

**Economic and Social Council**

Distr.: General

8 December 2021

Original: English

---

**Statistical Commission****Fifty-third session**

1 - 4 March 2022

Item 3(l) of the provisional agenda\*

**Items for discussion and decision: environmental-economic accounting****Report of the Committee of Experts on Environmental-Economic Accounting****Note by the Secretary-General**

In accordance with Economic and Social Council decision 2021/224 and past practices, the Secretary-General has the honour to transmit the report of the Committee of Experts on Environmental-Economic Accounting. The present report describes the progress made over the past year as well as future activities of the Committee. The discussion is organized according to the five areas of work of the Committee, namely: (a) coordination and communication; (b) methodological development for normative standards and other research; (c) development of databases; (d) implementation and statistical capacity-building; and (e) business accounting. In particular, the report presents the implementation strategy for the SEEA Ecosystem Accounting, including the establishment of three subgroups on forest, carbon and ocean accounting of the Technical Committee on the SEEA Ecosystem Accounting, as well as the formal establishment of an Area E on business accounting.

The Commission is requested to discuss the points contained in paragraph 59.

---

\* E/CN.3/2022/1.

## **I. Introduction**

1. At its fifty-first session, held from 1 to 3 and 5 March 2021, the Statistical Commission adopted decision 52/108 (see E/2021/24-E/CN.3/2021/30, chap. I, sect. B), in which it:

(a) Expressed its appreciation for the work done by the Committee of Experts on Environmental-Economic Accounting over the past year, particularly in finalizing the revised System of Environmental-Economic Accounting (SEEA) Ecosystem Accounting, and recognized the significant contributions of the Chair, Bureau, editorial board and editor, as well as the countries, agencies and stakeholders that participated in the revision;

(b) Commended the inclusive and transparent process for developing the SEEA Ecosystem Accounting, which brought together a wide range of stakeholder communities and saw broad participation in the multiple rounds of global consultations on issue papers, individual draft chapters and the complete draft of the SEEA Ecosystem Accounting;

(c) Agreed to remove “Experimental” from the title of the revised SEEA Ecosystem Accounting, to adopt chapters 1 to 7 describing the accounting framework and the physical accounts as an international statistical standard, to keep all chapters together in one document, with chapters 8 to 11 describing monetary valuation and integrated accounting for ecosystem services and assets and chapters 12 to 14 describing the applications and extensions, and to regularly evaluate and report on the usefulness and pertinence of the accounts;

(d) Recognized that chapters 8 to 11 of the SEEA Ecosystem Accounting describe internationally recognized statistical principles and recommendations for the valuation of ecosystem services and assets in a context that is coherent with the concepts of the System of National Accounts for countries that are undertaking valuation of ecosystem services and/or assets, and requested the Committee to promptly resolve the outstanding methodological aspects in chapters 8 to 11 as identified in the research agenda;

(e) 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;

(f) Encouraged countries to implement the SEEA Ecosystem Accounting depending on their priorities, and, recognizing the challenges to compiling the accounts in practice, requested the Committee to continue to develop compilation tools which make use of global data sources and to create an implementation strategy and methodological and implementation guidance materials for countries in support of continued capacity-building;

(g) Welcomed the progress of the Committee in mainstreaming the use of SEEA in policy, including climate change, circular economy, sustainable finance and biodiversity policy, and particularly encouraged the Committee to engage in the monitoring framework of the post-2020 global biodiversity agenda and participate in the proposed expert group under the auspices of the secretariat of the Convention on Biological Diversity to provide the connection between the biodiversity and official statistical communities;

(h) Supported the proposal to establish a working group to draft a methodological document for ocean accounting, SEEA Ocean, in support of the SEEA Central Framework and SEEA Ecosystem Accounting, given the high policy demand for ocean accounting and the global importance of the ocean economy, and noted the importance of adequate funding for this activity;

(i) Supported the formation of a working group on business accounting and SEEA and the preliminary road map, noting the benefits to both the public and private sectors in aligning SEEA and private natural capital accounting approaches, exchanging data and jointly managing resources, and recognized the importance of participation from both national statistical offices and the private sector alike, as well as the need for adequate funding to make sufficient progress in this area of work;

(j) Welcomed the update provided on the statistical framework for measuring the sustainability of tourism, and, noting the interest from countries in this work, agreed to the finalization process for the document, including the Committee’s review prior to final consideration by the World Tourism Organization Committee on Statistics for its subsequent presentation to the Commission.

2. The work of the Committee is organized according to five broad areas of work, with members of the Bureau leading the related parts of the programme of work, as agreed in the Committee's terms of reference. The areas of work are: area A. Coordination and Communication, led by Statistics Canada; area B. Methodological development for normative standards and other research, divided into two sub-areas: area B1. SEEA Central Framework, led by Statistics Netherlands, and area B2. SEEA Ecosystem Accounting, led by Eurostat; area C. Development of databases, led by the Organization for Economic Cooperation and Development (OECD); area D. Implementation and statistical capacity-building, jointly led by the Economic and Social Commission for Asia and the Pacific and Statistics South Africa; and the newly established area E. Business accounting, led by the National Institute of Statistics and Geography of Mexico.

3. The present report discusses the progress made during the past year and the programme of work from 2022 to 2025. Points for discussion are presented in section VIII.

## **II. Area A. Coordination and Communication (led by Statistics Canada)**

4. The working group on coordination and communication focuses on fostering collaboration between initiatives related to environmental-economic accounting and implementing practical strategies to promote the use of the SEEA for emerging policy issues. These efforts demand collaboration between national statistical offices, line ministries and the international community. The working group has focused its work programme in six main areas. These areas are driven by the current international priorities related to environmental challenges where the accounts can provide valuable insights at the intersection of the environment and economy: biodiversity, climate change, circular economy, ocean, sustainability of tourism and sustainable finance.

