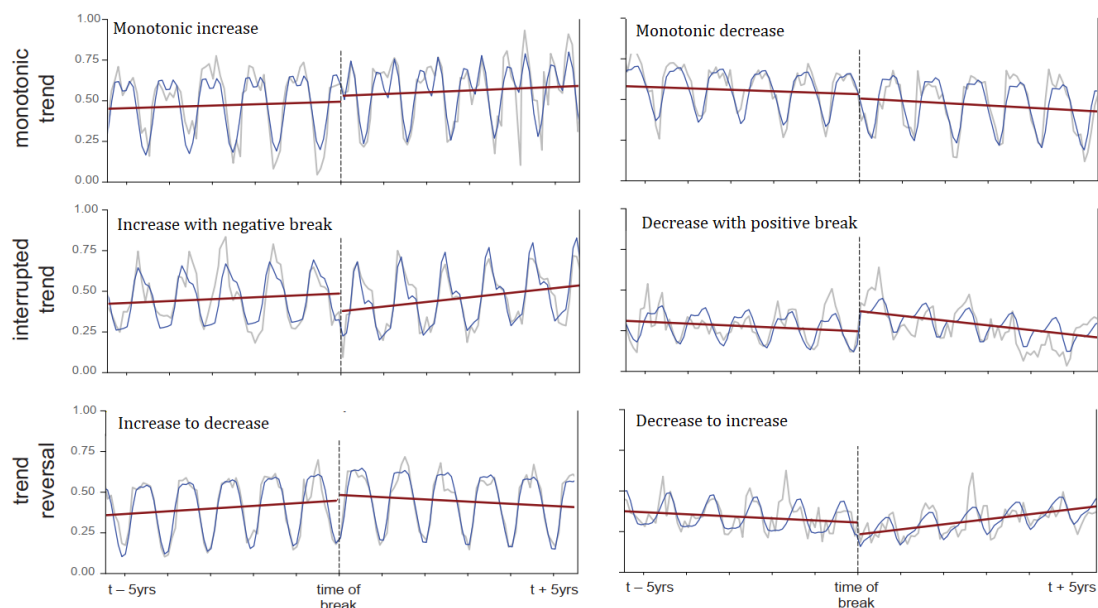
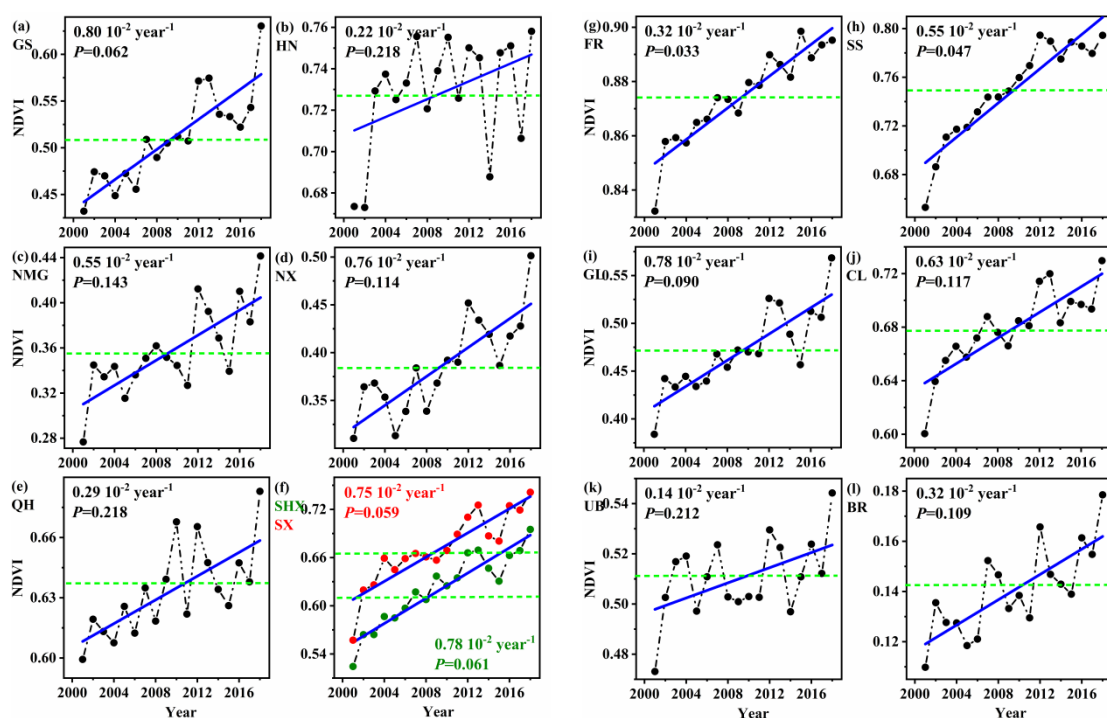


