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## Statistical Commission

### Fifty-second session

1–3 and 5 March 2021

Item 3 (f) 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 2020/211 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 four areas of work of the Committee, namely: (a) coordination and communication; (b) methodological development for normative standards and other research; (c) development of databases; and (d) implementation and statistical capacity-building.

The Commission is requested to discuss the points contained in paragraph 47.

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\* E/CN.3/2021/1.



## I. Introduction

1. At its fifty-first session, held from 5 to 8 March 2020, the Statistical Commission adopted decision 51/110 (see [E/2020/24-E/CN.3/2020/37](#), chap. I, sect. C), in which it:

(a) Welcomed the report of the Committee of Experts on Environmental-Economic Accounting,<sup>1</sup> welcomed the work done thus far on mainstreaming the System of Environmental-Economic Accounting (SEEA) as a statistical framework to support various initiatives, including the Sustainable Development Goals, climate change, the circular economy, the ocean agenda, the Sendai Framework for Disaster Risk Reduction and sustainable tourism, commended current usage of SEEA for country-level reporting on the Sustainable Development Goals, and welcomed the integration of SEEA into Sustainable Development Goal indicators 15.9.1 and 12.b.1;

(b) Stressed that high-quality environmental accounts can be based on high-quality environment statistics;

(c) Stressed the importance of the SEEA Experimental Ecosystem Accounting in supplying a common measurement framework for the post-2020 global biodiversity framework and related indicators that are currently being negotiated and are expected to be adopted at the fifteenth meeting of the Conference of Parties to the Convention on Biological Diversity;

(d) Commended the Committee of Experts for the substantial progress made in the revision of the SEEA Experimental Ecosystem Accounting, expressed appreciation for the inclusive and transparent revision process, noted the high demand and interest from the statistical, scientific and policy communities, emphasized the urgency of providing a standardized methodology for ecosystem accounting that reflects the revision and reinforces the role of national statistical offices as data stewards, and supported the aspiration to elevate the revised SEEA Experimental Ecosystem Accounting to SEEA Ecosystem Accounting;

(e) Acknowledged the importance of developing compilation materials in parallel with the revision of the ecosystem accounting methodologies to support their implementation, including materials on biophysical modelling, valuation, scenario modelling and ocean accounting, in order to meet increasing country demands;

(f) Supported the proposal to consider a revision of the SEEA Central Framework, which integrates updates from the revised SEEA Experimental Ecosystem Accounting, aligns with the revision of the System of National Accounts 2008 (2008 SNA) and responds to new demands for environmental-economic information, and welcomed the continued collaboration between the Committee of Experts, the Advisory Expert Group on National Accounts and the Intersecretariat Working Group on National Accounts, in particular the subgroup on well-being and sustainability;

(g) Welcomed the release of the Statistical Data and Metadata Exchange (SDMX) global data structure definitions for SEEA, and requested the Committee of Experts to disseminate global databases from the United Nations SEEA website using a stepwise approach that minimizes duplication of efforts among international agencies and adopts a fully transparent process, including review of the methodology, country communication and consent before dissemination, and furthermore encouraged the Committee of Experts to explore possibilities to use earth observation combined with national data to develop experimental ecosystem accounts;

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<sup>1</sup> [E/CN.3/2020/12](#).

(h) Welcomed the progress made towards the 2020 implementation targets of 100 countries implementing the SEEA Central Framework and 50 countries implementing the SEEA Experimental Ecosystem Accounts, and noted the importance of regional collaboration, communities of practice, blended learning workshops, country technical support and a stepwise approach to ensure that the implementation targets are met by the end of 2020, while also acknowledging that regional gaps remain, and encouraging the Committee of Experts to prioritize implementation in Africa;

(i) Took note of the contribution of the European Union-funded project, Natural Capital Accounting and Valuation of Ecosystem Services,<sup>2</sup> in advancing the implementation of the SEEA Experimental Ecosystem Accounting in the partner countries, namely Brazil, China, India, Mexico and South Africa, and in supporting the development of methodologies and practical guidelines on ecosystem accounting;

(j) Commended the Economic and Social Commission for Asia and the Pacific on the Technical Guidance on Ocean Accounting for Sustainable Development,<sup>3</sup> acknowledged the progress made through country piloting in the region and recognized that the technical guidance provides a solid foundation for integrating ocean accounts into the revision process of the SEEA Experimental Ecosystem Accounting;

(k) Commended the World Tourism Organization on the work done thus far on the development of a statistical framework for measuring sustainable tourism, which integrates the SEEA and the Tourism Satellite Accounts, acknowledged the continuing progress made through country pilots, and encouraged finalization of the document in the near future.

