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Supplement of

CropSuite v1.0 – a comprehensive open-source crop suitability model considering climate variability for climate impact assessment

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Supplement

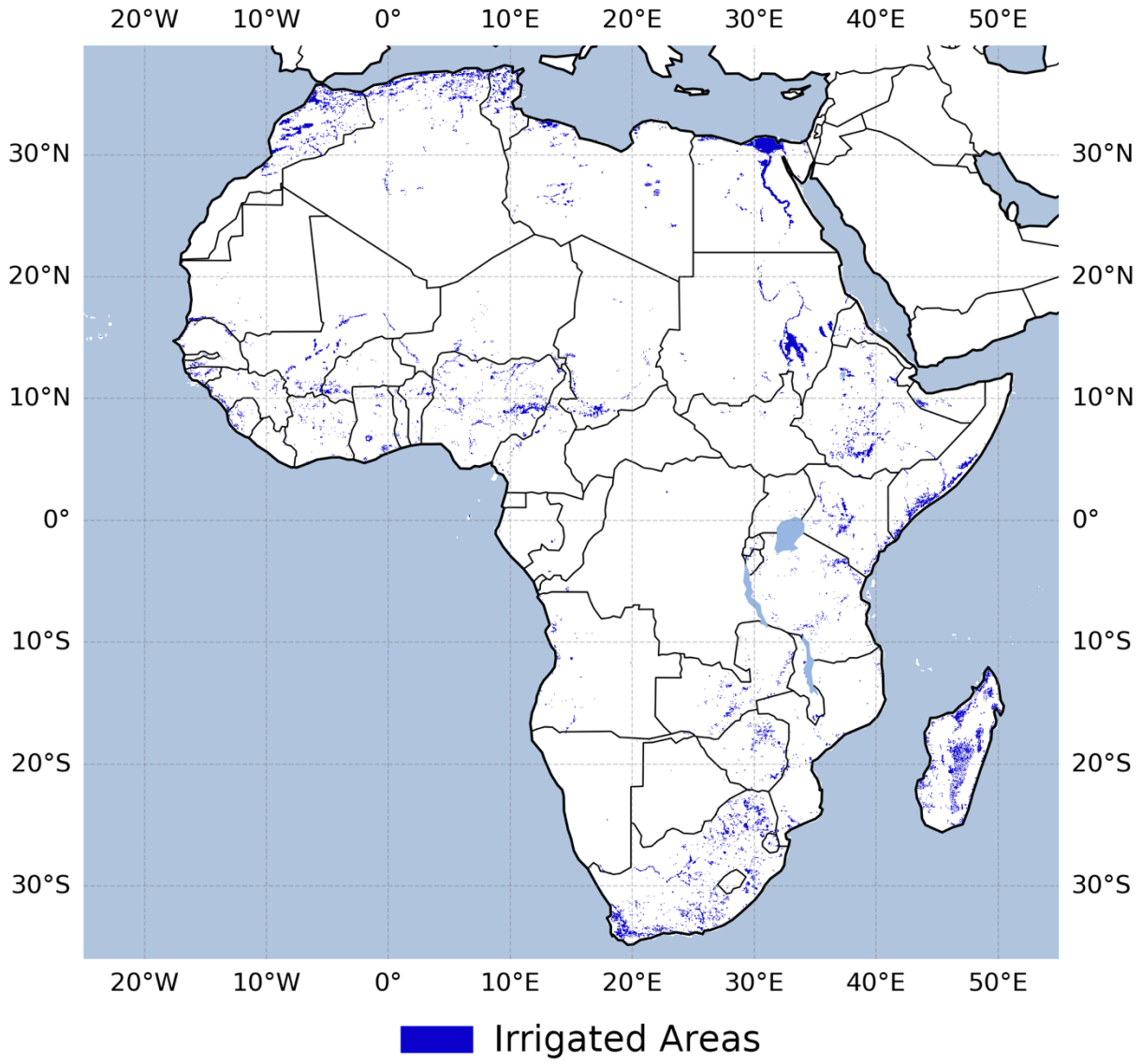

Figure S1: Irrigated areas for Africa according to Meier et al. (2018).

