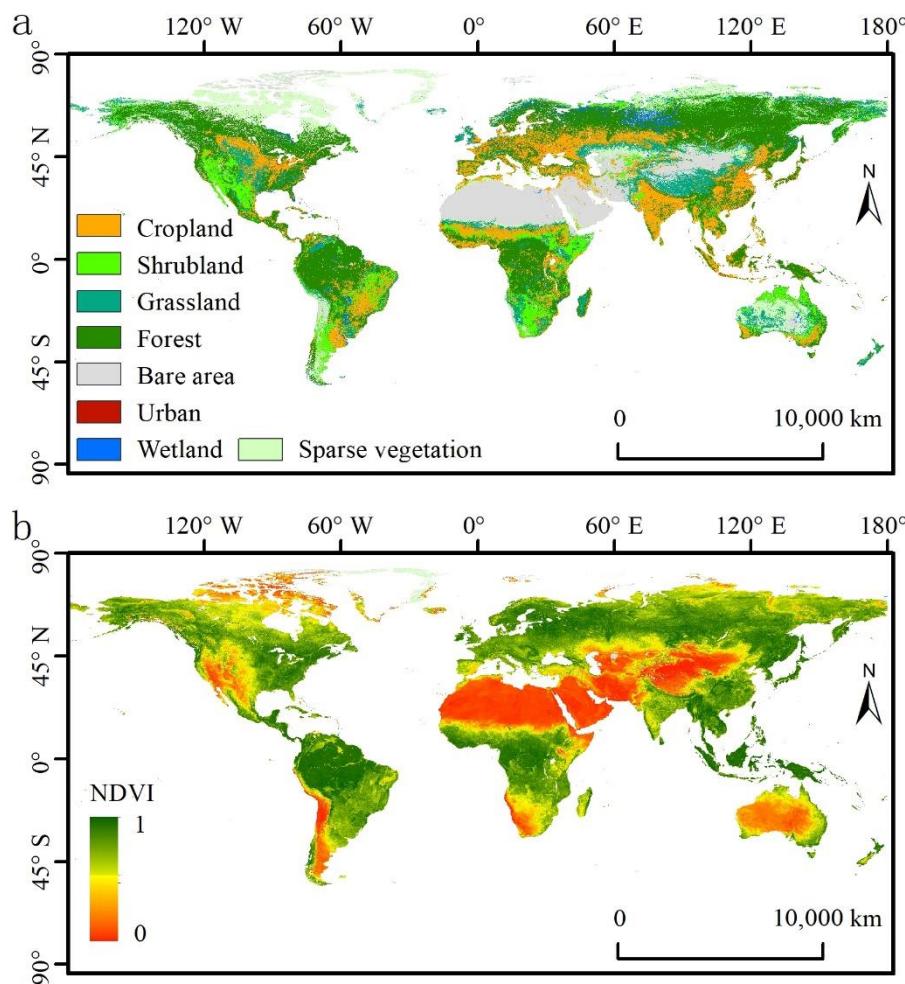
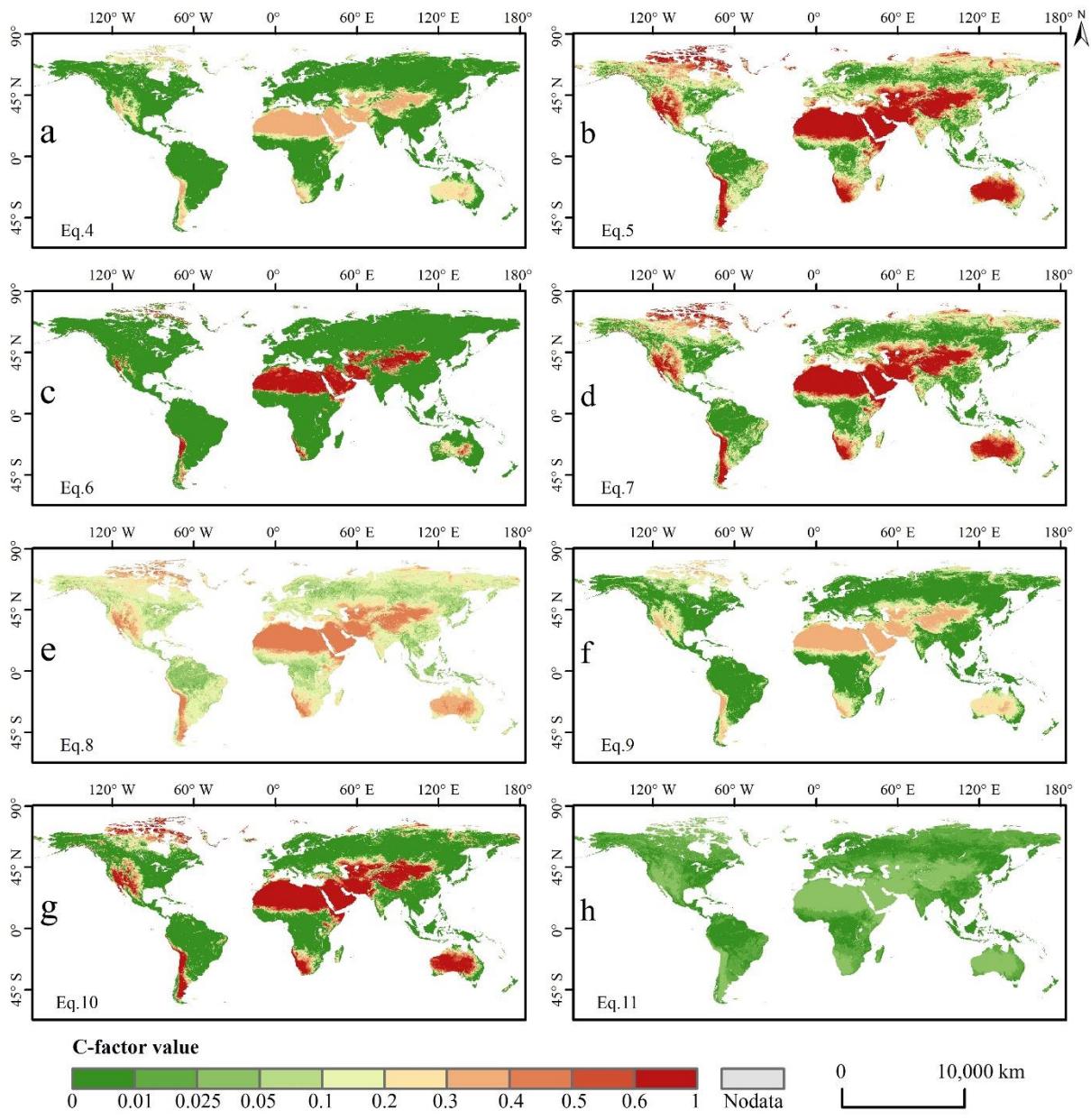


