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STATISTICS DIVISION
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Environmental-Economic Accounting
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**Technical Committee on SEEA Ecosystem Accounting (Area B2)
Summary of activities**

Paper prepared by the Chair and Secretariat
of the Technical Committee on SEEA Ecosystem Accounting

(for discussion)

TECHNICAL COMMITTEE ON SEEA ECOSYSTEM ACCOUNTING (AREA B2)

Since the adoption of the System of Environmental-Economic Accounting – Ecosystem Accounting (SEEA Ecosystem Accounting) at the 52nd session of the United Nations Statistical Commission (UNSC) in March 2021, the Technical Committee on SEEA Ecosystem Accounting (Area B2) has been focussing on the development of supporting methodologies and guidelines for compilation of ecosystem accounts as well as issues in implementation through engaging with different experts and holding in-depth discussions. The two working groups on forest ecosystems and oceans have continued their work, an [interim report on valuation](#) has been published, ARIES for SEEA testing in countries and improvements on the user friendliness as well as models continued with accelerated pace, and progress has been made in bringing the IUCN Global Ecosystem Typology into the family of international statistical classifications. The Technical Committee’s work programme in the next year will continue to support SEEA Ecosystem Accounting implementation, including through developing practical guidelines to address specific compilation issues.

Revising the terms of reference and structure of the Technical Committee

As part of the reorientation of the Technical Committee from the revision of SEEA Experimental Ecosystem Accounting to supporting implementation of the SEEA Ecosystem Accounting, members decided to schedule regular bi-monthly meetings of the Technical Committee and structure the agenda of each bi-monthly meeting in two parts. The first part focusses on updates and discussions related to the regular work of the Committee, updates on the work of the working groups, and engagement with other initiatives and partners. The second (new) part of the Technical Committee meeting is dedicated to discussing and providing technical guidance on substantive topics relevant for the implementation of SEEA Ecosystem Accounting. Relevant experts from outside the Technical Committee are invited to present and participate in the discussion. The objective of these meetings is to advance the implementation of the SEEA Ecosystem Accounting based on the insights and experiences gained during the implementation efforts and aim to provide technical guidance to countries.

To support the revised functioning of the Technical Committee and its structure, the members decided to review its Terms of Reference (TOR) and membership. The TOR has been revised to stress the focus of the Technical Committee’s work on implementation of SEEA Ecosystem Accounting, providing technical guidance on conceptual and methodological issues, and global data solutions and tools. The revised TOR is attached in Annex 1. It was also suggested that the Technical Committee needed additional members to strengthen country representation as well as regional representation. Suggestions for

additional members will be considered and further discussed at the next Technical Committee meeting in August 2023.

Finalization of the SEEA Ecosystem Accounting and other materials

The final text of the SEEA Ecosystem Accounting is currently undergoing the official UN process of editing and copy preparation and is expected to be finished by the end of June 2023. A co-publication agreement has been drafted and agreed among the co-publishing agencies and will be signed soon.

UNSD has organized translations of the SEEA Ecosystem Accounting into Chinese, French, Russian and Spanish. The translations are still being reviewed by expert communities from the respective language areas, but preliminary texts have been published on the SEEA Ecosystem Accounting website¹ so they can be used by countries. The e-learning course developed in 2022 has also been translated into French and Spanish. The Spanish version has been published on the UNSD e-learning platform² and the French one will be published soon.

In support of the implementation of the SEEA Ecosystem Accounting, in particular chapters on the valuation, an interim report on the “Monetary valuation of ecosystem services and assets for ecosystem accounting” has been published.³ The report is intended to provide a useful starting point with suggestions on valuation methods and references for countries that are undertaking monetary valuation as part of the SEEA Ecosystem Accounting implementation. The report includes practical examples to illustrate how the different valuation methods for ecosystem services and ecosystem assets have been applied, including results from pilot studies that have been carried out as part of the Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES) and the Horizon Europe Mapping and Assessment for Integrated Ecosystem Accounting (MAIA) projects. The report should be considered as providing guidance on possible ways to conduct monetary valuation and is expected to be reviewed when more experience becomes available. The SNA update process is currently discussing the fundamental principles underlying valuation of non-market services in the SNA and will provide an important guidance on the valuation of ecosystem services and assets.

