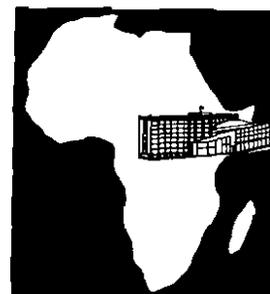




STATISTICAL

newsletter



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EDITORIAL COMMENT

Fairly good progress has been made in the preparation of ECA statistical and economic information publications largely because of improvement in availability of data resulting from the country visits organised earlier in the year. It is hoped that a similar round of visits will be possible in 1973.

This issue contains a review of the recent working group on household sector statistics. The topic is of special interest because data on household production, consumption and income distribution are particular weaknesses in many African countries. The meeting had useful discussions on means of improving data collection and on the treatment of household statistics in the context of national accounts.

Two new regional statistical advisers have joined to assist current population censuses in the region, one in demographic statistics and the other in sampling. Other field activities including those in national accounts and economic surveys have continued.

A census pre-tabulation processing workshop was organised in Addis Ababa from 1 to 17 November for English-speaking countries. A training course on population inquiries for the French language group was held in Rabat from 16 October to 10 November. Both projects were conducted with the assistance of the US Bureau of Census.

A revised list of addresses of heads of statistical offices is contained in this issue.

## STATISTICAL ADVISORY SERVICES

### National accounts

From 24 October to 6 November the regional adviser Mrs. Nguyen visited the Gambia. Previously selected tables on national accounts were compiled for the fiscal years 1963/64 to 1970/71, the estimates for the latter part of the period being only provisional. The work was done by an expert of the Commonwealth Secretariat who came to the Gambia each year for about two months to collect and prepare the relevant economic statistics for the budget in June. Since the Gambia now has a resident statistician at the Central Statistical Office a visit by the regional adviser was requested in order (i) to review the work previously undertaken and recommend the possible improvement in the development of basic data and method of estimation; (ii) to draw up a work programme for national accounting with a view to adopting a simple version of the revised SNA; (iii) to set up worksheets for the estimates of various sectors of the economy and give guidelines for the calculation of estimates.

From 4 to 21 December the adviser undertook a mission to Sudan to finalize the national accounts for 1969/70 and 1970/71. In addition, she prepared a detailed methodology covering current procedures and giving guidelines for future work. The national accounts estimates for 1969/70 and 1970/71 were established on a fiscal year basis, whereas the accounts for the years 1966 to 1969 had been compiled for calendar years. The attempt to prepare the estimates, according to budget year, however, led to problems in adjusting basic data and it is likely that future estimates will be on a calendar year basis. In the accounts for 1969/70 and 1970/71, as in the former ones, the recommendations of the revised SNA were closely followed as far as available data allowed. Although the private consumption expenditure figures were obtained as residuals in these accounts, an effort was made to compile comparable aggregates for the whole country (including the three southern provinces) using the results of the 1967/68 household budget sample survey. It was recognised that while the latest estimates were more refined in methodology and presentation, the quality of basic data used still needs to be much improved. This situation is not peculiar to the Sudan but is common to most of the countries in Africa.

There is a very great need to improve the direct estimates of agricultural output in many African countries and data on producers' and consumers' prices should be developed. Studies on cost of production are also necessary at least for the main crops for the calculation of value added.

Independent checks of production data should be made by using figures on foreign trade and on consumption. For estimating subsistence production more accurately, rural consumption surveys will have to be carried out on a periodic basis.

Industrial statistics are generally better although the information gathered in different censuses or surveys is often not appropriate or detailed enough to enable the establishment of the consumption, income and outlay accounts. In addition, in a number of countries access to documents at the department of taxation is not easy in spite of the fact that those documents are a valuable source of information for national accounting work.

There is no doubt that with more adequate surveys and a better utilization of administrative statistics available in the fields of government accounts, external trade, balance of payments, income tax statistics etc., countries would be able to improve their national accounts estimates.

#### Report on activities during the fourth quarter, 1972

Mr. J.G.C. Blacker undertook a mission in the Gambia from 20 September to 10 October, when he examined the results of the pilot census which had been held in April 1972, with a view to finalising the questionnaire and tabulation programme for the census of the Gambia which is to be held in April 1973. An unusual wealth of material was available from the pilot, which had covered a sample of over 10,000 persons. In addition to the completed questionnaires, over twenty computer tabulations of the results had been produced, while tape-recordings had been made of some sixty interviews between the enumerators and householders; these interviews had been translated from the vernacular languages into English, transcribed and duplicated.

From Bathurst, Mr. Blacker proceeded to Sierra Leone, where a complete census of the country is being planned for April 1974. An extensive pilot will be held twelve months before in April 1973, and Mr. Blacker's principal task there was to draw up a questionnaire to be used in this pilot. It is also proposed that the pilot should cover a nation-wide sample selected on a probability rather than a purposive basis, so that the results can be regarded as representative of the country as a whole. In particular some preliminary estimates of the levels of fertility, mortality, and the rate of population growth will thereby be obtained, which are urgently needed for planning purposes.

Mr. Blacker left Freetown on 24 October and flew directly to Addis Ababa, where he assisted with the Census Pre-Tabulation Processing Workshop which was held from 1 to 17 November. He then proceeded to Khartoum on a two-week mission concerned with the forthcoming census of the Sudan, to be held in April 1973. Here again his principal task was the finalisation of the questionnaire.

