ESA/STAT/AC.322
UNCEEA/11/4a

DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION
UNITED NATIONS

Eleventh Meeting of the UN Committee of Experts on
Environmental-Economic Accounting
New York, 22-24 June 2016

Implementation strategy for the System of Environmental Economic Accounting (SEEA)

Draft paper prepared by UNSD[1]

(for discussion)

[1] Please note that the paper would need to be revised to include the deliberation of the UNCEEA at its 11th meeting.

I. Introduction

1. The United Nations Statistical Commission (UNSC) at its forty-third session in February 2012 adopted the SEEA Central Framework as an international statistical standard. In 2013, the Commission at its forty-forth session recognized the SEEA Experimental Ecosystem Accounting as an important framework for the measurement of ecosystems condition and services to the economy and human activities and encouraged countries to start experimenting with the new framework. During the same session the Commission adopted the implementation strategy of the SEEA Central Framework which was prepared by a Task Force led by Statistics Netherlands under the auspices of the United Nations Committee of Experts on Environmental Economic Accounting (UNCEEA). The UNSC also requested the UNCEEA to develop a testing strategy for the SEEA Experimental Ecosystem Accounting. Subsequently the Statistical Commission at its forty-seventh session "agreed in principle with the implementation strategy presented in this document and urged the Committee of Experts to finalize its work on coordination and partnerships at the global, regional and national levels to support the implementation, including the compilation of SEEA-coherent data based on existing international databases, and requested that the Committee of Experts take into account existing inter-agency mechanisms for coordination in its consideration of the establishment of an appropriate mechanism and also take into account the importance of the Framework for the Development of Environment Statistics (FDES 2013) in order to provide source statistics for SEEA"[2]

2. The SEEA implementation strategy presented in this document is an update of the strategy of 2012 for the SEEA Central Framework. It places the SEEA implementation in the broader context of the current statistical agenda, in particular as a result of the adoption of the 2030 Agenda for Sustainable Development and the subsequent adoption of a set of SDG indicators by the UN Statistical Commission at its forty-seventh session in March 2016. The 2030 Agenda for Sustainable Development calls for integrated evidence-based policies on the economy, the environment and society. As a result, to support such policies the statistical agenda for the coming years will be centered on developing integrated information systems at the global and national level and strengthening capacity in countries. In this regard, the SEEA, both the SEEA Central Framework and the SEEA Experimental Ecosystem Accounting, has been recognized repeatedly during the past four years by the Statistical Commission as an important framework for informing the SDGs.

3. The need for developing an integrated information system at the country level puts new demands on the national statistical system. The business as usual model, consisting in development of independent information systems and ad-hoc indicators would no longer be viable. The statistical system needs incrementally to change is current operations, including the institutional arrangements and the statistical production process and move towards a standards-based modernization process. The discussions leading to the 2030 Agenda for Sustainable Development introduced the concept of data revolution, which was first used in the 2013 report of the High Level Panel of Eminent Persons on the Post 2015 Development agenda. Data revolution calls for new initiatives to improve the quality of statistics and information available to citizens. The reported states "We should actively take advantage of new technology, crowd sourcing and improved connectivity to empower people with information on the progress towards the targets". The report also noted that, in future at least by 2030 all large businesses should be reporting on their environmental and social impacts and government should adopt the SEEA.

4. Moreover, the statistical community already in 2013 recognized the need to move towards integrated economic statistics and the important role of the SEEA with the

[2] See Statistical Commission Report on the forty-seventh session (E/2015/24; E/CN.3/2016/34). Decision 47/106.

endorsement of the guidelines on Integrated Economic Statistics by the Statistical Commission. The guidelines highlight the need to move away from the silo approach to a more integrated approach to the production of statistics matched by the reform of the institutional environment. In this context the implementation of the SEEA and its adoption at the national level can play an important role in moving towards better coordination among the various stakeholders and an improved integrated statistical system.

5. The recent recognition of the importance of using big data to complement and improve official statistics as well as the importance of linking statistical information to geospatial information gives the SEEA an important role in moving towards harmonizing the geospatial information and the statistical information, in particular concerning definition and classifications of land cover and measurement of ecosystem assets and services. The work of the United Nations Committee of Experts on Geospatial Information Management (UN-GGIM) focusing on promoting the use of geospatial information and developing best practices for legal instruments and technical standards needs to be closely linked with the work of the UNCEEA.

6. Experience in countries has highlighted the important role of the SEEA as a catalyst in bringing together various stakeholders and developing partnerships. The implementation of both the SEEA Central Framework and the SEEA Experimental Ecosystem Accounting requires following similar steps including a national assessment of country policy priorities, available data and main stakeholders and the development of a national plan including the institutional framework and priority accounts to be compiled.

7. In view of the above considerations, the strategy presented in this paper covers both the implementation of the SEEA Central Framework as well as the testing of the SEEA Experimental Ecosystem Accounting. Section II presents the different initiatives closely related with the SEEA. Section III presents the objectives and targets for the SEEA implementation. Sections IV and V discuss the national and global strategy for implementation and Section VI presents the funding strategy and Session VII suggests a roadmap until 2020.

