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ECONOMIC COMMISSION FOR AFRICA

Training Seminar on International Trade  
Statistics for English-speaking  
Government Statisticians  
Addis Ababa, Ethiopia

26 November - 5 December 1990

REPORT OF THE TRAINING SEMINAR ON INTERNATIONAL  
TRADE STATISTICS FOR ENGLISH-SPEAKING  
GOVERNMENT STATISTICIANS

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## A. ATTENDANCE AND ORGANIZATION OF WORK

1. The training seminar on International Trade Statistics for English-speaking Government Statisticians was held at ECA headquarters, Addis Ababa, Ethiopia from 26 November to 5 December 1990. The meeting was opened by Mr. Adebayo Adedeji, Executive Secretary of the Economic Commission for Africa.
2. The training seminar was attended by participants from the following member States of the Commission: Botswana, Ethiopia, Gambia, Ghana, Malawi, Mauritius, Nigeria, Seychelles, Swaziland, Uganda, United Republic of Tanzania and Zimbabwe.
3. The United Nations Statistical Office and the Statistical Office of the European Communities were represented and provided technical support to the training seminar.
4. The Economic Community for West African States (ECOWAS) was represented.

## B. AGENDA

5. The agenda for the meeting was the following:
  1. Opening address
  2. Administrative and other organisational matters
  3. Review of some major problems in the development of international trade statistics in Africa
  4. Sources and uses of trade statistics
    - (a) Sources of trade statistics
    - (b) Role of customs and statistical services in international trade statistical operations
    - (c) Uses of trade statistics
  5. Conceptual framework of international trade statistics
    - (a) Coverage of the statistics
    - (b) Trade system
    - (c) Commodity classification
    - (d) Valuation
    - (e) Quantity measurement
    - (f) Partner country
    - (g) Supplementary topics
6. Data collection
  - (a) Source documents
  - (b) Completeness of trade statistics
  - (c) Recording period
  - (d) Receipt of documents by compiling agency
  - (e) Problems experienced

7. Data processing

- (a) Basic statistical operations in compiling data
- (b) Improving and harmonizing international trade statistics
  - ASYCUDA software package
  - EUROTRACE software package
- (c) Trade statistics data bases
- (d) Processing of trade data at ECA

8. Publication and presentation of trade data

9. International trade indexes

- (a) Uses of trade indexes
- (b) Sources of data
- (c) Approaches to price measurement
- (d) Types of indexes (including unit value and quantum indexes)
- (e) Base period and chaining
- (f) Problems of pricing

10. Data requirements in other statistical systems

- (a) United Nations System of National Accounts
- (b) Balance of Payments

11. Other business

12. Evaluation of training seminar

13. Closing of training seminar.

C. ACCOUNT OF PROCEEDINGS

(i) Opening address

6. In his opening address, the Executive Secretary welcomed the participants and expressed appreciation to the Commonwealth Secretariat for financing the participation by the Commonwealth African statisticians in the training seminar. He thanked governments in the non-Commonwealth English-speaking ECA member States for supporting their participants to the seminar. He also thanked the United Nations Statistical Office and the Statistical Office of the European Communities (EUROSTAT) for providing technical support to the meeting.

7. He pointed out the crucial role played by international trade in the economic development of developing countries and said that over the years their importance had increased tremendously due to the growing interdependence of nations and the recognition that trade was an important factor in promoting growth in the developing countries.

8. He further pointed out that trade statistics had been indispensable in the formulation and monitoring of a number of programmes that had been launched to arrest the deteriorating economic situation in Africa in the 1980s. Mention was made of the African Priority programme for Economic Recovery (APPER), the United Nations Programme of Action for African Economic Recovery and Development (UNPAAERD) and the African Alternative Framework to Structural Adjustment Programmes for Socio-economic Recovery and Transformation (AAF-SAP) as examples of such programmes.

9. It was stressed that statisticians had a unique role to play in ensuring that trade statistics which were produced were targetted to current policy concerns, reliable, comprehensive and timely. The organization of such statistics at the country level generally depended on a number of agencies. The Customs Administration and the National Statistical Office were the two organizations which were involved to a greater extent.

10. The Executive Secretary mentioned the need for standardization of classifications, concepts and definitions if any meaningful comparisons of data were to be achieved between countries and regions. He said that he was pleased to note the progress made in this direction at the international level and hoped that the seminar participants would discuss how they have adapted the classifications, concepts and definitions to their countries' needs.

11. In the area of data processing, he mentioned software packages which were developed specifically for handling international trade statistics, namely the ASYCUDA and EUROTRACE. He expressed the hope that these software packages will in addition to improving data on trade flows enhance the recording of customs revenue and the ability to compute external trade price and volume indices.

12. In conclusion, the Executive Secretary hoped that the participants would effectively transfer the knowledge acquired in the training seminar into practical terms when they return to their respective countries.

(ii) Review of some major problems in the development of international trade statistics in Africa  
(Agenda item 3).

13. The secretariat introduced the agenda item which was based on document ECA/STAT/SM.ITS/90/2. The major problems in the development of international trade statistics in Africa were mentioned to exist under the areas of data collection, data processing and data dissemination. Institutional co-ordination and actions to be taken were also mentioned.

