



Increasing biodiversity business opportunities

Chapter 5 of the TEEB Report for Business

Setting an agenda for further research

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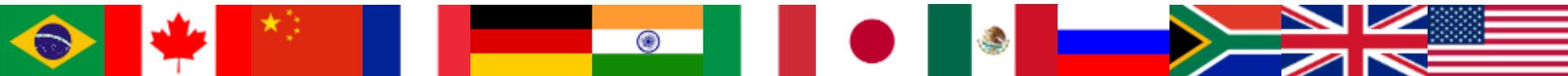
TEEB mandate:



Potsdam Initiative

“In a global study we will 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.”

Note: TEEB will initiate the process of analysing...; there is much more research to be done!

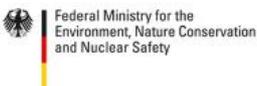




The Economics of Ecosystems & Biodiversity

TEEB structure:

- Multi-donor project, initiated by the EU and Germany on behalf of G8+5, hosted by UNEP
- Studies includes data synthesis, new analysis, methodological and policy advice over the period 2007-11
- 1000+ contributors/reviewers from public agencies, businesses, NGOs and individuals
- *A global state-of-knowledge baseline for further research*





Towards a TEEB-based research agenda (1/2)

- Understanding the links between the conservation of biodiversity, the provision of ecosystem services and economic and social development
- Analysis on which ecosystem services can be averaged or aggregated, at what levels and in different contexts
- Identifying the importance of ecosystems ES to households, in different contexts, and, in particular, to reducing poverty
- Understanding which discount rates should be used for different forms of biological capital in different contexts
- Practical guidance on the usefulness of and limits to valuation and how to deal with non-linear impacts as well as cultural objections to the monetization/commodification of nature



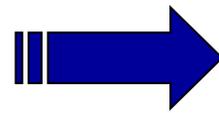
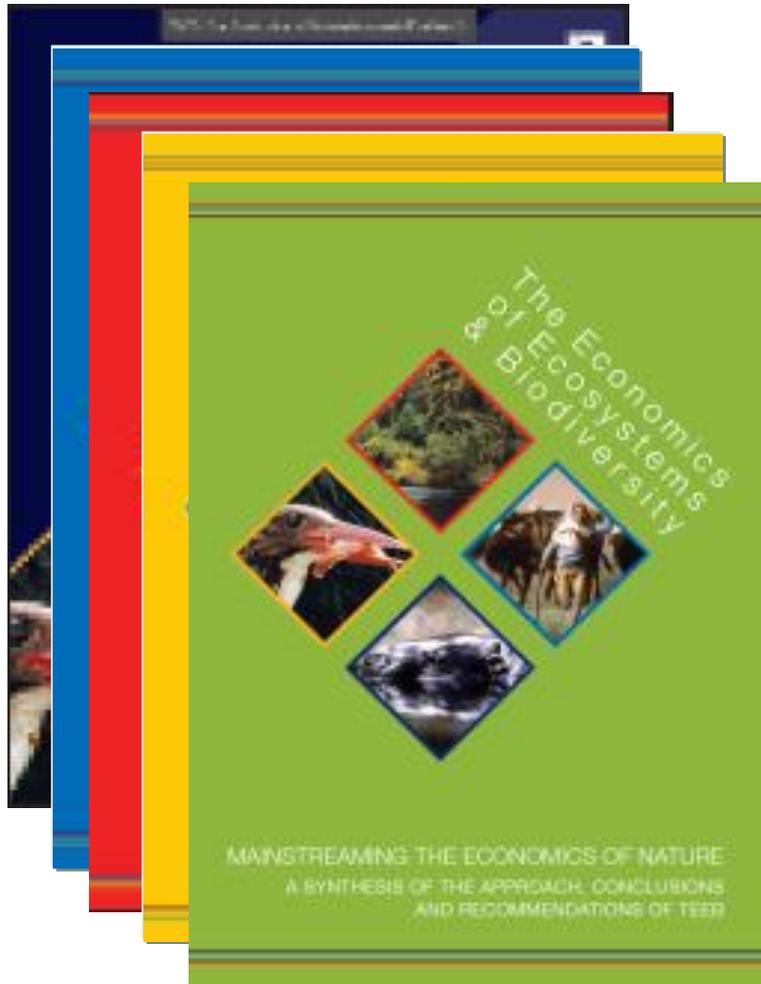
Towards a TEEB-based research agenda (2/2)

