Policy Tools for Ecosystem Conservation and Restoration

TEEB: The Economics of Ecosystems and Biodiversity

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(on behalf of TEEB Secretariat)

CBD Capacity-building workshop for Central, South and East Asia on ecosystem conservation and restoration to support achievement of the Aichi Biodiversity Targets, Jeju, Republic of Korea – 14-18 July 2014

Outline of Presentation

1. Policy Tools and Instruments for Ecosystem Conservation and Restoration
2. About TEEB
3. TEEB & Aichi Targets
4. TEEB & Natural Capital Accounting

Policy Tools for Ecosystem Conservation and Restoration

Policy tools: Frameworks, methodologies and models that can be used to inform policy making and the appraisal of policy instruments

Examples: Environmental impact assessment, strategic environmental assessment, cost-benefit analysis, spatial planning, valuation and accounting of natural capital, ecosystem assessment, etc.

Existing initiatives: The Economics of Ecosystems and Biodiversity (TEEB), Wealth Accounting and Valuation of Ecosystem Services (WAVES), Sub-Global Assessment (SGA) Network, Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), etc.

Classification of Environmental Policy Instruments

Command-and- control Regulations	Direct provision by Government	Engaging public and private sectors	Using markets	Creating markets
– Standards – Bans – Permits – Quotas – Zoning – Liability – Legal redress	– Environmental infrastructure – Eco-industrial zones or parks – Protected areas – Recreation facilities – Ecosystem rehabilitation	– Education – Public participation – Information disclosure – Voluntary agreements – Public-private partnerships	– Subsidies – Taxes – User charges – Deposit-refund systems – Green procurement	– Property rights – Tradable permits – Offsets – Payment for ecosystem services – Eco-labelling

Source: UNEP 4th Global Environment Outlook (GEO4)

About TEEB

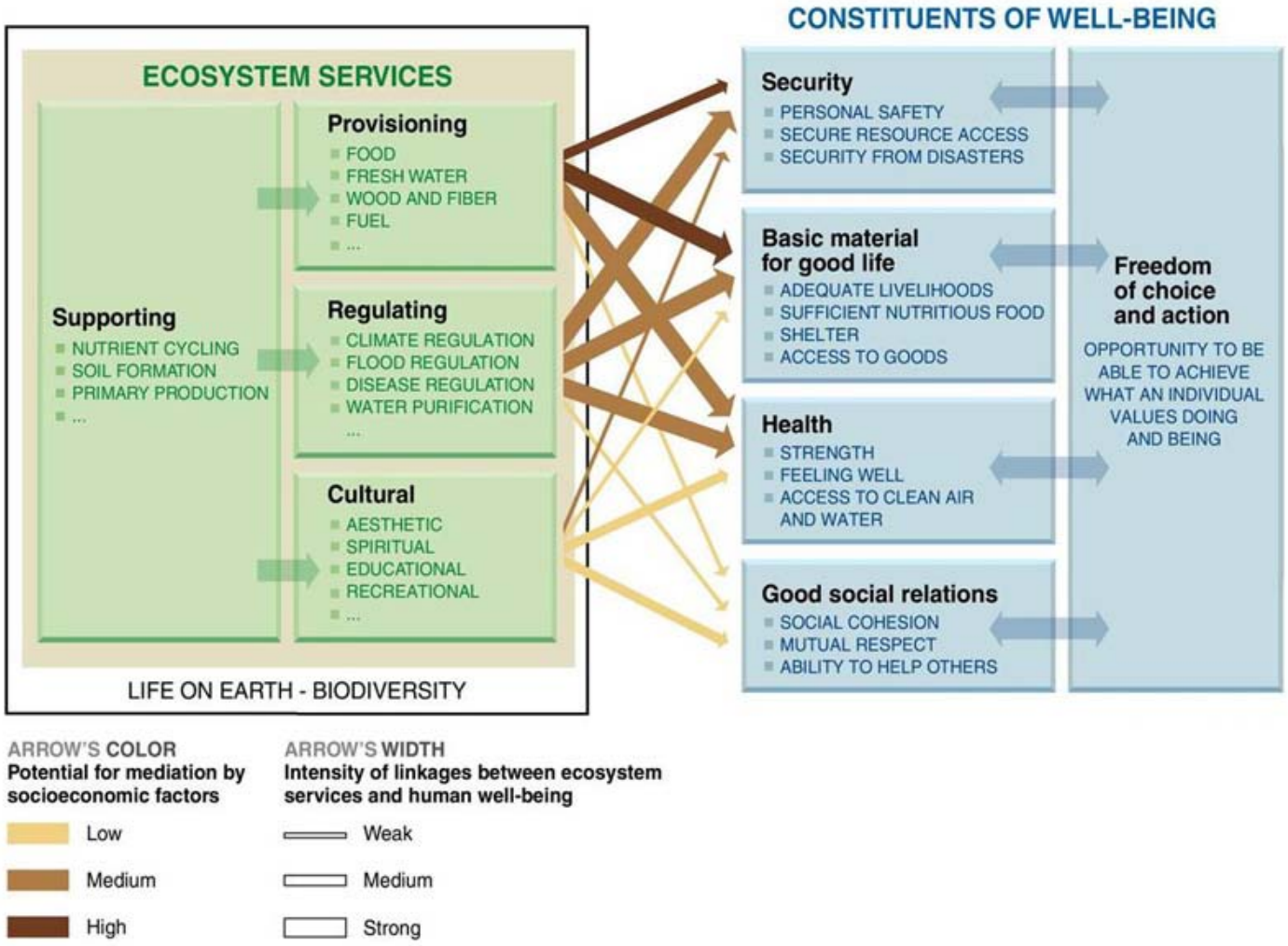
Natural Capital, Ecosystem Services, Well-being

