



Methodological and Ideological Options

Comparing instrumental and deliberative paradigms underpinning the assessment of social values for cultural ecosystem services

Christopher M. Raymond^{a,b,c,*}, Jasper O. Kenter^d, Tobias Plieninger^e, Nancy J. Turner^f, Karen A. Alexander^d^a Barbara Hardy Institute, University of South Australia, Australia^b Centre for Regulation and Market Analysis, School of Commerce, University of South Australia, Australia^c Enviroconnect, PO Box 190, Stirling, SA 5152, Australia^d Scottish Association for Marine Science, Scottish Marine Institute, Oban, Argyll PA37 1QA, UK^e Department of Geosciences and Natural Resource Management, University of Copenhagen, Rolighedsvej 23, 1958 Frederiksberg C, Denmark^f School of Environmental Studies, University of Victoria, PO Box 1700 STN CSC, Victoria, BC V8W 2Y2, Canada

ARTICLE INFO

Article history:

Received 18 April 2014

Received in revised form 21 July 2014

Accepted 31 July 2014

Available online 29 August 2014

Keywords:

Social values

Participatory mapping

Non-economic valuation

Non-monetary valuation

Ecosystem services

Deliberative valuation

Instrumental valuation

ABSTRACT

Despite rapid advancements in the development of non-monetary techniques for the assessment of social values for ecosystem services, little research attention has been devoted to the evaluation of their underpinning paradigms. This study evaluates two contrasting paradigms for the assessment of social values in non-monetary terms: an instrumental paradigm involving an objective assessment of the distribution, type and/or intensity of values that individuals assign to the current state of ecosystems and a deliberative paradigm involving the exploration of desired end states through group discussion. We present and then justify through case examples two approaches for assessing social values for ecosystem services using the instrumental paradigm and two approaches using the deliberative paradigm. Each approach makes different assumptions about: the underlying rationale for values assessment; the process through which values are elicited; the type of representativeness sought, and; the degree of involvement of decision-makers. However, case examples demonstrate that the boundaries between instrumental and deliberative paradigms are often not concrete. To accommodate this fluidity, we offer a third, pragmatic paradigm that integrates some of the qualities of both. This paradigm has implications for engaging multiple community groups and decision-makers in the articulation and mapping of social values for cultural ecosystem services.

© 2014 Elsevier B.V. All rights reserved.

1. Introduction

Cultural ecosystem services produce a range of physical, emotional, and mental benefits that support human well-being (Kenter et al., 2011). These services are tightly linked to specific features of the material environment, as well as cultural practices and experiences (Bieling et al., 2014). Despite the importance of cultural ecosystem services being consistently recognized (e.g., Chan et al., 2012a,b; MEA, 2005; Plieninger and Bieling, 2012), existing monetary frameworks for representing or assessing them: 1) do not allow for a sufficient consideration of multiple dimensions and types of value (Chan et al., 2012b; Hernandez-Morcillo et al., 2013; Kenter et al., 2014; Norgaard, 2010); 2) over-rely on standardisation and empirical valuation (Milcu et al., 2013); 3) ignore the wealth of cultural values research in the landscape planning literature (Schaich et al., 2010); 4) do not cater for multiple understandings of human–environment relationships which are tied to different cultural or industrial practices (Church et al., 2014; Flint

et al., 2013; Kenter et al., submitted for publication; Raymond et al., 2013); and 5) do not usually consider subtle and implicit cultural benefits of the environment that nonetheless can have substantial value (Kenter et al., 2011). Frameworks that cater for the representation and assessment of intangible, and often incommensurable, value types may enable the engagement of a range of stakeholders (e.g., residents, planning decision-makers) in ecosystem management (Raymond et al., 2013) and assist in justifying the benefits of conserving and restoring a range of cultural services that may otherwise be subject to exploitation.

