



Assessing the RDP impact on HNV farming areas

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HNV Farming - Common Impact Indicator

Concept

High Nature Value (HNV) farming refers to the causality between certain types of farming activity and corresponding environmental outcomes, including high levels of biodiversity and the presence of environmentally valuable habitats and species.

Definition

The common definition (inter alia by the EEA and JRC) establishes 3 categories of farmland as HNV:

- **Type 1:** Farmland with a high proportion of semi-natural vegetation;
- **Type 2:** Farmland with a mosaic of low intensity agriculture and natural and structural elements;
- **Type 3:** Farmland supporting rare species or a high proportion of European or world populations.

Indicator

Percentage of UAA farmed to generate High Nature Value.

RDP Emilia Romagna 2007-2013: a case-study (1)

Reference:
https://ageconsearch.umn.edu/bitstream/149762/2/122_Signorotti.pdf

The methodological procedure builds upon Paracchini and Britz (2009) and divides into 3 steps:

1. Calculation of the High Nature Value farming indicator

A statistical indicator based upon crop diversity, low intensity farming and livestock density.

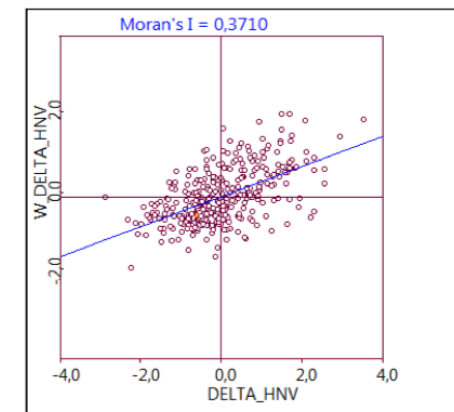
2. Identification of RDP measures contributing to HNV farming areas

Participation to measure 214 (AES's) of the RDP (based on budget)

3. Regression analysis and spatial analysis

- *Level and distribution of the HNV in ER at municipality level (censuses 2000, 2010);*
- *Relationship HNV-participation to RDP measures analysed in both directions of causality with econometric techniques;*
- *Change of HNV 2000-2010 calculated with ordinary least squares and spatial regression techniques.*

Figure 1: Moran scatter plot for DELTA_HNV



RDP Emilia Romagna 2007-2013: a case-study (2)

Observations

- **Indicator:** it does not distinguish the extension of the land; It is unique for the different types of *HNV* farmland; in the models the *HNV* of a municipality is conditional upon a list of variables including the classes of UAA;
- **Approach:** No use of counterfactual
- **Data:** National Census of Agriculture (2000, 2010) and regional register of RDP's beneficiaries
- **Validity and robustness of findings:** problem in fixing the threshold to the indicator; possible mismatch between highest *HNV* values from the method and those from Emilia-Romagna Region, effect of the participation to AES based only on 2 components of the *HNV* indicator
- **Usefulness:** information for the design of the RDP regarding the AES (subsidizing farmers' conversion to organic farming practices), relationship between RDP uptake and the *HNV farming* indicator

What is needed to assess RDP impacts on HNV Farming Areas?

- **Proper baselines of HNV farming in RDPs:** e.g. through a common understanding between all stakeholders involved in monitoring and evaluation activities. Ex post evaluations of RDP 2007-2013 are a relevant source;
- **Regular monitoring activities:** through combination of data available (e.g. environmental monitoring).
- **Different data availabilities for additional indicators:** they can be used to complement the common CAP impact indicators;
- **Methodologies and use of counterfactuals:** depending on data availability, the use of econometric model can capture the correlation between RDP and HNV. However, net effects must be estimated through use of a counterfactual approaches.

Thank you

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