Natural Capital

Social Capital

Human Capital

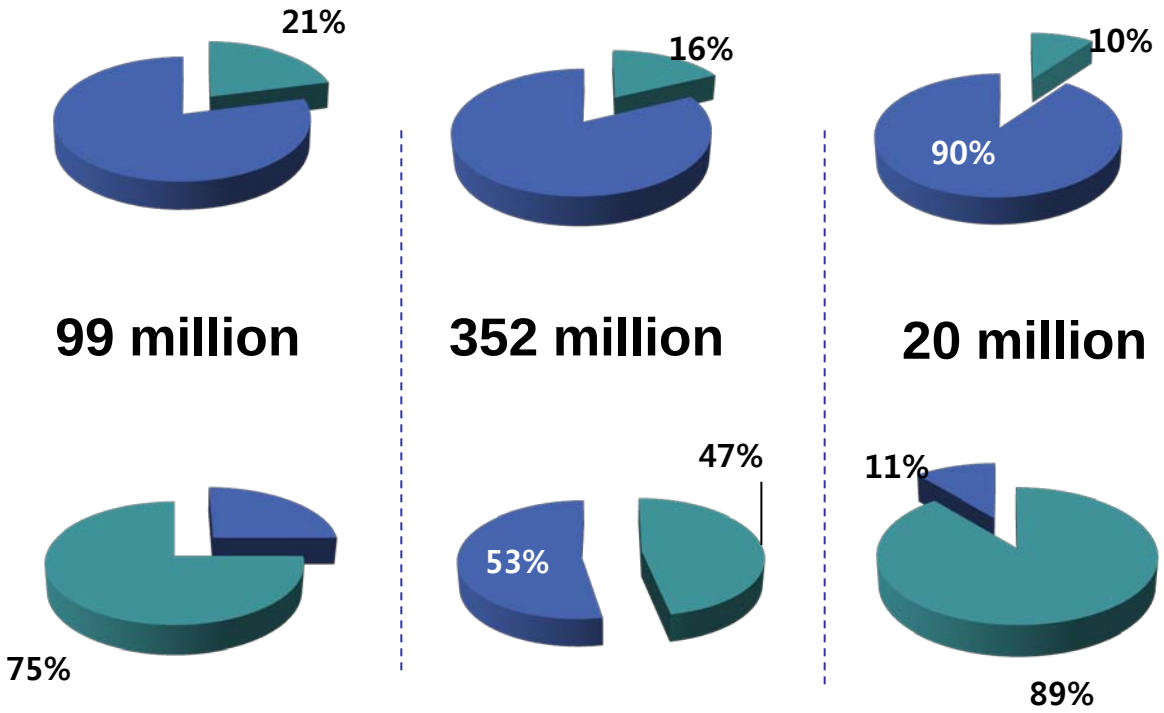
Man-made Capital



Source: MA (2005)

Key Finding, TEEB, 2010 :
Ecosystem Services and Poverty Reduction

	Indonesia	India	Brazil
Ecosystem services as a % of classical GDP	21%	16%	10%
Ecosystem services dependency	99 million	352 million	20 million
Ecosystem services as a % of "GDP of the Poor"	75%	53%	11%

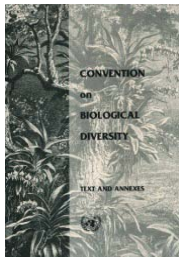


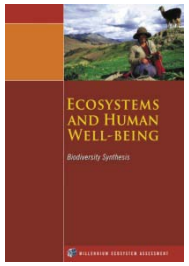
Source: Gundimeda and Sukhdev, TEEB for National & International Policy

Why Value nature?

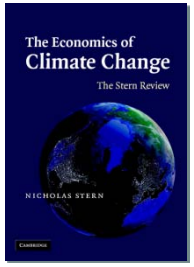
1. "BAU" nature losses exacerbate poverty
2. Costs & Risks to Society of "BAU" are too large to ignore
3. We are already consuming beyond planetary boundaries, and these risks are further compounded by climate change
4. Valuation can allow for informed policymaking (not a panacea however)

TEEB (2008-2010)





Ecol./Env. Economics literature

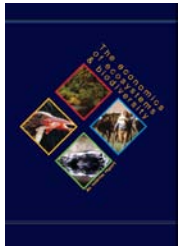


G8 2007
Environment Ministers Meeting
Potsdam, 15-17 March 2007

"Potsdam Initiative – Biological Diversity 2010"

The economic significance of the global loss of biological diversity….

