



DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION
UNITED NATIONS



System of
Environmental
Economic
Accounting

Technical Committee on the SEEA Ecosystem Accounting (Area B2) Summary note

Introduction

The 52nd session of the United Nations Statistical Commission (UNSC), on March 2021, adopted the System of Environmental-Economic Accounting—Ecosystem Accounting (SEEA EA).¹ This was the culmination of an inclusive process involving experts from different communities and represents an a major achievement for the statistical community. The Secretary General of the UN called “the adoption of this framework an historic step towards transforming the way we view and value nature. No longer will we allow mindless environmental destruction to be considered as economic progress”². This report summarizes key points around the adoption and lays out the plan for implementation for the SEEA EA.

Adoption of SEEA Ecosystem Accounting

The final draft of the SEEA EA was submitted to the UNSC in the beginning of February 2021 as a [background document](#) together with the [revision process note](#) and the [Summary of feedback and responses to the Global Consultation on the complete draft of the SEEA EA](#). The UNSC adopted the SEEA EA chapters 1-7, that describe the accounting framework and the physical accounts, as an international statistical standard, while chapters 8-11 were recognized to describe internationally recognized statistical principles and recommendations for the valuation of ecosystem services and assets, and chapters 12-14 describe the applications and extensions to the SEEA EA.

In addition, the UNSC “requested the Committee to make clear the different statuses of chapters 1 to 7, 8 to 11 and 12 to 14, both in the introduction and in the chapters themselves.” The editor of the SEEA EA drafted relevant text which was discussed and approved by the SEEA EA Technical Committee and the Bureau of the UNCEEA. A background note summarizes the changes made from the draft version submitted to the UNSC.

Finalization and publication of the SEEA EA

The final text of the SEEA EA with the requested changes and additional online annexes will be published in a pre-edited white cover version in July 2021. This will allow all interested countries and practitioners to start using the handbook immediately. The final publication will, however, be subject to official UN editing and copy preparation that will take place in the second half of 2021. It is expected that the final publication will be released in the beginning of 2022. As previous versions of the SEEA, it will be a joint publication of the United Nations with the European Union, the International Monetary Fund, the Organisation for Economic Cooperation and Development and the World Bank and possibly also the Food and Agriculture Organization of the United Nations. Co-publication agreements are being prepared by the UN Publications Board.

The SEEA EA Technical Committee

The SEEA EA Technical Committee (TC) was established in April 2017 under the auspices of the UNCEEA with regular oversight from the Bureau and secretariat support from UNSD. Members of the TC include experts from national statistical offices and international organizations and was mandated to advance the research agenda, provide technical direction in the revision and on practical issues emerging from the testing of ecosystem accounts. The TC has been chaired by Anton Steurer (Eurostat).

¹ See Decision 52/108 in the report of the 52nd session of the UCSC at <https://unstats.un.org/unsd/statcom/52nd-session/documents/2021-30-FinalReport-E.pdf>

² See <https://seea.un.org/content/ecosystem-accounting-news> for SEEA EA in the news.

In June 2019, the Bureau of the UNCEEA endorsed the proposal that an extended TC consisting of its original members, the leads of those groups that were established to advance the research agenda and those international organizations that are expected to co-publish the revised SEEA EA will serve as the editorial board of the revised SEEA EA. This arrangement has proven to be very effective, bringing a expertise beyond the statistical community to the TC. The TC further agreed to maintain its current extended composition moving forward as the implementation of the SEEA EA will also require expertise beyond statistical offices.

Implementation Strategy for the SEEA EA

The UNSC also encouraged countries to implement the SEEA EA depending on their priorities and requested the UNCEEA to develop an implementation strategy. The draft implementation strategy was developed by UNSD with inputs from the SEEA EA Technical Committee and the Bureau of the UNCEEA and will be discussed at the UNCEEA meeting in June 2021. It is intended for the implementation strategy to be submitted to the UNSC for adoption at its 53rd session in March 2022.

The purpose of the implementation strategy is to set out the objectives, outputs and activities to support scaling up the implementation of the SEEA EA .

Interoperability Strategy

The attached Interoperability Strategy outlines a long-term shared vision is that (1) all key data and models needed to compile SEEA accounts and related global indicators (e.g., SDGs, post-2020 Biodiversity Goals) are interoperable, while (2) researchers independently use the FAIR Principles when developing new data and models, making them seamlessly ingestible by interoperability-centered modelling approaches. The Interoperability Strategy was developed by the ARIES team, UNEP and UNSD and was discussed by the SEEA EA TC.

