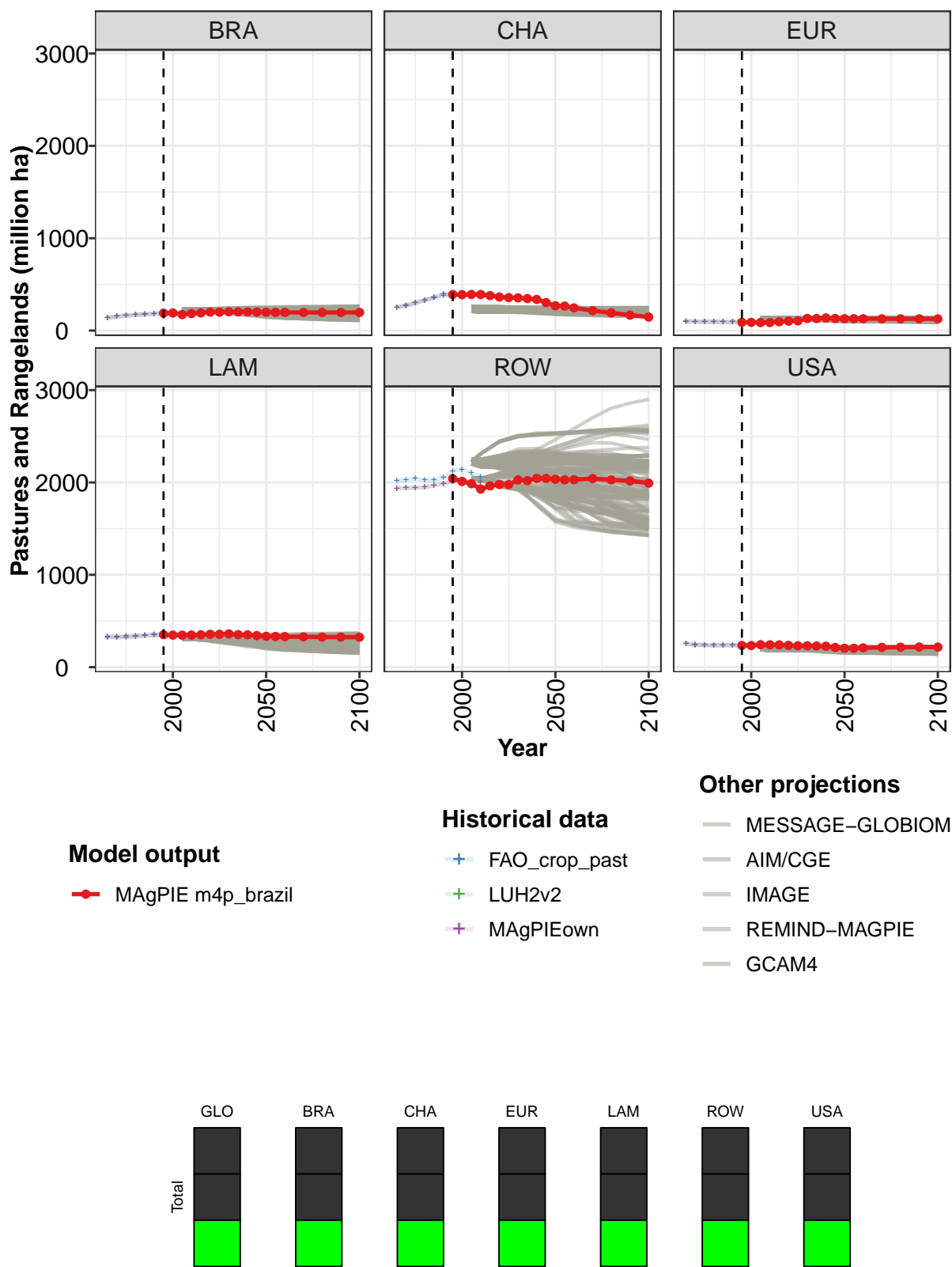


Figure 432: MAgPIE m4p_brazil — Resources—Land Cover—Pastures and Rangelands (million ha)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3299	3261	3228	3181	3222	3238	3229	3311	3282	3299	3236
BRA	189	191	173	184	191	200	200	204	203	203	201
CHA	391	389	391	391	379	364	357	355	347	338	303
EUR	90	89	87	87	96	102	105	132	131	137	131
LAM	352	347	347	348	351	357	356	361	353	350	342
ROW	2042	2011	1987	1929	1964	1978	1978	2028	2019	2044	2044
USA	235	234	244	242	241	237	232	232	230	227	214

Table 1646: MAgPIE m4p_brazil — Resources—Land Cover—Pastures and Rangelands (million ha) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	3171	3157	3142	3125	3086	3052	3005
BRA	198	197	197	196	196	196	196
CHA	269	265	246	216	192	167	147
EUR	129	129	129	127	127	127	127
LAM	335	332	331	328	326	326	324
ROW	2035	2029	2030	2042	2028	2016	1993
USA	205	205	209	215	216	218	217

Table 1647: MAgPIE m4p_brazil — 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
BRA	136	154	165	171	178	184	193	196	196	196
CHA	251	273	301	328	351	374	393	393	393	393
EUR	101	100	99	97	95	96	94	93	92	90
LAM	337	332	338	342	349	355	354	357	359	365
ROW	2020	2028	2041	2024	2024	2056	2125	2142	2104	2064
USA	257	244	242	238	242	239	236	236	244	250

Table 1648: FAO_crop_past — Resources—Land Cover—Pastures and Rangelands (million ha)

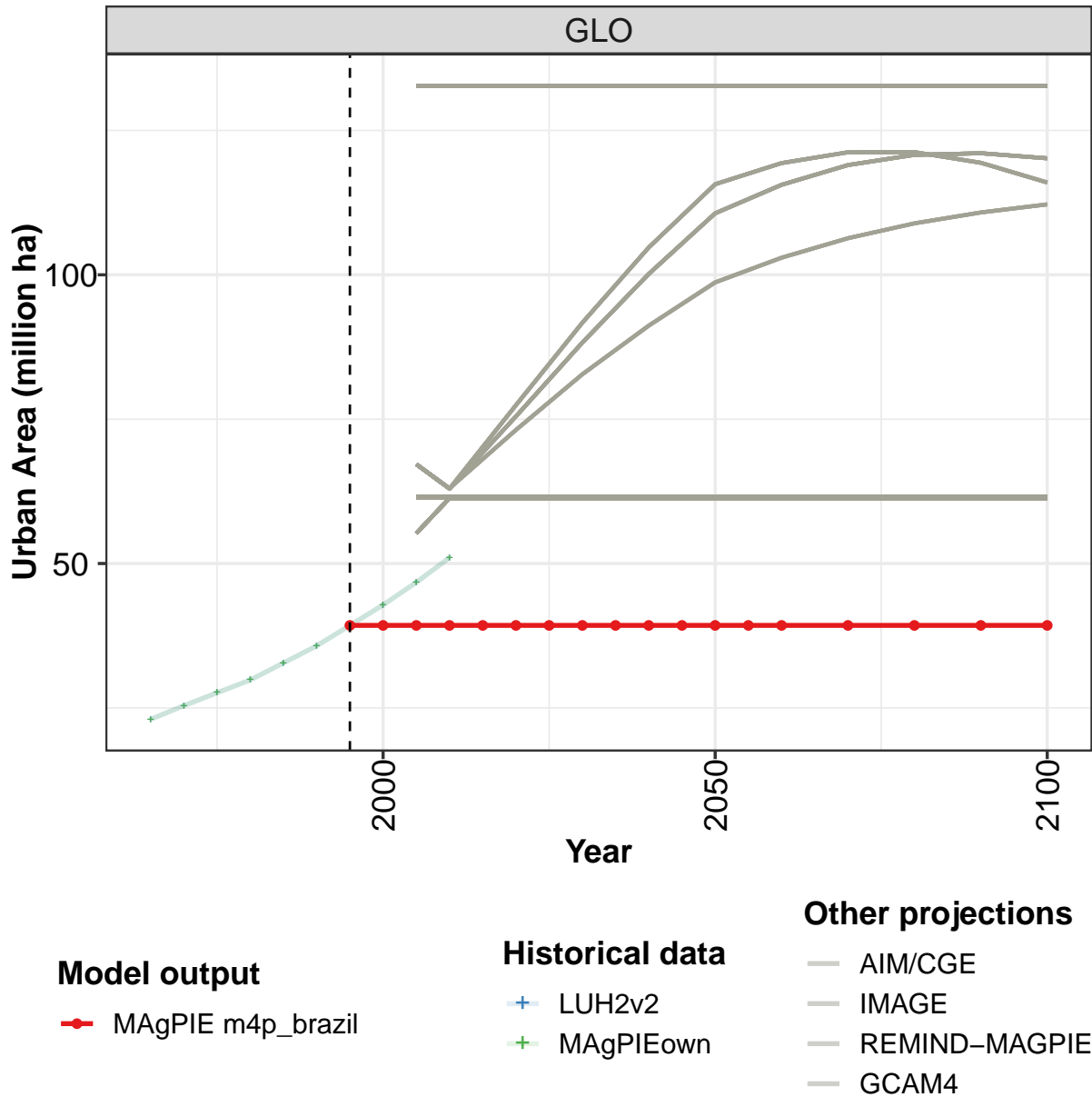
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	3004	3025	3068	3110	3176	3242	3267	3293	3271	3281
BRA	137	153	162	170	177	183	189	195	195	195
CHA	253	270	300	330	362	395	391	388	388	388
EUR	97	97	95	94	93	93	91	89	89	87
LAM	327	323	328	333	340	346	350	354	355	360
ROW	1936	1941	1944	1947	1968	1988	2010	2032	2002	2002
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
BRA	137	153	162	170	177	183	189	195	195	195
CHA	253	270	300	330	362	395	391	388	388	388
EUR	97	97	95	94	93	93	91	89	89	87
LAM	327	323	328	333	340	346	350	354	355	360
ROW	1936	1941	1944	1947	1968	1988	2010	2032	2002	2002
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



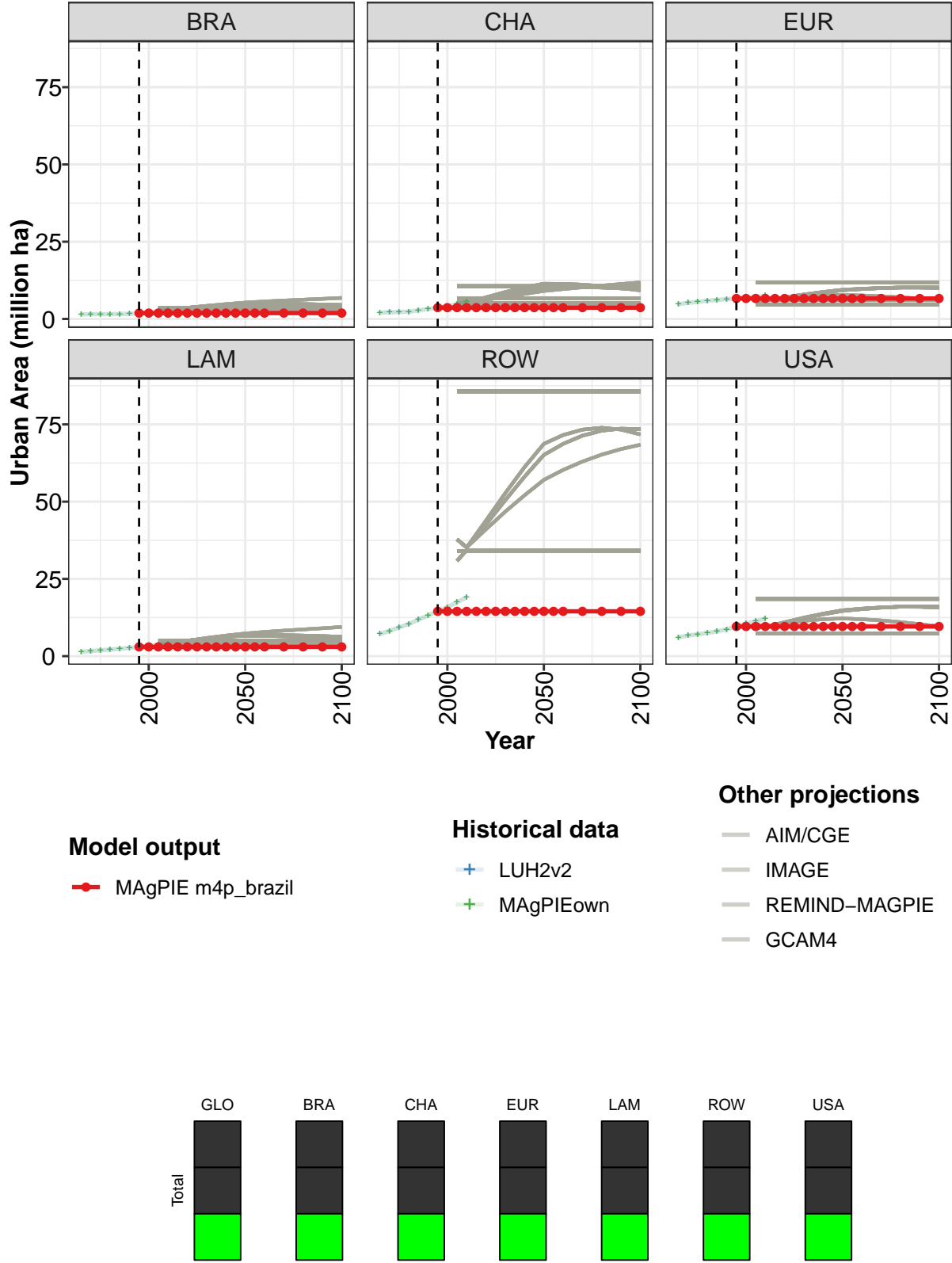


Figure 433: MAGPIE m4p_brazil — Resources—Land Cover—Urban Area (million ha)

	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
BRA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
CHA	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
EUR	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
LAM	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
ROW	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
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_brazil — 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
BRA	1.9	1.9	1.9	1.9	1.9	1.9	1.9
CHA	3.7	3.7	3.7	3.7	3.7	3.7	3.7
EUR	6.6	6.6	6.6	6.6	6.6	6.6	6.6
LAM	3.0	3.0	3.0	3.0	3.0	3.0	3.0
ROW	14.5	14.5	14.5	14.5	14.5	14.5	14.5
USA	9.6	9.6	9.6	9.6	9.6	9.6	9.6

Table 1652: MAgPIE m4p_brazil — Resources—Land Cover—Urban Area (million ha) [PART 2/2]

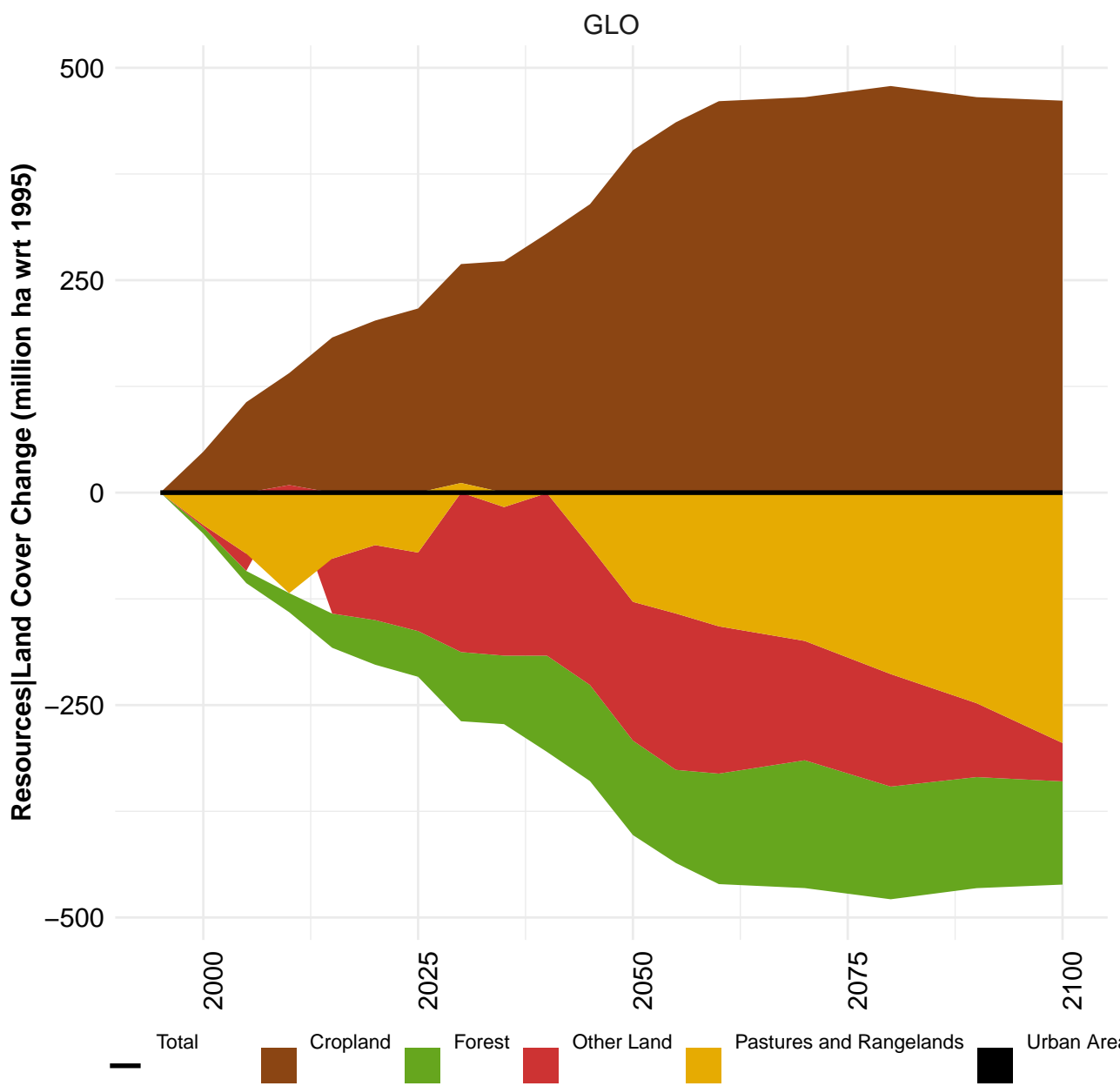
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	23.0	25.4	27.6	29.8	32.8	35.7	39.3	42.8	46.7	51.0
BRA	1.5	1.5	1.6	1.6	1.6	1.6	1.9	2.2	2.5	2.8
CHA	2.1	2.2	2.3	2.3	2.8	3.2	3.7	4.1	4.7	5.5
EUR	4.8	5.2	5.6	5.9	6.2	6.4	6.6	6.8	7.2	7.6
LAM	1.4	1.6	1.9	2.1	2.4	2.7	3.0	3.3	3.6	3.9
ROW	7.1	8.2	9.3	10.4	11.8	13.2	14.5	15.9	17.4	19.1
USA	6.1	6.7	7.1	7.5	8.1	8.7	9.6	10.5	11.3	12.1

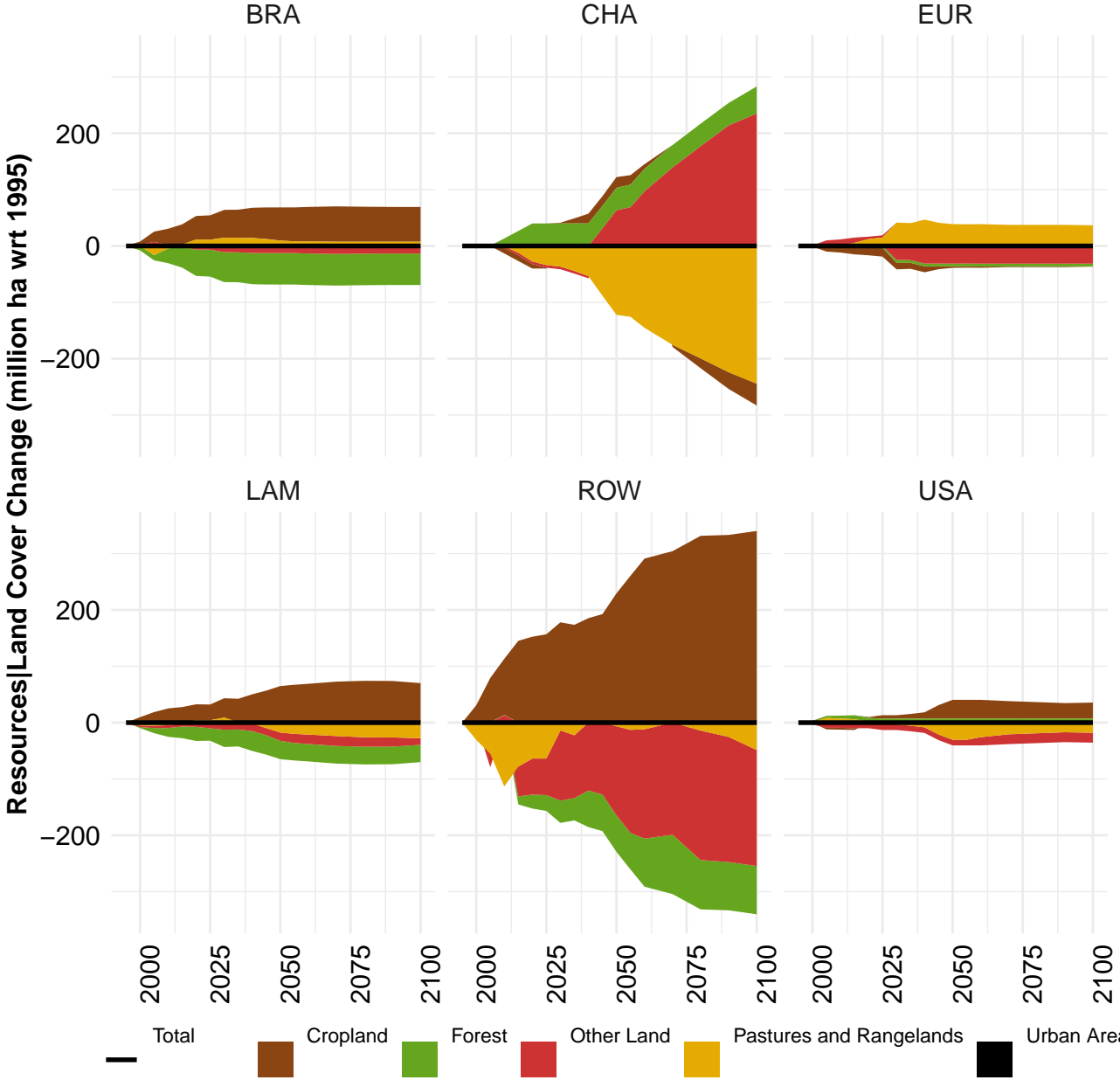
Table 1653: LUH2v2 — Resources—Land Cover—Urban Area (million ha)

	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
BRA	1.5	1.5	1.6	1.6	1.6	1.6	1.9	2.2	2.5	2.8
CHA	2.1	2.2	2.3	2.3	2.8	3.2	3.7	4.1	4.7	5.5
EUR	4.8	5.2	5.6	5.9	6.2	6.4	6.6	6.8	7.2	7.6
LAM	1.4	1.6	1.9	2.1	2.4	2.7	3.0	3.3	3.6	3.9
ROW	7.1	8.2	9.3	10.4	11.8	13.2	14.5	15.9	17.4	19.1
USA	6.1	6.7	7.1	7.5	8.1	8.7	9.6	10.5	11.3	12.1

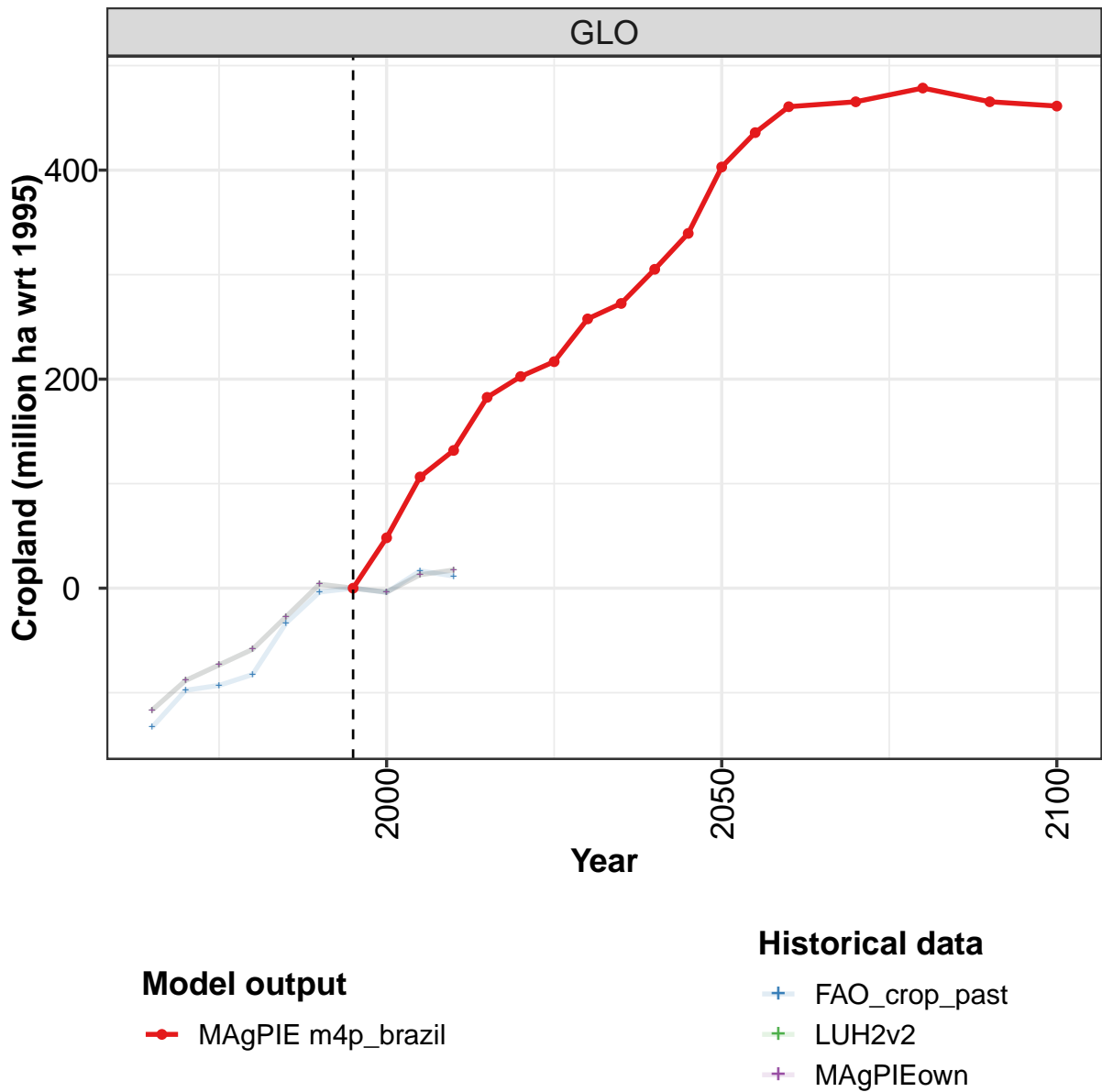
Table 1654: MAgPIEown — Resources—Land Cover—Urban Area (million ha)

55 Land Cover Change





55.1 Cropland



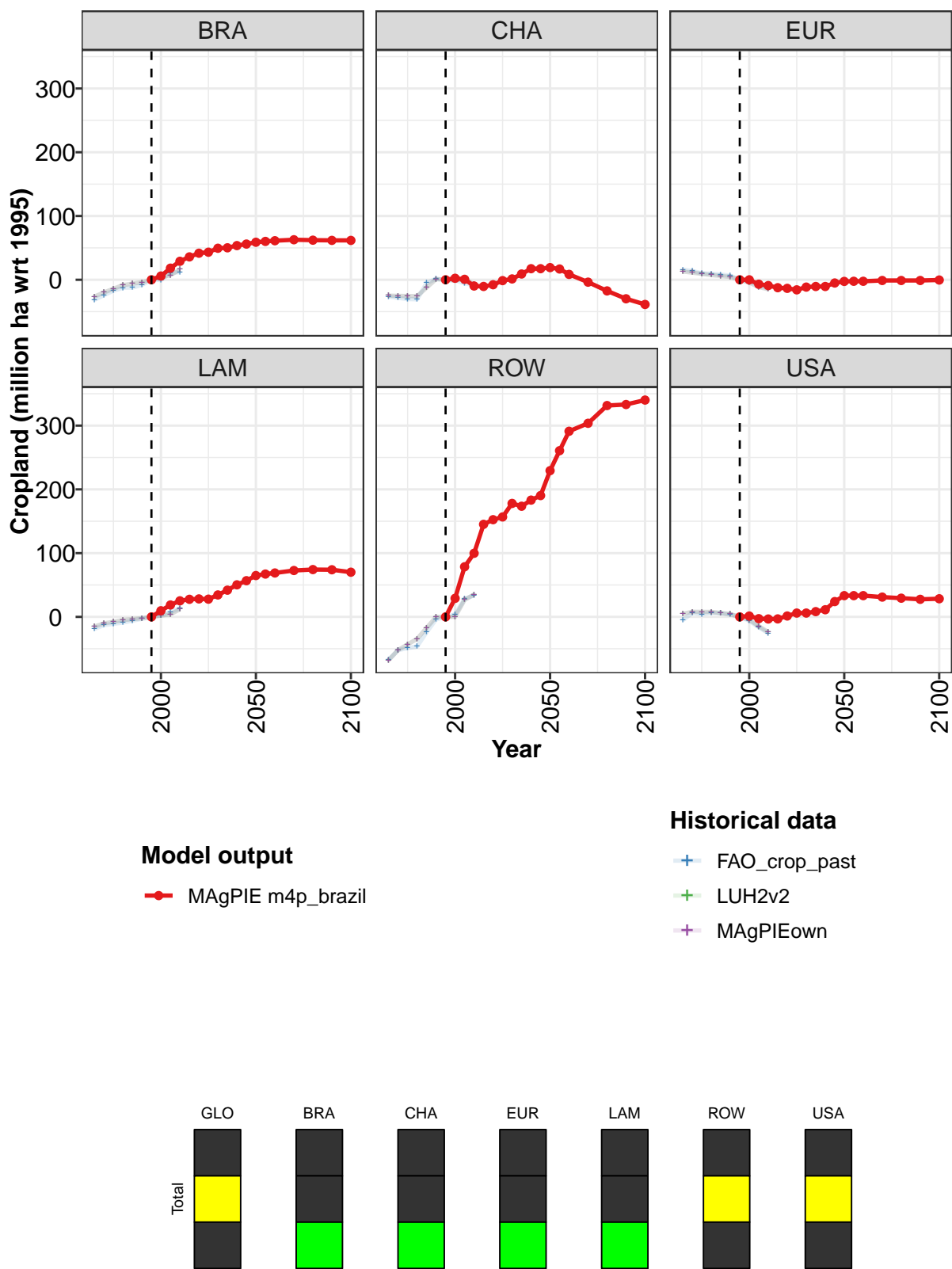


Figure 434: MAgPIE m4p_brazil — Resources—Land Cover Change—Cropland (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0	48	106	132	183	203	217	258	272	305	339
BRA	0	6	18	29	36	42	43	49	50	54	56
CHA	0	2	1	-10	-10	-8	-1	1	9	17	17
EUR	0	-0	-7	-9	-12	-13	-16	-11	-11	-11	-5
LAM	0	10	19	25	28	28	28	34	42	50	57
ROW	0	29	79	100	145	152	157	178	174	183	190
USA	0	1	-3	-3	-3	1	6	6	8	11	24

Table 1655: MAgPIE m4p_brazil — Resources—Land Cover Change—Cropland (million ha wrt 1995) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	403	436	461	465	479	465	461
BRA	59	60	61	63	62	62	62
CHA	19	17	8	-4	-17	-30	-39
EUR	-3	-2	-2	-1	-1	-1	-0
LAM	65	67	69	73	74	74	70
ROW	229	261	291	304	331	333	340
USA	33	33	33	31	29	28	28

Table 1656: MAgPIE m4p_brazil — 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
BRA	-31.4	-24.2	-17.1	-12.6	-12.3	-8.1	0.0	-0.3	10.9	12.0
CHA	-26.4	-28.4	-30.2	-30.7	-5.0	1.3	0.0	-0.9	-5.4	-8.3
EUR	16.0	13.7	10.0	9.6	8.1	6.3	0.0	-3.1	-8.4	-13.6
LAM	-18.7	-13.0	-10.8	-8.9	-5.9	-3.0	0.0	2.4	7.6	13.3
ROW	-67.4	-52.1	-48.9	-46.4	-24.0	-3.8	0.0	4.0	28.2	33.8
USA	-5.3	6.4	4.1	6.5	5.7	3.6	0.0	-6.1	-16.3	-25.6

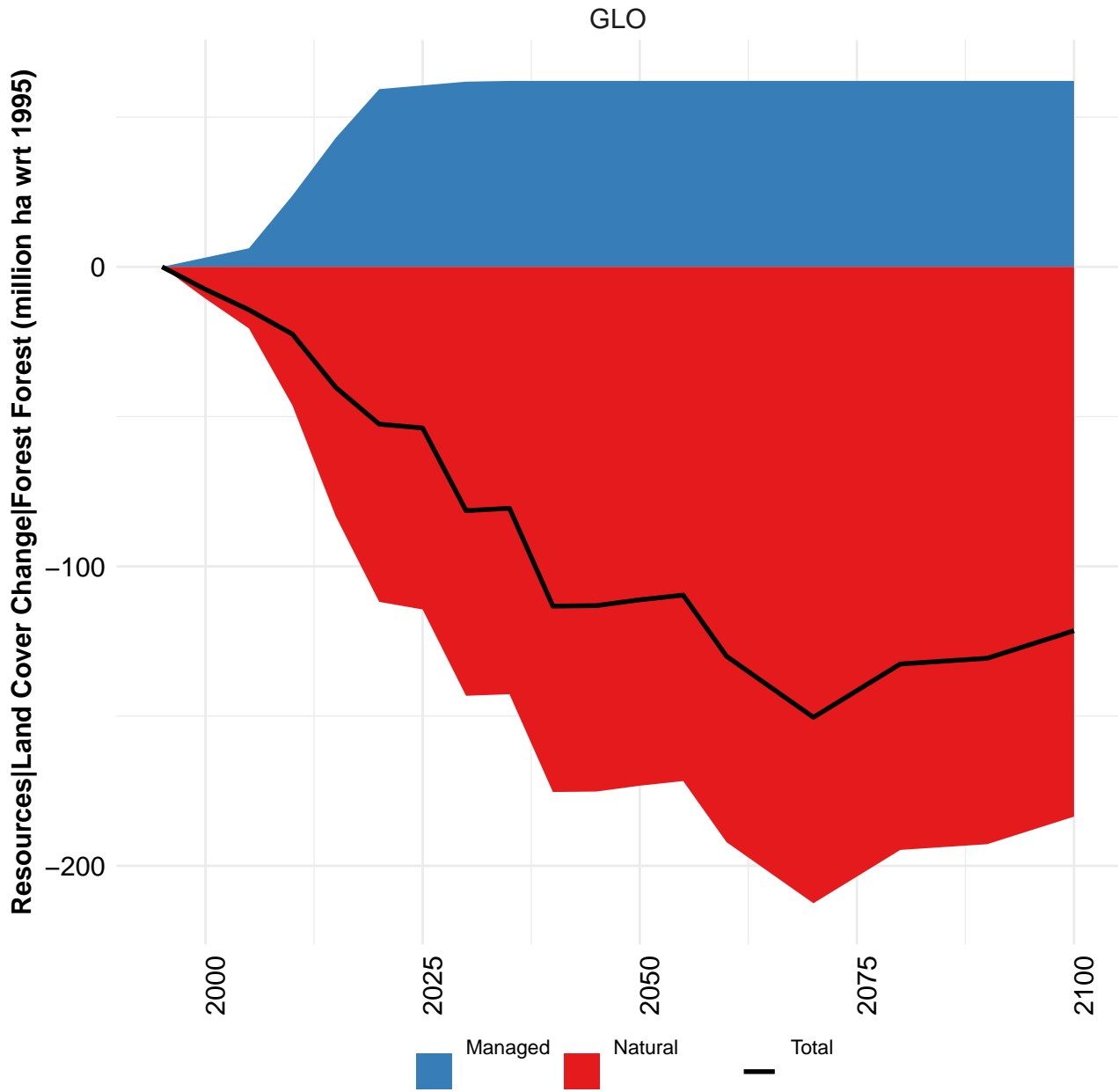
Table 1657: FAO_crop_past — Resources—Land Cover Change—Cropland (million ha wrt 1995)

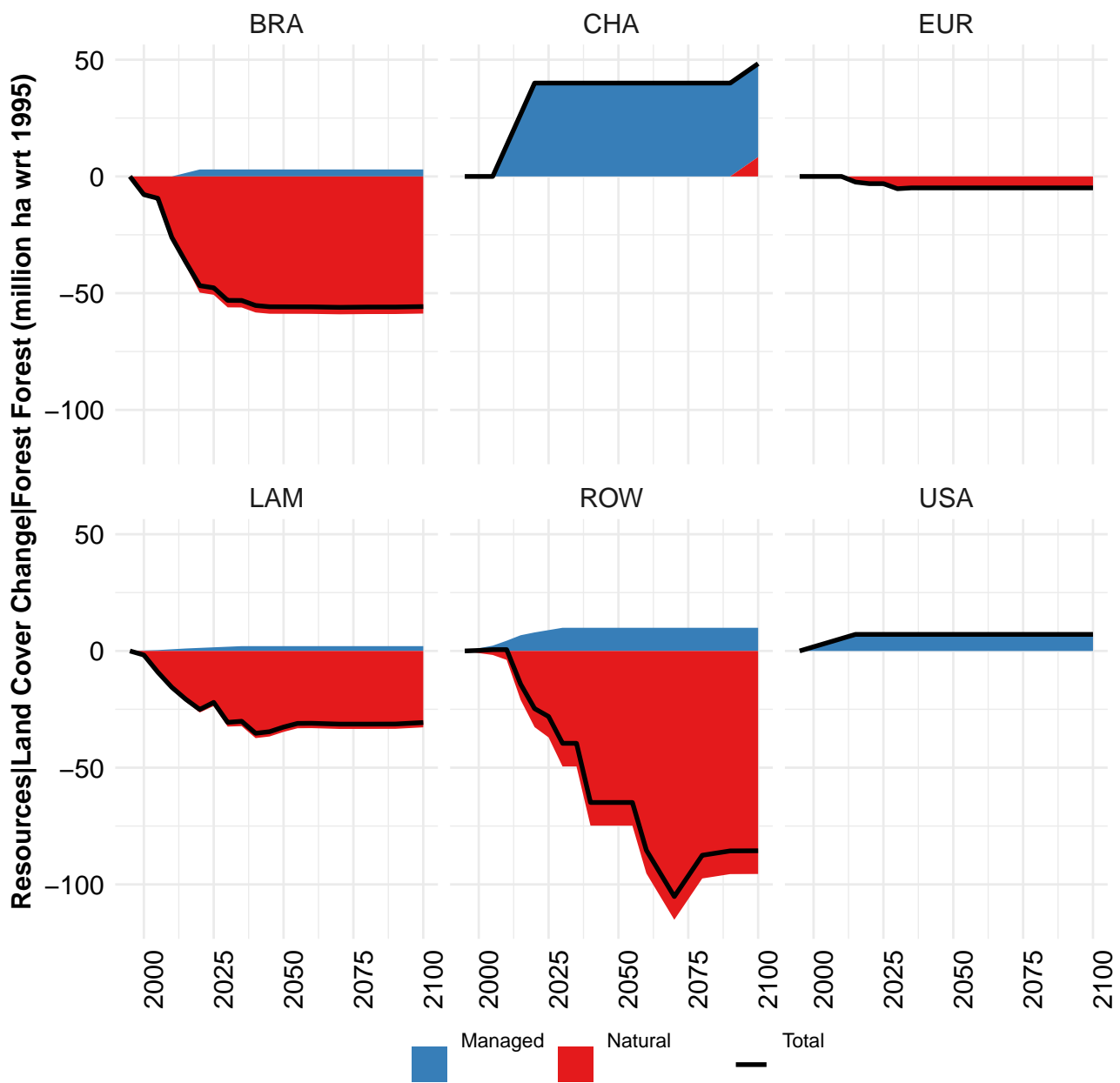
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-116.7	-88.3	-73.4	-58.5	-27.3	3.8	0.0	-3.8	12.9	17.4
BRA	-26.4	-19.9	-14.2	-8.4	-6.1	-3.9	0.0	3.9	7.2	16.1
CHA	-24.9	-25.3	-25.5	-25.7	-12.4	1.0	0.0	-1.0	1.1	-7.1
EUR	12.9	11.2	9.3	7.4	5.9	4.4	0.0	-4.4	-11.4	-14.8
LAM	-15.1	-10.3	-7.7	-5.0	-3.5	-2.1	0.0	2.1	3.9	12.0
ROW	-68.0	-52.0	-43.2	-34.4	-17.3	-0.1	0.0	0.1	26.7	35.1
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)

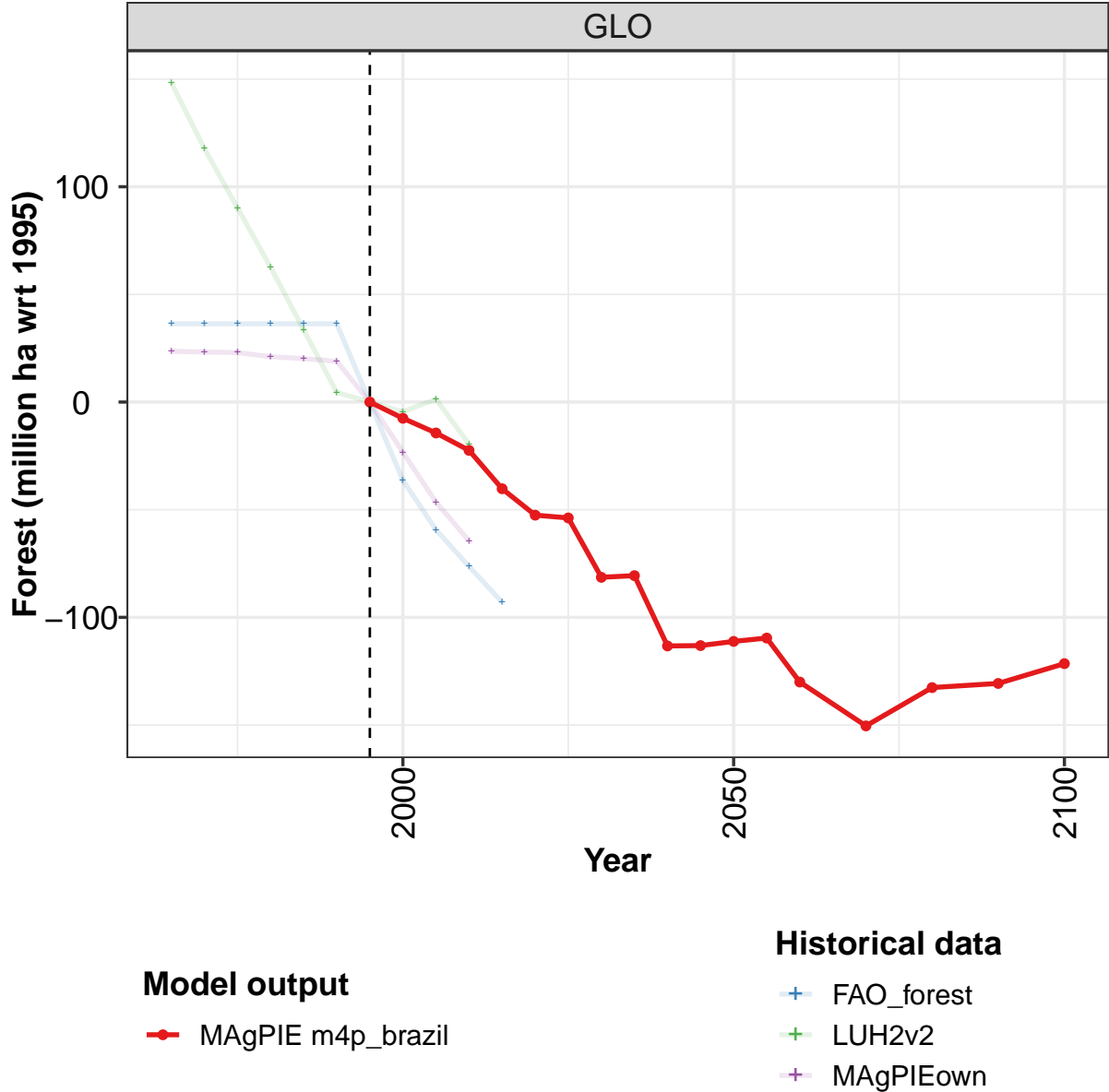
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-116.7	-88.3	-73.4	-58.5	-27.3	3.8	0.0	-3.8	12.9	17.4
BRA	-26.4	-19.9	-14.2	-8.4	-6.1	-3.9	0.0	3.9	7.2	16.1
CHA	-24.9	-25.3	-25.5	-25.7	-12.4	1.0	0.0	-1.0	1.1	-7.1
EUR	12.9	11.2	9.3	7.4	5.9	4.4	0.0	-4.4	-11.4	-14.8
LAM	-15.1	-10.3	-7.7	-5.0	-3.5	-2.1	0.0	2.1	3.9	12.0
ROW	-68.0	-52.0	-43.2	-34.4	-17.3	-0.1	0.0	0.1	26.7	35.1
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



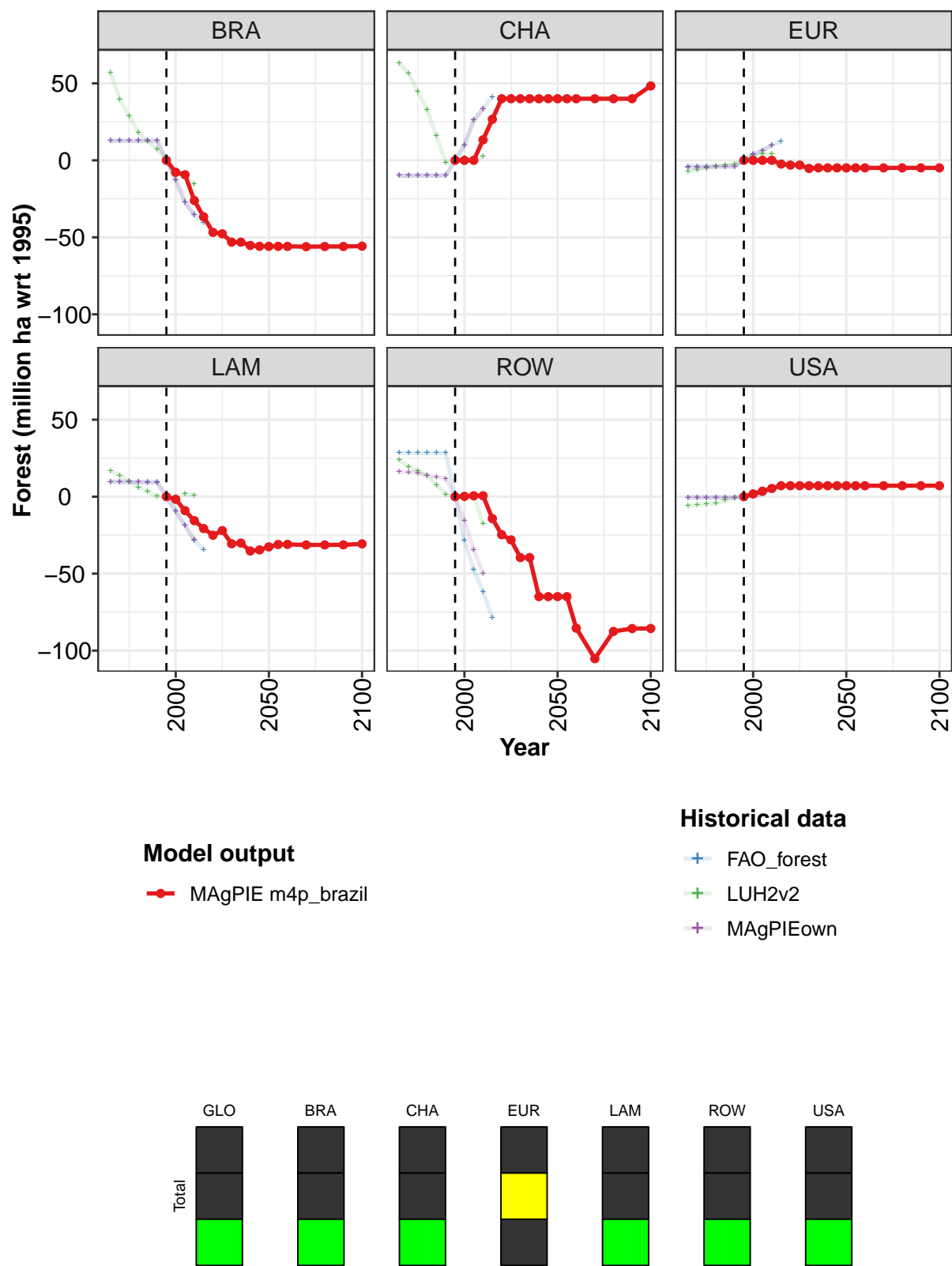


Figure 435: MAgPIE m4p.brazil — Resources—Land Cover Change—Forest (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0	-7.5	-14.3	-22.5	-40.3	-52.5	-53.8	-81.4	-80.6	-113.3	-113.1
BRA	0.0	-7.8	-9.4	-26.1	-36.7	-46.8	-47.7	-53.1	-53.1	-55.3	-55.8
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	-2.4	-3.1	-3.1	-5.3	-4.9	-4.9	-4.9
LAM	0.0	-1.7	-9.1	-15.6	-20.7	-25.1	-22.0	-30.6	-30.1	-35.3	-34.6
ROW	0.0	0.2	0.6	0.6	-14.2	-24.7	-28.1	-39.6	-39.6	-64.9	-64.9
USA	0.0	1.8	3.5	5.3	7.1	7.1	7.1	7.1	7.1	7.1	7.1

Table 1660: MAgPIE m4p.brazil — Resources—Land Cover Change—Forest (million ha wrt 1995) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	-111.2	-109.6	-130.0	-150.4	-132.6	-130.7	-121.5
BRA	-55.8	-55.9	-55.9	-56.1	-55.9	-55.9	-55.7
CHA	40.0	40.0	40.0	40.0	40.0	40.0	48.3
EUR	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9
LAM	-32.6	-31.0	-31.0	-31.3	-31.3	-31.3	-30.7
ROW	-64.9	-64.9	-85.4	-105.2	-87.5	-85.7	-85.6
USA	7.1	7.1	7.1	7.1	7.1	7.1	7.1

Table 1661: MAgPIE m4p.brazil — 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
BRA	12.7	12.7	12.7	12.7	12.7	12.7	0.0	-12.7	-27.3	-35.5	-40.5
CHA	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	0.0	9.9	26.0	33.5	41.3
EUR	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	0.0	3.8	6.3	9.8	12.2
LAM	9.6	9.6	9.6	9.6	9.6	9.6	0.0	-9.6	-18.8	-28.4	-34.3
ROW	28.4	28.4	28.4	28.4	28.4	28.4	0.0	-28.4	-47.2	-61.5	-78.7
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)

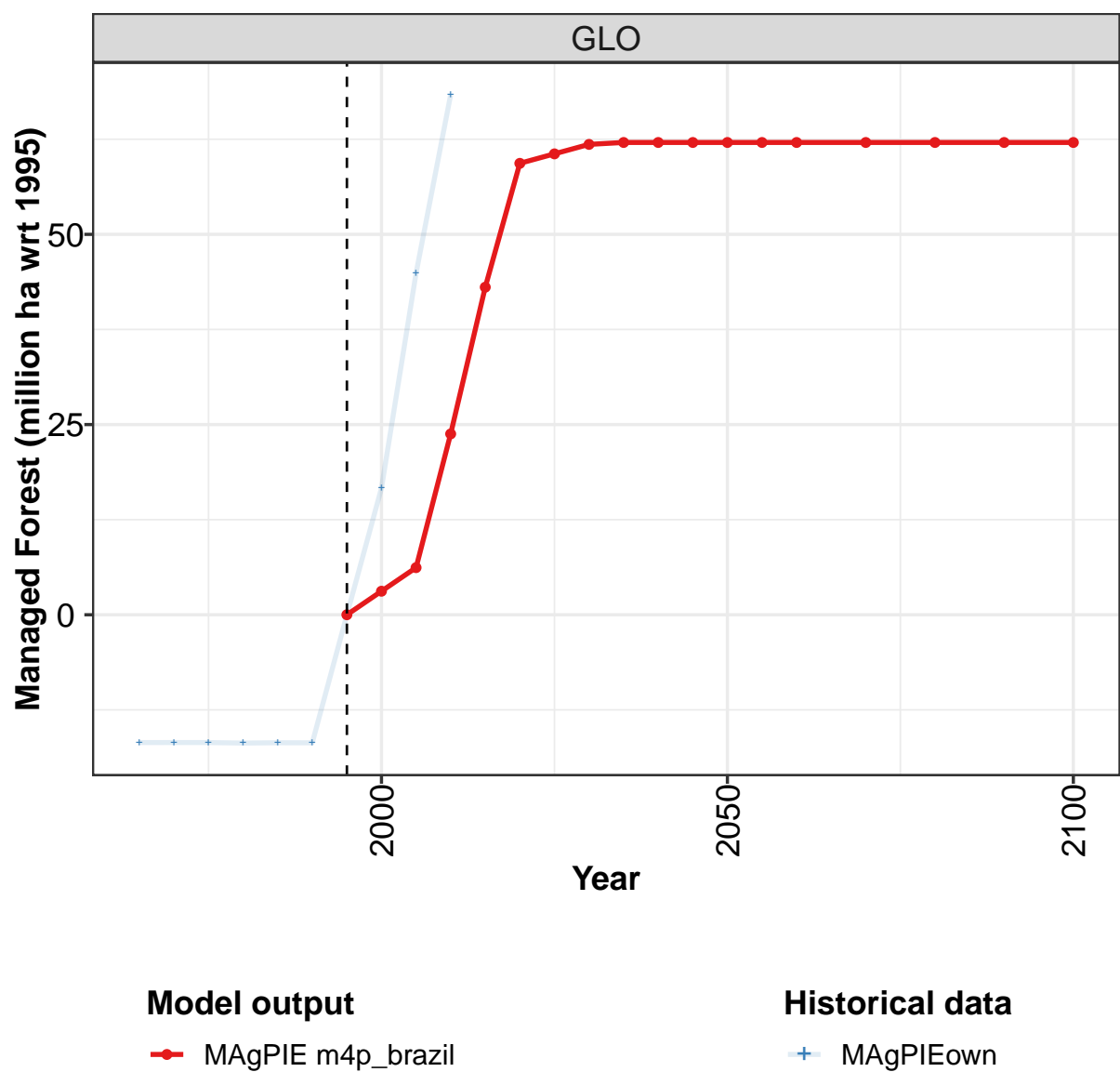
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	148	118	90	63	34	5	0	-5	1	-20
BRA	57	40	29	18	13	7	0	-7	-9	-16
CHA	63	56	45	33	16	-1	0	1	0	3
EUR	-7	-6	-5	-4	-3	-3	0	3	4	4
LAM	17	14	10	6	3	0	0	-0	2	1
ROW	24	19	17	14	8	2	0	-2	1	-18
USA	-6	-5	-5	-4	-2	-1	0	1	3	6

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
BRA	12.7	12.7	12.7	12.7	12.7	12.7	0.0	-12.7	-27.3	-35.5
CHA	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	0.0	9.9	26.0	33.5
EUR	-4.6	-4.5	-4.4	-4.2	-4.2	-4.1	0.0	3.9	6.4	9.7
LAM	9.7	9.7	9.6	9.3	9.2	9.1	0.0	-9.5	-18.6	-28.1
ROW	16.2	15.7	15.5	13.7	12.9	11.8	0.0	-15.5	-34.7	-49.8
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



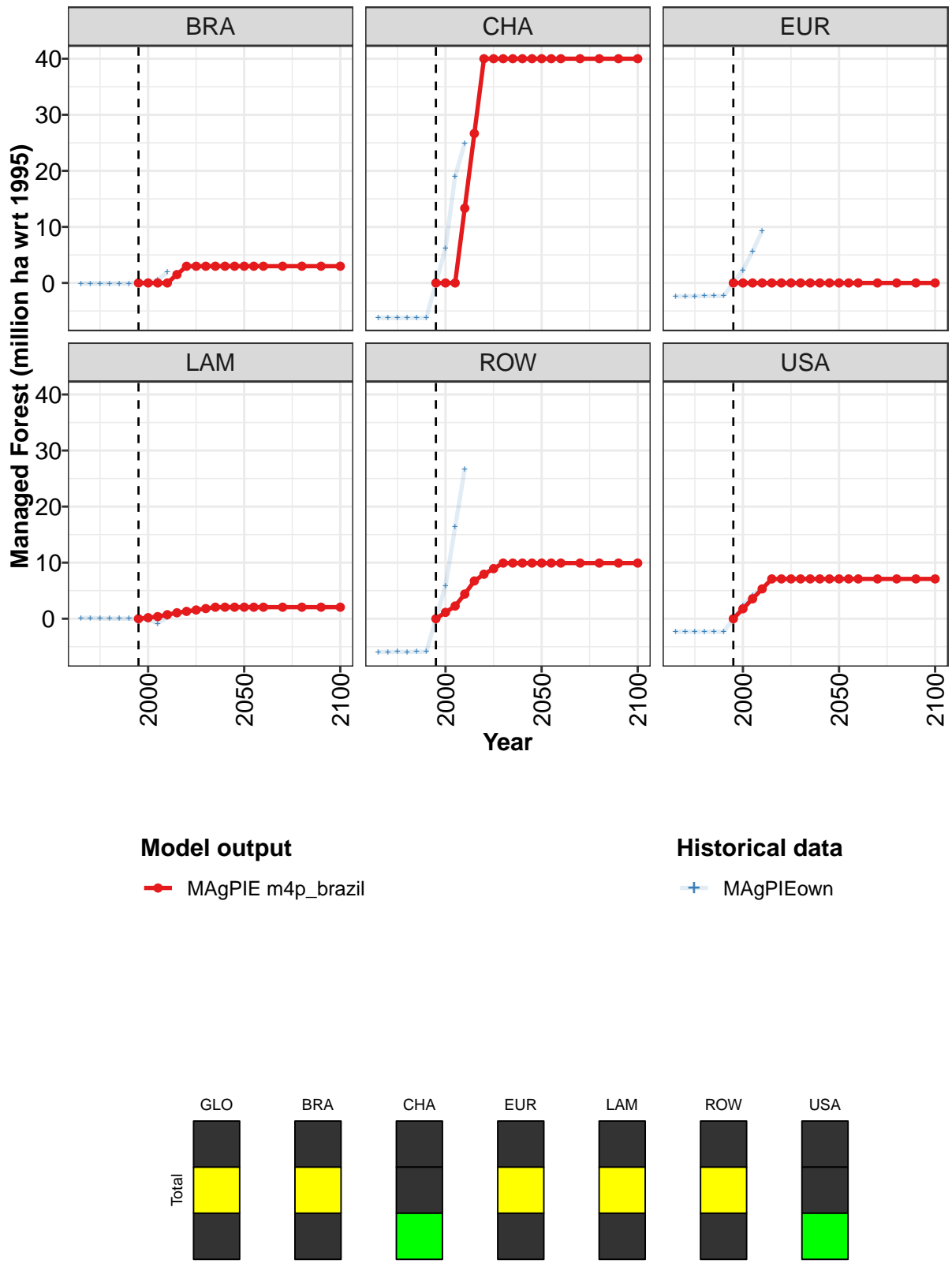


Figure 436: MAgPIE m4p_brazil — Resources—Land Cover Change—Forest—Managed Forest (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0	3.1	6.2	23.8	43.1	59.3	60.6	61.8	62.1	62.1	62.1
BRA	0.0	0.0	0.0	0.0	1.5	3.0	3.0	3.0	3.0	3.0	3.0
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
LAM	0.0	0.2	0.4	0.7	1.1	1.3	1.6	1.8	2.1	2.1	2.1
ROW	0.0	1.1	2.3	4.4	6.7	7.9	8.9	9.9	9.9	9.9	9.9
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_brazil — 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
BRA	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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
LAM	2.1	2.1	2.1	2.1	2.1	2.1	2.1
ROW	9.9	9.9	9.9	9.9	9.9	9.9	9.9
USA	7.1	7.1	7.1	7.1	7.1	7.1	7.1

Table 1666: MAgPIE m4p_brazil — 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
BRA	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.1	0.5	1.9
CHA	-6.2	-6.2	-6.2	-6.2	-6.2	-6.2	0.0	6.2	19.0	24.9
EUR	-2.4	-2.4	-2.3	-2.3	-2.3	-2.3	0.0	2.3	5.6	9.3
LAM	0.1	0.1	0.1	0.0	0.0	0.0	0.0	-0.1	-0.8	0.2
ROW	-5.9	-5.9	-5.9	-5.9	-5.9	-5.9	0.0	5.9	16.4	26.7
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



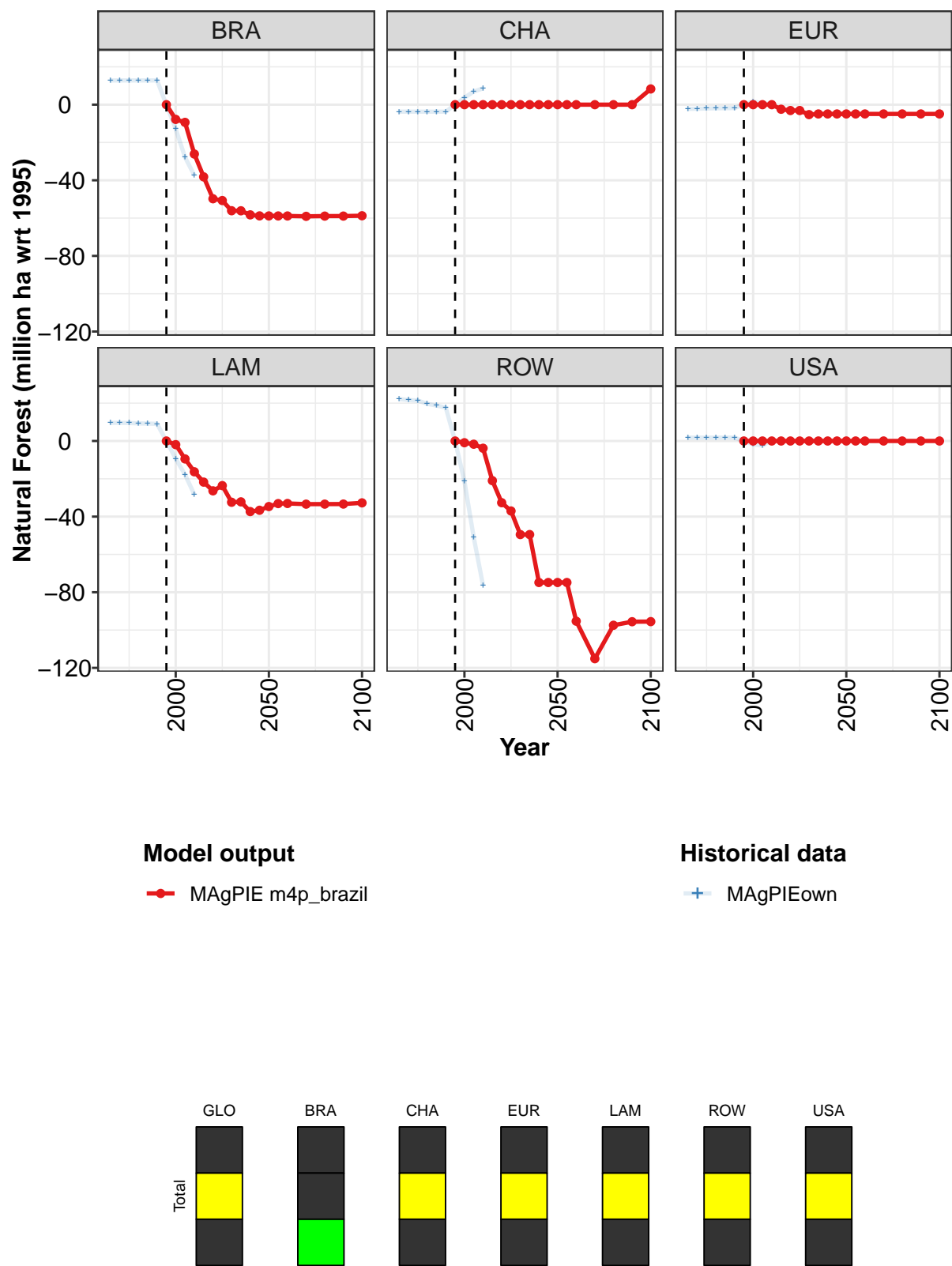


Figure 437: MAgPIE m4p_brazil — Resources—Land Cover Change—Forest—Natural Forest (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.00	-10.63	-20.54	-46.22	-83.31	-111.86	-114.40	-143.23	-142.70	-175.36	-175.20
BRA	0.00	-7.78	-9.36	-26.11	-38.17	-49.77	-50.69	-56.09	-56.13	-58.28	-58.82
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	-2.42	-3.09	-3.09	-5.26	-4.91	-4.91	-4.91
LAM	0.00	-1.93	-9.47	-16.29	-21.74	-26.37	-23.60	-32.40	-32.18	-37.33	-36.63
ROW	0.00	-0.91	-1.71	-3.83	-20.98	-32.63	-37.02	-49.49	-49.49	-74.84	-74.84
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1668: MAgPIE m4p_brazil — Resources—Land Cover Change—Forest—Natural Forest (million ha wrt 1995) [PART 1/2]

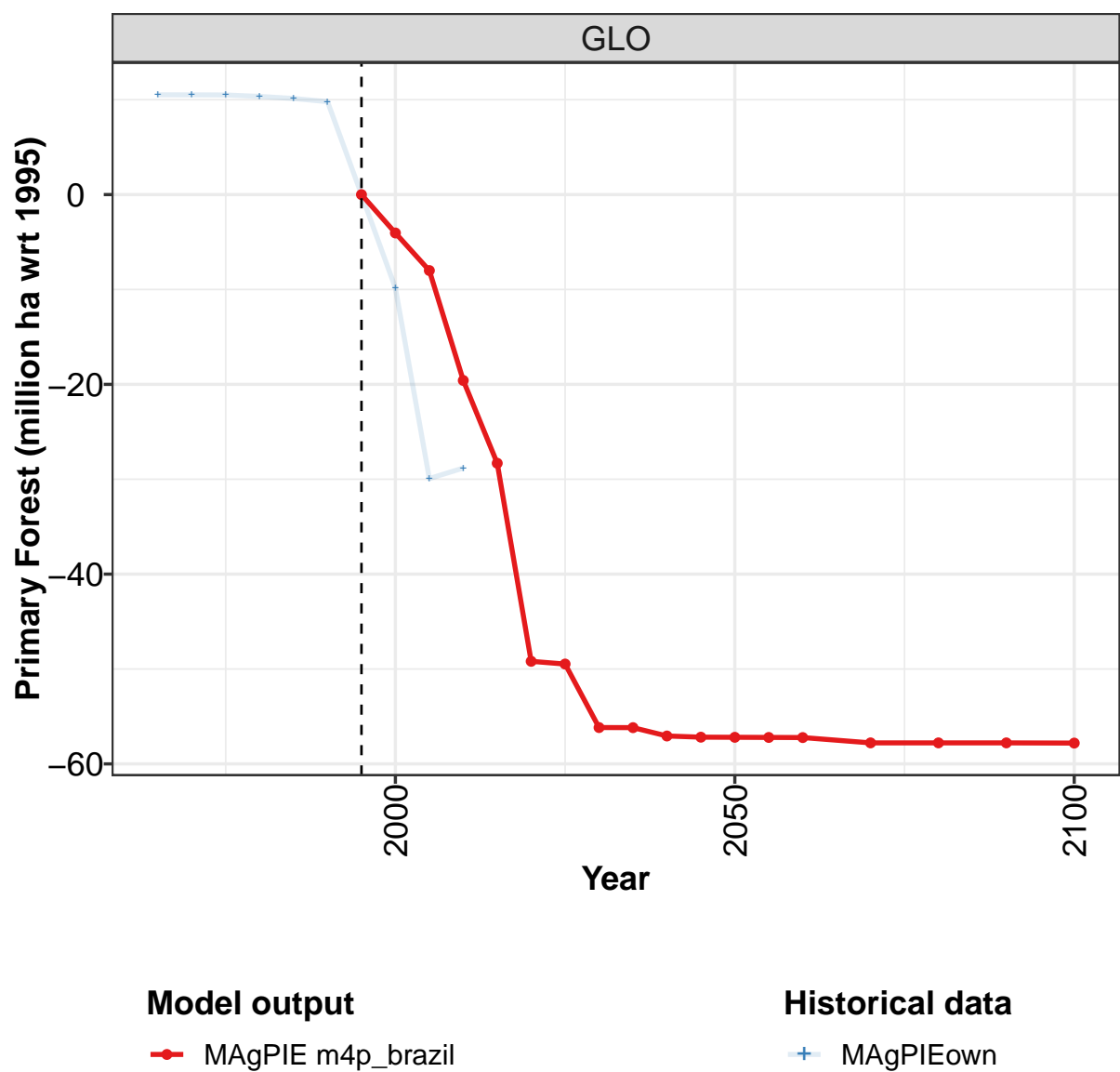
	2050	2055	2060	2070	2080	2090	2100
GLO	-173.25	-171.70	-192.12	-212.50	-194.69	-192.77	-183.58
BRA	-58.84	-58.85	-58.87	-59.06	-58.94	-58.93	-58.74
CHA	0.00	0.00	0.00	0.00	0.00	0.00	8.31
EUR	-4.91	-4.91	-4.91	-4.91	-4.91	-4.91	-4.91
LAM	-34.67	-33.10	-33.05	-33.40	-33.39	-33.36	-32.72
ROW	-74.84	-74.84	-95.29	-115.13	-97.45	-95.58	-95.53
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1669: MAgPIE m4p_brazil — 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
BRA	12.8	12.8	12.8	12.8	12.8	12.8	0.0	-12.8	-27.8	-37.4
CHA	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7	0.0	3.7	6.9	8.6
EUR	-2.2	-2.1	-2.0	-1.9	-1.8	-1.8	0.0	1.6	0.8	0.4
LAM	9.6	9.6	9.5	9.3	9.2	9.1	0.0	-9.4	-17.8	-28.3
ROW	22.2	21.7	21.4	19.7	18.8	17.6	0.0	-21.4	-51.0	-76.5
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



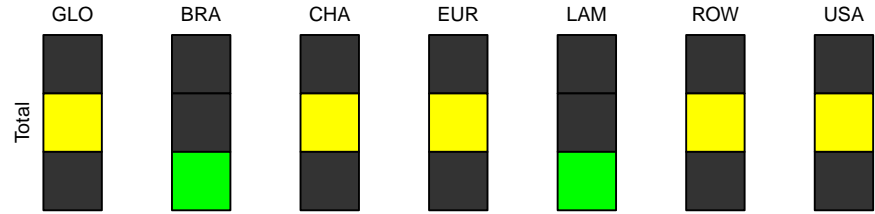
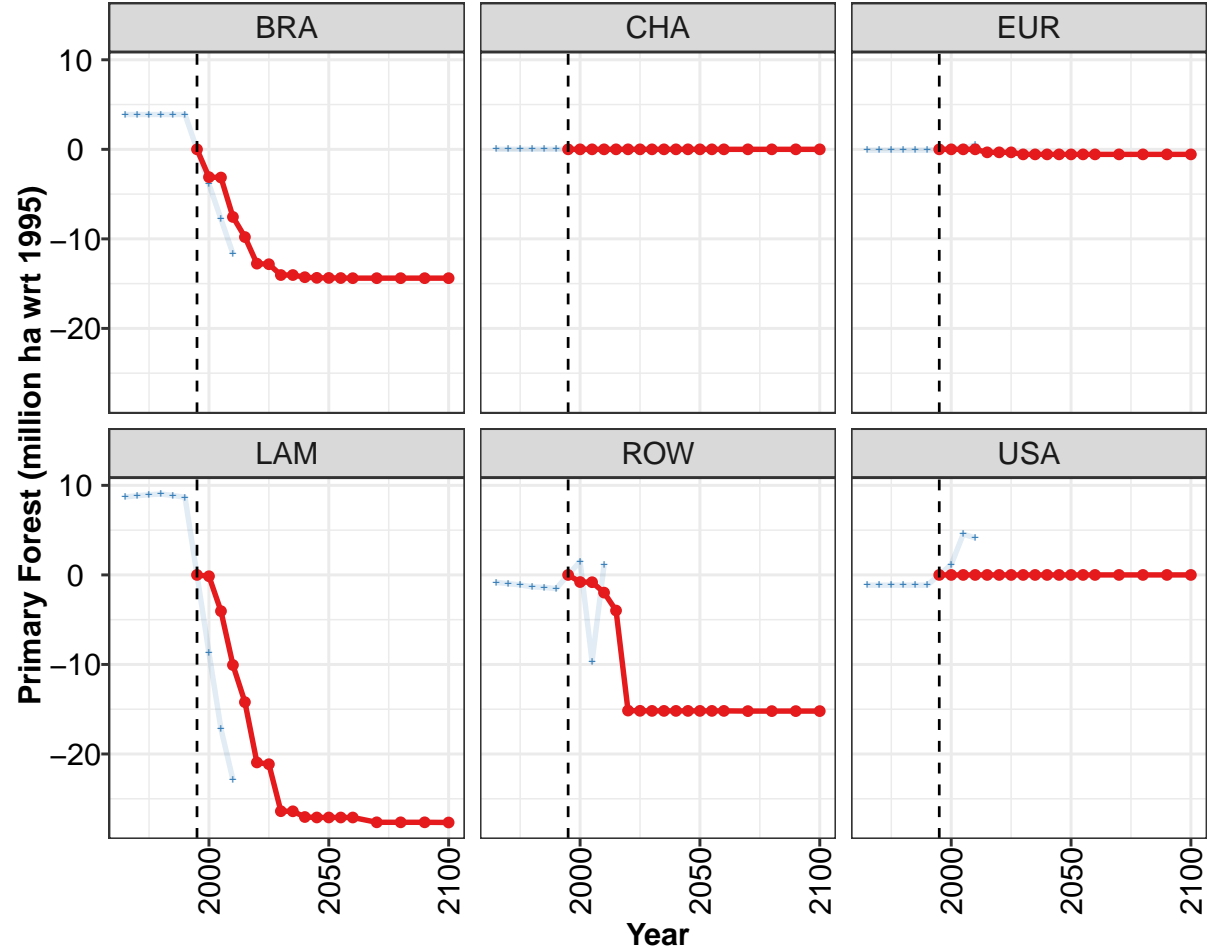


Figure 438: MAgPIE m4p_brazil — Resources—Land Cover Change—Forest—Natural Forest—Primary Forest (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0	-4	-8	-20	-28	-49	-49	-56	-56	-57	-57
BRA	0	-3	-3	-8	-10	-13	-13	-14	-14	-14	-14
CHA	0	0	0	0	0	0	0	0	0	0	0
EUR	0	0	0	0	-0	-0	-0	-1	-1	-1	-1
LAM	0	-0	-4	-10	-14	-21	-21	-26	-26	-27	-27
ROW	0	-1	-1	-2	-4	-15	-15	-15	-15	-15	-15
USA	0	0	0	0	0	0	0	0	0	0	0

Table 1671: MAgPIE m4p.brazil — Resources—Land Cover Change—Forest—Natural Forest—Primary Forest (million ha wrt 1995) [PART 1/2]

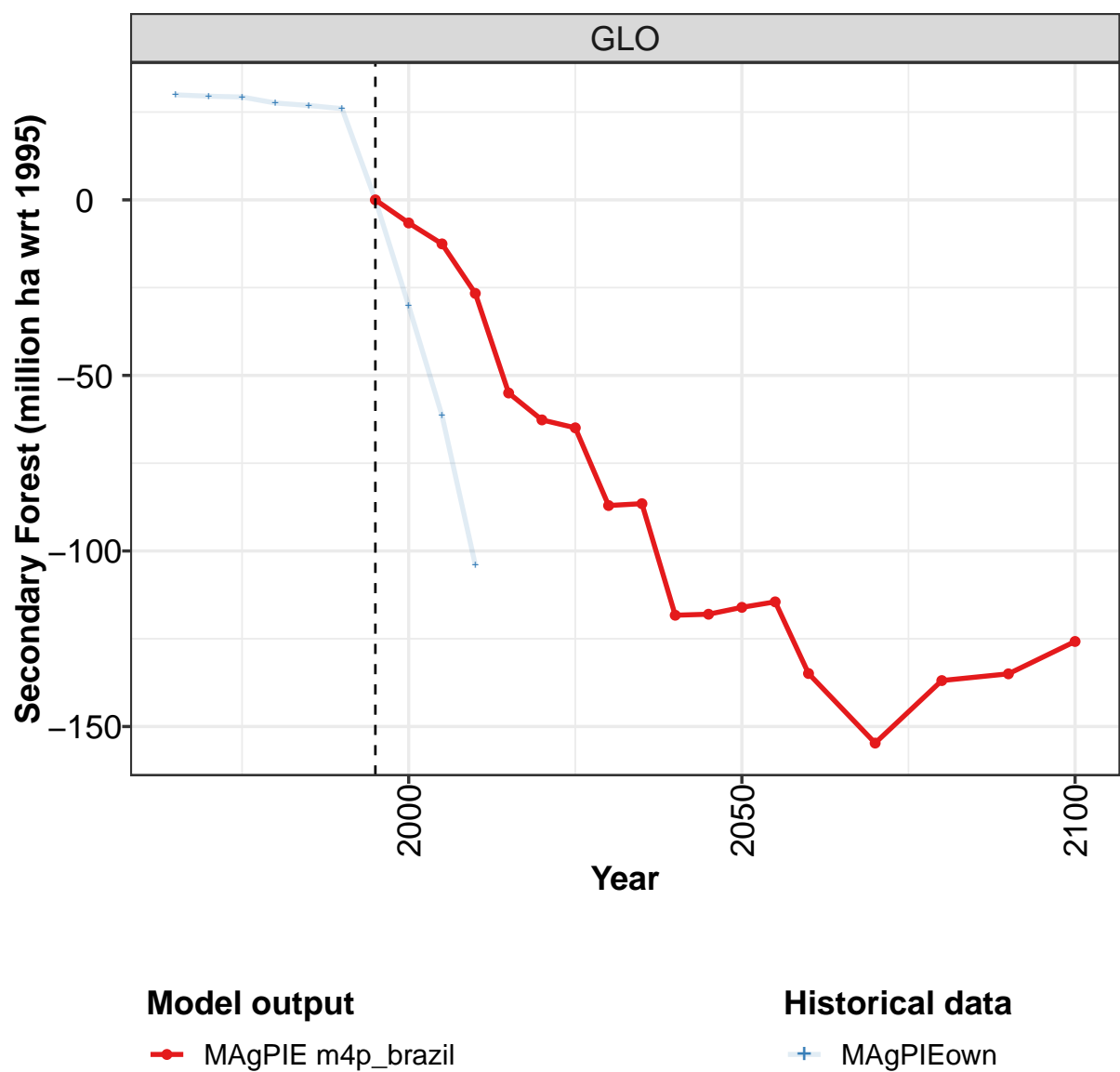
	2050	2055	2060	2070	2080	2090	2100
GLO	-57	-57	-57	-58	-58	-58	-58
BRA	-14	-14	-14	-14	-14	-14	-14
CHA	0	0	0	0	0	0	0
EUR	-1	-1	-1	-1	-1	-1	-1
LAM	-27	-27	-27	-28	-28	-28	-28
ROW	-15	-15	-15	-15	-15	-15	-15
USA	0	0	0	0	0	0	0

Table 1672: MAgPIE m4p.brazil — 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
BRA	3.9	3.9	3.9	3.9	3.9	3.9	0.0	-3.9	-7.8	-11.7
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	0.2	0.5
LAM	8.7	8.8	9.0	9.0	8.9	8.7	0.0	-8.7	-17.2	-22.9
ROW	-0.8	-1.0	-1.1	-1.3	-1.4	-1.5	0.0	1.5	-9.7	1.1
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



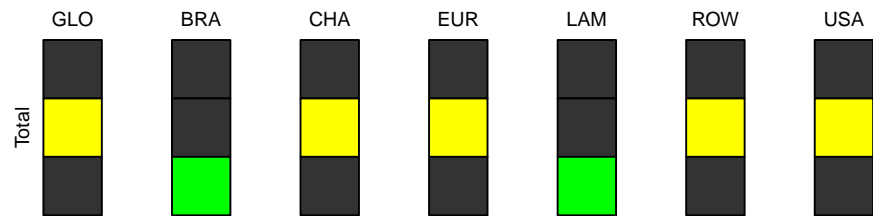
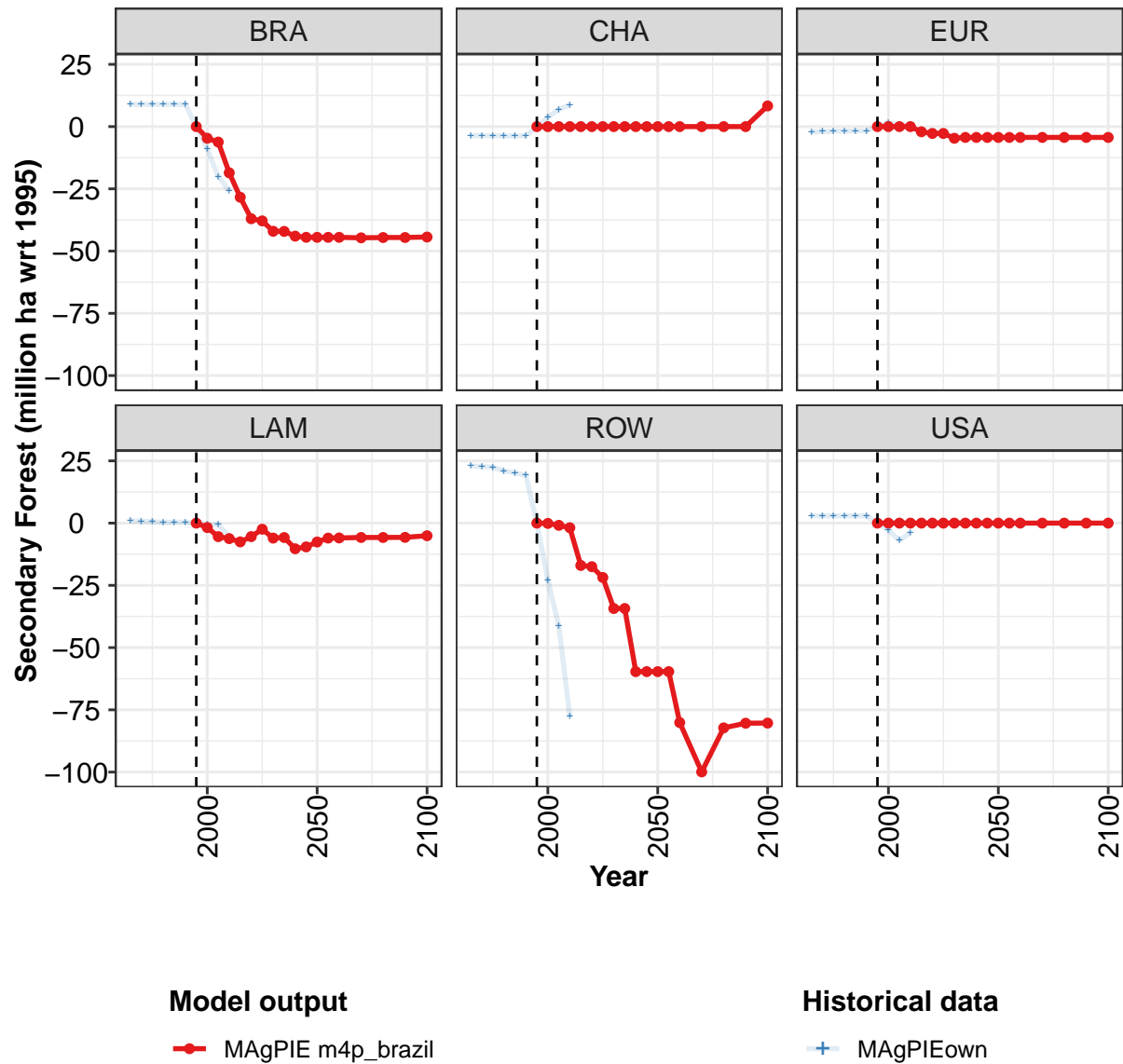


Figure 439: MAgPIE m4p_brazil — Resources—Land Cover Change—Forest—Natural Forest—Secondary Forest (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.00	-6.58	-12.54	-26.64	-55.00	-62.67	-64.92	-87.06	-86.53	-118.30	-118.01
BRA	0.00	-4.68	-6.21	-18.56	-28.37	-37.00	-37.87	-42.05	-42.09	-44.00	-44.47
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	-2.08	-2.76	-2.76	-4.69	-4.34	-4.34	-4.34
LAM	0.00	-1.78	-5.43	-6.23	-7.54	-5.42	-2.46	-6.01	-5.79	-10.30	-9.55
ROW	0.00	-0.12	-0.89	-1.85	-17.01	-17.49	-21.84	-34.30	-34.30	-59.65	-59.65
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1674: MAgPIE m4p.brazil — Resources—Land Cover Change—Forest—Natural Forest—Secondary Forest (million ha wrt 1995) [PART 1/2]

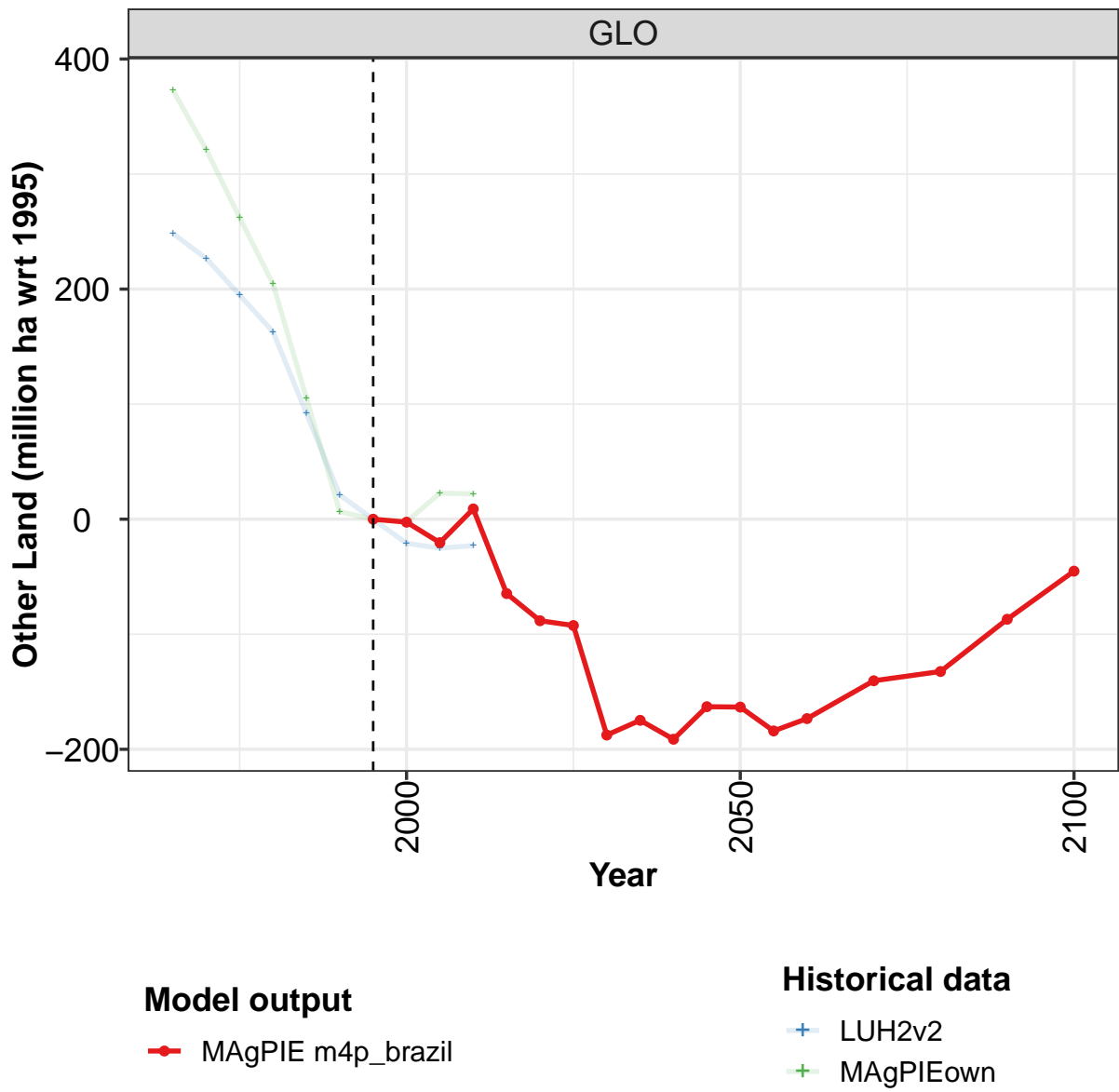
	2050	2055	2060	2070	2080	2090	2100
GLO	-116.06	-114.49	-134.89	-154.71	-136.91	-134.99	-125.77
BRA	-44.48	-44.48	-44.48	-44.67	-44.55	-44.54	-44.35
CHA	0.00	0.00	0.00	0.00	0.00	0.00	8.31
EUR	-4.34	-4.34	-4.34	-4.34	-4.34	-4.34	-4.34
LAM	-7.58	-6.01	-5.96	-5.77	-5.77	-5.73	-5.07
ROW	-59.65	-59.66	-80.11	-99.92	-82.25	-80.37	-80.32
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1675: MAgPIE m4p.brazil — 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
BRA	8.9	8.9	8.9	8.9	8.9	8.9	0.0	-8.9	-20.0	-25.8
CHA	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7	0.0	3.7	6.9	8.7
EUR	-2.1	-2.0	-1.9	-1.8	-1.8	-1.7	0.0	1.5	0.6	-0.1
LAM	0.9	0.8	0.6	0.3	0.3	0.4	0.0	-0.7	-0.6	-5.5
ROW	23.0	22.6	22.5	21.0	20.2	19.2	0.0	-22.9	-41.4	-77.6
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



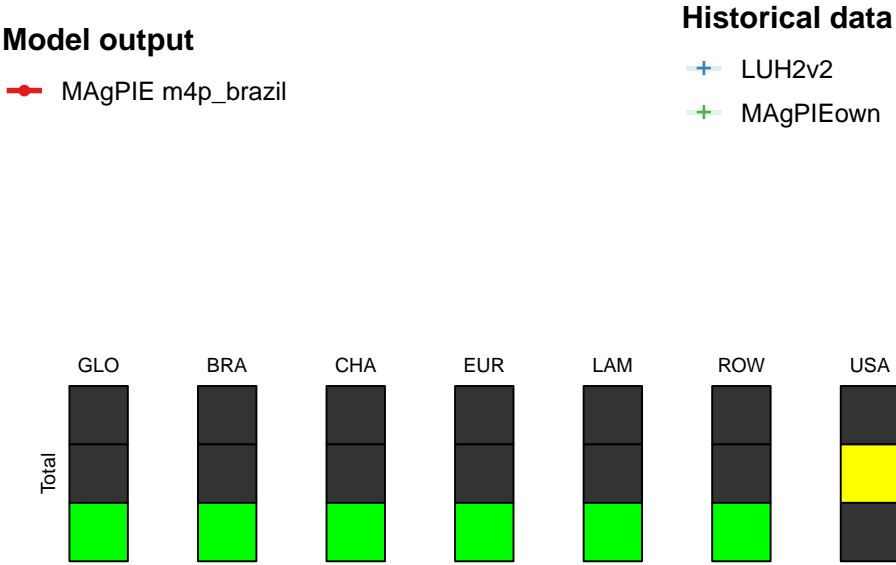
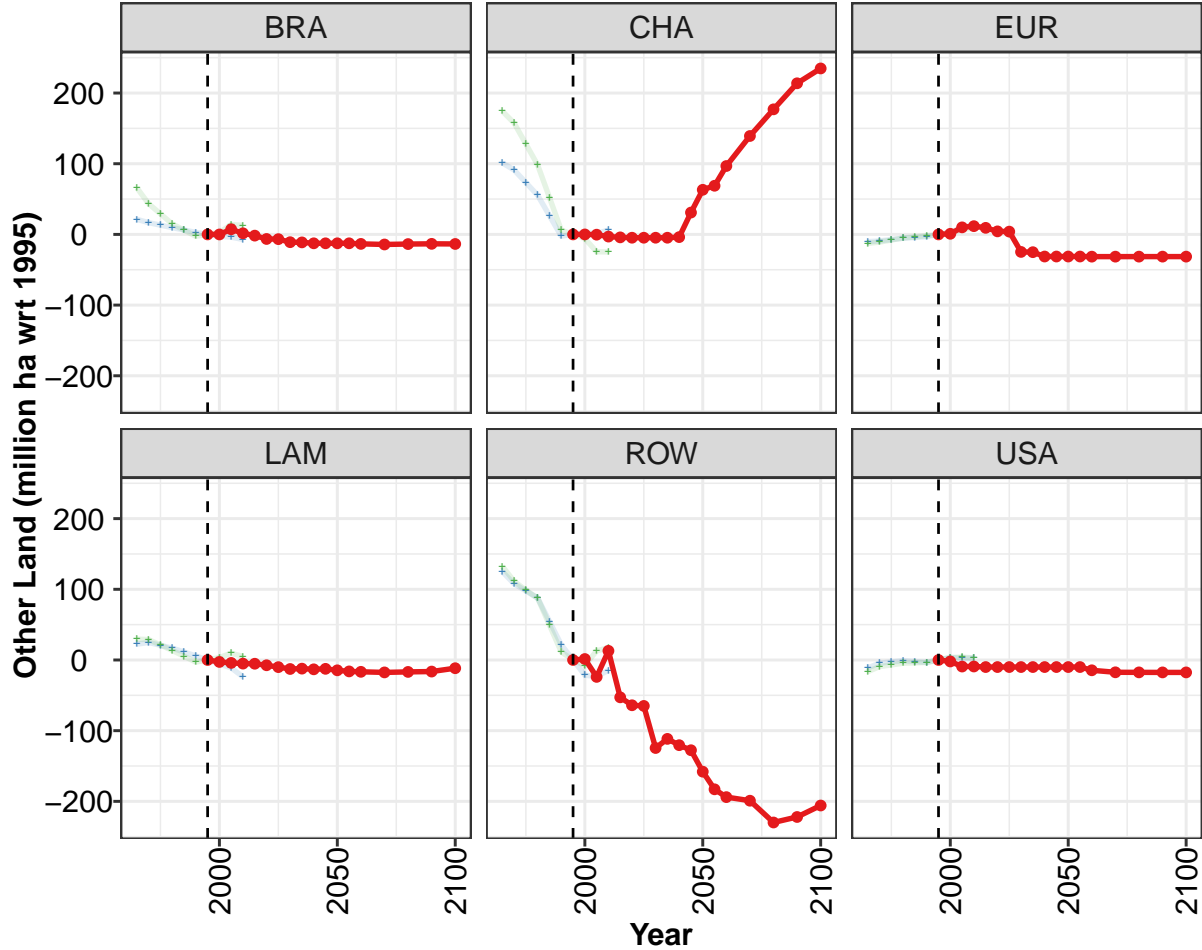


Figure 440: MAgPIE m4p_brazil — Resources—Land Cover Change—Other Land (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0	-3	-20	9	-65	-88	-92	-188	-175	-191	-163
BRA	0	-0	7	2	-2	-6	-7	-11	-11	-13	-13
CHA	0	0	-0	-3	-4	-5	-5	-5	-5	-4	31
EUR	0	1	10	12	9	4	4	-25	-25	-31	-31
LAM	0	-3	-4	-5	-5	-7	-10	-13	-12	-13	-12
ROW	0	1	-24	13	-53	-64	-65	-125	-112	-120	-128
USA	0	-2	-9	-9	-10	-10	-10	-10	-10	-10	-10

Table 1677: MAgPIE m4p.brazil — Resources—Land Cover Change—Other Land (million ha wrt 1995) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	-163	-184	-173	-140	-132	-87	-45
BRA	-13	-13	-13	-14	-14	-13	-14
CHA	63	69	97	139	177	214	235
EUR	-31	-31	-31	-31	-31	-31	-31
LAM	-15	-16	-17	-18	-17	-16	-12
ROW	-158	-183	-194	-199	-230	-222	-206
USA	-10	-10	-15	-17	-18	-18	-18

Table 1678: MAgPIE m4p.brazil — Resources—Land Cover Change—Other Land (million ha wrt 1995) [PART 2/2]

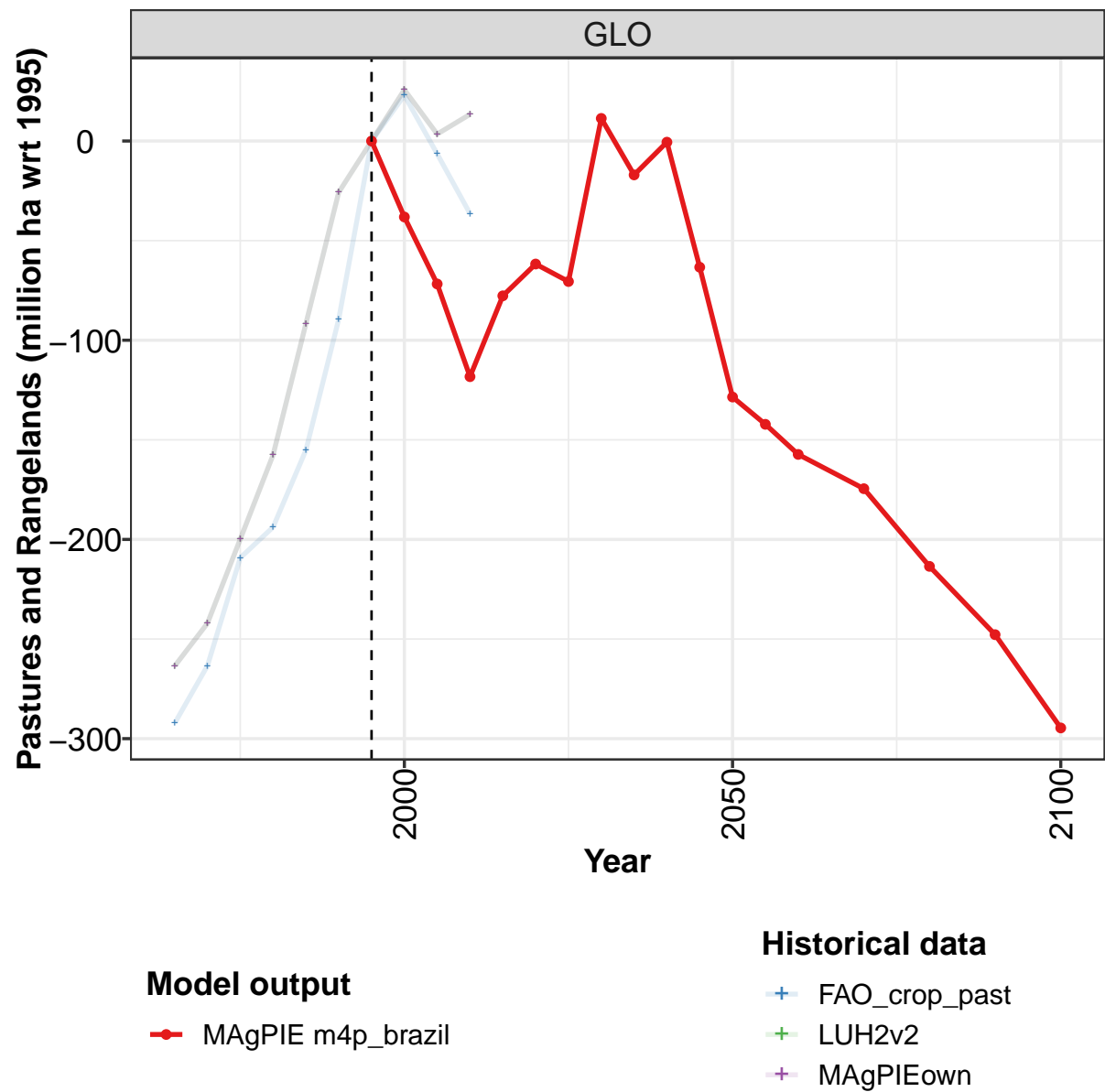
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	248	227	195	163	92	21	0	-21	-25	-23
BRA	21	17	13	10	6	3	0	-3	-4	-7
CHA	101	91	73	55	26	-3	0	3	1	6
EUR	-10	-9	-7	-5	-4	-3	0	3	9	14
LAM	22	25	21	17	11	6	0	-6	-11	-24
ROW	125	108	98	88	55	22	0	-22	-23	-15
USA	-11	-5	-3	-1	-2	-3	0	3	3	3

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
BRA	66	43	29	15	6	-3	0	3	14	13
CHA	174	158	128	98	52	6	0	-6	-25	-25
EUR	-13	-11	-8	-5	-3	-2	0	2	7	9
LAM	29	29	21	14	5	-3	0	3	10	5
ROW	133	111	99	88	49	11	0	-8	13	17
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



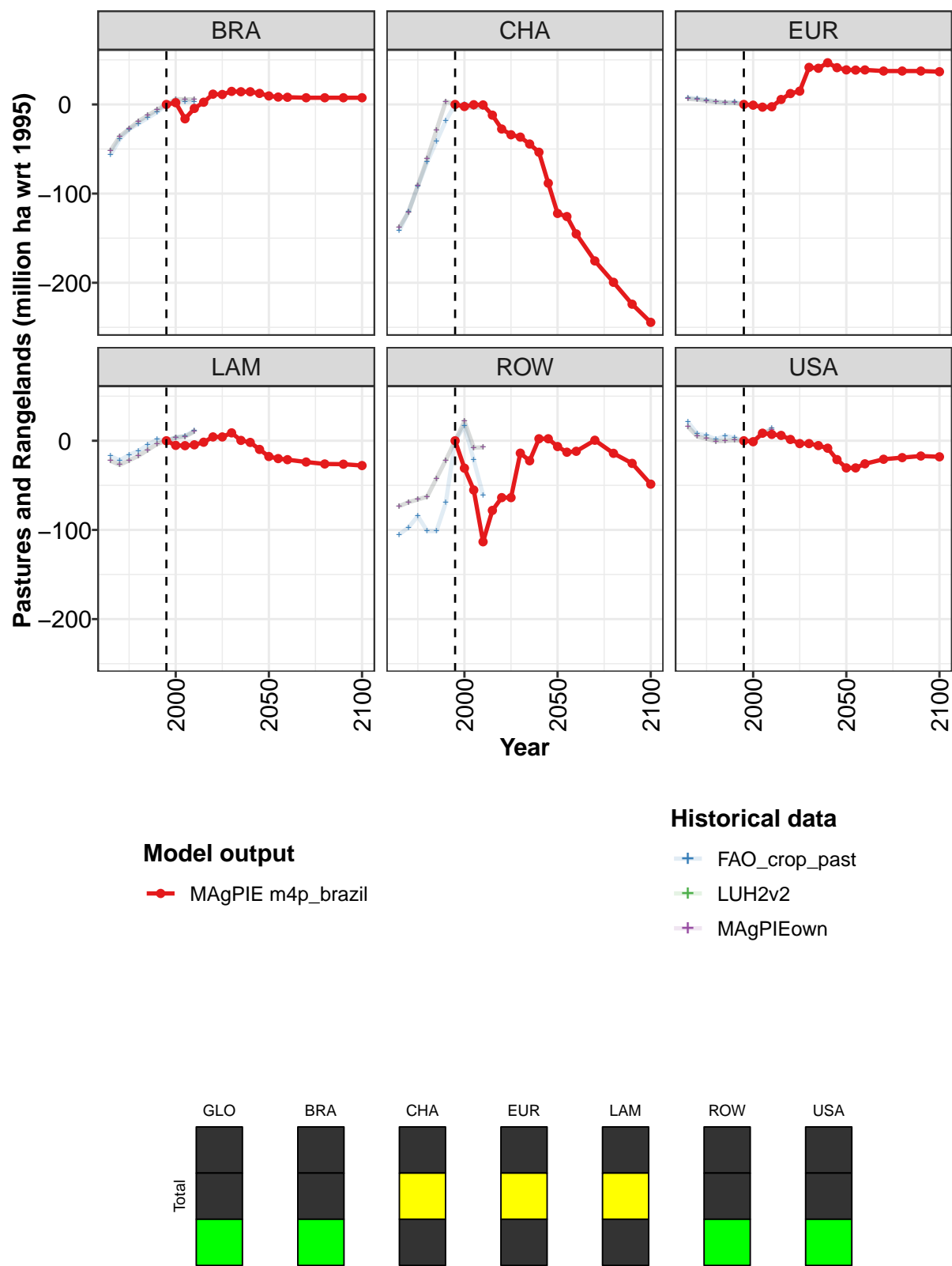


Figure 441: MAGPIE m4p_brazil — Resources—Land Cover Change—Pastures and Rangelands (million ha wrt 1995)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.0	-38.1	-71.7	-118.3	-77.7	-61.7	-70.5	11.4	-17.0	-0.6	-63.4
BRA	0.0	2.0	-16.1	-4.5	2.5	11.5	11.2	14.7	14.2	14.2	12.4
CHA	0.0	-2.3	-0.3	-0.5	-12.0	-27.5	-34.0	-36.6	-44.4	-53.6	-88.3
EUR	0.0	-0.8	-3.0	-2.6	5.6	12.2	14.9	41.5	40.6	46.7	41.2
LAM	0.0	-5.2	-5.5	-4.6	-1.6	4.3	4.3	8.9	0.4	-1.9	-9.7
ROW	0.0	-30.7	-55.3	-113.3	-78.1	-63.7	-63.7	-13.9	-22.4	2.2	2.2
USA	0.0	-1.1	8.5	7.2	6.0	1.5	-3.2	-3.2	-5.4	-8.3	-21.1

Table 1681: MAgPIE m4p.brazil — Resources—Land Cover Change—Pastures and Rangelands (million ha wrt 1995) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	-128.5	-142.2	-157.3	-174.5	-213.5	-247.8	-294.6
BRA	9.5	8.3	8.0	7.5	7.5	7.5	7.5
CHA	-122.2	-125.7	-145.2	-175.5	-199.5	-224.0	-244.4
EUR	38.8	38.5	38.7	37.5	37.5	37.5	36.7
LAM	-17.7	-20.0	-21.2	-23.9	-26.0	-26.3	-27.8
ROW	-6.5	-12.8	-11.8	0.6	-14.1	-25.4	-48.7
USA	-30.4	-30.4	-25.9	-20.7	-18.9	-17.1	-18.0

Table 1682: MAgPIE m4p.brazil — 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
BRA	-56.7	-38.8	-28.0	-21.6	-15.2	-8.8	0.0	3.2	3.0	3.0
CHA	-141.8	-119.8	-91.8	-64.5	-41.5	-18.4	0.0	0.0	0.0	-0.0
EUR	7.5	6.5	4.9	3.4	1.7	2.6	0.0	-0.8	-1.5	-3.7
LAM	-17.2	-22.1	-15.7	-11.4	-4.6	1.5	0.0	3.7	5.5	11.2
ROW	-105.1	-97.1	-84.6	-101.2	-101.3	-69.5	0.0	16.5	-21.5	-61.0
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
BRA	-51.7	-35.8	-27.3	-18.8	-12.4	-5.9	0.0	5.9	5.7	5.7
CHA	-137.9	-120.8	-91.0	-61.2	-28.9	3.4	0.0	-3.4	-3.6	-3.4
EUR	6.2	5.6	4.1	2.6	2.2	1.7	0.0	-1.7	-2.4	-4.6
LAM	-22.6	-27.0	-22.0	-17.0	-10.3	-3.7	0.0	3.7	4.6	10.3
ROW	-73.4	-68.9	-65.8	-62.7	-42.3	-21.8	0.0	21.8	-7.8	-7.3
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)

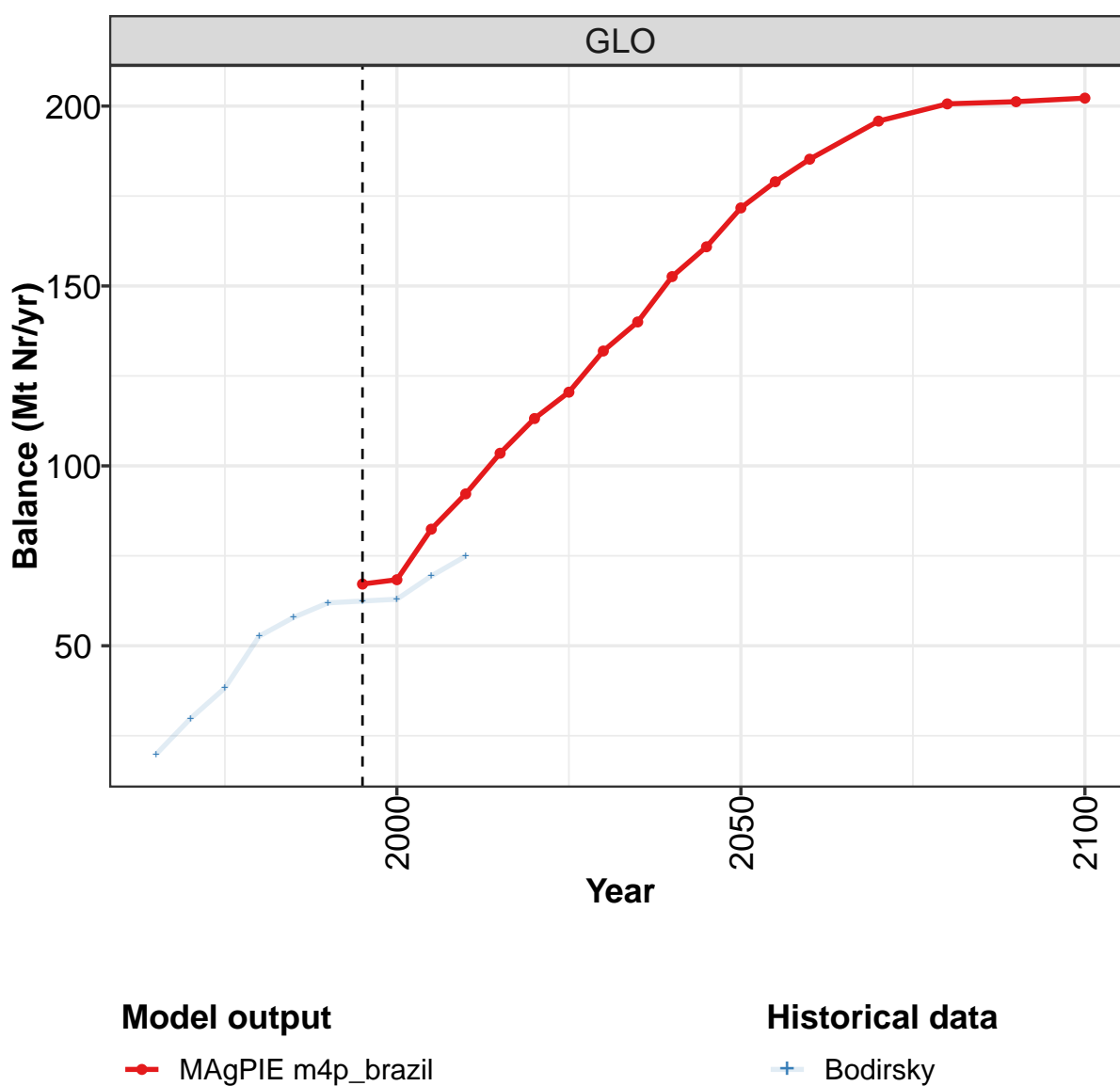
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	-263.6	-242.1	-199.8	-157.6	-91.7	-25.7	0.0	25.7	3.5	13.4
BRA	-51.7	-35.8	-27.3	-18.8	-12.4	-5.9	0.0	5.9	5.7	5.7
CHA	-137.9	-120.8	-91.0	-61.2	-28.9	3.4	0.0	-3.4	-3.6	-3.4
EUR	6.2	5.6	4.1	2.6	2.2	1.7	0.0	-1.7	-2.4	-4.6
LAM	-22.6	-27.0	-22.0	-17.0	-10.3	-3.7	0.0	3.7	4.6	10.3
ROW	-73.4	-68.9	-65.8	-62.7	-42.3	-21.8	0.0	21.8	-7.8	-7.3
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



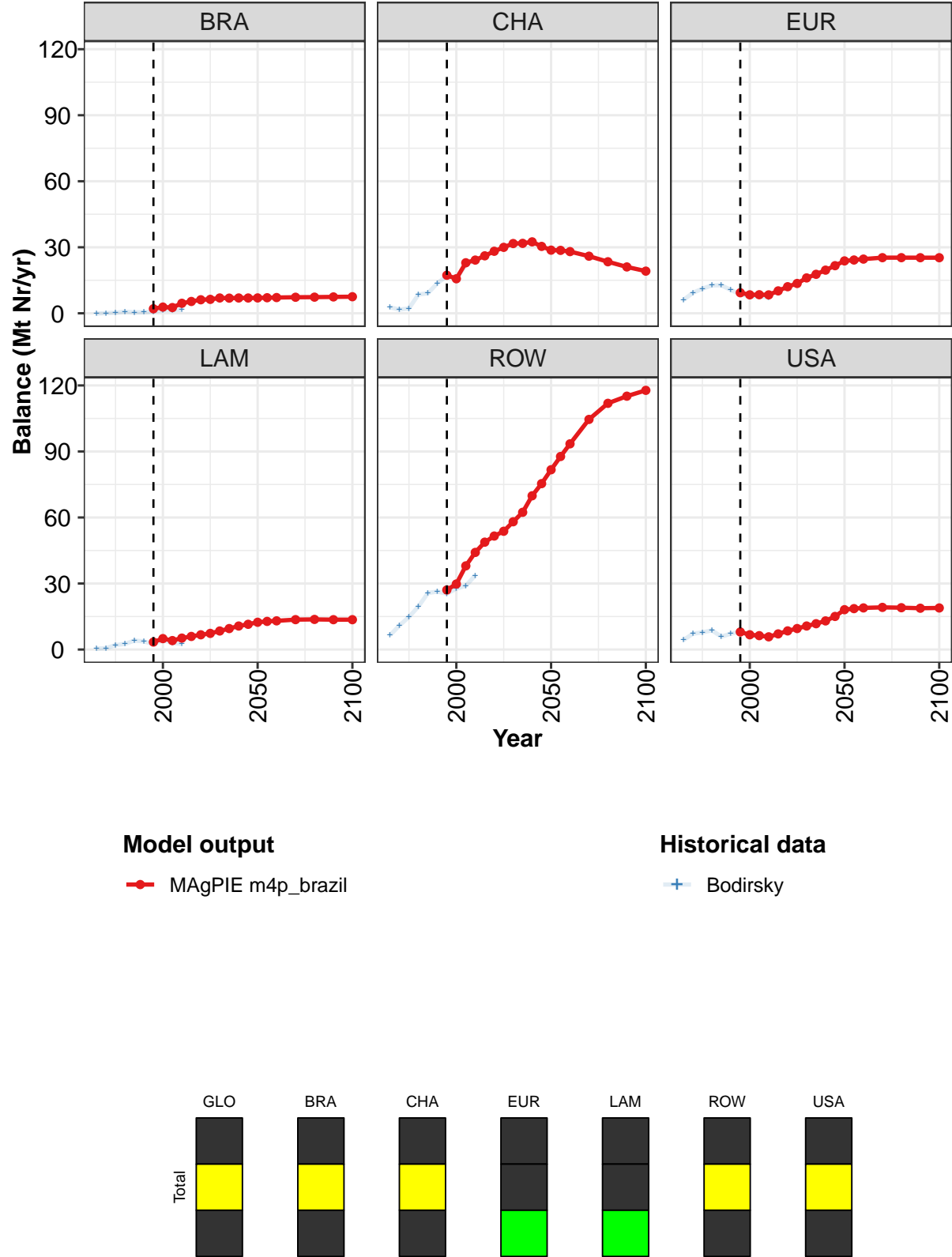


Figure 442: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Balance (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	67	68	82	92	104	113	120	132	140	153	161
BRA	2	3	3	5	5	6	6	7	7	7	7
CHA	17	16	23	24	26	28	30	32	32	32	30
EUR	9	8	8	8	10	12	14	16	18	20	22
LAM	3	5	4	5	6	7	7	8	10	11	11
ROW	27	30	38	44	49	52	54	58	62	70	75
USA	8	7	6	6	7	8	10	11	12	13	15

Table 1686: MAgPIE m4p.brazil — Resources—Nitrogen—Cropland Budget—Balance (Mt Nr/yr) [PART 1/2]

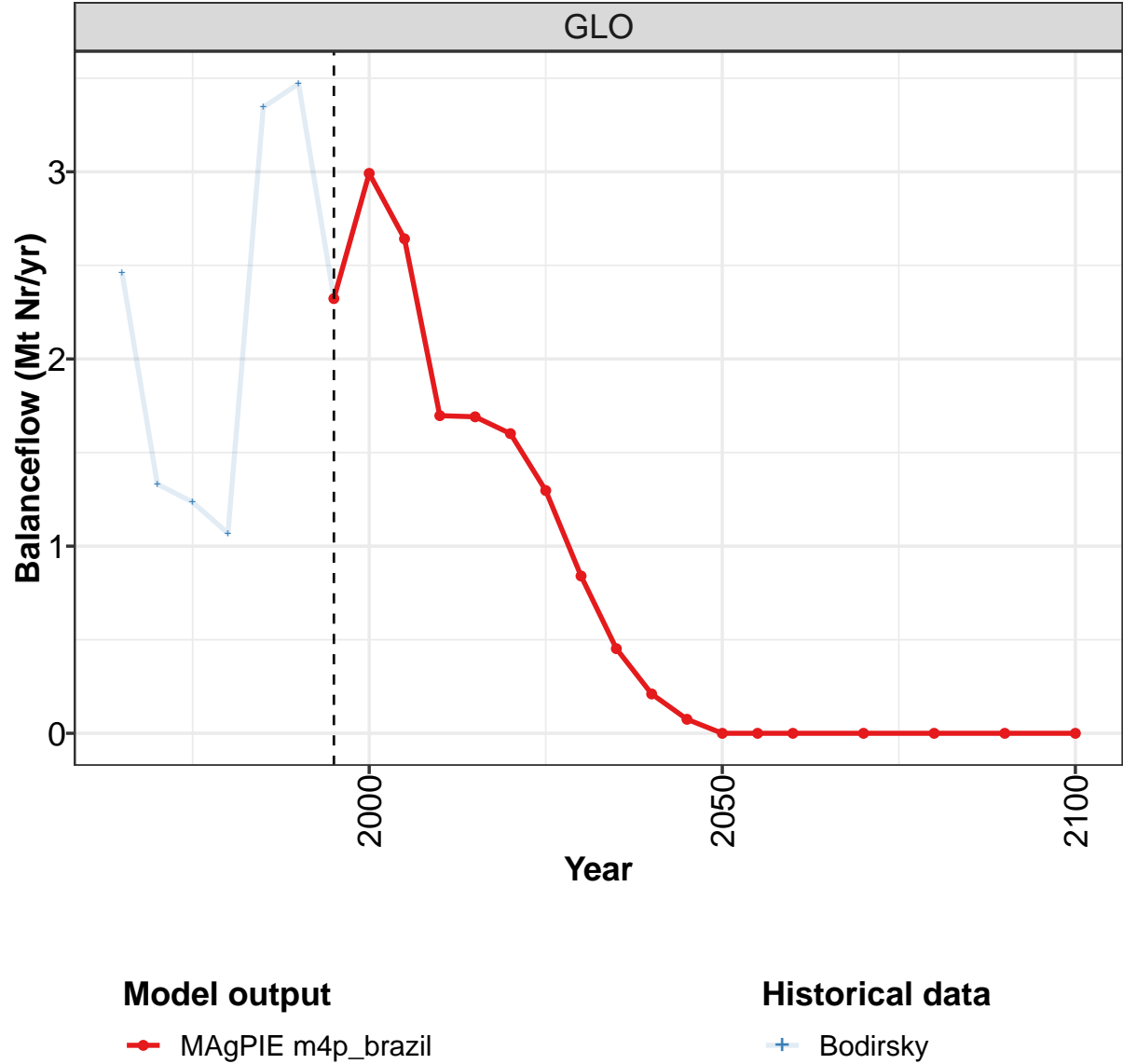
	2050	2055	2060	2070	2080	2090	2100
GLO	172	179	185	196	201	201	202
BRA	7	7	7	7	7	7	8
CHA	29	29	28	26	23	21	19
EUR	24	24	25	25	25	25	25
LAM	12	13	13	14	14	14	14
ROW	82	88	93	105	112	115	118
USA	18	19	19	19	19	19	19

Table 1687: MAgPIE m4p.brazil — 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
BRA	-0.1	0.1	0.3	0.7	0.4	0.5	0.8	1.5	1.5	1.6
CHA	2.7	1.7	2.2	8.5	9.1	13.7	17.0	15.6	22.0	24.0
EUR	6.1	9.3	11.2	12.6	12.7	10.6	8.6	7.7	7.8	7.1
LAM	0.4	0.6	2.0	2.6	4.1	3.7	2.5	4.2	3.0	2.6
ROW	6.5	11.0	14.8	19.5	25.7	26.3	25.4	27.7	29.0	33.7
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



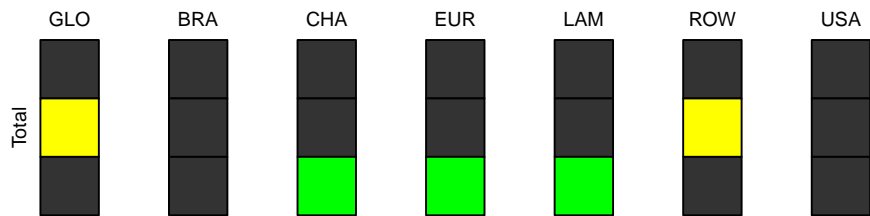
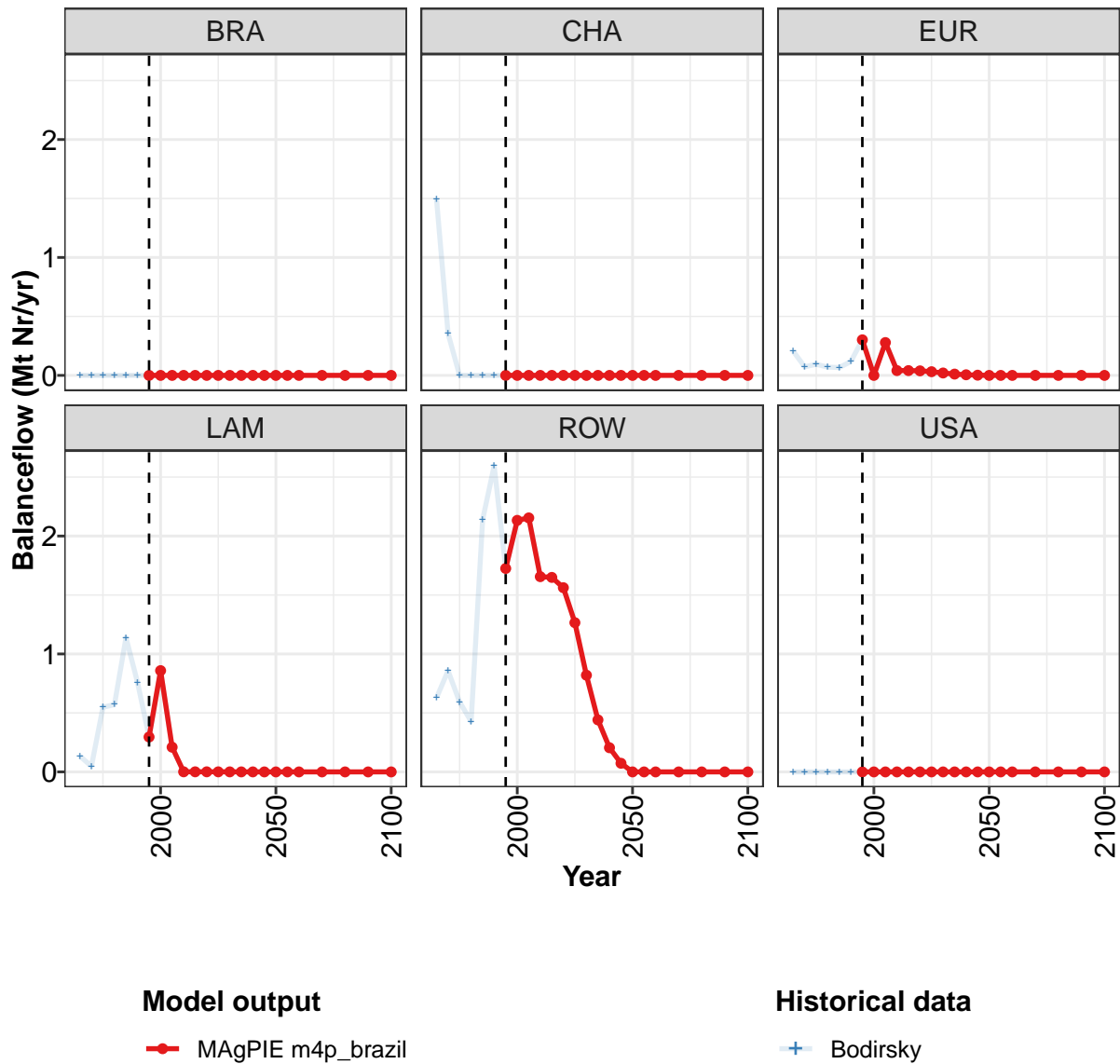


Figure 443: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Balance—Balanceflow (Mt Nr/yr)

	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
BRA	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	0.30	0.00	0.28	0.04	0.04	0.04	0.03	0.02	0.01	0.01	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
ROW	1.73	2.13	2.15	1.66	1.65	1.56	1.27	0.82	0.44	0.20	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 1689: MAGPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Balance—Balanceflow (Mt Nr/yr) [PART 1/2]

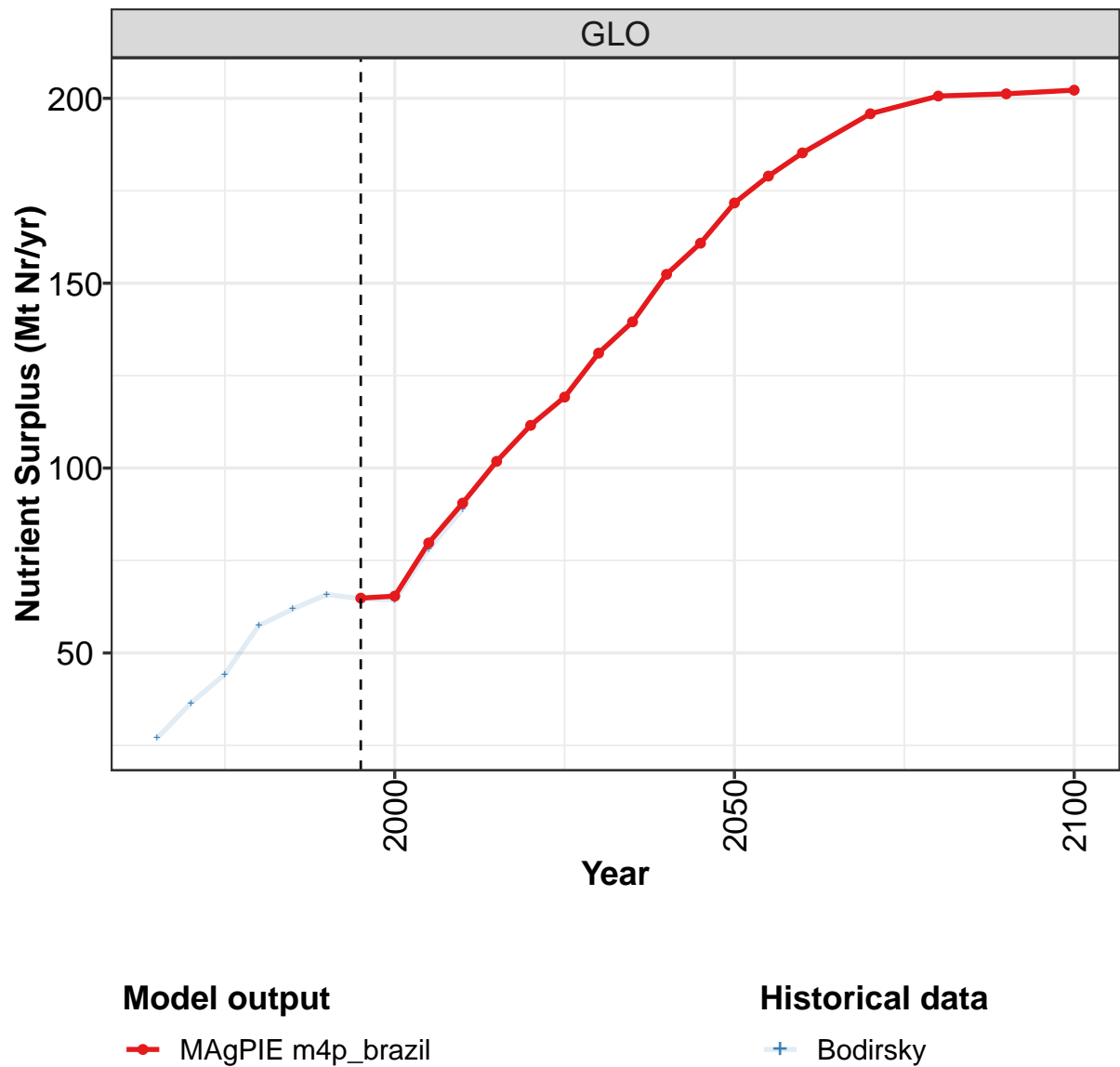
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1690: MAGPIE m4p_brazil — 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
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	1.49	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.20	0.07	0.09	0.07	0.07	0.12	0.30	0.00	0.28	0.04
LAM	0.13	0.05	0.55	0.57	1.14	0.76	0.30	0.86	0.21	0.00
ROW	0.63	0.86	0.59	0.43	2.14	2.60	1.73	2.13	2.15	1.66
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



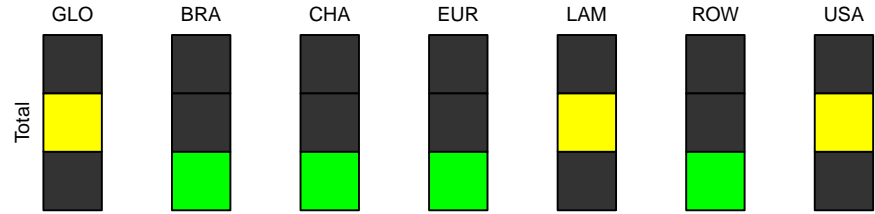
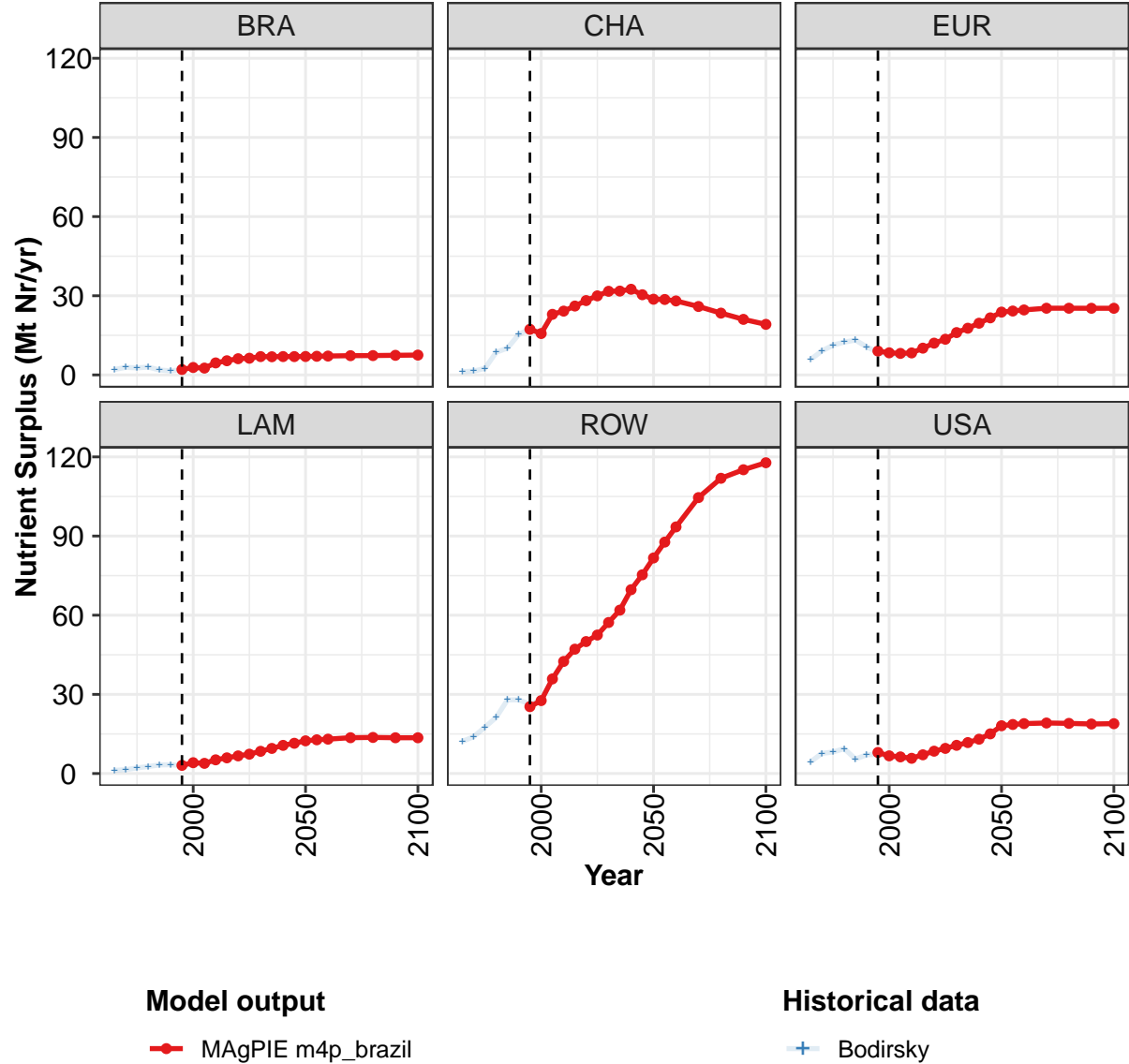


Figure 444: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Balance—Nutrient Surplus (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	65	65	80	91	102	112	119	131	140	152	161
BRA	2	3	3	5	5	6	6	7	7	7	7
CHA	17	16	23	24	26	28	30	32	32	32	30
EUR	9	8	8	8	10	12	14	16	18	20	22
LAM	3	4	4	5	6	7	7	8	10	11	11
ROW	25	28	36	42	47	50	52	57	62	70	75
USA	8	7	6	6	7	8	10	11	12	13	15

Table 1692: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Balance—Nutrient Surplus (Mt Nr/yr) [PART 1/2]

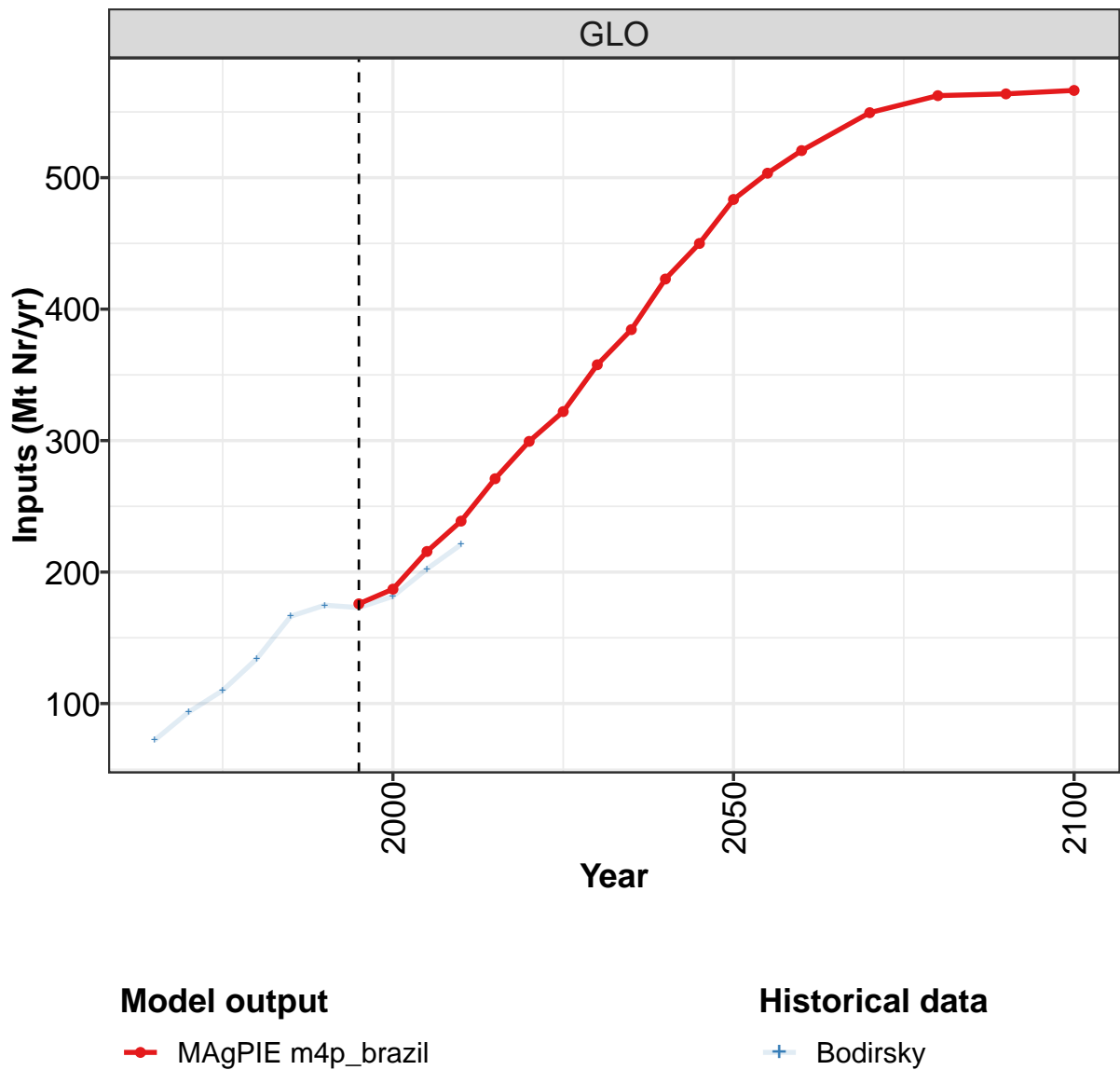
	2050	2055	2060	2070	2080	2090	2100
GLO	172	179	185	196	201	201	202
BRA	7	7	7	7	7	7	8
CHA	29	29	28	26	23	21	19
EUR	24	24	25	25	25	25	25
LAM	12	13	13	14	14	14	14
ROW	82	88	93	105	112	115	118
USA	18	19	19	19	19	19	19

Table 1693: MAgPIE m4p_brazil — 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
BRA	2.1	2.9	2.7	3.0	1.9	1.5	2.0	2.7	2.6	4.5
CHA	1.2	1.5	2.5	8.6	10.2	15.3	17.5	16.0	22.9	24.5
EUR	5.8	9.0	11.3	12.4	13.2	10.7	8.6	7.8	7.5	7.6
LAM	1.2	1.5	2.1	2.7	3.2	3.4	2.9	3.8	3.6	4.9
ROW	12.2	14.0	17.6	21.3	27.9	27.9	26.3	27.8	35.5	42.0
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



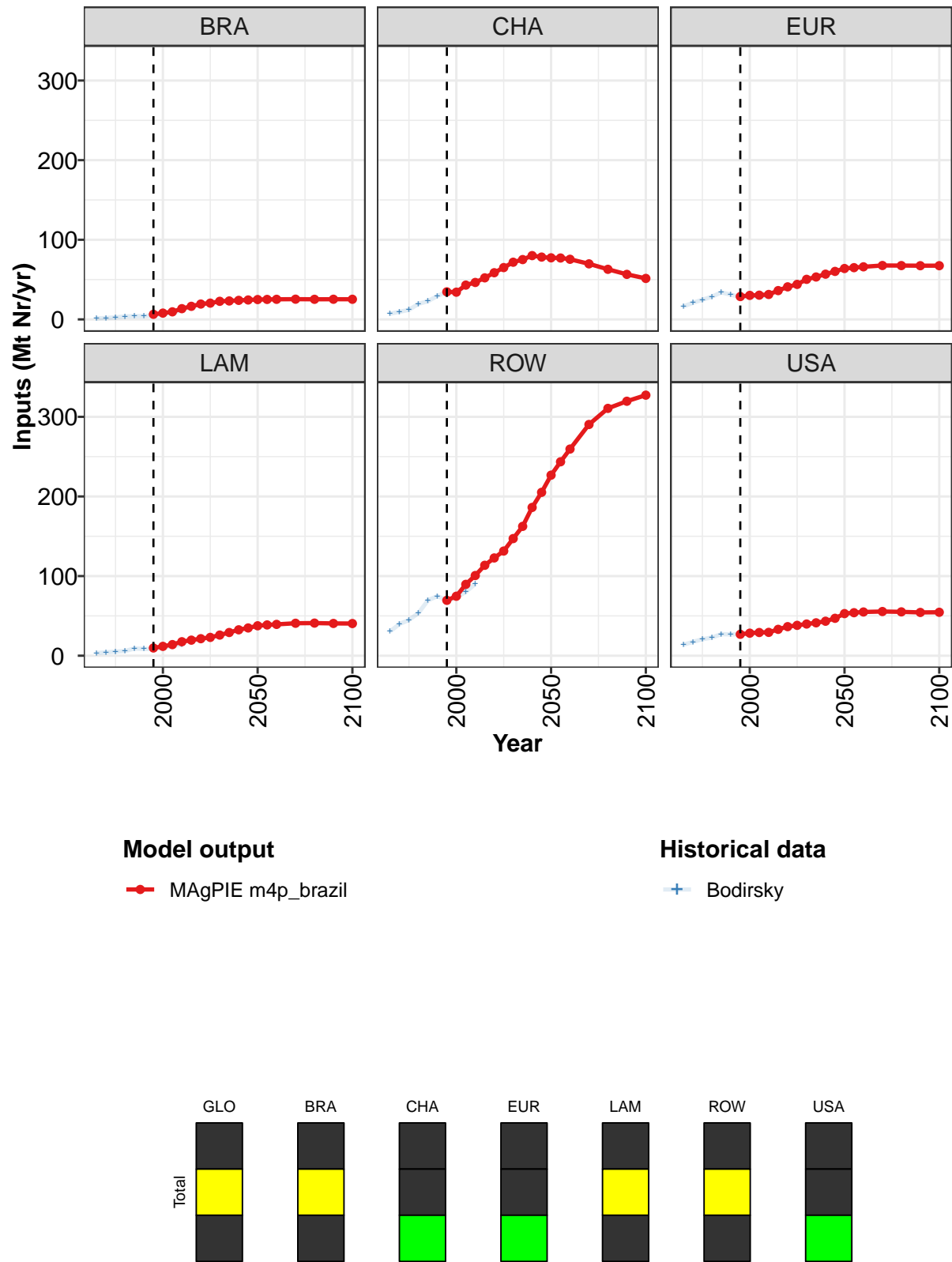


Figure 445: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	176	187	216	239	271	299	322	358	384	423	450
BRA	6	8	9	13	16	19	20	23	23	24	24
CHA	35	34	43	46	52	59	65	72	75	80	78
EUR	29	30	30	31	36	41	44	50	53	57	60
LAM	10	12	14	18	20	21	23	26	29	33	35
ROW	70	75	90	101	114	123	131	147	162	186	205
USA	27	28	29	29	33	36	38	40	41	43	47

Table 1695: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs (Mt Nr/yr) [PART 1/2]

