DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION
UNITED NATIONS

System of Environmental Economic Accounting

# Revision of the System of Environmental-Economic Accounting 2012—Experimental Ecosystem Accounting (SEEA EEA)

## Global Consultation on Chapters

## *Cover Note*

The System of Environmental-Economic Accounting 2012—Experimental Ecosystem Accounting (SEEA EEA) revision process was launched in 2018 as agreed by the United Nations Statistical Commission (UNSC) at its 49th session. The UNSC at its 51st session, last March "emphasized the importance and urgency of providing a standardized methodology for ecosystem accounting that reflects the progress made over the revision and reinforces the role of national statistical offices as data stewards; and supported the aspiration to elevate the revised SEEA Experimental Ecosystem Accounting to SEEA Ecosystem Accounting."

The revision of the SEEA EEA, undertaken under the guidance of the UN Committee of Experts on Environmental-Economic Accounting, has the aspiration of providing an agreed statistical framework for ecosystem accounting, including agreed terminology, concepts, definitions and classifications for ecosystem assets and services in both physical and monetary terms using an accounting approach.

Since 2018, five working groups have been focusing on advancing the four areas on research agenda identified as the priorities for the SEEA EEA revision – spatial areas, ecosystem condition, ecosystem services and valuation. Each of the groups have produced various discussion papers that have individually undergone expert consultation among a wide range of experts. The discussion papers served as input into the draft chapters of the revised SEEA EEA that were first reviewed by the SEEA EEA Technical Committee as the Editorial Board and are now undergoing the global consultation on individual chapters.

*Objective of this consultation on individual chapters*

This global consultation is to ensure that the individual chapters provide the definitions, classifications, methods and accounting practices on ecosystems. The chapters present the current advances in the concepts and methods noting that a small number of issues remains to be solved.

The results of the consultation will be considered by the SEEA EEA Technical Committee as the Editorial Board and reflected in the final draft of the revised SEEA EEA, which will undergo another

round of global consultation of the whole document in the end of 2020, before being submitted to the UN Statistical Commission in the beginning of 2021.

The chapters undergoing the global consultation are being sent to all National Statistical Offices, members of the UN Committee of Experts on Environmental-Economic Accounting and its Technical Committees, members of the London Group on Environmental Accounting, and experts from a wide variety of fields who have been involved in various capacity in the revision process. Chapters for the global consultation as well as comments received will be publicly available on the dedicated UNSD website.

National Statistical Offices are encouraged to consult experts from other ministries, academia and non-governmental organizations to discuss the chapters and, if possible, develop a coordinated response. All reviewers are requested to provide their views on the comments form specified by email to seea@un.org.

Chapters subject to this global consultation and other documents related to the SEEA EEA Revision are available at the dedicated website at: https://seea.un.org/content/seea-experimental-ecosystem-accounting-revision

In addition, the following annexes are also included to provide additional contextual information:

- Annex 1: Background information on the SEEA EEA
- Annex 2: Revision planning note

# Annex 1: Background information on the SEEA EEA

## Introduction

Biodiverse, healthy ecosystems provide essential contributions that humans depend upon in their daily lives - clean water, productive soils and flood control, to name just a few. But the economic contributions provided by this natural capital have too often been taken for granted when making important economic decisions.

The resulting overexploitation, habitat destruction and pollution of the natural world has created profound damage to the biosphere. Tragically, it is often the poorest and most vulnerable populations that most directly rely on the benefits of biodiversity and healthy ecosystems for their daily needs.

Humanity can no longer afford to ignore its dependence on a thriving environment rich in life. The calculations that guide crucial decisions must be changed so that nature and its benefits appear on the ledger. The approach best suited for this is natural capital accounting, which integrates nature and its benefits into existing decision frameworks.

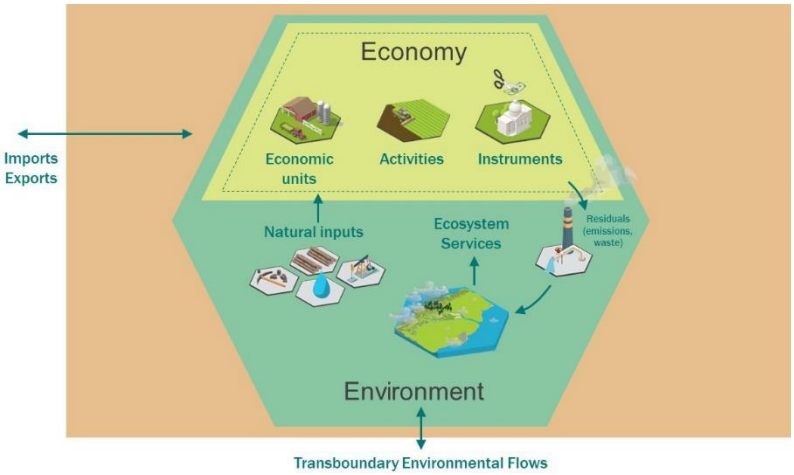
The underlying premise of natural capital accounting is that since the environment is important to society and the economy, it should be recognized as an asset that must be maintained and managed, with its contributions (services) measured and considered in decision making.

