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INDUSTRY, ENERGY AND ENVIRONMENT STATISTICS:
ENERGY AND ENVIRONMENT STATISTICS

Standards, methods and classifications of energy statistics
and the environment statistics programme

Report of the Secretary-General

SUMMARY

The present report describes the progress made in energy and environment statistics since the twenty-second session of the Statistical Commission. It contains an outline of the current work of the Statistical Office of the United Nations Secretariat on energy and environment statistics and proposes future steps in the programmes of work. In connection with the environment statistics programme, points for discussion by the Commission are included (para. 43).

* E/CN.3/1985/1.

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INTRODUCTION

1. At its twenty-second session, the Statistical Commission considered the progress report of the Secretary-General on energy statistics (E/CN.3/1983/11). It agreed that the Statistical Office of the United Nations Secretariat should continue its work on the methodological aspects of energy statistics and emphasized the special relevance and interest of energy statistics to the developing countries. 1/

2. At the same session, the Statistical Commission considered the progress report of the Secretary-General on environment statistics (E/CN.3/1983/19). It reconfirmed the high priority of environment statistics and noted with appreciation the progress achieved in that area since its twenty-first session, in particular, the publication of the Survey of Environment Statistics: Frameworks, Approaches and Statistical Publications. 2/ The Commission requested the Secretariat to continue its methodological work on environment statistics and to publish the revised framework for the development of environment statistics. 3/ The Commission regretted the loss of financial support from the United Nations Environment Programme (UNEP) and strongly urged UNEP to reconsider its action. It also requested that efforts should be made to find appropriate resources to implement the environment statistics programme. 4/

I. ENERGY STATISTICS

A. Methodological projects

3. The Statistical Office has carried out a number of methodological projects in the field of energy statistics. The overall objective, common to all those projects, was to publish methodological studies to be used at the national and international levels. In those studies, a coherent framework for the collection, compilation and presentation of energy statistics is developed taking into account various concepts currently used in energy accounting. Countries wishing to initiate, improve or expand their programmes in energy statistics can utilize these studies as reference material or for training purposes. By suggesting standardized procedures, the Statistical Office also intends to promote the establishment of an internationally comparable data base for energy statistics that would allow more and better overall energy balances for developing countries to be compiled, thereby increasing the usefulness of that tool for analytical and planning purposes. At the same time, the accuracy of regional or global energy data needed for long-term projections would be improved.

4. At the request of the Statistical Commission at its nineteenth, twentieth and twenty-first sessions, 5/ the Statistical Office prepared for publication the technical report entitled Concepts and Methods in Energy Statistics, with Special Reference to Energy Accounts and Balances. 6/ The report was sent to all national statistical offices and other interested institutions to obtain their views and comments.

5. The response to the report was mostly favourable. The Statistical Office was informed that a number of national statistical offices had revised their previous concepts pursuant to draft recommendations proposed in the technical report. Some of the offices suggested modifications of and amendments to the draft recommendations in the light of their own experience in the field of energy accounting. The Statistical Office is awaiting further comments, particularly from developing countries, and, after a complete evaluation of the responses, a revision of the technical report will be decided upon. One possibility would be to develop the work further in order to present draft recommendations for consideration by the Statistical Commission at a future session.

6. A consultant to the Statistical Office has prepared a report on units of measurement and conversion factors, closely linked to the study on concepts and methods. The report is intended to serve as a handbook for energy statisticians and energy economists who wish to obtain information on calorific values of fuels and on procedures to convert various basic units to a common unit for the compilation of energy statistics, especially for overall balances. The Statistical Office has paid particular attention to this task, since the variety of units and conversion factors used has contributed to distortions of data in the past.

7. The consultant's report will be distributed to national and international bodies having particular expertise in the field of energy statistics (e.g., the World Energy Conference and various engineering institutes) for their views and comments. After their suggestions have been considered, an amended version may be issued as a technical report.

