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A critical analysis of global ecosystem services (*Paristhitiki sewa*) discourse in Nepal



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ABSTRACT

'Ecosystem services' (ES) is a globalising concept that is being incorporated into environmental policies around the world. It is particularly advanced in Western nations which were active in developing the concept, but less applied in non-Western contexts. In this paper, we explore how the ecosystem services concept is being promoted and interpreted in the context of Nepal. We conducted a content analysis of environmental policies, peer-reviewed articles and media coverage, as well as in-depth interviews with key stakeholders. The findings show that the concept is being increasingly integrated into environmental policy documents and is likely to become influential. International actors are most responsible for supporting the concept in Nepal, primarily through funding projects, shaping the way ecosystem services concept is understood and articulated in the country. ES is primarily constructed in terms of economic valuation and payments for ecosystem services, in particular for forest and water services in the broader literature, such as over extraction of resources, inequitable outcomes, and the marginalisation of intangible benefits that cannot easily be monetarily valued. The study argues that rather than complying with international agendas, a more comprehensive approach to ecosystem services within national priorities and issues is needed in Nepal.

1. Background

Keywords:

Nepal

Policy

Ecosystem services discourse

Economic valuation

Environmental policy

Intangible values

Contemporary conservation approaches focus on both conservation and development outcomes – a response to the failure of traditional conservation policies that focus only on nature protection and exclude development (Liberati et al., 2016). One of the new science-policy concepts that focuses on both conservation and development is referred to as 'ecosystem services' (ES) (Primmer and Furman, 2012), that is, the 'benefits human derive from ecosystems for their wellbeing' (MEA, 2005). ES programs, focusing on the benefits generated by ecosystem processes and the functions that humans derive (and to which they attach a range of values, e.g. social, economic, cultural), bring nature and human values together for both conservation and development outcomes, albeit with an anthropocentric focus (Schröter et al., 2014).

The ES concept has been influential in the science and policy of ecosystem management, particularly after the release of Millennium Ecosystem Assessment (MEA) report in 2005 (Schleyer et al., 2015). Global ES initiatives such as The Economics of Ecosystems and Biodiversity (TEEB), and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) have been particularly important (Turnpenny et al., 2014). The global Convention on Biological Diversity (CBD), a legal framework with 196 member countries, recognises the concept for actions on biodiversity and urges its member states to integrate it into their national policies (CBD, 2016). This is occurring in many Western nations, including European Union countries, the United States, United Kingdom, Australia and New Zealand, which are already mainstreaming the concept into their environmental policies to pursue better environmental management (Schleyer et al., 2015).

The ES approach is criticised, however, for its western-centric focus (Dempsey and Robertson, 2012). It originated in the United States and expanded gradually to Europe (Chaudhary et al., 2015). By the end of 2013, almost ninety percent of ES research reported was from developed countries (see Chaudhary et al. (2015), p.29). In the United States, ES research initiatives are numerous at federal and state levels, and are integrated in policy and programs such as land use planning and water resources management (Schleyer et al., 2015). Similarly, in Europe, ES assessment tools, classification systems such as the Common International Classification of Ecosystem Services (CICES), and valuation methods have been developed and integrated into regional and national

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Fig. 1. Map of Nepal with its major land covers and protected areas. Source: (DFRS, 2015) (Map used with permission).

policy and frameworks (McDonough et al., 2017). In Germany, the ES concept has been integrated into landscape planning and climate protection programs at national and local levels (Schetke et al., 2017). Similarly in Poland, the ES concept is becoming integrated into several environmental policy sectors (Maczka et al., 2016).

In developing nations, policy-makers and practitioners are also beginning to design and implement programs that integrate the concept (Ferraro et al., 2011). For instance, Costa Rica pioneered the Payments for Environmental Services (PES) approach by establishing a national program of payments where the providers are paid for environmental services (clean water, carbon sequestration) they produce through forest restoration (Pagiola, 2008). In China, a National Forest Eco-Compensation Fund system now exists at the national level, and two national payment systems for ES exist (the Natural Forest Conservation Program, and Grain to Green Program) (Jiang, 2017). However, the contribution of developing countries to the development of the concept and its application is very limited, with only 13% of global publications coming from developing countries – and the vast majority of these dominated by just two countries - China (10%) and Brazil (3%) (Chaudhary et al., 2015; McDonough et al., 2017).

To date, very few studies have analysed the advancement of this global discourse into national policies, particularly in developing nations (Pandeya et al., 2016). There is a need to move beyond the

western origins of the ES concept and acknowledge the different approaches to human-nature interactions that derive from diverse geographies in order to appropriately engage with ES in policy and practice (Schröter et al., 2014). This is important as in many developing nations, development itself is often more immediately tied to the services arising from ecosystems (Mertz et al., 2007). Identifying how the concept is unfolding in these nations can help to understand how human-nature relations and ecosystem governance is shifting to accommodate globalising concepts that originated in the West.

In this study, we analyse the integration of ES into the policies of Nepal, where the term has been translated as '*Paristhitiki sewa*' (*paristhitiki* - ecosystem, *sewa* - services). We selected Nepal as the case study as it is a signatory to CBD and a member of IPBES. The country is embracing the concept in research (Chaudhary et al., 2014, 2016; Paudyal et al., 2015; Thapa et al., 2014; Van Oort et al., 2014), and policy formulation (Bhatta et al., 2014). Recently, the country has drafted a PES policy (ICIMOD, 2016), and the country is increasingly involved in science-policy dialogues and project initiatives involving ES approaches (ICIMOD, 2016). Our study was guided by the following research questions:

1 To what extent is the concept 'ecosystem services' integrated into environmental policies of Nepal?

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