



The Economics of Ecosystems and Biodiversity

The Economics of Ecosystems and Biodiversity (TEEB) study is a major international initiative to draw attention to the global economic benefits of biodiversity, to highlight the growing cost of biodiversity loss and ecosystem degradation and to draw together expertise from the fields of science, economics and policy to enable practical actions moving forward.

The TEEB study was launched by Germany and the European Commission in response to a proposal by the G8+5 Environment Ministers (Potsdam, Germany 2007) to develop a global study on the economics of biodiversity loss. The second phase of the TEEB study is being led by UNEP with financial support from the European Commission; German Federal Ministry for the Environment; and the UK Department for Environment, Food and Rural Affairs.

The study is led by Pavan Sukhdev, a senior banker from Deutsche Bank, and founder-Director of the green accounting project "GIST" (Green Indian States Trust) in India. Mr Sukhdev is currently on secondment with UNEP. The TEEB Advisory Board includes leading experts from the fields of science and economics.

The Interim Report of TEEB, released in May 2008 provided strong evidence for significant global and local economic losses and human welfare impacts attributable to the ongoing losses of biodiversity and degradation of ecosystems. It focussed largely on forests. Phase II of the study sets out to expand on the work begun in Phase I. It will be completed in 2010 and presented in Nagoya, at the 10th Conference of parties of the Convention for Biological Diversity (CDB COP-10).

Phase II of the TEEB Study aims to:

- Integrate ecological and economic knowledge to structure the evaluation of ecosystem services under different scenarios.
- Recommend appropriate valuation methodologies for different contexts
- Examine the economic costs of biodiversity decline and the costs and benefits of actions to reduce these losses
- Develop 'toolkits' for policy makers at international, regional and local levels in order to foster sustainable development and better conservation of ecosystems and biodiversity.
- Enable easy access to leading information and tools for improved biodiversity practice for the business community – from the perspective of managing risks, addressing opportunities, and measuring impacts
- Raise public awareness of the individual's impact on biodiversity and ecosystems, and areas where individual action can make a positive difference

The cost of inaction

Managing humanity's desire for food, energy, water, life-saving drugs and raw materials, while minimizing adverse impacts on biodiversity and ecosystem services is today's leading challenge for society. In effect the world's economy is a sub-set of the larger economy of the natural resources and ecosystem services that sustain us. TEEB's interim report looked at the extent of losses of Natural

Capital taking place as a result of deforestation and degradation. This was estimated at between *US\$2-4.5 trillion per year*, every year - a staggering economic cost of taking nature for granted.

The Opportunity

It is estimated that for an annual investment of US\$ 45 billion into protected areas alone, we could secure the delivery of ecosystem services worth some US\$ 5 trillion a year. When compared to current financial losses on the markets, this is not a big price to pay. Sound ecosystem and biodiversity management, and the inclusion of Natural Capital in governmental and business accounting can start to redress inaction and reduce the cost of future losses.

Actions taken now not only lay a foundation for further stimulation of the green economy, but can also help to address the needs of the rural poor who are particularly reliant on the sound functioning of local and regional ecosystems. Awareness and understanding of the economic value of ecosystems and biodiversity is the first step towards improving business performance, creating effective policies and implementing action at a local, regional and national level.

Planned Products of Phase II

TEEB seeks to show that economics can be a powerful instrument in biodiversity policy, both by supporting decision processes and by forging discourses between science, economics and governing structures. The legitimate and effective use of economic instruments in biodiversity conservation depends on their appropriate application and interpretation. Several products to enable this are envisaged for Phase II, all benefiting from the current process of international input and collaboration:

- **For Policy-makers and Administrators:** A 'policy toolkit' providing guidance for policy-makers, covering subsidies and incentives, environmental liability, new market infrastructure, national income accounting, cost-benefit analysis, cost-effectiveness analysis, and methods for implementing Payment for Ecosystem Services (PES) and Access and Benefits Sharing (ABS).
- **For Enterprises:** information on how to quantify and disclose, mitigate or offset corporate impacts on ecosystems and biodiversity. Case studies of successful business models that recognise the value of ecosystem services and biodiversity.
- **For Citizens:** information on the value of ecosystems and biodiversity; examples of how to reduce their impact on wild nature and influence producers through their private purchasing decisions.

For further information on TEEB go to: www.teebweb.info

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