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AFRICAN DATA REQUIREMENTS IN THE 1980s

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I. INTRODUCTION

1. At its tenth session, the Conference of African Statisticians requested the ECA secretariat to review the basic African economic and social statistics required within the framework of the new international economic order.

2. At its fifth meeting, the ECA Conference of Ministers held at Rabat from 20 to 28 March 1979, adopted an African development strategy within the framework of the Third United Nations Development Decade (resolution 332 (XIV)). The importance of statistics for the purpose of evaluating and forecasting the implementation of the strategy can hardly be overemphasized.

3. This study aims essentially at identifying the areas where basic African economic and social statistics need particular improvement to meet the needs of these far-reaching strategies implied in new international economic order and the Third United Nations Development Decade.

II. SCOPE OF THE STUDY

4. To attain this objective, the following sectoral approach has been adopted: for each major economic and social sector selected, the action programmes envisaged by the new international economic order and the African development strategy for the sector are first outlined. Next, the statistics required for the relevant actions are identified and their uses analysed. After this, an attempt has been made to identify the important gaps in their statistics.

5. To avoid making this study excessively long, certain limits had to be imposed. Although African statistics on the whole have gaps in all sectors, no attempt has been made to undertake an exhaustive review as this would have overburdened the present report. For example, it was not deemed appropriate to treat the subject of international and intra-African trade as a separate chapter. The main statistics required in this field were mentioned in connexion with the agricultural and industrial sectors. However, efforts should be made to extend the current coverage of foreign trade by product in national and international organizations' publications bearing in mind the needs in this field. The comparability of certain data should be improved. Income distribution statistics were not included although they are of cardinal importance in the light of the need to combat poverty and ensure a more equitable distribution of consumption and income among different population groups in African countries. These statistics find their rightful place in household surveys ^{1/} which were recently studied by a working group which met in Addis Ababa, in October 1979 (E/CN.14/SM/29). Similarly price statistics were largely studied in various documents prepared for the working group on price statistics held in Addis Ababa in November 1979. Moreover, these statistics relate more directly, to primary commodities and consequently were examined together with the commodities.

^{1/} E/CN.14/PSD.1/5

6. However, one specific subject concerning prices was not mentioned in this study but it seems to be of some interest to planners. This concerns international comparison of purchasing power parities and real product which is a project of the United Nations Statistical Office in New York. This project is designed to meet the following requirements: (i) detection, monitoring and analysis of inflation; (ii) price stabilization of commodities and export revenue; (iii) comparison and analysis of national price levels. To implement this project, it is necessary to obtain greater and more obvious commitment on the part of African countries. Thus, for its future development, and particularly with regard to its fourth phase, ICP be given the support of the Joint Conference of Planners, Statisticians and Demographers.

7. Other sectors such as environment and the management of natural resources were not examined because the statistics are still rudimentary or fall directly within the competence of technical services. Also, manpower development was not examined as a separate chapter, but covered within the framework of science and technology.

8. Perhaps, it might have been useful to go into the use of national accounts data for analysis and planning purposes. But the treatment would certainly have been incomplete within the context of this study and, moreover, it would have duplicated the study conducted by the United Nations Statistical Office in New York on this subject (E/CN.14/ERS/14).

9. Finally, in view of the aim of this note as defined above and what has just been mentioned its scope is confined to the following sectors which were reviewed in turn:

- agriculture, forestry and fishing
- industry
- transport and communications
- science and technology
- transfer of financial resources
- demography.

Before examining these sectors, mention should be made of the basic principles and the Programme of Action for the New International Economic Order, the main developments that have taken place in that regard, the framework of principles for the African development strategy and the general needs which basic economic and social statistics should satisfy.