Non-economic assessments of ecosystem services have rapidly advanced in recent years (e.g., Fagerholm et al., 2012; Klain and Chan, 2012; Plieninger et al., 2013; Sherrouse et al., 2011, 2014). They typically engage local stakeholders in the identification and quantification of a broad range of 'social' and 'cultural' values for ecosystem services using participatory techniques such as Delphi surveys (e.g., Edwards et al., 2012), scenario analysis (e.g., Maes et al., 2012), Q method (e.g., Davies and Hodge, 2012; Kerr and Swaffield, 2012), multi-criteria analysis (e.g., Karjalainen et al., 2013; Nahuelhual et al., 2013; Verburg et al., 2014) and public participation GIS (e.g., Brown et al., 2011; Raymond et al., 2009; Sherrouse et al., 2011, 2014; van

* Corresponding author.

E-mail addresses: chris.raymond@enviroconnect.com.au (C.M. Raymond), jasper.kenter@sams.ac.uk (J.O. Kenter), tobias.plieninger@ign.ku.dk (T. Plieninger), nturner@uvic.ca (N.J. Turner), karen.alexander@sams.ac.uk (K.A. Alexander).

Riper et al., 2012). While terms such as ‘social’ and ‘cultural’ value have been fuzzy, difficult to define and applied in different contexts (Ives and Kendal, 2014), the non-economic ecosystem services literature has tended to conceive social values expressed in non-monetary terms as a more pluralistic and heterogeneous alternative to economic conceptions of value (Kenter et al., 2014). Here, we define social values as the aggregate value to society, or, in operational terms, individual values for cultural ecosystem services aggregated to the societal scale.

Despite the recent growth of non-economic assessments of ecosystem services, the usefulness of these approaches has been little scrutinized. We are particularly concerned that assessments employ different methods of valuation without considering the perspective on rationality that underpins them. Most non-economic assessments of social values for ecosystems services follow an instrumental paradigm where the emphasis is on rating, ranking and spatially identifying social values (e.g., Brown et al., 2011; Raymond et al., 2009; Sherrouse et al., 2011, 2014); however, an equally important rationality is the ‘deliberative’ paradigm of knowledge and action (Forrester, 1999) which places emphasis on communication and argumentation, and combining lay and expert perspectives on the decision-making process (Stein and Harper, 2003). The contrasts between instrumental and deliberative assessments are likely to be particularly strong when assessing cultural ecosystem services, given the inherent subjectivity of cultural values and the high level of interest that local citizens have in them. These groups are likely to hold a variety of different knowledge systems and ways of identifying and assessing value (Raymond et al., 2010) that are likely to generate different outcomes from instrumental, survey-based techniques. The degree to which instrumental and deliberative approaches diverge may also depend on whether the valuation process is focused on assessing the values of a single interest, or aggregates the values of multiple representations—an issue of scale and diversity versus homogeneity.

In this study, we compare instrumental and deliberative paradigms, which explicitly or implicitly underpin most assessments of social values for ecosystem services. First, we develop a theoretical comparison, revolving around four axes: 1) perspective on rationality; 2) the process of value solicitation; 3) type of representativeness sought, and; 4) the degree of involvement of decision-makers. We then present and justify two approaches for assessing social values for ecosystem services following the instrumental paradigm and two approaches aligning with the deliberative paradigm, through case examples from marine, terrestrial and indigenous land management contexts. Our case example findings reveal that, in some instances, instrumental approaches integrate deliberative elements, and vice versa. However, such pragmatic approaches can lack theoretical coherence. It is rarely asked explicitly whether or not instrumental and deliberative paradigms can be synthesised in a meaningful way. The final part of this paper thus proposes a pragmatic paradigm for non-monetary valuation, which aims to integrate the strengths of both the deliberative and instrumental paradigms, and which is presented along the four axes described above.

