



Economic and Social Council

Distr.
GENERAL

E/CN.3/1993/13
5 June 1992

ORIGINAL: ENGLISH

STATISTICAL COMMISSION
Twenty-seventh session
22 February-3 March 1993
Item 10 of the provisional agenda*

ENVIRONMENT STATISTICS

Report of the Secretary-General

SUMMARY

The present report reviews ongoing methodological work in environment statistics (para. 2) and describes draft reports on selected topics prepared in the context of the Intergovernmental Working Group on the Advancement of Environment Statistics (para. 4). Progress made in environmental accounting, in particular, the "SNA draft handbook of integrated environmental and economic accounting", is addressed (paras. 9-16). Section II (paras. 17-18) describes the coordination of international activities through the Intersecretariat Working Group on Environmental Data. The report reviews progress made in the development and establishment of regional and national programmes of environment statistics (paras. 19-22) in providing support for technical cooperation activities (paras. 25-27). Section V (paras. 28-29) describes the progress made and obstacles encountered in the implementation of the programme of work as approved by the Statistical Commission at its twenty-sixth session. Points for discussion are presented in section VI (para. 30).

* E/CN.3/1993/1.

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INTRODUCTION

1. At its twenty-sixth session, the Statistical Commission stressed the increasing importance of and demand for environment statistics which were needed in support of environmentally sound policies and programmes at national, regional and global levels. The Commission requested the Secretary-General to prepare a report on progress made in the development of environment statistics and the implementation of the proposed programme of work for consideration at its twenty-seventh session. 1/ In accordance with the decision of the Statistical Commission's Working Group on International Statistical Programmes and Coordination at its fourteenth session, the present report also describes the work of other international organizations, selected non-governmental organizations and the regional commissions of the United Nations under the respective sections in the text. 2/

I. METHODOLOGICAL WORK

A. Technical reports on environment statistics

2. The Statistical Commission, at its twenty-sixth session, welcomed the preparation of technical reports on the concepts and methods of environment statistics, which it considered a useful framework for the establishment or further development of national programmes of environment statistics. The Statistical Division has published the technical report on Concepts and Methods of Environment Statistics: Statistics of the Natural Environment. 3/ This report, like its companion report on Concepts and Methods of Environment Statistics: Human Settlements Statistics, 4/ has been based on the study A Framework for the Development of Environment Statistics 5/ (FDES). Both reports are intended to promote the application of the environment statistics methodologies in countries with the collaboration of the regional commissions of the United Nations. For example, these methodologies will be presented at a forthcoming expert group meeting and seminar, organized by the Economic and Social Commission for Asia and the Pacific (ESCAP) with a view to adapting them to regional needs and priorities. The experience gained from applying these methodologies in countries, together with further methodological work of the Intergovernmental Working Group on the Advancement of Environment Statistics (see below), are expected to facilitate the preparation of detailed practical guidelines in selected high-priority areas of environment statistics.

B. Intergovernmental Working Group on the Advancement of Environment Statistics

3. The second meeting of the Intergovernmental Working Group on the Advancement of Environment Statistics was sponsored by Statistics Sweden and hosted by the Bureau of Statistics of the United Republic of Tanzania (Arusha, 17-21 February 1992). 6/ It was attended by 5 developed countries 7/ and 13 developing countries, 8/ representatives from the Statistical Division of the

United Nations Secretariat, and observers from several United Nations specialized agencies. The participation of developing countries was facilitated through financial support by Finland, Norway, Sweden, the Overseas Development Administration of the United Kingdom of Great Britain and Northern Ireland, and the United Nations Centre for Human Settlements (Habitat). The Federal Statistical Office of Germany offered to host the next meeting of the Intergovernmental Working Group in Wiesbaden, Germany, tentatively scheduled for 14-18 December 1992.

4. Regarding the methodological development of environment statistics, the meeting discussed the progress made in the preparation of draft reports on concepts and methods of selected areas of environment statistics. Work on statistics of water use and water quality has continued and a draft report will be presented to the third meeting of the Group. A draft paper on "Energy and air pollution statistics" was discussed and it was decided that it would be presented to the third meeting after further revision and incorporation of comments made by the Intergovernmental Working Group. A note on environment-related agricultural statistics was presented. Two countries agreed to examine the possibility of preparing a joint draft report for the next meeting which would address statistics of land use, including environment-related agricultural statistics. Further areas that could be usefully addressed through cooperative efforts include waste management and hazardous wastes, and environmental accounting.

5. The Working Group requested the Statistical Division to prepare a paper on the linkages between environment statistics and environmental accounting to be presented to the next meeting. With regard to the development of a network of environmental statisticians, the Statistical Division agreed to prepare a preliminary list of environmental statisticians in national statistical offices and international organizations to be circulated to all participants.

6. The development of a glossary of terms of environment statistics was discussed and it was decided that the Working Group and the Statistical Division would explore the possibility of raising funds for the employment of a consultant in these efforts. The Working Group recommended that for the next meeting, participants prepare position papers on the different areas of environment statistics included in the agenda.

7. The Working Group also discussed the request by the Statistical Commission, at its twenty-sixth session, that the Statistical Division carry out a survey and analysis of country practices in the organization and implementation of environment statistics programmes with a view to identifying key environmental indicators. The Group recommended that the Statistical Division prepare a draft questionnaire which would be reviewed at the next meeting. A revised version of this questionnaire will be made available to the Statistical Commission for further comments prior to circulation to selected countries.

8. With regard to the development of environmental indicators, the Statistical Division presented a tentative list of indicators to the Working

Group. It was decided that an improved version of the list would be submitted to the next meeting. The Group agreed that countries would present notes on their need for and experiences in the compilation of environmental indicators to the Statistical Division. The Preparatory Committee for the United Nations Conference on Environment and Development at its fourth substantive session, held in New York from 2 March to 3 April 1992, requested countries and international organizations to develop and use "indicators of sustainable development". Several organizations, *inter alia*, the United Nations Environment Programme (UNEP), the Economic Commission for Europe (ECE), the World Resources Institute (WRI) and the Organisation for Economic Cooperation and Development (OECD) are currently developing, or have plans to develop, sets of environmental indicators. The obvious need for coordination in this emerging area of environment statistics will be addressed by the Working Group on the basis of a note prepared by the Statistical Division.

C. Environmental accounting

9. At its twenty-sixth session, the Statistical Commission expressed its appreciation for the progress made in environmental accounting. It requested that the Statistical Division of the United Nations Secretariat focus on the development of integrated environmental and economic accounting, by means of satellite accounts. It also suggested promoting these methodologies through country projects in environmental accounting.

10. The International Association for Research in Income and Wealth (IARIW) organized a special Conference on Environmental Accounting in Baden, Austria (27-29 May 1991). Following this conference, a two-day workshop was held to discuss the "SNA draft handbook of integrated environmental and economic accounting". 9/ The main conclusion of the meetings was that the draft Handbook should reflect, as far as possible, the different concepts and approaches to environmental accounting and attempt to describe the linkages between them. In order to incorporate the various views, it was advised that the Handbook should have a modular structure and permit a step-by-step implementation. A certain degree of consensus was reached in the treatment of natural resource use and depletion while the costing of environmental quality changes was considered to be more difficult.

11. A technical working group consisting of participants in the SNA review process and experts in environmental accounting met at a workshop organized by the Statistical Division and hosted by the Bureau of Economic Analysis, Washington (21-22 November 1991). Since the Handbook as well as the SNA (in a separate section) will deal with the limits between the SNA and the System of Integrated Environmental and Economic Accounting (SEEA), the discussion focused on ensuring compatibility in the treatment of natural assets by the SNA and the Handbook. Such compatibility was to be reached by specifying common asset boundaries, classifications of natural assets and other volume changes in non-financial assets and consistent valuation principles. In principle, the SNA and the SEEA should use the same classifications, although a more detailed breakdown could be provided by the SEEA. These issues were

further considered by the Intersecretariat Working Group on National Accounts in the SNA review process in order to better reflect them in the revised SNA.