II. Assessment of existing initiatives and demand for environmental-economic information

Current situation in countries

8. The Global Assessment on the SEEA implementation undertaken by UNSD in 2014, indicated, that 54 countries have established a programme on environmental-economic accounting as part of their national statistical programme and 15 are planning do so in the short term. This represents a 31 percent increase since the global assessment undertaken in 2006. Topics covered differed between developed and developing countries. In developed countries, the choice of accounts to compile, as well as future plans to expand/begin compilation of accounts is shaped largely by EU legislation, covering in the first phase air emissions, environmental taxes and material flows, and in the second phase environmental protection expenditure, environmental goods and services sector, physical energy flow accounts. In developing countries, existing activities and future plans are largely linked to accounts related to water and energy.

9. The assessments clearly indicated that whereas in the EU the focus has been to a large extent physical flow accounts (material flow, energy, air emission accounts) and monetary accounts (environmental expenditures, environmental taxes and subsidies and EGSS), outside the EU the focus has been on natural resources (asset) accounting. This

difference in compilation practices may be due to differences in environment related policies. The policy demand in developing countries may be understood from the need for resource management of their endowments of natural resources and specific security issues related to water and energy.

Existing initiatives demanding environmental-economic information

10. In addition to the SDG framework, some relevant policy frameworks that the SEEA can inform are summarized below.

Natural capital accounting (NCA)

11. NCA considers natural capital as an important element in decision making for national development and growth. GDP needs to be complemented by stocks measures in particular of natural resources and ecosystem assets. The Wealth Accounting and Valuation of Ecosystem Services (WAVES) Partnership led by the World Bank and involving many UN agencies, national governments, academia and NGOs has the objective of promoting sustainable development by ensuring that natural resources are mainstreamed into development planning and national accounts. WAVES has formally adopted the SEEA as the underlying statistical framework to inform NCA policies. The pilot countries in which WAVES is engaged, namely Botswana, Colombia, Guatemala, Indonesia, Madagascar, the Philippines and Rwanda are all in the process of implementing selected modules of the SEEA depending on the countries national priorities. The WAVES partnership is also starting to develop regional community of practice to facilitate sharing of experiences.

Green growth/green economy initiatives

12. The green growth strategy is an initiative of OECD to support national and international efforts to achieve green growth. The strategy aims to help countries foster economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which human well-being relies. It develops a flexible policy framework that can be tailored to national circumstances and stages of development. An important component of the green growth strategy is a measurement framework which provides a set of indicators from green growth.

13. Following the delivery of the strategy in May 2011, green growth has been integrated into OECD analytical work to provide concrete, targeted advice as members and partner countries advance with the design and implementation of green growth strategies. The OECD is building green growth consideration into national policy surveillance, such as Economic Surveys, Environmental Performance Reviews, Investment Policy Reviews and Innovation Reviews.

14. The OECD advocates that indicators for green growth should come from the SEEA, where applicable. OECD has established a Task Force on the SEEA implementation to develop a set of tables and accounts to be used for data collection. Subsoil asset accounts and air emission accounts are currently being collected by OECD from its member countries.

15. The Partnership for Action on Green Economy (PAGE) is a joint initiative of UNEP, ILO, UNDP, UNIDO and UNITAR as a set of services, which will enable countries to transform their national economic structures by shifting investment and policies towards the creation of a new generation of assets, such as clean technologies, resource efficient infrastructure, well-functioning ecosystems, green skilled labour and good governance. PAGE aims to support 20 countries over seven years in building national green economy strategies.

European strategy for Environmental Accounts

16. The European strategy for Environmental Accounts was adopted in 2014. It aims at ensuring that the environmental accounts data from all European countries are harmonized, timely and of adequate quality. The strategy is deeply rooted in the EU policy context, which increasingly demands integrated information on the economy and environment. The relevant policy frameworks that the accounts can inform are the Europe 2020 strategy and in particular the resource efficiency flagship initiative, which the shift towards a resource-efficient, low-carbon economy to achieve sustainable growth, and the 7th Environment Action Programme to 2020. Clearly the SEEA can contribute significantly to analysis and policy formulation in many of these areas. The role of environmental accounting is expected in increase substantially in the future, both directly as provider of data as well as an organizing framework (see the European Strategy for Environmental Accounts)

17. The strategy covers the implementation of the set of accounts covered by regulation. The first set of accounts that countries are required to report on are the air emission, environmental taxes and material flow accounts. The second set of mandatory accounts includes environmental protection expenditures, environmental goods and services sector and physical energy accounts. The strategy also addresses the issue of investing in statistical infrastructure to improve the availability, quality and usefulness of environmental accounts. Additional voluntary modules mentioned that are mentioned in the strategy include water and forest accounts, environmental subsidies and similar transfers and resource management expenditures.

Sustainable Consumption and Production

18. SCP policies and programmes summarized in the Ten Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP) are formulated to secure the resource base through resource efficiency. Higher resource efficiency contributes to minimizing directly harmful effects on humans and to reducing pressure on ecosystems and their ability to provide essential goods and services. The SEEA has been identified as a useful framework to measure SCP[3] and UNEP is taking steps to align the proposed thematic SCP indicators in the context of the SDG process with the SEEA.