After another brief stop in Addis Ababa on the way back, Mr. Blacker undertook a one-week mission in Nairobi from 7 to 14 December where he reviewed the draft of the final volume of the report on the 1969 Kenya Census and the work programme of the Demographic Studies Unit which has been established within the Bureau of Statistics. This work programme includes extensive field experiments in data collection procedures, and a nation-wide demographic sample survey to be held in 1974.

On returning to his duty station in Uganda, Mr. Blacker was informed that a cabinet directive had been issued to the effect that all births and deaths in Uganda are to be registered with effect from 1 January 1973. He therefore participated in discussions with the Registrar-General, the Ministry of Health and the Statistics Division on the design of the registration documents and procedure to be adopted.

Mr. Rehlin spent the period 8 to 24 October in Madagascar, where he advised on the preparation of detailed data processing arrangements for a population census. From 4 to 16 November he undertook an assignment in respect of the Sudan census scheduled for April 1973; this was concerned principally with equipment and other data processing requirements. Immediately afterwards he went to Gambia to finalise arrangements for the processing of results at the International Computer Centre in Geneva; in this case it is intended to use an optical reader as the means of data input in much the same way as for the Zambia and Botswana censuses. He stopped in Sierra Leone on 8 December to assist with an appraisal of processing requirements and then went on to Geneva to test programmes for the Gambia census from 9 to 22 December.

During the first half of October, Mr. Rajakovic was concerned with the organisation of a training course on population inquiries for the French-speaking countries of the region. He and Mr. Nguyen Hong, Regional Adviser in Demography, presented the course at Rabat from 16 October to 10 November in collaboration with the US Bureau of Census officials and Mr. Edward Swan, Project Officer of the African Census Programme. From 24 November to 4 December Mr. Rajakovic participated in a census data processing and analysis seminar organised by the German Foundation for Developing Countries; this was the French counterpart of the seminar organised for English-speaking African countries in 1971.

A new Regional Adviser in Demographic Statistics, Mr. Laurence St. John-Jones (UK), joined the secretariat towards the end of the year. He was assigned to Sudan on 18 December to assist with preparation of the forthcoming census and is expected to remain there until the end of January.

A post of Regional Adviser in Census Cartography has been established, but no appointment has yet been made. In the meantime Mr. Max de Henseler of the ECA Statistics Division has been providing essential services. He participated in a Sudan mission mentioned below from 11 to 17 October, undertook an assignment in Liberia from 21 October to 4 November, and returned to Sudan from 9 to 24 December.

It will be noted from the foregoing account of demographic statistics advisory services that Sudan has been receiving a significant amount of attention. This arises simply from the short interval between the decision regarding the census date and the implementation of the project. No country experts are yet in post and advisory support is being given to the fullest possible extent. Arrangements for this work were formulated during a mission from 11 to 17 October in which the

participants were Mr. W. Booker, Chief of the ECA Statistics Division, Mr. Thomas King, Inter-regional Adviser in the Management Aspects of Computers, Mr. J. Holzer, Regional Adviser in Demography, and Mr. Max de Henseler. Mr. David Bateman, a sampling expert from the US Bureau of Census, joined the mission to make more detailed proposals regarding the sampling aspects of the project.

#### Economic Information

The main travel in 1972 was carried out in the third quarter and the fourth quarter of the year was spent in preparing the annual series of economic data summaries (i.e. a short form of economic survey) for each of 45 countries in Africa. The development of the economic information services, which involves the continuous extraction of data from a large number of published sources, was continued and benefitted materially from the series of visits to 22 African countries in 1972. It is evident that there is a continuing development of economic publications of all types in African countries and it is more and more essential to obtain copies of new publications and to know of their existence. The country visits are a very necessary method of keeping up-to-date with such developments.

#### ECA STATISTICAL PUBLICATIONS

The part of the 1972 Statistical Yearbook dealing with North Africa has been printed. The West and East Africa parts have been sent for reproduction. Those covering Central and other Africa are still in course of preparation. As previously reported, the Yearbook now groups data on a country basis and the 1972 issue includes 1971 figures wherever possible.

Statistical and Economic Information Bulletin, No. 2 will be sent for reproduction as soon as a few outstanding figures are available.

Foreign Trade Statistics for Africa, Series A, No. 19 has been printed and No. 20 is in preparation. Series B, No. 23 has been sent for reproduction and No. 24 is being prepared.

The 1972 issues of Economic Data Summaries for individual African countries have been completed.

African Economic Indicators 1972 is being prepared and is expected to be sent for reproduction in March.

## WORKING GROUP ON HOUSEHOLD SECTOR STATISTICS

A Working Group on Household Sector Statistics met in Addis Ababa from 27 November to 1 December inclusive, 1972. The Group was intended as part of the world programme for the study and implementation of the Revised U.N. System of National Accounts, insofar as the household sector is concerned and examined the final draft of a complementary system of statistics of the distribution of income, consumption and accumulation prepared by the U.N. Statistical Office, in the African context and discussed the sources of data and methods of estimation to be used in current African conditions for the compilation of the accounts and tables for the household sector.

Participants from 18 countries attended the meeting, namely, Cameroun, Central African Republic, the People's Republic of Congo, Egypt, Ethiopia, Ghana, Kenya, Lesotho, Madagascar, Morocco, Nigeria, Senegal, Sierra Leone, Sudan, Togo, Zaire, France and the United Kingdom. A representative from the O.E.C.D. attended the meeting as an observer.