5. In recent years, the number of international committees, working groups and task forces related to environmental economic accounting has increased greatly. To facilitate better collaboration and minimize duplication, the working group will undertake a landscape assessment next year of the different groups in the space. An overview of the landscape will allow the working group to better understand where entry points and potential linkages between efforts exist, where synergies can be harnessed and where the participation of SEEA-related experts can provide value added. This assessment will be maintained over time and facilitate the development of a strategy to create better linkages amongst different groups and bolster the presence of the SEEA community in policy initiatives. For example, the landscape assessment will be used to understand how the working group can best contribute to sustainable finance initiatives and to develop a more concrete programme of work on the topic.

### *Biodiversity*

6. The fifteenth Conference of Parties to the Convention on Biological Diversity is scheduled to take place in Kunming, China in April to May 2022 and is expected to adopt the post-2020 global biodiversity framework and its monitoring framework. In the lead up to the Conference of Parties, the Subsidiary Body on Scientific, Technical and Technological Advice at its 24<sup>th</sup> session discussed the need for aligning with the SEEA in order to mainstream biodiversity in national statistical systems and strengthen national monitoring systems and reporting. The Subsidiary Body also reflected on the role of the United Nations Statistical Commission, the Global Earth Observations – Biodiversity Observation Network, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, the Biodiversity Indicators Partnership and other relevant organizations in supporting the operationalization of the global biodiversity framework monitoring framework. Additionally, the meeting included in the draft recommendation for the Conference of the Parties, a decision on establishing an ad hoc technical expert group to advise on the further operationalization of the monitoring framework for the post-2020 global biodiversity framework<sup>1</sup>.

7. The recognition of the role of the SEEA as an important statistical framework in support of the monitoring framework and the indicators therein, as well as the role of the national statistical offices in developing and implementing the framework, provides a unique opportunity for the SEEA community to help

<sup>1</sup> See <https://www.cbd.int/doc/c/9849/459f/b9fe0e74c9e1f25dd90dee23/sbstta-24-1-03-en.pdf>.

shape the monitoring framework and develop nationally owned statistical information which is mainstreamed within the national statistical system. To foster collaboration between the Convention on Biological Diversity focal points in countries and national statistical offices, the Division, jointly with the Secretariat of the Convention of Biodiversity, the Group on Earth Observation Biodiversity Observation Network and the United Nations Environment Programme World Conservation and Monitoring Centre has organized a series of webinars presenting the relationship between the SEEA and the provisional monitoring framework. The series has also included in-depth webinars on ecosystem extent, condition and services accounts and the indicators resulting from the accounts.

8. Effort has already been made to align the proposed headline indicators in the monitoring framework for the post-2020 global biodiversity framework with the statistical frameworks developed under the Commission, including the Sustainable Development Goals and the SEEA. The indicator group established under the Technical Committee on the SEEA Ecosystem Accounting has reviewed and provided input to the draft monitoring framework and is now preparing metadata for those headline indicators that are derived from the SEEA. The Committee's participation in the forthcoming expert group established by the Conference of Parties provides an important opportunity to promote the use of common standards related to data and methods, in particular on the monitoring of goals and targets where the SEEA is recognized as the underlying methodological basis for the compilation of headline indicators. More broadly, the Committee's participation will play a role in building greater collaboration between national statistical offices, line ministries and the science community.

9. The International Union for Conservation of Nature adopted two resolution on natural capital as part of its World Congress. Resolution 57 on Accounting for Biodiversity<sup>2</sup> calls on members to: 1) support the development of the SEEA to describe accounting for biodiversity at ecosystem, species and genetic levels, as well as its implementation; 2) apply the accounts to derive indicators of biodiversity change (e.g. monitoring for the post-2020 global biodiversity framework, Sustainable Development Goals, etc.) and for the production and organization of biodiversity and ecosystem services data; 3) support national statistical offices in implementing the SEEA; and 4) implement and apply SEEA accounting for biodiversity in all relevant aspects of their work. Further, the Union also adopted Resolution 062<sup>3</sup> Towards a Policy on Natural Capital, which proposes a series of non-binding principles on natural capital. These resolutions represent an important recognition by the scientific community of the importance of implementing the SEEA and further mainstreaming natural capital into policy.

#### *Climate change*

10. Area A continues to prioritize mainstreaming the SEEA into climate change initiatives. Climate change is one of the most pressing challenges for the globe, and efforts to address climate change continue to grow in number and importance, as witnessed by the number of new announcements made by world leaders at the twenty-sixth Conference of Parties on Climate Change in Glasgow. By means of the linkages work that Area A undertakes, the working group will develop a better understanding of the different initiatives, committees, and working and expert groups in this space. The objective of the working group is to facilitate connections between the various efforts to produce climate change indicators and statistics and promote collaboration and the use of the SEEA within the statistical community in the development of climate change indicators. In this context, the working group will work together with the Expert Group on Environment Statistics in supporting the work on climate change indicators using the SEEA where feasible.

11. It is expected that a proposal for a new G20 Data Gaps Initiative will be presented to the G20 Finance Ministers and Central Bank Governors in early 2022. The new G20 Data Gaps Initiative calls for "improving data availability and provision, including on environmental issues.... to better inform our decisions" and calls for "the International Monetary Fund (IMF), in close cooperation with the Financial Stability Board and the Inter-Agency Group on Economic and Financial Statistics (IAG) towards a possible new G20 Data Gaps Initiative"<sup>4</sup>. Key proposals include addressing G20 data gaps related to air emissions, energy, government subsidies, and

---

<sup>2</sup> See [https://portals.iucn.org/library/sites/library/files/resrecfiles/WCC\\_2020\\_RES\\_057\\_EN.pdf](https://portals.iucn.org/library/sites/library/files/resrecfiles/WCC_2020_RES_057_EN.pdf).

