



## Economic and Social Council

Distr.: General  
15 December 2009

Original: English

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### Statistical Commission

#### Forty-first session

23-26 February 2010

Item 3 (h) of the provisional agenda\*

**Items for discussion and decision: environmental accounting**

### Committee of Experts on Environmental- Economic Accounting

#### Note by the Secretary-General

In accordance with a request of the Statistical Commission at its fortieth session (see E/2009/24, chap. I.A), the Secretary-General has the honour to transmit the report of the Committee of Experts on Environmental-Economic Accounting. The report elaborates the mandate and governance of the Committee of Experts and describes the progress made in its work, in particular with regard to the project on the revision of the System of Environmental-Economic Accounting. The report presents an update on the process for the completion of the international recommendations for water statistics and discusses the progress on the implementation strategy for the System of Environmental-Economic Accounts for Water and contains points for discussion.

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\* E/CN.3/2010/1.



## Report of the United Nations Committee of Experts on Environmental-Economic Accounting

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## I. Introduction

1. At its fortieth session, held from 24 to 27 February 2009, the Statistical Commission:

(a) Welcomed the report of the Committee of Experts on Environmental-Economic Accounting<sup>1</sup> and expressed its appreciation to the Committee for the progress that it had made in its work;

(b) Expressed its full support for the project on the revision of the System of Environmental-Economic Accounting (SEEA), acknowledged with appreciation the work done by the London Group on Environmental Accounting, the Oslo Group on Energy Statistics and others and recognized the urgency of completing the SEEA handbook as soon as possible;

(c) Noted that there were differing views regarding the proposed expansion of the mandate of the Committee to include environment and climate change statistics and requested the Committee to review its mandate, terms of reference and governance structure to reflect the focus of its work on environmental-economic accounting and its role in environment and climate change statistics;

(d) Considered that the establishment of an advisory group on environmental-economic accounting and environment statistics was not necessary at that time, agreed that the Committee would need to receive advice on substantive issues and recommended that technical panels be convened, as necessary, on an ad hoc basis;

(e) Requested the Committee to submit the revised mandate, governance and terms of reference to the Bureau of the Commission for review and to the Commission for further consideration at its forty-first session;

(f) Also requested the Committee to develop a programme of work outlining its priorities and to disseminate it widely;

(g) Reconfirmed that the revision of SEEA is the highest priority of the Committee;

(h) Noted the central role of national statistical offices in the coordination and production of environmental-economic accounts, but also recognized the need for countries to work with other agencies of government that may be the main collectors of data on particular topics;

(i) Took note of the resource constraints of the project on the revision of SEEA, appreciated the offers made by Member States and international organizations and encouraged all Member States to contribute to the project in cash and/or in kind;

(j) Noted the request from countries to translate the System of Environmental-Economic Accounting for Water (SEEA-Water), the System of Environmental-Economic Accounting for Energy (SEEA-Energy) and the System of Environmental-Economic Accounting for Material Flow Accounts (SEEA-MFA), as soon as they become available, into the official languages of the United Nations as quickly as possible;

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<sup>1</sup> E/CN.3/2009/7.

(k) Encouraged the Committee to develop a strategy for capacity-building in the field of environmental-economic accounting.

2. The present report is organized as follows: (a) the mandate and governance of the Committee of Experts is elaborated in section II; (b) the progress of work of the Committee, in particular on the project on the revision of SEEA and the drafting of the SEEA subsystems on energy and material flow accounting is contained in section III; (c) the activities of groups working within the Committee's mandate on the development of relevant environment, energy and other statistics that support environmental-economic accounting are reported on in section III; (d) the completion of the international recommendations for water statistics and progress in the implementation of SEEA-Water is described in section IV; and (e) the points for discussion for the Commission are presented in section V.

## **II. Mandate and governance of the Committee of Experts on Environmental-Economic Accounting**

3. At the request of the Statistical Commission at its fortieth session, the Committee of Experts discussed its mandate, governance and programme of work during its fourth meeting, which took place in New York from 24 to 26 June 2009. A summary of the agreed mandate, governance and programme of work are presented herein. Additional details are presented in a background document to the forty-first session of the Statistical Commission.

4. It was agreed that the mandate of the Committee would encompass environmental-economic accounting and supporting statistics. "Supporting statistics" is intended to include relevant environment, energy and other statistics that support environmental-economic accounting.

5. The Committee also agreed to not explicitly mention climate change in the scope of the statistics covered. It agreed instead to present climate change as an example of the applications of SEEA, with particular regard to the area of work on the formulation of a statistical response to emerging policy issues.