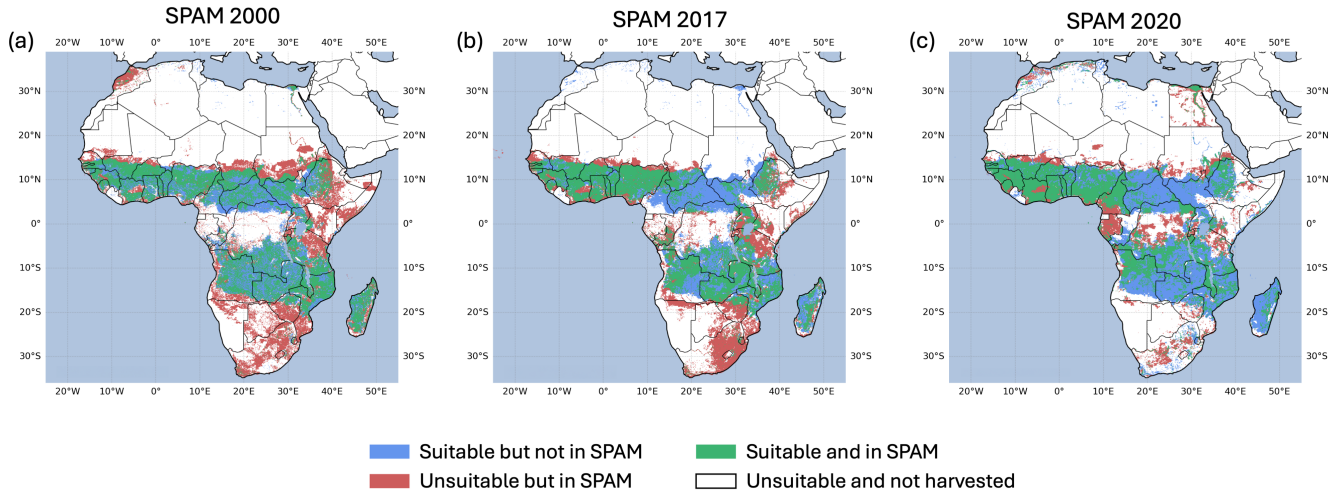

Figure S2: As Figure 7b but comparison of CropSuite with (a) SPAM2000, (b) SPAM2017, and (c) MapSPAM 2020, exemplarily for maize.

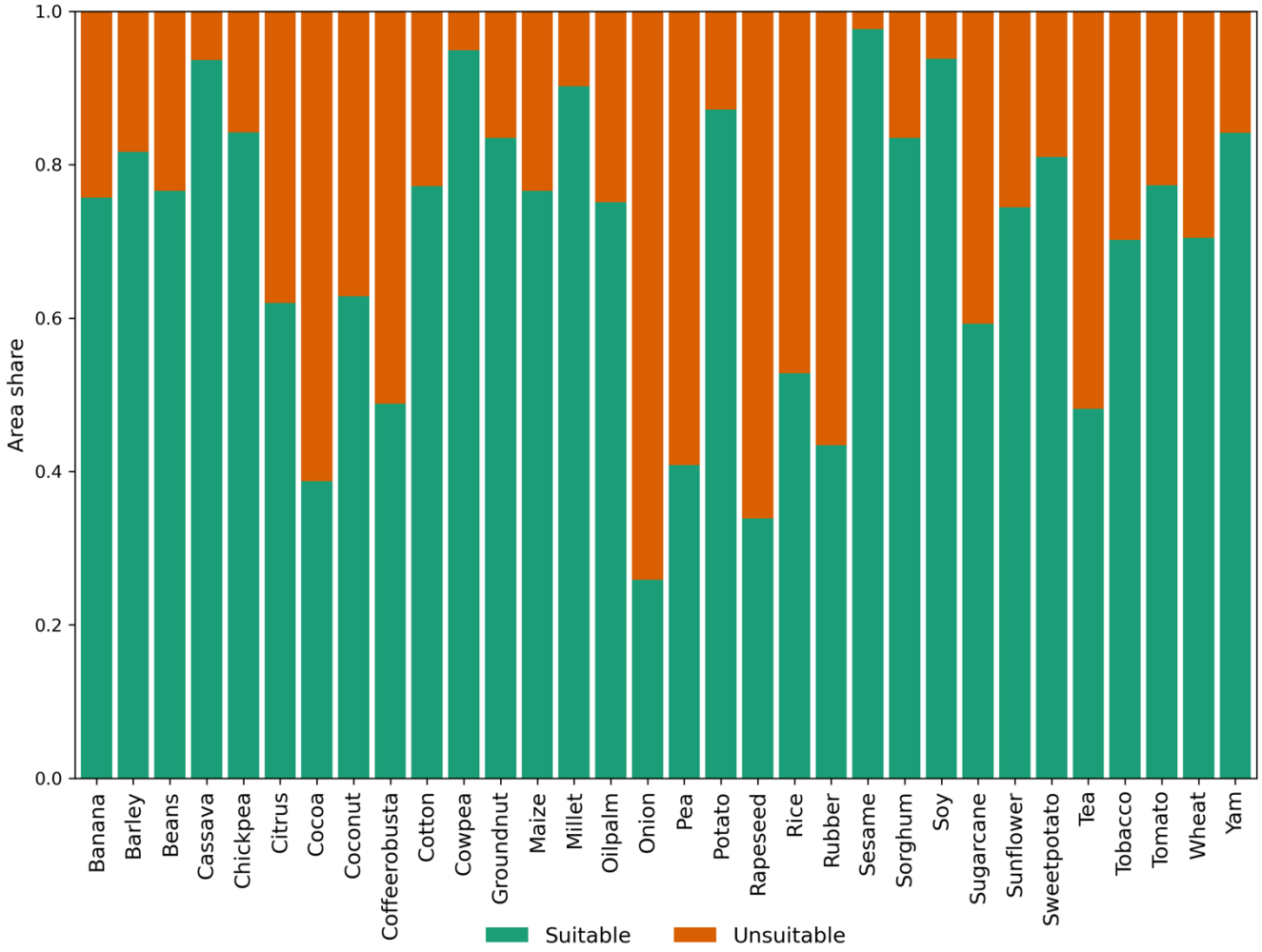

Figure S3: Same as Fig. 6 but showing the proportion of MapSPAM area on the y-axis. Green areas are suitable and in MapSPAM 2020, orange areas are unsuitable but in MapSPAM 2020.

