United Nations E/cn.3/2020/12



Economic and Social Council

Distr.: General 19 December 2019

Original: English

Statistical Commission
Fifty-first session
3-6 March 2020
Item 3 (h) 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 2019/210 and past practices, the Secretary-General has the honour to transmit the report of the Committee of Experts on Environmental-Economic Accounting. The 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; (b) methodological development for normative standards and other research; (c) development of databases; (d) implementation and statistical capacity-building; and (e) formulation of a statistical response on emerging policy issues. The report concludes with action to be taken by the Statistical Commission.

^{*} E/CN.3/2020/1.





Report of the Committee of Experts on Environmental-Economic Accounting

I. Introduction

- 1. At its fiftieth session, held from 5 to 8 March 2019, the Statistical Commission adopted decision 50/115 (see E/2019/24-E/CN.3/2019/34, chap. I, sect. B), in which it:
- (a) Welcomed the report of the Committee of Experts on Environmental-Economic Accounting (E/CN.3/2019/15), expressed its appreciation for the work of the Committee, agreed with its work programme, as detailed in its report, noted with interest the increased uptake and growing demand for the implementation of the System of Environmental-Economic Accounting (SEEA) in countries, and urged the Committee to continue to scale up its work on the implementation and mainstreaming of SEEA;
- (b) Welcomed the collaboration between the Committee of Experts and the Inter-Agency and Expert Group on Sustainable Development Goal Indicators to identify the best ways to use SEEA to improve the global indicator framework in view of the 2020 comprehensive review;
- (c) Requested the Committee of Experts to continue its work on mainstreaming the use of SEEA for policy processes, in particular with regard to biodiversity, in view of the adoption of the post-2020 biodiversity agenda, and climate change, circular economy, beyond gross domestic product and green growth initiatives;
- (d) Noted the progress made in advancing the SEEA Central Framework research agenda, agreed with the need to examine the possible revision of the SEEA Central Framework, and requested that the SEEA and SNA research agendas be coordinated, in view of the upcoming revision of SNA, the current revision of the SEEA Experimental Ecosystem Accounting and potential future revision of the SEEA Central Framework;
- (e) Welcomed the finalization of the global economy-wide material flow accounting manual, prepared by the United Nations Environment Programme (UNEP), in collaboration with the Statistics Division of the Department of Economic and Social Affairs of the Secretariat, and encouraged its implementation in countries;
- (f) Commended the Committee of Experts on setting up a transparent and inclusive revision process for the SEEA Experimental Ecosystem Accounting, and expressed appreciation for the contribution of experts from different disciplines, including scientists, national accountants, environmental economists and geospatial experts, in addressing the issues on the research agenda, including cross-cutting issues such as ocean accounts, led by the Economic and Social Commission for Asia and the Pacific (ESCAP) and UNEP;
- (g) Took note of the contribution of the Natural Capital Accounting and Valuation of Ecosystem Services project funded by the European Union 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;
- (h) Recognized the importance of drawing attention to existing SEEA databases, official national SEEA statistics and estimated SEEA accounts through the SEEA website, welcomed the progress made in developing global SEEA databases, requested the scaling-up of efforts to develop global SEEA databases for water, and

reiterated the importance of country communication and approval before disseminating information;

- (i) Requested the Committee of Experts to continue its work in strengthening capacity in countries through increased coordination, workshops and e-learning, technical notes, South-South cooperation and in-country technical assistance;
- (j) Welcomed the efforts of the Committee of Experts to engage different stakeholders through its newsletter and website, and also welcomed the development of a series of policy issues papers to encourage usage of SEEA for policymaking and decision-making;
- (k) Also welcomed the technical note on linking SEEA and the Tourism Satellite Accounts prepared by the World Tourism Organization, in collaboration with the Statistics Division, under the auspices of the Committee of Experts and the Committee on Statistics and the Tourism Satellite Account of the World Tourism Organization, and requested the World Tourism Organization to continue to work on the development of the statistical framework for measuring the sustainability of tourism, with the objective of submitting the framework to the Statistical Commission for its endorsement in 2020.
- 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, 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 Experimental 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, led by Statistics South Africa; and area E. Formulation of a statistical response on emerging policy issues, led by the Australian Bureau of Statistics.
- 3. The work of the Committee also includes country implementation of the accounts through projects and programmes on environmental-economic accounting, such as the Natural Capital Accounting and Valuation of Ecosystem Services project and the World Bank Global Program on Sustainability. 1
- 4. The present report discusses the progress made during 2019 and the medium-term programme of work. Action to be taken by the Statistical Commission is presented in section VII.

II. Area A. Coordination (led by Statistics Canada)

- 5. Coordination entails the alignment and integration of complementary programmes that are relevant to environmental-economic accounting. The working group in the area of coordination seeks to ensure that the various stakeholders in the field of environmental-economic accounting (including methodological development, technical cooperation development of training, in-country capacity-building and data collection/compilation) work in a harmonized fashion to avoid overlap in activities.
- 6. An important aspect of the Committee's work is on mainstreaming the use of SEEA for policy processes, including efforts to further integrate SEEA into the Sustainable Development Goals. The working group in the area of coordination has also worked closely with the Inter-Agency and Expert Group on Sustainable

¹ See www.worldbank.org/en/programs/global-program-on-sustainability.

