Statistical Commission Forty-third session 28 February – 2 March 2012 Item 3 (e) of the provisional agenda **Environmental-economic accounting** Background document Available in English only

Process of drafting of the SEEA Central Framework

Prepared by the Committee of Experts on Environmental Economic Accounting

Process of drafting of the SEEA Central Framework

The project on the revision of the System of Environmental-Economic Accounting (SEEA) started in 2005 when the Statistical Commission established the UN Committee of Experts on Environmental and Economic Accounting (UNCEEA) and mandated the Committee to elevate the SEEA to the level of an international statistical standard¹.

The revision of the SEEA has been undertaken according to an agreed project management framework² which was submitted as a background document to the UN Statistical Commission in 2009 and 2010. The revision of the SEEA consisted of the drafting of three parts previously referred to as volumes: part 1 consisting of the international statistical standard, part 2 consisting of those topics for which consensus could not be reached but which are highly policy-relevant, and part 3 consisting of extensions and applications. Part 1 is currently referred to as the SEEA Central Framework. In the course of the discussions leading to the drafting of Part 1, it became evident that the highly policy relevant topics for which consensus could not be reached fell largely within the domain of ecosystem accounts. The small number of issues that were not solved during the drafting of the SEEA Central Framework will be presented in the research agenda, which will be prepared when finalizing the complete SEEA considering that some of the issues may be taken up in Part 2. As a result, Part 2 was renamed Experimental Ecosystem Accounts with experimental clearly indicating that the status of Part 2 would not be an international statistical standard but a presentation of the state of the art. It was considered important to seek convergence of approaches in ecosystem accounting to facilitate the practical implementation using agreed terms and concepts which facilitate the comparison of statistics and the exchange of experiences considering the high demand for information. Part 3 of the SEEA has been named SEEA Extensions and Applications. It was made clear that Part 3 would not be a standard but rather present possible applications and extensions using data from the accounts and tables of the SEEA to facilitate countries in the dissemination of information and analyses derived from the accounts.

The time line envisaged for developing the three parts of the SEEA was 2012 for Part 1 and 2013 for Part 2 and 3. The Central Framework has now been submitted for adoption as an international statistical standard to this 43rd session of the Statistical Commission.

In May 2010, the Bureau of the UNCEEA selected the editor (Carl Obst) for the drafting of the SEEA and established the editorial board for the SEEA Central Framework to assist the editor in the drafting of the SEEA Central Framework and in the review of comments received during the various rounds of global consultations. The editorial board comprised experts in environmental-economic accounts and national accounts from Australia, Canada, the Netherlands, Norway, the Statistical Office of the European Commission (Eurostat), the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD) and the Statistical Division.

SEEA Central Framework - process of drafting

The first stage in the revision process was the development of an agreed list of issues that would form the basis for the revision of the SEEA. The list of issues was developed as a result of extensive consultation among various groups working in different statistical domains. Many of the issues in the issue list were issues for which the SEEA-2003 presented different options and no consensus had emerged.

¹ http://unstats.un.org/unsd/statcom/doc06/2006-9e-EnvAccounting.pdf

² http://unstats.un.org/unsd/statcom/doc10/BG-RevSEEA.pdf

Beginning in 2007, the issues in the issues list were discussed extensively by the London Group on Environmental Accounting and those related to energy were also discussed by the Oslo Group on Energy Statistics. Outcome papers for each issue were subsequently prepared by the editor, in consultation with the editorial board, on the basis of issues papers discussed at the meetings and the deliberations of the Groups.

In 2010, an extensive process of global consultation was undertaken on each of the outcome papers. Consultation was organized to facilitate the consultation in the countries and international agencies with experts in other agencies or ministries. Countries and international agencies provided their comments on specific questions posed in the outcome papers and were also invited to provide any other related feedback. Supporting issue papers that had been discussed by the London Group were also made available on the SEEA website. Comments received on the outcome papers were reviewed and analysed by the editor and the editorial board and a set of consolidated recommendations for all issues was developed taking into account consistency across issues.

