Civil society engagement

The true value of ecosystems

Ending the 'invisibility' of nature at all levels of economic decision making is essential if we are to build a sustainable, green economy.

Context and challenge

"Human well-being is dependent upon 'ecosystem services' provided by nature for free. Such services include water provision, air purification, fisheries, timber production and nutrient cycling to name a few. These are predominantly public goods with no markets and no prices, so their loss often is not detected by our current economic incentive system and can thus continue unabated."[1]

Thus The Economics of Ecosystems and Biodiversity (TEEB) initiative makes the case that economic development models which do not recognise the value of natural capital – our stock of ecosystems – are incomplete and unsustainable. As such incomplete models inform most economic decisions today, we can expect the continued steady degradation of biodiversity and ecosystems around the world unless fundamental changes are made to the way we view and value nature. Ecosystem services and other non-marketed goods provide 50-90% of total livelihoods among poor rural and forest-dwelling households. Healthy ecosystems are literally 'the wealth of the poor'[2].

The value of biodiversity and ecosystems must be mainstreamed in economic decision making at all levels to ensure more sustainable development pathways for all people, especially the poorest. Adopting an ecosystem approach to the management of natural resources is a logical step toward protecting the fundamental value of ecosystems and the vital services they provide.

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Taking an ecosystem approach through civil society engagement

The ecosystem approach promotes the integrated management of land, water and living resources in a way that achieves mutually compatible conservation and sustainable use, and delivers equitable benefits for people and nature.[3] Ecosystem Alliance partners in several countries have applied valuation tools to make the case for such an approach. Examples include:

- In 2011, a partnership between IUCN NL and OxfamNovib brought together stakeholders from across the supply chain to address shrimp farming problems in Kalimantan, Indonesia. The local landscapes are of great ecological, social and economic importance yet their productivity and climate change mitigating potential are at risk from irresponsible shrimp farming, as is the food security and prosperity of several hundred thousand people. A series of assessments made a robust business case for aquaculture improvements. An integrated approach favouring more profitable and sustainable shrimp farming is now being introduced. (See side column, p2.)
- In 2014, the Alliance carried out a Socio-economic Analysis of Environmental Flows in Kenya's Tana River Basin, to assess the economic value of the positive and negative externalities related to different water-flows regimes. The study is also examining the incentives and conditions needed for different regimes to be adopted across the river basin. It is part of a wider cost-benefit analysis of sustainable transboundary river basin management aimed at strengthening the role of ecosystem values in policy and decision-making in the Tana River basin.
- Mangrove Capital is a project of Wetlands International and partners[4] that highlights the value of mangroves and provides knowledge and tools to those involved in their management. The goal is to ensure that mangroves play a greater role in protecting vulnerable coastlines and supporting local economies.
- With Alliance support, an analysis of the ecosystem services provided by the Lutembe Bay Wetland in Uganda used the TEEB methodology to attribute a monetary value to both the services and their loss. The aim is to (i) clarify the economic impact changes in the landscape have on different end users, and (ii) make recommendations to civil society and governments around wetland reclamation and pollution, the economic cost of which was estimated to be about US$5 million per year.[5]
- In 2013-2014, three training workshops convened dozens of participants from partners across Asia and Africa to share techniques for mainstreaming the value of water and wetlands into decision-making and identify key allies to help shift how wetlands are currently valued. The training drew from the recommendations of the 2013 TEEB for Water and Wetlands Report.[6]

Shrimp farming and economic valuation

Shrimp aquaculture is the world's fastest growing food production sector. While large-scale shrimp farming has provided some wealth, it is also associated with ecological damage, numerous disease and food safety problems, and the marginalisation of local people. On the basis of a valuation study, the Ecosystem Alliance is promoting an alternative, 'responsible' model that is better for both the environment and the bottom line.* This new method offers farmers a higher return on their sales, as well as a new source of income in the form of carbon credits for mangrove reforestation. Moreover, the mangroves provide important ecosystem services such as clean drinking water, food and protection from tsunamis – all of which have a clear and quantifiable value. The project is opening up many opportunities for shrimp aquaculture to work as a positive force for conservation and enhance the lives of the poor.

** A partnership of IUCN NL and OxfamNovib in the Netherlands, Wetlands International, WWF and Telapak in Indonesia, and SNV, IUCN and MCD in Vietnam.*

"The process of identifying nature's values… should be treated as a means to better communicate and take account of nature's importance in policy- and decision-making, with particular respect to human well-being and to the conservation of natural commons for reasons of inter- and intra-generational equity." (TEEB 2014)

Impacts on communities, nature and policy

- Indonesia shrimp farming
  - Estimated 15% higher productivity and quality of the shrimp farmed.
  - Increased income security through formalisation of resource use rights and potential price premium on Aquaculture Stewardship Council certified shrimp through access to certified retail market.
  - Better contracts with retailers and traders.
  - Increase in mangrove cover on the shrimp farm, improving nursery function for all fish and regulating and maintaining services such as coastal protection.
  - High quality, stable product stream for international retailers, investors and traders.
  - Increased tax revenues from shrimp exports and concession / licensing fees.
  - New finance streams opened up by mangrove conservation and/or restoration under REDD+.
  - Access to funding windows for nature conservation such as the Global Environment Facility.
- In Uganda, the Lutembe ecosystem has been shown to have a total annual economic value of US$30 million, providing for the basic needs of 3,500 households. The economic costs of land reclamation and pollution were estimated to be US$5 million a year, threatening water quality, agriculture, beneficial insects and the wetland's habitat services. Clear recommendations will guide multi-stakeholder dialogue and action toward optimal economic, social and environmental returns.
- The training workshops have built capacity across a range of government, business and civil society actors in Asia and Africa.

Looking to the future

Unless we 'value the invisible' and make economic decisions based on a true understanding of the value of ecosystems and the associated implications of development options, poor decisions will continue to be taken at untold economic, social and environmental cost. There are many ways to contribute:

- Valuation of ecosystems is not an end in itself. Governments and business should understand the role of natural capital and ecosystem services in economic growth and prosperity, and the risks associated with their loss. Policies, regulations and the fiscal context should be geared toward improving ecosystem integrity according to their total value.
- Governments and businesses should support civil society to facilitate multi-stakeholder engagement processes and address conflicts of interest. Trade-offs must be recognised and addressed transparently. Clear property rights should be awarded to primary stakeholders and traditional stewards of ecosystems.
- Governments, business and civil society should build and share knowledge and capacity on ecosystem valuation, and empower local communities to stand up for their lawful interests with respect to ecosystem values.

A Green Economy, which fully takes into account the immense value of biodiversity and ecosystems, is essential to 'future proof' corporate and governmental strategies and secure a sustainable development trajectory.

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Further reading

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2. Sukhdev, P., Wittmer, H., and Miller, D., 'The Economics of Ecosystems and Biodiversity (TEEB): Challenges and Responses', in D. Helm and C. Hepburn (eds), *Nature in the Balance: The Economics of Biodiversity*. Oxford: Oxford University Press (2014).
3. 'Responsible Shrimp Culture Improvement Program (RSCIP) – Indonesia', https://cmsdata.iucn.org/downloads/rscip_indonesia_program_summary.pdf

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6. http://www.teebweb.org/publication/the-economics-of-ecosystems-and-biodiversity-teeb-for-water-and-wetlands/

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