2. The work of the Committee is organized according to four 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 the following: 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); and area D. Implementation and statistical capacity-building, led by Statistics South Africa. In addition, the Committee has recently started a workstream on business accounting

3. The present report discusses the progress made during the past year and the medium-term programme of work. Points for discussion are presented in section VIII.

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

4. At its fifteenth meeting, in July 2020, the Committee agreed on the merger of the working group on coordination and the working group on the statistical response on emerging policy issues. Given the interlinkages and potential synergies between these two areas, the two working groups have merged into the working group on coordination and communication, led by Statistics Canada. This year, the working group has focused on refreshing its membership and mandate. The mandate of this group merges the mandates of its predecessors, and includes fostering collaboration,

<sup>2</sup> See <https://seea.un.org/home/Natural-Capital-Accounting-Project>.

<sup>3</sup> By the Global Ocean Accounts Partnership (United Nations, 2019).

integration and complementarity of programmes relevant to environmental economic accounting and implementing practical strategies to promote the use of the SEEA for emerging policy issues.

5. The working group will focus its activities on three main areas: (a) mainstreaming the SEEA in reporting initiatives, including in the development and reporting of indicators, analysis and decision-making at the national and global levels; (b) coordination of training and assistance, including finalizing a quality assurance process to ensure that SEEA training materials are up to date and aligned with the framework before they are widely disseminated; and (c) developing a strategy and work plan for mainstreaming the use of the SEEA for emerging issues such as climate change, sustainable finance, biodiversity and the circular economy.

6. The post-2020 global biodiversity framework presents an opportunity for the SEEA to mainstream biodiversity values into policy and decision-making. At its extraordinary meeting, held in November 2020, the Committee expressed strong support for a proposal by the secretariat of the Convention on Biological Diversity to create an expert group on monitoring the post-2020 global biodiversity framework.<sup>4</sup> The Committee plans to become actively involved in the expert group and serve as the connection between the Convention on Biological Diversity processes and the Commission. Participation in the expert group presents an opportunity for the Committee to coordinate and guide the development of the monitoring framework for the post-2020 global biodiversity framework. The Committee will also share the expertise of the statistical community through, for example, the work on indicators that is being done in the context of the revision of the SEEA Experimental Ecosystem Accounting. More broadly, the early and active engagement by the Committee will provide an entry point for the official statistical community to be involved in monitoring the post-2020 global biodiversity framework.

7. To develop materials in support of mainstreaming the use of the SEEA in emerging issues, the United Nations Statistics Division has recently published a series of policy publications, with funding from the Federal Ministry for Economic Cooperation and Development of Germany. The publications are designed to appeal to policymakers and analysts and to explore how the SEEA can be used as an analytical framework to address specific policy questions. An overview publication and three topical publications on biodiversity, climate change and macroeconomic policy were formally published and launched in late 2020.<sup>5</sup> Furthermore, to promote engagement with line ministries, policy analysts and policymakers, the Division is currently finalizing e-learning modules based on the publications. The e-learning modules will be available on the SEEA website by mid-2021.

8. The SEEA website<sup>6</sup> and quarterly “SEEA News & Notes” newsletter<sup>7</sup> have continued 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 helped keep the community up-to-date on a variety of topics and events, including updates on international initiatives in which the SEEA can be mainstreamed, training opportunities, outreach events such as the Forum of Experts in SEEA Ecosystem Accounting and topics such as the revision of the SEEA Experimental Ecosystem Accounting. The newsletter has also served as a vehicle to engage the statistical community with other stakeholders, and over the past year the newsletter audience grew by nearly 40 per cent. In addition, the Division launched a new knowledgebase

<sup>4</sup> See <https://www.cbd.int/doc/c/8e95/2d27/2a226d32d59cd705e119b5a6/sbstta-24-03-en.pdf>.

<sup>5</sup> See <https://seea.un.org/content/enhance-natural-capital-accounting-policy-uptake-and-relevance>.

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

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

of SEEA-related publications and online resources on the SEEA website. The knowledgebase currently has more than 250 publications, including official SEEA handbooks and guidelines, official reports from countries, reports on policy applications of the SEEA, links to interactive websites and more.

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

9. 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 for both. Special attention is paid to the SEEA Ecosystem Accounting, which is presented to the Commission for adoption.

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

10. Work on the SEEA Central Framework research agenda has progressed. Work is ongoing on: (a) the revision of the classification for environmental activities and the definition of resource management; (b) fossil fuel subsidies; and (c) environmentally extended input-output analysis. The London Group on Environmental Accounting discussed these issues at its 26th (virtual) meeting, in October 2020, and determined the next steps necessary to make further progress in these areas of work.

