Geoscientific
Model Development

Supplement of

Using the anomaly forcing Community Land Model (CLM 4.5) for crop yield projections

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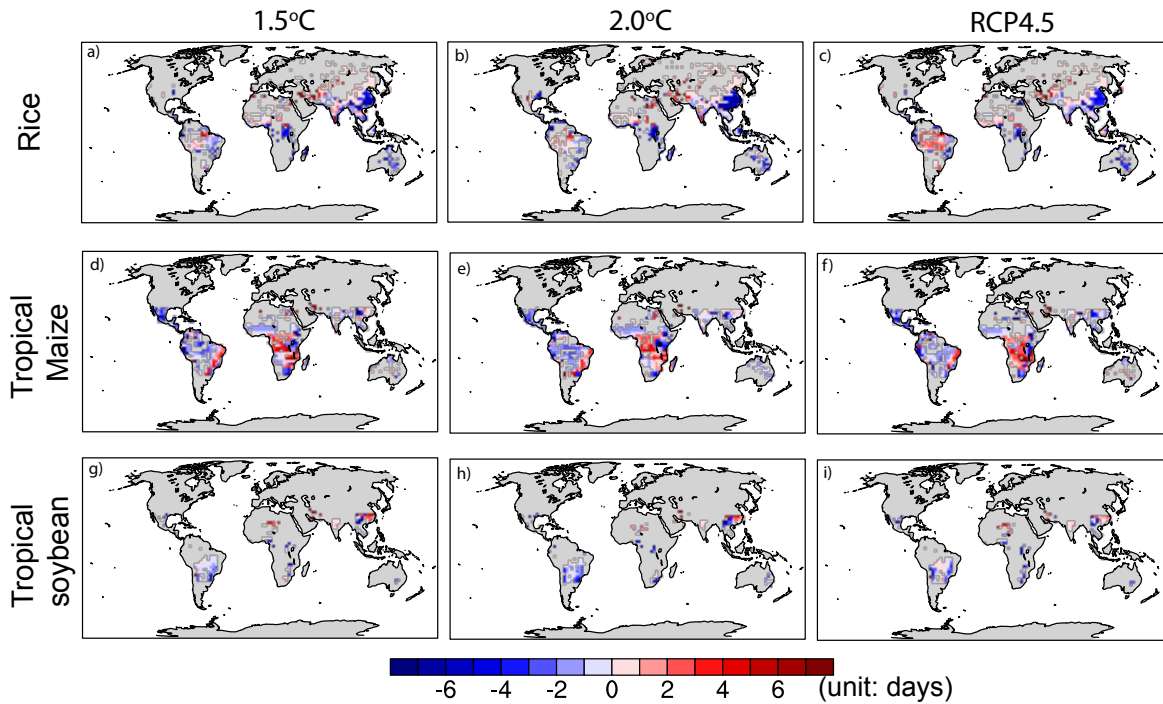*Correspondence to:* Yaqiong Lu (yaqiong@imde.ac.cn)