III. THE NEW INTERNATIONAL ECONOMIC ORDER: GENERAL CHARACTERISTICS

10. The need to establish a new international economic order had already been outlined in the declaration of the fourth summit Conference of non-aligned countries (Algiers 5-9 September 1973) and more especially in the Lima declaration (7 November 1971), when the Group of 77 called for an equitable distribution of the rights, obligations and benefits of international co-operation for economic development. But it was the United Nations (General Assembly which at its special session of (1 May 1974) unanimously adopted the Declaration on the Establishment of a New International Economic Order and a programme of action for the implementation of this declaration (General Assembly resolutions 3201 and 3202 (S-VI)). The Programme of Action is divided into ten sections:

- (i) Fundamental problems of raw materials and primary commodities as related to trade and development;
- (ii) International monetary system and financing of the development of developing countries;
- (iii) Industrialization;
- (iv) Transfer of technology;
- (v) Regulation and control over the activities of transnational corporations;
- (vi) Charter of Economic Rights and Duties of States;
- (vii) Promotion of co-operation among developing countries;
- (viii) Assistance in the exercise of permanent sovereignty of States over natural resources;
- (ix) Strengthening of the role of the United Nations System in the field of international economic co-operation;
- (x) Special Programme.

11. Each of these sections involves a certain number of orientations and action principles. However, since that time, the principal characteristics of the New International Economic Order have been the object of numerous declarations and resolutions adopted at conferences organized within the framework of the United Nations. For example: The Conference of Developing Countries on Raw Materials (Dakar, 8 February 1975); the second General Conference of UNIDO (Lima, 12-26 March 1975); the seventh special session of the United Nations General Assembly (18 September 1975); the Conference of International Economic Co-operation (Paris, December 1975); the fourth session of UNCTAD (Nairobi, 5-31 May 1976); the Conference on Human Settlements (Vancouver, 31 May 1976).

12. In summary, it can be said that, from the standpoint of developing countries, the new economic order aims mainly at making the world economy more just through a certain number of measures namely:

- (1) Improvement, stabilization and guarantees in respect of major exports of underdeveloped countries;
- (2) Increase in their share of world industrial production;
- (3) Debt alleviation
- (4) Increase in aid.
- (5) Indexing prices of raw materials to the prices of industrial products.

IV. AFRICAN DEVELOPMENT STRATEGY WITHIN THE FRAMEWORK OF THE THIRD UNITED NATIONS DEVELOPMENT DECADE: GENERAL FEATURES

13. The African strategy for development is a package of directions and action principles which should influence the United Nations Development Strategy for the next ten years. It aims at the following objectives:

- (a) Establishment of self-sustaining, internally located processes of development and economic growth at the national and/or multinational level;
- (b) Subregional and regional collective self-reliance;
- (c) Development of human resources to ensure their greater participation in the development process;
- (d) Broad-based participation in the development process parallel to and consistent with an equitable distribution of gains of socio-economic development;
- (e) Acceleration of the industrialization process on the continent in the context of the social and economic environment of each country and not as a simple importation of foreign industrialization patterns.

14. To attain these objectives, a plan of action was formulated and priorities established: (1) Self-sufficiency in food supply; (2) establishment of a sound industrial base; (3) physical integration of the region through the development of transport; (4) development of capabilities for exercising sovereignty over natural resources; (5) establishment of mutually beneficial and equitable relations between the African countries and the rest of the world; (6) Substantial increase in the present meagre 4 per cent share of intra-African trade in the total trade of Africa.

V. MAJOR NEEDS TO BE MET BY ECONOMIC AND SOCIAL STATISTICS

15. When an economic policy has to be defined and its effects followed, precise and permanent information is needed. In this connexion, a coherent set of statistical data is required. But in order to be usable, development statistics should deal with various aspects of the economic and social situation, its evolution, and the conditions and factors which determine it. In particular, these should be data which make it possible to describe, evaluate and plan development efforts.

16. In this connexion, the principal statistics required should deal with:

- the size and structure of the total population as well as the active population;
- the supply and use of goods and services;
- the volume and structure of foreign trade;
- the resources and activities in the field of transport;
- the sources of financing for economic activity;
- the revenue and expenditure of public administrations;
- the distribution of income, consumption and savings;
- the situation in the field of education, health, housing and leisure.

These data provide information on resources available for production, their use, population growth and its level of well-being.

17. Basic economic and social statistics are also indispensable for drawing up national and regional accounts and other indicators required for socio-economic analysis and projections. For example, to make projections at both national and regional levels certain accounts and aggregates of national accounts are essential. The procedure is the same for input - output analysis.