11. In addition, the work on the SEEA Central Framework has been coordinated with the System of National Accounts (SNA) research agenda. At the beginning of 2020, the Intersecretariat Working Group on National Accounts established a number of task teams to consider items in the SNA research agenda, with the goal to update the 2008 SNA by 2025. This included the task team on well-being and sustainability, within which there is a subgroup on the SEEA, which includes experts in environmental economic accounting. The objective of the group is to align the SNA with the SEEA on a variety of issues. A number of draft guidance notes have been prepared, two of which concern: (a) accounting for the economic ownership and depletion of natural resources; and (b) accounting for biological resources. These guidance notes will be reviewed by the Technical Committee on the SEEA Central Framework before undergoing global consultation. They will also be discussed at the meetings of the London Group on Environmental Accounting. The work to further align the research agendas of the SNA and the SEEA Central Framework will continue in 2021. Furthermore, the Committee will discuss a proposal to possibly update the SEEA Central Framework in conjunction with the update of the SNA and other macroeconomic standards at its sixteenth meeting in June 2021.

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

12. The SEEA 2012: Experimental Ecosystem Accounting was endorsed by the Commission at its forty-fourth session, held in March 2013, as an important step in the development of an integrated statistical framework for organizing biophysical information, measuring ecosystem services, tracking changes in ecosystem assets and linking this information to economic and other human activity. It was endorsed and given the label “experimental” because of the novelty of the conceptual framework from a statistical perspective and the need to extensively test and reach agreement on measurement methods.

13. Since its publication in 2013, the strong interest in ecosystem accounting has led to widespread testing and experimentation, and in turn to the advancement of concepts and methodologies. At its 12th meeting, held in June 2017, the Committee determined that a revision of the SEEA Experimental Ecosystem Accounting was timely, and the Commission endorsed the revision process at its forty-ninth session, held in March 2018, with the ambition to elevate it to an international statistical standard by 2021. At its fifty-first session, held in March 2020, the Commission “emphasized the urgency of providing a standardized methodology for ecosystem accounting that reflects the revision and reinforces the role of national statistical offices as data stewards; and supported the aspiration to elevate the revised SEEA Experimental Ecosystem Accounting to SEEA Ecosystem Accounting.”<sup>8</sup>

14. The revision process was carried out under the auspices of the Bureau, which acted under delegated authority by the Committee to carry out activities and tasks in relation to strategic planning, programming and monitoring, reporting and resource mobilization for the project. In 2018, the Bureau delegated the responsibility of drafting the revised SEEA Experimental Ecosystem Accounting to an extended SEEA Experimental Ecosystem Accounting Technical Committee and appointed Carl Obst as editor. The extended Technical Committee included the original members of the SEEA Experimental Ecosystem Accounting Technical Committee and the area leads of the various working groups established to support the revision process. The extended Technical Committee served as the de facto editorial board and is chaired by Anton Steurer (Eurostat). Members of the extended Technical Committee included the national statistical offices of Australia, Canada, India, the Netherlands and South Africa, the Department for Food, Environment and Rural Affairs of the United Kingdom of Great Britain and Northern Ireland (DEFRA), as well as the European Environment Agency and the Joint Research Centre of the European Commission, the Food and Agriculture Organization of the United Nations (FAO), the International Monetary Fund, OECD, the United Nations Economic and Social Commission for Asia and the Pacific, the World Bank, Conservation International, the International Union for Conservation of Nature and Wageningen University. The Division serves as the secretariat.

15. The extended Technical Committee has played a pivotal role in guiding and managing the work. It has provided technical direction and inputs on the issues on the research agenda, reviewed the results of testing and experimentation in countries, reviewed draft chapters before their submission for global consultation, ensured internal consistency of the revised SEEA Experimental Ecosystem Accounting, ensured that the comments received through the global consultation were taken into account, helped reach consensus in resolving accounting treatments and advised the Bureau on controversial issues.

16. The research agenda for the revision was organized around four key areas, namely spatial units, ecosystem condition, ecosystem services, and monetary valuation and accounting. Five working groups were established, each comprising an area lead and experts from the statistical and other communities, and with the Division serving as Secretariat. Working group 1 on spatial units was led by Statistics Netherlands; working group 2 on ecosystem condition was led by the JRC; working group 3 on ecosystem services was led by Wageningen University; working group 4 on individual key ecosystem services was led by the DEFRA; and working group 5 on valuation and accounting treatments was led by the International Union for Conservation of Nature.<sup>9</sup> These groups led research and discussion across the research

<sup>8</sup> See [E/2020/24-E/CN.3/2020/37](#), chap. 1, sect. C.