In order to put the strategy into practice, four steps are envisaged:

1. Pilot testing
Pilot testing will be a critical part of broadening the interoperability strategy to a wider community – building a larger group who understands interoperability on a conceptual level, the benefits it offers, and that will advocate for its wider use.
2. Identify key stakeholders
The most important task is identifying the *key areas of knowledge*, and the corresponding *communities of practice*, where a semantic annotation and interoperability effort should be undertaken.
3. Governance
It is proposed that (1) the UN Committee of Expert on Environmental-Economic Accounting (UNCEEA) could play a coordinating role, working together with identified stakeholders and other groups such as the Green Growth Knowledge Platform (GGKP) Natural Capital Data working group, and/or (2) a new group could be established, with a UNSD-provided Secretariat and co-chair(s) from the NSO and scientific/geospatial communities. NSOs, science/geospatial experts and agency representatives, and academics can serve as ambassadors for this effort in their respective communities.
4. Training and capacity building
There is a need for further training and instructional materials for data providers, modelers, and platform hosts that specify steps to be taken to move towards interoperability.

ARIES for SEEA Explorer

In 2020, UNSD began work on a concrete path toward data and model interoperability to support the compilation of SEEA EA, collaborating with the ARIES team to develop an approach, ARIES for SEEA, that can produce SEEA accounts anywhere on Earth. ARIES combines the use of global data and generalized modelling approaches in data-scarce countries yet is simultaneously able to customize accounts wherever improved data and model resources exist – thus meeting the needs of both countries with limited data who want to compile initial accounts and those capable of more highly customized SEEA EA approaches.

ARIES for SEEA makes a large and growing collection of data and models easily accessible to users with limited experience in spatial modelling, including NSOs, while simultaneously ensuring appropriate reuse of models, as conditions for model reuse are explicitly encoded, guiding the selection of the most appropriate approaches for the time, place, and scale of the analysis. ARIES for SEEA can also facilitate reporting on key global initiatives such as the Sustainable Development Goals, Post-2020 Global Biodiversity Framework, and Paris Climate Agreement. Critically, the approach offers NSOs a starting point to begin needed conversations with data producers and modelers, by building basic initial estimates based on global data and pre-existing models then continually working with data producers and modelers to improve initial results using more local-scale scientific data and knowledge.

ARIES for SEEA Explorer was launched on 29 April 2021 and is now freely available for anyone to access via the UN Global Platform.³

Development of methodological guidelines

Three methodological guidelines are being developed, namely:

- Guidelines for biophysical modelling for ecosystem accounting
- Guidelines on the valuation of ecosystem services and ecosystem assets
- Technical report entitled Policy scenario analysis using the SEEA EA

The guidelines for biophysical modelling provide an overview of data sources, methods and practical advice on the compilation of extent, condition and ecosystem services accounts in physical terms. They also provide process guidance for institutions starting SEEA EA implementation. During April and May 2021, the draft underwent a formal process of global consultation to all the national statistical offices globally and a wide community of experts.⁴ The guidelines for biophysical modelling will be updated based on the input received and published by the end of 2021. Some of the main tables will be placed on the SEEA website and updated regularly to ensure the guidelines remain current.

The guidelines on the valuation of ecosystem services and ecosystem assets are intended to provide practical guidance on the application of the recommended valuation methods of the SEEA EA for the measurement of exchange values. They discuss, for each ecosystem service, the methods best suited for valuation in an accounting context and provide practical examples to illustrate how to apply the valuation methods. The draft of the guidelines is undergoing copy-editing. This draft will be realized as output of the NCAVES project, however further discussion is needed to finalize the draft. It is expected that the working group on valuation, proposed to be established in the context of the

³ For more on ARIES for SEEA explorer see: <https://seea.un.org/content/aries-for-seea>

⁴ For the global consultation draft see: <https://seea.un.org/ecosystem-accounting/biophysical-modelling>

Implementation Strategy, will review and finalize the guidelines on valuation starting the second half of 2021. The establishment of an additional group discussing conceptual issues on valuation and having a broader scope than valuation of ecosystem services and assets is being discussed in the context of the SNA update.

The technical report on scenario analysis focuses on describing what types of analyses are possible when using the SEEA EA and what types of policy questions can be answered when using the accounts in modelling exercises. It also provides an overview of the different types of models that are being used in scenario analysis. The report will be published in mid-2021.

All three publications are an output of the Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES) project, funded by the European Union. The two guidelines have been developed under the auspices of the SEEA EA Technical Committee. An editorial board was established for the biophysical guidelines to provide expert advice and guidance on the drafting of the text. In addition, a large number of experts who have been involved in the revision process of the SEEA EA have contributed to various drafts and provided comments.

Progress in implementation

The Global Assessment of Environmental Economic Accounting and Supporting Statistics indicated that 34 countries are implementing the SEEA EA. This is largely due to a number of projects and initiatives including the EU funded project Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES), the INCA and MAIA projects in the EU and the World Bank WAVES partnership, part of a larger Global Program on Sustainability (GPS).

Background papers and resources

- Summary note on changes made to the draft SEEA EA from the UNSC version
- SEEA EA Implementation Strategy
- Interoperability strategy
- Background paper on the progress of implementation of the Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES)