UNITED NATIONS

**Economic and Social Council** 

UNSD Reference Copy Please do not remove (Rm.DC2-1408)

Distr. GENERAL

E/CN.3/1993/15 27 April 1992

ORIGINAL: ENGLISH

STATISTICAL COMMISSION Twenty-seventh session 22 February-3 March 1993 Item 12 of the provisional agenda\*

### GENERAL DEVELOPMENT AND INTEGRATION OF METHODOLOGICAL WORK

Report of the Secretary-General

#### SUMMARY

The main purpose of the present report is to keep the Statistical Commission informed of developments in methodological work in certain fields that are important but do not call for separate documents at this time. The document thus describes methodological work in the areas of energy statistics and international trade and transport statistics. Points for discussion are also presented (paras. 9 and 19).

A joint report by the Secretary-General and the Director-General of the General Agreement on Tariffs and Trade on the future relationship between the Standard International Trade Classification (SITC) and the Harmonized Commodity Description and Coding System (HS) will be issued in an addendum to the present report.

\* E/CN.3/1993/1.

92-18331 3385b (E) 270592 03/06/92

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#### INTRODUCTION

1. At its twenty-fourth session, held in 1987, the Statistical Commission expressed concern at the amount of documentation proposed for consideration at its twenty-fifth session. 1/ In response to that concern, the Working Group on International Statistical Programmes and Coordination, at its twelfth session, agreed that the new agenda item entitled "General development and integration of methodological work" could usefully accommodate reporting on areas where no major discussion was expected but for which the Commission needed to be kept informed of developments (E/CN.3/1989/20, para. 34). At its thirteenth session, held in 1989, the Working Group considered that the document entitled "Report on the general development and integration of methodological work, including experience and progress made in international classifications" served well the purpose of keeping the Commission informed of developments in methodological work in certain fields that were important but that did not call for separate documents at that time (E/CN.3/1991/2, para. 48).

### I. SUMMARY REVIEW OF THE METHODOLOGICAL WORK PROGRAMME OF THE STATISTICAL OFFICE OF THE UNITED NATIONS SECRETARIAT

2. The development of statistical concepts, definitions, classifications and methods of data collection and dissemination for use by Member States is one of the subprogrammes of the Statistical Office of the United Nations Secretariat. Some of the documents before the Statistical Commission, notably those on the review of the System of National Accounts (SNA) (agenda item 4 (a)) and tourism statistics (agenda item 11), treat predominantly methodological questions. Methodological issues are also being addressed in other areas as part of the efforts to improve data collection and disseminaton, in particular in the areas of service statistics (agenda item 7), price statistics (agenda item 8), demographic and social statistics (agenda item 9), statistics on special population groups (agenda item 9 (c)), statistics on the advancement of women (agenda item 9 (d)) and environment statistics (agenda item 10), and as part of the National Household Survey Capability Programme (agenda item 13 (b)). Methodological development in the areas of energy and international trade statistics are described in section II of the present report. A summary review and indication of resources allocated overall to the methodological work of the Statistical Office of the United Nations Secretariat is contained in the note by the Secretary-General on the proposed programme of work of the Statistical Office of the United Nations Secretariat for the biennium 1994-1995, including proposed revisions to the statistics programme of the medium-term plan for the period 1992-1997 (E/CN.3/1993/25).

#### 11. ONGOING AND FUTURE WORK IN SELECTED AREAS

#### A. Energy statistics

### 1. <u>Publications</u>

3. In October 1991 the publication entitled <u>Energy Statistics: A Manual for</u> <u>Developing Countries</u> (ST/ESA/STAT/SER.F/56) <u>2</u>/ was issued. This is a companion volume to the original methodological publication of the United Nations in energy statistics, namely, the technical report <u>Concepts and</u> <u>Methods in Energy Statistics</u>, with Special Reference to <u>Energy Accounts and</u> <u>Balances</u> (ST/ESA/STAT/SER.F/29). <u>3</u>/

4. The new technical report is not intended to replace the original one and should be considered a working document supplementary to its more historically oriented predecessor. The publication serves as a guide for developing countries in improving their energy statistics methodologies and data compilation activities. It is geared primarily towards methods of producing commodity statistics with energy balances as the final result.

5. Various possible sources of inconsistencies from diverse sources of data and differing concepts, definitions, time spans and coverage are discussed in detail for all types of energy commodities, and recommendations are provided to minimize or eliminate those inconsistencies. The manual also suggests the use of supplementary data, for example, resources, reserves and infrastructure of energy-producing industries and distribution systems, to provide a better overview of the national energy economy and to verify the accuracy and coverage of routinely collected data. The presentation of data is also discussed, with emphasis on commodity tables and energy balances. Further material presented includes (a) an expanded treatment of traditional fuels and biomass, which are especially important for developing countries, and (b) a special section on microcomputer use and current software packages suitable for energy statistics use.

