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PROGRESS REPORT ON ENVIRONMENT STATISTICS

Report of the Secretary-General

SUMMARY

The present document reports on progress in environment statistics since the twentieth session of the Statistical Commission. It outlines the current work of the United Nations Statistical Office on guidelines, country practices, regional workshops and national pilot studies, a survey of international data and gaps and a preliminary format for the organization and collection of data. The document discusses some problems of co-ordination that are being encountered in the programme of environment statistics, as well as some integrative measures. The report also outlines the proposed next steps in the programme of work. Points for discussion by the Commission are included (para. 38).

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INTRODUCTION

- 1. At its twentieth session, the Statistical Commission discussed a "Progress report on environment statistics" (E/CN.3/521) and a "Progress report on the co-ordination of environment statistics" (E/CN.3/520). The Commission noted with satisfaction the progress that had been achieved, especially with regard to the survey of country practices, welcomed the importance attached to the programme by the United Nations Environment Programme (UNEP) in its funding of the work and requested that particular attention be paid to problems of co-ordination. The Commission further requested that the programme of work of the United Nations Statistical Office focus on four elements, namely:
- (a) Development of guidelines on concepts, definitions, classifications and methodologies;
- (b) Exploration of the feasibility of developing an over-all structure or framework for the organization of environment statistics;
- (c) Organization of pilot country studies to gain basic experience and to test the suitability and feasibility of the various elements of the programme; and
 - (d) Completion of the survey of country practices and plans. 1/
- 2. The present report on activities in environment statistics reviews work completed and in progress and outlines some proposed future steps for this programme. Under work completed and in progress, particular attention is focused on the preparation of technical reports preparatory to the development of guidelines, the expansion of coverage of country practices in a directory, preparations for and convening of regional workshops and initiation of national pilot studies, a survey of international data and the gaps in them, the drafting of a preliminary document on a format for the organization and colletion of data and the problems of co-ordination and the need for integrative measures. The next phases of the step-by-step programme of environment statistics are elaborated, including the work proposed using UNEP extrabudgetary resources in the period 1982-1985.
- 3. The Commission has noted the importance of the contribution being made to the programme of environment statistics by UNEP. Unfortunately, a lengthy recruitment process delayed implementation of some steps of the programme originally planned. The attention of the Commission is drawn in particular to the need for continued UNEP financial assistance during the period 1982-1985 (see para. 37 (d)) so that the foundation already laid can be effectively built upon.

^{1/} Official Records of the Economic and Social Council, 1979, Supplement No. 3 (E/1979/23), para. 143.

I. WORK IN PROGRESS

A. <u>Guidelines</u>

- The survey of country practices and plans in the field of environment statistics, carried out by the Statistical Office in 1977, 2/ showed that a wide range of data was considered to be "environmental" in nature at the national level. Although, at this early stage, it is not possible to embark upon work on all the component fields of data which countries perceive to be environmental, five principal areas of concern or core topics have been identified on the basis of the survey as pertaining to the central problems of environmental assessment and management in a wide selection of countries, namely, energy, land, natural resources, human settlements and pollution. For each of these core topics, a draft technical report has been prepared and will be available to members of the Commission during the session. The technical reports are preliminary drafts of materials on the component substantive fields of environment statistics and represent the first steps towards the elaboration of guidelines for the use of countries. Each technical report takes a slightly different approach, depending on the nature of the problems related to the topic. However, as far as possible, the following format has been used:
 - (a) Introduction to the topic;
 - (b) Identification of the environmental dimensions of the topic;
- (c) Possible approaches to the classification of the environmental concerns relating to the topic;
 - (d) Review of concepts, methods and problems of measurement; and
- (e) Review of sources of statistics, gaps in them and a possible format for environment statistics concerning the topic.
- 5. The technical reports contain relevant material on classifications, concepts, definitions and related questions (including more general ones) which are felt to be useful for the organization of statistics on the specific topics. Because the reports cover a wide range of problems, they focus on the use of existing data for environment assessment and management, with specific concern for their coverage and periodicity, and on the compilation of specific data series relevant to problems of environmental policy. They are designed as a series of information papers aimed at the selection, adaptation and compilation of statistics and related data on environmental conditions, trends and related human activities. They are intended to provide national offices with materials to assist in the selection and compilation of data tailored to their own needs and circumstances. They review the principles, concepts and approaches which countries might find useful in developing their own environment statistics and include a list of environmental concerns and associated classifications from which countries might make selections. The concepts, concerns and classifications proposed in the