14. In the area of data collection, the problems of coverage of border posts, smuggling across borders posts, improper completion of import and export forms, non-receipt of documents at the national statistical office and under- or over-invoicing were mentioned. In the area of data processing, the problem of acquisition of equipment such as mainframes or micro-computers, lack of or inadequate numbers of high level computer personnel, the placement of data capture machines at border posts and the lack of commodity flow analysis were mentioned. In the area of data dissemination, the problems of disseminating trade statistics compiled at the detailed level, delays in disseminating trade data, etc. were mentioned.

15. In the discussion that followed, suggestions for reducing smuggling such as the legislation of the activities by, for example, opening up an external account to enable importation of goods were mentioned. With respect to under- or over-invoicing, it was mentioned that if the unit price is outside a certain specified range, an adjustment of the value and quantity declared could be made accordingly. It was felt that in this case problems could arise with second hand items.

16. Regarding installation of data capture machines at border posts, most of the participants explained that in their countries, these are either installed or intended to be installed at border posts which experience a large volume of trade. In one country while this was being considered, it was felt that the customs officers may view the data capture clerks as spies of their operations.

17. The treatment of personal effects caused difficulties in many countries due to the fact that these were in most cases not itemized. In one country this was treated as a package declaration. One solution which was suggested was that of requesting the Customs Administration to instruct all their officers to insist on the itemization of goods contained in the declaration of personal effects, to facilitate statistical processing.

18. The problem of specification of quantities of declared items was mentioned by most participants. It was felt that one solution to this problem was that of educating the customs officers to appreciate the need for quantities in trade statistics. In one country it was discovered that importers and exporters made a lot of mistakes in completing the forms and the statistical office had to make a lot of corrections.
19. The need for training statisticians in the area of data processing was emphasized by most of the participants in the meeting. It was felt that special efforts ought to be undertaken by donors and African governments to ensure that training programmes in data processing were intensified for trade statisticians.
20. Concerning co-ordination mechanisms between the national statistical agency and Customs Administration, while as in some countries there were no problems, in others there was need to strengthen co-ordination mechanisms through the introduction of high level meetings, secondment of staff or sharing of facilities such as computers.
21. The problem of borders which are not manned by customs officers was mentioned. These tended to be those which have low volume of trade. This problem was recognized to arise due to the arbitrary borders which exist between African countries. The suggested solution was that of carrying out spot checks at some of these borders in order to ascertain the volume of trade and advise Customs Administration to take corrective action.
22. On data dissemination problems, it was mentioned that international agencies request countries to supply too much information to the extent that the task at the country level may require full time personnel. Two problems in the area of dissemination were mentioned, namely, confidentiality of data and clearance by government or supplier of data before release to users. The clearance by suppliers of data applies in the case of a single producer of information e.g. mining company. The secretariat mentioned that at the international level, what was needed from the countries was what they considered ready for release to users whether provisional or final. Questions of confidentiality should be resolved before release.
23. It was recognized that detailed commodity trade statistics were not available in most of the countries, hence special efforts were needed to enable countries to provide these data. If such data is available, it could be provided to ECA in printed form on microfiche, computer print-outs, diskettes, magnetic tape, etc.

24. Regarding actions to be taken, two areas were specifically mentioned. Training of statisticians in the form of seminars/workshops in the field of data processing and acquisition of computers by the National Statistical Office which are compatible with those at Customs Administration.

(iii) Sources and uses of trade statistics (Agenda item 4)

25. The secretariat introduced the agenda item based on document ECA/STAT/SM.ITS/90/3. Sources of trade statistics, role of customs and statistical services in international trade statistical operations and uses of trade statistics topics were covered in the introductory statement.

26. In the discussion that followed one participant mentioned the use of exchange record statistics for compilation of trade statistics in his country and said that once the trade system is rehabilitated, reliance on this source will become less important. Mention was also made of two other sources, namely, import and export licencing records and the export credit record statistics. Both were used to cross check data obtained from customs documents.

27. In some countries trade statistics of large establishments were obtained by establishing direct contacts with these establishments. This source is used to also cross-check data obtained from customs or to enable compilation of trade statistics when delays are experienced in receiving customs documents.

28. There was some discussion regarding what constitutes personal effects. While, as in some countries, personal effects covered a wide range of items, in other countries certain items such as television sets tended to be singled out for a separate declaration and could be subject to duty depending on the length of use of the items. It was noted that in most countries, goods imported by non-profit organization, such as missionaries, aid items and goods belonging to diplomats were not subjected to import duties.

29. With respect to the role of the customs service, it was mentioned that the preparation of appropriate legislation for imports and exports including the specification of duties and other taxes rests with this service. On the role of the statistical service, it was felt that the following roles should be added, namely, analysis of trade statistics, assistance to customs administration in identifying problem areas and identification of data gaps.

30. On the uses of trade statistics, it was mentioned that in the case of the existence of a common customs union, trade statistics could be used to work out the revenue share of each country in the union. For such countries a common tariff is generally applied and goods cleared in one country are not cleared again in the receiving country except when they are moving in bond. Trade statistics could also be used to decide on quotas although in some cases the decision on quotas for certain goods were made on political grounds.

