

**Electronic Supplementary Material to:  
Enhanced Seasonal Predictability of Spring Soil Moisture over the  
Indo-China Peninsula for Eastern China Summer Precipitation  
under Non-ENSO Conditions\***

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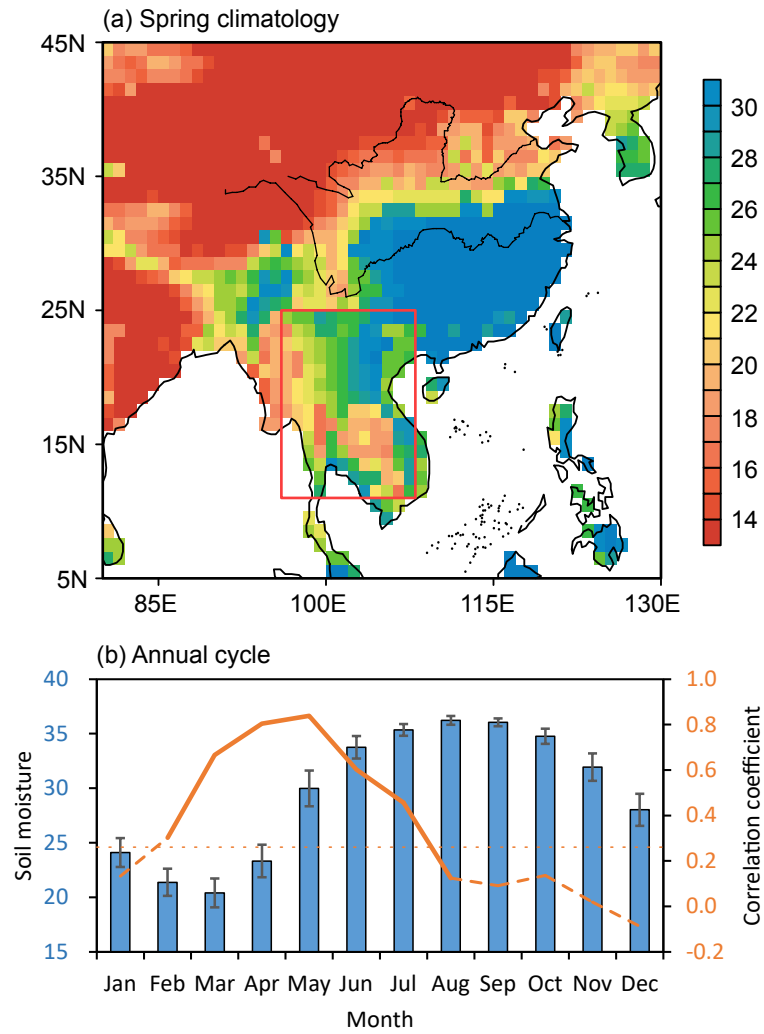
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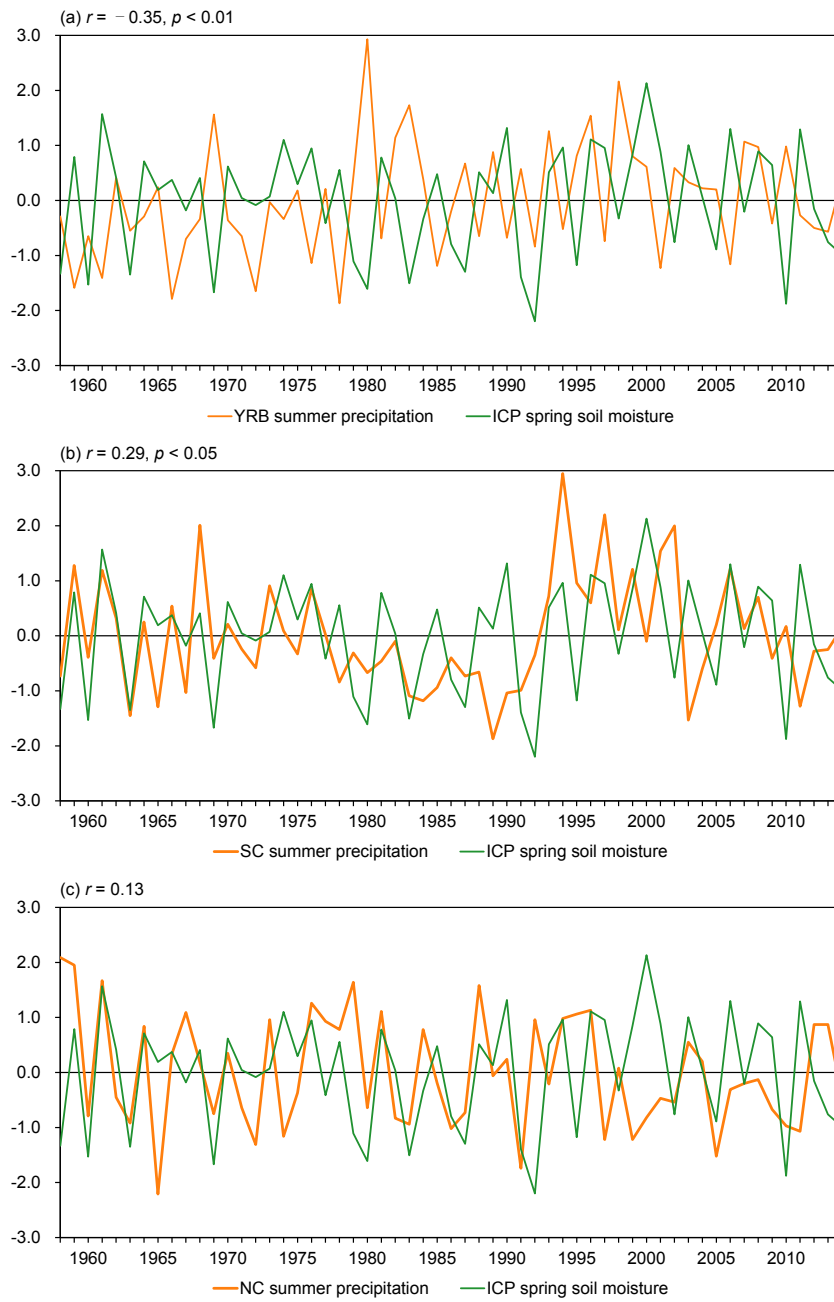