<sup>3</sup> See <https://www.iucncongress2020.org/motion/062>.

<sup>4</sup> See <https://www.consilium.europa.eu/media/52732/final-final-g20-rome-declaration.pdf>.

national climate mitigation and adaptation expenditures. The SEEA provides a good methodological basis for addressing some of these data gaps. As such, the Committee will be involved in assisting the IAG and G20 countries in progressing towards closing these gaps. Work on the Data Gap Initiative would be supported by both by the Technical Committee on the SEEA Central Framework (Area B1) as well as the working group on development of databases (Area C). Based on the experience of the first Data Gap Initiative launched by the G-20 Finance Ministers and Central Bank Governors in 2009, it is expected that the initiative will provide a tremendous incentive for all countries to develop climate change indicators directly related to economic dimensions.

12. Further, the IMF has recently created a climate change dashboard which includes several indicators derived from the SEEA and uses global SEEA databases as a data source. In addition, members of the Committee have created a task team devoted to estimating global quarterly SEEA air emission accounts to provide more timely, disaggregated data for the climate change dashboard (see para. 42). The working group will support efforts to increase dialogue between the IMF and national statistical offices related to the compilation of the dashboard and the use of the SEEA for climate change metrics.

13. In addition, the working group continues to coordinate with the United Nations Economic Commission for Europe (UNECE) to engage in activities to advance the use of the SEEA for climate change indicators through such efforts as the UNECE's high-level seminar on climate action. Activities in the coming years will also include engaging with international groups such as the United Nations Framework Convention on Climate Change, the Intergovernmental Panel on Climate Change and the Expert Group on Environmental Statistics to facilitate communication and collaboration.

#### *Circular economy*

14. Recognizing the strong interest in circular economy as a policy goal, the working group is actively engaging in two complementary efforts: 1) the Task Force on Measuring Circular Economy established by the Bureau of the Conference of European Statisticians (CES) and 2) the OECD Expert Group on a New Generation of Information for a Resource Efficient and Circular Economy (RECE). The Task Force is currently working on defining a measurement framework for circular economy which is closely linked to the SEEA and Framework for the Development of Environmental Statistics and is complemented by other sources of information. The Task Force's findings have shown that the SEEA is suitable for measuring many of the drivers for circular economy such as recycling and reuse of materials; goals at the macro and meso levels such as waste reduction; as well as direct and indirect effects on issues such as climate change and biodiversity loss. Members of the working group from Statistics Canada and the UNECE are co-organizing a seminar in December 2021 on the circular economy that brings together countries and international organizations with experience in the measurement of the circular economy with representatives from the policy sphere to discuss data needs, gaps and challenges, as well as successes.

15. Complementing the efforts of the CES task force is the OECD Expert Group on a New Generation of Information for a RECE. The Expert Group's work aims to improve the information base for resource efficiency and circular economy policies and is closely coordinated with the CES task force. The Expert Group's current efforts involve developing a harmonized framework and indicators for monitoring progress; supporting policy development and evaluation and identifying major measurement gaps; and providing guidance on how to produce, use and communicate circular economy-related information.

#### *Ocean Accounting*

16. The Division, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), and the Global Ocean Accounts Partnership are collaborating in the development of an expert subgroup of the Technical Committee on the SEEA Ecosystem Accounting that will initiate planning related to a SEEA-Ocean and its associated research agenda. In addition, ESCAP has worked with partners to continue to facilitate the development of ocean accounts through piloting of projects within the region and provision of technical support. Pilot projects are underway or planned in Palau and Samoa, covering topics including protected areas and waste flows to oceans. In collaboration with the Global Ocean Accounts Partnership, training and pilot activities on

ocean accounting are also underway in Fiji, Indonesia and Viet Nam. More progress on these pilots will occur in 2022.

17. Several international events were coordinated in support of ocean accounting and statistics. The Second Global Dialogue on Ocean Accounting was held in April 2021, hosted by Fisheries and Oceans Canada, and included global participants discussing the status of and plans for moving forward ocean accounts. ESCAP also worked with the Global Ocean Accounts Partnership to lead an interactive dialogue on ocean accounting as part of the Fourth Asia-Pacific Day for the Ocean on October 27, 2021—approximately 70 participants attended and heard about the policy demand for ocean accounts in Australia, Fiji, India, Indonesia, Palau, Thailand and Viet Nam.

#### *Measuring Sustainability of Tourism*

18. The Committee has continued to support the programme of work on Measuring the Sustainability of Tourism (MST) led by the United Nations World Tourism Organization (UNWTO), which involves the development of a statistical framework, the derivation of indicators - including those for monitoring tourism in the Sustainable Development Goals, and pilot implementation in countries. Progress has been made in engaging with the policy community and piloting implementation in countries. More countries are joining the group of pilots implementing the Statistical Framework for MST, and the pilots have provided policy relevant results<sup>5</sup>, while informing the relevance and feasibility of the framework. Expressions of interest have been received from countries in all regions, and some countries are in the process of expanding their existing pilots and/or integrating them into a more structural programme of work, often in collaboration with tourism policy stakeholders. The Technical Committee on the SEEA Central Framework will review the final draft of the Statistical Framework for MST before final consideration by the Working Group of Experts on MST and the UNWTO Committee on Statistics, and subsequent presentation to the United Nations Statistical Commission.