The background documents used for the meeting consisted of three documents prepared by the U.N. Statistical Office and two papers prepared by the ECA secretariat. In addition, a draft questionnaire prepared at short notice by the UN Secretariat served as background material for discussion. The symbols and titles of these documents are listed below:

1. A Draft System of Statistics of the Distribution of Income, Consumption and Accumulation (E/CN.3/425);
2. Structure, Concepts and Definitions and Classifications of Household Sector Statistics (E/CN.14/NAC/51);
3. Sources and Methods of Estimating the Data of Income, Consumption and Accumulation of the Household Sector (E/CN.14/NAC/52);
4. Household Economic Surveys in Africa (E/CN.14/NAC/53);
5. Availability of Household Sector Statistics in Africa (E/CN.14/NAC/54).

The report of the Working Group entitled "Report of the Working Group on Household Sector Statistics" (E/CN.14/NAC/55; E/CN.14/CAS.8/1) will be submitted to the Eighth Session of the Conference of African Statisticians which is tentatively scheduled to be held in Addis Ababa some time in October 1973.

As the relevant documents may not be accessible to all concerned, and even if they were, the reader might find parts of the exposition contained in the report difficult to follow or digest due to unfamiliarity with the technical terms used, it has been thought desirable to include in this issue of the Newsletter a summary of the more important points discussed and conclusions arrived at in respect of the compilation of household sector accounts in countries of the region. Some of the technical points discussed will be presented here. These, however, are no substitute for the documents and the Group's report themselves.

The technical points discussed at the meeting may be presented under the following headings:

1. Concepts and definitions of the household and related classifications;
2. Classification and valuation of selected household transactions;
3. The concept of the total consumption of the population;
4. Order of priority to be given to income and outlay accounts of households.
5. Order of priority to be given to tables of the complementary system.

1. Concepts and definitions of the household and related classifications:

By and large the housekeeping concept of the household, frequently used in population censuses and demographic surveys, has been adopted by African countries in the compilation of household sector statistics. According to this concept, a household is defined as a group of one or more persons who occupy the whole or part of one housing unit and make joint provision for food or other essentials of living. In addition, an institutional concept of the household (e.g., old-age homes, mental institutions, hospitals, asylums, prisons, soldiers living in barracks, children living in boarding schools, etc.) has to be used. The operating and managerial personnel of these institutions and persons living in hotels or boarding houses, however, should not be included in the institutional concept of the household; they should be dealt with in the usual housekeeping concept and be treated as members of one- or multi-person households.

Two principal approaches are used in defining the composition of the household, namely the de facto approach, according to which all members present at the time of the enumeration should be counted, and the de jure approach, according to which members normally resident in the household should be included. The de facto approach has been recommended by the U.N. Statistical Office because it would reduce the difficulties of collecting data on income and expenditure that will be consistent with the household composition. As to which of the two approaches should be used in household budget surveys will depend largely on the methods of the inquiries used. The de facto approach should be used in cases in which a survey involving a number of visits to the same household over a period of one year would furnish a means of reflecting the changing composition of the household over time. On the other hand, a de jure approach would be more appropriate in the case of retrospective inquiries covering say a year.

Some of the points dealt with at the meeting include the following:

- (a) Polygamous households: A polygamous household is one in which the husband may keep two or more wives, who may either share the same compound or live separately, with the head of the household moving in turn from one homestead to another. In the case where the polygamous group share the same compound the food in common, the group should be treated as one household. In the case where the wives live separately, each such group should be treated as a separate household. The usual convention is to include the head of household (i.e. the husband) in that of his first wife by rank.
- (b) Multi-residences of the same household: It is not uncommon to find cases in which the same household may occupy several residences simultaneously, e.g., one in a village, another in a town and a third at a cattle post. In such cases the de facto approach, modified by certain national conventions, should be used in defining a household. For instance, if at the time of the enumeration only one of the residences is used for occupation by members of the household, the remaining residences should not be counted. On the other hand, if more than one of the residences have been in use for a continual period of say three months or more, depending on the convention adopted by a country, i.e., occupied by members of the household, then these occupied residences should be counted as separate households. The treatment of multi-residences would have implications in area sampling.
- (c) Nomadic households: The gathering of data from nomadic households, which often breaks into smaller units at times of moving for grazing purposes and cross back and forth international borders depending on season, has posed serious problems and no definite and effective solutions to these problems are known to have been found. One way of tackling the problem should be to focus attention on households (e.g., belonging to particular tribes or groups of households) and follow their movements, irrespective of their geographical location. Another would be to identify households with their livestock at watering places during the dry season. Both of these methods have been tried in some African countries; more research into this would be needed to determine the effectiveness of these methods.
- (d) Small money lenders in rural areas: Small money lenders in rural areas should be considered as part of the households sector. They do not qualify to be included in the sector of "financial institutions". According to the SNA, a financial institution must maintain complete and separate records on all of its financial transactions and its assets and liabilities. As the small money lenders do not satisfy this requirement, they should be considered as part of the households sector; which include non-financial unincorporated enterprises, and their financial transactions should be considered as an industry and included in "financial institutions" under Industries, in the table on gross domestic product by kind of economic activity.