- How to overcome political-economy barriers to implementing reforms that reflect biodiversity and ecosystem services values
- Biodiversity finance, including:
 - current expenditure on biodiversity action and its effectiveness
 - comparative costs of alternative biodiversity
 - magnitude of non-use/existence values (partly to justify international transfers)
 - the pros and cons of alternative mechanisms to capture and convey those values to providers of ecosystem services (e.g. REDD+, Green Development Initiative);
- Trade-offs between damage avoidance, mitigation, restoration, offsets, payments, etc, as guidance for impact assessment and response
- The ‘acceptability’ of market-based instruments for biodiversity action



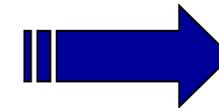
The Economics of Ecosystems & Biodiversity

TEEB final reports for different audiences



TEEB Ecological and Economic Foundations (D0)

www.teebweb.org



TEEB for Policy-Makers (D1)

www.teebweb.org



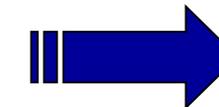
TEEB for Local Policy (D2)

September 2010



TEEB for Business (D3)

July 2010...



TEEB for Citizens (D4)



The Economics of Ecosystems & Biodiversity

TEEB Foundations report (D0)

Coordinator: Pushpam Kumar, U. Liverpool

Ch1 Integrating ecological and economic dimensions

Ch2 Biodiversity, ecosystems and ecosystem services

Ch3 Measuring biophysical quantities and the use of indicators

Ch4 Socio-cultural context of ecosystem and biodiversity valuation

Ch5 The economics of valuing ecosystem services and biodiversity

- Annex A. Sources of support on biodiversity valuation
- Annex B. Database of valuation case studies (wetlands and forests)
- Annex C. Estimates of monetary values of ecosystem services

Ch6 Discounting, ethics and options for maintaining biodiversity and ecosystem integrity

Ch7 Lessons learned and linkages with national policies

Key research topics

- **Conservation *and* development**
- **Effectiveness of valuation studies**



TEEB for Policy-Makers (D1)

Coordinator: Patrick ten Brink, IEEP

- Ch1 The global biodiversity crisis and related policy challenge
- Ch2 Framework and guiding principles for the policy response
- Ch3 Strengthening indicators and accounting systems for natural capital
- Ch4 Integrating ecosystem and biodiversity values into policy assessment
- Ch5 Rewarding benefits through payments and markets
- Ch6 Reforming subsidies
- Ch7 Addressing losses through regulation and pricing
- Ch8 Recognising the value of protected areas
- Ch9 Investing in ecological infrastructure
- Ch10 Responding to the value of nature

Key research topics

- **Finance: sources and uses of funds**
- **International trade**



TEEB for Local Authorities (D2)

Coordinators: Heidi Wittmer, UFZ; Haripriya Gundimedda, IITB

- Ch1 Introduction to the challenges at local level
- Ch2 Approaches to consider the benefits of ecosystem services
- Ch3 Methods to consider ecosystem services (cost-benefit analysis)
- Ch4 Environmental Management in urban contexts
- Ch5 Natural Resources Management (by sector)
- Ch6 Spatial planning instruments and Impact Assessment
- Ch7 Protected Area Management and local governments
- Ch8 Market-based instruments for conservation
- Ch9 Competitions, certification and labeling