^{2/} See document E/CN.3/521, paras. 16-47, and annexes I and II.

technical reports are sufficiently flexible so that individual countries may select and adapt those most appropriate to their own needs and priorities. As environment statistics become more widely available, the technical reports will provide materials on such aspects as definitions and classifications for agencies to use in selecting, adapting and compiling statistics for international reporting.

6. The drafts of the technical reports were prepared in mid-1979 and were circulated to the specialized agencies, regional commissions, selected experts and a sample of national statistical offices for comment. They were discussed at the Workshops on Environment Statistics held at Port-of-Spain, Trinidad and Tobago and Santiago, Chile, in the first half of 1980 and will form part of the materials for subsequent workshops and country pilot studies. Revised drafts, incorporating the comments received, will be prepared during the second half of the Statistical Office/UNEP project in 1980-81. The reports are an initial step towards meeting the request of the Commission at its twentieth session that the Statistical Office develop guidelines on concepts, definitions, classifications and methodologies.

B. Country practices

- 7. Some preliminary results of the survey of country practices in the field of environment statistics were presented to the Commission at its twentieth session (E/CN.3/521, paras. 16-47 and annexes I and II). The survey did not include the member countries of the Economic Commission for Europe (ECE) because those countries had been approached for similar information by the Statistics Divsion of ECE in 1977. The Commission endorsed the proposed next steps in the programme of work (E/CN.3/521, para. 52). In particular, it requested the Statistical Office "to carry out further studies on country practices and plans, including uses, with a view to transferring knowledge and experience between countries" (para. 52, subpara. (b)).
- 8. In order to present a systematic and coherent coverage of national practices that differ widely in scope and content, the concept of a reference directory was introduced. The directory aims to provide a standard inventory against which country practices, needs, plans and priorities can be assessed, as well as a convenient tool for reviewing current statistics on the environment and gaps in the statistics.
- 9. The elaboration of a standard format for all countries, covering radically different types of data, proved difficult. The format of the Statistical Office 1977 Survey was taken as a model, supplemented by that of the ECE survey and the INFOTERRA (International Referral System for Sources of Environmental Information) file of UNEP. In defining the format of the directory, the following criteria were applied:
- (a) That all governmental agencies producing environment statistics and related data be included, as well as the major non-governmental bodies (research institutions, universities, etc.);
- (b) That the principal publications containing data of use in environmental assessment and/or management be included;

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- (c) That the principal statistical series be classified according to a list of topics developed for the technical reports, but not restricted to the reports prepared to date;
- (d) That information on legislation, definitions, classifications, plans, methodologies etc. be included in so far as they affect statistical or related data development; and
 - (e) That the sources of data be indicated as far as possible.

The design of the format reflects these five criteria. 3/ The directory will attempt to provide a composite overview of statistical or related data activities concerning the environment in each country, as well as to indicate the links between such statistics and their sources and uses.

- 10. The directory is divided into five parts. Part A covers the institutional organization of statistics, listing the agencies and institutions involved in the environment at the national level. Part B examines environment statistics in national publications, including those which contain monitoring data, macro-scale indicators and other numerical information relevant to environmental policy. The publications are grouped into four categories:
 - (a) Specialized environment statistics compendiums;
- (b) Thematic publications covering one or two particular aspects of environmental policy (for example, forestry, meteorology, housing);
- (c) General statistical publications containing data of use in environmental analyses (for example, yearbooks, bulletins, periodical surveys); and
- (d) General descriptive environmental publications containing data (that is, state-of-environment reviews).

