

**Table S1.** Correlation matrix of IRSEI and four factors

Year	Indicator	NDVI	WET	NDBSI	LST	IRSEI
1995	NDVI	1.00	0.26	−0.44	−0.26	0.62
	WET	0.25	1.00	−0.61	−0.42	0.78
	NDBSI	−0.52	−0.62	1.00	0.19	−0.90
	LST	−0.23	−0.49	0.14	1.00	−0.49
	Average Relevance	0.32	0.43	0.44	0.29	0.70
2005	NDVI	1.00	0.39	−0.31	−0.14	0.65
	WET	0.37	1.00	−0.49	−0.30	0.81
	NDBSI	−0.40	−0.40	1.00	0.21	−0.78
	LST	−0.12	−0.34	0.26	1.00	−0.37
	Average Relevance	0.28	0.39	0.34	0.24	0.65
2015	NDVI	1.00	0.52	−0.19	−0.01	0.77
	WET	0.50	1.00	−0.36	−0.12	0.83
	NDBSI	−0.28	−0.27	1.00	0.33	−0.65
	LST	0.01	−0.22	0.39	1.00	−0.25
	Average Relevance	0.24	0.33	0.29	0.20	0.63
2020	NDVI	1.00	0.52	−0.19	0.19	0.88
	WET	0.60	1.00	−0.26	−0.07	0.84
	NDBSI	−0.17	−0.17	1.00	0.44	−0.55
	LST	0.18	−0.12	0.49	1.00	−0.14
	Average Relevance	0.30	0.31	0.26	0.26	0.60

Total Average Relevance

NDVI=0.28 WET=0.36 NDBSI=0.33 LST=0.25 IRSEI=0.64

Note: IRSEI, Improved Remote sensing ecological Index. Average correlation is based on a certain indicators and other indicators to calculate the absolute values of the correlation coefficient of NDVI (1995) = $(|0.25| + |-0.52| + |-0.23|) / 3 = 0.32$.