(iv) Conceptual framework of international trade statistics  
(Agenda item 5)

31. This agenda item was introduced by the UN Statistical Office representative and was based on the M.52 Rev.1, M.34 Rev.3, M.53 Rev.3, M.30 Rev.2, ECA/STAT/SM.ITS/90/4 documents and a presentation supported by 26 slides for an overhead projector summarizing the contents of M.52. Rev.1 document. During the session additional materials were made available including: (a) an extract from the Supplement to the UN Monthly Bulletin of Statistics and Statistical Yearbook showing examples of national practices in the application of concepts and definitions of the collection of international trade statistics; (b) an extract from the ESCAP manual on international trade statistics containing a suggested format of technical notes on compilation of trade statistics for inclusion in annual publications; (c) Table 46 of the United Nations Monthly Bulletin of Statistics, "Total imports and exports by regions and countries or areas" showing national practices in the use of the general or special trade system, United Nations regional/economic aggregates used for presenting international trade statistics and showing the availability of aggregate international trade statistics to the United Nations and; (d) a printout from the UNSO comtrade data base showing the discrepancy between world reported exports and imports of ships. In addition, a set of seven class exercises highlighting some of the issues in the conceptual framework were distributed and completed during the session.

32. The session covered: (a) the historical development of the United Nations concepts, definitions and classifications recommended by the United Nations Statistical Commission and the ECOSOC for use by countries in compiling their international trade statistics, (b) The principal elements of the recommendations, namely:

- . the coverage of commodities, with special attention to certain commodity classes that are to be specifically included or excluded;
- . the two systems in use for compiling trade statistics - the general system and special system;

- . commodity classifications for compilation of trade statistics including (a) the history of development of the SITC, its structure and the criteria used for classifying in the SITC; (b) the development of the HS, its structure and criteria for classifying, (c) the relationship of the SITC Rev. 3 and the HS, (d) the relationship between SITC Rev. 3 and SITC Rev.2, (e) the BTN and the CCCN; (f) the BEC and its compilation from SITC Rev. 3, (g) the ISIC and (h) the CPC;
- . methods for valuing trade, principally imports c.i.f. and exports f.o.b;
- . the need for data on quantities of goods traded and principally net weight but supplemented by other units of quantity;
- . the recommended designation of partner countries; country of origin for imports and country of last known destination for exports.
- . A number of supplementary topics, in particular recommendations on the time of recording trade, the recording period, treatment of confidential data, periodicity and detail of reporting international trade data, construction of index numbers of quantum and price or unit value, production of international trade statistics by mode of transport and various regional and economic groupings used by the UN Statistical Office for presenting international trade statistics.

33. During the discussion, several participants described their practices in terms of commodities included or excluded from the statistics and methods of measuring. In particular the discussion covered the treatment of imports of raw materials for processing and ultimate export as finished or semi-finished products, various methods of measurement of the export of electricity, various methods of treatment of postal items, trade in military goods and its exclusion from statistics by many countries, difficulties of fully-recording imports and exports of ships, treatment of monetary and non-monetary gold, treatment of bunkers and marine products, goods under leases of various length and treatment of personal effects.

34. Participants indicated the commodity classification they used in their administrations which included various versions of the SITC, the HS and the CCCN and considerable discussion ensued on the relationships between the various classifications. Participants asked to receive existing correlation tables that the UNSO had prepared between the HS and the various versions of the SITC.

35. Considerable discussion took place on measurement of the quantities of trade. The importance of weight plus supplementary units such as pairs, numbers, etc. for particular commodities was emphasized. The difficulties of identifying country of origin and country of destination for many transactions were highlighted.

36. The participants noted that the UN recommendations have generally applied in their administration although there were deviations in certain aspects to meet needs and administrative practices in individual countries. A need was expressed for specific assistance in the application of the UN recommendations and in particular on how to measure the "difficult to measure" items such as postal trade, ships, bunkers and marine products, trade in electricity and goods imported for various length of time or in-transit. The participants also expressed a need for more specific recommendations or information on practices in countries on what constitutes "substantial transformation" in the context of defining exports of goods of national origin. The meeting also noted that the M.52 Rev. 1 which was issued in 1982, needed revision to reflect the introduction of SITC Rev. '3 and the HS. Any revision should also try to improve the specificity of some of the recommendations and provide a more extended explanation of recommendations in relation to trade by mode of transport.

(v) Data collection (Agenda item 6)

37. The secretariat introduced this agenda item on the basis of document ECA/STAT/SM.ITS/90/5. The various source documents such as customs documentation, trade declarations, ships manifests, postal declarations, ship and aircraft registrations, and documents from government organizations were introduced. The completeness of trade statistics, recording period (customs dates and shipping dates) and receipt of documents by compiling agency topics were also covered. Finally, some of the problems experienced in the field of data collection were discussed.

38. In the discussion that followed participants raised the issue of smuggling of goods from one country to another. Such goods ended up not being recorded in the trade statistics or customs documents. A suggestion was made that this problem required a detailed study to enable adjustment factors for certain key commodities to be determined. It was further suggested that such a study could be based on production levels of commodities and the purchases made at the marketing boards. The difference between total production and purchases could be attributed partly to smuggling and other uses.

39. It was mentioned that there are cases where countries are listed as exporting countries of certain commodities which they do not produce. If these commodities were imported into the country under the general trade system they would be considered as re-exports. Participants felt that smuggling could be one of the reasons for this. Other explanations were also provided and these included the problem of sanctions which led to producing countries labelling their exports against the name of another country. Increase in the value added of a commodity, arising from the further processing, etc. could also lead a country to declaring such a commodity as an export commodity.