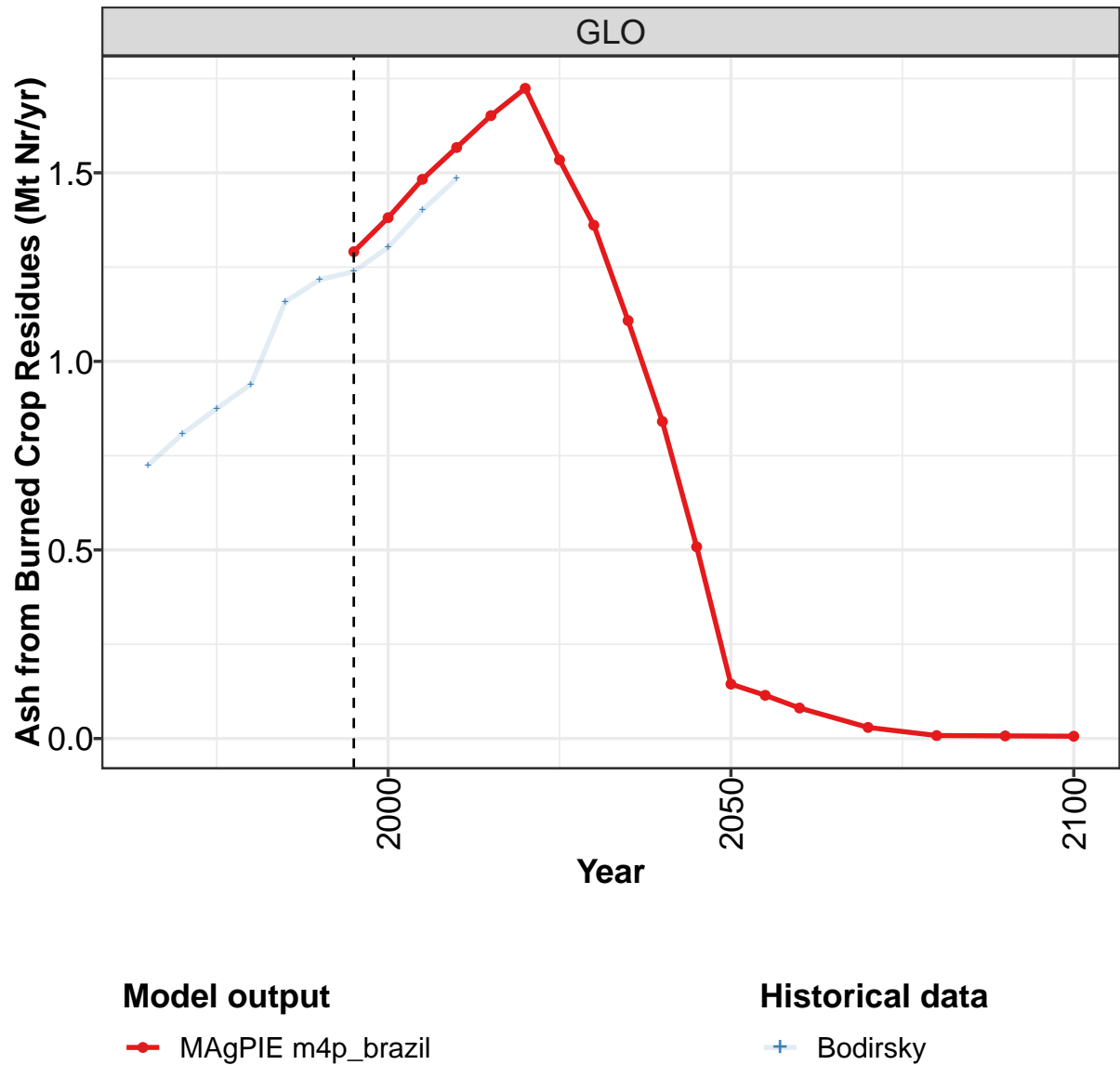
	2050	2055	2060	2070	2080	2090	2100
GLO	483	503	521	549	562	564	566
BRA	25	25	25	25	25	25	25
CHA	77	77	76	70	63	57	51
EUR	64	65	66	68	68	67	67
LAM	38	39	39	41	41	41	40
ROW	227	244	260	290	311	320	327
USA	53	54	55	55	55	54	55

Table 1696: MAgPIE m4p_brazil — 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
BRA	1	2	3	4	4	4	5	7	9	11
CHA	7	10	12	20	23	29	34	34	42	47
EUR	16	21	25	29	34	31	28	29	29	29
LAM	3	4	5	6	9	9	8	10	12	14
ROW	30	40	45	54	69	75	70	73	80	90
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



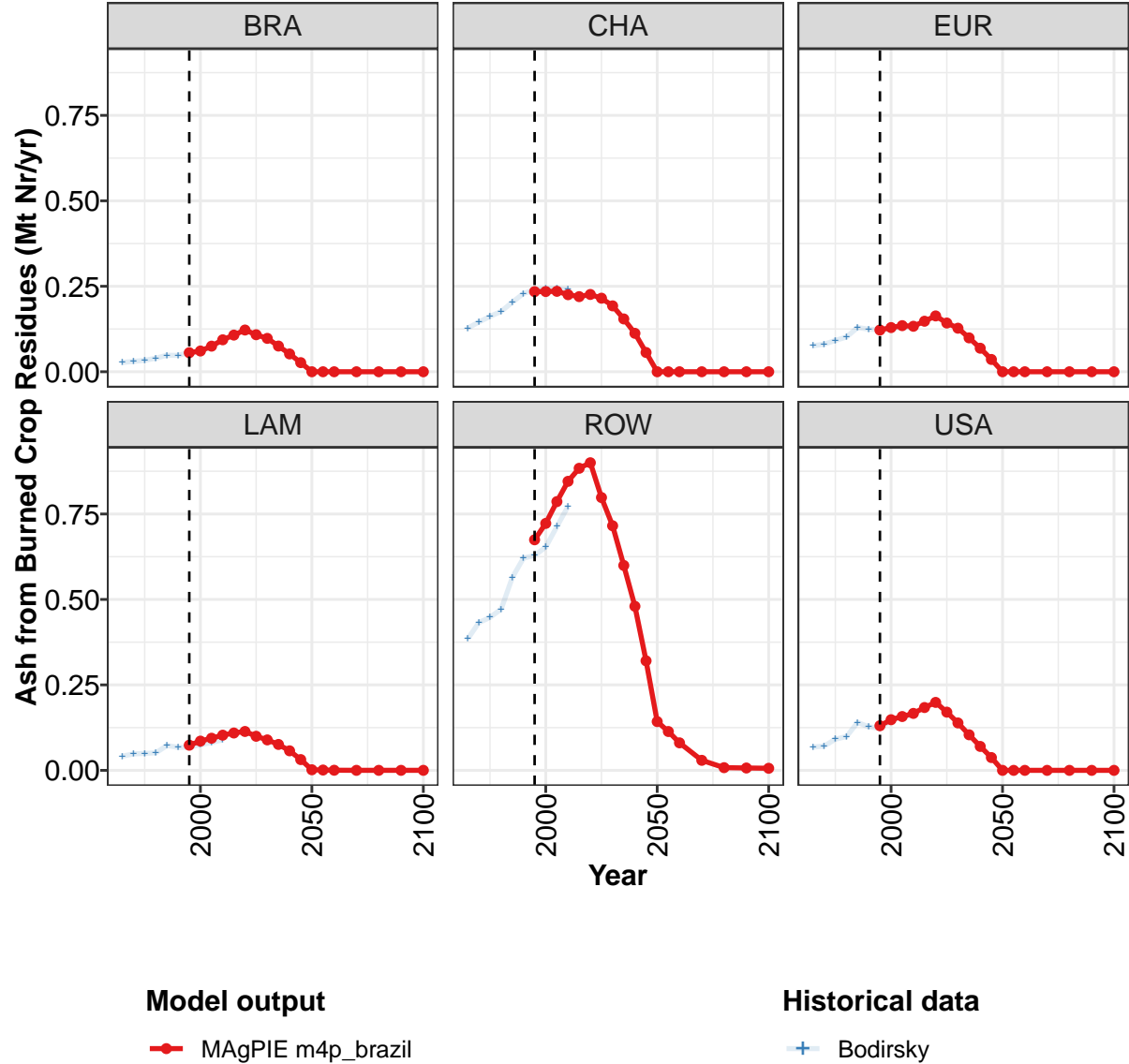


Figure 446: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Ash from Burned Crop Residues (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.29	1.38	1.48	1.57	1.65	1.72	1.53	1.36	1.11	0.84	0.51
BRA	0.06	0.06	0.07	0.09	0.11	0.12	0.11	0.10	0.08	0.05	0.03
CHA	0.23	0.23	0.24	0.23	0.22	0.23	0.22	0.19	0.15	0.11	0.06
EUR	0.12	0.13	0.13	0.13	0.15	0.16	0.14	0.13	0.10	0.07	0.04
LAM	0.07	0.09	0.09	0.10	0.11	0.11	0.10	0.09	0.08	0.06	0.03
ROW	0.67	0.72	0.79	0.85	0.88	0.90	0.80	0.72	0.60	0.48	0.32
USA	0.13	0.15	0.16	0.17	0.18	0.20	0.17	0.14	0.10	0.07	0.04

Table 1698: MAgPIE m4p.brazil — Resources—Nitrogen—Cropland Budget—Inputs—Ash from Burned Crop Residues (Mt Nr/yr) [PART 1/2]

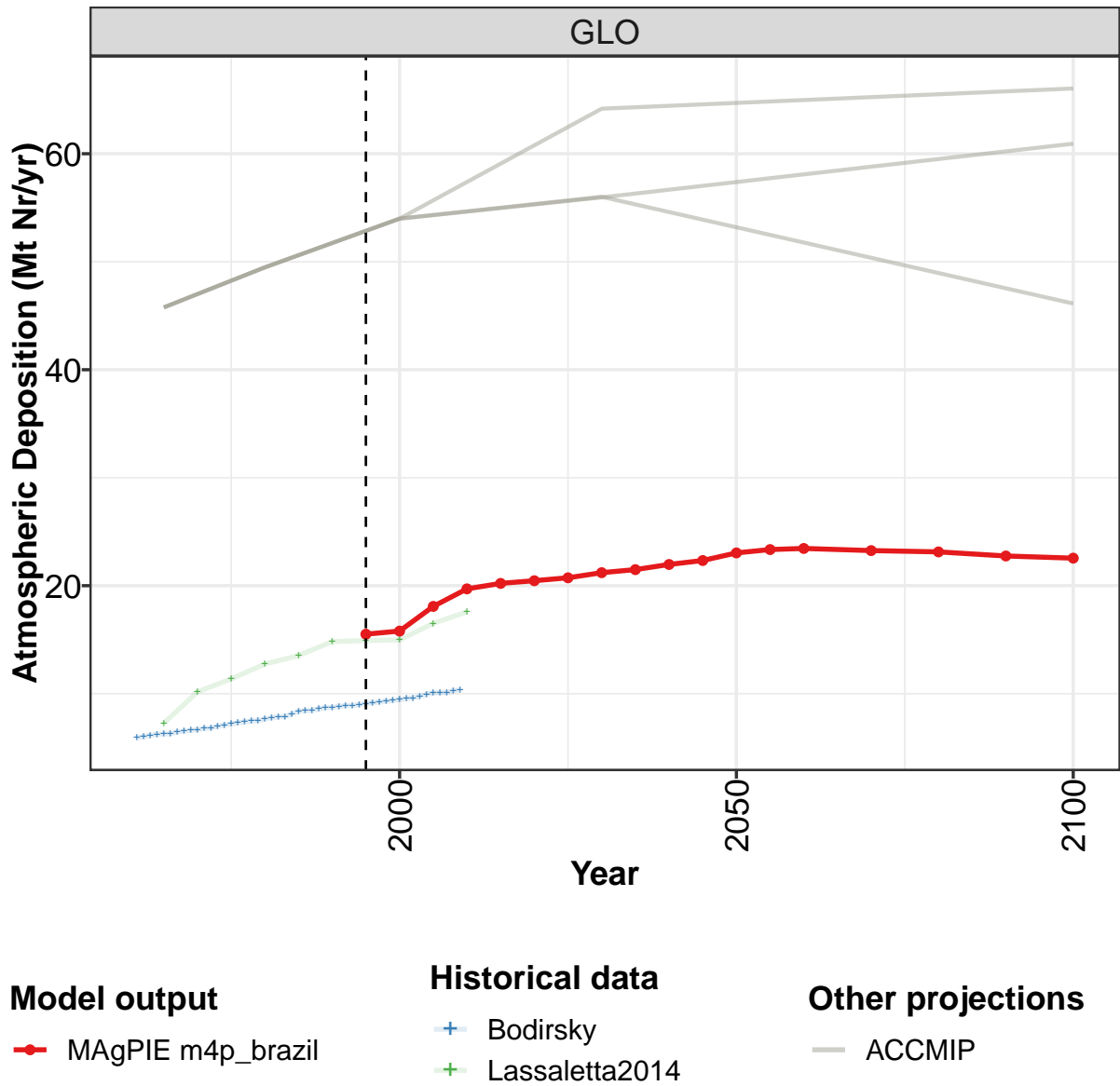
	2050	2055	2060	2070	2080	2090	2100
GLO	0.14	0.11	0.08	0.03	0.01	0.01	0.01
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.14	0.11	0.08	0.03	0.01	0.01	0.01
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1699: MAgPIE m4p.brazil — 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
BRA	0.03	0.03	0.03	0.04	0.05	0.05	0.06	0.06	0.07	0.09
CHA	0.13	0.15	0.16	0.18	0.20	0.23	0.24	0.24	0.24	0.24
EUR	0.08	0.08	0.09	0.10	0.13	0.12	0.12	0.13	0.13	0.13
LAM	0.04	0.05	0.05	0.05	0.07	0.07	0.07	0.07	0.08	0.09
ROW	0.38	0.43	0.45	0.47	0.56	0.62	0.63	0.65	0.71	0.77
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



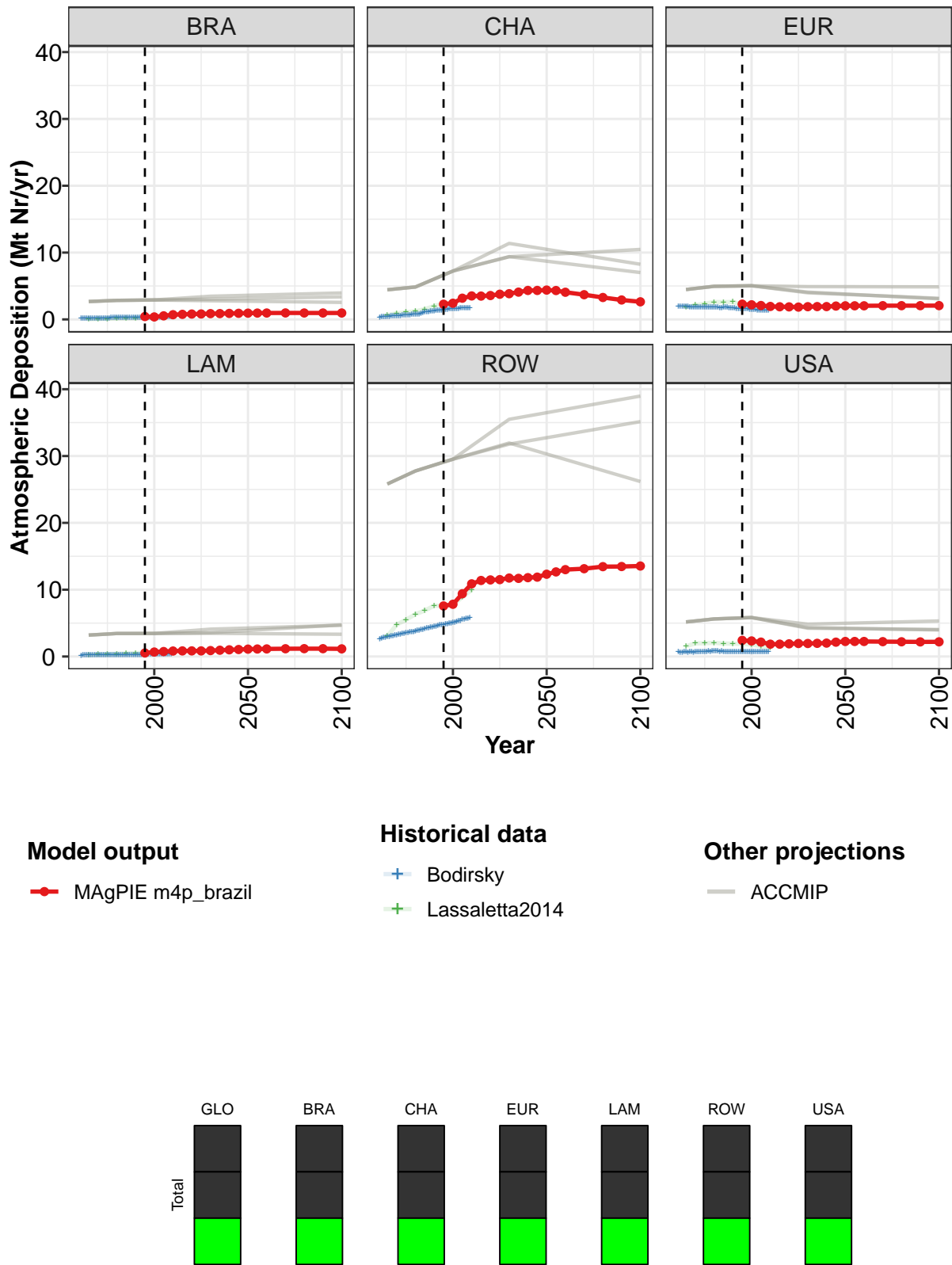


Figure 447: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Atmospheric Deposition (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	15.5	15.8	18.1	19.7	20.2	20.5	20.7	21.2	21.5	22.0	22.3
BRA	0.4	0.4	0.5	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9
CHA	2.3	2.4	3.2	3.5	3.5	3.6	3.8	3.8	4.1	4.3	4.3
EUR	2.3	2.2	2.1	1.9	1.9	1.9	1.8	1.9	1.9	1.9	2.0
LAM	0.5	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.0
ROW	7.6	7.8	9.4	10.9	11.4	11.5	11.5	11.7	11.7	11.8	11.9
USA	2.4	2.3	2.2	1.8	1.9	1.9	2.0	2.0	2.0	2.0	2.1

Table 1701: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Atmospheric Deposition (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	23.0	23.3	23.4	23.3	23.1	22.8	22.6
BRA	0.9	0.9	1.0	1.0	1.0	1.0	1.0
CHA	4.4	4.3	4.1	3.7	3.3	2.9	2.6
EUR	2.0	2.0	2.0	2.1	2.1	2.1	2.1
LAM	1.1	1.1	1.1	1.2	1.2	1.2	1.1
ROW	12.3	12.7	13.0	13.1	13.4	13.5	13.5
USA	2.3	2.3	2.3	2.2	2.2	2.2	2.2

Table 1702: MAgPIE m4p_brazil — 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
BRA	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
CHA	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6
EUR	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8
LAM	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
ROW	2.6	2.7	2.8	2.9	2.9	2.9	3.0	3.1	3.2	3.2	3.3
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
BRA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3
CHA	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.8
EUR	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
LAM	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3
ROW	3.3	3.4	3.5	3.5	3.6	3.6	3.7	3.7	3.8	3.9	3.9
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
BRA	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
CHA	0.9	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.4	1.4
EUR	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6
LAM	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
ROW	4.0	4.0	4.2	4.2	4.3	4.4	4.4	4.5	4.5	4.6	4.7
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
BRA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
CHA	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.7
EUR	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.4
LAM	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
ROW	4.7	4.8	4.9	4.9	4.9	5.0	5.1	5.1	5.2	5.3	5.4
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]

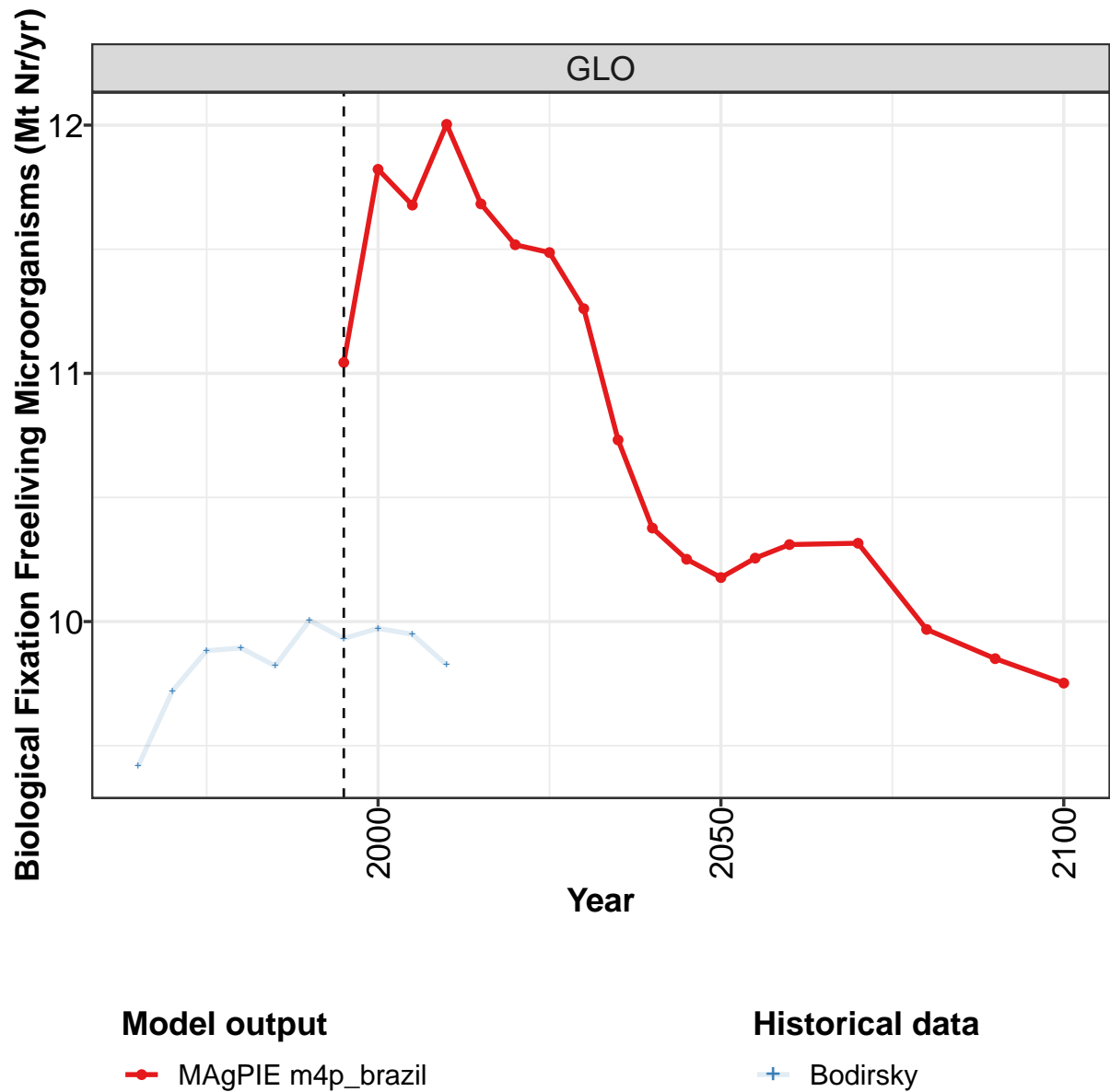
	2005	2006	2007	2008	2009
GLO	10.1	10.1	10.1	10.3	10.4
BRA	0.4	0.4	0.4	0.4	0.4
CHA	1.7	1.8	1.7	1.7	1.7
EUR	1.4	1.4	1.3	1.4	1.3
LAM	0.3	0.4	0.4	0.4	0.4
ROW	5.5	5.6	5.6	5.7	5.8
USA	0.7	0.7	0.7	0.7	0.7

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
BRA	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5
CHA	0.6	0.9	1.1	1.2	1.5	2.0	2.4	2.5	3.1	3.4
EUR	1.8	2.1	2.4	2.6	2.6	2.6	2.2	2.1	1.9	1.8
LAM	0.2	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.7
ROW	3.0	4.8	5.5	6.3	6.9	7.6	7.6	7.7	8.9	10.0
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



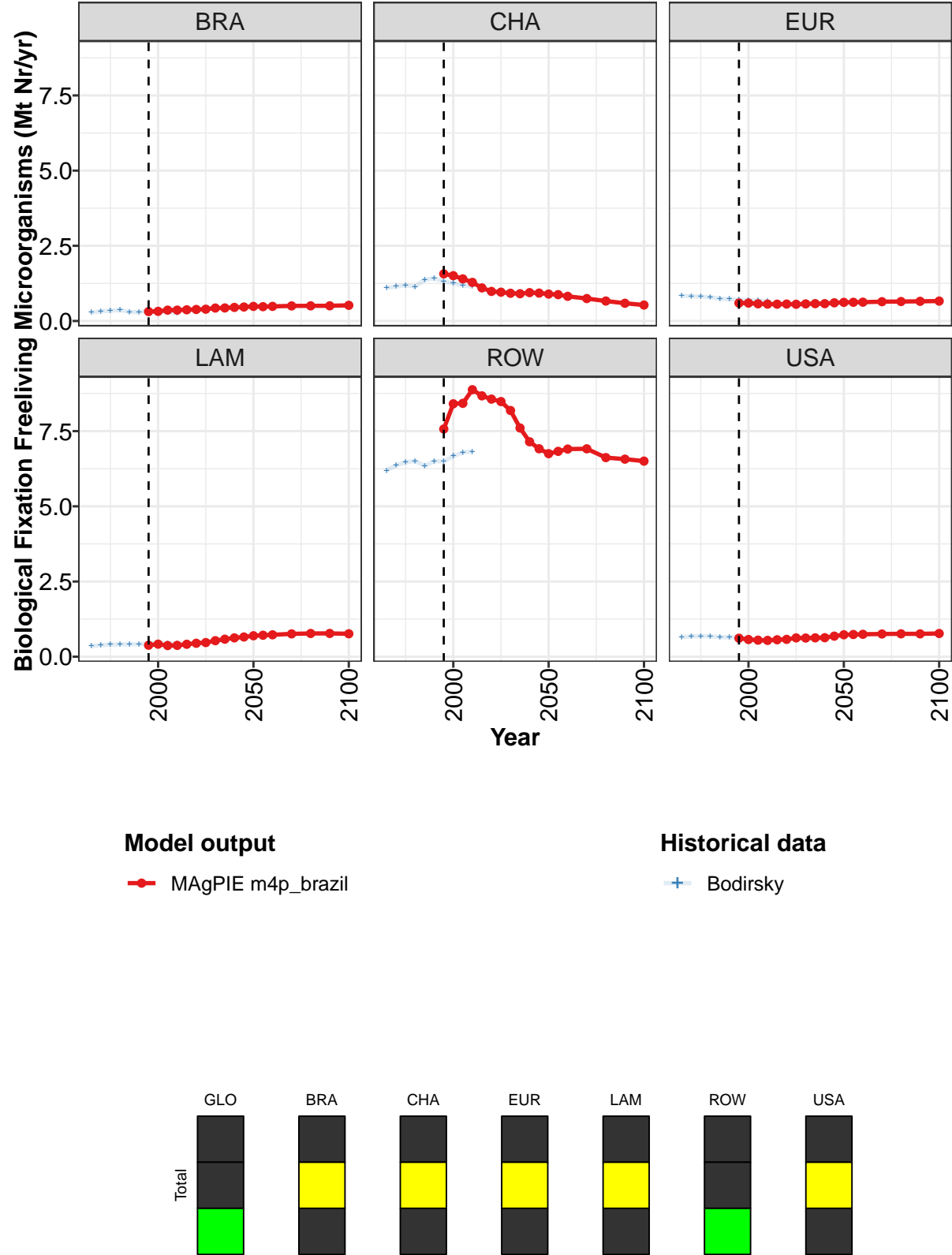


Figure 448: MAGPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Freelifving Microorganisms (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	11.0	11.8	11.7	12.0	11.7	11.5	11.5	11.3	10.7	10.4	10.3
BRA	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
CHA	1.6	1.5	1.4	1.3	1.1	1.0	1.0	0.9	0.9	0.9	0.9
EUR	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
LAM	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7
ROW	7.6	8.4	8.4	8.9	8.7	8.6	8.5	8.2	7.6	7.1	6.9
USA	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.7

Table 1709: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Freelifving Microorganisms (Mt Nr/yr) [PART 1/2]

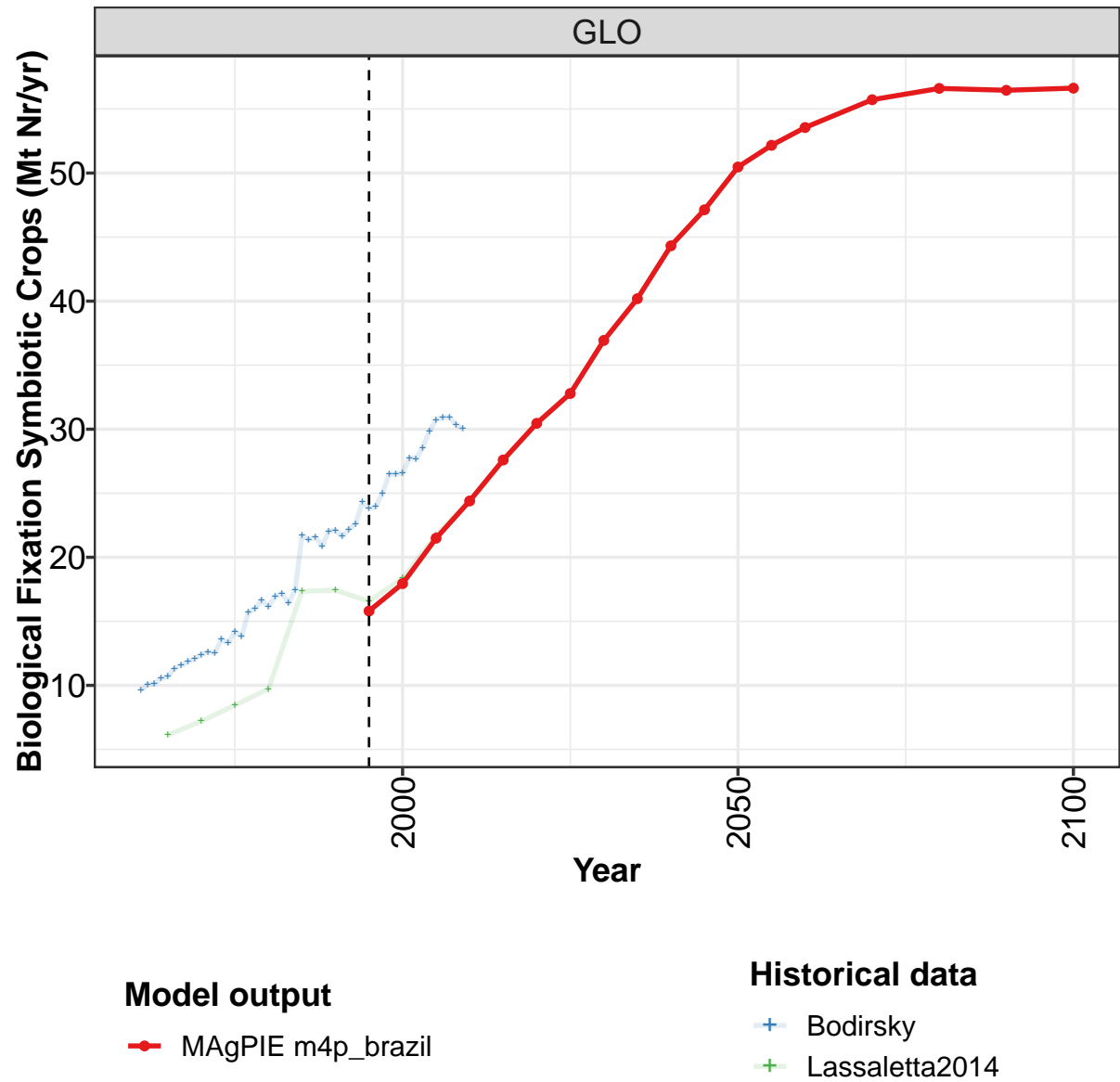
	2050	2055	2060	2070	2080	2090	2100
GLO	10.2	10.3	10.3	10.3	10.0	9.9	9.8
BRA	0.5	0.5	0.5	0.5	0.5	0.5	0.5
CHA	0.9	0.9	0.8	0.7	0.7	0.6	0.5
EUR	0.6	0.6	0.6	0.6	0.6	0.7	0.7
LAM	0.7	0.7	0.7	0.8	0.8	0.8	0.8
ROW	6.8	6.8	6.9	6.9	6.6	6.6	6.5
USA	0.7	0.7	0.7	0.8	0.8	0.8	0.8

Table 1710: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Freelifving 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
BRA	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	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	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7
LAM	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4
ROW	6.2	6.4	6.5	6.5	6.3	6.5	6.5	6.7	6.8	6.8
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



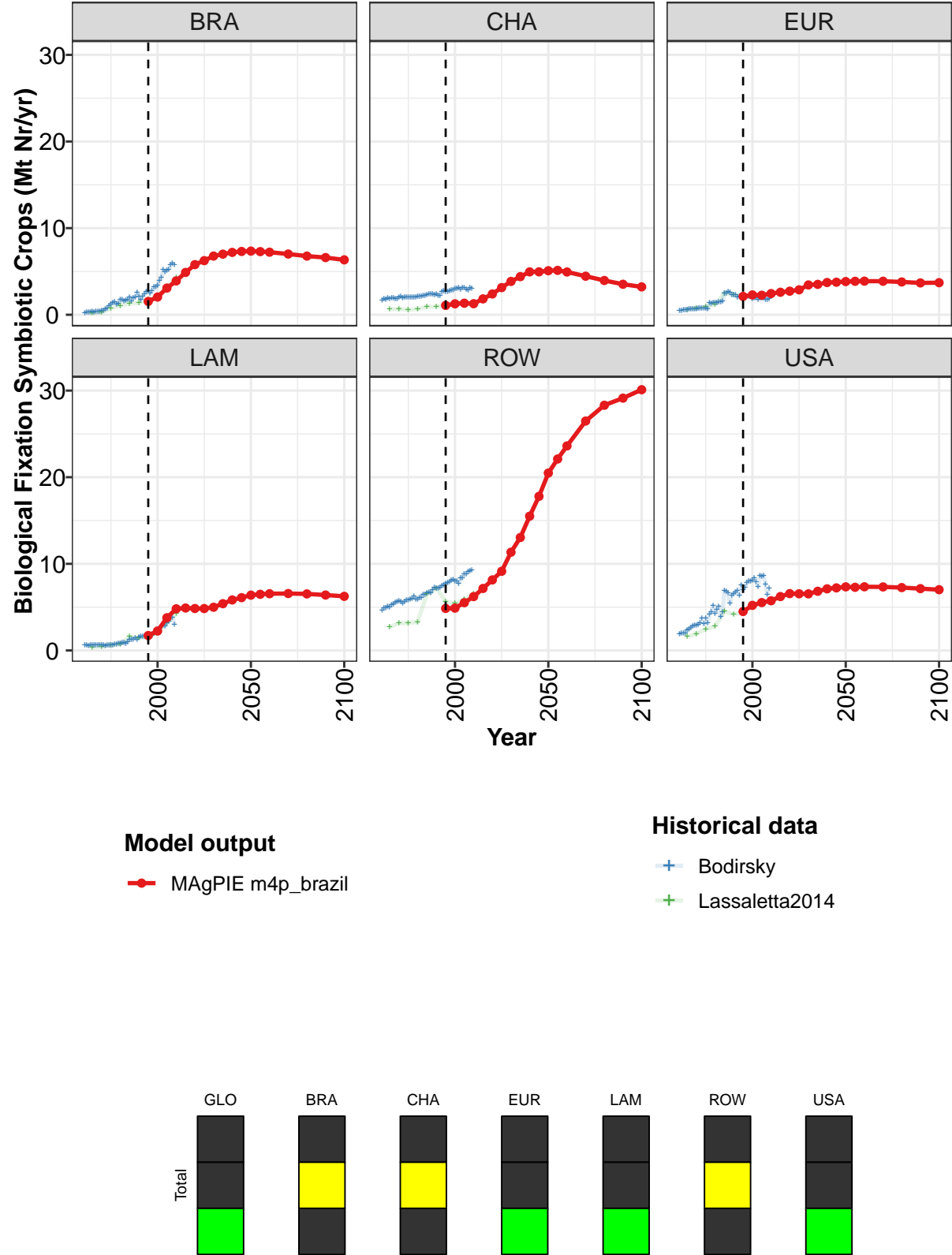


Figure 449: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Symbiotic Crops (Mt N/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	15.8	17.9	21.5	24.4	27.6	30.5	32.8	36.9	40.2	44.3	47.1
BRA	1.5	2.0	3.1	3.9	4.9	5.8	6.2	6.8	7.0	7.2	7.3
CHA	1.1	1.3	1.3	1.3	1.8	2.4	3.1	3.8	4.4	5.0	5.0
EUR	2.1	2.3	2.3	2.4	2.6	2.7	2.9	3.4	3.5	3.7	3.8
LAM	1.7	2.2	3.8	4.8	4.9	4.8	4.8	5.0	5.4	5.8	6.1
ROW	4.9	4.9	5.5	6.2	7.2	8.1	9.1	11.3	13.0	15.5	17.8
USA	4.5	5.2	5.5	5.7	6.2	6.6	6.5	6.5	6.8	7.1	7.2

Table 1712: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Biological Fixation Symbiotic Crops (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	50.5	52.2	53.6	55.7	56.6	56.5	56.6
BRA	7.3	7.3	7.2	7.0	6.8	6.6	6.3
CHA	5.1	5.1	4.9	4.4	4.0	3.5	3.2
EUR	3.8	3.9	3.9	3.9	3.8	3.7	3.7
LAM	6.4	6.5	6.6	6.6	6.5	6.4	6.2
ROW	20.5	22.1	23.6	26.5	28.3	29.1	30.1
USA	7.3	7.3	7.4	7.3	7.3	7.1	7.0

Table 1713: MAgPIE m4p_brazil — 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
BRA	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5
CHA	1.7	1.8	1.8	2.0	1.9	1.9	1.9	1.9	1.8	2.0	2.1
EUR	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7
LAM	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6
ROW	4.6	4.9	4.9	5.1	5.0	5.3	5.3	5.5	5.6	5.7	5.7
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
BRA	0.6	0.8	1.0	1.2	1.4	1.5	1.2	1.3	1.8	1.7	1.6
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	0.8	0.8	0.7	1.3	1.3	1.4	1.4	1.4	1.5
LAM	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.8	0.8	0.9	0.8
ROW	5.5	5.7	5.8	5.8	5.9	6.0	6.2	5.9	5.9	6.1	6.1
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
BRA	1.7	1.8	2.0	1.6	2.0	2.1	2.6	2.2	1.7	2.1	2.4
CHA	2.2	2.2	2.3	2.4	2.4	2.4	2.3	2.4	2.2	2.2	2.6
EUR	1.4	1.6	2.5	2.5	2.6	2.6	2.3	2.3	2.3	2.0	2.1
LAM	0.8	0.9	1.3	1.3	1.3	1.4	1.3	1.5	1.6	1.6	1.7
ROW	6.4	6.5	6.6	6.7	6.7	7.0	7.2	7.2	7.2	7.3	7.4
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
BRA	2.7	2.7	2.5	2.8	3.2	3.2	3.4	3.9	4.3	5.2	5.0
CHA	2.8	2.7	2.7	2.7	2.9	2.9	3.0	3.0	3.1	2.9	3.1
EUR	2.0	2.0	2.0	2.1	2.1	2.1	1.9	1.9	1.9	1.8	1.9
LAM	1.7	1.7	1.8	1.7	2.1	2.1	2.2	2.5	2.7	3.0	2.8
ROW	7.5	7.7	7.8	7.9	8.1	8.2	8.0	8.0	7.7	8.3	8.4
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]

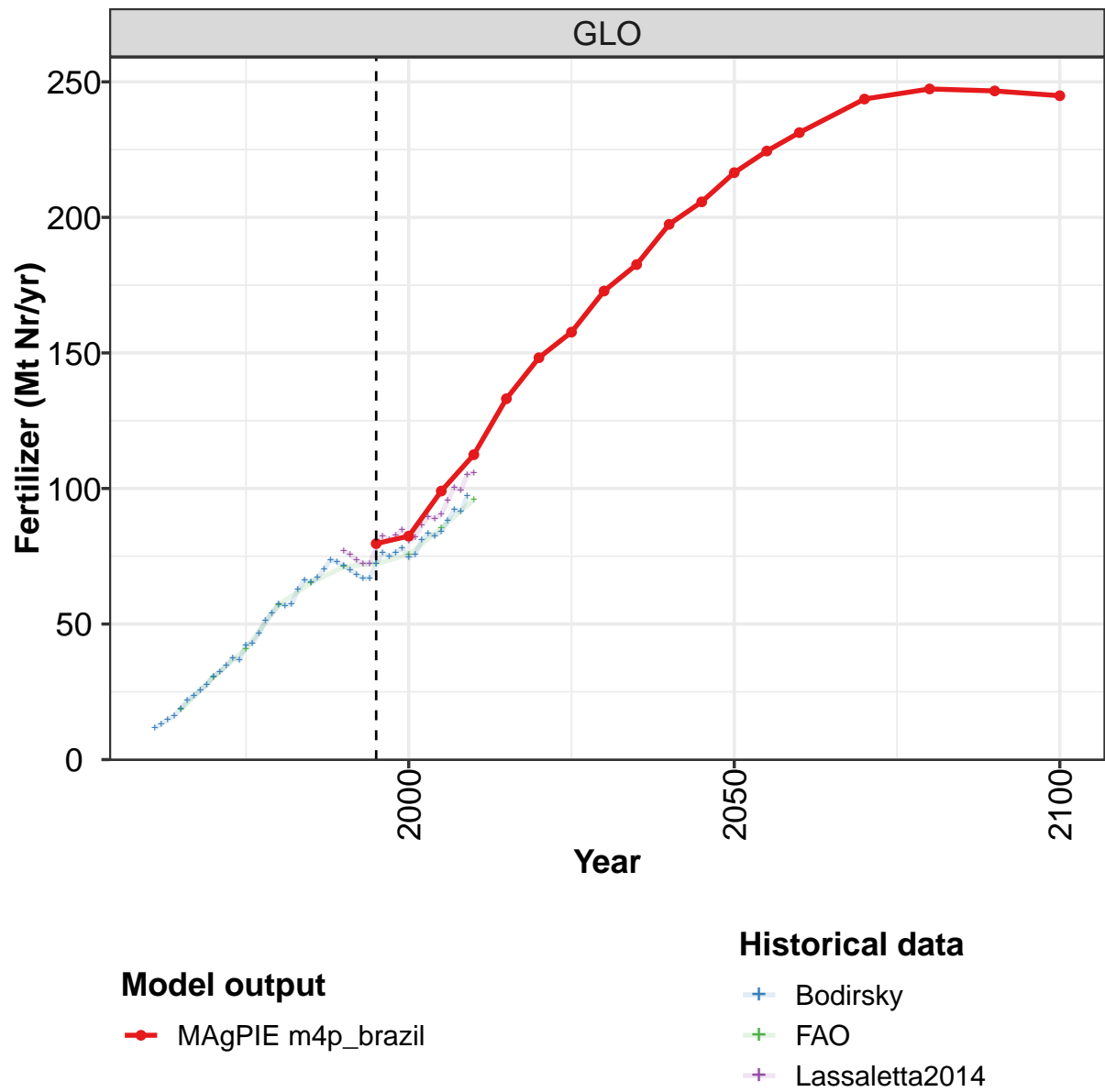
	2005	2006	2007	2008	2009
GLO	30.7	30.9	30.9	30.3	30.0
BRA	5.1	5.2	5.8	6.0	5.8
CHA	3.1	2.9	2.8	3.1	3.1
EUR	1.9	1.9	1.8	1.8	1.8
LAM	3.2	3.3	3.8	3.8	3.0
ROW	8.8	8.8	9.1	9.2	9.2
USA	8.6	8.6	7.6	6.5	7.2

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
BRA	0.2	0.3	0.7	1.1	1.3	1.4	1.7	2.1	3.2	4.3
CHA	0.6	0.7	0.6	0.7	0.9	0.9	1.1	1.3	1.4	1.3
EUR	0.6	0.8	0.9	1.2	2.5	2.3	2.2	2.3	2.3	2.4
LAM	0.4	0.5	0.6	0.7	1.6	1.5	1.5	2.1	3.2	4.3
ROW	2.7	3.1	3.2	3.3	6.5	7.2	5.7	5.4	5.9	6.6
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



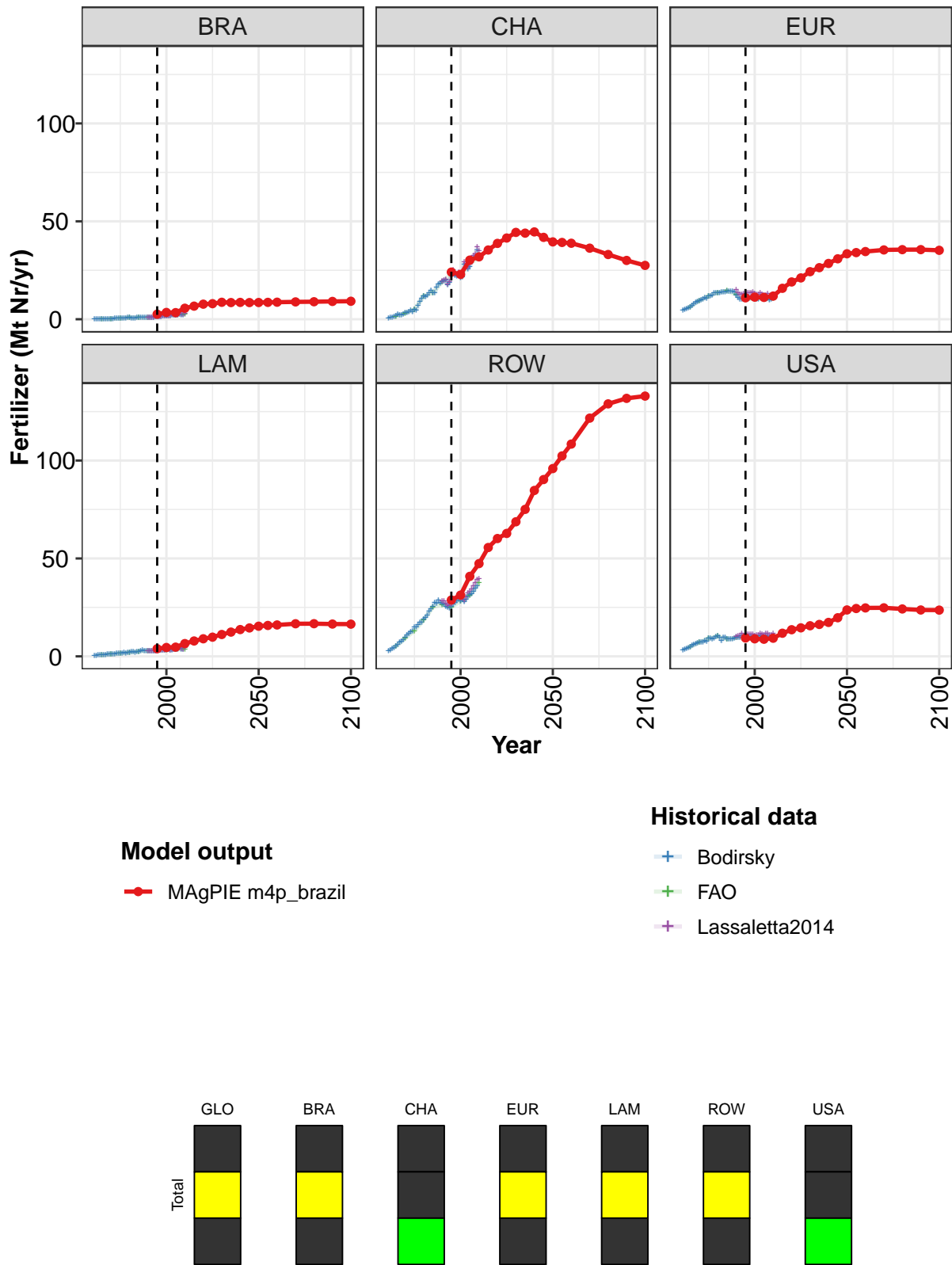


Figure 450: MAGPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Fertilizer (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	80	82	99	112	133	148	158	173	183	197	206
BRA	3	3	3	6	7	8	8	9	9	9	9
CHA	24	23	30	32	35	39	41	44	44	45	42
EUR	11	11	11	12	16	19	21	24	26	29	31
LAM	4	5	5	7	8	9	10	11	12	14	15
ROW	29	31	41	47	56	60	63	69	75	85	90
USA	9	9	9	9	12	14	15	16	16	17	20

Table 1720: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Fertilizer (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	216	224	231	244	247	247	245
BRA	9	9	9	9	9	9	9
CHA	40	39	39	36	33	30	27
EUR	33	34	35	35	36	36	35
LAM	15	16	16	17	17	16	16
ROW	96	102	108	122	129	132	133
USA	24	24	25	25	24	24	24

Table 1721: MAgPIE m4p_brazil — 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
BRA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3
CHA	0.5	0.8	1.0	1.2	1.8	2.7	1.9	2.1	2.6	3.3	3.3
EUR	4.7	4.9	5.3	5.8	6.3	7.0	7.7	8.4	8.8	9.3	9.9
LAM	0.4	0.4	0.6	0.6	0.7	0.7	0.8	0.9	1.0	1.0	1.1
ROW	2.9	3.3	3.8	4.4	5.1	5.9	7.0	7.7	8.4	9.5	10.7
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
BRA	0.4	0.3	0.4	0.4	0.5	0.7	0.7	0.8	0.9	0.7	0.6
CHA	3.8	4.4	3.8	5.0	4.7	7.0	9.1	10.5	11.9	11.3	12.0
EUR	10.3	10.9	10.7	11.6	12.0	12.3	13.3	13.6	13.4	13.4	13.7
LAM	1.2	1.3	1.4	1.5	1.7	1.8	1.7	1.9	1.9	2.2	2.2
ROW	11.7	12.6	12.9	14.7	14.8	16.1	17.2	17.5	18.9	19.9	20.9
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
BRA	0.6	0.8	0.8	1.0	1.0	0.8	0.8	0.8	0.8	0.8	1.1
CHA	13.4	14.8	13.5	13.2	16.4	18.0	18.3	19.0	19.4	19.7	17.4
EUR	14.0	14.0	14.1	14.2	14.2	14.3	14.0	12.4	10.9	10.0	10.3
LAM	2.1	2.4	2.5	2.8	3.0	2.9	2.9	2.8	2.6	2.6	2.6
ROW	23.1	24.3	25.5	27.3	26.9	28.6	27.5	26.9	26.7	25.5	25.0
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
BRA	1.2	1.1	1.3	1.4	1.5	1.6	1.6	1.6	1.8	2.3	2.2
CHA	18.5	23.0	24.4	22.2	22.1	23.3	21.3	21.6	28.0	27.3	25.5
EUR	10.2	10.1	10.9	10.7	10.8	10.9	10.5	10.3	10.4	11.0	10.7
LAM	2.6	2.7	3.1	3.2	3.3	3.2	3.4	3.5	3.0	3.3	3.5
ROW	24.5	25.2	26.4	27.2	28.3	29.0	28.3	28.9	28.0	29.2	30.5
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
BRA	1.9	2.0	2.7	2.3	2.3
CHA	26.9	29.8	31.1	31.7	35.2
EUR	10.4	10.2	10.7	9.6	10.3
LAM	3.6	3.7	4.3	3.7	3.6
ROW	31.4	32.1	33.2	34.8	36.1
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
BRA	0.1	0.3	0.4	0.9	0.8	0.8	1.2	2.0	2.2	2.6
CHA	1.5	3.1	5.0	11.8	13.5	19.0	23.0	22.1	28.7	31.2
EUR	6.3	9.6	11.8	13.6	14.5	12.6	10.1	10.5	10.3	10.5
LAM	0.7	1.1	1.5	1.9	2.5	2.9	2.7	3.4	3.4	3.7
ROW	5.1	9.2	13.0	18.5	25.2	26.4	25.2	28.2	31.1	37.4
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)

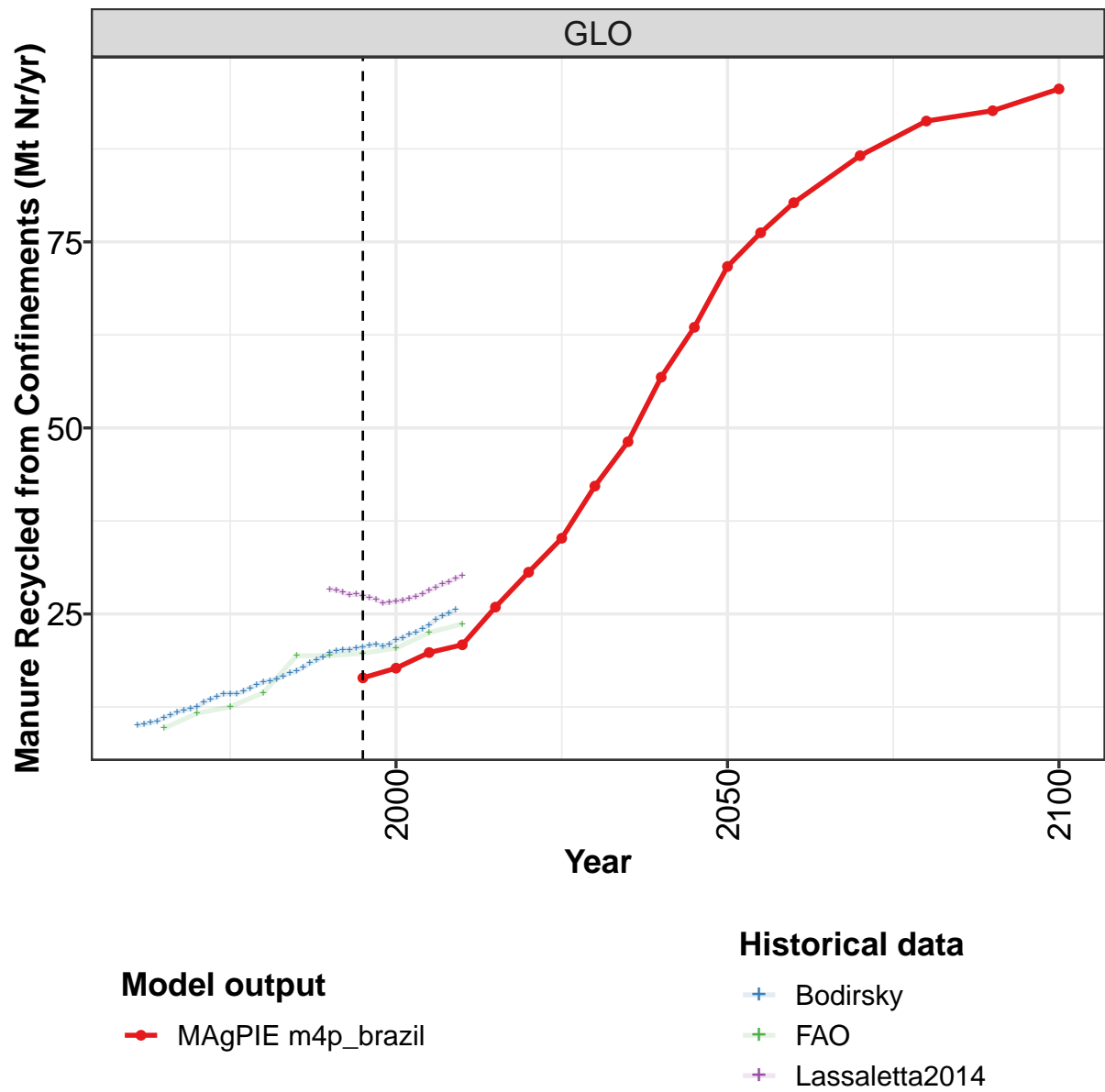
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	77	76	74	72	72	78	82	81	83	85	81
BRA	1	1	1	1	1	1	1	1	2	2	2
CHA	20	20	20	18	19	24	25	23	23	24	22
EUR	15	14	13	13	13	13	14	13	14	14	13
LAM	3	3	3	3	3	3	3	3	3	3	3
ROW	28	28	27	26	26	27	28	29	30	31	30
USA	10	10	10	11	11	11	11	11	11	11	10

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
BRA	2	2	2	2	2	2	3	2	2	3
CHA	22	29	28	27	28	31	33	33	37	35
EUR	13	13	13	13	12	12	13	12	12	12
LAM	4	3	3	4	4	4	4	4	4	5
ROW	31	29	30	32	33	34	36	37	39	40
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



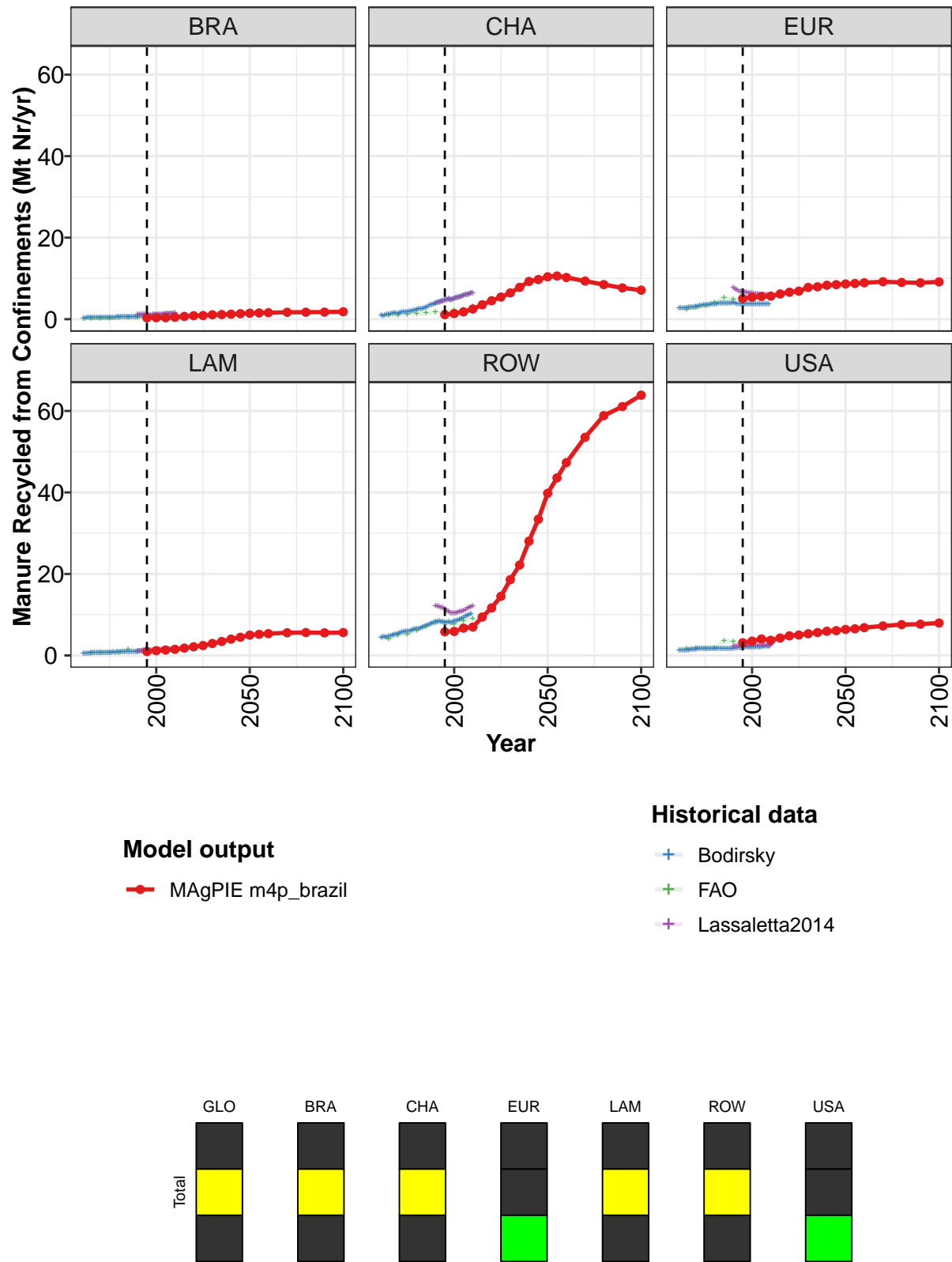


Figure 451: MAGPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Manure Recycled from Confinements (Mt N_r/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	16.4	17.7	19.8	20.9	25.9	30.6	35.2	42.2	48.1	56.8	63.5
BRA	0.3	0.4	0.4	0.5	0.7	0.9	0.9	1.1	1.1	1.2	1.3
CHA	1.1	1.4	1.8	2.5	3.5	4.5	5.4	6.4	7.8	9.3	9.7
EUR	5.0	5.4	5.6	5.7	6.2	6.6	6.9	7.8	7.9	8.3	8.5
LAM	1.0	1.2	1.3	1.5	1.8	2.1	2.4	2.9	3.4	4.0	4.5
ROW	5.8	5.9	6.7	7.0	9.4	11.7	14.5	18.6	22.2	28.0	33.4
USA	3.1	3.5	4.1	3.7	4.3	4.8	5.0	5.3	5.6	5.9	6.1

Table 1730: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Manure Recycled from Confinements (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	71.7	76.2	80.3	86.6	91.2	92.6	95.6
BRA	1.5	1.5	1.6	1.7	1.7	1.7	1.8
CHA	10.4	10.6	10.2	9.4	8.5	7.7	7.1
EUR	8.6	8.8	8.9	9.2	9.0	8.9	9.1
LAM	5.0	5.2	5.4	5.6	5.6	5.6	5.6
ROW	39.8	43.6	47.3	53.5	58.9	61.1	63.9
USA	6.4	6.6	6.8	7.2	7.6	7.7	8.0

Table 1731: MAgPIE m4p_brazil — 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
BRA	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
CHA	0.9	0.9	1.0	1.1	1.2	1.3	1.5	1.5	1.5	1.4	1.6
EUR	2.7	2.7	2.7	2.7	2.8	2.8	2.9	3.0	3.0	3.0	3.1
LAM	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
ROW	4.4	4.5	4.5	4.5	4.7	4.9	5.0	5.1	5.2	5.4	5.6
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
BRA	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	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	3.2	3.4	3.5	3.5	3.5	3.6	3.7	3.7	3.8	3.8	3.8
LAM	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9
ROW	5.7	5.8	6.0	6.0	6.0	6.2	6.3	6.5	6.5	6.6	6.8
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
BRA	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.8
CHA	2.6	2.7	2.9	3.0	3.4	3.6	3.8	3.9	4.2	4.3	4.5
EUR	3.8	3.9	3.9	3.9	3.9	3.9	4.0	4.0	3.9	3.8	3.7
LAM	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.1
ROW	7.0	7.2	7.4	7.6	7.7	7.9	8.1	8.3	8.3	8.4	8.3
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
BRA	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.1	1.1
CHA	4.6	4.7	4.9	5.0	4.8	4.8	5.2	5.3	5.4	5.4	5.6
EUR	3.6	3.7	3.7	3.7	3.7	3.8	3.7	3.7	3.7	3.7	3.7
LAM	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3
ROW	8.3	8.2	8.2	8.2	8.1	8.2	8.5	8.5	8.8	8.9	9.1
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
BRA	1.1	1.2	1.2	1.3	1.3
CHA	5.7	6.0	6.1	6.3	6.5
EUR	3.8	3.8	3.8	3.7	3.7
LAM	1.4	1.5	1.5	1.6	1.5
ROW	9.3	9.6	9.8	10.0	10.3
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
BRA	0.2	0.2	0.3	0.4	0.4	0.4	0.5	0.6	0.7	0.8
CHA	0.9	1.0	1.2	1.3	1.5	1.7	1.8	2.1	2.4	3.1
EUR	2.4	2.9	3.3	4.0	5.2	4.8	4.8	5.0	5.2	5.2
LAM	0.5	0.7	0.8	0.8	1.6	1.2	1.1	1.3	1.5	1.7
ROW	4.0	5.0	5.2	6.1	7.1	8.0	8.1	7.7	8.5	9.0
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)

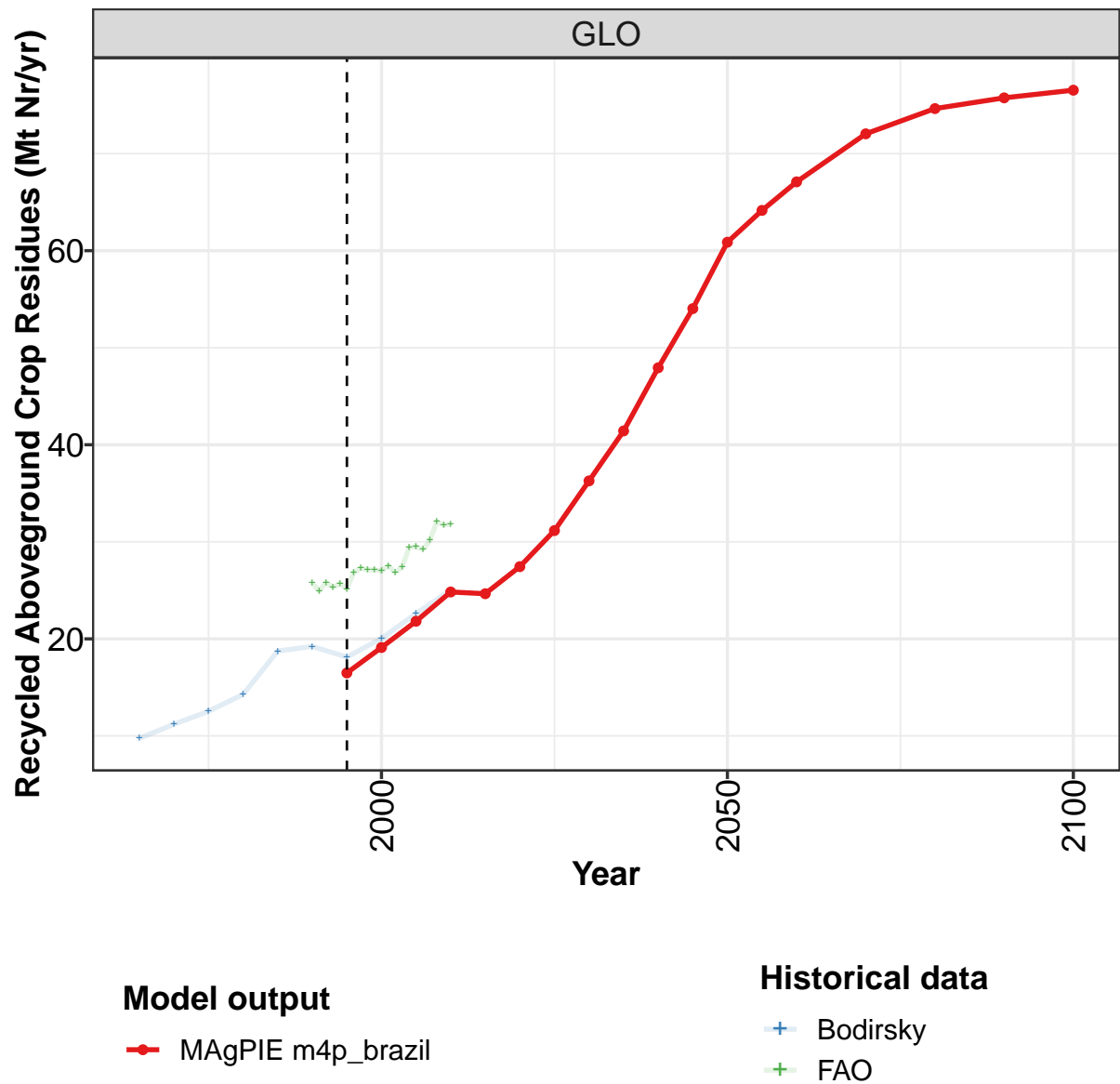
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	28.3	28.2	27.9	27.6	27.6	27.5	27.2	27.0	26.5	26.6	26.7
BRA	1.1	1.2	1.2	1.2	1.2	1.2	1.0	1.1	1.1	1.1	1.1
CHA	4.0	4.1	4.1	4.2	4.4	4.6	4.8	4.9	4.7	4.9	5.0
EUR	7.7	7.4	7.1	6.9	6.8	6.7	6.6	6.6	6.5	6.5	6.4
LAM	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4
ROW	12.2	12.2	12.0	11.8	11.7	11.3	11.1	10.8	10.4	10.3	10.4
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
BRA	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.5	1.5
CHA	5.2	5.3	5.4	5.6	5.8	6.0	6.1	6.2	6.3	6.5
EUR	6.2	6.1	6.1	6.1	6.0	6.0	6.0	6.0	5.9	5.8
LAM	1.5	1.5	1.5	1.5	1.6	1.6	1.5	1.5	1.6	1.6
ROW	10.4	10.6	10.8	10.9	11.0	11.2	11.6	11.7	12.0	12.2
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



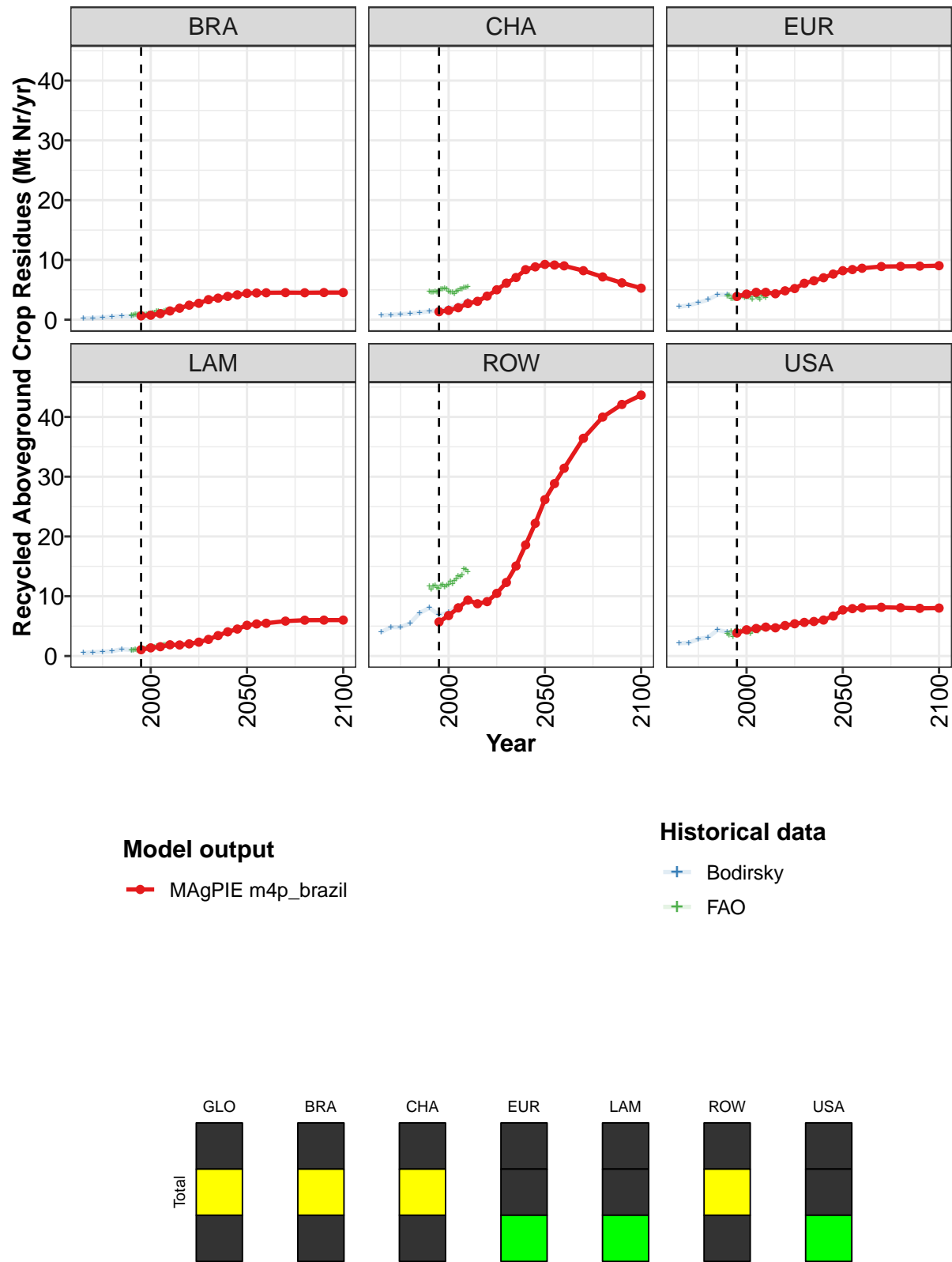


Figure 452: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Aboveground Crop Residues (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	16.5	19.1	21.8	24.8	24.7	27.4	31.2	36.3	41.4	47.9	54.0
BRA	0.6	0.7	1.0	1.5	1.9	2.4	2.7	3.4	3.6	3.9	4.2
CHA	1.3	1.6	2.0	2.7	3.1	3.9	5.0	6.1	7.1	8.4	8.8
EUR	3.9	4.3	4.6	4.6	4.3	4.8	5.2	6.1	6.5	7.0	7.6
LAM	1.1	1.4	1.6	1.9	1.8	2.0	2.3	2.8	3.4	4.0	4.5
ROW	5.7	6.8	8.1	9.4	8.7	9.1	10.5	12.3	15.1	18.6	22.2
USA	3.9	4.4	4.6	4.8	4.7	5.1	5.4	5.6	5.8	6.0	6.7

Table 1740: MAgPIE m4p.brazil — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Aboveground Crop Residues (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	60.9	64.1	67.1	72.0	74.6	75.7	76.5
BRA	4.4	4.5	4.5	4.5	4.5	4.5	4.5
CHA	9.3	9.1	9.0	8.2	7.2	6.2	5.3
EUR	8.2	8.4	8.6	8.9	8.9	9.0	9.0
LAM	5.1	5.4	5.5	5.8	6.0	6.0	6.0
ROW	26.2	28.8	31.4	36.4	40.0	42.1	43.6
USA	7.7	7.9	8.1	8.2	8.1	8.0	8.0

Table 1741: MAgPIE m4p.brazil — 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
BRA	0.2	0.3	0.4	0.5	0.6	0.6	0.8	0.8	1.1	1.6
CHA	0.7	0.8	0.9	1.0	1.2	1.4	1.7	1.9	2.3	3.2
EUR	2.2	2.4	2.9	3.3	4.2	4.2	4.0	4.3	4.6	4.6
LAM	0.5	0.6	0.7	0.8	1.2	1.0	1.1	1.3	1.5	1.8
ROW	4.0	4.8	4.8	5.5	7.2	8.1	6.9	7.3	8.4	9.0
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)

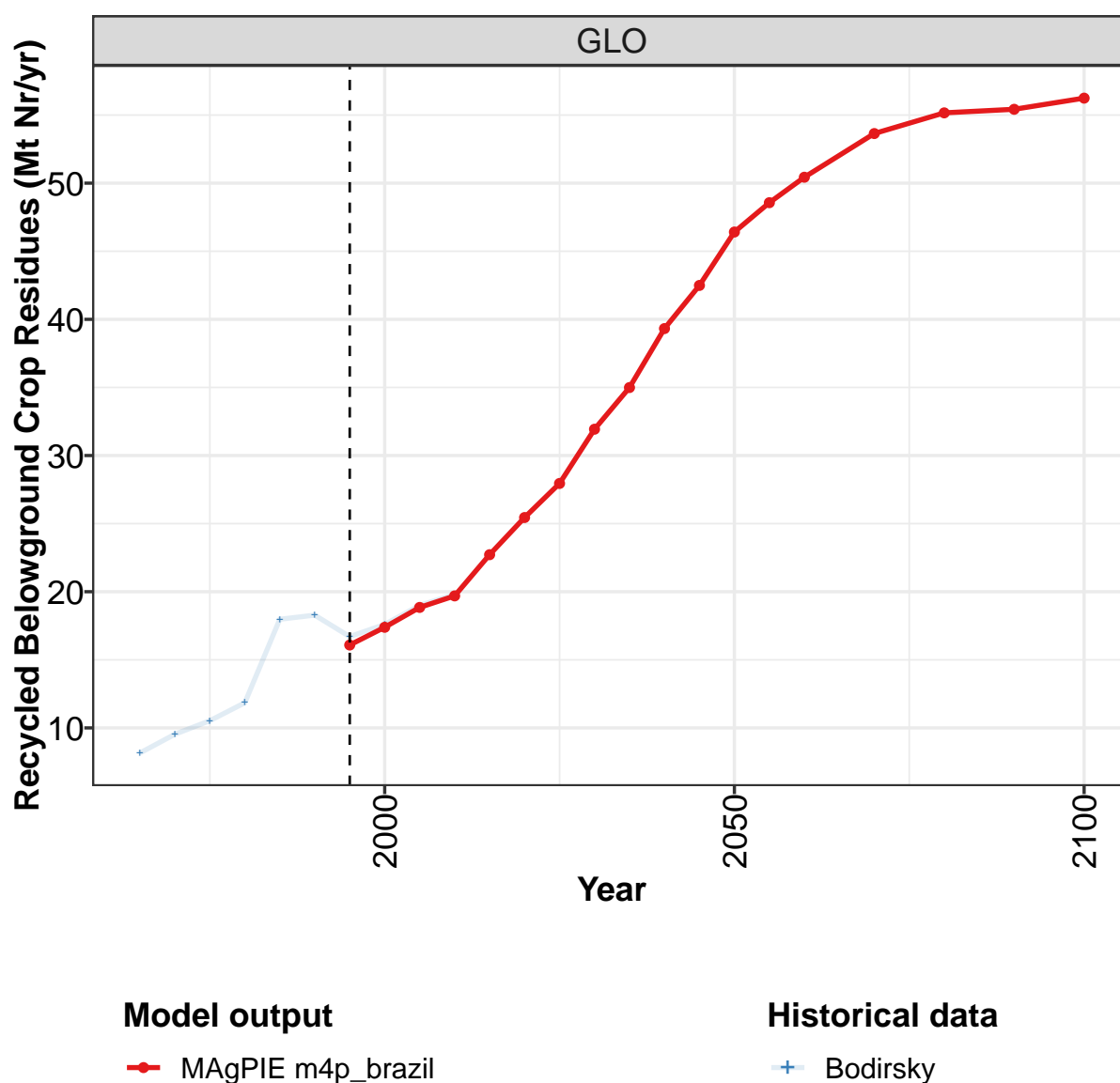
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GLO	25.8	24.9	25.8	25.3	25.7	25.2	26.8	27.3	27.1	27.1	27.0
BRA	0.8	0.7	0.8	0.8	0.9	0.9	0.8	0.9	0.9	1.0	1.0
CHA	4.7	4.6	4.7	4.8	4.6	4.8	5.1	5.2	5.2	5.2	4.7
EUR	3.9	4.0	3.5	3.6	3.5	3.6	3.8	3.9	4.0	3.7	3.8
LAM	1.0	1.0	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4
ROW	11.7	11.2	11.7	11.8	11.4	11.2	11.8	11.9	11.5	11.8	11.9
USA	3.8	3.4	4.1	3.3	4.2	3.5	4.0	4.1	4.3	4.1	4.2

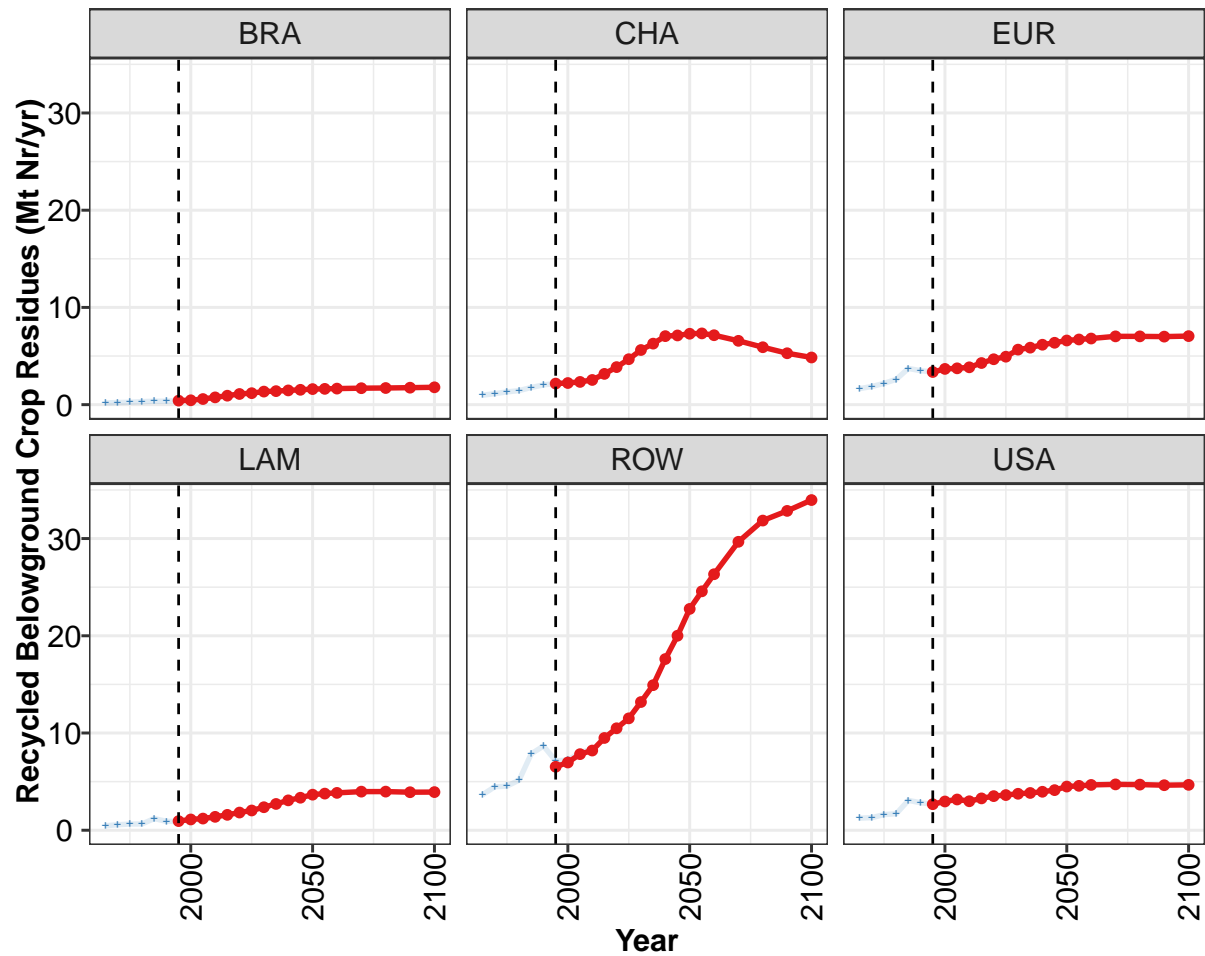
Table 1743: FAO — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Aboveground Crop Residues (Mt Nr/yr) [PART 1/2]

	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
BRA	1.1	1.1	1.4	1.4	1.3	1.3	1.5	1.6	1.5	1.6
CHA	4.6	4.6	4.4	4.7	4.9	5.1	5.1	5.3	5.4	5.5
EUR	3.8	3.8	3.4	4.2	3.8	3.6	3.5	4.1	3.9	3.7
LAM	1.5	1.5	1.6	1.6	1.6	1.7	1.9	1.9	1.6	2.1
ROW	12.5	12.0	12.6	12.9	13.4	13.3	13.6	14.5	14.5	14.1
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





Model output

—•— MAgPIE m4p_brazil

Historical data

+ Bodirsky

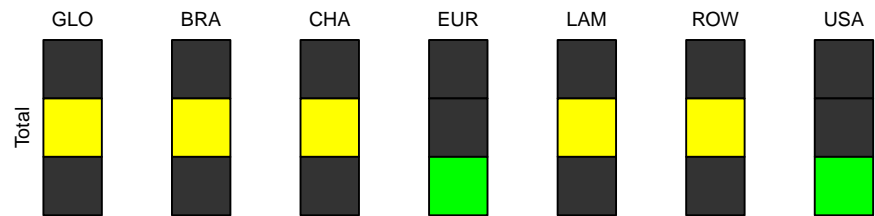


Figure 453: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Belowground Crop Residues (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	16.1	17.4	18.8	19.7	22.7	25.4	28.0	31.9	35.0	39.3	42.5
BRA	0.4	0.5	0.6	0.7	0.9	1.1	1.2	1.3	1.4	1.5	1.5
CHA	2.2	2.2	2.3	2.5	3.2	3.9	4.7	5.6	6.3	7.0	7.1
EUR	3.4	3.7	3.7	3.8	4.3	4.7	4.9	5.7	5.9	6.2	6.4
LAM	0.9	1.1	1.2	1.4	1.6	1.8	2.0	2.4	2.7	3.1	3.3
ROW	6.5	7.0	7.8	8.2	9.5	10.5	11.5	13.2	14.9	17.6	20.0
USA	2.7	3.0	3.2	3.0	3.3	3.5	3.6	3.8	3.8	4.0	4.1

Table 1745: MAgPIE m4p.brazil — Resources—Nitrogen—Cropland Budget—Inputs—Recycled Belowground Crop Residues (Mt Nr/yr) [PART 1/2]

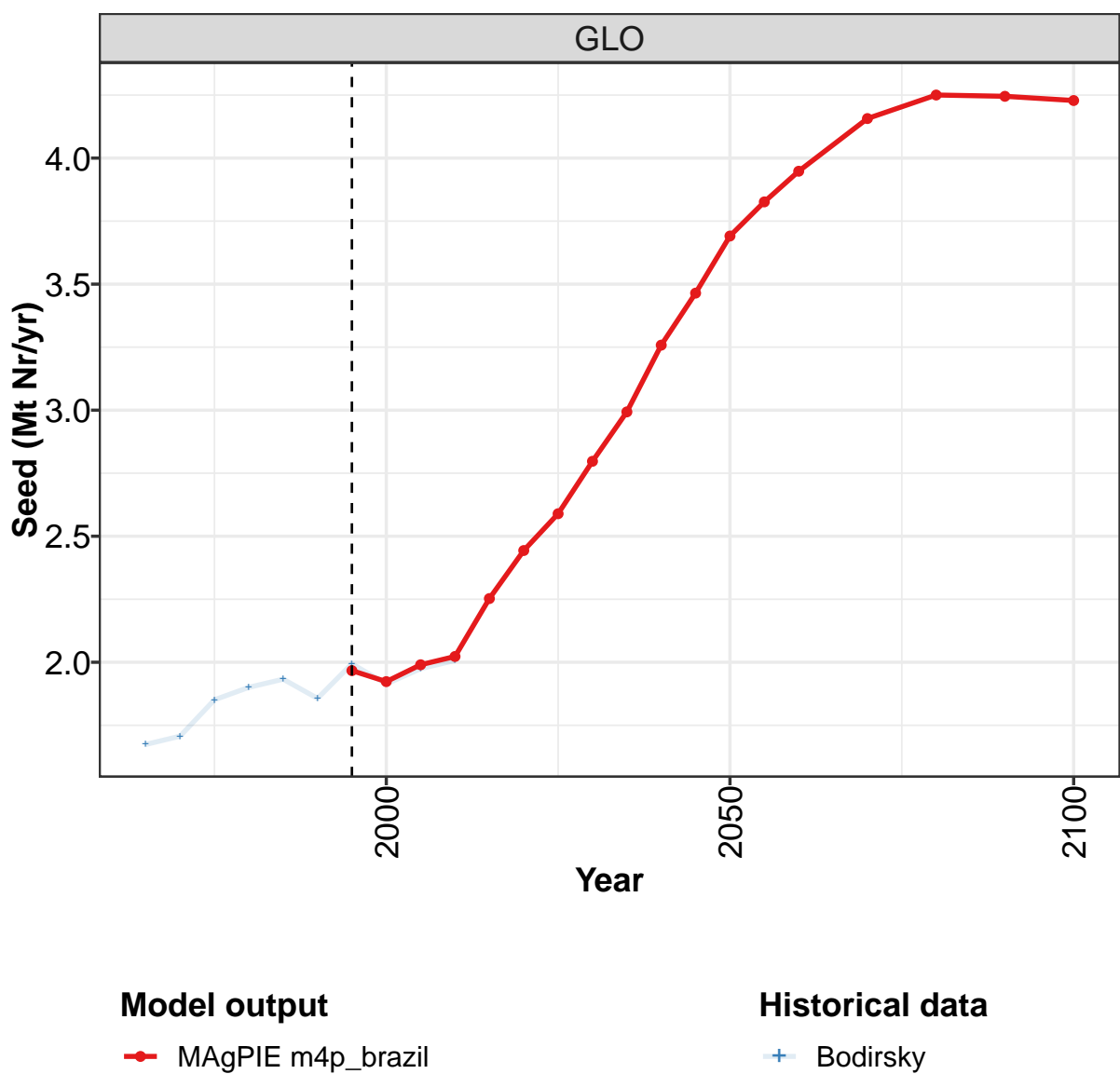
	2050	2055	2060	2070	2080	2090	2100
GLO	46.4	48.6	50.4	53.6	55.2	55.4	56.2
BRA	1.6	1.6	1.7	1.7	1.7	1.7	1.8
CHA	7.3	7.3	7.1	6.6	5.9	5.3	4.9
EUR	6.6	6.7	6.8	7.0	7.0	7.0	7.1
LAM	3.7	3.8	3.8	4.0	4.0	3.9	3.9
ROW	22.8	24.6	26.3	29.7	31.9	32.8	34.0
USA	4.5	4.6	4.7	4.7	4.7	4.6	4.7

Table 1746: MAgPIE m4p.brazil — 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
BRA	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.6	0.8
CHA	1.0	1.1	1.3	1.4	1.8	2.0	2.2	2.3	2.4	2.6
EUR	1.6	1.9	2.2	2.6	3.7	3.5	3.4	3.6	3.7	3.7
LAM	0.5	0.6	0.6	0.6	1.2	0.9	0.9	1.1	1.1	1.3
ROW	3.7	4.5	4.5	5.2	7.9	8.7	7.1	7.2	8.0	8.3
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



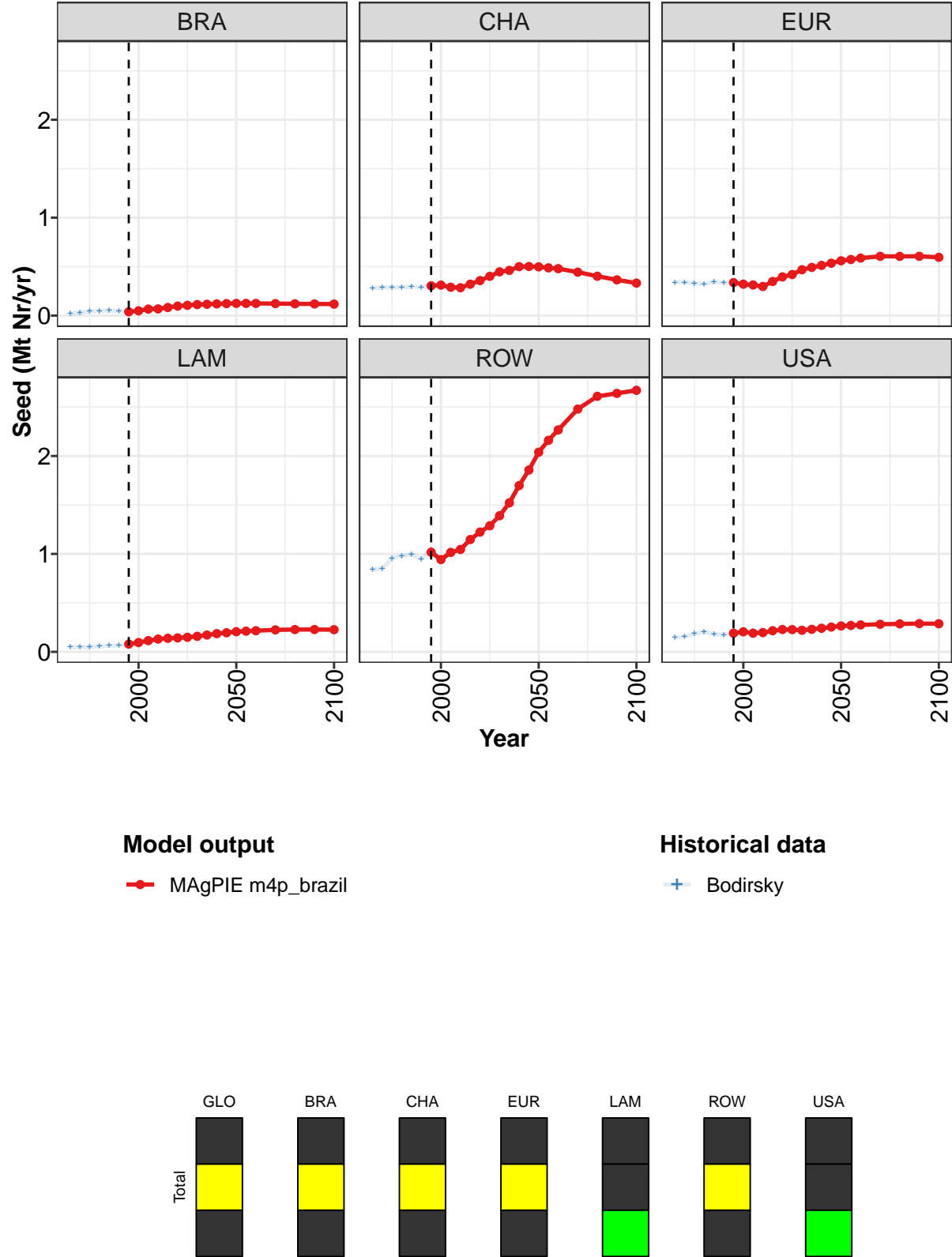


Figure 454: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Seed (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.97	1.92	1.99	2.02	2.25	2.44	2.59	2.80	2.99	3.26	3.46
BRA	0.04	0.05	0.07	0.07	0.08	0.10	0.10	0.11	0.12	0.12	0.12
CHA	0.30	0.31	0.29	0.28	0.32	0.36	0.40	0.45	0.46	0.50	0.50
EUR	0.34	0.32	0.31	0.30	0.35	0.40	0.42	0.47	0.49	0.51	0.54
LAM	0.08	0.10	0.11	0.13	0.14	0.14	0.15	0.16	0.17	0.19	0.20
ROW	1.02	0.94	1.02	1.05	1.15	1.22	1.29	1.39	1.52	1.70	1.86
USA	0.19	0.20	0.19	0.20	0.22	0.23	0.23	0.22	0.23	0.24	0.25

Table 1748: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Inputs—Seed (Mt Nr/yr) [PART 1/2]

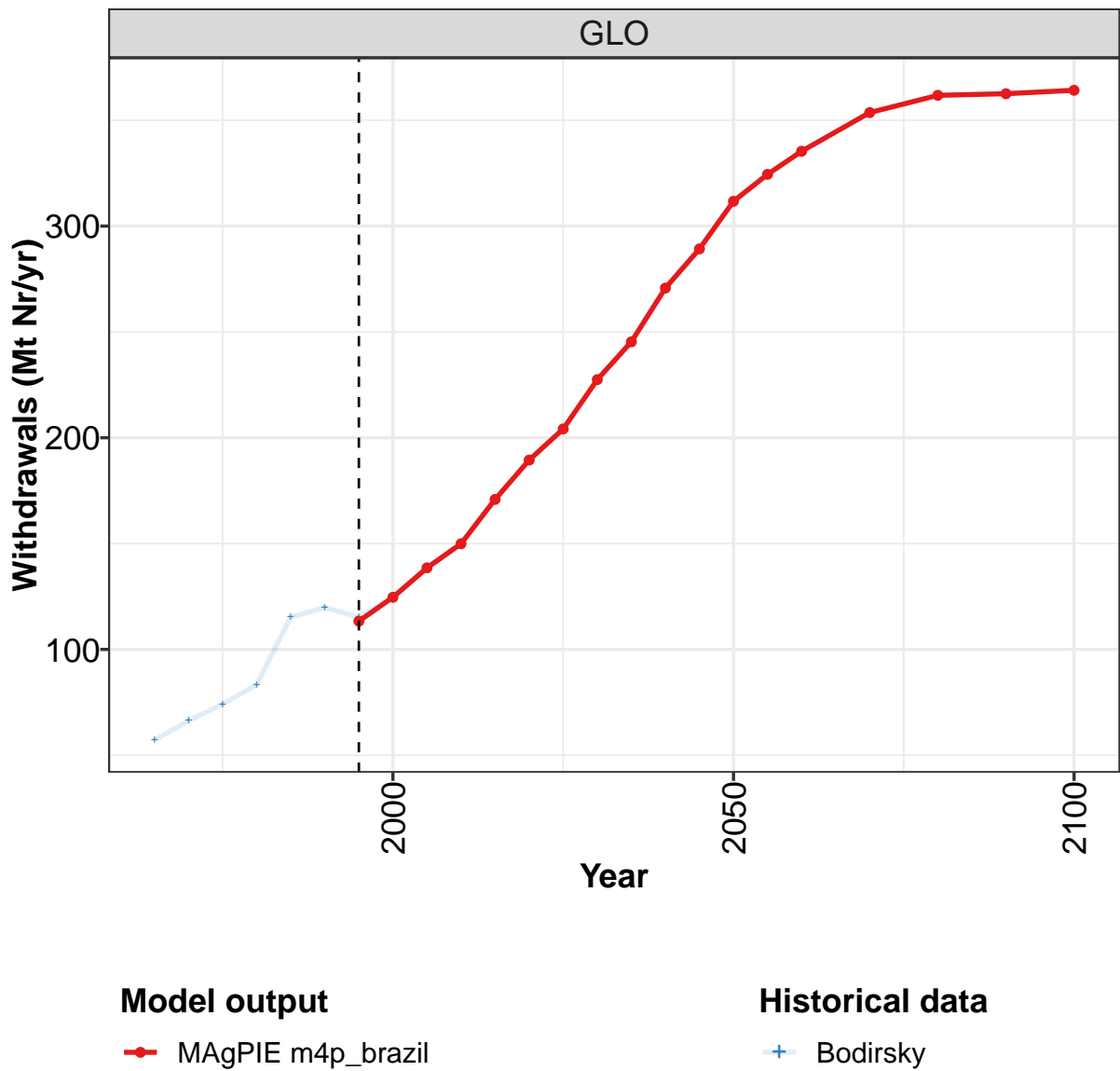
	2050	2055	2060	2070	2080	2090	2100
GLO	3.69	3.83	3.95	4.16	4.25	4.25	4.23
BRA	0.12	0.12	0.12	0.12	0.12	0.12	0.12
CHA	0.50	0.49	0.48	0.44	0.40	0.37	0.33
EUR	0.56	0.57	0.59	0.61	0.60	0.61	0.60
LAM	0.21	0.21	0.22	0.22	0.23	0.23	0.23
ROW	2.04	2.16	2.27	2.48	2.61	2.64	2.67
USA	0.26	0.27	0.27	0.28	0.29	0.29	0.29

Table 1749: MAgPIE m4p_brazil — 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
BRA	0.02	0.03	0.04	0.05	0.05	0.05	0.04	0.05	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	0.34	0.34	0.33	0.32	0.34	0.33	0.33	0.31	0.30	0.28
LAM	0.05	0.05	0.05	0.06	0.06	0.06	0.07	0.09	0.10	0.12
ROW	0.84	0.85	0.96	0.98	1.00	0.95	1.04	0.94	1.00	1.04
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



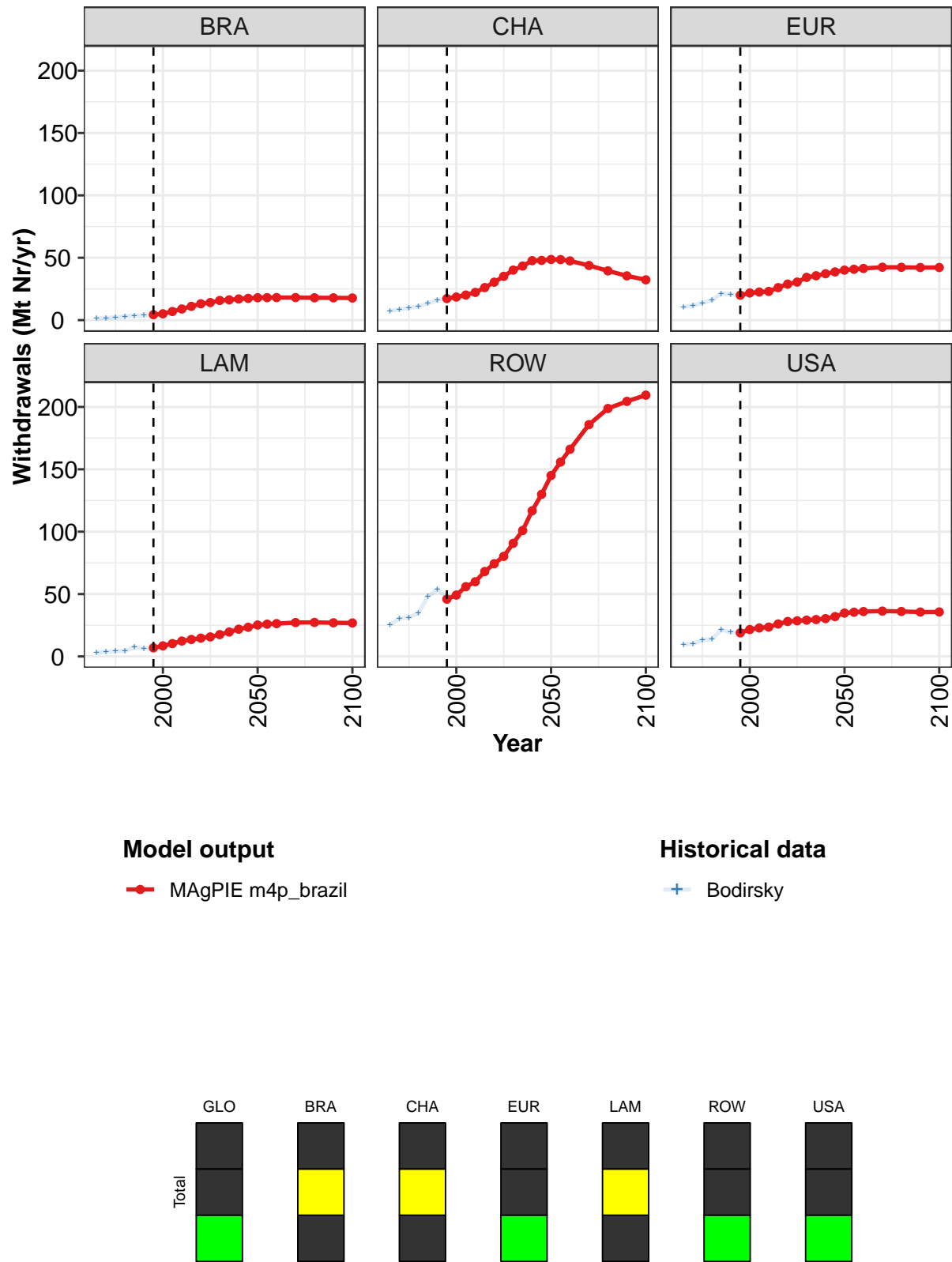


Figure 455: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Withdrawals (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	113	125	139	150	171	189	204	227	245	271	289
BRA	4	5	7	9	11	13	14	16	16	17	17
CHA	17	19	20	22	26	30	35	40	43	48	48
EUR	20	22	23	23	26	29	30	34	36	37	39
LAM	7	8	10	12	14	15	16	17	20	22	23
ROW	46	49	56	60	68	74	80	91	101	117	130
USA	19	22	23	24	26	28	29	29	30	30	32

Table 1751: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Withdrawals (Mt Nr/yr) [PART 1/2]

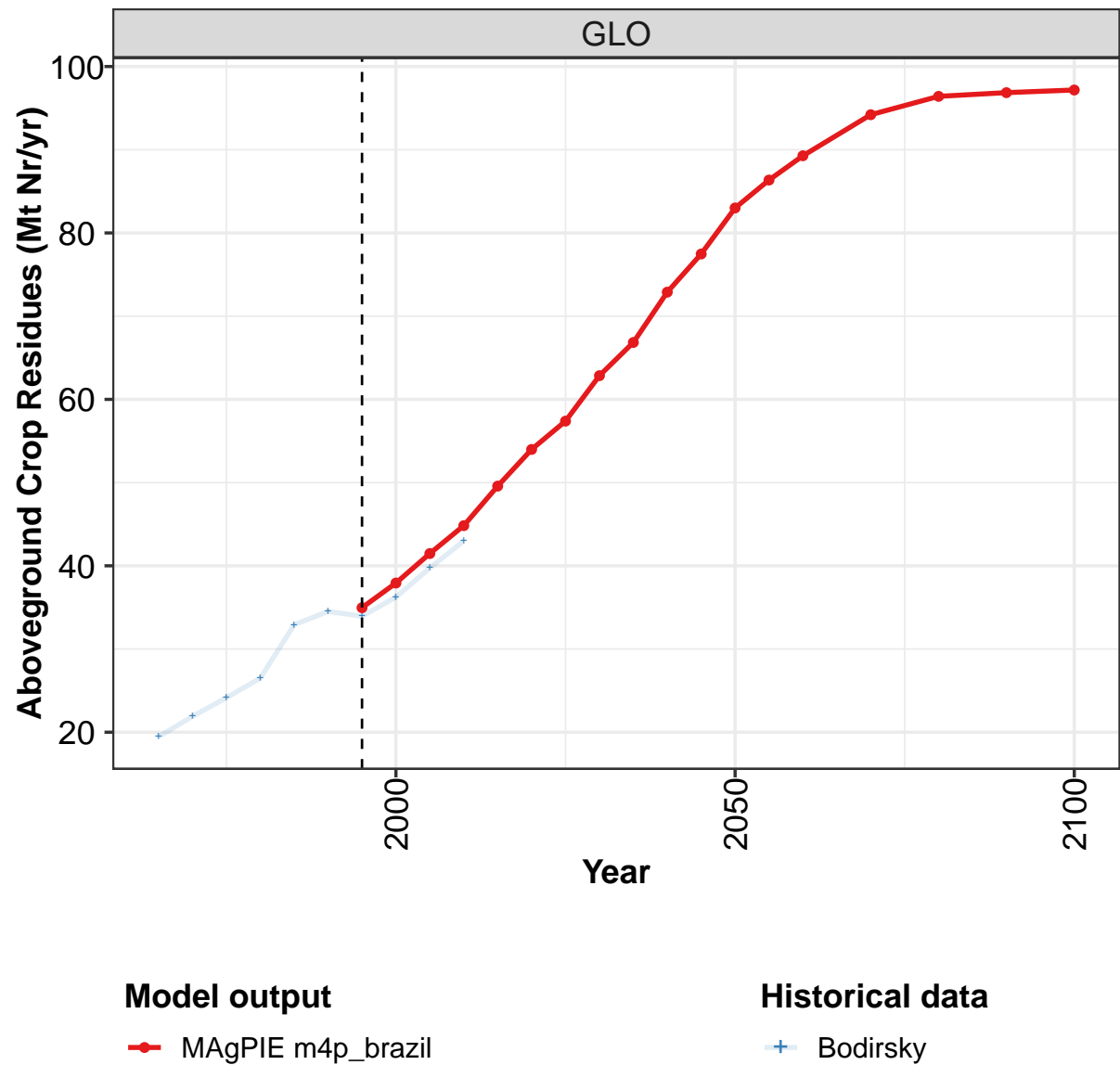
	2050	2055	2060	2070	2080	2090	2100
GLO	312	324	335	354	362	363	364
BRA	18	18	18	18	18	18	18
CHA	49	49	47	44	39	35	32
EUR	40	41	41	42	42	42	42
LAM	25	26	26	27	27	27	27
ROW	145	156	166	186	199	204	209
USA	35	35	36	36	36	36	36

Table 1752: MAgPIE m4p_brazil — 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
BRA	1	2	2	3	4	4	5	5	7	9
CHA	7	9	10	11	14	16	17	19	20	23
EUR	11	12	14	16	21	21	20	21	22	22
LAM	3	4	4	4	7	6	7	8	9	12
ROW	25	31	31	35	48	54	48	49	56	60
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



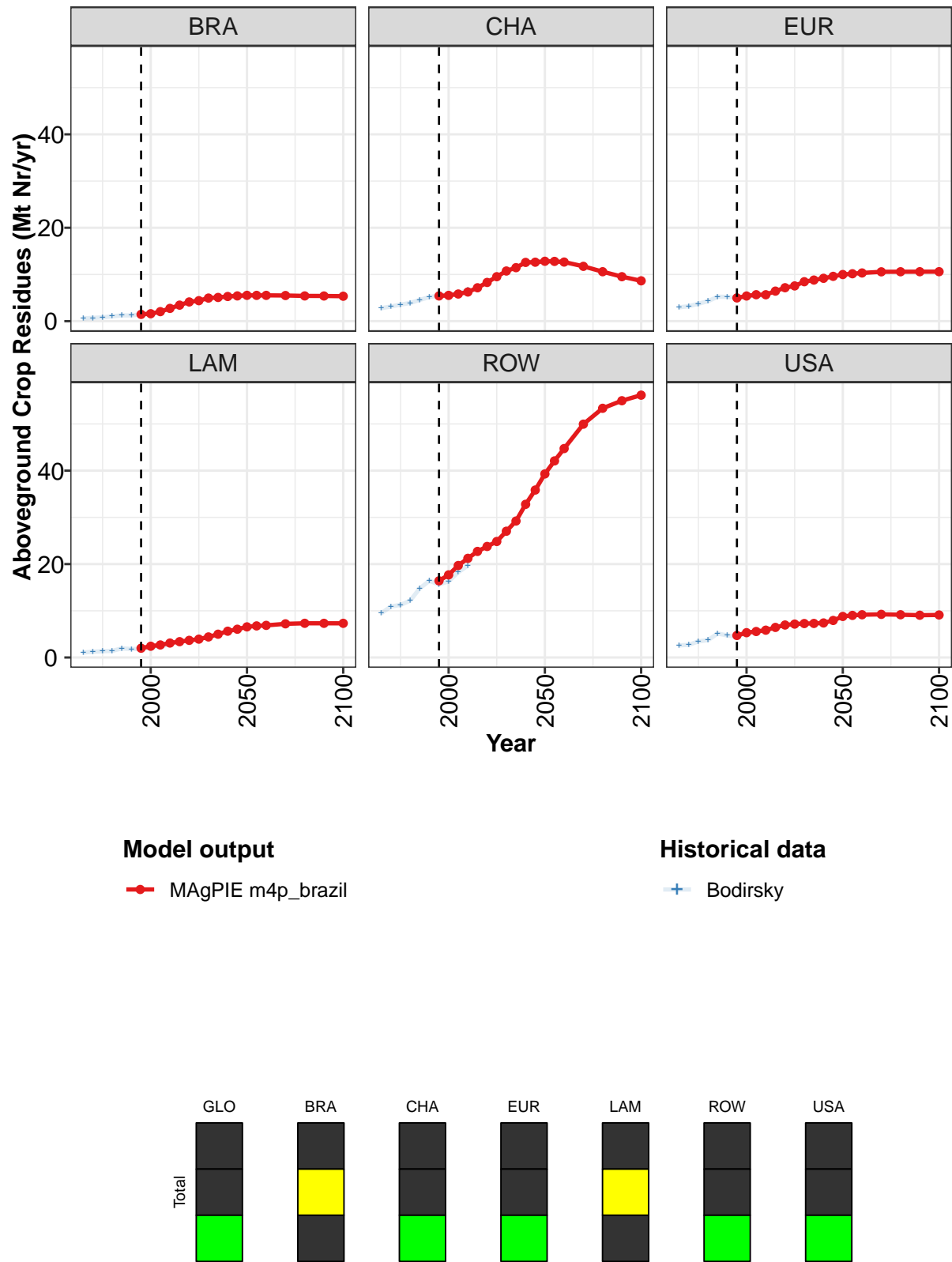


Figure 456: MAGPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Withdrawals—Aboveground Crop Residues (Mt N/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	35.0	37.9	41.5	44.8	49.6	54.0	57.4	62.9	66.8	72.9	77.5
BRA	1.5	1.6	2.0	2.7	3.4	4.1	4.4	4.9	5.1	5.3	5.4
CHA	5.4	5.5	5.8	6.2	7.2	8.3	9.5	10.7	11.5	12.6	12.6
EUR	5.0	5.4	5.7	5.7	6.4	7.2	7.6	8.5	8.8	9.2	9.6
LAM	2.0	2.4	2.7	3.1	3.4	3.7	3.9	4.4	5.0	5.6	6.1
ROW	16.4	17.7	19.7	21.2	22.7	23.8	24.8	27.0	29.2	32.8	35.9
USA	4.7	5.3	5.6	5.9	6.4	7.0	7.2	7.3	7.3	7.4	7.9

Table 1754: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Withdrawals—Aboveground Crop Residues (Mt Nr/yr) [PART 1/2]

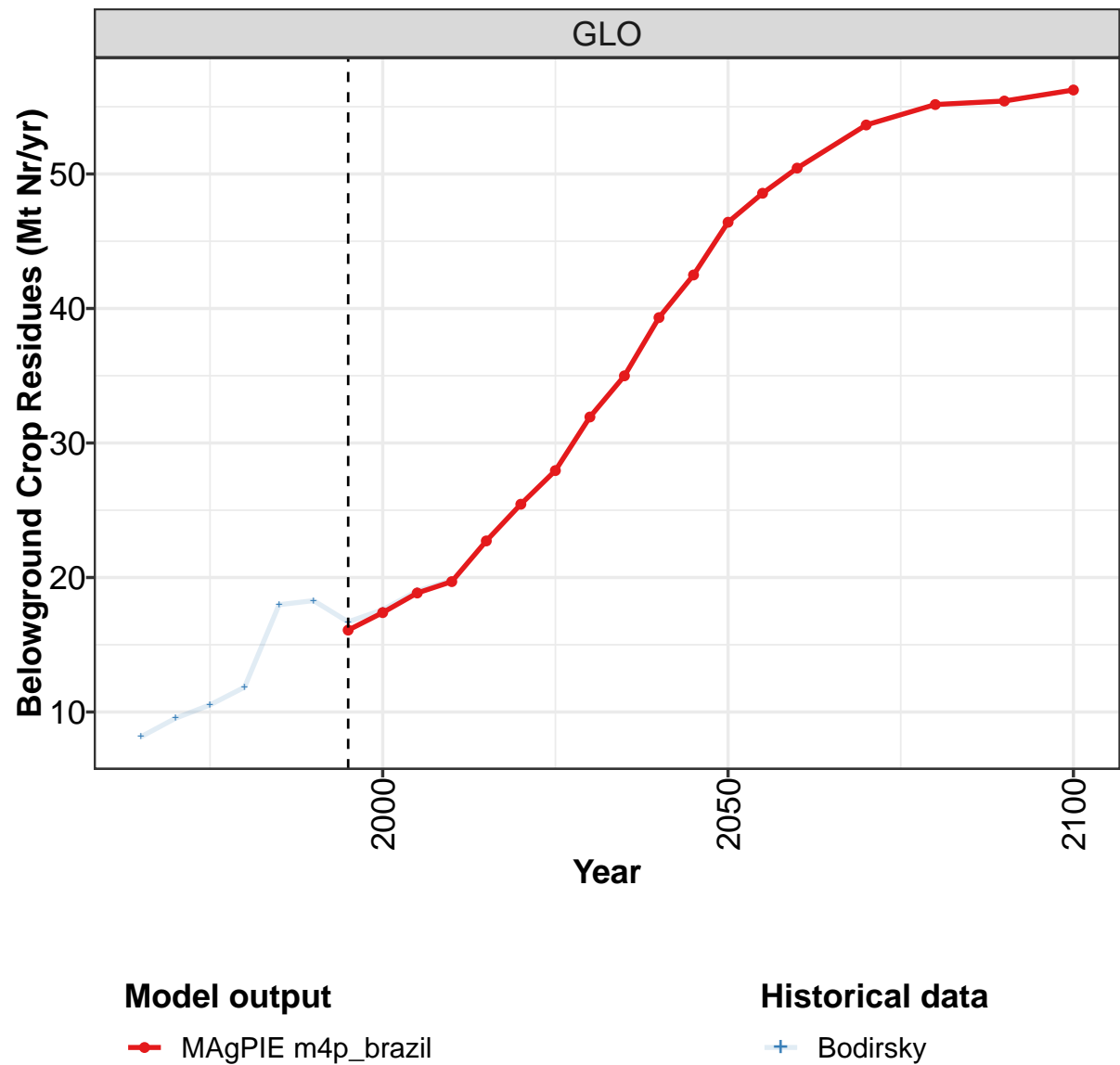
	2050	2055	2060	2070	2080	2090	2100
GLO	83.0	86.4	89.3	94.2	96.4	96.9	97.2
BRA	5.5	5.5	5.5	5.5	5.4	5.4	5.3
CHA	12.8	12.8	12.7	11.7	10.6	9.5	8.6
EUR	10.0	10.2	10.3	10.6	10.6	10.6	10.6
LAM	6.6	6.8	6.9	7.2	7.3	7.3	7.3
ROW	39.3	42.1	44.7	50.0	53.4	55.0	56.2
USA	8.8	9.0	9.2	9.2	9.2	9.0	9.1

Table 1755: MAgPIE m4p_brazil — 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
BRA	0.6	0.7	0.8	1.0	1.2	1.2	1.5	1.5	2.0	2.7
CHA	2.8	3.1	3.5	3.9	4.6	5.1	5.5	5.7	6.0	6.6
EUR	3.0	3.2	3.7	4.3	5.2	5.2	5.0	5.3	5.5	5.5
LAM	1.1	1.2	1.3	1.4	2.0	1.8	1.9	2.2	2.4	2.8
ROW	9.5	10.9	11.3	12.2	14.8	16.4	15.6	16.3	18.2	19.7
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



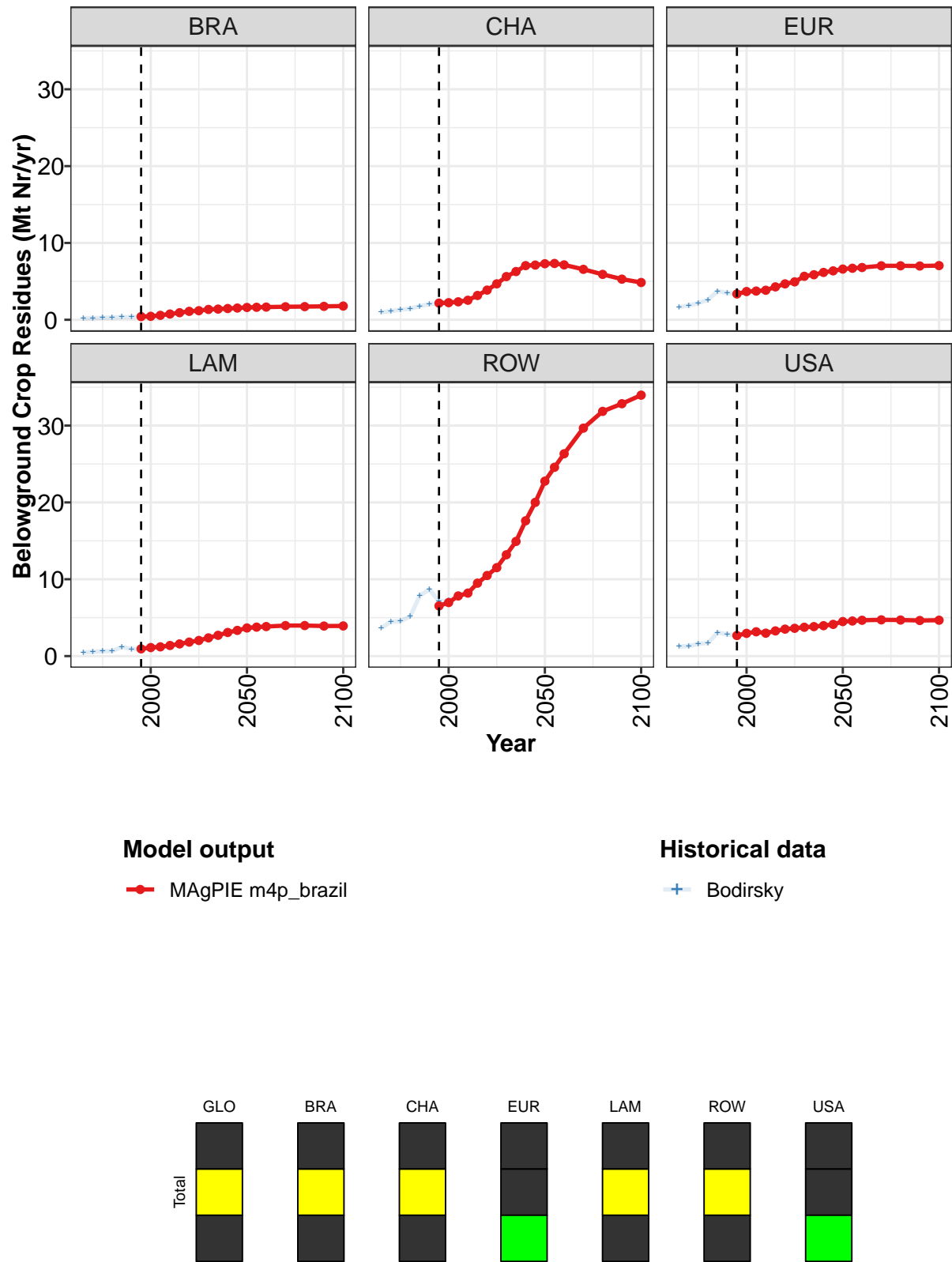


Figure 457: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Withdrawals—Belowground Crop Residues (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	16.1	17.4	18.8	19.7	22.7	25.4	28.0	31.9	35.0	39.3	42.5
BRA	0.4	0.5	0.6	0.7	0.9	1.1	1.2	1.3	1.4	1.5	1.5
CHA	2.2	2.2	2.3	2.5	3.2	3.9	4.7	5.6	6.3	7.0	7.1
EUR	3.4	3.7	3.7	3.8	4.3	4.7	4.9	5.7	5.9	6.2	6.4
LAM	0.9	1.1	1.2	1.4	1.6	1.8	2.0	2.4	2.7	3.1	3.3
ROW	6.5	7.0	7.8	8.2	9.5	10.5	11.5	13.2	14.9	17.6	20.0
USA	2.7	3.0	3.2	3.0	3.3	3.5	3.6	3.8	3.8	4.0	4.1

Table 1757: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Withdrawals—Belowground Crop Residues (Mt Nr/yr) [PART 1/2]

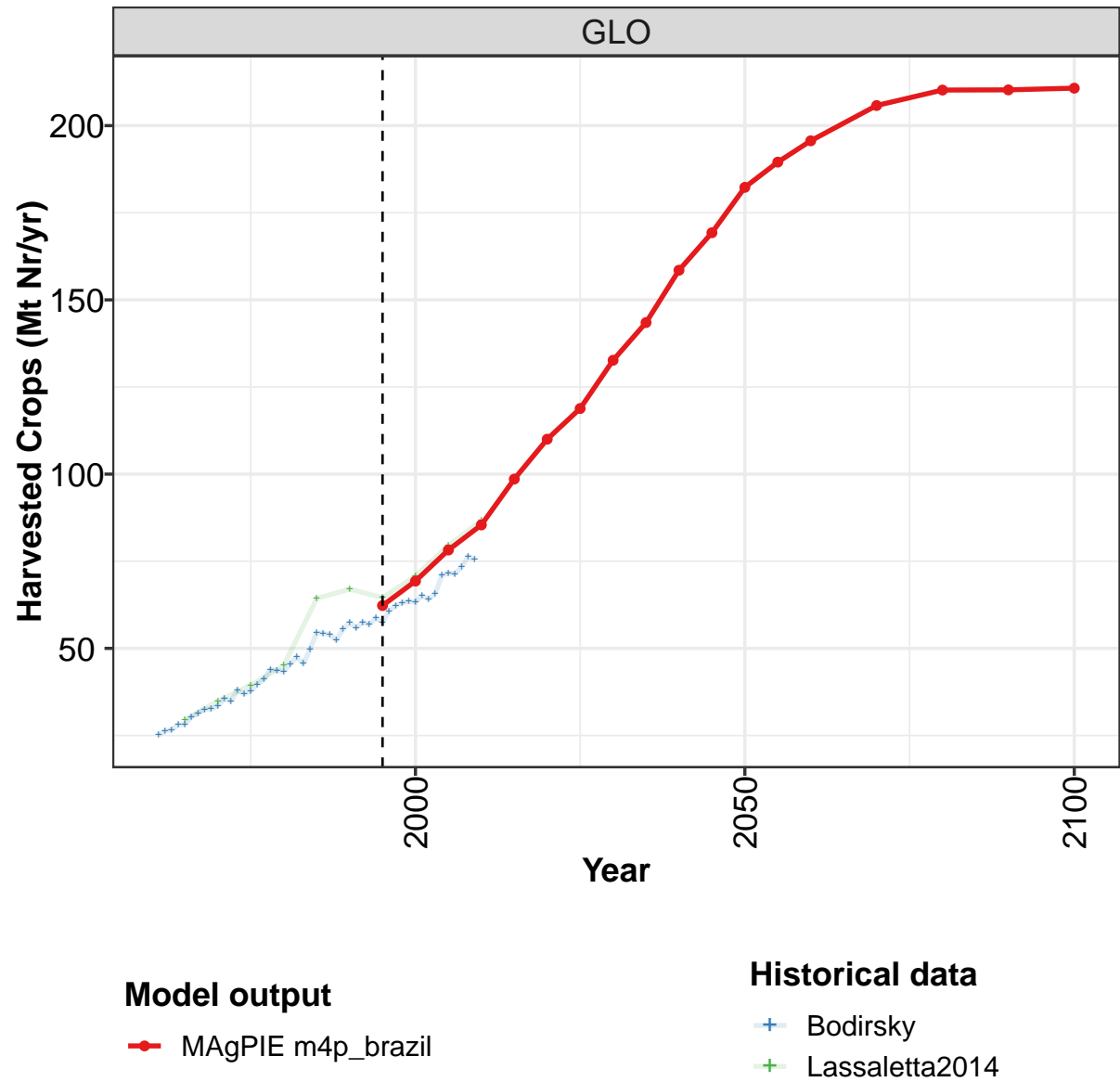
	2050	2055	2060	2070	2080	2090	2100
GLO	46.4	48.6	50.4	53.6	55.2	55.4	56.2
BRA	1.6	1.6	1.7	1.7	1.7	1.7	1.8
CHA	7.3	7.3	7.1	6.6	5.9	5.3	4.9
EUR	6.6	6.7	6.8	7.0	7.0	7.0	7.1
LAM	3.7	3.8	3.8	4.0	4.0	3.9	3.9
ROW	22.8	24.6	26.3	29.7	31.9	32.8	34.0
USA	4.5	4.6	4.7	4.7	4.7	4.6	4.7

Table 1758: MAgPIE m4p_brazil — 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
BRA	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.6	0.8
CHA	1.0	1.1	1.3	1.4	1.8	2.0	2.2	2.3	2.4	2.6
EUR	1.6	1.9	2.2	2.6	3.7	3.5	3.4	3.6	3.7	3.7
LAM	0.5	0.6	0.6	0.6	1.2	0.9	0.9	1.1	1.1	1.3
ROW	3.7	4.5	4.5	5.2	7.9	8.7	7.1	7.2	8.0	8.3
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



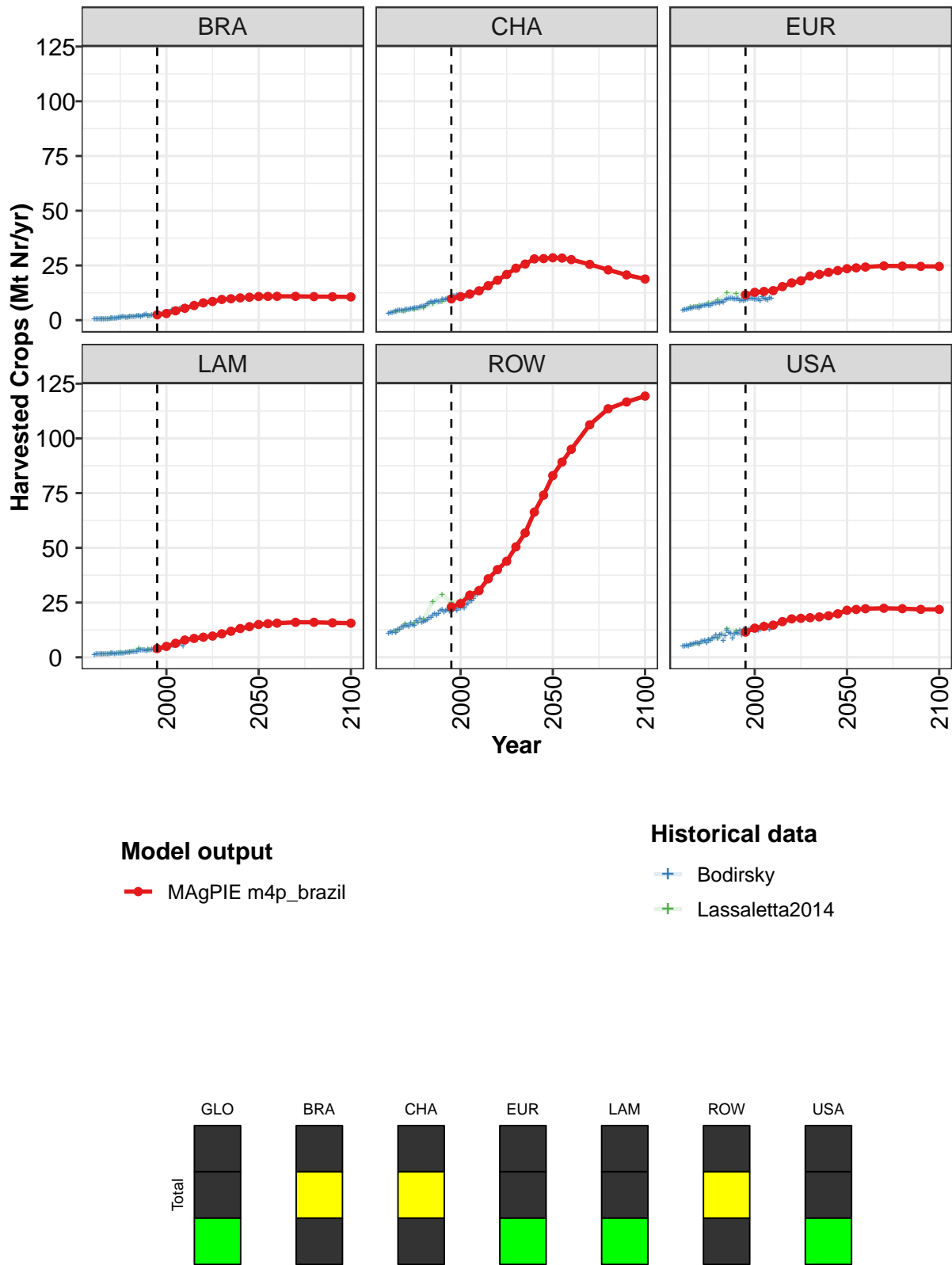


Figure 458: MAgPIE m4p_brazil — Resources—Nitrogen—Cropland Budget—Withdrawals—Harvested Crops (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	62	69	78	85	99	110	119	133	143	159	169
BRA	2	3	4	5	7	8	9	9	10	10	10
CHA	10	11	12	13	16	18	21	24	26	28	28
EUR	12	13	13	14	15	17	18	20	21	22	23
LAM	4	5	6	8	9	9	10	11	12	13	14
ROW	23	25	28	30	36	40	44	50	57	66	74
USA	12	13	14	15	16	18	18	18	18	19	20

Table 1760: MAgPIE m4p.brazil — Resources—Nitrogen—Cropland Budget—Withdrawals—Harvested Crops (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	182	190	196	206	210	210	211
BRA	11	11	11	11	11	11	11
CHA	29	28	28	25	23	21	19
EUR	24	24	24	25	25	25	25
LAM	15	15	16	16	16	16	16
ROW	83	89	95	106	114	117	119
USA	21	22	22	22	22	22	22

Table 1761: MAgPIE m4p.brazil — 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
BRA	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8
CHA	3.0	3.3	3.5	3.9	4.0	4.4	4.4	4.3	4.3	4.8	5.0
EUR	4.6	4.8	5.0	5.1	5.2	5.5	5.9	5.9	5.9	5.7	6.4
LAM	1.3	1.3	1.3	1.5	1.4	1.5	1.6	1.5	1.6	1.7	1.7
ROW	10.9	11.5	11.1	12.1	11.3	12.7	12.7	13.7	13.7	14.4	14.5
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
BRA	0.9	1.0	1.2	1.3	1.4	1.5	1.3	1.4	1.7	1.7	1.7
CHA	4.7	5.2	5.3	5.5	5.5	5.4	6.1	6.4	6.3	6.6	7.2
EUR	6.6	6.6	6.9	6.7	6.7	7.4	7.8	7.7	8.0	7.9	8.4
LAM	1.6	1.7	1.8	1.9	1.9	2.0	2.2	2.2	2.1	2.5	2.5
ROW	13.9	15.6	15.0	14.5	16.5	16.1	17.6	15.9	16.4	16.7	17.2
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
BRA	1.7	1.8	2.1	1.8	2.1	2.2	2.5	2.1	1.9	2.3	2.4
CHA	7.9	8.4	8.1	8.4	8.7	8.5	8.6	9.5	9.3	9.4	9.9
EUR	8.1	9.3	9.7	9.8	9.8	10.0	9.7	9.7	9.9	8.8	9.0
LAM	2.4	2.6	3.3	3.3	3.1	3.3	2.9	3.2	3.3	3.5	3.4
ROW	18.2	18.0	19.1	19.8	19.3	19.8	21.2	21.6	20.6	21.4	21.7
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
BRA	2.6	2.7	2.5	2.7	2.9	3.1	3.2	3.7	3.9	4.7	4.6
CHA	9.9	10.3	10.9	11.0	11.2	11.2	10.9	10.8	11.0	10.5	11.5
EUR	8.8	9.1	9.5	9.9	10.1	9.8	9.5	9.5	9.7	8.7	10.6
LAM	3.6	3.5	3.7	3.7	4.3	4.3	4.4	4.8	4.9	5.4	5.3
ROW	20.9	20.9	21.8	22.1	21.5	22.3	22.3	23.2	22.3	23.8	24.7
USA	12.8	11.0	12.2	12.7	13.1	12.8	13.1	13.0	12.3	12.5	14.3

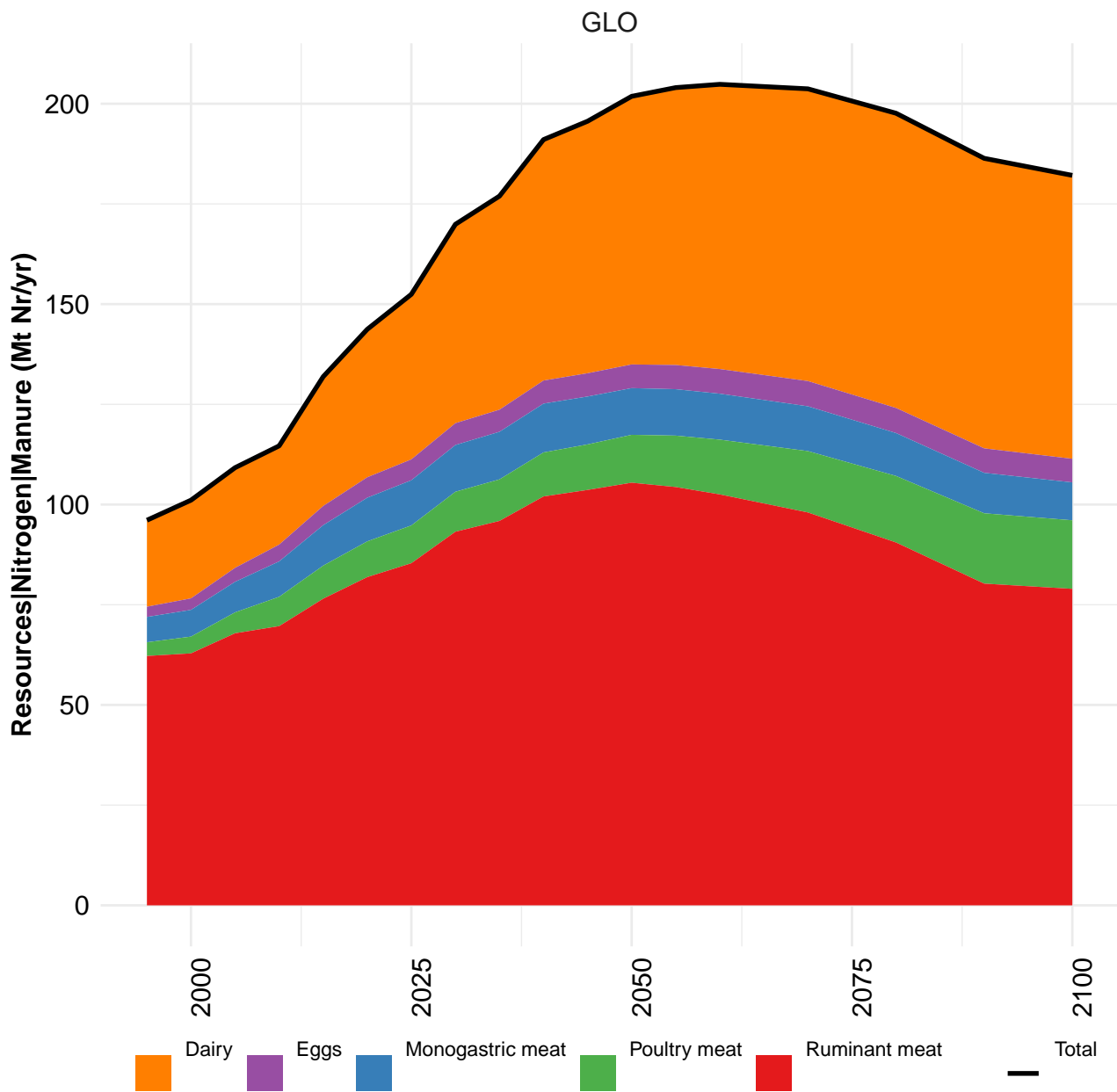
Table 1765: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Withdrawals—Harvested Crops (Mt Nr/yr) [PART 4/5]

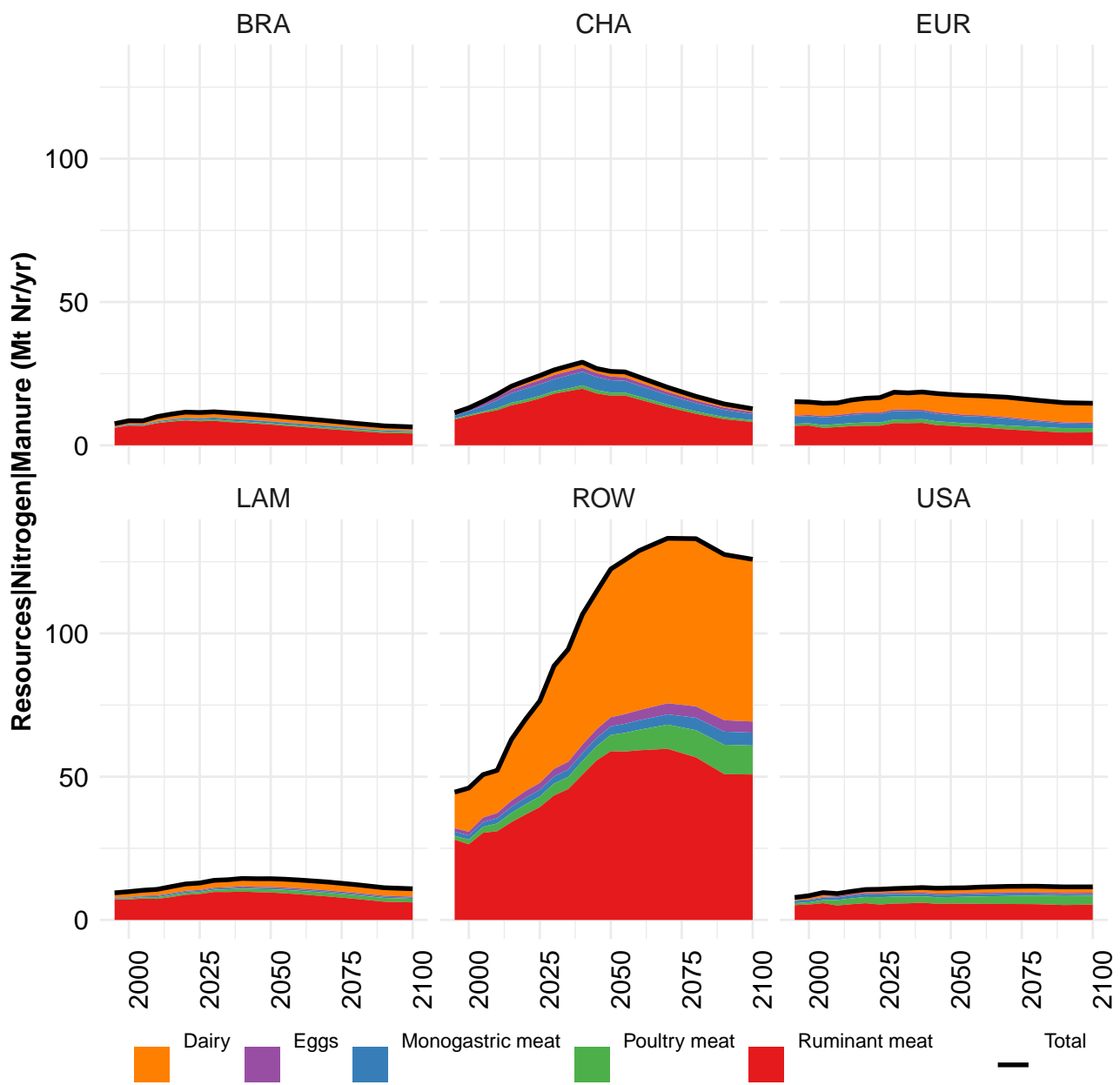
	2005	2006	2007	2008	2009
GLO	71.6	71.4	73.3	76.4	75.4
BRA	4.6	4.7	5.2	5.6	5.2
CHA	11.7	12.0	12.1	12.9	12.9
EUR	9.9	9.4	9.0	10.1	10.0
LAM	5.7	5.9	6.7	6.6	5.2
ROW	25.9	25.9	26.7	28.6	28.5
USA	13.9	13.5	13.6	12.7	13.5

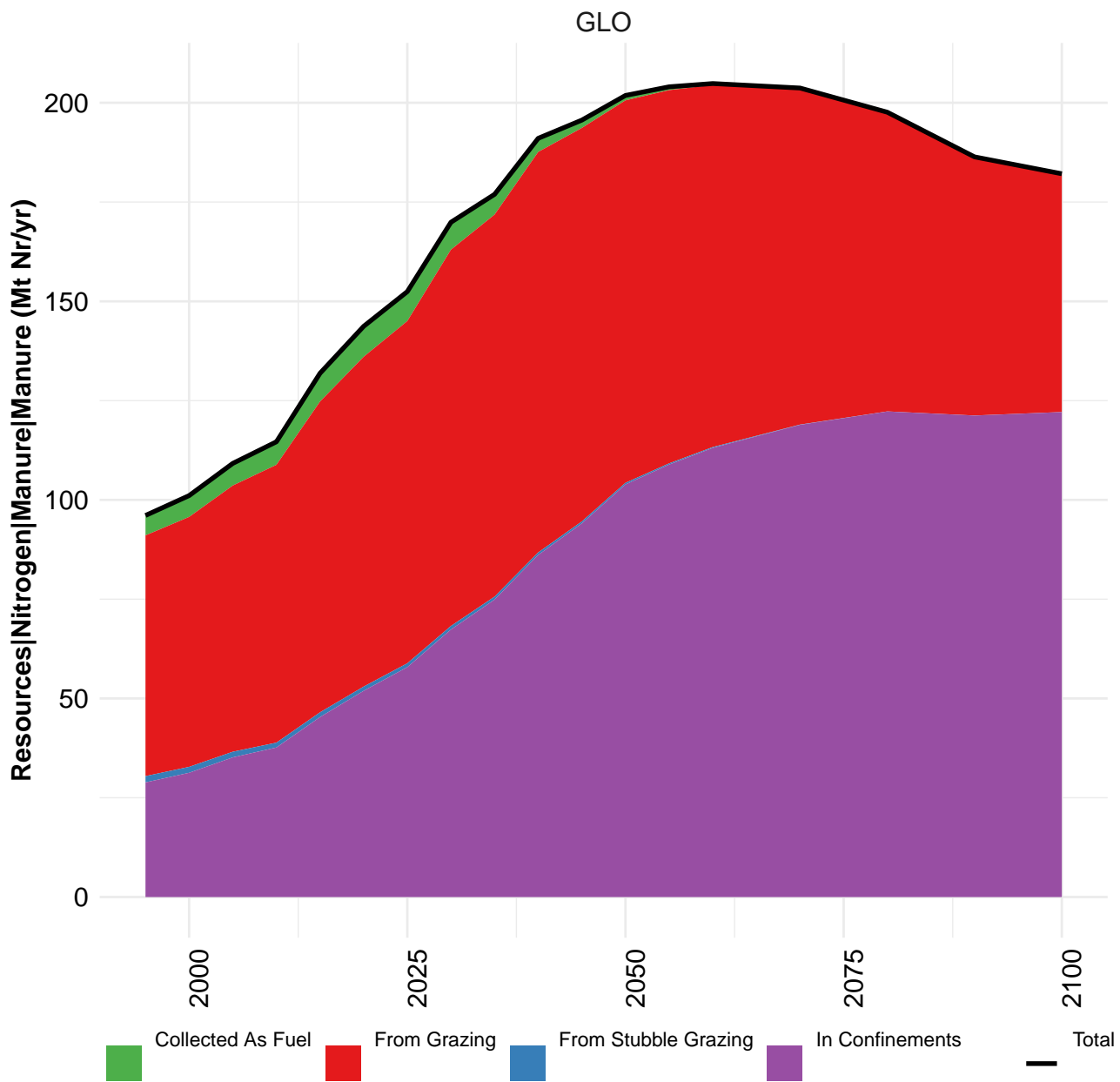
Table 1766: Lassaletta2014 — Resources—Nitrogen—Cropland Budget—Withdrawals—Harvested Crops (Mt Nr/yr) [PART 5/5]