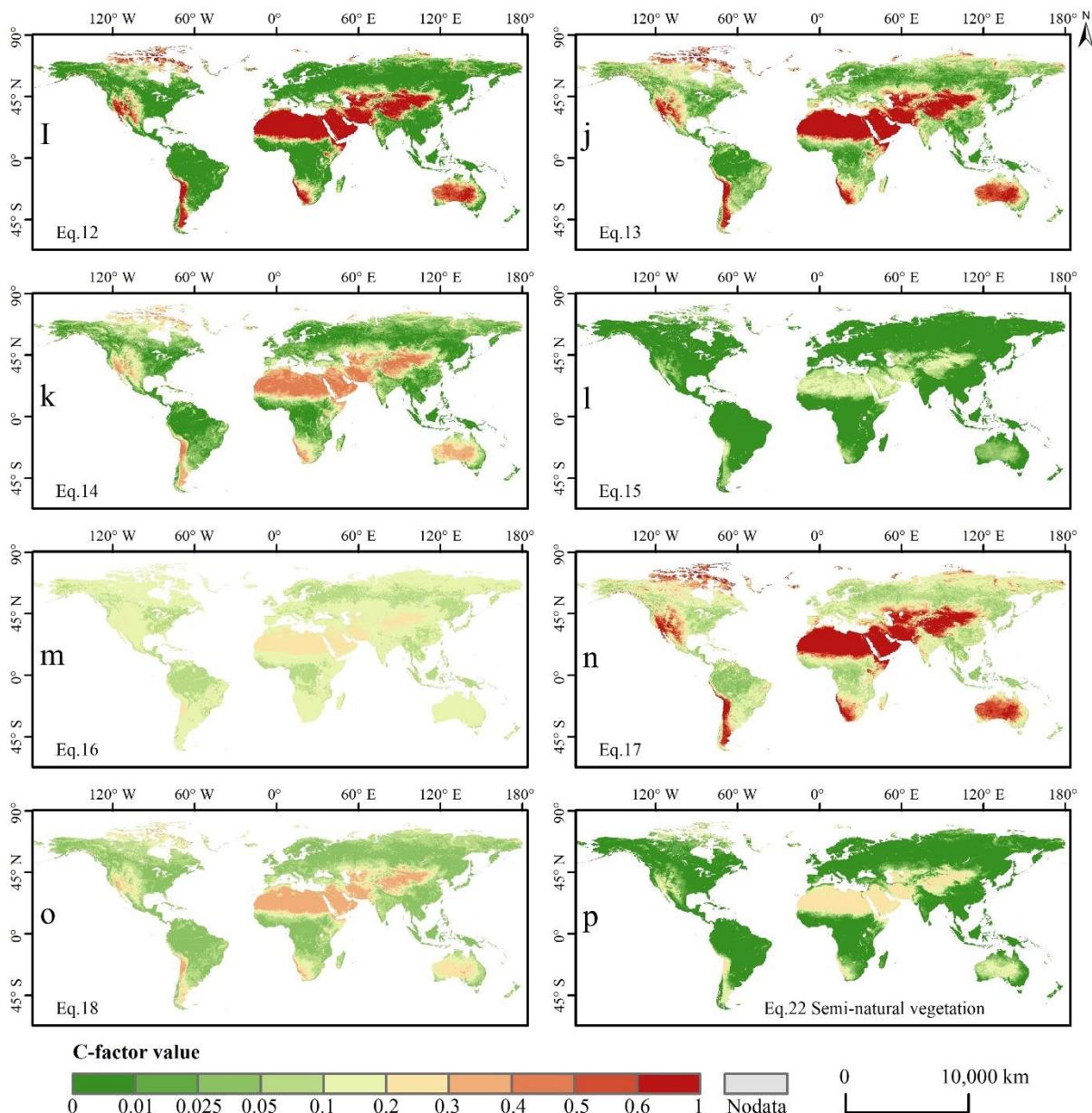
**Global analysis of the cover-management factor for soil erosion modeling****Contents of this file**

