

Supplementary Information

Supplementary Table 1 Landscape types and ecological implications based on MSPA

Landscape type	Ecological implications
Core	Large habitat patches as “sources” of ecological processes.
Islet	Isolated, fragmented patches that are not connected to each other and have a low degree of connectivity
Perforation	The inner edge of the core area, which is the transition area between the core area and the inner context
Edge	Peripheral edge of the core area to reduce external interference with the core area
Loop	Ecological corridors linking the same core areas and serving as corridors for species migration and material and energy flows
Bridge	Narrow patches connecting two or more core areas, which serve as corridors for species migration and energy flow between neighbouring core areas
Branch	Only one end is connected to the edge zone, the pore, the bridging zone and the ring channel zone

Supplementary Table 2 Weighting of indicators based on hierarchical analysis

	DEM	Slope	Distance from road	NDVI	LULC	W _i
DEM	1	1	0.5	2	0.5	0.1615
Slope		1	0.5	2	0.5	0.1615
Distance from road			1	2	0.5	0.2453
NDVI				1	0.5	0.1085
LULC					1	0.3231

Note: * CR=0.0304<0.1, Consistency test passed.