

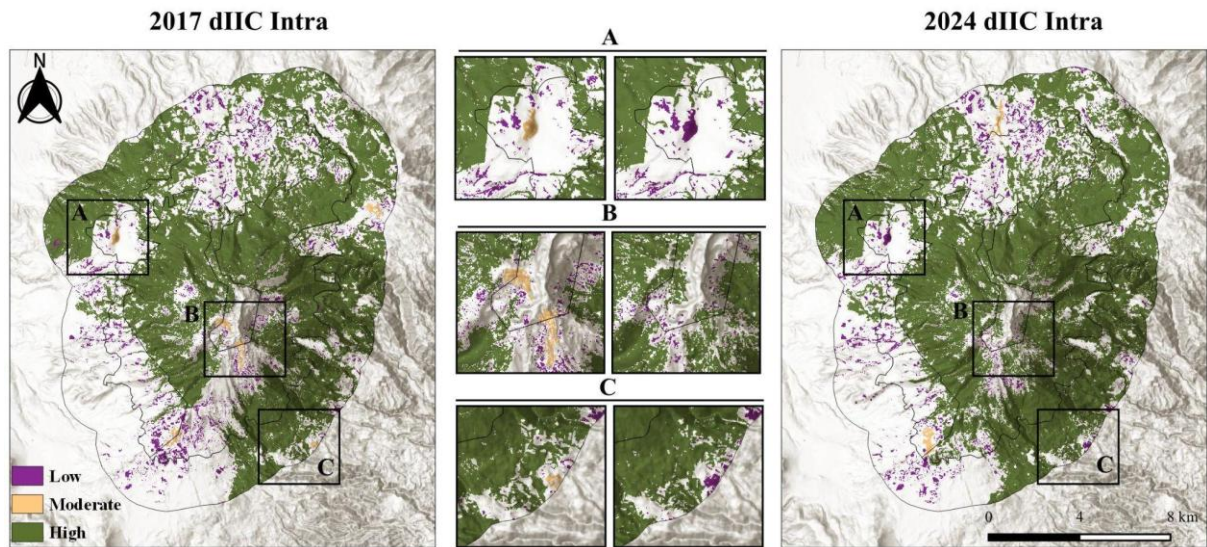
Supplementary material

Table S1. Land-use Land-cover transitions by management category (MC) between 2017 and 2024, showing changes in surface area (ha) between initial (“from”) and final (“to”) classes, including planimetric and topographic estimates in Cofre de Perote National Park (Mexico). FR = Forest recovery, PU = Public use, TU = Traditional use, BZ = Buffer zone.

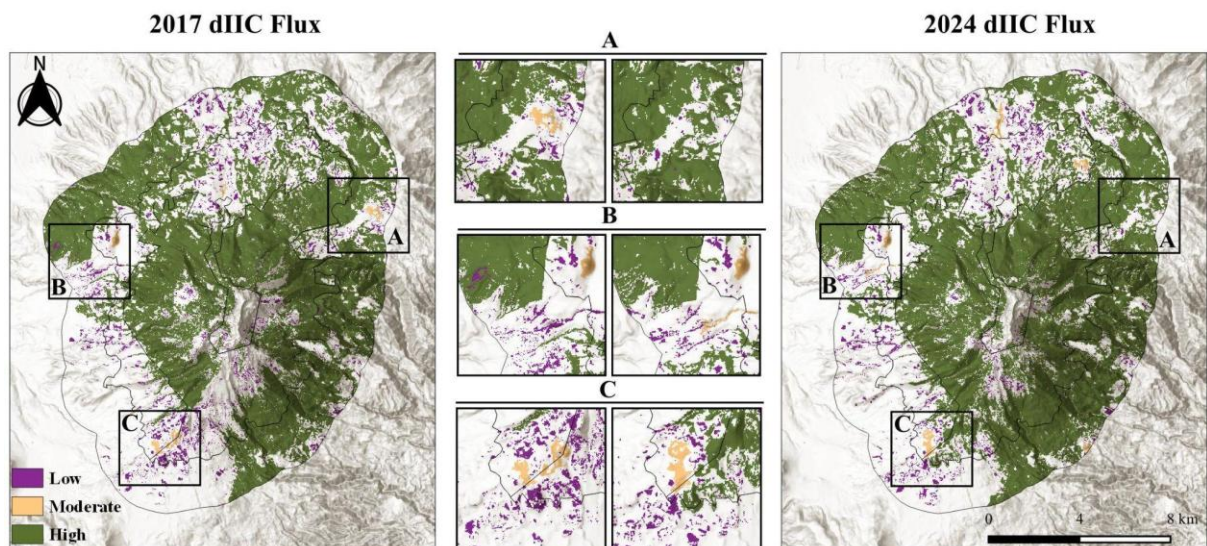
MC	from	to	Planimetric	Topographic
FR	Agriculture	Grassland	3.01	3.16
FR	Forest	Agriculture	4.91	4.86
FR	Forest	Grassland	196.04	213.56
FR	Forest	Bare soil	3.02	4.26
FR	Grassland	Agriculture	18.27	19.09
FR	Grassland	Forest	908.17	986.16
FR	Grassland	Burned	2.47	2.38
FR	Grassland	Bare soil	5.78	5.91
FR	Bare soil	Agriculture	5.31	5.67
FR	Bare soil	Forest	69.34	73.52
FR	Bare soil	Grassland	82.1	89.24
PU	Human settlements	Grassland	1.26	1.33
PU	Human settlements	Bare soil	1.67	2.02
PU	Forest	Grassland	28.87	33.52
PU	Grassland	Agriculture	4.07	3.96
PU	Grassland	Forest	35.87	39.97
PU	Grassland	Bare soil	6.76	8.23
PU	Bare soil	Agriculture	6.58	6.73
PU	Bare soil	Forest	14.32	15.35
PU	Bare soil	Grassland	104.04	120.12
TU	Agriculture	Human settlements	4.45	4.35
TU	Agriculture	Forest	2.25	2.36
TU	Agriculture	Grassland	16.28	16.2
TU	Agriculture	Bare soil	8.76	8.69
TU	Human settlements	Agriculture	13.9	14.19
TU	Human settlements	Grassland	5.65	5.46
TU	Human settlements	Bare soil	3.43	3.3
TU	Forest	Agriculture	81.1	82.07
TU	Forest	Human settlements	1.31	1.36
TU	Forest	Grassland	167.69	171.81
TU	Forest	Bare soil	3.02	3.15
TU	Grassland	Agriculture	456.98	463.51