8. One of the main obstacles in compiling reliable overall energy balances, particularly for developing countries, is the lack of data on new and renewable sources of energy. The Economic and Social Council, in resolution 1981/2, requested the Secretary-General "to accord priority to the development of new statistical series in fields where insufficient information is now available and to improve the timeliness, level of detail and accuracy of the statistics currently collected and disseminated". In particular, the need for increased and systematic statistical coverage of new and renewable sources of energy was emphasized again by the Committee on the Development and Utilization of New and Renewable Sources of Energy at its second session. 7/

9. The Statistical Office has developed a project proposal outlining its contribution to the follow-up activities to the Nairobi Programme of Action for the Development and Utilization of New and Renewable Sources of Energy. 8/ The proposal, which refers to planned activities in 1984-1985, was submitted to the Special Co-ordinator for New and Renewable Sources of Energy, Office of the Director-General for Development and International Economic Co-operation. The work programme was approved and steps have been undertaken to mobilize extrabudgetary funds. Available funds were immediately allocated to the Statistical Office so that the work could start on schedule (see para. 11 below).

10. The proposed work programme in statistics on new and renewable sources of energy of the Statistical Office addresses two primary concerns:

(a) The capability of countries to collect statistics on new and renewable sources of energy should be strengthened. The main obstacles encountered at present are the lack of sound methodological standards and restricted resources and facilities to carry out the collection of data. One of the immediate objectives of the programme is therefore to publish a technical report on standards, methods and definitions for statistics on new and renewable sources of energy. The report should take into account and evaluate experiences at the national, regional and international levels and aim at recommending collection and compilation procedures for the various forms of new and renewable sources of energy geared towards integrating those data into overall energy balances. In addition, training courses with special emphasis on overall energy balances, including data on new and renewable sources of energy, should be offered at the regional level for energy statisticians from national statistical offices, national energy ministries and similar bodies;

(b) The Statistical Office should make provisions for the international comparability of the emerging data on new and renewable sources of energy. It is therefore essential that the broadest possible participation of countries and regional institutions be obtained from the start of the project.

11. The work programme in statistics on new and renewable sources of energy is planned to proceed in three phases. Phase I will consist of an assessment of current and planned statistical activities in the field of new and renewable sources of energy in countries, regional commissions, specialized agencies and other international organizations and will involve:

(a) The identification of countries where statistical offices are already carrying out or planning data collection for new and renewable sources of energy; a request for documentation on national data collection procedures, underlying methodological considerations (e.g., conversion factors) and an assessment of problem areas; a special request for data on new and renewable sources of energy already collected by expanding the annual energy statistics questionnaire sent by the Statistical Office to all countries and areas and identification of gaps in data;

(b) Close co-operation with all bodies of the United Nations system which have established procedures for the collection of data on new and renewable sources of energy, such as the Food and Agriculture Organization of the United Nations (FAO) which has done so for fuelwood and charcoal; an exact assessment of the additional data potential resulting from the programmes in new and renewable sources of energy of those bodies in 1984-1985; co-ordination of the work in focal areas, such as biomass statistics, between the Statistical Office and the statistical divisions of the regional commissions and specialized agencies; and a review of the country reports, prepared through the United Nations Development Programme/World Bank Energy Sector Assessment Programme, for data on new and renewable sources of energy and the underlying methodologies. In addition, the newly established information system in the New and Renewable Sources of Energy Unit of the Department of International Economic and Social Affairs, which contains information on completed, ongoing and future projects in new and renewable sources of energy at the national and international levels, could be utilized for the

identification of the potential for future data on new and renewable sources of energy.