Aichi biodiversity targets and National Biodiversity Strategy and Action Plans

19. Aichi biodiversity targets consist of a set of 20 targets organized in 5 strategic goals:

- Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society
- Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use
- Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity
- Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services
- Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

20. Target 2 under strategic goal A refers to integrating biodiversity values into national accounting, as appropriate, and reporting system. The SEEA has been accepted as the

[3] See the report prepared by Statistics Sweden and the Ministry of Environment of Chile *Monitoring the shift to sustainable consumption and production patterns in the context of the SDG* http://www.scpclearinghouse.org/upload/file_management/file/170.pdf

statistical framework of reference for this target, but can inform a number of other Aichi targets.

BIOFIN

21. Related to the Aichi biodiversity targets is the Biodiversity Financing Initiatives (BIOFIN) which aims at seeking to address the biodiversity finance challenge in a comprehensive manner – building a sound business case for increased investment in the management of ecosystems and biodiversity. BIOFIN provides a framework for undertaking 'bottom-up' analyses of the biodiversity finance gap and resource mobilization strategies as well as analyzing the impact of such expenditures. As part of the in-country work, BIOFIN includes the development of an information system on biodiversity expenditures. Until present countries have used ad-hoc methods, leading to non comparable results over time and across countries. The SEEA can provide a useful statistical framework to inform the level of expenditures in countries. Efforts are under way to move towards a common approach for countries to identify direct and indirect expenditures related to biodiversity which is mainstreamed as part of the statistical production process.

Inter-governmental Platform on Biodiversity and Ecosystem Services (IPBES)

22. IPBES provides a mechanism recognized by both the scientific and policy communities to synthesize, review, assess and critically evaluate relevant information and knowledge generated worldwide by governments, academia, scientific organizations, non-governmental organizations and indigenous communities on biodiversity and ecosystem services. A group of experts in conducting assessments of such information and knowledge in a transparent way has been established. IPBES will aim to strengthen capacity for the effective use of science in decision-making at all levels. IPBES will also aim to address the needs of Multilateral Environmental Agreements that are related to biodiversity and ecosystem services, and build on existing processes ensuring synergy and complementarities in each other's work. The SEEA Experimental Ecosystem Accounting is an important framework to inform IPBES and should be considered by the Platform. In addition, advances made in the context of the IPBES expert community will serve as an important contribution to advance the research agenda.

Global Reporting Initiative (GRI) and other sustainability reporting by businesses

23. The Post 2015 development agenda recognises the private sector as an important global partner for the achievement of the Sustainable Development Goals. The Agenda calls for businesses to adopt sustainable practices and to integrate sustainability into their reporting cycle. GRI has developed standards for sustainability reporting to help businesses, government and other organizations understand and communicate the impact of business on critical sustainability issues. GRI provides the most widely used standards on sustainability reporting and disclosure. A large number of large companies reports to GRI and the number is expected to increase. In addition to GRI, there has been an increasing amount of work in the corporate sector to develop accounting approaches for improved corporate risk and financial management. Initiatives include work by the Natural Capital Coalition, the B Team and financial institutions within the UNEP- Finance Initiative.

24. Alignment of corporate accounting with the SEEA concepts will prove useful to ensure the generation of high quality data at the business level which will translate into high quality data to populate the accounts. It will also reduce the reporting burden on businesses when approached for SEEA-relevant information. Steps are being made to engage the various stakeholders in this area and a technical workshop is planned for the fall this year.

Other initiatives

25. The above constitute a small selection of the thematic policy frameworks that the SEEA can inform. Another set of frameworks that the SEEA can inform include sectoral resources framework such as integrated water resource management, integrated forest resource management, SE4ALL, food security, sustainable tourism, etc.. Through thematic SEEAs such as the SEEA Water, SEEA Energy, SEEA Agriculture, Forestry and Fishery bridges between monitoring frameworks of the thematic initiatives and the SEEA are built.

Analysis of current situation

26. Until present, the global and national policy landscapes have been characterized by individual policy frameworks, often addressing specific thematic areas of concerns with little or no relation with other policy frameworks. This has resulted in a plethora of uncoordinated policies without any consideration of possible tradeoffs resulting in some cases in non-desirable impacts. In a similar fashion, the monitoring frameworks that have emerged to monitor progress for the specific policies have developed independently and often outside the national statistical systems, with specific sets of indicators generated by ad-hoc data collection processes. The mandate to carry out such policies as well as putting in place monitoring frameworks often resides with different international agencies whose entry points at national level are line ministries. This situation has resulted in isolated policy frameworks supported by isolated information systems at the global as well as national level.

27. The 2030 Agenda for Sustainable Development and the associated sustainable development goals, targets and indicators, mark a shift towards integrated policies to be informed by integrated nationally owned information. The call for integrated policies and related integrated information represents a unique opportunity to modernize the national statistical system, moving away from silo policies and data towards an integrated approach. Such modernization is not only needed to respond to existing demands but also desirable to allow the national system to streamline the data production processes achieving efficiencies in the national statistical system.