Part C itemizes specific national legislation that necessitates or will necessitate data collection. Information on the data in the publications listed in part B is organized according to a series of environmental concerns, such as energy, land, pollution, natural catastrophes, ecosystems etc. in part D of the directory. Part E includes several types of miscellaneous background information: the uses of environment statistics and related data; environment statistics reported to international organizations (both governmental and non-governmental); the participation of national agencies in international studies, projects or major conferences concerning environmental questions or issues; and any plans, identified gaps or specified future needs for environment statistics and related data.

³/ Copies of the format of the directory of country practices in the field of environment statistics will be available to members of the Commission during the session.

11. As soon as a draft of the directory is completed with information from questionnaires or published sources, the individual country chapters will be forwarded to the national statistical offices for review and revision. A mechanism will then be set up in the Statistical Office so that information on the current practices and plans of all countries will be retrievable on request. The method of compilation of the draft version was designed so as not to add unnecessarily to the reporting burden on national offices. Publication of the directory through the UNEP programme or some other mechanism would meet the request of the Commission for completion of the survey of country practices and plans.

C. Regional workshops and national pilot studies

- 12. In order to test the suitability and feasibility of the various substantive elements of the programme of environment statistics and in order to gain basic experience at the practical working level, a series of regional workshops and national pilot studies have been conducted. At its twentieth session, the Commission emphasized that particular attention should be devoted to the problems of co-ordinating statistics at the national level in an integrated framework that would meet national priority needs. 4/
- 13. To ensure that as many countries as possible might be able to participate in pilot studies, two approaches have been used, namely (a) regional workshops focusing on priority concerns shared by several countries, and (b) national studies focusing on the application and use of the technical reports, on development of over-all framework for the organization of environment statistics and on specific national problems. In both approaches, a fundamental aim has been to bring together the producers and users of environment statistics, so that the full range of country needs, plans, priorities and problems could be considered in the design of statistics and related data.
- 14. Complementary programmes on environment statistics and regional environmental problems, under which the workshops were held, were agreed upon between the Statistical Office and the Economic Commission for Latin America (ECLA) and between the Statistical Office and the Economic and Social Commission for Asia and the Pacific (ESCAP) in 1979. In the Caribbean region, a schedule of co-operative wook was agreed upon between the Statistical Office, the ECLA Office for the Caribbean, the Caribbean Development and Co-operation Committee and the Joint ECLA/UNEP Caribbean Environment Project (UNCEP). The work included the joint development of environment statistics for the Caribbean region as part of the Statistical Office/UNEP global project and a survey of the state of the environment in the region by UNCEP as part of the development of an action plan for sound environmental management. The aim was to exploit the complementarity of the supplier of environment statistics (the Statistical Office) and the users of such statistics to measure the state of the environment. A workshop was held at Port-of-Spain, Trinidad and Tobago, from 7-11 January 1980, attended by country

^{4/} Official Records of the Economic and Social Council, 1979, Supplement No. 3 (E/1979/23), para. 141.

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experts and representatives of the Caribbean Community (CARICOM) secretariat, the University of the West Indies, the Caribbean Conservation Association, the Eastern Caribbean Natural Area Management Programme and the United States Council on Environmental Quality. The Workshop considered the Statistical Office technical reports on environment statistics, work towards an over-all framework for statistics and national reviews of the state of the environment and of environment statistics; it compiled regional priorities for state of environment assessment, specified national requirements for environment statistics, identified gaps in existing data and discussed the organization of such data. Reference copies of the "Report of the Caribbean Workshop on Environment Statistics" (E/CEPAL/CDSS/56) will be made available to members of the Commission during the session.