#### *Communication*

19. The SEEA website<sup>6</sup> and quarterly “SEEA News & Notes” newsletter<sup>7</sup> continue to function as the Committee’s main vehicles to reach stakeholders and the general public. Over the past year, the SEEA newsletter and website have played an important role in keeping the community up-to-date and engaged. Communication efforts have focused on a variety of topics and events, including the adoption of the SEEA Ecosystem Accounting and events such as the Forum of Experts on SEEA Ecosystem Accounting and the Fifth Policy Forum on Natural Capital Accounting for Better Decision Making. The newsletter has also served as a vehicle to engage the statistical community with other stakeholders. The newsletter audience grew by approximately 30 per cent over the past year. In addition, the Statistics Division continues to expand the SEEA website’s knowledgebase and added more than 100 publications on the SEEA over the past year.

20. Through the Division, the Committee also focused heavily on promoting the launch of the SEEA Ecosystem Accounting with external stakeholders. The United Nations Department of Global Communications and the Department of Economic and Social Affairs produced two global press releases, and United Nations Chief Economist Elliott Harris briefed the press. The Division also collaborated to create an explainer video on the SEEA Ecosystem Accounting and publish multiple news stories on the adoption on both United Nations News and the main United Nations Department of Economic and Social Affairs website. These efforts created significant visibility for the launch of the SEEA Ecosystem Accounting across the world. Around 250 articles were published in 32 countries and territories, and over 3,000 social media posts were made on the launch. Articles and opinion pieces continue to be released even several months after the launch.

### **III. Area B. Methodological development for normative standards and other research**

---

<sup>5</sup> See <https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-09/Experiences-from-pilot-studies-in-Measuring-the-Sustainability-of-Tourism.pdf>.

<sup>6</sup> See <https://seea.un.org/>.

<sup>7</sup> See <https://seea.un.org/content/seea-news-and-notes-archive>.

21. An important component of the work of the Committee is the advancement of the research agenda of the SEEA Central Framework and SEEA Ecosystem Accounting. The present section describes the progress of methodological development and implementation for both.

**A. Area B1. SEEA Central Framework** (led by Statistics Netherlands)

22. At its sixteenth meeting in June 2021, the Committee discussed the possibility of a revision of the SEEA Central Framework to take place in parallel to the update of the 2008 System of National Accounts (SNA) and other macro-economic standards. Taking into consideration the ambitious work programme of the Committee, resources available and need for prioritization, the Committee concluded that the SEEA Central Framework is broadly up to date and did not need immediate update. The Committee agreed to make further progress on the research agenda of the SEEA Central Framework and reassess the need for a revision in 2023, to ensure its coherence with the update of the 2008 SNA and other macroeconomic standards and international classifications, as well as to address other emerging issues.

23. Three work streams have been prioritized for the work on the SEEA Central Framework research agenda, in 2022-2023, taking into account the international agenda: 1) issues linked to classifications, particularly those currently being updated; 2) supporting the SNA update on issues related to the SEEA; and 3) other issues in the SEEA Central Framework research agenda, including the link between the SEEA Central Framework and the SEEA Ecosystem Accounting. In addition, a proposed new G20 Data Gaps Initiative and circular economy are additional areas that the Technical Committee on the SEEA Central Framework will engage in.

24. The Technical Committee on the SEEA Central Framework has made considerable progress in its work on classifications and provided input to the ongoing revision processes for the International Standard Industry Classification (ISIC) and Central Product Classification (CPC) to ensure that these classifications are fit for purpose for compiling the SEEA. Two proposals were prepared for the ISIC revision process—one on climate change mitigation activities and the other on ecosystem conservation, management and restoration activities. For the CPC revision process, the Technical Committee on the SEEA Central Framework identified several topic areas that are particularly relevant for the SEEA, including circular economy, waste products, specific environmental products and services, energy products, and the alignment of the Standard International Energy Product Classification (SIEC) with the CPC and Classification of Environmental Activities, in particular concerning climate change and biodiversity. The group prepared issue notes on these topics for the global consultation on CPC revision issues and will continue to play an active role in this process by preparing proposals for these topics in 2022.

25. In addition, the work on the SEEA Central Framework has been coordinated with the research agenda for the update of the 2008 SNA. A collaboration agreement between the Committee, the Advisory Expert Group on National Accounts and the Inter Secretariat Working Group on National Accounts has been set up for these joint efforts. The Committee will focus its efforts on the issues being addressed by the sub-task team on environmental economic accounting of the SNA update task team on well-being and sustainability. The agreement envisages cross participation between members of the sub-task team and the Technical Committee as well as joint global consultation on SEEA-related issues. While the original intent was for the update of the 2008 SNA to incorporate some of the recommendations in the SEEA, fundamental issues that will have implications for the SEEA have arisen, which warrant discussion within the SEEA community. These include for example accounting for the economic ownership and depletion of natural resources, accounting for biological resources, the recording of emission permits, and treating the atmosphere as an asset.

**B. Area B2. SEEA Ecosystem Accounting** (led by Eurostat)

26. In March 2021 at its fifty-second session, the Commission adopted the SEEA Ecosystem Accounting, more specifically its chapters 1-7 as an international statistical standard and chapters 8-11 as internationally recognized statistical principles and recommendations for valuation of ecosystem services and assets.<sup>8</sup> Further,

<sup>8</sup> See Decision 52/108 in the Report on the fifty-second session (E/2021/24-E/CN.3/2021/30): <https://unstats.un.org/unsd/statcom/52nd-session/documents/2021-30-FinalReport-E.pdf>.

the Commission encouraged countries to implement the SEEA Ecosystem Accounting and requested the Committee to develop an implementation strategy.