VI. AGRICULTURE, FORESTRY AND FISHING

A. General

18. Agriculture, forestry and fishing are predominant branches of activity in most developing countries. Indeed, they provide most of the exports of these countries and moreover, supply products which are essential to the population. It is also worth noting that they provide the raw materials for industrialization. Consequently, they are given special attention in development strategies.

19. In the field of agriculture, forestry and fishing, the Programme of Action on the Establishment of a New International Economic Order deals with the fundamental problems of primary commodities (raw materials and food stuffs) as related to trade and development.

(a) Raw materials

20. The objectives set are as follows:

- Restructuring of markets through the conclusion of international agreements on basic commodities in order to improve the terms of trade of developing countries, increase earnings from these commodities (UNCTAD integrated programme for commodities).
- The improvement of the competitiveness of natural products in relation to synthetic products.
- Local processing of raw materials in developing countries.
- Establishment of raw materials.

(b) Food

21. In this field, the main aim of the New Economic Order is to resolve the problem of food needs. The World Food Conference organized by the United Nations in Rome (5-16 November 1974) stressed the seriousness of the world food crisis and further affirmed that developing countries should strive to adjust their agricultural policies in such a manner as to give priority to food production with a view to eradicating the scourge of hunger and malnutrition.

22. The strategy for the African region in the International Development Strategy for the Third United Nations Development Decade includes a priority action plan geared to self-sufficiency in food supplies which is divided into three complementary sections:

- The Regional Food Plan for Africa
- Increased over-all productivity in agriculture (crops, livestock and fishing).
- Agricultural research for appropriate inputs skills and technological improvement.

B. Data required and their uses

23. In order to formulate, monitor appraise and diagnose the two action programmes summarized above, the following statistics are needed:

1. Agriculture

(i) The structure of agricultural production. Distribution of holdings according to geographical zones, size, type of development, type of land use, irrigated areas, form of energy used. These statistics make it possible in planning to evaluate the ways and means of attaining realistic production goals with available resources. They also serve as a basis for formulating land reform programmes and other institutional reforms.

(ii) Annual data on the supply and use of plant and animal products

Areas sown and harvested for different crops; quantities values and prices with regard to the supply of various plant and animal products (domestic production and imports) and their use (sales on domestic markets and exports, subsistence farming, stocks and wastage). These data are necessary for studying how to increase agricultural output and for the preparation of projections. Moreover, they make it possible to draw up:

(a) Commodity balances whose analysis will provide ample information on the way in which agricultural resources are used to produce food and raw materials for consumption, the processing industries and export;

(b) Food balances which indicate for a specific reference period, total per capita food output and the food value expressed in calories and nutrients. An analysis of these balances makes it possible to assess the level of food consumption and nutritional habits of the population and also they provide information on the extent to which a country depends on the outside world for its food supply;

(c) Appropriate indices for analysing trends with regard to area, output and production of each of the major key agricultural products. This "trend" analysis (an analysis which can perhaps be in the form of a graph) will show which particular trends need to be modified.

(iii) Annual data on the volume, value and prices of intermediate consumption, the size and remuneration of labour force and on the fixed capital formation in volume and value. These data are needed for such purpose as forecasting increases in seed production, fertilizers and other intermediate consumer goods as well as capital formation which are necessary for increasing output, productivity and manpower.

(iv) Annual data on prices received and paid by farmers. These statistics are usually used in the evaluation of agricultural output and the comparison of prices in the agricultural sector and those in the other sectors of the economy.

24. The basic statistical series presented above provide essential information for compiling economic accounts for agriculture which make it possible to assess the relative situation of agriculture in relation to the over-all economy analyse the development of the agricultural sector and the dynamic factors which have played a leading role in its growth. They are also essential for an input-output analysis and for the preparation of projections.

2. Forestry

- (i) Basic inventory of forest resources: Areas under forest according to categories, density of productive forests; the composition and development type for reafforestation. These data are useful for planning this sector. They are also of cardinal importance for a study of the environment.
- (ii) Quantities of timber removals according to type, broken down into conifers and hardwood, imports, exports and domestic consumption of lumber. These data are used in evaluating production, and for analysing the forest exploitation and the balance between supply and demand for timber.
- (iii) Price series or indices concerning sales of various species of lumber are also useful for purposes of analysing current earnings and real increases in forestry earnings.

3. Fishing

25. The data deal with:

- (i) The number of fishing boats of the country at a given date, classified according to mode of propulsion and tonnage;
- (ii) Annual data concerning the value, quantities and prices of catches made by fishermen classified according to species;
- (iii) Annual data on supply (domestic production and imports) and the use of fish products (canneries and processing; final consumption on the domestic market and exports).

These basic data are indispensable for all activities aimed at developing the sector.

C. Current status of statistics

26. A good number of African countries currently have agricultural statistical services and undertake various farm surveys. However, owing to a shortage of financing and field staff to conduct regular surveys and inadequate coverage, many African countries have no proper basic or current food and agricultural statistics.

27. In some countries and for certain export commodities, there are of-course agencies which collect data on marketing. In this case, production and prices can be obtained satisfactorily from the statistics of these agencies. For other products, current statistics (annual statistics related to acreage and plant production, herds, production of animal products, the use of fertilizers, active agricultural population, prices etc.) are neither sufficient nor reliable and are not available at the right time in spite of their importance in implementing national food programmes. For crops, evaluation is most often based on observations made by agricultural service officers. Statistics on animal production are also very approximative as they are generally based on data collected during vaccination campaigns. Similarly, data on quantities of fish caught and wood production are unreliable in a good number of African countries. Producer prices of a vast majority of food products are not established correctly.

VII. INDUSTRY (MINING, MANUFACTURING, GAS AND ELECTRICITY PRODUCTION)

A. General

Industry is usually the motive force in the growth required for development. Expansion of industrial production is one way of improving the equilibrium in the trade balance, increasing revenue and creating employment opportunities.

29. Industrialization structures are most characteristic of the relationships between developed and underdeveloped countries. Thus a new international economic order can be established only if developing countries participate equitably in the production and sale of goods and services. In this connexion the main objective of the New International Economic Order and the Lima Declaration is to raise developing countries share in world value added in the manufacturing sector to at least 25 per cent by the year 2000. In order to attain this fundamental objective, the Declaration envisage measures at national level, the purpose of which are to ensure a rate of progress and modalities suitable to the conditions of the countries. Moreover, countries were urged to evaluate periodically the results obtained in the implementation of their programmes and pay due attention to the preparation of a sound data base.

30. Technology is the cornerstone of industrial development. It is thus the field in which the inequality between developed and underdeveloped countries is most glaring. In general, developed countries not only have technologies which are lacking in developing countries, but are also far ahead of developing countries technologically, because they have considerable research and development facilities and the rules governing the transfer of technology and the operation of the patent system are rather vague. Hence the Lima plan of action stresses the importance of technological capabilities in developing countries.

31. Industrial development is accorded high priority in Africa. In this connexion the action programme provides for:

- (a) Integration of industry and economic development (systematic industrial development: total integrated vertical development of natural resources; development of basic engineering and light industries);
- (b) The formulation of industrial and technological plans;
- (c) Industrial and technological manpower development;
- (d) Industrial and technological institutional infrastructure, sound national industrial institutional machinery for effective planning, execution, monitoring and evaluation of industrial development activities; national research and development machinery as well as standardization, regulation of the transfer of technology, industrial and technological information.

B. Data required and their uses

32. In order to draw up industrial development plans, monitor the project implementation and evaluate the progress made by African countries with regard to the directions and action principles laid down in the New International Economic Order and the United Nations Development Strategy, statistics are required on the situation and trends in the following:

- (i) Data on the characteristics of establishments. Number, dimension and geographical location of establishments, legal status, composition of their production and the capacity of their equipment, etc. This understanding of the structure of industry is indispensable for planning. With this kind of information the action to be undertaken in the industrial sector can be evaluated better.
- (ii) Data on employment and salaries: Number of persons, indicating own-account workers, unpaid family workers, paid workers and the number of working hours; wages and salaries for workers and employees. These data in general make it possible to formulate social action plans. The manpower factor and working hours together with the value added or production help in conducting productivity studies which are indispensable for assessing number of additional workers needed as a result of industrial expansion projects and for evaluating the degree of industrial mechanization. Moreover, a comparative analysis by linear regression of increases in employment and productivity in relation to increases in production for a specific given period makes it possible to identify certain trends in the industrialization process.

