



# International initiatives related to the measurement of ecosystem condition and ecosystem services: TEEB



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Expert Group Meeting “Modelling Approaches and Tools  
for Testing of the SEEA Experimental Ecosystem Accounting”  
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# The Economics of Ecosystems & Biodiversity



## Phase 1



## Phase 2



## Phase 3

### Sectors & biomes

- Water & Wetlands (2013)
- Arctic (2013-2015)
- Agriculture & Food (2014? -)
- Oceans & Coasts (2014? -)

### Country Studies



## “6 steps”

**STEP 1:** Refine the objectives of a TEEB country study by specifying and agreeing on the **key policy issues** with stakeholders

**STEP 2:** Identify the most relevant ecosystem services

**STEP 3:** Define information needs and select appropriate methods

**STEP 4:** Assess and value ecosystem services

**STEP 5:** Identify and outline the pros and cons of policy options, including distributional impacts

**STEP 6:** Review, refine and report



## Building evidence to...

- Rethink incentives from subsidies and taxes
- Integrate BES into spatial and development planning
- Analyze social impacts and dependencies, for instance for poverty reduction strategies, job creation
- Uncover impacts and dependencies of different industry sectors and regulation implications (“level playing field”)
- Influence important sectoral policies
- Strengthen resource mobilization, including for protected areas
- **Promote integration of biodiversity & ecosystem services in national accounting**



## **TEEB (2010) Recommendation #5 measure better to manage better**

- The system of national accounts should be rapidly upgraded to include the value of changes in natural capital stocks and ecosystem services
- Governments should also develop a ‘dashboard’ of indicators to monitor changes to physical, natural, human, and social capital as an ongoing effort



## TEEB (2010) Recommendation #7

### Beyond the bottom line – disclose and compensate

- The annual reports and accounts of business and other organizations should disclose all major externalities, including environmental liabilities and changes in natural assets not currently included in the statutory accounts.
- Methodologies, metrics and standards for sustainable management and integrated accounting of biodiversity and ecosystem services should be developed as a priority by national and international accounting bodies



# The Economics of Ecosystems & Biodiversity



**NATURKAPITAL**  
DEUTSCHLAND – TEEB DE

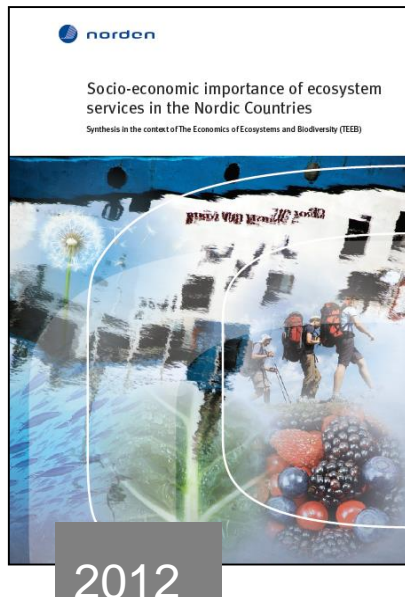


THE ECONOMICS  
OF ECOSYSTEMS & BIODIVERSITY  
NORDIC SYNTHESIS

National TEEB studies / scoping studies	Sub-national TEEB studies	Regional TEEB studies	TEEB for Business
<p>Brazil, Finland, Georgia, Germany, India, Mexico, Netherlands, Norway, Portugal, Thailand, UK, Saint Lucia, South Africa, Sweden</p>	<p>Polish TEEB for Cities, TEEB Flanders, TEEB Reykjavík</p>	<p>Heart of Borneo, Nordic TEEB, Southeast Asia</p>	<p>NL TEEB for Business, TEEB Germany for Business, TEEB for Business Brazil</p>

# Socio-economic importance of ecosystem services in the Nordic Countries: Synthesis in the context of TEEB (2012)

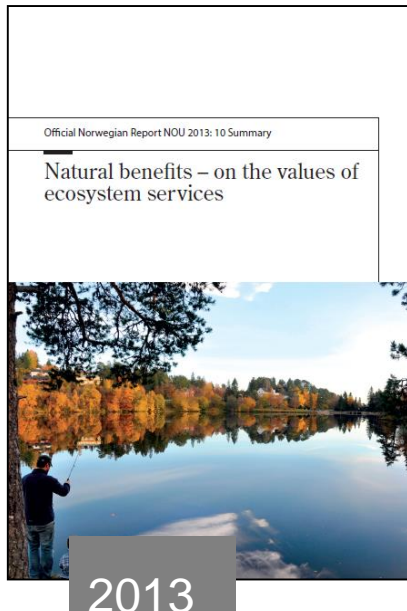
- Concrete key policy recommendations for future actions, as identified by TEEB Nordic, include:
  - Implementing the international commitment under the World Bank's WAVES initiative linked to the UN led SEEA to develop natural capital accounts with a dedicated focus on the non-market benefits provided by biodiversity and ecosystems





# Norwegian expert commission on values of ecosystem services

- National accounts and other overriding reporting systems must be developed to demonstrate the value of ecosystem services
- Norway should participate more actively in the UN's work on developing ecosystem services accounts linked to the national accounts, as well as pilot and satellite accounts in physical units for some ecosystem services with a view to developing more complete satellite accounts for ecosystem services and the state of ecosystems.