6. In addition, the Committee agreed that the text describing the relationship between it and other groups working within the scope of its mandate should be fine-tuned to take into account that some groups may have their own mandate and governance.

7. The Committee agreed on a programme of work in environmental-economic accounting and supporting statistics organized according to the following six areas: (a) coordination, to foster collaboration, integration and complementarity of programmes; (b) methodological development for normative statistical standards and other research, to oversee development of standards and other methodological documents; (c) development of databases, to ensure databases are based on international statistical standards and international recommendations; (d) implementation and statistical capacity-building, to develop concerted implementation strategies encompassing relevant supporting statistics and their integration in SEEA; (e) promotion, to mainstream the environmental-economic accounting and relevant supporting statistics in the statistical systems; and (f) formulation of a statistical response on emerging policy issues, to engage prominently in the international agenda in articulating a coordinated statistical

response, for example on climate change, sustainability and natural resources management.

8. The Committee reconfirmed that the revision of SEEA remains the highest priority on its programme of work. The subsystems of SEEA, including SEEA-Energy and SEEA-MFA, are also part of its programme of work. The Committee reiterated that the SEEA subsystems should be elaborations of the SEEA overarching system and be fully consistent with it. Moreover, the conceptual development of the subsystems should provide clear synergy with the revision of SEEA as the overarching system. The programme of work includes a list of outputs, timeline, organization responsible for the outputs and the priority of outputs in the short- and medium-term. The programme of work is presented in a background document to the forty-first session of the Statistical Commission in February 2010.

### **III. Progress of work of the Committee of Experts**

9. Progress of work on the project on the revision of SEEA, the drafting of the subsystems of SEEA-Energy and SEEA-MFA and report on the activities of the various groups working within the mandate of the Committee of Experts are presented below.

#### **A. Revision of the System of Environmental-Economic Accounting**

10. The project management framework for the revision of SEEA detailing elements and phases of the revision process of SEEA was presented as a background document to the fortieth session of the Statistical Commission in February 2009. The document will be updated to reflect the changes in the governance of the project as presented in the present report. It will also include the details of the process for completing the revised SEEA and its chapter structure.

11. The Committee reiterated that the revised SEEA will consist of three volumes: volume 1 consisting of the international statistical standard; volume 2 consisting of those topics for which consensus could not be reached but which are highly policy relevant; and volume 3 consisting of the applications of the accounts presented in volumes 1 and 2. Furthermore it is reaffirmed that the issues for volume 1 of the revised SEEA should be completed by the end of 2009. A global review process on the recommendations for the issues related to volume 1 is envisaged in the first half of 2010.

12. This subsection of the report presents the progress on resolving the issues for volume 1 of the revised SEEA, the funding of the project and an outline of future work.

##### **1. Progress on resolving the issues in the issue list for the revision of SEEA**

13. The London Group on Environmental Accounting met in Wiesbaden, Germany, from 30 November to 4 December 2009. During 2008 and 2009, the Group has addressed all 21 issues in the issue list and has reached an agreement on 18 issues. The remaining three issues require additional electronic consultation but it is expected that all issues will be resolved by early 2010. Below is an assessment of progress made for issues grouped according to the main topics. A detailed report on

progress made by the London Group on all issues is provided to the forty-first session of the Statistical Commission as a background document.

### **Physical flow accounting**

14. The meeting in Wiesbaden reached agreement on the definition and classification of physical flows. An outcome paper is being prepared reflecting some further refinement of the waste definition. Importantly, this resolution maintains full harmonization of material flow accounting with SEEA.

15. The revised SEEA volume 1 will present bridge tables explaining differences in underlying definitions and classifications between energy balances and accounts. Likewise, the revised SEEA will explain differences between air emission statistics (following the reporting rules of the Intergovernmental Panel on Climate Change) and air emission accounts following the System of National Accounts residence principle.

16. The classification of energy products in SEEA will be aligned to that of the international recommendations on energy statistics. This means that standard accounts involved cannot be finalized until those international recommendations are completed, which is expected to take place in February 2010.

### **Monetary accounting**

17. Discussion on both the environment industry and on environmental taxes has now been brought to a close and outcome papers are being prepared. An outcome paper on the environmentally motivated transfers, which include not only subsidies but also investment grants and social transfer in kind whose purpose is the protection of the environment, is being developed. It will be submitted for further consultation to the London Group by early 2010.

