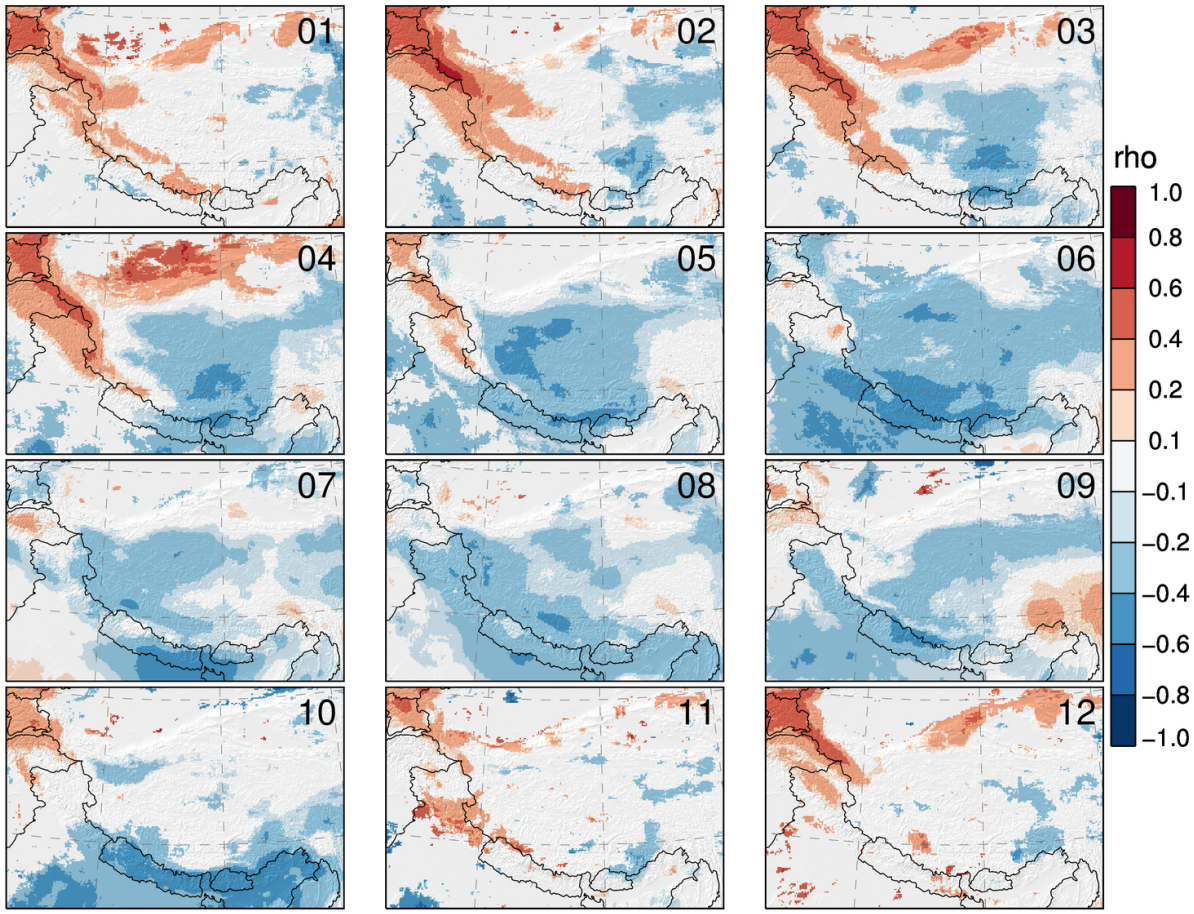
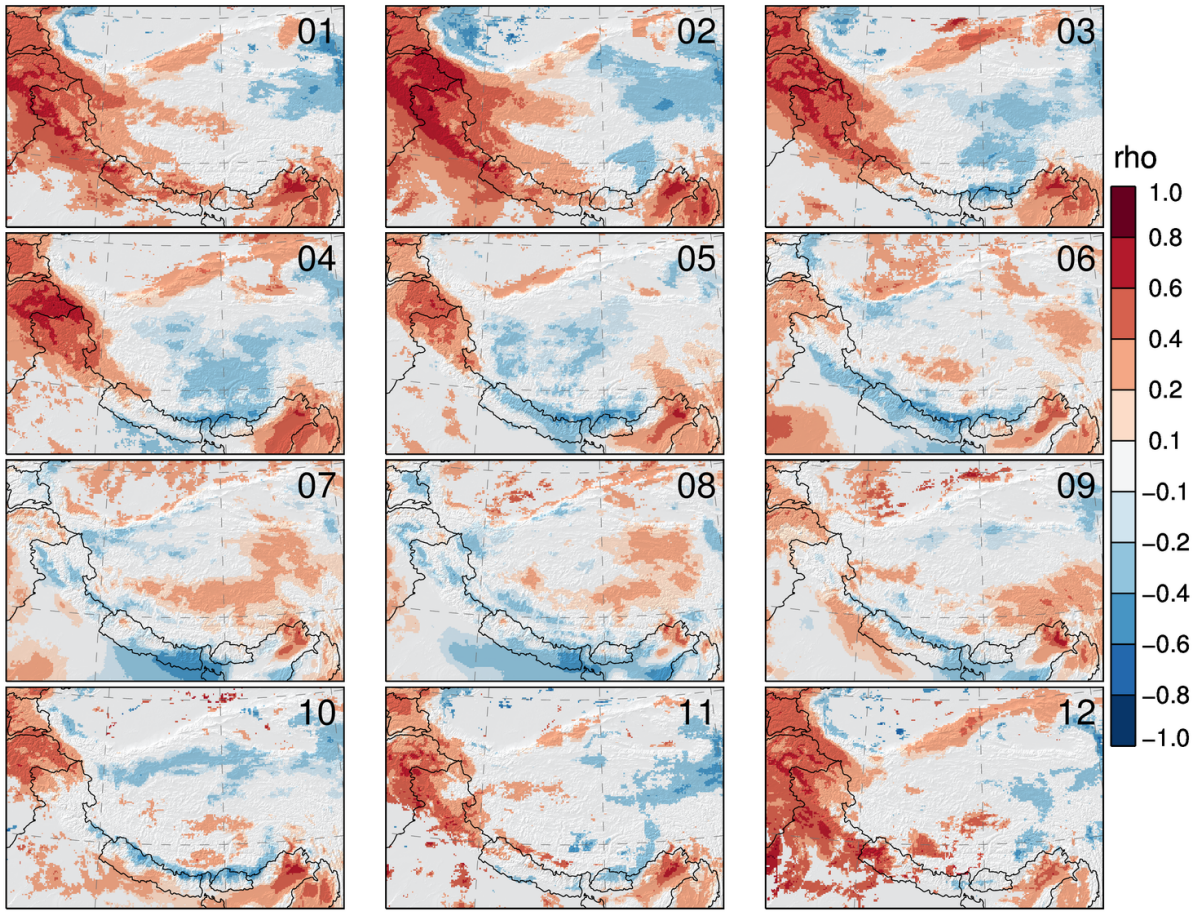
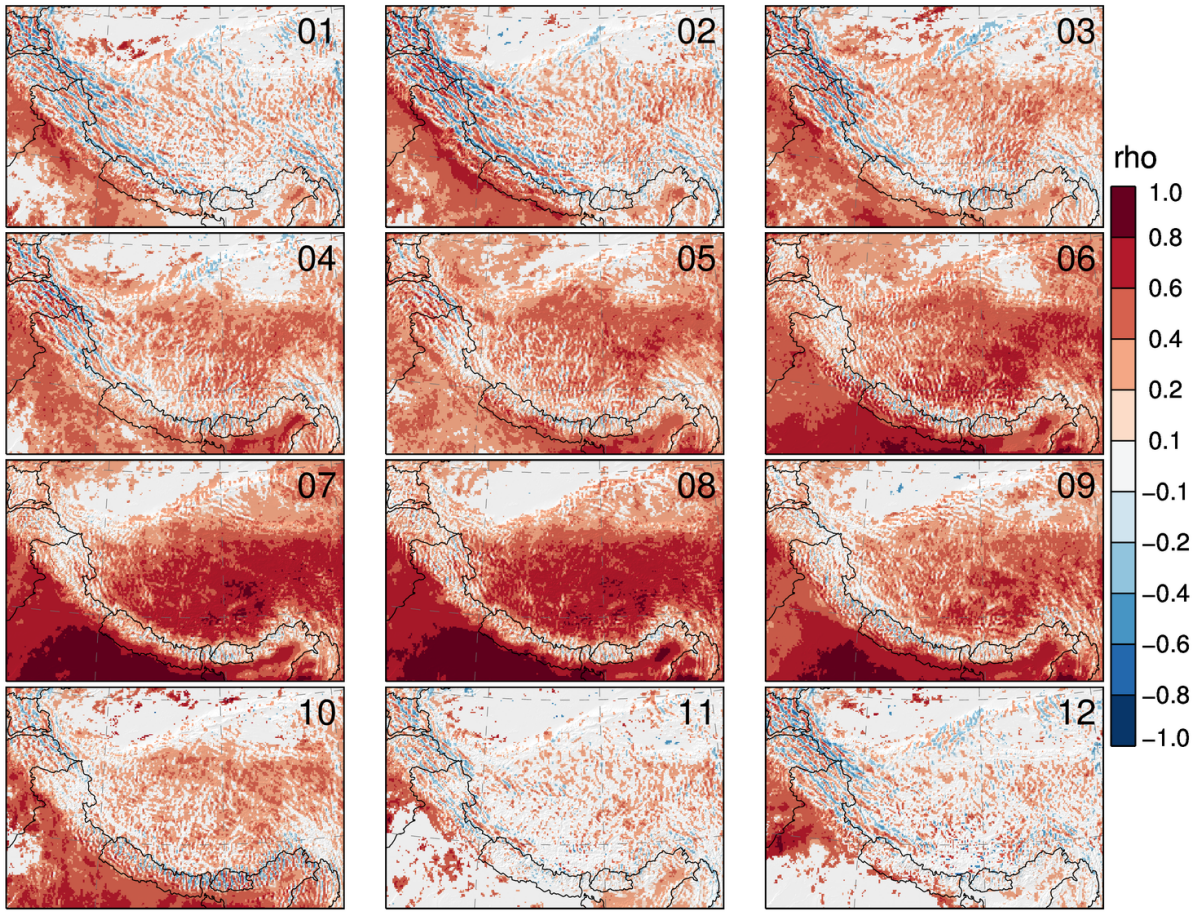


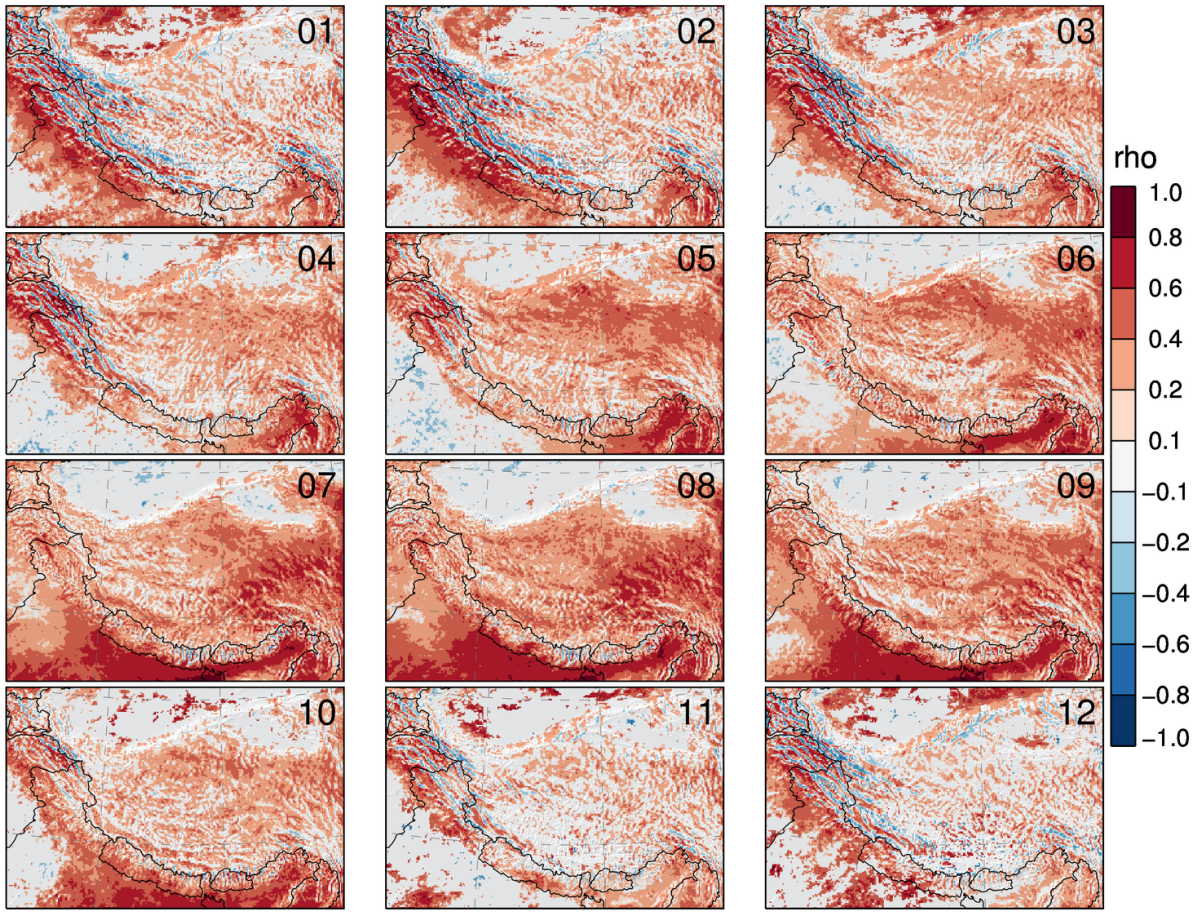
S1. Coefficient of correlation (rho) between horizontal