

## **Enforcing a Holistic Approach to Rural Landscape Economic Valuation as Support to Landscape Planning and Policy Making**

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Major changes affecting in last decades rural landscapes are of big concern for European institutions. In fact, recent Common Agricultural Policy reforms have aimed at switching increasing resources towards provision of non-market products and services, particularly landscapes. In this perspective, landscape research is expected to support decision making, developing more transdisciplinary approaches.

The research project here presented aims at tackling these political and scientific issues adopting a *holistic* approach to rural landscape economic valuation, that is taking into account both objective (landscape environmental and intrinsic properties) and subjective (observer's personal values) valuation criteria.

The objectives are:

**A. To explicitly model the spatial structure of landscape in econometric models of non-market value.**

The spatial structure of landscape can be analysed in terms of specific attributes composing different frames. Landscape ecology metrics provide a quantitatively rigorous means to represent these attributes. The issue of linking the ecological and economic assessment to the geographic context is tackled by using Geographical Information Systems, that allow an explicit spatial analysis of landscape frames.

**B. To exploit advantages of valuation methods based on different types (revealed and stated) preference data.**

Recent developments in non-market valuation head to combining stated (SP) and revealed (RP) preference based methods. These approaches, in fact, allow to overcome some flaws even

holding some important advantages from both methods: information on the actual individuals' choice (RP), more flexibility in modelling complex trade-offs between attributes and a viable alternative for non-use value (SP).

The evaluation process is, then, based on two main data entries, the first related to the objective, the second to the subjective evaluation criteria:

1. *first entry*: GIS-based analysis of aerial photos and maps from the study case landscape provides information on biophysical state, cultural and historical assessments, urban planning. The aim of this first phase is to classify landscape in homogeneous units and calculate for each of them relevant metrics, as suggested by landscape ecology teachings. Metrics will be then used to represent landscape attributes in the economic models;

2. *second entry*: individuals' preferences about landscape are elicited combining a hedonic pricing (RP) and a choice (SP) model. For each landscape unit, individuals are interviewed about the actual settlement and proposed alternative scenarios, showed on scenery photos. Alternatives are differentiated by different levels of the specific attributes of each unit; one of them is a monetary value. Attributes in SP model alternatives are based on actual landscape attributes of the study area, as considered in the RP model. As the two techniques are using similar factors to explain the choice, actual and hypothetical choices can be combined and analysed in a unique econometric model.

A case study is envisaged of an area of European interest for rural landscape management for which data of hedonic pricing and choice experiment will be collected.

Expected outcomes concern the estimate of economic values individuals attach to traditional rural landscapes. The aim is to suggest policy-makers a comprehensive informative basis to set up viable incentive systems in an effective landscape planning and management policy.