18. The London Group decided to follow the 2008 System of National Accounts on the treatment of permits to emit carbon although it acknowledged that this may lead to non-recording of permits derived from clean development mechanisms and joint implementation. An outcome paper is being prepared describing standard tables on flows and stocks of permits for inclusion in volume 1 of the revised SEEA.

19. The London Group agreed at its meetings in Bruxelles and Canberra with the recommendation to combine the Classification of Environmental Protection Activities and the Classification of Resource Use and Management Activities and Expenditure to produce the Classification of Environmental Activities and Expenditures as stated in the outcome paper. The proposal is being considered for approval by the United Nations expert group on international economic and social classifications.

### **Depletion**

20. Issues related to the depletion of natural resources are now resolved. In volume 1 of the revised SEEA the depletion of natural resources will be accounted for in a similar way as consumption of fixed capital. This means that net income and net saving in the revised SEEA are adjusted for the value loss of natural resources due to extraction. The London Group recommended that the outcome papers also be circulated to the national accounts community.

21. The London Group agreed that losses in the productivity of the land as a result of soil depletion and degradation should be recorded in the production account rather than in the other changes in volume accounts, similar to the recording of depletion of renewable and non-renewable resources. However, the Group considered it important to obtain further understanding about the feasibility of measuring soil depletion and degradation before deciding in early 2010 on whether to include soil depletion and degradation in volume 1 or 2.

### **Asset accounting**

22. The London Group has now resolved a range of issues covering different aspects of various natural resources such fish stocks, forestry, land, soil and water. However, the precise delineation of water resources needs further clarification. One important remaining issue concerns the overall asset classification in SEEA. The London Group agreed that ideally the entire SEEA (vols. 1 and 2) should start measuring assets from the perspective of ecosystems. Although this would not entail a change in the coverage of assets in the SEEA-2003, it would imply a reorganization of the structure of the classification of assets. However, the feasibility of this proposal needs to be further explored. For this purpose the paper presented at the Wiesbaden meeting will be restructured in the format of a questionnaire, to help guiding the discussion starting from the higher order issues (e.g. definition of asset) to the lower order issues. The London Group considered that consultation should not only involve the London Group but also, for example, experts of the former Canberra 2 Group.

23. The London Group discussed the general understanding and measurement of carbon sequestration by forests and soils. The Group decided that changes in carbon binding of forests will be presented as part of the forest accounts in SEEA volume 1. Due to various measurement uncertainties, accounts covering complete carbon cycles will be presented in volume 2.

24. The Group agreed on the principles of land use and cover accounts and classifications. Outcome papers on the land use classification will be produced by the end of January 2010 and on land cover by April 2010.

25. Regarding renewable energy resources the London Group agreed that their resource rents are expected to be reflected in the value of associated land. This means that SEEA should not include separate entries in the balance sheets for renewable energy resources since this would lead to double counting. An outcome paper is being prepared and the issue can now be considered resolved.

## **2. Funding of the project**

26. Member States and international organizations offered their funding contributions at the fortieth session of the Statistical Commission. As a result, the United Nations Statistics Division has established a trust fund for the revision of SEEA. At present there is \$80,000 in the trust fund but an additional \$280,000 has been firmly committed by countries and international organizations and is expected to be in the trust fund in early 2010. This amounts to approximately 23 per cent of the total estimated cost of the project.

27. Because it took some time to be assured of sufficient funds, it was not possible to recruit the editor during 2009. Nevertheless, the Australian Bureau of Statistics

made one of his staff members available to work as the interim editor from May 2009. During this period the interim editor has completed an annotated outline of volume 1 of the revised SEEA; produced a set of proposed tables for volume 1 of the revised SEEA; drafted a number of issues papers; participated in two meetings of the London Group; and commenced drafting of chapter text for the revised SEEA.

28. The interim editor will be available to continue working in that role until February 2010. At that time, it is expected that the editor will be appointed.

### **3. Future work**

29. During 2010 and 2011, outcome papers presenting the recommendations of the London Group on Environmental Accounting will be circulated by the secretariat of the Committee of Experts to all countries for comments. Recommendations may also be discussed at meetings of the regional commissions and at other international meetings with representation from the statistical community as well as academia, scientific and business accounting communities.

30. During the same period, the editor will draft the chapters of volume 1 assisted by an editorial group that will be created, consisting of a limited number of experts from countries and international organizations. The draft chapters will be circulated by the secretariat of the Committee of Experts, upon approval by the Committee, to all countries for comments. The secretariat will consolidate the comments and the editor in consultation with the editorial group will prepare revised chapters. It is expected that a complete draft for volume 1 of the revised SEEA will be available in the first half of 2011 and circulated upon approval by the Committee for comments to all countries. Volume 1 of the revised SEEA will then be submitted to the forty-third session of the Statistical Commission in 2012 for its adoption as international statistical standard.

