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TECHNICAL CO-OPERATION

Current state of statistics and statistical development
in developing countries

Report of the Secretary-General

SUMMARY

This report is prepared at the request of the Statistical Commission at its twenty-fourth session. It contains an overview of long-term trends in statistical development in developing countries, based in part on a review of the availability of statistics as reported by developing countries to the United Nations and other international organizations. It also reviews the accomplishments and gaps in statistical development in developing countries in various fields of statistics. Finally, it presents a series of proposals to accelerate statistical development in developing countries and make technical co-operation more relevant and cost-effective. Points for discussion are also suggested.

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INTRODUCTION

1. The Statistical Commission, in connection with its discussion on assessing the effectiveness of technical co-operation at its twenty-fourth session, requested the Secretary-General to undertake an overall review of the current state of statistics and statistical development in developing countries, drawing on the work on indicators and in various studies of national statistical practices and activities carried out over the years by the United Nations and other international organizations.

2. Subsequently, the Working Group on International Statistical Programmes and Co-ordination, in providing guidance on the contents of the review, advised that the information assembled be supplemented by a pilot survey sent to a selected number of countries which were recipients of technical co-operation in statistics. The Working Group also suggested that the survey should ask for information on technical co-operation activities received over the preceding two years from all sources, including work-months of technical experts and the purpose or field of assistance. Each selected country should also provide an assessment of the assistance received, the country's priorities for future assistance and any modification to the process that the country believes would help make the provision of assistance more effective in the future.

3. Accordingly, a questionnaire was sent by the Statistical Office of the Department of International Economic and Social Affairs, United Nations Secretariat, to 16 developing countries (8 in Africa, 3 in Latin America, 3 in Asia and the Pacific and 2 in Western Asia) and to the regional organization of the Small Island Caribbean States (OECS). Replies were received from 3 of the 16 countries and from OECS. Unfortunately, because of the number and nature of the replies received, little useful information was obtained.

4. The Working Group also recognized that the scope of the requested document was potentially very wide and that the nature of the review would necessarily need to be tailored to fit available resources. Consequently, the Statistical Office has had to restrict the scope of the report because of unsuitable resource availability.

5. The report consists of four sections. Section I contains an overview of long-term trends in statistical development. Section II presents a review of national experiences in carrying out selected major statistical activities based in large part on contributions by the concerned regional economic commissions and a number of United Nations specialized agencies. Section III offers some proposed strategies for accelerating statistical development in the developing countries and for better mobilizing needed human and financial resources for the task. The final section presents points for discussion.

I. LONG-TERM TRENDS IN STATISTICAL DEVELOPMENT AND THE AVAILABILITY OF STATISTICS IN DEVELOPING COUNTRIES

6. Agencies of the United Nations system, along with a number of other multilateral and bilateral organizations, have been engaged in technical co-operation in statistics to developing countries continuously over the past four decades. As more and more developing countries became independent during the 1960s and 1970s, the level of technical co-operation increased generally, and specifically in statistics, terms of quantity and variety of subjects covered.

7. The long-term objective of technical co-operation in statistics is to assist interested countries to develop or improve their statistical capabilities so that they are in a position to collect and make available the data required for a wide range of national development plans, programmes and activities in a continuous, timely and reliable manner.

8. Developing countries are heterogeneous socially, economically and politically. Even within the same region, countries are at different stages of development and their statistical needs and circumstances may differ widely. Therefore the content of technical co-operation activities in statistics provided to countries should reflect, to a large measure, the particular country's needs and circumstances, including the stage of socio-economic development reached.

9. In the 1950s the few developing countries requesting technical assistance from the United Nations concentrated their requests on short-term consultancies in selected specialized areas. Those countries generally had reasonably developed statistical services but were weak in certain specialized areas, such as national accounts and sample surveys. Assistance provided to such countries had a relatively short duration. During that time, they were able to develop further their own statistical capabilities in those specialized areas in which they were deficient in a manner that ensured sustainability even after the assistance ceased.

10. An important feature of many of those countries was that they had strong applied statistical training institutes which turned out significant numbers of qualified statisticians annually. Their Governments continually committed national resources to their statistical programmes so that the programmes could serve a broad range of national and international data users. As such, even in cases when the statistical services lost trained staff, with the continued governmental commitment, a ready pool of trained professional statisticians was usually available to fill vacancies, thereby maintaining the continuity and technical capabilities of their statistical programmes.

11. During the 1960s and 1970s, a new wave of developing countries became independent and the majority of them requested technical co-operation to create, develop and improve their national statistical organizations. In terms of general statistical development, the countries may be considered in two groups - first, those that had fairly well developed ongoing statistical organizations and, secondly, those either without any real statistical organization or with a national statistical service severely restricted in terms of scope or coverage. The patterns of statistical development of the two groups differed, as did their technical co-operation needs and requests.

12. In the case of the newly independent countries with relatively well developed statistical services, technical co-operation in statistics frequently took the form of large, integrated statistical development projects designed to improve further the technical expertise and capabilities of the existing statistical organization in selected substantive statistical subject-matter areas and also in computer data processing. The duration of projects was typically from four to five years. They were extended on completion, with changes in the subject-matter areas, which usually included national accounts, sample surveys, households, agriculture, industries, prices and labour, statistical training and data processing.