¹ <https://seea.un.org/ecosystem-accounting>

² <https://learning.officialstatistics.org/>

³ <https://seea.un.org/content/monetary-valuation-ecosystem-services-and-assets-ecosystem-accounting>

Review of the work of the TC over the past year

Over the past year, the Technical Committee met six times and dealt with the following substantive topics:

- (1) The IUCN Global Ecosystem Typology (GET), aiming to deepen members' understanding of the reference classification for ecosystem types in the SEEA Ecosystem Accounting including issues related to cross-walking national, regional or other global ecosystem classifications to the GET;
- (2) The IUCN Red List of Ecosystems (RLE), aiming to identify complementarities and synergies with the RLE, especially for ecosystem extent account implementation at the national level;
- (3) The Biodiversity standard of the Global Reporting Initiative (GRI) and Task Force on Nature-Related Financial Disclosures (TNFD), aiming to better understand the link between these private sector initiatives and the SEEA Ecosystem Accounting;
- (4) Carbon accounting, aiming to build on discussions from the WG on forest ecosystems and the World Bank's Changing Wealth of Nations (CWON) (see below); and
- (5) Global ecosystem mapping initiatives with presentations and discussions on four current initiatives – GEO Global Ecosystem Atlas, European Space Agency initiatives, Integrative data cubes on Global EcoSystem extents (GlobES), and Committee on Earth Observation Satellites (CEOS) ecosystem extent task team.

A small group was convened to discuss approaches to the delineation of ecosystem assets, ecosystem extent accounting and changes in ecosystem extent, where at least two possible approaches have been identified – i.e., approach A which is based on the combination of land cover with other ecological variables, and approach B which is based on a historical baseline map of ecosystems supplemented by land cover maps to understand the conversions to semi-natural or non-natural ecosystems. This group is working on a technical note that will form the basis for an in-depth discussion at a meeting of the Technical Committee in the near future.

Another small group was convened on carbon accounting, in particular, on the theoretical and practical aspects of formulating the global climate regulation ecosystem service as carbon retention and sequestration, and methods for monetary valuation. At its first meeting the group discussed the following issues: the scope and stratification of biophysical carbon accounts, scale dependency when measuring sequestration, double counting when valuing both sequestration and retention, and carbon pricing/monetary valuation. The group is now working on possible solutions that will be, first, further discussed by the group, and ultimately a proposal will be presented to the Technical Committee for discussion and endorsement. While this discussion was prompted from a request from the World Bank Change in Wealth of Nations and its desire for consistency with the SEEA, it is considered important to develop guidance for compilation for countries, building also on the work being done in the context of the Eurostat regulation on ecosystem accounting.

Recognising the need for collaboration between the IUCN and the SEEA communities, the Technical Committee has established an ongoing engagement with the IUCN Secretariat and experts. The first issue being dealt with is bringing the IUCN Global Ecosystem Typology into the international family of statistical classifications under the UN Committee of Experts on International Statistical Classifications (UNCEISC). Additional priorities include exploring practical steps to utilise potential synergies between the implementation of the SEEA EA and the Red List of Ecosystems, especially in light of both ecosystem extent and the RLE having been included as headline indicators in the Kunming-Montreal Global Biodiversity Framework.

Working groups on forest ecosystems and oceans

Since the last UNCEEA meeting, the Working Group (WG) on forest ecosystems, co-led by Fernando Santos Martin (Rey Juan Carlos University, Spain) and Heather Keith (Griffith University, Australia), continued its work in regular meetings and in the four task teams that have been established. The WG met six times between July 2022 and May 2023, where the progress of work in the various task teams was discussed alongside other topics of interest for the implementation of the SEEA Ecosystem Accounting for forest ecosystems.

This WG and its task teams rely on members who participate on a voluntary basis, so progress depends on willingness and availability of the people involved to contribute their time and expertise to a particular issue or task. Notwithstanding this constraint, substantial progress has been made.

The four task teams continued their work on:

- (1) ecosystem extent: the group is reviewing the different definitions of forests with the objective to develop a working definition of forest ecosystems based on the Ecosystem Functional Groups (EFGs) of the IUCN GET. An informal small group has been established to discuss these issues and propose a solution for discussion by the whole WG;
- (2) ecosystem condition: the group is undertaking a systematic scientific review and assessment on ecosystem condition frameworks with the objective of identifying variables and methods to measure forest ecosystem condition;
- (3) carbon accounts: the group is looking at measuring carbon accounts by integrating the extent and condition accounts to better inform climate change policies through case studies for Senegal and the EU, as well as contributing to the small group discussion related to carbon accounting on a wider level; and
- (4) forest related policy: the group has finalized and submitted a paper entitled “Using the system of environmental-economic accounts ecosystem accounting for policy: A

case study on forest ecosystems” for publication in the Environmental Science and Policy journal. The paper has also been published on the SEEA website⁴

The WG on oceans, led by Jonathon Khoo (Australian Bureau of Statistics), has not progressed as hoped for because of lack of resources. It met twice between July 2022 and October 2022 and discussed topics related to using global data on oceans included in ARIES for SEEA and the global data from UNESCO International Oceanographic Data and Information Exchange (IODE) initiative, the data sources they are managing and their interoperability principles. The group envisaged the development of SEEA Ocean as a primary focus. However, this would require substantial resources, which it has not been possible to secure to date. Nevertheless, the group is still seeking some resources to carry out its work programme, even at a slower pace. The group will be discussing the modalities to continue the work.