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Development Goal Indicators and with its working group on interlinkages of Sustainable Development Goals statistics on how SEEA can provide an integrated systems approach for the Goals. An important outcome of this work has been the agreement, reached at the tenth meeting of the Inter-Agency and Expert Group, in Addis Ababa in October 2019, making SEEA implementation a key part of the methodology for indicators 12.b.1 and 15.9.1.²

- 7. Indicator 12.b.1 measures progress towards the implementation of standard accounting tools to monitor the economic and environmental aspects of tourism sustainability. The implementation of these standard accounting tools will be measured by the implementation of the Tourism Satellite Account and SEEA Central Framework modules relevant to tourism, including water flow accounts, energy flow accounts, air emission accounts and waste accounts.
- 8. Indicator 15.9.1 looks at progress towards Aichi Biodiversity Target 2 on the integration of biodiversity values into development and poverty reduction strategies and planning processing, including through the incorporation of the values into national accounting and reporting systems. Indicator 15.9.1 has two parts: part A will be determined by a self-assessment of progress towards national commitments and mapped against the components of Aichi Biodiversity Target 2, as identified within each party's submitted National Biodiversity Strategy and Action Plan; and the indicator for part B will be determined by whether countries are compiling either the SEEA Central Framework or SEEA Experimental Ecosystem Accounting. Both indicators 12.b.1 and 15.9.1 were upgraded to Tier II indicators by the Inter-Agency and Expert Group on Sustainable Development Goal Indicators. The Global Assessment of Environmental-Economic Accounting and Supporting Statistics, administered by the Committee, will serve as the source for compiling the indicators.
- 9. The SEEA website³ continues to be a critical tool for coordination, knowledge-sharing and communication. Recent focus has been on the development and implementation of an updated, user-friendly knowledge base containing documents and other media on SEEA and natural capital accounting. The knowledge base was constructed as part of the European Union-funded Natural Capital Accounting and Valuation of Ecosystem Services project⁴ and was made available at the end of 2019. In addition, work has begun on the review of the on-line repository of SEEA training materials, which will eventually be hosted on the website, together with the existing e-learning on the SEEA Central Framework, SEEA Experimental Ecosystem Accounting, SEEA Energy and SEEA Water and the upcoming e-learning on SEEA policy applications.⁵ The training materials will be directed towards learners looking to know more about SEEA and trainers looking for materials to use in national or regional workshops.
- 10. The Committee has also made considerable efforts to ensure that SEEA is recognized in upcoming processes relating to biodiversity. The year 2020 will be pivotal for the environment, with a number of key events and conventions being organized. The Conference of the Parties to the Convention on Biological Diversity will adopt the post-2020 global biodiversity framework at its meeting in Kunming, China, in October. In addition, the International Union for Conservation of Nature will hold its World Conservation Congress in Marseilles, France, in June, which will determine its work programme and that of its members in the coming four years, including possible work on natural capital accounting. Furthermore, the United Nations Conference to Support the Implementation of Sustainable Development

² See https://unstats.un.org/sdgs/meetings/iaeg-sdgs-meeting-10/#proposals.

³ See https://seea.un.org/.

⁴ See https://seea.un.org/home/Natural-Capital-Accounting-Project.

⁵ See https://elearning-cms.unstats.un.org/course/category/1.

- Goal 14: Conserve and sustainable use the oceans, seas and marine resources for sustainable development will convene in Lisbon in June. Lastly, the General Assembly declared 2021–2030 the United Nations Decade on Ecosystem Restoration, which will scale up the restoration of degraded and destroyed ecosystems as a proven measure to combat the climate crisis and enhance food security, water supply and biodiversity. Discussions on using SEEA as the monitoring framework for this initiative are under way.
- 11. Beyond those Sustainable Development Goal indicators that are explicitly based on SEEA, a number of other indicators can be derived from SEEA. A broad-brush analysis of SEEA-related indicators was undertaken. In addition, as part of the Natural Capital Accounting and Valuation of Ecosystem Services project, a document entitled "Assessing the linkages between global indicators initiatives, SEEA modules and SDG targets" was developed by the UNEP World Conservation Monitoring Centre and the Division to illustrate how SEEA can support the compilation of indicators and multilateral environmental agreements, such as the Aichi Biodiversity Targets, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and the Sendai Framework for Disaster Risk Reduction 2015–2030.6
- 12. To contribute to the strategy for the post-2020 global biodiversity framework, the Committee has submitted contributions to the formal process and was invited to join the network of the Informal Advisory Group on the Mainstreaming of Biodiversity established under the Convention on Biological Diversity to develop a long-term approach to mainstreaming biodiversity. This will help the Committee to ensure that SEEA is represented in the framework's long-term strategic approach to mainstreaming biodiversity.
- 13. In addition, as part of the Natural Capital Accounting and Valuation of Ecosystem Services project, the Division will organize a side event at the Conference of the Parties to the Convention on Biological Diversity in order to showcase SEEA and its applications to mainstream biodiversity into policy. In addition, the Division has, under the project, worked with the project countries of Brazil, China, India, Mexico and South Africa to develop engagement strategies with the focal points of parties to the Convention.