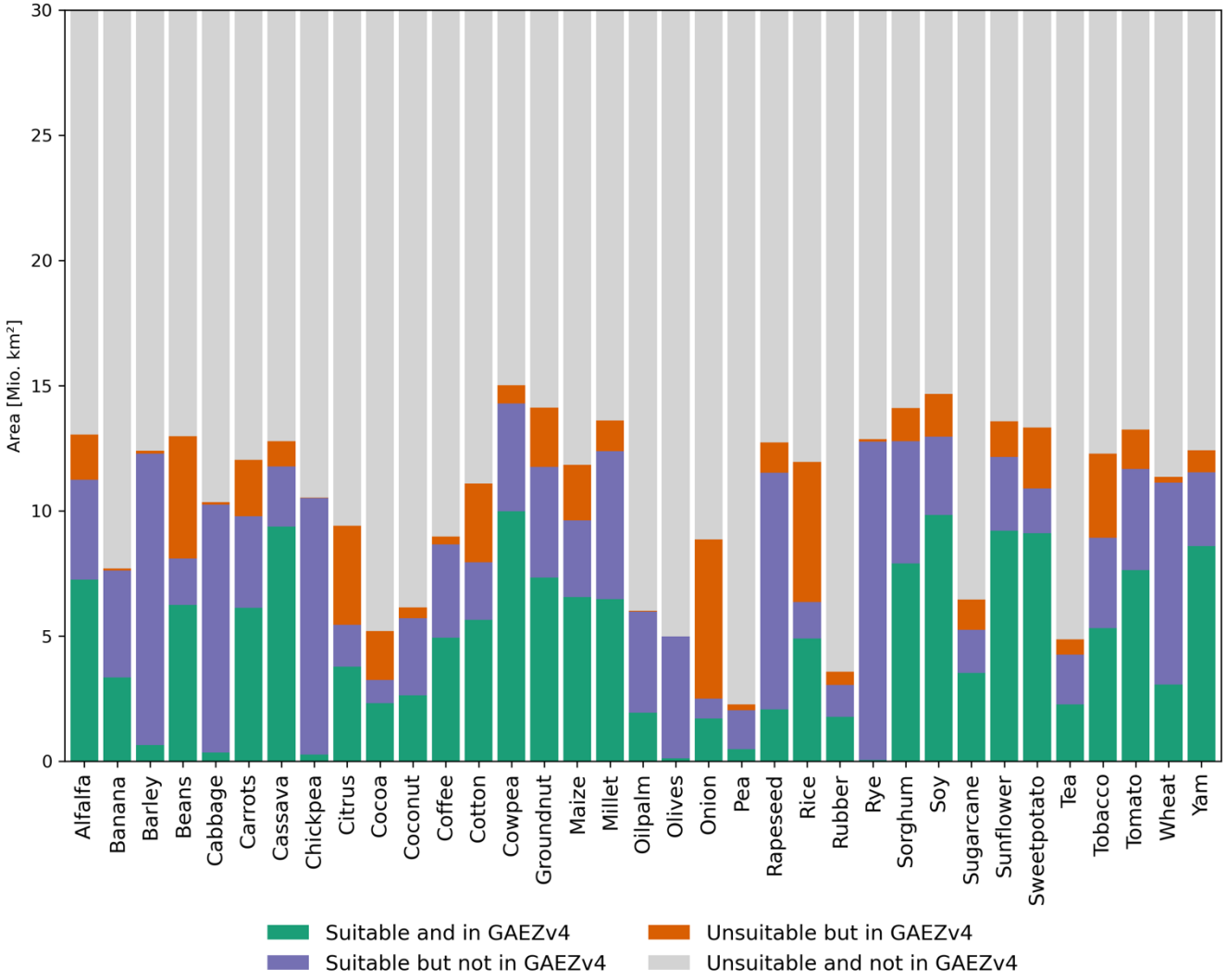

Figure S4: Same as Fig. 8 but with consideration of climate variability for CropSuite.