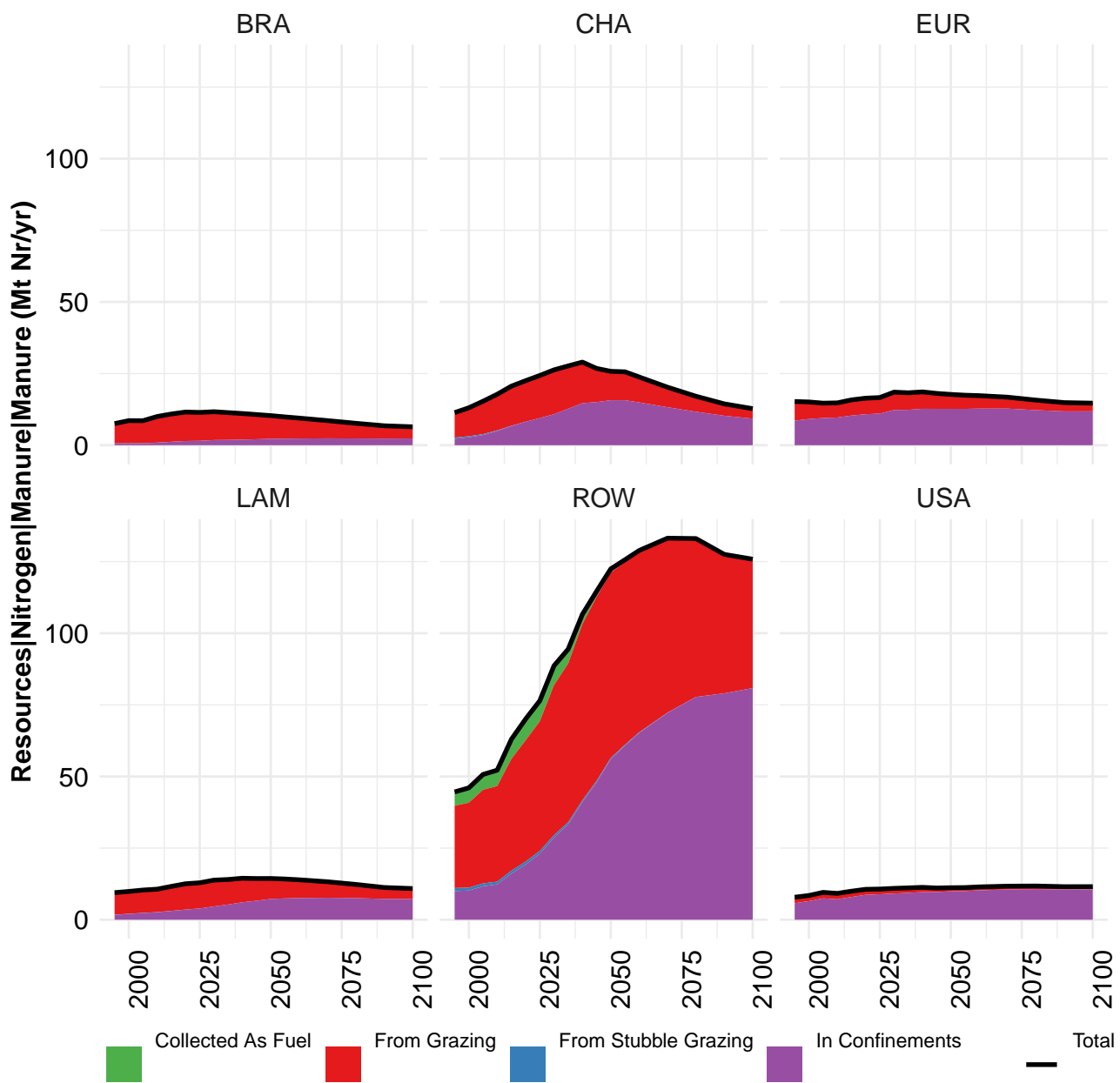
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	29.5	34.9	39.5	45.1	64.3	67.0	64.5	70.8	79.5	86.6
BRA	0.6	0.8	1.3	1.7	2.1	2.1	2.7	3.2	4.5	6.0
CHA	3.7	4.3	4.9	5.6	7.3	8.6	9.8	10.8	11.9	13.5
EUR	5.9	6.7	7.8	9.2	12.3	12.0	11.5	12.4	12.8	13.0
LAM	1.6	1.9	2.2	2.4	4.1	3.6	3.8	4.7	5.9	7.5
ROW	12.1	15.1	15.4	17.5	25.4	28.6	25.0	25.8	29.3	31.6
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)

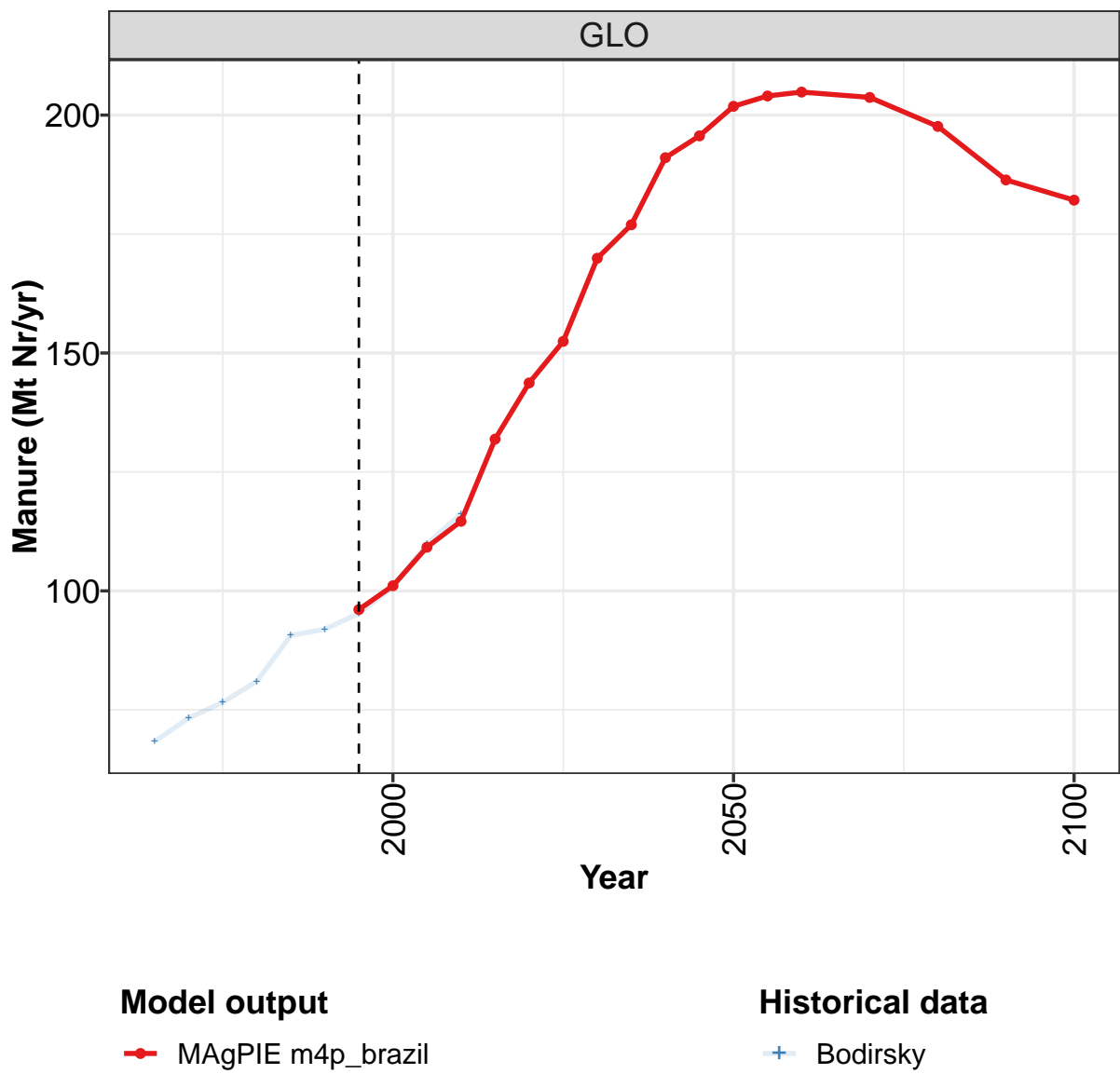








56.2 Manure



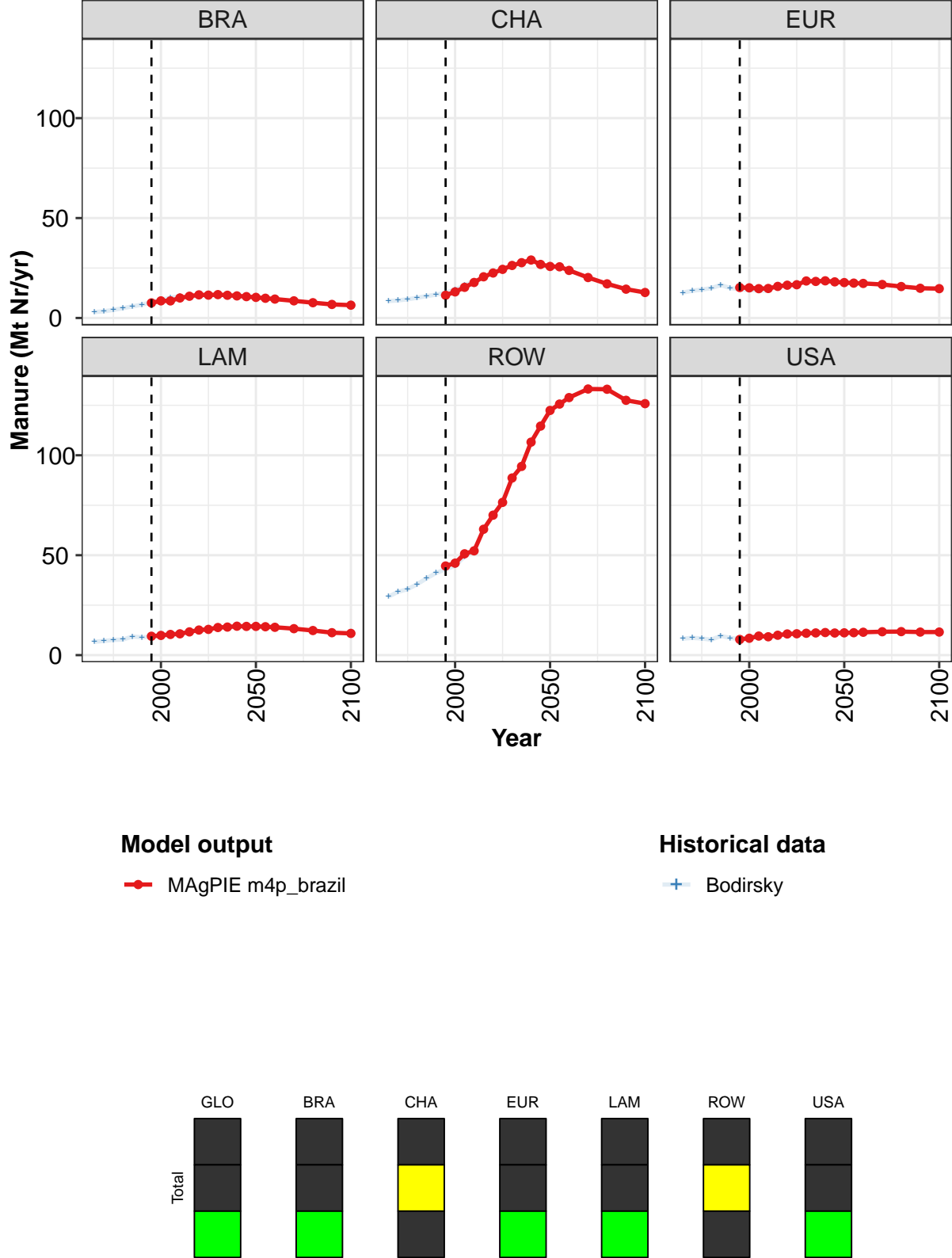


Figure 459: MAgPIE m4p_brazil — Resources—Nitrogen—Manure (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	96	101	109	115	132	144	152	170	177	191	196
BRA	8	9	9	10	11	12	11	12	11	11	11
CHA	11	13	15	18	21	23	24	26	28	29	27
EUR	15	15	15	15	16	16	17	19	18	19	18
LAM	9	10	10	11	12	13	13	14	14	14	14
ROW	45	46	51	52	63	70	76	89	94	107	115
USA	8	8	10	9	10	11	11	11	11	11	11

Table 1768: MAgPIE m4p.brazil — Resources—Nitrogen—Manure (Mt Nr/yr) [PART 1/2]

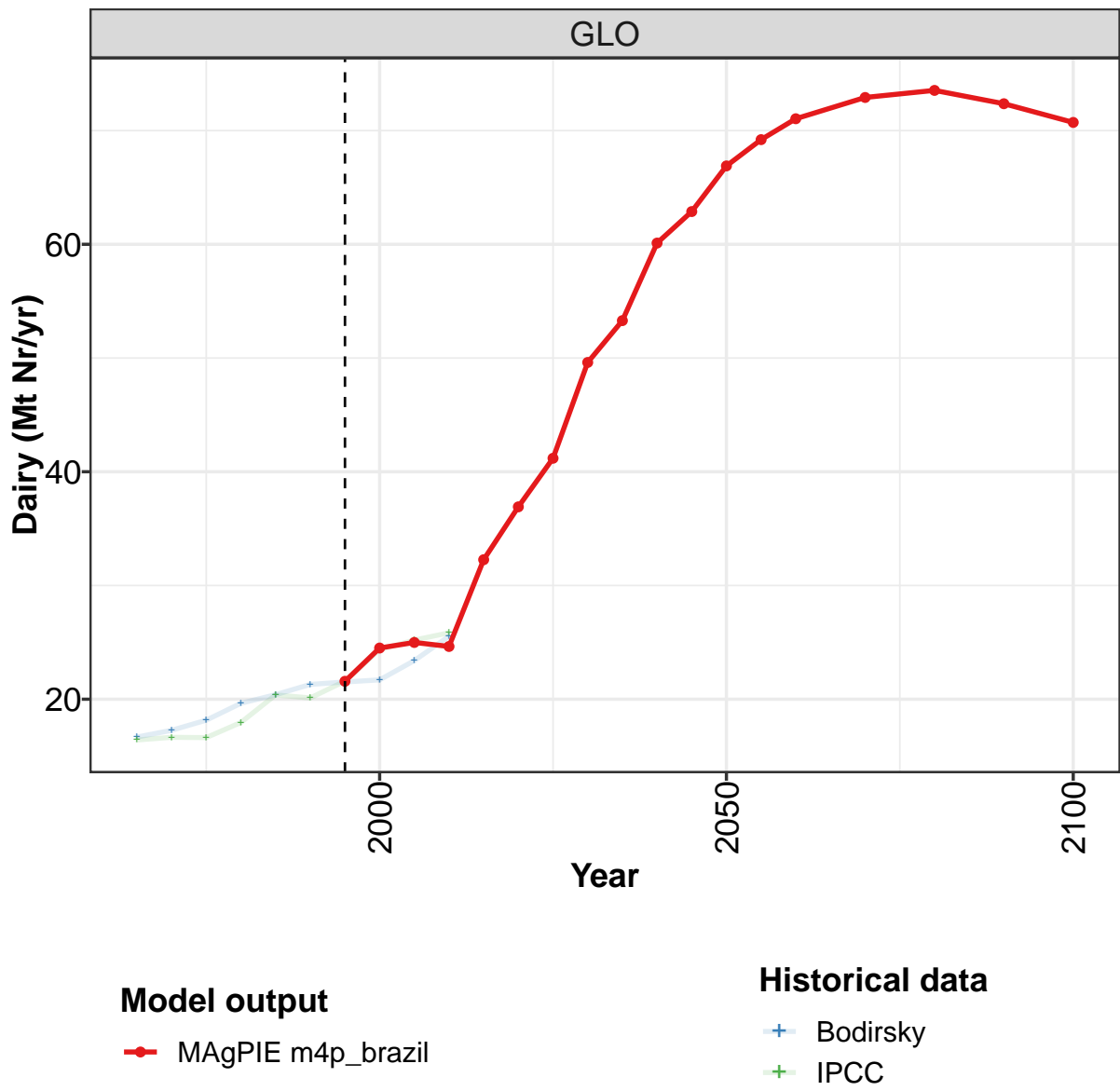
	2050	2055	2060	2070	2080	2090	2100
GLO	202	204	205	204	198	186	182
BRA	10	10	9	9	8	7	6
CHA	26	26	24	20	17	14	13
EUR	18	17	17	17	16	15	15
LAM	14	14	14	13	12	11	11
ROW	122	126	129	133	133	128	126
USA	11	11	11	12	12	12	12

Table 1769: MAgPIE m4p.brazil — 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
BRA	3	3	4	5	6	7	8	9	10	11
CHA	8	9	9	10	11	12	13	14	16	19
EUR	13	14	14	15	17	15	14	14	14	14
LAM	7	7	8	8	9	9	9	10	10	11
ROW	29	32	33	35	38	41	43	45	49	53
USA	8	9	8	8	10	9	8	9	10	9

Table 1770: Bodirsky — Resources—Nitrogen—Manure (Mt Nr/yr)

56.2.1 Dairy



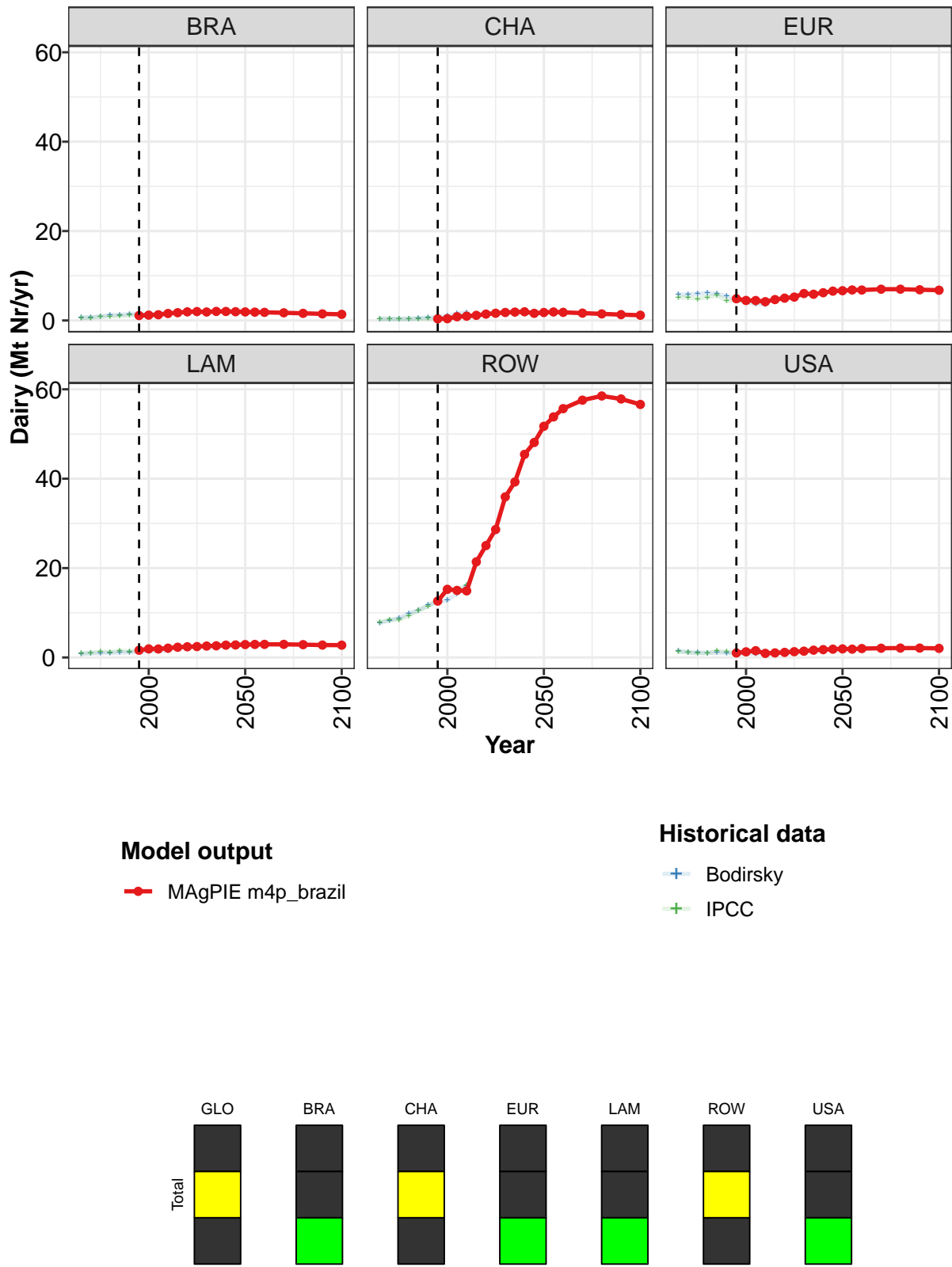


Figure 460: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Dairy (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	21.6	24.5	25.0	24.6	32.3	36.9	41.2	49.6	53.3	60.1	62.9
BRA	1.1	1.2	1.3	1.6	1.7	1.9	2.0	1.9	2.0	2.0	2.0
CHA	0.4	0.4	0.8	1.0	1.1	1.4	1.6	1.8	1.9	1.9	1.6
EUR	4.9	4.5	4.5	4.2	4.7	5.0	5.2	6.0	5.9	6.2	6.6
LAM	1.6	1.9	1.9	2.1	2.3	2.4	2.4	2.6	2.6	2.8	2.8
ROW	12.6	15.2	15.0	14.9	21.4	25.0	28.6	35.9	39.3	45.4	48.1
USA	1.0	1.3	1.5	0.9	1.0	1.1	1.3	1.4	1.6	1.8	1.9

Table 1771: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Dairy (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	66.9	69.2	71.0	72.9	73.5	72.4	70.7
BRA	1.9	1.9	1.8	1.7	1.6	1.5	1.4
CHA	1.8	1.9	1.8	1.6	1.5	1.3	1.2
EUR	6.7	6.8	6.8	7.0	7.0	6.9	6.8
LAM	2.9	2.9	2.9	2.9	2.9	2.8	2.8
ROW	51.7	53.8	55.7	57.6	58.5	57.8	56.6
USA	1.9	1.9	2.0	2.1	2.1	2.1	2.0

Table 1772: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Dairy (Mt Nr/yr) [PART 2/2]

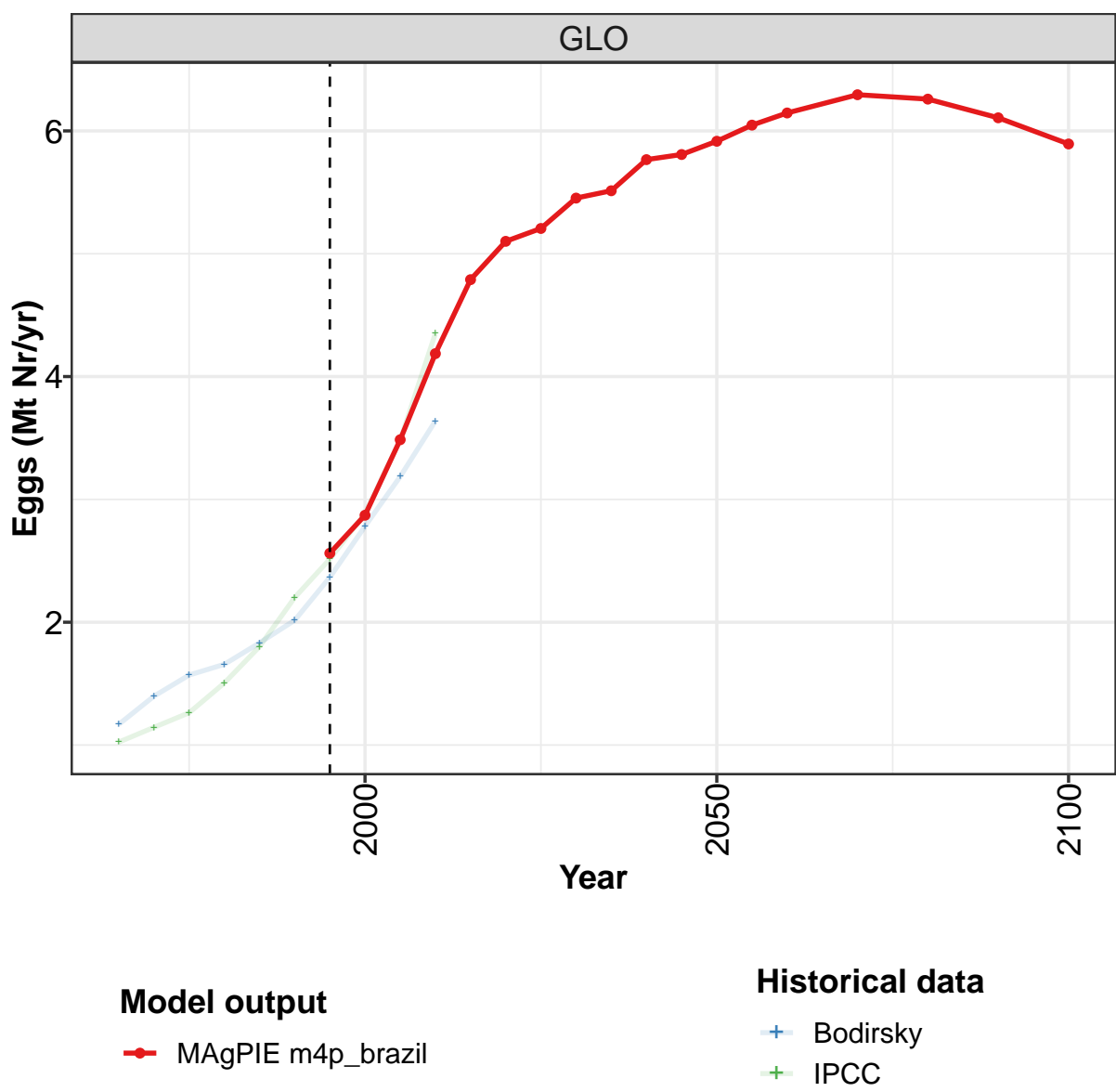
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	16.7	17.3	18.2	19.6	20.4	21.3	21.5	21.7	23.4	25.5
BRA	0.6	0.7	0.9	1.2	1.3	1.4	1.5	1.3	1.5	1.7
CHA	0.3	0.3	0.4	0.4	0.5	0.6	0.8	1.0	1.5	1.8
EUR	5.8	5.8	6.0	6.1	5.9	5.4	4.6	4.2	3.6	3.6
LAM	0.8	0.9	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.5
ROW	7.7	8.3	8.8	9.8	10.6	11.7	12.4	12.8	14.3	16.0
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
BRA	0.6	0.6	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.7
CHA	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.5	1.0	1.2
EUR	5.2	5.1	4.8	5.2	5.6	4.4	4.4	4.2	4.2	3.8
LAM	0.9	1.1	1.3	1.2	1.5	1.4	1.6	1.9	1.9	2.1
ROW	8.0	8.4	8.4	9.4	10.5	11.5	12.9	15.2	15.1	16.2
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



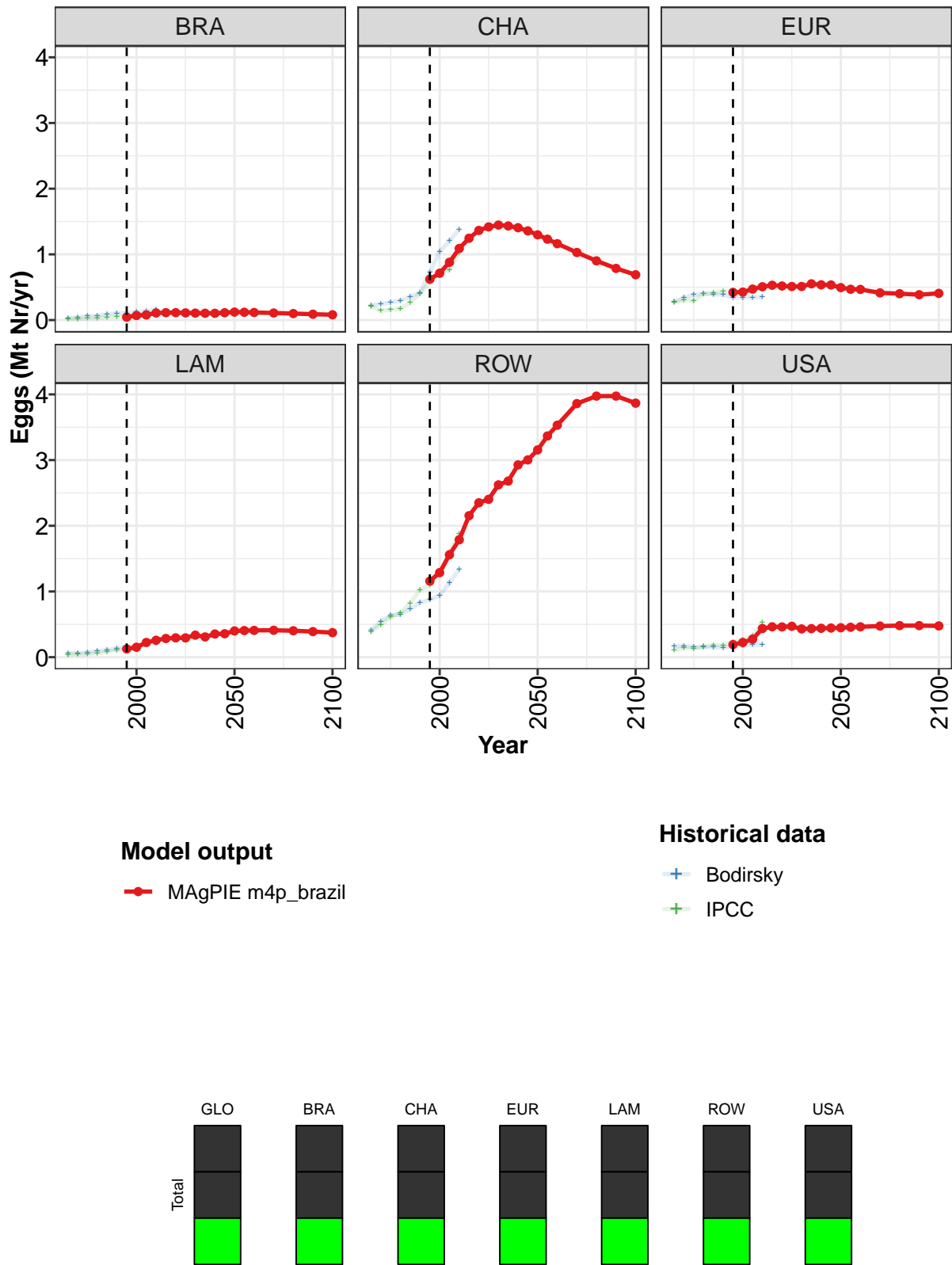


Figure 461: MAgPIE m4p.brazil — Resources—Nitrogen—Manure—Eggs (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2.56	2.87	3.49	4.19	4.79	5.10	5.21	5.45	5.51	5.77	5.81
BRA	0.04	0.07	0.08	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.11
CHA	0.62	0.71	0.88	1.09	1.25	1.36	1.42	1.45	1.43	1.41	1.36
EUR	0.42	0.43	0.47	0.51	0.53	0.52	0.51	0.51	0.55	0.54	0.53
LAM	0.13	0.15	0.22	0.26	0.28	0.29	0.29	0.34	0.31	0.35	0.36
ROW	1.16	1.29	1.56	1.79	2.15	2.35	2.40	2.62	2.68	2.93	3.00
USA	0.19	0.22	0.27	0.44	0.46	0.46	0.47	0.43	0.43	0.44	0.44

Table 1775: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Eggs (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	5.92	6.05	6.15	6.29	6.26	6.11	5.89
BRA	0.12	0.12	0.12	0.11	0.10	0.09	0.08
CHA	1.30	1.23	1.16	1.03	0.90	0.79	0.69
EUR	0.49	0.47	0.47	0.41	0.40	0.39	0.41
LAM	0.40	0.41	0.41	0.41	0.40	0.39	0.37
ROW	3.15	3.37	3.53	3.86	3.97	3.97	3.87
USA	0.45	0.46	0.46	0.47	0.48	0.48	0.48

Table 1776: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Eggs (Mt Nr/yr) [PART 2/2]

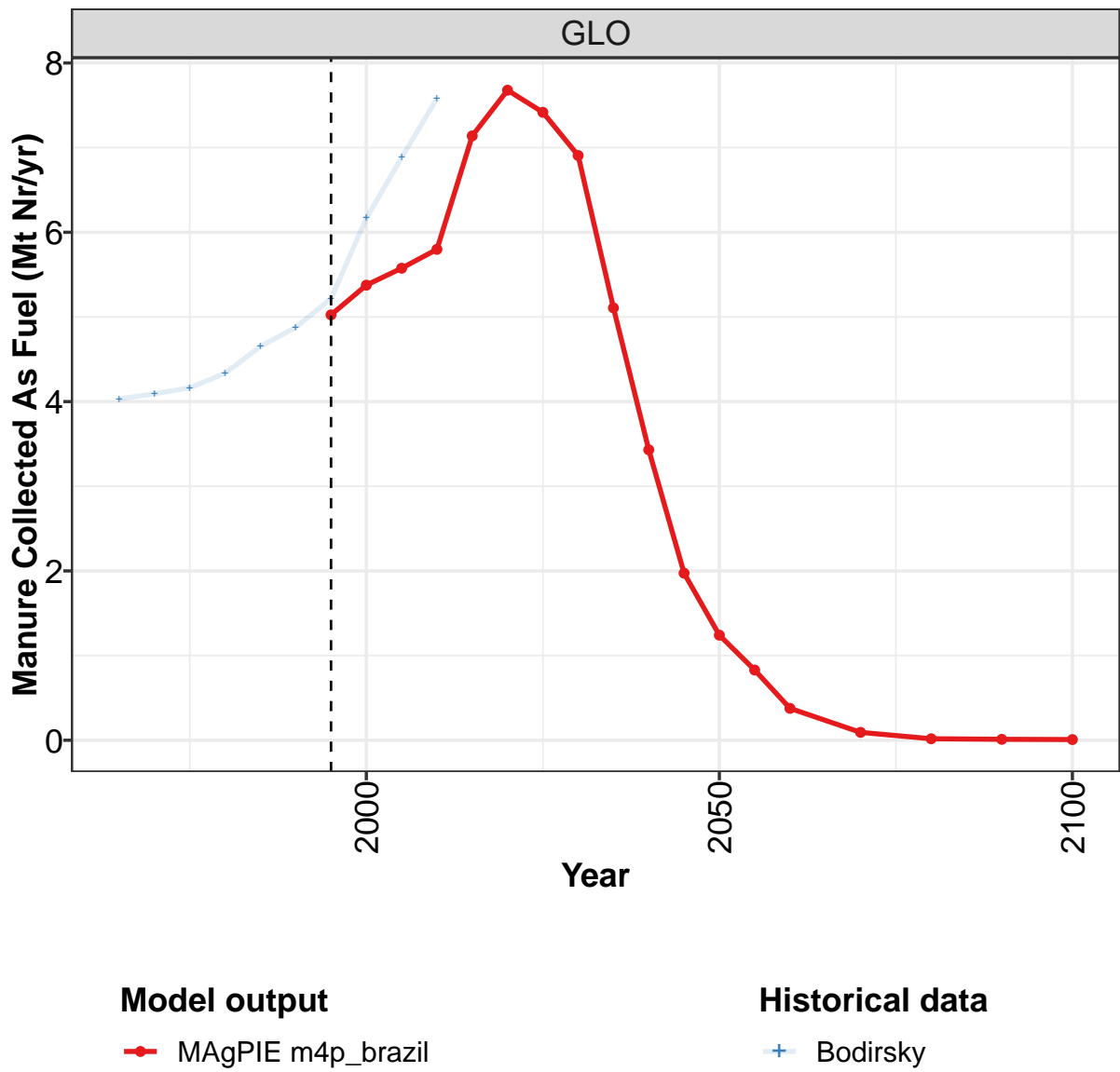
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.17	1.40	1.57	1.66	1.83	2.02	2.37	2.78	3.19	3.64
BRA	0.03	0.04	0.06	0.07	0.09	0.10	0.11	0.12	0.14	0.17
CHA	0.22	0.24	0.27	0.30	0.35	0.42	0.73	1.04	1.20	1.38
EUR	0.28	0.34	0.38	0.40	0.39	0.38	0.34	0.34	0.34	0.35
LAM	0.06	0.06	0.07	0.09	0.11	0.13	0.15	0.15	0.19	0.22
ROW	0.41	0.54	0.63	0.65	0.73	0.83	0.87	0.94	1.13	1.34
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
BRA	0.01	0.02	0.03	0.03	0.04	0.05	0.05	0.08	0.10	0.13
CHA	0.21	0.14	0.16	0.18	0.27	0.40	0.58	0.73	0.76	1.02
EUR	0.27	0.31	0.29	0.40	0.41	0.44	0.43	0.43	0.48	0.54
LAM	0.04	0.04	0.05	0.06	0.08	0.10	0.12	0.14	0.23	0.26
ROW	0.39	0.50	0.61	0.68	0.82	1.03	1.10	1.25	1.59	1.88
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



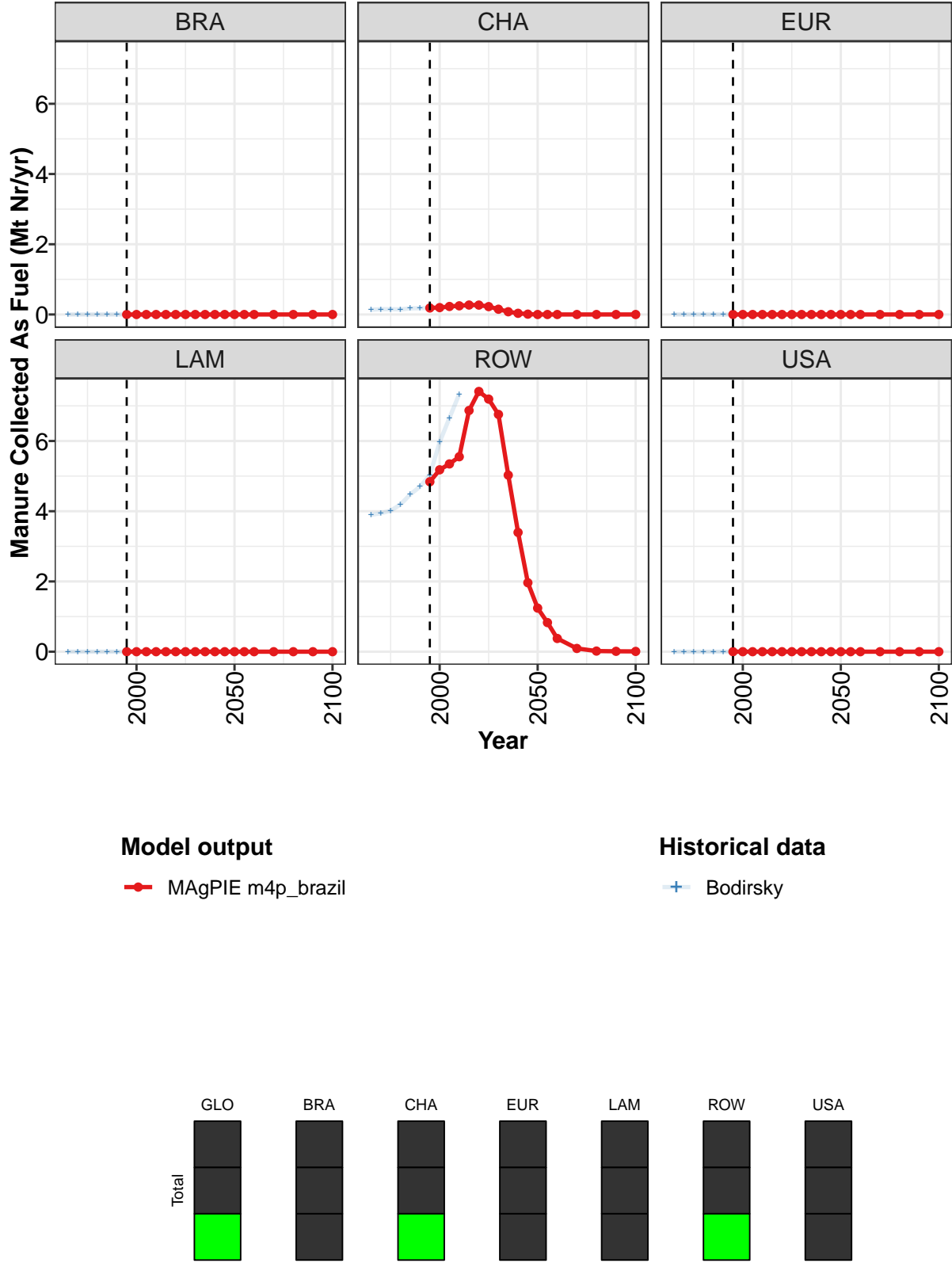


Figure 462: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Manure Collected As Fuel (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	5.02	5.38	5.58	5.80	7.14	7.68	7.42	6.91	5.11	3.43	1.97
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.19	0.20	0.23	0.25	0.27	0.27	0.22	0.15	0.08	0.03	0.01
EUR	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
ROW	4.84	5.18	5.35	5.55	6.87	7.41	7.19	6.76	5.03	3.40	1.96
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1779: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Manure Collected As Fuel (Mt Nr/yr)
[PART 1/2]

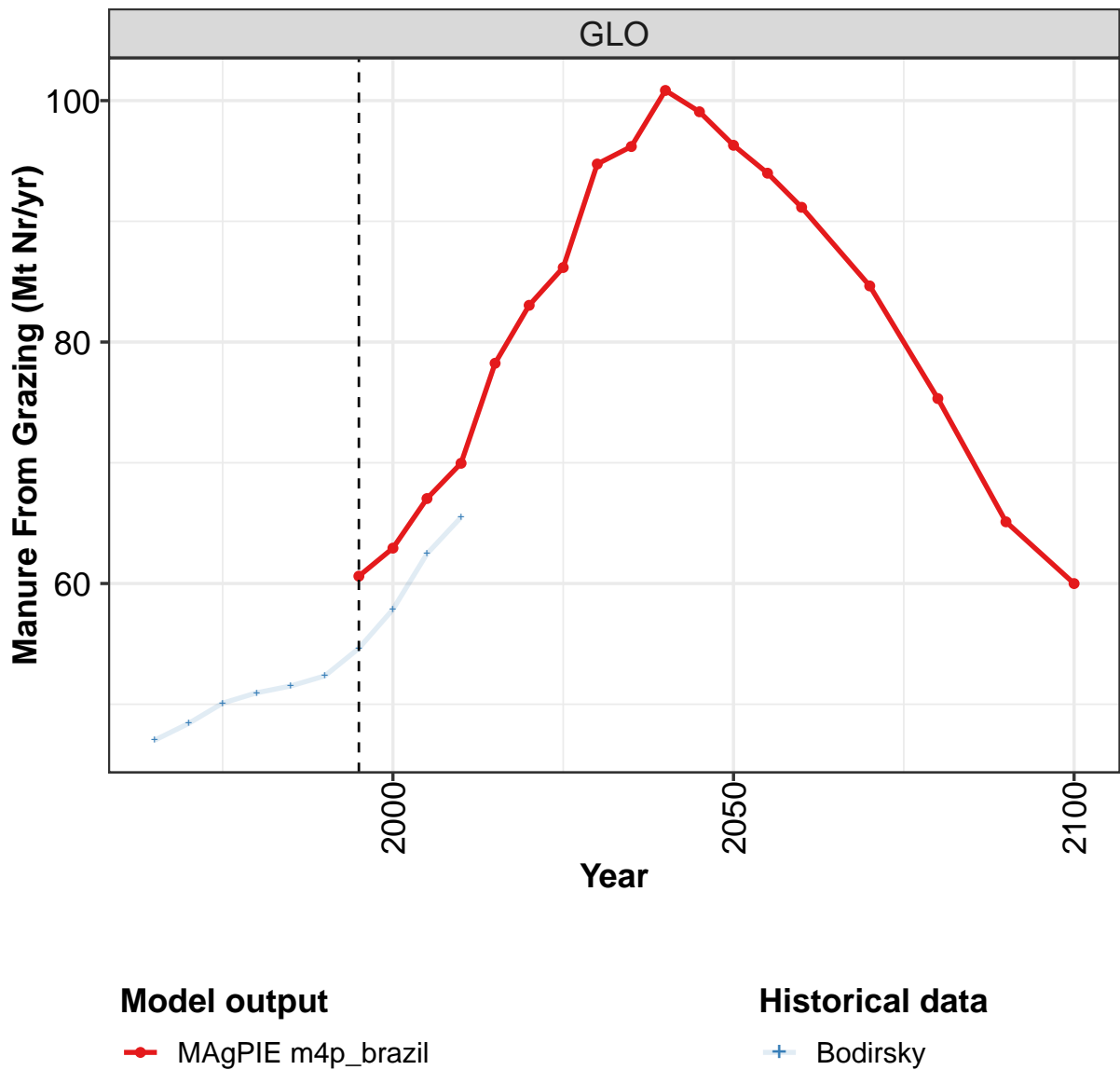
	2050	2055	2060	2070	2080	2090	2100
GLO	1.24	0.83	0.38	0.09	0.02	0.01	0.01
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	1.24	0.83	0.38	0.09	0.02	0.01	0.01
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1780: MAgPIE m4p_brazil — 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
BRA	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
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	3.90	3.94	4.01	4.19	4.48	4.70	5.03	5.97	6.66	7.33
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



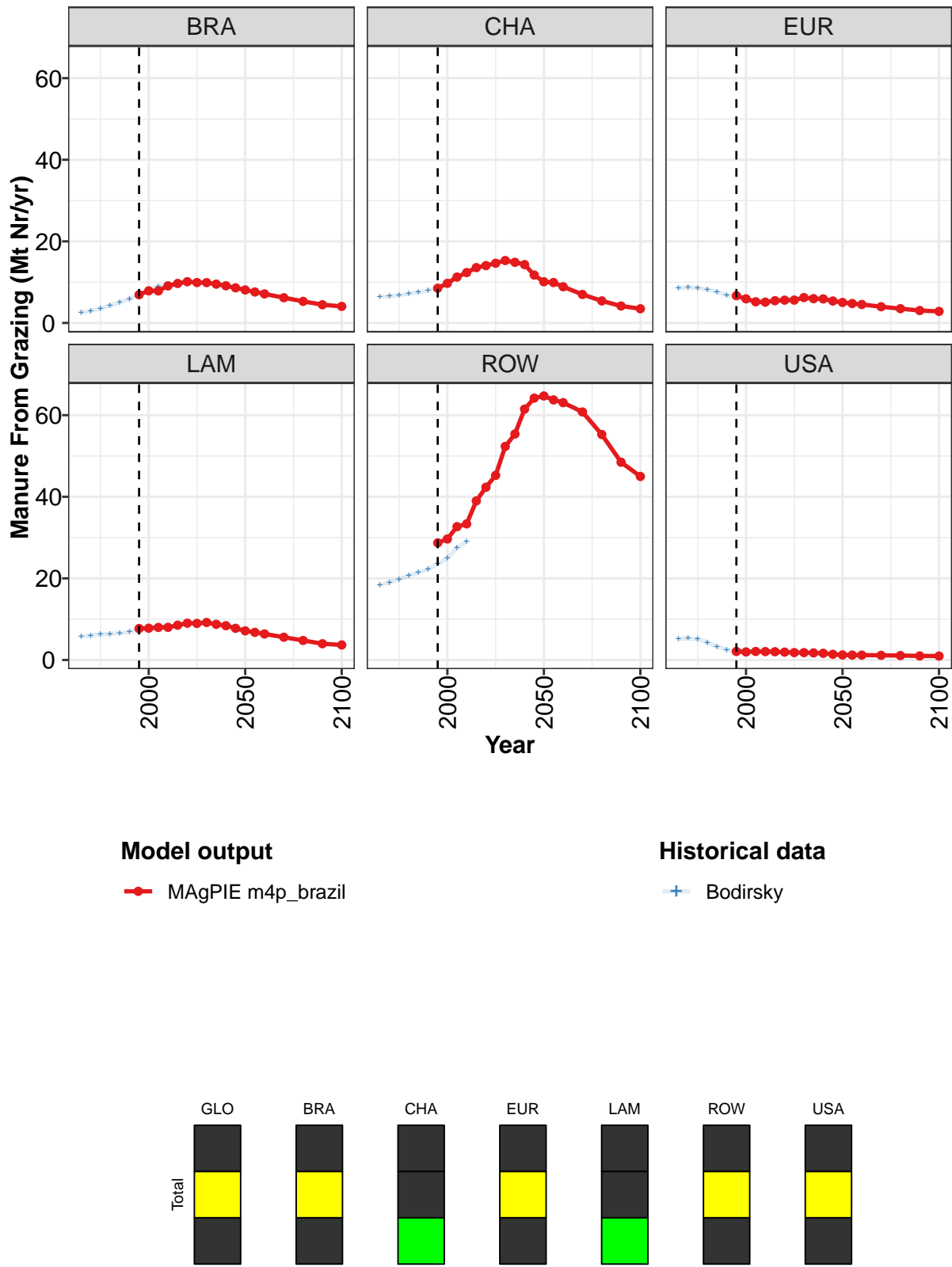


Figure 463: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Manure From Grazing (Mt N/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	61	63	67	70	78	83	86	95	96	101	99
BRA	7	8	8	9	10	10	10	10	10	9	9
CHA	9	10	11	12	14	14	15	15	15	14	12
EUR	7	6	5	5	5	6	6	6	6	6	5
LAM	8	8	8	8	9	9	9	9	9	8	8
ROW	29	30	33	33	39	42	45	52	55	61	64
USA	2	2	2	2	2	2	2	2	2	2	1

Table 1782: MAgPIE m4p.brazil — Resources—Nitrogen—Manure—Manure From Grazing (Mt Nr/yr) [PART 1/2]

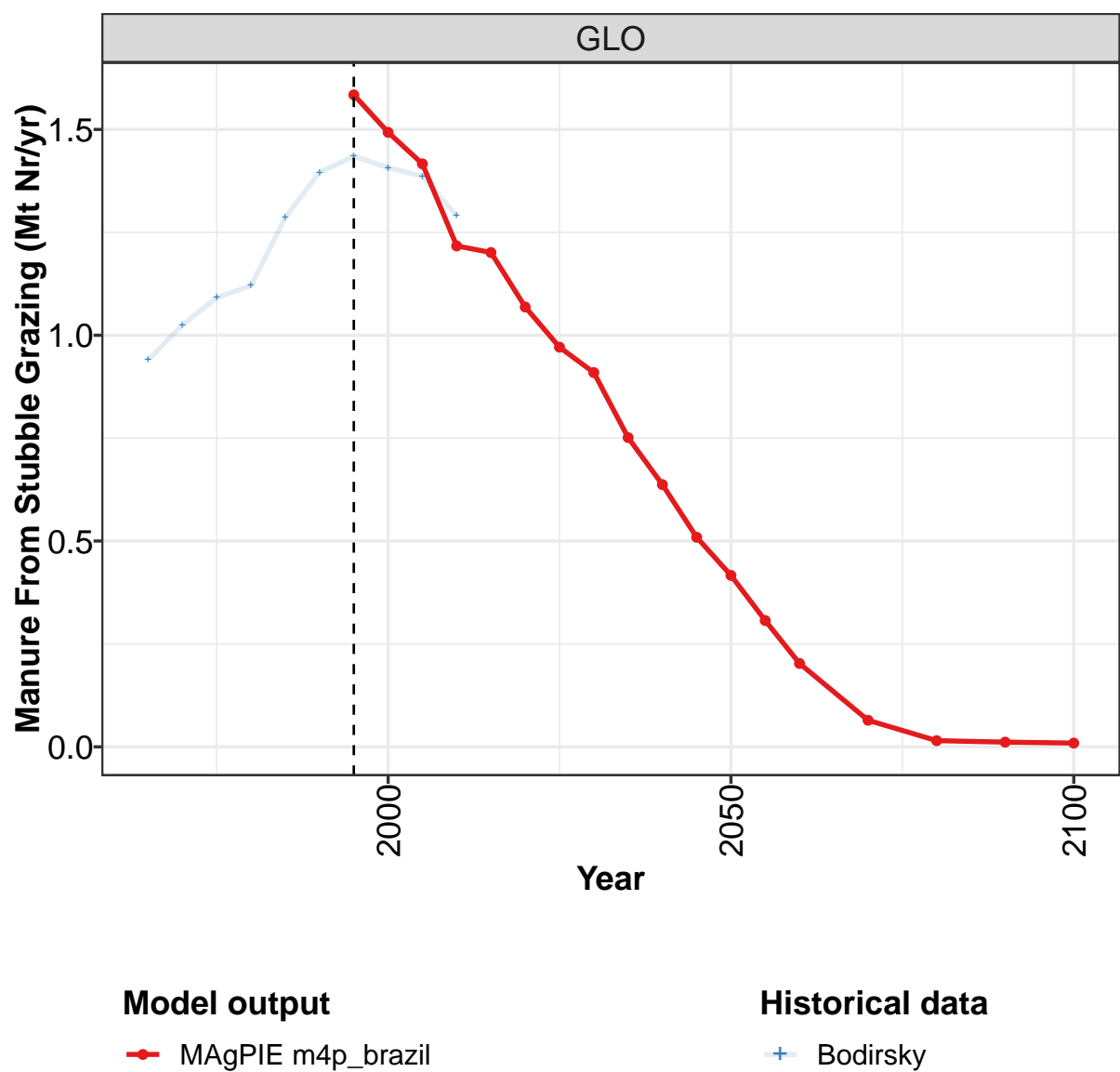
	2050	2055	2060	2070	2080	2090	2100
GLO	96	94	91	85	75	65	60
BRA	8	8	7	6	5	4	4
CHA	10	10	9	7	5	4	3
EUR	5	5	5	4	4	3	3
LAM	7	7	6	6	5	4	4
ROW	65	64	63	61	55	48	45
USA	1	1	1	1	1	1	1

Table 1783: MAgPIE m4p.brazil — 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
BRA	2.6	3.0	3.5	4.3	5.0	5.9	6.9	8.0	8.9	9.5
CHA	6.4	6.5	6.8	7.2	7.5	7.9	8.6	9.8	11.2	12.2
EUR	8.6	8.7	8.6	8.2	7.6	6.8	6.2	5.5	4.9	4.7
LAM	5.8	6.0	6.2	6.4	6.6	6.9	7.3	7.6	7.8	7.9
ROW	18.4	19.0	19.8	20.7	21.4	22.3	23.5	24.9	27.5	29.1
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



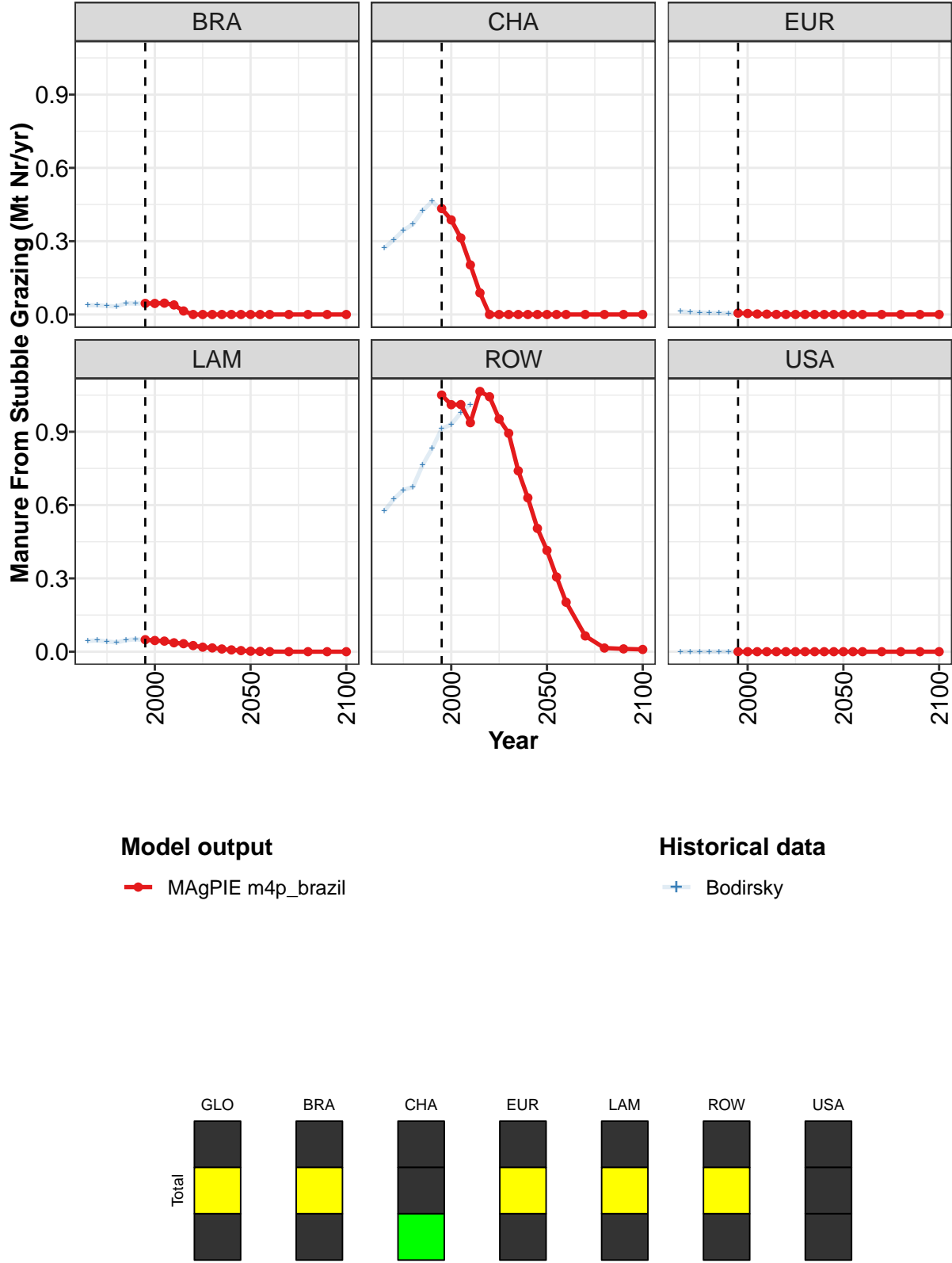


Figure 464: MAGPIE m4p_brazil — Resources—Nitrogen—Manure—Manure From Stubble Grazing (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.58	1.49	1.42	1.22	1.20	1.07	0.97	0.91	0.75	0.64	0.51
BRA	0.05	0.05	0.05	0.04	0.01	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	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.05	0.05	0.04	0.04	0.03	0.03	0.02	0.02	0.01	0.01	0.00
ROW	1.05	1.01	1.01	0.94	1.07	1.04	0.95	0.89	0.74	0.63	0.50
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_brazil — Resources—Nitrogen—Manure—Manure From Stubble Grazing (Mt Nr/yr)
[PART 1/2]

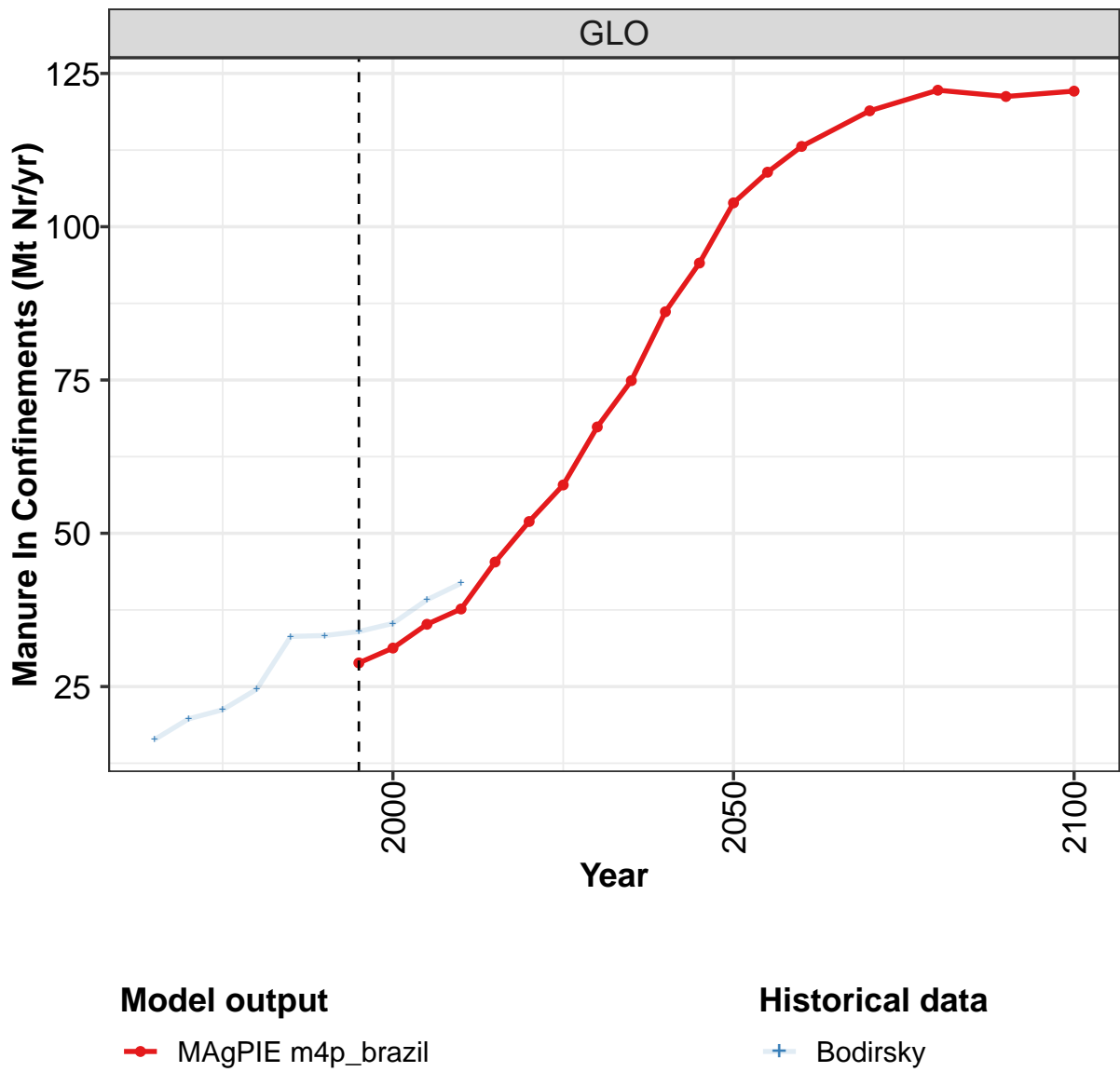
	2050	2055	2060	2070	2080	2090	2100
GLO	0.42	0.31	0.20	0.06	0.02	0.01	0.01
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	0.41	0.31	0.20	0.06	0.02	0.01	0.01
USA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 1786: MAgPIE m4p_brazil — 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
BRA	0.04	0.04	0.03	0.03	0.05	0.04	0.05	0.05	0.05	0.04
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	0.01	0.01	0.01	0.00	0.00	0.00	0.00
LAM	0.04	0.05	0.04	0.04	0.05	0.05	0.05	0.04	0.04	0.03
ROW	0.57	0.62	0.66	0.67	0.76	0.83	0.91	0.93	0.98	1.01
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



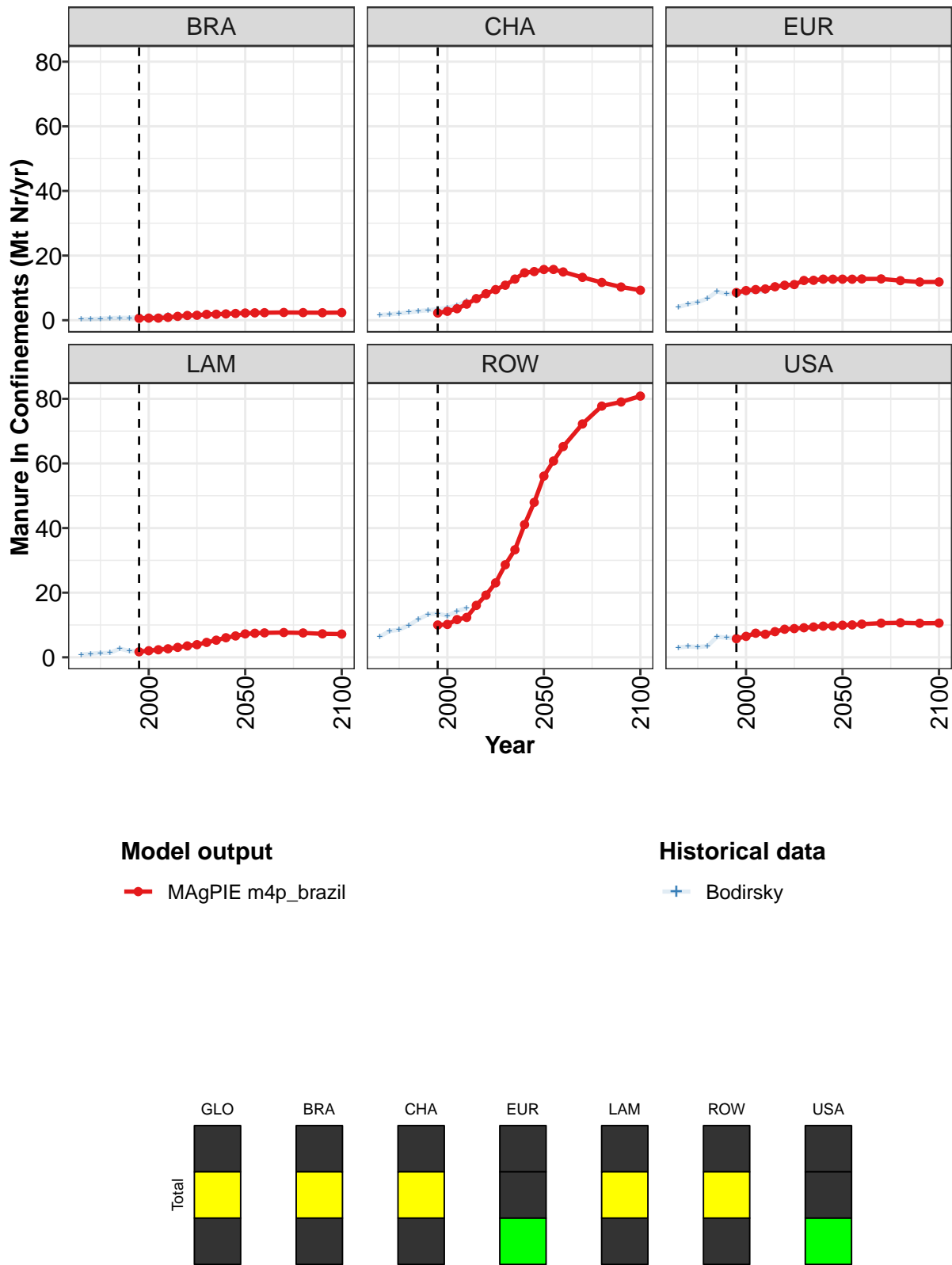


Figure 465: MAGPIE m4p_brazil — Resources—Nitrogen—Manure—Manure In Confinements (Mt N/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	29	31	35	38	45	52	58	67	75	86	94
BRA	1	1	1	1	1	1	2	2	2	2	2
CHA	2	3	4	5	7	8	9	11	13	15	15
EUR	9	9	9	10	10	11	11	12	12	13	13
LAM	2	2	2	3	3	4	4	5	5	6	7
ROW	10	10	12	12	16	19	23	29	33	41	48
USA	6	6	7	7	8	9	9	9	9	10	10

Table 1788: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Manure In Confinements (Mt Nr/yr)
[PART 1/2]

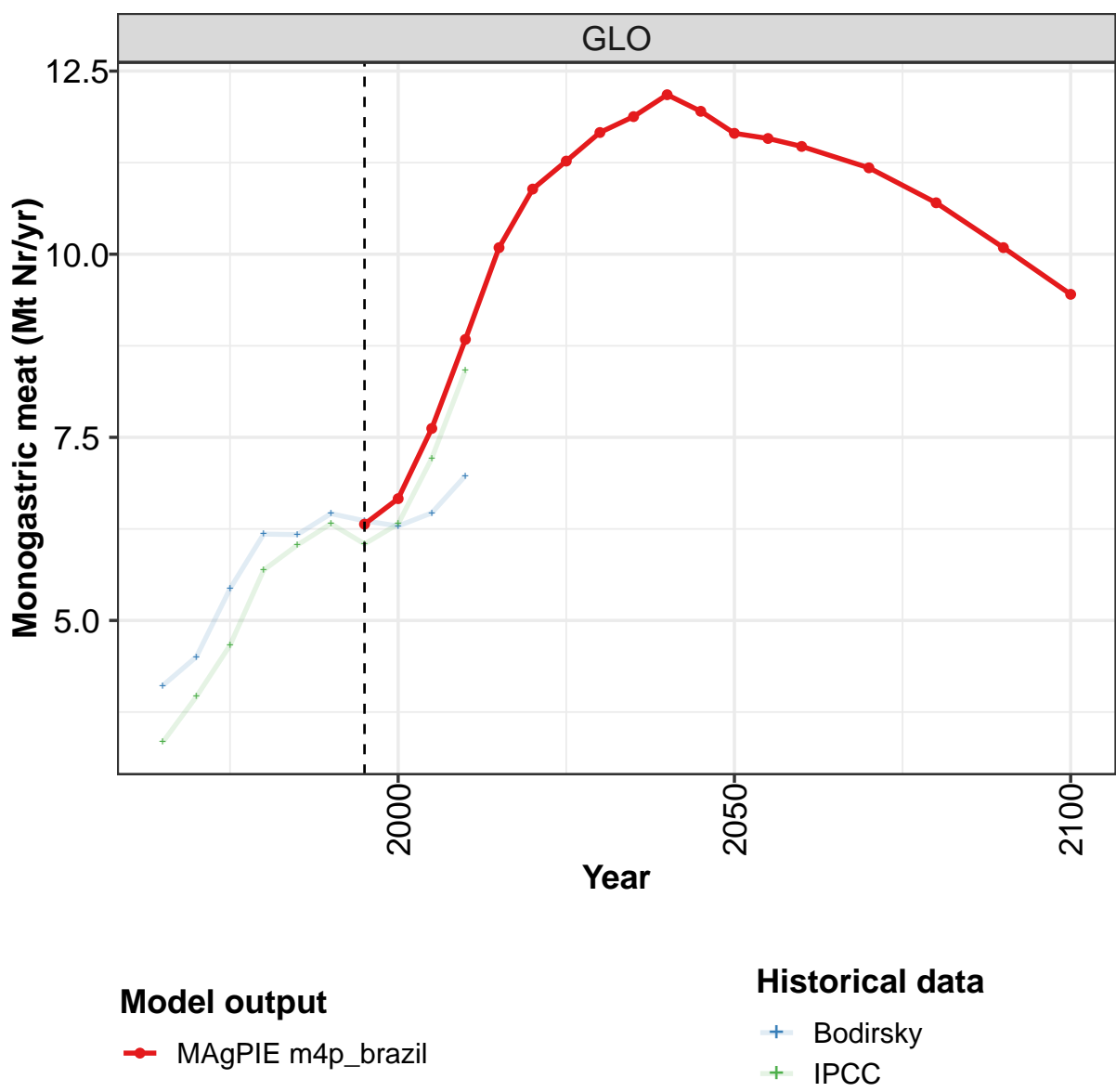
	2050	2055	2060	2070	2080	2090	2100
GLO	104	109	113	119	122	121	122
BRA	2	2	2	2	2	2	2
CHA	16	16	15	13	12	10	9
EUR	13	13	13	13	12	12	12
LAM	7	7	8	8	8	7	7
ROW	56	61	65	72	78	79	81
USA	10	10	10	11	11	11	11

Table 1789: MAgPIE m4p_brazil — 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
BRA	0.3	0.4	0.5	0.6	0.7	0.7	0.9	1.0	1.2	1.5
CHA	1.6	1.8	2.1	2.4	2.8	3.1	3.4	3.9	4.6	6.0
EUR	4.1	4.9	5.6	6.7	8.9	8.1	8.2	8.5	8.9	8.9
LAM	0.9	1.1	1.3	1.4	2.7	2.0	1.9	2.3	2.6	2.9
ROW	6.4	8.2	8.5	9.9	11.7	13.3	13.5	12.8	14.3	15.3
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



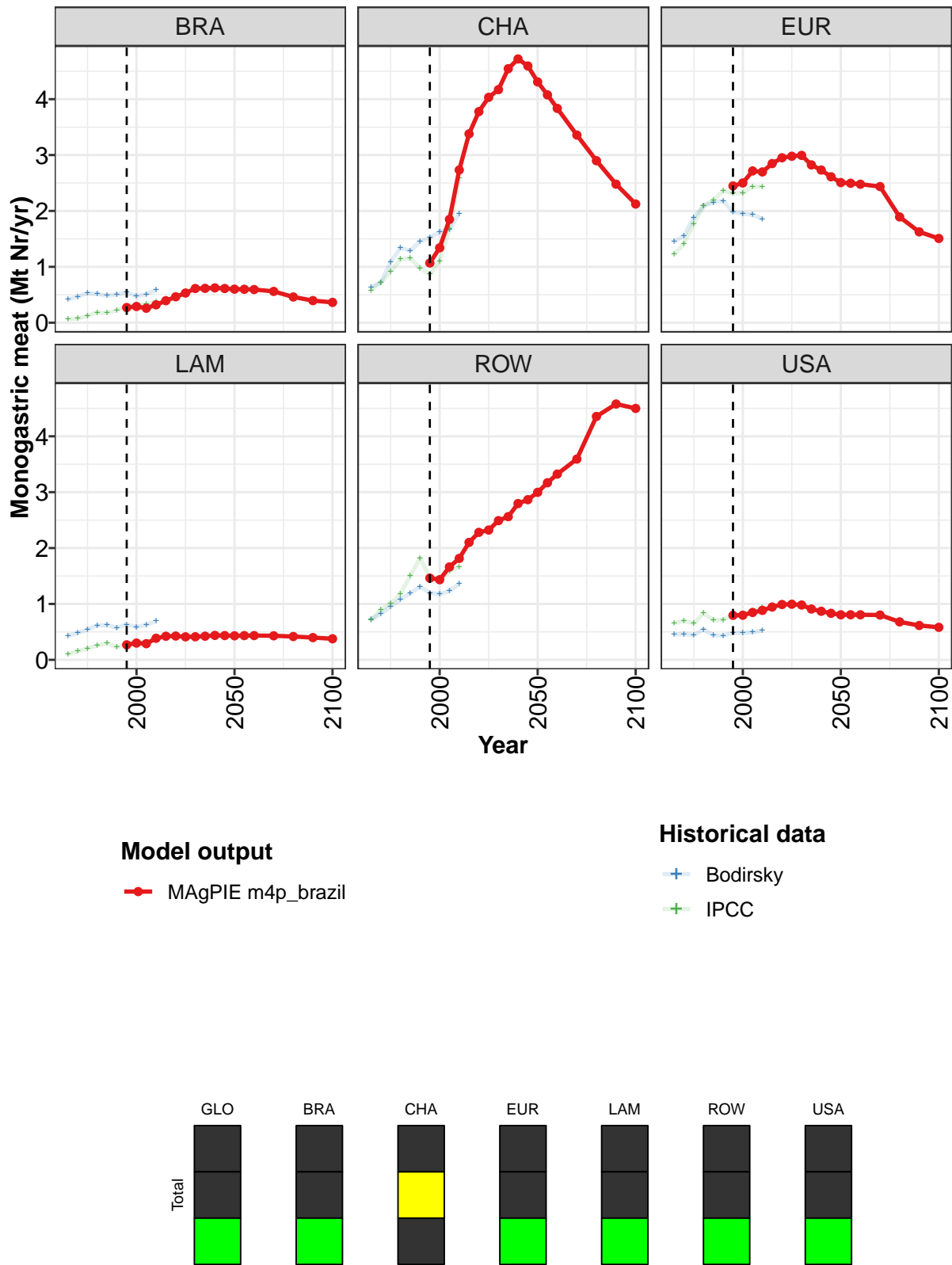


Figure 466: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Monogastric meat (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	6.3	6.7	7.6	8.8	10.1	10.9	11.3	11.7	11.9	12.2	12.0
BRA	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.6
CHA	1.1	1.3	1.8	2.7	3.4	3.8	4.0	4.2	4.5	4.7	4.6
EUR	2.4	2.5	2.7	2.7	2.8	3.0	3.0	3.0	2.8	2.7	2.6
LAM	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
ROW	1.5	1.4	1.7	1.8	2.1	2.3	2.3	2.5	2.6	2.8	2.9
USA	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.0	0.9	0.9	0.8

Table 1791: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Monogastric meat (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	11.7	11.6	11.5	11.2	10.7	10.1	9.5
BRA	0.6	0.6	0.6	0.6	0.5	0.4	0.4
CHA	4.3	4.1	3.8	3.4	2.9	2.5	2.1
EUR	2.5	2.5	2.5	2.4	1.9	1.6	1.5
LAM	0.4	0.4	0.4	0.4	0.4	0.4	0.4
ROW	3.0	3.2	3.3	3.6	4.4	4.6	4.5
USA	0.8	0.8	0.8	0.8	0.7	0.6	0.6

Table 1792: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Monogastric meat (Mt Nr/yr) [PART 2/2]

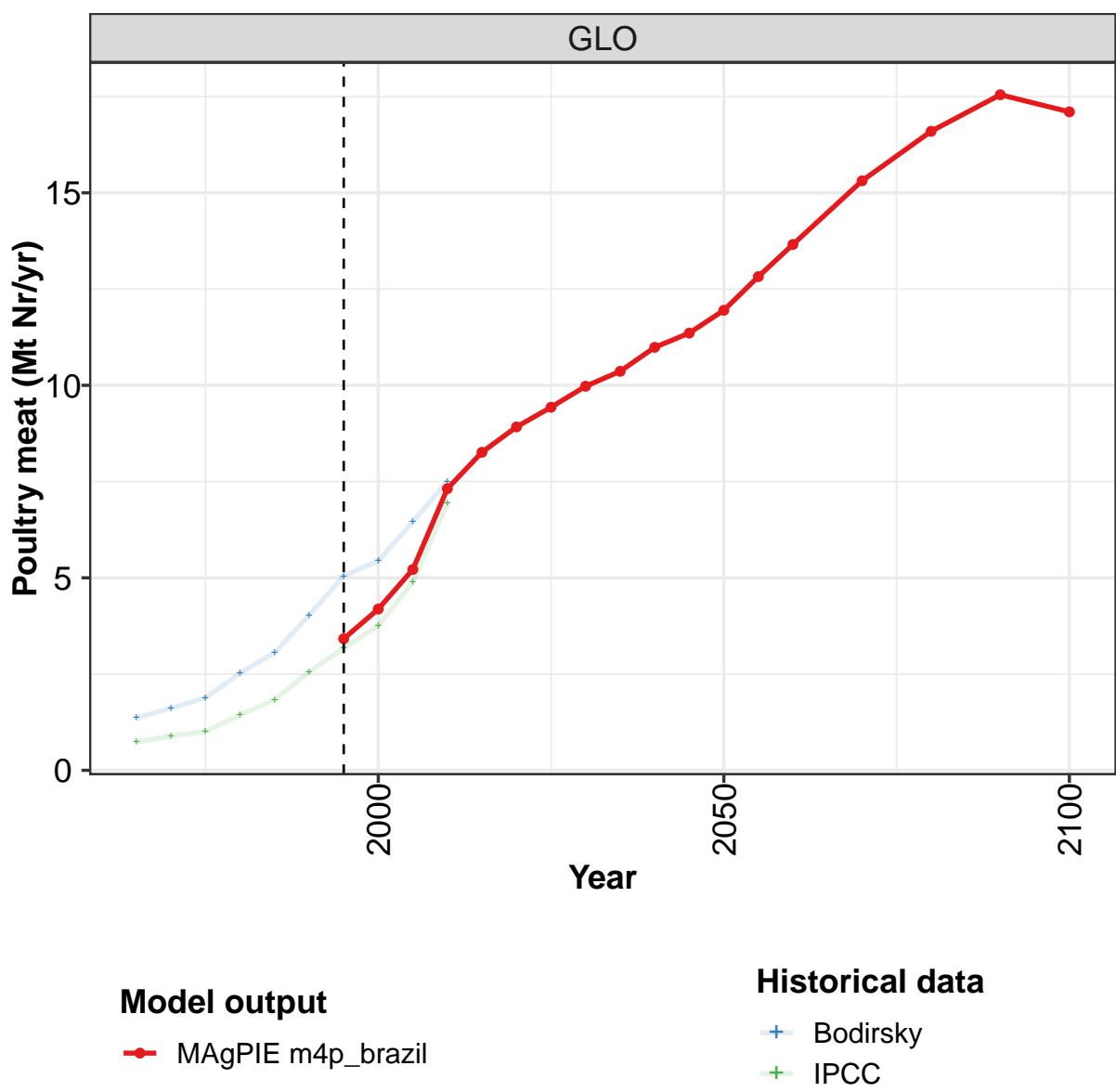
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	4.11	4.50	5.43	6.18	6.17	6.46	6.36	6.29	6.47	6.98
BRA	0.42	0.46	0.53	0.51	0.48	0.50	0.54	0.47	0.51	0.58
CHA	0.64	0.72	1.08	1.34	1.29	1.45	1.52	1.63	1.67	1.96
EUR	1.45	1.56	1.88	2.09	2.15	2.18	1.98	1.95	1.93	1.86
LAM	0.43	0.48	0.54	0.61	0.62	0.58	0.63	0.59	0.63	0.70
ROW	0.72	0.82	0.95	1.08	1.19	1.31	1.20	1.18	1.23	1.36
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
BRA	0.06	0.08	0.12	0.19	0.18	0.22	0.29	0.32	0.33	0.37
CHA	0.58	0.72	0.91	1.14	1.15	0.98	0.87	1.10	1.68	2.59
EUR	1.22	1.42	1.77	2.09	2.20	2.36	2.31	2.32	2.43	2.44
LAM	0.10	0.15	0.20	0.26	0.30	0.23	0.29	0.33	0.30	0.41
ROW	0.71	0.89	1.01	1.18	1.50	1.82	1.48	1.43	1.58	1.66
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



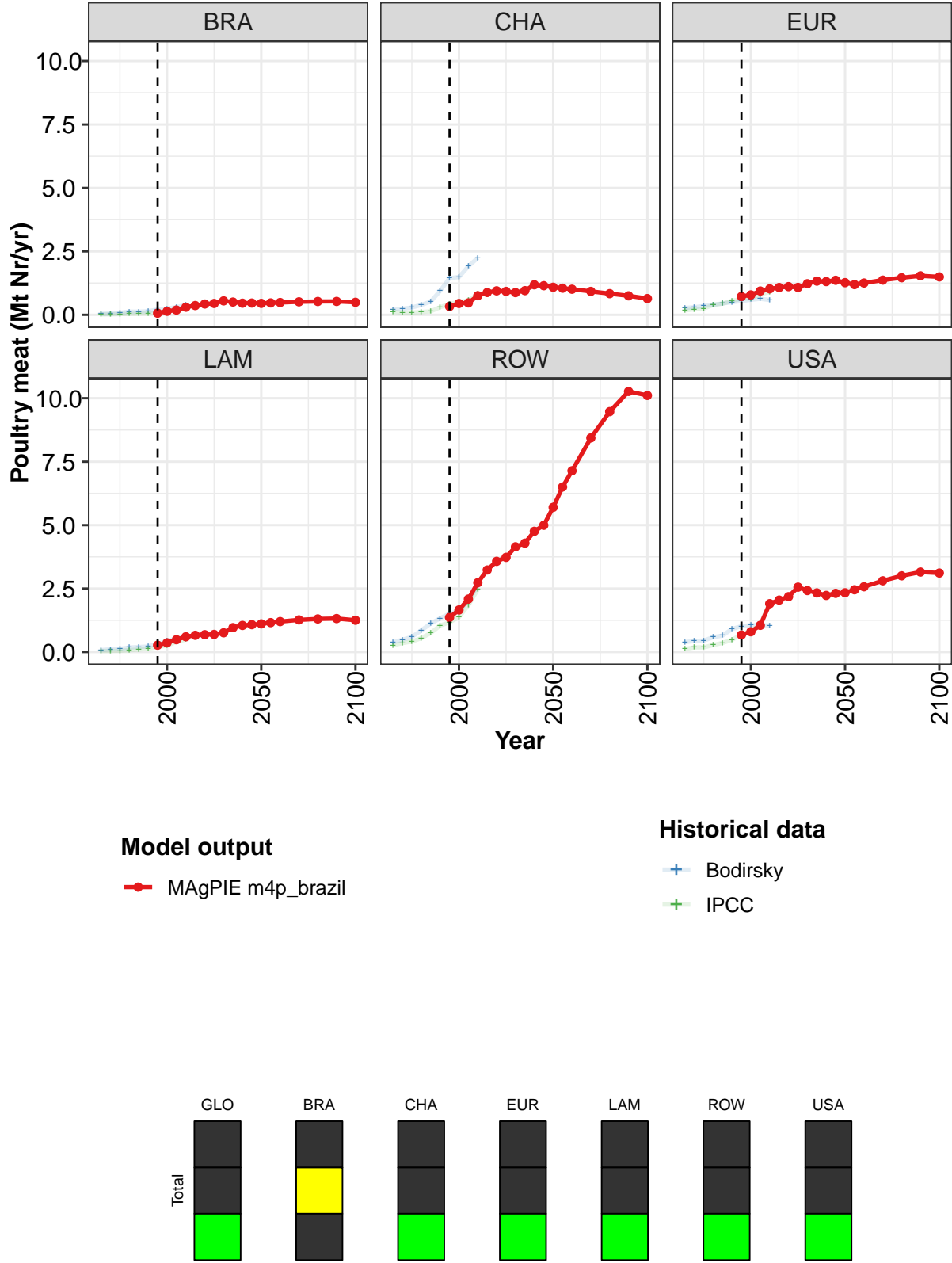


Figure 467: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Poultry meat (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	3.4	4.2	5.2	7.3	8.3	8.9	9.4	10.0	10.4	11.0	11.4
BRA	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5
CHA	0.3	0.4	0.5	0.8	0.9	0.9	0.9	0.9	1.0	1.2	1.1
EUR	0.7	0.8	0.9	1.0	1.1	1.1	1.1	1.2	1.3	1.3	1.4
LAM	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.8	1.0	1.0	1.1
ROW	1.4	1.7	2.1	2.7	3.2	3.6	3.7	4.1	4.3	4.8	5.0
USA	0.7	0.8	1.1	1.9	2.0	2.2	2.6	2.4	2.3	2.2	2.3

Table 1795: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Poultry meat (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	11.9	12.8	13.7	15.3	16.6	17.5	17.1
BRA	0.5	0.5	0.5	0.5	0.5	0.5	0.5
CHA	1.1	1.0	1.0	0.9	0.8	0.7	0.6
EUR	1.3	1.2	1.3	1.4	1.5	1.5	1.5
LAM	1.1	1.2	1.2	1.3	1.3	1.3	1.3
ROW	5.7	6.5	7.1	8.4	9.5	10.3	10.1
USA	2.3	2.5	2.6	2.8	3.0	3.2	3.1

Table 1796: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Poultry meat (Mt Nr/yr) [PART 2/2]

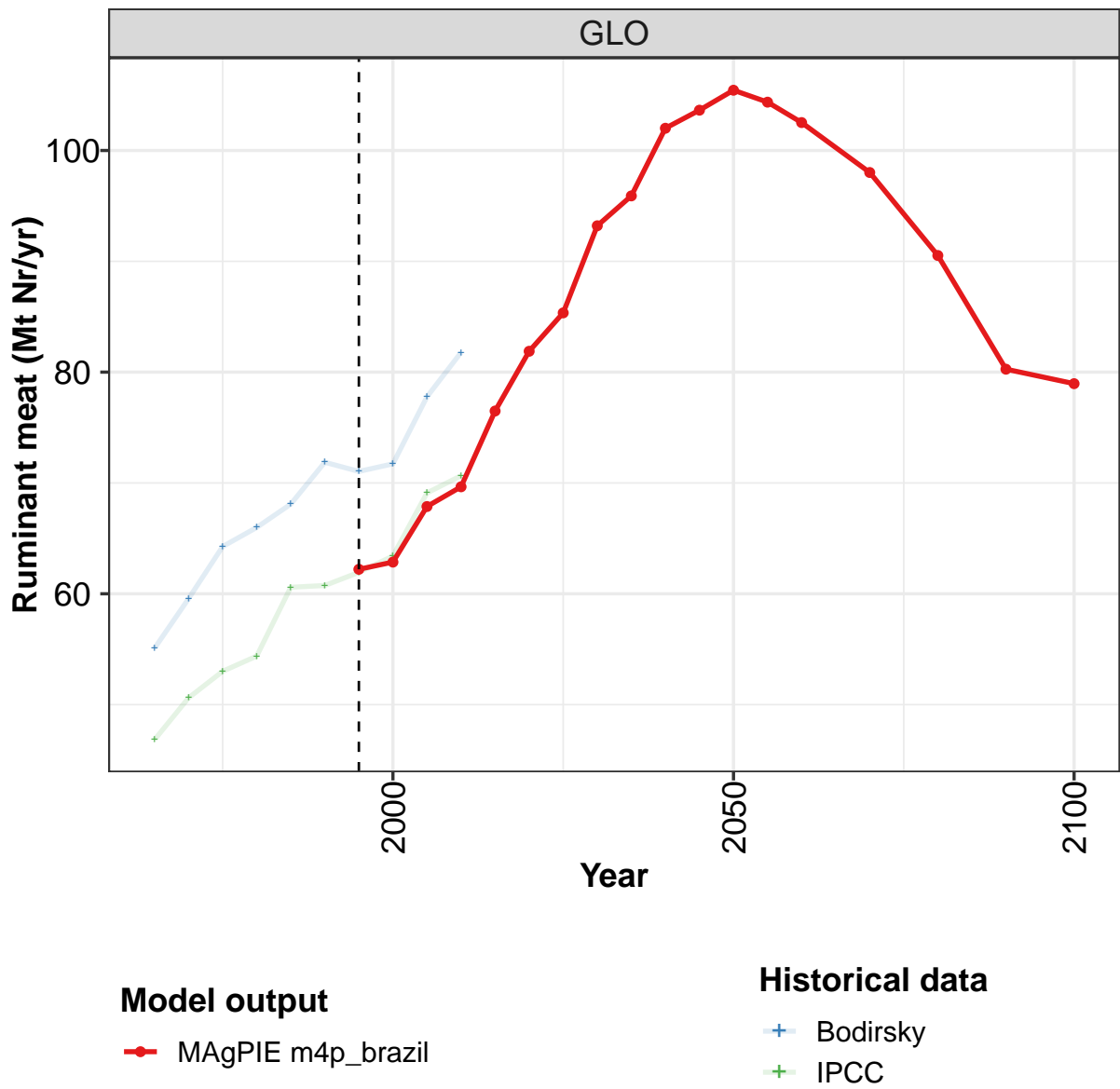
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	1.36	1.61	1.89	2.52	3.06	4.03	5.05	5.44	6.46	7.51
BRA	0.04	0.05	0.08	0.12	0.12	0.14	0.21	0.24	0.30	0.39
CHA	0.20	0.24	0.29	0.39	0.52	0.94	1.44	1.49	1.91	2.25
EUR	0.27	0.30	0.35	0.40	0.45	0.50	0.54	0.59	0.63	0.58
LAM	0.08	0.11	0.13	0.18	0.20	0.22	0.33	0.43	0.54	0.63
ROW	0.38	0.48	0.59	0.85	1.12	1.33	1.51	1.63	2.01	2.62
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
BRA	0.01	0.02	0.03	0.04	0.05	0.06	0.06	0.14	0.20	0.31
CHA	0.12	0.08	0.09	0.11	0.14	0.30	0.43	0.51	0.57	0.81
EUR	0.17	0.22	0.25	0.39	0.44	0.55	0.63	0.66	0.81	0.90
LAM	0.04	0.04	0.05	0.07	0.10	0.13	0.19	0.26	0.40	0.49
ROW	0.27	0.35	0.41	0.55	0.75	1.04	1.17	1.37	1.84	2.47
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



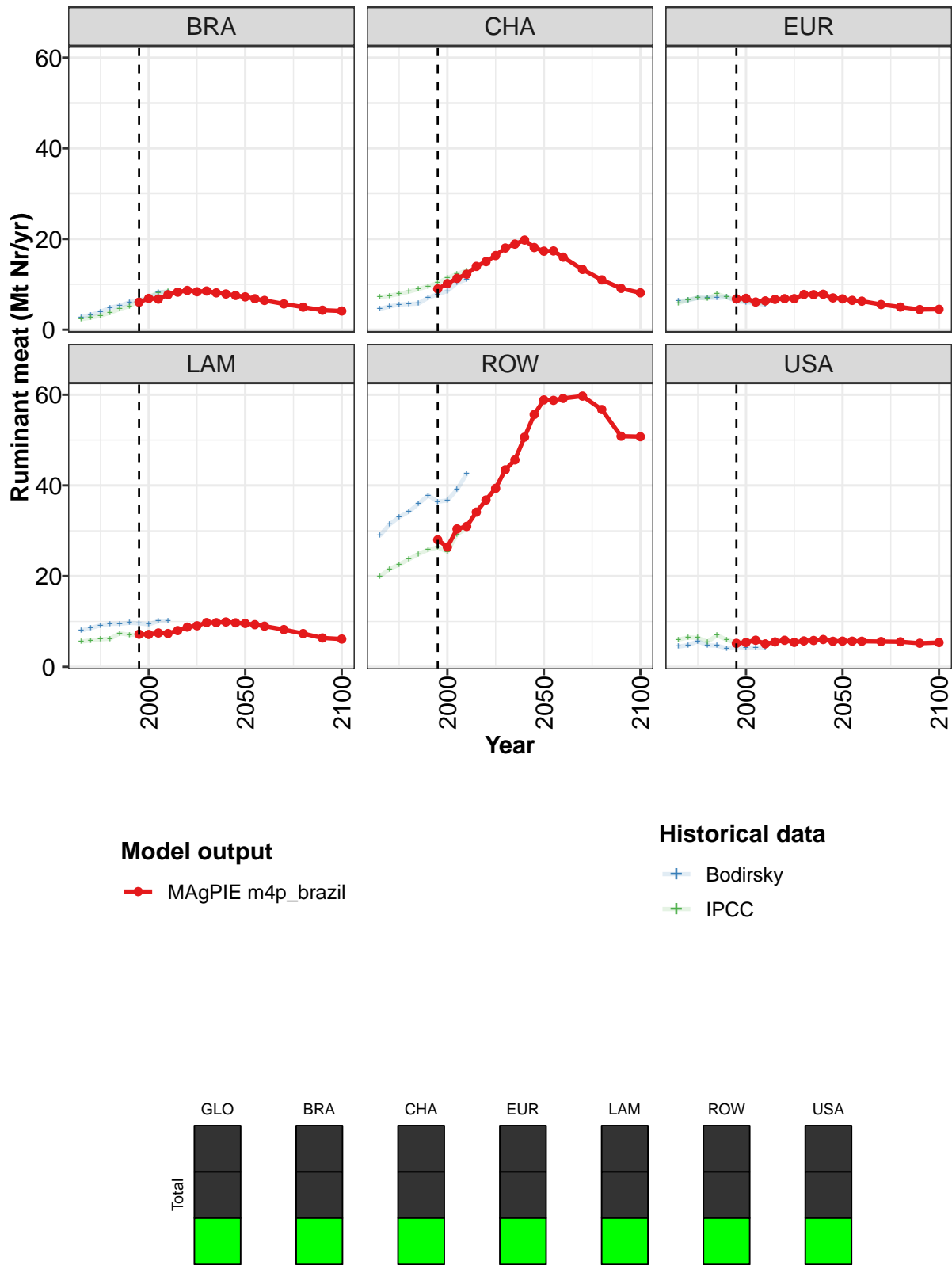


Figure 468: MAgPIE m4p.brazil — Resources—Nitrogen—Manure—Ruminant meat (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	62	63	68	70	76	82	85	93	96	102	104
BRA	6	7	7	8	8	9	8	9	8	8	8
CHA	9	10	11	12	14	15	16	18	19	20	18
EUR	7	7	6	6	7	7	7	8	8	8	7
LAM	7	7	7	7	8	9	9	10	10	10	10
ROW	28	26	30	31	34	37	39	43	46	51	56
USA	5	5	6	5	5	6	5	6	6	6	6

Table 1799: MAgPIE m4p_brazil — Resources—Nitrogen—Manure—Ruminant meat (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	105	104	103	98	91	80	79
BRA	7	7	6	6	5	4	4
CHA	17	17	16	13	11	9	8
EUR	7	6	6	6	5	4	4
LAM	10	9	9	8	7	6	6
ROW	59	59	59	60	57	51	51
USA	6	6	6	6	6	5	5

Table 1800: MAgPIE m4p_brazil — 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
BRA	2.8	3.3	3.9	4.9	5.3	6.0	6.5	6.8	8.3	8.3
CHA	4.6	5.1	5.5	5.7	5.8	7.1	7.8	8.5	10.3	11.1
EUR	6.3	6.5	7.0	7.1	7.0	7.2	6.3	6.1	5.8	5.5
LAM	8.0	8.6	9.1	9.5	9.5	9.7	9.6	9.4	10.1	10.1
ROW	28.9	31.4	33.0	34.2	35.9	37.8	36.4	36.7	39.1	42.6
USA	4.5	4.8	5.6	4.7	4.6	4.1	4.4	4.2	4.2	4.2

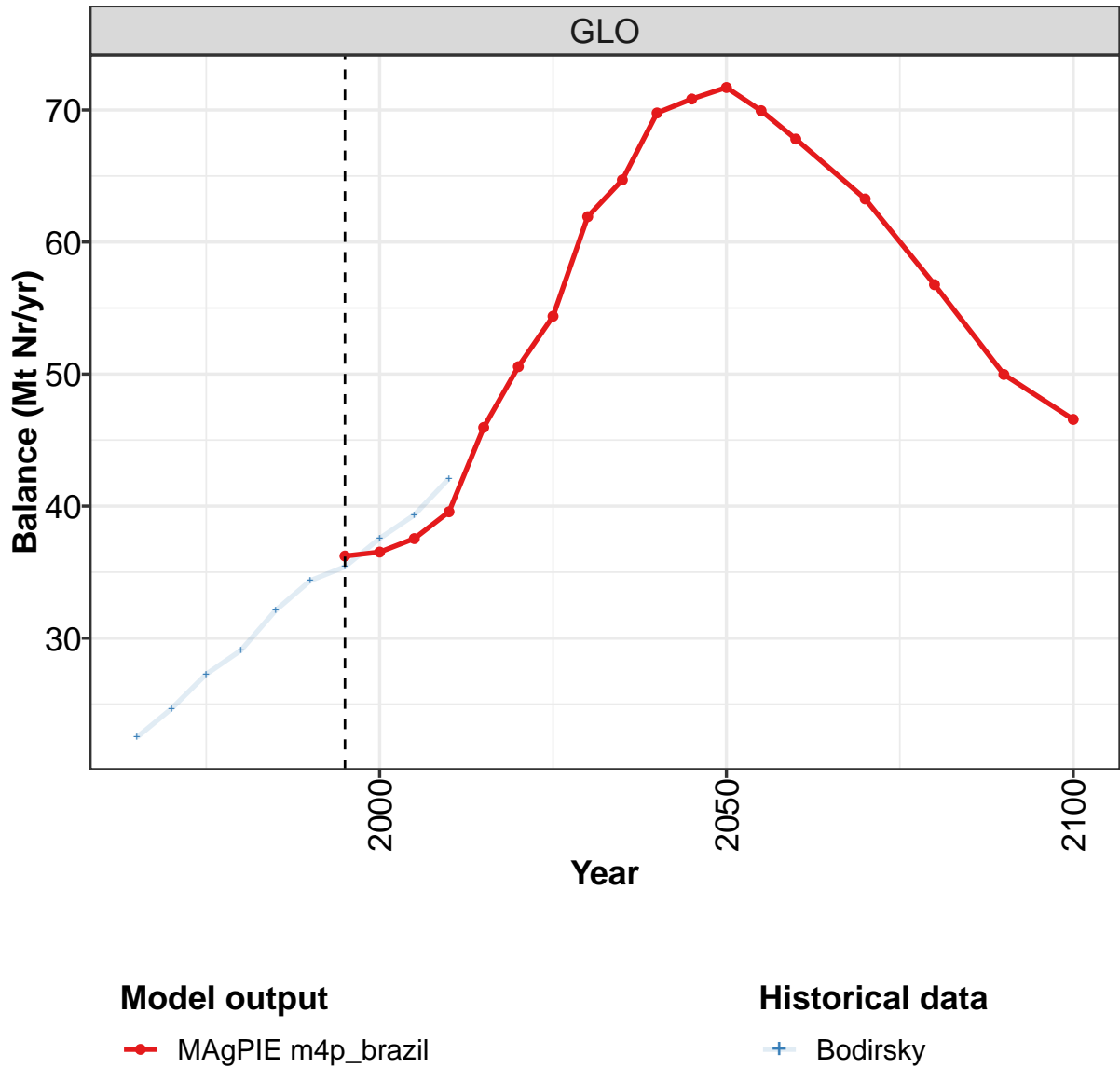
Table 1801: IPCC — Resources—Nitrogen—Manure—Ruminant meat (Mt Nr/yr)

	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
BRA	2.3	2.7	3.1	3.7	4.5	5.2	6.3	7.3	8.1	8.5
CHA	7.2	7.5	7.9	8.4	9.0	9.6	10.3	11.4	12.3	13.0
EUR	5.9	6.6	7.1	6.9	7.9	7.2	6.6	6.4	5.9	5.9
LAM	5.6	5.8	6.1	6.2	7.4	7.1	7.0	7.3	7.6	7.6
ROW	19.9	21.6	22.5	23.7	24.9	25.8	26.3	25.4	29.2	30.5
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



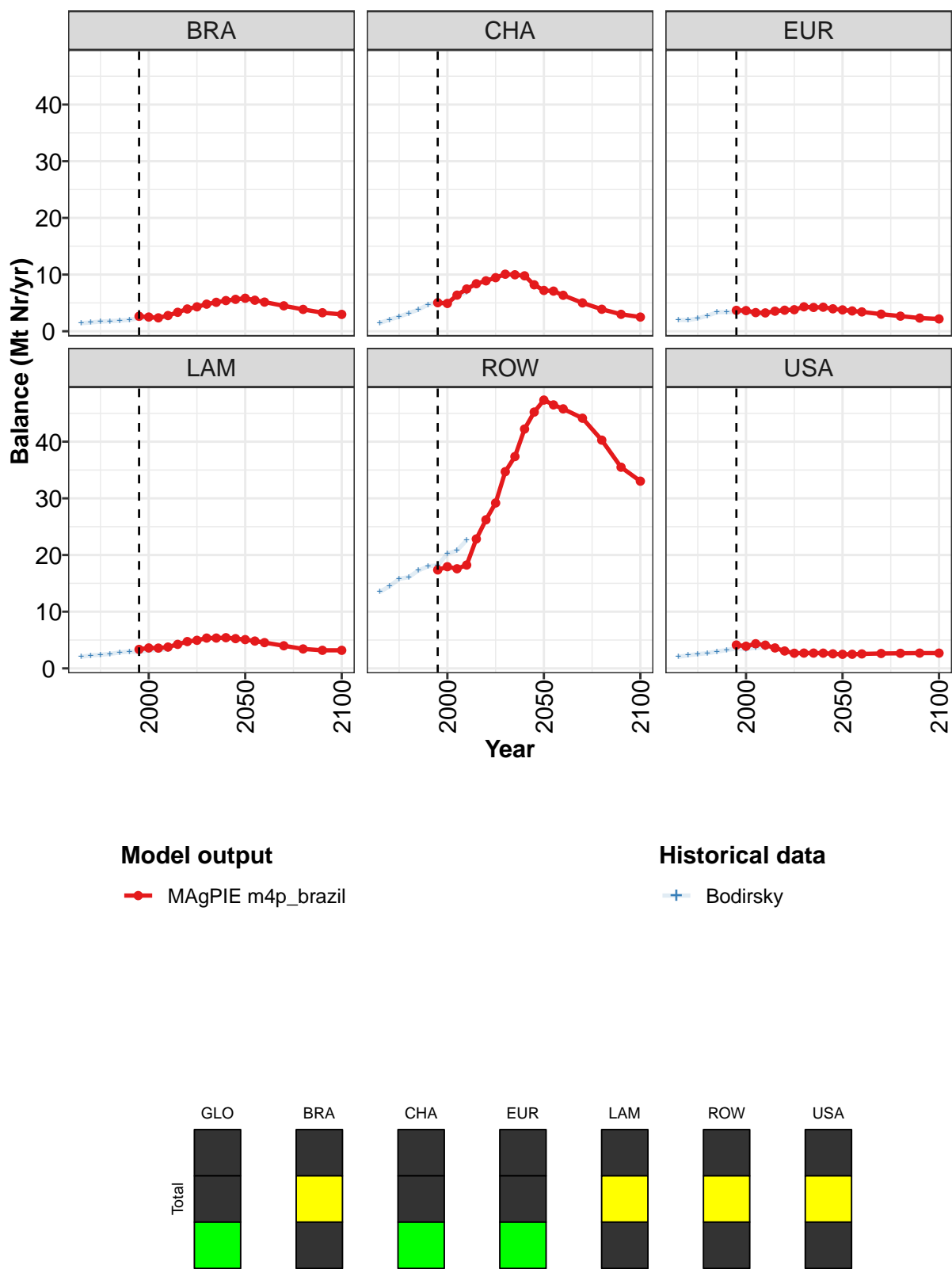


Figure 469: MAGPIE m4p.brazil — Resources—Nitrogen—Pasture Budget—Balance (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	36.2	36.5	37.5	39.6	46.0	50.6	54.4	61.9	64.7	69.8	70.8
BRA	2.6	2.5	2.4	2.8	3.3	3.9	4.3	4.8	5.1	5.4	5.6
CHA	5.0	4.9	6.4	7.5	8.4	8.9	9.5	10.1	10.0	9.8	8.2
EUR	3.7	3.6	3.3	3.2	3.5	3.7	3.8	4.3	4.2	4.2	4.0
LAM	3.4	3.6	3.6	3.8	4.2	4.7	5.0	5.3	5.4	5.4	5.3
ROW	17.4	17.9	17.6	18.2	22.8	26.2	29.2	34.7	37.4	42.2	45.2
USA	4.1	3.9	4.3	4.1	3.6	3.1	2.7	2.7	2.7	2.7	2.6

Table 1803: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Balance (Mt Nr/yr) [PART 1/2]

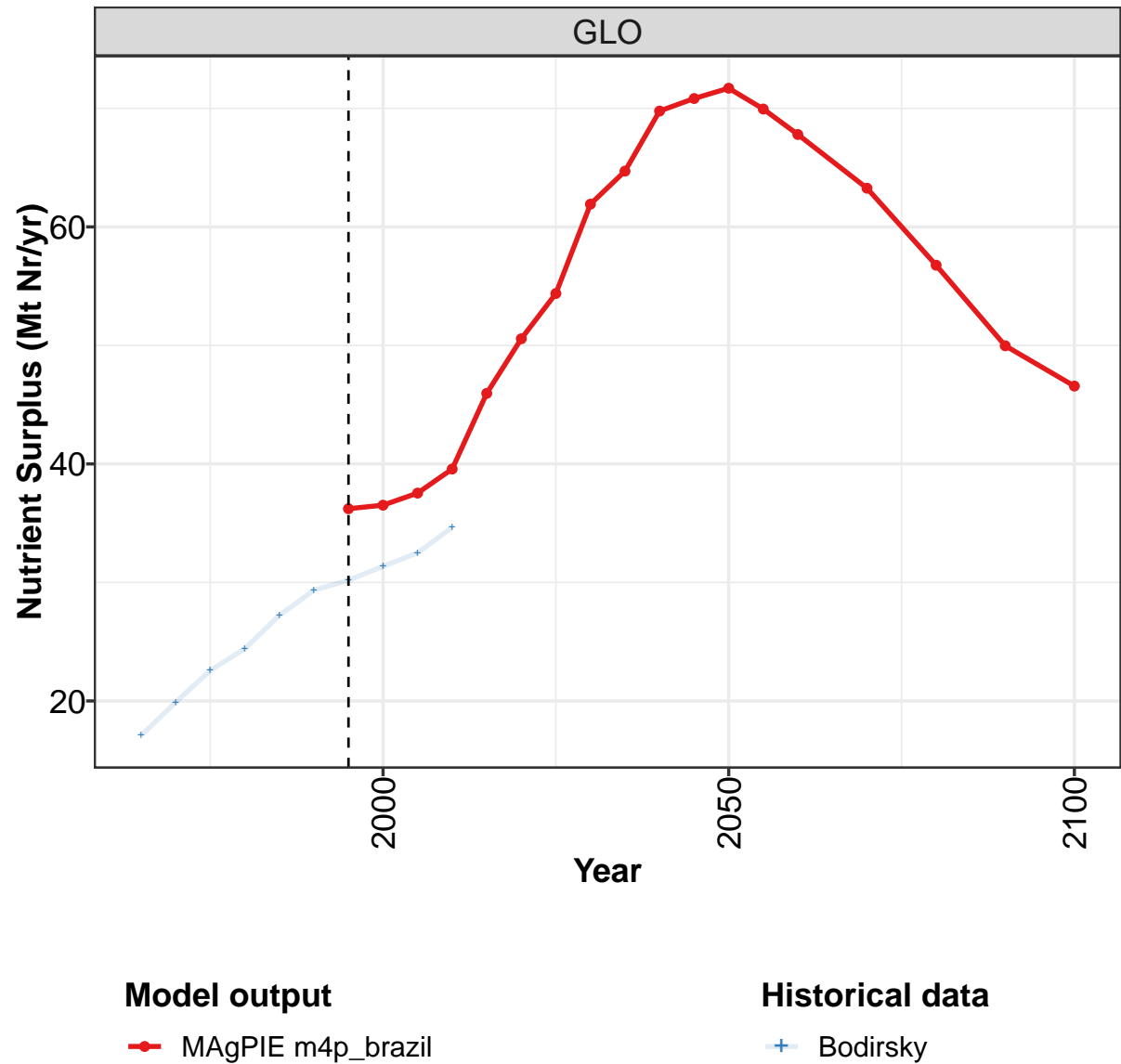
	2050	2055	2060	2070	2080	2090	2100
GLO	71.7	69.9	67.8	63.3	56.8	50.0	46.6
BRA	5.8	5.5	5.1	4.5	3.9	3.3	3.0
CHA	7.2	7.1	6.3	5.0	3.9	3.0	2.5
EUR	3.8	3.6	3.4	3.0	2.7	2.3	2.2
LAM	5.1	4.8	4.5	4.0	3.4	3.2	3.2
ROW	47.3	46.5	45.8	44.1	40.3	35.5	33.0
USA	2.5	2.5	2.6	2.6	2.7	2.7	2.7

Table 1804: MAgPIE m4p_brazil — 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
BRA	1.4	1.6	1.7	1.8	1.9	2.0	2.3	2.3	2.5	2.5
CHA	1.5	2.1	2.6	3.2	3.8	4.7	5.2	5.1	6.1	7.0
EUR	2.0	2.0	2.3	2.8	3.4	3.4	3.4	3.3	3.1	3.0
LAM	2.1	2.3	2.4	2.6	2.8	3.0	2.9	3.2	3.2	3.4
ROW	13.5	14.5	15.8	16.1	17.3	18.0	18.2	20.2	20.8	22.6
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



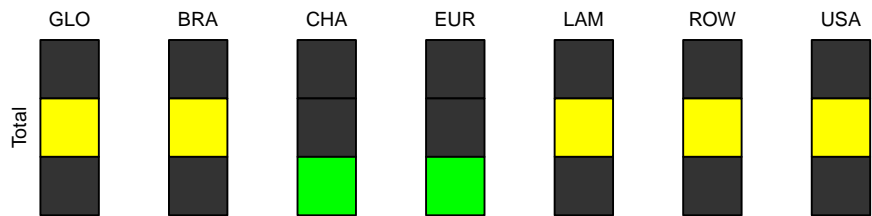
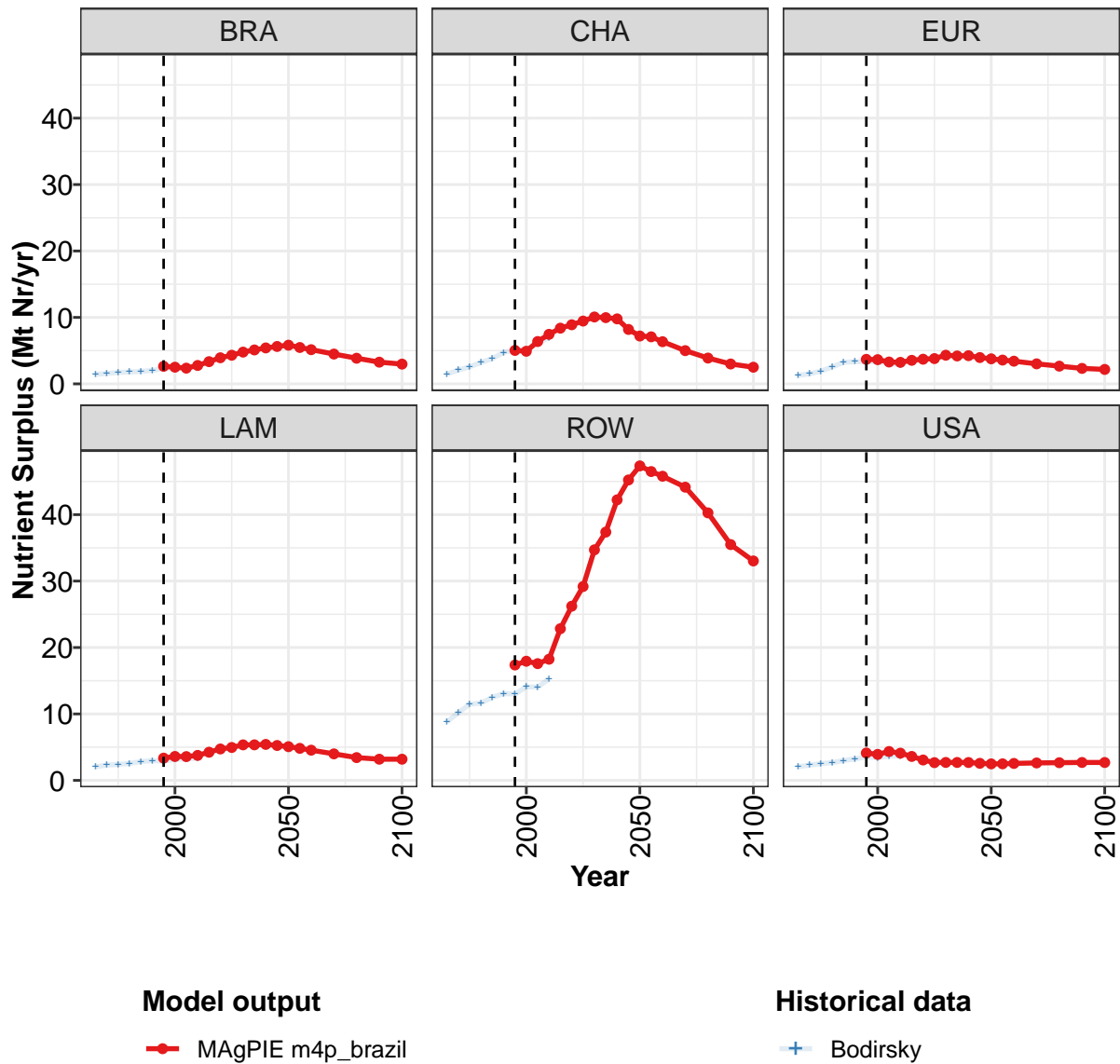


Figure 470: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Balance—Nutrient Surplus (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	36.2	36.5	37.5	39.6	46.0	50.6	54.4	61.9	64.7	69.8	70.8
BRA	2.6	2.5	2.4	2.8	3.3	3.9	4.3	4.8	5.1	5.4	5.6
CHA	5.0	4.9	6.4	7.5	8.4	8.9	9.5	10.1	10.0	9.8	8.2
EUR	3.7	3.6	3.3	3.2	3.5	3.7	3.8	4.3	4.2	4.2	4.0
LAM	3.4	3.6	3.6	3.8	4.2	4.7	5.0	5.3	5.4	5.4	5.3
ROW	17.4	17.9	17.6	18.2	22.8	26.2	29.2	34.7	37.4	42.2	45.2
USA	4.1	3.9	4.3	4.1	3.6	3.1	2.7	2.7	2.7	2.7	2.6

Table 1806: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Balance—Nutrient Surplus (Mt Nr/yr) [PART 1/2]

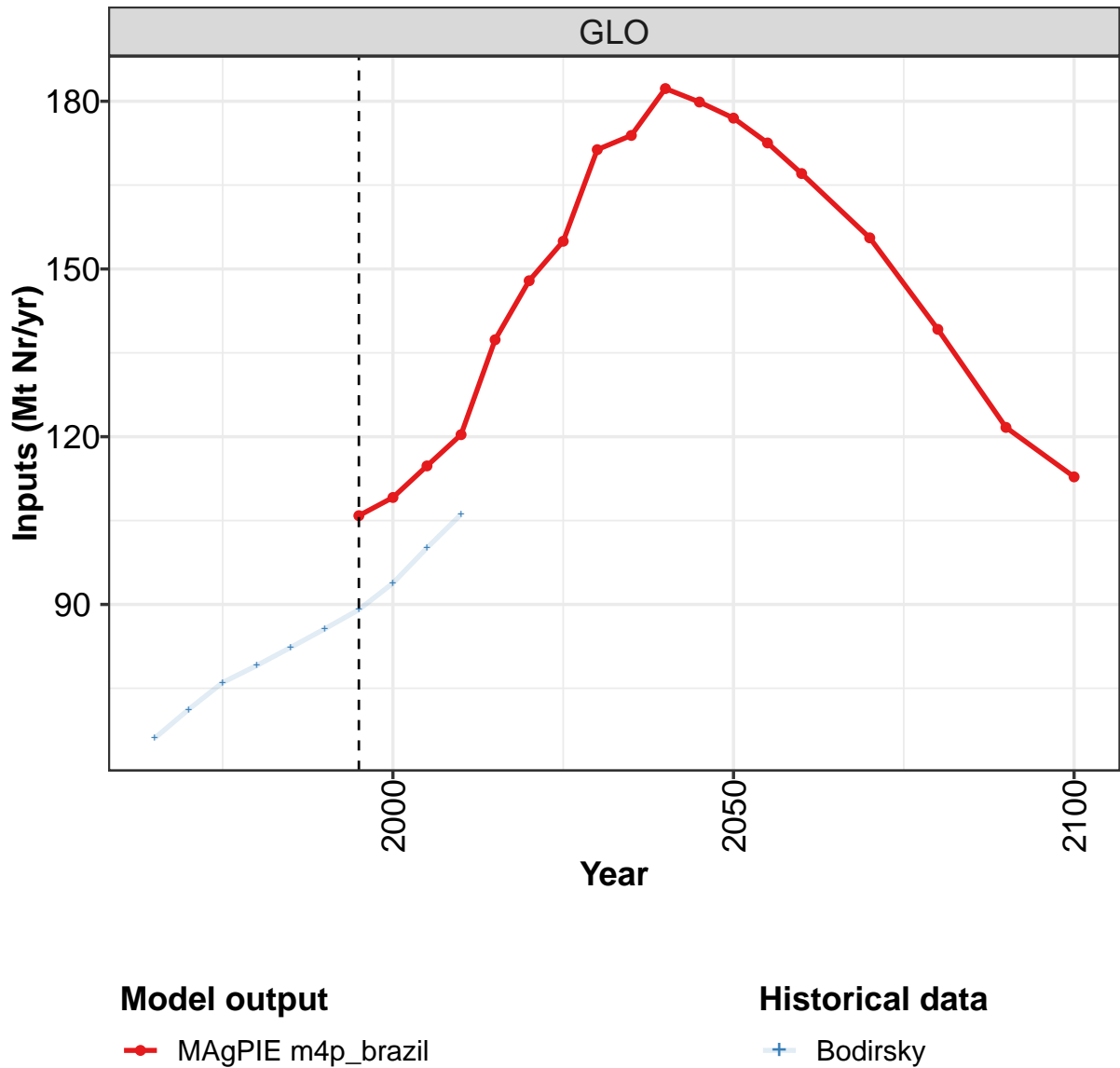
	2050	2055	2060	2070	2080	2090	2100
GLO	71.7	69.9	67.8	63.3	56.8	50.0	46.6
BRA	5.8	5.5	5.1	4.5	3.9	3.3	3.0
CHA	7.2	7.1	6.3	5.0	3.9	3.0	2.5
EUR	3.8	3.6	3.4	3.0	2.7	2.3	2.2
LAM	5.1	4.8	4.5	4.0	3.4	3.2	3.2
ROW	47.3	46.5	45.8	44.1	40.3	35.5	33.0
USA	2.5	2.5	2.6	2.6	2.7	2.7	2.7

Table 1807: MAgPIE m4p_brazil — 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
BRA	1.4	1.6	1.7	1.8	1.9	2.0	2.3	2.3	2.5	2.5
CHA	1.5	2.1	2.6	3.2	3.8	4.7	5.2	5.1	6.1	7.0
EUR	1.3	1.5	1.9	2.5	3.2	3.3	3.3	3.3	3.0	2.9
LAM	2.0	2.3	2.4	2.6	2.8	3.0	2.9	3.2	3.2	3.4
ROW	8.8	10.2	11.5	11.6	12.5	13.1	13.0	14.1	14.0	15.3
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



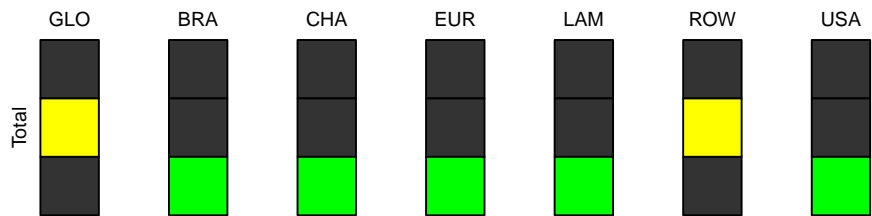
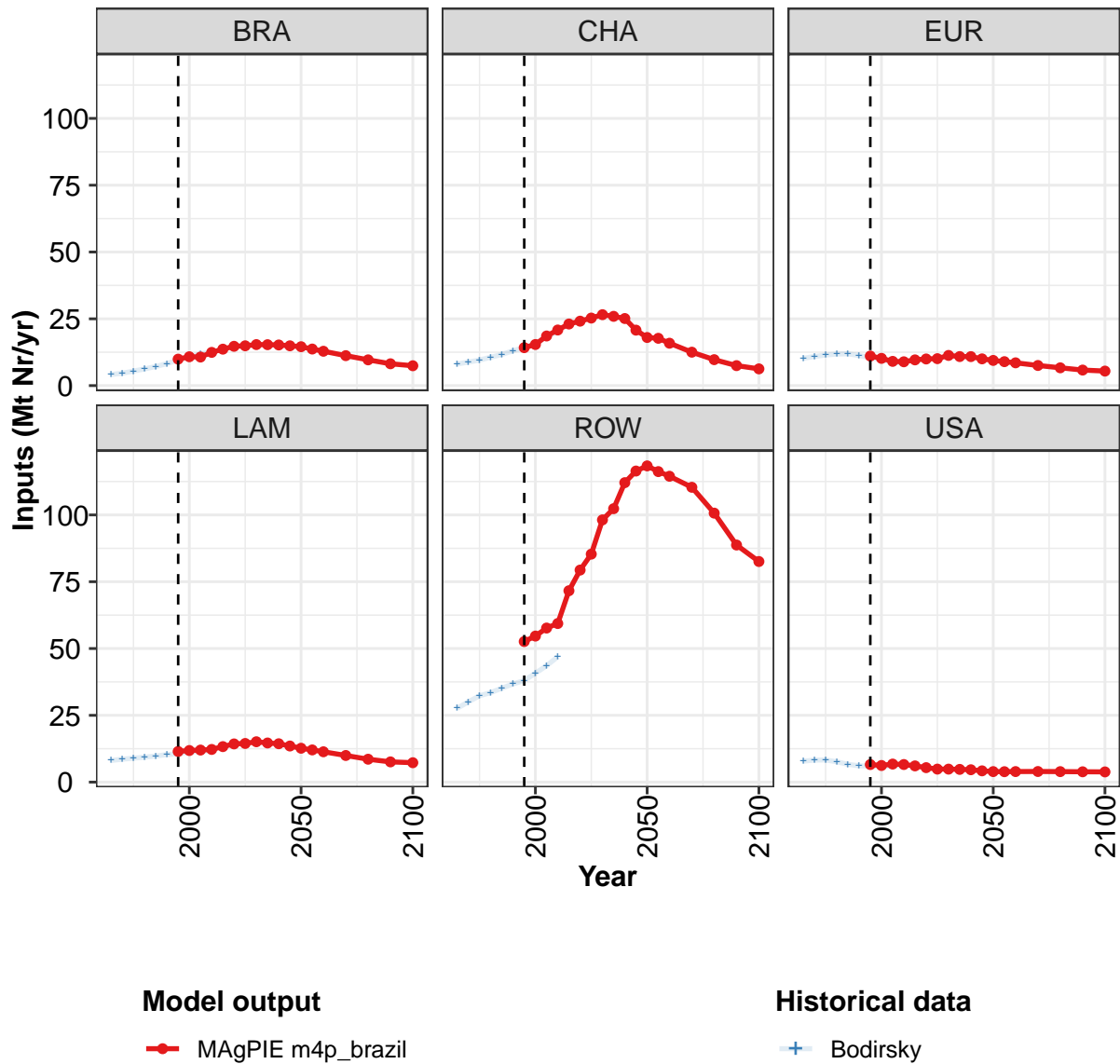


Figure 471: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Inputs (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	106	109	115	120	137	148	155	171	174	182	180
BRA	10	11	11	12	14	15	15	15	15	15	15
CHA	14	15	19	21	23	24	25	27	26	25	21
EUR	11	10	9	9	10	10	10	11	11	11	10
LAM	11	12	12	12	13	14	14	15	15	14	14
ROW	53	55	58	59	72	79	85	98	102	112	116
USA	7	6	7	7	6	5	5	5	5	5	4

Table 1809: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Inputs (Mt Nr/yr) [PART 1/2]

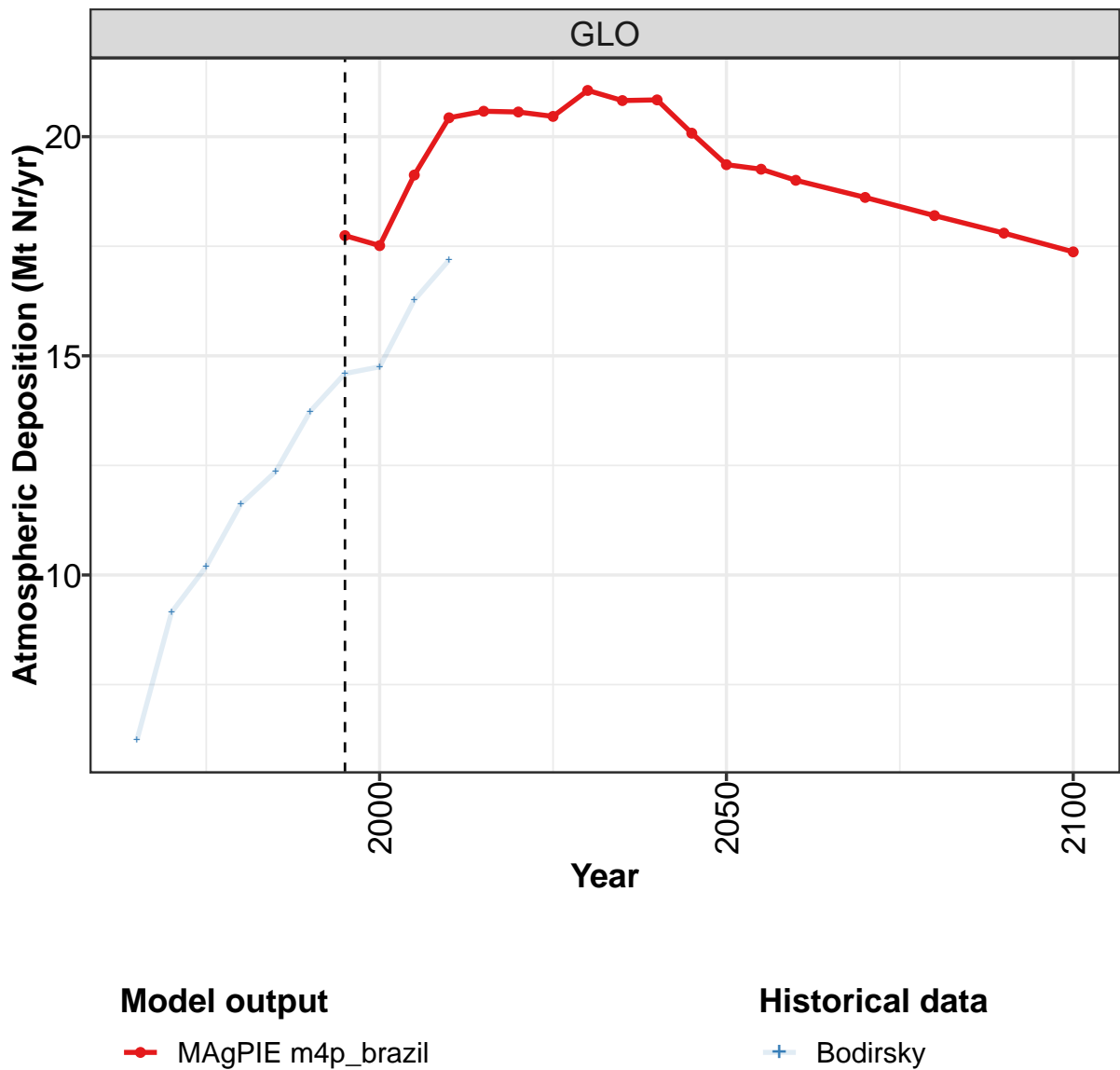
	2050	2055	2060	2070	2080	2090	2100
GLO	177	173	167	156	139	122	113
BRA	15	14	13	11	10	8	7
CHA	18	18	16	13	10	7	6
EUR	9	9	9	8	7	6	5
LAM	13	12	11	10	9	8	7
ROW	118	116	114	110	101	89	83
USA	4	4	4	4	4	4	4

Table 1810: MAgPIE m4p_brazil — 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
BRA	4	5	5	6	7	8	10	11	12	13
CHA	8	9	10	11	12	13	14	16	18	20
EUR	10	11	11	12	12	11	10	10	9	8
LAM	8	9	9	9	10	10	11	11	12	12
ROW	28	30	32	33	35	37	38	41	44	47
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



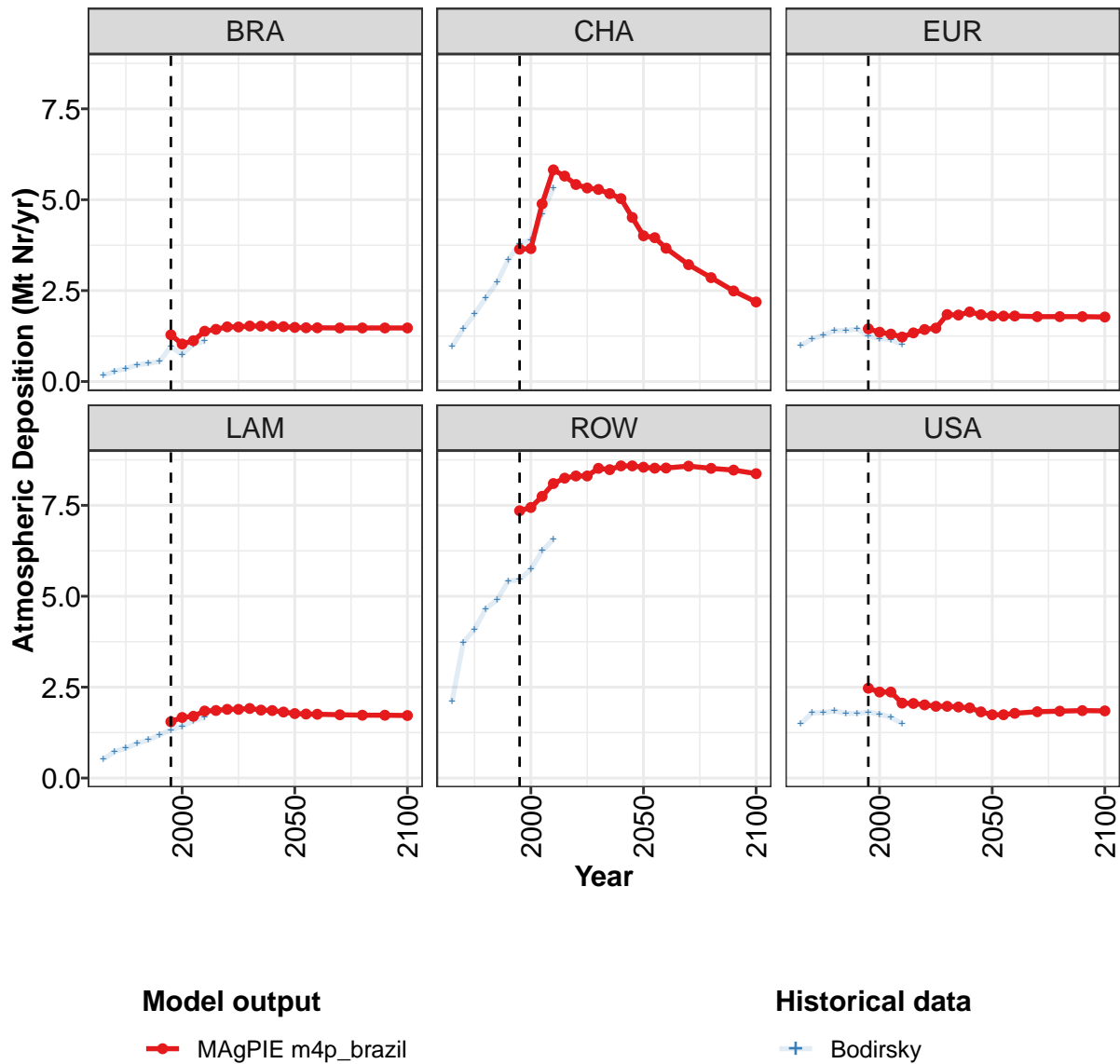


Figure 472: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Inputs—Atmospheric Deposition (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	17.7	17.5	19.1	20.4	20.6	20.6	20.5	21.1	20.8	20.8	20.1
BRA	1.3	1.0	1.1	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5
CHA	3.6	3.7	4.9	5.8	5.7	5.4	5.3	5.3	5.2	5.0	4.5
EUR	1.4	1.4	1.3	1.2	1.3	1.4	1.5	1.8	1.8	1.9	1.8
LAM	1.5	1.7	1.7	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.8
ROW	7.4	7.4	7.7	8.1	8.2	8.3	8.3	8.5	8.5	8.6	8.6
USA	2.5	2.4	2.4	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.8

Table 1812: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Inputs—Atmospheric Deposition (Mt Nr/yr) [PART 1/2]

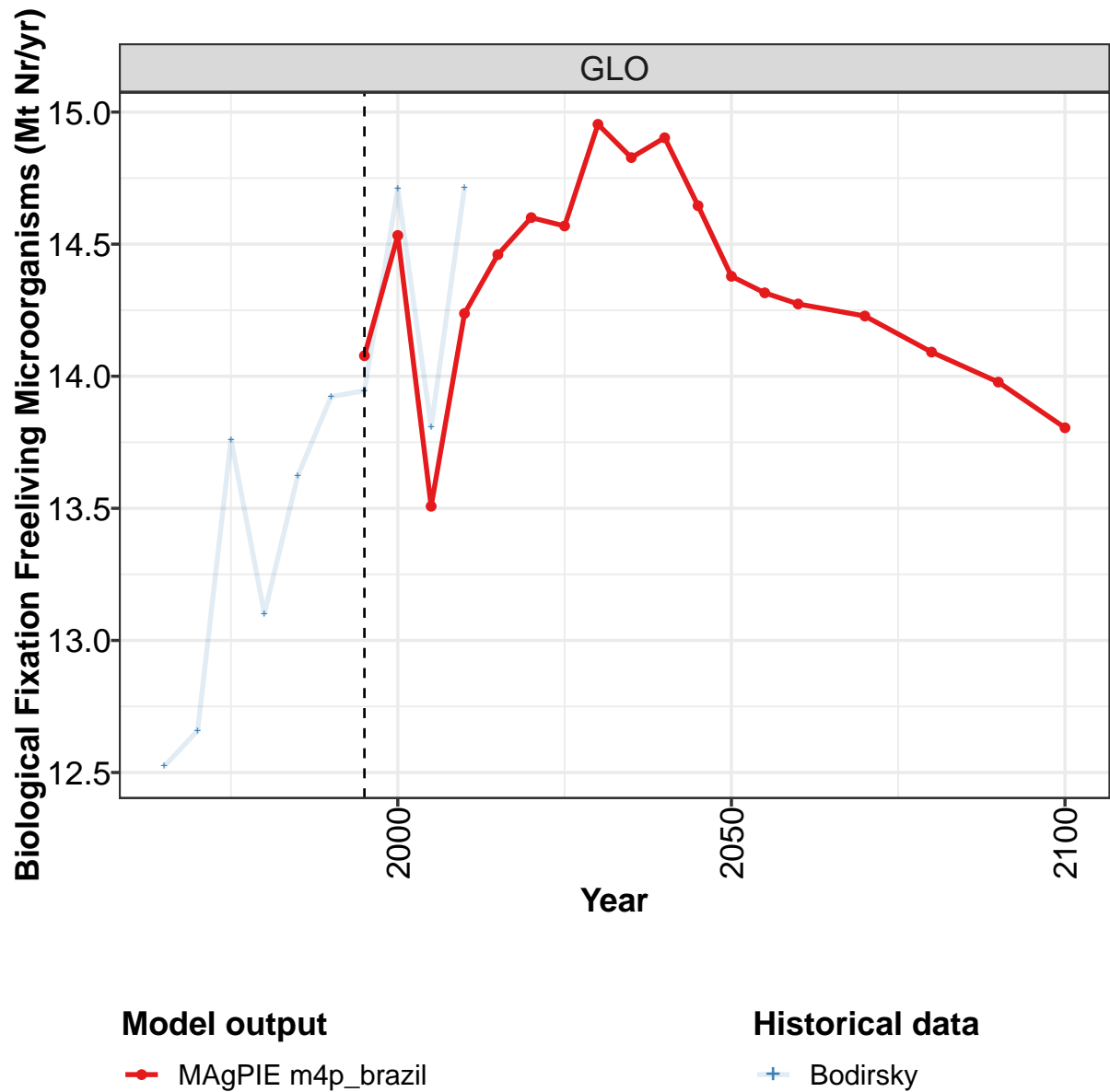
	2050	2055	2060	2070	2080	2090	2100
GLO	19.4	19.3	19.0	18.6	18.2	17.8	17.4
BRA	1.5	1.5	1.5	1.5	1.5	1.5	1.5
CHA	4.0	4.0	3.7	3.2	2.9	2.5	2.2
EUR	1.8	1.8	1.8	1.8	1.8	1.8	1.8
LAM	1.8	1.8	1.8	1.7	1.7	1.7	1.7
ROW	8.5	8.5	8.5	8.6	8.5	8.5	8.4
USA	1.7	1.7	1.8	1.8	1.8	1.9	1.8

Table 1813: MAgPIE m4p_brazil — 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
BRA	0.2	0.3	0.4	0.5	0.5	0.6	1.0	0.7	1.0	1.1
CHA	1.0	1.4	1.9	2.3	2.7	3.4	3.8	3.9	4.6	5.3
EUR	1.0	1.2	1.3	1.4	1.4	1.4	1.3	1.2	1.2	1.0
LAM	0.5	0.7	0.8	1.0	1.0	1.2	1.3	1.4	1.6	1.7
ROW	2.1	3.7	4.1	4.7	4.9	5.4	5.5	5.7	6.2	6.6
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



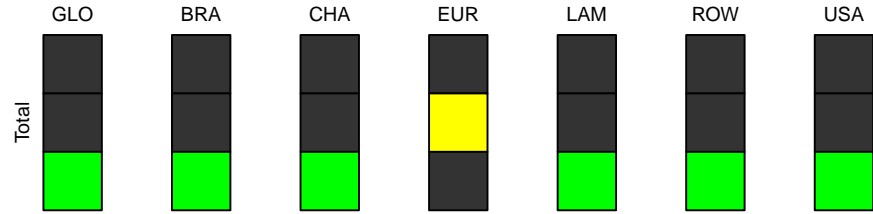
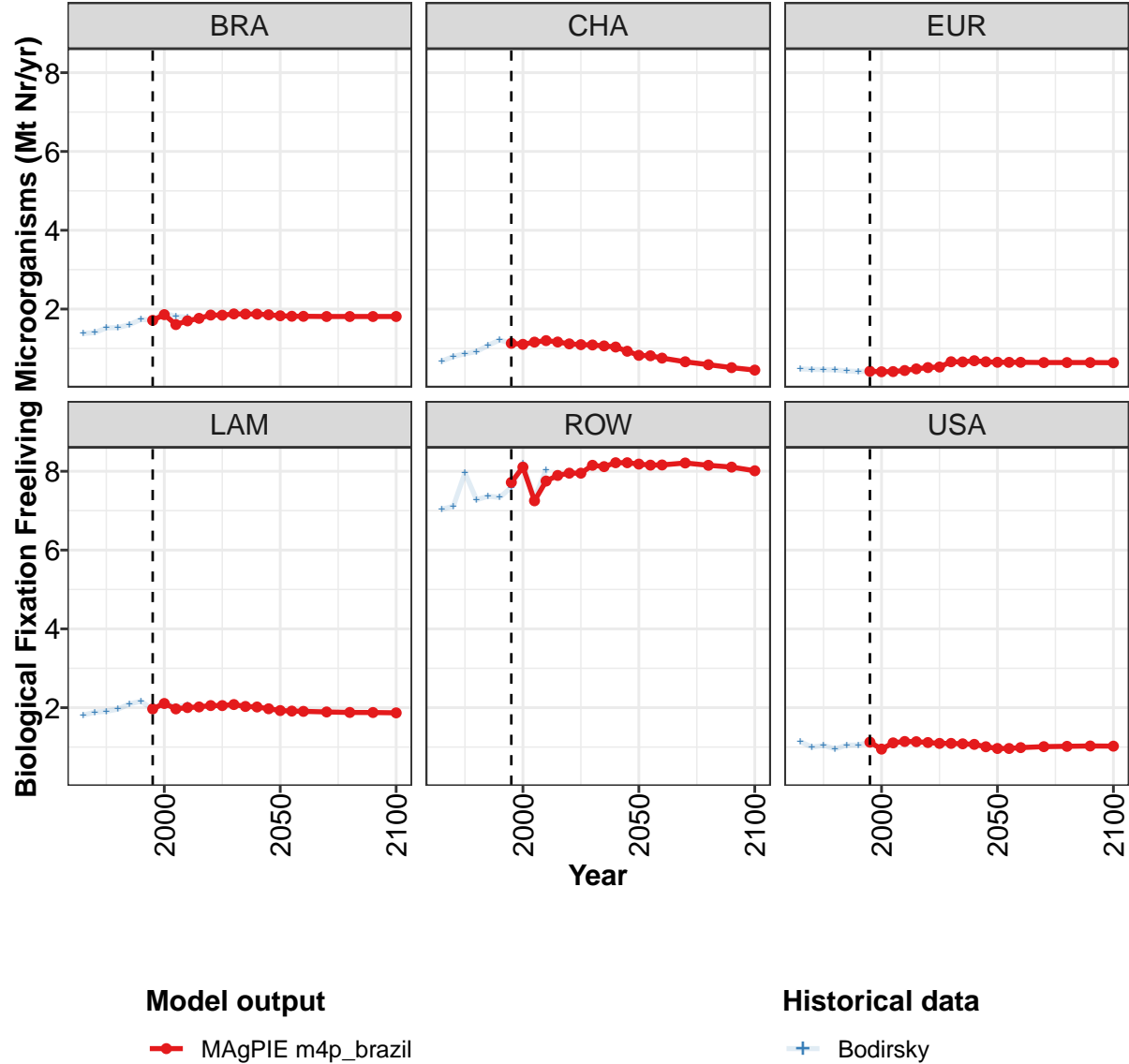