- (iii) Data on the supply of industrial products (Quantity and value) manufactured locally or imported and their use (local and foreign markets). These statistics reveal the links between the various branches of activity on the one hand, and industry and foreign trade on the other. They are also used to analyse supply and demand and hence to prevent commodity shortages or surpluses.
- (iv) Data relative to goods and services consumed through production (value and quantity) at sales and purchasing prices in the various branches. These data make it possible to evaluate the demand for goods and services of branches which are essential factors in the industry exchange tables used in economic planning and programming.
- (v) Gross fixed capital formation according to type of capital goods and branch of activity. Up-to-date information in this field makes it possible to follow trends in the structure of gross fixed capital formation. The construction of factories, purchase of equipment and increase in the productive capacity of various industrial branches. These data combined with those on production are used to calculate the incremental capital output ratio.
- (vi) Data on the level of stocks. These are useful for projecting imports of raw materials and finished products. They also make it possible to avoid disrupting stocks and to maintain an adequate supply to the economy.

33. The basic statistical series outlined above also help to draw up:

- (a) Industrial production indices by branch of activity from which short-term variations in the level of industrial activity can be followed;
- (b) Production accounts and commodity balances, which are used to analyse growth potential and problems;
- (c) Capital expenditure accounts and capital financing

C. Current status of statistics

34. Statistics currently available in most African countries are far from meeting the various needs analysed above. The generally unsatisfactory status of industrial statistics is often said to be a constraint to the serious studies that planners and economists have to make. The defects are more obvious in the case of structural data than current production data. For example, the statistical requirements set out below are either not available in most countries or are published with such delays that they are of little use:

- Working hours
- cost of goods received or consumed and payments for industrial services rendered
- cost of capital goods
- the installed generators capacity and the energy equivalent of the fuel consumed or supplied
- stock values of certain raw materials
- producer and unit prices of manufactures, and mining products

Yet another problem that remains unsolved is the coverage of industrial statistics in many African countries. This mainly concerns small and artisan type establishments which represent important activities in Africa. Seldom do countries collect information on these production units.

35. Although production is on the whole well covered except for small units within each branch of activity, only 19 countries have as yet published industrial production indices. Then again, only about eight countries have information on employment and wages, electricity consumption, value added and gross fixed capital formation.

VIII. TRANSPORT AND COMMUNICATIONS

A. General

36. It goes without saying that any improvements in transport contribute to the development of trade and hence to economic growth. In most African countries, because of their size, imports and export products have to be carried over long distances. This makes transport of capital importance in terms of both resources available and cost.

37. In the Programme of Action on fundamental problems of raw materials and primary commodities, the New International Economic Order envisages:

- Increasing and equitable participation of developing countries in shipping
arresting and reducing freight rates in order to reduce the cost of imports to and exports from the developing countries
- Increasing the import and export capability of the least developed or land-locked countries

38. High priority is attached to the development of transport and communications in the African development strategy for the Third United Nations Development Decade. In this regard, various plans, policy guidelines and action programmes have been formulated. They concern the following transport modes:

- (a) Road transport
- (b) Ports and maritime transport
- (c) Air transport
- (d) Rail transport
- (e) River and lake transport
- (f) Telecommunications
- (g) Mail services
- (h) Radio and television

B. Data required and their uses

39. In order to be able to monitor and evaluate the efficiency of transport and communications services and facilities and the extent to which they meet actual needs, and in order to be able to plan their development and modernization, the following statistics are required:

1. Transport

- (i) Statistics on transport facilities: infrastructure; transport equipment (capacity, motive power, speed, number) manpower and wages. Such statistics are used to measure the importance of the facilities made available, to study the intensity and the conditions under which operations are carried out. The statistics are also useful for the technical management of transport enterprises.
- (ii) Statistics on operating characteristics: transport cost; utilization coefficient.
- (iii) Traffic statistics: goods and persons transported (gross tonnage, ton kilometers and passenger-kilometers). For purposes of economic observation, such statistics are necessary for analysing results. It is generally necessary to have an actual detailed transport activity abstract which clearly shows trade flows and traffic rates on the routes operated.
- (iv) Service price statistics: prices chargeable for each type of transport (statistics which determine the commercial value of services rendered).
- (v) Statistics relating to the integration of transport in the economy: receipts purchases from other sectors; value added. Such data make reveal the importance of transport within the economy.