Through the rigorous and consistent presentation of the connections between the economy and the environment, natural capital accounting provides essential information for the public and private sectors. The System of Environmental-Economic Accounting (SEEA), adopted by the United Nations Statistical Commission in 2012, is the official international framework for natural capital accounting. In recent years, ecosystem accounting as emerged as an innovative and exciting component of natural capital accounting.

## The System of Environmental-Economic Accounting (SEEA)

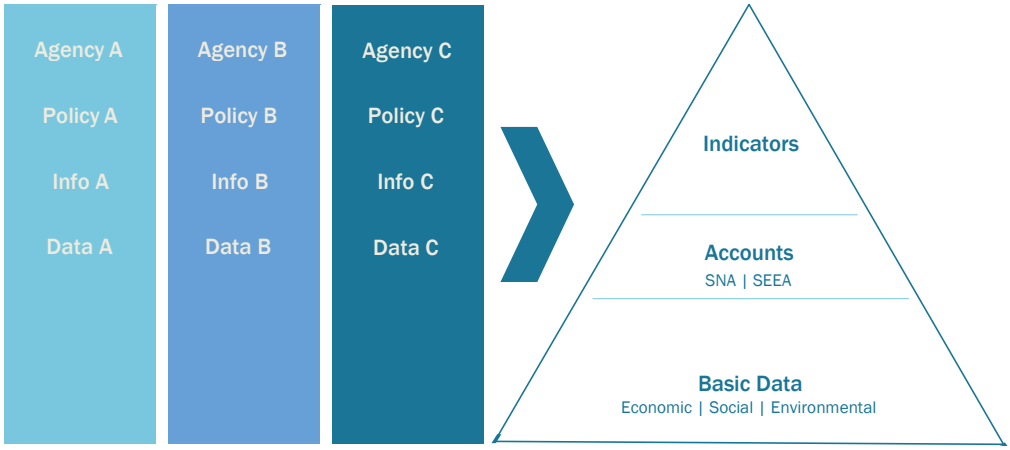
As the agreed-upon international standard for natural capital accounting, the System of Environmental-Economic Accounts (SEEA) provides a common framework for organizing and presenting statistics on the environment and its relationship with the economy. Placing environmental statistics into an accounting framework dramatically increases their usefulness for policy, enabling international comparability, replication over time, and straightforward integration with existing national accounts.

The SEEA fills an important gap in government statistics. Mainline economic indicators like Gross Domestic Product provide important information about the state of the economy but omit the crucial role of nature. To take an extreme example, if a country cut down all its forests in a single year, this might show up in official statistics as an increase in GDP due to increased timber production. Such a move would be catastrophic for the country's natural wealth, however, destroying the forest sector's long-term viability and leading to irreversible environmental damage and massive long-term social costs. By integrating environmental assets and services with data on economic and other human activity, the SEEA expands the perspective and puts nature on an equal footing in decisions about economic development.




While statistical offices take the lead in compiling the accounts, the process involves intensive collaboration across government ministries to prioritize accounts to be developed and mobilize needed expertise. In fact, one of the great benefits of developing environmental economic accounts is the breaking down of data silos and greater coordination within governments.

## From data silos to integrated information




The SEEA Central Framework (SEEA CF) was adopted by the UN Statistical Commission as the first international standard for environmental-economic accounting in 2012. It takes the viewpoint of the economy and examines how natural resources like fisheries, forests and water are used in production and consumption along with resulting pollution in the form of waste, water and air emissions.

But the interactions between nature and the economy extend well beyond the harvesting, extraction and use of natural resources and pollution. The SEEA Experimental Ecosystem Accounting (SEEA EEA) complements the Central Framework by taking the perspective of ecosystems and their contribution to human well-being in the form of identifiable ecosystem services.

Together, the Central Framework and Experimental Ecosystem Accounting provide a comprehensive view of the environment-economy nexus and make nature's invisible contributions to society visible.

## The SEEA EEA

*History and current status*

The first SEEA EEA was endorsed by the United Nations Statistical Commission in March 2013 as an important first step in the development of a framework for ecosystem accounting. It was released in 2014 as a joint publication of the United Nations, European Commission, Food and Agriculture Organization of the United Nations, Organisation for Economic Co-operation and Development and the World Bank. It has been supplemented by a companion publication, The Technical Recommendations in support of the SEEA 2012—Experimental Ecosystem Accounting, that provides guidance on implementation and clarifies some outstanding conceptual issues. Both publications are available on the SEEA website (seea.un.org). The SEEA EEA is currently undergoing a major revision with the goal of being adopted as an official standard in 2020.