12. Phase II will include the drafting of a summary report by the Statistical Office which will take into account the information obtained in phase I. The report will aim at identifying areas where additional outside expertise is needed for specific fields, such as statistics on animal power and on solar and wind energy. Consultants who might be employed for the work would have to co-operate closely with the statistical divisions of the regional commissions and the Statistical Office of the United Nations Secretariat. Statistical procedures which are recommended in the resulting reports should cover the whole range of data collection and compilation (i.e., reporting units, units of measurement for the raw data on new and renewable sources of energy, average efficiency rates, conversion factors for assessing the energy values in a common unit, and possibilities of deriving data from household surveys, income and expenditure surveys and agricultural statistics).

13. Under phase III, the summary report will be amended in the light of the recommendations made under phase II and will then be discussed at an expert group meeting. A technical report containing draft recommendations for the collection and compilation of statistics on new and renewable sources of energy will then be prepared for publication and circulated to all national statistical offices and other institutions for their views and comments, particularly with regard to:

(a) Compatibility with the overall energy statistics standards and methods, that is, uniformity of units of measurement and definitions;

(b) Direct applicability for increased data collection activities in countries, for example, through suggested survey methods;

(c) Integration into the overall energy balance concept at the national and international levels;

(d) Applicability of the technical report for the training of energy statisticians in the regions, and as a guidance manual in national and international statistical offices.

14. Parts of phase I of the project have been completed. Consultations were held with the Economic Commission for Europe (ECE), the Economic Commission for Latin America and the Caribbean (ECLAC), the Economic and Social Commission for Asia and the Pacific (ESCAP), various specialized agencies active in the field of new and renewable sources of energy and government officials of selected countries and experts in research institutions in the ESCAP and ECLAC regions. Further missions are planned as additional funds become available (e.g., to the Economic Commission for Africa (ECA), UNEP and further selected countries). The information collected will be presented and evaluated in interim reports to the Office of the Director-General for Development and International Economic Co-operation.

B. Co-operation and co-ordination with regional commissions and other organizations

15. In its resolution 1981/2, the Economic and Social Council emphasized the need for increased co-operation in the field of energy statistics and requested the Secretary-General "to strengthen and co-ordinate activities in support of energy statistics". The Council also urged "the Governments of developing countries to participate in a programme of development of national statistics according to international guidelines and to request technical assistance if and when necessary". Since the twenty-second session of the Statistical Commission, the Statistical Office has been involved in a number of activities in the field of energy statistics aimed at exchanging information on methods and on available data within and outside the United Nations system.

16. Specific efforts have been undertaken to improve the statistical coverage of energy for the developing countries. In the process of preparing the first issue of a new publication series, entitled Energy Balances 1977-1980 and Electricity Profiles 1976-1981 for Selected Developing Countries and Areas, 9/ and an expanded second issue (see also paras. 23-25 below), the Statistical Office co-operated with the International Energy Agency/Organisation for Economic Co-operation and Development (IEA/OECD) and other institutions, such as the World Energy Conference and the British Electricity Council (UK). In particular, the Statistical Office was represented at an Expert Group Meeting on Energy Data of Developing Countries organized by IEA/OECD (Paris, September 1983). The participants reviewed the methodological aspects of compiling statistics for energy balances, evaluated the available data and concluded that the compilation of energy balances for approximately 10-15 additional developing countries was now possible.

17. The Statistical Office participated in the 12th Congress of the World Energy Conference (New Delhi, September 1983). Of particular interest were the technical sessions dealing with information and data banks and the Working Group on National Energy Data. The main contribution of the Working Group was the preparation of approximately 20 national energy data reports, supplementing information already prepared by the United Nations. The present arrangement, by which the Statistical Office provides current energy data on individual countries and the Conference, in turn, makes available information on reserves and resources of various fossil fuels, will continue.

18. The need for presenting up-to-date information on energy reserves and resources was emphasized at the fifth session of the Technical Energy Group of the ACC Task Force on Long-Term Development Objectives (September 1983), which considered the economics of exploration and development of energy resources. At that session and at previous sessions in which the Statistical Office participated, representatives of specialized agencies stressed the central role of the energy data file and the Energy Statistics Yearbook for energy analysis and suggested expanding the scope of energy data by compiling information in monetary terms.