2. Communications

40: The statistics required are listed below:

- (i) Postal network: number of offices open
- (ii) Postal traffic: mail; parcels
- (iii) Telephone network: Switchboards, number of subscribers and
- (iv) Telephone traffic; telephones,
- (v) Telegraphic network and traffic;
- (vi) Radio communications network and traffic

C. Current status of statistics

41. Statistics on transport services are still quite inadequate in most African countries. Indeed, there is no adequate, up-to-date, easily accessible information on transport networks. It is of course easy to obtain information from railways and other transport bodies which are commercially or centrally operated and have an accounting system or an appropriate statistics bureau. Such railway companies have information on their facilities, rolling stock (types, state and utilization), carried tonnage, operating costs, cost prices and rates of various categories of transport (goods and persons) broken down by lines and current replacement costs of assets. However, for many railway companies, this information is often incomplete and inaccurate.

42. The situation is similar with regard to air transport, ports and maritime shipping. Information on inland navigation, roads and road transport is even worse. Seldom do countries collect and publish data on road traffic (goods and persons by origin and destination), vehicles in use classified into type, capacity, age of vehicles, load coefficient and their operating costs. Although most countries have an idea of the length of their road network and the proportion which is asphalt, only a few of them have data on the traffic carried by this network which is indispensable for rational planning of the sector.

XI. SCIENCE AND TECHNOLOGY (TRANSFER OF TECHNOLOGY)

A. General

43. The inequalities in level of development between the developed and developing countries are due less to the lack of financial resources than to limited production capacities, technical skills, patent rights and the capacity to develop appropriate technologies. Science and technology are thus central to any development strategy.

44. Technology may be considered as a system which ranges from activities such as the identification and choice of equipment right through to its installation, exploitation, maintenance, improvement and reproduction. This concept of technology covers a very important aspect which is that of rational knowledge. It is this aspect which is dealt with here. The purely material aspect (including the granting of rights to use patents or licence) was considered from the standpoint of capital formation or operating costs in industry. In the field of technology looked at from the point of view of knowledge of the means of production and their use or operation for a group of goods or services, the New International Economic Order aims at the establishment and strengthening of scientific and technological infrastructure in the developing countries. In this connexion, the New International Economic Order calls for the following measures:

- (a) Significant expansion in the assistance from developed to developing ones in research and development programmes and in the creation of suitable indigenous technology;
- (b) Promotion of international co-operation in research and development in exploration and exploitation, conservation and the legitimate utilization of natural resources and all sources of energy.

45. To enable African countries to acquire greater scientific and technological capability and to narrow the gaps and distortions which now exist in available technologies, the African regional strategy includes, among other things, the following recommendations:

- (a) Measures should be taken to establish a correlation between scientific education and research on the one hand and technology on the other, and to orient them both towards the social and economic needs of Africa;
- (b) Measures should be taken for the establishment of multinational technical education institutions within the priority main sectors and subsectors of production;
- (c) Measures should be taken for the establishment of networks of information on low cost and other techniques developed in other developing countries and regions.

C. Required data and their utilization

46. For purposes of implementing the above recommendations with a view to promoting the development of science and technology in Africa, it is necessary to have information on the following subjects (in respect of both government and private educational institutions):

- (i) Bodies conducting scientific and technological research in related disciplines and having enough autonomy to decide to implement projects, classified according to the following activities:
 - Physical and natural sciences;
 - Engineering and technological sciences;
 - Medical sciences;
 - Agricultural sciences;
 - Social and human sciences.
- (ii) Scientific and technical staff classified according to the following categories:
 - (a) Full-time staff;
 - (b) Part time staff;
 - (c) Equivalent full-time;
 - (d) Type of activity;
 - (e) Field of application: production, education, general service;
 - (f) Functions and qualifications: scientists and engineers; technicians; ancillary staff;
- (iii) Number of projects classified according to:
 - Type of activity;
 - Field of application
- (iv) Financial resources classified according to:
 - Sources of financing: public funds, funds from productive enterprises; foreign funds; miscellaneous funds.
 - Type of activity;
 - Field of application.