wind speed at 300 hPa (WS300) and precipitation for all months (01-12). Positive correlations are denoted in red, while negative correlations are denoted in blue.



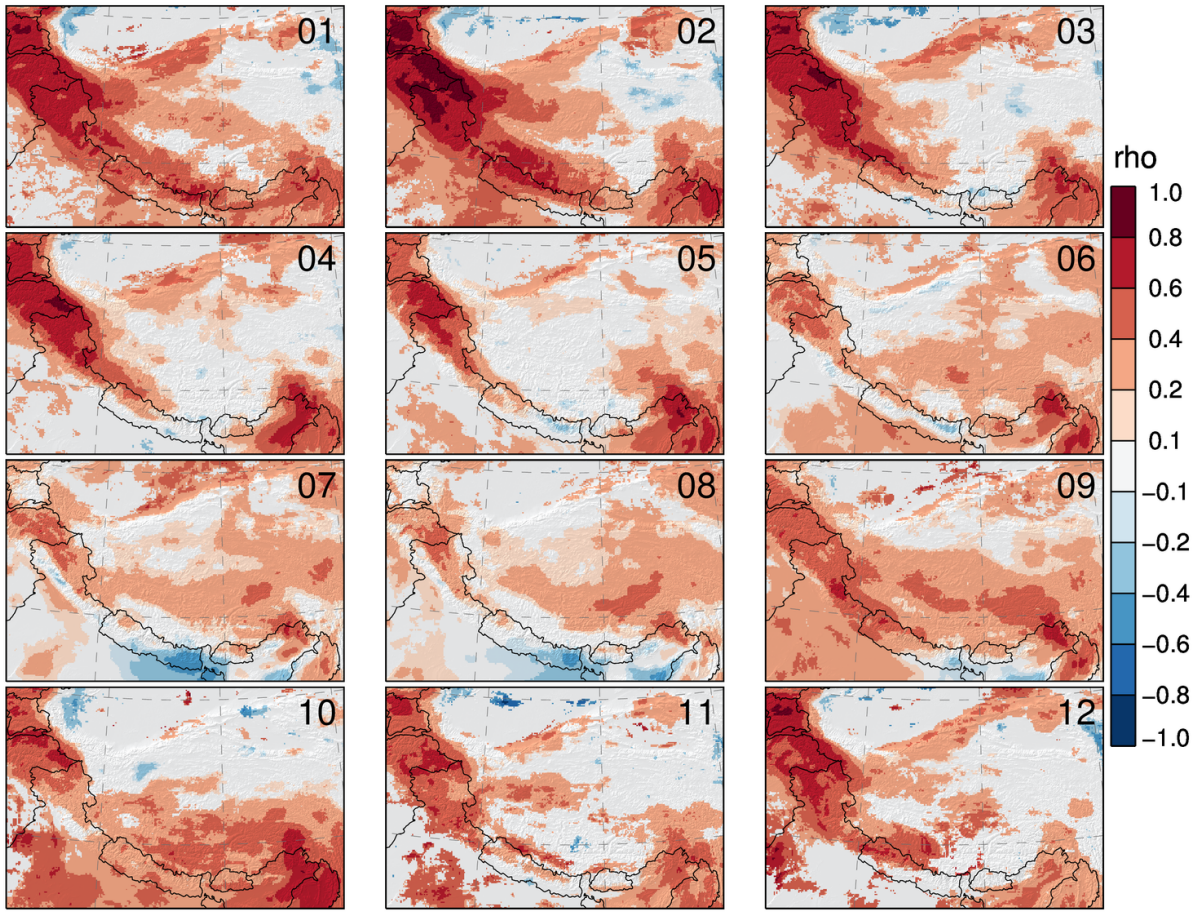
S2. Coefficient of correlation (rho) between horizontal wind speed at model level 10 (WS10) and precipitation for all months (01-12). Positive correlations are denoted in red, while negative correlations are denoted in blue.