Figure 473: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Inputs—Biological Fixation Free-living Microorganisms (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	14.1	14.5	13.5	14.2	14.5	14.6	14.6	15.0	14.8	14.9	14.6
BRA	1.7	1.9	1.6	1.7	1.8	1.8	1.8	1.9	1.9	1.9	1.9
CHA	1.1	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.0	0.9
EUR	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.7	0.7	0.7	0.7
LAM	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0
ROW	7.7	8.1	7.3	7.8	7.9	8.0	8.0	8.2	8.1	8.2	8.2
USA	1.1	0.9	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0

Table 1815: MAgPIE m4p.brazil — Resources—Nitrogen—Pasture Budget—Inputs—Biological Fixation Free-living Microorganisms (Mt Nr/yr) [PART 1/2]

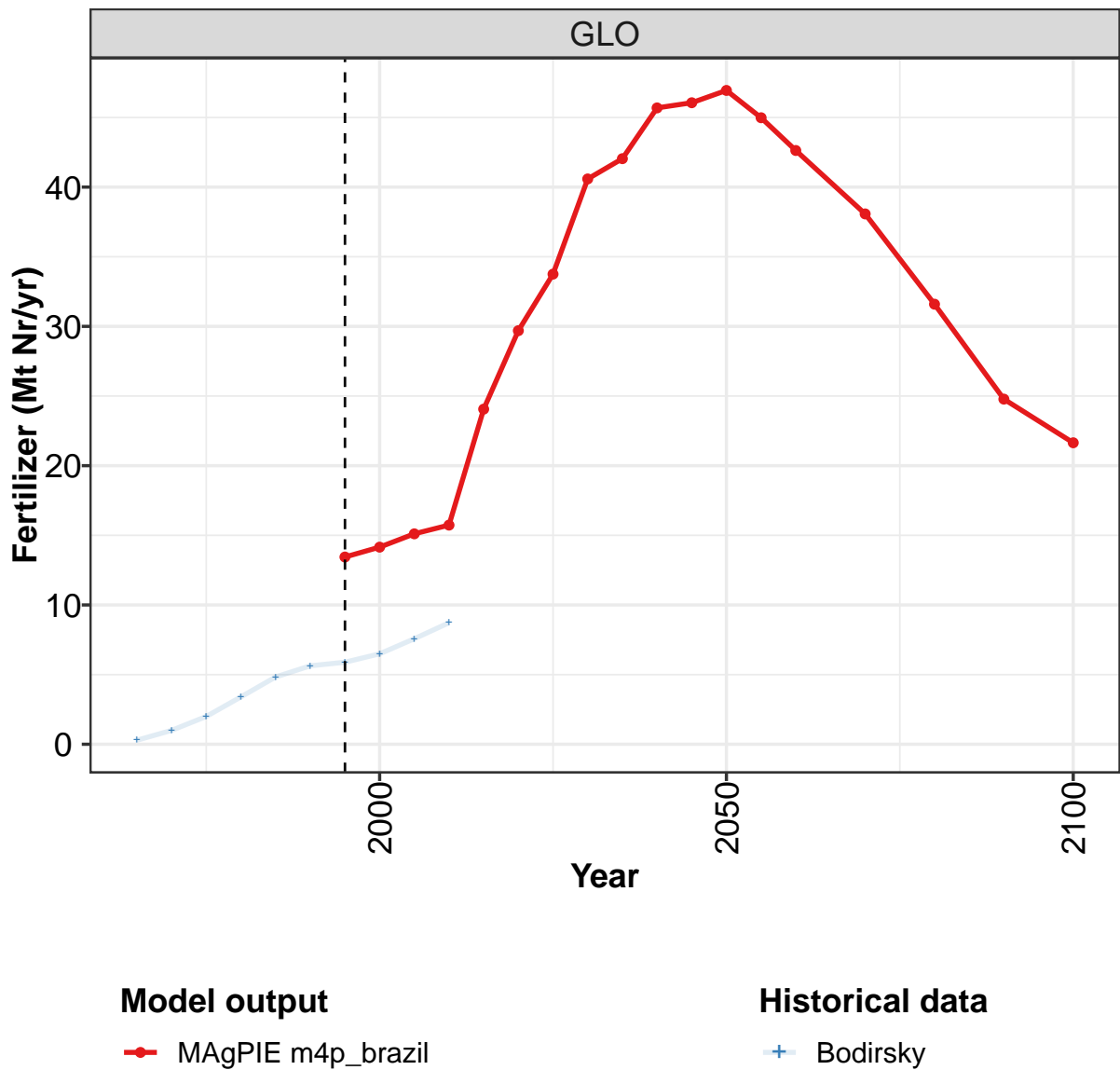
	2050	2055	2060	2070	2080	2090	2100
GLO	14.4	14.3	14.3	14.2	14.1	14.0	13.8
BRA	1.8	1.8	1.8	1.8	1.8	1.8	1.8
CHA	0.8	0.8	0.8	0.7	0.6	0.5	0.5
EUR	0.6	0.6	0.6	0.6	0.6	0.6	0.6
LAM	1.9	1.9	1.9	1.9	1.9	1.9	1.9
ROW	8.2	8.2	8.2	8.2	8.2	8.1	8.0
USA	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Table 1816: MAgPIE m4p.brazil — 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
BRA	1.4	1.4	1.5	1.5	1.6	1.7	1.7	1.9	1.8	1.8
CHA	0.7	0.8	0.9	0.9	1.1	1.2	1.1	1.1	1.2	1.2
EUR	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
LAM	1.8	1.9	1.9	2.0	2.1	2.2	2.0	2.1	2.0	2.1
ROW	7.0	7.1	8.0	7.3	7.4	7.3	7.6	8.2	7.3	8.0
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 Freelifing Microorganisms (Mt Nr/yr)

56.3.6 Inputs—Fertilizer



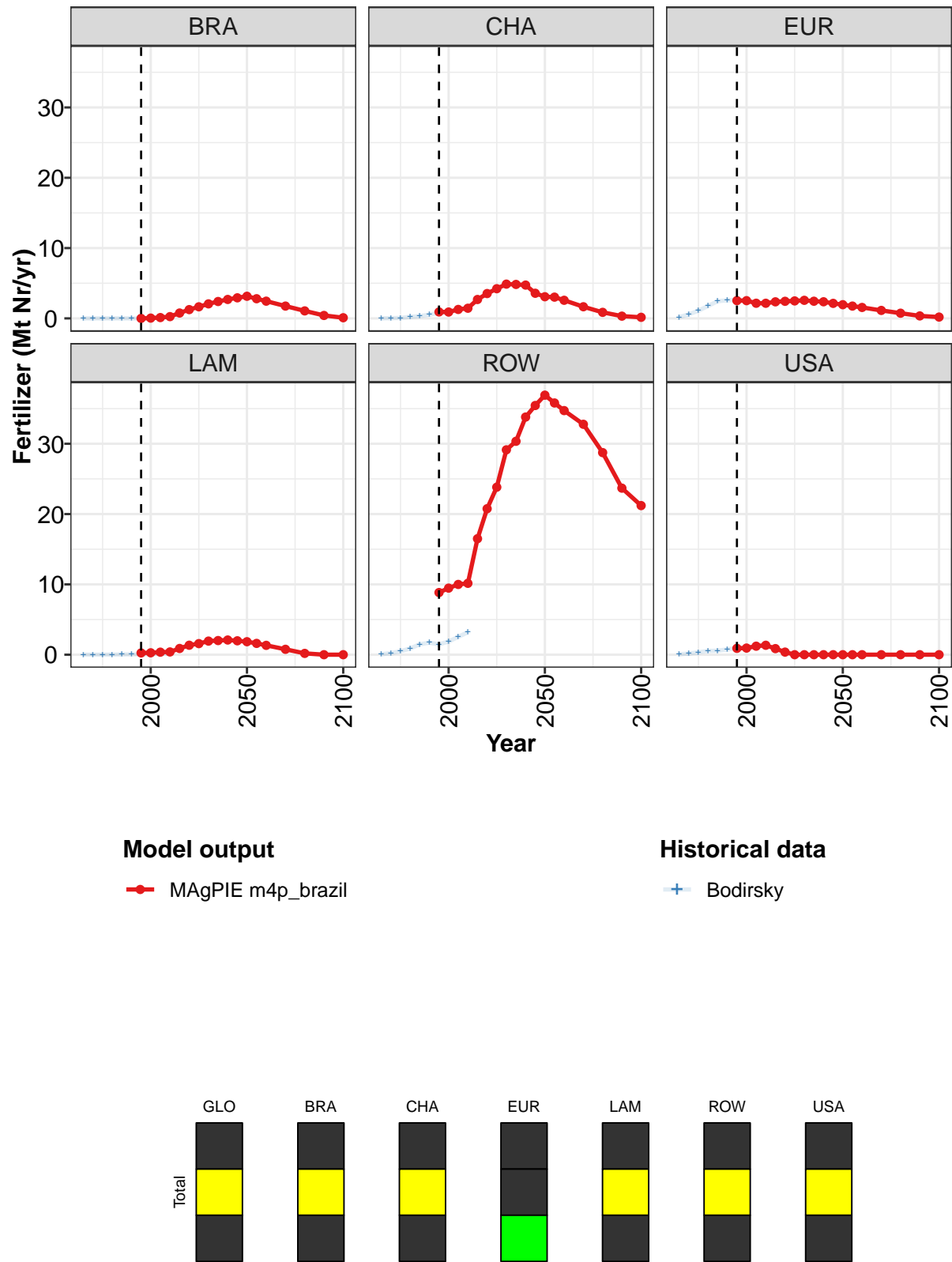


Figure 474: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Inputs—Fertilizer (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	13.4	14.2	15.1	15.7	24.1	29.7	33.8	40.6	42.0	45.7	46.1
BRA	0.0	0.0	0.1	0.3	0.8	1.2	1.6	2.1	2.4	2.7	2.9
CHA	0.9	0.9	1.3	1.4	2.7	3.5	4.2	4.9	4.8	4.7	3.6
EUR	2.5	2.5	2.2	2.2	2.4	2.4	2.5	2.6	2.4	2.4	2.1
LAM	0.3	0.3	0.4	0.4	0.9	1.3	1.6	1.9	2.0	2.1	2.0
ROW	8.8	9.5	10.0	10.2	16.5	20.8	23.8	29.1	30.4	33.8	35.4
USA	0.9	0.9	1.2	1.3	0.9	0.4	0.0	0.0	0.0	0.0	0.0

Table 1818: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Inputs—Fertilizer (Mt Nr/yr)
[PART 1/2]

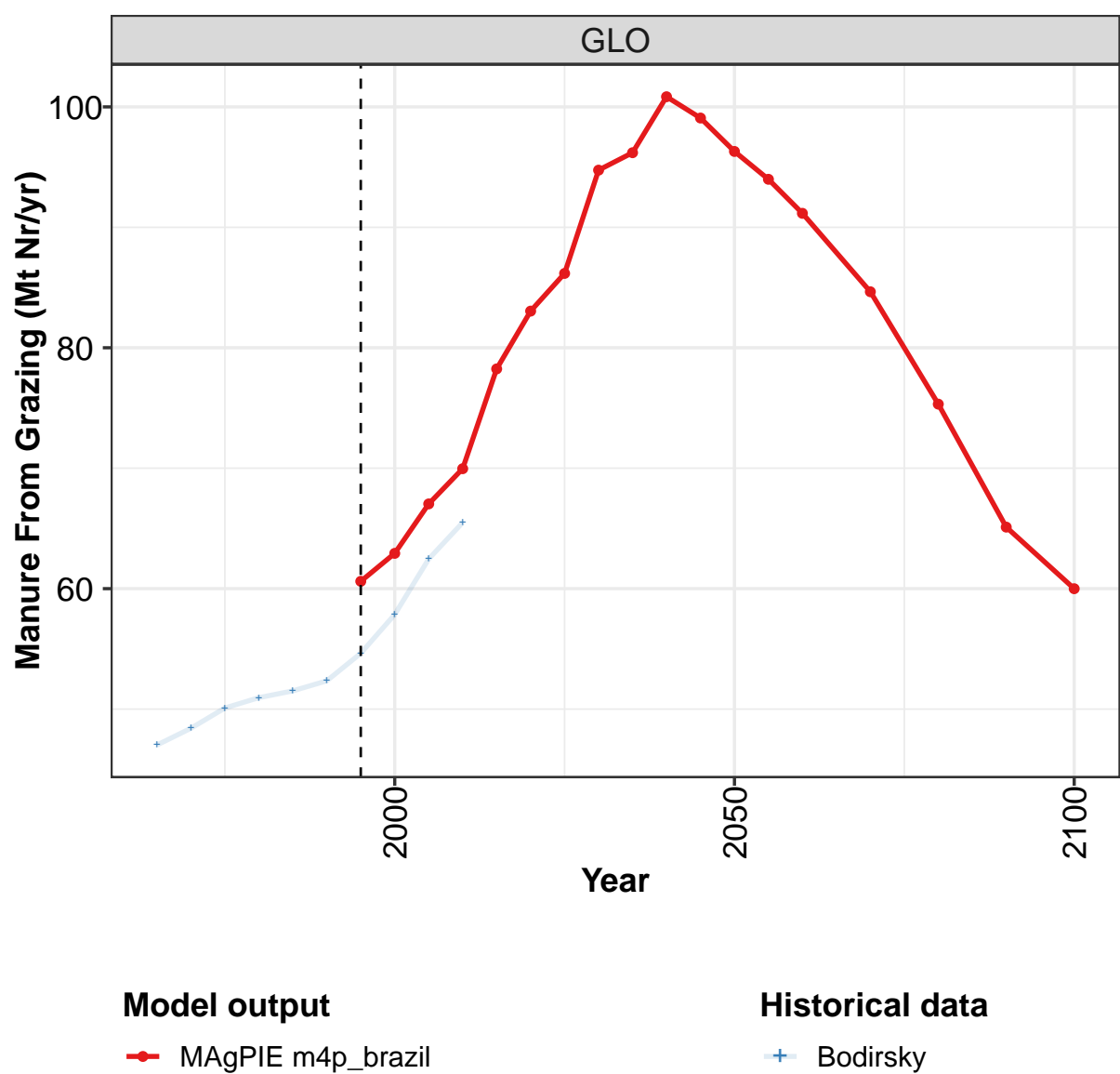
	2050	2055	2060	2070	2080	2090	2100
GLO	46.9	45.0	42.6	38.1	31.6	24.8	21.6
BRA	3.1	2.8	2.5	1.8	1.1	0.4	0.1
CHA	3.1	3.0	2.6	1.7	0.9	0.3	0.2
EUR	1.9	1.8	1.6	1.1	0.7	0.4	0.2
LAM	1.8	1.6	1.3	0.8	0.2	0.0	0.0
ROW	36.9	35.8	34.7	32.8	28.7	23.7	21.2
USA	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 1819: MAgPIE m4p_brazil — 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
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.15	0.22
CHA	0.01	0.03	0.07	0.21	0.31	0.54	0.77	0.86	1.28	1.53
EUR	0.18	0.57	1.09	1.77	2.44	2.58	2.62	2.59	2.24	2.19
LAM	0.00	0.00	0.01	0.02	0.03	0.05	0.06	0.09	0.14	0.15
ROW	0.05	0.22	0.49	0.87	1.48	1.71	1.47	1.87	2.54	3.19
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



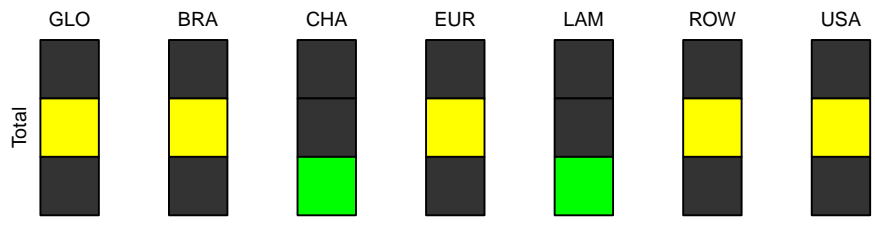
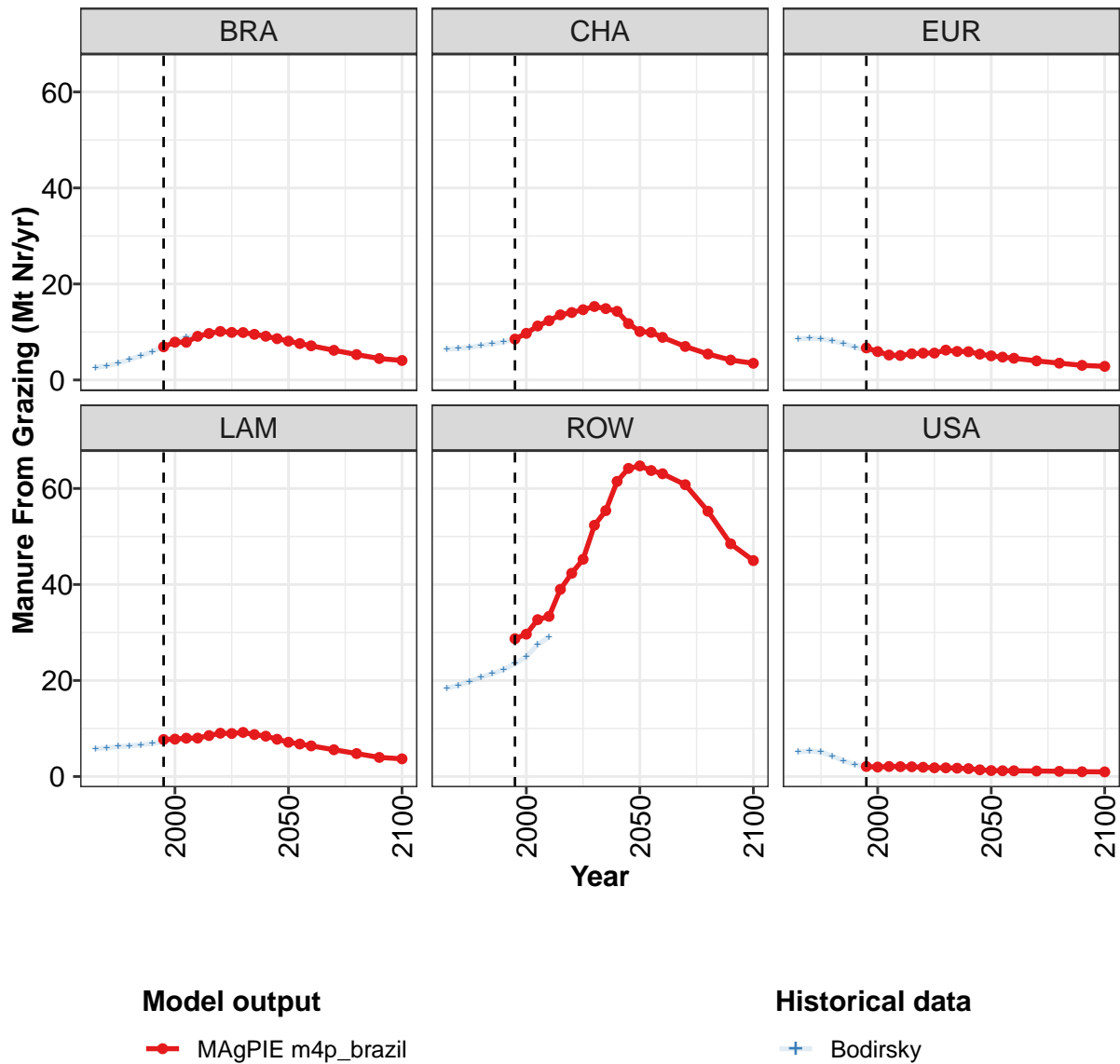


Figure 475: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Inputs—Manure From Grazing (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	61	63	67	70	78	83	86	95	96	101	99
BRA	7	8	8	9	10	10	10	10	10	9	9
CHA	9	10	11	12	14	14	15	15	15	14	12
EUR	7	6	5	5	5	6	6	6	6	6	5
LAM	8	8	8	8	9	9	9	9	9	8	8
ROW	29	30	33	33	39	42	45	52	55	61	64
USA	2	2	2	2	2	2	2	2	2	2	1

Table 1821: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Inputs—Manure From Grazing (Mt Nr/yr) [PART 1/2]

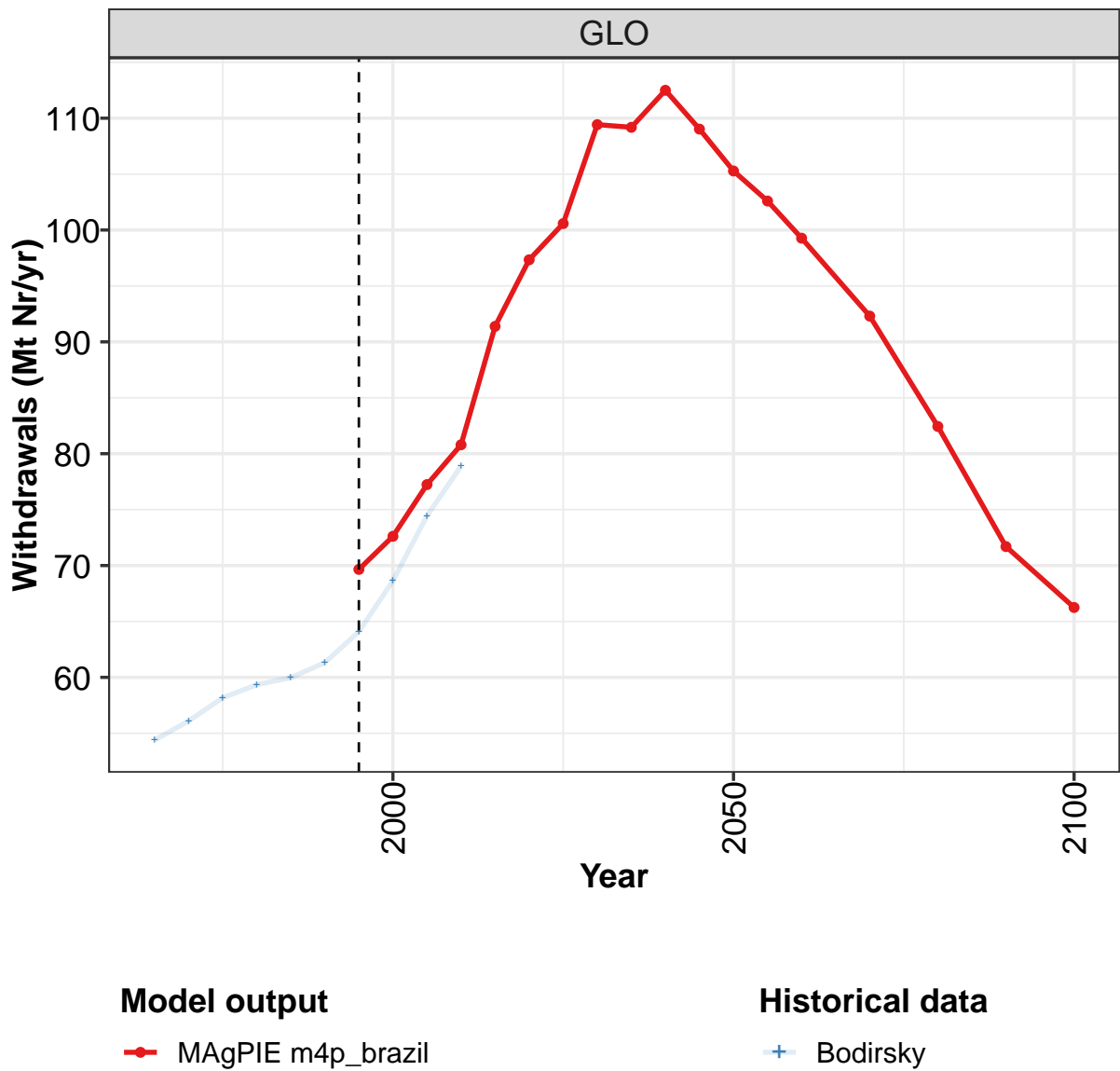
	2050	2055	2060	2070	2080	2090	2100
GLO	96	94	91	85	75	65	60
BRA	8	8	7	6	5	4	4
CHA	10	10	9	7	5	4	3
EUR	5	5	5	4	4	3	3
LAM	7	7	6	6	5	4	4
ROW	65	64	63	61	55	48	45
USA	1	1	1	1	1	1	1

Table 1822: MAgPIE m4p_brazil — 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
BRA	2.6	3.0	3.5	4.3	5.0	5.9	6.9	8.0	8.9	9.5
CHA	6.4	6.5	6.8	7.2	7.5	7.9	8.6	9.8	11.2	12.2
EUR	8.6	8.7	8.6	8.2	7.6	6.8	6.2	5.5	4.9	4.7
LAM	5.8	6.0	6.2	6.4	6.6	6.9	7.3	7.6	7.8	7.9
ROW	18.4	19.0	19.8	20.7	21.4	22.3	23.5	24.9	27.5	29.1
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



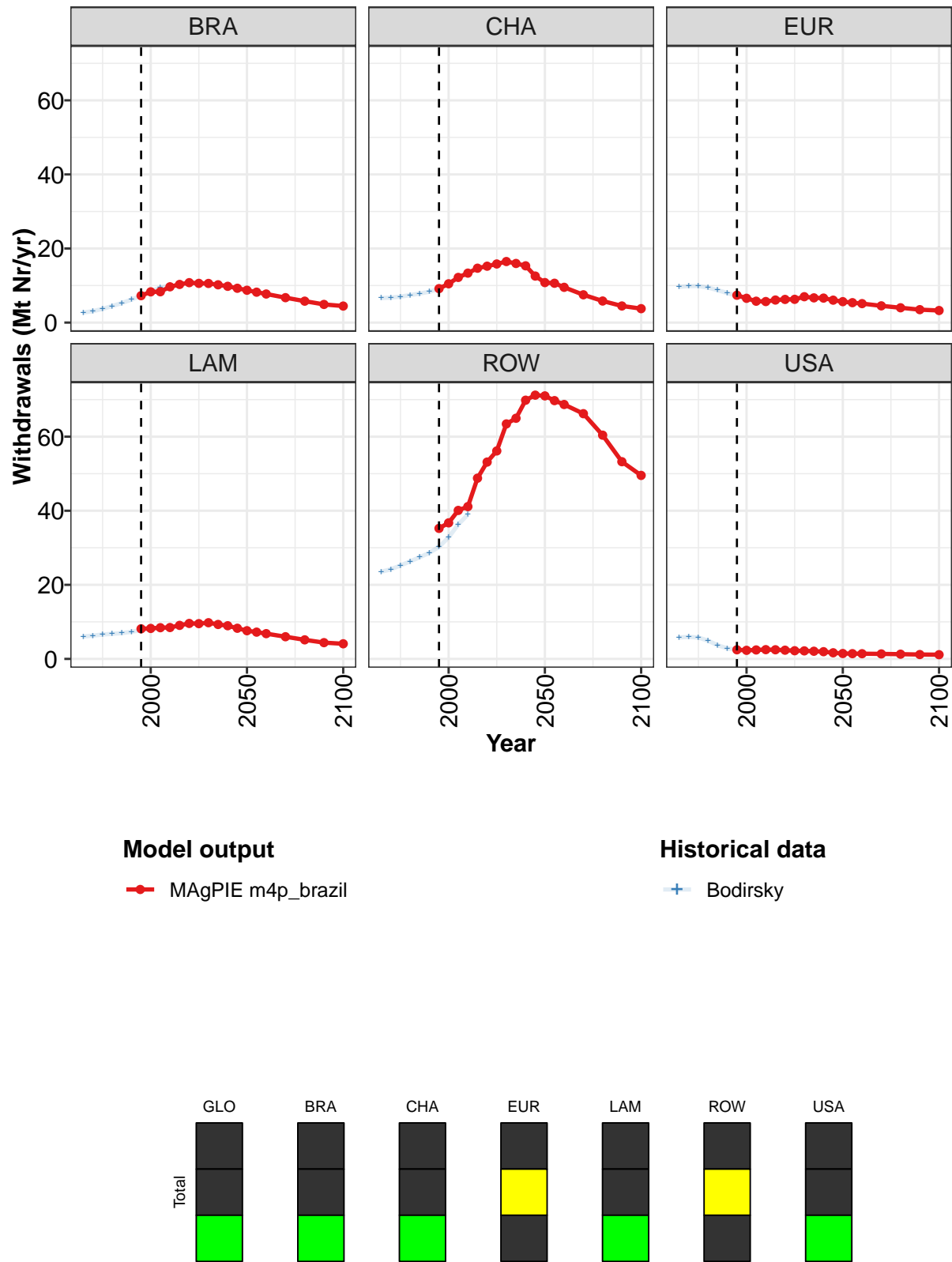


Figure 476: MAGPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Withdrawals (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	70	73	77	81	91	97	101	109	109	112	109
BRA	7	8	8	10	10	11	11	11	10	10	9
CHA	9	10	12	13	15	15	16	16	16	15	13
EUR	7	7	6	6	6	6	6	7	7	7	6
LAM	8	8	8	8	9	10	10	10	9	9	8
ROW	35	37	40	41	49	53	56	63	65	70	71
USA	2	2	2	2	2	2	2	2	2	2	2

Table 1824: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Withdrawals (Mt Nr/yr) [PART 1/2]

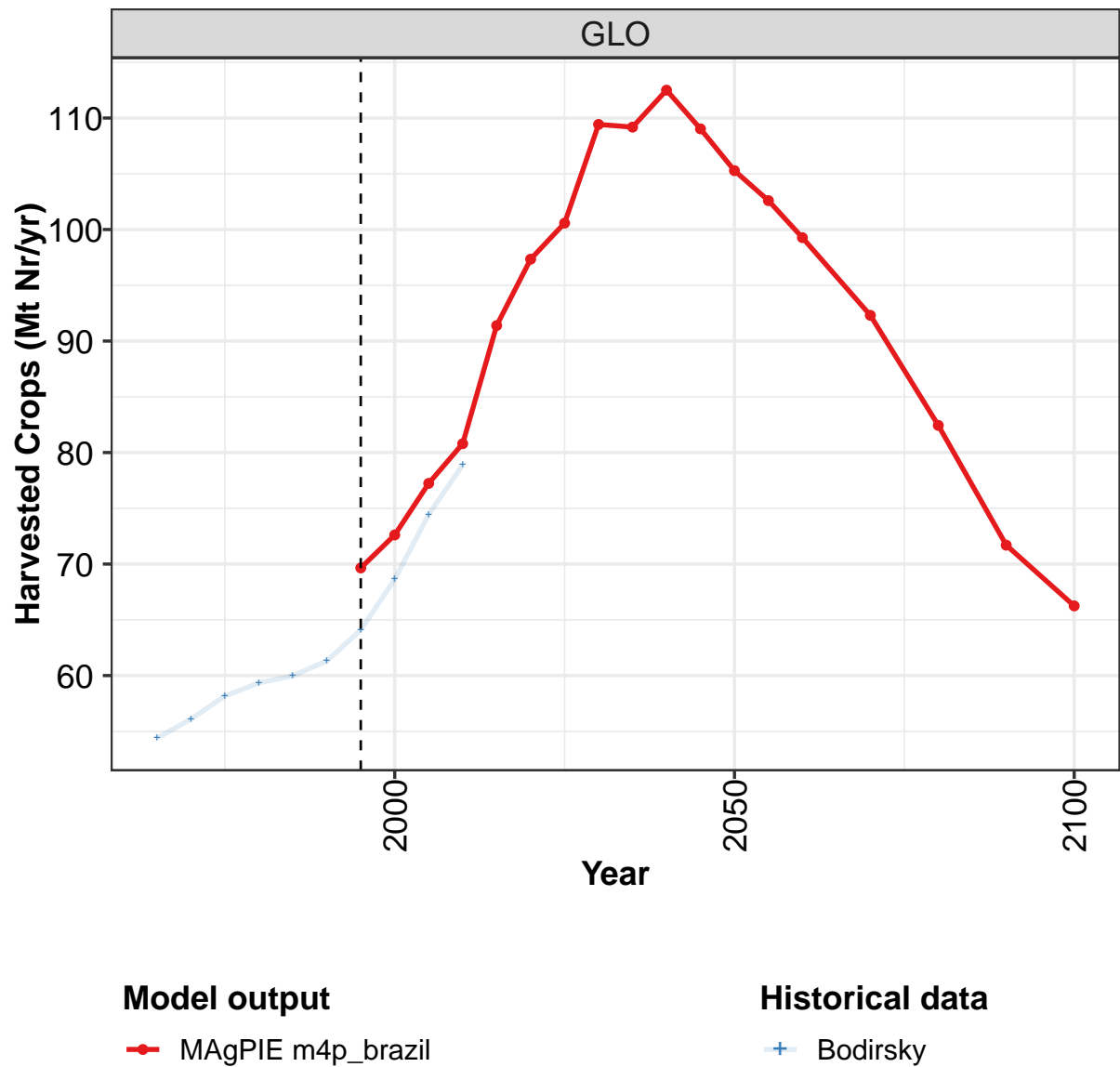
	2050	2055	2060	2070	2080	2090	2100
GLO	105	103	99	92	82	72	66
BRA	9	8	8	7	6	5	4
CHA	11	11	10	8	6	4	4
EUR	6	5	5	5	4	3	3
LAM	8	7	7	6	5	4	4
ROW	71	70	69	66	60	53	50
USA	1	1	1	1	1	1	1

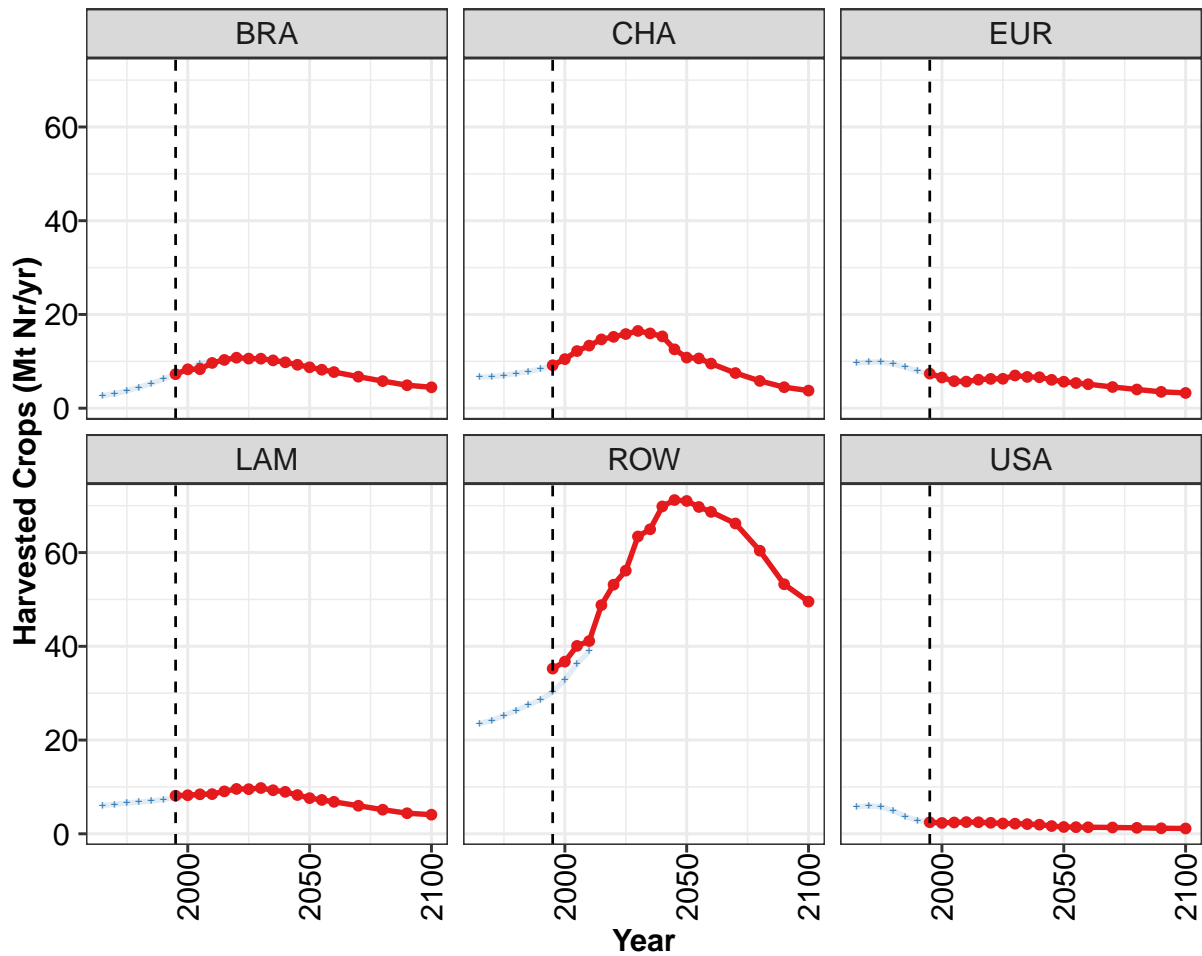
Table 1825: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Withdrawals (Mt Nr/yr) [PART 2/2]

	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
BRA	2.7	3.1	3.7	4.5	5.3	6.2	7.3	8.4	9.5	10.1
CHA	6.6	6.7	7.0	7.4	7.8	8.3	9.1	10.5	12.2	13.3
EUR	9.7	9.8	9.9	9.5	8.8	8.0	7.2	6.4	5.8	5.5
LAM	6.1	6.3	6.6	6.8	7.0	7.3	7.8	8.1	8.3	8.5
ROW	23.5	24.2	25.2	26.3	27.4	28.6	30.2	32.8	36.3	39.0
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





Model output

MAgPIE m4p_brazil

Historical data

Bodirsky

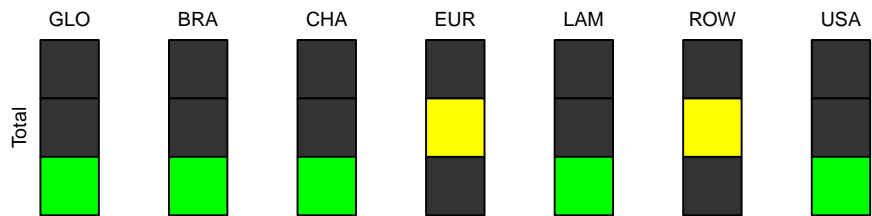


Figure 477: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Withdrawals—Harvested Crops (Mt Nr/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	70	73	77	81	91	97	101	109	109	112	109
BRA	7	8	8	10	10	11	11	11	10	10	9
CHA	9	10	12	13	15	15	16	16	16	15	13
EUR	7	7	6	6	6	6	6	7	7	7	6
LAM	8	8	8	8	9	10	10	10	9	9	8
ROW	35	37	40	41	49	53	56	63	65	70	71
USA	2	2	2	2	2	2	2	2	2	2	2

Table 1827: MAgPIE m4p_brazil — Resources—Nitrogen—Pasture Budget—Withdrawals—Harvested Crops (Mt Nr/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	105	103	99	92	82	72	66
BRA	9	8	8	7	6	5	4
CHA	11	11	10	8	6	4	4
EUR	6	5	5	5	4	3	3
LAM	8	7	7	6	5	4	4
ROW	71	70	69	66	60	53	50
USA	1	1	1	1	1	1	1

Table 1828: MAgPIE m4p_brazil — 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
BRA	2.7	3.1	3.7	4.5	5.3	6.2	7.3	8.4	9.5	10.1
CHA	6.6	6.7	7.0	7.4	7.8	8.3	9.1	10.5	12.2	13.3
EUR	9.7	9.8	9.9	9.5	8.8	8.0	7.2	6.4	5.8	5.5
LAM	6.1	6.3	6.6	6.8	7.0	7.3	7.8	8.1	8.3	8.5
ROW	23.5	24.2	25.2	26.3	27.4	28.6	30.2	32.8	36.3	39.0
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

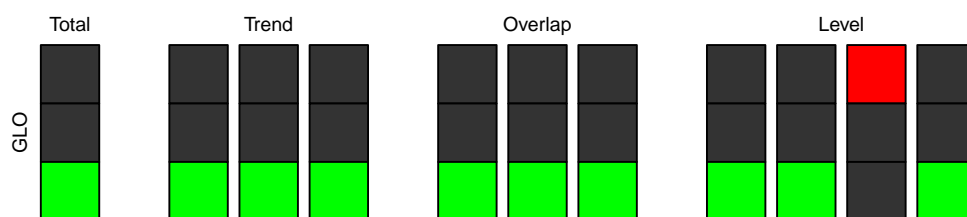
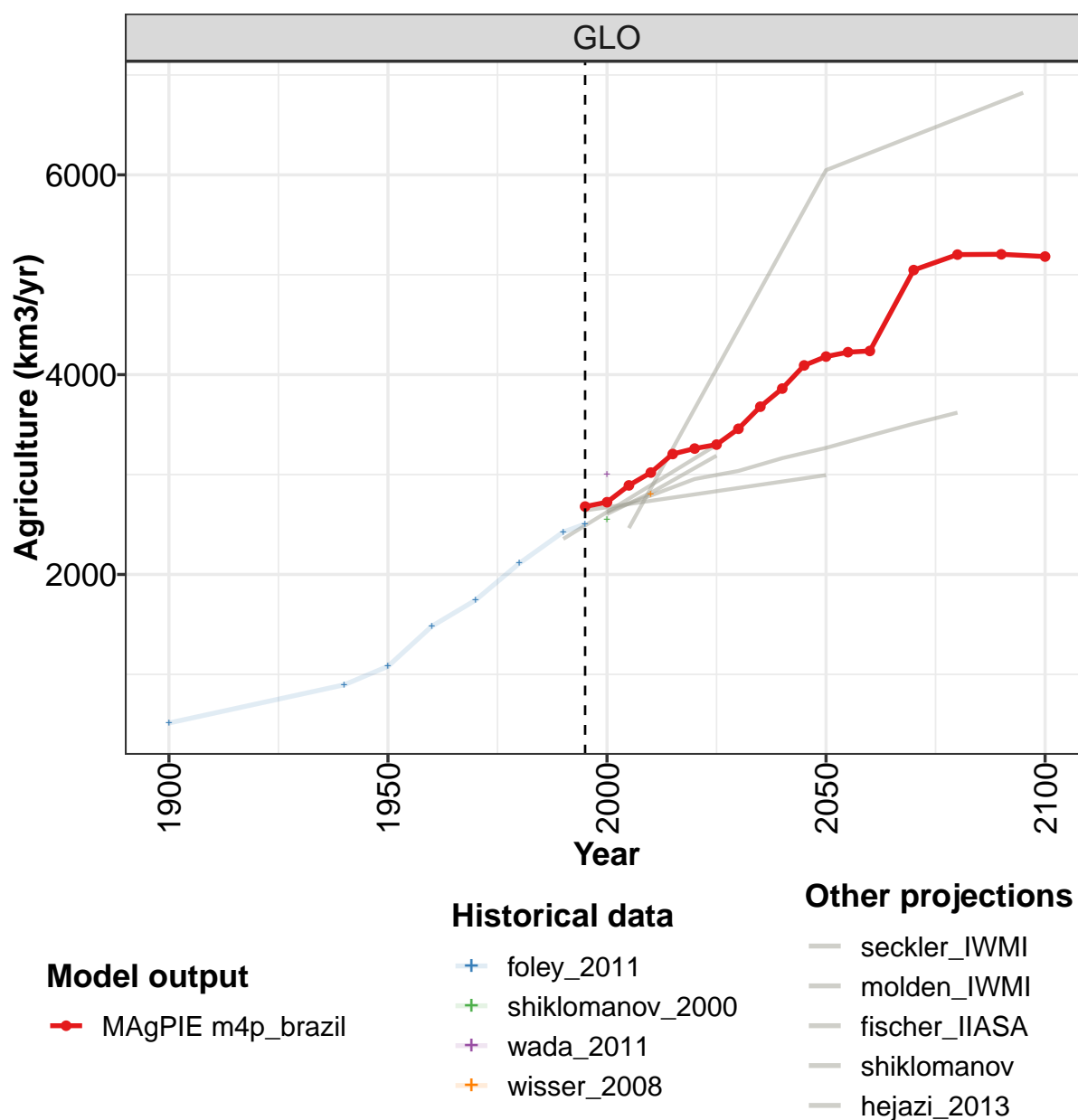


Figure 478: MAgPIE m4p_brazil — Resources—Water—Withdrawal—Agriculture (km3/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	2680	2723	2892	3020	3206	3260	3300	3458	3679	3861	4093

Table 1830: MAgPIE m4p_brazil — Resources—Water—Withdrawal—Agriculture (km3/yr) [PART 1/2]

	2050	2055	2060	2070	2080	2090	2100
GLO	4181	4225	4237	5047	5202	5205	5182

Table 1831: MAgPIE m4p_brazil — 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)

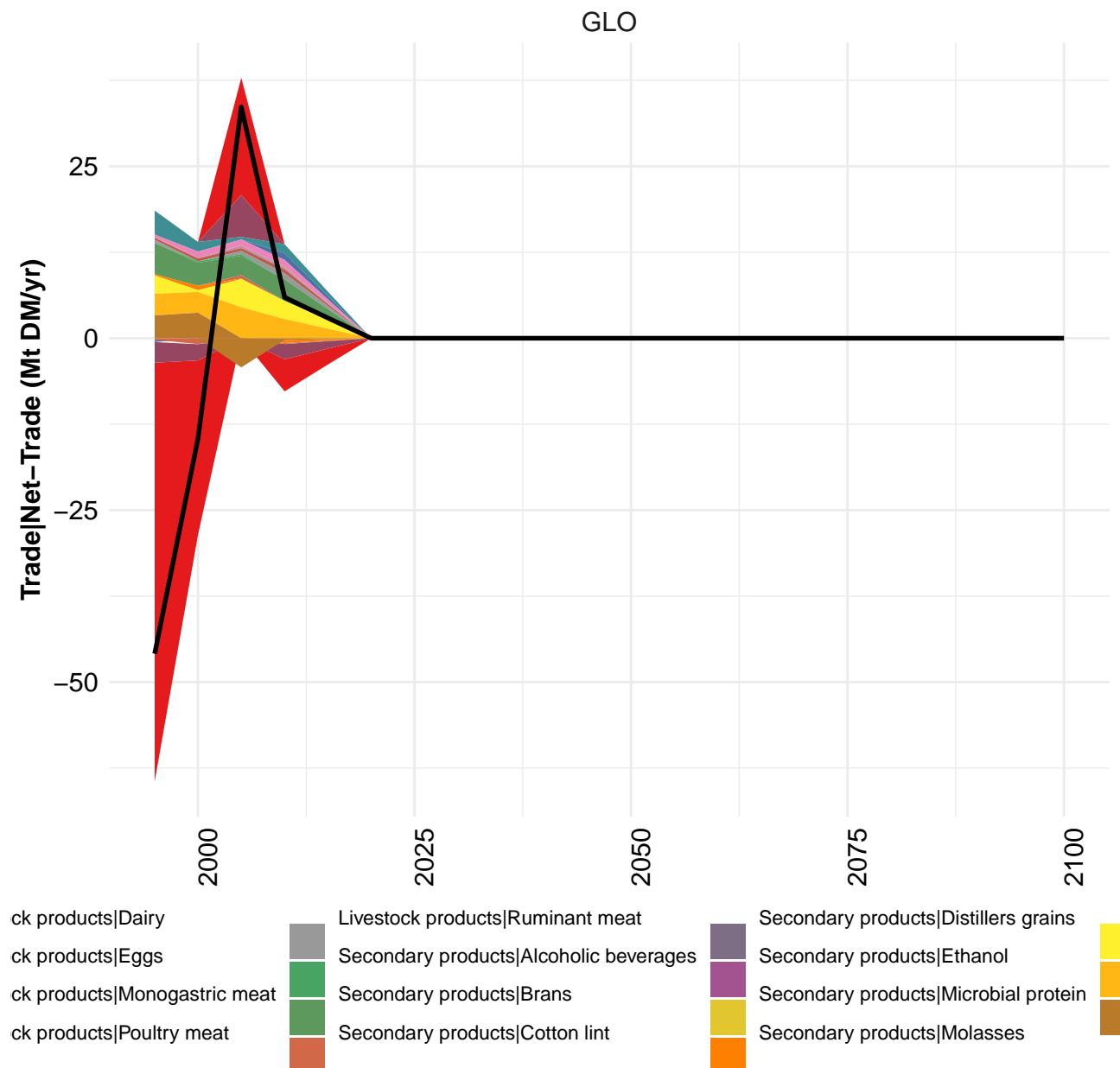
	2010
GLO	2800

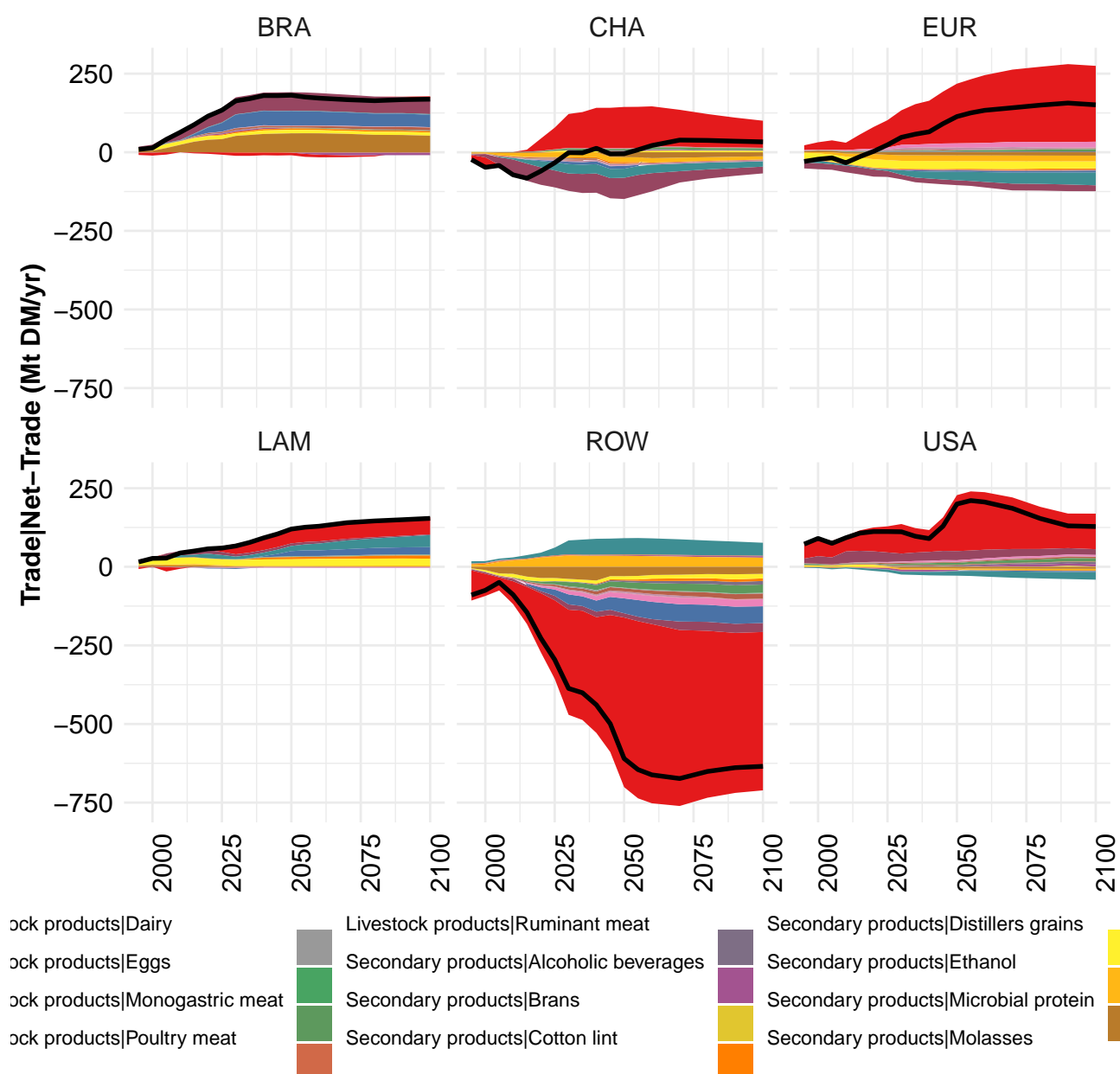
Table 1835: foley_2011 — Resources—Water—Withdrawal—Agriculture (km3/yr)

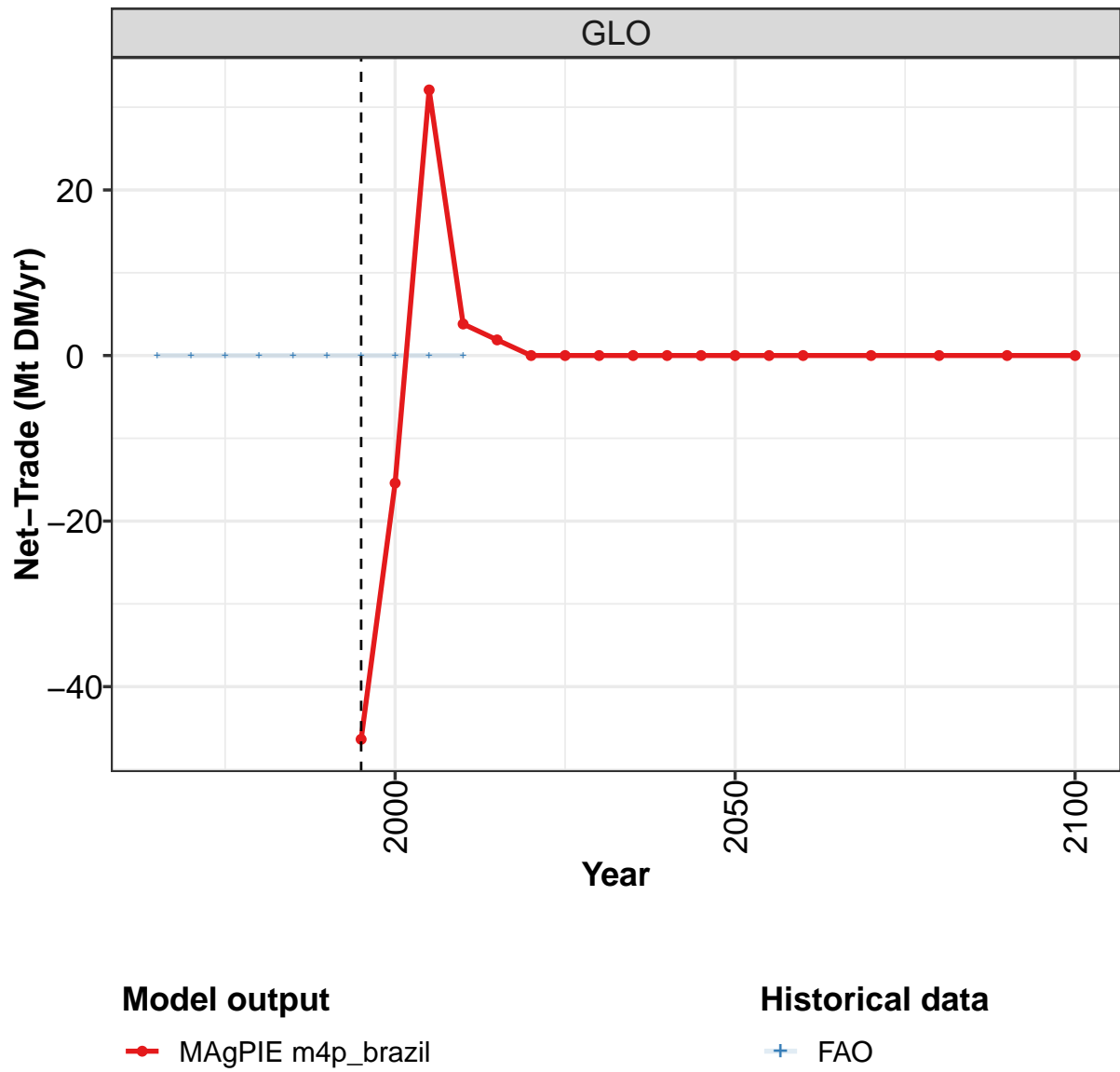
Part XV

Trade

58 Net-Trade







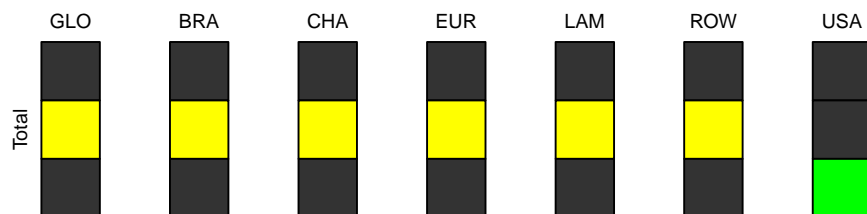
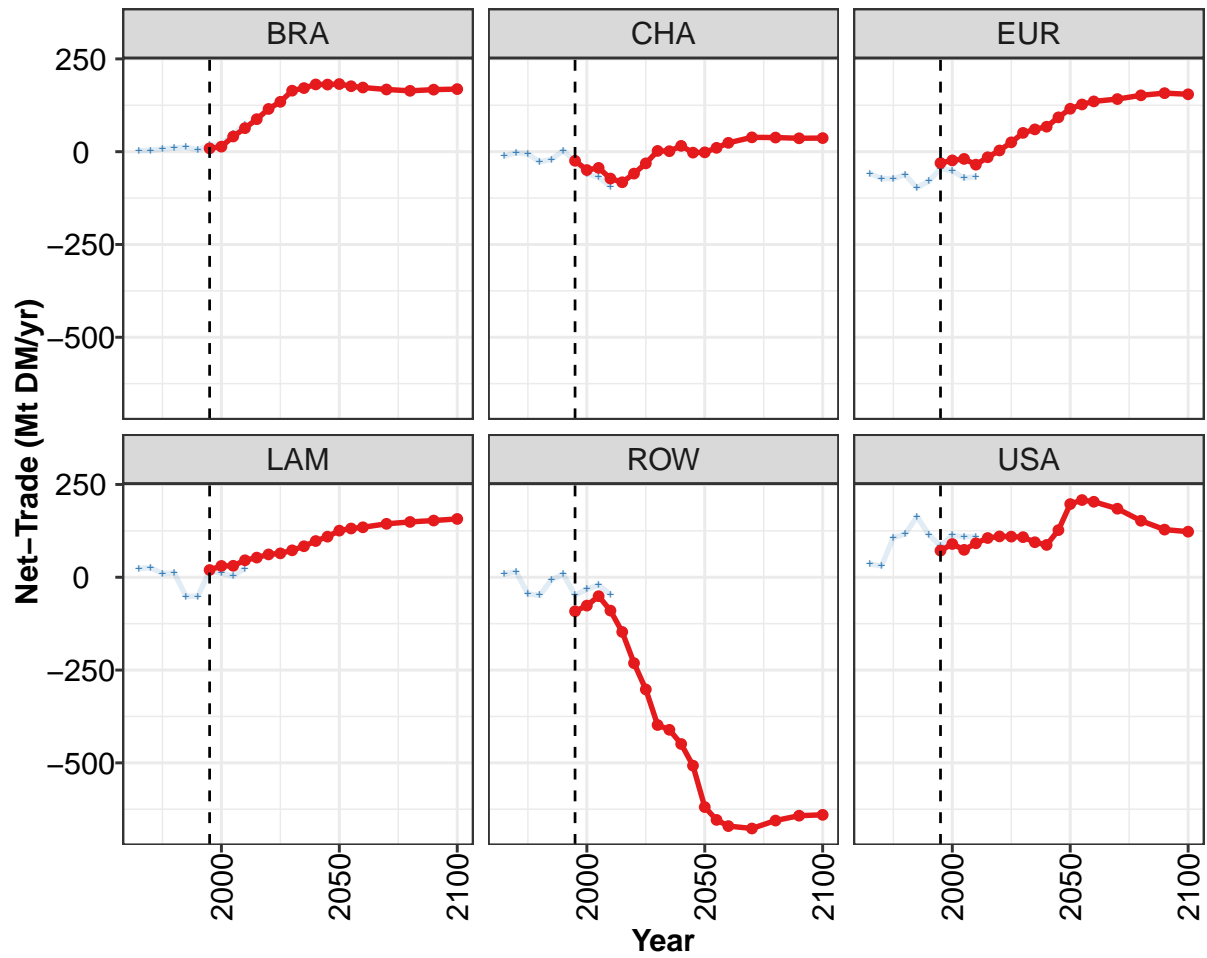


Figure 479: MAgPIE m4p_brazil — Trade—Net-Trade (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-46	-15	32	4	2	-0	-0	-0	-0	-0	-0
BRA	9	14	41	63	88	115	134	164	171	181	181
CHA	-24	-49	-44	-72	-82	-59	-31	2	1	16	-2
EUR	-31	-23	-19	-35	-15	3	25	51	60	67	93
LAM	20	31	31	46	53	62	64	73	84	98	109
ROW	-92	-76	-51	-90	-147	-231	-302	-398	-411	-449	-507
USA	72	90	74	92	106	110	110	108	94	87	127

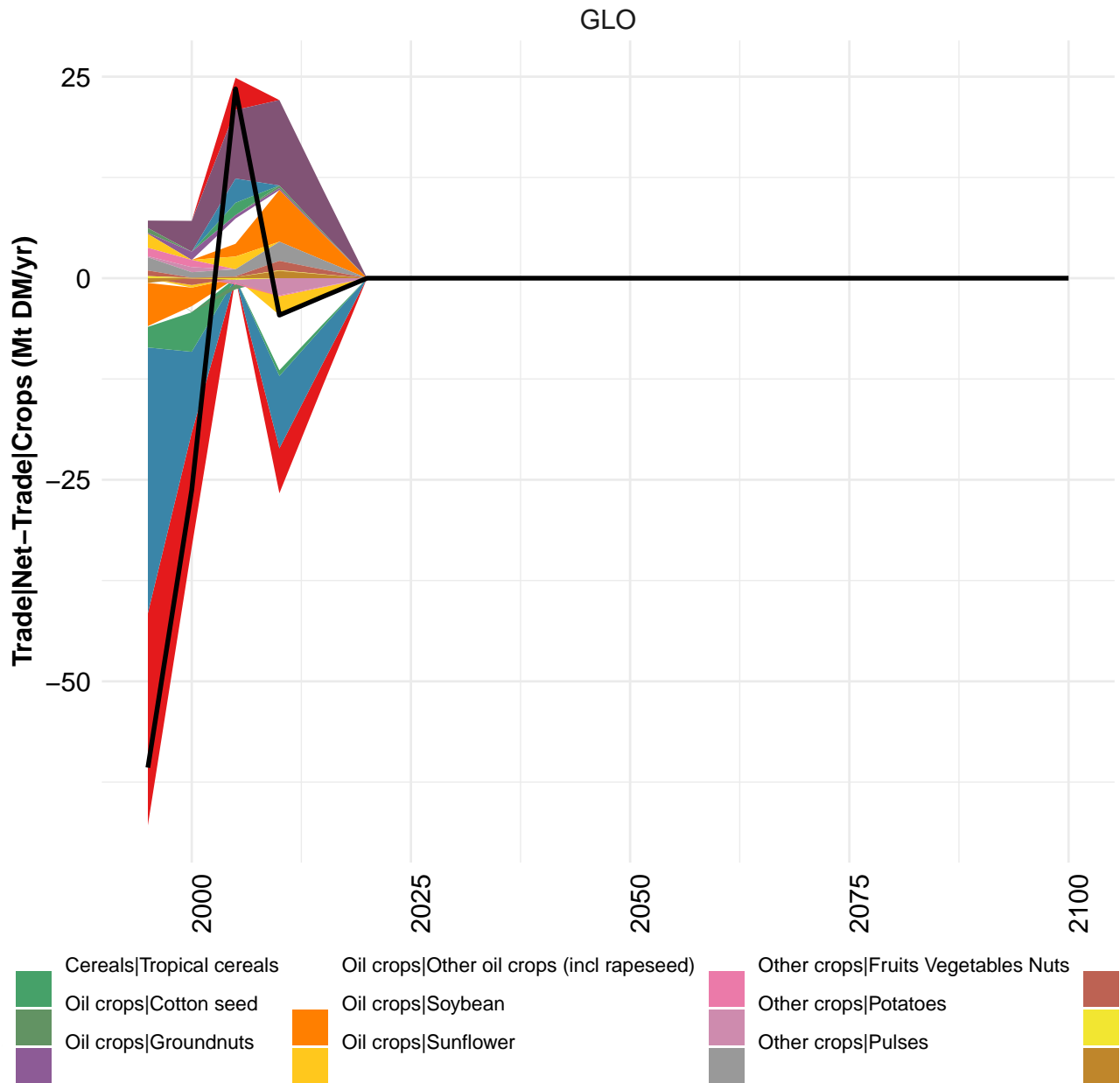
Table 1836: MAgPIE m4p_brazil — Trade—Net-Trade (Mt DM/yr) [PART 1/2]

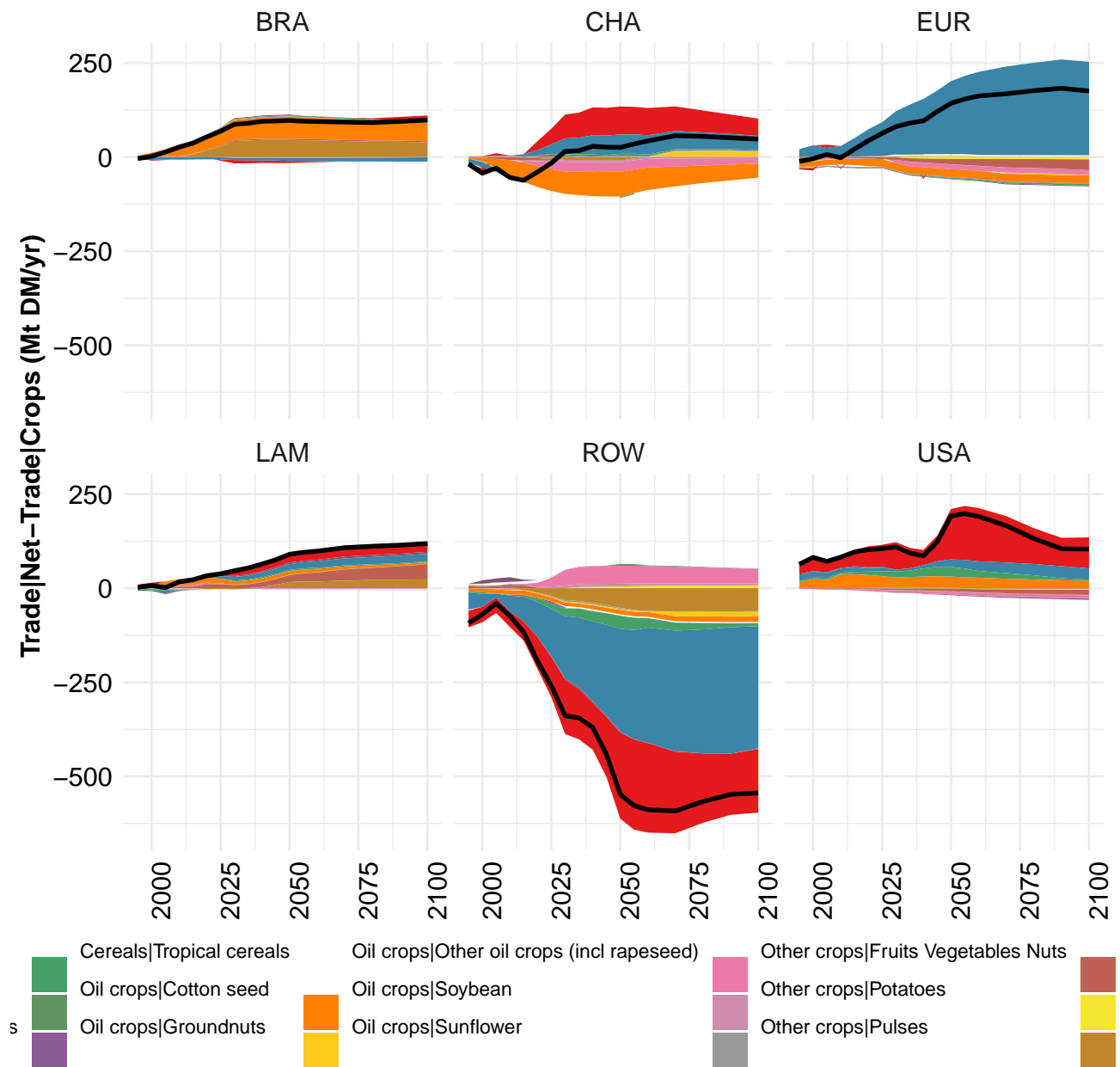
	2050	2055	2060	2070	2080	2090	2100
GLO	0	-0	-0	-0	0	-0	-0
BRA	182	176	173	168	164	167	169
CHA	-2	10	24	39	38	36	37
EUR	116	127	135	142	152	158	155
LAM	126	131	135	144	149	153	157
ROW	-619	-654	-670	-677	-655	-642	-640
USA	197	208	203	185	152	128	123

Table 1837: MAgPIE m4p_brazil — Trade—Net-Trade (Mt DM/yr) [PART 2/2]

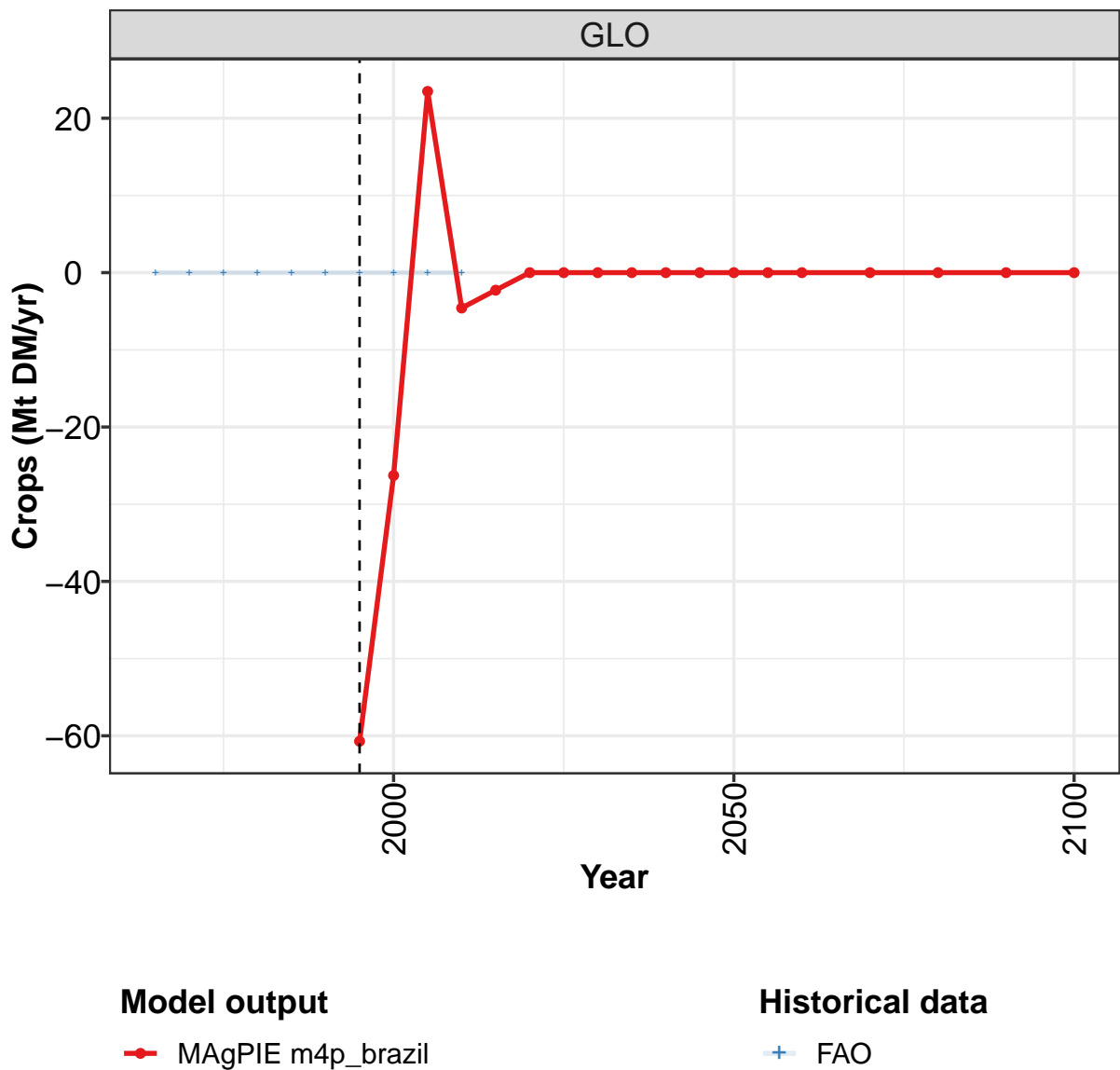
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0	0	0	0	0	0	0	0	0	0
BRA	3	4	7	10	12	5	18	18	48	73
CHA	-12	-3	-6	-27	-21	3	-25	-59	-69	-93
EUR	-59	-72	-73	-62	-97	-80	-45	-51	-71	-67
LAM	23	26	10	12	-51	-51	17	11	4	24
ROW	9	15	-45	-48	-6	8	-48	-32	-21	-46
USA	36	31	107	116	163	115	84	113	109	109

Table 1838: FAO — Trade—Net-Trade (Mt DM/yr)





58.1 Crops



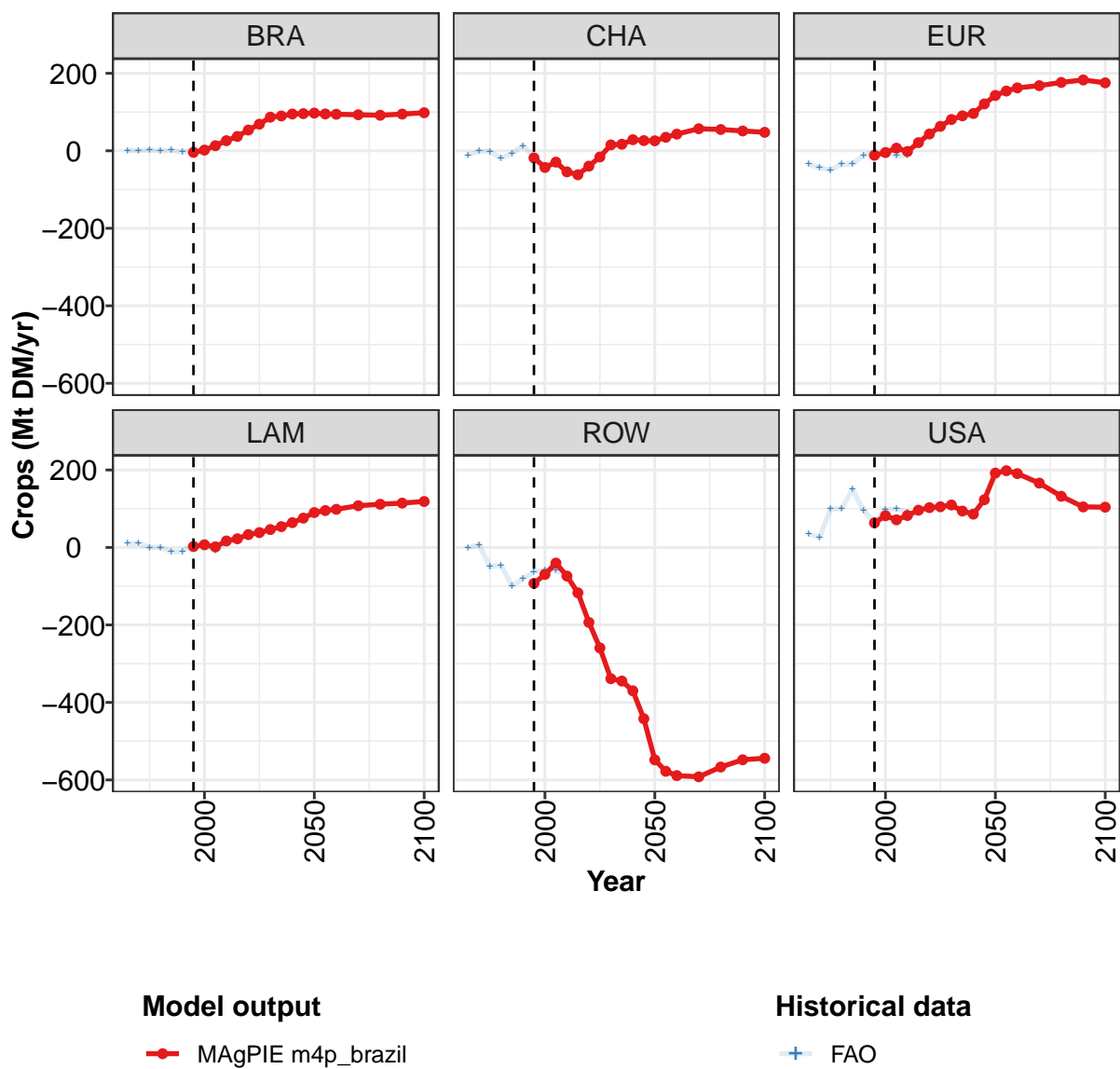


Figure 480: MAGPIE m4p_brazil — Trade—Net-Trade—Crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-61	-26	23	-5	-2	-0	-0	0	-0	-0	0
BRA	-4	2	13	26	37	54	69	87	90	95	96
CHA	-18	-43	-29	-54	-62	-40	-16	15	17	29	26
EUR	-12	-4	7	-2	21	43	63	81	90	96	121
LAM	2	7	2	17	22	33	38	46	54	64	76
ROW	-93	-70	-40	-74	-117	-193	-259	-339	-345	-370	-442
USA	63	82	71	82	96	103	105	110	94	86	123

Table 1839: MAgPIE m4p_brazil — Trade—Net-Trade—Crops (Mt DM/yr) [PART 1/2]

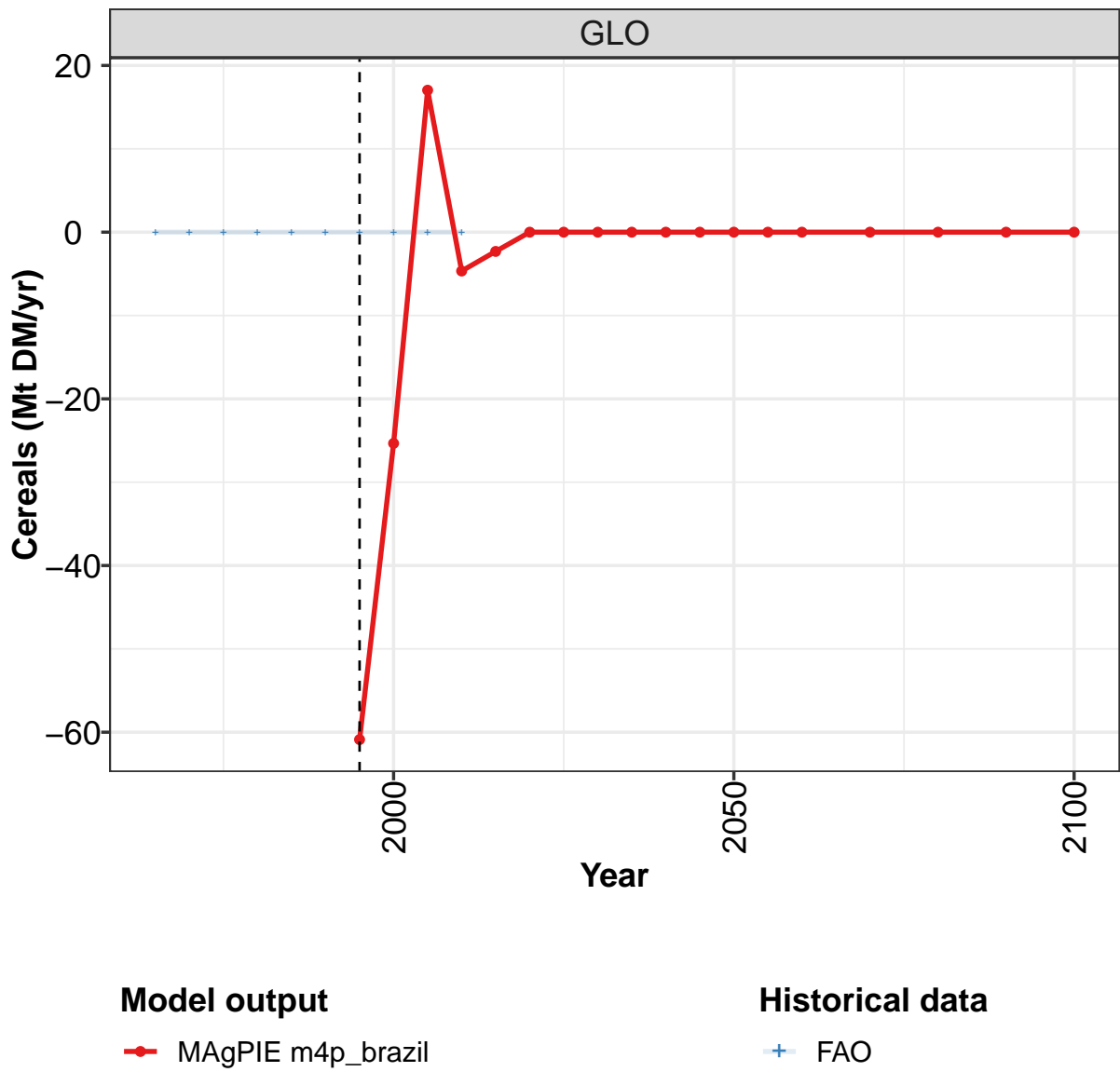
	2050	2055	2060	2070	2080	2090	2100
GLO	0	-0	-0	-0	0	-0	-0
BRA	97	95	94	93	92	95	98
CHA	26	35	43	57	55	51	48
EUR	143	154	162	168	176	183	175
LAM	90	95	98	108	111	114	119
ROW	-548	-578	-589	-592	-567	-548	-544
USA	192	198	191	166	132	105	104

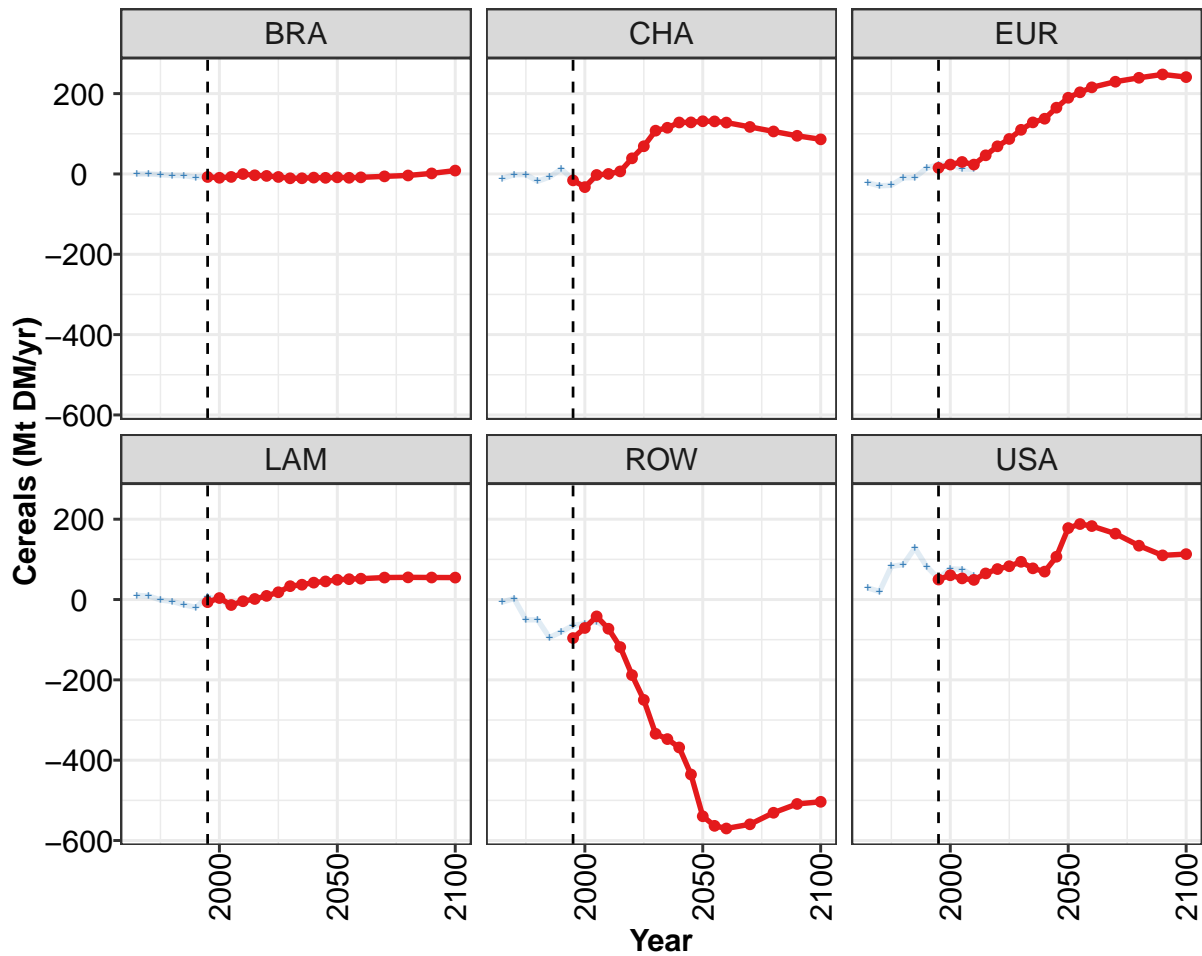
Table 1840: MAgPIE m4p_brazil — Trade—Net-Trade—Crops (Mt DM/yr) [PART 2/2]

	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0	0	0	0	0	0	0	0	0	0
BRA	1	1	2	-1	1	-3	1	2	13	32
CHA	-11	-1	-2	-19	-7	13	-15	-41	-33	-52
EUR	-35	-43	-49	-35	-34	-12	-1	-3	-12	-13
LAM	11	11	0	0	-11	-12	12	4	-8	15
ROW	-1	7	-50	-46	-99	-81	-63	-59	-58	-74
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





Model output

—•— MAgPIE m4p_brazil

Historical data

+— FAO



Figure 481: MAgPIE m4p_brazil — 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
BRA	-8	-9	-7	-0	-3	-5	-7	-11	-11	-9	-10
CHA	-16	-33	-3	0	6	39	69	108	115	128	128
EUR	15	23	30	23	46	69	87	110	128	138	165
LAM	-7	4	-14	-4	1	9	18	33	37	42	45
ROW	-96	-71	-42	-73	-118	-188	-250	-334	-347	-368	-436
USA	50	60	53	49	65	76	83	94	78	70	107

Table 1842: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Cereals (Mt DM/yr) [PART 1/2]

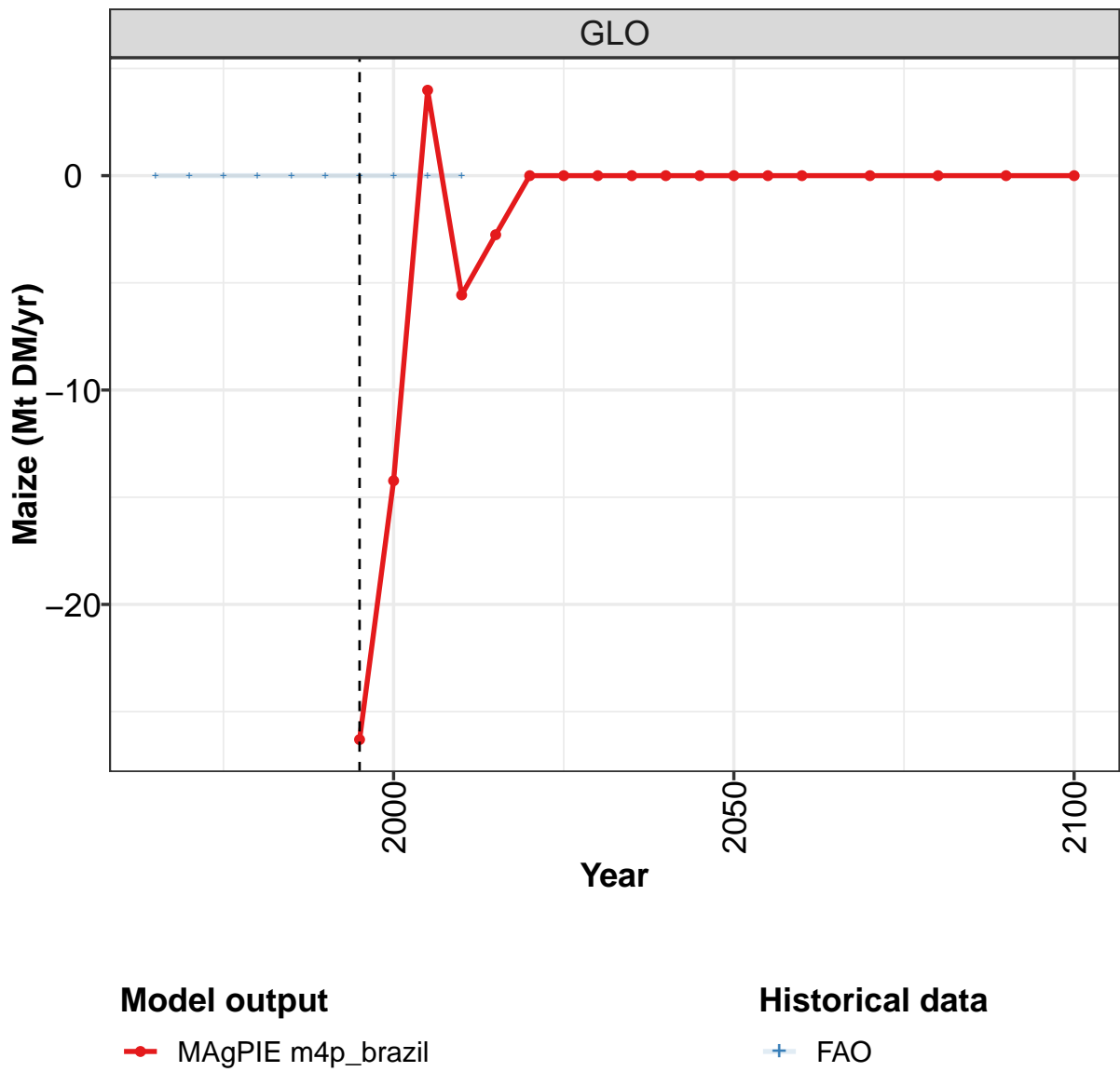
	2050	2055	2060	2070	2080	2090	2100
GLO	-0	-0	0	-0	0	-0	0
BRA	-8	-10	-8	-6	-4	1	8
CHA	131	131	128	117	106	95	86
EUR	190	203	216	230	239	248	241
LAM	49	51	52	55	55	55	55
ROW	-540	-563	-570	-560	-531	-509	-504
USA	178	188	183	164	134	110	113

Table 1843: MAgPIE m4p_brazil — 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
BRA	0	0	-2	-4	-4	-8	-5	-10	-8	2
CHA	-11	-2	-1	-18	-8	12	-13	-31	-8	3
EUR	-22	-30	-28	-10	-9	14	24	25	12	12
LAM	10	9	-1	-5	-13	-20	6	-0	-17	-3
ROW	-6	3	-50	-50	-95	-81	-65	-60	-55	-72
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



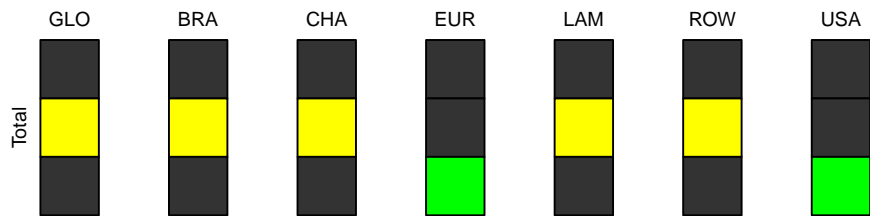
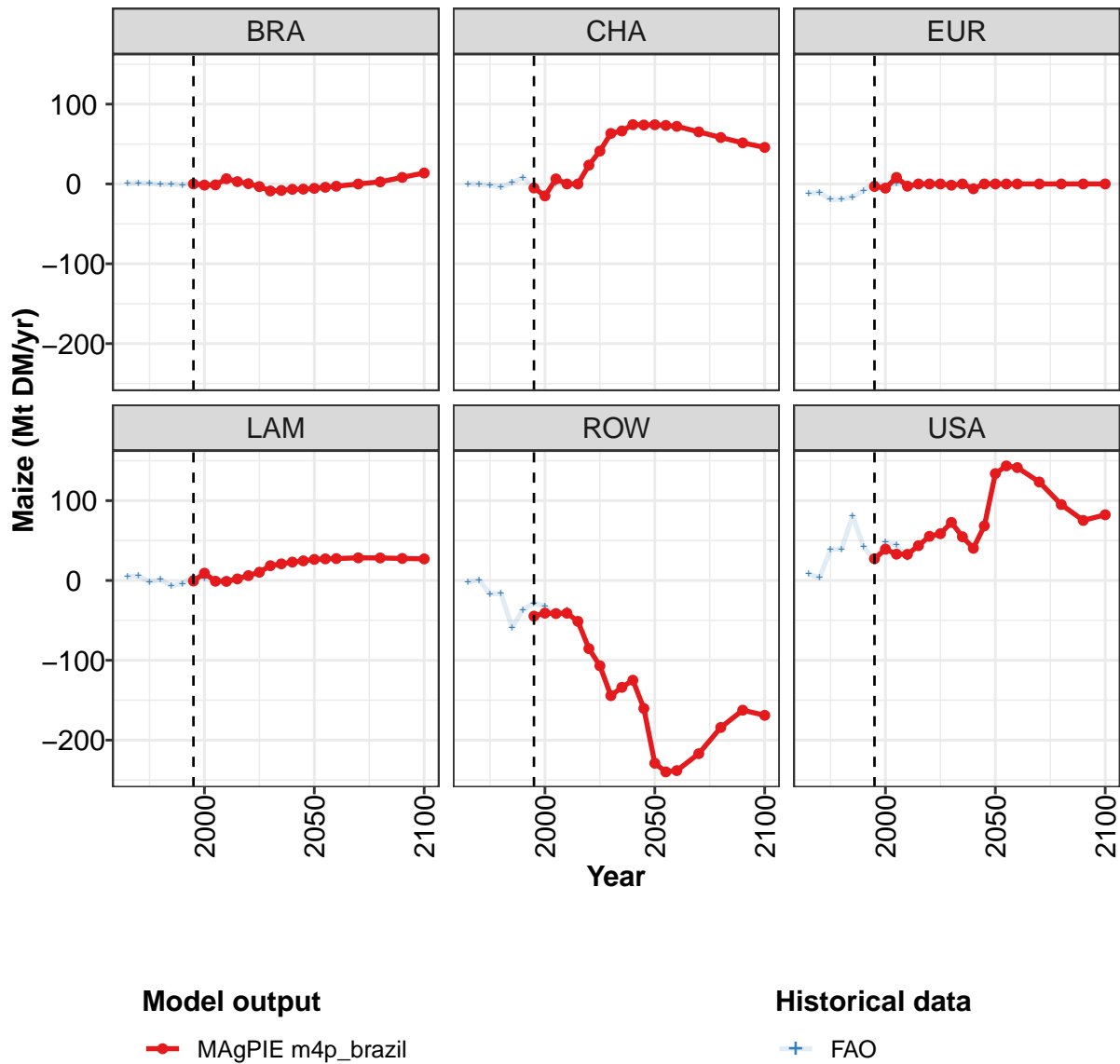


Figure 482: MAGPIE m4p_brazil — Trade—Net-Trade—Crops—Cereals—Maize (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-26	-14	4	-6	-3	0	-0	0	0	0	0
BRA	0	-1	-1	7	3	0	-3	-9	-8	-7	-6
CHA	-5	-15	6	0	0	24	41	63	66	74	74
EUR	-3	-5	8	-3	0	0	0	-2	0	-6	0
LAM	-1	9	-1	-1	2	6	10	18	21	23	25
ROW	-45	-41	-41	-41	-51	-85	-107	-144	-134	-125	-160
USA	27	39	33	33	44	55	59	73	55	40	68

Table 1845: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Cereals—Maize (Mt DM/yr) [PART 1/2]

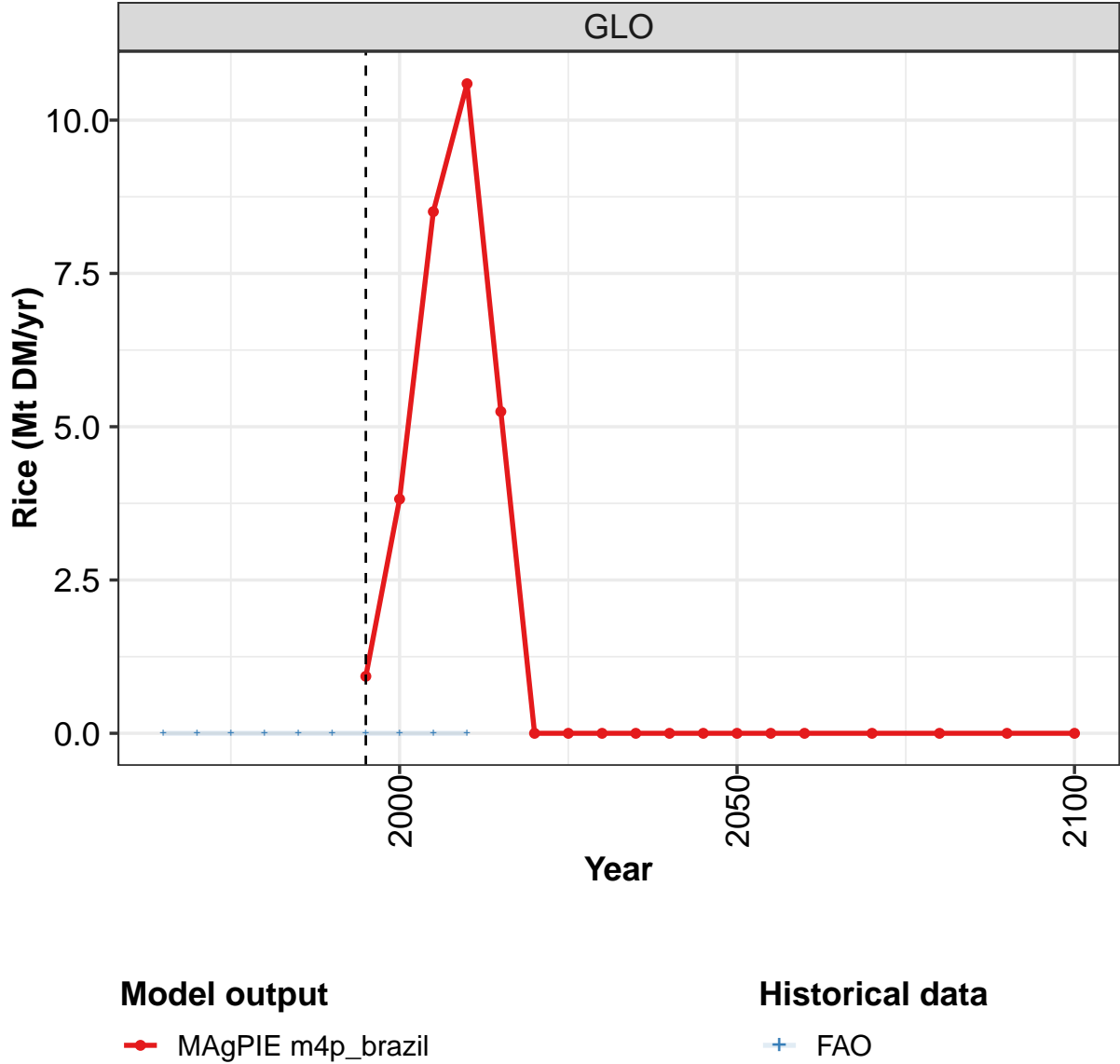
	2050	2055	2060	2070	2080	2090	2100
GLO	0	0	0	-0	0	-0	-0
BRA	-5	-4	-3	-0	3	8	14
CHA	74	73	72	65	58	51	46
EUR	0	0	0	0	0	-0	0
LAM	26	27	27	28	28	28	27
ROW	-229	-240	-238	-217	-184	-163	-169
USA	134	144	141	123	95	75	82

Table 1846: MAgPIE m4p_brazil — 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
BRA	0.5	1.3	1.0	-0.6	-0.2	-1.3	1.6	-1.5	-1.3	9.2
CHA	0.1	-0.6	-1.6	-4.2	1.7	7.7	-4.6	-14.7	1.1	2.2
EUR	-11.7	-10.6	-19.5	-19.4	-16.4	-8.5	1.9	-2.2	0.3	-1.7
LAM	4.9	5.8	-1.8	1.1	-6.9	-3.9	4.9	2.9	-1.6	0.1
ROW	-1.8	0.6	-16.9	-16.2	-58.9	-36.7	-28.4	-32.3	-43.1	-37.6
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



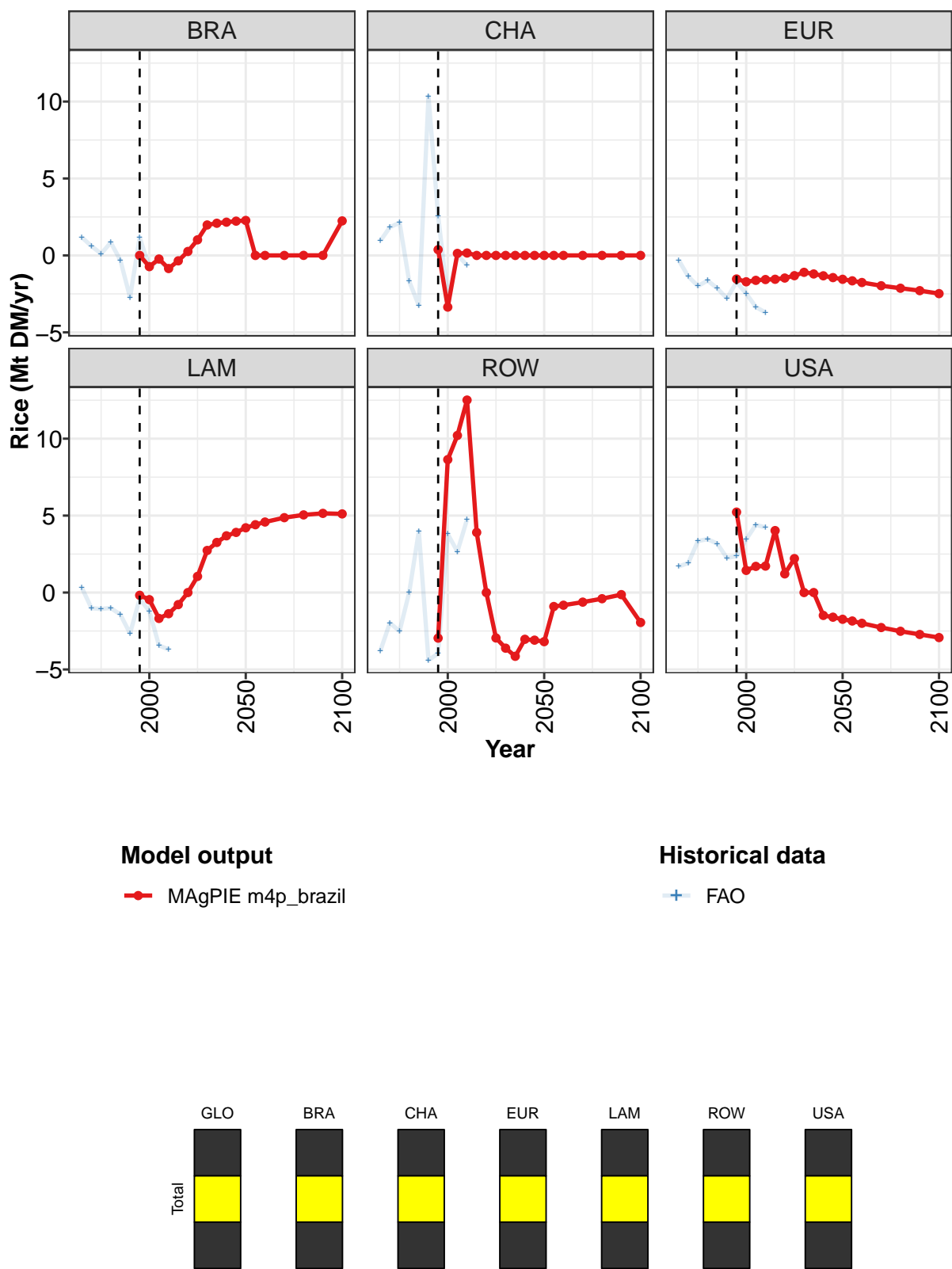


Figure 483: MAGPIE m4p_brazil — Trade—Net-Trade—Crops—Cereals—Rice (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.9	3.8	8.5	10.6	5.2	-0.0	0.0	-0.0	0.0	0.0	0.0
BRA	0.0	-0.7	-0.2	-0.9	-0.4	0.3	1.0	2.0	2.1	2.2	2.2
CHA	0.4	-3.4	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	-1.5	-1.7	-1.6	-1.6	-1.6	-1.5	-1.3	-1.1	-1.2	-1.3	-1.4
LAM	-0.2	-0.5	-1.7	-1.4	-0.8	0.0	1.0	2.7	3.3	3.7	3.9
ROW	-3.0	8.6	10.2	12.5	3.9	-0.0	-3.0	-3.6	-4.1	-3.0	-3.1
USA	5.2	1.4	1.7	1.7	4.0	1.2	2.2	0.0	0.0	-1.5	-1.6

Table 1848: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Cereals—Rice (Mt DM/yr) [PART 1/2]

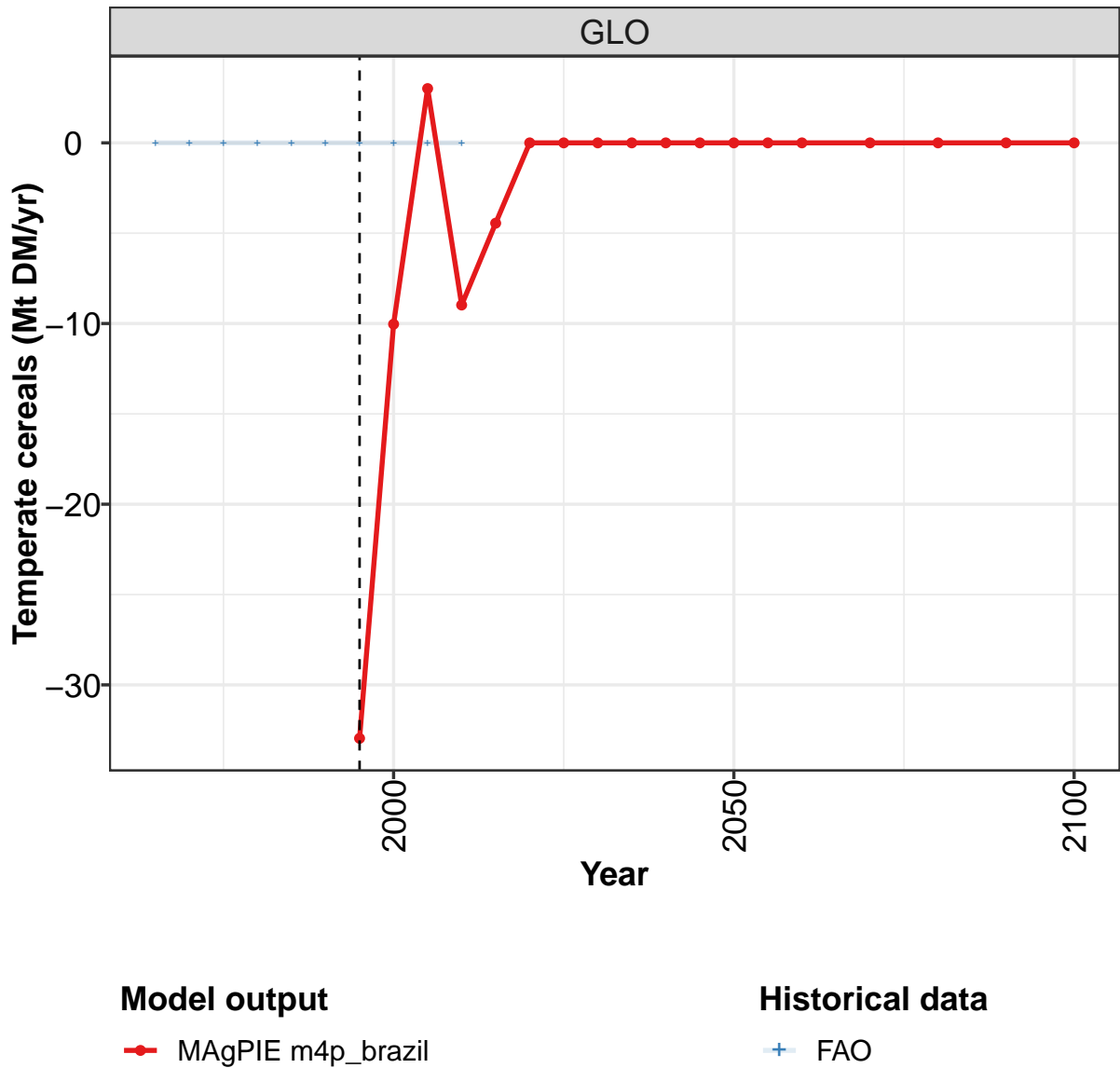
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0
BRA	2.3	0.0	0.0	0.0	0.0	0.0	2.2
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	-1.6	-1.7	-1.8	-2.0	-2.1	-2.3	-2.5
LAM	4.2	4.4	4.6	4.9	5.0	5.1	5.1
ROW	-3.2	-0.9	-0.8	-0.6	-0.4	-0.1	-1.9
USA	-1.7	-1.8	-2.0	-2.3	-2.5	-2.7	-2.9

Table 1849: MAgPIE m4p_brazil — 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
BRA	1.2	0.6	0.1	0.8	-0.3	-2.7	1.2	-0.8	-0.3	-0.9
CHA	0.9	1.8	2.1	-1.7	-3.3	10.3	2.6	-2.8	0.0	-0.6
EUR	-0.3	-1.4	-2.0	-1.6	-2.1	-2.8	-1.7	-2.5	-3.3	-3.7
LAM	0.3	-1.0	-1.1	-1.0	-1.4	-2.7	-0.4	-1.2	-3.4	-3.7
ROW	-3.8	-2.0	-2.5	0.0	4.0	-4.4	-4.0	3.8	2.7	4.8
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**



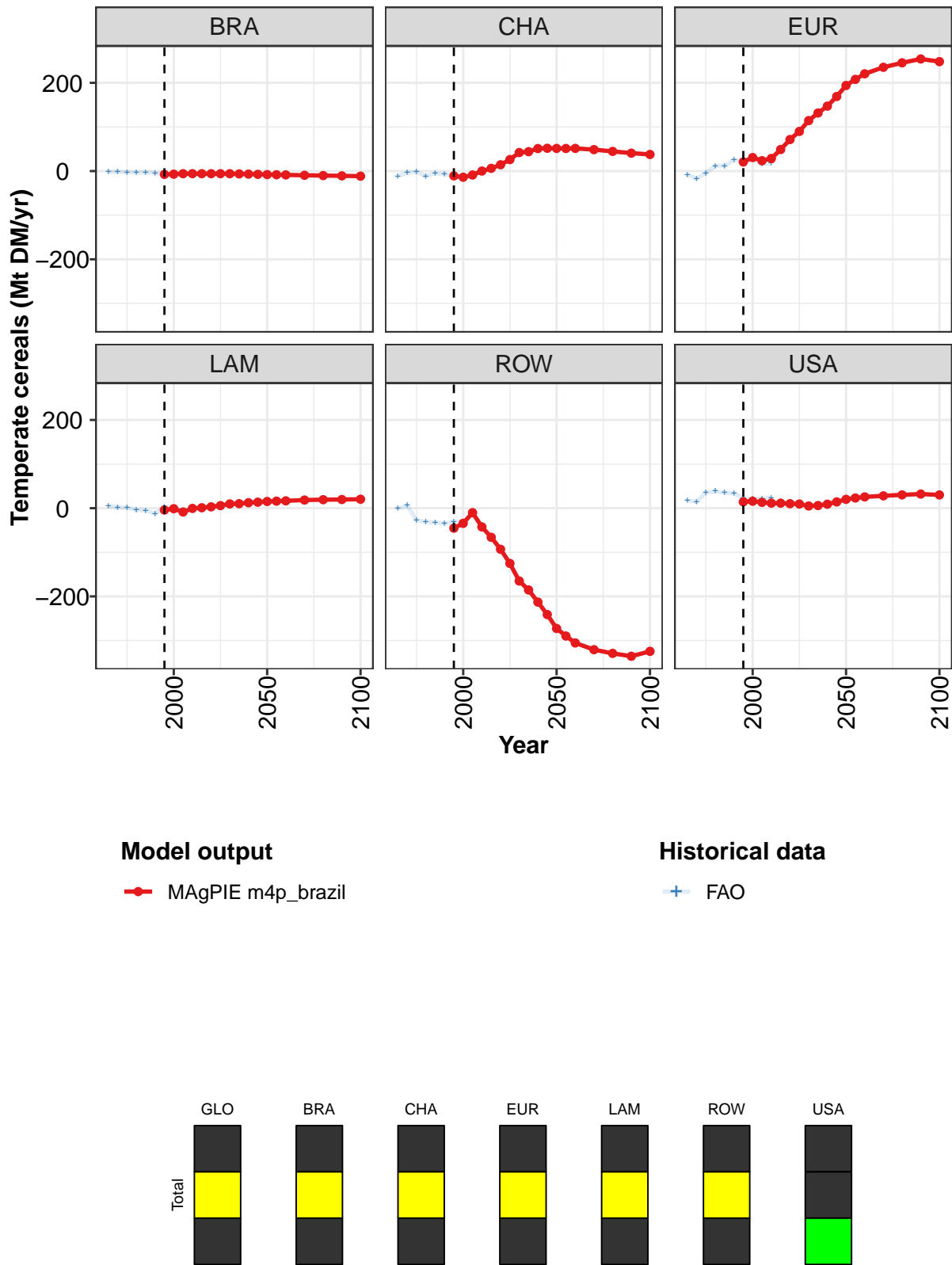


Figure 484: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Cereals—Temperate cereals (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-33	-10	3	-9	-4	0	0	0	-0	-0	0
BRA	-8	-7	-6	-6	-6	-6	-6	-6	-6	-7	-7
CHA	-11	-14	-9	-0	6	14	26	42	44	51	52
EUR	21	31	24	28	49	72	90	114	132	147	169
LAM	-4	-1	-9	-1	1	3	6	10	10	12	14
ROW	-45	-34	-10	-42	-66	-93	-125	-165	-185	-213	-241
USA	14	16	13	11	11	10	9	5	6	9	14

Table 1851: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Cereals—Temperate cereals (Mt DM/yr)
[PART 1/2]

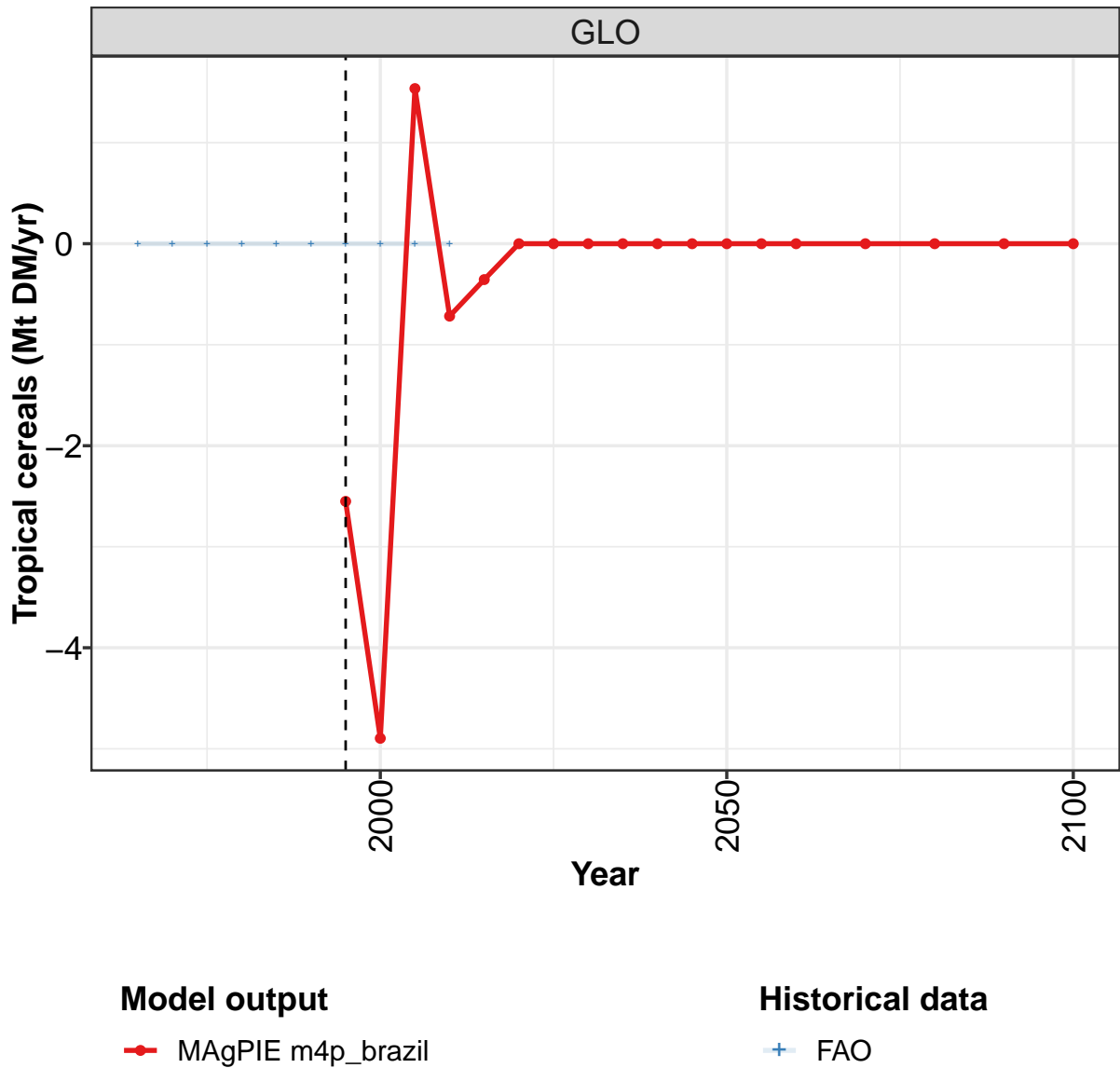
	2050	2055	2060	2070	2080	2090	2100
GLO	-0	-0	0	0	0	0	0
BRA	-8	-8	-9	-10	-10	-11	-12
CHA	51	51	51	49	45	41	38
EUR	194	208	221	235	245	254	248
LAM	15	16	17	18	19	20	20
ROW	-273	-290	-305	-321	-329	-336	-325
USA	20	23	26	28	30	32	30

Table 1852: MAgPIE m4p_brazil — 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
BRA	-1.7	-1.8	-2.7	-3.7	-3.5	-4.3	-7.4	-7.0	-6.0	-5.8
CHA	-11.4	-3.9	-1.8	-11.5	-5.4	-6.9	-10.9	-13.5	-8.8	1.7
EUR	-7.8	-17.1	-4.5	12.0	11.6	25.3	23.7	29.0	15.8	17.7
LAM	4.5	2.2	1.1	-4.0	-5.0	-12.4	2.7	1.0	-9.4	1.3
ROW	-0.9	5.9	-27.0	-31.1	-32.4	-35.3	-30.5	-30.1	-13.2	-38.5
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



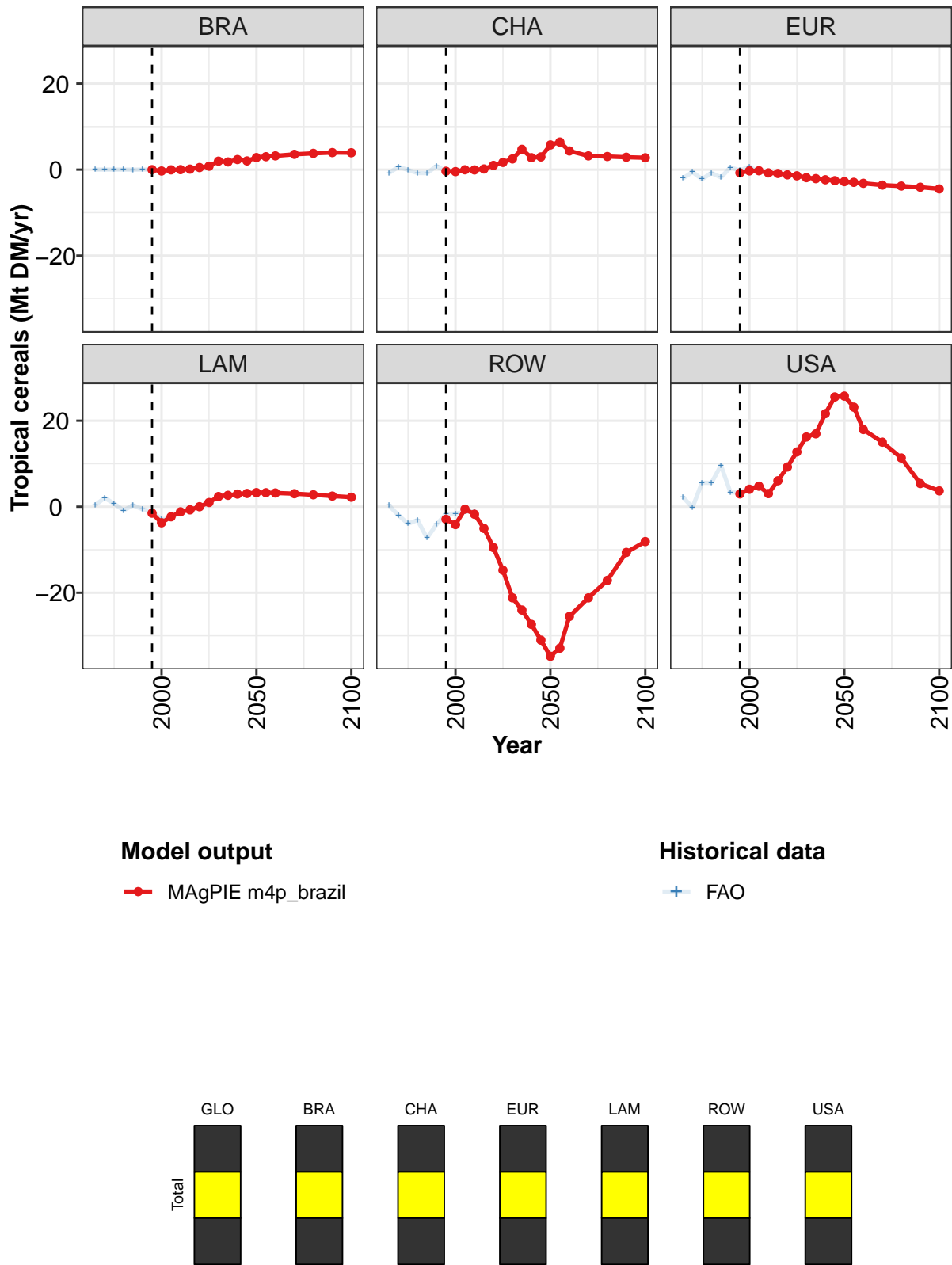


Figure 485: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Cereals—Tropical cereals (Mt DM/yr)

	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
BRA	-0.0	-0.3	-0.1	0.0	0.1	0.5	0.8	2.0	1.8	2.3	2.0
CHA	-0.4	-0.5	-0.0	-0.1	0.1	1.0	1.7	2.5	4.7	2.8	3.0
EUR	-0.7	-0.3	-0.3	-0.8	-0.9	-1.2	-1.4	-1.9	-2.1	-2.4	-2.6
LAM	-1.5	-3.7	-2.3	-1.2	-0.7	-0.0	1.0	2.4	2.7	2.9	3.1
ROW	-2.9	-4.1	-0.6	-1.8	-5.0	-9.5	-14.8	-21.2	-24.0	-27.4	-31.0
USA	3.0	4.1	4.8	3.1	6.0	9.2	12.7	16.2	17.0	21.6	25.5

Table 1854: MAgPIE m4p.brazil — Trade—Net-Trade—Crops—Cereals—Tropical cereals (Mt DM/yr) [PART 1/2]

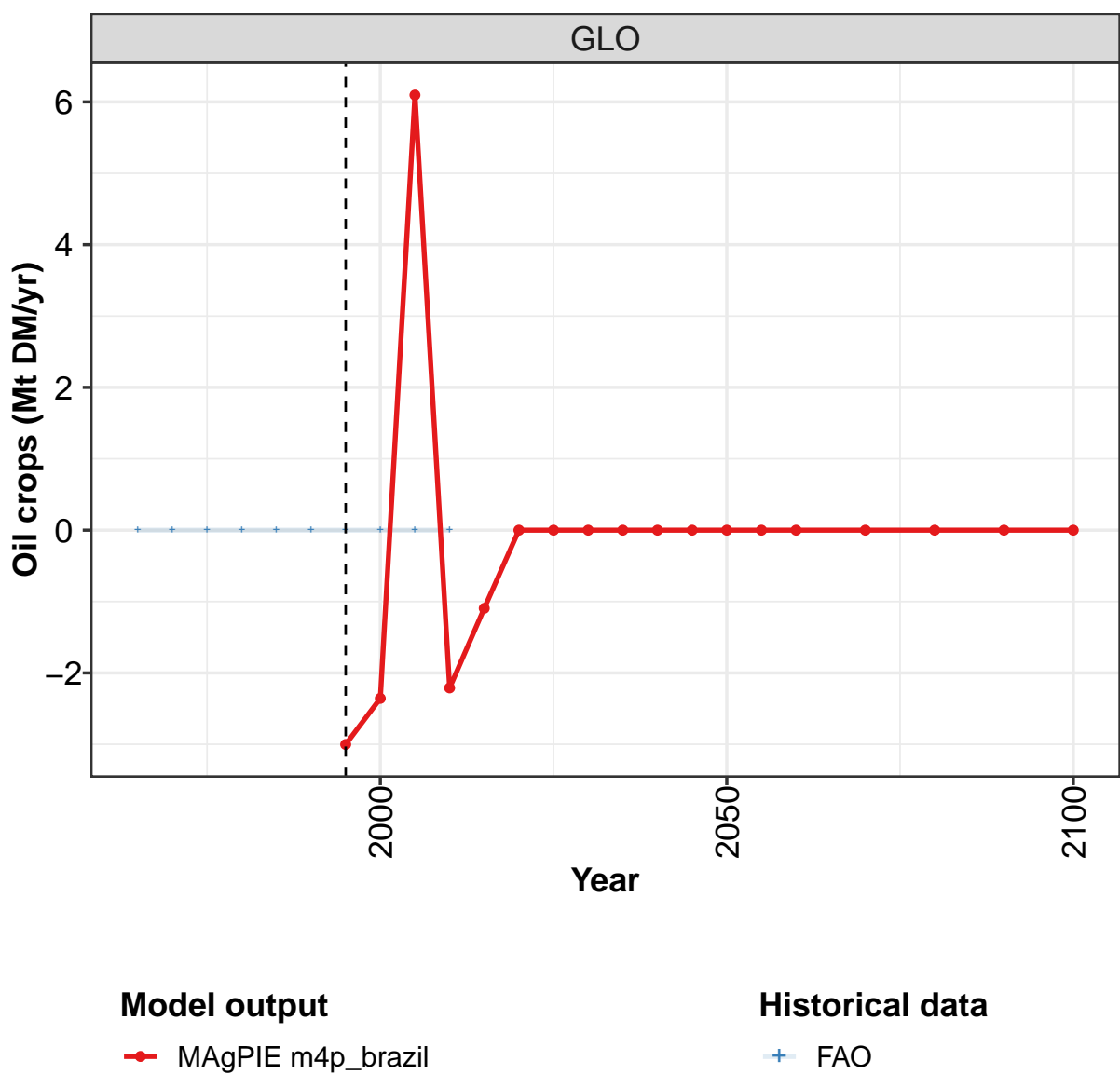
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	0.0	0.0	-0.0	0.0	0.0
BRA	2.8	3.0	3.2	3.6	3.8	4.0	3.9
CHA	5.7	6.4	4.3	3.2	3.0	2.9	2.8
EUR	-2.8	-2.9	-3.2	-3.6	-3.8	-4.1	-4.5
LAM	3.3	3.3	3.2	3.0	2.8	2.5	2.2
ROW	-34.8	-32.9	-25.5	-21.2	-17.1	-10.6	-8.1
USA	25.7	23.2	18.0	15.0	11.3	5.4	3.7

Table 1855: MAgPIE m4p.brazil — 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
BRA	0.00	0.00	-0.00	0.00	-0.03	0.02	0.00	-0.31	-0.07	0.00
CHA	-0.77	0.66	-0.08	-0.79	-0.81	0.84	-0.33	-0.36	-0.05	-0.07
EUR	-2.03	-0.55	-2.23	-0.79	-1.81	0.51	-0.18	0.69	-0.57	-0.60
LAM	0.33	2.06	0.70	-0.85	0.33	-0.59	-1.08	-2.90	-2.75	-1.11
ROW	0.27	-2.01	-3.96	-3.12	-7.27	-4.13	-1.70	-1.59	-1.20	-1.11
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



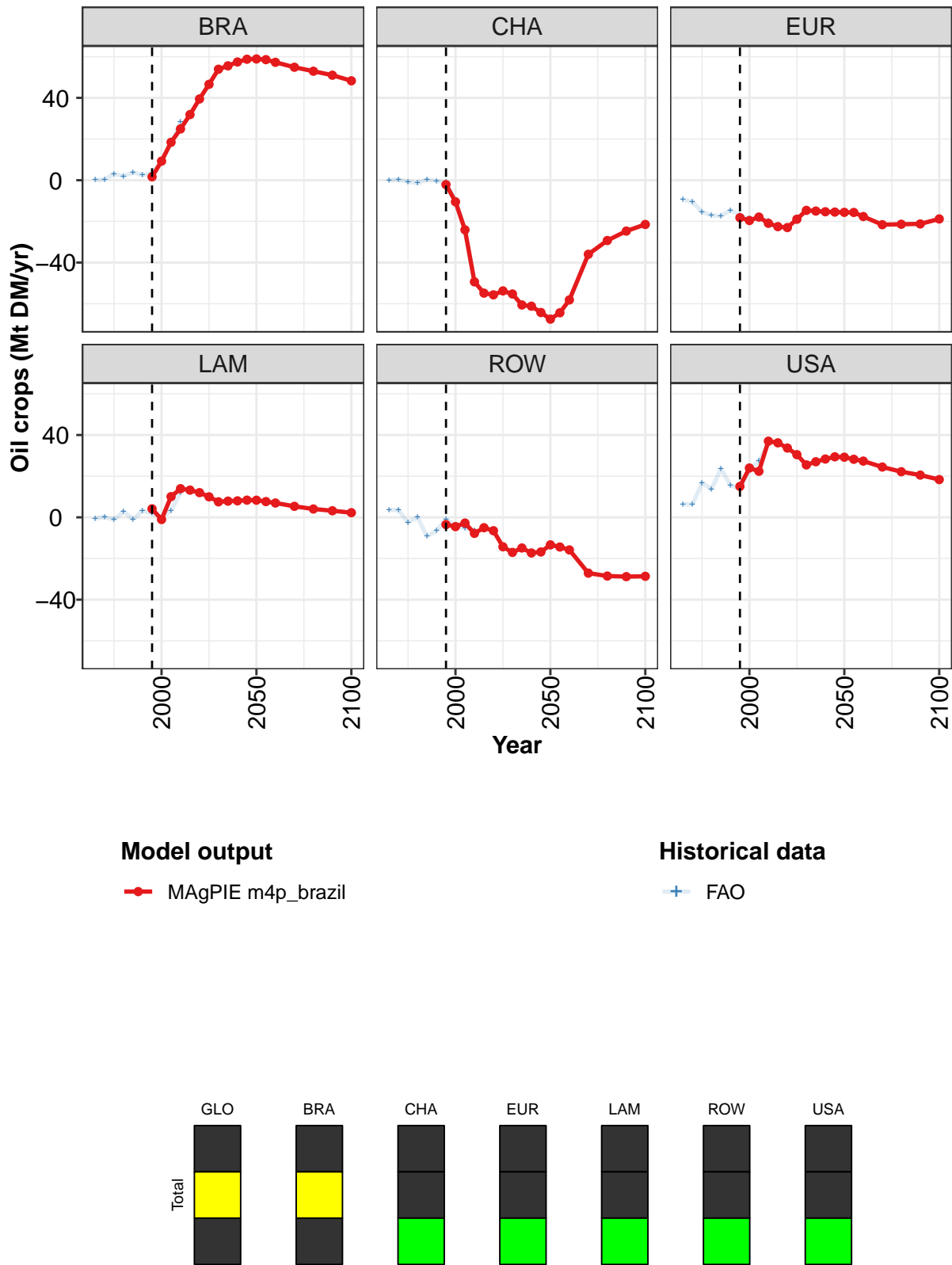


Figure 486: MAGPIE m4p_brazil — Trade—Net-Trade—Crops—Oil crops (Mt DM/yr)

	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
BRA	1.7	9.3	18.4	24.9	31.9	39.5	46.6	53.9	55.6	57.4	58.8
CHA	-2.1	-10.5	-24.1	-49.4	-54.8	-55.7	-53.8	-55.3	-60.6	-61.2	-64.3
EUR	-18.2	-19.6	-17.9	-20.9	-22.5	-23.0	-18.9	-14.6	-15.0	-15.3	-15.5
LAM	4.1	-1.0	10.1	13.9	13.2	12.0	10.0	7.5	7.9	8.0	8.3
ROW	-3.5	-4.5	-2.8	-7.8	-5.0	-6.5	-14.3	-17.0	-14.9	-17.3	-16.8
USA	15.0	24.0	22.4	37.0	36.2	33.7	30.5	25.5	27.0	28.3	29.4

Table 1857: MAgPIE m4p.brazil — Trade—Net-Trade—Crops—Oil crops (Mt DM/yr) [PART 1/2]

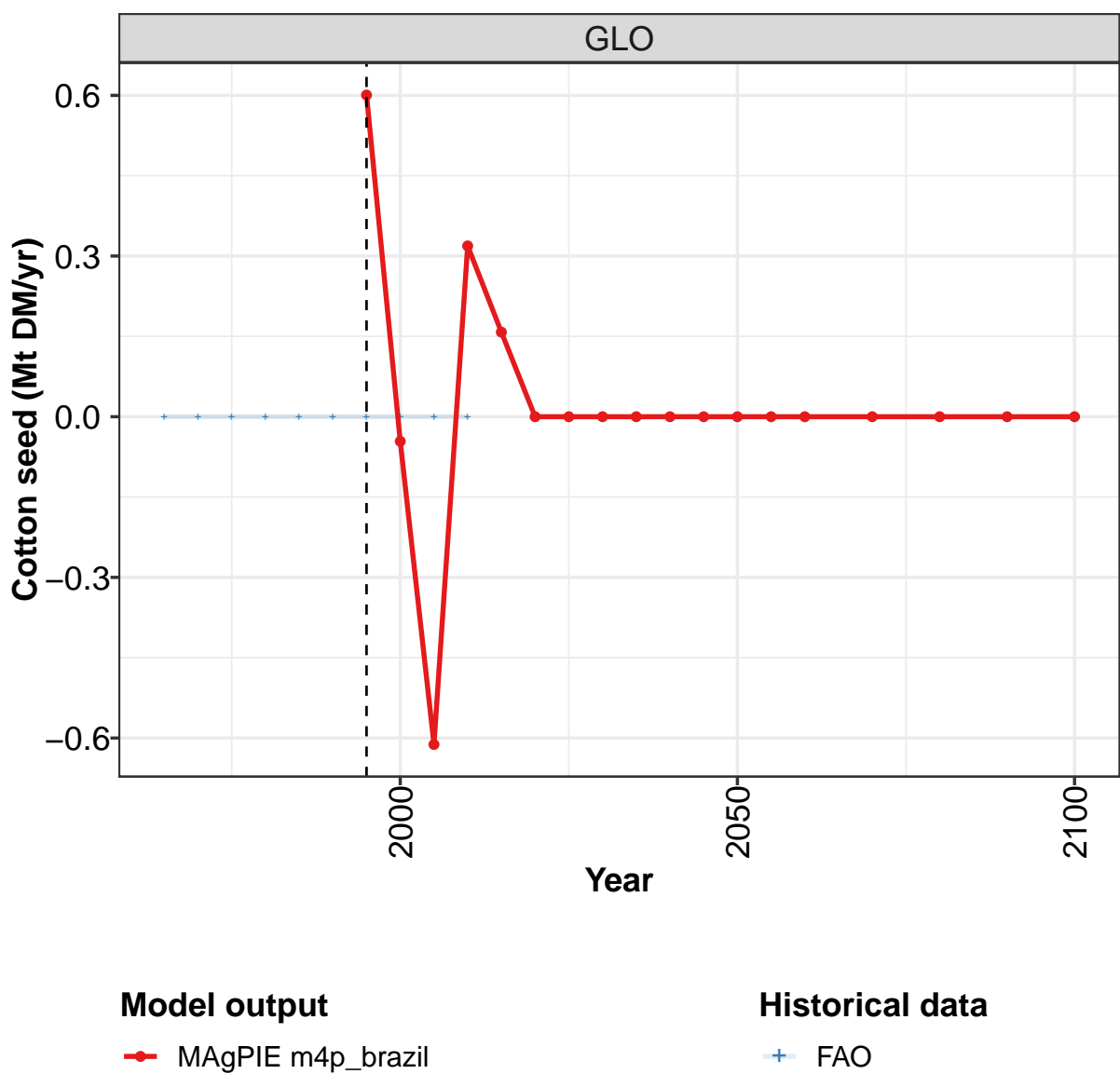
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	-0.0	0.0	-0.0	0.0	-0.0
BRA	58.9	58.6	57.3	54.9	53.0	51.0	48.3
CHA	-67.5	-64.4	-58.1	-36.0	-29.3	-24.7	-21.5
EUR	-15.6	-15.7	-17.6	-21.6	-21.4	-21.2	-18.8
LAM	8.3	7.7	7.0	5.3	4.1	3.2	2.3
ROW	-13.4	-14.4	-15.8	-27.1	-28.5	-28.8	-28.6
USA	29.2	28.2	27.3	24.4	22.2	20.5	18.3

Table 1858: MAgPIE m4p.brazil — 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
BRA	0.1	0.3	3.1	1.9	3.8	2.6	3.4	9.2	17.8	28.3
CHA	-0.0	0.3	-0.7	-1.4	0.3	-0.4	-1.0	-9.8	-24.5	-49.7
EUR	-9.4	-10.5	-15.4	-17.1	-17.4	-14.6	-17.0	-18.7	-18.7	-19.8
LAM	-0.6	0.2	-1.1	2.8	-1.0	3.2	1.9	-0.2	3.3	11.9
ROW	3.6	3.4	-2.5	0.0	-9.2	-6.5	-1.1	-3.6	-5.3	-6.6
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



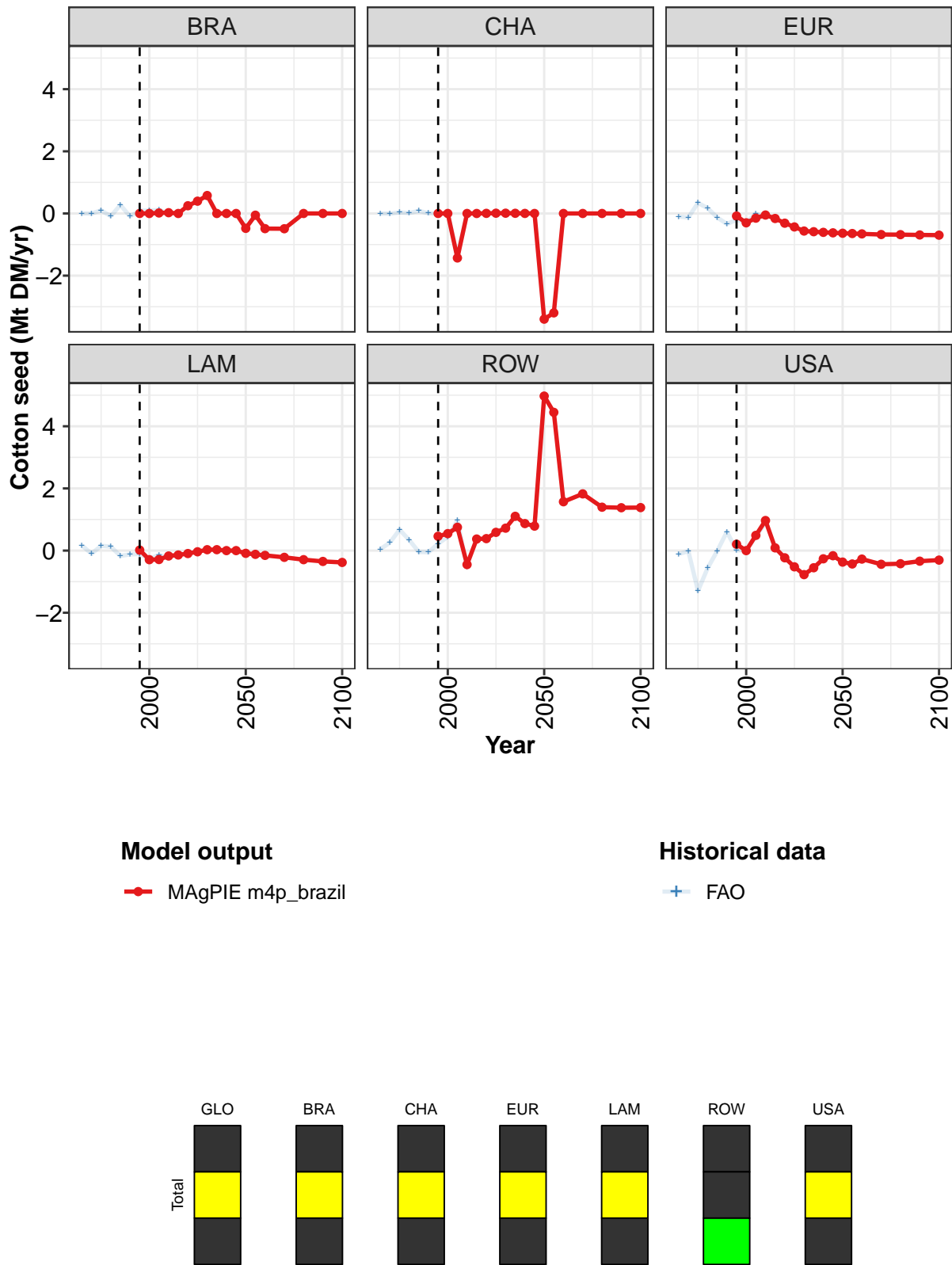


Figure 487: MAGPIE m4p_brazil — Trade—Net-Trade—Crops—Oil crops—Cotton seed (Mt DM/yr)

	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
BRA	0.00	0.00	0.02	0.03	0.00	0.25	0.40	0.58	-0.00	0.00	0.00
CHA	0.00	0.00	-1.43	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00
EUR	-0.08	-0.30	-0.15	-0.05	-0.16	-0.31	-0.43	-0.56	-0.59	-0.61	-0.62
LAM	0.02	-0.29	-0.29	-0.17	-0.14	-0.09	-0.04	0.03	0.03	0.00	0.00
ROW	0.46	0.55	0.75	-0.45	0.37	0.39	0.59	0.72	1.10	0.87	0.79
USA	0.20	0.00	0.49	0.97	0.09	-0.23	-0.52	-0.77	-0.55	-0.26	-0.17

