

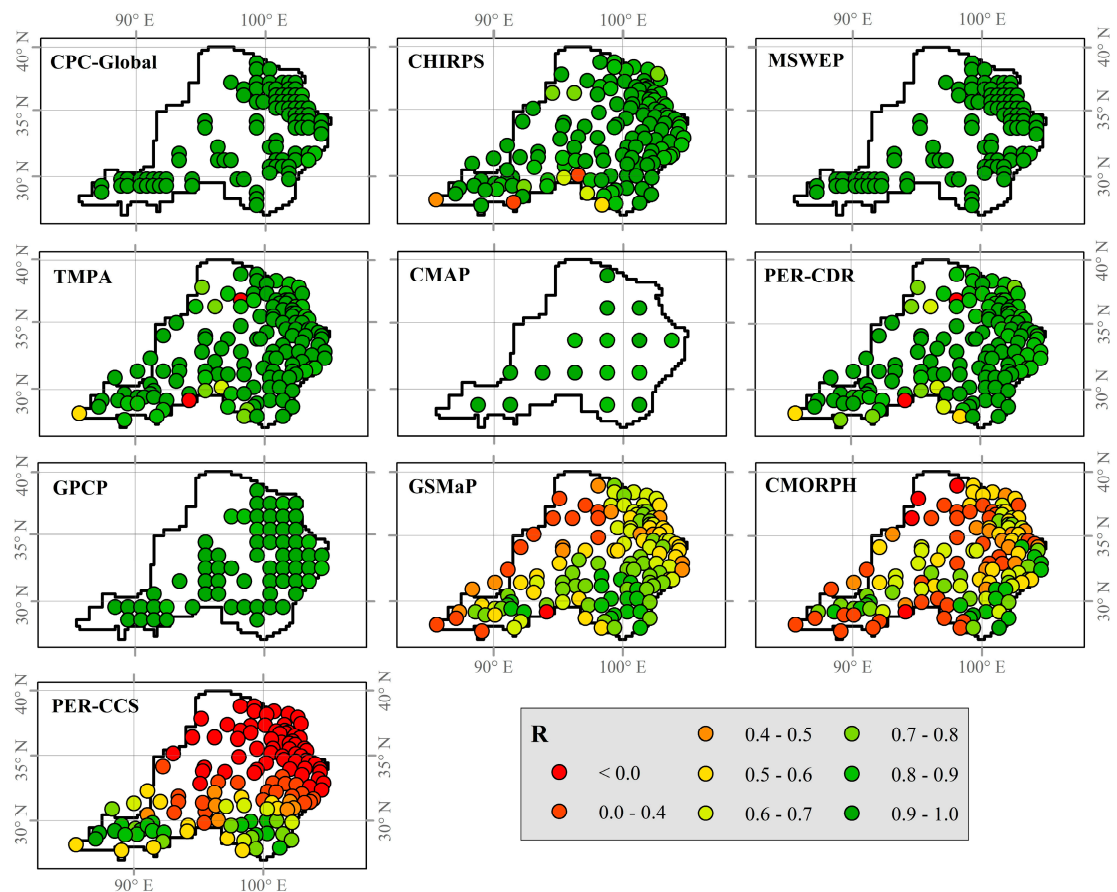


Figure S1. Spatial distribution of R value from 10 precipitation products against China Meteorological Administration (CMA) data.

