

Supplementary S4: Results of regression analysis based on classifications using adjusted risk indicators

Table S2-1. Multinomial regression model. Response level 3 is the reference group

Variables	Level of Response	Estimate	Standard Error	Wald Stat.	p
Intercept 1	C1	2.93	1.23	5.64	0.018
Net Number per household	C1	0.01	0.03	0.18	0.675
N water pond	C1	-0.01	0.01	0.34	0.563
Weighted N pond	C1	-0.03	0.05	0.39	0.530
Weighted N habitats wet season	C1	-0.04	0.02	5.24	0.022
Weighted N habitats dry season	C1	0.04	0.01	13.56	0.000
NDVI Oct	C1	0.84	0.89	0.89	0.345
NDVI Sep	C1	1.40	1.06	1.75	0.186
NDVI May	C1	-3.14	1.19	6.98	0.008
NDVI Apr	C1	1.92	1.01	3.63	0.057
EVI Dec	C1	1.58	0.96	2.71	0.100
EVI May	C1	1.21	0.67	3.27	0.070
EVI Feb	C1	-1.11	0.97	1.30	0.253
Land surface roughness	C1	-1.22	0.41	8.97	0.003
Valley bottom flatness	C1	0.00	0.00	8.08	0.004
Soil water capacity	C1	-1.43	0.72	3.94	0.047
Curvature volume	C1	0.13	0.04	9.39	0.002
Distance to the ILake	C1	-0.03	0.00	61.13	0.000
Distance to the nearest river	C1	0.03	0.01	19.27	0.000
Land surface temperature Feb	C1	-2.48	0.72	11.99	0.001
Intercept 2	C2	4.23	1.33	10.03	0.002
Net Number per household	C2	0.05	0.03	3.01	0.083
N water pond	C2	0.03	0.01	6.76	0.009
Weighted N pond	C2	-0.21	0.05	20.64	0.000
Weighted N habitats wet season	C2	0.08	0.02	18.95	0.000
Weighted N habitats dry season	C2	-0.11	0.01	56.02	0.000
NDVI Oct	C2	-2.69	1.03	6.85	0.009
NDVI Sep	C2	3.11	1.01	9.42	0.002
NDVI May	C2	0.85	1.29	0.43	0.512
NDVI Apr	C2	1.02	1.11	0.84	0.359
EVI Dec	C2	-1.71	1.04	2.72	0.099
EVI May	C2	-0.19	0.66	0.08	0.771
EVI Feb	C2	-3.51	1.05	11.19	0.001

Land surface roughness	C2	-1.13	0.48	5.65	0.017
Valley bottom flatness	C2	0.00	0.00	0.55	0.459
Soil water capacity	C2	0.69	0.74	0.89	0.347
Curvature volume	C2	0.05	0.04	1.39	0.238
Distance to the ILake	C2	-0.04	0.00	83.77	0.000
Distance to the nearest river	C2	0.05	0.01	37.00	0.000
Land surface temperature Feb	C2	0.12	0.78	0.02	0.880

Table S2-2. Variable significance test

	Degree of Freedom	Log-Likelihood	Chi-Square	p
Intercept	2	-2119.27		
Net Number per household	2	-2112.53	13.48	0.0012
N water pond	2	-2102.99	19.07	0.0001
Weighted N pond	2	-2089.12	27.75	0.0000
Weighted N habitats wet season	2	-2075.02	28.19	0.0000
Weighted N habitats dry season	2	-1972.61	204.83	0.0000
NDVI Oct	2	-1831.78	281.66	0.0000
NDVI Sep	2	-1827.68	8.19	0.0166
NDVI May	2	-1815.69	23.99	0.0000
NDVI Apr	2	-1775.16	81.05	0.0000
EVI Dec	2	-1752.48	45.37	0.0000
EVI May	2	-1745.73	13.48	0.0012
EVI Feb	2	-1741.09	9.29	0.0096
Land surface roughness	2	-1720.40	41.37	0.0000
Valley bottom flatness	2	-1714.02	12.76	0.0017
Soil water capacity	2	-1688.71	50.63	0.0000
Curvature volume	2	-1684.07	9.26	0.0097
Distance to the ILake	2	-1634.99	98.17	0.0000
Distance to the nearest river	2	-1614.90	40.17	0.0000
Land surface temperature Feb	2	-1605.99	17.82	0.0001