13. The countries typically involved with that type of technical co-operation project were large developing countries in Asia and Latin America. Many of the national statistical organizations in those countries successfully absorbed the knowledge and skills provided through the projects and built sustainable capabilities in a number of the subject-matter areas covered. Future requests from those countries for technical co-operation normally were for short-term consultancies for specialized statistical areas, training and data processing.

14. Those large developing countries were normally able to develop applied statistical training institutes within their countries and centralized in-service training programmes for junior- and middle-level staff within their national statistical organizations. Thus they provided for themselves a continuing supply of trained staff which helped sustain their national statistical capabilities despite movement of trained staff out of their offices. Also the Governments of those countries made substantial commitments financially and otherwise to the development of their national statistical services.

15. In addition, the countries often had a history of conducting population and housing censuses during their pre-independence period. Thus, in that area, they had considerable technical experience and did not require extensive technical co-operation, although they sometimes requested substantial technical co-operation in connection with the modernization of their census operations - for example, processing and tabulation of the census.

16. The other group of developing countries had a different pattern of statistical development. The majority of them are located in sub-Saharan Africa, Central America and the Caribbean and in the region of Western Asia. Many of the recently independent island States of the Pacific subregion also belong to the group.

17. In the early days of political independence, the majority of those countries started to establish and/or strengthen their national statistical services, which at the time were suffering from acute shortages of trained statistical manpower. One of the main tasks entrusted to those services was the collection of statistical data from administrative records to meet governmental legislative needs.

18. The group of countries requested technical co-operation in statistics, in the first instance, generally to create or improve the structure of their statistical organizations. The request was either for a statistical adviser in statistical organization or an adviser who would serve as the director of statistics in an operational administrative services (OPAS) position.

19. In some countries, a project may have included one or two additional advisers and/or UNDP volunteers to develop specific subject-matter areas. The more general pattern of statistical development was, first, to conduct a population and housing census, often followed by the development of national accounts estimates, then to computerize external trade statistics, extract main statistical data from other administrative records and compile and publish an annual statistical digest.

20. To conduct the population census, which for many of those countries was the first complete count ever taken of their population, the United Nations Population Fund (UNFPA) and a number of bilateral programmes provided support for advisory services, equipment (for example, vehicles, cartography equipment, data entry machines, computers and printing equipment) and local costs (for example, payments to census enumerators, supervisors and key-punch operators). Because of availability of financial assistance and the requirement especially of international donors for those data in order to measure certain phenomena of population and the economy, a majority of those countries conducted censuses of population during the 1960s and 1970s.

21. In addition to providing valuable data on the size, structure and composition of the population, the cartographic work carried out during the preliminary phase of the census provided a valuable frame for conducting sample surveys in a broad range of subject-matter areas related to the household and agriculture. Population censuses were often followed by agriculture and household surveys and in some countries by general multisubject household surveys. A number of the countries have developed their statistical capabilities to the extent that they are able to carry out population censuses without long-term resident technical advisers, relying instead on short-term visits from Headquarters-based technical advisers, regional advisory staff and consultants in special aspects of census work. Despite that progress, individual developing countries may still require long-term resident experts.

22. Closely following the work on population and housing censuses was a concerted effort to improve data availability through surveys. A major initiative in that regard was the 1974 recommendation of the Conference of African Statisticians that surveys be pursued to provide data on households, which were lacking particularly in African countries. Such data were useful not only for national accounts computation but also for a broad range of socio-economic development planning and monitoring.

23. The primary objective of the programme was to develop a sustaining survey-taking capability in each developing country so that it could undertake continuing household surveys. At the same time, data would be collected based on the priority needs of the country. The programme, the National Household Survey Capability Programme, was introduced in 1978 and, with its regional affiliates, has assisted a number of countries in the establishment of permanent survey-taking systems (see also document E/CN.3/1989/18).

24. A few of those countries also started their own in-service training programmes for junior- and middle-level staff. However, the programmes often had to be abandoned when the trained senior staff, who provided lectures, left the national

statistical service to take up more attractive assignments in other governmental agencies, the private sector or international organizations. Thus, continuing development of the necessary staff capabilities could not be maintained.

25. In many of the countries, the professional staff are given specialized training in specific subject-matter areas either abroad or, if there is a technical co-operation project with a resident adviser, by transfer of skills through on-the-job training. In some cases, both types of training are provided. Over the past six to eight years, the United Nations has developed a programme of providing specialized training for staff of one country in another country, preferably within the region. The programme is funded from the regular budget of the Department of Technical Co-operation for Development with substantive backstopping from the Statistical Office. On-the-job training has been provided in national accounts, data processing, external trade, household surveys and general statistics.

26. As this brief review of long-range patterns and trends in statistical development indicates, the picture presented is a diverse one, reflecting the diversity of the developing countries in terms of their size, their histories, both before and since independence, political, cultural and geographical factors and other matters that impinge upon national statistical needs and the problems countries encounter in meeting those needs. In those circumstances, it is difficult to make a scientific assessment of the progress achieved. However, as a step towards making such an evaluation, the table below documents the progress achieved by developing countries in generating statistical data in a number of fields. The table shows the total number of developing countries, by region, with data published by the international community in their statistical yearbooks, by subject-matter and reference periods.