The final consultation on the consolidated set of recommendations on the 21 issues in the issues list was completed in early 2011. The results of the consultation were reviewed and agreed upon by the Statistical Commission at its 42^{nd} Session in 2011.

The second stage of the revision process consisted in the drafting of the chapters of the SEEA Central Framework. On the basis of the agreed consolidated set of recommendations, the editor drafted the chapters in close consultation with the editorial board. Global consultation on individual draft Chapters of the revised SEEA Central Framework started in May 2011, beginning with Chapter 5 on asset accounts, followed by Chapters 3 and 4 on physical and monetary flow accounts, and concluding in late August with Chapter 2 on the accounting structure and concepts. The London Group on Environmental Accounting discussed at its 17th meeting in September 2011 key issues raised in the feedback received on the individual chapters.

Chapters 1 and 6, given their more general nature, did not undergo separate individual chapter consultations, but instead were reviewed as part of the global consultation on the complete draft of Chapters 1-6. Chapter 1 circulated for global consultation presented an introduction to the SEEA (including the non-standard parts on Experimental Ecosystem Accounts and Extensions and Applications) and Chapter 6 provides guidance on integrating and presenting the accounts.

Comments received on individual chapters were categorized, reviewed and analysed by the editor and editorial board and decisions were taken on how to incorporate the comments in the complete draft. On the basis of the comments received from the global consultation on individual chapters and on the decisions taken on the comments received, the editor in consultation with the editorial board, drafted Chapters 2-6 presenting the fundamentals of the SEEA Central Framework and Chapter 1 presenting the introduction to the whole SEEA, including SEEA Central Framework, SEEA Experimental Ecosystem Accounts and SEEA Extensions and Applications. The global consultation on the complete SEEA Central Framework (Chapters 2-6) and Chapter 1 took place between 26 October and 7 December, 2011.

On average, about 40 sets of comments were received on each chapter during the individual chapter phase of consultation. Over 50 comments were received during the final global consultation process on the complete draft text. In total, more than 70 different statistical offices, ministries of environment or other governmental institutions and international agencies supplied

feedback during the process. Responses were received from countries in all continents and from countries of varying economic structure and environmental situation.

Throughout the consultation process the support for the SEEA has been very favourable. As expected, numerous technical issues and questions were raised and as a consequence the quality of the final draft developed strongly in technical terms. Each round of consultation led to an increasingly narrowed set of technical issues requiring attention by the Editorial Board. The process revealed a clear convergence of views towards consensus on the key substantive issues. The Annex provides information by Chapter on the decisions made concerning the key technical issues raised during the final round of consultation on the fundamentals of the Central Framework draft (Chapters 2-6). These decisions have been incorporated in the draft of the SEEA Central Framework presented to the Statistical Commission.

Chapters 2-6 constituting the fundamentals of the SEEA Central Framework have been submitted for adoption as an international statistical standard by the UN Statistical Commission. However, it has proved difficult to finalize Chapter 1 at the current time considering that it was not possible to finalize a description of the relationships between the SEEA Central Framework and the other parts of the SEEA that are still to be drafted. For this reason it was decided to submit to the Statistical Commission a new Chapter 1 that provides an introduction to the SEEA Central Framework presented in Chapters 2-6.

Global Consultation

The consultation process was considered an important component of the project on the revision of the SEEA and a prerequisite for its elevation of the SEEA Central Framework to an international statistical standard. Considerable effort was made to ensure that various stakeholders from different communities were engaged and their views and inputs were actively sought in all phases of the Project.

To ensure transparency of the drafting and approval process a website "Towards the revision of the SEEA" was established by the Secretariat. The website includes all issue papers and outcome papers submitted for global consultations, the final recommendations prepared by the editor and the editorial board, the draft chapters and the final consolidated Chapters submitted to the UN Statistical Commission. All comments, received during all stages of global consultation, which ranged from helpful editorial suggestions to detailed technical input, are available on the SEEA Revision website (unstats.un.org/unsd/envaccounting/seearev/).

