The political economy of ecosystem services

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Ice Block Sound Installation by Max Eastley was realised in 2005 as part of the Cape Farewell open-air exhibition *The Ice Garden* in front of the Bodleian Library in Oxford.

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Dr Bhaskar Vira is a Senior Lecturer in the Department of Geography at the University of Cambridge, and led the Responses chapter for the UK National Ecosystem Assessment (UK NEA), published in 2011. He was Coordinating Lead Author for the Responses Working Group of the Millennium Ecosystem Assessment (MA), and is currently engaged in research funded by the UK Natural Environment Research Council, the Economic and Social Research Council, and the Ecosystem Services for Poverty Alleviation programme for the UK Department for International Development. Interview by Wayne Visser.

The past decade has seen a growing interest in ecosystem services, one of the focus areas of Dr Bhaskar Vira and his colleagues at the University of Cambridge's Department of Geography. Ecosystems services have been defined by landmark research projects like the Millennium Ecosystem Assessment and The Economics of Ecosystems and Biodiversity (TEEB) as "the benefits people obtain from ecosystems" and "the direct and indirect contributions of ecosystems to human wellbeing".

The Millenium Ecoystem Assessment, which ran from 2001 to 2005, synthesised the work of more than 1,360 experts worldwide and concluded that 60 per cent of world ecosystem services have already been degraded. TEEB emerged two years later from a meeting of environment ministers from the governments of the G8+5 countries in Potsdam, who agreed to "initiate the process of analysing the global economic benefit of biological diversity, the costs of the loss of biodiversity and the failure to take protective measures versus the costs of effective conservation".

With detailed analyses like those conducted by the MA, TEEB and the UK NEA, it is not surprising that ecosystem services have gained importance in policymaking, with several governments adopting management strategies based on the concept. There are at least three interrelated strands which characterise this emerging paradigm:

(i) the measurement of ecosystem service flows, and an emphasis on understanding the ecological processes underlying these flows, including the effect of these flows on human wellbeing;

(ii) the valuation of ecosystem services; and

(iii) negotiation over ecosystem services through a variety of institutional forms and governance mechanisms (which might include market-based intervention strategies, such as payments for ecosystem services).

Vira's research takes place within this broad ecosystems milieu, but from the perspective of the political economy of development, and with a focus on the impact of environmental policies on poverty alleviation in India. He builds on his long-term engagement with alternative models of forest governance in India, from state management and joint forest management to cooperatives, community management, and private forestry. He also has an interest in the social context of biodiversity conservation, especially focusing on conservation and wildlife management in India.

What makes Vira's work different and important is that he goes beyond the popular economics-oriented focus on the valuation of ecosystem services to recognise that natural resource use often takes place within

Figure 1: A political economy approach to ecosystems.

Vira goes beyond the popular economics-oriented focus on the valuation of ecosystem services, to recognise that natural resource use often takes place within a politically charged context. This approach is particularly relevant in India.

a politically charged context. He stresses: "It is vital to have an understanding of the political economy of negotiations over natural resource use. An appreciation of the synergies and trade-offs between ecosystem services is equally important for developing better strategies for pro-poor ecosystem management. If the distributional outcomes associated with alternative options for natural resource management are neglected, there is a risk that such interventions may fail because of resistance from those who are excluded or those who stand to lose."

This approach to ecosystem services is particularly relevant in India, where Vira grounds his research, and where the concept now features in policies and programmes for maintaining the quality of the environment and the sustainability of natural resources for the wellbeing of social groups across the country. A recent example is the National Mission for a Green India, approved by the Prime Minister's Council on Climate Change in February 2011. The mission derives its mandate from the National Action Plan on Climate Change (NAPCC) and aims at increasing India's forest cover by five million hectares, as well as improving a further five million hectares of degraded forest, over the next 10 years. One of its key objectives is the "improvement of ecosystem services, including biodiversity, hydrological services and carbon sequestration while also aiming to increase forest-based livelihood incomes for three million families".

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Ecosystem management involves making difficult choices between different types of ecosystem services, and also between the competing claims of different groups in society. Trade-offs are often not adequately recognised and addressed, resulting in inequitable outcomes.

Despite the current emphasis on ecosystem services in India, Vira believes the country's policymakers and resource managers do not adequately recognise the importance of trade-offs. "There is considerable emphasis on understanding the biophysical aspects of ecosystem service provision and on refining economic valuation techniques to estimate the value of the services provided. Most interventions, whether participatory forest management, biodiversity conservation or watershed development, involve some form of restriction on existing patterns of resource exploitation to generate ecosystem services for other users. But while these interventions help to improve the condition of resources, they generally lead to a loss of livelihoods and development opportunities for at least some individuals or groups."

