

Figure S1 (1). Cross wavelet transforms between DSI and ENSO (a,b), PDO (c,d), NAO (e,f), AO (g,h) from 2002 to 2017 in SRB and LRB, respectively. (The thin black line cone in the figure is the effective spectral value region, and the thick black line in the region indicates the confidence interval with a significance level of 0.05. The explanation of the arrows can be found in section 2.3.5. Red and blue font color for basins' names highlight arid and humid basins, respectively.)

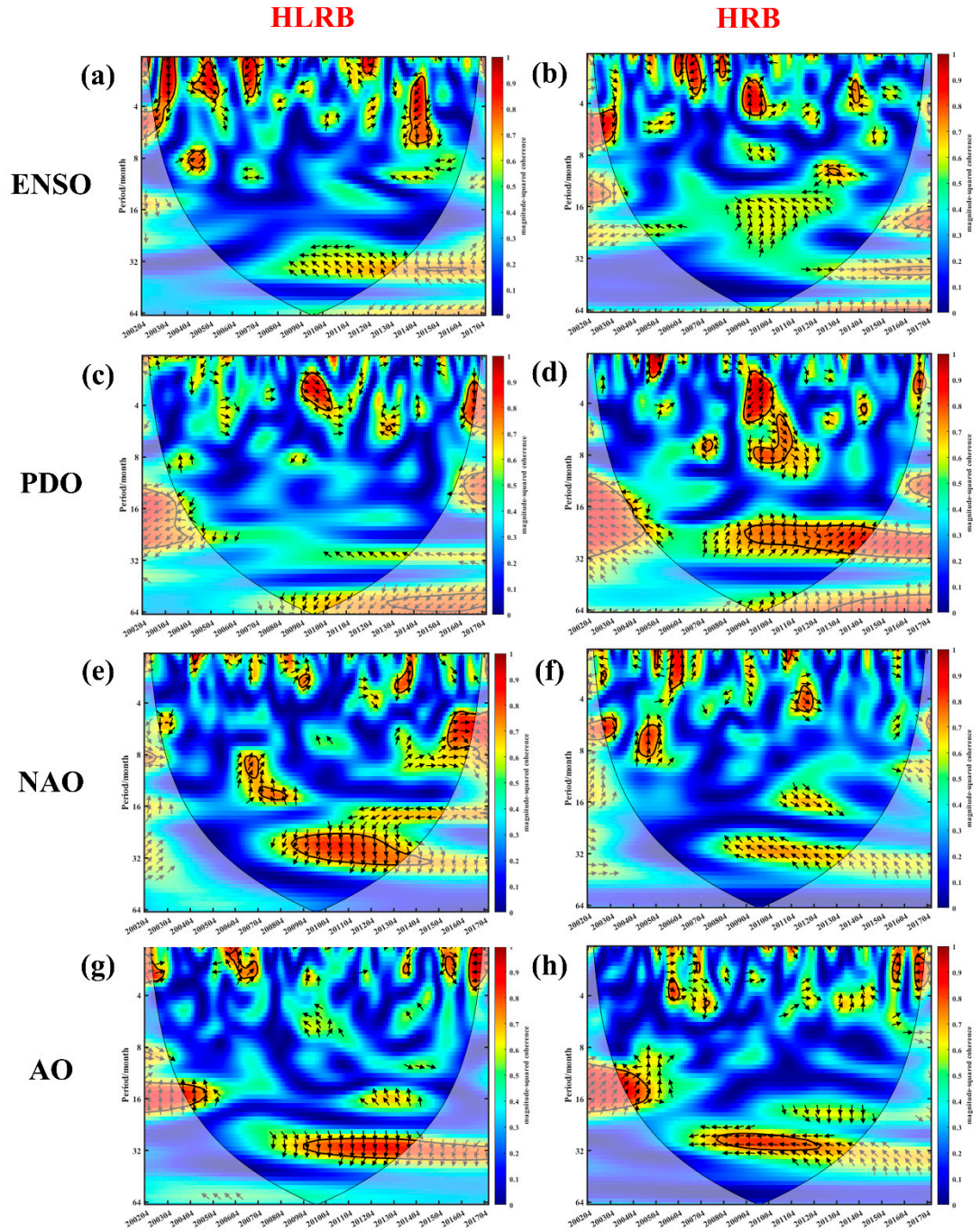


Figure S1 (2). Cross wavelet transforms between DSI and ENSO (a,b), PDO (c,d), NAO (e,f), AO (g,h) from 2002 to 2017 in HLRB and HRB, respectively. (The thin black line cone in the figure is the effective spectral value region, and the thick black line in the region indicates the confidence interval with a significance level of 0.05. The explanation of the arrows can be found in section 2.3.5. Red and blue font color for basins' names highlight arid and humid basins, respectively.)