International availability of statistics for developing countries, by subject-matter, region and time period

Subject-matter area	Time period	ECA <u>a/</u>	ECLAC <u>b/</u>	ESCWA <u>c/</u>	ESCAP <u>d/</u>
Total number of countries		45	40	13	32
Population census	1955-1964	22	37	4	25
	1965-1974	27	38	9	25
	1975-1984	42	38	9	30
External trade	1960	2	33	1	5
	1970	36	33	6	21
	1980	27	33	9	19
National accounts	1960	6	18	4	8
	1970	38	33	11	25
	1980	44	40	13	30
Education statistics	1960	43	26	10	29
	1970	45	36	13	28
	1980	44	37	13	30
Agriculture statistics	1960	34	33	6	19
	1970	37	33	8	26
	1980	41	34	8	26
Labour-related statistics	1960	22	20	1	11
	1970	24	25	3	11
	1980	30	32	4	19
Health statistics	1960	45	40	11	29
	1970	45	40	13	30
	1980	45	39	13	30
Prices/wages (Consumer price indexes)	1960	24	26	4	19
	1970	25	26	1	11
	1980	31	30	1	15
Balance of payments ^e	1960	18	22	4	12
	1970	34	26	7	16
	1980	36	33	8	16
Industrial statistics (mining)	1960	12	21	2	8
	1970	21	20	5	10
	1980	18	20	6	13

(Footnotes on following page)

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(Footnotes to table)

a/ Economic Commission for Africa: Algeria, Angola, Benin, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Djibouti, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Libyan Arab Jamahiriya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, Somalia, Sudan, Togo, Tunisia, Uganda, United Republic of Tanzania, Zaire, Zambia, and Zimbabwe.

b/ Economic Commission for Latin America and the Caribbean: Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, British Virgin Islands, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Guadeloupe, French Guyana, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Mexico, Montserrat, Netherlands Antilles, Nicaragua, Panama, Paraguay, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, United States Virgin Islands, Uruguay and Venezuela.

c/ Economic and Social Commission for Western Asia: Bahrain, Democratic Yemen, Egypt, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates and Yemen.

d/ Economic and Social Commission for Asia and the Pacific: Afghanistan, Bangladesh, Bhutan, Brunei Darussalam, Burma, China, Democratic Kampuchea, Fiji, Hong Kong, India, Indonesia, Iran (Islamic Republic of), Japan, Lao People's Democratic Republic, Malaysia, Maldives, Mongolia, Nauru, Nepal, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Solomon Islands, Sri Lanka, Thailand, Tonga, Tuvalu, Vanuatu and Viet Nam.

27. The table has a number of limitations. Some of the countries included, especially during the 1960s, were not yet independent and had no statistical organization producing acceptable customary data in the indicated subject-matter areas. Indeed, for a number of developing countries, data in the pre-independence period only referred to the non-indigenous population. Thus, in some areas the table understates the actual progress achieved. It should be noted further that the table reflects data that are available to the United Nations, its specialized agencies and certain other sources from developing countries.

28. The table reflects the number of countries whose data on the particular subject-matter have been made available internationally and published in the international yearbook of the particular subject during the years covered. It is possible therefore that certain developing countries may be collecting data in particular subject-matter areas, but that those data may not have been available to international organizations. On the other hand, data may not have been available at the time the various yearbooks were published, but became available subsequently.

29. The data for certain subjects show that current data have not been made available to the agencies for publication in their yearbooks. This shows the lack of current validity in the availability of data for many developing countries. The reasons for tardiness in dissemination range from the technical to the administrative.

30. The table indicates a marked increase in the number of developing countries that have collected, processed and published data in most subject-matter areas since the 1960s. In some subject-matter areas, collection and coverage in the 1980s was worldwide. In other areas, the situation is more mixed, and in a final group of subject-matter areas few developing countries are able to provide statistics. Although the table shows overall improvement, the analysis of data on a country-by-country basis reflects a continuous improvement in the coverage for some countries and a deterioration or even the abandonment of collection and publication of certain series in the case of others. It can be concluded that certain national statistical services have slowed down their statistical development and in some cases weakened it to such an extent that it has to be completely restored.

II. NATIONAL EXPERIENCE IN SELECTED MAJOR STATISTICAL AREAS

31. This section is based in large part on a summary of the submissions of regional economic commissions and specialized agencies covering activities in certain statistical areas. The summaries are intended to complement the material presented in section I.

A. Population censuses

32. In the Africa region, nearly all other 45 sub-Saharan developing countries conducted one or more population censuses (or population and housing censuses) during the past three decades. The number of countries in each census decade are as follows:

<u>Census decade</u>	<u>Number of countries</u>
1955-1964	22
1965-1974	27 (3 for the first time)
1975-1984	42 (16 for the first time)

33. Fourteen countries have conducted population censuses since 1985. During the decade of 1955-1964, fewer than half of the African countries conducted censuses. However, during the decades 1965-1974 and 1975-1984, as more countries gained independence, information regarding the size, structure, distribution and composition of their populations became necessary in order for socio-economic development plans to be prepared.

34. During the 1965-1974 decade, three countries conducted population censuses for the first time. During the next decade, their number increased considerably, due to the establishment of the African Census Programme, with UNFPA as major financial supporter and the United Nations serving as executing agency. During 1975-1984, 16 countries conducted population censuses for the first time.