What Vira's research brings to policy debates like this is the increasing evidence that ecosystem management involves making difficult choices between different types of ecosystem services (such as climate regulation, biodiversity conservation, the provision of water or forest products, etc), and also between the competing claims of different groups in society (such as between local resource users and those within the global community concerned about climate change or the loss of key charismatic species). Patterns of demand, prices, institutional structuring of markets, and changing scientific knowledge are likely to make some services more valuable than others and change the balance between different users, leading to trade-offs. Such trade-offs are often not adequately recognised and addressed in policies and programmes, resulting in inequitable outcomes.

In the field, decisions typically involve iterative processes of consultation, negotiation and compromise. It is crucial for policymakers and activists alike to ask: How do conflicting stakeholders make choices in specific empirical situations? What are the relative roles of different actors and how do they exercise power in this process? Whose values and interests are reflected in final outcomes and to what extent can outcomes be seen to enhance social wellbeing? What are the institutions and structures of governance that enhance effective decision-making? These are difficult questions, but are critically important if improved ecosystem management is to be harnessed as a tool for sustainable poverty reduction.

A recent example of typical conflict over ecosystem services is between the provisions for critical tiger habitats, and the recognition of community rights under the Forest Rights Act (FRA) of 2006, which has revived old debates about choices between 'tigers or tribals'. The declaration of the Biligiri Rangaswami Temple (BRT) Wildlife Sanctuary as a tiger reserve, and the subsequent recognition of the community rights of the Soliga tribe in the sanctuary, highlights the nature of such conflicts. The sanctuary, which is home to more than 30 tigers, has been inhabited by Soligas for centuries. Under the FRA, their community forest rights have been recognised and they can collect, own and dispose of minor forest produce from the reserve. However, conservationists concerned about the declining tiger population have opposed this.

How do conflicting stakeholders make choices in specific empirical situations? What are the relative roles of different actors? Whose values and interests are reflected in final outcomes?

"The Indian political system must be ready to make tough choices... These choices are not technocratic or scientific, but political." Jairam Ramesh, former Indian Minister of State for Environment and Forests

The recent controversy surrounding forest clearances for industry and mining in India is another example of the classic environment-versus-economic development dilemma, and of how politics affect trade-off decisions. This involved the decision to scrap the nascent 'go and no go' strategy of the Union Ministry of Environment and Forests to protect particular ecologically sensitive coal-bearing areas.

The opening-up of forested Hasdeo-Arand in Chhattisgarh for mining is another prominent case in point. As Jairam Ramesh, former Minister of State for Environment and Forests, has commented, "the Indian political system must be ready to make tough choices and trade-offs between the objective of attaining economic growth of 9–10 per cent, and maintaining the ecological balance. These choices are not technocratic or scientific, but political."

Vira and his research colleagues argue that the real power of trade-off analysis in the ecosystem services context comes from its ability to bring diverse actors to the common recognition that hard choices are often the norm – one which is often not forthcoming when problems are framed as potential win-wins.

"We do recognise," says Vira, "that trade-off analysis is not in itself a panacea for better ecosystem management. But an explicit recognition of the distributional implications of policy choices improves the likelihood of equitable and just decision-making."

Vira, B, Adams, WM, Agarwal, C, Badiger, S, Hope, RA, Krishnaswamy, J and Kumar, C, 2012. 'Negotiating Trade-offs: Choices about ecosystem services for poverty alleviation'. *Economic & Political Weekly*, March 3, Vol XLVII no 9

Vira, B and Adams, WM, 2009. 'Ecosystem Services and Conservation Strategy: beware the silver bullet'. *Conservation Letters*, 2(4), pp.158–162

Vira, B, Elliott, LC, Fortnam, M and Wilks, S, 2011. 'Making Decisions: response options'. In: *The UK National Ecosystem Assessment Technical Report*. UNEP-WCMC, Cambridge. Chapter 27, pp.1309–1451

Fisher, DR, Simpson, RD, Vira, B, Chambers, WB and Davidson, DJ, 2005. 'Assessing Responses'. In: K Chopra, R Leemans, P Kumar and H Simons (eds.) *Ecosystems and Human Well-Being: Policy Responses, Volume 3. Findings of the Responses Working Group of the Millennium Ecosystem Assessment*. Washington, DC: Island Press, pp.71–94

In this installation, drops of melting ice created an evocative soundscape when their fall stopped on metal slides placed below. The sound of the drops hitting the metal was amplified, reaching the corners of Clarendon Quad and of the audience's senses. This symbolic but playful work was created as part of the Cape Farewell project. Founded in 2001, Cape Farewell has engaged over 140 of our best creative minds in a deep, ongoing dialogue with almost 50 scientists. CPSL is proud to be collaborating with Cape Farewell, which works with artists and scientists on a cultural response to climate change. www.capefarewell.com