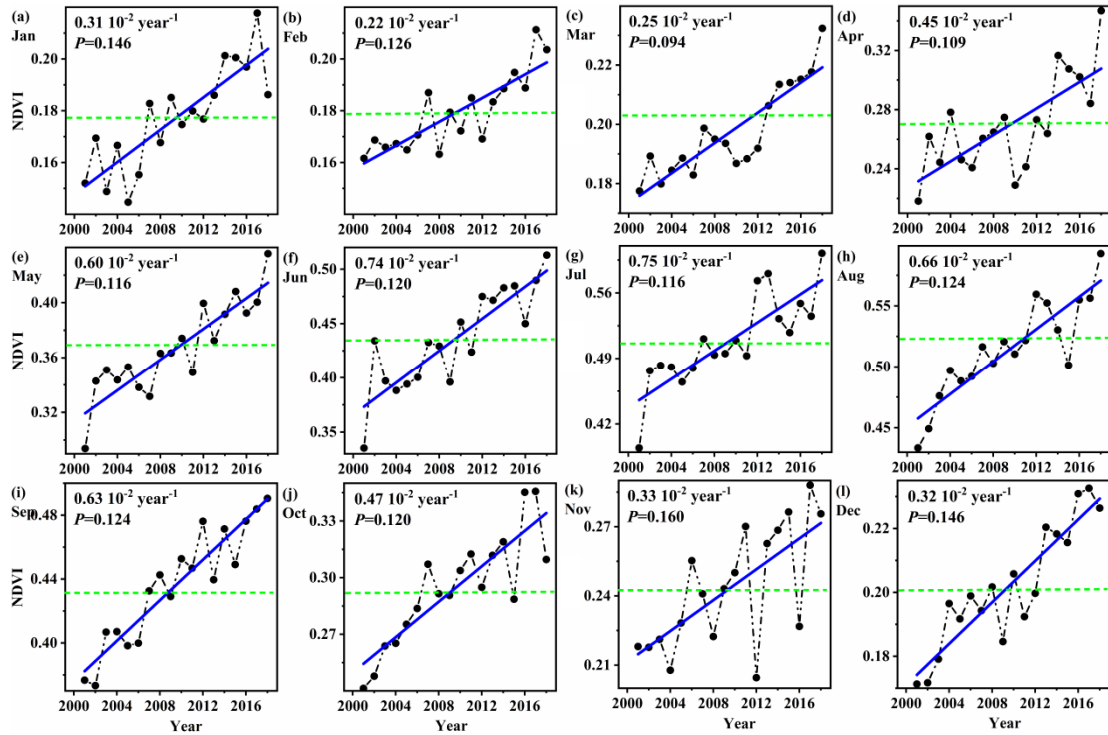
Supplementary Information



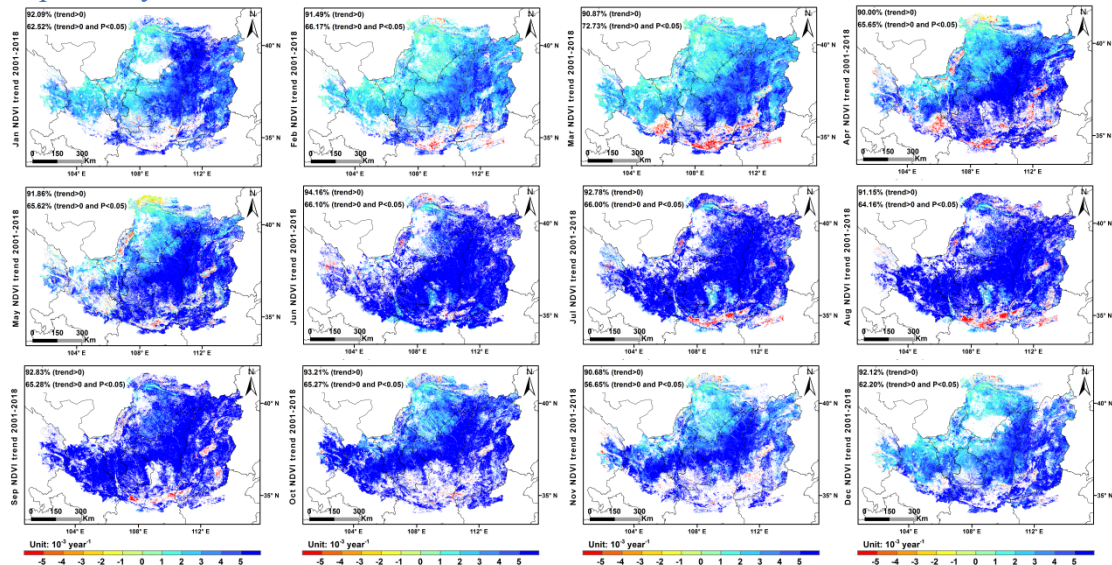
Supplement **Fig. 1** Trend types. Top: monotonic change, either with or without abrupt change (shown: with), Middle: monotonic change in the gradual segments, but interrupted by an abrupt event in the opposite direction (burst or setback); Bottom: trend reversal between the gradual segments.



Supplement **Fig. 2** Annual variations of the NDVI over the Loess Plateau during 2001-2018. (a) Loess Plateau, (b) Gansu, (c) Henan, (d) Inner Mongolia, (e) Ningxia, (f) Qinghai, (g) Shaanxi, (h) Shanxi, (i) Forests, (j) Shrublands and savannas, (k) Grasslands, (l) Croplands, (m) Urban and built-up lands, (n) Barren lands.



Supplement Fig. 3 Monthly variations of the NDVI over the Loess Plateau during 2001-2018. The solid blue line represents the linear fitting trend, and the dotted green line represents the monthly average of NDVI. (a) - (l) represent January to December respectively.



Supplement Fig. 4 Spatial patterns of monthly linear trends of MODIS NDVI over the Loess Plateau for the period 2001-2018. Only pixels with significant $P < 0.05$ were shown, blue represents a positive change (trend > 0), and red represents a negative change (trend < 0). (a) - (l) represent January to December respectively.