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Review

Use of ecosystem services economic valuation for decision making: Questioning a literature blindspot

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ABSTRACT

Ecosystem Services economic Valuation (ESV) is often seen as a tool that can potentially enhance our collective choices regarding ecosystem services as it factors in the costs and benefits of their degradation. Yet, to achieve this, the social processes leading to decisions need to use ESV effectively. This makes it necessary to understand if and how ESV is or is not used by decision-makers. However, there appears to be a literature blindspot as to the issue of the Use of Ecosystem Services economic Valuation (UESV). This paper proposes a systematic review on UESV in peer-reviewed scientific literature. It shows that this literature gives little attention to this issue and rarely reports cases where ESV has been put to actual use, even though such use is frequently referred to as founding the goal and justification of ESV. The review identifies three categories of potential UESV: decisive, technical and informative, which are usually mentioned as prospects for the valuations published. Two sets of hypotheses are examined to explain this result: either the use of ESV is a common practice, but is absent from the literature reviewed here; or the use of ESV is effectively rare. These hypotheses are discussed and open up further avenues of research which should make the actual use of ESV their core concern.

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Q4 1. Introduction

High hopes have been placed on economic valuations to influence policy for coping with the accelerating degradation of ecosystem services and biodiversity (NRC, 2005). This was reaffirmed by the release of *The Economics of Ecosystems and Biodiversity* (TEEB) report, during the Tenth Conference of the Parties (COP) to the Convention on Biological Diversity in Nagoya in 2010: economic valuation is expected to serve as a governance resource that could change our individual and collective choices. The COP report itself⁵ recognizes economic valuation as a key tool for a more effective mainstreaming of biodiversity. In many publications (e.g. Randall, 1988; Daily et al., 2009) the 'measurement' of monetary

values that reflect the social importance of ecosystem services is seen as a prerequisite for better management decisions. Heated debates have been ongoing for many years. In 1997, ecologists Myers and Reichert (1997) made the diagnosis that 'we don't protect what we don't value'. In 2008 the TEEB Interim Report argued Q5 that 'you cannot manage what you do not measure' (p. 8). On the contrary, economist Heal stated: 'Valuation is neither necessary nor sufficient for conservation. We conserve much that we do not value, and do not conserve much that we value' (Heal, 2000). Vatn and Bromley (1994) made a similar assertion, claiming that 'valuing (or pricing) of environmental goods and services is neither necessary nor sufficient for coherent and consistent choices about the environment'. Balmford et al. (2011) even made it a positive statement: '[T]here is validity in calling for societal choices, especially in the domain of environmental decision-making, to be made without recourse to valuation or with the results of a cost-benefit analysis being a single component in a larger body of evidence'. Though the debate is obviously still lively today, it is also undeniable that international talks and publications now often promote ESV as a tool susceptible to make key contributions to biodiversity and ecosystem services protection. Questioning the supposed pragmatism of ESV, while standing clear from ideological statements, is the overall objective of this paper.

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