31. During the period of 2010-2011, subgroups of the London Group will draft technical papers following the three policy themes identified for volume 3, namely, climate change, sustainability and resource management. Furthermore, other applications of SEEA, for example for the development of the ecological footprint, are currently being explored.

32. It is also expected that the group led by the World Bank on the valuation of ecosystems assets and degradation will provide recommendation on issues related to valuation by the end of 2010 and the group led by the European Environment Agency will agree on a classification of ecosystem services and assets that will serve as an input in volume 2. The parts of volume 3 related to volume 1 will be submitted to the Statistical Commission as a background document. The editing of volume 2 and complete volume 3 is expected to be completed by mid-2012 before undergoing global consultation and submission to the Statistical Commission in 2013.



## **B. Drafting of the subsystems of the System of Environmental-Economic Accounting for Energy and the System of Environmental-Economic Accounting for Material Flow Accounts**

### **1. System of Environmental-Economic Accounting for Energy**

33. The Committee discussed the progress made with solving the issues related to energy accounts and the drafting of SEEA-Energy. All the issues related to energy accounts have been resolved. The work on SEEA-Energy has served as the input in addressing the issues on the issue list for the revision of SEEA. Draft chapters on physical and monetary asset accounts and physical and monetary flow accounts have been completed. It is expected that SEEA-Energy will be submitted to the forty-second session of the Statistical Commission in 2011. The process for finalizing SEEA-Energy are presented in the paper<sup>2</sup> discussed at the fourth meeting of the Committee of Experts.

34. The Committee urged that the preparation of the international recommendations on energy statistics and SEEA-Energy be done in close cooperation in order to ensure, to the maximum extent possible, coherence between the two standards, including their scope.

### **2. System of Environmental-Economic Accounting for Material Flow Accounts**

35. The Committee of Experts discussed the progress of work in the preparation of SEEA-MFA. It acknowledged the contribution of the work done in the context of SEEA-MFA on addressing the issues on the classification of physical flows, including waste, and the harmonization of material flow accounting practices with SEEA concepts, including the recording of cultivated biological resources.

## **C. Coordination**

36. As mandated by the Statistical Commission, the Committee of Experts discussed the progress of activities carried out by city groups and other technical expert groups working within the mandate of the Committee of Experts. These include activities of the London Group on Environmental Accounting, the Oslo Group on Energy Statistics, the Intersecretariat Working Group on Environment Statistics, the Organization for Economic Cooperation and Development (OECD)/Eurostat Task Force on emission permits in the national accounts and the work of OECD and the Economic Commission for Europe (ECE) related to the work programme of the Committee.

### **1. London Group on Environmental Accounting**

37. The London Group on Environmental Accounting met in Canberra from 27 to 30 April 2009 and in Wiesbaden, Germany, from 30 November to 4 December 2009 to discuss and bring to a close all issues in the issue list for volume 1 of the revised SEEA.

38. The London Group expressed appreciation for the leadership of the Chair and re-elected Mark de Haan of Statistics Netherlands for a new term as Chair of the

<sup>2</sup> See <http://unstats.un.org/unsd/envaccounting/ceea/meetings/UNCEEA-4-23a.pdf>.

Group. The London Group discussed its role in the next few years. The Group will continue to play an important role in reviewing the chapters of volume 1 of the revised SEEA and ensuring coherence across chapters. While it may not remain closely involved in the development of volume 2, it would still oversee its development. Furthermore, it is expected that the London Group will continue to be involved in the development of volume 3.

## **2. Oslo Group on Energy Statistics**

39. The Oslo Group on Energy Statistics met in Ottawa from 2 to 6 February 2009 to review the preliminary drafts and outlines of the chapters for the international recommendations on energy statistics. The meeting agreed on steps to be taken to further progress the work on IRES in 2009 with the aim of presenting the international recommendations to the forty-second session of the Statistical Commission in 2011 for adoption.

40. The Oslo Group is concerned with the development of energy statistics as an integrated element of national official statistics and with ensuring that national systems for official energy statistics become coherent with international standards and reporting. In 2009 the writing process related to the continued work on the international recommendations on energy statistics, and other topics relevant for the development of official energy statistics, was advanced by writing teams consisting of volunteering members. In order to ensure that a complete draft of the international recommendations is available in time for the next Oslo Group meeting, which will take place in Cork, Ireland, from 1 to 4 February 2010, two virtual meetings were held as part of the consultation process.

