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Traditional farm landscapes

Key external stakeholders:

Departments of Agriculture Fisheries and Marine; Rural Community and Gaeltacht Affairs; Environment and Local Government.

Practical implications for stakeholders:

- The general public had a high willingness to pay for measures aimed at protecting traditional farm landscapes.
- Individuals were found to have a higher willingness to pay for measures aimed at protecting landscape features associated with biological and cultural diversity of the countryside (such as woodland, bogland, wild flora and fauna, water quality and features associated with cultural heritage) than what can be thought of as more obvious and scenic landscapes associated with farming activities (such as open grass covered fields, grazing farm animals and well maintained traditional farm buildings).
- For the most part, individuals had a positive view in relation to farmers' current management of the landscape and were supportive of financial incentives being given to encourage farmers to farm in an environmentally friendly fashion.

Main results:

This study suggests that there is a significant role for policy to help farm enterprises to actively move to meet demands from society with respect to the environment and wider rural development.

Opportunity / Benefit:

A significant body of research has been accumulated providing evidence to support payments to farmers for public goods i.e. the landscape.

Collaborating Institutions:

NUI Galway

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1. Project background:

Since the early 1990s, there has been a new found interest in the multifunctional aspects of agriculture and attitudes towards the rural landscape and its conservation have changed. In particular, society increasingly utilises the rural landscape for a variety of purposes and its protection is now seen as much more important than heretofore by modern consumers. Agriculture, in addition to supplying market goods, jointly produces a number of public goods such as landscape elements and services that are valued by society. Within this context this project sought to analyse the publics' perceptions of the different functions of agriculture, the environmental aspects of the countryside and finally the behavior of farmers. Facilitating a deeper understanding of individuals' preferences in relation to multifuntionality can provide information from which policymakers can ascertain if recent policy measures are in line with citizens' views and expectations.

2. Questions addressed by the project:

- What are the general public willing to pay for policy measures designed to protect the traditional farming landscape?
- What are the general public's attitudes towards the different functions of agriculture, the environmental aspects of the countryside and the behavior of farmers?
- What are the general public's preferences in relation to a number of possible agricultural landscapes that may exist in Ireland in 2030 depending on the future direction of the Common Agricultural Policy (CAP)?

3. The experimental studies:

The data source utilised to examine individuals' preferences regarding the different functions of agriculture, the environmental aspects of the countryside and the behavior of farmers was a nationally representative survey of 1000 individuals. Respondents in the survey were asked a series of questions as to their attitudes towards the environment and the countryside in general and their willingness to pay for agricultural activities aimed at protecting the traditional farm landscape.

4. Main results:

The general publics' willingness to pay (WTP) for protecting the traditional farm landscape:

The average WTP for protecting the traditional farm landscape was estimated at €44 per person per year. The welfare estimates derived here are lower than a number of other national and international studies that have estimated the value of protecting traditional rural landscapes. The difference between these welfare estimates and those in this study may in part be a reflection of the downturn in the economic fortunes of Ireland prior to the collection of the survey which would have resulted in a lower WTP additional taxation on the part of the Irish public.

In terms of explanatory variables, results indicate that both income and education have a significant and positive effect on individuals' willingness to pay (WTP) to support agricultural activities aimed at protecting the traditional farm landscape. Respondents who had siblings involved in farming and those with children were found to have a relatively higher WTP. In addition, those who live in the countryside were found to have a much higher WTP for the protection of the traditional farm landscape. The analysis also suggests that landscape features have a differential impact on individuals' WTP for the conservation of the traditional farm landscape. More precisely, individuals have a higher WTP for measures aimed at protecting landscape features associated with the wider biological and cultural diversity of the countryside (such as woodland, bogland, wild flora and fauna, water quality and features associated with our cultural heritage) than what can be thought of as more obvious and scenic landscapes associated with farming activities (such as open grass covered fields, grazing farm animals and well maintained traditional farm buildings).

Attitudes towards the multifunctional aspects of agriculture

The analysis in this project suggests that producing high quality and affordable food is still viewed as the most important function of Irish agriculture but this is closely followed by environmental requirements such as ensuring the countryside is in a good environmental condition. This indicates that citizens view the role of agriculture as encompassing much more than just its traditional role as a provider of food and fibre.

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Respondents do feel, however, that there are a number of negative externalities associated with agriculture that are a significant problem. This includes nutrient leakages to the water system, pesticide residues in the soil and negative impacts on animal welfare and on wildlife habitats. That said, while reporting that they felt that there were a number of significant problems associated with the agricultural sector, respondents generally had a positive view in relation to farmer's behaviour. For instance, 46 percent disagreed with the statement "farmers are poor caretakers of the countryside" with only 23 percent of respondents agreeing with it. Furthermore, for the most part, individuals felt that farmers should receive financial incentives to farm in an environmentally friendly fashion. This lends support to policy measures under the second pillar of CAP and in particular agri-environmental measures aimed at protecting and enhancing the countryside. More generally, the results suggest that there is a significant role for policy to help farm activity move to meet wider demands from society with respect to the environment, food quality and safety and wider rural development.

Preferences for alternative future landscape scenarios

This study evaluated the non-market value of possible agricultural landscapes that may exist in Ireland in 2030 depending on the future direction of the CAP. Given the close linkages between the landscape and the agricultural sector and the significant shifts in agricultural policy that are occurring it is important to have research to determine if the resulting changes to the landscape accruing from changes to the CAP are in line with the general publics' needs and preferences. A number of hypothetical future agricultural landscape types that may exist in Ireland were examined in this analysis. Based upon expert judgment, the authors developed five different possible 'Irish farming futures' that may arise in 2030. These were entitled 1, the food island, 2, globally competitive farming, 3, energy squeeze fuels agriculture, 4, European agriculture and 5, the sustainable rural environment. Choice experiments were utilised to estimate the changes in welfare associated with each of these agricultural landscapes. The Sustainable Rural Environment was found to be the highest valued of all the future agricultural landscape scenarios which could be an indication that the Irish public wants something more from agriculture than just a sector that produces food and fibre for human consumption. They also appear to be aware of, and value, the range of other agri-environmental products and services that Irish farming delivers such as the biodiversity services from species conservation and the protection of traditional rural landscapes. In addition, a policy option that both allows for an increase in drystock production and an improvement in biodiversity was also associated with a positive impact on welfare (food island). On the other hand, the remaining three landscape scenarios (globally competitive farming, energy squeeze fuels agriculture and European agriculture) were associated with a negative change in welfare suggesting that the general public prefers landscapes associated with more traditional extensive farming practices as opposed to landscapes associated with more modern intensive farming activities.

5. Opportunity/Benefit:

This study is of particular relevance to policy formulators at both national and EU levels. The results provide evidence to support payments to farmers for the production of public goods i.e. the landscape and preservation of natural and cultural heritage.

6. Dissemination:

The results of the project have been presented at a variety of both national and international conferences as well as academic seminars and workshops.

Main publications:

Howley, P., Hynes, S. and O Donoghue, C. (2010) The citizen versus consumer distinction: an exploration of individuals' preferences in contingent valuation studies. *Ecological Economics*, 69(7), 1524-1531.

Hynes, S., Campbell, D. and Howley, P. (2011) A holistic versus an attribute based approach to agri-environmental policy valuation: Do welfare estimates differ? *Journal of Agricultural Economics*, 62(2), 305-329.

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