

A4

The forces behind landscape change (1/4)

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Drivers of landscape change: a comparison of processes in different European landscapes

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Drivers of landscape change are crucial to understand processes of landscape and land use transition. Landscape change is scale dependent; drivers causing changes at international level are different than those causing changes at the local/farm or regional level. This paper focuses on drivers at an international scale, differentiated by the Environmental zones of Europe. Based on the participatory Fuzzy Cognitive Mapping methodology the cause-effect relationships between drivers and landscape transformation are identified and assessed. The results show that in southern Europe (Mediterranean) the dominant drivers of change are related to environmental factors like climate (change) and topography. In particular the economic and societal boundary conditions for specific land use types related to topography and required investments for irrigation are decisive in the pathways towards intensification or land abandonment. With these pathways conversions from traditional agricultural landscapes to (semi-) natural or semi-industrial landscapes are associated. In Western Europe (Atlantic region) we observe a small scale, diverse landscape serving food production, leisure, and living conditions. Urban areas become more interwoven with the rural areas, which can be linked with an increase in living standard in the rural areas. Northern Europe and the Alps (Boreal and Alpine Regions) experience in some areas a decline in population and thus decreasing economic activity, resulting in larger natural areas and increase in forests, but in other areas an increase in economic activities as a result of mass tourism results in negative consequences for the landscape. Central and Eastern Europe (Continental regions) show large economic transformations. Increased demand for food combined with low production costs is leading here to an intensification of agriculture. It is concluded that European policies – for instance CAP – could gain in effectiveness when focusing on the identified drivers of change. Landscape structure, biodiversity and other ecosystem services could certainly benefit from this approach.