27. The white-cover version of the SEEA Ecosystem Accounting was released in October 2021, along with three online supplemental materials.<sup>9</sup> This version, which reflects the recommendations of the Commission at its fifty-second session, will be submitted to official United Nations editing and copy preparation, while establishing publication agreements among the agencies, and will be published in early 2022. The supplemental materials provide a stylized example of ecosystem accounts, ecosystem services logic chains and a crosswalk of the ecosystem services reference list with other classifications and lists. The contribution of all the experts that contributed and actively participated in the revision process is gratefully acknowledged.

28. The adoption of the SEEA Ecosystem Accounting has received significant interest and attention not only within the statistical community but from policy and decision makers as well. The United Nations Secretary General, Antonio Guterres called the adoption a “historical step towards transforming the way how we view and value nature”. The Executive Secretary of the United Nations Environment Programme (UNEP), Inger Andersen called the SEEA Ecosystem Accounting a “game-changer in decision making”. The Executive Vice Present of the European Commission, Frans Timmermanns said that the SEEA Ecosystem Accounting “moves beyond GDP and takes better account of biodiversity and ecosystems in national economic planning. It is a major development in changing the way we think about prosperity and well-being.”

29. The focus of work of the Technical Committee on the SEEA Ecosystem Accounting has shifted from the development of methodology to implementation. As requested by the Commission at its 52<sup>nd</sup> session in March 2021, the Technical Committee has developed an implementation strategy that involves building capacity in countries and developing materials to support implementation. Further, the Secretary General called on Member States and others “to begin the implementation of the SEEA Ecosystem Accounting” in his report Our Common Agenda, recognizing its importance in going beyond GDP, supporting a green and sustainable recovery, and addressing the twin biodiversity and climate change crises. To advance global implementation, the Committee has developed an Implementation Strategy for the SEEA Ecosystem Accounting, submitted to the Commission as a background document.

30. The overall objective of the Strategy is to scale up the uptake of the SEEA Ecosystem Accounting. This involves regular production of SEEA Ecosystem Accounts and mainstreaming them into policy and decision making. A suggested target is to have at least 60 countries implement one or more SEEA Ecosystem Accounts by 2025. This will be monitored by the Global Assessment on Environmental Economic Accounting and Supporting Statistics.

31. The Strategy starts from an assessment of the various initiatives at the global and national level that the SEEA Ecosystem Accounting can support, in particular green recovery, biodiversity and climate change and further elaborates the need for integrated data to support the above initiatives. The Strategy takes a flexible and modular approach which considers policy priorities, data availability, and institutional frameworks and covers implementation at different scales (national as well subnational level). As such, implementation will not be a ‘one size fits all approach.’ Leveraging on the opportunity to develop the accounts using alternative data sources and in particular earth observation data and models, the strategy promotes an incremental approach to implementation, whereby countries lacking detailed national data start generating the accounts using global data and models and gradually improve the estimates using national data when and where available. The Strategy also utilizes a regional or sub-regional approach involving United Nations regional commissions and multilateral development banks.

32. The Strategy foresees five main activities to support implementation: (1) capacity building programmes, including training, e-learnings and in-country support; (2) the development of guidelines and material to support compilation, including guidelines on biophysical modelling and valuation of ecosystem services and assets; (3) strengthening collaboration to leverage expertise and resources from all involved in advancing the measurement

---

<sup>9</sup> See <https://seea.un.org/content/system-environmental-economic-accounting-ecosystem-accounting-white-cover-version>.



and policy agenda on ecosystems and biodiversity; (4) data and tools; and (5) communication and advocacy to support a dialogue among the key stakeholders in the production and use of the accounts.

33. With the shift in focus to implementation, all of the subgroups of the Technical Committee which were established to support the revision process have been dismantled, with the exception of the subgroup on indicators, which continues to provide support for the development of metadata for the headline indicators in the monitoring framework of the post-2020 global biodiversity framework. New subgroups are being established with the objective of supporting the implementation of the SEEA Ecosystem Accounting. The Technical Committee decided to organize the work according to thematic accounts, that is, accounts that cover a specific topic or theme. These subgroups will develop agreed methodologies to compile ecosystem extent, condition and services accounts in physical and monetary terms based on best practices. The rationale of organizing the work according to thematic accounts was grounded into three considerations: (a) a direct link to policies, as policy decisions are usually taken for specific thematic areas; (b) expertise, as experts usually tend to focus on a particular thematic area and bringing together experts on biophysical measurements and valuation would benefit the advancement of an integrated measurement agenda; and (c) data, as data and models for measuring extent, condition and services are similar for each thematic area and across the different accounts. The Division has already initiated the process for setting up thematic working groups on forest, carbon and oceans, taking into consideration policy demand and data availability.

34. To advance the research agenda on valuation, the Committee is working closely with the InterSecretariat Working Group of National Accounts to establish a group which will draft a guidance note on the main valuation principles in the SNA in particular in the absence of directly observable market prices. The group will focus on several issues being discussed in the context of well-being and sustainability of the SNA update and will use the discussions on valuation raised during the revision of the SEEA Ecosystem Accounting as a starting point.