47. These are the principal statistics on science and technology which can first be used for making the essential inventory of scientific and technological research institutes and centres as is being done for other fields of activity. Secondly, these statistics make it possible to interpret the operation of a research and development system. For example, data on scientific and technological staff give a precise idea of the development of such centres and they can be used to calculate other variables. The interpretation of other statistics makes it possible to highlight certain trends and distortions such as low scientific and technological potential disjointed development-research system, outward-oriented and marginal R-D system. In conclusion, this information is

Useful to those responsible for drawing up scientific policies to modify or to orient the scientific and technological system in order to attain well defined objectives.

C. Current status of statistics

48. In most African countries statistics in the field of science and technology are quite rudimentary. Certainly, education statistics at the various levels of education are generally available and published by the countries themselves as well as by UNESCO at the international level. However, it should be noted that these statistics are in most cases of little use because they are incomplete and unreliable.

49. In the case of the other information, which is by far the most interesting for the analytical purposes, very few African countries conduct over-all or specific regular inquiries to collect such information. A study should be conducted in this field by ECA in collaboration with UNESCO to throw more light on the situation. The fact remains, and it is unlikely to change in the near future, that available statistics on the subject are far from meeting requirements and great progress has yet to be made.

X. TRANSFER OF FINANCIAL RESOURCES

50. International financial co-operation currently occupies an important place in the relations between the industrialized and the developing countries. In the form of development aid, it contributes significantly to the economic and social development of the under-developed countries.

51. In the field of official development assistance, the objectives of the New International Economic Order are:

- (a) That the developed countries should accept to increase the proportion they devote for this purpose to 1 per cent of their gross domestic product;
- (b) That the grant element of the official development assistance should be greater, it should not be tied to purchases in the donor country; it should not be subject to political factors; that a total or partial moratorium on debt repayment should be granted.

As envisaged in the Programme of Action, aid should serve the purpose of the international redistribution of income or resources which is necessary for development.

52. The African strategy for development envisages, among other provisions, a substantial net transfer of external resources from the international community, on terms and conditions that do not exacerbate the debt burden of the region and which will enable the region to service, without undue strain, such debt payments. Appropriate measures should therefore be taken to increase the net inflow of resources and improve the terms by which such resources are transferred.

B. Required statistics and their uses

53. Statistics on the transfer of financial resources provide information needed for analysing the three main aspects of development assistance and other capital movements i.e. volume, distribution and use. In this connexion, the main data required relate to:

- (i) Balance of payments
- (ii) Net flows of resources from developed countries.
 - (a) Official development assistance
 - bilateral
 - multilateral
 - (b) Other flows of official capital
 - bilateral
 - multilateral
 - (c) Private capital
- (iii) Net amount of available resources
 - (a) Official bilateral assistance as broken down by donor countries into grants and loans
 - (b) Multilateral aid as broken down by donor agencies into grants and loans
- (iv) Terms of loans (repayment period, rate of interest)
- (v) Use of aid by sector of activity.

C. Current status of statistics

54. There are no statistics in Africa at present which give a really clear overview of development assistance. The World Bank, OECD and the United Nations do collect data on the flow of national resources placed at the disposal of African countries by the industrialized countries and multilateral institutions, but these data do not refer to the use of aid and moreover they are generally incomplete and not up-to-date. Indeed, a breakdown of aid by source of financing is available only for very few countries.

55. Data on official debt which is the other side of the aid coin, are also unsatisfactory. They are available for about 15 countries and moreover they are not generally comparable from one country to another.

XI. DEMOGRAPHY

A. General

56. Demography cannot be separated from development a fact which hardly needs to be stressed. The ultimate objective of all development is man. Demography also occupies a fundamental position in the over-all economic development strategy and the improvement of the standard of living.

57. The Declaration on the Establishment of the New International Economic Order does not, in its Programme of Action, explicitly separate components as has been done for instance, for commodities and industry. However, demographic problems have not been excluded from the discussion generated on the international scene of the new international economic order. In this connexion, mention may be made of the United Nations Population Conference held in Bucarest from 19-30 August 1974 whose main theme was the fair equitable utilization of the world's wealth, resources and technology.

