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Items for discussion and decision: environment statistics

Revision of the Framework for the Development of Environment Statistics

Report of the Secretary-General

Summary

The present report was prepared at the request of the Statistical Commission at its forty-third session (see E/2012/24, chap I.B). The report describes the revision process of the Framework for the Development of Environment Statistics that started in 2010 and presents the outcome of the global consultation on the Framework as well as the results of the pilot test of the core set of environment statistics. It gives a detailed description of the revised Framework, which is a multi-purpose organizing framework for environment statistics, and introduces a blueprint for action for applying the revised Framework in countries. Points for discussion are included in paragraph 39. The Commission is invited to endorse the revised Framework and the blueprint for action, including the establishment of the Standing Expert Group on Environment Statistics.

* E/CN.3/2013/1.



I. Introduction

1. At its forty-first session, held from 23 to 26 February 2010, the Statistical Commission adopted decision 41/107 (see E/2010/24, chap. I.B), in which it endorsed the programme of work for the revision of the Framework for the Development of Environment Statistics and the development of a core set of environment statistics.

2. At its forty-second session, held from 22 to 25 February 2011, in decision 42/115 (see E/2011/24, chap. I.B), the Commission took note of the progress report on the revision process.

3. At its forty-third session, held from 28 February to 2 March 2012, the Commission in decision 43/106 (see E/2012/24, chap. I.B).

(a) Welcomed the report on the revision of the Framework for the Development of Environment Statistics (E/CN.3/2012/9), and acknowledged the significant progress achieved in the revision process;

(b) Approved the general direction as described in the document, and the work done so far on the chapters of the Framework for the Development of Environment Statistics and the core set of environment statistics as presented in the background document;

(c) Reiterated the importance of the Framework for the Development of Environment Statistics as a tool for developing environment statistics to inform on the state of the environment, support policymaking, assist in the compilation of indicators and provide source statistics for the System of Environmental-Economic Accounting;

(d) Supported the finalization of the process, which is to include further consultations with the Expert Group on the Framework for the Development of Environment Statistics, other experts, international organizations and specialized agencies followed by a global consultation with Member States;

(e) Endorsed the pilot process for the core set of environment statistics, recognizing that some Member States have already expressed their willingness to take part as pilot countries;

(f) Noted the need for continued capacity-building for the development of environment statistics at the national level during the implementation phase of the Framework for the Development of Environment Statistics and the core set of environment statistics; and

(g) Requested that the Framework for the Development of Environment Statistics and the core set of environment statistics, together with a plan of implementation, be presented for final adoption by the Statistical Commission at its forty-fourth session in 2013.

4. Section II of the report describes activities carried out in response to the Commission's decisions; section III provides an overview of the revised Framework; section IV outlines the implementation programme; and section V contains points for discussion by the Commission.

II. Activities carried out in response to the decisions of the Commission

5. The first draft of the revised Framework for the Development of Environment Statistics was prepared by the Statistics Division based on a thorough review and analysis of: (a) lessons learned in the implementation of the 1984 Framework; (b) scientific, conceptual and methodological developments in environment statistics; (c) main policy developments in the fields of the environment and sustainable development; (d) major multilateral environmental agreements; (e) environmental and sustainable development indicators; and (f) country practices. Subsequent drafts were subjected to several rounds of wide consultations, including with the Expert Group on the Revision of the Framework for the Development of Environment Statistics and other relevant bodies, including at the global level, and included the results of the pilot testing of the core set of environment statistics in countries.

A. Expert Group on the Revision of the Framework for the Development of Environment Statistics

6. The revised Framework was prepared by the Statistics Division in close cooperation with the Expert Group on the Revision of the Framework for the Development of Environment Statistics, which was convened in accordance with a decision of the Statistical Commission in 2010. The Expert Group comprised 24 countries and 11 international, regional, intergovernmental and non-governmental organizations and specialized bodies.¹ The Expert Group meeting was chaired by Ms. Iva Ritzelova, President of the Czech Statistical Office.

