Supplementary Information for

Combined use of multiple drought indices for global assessment of dry gets drier and wet gets wetter paradigm

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Figure S1. Wetting or drying trends in 26 regions over the period 1982-2012. The polar plots illustrate the percentage area with significant wetting or drying trends. The blue bar represents wetting and red bar represents drying.
Figure S2. Wetting or drying trends in 8 biomes over the period 1982-2012. The polar plots illustrate the percentage area with significant wetting or drying trends. The blue bar represents wetting and red bar represents drying.
Figure S3. Global average time series of both SPI and SPEI over the period 1982-2012. The dashed lines denote the linear regression of the average drought-index series over the period 1982-1999 (brown dashed line), 2000-2012 (orange dashed line) and 1982-2012 (black dashed line).
Figure S4. Spatial distributions of the drying or wetting trends and the percentage area with significant change trends over the period 1982-2012. The drought metric includes pure-precipitation (P) driven index (SPI), mixed-P-evapotranspiration (ET)-driven indices (SPEI, AI, PDSI and SSI), and pure ET-driven index (SETI).
**Figure S5.** Composite assessment of the ‘drier in dry and wetter in wet’ (DDWW) paradigm based on four 3-index-combinations with different driving properties (either P, or ET or mixed driven). (a) was bases on SPI, SPEI and SETI, (b) based on SPI, AI and SETI, (c) based on SPI, PDSI and AI, and (d) based on SPI, SSI and AI, respectively.
Figure S6. Spatial distributions of the trends and the time series of over the period 1982-2012. The drought metric includes pure-precipitation driven index (SPI), mixed-precipitation-ET-driven indices (SPEI, AI, PDSI and SSI), and pure ET-driven index (SETI). The black dots show the regions with significant trends in drought indices (P ≤ 0.05). The dashed lines denote the linear regression of the drought area series.