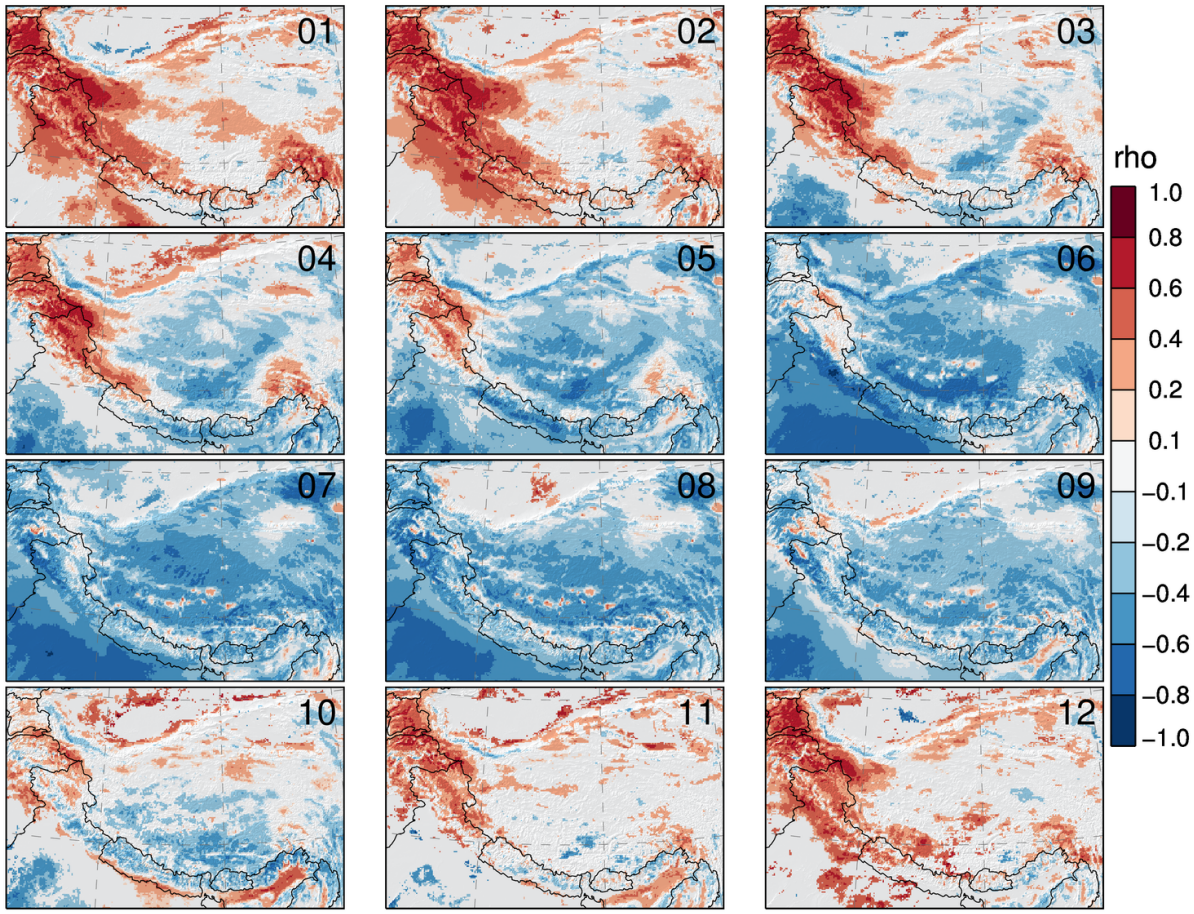
S3. Coefficient of correlation (rho) between vertical wind speed at 300 hPa (WS300) and precipitation for all months (01-12). Positive correlations are denoted in red, while negative correlations are denoted in blue.