41. At the Oslo Group meeting in Ottawa in February 2009, it was decided to establish a group to contribute to the drafting of the chapter on energy balances. Statistics Norway hosted the first workshop in Oslo. The aim was to identify the main elements necessary to provide a proposal for an international harmonized balance; set up a workplan for the drafting of the chapter; and share responsibilities for the drafting. On the basis of the conclusions formulated by the group on a number of issues discussed during the meeting, a draft outline was prepared and submitted for discussion during the first virtual meeting.

42. The Oslo Group has discussed the second draft of harmonized definitions on energy products and flows developed by the Intersecretariat Group (InterEnerStat) and prepared comments at the fourth meeting of InterEnerStat held in Paris in October 2009. The harmonized definitions will be very important for the international recommendations on energy statistics as, inter alia, they will serve as the basis for the development of the new standard international energy classification. A draft version of the standard international energy classification, to become a part of the international recommendations on energy statistics, was discussed during the second virtual meeting.

43. The communication between the Oslo Group members during virtual meetings and in-between meetings is ensured by the Oslo Group website administered by the secretariat of the Oslo Group at Statistics Norway. The website is a forum for discussion among members and serves as a support in the drafting process of the international recommendations on energy statistics and the accompanying Energy Statistics compilers manual.

### **3. OECD work related to the work programme of the Committee of Experts**

44. The work carried out by OECD relevant for the programme of the Committee of Experts includes the following two areas: work on material flows and resource productivity and the review of the OECD state of the environment questionnaire.

45. The work on material flows and resource productivity is undertaken in response to the recommendations of the OECD Council on material flows and resource productivity (April 2004 and March 2008). In 2009 and 2010, particular attention is given to the further development of the information base and of related indicators, and to the preparation of a fact-based report on material flows and resource productivity in OECD countries and beyond.

46. The review of the OECD state of the environment questionnaire, in close cooperation with Eurostat, the United Nations Statistics Division, the United Nations Environment Programme (UNEP) and the Intersecretariat Working Group on Environment Statistics was launched in 2009. It takes into account recent developments in the field of environment statistics and environmental accounting. A restructured and updated set of questionnaire sections will be available as of 2011.

### **4. Intersecretariat Working Group on Environment Statistics**

47. The Intersecretariat Working Group on Environment Statistics has prepared a report to the Statistical Commission at its forty-first session. Activities of the Group are discussed in document E/CN.3/2010/10.

### **5. The OECD/Eurostat task force on emission permits in national accounts**

48. The task force was established by OECD and Eurostat under the auspices of the Intersecretariat Working Group on National Accounts. It consists of national experts and experts from international bodies responsible for relevant standards (government finance statistics, balance of payments, government revenue statistics, SESA, etc.) as well as tax experts. It has met twice (July and November 2009), and it is now in the process of completing its final report, which will be presented to the Intersecretariat Working Group on National Accounts. The report will identify the main recording options open to national accountants, present worked examples, and describe their advantages and disadvantages.

49. The task force took as its starting point the 2008 System of National Accounts and the results of a discussion at the Advisory Expert Group on National Accounts. The 2008 System of National Accounts clearly recommends that payments for permits relating to emission into the atmosphere should be recorded as taxes. Members of the task force generally identify the appropriate tax to be an "other tax on production" to be recorded at the time of emission.

50. The task force has concentrated its attention on the statistical recording of cap and trade schemes, though it has also considered other types of permits. Two important questions were raised by the task force: how to value the taxes to be recorded; and how to deal with cross-border trade in permits.

51. The task force has identified several options that could be applied, their strengths and weaknesses. The main two options under consideration include: (a) the split asset option, where the permit's value is divided between a financial asset and a non-financial asset, the latter representing the change in value of the permit as it is

traded; and (b) the financial asset option, where the issuing Government retains an ongoing liability, which varies according to the market price of the permit. In the former case the tax to be recorded should be valued at the amount originally paid for the permit, whereas in the latter case the tax should be valued at the prevailing market price of the permit at time of emission. Given the observed fluctuations in the market price of permits, it is possible that these amounts are quite different.

52. The task force identified the need for accounting entries when a permit is surrendered in a different country from where it was issued. It also tentatively identified a possible recording option where the taxes to be recorded are paid to an international organization operating the scheme, though this remains to be further developed for the task force's final report.