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

- 14. An important component of the work of the Committee is the advancement of the research agenda of the SEEA Central Framework and SEEA Experimental Ecosystem Accounting. The present section describes the progress of methodological development for both. Special attention is paid to SEEA Experimental Ecosystem Accounting, which is being revised, with finalization expected at the end of 2020 and submission to the Statistical Commission at its next session, in March 2021.
- 15. Members of the Committee have become engaged in the System of National Accounts (SNA) research activities, through joining the subgroup on well-being and sustainability of the Intersecretariat Working Group on National Accounts. The subgroup's objective is to produce guidance notes on well-being and sustainability issues, identified by the Advisory Expert Group on National Accounts as a priority area for research. This subgroup will cover several areas, including environmental-economic accounting, with the objective of defining a broader framework for capturing economic activities, well-being and sustainability. Joint members of the subgroup and the Committee will help to prepare a guidance note on environmental-

⁶ See https://seea.un.org/content/applications-seea.

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economic accounting in 2020, which will also deal with issues on the research agenda of both SNA and SEEA.

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

16. Work on topics on the SEEA Central Framework research agenda has steadily 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) the interlinkages between the SEEA Central Framework and SEEA Experimental Ecosystem Accounting. The London Group on Environmental Accounting discussed these issues at its twenty-fifth meeting, held in Melbourne, Australia, in October 2019, and determined the next steps necessary to make further progress in these areas of work.⁷

17. The revision of the SEEA Experimental Ecosystem Accounting has resulted in the identification of a number of issues of consistency between the SEEA Central Framework and SEEA Experimental Ecosystem Accounting. In addition, the planned revision of SNA may have an impact on the SEEA Central Framework. In the spirit of maintaining international statistical standards and ensuring coherence among them, the Committee discussed, at its meeting in June 2019, the possible revision of the SEEA Central Framework by 2025, also taking into account new user demands and new statistical insights. Several options were discussed, spanning from no revision in the coming years to a full revision of the SEEA Central Framework and to the integration of the SEEA Central Framework and SEEA Experimental Ecosystem Accounting into a single SEEA. The Bureau of the Committee will explore this further in 2020, including a thorough evaluation of resources required, the need for integration of the SEEA Central Framework with the more detailed methodological documents (e.g. SEEA Water and SEEA Agriculture, Forestry and Fisheries), possible integration with the revised SEEA Experimental Ecosystem Accounting, lessons learned from country implementation, advances in the research agenda and the possible revision of SNA.

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

18. In the past 12 months, there has been a significant uptake of SEEA Experimental Ecosystem Accounting, highlighting the demand for an agreed statistical framework that organizes information on ecosystems and biodiversity and supports policymaking. This uptake and the ongoing revision of SEEA Experimental Ecosystem Accounting has led to substantial collaboration with various stakeholders, including national accountants, environmental economists, geospatial experts, ecologists, scientists from national statistical offices and government agencies,

⁷ See https://seea.un.org/events/london-group-environmental-accounting-25th-meeting.

academia and the private sector. The open and transparent collaboration taking place under the revision process has also highlighted the demand for national statistical offices to serve as data stewards and provide rigorous, agreed methodologies that speak to policy demands, while leveraging expertise from various line ministries, academia and think tanks. Steady progress has been made to revise SEEA Experimental Ecosystem Accounting, to arrive at an agreed methodology by the end of 2020, enabling the revised SEEA Experimental Ecosystem Accounting to serve increasing policy demands, including from the post-2020 global biodiversity framework and the United Nations Decade on Ecosystem Restoration. Communicating the policy applications of the revised SEEA Experimental Ecosystem Accounting will be crucial to ensuring that the accounts are mainstreamed into policy (see section VI below).

- 19. Thanks to contributions from Australia and the United Kingdom of Great Britain and Northern Ireland, as well as Eurostat, an editor has been engaged in the drafting of discussion papers and draft chapters. In addition, the Natural Capital Accounting and Valuation of Ecosystem Services project workstream on methodology has been aligned with the revision process and provides for important resources through joint global activities. Steady progress on the four agreed research areas spatial units, ecosystem condition, ecosystem services and valuation and accounting treatments has been made during 2019, with multidisciplinary working groups advancing the work.
- 20. The working group on spatial units drafted several discussion papers, which were distributed for wide consultation with experts in the field. Based on feedback and discussion, the working group agreed to take the International Union for Conservation of Nature Global Ecosystem Typology as the basis for an international classification of ecosystem extent.
- 21. The working group on ecosystem condition has developed a conceptual framework for the measurement of ecosystem condition, including the purpose and role of ecosystem condition accounts, and proposed a typology of condition variables. The conceptual framework and the typology developed by the working group has been further consulted in a wide expert consultation process and during expert meetings.
- 22. In the area of ecosystem services, the working group has developed a discussion paper on the definitions of ecosystem services and a summary paper on cross-cutting issues. Both papers were discussed at the 2019 Forum of Experts on SEEA Experimental Ecosystem Accounting, where it was decided to agree on definitions and measurement approaches for 25 ecosystem services that provide broad coverage of the main services.