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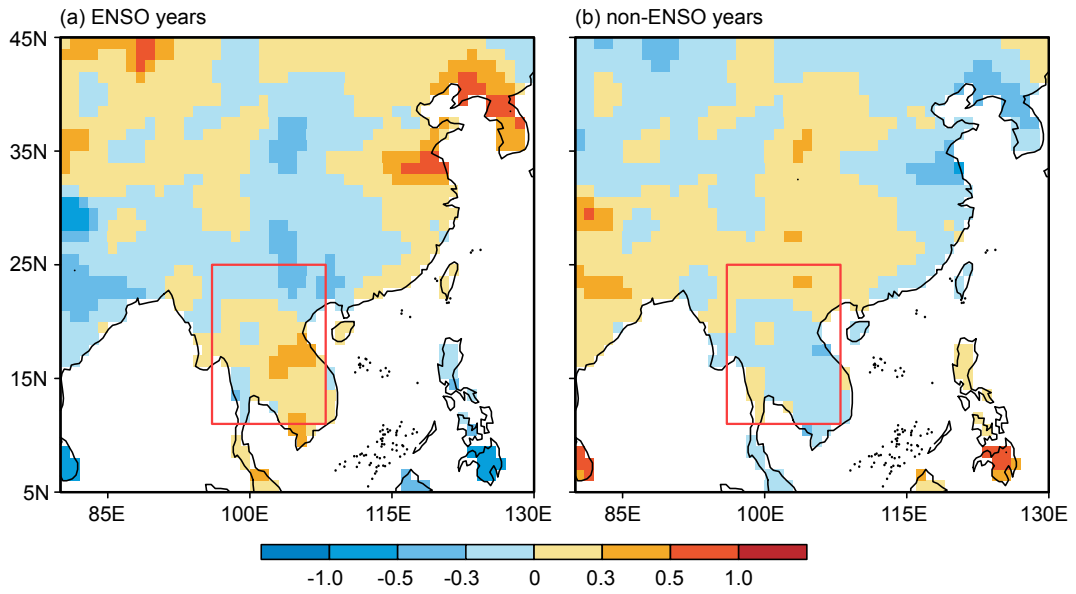
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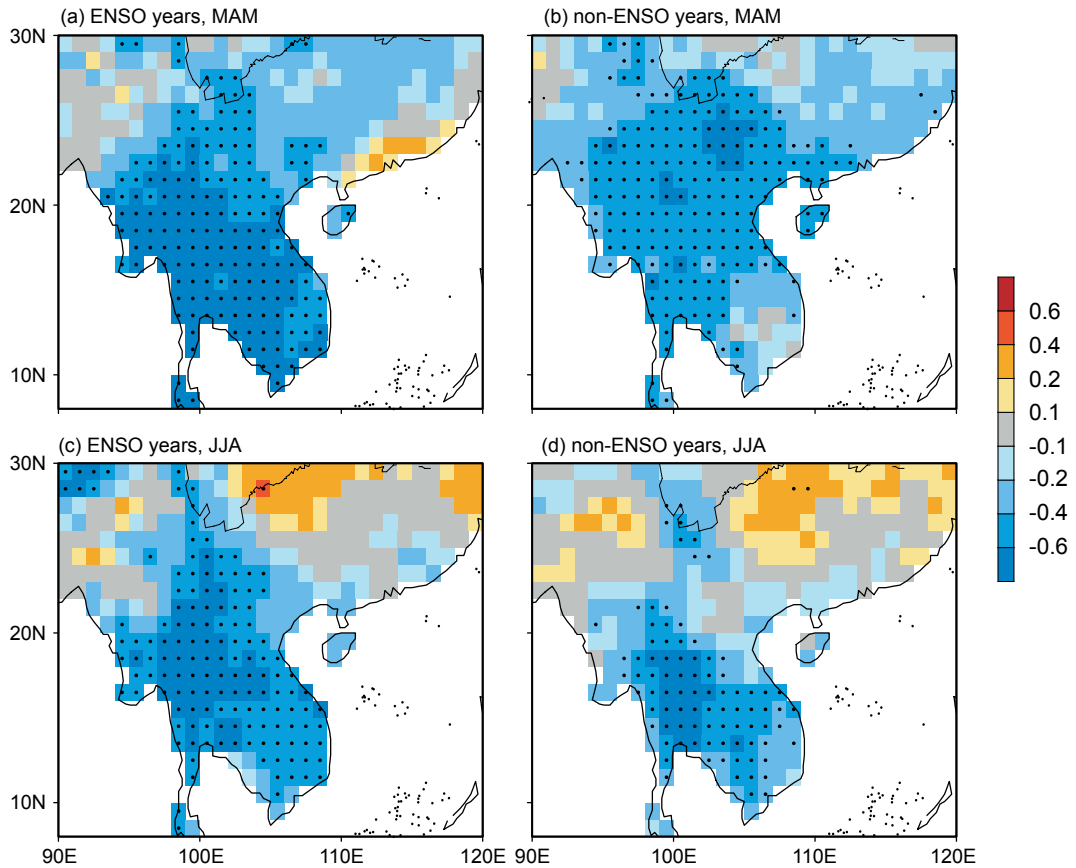
**Fig. S1.** (a) Climatological soil moisture in the top layer (units: mm) in spring during 1958–2014. (b) Soil moisture annual cycle (units: mm) over the ICP, and the short lines denote the interannual variabilities (standard deviations, units: mm). The orange line is the correlation coefficient of monthly soil moisture with averaged spring soil moisture over the ICP for 1958–2014, and the bold solid part indicates the persistence of the ICP spring soil moisture anomaly. The orange dotted straight line denotes significance at  $p < 0.05$ .