#### **6. Joint Economic Commission for Europe/Eurostat/OECD task force on measuring sustainable development**

53. In October 2008, the Bureau of the Conference of European Statisticians established a joint ECE/Eurostat/OECD task force on measuring sustainable development to continue the work of the previous working group on statistics for sustainable development. The task force will further pursue the conceptual development of the capital approach in identifying indicators to present the long-term dimension of sustainable development. In addition, indicators to present the distributional aspects under each capital indicator will be considered in order to respond to the needs of the policymakers. The work will focus on those indicators where further research is most likely to result in improved statistical concepts or methods.

54. The first meeting of the joint ECE/Eurostat/OECD task force was held on 23 and 24 September 2009 in Geneva. The meeting was attended by invited experts and representatives from Eurostat, the European Commission, the World Bank, the United Nations Division for Sustainable Development, ECE and OECD. The work of the task force will strongly link to parallel work undertaken by other institutions, such as the most recent recommendations in the report issued by the Stiglitz Commission, the European Commission's initiative "GDP and Beyond" and the OECD project on "Measuring the progress of societies".

#### **7. ECE intersectoral task force on environmental indicators**

55. In 2009 a task force on environmental indicators was established by two ECE sectoral committees, the Committee on Environmental Policy and the Conference of European Statisticians. The main goal of the joint activity is to improve environmental data production and promote comparability of environmental statistics in the East European countries, Central Asian countries and South-East European countries. Experiences in producing environmental indicators in key areas such as clean air, energy, drinking water and waste were exchanged during the first meeting of the task force, held in September 2009 in Geneva. The United Nations Statistics Division has also been involved. The work will continue in 2010 to review further indicators.

#### **8. Activities on climate change statistics of the Economic Commission for Europe**

56. The Bureau of the Conference of European Statisticians (CES) has been considering a possible work related to climate change statistics. The Bureau has asked the ECE secretariat to explore the degree to which national statistical offices

are involved in climate change related work and in compiling the greenhouse gas inventories. In this regard the ECE secretariat will undertake a survey of the CES members to be carried out in spring 2010 in cooperation with Eurostat and the United Nations Statistics Division. The purpose of the survey will be to identify common concerns and needs to be addressed at the international level. In addition, the Economic Commission for Europe secretariat was asked to explore the possibilities to contribute to the ECE climate change activities in areas like transport, energy, forestry and housing, possibly with other sectoral committees of the Economic Commission for Europe. The work of the Conference of European Statisticians in this area will be discussed again at the November 2010 meeting of its Bureau.

#### **IV. Drafting of the international recommendations for water statistics and implementation of the System of Environmental-Economic Accounting for Water**

57. Section A below informs about the progress made in the drafting of the international recommendations for water statistics, which are now completed and will be submitted to the Committee of Experts by the United Nations Statistics Division for onward submission to the Statistical Commission for its adoption. If approval is obtained from the Committee of Experts, the international recommendations for water statistics will be provided as a background document to the Statistical Commission at its forty-first session. Section B below provides an assessment of the status of the implementation of SEEA-Water since its adoption as interim international statistical standard by the Statistical Commission at its thirty-eighth session in 2007.

##### **A. Drafting of the international recommendations for water statistics**

58. The international recommendations for water statistics are being developed as part of the regular work programme of the United Nations Statistics Division to assist countries in the establishment and strengthening of an information system for water in support of integrated water resources management. In particular, the international recommendations: (a) support the collection, compilation and dissemination of internationally comparable water statistics in countries; (b) support the implementation of the System of Environmental-Economic Accounting for Water (SEEAW); and (c) provide the necessary information for deriving coherent and consistent indicators over time and across countries either directly from an agreed list of data items or resulting from the compilation of SEEAW.

59. The international recommendations for water statistics present a list of recommended and supplementary data items covering a broad range of water statistics needed: to populate the standard tables of SEEAW; to fill in international questionnaires; to compile international water indicators; and to respond to other user needs.

##### **1. Structure of the international recommendations for water statistics**

60. The international recommendations for water statistics are organized into two parts. Part I provides the main concepts on water statistics, including definitions and

classifications of statistical units related to water and a list of recommended data items that countries are encouraged to compile. Part II provides general guidance on the collection and compilation of the water statistics, in particular on data sources, data quality, data collection strategies and dissemination. A number of annexes provide additional reference information in particular on supplementary data items, links of the data items with SEEAW standard tables, links of the data items with commonly used water related indicators and links of the data items with international water questionnaires.