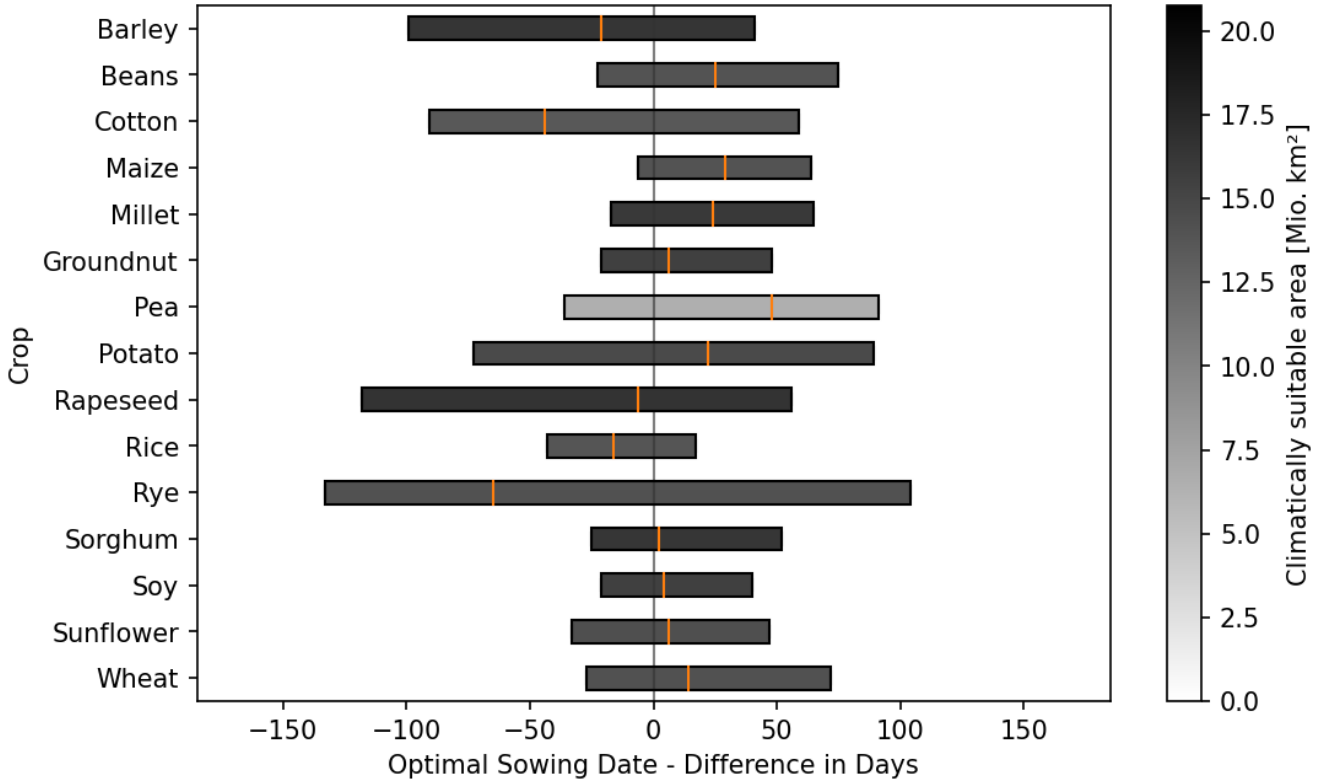

Figure S5: Same as Fig. 9, but the comparison is performed at half degree spatial resolution for both, the GGCMI and the CropSuite crop calendar datasets. Therefore, the CropSuite data is resampled from 30 arc seconds to half degree spatial resolution using the mode (most frequent value within a corresponding coarse pixel).