Table 1860: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Oil crops—Cotton seed (Mt DM/yr) [PART 1/2]

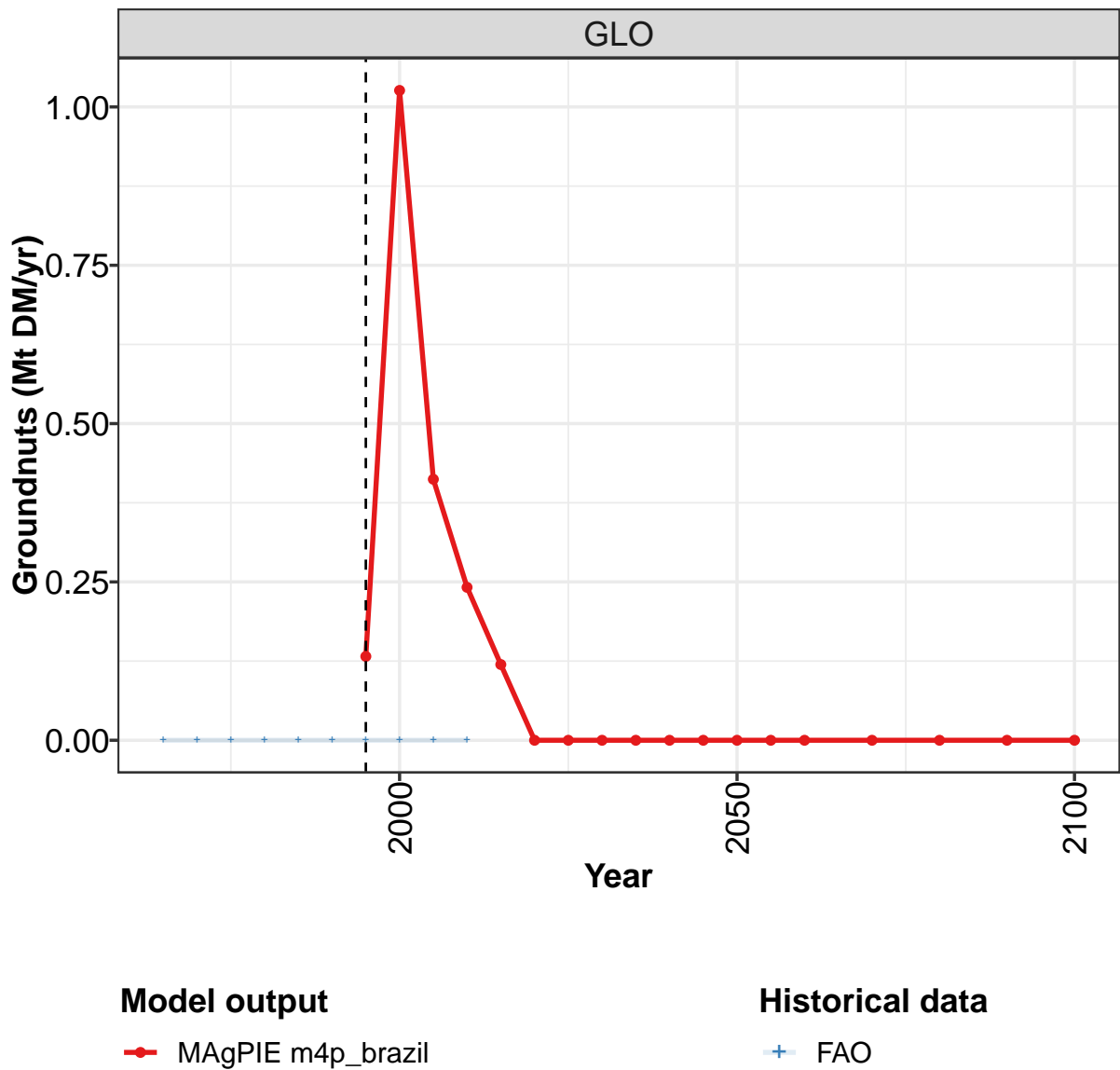
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	-0.00	0.00	0.00	0.00	0.00
BRA	-0.48	-0.05	-0.49	-0.49	0.00	0.00	0.00
CHA	-3.40	-3.20	0.00	-0.00	0.00	0.00	0.00
EUR	-0.64	-0.65	-0.66	-0.68	-0.68	-0.69	-0.70
LAM	-0.09	-0.12	-0.15	-0.22	-0.29	-0.35	-0.38
ROW	4.97	4.45	1.57	1.82	1.40	1.38	1.38
USA	-0.37	-0.43	-0.27	-0.44	-0.42	-0.34	-0.31

Table 1861: MAgPIE m4p_brazil — 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
BRA	-0.000	-0.001	0.100	-0.088	0.273	-0.096	0.089	0.093	0.111	0.002
CHA	-0.002	-0.006	0.033	0.014	0.083	0.007	-0.011	-0.001	-1.367	-0.020
EUR	-0.100	-0.128	0.339	0.172	-0.129	-0.338	-0.202	-0.281	-0.015	-0.114
LAM	0.171	-0.102	0.152	0.127	-0.173	-0.121	-0.109	-0.265	-0.140	-0.232
ROW	0.044	0.256	0.672	0.340	-0.044	-0.056	0.223	0.442	0.966	-0.531
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



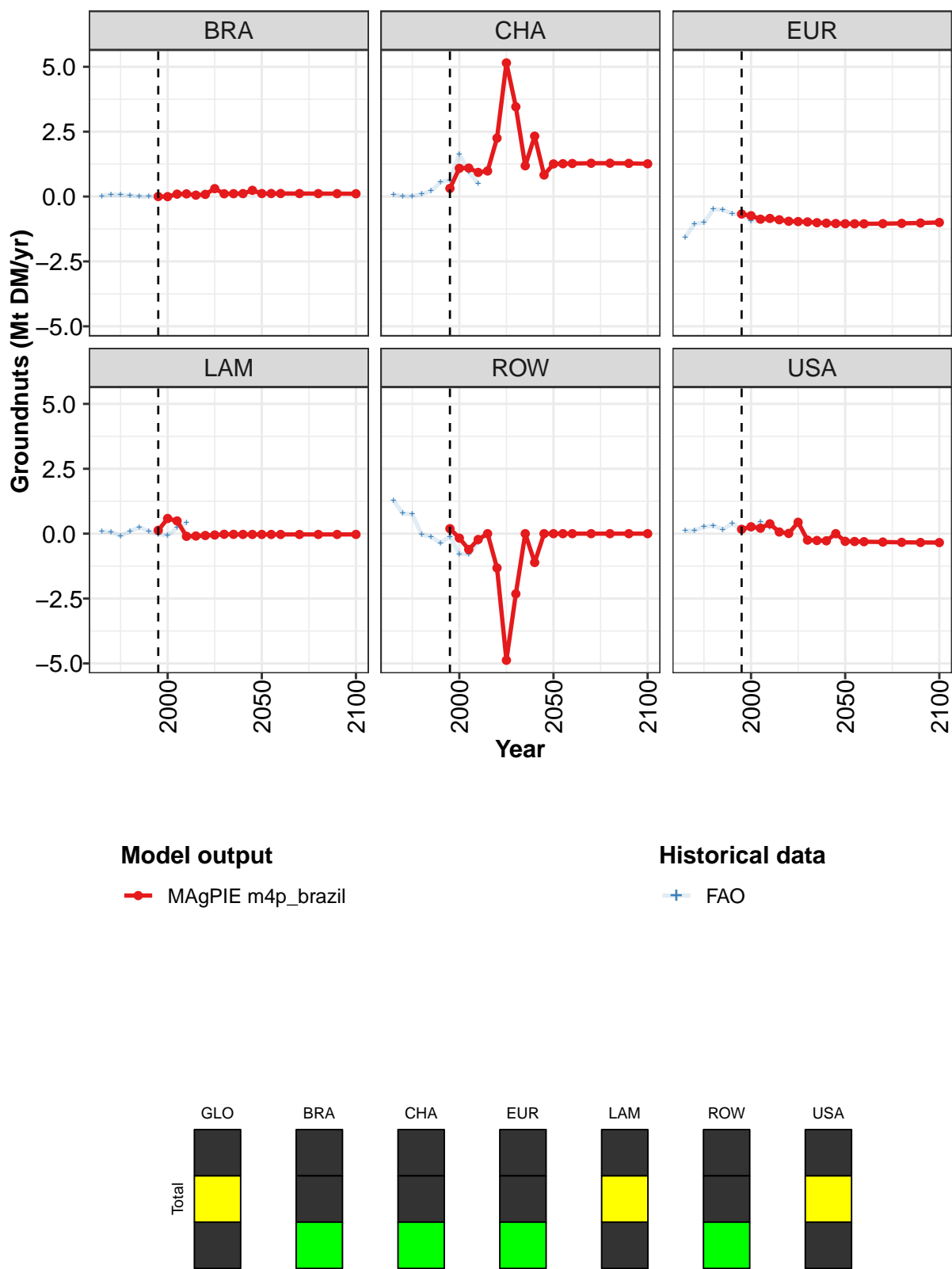


Figure 488: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Oil crops—Groundnuts (Mt DM/yr)

	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
BRA	0.00	-0.00	0.09	0.10	0.05	0.08	0.31	0.11	0.11	0.11	0.24
CHA	0.31	1.09	1.10	0.93	0.99	2.25	5.15	3.46	1.19	2.33	0.83
EUR	-0.67	-0.74	-0.87	-0.84	-0.90	-0.95	-0.96	-0.98	-1.01	-1.03	-1.04
LAM	0.13	0.58	0.49	-0.10	-0.09	-0.07	-0.05	-0.02	-0.03	-0.03	-0.03
ROW	0.19	-0.17	-0.61	-0.22	-0.00	-1.32	-4.88	-2.32	0.00	-1.11	0.00
USA	0.17	0.27	0.21	0.38	0.06	0.01	0.44	-0.25	-0.26	-0.28	0.00

Table 1863: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Oil crops—Groundnuts (Mt DM/yr) [PART 1/2]

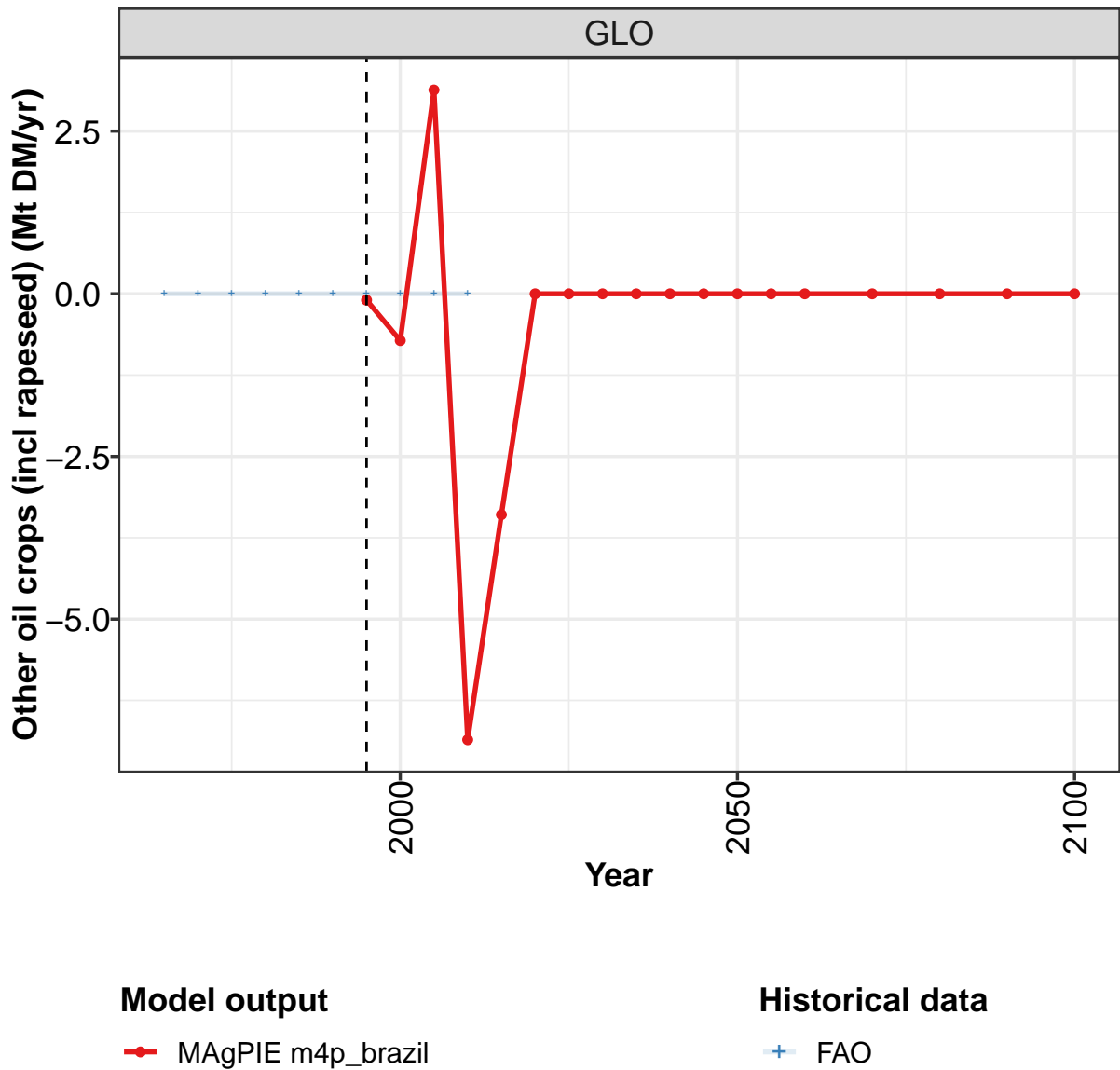
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	0.00	0.00	-0.00
BRA	0.12	0.12	0.12	0.12	0.11	0.11	0.11
CHA	1.26	1.27	1.27	1.28	1.28	1.28	1.26
EUR	-1.05	-1.05	-1.05	-1.05	-1.03	-1.02	-1.00
LAM	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
ROW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
USA	-0.29	-0.30	-0.31	-0.32	-0.33	-0.34	-0.34

Table 1864: MAgPIE m4p_brazil — 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
BRA	0.02	0.07	0.07	0.04	0.01	-0.00	0.03	-0.01	0.11	0.07
CHA	0.08	0.01	0.01	0.10	0.21	0.55	0.63	1.64	0.96	0.49
EUR	-1.57	-1.05	-1.01	-0.49	-0.51	-0.66	-0.69	-0.94	-0.94	-0.89
LAM	0.08	0.07	-0.09	0.09	0.25	0.09	-0.02	-0.08	0.23	0.42
ROW	1.28	0.78	0.75	-0.04	-0.12	-0.36	-0.11	-0.78	-0.79	-0.34
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)



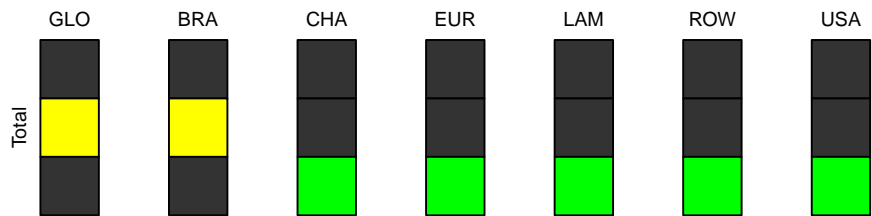
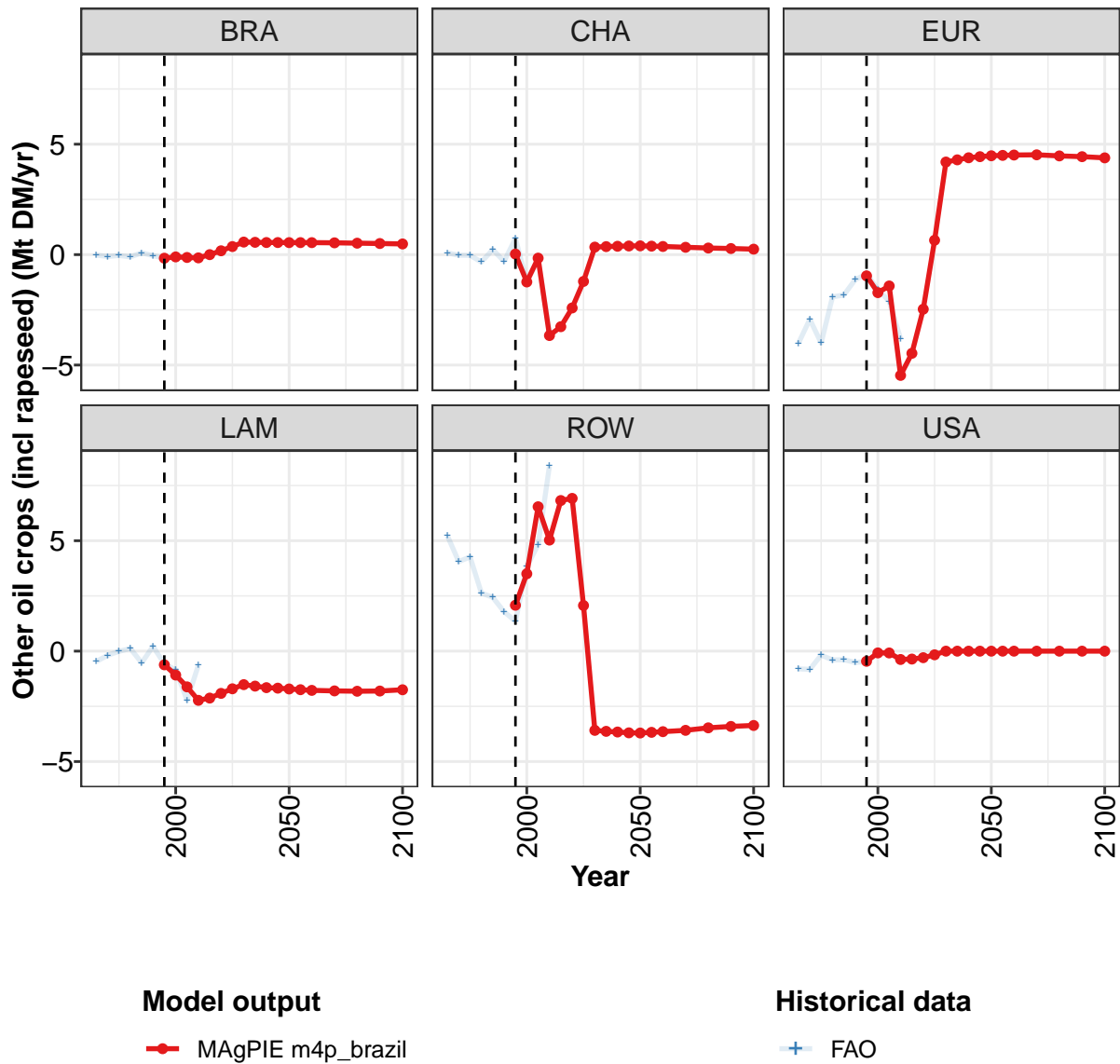


Figure 489: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.10	-0.72	3.13	-6.85	-3.39	0.00	-0.00	0.00	0.00	-0.00	0.00
BRA	-0.16	-0.10	-0.13	-0.15	-0.00	0.17	0.37	0.57	0.56	0.55	0.55
CHA	0.03	-1.24	-0.16	-3.66	-3.26	-2.41	-1.21	0.34	0.36	0.38	0.39
EUR	-0.96	-1.72	-1.42	-5.47	-4.47	-2.47	0.65	4.19	4.29	4.39	4.44
LAM	-0.62	-1.08	-1.62	-2.23	-2.13	-1.91	-1.71	-1.52	-1.58	-1.65	-1.68
ROW	2.08	3.50	6.54	5.03	6.82	6.92	2.07	-3.59	-3.63	-3.66	-3.70
USA	-0.46	-0.08	-0.08	-0.38	-0.36	-0.30	-0.17	0.00	0.00	0.00	0.00

Table 1866: MAgPIE m4p.brazil — Trade—Net-Trade—Crops—Oil crops—Other oil crops (incl rapeseed) (Mt DM/yr) [PART 1/2]

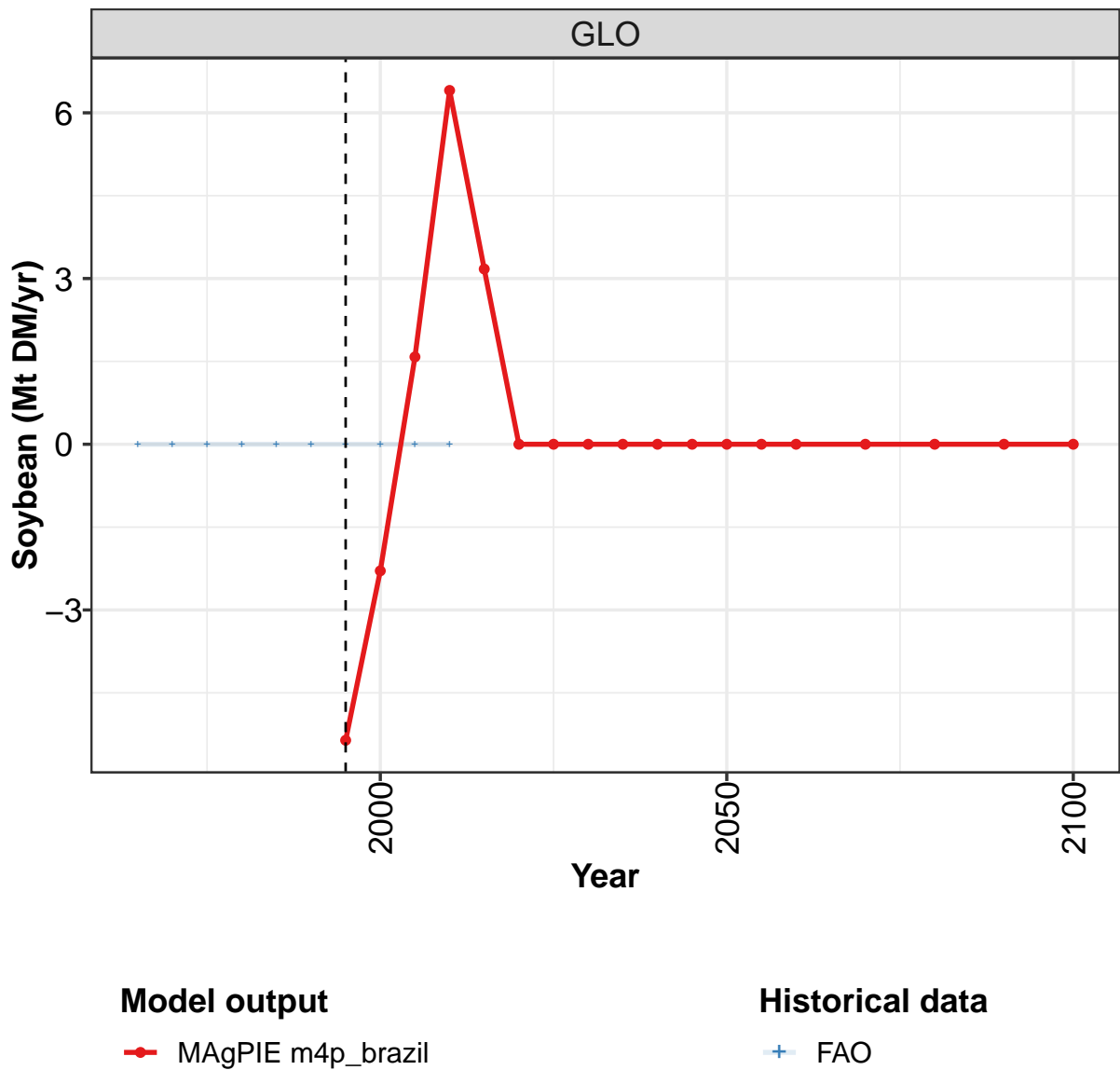
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	-0.00	0.00	0.00
BRA	0.54	0.54	0.54	0.53	0.52	0.50	0.48
CHA	0.40	0.38	0.37	0.33	0.30	0.28	0.25
EUR	4.48	4.49	4.51	4.52	4.47	4.44	4.38
LAM	-1.71	-1.75	-1.78	-1.80	-1.82	-1.81	-1.75
ROW	-3.71	-3.68	-3.65	-3.59	-3.47	-3.41	-3.37
USA	0.00	0.00	-0.00	0.00	0.00	0.00	0.00

Table 1867: MAgPIE m4p.brazil — 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
BRA	-0.02	-0.09	-0.04	-0.10	0.08	-0.04	-0.16	-0.10	-0.13	-0.12
CHA	0.08	-0.03	-0.03	-0.33	0.23	-0.31	0.73	-1.22	-0.24	-3.47
EUR	-4.01	-2.93	-4.00	-1.92	-1.83	-1.13	-0.88	-1.57	-2.11	-3.81
LAM	-0.47	-0.19	-0.01	0.12	-0.53	0.21	-0.57	-0.85	-2.23	-0.64
ROW	5.22	4.06	4.26	2.63	2.44	1.78	1.36	3.83	4.82	8.39
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



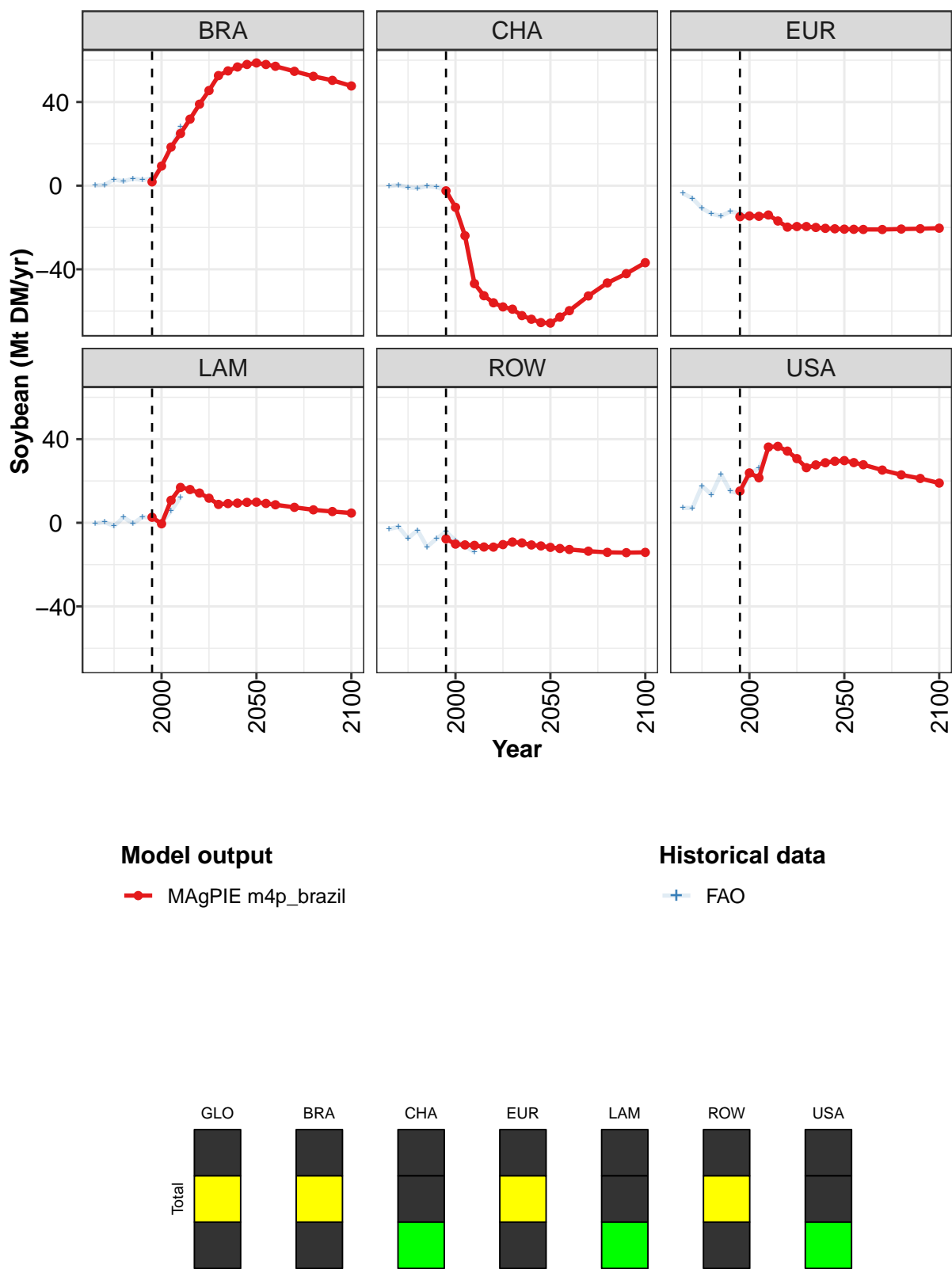


Figure 490: MAGPIE m4p_brazil — Trade—Net-Trade—Crops—Oil crops—Soybean (Mt DM/yr)

	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
BRA	1.8	9.4	18.4	24.9	31.8	39.0	45.5	52.7	54.9	56.8	58.0
CHA	-2.5	-10.4	-23.9	-46.8	-52.6	-56.0	-58.0	-59.1	-62.1	-63.9	-65.5
EUR	-14.8	-14.5	-14.7	-14.0	-16.9	-19.8	-19.5	-19.5	-20.0	-20.4	-20.6
LAM	2.6	-0.5	10.8	16.9	15.9	14.2	11.8	8.8	9.2	9.4	9.8
ROW	-7.7	-10.2	-10.6	-10.8	-11.6	-11.6	-10.4	-9.2	-9.6	-10.6	-11.1
USA	15.2	23.8	21.5	36.2	36.5	34.3	30.7	26.4	27.7	28.7	29.4

Table 1869: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Oil crops—Soybean (Mt DM/yr) [PART 1/2]

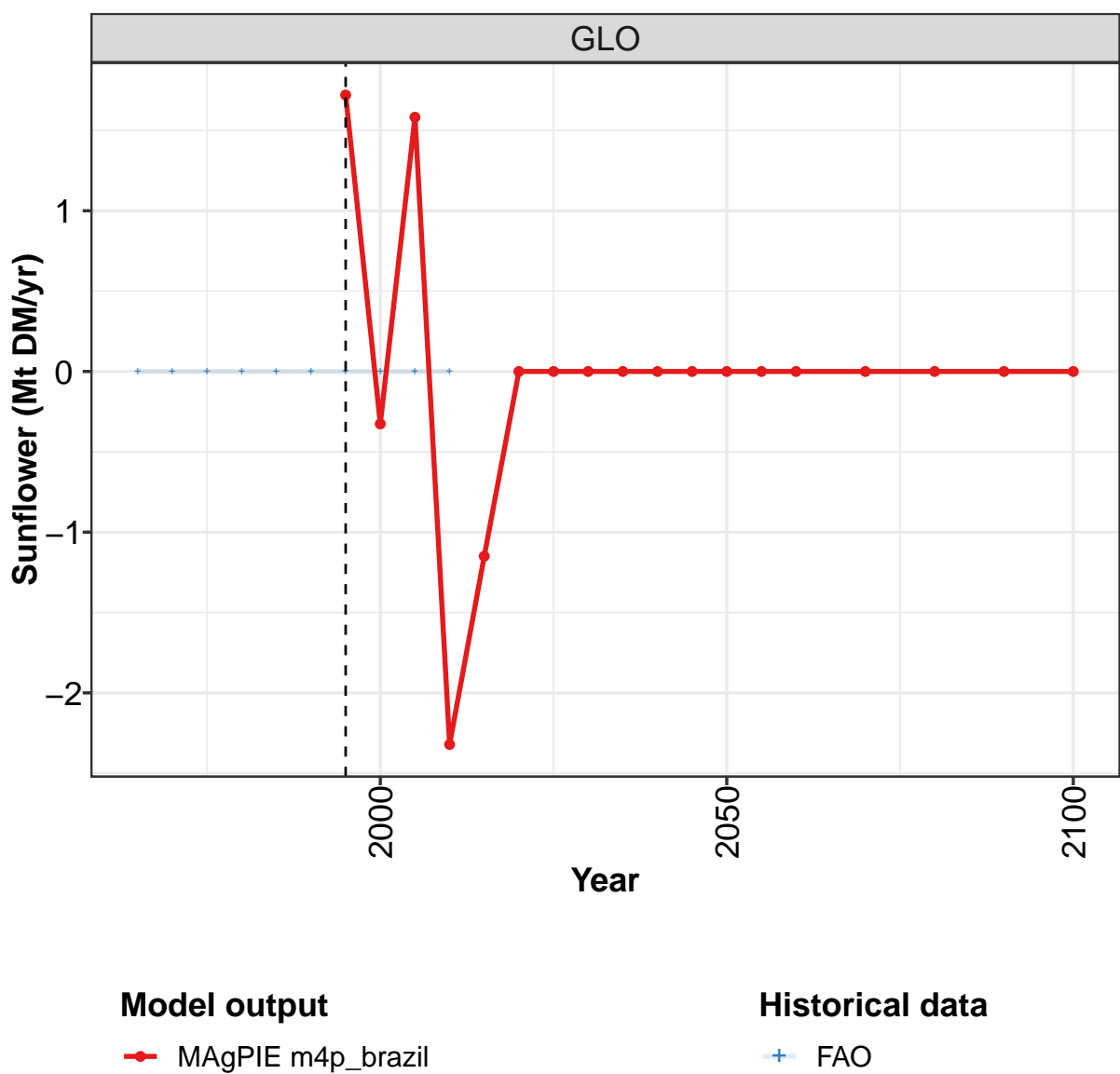
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	-0.0	0.0	-0.0	0.0	0.0
BRA	58.7	58.0	57.1	54.7	52.3	50.4	47.7
CHA	-65.7	-62.8	-59.8	-52.7	-46.5	-42.1	-36.8
EUR	-20.8	-20.9	-20.9	-21.0	-20.7	-20.6	-20.3
LAM	9.9	9.3	8.6	7.4	6.2	5.4	4.7
ROW	-11.8	-12.3	-12.8	-13.6	-14.1	-14.3	-14.1
USA	29.7	28.8	27.8	25.2	22.9	21.2	19.0

Table 1870: MAgPIE m4p_brazil — 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
BRA	0.1	0.3	3.0	2.1	3.4	2.7	3.5	9.3	17.7	28.4
CHA	-0.2	0.3	-0.8	-1.2	-0.2	-0.6	-2.4	-10.3	-23.9	-46.8
EUR	-3.7	-6.1	-10.8	-13.4	-14.5	-12.3	-13.3	-13.8	-14.6	-15.0
LAM	-0.4	0.4	-1.6	2.7	-0.4	2.9	2.2	0.1	5.6	12.3
ROW	-3.0	-2.0	-7.5	-3.5	-11.5	-7.6	-4.3	-8.5	-11.1	-14.1
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



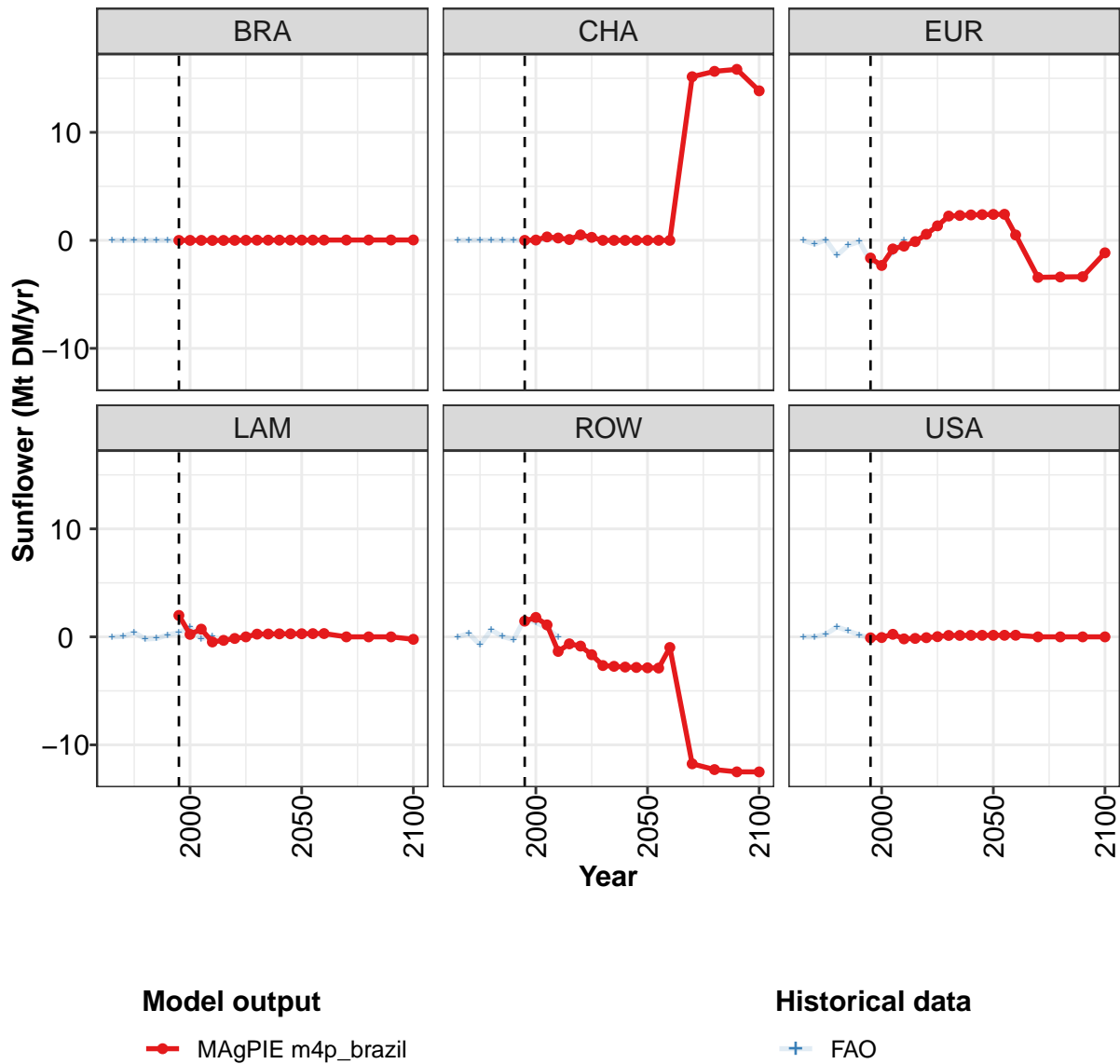


Figure 491: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Oil crops—Sunflower (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1.7	-0.3	1.6	-2.3	-1.1	0.0	0.0	0.0	0.0	0.0	0.0
BRA	-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	0.3	0.2	0.1	0.5	0.3	0.0	-0.0	0.0	0.0
EUR	-1.6	-2.3	-0.8	-0.5	-0.1	0.6	1.3	2.2	2.3	2.4	2.4
LAM	2.0	0.2	0.7	-0.5	-0.3	-0.1	0.0	0.3	0.3	0.3	0.3
ROW	1.5	1.8	1.1	-1.3	-0.6	-0.9	-1.7	-2.7	-2.7	-2.8	-2.8
USA	-0.1	-0.1	0.2	-0.2	-0.1	-0.1	0.0	0.1	0.1	0.1	0.1

Table 1872: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 1/2]

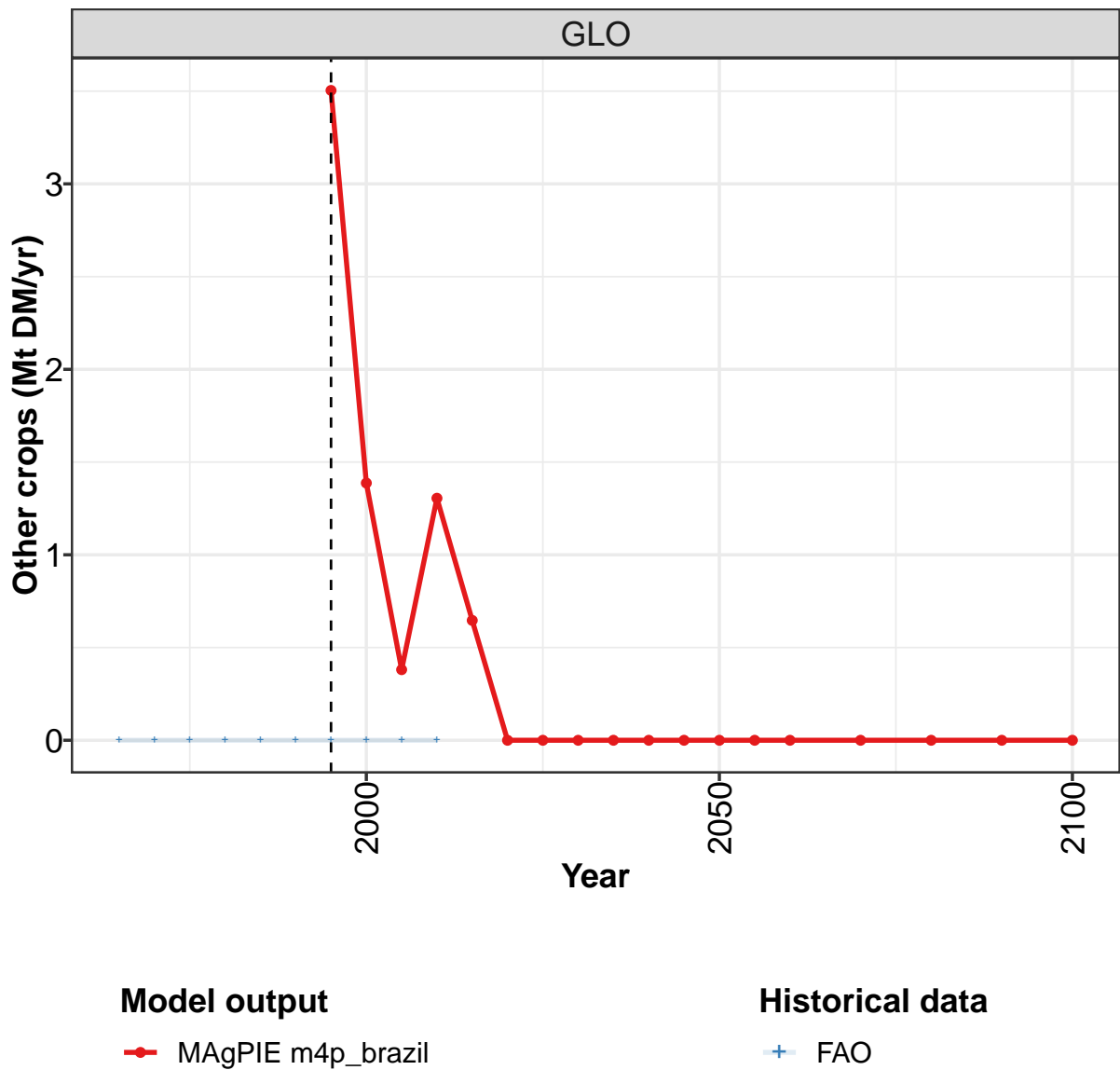
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	-0.0	0.0	0.0	-0.0	0.0	-0.0
BRA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	15.2	15.6	15.8	13.8
EUR	2.4	2.4	0.5	-3.4	-3.4	-3.4	-1.2
LAM	0.3	0.3	0.3	0.0	0.0	0.0	-0.2
ROW	-2.9	-2.9	-1.0	-11.8	-12.3	-12.5	-12.5
USA	0.1	0.1	0.2	0.0	-0.0	-0.0	0.0

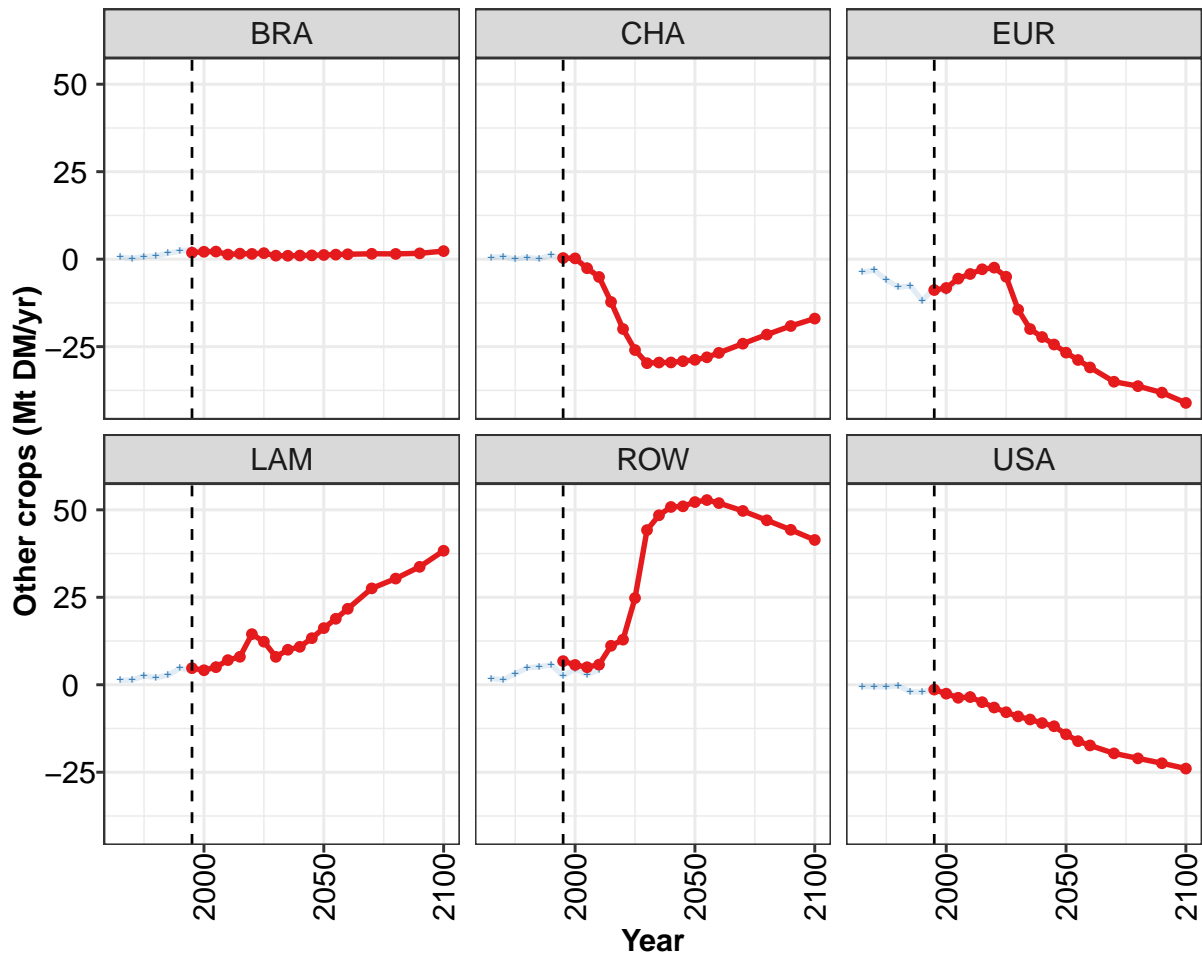
Table 1873: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Oil crops—Sunflower (Mt DM/yr) [PART 2/2]

	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
BRA	0.00	0.00	0.01	0.00	-0.00	-0.00	-0.01	0.00	0.02	0.00
CHA	0.01	0.00	0.03	0.02	0.01	0.01	-0.02	0.03	0.08	0.16
EUR	-0.02	-0.35	0.06	-1.39	-0.45	-0.11	-1.96	-2.19	-1.09	-0.01
LAM	-0.00	0.03	0.41	-0.20	-0.15	0.18	0.41	0.89	-0.18	0.05
ROW	0.01	0.31	-0.74	0.64	0.04	-0.25	1.68	1.34	0.80	-0.03
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





Model output

—•— MAgPIE m4p_brazil

Historical data

+— FAO

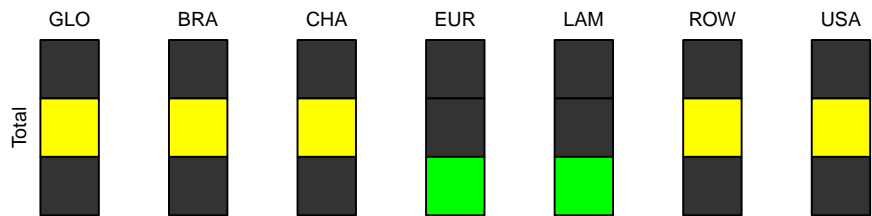


Figure 492: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Other crops (Mt DM/yr)

	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
BRA	1.9	2.1	2.2	1.3	1.6	1.5	1.7	1.0	1.0	1.0	1.1
CHA	0.3	0.2	-2.6	-5.1	-12.2	-20.0	-26.0	-29.7	-29.5	-29.5	-29.2
EUR	-8.8	-8.2	-5.5	-4.2	-2.9	-2.4	-5.0	-14.4	-20.0	-22.2	-24.4
LAM	4.7	4.2	5.0	7.0	8.0	14.5	12.3	8.0	10.0	10.8	13.3
ROW	6.8	5.7	5.0	5.8	11.1	12.9	24.8	44.2	48.5	50.8	51.0
USA	-1.4	-2.5	-3.7	-3.5	-5.0	-6.5	-7.8	-9.1	-9.9	-10.9	-11.9

Table 1875: MAgPIE m4p.brazil — Trade—Net-Trade—Crops—Other crops (Mt DM/yr) [PART 1/2]

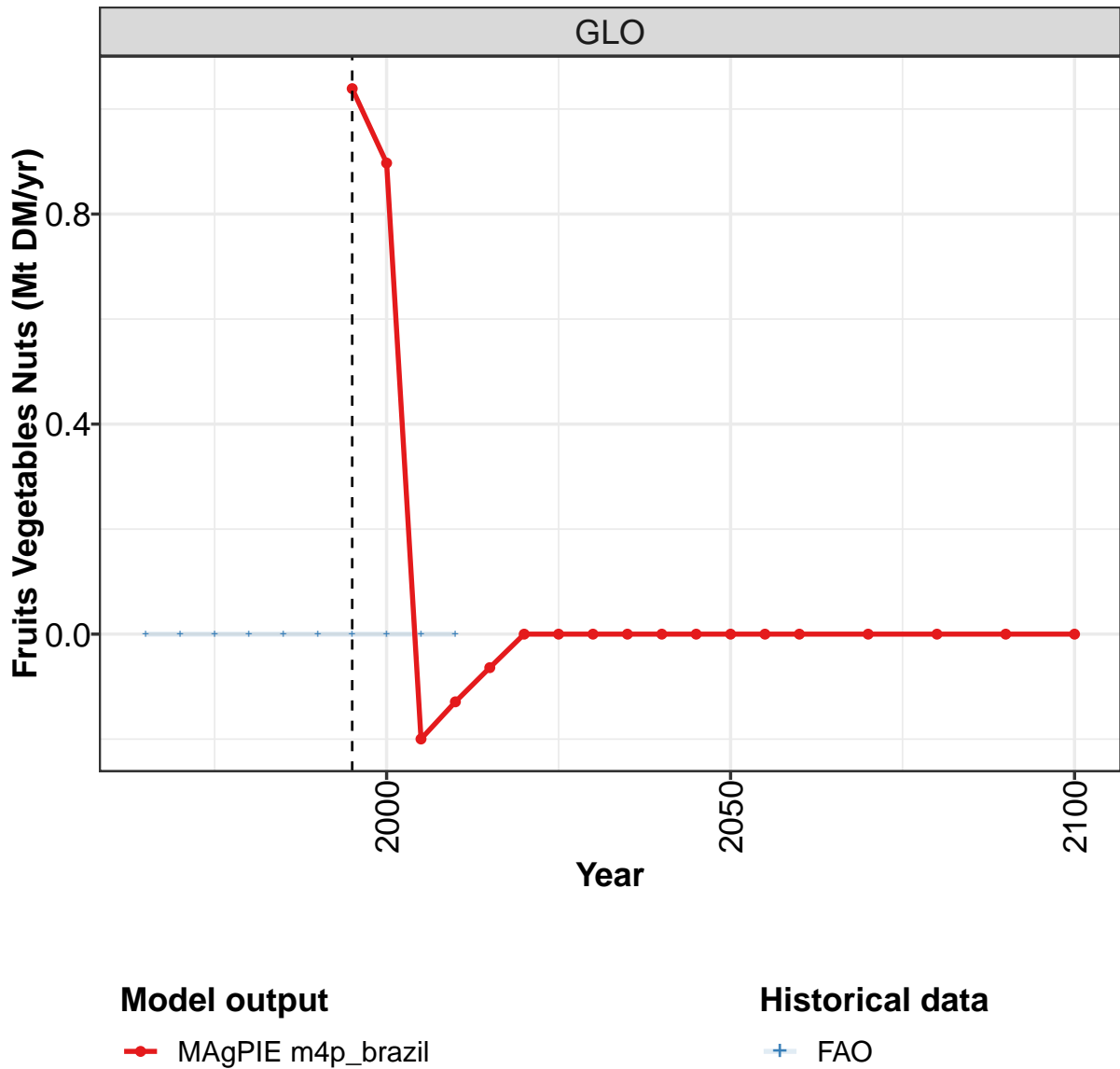
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	-0.0	0.0	0.0	0.0	-0.0	0.0
BRA	1.2	1.3	1.4	1.5	1.5	1.7	2.3
CHA	-28.8	-28.0	-26.8	-24.1	-21.6	-19.1	-17.0
EUR	-26.7	-28.8	-30.9	-35.0	-36.3	-38.1	-41.1
LAM	16.2	18.9	21.7	27.6	30.3	33.7	38.3
ROW	52.2	52.8	51.9	49.7	47.0	44.3	41.4
USA	-14.2	-16.1	-17.3	-19.6	-21.0	-22.4	-23.9

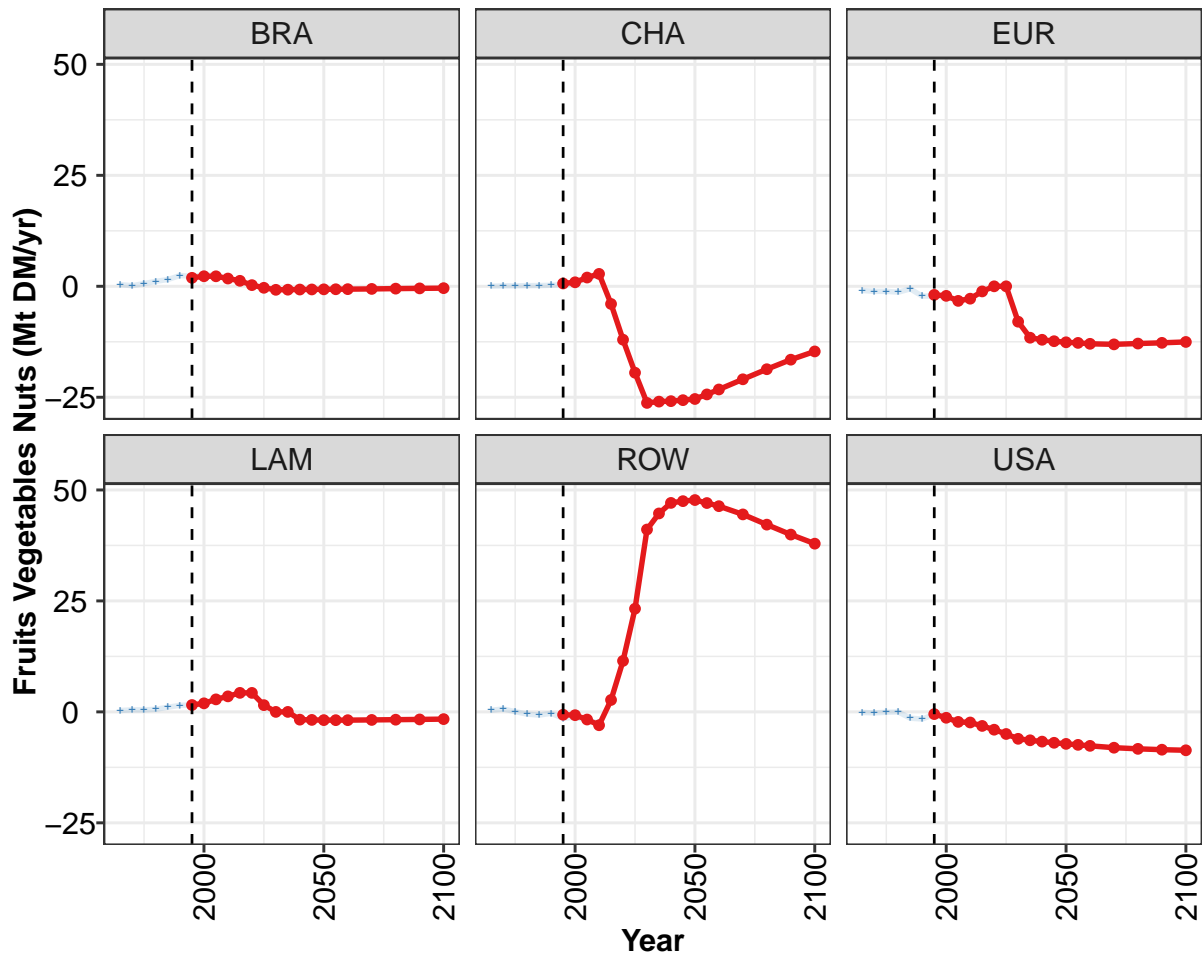
Table 1876: MAgPIE m4p.brazil — Trade—Net-Trade—Crops—Other crops (Mt DM/yr) [PART 2/2]

	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
BRA	0.58	0.24	0.73	0.96	1.69	2.35	2.67	2.44	2.45	1.35
CHA	0.50	0.72	0.05	0.48	0.12	1.12	0.32	0.11	-1.87	-5.13
EUR	-3.65	-3.16	-5.90	-8.02	-7.64	-11.82	-8.30	-9.34	-6.00	-4.56
LAM	1.28	1.37	2.53	2.04	2.73	4.76	3.92	4.39	5.67	6.94
ROW	1.78	1.39	3.18	4.83	5.11	5.69	2.49	4.56	2.94	4.29
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





Model output

MAgPIE m4p_brazil

Historical data

FAO



Figure 493: MAgPIE m4p_brazil — 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
BRA	1.9	2.3	2.3	1.7	1.2	0.3	-0.3	-0.8	-0.8	-0.7	-0.7
CHA	0.6	0.9	2.0	2.8	-4.0	-12.0	-19.5	-26.3	-26.0	-25.9	-25.6
EUR	-1.9	-2.2	-3.3	-2.8	-1.2	0.0	0.0	-8.0	-11.6	-12.0	-12.4
LAM	1.6	1.9	2.8	3.5	4.3	4.3	1.5	0.0	0.0	-1.7	-1.8
ROW	-0.6	-0.7	-1.7	-3.0	2.7	11.5	23.3	41.1	44.7	47.1	47.5
USA	-0.5	-1.3	-2.3	-2.4	-3.2	-4.0	-5.0	-6.1	-6.4	-6.7	-7.0

Table 1878: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Other crops—Fruits Vegetables Nuts (Mt DM/yr) [PART 1/2]

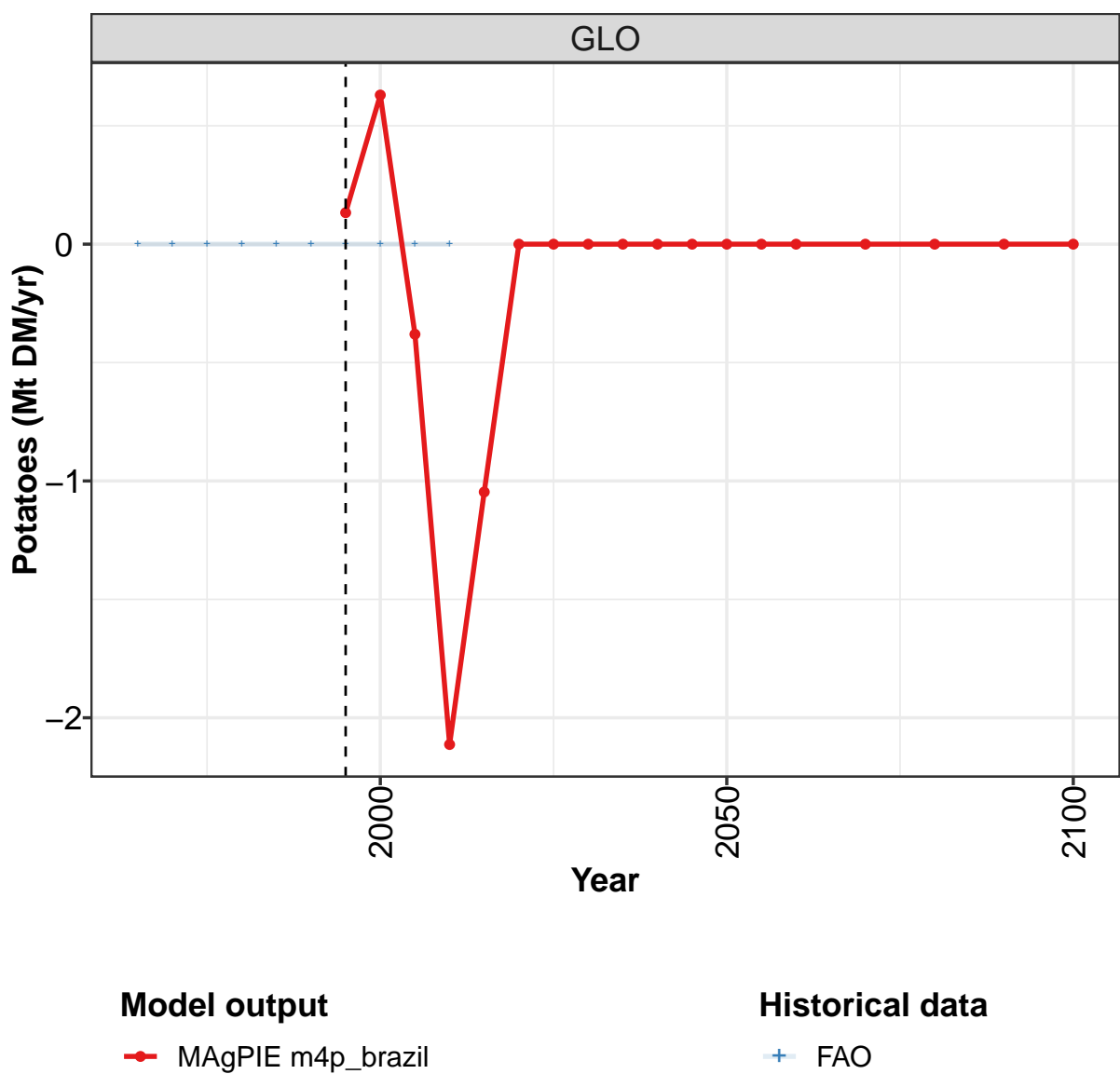
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	-0.0	0.0	0.0	0.0	0.0	0.0
BRA	-0.7	-0.7	-0.6	-0.6	-0.5	-0.5	-0.4
CHA	-25.4	-24.4	-23.2	-20.9	-18.7	-16.5	-14.7
EUR	-12.6	-12.7	-13.0	-13.1	-12.9	-12.7	-12.5
LAM	-1.9	-1.9	-1.9	-1.8	-1.8	-1.7	-1.6
ROW	47.7	47.1	46.3	44.5	42.2	39.9	37.9
USA	-7.2	-7.4	-7.6	-8.1	-8.3	-8.5	-8.6

Table 1879: MAgPIE m4p_brazil — 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
BRA	0.39	0.14	0.61	1.12	1.53	2.44	2.24	2.55	2.54	1.75
CHA	0.02	0.10	0.11	0.15	0.16	0.24	0.39	0.61	1.88	2.48
EUR	-0.95	-1.14	-1.14	-1.33	-0.59	-2.22	-2.19	-2.36	-3.30	-2.72
LAM	0.30	0.47	0.45	0.59	1.05	1.48	1.56	1.73	2.94	3.44
ROW	0.37	0.66	0.06	-0.51	-0.73	-0.32	-1.45	-1.19	-1.86	-2.53
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



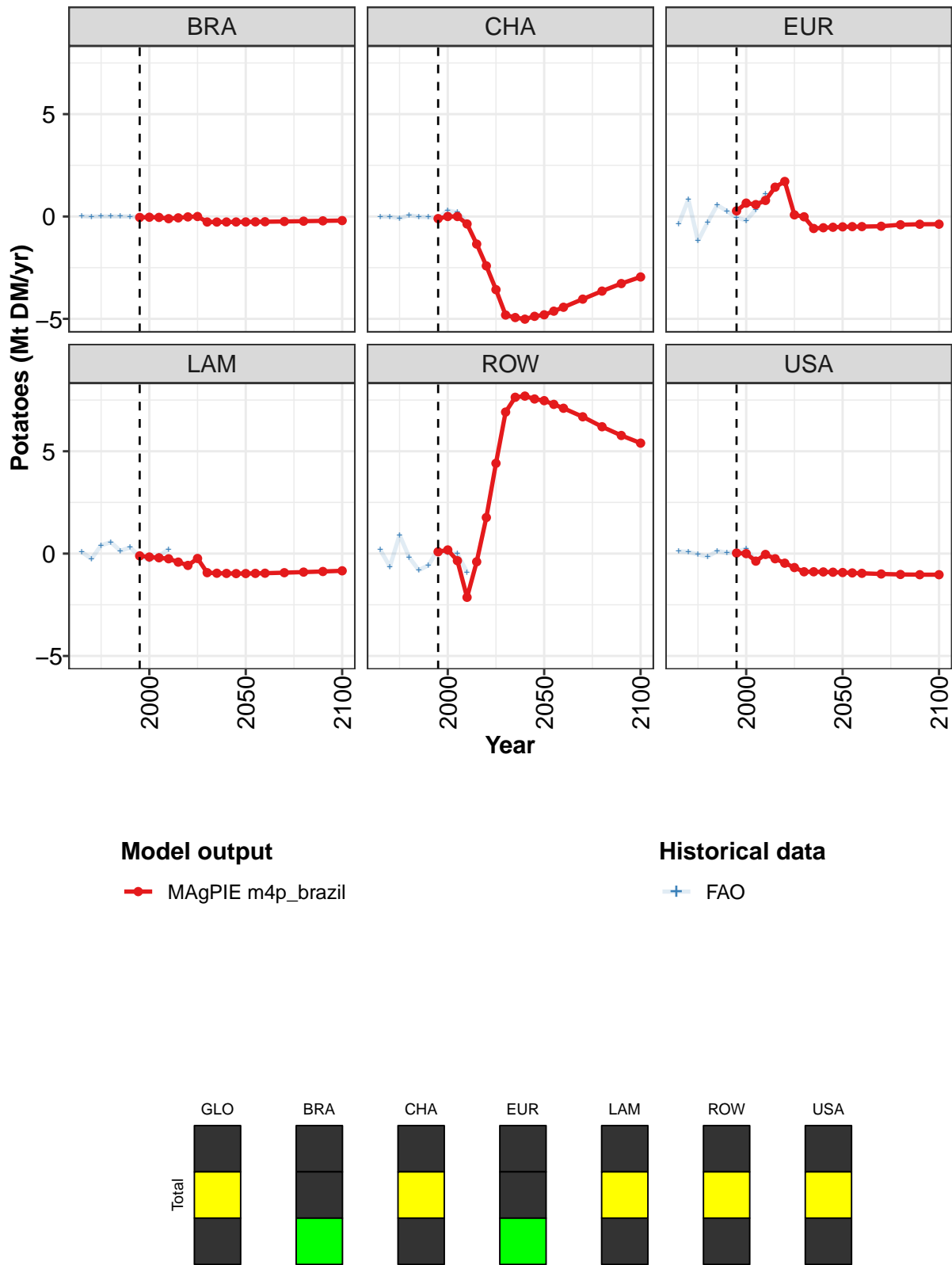


Figure 494: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Other crops—Potatoes (Mt DM/yr)

	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
BRA	-0.04	-0.04	-0.04	-0.11	-0.07	-0.02	0.00	-0.27	-0.27	-0.27	-0.27
CHA	-0.10	-0.00	-0.00	-0.36	-1.35	-2.41	-3.57	-4.81	-4.94	-5.01	-4.88
EUR	0.27	0.65	0.58	0.79	1.43	1.71	0.08	-0.01	-0.59	-0.55	-0.53
LAM	-0.11	-0.17	-0.20	-0.25	-0.42	-0.58	-0.24	-0.93	-0.96	-0.97	-0.98
ROW	0.09	0.18	-0.35	-2.14	-0.40	1.76	4.41	6.91	7.64	7.70	7.55
USA	0.03	0.00	-0.37	-0.04	-0.25	-0.47	-0.68	-0.89	-0.89	-0.90	-0.91

Table 1881: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Other crops—Potatoes (Mt DM/yr) [PART 1/2]

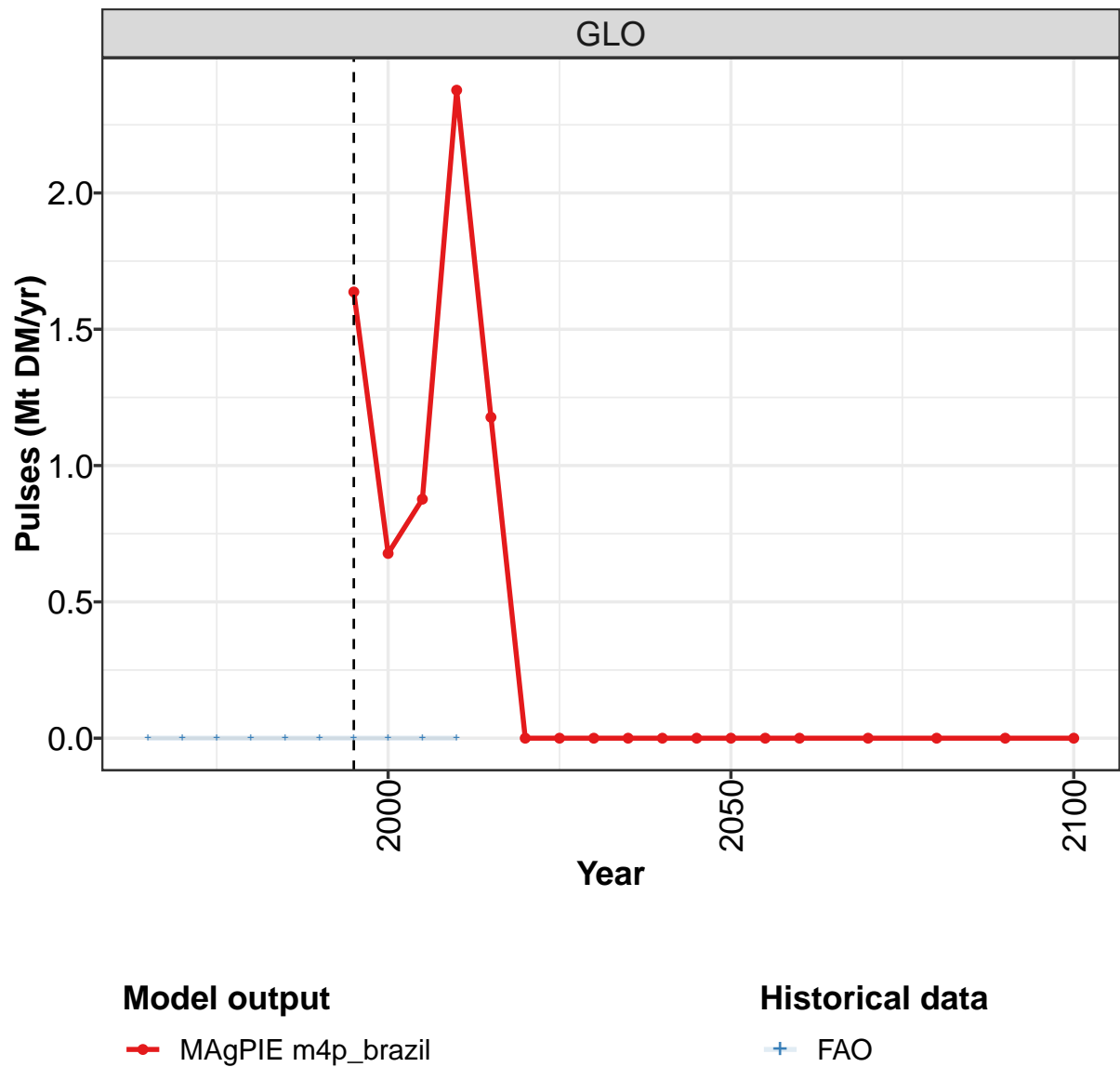
	2050	2055	2060	2070	2080	2090	2100
GLO	-0.00	0.00	0.00	0.00	0.00	-0.00	0.00
BRA	-0.26	-0.26	-0.26	-0.24	-0.23	-0.21	-0.20
CHA	-4.80	-4.63	-4.43	-4.04	-3.64	-3.28	-2.95
EUR	-0.51	-0.50	-0.49	-0.48	-0.40	-0.38	-0.38
LAM	-0.97	-0.97	-0.96	-0.93	-0.90	-0.87	-0.84
ROW	7.47	7.29	7.10	6.68	6.20	5.77	5.40
USA	-0.92	-0.94	-0.96	-1.00	-1.02	-1.03	-1.03

Table 1882: MAgPIE m4p_brazil — 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
BRA	0.01	-0.01	0.01	0.00	0.00	0.00	-0.05	-0.04	-0.04	-0.09
CHA	-0.01	-0.01	-0.09	0.06	-0.01	-0.03	-0.08	0.29	0.20	-0.28
EUR	-0.37	0.83	-1.20	-0.29	0.56	0.26	-0.05	-0.19	0.34	1.11
LAM	0.08	-0.26	0.41	0.56	0.14	0.30	-0.13	-0.31	-0.11	0.21
ROW	0.18	-0.64	0.91	-0.18	-0.81	-0.56	0.21	0.03	-0.01	-0.91
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



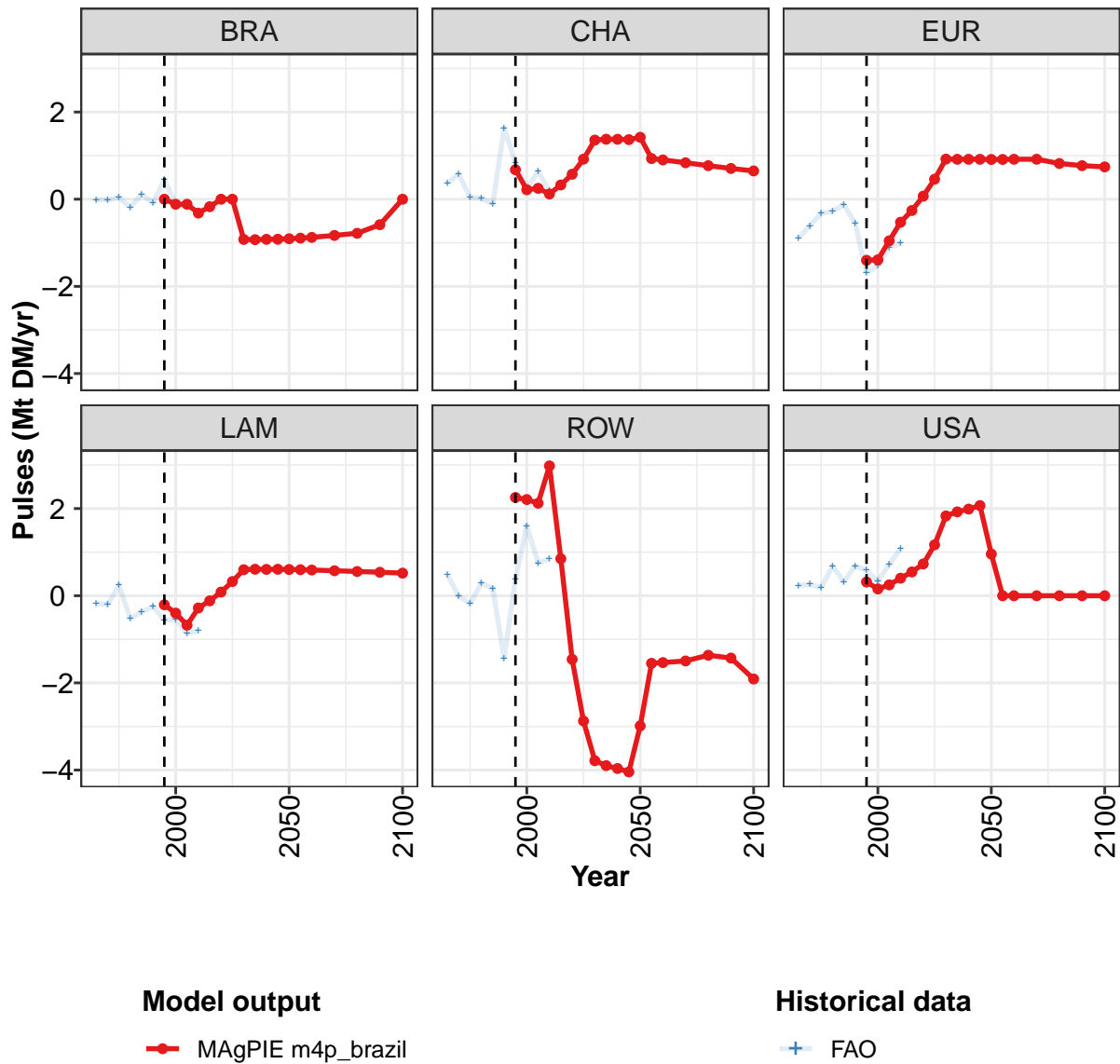


Figure 495: MAGPIE m4p_brazil — Trade—Net-Trade—Crops—Other crops—Pulses (Mt DM/yr)

	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
BRA	0.00	-0.12	-0.12	-0.32	-0.17	0.00	0.00	-0.92	-0.93	-0.92	-0.92
CHA	0.68	0.22	0.25	0.12	0.33	0.57	0.92	1.36	1.38	1.38	1.37
EUR	-1.40	-1.39	-0.95	-0.53	-0.26	0.07	0.46	0.92	0.92	0.92	0.92
LAM	-0.21	-0.40	-0.68	-0.28	-0.12	0.09	0.33	0.60	0.61	0.60	0.61
ROW	2.25	2.21	2.12	2.98	0.85	-1.46	-2.87	-3.79	-3.90	-3.96	-4.04
USA	0.32	0.16	0.25	0.40	0.55	0.73	1.17	1.83	1.92	1.99	2.07

Table 1884: MAgPIE m4p.brazil — Trade—Net-Trade—Crops—Other crops—Pulses (Mt DM/yr) [PART 1/2]

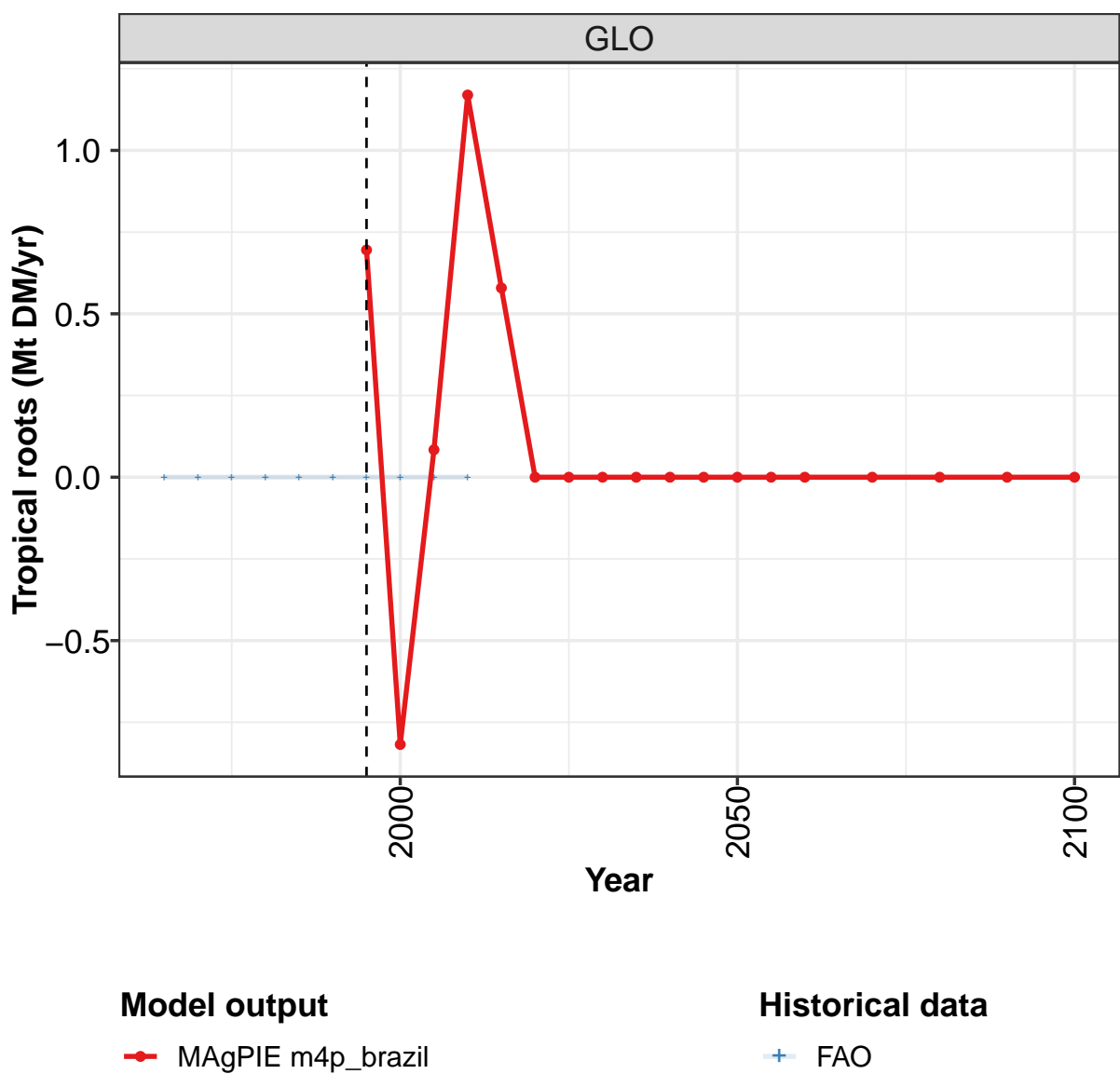
	2050	2055	2060	2070	2080	2090	2100
GLO	-0.00	-0.00	0.00	0.00	0.00	0.00	0.00
BRA	-0.91	-0.89	-0.88	-0.83	-0.78	-0.58	0.00
CHA	1.42	0.93	0.90	0.84	0.77	0.71	0.65
EUR	0.91	0.91	0.92	0.92	0.82	0.77	0.74
LAM	0.60	0.60	0.59	0.57	0.56	0.54	0.52
ROW	-2.99	-1.55	-1.53	-1.50	-1.37	-1.43	-1.91
USA	0.96	0.00	0.00	0.00	0.00	0.00	0.00

Table 1885: MAgPIE m4p.brazil — 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
BRA	-0.01	-0.01	0.04	-0.19	0.12	-0.09	0.45	-0.11	-0.13	-0.32
CHA	0.37	0.58	0.04	0.03	-0.11	1.64	0.84	0.25	0.63	0.19
EUR	-0.89	-0.61	-0.33	-0.28	-0.12	-0.55	-1.69	-1.52	-1.10	-1.01
LAM	-0.18	-0.20	0.24	-0.53	-0.37	-0.24	-0.56	-0.55	-0.87	-0.80
ROW	0.48	-0.01	-0.18	0.29	0.17	-1.44	0.38	1.60	0.75	0.86
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



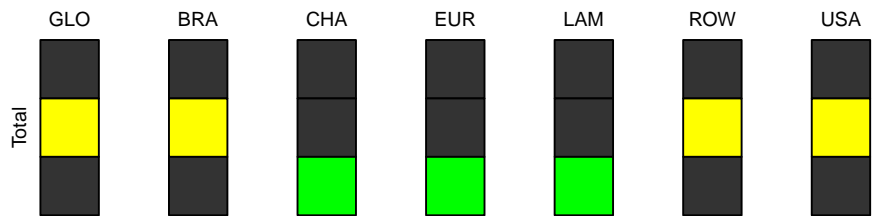
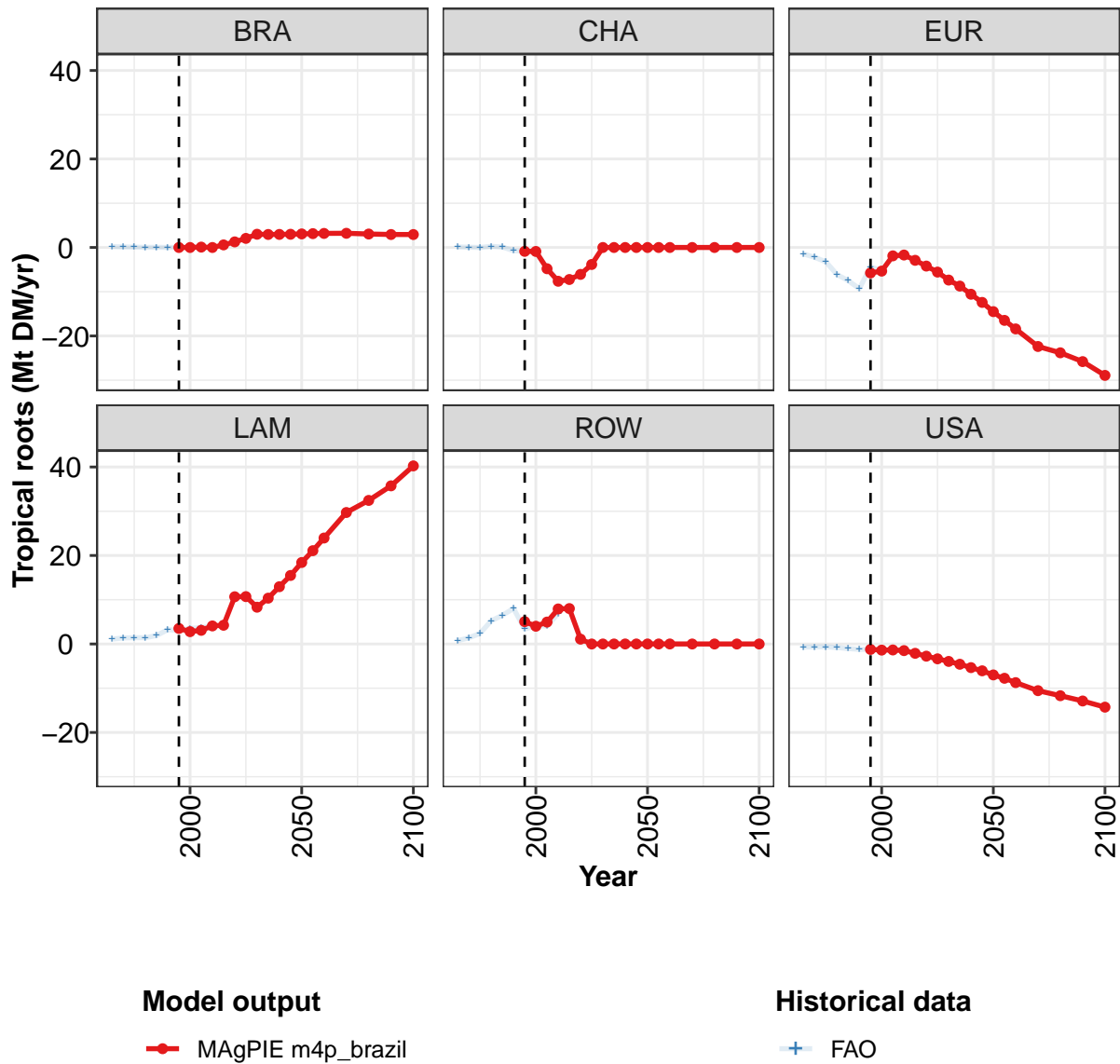


Figure 496: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Other crops—Tropical roots (Mt DM/yr)

	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
BRA	-0.0	0.0	0.1	-0.0	0.6	1.3	2.1	3.0	2.9	3.0	3.0
CHA	-0.9	-0.9	-4.8	-7.6	-7.2	-6.1	-3.8	0.0	-0.0	0.0	0.0
EUR	-5.8	-5.3	-1.9	-1.7	-2.9	-4.2	-5.6	-7.4	-8.7	-10.6	-12.4
LAM	3.5	2.8	3.1	4.1	4.2	10.7	10.7	8.3	10.4	13.0	15.5
ROW	5.1	4.0	5.0	7.9	8.0	1.1	0.0	0.0	0.0	0.0	0.0
USA	-1.2	-1.4	-1.3	-1.5	-2.1	-2.8	-3.4	-3.9	-4.6	-5.3	-6.1

Table 1887: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Other crops—Tropical roots (Mt DM/yr)
[PART 1/2]

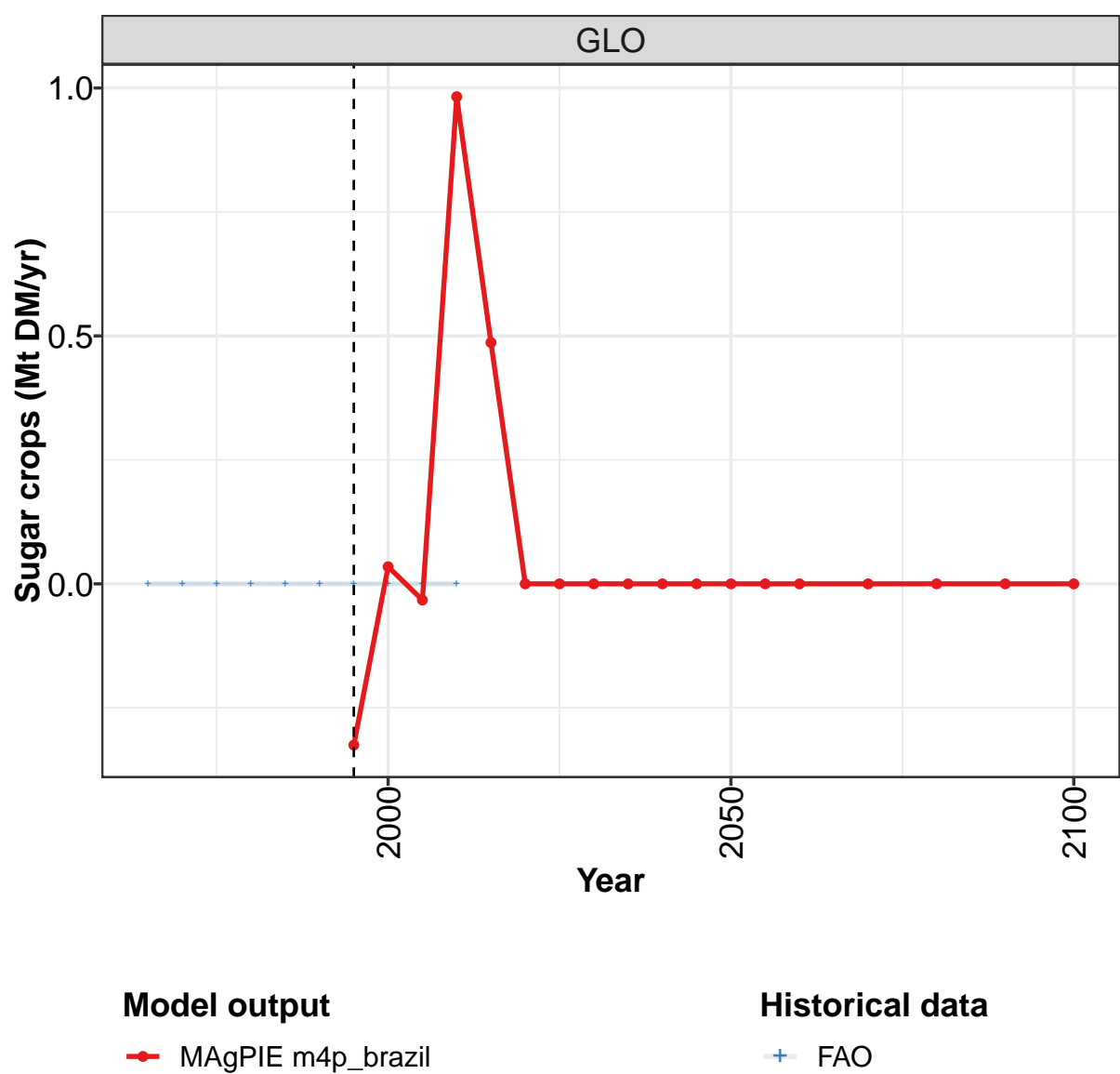
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	-0.0	0.0	0.0	0.0	-0.0	0.0
BRA	3.1	3.1	3.2	3.2	3.0	2.9	2.9
CHA	0.0	0.0	0.0	-0.0	-0.0	-0.0	0.0
EUR	-14.5	-16.5	-18.4	-22.4	-23.8	-25.8	-28.9
LAM	18.4	21.1	23.9	29.7	32.5	35.7	40.3
ROW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	-7.0	-7.7	-8.7	-10.5	-11.7	-12.9	-14.3

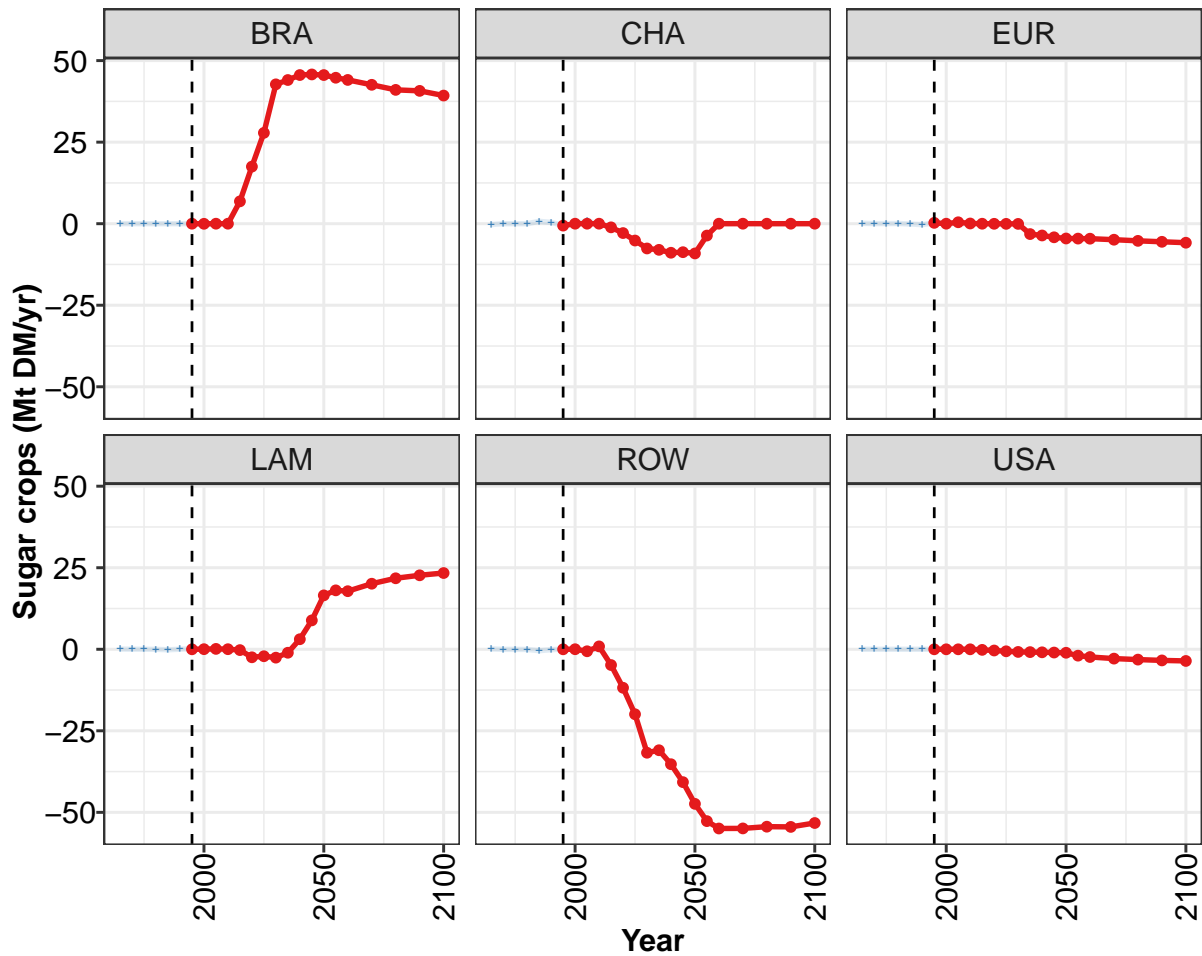
Table 1888: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Other crops—Tropical roots (Mt DM/yr)
[PART 2/2]

	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
BRA	0.20	0.12	0.07	0.02	0.05	-0.00	0.03	0.04	0.08	0.01
CHA	0.11	0.06	-0.01	0.25	0.09	-0.72	-0.82	-1.03	-4.58	-7.52
EUR	-1.45	-2.24	-3.24	-6.13	-7.49	-9.32	-4.38	-5.26	-1.92	-1.94
LAM	1.09	1.36	1.43	1.41	1.91	3.23	3.05	3.52	3.70	4.09
ROW	0.76	1.38	2.40	5.24	6.48	8.02	3.35	4.12	4.06	6.87
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





Model output

—•— MAGPIE m4p_brazil

Historical data

—+— FAO



Figure 497: MAGPIE m4p_brazil — Trade—Net-Trade—Crops—Sugar crops (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.3	0.0	-0.0	1.0	0.5	-0.0	0.0	-0.0	0.0	-0.0	0.0
BRA	0.0	-0.0	0.0	0.0	6.9	17.5	27.9	42.7	44.1	45.6	45.8
CHA	-0.6	0.0	0.0	0.0	-1.1	-2.9	-5.2	-7.6	-8.0	-8.9	-8.7
EUR	0.3	0.0	0.4	0.1	-0.0	-0.0	-0.0	-0.1	-3.2	-3.6	-4.2
LAM	0.0	0.0	0.1	0.0	-0.2	-2.4	-2.1	-2.6	-1.1	3.1	8.9
ROW	0.0	0.0	-0.6	0.9	-4.8	-11.8	-19.9	-31.7	-30.9	-35.2	-40.7
USA	0.0	0.0	0.0	-0.0	-0.2	-0.4	-0.6	-0.8	-0.9	-0.9	-1.0

Table 1890: MAgPIE m4p.brazil — Trade—Net-Trade—Crops—Sugar crops (Mt DM/yr) [PART 1/2]

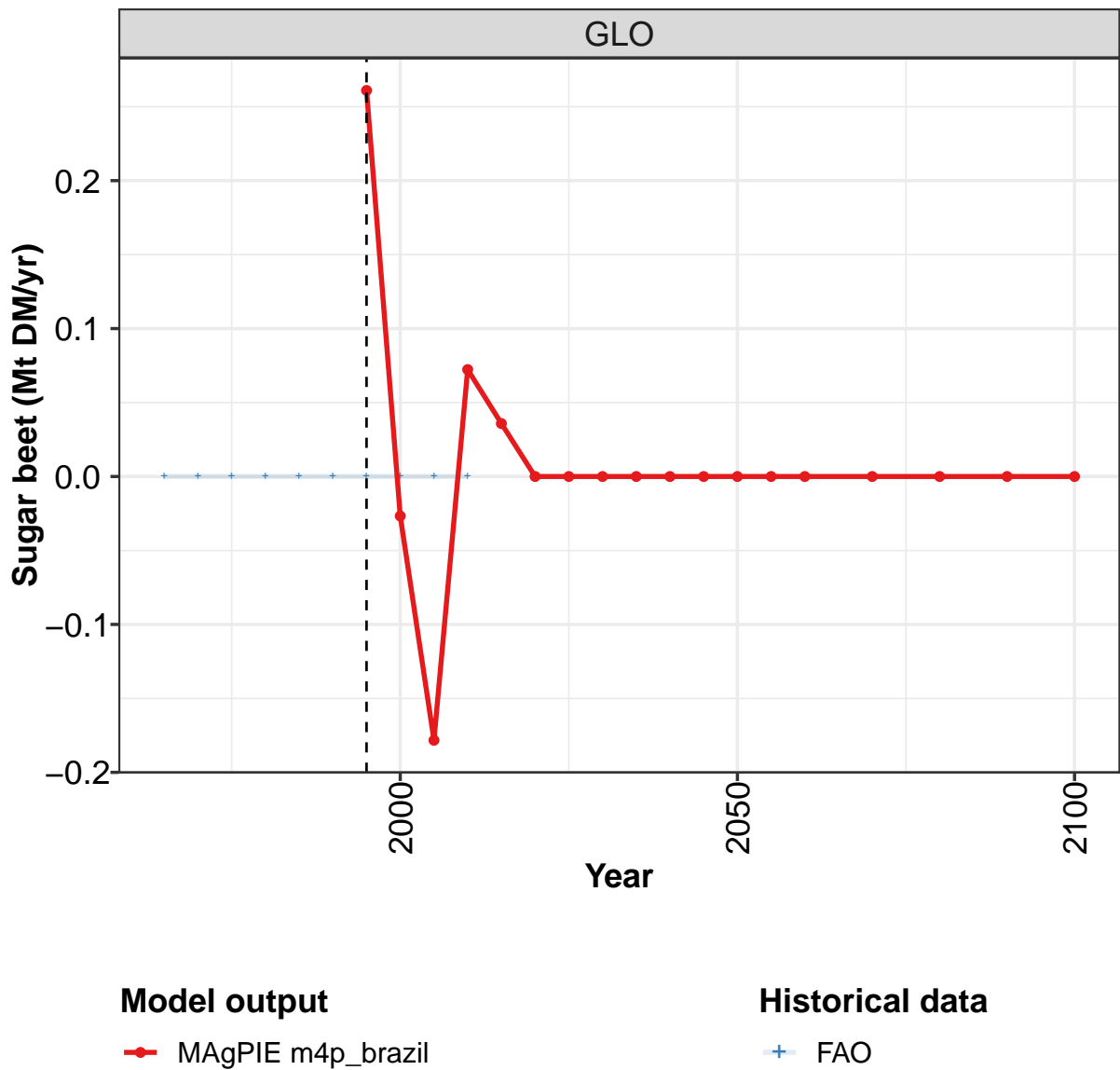
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	-0.0	-0.0	0.0	-0.0	0.0	-0.0
BRA	45.6	44.8	44.1	42.6	41.0	40.7	39.3
CHA	-9.1	-3.6	0.0	0.0	0.0	-0.0	0.0
EUR	-4.5	-4.6	-4.6	-4.9	-5.3	-5.5	-5.8
LAM	16.5	18.1	17.8	20.1	21.8	22.7	23.4
ROW	-47.4	-52.7	-54.9	-54.9	-54.4	-54.5	-53.3
USA	-1.1	-1.9	-2.4	-2.9	-3.2	-3.4	-3.6

Table 1891: MAgPIE m4p.brazil — 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
BRA	0.001	0.000	-0.000	-0.000	-0.003	0.000	0.003	-0.000	0.000	-0.004
CHA	-0.269	-0.002	-0.003	-0.002	0.715	0.406	-0.526	-0.001	0.784	-0.016
EUR	0.118	0.017	0.026	0.060	-0.108	-0.293	0.293	-0.100	0.112	-0.228
LAM	0.053	0.011	0.002	-0.006	-0.162	0.026	0.167	0.052	-0.256	-0.094
ROW	0.098	-0.025	-0.024	-0.052	-0.440	-0.136	0.070	0.046	-0.639	0.358
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



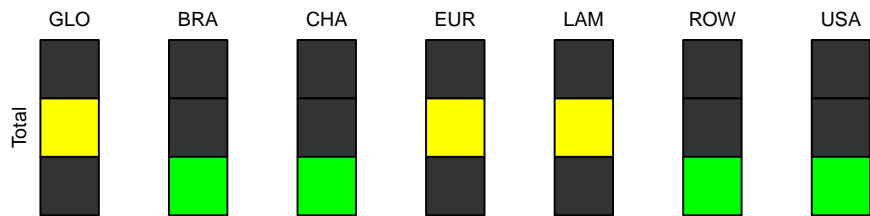
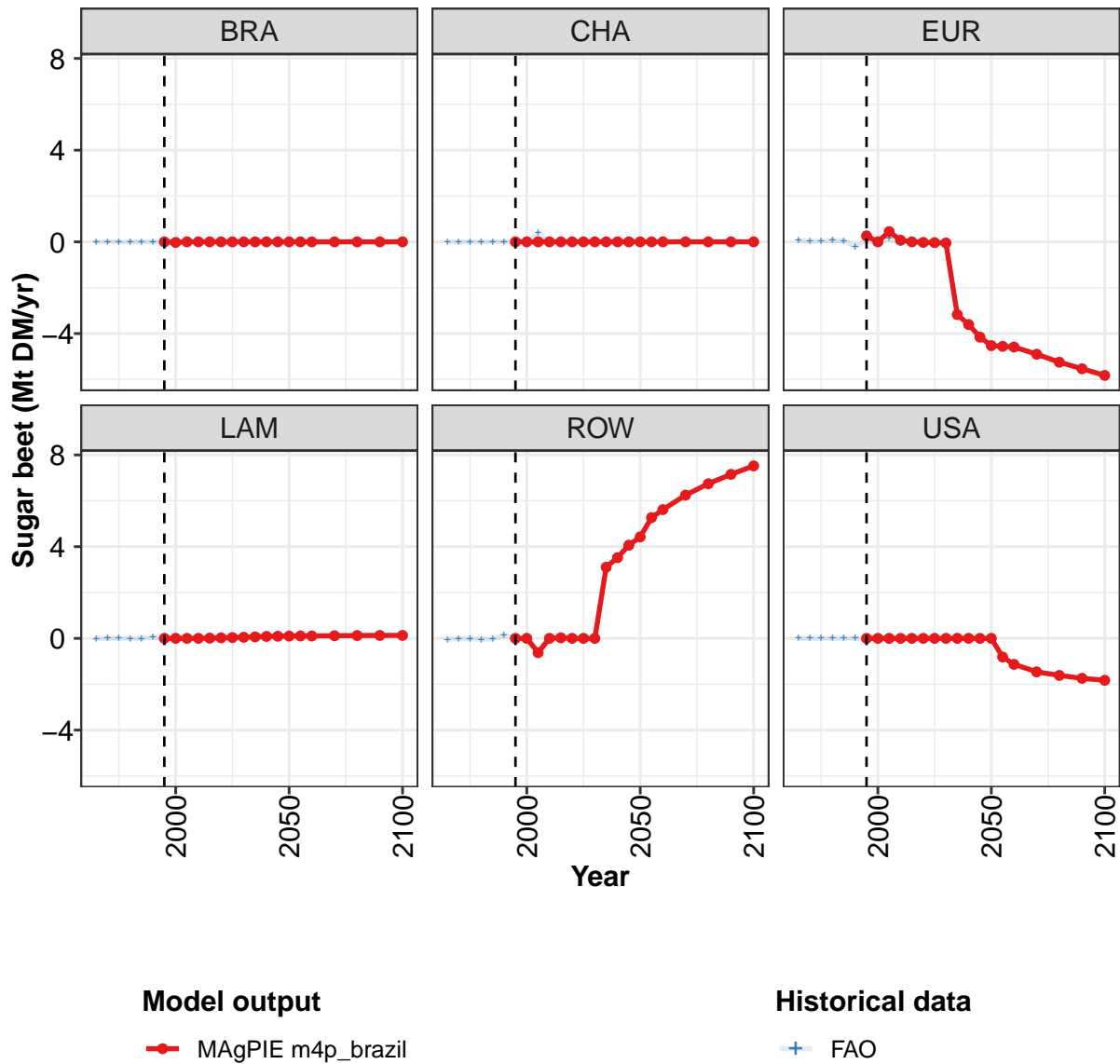


Figure 498: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Sugar crops—Sugar beet (Mt DM/yr)

	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
BRA	0.00	-0.03	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	0.26	0.00	0.45	0.07	0.00	-0.02	-0.03	-0.05	-3.17	-3.61	-4.16
LAM	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.05	0.07	0.09	0.09
ROW	0.00	0.00	-0.62	0.00	0.02	-0.00	0.00	0.00	3.10	3.52	4.06
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_brazil — Trade—Net-Trade—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 1/2]

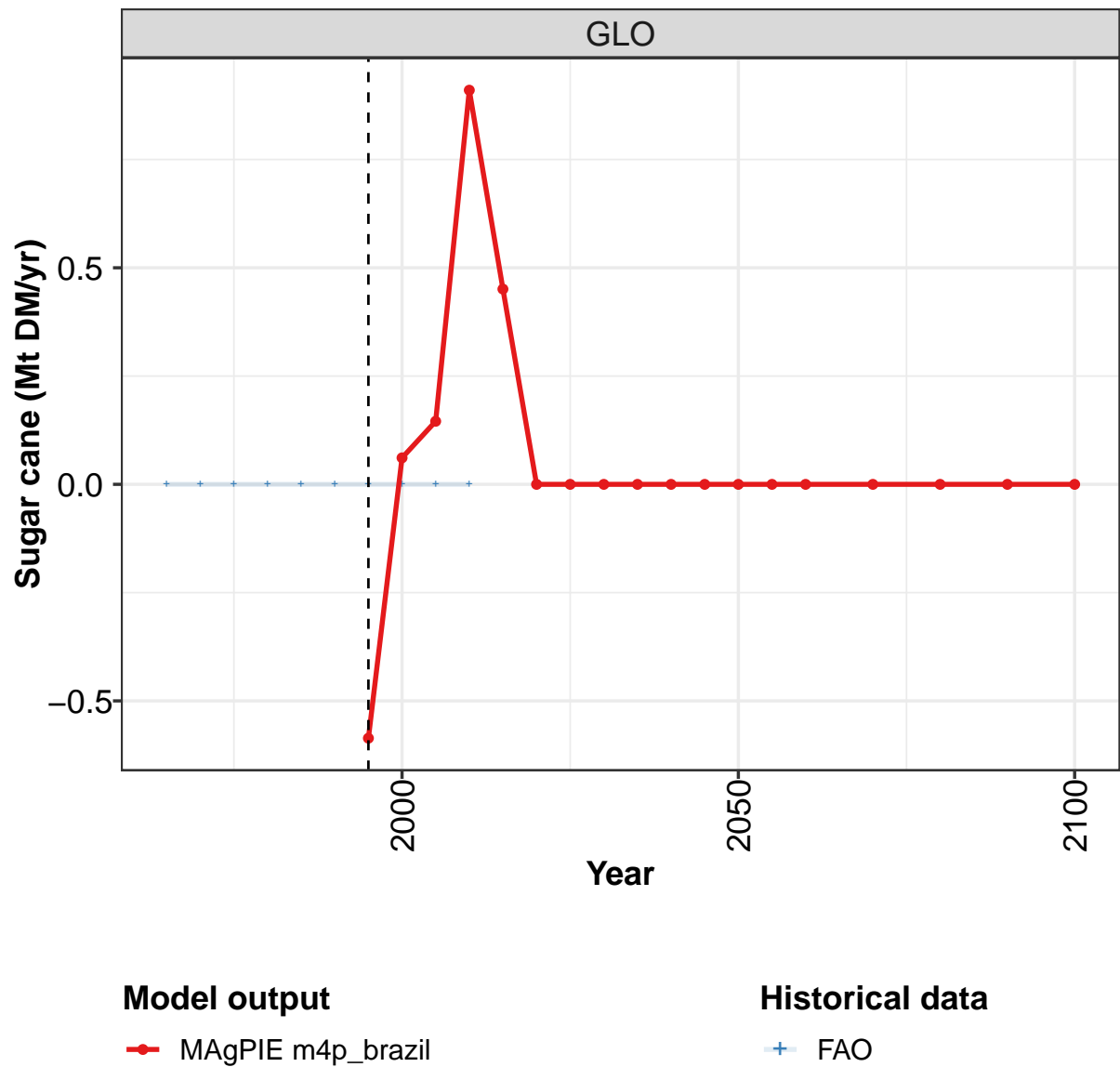
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	-0.00	0.00	0.00	0.00	0.00	0.00
BRA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	-4.53	-4.56	-4.59	-4.90	-5.25	-5.54	-5.82
LAM	0.10	0.11	0.10	0.11	0.12	0.13	0.13
ROW	4.42	5.27	5.62	6.25	6.74	7.15	7.52
USA	0.00	-0.81	-1.13	-1.46	-1.62	-1.74	-1.83

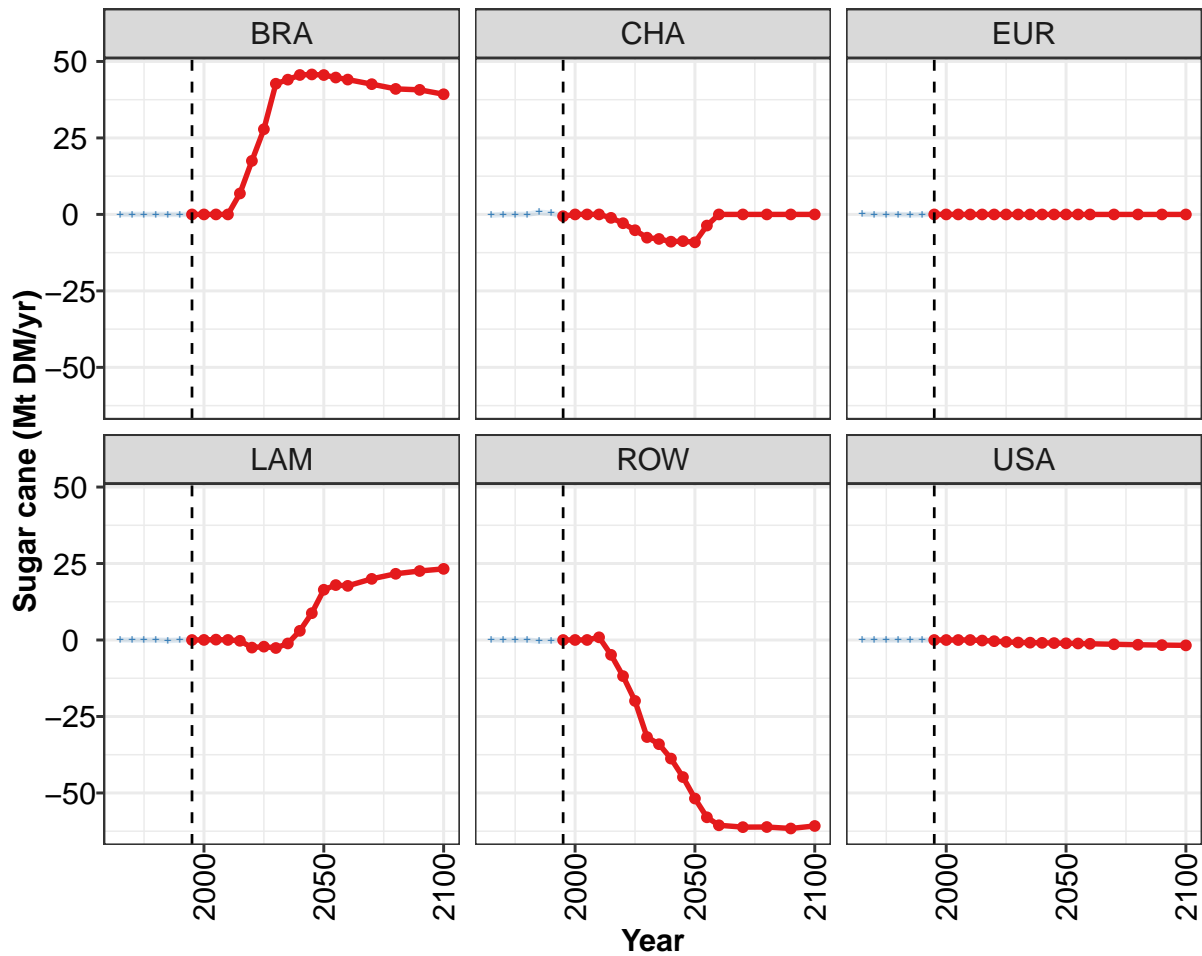
Table 1894: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Sugar crops—Sugar beet (Mt DM/yr) [PART 2/2]

	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
BRA	-0.000	0.000	-0.000	-0.000	-0.000	0.001	-0.001	0.000	0.001	-0.000
CHA	-0.004	-0.003	-0.003	-0.001	-0.001	0.005	-0.005	0.001	0.382	-0.001
EUR	0.067	0.018	0.031	0.065	0.042	-0.231	0.072	-0.088	0.139	-0.043
LAM	-0.013	0.001	-0.004	-0.013	-0.006	0.067	-0.056	0.006	0.038	-0.015
ROW	-0.050	-0.016	-0.025	-0.053	-0.036	0.157	-0.010	0.079	-0.560	0.059
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





Model output

—•— MAGPIE m4p_brazil

Historical data

—+— FAO



Figure 499: MAGPIE m4p_brazil — Trade—Net-Trade—Crops—Sugar crops—Sugar cane (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.6	0.1	0.1	0.9	0.5	0.0	0.0	-0.0	0.0	0.0	0.0
BRA	0.0	0.0	0.0	0.0	6.9	17.5	27.9	42.7	44.1	45.6	45.8
CHA	-0.6	0.0	0.0	0.0	-1.1	-2.9	-5.2	-7.6	-8.0	-8.9	-8.7
EUR	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	0.1	0.0	-0.3	-2.5	-2.2	-2.6	-1.1	3.0	8.8
ROW	0.0	0.0	0.0	0.9	-4.9	-11.8	-19.9	-31.7	-34.1	-38.8	-44.8
USA	0.0	0.0	0.0	-0.0	-0.2	-0.4	-0.6	-0.8	-0.9	-0.9	-1.0

Table 1896: MAgPIE m4p_brazil — Trade—Net-Trade—Crops—Sugar crops—Sugar cane (Mt DM/yr) [PART 1/2]

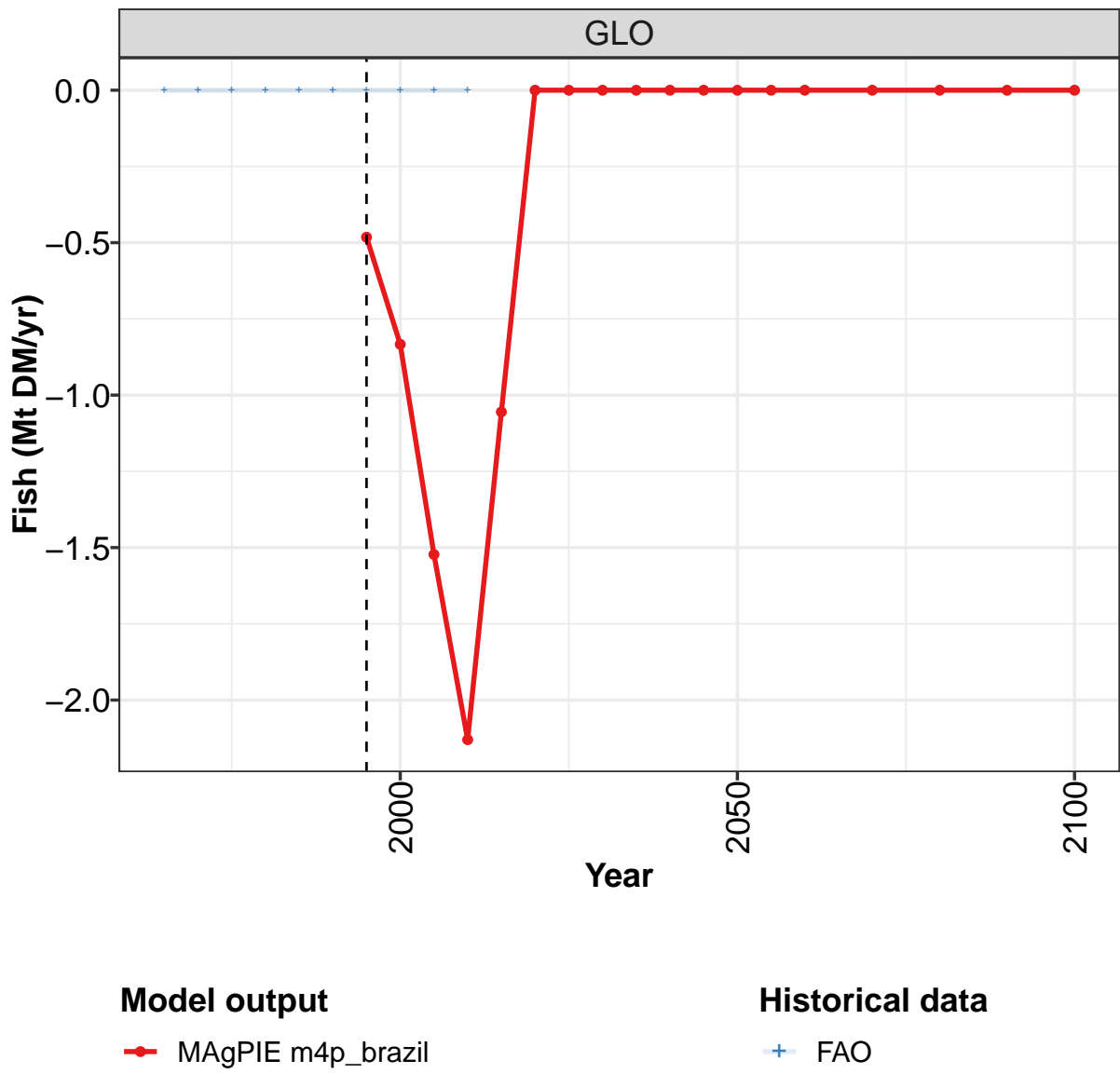
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	-0.0	0.0	-0.0	0.0	-0.0
BRA	45.6	44.8	44.1	42.6	41.0	40.7	39.3
CHA	-9.1	-3.6	0.0	0.0	0.0	-0.0	0.0
EUR	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
LAM	16.4	18.0	17.7	20.0	21.6	22.6	23.3
ROW	-51.8	-57.9	-60.6	-61.2	-61.1	-61.6	-60.8
USA	-1.1	-1.1	-1.2	-1.4	-1.5	-1.7	-1.7

Table 1897: MAgPIE m4p_brazil — 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
BRA	0.001	0.000	-0.000	-0.000	-0.003	-0.001	0.004	-0.000	-0.001	-0.004
CHA	-0.265	0.000	-0.000	-0.001	0.716	0.401	-0.521	-0.001	0.402	-0.015
EUR	0.050	-0.001	-0.006	-0.005	-0.150	-0.062	0.221	-0.012	-0.027	-0.185
LAM	0.065	0.010	0.006	0.007	-0.155	-0.041	0.222	0.047	-0.294	-0.078
ROW	0.147	-0.009	0.000	0.000	-0.405	-0.293	0.080	-0.033	-0.079	0.299
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



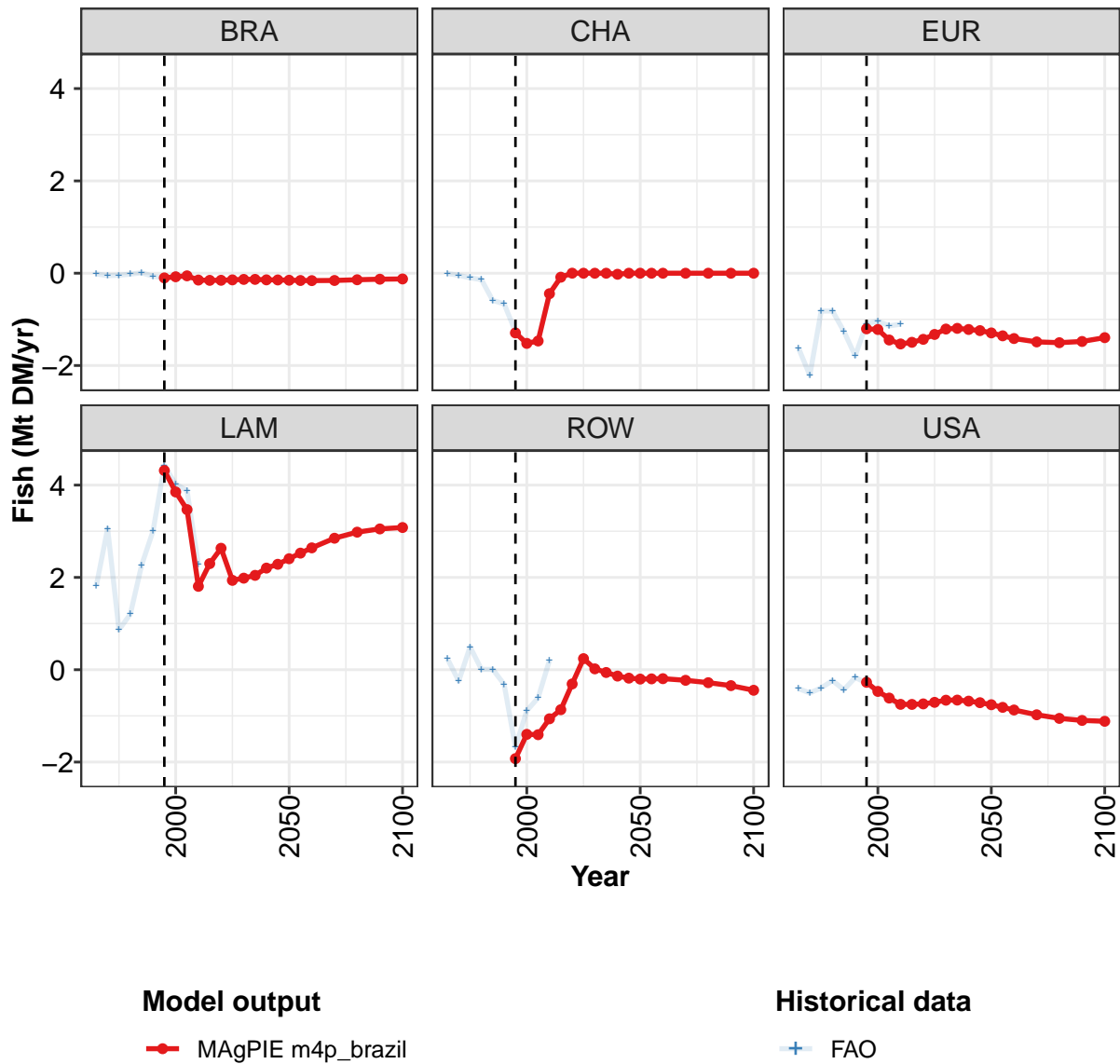


Figure 500: MAgPIE m4p_brazil — Trade—Net-Trade—Fish (Mt DM/yr)

	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
BRA	-0.10	-0.08	-0.06	-0.15	-0.15	-0.15	-0.14	-0.13	-0.13	-0.14	-0.15
CHA	-1.29	-1.52	-1.47	-0.44	-0.09	0.00	0.00	0.00	0.00	-0.02	-0.00
EUR	-1.20	-1.22	-1.45	-1.53	-1.50	-1.43	-1.33	-1.21	-1.19	-1.22	-1.24
LAM	4.32	3.85	3.47	1.81	2.30	2.63	1.94	1.98	2.04	2.20	2.28
ROW	-1.93	-1.40	-1.41	-1.06	-0.87	-0.31	0.24	0.02	-0.06	-0.14	-0.18
USA	-0.27	-0.47	-0.61	-0.75	-0.75	-0.74	-0.71	-0.66	-0.66	-0.68	-0.71

Table 1899: MAgPIE m4p_brazil — Trade—Net-Trade—Fish (Mt DM/yr) [PART 1/2]

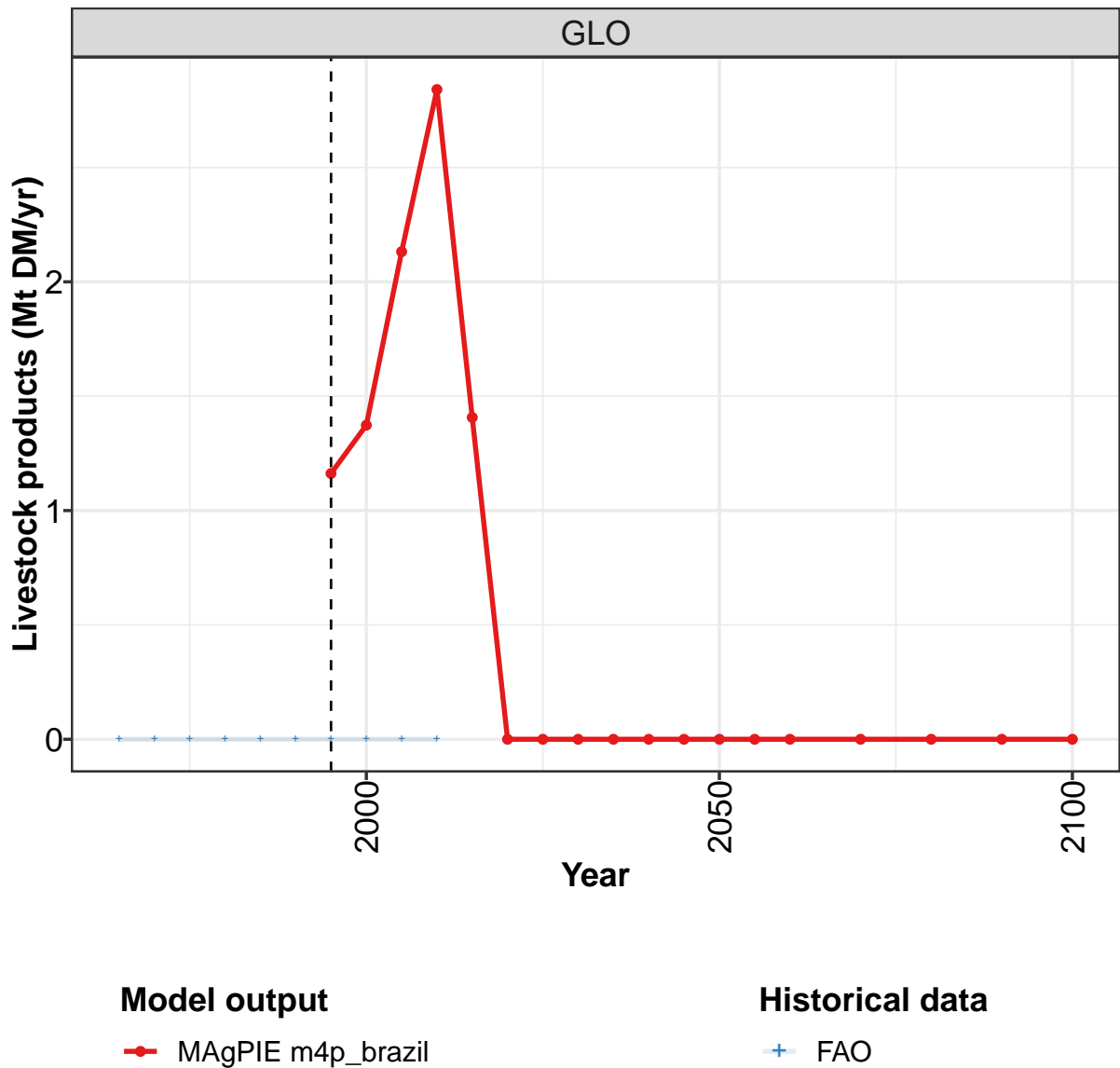
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	-0.00	0.00	0.00	-0.00	-0.00	0.00
BRA	-0.15	-0.16	-0.16	-0.16	-0.14	-0.13	-0.12
CHA	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EUR	-1.29	-1.36	-1.41	-1.49	-1.50	-1.48	-1.40
LAM	2.40	2.53	2.64	2.85	2.98	3.05	3.08
ROW	-0.20	-0.20	-0.19	-0.23	-0.28	-0.34	-0.44
USA	-0.76	-0.82	-0.87	-0.98	-1.05	-1.10	-1.12

Table 1900: MAgPIE m4p_brazil — 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
BRA	-0.02	-0.05	-0.04	-0.02	0.01	-0.07	-0.10	-0.07	-0.05	-0.14
CHA	-0.01	-0.05	-0.10	-0.14	-0.59	-0.66	-1.27	-1.53	-1.44	-0.47
EUR	-1.62	-2.21	-0.82	-0.82	-1.26	-1.79	-1.09	-1.04	-1.14	-1.10
LAM	1.81	3.06	0.86	1.20	2.27	3.00	4.42	4.02	3.88	2.29
ROW	0.24	-0.24	0.49	0.01	0.01	-0.31	-1.68	-0.89	-0.61	0.20
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



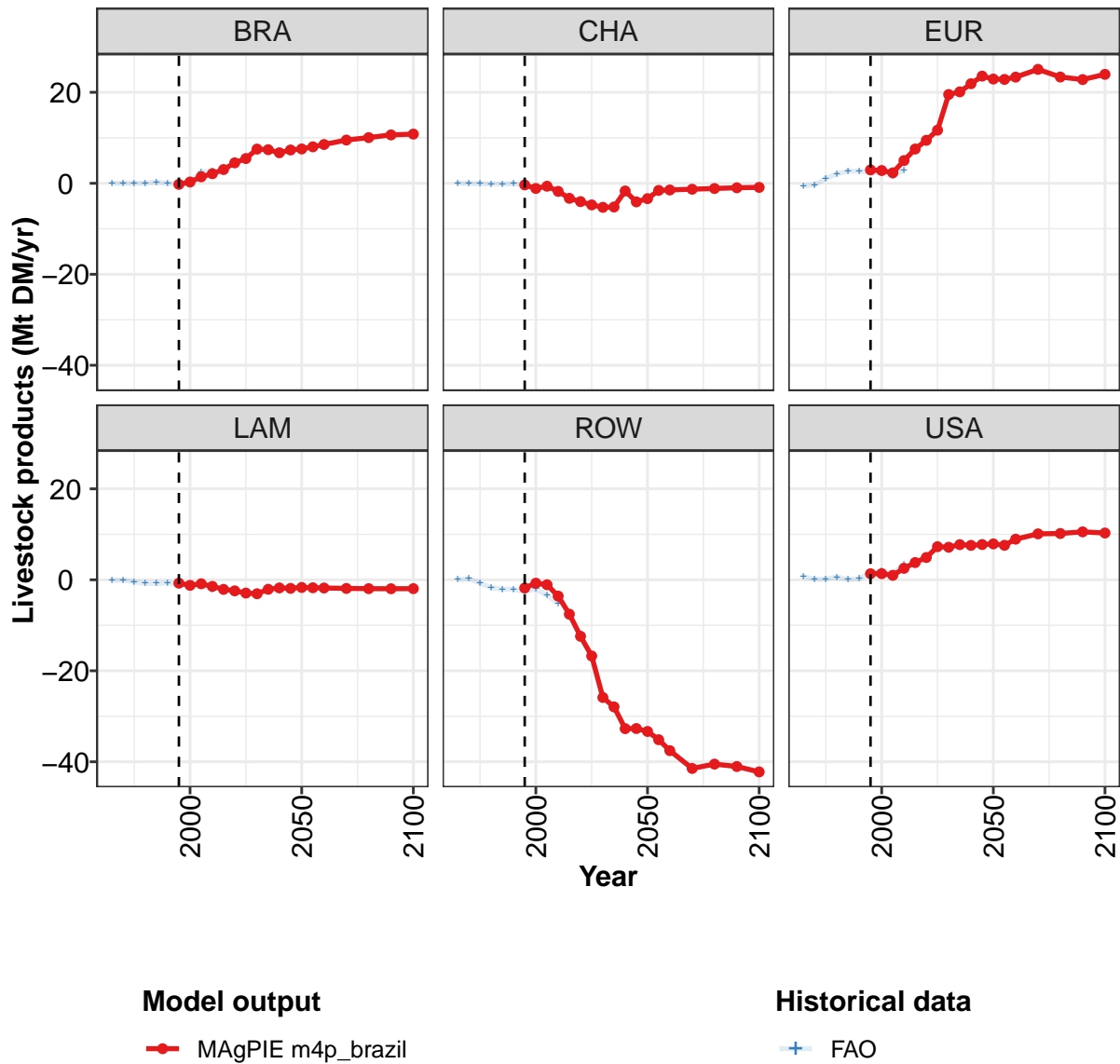


Figure 501: MAgPIE m4p.brazil — Trade—Net-Trade—Livestock products (Mt DM/yr)

	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
BRA	-0.2	0.3	1.4	2.1	3.0	4.5	5.4	7.5	7.4	6.7	7.3
CHA	-0.4	-1.1	-0.6	-1.8	-3.3	-4.0	-4.7	-5.3	-5.2	-1.7	-4.1
EUR	2.9	2.8	2.3	5.0	7.5	9.5	11.7	19.5	20.1	21.9	23.6
LAM	-0.7	-1.2	-0.9	-1.4	-2.1	-2.4	-2.9	-3.1	-2.1	-1.8	-1.9
ROW	-1.8	-0.7	-1.1	-3.6	-7.6	-12.4	-16.7	-25.9	-27.9	-32.7	-32.7
USA	1.3	1.4	1.0	2.5	3.8	4.9	7.3	7.2	7.7	7.6	7.8

Table 1902: MAgPIE m4p_brazil — Trade—Net-Trade—Livestock products (Mt DM/yr) [PART 1/2]

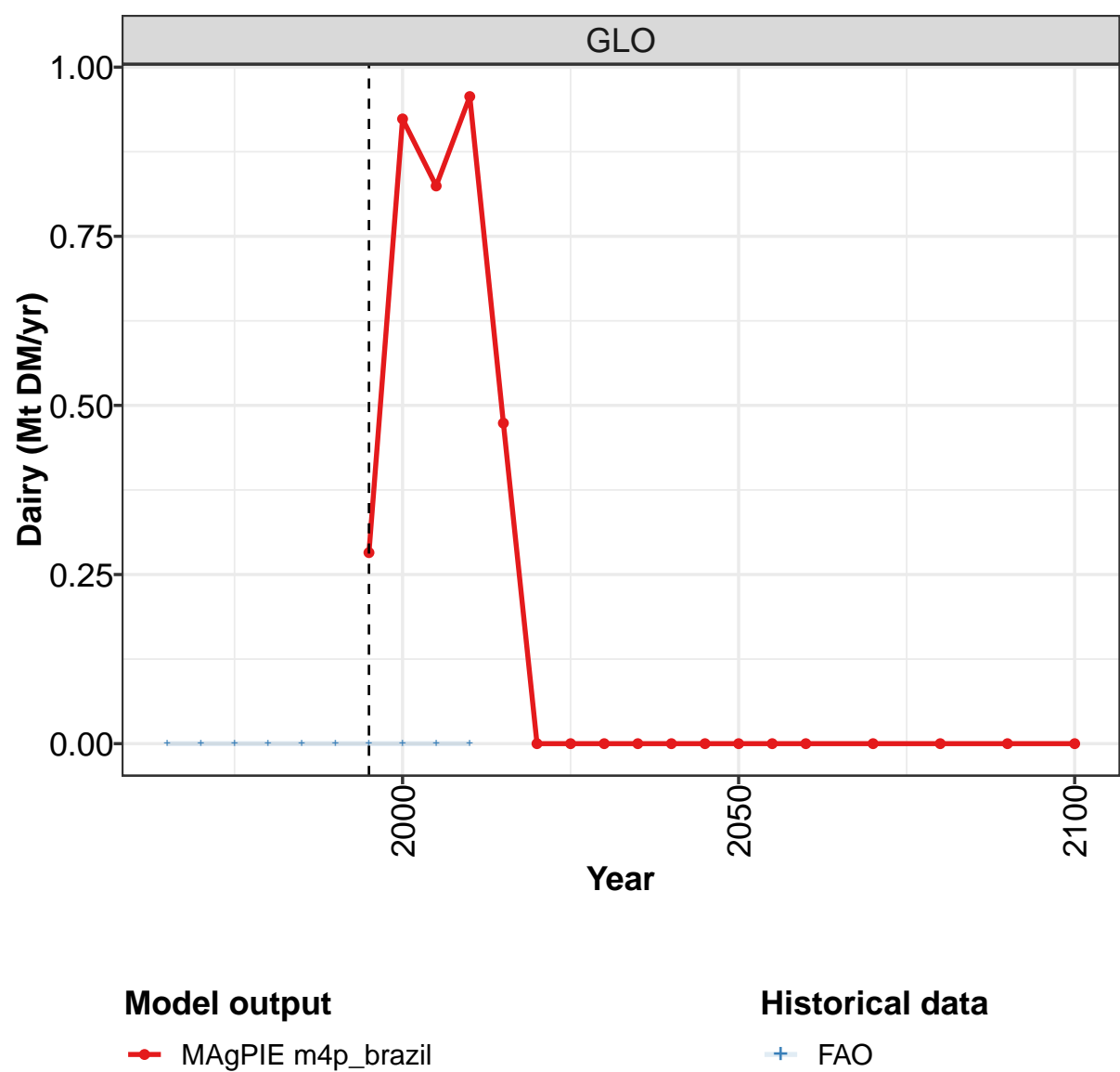
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	-0.0	0.0	0.0	-0.0	0.0
BRA	7.6	8.0	8.5	9.5	10.1	10.6	10.8
CHA	-3.4	-1.6	-1.5	-1.3	-1.1	-1.0	-0.9
EUR	22.9	22.8	23.3	25.0	23.4	22.8	23.9
LAM	-1.7	-1.7	-1.8	-1.9	-1.9	-2.0	-1.9
ROW	-33.3	-35.1	-37.5	-41.5	-40.5	-41.0	-42.2
USA	7.9	7.6	8.9	10.1	10.2	10.5	10.3

Table 1903: MAgPIE m4p_brazil — 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
BRA	0.00	0.02	0.00	0.01	0.26	-0.01	-0.20	0.47	2.46	2.65
CHA	0.03	-0.02	-0.10	-0.15	-0.15	-0.10	-0.33	-1.14	-0.70	-1.80
EUR	-0.63	-0.34	1.09	2.05	2.69	2.65	2.50	2.31	1.61	2.95
LAM	-0.13	-0.06	-0.43	-0.80	-0.80	-0.70	-0.98	-1.49	-1.30	-2.08
ROW	0.03	0.24	-0.71	-1.72	-2.05	-2.07	-2.59	-2.03	-3.44	-5.13
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



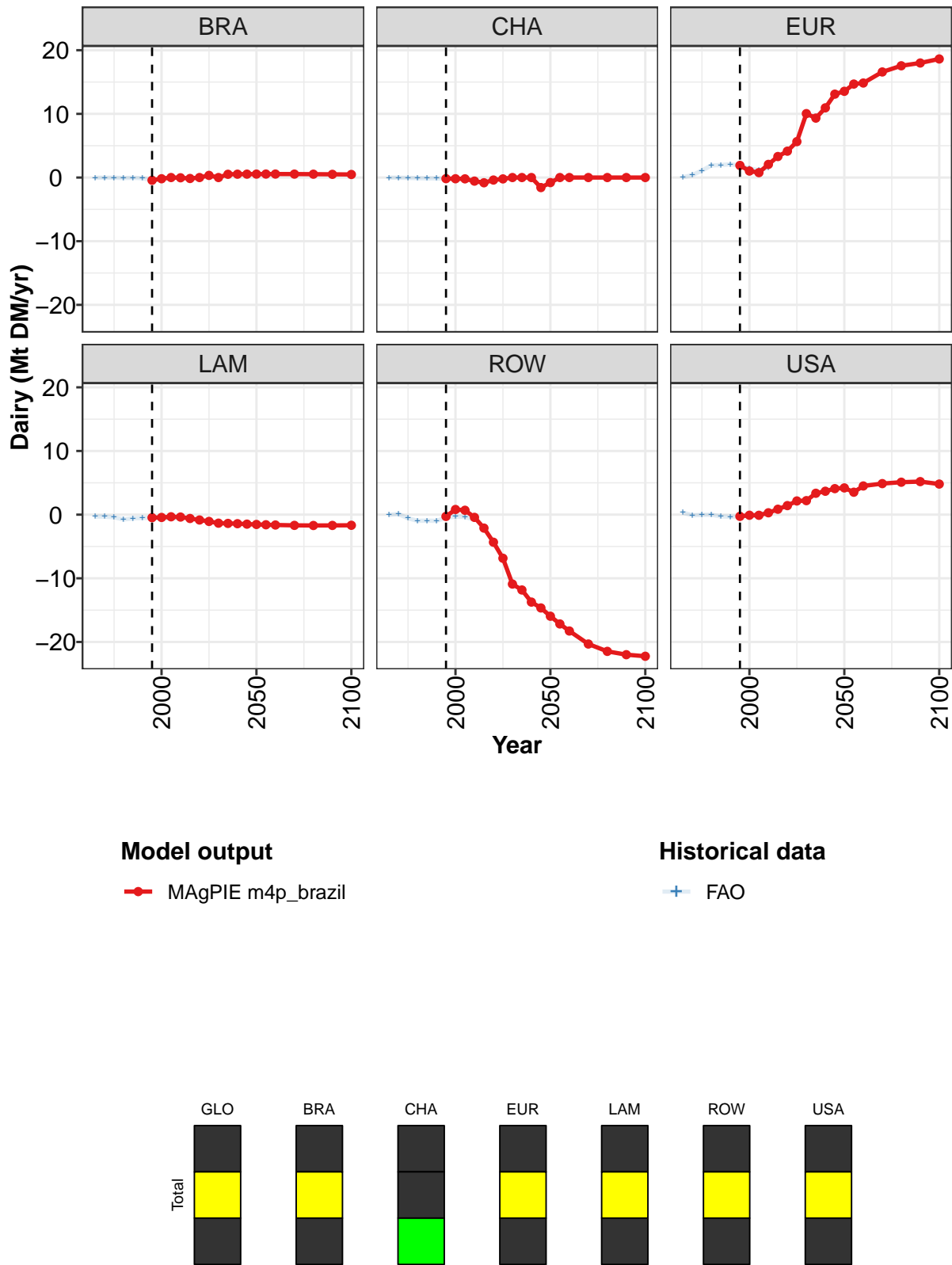


Figure 502: MAGPIE m4p_brazil — Trade—Net-Trade—Livestock products—Dairy (Mt DM/yr)