Figure S1. 70-year averaged differences of grain fill days between the anomaly forcing CLM and the standard CLM for rice (a-c), tropical maize (d-f), and tropical soybean (g-i) for the 1.5°C, 2.0 °C, and RCP4.5 scenarios. All differences shown here are statistically significant differences tested by the Kolmogorov-Smirnov test with a sample size of 84. The gray areas are regions that did not show significant differences.
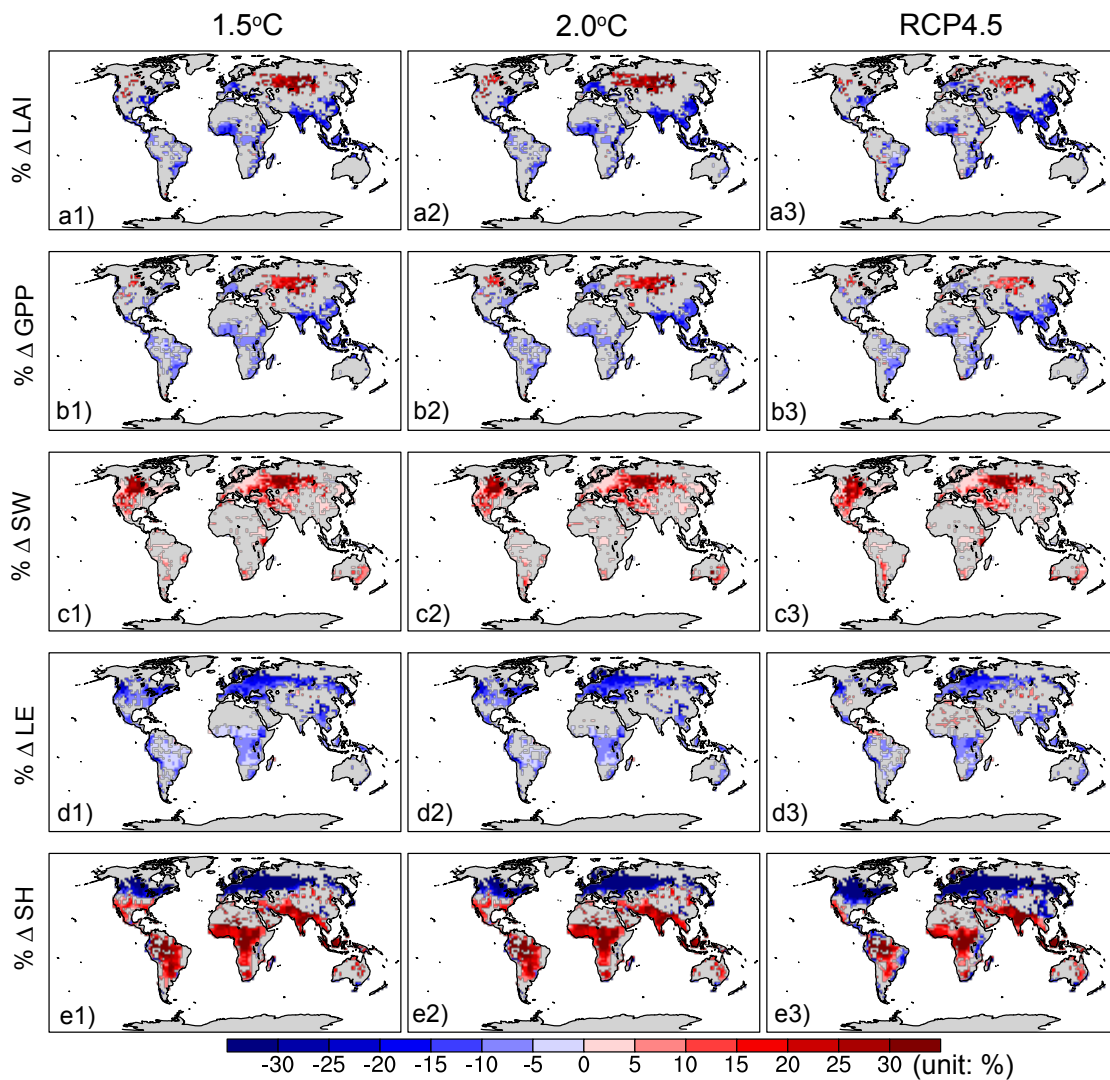
Figure S2. The percentage differences between the anomaly forcing CLM and the standard CLM for Leaf Area Index (LAI; a1-a3), Gross Primary Production (GPP; b1-b3), Soil Water (SW; c1-c3), Latent Heat Flux (LE; d1-d3), and Sensible Heat Flux (SH; e1-e3) for the 1.5°C, 2.0 °C, and RCP4.5 scenarios. All differences shown here are statistically significant differences tested by the Kolmogorov-Smirnov test with a sample size of 84. The gray areas are regions that did not show significant differences.

Figure S3. The percentage differences of boreal summer latent heat flux between the anomaly forcing CLM and the standard CLM for the 1.5°C, 2.0 °C, and RCP4.5 scenarios. All differences shown here are statistically significant differences tested by the Kolmogorov-Smirnov test with a sample size of 84. The gray areas ar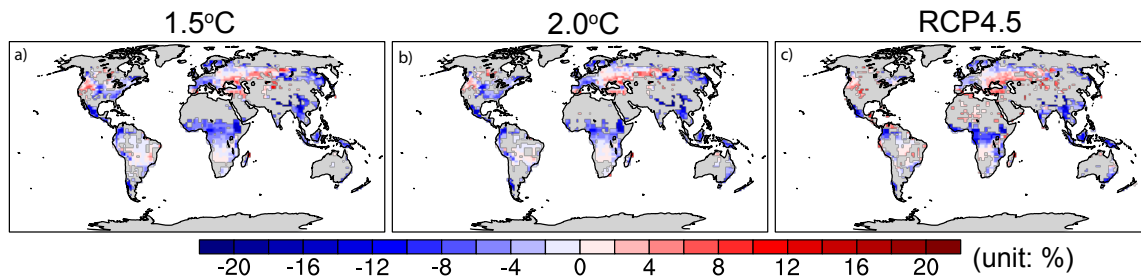e regions that did not show significant differences.