28. The motivation for the SEEA implementation is to rationalize the data being collected as a result of different initiatives and organize it in a common framework. While initially this could be done modifying existing data to fit the concepts definitions and classifications and accounting rules, in the medium term a process of harmonization basic data and rationalization and streamlining of the data production process should be put in place to ensure regular and efficient compilation of the accounts. This process would have to be undertaken in conjunction with the establishment of an institutional environment which allows for data sharing and exchange and close collaboration and cooperation among the partners. In conjunction, this will require the modernization of the IT environment to allow for the exchange of data as well as for accessing, storing, manipulating and modelling data sets.

29. The SEEA, together with the SNA, represents the much needed statistical framework to move towards a system approach for the collection and integration of basic data resulting in high quality statistics and indicators that have been generated using the accounting structure and rules to a set of standard definitions, classifications and methodologies. This has been recognized by the Statistical Commission as well as in the Declaration adopted by the 63rd plenary session of the Conference of European Statisticians "The role of official statistics in measuring and monitoring the SDGs".

III. Objectives, targets and scope of the implementation strategy

30. The proposed global implementation strategy has the following objectives:

- Adoption of the SEEA as an important measurement framework in support of the information system for sustainable development including for the derivation of Sustainable Development Goals (SDGs) indicators from nationally owned databases
- Mainstreaming the SEEA implementation in countries, including the development of institutional arrangements and regular statistical production process linked to the process of modernization of the statistical production process
- Establishing technical capacity for regular reporting on core sets of environmental accounting

31. The proposed targets for the strategy for 2020 are outlined below:

- At least 100 countries with on-going, well-resourced programs in SEEA Central Framework and at least 50 countries with on-going, well-resourced programs in ecosystem accounting, to support national decision making.
- Comparable global baseline data and indicators are available to support assessment and monitoring of the relevant UN Sustainable Development Goals.
- International programs and materials are in place to build capability and support ongoing learning.
- Active international research and education mechanisms are established to advance and exchange best practices.
- An updated SEEA on ecosystem accounting is released with the aim of moving towards standardizing best practices for selected accounts

32. The value proposition of the SEEA is the use of a system approach to information and the provision of an umbrella framework in support of providing a coherent and consistent metadata structure of the thematic and cross-sectoral data. The SEEA thus would serve as the overarching framework embracing the various monitoring frameworks and specific databases to develop an integrated statistical information system for sustainable development. Where relevant and appropriate, existing metadata structures of thematic monitoring frameworks should be aligned with SEEA, although other metadata structures may co-exist for policy and analytical needs.

33. The national statistical offices and the national statistical systems more broadly have a role to play. However considering the broad thematic scope of the implementation strategy, other stakeholders need to be involved ranging from government agencies, NGOs and think tanks as well as the private sector producing and using such data. New partnerships need to be forged in order to ensure a common vision and approach to the implementation of the SEEA in countries.

Scope

34. The SEEA implementation strategy aims at the development of an information system for sustainable development that is multipurpose and serves as a common framework to inform multiple policy frameworks including the 2030 Agenda for Sustainable Development and the derivation of SDG indicators. As a result, the scope of the SEEA implementation strategy covers both the SEEA Central Framework as well as the SEEA Experimental Ecosystem Accounting.

35. The strategy expands on the implementation strategy adopted by the UN Statistical Commission in February 2013, which covered exclusively the SEEA Central Framework. Given the different nature of the SEEA Central Framework and the SEEA Experimental Ecosystem Accounting, one being a standard and the other a framework for testing, it was deemed that their implementation strategies should follow different approaches. However, practical experience in countries demonstrated that a common approach to the implementation would be beneficial in order to establish an integrated information system in support of sustainable development.

36. The 203 Agenda for Sustainable Development calls for an integrated policy framework supported by integrated information. The SDG indicators cover a broad spectrum of policies, ranging from water and energy efficiency, which are the domain of the SEEA Central Framework, to reduction of ecosystem degradation and maintenance of ecosystems, which are the domain of the SEEA Experimental Ecosystem Accounting. An integrated approach to the measurement of the environment call for an holistic implementation strategy covering the measurement of the relationship between the economy and the environment and the contribution of the environment to national wealth as well as the condition of the ecosystems and the supply of ecosystem services. As such the SEEA Central Framework and the SEEA Experimental Ecosystem Accounting, together provide the needed statistical framework in support of integrated policies that aim to mainstream the environment into decision-making.

37. Several countries are starting programmes to put in place an information system in support of sustainable development. This is the approach that has been taken by UNSD for the implementation of the SEEA in countries. Many other international agencies, including the United Nations Regional Commissions, UNEP and the World Bank are following a similar approach.

38. As a result of the widespread interest in the measurement of ecosystems and the increasing number of initiatives with experimentation, the statistical community is leveraging the scientific community to learn from their experience and to reach in the short to medium term consensus on a small number of methodologies and approaches with the objective of reaching standardization.