7. The Expert Group contributed issue papers that were included in the drafts, held several rounds of electronic consultations and met four times during the period 2010-2012 to review, discuss and agree on the drafts of the revised Framework. At its fourth meeting (5-7 November 2012), the Expert Group reviewed the detailed comments received during the global consultations on the drafts and on the pilot test of the core set of environment statistics and agreed on the final changes. The Expert Group endorsed the revised Framework and recommended that it be submitted to the Statistical Commission at its forty-fourth session, in February 2013, for endorsement. It also recommended the establishment of a Standing Expert Group on Environment Statistics to assist the Statistics Division in future methodological work and other aspects of the application of the revised Framework in countries (see para. 34 below). Upon having completed its work, the Expert Group on the Revision of the Framework for the Development of Environmental Statistics was disbanded.

¹ The Expert Group included experts from Australia, Austria, Bangladesh, Belize, Botswana, Brazil, Canada, the Czech Republic, Estonia, Finland, India, Indonesia, Italy, Jamaica, Mauritius, Mexico, the Netherlands, Nigeria, Norway, the Philippines, Qatar, Suriname, the United Arab Emirates, the United States of America, the European Environment Agency, the European Commission Joint Research Centre, Eurostat, the World Resources Institute, the Food and Agriculture Organization of the United Nations, the Economic Commission for Latin America and the Caribbean, the Economic Commission for Africa, the United Nations Environment Programme, the Development Policy and Analysis Division of the United Nations Secretariat and the United Nations Committee of Experts on Environmental-Economic Accounting.

B. Consultation with other bodies

8. As part of the revision process, consultations and coordination with other relevant bodies were held in order to avoid an overlap of activities and to ensure consistency in respect of concepts and definitions. In particular, the drafts were presented and discussed at the meetings of the Committee of Experts on Environmental-Economic Accounting. The main concepts, objective, scope, structure and contents of the Framework for the Development of Environment Statistics and the core set of environment statistics were also presented and discussed at a number of international, regional and subregional conferences, seminars and national workshops.

C. Pilot test of the core set of environment statistics

9. In accordance with the request of the Statistical Commission, the core set of environment statistics was subjected to pilot testing in August and September 2012. In total, 25 countries and two international organizations participated in the pilot test.²

10. The pilot was carried out through the use of an online survey. The survey was also made available in Excel and Word formats for respondents unable to access the online version. The pilot was designed to serve a number of objectives, including to reveal the extent to which the environment statistics within the core set were relevant at the national level and were capable of prioritizing the environment statistics of the countries. It assessed, for each participating country, how well the statistics in the core set represented those required by national environmental policies and multilateral environmental agreements. It served as a means of improving and refining the allocation of statistics in the core set. Additionally, the pilot was arranged in such a way as to facilitate comparison between the environment statistics contained in its list and those produced at the national level, in order to identify where the two sets of statistics were aligned and where there were gaps. Simultaneously, respondents were able to deliberate on the primary reasons for any of the gaps that were identified and to identify any additional statistics that they wished to see included. The assessment was carried out through collaboration among national agencies and stakeholders involved in the production or use of environment statistics at the national level.

11. Responses from the pilot were unanimously positive in respect of the relevance and usefulness of the core set and provided valuable input for further refining and prioritizing the statistics contained in the core set in particular and in the revised Framework in general. A detailed analysis of the pilot will be submitted to the Commission as part of a background document on the consultation process.

12. In addition to the pilot of the core set, the revised Framework was used successfully in two countries (Bhutan and Qatar) in 2012 for developing a work programme on environment statistics.

² Belize, Botswana, Brazil, Cameroon, China, Costa Rica, Côte d'Ivoire, Cuba, Ecuador, Hungary, India, Italy, Jamaica, Mauritius, Mexico, Netherlands, Nigeria, Philippines, Qatar, Sri Lanka, Sweden, Venezuela (Bolivarian Republic of), Viet Nam, United Arab Emirates, United States of America, Eurostat and the United Nations Environment Programme.

D. Global consultation on the revised Framework

13. Holding a worldwide consultation with countries has been an important element of the revision process to ensure that the views of countries are fully taken into account before the finalization of the Framework. The revised Framework was submitted to all countries for the global consultation, which was held in September and October 2012. A total of 70 responses were received from countries and organizations providing strong support for the revised Framework. A large number of detailed comments were received, and they constituted an excellent basis for the final review of the draft by the Statistics Division and the Expert Group. A detailed analysis of the responses, including the list of countries and organizations that responded to the global consultation, will be submitted to the Commission as part of a background document on the consultation process.