- 15. In the ECLA region, a schedule of co-operative work was agreed upon between the Statistical Office, the ECLA Division of Statistics and Quantitative Analysis, the Natural Resources Division and the Development and Environment Unit. The work covers the joint development of environment statistics for Latin America as part of the Statistical Office/UNEP global project and an examination of the relationship between alternatrive patterns of development, life styles and environment in the region. The aim is to exploit the complementarity of the supplier and the user of environment statistics. In preparation for the Workshop, a staff member of the Statistical Office took part in the ECLA Regional Seminar on Alternative Patterns of Development and Life-Styles, held at Santiago, Chile in November 1979. A workshop was held at Santiago from 7-11 April 1980, attended by country experts and representatives of the following organizations: Centro Panamericano de Ingeniería Sanitaria y Ciencias del Ambiente, the regional offices of the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and UNEP and observers from several of the substantive divisions of ECLA. The workshop considered the Statistical Office technical reports on environment statistics, a paper on regional priorities in environment assessment, national papers on the state of the environment and environment statistics and a paper on natural resource balances. The workshop compiled regional priorities for the development of environemnt statistics and examined the national requirements for such statistics in the context of previous work in the region on alternative patterns of development and life styles. The workshop identified inadequacies in existing data and specified several areas of future co-operation between ECLA and the Statistical Office for the development of statistics and related analytical studies of the environment in Latin America. Reference copies of the "Report on the CEPAL/UNSO Workshop on Environment Statistics" (E/CEPAL/R.222) will be made available to members of the Commission during the session.
- 16. Following discussions held during December 1979 at Bangkok between the Statistical Office, the ESCAP Statistics Division, the regional office of UNEP and the ESCAP Environmental Co-ordination Unit (ECU), a complementary programme on environment statistics was agreed upon. The work covers the joint development of environment statistics for the Asia and the Pacific region as part of the Statistical Office/UNEP global project. It will pay particular attention to the work being carried out in the region by UNEP on environment and development, for example, the Regional Seminar on Alternative Patterns of Development and Life-Styles in Asia and the Pacific. It will also include elements relevant to the four priority areas for the ESCAP region specified by ECU, namely, (a) land

management, especially impact of the use of alternative energy sources and deforestation; (b) protection of the marine environment and related ecosystems; (c) environmental awareness; and (d) the institutional/legal framework for environmental protection and management. The work of ECU on surveying the state of the environment in the region will also be taken into account. Two workshops will be held - one at the Environment and Policy Institute, East-West Centre, Hawaii, from 20 to 24 October 1980, for Pacific countries; the other at ESCAP headquarters, Bangkok, from 20 to 26 January 1981, for Asian countries.

- 17. In addition to the four regional workshops, country pilot studies will be carried out in several countries, following the recommendations of the workshops. In each of the studies, the purpose will be to examine in detail national priorities, problems and practices in the field of environment statistics.
- 18. The regional workshops and national pilot studies are felt to be an effective way of making concrete steps in the development of environment statistics. The results of the workshops, in terms of regional needs for and priorities in statistics, will be incorporated into revised drafts of the Statistical Office technical reports and will also be important in future work on conceptual frameworks, formats and structures for the organization of statistics.
- 19. In view of the extensive programmes of the Conference of European Statisticians and the Senior Advisers on Environmental Problems in the ECE region, no workshops or national pilot studies are planned for that region. The Statistical Office participates in the work of the Conference and in that of the Organisation for Economic Co-operation and Development (OECD) and the Council for Mutual Economic Assistance (CMEA) at a level which obviates the need for such a workshop or country pilot studies. As far as the Economic Commission for Western Asia (ECWA) region is concerned, following discussions held at Beirut in April 1979, it was felt to be premature to organize a workshop in that region. ECWA, however, has translated document E/CN.3/521 into Arabic and distributed it to member countries for comments and for the collection of additional information. With regard to the Economic Commission for Africa (ECA) region, similarly a workshop was felt to be premature; however, ECA will participate in the work on country practices and plans and will prepare a list of regional priorities and national environmental concerns with regard to data availability and gaps.
- 20. In conjunction with work in progress on materials/energy balances, following the completion of preliminary draft guidelines for a process classification for the industrial materials sector, a pilot study will be conducted in 1980 to test with national data the approach, methodology and suitability of the draft guidelines. The pilot study has been established in co-operation with Statistics Canada.