58. Population growth and its consequences are the main topic of the current international debate on demographic problems. For the industrialized countries, the acceleration of demographic growth is a serious threat to limited world resources. Consequently, this growth should be checked through birth control. For the developing countries which feel rather that the resources are wasted by the developed countries, it is through the economic, social and cultural development of the peoples that a solution must be found to the problem of demographic explosion. There are therefore marked divergencies between the developed countries and the underdeveloped ones on the subject. In any case, the problem calls for a careful and thorough study.

59. In demography, the African strategy for development bases its programme of action on the following considerations: (1) rapid population growth in certain African countries imposes enormous constraints on social services (health, education, housing) and on food production (a problem which is aggravated by the drought in some countries); (2) rapid urban population growth creates problems that are difficult to control without adequate resources; (3) structural unemployment and underemployment of human resources aggravate poverty among the rural population. Population policies must be included in development programmes so as to ensure in particular full utilization and improvement of the skills of the active population.

B. Required statistics and their uses

60. The basic data needed deal with:

1. Population

- (i) Population figures for a given period giving marital status, sex and age; ability to read and write, type of education; ethnic or national group; kind and size of household (family);
- (ii) Number of households (families) at a specific date according to: size and type; size and national or ethnic origin of the head of the household; size of the household and the socio professional category of the head of the household;
- (iii) Number of live births during the year according to: sex; order of children; age of the mother; social level;
- (iv) Number of deaths during the year according to sex and age; residence; social level;
- (v) Number of immigrants and emigrants during the year according to sex; age and education.

61. The formulation of population policies as well as of that a realistic economic and social development plan should take fully into account the above data and their trends. The size, structure, growth and distribution of population are important factors for all the essential aspects of national life are related to them. They provide the bases for determining the demand for goods, undertaking projections and serious demographic studies, evaluating the number of jobs to be created, etc.

2. Active population

- (i) Number of economically active persons during a given period classified according to: sex and age; type of economic activity; professional status; rate of activity of the active population;
- (ii) Number of employed, underemployed or unemployed persons and their characteristics (age, sex, kind of economic activity, professional status, geographical distribution, etc.).

62. In the first place, these data reveal the numbers and qualifications of the active population and the number of dependants. In the second place, they are needed for undertaking projections, analysing trends, assessing the degree and problems of underemployment and of unemployment, and determining the underprivileged groups of the active population, etc.

C. Current status of statistics

63. Thanks in particular to the African Census Programme, remarkable progress has been made in the course of the last few years in the collection and analysis of demographic data in Africa. At present, planning services of many African countries have enough precise demographic data to carry out their task effeciently. However, efforts are still needed to improve the quality and quantity of demographic data in Africa particularly as regards the three factors which determine population trends, namely fertility, mortality and migration. The same is true for nomadic population, in respect of whom the registration systems are still inadequate.

XII. CONCLUSION

64. This study represents an attempt, as far as Africa is concerned, to identify the main statistics needed in the framework of the New International Economic Order and of the African strategy for development by analysing the directions and action principles behind these two strategies. At the same time, an effort has been made to highlight the fundamental uses of these statistics, the defects and gaps which remain to be overcome.

65. The most important problem which arises is, of-course, the compilation of the required statistics. In this context, it is essential to develop censuses and similar large scale inquiries which are certainly the most effecient means of collecting basic data. However, in view of the limited resources of most African countries, recourse to sample surveys which will make it possible to reduce the cost and the burden of the operations will often be necessary. In this regard, the African Household Survey Capability Programme in which a number of African countries already participate is particularly important. This programme of inquiries with multiple objectives will produce coherent and co-ordinated economic and social statistical data on households such as data on employment, income, consumption and expenditure and demographic and social data. It will also provide useful data on agriculture, industry and prices.

66. Statistics Offices in Africa should also derive maximum advantage from the data available in the files of public and private administrative bodies when statistics are being collected. In this connexion, it should be recalled, for example, that basic data on health, education, and housing are derived from public administrations' records.

67. Such a major effort can of-course be made only if the importance of statistics in the economic and social development process is fully recognized. It is to be hoped that the countries will be ready to implement the statistical development programmes drawn up at the regional level.