Galicia

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Experiment Overview

Objective

A decision support system (DSS), based on multicriteria analysis, that combines spatial and non-spatial data from available sources in order to facilitate the selection of new project locations. This should allow to select locations where high impact is expected (i.e. a bigger reduction of risk, or a reduction for a larger population) and easiness of implementation (i.e. facilitating success stories) is higher.

Relevance

High number of requests + tight budget = need to choose cost-effective candidate settlements.

Key innovation

A combination of previously disperse cartographic, socio-economic and demographic information provides an objective selection tool for policy guidance.

Experiment Progress

- → Elaboration of a multi-criteria evaluation system for the selection of priority, cost-effective model settlements.
- → Gathering qualitative information to find out the motivations of landowners to enter or not into land management instruments.
- → Interviews with
  - → the regional administration
  - → the public company responsible for the development of the model villages.
- → Field visits to model villages.
- → Spatial analysis with GIS tools.

- → Identification of (quantitative) variables of interest for the decision support tool.
- → Obtaining qualitative information on landowners' motivations.
- → Learning about the priorities of the regional administration.

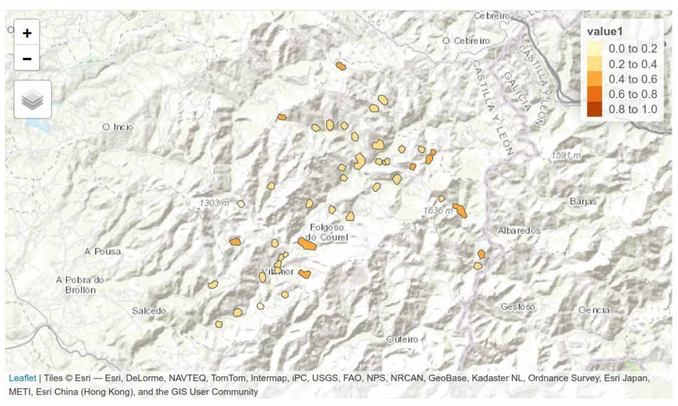
Variables with positive influence	Negative influence
→ Average productive capacity → Population size → % area of scrub/shrub vegetation (~abandonment) → Parcel size: larger av. size, less fragmentation → In declared high-risk fire areas	→ % communal forests → % occupied by trees → In protected natural spaces → Terrain slope

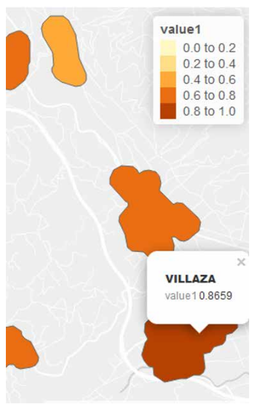
**Positive: the larger, the better → favours impact or implementation*
Negative: larger → less impact or more complex implementation

What went well?

We manage to "build" a multi-criteria system combining several variables relevant for the reg. government (impact, implementation).

This experiment succeeded in constructing a Decision Support System (DSS) which combines a large number of spatial variables in order to allow decision makers to select the most relevant locations for new implementations of the model settlement policy instrument in a more efficient and effective way.





Challenges

- → Changes in the regional government after the February elections.
- → Inconsistency/accuracy of the data sources (still to study the influence of this in the system). In the end, more than 15 data sources have been explored to come up with the final list of eight data sources finally selected for the experiment.

Learning

Success depends very much on frequent & direct contact with local residents.

In addition to the priorities that may be established by the DSS, two aspects need to be integrated for the final decision making: i) to take into account the qualitative information collected on enabling elements, obstacles, perceptions of the landowners, and ii) that the process of declaring a model settlement is initiated by the municipalities and must have the support of at least 70% of the landowners. It may happen that in settlements that appear in a very good position in the DSS ranking, the instrument is not implemented due to lack of interest from the municipality and/or landowners.

Next Steps

Review by the technical staff of the Regional Administration and the public company TRAGSA of the multi-criteria evaluation system for the identification of priority model settlements.

Refine the DSS produced so far by three different ways:

1) producing a sensitivity analysis to further understand the relative influence of individual variables on the final result and the expected outcomes of a possible variation in the variable weighting used so far,
2) subjecting it to stakeholders' analysis, particularly concerning their understanding of the relative importance of variables (and its correspondence to the importance assigned by the DSS),
3) evaluating the locations of ongoing model settlement projects to understand whether they represent adequate selections according to the DSS and, if not, why they were selected in the first place.

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