

### Supplementary Materials

**Table S1.** Proportion of the grasslands area of different degradation levels to the total area

| <b>year</b> | <b>not<br/>degraded</b> | <b>light<br/>degraded</b> | <b>moderate<br/>degraded</b> | <b>serious<br/>degraded</b> |
|-------------|-------------------------|---------------------------|------------------------------|-----------------------------|
| 2000        | 29.65%                  | 26.92%                    | 39.58%                       | 3.85%                       |
| 2001        | 29.40%                  | 25.09%                    | 32.51%                       | 13.01%                      |
| 2002        | 40.62%                  | 23.75%                    | 29.46%                       | 6.18%                       |
| 2003        | 48.95%                  | 23.08%                    | 27.07%                       | 0.90%                       |
| 2004        | 38.83%                  | 20.71%                    | 33.04%                       | 7.42%                       |
| 2005        | 47.47%                  | 19.89%                    | 18.49%                       | 14.15%                      |
| 2006        | 43.02%                  | 24.26%                    | 30.45%                       | 2.28%                       |
| 2007        | 27.10%                  | 27.74%                    | 39.05%                       | 6.10%                       |
| 2008        | 54.59%                  | 20.13%                    | 22.32%                       | 2.96%                       |
| 2009        | 32.90%                  | 19.25%                    | 41.00%                       | 6.84%                       |
| 2010        | 37.27%                  | 26.70%                    | 29.96%                       | 6.08%                       |
| 2011        | 54.32%                  | 17.13%                    | 20.43%                       | 8.13%                       |
| 2012        | 59.32%                  | 20.38%                    | 20.07%                       | 0.23%                       |
| 2013        | 54.81%                  | 18.72%                    | 23.58%                       | 2.90%                       |
| 2014        | 50.41%                  | 18.96%                    | 17.74%                       | 12.90%                      |
| 2015        | 44.12%                  | 22.32%                    | 24.10%                       | 9.45%                       |
| 2016        | 29.86%                  | 19.53%                    | 43.01%                       | 7.59%                       |
| 2017        | 40.67%                  | 21.02%                    | 27.62%                       | 10.69%                      |