ESEE 2015 Theme: 2.3. Ecosystem services: debating, valuing, preserving and providing

Opportunities and Challenges for Mainstreaming the Ecosystem Services Concept in the Multi-level Policy Making within the EU

Mainstreaming the ecosystem services (ES) concept in EU policy making, i.e., introducing it in a variety of policy fields, comes along with great expectations from practitioners, policy makers, and scientists alike to improve environmental policy and halt the loss of biodiversity. ES related governance tools, such as ES assessments, economic valuation, or market-based instruments, like payments for ecosystem services, feature prominently in the environmental policy field, including policies such as the Biodiversity Strategy 2020 and the Green Infrastructure Strategy, but also in water-related (e.g., Blueprint to Safeguard Europe's Water Resources) and other policy fields. Expected benefits are that the ES concept helps to understand, define, and conceptualise more clearly the links between human well-being and the state of ecosystems and that it facilitates communication of economic and non-economic values and their integration into accounting and reporting systems at EU or national levels across the different sectors. What is more, the ES concept itself can increasingly be considered as a driver in several policy fields, (re-)shaping existing and emerging environmental and other policies in the coming decades. There is also another set of current and emerging policies where ES-related governance tools such as economic valuation are incorporated implicitly, i.e., without referring to the ES concept explicitly. This includes the Water Framework Directive (WFD), the Cohesion Policy, and the EU Climate Adaptation Policies. Further, there are policies like the Common Agricultural Policy (CAP) which are largely ignorant of the ES concept (at least explicitly), but have very often tremendous impacts on many social-ecological systems (SES), and consequently on ES throughout Europe.

However, for most EU – and also national/regional – non-environmental policies mainstreaming the ES concept has, if at all, just begun. One reason for this hesitation is the concern among scientists and policy makers alike that the ES concept might not be able to live up to its manifold promises. In their review of critiques, Schröter et al. (2014) identify a number of weaknesses, including the vagueness of definitions and classifications as well as its normative nature. The same authors argue, however, that instead of looking at this vagueness as something negative, one could also see it as a starting point to better understand the challenges of – or even as a driver for – ES mainstreaming. Thus, the ES concept can be perceived as a boundary object (Star, 2010; Abson et al. 2014) or boundary concept

(Mollinga, 2010, p. 4) as "[b]oundary concepts are words that function as concepts in different disciplines or perspectives, refer to the same object, phenomenon, process, or quality of these, but carry (sometimes very) different meanings in those different disciplines or perspectives". Yet, the list of critiques indicates that an effective mainstreaming of the ES concept in policy fields – environmental or other – faces substantial challenges. At the same time, the concept and its vagueness offer opportunities to address – and to some extent integrate – the perspectives of several policy fields while dealing with respective differences in meaning and definition.

This article addresses three major challenges for mainstreaming the ES concept: the need for 1) vertical and 2) horizontal policy integration, and 3) the question of stakeholder involvement in policy making. It considers the following main questions: 1) which current and upcoming EU policies (will) have substantial direct or indirect effects on ES and, thus, might benefit from mainstreaming? What are potential challenges for mainstreaming?; 2) What main opportunities and challenges does the ES concept pose for policy making at EU, national, and regional levels?; 3) What is the range of different meanings of 'mainstreaming' the ES concept in policy fields and what are the underlying reasons for these different understandings?; 4) How can the ES concept be used as boundary concept in participatory processes to overcome the challenges, in particular to mediate between the different understandings of the forms and objectives of mainstreaming?

Our results indicate, that mainstreaming the ES concept in EU policy making is not easy to achieve; it may have different meanings, and is connected to quite a few expectations as well as challenges: *First*, mainstreaming the ES concept into European policy making is 'no silver bullet' – some expectations may be met, but others may be disappointed. Thus, expectations management – for policy makers as well as NGOs – is necessary to avoid frustration and backlash. *Second*, expectation management is particularly important with respect to the use of economic valuation methods of ES. Economic valuation may be helpful in cases where certain, limited trade-offs are concerned, but may fail in cases where a variety of ES are used for different purposes and the complexity of socioeconomic and ecological processes involved cannot be addressed as a whole due to methodical or other scientific reasons (e.g., lack of knowledge for some ecosystem functions, uncertainties in evaluation measures, or the sheer complexity of information).

Third, there are several challenges for both horizontal and vertical policy integration. Since mainstreaming requires substantial capacity building and different starting points and needs of various policy fields and decision-making levels need to be taken into account, participatory approaches are a must for both and may be helpful at least for local policy integration and balancing trade-offs. But again, they are no 'silver bullets' for all cases under different conditions. They may fail in face of administrative challenges of vertical policy integration or due to imbalanced power relations and opposing agendas on the horizontal policy integration. But appropriately applied, accompanied, and prepared by careful stakeholder analysis, they may improve the inclusiveness of governance approaches. Thereby, the mainstreaming must rather be seen as the means to an end, namely to make sustainable use and management of SES not a top-down annoyance for many citizens but an opportunity to make nature conservation a integral part of their daily life's.

Fourth, the different challenges of mainstreaming the ES concept are not easy to address simultaneously. As the WFD case study shows policy integration and inclusive participation seems to pull sometimes in opposite directions. Participatory approaches are a must but at the same time limited in their contribution to more effective policies. Here, to become trustworthy and effective organizations, new participatory elements need to be effectively linked up with the relevant existing administrations and (other) democratically legitimized decision-making structures. Beside the need to balance their usefulness for horizontal and vertical policy integration, they may stimulate processes of public reasoning to deal more sustainably with natural resources and societal dependencies on functioning ecosystems. Further, should there be one or several connected bodies of decision-making coordination and implementation evaluation of participatory mainstreaming processes? Having more than one would allow to exchange lessons learned between the different processes, but also to keep track of the feasibility and necessity of resource intensive processes.

Fifth, mainstreaming the ES concept cannot resolve all challenges connected with biodiversity loss, ecosystem degradation, and risks for human wellbeing. The ambiguity of the concept due to the boundary work involved should be taken seriously. Sometimes, there is a misleading believe and blind trust in the communicative potential of the concept, which may conflict with its shortcomings. However, a well facilitated and careful process of reflection of the boundary work involved may improve the potential of mainstreaming the ES concept and may significantly improve the governance of ecosystems and natural resources.

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