D. Survey of international data and gaps

21. The work outlined in paragraphs 7 to 11 does not show a complete picture of the availability of environment data at the international level or the gaps in such data. Two further steps are seen to be necessary. First, the directory

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should include an indication of the data reported by national agencies to international organizations and published by those organizations on subject areas relevant to environmental assessment and management. Secondly, a series of over-all comparative tables should be prepared to make possible intercountry comparisons of the availability of basic environment statistics. For the latter, the selection of the specific topics to be included presents particular difficulties. Both as a matter of convenience and in view of the fact that it is the first set of statistics officially adopted for use by a regional group of countries, the CMEA System of Environmental Indicators was taken as the reference set of environmental topics.

22. The CMEA System contains eight major groups of indicators, namely, (a) general; (b) land surface; (c) water; (d) wastes; (e) atmospheric conditions; (f) noise; (g) housing and public utilities; (h) investments for environmental protection. The System, adopted in 1975 was designed to enhance international comparability of data on the environment and measures for its protection among the CMEA member countries and to assist those countries in organizing their national environment statistics. Under the eight major groups of indicators, some 140 individual elements have been reviewed by the Statistical Office to date, in the publications of 138 countries. It is anticipated that this comparative tabulation will facilitate the identification of the major gaps that exist in traditional statistics with respect to environmental concerns, as well as indicate the major concerns for which statistics already exist. It is recognized that several important topics of environmental concern are not yet fully covered by the CMEA System (for example, food contamination, natural disasters, ecosystems and aspects of the working environment), and in this regard, further work on assessing country availability of data will be necessary.

E. Preliminary format for the organization and collection of data

23. At its twentieth session, the Commission assigned a high priority to work on exploring the feasibility of developing an over-all structure or framework for the organization of environment statistics. 5/ Such work had been delayed by problems of recruitment prior to 1979. Since the twentieth session, work on this aspect of environment statistics has been divided into three tasks: (a) a survey of current approaches to environment statistics; (b) a review and evaluation of the dozen or so statistical compendiums on environment statistics published to date, from the point of view of their structure and any implicit or explicit model they might contain; and (c) delineation of a conceptual framework for the systematic development, co-ordination and organization of environment statistics. A draft report on this subject was completed early in 1980 and will be reviewed in the regional workshops and national pilot studies. It was circulated for review and comment to the specialized agencies, the regional commissions and selected experts in the field. Reference copies of the revised draft report will be made available to members of the Commission during the session.

^{5/} Ibid., para. 143 (d) (ii).

- 24. The first section of the draft report discusses several ways of constructing frameworks or systems that have been used by national or international organizations. The aim is to review the "state of the art", showing the main principles and ideas applied, and appraising such practices for countries and organizations lacking a suitable framework. It was felt that this approach would be useful in identifying potential areas of co-ordination in environment statistics. The wide variation in the elements (concerns or problems) included under environment necessitates an eclectic approach in establishing a co-ordinating framework for statistics. Towards this end, the common characteristics found in the approaches used to date by countries and international organizations will help to establish an over-all framework.
- 25. The second section of the draft report contains a description of national statistical compendiums. The background, aims, content and implicit or explicit model of the presentation are given, together with a table summarizing the contents of all the compendiums. Some topics were common to most compendiums, such as aspects of environmental media (for example, air and water pollution), land use and related problems (for example, soil quality) and such problem areas as energy, noise or disposal of hazardous substances. Although structurally no two compendiums use the same approach, some common elements can be discerned. For example, some countries follow a "media" approach, dividing data according to "water", "air" or "land/soil" categories. Other countries have organized the presentation to show stresses on, and responses of, the environment. In most cases, however, a combination of media and stress-response approaches is used, pointing to the fact that in most countries environment statistics represent a synthesis of many elements.
- 26. The third section of the draft report, the delineation of a conceptual framework for the development, co-ordination and organization of environment statistics, is predicated on the fact that no single approach can fulfil all the data needs. Given that the technical reports described in paragraphs 4-6 above were drafted prior to the commencement of work on the over-all framework (as a response to the country priorities expressed in the Statistical Office questionnaire on country practices), it will be necessary to redraft them within the context and outline of the wider framework. At the same time, the framework will pay particular attention to the concerns treated in the technical reports. Special attention will be paid to the priorities of developing countries, as expressed through the regional workshops and national pilot studies.
- 27. Following a revision of the draft report to incorporate comments received, it is anticipated that it will be divided into two documents. The first, comprising the first two sections, would be considered a review of current work in environment statistics. The second, based on the third section, could be the foundation for further work on a conceptual framework for the organization and development of environment statistics and could, if the Commission wishes, be presented to it at its twenty-second session.

