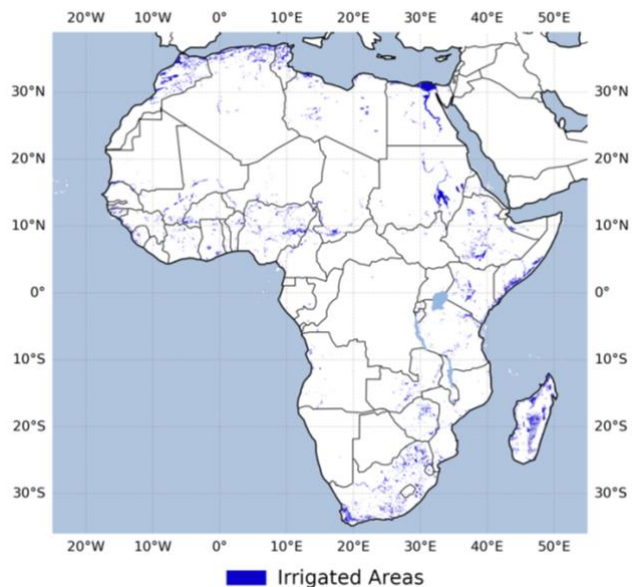


1

Supplement

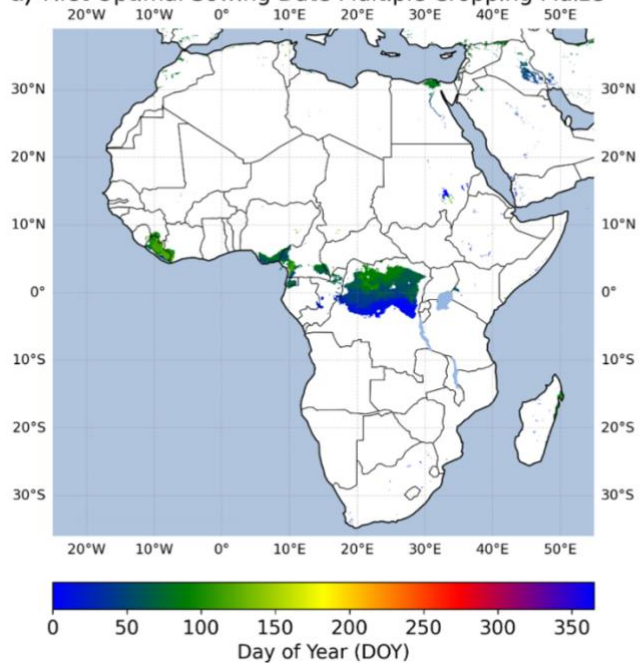


2

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

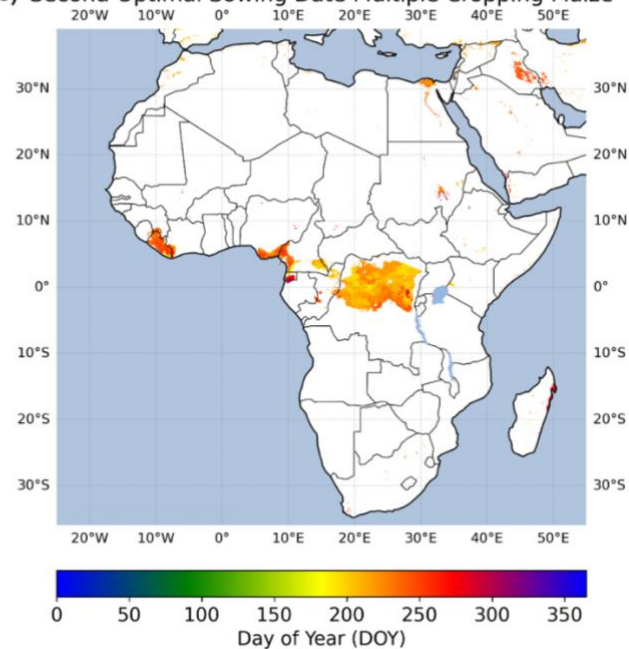
4

a) First Optimal Sowing Date Multiple Cropping Maize

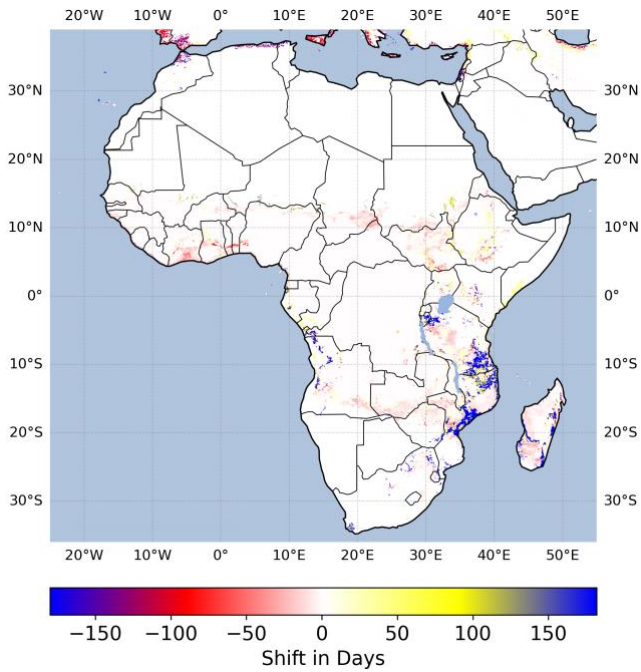


5

b) Second Optimal Sowing Date Multiple Cropping Maize



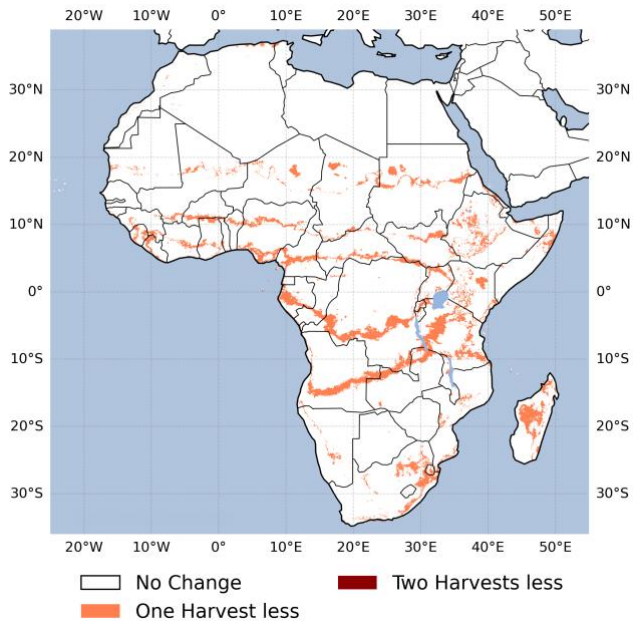
6 **Figure S2: (a) First- and (b) second optimal sowing date under consideration of multiple cropping without soil and terrain**
7 **limitations for maize.**



8

9
10

Figure S3: 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).



11

12
13

Figure S4: 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).

14

Literature

15

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.

16
17