	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
BRA	-0.4	-0.2	0.0	-0.0	-0.1	0.0	0.3	0.0	0.5	0.5	0.5
CHA	-0.2	-0.2	-0.2	-0.6	-0.8	-0.4	-0.2	0.0	0.0	0.0	-1.6
EUR	1.9	1.0	0.8	2.1	3.3	4.1	5.6	10.0	9.3	10.9	13.1
LAM	-0.5	-0.4	-0.3	-0.4	-0.6	-0.8	-1.1	-1.3	-1.4	-1.4	-1.5
ROW	-0.3	0.8	0.7	-0.4	-2.1	-4.3	-6.9	-10.9	-11.8	-13.7	-14.7
USA	-0.3	-0.1	-0.1	0.3	0.9	1.4	2.2	2.2	3.4	3.7	4.1

Table 1905: MAgPIE m4p_brazil — Trade—Net-Trade—Livestock products—Dairy (Mt DM/yr) [PART 1/2]

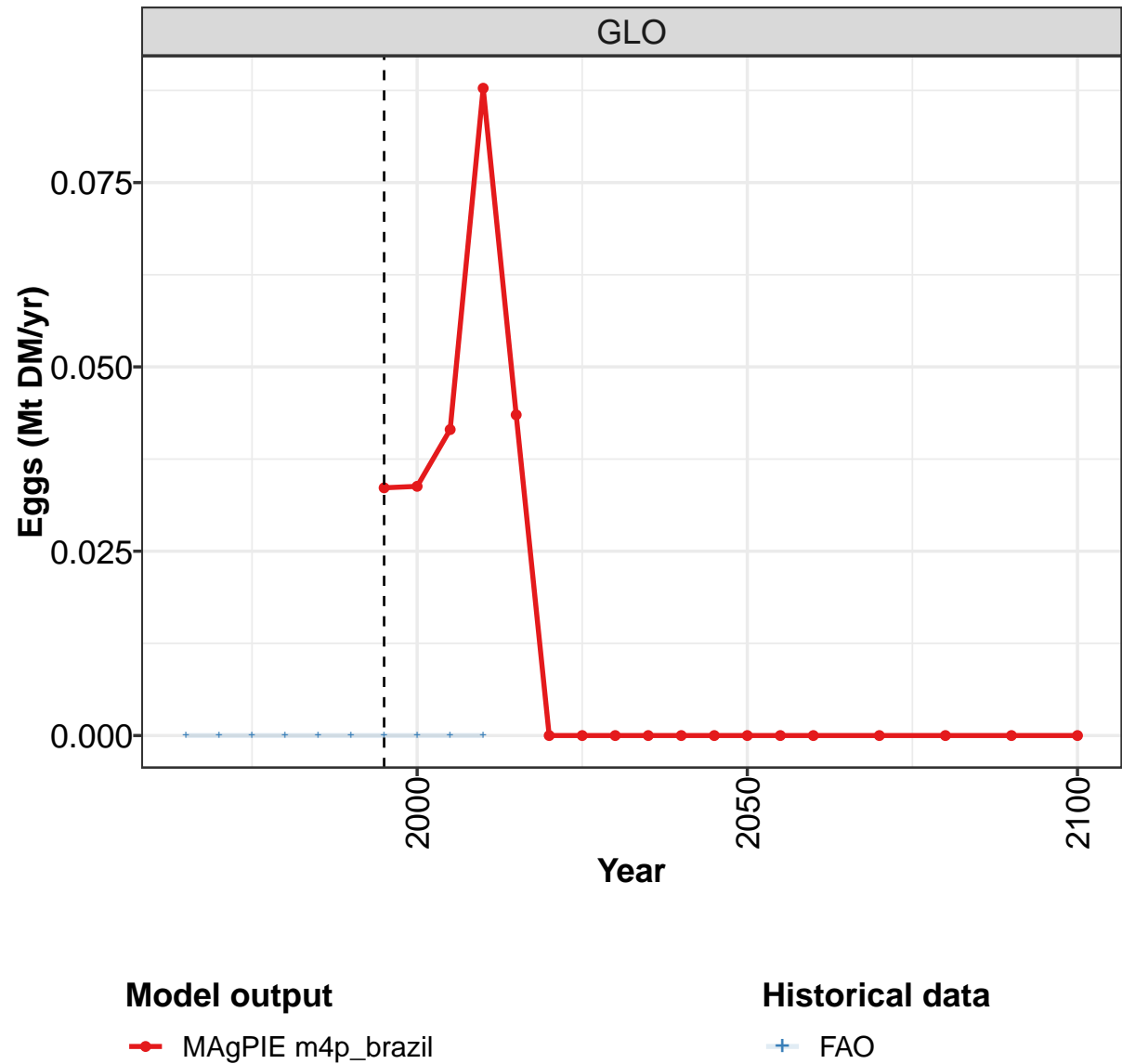
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	0.0	0.0	0.0	-0.0	0.0
BRA	0.5	0.5	0.5	0.5	0.5	0.5	0.5
CHA	-0.8	0.0	0.0	0.0	0.0	0.0	0.0
EUR	13.5	14.7	14.9	16.6	17.6	18.0	18.6
LAM	-1.5	-1.6	-1.6	-1.7	-1.7	-1.7	-1.7
ROW	-16.0	-17.2	-18.3	-20.3	-21.5	-22.0	-22.2
USA	4.2	3.5	4.5	4.9	5.1	5.2	4.8

Table 1906: MAgPIE m4p_brazil — 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
BRA	-0.03	-0.03	-0.02	-0.08	-0.04	-0.11	-0.43	-0.19	0.01	-0.06
CHA	-0.02	-0.03	-0.06	-0.09	-0.13	-0.14	-0.17	-0.21	-0.21	-0.59
EUR	0.06	0.39	1.10	1.91	1.96	2.09	1.90	1.43	1.14	1.56
LAM	-0.30	-0.31	-0.42	-0.76	-0.57	-0.53	-0.51	-0.63	-0.49	-0.61
ROW	-0.02	0.08	-0.57	-0.97	-0.94	-0.98	-0.49	-0.30	-0.36	-0.80
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



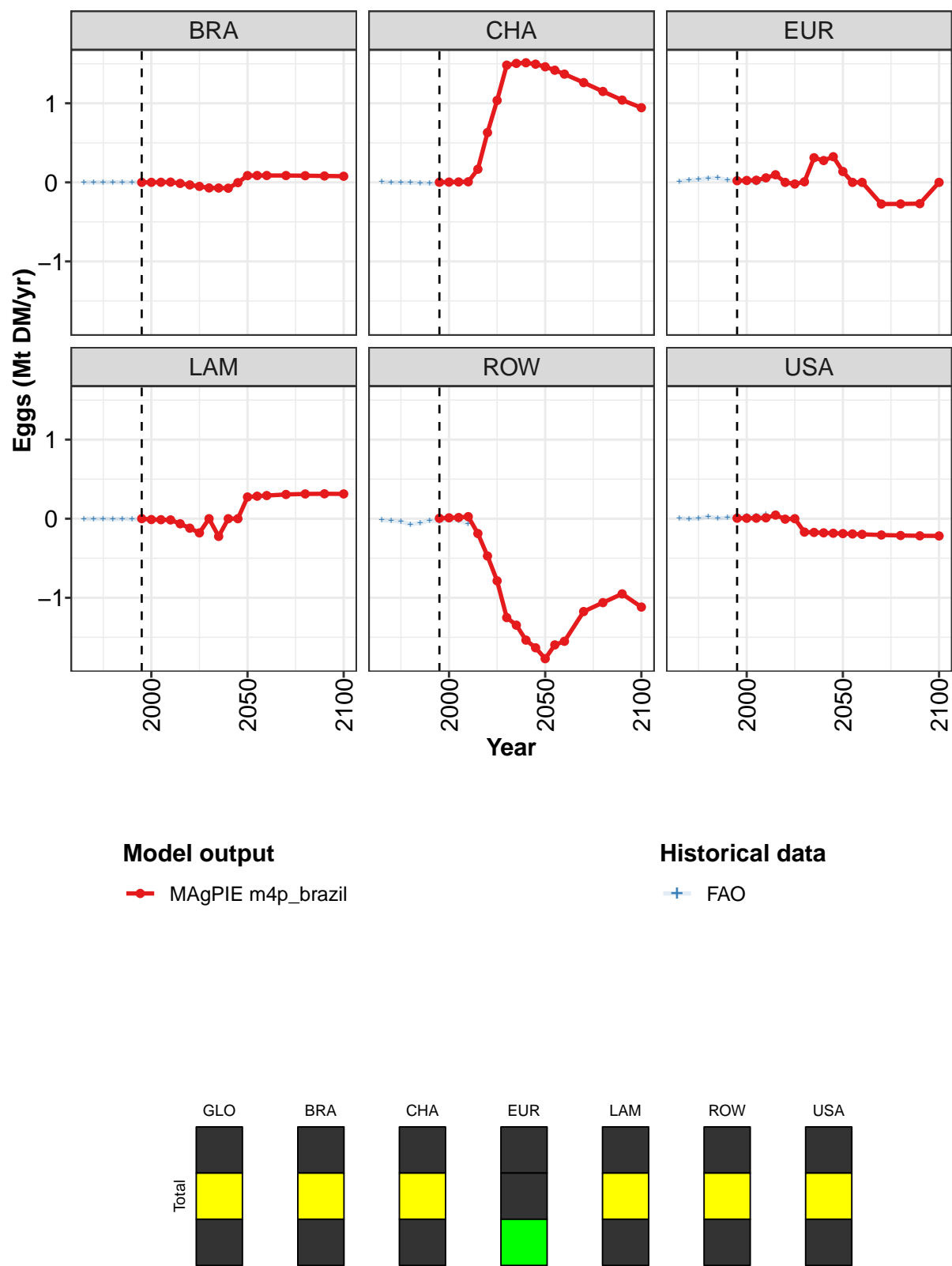


Figure 503: MAgPIE m4p.brazil — Trade—Net-Trade—Livestock products—Eggs (Mt DM/yr)

	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
BRA	0.00	0.00	0.00	0.00	-0.01	-0.03	-0.05	-0.07	-0.07	-0.07	-0.00
CHA	0.00	0.00	0.00	0.01	0.17	0.63	1.04	1.48	1.50	1.51	1.49
EUR	0.02	0.02	0.03	0.06	0.10	0.00	-0.02	0.01	0.31	0.28	0.32
LAM	0.00	-0.01	-0.01	-0.02	-0.06	-0.12	-0.18	0.00	-0.22	0.00	0.00
ROW	0.00	0.01	0.01	0.03	-0.19	-0.47	-0.79	-1.25	-1.35	-1.54	-1.63
USA	0.01	0.01	0.01	0.01	0.05	-0.01	0.00	-0.17	-0.17	-0.18	-0.18

Table 1908: MAgPIE m4p_brazil — Trade—Net-Trade—Livestock products—Eggs (Mt DM/yr) [PART 1/2]

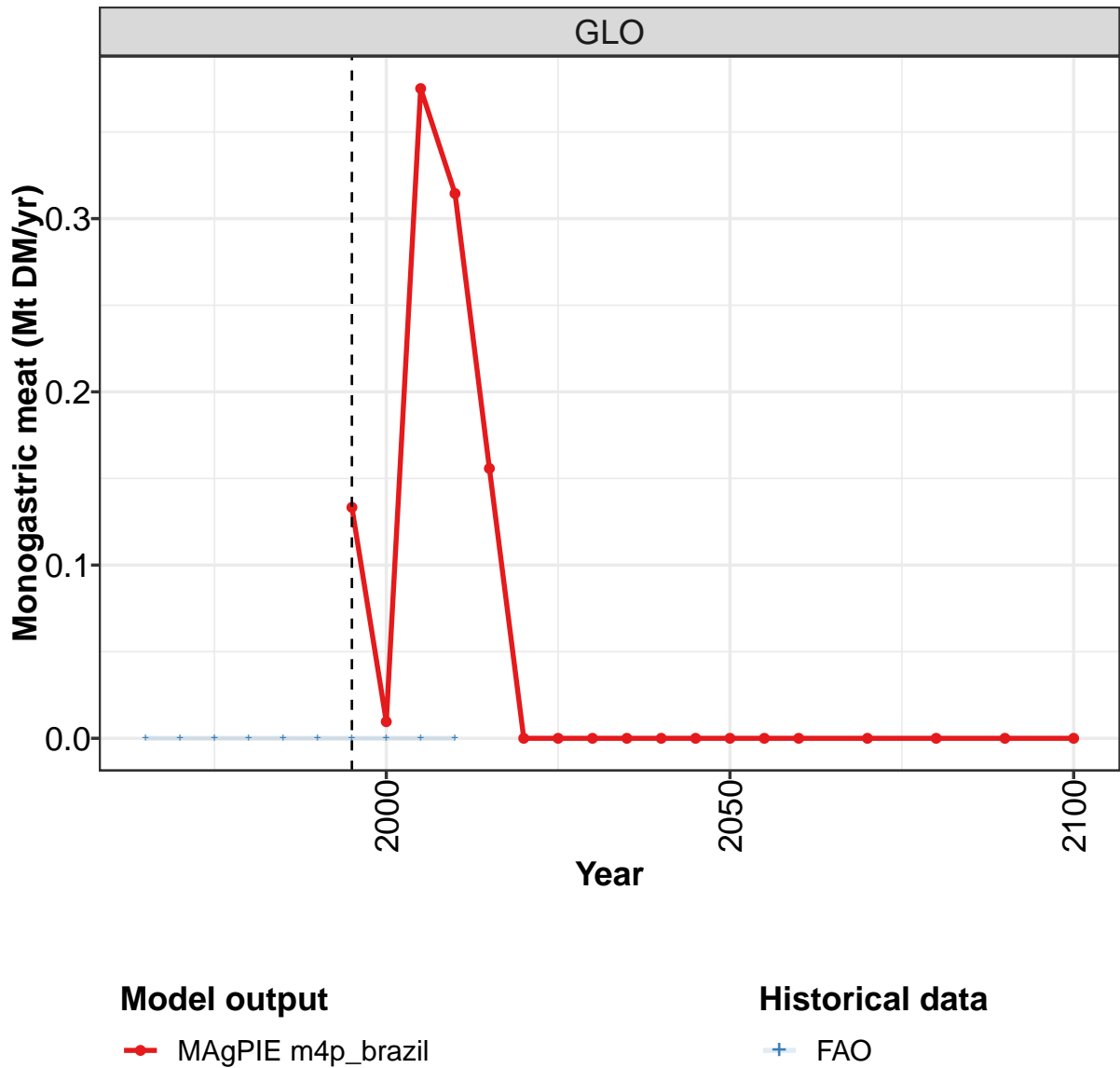
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BRA	0.09	0.09	0.09	0.09	0.08	0.08	0.08
CHA	1.46	1.42	1.37	1.26	1.15	1.04	0.94
EUR	0.14	0.00	0.00	-0.27	-0.27	-0.27	0.00
LAM	0.27	0.28	0.29	0.31	0.31	0.31	0.31
ROW	-1.77	-1.60	-1.55	-1.17	-1.06	-0.95	-1.12
USA	-0.19	-0.19	-0.20	-0.21	-0.21	-0.22	-0.22

Table 1909: MAgPIE m4p_brazil — 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
BRA	0.0000	0.0000	0.0000	0.0029	0.0004	-0.0004	0.0003	0.0021	0.0069	0.0130
CHA	0.0062	-0.0003	-0.0020	-0.0028	-0.0060	-0.0145	-0.0205	-0.0071	-0.0013	0.0000
EUR	0.0118	0.0305	0.0361	0.0531	0.0548	0.0304	0.0291	0.0058	-0.0058	0.0305
LAM	-0.0036	-0.0033	-0.0003	-0.0075	-0.0007	-0.0078	-0.0101	-0.0166	-0.0190	-0.0281
ROW	-0.0188	-0.0254	-0.0372	-0.0724	-0.0525	-0.0209	-0.0376	-0.0155	-0.0206	-0.0672
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



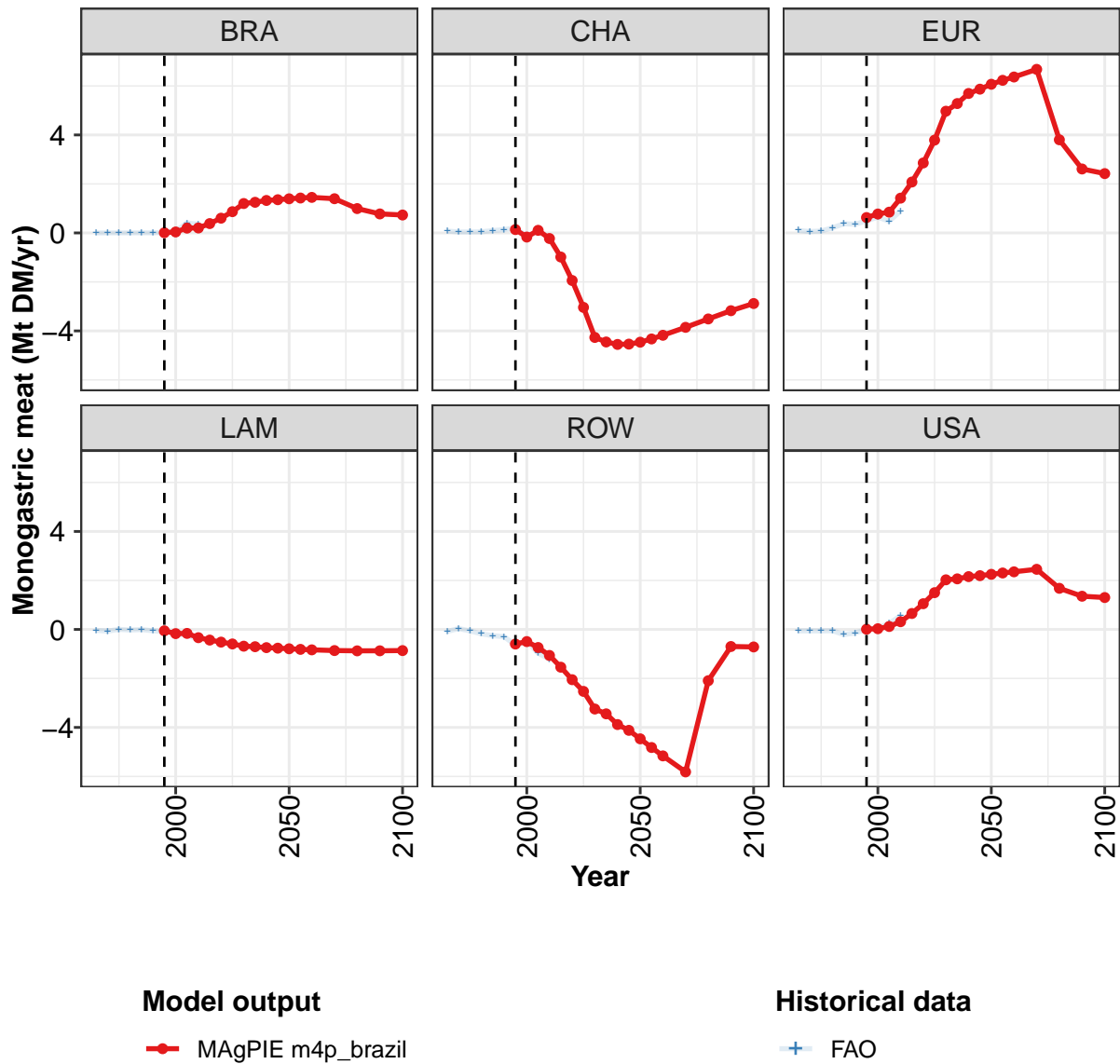


Figure 504: MAgPIE m4p_brazil — Trade—Net-Trade—Livestock products—Monogastric meat (Mt DM/yr)

	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
BRA	0.01	0.04	0.20	0.20	0.38	0.60	0.87	1.20	1.25	1.33	1.36
CHA	0.14	-0.17	0.11	-0.23	-0.98	-1.94	-3.04	-4.27	-4.45	-4.55	-4.54
EUR	0.63	0.77	0.85	1.42	2.08	2.86	3.79	4.97	5.28	5.69	5.87
LAM	-0.06	-0.17	-0.16	-0.34	-0.43	-0.52	-0.59	-0.68	-0.70	-0.74	-0.76
ROW	-0.60	-0.49	-0.74	-1.06	-1.54	-2.05	-2.53	-3.25	-3.44	-3.88	-4.12
USA	0.01	0.03	0.12	0.32	0.65	1.05	1.50	2.03	2.07	2.16	2.20

Table 1911: MAgPIE m4p_brazil — Trade—Net-Trade—Livestock products—Monogastric meat (Mt DM/yr)
[PART 1/2]

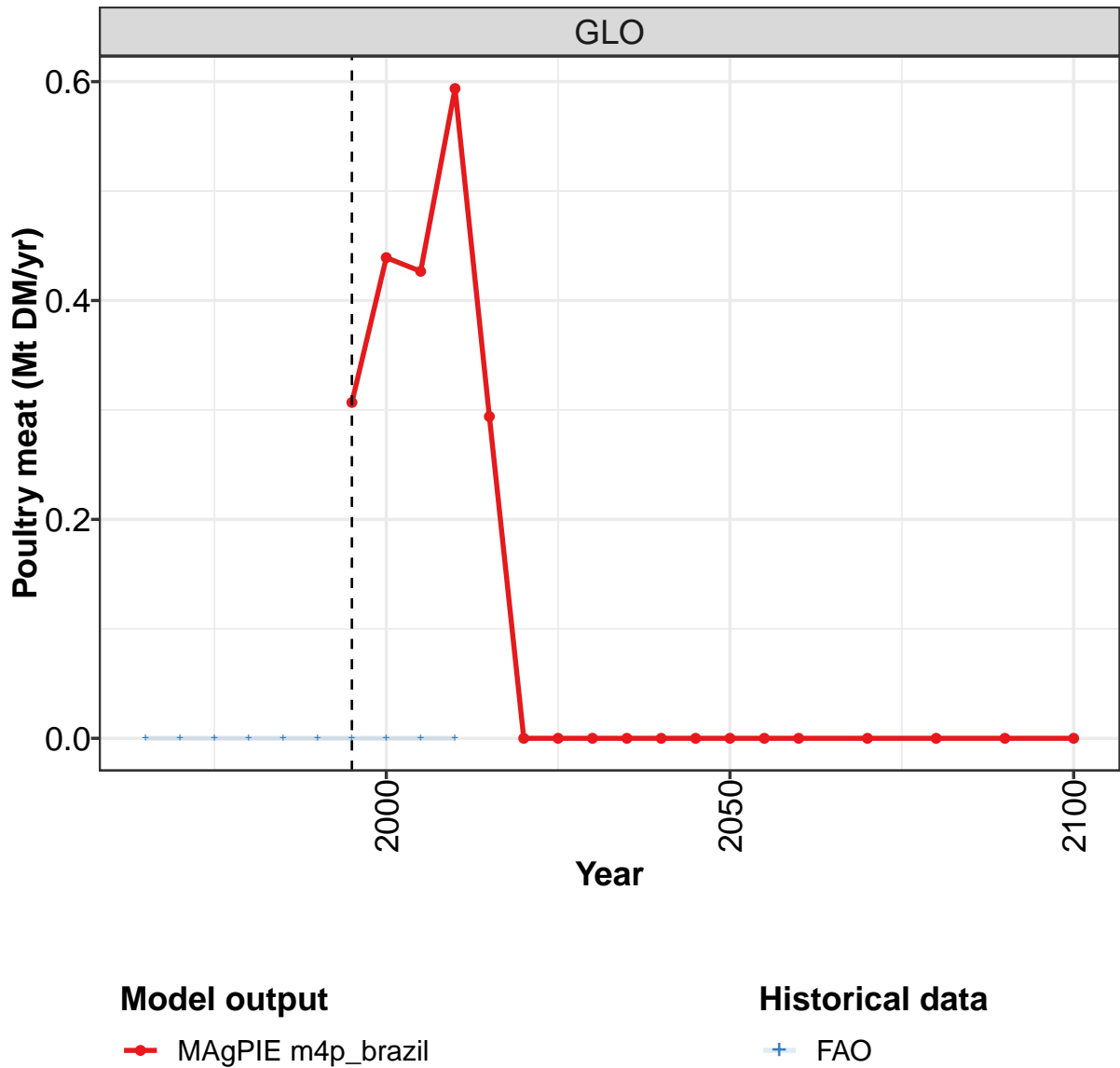
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	-0.00	-0.00	-0.00	0.00	-0.00	0.00
BRA	1.39	1.43	1.45	1.40	0.99	0.78	0.73
CHA	-4.46	-4.33	-4.18	-3.85	-3.51	-3.17	-2.88
EUR	6.07	6.23	6.37	6.68	3.80	2.61	2.42
LAM	-0.79	-0.81	-0.83	-0.86	-0.87	-0.87	-0.86
ROW	-4.46	-4.82	-5.16	-5.82	-2.09	-0.70	-0.71
USA	2.25	2.31	2.35	2.46	1.68	1.36	1.30

Table 1912: MAgPIE m4p_brazil — 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
BRA	-0.000	-0.000	0.003	0.001	0.003	0.004	0.019	0.083	0.406	0.356
CHA	0.075	0.038	0.038	0.046	0.095	0.137	0.210	-0.143	0.080	-0.199
EUR	0.104	0.054	0.079	0.208	0.374	0.353	0.493	0.645	0.476	0.898
LAM	-0.039	-0.068	0.002	-0.024	-0.006	-0.055	-0.083	-0.170	-0.238	-0.404
ROW	-0.078	0.036	-0.061	-0.177	-0.256	-0.296	-0.641	-0.478	-0.969	-1.213
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



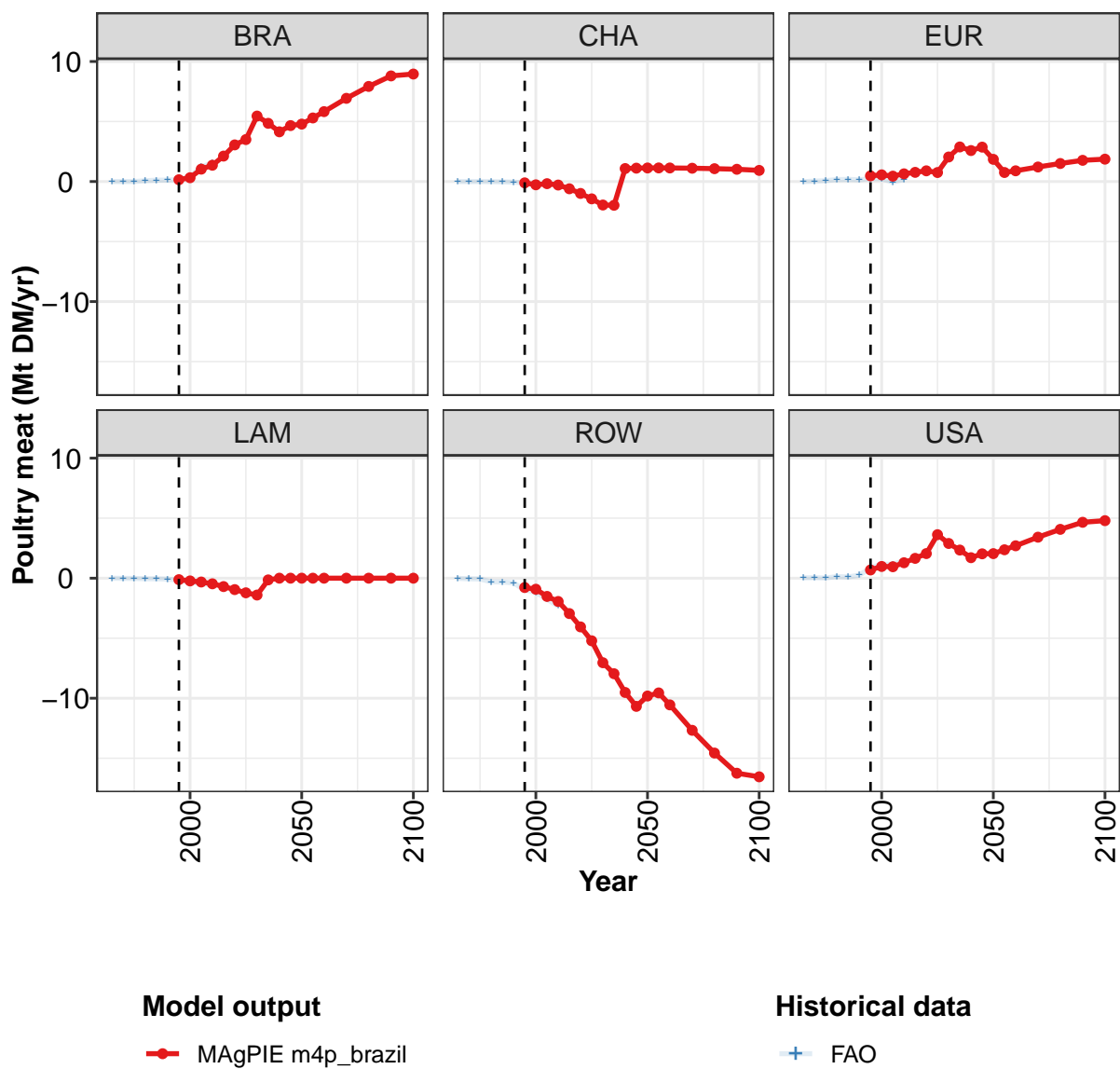


Figure 505: MAgPIE m4p_brazil — Trade—Net-Trade—Livestock products—Poultry meat (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.31	0.44	0.43	0.59	0.29	0.00	0.00	0.00	0.00	-0.00	-0.00
BRA	0.15	0.32	1.03	1.36	2.12	3.05	3.50	5.46	4.85	4.14	4.66
CHA	-0.11	-0.27	-0.18	-0.29	-0.60	-0.99	-1.44	-1.95	-1.98	1.08	1.12
EUR	0.48	0.56	0.45	0.64	0.77	0.89	0.75	2.05	2.88	2.58	2.87
LAM	-0.12	-0.23	-0.32	-0.47	-0.70	-0.95	-1.22	-1.40	-0.14	0.00	0.00
ROW	-0.78	-0.92	-1.52	-1.94	-2.95	-4.06	-5.22	-7.04	-7.96	-9.52	-10.68
USA	0.69	0.98	0.95	1.29	1.65	2.05	3.62	2.89	2.34	1.71	2.03

Table 1914: MAgPIE m4p_brazil — Trade—Net-Trade—Livestock products—Poultry meat (Mt DM/yr) [PART 1/2]

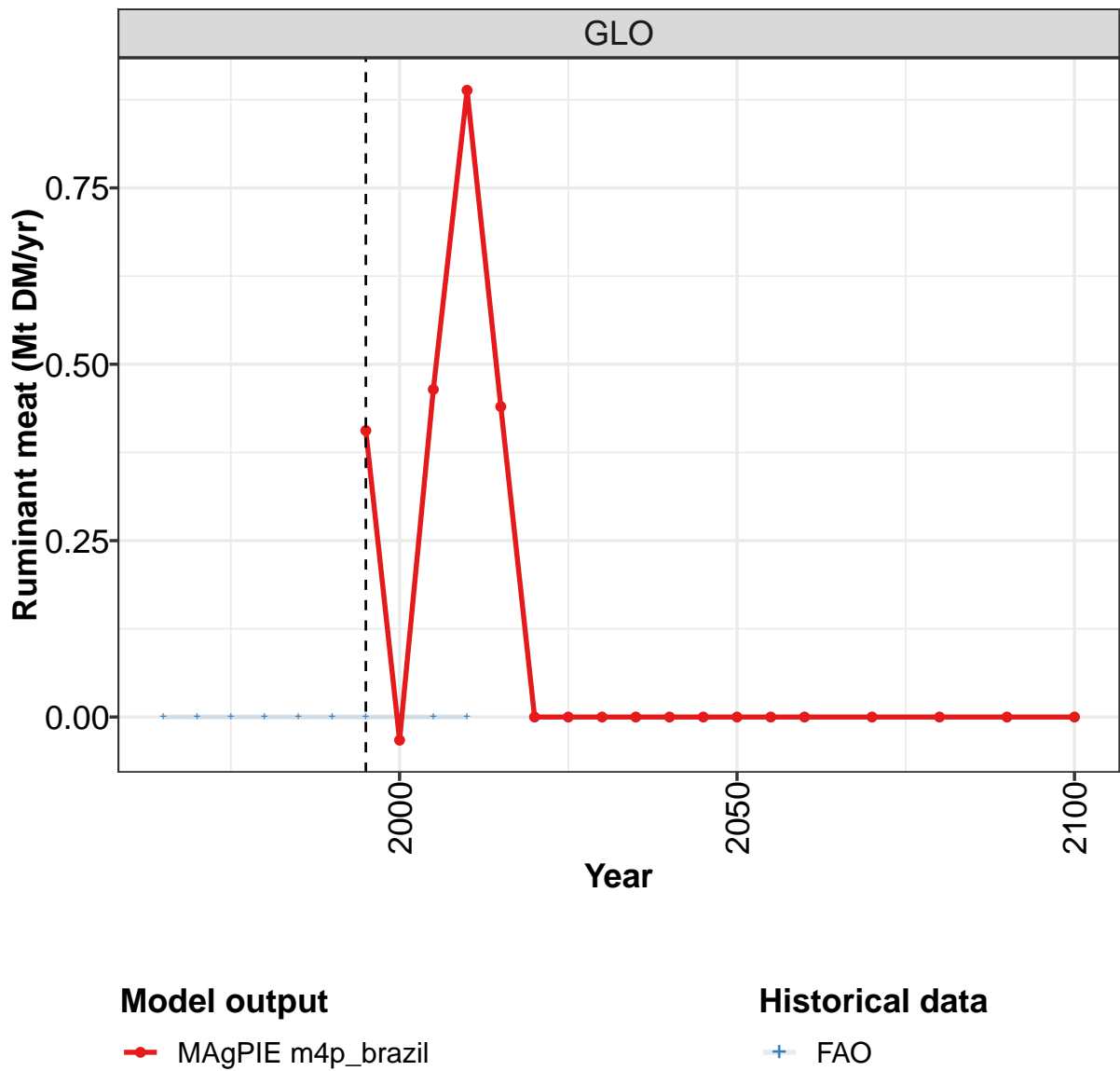
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	-0.00	0.00	0.00
BRA	4.78	5.30	5.82	6.93	7.92	8.80	8.96
CHA	1.13	1.14	1.13	1.11	1.07	1.02	0.93
EUR	1.85	0.76	0.90	1.21	1.50	1.77	1.87
LAM	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW	-9.81	-9.56	-10.55	-12.67	-14.57	-16.25	-16.55
USA	2.05	2.37	2.70	3.42	4.07	4.66	4.79

Table 1915: MAgPIE m4p_brazil — 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
BRA	0.00	-0.00	0.00	0.07	0.11	0.12	0.18	0.39	1.22	1.54
CHA	-0.00	-0.01	-0.00	-0.01	-0.03	-0.05	-0.11	-0.28	-0.16	-0.27
EUR	-0.01	0.04	0.07	0.17	0.18	0.15	0.25	0.23	-0.04	0.19
LAM	-0.00	-0.02	-0.02	-0.05	-0.05	-0.07	-0.19	-0.32	-0.42	-0.60
ROW	-0.01	-0.05	-0.06	-0.31	-0.31	-0.40	-0.98	-1.18	-1.76	-2.32
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



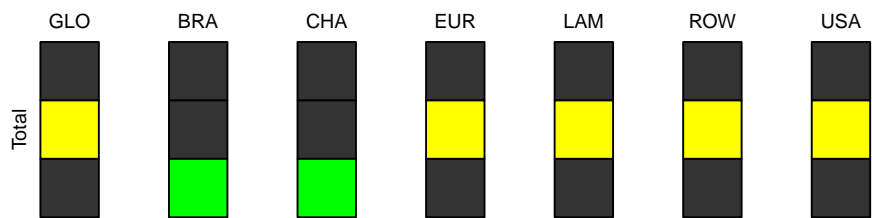
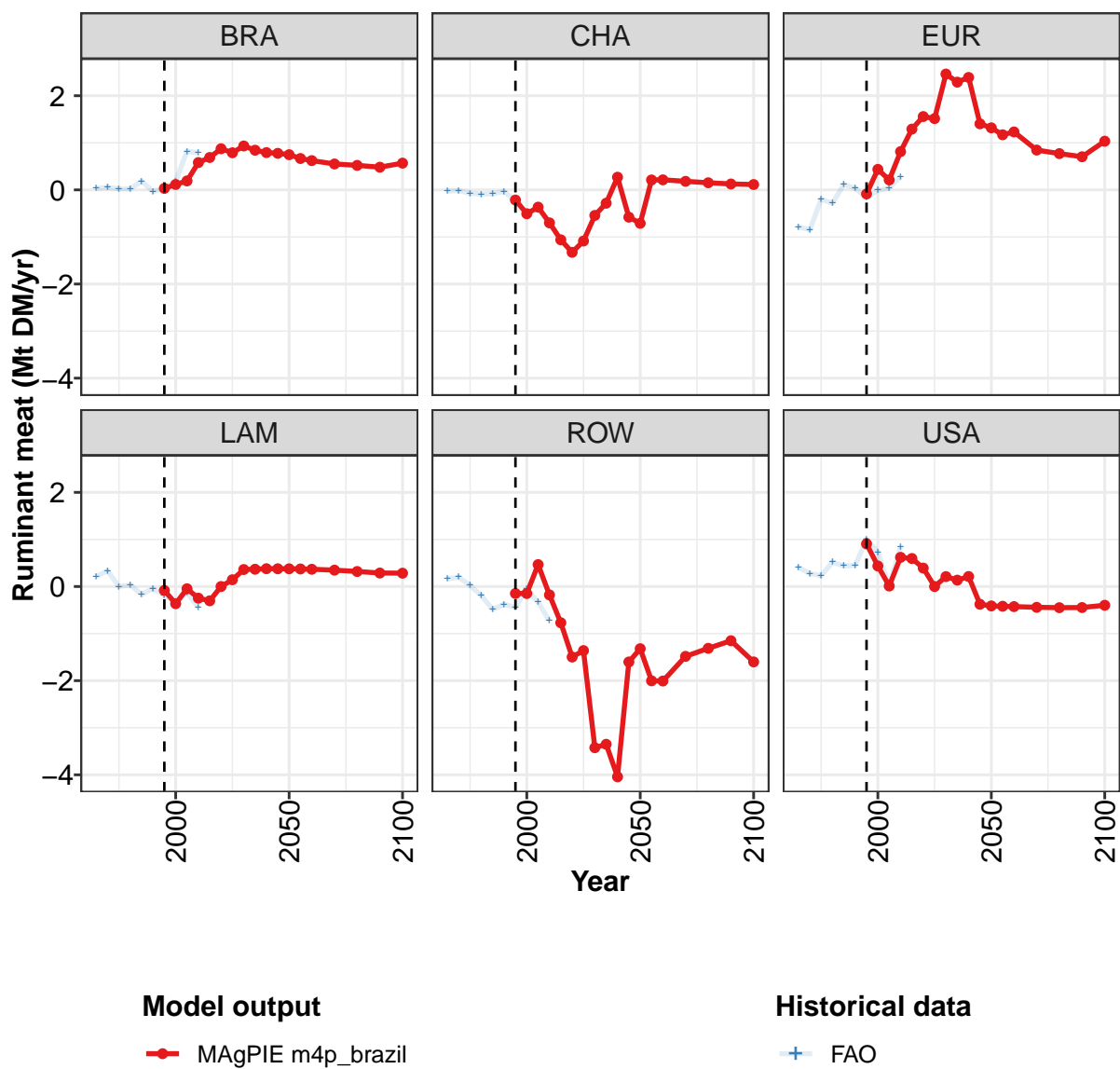


Figure 506: MAgPIE m4p_brazil — Trade—Net-Trade—Livestock products—Ruminant meat (Mt DM/yr)

	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
BRA	0.03	0.11	0.19	0.58	0.69	0.87	0.79	0.93	0.84	0.79	0.78
CHA	-0.22	-0.51	-0.37	-0.70	-1.06	-1.33	-1.09	-0.54	-0.28	0.27	-0.58
EUR	-0.09	0.44	0.21	0.81	1.29	1.56	1.51	2.46	2.29	2.39	1.40
LAM	-0.08	-0.36	-0.05	-0.25	-0.30	0.00	0.14	0.36	0.37	0.38	0.38
ROW	-0.15	-0.15	0.47	-0.18	-0.77	-1.50	-1.36	-3.42	-3.35	-4.04	-1.60
USA	0.91	0.44	0.01	0.62	0.60	0.39	0.00	0.21	0.14	0.21	-0.38

Table 1917: MAgPIE m4p_brazil — Trade—Net-Trade—Livestock products—Ruminant meat (Mt DM/yr)
[PART 1/2]

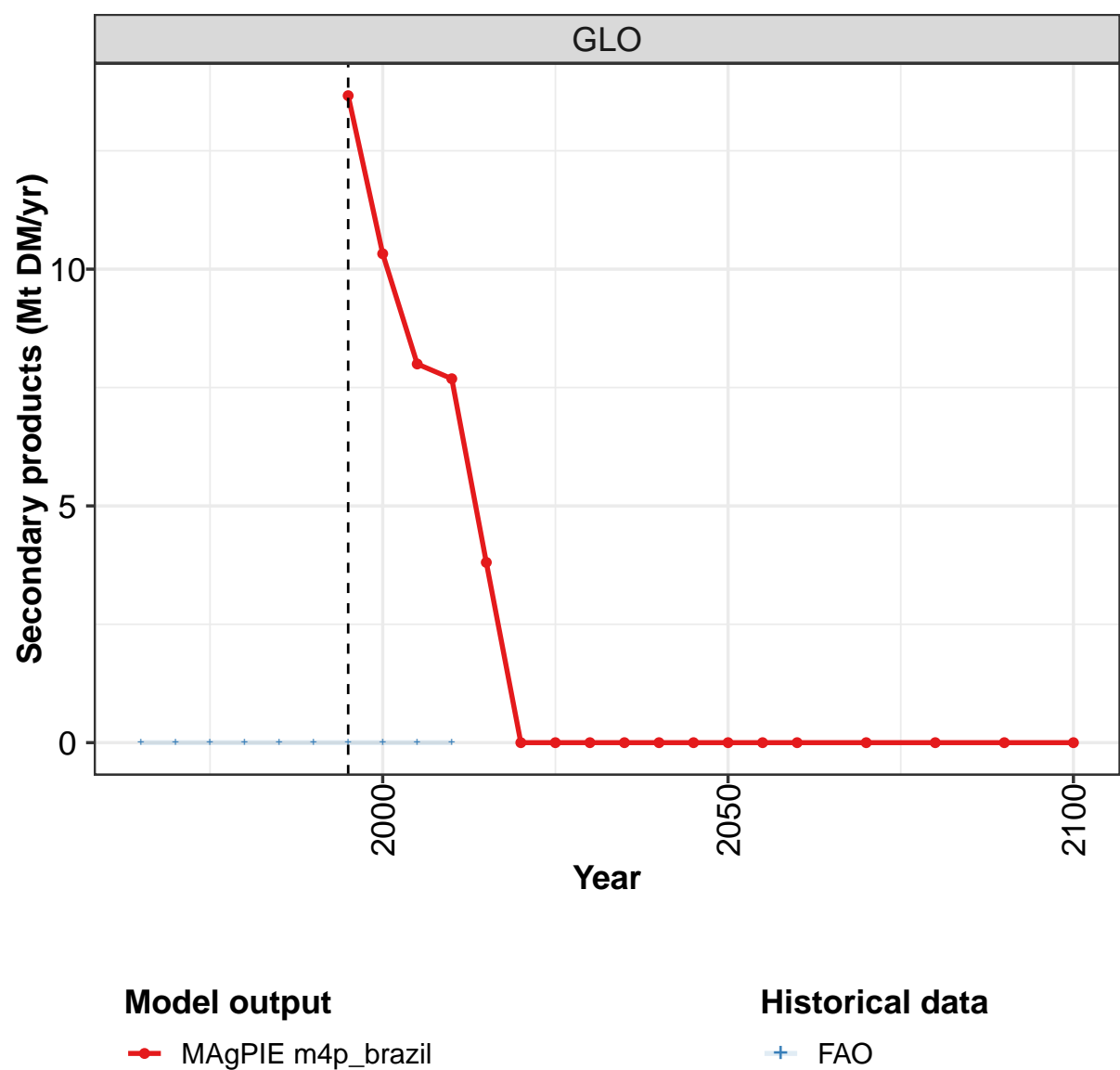
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	0.00	0.00	0.00	-0.00	0.00
BRA	0.75	0.67	0.62	0.55	0.52	0.48	0.57
CHA	-0.71	0.21	0.21	0.18	0.15	0.13	0.11
EUR	1.32	1.17	1.23	0.85	0.77	0.70	1.03
LAM	0.38	0.37	0.37	0.35	0.32	0.29	0.28
ROW	-1.32	-2.00	-2.01	-1.48	-1.31	-1.15	-1.60
USA	-0.41	-0.42	-0.43	-0.44	-0.45	-0.45	-0.40

Table 1918: MAgPIE m4p_brazil — 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
BRA	0.03	0.05	0.02	0.02	0.19	-0.03	0.04	0.18	0.82	0.79
CHA	-0.03	-0.02	-0.07	-0.09	-0.08	-0.03	-0.24	-0.50	-0.40	-0.74
EUR	-0.79	-0.85	-0.20	-0.28	0.12	0.03	-0.17	-0.01	0.04	0.28
LAM	0.22	0.33	-0.00	0.03	-0.17	-0.04	-0.19	-0.34	-0.13	-0.44
ROW	0.16	0.20	0.02	-0.19	-0.49	-0.38	-0.44	-0.06	-0.33	-0.73
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



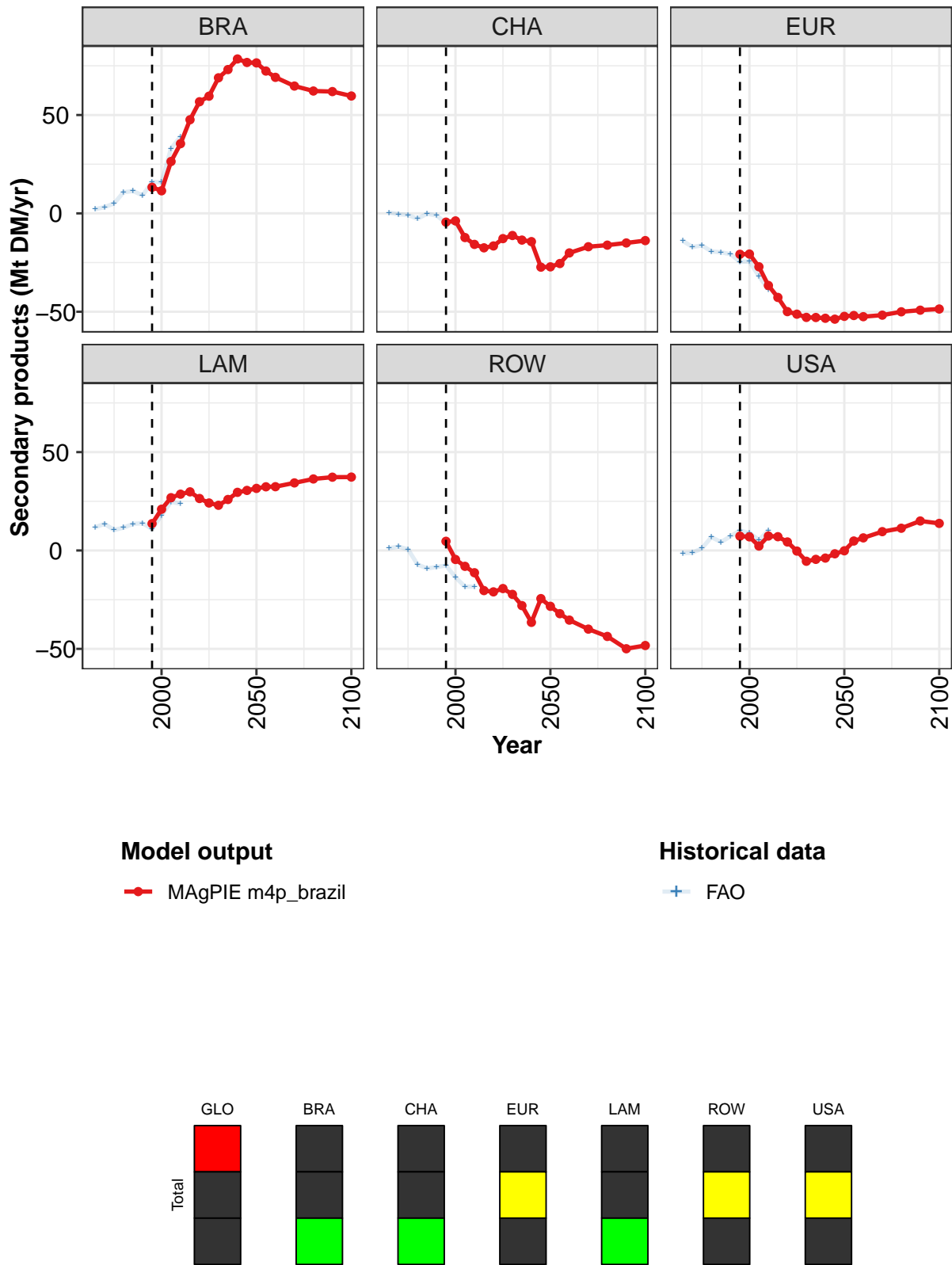


Figure 507: MAGPIE m4p_brazil — Trade—Net-Trade—Secondary products (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	13.7	10.3	8.0	7.7	3.8	0.0	0.0	-0.0	0.0	0.0	0.0
BRA	13.3	11.5	26.4	35.4	47.6	56.7	59.6	68.9	73.1	78.5	76.7
CHA	-4.5	-3.8	-12.3	-15.8	-17.5	-16.6	-12.8	-11.2	-13.6	-14.3	-27.3
EUR	-20.8	-20.7	-27.1	-36.7	-42.7	-49.9	-51.2	-52.9	-52.9	-53.3	-53.8
LAM	13.7	21.0	26.8	28.6	29.8	26.4	24.1	23.0	25.9	29.6	30.5
ROW	4.7	-4.6	-8.1	-11.3	-20.4	-21.0	-19.3	-22.3	-28.0	-36.5	-24.5
USA	7.3	6.9	2.3	7.4	7.0	4.3	-0.3	-5.5	-4.5	-3.9	-1.7

Table 1920: MAgPIE m4p.brazil — Trade—Net-Trade—Secondary products (Mt DM/yr) [PART 1/2]

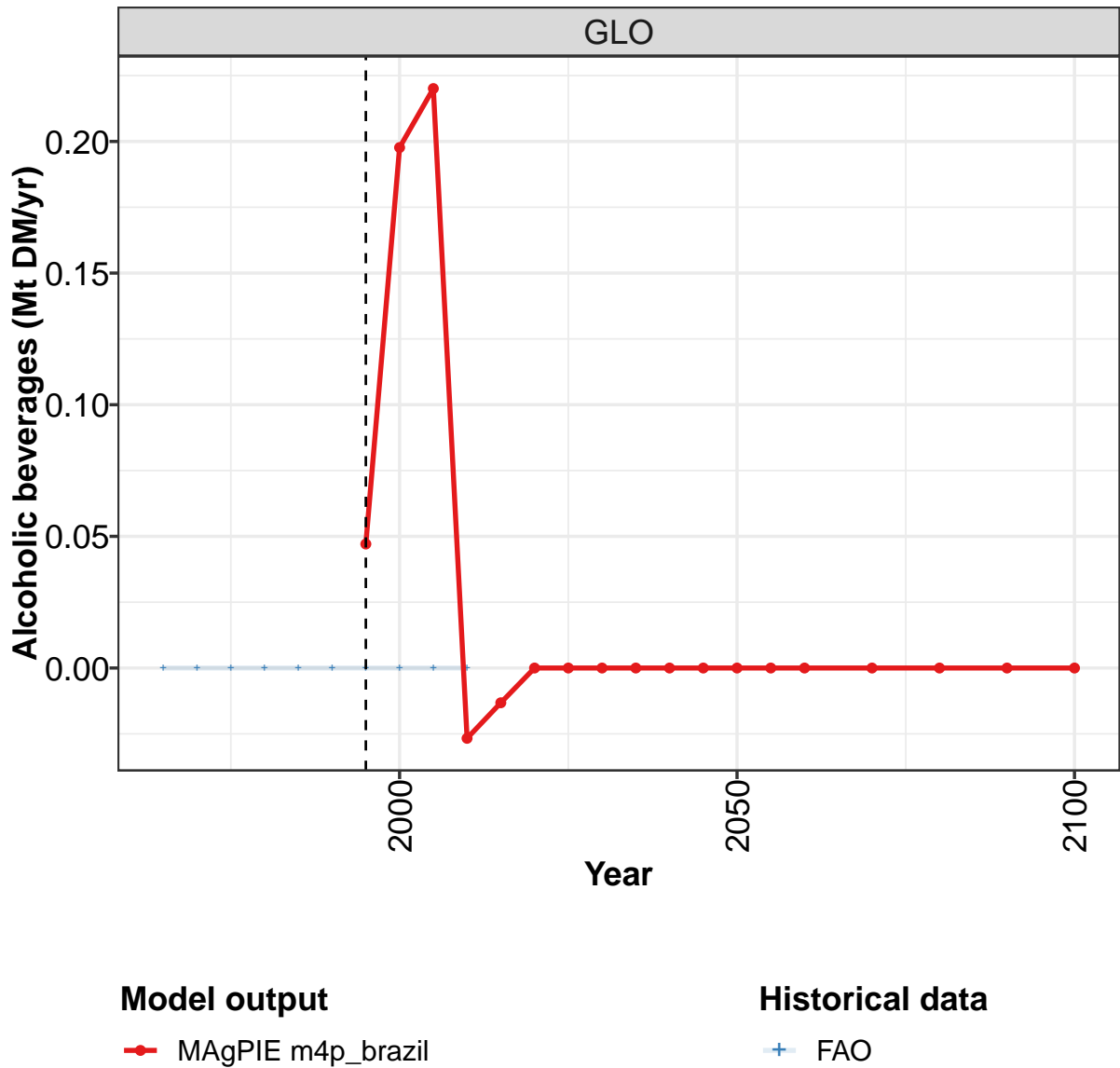
	2050	2055	2060	2070	2080	2090	2100
GLO	-0.0	0.0	0.0	-0.0	0.0	0.0	-0.0
BRA	76.5	72.3	69.1	64.7	62.2	61.9	59.7
CHA	-27.2	-25.5	-20.1	-17.0	-16.1	-15.0	-13.8
EUR	-52.3	-51.9	-52.5	-51.7	-50.0	-49.2	-48.6
LAM	31.6	32.4	32.4	34.4	36.4	37.3	37.3
ROW	-28.4	-32.1	-35.4	-40.0	-43.7	-49.9	-48.3
USA	-0.2	4.8	6.4	9.6	11.3	15.0	13.8

Table 1921: MAgPIE m4p.brazil — 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
BRA	2.1	3.2	5.0	10.7	11.4	9.1	16.0	15.7	33.0	39.0
CHA	0.4	-0.4	-0.8	-2.8	-0.2	-1.1	-4.8	-4.4	-12.7	-15.8
EUR	-14.0	-17.1	-16.3	-19.3	-19.8	-20.7	-24.6	-24.5	-32.0	-38.6
LAM	11.8	13.6	10.4	11.6	13.5	13.9	11.0	17.9	24.7	23.8
ROW	1.2	2.0	0.6	-7.1	-9.2	-8.4	-7.7	-13.6	-18.4	-18.3
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



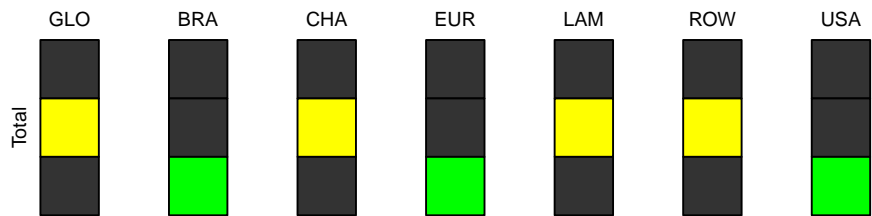
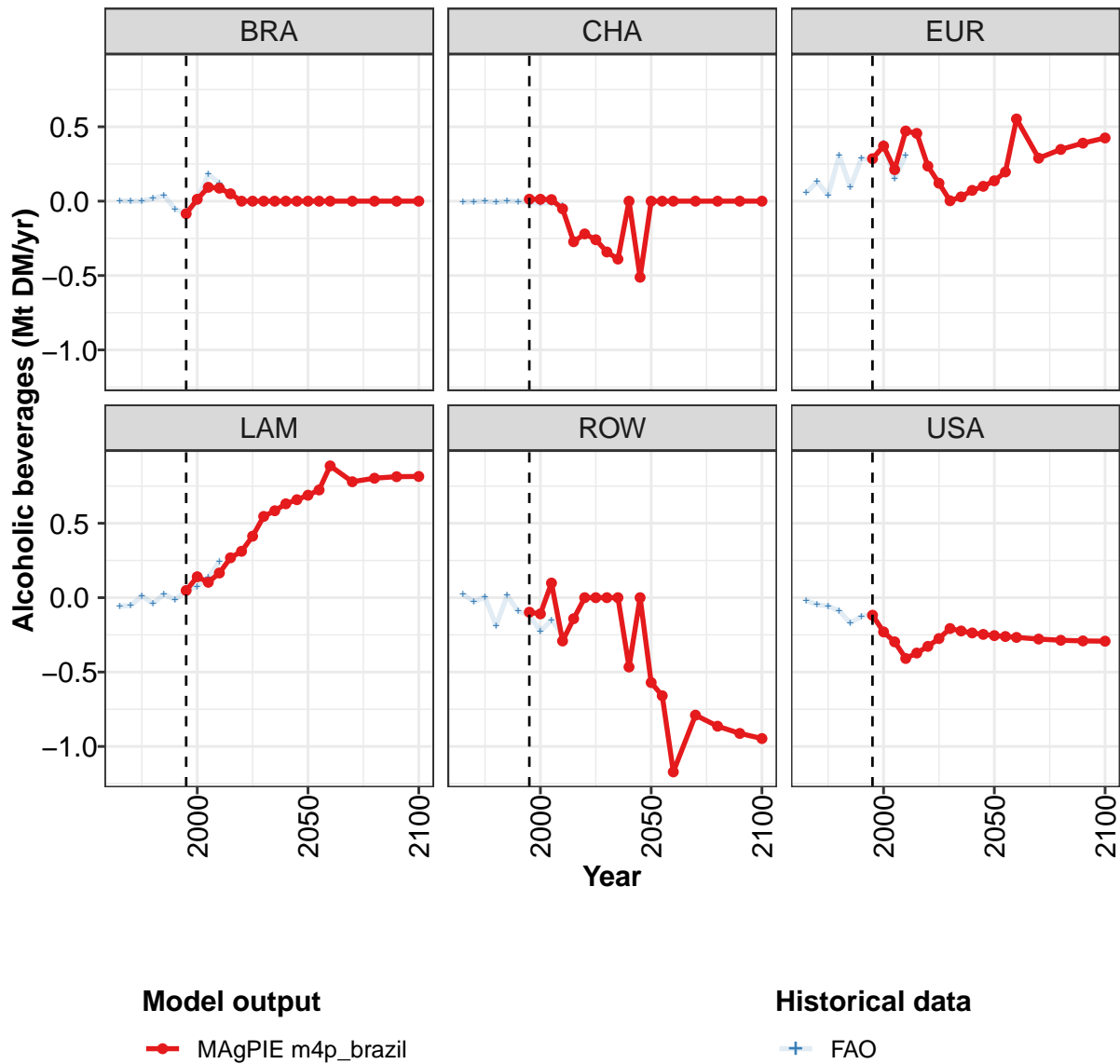


Figure 508: MAgPIE m4p_brazil — Trade—Net-Trade—Secondary products—Alcoholic beverages (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.047	0.198	0.220	-0.027	-0.013	0.000	-0.000	0.000	0.000	0.000	0.000
BRA	-0.084	0.013	0.093	0.087	0.050	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.013	0.013	0.010	-0.051	-0.273	-0.220	-0.259	-0.342	-0.389	0.000	-0.512
EUR	0.285	0.370	0.212	0.471	0.456	0.236	0.121	0.003	0.029	0.072	0.100
LAM	0.048	0.141	0.103	0.166	0.268	0.312	0.413	0.546	0.584	0.631	0.659
ROW	-0.098	-0.109	0.098	-0.291	-0.141	0.000	0.000	0.000	0.000	-0.466	0.000
USA	-0.118	-0.230	-0.297	-0.409	-0.372	-0.327	-0.275	-0.207	-0.224	-0.237	-0.247

Table 1923: MAgPIE m4p_brazil — Trade—Net-Trade—Secondary products—Alcoholic beverages (Mt DM/yr)
[PART 1/2]

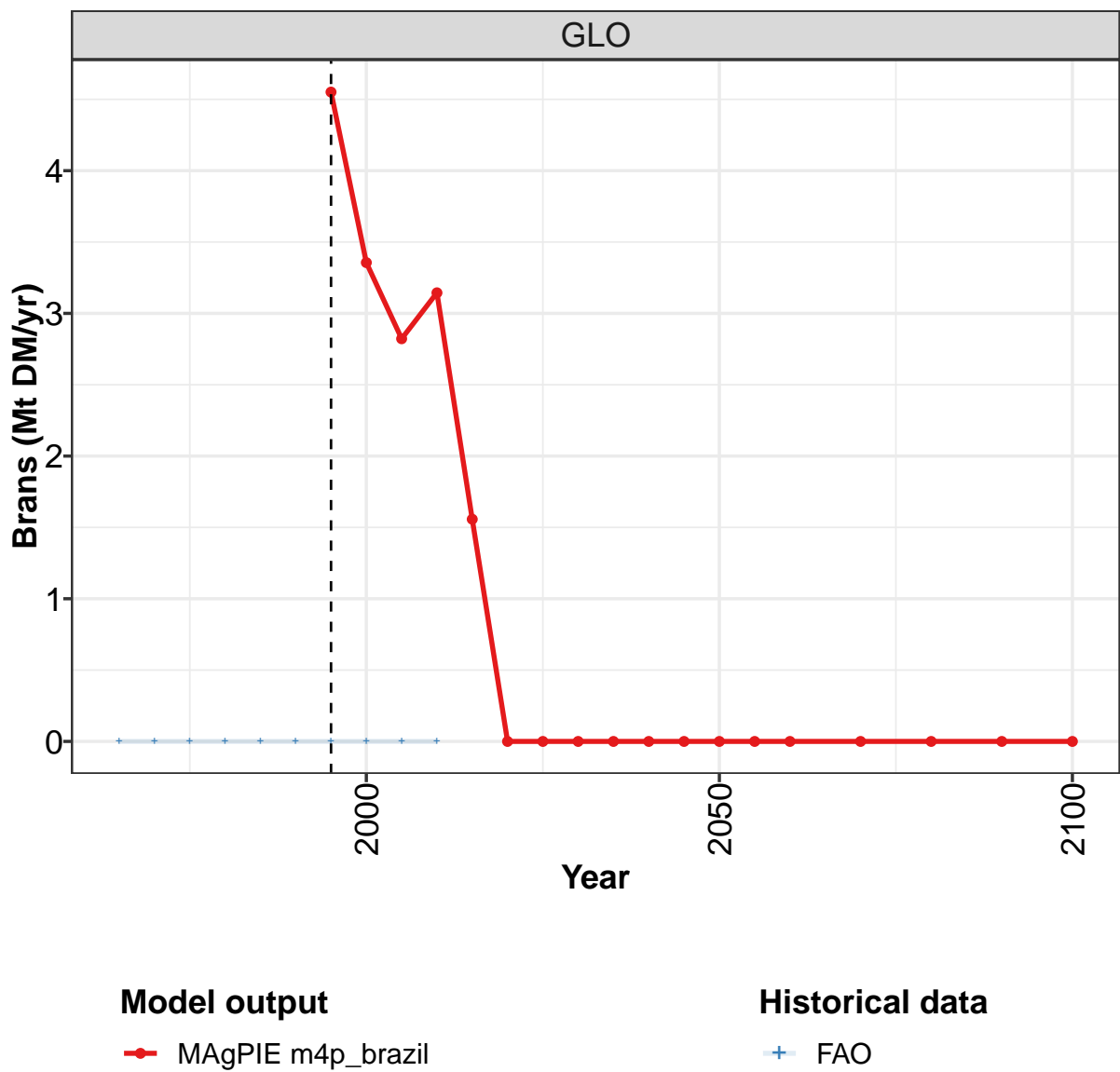
	2050	2055	2060	2070	2080	2090	2100
GLO	0.000	0.000	0.000	-0.000	-0.000	0.000	-0.000
BRA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CHA	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EUR	0.137	0.196	0.552	0.289	0.348	0.390	0.425
LAM	0.689	0.724	0.886	0.779	0.803	0.813	0.815
ROW	-0.571	-0.659	-1.171	-0.790	-0.864	-0.912	-0.947
USA	-0.255	-0.261	-0.267	-0.278	-0.286	-0.291	-0.293

Table 1924: MAgPIE m4p_brazil — 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
BRA	0.003	-0.001	-0.000	0.019	0.038	-0.053	-0.083	0.013	0.179	0.122
CHA	-0.006	-0.003	-0.001	-0.009	0.002	-0.003	-0.009	-0.013	-0.012	-0.029
EUR	0.055	0.131	0.041	0.308	0.092	0.288	0.273	0.388	0.151	0.309
LAM	-0.057	-0.053	0.013	-0.041	0.024	-0.013	0.047	0.075	0.138	0.242
ROW	0.024	-0.028	0.004	-0.189	0.015	-0.092	-0.116	-0.226	-0.151	-0.248
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



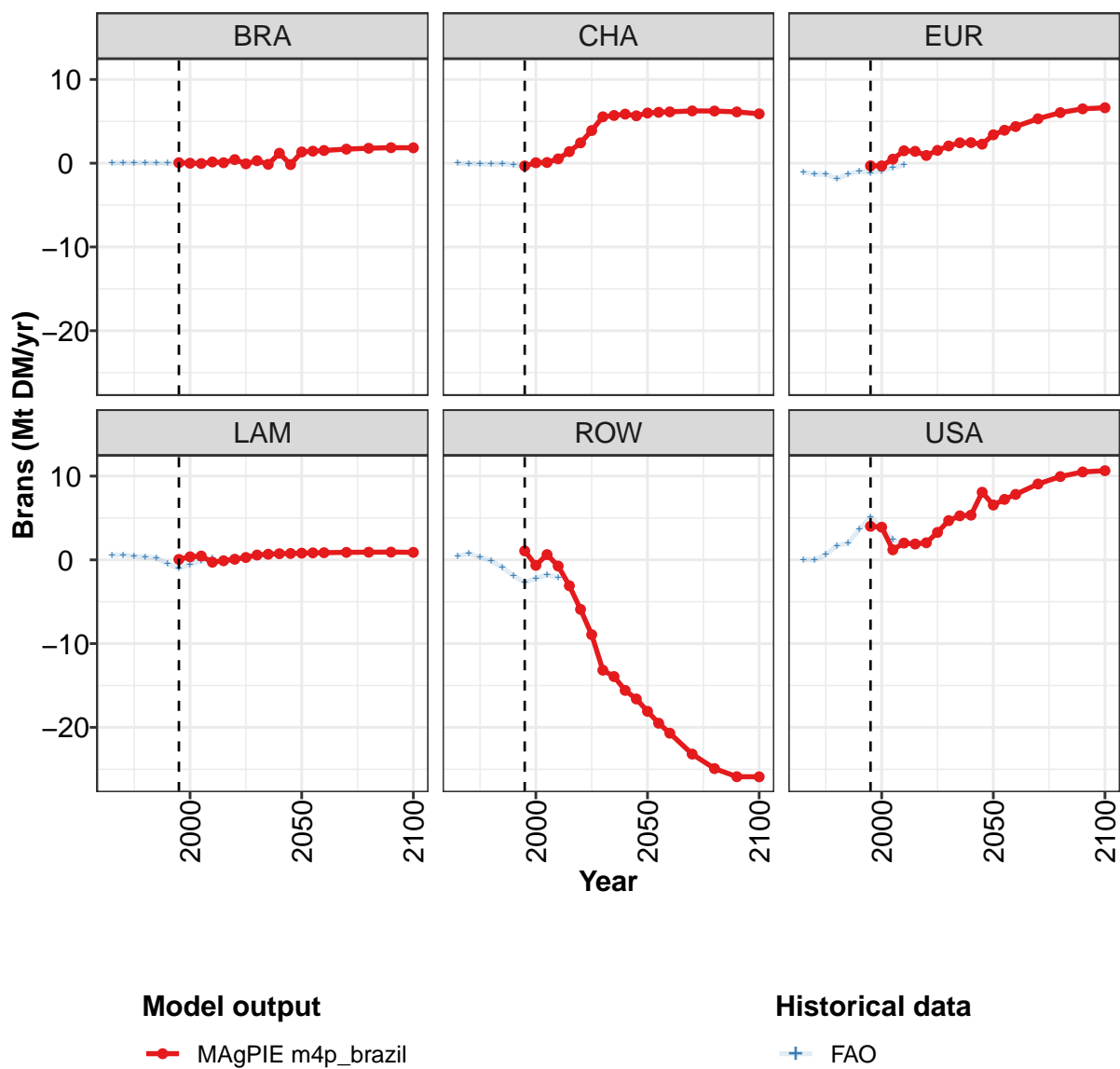


Figure 509: MAgPIE m4p_brazil — Trade—Net-Trade—Secondary products—Brans (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	4.6	3.4	2.8	3.1	1.6	-0.0	0.0	0.0	0.0	0.0	0.0
BRA	0.1	0.0	-0.0	0.1	0.1	0.4	-0.1	0.3	-0.1	1.2	-0.2
CHA	-0.3	0.1	0.1	0.5	1.4	2.4	3.9	5.5	5.7	5.9	5.7
EUR	-0.3	-0.3	0.5	1.5	1.4	0.9	1.5	2.1	2.4	2.5	2.3
LAM	0.1	0.4	0.5	-0.3	-0.1	0.1	0.3	0.6	0.7	0.7	0.8
ROW	1.1	-0.7	0.6	-0.7	-3.1	-5.9	-8.9	-13.2	-13.9	-15.6	-16.6
USA	4.0	3.9	1.2	2.0	1.9	2.0	3.3	4.7	5.3	5.3	8.1

Table 1926: MAgPIE m4p_brazil — Trade—Net-Trade—Secondary products—Brans (Mt DM/yr) [PART 1/2]

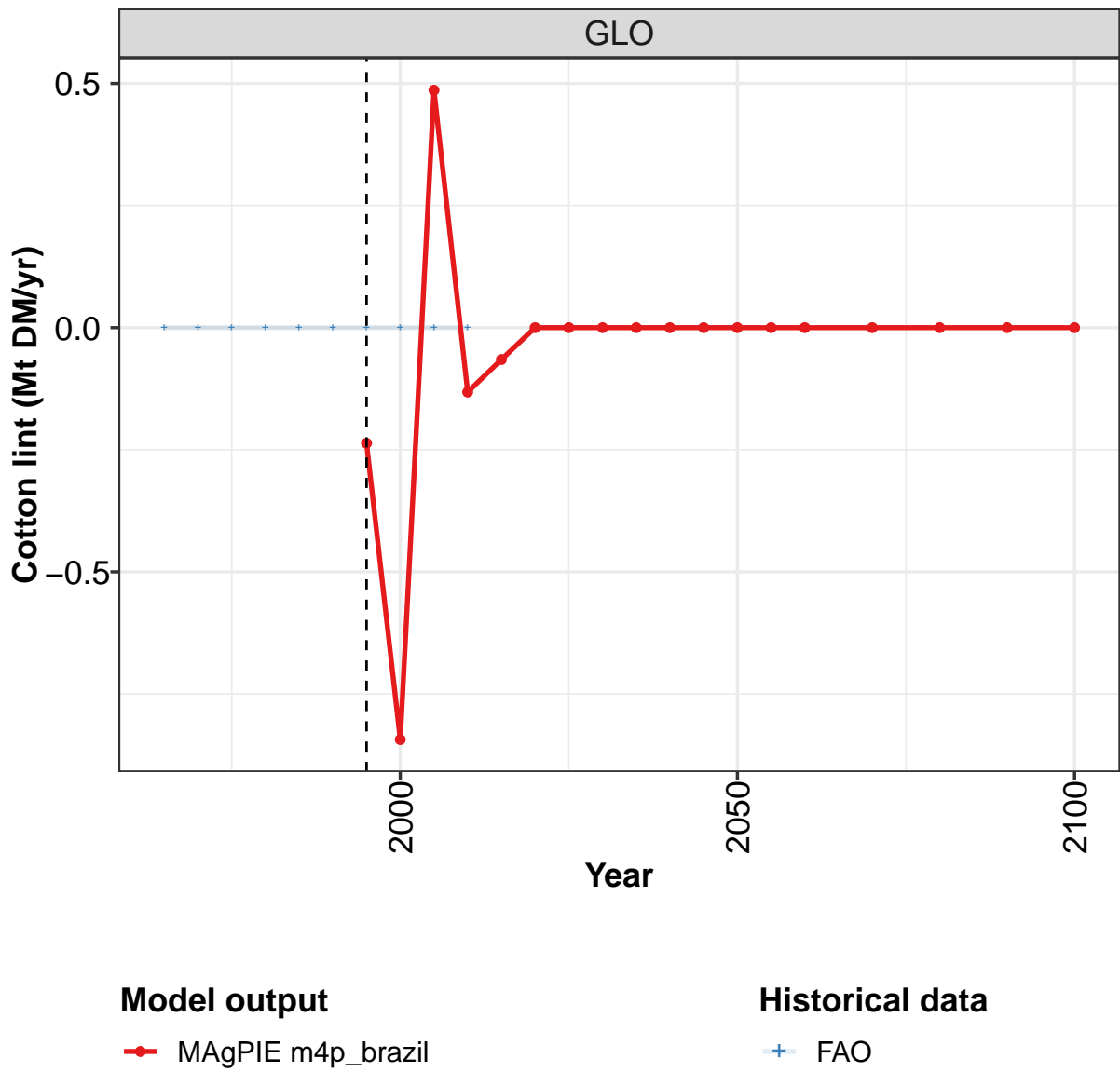
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	0.0	-0.0	-0.0	0.0	-0.0
BRA	1.3	1.4	1.5	1.7	1.8	1.9	1.8
CHA	6.0	6.1	6.1	6.2	6.2	6.1	5.9
EUR	3.4	3.9	4.4	5.3	6.0	6.5	6.6
LAM	0.8	0.8	0.9	0.9	0.9	0.9	0.9
ROW	-18.1	-19.5	-20.7	-23.2	-24.9	-25.9	-25.9
USA	6.5	7.2	7.8	9.1	9.9	10.5	10.6

Table 1927: MAgPIE m4p_brazil — 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
BRA	0.00	0.05	0.02	0.06	0.01	-0.01	0.04	-0.02	-0.05	0.11
CHA	-0.01	-0.06	-0.08	-0.11	-0.04	-0.24	-0.28	-0.12	0.00	0.34
EUR	-1.08	-1.30	-1.32	-1.87	-1.30	-0.97	-1.14	-0.92	-0.53	-0.23
LAM	0.57	0.59	0.45	0.36	0.24	-0.50	-0.99	-0.59	-0.11	0.18
ROW	0.48	0.74	0.32	-0.12	-0.93	-1.90	-2.70	-2.21	-1.78	-2.16
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



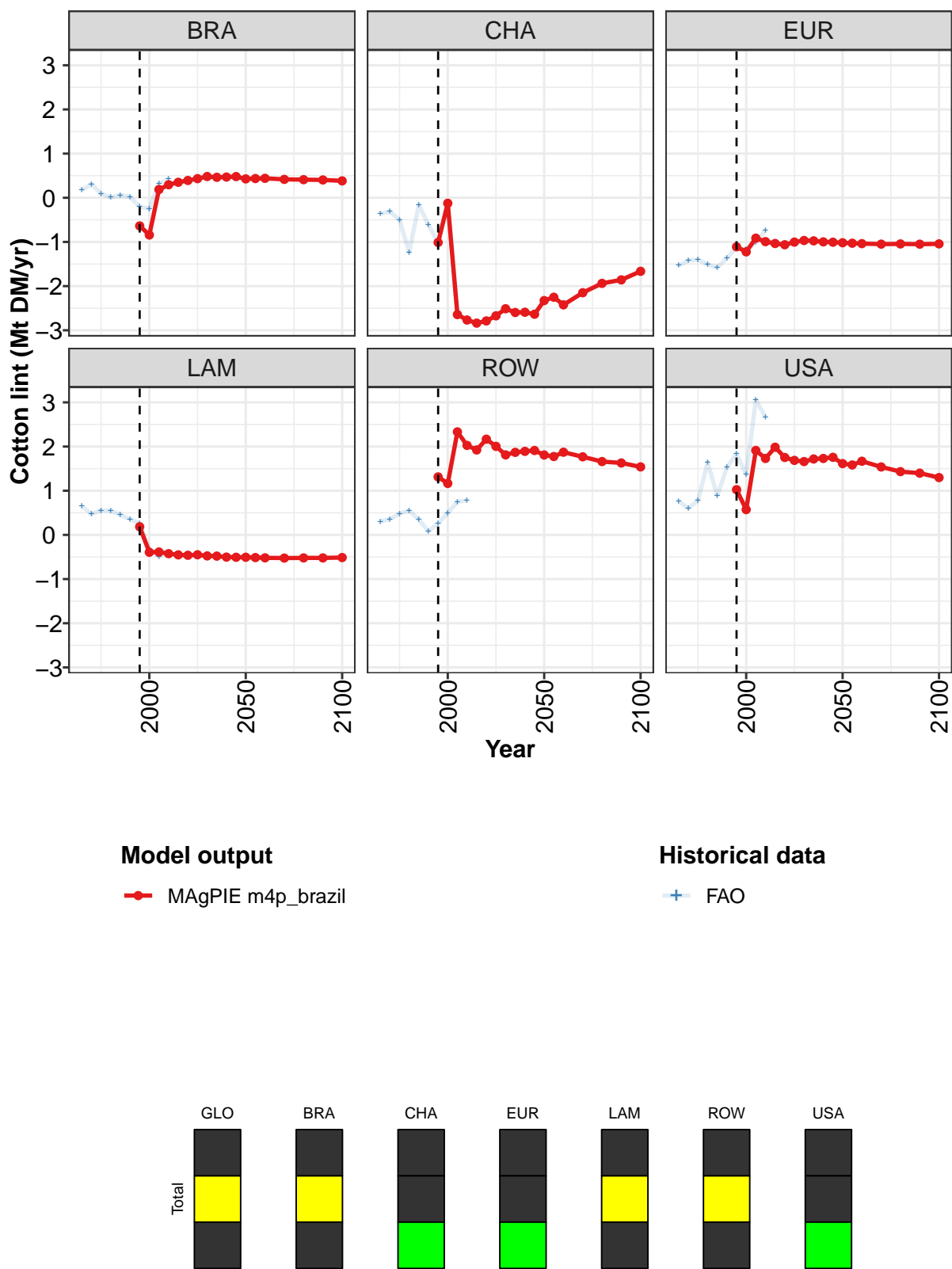


Figure 510: MAgPIE m4p_brazil — Trade—Net-Trade—Secondary products—Cotton lint (Mt DM/yr)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	-0.24	-0.84	0.49	-0.13	-0.07	0.00	-0.00	0.00	-0.00	0.00	-0.00
BRA	-0.64	-0.84	0.19	0.30	0.35	0.39	0.43	0.48	0.46	0.47	0.48
CHA	-1.01	-0.12	-2.64	-2.77	-2.84	-2.79	-2.67	-2.51	-2.60	-2.59	-2.64
EUR	-1.11	-1.22	-0.91	-0.99	-1.04	-1.06	-1.00	-0.97	-0.97	-1.00	-1.01
LAM	0.18	-0.39	-0.39	-0.42	-0.45	-0.46	-0.45	-0.48	-0.48	-0.50	-0.51
ROW	1.31	1.17	2.33	2.03	1.92	2.17	2.00	1.81	1.87	1.89	1.91
USA	1.02	0.57	1.91	1.73	1.98	1.75	1.69	1.66	1.72	1.73	1.76

Table 1929: MAgPIE m4p.brazil — Trade—Net-Trade—Secondary products—Cotton lint (Mt DM/yr) [PART 1/2]

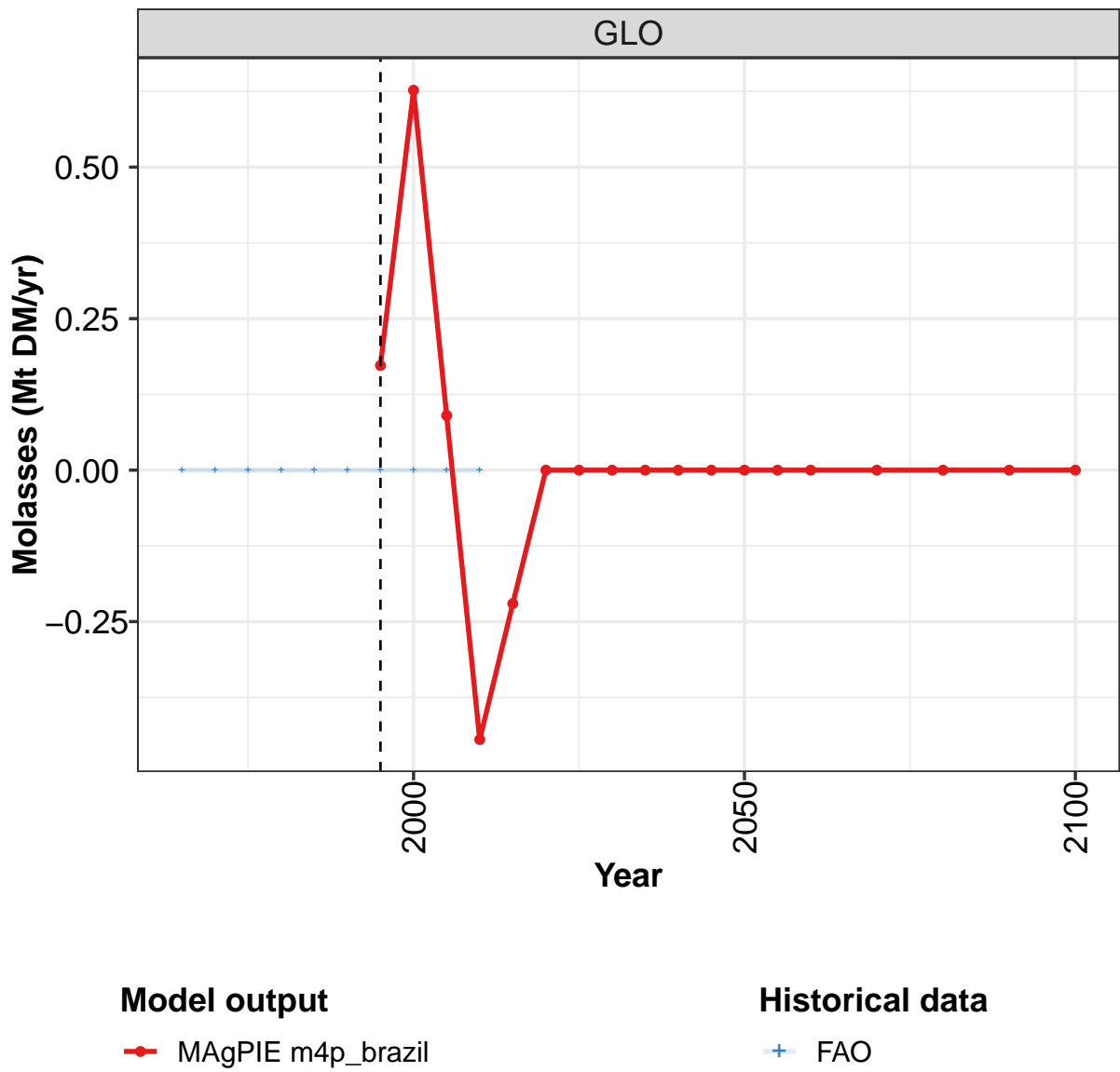
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	0.00	-0.00	-0.00	0.00	0.00	0.00
BRA	0.43	0.44	0.44	0.42	0.41	0.40	0.38
CHA	-2.33	-2.25	-2.42	-2.15	-1.94	-1.86	-1.66
EUR	-1.02	-1.03	-1.04	-1.05	-1.04	-1.05	-1.04
LAM	-0.51	-0.51	-0.52	-0.52	-0.52	-0.52	-0.51
ROW	1.81	1.77	1.87	1.77	1.66	1.63	1.54
USA	1.61	1.58	1.67	1.54	1.43	1.40	1.30

Table 1930: MAgPIE m4p.brazil — 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
BRA	0.18	0.31	0.10	0.01	0.06	0.02	-0.21	-0.24	0.32	0.43
CHA	-0.36	-0.32	-0.50	-1.23	-0.16	-0.62	-1.02	-0.12	-2.62	-2.76
EUR	-1.53	-1.42	-1.40	-1.51	-1.58	-1.37	-1.13	-1.16	-1.01	-0.73
LAM	0.65	0.47	0.55	0.55	0.45	0.36	0.25	-0.33	-0.49	-0.39
ROW	0.30	0.36	0.48	0.55	0.34	0.08	0.27	0.49	0.75	0.79
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



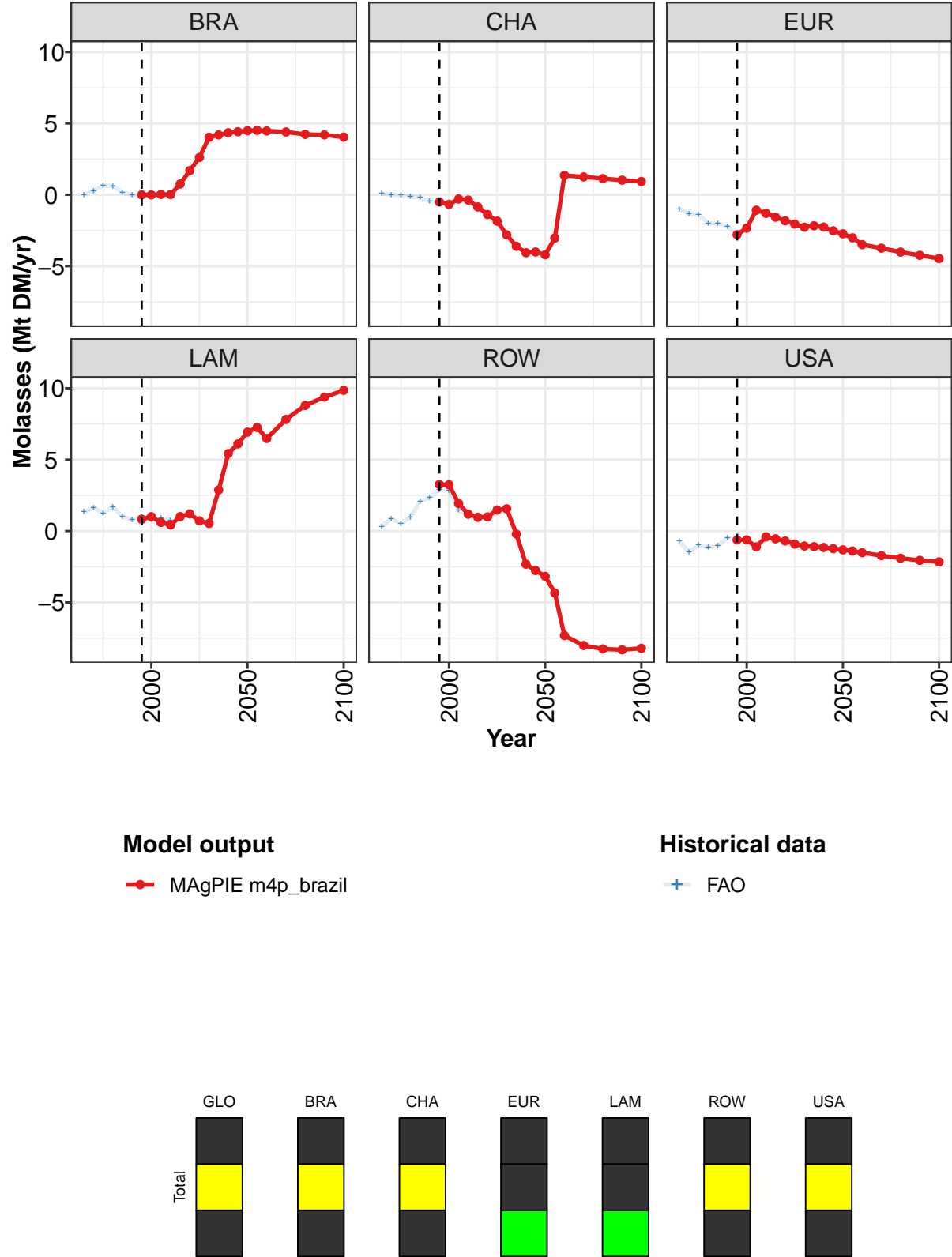


Figure 511: MAGPIE m4p_brazil — Trade—Net-Trade—Secondary products—Molasses (Mt DM/yr)

	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
BRA	0.00	0.00	0.03	0.02	0.76	1.70	2.62	4.03	4.20	4.35	4.42
CHA	-0.50	-0.67	-0.29	-0.37	-0.85	-1.38	-1.84	-2.81	-3.60	-4.05	-4.00
EUR	-2.79	-2.33	-1.08	-1.29	-1.57	-1.82	-2.05	-2.27	-2.17	-2.26	-2.52
LAM	0.83	1.01	0.60	0.42	1.01	1.20	0.71	0.54	2.87	5.43	6.10
ROW	3.27	3.25	1.93	1.18	0.96	0.99	1.47	1.56	-0.21	-2.32	-2.76
USA	-0.62	-0.62	-1.11	-0.41	-0.54	-0.70	-0.91	-1.05	-1.09	-1.15	-1.23

Table 1932: MAgPIE m4p_brazil — Trade—Net-Trade—Secondary products—Molasses (Mt DM/yr) [PART 1/2]

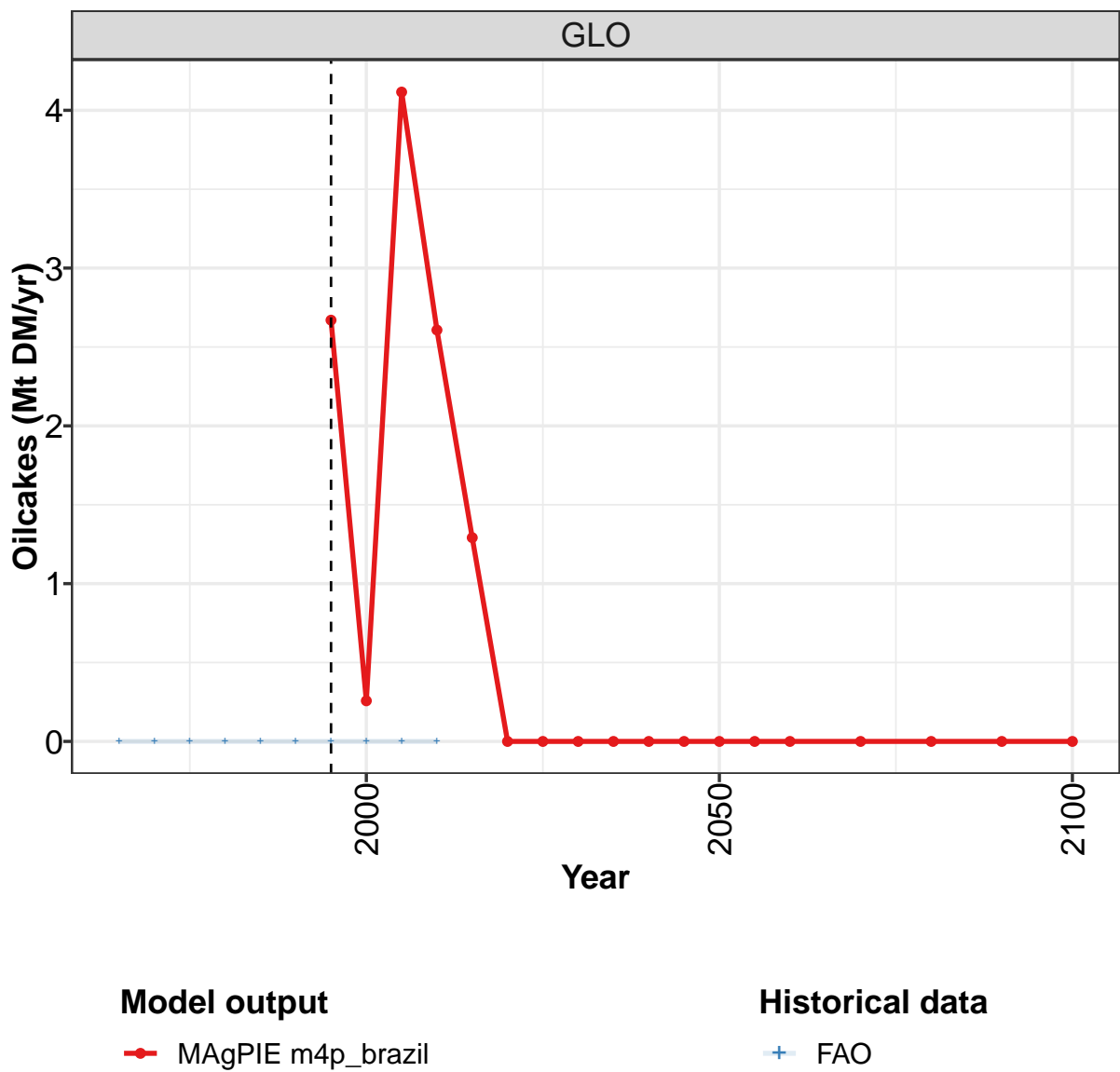
	2050	2055	2060	2070	2080	2090	2100
GLO	0.00	-0.00	0.00	0.00	-0.00	0.00	-0.00
BRA	4.49	4.52	4.48	4.40	4.23	4.20	4.04
CHA	-4.20	-3.03	1.36	1.25	1.14	1.03	0.93
EUR	-2.73	-3.01	-3.49	-3.74	-4.01	-4.24	-4.46
LAM	6.93	7.25	6.49	7.82	8.80	9.38	9.86
ROW	-3.17	-4.33	-7.32	-8.02	-8.26	-8.32	-8.22
USA	-1.32	-1.40	-1.51	-1.72	-1.90	-2.05	-2.16

Table 1933: MAgPIE m4p_brazil — 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
BRA	-0.00	0.27	0.64	0.62	0.15	-0.00	-0.00	-0.00	0.04	0.04
CHA	0.08	0.01	-0.03	-0.13	-0.19	-0.44	-0.51	-0.69	-0.30	-0.37
EUR	-0.99	-1.33	-1.38	-2.01	-2.02	-2.21	-2.75	-2.33	-0.97	-1.18
LAM	1.33	1.64	1.25	1.69	1.01	0.78	0.99	0.77	0.89	0.76
ROW	0.30	0.86	0.52	0.97	2.09	2.35	2.91	2.87	1.45	1.17
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



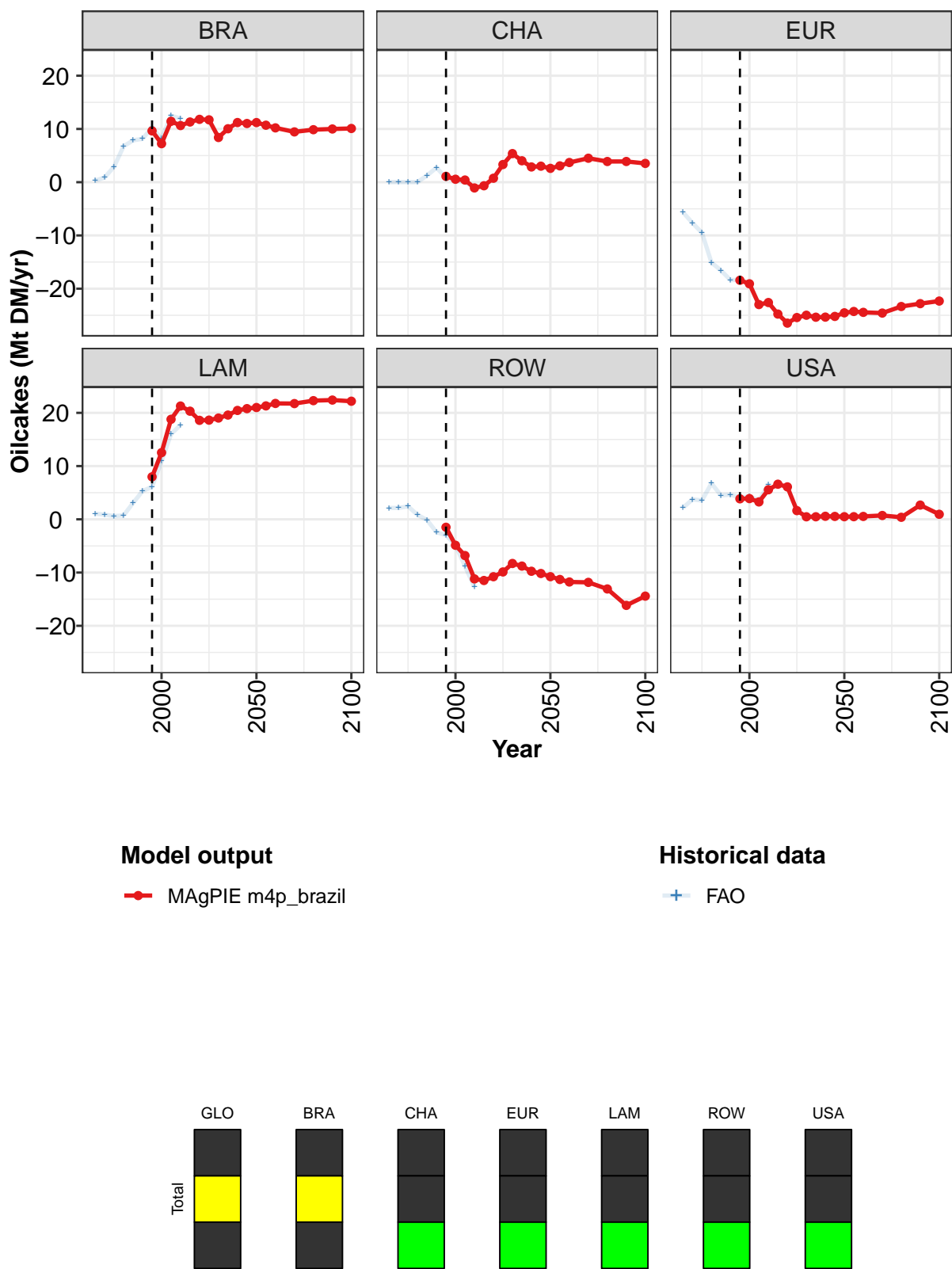


Figure 512: MAgPIE m4p_brazil — Trade—Net-Trade—Secondary products—Oilcakes (Mt DM/yr)

	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
BRA	9.6	7.2	11.4	10.6	11.3	11.8	11.7	8.4	10.0	11.2	11.0
CHA	1.1	0.6	0.4	-1.1	-0.7	0.7	3.3	5.4	4.0	2.9	3.0
EUR	-18.4	-19.1	-23.0	-22.6	-24.8	-26.5	-25.4	-25.0	-25.4	-25.3	-25.2
LAM	8.0	12.5	18.8	21.3	20.3	18.6	18.6	19.0	19.6	20.5	20.8
ROW	-1.5	-4.9	-6.8	-11.2	-11.5	-10.8	-9.9	-8.3	-8.8	-9.8	-10.2
USA	3.9	3.9	3.3	5.6	6.6	6.1	1.6	0.5	0.5	0.6	0.5

Table 1935: MAgPIE m4p_brazil — Trade—Net-Trade—Secondary products—Oilcakes (Mt DM/yr) [PART 1/2]

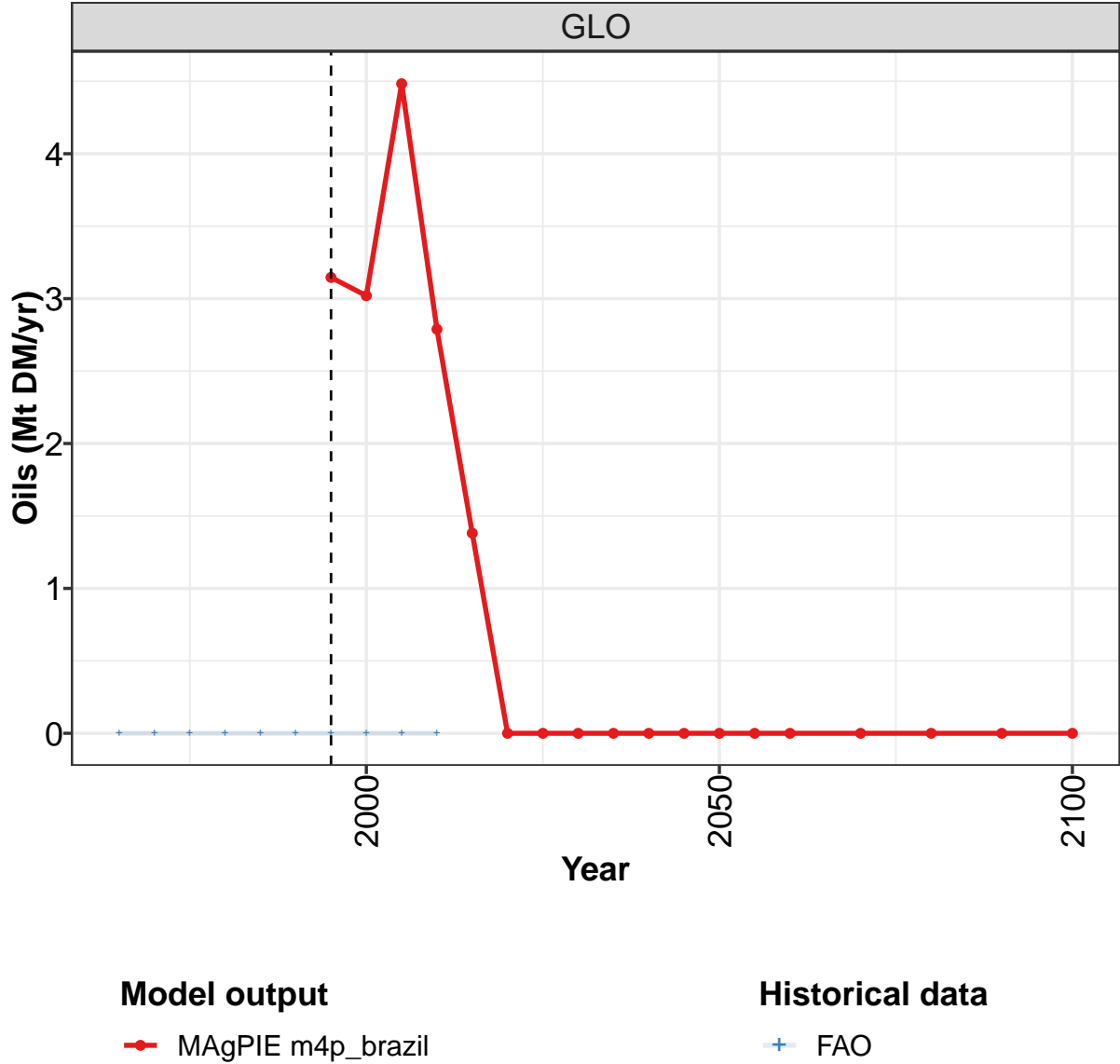
	2050	2055	2060	2070	2080	2090	2100
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BRA	11.2	10.7	10.2	9.5	9.9	10.0	10.1
CHA	2.6	3.1	3.7	4.5	3.9	3.9	3.5
EUR	-24.5	-24.3	-24.4	-24.6	-23.3	-22.8	-22.3
LAM	21.0	21.3	21.8	21.7	22.3	22.4	22.2
ROW	-10.8	-11.3	-11.8	-11.8	-13.1	-16.2	-14.4
USA	0.5	0.5	0.5	0.7	0.4	2.7	0.9

Table 1936: MAgPIE m4p_brazil — 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
BRA	0.3	0.9	2.9	6.7	7.9	8.1	10.3	8.1	12.5	12.0
CHA	0.0	0.0	0.0	0.0	1.3	2.7	0.8	0.3	-0.0	-1.0
EUR	-5.7	-7.7	-9.5	-15.1	-16.6	-18.4	-18.3	-18.9	-23.2	-22.5
LAM	1.1	0.9	0.6	0.7	3.1	5.3	6.1	10.9	16.0	17.7
ROW	2.1	2.1	2.4	0.8	-0.1	-2.4	-3.0	-4.8	-8.8	-12.7
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



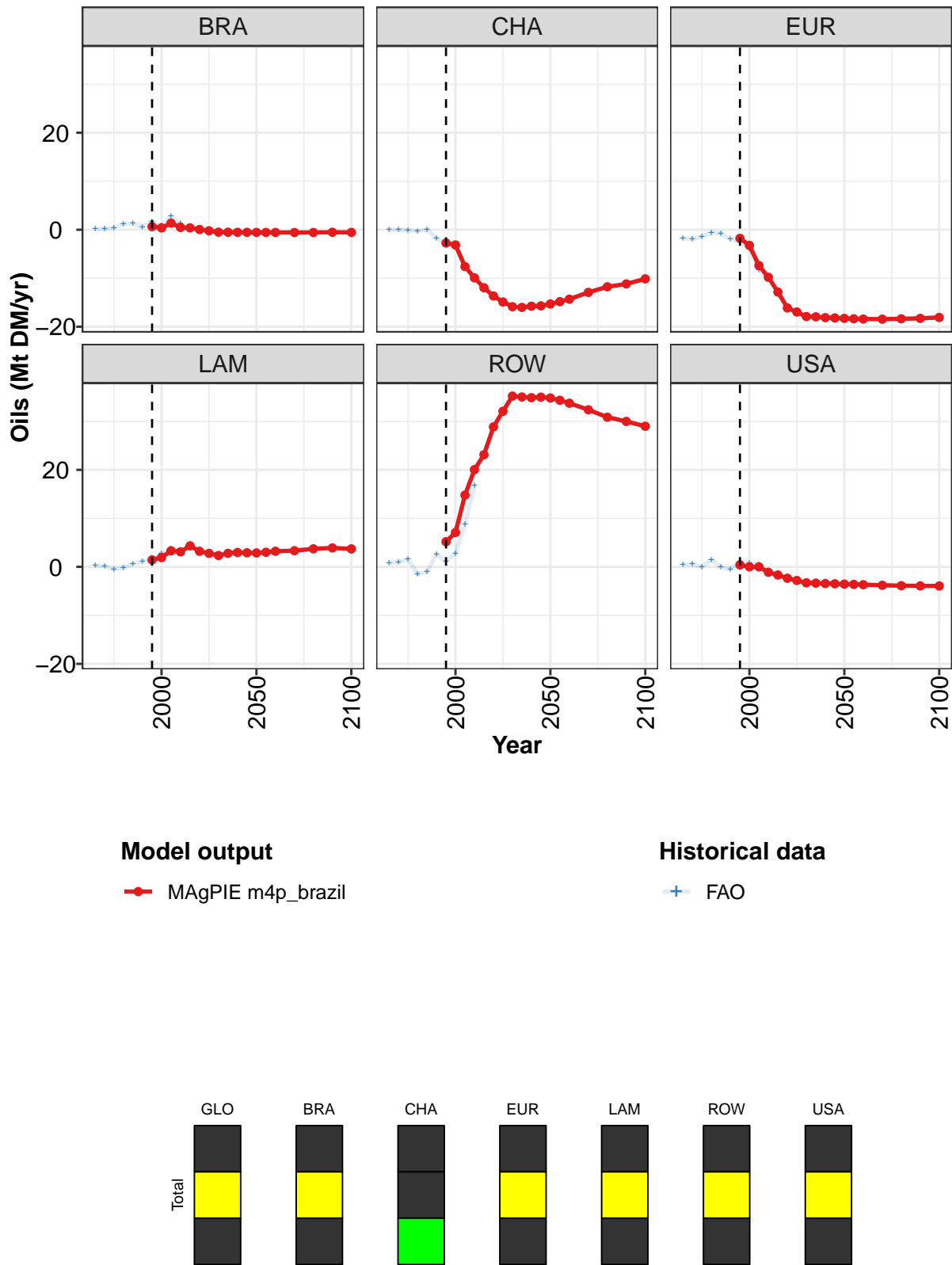


Figure 513: MAGPIE m4p_brazil — Trade—Net-Trade—Secondary products—Oils (Mt DM/yr)

	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
BRA	0.6	0.4	1.4	0.5	0.4	0.1	-0.2	-0.5	-0.5	-0.5	-0.5
CHA	-2.7	-3.1	-7.6	-9.9	-12.0	-13.7	-14.9	-15.9	-16.0	-15.8	-15.7
EUR	-1.8	-3.2	-7.4	-9.8	-12.8	-16.1	-17.0	-17.9	-17.9	-18.1	-18.2
LAM	1.4	1.9	3.3	3.1	4.3	3.2	2.8	2.3	2.8	3.0	2.9
ROW	5.2	7.1	14.8	20.0	23.1	28.9	32.1	35.2	35.0	34.9	35.0
USA	0.4	0.0	-0.0	-1.1	-1.7	-2.3	-2.8	-3.3	-3.4	-3.4	-3.5

Table 1938: MAgPIE m4p_brazil — Trade—Net-Trade—Secondary products—Oils (Mt DM/yr) [PART 1/2]

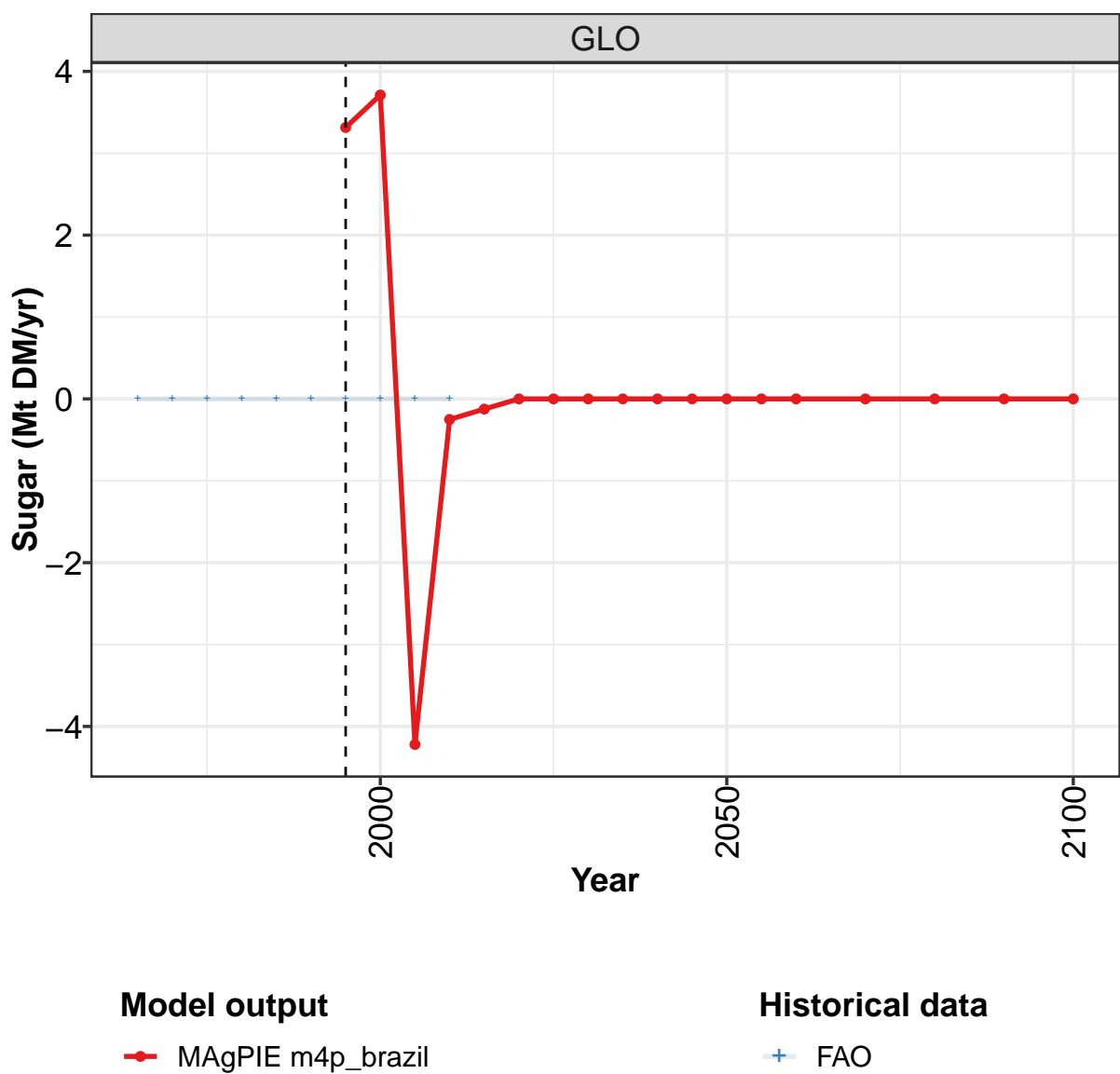
	2050	2055	2060	2070	2080	2090	2100
GLO	-0.0	0.0	0.0	-0.0	0.0	0.0	-0.0
BRA	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	-0.5
CHA	-15.3	-14.8	-14.3	-12.9	-11.8	-11.2	-10.1
EUR	-18.3	-18.4	-18.4	-18.4	-18.4	-18.3	-18.1
LAM	2.9	3.0	3.2	3.3	3.7	3.9	3.7
ROW	34.8	34.3	33.7	32.4	30.8	30.0	29.0
USA	-3.6	-3.6	-3.7	-3.8	-3.9	-3.9	-3.9

Table 1939: MAgPIE m4p_brazil — 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
BRA	0.2	0.2	0.4	1.2	1.3	0.5	1.7	0.8	2.8	1.3
CHA	0.0	-0.0	-0.1	-0.3	0.0	-1.8	-2.8	-3.2	-7.6	-9.9
EUR	-1.7	-2.0	-1.4	-0.7	-0.8	-1.9	-2.4	-3.8	-8.2	-10.3
LAM	0.3	0.2	-0.5	-0.2	0.6	1.1	1.2	2.7	3.7	3.4
ROW	0.8	1.0	1.6	-1.5	-1.0	2.6	1.1	2.8	8.8	16.7
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



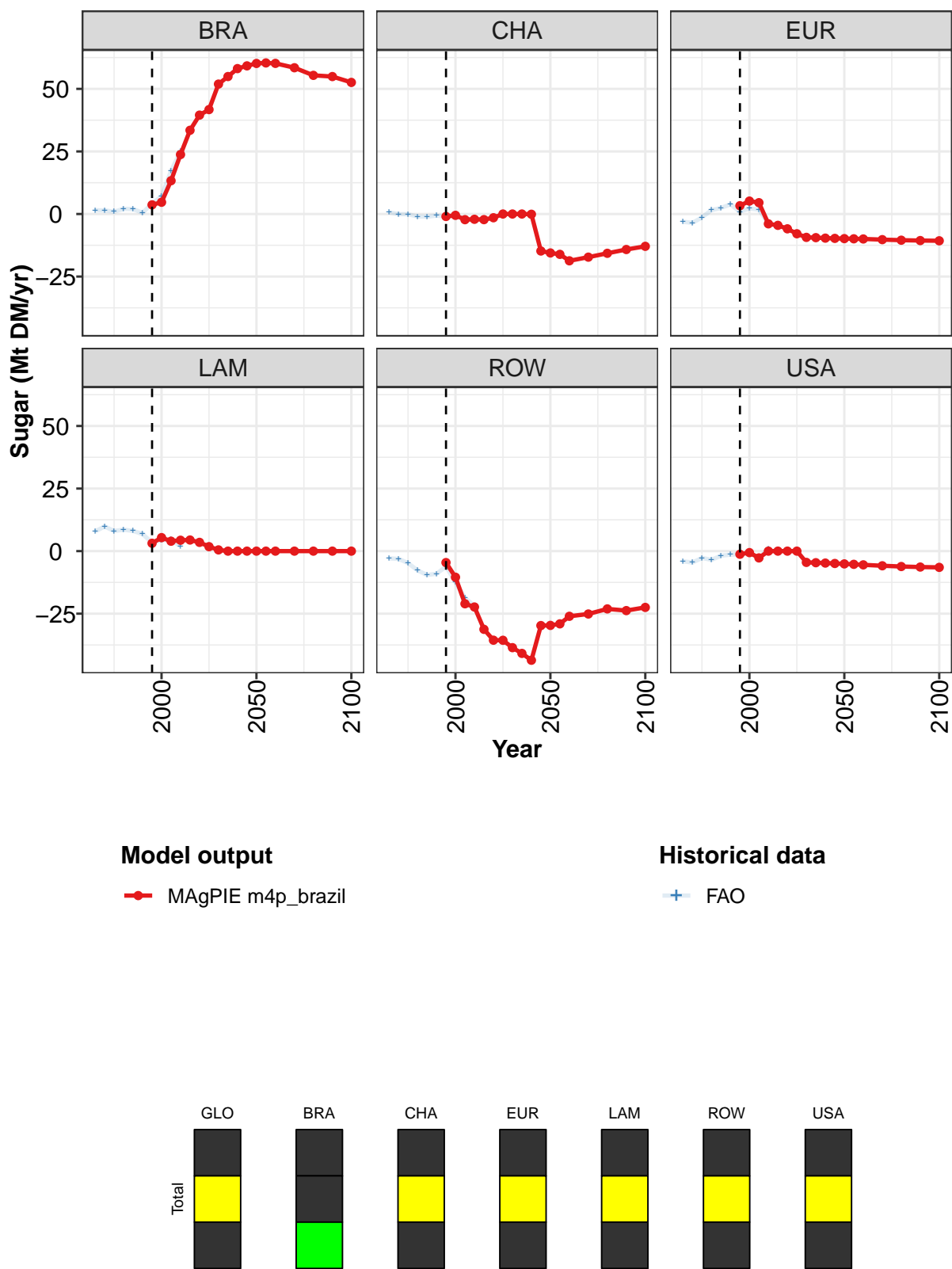


Figure 514: MAGPIE m4p_brazil — Trade—Net-Trade—Secondary products—Sugar (Mt DM/yr)

	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
BRA	3.7	4.7	13.3	23.8	33.5	39.5	41.7	51.9	54.9	58.1	59.2
CHA	-1.0	-0.5	-2.3	-2.1	-2.2	-1.5	0.0	0.0	0.0	-0.1	-14.8
EUR	3.3	5.2	4.5	-3.9	-4.5	-5.9	-7.9	-9.3	-9.4	-9.6	-9.7
LAM	3.1	5.4	4.0	4.4	4.4	3.5	1.8	0.5	-0.0	0.0	0.0
ROW	-4.6	-10.4	-21.0	-22.3	-31.2	-35.6	-35.6	-38.6	-40.9	-43.6	-29.7
USA	-1.2	-0.6	-2.7	0.0	0.0	0.0	0.0	-4.5	-4.6	-4.8	-4.9

Table 1941: MAgPIE m4p_brazil — 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
BRA	60.2	60.4	60.2	58.4	55.4	54.9	52.6
CHA	-15.6	-16.1	-18.7	-17.2	-15.7	-14.2	-12.9
EUR	-9.8	-9.9	-10.0	-10.2	-10.5	-10.6	-10.7
LAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROW	-29.7	-29.1	-26.0	-25.1	-23.1	-23.8	-22.5
USA	-5.1	-5.3	-5.5	-5.8	-6.2	-6.4	-6.5

Table 1942: MAgPIE m4p_brazil — Trade—Net-Trade—Secondary products—Sugar (Mt DM/yr) [PART 2/2]

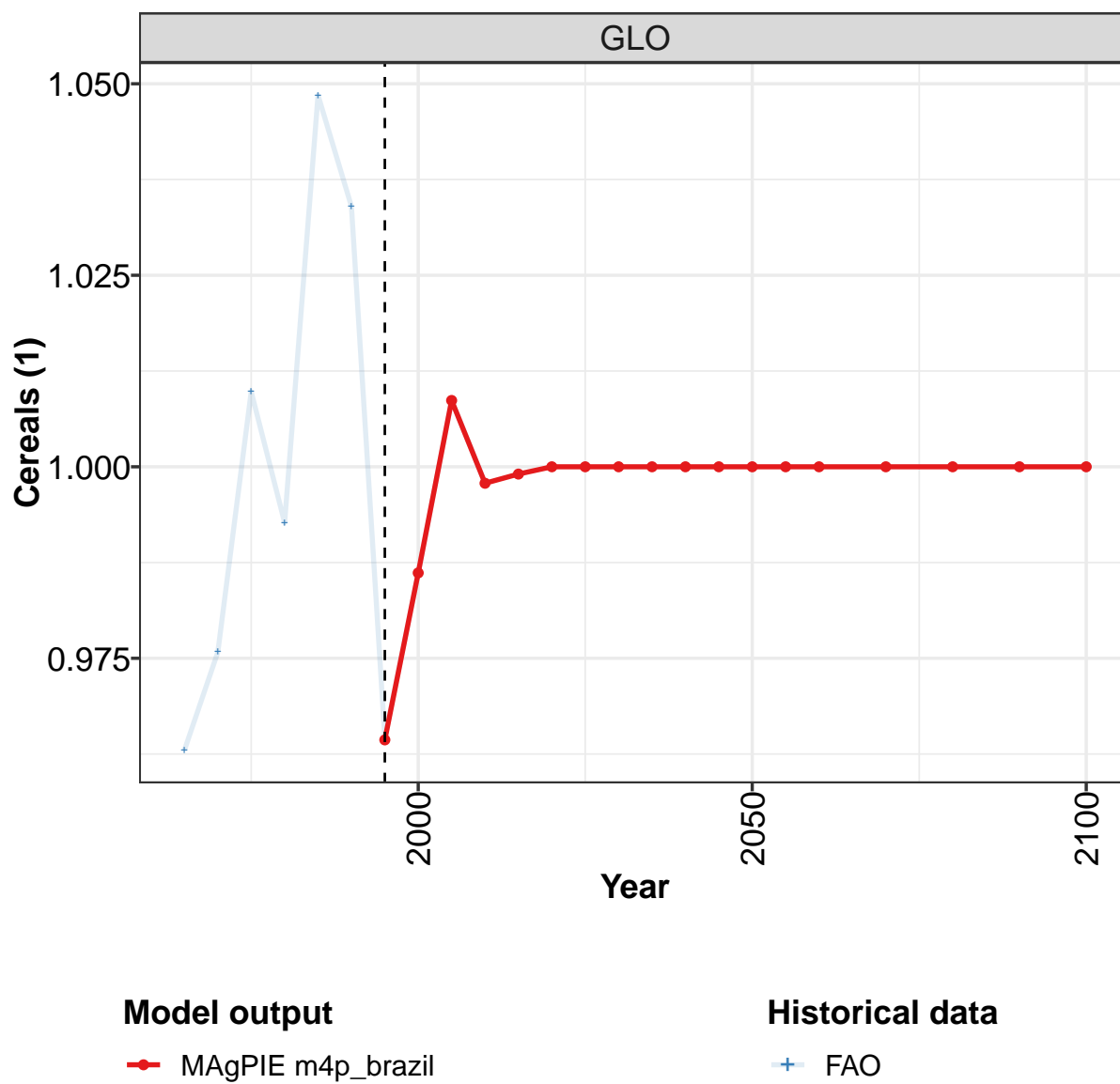
	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
GLO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BRA	1.5	1.4	0.9	2.1	2.0	0.5	4.2	7.0	17.2	25.1
CHA	0.7	-0.1	-0.1	-1.0	-1.1	-0.6	-1.0	-0.6	-2.2	-2.1
EUR	-3.1	-3.5	-1.4	1.5	2.4	3.8	0.9	2.2	1.8	-4.0
LAM	7.9	9.8	8.0	8.6	8.1	6.8	3.4	4.3	4.6	1.9
ROW	-2.9	-3.1	-4.8	-7.7	-9.5	-9.1	-6.2	-12.5	-18.7	-21.9
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



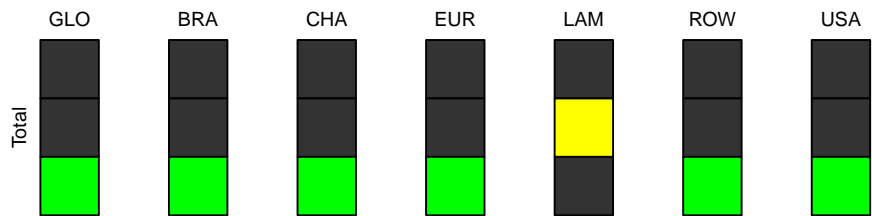
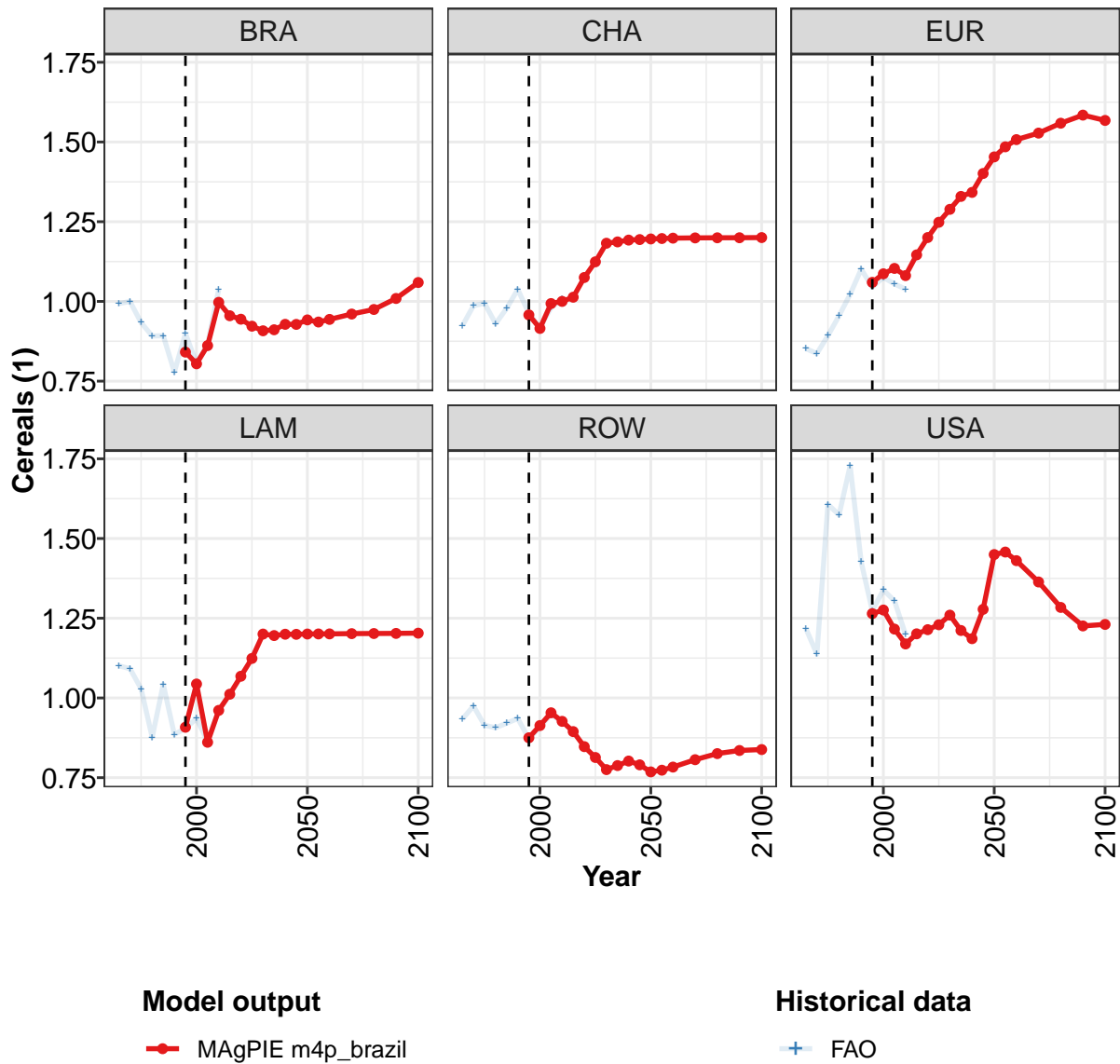


Figure 515: MAGPIE m4p_brazil — Trade—Self-sufficiency—Crops—Cereals (1)

	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
BRA	0.84	0.80	0.86	1.00	0.96	0.94	0.92	0.91	0.91	0.93	0.93
CHA	0.96	0.92	0.99	1.00	1.01	1.08	1.12	1.18	1.19	1.19	1.19
EUR	1.06	1.09	1.10	1.08	1.15	1.20	1.25	1.29	1.33	1.34	1.40
LAM	0.91	1.04	0.86	0.96	1.01	1.07	1.12	1.20	1.20	1.20	1.20
ROW	0.88	0.91	0.95	0.93	0.89	0.85	0.81	0.78	0.79	0.80	0.79
USA	1.26	1.28	1.22	1.17	1.20	1.21	1.23	1.26	1.21	1.19	1.28

Table 1944: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Cereals (1) [PART 1/2]

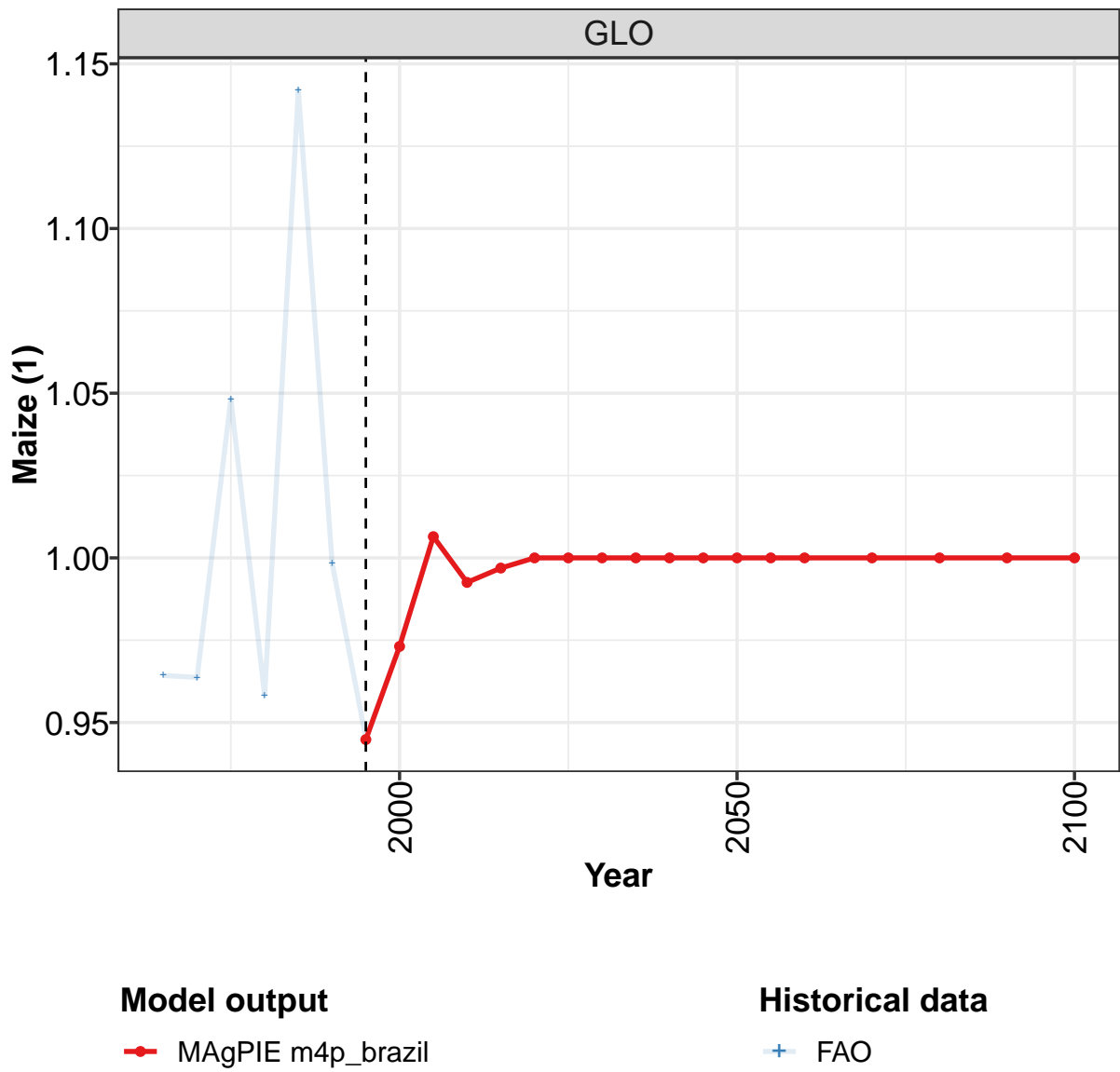
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	0.94	0.94	0.94	0.96	0.97	1.01	1.06
CHA	1.20	1.20	1.20	1.20	1.20	1.20	1.20
EUR	1.45	1.48	1.51	1.53	1.56	1.58	1.57
LAM	1.20	1.20	1.20	1.20	1.20	1.20	1.20
ROW	0.77	0.77	0.78	0.81	0.83	0.84	0.84
USA	1.45	1.46	1.43	1.36	1.28	1.23	1.23

Table 1945: MAgPIE m4p_brazil — 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
BRA	0.99	1.00	0.93	0.89	0.89	0.78	0.90	0.81	0.87	1.04
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	0.89	0.96	1.02	1.10	1.05	1.08	1.05	1.04
LAM	1.10	1.09	1.03	0.88	1.04	0.89	0.90	0.94	0.86	0.96
ROW	0.93	0.97	0.91	0.91	0.92	0.94	0.87	0.91	0.95	0.92
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



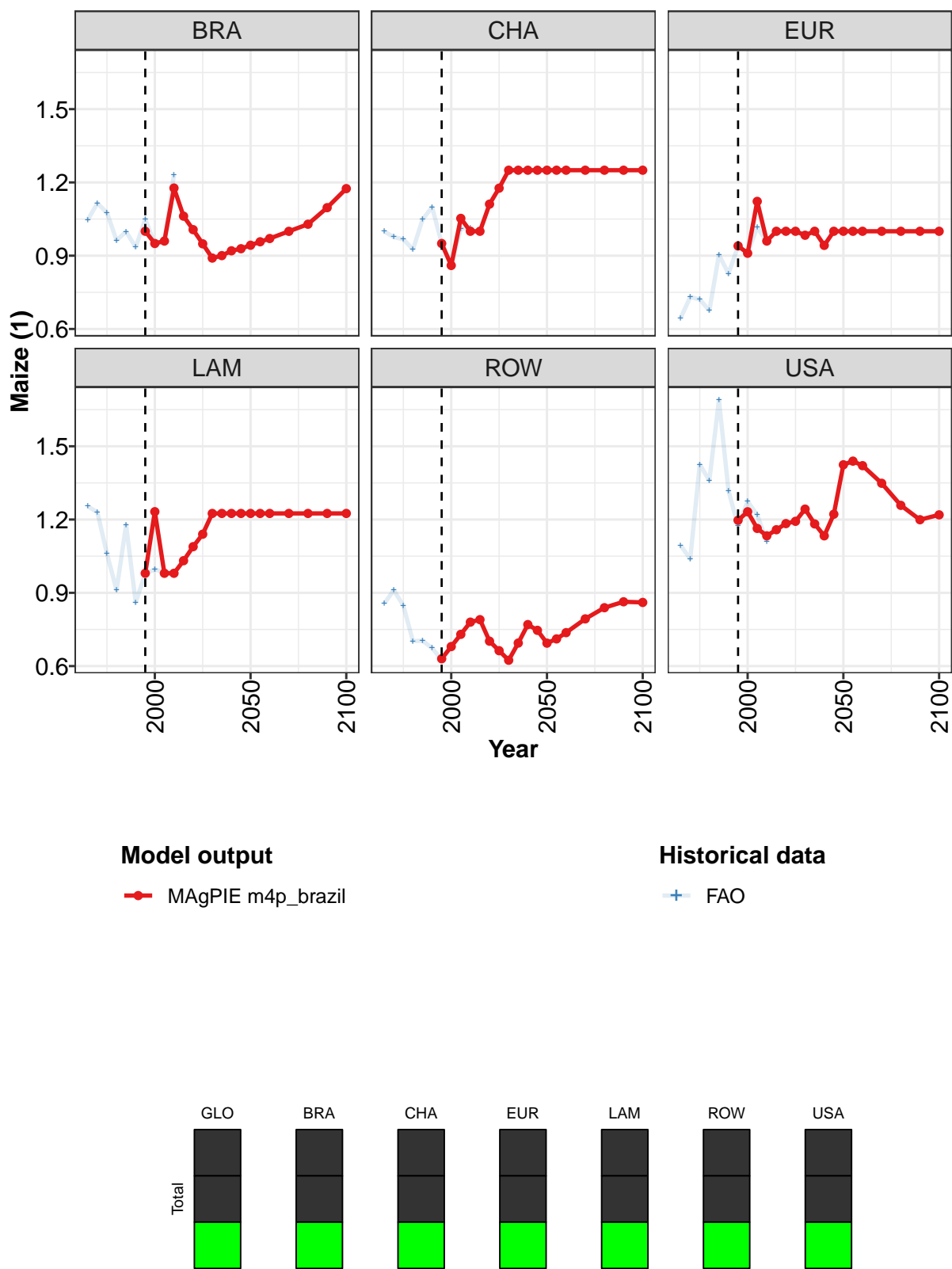


Figure 516: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Cereals—Maize (1)

	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
BRA	1.00	0.95	0.96	1.18	1.06	1.01	0.95	0.89	0.90	0.92	0.93
CHA	0.95	0.86	1.05	1.00	1.00	1.11	1.18	1.25	1.25	1.25	1.25
EUR	0.94	0.91	1.12	0.96	1.00	1.00	1.00	0.98	1.00	0.94	1.00
LAM	0.98	1.23	0.98	0.98	1.03	1.09	1.14	1.23	1.22	1.23	1.23
ROW	0.63	0.68	0.73	0.78	0.79	0.70	0.66	0.62	0.69	0.77	0.75
USA	1.20	1.23	1.16	1.13	1.16	1.18	1.19	1.24	1.18	1.13	1.22

Table 1947: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Cereals—Maize (1) [PART 1/2]

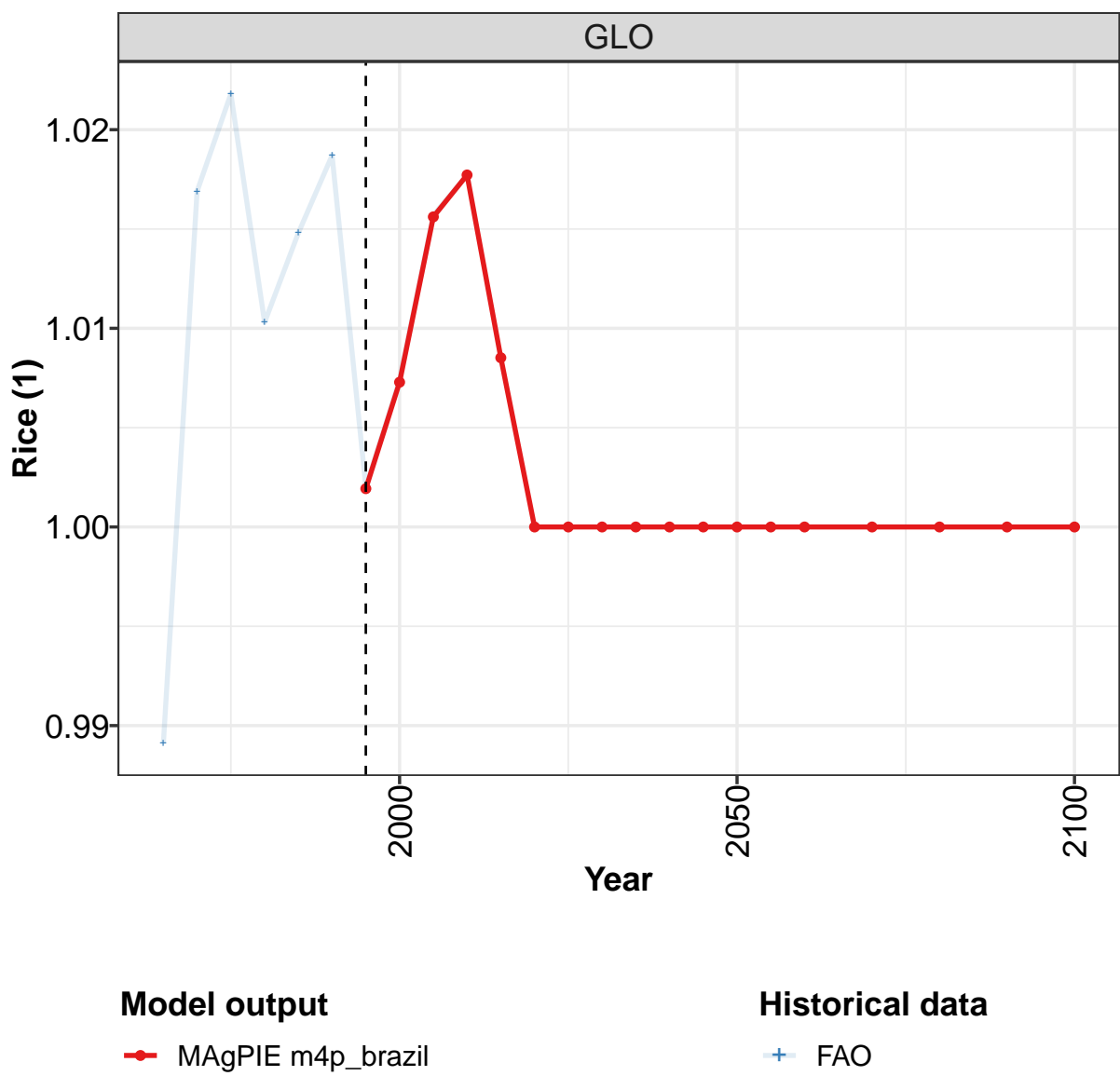
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	0.94	0.96	0.97	1.00	1.03	1.10	1.17
CHA	1.25	1.25	1.25	1.25	1.25	1.25	1.25
EUR	1.00	1.00	1.00	1.00	1.00	1.00	1.00
LAM	1.23	1.22	1.23	1.22	1.23	1.23	1.23
ROW	0.69	0.71	0.74	0.79	0.84	0.86	0.86
USA	1.42	1.44	1.42	1.35	1.26	1.20	1.22

Table 1948: MAgPIE m4p_brazil — 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
BRA	1.05	1.11	1.08	0.96	1.00	0.93	1.05	0.95	0.96	1.23
CHA	1.00	0.98	0.97	0.93	1.05	1.10	0.95	0.86	1.01	1.01
EUR	0.64	0.73	0.72	0.68	0.90	0.83	0.94	0.91	1.02	0.96
LAM	1.25	1.23	1.06	0.91	1.18	0.86	0.98	1.00	0.98	0.98
ROW	0.86	0.91	0.85	0.70	0.70	0.67	0.63	0.68	0.73	0.78
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