The perspective we take in this paper draws on a post-normal science position introduced by Funtowicz and Ravetz (Funtowicz and Ravetz, 1991, 1993, 1994; Ravetz, 1987). Post-normal science is based on “assumptions of unpredictability, incomplete control, and a plurality of legitimate perspectives” (Funtowicz and Ravetz, 1993, p. 739). *Unpredictability* – post-normal science recognises the uncertainties and value-laden nature of scientific practice and calls for participatory and ideologically open approaches to valuation and risk assessment (Funtowicz and Ravetz, 1990; Ravetz, 1987). *Incomplete control* – post-normal scientists support decentralised forms of political action and engagement approaches that are dialogic and empowering (Bang, 2004). To this end, the environmental management literature provides frameworks to identify different types of stakeholders who may have an interest in or influence on ecosystem valuation (Reed et al., 2009), as well as social processes to enhance

the exchange and translation of local and scientific knowledge (e.g., Fischer et al., 2012), and principles for evaluating the effectiveness of the knowledge exchange process (Fazey et al., 2014). *Plurality of legitimate perspectives* – post-normal science is committed to methodological pluralism (Frame and Brown, 2008; Raymond et al., 2010) and in this vein supports ecosystem service valuation methods that combine qualitative and quantitative forms of enquiry.

Pielke (2007) eloquently illustrates that scientists can adopt two broad roles to science: 1) a linear or ‘normal’ approach, which suggests that achieving agreement on scientific knowledge is necessary for political consensus to be reached and policy to be implemented, or 2) a stakeholder driven model, which emphasises stakeholders working together with researchers to engage with a range of experiences, knowledge and values to address a science problem. In this paper, we highlight possibilities for adopting instrumental approaches based on this linear approach to science, deliberative approaches based on a stakeholder driven model and pragmatic or post-normal approaches that combine the qualities of both.

2. Differences Between the Instrumental and Deliberative Paradigms

Deliberative approaches can differ from instrumental ones along one or more of the four main axes mentioned in the Introduction, which are elaborated here (Table 1).

2.1. Perspective on Rationality and Focus of Valuation

The deliberative paradigm advocates communicative over instrumental rationality, where reasoned judgement to come to an agreement or decision is based on exchange of arguments bridging the moral and practical in a deliberative forum (Calhoun, 1992; Habermas, 1984). Researchers who employ this deliberative paradigm consider that identifying approaches reflecting the common good is ultimately a question of communication, negotiation and ‘aggregation by mutual consent’ (Howarth and Wilson, 2006), rather than an exercise in maximising satisfaction of utilitarian preferences or trying to quantify results through summarizing questionnaire responses.

While instrumental approaches tend to focus solely on ‘contextual’ values and their indicators (e.g. monetary amounts, ratings, and rankings), deliberative approaches may consider both ‘contextual’ and ‘transcendental’ values. Kenter et al. (submitted for publication) define contextual values as opinions about worth or importance, which are dependent on an object of value. Transcendental values are the broader guiding principles or criteria used to select and justify actions across specific situations. These transcendental values are often implicit, shared and cultural. Deliberation allows for these values to become more explicit (Kenter et al., 2011) and for decisions to be made on the basis of a pluralistic ethical framework, potentially incorporating virtues, deontological notions such as rights and duties, and narrative-based ethics, as well as utilitarian/instrumental considerations (Kenter et al., 2014).

2.2. The Process of Value Elicitation

One of the strengths of the instrumental paradigm, regardless of whether it is applied through monetary or non-monetary methods, is that it can allow for the identification of gradients in preferences, expectations, needs, and desires towards ecosystem services; for example, on the basis of gender, lifestyles, or knowledge sources (Fagerholm and Käyhkö, 2009; Fagerholm et al., 2012; Oteros-Rozas et al., 2014). By identifying gradients, instrumental methods can reveal trade-offs that arise from diverging interests and knowledge of different stakeholders and social groupings (Martín-López et al., 2012). When surveys are linked to Public Participation Geographic Information System (PPGIS) approaches, instruments are able to account for the spatial heterogeneity of values, attitudes and preferences; for

Download English Version:

<https://daneshyari.com/en/article/5049541>

Download Persian Version:

<https://daneshyari.com/article/5049541>

[Daneshyari.com](https://daneshyari.com)