61. The structure of the international recommendations for water statistics is as follows:

Introduction

Part I

Chapter I. Scope of water statistics

Chapter II. Main concepts and frameworks

Chapter III. Statistical units and classifications

Chapter IV. Water data items

Part II

Chapter V. Data collection strategy

Chapter VI. Data sources and methods

Chapter VII. Metadata and data quality

Chapter VIII. Data dissemination

Annexes

62. The structure is similar to that of other recent international recommendations (e.g. the international recommendations for industrial statistics and the international recommendations for distributive trade statistics) but has been tailored to suit the needs of water statistics.

63. Both the SEEAW and the international recommendations for water statistics will be accompanied by compilation guidelines, based on best practices and country examples, on how to collect and compile the data items. It is planned that the compilation guidelines will be a part of a knowledge-base platform on the website of the United Nations Statistics Division. This will enable the guidelines to be easily updated and accessed. The knowledge-base will build on existing functions of the website, for example the searchable archive of publications on environmental-economic accounts and the knowledge base on economic statistics.

64. Together SEEAW, the international recommendations for water statistics and the compilation guidelines will provide a suite of publications for the standard definition, presentation, compilation, analysis and description of water statistics

## **2. Process of development of the international recommendations for water statistics**

65. The international recommendations for water statistics have been prepared by the Statistics Division as part of its work programme under the auspices of the Committee of Experts. Progress on the drafting of the document has been reported

regularly to the Committee of Experts and the Statistical Commission. A reference group consisting of experts in water statistics and water accounting from national statistical offices, water ministries and international organizations was invited to provide comments on the first draft of part I, plus the chapter on indicators from part II, during the period from July to August 2008.

66. The second draft of part I, including the comments received from the reference group and the first draft of some chapters of part II of the international recommendations for water statistics, were discussed at an expert group meeting held in New York from 4 to 6 November 2008. The meeting was attended by experts on water statistics and water accounts from countries and international organizations.

67. The expert group meeting identified the following three issues as needing further work: terminology and definitions surrounding wastewater, inclusion of stocks of soil water in the recommended list of data items, recording of water in artificial reservoir. Issue papers were prepared for the above issues and agreement was reached on the terminology, stock of soil water was moved to the recommended list of data items and an issue paper was prepared for discussion at the fourteenth meeting of the London Group on Environmental Accounting. The latter issue has no consequences for the international recommendations for water statistics, but does for SEEA.

68. A new complete draft of the international recommendations for water statistics was prepared and reviewed by the expert group in July and August 2009. The draft taking into account the comments from the review group was circulated for worldwide consultation to ensure universal relevance, applicability and feasibility of implementation of the international recommendations in October and November 2009. The final draft and the comments received through the worldwide consultation will be submitted first to the Committee of Experts for its approval and onward submission to the Statistical Commission at its forty-first session for adopting part I of the draft international recommendations for water statistics as the international recommendations for water statistics and for endorsing part II as supplementary guidance.

69. The international recommendations are a multipurpose document. Special attention is being paid to ensure that the needs from different communities are reflected in the document in particular with regard to the list of data recommended or supplementary data items.

## **B. Issues in the implementation of the System of Environmental-Economic Accounting for Water and the way forward**

70. The Committee of Experts at its fourth meeting in June 2009 discussed the progress in the implementation of SEEA-Water. Representatives from the World Water Assessment Programme, UN-Water, the Joint-Monitoring Programme, the Global Annual Assessment of Sanitation and Drinking-Water, the Secretary-General's Advisory Board on Water and Sanitation and the regional commissions participated in the discussion on the implementation programme for SEEA-Water. As part of the implementation programme, a range of materials including presentations, country experiences and exercises have been developed to explain

key concepts, data sources and methods. The paper<sup>3</sup> discusses the status of the implementation in greater detail.

### **1. Issues in implementation**

71. The results of the Global Assessment for Water Statistics and Water Accounting<sup>4</sup> show that the number of countries compiling water accounts has increased from 22 to 33 in two years, with an additional 11 countries planning to implement SEEA-Water in the near future. The three most important implementation issues identified are: (a) lack of knowledge and understanding of SEEA-Water; (b) institutional arrangements; and (c) data availability. On the other hand, country visits and training workshops have demonstrated that the physical supply and use tables can be populated very rapidly in some countries.

72. The most pressing issue is data deficiencies. This was acknowledged at the Fifth World Water Forum, which also identified SEEA-Water as a way forward, and noted that strong leadership was needed in enabling legal and institutional arrangements to collect, integrate and disseminate data.

73. A large number of agencies are typically involved in water management and the production of water data, leading to challenges in coordination as well as legal, institutional, technological and other barriers such as conceptual or terminological differences.