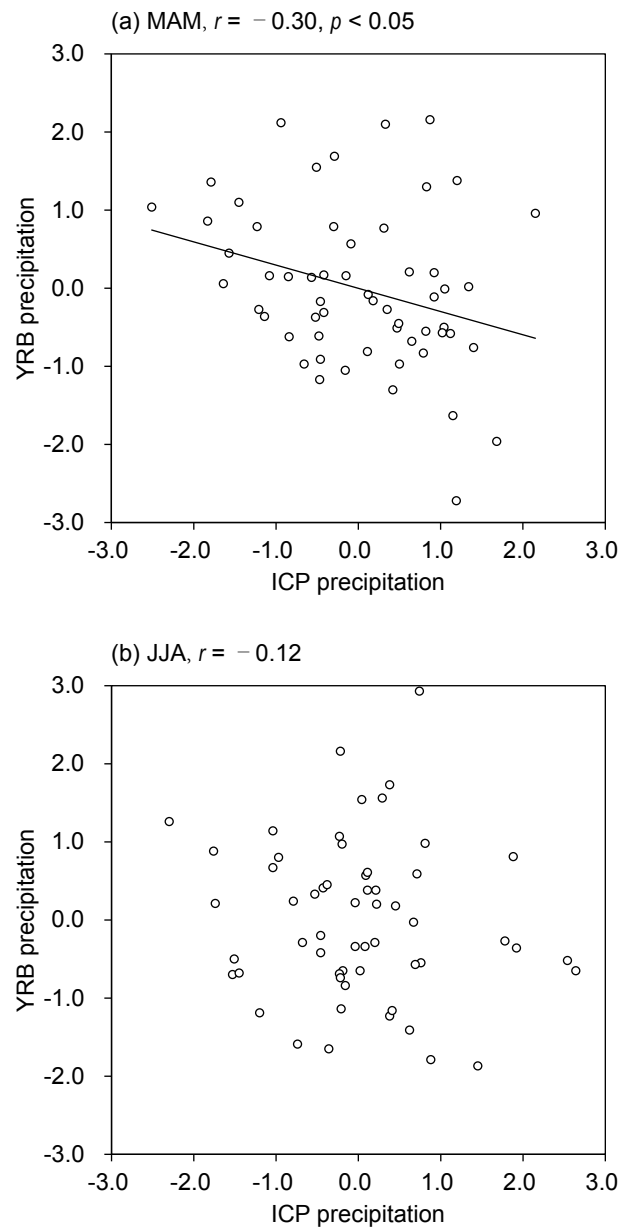
**Fig. S2.** Standardized time series of spring soil moisture over the ICP and summer precipitation over (a) the YRB, (b) the SC, and (c) the NC for the period of 1958–2014. The  $r$  and  $p$  denote the correlation coefficient and its significance level.