Working group on indicators and subgroup on biodiversity

The Working Group on SEEA EA Indicators was established by the Technical Committee in June 2020 with the main objective to support the revision process and in particular the drafting of Chapter 12 of the SEEA EA. This task was successfully carried out, and since the adoption of the new Kunming-Montreal Global Biodiversity Framework and the establishment of the Ad-hoc Technical Expert Group (AHTEG) for the monitoring framework and indicators of the Kunming-Montreal Global Biodiversity Framework, with which the UNSD will engage (see below), there is no more need for a dedicated working group on indicators. Hence, it is proposed to dissolve this working group and move the task of supporting the development of indicators and the AHTEG to the Technical Committee itself. Task teams may be established focused on particular topics that would need to be addressed.

Similarly, the Subgroup on Accounting for Biodiversity was established in March 2020 with the objectives to support the revision process, in particular the drafting of Chapter 13, building on a range of conceptual advances and practical experiences in accounting and measuring biodiversity. The task was completed, and it is proposed to dissolve the Subgroup on Accounting for Biodiversity. The contribution of the SEEA EA to accounting for biodiversity, including to the implementation and monitoring of the Global Biodiversity Framework, remains a focus of the Technical Committee as a whole.

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https://seea.un.org/sites/seea.un.org/files/perspectives_seea_for_policy_forests_website_publication.pdf

Global profile of SEEA Ecosystem Accounting

The SEEA Ecosystem Accounting continues to be highlighted at various international meetings and events. Among others, over the past year it was featured in the following:

- [“Transforming Institutions to Build Back Better: The Case for Natural Capital Accounting”](#) side event to the High-level Political Forum on Sustainable Development 2022 (12 July 2022)
- [Workshop on Earth Observation for Ecosystem Accounting](#) (EO4EA 2022) (28 November – 1 December 2022)
- [“Making Nature Count Through Natural Capital Accounting”](#) side event at the Convention of Biological Diversity Conference of Parties 15 (9 December 2022)
- [“Monitoring the Kunming-Montreal Global Biodiversity Framework: The Role of Official Statistics”](#) side event to the UN Statistical Commission 2023 (28 February 2023)
- [“SEEA EA as enabler of data and model integration to improve decision-making”](#) side event at the UN World Data Forum (26 April 2023)

The Kunming-Montreal Global Biodiversity Framework, adopted at the Convention of Biological Diversity Conference of Parties 15 (CBD COP15) in December 2022, includes a monitoring framework with proposed headline indicators for each of the Goals and Targets of the Framework. The SEEA Ecosystem Accounting provides the methodological basis for several of the proposed indicators, which will be taken forward by an Ad-hoc Technical Expert Group (AHTEG) which was established recently. The Technical Committee will engage with the AHTEG as needed through the UNSD.

Provisional programme of work for the Technical Committee for 2023/24

The Technical Committee is aiming to continue the work of supporting the implementation of the SEEA Ecosystem Accounting, including providing technical guidance on various aspects. The Technical Committee plans to discuss its detailed work programme and specific outputs at its next meeting. The following activities are on-going and will continue for the 2023/24 period:

- Continue technical discussions with a view to developing practical guidance notes on pertinent substantive conceptual and methodological topics that have been identified so far, including:
 - Cross-walking national and regional maps of ecosystem types to IUCN GET Ecosystem Functional Groups;
 - Approaches and methods for compilation of ecosystem extent accounts;
 - Methods for measuring global climate regulation services in physical and monetary terms; and
 - Ecosystem services assessment at different scales.

- Continue discussions on applications of ecosystem accounts with a view to providing practical guidance on priority applications, as well as capturing and sharing examples and lessons from experience;
- Support the development of those indicators for the Global Biodiversity Framework that are based on the SEEA Ecosystem Accounting, including developing metadata and engaging with the programme of work of the AHTEG;
- Engage with private sector initiatives on measuring nature, with a view to building conceptual and practical links and working towards alignment of private and public accounting related to ecosystems;
- Engage with different communities and groups that are developing concepts and methods related to ecosystem accounting, including global initiatives to classify, map and monitor ecosystems, and leverage their expertise for statistical purposes,
- Continue the engagement with the IUCN to improve collaboration between the Red List of Ecosystem assessments and ecosystem accounting at global and national levels.
- Engage as appropriate with the update of the SNA, international classifications and other relevant statistical update processes.
- Provide guidance and direction to the work of the WGs to ensure coherence and integration of their work with the TC's programme of work as a whole.