III. Overview of the revised Framework for the Development of Environment Statistics

14. The revised Framework is a multipurpose conceptual and statistical framework that is comprehensive and integrative in nature and marks out the scope of environment statistics. It provides an organizing structure to guide the collection and compilation of environment statistics at the national level. It brings together data from various relevant subject areas and sources. It is broad and holistic in nature and covers the issues and aspects of the environment that are relevant to policy analysis and decision-making by being applicable to cross-cutting issues such as climate change.

15. The revised Framework is a flexible, multipurpose tool that adapts to the needs and priorities of countries and different users. It helps to identify the range of statistics relevant to decision-making and facilitates a synthesized presentation of data. It is coherent with other existing statistical frameworks and classifications and thus promotes sound concepts.

16. Although the revised Framework is, at any stage of its development, relevant to countries and recommended for their use, its primary objective is to guide them in the early stages of the development of their environment statistics programmes and to provide a firm foundation for the long-term development of official environment statistics.

17. The revised Framework is structured in a way that allows links to economic and social domains. It seeks to be compatible with other state-of-the-art frameworks and systems, both statistical and analytical, such as the System of Environmental-Economic Accounting (SEEA), the Driving Force-Pressure-State-Impact-Response (DPSIR) Framework, or the Millennium Development Goals and other indicator frameworks.

A. Scope and structure of the revised Framework

18. The scope of the revised Framework covers the biophysical aspects of the environment and the aspects of the social and economic sphere (human subsystem) that directly influence, or are influenced by, the state and quality of the

environment. It includes interactions within the environment, and among the environment, human activities and natural events.

19. The revised Framework organizes environment statistics in a simple and flexible manner into components, subcomponents, statistical topics and individual statistics, using a multilevel approach.

20. The first level of the structure consists of six components. The six components delineate the scope of environment statistics and contain and organize the most relevant, specific sets of information in a useful way. The first component brings together statistics related to the conditions and quality of the environment and their change. The second component groups together statistics related to environmental resources and their use. The third component includes statistics related to the generation, management and discharge of residuals from production and consumption processes. Statistics related to extreme events and disasters and their impacts are covered by the fourth component. The fifth component brings together statistics related to environmental conditions and impacts within human settlements. The sixth component groups statistics relevant to societal responses and economic measures aimed at protecting the environment and managing environmental resources.

21. Component 1 (environmental conditions and quality) is the central component of the revised Framework. The other five components have been set up based on their relationship with the central component 1. All components interact with and affect each other.

22. Each of the components is broken down into subcomponents, which, in turn, contain relevant statistical topics. The statistical topics represent the measurable aspects of the components of the revised Framework, taking into consideration the types and sources of the data needed for their description. The final level contains the actual individual environment statistics that can be used to describe the statistical topics.

23. The revised Framework lists the most important environment statistics to describe the statistical topics, thus providing guidance to countries developing national environment statistics programmes. The basic set of environment statistics is designed with enough flexibility to be adapted to the individual environmental concerns, priorities and resources of countries and follows a progression of three tiers.

24. Tier 1 comprises the core set of environment statistics of high relevance and priority to all countries at any stage of development. Tier 2 includes environment statistics that require a more significant investment in time, resources or methodological development. Tier 3 contains environment statistics that are either of less priority or less-developed and that may require significant methodological development.

25. Tier 1 represents a broad consensus of opinion; as such, it is intended to foster collection, coordination and harmonization of environment statistics at the national, regional and global levels in the short term. When a country faces stringent resource constraints, or is at an early stage in the development of environment statistics, the core set is well suited to provide guidance in determining priorities. Consequently, depending on their priorities and resources, countries may choose to consider producing tier 2 and tier 3 statistics in the medium and long terms, respectively.

26. The revised Framework does not contain a detailed methodological description of the statistics included in the basic and the core sets. It refers to existing methodologies, definitions and classifications, where available. Future work will focus on the development of methodological recommendations and other supporting guidance as needed.

27. The revised Framework consists of five chapters: chapter 1 discusses the main characteristics of environment statistics; chapter 2 introduces the Framework and describes its conceptual foundation, objective, scope, components and structure; chapter 3 describes the six components of the Framework in detail, in terms of their subcomponents, statistical topics and the relevant statistics (basic set); chapter 4 introduces the core set of environment statistics; and chapter 5 contains examples of how to apply the revised Framework to cross-cutting, sectoral and thematic analyses. Supporting material is included in the annexes of the revised Framework.