35. To support the implementation of the SEEA Ecosystem Accounting, tools are being developed to facilitate the compilation of accounts. For example, as part of the European Union-funded Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES) project, the Division, the Basque Centre for Climate Change and UNEP launched the Artificial Intelligence for Ecosystem Services for SEEA Explorer (ARIES for SEEA) in April 2021. The ARIES for SEEA application is a tool that allows users to compile a suite of SEEA Ecosystem Accounts for any area in the world, using global data sources and global models. This can be especially useful as a first step if national data are scarce or national compilation capacity is limited. In addition, next year users will have the ability to improve these basic accounts through uploading national data and/or national models, which can also be shared with other users. As such, advanced countries are encouraged to help improve the repository of models in ARIES by sharing their own models in the future. Finally, the Division, in collaboration with the Basque Centre for Climate Change and UNEP released an interoperability strategy for ecosystem accounting which advocates eliminating data siloes in favour of sharing and reusing data and models.<sup>10</sup> The interoperability strategy outlines the current state of data interoperability of the SEEA, vision for the future as well as proposed roles and responsibilities of data providers, modelers and hosting institutions.

36. The development of the SEEA Ecosystem Accounting benefited greatly from contributions made through large projects such as the recently concluded NCAVES project which piloted ecosystem accounting in five countries (see para. 48), as well as the project on an Integrated system of Natural Capital and ecosystem services Accounting (INCA) for the European Union, a project of the European Commission and the European Environment Agency led by Eurostat. The INCA project has produced EU statistics and trends on the extent of different ecosystems, their condition and a number of ecosystem service in both physical and monetary terms. The INCA project concluded its phase II in 2021 with a report<sup>11</sup> and has entered its phase III.

37. Guidelines, technical reports and compilation tools have been developed as outputs of the NCAVES project. The Division has developed Guidelines on Biophysical Modelling for Ecosystem Accounting, submitted to the Commission as a background document. The Guidelines provide an overview of data sources, methods and

<sup>10</sup> See [https://seea.un.org/sites/seea.un.org/files/seea\\_interoperability\\_strategy.pdf](https://seea.un.org/sites/seea.un.org/files/seea_interoperability_strategy.pdf).

<sup>11</sup> See <https://ec.europa.eu/eurostat/en/web/products-statistical-reports/-/ks-ft-20-002>.

practical advice on the compilation of extent, condition and ecosystem services accounts in physical units. The Guidelines also provide process guidance for statistical offices and agencies starting SEEA Ecosystem Accounting implementation. The process was overseen by an editorial board that was established to provide expert advice and guidance on the drafting of the text. The final draft of the Guidelines has taken on board feedback received through a global consultation that took place in the course of 2021.

38. In October 2021, the Division together with UNEP released the technical report, *Policy Scenario Analysis Using SEEA Ecosystem Accounting*.<sup>12</sup> The report aims to improve the effectiveness of decisions for sustainable development by highlighting how the use of the SEEA Ecosystem Accounting in scenario analysis models can provide policymakers with a better understanding of the interconnections between the environment and economy. The report includes an overview of core concepts and dimensions in scenario design, a technical review of state-of-the-art methods and simulation models for scenario analysis, and successful country examples.

39. A technical report, *Monetary Valuation of Ecosystem Services and Assets for Ecosystem Accounting-Interim Version*, will be released in 2022 as a joint output of the NCAVES project and the Mapping and Assessment for Integrated Ecosystem Accounting (MAIA) project<sup>13</sup>. The report will provide an interim reference for those countries who wish to undertake valuation of ecosystem services and compilation of monetary accounts. It will serve as the initial input in the forthcoming discussions on compiling physical and monetary ecosystem accounts as part of the Strategy.

#### **C. London Group on Environmental Accounting (led by the Federal Statistical Office of Germany)**

40. The London Group on Environmental Accounting plays an active role in advancing the methodologies of environmental accounting and providing a forum for sharing expertise in the field. The programme of work of the London Group for the next years will be closely linked to the priorities and objectives established by the Committee as well as the update of macroeconomic standards and classifications. Topics related to the SEEA Central Framework that the London Group intends to address include the integrated monetary framework, classifications and delimitation issues, and input-output calculations for consumption/footprint information. The London Group will also support the research agenda of the Technical Committee of the SEEA Ecosystem Accounting and focus on topics of implementation for extent, condition, ecosystem services (physical and monetary) and ecosystem asset accounts. Issues surrounding monetization of ecosystem services may also be looked at. The London Group may expand its work programme depending on long-term developments which may become relevant for possible revisions of the SEEA or its application in the more distant future.

#### **IV. Area C. Development of databases (led by OECD)**

41. The Committee continues to move forward with the priority databases of air emissions, energy, land, material flow and water accounts. The working group on the development of databases is taking a pragmatic approach, which calls for disseminating national data where they exist and using estimation where official data is not available. Each of the priority accounts has a custodian agency which undertakes data collection and sets priorities and timelines for the compilation of the account, while the working group coordinates and monitors progress. Air emission and energy data collection templates are currently being developed, which depart from the Eurostat data templates which are used to compile the accounts for EU countries. The data collection templates are aligned in scope and terminology with Statistical Data and Metadata Exchange (SDMX) for SEEA descriptions. The compilation of the new data templates for air emission accounts is being organised with the OECD taking the lead for non-EU OECD member countries and the Statistics Division leading testing for other countries. Testing of the data templates for energy accounts is following a similar arrangement. The templates can be used for collection of data between institutions in cases where SDMX transfer is not possible. Data collection from countries utilizing the new templates will be developed as resources allow and depending on

---

<sup>12</sup> See <https://seea.un.org/content/policy-scenario-analysis-using-seea-ecosystem-accounting>.

<sup>13</sup> The MAIA project is funded by the European Union's Horizon 2020 research and innovation programme and aims to promote the mainstreaming of natural capital accounting in EU Member States and Norway. See <https://maiaportal.eu/>.

outcomes of the testing phase. The landing page for the global databases will be housed on the main SEEA website.