Ecosystem accounting is undergoing rapid growth and development and accounts have already been used to inform policy development around the world. From a zero base in 2013, by 2019 there were over 40 countries moving forward with ecosystem accounts. The United Kingdom and the Netherlands have published the most comprehensive accounts to date. Both countries' accounts include detailed maps and physical and monetary accounting tables showing consistent applications of concept and methods.

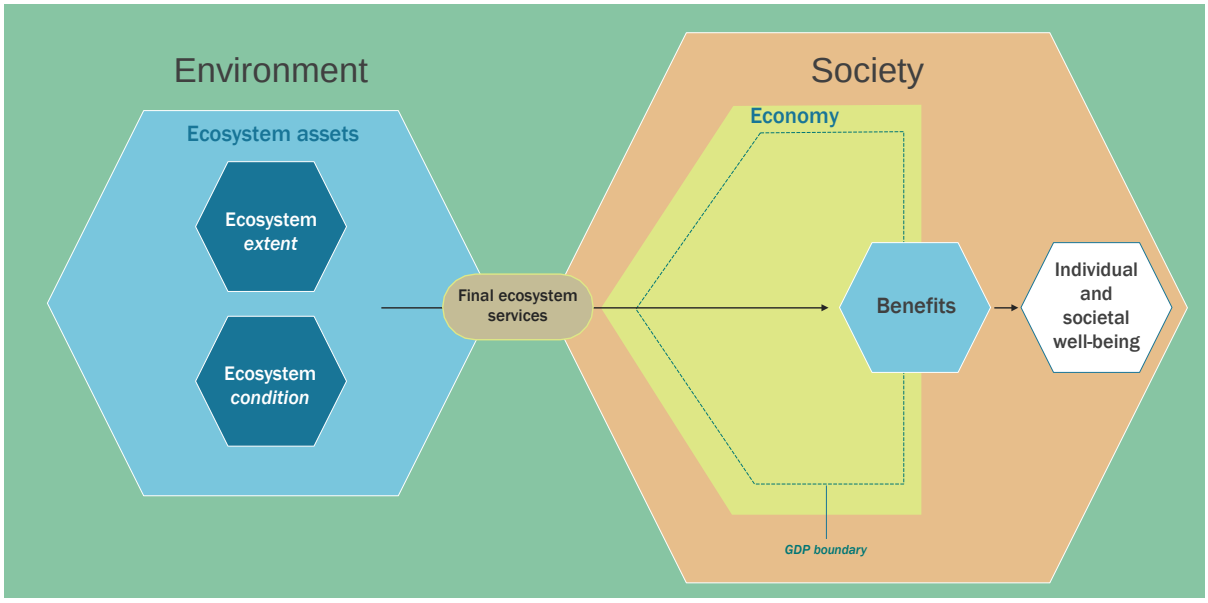
In many other countries, progress is being made towards comprehensive SEEA EEA accounts. Australia has published two national and several sub-national accounts. Other countries with published accounts include Canada, Costa Rica, Colombia, Indonesia, Italy, Norway, Mexico, Netherlands, the Philippines, Rwanda, Spain and Uganda. Brazil, China and India have more recently embarked on ecosystem accounting projects, and supranational accounts have been developed for the European Union.

*The structure of the SEEA EEA*

To understand the logic of the SEEA EEA, consider the role that forests play in providing communities with clean water. Forests act as natural water filters, because trees and other plants absorb nutrient pollution like nitrogen and phosphorous before it can flow into streams, rivers, and lakes. This has benefits for humans – studies have shown that communities downstream of intact and healthy forests spend less on water treatment, all else equal, than communities that live downstream of degraded forests.

Thus, an ecosystem, based on its overall health, delivers important services that produce benefits to identifiable populations. The SEEA EEA provides a robust picture of these contributions by explicitly distinguishing among the different components of this chain.

A general illustration of the conceptual structure of the SEEA EEA is presented in the figure below.




*The core EEA accounts*

A set of core ecosystem accounts forms the building blocks of the SEEA EEA's measurement of ecosystems and their connection to society as elaborated in the previous section. There is not one single, all-encompassing ecosystem account; instead there are five core ecosystem accounts in the SEEA EEA. These accounts constitute an accounting system which presents a comprehensive and coherent view of ecosystems.

- **Ecosystem extent** accounts record the total area of each ecosystem which is classified by type within an ecosystem accounting area and, over time in a specified area (e.g. nation, province, river basin, protected area, etc.).

- **Ecosystem condition** accounts record the condition of ecosystem assets in terms of selected characteristics at specific points in time and, over time, record the changes to their condition. These changes may be due to natural factors or human/economic intervention.