19. The Statistical Office participated in the 6th Oak Ridge National Laboratory Life Science Symposium on the Global Carbon Cycle and the Carbon Cycle Numeric Data

Workshop (Knoxville, Tennessee, United States of America, October/November 1983). Both meetings were of particular importance since they demonstrated one possible application of conventional energy statistics for assessing the environmental impact of energy-related activities. The research community dealing with carbon dioxide (CO₂) relies on energy statistics provided by the Statistical Office, especially on data related to fossil fuel combustion for the historic analysis and projection of CO₂ releases into the atmosphere. The presentation of the Statistical Office and the discussion at the Workshop focused on a quality and quantity assessment of world energy data. Acknowledging the progress made, the participants agreed that the Statistical Office data should be used wherever possible to achieve uniformity in the basic information going into CO₂ projections.

20. The growing importance attached to the energy statistics data base of the Statistical Office for the analysis of long-term trends in particular, was also emphasized at an interim meeting of the International Energy Workshop (United Nations Headquarters, November 1983). The participants agreed to use the information supplied by the Statistical Office for the base year 1980 uniformly as the basis for their future projections.

21. The Statistical Office was invited by ESCAP to participate in its first training seminar on energy statistics (Kuala Lumpur, September/October 1983) and in an expert group meeting in preparation for the seminar. The seminar, organized by the Statistical Institute for Asia and the Pacific (SIAP), was attended by 22 participants from 12 countries of the ESCAP region. The technical report entitled Concepts and Methods in Energy Statistics, with Special Reference to Energy Accounts and Balances 6/ was used as the main text to accompany the lectures and workshops. The major objectives of these training seminars (a second one is planned to be held later in 1984) are to familiarize participants with the conceptual and practical problems which are encountered when building up an articulated system of energy statistics and to train them in the application of principles and frameworks to be used for structuring such a system.

22. In 1982, the Statistical Office distributed the text of Economic and Social Council resolution 1981/2 on international energy statistics (see para. 15 above) to all national statistical offices, drawing their attention to the possibility of requesting technical assistance to develop their energy statistics programmes.

C. Data collection and dissemination programme

23. The Statistical Office has released the first issue of a recurrent publication on energy statistics, entitled Energy Balances 1977-1980 and Electricity Profiles 1976-1981 for Selected Developing Countries and Areas 9/ (see also para. 16 above). The publication contains energy balances for 26 developing countries and areas and shows, for the first time, energy flows from the production of primary energy through the conversion process to the stage of final consumption. The terajoule (TJ) has been chosen as the common accounting unit. The energy balances can be used for a variety of analytical purposes ranging from sectoral energy efficiency studies and the assessment of commercial and non-commercial energy to cross-country comparisons.

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24. Since separate data for the electricity sector are generally more readily available and more accurate than data for the energy economy as a whole, electricity profiles are presented for a total of 68 developing countries and areas in addition to the balances. Aside from showing the final consumption of electricity by sector, these profiles also reflect the fuel input into thermal power plants, thus permitting the calculation of efficiency ratios for these installations.

25. The Statistical Office is in the process of preparing the second issue of Energy Balances and Electricity Profiles for Selected Developing Countries and Areas which is planned to be released in the fourth quarter of 1984. The publication will show energy balances for the years 1978-1981 and, wherever possible, for 1982 as well. A new group of approximately 20 developing countries will also be included.

26. Since the twenty-second session of the Statistical Commission, the Statistical Office has prepared two issues of the Energy Statistics Yearbook (formerly the Yearbook of World Energy Statistics). 10/ The information provided covers a broad spectrum of energy-related topics ranging from production, international trade and apparent consumption of various forms of energy to data on capacities, prices and resources. Data has been presented for selected years from 1950 to 1982 for the world, for the regions and for approximately 200 individual countries and areas.