42. The UNEP International Resource Panel has updated the material flow database, which will be released by December 2021. UNEP has developed a questionnaire for material flow data collection from countries (excluding countries reporting to Eurostat). Countries will receive a pre-filled questionnaire with UNEP International Resource Panel estimates for validation and/or replacement with national data, if they exist.

43. Given the progress and efforts on the priority datasets of air emissions and energy, the Committee is well placed to contribute to the proposed new G20 DGI (see para. 11). In particular, the output of the task team devoted to estimating global quarterly SEEA air emission accounts (see para. 12) is anticipated to contribute to the DGI. Based on the methodology developed by the task team on quarterly air emission accounts, it is anticipated that in the absence of national estimates, Eurostat will estimate quarterly accounts for EU countries, the OECD will cover OECD countries that are not in the EU, and the IMF will cover other countries that belong to the IMF. Data at an aggregated level will be released on the IMF's climate change dashboard, and country level data may be provided to IMF desks for Fund use.

44. The ARIES for SEEA application is being tested for compiling global SEEA databases for land accounts and ecosystem accounts. In particular, discussion is underway on creating global land cover accounts using ARIES for SEEA which are consistent with the SEEA methodology. The Committee is also working to ensure that existing and future land accounts products are harmonized and properly communicated.

45. Efforts are in place to establish a sector hub at the Basque Centre for Climate Change that will provide a much-needed platform for ARIES for SEEA to further progress the interoperability of data and models in the domain of environmental-economic accounting and sustainability. The sector hub will be a joint collaboration between the Division, the United States Geological Survey, the Basque Centre for Climate Change and the Donostia International Physics Centre. The sector hub will be established in support of the United Nations Global Platform on Big Data.

#### **V. Area D. Implementation and statistical capacity-building** (led by ESCAP and Statistics South Africa)

46. The working group on implementation and statistical capacity-building has identified several areas of focus for its work programme. These include the development of a global fundraising plan, continued advocacy and engagement on the SEEA with national governments and through the regional commissions, and advancement and training on global and regional tools aimed at supporting SEEA implementation.

47. Funding is a key issue in maintaining progress on SEEA implementation. At the global level, the Division and regional commissions have limited capacity to provide technical support to countries that are interested or engaged in implementation of accounts. Additionally, international funding sources may not fully support accounts implementation as a specific output of project activities. Within countries, resource mobilization specific to environmental accounts remains a challenge, not only in ensuring sufficient and appropriate personnel are in place, but also in facilitating capacity integration (e.g., working across environmental and statistical agencies and enabling easy exchange of data). The working group will develop a fundraising strategy for implementation that addresses these challenges, potentially inviting additional members to the working group, if needed.

48. Advocacy for the accounts globally and within national governments is also an important area for the working group's future activities. Advocacy directly relates to the issues noted above, such as the challenges with in-country resource mobilization. Potential activities that the working group can facilitate through its member organizations include targeted seminars that build the use cases for the accounts and presentations of SEEA policy applications in thematic policy forums in 2022. The working group will also explore the development of groups within the regional committees on statistics that focus specifically on environmental-economic accounting. This could assist in sensitizing people to environmental accounts at a strategic level and complement prior activities that have raised awareness of the accounts at a technical level within countries, as well as providing a formalized reporting structure at regional commissions. These formalized groups would also

complement the ongoing activities of the various communities of practice on the SEEA, including the Africa Natural Capital Accounting Community of Practice, the Economic Commission for Latin America and the Caribbean Regional Network on Environment Statistics and the Latin America Community on Natural Capital Accounting.

49. This working group will also serve as a forum for discussion of tools and manuals that are developed within each of the regions (e.g., ESCAP's QGIS-R Land Cover Change Guide) as well as for facilitating the uptake of tools developed for environmental-economic accounting that are aimed at a global level (e.g., ARIES for SEEA, LUCI for SEEA toolbox<sup>14</sup>). The working group will support trainings on these tools, as well as provide technical support in the use of the tools after completion of training. The working group will also compile user experiences with the developed tools, noting any challenges encountered, differential benefits, and accuracy or quality concerns.

50. The EU-funded NCAVES project concluded in 2021. The project successfully piloted ecosystem accounting in five participating countries—Brazil, China, India, Mexico and South Africa—resulting in a large number of published accounts and reports, as well as reports detailing results of a workstream on indicators.<sup>15</sup> The project has made strong contributions to the mainstreaming of biodiversity and ecosystems at (sub)national level policy and decision-making, through the application of accounts in policy scenario analysis and the development of natural capital accounting strategies. The project has also generated significant media attention, for instance through the organization of numerous outreach events such as national fora to disseminate the results of the project to a wider audience.

51. The Division is currently leading a three-year project funded by the twelfth tranche of the United Nations Development Account. The project is supporting countries on SEEA implementation and its use for evidence-based policymaking in Asia and Africa, namely Kenya, Malaysia, the Philippines and Senegal. The Division is providing support to the project countries in building institutional frameworks in support of SEEA implementation, compiling pilot accounts and promoting the accounts in support of policymaking and the Sustainable Development Goals. The Division is working closely with the relevant regional commissions, international organizations and non-governmental organizations to carry out the project.