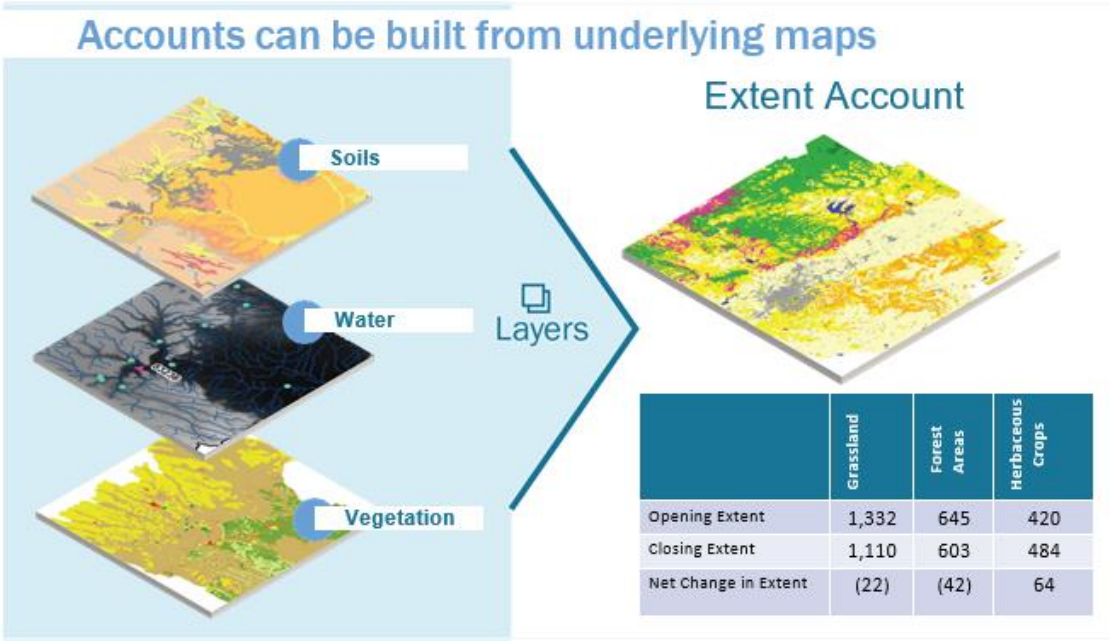
- **Ecosystem services** accounts record the supply of ecosystem services by ecosystem assets and the use of those services by economic units, including households. Ecosystem services accounts are presented both in physical and monetary units, using techniques for valuation of ecosystem services.

- **Ecosystem monetary asset** accounts record information on stocks and changes in stocks (additions and reductions) of ecosystem assets. This includes accounting for ecosystem degradation and enhancement.

- **Thematic accounts** are standalone accounts, or sets of accounts, that organize data according to an accounting structure about specific policy relevance themes. Species and carbon are two high profile themes. Other potential thematic accounts include accounting for protected areas, wetlands, forests and urban areas.

## Key features of the SEEA EEA

One of the distinguishing characteristics of the SEEA EEA is that it takes a spatial approach, since the benefits arising from ecosystems depend inherently on where they occur. This spatial focus allows for identification of the location of critical ecosystem assets and services along with their specific beneficiaries (households, businesses and governments). Accounting tables are commonly supplemented with maps as an effective mode of presentation, bringing together multiple layers of information (geographical, environmental, ecological, economic) in one place. Figure below shows a hypothetical example of an ecosystem extent account, developed through integrating multiple spatial data sets. The spatially explicit information generated by the SEEA EEA enables the effective targeting of policy efforts.




| | Grassland | Forest Areas | Herbaceous Crops |
|---|---|---|---|
| Opening Extent | 1,332 | 645 | 420 |
| Closing Extent | 1,110 | 603 | 484 |
| Net Change in Extent | (22) | (42) | 64 |

In addition, one of the great advantages of an accounting framework is that it allows the contributions of ecosystems to be expressed in monetary terms. Most ecosystems services are public goods lacking markets that provide clear prices to aid in valuation. Their value, therefore, must often be estimated using economic valuation techniques. The SEEA EEA is at the forefront of the development of rigorous monetary estimation approaches that are consistent with national accounting frameworks and possibly building bridges with economic valuation based on welfare values.

Monetary estimates supply useful information for decision-makers, for example in discussions with ministries of finance or in budget allocation processes. They are also helpful for the assessment of specific policies and projects using a benefit-cost framework, the development of environmentally adjusted economic aggregates and for raising awareness around the economic contributions of ecosystems. But monetary valuation is by no means a necessary feature of ecosystem accounting and there are numerous examples of ecosystem accounting efforts that use only physical measures.

Thus, the SEEA EEA provides users enormous flexibility. Accounts can be compiled at the subnational (state, river basin, protected area, urban, etc.), or national level and across terrestrial, freshwater and marine areas. Ecosystem assets and their services can be presented in physical terms (e.g. hectares, tons) or in monetary terms. Not all accounts need to be compiled, with choice dependent upon national priorities and data availability.