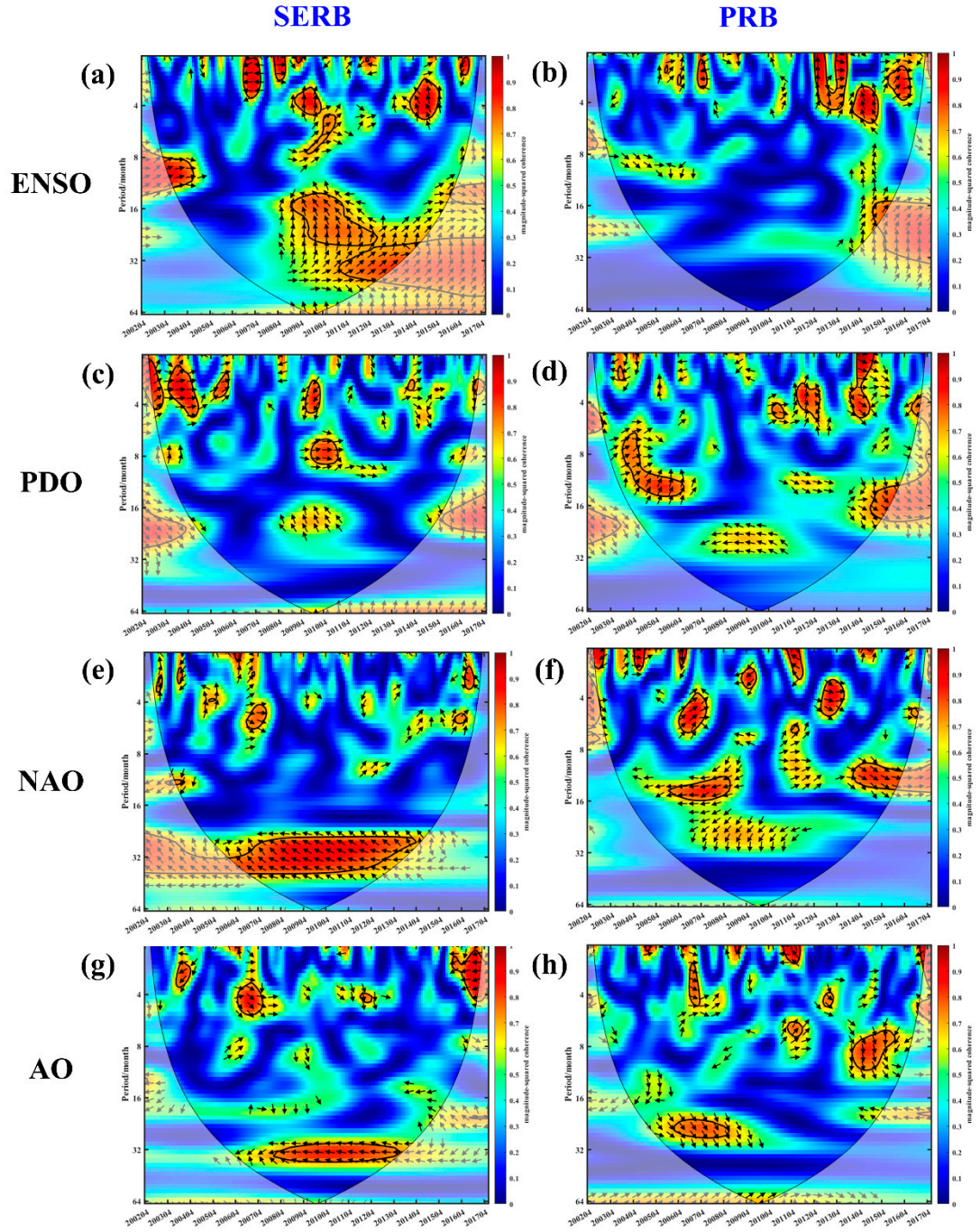


Figure S1 (3). Cross wavelet transforms between DSI and ENSO (a,b), PDO (c,d), NAO (e,f), AO (g,h) from 2002 to 2017 in SERB and PRB, respectively. (The thin black line cone in the figure is the effective spectral value region, and the thick black line in the region indicates the confidence interval with a significance level of 0.05. The explanation of the arrows can be found in section 2.3.5. Red and blue font color for basins' names highlight arid and humid basins, respectively.)