27. The energy data contained in both publications are also available on magnetic tapes and, on special request, in the form of computer printouts. The tape corresponding to the Energy Statistics Yearbook includes energy data as well as heating values of fuels for all years from 1950 onwards, and is therefore being used increasingly by energy economists, particularly in research departments of specialized agencies such as the World Bank.

28. In addition to the compilation of annual energy statistics for special tables published in the Statistical Yearbook, the Statistical Office also prepares tables on the production of primary and secondary forms of energy on a monthly and quarterly basis, which are published in the Monthly Bulletin of Statistics.

D. Proposed extension of the programme of work

29. In addition to its work programme on energy statistics in physical units, the Statistical Office plans to develop statistical methodologies for the collection and compilation of energy statistics in value terms, that is, prices and costs of energy, starting in 1985. It will seek the co-operation of ECE, the Statistical Office of the European Community, IEA/OECD, the World Bank and other institutions which have already started or carried out projects in this field. Given the extent of research to be conducted, the Statistical Office will have to rely primarily on outside expertise for the initial stage of the programme. This will require the preparation of a report by a consultant in which concepts will be discussed, evaluated and recommended for the collection, verification and compilation of energy price and cost data. Energy economists regard the lack of this type of data as one of the major shortcomings in the analysis of energy related activities, given the importance of the costs of exploration for the supply of energy.

II. ENVIRONMENT STATISTICS

A. Work completed and in progress

1. Methodology

30. In response to a request by the Statistical Commission at its twenty-second session, the framework for the development of environment statistics (FDES) has been revised and is expected to be published in 1984. 11/ A draft of FDES had been prepared by the time the Statistical Commission held its twenty-first session (January 1981). The draft was discussed in regional workshops, used in pilot projects in developing countries and reviewed by specialized agencies, regional commissions and experts in the field of environment statistics. It was further discussed by an Expert Group Meeting on Environment Statistics convened at United Nations Headquarters from 20 to 24 September 1982.

31. The overall objective of FDES is to assist countries in the development, organization and co-ordination of environment statistics at the national level and to promote the international reporting of those statistics. It is expected that FDES will be used for several specific purposes including:

(a) A review of environmental concerns and the determination of their quantifiable aspects;

(b) The identification of statistical variables related to the quantifiable aspects of the environmental concerns (this may be done in response to specific national needs or in the form of international guidelines for statistics in different environmental subject areas);

(c) The identification of data needs, sources, availability and gaps;

(d) The establishment of data bases and information systems;

(e) The presentation and publication of environment statistics.

32. The structure of FDES is based on a detailed examination of national and international approaches to the development and organization of environment statistics. It combines elements of two of the most widely used approaches, namely, the media approach and the stress-response approach. FDES is arranged as a two-way table which relates the basic components of the environment to four categories of information. These information categories reflect a sequence of interference with the environment. Human activities and natural events exert impacts on the environment which in turn provoke individual and social responses. The fourth category presents a more static description of the state of the environment and related background factors.

33. The framework contains lists of statistical topics which describe the quantifiable aspects of general environmental concerns and problems identified in regional workshops and pilot country projects organized by the Statistical Office. 12/ The determination of statistical topics constitutes an important step

towards identifying the variables required for the statistical analysis of environmental concerns. The variables themselves are not dealt with by FDES. They are the subject of sets of guidelines for different areas of environment statistics. For example, for the statistical topic of water quality, sets of biological, chemical, physical and bacteriological variables have been specified in guidelines for freshwater statistics (see para. 35 below).

34. In response to a request by the Statistical Commission at its twenty-second session, the Statistical Office has continued its methodological work on guidelines for statistics in the areas of freshwater, human settlements and energy. ^{13/} Work on guidelines for human settlements and energy statistics has focused on the delimitation of the environmental aspects of human settlements and energy and on an assessment of national and international statistical work in those areas.