40. Regarding the choice of customs date or shipping date within the recording period, it was agreed that the majority of the countries use the customs date because it is easy to administer.

41. On the receipt of documents by the compiling agency it was mentioned that in some countries the first carbon copy or second carbon copy is received. Occasionally, customs administration would forward a copy which is not legible but if they have the original on file, it can be photocopied. Regarding the use of the "receipt register", customs documents were in general recorded in batches while taking note of missing serial numbers.

42. It was noted in one country that customs officials tended to pay extra care to documents which had duty attached to them or where a permit is required to enable commodities to be imported or exported. The secondment of statistical staff to Customs Administration could in the long run assist in rectifying some of these problems.

(v) Data Processing (Agenda item 7)

(a) Basic statistical operations in compiling data and trade statistics data bases: (Agenda items 7(a) and 7(c))

43. The secretariat presented this agenda item on the basis of document ECA/STAT/SM.ITS/90/6. The following items were presented:

Data collection and form design

- content of the form, its usage as a data-entry document, pre-coding and coding/checking issues.

EDP procedures

- Record and files organization, data preparation, editing requirements and principles, tabulations and reports and data storage and back-ups.

Systems analysis

- Data sizing, data-entry requirements, assessment of all the system (CPU, peripherals, software, etc.) requirements.

Integrated data-base approach

- Its application and appropriateness, data-base maintenance and administration;

44. The session generated good discussion and the following comments emerged:

Most National Statistical Offices were not involved early enough in the form design, and the meeting agreed that it was important that the national statistical offices be involved at an early stage in the designing of data collection forms and that the forms should be harmonized through inter-agency collaboration, possibly through a working committee.

Apart from regular monthly/annual reports and tables, there are demands for ad-hoc reports and consequently there was general agreement regarding the need for dynamic application software.

Integrated data-base approach was considered as an ultimate goal for an "ideal" international trade system, but it was recognized that its successful operation needed thorough inter-agency (customs, statistics, industry, export promotion bureau, etc.) collaboration and above all most appropriate computing tools.

Some participants expressed a need for increased technical assistance (from the ECA) towards computerization of their trade statistics system.

(b) Improving and harmonizing international trade statistics  
(Agenda item 7(b))

45. The representative of the Statistical office of the European Communities (EUROSTAT) described two software packages which have been developed for handling international trade data. These software packages are ASYCUDA (the Automated System for Customs Data) and EUROTRACE. The ASYCUDA software package was developed by UNCTAD at the request of the ECOWAS secretariat while the EUROTRACE was developed by the EUROSTAT. This agenda item was based mainly on two documents which were prepared by EUROSTAT namely "EUROTRACE: national module, presentation document", "EUROTRACE, statement of the demonstration" a handout on the "general description of ASYCUDA" and another handout on "Programme to improve and harmonize external trade statistics in developing countries".

46. In the description of the ASYCUDA software package, he explained that this is mainly used for customs clearance and operates on IBM/AT compatible micro-computers. It was written in BAL (a form of BASIC) and currently runs under a multi-user operating system called PROLOGUE. The software may be converted to run under the UNIX operating system which will allow the use of mini-computers.

47. He then described the EUROTRACE software package which is mainly used for harmonizing international trade statistics. He explained that this software package is useful for countries with volumes of trade in the range 20,000 - 40,000 records and that currently EUROTRACE is not used in Europe.

48. The EUROSTAT representative demonstrated the EUROTRACE software package using a micro-computer. He described the main features, modules, data origins, data banks, management of nomenclatures and tables of codes, system configurations, etc. of the software package. He explained that the purpose of the demonstration was to enable statisticians and others to react in the form of comments and suggestions. This would enable further development of the software, which is expected to be finalised in 1991 for use by countries.

49. Participants raised the problems of link between ASYCUDA and EUROTRACE particularly with regard to problems of the transfer of data which they have already experienced in their countries and requested that this should be rectified. The EUROSTAT representative explained that this should not be too difficult since it was a technical matter and that the matter will be examined further.

50. Several country representatives at the meeting indicated that they would like to try EUROTRACE as soon as possible and requested the EUROSTAT to speed up the finalisation of the software for their use.

51. Regarding requests for installation of the software in the countries the EUROSTAT representative explained that this will be done through organizations such as ECOWAS, PTA, etc. Where such organizations do not exist, countries will channel their requests through their EEC representative. Participants requested ECA, as a co-ordinating agency, to play a role in this particularly in view of difficulties that could arise in channelling such requests through the organizations in their subregion.

52. Regarding the capacity of the equipment required for installation of EUROTRACE, it was explained that this will vary from country to country. A questionnaire would be sent by the EUROSTAT to all the countries to check on this. On the cost of the equipment and software it was expected that this would be covered for all the countries under the Lome IV Convention funds.

53. Regarding the software package itself, participants requested that the statistical controls and management aspects should be further improved.

54. In the area of training and maintainance of the software package, the EUROSTAT representative explained that this is planned to be done in collaboration with organizations such as ECOWAS, PTA, etc. The staff of these organizations would be trained first and they in turn would be responsible for training and the maintenance of the software in the countries belonging to their organization. Participants requested that ECA be involved in the the training programmes in view of its role in the training of statisticians in Africa.

