Social valuation of ecosystem services in an agricultural landscape: Empirical findings

Summary

The objective of our research was to identify and understand the desired benefits and uses of an agricultural landscape in Belgium for different stakeholder groups. This research was in response to a question of the Flemish Land Agency (VLM) who wants to find ways to raise local support for the implementation of new nature in an agricultural landscape. Ecosystem services (ES) was considered a useful way to frame the human needs of the landscape. To elucidate local needs, a social valuation (also called 'non-monetary valuation') was used, which included an open interview, an ES photo ranking exercise and a mapping of desired ES. This resulted in an identification of a group of desired ES which were mentioned spontaneously by respondents, and a ranking of desired ES which were triggered by the pictures. These results proved to be very useful for the managers of the land use planning project. In a final step, the results of this social valuation will be compared with the results of a monetary valuation of the area.

Abstract

The underlying case for the valuation of ecosystem services is that it will contribute towards better decision-making, by ensuring that policymakers take into account the total costs/burdens and/or the total benefits for society, and by highlighting more clearly the implications for human well-being. A range of methodologies are available to value ecosystem services. These methods have different underlying assumptions and critiques. The aim of this study is to test and evaluate the usefulness of social valuation of ES as a tool for local land-use planning. For that purpose we searched for project partners who are in the middle of a planning process, and are in need for a better understanding of the desired benefits and uses for different stakeholders groups of landscape and nature.

"De Cirkel" is a comprehensive farm land consolidation project, located east of the city of Sint-Truiden (Belgium). The goal of this project is to reorganize small agricultural parcels into bigger parcels in order to enable more efficient agricultural operations. Due to the regrouping of the parcels, a percentage of the farmland will become available for nature and landscape development (150 ha in total). A draft design plan for nature development in the area has been developed by the project coordinator (VLM). This includes valuable grasslands, fragile nature in the river valley, hedgerows along parcels, traditional fruit orchards, valuable roadside vegetation and erosion control measures. Several partners will be involved in the management of this green area, such as the Nature and Forest Agency (ANB), NGO's involved in nature conservation and social employment, farmers, local businesses and schools. The challenge for VLM is to find efficient, sustainable and widely supported ways to implement and manage the planned natural elements in the agricultural landscape. Therefore, the project aims to increase local support for landscape conservation by responding to local needs, increasing the societal benefits of the natural elements in the landscape for diverse stakeholders, encouraging local involvement, and finding additional value from products derived from the maintenance of the natural elements (e.g. wood for energy use, local marketing and processing of fruit from traditional orchards, use of residues of grass and hay from grassland and roadside maintenance, etc.).

As social valuation of ES was considered a very suitable method to address the questions of the land-use organization, we developed a tailor-made research approach. The social valuation was done in

three steps: 1) By asking open questions to stakeholders, we wanted to identify their connection to the landscape and elicit their spontaneous-mentioned preferences for ES, 2) During the 'ESS card game' respondents were asked to rank a set of pictures of local ESS according their desirability (= prompted preferences), 3) the most desirable ESS were marked on a map by the interviewee in order to make the ESS demand spatial explicit. Besides identifying the preferences, it was as important to detect the reasons for these preferences, and to identify potential trade-offs and win-wins between ES. Therefore, a lot of probing questions were asked during the interview. We conducted interviews with 18 individuals (farmers, inhabitants, school staff, Bed & Breakfast owners) who are not directly involved in the project of "De Cirkel.

The results showed that we four main categories of desired landscape uses can be distinguished: sustainable agriculture, a pleasant living environment, a place for active recreation, and passive experiences. Based on the findings, practical proposals for walking and cycling lanes were formulated, and the results were reported back to the project managers of "De Cirkel". While some results confirmed their existing insights, some aspects were quite revealing for the project managers. Possible reasons for this are the fact that the interviewer was considered as a neutral outsider of the project, and as the approach prompt the interviewees to also think about less articulated needs.

In the next months, we will compare social and monetary valuation results in the case study area. We will try to explain the differences in preferences expressed in different units, and evaluate how both methods may complement each other. This will help us focus on how we may integrate both methods better for decision support and ensure that the results are useful for practitioners.