12. Based on the above-mentioned meetings, the draft Handbook is now being revised and is expected to be published as an interim version in the SNA Handbook Series later this year. At that time it will be widely circulated to Governments, international organizations and experts in the field to stimulate further discussion and country application. The Handbook has been prepared with the financial support of the Federal Statistical Office of Germany, which provided the services of a consultant at no cost, and the Jessie Smith Noyes and Ford Foundations.

13. The accounting framework of the draft Handbook has been tested in pilot projects in Mexico and Papua New Guinea by the Statistical Division, with the financial and substantive support of the World Bank, the United Nations Development Programme (UNDP), the national statistical offices and other concerned national agencies in these countries. The report on "Integrated environmental and economic accounting - a case study for Mexico" 10/ has been published. The report for Papua New Guinea will be published after clearance by the World Bank. As part of a World Bank mission to Thailand on sustainable development, an assessment of the feasibility of a country project on integrated environmental and economic accounting was carried out in January 1992. The study, which seems to confirm the feasibility of such accounting, is currently being assessed by national authorities with a view to launching a comprehensive country project. The results of these applications have been incorporated in the draft Handbook and will also contribute to its further expansion, dealing in particular with data collection and processing.

14. UNDP and the Statistical Division jointly organized a Workshop on Natural Resource Accounting and Sustainable Development which was held in San José, Costa Rica (5-7 August 1991). 11/ At this workshop, several countries from Latin America and the Caribbean expressed interest in establishing environment statistics and integrated accounting programmes and requested the sponsors to support such programmes in the region. A similar workshop is planned for the Asia and Pacific region.

15. A Workshop on Environmental and Natural Resource Accounting which was organized by the Committee of International Development Institutions on the Environment (CIDIE), was held at UNEP headquarters in Nairobi from 24-26 February 1992. The interrelationship between physical and monetary accounting was noted and it was stressed that there should be feedback between the development of environmental data and monetary accounting. The meeting endorsed the consolidation by the Statistical Division of the various approaches to environmental accounting in the proposed SEEA. The need for further cooperation between the Statistical Division and UNEP in the fields of environment statistics, monitoring and environmental accounting was emphasized.

16. Integrated accounting has been specifically identified as an important area of work in the draft Agenda 21 for the United Nations Conference on Environment and Development to be held in Rio de Janeiro (3-14 June 1992). 12/

At its fourth substantive session, the Preparatory Committee for the Conference recommended in the draft Agenda 21 that integrated environmental and economic accounting be established in all Member States at the earliest possible date as a complement to traditional national accounting. It also requested the Statistical Division to make available and promote the SNA Handbook and support its application in Member States. The recommendations and implications of the Conference for the work programme of the Statistical Division will be included in the report entitled "Updated information on the work of the Statistical Division of the United Nations Secretariat".

II. COORDINATION

17. The Statistical Commission, at its twenty-sixth session, emphasized the need to strengthen the coordinating role of the Statistical Division of the United Nations Secretariat. The Commission considered that the newly formed Intersecretariat Working Group on Environmental Data would focus its work on the coordination of international databases and related data. The first meeting of this Working Group was held at Geneva on 8 April 1991 under the auspices of the Economic Commission for Europe (ECE) and was attended by various United Nations organs and specialized agencies, non-governmental and intergovernmental organizations. ^{13/} On behalf of the Working Group, the Statistical Office of the European Communities (EUROSTAT) had prepared a draft survey form for compiling information on international environmental databases which was discussed at the meeting. The Intersecretariat Working Group decided that EUROSTAT would circulate an improved version of the database survey form to identify "lead databases" for compilers of environmental data at the international level. The second meeting of the Intersecretariat Working Group was held in Geneva on 21 May 1992.

18. The Administrative Committee on Coordination (ACC) Subcommittee on Statistical Activities welcomed the participation of a representative of UNEP at its twenty-sixth session and his indication of commitment to cooperation in the area of environment statistics. ^{14/} In follow-up to the recommendations of the CIDIE meeting (para. 15) first discussions were held between the Statistical Division and the Global Environment Monitoring System (GEMS) of UNEP in order to improve cooperation in the field of environment statistics and monitoring.

