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Supplemental Material

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Supporting Information for
Greenhouse gas emissions drive global dryland expansion but not spatial
patterns of change in aridification

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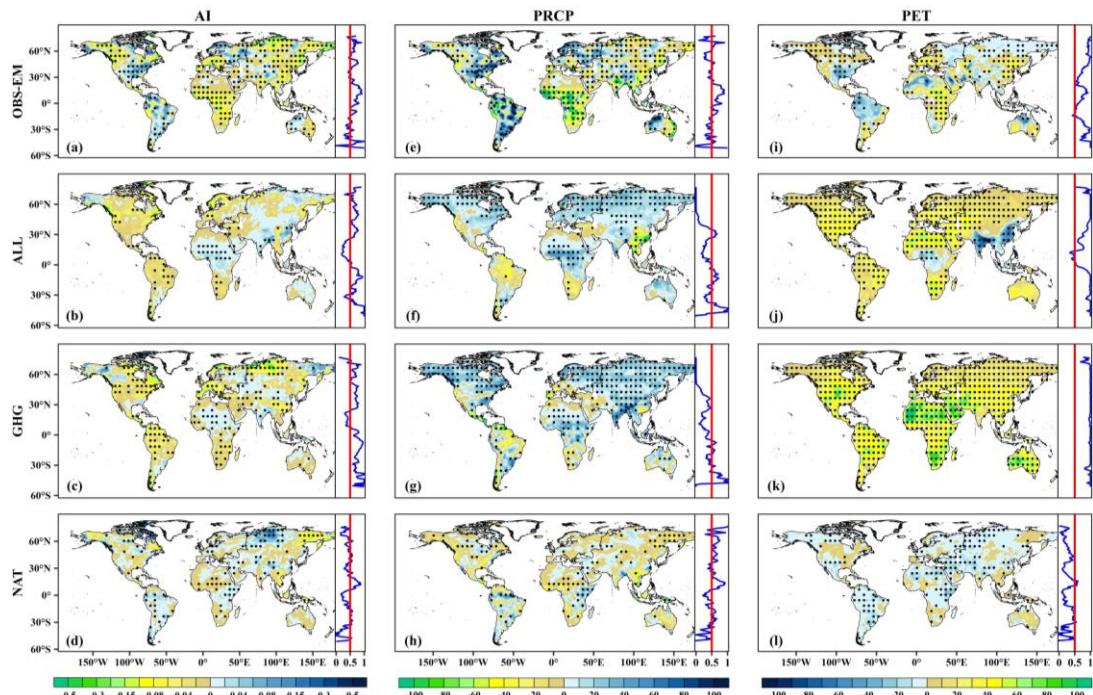


Fig. S1 Spatial patterns of changes in the mean of aridity index (AI; a-d), annual total precipitation (PRCP with units: mm; e-h), and annual total potential evapotranspiration (PET with units: mm; i-l) between the two periods (i.e. 1985-2009 and 1950-1974, respectively) from multidata mean observations (OBS-EM) and historical simulations (i.e. ALL, GHG and NAT forcings, respectively). The blue curve on the right side of subfigures indicates zonal average change. The stippling indicates areas where 75% of the models agree on the sign of the change (observations indicate the agreement of all observed datasets).

