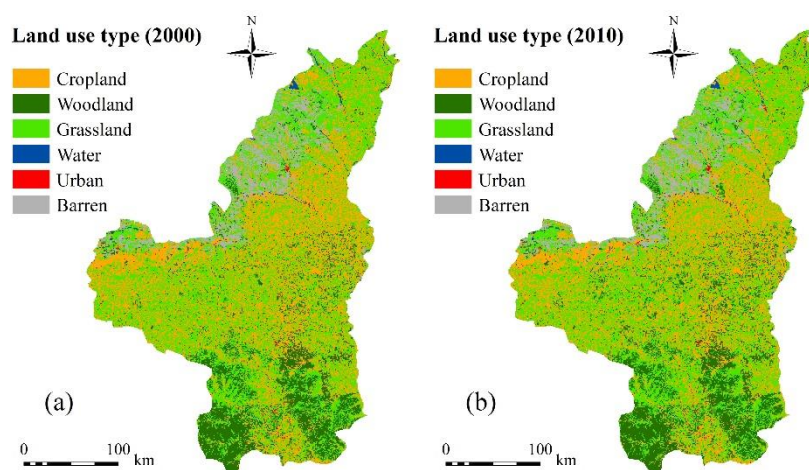
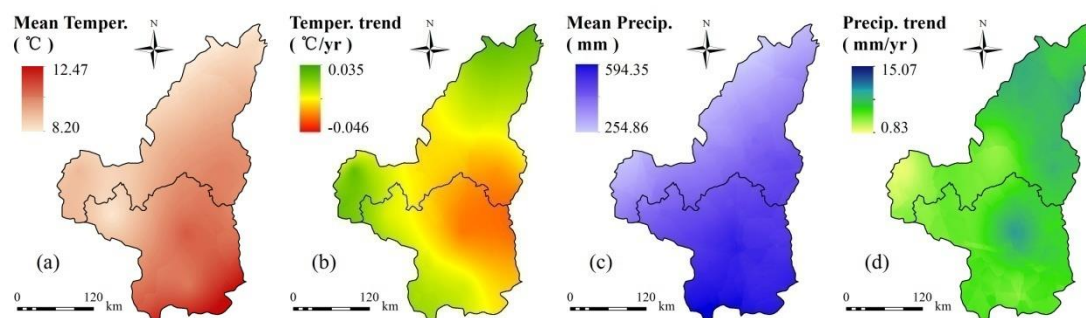




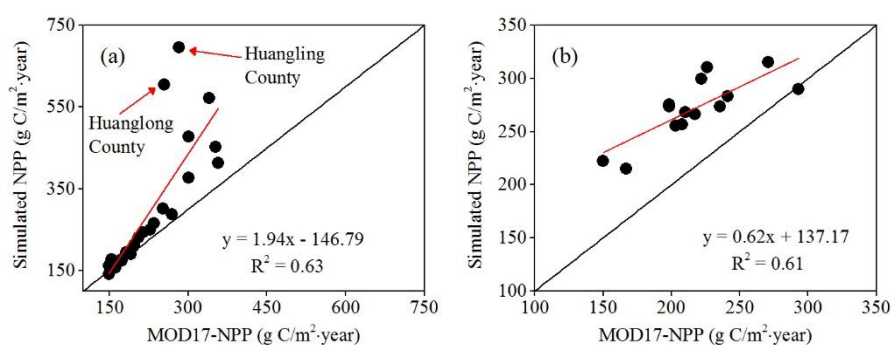
**Figure S1.** The land use types in the NSLP in 2000 (a) and 2010 (b).

**Table S1.** Information of weather stations within and near the Northern Shaanxi Loess Plateau (NSLP).

| Name          | Latitude (° N) | Longitude (° E) | Altitude (m) |
|---------------|----------------|-----------------|--------------|
| Huinong       | 39.22          | 106.77          | 1092.5       |
| Etuoqeqi      | 39.1           | 107.98          | 1380.3       |
| Dongsheng     | 39.83          | 109.98          | 1461.9       |
| Yijinhualuoqi | 39.57          | 109.73          | 1329.3       |
| Hequ          | 39.38          | 111.15          | 861.5        |
| Yinchuan      | 38.48          | 106.22          | 1111.4       |
| Taole         | 38.8           | 106.7           | 1101.6       |
| Yulin         | 38.27          | 109.78          | 1157         |
| Wuzhai        | 38.92          | 111.82          | 1401         |
| Xingxian      | 38.47          | 111.13          | 1012.6       |
| Yanchi        | 37.8           | 107.38          | 1349.3       |
| Dingbian      | 37.58          | 107.58          | 1360.3       |
| Wuqi          | 36.92          | 108.17          | 1331.4       |
| Hengshan      | 37.93          | 109.23          | 1111         |
| Suide         | 37.5           | 110.22          | 929.7        |
| Lishi         | 37.5           | 111.1           | 950.8        |
| Taiyuan       | 37.78          | 112.55          | 778.3        |
| Guyuan        | 36             | 106.27          | 1753         |
| Huanxian      | 36.58          | 107.3           | 1255.6       |
| Yan'an        | 36.6           | 109.5           | 958.5        |
| Xixian        | 36.7           | 110.95          | 1052.7       |
| Jiexiu        | 37.03          | 111.92          | 743.9        |
| Linfen        | 36.07          | 111.5           | 449.5        |
| Pingliang     | 35.55          | 106.67          | 1346.6       |
| Xifeng        | 35.73          | 107.63          | 1421         |
| Changwu       | 35.2           | 107.8           | 1206.5       |
| Luochuan      | 35.82          | 109.5           | 1159.8       |
| Tongchuan     | 35.08          | 109.07          | 978.9        |
| Yuncheng      | 35.05          | 111.05          | 365          |
| Houma         | 35.65          | 111.37          | 433.8        |
| Yangcheng     | 35.48          | 112.4           | 659.5        |
| Yaoxian       | 34.93          | 108.98          | 710          |



**Figure S2.** Spatial distribution and change trends in temperature and precipitation from 2000 to 2013 in the NSLP.



**Figure S3.** Comparisons of simulated NPP and MOD17-NPP values in our site using (a) the average annual value from the 25 counties, and (b) the annual value from the 14-year period as a whole.