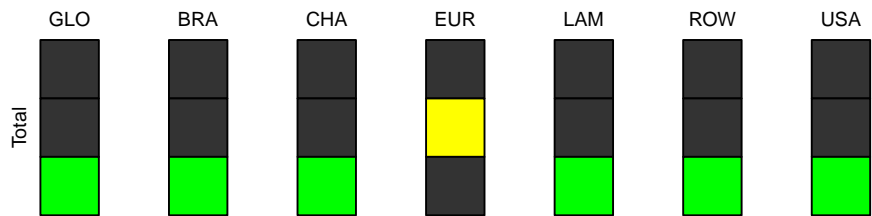
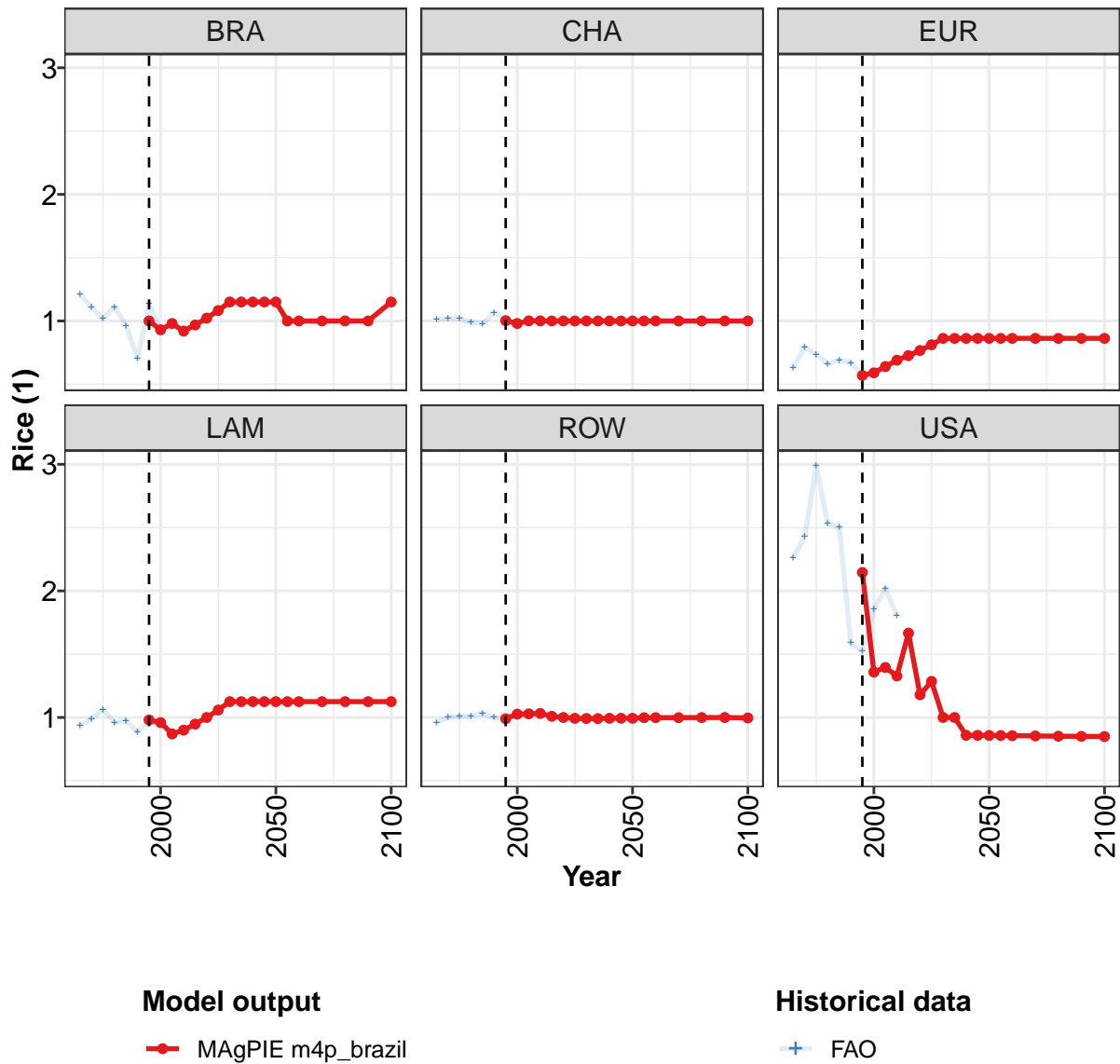


Figure 517: MAGPIE m4p_brazil — Trade—Self-sufficiency—Crops—Cereals—Rice (1)

	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
BRA	1.00	0.93	0.98	0.92	0.97	1.02	1.08	1.15	1.15	1.15	1.15
CHA	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
EUR	0.57	0.59	0.64	0.69	0.73	0.77	0.81	0.86	0.86	0.86	0.86
LAM	0.98	0.96	0.87	0.90	0.95	1.00	1.06	1.12	1.12	1.12	1.13
ROW	0.99	1.03	1.03	1.03	1.01	1.00	0.99	0.99	0.99	0.99	0.99
USA	2.15	1.36	1.40	1.33	1.67	1.18	1.29	1.00	1.00	0.86	0.86

Table 1950: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Cereals—Rice (1) [PART 1/2]

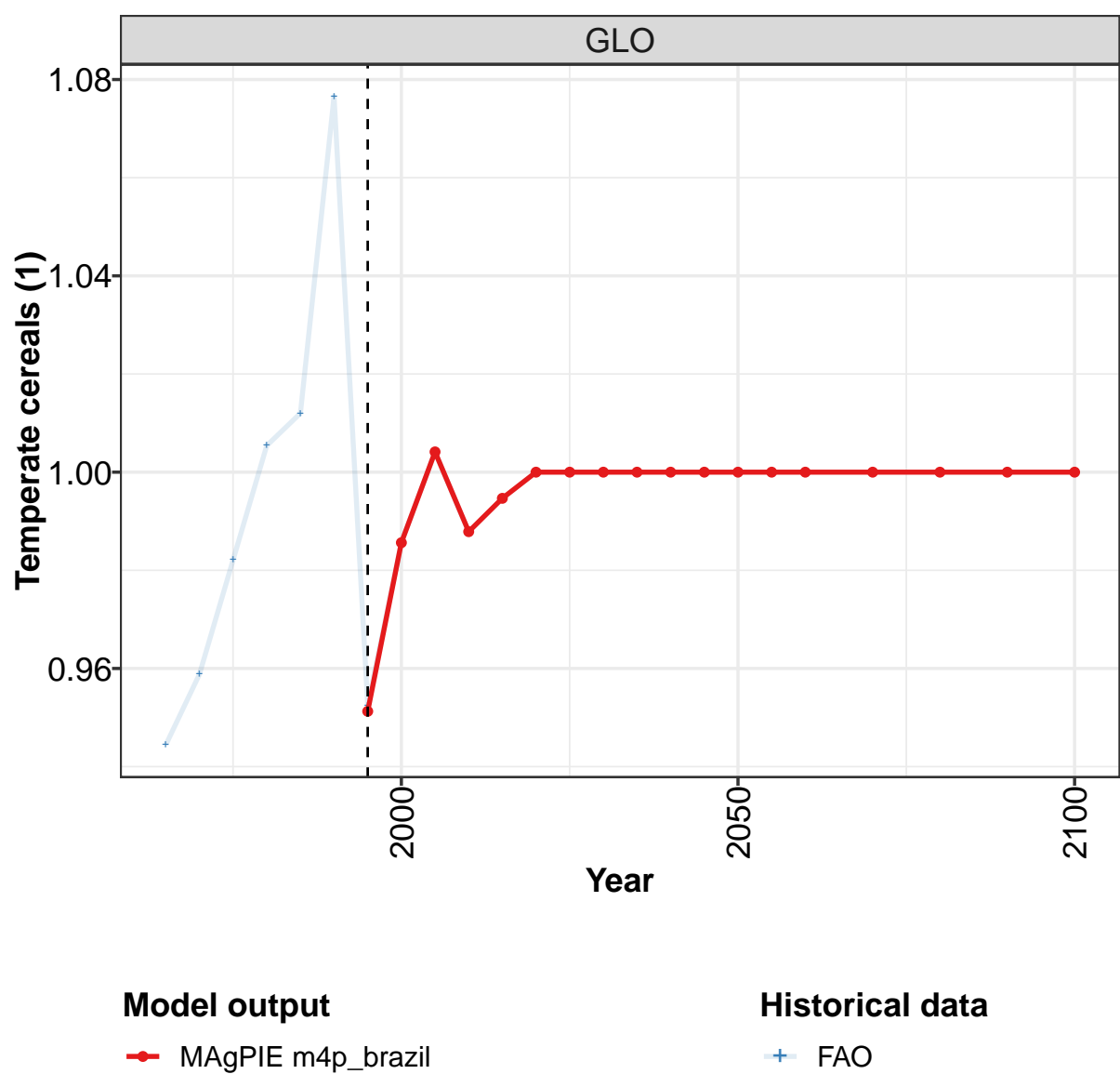
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.15	1.00	1.00	1.00	1.00	1.00	1.15
CHA	1.00	1.00	1.00	1.00	1.00	1.00	1.00
EUR	0.86	0.86	0.86	0.86	0.86	0.86	0.86
LAM	1.12	1.12	1.12	1.13	1.12	1.12	1.12
ROW	0.99	1.00	1.00	1.00	1.00	1.00	1.00
USA	0.86	0.86	0.86	0.85	0.85	0.85	0.85

Table 1951: MAgPIE m4p_brazil — 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
BRA	1.21	1.10	1.02	1.11	0.96	0.71	1.14	0.93	0.98	0.92
CHA	1.01	1.02	1.02	0.99	0.98	1.07	1.02	0.98	1.00	1.00
EUR	0.63	0.79	0.73	0.66	0.69	0.67	0.57	0.59	0.64	0.69
LAM	0.94	0.99	1.06	0.96	0.97	0.89	0.98	0.96	0.87	0.90
ROW	0.96	1.00	1.01	1.01	1.03	1.00	0.99	1.02	1.02	1.03
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



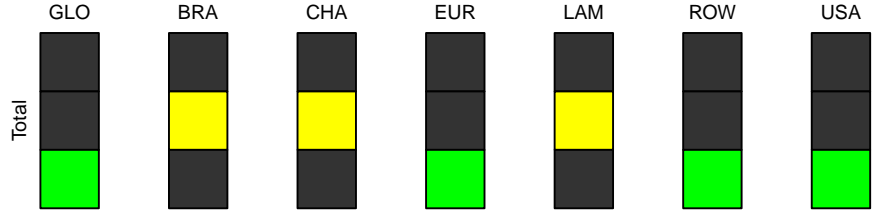
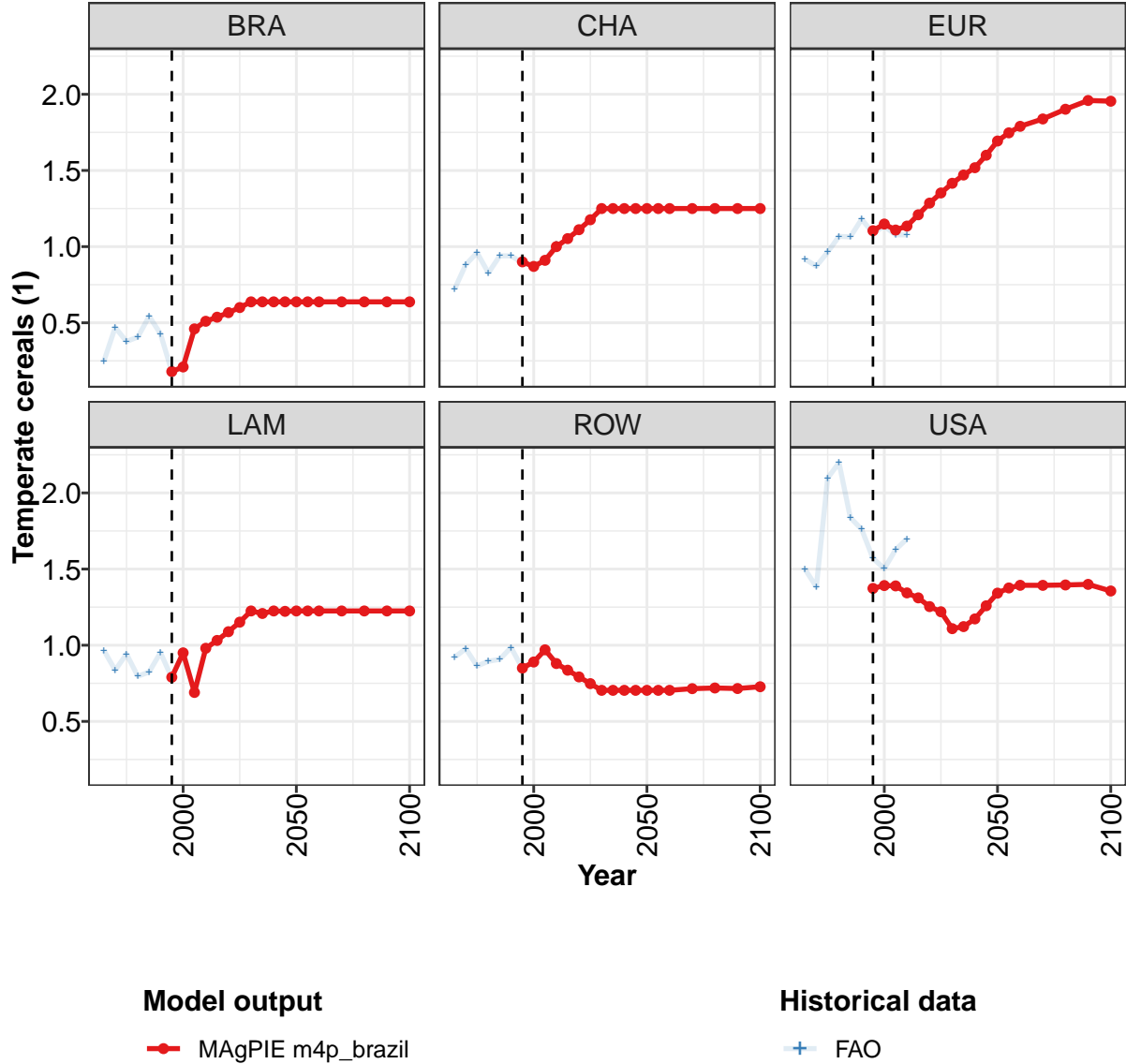


Figure 518: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Cereals—Temperate cereals (1)

	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
BRA	0.18	0.21	0.46	0.51	0.54	0.57	0.60	0.64	0.64	0.64	0.64
CHA	0.90	0.87	0.91	1.00	1.05	1.11	1.18	1.25	1.25	1.25	1.25
EUR	1.10	1.15	1.11	1.13	1.21	1.29	1.35	1.42	1.47	1.52	1.60
LAM	0.79	0.95	0.69	0.98	1.03	1.09	1.15	1.23	1.21	1.23	1.22
ROW	0.85	0.89	0.97	0.88	0.84	0.79	0.75	0.70	0.70	0.70	0.70
USA	1.37	1.39	1.39	1.34	1.31	1.25	1.22	1.11	1.12	1.17	1.26

Table 1953: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Cereals—Temperate cereals (1) [PART 1/2]

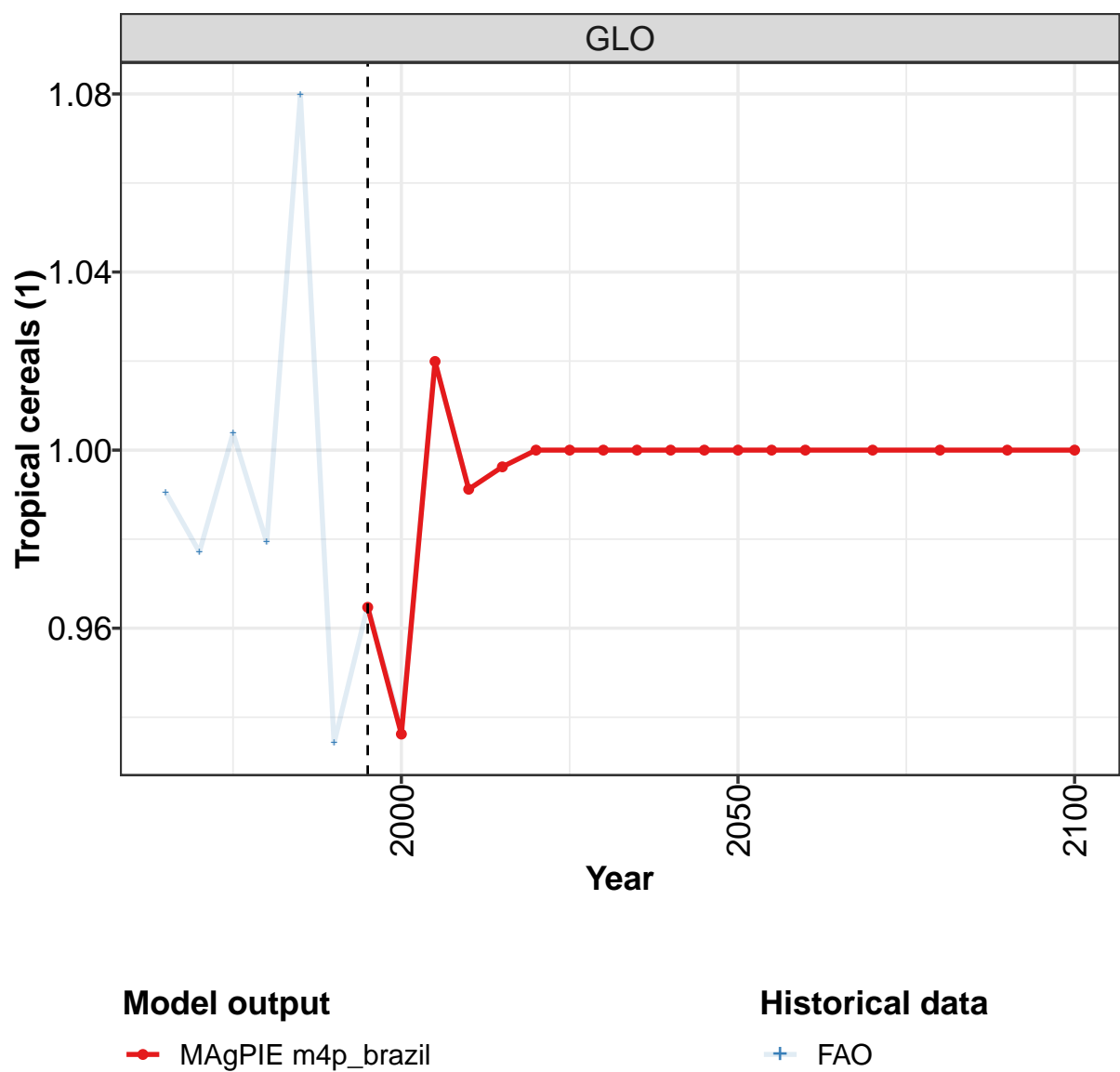
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	0.64	0.64	0.64	0.64	0.64	0.64	0.64
CHA	1.25	1.25	1.25	1.25	1.25	1.25	1.25
EUR	1.69	1.75	1.79	1.84	1.90	1.96	1.95
LAM	1.22	1.23	1.22	1.23	1.23	1.23	1.22
ROW	0.70	0.70	0.70	0.71	0.72	0.72	0.73
USA	1.34	1.38	1.39	1.39	1.40	1.40	1.36

Table 1954: MAgPIE m4p_brazil — 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
BRA	0.25	0.47	0.38	0.41	0.54	0.43	0.18	0.21	0.46	0.51
CHA	0.72	0.88	0.96	0.83	0.94	0.94	0.90	0.87	0.91	1.02
EUR	0.92	0.87	0.96	1.07	1.06	1.18	1.09	1.13	1.08	1.08
LAM	0.97	0.84	0.94	0.80	0.82	0.95	0.79	0.95	0.69	0.98
ROW	0.92	0.98	0.86	0.90	0.91	0.99	0.85	0.89	0.97	0.88
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



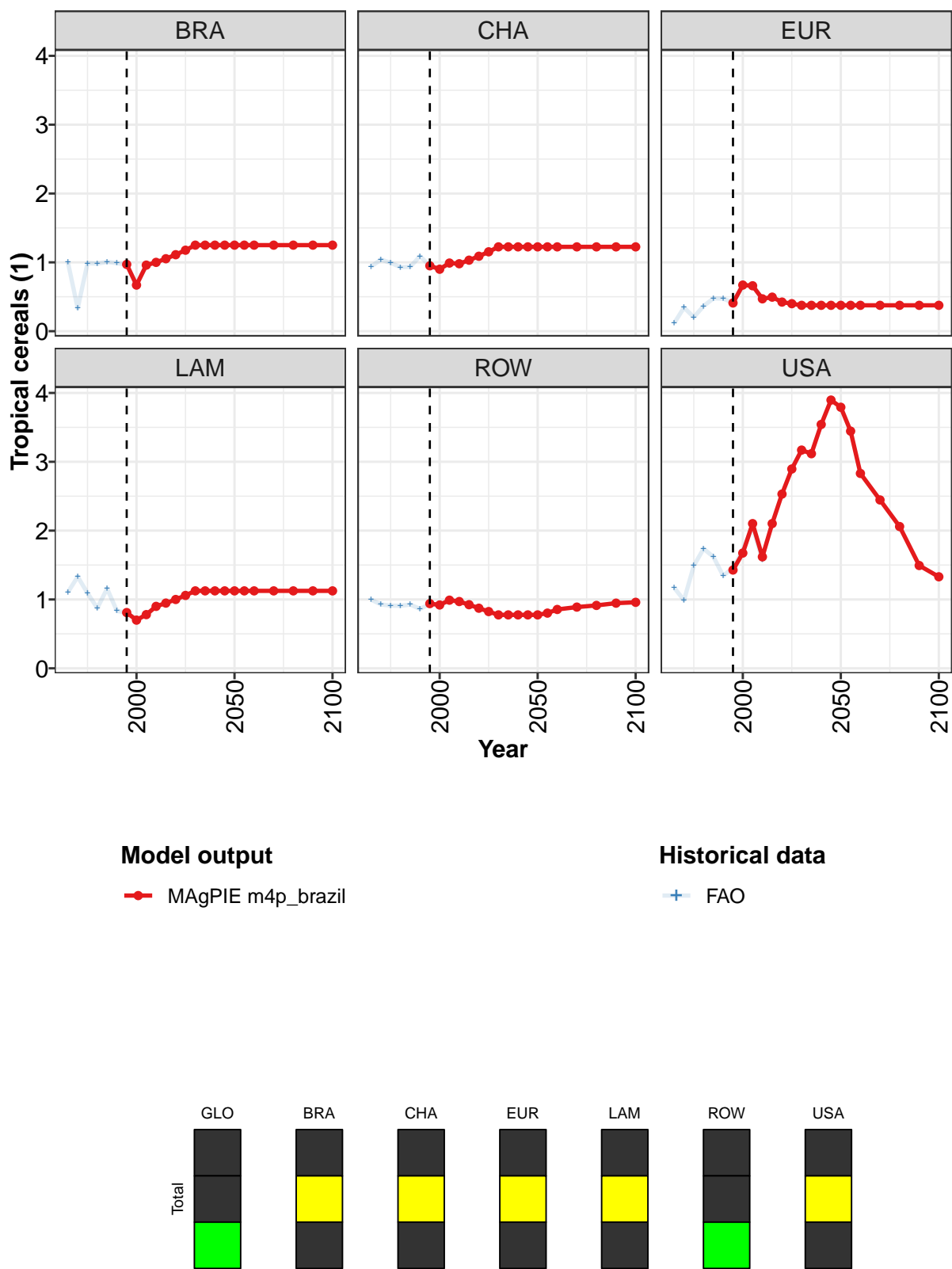


Figure 519: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Cereals—Tropical cereals (1)

	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
BRA	0.97	0.67	0.96	1.00	1.05	1.11	1.18	1.25	1.25	1.25	1.25
CHA	0.95	0.90	0.99	0.98	1.03	1.09	1.15	1.23	1.23	1.23	1.23
EUR	0.41	0.67	0.66	0.47	0.49	0.42	0.40	0.38	0.38	0.38	0.38
LAM	0.81	0.70	0.78	0.90	0.95	1.00	1.06	1.12	1.12	1.12	1.12
ROW	0.94	0.92	0.99	0.97	0.92	0.87	0.82	0.78	0.78	0.78	0.78
USA	1.43	1.67	2.10	1.62	2.10	2.53	2.90	3.17	3.12	3.54	3.90

Table 1956: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Cereals—Tropical cereals (1) [PART 1/2]

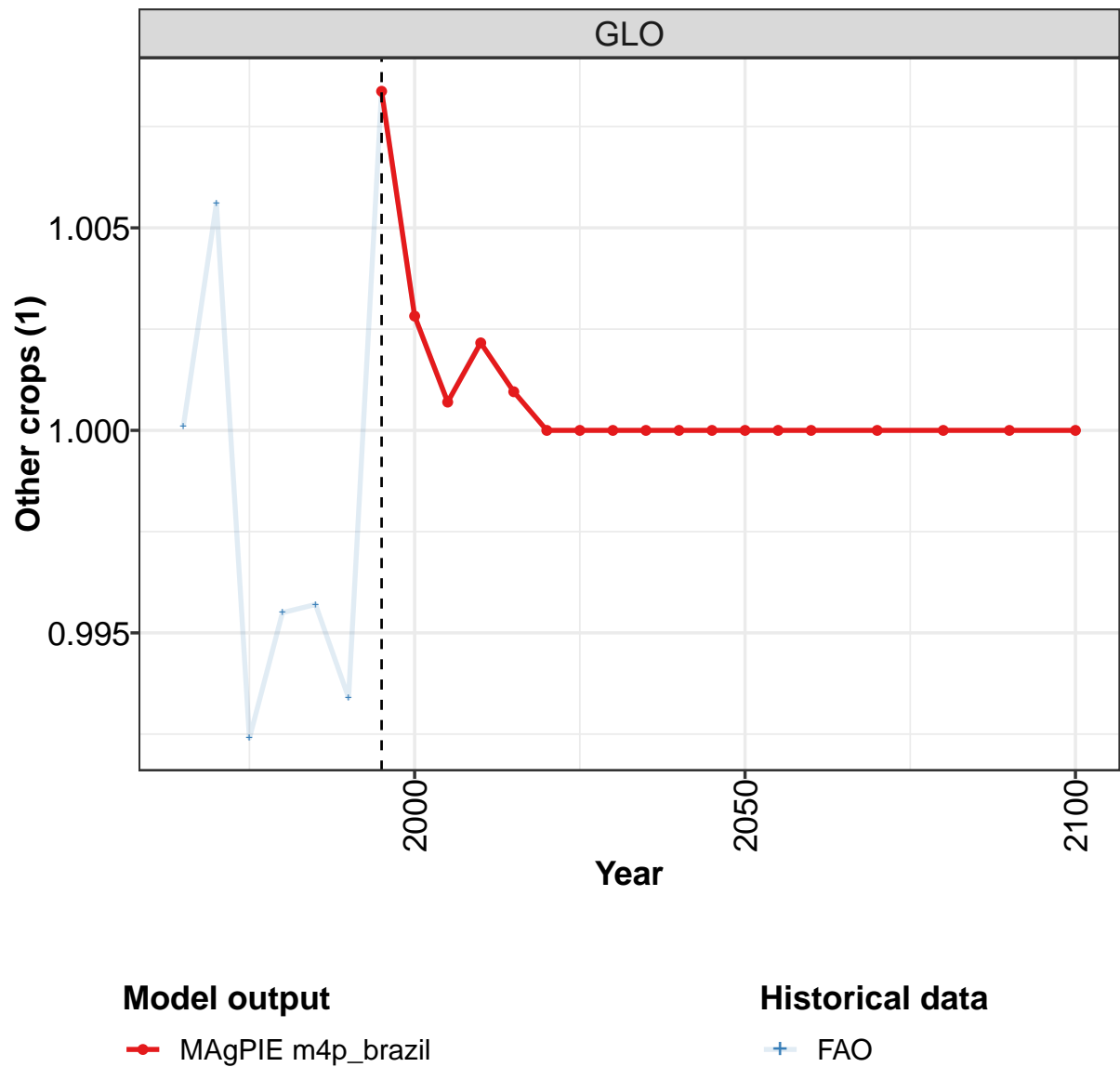
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.25	1.25	1.25	1.25	1.25	1.25	1.25
CHA	1.22	1.22	1.22	1.22	1.23	1.22	1.23
EUR	0.38	0.38	0.38	0.38	0.38	0.38	0.38
LAM	1.13	1.12	1.12	1.12	1.13	1.12	1.12
ROW	0.78	0.80	0.85	0.89	0.91	0.95	0.96
USA	3.79	3.45	2.83	2.45	2.06	1.49	1.33

Table 1957: MAgPIE m4p_brazil — 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
BRA	1.00	0.33	0.99	0.98	1.01	0.99	0.97	0.67	0.96	1.00
CHA	0.94	1.04	0.99	0.93	0.94	1.09	0.95	0.91	0.99	0.98
EUR	0.12	0.34	0.20	0.36	0.48	0.47	0.41	0.67	0.66	0.47
LAM	1.11	1.33	1.09	0.87	1.16	0.83	0.81	0.70	0.78	0.90
ROW	1.00	0.93	0.91	0.91	0.93	0.86	0.94	0.92	0.99	0.97
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



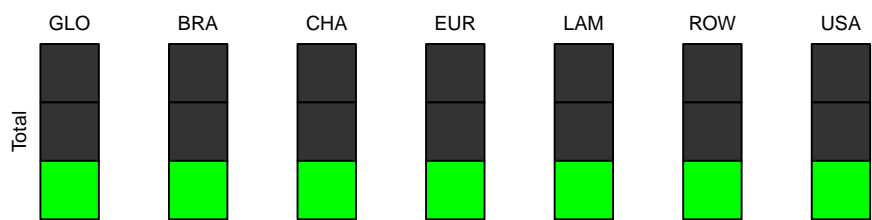
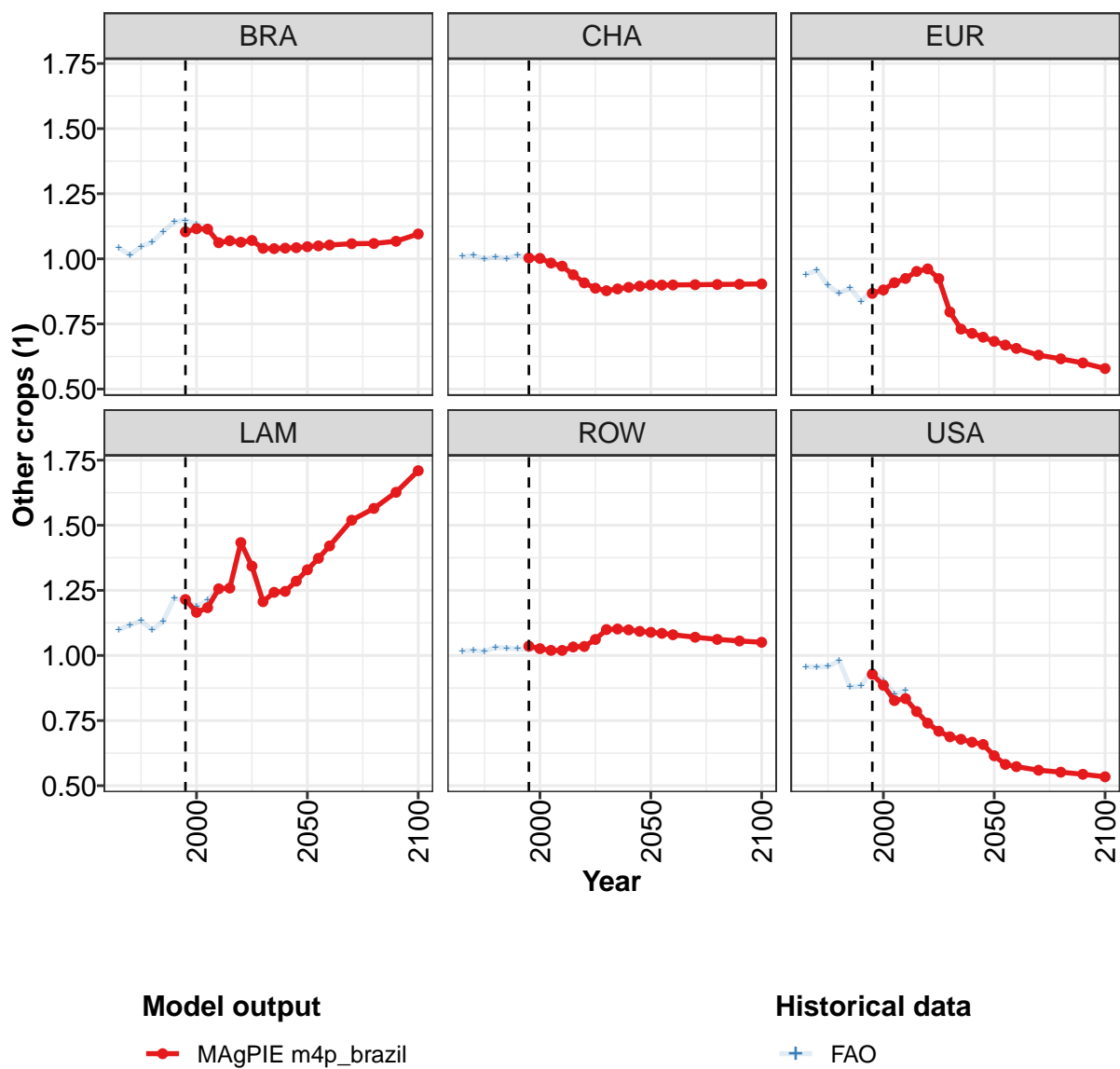


Figure 520: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Other crops (1)

	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
BRA	1.10	1.12	1.11	1.06	1.07	1.06	1.07	1.04	1.04	1.04	1.04
CHA	1.00	1.00	0.98	0.97	0.94	0.91	0.89	0.88	0.88	0.89	0.90
EUR	0.87	0.88	0.91	0.92	0.95	0.96	0.92	0.80	0.73	0.71	0.70
LAM	1.21	1.17	1.18	1.26	1.26	1.43	1.34	1.21	1.24	1.25	1.29
ROW	1.04	1.03	1.02	1.02	1.03	1.03	1.06	1.10	1.10	1.10	1.09
USA	0.93	0.89	0.83	0.83	0.78	0.74	0.71	0.69	0.68	0.67	0.66

Table 1959: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Other crops (1) [PART 1/2]

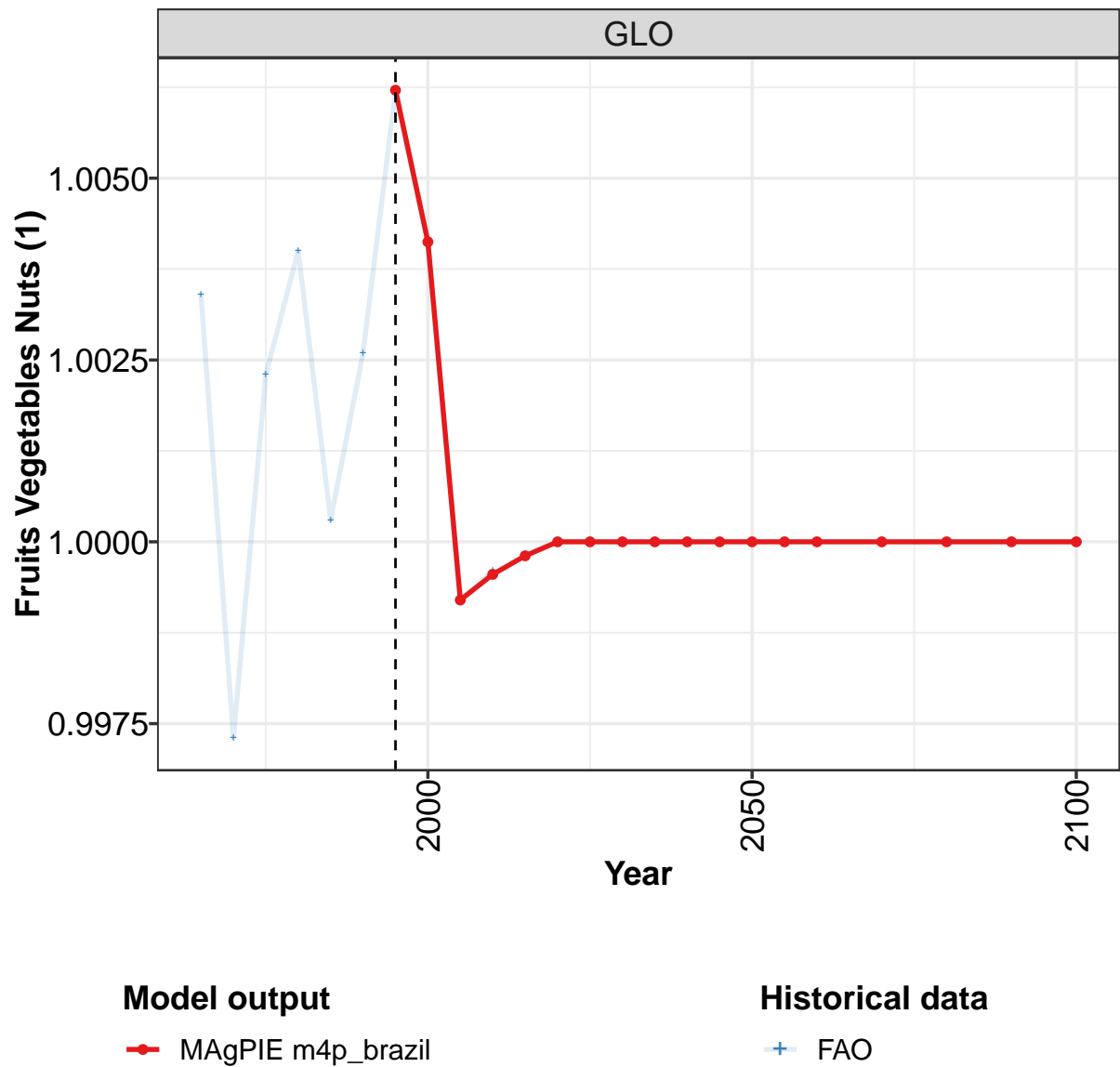
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.05	1.05	1.05	1.06	1.06	1.07	1.10
CHA	0.90	0.90	0.90	0.90	0.90	0.90	0.90
EUR	0.68	0.67	0.66	0.63	0.62	0.60	0.58
LAM	1.33	1.37	1.42	1.52	1.56	1.63	1.71
ROW	1.09	1.08	1.08	1.07	1.06	1.06	1.05
USA	0.61	0.58	0.57	0.56	0.55	0.54	0.53

Table 1960: MAgPIE m4p_brazil — 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
BRA	1.04	1.01	1.05	1.06	1.11	1.14	1.15	1.13	1.12	1.06
CHA	1.01	1.01	1.00	1.01	1.00	1.01	1.00	1.00	0.99	0.97
EUR	0.94	0.96	0.90	0.87	0.89	0.84	0.88	0.87	0.90	0.92
LAM	1.10	1.12	1.13	1.10	1.13	1.22	1.21	1.19	1.21	1.26
ROW	1.02	1.02	1.02	1.03	1.03	1.03	1.02	1.02	1.01	1.02
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



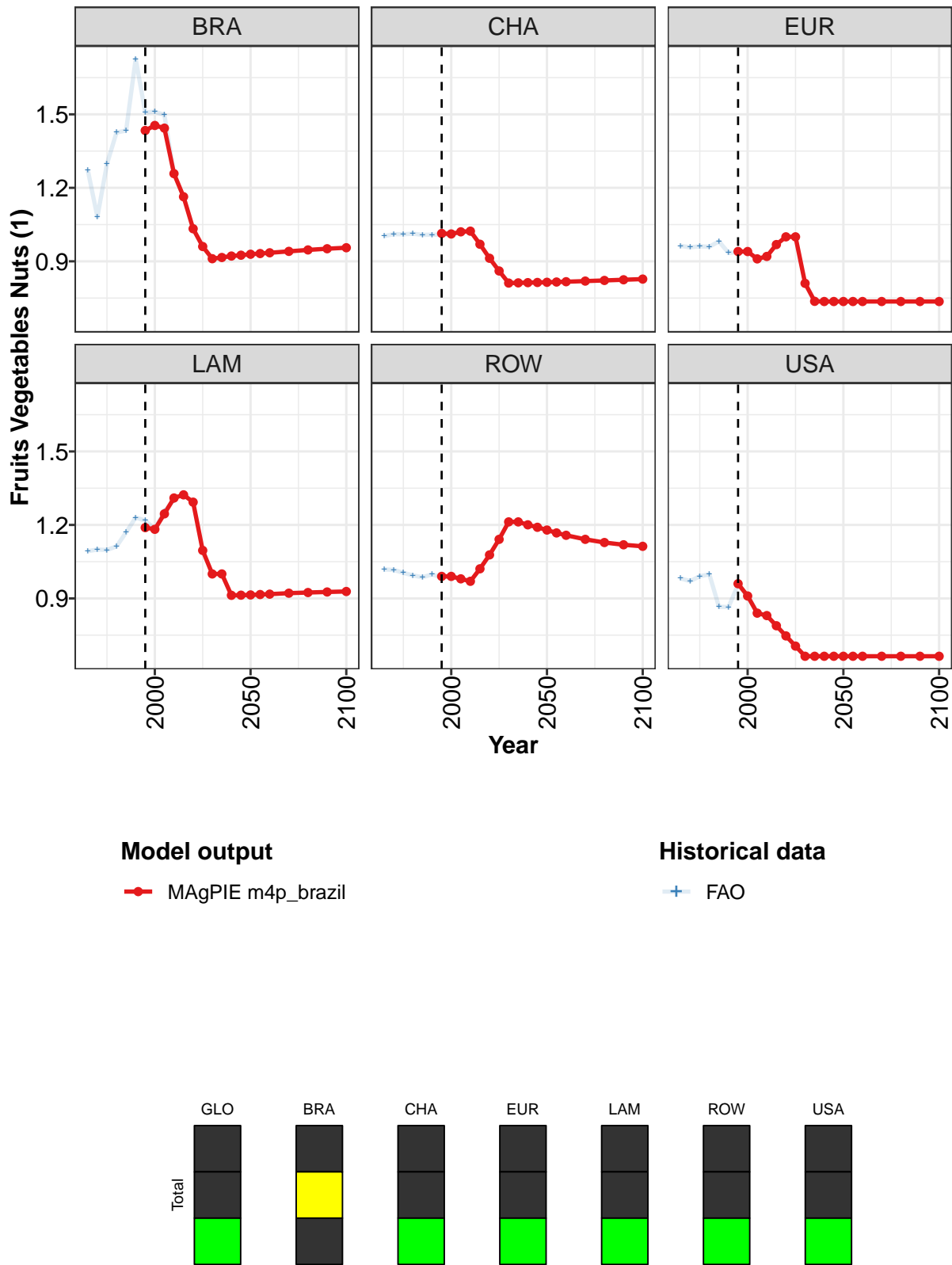


Figure 521: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Other crops—Fruits Vegetables Nuts (1)

	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
BRA	1.43	1.45	1.44	1.26	1.16	1.03	0.96	0.91	0.92	0.92	0.93
CHA	1.01	1.01	1.02	1.02	0.97	0.91	0.86	0.81	0.81	0.81	0.81
EUR	0.94	0.94	0.91	0.92	0.97	1.00	1.00	0.81	0.74	0.74	0.74
LAM	1.19	1.18	1.25	1.31	1.32	1.29	1.10	1.00	1.00	0.91	0.91
ROW	0.99	0.99	0.98	0.97	1.02	1.08	1.14	1.21	1.21	1.20	1.19
USA	0.96	0.91	0.84	0.83	0.79	0.75	0.71	0.66	0.66	0.66	0.66

Table 1962: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Other crops—Fruits Vegetables Nuts (1)
[PART 1/2]

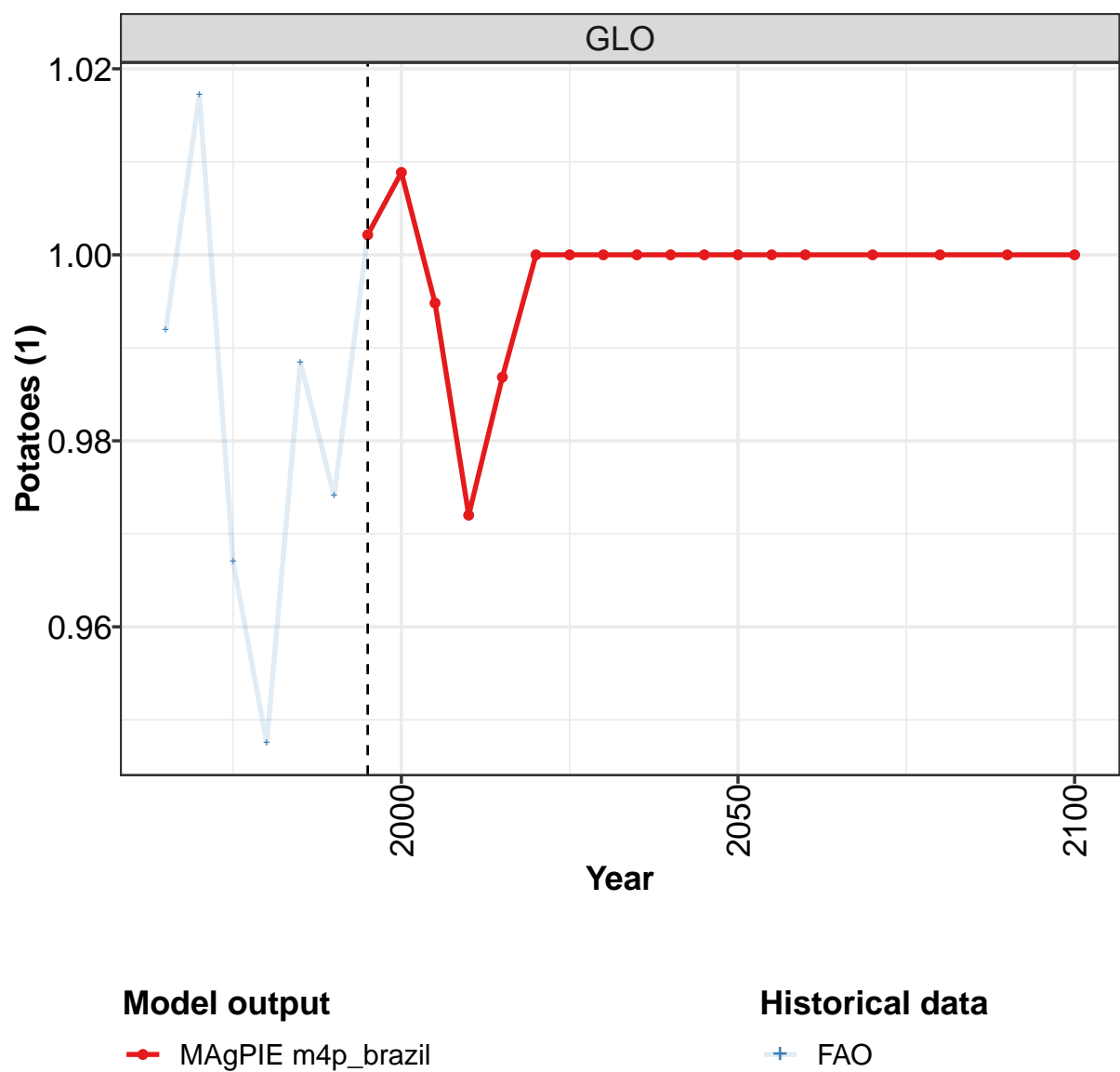
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	0.93	0.93	0.93	0.94	0.95	0.95	0.96
CHA	0.81	0.82	0.82	0.82	0.82	0.82	0.83
EUR	0.74	0.74	0.74	0.74	0.74	0.74	0.74
LAM	0.91	0.92	0.92	0.92	0.92	0.93	0.93
ROW	1.18	1.17	1.16	1.14	1.13	1.12	1.11
USA	0.66	0.66	0.66	0.66	0.66	0.66	0.66

Table 1963: MAgPIE m4p_brazil — 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
BRA	1.27	1.08	1.30	1.43	1.43	1.73	1.51	1.51	1.50	1.26
CHA	1.00	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.02	1.02
EUR	0.96	0.96	0.96	0.96	0.98	0.93	0.94	0.94	0.91	0.92
LAM	1.09	1.10	1.10	1.11	1.17	1.23	1.22	1.18	1.26	1.30
ROW	1.02	1.02	1.00	0.99	0.99	1.00	0.99	0.99	0.98	0.97
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



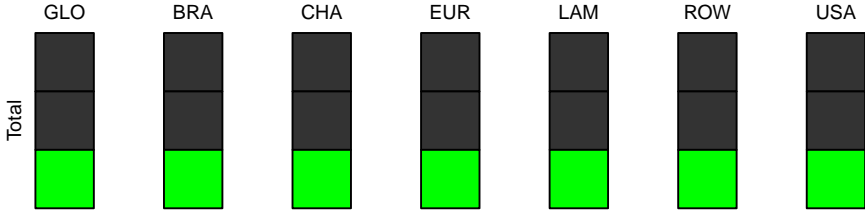
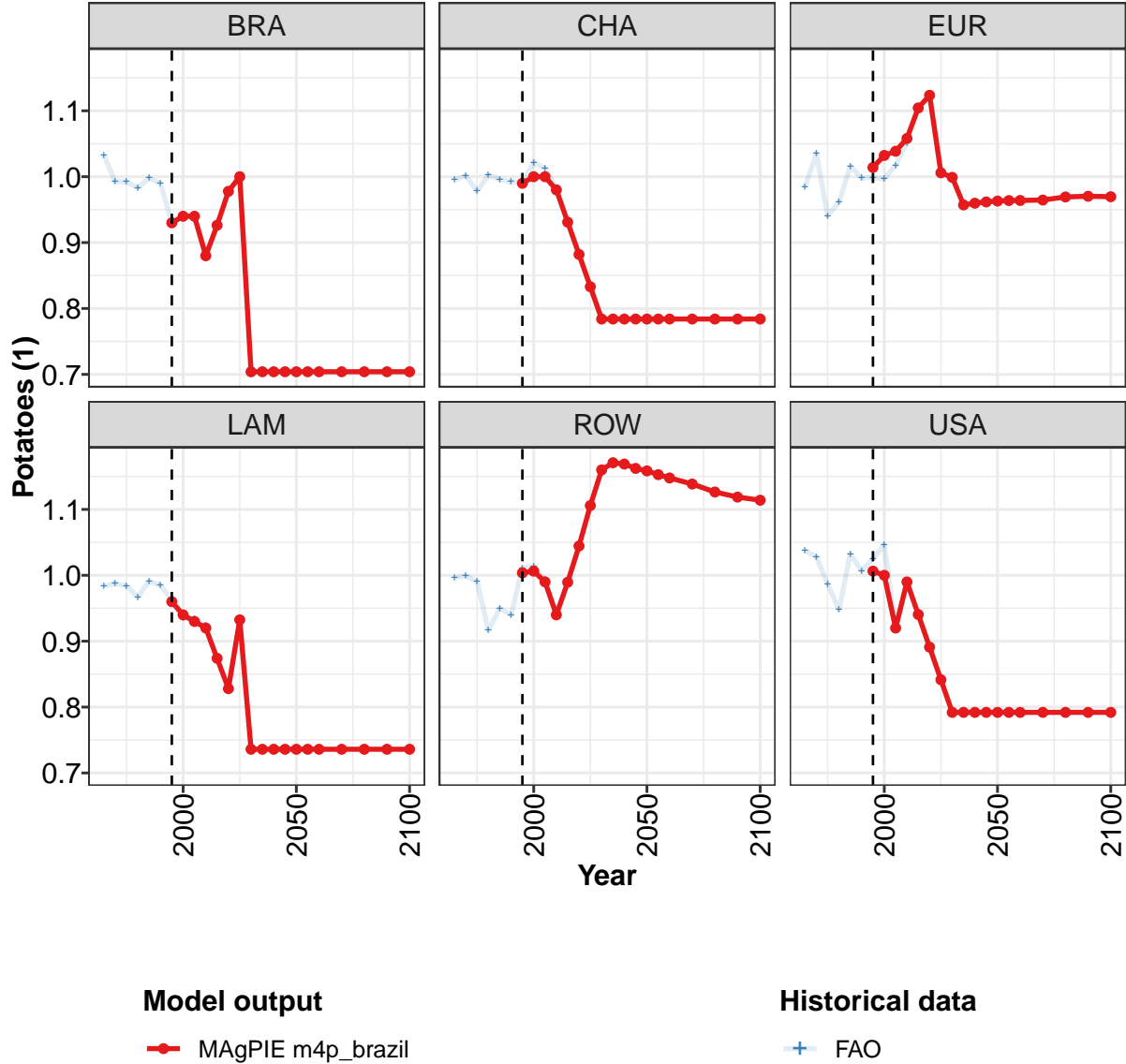


Figure 522: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Other crops—Potatoes (1)

	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
BRA	0.93	0.94	0.94	0.88	0.93	0.98	1.00	0.70	0.70	0.70	0.70
CHA	0.99	1.00	1.00	0.98	0.93	0.88	0.83	0.78	0.78	0.78	0.78
EUR	1.01	1.03	1.04	1.06	1.10	1.12	1.01	1.00	0.96	0.96	0.96
LAM	0.96	0.94	0.93	0.92	0.87	0.83	0.93	0.74	0.74	0.74	0.74
ROW	1.00	1.01	0.99	0.94	0.99	1.04	1.11	1.16	1.17	1.17	1.16
USA	1.01	1.00	0.92	0.99	0.94	0.89	0.84	0.79	0.79	0.79	0.79

Table 1965: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Other crops—Potatoes (1) [PART 1/2]

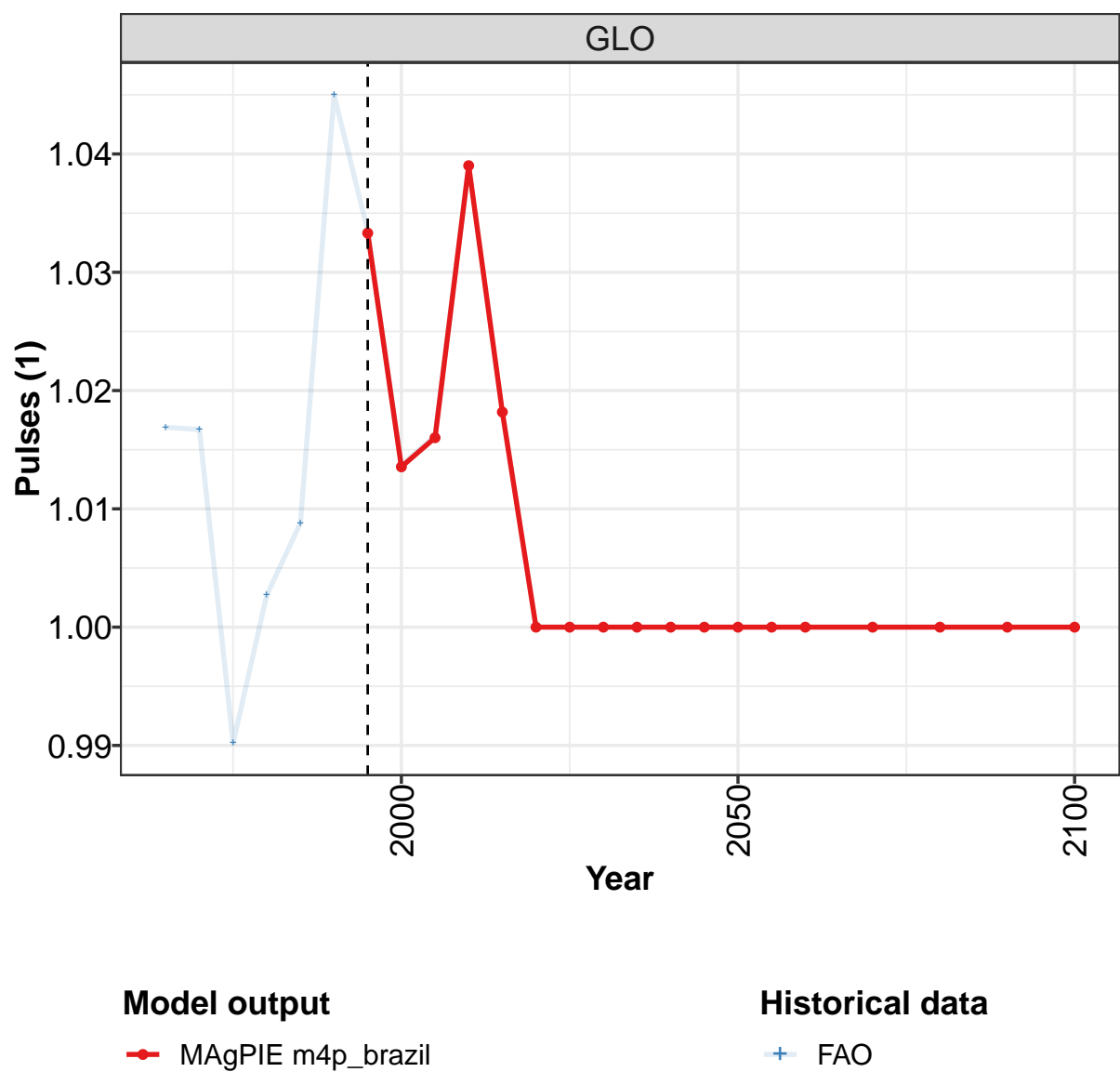
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	0.70	0.70	0.70	0.70	0.70	0.70	0.70
CHA	0.78	0.78	0.78	0.78	0.78	0.78	0.78
EUR	0.96	0.96	0.96	0.96	0.97	0.97	0.97
LAM	0.74	0.74	0.74	0.74	0.74	0.74	0.74
ROW	1.16	1.15	1.15	1.14	1.13	1.12	1.11
USA	0.79	0.79	0.79	0.79	0.79	0.79	0.79

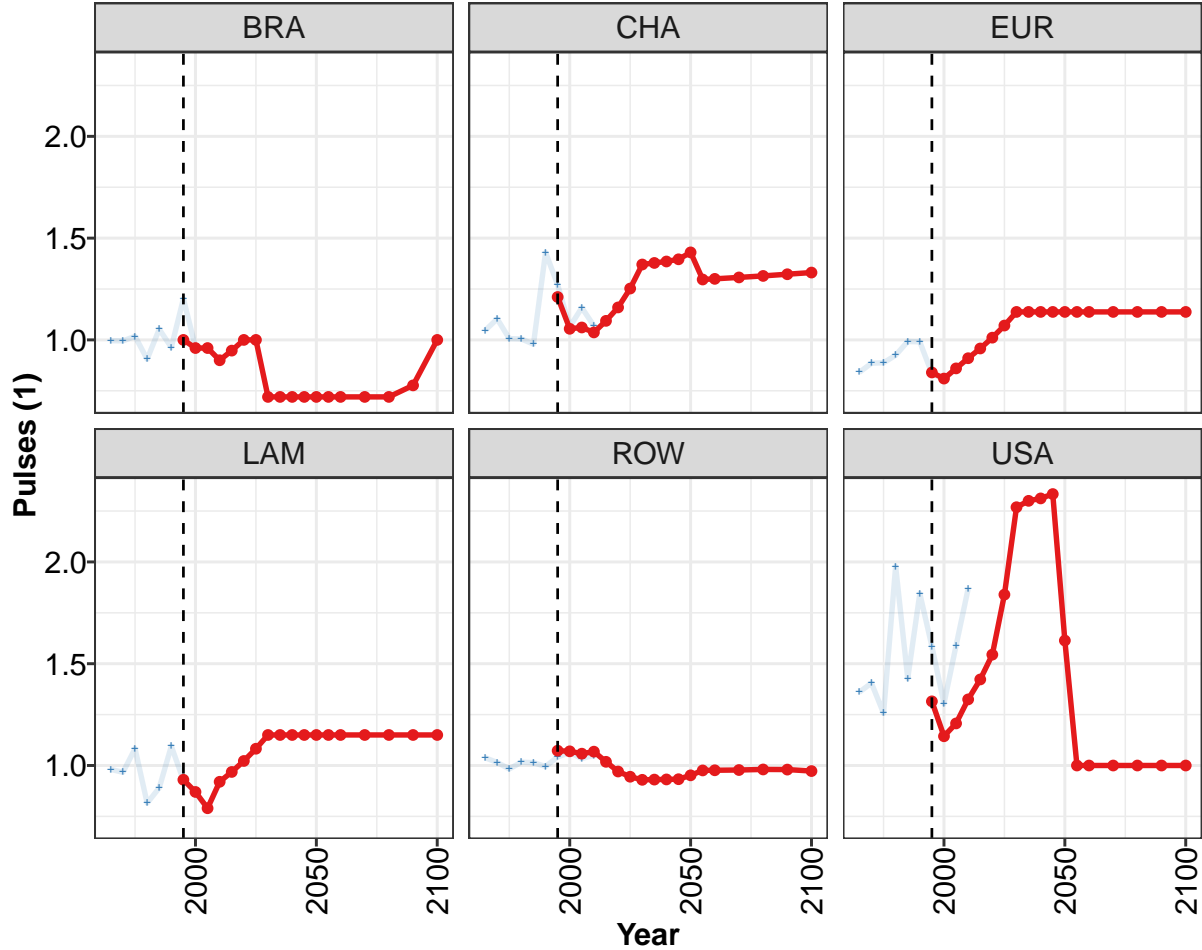
Table 1966: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Other crops—Potatoes (1) [PART 2/2]

	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
BRA	1.03	0.99	0.99	0.98	1.00	0.99	0.93	0.94	0.94	0.88
CHA	1.00	1.00	0.98	1.00	1.00	0.99	0.99	1.02	1.01	0.98
EUR	0.98	1.03	0.94	0.96	1.02	1.00	1.00	1.00	1.02	1.05
LAM	0.98	0.99	0.98	0.97	0.99	0.98	0.96	0.94	0.93	0.92
ROW	1.00	1.00	0.99	0.92	0.95	0.94	1.01	1.01	0.99	0.94
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





Model output

—•— MAGPIE m4p_brazil

Historical data

+— FAO

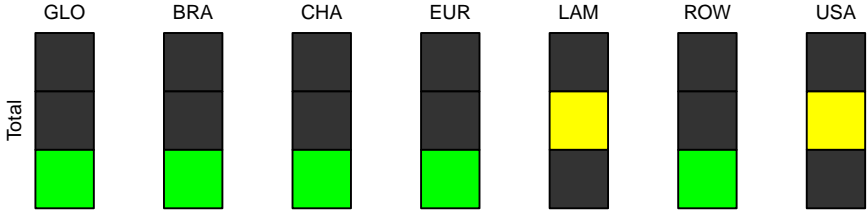


Figure 523: MAGPIE m4p_brazil — Trade—Self-sufficiency—Crops—Other crops—Pulses (1)

	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
BRA	1.00	0.96	0.96	0.90	0.95	1.00	1.00	0.72	0.72	0.72	0.72
CHA	1.21	1.05	1.06	1.04	1.09	1.16	1.25	1.37	1.38	1.39	1.40
EUR	0.84	0.81	0.86	0.91	0.96	1.01	1.07	1.14	1.14	1.14	1.14
LAM	0.93	0.87	0.79	0.92	0.97	1.02	1.08	1.15	1.15	1.15	1.15
ROW	1.07	1.07	1.06	1.07	1.02	0.97	0.94	0.93	0.93	0.93	0.93
USA	1.32	1.14	1.21	1.32	1.42	1.54	1.84	2.27	2.30	2.31	2.33

Table 1968: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Other crops—Pulses (1) [PART 1/2]

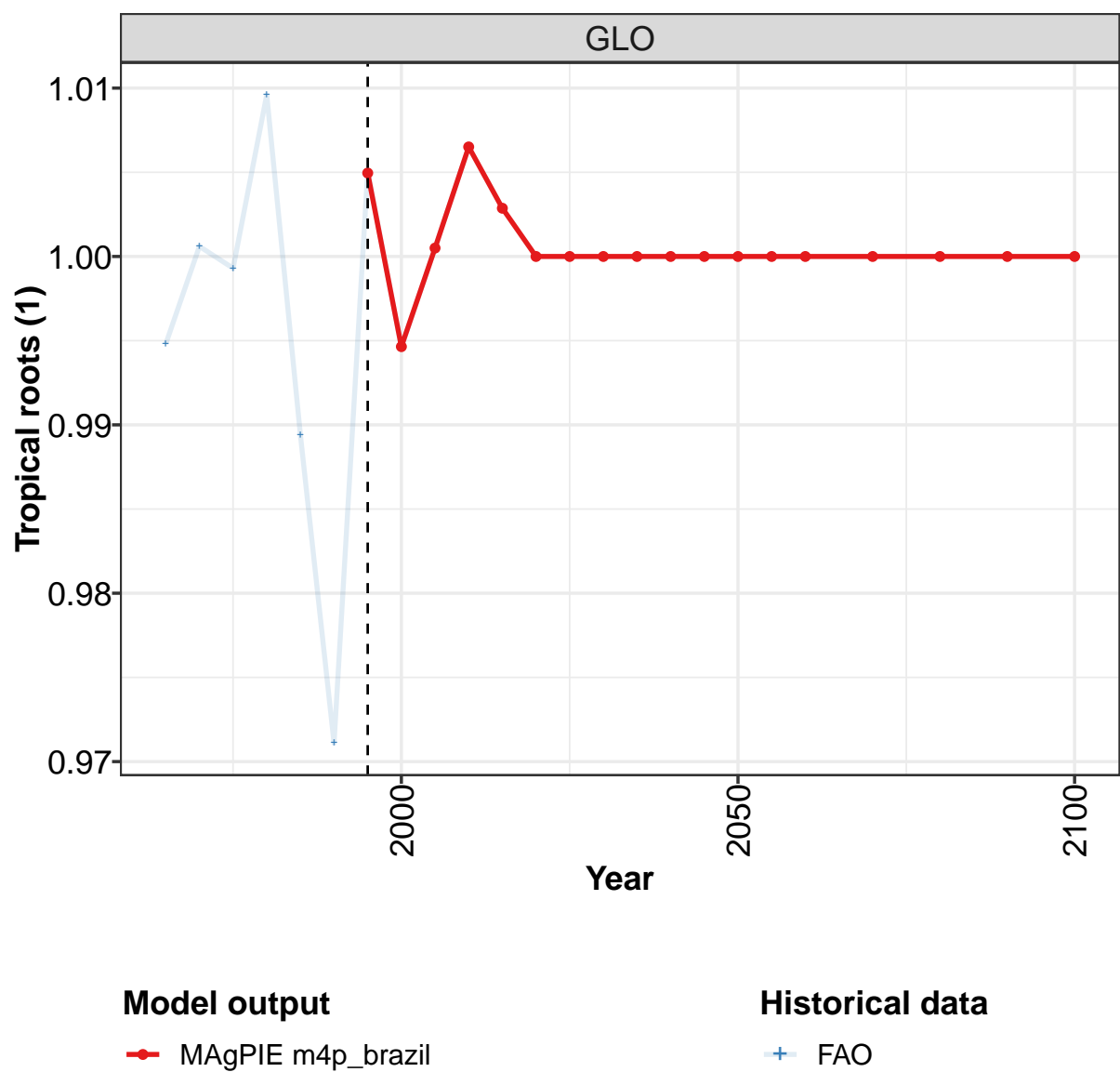
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	0.72	0.72	0.72	0.72	0.72	0.78	1.00
CHA	1.43	1.30	1.30	1.31	1.31	1.32	1.33
EUR	1.14	1.14	1.14	1.14	1.14	1.14	1.14
LAM	1.15	1.15	1.15	1.15	1.15	1.15	1.15
ROW	0.95	0.98	0.98	0.98	0.98	0.98	0.97
USA	1.61	1.00	1.00	1.00	1.00	1.00	1.00

Table 1969: MAgPIE m4p_brazil — 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
BRA	1.00	1.00	1.02	0.91	1.05	0.96	1.20	0.96	0.96	0.90
CHA	1.05	1.10	1.01	1.00	0.98	1.43	1.27	1.06	1.16	1.07
EUR	0.84	0.89	0.89	0.92	0.99	0.99	0.84	0.81	0.86	0.91
LAM	0.98	0.97	1.08	0.82	0.89	1.09	0.93	0.87	0.79	0.92
ROW	1.04	1.01	0.98	1.02	1.01	1.00	1.04	1.06	1.03	1.05
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



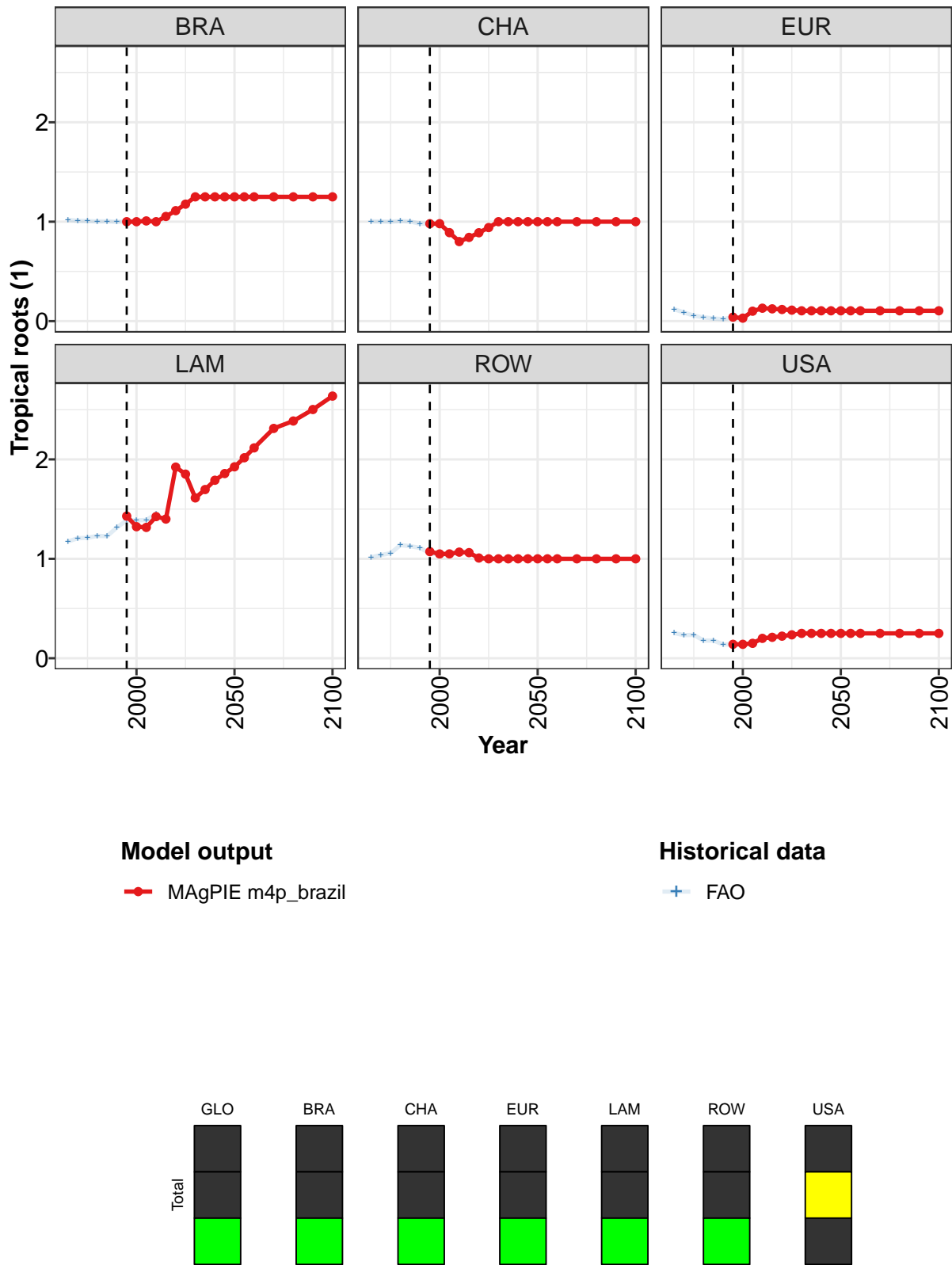


Figure 524: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Other crops—Tropical roots (1)

	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
BRA	1.00	1.00	1.01	1.00	1.05	1.11	1.18	1.25	1.25	1.25	1.25
CHA	0.98	0.98	0.89	0.80	0.84	0.89	0.94	1.00	1.00	1.00	1.00
EUR	0.04	0.03	0.10	0.13	0.12	0.12	0.11	0.10	0.10	0.10	0.10
LAM	1.43	1.32	1.32	1.42	1.40	1.92	1.85	1.61	1.70	1.79	1.86
ROW	1.07	1.05	1.05	1.07	1.06	1.01	1.00	1.00	1.00	1.00	1.00
USA	0.14	0.14	0.15	0.20	0.21	0.22	0.24	0.25	0.25	0.25	0.25

Table 1971: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Other crops—Tropical roots (1) [PART 1/2]

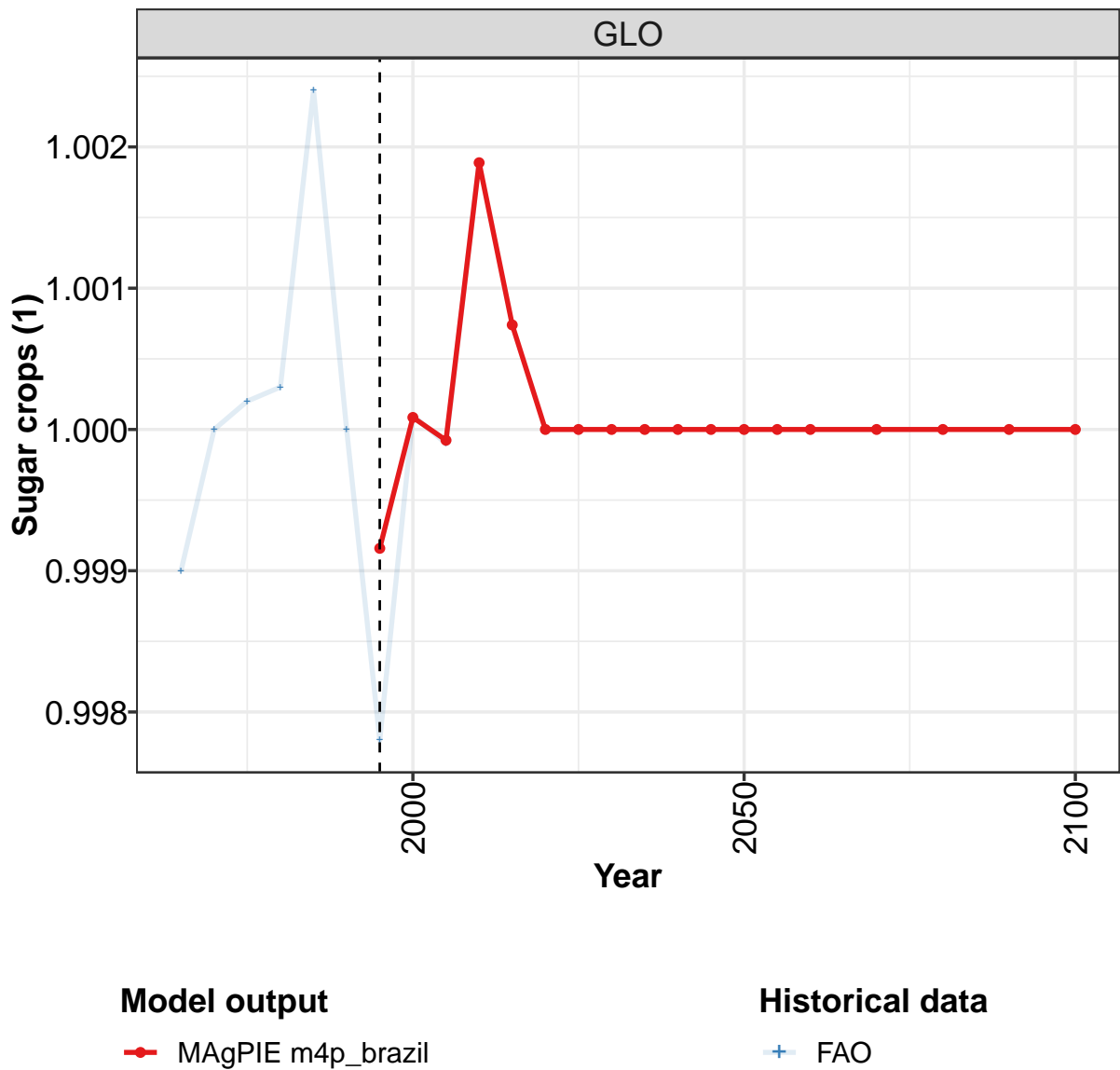
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.25	1.25	1.25	1.25	1.25	1.25	1.25
CHA	1.00	1.00	1.00	1.00	1.00	1.00	1.00
EUR	0.10	0.10	0.10	0.10	0.10	0.10	0.10
LAM	1.93	2.02	2.12	2.31	2.39	2.50	2.64
ROW	1.00	1.00	1.00	1.00	1.00	1.00	1.00
USA	0.25	0.25	0.25	0.25	0.25	0.25	0.25

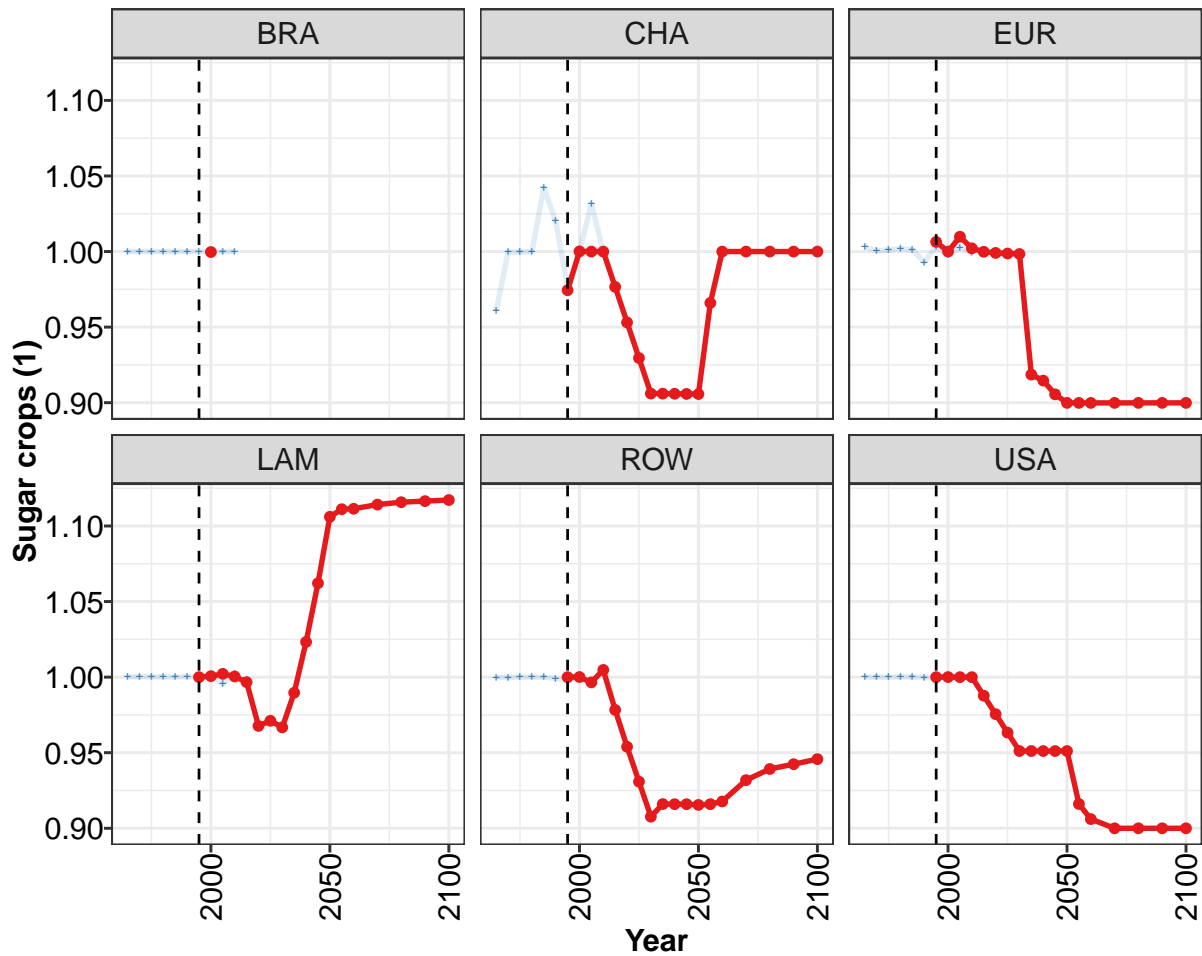
Table 1972: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Other crops—Tropical roots (1) [PART 2/2]

	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
BRA	1.02	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.01	1.00
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	0.06	0.04	0.03	0.02	0.04	0.03	0.10	0.13
LAM	1.17	1.21	1.21	1.23	1.23	1.31	1.39	1.39	1.39	1.45
ROW	1.02	1.04	1.06	1.14	1.13	1.11	1.06	1.05	1.04	1.06
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





Model output

MAgPIE m4p_brazil

Historical data

FAO

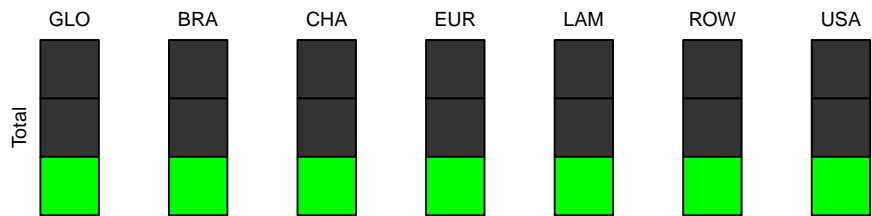


Figure 525: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Sugar crops (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1	1	1	1	1	1	1	1	1	1	1
BRA		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
LAM	1	1	1	1	1	1	1	1	1	1	1
ROW	1	1	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_brazil — Trade—Self-sufficiency—Crops—Sugar crops (1) [PART 1/2]

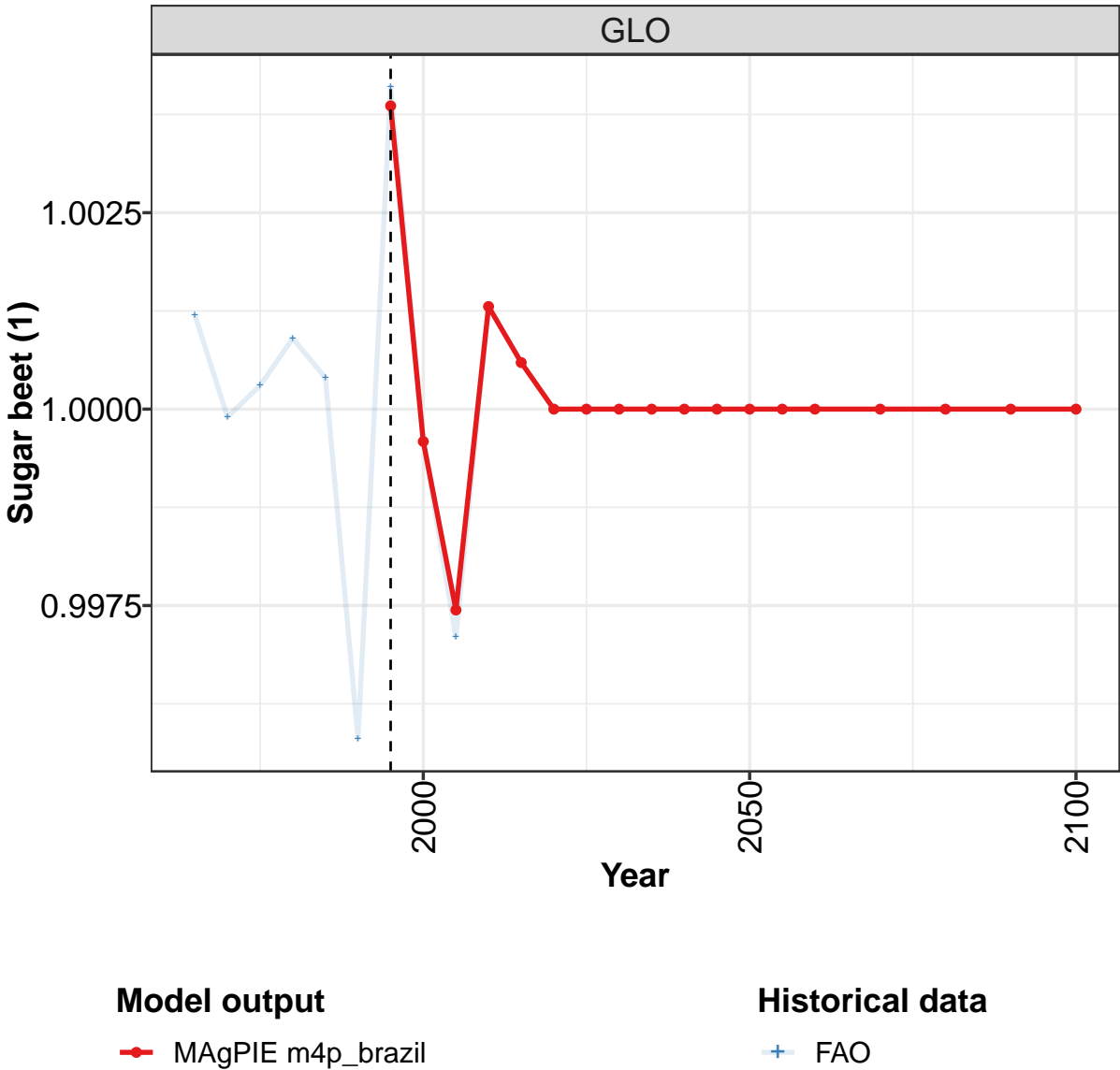
	2050	2055	2060	2070	2080	2090	2100
GLO	1	1	1	1	1	1	1
BRA							
CHA	1	1	1	1	1	1	1
EUR	1	1	1	1	1	1	1
LAM	1	1	1	1	1	1	1
ROW	1	1	1	1	1	1	1
USA	1	1	1	1	1	1	1

Table 1975: MAgPIE m4p_brazil — 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
BRA	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
LAM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ROW	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



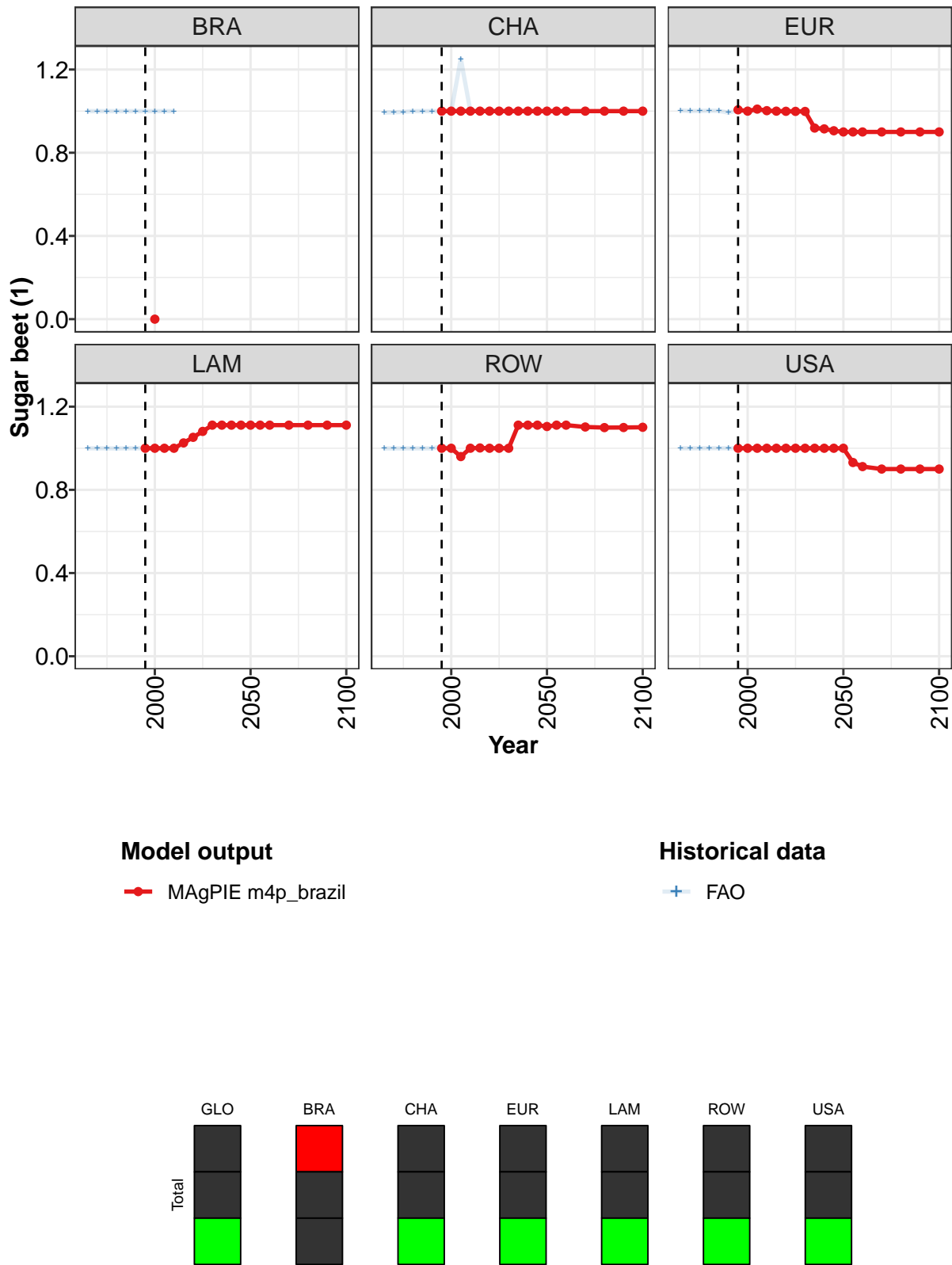


Figure 526: MAGPIE m4p_brazil — Trade—Self-sufficiency—Crops—Sugar crops—Sugar beet (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	1	1	1	1	1	1	1	1	1	1	1
BRA	0										
CHA	1	1	1	1	1	1	1	1	1	1	1
EUR	1	1	1	1	1	1	1	1	1	1	1
LAM	1	1	1	1	1	1	1	1	1	1	1
ROW	1	1	1	1	1	1	1	1	1	1	1
USA	1	1	1	1	1	1	1	1	1	1	1

Table 1977: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Sugar crops—Sugar beet (1) [PART 1/2]

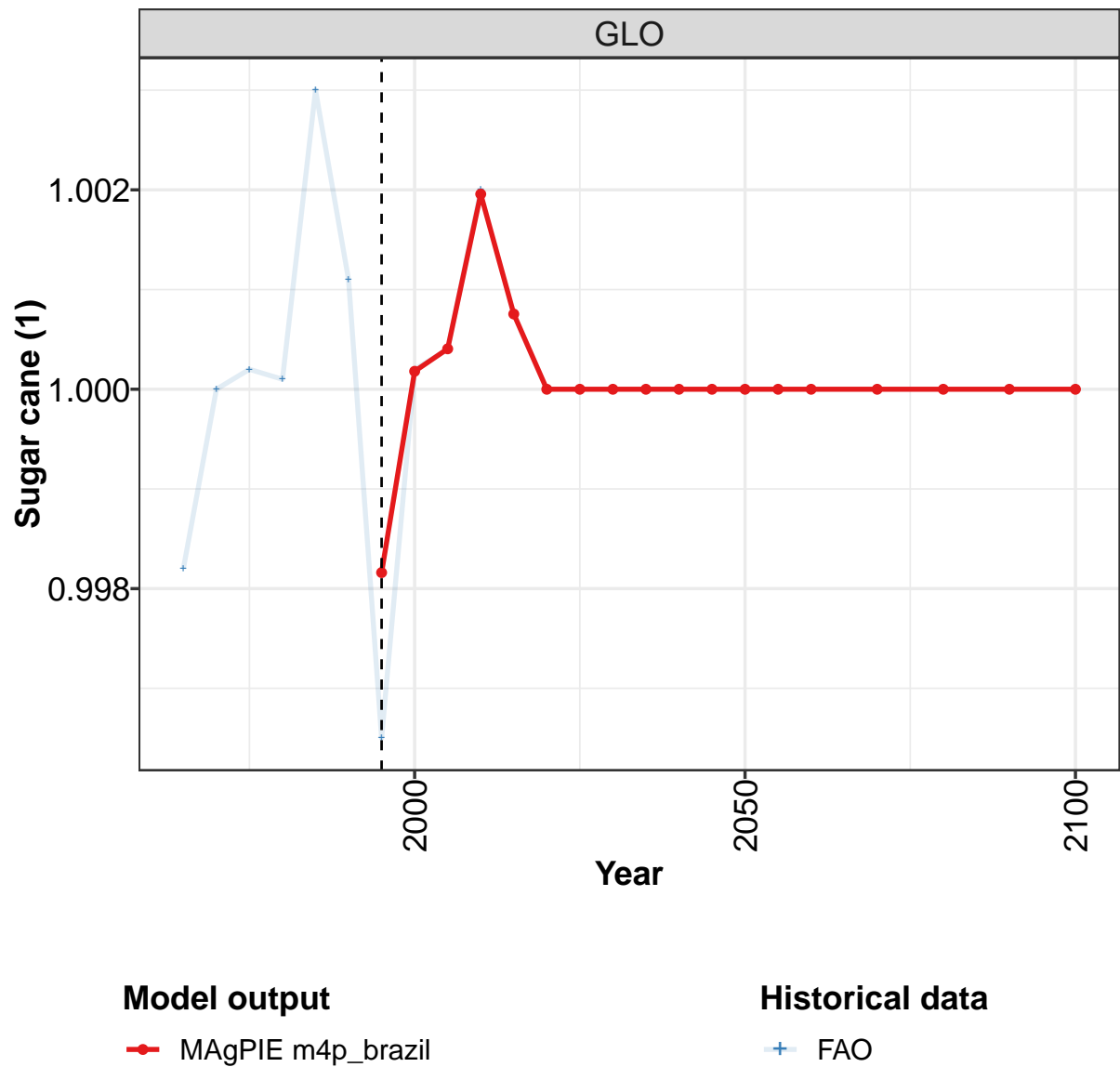
	2050	2055	2060	2070	2080	2090	2100
GLO	1	1	1	1	1	1	1
BRA							
CHA	1	1	1	1	1	1	1
EUR	1	1	1	1	1	1	1
LAM	1	1	1	1	1	1	1
ROW	1	1	1	1	1	1	1
USA	1	1	1	1	1	1	1

Table 1978: MAgPIE m4p_brazil — 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
BRA	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
LAM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ROW	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	0.96	1.01
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



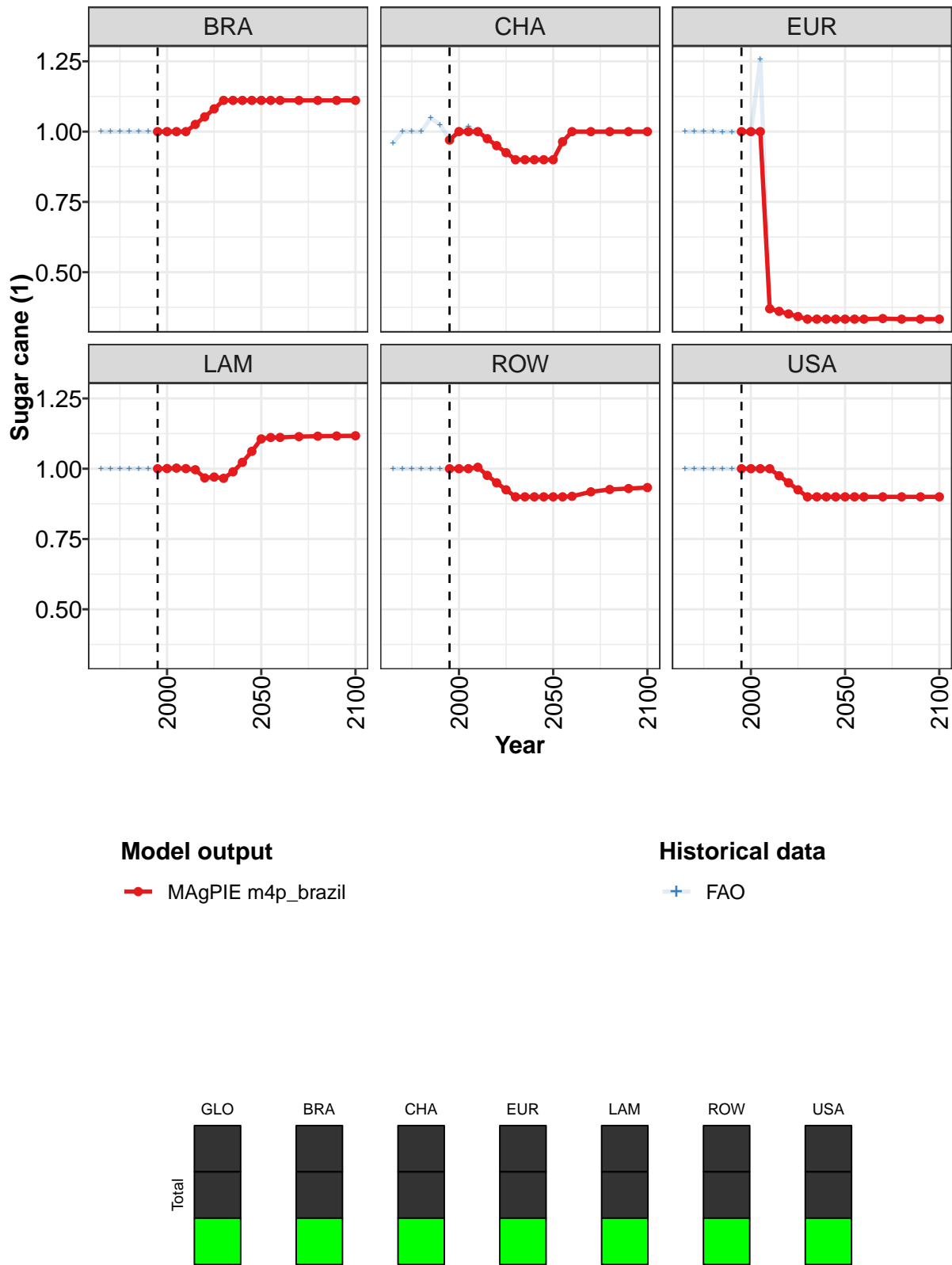


Figure 527: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Sugar crops—Sugar cane (1)

	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
BRA	1.00	1.00	1.00	1.00	1.03	1.05	1.08	1.11	1.11	1.11	1.11
CHA	0.97	1.00	1.00	1.00	0.97	0.95	0.92	0.90	0.90	0.90	0.90
EUR	1.00	1.00	1.00	0.37	0.36	0.35	0.34	0.33	0.33	0.33	0.33
LAM	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	0.99	1.02	1.06
ROW	1.00	1.00	1.00	1.01	0.98	0.95	0.93	0.90	0.90	0.90	0.90
USA	1.00	1.00	1.00	1.00	0.98	0.95	0.93	0.90	0.90	0.90	0.90

Table 1980: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Sugar crops—Sugar cane (1) [PART 1/2]

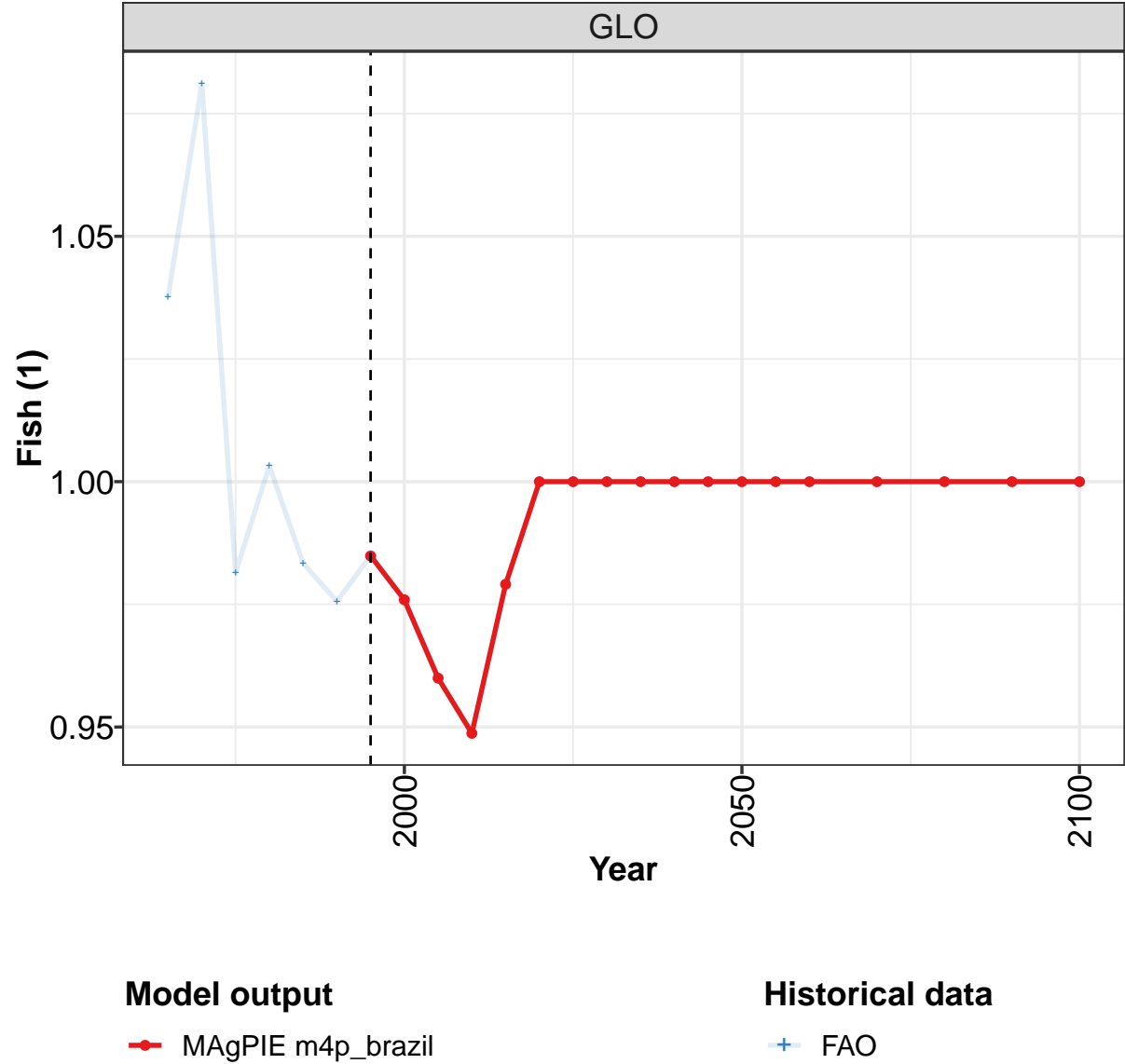
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.11	1.11	1.11	1.11	1.11	1.11	1.11
CHA	0.90	0.96	1.00	1.00	1.00	1.00	1.00
EUR	0.33	0.33	0.33	0.34	0.33	0.33	0.33
LAM	1.11	1.11	1.11	1.11	1.12	1.12	1.12
ROW	0.90	0.90	0.90	0.92	0.93	0.93	0.93
USA	0.90	0.90	0.90	0.90	0.90	0.90	0.90

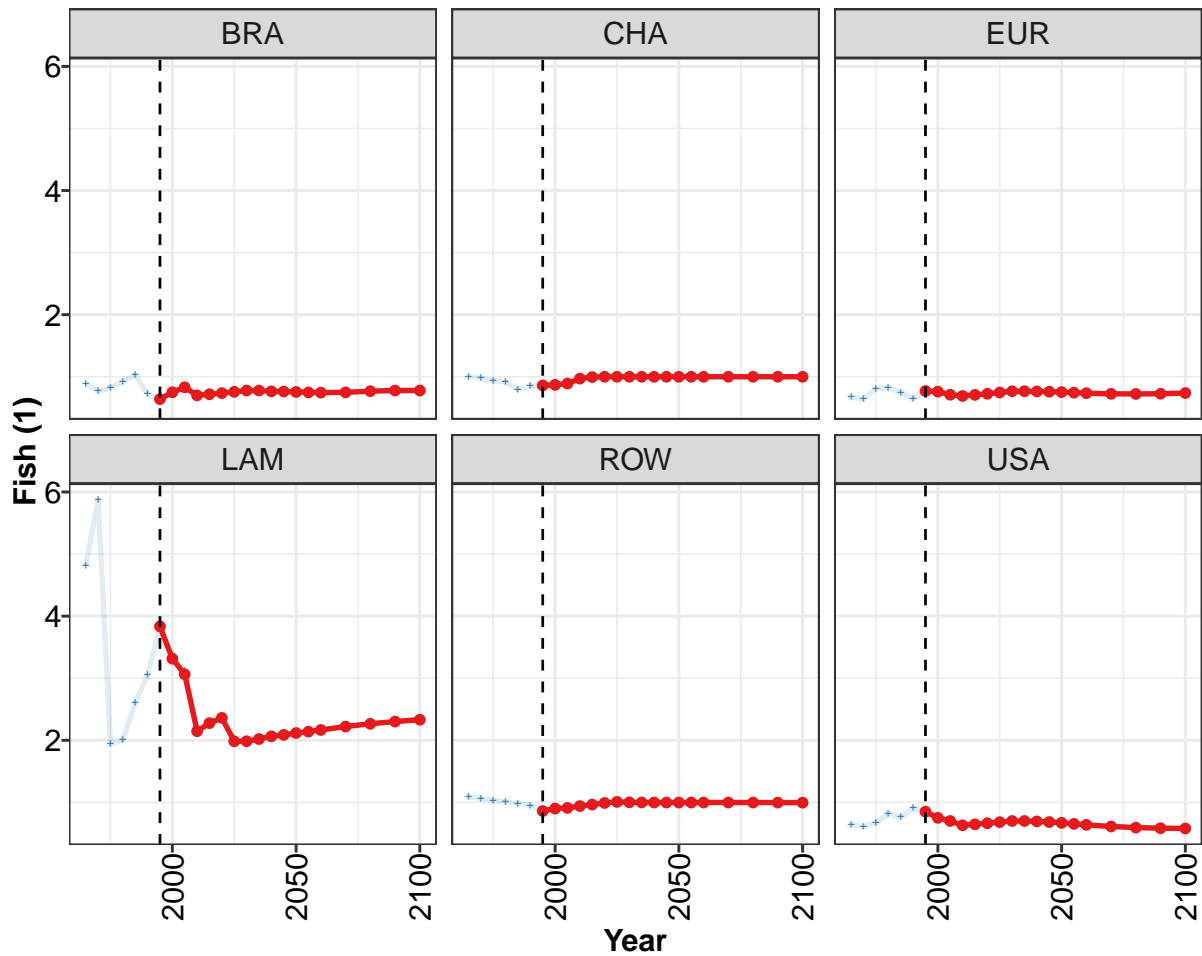
Table 1981: MAgPIE m4p_brazil — Trade—Self-sufficiency—Crops—Sugar crops—Sugar cane (1) [PART 2/2]

	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
BRA	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	0.37
LAM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ROW	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





Model output

MAgPIE m4p_brazil

Historical data

FAO

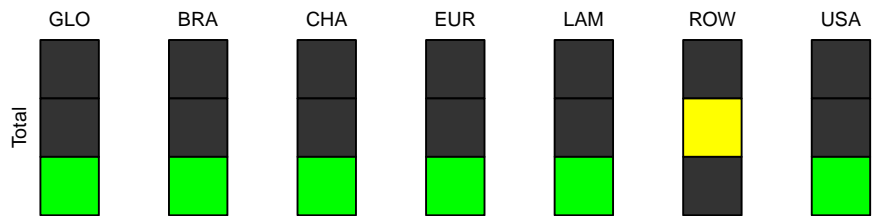


Figure 528: MAgPIE m4p_brazil — Trade—Self-sufficiency—Fish (1)

	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
BRA	0.64	0.75	0.83	0.70	0.72	0.74	0.76	0.78	0.78	0.76	0.76
CHA	0.86	0.87	0.89	0.97	0.99	1.00	1.00	1.00	1.00	1.00	1.00
EUR	0.77	0.76	0.71	0.69	0.71	0.73	0.75	0.77	0.77	0.76	0.76
LAM	3.84	3.32	3.06	2.15	2.28	2.36	1.98	1.98	2.02	2.06	2.09
ROW	0.86	0.90	0.91	0.94	0.96	0.99	1.01	1.00	1.00	1.00	1.00
USA	0.85	0.75	0.70	0.63	0.65	0.66	0.68	0.70	0.70	0.69	0.68

Table 1983: MAgPIE m4p_brazil — Trade—Self-sufficiency—Fish (1) [PART 1/2]

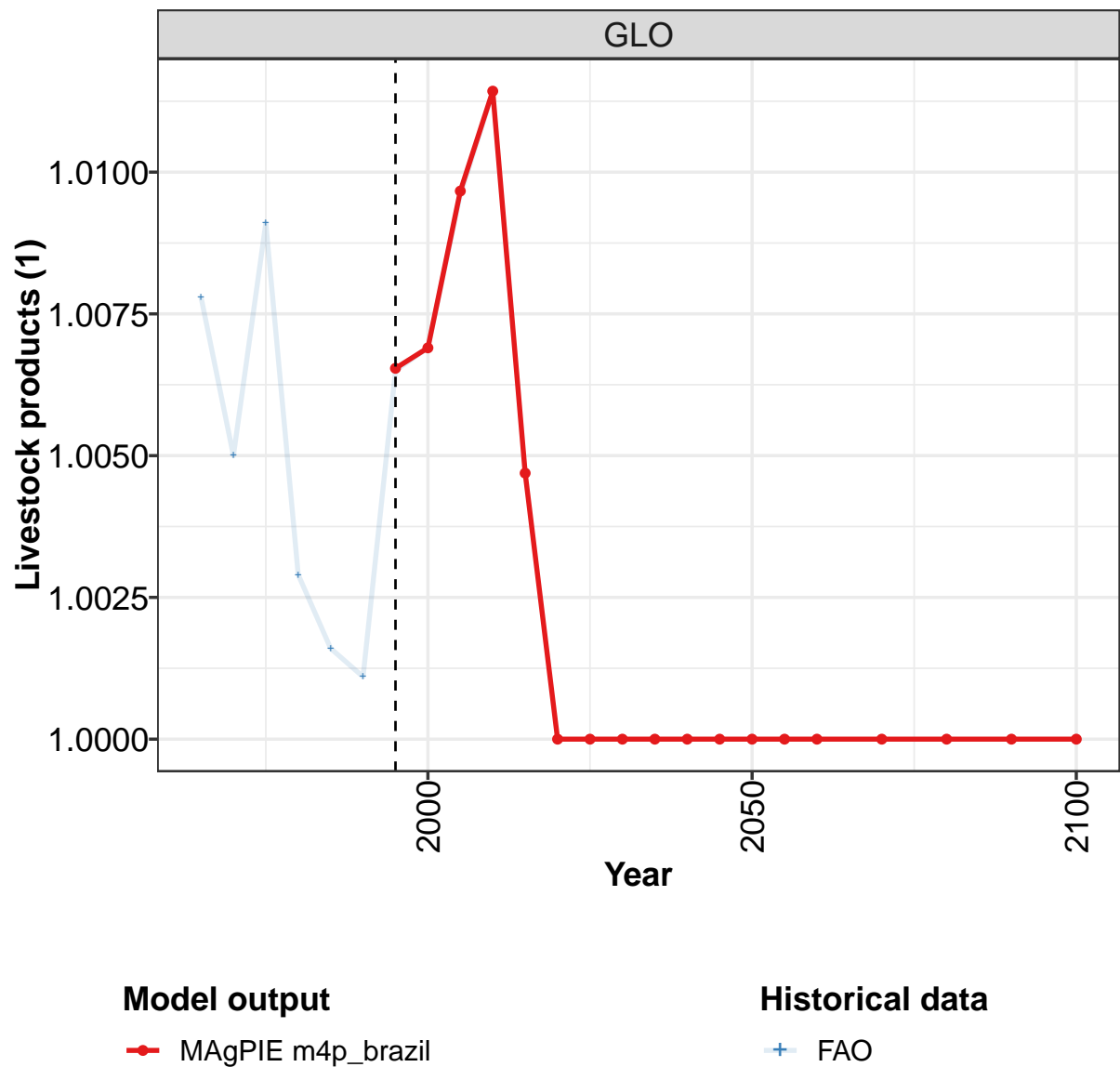
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	0.75	0.75	0.74	0.75	0.77	0.78	0.78
CHA	1.00	1.00	1.00	1.00	1.00	1.00	1.00
EUR	0.75	0.74	0.74	0.73	0.72	0.73	0.74
LAM	2.12	2.14	2.17	2.22	2.27	2.30	2.33
ROW	1.00	1.00	1.00	1.00	1.00	1.00	0.99
USA	0.67	0.65	0.64	0.61	0.59	0.58	0.58

Table 1984: MAgPIE m4p_brazil — 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
BRA	0.88	0.77	0.82	0.92	1.03	0.72	0.64	0.75	0.83	0.70
CHA	1.00	0.98	0.93	0.92	0.79	0.85	0.86	0.87	0.89	0.97
EUR	0.67	0.64	0.81	0.83	0.75	0.64	0.77	0.76	0.71	0.69
LAM	4.81	5.87	1.94	2.00	2.60	3.05	3.83	3.31	3.11	2.16
ROW	1.09	1.07	1.03	1.00	0.98	0.95	0.86	0.90	0.91	0.94
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



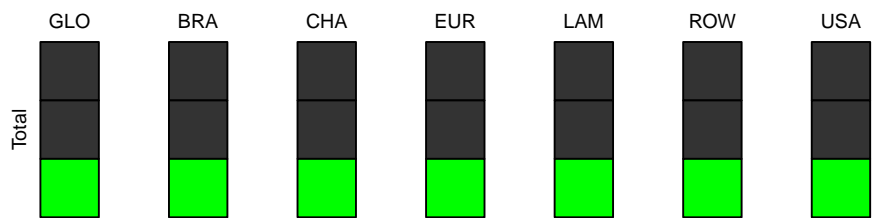
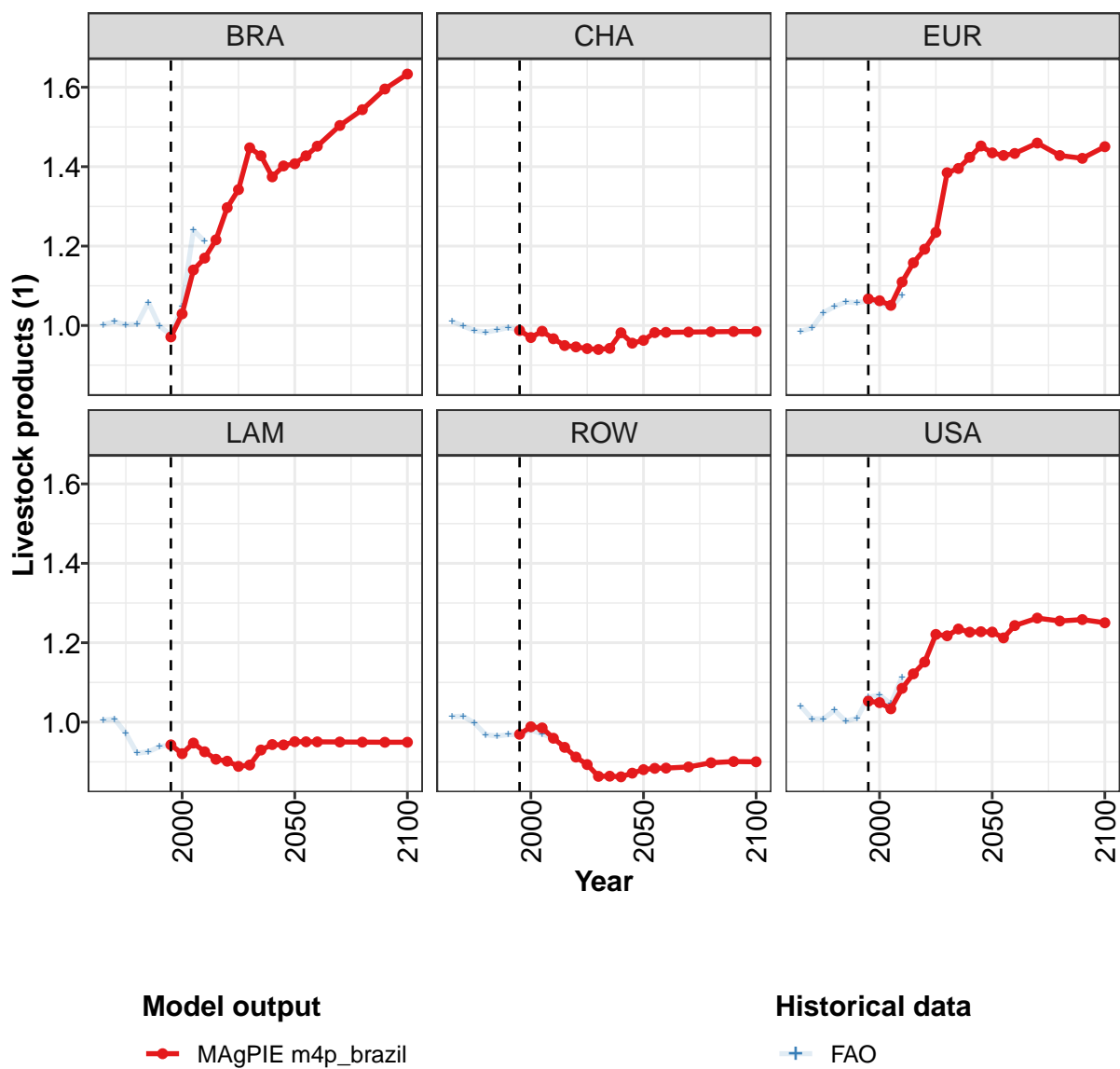


Figure 529: MAgPIE m4p-brazil — Trade—Self-sufficiency—Livestock products (1)

	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
BRA	0.97	1.03	1.14	1.17	1.22	1.30	1.34	1.45	1.43	1.37	1.40
CHA	0.99	0.97	0.99	0.97	0.95	0.95	0.94	0.94	0.94	0.98	0.96
EUR	1.07	1.06	1.05	1.11	1.16	1.19	1.23	1.38	1.40	1.42	1.45
LAM	0.94	0.92	0.95	0.93	0.91	0.90	0.89	0.89	0.93	0.94	0.94
ROW	0.97	0.99	0.99	0.96	0.94	0.91	0.89	0.86	0.86	0.86	0.87
USA	1.05	1.05	1.03	1.09	1.12	1.15	1.22	1.22	1.23	1.23	1.23

Table 1986: MAgPIE m4p_brazil — Trade—Self-sufficiency—Livestock products (1) [PART 1/2]

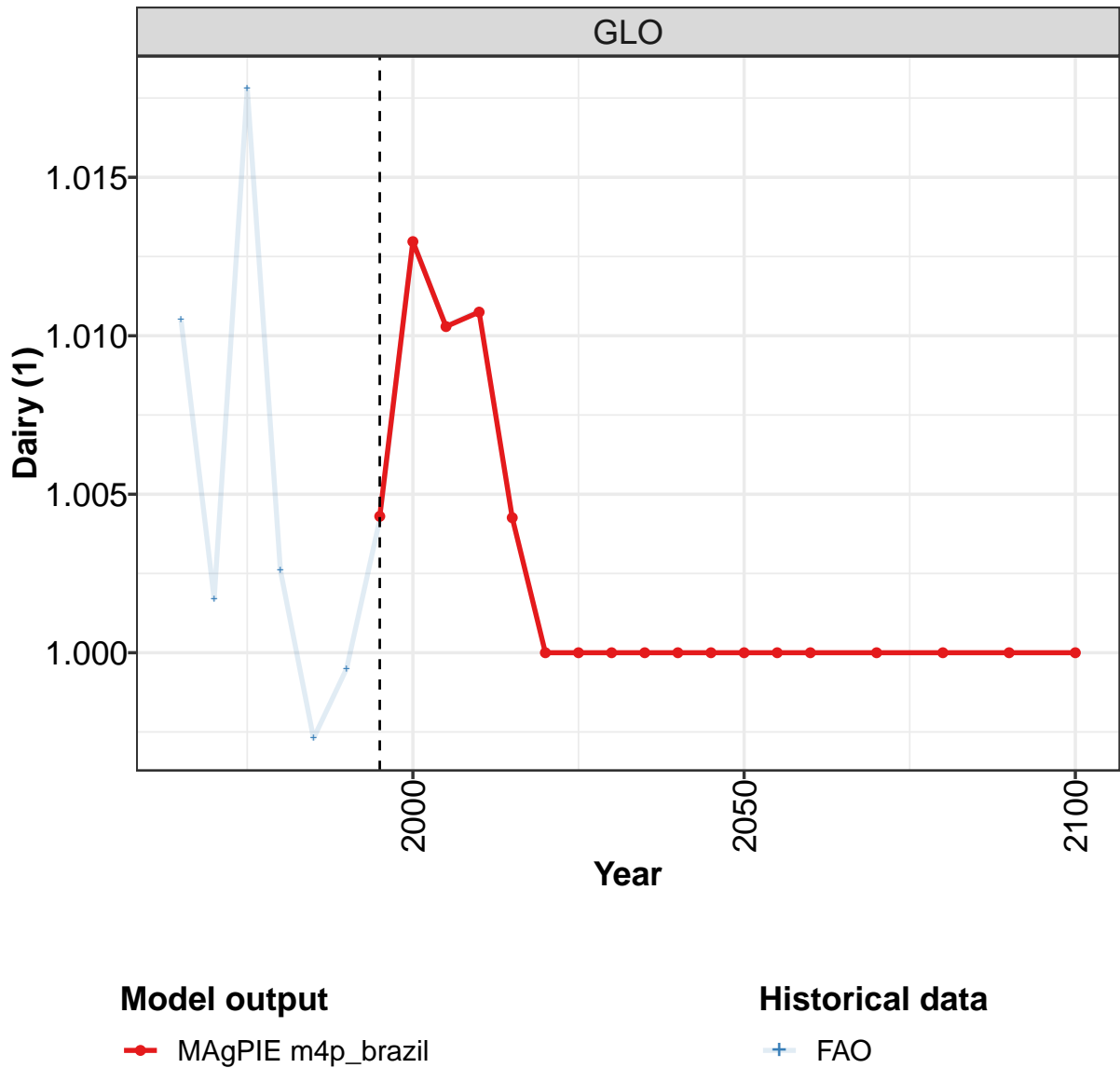
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.41	1.43	1.45	1.50	1.54	1.60	1.63
CHA	0.96	0.98	0.98	0.98	0.98	0.98	0.98
EUR	1.43	1.43	1.43	1.46	1.43	1.42	1.45
LAM	0.95	0.95	0.95	0.95	0.95	0.95	0.95
ROW	0.88	0.88	0.88	0.89	0.90	0.90	0.90
USA	1.23	1.21	1.24	1.26	1.25	1.26	1.25

Table 1987: MAgPIE m4p_brazil — 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
BRA	1.00	1.01	1.00	1.00	1.06	1.00	0.98	1.05	1.24	1.21
CHA	1.01	1.00	0.99	0.98	0.99	0.99	0.99	0.97	0.98	0.97
EUR	0.99	0.99	1.03	1.05	1.06	1.06	1.06	1.06	1.04	1.08
LAM	1.01	1.01	0.97	0.92	0.93	0.94	0.94	0.92	0.95	0.92
ROW	1.01	1.01	1.00	0.97	0.96	0.97	0.97	0.98	0.97	0.96
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



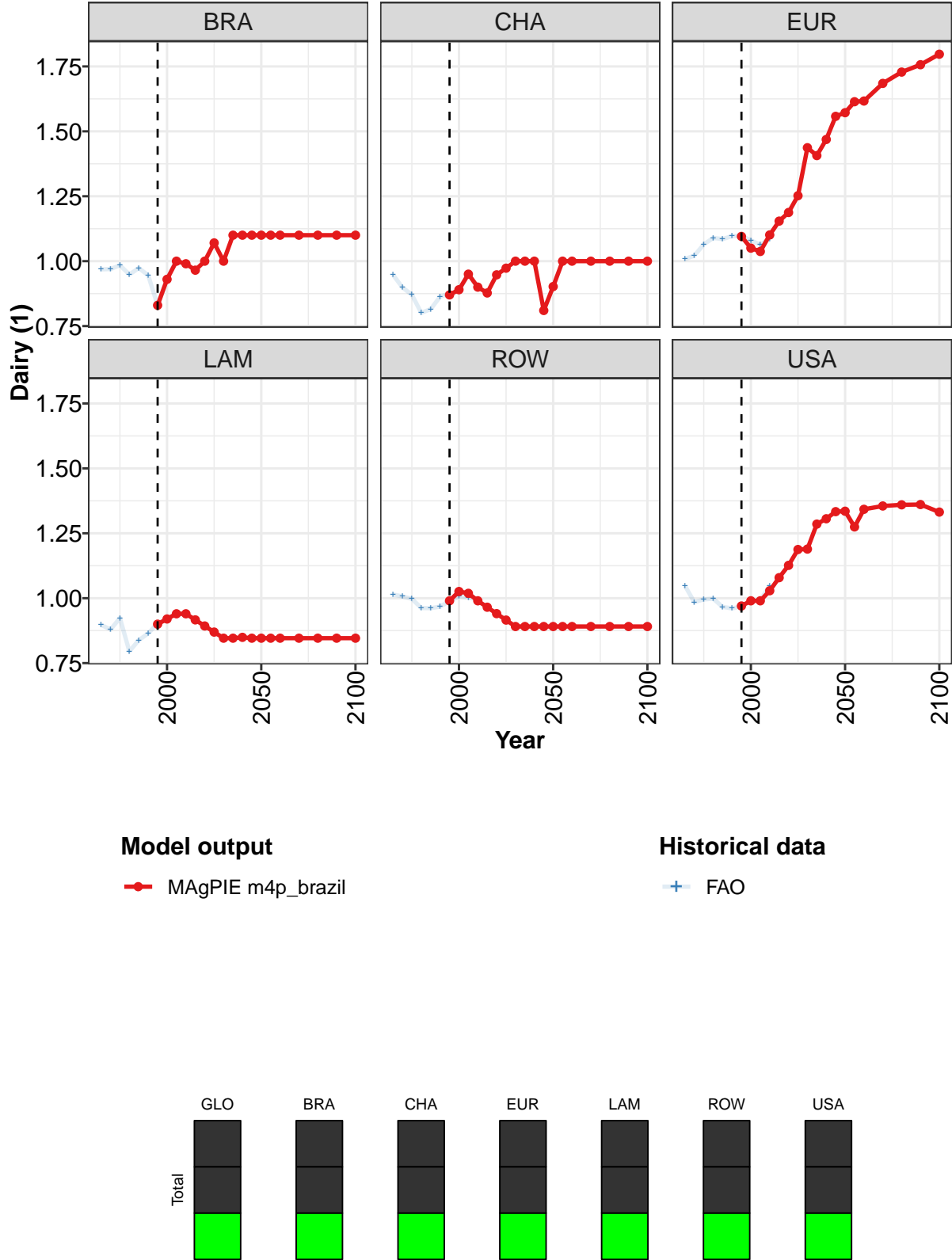


Figure 530: MAgPIE m4p_brazil — Trade—Self-sufficiency—Livestock products—Dairy (1)

	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
BRA	0.83	0.93	1.00	0.99	0.97	1.00	1.07	1.00	1.10	1.10	1.10
CHA	0.87	0.89	0.95	0.90	0.88	0.95	0.97	1.00	1.00	1.00	0.81
EUR	1.10	1.05	1.04	1.10	1.15	1.19	1.25	1.44	1.41	1.47	1.56
LAM	0.90	0.92	0.94	0.94	0.92	0.89	0.87	0.85	0.85	0.85	0.85
ROW	0.99	1.03	1.02	0.99	0.97	0.94	0.92	0.89	0.89	0.89	0.89
USA	0.97	0.99	0.99	1.03	1.08	1.13	1.19	1.19	1.29	1.31	1.33

Table 1989: MAgPIE m4p_brazil — Trade—Self-sufficiency—Livestock products—Dairy (1) [PART 1/2]

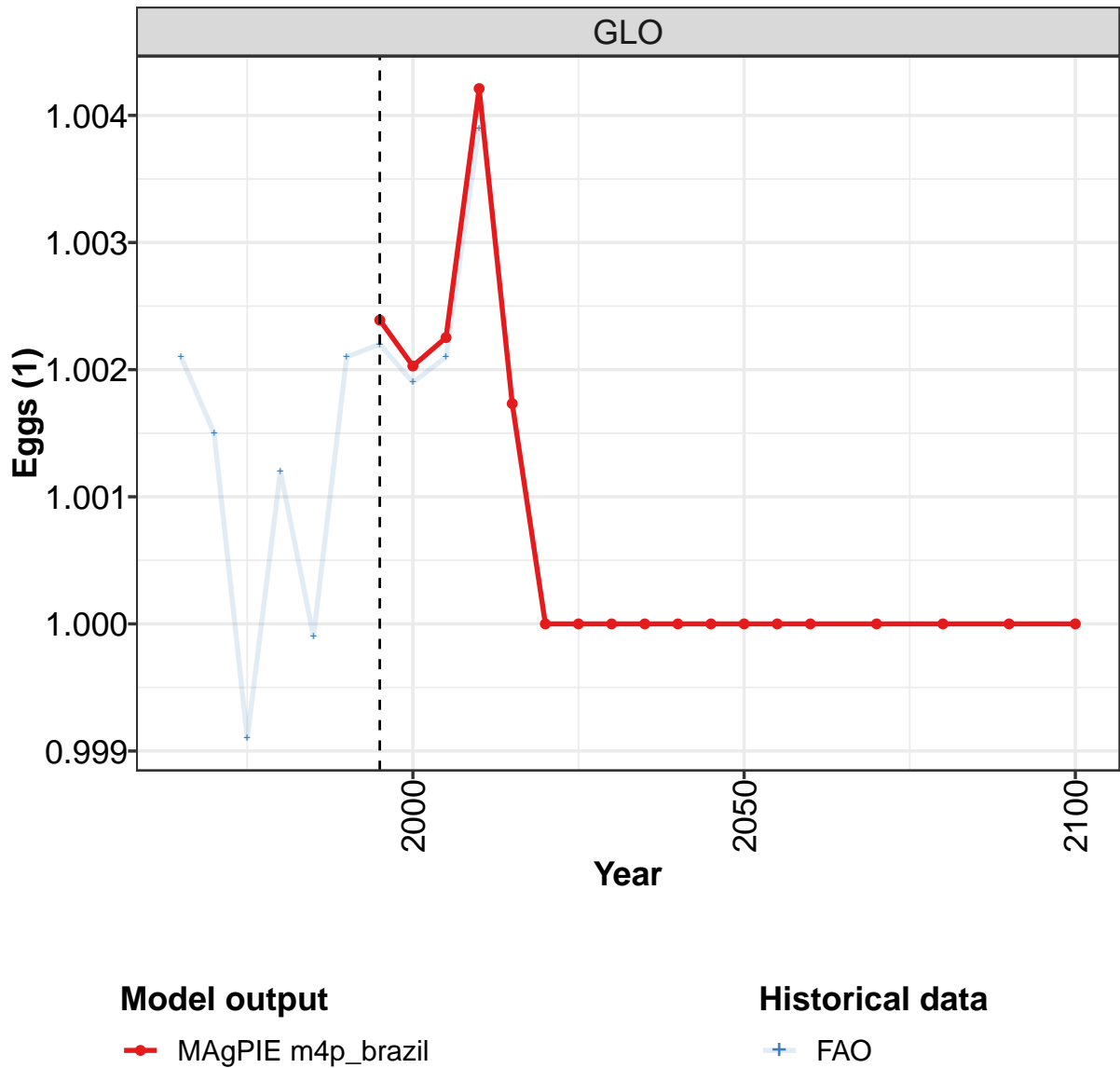
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.10	1.10	1.10	1.10	1.10	1.10	1.10
CHA	0.90	1.00	1.00	1.00	1.00	1.00	1.00
EUR	1.57	1.61	1.62	1.68	1.73	1.76	1.80
LAM	0.85	0.85	0.85	0.85	0.85	0.85	0.85
ROW	0.89	0.89	0.89	0.89	0.89	0.89	0.89
USA	1.33	1.27	1.34	1.36	1.36	1.36	1.33

Table 1990: MAgPIE m4p_brazil — 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
BRA	0.97	0.97	0.98	0.95	0.97	0.95	0.83	0.93	1.00	0.99
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	1.06	1.09	1.08	1.10	1.10	1.08	1.06	1.09
LAM	0.90	0.88	0.92	0.80	0.84	0.86	0.90	0.92	0.94	0.94
ROW	1.01	1.01	1.00	0.96	0.96	0.97	0.99	1.01	1.00	0.99
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



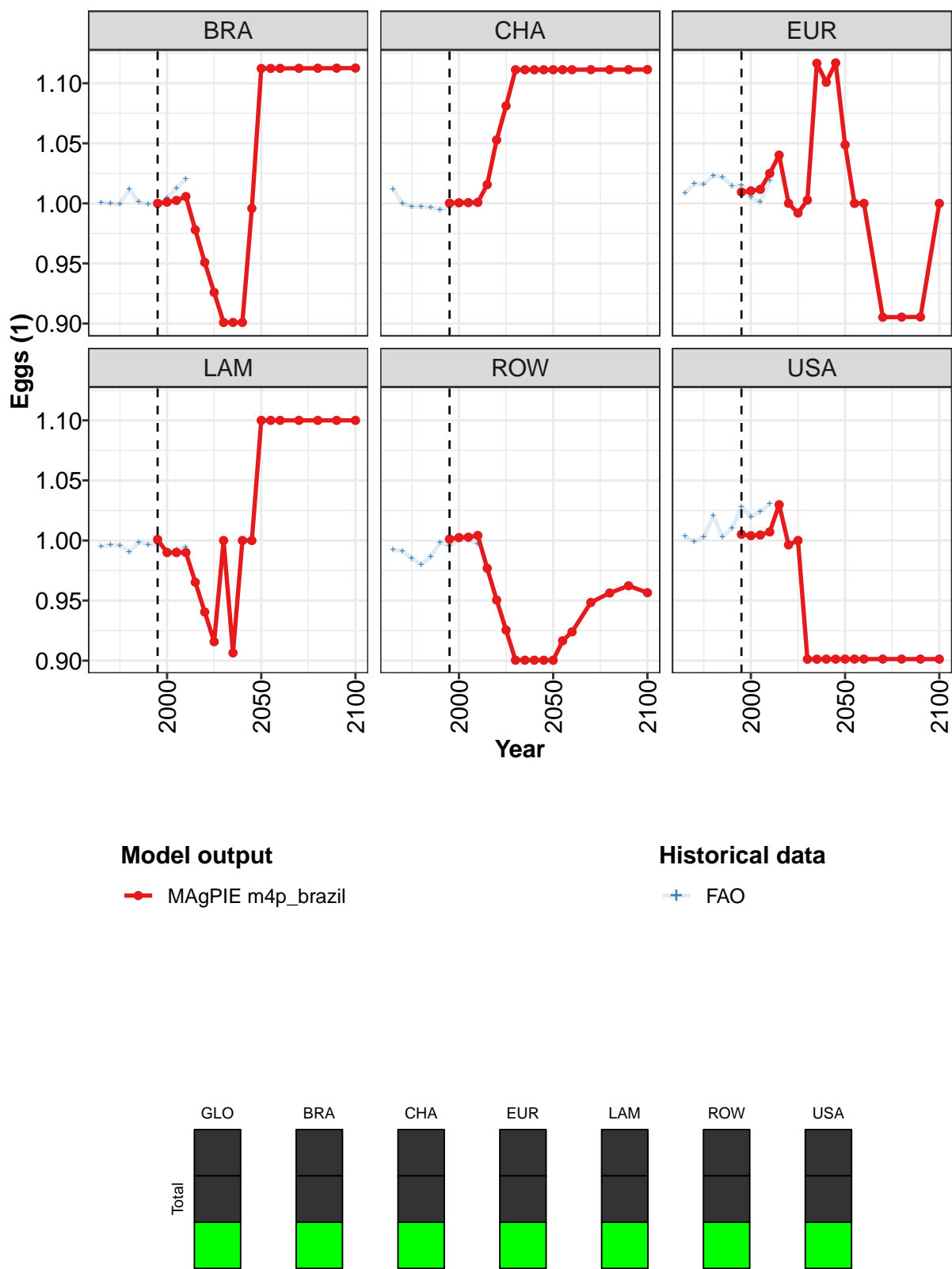


Figure 531: MAgPIE m4p_brazil — Trade—Self-sufficiency—Livestock products—Eggs (1)

	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
BRA	1.00	1.00	1.00	1.01	0.98	0.95	0.93	0.90	0.90	0.90	1.00
CHA	1.00	1.00	1.00	1.00	1.02	1.05	1.08	1.11	1.11	1.11	1.11
EUR	1.01	1.01	1.01	1.02	1.04	1.00	0.99	1.00	1.12	1.10	1.12
LAM	1.00	0.99	0.99	0.99	0.97	0.94	0.92	1.00	0.91	1.00	1.00
ROW	1.00	1.00	1.00	1.00	0.98	0.95	0.93	0.90	0.90	0.90	0.90
USA	1.01	1.00	1.00	1.01	1.03	1.00	1.00	0.90	0.90	0.90	0.90

Table 1992: MAgPIE m4p_brazil — Trade—Self-sufficiency—Livestock products—Eggs (1) [PART 1/2]

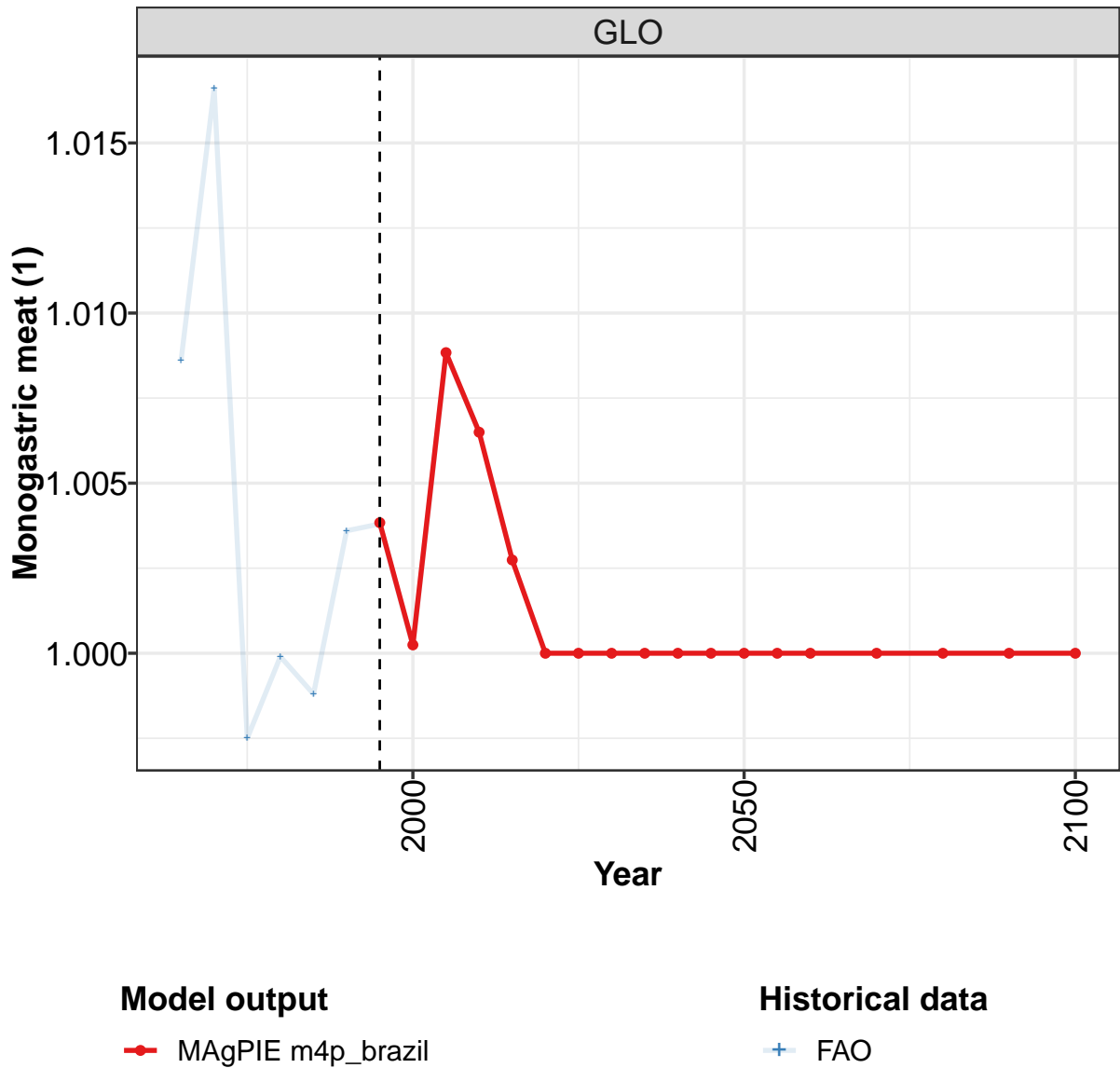
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.11	1.11	1.11	1.11	1.11	1.11	1.11
CHA	1.11	1.11	1.11	1.11	1.11	1.11	1.11
EUR	1.05	1.00	1.00	0.91	0.91	0.91	1.00
LAM	1.10	1.10	1.10	1.10	1.10	1.10	1.10
ROW	0.90	0.92	0.92	0.95	0.96	0.96	0.96
USA	0.90	0.90	0.90	0.90	0.90	0.90	0.90

Table 1993: MAgPIE m4p_brazil — 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
BRA	1.00	1.00	1.00	1.01	1.00	1.00	1.00	1.00	1.01	1.02
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	1.02	1.02	1.01	1.02	1.01	1.00	1.02
LAM	0.99	1.00	1.00	0.99	1.00	1.00	1.00	0.99	0.99	0.99
ROW	0.99	0.99	0.99	0.98	0.99	1.00	1.00	1.00	1.00	1.00
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



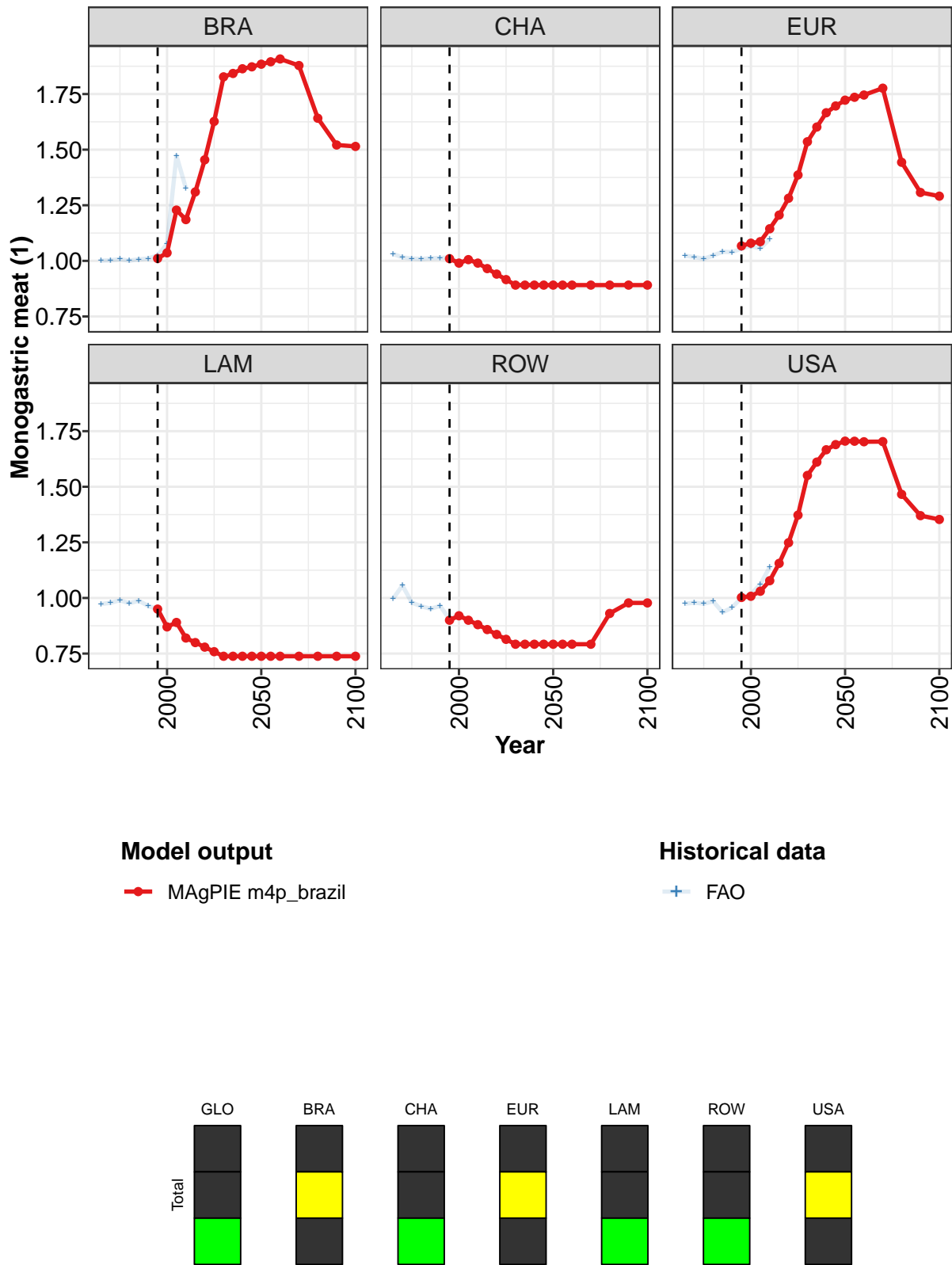


Figure 532: MAgPIE m4p_brazil — Trade—Self-sufficiency—Livestock products—Monogastric meat (1)

