Social legitimacy issues in the provision of non-commodity outputs from Rural Development Programs

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A B S T R A C T

This article deals with the issues of welfare measurement and preference heterogeneity for Rural Development Programs (RDPs) in Cantabria, Spain. People from urban and rural localities would benefit from improvements in the provision of public goods and externalities promoted by RDPs, but their preferences may be quite different. Heterogeneous preferences between urban and rural dwellers would hinder the proper estimation and aggregation of social welfare. Results show significant differences between rural and urban residents. However, the social legitimacy of RDPs, in terms of positive welfare changes, would prevail in both rural and urban settings. The article concludes that accurately measuring social welfare values and explaining preference patterns is a key issue for developing effective multifunctional policies.

Introduction

Policy makers in many countries have to cope with a wide array of policy issues related to the management of complex socio-economic and biophysical interactions between human activities and the natural environment in rural areas (OECD, 2001, 2006; Dachary-Bernard and Rambonilaza, 2012). This complex web of interactions is simultaneously responsible for and contingent on the existence of externalities and public-good non-commodity outputs from rural land use such as valuable natural and semi-natural habitats, landscape and open space amenities, economic viability of rural communities and cultural and ethnographic identity (Abler, 2004; Latacz-Lohmann and Hodge, 2003; OECD, 2000, 2003; Duke, 2008; Sayadi et al., 2009). In particular, agriculture is said to promote and rely on dynamic rural areas and wider rural development (European Commission, 2011).

The issue of how to cope with such multifunctional (social, environmental and aesthetic) objectives is even more challenging due to the presence of different social groups who pay for and benefit from the implementation of the policy. One of the most important factors that could determine individuals' attitudes and preferences towards multifaceted policy interventions of the sort

we are discussing here is where one lives[1] (Bergmann et al., 2006, 2008; Soliño et al., 2009, 2013; McVittie et al., 2010). Consequently, the possibility that different stakeholders such as urban and rural dwellers might regard rural amenities in a different way might also affect welfare measurements of changes in policy attributes, policy implementation and policy legitimacy in a substantial manner.

There are different ways of testing the effect of location on individuals' preferences, such as introducing the place of residence as an exogenous variable in the model, ex-post segregation of the sample population, and split sampling design. Several studies have investigated the effect of rural and urban location on individuals' preferences and willingness to pay (WTP) decisions using location as an explanatory variable (Dror et al., 2007; Hanley et al., 2007; Colombo and Hanley, 2008; Bernstein et al., 2010 among others). Hanley et al. (1998) and Bergmann et al. (2006, 2008) segregate their samples *ex-post* to estimate and compare the preferences of

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[1] In this particular empirical analysis we have opted to focus on the comparison of rural vs. urban preferences because of the expected importance of this factor in individuals' preferences, together with its relevance in present policy design and decision making in the region. Additional observable socio-economic factors and attitudes (e.g., income, gender, education, membership in environmental organisations, etc.) that might potentially influence individual preferences will also be considered for introduction in our analytical behavioural models as interaction terms (Hensher et al., 2005). However, some other potential drivers of individual preferences such as the dichotomy between locals and tourists (Rambonilaza and Dachary-Bernard, 2007) will obviously be neglected because of the sampling frame of our study (i.e., the general public in Cantabria).

rural vs. urban households. Nevertheless, few studies use a split sampling design to analyse the effects of habitat (rural or urban) on WTP. An exception is found in Solomon and Johnson (2009), where rural households were over-sampled and sampling weights were used to normalise the responses to the actual rural/urban mix of the population.

In this paper we aim at obtaining empirical evidence of the difference between the preferences of rural and urban residents for Rural Development Programs' policy attributes. To attain this objective we implement a Discrete Choice Experiment, which is a stated preference technique based on market simulation through a survey designed to elicit the factors that influence individuals' preferences and values (Bennett and Blamey, 2001; Louviere et al., 2000). We also estimate the economic welfare measures associated to alternative multidimensional policy interventions for the two types of residents considered, and discuss on the implications of the findings for decision making in a context of limited funds (Rambonilaza and Dachary-Bernard, 2007). Heterogeneous preferences between and within user groups (Bergmann et al., 2008; Birol et al., 2006; Layton, 2000; Revelt and Train, 1998) and scale parameters considerations (Swait and Louviere, 1993; Hensher et al., 1999; Hanley et al., 2006; Campbell et al., 2008) are explicitly considered.

The paper is structured as follows. After the introduction, "Rural Development Programs in Cantabria, Spain" presents the study area and reviews the basic features of Rural Development Programs. "Discrete Choice Experiments" presents the theoretical underpinnings of Discrete Choice Experiments as the method used to identify and quantify the presence of heterogeneous preferences between rural and urban settings. In "Study design and implementation" we outline our empirical analysis. In "Results" we present the main results of the study. Finally, "Conclusions and discussion" is devoted to conclusions and discussion.