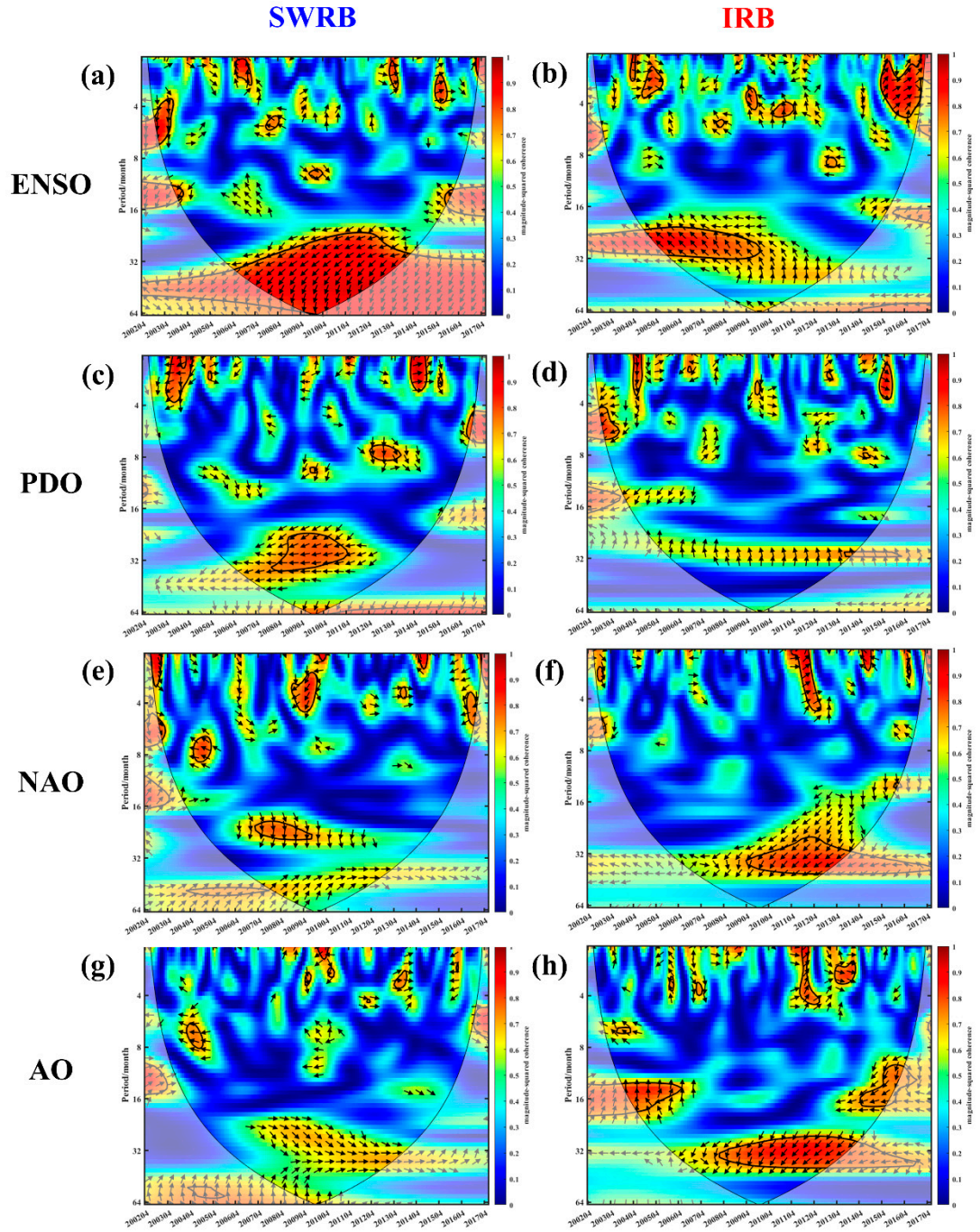


Figure S1 (4). Cross wavelet transforms between DSI and ENSO (a,b), PDO (c,d), NAO (e,f), AO (g,h) from 2002 to 2017 in SWRB and IRB, respectively. (The thin black line cone in the figure is the effective spectral value region, and the thick black line in the region indicates the confidence interval with a significance level of 0.05. The