55. The EUROSTAT representative explained that the immediate task of his organization in the development of EUROTRACE was to take into account comments received through the various demonstrations of the national model, development of the regional EUROTRACE module and installation and training at the organization/country level.

56. The EUROSTAT representative concluded his presentation by describing the EEC programme to improve and harmonize external trade statistics in developing countries. He explained the origin of the programme and what was intended to be achieved at the country level in terms of installation of equipment; the creation of regional structures aiming to ensure the maintenance of national data collections and data processing; and the establishment of a permanent network providing an increase in intra-regional exchanges.

(c) Processing trade statistics at ECA (Agenda item 7(d))

57. The secretariat presented this agenda on the basis of computer printouts which were produced from the ECA statistical data base and ECA publications on external trade statistics. The secretariat mentioned that the ECA statistical data base contained information which dates back to 1965. The data included, among others, the direction of trade and intra-African trade. Values of trade were available in US dollars and national currency. These data were published by the ECA in two volumes Series A (Direction of trade) and Series C (Summary tables). It was also explained that at ECA the detailed commodity trade is not entered in the statistical data base and that such data are handled by the UN Statistical Office which publishes these data in its statistical papers - Series D publication.

58. The secretariat further mentioned that in addition to publishing trade statistics in Series A and Series C, the data were also published in the African Statistical Yearbook, the African Socio-economic Indicators publications and included in the statistical annex to the Survey of Socio-economic Conditions in Africa.

59. Regarding the sources of trade data entered into the statistical data base, mention was made of the data available in national publications, UN Statistical Office trade publications, FAO, IMF, World Bank publications, etc. Mention was also made of other sources such as newspapers and magazines available at ECA. In addition to the data compiled from these sources, it was stated that estimates are made in those cases where data are not available, also where possible partner trading country data have been accessed. The secretariat requested countries to forward their trade statistics to ECA regularly. Such statistics could be forwarded in various forms namely printed publication, computer print-out, diskette, magnetic tape, etc.

60. With respect to the SITC version used at ECA, participants were informed that the data exists in SITC Rev. 2 and that the adoption of Rev. 3 or the harmonized system was being considered. When data is received from countries or other sources it is extracted and added to the data base accordingly.

61. Regarding the conversion of trade data from national currency to US dollars, participants were informed that the conversion factors are those that are supplied monthly/quarterly by the UN Statistical Office. Some participants felt that they had conversion factors in their countries which ECA could access. The secretariat reminded participants of the communication problems in getting these conversion factors from the countries and that where available they would be compared with those received from the UN Statistical Office.

62. On units of quantities of commodities which were presented in the computer print-outs supplied to the participants, it was mentioned that these were in metric tonnes.

63. Regarding the ECA estimates in the computer print-outs which were provided to the participants, it was mentioned that this may cause confusion in those cases where some of the countries provide provisional estimates. It was explained that ECA estimates were clearly indicated in the computer print-outs and in the case where a country has provided provisional data or estimates this was indicated accordingly.

64. On trade indexes published by ECA, as much as possible, these were taken to be those provided by the individual countries. Estimates were made only in the case where such indexes were not provided by the country.

65. Finally, the secretariat appealed to all the participants to provide to the ECA Statistics Division trade statistics data as regularly as possible by sending these data through the UNDP offices in their countries. Also countries were requested to examine the data contained in the computer print-outs which were provided to them including the data contained in the ECA publications which were provided to them to ensure that their country's trade picture was accurately recorded.

(vii) Publication and presentation of trade data  
(Agenda item 8)

66. The secretariat introduced this agenda item on the basis of document ECA/STAT/SM.ITS/90/7 which covered the following topics: provisional and final figures; periodicity of data for tables; accessing computer files for table preparation; publication of trade statistics; maintaining data in time series and provision of data for international organizations.

67. In the discussion that followed participants reviewed the provision of data by month, quarter and calendar year. In some cases countries chose also to present data by fiscal year. It was mentioned that the way data were sometimes presented depended on the needs of the country.

68. The question of preliminary or provisional data was discussed. It was indicated that preliminary data came before provisional data but in most cases countries tended not to distinguish between the two, hence data of this kind were generally indicated "provisional".

69. An observation was made by a participant regarding the number of long questionnaires which are received in the countries from international organizations. He wondered whether it would not be possible for organizations to share the data. In response the UN Statistical Office representative said that the observation was indeed valid and mentioned that data received by his organization were accessed by various organizations such as the World Bank, IMF, UNCTAD, GATT and the EEC. All these organizations access this data on line.

70. The secretariat reiterated its request to the countries to continually forward its trade statistics in the form of diskettes, computer print-out, printed publication, etc. to enable inclusion in the ECA statistical data base and also to enable sharing of this data with other organizations.

(viii) International trade indexes (Agenda item 9)

71. This agenda item was introduced by the representative of the United Nations Statistical Office on the basis of the following: Document (ECA/STAT/SM.ITS/90/8a): "Manual for the construction of unit value and quantum indexes in external trade" prepared by the UN Statistical Office; Document (ECA/STAT/SM.ITS/90/8b) "International trade indexes"; Notes on the actual calculations of the index numbers of the international trade prepared by the UN Statistical Office and a draft of the working paper on some details of the basic concepts and definitions used in the index numbers analysis (prepared by a representative of the UN Statistical Office).