Figures S1 to S2 and Table S1

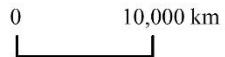
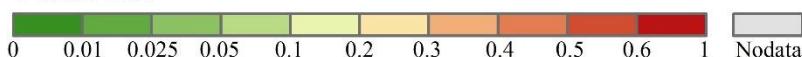


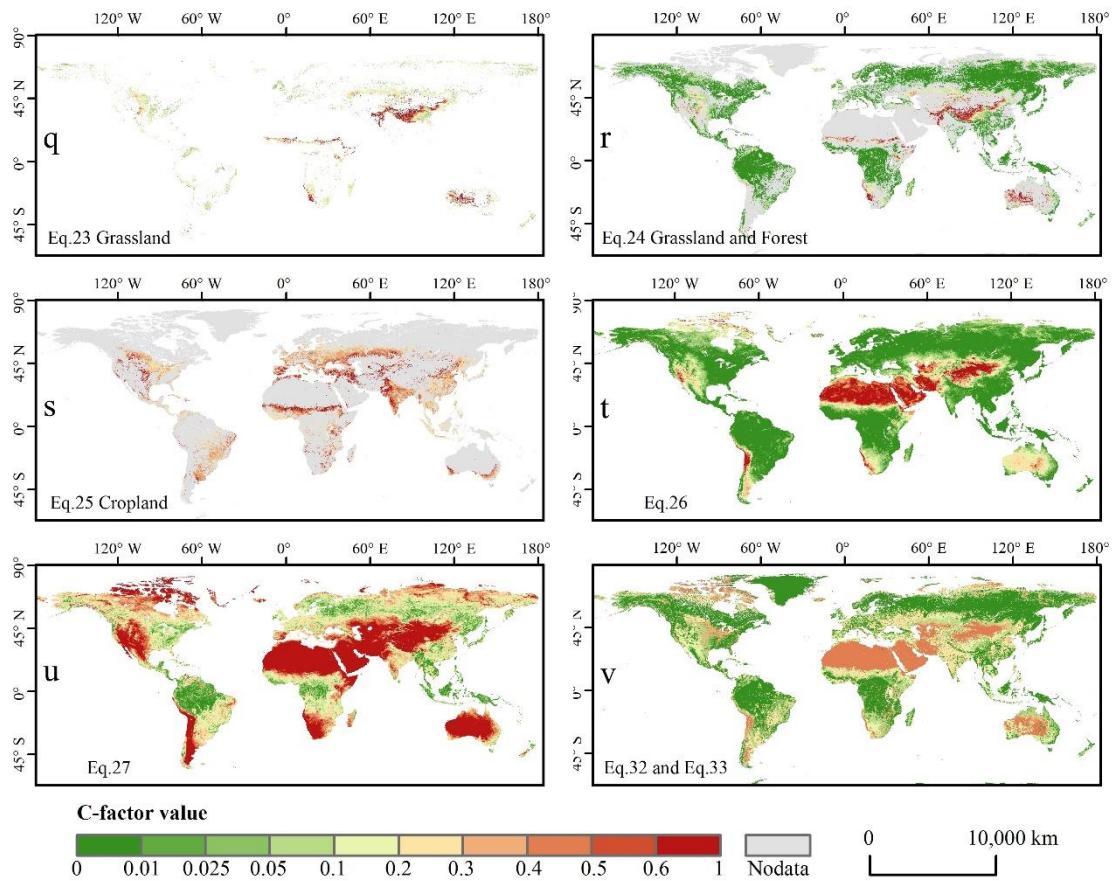
**Figure S1** Spatial distribution of landcover and NDVI of the year 2015. (a) the landcover from ESA CCI-LC; (b) the NDVI from Global Inventory Modeling and Mapping Studies (GIMMS).