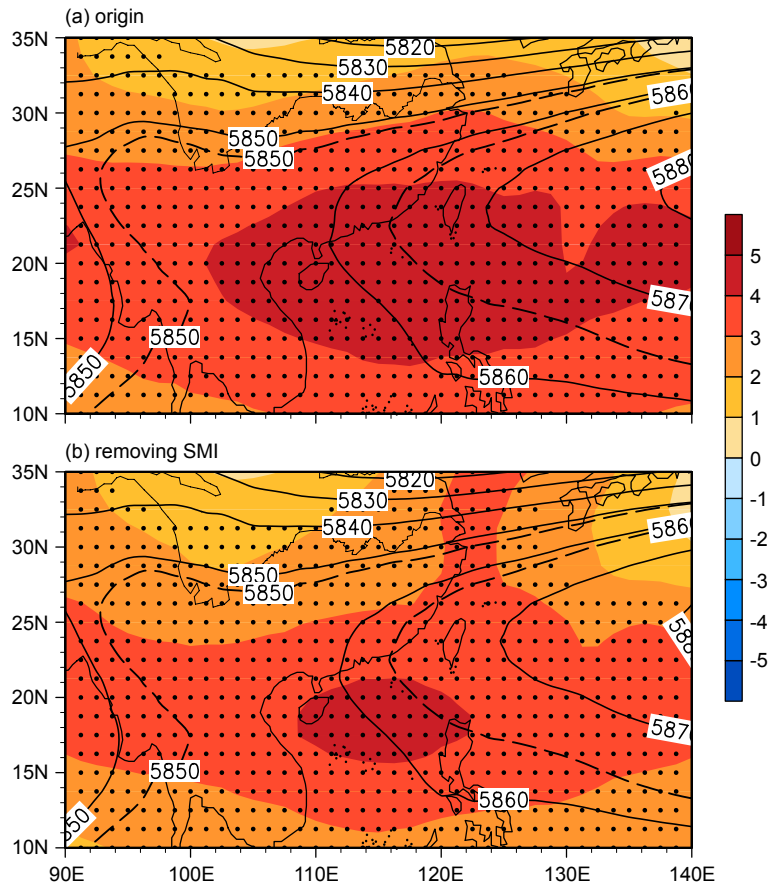
**Fig. S3.** Composite anomalies of spring soil moisture (units: mm) in (a) ENSO years and (b) non-ENSO years. The dotted areas are significant with  $p < 0.1$ , and most areas are statistically insignificant.



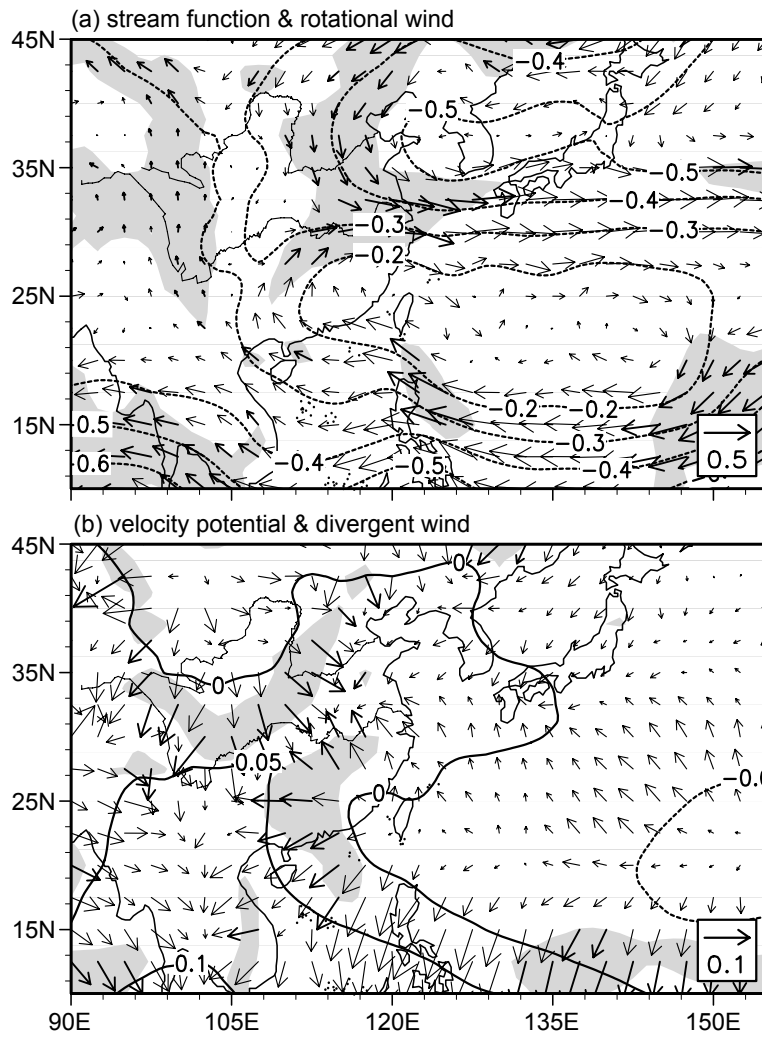
**Fig. S4.** Correlation distributions of the GLDAS upward surface sensible heat flux with regional averaged soil moisture anomalies in (a) spring and (c) summer during the ENSO years. Panels (b) and (d) are the same as in (a) and (c), but for the non-ENSO years. The areas marked with dots are significant with  $p < 0.05$ .