II. PROBLEMS OF CO-ORDINATION AND INTEGRATIVE MEASURES

- 28. With regard to problems of co-ordination in the field of environment statistics, at its twentieth session the Commission felt that the formulation of specific co-ordination measures was needed. 6/ The Sub-Committee on Statistical Activities of the Administrative Committee on Co-ordination, at its thirteenth and fourteenth sessions (1979 and 1980) considered the question of co-ordination of environment statistics, mainly on the basis of reports on activities under way in the specialized agencies on particular aspects of this field. Some general problems of co-ordination were discussed (based on E/CN.3/520) by the Commission at its twentieth session, including the diversity of problems treated under the umbrella of environment, the dichotomy between scientific monitoring data and traditional series of statistics or indicators, the need for a conceptual framework and the fact that statistics and data on the environment are often compiled in agencies with specific mandates for policy in this field, rather than in statistical offices.
- 29. One of the critical co-ordination problems within the United Nations system is that, in accordance with its co-ordinating and catalytic role in the field of environment, UNEP has encouraged agencies to add an environmental dimension to their current work rather than itself defining a central core and focus for the field. This situation poses some difficulties when data or statistics have to be compiled across the whole field, since an integrative mechanism is lacking whereby such data can be assembled. It is fortunate that the Environmental Data Unit of UNEP has managed to function as a monitor on project proposals in order to avoid duplication of work on environment statistics and related data. For the purposes of reviewing in depth the central functional area of environmental assessment (which includes environment data) UNEP is planning to organize a "joint thematic programming" meeting with all United Nations agencies involved in this environmental field.
- 30. Some problems of co-ordination exist between the United Nations Statistical Office and the specialized agencies, notably that although several agencies are carrying out environmental projects which involve data specification and compilation, these projects are not regarded as "statistical". The statistical units in the agencies may not include such projects in their own programmes and this leads to oversights or omission of the projects from consideration in developing guidelines or conceptual frameworks. To overcome this problem, it would be useful for the statistical unit of each agency to review not only activities specifically under its own work programme but also to examine the statistical implications of all environmental projects under way or planned in the agency; such reviews of work in progress of relevance to statisticians and data experts could be integrated by the Statistical Office into the directory of country practices to give countries a complete picture of work at the international level. Such inputs could be made on an annual basis, given the need for close co-ordination of effort as statistics and related data are developed for environmental policy purposes.

^{6/ &}lt;u>Ibid.</u>, para. 139.