- (e) Transactions between members of the same household: Transactions between members of the same household should be netted for recording purposes. In compiling statistics for the household sector, intra-household transactions should not be recorded.
- (f) Transactions between households without payments being involved: In the case of mutual help services rendered to other households without pay, these services would be implicitly included in the production of the households receiving such services. Consequently these services should be left out of account and treated as free labour. The monetary equivalent of transfers in kind between resident households are not included in the current transfers of the SNA, although transfers in monetary terms between resident households are so included. On the other hand, transfers in kind between resident households of different countries should be included in the current transfers of the SNA and should be valued at cost to the donor, that is at retail prices.
- (g) Socio-economic classification of households: The Group discussed the need for the keeping of production, consumption and income and outlay and capital finance accounts respectively for the following categories of households headed by:
- (i) employers with unincorporated non-financial enterprises,
  - (ii) own-account workers with unincorporated non-financial enterprises, (iii) employees and (iv) independents, pensioners, etc. These distinctions have already been made in the SNA, and in more detail in the proposed complementary system of statistics of the distribution of income, consumption and accumulation (i.e., document E/CN.3/425). The Group considered proposals made by some participants relating to the proposed classification of socio-economic groups as contained in Table 2 of document 425. The proposal of putting such sub-headings as the public and private sectors, traditional and modern sectors, nationals and expatriates, etc., under the group headings of Table 2, was considered by the Group to be inappropriate, because these were classifications in their own right. A similar proposal of introducing further breakdown into artisans, traders, etc., under own-account workers in Table 2 was considered to be not necessary, because this could be taken care of by the classification by kind of economic activity and occupation included in Annex I of document 425.

It was pointed out by the Group that for some countries of the region, the distinction between nationals and expatriates might be usefully introduced as a classifying variable. The use of the classification into nationals and expatriates, however, should be left to the individual countries.

- (h) Sub-division of households into monetary and non-monetary: The desirability of introducing into Table 1 of the complementary system, the sub-division of monetary and non-monetary under the column "all households", was discussed by the Group. This was considered to be inappropriate, because of the fact that the distinction between monetary and non-monetary was practicable in the case of transactions and not in the case of households or individuals. It would be desirable and practicable to make this distinction in the case of wages and salaries, household final consumption expenditure and the fixed capital formation of unincorporated enterprises.

2. Classification and valuation of selected household transactions:

Some of the more important technical issues discussed are given below:

- (a) The desirability and practicability of sub-dividing private final consumption expenditure by products into locally produced and imported: It is certainly desirable and useful to provide estimates of private final consumption expenditure in product detail broken down into locally produced and imported. On the other hand, there are considerable difficulties in obtaining such estimates in product detail. For purposes of import substitution, the extent to which this is possible can be determined directly from import statistics, without the need for statistics on the uses made of the imports. In the input-output tables contained in the SNA, imports are classed into competitive and complementary ones. While it might be feasible to estimate the complementary imports, which are products not produced in the country, that go into private final consumption expenditure, it would be very difficult to make such estimates in the case of competitive imports, which consist of products also being produced in the country. These commodities may be used in intermediate consumption, and even in fixed capital formation and enter into stocks in addition to their use in final consumption expenditure and it would not be feasible to distinguish between the imports and domestically produced items that enter into each type of use. Even if this could be done, it was argued by some participants at the meeting that the results obtained would not warrant the disproportionately large costs involved in arriving at the estimates.
- (b) Valuation of subsistence production for private consumption expenditure: Agricultural production for own consumption should be valued at farm-gate prices, which are often obtained by deducting transport costs and dealers' margins from the retail prices at a nearby market, in the main tables in order to maintain consistency in figures between production and consumption. However, valuation of subsistence production at retail prices at the nearby market should be calculated and included as a footnote. This dual valuation approach is

due to the fact that valuations at retail prices would provide a better measure of the relative physical quantities involved in the case of own-produced and purchased commodities that enter into private final consumption expenditure.

- (c) Estimation of wages and salaries in kind: For private consumption expenditure, wages and salaries paid in kind should be valued at retail market prices. This is the most practical method when quantity figures are available. In the SNA, it is recommended that the valuation should be at cost explicitly incurred by the employer. The provision of free housing, or at reduced rates by the employers to employees, constitutes part of the wages and salaries paid.
- (d) Estimation of household savings: Questions on saving should not be included in household survey questionnaires, because they are unlikely to yield useful and reliable figures. Instead, data on saving can be built up through either of the two ways: (i) to be obtained as difference between receipts and outlay on current account, (ii) to be obtained from balance sheet data as changes in holdings of assets and liabilities between the beginning and the end of the year. The change in holdings of assets (both real and financial) less changes in liabilities during the year would be equal to saving plus capital gain, if any. Capital gains mostly occur in sales of land and in dealings in sales of structures and common stock. In the case where a capital gain occurred, this should be estimated and deducted in order to obtain an estimate of saving. For the purposes mentioned, book-values could be used provided they were kept at cost in the case of assets (i.e. fixed and financial assets).
- (e) Treatment of nominal fees paid by households to government health services: The Group discussed the treatment of nominal fees paid by patients to government health services. It was noted that where the individual could make a free choice in respect of the private doctor, hospital, etc. and the conditions and terms under which to receive the services, the individual would be considered the purchaser of these services. Consequently the full cost of the service (including the nominal fee paid) and the cost to the government should be treated as private final consumption expenditure and the payment by government would be considered to be a current transfer to the individual. If, on the other hand, these conditions were not satisfied, the nominal fee paid should be treated as private consumption expenditure and the purchase of service from the government, while the difference between the nominal fee and the full cost of the service should be considered as government consumption expenditure.