# Annex 2: Revision Planning Note

## Introduction

The revision of the SEEA EEA is undertaken under the management, responsibility and direction of the United Nations Committee of Experts on Environmental Economic Accounting (UNCEEA) chaired by Bert Kroese, Deputy Director General of Statistics Netherlands and in particular the Technical Committee on SEEA EEA chaired by Anton Steurer of Eurostat. The United Nations Statistics Division serves as the Secretariat of these groups.

This document summarizes the current plans for the revision process for the SEEA Experimental Ecosystem Accounting (SEEA EEA) building on discussions at the UNCEEA.[1]

## Revision process

The revision process is organized along 4 main research areas and 5 Working Groups. For each working group, an area lead has been appointed.

- The selected areas and area leads are:
    - Research area #1 (Working Group 1) – Spatial units: Sjoerd Schenau (Statistics Netherlands)
    - Research area #2 (Working Group 2) – Ecosystem condition: Joachim Maes (EU JRC)
    - Research area #3 – Ecosystem services
        - Working Group 3: concepts and measurement issues: Lars Hein (Wageningen University)
        - Working Group 4: Measurement and valuation of specific ecosystem services: Rocky Harris (UK DEFRA)
    - Research area #4 (Working Group 5) – Valuation concepts and accounting treatments: Juha Siikamaki (IUCN)

Working Groups each consist of smaller number of experts from the relevant communities of interest (see Table 1 at the end of the document for the current membership). Most members of the group contributed in kind to drafting and reviewing papers. In exceptional cases, consultants were recruited to draft specific issues papers.

An overarching support and co-ordination role has been played by the UNSD, as Secretariat of the UNCEEA, and the Editor of the SEEA EEA working in conjunction with the SEEA EEA Technical Committee. In practice, each working group was supported by (i) the Editor (Carl Obst), (ii) a UNSD staff member, and (iii) the area lead who is also a member of the SEEA EEA Technical Committee.

## Operation of the Working Groups

- Initial work focused on extensive clarification and description of the revision issues and engagement of an appropriately broad network of associated experts and the production of a detailed work programme and action plan.

[1] https://seea.un.org/sites/seea.un.org/files/seea_eea_revision_agenda_and_approach.pdf; https://seea.un.org/sites/seea.un.org/files/area_b2_-_progress_and_next_steps.pdf

- Initial drafts of the programs and plans were completed in the fall 2018 and regularly discussed and endorsed by the SEEA EEA Technical Committee whose primary role is to ensure appropriate coherence and co-ordination across the work programs.

Drafting of discussion papers started expediently in some of the Groups but others needed more time to get organized and resourced. All groups have prepared discussion papers for discussion at the 2019 Forum of Experts on SEEA Experimental Ecosystem Accounting.[2] For some groups it was possible to have the papers undergo a revision as a result of a broad consultation with relevant experts (WG#1, WG#2, WG#4, and WG#5). For WG#3 the extensive consultation is ongoing in March 2020. After the 2019 Forum, the WGs still continue to operate as there are still tasks that they will need to carry out, such as testing of the proposed solutions. A subgroup on accounting for biodiversity was established at the beginning of 2020 to ensure biodiversity is appropriately represented in the revised SEEA EEA.

## Expert review groups

Those involved as broader expert reviewers have and will review relevant research papers and draft chapters, and participate in meetings as appropriate. Efforts have been made to expand the involvement of experts from different disciplines through a targeted strategy which involved communication and outreach of the SEEA revision process through various technical and policy meetings of various groups.

Expert review groups were established and consulted regularly providing input and reviewing various stages of the draft documents. In the first half of 2019, discussion papers on spatial units and ecosystem condition were drafted and revised by a broad group of expert reviewers. In the second half of 2019, the expert review group on valuation reviewed 5 discussion papers from WG#5. The 2 discussion papers from WG#3 have been finalized and submitted to the expert review group in March 2020. It is expected that the experts participating in these review groups would continue to participate in the revision process and be involved in the discussion of issues beyond a specific research area. Engaging experts throughout the revision process is key in ensuring the buy in of the final product by the various communities and support the implementation and uptake in countries.

## Role of the SEEA EEA Technical Committee

The UNCEEA at its meeting in June 2019 discussed and endorsed the proposal that an extended SEEA EEA Technical Committee (SEEA EEA TC) consisting of its original members, the area leads and those international organizations that are expected to co-publish the revised SEEA EEA will serve as the editorial board of the revised SEEA EEA. Members are experts from countries and international agencies and are encouraged to coordinate and engage with all relevant experts from within the countries, organizations and relevant networks they are active in. The proposed membership of the extended SEEA EEA TC based on the current composition of the SEEA EEA Technical Committee is shown in Table 2 at the end of the document.