C-factor value





**Figure S2** Spatial distribution of C-factor values according to equations. (a) Eq.4; (b) Eq.5; (c) Eq.6; (d) Eq.7; (e) Eq.8; (f) Eq.9; (g) Eq.10; (h) Eq.11; (i) Eq.12; (j) Eq.13; (k) Eq.14; (l) Eq.15; (m) Eq.16; (n) Eq.17; (o) Eq.18; (p) Eq.22; (q) Eq.23; (r) Eq.24; (s) Eq.25; (t) Eq.26; (u) Eq.27; (v) Eq.32 and Eq.33.

**Table S1** Mean and standard deviation (SD) for C-factor value per land use type.

	Cropland		Forest		Grassland		Shrubland		Sparse vegetation	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Eq.4	0.0152	0.0487	0.0022	0.0176	0.0818	0.1123	0.0719	0.106	0.1219	0.1153
Eq.5	0.1852	0.1794	0.0718	0.1102	0.3817	0.273	0.356	0.2644	0.5133	0.2274
Eq.6	0.005	0.0465	0.0004	0.013	0.0657	0.1749	0.0522	0.1499	0.0859	0.184
Eq.7	0.1272	0.1592	0.0399	0.0857	0.308	0.2546	0.2826	0.2475	0.4288	0.218
Eq.8	0.1512	0.0788	0.0951	0.0564	0.235	0.1147	0.2242	0.1114	0.2906	0.0942
Eq.9	0.0331	0.0628	0.007	0.0275	0.1108	0.1147	0.0988	0.1111	0.1606	0.1069
Eq.10	0.0736	0.1551	0.014	0.0649	0.2699	0.2953	0.2396	0.2853	0.3937	0.2824
Eq.11	0.0151	0.0079	0.0095	0.0056	0.0235	0.0115	0.0224	0.0111	0.0291	0.0094
Eq.12	0.051	0.1115	0.0105	0.0439	0.2037	0.2444	0.1801	0.2315	0.297	0.2418
Eq.13	0.0998	0.1193	0.039	0.058	0.2536	0.231	0.2309	0.2199	0.3503	0.2161
Eq.14	0.0554	0.0652	0.0215	0.0323	0.1383	0.123	0.1262	0.1177	0.1909	0.1143
Eq.15	0.0034	0.0086	0.001	0.0029	0.0165	0.0266	0.014	0.0231	0.023	0.027
Eq.16	0.1147	0.0196	0.1019	0.0125	0.1374	0.0321	0.1343	0.0309	0.1521	0.028
Eq.17	0.1647	0.1129	0.0969	0.0649	0.3015	0.1975	0.2823	0.1893	0.3892	0.1774
Eq.18	0.0669	0.0409	0.0454	0.0205	0.1213	0.0844	0.1131	0.0792	0.1545	0.08
Eq.22	--	--	0.0039	0.0076	0.0425	0.0593	0.037	0.0537	0.0594	0.0601
Eq.23	0.1093	0.1079	0.061	0.0469	0.2605	0.2484	0.2369	0.2316	0.3495	0.2437
Eq.24	--	--	0.0096	0.0469	0.2587	0.2858	--	--	--	--
Eq.25	0.4337	0.1814	--	--	--	--	--	--	--	--
Eq.26	0.0276	0.0568	0.0065	0.0222	0.1108	0.1664	0.0934	0.1388	0.1529	0.1617

Eq.27	0.2749	0.1905	0.1404	0.1339	0.4778	0.2778	0.4521	0.2698	0.6128	0.2282
Eq.32	--	--	0.0005	0.0004	0.0769	0.0389	0.0733	0.0378	0.3451	0.0913
Eq.33	0.0152	0.0487	0.0022	0.0176	0.0818	0.1123	0.0719	0.106	0.1219	0.1153