Interim Report



CBD COP 9 Bonn 2008

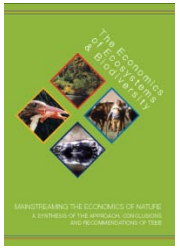
Climate Issues Update

Input to UNFCCC 2009

TEEB End User Reports Brussels 2009, London 2010

India, Brazil, Belgium, Japan & South Africa Sept. 2010

TEEB Synthesis

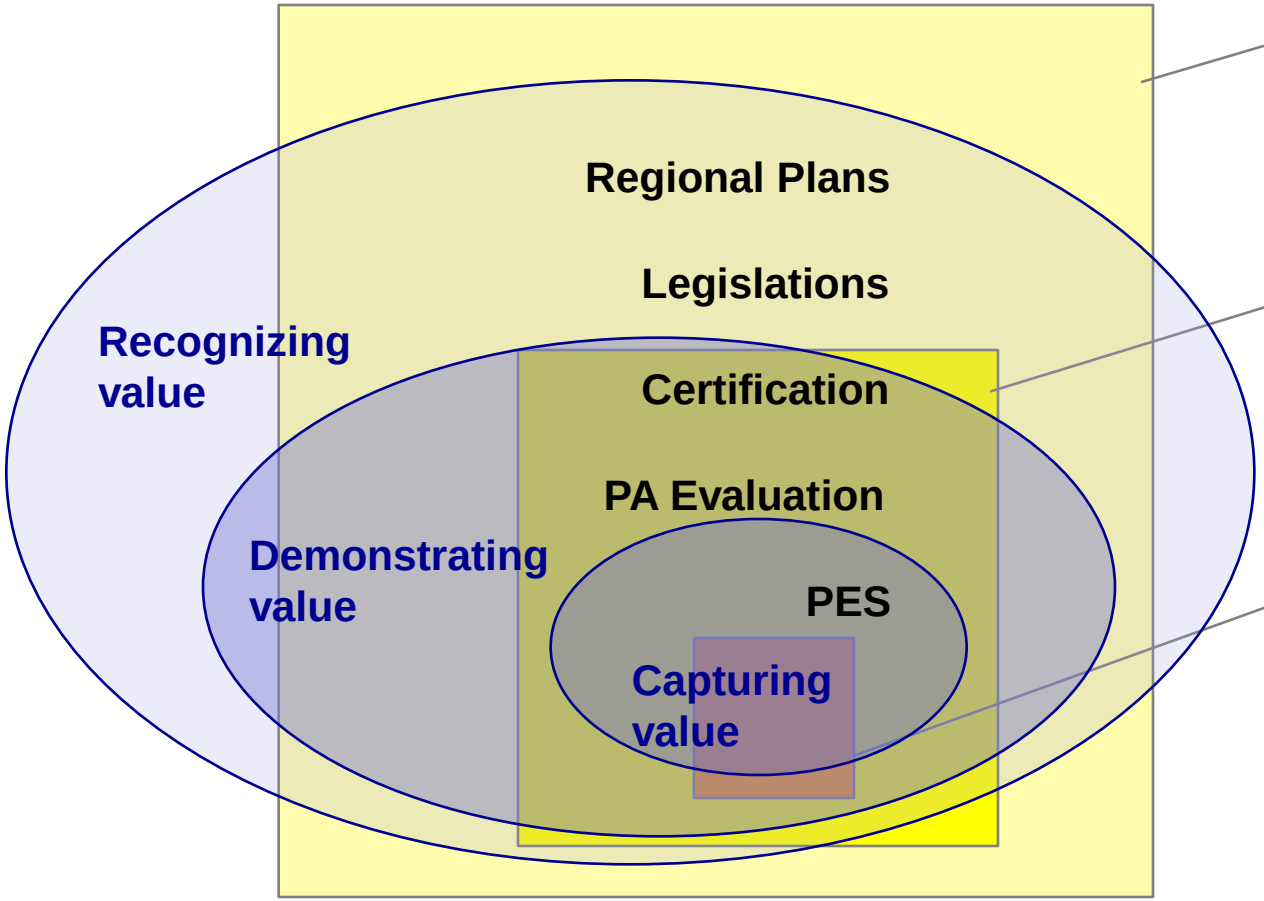


TEEB Books

BD COP 10 Nagoya, Oct 2010

- **CBD COP11 India**
- **Country TEEB Programs**
- **Sectoral TEEB Programs**
- **Business Externalities Work**
- **Rio+20 Brazil**

Valuations, Operating Spaces, Responses…

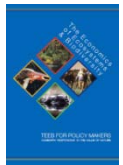


Norms, Regulations & Policies

Economic Mechanisms

Markets


Ch.5


Ch.4


Ch.3


Ch.3

TEEB seeks to -

- Recognize, demonstrate and, possibly, capture nature's value.
- **Raise awareness** of the role of ecosystems in human well being.
- Help us to **measure better** so that we can **manage better**.
  - Identify 'true' costs of business as usual
  - Identify potential opportunties
  - Improve decision making when tradeoffs are necessary and useful information is lacking
  - Provide a more comprehensive basis for policy formulation and analysis

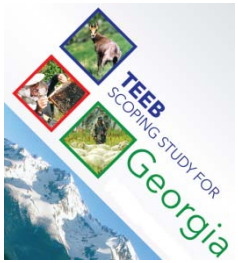
TEEB Implementation and initiatives

- **National TEEB:** e.g. Brazil, Georgia, Germany, India, Mexico, Netherlands, Norway, Portugal, UK, South Africa, Sweden

- **Sub-national TEEB:** Polish TEEB for Cities, TEEB Flanders, TEEB Reykjavík, Thailand