<sup>9</sup> For the work of the working groups see: <https://seea.un.org/content/seea-eea-revision-research-areas>.

agenda, with work commencing in early 2018. Two additional groups were also created in 2020: the Subgroup on Accounting for Biodiversity in the SEEA Ecosystem Accounting, led by Conservation International; and the Working Group on SEEA Ecosystem Accounting Indicators, led by the Ministry of Statistics and Programme Implementation of India. From the beginning of the revision process, it was evident that the process needed to be as transparent and inclusive as possible, in particular involving inputs from experts beyond the statistical community. Since 2018, over 100 experts have contributed to the drafting of 23 discussion papers and numerous issue notes, and over 500 experts have reviewed and commented on these documents and draft chapters.

17. On the basis of the inputs received through the drafting and review of the papers and numerous expert meetings, chapters were drafted under the leadership of the extended Technical Committee. The draft individual chapters that constitute the conceptual core of the document (chapters 3–11) were circulated for global consultation in three tranches between March and August 2020. More than 200 comments were received, including feedback from 65 countries, 20 organizations and 42 individual experts. The complete draft, including revised conceptual chapters, introductory chapters and chapters on applications and extensions, was circulated for global consultation between October and November 2020.

18. The engagement of the statistical community throughout the revision process has been ensured through a series of meetings organized with the London Group on Environmental Accounting after the release of each tranche of chapters for global consultation, discussions organized during the annual London Group meetings and participation in the Forum of Experts in SEEA Ecosystem Accounting, which has brought together experts from several different communities. Furthermore, the national accounting community has been engaged through discussions at the 2019 and 2020 meetings of the Advisory Expert Group on National Accounts and participation in the 2020 annual meeting of the OECD Working Party on National Accounts.

19. A key characteristic of implementation of the SEEA Ecosystem Accounting is that national statistical offices need to engage and work together with experts from different institutions, in particular the scientific, geospatial and environmental economics communities, thereby motivating national statistical offices to provide leadership and act as data stewards. Several countries and international agencies have used the opportunity afforded by the global consultation to raise awareness of the SEEA Ecosystem Accounting beyond the statistical community and build cooperation across governmental and non-governmental agencies.

20. Throughout the revision process, numerous meetings have been held to secure engagement and input from many experts from different communities, including national accountants, biophysical scientists, environmental economists, geospatial experts from academia, government and international agencies, non-governmental organizations, the private sector and those involved in related international processes and networks such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, International Union for Conservation of Nature, The Economics of Ecosystems and Biodiversity, Earth Observation for Ecosystem Accounting, the Group on Earth Observations Biodiversity Observation Network, the Ecosystem Services Partnership, A Community on Ecosystem Services and associations of environmental and resource economists.

21. The SEEA Ecosystem Accounting is an integrated statistical framework for organizing biophysical information about ecosystems, measuring ecosystem services, tracking changes in ecosystem extent and condition and linking this information to measures of economic and human activity. It applies the accounting principles of the 2008 SNA and therefore allows for a unique integration of data to support decision-

making. The harmonization of environmental and economic data is intended to contribute to mainstreaming the use of environmental data on ecosystems in economic decision-making and to support the use of economic data in environmental decision-making. The SEEA Ecosystem Accounting consists of five sections that are further divided into 14 chapters. The structure of the document is as follows: Section A provides an introduction and overview and consists of Chapter 1: Introduction, and Chapter 2: Principles of ecosystem accounting; Section B on ecosystem extent and condition consists of Chapter 3: Spatial units for ecosystem accounting, Chapter 4: Accounting for ecosystem extent, and Chapter 5: Accounting for ecosystem condition; Section C on accounting for ecosystem services consists of Chapter 6: Ecosystem services concepts for accounting, and Chapter 7: Accounting for ecosystem services in physical terms; Section D on monetary valuation and integrated accounting for ecosystem services and assets consists of Chapter 8: Principles of monetary valuation for ecosystem accounting, Chapter 9: Accounting for ecosystem services in monetary terms, Chapter 10: Accounting for ecosystem assets in monetary terms, and Chapter 11: Integrated and extended accounting for ecosystem services and assets; and Section E on complementary valuations, thematic accounting and indicators consists of Chapter 12: Complementary approaches to valuation, Chapter 13: Accounting for specific environmental themes, and Chapter 14: Indicators and combined presentations. The Committee has reviewed the progress on the revision process and in 2020 discussed the progress of the revision of the SEEA Experimental Ecosystem Accounting at two virtual meetings, its fifteenth meeting, held in July 2020, and an extraordinary meeting held in November 2020.