#### 2. <u>Workshop on petroleum statistics</u>

6. The Workshop on Petroleum Statistics was held in Sochi, Russian Federation, from 3 to 10 October 1991. It was organized by the former Department of Technical Cooperation for Development of the United Nations Secretariat in conjunction with the State Committee on Statistics of the former Union of Soviet Socialist Republics, with substantive support from the Statistical Office of the United Nations Secretariat. The major long-term objective of the Workshop was to strengthen the capabilities of developing countries to produce accurate and reliable petroleum statistics for the formulation of energy policy and the promotion of overall economic development.

7. A report based on the results of the Workshop has been prepared. It includes the technical and country papers prepared by the participants and the Secretariat. The report emphasizes the further development and harmonization

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of methods, concepts, definitions and classifications of petroleum statistics, in physical as well as value-related terms. It is primarily geared towards the needs of developing countries and countries in transition in improving their energy data collection activities in the petroleum sector.

8. The following are the main conclusions and recommendations presented in the report of the Workshop:

(a) It was agreed that refinery input/output accounting needed further examination, especially in view of the numerous problems related to the emergence of petrochemical/refinery complexes and especially backflows to refineries. In the past, these problems had been experienced primarily in developed countries. However, owing to the rapid growth and spread of the petrochemical industry, developing countries were expected to face similar problems. The experiences in the area of more advanced countries should be shared widely with the developing world;

(b) It was agreed that end-use demand statistics were a weak link in the overall accounting of energy, especially petroleum products, and that surveys were necessary to correct this. However, financial constraints were deemed a major obstacle to the rapid implementation of such surveys. These difficulties were further compounded by structural changes taking place in many developing countries. A need for training in professional survey methods was perceived and the hope that such training could be supplied, through bilateral and multilateral assistance, was expressed;

(c) It was observed that the generation of electricity by self-producers and the treatment of such electricity generation statistically constituted one important area of end-use demand. This was discussed in detail. Many countries ignored such production and generation input was consequently shown under end-use (instead of under the conversion sector) with resultant losses. Further practical work was needed to ensure correct handling in the future;

(d) It was agreed that price/finance statistics, although always in demand, were riddled with problems for statisticians. The lack of a flow of reliable information on energy prices in developing countries constituted an impediment to the countries' independent and sustained development. Methodological and statistical approaches to evaluating the economic impact of changes in the price of energy commodities on the economy and to directing energy development were virtually non-existent in those countries. It was recognized that a detailed study in this area should be done by some of the energy-related international organizations;

(e) It was noted that in the area of external trade statistics present classification systems - the <u>Standard International Trade Classification</u>, <u>Revision 3</u> (SITC, Rev.3) <u>4</u>/ and the <u>Harmonized Commodity Description and</u> <u>Coding System</u> (HS) <u>5</u>/ - may be lacking in sufficient detail to ensure international comparability of national energy data. Most countries that used HS added additional digits to the coding system to break down the description

of petroleum products into greater detail. International organizations were urged to expand efforts in this regard and to focus such efforts also on the product definitions associated with these classifications;

(f) It was observed that bunkering, particularly aviation bunkering, was handled differently throughout the world. This often led to confusion and distortions in both international comparability and analysis of national end-use statistics. Standards must be developed and agreed to and, more important, used at all levels;

(g) It was hoped, finally that a follow-up workshop - in about two or three years - could be held to monitor statistical improvements in the countries represented, as well as progress made, and to propose new work programmes at the international level.

### 3. Points for discussion

9. The Statistical Commission may wish to comment on progress made and the need for future programmes in the area of energy statistics.

#### B. International trade and transport statistics

### <u>Commodity indexes for the Standard International Trade Classification,</u> Revision 3 (SITC, Rev.3)

10. Work continued on methodological development and publications consequent to the publication of SITC, Rev.3. The draft of the commodity indexes for SITC, Rev.3 was prepared and circulated to concerned organizations for technical review. The indexes, now being edited for publication, will be issued in two volumes. Volume I will incorporate lists of commodities in alphabetical order under the most detailed headings of SITC, Rev.3; volume II will list all commodities in alphabetical order, providing relevant SITC, Rev.3 codes. Both volumes are expected to be published by the end of November 1992.

# Methods used in compiling the United Nations price indexes for external trade

11. Volume I of <u>Methods Used in Compiling the United Nations Price Indexes</u> <u>for External Trade</u> (ST/ESA/STAT/SER.M/82), <u>6</u>/ published in 1987, contains a description of the methods used in the Statistical Office of the United Nations Secretariat in compiling the price indexes of primary commodities and non-ferrous base metals. Volume II, published in 1991 (ST/ESA/STAT/SER.M/82), <u>7</u>/ contains descriptions of methods used in compiling the unit value (or price), and quantum indexes where appropriate, of exports of manufactured goods, machinery and transport equipment, imports of fuels and exports and imports of total merchandise by region.