explanation of the arrows can be found in section 2.3.5. Red and blue font color for basins' names highlight arid and humid basins, respectively.)

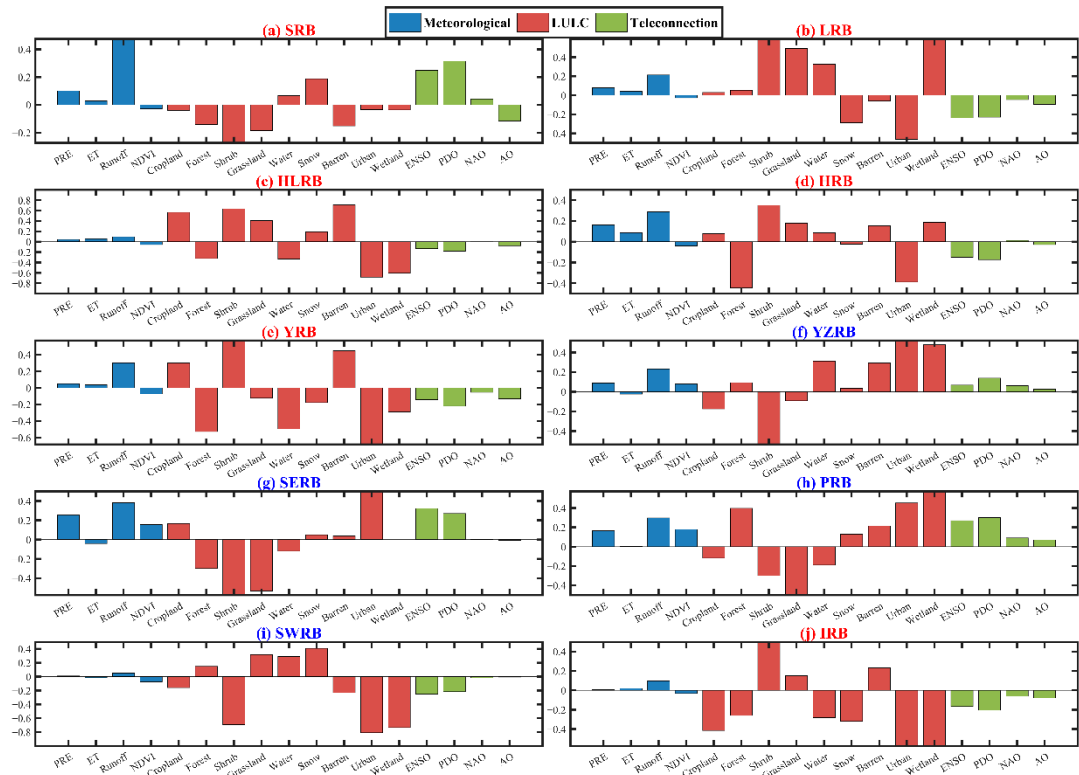


Figure S2. The correlation coefficient of different influencing factors on drought in China's major river basins (Red and blue font color for basins' name highlight arid and humid basins, respectively).