- (f) Difference between membership dues in private non-profit institutions and donations made by households to these institutions: The difference between these two flows is that in the case of membership dues they are compulsory for members and the amounts to be paid are specified. On the other hand, donations are often made by non-members of a private non-profit institution and the contributions are voluntary in nature and not fixed in amount.
  - (g) Treatment of sales by government to households, of consumption goods donated by foreign governments: Grants in kind of grains, food and other consumption items from one government to another should be treated as the exports of the donor country and the imports of the receiving country and should be recorded in the consumption expenditure of the receiving government. The value of these grants should be included in the current transfers made of the donor government and the current transfers received of the receiving government. When the receiving government sells these goods to households, the value of the sales should be added to in private consumption expenditure and subtracted from government consumption expenditure.
  - (h) Treatment of seeds provided free to farmers by government: The seeds that governments furnished free of charge to farmers should be recorded as current transfers between the government and the farmers and should be included in the intermediate consumption of the farmers. Government consumption expenditure should be reduced by the value of the seed.
  - (i) Treatment of cancelling of government loans to farmers for capital investment purposes: The cancelling of government loans to farmers for purposes of acquiring machinery and equipment should be considered to be reductions in liabilities of the farmers and in the financial assets of the government and should be counterbalanced by a capital transfer from government to the farmers.
3. The concept of the total consumption of the population:

The concept of "total consumption of the population" is used in the MPS (Material Product Balances), but not in the SNA. This concept is proposed for the complementary system in order to promote national and international comparability of data on the level of consumption of goods and services by households. And in view of the differing incidence on the various groups of the population (e.g., households falling into different socio-economic classes) of benefits provided by government, private non-profit institutions and enterprises, the inclusion of these benefits at cost into consumption expenditure would provide a broader measure of the level of consumption of the population than is provided by the flow "private final consumption expenditure" only.

The total consumption of the population can be obtained by adding to private consumption expenditure, the value of the goods and services that government, non-profit institutions and enterprises furnish free, or at reduced charges, which are clearly and primarily of benefit to the households as consumers. These goods and services include food, clothing, medical and health care, welfare and educational services and recreational and cultural services, and should be valued at the net outlays of the organizations providing them, that is, the current costs incurred by the organizations reduced by the fees and other outlays paid by households in respect of the goods and services. The employees of the government, private non-profit institutions and enterprises are to be excluded when these goods and services have already been treated as income in kind.

The Group discussed and examined the concept and considered the concept of total consumption of the population a useful one, both for the promotion of international comparison and for obtaining a measure of the distribution of consumption among the population in respect of either geographical location (e.g., urban and rural) or socio-economic groups. Some of the participants thought it useful and feasible to compile Table 7. Classification of total consumption of the population, of document E/CN.3/425 in global terms; difficulties would be encountered in attempting to break down the totals among different groups of population, e.g., different socio-economic groups. No recommendations were made by the Group with respect to the compilation of data according to the concept of total consumption by countries of the region.

4. Order of priority to be given to income and outlay accounts of households:

In discussing income and outlay and capital finance accounts of households, the Group noted that in the SNA these accounts had been assigned a rather low order of priority. However, since the publication of the SNA, great emphasis had been put on problems of the distribution of income and the correlative development of income distribution and consumption statistics. In the Second UN Development Decade, countries had committed themselves in connection with the International Development Strategy, to assess the distribution of income and consumption, and an increasing number of African countries had been taking household income and consumption surveys.

On the order of priority to be given to the compilation of income and outlay accounts or of the constituent components of these accounts by countries of the region, it was emphasised that the SNA and the complementary system of statistics on the distribution of income, consumption and accumulation provided guidelines only in respect of goals for the development of these statistics and it was up to the individual countries to establish their own adaptation and orders of priority in the compilation of the accounts and tables. Owing to the generally weak statistical base, a number of countries of the region accorded high priority to the compilation of production and the correlated expenditure accounts. In working out the production accounts, however, through the adding up of the components of value added (i.e., compensation of employees, operating surplus, consumption of fixed capital, and indirect taxes net of subsidies), a country would go a long way in obtaining data for the income and outlay accounts.

On future work on household sector statistics, the Group felt that the focus of attention and interest of the countries of the region should be mainly on: (i) production accounts of unincorporated household enterprises, (ii) final consumption expenditure of households by object, and (iii) data on capital formation by unincorporated (household) enterprises. In particular, consumption expenditure statistics should be given priority by countries of the region in order to: (a) provide a direct measure of consumption expenditure instead of it being obtained as a residual item, and (b) provide a good indicator of income distribution. Statistics on final consumption expenditure of resident households by object classified according to size of expenditure as a practical indicator of income would be useful for a wide range of purposes.

5. Order of priority to be given to the tables of the complementary system:

On the question of priorities of the tables included in the complementary system, the Group noted that the summary tables (Tables 1-3) and the tables on final consumption expenditure (Tables 18 to 20) might be given priority, with perhaps a simplified version of the classification of socio-economic groups. The Group was not able to reach a general consensus as to the setting of priorities for the tables of the complementary system and was of the opinion that the establishment of priorities should be left to the individual countries concerned, in the light of their respective needs and statistical resources and in the light of the practicability of compiling the data.