35. At the outset of the African Census Programme, 22 countries participated, including 15 that had never conducted a population census. Later, most sub-Saharan African countries joined the programme, and the number of participating countries increased to 42 out of a total of 45. The countries that did not conduct a census during the 1965-1984 period were Chad (which started but later cancelled all activities), Namibia, and Nigeria (which completed the census enumeration but later declared it null and void). In the present decade, 1985-1994, 14 countries have already conducted population and housing censuses and others are carrying out preparatory population census activities.

36. In the ECLAC region, many of the countries had carried out population censuses prior to 1945. As a result of major programmes of technical co-operation related to the 1950 round of population censuses in the region, many countries were able to modernize their census offices and upgrade their census staffs. Unfortunately, with the passage of time, many of the countries have not been able to retain their trained statistical staff or adequately train younger replacements. Some of the countries therefore continue to require training and other forms of technical assistance, generally on a short-term basis, to improve the quality and timeliness of data obtained from their population censuses. In 1980-1982, the Caribbean island countries conducted population (and in some cases housing) censuses under a regional programme. Antigua and Barbuda did not conduct a population census but undertook a partial housing census in 1982. Of the 40 countries in the region, 37 conducted population censuses or population and housing censuses during 1955-1964; 38 during 1965-1974 and 38 during 1975-1984.

37. In the ESCAP region, the large majority of countries have conducted population censuses regularly over the past three decades. Of the 32 countries in the region, 25 conducted population censuses during 1955-1964; 25 during 1965-1974; and 30 during 1975-1984. A number of the countries also conducted complete housing censuses simultaneously.

38. There are 13 countries in the ESCWA region. Four of them conducted population censuses during 1955-1964; nine during 1965-1974; and nine during 1975-1984. With the exception of Egypt, which has carried out population censuses since 1882, many ESCWA countries conducted their first population censuses in the 1960s. A number of them, such as Egypt, Iraq, Kuwait and the Syrian Arab Republic, have now accumulated considerable statistical expertise and rely on technical co-operation only for highly specialized training and advice. Others such as Yemen and Oman continue to need outside technical support to help them conduct their population census.

B. Household survey programmes

39. A number of developing countries have, over the past several decades, conducted household sample surveys in response, generally, to specific demands by the Government, other national users or international organizations. They included household-budget surveys primarily meant to determine weights for consumer price indices, labour-force surveys meant to provide data on employment and unemployment, demographic surveys meant to provide data on fertility and mortality, and surveys of health and nutrition.

40. The National Household Survey Capability Programme (NHSCP) of the United Nations, co-sponsored and/or supported by UNDP, the United Nations Children's Fund (UNICEF), UNFPA and the World Bank, was initiated in 1979 in collaboration with the specialized agencies and the regional economic commissions. The main objective of the Programme was to help developing countries collect and make available to users a wide range of demographic, social and socio-economic data required for development planning through an integrated programme of household surveys and, in the process, develop lasting survey capabilities. The country survey programmes are usually organized in periodic rounds of data collection, each covering one or more subjects of concern determined in accordance with national priorities in areas such as household/income and expenditure, labour force, employment and unemployment, migration, literacy, fertility and mortality, and health and nutrition. Some of the country programmes include agricultural surveys as core components. The programme is more fully described in E/CN.3/1989/18.

41. In 1972, as a result of the United Nations call for concerted world action on population matters, the announcement of the World Population Year (1974) and a widely recognized need for better information on levels, trend and patterns of fertility, the World Fertility Survey (WFS) was established. The objectives of the Programme were to assist countries acquire scientific information that would permit them to describe and interpret the fertility of their population; to increase national capabilities for fertility and other demographic survey research, particularly in the developing countries; and to collect and analyse internationally comparable data on fertility and make them available to researchers for comparative analysis. By 1982, when the WFS was concluded, 41 developing countries had participated. 1/

42. The Survey was undertaken by the International Statistical Institute (ISI) with the collaboration of the United Nations and in co-operation with the

International Union for the Scientific Study of Population (IUSSP). The project was financed primarily by grants to ISI from UNFPA, the United States Agency for International Development (USAID), the United Kingdom Overseas Development Administration, and a number of other sources.

43. Large amounts of resources, and documented guidelines, were provided to developing countries to assist them in carrying out their surveys. Technical advisory missions by the WFS staff were made at major stages in a survey, and a few developing countries had resident advisers.

44. Since the early 1980s, the World Bank programme entitled Living Standards Measurement Study (LSMS) has been implemented in a number of countries. It is an integrated multitopic programme designed to collect data on the different dimensions of levels of living of a country. Its objectives, its achievements and future orientation in assisting developing countries improve their statistical capability are discussed in a document before the Statistical Commission entitled "World Bank initiatives in the design of permanent integrated household surveys" (E/CN.3/1989/19). The document also describes the plans for the survey programme being launched in Africa by the World Bank under the project called Measuring the social dimensions of structural adjustment.

45. Most countries participating in those programmes gained valuable technical knowledge and experience from the surveys carried out. The programmes met with varying success in the important objectives of creating and/or improving lasting survey-taking capabilities in developing countries, generating urgently needed data for national development plans and programmes and gathering data needed for international research and analysis.

C. National accounts

46. Most African countries are compiling national accounts estimates, but there are gaps in many of the tables and many national estimates are not current. In order to analyse the state of development of national accounts, African countries may be classified into two groups: countries whose national accounts statistics are current; and countries whose national accounts statistics lag behind, despite the availability of some basic statistics for recent years. Thirty-six countries belong to the first group; 24 belong to the second.