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A number of events during 2019 have brought these stakeholders together. In January, an expert meeting on advancing the measurement of ecosystem services for ecosystem accounting was held in New York. In June, the Forum of Experts on SEEA Experimental Ecosystem Accounting was held in Long Island, United States of America, and brought together more than 115 participants. The revision of SEEA Experimental Ecosystem Accounting was also discussed at the twenty-fifth meeting of the London Group on Environmental Accounting, held in Melbourne, Australia, in October. The revision will be the focus of several upcoming events in 2020, including a high-level conference, entitled "Communicating the Path to Sustainability through Natural Capital Accounting", in New Haven, United States, in March, the next session of the forum of experts on SEEA Experimental Ecosystem Accounting and the twenty-sixth meeting of the London Group on Environmental Accounting. The event documents and presentations are available on the SEEA website at https://seea.un.org/.

⁹ All discussion papers distributed for wide consultation are available at https://seea.un.org/ content/seea-experimental-ecosystem-accounting-revision.

- 23. The research area of valuation and accounting treatments has involved a large number of experts from the national accounts, environmental accounts and environmental economics communities. The group has compiled five discussion papers on: (a) defining exchange and welfare values; (b) the valuation of ecosystem assets; (c) accounting treatments when integrating ecosystem accounts into SNA; (d) issues and options in accounting for ecosystem degradation and enhancement; and (e) the treatment of externalities and ecosystem disservices. The papers have generated a rich discussion on the principles of valuation in the national accounts and environmental economics communities. The first four papers have undergone an expert review, and the discussion paper on externalities and ecosystem disservices will undergo such a review in 2020.
- 24. In addition, focus is being placed on clearly describing the purpose and scope of valuation for ecosystem accounting such that the resulting accounts are well grounded in the context of the wider valuation literature, demonstrate the relevance of accounting to support the discussion of environmental values and can be based on the use of robust measurement techniques.
- 25. Building on the work on valuation undertaken in the context of the SEEA revision process, a discussion paper on accounting treatments and links between SEEA and SNA was presented at the thirteenth meeting of the Advisory Expert Group on National Accounts, held in Washington, D.C., in October 2019. ¹⁰ The members of the Advisory Expert Group showed wide interest in collaborating in and contributing to the SEEA Experimental Ecosystem Accounting revision process, thereby ensuring its alignment with SNA. The Advisory Expert Group also agreed that the Chairs of the Committee and the Intersecretariat Working Group on National Accounts should engage in regular communication to ensure collaboration.
- 26. Testing and experimentation of the Global Ecosystem Typology and typology for accounting for ecosystem condition and aggregation will commence in the beginning of 2020. Pilot countries participating in the Natural Capital Accounting and Valuation of Ecosystem Services project will test some of the proposed methodologies to ensure that they are fit for purpose. The European Union Horizon 2020 project on mapping and assessment for integrated ecosystem accounting will undertake a similar exercise. The project is intended to mainstream natural capital and ecosystem accounting in European Union member States using SEEA Experimental Ecosystem Accounting as the methodology. The project will also be used to assess policy priorities for accounting and support natural capital accounting in those member States through various communication and dissemination activities.
- 27. To progress in the drafting of the revised SEEA Experimental Ecosystem Accounting, the SEEA Experimental Ecosystem Accounting Technical Committee, along with the research area leads, will serve as the editorial board. The Technical Committee, in its extended composition, first met in June 2019 at the 2019 Forum of Experts on SEEA Experimental Ecosystem Accounting and will remain operational in this composition until the completion of the document for submission to the Statistical Commission at the end of 2020. Regular monthly meetings are planned as the draft chapters are developed ahead of their release for global consultation.
- 28. Chapters of the revised SEEA Experimental Ecosystem Accounting are being drafted, and the first drafts are expected to be finalized early in 2020. The draft chapters will undergo a technical review by the editorial board before being submitted for global consultation to national statistical offices and the wider ecosystem accounting expert community beginning in the second quarter of 2020. The final complete draft of the revised SEEA Experimental Ecosystem Accounting is expected

¹⁰ See https://unstats.un.org/unsd/nationalaccount/aeg/2019/M13_2_4_3_SNA_SEEA_EEA.pdf.