22. Taking into consideration the urgency for an agreed framework to measure ecosystems and their contribution to well-being, supporting integrated measurement of the Sustainable Development Goals and, in the context of the post-2020 global biodiversity framework, providing technical inputs for policy assessments, and understanding the importance of nature, the Committee, at its extraordinary meeting in November 2020, agreed to present the final draft of the SEEA Ecosystem Accounting for adoption as an international statistical standard (Chapters 1–7), pending final feedback from the global consultation, which was still ongoing at the time of publication of the present report. Concerning the chapters in Section D (Chapters 8–11) on monetary valuation and integrated accounting for ecosystem services and assets, the Committee agreed to reassess the status and placement of these chapters in terms of their adoption as a statistical standard in January 2021, taking into consideration the concerns by a significant number of members that these chapters had not yet reached the level of a statistical standard. At the same time, many Committee members supported the valuation chapters and the need to include these chapters as an integral part of the SEEA Ecosystem Accounting. The chapters in Section E (Chapters 12–14) on complementary valuations, thematic accounting and indicators are considered to describe applications and extensions of the SEEA Ecosystem Accounting framework, and hence Section E would not be part of the statistical standard. It should be noted that a statistical standard implies a universal recommendation on a common approach among countries that would like to implement it and allows for flexibility in implementation. Furthermore, statistical standards require regular updates, as advances in the theory and practice and new policy demands emerge. A research agenda covering issues that were not resolved during the revision process, as well as issues in implementation, is being drafted for inclusion in the final document and will be regularly updated, taking into account advances in methodologies and emerging issues.

23. In addition to the SEEA Ecosystem Accounting document, and building on the testing and experimentation experience in many countries, as part of the Natural Capital Accounting and Valuation of Ecosystem Services project, technical guidelines have been drafted to support the implementation in countries on: (a) biophysical



modelling for ecosystem accounting, which provides an overview of biophysical modelling techniques and the main modelling platforms and tools available, as well as an overview of available global data sets for compiling ecosystem extent, condition and ecosystem services accounts; and (b) monetary valuation of ecosystem services and ecosystem assets, which provide practical guidance on how to carry out valuation in an ecosystem accounting context and explain the most common valuation methods according to their defining features. Guidelines on policy scenario analysis were also developed to support the use of ecosystem accounts in policy analysis. Once the SEEA Ecosystem Accounting is finalized, these documents will undergo global consultation and will be issued as supporting documents to the implementation of the SEEA Ecosystem Accounting.

24. The Committee would like to acknowledge the financial contributions that made the revised SEEA Ecosystem Accounting possible, including by Australia (Australian Bureau of Statistics and Department of Agriculture, Water and the Environment), the United Kingdom of Great Britain and Northern Ireland (Office of National Statistics and Department for Environment, Food and Rural Affairs) and the European Commission (Eurostat), as well as the European Union-funded Natural Capital Accounting and Valuation of Ecosystem Services project. The financial support to the revision process has enabled the recruitment of a full-time editor, engagement of experts researching particular aspects of the research agenda and the participation of experts in related meetings.

#### **IV. Area C. Development of databases (led by the Organization for Economic Cooperation and Development)**

25. The Committee is moving forward on the compilation and dissemination of global SEEA databases. The establishment of a dissemination portal for global SEEA databases will build on the existing international databases and resources, such as the various SEEA databases at Eurostat, the OECD database on air emissions, the United Nations Environment Programme (UNEP) database on material flows and the FAO database on land cover. The Committee aims to include databases with global coverage, as much as feasible, for the five adopted priority areas of the working group: air emissions, energy, material flows, land and water. Dissemination for these five priority accounts will follow the core tables included in the SEEA technical notes. The Division is leading the work on developing the global dissemination portal on the SEEA website and is designing the portal to appeal to both the SEEA community and the user community. There are also plans for the dissemination to include policy-relevant indicators for each type of account.

26. Statistical Data and Metadata Exchange (SDMX) data structure definitions and the accompanying documentation were developed for all five of the priority accounts.<sup>10</sup> Currently, international organizations in the working group (Eurostat, FAO, OECD, UNEP and the Division) have tested SDMX transmission of SEEA databases for inclusion in the global dissemination portal for air emission and energy accounts. In the future, the working group will build on this progress to further facilitate and standardize data transmission among international organizations and between countries and international organizations.