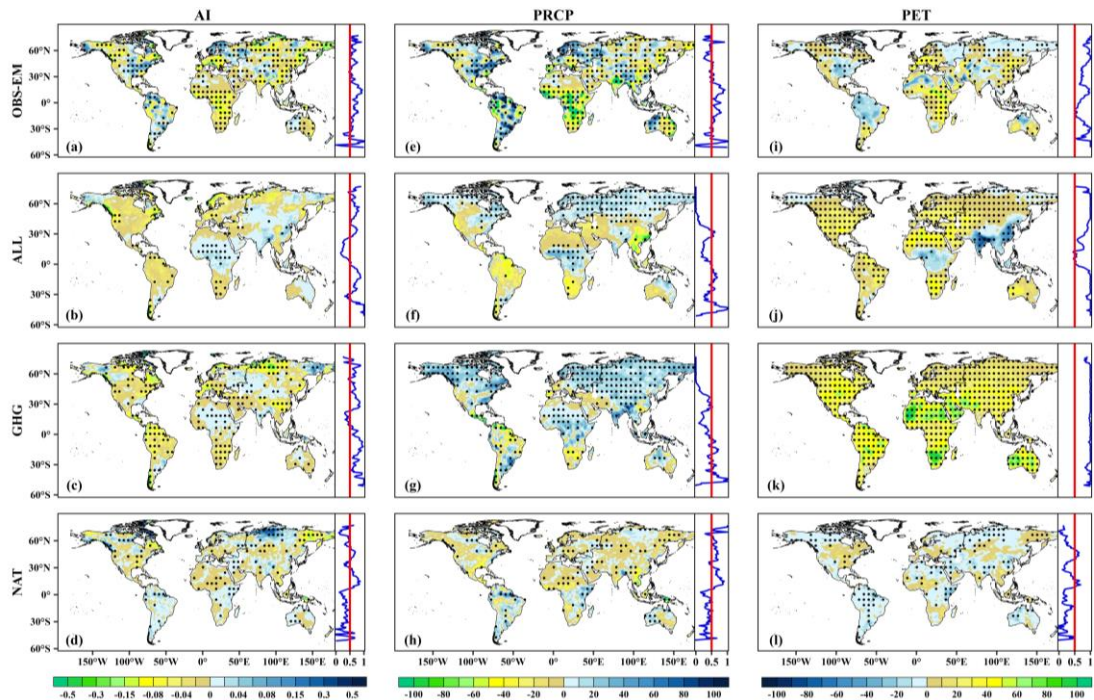


Fig. S2 The same as Fig. S1 but for the periods 1985-2009 and 1955-1979.

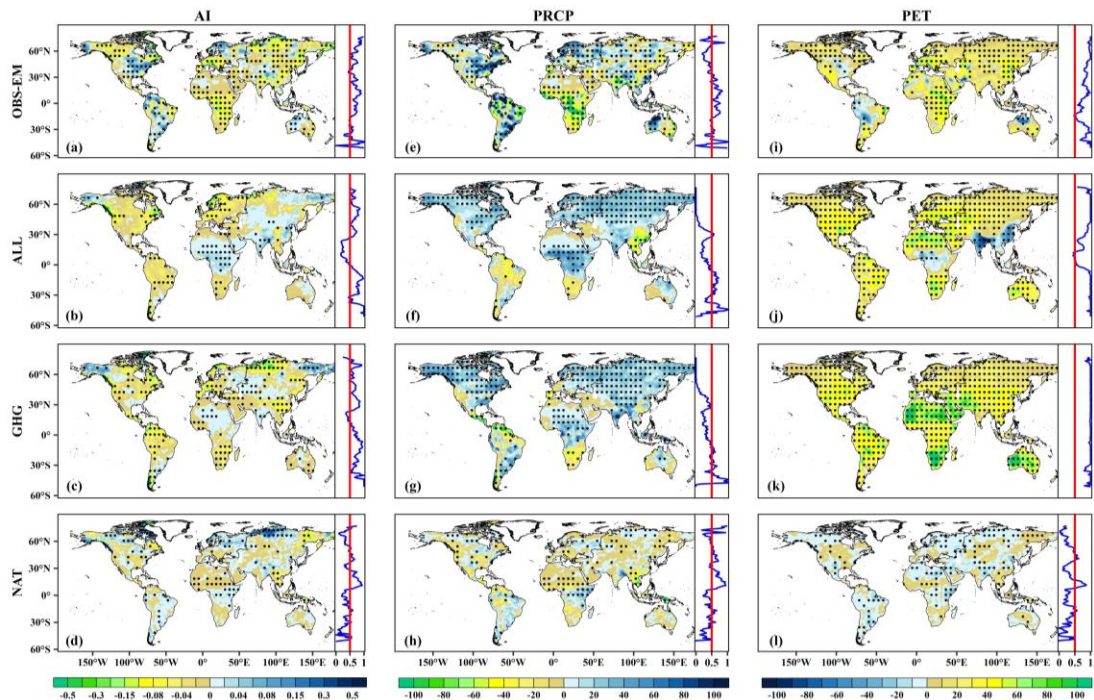


Fig. S3 The same as Fig. S1 but for the periods 1990-2014 and 1955-1979.

