

Effectiveness of landscape planning in Germany

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Local landscape planning in Germany is the instrument of nature conservation and landscape management for preparatory land use planning. This contribution examines the extent to which this planning instrument has a spatial effect and influences the landscape quality and structure. Is the impact of local landscape plans on sustainable landscape development measurable and what kind of effect is it? Which statistical testing methods can be applied, and which indicators are necessary to show the current processes of landscape change?

A random representative sample of 600 municipalities was studied in this respect using indicators derived from geo-data. The landscape plans of a subsample were assessed with respect to their quality, which was placed in relation to land use and to landscape quality and structure. This revealed medium-strong positive connections between the quality and the degree of detail of statements in the landscape plan on the requirements and measures and on proposals for implementation on the one hand and the density of landscape structure elements such as hedges, copses or tree lines on the other hand. These and further connections show that, particularly, the quality of local landscape plans has an influence on landscape structure and diversity.

It could also be shown that municipalities with a landscape plan have on average a higher proportion of natural areas, a lower hemeroby index (ie lower cultural impact), a higher density of borders between settlements and open spaces, a smaller mean area size of undeveloped areas and a higher density of wooded ecotones in comparison to municipalities which have not set up a landscape plan. Additionally, grassland seems to be better protected towards land take in those municipalities with a local landscape plan. All these are indications that the landscape plan contributes to an improvement, above all, in the structure (and quality) of the landscape.

Literature:

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