An important feature of the global consultation was the consultative process beyond the statistical community that countries and international agencies undertook. Countries and international agencies were encouraged to consult with the ministries or government agencies responsible for producing or using the information discussed in the various chapters to ensure the relevance of the topics being discussed and comprehensive coverage of the topics. Several countries and international agencies used the opportunity afforded by the global consultation to raise awareness of SEEA beyond the statistical community and build cooperation across governmental and non-governmental agencies. The global consultation process was considered an important step to ensure the participation of the non-statistical community in the development of SEEA and acceptance of the SEEA framework for future implementation in countries.

Governance of the revision process

The Committee of Experts as mandated by the UN Statistical Commission is responsible for managing and coordinating the revision process of the SEEA. The Bureau of the Committee

provides the day to day management of the activities of the Committee and oversees the progress of work. The United Nations Statistics Division, as the Secretariat of the Committee, provides secretarial support to the revision process.

City groups, in particular the London Group on Environmental Accounting and the Oslo Group on Energy Statistics, assisted in addressing the technical issues identified during the revision process.

The Editor, Carl Obst was appointed by the Bureau under delegated responsibility of the Committee of Experts. He drafted all the outcome papers and Chapters, reviewed and analyzed all the comments received, and chaired the numerous meetings of the Editorial Board.

The Editorial Board was established by the Bureau to assist the editor. It consisted of the following experts from countries and organizations: Michael Vardon (Australian Bureau of Statistics), Joe St Lawrence (Statistics Canada), Mark de Haan (Chair of the London Group on Environmental Accounting and Statistics Netherlands), Julie Hass (Statistics Norway), Brian Newson (Eurostat), Manik Shresta and Kim Zieschang (IMF), Paul Schreyer (OECD), and Alessandra Alfieri (UNSD). The editorial board assisted the editor in reviewing and commenting on the draft, reviewed the comments received and together with the editor take decisions on how to incorporate the comments, provided editorial support as needed.

Annex : Summary of the responses to the Global Consultation on the SEEA Central Framework

This annex summarizes the comments received through global consultation on Chapter 2 to Chapter 6, presenting the fundamental concepts, definitions classifications, tables and accounts of the SEEA Central Framework. The Chapter 1 that is being submitted to the UN Statistical Commission together with the Central Framework is an introductory note presenting a brief overview of the content of the Chapters of the Central Framework.

The comments received through the Global Consultation process were generally favourable and supportive of the SEEA Central Framework. On the whole, the feedback supported the general content, focus and style of the draft text, noting that guidance on implementation and compilation will be required.

The bulk of the feedback comprised comments and questions on specific technical issues. Some issues were raised by just one country or agency, while for other issues several respondents provided similar or related feedback. The Editorial Board reviewed all of the comments and took them into account as much as possible, subject to (i) preserving the consistency of the text as whole, and (ii) taking into consideration decisions that had been taken at earlier points in the revision process. At times, this required balancing a range of comments on a particular topic and also considering the implications of changes in one area of the text on other related sections and chapters.

This annex focuses on those comments of a significant technical nature to the extent that they raised points of view that were different from the draft text, or to the extent that they pointed to the need to clarify and better explain concepts, definitions and treatments in the draft.

A number of other comments were editorial and typographical in nature and, as appropriate, these comments were adopted in the revised draft to the UNSC. These types of comments are not discussed further in this annex.