Questions to the Committee

Does the Committee:

- 1) Agree with the provisional broad programme of work of the Technical Committee, as outlined above? Are there additional priority areas that the Technical Committee should consider?
- 2) Approve the revised Terms of Reference for the Technical Committee (see Annex 1)?
- 3) Endorse the disbanding of the Working Group on SEEA EA Indicators and the Subgroup on Accounting for Biodiversity that were established to support the revision process in 2020?
- 4) Have suggestions on how the Technical Committee can better support the implementation of the SEEA Ecosystem Accounting?

Introduction

The Technical Committee was established in 2017 to provide technical oversight and facilitate experimentation in ecosystem accounting and was responsible for overseeing the revision of the SEEA Experimental Ecosystem Accounting and its elevation to an international statistical standard. The System of Environmental-Economic Accounting – Ecosystem Accounting (SEEA Ecosystem Accounting) was adopted, in March 2021, by the United Nations Statistical Commission (UNSC) as an international statistical standard specifically for chapters 1-7 and as internationally recognized statistical principles and recommendations for valuation of ecosystem services and assets for chapters 8-11. This marks a major step forward towards measuring the contribution of ecosystems to the wellbeing of people and the economy.

The SEEA Ecosystem Accounting is a result of a three-year revision process of SEEA Experimental Ecosystem Accounting that was launched in March 2018 at the 49th session of the UNSC and led by the United Nations Committee of Experts on Environmental-Economic Accounting (UNCEEAA) and in particular the Technical Committee on SEEA Ecosystem Accounting. At its 52nd session in March 2021, the UNSC also encouraged countries to implement the SEEA Ecosystem Accounting depending on their priorities, and at its 53rd session in March 2022, adopted the SEEA Ecosystem Accounting Implementation strategy. With the adoption of the SEEA Ecosystem Accounting as a standard, the focus of the Technical Committee has moved towards its maintenance and implementation.

Objectives

The overall objectives of the Technical Committee on the SEEA Ecosystem Accounting are to maintain the statistical standard and to support its implementation and uptake in a range of policy contexts from local to global. This involves keeping the SEEA Ecosystem Accounting relevant, aligned with other statistical standards, in particular the SEEA Central Framework, the System of National Accounts (SNA) and international standard classifications, and advancing the associated research and implementation agendas.

In particular, the Technical Committee will work towards:

- (a) Supporting the roll-out of the Implementation Strategy;
- (b) Providing technical guidance on conceptual and methodological issues emerging from the implementation of ecosystem accounts in countries;
- (c) Providing guidance on linkages with policies and the use of the accounts;
- (d) Providing technical guidance to the development of global data solutions and tools supporting the implementation of ecosystem accounting;

- (e) Engaging with different communities and groups that are developing concepts and methods related to ecosystem accounting and leveraging their expertise for statistical purposes;
- (f) Establishing and supervising the work of Working Groups dealing with particular aspects, as needed;
- (g) Advancing the research agenda on valuation with the objective of elevating Chapters 8-11 of the SEEA Ecosystem Accounting as an international statistical standard; and
- (h) Supporting the work of the UNCEEA in advancing the SEEA in various initiatives.

Governance

The Technical Committee on the SEEA Ecosystem Accounting is established under the auspices of the UNCEEA with regular oversight from the Bureau of the UNCEEA and secretariat support from UNSD. Members of the Technical Committee include experts from national statistical offices or other relevant national agencies, experts from relevant regional and international organizations, and individual experts with expertise in ecosystem accounting. Members will coordinate and engage as appropriate with institutions in their respective countries/areas that are active or intend to become active in the implementation and use of the SEEA Ecosystem Accounting. The chairs of the Working Groups established under the Technical Committee of the SEEA Ecosystem Accounting will also be invited to join the Committee.

The Chair will be elected from among its members and will participate in the meetings of the Bureau of the UNCEEA to report progress made by the Committee and groups established under its auspices. The Chair, in cooperation with the Secretariat, will advance the annual work programme set by the UNCEEA.

The work of the Technical Committee on the SEEA Ecosystem Accounting will be closely coordinated with the work of the Technical Committee on the SEEA Central Framework, the London Group on Environmental Accounting, and the Forum of Experts on SEEA Ecosystem Accounting. The Technical Committee will engage as needed with other groups or initiatives whose work is relevant to ecosystem accounting and related statistics. Experts on different topics may be invited to participate in the meetings of the Committee as observers depending on its agenda.