# Training seminars on external trade statistics

12. The Training Seminar on International Trade Statistics for English-speaking Government Statisticians, organized by the Economic Commission for Africa, was held in Addis Ababa from 26 November to 5 December 1990. The Statistical Office of the United Nations Secretariat, with funding from the regular programme of the former Department of Technical Cooperation for Development, also of the United Nations Secretariat provided substantive support and lectures on United Nations recommended concepts, definitions and classifications in international trade statistics and index numbers for international trade. The Statistical Office with funding from the regular programme of the former Department of Technical Cooperation for Development, conducted a training seminar on the methodology of data collection and index number compilation in external trade statistics for the Customs General Administration of the People's Republic of China held in Qingdao from 15 July to 23 July 1991. The Customs Cooperation Council, the Statistical Office and the Economic and Social Commission for Asia and the Pacific jointly organized the Regional Seminar on the Harmonized System and International Trade Statistics in the Asia and Pacific Region, held in Mallaca (Malaysia) from 11 to 15 November 1991. The Statistical Office, with funding from the regular programme of the former Department of Technical Cooperation for Development, provided substantive support and lectures on United Nations recommended concepts, definitions and classifications in international trade statistics.

#### New projects

13. Research is at present being carried out on technical problems related to the rebasing of trade index numbers to a new base year from the present to the 1980 base and on possible improvements in the country coverage of the samples used in the estimation both of the regional/world unit value indexes of total imports and manufactured goods exports and of the export price index for machinery and transport equipment.

14. Library research is under way on country practices in compiling international trade statistics, including price/unit value and quantum indexes, as a first step leading to a planned future publication on country practices in trade statistics. This publication will also constitute basic work towards revising the existing United Nations recommended concepts and definitions for international trade statistics. The recommended concepts and definitions are contained in International Trade Statistics: Concepts and Definitions (ST/ESA/STAT/SER.M/52/Rev.1), 8/ which was last revised in 1981 and published in September 1982. A revision needs to be undertaken to reflect developments that have taken place in such areas as international trade and customs classifications (the introduction of HS and SITC, Rev.3) and country practices in data collection and processing and to clarify and expand on some parts of the existing recommendations that have been shown by experience to require clarification. In addition, the General Agreement on Tariffs and Trade, with the concurrence of the Statistical Office, has pointed out the need to review the existing standards on international trade concepts and

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definitions, in terms of: (a) the known occurrences of non-inclusion of some items (for example, bunkers, military goods, entrepôt trade and net flows of electricity); (b) the availability of data resulting from international trade agreements; (c) the relationship that exists between trade concepts and definitions and the global conceptual changes taking place in the System of National Accounts; and (d) the systems of trade in use.

### Overall future relationship between SITC and HS

15. The Working Group on International Statistical Programmes and Coordination at its fourteenth session gave initial consideration to the question of the overall future relationship between SITC and HS (E/CN.3/1993/2, para. 7). The Working Group was informed that HS would be revised effective 1 January 1996 to reflect changes in technology and product mix in international trade. This raised the question of further revision to SITC. The Working Group requested the Statistical Office of the United Nations Secretariat to include in the present report to the Statistical Commission on international trade statistics a report of the situation including:

(a) Information on the nature and scale of the planned revision to HS;

(b) Relative benefits of the two classifications for various purposes, such as initial data collection and classification, market analyses and general economic analysis, and analytical work;

(c) Need for long-term time-series and problems in continuity in such series resulting from changes in classifications;

(d) Resource requirements for various possible alternatives for work on the revision of SITC.

16. The Working Group requested the Statistical Office and the General Agreement on Tariffs and Trade to prepare jointly the report on SITC and HS. The joint report is presented in an addendum to the present report.

### International seaborne trade statistics

17. Work has continued, using regular budget resources as available, to collect limited statistical data on goods loaded and unloaded in seaborne trade based on questionnaires sent to countries. By agreement, those data have been provided to the United Nations Conference on Trade and Development (UNCTAD) as a basis for the UNCTAD compilation of world tables that are published by UNCTAD as well as by the Statistical Office of the United Nations Secretariat in the <u>Statistical Yearbook</u>, the <u>Monthly Bulletin of Statistics</u> and the <u>International Trade Statistics Yearbook</u>. The <u>1986 International</u> <u>Sea-borne Trade Statistics Yearbook</u> (ST/ESA/STAT/SER.D/86) <u>9</u>/ was completed on the same resource base. No further editions are contemplated unless extrabudgetary funding is secured.

18. In the absence of resources to proceed with work on seaborne trade statistics, the Statistical Office has entered into an arrangement with a private firm to make data that the firm develops on seaborne trade available to the United Nations and selected other organizations. Some of the data available from that firm are considered a useful substitute for Statistical Office data.

### Points for discussion

19. The Statistical Commission may wish to comment on progress made and the need for future programmes in the area of international trade and transport statistics.

#### <u>Notes</u>

1/ Official Records of the Economic and Social Council, 1987, Supplement No. 6 (E/1987/19), para. 216.

- 2/ United Nations publication, Sales No. E.91.XVII.10.
- 3/ United Nations publication, Sales No. E.82.XVII.13.
- 4/ United Nations publication, Sales No. E.86.XVII.12.
- 5/ Customs Cooperation Council publication.
- 6/ United Nations publication, Sales No. E.87.XVII.4.
- 1/ United Nations publication, Sales No. E.91.XVII.8.
- 8/ United Nations publication, Sales No. E.82.XVII.14.
- 9/ United Nations publication, Sales No. E.88.XVII.13.

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