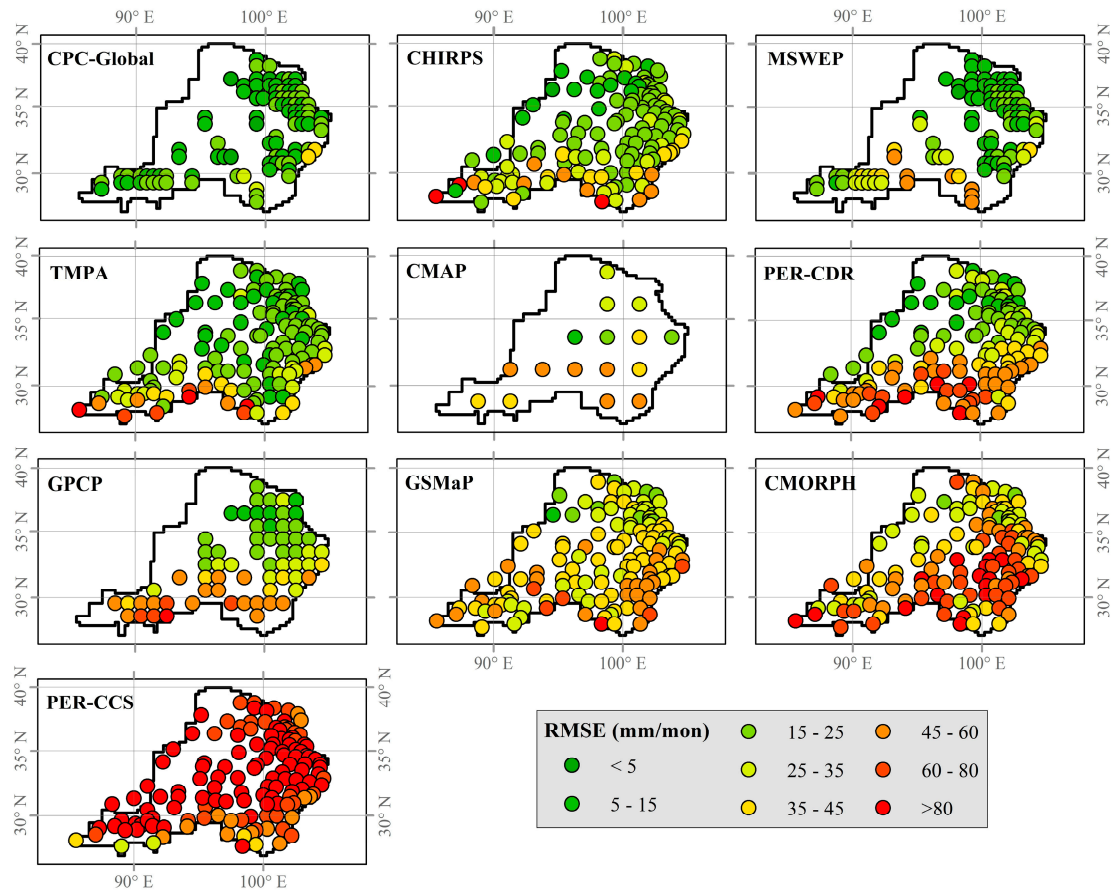


Figure S2. Spatial distribution of root mean square error (RMSE) (mm/mon) value from 10 precipitation products against CMA data.