III. COMPILATION AND DISSEMINATION OF ENVIRONMENT STATISTICS

19. ECE has completed the third edition of its regional compendium "The Environment in Europe and North-America: Annotated Statistics 1992" which is expected to be issued in June of this year. ^{15/} This edition is divided into two parts, the first dealing with time series and indicators, and the second has a special focus on agriculture and the environment.

20. The Economic Commission for Africa (ECA) has prepared an "African compendium of environment statistics", which is expected to be published later this year. The compendium includes environmental data related to, inter alia, population density, land use, area irrigated, agroclimatological conditions, urbanization and natural disasters. 16/ In order to review the progress made by ECA member States in organizing and implementing environment statistics programmes, a rapid inquiry was conducted by the ECA in March 1992. The 10 countries that responded manifested a greatly increased concern for environmental matters. Data collection and compilation on the environment currently takes place mainly in ministries of agriculture, forestry and natural resources and three countries are currently publishing some environmental information. It should, however, be noted that environment statistics is gradually becoming a field of work for central statistical offices and half of the reporting countries mentioned some kind of involvement.

21. ESCAP has launched a project on Development and Improvement of Environment Statistics for the region with the financial support of the Netherlands. Selected countries of the region are expected to participate in an exploratory expert group meeting. The findings of the expert group will then be discussed in a broad-based seminar with a view to establishing a regional programme of environment statistics. The preparation of an operational Handbook, adapting international concepts and methods to the conditions and priorities of the ESCAP region, is envisaged. Already, several countries in the region have environment statistics programmes and publish national environment statistics compendia.

22. The Economic Commission for Latin America and the Caribbean (ECLAC) is currently not in a position to evaluate the state of environment statistics programmes in the region. The Economic and Social Commission for Western Asia (ESCWA) does not yet have an environment statistics programme but believes that this is an important area which needs to be addressed in the near future.

23. The GEMS Monitoring and Assessment Research Centre (London), in cooperation with WRI (Washington, D.C.) and the United Kingdom Department of the Environment (London), published the third edition of the Environmental Data Report (1991/92) 17/ for UNEP. The three editions in the continuing series contain environmental information at regional, national and local levels which illustrates major environmental issues of current concern. WRI, in collaboration with UNEP and UNDP has recently published World Resources 1992-93 18/ which has a special focus on sustainable development, in support of the United Nations Conference on Environment and Development.

24. Comprehensive data compilation and dissemination at the international level is not envisaged by the Statistical Division until an adequate number of regional and national environment statistics programmes have been established. However, to meet the needs of general users of global statistics, the Statistical Division intends to include in the next edition of the Statistical Yearbook, selected series of environmental data from various international sources such as UNEP, the World Health Organization (WHO), or the Food and Agriculture Organization of the United Nations (FAO).

IV. TECHNICAL COOPERATION

25. The Statistical Division presented to the Intergovernmental Working Group on the Advancement of Environment Statistics an overview of activities relating to technical cooperation in the field of environment statistics. Countries were encouraged to cooperate on a bilateral basis as well as to present requests for technical assistance to UNDP and to the Statistical Division of the United Nations Secretariat. The Working Group stressed the need to establish an inventory of training facilities in environment statistics and decided that the Statistical Division would explore the possibility of adding relevant questions on training facilities in its planned survey on country practices (see above, para. 7). The meeting recommended that training workshops and seminars should be carried out under the auspices of the United Nations regional commissions.

26. UNDP is exploring the possibility of sponsoring a seminar for the ESCAP region in Beijing later this year which would be similar to the UNDP-sponsored Workshop on Natural Resource Accounting and Sustainable Development in San José, Costa Rica (para. 14). As part of a recently launched programme of environment statistics, and in cooperation with the Statistical Division of the United Nations Secretariat, ESCAP is planning to convene an expert group meeting on environment statistics in Bangkok towards the end of the year.