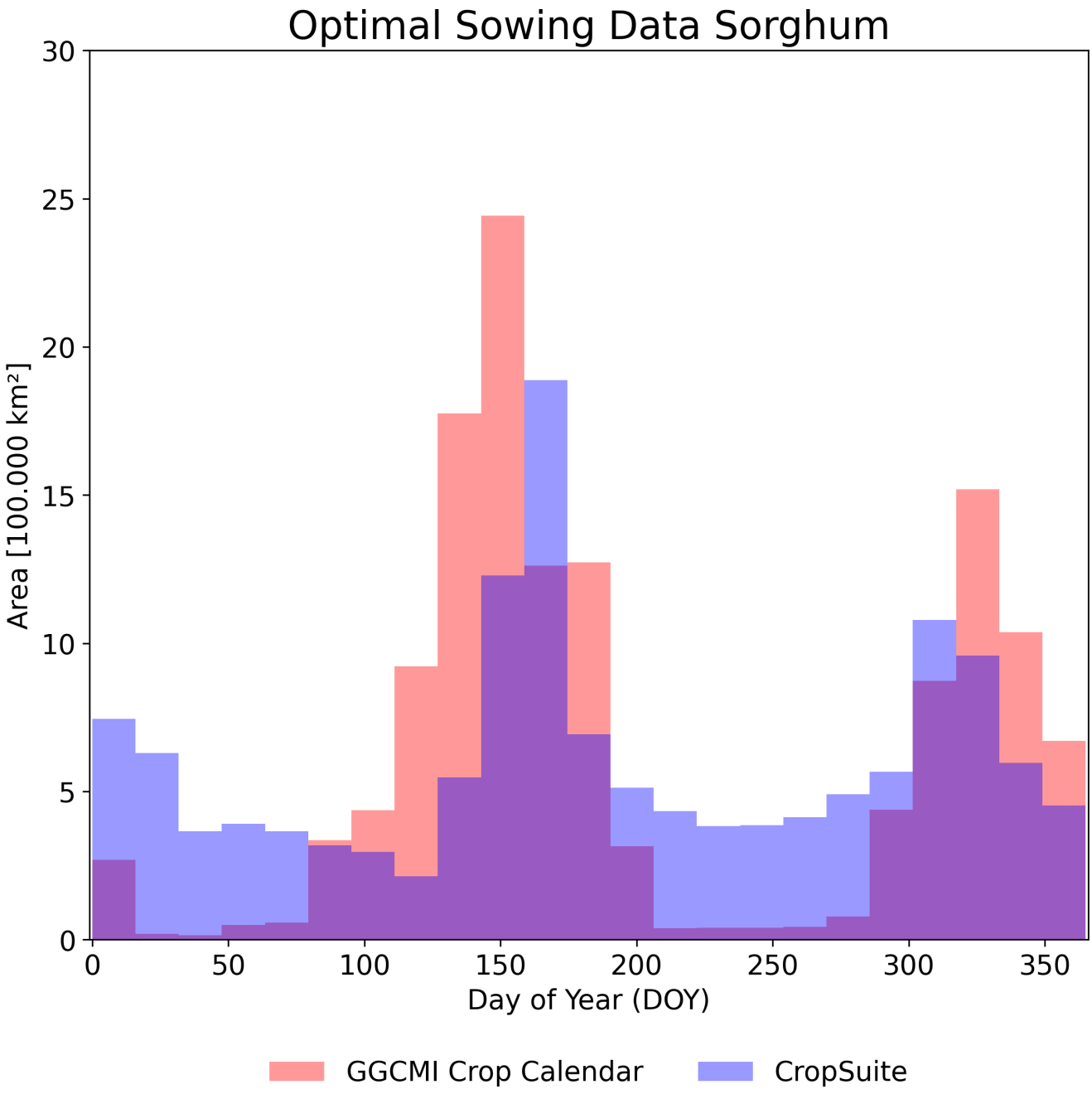

Figure S6: Histogram showing the area of optimal sowing dates for sorghum for CropSuite and the CCGMI crop calendar.

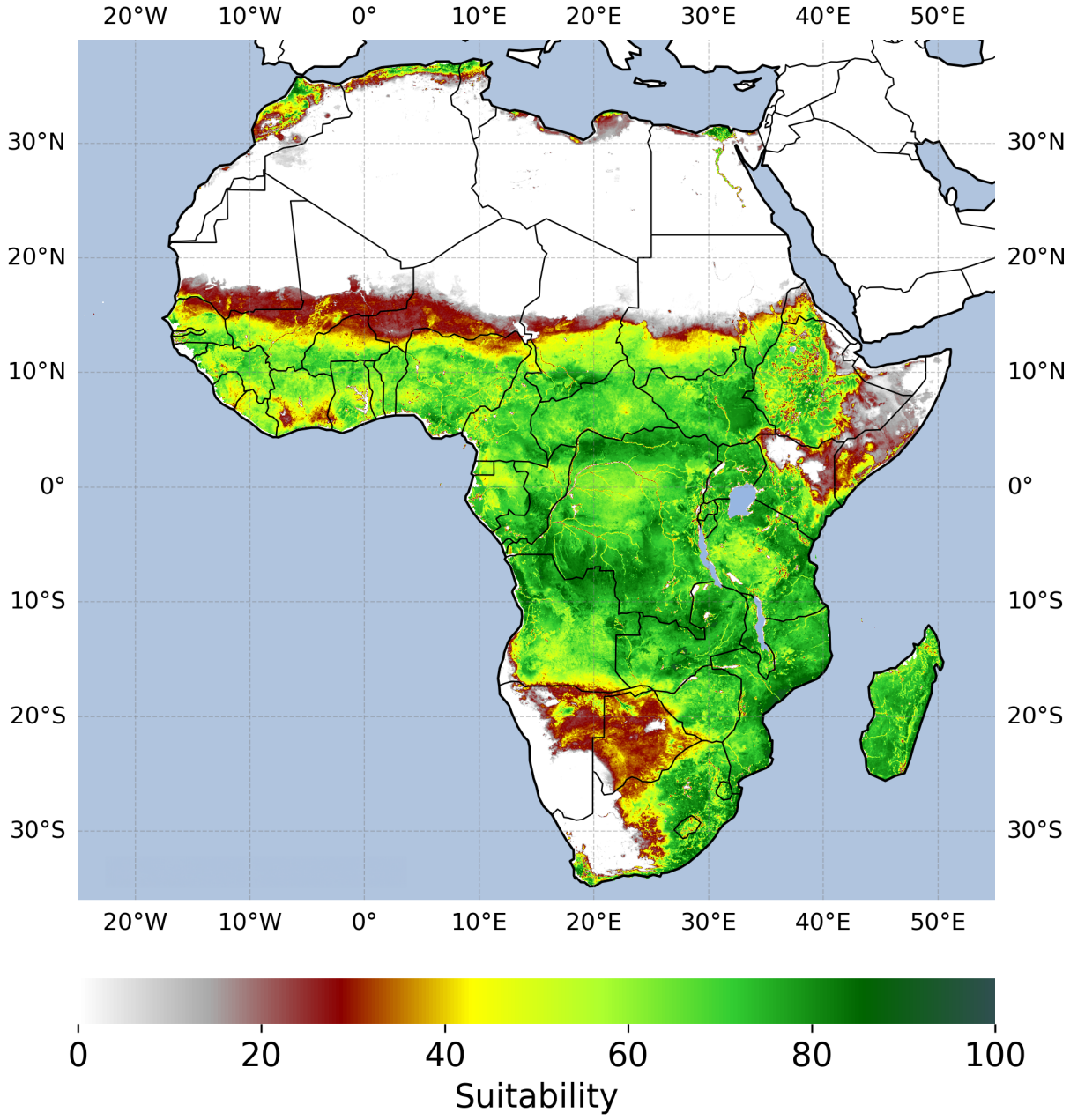

Figure S7: Same as Fig. 10a, but with different colormap.