Under sources and methods of gathering data, interesting descriptions of country experiences, programmes and problems in the field of household budget surveys were made by the participants. The lack of trained personnel, especially that at the professional as well as junior professional level, and the lack of financial resources were mentioned as the major constraints on work in this field. Among the problems raised during the discussions were those of high transport costs, method of sampling in nomadic areas, non-sampling errors, the values of listing and gathering simple indicators of income, problems of coding, and the effect of "conditioning" in household surveys work.

The Group noted that preliminary inquiry into the income or other household transactions for purposes of stratification in sample selection could improve the efficiency of the sample. The effect of "conditioning" had not been successfully studied and there was yet no answer to this problem. However, longer recording period would help. The reduction of non-sampling errors could be effected through stricter and more efficient control of field work and scrutinizing at the data processing stage. Sampling in nomadic areas could be based on a listing of households in bands at places of water-holes, etc.

On the scope of a household sample survey, the Group discussed the subjects (e.g., demographic characteristics, housing conditions, etc.) in addition to income and expenditure which might be covered in a single round of a household sample survey. It was agreed that a number of considerations should enter into deciding on the subjects to be covered in a single round, such as the availability of capable and well-trained interviewers, the possible over-fatigue of respondents by a long list of questions, and the possible serious delay in the publication and processing of results of the inquiry. On the other hand, covering a number of related subjects in a single round would keep the costs of sample selection, transportation, enumeration and field supervision down. The Group agreed that it was advantageous to establish continuous multi-purpose household sample surveys, successive rounds of which would focus on a given subject at each of such rounds. These surveys were the most effective means for gathering much of the required economic and social statistics.

On questions of sample design, it was agreed that multi-stage sampling should be used in income and expenditure inquiries to keep transport, listing and enumeration costs a minimum. The number of stages used should probably be different in the case of rural and urban areas and should depend on the size of these areas and the availability of useful maps. It might be appropriate to use three to four stages in the case of rural areas and two stages in the case of urban areas. Stratification of the frame of sampling units was desirable at each of the stages before the selection of households. Whether stratification of households was desirable depended on the variance in production, income and consumption among the penultimate sampling units. Using variable sampling fractions at different stages in the selection of the samples of households so that the overall sampling fraction for each stratum of the population is kept constant, would have considerable advantages. Population censuses can furnish a valuable frame for the design and selection of samples for the purposes of the household inquiries.

Questions of substitution usually arise because of non-response by sample households and the moving or dissolution of the households. It was suggested that it might be preferable to take a sub-sample of the non-respondent households and make a special effort to enumerate the sub-sample. There are dangers in introducing significant bias in using substitution. In substituting new sample households for old sample households, the new sample households are to be selected from the stratum of the old sample households and two are matched in respect of important characteristics. For purposes of substitution, a larger sample of households and a smaller sub-sample for enumeration are selected originally or the frame of households itself is to be used, care has to be taken in determining the correct sampling fractions in either case.

Interesting discussions took place on the draft sample forms, which consisted of a sample listing sheet, a sample face sheet, a sample form in respect of the production, costs and disposition of crops and a sample form on current and capital transactions of the households of operators of agricultural holdings, prepared by the U.N. Secretariat as referred earlier in this note, and proposals were made to introduce amendments to the draft forms. The object of the draft forms was to stimulate discussion and as a result a number of the participants in the Working Group prepared sample forms in respect of items of data on income and expenditure for their own respective countries. Drafts of these forms are being kept by the Secretariat.

## POPULATION CENSUS TRAINING COURSES

### Training Course on Population Inquiries

As part of the African Census Programme, ECA, in collaboration with the Census Bureau of the United States of America, organized a training course for all French-speaking African countries. The course took place at the Institut National de Statistique et d'Economie Appliquée (National Institute of Statistics and Applied Economics) in Rabat from 16 October to 10 November 1972.

The purpose of this training course was to help African countries to overcome difficulties in preparing, carrying out and utilizing the results of censuses and similar surveys.

The course was attended by 32 participants from the following 16 African countries members of ECA: Algeria, Burundi, Cameroon, Central African Republic, Chad, Congo, Dahomey, Gabon, Ivory Coast, Mali, Mauritania, Niger, Senegal, Togo, Upper Volta and Zaire.

The three basic documents for the course<sup>1/</sup> were African Recommendations for the 1970 Population Censuses (an ECA document), Principles and Recommendations for the 1970 Population Censuses, (published by the United Nations and New Florencia, a complete set of documents concerning a census prepared by the Census Bureau of the United States of America (a case study for the 1970 population and housing censuses).

The programme of the course was as follows:

1. Aims and overall planning of population censuses and similar surveys.
2. Concepts, definitions and questionnaires to be adopted in connection with population censuses and similar surveys.
3. Preparation and lay-out of tables.
4. Trial censuses (pilot censuses).
5. Utilisation and application of sampling in censuses.
6. Cartography.
7. Administrative supervision.
8. Carrying out a census.
9. Verification, codification and other manually performed tasks in preparation for data-processing.
10. Revision and publication of tables.

In addition, the documentation dealing with the 1971 population census in Morocco was circulated to the participants and discussed.

<sup>1/</sup> The programme of the course is given in ECA document E/CN.14/CPH.32.