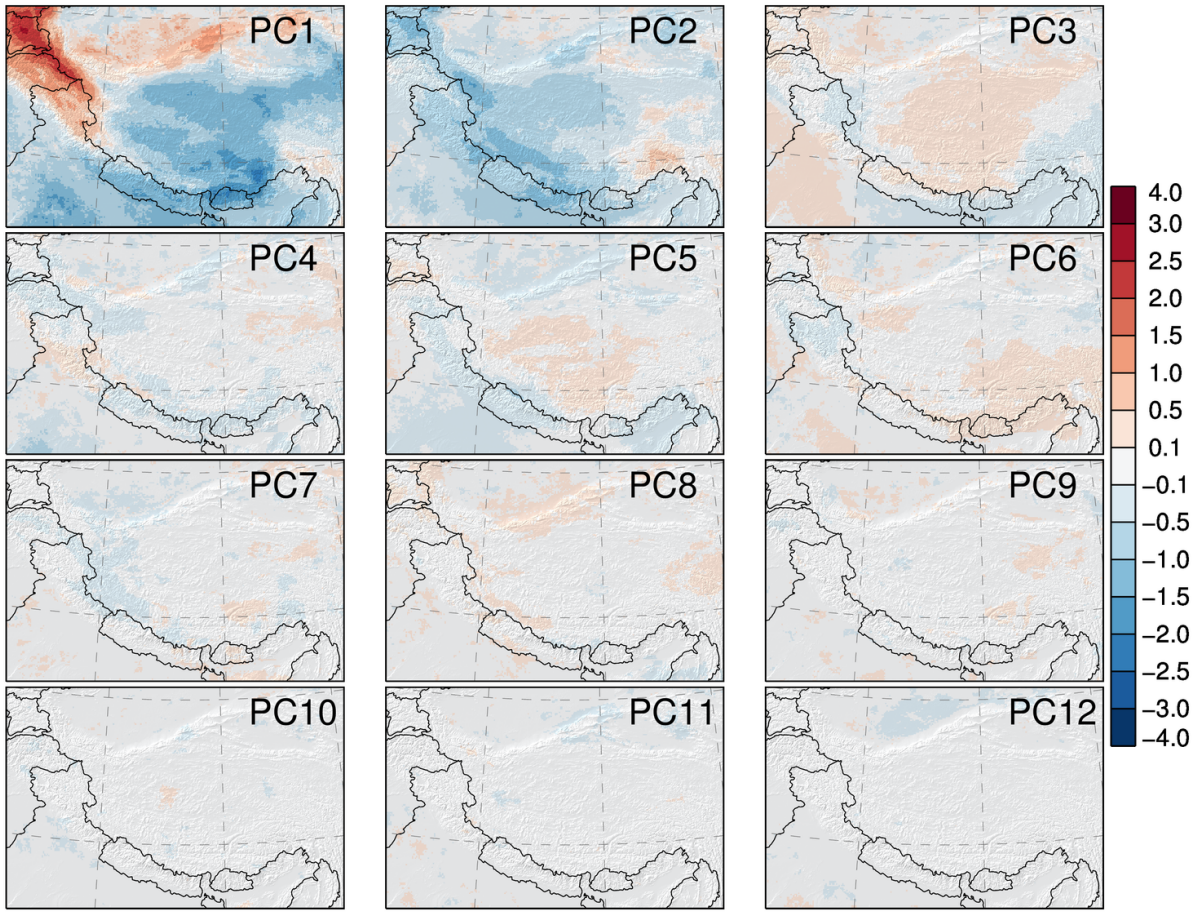
S4. Coefficient of correlation (rho) between vertical wind speed at model level 10 (WS10) and precipitation for all months (01-12). Positive correlations are denoted in red, while negative correlations are denoted in blue.



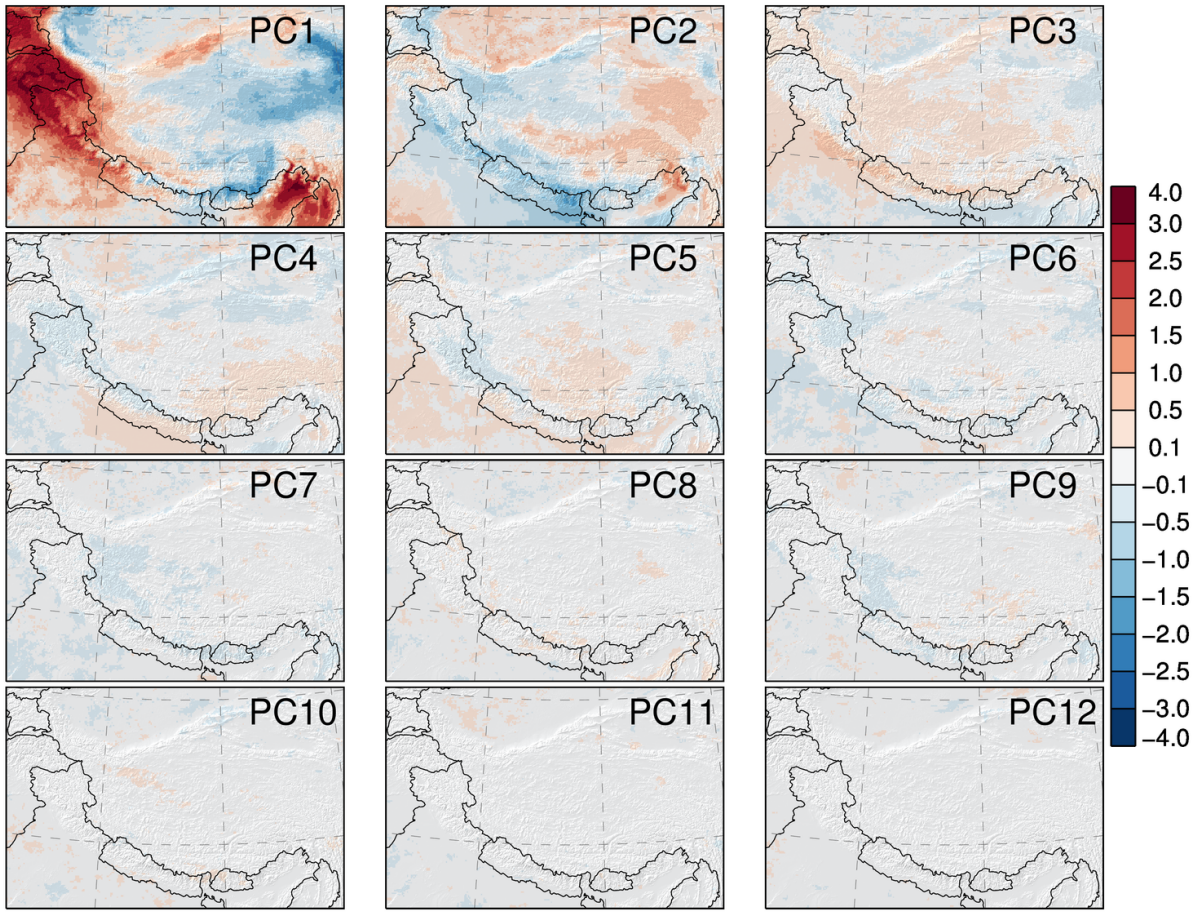
S5. Coefficient of correlation (rho) between atmospheric water transport (AWT) and precipitation for all months (01-12). Positive correlations are denoted in red, while negative correlations are denoted in blue.