39. Initial discussions have started with those scientific agencies and NSOs responsible for the monitoring of ecosystems and biodiversity to assess how the SEEA can serve as the statistical framework for reporting on relevant goals and targets (e.g. Goal 13, 14 and 15) as well as more broadly on the reporting to the three Rio conventions, that is on climate change, biological diversity and desertification.

IV. National implementation strategy implementation of the SEEA

General consideration of the SEEA implementation

40. As agreed at the International Conference on the Global Implementation of the SEEA, which took place in New York in June 2013[4], the following considerations should be taken into account for a national implementation strategy.

41. **Flexible and modular approach –** Countries differ in terms of their specific environmental-economic policy issues, their level of statistical development as well as institutional organization. Accordingly countries may prioritize the accounts they would like

[4] http://unstats.un.org/unsd/envaccounting/workshops/SEEA_Conf_2013/main.htm

to implement over the short to medium term based on policy demands. Countries should develop a programme for staged implementation prioritizing those accounts that are in line with the national priorities set in national plans.

42. **Strategic planning –** Strategic planning is an important tool to guide the development of national statistical programmes closely linked to policy priorities. It will facilitate the allocation of resources in statistics and the production of data needed for monitoring sustainable development on a regular basis. Strategic planning calls for the development of strategic implementation plans at the regional/sub-regional and national levels. At the national level, these plans should be embedded in the National Statistical Development Plan and closely linked to the policy demands presented in the National Development Plan, the National Sustainable Development Plans, the National Strategy for Biodiversity and Action Plan (NBSAPS), strategies for green economy/green growth, sustainable consumption and production etc. The strategic approach will facilitate the sustainability of the exercise by ensuring the buy in at the highest level of the government to adopt the SEEA as the statistical framework in support of sustainable development and allocation of adequate resources.

43. **Linking the implementation to policy demands –** The SEEA represents a multipurpose statistical system which supports the derivation of high quality, consistent and coherent indicators as well as analytical applications. It represents the statistical infrastructure in response to policy demands, with the objective of organizing existing information and complementing it with additional information to support integrated policy and decision-making. Priority accounts at the national level should be compiled taking into consideration policy demands.

44. **Coordinated implementation of the SEEA and SNA –** The implementation of the SEEA presents a lot of synergies with the implementation of the SNA in countries. Where possible, the implementation of the SEEA should proceed in a coordinated manner with that of the SNA to ensure efficient development of a common statistical infrastructure and operations.

45. **National ownership –** Countries should develop their own implementation strategies and plans based on national priorities. A coordination mechanism consisting of senior stakeholders producers and users of information should be established at the country level supported by technical groups working on specific sectoral accounts.

46. **Capacity building** – Countries need to develop capacity to mainstream the SEEA in the national statistical system as well as its application in policy and decision-making. The SEEA is a new methodology which requires expertise often present in different ministries. Training programmes appropriate to various audiences and at different levels of difficulties need to be developed to ensure that a critical mass of experts in the national statistical office as well as in line ministries is formed.

47. **Communication strategy –** The SEEA is a relatively new statistical system. A proper communication strategy and campaign needs to be developed to raise awareness that the SEEA can be compiled with relatively small number of data items, using also the accounting structure for checks and balances and that there are considerable benefits in adopting the system approach in support of sustainable development and to . Different messages should be developed for different stakeholders, in order to ensure that each community can recognize the benefits of integrating their information in a common information system based on the SEEA.

Approach to implementation in countries

48. The implementation strategy calls for a flexible and modular approach to the SEEA implementation depending on countries policy priorities, data availability, technical capacity and institutional framework. Nevertheless a common approach to the implementation consisting of four phases can be delineated to guide the institutionalization of the SEEA, its compilation on a sustainable basis and its use to inform policies.

Phase I – National Assessment and National Plan

49. The national assessment consists of an in-depth report of the policy situation of the country, the institutional arrangements and legal framework for statistics, and data situation. The report also identifies the on-going initiatives in the countries (e.g. green economy/green growth, WAVES, Redd Plus, NBSAPs, SCP, etc.). It also highlights opportunities and risks associated with an SEEA implementation programme. On the basis of the above information and through extended consultation with various stakeholders, a national plan is drawn outlining the plan to develop an information system in support of sustainable development. The national plan outlines the country policy priorities, develops an institutional framework for the SEEA implementation, consisting of policy and data producing institutions, identifies the priority accounts to be developed and key stakeholders to involve in the development of each account. The national plan is to be endorsed at the highest level to obtain the go-ahead at the political level with the SEEA implementation.

Phase II – Programme of work for priority accounts

50. A detailed programme of work needs to be developed for each account, which is considered priority. The programme of work will specify the governance of the project, including an interagency steering and technical committee, the role and responsibility of each agency involved, the deliverables of the project and schedule of delivery of final and intermediate outputs (e.g. type of accounts compiled, release of final results, etc.)

Phase III – Pilot compilation of the accounts

51. The pilot compilation of the accounts involves the production of core accounts on the basis of existing information. The compilation will involve integrating data from various data sources such as environment statistics, energy statistics, and economic statistics into the accounting framework. The basic data serving as input into the accounts often follow definitions and classifications that are not consistent with those used in the SEEA or SNA. Moreover, the input data may not meet the quality standards.