The courses were led by :

- Mr. Nguyen Hong and Mr. Rajakovic, ECA Regional Advisers (from 16 October to 10 November).
- Mr. A.K. Maitra of the Yaoundé Institut de Formation statistique (Statistical Training Institution) (from 25 October to 9 November); and
- Mr. Jack Silver, Assistant Chief in charge of Research and Methodology of the Division of Construction Statistics of the United States Census Bureau (from 27 October to 7 November).

These courses were supplemented by courses given by Mr. El Amrani, Mr. Abouchouker and Mr. El Hosni of the Moroccan Service Central des Statistiques (Central Statistical Service), who described the census carried out in Morocco in 1971.

Mr. E.P. Swan, Project Officer of the African Census Programme, participated in part of the course.

The participants showed great interest in the course and took a very active part in the discussions. They were particularly interested in the exchange of experience among African countries with regard to demographic censuses and surveys.

#### Census Pre-Tabulation Processing Workshop

The Workshop was held in Addis Ababa from 1 to 17 November 1972, and was attended by 27 participants from Ethiopia, Gambia, Ghana, Kenya, Lesotho, Liberia, Libya, Malawi, Mauritius, Nigeria, Sierra Leone, Somalia, Sudan and Zambia. It was organised jointly by the U.S. Bureau of the Census and ECA. The majority of the teaching was undertaken by Miss B. Washabaugh, Mr. R. Bourdon and Mr. M. Gorinson of the Bureau of the Census; contributions from the ECA side were made by Mr. J. Blacker, Regional Adviser in Demographic Statistics; Mr. R.K. Som, Chief of the Population Programme Centre, and Mr. E.P. Swan, Project Officer of the African Census Programme; Mr. D. Bateman of the Bureau of Census also contributed a special session on sampling.

The subject matter covered by the Workshop was as follows:

1. Table design and content.
2. Administrative control system.
3. Basic considerations for data processing.
4. Manual processing.
5. Key punching.
6. Machine processing.
7. Quality control of data processing operations.
8. Pre-publication review of the tabulations.

Much of the course was based on the materials developed for "New Florencia" - a mythical country used as a case study for the teaching of census techniques in the training courses run by the US Bureau of the Census. Although some of the material was not entirely appropriate to African conditions, it provided a very useful basis for teaching and discussion.

The participants were also divided into seminar groups in which useful discussions were held. Visits were made to computer installations in Addis Ababa, and there was a fruitful exchange of experiences between the participants.

NAMES AND ADDRESSES OF HEADS OF STATISTICAL OFFICES

North Africa

M. A. Oubouzar  
Directeur des Statistiques  
10, Rue Desfontaines  
Alger  
Algérie

Mr. A.S. Zoghni  
Director General  
Census and Statistical Department  
Ministry of Development and Planning  
Tripoli  
Libya

M. A. Cherkaoui  
Directeur de la Statistique  
Division du Plan et des statistiques  
B.P. 178  
Rabat  
Maroc

Mr. G.A. Musa  
Director  
Department of Statistics  
Ministry of Planning  
P.O. Box 700  
Khartoum  
Sudan

M. H. Zghal  
Directeur général de l'Institut de  
Statistiques  
31, Avenue de Paris  
Tunis  
Tunisie

Mr. Gamal Askar  
President  
Central Agency for Public  
Mobilization and Statistics  
Nasr City  
Cairo  
Egypt

West Africa

M. S. Ogouma  
Directeur  
Direction de la Statistique  
B.P. 239  
Cotonou  
Dahomey

Mr. D. Roberts  
Government Statistician  
Central Statistical Office  
Ministry of Finance  
Bathurst  
Gambia

Mr. J.E. Tandoh  
Government Statistician  
Central Bureau of Statistics  
P.O. Box 1098  
Accra  
Ghana

Monsieur le Directeur du Service  
de la Statistique générale et  
de la Mécanographie  
B.P. 222  
Conakry  
Guinée

M. Kouakou Koko  
Directeur  
Direction de la Statistique  
Ministère des Finances  
B.P. 222  
Abidjan  
Côte-d'Ivoire

Mr. S.D. Greene  
Director  
Bureau of Statistics  
Department of Planning and  
Economic Affairs  
P.O. Box 9016  
Monrovia  
Liberia

West Africa (Cont'd.)

M. M.K. Tall  
Directeur  
Service de la Statistique générale  
et de la Comptabilité nationale  
B.P. 12  
Bamako-Koulouba  
Mali

M. Moctar Ould Zamel  
Directeur  
Direction de la Statistique et  
des Etudes économiques  
B.P. 240  
Nouakchott  
Mauritanie

M. J. Akehossi  
Directeur du Service de la Statistique  
et de la Mécanographie  
Ministère des Affaires Economiques  
et du Plan  
B.P. 467  
Niamey  
Niger

Mr. E.A. Adewole  
Chief Statistician  
Federal Office of Statistics  
P.M.B. 12528  
Lagos  
Nigeria

M. S.L. Diop  
Directeur  
Direction de la Statistique  
B.P. 116  
Dakar  
Sénégal

Mr. L.A.W. Harding  
Director  
Central Statistics Office  
Tower Hill  
Freetown  
Sierra Leone

M. A.T. Kponton  
Directeur  
Direction de la Statistique  
générale  
B.P. 118  
Lomé  
Togo

M. Georges Sanogoh  
Directeur  
Direction de la Statistique  
et de la Mécanographie  
B.P. 374  
Ouagadougou  
Haute-Volta

Central Africa

M. Mouoyebe Ndedi  
Directeur  
Direction de la Statistique  
et de la Comptabilité nationale  
Ministère du Plan et de  
l'Aménagement des Territoires  
B.P. 660  
Yaoundé  
Cameroun

M. M.L. Namssenma  
Directeur  
Direction de la Statistique  
générale et des études économiques  
B.P. 954  
Bangui  
République Centrafricaine

M. B. Nouvelle  
Directeur  
Service de la Statistique  
générale et des Etudes économiques  
Commissariat général au Plan  
B.P. 453  
Fort-Lamy  
Tchad

Central Africa (Cont'd.)