The extended SEEA EEA TC first met in June 2019 at the time of the 2019 Forum of Experts in Glen Cove and will remain operational in this composition until the completion of the document for submission to UNSC around the end of 2020. The TC meets monthly to review draft chapters ahead of their release for global consultation and provide technical input in the revision process.

[2] https://seea.un.org/events/2019-forum-experts-seea-experimental-ecosystem-accounting

## Meetings and workshops

A number of meetings and workshops have been held to encourage engagement and build on expertise of different communities. While the national Forum on Ecosystem Accounting represented an opportunity for experts from a broad range of topics to come together, several meetings and workshops are being held throughout the revision process to allow for detailed discussions on issues that are required to make substantive progress on technical matters.

Below is a list of workshops that have been undertaken until February 2020 and a list of forthcoming meetings that are expected to be undertaken during the revision process:

**Completed meetings**

- 24-26 April 2018 (Bonn): Expert Workshop on Valuation for Ecosystem Accounting
- 18-20 June 2018 (Glen Cove): Forum of Experts on SEEA Experimental Ecosystem Accounting
- 1-4 October 2018 (Dublin): Meeting of the London Group on Environmental Economic Accounting
- 28-29 November 2018 (Paris): Expert meeting on Spatial Areas and Ecosystem Condition
- 30 November 2018 (Paris): Strategic meeting on accounting for biodiversity and ecosystems with IUCN and selected biodiversity experts
- 22-24 January 2019 (New York): Expert Meeting on Advancing the Measurement of Ecosystem Services for Ecosystem Accounting
- 26-27 June 2019 (Glen Cove): Forum of Experts on SEEA Experimental Ecosystem Accounting
- 28-29 June 2019 (Glen Cove): Technical Expert Meeting on advancing the SEEA EEA Revision
- 1-3 October 2019 (Washington DC): Meeting of the Advisory Expert Group on National Accounts
- 7-10 October 2019 (Melbourne): Meeting of the London Group on Environmental Accounting
- 4-8 November 2019 (Paris): OECD Working Parties on Financial Statistics and National Accounts
- 16-18 March 2020 (videoconference): Technical Meeting on Valuation and Accounting for the revised SEEA EEA

**Forthcoming meetings**

- 8-9 July 2020 (Tarrytown): Technical Forum of Experts on SEEA Experimental Ecosystem Accounting
- 10-11 July 2020 (Tarrytown): SEEA EEA Technical Committee & Editorial Board meeting
- 5-9 October 2020 (Bonn): Meeting of the London Group on Environmental Accounting
- December 2020 (TBD): SEEA EEA Technical Committee & Editorial Board meeting (TBC)

**Outreach meetings**

- Natural Capital Policy Forum for Better Decision Making (Paris, 26-27 November 2018)
- ISAR Corporate Transparency Accounting (UNCTAD) (Geneva, 24-26 October 2018)

- CBD - COP 14 (Sharm El-Sheikh, 17-29 November 2018)
- 2019 Natural Capital Symposium (Stanford, 18-21 March 2019)
- UNCCD COP-14 (New Delhi, 2-13 September 2019)
- Natural Capital Policy Forum for Better Decision Making (Kampala, 18-20 November 2019)
- Communicating the Path to Sustainability through Natural Capital Accounting (Yale University, postponed from 18-20 March 2020 to 16-18 September 2020 )
- IUCN World Congress (Marseille, 11-19 June 2020)
- COP-15 UN Biodiversity Conference (Kunming, 15-28 October 2020)

## Ensuring coherence

Particular attention has been given to ensuring coherence among the 5 working groups. In particular, the following was undertaken:

- The SEEA 2012 EEA and the recently completed Technical Recommendations in support of the SEEA EEA served as the starting point for the groups to advance the research areas.
- The Editor participates in each Working Group and is involved in the development of discussion and issues papers, thus providing a single set of eyes over the discussions.
- The lead/chairs of each research area met regularly via teleconference together with the Chair of the SEEA EEA TC, the Editor and the Secretariat to ensure ongoing awareness and alignment of progress and connect all parts of the project to the wide range of meetings, forums and related developments.
- The SEEA EEA TC met on a regular basis to consider progress in the different research areas and highlight issues of coherence and from June 2019 the extended SEEA EEA TC is functioning as the editorial board of the SEEA EEA revision with regular monthly meetings.
- Regular technically focused meetings, including small technical workshops, the expert forums and London Group meetings, provide opportunities to identify issues of coherence.

Also, in relation to coherence some specific aspects were noted in June 2018. Of particular importance were:

- Alignment with the SEEA Central Framework, especially in relation to land use and land cover;
- Alignment to the SNA with respect to the production boundary for defining ecosystem services and the conceptual basis for valuation;
- The development of classifications and typologies, especially for ecosystem types and ecosystem services;
- Accounting for marine and coastal areas; and
- Accounting for urban areas.