47. During 1981-1982, ECA reviewed the state of national accounts in the region and drew up a proposal for their further development. The proposal is entitled National Accounts Capability Programme (NACP). The immediate objective is to assist national statistical offices to improve and develop their basic economic statistics and to enhance the process of building their capability in compiling national accounts as an integral and co-ordinated part of their statistical development programme.

48. In National Accounts Statistics: Main Aggregates and Detailed Tables, 1985, 2/ three countries in sub-Saharan Africa provided data up to 1985; six up to 1984; and 14 up to 1983. A majority of the countries were unable to

provide data to complete many of the tables. However, quite a few provided data on gross domestic product by expenditure and by kind of activity in current and/or constant prices, and some supplied data on governmental final consumption expenditure by function.

49. In the ECLAC region considerable progress has been made by most of the developing countries in the calculation of national accounts according to the recommendations of the United Nations System of National Accounts (SNA) in the area of production by kind of economic activity and its disposition according to broad components of final demand. Less progress has been made on the detailed goods and services breakdown of production and final uses. Although many of the countries have data on the cost structure of gross domestic product (compensation of employees, operating surplus) for the economy as a whole, the progress achieved on the measurement of the cost structure by kind of economic activity of individual sectors varies from country to country.

50. A majority of the countries produce estimates of national disposable income and its disposition for the whole economy through the reconciliation of transaction flows at aggregated levels rather than by consolidation of income and outlay accounts of individual institutional sectors. Only four countries prepare institutional sector accounts for all sectors, others include accounts for the governmental sector only, and a third group includes governmental sector accounts and some scattered institutional sector information on the household sector.

51. Little progress has been made in the area of capital (finance) transactions for the whole economy and for each institutional sector. Nevertheless, some countries are able to complete a consolidated capital finance account for the economy as a whole as an extension of the estimates which are prepared for the other (non-capital) accounts of the consolidated accounts of the nation.

52. The majority of developing countries in the region have prepared both current and constant price estimates, but there is a larger measure of homogeneity between countries in the coverage of constant price series than in the coverage of series at current prices. Twenty countries produce data in constant prices for about six of the nine tables or sections of tables in the SNA, including gross domestic product, by type of expenditure and activity; final consumption and gross capital formation, by type of good; governmental consumption, by function, etc., while 10 countries provide data in current prices for 10-16 of the remaining 24 tables or sections of tables. In the area of gross domestic product by type of expenditure and by kind of economic activity, 26 countries publish data in current prices and 21 publish data in constant prices.

53. The Department of Technical Co-operation for Development has implemented a technical co-operation project in statistics in the East Caribbean region over the past eight years. The project is designed to improve the statistical capability and increase the coverage of statistics of the small island States of the region.

54. Under the project, one staff member of OECS has been trained in national accounts compilation and construction, and she performs the function of a regional

statistician, travelling to the islands and assisting with the compilation of national accounts statistics. This has led, in addition to the provision of data, to the development of local capability in each island. Work is under way to develop similar regional capabilities in the other important statistical subject-matter areas such as agricultural statistics, labour statistics, and business and industry statistics.

55. The large developing countries of the ESCAP region have made considerable progress in the current validity of their national accounts. Many of the large developing countries publish current data on estimates of total and per capita gross domestic product, principal expenditure components and further details - such as gross capital formation, including changes in stocks by type of finance and type of capital goods. Progress has been slow, however, in the small islands and certain of the least developed countries, which are still struggling to compile their national accounts estimates. Reliable basic data are even lacking to provide the minimum information on GDP by expenditures and by kind of activity.

56. In the ESCWA region, many countries publish expenditures on gross domestic product at current and constant prices regularly. A few publish only the minimum information on gross domestic product by expenditure and economic activity while others are unable to publish even those tables. Estimates of aggregates published by a number of countries in the region are still unreliable since they are based on limited assumptions or loose guesses.

57. Virtually all countries publish estimates of gross domestic product by expenditure and activity categories, and some include breakdowns by income categories such as compensation of employees and operating surplus. Only a few provide data on alternative income aggregates such as gross national product, national income and national disposable income. Even fewer countries supply information on the institutional sector accounts of the system, and virtually no country compiles financial flow and stock data in the context of national accounts.

D. Industrial statistics

58. A number of developing countries provide industrial statistics of some type to the Statistical Office. The most common types are production indices, now supplied by 88 developing countries. They are provided at the one-, two-, and/or three-digit level of the International Standard Industrial Classification (ISIC). The data show that there is considerable national variation in the scope of industrial activity in the various countries.

59. Another type of industrial statistics provided by many developing countries is production statistics on mining, manufacturing operations and electric utilities or gas works. On the average, about 80 developing countries provide that type of data.

60. A third type of industrial statistics reported by many developing countries is general industrial statistics or indicators of industrial activity at the establishment level. They are based on industrial surveys or censuses. There is considerable national variation in the scope of activity included in the national inquiries and in the definition of establishments covered.

61. In the area of general industrial statistics, about 75 developing countries supply data on one or more of the following indicators: number of industrial units, employment, remuneration, value of output, quantity data, value added, gross fixed capital formation, and quantity of electricity consumed. Data on the number of industrial units and employment are reported by about 74 developing countries; on wages and salaries, by 71; on output, by 70; on value added, by 65; on gross fixed capital formation, by 47; and on quantity of electricity consumed, by 19.