- **Regional TEEB:** Heart of Borneo, Nordic TEEB, Southeast Asia

- **TEEB for Business:** NL TEEB for Business, TEEB Germany for Business, TEEB for Business Brazil



TEEB Phase III: 2014-2017

1. Country-level studies
2. Regional studies
   - *TEEB for Arctic*
3. Natural Capital Accounting
   - SEEA at national level
   - Corporate accounting
4. Biome-specific studies
   - *TEEB for Agriculture and Food*
   - *TEEB for Oceans and Coasts*

EC-funded TEEB National Implementation project: Reflecting the Value of Ecosystems and Biodiversity in Policymaking

Country selection: geographic balance, focus on developing/LDC, expressed Government interest/commitment, alignment with national policies, capacity, potential synergies with related projects, potential for addressing regional ecosystem issues

Pilot countries: Liberia and Tanzania (Africa), Bhutan and the Philippines (Asia), Ecuador (Latin America)

European Commission

TEEB EC funded project components

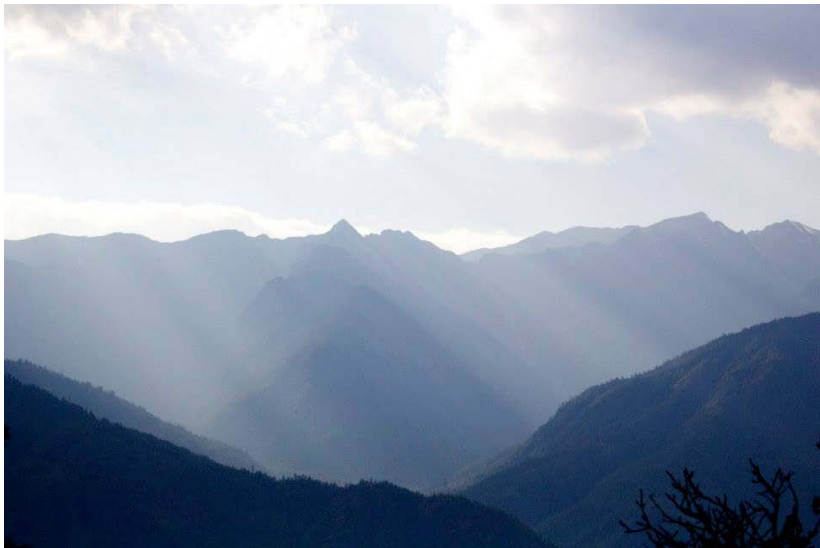
Phase I. Project preparation and scoping	**Phase II.** TEEB Country Study	**Phase III.** Review and Dissemination of results
Activities • First national workshop (scoping workshop) • First international workshop	Activities • Identify relevant ecosystems and ecosystem services • Define information needs and select appropriate methods • Assess and value ecosystem services • Identify and outline pros and cons of policy recommendations, including distributional impacts.	Activities • Second national workshop • Development of a final Implementation Plan for TEEB • Second international workshop
Deliverables • Project governance structure established • Project Brief that lists policy priorities, stakeholder mapping, along with mapping of relevant projects • Scope of TEEB Bhutan finalized • …	Deliverables ▪ Intermediary Report A – Assessment of data availability and gaps ▪ Intermediary Report B – Compilation of biodiversity data, including relevant mapping and modeling results against selected scenarios ▪ Intermediary Report C – Review of existing valuation data ▪ Intermediary Report D – Economic valuation ▪ Intermediary Report E – Policy Options	Deliverables • Final plan and strategy to implement the TEEB Country Study's recommendations • …

TEEB Bhutan – Hydropower development

Inform the **Sustainable Hydropower Development Policy of 2008**, and the **Alternative Renewable Energy Policy of 2013**

-TEEB would assess changes in ecosystem services provisioning (with a focus on watershed services from forests) under **different hydropower diversification scenarios** (large, medium and small hydropower plants), assuming that each scenario would seek to meet the 2020 energy goals set by the Royal Government of Bhutan.

- The study would **recommend instruments, including PES**, to ensure the regular and reliable flow of water, and to deliver benefits to local communities.