72. In the presentation of the agenda item the following sub-items were discussed: uses of the trade indexes, sources of data, approaches to price measurement, types of the indexes, choice of base period, chaining and problems of pricing.

73. Special attention was given to the problems arising in the approaches to the measurements of the prices. In this connection advantages and drawbacks of the unit value calculations and survey pricing were described in detail. It was pointed out that the choice of the pricing method should be based on the requirements adopted by countries in their systems of national accounts and on the available resources. As a general guideline for countries, with limited resources allocated to the external trade statistics it was recommended to use the unit value approach supplemented by periodic price surveys.

74. Considerable time was spent on the explanation of the different types of the indexes and their relationships inter alia (a) application of the Laspeyres and Paasche type formulae to the construction of the fixed base price and quantum indexes; (b) rule of interdependence; (c) discrepancy between the Laspeyres and Paasche type indexes and use of the Fisher "ideal" indexes; and (d) chained indexes and their relationships with the fixed base (direct) indexes.

75. It was stressed that in the case of a smooth evolution of prices and the inverse relations between the individual price and quantity indexes, chained indexes give more close results than the direct index numbers and therefore, they may be more preferable. However, if prices exhibit significant seasonal variations, direct indexes will show smaller discrepancies than the chained indexes and could be considered more suitable.

76. The economic meaning and importance of the indexes of the terms of trade (net, gross and income type) as well as problems of choice of the base period and pricing were also discussed. Participants of the seminar were offered some recommendations on how to deal with quality changes, unique goods, seasonals and other problems in the index number construction. The agenda item raised a number of questions which were addressed in the discussion. Many valuable comments were made by the participants which will be useful in the future improvement of the presentation of this subject.

77. It was further suggested that the preparation of a comprehensive manual on the theoretical background and the national practices in the area of external trade indexes should be taken as a matter of priority in the future. In addition to that, it was proposed to look into the possibility of calculation, by the UN Statistical Office, of the index showing shifts in the relative prices (unit values) of exports of primary commodities by the developing countries and their imports of fuels.

(ix) Data requirements in other statistical systems  
(agenda item 10)

78. The background document for this agenda item was ECA/STAT/SM.ITS/90/9. The document drew the attention of the seminar participants to the dominant role that foreign trade plays in all African economies. The fact that the pattern of exports is usually characterized by heavy concentration and dependence upon a few mineral resources and or agricultural and other exports given the productive advantages the region possesses in these commodities, while imports are diversified and reveal the dependence of these economies on imports not only for supplies of raw materials, intermediate and capital goods, but also for a wide variety of capital and consumer goods as well.

79. It was then noted that probably the most frequently used official statistics in the developing countries are customs returns, tax returns and government accounts. Further, that income tax statistics appear in many different forms because tax laws are different and coverage and reliability vary greatly from country to country, but that there is much more standardization in customs returns.

80. The document then went on to discuss foreign trade data requirements in two principal statistical systems viz: the United Nations System of National Accounts (SNA) and the Balance of Payments of the International Monetary Fund.

81. With regard to the SNA, it was pointed out that the present system of national accounts, studies in methods, Series F No. 2 (Rev.3) provides a framework for the reporting of national accounting data and basic statistics. Document ECA/STAT/SM.ITS/90/9 further pointed out that the SNA presents the accounts of the nation in four basic headings: production, consumption, accumulation and the rest of the world. That, in addition, the SNA contains a standard set of consolidated accounts of the Nation which in actual fact are a detailed extension of the four accounts of the nation.

82. A brief illustration of these accounts was then given, during which it was further pointed out that, in compiling the national accounts, national accounts statisticians in developing countries with less developed statistical systems, rely a great deal on information from trade statistics and that these statistics constitute a main source of data.

83. The attention of the seminar was then drawn to the 26 supporting tables of the SNA, with indications as to foreign trade data requirements for the compilation of these tables. For example SNA Table 2: supply and disposition of commodities, SNA Table 6: Composition of final consumption expenditure and SNA Table 7: Composition of gross capital formation.

84. In considering the various measures of output arising from economic activity commonly known as gross domestic product (GDP), it was pointed out that once the boundary of economic activity has been established, GDP may be derived in three ways (or combinations of them). These being the production approach, the income (cost) approach and the expenditure approach. The seminar examined these various approaches to the estimation of GDP, noting that foreign trade data were needed in all approaches. For example in the use of the production approach to obtain gross domestic product by kind of economic activity, data on import duties are needed for making adjustments to value added by all producers. With regard to the cost method, foreign trade data are needed especially in less industrialized countries in order to estimate capital formation and hence the component consumption of fixed capital. It was noted, however, that it is the expenditure method of estimating GDP, which by its use of the commodity flow approach, makes the most use of foreign trade data. By tracing the output of goods and services through the economy from their original producers to their final user, the expenditure method uses trade returns to provide aggregates such as government final consumption expenditure, private final consumption expenditure, gross capital formation, export of goods and services and imports of goods and services.

