Figure S1. Distribution of the correlation coefficient between the EASM strength and summer precipitation over East Asia during (a) weak and (b) strong EASM-precipitation relationship periods, respectively, in CCSM4; (c) and (d) are the same as (a) and (b) but for MPI-ESM-P. The weak (strong) EASM-precipitation relationship periods selected were 885–915 A.D. (1510–1540 A.D.) in CCSM4 and 1685–1715 A.D. (1165–1195 A.D.) in MPI-ESM-P. The areas passing the 95% significance test are dotted.
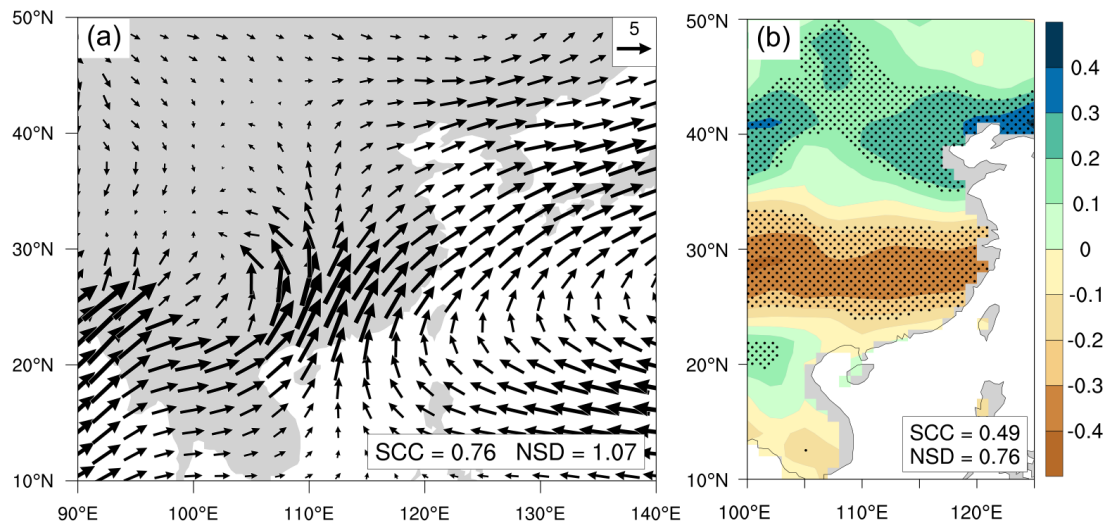
Figure S2. (a) Climatological summer 850-hPa winds (unit: m/s) derived from CESM-LME full-forcing experiments; (b) distribution of the correlation coefficient between the EASM strength and summer precipitation over East Asia in CESM-LME. Corresponding SCCs and NSDs compared to observations (Fig. 1a and 4a) are shown in the bottom right corner. Areas passing the 95% significance test are dotted in (b).