TEEB Philippines – Land Reclamation

Inform land reclamation policy with ecosystem services and biodiversity impacts (3-4 sites)

-Southern Palawan

- Port development and “Ocean park”
- Relatively pristine, mangrove forests, indigenous people
- Risk of deforestation; compounding impacts (mining and oil palm development also occurring)

-Manila Bay

- High population pressure
- Lappchea zone (high migratory bird species; coral reef)
- Risk of sedimentation and nutrient loading

TEEB & Aichi Targets

Aichi Biodiversity Targets echoing TEEB–

- **Target 1** "By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably."

- **Target 2** " *By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems*"

- **Target 3** "*By 2020, at the latest, incentives including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid conservation and sustainable use of biodiversity are developed and applied, consistent any in harmony obligation, taking into account national socio economic condition*"

- **Target 11** "*By 2020, at least 17 percent of terrestrial and inland water, and 10 per cent of coastal and marines areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes*."

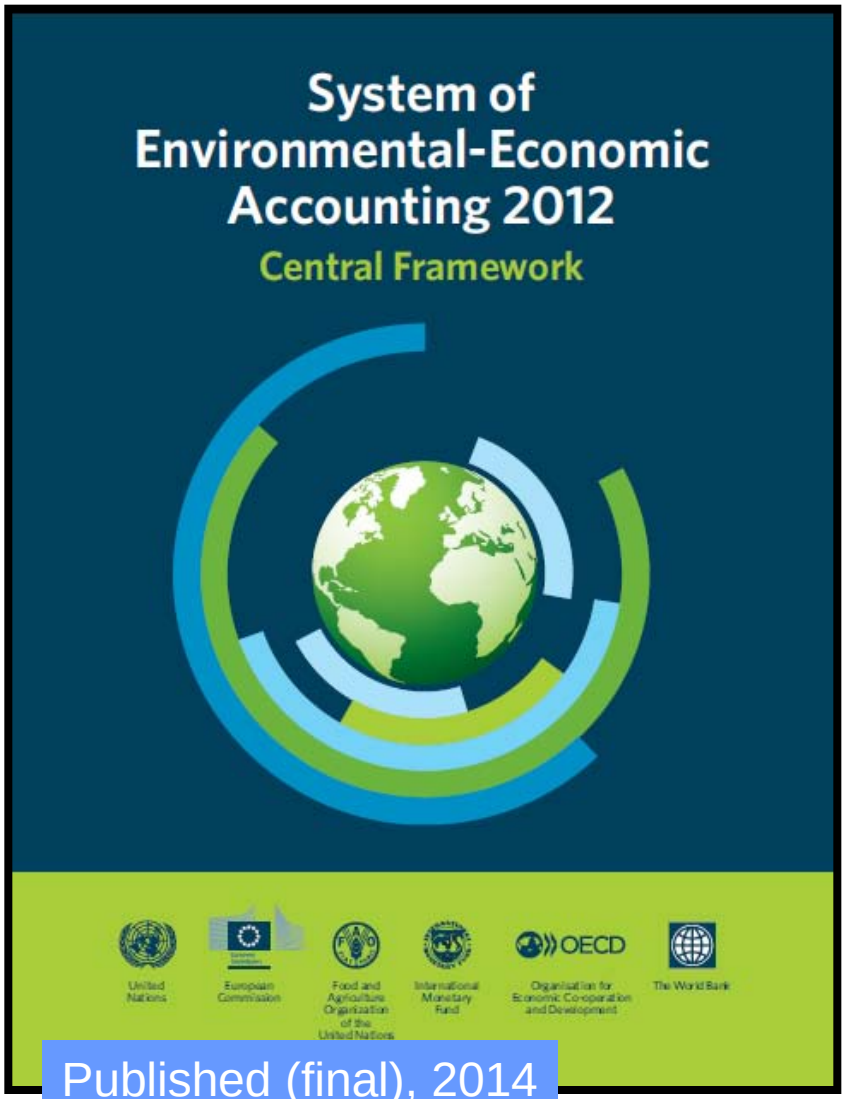
The drivers of biodiversity loss arise throughout the economy…