Issues related to Chapter 2

- 1. <u>References to ecosystems and ecosystem services</u>. Many comments were received concerning the manner in which the text, particularly in Chapters 1 and 2, referred to ecosystems. Some felt that the text should explain further the relevant measurement issues and alternative and additional text was proposed. Other comments indicated that the discussion was too extensive and not in scope of the SEEA Central Framework. The updated draft retains some limited discussion of ecosystems, largely in relation to defining the scope of environmental assets in Chapter 2, but a range of references to ecosystems in other chapters have been reduced or removed. Instead, it is considered that the discussion of these issues should take place in the SEEA Experimental Ecosystem Accounts and relevant feedback will be taken into account through the process of developing that text. (See Sections 1.1 & 2.2)
- 2. <u>References to social, employment and demographic information.</u> A range of responses suggested that the draft had overstated the relationship between SEEA and social information particularly with regard to sustainable development. In the updated draft it has been clarified that social data is not directly in the measurement scope of the SEEA but that SEEA based data can be readily linked to employment, demographic and social information to permit extended analysis in a range of directions. (See Sections 2.3 & 6.2)

- 3. <u>Sequence of economic accounts.</u> The sequence of economic accounts is an important accounting construct that is applied in the SEEA in a number of ways. Two responses suggested that the sequence of accounts might be best conveyed in the SEEA through a focus on the derivation of depletion adjusted aggregates. This focus has been incorporated in the updated draft. (See Sections 2.3 & 6.2)
- 4. <u>Own account production and consumption.</u> Many responses raised concerns about the treatment of own-account production and consumption and related explanations. In particular, these comments covered the valuation of this activity, and the treatment of household and government sector activity. The Editorial Board determined that the treatment of household and government activity should align with the SNA (thus implying that own-account production is recorded together with the associated industry class). At the same time it was accepted that alternative presentations of supply and use information may be considered within this conceptual treatment. Improved text concerning the valuation of own-account activity has also been incorporated. (See Sections 2.3, 2.6, 3.2 & 4.3)

Issues related to Chapter 3

- 5. <u>Energy flows.</u> The recording of various flows of energy, particularly concerning residual flows of energy was not sufficiently clear and did not explain clearly flows relating to waste and cultivated biomass. A more comprehensive description of the energy physical supply and use table (PSUT) has been incorporated including treatments that align more closely to those used in energy statistics. (See Section 3.4)
- 6. <u>Water flows and definitions.</u> A number of comments were received raising concerns about the descriptions of various flows of water and the associated definitions, particularly concerning soil water, evapotranspiration and urban run-off. Definitions and treatments have now been aligned with relevant statistical standards for water. (See Section 3.5)
- 7. <u>Aggregates for energy and water</u>. The text on energy and water aggregates required further consideration. There are many possible aggregates that might be defined depending on the questions of policy and analytical interest. The updated draft contains a small number of aggregates for both energy and water but recognises the potential for other aggregates to be defined. (See Sections 3.4 & 3.5)

Issues related to Chapter 4

- 8. <u>Title of Chapter 4.</u> A range of responses considered that the proposed title of Chapter 4 "Monetary flow accounts" did not convey the actual content of the draft chapter. The title has now been changed in the updated draft to "Environmental activity accounts and related flows".
- 9. <u>Adapted goods.</u> A number of comments reflected a view that the measurement challenges related to adapted goods should be further highlighted and one response considered that adapted goods should not be within the scope of EPEA or EGSS. The Editorial Board determined that adapted goods should be retained within scope given their policy and analytical relevance. Although it was agreed that there are notable measurement challenges, it was felt that the current text conveyed these challenges appropriately and that further guidance should be provided in compilation manuals rather than in the Central Framework itself. (See Section 4.3)

- 10. <u>Definition of environmental taxes.</u> The definition of these taxes has remained the same in the updated draft but additional text has been incorporated to better explain that the definition in the Central Framework differs from the definition of environmental taxes in the economics literature. An on balance decision was made to use the term "environmental" taxes rather than "environmentally related" taxes. (See Section 4.4)
- 11. <u>Treatment of tradable emission permits.</u> It had been anticipated that the process for finalising the treatment of tradable emission permits in the context of the SNA would be completed in which case the updated draft would have incorporated text reflecting the decision to ensure a consistency of treatment between SEEA and SNA. However, since the SNA process is not yet complete the relevant text has not been changed at this time. (See Section 4.4)