35. Draft guidelines for freshwater statistics were reviewed in detail by a group of experts during a meeting held at United Nations Headquarters from 5 to 9 December 1983. The objectives of the guidelines were to (a) assist producers and users of freshwater statistics in the identification of data needs, availability, sources and gaps; (b) promote integrative data collection from different sources; and (c) promote the dissemination of comparable statistical data at the national and international levels. The structure of the guidelines is based on the concepts and principles of FDES using its information categories and the statistical topics related to freshwater as organizing criteria. The guidelines describe the scope of freshwater statistics, specify relevant statistical variables and provide the necessary definitions and classifications. They also elaborate on issues of data collection and dissemination. The expert group agreed that the guidelines should be revised, taking into account the comments made during the meeting, and that the revised version should be widely circulated for comments within the United Nations system, and among other national and international organizations and experts in the field of freshwater statistics. The expert group recommended that the guidelines should be published as soon as possible after further revision and modification in order to promote their use at the national and international levels.

2. Exchange of information

36. The Directory of Environment Statistics ^{14/} has been published; together with the system of country files established by the Statistical Office, it provides a standard inventory against which data availability and country practices and plans in the field of environment statistics can be assessed and compared. The Directory consists of two parts. In part I, environmental parameters, as contained in major national statistical publications, are listed for each country by environmental subject area; in part II, statistical data contained in regular international statistical publications having world-wide coverage are reviewed.

3. Implementation and training

37. The Statistical Commission, at its twenty-second session, requested that the testing, application and promotion of the methodology should be developed by means

of workshops, seminars and country studies. 13/ Unfortunately, it has not been possible to achieve much progress in this regard as a direct consequence of the changes in the funding situation discussed at the twenty-second session of the Commission (see para. 2 above).

38. The Statistical Office succeeded, however, in sponsoring, together with UNEP, a workshop in West Africa on Natural Resources and Environment Statistics (Abidjan, 21-26 November 1983). The workshop was funded by the Governments of France and Canada and organized in collaboration with OECD, the Government of the Ivory Coast and Data for Development. The workshop was the last in a series of regional workshops, the objective of which was to bring together users and producers of environment statistics in order to identify major environmental concerns in the regions, specify national needs for environment statistics, identify data gaps, discuss the structure and organization of environment statistics and lay the foundation for a continuous programme within which countries can develop statistics. 15/

B. Proposed programme of work

39. The 1983-1985 work programme in environment statistics was originally developed in a joint UNEP/Statistical Office project proposal, with an anticipated contribution from UNEP of one third of the total project cost. However, financial support for the environment statistics programme was discontinued by UNEP as at January 1983. The Statistical Office has redeployed resources from other parts of its work programme to partially make up for the resources formerly provided by UNEP. Full replacement of funds has not been possible, and efforts to secure additional funds from extrabudgetary sources have not been successful. As a consequence, the work programme cannot be implemented as originally planned and needs to be revised.

40. For the revision of the environment statistics programme, the following concerns and activities have been taken into consideration:

(a) International environmental concerns and activities, such as the UNEP assessment of the state of the environment and its envisaged programme of environmental indicators, the International Drinking Water Supply and Sanitation Decade, 16/ the Vancouver Declaration on Human Settlements, 1976, 17/ and the Nairobi Programme of Action for the Development and Utilization of New and Renewable Sources of Energy; 18/

(b) The environmental concerns and data needs of countries as expressed in regional workshops and pilot projects;

(c) Data collection activities of the Statistical Office in related areas such as human settlements, mineral resources and energy statistics;

(d) The recommendations of an ad hoc workshop organized in collaboration with the World Resources Institute in Washington, D.C. 19/ The workshop stressed the need for an organizing structure or framework for the establishment of an

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international data collection programme, identified major users of international environment statistics, urged the Statistical Office to collaborate with UNEP in its environmental indicator programme and recommended the definition of key variables for data collection in selected areas such as energy, human settlements, natural resources and land use.