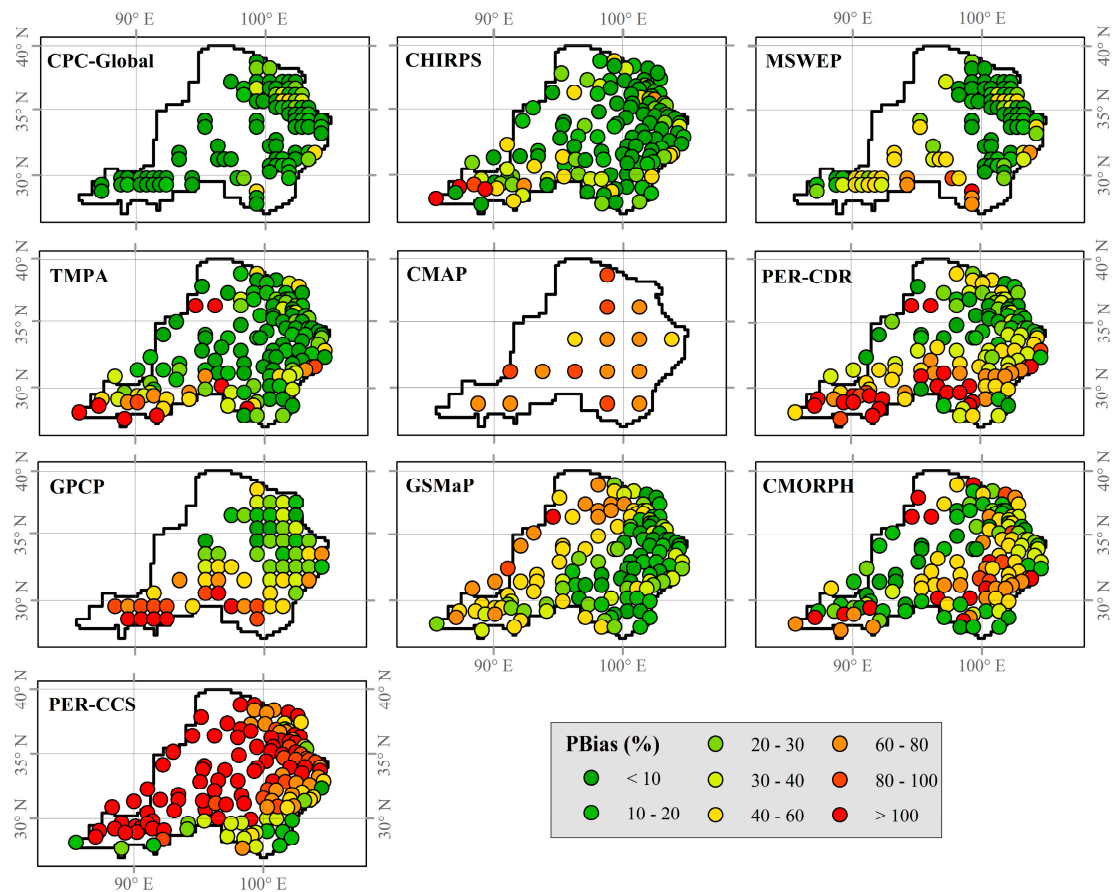


Figure S3. Spatial distribution of percentage bias (PBias) (%) value from 10 precipitation products against CMA data.

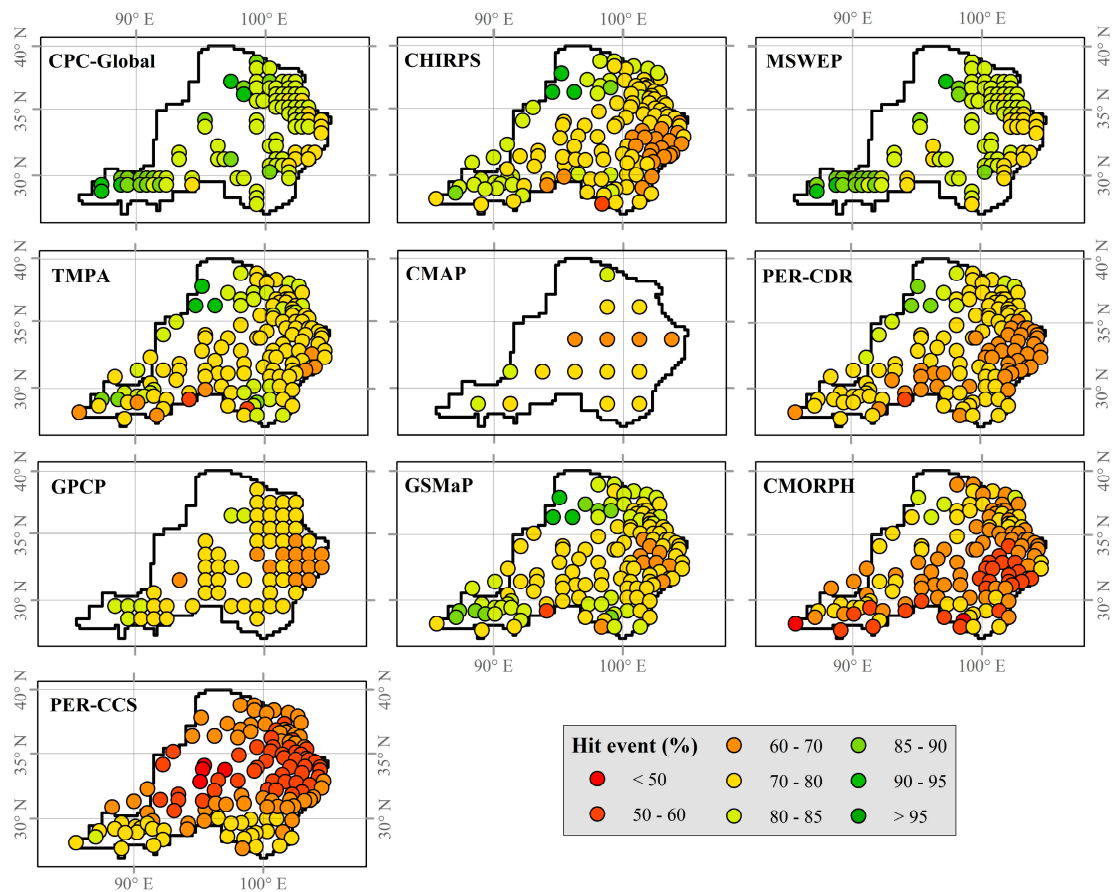


Figure S4. Spatial distribution of hit event (%) from 10 precipitation products against CMA data.

