Figure S1: Maps of the highest correlations between SPI and model ensemble mean SSMI, SRI, and SSFI, for summer and winter droughts. Pixels where those correlations are not statistically significant ($p < 0.05$) are masked.

Figure S2: The SPI accumulation period (SPI-n) resulting in the highest correlations with model ensemble mean SSMI, SRI, and SSFI, for summer and winter droughts. Droughts in SSMI, SRI, and SSFI were identified by $SI \leq -0.5$. Pixels where those correlations are not statistically significant ($p < 0.05$) are masked.
Figure S3: The SPI accumulation period (SPI-n) resulting in the highest correlations with model ensemble mean SSMI, SRI, and SSFI, for summer and winter droughts. Droughts in SSMI, SRI, and SSFI were identified by $S_I \leq -1$. Pixels where those correlations are not statistically significant ($p < 0.05$) are masked.