52. The pilot compilation serves many purposes, including learning how to compile the accounts, understanding issues with data sources, disseminating the results of the accounts in a short period of time to show its potential use and lastly developing a proof of concept.

Phase IV – Data quality assessment and plan for sustainable production of the SEEA

53. The pilot compilation serves as the basis for analyzing gaps and overlaps, identifying areas where data need to be strengthened, setting priorities on which data to develop first and to develop a plan for improving the data. A data quality assessment framework may be used to evaluate the quality of the data, namely their integrity, methodological soundness, accuracy and reliability, serviceability and accessibility.

54. The plan would involve harmonization of basic data, review of the business register and suggestion to improve it and design and implementation of new data collection, compilation and dissemination processes. The plan would also cover cost estimates of human and financial resources needed to continue the compilation of the statistics and accounts on a

sustainable basis. The plan could fit within the broader scheme of modernizing the statistical system, where applicable.

Training and Capacity building

55. A training and capacity building programme should be put in place from the beginning of the project providing a basic understanding of the SEEA and the benefits in adopting it. Moreover, the human resources development program should render a more in-depth understanding of the specific priority modules to be compiled including definitions and classifications, data sources, possible issues to be encountered when integrating the data from different sources, issues of coordination and finally dissemination of the results.

Communication and advocacy

56. Communication and advocacy of the SEEA are an integral part of the implementation strategy in that they are key to support an ongoing dialogue among statistical producers, the various levels of government, the business sector, the academic community and the general public about user needs for official statistics and the progress in meeting those needs. This recurrent communication can be established through targeted workshops, conferences, press releases and promotional material that highlight the benefits of good quality official statistics in general and environmental-economic accounts in particular. These regular engagements between producers of statistical outputs and providers of basic data on one hand and users of environmental economic accounts on the other will reinforce the demand for environmental-economic accounts and its use in decision making leading to a better funded programme mainstreamed as part of official statistics.

V. Global implementation strategy

Coordination

57. The principle of coordination, monitoring and reporting ensures that the roles of international and regional organizations, other donors and recipient countries are clear and their actions are complementary, effective and efficient. Coordination entails that all stakeholders work towards a common objective within their mandate and an agreed programme of work. Monitoring comprises assessing the efficiency of technical assistance programmes, evaluating lessons learns, and using resources efficiently. Reporting comprises the dissemination of progress made with the implementation and should be target to different stakeholders. Better coordination, monitoring and reporting collectively help meet national and regional goals as well as provide a means to evaluate and to assess the progress of the implementation of the SEEA. Monitoring, reporting and evaluating should also be used to identify risks to the implementation process so that timely interventions can be made to keep plans on track.

58. The number of stakeholders working in the sphere of environmental-economic accounting at the international level is increasing and will likely increase in the coming years. They include agencies whose mandate is development and strengthening of the statistical system, agencies or consortium of agencies whose mandate is thematic and covers the development of monitoring frameworks (e.g. FAO, CBD, UNFCCC, UNCCD, UNWater, UNEnergy, IPBES, etc.), agencies that have a regional or sub-regional mandate (e.g. UN regional commissions, sub-regional bodies such as CARICOM, SPC, Asean, SADC, etc.), agencies that focus more on the use of the accounts in policy and decision-making (e.g. World Bank, UNEP, UNDP, etc.). Although each agency has its own entry point at the country level, strength, mandate and serves different communities, there is often no clear cut delineation of each agency role. This implies that there are many players that are active with

different objectives, mandates and at times monitoring frameworks that operate in the space of official statistics.

59. In order to avoid significant overlap and duplication of efforts and to maximize efficiencies in the production of outputs, it is necessary that general architecture for the development for the integrated statistical system is developed whereby each agency has its role and responsibility to collect and compile data according to agreed standards definitions and classifications. The Generic Statistical Business Process Model (GSBPM) provides a standard framework and harmonized terminology to help statistical organizations to modernize the statistical production process, as well as to share methods and components. The GSBPM and related standards based statistical models can also be used to integrate data and metadata standards, as template for process documentation, for harmonizing statistical computing infrastructures and to provide the framework for process quality assessment and improvement.

60. A mechanism is needed to coordinate, monitor and report progress at the sub-regional, regional and international level. The purpose of this mechanism would be to share information on the development and execution of the SEEA implementation strategy and move towards a common approach to implementation.