41. It is proposed to shift the focus of the programme of work from strictly methodological activities to a combination of methodological work and data collection. This shift appears to be timely in view of the widely expressed need for environment data and the opportunity of utilizing the methodological tools developed for an international data collection programme.

42. The Statistical Office might most usefully embark on data collection in the area of freshwater statistics and expand its data collection activities to include the environmental aspects of human settlements and energy. The Statistical Office is carrying out an assessment of existing national and international data collection and availability in each of those areas. The results of the assessment will be reported orally to the Commission. Depending on the results of the assessment, the availability of resources and the views of the Statistical Commission, data collection would commence. The work would be done in consultation with UNEP and other international organizations to avoid duplication of activities.

C. Points for discussion

43. The Statistical Commission may wish to discuss the following matters relating to the environment statistics programme:

(a) Modification of the work programme in environment statistics to focus on data collection and dissemination;

(b) The subject areas on which the collection of data should commence;

(c) The steps necessary for designing, planning and implementing the programme.

Notes

1/ Official Records of the Economic and Social Council, 1983, Supplement No. 2 (E/1983/12 and Corr.1), para. 44.

2/ United Nations publication, Sales No. E.82.XVII.4.

3/ A Framework for the Development of Environment Statistics (ST/ESA/STAT/SER.M/78); future United Nations publication.

4/ Official Records of the Economic and Social Council, 1983, Supplement No. 2 (E/1983/12 and Corr.1), para. 86.

Notes (continued)

5/ See Official Records of the Economic and Social Council, Sixty-second Session, Supplement No. 2 (E/5910), para. 21 (b); Official Records of the Economic and Social Council, 1979, Supplement No. 3 (E/1979/23), para. 23 (b) (ii); and ibid., 1981, Supplement No. 2 (E/1981/12), paras. 17 and 18.

6/ United Nations publication, Sales No. E.82.XVII.13 and corrigendum; the report is available in English, French, Russian and Spanish.

7/ Official Records of the General Assembly, Thirty-ninth Session, Supplement No. 44 (A/39/44), para. 74 (s).

8/ Report of the United Nations Conference on New and Renewable Sources of Energy, Nairobi, 10-21 August 1981 (United Nations publication, Sales No. E.81.I.24), chap. I, sect. A.

9/ United Nations publication, Sales No. E.83.XVII.4.

10/ 1981 Yearbook of World Energy Statistics and 1982 Energy Statistics Yearbook (United Nations publications, Sales Nos. E/F.82.XVII.16 and E/F.84.XVII.4).

11/ A Framework for the Development of Environment Statistics (ST/ESA/STAT/SER.M/78); future United Nations publication.

12/ For a description of the workshops and pilot projects, see the progress report of the Secretary-General on environment statistics (E/CN.3/1983/19), paras. 10-20.

13/ Official Records of the Economic and Social Council, 1983, Supplement No. 2 (E/1983/12 and Corr.1), para. 86 (e).

14/ United Nations publication, Sales No. E.83.XVII.12.

15/ The report of the workshop, which has been issued in French only, will be made available to the members of the Commission on request.

16/ See General Assembly resolution 35/18.

17/ Report of Habitat: United Nations Conference on Human Settlements, Vancouver, 31 May-11 June 1976 (United Nations publication, Sales No. E.76.IV.7 and corrigendum), chap. I.

18/ Report of the United Nations Conference on New and Renewable Sources of Energy, Nairobi, 10-21 August 1981 (United Nations publication, Sales No. E.81.I.24), chap. I, sect. A.

19/ The purpose of the workshop was to discuss the future direction of the environment statistics programme of the Statistical Office, with particular focus on an international data collection programme. Representatives of the World Bank, the Organization of American States (OAS), the International Institute for Environment and Development and various United States agencies and departments participated in the workshop.