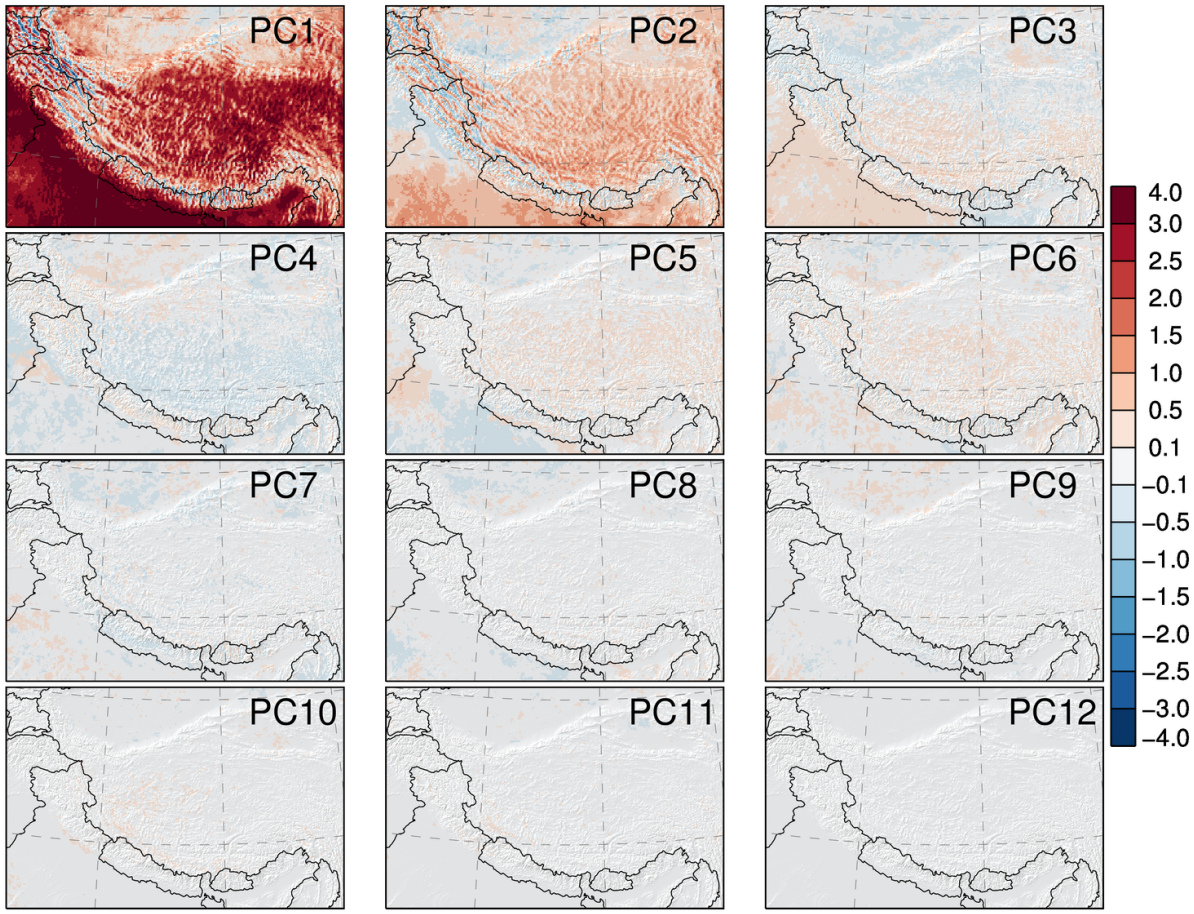
S6. Coefficient of correlation (rho) between planetary boundary layer height (PBLH) and precipitation for all months (01-12). Positive correlations are denoted in red, while negative correlations are denoted in blue.