27. The Committee regularly monitors progress on the development of global databases for the five priority accounts. Air emission accounts have advanced in scope and coverage, with international database work led by the OECD and Eurostat, and official air emission accounts currently being available for 37 countries (33 countries

<sup>10</sup> See [https://sdmx.org/?page\\_id=8785](https://sdmx.org/?page_id=8785).

covered by Eurostat, plus Australia, Canada, New Zealand and the Republic of Korea). The OECD also developed methodologies for estimating air emission accounts based on United Nations Framework Convention on Climate Change emissions inventories and estimation of bridging items for air transport in the accounts via collaboration with the International Civil Aviation Organization.

28. In addition to leading the work on the global dissemination portal, the Division is responsible for global energy databases and plans to construct data collection templates to begin collecting official energy accounts from countries. The data collection templates will be consistent with the global SEEA data structure definitions, and the official energy accounts will be included in the global dissemination portal.

29. UNEP is leading work to strengthen national capacity on material flow accounts, and new methodological recommendations for material flow accounts were finalized to support the harmonized development of material flow accounts from official data.

30. The FAO Statistics Division has made available on its website a global database which includes specific domains on land cover and land use based on the interim SEEA Central Framework and SEEA agriculture, forestry and fishing-related classifications. While land use data is regularly collected from member countries through the land use, irrigation and agricultural practices questionnaire, land cover data are based on FAO analysis of geospatial information from: (a) Moderate-Resolution Imaging Spectrometer (MODIS) land cover types based on the Land Cover Classification System (2001–2018); and (b) the European Space Agency Climate Change Initiative annual land cover maps (1992–2018), as produced by the Université catholique de Louvain-Geomatics and now under the European Union Copernicus programme.<sup>11</sup> The working group also conducted an inventory study of current methods and earth observation data sources, which compared current practices on land accounts compilations between FAO and OECD. There is a consensus among the concerned international organizations that generating reliable SEEA land accounts requires further improvements in global land cover change datasets and, consequently, communicating these “user needs” to the Earth observation community would help guide the development of more suitable underlying data in the future.

31. The Committee continues to work to harmonize the international water questionnaires and improve data availability and quality in countries as a basis for establishing global water accounts. Current work concentrates on developing a correspondence between country data available through international data collection on water (by OECD, Eurostat, the Statistics Division, UNEP and FAO) and SEEA core tables on water, and on comparing the terms and definitions used in international water questionnaires and in the SEEA. The work shows that it would be useful to revise the SEEA water at an appropriate time, so as to ensure its full coherence with the SEEA Central Framework and avoid confusion among users.

32. To support the implementation of SEEA Ecosystem Accounting, tools are being developed to facilitate the compilation of accounts, as part of the Natural Capital Accounting and Valuation of Ecosystem Services project. For instance, the Artificial Intelligence for Ecosystem Services for SEEA explorer is being developed to allow users to compile a suite of SEEA Ecosystem Accounts for any area in the world, using global data sources that can be enhanced and refined by users through the addition of national data sources. A prototype will be ready by the end of 2020 and is currently being tested in India, the Netherlands and South Africa. The tool will be deployed on the United Nations global platform for official statistics and can also be used to compile default global datasets of accounts.

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<sup>11</sup> See <http://www.fao.org/economic/ess/environment/data/land-use-and-land-cover/en>.

33. In addition to the five priority accounts, databases have been developed on environmentally related tax revenue accounts, environmental protection expenditures and environmental goods and services sectors. Official environmentally related tax revenue accounts are available for 36 countries (33 countries covered by Eurostat plus 3 OECD countries, namely Australia, Canada and Kazakhstan), and many other OECD countries are in the process of developing such accounts. Environmental protection expenditure accounts are also available for approximately the same countries on Eurostat and OECD websites, respectively. Furthermore, Eurostat carries out annual data collections in more than 30 European countries on environmental goods and services accounts, environmental subsidies and similar transfers, and forest accounts. Eurostat also coordinates work with European countries to continue to develop methodologies, write handbooks and organize trainings that are available to other countries.

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

34. The working group on capacity-building is currently conducting the fifth round of the Global Assessment of Environmental-Economic Accounting and Supporting Statistics. The Assessment was sent to countries in September 2020, and its administration is ongoing. The results will enable the Committee to assess its implementation targets, the status of national SEEA programmes, understand countries' needs and future plans and understand how the accounts are used for policy. 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.

35. In addition, following its fifteenth meeting, the Committee agreed to a new definition of SEEA implementation, which is broken down into three progressive stages: (a) stage one includes countries that have compiled at least one account over the past five years; (b) stage two includes countries that have compiled and published at least one account over the past five years; and (c) stage three includes countries that regularly compile and publish at least one account. This new definition of implementation is reflected in the current administration of the Assessment. As of November 2020, the working group on capacity-building has received 133 responses, including 12 countries that fall into stage one, 11 countries that fall into stage two and 58 countries that fall into stage three. A report with the final results of the 2020 Assessment will be made available as a background document.

