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Europe's rural landscapes classified using new approach

A recent study recommends a new approach to classifying Europe's rural landscapes that accounts for their diversity and provides better consistency across EU rural policies. This framework can be used to analyse past and present trends in landscapes, and to make future projections.

European rural areas have undergone significant changes in the last few decades, through the effects of new technologies, globalisation and demographic changes on agriculture. Being able to classify different landscape types is an important part of policymaking. However, existing EU guidelines focus mainly on one aspect, such as population density or natural resources, and do not have a consistent means of representing the gradient between urban and rural regions.

The new research, carried out as part of the FARO-EU project[1], addresses the policy need for a new rural landscape typology. The proposed framework uses statistical methods, which allows a straightforward and robust way of categorising a given landscape based on an objective analysis of its defining characteristics.

The researchers took detailed environmental and socio-economic data for European countries as the starting point for the research, collected as part of the European Spatial Planning Observation Network (ESPON)[2] and the recent Environmental Stratification of Europe (EnS)[3].

They identified 13 environmental zones from the EnS data based on bio-geographical differences, such as altitude and climate, which can be directly related to land cover and land use. The zones were: Alpine North and South; Atlantic Central and North; Lusitanian; Continental; Pannonian; Mediterranean North, South and mountains; Nemoral and Boreal.

The environmental zones were then sub-classified into nine 'rurality' classes, covering three main categories: peri-urban, rural and deep-rural. This was achieved using ESPON information about economic density (income generated per $1km^2$ area), which incorporates GDP, population density and artificial land use, and accessibility (e.g. distance to places of interest, transportation modes).

A prior statistical analysis had shown that accessibility and economic density were the most useful characteristics to characterise landscapes since they were the least affected by other factors and could therefore be considered independent.

This new typology allows for different threshold values to be applied distinguishing between rural classes in different environmental zones and provides policymakers with a flexible new framework to analyse past and present trends as well as future projections, say the researchers. The significant advantage of the method is that it is based on quantitative rules that can be applied consistently across Europe. It is also very flexible as it can be applied to a range of geographical scales, from local to global, since detailed global maps of economic density and accessibility are readily available at 1 km resolution. An improvement to the method could even involve a time-dependent factor, such as speed of development, which may be more useful for some policy needs.

Another improvement could include a narrower classification within the environmental zones, based on landscape elements, such as groups of hedges, ponds and trees. This would help policy makers track the development of green infrastructure and biodiversity more directly and could be a valuable future area of research.

1. FARO-EU (Foresight Analysis for Rural Areas of Europe) was supported by the European Commission under the Sixth Framework Programme. See: www.faro-eu.org
2. See: www.espon.eu
3. Metzger, M. J., *et al* (2005) A climatic stratification of the environment of Europe. *Global Ecology and Biogeography*. 14: 549–563.