28. The revised Framework will be submitted to the Commission as a background document.

B. The revised Framework and the System of Environmental-Economic Accounting

29. One of the objectives of the revised Framework is to provide environment statistics as input to environmental-economic accounting. While its scope is wider than that of the System of Environmental-Economic Accounting (SEEA), there are direct links between its components and the accounts of the SEEA Central Framework. Component 2 (environmental resources and their use) and component 3 (residuals) of the revised Framework contain statistics that feed into the physical asset and flow accounts of the SEEA Central Framework. Component 6 (environment protection, management and engagement) contains statistics that feed into the environmental activity and related flow accounts of the SEEA Central Framework. The statistics contained in component 1 (environmental conditions and quality) are relevant to the SEEA Experimental Ecosystem Accounting. Where applicable, the definitions and classifications in the revised Framework are consistent with those of SEEA.

IV. Putting the revised Framework to work: a blueprint for action

30. As requested by the Statistical Commission at its forty-third session, the Statistics Division, in close cooperation with the Expert Group on the Revision of the Framework for the Development of Environment Statistics, developed a strategy for the application of the revised Framework. A proposal for a blueprint for action was discussed at the fourth meeting of the Expert Group, held in November 2012, and will be submitted to the Commission as a background document.

31. The objective of the blueprint is to document a way forward for making the revised Framework and the core set of environment statistics operational in countries that need guidance for starting or further developing their environment statistics programmes. It focuses on putting the conditions and technical resources into place in order for the revised Framework to be effectively used at the national

level. It will strengthen environment statistics programmes of countries by enabling them, in an incremental manner, to produce a comprehensive set of statistics that can be useful and responsive to the demands of a wide range of users.

32. In order for the revised Framework to assist countries in developing environment statistics programmes at a faster pace and with better quality and sustainability, the following fundamental pillars, which are strongly interrelated and which support one another, need to be developed and integrated:

- (a) Partnerships among main stakeholders;
- (b) Methodological development and dissemination of know-how;
- (c) Capacity-building and technical assistance to countries in need;
- (d) Networking;
- (e) Resource mobilization;
- (f) Advocacy.

33. The blueprint for action identifies the most important elements of the strategic pillars at the global, regional and national levels and recommends that the implementation of the elements be coordinated by the Statistics Division, with the support of the Intersecretariat Working Group on Environment Statistics.

34. Methodological development and the dissemination of know-how are essential components of the strategy. Methodological development is approached in the blueprint in a sequential and cumulative manner, building upon existing methodological guidance and developing new tools in the near future to offer an expanding toolbox. Additional and intensified efforts are needed to provide further methodological and hands-on guidance, including distance learning opportunities. The blueprint proposes a sequence and time frame for the production of these tools. It is recommended that a Standing Expert Group on Environment Statistics be established to assist in this work.

35. Technical cooperation and capacity-building activities will be important elements in operationalizing the revised Framework. Such activities are proposed for organization at the regional and subregional levels as well as at the national level. The main technical assistance partners will be the Statistics Division, international and regional partner institutions, and national statistical offices or other national institutions and experts having advanced knowledge and expertise in the field.

36. Training workshops aimed at specific subregions/groups of countries and country projects will be the primary vehicles for delivering assistance to offer economies of scale in transferring knowledge and experience. The Statistics Division will seek funding to support the activities, including the use of the United Nations Development Account (a project proposal for 2014-2015 on environment statistics has already been submitted).

37. The blueprint elaborates the basic components of a programme for using the revised Framework to develop environment statistics programmes at the national level by describing the preparatory, foundational, operational, and consolidation stages. The most important elements of the stages are described in detail in the

blueprint. The stages can be applied in a flexible manner depending on the state of environment statistics in the country.

38. Methodological development, technical cooperation and capacity-building in support of the implementation of the revised Framework in countries will benefit from coordination with the implementation strategy of the SEEA Central Framework by avoiding duplication of effort and promoting synergies and the harmonized development of environment statistics and environmental-economic accounts.

V. Points for discussion

39. **The Commission is invited to:**

(a) **Endorse the revised Framework for the Development of Environment Statistics as the framework for strengthening environment statistics programmes in countries;**

(b) **Endorse the blueprint for action, including the establishment of the Standing Expert Group on Environment Statistics.**