These topics remain of interest and are complemented by a set of cross-cutting issues (described below) that have emerged in the work of the different research areas. A focus on these types of issues will support achieving the broader integration across the ecosystem accounting system that is required.

## Engagement approaches

The Forum of Experts on SEEA Experimental Ecosystem Accounting in June 2019 was important in terms of continuing to raise awareness and secure participation from a wide range of stakeholders. 115 people attended the two-day Forum, of which 60 also stayed for the two-day Technical Expert Meeting following the Forum. During the Forum an update on the status of the conceptual developments of the SEEA EEA revision process was provided and during the Technical Expert Meeting the working groups detailed discussions to advance the SEEA EEA revision.

The London Group supports the revision process through contributing to the advancement of the research agenda, reviewing papers and draft chapters and testing. Starting in March 2020, a set of regular calls of the London Group are being held to discuss particular topics related to the SEEA EEA revision. A number of topics for the SEEA EEA revision are on the agenda for the next London Group meeting to be held in October 2020 in Bonn, Germany.

More broadly, considerable effort has been put on engaging with the wider statistical community, and in particular the national accounts community. A cross-fertilization of experts between the national accounts and the environmental-economic accounts have started with national accounts experts participating in the working group on valuation and environmental-economic accountants participating in national accounts meetings and environmental accountants participating in the Advisory Expert Group on National Accounts (AEG) and other national accounts fora. Also, several experts from the environmental economic accounting community are participating in the SNA update process subgroup on Well Being and Sustainability dealing with the SEEA.

The SEEA EEA revision is involving experts from different communities to ensure that technical matters are as well founded as possible and to build as broad a consensus as possible around the accounting treatments. The relevant experts are from a range of sectors including the academic community, government and international agencies, non-government organizations, the private sector, and those involved in related international processes and networks such as IPBES, IUCN, TEEB, GEO EO4EA, Ecosystem Services Partnership (ESP), A Community of Ecosystem Services (ACES) and associations of environmental and resource economists.

In addition, the revision of the SEEA EEA will build on the expertise and experience of those involved in testing the SEEA EEA at various scales. There are many such projects now in operation and relevant experts are connected to the revision process to the greatest extent possible including the EU funded project Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES), the Knowledge Innovation Project on an Integrated system of Natural Capital and ecosystem services Accounting for the European Union (INCA), Mapping and Assessment of Ecosystem Services (MAES), the MAIA project, etc.

Establishing connections to natural capital assessment activities at the corporate level also provides useful avenues for engagement. The UNSD through the NCAVES project organized a meeting bringing together national statistical offices and representatives from the business community to better understand how the NSO and in particular the SEEA EEA can provide contextual information to business and how the businesses collect and use non-financial information on ecosystem and biodiversity in their decision making process. Communicating the importance of the SEEA to encourage its use in policy and decision making is the theme of the Conference being organized at Yale now in September 2020. More broadly non-technical papers and narratives on how the SEEA can or has been used to inform policies are being developed and collected.

## General process for review and consultation

In line with past practice in the development of the SEEA, an open and inclusive approach to gathering comments and feedback will be applied in the revision of the SEEA EEA. This will be somewhat more challenging than in the past with a much wider set of stakeholders now aware of and interested in the SEEA and its potential role.

The process to develop the technical papers covering various issues in the research agenda involved small groups including environmental accountants and experts from various communities. The draft papers were reviewed by a larger group of experts to ensure that current knowledge was taken into account and no obvious errors or inconsistencies with the wider SEEA system. The papers were revised to take into accounts the comments received and served as input in the drafting of chapters.

The draft chapters will be distributed for global consultation to all national statistical offices and experts that have participated in the revision process as well as interested experts/communities. All comments received will be posted on the UNSD website and will be addressed when revising the chapters. A separate document explaining the responses contained in the draft material would be released at the same time. The complete final draft will undergo a global consultation to give an opportunity to national statistical offices and interested reviewers to look at cross-cutting issues as well as the resolution of outstanding issues.

## Timelines for key tasks and outputs

There has been substantive progress in a number of areas. A separate document submitted to the UNCEEA meeting in June 2019 summarizes progress against the set of SEEA EEA revision issues and outlines the remaining issues.[3]

The following summary of outputs and tasks are described from the perspective of the overall management of the project. There will be numerous associated tasks and events surrounding ongoing governance (e.g. meetings of area leads and SEEA EEA TC), the development of discussion papers by working groups, and consultation with wider expert review groups that are not documented here. The timelines for these tasks and events will be managed to work within the broad outline presented here and are the subject of ongoing planning discussions.

**Drafting of chapters**

This work commenced in mid-2019 using the initial text based on SEEA EEA and EEA Technical Recommendations and incorporating the findings from the discussion papers and associated notes, and outcomes from the 2019 Forum of Experts and Technical Expert Meetings discussions.

Draft chapters after review by the SEEA EEA TC and relevant Working Groups, are being broadly distributed and posted on the UNSD website for global consultation.

