

Letter

Ecosystem Services Go Beyond Money and Markets: Reply to Silvertown

Matthias Schröter^{1,2,*} and Alexander P.E. van Oudenhoven³

Silvertown [1] provides an outspoken critique on the concept of ecosystem services (ES), feeding a longstanding debate about how to express and conserve the value of nature for humans [2–4]. The paper raises valid concerns about ES monetization, its failure to ‘capture the multifaceted sense in which people value nature’, and market shortcomings in halting biodiversity loss. However, it also points to a supposed ‘dominant neoliberal ideology’ behind the ES concept and characterizes the problem of biodiversity loss as lying ‘deeper in anthropocentrism’. We argue that Silvertown [1] mistakenly equates the ES concept to marketization, incorrectly presumes a trend towards monetization, and inadvertently assumes that ES are anthropocentric only.

Ecosystem Services Do Not Equal Marketization

Critics of ES valuation approaches rightly state that not all aspects of the human–nature relationship can be monetized. This observation has led to a diversification of ES valuation and quantification approaches [5]. It is, however, a common misconception that ES monetization is merely a means towards enabling commodification and privatization of nature. Monetization can be used to derive a common measure to compare outcomes of land-use decisions. Privatization is not a necessary consequence of monetization, but a choice of decision makers. Results of valuation studies could be used for implementing subsidies, taxes, or regulation. Hence, ES do not equal monetization, which in turn does not equal marketization.

The ES concept can take many roles, a metaphor for the (economic) value of nature being just one of them. Since its origin as an ethical argument for nature conservation, it has been developed as an analytical tool to understand the bridge between complex ecological systems and a diversity of human values. In this role the ES concept has evoked a large amount of non-economic research [6]. The ES concept is a boundary object (i.e., it links adjacent disciplines and different societal actors [7]) and has spurred inter- and transdisciplinary research. ES assessments can also be democratic platforms that allow different stakeholders to express interests in how the human–nature relationship should be shaped [8]. Hence, the concept is by no means focused entirely on monetization and marketization. Furthermore, monetization studies have aimed towards improving methods and raising awareness at best, but few explicitly claim to actually contribute to concrete decision making relating to markets [9].

Subject Areas Increase While Importance of Monetization Studies Decreases

Silvertown [1] presumes a trend ‘of industrial proportions’ towards monetization and marketization in ES science (Table 1 in [1]). Monetization studies have certainly attracted citations and widespread media interest. ES science has, however, broadened and recent studies contradict the presumption of a one-way, constrained development towards neoliberal thinking. Subject areas in ES science have increased remarkably over the years, going beyond economic valuation and including diverse, often multidisciplinary fields [10]. Furthermore, the proportion of economic valuation studies within the field has decreased while the importance of other disciplines has, in fact, risen [7]. Hence, contrary to the assertion made by Silvertown [1], studies assuming that ‘monetization and markets benefit biodiversity and ES’ are not dominant in the field of ES quantification and valuation.

Ecosystem Services Are More Than a Utilitarian Toolbox

By narrowing the ES concept to ‘neoliberal ideology’ and ‘anthropocentrism’, Silvertown [1] disregards that the concept is broader and even includes aspects of intrinsic value. The ES concept mainly relates to anthropocentric arguments to protect nature. These include instrumental values, such as nature being the basis of human survival now and in the future. Humans, however, do not want to merely survive, but to live a life worth living. To achieve this, relationships with nature need to go beyond nature being a utilitarian toolbox. For instance, esthetic appreciation of ecosystems, spiritual fulfillment gained from sacred natural sites, and knowledge about the continued existence of species contribute to a truly good life in an Aristotelian sense. Such eudemonic perspectives consider parts of nature as objects of awe and hence go beyond the longstanding dichotomy between anthropocentric–instrumental and intrinsic values [11]. Admittedly, such a progressively understood ES concept is currently not emphasized sufficiently in the literature [8].

Can We Go Beyond Anthropocentrism?

Our concluding, yet unresolved, question is whether humanity can go beyond anthropocentrism in decisions about how to sustainably manage or set aside ecosystems to conserve biodiversity. Nature should not be seen as a toolbox for a short-term, profit-maximizing human enterprise nor should purpose-based thinking dominate all relationships between humans and nature. However, a predominant focus on intrinsic values, as suggested by Silvertown [1], is problematic as their existence is contested, these values are vague, and their representation in democratic decision-making processes is challenging [12]. Therefore, the development of a progressive ES concept and the search for common ground between ES and other arguments for conservation seems a fruitful approach for conserving biodiversity both for its own sake and for the survival of humanity.

¹UFZ – Helmholtz Centre for Environmental Research, Department Ecosystem Services, Permoserstr. 15, 04318 Leipzig, Germany

²German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig, Deutscher Platz 5e, 04103 Leipzig, Germany

³Institute of Environmental Sciences CML, Leiden University, Einsteinweg 2, 2333 CC Leiden, The Netherlands

*Correspondence: matthias.schroeter@idiv.de (M. Schröter).

DOI of original article: <http://dx.doi.org/10.1016/j.tree.2015.08.007>

<http://dx.doi.org/10.1016/j.tree.2016.03.001>

References

1. Silvertown, J. (2015) Have ecosystem services been oversold? *Trends Ecol. Evol.* 30, 641–648
2. McCauley, D.J. (2006) Selling out on nature. *Nature* 443, 27–28
3. Redford, K.H. and Adams, W.M. (2009) Payment for ecosystem services and the challenge of saving nature. *Conserv. Biol.* 23, 785–787
4. Tallis, H. and Lubchenco, J. (2014) Working together: a call for inclusive conservation. *Nature* 515, 27–28
5. Boeraeve, F. *et al.* (2015) How (not) to perform ecosystem service valuations: pricing gorillas in the mist. *Biodivers. Conserv.* 24, 187–197
6. Birkhofer, K. *et al.* (2015) Ecosystem services – current challenges and opportunities for ecological research. *Front. Ecol. Evol.* 2, 87
7. Abson, D.J. *et al.* (2014) Ecosystem services as a boundary object for sustainability. *Ecol. Econ.* 103, 29–37
8. Schröter, M. *et al.* (2014) Ecosystem services as a contested concept: a synthesis of critique and counter-arguments. *Conserv. Lett.* 7, 514–523
9. Laurans, Y. *et al.* (2013) Use of ecosystem services economic valuation for decision making: questioning a literature blindspot. *J. Environ. Manag.* 119, 208–219
10. Chaudhary, S. *et al.* (2015) The evolution of ecosystem services: a time series and discourse-centered analysis. *Environ. Sci. Policy* 54, 25–34
11. Jax, K. *et al.* (2013) Ecosystem services and ethics. *Ecol. Econ.* 93, 260–268
12. Justus, J. *et al.* (2009) Buying into conservation: intrinsic versus instrumental value. *Trends Ecol. Evol.* 24, 187–191