Issues related to Chapter 5

- 12. <u>Asset account entries.</u> A range of feedback sought clarification on the definition of various entries in the asset accounts (for example reclassifications, reappraisals, revaluations) and also questioned the consistency in the application of entries across asset types. A particular area of comment concerned entries for the forest and other wooded land account. In the updated draft the scope and definition of all asset account entries has been clarified, in particular for the forest and other wooded land account. (See Section 5.3 & 5.6)
- 13. <u>Definition of depletion</u>. A significant challenge in the drafting of the Central Framework has been the definition of depletion in respect of natural biological resources (e.g. timber and aquatic resources). Feedback in mid-2011 on the first draft of Chapter 5 "Asset accounts" led to significant improvements in the discussion of this topic and the final round of feedback has again highlighted areas of the explanation that required further refinement. Depletion is now clearly defined as a physical change (that can be valued) and the links to the regeneration of natural biological resources that offsets the quantity extracted are clearly made. (See Section 5.4)
- 14. <u>Subsidies in the definition of resource rent.</u> The draft for global consultation contained a small mention of the treatment of subsidies in the context of resource rent. Feedback indicated more clarity was needed and this has been introduced, particularly in Section 5.4. Specific taxes and subsidies related to extraction industries are now identified and are taken into account in the derivation of resource rent. (See Section 5.4)
- 15. <u>Stocks and flows concerning renewable energy (also in Chapter 3).</u> In the general context of the SEEA there was interest in clearly identifying stocks and flows associated with renewable energy. However, these stocks and flows are associated with many different types of environmental assets and different physical flows and hence the connection between the various elements across the draft chapters was not clear. Although the structure remains the same and hence text concerning the stocks and flows associated with renewable energy are not grouped together, in the updated draft, a much greater consistency of drafting has been incorporated. Specifically, the stocks and flows are now referred to as relating to "energy from renewable sources", and a clear separation has been made between hydro power and other renewable sources. (See Sections 3,2, 3.4, 5.5, 5.6 & 5.11)
- 16. <u>Allocation of depletion</u>. There is often a distinction that can be made between the extractor and the owner of natural resources, particularly for mineral and energy resources. Thus, there is the potential to partition the flows related to the resources

between two economic units. If depletion is considered as a cost against the income of the extractor (as it is in the Central Framework), any partitioning of flows leads to a complex series of entries in the sequence of accounts. Some feedback indicated remaining concerns with the proposed entries and one response proposed an alternative set of accounting entries (which did not treat depletion as a cost against the income of the extractor). The Editorial Board determined that the treatment in the draft should remain but further explanation of the treatment has been introduced. (See Section 5.5)

- 17. <u>Scope of mineral and energy resources</u>. The draft for global consultation noted that the measurement boundary for mineral and energy resources should be known deposits in physical terms and resources in Class A (Commercially Recoverable Resources) in monetary terms a scope that aligns best to that described in SNA. These boundaries have been retained. The suggestion from one agency to widen the boundary in physical and monetary terms to encompass all mineral and energy resources (i.e. beyond known deposits) was not accepted. (See Section 5.5)
- 18. <u>Land cover account</u>. A response indicated that the text on accounting for land would be stronger with the inclusion of examples of land cover accounts. This suggestion was endorsed by the Editorial Board and new text and tables have been incorporated in Section 5.6.

Miscellaneous issues

- 19. Other issues on which the text has been clarified based on feedback from global consultation include:
 - the flows of natural resource residuals
 - the flows associated with consumer durables
 - the treatment of goods for repair and merchanting in the context of recording physical flows
 - the flows of solid waste
 - the definition of emissions and related flows
 - the treatment of scrapped produced assets
 - the classification of activities related to renewable energy
 - the treatment of R&D in EPEA
 - the description of net present value
 - the presentation of classifications for land use and land cover
 - the accounting for carbon in timber resources
 - the valuation and measurement of aquatic (fish) resources
 - the distinction between cultivated and natural biological resources
 - the recording of hydropower