**Testing of current proposals**

This work is to examine the potential to apply the current thinking on SEEA EEA treatments in practice. Testing has started to assess the feasibility of the ecosystem extent classification and the application of the typology of ecosystem condition in countries. Countries participating in the NCAVES project and KIP-INCA and MAIA projects in the EU or participating in some of the working groups have started

[3] https://seea.un.org/sites/seea.un.org/files/eea_2020_revision_issues_status_v4_jun2019.pdf

testing the methodologies on the basis of clear guidelines on testing to ensure inputs into the revision process.

**Tentative timetable for 2020**

The following indicative timetable is envisaged for 2020 leading to the finalization of the revised SEEA EEA by the end of 2020.

| | |
|---|---|
| Feb-Jun | Revise chapters |
| March | Report to the UN Statistical Commission |
| Mar – Jun | Global consultation on individual chapters |
| July | Report to UNCEEA |
| Jul-Sep | Revise chapters |
| Oct-Nov | Global consultation on complete document |
| Dec | Submission of draft to UNCEEA |
| Dec/Jan | Finalized SEEA EEA |
| Mar 2021 | Discussion at UNSC |

## Table 1: Working Group members

| Research area | Area lead | Working group members | UNSD support |
|---|---|---|---|
| Spatial units | Sjoerd Schenau (Statistics Netherlands) with Edwin Horlings & Patrick Bogaart | Roger Sayre (USGS)<br>Francois Soulard (Statistics Canada)<br>Douglas Muchoney (FAO)<br>Francesco Tubiello (FAO)<br>Keith Gaddis (NASA)<br>Trond Larsen (Conservation International)<br>David Keith (UNSW) | Jessica Chan |
| Ecosystem condition | Joachim Maes (EU JRC) | Amanda Driver (South African National Biodiversity Institute)<br>Heather Keith (Australian National University)<br>Bethanna Jackson (Victoria University, NZ)<br>Balint Czucz (EU JRC)<br>Emily Nicholson (Deakin University) | Marko Javorsek |
| Ecosystem services | Lars Hein (Wageningen University, Netherlands) | Ken Bagstad (USGS)<br>Neville Crossman (Murray-Darling Basin Authority, Australia)<br>Sander Jacobs (INBO, Belguim)<br>Alessandra La Notte (EU JRC)<br>Rocky Harris (UK DEFRA)<br>Jan-Erik Pedersen (EEA)<br>Charles Rhodes | Julian Chow |
| Individual ES<br>(Work completed in Feb 2019) | Rocky Harris (UK DEFRA) | All coordinators of 10 research papers<br>• Lars Hein<br>• Anthony Dvarskas<br>• Benjamin Burkhard<br>• Rocky Harris<br>• Alessandra La Notte<br>• Neville Crossman<br>• Rosimeiry Portela<br>• David Barton<br>• Steve King<br>• Bram Edens | Marko Javorsek |
| Valuation and accounting | Juha Siikamaki (IUCN) | David Barton (NINA, Norway)<br>Jane Turpie (University of Cape Town)<br>Eli Fenichel (Yale University)<br>Dennis Fixler (US BEA)<br>Matias Piaggio (Environment for Development Center)<br>Peter van de Ven (OECD)<br>Brett Day (University of Exeter)<br>Nicholas Conner (NSW Office for the Environment) | Bram Edens |

| | | | |
|---|---|---|---|
| | | Alejandro Caparrós (CCHS/CSIC, Spain)<br>Mark de Haan (Statistics Netherlands)<br>James Tebrake & Joe St Lawrence (Statistics Canada)<br>Peter Harper | |

## Table 2: Members of the extended SEEA EEA Technical Committee

| | | |
|---|---|---|
| 1 | Australia | Jonathon Khoo / Steven May |
| 2 | Canada | Francois Soulard |
| 3 | Netherlands | Sjoerd Schenau (AL) |
| 4 | South Africa | Gerhardt Bouwer |
| 5 | United Kingdom | Rocky Harris (AL) |
| 6 | EEA | Jan-Erik Petersen |
| 7 | Eurostat | Anton Steurer (Chair) |
| 8 | FAO | Francesco Tubiello |
| 9 | IUCN | Juha Siikamaki (AL) |
| 10 | EU JRC | Joachim Maes (AL) |
| 11 | OECD | Peter van de Ven |
| 12 | Wageningen University | Lars Hein (AL) |
| 13 | World Bank | Raffaello Cervigni / Glenn-Marie Lange / Sofia Ahlroth / Juan-Pablo Castañeda |
| 14 | ESCAP | Michael Bordt |
| 15 | UNSD (Secretariat) | Alessandra Alfieri / Jessica Chan / Julian Chow / Bram Edens / Marko Javorsek |

(AL) indicates the member of the TC is an Area Lead of one of the working groups.