TO BE UPDATED AND ELABORATED ON THE BASIS OF THE DISCUSSION AT THE UNCEEA

61. The UNCEEA proposes to establish a Partnership Group consisting of partners active in the field, including not only international agencies working in the field of statistics, but also, the geospatial community, think tanks, such as Conservation International and IUCN that are active in the field, the business community and donors. This partnership will be responsible for facilitating and stimulating the implementation of the SEEA, ensuring alignment of methodologies and the use of common tools and a common approach to the SEEA implementation in countries. Formal agreements with each partner should be developed, outlining the areas of cooperation. The UNCEEA will be the overall global coordinating body. A proposal for a formal coordination mechanism will need to be developed if this is agreed. Steps are in progress in developing a formal coordination mechanism with some of the UN regional commissions that have adopted the common approach proposed in this paper. Also, work is underway on aligning the indicators proposed to monitor sustainable consumption and production with the SEEA as well as the development of a capacity building programme on SCP to build bridges between the policy and the statistical community and to reach a better understanding of the benefits of adopting a system approach to monitoring SCP. A common template for establishing such collaborations should be developed. A suggested example that is being used with collaboration with the SCP community is presented in the annex.

Furthering the research agenda of the SEEA Central Framework and the SEEA Experimental Ecosystem Accounting

62. The SEEA Central Framework is a relatively new statistical standard. It is accompanied by a research agenda, which includes topics that could not be solved at the time of its adoption. In addition, as all statistical standard, the SEEA Central Framework needs to be reviewed and assessed regularly to ensure relevance of the measurement of the relationships between the economy and the environment. A research agenda on the SEEA Central Framework is being finalized. Various groups, including the London Group on Environmental Accounting, will contribute to the advancement of methodologies. The Technical Committee on the SEEA Central Framework has been tasked to advance the

research agenda and to review methodological documents, including SEEA subsystems for consistency with the SEEA Central Framework.

63. The SEEA Experimental Ecosystem Accounting (SEEA EEA) was endorsed by the UN Statistical Commission in 2013 which recommended its testing and experimentation in countries. As part of the implementation strategy of the SEEA it is proposed that the SEEA EEA be revised by 2020 with the objective of moving towards a consensus on selected modules. A Forum of Experts on the SEEA EEA has been established consisting of representatives from the statistical, geospatial, ecological and economic communities to discuss technical issues. A research agenda on the SEEA EEA will be developed in consultation with various experts and practitioners. A Technical Committee on the SEEA Experimental Ecosystem Accounting needs to be established to oversee the advancement of the testing and experimentation agenda, oversee the finalization of the Technical Recommendations on the SEEA EEA and the drafting of the revised SEEA EEA.

Global database on SEEA

(to be developed after discussion at the UNCEEA

Capacity building – common tools

64. A key element of the implementation strategy is the development of common tools to support countries in the SEEA implementation. Several tools are already available for use by countries and partners.

Technical notes

65. Technical notes are designed to provide countries wanting to start the SEEA implementation initial guidance on the steps to be undertaken to start the implementation. They provide core sets of accounts which would serve as templates for data collection and reporting. They also provide combined presentation which bring together data items from different sources (e.g. national accounts, population and labour statistics, etc.) to derive indicators, including where relevant the SDG indicators. The notes also elaborate on data sources and possible issues that may arise in compilation. Technical notes on water, energy, material flow accounts, EGSS, land, air emissions and environmental protection expenditures are being finalized. In the next phase additional notes will be prepared. The notes also provide references to other more detailed materials and publications as well as extensions and linkages that can be exploited once the accounts and tables are in place.

Blended learning

66. A blended learning programme on the SEEA Central Framework was developed by the United Nations Statistics Division and GIZ. The purpose of the programme is to acquire knowledge and skills to deepen understanding of the accounting principles and basic data needs for compiling environmental-economic accounts in accordance with the SEEA Central Framework; facilitate experience-sharing among countries; and support countries in setting up a strategy and workplan for SEEA implementation. The blended learning programme consists of three phases. In the first phase participants take an E-learning training course to obtain a basic understanding of the SEEA. The E-learning course is followed by a 4 day in person training which deepen the knowledge of the participants through practical exercises and discussions on issues regarding implementation. Participants also start developing an initial national plan for the SEEA implementation. In the third phase, participants are expected to

share their knowledge with others in their country as well as initiate discussion on the national plan for the SEEA implementation.

Guidelines

67. The SEEA Implementation Guide provides an overview of steps likely to be required to introduce a national programme of work on environmental-economic accounting. It does not provide detailed advice since there are a wide variety of situations and starting points, considering that national policy priorities, institutional arrangements and statistical development will impact on the most appropriate implementation strategy. The guide includes a diagnostic tool which is intended to be used to lead relevant parties within a country through a discussion of the implementation process and required steps, including determining priority accounts, and identifying relevant constraints and opportunities.

68. Guidelines for the compilation of water statistics and accounts have been developed to provide country experts and trainers with a comprehensive and reliable set of practical materials to assist staff of National Statistics Offices, Water Ministries and Agencies and other stakeholders in countries, in the compilation of water accounts and statistics in order to develop a monitoring system for water policies. The methodologies presented are part of the System of Environmental-Economic Accounting for Water (SEEA-Water), adopted in 2007 by the United Nations Statistical Commission, and the SEEA Central Framework.

69. Technical recommendations on the SEEA Experimental Ecosystem Accounting have been developed as part of the project Advancing Natural Capital Accounting and are currently being finalized. They elaborate on the concepts presented in the SEEA Experimental Ecosystem Accounting provide practical recommendations on the measurements of ecosystem extent, condition and services to guide countries in the testing of the accounts.