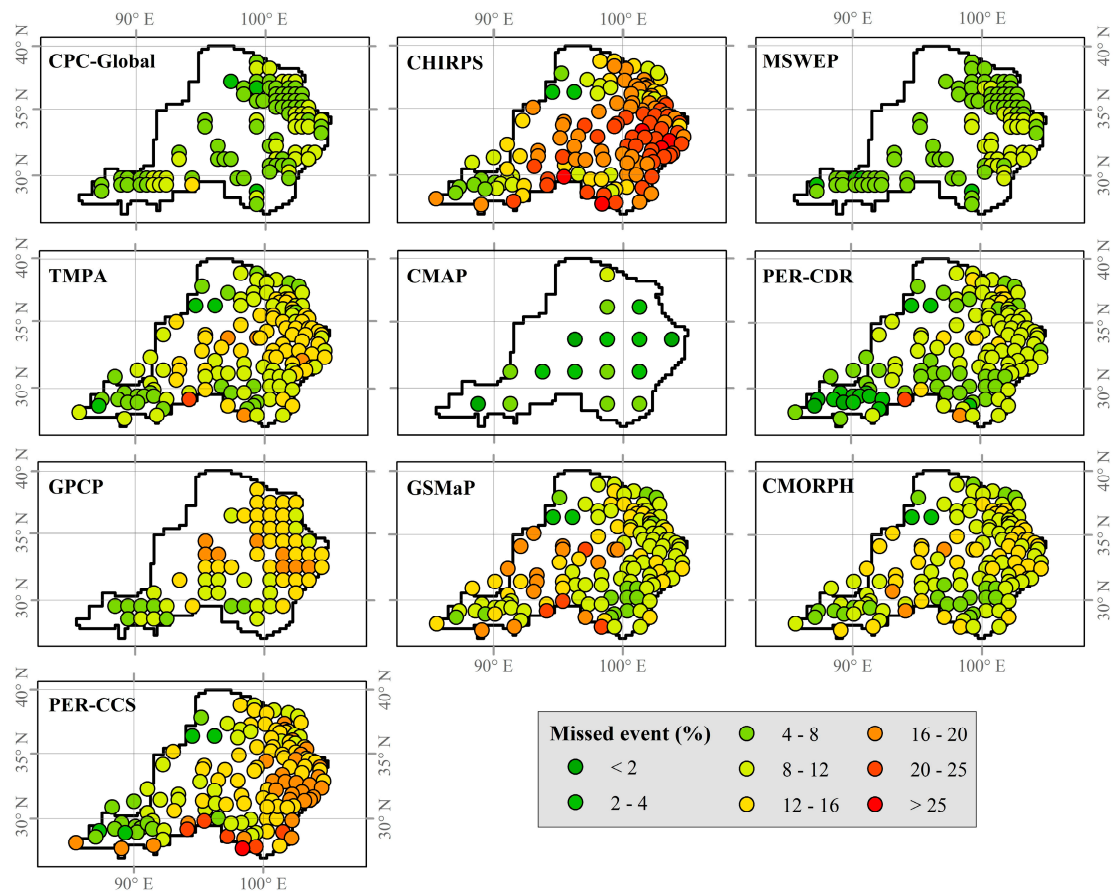


Figure S5. Spatial distribution of missed event (%) from 10 precipitation products against CMA data.

