Supplementary Information

Table S1. Main methods of evaluating and mapping human pressures

Method	Proposer	Time	Description	Resolution
Wild land	McCloskey and Spalding	1989	Mapping the global wilderness (no human pressure areas) using a global navigation chart that included airports, roads, railways, settlements, buildings, major mines and dams.	-
Human Footprint	Sanderson et al	2002	Evaluating and mapping the pressure of human activities by re-assignment and overlaying of four categories of spatial data, including population, land transformation, access and electrical power infrastructure.	1 km
Anthropogenic biomes	Ellis and Ramankutty	2008	Evaluating the pressure of human activities using population, land use and land cover data and re-identifying the terrestrial biomes.	~10 km
Human modification	Kennedy et al	2018	Using five categories of human stressors, including human settlement, agriculture, mining and energy production, transportation and electrical infrastructure, and the "fuzzy algebraic sum" method to calculate the cumulative degree of human modification across global terrestrial lands.	1 km
Low-impact areas	Jacobson et al	2019	Evaluating and mapping the pressure of human activities by combining human population, livestock density, forest change, land cover and nighttime light data in a categorical process and then creating a new categorical map of global human influences.	1 km
Temporal human pressure index	Geldmann et. al.	2019	Evaluating and mapping the pressure of human activities using three categories of spatial data, including population density, the density of night-visible infrastructure, and the percentage of area covered by cropland.	10 km

Table S2. Influence scores for roads

Type	Distance (km)					
	0–0.5	0.5–1.5	1.5–2.5	2.5–3.5	3.5–4.5	4.5–5.5
Expressway	10	8	6	4	2	1
National	10	8	5	3	1	0
Provincial	9	6	3	2	1	0
County	8	5	3	1	0	0
Others	8	4	1	0	0	0

Table S3. Mean value and changes of HF in different areas of the QLM

	Mean values				Changes			
	2000	2005	2010	2015	2000–2015	2000–2005	2005–2010	2010–2015
QLM	6.59	6.81	6.95	7.21	0.62	0.22	0.14	0.26
Gansu	3.57	3.74	3.79	3.93	0.36	0.17	0.05	0.14
Qinghai	7.92	8.17	8.35	8.66	0.74	0.24	0.18	0.32
NR	4.77	4.97	5.05	5.22	0.45	0.20	0.08	0.17
Forest	10.74	10.96	11.00	11.23	0.49	0.23	0.04	0.23
Shrubland	11.19	11.28	11.31	11.60	0.41	0.09	0.03	0.29
Grassland	9.29	9.62	9.80	10.09	0.79	0.32	0.18	0.28
Wetland	7.04	7.33	7.71	7.98	0.94	0.29	0.38	0.27
Bare land	2.55	2.68	2.77	3.04	0.49	0.13	0.09	0.27
Corpland	21.70	22.24	22.77	22.92	1.22	0.54	0.53	0.15
Built-up	22.33	22.73	23.39	23.49	1.15	0.40	0.65	0.10

Table 4. Slope and significance of average NDVI in different regions during 2000–2015.

	QLM	Gansu	Qinghai
QLM	0.0028**	0.0028**	0.0026*
NR	0.003**	0.0031**	0.0020**
Forest	0.0032**	0.0049**	0.0021*
Shrubland	0.0023**	0.0032**	0.0020*
Grasssland	0.0031**	0.0034**	0.0030*
Wetland	0.0014	0.0019	0.0013
Bare land	0.0022**	0.0021**	0.0023*
Cropland	0.0039*	0.0056*	0.0038*
Built-up	0.0032*	0.0031*	0.0033*

* NDVI change is significant with a P value < 0.05; ** NDVI change is significant with a P value < 0.01.