85. Further, the background document for the discussion of this agenda item drew attention to the fact that data for national accounting use come broadly from two kinds of collection programmes. The first is data collected in programmes designed and administered by statistical offices or other agencies with the primary objective of statistical use. The second is data that arise as a by-product of some administrative function: tax collection, regulation and control of imports and exports, banking or some other industry. Data specifically collected for statistical purposes can be designed to meet specific standards, samples may be drawn to yield data within the required limits of sampling error.

85. Questions may be asked that respond to specific needs. But that this exercise is not cheap, and that it is often possible to find other, less costly, sources for at least some of the data needed for national accounts estimation. Noting, however, that data arising from administrative activities are seldom exactly what the national accounts statistician wants and must always be examined carefully to make sure that the data will give valid results in a proposed use.

86. In discussing the exports and imports of goods and services, mention was made of the fact that the definitions of merchandise trade used in the SNA and in foreign trade statistics are similar in most respects. Examples of items which are included in the national accounts as merchandise transactions but which are excluded from foreign trade statistics were cited, e.g., fuels and stores sold or purchased abroad by ships and aircrafts operated primarily in international waters by resident enterprises. SNA also includes in merchandise exports the sales within a country of newly refined gold ingots and bars to resident monetary authorities and to resident individuals for non-industrial use.

88. In the discussion of this issue, the seminar expressed the view that the discussion document should have mentioned the fact that non-monetary gold is included in foreign trade statistics.

89. Other issues discussed included: transactions between residents and non-residents; valuation, coverage and some other uses of foreign trade statistics.

90. As regards foreign trade data requirements for balance of payments compilation, it was pointed out in the discussion document that the balance of payments deal with virtually the same financial assets as the SNA and incorporates the changes that result from the net provision of real resources to the rest of the world. The balance of payments also include some of the changes in the value of claims and liabilities that are produced by what are classified in the SNA as revaluation or reconciliation items.

91. Also discussed were issues such as the change of ownership of goods as recorded in the SNA, the balance of payments and foreign trade statistics and adjustment of statistics on transactions other than merchandise.

92. Throughout the discussion of this agenda item, the seminar emphasized the importance of trade statistics, noting that for most developing countries foreign trade provides data that are reasonably reliable and timely not only for purposes of national accounts and balance of payments, but for the whole area of economic statistics and also in dealing with a number of basic questions faced in furthering economic and social development. One participant commented that foreign trade statistics constitute the pillar of national accounts. Mention was made of the fact that in the current work on the revision of the SNA, thought is being given to compatibility of the national accounts with the balance of payments and other statistical systems.

(x) Other business (Agenda item 11)

93. A participant raised the issue of visas at the Addis Ababa airport particularly for those countries which do not have Ethiopian Embassies. The secretariat explained the procedures involved and mentioned that it will try its best to ensure that in future participants get their visas on arrival at the airport. The secretariat requested participant to notify it of their arrival dates and flights to facilitate the issuance of such visas.

94. The representative of ECOWAS raised the problem of training statistical personnel in the Portuguese-speaking west African countries and enquired on the action being taken by the secretariat to remedy the situation. The secretariat informed the meeting of the efforts that have so far been taken by ECA in collaboration with the EEC. As a result of these efforts a middle level training centre at national level will be established at Bissau, Guinea Bissau with the financial and technical support of the EEC to train students from Guinea Bissau, Sao Tome and Principe and Cape Verde. In addition, a professional training centre is being established in Lisbon, Portugal which will also train statisticians from the Portuguese-speaking African countries. The centre in Lisbon will be known as CESD-Lisbon.

95. A participant wanted to know the procedure followed for the award of Commonwealth Secretariat fellowships for participants at this meeting. The secretariat explained the procedure in detail. Also a participant wanted to know why his country was not invited to the National Accounts Meeting which was held at ECA in July 1990. The secretariat explained the procedure adopted in the selection of countries which participated in that meeting.

96. One participant raised the problem of sending publications to the secretariat and wanted to know the correct address to use. The secretariat provided to the participants the address to be used for this purpose and requested all National Statistical Offices to forward their publications through the UNDP offices in their respective countries.

97. Participants expressed their gratitude to the Commonwealth Secretariat for providing them fellowships to participate in this training seminar and requested that this type of assistance should be continued in the future. Participants also thanked the United Nations Statistical Office and the Statistical Office of the European Communities for providing technical assistance to the meeting. African government which provided fellowships to their participant were also thanked for this support. Finally the ECA secretariat was commended for the effort it took to solicit funding from the Commonwealth Secretariat and for organizing this training seminar. Participants wished that such type of seminars could continue to be organized by ECA in the future.

(xi) Evaluation of training seminar (Agenda item 12)

98. The evaluation was carried out through a questionnaire which was designed specifically for this purpose. A total of fourteen (14) participants completed the questionnaire and the results of the analysis of the responses are presented below:

99. On the organization of the training seminar, all the participants indicated that the seminar was announced sufficiently in advance (100%) and that the arrangements for the reception and accommodation were very good (29%), good (57%) and non-response (14%). Regarding the facilities for the meeting participants felt they were either very good (50%) or good (50%). The majority of the participants felt that the duration of the seminar was just right (93%), while a few (7%) felt that the duration was excessive. On the daily working hours, participants felt they were just right (57%), two demanding (14%) and demanding but bearable (29%).

100. With respect to the documentation for the training seminar, participants indicated that this was sufficient (100%). On the contents of the documents themselves, participants indicated that these documents were either very clear (79%) or reasonably clear (21%).