Key research topics

- **Property rights**
- **Protected areas vs protecting areas**



TEEB for Citizens (D4)

Aims to raise public awareness of:

- contribution of ecosystem services and biodiversity to human welfare
- an individual's impact on biodiversity and ecosystems
- areas where individual action can make a positive difference
- <http://twitter.com/TEEB4ME>
- <http://www.facebook.com/TEEB4me>

Key research topics

- **Citizen/consumer demand options**
- **Public/social choice processes**



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TEEB for Business (D3)

1. Business, biodiversity and ecosystem services
2. Business impacts & dependence on biodiversity and ecosystem services
3. Measuring & reporting biodiversity and ecosystem impacts & dependence
4. Scaling down biodiversity & ecosystem risks to business
5. **Increasing biodiversity business opportunities**
6. Business, biodiversity and sustainable development
7. A recipe for biodiversity and business growth

Key research topics

- **Business strategies & action plans**
- **Biodiversity positive business**





D3 List of Contributors

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Chapter 5:

Increasing biodiversity business opportunities

5.1 Introduction: Biodiversity as a business opportunity

5.2 Biodiversity and ecosystem services as a value proposition

- Agriculture, Biodiversity management services, Cosmetics, Extractive industries, Finance, Fisheries, Forestry, Garments, Handicrafts, Pharmaceuticals, Retail, Tourism, Biodiversity: An opportunity for scaling up business

5.3 Emerging markets for biodiversity and ecosystem services

- Regulatory markets for biodiversity and ecosystem services, Voluntary markets for biodiversity and ecosystem services, REDD+ and the lessons for new ecosystem service markets

5.4 Tools to support markets for biodiversity and ecosystem services

- Certification schemes for biodiversity and ecosystem service markets, Assessment and reporting for biodiversity and ecosystem services, Voluntary incentives for biodiversity business, Further considerations for institutional investors, Public policy to support biodiversity business

5.5 Challenges to building biodiversity business

5.6 What is to be done?



D3 C5 Key Messages & Research Topics (1/3)

Biodiversity and ecosystem services offer opportunities for all business sectors: The integration of biodiversity and ecosystem services into business can create tangible and significant added value for all companies and investors by increasing the cost-effectiveness of operations, ensuring the sustainability of value chains, or enhancing revenues from new markets and new customers.

Biodiversity or ecosystem services can be the basis for new businesses: Conserving biodiversity and using biodiversity or ecosystem services sustainably and equitably can be the basis for unique business propositions, enabling entrepreneurs and investors to develop and scale up ‘biodiversity businesses.’



D3 C5 Key Messages & Research Topics (2/3)

Biodiversity and ecosystem service markets are emerging, alongside markets for carbon: New markets for biodiversity and ecosystem services are emerging... providing new biodiversity assets with local and/or international trading opportunities. A key business opportunity is likely to be... REDD+ and related nature-based carbon storage and sequestration methods.

Tools for building biodiversity business are in place or under development: Critical market-based tools for capturing biodiversity and ecosystem services opportunities, such as biodiversity performance standards for investors; biodiversity-related product certification, assessment and reporting schemes; and voluntary incentive measures, are already available or under development and can be promoted across all business sectors and markets.



D3 C5 Key Messages & Research Topics (3/3)

Appropriate policies can create an enabling framework for biodiversity and ecosystem service business opportunities:

A range of voluntary and public policy measures at national, regional and international levels can create the enabling framework needed to scale up biodiversity and ecosystem services as viable business opportunities, such as payments for ecosystem services, REDD+, 'green development' certification, green tax incentives, biodiversity performance standards, and development cooperation.



