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Social evaluation of LAG's activity: application of the contingent valuation approach to a mountainous district in southeastern Spain

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Selected Poster prepared for presentation at the International Association of Agricultural Economists (IAAE) Triennial Conference, Foz do Iguaçu, Brazil, 18-24 August, 2012.

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SOCIAL EVALUATION OF LAG's ACTIVITY: APPLICATION OF THE CONTINGENT VALUATION APPROACH TO A MOUNTAINOUS DISTRICT IN SOUTHEASTERN SPAIN

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OBJECTIVE

Valuation by local society could be a potential element of interest as part of the ex-post evaluation of the activity of a district's local action group (LAG). In this paper a social valuation of the LAG activity in a rural mountain area of southeastern Spain is presented, where the contingent valuation method is one of the analytical elements used.

This valuation made by the local community itself can be taken as a criterion for evaluating the implementation of a development programme with the LEADER approach. This is the philosophy that has inspired this paper, with is a part of the RURALWELF project, that tries to value the impact of the activity of LAGs across several districts of Spain.

INTRODUCTION

Brief description of the district:

The LEADER territory of Sierra Mágina is composed by 15 municipalities with a total population of 45,921 in 2008, occupying an area of 1,427 Km² in the Jaén province, southeastern Spain.

With a low population density (32.18 inh/Km²), the entire district is located inside the so-called Spanish Subbetic Mountain Range. In the small town of Jódar, with about 12,000 people, concentrates more than 25% of the overall district population.



A part (13.3%) of the district territory was nominated 25 years ago as Sierra Mágina Natural Park, the main regional figure for environmental protection in Spain.

Local Action Group:

The Association for Rural Development of Sierra Mágina was established in 1993 at the initiative of the municipalities of the district. In June 1994 began to operate as Local Action Group (LAG), to manage the LEADER budget. Since 1995 the Association reinforces its identity and consolidation with the addition of a large group of private sector members of all municipalities as well as associations and public entities, totalising 154 partners of whom 113 are private companies and individuals.

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METHODOLOGY

To analyse the economic evolution of the district over the last decade, the overall "economic activity" index taken from the 2000 and 2010 Yearbooks of the Spanish Economy (with local data for 1998 and 2008) published by La Caixa have been used.

To test the significance of differences between the local perception of the different types of changes, as the scales are not numerical, we ran a **RIDIT** (relative to an identified distribution) analysis according to the theory developed by Bross (1958) and applied by Fleiss (1972), and in conformity with the analytical scheme proposed by Calatrava (1977). To run this analysis, we took the perception of changes to the quality of life as the baseline variable (mean RIDIT=0.5).

To estimate how the local society values the LAG's actions, we have used the **contingent valuation (CV) method** to arrive at a measurement in terms of welfare. To do this, we administered a questionnaire divided into three blocks of questions to 400 randomly sampled people:



- First block of questions dealt with change perception in the district
- A second block concerned their knowledge of the existence of and activities of the group and valuation of the LAG (both through scalar and contingent valuation)
- The third block focused on personal details.

The sampling error is 5% for intermediate proportions and 2.18% for extreme proportions.

RESULTS

Recent economic evolution:

From 1998 to 2008, the district's overall economic activity relative index has slightly declined, as well as the district's trade index. The evolution of the tourism index indicates a sizeable development of the district's tourist infrastructures and activities, particularly in the "more rural" (less populated) municipalities, which have increased their rate of 7 to 10 (42.8%).

Evolution of some indexes in the district of Mágina, Jaén and Andalusia (1998-2008 period):

	All district of Mágina		Area of Jódar		Jaén (Prov.)		Andalusia (Reg)		Spain
	1998	2008	1998	2008	1998	2008	1998	2008	100000
Econ. Act. I.	42	41	10	9	1032	957	12644	13594	100000
Trade I.	46	45	13	11	1192	1151	15762	16521	100000
Tourism I.	10	12	3	2	375	389	16275	18501	100000

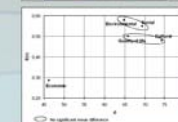
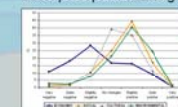
Percentage variation of the economic activity index from 1998 to 2008

	All Mágina District (%)	Jódar Area (%)	Jaén Province (%)	Andalusia (%)
Eco. Act. Index	-2.38	-10.00	-7.62	+7.51
Trade Index	-2.17	-15.38	-3.43	+4.81
Tourist Index	+20.00	-33.33	+3.73	+13.67

RESULTS

Perception of changes:

Local perception of changes in district of Mágina in the 1998-2008 decade:



Contrary to their perception of economic changes, the region's population perceives the environmental and social changes that have taken place over the last decade to be positive.

Significance of the mean differences on the perception of changes:

	Mean RIDIT	Significance (p=0.05)*
Quality of life	0.500	b
Economic changes	0.286	c
Social changes	0.549	a
Cultural changes	0.480	b
Environmental changes	0.579	a

* Different letters indicate significant differences

Knowledge of the LAG:

- Almost two-thirds of the region's population (66.50%) know that there is a LAG in the district.
- Of the population that say they know of the group's existence, 74 % are also familiar with the group's activities, meaning that 49.25% of respondents are acquainted with the LAG's activity.
- Of all the respondents who know the existence of the LAG, 20% have participated or are participating in some activity (course, project, meeting, etc.) organized or managed by the LAG.
- Extrapolating the participation figures to the whole adult population of the district, between 3,000 and 3,500 people would have had some sort of participatory contact with the LAG. This is a very sizeable figure.
- In the fitted binomial probit model, variables related with the knowledge of the existence of the LAG ($p \leq 0.05$) were: educational level (the existence of the LAG is less well known for people with primary or no education) and age, directly related to knowledge.
- The knowledge of the activities of the LAG was also related with educational level, in the same direction as before. Also, people living in Jódar municipality know more about LAG activities than the residents in other areas of the district.

LAG activity valuation:

The valuation on a scale of 0 to 9 of the impact of LAG actions in the region has returned a mean value of 6.25 with a modal value of 7, a standard deviation of 2.18, and a frequency distribution as shown in figure.

Regarding the contingent valuation, only 35.5% of the respondents say to be willing to pay an annual fee to maintain the LAG if it were necessary. Of the remaining, 41.09% (25.5% of respondents) gave protest answers, whereas the others are real zeros.

The mean per capita willingness to pay (WTP) was 10.89 €/year (S.D. of 23.62). The mean was calculated by removing the protest responses. The overall social valuation of the LAG actions can be estimated at 384,690 € per year, with is what the adult population of the district, 35,325 people, would be willing to pay for its maintenance. This amount would not be sufficient to cover the current operating expenses of a LAG team with 10 fulltime employers, as the budget necessary can be estimated at 400,000 euros. **This result barely justifies, from the viewpoint of the welfare generated, the money that society spends on Mágina LAG functioning.**