- to be available for global consultation by national statistical offices and the wider community in late 2020, prior to submission to the Statistical Commission in 2021.
- 29. To ensure that the revision is coordinated with related groups and initiatives, the Committee has engaged with several parties. In particular, the Committee has coordinated revision activities with the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services to understand how to better harness synergies between the outputs of the Platform and the SEEA Experimental Ecosystem Accounting revision. In particular, the Committee is working towards ensuring that the work under the revision is reflected in the report on the value assessment, which is being developed by the Platform and which will be released as a recommendation to Governments. Notwithstanding the different scope of the Platform, it was considered important to ensure that consistent recommendations be provided for those overlapping valuation approaches.
- 30. The Division has also coordinated revision activities with the independent global review on the economics of biodiversity being led by professor Sir Partha Dasgupta to better understand the economic benefits of biodiversity, the economic costs and risks of biodiversity loss, and action that can enhance biodiversity and economic prosperity. The Division is working with the team leading the review to ensure that the revised SEEA Experimental Ecosystem Accounting, as well as its critical role in monitoring biodiversity, are reflected appropriately.
- 31. Several thematic areas relating to SEEA Experimental Ecosystem Accounting are being explored in tandem and in coordination with the revision. The work on ocean accounting is led by ESCAP and the Global Ocean Accounts Partnership and has progressed towards the development of an initial draft technical guidance document (see paras. 38–39 below). In addition, a technical group on biodiversity has been created to make progress on accounting for biodiversity. The technical group will advise the revision process on aspects of biodiversity and, in the long term, aim to support the development of specific guidance on accounting for biodiversity.
- 32. The SEEA Experimental Ecosystem Accounting revision has also sought to engage with the private sector. In October 2019, the Division held a scoping workshop on SEEA Experimental Ecosystem Accounting and business accounting. ¹¹ The workshop was attended by representatives of countries, international organizations, businesses, reporting and accounting organizations, and standard-setters. The workshop's attendees explored how the revised SEEA Experimental Ecosystem accounting framework and resulting accounts could be better utilized by business for decision-making and reporting on the environment. How businesses could contribute to higher-quality data collected by national statistical offices was also addressed.
- 33. In parallel to the methodological work being done under the revision and in other thematic areas, three sets of supporting guidelines are being developed as part of the Natural Capital Accounting and Valuation of Ecosystem Services project. The creation of practical supporting guidelines is vital in order to ensure uptake of the revised SEEA Experimental Ecosystem Accounting. The guidelines for biophysical modelling for ecosystem accounting are specifically designed for statistical agencies interested in compiling ecosystem accounts. They will provide an overview of biophysical modelling techniques and the main modelling platforms and tools available, as well as an overview of available global data sets. They will also contain chapters on modelling terrestrial ecosystem extent, condition and ecosystem services. A tiered approach will allow users to build their models in accordance with their needs, data availability and technical expertise. An editorial board has been established, chaired by Conservation International.

¹¹ See https://seea.un.org/events/scoping-workshop-seea-and-business-accounting.

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- 34. The guidelines on the valuation of ecosystem services and ecosystem assets will help statisticians to understand the use of valuation in policy, provide practical guidance on how to carry out valuation and explain the most common valuation methods according to their defining features. They will also be used to assess, for each ecosystem service, the methods best suited for valuation in an accounting context using practical examples. The guidelines will also be used for discussion regarding issues of the valuation of assets, including discount rates, estimating future values and price changes.
- 35. The guidelines on scenario analysis focus on describing what types of analyses are possible when using the revised SEEA Experimental Ecosystem Accounting and what types of policy questions can be answered when using the accounts in modelling exercises. The guidelines also provide an overview of the different types of models that are being used in scenario analysis. The intended audience of these guidelines goes beyond the statistical community and will include model developers and policymakers. An expert review process will be set up in 2020. It is expected that the three sets of guidelines will be published after a review by the SEEA Experimental Ecosystem Accounting Technical Committee and approval by the Committee of Experts.
- 36. To further facilitate the implementation of ecosystem accounting by countries, the Committee has also engaged with geospatial experts to explore how Earth observations, combined with national data, can be used to develop global databases for ecosystem accounting. Global databases for the revised SEEA Experimental Ecosystem Accounting will provide a valuable resource for data-scarce countries. In particular, work is under way to develop SEEA-specific tools as part of existing ecosystem services modelling platforms, which would facilitate country implementation.
- 37. Another notable initiative that will help to spur country implementation is the motion entitled "Accounting for biodiversity: encompassing ecosystems, species and genetic diversity." The motion, sponsored by Conservation International, several Governments and non-governmental organizations (NGOs), was submitted for consideration by the International Union for Conservation of Nature at its World Conservation Congress in June 2020. The motion highlights the value of natural capital accounting and SEEA for the Sustainable Development Goals and the post-2020 global biodiversity framework. In it, members and partners are called upon to facilitate engagement with the Division in the development and implementation of SEEA and the use of SEEA for the measurement of biodiversity. If adopted, the motion would become the mechanism that guides the policy and programme of the International Union for Conservation of Nature and influences third parties.

SEEA Experimental Ecosystem Accounting: ocean accounting (led by the Economic Commission for Asia and the Pacifica and the United Nations Environment Programme)

38. As requested by the Statistical Commission at its forty-ninth session through its decision 49/110, ESCAP and UNEP, with funding from the United Nations Development Account, have been working on the development of guidelines on ocean accounts. The guidance is expected to contribute to the SEEA Experimental Ecosystem Accounting revision but still requires further development. To support the development of the guidance and to showcase examples of the uses of ocean accounts, ESCAP is supporting testing and experimentation in five countries in Asia and the Pacific: China, Malaysia, Samoa, Thailand and Viet Nam.