From carbon neutral to biodiversity positive

- Danone Group: “Attain carbon neutrality for the major Danone brands, including Evian, by the end of 2011.”
- Marks & Spencer: “Our goal is to become carbon neutral by 2012 in our UK and Republic of Ireland operations.”
- Coca Cola: “Our goal is to safely return to communities and nature an amount of water equivalent to what we use in all of our beverages and their production.”
- BC Hydro: “long-term goal of no net incremental environmental impact.”
- Walmart: “Committed ... to permanently conserve at least one acre of priority wildlife habitat for every developed acre.”
- Rio Tinto: “Our goal is to have a ‘net positive impact’ on biodiversity.”



Growing consumer demand for eco-certified products & services

- Global sales of organic food and drink = US\$ 46 billion in 2007 (threefold increase since 1999)
- Sales of certified 'sustainable' forest products quadrupled between 2005 and 2007
- From April 2008 to March 2009, the global market for eco-labeled fish products grew by over 50%, to a retail value of US\$ 1.5 billion
- Major consumer brand owners and retailers added 'ecologically-friendly' attributes to their products:
 - Mars (Rainforest Alliance cocoa)
 - Cadbury (Fairtrade cocoa)
 - Kraft (Rainforest Alliance Kenco coffee)
 - Unilever (Rainforest Alliance PG Tips).



Building “biodiversity positive” businesses

Adding biodiversity and ecosystem services to existing business

- Agriculture
- Biodiversity mgmt services
- Cosmetics
- Extractive industries
- Finance
- Fisheries
- Forestry
- Garments
- Handicrafts
- Pharmaceuticals
- Retail
- Tourism



New markets for biodiversity

- Bio-carbon & REDD
- Biodiversity -certified land management
- Biodiversity banking
- Enabling policy & tools



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Table 5.5 Current & expected value of biodiversity-related markets and finance

Market opportunities and other biodiversity finance	Actual 2010 (US\$ millions)	Estimated 2013	Estimated 2020
Nature-based tourism and recreation	80,000	90,000	200,000
Certified agricultural products (e.g., organic, conservation grade)	56,000	98,000	261,000
Certified forest products (FSC only)	30,000	45,000	228,000
Payments for water-related ecosystem services (gov't.)	9,000	12,000	20,000
Mandatory biodiversity offsets (e.g., US mitigation banking)	3,000	4,000	5-8,000
Water quantity permit trading	3,000	3,750	4,800
Other payments for ecosystem services (government-supported)	2,200	2,300	2,900
Publicly-financed REDD+	1,000	<7,000	500-15,000
Forest carbon (voluntary markets)	54.7	50	<5,000
Forest carbon (compliance markets)	26.9	<5,000	<5,000
Payments for genetic resources	35	35	100
Voluntary biodiversity offsets	24-27	30	70
Payments for watershed management (voluntary)	5	10	50



Enabling policy for markets for BES

- **Subsidy reform** (agriculture, fisheries, water, transport, etc)
- **Tax credits and other incentives** for conservation
- **Certification and eco-labelling** (voluntary / mandatory)
- **Payment for Ecosystem Services** (national, international)
- **Biodiversity responsibility** (EU Environmental Liability Directive, damage assessment and compensation)
- **Biodiversity trading schemes** (REDD+, USA wetland and species mitigation, Australia biodiversity banking)
- **Public access to information** (Global Reporting Initiative, Carbon / Forest / Water footprint disclosure projects)



CBD-based land management certification

The **Green Development Initiative (GDI)** seeks to engage business in support of the CBD. It aims to mobilise private finance for conservation and development by establishing a CBD-based land management certification scheme.

Working papers currently available for comment

- 01 Addressing land issues and green development
- 02 Guidance for establishing green development certification
- 03 Establishing green development principles and criteria
- 04 Potential demand for green development certification
- 05 Green development certification vis-à-vis other modalities
- 06 Prototype green development guidance for a project information note
- 07 Prototype green development certification reference guide

<http://gdi.earthmind.net/library>



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Main TEEB funders:



Main D3 writers:



Thank you!

For more information:
<http://teebweb.org/>
& click on "For Business"

Case studies & reference materials:
<http://teebforbusiness.earthmind.net/>