TU	Grassland	Human settlements	16.19	16.52
TU	Grassland	Forest	300.94	307.26
TU	Grassland	Bare soil	61.29	62.63
TU	Bare soil	Agriculture	531.58	542.93
TU	Bare soil	Human settlements	11.49	11.62
TU	Bare soil	Forest	18.83	18.94
TU	Bare soil	Grassland	73.98	75.07
BZ	Agriculture	Human settlements	6.53	6.63
BZ	Agriculture	Forest	6.81	7.22
BZ	Agriculture	Grassland	46.66	46.67
BZ	Agriculture	Bare soil	31.72	32.15
BZ	Human settlements	Agriculture	24	24.96
BZ	Human settlements	Forest	3.55	3.79
BZ	Human settlements	Grassland	11.35	11.41
BZ	Human settlements	Bare soil	15.92	15.48
BZ	Forest	Agriculture	104.05	110.04
BZ	Forest	Human settlements	2.69	2.87
BZ	Forest	Grassland	341.75	355.06
BZ	Forest	Burned	5.97	6.34
BZ	Forest	Bare soil	10.77	11.46
BZ	Grassland	Agriculture	517.82	531.12
BZ	Grassland	Human settlements	37.12	37.1
BZ	Grassland	Forest	807.42	836.08
BZ	Grassland	Burned	36.79	37.36
BZ	Grassland	Bare soil	169.1	175.67
BZ	Burned	Forest	2.05	2.11
BZ	Burned	Grassland	45.5	45.82
BZ	Bare soil	Agriculture	919.35	935.36
BZ	Bare soil	Human settlements	14.87	14.88
BZ	Bare soil	Forest	29.59	30.41
BZ	Bare soil	Grassland	90.42	93.54

1)



2)



3)

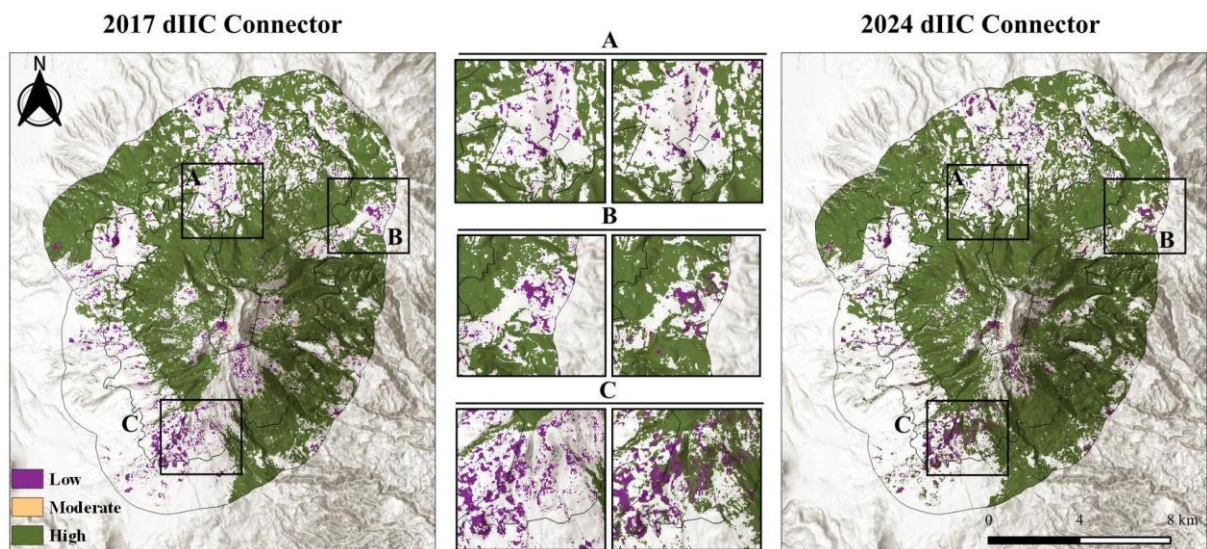


Figure S1. Spatial contribution of forest patches to overall connectivity, represented by the three components of the delta Integral Index of Connectivity (dIIC) for 2017 and 2024. **1)** *dIIC_{intra}*: habitat area provided by the patches themselves; **2)** *dIIC_{flux}*: patch connections with other habitat patches; and **3)** *dIIC_{connector}*: contribution of each patch as a stepping stone linking other patches. Each map includes windows (labelled **A**, **B**, and **C**) that provide zoomed-in views of selected areas to facilitate visualization of local connectivity patterns in Cofre de Perote National Park (Mexico). All maps share the same structure and symbology.