E. Agricultural statistics

62. A number of developing countries have conducted either censuses or surveys of agriculture. In many countries, national statistical offices include a unit responsible for conducting such surveys, and they are carried out with the full collaboration of the ministry of agriculture. In a few countries, the ministry of agriculture has its own statistics unit which is responsible for conducting the surveys.

63. Most countries try to conduct an agricultural census at least once every 10 years. As such, 94 countries (developed and developing) conducted censuses or surveys in the 1960s, 102 in the 1970s, and 99 in the 1980s, up to the present. Many of the developing countries have not been able to conduct the surveys continuously, and agricultural production statistics, in particular, are not continuously available for a number of developing countries.

64. A breakdown of availability of statistics on agriculture shows that in the African region at least 37 of the 45 sub-Saharan countries have been publishing agricultural statistics since 1970. In the ECLAC region, 33 of 40 countries have published them since 1970; in the ESCAP region, 26 of the 32 countries; and in the ESCWA region, 8 of the 13 countries. For a number of countries, those statistics are estimates of production made by national ministries of agriculture rather than production statistics derived from surveys.

65. In forestry statistics, 48 out of 118 countries considered to have significant forest product activity or trade regularly return the questionnaires from the Food and Agriculture Organization of the United Nations (FAO), and 74 tropical countries collaborated in an assessment of tropical forest resources carried out by FAO in a co-operative project with the United Nations Environment Programme (UNEP) under the Global Environment Monitoring System.

66. Concerning statistics on crop areas and yields, countries are expanding the scope (number of crops) and coverage of their statistics, using different methods of data collection. While the situation has gradually improved, information produced is sometimes fragmented within a country since statistics may be issued by different organizations for the sectors or zones which are under their responsibilities. In such cases efforts are needed to collate the data and standardize the concepts used.

67. A major activity that has gained more and more interest and importance is the Food Information and Early Warning System. Most countries have installed, or are

in the process of installing, an early warning system for forecasting shortfalls in agricultural production. Such systems have been generally set up with assistance from FAO. However, more expertise and assistance are needed, especially in the African region.

68. In the area of fishery statistics, progress in developing countries has been far less even. A few excellent systems are operating, mainly in South-East Asia and Latin America. They produce comprehensive and reliable data continuously. In a number of other developing countries, the coverage and quality of data has declined, due to lack of survey capability and logistical support. Statistics on marine fisheries tend to be more reliable than those on inland waters, just as those on trade are generally more reliable than those on production.

F. Labour and related statistics

69. A number of developing countries have had some experience in collecting and publishing data on at least one of the topics in the area of labour and labour-related statistics. Developing countries with the least experience in collecting labour statistics in general are mainly in Africa and Asia.

70. The most extensively collected labour-related statistics are the consumer price index. Forty developing countries collect them in Africa; 37, in Latin America and the Caribbean; 32, in the ESCAP region; and 8, in the ESCWA region. The least collected labour-related statistic is hours of work per week in non-agricultural activities. In that category, data are published by eight countries in Latin America and the Caribbean and seven countries in Asia and the South Pacific.

G. Health statistics

71. Over the recent past decades there has been steady statistical development in many countries in the collection and availability of health data. Two significant milestones reached in the field of health were the adoption by the member States of the World Health Organization (WHO) in 1978 of the Alma-Ata Declaration on primary health care and the subsequent launching of the Global Strategy for Health for All by the Year 2000. At that time there also emerged a clear recognition of the need for stronger information support to the management of the national health systems. That has since led to a change in the approach to the improvement of health statistics in countries so as to give the highest priority to the use of relevant statistics to support decision-making.

72. The member States of WHO agreed in 1981 that they should undertake, individually and collectively, periodic monitoring and evaluation of the implementation of the Strategy for Health for All, including the use of 12 sets of indicators. Following the timetable adopted, the first monitoring of progress was carried out in 1983-1984 and the first evaluation of effectiveness and impact was made in 1985-1986. The second monitoring of progress is being carried out during 1988-1999.

73. The periodic monitoring and evaluation have stimulated action on the part of countries to improve their statistical information systems, acquire the most essential data, and analyse and use them in order to support health decision-making. There has been significant improvement in the availability of data over the monitoring periods on statistics covering safe water and sanitation; infants with immunization against six diseases (diphtheria, pertussis, tetanus, measles, polyomyelitis and tuberculosis); and infant mortality and life expectancy rates.

74. In spite of the encouraging progress made in health statistics in developing countries, there is still a persistent lack of data on mortality in general, which constitutes one of the basic statistics. Between 1955 and 1985, the number of developing countries reporting mortality by cause of death increased from 29 (with 549 million population) to 32 (with 853 million population). The basis for obtaining those statistics is ideally a well-established civil registration system. Since a long time is needed to achieve that objective in all developing countries, alternative ways need to be devised to obtain quality estimates for use by each country.

H. Debt statistics

75. The World Bank collects information on the foreign exchange obligations of its member countries for use in policy-making and dissemination. To that end, Bank staff undertake studies on the credit-worthiness of present and prospective Bank borrowers. Over the years, the credit-worthiness analyses undertaken at the Bank have been directed at two related objectives.

