

SPATIAL ANALYSIS OF RURAL DEVELOPMENT MEASURES Spatial Dimensions of RDP Effectiveness (pb #4)

Economic impacts

What do we learn about labour productivity related impacts of RDP expenditures (based on SPARD spatial econometric analysis for the EU-27 at NUTS2 and NUTS3 level)?

- RDP expenditure in general seems to be positively related to labour productivity.
- Positive effects are strongest in southern rural and urban regions, and also in northern intermediate regions. Still, the effect in southern intermediate regions seems to be negative.
- Cross-measure spillovers seem to exist

 Expenditures in axis 2 seem to be negatively
 related to labour productivity. It should be taken

Objectives of RDP and their effectiveness: Can we measure the desired impacts and are they related to the respective RDP expenditures or to other determinants that exhibit a spatial dependence? into consideration by policy makers, whether it is an indication for a counter effect, or connected to a very likely fact that axis 2 measures are more concentrated in

remote areas with lower labour productivity. o The effect of expenditures on axes 1 and 2 in neighbouring regions seems to be very small or non-existent, at least for labour productivity (in a timeframe of 10 years, at NUTS2 level). o However, spillover effects of spending on the other axes (3 and 4) appear to be positively significant. Further research might be needed to indicate if this is desirable or not from the perspective of the objectives of the other axes.

Environmental impacts

What do we learn about high nature value (HNV) farmland and biodiversity related impacts of RDP

expenditures (based on SPARD spatial econometric analysis for the EU-27 at NUTS3 level)?

- The currently available data is limited. A baseline indicator for biodiversity (based on actual biodiversity information) is not available EU wide at NUTS2 or lower level. A readily available EU wide indicator for High Natural Value farmland does not exist yet as well. We constructed such an indicator to test our methodology. A spatial econometric model describing the development of HNV farmland could be estimated.
- Spatial correlation exists in agri-environmental measures and in HNV. So the use of spatial (econometric) analysis is the appropriate methodology.
- Based on the (limited) data at hand there is some indication that the hypothesis that RDP expenditures for AEM affect the HNV index score positively is rejected.
- Also we could not verify any impact of other axis 2 expenditures on HNV.



What do we learn about water quality related impacts of RDP expenditures (based on SPARD spatial econometric analysis for the EU-27 at NUTS3 level)?

- A comprehensive indicator for water quality is not available EU wide.
- RDP expenditures for AEM are related to a reduction of nitrogen surplus per hectare (an indicator for water quality).
- Spending and impact of agri-environmental measures exhibit spatial correlation, so the use of spatial (econometric) analysis is the appropriate methodology.

Rural viability impacts

What do we learn about tourism related impacts of RDP expenditures (based on SPARD spatial econometric analysis for the EU-27 at NUTS2 and NUTS3 level)?

- Tourism and RDP spending indicators showed spatial dependence.
- Most explanatory variables have the expected impact, such as capacity, attractiveness of an area.
- The results show little evidence for spillover effects through RDP spending or capacity. For inbound tourism, no spillover effects were found. For domestic tourism spillover effects are present.
- In general, spatial (econometric) analysis is an appropriate tool for analyzing the effect of RDP spending on tourism.





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