39. In 2019, the Global Ocean Accounts Partnership was established by ESCAP and the University of New South Wales, Australia. ¹² The Partnership held its first annual meeting in conjunction with the Global Dialogue on Ocean Accounting, in Sydney, Australia, in November 2019, to discuss the guidelines and the progress in testing and experimentation. Further work is ongoing on global ocean ecosystem databases, assessing existing data on oceans and the development of a demonstration data portal for the Pacific Ocean. The ESCAP working paper on Sustainable Development Goal 14, entitled "Life below water: navigating life below water in Asia and the Pacific", provides an overview of the progress made on data availability and reporting for Goal 14 in Asia and the Pacific. ¹³

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

- 40. The Committee places great importance on the establishment of global SEEA databases. Following its 2019 meeting, the Committee recommends that the creation and maintenance of global databases be based on three principles: (a) adherence to the procedures established for the global data flows of the Sustainable Development Goal indicators; (b) consistency between global SEEA databases and nationally disseminated accounts, where they exist, and the dissemination of estimates only in cases in which countries do not disseminate accounts; and (c) the requirement that data estimation methods be formally endorsed by the Committee's technical committees and the broader Committee itself to ensure transparency and suitability.
- 41. In order to facilitate data transmission, a technical group with representatives from international organizations (Eurostat, the Food and Agriculture Organization of the United Nations (FAO), OECD, UNEP and the Division) has developed Statistical Data and Metadata Exchange definitions for data structures and the accompanying documentation for the following SEEA accounts: air emissions, energy, material flows, land and water. These definitions were finalized and made public as part of the 2019 release of the macroeconomic statistics data structure definitions. ¹⁴ The data structure definitions for SEEA facilitate and standardize data transmission among international organizations and between countries and international organizations, and the relevant international organizations within the Committee are testing data transmission.
- 42. As the Statistical Commission recommended in its decision 47/106 (E/2016/24-E/CN.3/2016/34, chap. I, sect. B), the Committee of Experts is moving forward in the compilation and dissemination of global SEEA-based data sets. The Committee of Experts has laid out a road map ¹⁵ for the dissemination of global SEEA databases on the SEEA website. The SEEA website contains only links to global SEEA databases from various international organizations (e.g., to the various Eurostat databases, the OECD database on air emissions and the UNEP database on material flows), but work is ongoing to make these databases available directly on the SEEA website itself. This work will eventually include the dissemination of global databases for all five priority areas, with the dissemination following the core tables included in the SEEA technical notes. There are also plans for the dissemination to include policy-relevant indicators

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¹² See www.oceanaccounts.org.

¹³ Available at www.unescap.org/resources/working-paper-series-sdwp11december-2019-sdg14-navigating-life-below-water-asia-and.

¹⁴ See https://sdmx.org/?page_id=8785.

¹⁵ Available at https://seea.un.org/sites/seea.un.org/files/concept_note_for_global_databases_ on_seea_website_unceea_v6.pdf.

for each priority area, determined in collaboration with the SEEA Central Framework Technical Committee and other relevant experts and users.

- 43. With respect to progress in the development of data on air emissions, official air emission accounts are available for 37 countries (33 countries covered by Eurostat, plus Australia, Canada, New Zealand and the Republic of Korea) and 5 countries with estimated air emission accounts (Japan, Kazakhstan, the Russian Federation, Ukraine and the United States of America), in two separate OECD databases. In addition, OECD is compiling a database with estimated air emissions data based on exhaustive data on air transport from the International Civil Aviation Organization. The resulting database with the estimated air emissions will be publicly available, thereby assisting countries in implementing SEEA and supporting the policy debate on the future of air transport and climate change.
- 44. With respect to energy accounts, the Committee of Experts noted the progress made by the Division in testing an Excel-based tool to estimate physical supply and use accounts from energy balances and auxiliary data. E-learning and a workshop were held in Almaty, Kazakhstan, in December 2019 to assist countries in the development of energy accounts and for them to test the tool. ¹⁶ Once the testing has been completed, the tool will be reviewed by the SEEA Central Framework Technical Committee and submitted to the Committee of Experts for endorsement.
- 45. UNEP is working to strengthen national capacity on material flow accounts. This would allow countries to replace the estimated data in the global material flow database with nationally compiled statistics. In addition, it would increase the relevance of material flow accounts for national decision-making. OECD, UNEP and other partners are also working to improve the methodology for compiling demand-based measures of material flows.
- 46. FAO has made available two global databases on land cover by country based on the interim SEEA Central Framework land cover classification. These databases use existing Earth observation land cover products. The SEEA Central Framework Technical Committee reviewed the publication by FAO of land cover data with a global coverage and plans to collaborate with relevant experts to evaluate the various input data to be included in the land cover databases.
- 47. With regard to water accounts, OECD, in collaboration with the Division, UNEP and Eurostat, prepared for the 2019 meeting of the Committee a scoping and discussion paper on the linkages between SEEA accounts and the water-related indicators of the Sustainable Development Goals. ¹⁷ The Committee agreed to take a stepwise approach to the compilation of global water accounts, beginning with the designation of a custodian agency. The Committee also noted the importance of further investigating the potential use of Earth observation, including satellite data and in situ data, as a way to develop global databases in order to jump-start the compilation of the accounts in countries.
- 48. The Committee is also collaborating with the Global Working Group on Big Data for Official Statistics to explore the possibility of developing global databases on ecosystem extent. This work will support SEEA-relevant indicators under Sustainable Development Goal 6, on clean water and sanitation, and Goal 15, on life on land.