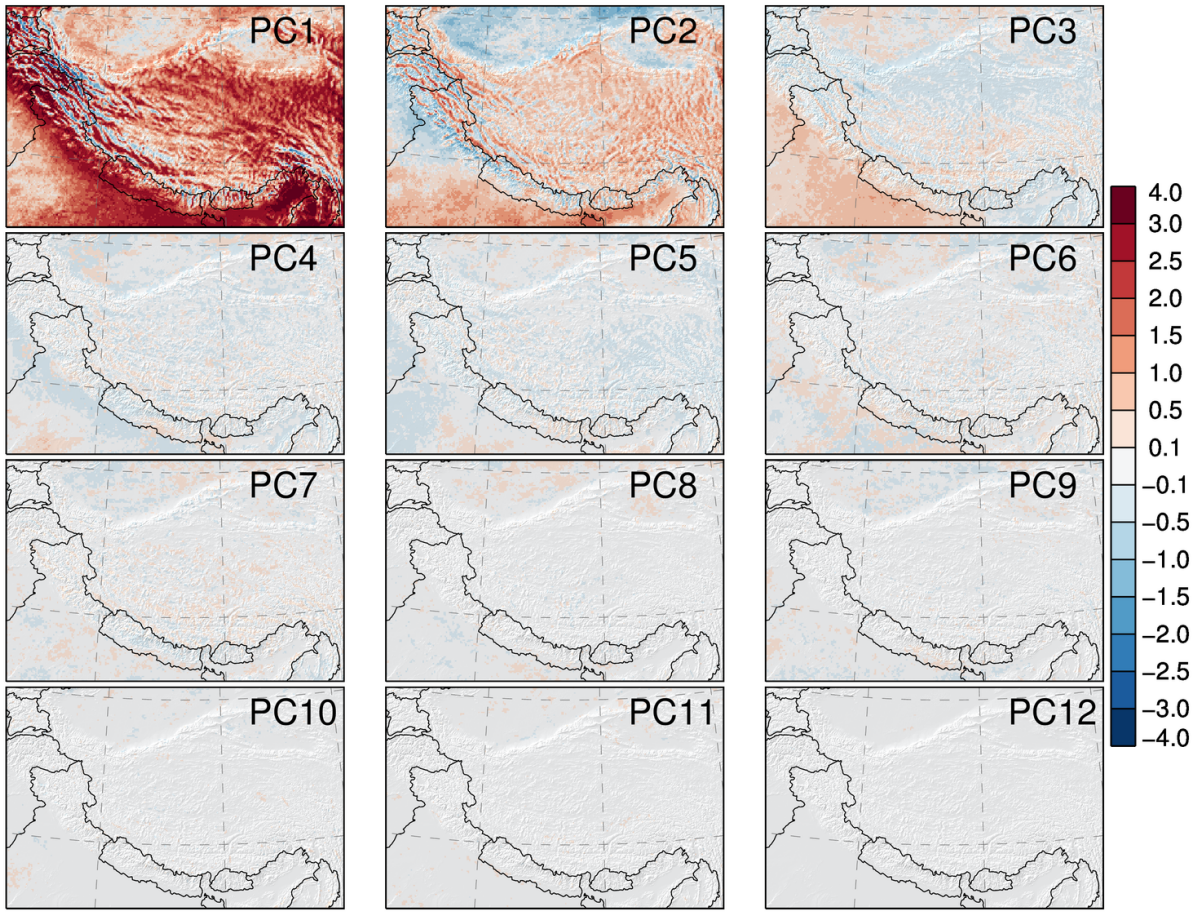
S7. Scores of all principal components (PC1-PC12) for the correlation between horizontal wind speed at 300 hPa (WS300) and precipitation. Positive values are denoted in red, while negative values are denoted in blue.



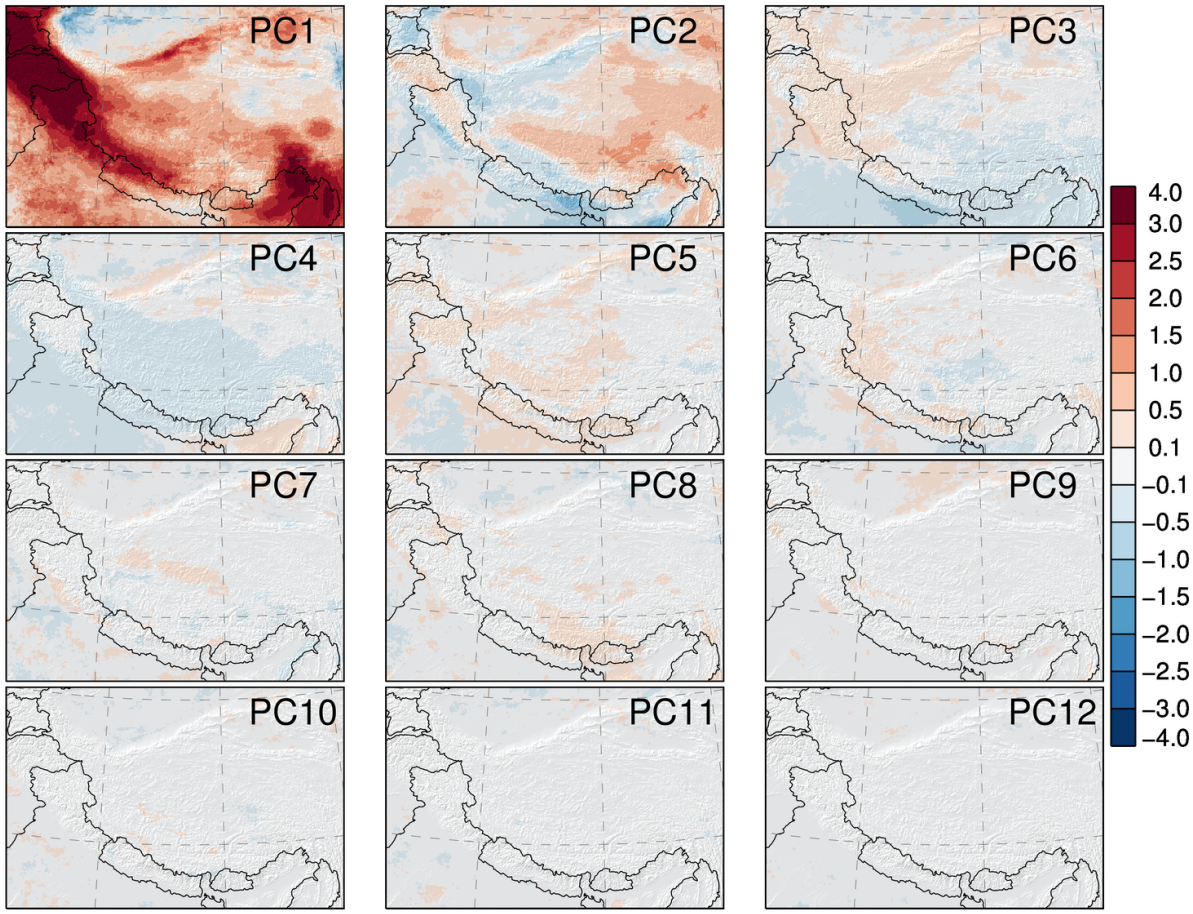
S8. Scores of all principal components (PC1-PC12) for the correlation between horizontal wind speed at model level 10 (WS10) and precipitation. Positive values are denoted in red, while negative values are denoted in blue.