76. The first is to help ensure that the Bank remains a sound financial intermediary in the development process, thereby allowing it to raise substantial funds in the world's capital markets. The second objective stems from the Bank's role as an international development institution. In that role, it tries to help its borrowers improve their development prospects and debt-servicing capacity by providing analysis and advice on policy options designed to reduce the likelihood of debt-servicing difficulties.

77. The Bank has steadily expanded the coverage and scope of its compilation of information on the foreign currency liabilities of member countries. For those purposes the Bank collects, through the Debtor Reporting System (DRS), details pertaining to the long-term external public and publicly guaranteed debt for 109 developing countries on a loan-by-loan basis as well as semi-aggregated data on private-sector debt. At the same time, 22 countries report in full their private non-guaranteed debt, and incomplete or partial estimates are made for 29 additional countries. As regards short-term debt, the Bank now compiles estimates for 132 countries. The Bank continues, through technical assistance, to encourage and assist member countries to report their debt and at the same time uses its own estimates to initiate a policy dialogue with those members which do not provide that information.

78. The debt difficulties of the past few years have underscored the importance of improving information on the external debt of developing countries, and the Bank's data-compiling efforts have been directed at bringing about improvements in the quality, coverage, and timeliness of reported information through missions, seminars, training, and technical assistance. Considerable progress has been made in strengthening the capabilities of member countries.

III. SUMMARY AND PROPOSALS

79. Over the past four decades, the overall availability of data from developing countries has improved. That can be attributed to a combination of national and international efforts in promoting particular fields of statistics, the establishment of standards and guidelines, the delivery of technical co-operation, and strong governmental commitments.

80. National authorities have invested considerable resources in building statistical infrastructures, training nationals, and in preparing themselves to generate an increased flow of data to meet national needs in formulating, implementing and monitoring national development policies.

81. However, those generally satisfactory developments need to be qualified, since the progress achieved by countries has been uneven. In many countries of sub-Saharan Africa there has been a weakening of statistical services, and work in particular fields of statistics has fallen behind. In Latin America, Central America and the Caribbean, persistent financial problems and an inability to retain trained human resources have adversely affected the operating capacity of some national statistical services.

82. Less timely recording and disseminating of external trade statistics are illustrative of those trends. Similarly, statistics based on other forms of administrative records, such as vital and health statistics, have become less reliable in some countries because of weakened administrative systems. The application of particular methodologies, for example, crop-cutting tests for estimating agricultural yields, without adequate quality control methods, has also resulted in estimates that are weak and do not reflect actual situations.

83. Over the past four decades, external resources for technical co-operation in statistics have been substantial, at least when compared to the annual statistical budgets in many developing countries. The resources have been channelled primarily into training and upgrading the skills of national staff, providing hardware and other resources for building up statistical capabilities, and into data collection, particularly population censuses, survey programmes and ad hoc surveys. Achievements have been considerable, and have contributed to capability-building. However, achievements have not been similar for all developing countries. Moreover, the amount of external resources devoted to statistical development has almost always formed a minor part of the technical co-operation efforts of multilateral and bilateral agencies.

84. Statistical development in both developing and developed countries is a continuing and complex task. It follows that it is unlikely that any single new technical co-operation programme, innovation or other "quick fix" will determine the overall success or failure of technical co-operation efforts in the field of statistics. Accordingly, the proposed strategies presented in the following paragraphs endeavour to take a broad approach to the challenges of statistical development and technical co-operation. Although the proposals are formulated to respond to current challenges, they are neither new nor comprehensive. Nevertheless, their cumulative effect would be to accelerate statistical development and make technical co-operation efforts in statistics more relevant and cost-effective.

A. Identification of the value of statistics

85. Increased attention should be given by the producers of statistics to specifying and articulating the value of sound statistics in the planning, monitoring and evaluation of national development plans and programmes. Users of statistics will also need to be associated with that process. The message will need to be addressed to senior policy-makers and legislative bodies in member States and international organizations. The message should stress that systematic approaches to statistical development and national capability-building are cost-effective. The goal would be to make recipient Governments more aware of the value of statistics to national development efforts and to encourage donor agencies to identify statistics as a separate priority area or at least as a specified infrastructure component within their overall substantive priority themes.

B. Balanced approach to technical co-operation

86. Statistical development and any supporting technical co-operation efforts should, at least over the medium and long terms, be balanced with respect to methods of data collection (censuses, surveys and administrative records), attention to generating statistical outputs and building statistical infrastructures and subject-matter emphasis. Renewed attention should be paid to efforts aimed at improving statistics derived from administrative records, in general, and statistics of international trade, in particular. At the same time gains and initiatives in building census and survey-taking capabilities should be maintained.

C. Statistical training

87. Statistical training must continue to be emphasized as an essential component of technical co-operation in statistics. Indeed, it can be expected that training will remain a subject of long-term concern - not because of inadequacies in past training efforts but rather because of several chronic structural factors. First, in many countries, regular academic programmes do not generate sufficient graduates with the mix of quantitative and subject-matter skills needed by national statistical services. Secondly, only relatively large countries can afford to

develop statistical training institutes within or associated with the national statistical service. Thirdly, rapidly evolving technologies will continue to require that staff from most national statistical offices receive training if those offices are to benefit from the savings that result from the use of new technologies. In these circumstances, multilateral and bilateral technical co-operation programmes in statistics will need to plan for continued support for that area. Although the strengthening of national training capabilities can provide part of the long-term solution, regional and subregional co-operative endeavours will also have to be pursued since most smaller countries cannot be expected to be able to provide specialized training in all aspects of statistics and statistical data processing.