## **A synthesis of approaches to assess and value ecosystem services in the EU in the context of TEEB (Brouwer et al., 2013)**

- One of the main findings is that there does not exist one single, standard “TEEB” method or approach.
- Most efforts focus on the mapping of ecosystem services.
- Hardly any initiative has (yet) been able to integrate ecosystem services assessment and mapping into valuation and accounting.
- There exists a wide variety of approaches in practice at different geographical and temporal scales, which are only partly related to ongoing efforts at European level to harmonize the classification of ecosystem services, their assessment and reporting

	Bhutan	Philippines	Liberia *	Tanzania *	Ecuador
<b>TEEB</b> The Economics of Ecosystems and Biodiversity	X	X	X	X	X
<b>BIOFIN</b> The Biodiversity Finance Initiative		X			X
<b>WAVES</b> Wealth Accounting and Valuation of Ecosystem Services	(X)	X		(X)	
<b>SEEA-EEA</b> System of Environmental-Economic Accounting (SEEA) - Experimental Ecosystem Accounting					



\* Signatories of the **Gaborone Declaration** (2012)

# ValuES project (2013-2017)

- developing a user-oriented compendium of tools and methods for ecosystem service assessments
  - supports mainstreaming ecosystem services
  - offer an overview of methods and tools for ESS analysis
  - offer user-friendly guidance to a needs-oriented selection and application of methods and tools for ESS analysis
  - means a shifting away from data driven academic studies towards demand-driven ESS analysis
- Brazil, Costa Rica, India, Mexico, Namibia, Vietnam
- financed by International Climate Initiative (ICI) of BMU, carried out by GIZ Helmholtz Centre for Environmental Research – UFZ



**Draft IPBES programme of work 2014–2018:** Initial scoping of the fast-track assessment of the conceptualization of value, valuation and accounting of biodiversity and ecosystem services (under **Objective 3 (d)**)

- “Chapter 6 will consider methodologies for assessing the shared, plural and social value of ecosystems (e.g., conceptualization of cultural, social and shared non-economic values, e.g., cultural ecosystem services and their spiritual and aesthetic benefits; methodologies for comparing aggregated individual values (monetary and non-monetary) to shared values).”

IPBES/2/2

IPBES/2/16/Add.5



# Briefing Note -- Natural Capital Accounting and Water Quality: Commitments, Benefits, Needs and Progress

- **To present approaches, experiences and needs for integrating water quality and ecosystem-based water provision in national accounting.**
  - Growing international momentum on natural capital accounting
  - There are fundamental needs for taking account of ecosystem-based water provision and purification and wider water quality issues
  - Accounts offer a systematic tool to provide a key evidence base to decision makers: Water quality is not yet fully integrated
  - Addressing the challenges – Recommendation for the way forward





# Joint SEEA/WAVES/TEEB Brochure on Natural Capital Accounting

- While extensive technical guidance has been developed for the individual projects, there is no high-level introduction to non-experts so far explaining:
  - common concepts such as natural capital, ecosystem services and green economy,
  - main steps to implementation, many of which are complementary, and
  - links between the different initiatives.

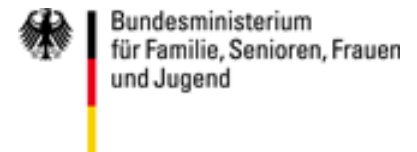
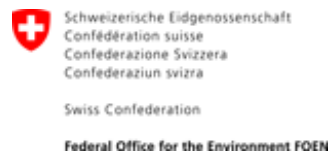
- High-level overview of rationale for accounting for inclusive wealth (produced, human and natural capital)
- How better information is necessary for increasingly complex decision contexts
- Who is doing what
- A generic approach to implementation: issue scoping, stakeholder engagement, self assessment, strategic planning, project execution, assessment of outcomes
- TEEB principles, approach, activities
- WAVES principles, approach, activities
- SEEA-Central Framework principles, approach, activities
- Accounting for ecosystem services
- Advice on getting started, engaging stakeholders, soliciting support, communications and outreach



## Linking TEEB, SEEA and WAVES

- TEEB encourages engagement in WAVES that was in part catalyzed by TEEB, as well as parallel approaches such as the EU ecosystem capital accounts and other accounts across the SEEA volumes.
- TEEB country studies and national engagement in WAVES are **compatible initiatives with significant synergies**. The WAVES is likely to be more in-depth in its areas of focus, but TEEB country studies are likely to have an overall wider scope.
- **A WAVES project may be informed by a TEEB assessment and a TEEB Country Study could recommend implementing natural capital accounting.**
- Where there are limits to national resources, countries may wish to **engage in these initiatives sequentially**, starting with whatever is more appropriate for the policy interest and data availability

# TEEBweb.org



- **Acknowledgements.** This document draws on previously prepared material, including Heidi Wittmer’s presentation on the “Guidance Manual for TEEB Country Studies” launched on the occasion of the 7<sup>th</sup> Trondheim Conference on Biodiversity (May 2013); material from the Guidance Manual itself; as well as the presentation by Heidi Wittmer, Julian Rode, Christoph Aicher, Johannes Förster and Florian Manns (2012) “TEEB - The Economics of Ecosystems and Biodiversity: using the ecosystem service concept at the science policy interface”. Information on WAVES projects is from Urvashi Narain, October 2013 “WAVES Global Partnership: Challenges of Implementing NCA”. Information on ValuES project from Florian Manns “Methods for integrating ecosystem services into policy, planning and practice” (Dar es Salaam, 31 October 2013). “Take home messages” slide adapted from key messages from UNEP/UFZ/BfN Vilm workshop (May 2013). TEEB logos from respective country initiatives.