- 31. With regard to regional co-ordination, the place-specific nature of most environment statistics and related data should be noted. 7/ Relatively few environmental phenomena (marine pollution, ozone-layer depletion, transboundary air pollution, for example) are truly global in scope or dimension. However, there are strong regional (that is, continental or subcontinental) patterns to these phenomena, as shown for example by such problems as the spread of arid zones, ecosystem changes, settlement patterns, land use, etc. The programme of the Statistical Office has deliberately focused on such regional priority concerns (see paras. 12-20 above) so that statistics and related data on environmental issues can be responsive to regional priorities. Given the need for a central co-ordinating function by the Statistical Office in the development of environment statistics, after five years' experience with this programme one important element of co-ordination is lacking. It would be useful if, in each regional commission, there could be a statistician responsible for the co-ordination and compilation of environment statistics for the countries of the region. The statistician could be attached both to the environment co-ordination unit and the statistical office. Such posts might be established under the regular budget or funded from extrabudgetary sources by UNEP, in close conjunction with the present Statistical Office/UNEP project on environment statistics.
- 32. The programmes of ECE (both of the Conference of European Statisticians and of the Senior Advisors on Environmental Problems) are particularly important in the contribution they make to the global work on this topic. Close co-ordination has been achieved at the working level, and the Statistical Office has participated regularly in the meetings of the Conference of European Statisticians concerning environment statistics. It is one of the responsibilities of the Statistical Office to ensure that work under way in any agency or region is as widely applicable as possible to other agencies and regions, given the resource constraints of the United Nations system. Accordingly, a substantial effort has been invested in adapting work developed by the Conference of European Statisticians to the wider needs of the Statistical Office/UNEP global project, in order to avoid duplication of effort and to ensure an element of co-ordination in developmental work in environment statistics.
- 33. As far as co-ordination with non-governmental organizations is concerned, close contact has been established by the Statistical Office with the Environment Liaison Centre (ELC) at Nairobi for this purpose. A special questionnaire on statistical and related data activities was circulated by ELC on behalf of the Statistical Office in 1979. A special section on the work of non-governmental organizations is to be included in the directory of country practices as a result of the questionnaire, so that countries may be aware of the range of such activities. In the context of the review of environmental assessment (see para. 29 above), UNEP intends to support ELC in the preparation of a report on the activities of non-governmental organizations in this area, for submission to the UNEP Governing Council at its ninth session.

^{7/} See also document E/CN.3/552, para. 39, for further details.

34. It is felt that the UNEP continuing programme review of activities in environment data and reinforcement of the work of the regional commissions in environment statistics (see para. 31 above) can lead to a more substantive integration of efforts. Without such measures, effective co-ordination will be more difficult.

III. NEXT STEPS IN THE PROGRAMME OF WORK

- 35. In elaborating the next steps in the programme of work in environment statistics, a distinction should be made between the short term and the long term. Until the end of the current Statistical Office/UNEP project in 1981, it is proposed that the next steps should be those approved by the Commission at its twentieth session, namely that work should continue on (a) developing guidelines on concepts, definitions, classifications and methodologies; (b) developing an over-all structure or framework for the organization of environment statistics; (c) organizing pilot country studies and regional workshops to gain basic experience and to text the suitability and feasibility of the various elements of the programme; and (d) completing the survey of country practices and plans through the compilation of the directory. 8/
- 36. In the longer term, a second phase of the Statistical Office/UNEP project is envisaged for the period 1982-1985, which would build upon the foundation established under the current programme. The following seven activities are proposed to be carried out as resources permit:
- (a) To enlarge upon and keep up to date the directory of country practices in the field of environment statistics, which comprises an inventory of current national work and plans on statistics, indicators and related data on the environment; further to establish a referral mechanism for the use of countries and to co-ordinate work at the international level;
- (b) To promote the global and regional collection of statistics, indicators and special-purpose data packages through the compilation of compendiums;
- (c) To develop guidelines for integrated concepts, definitions, classifications, methodologies and tabulations for use by countries in the development of their environment statistics and for international reporting;
- (d) To test the guidelines through regional workshops and national pilot studies;
- (e) To develop recommendations and a manual for the use of countries in the establishment of environmental indicators;
- (f) To establish a computerized data base for regular series of environment statistics, indicators and related data;

^{8/} Official Records of the Economic and Social Council, 1979, Supplement No. 3 (E/1979/23), para. 143 (d).