D. Data processing

88. The sharply declining costs of data processing equipment make it feasible for all developing countries, even small island countries, to derive the substantial benefits that arise when computers are used to process and compile statistical data. The benefits can also be expected to extend to the dissemination of statistics through the use of machine-readable media and desk-top publishing. However, in order for the benefits of those new technologies to be realized, it is essential that, in addition to the equipment itself, appropriate training and technical advice be made available. A major goal of the training and technical advisory services in this field is to ensure that the national statistical offices of developing countries are able to make intelligent choices about hardware and software and to use the hardware and software acquired in an effective manner. In the absence of such training and technical advice, national statistical offices have sometimes based their choices of hardware and software on the statements and claims of local vendors, who may not have up-to-date or accurate information. Consequently, technical co-operation efforts in statistics should continue to give priority attention to the area of data processing, with emphasis being given to providing training and technical advice along with equipment.

E. Technical advice to countries

89. With the reduction in the number of long-term resident experts in statistics, ways must be found to ensure that continuing needs for expert advice, including specialized and high-level expertise, are met. Two ways are suggested: first, the expanded use of regional or subregional advisers and secondly, the establishment of special programmes in statistics to support technical co-operation among developing countries, to enable qualified statisticians from developing countries to undertake one or more missions to other developing countries in the region or subregion. However, an unfortunate consequence of the policy of many donor agencies to maximize support to country projects as opposed to intercountry projects makes it increasingly difficult for such cost-effective arrangements to receive funding. The emphasis on further strengthening regional and subregional advisory services in technical co-operation among developing countries should not be interpreted, however, as indicating that there is no longer a need for resident country experts or interregional or technical advisers located in the headquarters of the organizations engaged in technical co-operation.

F. Statistical organization and management

90. Renewed attention should be paid to issues of statistical organization and management. Although this was a subject to which attention was paid in previous decades, only limited emphasis has been given to it in recent years. As a result of certain development factors (for example, the growing sophistication of users, improved general infrastructure services, changing distribution of population, the impact of structural adjustment and the debt crisis) and of technological changes, particularly in the area of data processing, many developing countries might find it useful to consider improvements that could be introduced into the organization and management of their national statistical office. Any proposed improvements would naturally arise out of a careful review of the existing national statistical system. Accordingly, international technical co-operation programmes in statistics should be prepared to be responsive to requests from countries for assistance along those lines.

G. Co-ordination of technical co-operation activities

91. It has long been recognized that the proper co-ordination of technical co-operation efforts in statistics is an important element of a sound and cost-effective development. It is also recognized that it is the recipient Government which, at least in the long run, should exercise the co-ordinating function. Ideally, the national statistical office should play a determining role in such a co-ordination effort, and in some countries the ideal is achieved. However, in many developing countries co-ordination is inadequate. It is likely to be seriously inadequate where statistics are highly decentralized, where a centralized statistical service is relatively weak, where the overall governmental administrative services are weak, or where the country has limited experience in receiving technical co-operation from multiple donors. Concerted efforts should be made to strengthen the ability of national statistical offices better to co-ordinate the technical co-operation they receive. At the same time, multilateral and bilateral donors and others involved in providing technical co-operation in statistics will need to maintain and improve their interim co-ordination mechanisms, including the exchange of information about programmes and plans and active co-operative approaches in specific fields.

H. Needs of the statistically least developed countries

92. Special efforts should be given to meeting the special needs of the statistically least developed countries. That subject was discussed by the Statistical Commission at its twenty-fourth session on the basis of the document entitled "Special problems in the statistically least developed among the developing countries" (E/CN.3/1987/3). Since there is considerable diversity among those countries, no across-the-board approach to technical co-operation is likely to be equally effective. However, it is important that their special needs are addressed within the context of the other strategies proposed above.

IV. POINTS FOR DISCUSSION

93. The Statistical Commission may wish to comment on the accomplishments and gaps in statistical development, drawing on the overview of long-term trends in statistical development and the availability of statistics in developing countries (paras. 6-30) and account of national experiences in selected major statistical activities (paras. 31-78). It may also wish to give its views on the proposed strategies presented in paragraphs 79-92 above, along with its recommendations for any follow-up activities.

Notes

1/ Among the participants were 12 countries in Africa: Benin, Cameroon, Côte d'Ivoire, Ghana, Kenya, Lesotho, Mauritania, Morocco, Nigeria, Senegal, Sudan (North), and Tunisia; 11 countries in Asia and Pacific region: Bangladesh, Fiji, Indonesia, Iran (Islamic Republic of), Republic of Korea, Malaysia, Nepal, Pakistan, Philippines, Sri Lanka and Thailand; 13 countries in Latin America and the Caribbean: Colombia, Costa Rica, Dominican Republic, Ecuador, Guyana, Haiti, Jamaica, Mexico, Panama, Paraguay, Peru, Trinidad and Tobago, and Venezuela; 5 countries in the ESCWA region: Egypt, Jordan, Syrian Arab Republic, Turkey and Yemen. In addition, India carried out WFS-type surveys in several States, and in 1985 China undertook a similar survey in three regions.

2/ United Nations publication, Sales No. E.87.XVII.10.