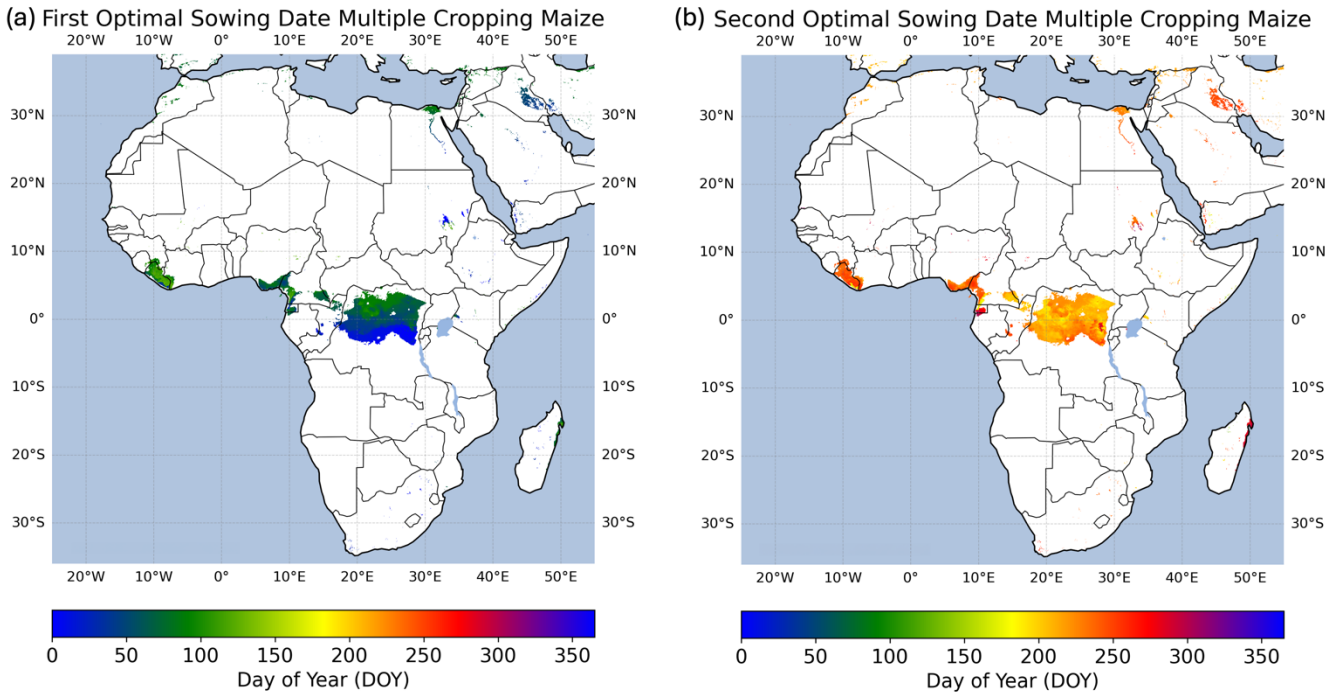

Figure S8: (a) First- and (b) second optimal sowing date under consideration of multiple cropping without soil and terrain limitations for maize.