- (g) To establish a series of training programmes and study tours for national statisticians in the field of environment statistics.
- 37. A project proposal will be submitted to UNEP in 1980 on further work in environment statistics, which will continue the relationship established between the Statistical Office and UNEP. There are several items which have implications for the current work and which should be considered in the follow-up project, as was reported to UNEP in the mid-project review of achievements prepared in March 1980 by the Statistical Office. The implications may be summarized as follows:
- (a) National and international work. The work to establish guidelines for the national development of statistics and that to provide a framework for the international collection and compilation of statistics should perhaps be separated. Concerning work at the national level, it is obvious that no one rigid approach or framework will be appropriate in all countries. Rather, a flexible format will be needed within which national priorities can be presented in statistical terms. A particular problem will continue to be posed by the fact that OECD and CMEA countries have radically different requirements from the developing countries. In the OECD and CMEA countries, environment statistics tend to be relatively well developed; in some countries, statistical compendiums have been compiled. However, in most developing countries the little work that has been done has usually focused on a particular thematic or regional issue on an ad hoc basis. This difference should be fully recognized in any follow-up work. Concerning work at the international level, the region would appear to be the most appropriate level at which collection or compilation of data should take place. Broad conceptual and methodological issues should be pursued at the global level and presented in a flexible and widely applicable manner, using frameworks and formats which can be modified to meet regional priorities and needs.
- (b) Developing and developed (industrialized) country needs. It should be recognized that, in developing countries, it is both desirable and necessary to integrate environment statistics into the wider set of data dealing with development issues. Some developing countries do not place a priority on environment statistics per se and have no plans for such work. As a practical measure in such countries, environment data should be an integral part of the wide need for information on the development process. By contrast, in many industrialized countries, emphasis has been placed on pollution abatement and data have been developed for regulatory policies to that end. Thus, the implication for the project is that the needs of developed (industrialized) and developing countries differ radically, and the difference should be reflected in statistical development work.
- (c) Definition of environment statistics. Several problems have been posed by the lack of a strict definition of the term "environment" and hence "environment statistics". Further, it is obvious that to confine the project to conventional "statistics" would defeat one of the original purposes of the project, that is to develop new data bases for environmental assessment and management. Thus, it has been necessary to consider the gamut of information used in environmental policy-making, including scientific monitoring data, traditional statistics, ad hoc survey data and macro-scale indicators. No a priori reason exists as to why statistics on the environment should not include all four types of information.

Indeed, in the national compendiums published to date, this has been the most common approach. Thus, in future work, a wide working definition of "statistics" on the environment should be used, and such statistics should be linked to analytical textual description of phenomena.

Funding. The philosophy of UNEP in funding is to provide "seed money" to initiate programmes, which, it is hoped, would later be incorporated into the regular activities of agencies or institutions, in this case the United Nations Statistical Office. Although this idea is good in theory, in practice it poses serious problems, and given the current fiscal situation of the United Nations, is somewhat unrealistic. The difficulty of transferring activities from extrabudgetary funding to the regular budget of the United Nations cannot be over-emphasized. It has been made clear both by the Committee for Programme and Co-ordination and the Advisory Committee on Administrative and Budgetary Questions that such a transfer cannot be routinely made and must be subject in each instance to the scrutiny of, and approval by, the appropriate legislative bodies. Therefore, UNEP should be strongly urged to continue its contribution to the programme of statistics on the environment. UNEP and the United Nations Statistical Office in co-operation should seek avenues whereby a regular budget programme could be built into the work programme of the Office, although it should be recognized that great difficulties are anticipated in this respect.

IV. POINTS FOR DISCUSSION

- 38. The Commission may wish to make general comments on the work in progress and to discuss the following points:
- (a) Publication of the directory of country practices through the publication programme of UNEP or some other mechanism (para. 11);
- (b) Measures of co-ordination proposed (paras. 28-34), including the establishment in each regional commission of a post of statistician responsible for the co-ordination and compilation of environment statistics for the countries of the region (para. 31);
- (c) The next steps in the programme of work on environment statistics to ensure that the progress made to date can be continued in the regular programmes of work of the Statistical Office and UNEP (paras. 35-37), including the issue of future funding (para. 37 (d)).