¹⁶ See https://seea.un.org/events/regional-training-workshop-production-seea-energy-accounts-and-use-energy-information-policy.

¹⁷ Available at https://seea.un.org/sites/seea.un.org/files/unceea_global_seea_databases_water_accounts-oecdnote.pdf.

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

- 49. The Committee has made significant progress in meeting the implementation targets of at least 100 countries with SEEA Central Framework programmes and at least 50 countries with SEEA Experimental Ecosystem Accounting programmes by 2020, as set out in its decision 47/106. According to information from United Nations regional economic commissions, international organizations and countries, more than 90 countries have compiled SEEA Central Framework accounts and more than 40 countries have compiled, or are in the process of compiling, SEEA Experimental Ecosystem accounts. However, in order to reach the implementation targets, more work will need to be done in 2020 in terms of statistical capacity-building.
- 50. The Division and regional commissions have continued to form partnerships to deliver blended learning initiatives to increase statistical capacity. These initiatives have seen broad participation from national statistical offices and line ministries alike. In the second half of 2019, under the Natural Capital Accounting and Valuation of Ecosystem Services project, the Division collaborated with the Economic Commission for Africa (ECA) to administer online courses, several webinars and an in-person workshop held in Pretoria, South Africa, on SEEA Experimental Ecosystem Accounting. The Division also collaborated with ESCAP and the Economic Commission for Europe (ECE) to administer global online courses on SEEA Energy and an in-person workshop in Almaty, Kazakhstan, in December 2019.
- 51. During its 2019 meeting, the Committee noted that critical regional gaps remained in terms of SEEA implementation, in particular in Africa, and recommended that priority in implementation should be given to the region. At the first Africa Forum on Natural Capital Accounting, held in Kampala in November 2019, ¹⁸ 18 African countries committed themselves to creating a new community of practice for natural capital accounting. A programme of work for the community of practice is being developed by the Division, the World Bank and the secretariat of the Gaborone Declaration for Sustainability in Africa, all of which committed themselves to providing technical support and mobilizing the additional resources needed to increase SEEA implementation in Africa in the coming years. ECA offered to host the platform for the community of practice as an initial step.
- 52. In 2020, the working group on capacity-building will update and administer the 2020 Global Assessment of Environmental-Economic Accounting and Supporting Statistics. The Global Assessment will be a critical data source for two Sustainable Development Goal indicators focusing on SEEA (12.b.1 and 15.9.1) and instrumental in determining whether the implementation targets have been met. In addition, the Global Assessment will help to establish SEEA focal points in each country in order to streamline communication and collaboration among the Committee, international organizations and countries and to support data-collection efforts for the SEEA Central Framework and revised SEEA Experimental Ecosystem Accounting. The results of the Global Assessment will be presented to the Statistical Commission in 2021.
- 53. Beginning in 2020, the Division will lead 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 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

¹⁸ See https://seea.un.org/events/africa-regional-natural-capital-accounting-policy-forum.

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Sustainable Development Goals. The Division will also work with relevant regional commissions, international organizations and NGOs to carry out the project.

- 54. The World Bank Global Program on Sustainability, 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 Experimental Ecosystem Accounting. The Global Program on Sustainability includes the provision of training, workshops and support for institutionalizing SEEA in Egypt, Guatemala, Indonesia, Kyrgyzstan, Morocco, Rwanda, Uganda and Zambia. It also funds projects implementing local ecosystem accounts in Cambodia, the Lao People's Democratic Republic, Madagascar, Myanmar, Nepal, Viet Nam, as well as for the West Africa Coastal Areas Management Program. Lastly, it is providing technical assistance to Saudi Arabia.
- 55. To help to bridge the gap in the implementation and the use of the accounts in ECE and OECD countries, the fifth Joint OECD/ECE seminar on the implementation of SEEA will be held in Geneva in February 2020. ¹⁹ The seminar will have a focus on SEEA Experimental Ecosystem Accounting, the environmental goods and services sector and the emerging policy priority of the circular economy. It will provide an important opportunity for countries to exchange knowledge and experiences on SEEA implementation and on how to mainstream the use of SEEA for critical policy issues.

VI. Area E. Formulation of a statistical response on emerging policy issues (led by the Australian Bureau of Statistics)

56. Communicating effectively the usefulness of SEEA to different audiences and supporting its mainstreaming into policy have been crucial activities of the Committee. At its forty-eighth session, the Statistical Commission encouraged the Committee to develop materials in support of the promotion of SEEA, in particular materials highlighting its usefulness for policy formulation and evaluation. Highlighting the policy applications of SEEA is key to ensuring that SEEA accounts are used for integrated policymaking and that SEEA is a demand-driven statistical framework. The work under area E has focused both on developing communications tools and the creation of materials that address emerging policy issues.