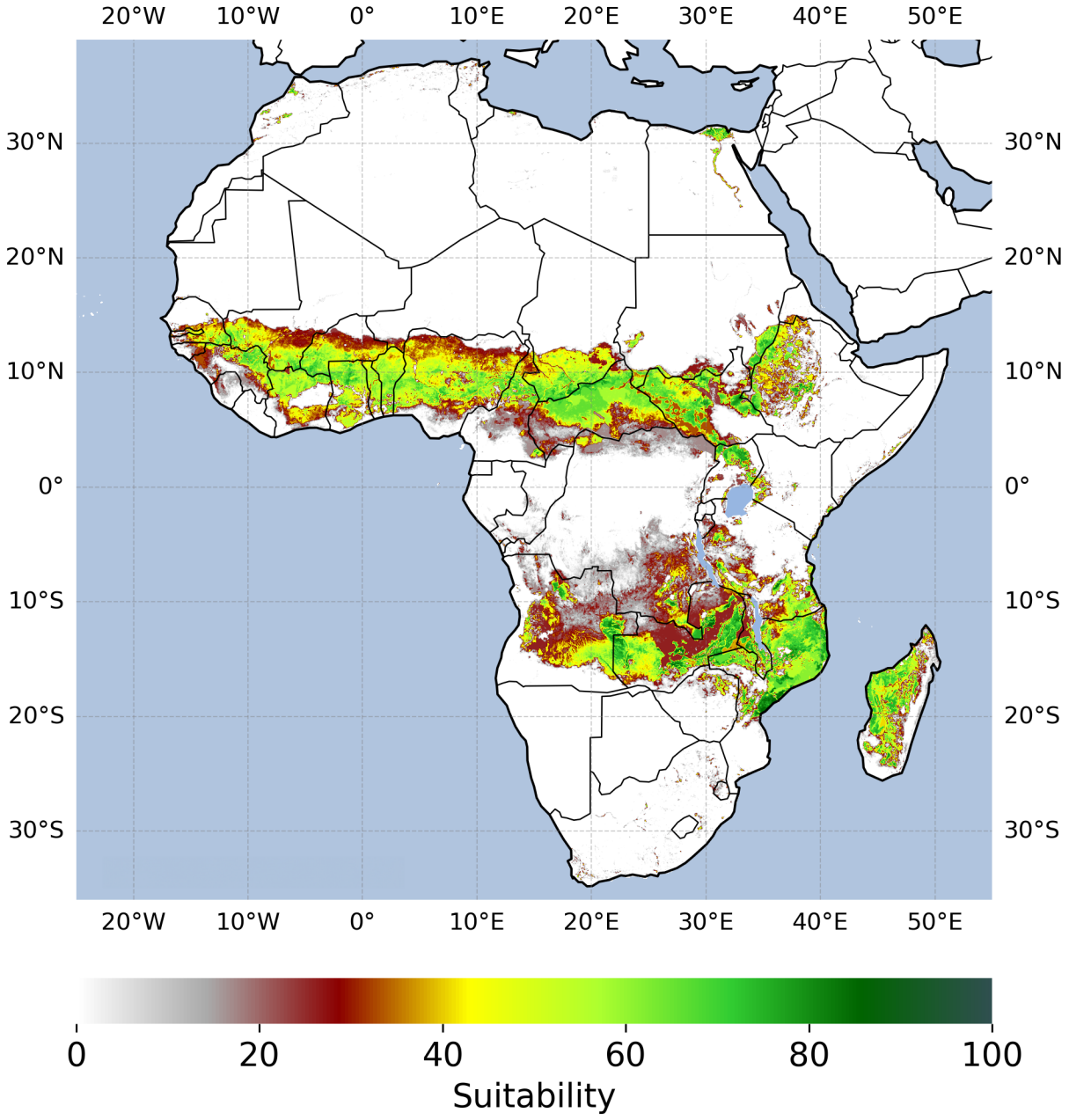

Figure S9: Same as Fig. 12a, but with different colormap.