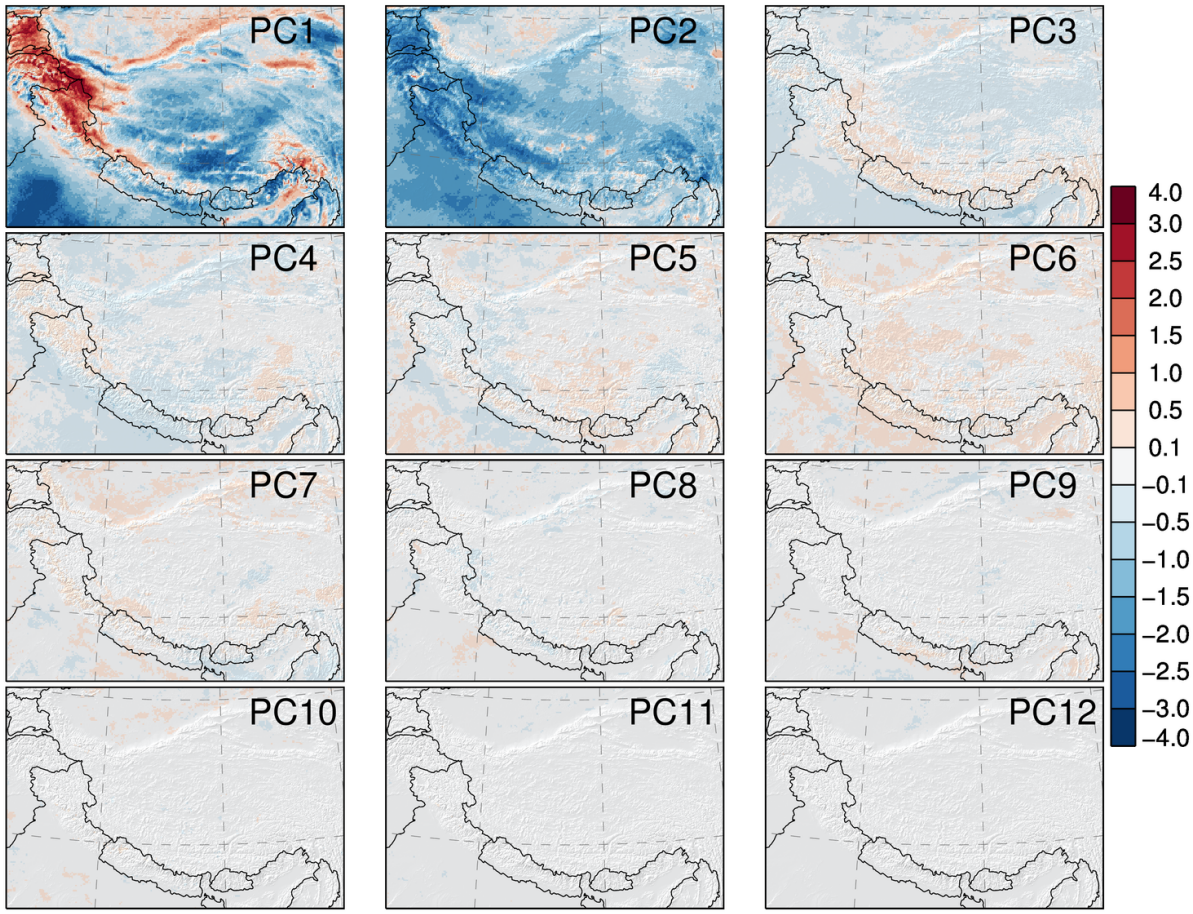
S7. Scores of all principal components (PC1-PC12) for the correlation between vertical wind speed at 300 hPa (WS300) and precipitation. Positive values are denoted in red, while negative values are denoted in blue.



S10. Scores of all principal components (PC1-PC12) for the correlation between vertical wind speed at model level 10 (W10) and precipitation. Positive values are denoted in red, while negative values are denoted in blue.



S11. Scores of all principal components (PC1-PC12) for the correlation between atmospheric water transport (AWT) and precipitation. Positive values are denoted in red, while negative values are denoted in blue.



S12. Scores of all principal components (PC1-PC12) for the correlation between planetary boundary layer height (PBLH) and precipitation. Positive values are denoted in red, while negative values are denoted in blue.