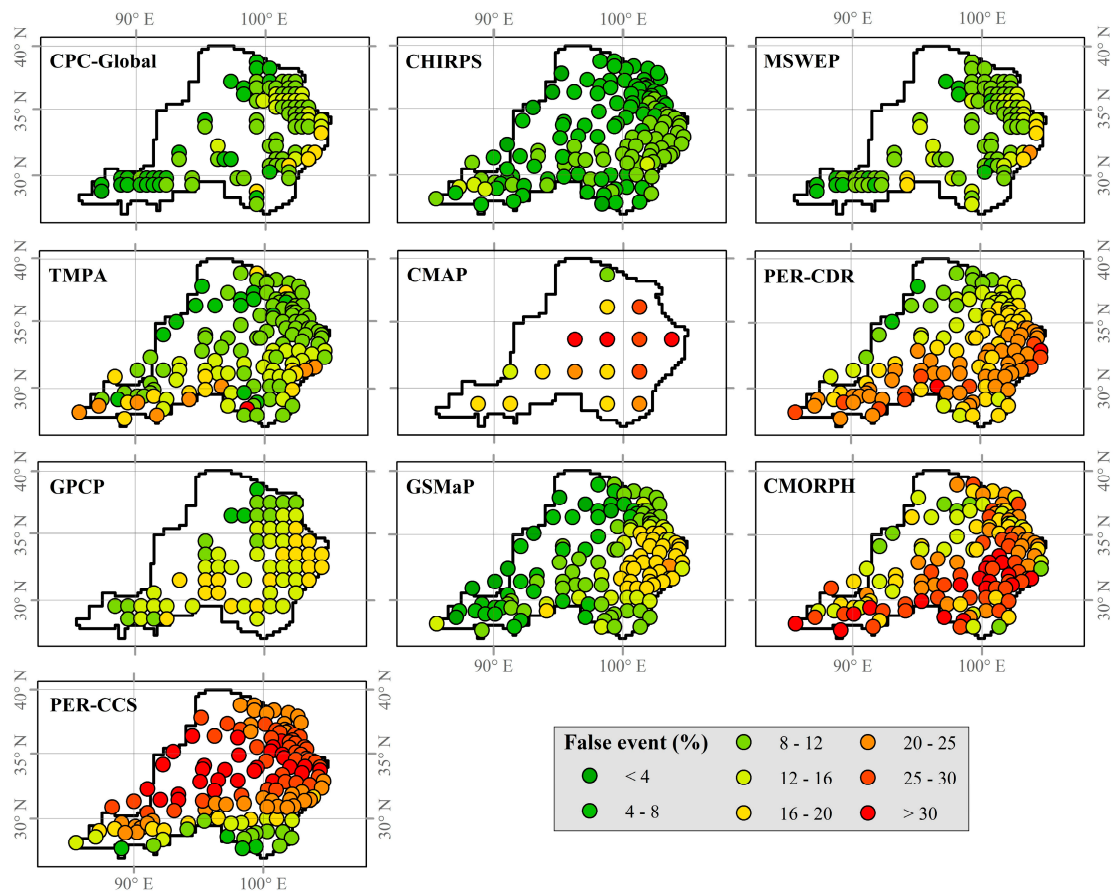


Figure S6. Spatial distribution of false event (%) from 10 precipitation products against CMA data.

Table S1. The ratio (%) of mean rainy season error to the total mean error for 10 precipitation products over the seven watersheds and entire ETP. Brahmaputra is abbreviation as Brahma. Color grids categories: green—mainly non-rainy season error; blue—mainly rainy season error; gray—uniform error.

	ETP	Hexi	Yellow	Qaidam	Yangtze	Mekong	Salween	Brahma
CMAP	76.6	111.9	102.4	40.6	103.5	103.8	71.7	29.9
GPCP	91.2	131.2	50.7	48.1	53.6	76.6	109.3	137.6
PER-CDR	96.7	52.9	22.6	31.8	63.3	95.3	106.2	120.2
CHIRPS	47.5	131.6	61.4	119.7	52.8	28.4	37.0	53.1
CPC-Global	18.9	69.6	55.6	43.2	21.1	31.1	44.8	27.8
GSMaP	61.5	43.3	32.6	87.6	22.7	48.4	104.8	118.4
MSWEP	116.4	73.3	30.1	70.5	96.5	98.8	94.2	134.3
CMORPH	7.7	11.9	3.5	22.5	5.3	8.8	21.1	23.0
PER-CCS	5.1	3.8	2.9	6.9	3.4	6.2	7.9	25.3
TRMM	96.0	114.9	41.9	84.8	52.4	43.6	88.7	132.1