	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
BRA	1.01	1.04	1.23	1.19	1.31	1.45	1.63	1.83	1.84	1.86	1.87
CHA	1.01	0.99	1.01	0.99	0.97	0.94	0.92	0.89	0.89	0.89	0.89
EUR	1.07	1.08	1.09	1.14	1.21	1.28	1.39	1.54	1.60	1.67	1.70
LAM	0.95	0.87	0.89	0.82	0.80	0.78	0.76	0.74	0.74	0.74	0.74
ROW	0.90	0.92	0.90	0.88	0.86	0.84	0.81	0.79	0.79	0.79	0.79
USA	1.00	1.01	1.03	1.08	1.16	1.25	1.37	1.55	1.61	1.67	1.69

Table 1995: MAgPIE m4p_brazil — Trade—Self-sufficiency—Livestock products—Monogastric meat (1) [PART 1/2]

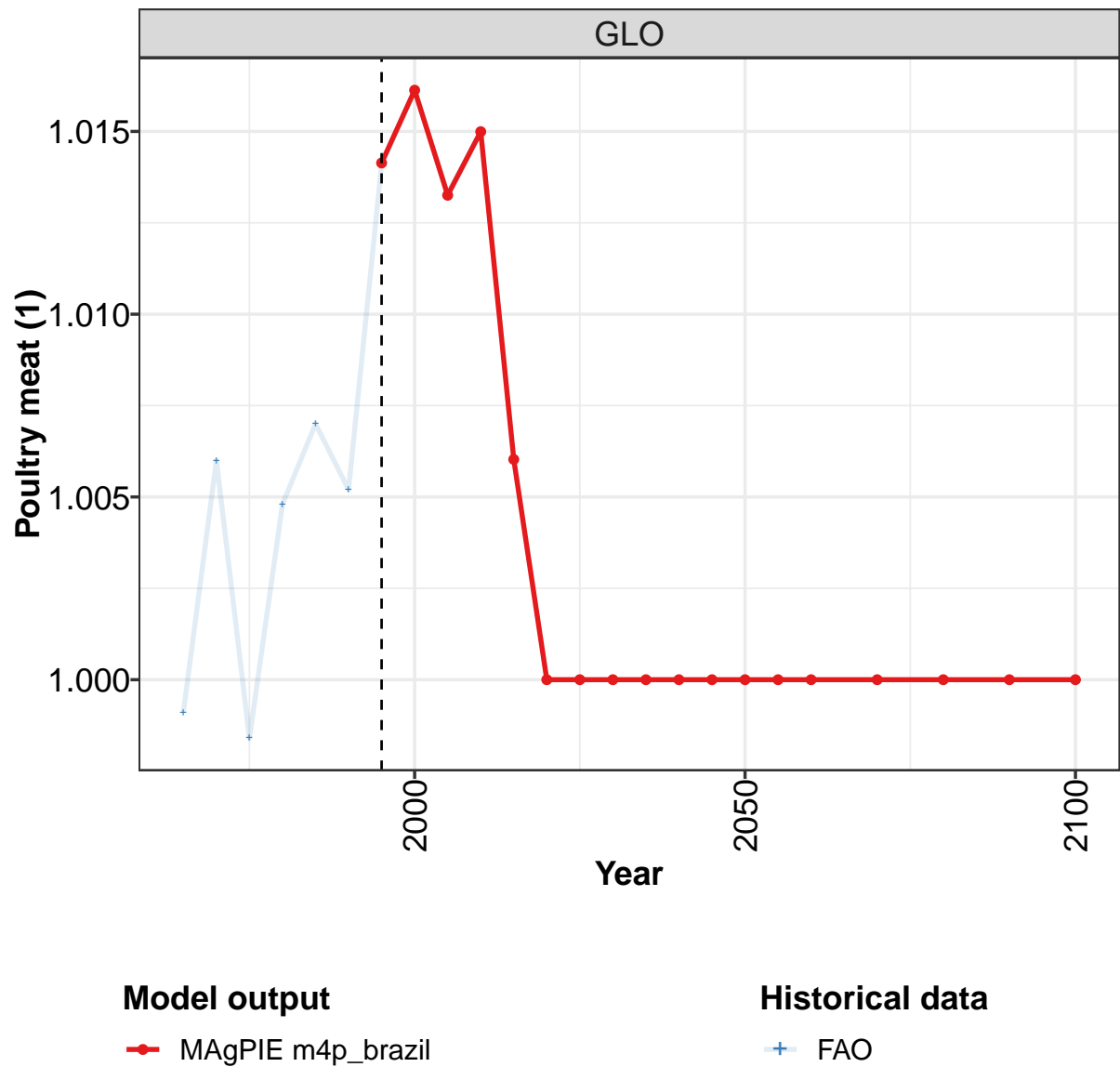
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.88	1.90	1.91	1.88	1.64	1.52	1.51
CHA	0.89	0.89	0.89	0.89	0.89	0.89	0.89
EUR	1.72	1.74	1.75	1.78	1.44	1.31	1.29
LAM	0.74	0.74	0.74	0.74	0.74	0.74	0.74
ROW	0.79	0.79	0.79	0.79	0.93	0.98	0.98
USA	1.71	1.70	1.70	1.70	1.47	1.37	1.35

Table 1996: MAgPIE m4p_brazil — 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
BRA	1.00	1.00	1.01	1.00	1.01	1.01	1.02	1.08	1.47	1.33
CHA	1.03	1.02	1.01	1.01	1.01	1.01	1.02	0.99	1.00	0.99
EUR	1.02	1.02	1.01	1.02	1.04	1.04	1.06	1.07	1.06	1.10
LAM	0.97	0.98	0.99	0.98	0.99	0.96	0.95	0.87	0.89	0.82
ROW	1.00	1.06	0.98	0.96	0.95	0.96	0.90	0.92	0.90	0.88
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



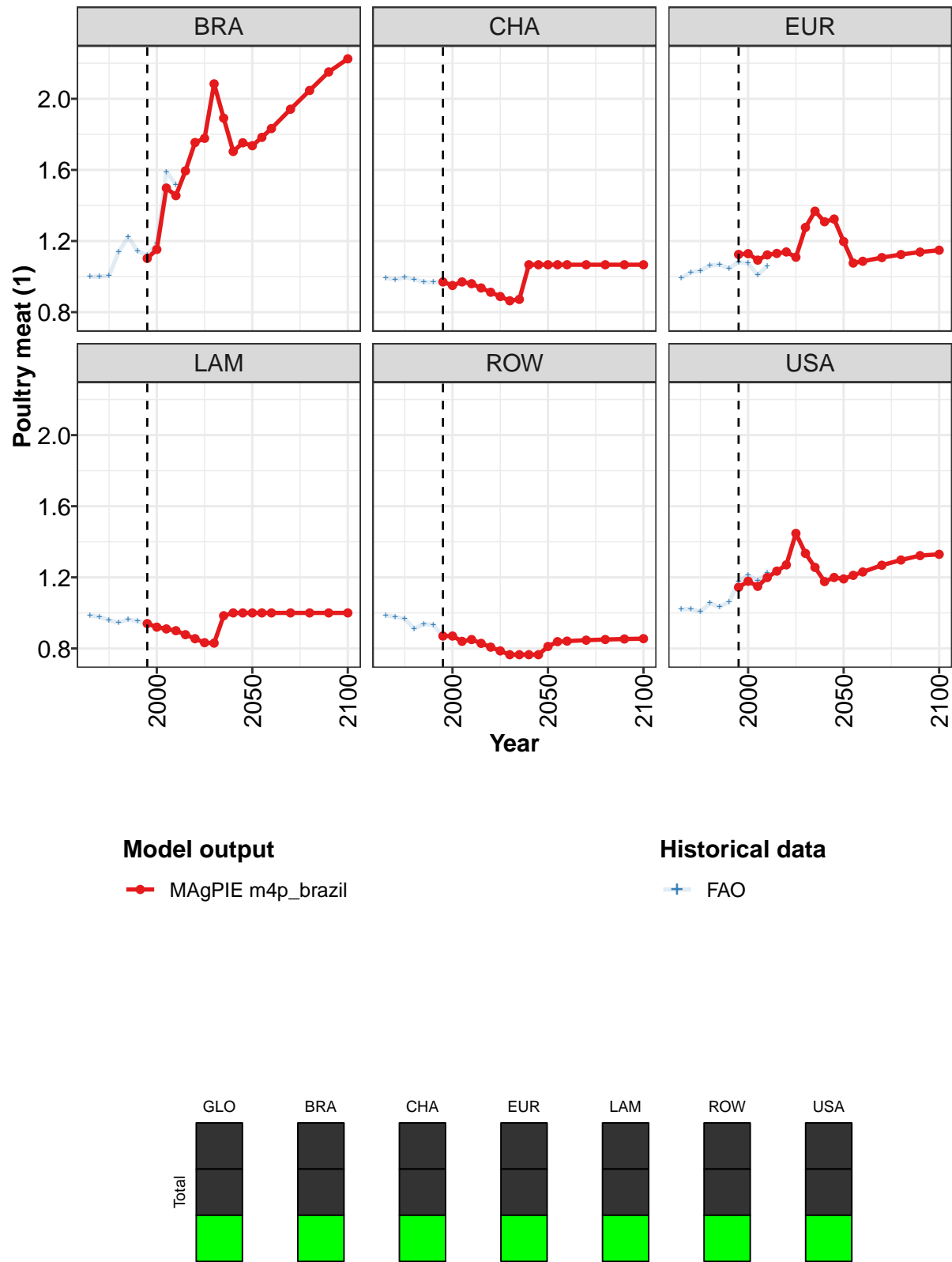


Figure 533: MAGPIE m4p_brazil — Trade—Self-sufficiency—Livestock products—Poultry meat (1)

	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
BRA	1.10	1.15	1.50	1.46	1.59	1.75	1.78	2.08	1.89	1.70	1.75
CHA	0.97	0.95	0.97	0.96	0.94	0.91	0.89	0.86	0.87	1.07	1.07
EUR	1.12	1.13	1.09	1.12	1.13	1.14	1.11	1.28	1.37	1.31	1.32
LAM	0.94	0.92	0.91	0.90	0.88	0.85	0.83	0.83	0.98	1.00	1.00
ROW	0.87	0.87	0.84	0.85	0.83	0.81	0.79	0.77	0.77	0.76	0.76
USA	1.14	1.18	1.15	1.20	1.23	1.27	1.45	1.33	1.26	1.18	1.20

Table 1998: MAgPIE m4p_brazil — Trade—Self-sufficiency—Livestock products—Poultry meat (1) [PART 1/2]

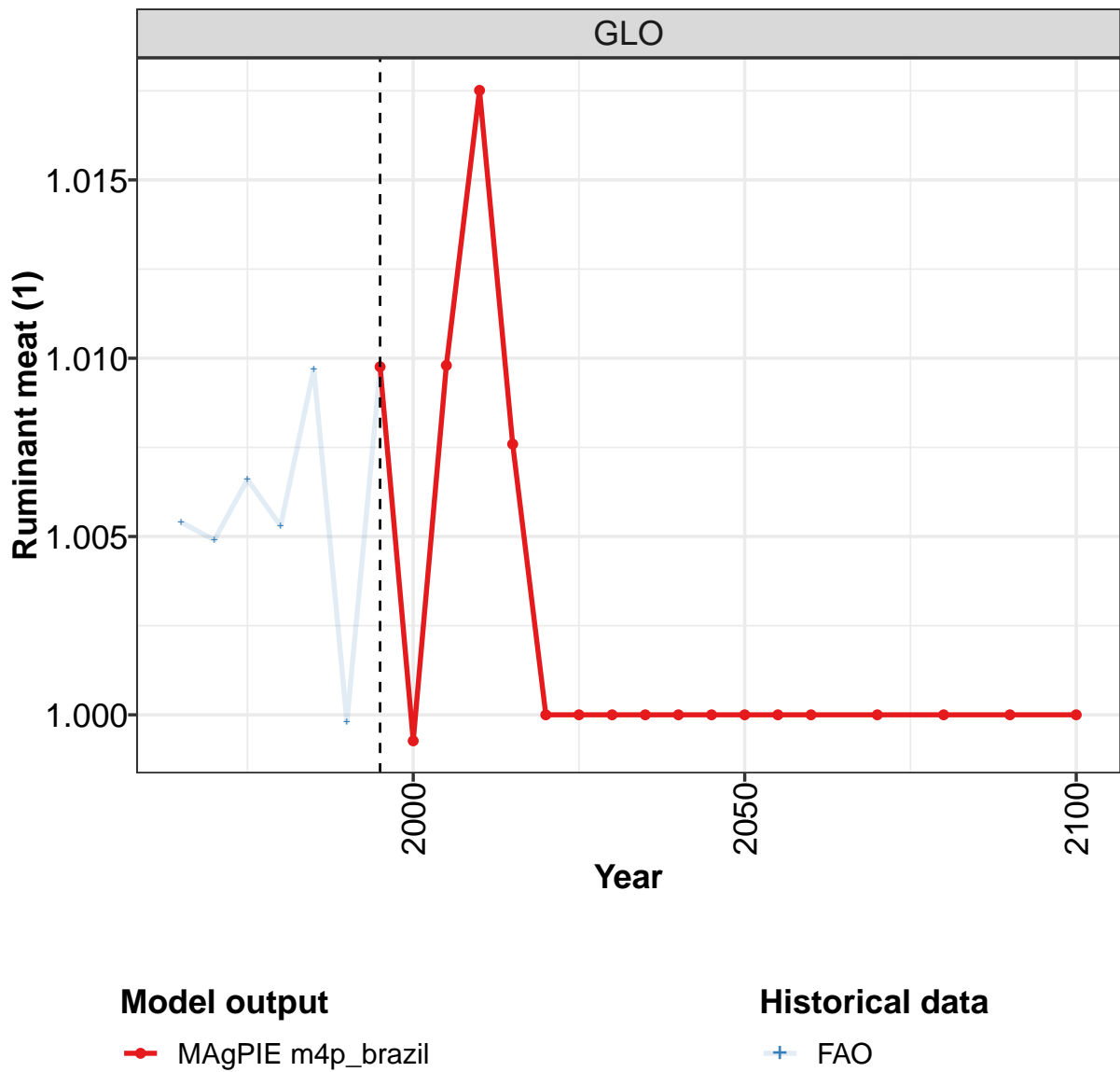
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.74	1.78	1.83	1.94	2.05	2.15	2.22
CHA	1.07	1.07	1.07	1.07	1.07	1.07	1.07
EUR	1.20	1.08	1.09	1.11	1.12	1.14	1.15
LAM	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ROW	0.81	0.84	0.84	0.85	0.85	0.85	0.86
USA	1.19	1.21	1.23	1.27	1.30	1.32	1.33

Table 1999: MAgPIE m4p_brazil — 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
BRA	1.00	1.00	1.01	1.14	1.22	1.14	1.12	1.19	1.59	1.52
CHA	0.99	0.98	1.00	0.99	0.97	0.97	0.97	0.95	0.97	0.96
EUR	0.99	1.03	1.03	1.06	1.07	1.05	1.08	1.07	1.01	1.06
LAM	0.98	0.98	0.96	0.95	0.96	0.95	0.94	0.92	0.91	0.90
ROW	0.99	0.98	0.97	0.91	0.94	0.93	0.87	0.87	0.84	0.85
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



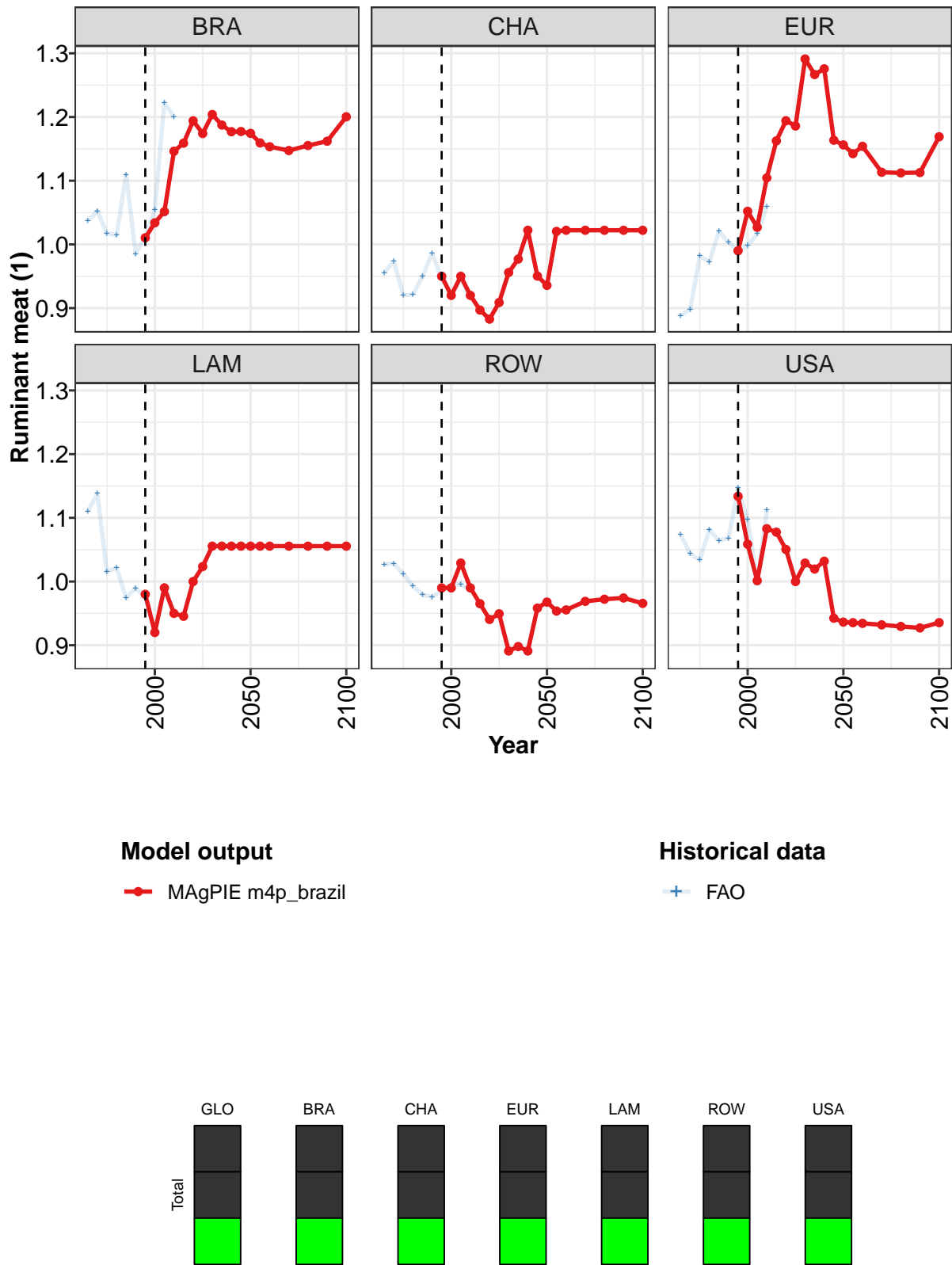


Figure 534: MAGPIE m4p_brazil — Trade—Self-sufficiency—Livestock products—Ruminant meat (1)

	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
BRA	1.01	1.03	1.05	1.15	1.16	1.19	1.17	1.20	1.19	1.18	1.18
CHA	0.95	0.92	0.95	0.92	0.90	0.88	0.91	0.96	0.98	1.02	0.95
EUR	0.99	1.05	1.03	1.10	1.16	1.19	1.19	1.29	1.27	1.28	1.16
LAM	0.98	0.92	0.99	0.95	0.95	1.00	1.02	1.06	1.06	1.06	1.06
ROW	0.99	0.99	1.03	0.99	0.97	0.94	0.95	0.89	0.90	0.89	0.96
USA	1.13	1.06	1.00	1.08	1.08	1.05	1.00	1.03	1.02	1.03	0.94

Table 2001: MAgPIE m4p_brazil — 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
BRA	1.17	1.16	1.15	1.15	1.16	1.16	1.20
CHA	0.94	1.02	1.02	1.02	1.02	1.02	1.02
EUR	1.16	1.14	1.15	1.11	1.11	1.11	1.17
LAM	1.06	1.06	1.06	1.06	1.06	1.06	1.06
ROW	0.97	0.95	0.96	0.97	0.97	0.97	0.97
USA	0.94	0.94	0.93	0.93	0.93	0.93	0.94

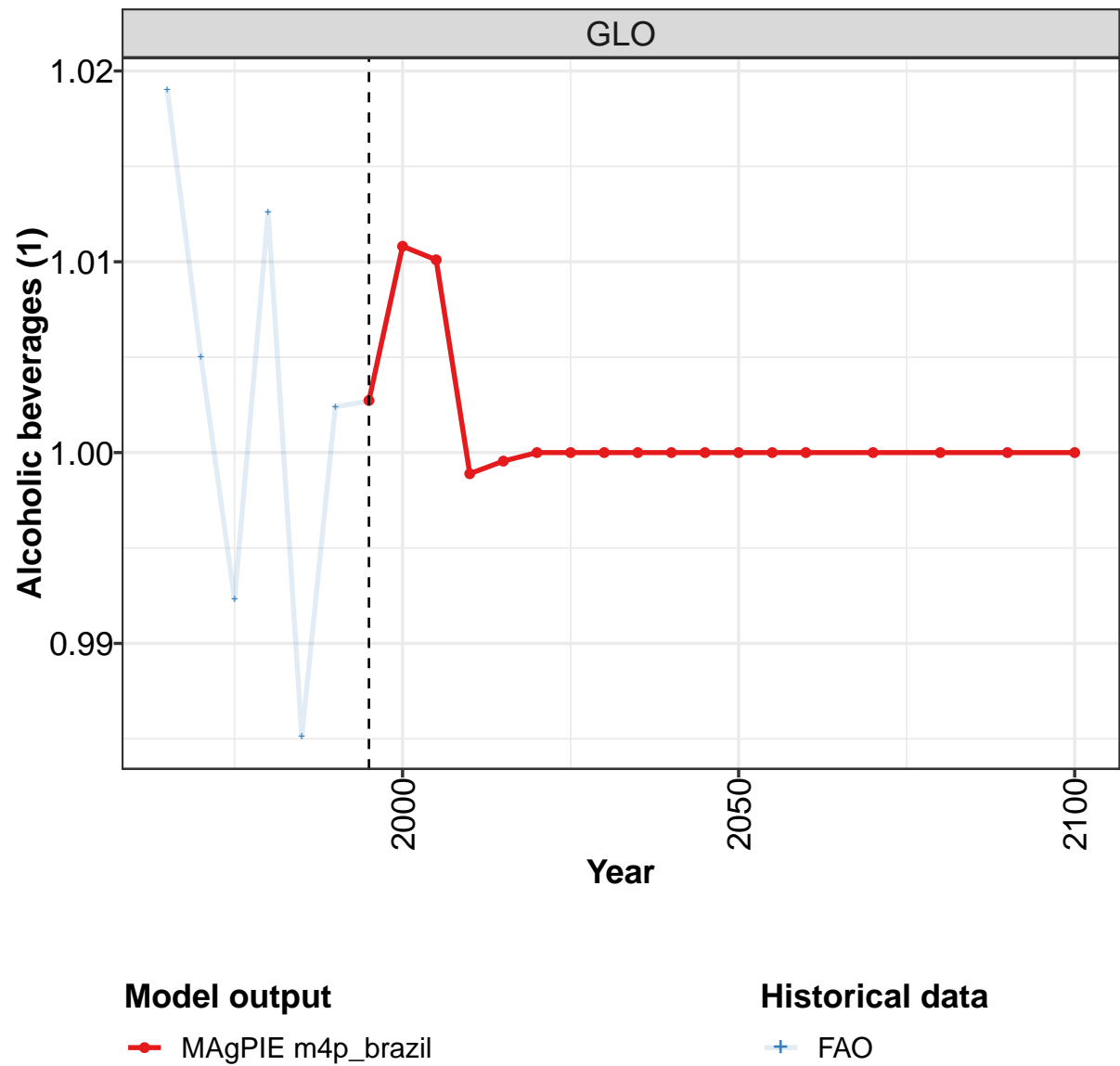
Table 2002: MAgPIE m4p_brazil — Trade—Self-sufficiency—Livestock products—Ruminant meat (1) [PART 2/2]

	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
BRA	1.04	1.05	1.02	1.01	1.11	0.99	1.01	1.05	1.22	1.20
CHA	0.96	0.97	0.92	0.92	0.95	0.99	0.95	0.92	0.95	0.92
EUR	0.89	0.90	0.98	0.97	1.02	1.00	0.99	1.00	1.02	1.06
LAM	1.11	1.14	1.01	1.02	0.97	0.99	0.98	0.92	0.99	0.95
ROW	1.03	1.03	1.01	0.99	0.98	0.98	0.99	0.99	1.00	0.99
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



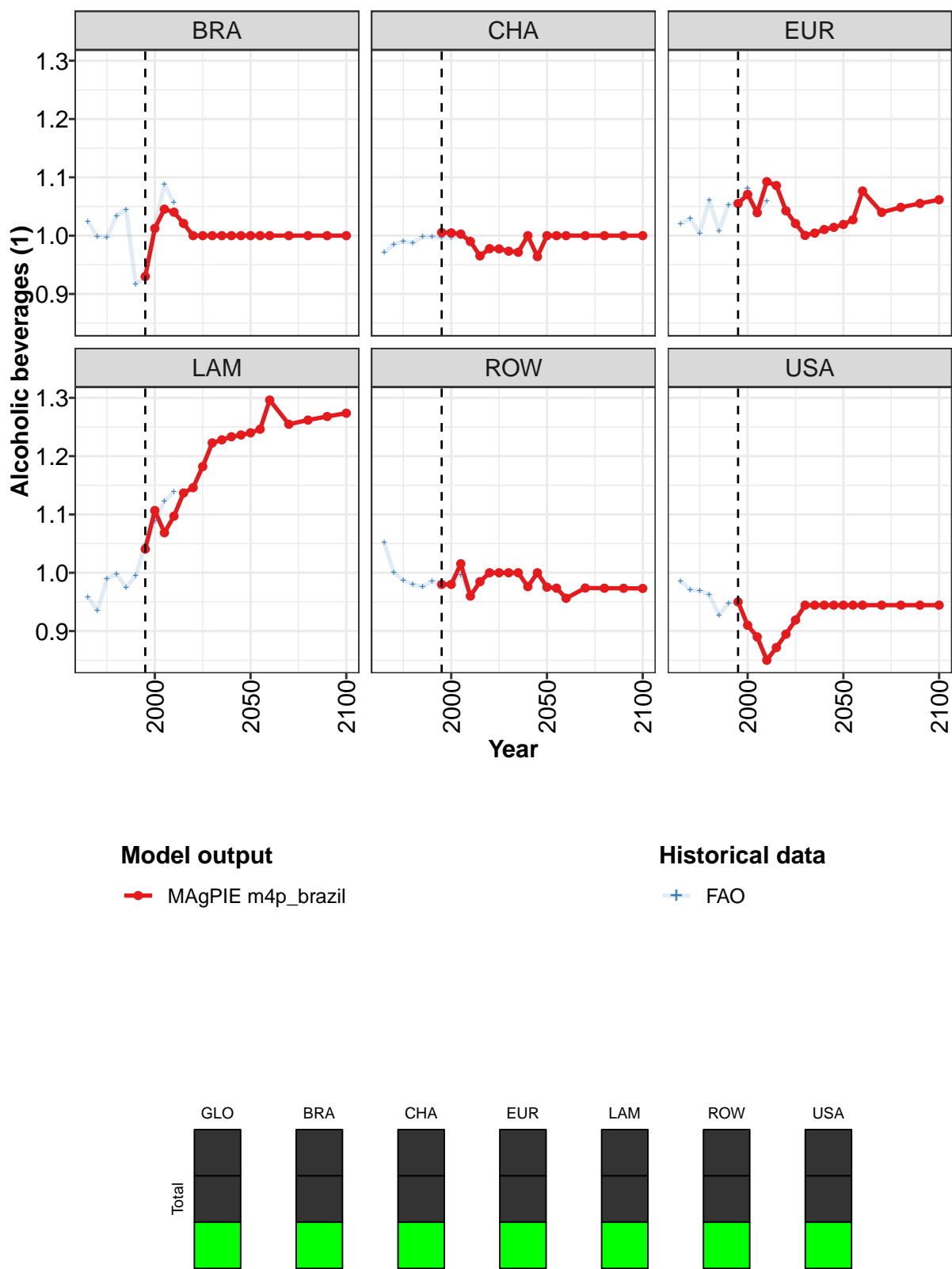


Figure 535: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Alcoholic beverages (1)

	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
BRA	0.93	1.01	1.05	1.04	1.02	1.00	1.00	1.00	1.00	1.00	1.00
CHA	1.01	1.00	1.00	0.99	0.97	0.98	0.98	0.97	0.97	1.00	0.96
EUR	1.05	1.07	1.04	1.09	1.09	1.04	1.02	1.00	1.00	1.01	1.01
LAM	1.04	1.11	1.07	1.10	1.14	1.15	1.18	1.22	1.23	1.23	1.24
ROW	0.98	0.98	1.02	0.96	0.98	1.00	1.00	1.00	1.00	0.98	1.00
USA	0.95	0.91	0.89	0.85	0.87	0.89	0.92	0.94	0.94	0.94	0.94

Table 2004: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Alcoholic beverages (1)
[PART 1/2]

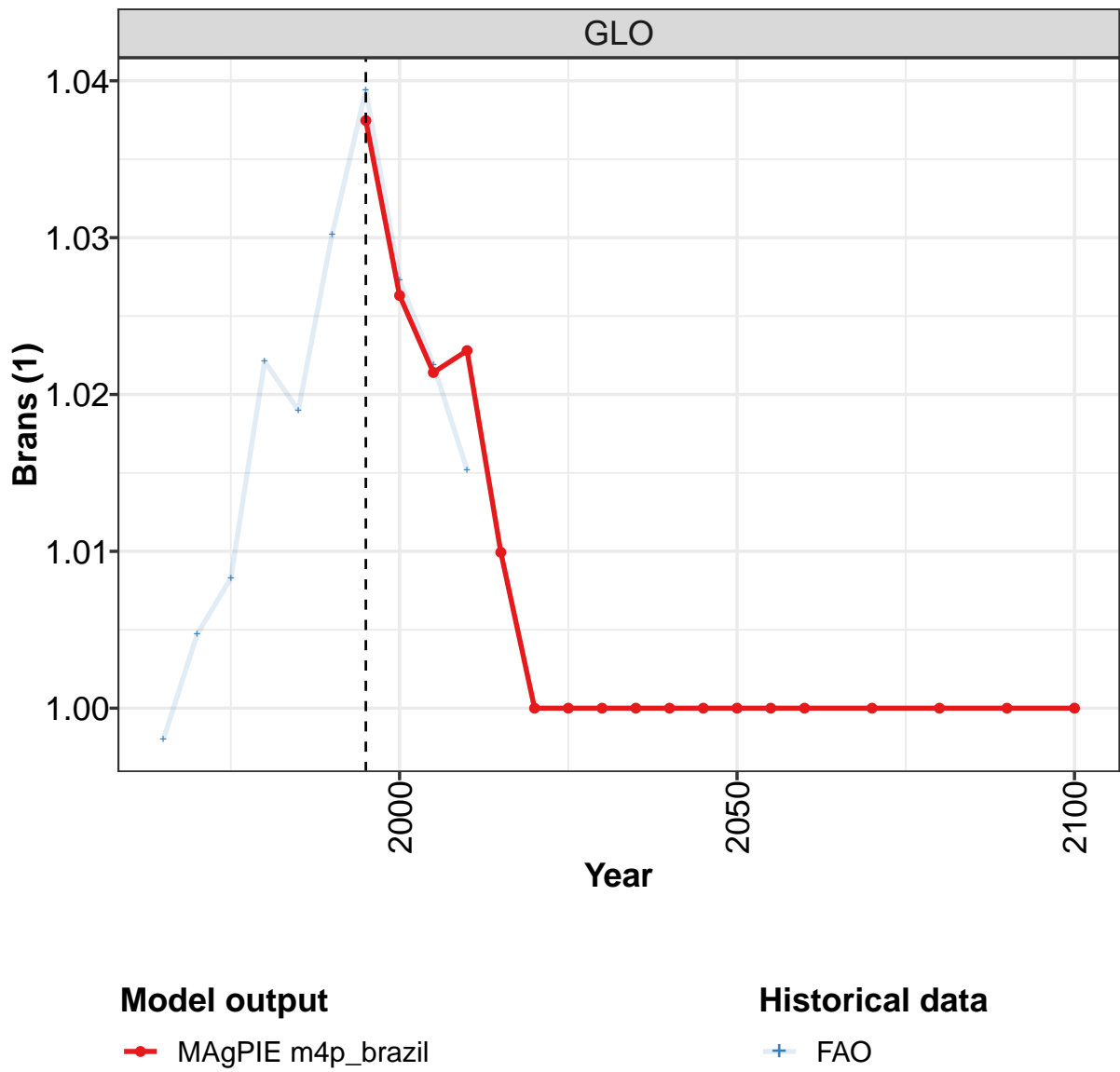
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.00	1.00	1.00	1.00	1.00	1.00	1.00
CHA	1.00	1.00	1.00	1.00	1.00	1.00	1.00
EUR	1.02	1.03	1.08	1.04	1.05	1.06	1.06
LAM	1.24	1.25	1.30	1.25	1.26	1.27	1.27
ROW	0.98	0.97	0.96	0.97	0.97	0.97	0.97
USA	0.94	0.94	0.94	0.94	0.94	0.94	0.94

Table 2005: MAgPIE m4p_brazil — 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
BRA	1.02	1.00	1.00	1.03	1.04	0.92	0.93	1.01	1.09	1.06
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	1.00	1.06	1.01	1.05	1.05	1.08	1.04	1.06
LAM	0.96	0.93	0.99	1.00	0.97	1.00	1.05	1.09	1.12	1.14
ROW	1.05	1.00	0.99	0.98	0.98	0.99	0.98	0.98	1.00	0.96
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



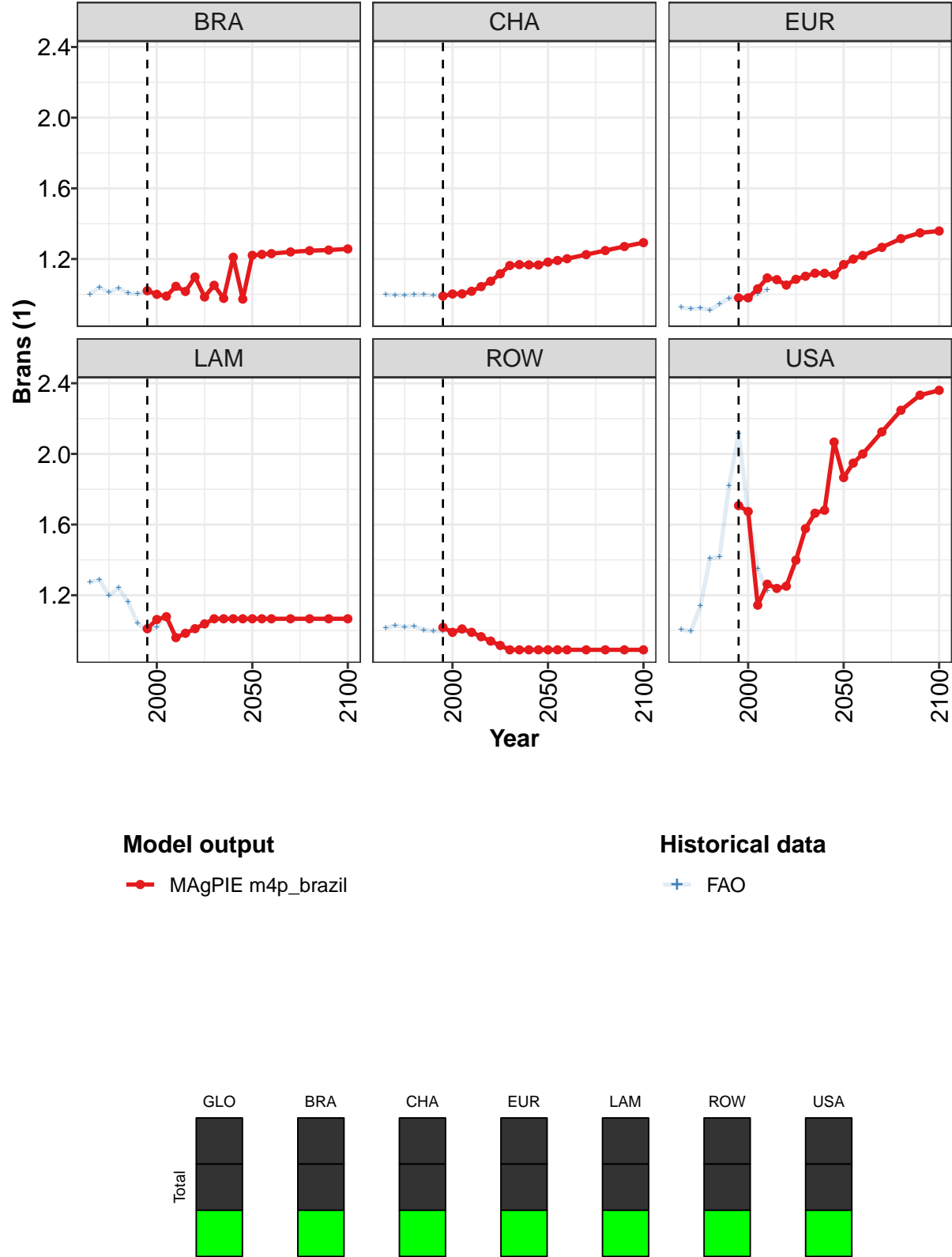


Figure 536: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Brans (1)

	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
BRA	1.02	1.00	0.99	1.05	1.02	1.10	0.99	1.05	0.98	1.21	0.97
CHA	0.99	1.00	1.00	1.02	1.04	1.07	1.12	1.16	1.17	1.17	1.17
EUR	0.98	0.98	1.03	1.09	1.08	1.05	1.09	1.10	1.12	1.12	1.11
LAM	1.01	1.06	1.08	0.96	0.98	1.01	1.04	1.07	1.07	1.07	1.07
ROW	1.02	0.99	1.01	0.99	0.97	0.94	0.92	0.89	0.89	0.89	0.89
USA	1.71	1.67	1.14	1.26	1.24	1.25	1.40	1.58	1.66	1.68	2.07

Table 2007: MAgPIE m4p.brazil — Trade—Self-sufficiency—Secondary products—Brans (1) [PART 1/2]

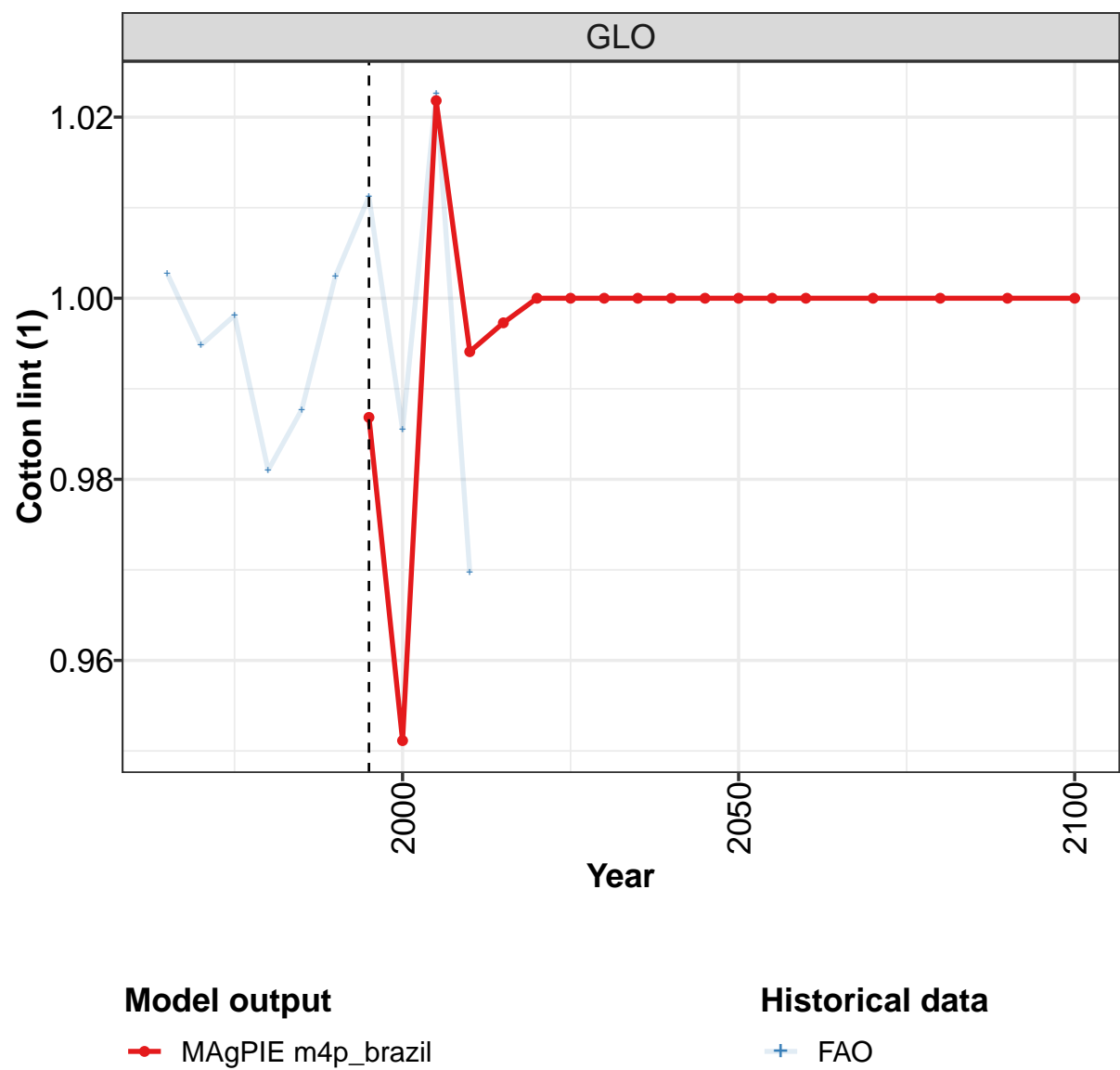
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.22	1.23	1.23	1.24	1.25	1.25	1.26
CHA	1.18	1.19	1.20	1.22	1.25	1.27	1.29
EUR	1.17	1.20	1.22	1.27	1.32	1.35	1.36
LAM	1.07	1.07	1.07	1.07	1.07	1.07	1.07
ROW	0.89	0.89	0.89	0.89	0.89	0.89	0.89
USA	1.87	1.95	2.00	2.12	2.25	2.33	2.36

Table 2008: MAgPIE m4p.brazil — 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
BRA	1.00	1.04	1.01	1.03	1.01	1.00	1.02	1.00	0.99	1.04
CHA	1.00	1.00	1.00	1.00	1.00	0.99	0.99	1.00	1.00	1.01
EUR	0.93	0.92	0.92	0.91	0.94	0.98	0.98	0.98	1.00	1.02
LAM	1.27	1.29	1.20	1.24	1.16	1.04	1.00	1.02	1.08	0.96
ROW	1.01	1.03	1.02	1.03	1.00	1.00	1.00	0.99	1.00	0.99
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



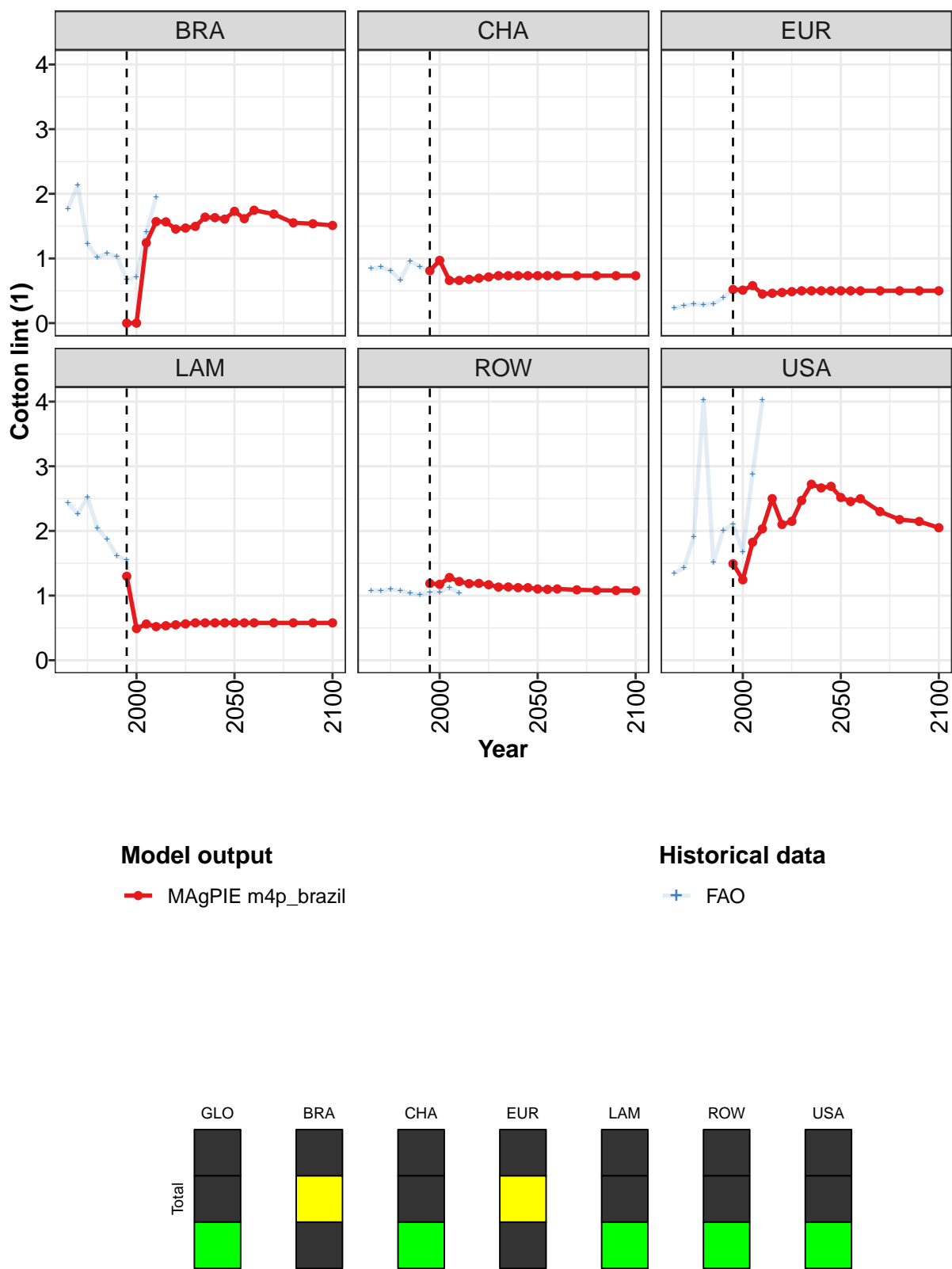


Figure 537: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Cotton lint (1)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
GLO	0.99	0.95	1.02	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	0.00	0.00	1.24	1.57	1.57	1.45	1.47	1.50	1.64	1.63	1.61
CHA	0.81	0.97	0.66	0.66	0.68	0.69	0.71	0.73	0.73	0.73	0.73
EUR	0.52	0.51	0.58	0.45	0.46	0.47	0.49	0.50	0.50	0.50	0.50
LAM	1.30	0.49	0.56	0.52	0.53	0.55	0.56	0.58	0.58	0.58	0.58
ROW	1.19	1.17	1.28	1.22	1.18	1.19	1.17	1.13	1.13	1.12	1.12
USA	1.49	1.24	1.82	2.03	2.50	2.10	2.15	2.47	2.72	2.66	2.69

Table 2010: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Cotton lint (1) [PART 1/2]

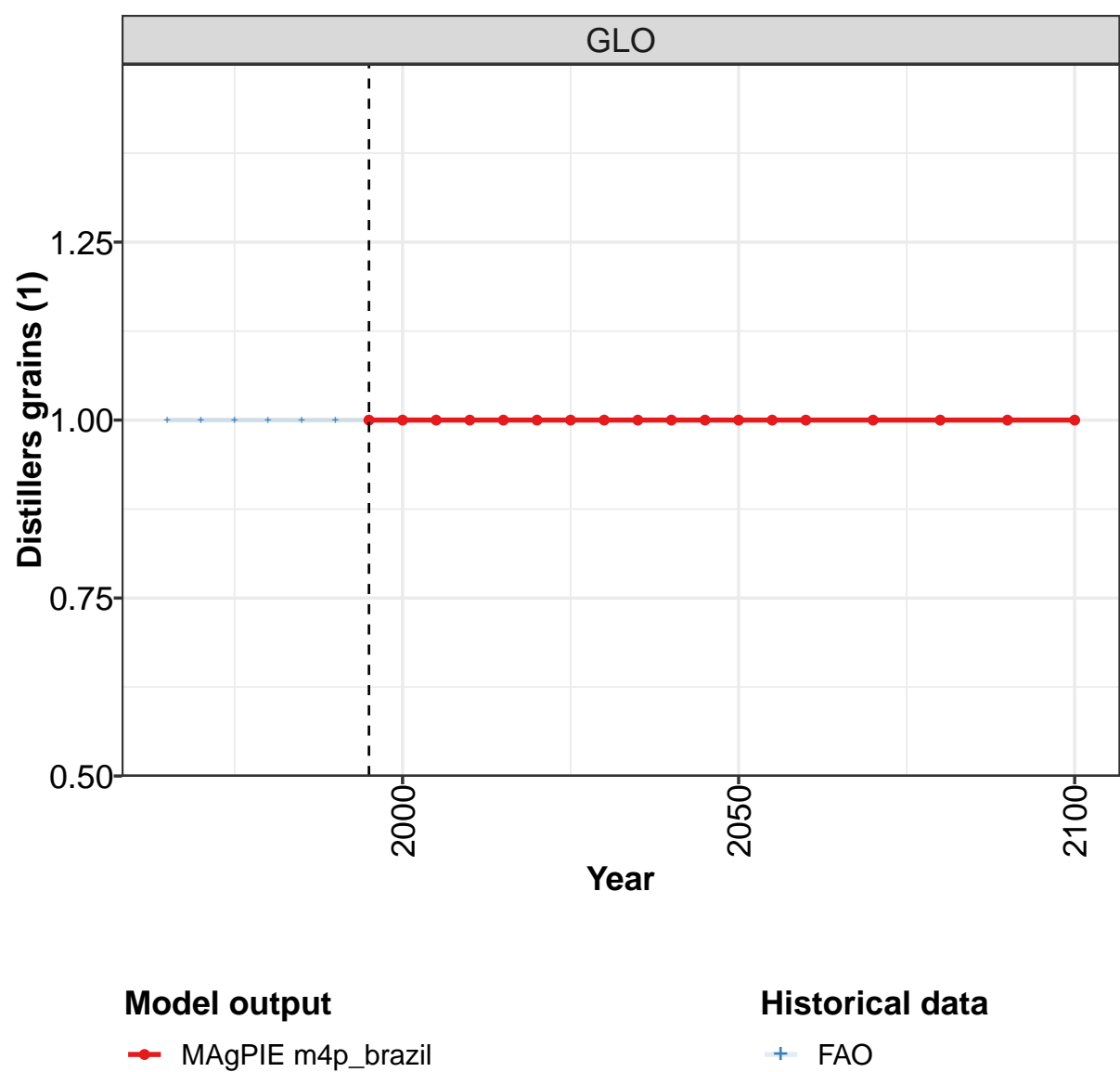
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.73	1.61	1.75	1.69	1.55	1.54	1.51
CHA	0.73	0.73	0.73	0.73	0.73	0.73	0.73
EUR	0.50	0.50	0.50	0.50	0.50	0.50	0.50
LAM	0.58	0.58	0.58	0.58	0.58	0.58	0.58
ROW	1.10	1.10	1.10	1.09	1.08	1.08	1.07
USA	2.52	2.45	2.50	2.30	2.18	2.15	2.05

Table 2011: MAgPIE m4p_brazil — 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
BRA	1.77	2.13	1.23	1.01	1.08	1.03	0.68	0.71	1.41	1.95
CHA	0.84	0.87	0.81	0.66	0.96	0.87	0.81	0.97	0.66	0.66
EUR	0.23	0.27	0.30	0.28	0.30	0.39	0.52	0.51	0.58	0.45
LAM	2.43	2.26	2.52	2.04	1.87	1.61	1.55	0.49	0.56	0.52
ROW	1.08	1.07	1.10	1.08	1.04	1.02	1.05	1.05	1.12	1.04
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



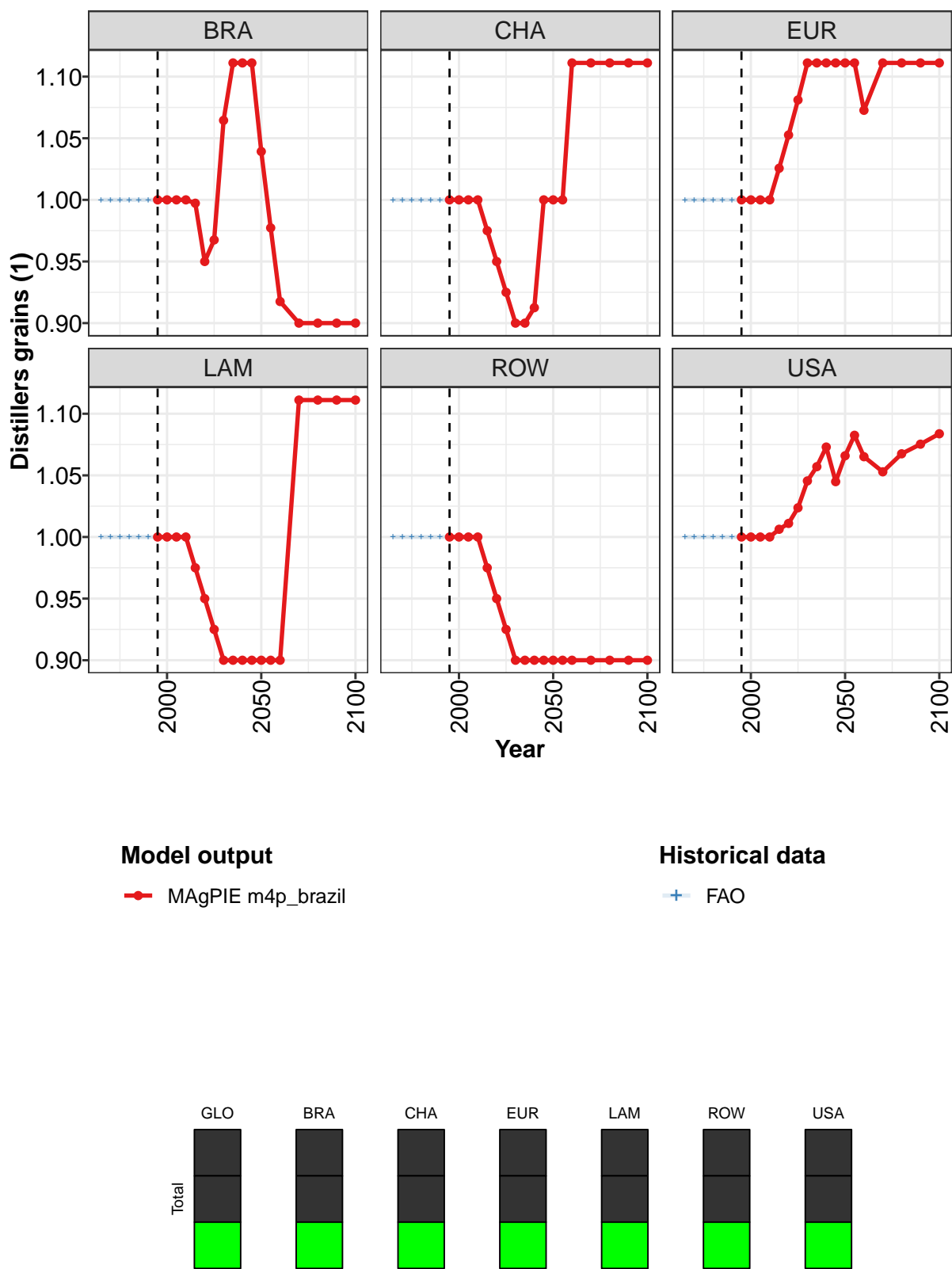


Figure 538: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Distillers grains (1)

	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
BRA	1.00	1.00	1.00	1.00	1.00	0.95	0.97	1.06	1.11	1.11	1.11
CHA	1.00	1.00	1.00	1.00	0.97	0.95	0.93	0.90	0.90	0.91	1.00
EUR	1.00	1.00	1.00	1.00	1.03	1.05	1.08	1.11	1.11	1.11	1.11
LAM	1.00	1.00	1.00	1.00	0.97	0.95	0.93	0.90	0.90	0.90	0.90
ROW	1.00	1.00	1.00	1.00	0.98	0.95	0.92	0.90	0.90	0.90	0.90
USA	1.00	1.00	1.00	1.00	1.01	1.01	1.02	1.05	1.06	1.07	1.04

Table 2013: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Distillers grains (1) [PART 1/2]

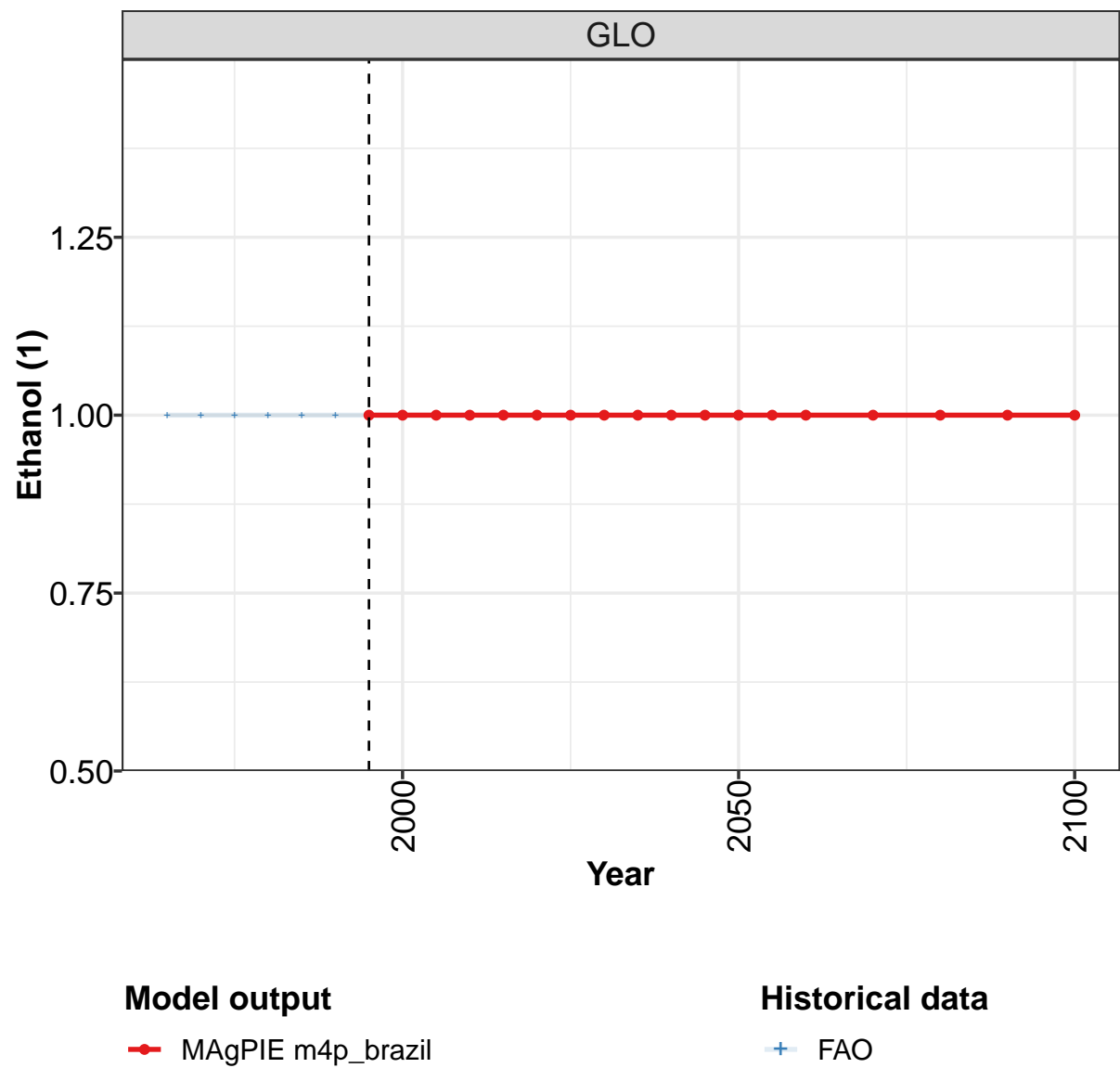
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.04	0.98	0.92	0.90	0.90	0.90	0.90
CHA	1.00	1.00	1.11	1.11	1.11	1.11	1.11
EUR	1.11	1.11	1.07	1.11	1.11	1.11	1.11
LAM	0.90	0.90	0.90	1.11	1.11	1.11	1.11
ROW	0.90	0.90	0.90	0.90	0.90	0.90	0.90
USA	1.07	1.08	1.07	1.05	1.07	1.08	1.08

Table 2014: MAgPIE m4p_brazil — 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
BRA	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
LAM	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
ROW	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



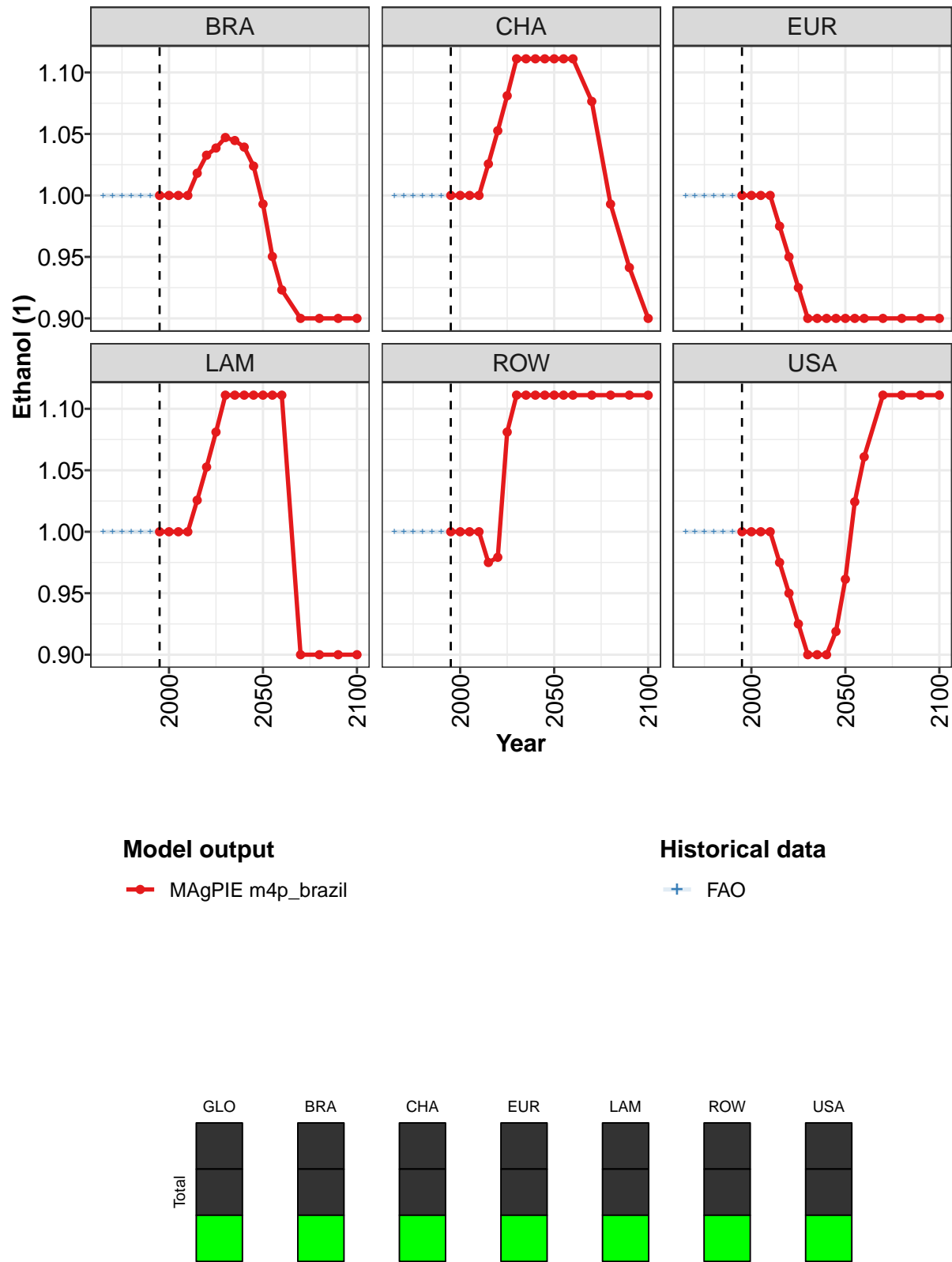


Figure 539: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Ethanol (1)

	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
BRA	1.00	1.00	1.00	1.00	1.02	1.03	1.04	1.05	1.04	1.04	1.02
CHA	1.00	1.00	1.00	1.00	1.03	1.05	1.08	1.11	1.11	1.11	1.11
EUR	1.00	1.00	1.00	1.00	0.98	0.95	0.93	0.90	0.90	0.90	0.90
LAM	1.00	1.00	1.00	1.00	1.03	1.05	1.08	1.11	1.11	1.11	1.11
ROW	1.00	1.00	1.00	1.00	0.97	0.98	1.08	1.11	1.11	1.11	1.11
USA	1.00	1.00	1.00	1.00	0.98	0.95	0.93	0.90	0.90	0.90	0.92

Table 2016: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Ethanol (1) [PART 1/2]

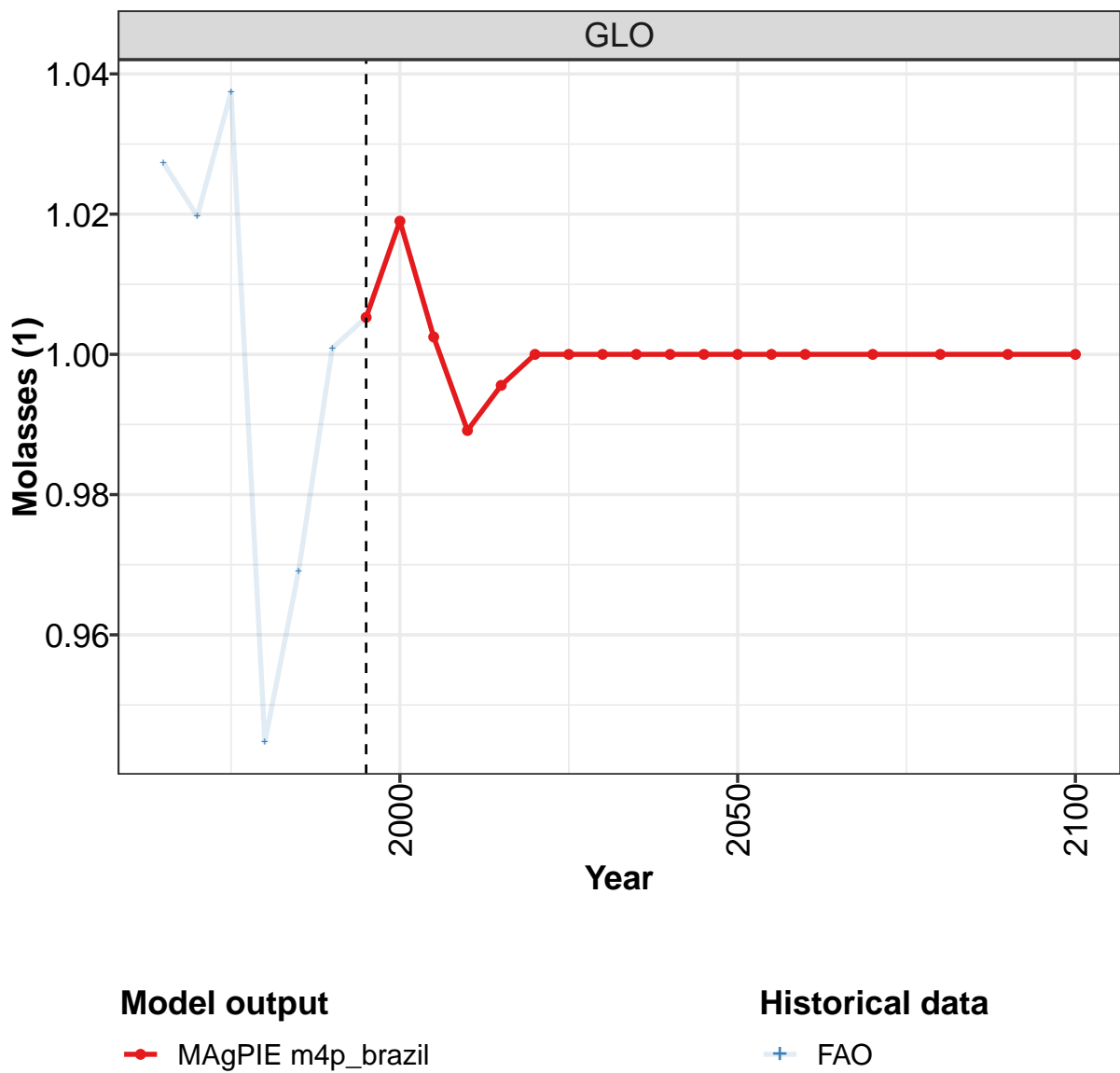
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	0.99	0.95	0.92	0.90	0.90	0.90	0.90
CHA	1.11	1.11	1.11	1.08	0.99	0.94	0.90
EUR	0.90	0.90	0.90	0.90	0.90	0.90	0.90
LAM	1.11	1.11	1.11	0.90	0.90	0.90	0.90
ROW	1.11	1.11	1.11	1.11	1.11	1.11	1.11
USA	0.96	1.02	1.06	1.11	1.11	1.11	1.11

Table 2017: MAgPIE m4p_brazil — 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
BRA	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
LAM	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
ROW	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



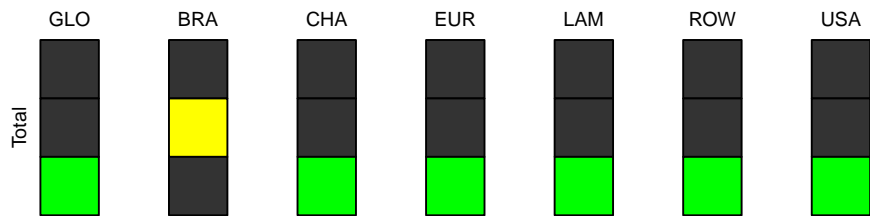
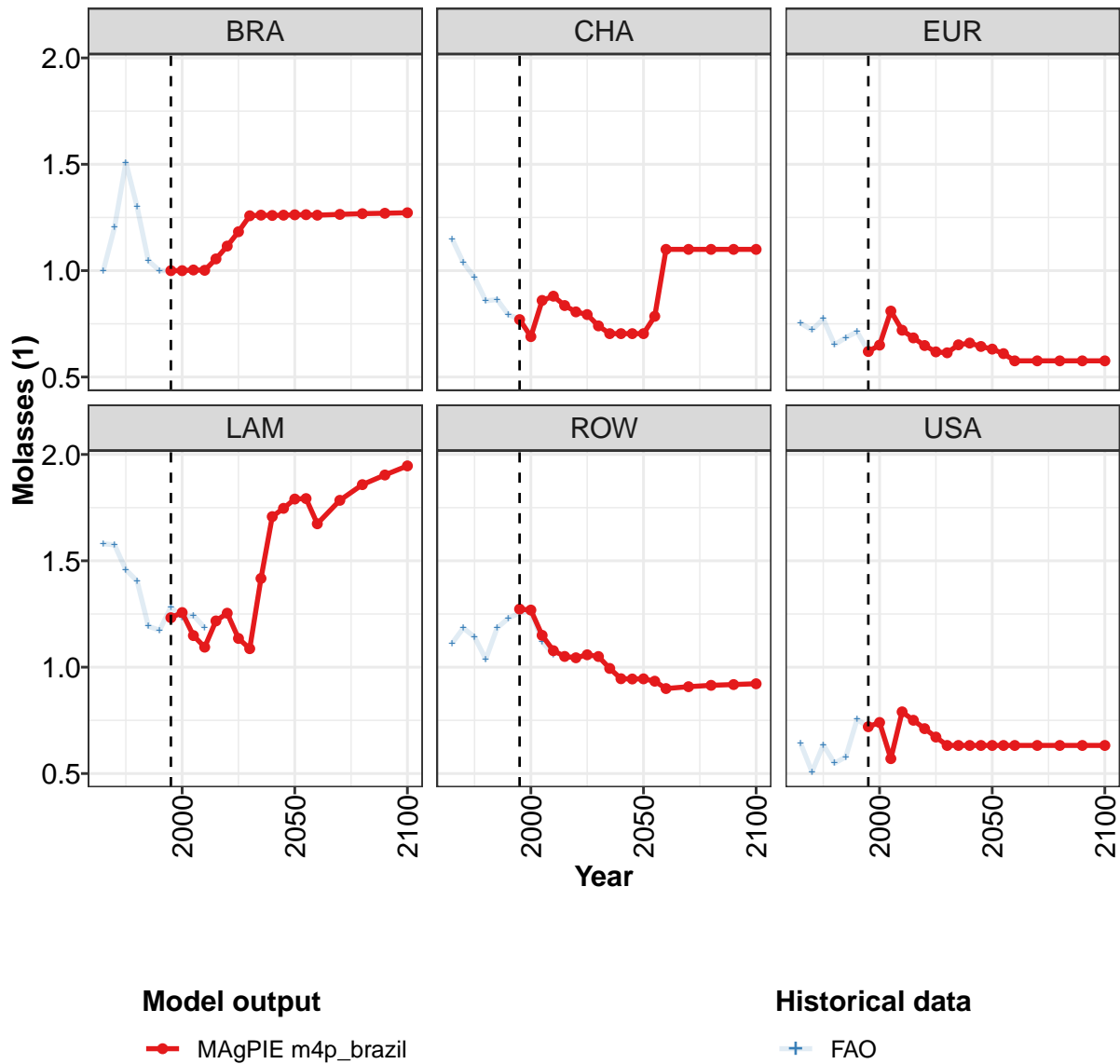


Figure 540: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Molasses (1)

	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
BRA	1.00	1.00	1.00	1.00	1.06	1.12	1.18	1.26	1.26	1.26	1.26
CHA	0.77	0.69	0.86	0.88	0.84	0.81	0.79	0.74	0.70	0.70	0.70
EUR	0.62	0.65	0.81	0.72	0.68	0.65	0.62	0.61	0.65	0.66	0.64
LAM	1.23	1.26	1.15	1.09	1.22	1.25	1.14	1.09	1.42	1.71	1.75
ROW	1.27	1.27	1.15	1.08	1.05	1.04	1.06	1.05	0.99	0.95	0.94
USA	0.72	0.74	0.57	0.79	0.75	0.71	0.67	0.63	0.63	0.63	0.63

Table 2019: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Molasses (1) [PART 1/2]

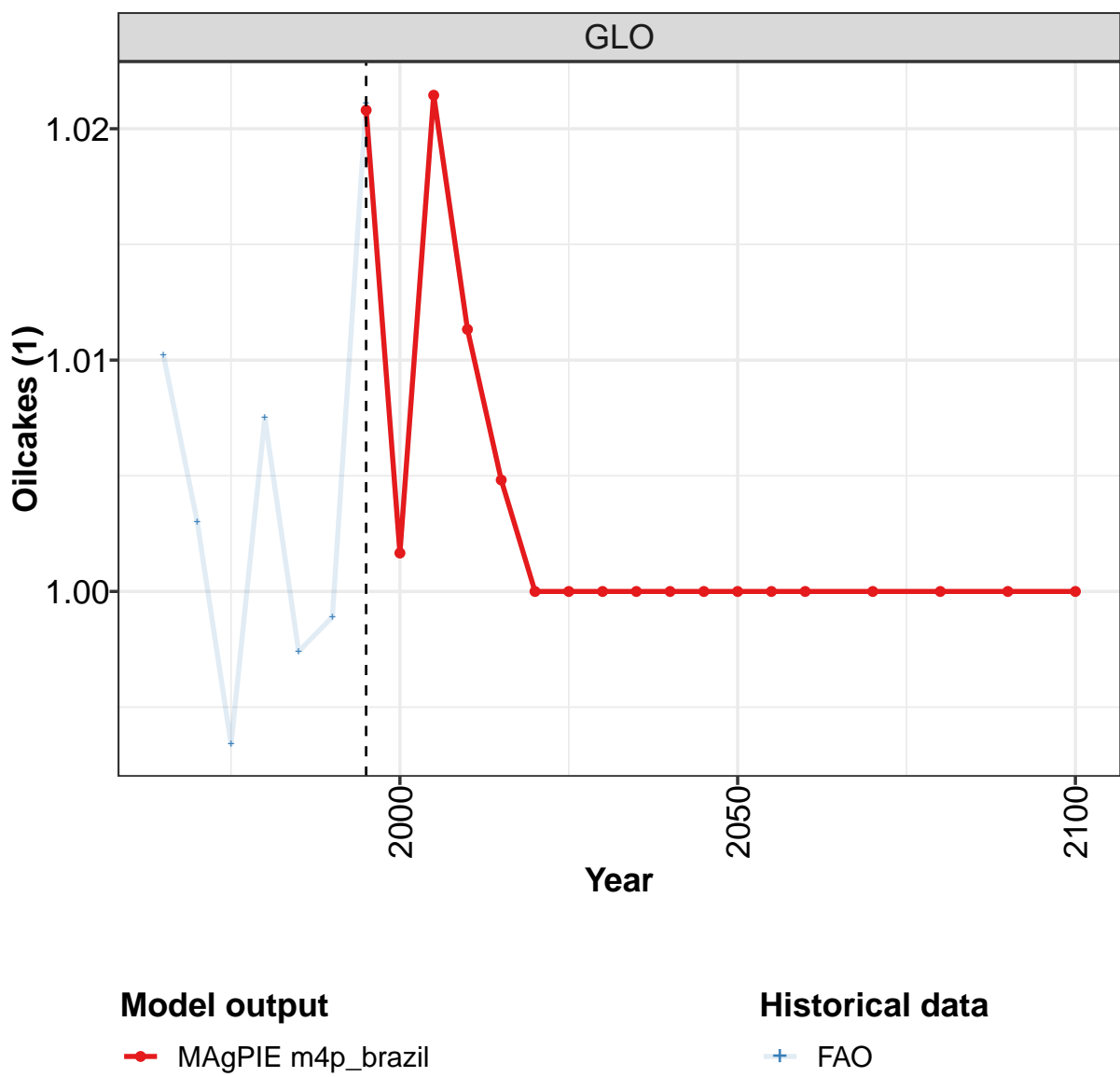
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.26	1.26	1.26	1.26	1.27	1.27	1.27
CHA	0.70	0.79	1.10	1.10	1.10	1.10	1.10
EUR	0.63	0.61	0.58	0.58	0.58	0.58	0.58
LAM	1.79	1.79	1.67	1.78	1.86	1.90	1.95
ROW	0.95	0.93	0.90	0.91	0.91	0.92	0.92
USA	0.63	0.63	0.63	0.63	0.63	0.63	0.63

Table 2020: MAgPIE m4p_brazil — 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
BRA	1.00	1.20	1.51	1.30	1.05	1.00	1.00	1.00	1.00	1.00
CHA	1.15	1.04	0.97	0.86	0.86	0.79	0.77	0.69	0.86	0.88
EUR	0.75	0.72	0.77	0.65	0.69	0.71	0.62	0.65	0.81	0.72
LAM	1.58	1.57	1.46	1.41	1.19	1.17	1.28	1.23	1.24	1.19
ROW	1.11	1.18	1.14	1.04	1.18	1.23	1.26	1.27	1.12	1.06
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



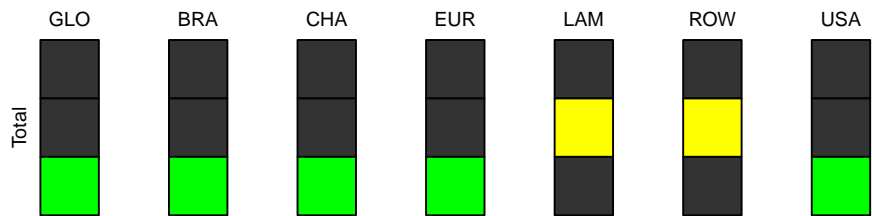
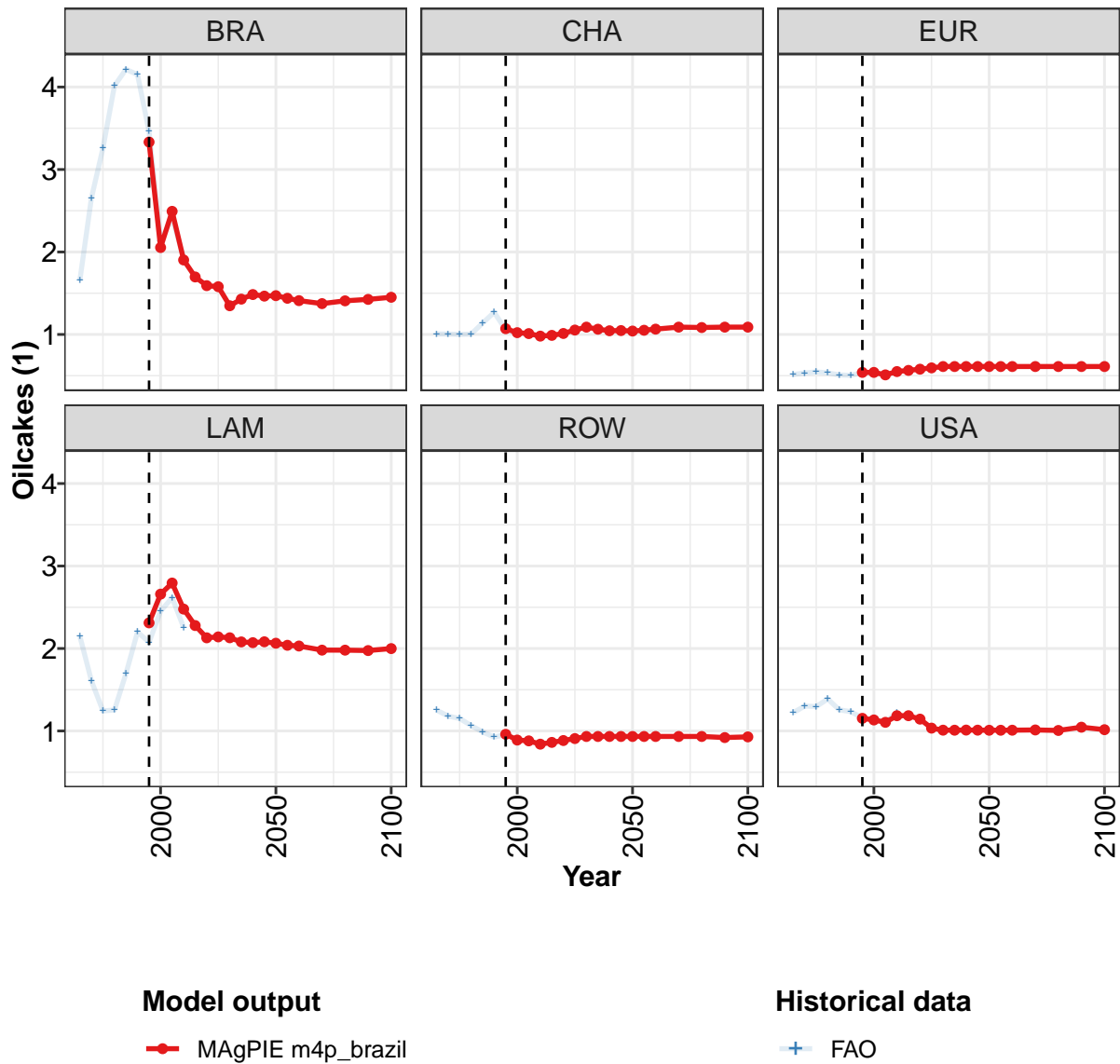


Figure 541: MAGPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Oilkakes (1)

	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
BRA	3.33	2.05	2.49	1.90	1.70	1.59	1.58	1.35	1.43	1.48	1.47
CHA	1.07	1.02	1.01	0.98	0.99	1.01	1.05	1.09	1.06	1.04	1.05
EUR	0.54	0.54	0.51	0.55	0.56	0.58	0.59	0.61	0.61	0.61	0.61
LAM	2.31	2.66	2.79	2.48	2.28	2.13	2.14	2.13	2.08	2.07	2.08
ROW	0.96	0.89	0.88	0.84	0.86	0.88	0.91	0.93	0.93	0.93	0.93
USA	1.15	1.13	1.10	1.19	1.19	1.14	1.03	1.01	1.01	1.01	1.01

Table 2022: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Oilcakes (1) [PART 1/2]

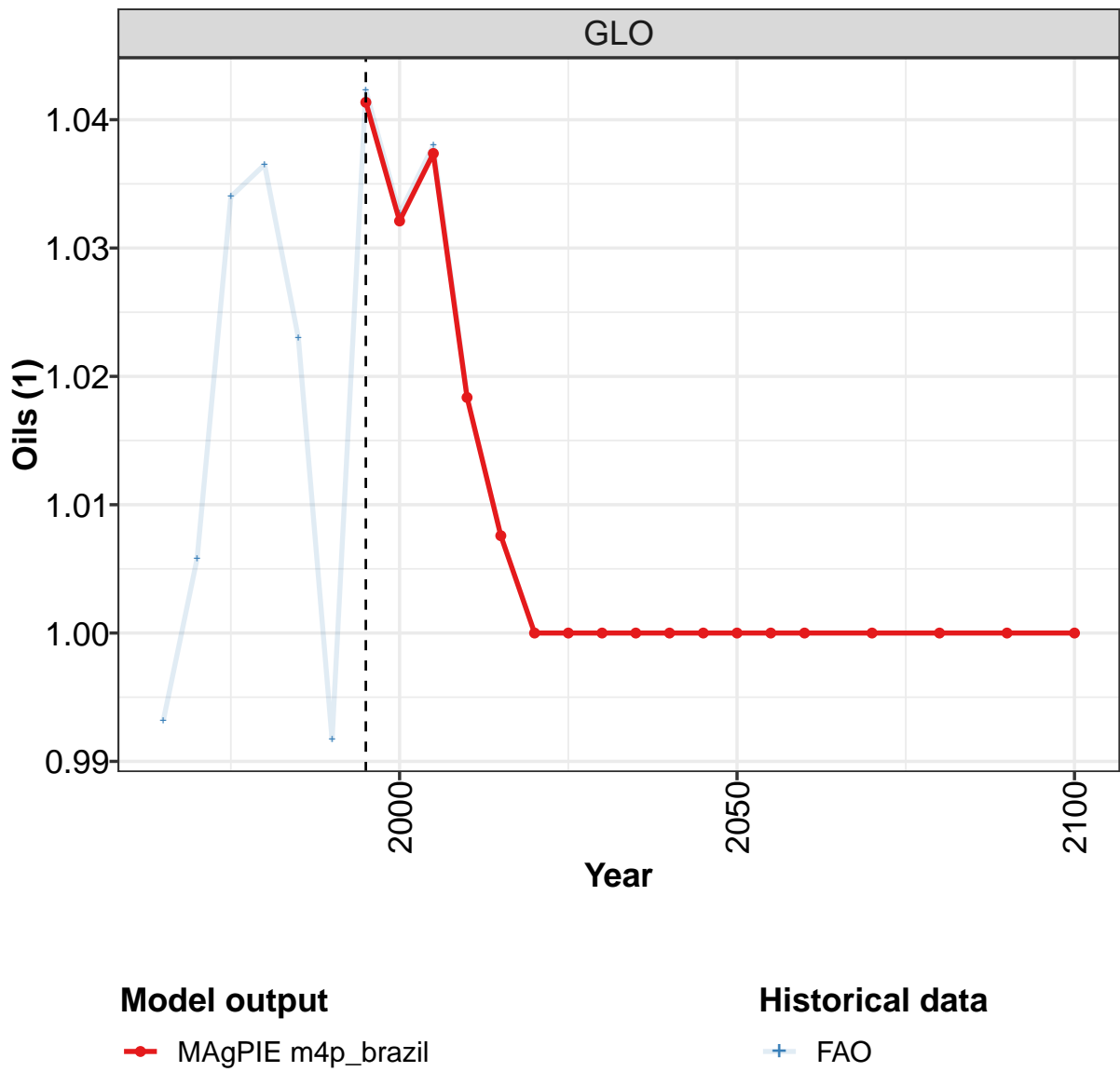
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	1.47	1.44	1.41	1.37	1.41	1.43	1.45
CHA	1.04	1.05	1.06	1.09	1.08	1.09	1.09
EUR	0.61	0.61	0.61	0.61	0.61	0.61	0.61
LAM	2.06	2.04	2.03	1.98	1.98	1.98	2.00
ROW	0.93	0.93	0.93	0.93	0.93	0.92	0.93
USA	1.01	1.01	1.01	1.01	1.01	1.05	1.02

Table 2023: MAgPIE m4p_brazil — 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
BRA	1.66	2.65	3.26	4.02	4.21	4.15	3.46	2.14	2.41	1.93
CHA	1.01	1.00	1.00	1.00	1.14	1.27	1.06	1.01	1.00	0.98
EUR	0.51	0.53	0.55	0.53	0.51	0.50	0.54	0.54	0.51	0.55
LAM	2.15	1.61	1.24	1.25	1.70	2.20	2.08	2.45	2.62	2.26
ROW	1.25	1.18	1.15	1.07	0.99	0.93	0.96	0.89	0.88	0.84
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



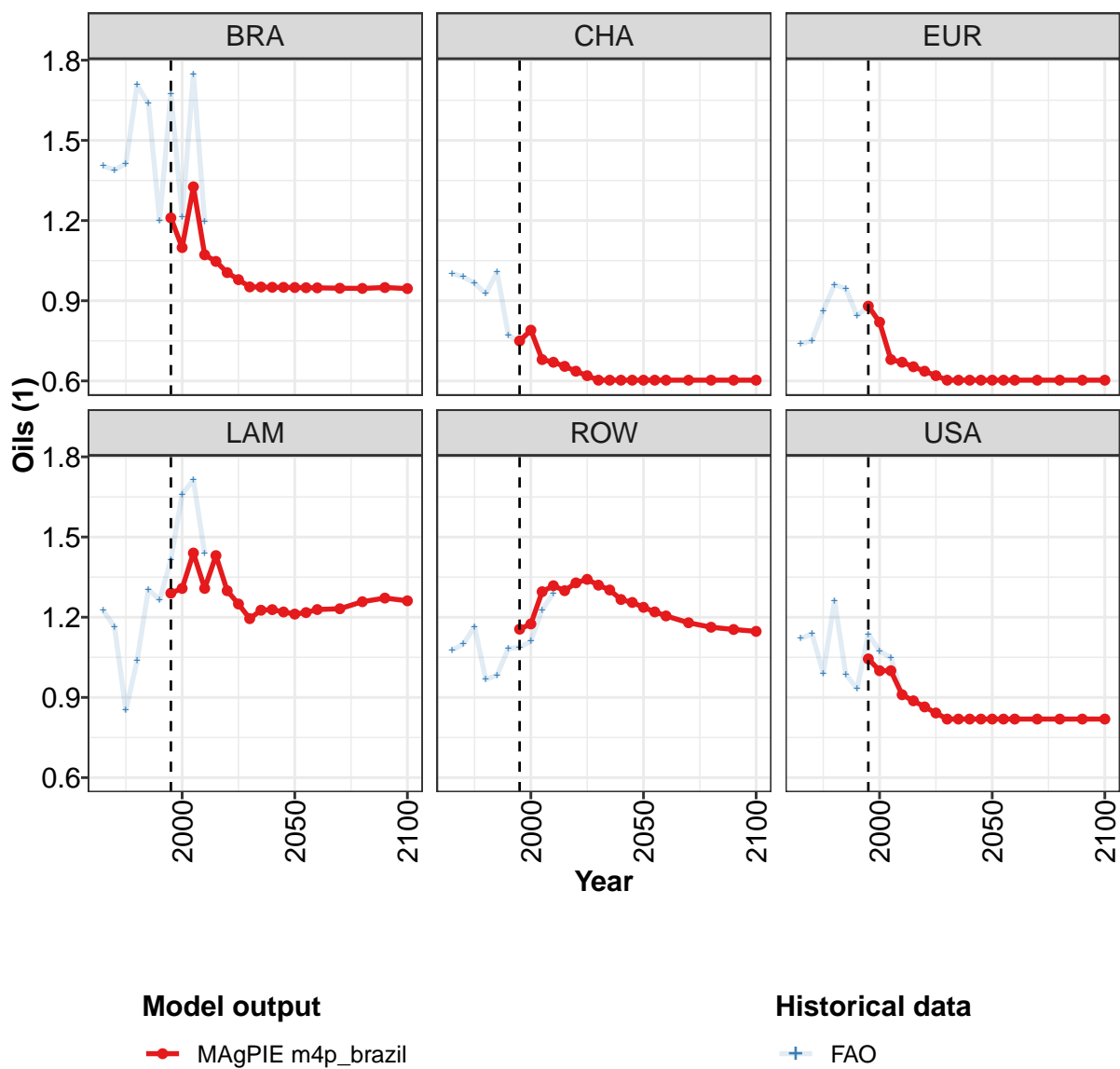


Figure 542: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Oils (1)

	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
BRA	1.21	1.10	1.33	1.07	1.05	1.01	0.98	0.95	0.95	0.95	0.95
CHA	0.75	0.79	0.68	0.67	0.65	0.64	0.62	0.60	0.60	0.60	0.60
EUR	0.88	0.82	0.68	0.67	0.65	0.64	0.62	0.60	0.60	0.60	0.60
LAM	1.29	1.31	1.44	1.31	1.43	1.30	1.25	1.19	1.23	1.23	1.22
ROW	1.16	1.17	1.30	1.32	1.30	1.33	1.34	1.32	1.30	1.27	1.26
USA	1.04	1.00	1.00	0.91	0.89	0.86	0.84	0.82	0.82	0.82	0.82

Table 2025: MAgPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Oils (1) [PART 1/2]

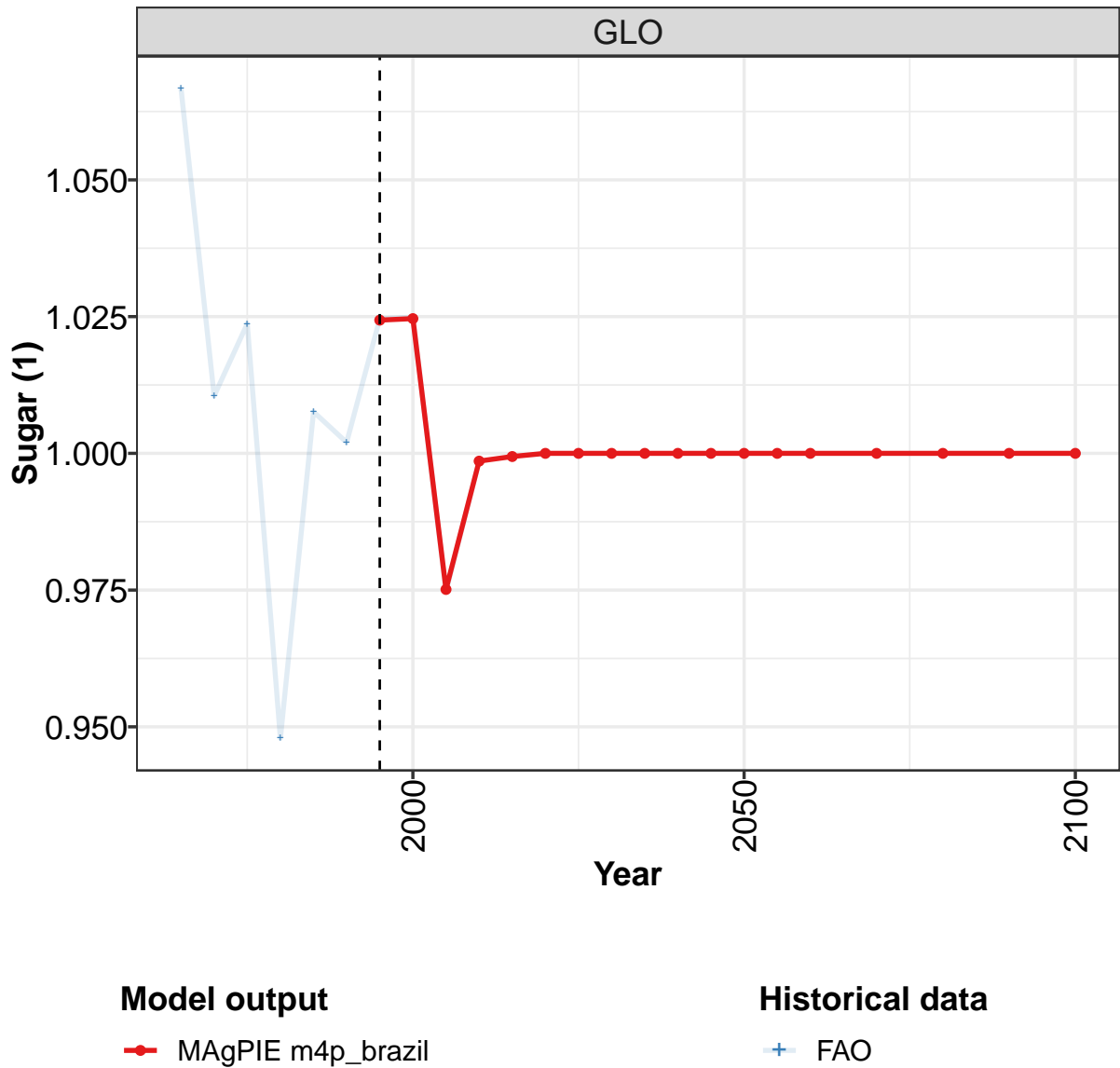
	2050	2055	2060	2070	2080	2090	2100
GLO	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BRA	0.95	0.95	0.95	0.95	0.95	0.95	0.95
CHA	0.60	0.60	0.60	0.60	0.60	0.60	0.60
EUR	0.60	0.60	0.60	0.60	0.60	0.60	0.60
LAM	1.21	1.22	1.23	1.23	1.26	1.27	1.26
ROW	1.24	1.22	1.20	1.18	1.16	1.15	1.15
USA	0.82	0.82	0.82	0.82	0.82	0.82	0.82

Table 2026: MAgPIE m4p_brazil — 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
BRA	1.40	1.39	1.41	1.71	1.64	1.20	1.67	1.21	1.75	1.20
CHA	1.00	0.99	0.97	0.93	1.01	0.77	0.75	0.79	0.68	0.67
EUR	0.74	0.75	0.86	0.96	0.95	0.84	0.88	0.82	0.68	0.67
LAM	1.22	1.16	0.85	1.04	1.30	1.26	1.42	1.66	1.71	1.44
ROW	1.08	1.10	1.16	0.97	0.98	1.08	1.09	1.11	1.23	1.29
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



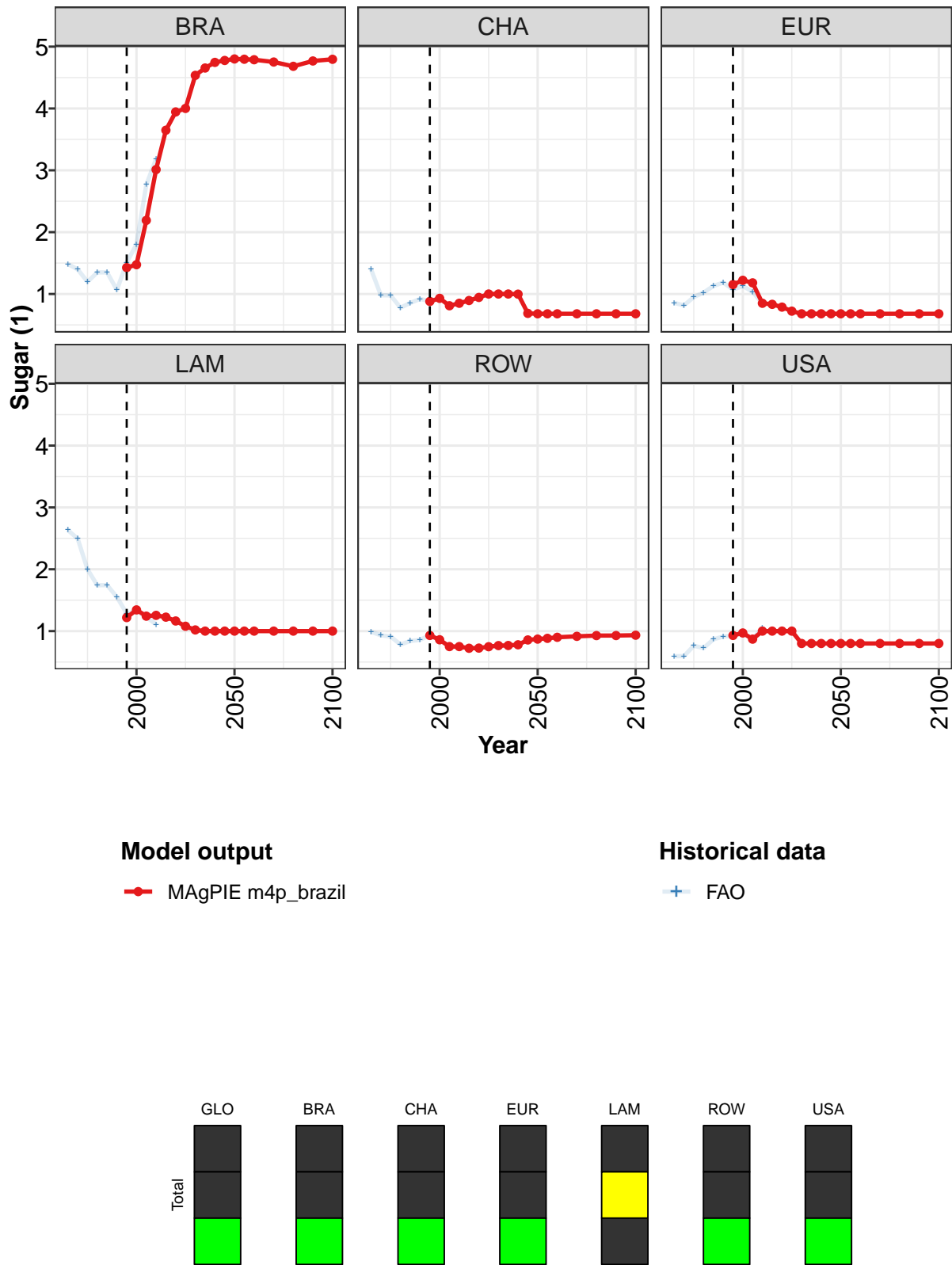


Figure 543: MAGPIE m4p_brazil — Trade—Self-sufficiency—Secondary products—Sugar (1)

	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
BRA	1.43	1.47	2.19	3.01	3.65	3.94	4.00	4.54	4.65	4.75	4.78
CHA	0.88	0.93	0.81	0.85	0.89	0.94	1.00	1.00	1.00	1.00	0.69
EUR	1.15	1.22	1.18	0.85	0.83	0.79	0.72	0.68	0.68	0.68	0.68
LAM	1.22	1.34	1.24	1.25	1.23	1.16	1.08	1.02	1.00	1.00	1.00
ROW	0.93	0.86	0.75	0.75	0.72	0.73	0.75	0.77	0.77	0.78	0.86
USA	0.93	0.97	0.87	1.00	1.00	1.00	1.00	0.80	0.80	0.80	0.80

Table 2028: MAgPIE m4p.brazil — 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
BRA	4.80	4.80	4.79	4.75	4.68	4.77	4.80
CHA	0.68	0.68	0.68	0.68	0.68	0.68	0.68
EUR	0.68	0.68	0.68	0.68	0.68	0.68	0.68
LAM	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ROW	0.87	0.88	0.90	0.92	0.93	0.93	0.93
USA	0.80	0.80	0.80	0.80	0.80	0.80	0.80

Table 2029: MAgPIE m4p.brazil — 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
BRA	1.48	1.40	1.20	1.35	1.35	1.07	1.51	1.80	2.77	3.19
CHA	1.40	0.98	0.98	0.78	0.86	0.92	0.88	0.93	0.81	0.85
EUR	0.86	0.82	0.95	1.02	1.13	1.18	1.07	1.13	1.04	0.85
LAM	2.63	2.49	2.00	1.74	1.74	1.55	1.29	1.33	1.23	1.11
ROW	0.99	0.93	0.91	0.78	0.84	0.86	0.93	0.86	0.75	0.75
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	268	251	13	11
relative	49%	46%	2%	2%

Table 2031: Global

	green	yellow	red	NA.
total	1556	1365	64	194
relative	49%	43%	2%	6%

Table 2032: Regional

63.2 Trend

	green	yellow	red	NA.
total	225	173	134	11
relative	41%	32%	25%	2%

Table 2033: Global

	green	yellow	red	NA.
total	1375	790	816	198
relative	43%	25%	26%	6%

Table 2034: Regional

63.3 Overlap

	green	yellow	red	NA.
total	466	64	2	11
relative	86%	12%	0%	2%

Table 2035: Global

	green	yellow	red	NA.
total	2640	281	45	213
relative	83%	9%	1%	7%

Table 2036: Regional

63.4 Level

	green	yellow	red	NA.
total	299	130	97	17
relative	55%	24%	18%	3%

Table 2037: Global

	green	yellow	red	NA.
total	1549	997	392	241
relative	49%	31%	12%	8%

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|CO2|Land|Climate Change (Mt CO2/yr)
## Emissions|CO2|Land|Cumulative|Climate Change (Gt CO2)
## 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)

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## 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)

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## 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)

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## Costs|MainSolve|Forestry (million US$05/yr)
## Costs|MainSolve w/o GHG Emissions (million US$05/yr)
## 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)

```

65.2 Validation data

```

## 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)
## 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)

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## Emissions|N2O|Agriculture|Agricultural Soils|Inorganic Fertilizers (Mt N2O/yr)
## Emissions|N2O|Agriculture|Agricultural Soils|Manure applied to Croplands (Mt N2O/yr)
## 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)

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## Demand|Feed|Feed for Aquaculture|Bioenergy crops (Mt DM/yr)
## Demand|Feed|Feed for Aquaculture|Crop residues (Mt DM/yr)
## 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)

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## Demand|Feed|Feed for Dairy|Crop residues|Straw (Mt DM/yr)
## Demand|Feed|Feed for Dairy|Crops|Cereals (Mt DM/yr)
## 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)

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## 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)
## 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)

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## 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)
## 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)

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## 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)
## 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)

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## Demand|Processing|Distiilling|Crops|Sugar crops (Mt DM/yr)
## Demand|Processing|Distiilling|Crops|Cereals|Maize (Mt DM/yr)
## 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)
## 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|N03-N|Land|Agriculture|Animal Waste Management (Mt N03-N/yr)
## Emissions|N03-N|Land|Agriculture|Enteric Fermentation (Mt N03-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|N02|Land|Land Use Change (Mt N02/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

	BRA	CHA	EUR	LAM	ROW	USA
crops	0.71	0.84	0.69	0.53	0.60	0.58
pasture	1.00	1.00	1.05	1.03	1.04	0.99

66.2 Land use change in 1995 (reshuffling)

Table 2039: Land use change cropland 1995 (Mio. ha)

	BRA	CHA	EUR	LAM	ROW	USA	GLO
expansion	0.80	3.58	12.32	5.46	37.27	1.69	61.12
contraction	-0.20	-6.95	-32.74	-9.32	-20.90	-12.31	-82.41
net changes	0.60	-3.38	-20.41	-3.86	16.37	-10.62	-21.30
gross changes	1.00	10.53	45.06	14.77	58.18	13.99	143.53

67 Model settings

67.1 Code settings

```
## ### GIT revision ###
## 84c13c40dcdcefe7b8d28bc1715f13c4328a133a
##
## ### 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:   core/sets.gms
## modified:   main.gms
##
## modified:   scripts/start/magpie4paper.R
```

```

##
## Untracked files:
##
## (use "git add <file>..." to include in what will be committed)
##
## RegionsClusters.png
##
## scripts/output/single/magpie4paper.R
##
##
## 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-rcp4p5-co2_rev34_c500_BRA5_ROW07_d49a7a8baaab0edc754ebfc09462
##
## md5sum: f1b597bcfac9e04997809010fea4518c
##
## Repository: /p/projects/landuse/data/input/archive
##
##
## Used data set: rev4.14_d49a7a8baaab0edc754ebfc09462be0a_magpie.tgz
##
## md5sum: f53d7571deaca215d93f0ca126dad7c3
##
## Repository: /p/projects/rd3mod/inputdata/output
##
##
## Used data set: rev4.14_d49a7a8baaab0edc754ebfc09462be0a_validation.tgz
##
## md5sum: 853d696b412d543204000f96a2dd741e
##
## Repository: /p/projects/rd3mod/inputdata/output
##
##
## Used data set: additional_data_rev3.58.tgz
## md5sum: 75798c6d2670497a92ae2a3fb5a7e6ee
##
## Repository: /p/projects/landuse/data/input/archive
##
## Low resolution: c500_BRA5_ROW07
##
## High resolution: 0.5
##
## Total number of cells: 500
##
## Number of cells per region:
##
##   BRA  CHA  EUR  LAM  ROW  USA
##   306   35   25   82   37   15
##
##
## Regionscode: d49a7a8baaab0edc754ebfc09462be0a
##
```

```
## Regions data revision: 4.14
##
##
## lpj2magpie settings:
##
## * LPJmL data folder: /p/projects/landuse/data/input/lpj_input/isimip_rcp/IPSL_CM5A_LR/rcp4p5/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: c500_BRA5_ROW07
##
## * Input file: /p/projects/landuse/data/input/archive/isimip_rcp-IPSL_CM5A_LR-rcp4p5-co2_rev34_0.5.tg
##
## * Output file: /p/projects/landuse/data/input/archive/isimip_rcp-IPSL_CM5A_LR-rcp4p5-co2_rev34_c500_
##
## * Regionscode: d49a7a8baaab0edc754ebfc09462be0a
## * (clustering) n-repeat: 5
##
## * (clustering) n-redistribute: 0
##
## * Call: aggregation(input_file = lpj2magpie_file, regionmapping = paste0("../", cfg$regionmappin
##
##
##
## Last modification (input data): Thu Oct 11 12:30:31 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     rgexf_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          DiagrammerR          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          ISOCodes          Lahman          LandMark
##          "4.0-2"          "2018.06.29"          "6.0-0"          "1.1.0"
##          LearnBayes          Lmoments          MASS          NLP
##          "2.15.1"          "1.2-3"          "7.3-50"          "0.1-10"
##          NMF          PIKTools          R.matlab          R.methodsS3
##          "0.20.6"          "1.1"          "3.6.1"          "1.7.1"
##          R.oo          R.utils          R6          RANN
##          "1.21.0"          "2.5.0"          "2.2.2"          "2.5.1"
##          RCurl          RISmed          RJSONIO          RSQLite
##          "1.95-4.8"          "2.1.7"          "1.3-0"          "2.1.1"
##          RSpectra          RandomFields          RandomFieldsUtils          Rcpp
##          "0.13-1"          "3.1.50"          "0.3.25"          "0.12.18"
##          RcppArmadillo          RcppOctave          RcppParallel          RcppRoll
##          "0.7.700.0.0"          "0.18.1"          "4.3.20"          "0.2.2"
##          Rook          Rtsne          Rttf2pt1          SDMTTools
##          "1.1-1"          "0.13"          "1.3.7"          "1.1-221"
##          SPEI          SQUAREM          SnowballC          SpatialPack
##          "1.6"          "2017.10-1"          "0.5.1"          "0.3"
##          TH.data          WDI          XML          abind
##          "1.0-8"          "2.5"          "3.98-1.5"          "1.4-5"
##          aqfig          ar5data          areaplot          arm
##          "0.8"          "1.7.1"          "1.2-0"          "1.9-3"
##          assertr          assertthat          automap          backports
##          "2.5"          "0.2.0"          "1.0-14"          "1.1.2"
##          bfast          bibliometrix          bibtex          bindr
##          "1.5.7"          "2.0.0"          "0.4.2"          "0.1.1"
##          bindrcpp          bit64          blob          brew
##          "0.2.2"          "0.9-7"          "1.1.1"          "1.0-6"
##          broom          burdensharing          callr          caret
##          "0.4.2"          "1.4.25"          "1.0.0"          "6.0-80"
##          cellranger          citation          classInt          cli
##          "1.1.0"          "0.2.1"          "0.1-23"          "1.0.0"
##          clipr          coda          coin          colorRamps
##          "0.4.0"          "0.19-1"          "1.2-2"          "2.3"
##          commonmark          compare          corpcor          corrplot
##          "1.5"          "0.2-6"          "1.6.9"          "0.84"
##          countrycode          covr          cowplot          cowsay
##          "1.00.0"          "3.1.0"          "0.9.2"          "0.6.0"
```


##	crayon	crosstalk	curl	d3Network
##	"1.3.4"	"1.0.0"	"2.3"	"0.5.2.1"
##	data.table	data.tree	dbplyr	ddalpha
##	"1.11.4"	"0.7.4"	"1.2.1"	"1.3.3"
##	deldir	demystas	dendextend	desc
##	"0.1-15"	"1.3.3"	"1.5.2"	"1.2.0"
##	devtools	digest	dimRed	diptest
##	"1.13.3"	"0.6.15"	"0.1.0"	"0.75-7"
##	doMC	doMPI	doSNOW	dotCall64
##	"1.3.5"	"0.2.2"	"1.0.16"	"0.9-5.2"
##	downloader	dplyr	dtplyr	dummies
##	"0.4"	"0.7.6"	"0.0.2"	"1.5.6"
##	e1071	easyNCDF	ellipse	estimability
##	"1.6-8"	"0.0.4"	"0.4.1"	"1.3"
##	evaluate	expm	extrafont	extrafontdb
##	"0.10.1"	"0.999-2"	"0.17"	"1.0"
##	factoextra	fail	faodata	fdrtool
##	"1.0.4"	"1.3"	"1.09"	"1.2.15"
##	fields	fitdistrplus	flashClust	flexmix
##	"8.10"	"1.0-9"	"1.01-2"	"2.3-14"
##	forcats	forecast	forestplot	formatR
##	"0.2.0"	"8.0"	"1.7.2"	"1.5"
##	fortunes	fpc	fracdiff	futile.logger
##	"1.5-4"	"2.1-10"	"1.4-2"	"1.4.3"
##	futile.options	gdata	gdistance	gdx
##	"1.0.1"	"2.18.0"	"1.2-2"	"1.49.0"
##	gdxrrw	geOR	geodata	geometry
##	"1.0.2"	"1.7-5.2"	"1.56"	"0.3-6"
##	geosphere	ggforce	ggm	ggplot2
##	"1.5-7"	"0.1.3"	"2.3"	"3.0.0"
##	ggpubr	ggraph	ggrepel	ggsci
##	"0.1.4"	"1.0.2"	"0.8.0"	"2.9"
##	ggsignif	git2r	givemeall	glasso
##	"0.4.0"	"0.21.0"	"0.02"	"1.8"
##	glodato	glue	gmodels	gmp
##	"1.12"	"1.2.0"	"2.16.2"	"0.5-13.1"
##	goftest	gower	goxygen	gplots
##	"1.1-1"	"0.1.2"	"0.21.2"	"3.0.1"
##	gridBase	gstat	gsW	guidr
##	"0.4-7"	"1.1-5"	"1.0-5"	"0.0.5.0000"
##	gvlma	haven	hms	htmlTable
##	"1.0.0.2"	"1.1.0"	"0.4.2"	"1.12"
##	htmltools	htmlwidgets	httpuv	httr
##	"0.3.6"	"1.2"	"1.3.5"	"1.3.1"
##	huge	hydroGOF	hydroTSM	iamc
##	"1.2.7"	"0.3-10"	"0.5-1"	"0.24.0"
##	igraph	influenceR	intervals	inum
##	"1.2.1"	"0.1.0"	"0.15.1"	"1.0-0"
##	ipred	irlba	jpeg	jsonlite
##	"0.9-6"	"2.3.2"	"0.1-8"	"1.5"
##	kernlab	knitr	ks	lambda.r
##	"0.9-26"	"1.20"	"1.11.2"	"1.1.9"
##	later	lattice	lava	lavaan
##	"0.7.2"	"0.20-35"	"1.6.1"	"0.6-1"
##	lazyeval	leaflet	leaps	libcoin
##	"0.2.1"	"1.1.0"	"3.0"	"1.0-1"
##	limes	lme4	lmomco	lmtree
##	"0.3.60"	"1.1-17"	"2.2.7"	"0.9-36"
##	lpSolve	lpjclass	lsmeans	lubase
##	"5.6.13"	"1.13"	"2.25-5"	"1.06"

##	lubridate	lucode	ludata	luplayground
##	"1.7.1"	"2.136.0"	"1.43.3"	"1.05"
##	luplot	luscale	lusweave	mFilter
##	"3.46.0"	"2.13.1"	"1.45.0"	"0.1-3"
##	madrat	magclass	magic	magpie
##	"1.52.0"	"4.87.9"	"1.5-8"	"0.2266.1"
##	magpie4	magpieflexreg	magpiesets	magrittr
##	"1.25.3"	"0.0036"	"0.33.3"	"1.5"
##	mapdata	markdown	matlab	matrixcalc
##	"2.3.0"	"0.8"	"1.0.2"	"1.0-3"
##	mclust	memoise	mgcv	mi
##	"5.3"	"1.0.0"	"1.8-23"	"1.0"
##	mice	microbenchmark	mip	misc3d
##	"2.30"	"1.4-4"	"0.107.0"	"0.8-4"
##	mlapi	mnormt	modelr	modeltools
##	"0.1.0"	"1.5-5"	"0.1.1"	"0.2-21"
##	moinput	mrfood	mrregression	mrvalidation
##	"9.137.0"	"0.7.3"	"3.11.0"	"1.31.0"
##	multcomp	multicool	mvtnorm	ncdf4
##	"1.4-8"	"0.1-10"	"1.0-7"	"1.15"
##	network	nitrogen	nleqslv	nnls
##	"1.13.0"	"1.0.3"	"3.3.2"	"1.4"
##	nonparaeff	nortest	numDeriv	nycflights13
##	"0.5-8"	"1.0-4"	"2016.8-1"	"0.2.2"
##	oce	openssl	openxlsx	osmar
##	"0.9-23"	"0.9.6"	"4.0.0"	"1.1-7"
##	pROC	pan	pander	party
##	"1.12.1"	"1.4"	"0.6.0"	"1.2-4"
##	partykit	pastecs	pbapply	pbivnorm
##	"1.2-0"	"1.3-18"	"1.3-4"	"0.6.0"
##	piam	pikcluster	pillar	pkgconfig
##	"0.8.2"	"0.04"	"1.2.3"	"2.0.1"
##	pkgmaker	plogr	plot3D	plotly
##	"0.22"	"0.2.0"	"1.1"	"4.5.6"
##	plotrix	png	polspline	polyclip
##	"3.6-4"	"0.1-7"	"1.1.12"	"1.6-1"
##	prabclus	prettyunits	processx	prodlim
##	"2.2-6"	"1.0.2"	"3.1.0"	"2018.04.18"
##	profvis	progress	proto	pse
##	"0.3.3"	"1.1.2"	"1.0.0"	"0.4.7"
##	psych	purrr	pwt	qgraph
##	"1.6.12"	"0.2.4"	"7.1-1"	"1.4.2"
##	quadprog	qualV	quanteda	quitte
##	"1.5-5"	"0.3-2"	"1.3.4"	"0.3072.0"
##	randomForest	randomForestExplainer	raster	rasterVis
##	"4.6-14"	"0.9"	"2.5-8"	"0.41"
##	readr	readstata13	readxl	recipes
##	"1.1.1"	"0.9.0"	"1.0.0"	"0.1.2"
##	registry	rematch	remind	remulator
##	"0.3"	"1.0.1"	"36.54.0"	"1.15.0"
##	reprex	reshape	reshape2	reticulate
##	"0.1.1"	"0.8.7"	"1.4.3"	"1.10"
##	rfPermute	rgdal	rgenoud	rgeos
##	"2.1.5"	"1.2-5"	"5.7-12.4"	"0.3-17"
##	rgexf	rhdf5	rjson	rlang
##	"0.15.3"	"2.18.0"	"0.2.15"	"0.2.0"
##	rmarkdown	rms	rmsfact	rngtools
##	"1.9"	"5.1-0"	"0.0.3"	"1.2.4"
##	robustbase	rootSolve	roxygen2	rpart
##	"0.92-7"	"1.7"	"6.0.1"	"4.1-13"

##	rpart.plot	rprojroot	rscopus	rsm
##	"2.1.2"	"1.3-2"	"0.5.11"	"2.8"
##	rstudioapi	rvest	rworldmap	rworldextra
##	"0.7"	"0.3.2"	"1.3-6"	"1.01"
##	sandwich	satellite	scales	scatterplot3d
##	"2.4-0"	"0.2.0"	"0.5.0"	"0.3-38"
##	selectr	sem	sendmailR	sensitivity
##	"0.3-1"	"3.1-8"	"1.2-1"	"1.15.0"
##	sfsmisc	shiny	shinycssloaders	shinyresults
##	"1.1-2"	"1.0.5"	"0.2.0"	"0.16.0"
##	shinythemes	slam	sna	snow
##	"1.1.1"	"0.1-40"	"2.4"	"0.4-2"
##	soiltexture	sourcetools	spData	spacetime
##	"1.4.1"	"0.1.5"	"0.2.8.3"	"1.2-0"
##	spacyr	spam	sparsepp	spatstat
##	"0.9.91"	"1.4-0"	"0.2.0"	"1.55-1"
##	spatstat.data	spatstat.utils	spdep	splancs
##	"1.2-0"	"1.8-0"	"0.6-11"	"2.01-40"
##	statnet.common	stopwords	stringdist	stringi
##	"3.3.0"	"0.9.0"	"0.9.4.4"	"1.2.2"
##	stringr	strucchange	swfscMisc	tensor
##	"1.3.1"	"1.5-1"	"1.2"	"1.5"
##	testthat	text2vec	tibble	tidyr
##	"2.0.0"	"0.4.0"	"1.4.2"	"0.8.1"
##	tidyselect	tidyverse	tiff	timeDate
##	"0.2.4"	"1.2.1"	"0.1-5"	"3012.100"
##	tinytex	tm	trafficlight	trefoil
##	"0.5"	"0.7-1"	"1.11.1"	"0.01"
##	trimcluster	tseries	tweenr	txtplot
##	"0.1-2"	"0.10-38"	"0.1.5"	"1.0-3"
##	udunits2	units	urca	uroot
##	"0.13"	"0.6-1"	"1.3-0"	"2.0-9"
##	utf8	validation	vcd	viridis
##	"1.1.4"	"1.195"	"1.4-3"	"0.5.1"
##	viridisLite	visNetwork	webshot	weights
##	"0.3.0"	"2.0.4"	"0.4.0"	"0.85"
##	whisker	withr	xml2	xtable
##	"0.3-2"	"2.1.2"	"1.1.1"	"1.8-2"
##	xts	yaImpute	yaml	zip
##	"0.9-7"	"1.0-29"	"2.1.19"	"1.0.0"
##	zlibbioc	zoo	BH	Formula
##	"1.20.0"	"1.8-1"	"1.62.0-1"	"1.2-1"
##	KernSmooth	MASS	Matrix	MatrixModels
##	"2.23-15"	"7.3-45"	"1.2-8"	"0.4-1"
##	ModelMetrics	R6	RColorBrewer	Rcpp
##	"1.1.0"	"2.2.0"	"1.1-2"	"0.12.10"
##	RcppEigen	Rmpi	SparseM	TH.data
##	"0.3.2.9.1"	"0.6-6"	"1.76"	"1.0-8"
##	abind	acepack	assertthat	backports
##	"1.4-5"	"1.4.1"	"0.1"	"1.0.5"
##	base	base64enc	bdsmatrix	bit
##	"3.3.2"	"0.1-3"	"1.3-2"	"1.1-12"
##	bitops	boot	caTools	car
##	"1.0-6"	"1.3-18"	"1.17.1"	"2.1-4"
##	cffdrs	checkmate	chron	class
##	"1.7.5"	"1.8.2"	"2.3-50"	"7.3-14"
##	cluster	codetools	colorspace	compiler
##	"2.0.6"	"0.2-15"	"1.3-2"	"3.3.2"
##	crayon	data.table	datasets	dichromat
##	"1.3.2"	"1.10.4"	"3.3.2"	"2.0-0"

```
##          digest          doMPI          doParallel          evaluate
##          "0.6.12"          "0.2.1"          "1.0.10"          "0.10"
##          fastmatch          foreach          foreign          fwi.fbp
##          "1.1-0"          "1.4.3"          "0.8-67"          "1.7"
##          gdtools          ggplot2movies          grDevices          graphics
##          "0.1.4"          "0.0.1"          "3.3.2"          "3.3.2"
##          grid          gridExtra          gtable          gtools
##          "3.3.2"          "2.2.1"          "0.2.0"          "3.5.0"
##          hexbin          highr          htmlTable          htmltools
##          "1.27.1"          "0.6"          "1.9"          "0.3.5"
##          htmlwidgets          iterators          jsonlite          knitr
##          "0.8"          "1.0.8"          "1.3"          "1.15.1"
##          labeling          lattice          latticeExtra          lazyeval
##          "0.3"          "0.20-35"          "0.6-28"          "0.2.0"
##          lme4          magrittr          mapproj          maps
##          "1.1-12"          "1.5"          "1.2-4"          "3.1.1"
##          maptools          markdown          methods          mgcv
##          "0.9-2"          "0.7.7"          "3.3.2"          "1.8-17"
##          mime          minqa          mlbench          mmap
##          "0.5"          "1.2.4"          "2.1-1"          "0.6-12"
##          multcomp          munsell          mvtnorm          ncd4
##          "1.4-6"          "0.4.3"          "1.0-6"          "1.15"
##          nlme          nloptr          nnet          parallel
##          "3.1-131"          "1.0.4"          "7.3-12"          "3.3.2"
##          pbkrtest          plyr          praise          quantreg
##          "0.4-7"          "1.8.4"          "1.0.0"          "5.29"
##          raster          reshape2          rex          rmarkdown
##          "2.5-8"          "1.4.2"          "1.1.1"          "1.4"
##          rpart          rprojroot          sandwich          scales
##          "4.1-10"          "1.2"          "2.3-4"          "0.4.1"
##          sp          spatial          spatial.tools          splines
##          "1.2-4"          "7.3-11"          "1.4.8"          "3.3.2"
##          stats          stats4          stringi          stringr
##          "3.3.2"          "3.3.2"          "1.1.3"          "1.2.0"
##          survival          svglite          tcltk          testthat
##          "2.41-2"          "1.2.0"          "3.3.2"          "1.0.2"
##          tibble          tools          utils          withr
##          "1.3.0"          "3.3.2"          "3.3.2"          "1.0.2"
##          yaml          zoo
##          "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_1.25.3  gdx_1.49.0          gdxrrw_1.0.2      lucode_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] rgeof_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_0.107.0         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_3.46.0        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              ISOcodes          Lahman              LandMark
##          "4.0-2"              "2018.06.29"          "6.0-0"              "1.1.0"
##          LearnBayes          Lmoments          MASS              NLP
##          "2.15.1"              "1.2-3"          "7.3-50"              "0.1-10"
##          NMF                PIKTools          R.matlab              R.methodsS3
##          "0.20.6"              "1.1"            "3.6.1"              "1.7.1"
##          R.oo                R.utils          R6              RANN
##          "1.21.0"              "2.5.0"          "2.2.2"              "2.5.1"
##          RCurl              RISmed          RJSONIO              RSQLite
##          "1.95-4.8"              "2.1.7"          "1.3-0"              "2.1.1"
##          RSpectra          RandomFields          RandomFieldsUtils          Rcpp
##          "0.13-1"              "3.1.50"          "0.3.25"              "0.12.18"
##          RcppArmadillo          RcppOctave          RcppParallel          RcppRoll
##          "0.7.700.0.0"              "0.18.1"          "4.3.20"              "0.2.2"
##          Rook                Rtsne          Rttf2pt1              SDMTTools
##          "1.1-1"              "0.13"          "1.3.7"              "1.1-221"
##          SPEI                SQUAREM          SnowballC              SpatialPack
##          "1.6"                "2017.10-1"          "0.5.1"              "0.3"
##          TH.data              WDI              XML              abind
##          "1.0-8"              "2.5"            "3.98-1.5"          "1.4-5"
##          aqfig              ar5data          areaplot              arm
##          "0.8"                "1.7.1"          "1.2-0"              "1.9-3"
##          assertr              assertthat          automap              backports
```

##	"2.5"	"0.2.0"	"1.0-14"	"1.1.2"
##	bfast	bibliometrix	bibtex	bindr
##	"1.5.7"	"2.0.0"	"0.4.2"	"0.1.1"
##	bindrcpp	bit64	blob	brew
##	"0.2.2"	"0.9-7"	"1.1.1"	"1.0-6"
##	broom	burdensharing	callr	caret
##	"0.4.2"	"1.4.25"	"1.0.0"	"6.0-80"
##	cellranger	citation	classInt	cli
##	"1.1.0"	"0.2.1"	"0.1-23"	"1.0.0"
##	clipr	coda	coin	colorRamps
##	"0.4.0"	"0.19-1"	"1.2-2"	"2.3"
##	commonmark	compare	corpcor	corrplot
##	"1.5"	"0.2-6"	"1.6.9"	"0.84"
##	countrycode	covr	cowplot	cowsay
##	"1.00.0"	"3.1.0"	"0.9.2"	"0.6.0"
##	crayon	crosstalk	curl	d3Network
##	"1.3.4"	"1.0.0"	"2.3"	"0.5.2.1"
##	data.table	data.tree	dbplyr	ddalpha
##	"1.11.4"	"0.7.4"	"1.2.1"	"1.3.3"
##	deldir	demystas	dendextend	desc
##	"0.1-15"	"1.3.3"	"1.5.2"	"1.2.0"
##	devtools	digest	dimRed	diptest
##	"1.13.3"	"0.6.15"	"0.1.0"	"0.75-7"
##	doMC	doMPI	doSNOW	dotCall64
##	"1.3.5"	"0.2.2"	"1.0.16"	"0.9-5.2"
##	downloader	dplyr	dtplyr	dummies
##	"0.4"	"0.7.6"	"0.0.2"	"1.5.6"
##	e1071	easyNCDF	ellipse	estimability
##	"1.6-8"	"0.0.4"	"0.4.1"	"1.3"
##	evaluate	expm	extrafont	extrafontdb
##	"0.10.1"	"0.999-2"	"0.17"	"1.0"
##	factoextra	fail	faodata	fdrtool
##	"1.0.4"	"1.3"	"1.09"	"1.2.15"
##	fields	fitdistrplus	flashClust	flexmix
##	"8.10"	"1.0-9"	"1.01-2"	"2.3-14"
##	forcats	forecast	forestplot	formatR
##	"0.2.0"	"8.0"	"1.7.2"	"1.5"
##	fortunes	fpc	fracdiff	futile.logger
##	"1.5-4"	"2.1-10"	"1.4-2"	"1.4.3"
##	futile.options	gdata	gdistance	gdx
##	"1.0.1"	"2.18.0"	"1.2-2"	"1.49.0"
##	gdxrrw	geoR	geodata	geometry
##	"1.0.2"	"1.7-5.2"	"1.56"	"0.3-6"
##	geosphere	ggforce	ggm	ggplot2
##	"1.5-7"	"0.1.3"	"2.3"	"3.0.0"
##	ggpubr	ggraph	ggrepel	ggsci
##	"0.1.4"	"1.0.2"	"0.8.0"	"2.9"
##	ggsignif	git2r	givemeall	glasso
##	"0.4.0"	"0.21.0"	"0.02"	"1.8"
##	glodato	glue	gmodels	gmp
##	"1.12"	"1.2.0"	"2.16.2"	"0.5-13.1"
##	goftest	gower	goxygen	gplots
##	"1.1-1"	"0.1.2"	"0.21.2"	"3.0.1"
##	gridBase	gstat	gsf	guidr
##	"0.4-7"	"1.1-5"	"1.0-5"	"0.0.5.0000"
##	gvlma	haven	hms	htmlTable
##	"1.0.0.2"	"1.1.0"	"0.4.2"	"1.12"
##	htmltools	htmlwidgets	httpuv	httr
##	"0.3.6"	"1.2"	"1.3.5"	"1.3.1"
##	huge	hydroGOF	hydroTSM	iamc

##	"1.2.7"	"0.3-10"	"0.5-1"	"0.24.0"
##	igraph	influenceR	intervals	inum
##	"1.2.1"	"0.1.0"	"0.15.1"	"1.0-0"
##	ipred	irlba	jpeg	jsonlite
##	"0.9-6"	"2.3.2"	"0.1-8"	"1.5"
##	kernlab	knitr	ks	lambda.r
##	"0.9-26"	"1.20"	"1.11.2"	"1.1.9"
##	later	lattice	lava	lavaan
##	"0.7.2"	"0.20-35"	"1.6.1"	"0.6-1"
##	lazyeval	leaflet	leaps	libcoin
##	"0.2.1"	"1.1.0"	"3.0"	"1.0-1"
##	limes	lme4	lmomco	lmtest
##	"0.3.60"	"1.1-17"	"2.2.7"	"0.9-36"
##	lpSolve	lpjclass	lsmeans	lubase
##	"5.6.13"	"1.13"	"2.25-5"	"1.06"
##	lubridate	lucode	ludata	luplayground
##	"1.7.1"	"2.136.0"	"1.43.3"	"1.05"
##	luplot	luscale	lusweave	mFilter
##	"3.46.0"	"2.13.1"	"1.45.0"	"0.1-3"
##	madrat	magclass	magic	magpie
##	"1.52.0"	"4.87.9"	"1.5-8"	"0.2266.1"
##	magpie4	magpieflexreg	magpiesets	magrittr
##	"1.25.3"	"0.0036"	"0.33.3"	"1.5"
##	mapdata	markdown	matlab	matrixcalc
##	"2.3.0"	"0.8"	"1.0.2"	"1.0-3"
##	mclust	memoise	mgcv	mi
##	"5.3"	"1.0.0"	"1.8-23"	"1.0"
##	mice	microbenchmark	mip	misc3d
##	"2.30"	"1.4-4"	"0.107.0"	"0.8-4"
##	mlapi	mnormt	modelr	modeltools
##	"0.1.0"	"1.5-5"	"0.1.1"	"0.2-21"
##	moinput	mrfood	mrregression	mrvalidation
##	"9.137.0"	"0.7.3"	"3.11.0"	"1.31.0"
##	multcomp	multicool	mvtnorm	ncdf4
##	"1.4-8"	"0.1-10"	"1.0-7"	"1.15"
##	network	nitrogen	nleqslv	nnls
##	"1.13.0"	"1.0.3"	"3.3.2"	"1.4"
##	nonparaeff	nortest	numDeriv	nycflights13
##	"0.5-8"	"1.0-4"	"2016.8-1"	"0.2.2"
##	oce	openssl	openxlsx	osmar
##	"0.9-23"	"0.9.6"	"4.0.0"	"1.1-7"
##	pROC	pan	pander	party
##	"1.12.1"	"1.4"	"0.6.0"	"1.2-4"
##	partykit	pastecs	pbapply	pbivnorm
##	"1.2-0"	"1.3-18"	"1.3-4"	"0.6.0"
##	piam	pikcluster	pillar	pkgconfig
##	"0.8.2"	"0.04"	"1.2.3"	"2.0.1"
##	pkgmaker	plogr	plot3D	plotly
##	"0.22"	"0.2.0"	"1.1"	"4.5.6"
##	plotrix	png	polspline	polyclip
##	"3.6-4"	"0.1-7"	"1.1.12"	"1.6-1"
##	prabclus	prettyunits	processx	prodlm
##	"2.2-6"	"1.0.2"	"3.1.0"	"2018.04.18"
##	profvis	progress	proto	pse
##	"0.3.3"	"1.1.2"	"1.0.0"	"0.4.7"
##	psych	purrr	pwt	qgraph
##	"1.6.12"	"0.2.4"	"7.1-1"	"1.4.2"
##	quadprog	qualV	quanteda	quitte
##	"1.5-5"	"0.3-2"	"1.3.4"	"0.3072.0"
##	randomForest	randomForestExplainer	raster	rasterVis

##	"4.6-14"	"0.9"	"2.5-8"	"0.41"
##	readr	readstata13	readxl	recipes
##	"1.1.1"	"0.9.0"	"1.0.0"	"0.1.2"
##	registry	rematch	remind	remulator
##	"0.3"	"1.0.1"	"36.54.0"	"1.15.0"
##	reprex	reshape	reshape2	reticulate
##	"0.1.1"	"0.8.7"	"1.4.3"	"1.10"
##	rfPermute	rgdal	rgenoud	rgeos
##	"2.1.5"	"1.2-5"	"5.7-12.4"	"0.3-17"
##	rgexf	rhdf5	rjson	rlang
##	"0.15.3"	"2.18.0"	"0.2.15"	"0.2.0"
##	rmarkdown	rms	rmsfact	rngtools
##	"1.9"	"5.1-0"	"0.0.3"	"1.2.4"
##	robustbase	rootSolve	roxygen2	rpart
##	"0.92-7"	"1.7"	"6.0.1"	"4.1-13"
##	rpart.plot	rprojroot	rscopus	rsm
##	"2.1.2"	"1.3-2"	"0.5.11"	"2.8"
##	rstudioapi	rvest	rworldmap	rworldxtra
##	"0.7"	"0.3.2"	"1.3-6"	"1.01"
##	sandwich	satellite	scales	scatterplot3d
##	"2.4-0"	"0.2.0"	"0.5.0"	"0.3-38"
##	selectr	sem	sendmailR	sensitivity
##	"0.3-1"	"3.1-8"	"1.2-1"	"1.15.0"
##	sfsmisc	shiny	shinycssloaders	shinyresults
##	"1.1-2"	"1.0.5"	"0.2.0"	"0.16.0"
##	shinythemes	slam	sna	snow
##	"1.1.1"	"0.1-40"	"2.4"	"0.4-2"
##	soiltexture	sourcetools	spData	spacetime
##	"1.4.1"	"0.1.5"	"0.2.8.3"	"1.2-0"
##	spacyr	spam	sparsepp	spatstat
##	"0.9.91"	"1.4-0"	"0.2.0"	"1.55-1"
##	spatstat.data	spatstat.utils	spdep	splancks
##	"1.2-0"	"1.8-0"	"0.6-11"	"2.01-40"
##	statnet.common	stopwords	stringdist	stringi
##	"3.3.0"	"0.9.0"	"0.9.4.4"	"1.2.2"
##	stringr	strucchange	swfscMisc	tensor
##	"1.3.1"	"1.5-1"	"1.2"	"1.5"
##	testthat	text2vec	tibble	tidyr
##	"2.0.0"	"0.4.0"	"1.4.2"	"0.8.1"
##	tidyselect	tidyverse	tiff	timeDate
##	"0.2.4"	"1.2.1"	"0.1-5"	"3012.100"
##	tinytex	tm	trafficlight	trefoil
##	"0.5"	"0.7-1"	"1.11.1"	"0.01"
##	trimcluster	tseries	tweenr	txtplot
##	"0.1-2"	"0.10-38"	"0.1.5"	"1.0-3"
##	udunits2	units	urca	uroot
##	"0.13"	"0.6-1"	"1.3-0"	"2.0-9"
##	utf8	validation	vcd	viridis
##	"1.1.4"	"1.195"	"1.4-3"	"0.5.1"
##	viridisLite	visNetwork	webshot	weights
##	"0.3.0"	"2.0.4"	"0.4.0"	"0.85"
##	whisker	withr	xml2	xtable
##	"0.3-2"	"2.1.2"	"1.1.1"	"1.8-2"
##	xts	yaImpute	yaml	zip
##	"0.9-7"	"1.0-29"	"2.1.19"	"1.0.0"
##	zlibbioc	zoo	BH	Formula
##	"1.20.0"	"1.8-1"	"1.62.0-1"	"1.2-1"
##	KernSmooth	MASS	Matrix	MatrixModels
##	"2.23-15"	"7.3-45"	"1.2-8"	"0.4-1"
##	ModelMetrics	R6	RColorBrewer	Rcpp

##	"1.1.0"	"2.2.0"	"1.1-2"	"0.12.10"
##	RcppEigen	Rmpi	SparseM	TH.data
##	"0.3.2.9.1"	"0.6-6"	"1.76"	"1.0-8"
##	abind	acepack	assertthat	backports
##	"1.4-5"	"1.4.1"	"0.1"	"1.0.5"
##	base	base64enc	bdsmatrix	bit
##	"3.3.2"	"0.1-3"	"1.3-2"	"1.1-12"
##	bitops	boot	caTools	car
##	"1.0-6"	"1.3-18"	"1.17.1"	"2.1-4"
##	cffdrs	checkmate	chron	class
##	"1.7.5"	"1.8.2"	"2.3-50"	"7.3-14"
##	cluster	codetools	colorspace	compiler
##	"2.0.6"	"0.2-15"	"1.3-2"	"3.3.2"
##	crayon	data.table	datasets	dichromat
##	"1.3.2"	"1.10.4"	"3.3.2"	"2.0-0"
##	digest	doMPI	doParallel	evaluate
##	"0.6.12"	"0.2.1"	"1.0.10"	"0.10"
##	fastmatch	foreach	foreign	fwi.fbp
##	"1.1-0"	"1.4.3"	"0.8-67"	"1.7"
##	gdtools	ggplot2movies	grDevices	graphics
##	"0.1.4"	"0.0.1"	"3.3.2"	"3.3.2"
##	grid	gridExtra	gtable	gtools
##	"3.3.2"	"2.2.1"	"0.2.0"	"3.5.0"
##	hexbin	highr	htmlTable	htmltools
##	"1.27.1"	"0.6"	"1.9"	"0.3.5"
##	htmlwidgets	iterators	jsonlite	knitr
##	"0.8"	"1.0.8"	"1.3"	"1.15.1"
##	labeling	lattice	latticeExtra	lazyeval
##	"0.3"	"0.20-35"	"0.6-28"	"0.2.0"
##	lme4	magrittr	mapproj	maps
##	"1.1-12"	"1.5"	"1.2-4"	"3.1.1"
##	maptools	markdown	methods	mgcv
##	"0.9-2"	"0.7.7"	"3.3.2"	"1.8-17"
##	mime	minqa	mlbench	mmap
##	"0.5"	"1.2.4"	"2.1-1"	"0.6-12"
##	multcomp	munsell	mvtnorm	ncdf4
##	"1.4-6"	"0.4.3"	"1.0-6"	"1.15"
##	nlme	nloptr	nnet	parallel
##	"3.1-131"	"1.0.4"	"7.3-12"	"3.3.2"
##	pbkrtest	plyr	praise	quantreg
##	"0.4-7"	"1.8.4"	"1.0.0"	"5.29"
##	raster	reshape2	rex	rmarkdown
##	"2.5-8"	"1.4.2"	"1.1.1"	"1.4"
##	rpart	rprojroot	sandwich	scales
##	"4.1-10"	"1.2"	"2.3-4"	"0.4.1"
##	sp	spatial	spatial.tools	splines
##	"1.2-4"	"7.3-11"	"1.4.8"	"3.3.2"
##	stats	stats4	stringi	stringr
##	"3.3.2"	"3.3.2"	"1.1.3"	"1.2.0"
##	survival	svglite	tcltk	testthat
##	"2.41-2"	"1.2.0"	"3.3.2"	"1.0.2"
##	tibble	tools	utils	withr
##	"1.3.0"	"3.3.2"	"3.3.2"	"1.0.2"
##	yaml	zoo		
##	"2.1.14"	"1.7-14"		

model.run

68 Runtime information

```
## magpie.gms      : 1h 11m 1s
```