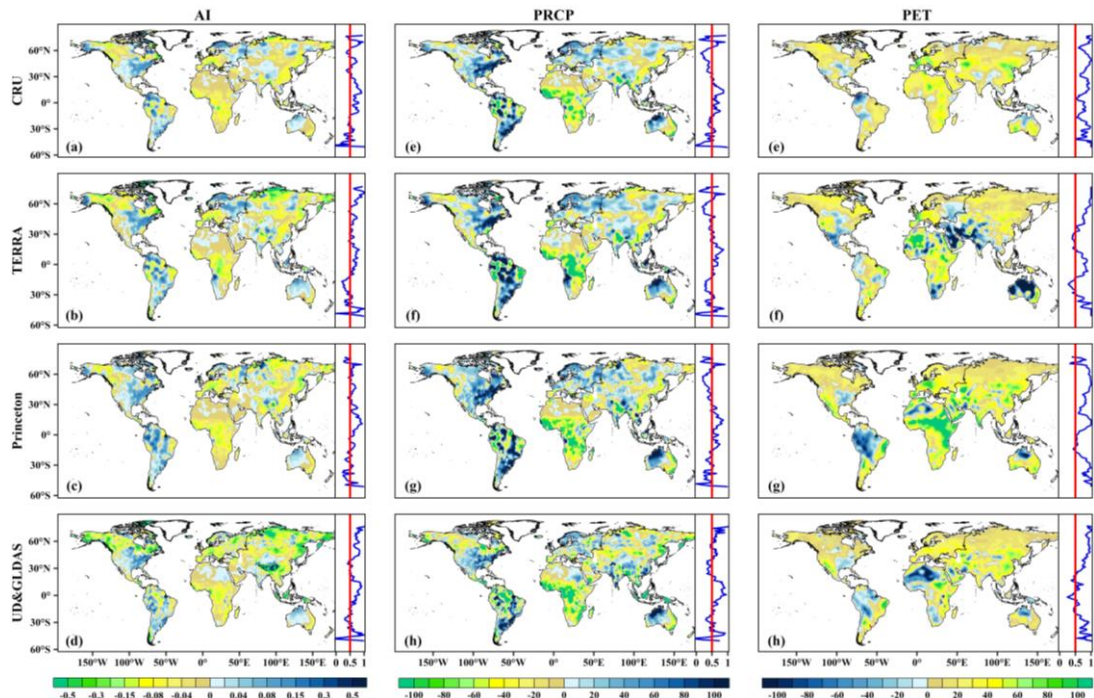


Fig. S4 Spatial patterns of changes in the mean of aridity index (AI; a-d), annual total precipitation (PRCP with units: mm; e-h), and annual total potential evapotranspiration (PET with units: mm; i-l) between the two periods (i.e. 1990-2014 and 1950-1974) from individual observed datasets. The blue curve on the right side of each panel indicates the zonal mean change.

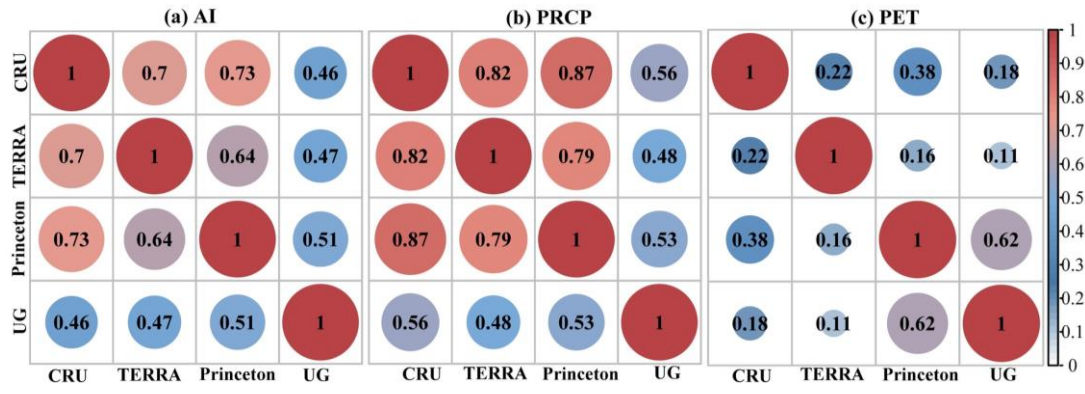


Fig. S5 Spearman correlation of spatial changes shown in Fig. S4 between each pair of the four observed datasets.