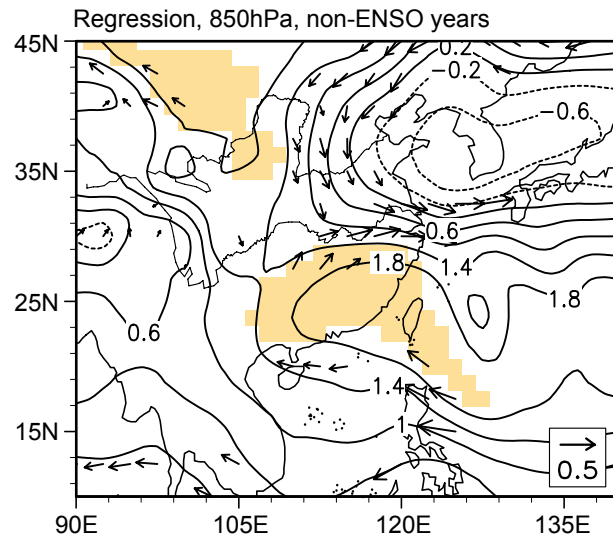
**Fig. S5.** Relationships between the normalized ICP and YRB precipitation anomalies in (a) spring and (b) summer during 1958–2014. The  $r$  and  $p$  denote the correlation coefficient and its significant level.



**Fig. S6.** Regression of the summer 500-hPa geopotential height (colors; units: gpm) anomaly with the respect to the preceding winter ONI for 1958–2014. Panel (b) is the same as in (a), but for the data after removing the SMI signal. The areas marked with dots are significant with  $p < 0.1$ . The contours are the summations of the climatic means and the regression anomalies of the geopotential height in different cases. The dashed lines denote the climatic means of the 5850 and 5860 gpm contours for 1958–2014.



**Fig. S7.** (a) Regression of the stream function (contours; units:  $\text{m}^2 \text{s}^{-1}$ ) and rotational wind (arrows; units:  $\text{m s}^{-1}$ ) anomalies at 850 hPa in summer with the respect to the negative SMI. (b) The same as in (a), but for the velocity potential (contours; units:  $\text{m}^2 \text{s}^{-1}$ ) and divergent wind (arrows; units:  $\text{m s}^{-1}$ ) anomalies. The shaded areas are significant with  $p < 0.1$ . The blue lines denote the areas with the positive precipitation anomalies correlated to negative SMI in different cases, which exceed the significant level of  $p < 0.1$ .



**Fig. S8.** Regression of the summer 850-hPa geopotential height (contours; units: gpm) anomaly with the respect to the negative soil moisture index for the non-ENSO years. The wind field is the regressed 850-hPa wind anomaly (arrows; units:  $\text{m s}^{-1}$ ) in summer onto the negative SMI, and the shown arrows are significant with  $p < 0.1$ .