Rural Development Programs in Cantabria, Spain

Cantabria is a territory of 5221 km^2 situated north of the Meseta plateau and Picos de Europa mountains, which gently slope down through green valleys and grasslands to the Cantabrian Sea and the Bay of Biscay. As a result of its particular orography, the land is split into rural areas situated to the south of the territory and urban and peri-urban areas located on a narrow stretch of land along the coastline. This 'dual character' is emphasised by the fact that 90% of the territory is considered by the Regional Administration as disadvantaged mountain areas (Gobierno de Cantabria, 2008), whilst 89% of the population is found living in urban and peri-urban municipalities (INE, 2007).

Almost 30% of the territory in Cantabria is protected under regional, national or EU (Natura 2000 Network) conservation schemes. Protected habitats are located on both coastal and inland areas, the latter being either natural habitats or semi-natural agrosystems transformed by human action.

Nowadays Cantabria's rural areas – like many other once upon a time thriving rural regions in the EU – are experiencing an ongoing transformation whose main features are, among others, depopulation, abandonment of productive land, scarce infrastructure in terms of access to transport networks and information technologies, and lack of health, education and recreation facilities compared to urban areas (OECD, 2006, 2009).

To tackle the problems associated with rural decline, Rural Development Programs (RDPs) emerged from the Common Agricultural Policy (CAP) institutional framework as a 'second pillar'. RDPs are aimed at promoting the development of agriculture and rural areas from a territorial and multifunctional perspective. The current EU rural development policy focuses on three commonly agreed core policy objectives (or 'axes', as laid down in Council

Regulation (EC) No. 1698/2005): (i) promoting the modernisation and competitiveness of the agricultural and forestry sector by improving both human and physical capital, as well as the quality of agricultural products; (ii) improving the environment and the countryside, through payments targeting the sustainable use of agricultural and forestry land, the maintenance and enhancement of natural resources, including biodiversity, water and soil, and the preservation of landscape features; and (iii) improving the quality of life and attractiveness of rural areas.

The three thematic axes are complemented by a methodological axis dedicated to the participatory approach, the so-called 'LEADER axis' (European Commission, 2008). Some of the most salient features of RDPs are the mandatory engagement of stakeholders in policy implementation through the LEADER governance framework, the presence of voluntary participation schemes (e.g., agri-environmental schemes) that remunerate farmers for making efforts in conservation that go beyond compulsory 'cross-compliance' requirements, the possibility of taking into account private transaction costs when calculating compensation payments, and the acknowledgement of the fact that promoting viable and sustainable rural territories can no longer be based on agriculture alone (European Commission, 2009, 2008; Paavola, 2007; OECD, 2003; Hodge, 2001). Being the latter one of the main strengths of RDPs, it is also one of its main weaknesses: having to cope with an extensive array of multifunctional policy objectives with only a small fraction of the overall CAP pluri-annual budget.

From all above, we should expect that, to fulfil their social and environmental goals, regional rural development policies in Cantabria must inevitably reallocate a considerable amount of funds collected in urban areas towards rural areas. Overall social legitimacy of this transfer of funds will depend firstly on how urban residents are susceptible to non-marketed benefits of rural amenities promoted in rural areas by RDPs, in terms of both *use* and *non-use* or *passive use* values (OECD, 2000; Randall, 2002; Pearce et al., 2006; Dachary-Bernard and Rambonilaza, 2012). Secondly, it also depends on the intensity of the feelings of 'rural affinity' or 'sympathy' (García Álvarez-Coque, 1991) towards rural inhabitants experienced by their urban counterparts (*passive use* values). Consequently, Cantabria becomes an appropriate case study area for the analysis of differences in preferences towards policy proposals targeting intervention in rural areas between urban and rural communities, as well as for the analysis of the degree of social legitimacy that could be granted to rural development policies by a majority of urban taxpayers.

Discrete Choice Experiments

Discrete Choice Experiments (DCEs) have their theoretical underpinnings in both economic theory and statistical models. A microeconomic demand model of discrete-choice called Random Utility Model (RUM) is developed around the notion of the existence of individual behaviour rules represented by means of an indirect utility function that contains a random component (Luce, 1959; McFadden, 1974; Manski, 1977). This random component must not be interpreted as individuals making choices in some random fashion; on the contrary, it implies that the researcher cannot fully observe the set of influencing factors and the complete decision calculus of any particular individual, thus being able only to explain choices up to a probability of event selection (Louviere et al., 2000).

Hence, DCEs are based on behavioural models predicting the probabilities that a randomly selected individual chooses each of the available alternatives, described as functions of a set of characteristics according to Lancaster's (1966) characteristics theory of value. They also allow consumers to express their preferences