

Appendix 3. Results and statistical analysis

Table A3.1. Fragmentation and connectivity indices. Scenarios differ in deforestation rates (L: low, H: high), and spatial planning at the regional level (C: with corridors, NC: without corridors) and plot level (D: design, R: random).

Scenario	Number of patches		Mean patch size (ha)		CONNECT		CLUMPY		ECA	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
2015	546		3832.12		0.4437		0.9356		2201434	
L-C-D	1452.96	29.18	1950.16	39.52	0.2876	0.0045	0.9068	0.0005	1767330	22822
L-C-R	1711.64	34.62	1652.02	33.70	0.2535	0.0047	0.8986	0.0004	1726884	18936
L-NC-D	1418.6	43.48	2000.60	62.07	0.2899	0.0072	0.9135	0.0006	1716374	23125
L-NC-R	1706.84	45.26	1658.24	44.53	0.247	0.0062	0.9055	0.0005	1676408	23410
H-C-D	2493		958.01		0.1883		0.8742		1437464	
H-C-R	3383.3	45.34	702.19	9.44	0.1531	0.0016	0.8555	0.0004	1409136	6968
H-NC-D	3426		510.54		0.1376		0.8201		903888	
H-NC-R	5335.08	61.56	323.25	3.71	0.1014	0.0011	0.7832	0.0005	616872	18408

We made pair-wise comparisons to test for the significance of the differences between scenarios in terms of number of patches, CONNECT, CLUMPY and ECA index values. We checked for normal distribution and used *t*-tests with Satterthwaite correction (Satterthwaite 1946) in those comparisons without homogeneous variances. Results of these tests are reported in Table A3.1. In cases without normal distribution, we used the Mann-Whitney U test. Statistical analyses were made using the software Infostat (Di Rienzo et al. 2017).

Table A3.2. Statistical results for the comparisons between the indices measuring forest fragmentation (number of patches) and connectivity (CONNECT, CLUMPY, ECA). Scenarios differ in deforestation rate (L: low, H: high), spatial planning at the regional level (C: with corridors, NC: without corridors) and spatial planning at the plot level (D: design, R: random).

Compared scenarios		Number of patches		CONNECT		CLUMPY		ECA			
		T	P-value	T	P-value	T	P-value	T	P-value	W	P-value
L-C-D	L-C-R	-40,4	<0.0001	37,23	<0.0001	89,26	<0.0001	9,59	<0.0001		
L-C-D	L-NC-D	4,64	<0.0001	-1,91	0,0593	-62,58	<0.0001			3627	<0.0001
L-C-D	L-NC-R	-33,33	<0.0001	37,46	<0.0001	13,68	<0.0001	19,67	<0.0001		
L-C-D	H-C-R	-253,13	<0.0001	199,25	<0.0001	566,59	<0.0001	106,15	<0.0001		
L-C-D	H-NC-R	-402,96	<0.0001	283,97	<0.0001	1192,51	<0.0001			3775	<0.0001
L-C-R	L-NC-D	37,28	<0.0001	-29,97	<0.0001	-149,32	<0.0001			2803	0,0135
L-C-R	L-NC-R	0,6	0,5528	5,96	<0.0001	-71,49	<0.0001	11,78	<0.0001		
L-C-R	H-C-R	-207,19	<0.0001	144,41	<0.0001	518,96	<0.0001	110,37	<0.0001		
L-C-R	H-NC-R	-362,78	<0.0001	224,83	<0.0001	1187,75	<0.0001			3675	<0.0001
L-NC-D	L-NC-R	-32,47	<0.0001	31,89	<0.0001	73,74	<0.0001			3504	<0.0001
L-NC-D	H-C-R	-221,15	<0.0001	130,99	<0.0001	591,44	<0.0001			3775	<0.0001
L-NC-D	H-NC-R	-367,47	<0.0001	182,69	<0.0001	1182,11	<0.0001			3775	<0.0001
L-NC-R	H-C-R	-185,03	<0.0001	103,62	<0.0001	531,25	<0.0001	77,37	<0.0001		
L-NC-R	H-NC-R	-335,78	<0.0001	163,28	<0.0001	1146,01	<0.0001			3775	<0.0001
H-C-R	H-NC-R	-180,52	<0.0001	187,52	<0.0001	754,27	<0.0001			3775	<0.0001

References

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