

Indicator Factsheet: Landscape configuration

Indicator: Landscape configuration

Description	The configuration of a landscape can be described by the size and shape of land cover classes or by indices of connectivity or fragmentation derived from these parameters for a reference area. The effective mesh size (m_{eff}) serves here as a measure of landscape fragmentation. It indicates the probability that two randomly selected points in a region lie within a given area, or how heterogeneous the region under investigation is.
Data basis	Digital Basic Landscape Model (Basis-DLM) from the Official Topographic and Cartographic Information System (ATKIS), aggregated to the land cover classes specified in Annex 1, Level 2 of the indicator report.
Calculation	effective Mesh size: $m_{eff} = \frac{1}{A_{LS}} \sum_{i=1}^n a_i^2$ A_{LS} = total area (in ha); n = number of land cover objects a_i = size of land cover object (in ha)
Spatial reporting level	Coverage: National; Resolution: Hexagons (100 ha, proportion of open landscape > 25%); Reference area: Landscape
Reporting period/ interval	From 2017 / annually
Interpretation	The mesh size (m_{eff}) provides a measure for determining landscape fragmentation based on the size distribution of land cover patches. With uniform reference units (e.g., hexagons), values from different regions can be directly compared with one another. Low m_{eff} values indicate a smaller average size of land cover classes and thus greater landscape heterogeneity. The maximum m_{eff} value corresponds to the size of the reference unit. In this case, the area would be occupied by a single land cover class. High values are an indication of a very homogeneous landscape.
Limitations	The calculation is performed for all areas within the object at the respective reporting level (e.g., hexagons). Areas extending beyond the object's boundaries are truncated. This generates pseudo-areas that may influence the indicator value to a greater or lesser extent.
Latest Update	2026