Meeting the Aichi Targets will have benefits far beyond "biodiversity" and contribute to goals across our economies and societies

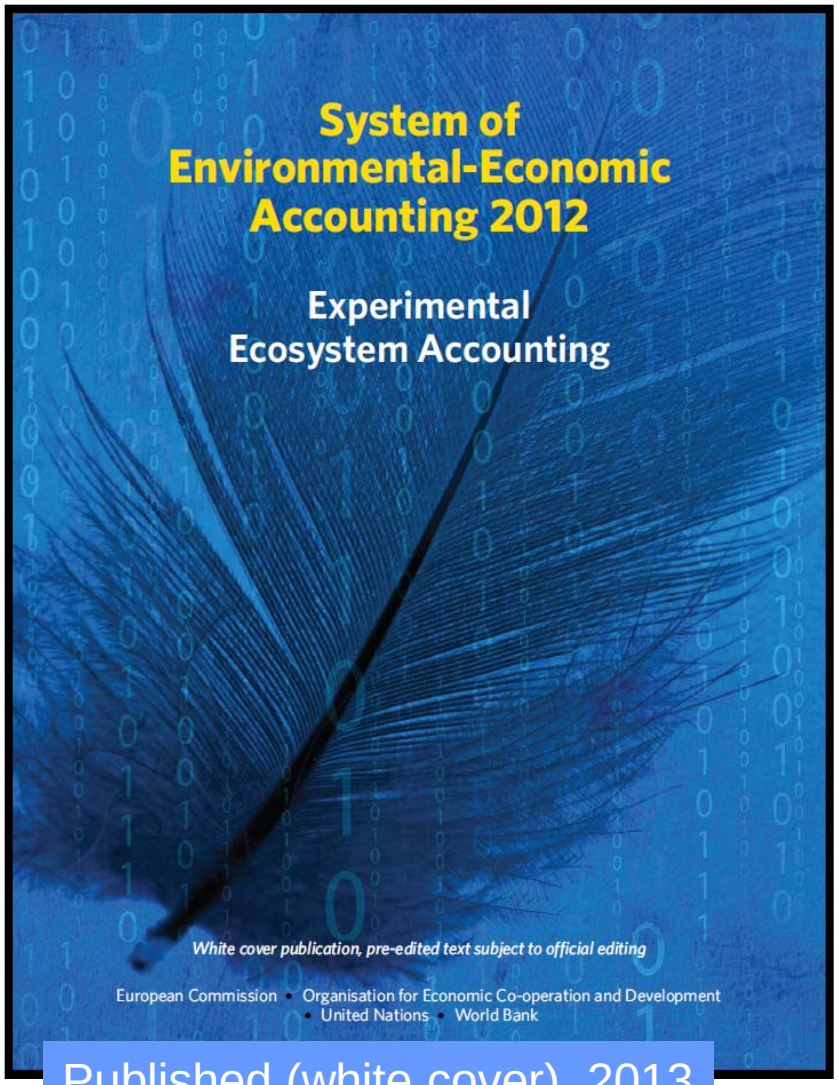
Source: Pavan Sukhdev (Chair, Aichi Financing Panel, and TEEB study leader)

TEEB & Natural Capital Accounting

System of Environmental-Economic Accounting (SEEA)



Published (final), 2014



Published (white cover), 2013

Advancing SEEA-Experimental Ecosystem Accounting project

- **Global strategy** for the testing of the SEEA-Experimental Ecosystem Accounting at the national level
- **Guidance document and training material** for the testing of the SEEA-Experimental Ecosystem Accounting
- **Support pilot countries**:
  - assessment of policy priorities, data situation and tools used for ecosystem accounting
  - provide a national programme of work on how to advance the testing of the SEEA-Experimental Ecosystem Accounting, including by using non-conventional data sources;
  - identify relevant national stakeholders beyond statistical offices (e.g. in academia, research institutions, NGOs, etc.).

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