27. After the initial phase of a pilot project in integrated environmental and economic accounting in Mexico, technical cooperation has continued between the Statistical Division and the Government of Mexico, with a view to establishing a continuing programme and promoting the use of environmentally adjusted accounting indicators in the country. The possibilities of initiating similar projects are currently being discussed with several countries in Asia and Latin America.

V. PROGRAMME OF WORK

28. At its twenty-sixth session, the Statistical Commission supported "in principle" the expanded work programme on environment statistics of the Statistical Division and requested that future work should focus on the following priority activities:

- (1) Coordination of international work
- (2) Adaptation of ECE classifications for global use
- (3) Survey and analysis of country practices for key indicator compilation
- (4) Development of integrated (satellite) accounting and country projects
- (5) Initial work on international data collection and dissemination

(6) Establishment of inventories of databases

(7) Support for technical cooperation

29. At the same time the Commission recognized that even this concentration on priority activities would require additional resources. Over the past year it has been possible to achieve a modest increase in resources through redeployment of staff. As a result, and as described above, the major elements of the work programme that have been implemented are the advancement of methodological work in environment statistics and integrated environmental-economic accounting. Progress in the other areas remains relatively slow. Based on the assistance of the Intergovernmental Working Group on the Advancement of Environment Statistics and through the recommendations of and mechanisms to be established by the United Nations Conference on Environment and Development it is expected that additional progress can be made. The Statistical Division has also proposed to create a new branch on Environment and Energy Statistics in anticipation of the increased demand for environmental statistics and indicators as a result of follow-up to the Conference. The work programme for the balance of 1992-1993 and for 1994-1995 will thus be developed in the light of the recommendations from the Conference which is expected to identify needs and priorities in the areas of environmental statistics and accounting. These recommendations will be described in the report entitled "Updated information on the work of the Statistical Division of the United Nations Secretariat".

VI. POINTS FOR DISCUSSION

30. The Statistical Commission may wish to comment on:

(a) The work of the Intergovernmental Working Group on the Advancement of Environment Statistics;

(b) Programme of work of the Intersecretariat Working Group on Environmental Data;

(c) International work on indicators for sustainable development and its implications for the Statistical Division;

(d) The work programme of the Statistical Division in the fields of environmental statistics and accounting in light of resource availability and the recommendations of the United Nations Conference on Environment and Development.

Notes

- 1/ Official Records of the Economic and Social Council, 1991, Supplement No. 5 (E/1991/25).
- 2/ "Report of the Working Group on International Statistical Programmes and Coordination on its fourteenth session" (E/CN.3/1993/2).
- 3/ United Nations publication, Sales No. E.91.XVII.18.
- 4/ United Nations publication, Sales No. E.88.XVII.14.
- 5/ United Nations publication, Sales No. E.84.XVII.12.
- 6/ "Intergovernmental Working Group on the Advancement of Environment Statistics: report of the second meeting" (ESA/STAT/AC.51).
- 7/ Finland, Germany, Netherlands, Norway and Sweden.
- 8/ Brazil, China, Côte d'Ivoire, Ecuador, Egypt, Ghana, India, Indonesia, Kenya, Mozambique, Pakistan, United Republic of Tanzania, Zimbabwe.
- 9/ United Nations draft publication (in preparation).
- 10/ van Tongeren, J., S. Schweinfest (United Nations) and E. Lutz (World Bank); M. G. Luna, F. G. Martin (INEGI, Mexico) (1991). Environment Working Paper No. 50, World Bank, Washington, D.C.
- 11/ Attended by representatives from Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Jamaica, Mexico and other agencies.
- 12/ A/CONF.151/4 (Part I), paras. 8.41-8.54.
- 13/ "Intersecretariat Working Group on Environmental Data: report of the first meeting".
- 14/ "Report of the ACC Subcommittee on Statistical Activities on its twenty-sixth session" (ACC/1992/16).
- 15/ United Nations draft publication (in preparation).
- 16/ United Nations draft publication (in preparation).
- 17/ United Nations Environment Programme, Environmental Data Report (1991/92), 3rd ed. (Oxford, B. Blackwell).
- 18/ World Resources Institute, World Resources Report 1992-93 (Oxford, Oxford University Press, 1992).