A. Communications tools

- 57. The SEEA website has been the Committee's main vehicle to reach stakeholders and the general public. Through the Natural Capital Accounting and Valuation of Ecosystem Services project, the website has been consistently updated throughout 2019. The website's news portal is regularly updated with current events and articles, and the website has been updated to include a frequently asked questions section, webpages on policy applications of SEEA and a user-friendly knowledge base. In 2019, the Division also adjusted the organization of the site, making it easier for new and experienced users to find what they are looking for.
- 58. To support uptake and policy applications of SEEA, the "SEEA news and notes" quarterly newsletter is sent to more than 1,000 subscribers, including Committee members, SEEA contacts and other subscribers. During 2019, the newsletter has reported on a variety of topics, including SEEA implementation, updates on the Natural Capital Accounting and Valuation of Ecosystem Services project, topical interviews with policymakers, case studies of successful SEEA implementation, methodological updates and links to policy. The newsletter has also been used as a

¹⁹ See http://www.unece.org/index.php?id=52557.

vehicle to regularly inform stakeholders of progress on the revision of SEEA Experimental Ecosystem Accounting. To further broaden the audience base and attract new readers, the newsletter has been mentioned and promoted in the newsletters of NGOs and international organizations, including the Natural Capital Coalition and OECD, respectively. The Division will continue to look for opportunities to cross-promote the newsletter in order to engage with the broad base of SEEA stakeholders.

B. Addressing emerging policy issues

- 59. To develop materials in support of the policy applications of SEEA, the Division has worked on a series of policy issues papers, with funding from the Federal Ministry for Economic Cooperation and Development of Germany. The papers will be designed to appeal to policymakers and analysts and will explore how SEEA can be used as an analytical framework to address specific policy questions. An overview document accompanies three issues papers, on biodiversity, climate change and macroeconomic policy. The drafting process has been overseen by an editorial board, which has included members of the Committee, policymakers and representatives of international organizations. Furthermore, to promote engagement with line ministries, policy analysts and policymakers, the issues papers will serve as the basis for the development of e-learning modules and brochures on the policy applications of SEEA.
- 60. The papers and accompanying communication materials will be launched at the upcoming high-level conference on communicating the path to sustainability through natural capital accounting, to be held at Yale University in New Haven, United States, in March 2020. The three-day conference will bring together leading practitioners, scholars, policymakers, business leaders and communications experts to explore how natural capital accounting can support the information needs of various user groups and decisionmakers, as well as how it can be better communicated to users. The conference will also address how big data and emerging technology are changing natural capital accounting.
- 61. The Committee has an important coordinating role to play in ensuring that statistical advances are taken into consideration in the monitoring processes of various policy frameworks. The fourth Forum on Natural Capital Accounting for Better Policy,²⁰ held in Kampala in November 2018, focused on how natural capital accounting can be applied to policies in support of integrated landscape management. The Forum, organized by the World Bank Global Program on Sustainability, the Division and the Government of the Netherlands, brought together national statistical offices, line ministries, business and others to discuss how natural capital accounting and SEEA, as an integrated framework, can be used to better understand policies aimed at improving landscape governance and management.
- 62. To ensure that the participation of the Committee and the Division in key international events in 2020 will have an impact, the Division is formulating a communication strategy around the events, including the conference on communicating the path to sustainability through natural capital accounting, the Conference of the Parties to the Convention on Biological Diversity and the World Conservation Congress. The communications strategy will focus on identifying specific entry points and modalities for communicating the relevance of the SEEA for policy.

²⁰ See https://seea.un.org/events/forum-natural-capital-accounting-better-policy.

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VII. Action to be taken by the Statistical Commission

- 63. The Statistical Commission is invited to express its views on:
- (a) The engagement strategy to ensure the mainstreaming of SEEA as a framework for various initiatives, including the Sustainable Development Goals, ecosystems, biodiversity, climate change, the circular economy and the ocean agenda (see sect. III);
- (b) The scope, objectives and management of the SEEA Experimental Ecosystem Accounting revision process, the ambition to develop agreed methodology for ecosystem accounting and the development of supporting guidelines (see sect. II);
- (c) Enhanced coordination with the Advisory Expert Group on National Accounts and the Intersecretariat Working Group on National Accounts, in particular the subgroup on well-being and sustainability, through contributing to the SNA research agenda and through engaging the national accounting community to contribute to the ongoing discussions in the revision process (see sect. III);
- (d) The ongoing work on the development of methodology towards guidance on ocean accounting and testing and experimentation in countries (see sect. D);
- (e) The proposed approach for a possible revision of the SEEA Central Framework, taking into consideration issues arising from the revision of SEEA Experimental Ecosystem Accounting, possible revision of SNA, changing user demand and statistical advancement (see sect. III);
- (f) The strategy for developing global databases, including exploiting new data sources in combination with national data to develop and improve global databases (see sect. IV);
- (g) The strategy towards the 2020 implementation targets, focused on e-learning, face-to-face hands-on workshops, country technical support and the development of communities of practice (see sect. V).