36. In 2020, the working group on capacity-building established SEEA focal points in countries to streamline communication and collaboration between the Committee, international organizations and countries to support regional and global capacity-building initiatives and coordinate data-collection efforts for the SEEA. In August 2020, the Committee and the Division sent a letter to all national statistical offices asking them to coordinate the establishment of focal points in their countries. As of November 2020, 122 countries have identified nearly 200 focal points for the SEEA. Countries that have not yet nominated a focal point are encouraged to do so. To facilitate communication between the Committee, international organizations and focal points, the working group plans to create a network for the focal points on the Yammer-based Global Network of Data Officers and Statisticians.

37. In its commitment to help close gaps in SEEA implementation in Africa, the Division has continued to support the growth of the Africa Natural Capital Accounting Community of Practice, which was initiated at the regional workshop on the SEEA Experimental Ecosystem Accounting for countries in Africa organized by the Natural Capital Accounting and Valuation of Ecosystem Services project in Pretoria in October 2019. The Division has been working with the Economic Commission for Africa, the World Bank, UNEP, the secretariat of the Gaborone Declaration for Sustainability in Africa, the African Development Bank and the Capitals Coalition to host virtual seminars on the SEEA and build platforms for communication and collaboration in the region. The group has hosted multiple webinars over the past year, including webinars on the revision of the SEEA Experimental Ecosystem Accounting, linking the SEEA to policy in Africa, the use of the SEEA for policy scenario analysis and case studies in Africa. The Division also plans to contribute to a new subgroup of the Africa Natural Capital Accounting Community of Practice which focuses on collaboration with the private sector in Africa for natural capital accounting.

38. The Division is currently leading a three-year project funded by the twelfth tranche of the United Nations Development Account. The project will provide support for up to six countries on SEEA implementation and its use for evidence-based policymaking in Asia and Africa. In particular, the Division will provide support for 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 will also work with relevant regional commissions, international organizations and non-governmental organizations to carry out the project.

39. The World Bank Global Program on Sustainability,<sup>12</sup> which builds on the World Bank Wealth Accounting and the Valuation of Ecosystem Services programme, is also focused on building capacity for the development of SEEA Ecosystem Accounting. The GPS includes the provision of training, workshops and support for developing accounts and institutionalizing SEEA in developing countries. Over the years, support has been provided to Botswana, Costa Rica, Colombia, Guatemala, Indonesia, the Philippines and Rwanda; and more recently to Egypt, Guatemala, Indonesia, Kyrgyzstan, Morocco, Rwanda, Uganda and Zambia. The Global Program on Sustainability also funds smaller-scale technical assistance to pilot projects implementing local ecosystem services accounts in Cambodia, the Lao People's Democratic Republic, Madagascar, Myanmar, Nepal and Viet Nam, as well as for the West Africa Coastal Areas Management Program. Lastly, it is providing technical assistance to Saudi Arabia. At the global level, the Global Program on Sustainability periodically carries out a comprehensive evaluation of wealth accounts for over 140 countries (including natural, physical and human capital). The third instalment in the series entitled "The Changing Wealth of Nations" was published in 2018, and the next release is expected in early 2021.

40. To help to bridge the gap in the implementation and the use of the accounts in countries in the OECD and the United Nations Economic Commission for Europe, the sixth Joint OECD/Economic Commission for Europe seminar on the implementation of SEEA will be held in 2021. The seminar will focus on the application of the SEEA to issues such as climate change, the circular economy, biodiversity, sustainable finance and building back from COVID-19. It will provide an important opportunity for countries to exchange knowledge and experiences on SEEA implementation and on how to mainstream the use of the SEEA for critical policy issues.

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<sup>12</sup> See <https://www.worldbank.org/en/programs/global-program-on-sustainability>.

## VI. Thematic accounts

41. Thematic accounts combine economic, environmental and, to some extent, social information and organize this information as it relates to a specific theme, thereby providing the basis for coherent and comprehensive narratives. Developing thematic accounts often requires extending and adapting existing accounts that are already part of the SEEA through additional detail and extension of classifications, focusing on a specific entity or group of entities (such as focusing on those industries that are particularly important for a specific theme) or focusing on a particular geographical area (such as protected areas or urban spaces).