101. With respect to the training session itself, a number of questions were raised. On the relevance of the topics chosen for the training seminar, participants felt they were either very relevant (86%) or fairly relevant (14%). Nearly all participants (93%) indicated that there were no additional topics which they would have liked to be included in the training session.

102. The lectures themselves were said to be clear throughout (93%) or patchy (7%). All participants (100%) indicated that the training session was useful for their future work. With respect to the duration of the training session, the majority of the participants (79%) indicated that this was just right. 7 percent indicated that the duration was excessive while 14 percent indicated that it was inadequate. A total of 86 percent of the participants indicated that the time allowed for questions at the meeting was sufficient while 14 percent of the participants did not provide response to this question.

103. As a result of the meeting, the majority of the participants (93%) indicated that their contribution to the improvement of trade statistics in Africa will be more than before while 7 percent of the participants indicated that their contribution to the improvement of trade statistics in Africa will be as before.

104. On the achievement of the main objectives of the meeting, 86 percent of the participants indicated that they have been achieved while 14 percent of the participants indicated that they have not been achieved due to the fact that there were not many participants in the meeting and that the duration of the meeting was not adequate.

105. With respect to the problems which participants expected to face in putting into practice any of the aspects of trade statistics as covered in the meeting the following were stated under the different areas:

(a) Conceptual framework of international trade statistics

- Harmonization of concepts used by customs, statistical agency and other organizations.

(b) Data collection in international trade statistics field

- Communication problems between statistical agency and Customs Administration;
- Quality of information completed by importers and exporters;
- Lack of computer facilities (data capture machines) at border posts and headquarters;
- Deliberate lumping of commodities into broad categories such as personal effects;
- Misclassification of items;
- Lack of transport facilities.

(c) Data processing in international trade statistics field(i) General

- Availability of adequate computing facilities;
- Inflexibility of software packages;
- Difficulty in transfer of data from Customs Administration to the statistical agency;
- Lack of development of data banks hence limitation in further data analysis.

(ii) ASYCUDA software package

- Link with EUROTRACE software package;
- Training in ASYCUDA software package.

(iii) EUROTRACE software package

- Link with ASYCUDA software package;
- Training in EUROTRACE.

(d) Publication and presentation of trade data

- Unavailability of printing facilities when required;
- Lack of funds to circulate publications;
- Delays in printing.

(e) International trade indexes

- More training required;
- Change in classification systems;
- Coverage of commodity data;
- Quality of quantity data;
- Frequent deletion of quantities and units by customs;
- Lack of adequate computer facilities;

(f) Data requirements in other statistical systems

- Limited knowledge of software packages to process this data;
- Delays in the provision or availability of detailed disaggregated trade data;
- Meeting of deadlines for release of data.

106. Regarding the improvement of the organization and conduct of future training seminars of this kind, participants made the following suggestions:

- Need to have customs officers at these meetings;
- Conduct the meeting at the regional level and involve a large number of participants;
- Training should include exercises;
- On data processing topics, each participant should be provided with a micro-computer to be able to practice a number of the operations;
- Agenda for the meeting should be sent to the participants well in advance to enable preparation of possible answers to some questions;
- Group discussions should be encouraged to work on relevant materials;
- Participants should present short papers.

#### D. CONCLUSIONS

107. The training seminar observed that a significant amount of detailed international trade statistics were produced by countries in Africa and that United Nations recommended concepts and definitions were generally applied but with some deviations as in other parts of the world reflecting national needs. There were a range of problems found by many countries including problems of computerization and programming to derive the necessary statistics from customs, data delays in printing, difficulties in collaboration between customs administration and statistical offices and a need for increased specificity in some aspects of the United Nations concepts and definitions.

108. Specifically the following points were made:

1. The need for improving ASYCUDA to permit the easy transfer of data for computation of international trade statistics and for clarification of the suitability of ASYCUDA for use in a customs union situation.
2. The usefulness of the EUROTRACE software for compiling trade statistics from a customs declaration data base, and the need for further development of the software to satisfy the full range of statistical needs. The seminar welcomed the plan to make EUROTRACE available to countries but were concerned about the proposed modality of providing this to countries. The seminar also considered that there would be significant benefits if the timing of development in ASYCUDA and EUROTRACE could be co-ordinated.
3. The importance of providing specialized training of national statisticians in international trade statistics including training in data processing for international trade statistics.

109. The seminar noted that international comparability of trade statistics would be improved if all countries compiled their international trade data on the basis of recommended UN commodity classification and also make such data available in terms of the most detailed level of the commodity classification by partner country.

110. Participants concluded that the training seminar was extremely useful and would contribute significantly to the improvement of trade statistics in their countries and considered that further training seminars of this kind on a periodic basis would be equally helpful.

111. The seminar considered that it would be helpful if the United Nations and other organizations involved could facilitate and increase the availability of technical co-operation for international trade statistics and inform countries of the availability of such assistance and how it might be accessed. The seminar also considered that the national statistical organizations might take steps within their national administration to bring to the attention of the appropriate authorities, the need for improvement of their international trade statistics and the inclusion of relevant projects within overall national requests for technical co-operation. This need could, in part, be established by emphasizing the importance of trade statistics for the computation of national accounts, analysis of balance of payments and international debt for related policy formulation.

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