

Supplementary Table S2. Descriptive statistics of the explanatory variables used for modelling:
1st Qu. – first quartile, 3rd Qu. – third quartile, Min. – minimum value, Max. – maximum value.

variable name	unit	Mean	Median	1st Qu.	3rd Qu.	Min.	Max.
agricultural tractors density	N/ha	0.18	0.14	0.1	0.21	0	0.96
average farm size	ha	14.3	14.1	9.8	18.7	1	32.2
broadleaved and mixed forests	%	13.142	10.56	5.548	17.56	0	87.07
communication routes length	km	70919	68889	53413	85919	0	263984
fertilizer amount	kg/ha	102.6	100	64.3	138.9	0.3	321.2
human population density	N/km2	127.7	53.7	33.1	105.9	0	6251.2
human population density CV	%	246.9	225.4	165.2	309.1	57.7	1896.6
income	zl per capita	5331.0	5192.0	4915.0	5555.0	3994.0	32519.0
income cv	%	7.1	5.6	3.3	9.0	0.0	110.9
income max	zl per capita	6131.0	5776.0	5365.0	6385.0	4419.0	45832.0
landscape diversity	-	1.25	1.3	1.08	1.48	0.15	1.84
length of roads	km	63801	61790	48356	77525	0	224642
annual sum of precipitation	mm	648	618	578	683	507	1667
annual sum of precipitation CV	%	2.1	1.6	1.1	2.5	0.2	16.7
mean annual temperature	°C	8.3	8.4	7.9	8.8	2.9	9.7
temperature seasonality	°C	724	727	702	748	613	790
last glaciation maximum	%	37.3	0	0	100	0	100
bulk density	kg*m3	1.34	1.35	1.26	1.43	1.02	1.53
calcium carbonate	g*kg-1	6.83	4.5	2.19	9.42	0.06	72.04
calcium carbonate CV	%	108	98	66	137	13	528
clay content	%	9.16	7.56	6.1	10.87	2.44	32.67
clay content CV	%	32.6	32.4	26.2	38.6	10.3	80.2
coars grained fraction	%	7.5	6.8	6.3	7.7	4.6	27.3
coars grained fraction CV	%	24.6	23.8	21.1	27	10.6	50.1
loess sediments	%	7.7	0	0	0	0	100
nitrogen content	g*kg-1	1.58	1.49	1.35	1.69	0.81	3.82
nitrogen content CV	%	26.2	21	14.9	33.3	6.4	85.5
pH	pH scale	5.6	5.59	5.31	5.89	4.37	6.83
pH CV	%	7.41	7.29	5.39	9.21	1.85	16.8
phosphorus content	mg*kg-1	34.5	35	30.6	39.2	9.1	52.3
potassium content	mg*kg-1	108.1	101.4	82.2	129.3	38.6	245.6
potassium content CV	%	22.5	21.2	17.1	26.4	4.5	73.2
slope	°	-0.000939	0	0	0	-0.08	0.03
slope CV	%	-1412	-595	-1831	1961	-3760751	2394239
sum of rivers length	km	41048	39594	29551	51367	0	131133
terrain roughness index	-	0.6936	0.51	0.4	0.7	0.15	6.17
topographic position index	-	-0.000216	-0.01	-0.08	0.07	-2.31	3.62
topographic position index CV	%	-10170	-1761	-6067	6130	-6977395	1776660
topographic wetness index CV	%	20.42	19.88	18.5	21.7	9.79	42.72
water bodies percentage	%	1.643	0.29	0	1.77	0	64.96