### A. Measuring the sustainability of tourism

42. The Committee has been supporting the programme of work on measuring the sustainability of tourism concerning the development and implementation of a statistical framework for measuring the sustainability of tourism that integrates economic, social and environmental measurement of tourism at national and subnational levels and contemplates indicators for monitoring the role of tourism in the Sustainable Development Goals. The programme of work has been supported by the Commission since its forty-eighth session, in 2017.

43. A multidisciplinary and multi-stakeholder working group of experts on measuring the sustainability of tourism, set up under the auspices of the United Nations World Tourism Organization (UNWTO) Committee on Statistics, and the Committee is leading the development of the statistical framework for measuring the sustainability of tourism. A central, but not exclusive, feature of the framework includes the linking of the SEEA with the Tourism Satellite Account to structure information on the environmental dimension of tourism sustainability. Over 13 country pilots<sup>13</sup> have tested the relevance and feasibility of the framework, and more are in the pipeline. The Committee has agreed to review the framework before final consideration by the UNWTO Committee on Statistics and its subsequent presentation to the Commission, foreseen to take place at its fifty-third session, in 2022, contingent upon adequate resourcing being available to complete the task. A background document outlines the process of measuring the sustainability of tourism, provides an overview of the framework under development and details the next steps envisioned.

### B. SEEA Ocean

44. During its fifteenth meeting, the Economic and Social Commission for Asia and the Pacific, the Global Ocean Accounts Partnership, the World Bank and the Division put forth a proposal to establish a working group to make progress on SEEA Oceans and draft a methodological document in support of the SEEA Central Framework and SEEA Ecosystem Accounting, which will be presented to the Commission at its fifty-fourth session, in 2023. The Committee acknowledged the national, regional and global importance of making progress on methodological guidance for ocean accounting, particularly given the importance of the ocean economy for economies and societies, especially in developing countries. The SEEA Ocean would have several practical applications in areas such as measuring the sustainability of tourism; internationally agreed monitoring frameworks, including the 2030 Agenda for Sustainable Development,

<sup>13</sup> World Tourism Organization, “Experiences from pilot studies in measuring the sustainability of tourism”, available at <https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-09/Experiences-from-pilot-studies-in-Measuring-the-Sustainability-of-Tourism.pdf>.

the Sendai Framework for Disaster Risk Reduction and the post-2020 global biodiversity framework; and international agendas on issues such as climate change (including the Paris Agreement and United Nations Framework Convention on Climate Change). The Committee agreed to the establishment of the working group and the proposed timeline for SEEA Ocean and noted the importance of securing sufficient resources to undertake the endeavour. The Committee also noted the importance of making progress on the work in a timely manner to ensure that the official statistical community is able to respond to the demand for a methodological approach to measuring the ocean economy, thus avoiding the development and use of ad hoc measurement frameworks. A background paper that provides further details of the proposal will be made available.

## VII. Business accounting

45. At its fifteenth meeting, the Committee agreed on the creation of a working group focusing on business accounting and the SEEA, acknowledging the significant benefits from alignment between the SEEA and corporate and financial accounting on the environment and ecosystems. The Committee endorsed a road map for alignment, which was prepared under the Natural Capital Accounting and Valuation of Ecosystem Services project. The road map provides a draft action agenda for the next five years with a view towards alignment between the SEEA and private sector natural capital accounting. The road map is structured around four main building blocks: coordination, communication, methodological development and capacity-building.<sup>14</sup>

46. Some of the activities of the road map are already underway, including pilot case studies on understanding the natural capital data needs of businesses and how businesses can use SEEA data for decision-making and reporting. The Committee is currently reaching out to national statistical offices and private sector representatives to join forces for this working group. In addition, it is looking to secure funding to support the implementation of the road map.

## VIII. Action to be taken by the Statistical Commission

47. **The Statistical Commission is invited to express its views on:**

- (a) **The work programme of the Committee of Experts on Environmental-Economic Accounting;**
- (b) **The adoption of the SEEA Ecosystem Accounting as a statistical standard and encouraging its implementation in countries (see sect. II);**
- (c) **Engagement of the Committee in an expert group on the development and implementation of the monitoring framework of the post-2020 global biodiversity framework and mainstreaming the use of the SEEA in policy, including climate change, the circular economy and sustainable finance (see sect. III);**
- (d) **The proposal to further develop the methodology for ocean accounting, including the development of a SEEA Oceans (see sect. VI B);**
- (e) **The formation of a working group on business accounting and the SEEA and the focus on alignment between the SEEA and private natural capital accounting approaches (see sect. VII).**

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<sup>14</sup> See [https://seea.un.org/sites/seea.un.org/files/business\\_accounting.docx](https://seea.un.org/sites/seea.un.org/files/business_accounting.docx).