### **2. Promotion of SEEA-Water**

74. An important outcome of the promotion activities is that SEEA-Water has been recognized within the water community as part of the way forward, although further promotion is necessary.

75. Continued efforts are being made to demonstrate the usefulness of SEEA-Water to policymakers. To address that need, it is proposed that the United Nations Statistics Division, in cooperation with the Economic and Social Commission for Western Asia and the Economic Commission for Latin America and the Caribbean, develop a brief publication covering the main concepts, illustrated with country examples and addressing key policy issues. It could be published jointly by the World Water Assessment Programme, the Statistics Division and regional agencies and presented at the 2010 World Water Week in Stockholm.

### **3. Ongoing data collection programmes**

76. A range of agencies, including the Statistics Division, UNEP, OECD, Eurostat, the European Environment Agency, the Food and Agriculture Organization of the United Nations (FAO) and others, collect and compile water data from or about countries. Despite a strong demand, the availability of water data at the global level is very poor, and for some countries declining.<sup>5</sup>

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<sup>3</sup> Paper available at: <http://unstats.un.org/unsd/envaccounting/ceea/meetings/UNCCEA-4-16.pdf>.

<sup>4</sup> See the report of the Global Assessment for Water Statistics and Accounts: <http://unstats.un.org/unsd/envaccounting/ceea/assessment.asp>.

<sup>5</sup> See Third World Water Development Report: <http://webworld.unesco.org/water/wwap/wwdr/wwdr3/tableofcontents.shtml>.



77. International questionnaires on water are sent out every two years by the Statistics Division and UNEP covering non-OECD countries and OECD/Eurostat. The Statistics Division/UNEP questionnaire suffers from poor response rates and incomplete data reporting. Data available from the OECD/Eurostat joint questionnaire is also incomplete.<sup>6</sup> Some, but not all, of the SEEA-Water standard tables can be produced based on these questionnaires. In addition, relatively little work is needed to fully harmonize existing questionnaires with terms and definitions from the international recommendations for water statistics, which are fully consistent with the definitions and concepts of SEEAW.

78. Other water-related data collections such as the Global Annual Assessment of Sanitation and Drinking-Water (GLAAS)<sup>7</sup> need to be examined for consistency with SEEA-Water, with a view of full harmonization over the longer term. These terms and definitions include for example financial information for the water supply and sewerage industries. Existing regional and international data collections should be examined to see if they can contribute to the production of a more comprehensive suite of water data or to fill current gaps.

79. The 2008 GLAAS report presents the concept of a global, periodic, comprehensive reporting mechanism to inform policymaking in the sanitation and drinking-water sectors. The pilot study identified many problems with current data.

80. Aspects of improving the availability of data for indicators have been the subject of two groups coordinated by the World Water Assessment Programme.<sup>8</sup> Although focusing mostly on identifying data items useful for indicators in the World Water Development Report, they have also touched on longer term needs to improve data in countries.

#### 4. Way forward

81. International agencies and countries need to work together to raise awareness and understanding of both the international recommendations for water statistics and SEEA-Water, and need to develop the capacity of countries to implement the international recommendations and SEEA-Water. In many countries this will require significant financial resources.

82. The problem of data availability is widely recognized. There appears to be a core group of countries, regional and international agencies willing to address the problem, but no established process for taking the issue forward. A network of experts under the auspices of the Committee of Experts, building on the work of the World Water Assessment Programme task force and expert group as well as the United Nations Expert Group on Water Statistics and the water subgroup of the London Group would be a first step towards creating such a process.

<sup>6</sup> See Water Resources Across Europe: [http://www.eea.europa.eu/publications/water-resources-across-europe/at\\_download/file](http://www.eea.europa.eu/publications/water-resources-across-europe/at_download/file).

<sup>7</sup> See the Global Annual Assessment of Sanitation and Drinking-Water: [http://www.who.int/water\\_sanitation\\_health/glaas/en/](http://www.who.int/water_sanitation_health/glaas/en/).

<sup>8</sup> The expert group on indicators, monitoring and databases, and the United Nations water task force on indicators.

## **V. Points for discussion**

83. **The Statistical Commission may wish to express its views on:**

- (a) **The mandate, governance, terms of reference and programme of work of the Committee of Experts (sect. II);**
  - (b) **The progress made on the revision of the SEEA and the future work;**
  - (c) **The process of preparation of the International Recommendations for Water Statistics Part I as international recommendations for water statistics and Part II as supplementary guidance.**
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