

## UNSD Activities in SEEA Experimental Ecosystem Accounting

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In January 2014, the United Nations Statistical Division (UNSD), the United Nations Environment Programme (UNEP) TEEB Office, and the Secretariat of the Convention on Biological Diversity, supported by the Government of Norway, embarked on a project to advance the System of Environmental-Economic Accounting (SEEA) Experimental Ecosystem Accounting (EEA) in seven pilot countries, Bhutan, Chile, Indonesia, Mauritius, Mexico, South Africa, and Vietnam. This is the first stage of a longer term initiative, in which implementation guidelines and training materials have been developed and country missions to pilot countries undertaken (including training workshops and the development of National Plans). This will lay the groundwork for the development of ecosystem accounts during a second phase which is foreseen to last 3 to 5 years. An overview of activities is provided below.

### Country Missions

Work to establish ecosystem accounting in the project's pilot countries has been embedded within a much wider process of strengthening statistical production systems to support sustainable development. Ecosystem Accounting is seen as one component of a comprehensive information system which can respond to sustainable development policy needs, including the SDGs. Within this wider context, the work undertaken in countries has therefore addressed organisational and institutional issues as key prerequisites to the establishment of ecosystem accounting in the pilot countries. Two missions<sup>1</sup> were conducted in each pilot country.

1. **Country Assessment Reports** were produced as part of the first mission where the primary objective was to facilitate the discussion towards possible priorities of developing and testing the ecosystem accounting in each respective pilot country. The following assessments were provided in each report:
  - a. Policy priorities as stated in national plans and relevant legislation;
  - b. Institutional settings and the role of each institution in the national statistics production system;
  - c. Availability of data and tools to produce environmental and ecosystem accounts;
  - d. Existing capacity and expertise for developing ecosystem accounts and further capacity building needs.
2. **National Plans** were then developed with each country based on the Country Assessment Reports, which aimed to:
  - a. Provide the foundations for initiating statistical development towards improving decisions related to sustainable development;
  - b. Summarize the priorities and opportunities in each respective pilot country for further improvement of the National Statistical System with a focus on SEEA;
  - c. Identify the enabling factors, activities, outputs, impacts and long-term outcomes of engaging in these activities; and
  - d. Outline the foundational activity needed to implement environmental-economic and ecosystem accounting ready for use in fully developed and costed funding proposals.
3. **Second Missions** were then conducted which included national (or regional) **training workshops**, bi-lateral meetings with relevant stakeholders and **high-level national seminars** to secure endorsement and buy-in for the National Plans.

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<sup>11</sup> At this stage the country missions have been completed in all countries except Bhutan, where the second mission is still being organized.

## SEEA EEA Technical Development

A number of technical developments were undertaken as part of the project, to provide comprehensive support to countries wishing to pilot SEEA-EEA. In particular, the project has produced a set of **implementation guidelines**, a **strategy** and **training materials** to enable institutions engaged in ecosystem accounting to initiate the process, define issues for experimentation, and identify dataset, methods for testing and concrete accounting steps to be undertaken as a minimum application.

1. **Thematic research papers and training materials:** Following a scoping meeting in August 2014, **nine research papers**<sup>2</sup> were developed, plus an additional paper on biodiversity in ecosystem accounting in cooperation with WCMC. These papers discuss both generic and specific concepts, methods and data options across the research themes, and served as an input to the compilation of a **Technical Guidance**<sup>3</sup> (TG) document, and a series of **training modules**<sup>4</sup>.
2. The **training modules** were developed at three different levels: level 0 to introduce the subject and respective policy uses, level 1 to cover main concepts, compilation guidance and exercises and level 2, which covers additional concepts, data options and examples from existing cases. The titles of the research papers and the training modules are shown below.

Thematic papers	Training modules
Functional approach to ecosystem accounting	Key Concepts in Ecosystem Accounting
Compilation of data, tools and methods	Classifications
Spatial units, scaling and aggregation	Spatial Units, Scaling and Aggregation
Land accounts and ecosystem extent	Ecosystem extent account
Land and ecosystem condition and capacity	Ecosystem condition account
Linkages between ecosystems asset and service accounts	Ecosystem services account
Guidelines for biophysical modelling and mapping	Biophysical modelling and mapping
Carbon and ecosystem accounting	Carbon accounting
Water and ecosystem accounting	Water accounting
Experimental Biodiversity Accounting as a component of the System of Environmental-Economic Accounting, Experimental Ecosystem Accounting (SEEA-EEA) <sup>5</sup>	Biodiversity accounting

3. **Technical Guidance:** The technical guidance document presents updates and extensions of ecosystem accounting concepts, methods and structures building on the **SEEA EEA 2012**<sup>6</sup>. The guidance also presents an overall ecosystem accounting structure containing a number of related tables including: *Ecosystem asset account* and its characteristics e.g. ecosystem extent, condition and monetary account (where possible); *Ecosystem service accounts*, including supply and use tables in physical and monetary (where possible) terms; and *Integrated accounts* including tables with institutional sectors and national sector balance sheets. Thematic cross-cutting accounting tables on land, water, forest etc are retained for consistency with the SEEA-CF structure, carbon and biodiversity themes were additionally developed.
4. **Expert Forum:** The second expert forum meeting was convened in April 2015 to discuss the research papers and technical guidance. More than 60 experts attended the meeting, who had expertise from many fields including national accounting, modelling, remote sensing, assessment and classification of ecosystem services etc. The meeting has led to the following developments:

<sup>2</sup> Accessible online: [http://unstats.un.org/unsd/envaccounting/workshops/eea\\_forum\\_2015/lod.asp](http://unstats.un.org/unsd/envaccounting/workshops/eea_forum_2015/lod.asp)

<sup>3</sup> Earlier draft accessible on the above link

<sup>4</sup> Accessible online: [http://unstats.un.org/unsd/envaccounting/workshops/Indonesia\\_2015\\_eea/lod.asp](http://unstats.un.org/unsd/envaccounting/workshops/Indonesia_2015_eea/lod.asp)

<sup>5</sup> <http://www.teebweb.org/areas-of-work/advancing-natural-capital-accounting/eba-technical-guidance/>

<sup>6</sup> [http://unstats.un.org/unsd/envaccounting/eea\\_white\\_cover.pdf](http://unstats.un.org/unsd/envaccounting/eea_white_cover.pdf)

- a. A process to develop an **internationally agreed classification of ecosystem services** has been set up between UNSD, the European Environment Agency, EUROSTAT and the US-EPA.
- b. Initiation of work toward a **commonly agreed classification on land cover**. Further work is being undertaken to examine the links between CF land cover classifications and the new EEA guidance material. This will also consider other global land cover nomenclatures and link to ongoing big data projects in collaboration with Group on Earth Observations (GEO).
- c. Ongoing work to review appropriate modelling technique in accordance with accounting criteria and develop relevant model evaluation metadata.

**Future activities:**

In the remaining time of the first phase of the project a **workshop on “Aligning national and corporate level SDG indicators”** will be organized, the Technical Guidance and the Implementation strategy will be further developed, and the training modules will be upgraded into an **e-learning course**.