Knowledge platform

70. To support the dissemination of the tools and materials being developed in support of the SEEA implementation and sharing of country experiences, a new knowledge platform for the SEEA is scheduled to be launched shortly. The new website will be a more modern platform set up in a way to better meet the needs of its user. One of the major additions to the website will be the creation of forums and message boards to allow for online interactions between those working in environmental economic accounts. Registered participants will have opportunities to pose questions and share experience with colleagues throughout the world. The use of the new platform will allow for further networking between colleagues. It is also expected that this platform will also include a training platform to host the E-learning materials that have been and will be developed in the near future.

Communication and Advocacy

TO BE COMPLETED AFTER DISCUSSION AT THE UNCEEA

71. It is important that the SEEA be recognized as SDG cross walk and alignment.

72. A global communication strategy using agreed messages on the importance of adopting a system approach to the development of integrated information in support of sustainable development is needed. Different materials should be developed depending on the target audience. A group should be established to lead this work.

VI. Strategy for funding

73. The strategy for funding the SEEA implementation should be based on a cooperative and partnership model. It should largely build on comparative advantages of all stakeholders and partners. An active funding strategy complementing the implementation strategy should be developed in particular taking advantage of the renewed recognition of the central role of data and information in the Post 2015 Development Agenda and the importance of the SEEA as statistical framework for the SDG indicators.

74. Various sources of funding are viable:

- National sources of funding should be sought by countries to support the implementation of the new standard, the SEEA Central Framework as well as the SEEA Experimental Ecosystem Accounting. The national plan should serve as important document to make the case for additional funding (a template of a national plan used for the ANCA project is attached in the annex).
- International agencies providing technical assistance and financial support and other donors are requested to make resources available for technical assistance for the SEEA implementation and the development of basic economic and environmental statistics in countries. International agencies may develop joint fundraising to support the SEEA implementation.
- National statistical offices with experience on SEEA compilation should provide technical support to the implementation of the SEEA with funding being raised directly from national development agencies. Examples of terms of references are attached in the annex.
- All agencies involved should create synergies with other similar training and capacity building programme to avoid duplication of efforts.

75. The limited resources should be focused on assistance of countries that have shown commitment for the SEEA activities through their own initial funding to assist them in mainstreaming the SEEA, rather than ad-hoc activities with little perspective of continuing on a sustainable basis.

VII. Roadmap for the SEEA implementation

TO BE UPDATED BASED ON THE DISCUSSION AT THE UNCEEA

76. This section outlines proposed steps towards achieving the objectives and targets. It is proposed that the work towards 2020 follows three streams: Implementation and testing at country level; Use and application; and Advancing towards common standards. Work under Stream 1 should be led at the country level using the SEEA Central Framework, the SEEA Experimental Ecosystem Accounting and supporting guidelines and materials as a base for implementation and testing. While this work would be led at country level, support for countries taking on the challenge of testing and implementation should be supported by relevant international efforts, especially in terms of specialized training and in the use of global datasets at national level.

77. Work under Streams 2 and 3 will require leadership at the international level, especially in terms of collaboration and engagement across different initiatives. The work under these two streams is likely to benefit from targeted collaborations across relevant agencies and experts – for example in the areas of land cover classification, harmonization of basic data with the accounting concepts and terminology and work on ecosystem accounting such as classification of ecosystem types and services and measuring biodiversity.

78. An important connection may be drawn between the three streams of work such that findings from country level applications can be drawn into the development of solutions to broader measurement and vice versa. The development of appropriate mechanisms to co-

ordinate these knowledge exchanges will be an important aspect in advancing the Global Strategy.

Stream 1 - Implementation and testing at national level

79. This stream requires a focus on national level work to establish the SEEA program. The ambition within this stream is to support the development of national plans and coordination mechanisms depending on the circumstances within each country. The development of these plans should build on the lessons from country examples and be closely linked to national development plans.

80. According to the priorities set, countries will focus their efforts in implementing the core tables and accounts using existing data and modeled data as appropriate to take advantage of big data and global data bases.

81. In the medium term a strategy to develop databases within an integrated statistics programme should be developed.

Stream 2 – Applications and indicators

82. This stream requires the dissemination of the results of the accounts, in particular relevant indicators such as those informing the relevant SDGs. In the medium term, it is hoped that the SDG indicators will be aligned with the SEEA concepts and methods, thus making the compilation of the SEEA part of the reporting framework on SDGs.

83. In addition to indicators it is important to also promote other applications and modelling based on input-output/supply and use tables.

Stream 3 – Advancing towards common standards

84. This stream requires a focus on continual learning by combining skills and experience across disciplines. The power of environmental accounting lies in its integration of thinking from multiple disciplines. These connections need to be strengthened and advocated using language that resonates to the different communities. In addition, outstanding questions need to be addressed in close collaboration with the specific expert communities.

85. In the case of the SEEA Experimental Ecosystem Accounting, one of the objectives is to move towards the elevation of some of the accounts (e.g. carbon) to the level of a standard and developing best practices for other accounts.