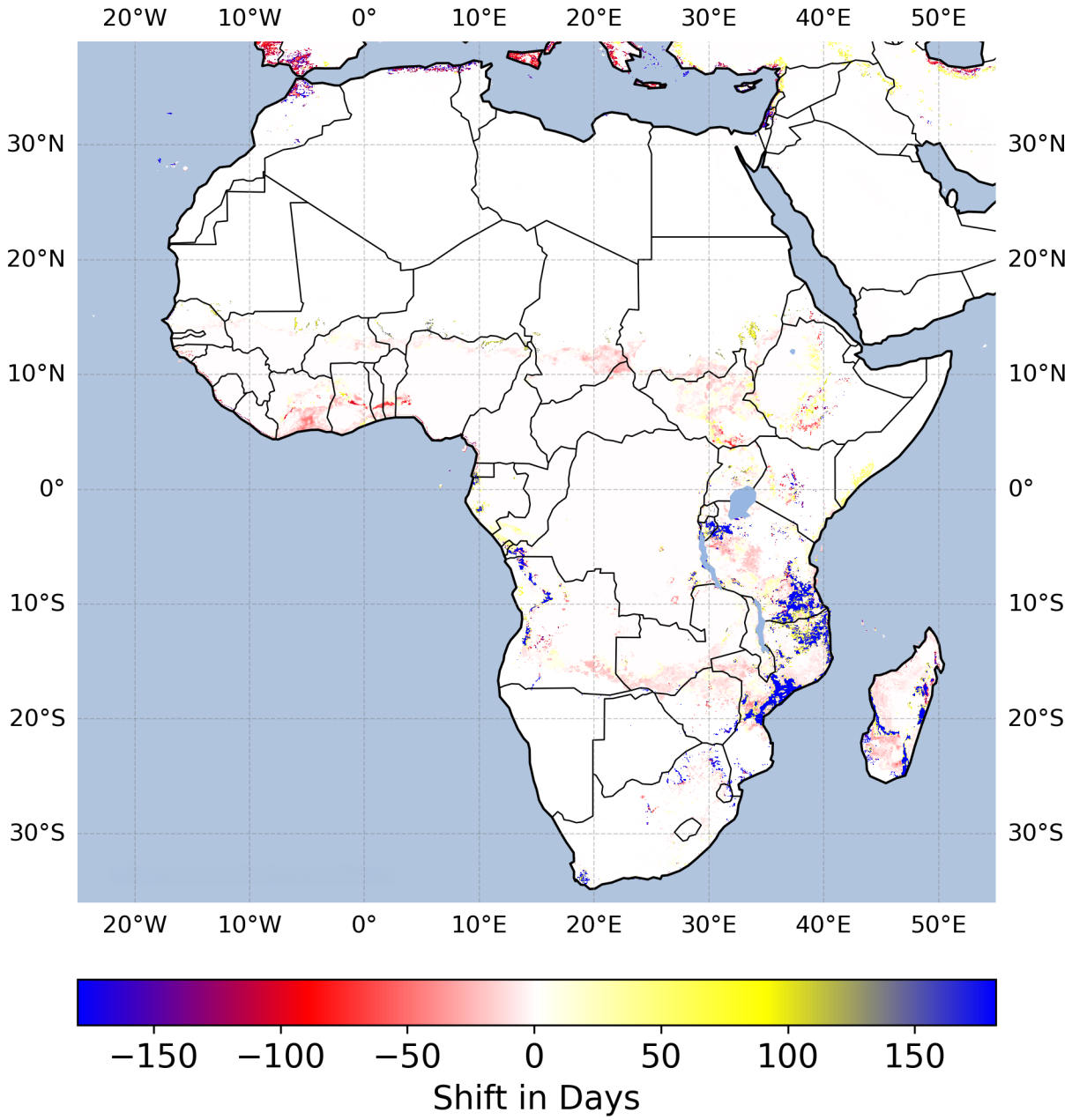

Figure S10: Impact of the consideration of climate variability on the optimal sowing date for maize under historical climate conditions from 1991 to 2010. Irrigated areas are considered according to Meier et al. (2018).

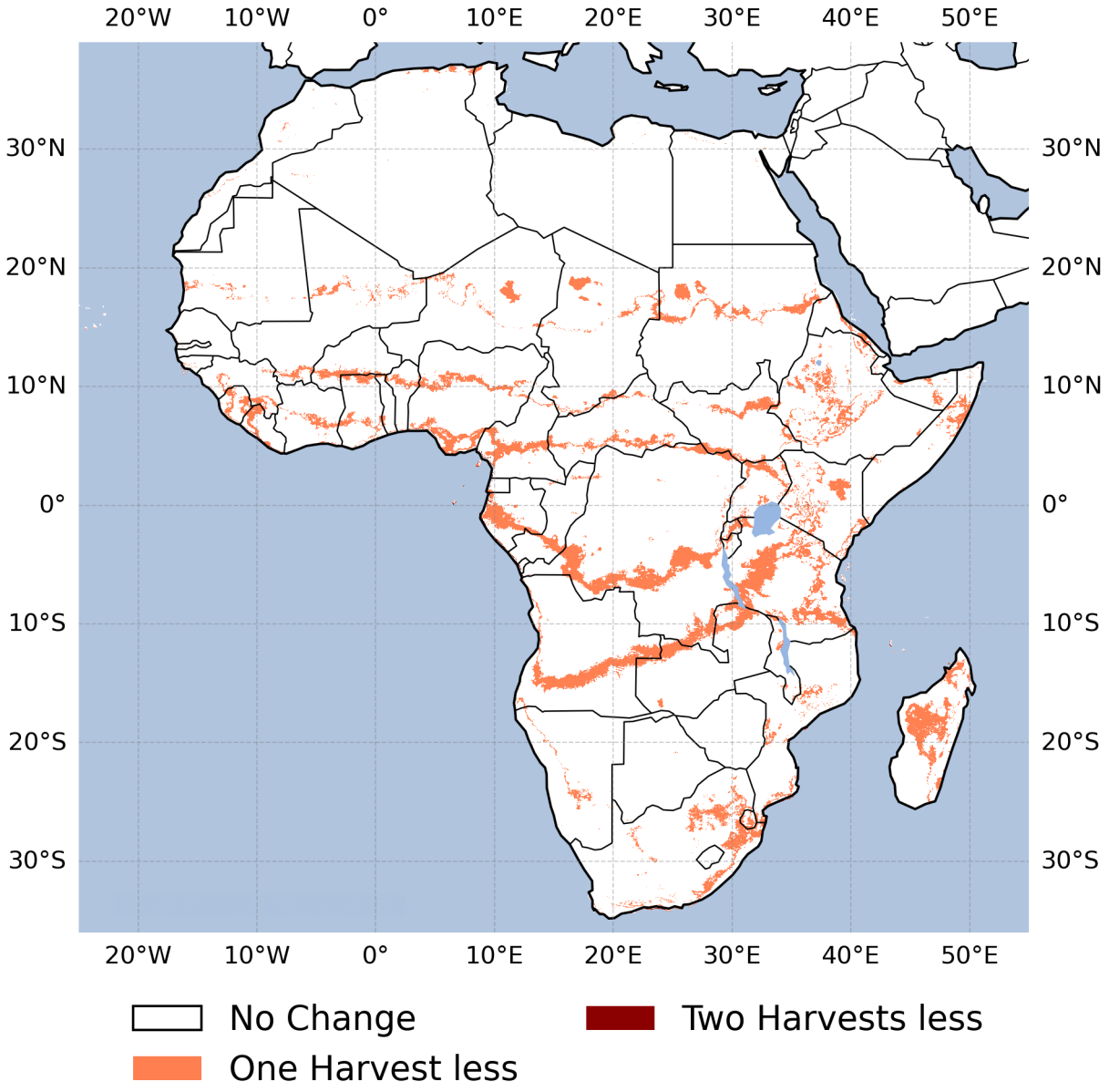

Figure S11: Impact of the consideration of climate variability on the multiple cropping potential for maize under historical climate conditions from 1991 to 2010. Irrigated areas are considered according to Meier et al. (2018).

References

Meier, J., Zabel, F., and Mauser, W.: A global approach to estimate irrigated areas – a comparison between different data and statistics, Hydrology and Earth System Sciences, 22, 1119–1133-1119–1133, 2018.