52. The World Bank Global Programme on Sustainability (GPS)<sup>16</sup>, which builds on the World Bank Wealth Accounting and Valuation of Ecosystem Services programme, is the Bank's umbrella programme on natural capital, ecosystem services and the economics of sustainability. The GPS has the objective to strengthen the production and use of quality data (economic and financial) on natural capital and ecosystem services, to inform government and financial market decisions. Over the years, support has been provided to Botswana, Costa Rica, Colombia, Guatemala, Indonesia, the Philippines and Rwanda, to produce SEEA accounts on natural capital assets and ecosystem services; to strengthen the capacity to use the accounts for policy purposes; and to institutionalize processes of production and use of the accounts. More recently, the programme supported Egypt, Guatemala, Kyrgyzstan, Morocco, Uganda and Zambia. The GPS also funds smaller scale technical assistance to pilot the use of ecosystem services data for policy analysis, in countries such as Cambodia, the Lao People's Democratic Republic, Madagascar, Myanmar, Nepal and Viet Nam, as well as for the West Africa Coastal Areas Management Programme. Technical assistance with fifteen more countries will start in 2021. At the global level, the GPS periodically carries out a comprehensive evaluation of wealth accounts for over 140 countries (including natural, physical and human capital). The fourth instalment in the series entitled "The Changing Wealth of Nations" was published in the fall of 2021.

53. To support implementation, the Sixth Joint OECD/UNECE Seminar on the Implementation of the SEEA was held in March 2021 and focused on how the SEEA can inform important policy areas such as ecosystems and biodiversity, circular economy and climate change. Approximately 170 participants from over 45 countries attended over the course of the three-day seminar. The Seventh Joint OECD/UNECE Seminar on the

---

<sup>14</sup> See <https://model.lucitools.org/>.

<sup>15</sup> See <https://seea.un.org/home/Natural-Capital-Accounting-Project>.

<sup>16</sup> See <https://www.worldbank.org/en/programs/global-program-on-sustainability>.

Implementation of the SEEA will be held in March 2022. It will provide an important opportunity for countries to continue to exchange knowledge and experiences on SEEA implementation and mainstreaming.

54. To advance in strengthening technical capacity building in the Latin America and Caribbean region, the United Nations Economic Commission for Latin America and the Caribbean (UNECLAC) will hold virtual technical assistance for technical staff through national and regional workshops in the region in 2022. The workshops will help to identify the availability of source data, understand national capacity and the commitment of national counterparts, and experiences in ecosystem accounting.

#### *Global Assessment of Environmental Economic Accounting*

55. The Global Assessment serves to gain a better understanding of national SEEA implementation, including institutional and funding arrangements, countries' priorities and future plans for implementing accounts, technical assistance received and provided, and the use of the accounts. The review also helps assess the support required by countries for implementing the SEEA. The Global Assessment is carried out every year with benchmark compilation every three years. The results in 2020<sup>17</sup> indicated that 89 countries compile at least one account of the SEEA Central Framework and 34 compile at least one account of the SEEA Ecosystem Accounting.

56. The working group is currently conducting an abbreviated Global Assessment. As agreed by the Committee during its 2021 meeting, the working group on capacity-building will administer a shortened version of the Global Assessment in between benchmark years. The abbreviated Assessment, which was sent to countries in November 2021, collects information on current implementation in countries. The results will enable the Committee to assess the status and progress of national SEEA programmes. The Assessment will also support the monitoring of Sustainable Development Goals targets 15.9 and 12.b through two indicators: (a) 15.9.1, on the integration of ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts, through implementation of the SEEA; and (b) 12.b.1, on the implementation of standard accounting tools to monitor the economic and environmental aspects of tourism sustainability, through implementation of the relevant SEEA and Tourism Satellite Account tables.

#### **VI. Area E. Business Accounting** (led by the National Institute of Statistics and Geography of Mexico)

57. The working group on business accounting is moving forward with its roadmap towards alignment between the SEEA and private sector natural capital accounting<sup>18</sup> and is currently chaired by the National Institute of Statistics and Geography of Mexico. In May 2021, the Bureau organized a scoping workshop with members of the business and standard setting community in order to inform the working group's programme of work. Based on this scoping workshop and preliminary meetings of the working group, the working group will focus on three objectives: 1) alignment of private sector methodology and standards with the SEEA; 2) increased collaboration and awareness raising between statistical and business communities; and 3) greater exchange and use of high quality, interoperable data between business and national statistical offices. A detailed programme of work will be finalized by the end of 2021.

58. In addition, the Division released two case studies on business and natural capital accounting, one in India and another in Spain, through collaboration with the multinational building sector company Holcim, under the NCAVES project. The case studies assessed alignment between existing private sector natural capital accounting approaches and the SEEA, explored the extent natural capital data available in the statistical system can support the private sector and identified opportunities for further alignment in terms of concepts, methods and data requirements. The results of the case studies will help inform the working group's activities.

#### **VIII. Points for discussion**

<sup>17</sup> See <https://seea.un.org/content/global-assessment-environmental-economic-accounting>.

<sup>18</sup> See [https://seea.un.org/sites/seea.un.org/files/images/business\\_accounting\\_6.docx](https://seea.un.org/sites/seea.un.org/files/images/business_accounting_6.docx).

59. **The Statistical Commission is invited to express its views on:**
- (a) The Committee's proposed programme of work for 2022 to 2025;**
  - (b) The Committee's engagement in the SNA update as well as ISIC and CPC updates;**
  - (c) The engagement of national statistical offices in the post-2020 Global Biodiversity Framework and the development of the monitoring framework in the lead up to the Fifteenth meeting of the Conference of Parties to the Convention on Biological Diversity (see sect. II);**
  - (d) The global implementation strategy for the SEEA Ecosystem Accounting (see sect. III);**
  - (e) The final draft of the Guidelines for Biophysical Modelling which aims to support compilation of ecosystem accounting in countries (see sect. III); and**
  - (f) The progress made in finalizing the Statistical Framework for Measuring the Sustainability of Tourism (see sect. II).**
-