

EXPLORING PRACTICAL METHODS OF SOCIO-CULTURAL VALUATION OF ECOSYSTEM SERVICES TO SUPPORT PLANNING POLICY

Summary

The concept of ecosystem services provides a means to articulate our dependence on the natural environment. Evidence of the importance of regulating, provisioning and cultural services can be demonstrated through a valuation of the benefits they provide to human beings. Hitherto, much of this valuation has been performed through economic approaches. However, our interaction with the natural environment provides a far wider range of benefits than personal utility alone.

This paper will discuss the merits of alternative socio-cultural valuation using the example of a coastal environment in Ireland. Here, we are using deliberative approaches and mapping within a series of workshops. The objective is to explore the range of socio-cultural values and to combine these with economic methods such that public authorities have the confidence to incorporate these values within spatial planning decisions with regard to green infrastructure and mapping the limits to acceptable development.

Abstract

Respective benefits of socio-cultural valuation compared with economic methods

The concept of ecosystem services provides us with the medium through which to demonstrate the benefits to human beings that are provided by the natural environment. This, in turn, can provide the information and rationale to protect environmental resources and reverse the trend of continuing degradation. The objective is to supply this information to decision makers, but the natural environment is so pervasive in our lives that the benefits are tremendously varied and their interaction with values and behaviour can be difficult to characterise.

Economic valuation is one means to indicate the value that people attach to environmental benefits. It has the virtue of using quantitative monetary units that can be readily incorporated into a cost benefit analysis of projects or policies. It is also often supported by large-scale public surveys and evidence of statistical significance. However, it works best where society is conscious of there being a clear contribution to well-being, typically in terms of an addition to individual utility. This relationship is most easily demonstrated in relation to the direct benefits provided by provisioning ecosystem services or certain types of cultural services such as recreation. Revealed or stated preference methods are then available to quantify the benefits. The relationship is more challenging where the benefits of the environment are more indirect, are poorly understood or perceived, and where they interact with other factors and motivations.

Socio-cultural valuation provides a means to explore the wider range of social and cultural values that attach to the many benefits of ecosystem services. These values include personal utility, but extend also to ethical and aesthetical dimensions (Church

et al., 2011; O'Neill, 1993; Sagoff, 1994). Culture, shared social values, spiritual beliefs and one's interaction with the environment all have an influence on socio-cultural values. Values may be realised through social relationships and represented by one's position in a community, feelings of belonging and sense of place, subsistence needs, health, protection from adverse impacts and attitudes to future generations or the rights of nature.

This diversity of values, often overlapping, does not lend itself to expression through a single methodology. Deliberative methods do, however, provide a means to reveal their extent and distribution. Deliberative methods can also provide for social learning and value construction through the gradual presentation of information together with group interaction (Gregory et al., 1993; Spash, 2007). This is important where ecosystem processes are complex or unfamiliar, or where there is an objective to increase participants' understanding of the motivations and values of other individuals or groups in a community.

Practical policy uses for socio-cultural approaches

These needs apply to the community of Fingal, a county north of Dublin in Ireland. Here, we are experimenting with deliberative approaches that can be used and repeated to inform spatial planning decisions. Fingal County Council is prominent amongst local public local administrations in Ireland in incorporating a role for green infrastructure in its planning philosophy to provide for the well-being of its citizens through amenity, protection of habitat, management of watercourses and storm protection. Nevertheless, the concept of ecosystem services as a demonstration of the environment's benefits to society is poorly understood relative to the dominant perception of nature as something needing protection for its own sake.

To inform spatial planning, the project has been organising a series of workshops with local stakeholders in relation to the ecosystem services associated with Fingal's unique coastline. Through the use of mapping exercises, the workshops have begun by introducing the concept of ecosystem services and exploring the type and location of benefits perceived by participants. Learning has been supported through information on the state of the environment complemented by biophysical indicators. The range of values articulated by participants has informed the development of socio-cultural indicators which will be presented and developed in future workshops.

The process will be repeated with local residents and the methodology refined. The local objective is to provide a replicable means whereby the special planning process can be informed by reliable indications of the socio-cultural value attached to attributes of the coastal environment and to particular locations. The latter includes protected areas, coastal residential areas, areas of amenity interest or heritage value, both familiar and less familiar. This will incorporate a demonstration of why certain places are valued and the extent of development (if any) that is either desirable or acceptable.

Combining socio-cultural and economic methods for local policy making

A project objective is that this process of deliberative socio-cultural valuation should also complement or contribute directly to methods of economic valuation. Both

approaches have their respective merits and uses at different stages within local planning. It is acknowledged that the trade-offs included in economic stated preference can stimulate participants' appreciation of the relative benefits of ecosystem services and other social aspirations. The socio-cultural valuation will contribute to this project objective through a participatory multi-criteria assessment of a contemporary local environmental issue.

The proposed paper will describe the combination of approaches used to date, the potential value of deliberative methods for planning and environmental impact assessment, and the potential synergy with economic valuation methods.

References

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