M. Adolphe Nzeza  
Directeur général  
Institut National de Statistique  
B.P. 20  
Kinshasa-Kalina  
République du Zaïre

M. Roger Issombo  
Directeur  
Service national de la Statistique,  
des Etudes démographiques et  
économiques  
B.P. 2031  
Brazzaville  
République populaire du Congo

M. Bentejao  
Directeur  
Département des statistiques  
UDEAC  
B.P. 969  
Bangui  
République Centrafricaine

M. Mocktar Abdoulaye Mbingt  
Directeur  
Service national de la Statistique  
B.P. 179  
Libreville  
Gabon

M. C. Niragira  
Directeur  
Direction de la Statistique  
Ministère du Plan  
B.P. 1005  
Bujumbura  
Burundi

M. E. Twagirayezu  
Directeur Général  
Direction de la Statistique et  
de la Documentation  
B.P. 46  
Kigali  
Rwanda

M. R. Andrianasolo  
Chef du Service Statistique de l'OCAM  
B.P. 437  
Yaoundé  
Cameroun

East Africa

H.E. Ato Habtu Eshete  
Vice Minister  
Central Statistical Office  
P.O. Box 1143  
Addis Ababa  
Ethiopia

Mr. S.S. Heyer  
Chief Statistician  
Economics and Statistics Division  
Ministry of Economic Planning and  
Development  
P.O. Box 30266  
Nairobi  
Kenya

M. R.R. Ramanana  
Directeur  
Institut national de la Statistique  
et de la Recherche économique  
B.P. 485  
Tananarive  
Madagascar

Mr. C. Greenfield  
Director of Census and Statistics  
National Statistical Office  
P.O. Box 333  
Zomba  
Malawi

Mr. Ab-Kong  
Acting Director  
Central Statistical Office  
Rose Hill  
Mauritius

The Director  
Statistical Department  
Ministry of Planning and Coordination  
Mogadiscio  
Somalia

East Africa (Cont'd.)

Mr. M. Mpogolo  
Government Statistician  
Central Statistical Bureau  
P.O. Box 796  
Dar-es-Salaam  
Tanzania

Mr. I.K. Kabanda  
Government Statistician  
Ministry of Finance, Planning  
and Economic Development  
Statistics Division  
P.O. Box 13  
Entebbe  
Uganda

Mr. F. Walusiku  
Director  
Central Statistical Office  
P.O. Box 1908  
Lusaka  
Zambia

Mr. D.C. Singh  
Chief Statistician  
East African Statistical Department  
East African Community  
P.O. Box 30462  
Nairobi  
Kenya

Other

Mr. D.J. Hudson  
Government Statistician  
Central Statistics Office  
Private Bag, 24  
Gaborone  
Botswana

Mr. L.B. Monyake  
Director  
Bureau of Statistics  
P.O. Box 455  
Maseru  
Lesotho

Mr. M. Hamdi  
Director  
Department of Statistics  
P.O. Box 456  
Mbabane  
Swaziland

Regional Economic Commissions

Mr. Francisco Azorin  
Chief, Statistical Division  
UNECLA  
Casilla 179D  
Santiago  
Chile

Mr. T.V. Viswanathan  
Chief, Statistics Division  
UNECAFE  
Bangkok  
Thailand

Mr. Barrie Davis  
Chief, Division of Statistics  
Economic Commission for Europe  
Geneva  
Switzerland

Mr. W.L. Booker,  
Chief, Division of Statistics  
Economic Commission for Africa  
P.O. Box 3001  
Addis Ababa  
Ethiopia

Other International Agencies

Mr. E. Lunenburg  
Director of the Permanent Office  
International Statistical Institute  
2, Oostduinlaan  
The Hague  
Netherlands

Mr. K.G. Brodin  
Director  
Office of Statistics  
Communication Sector  
UNESCO  
Place de Fontenoy  
75 Paris 7  
France

Mr. N.P. Lacroix  
Chief Statistician  
ILO  
Geneva

Mr. V. Paretto  
Directeur  
Office Statistique des Communautés  
Européennes  
Centre Louvigny  
Luxembourg

M. Till  
Chief Statistician  
GATT  
Villa le Bocage  
Genève  
Suisse

Mr. K.L. Bachman  
Director  
Statistics Division  
FAO  
Via delle terme di Caracalla  
Rome  
Italy

Dr. W.P. Logan  
Chief Statistician  
WHO  
1211 Geneva  
Switzerland

Mr. Earl Hicks  
Director  
Bureau of Statistics  
IMF  
Washington D.C. 20431  
USA

Mr. A.E. Tiemann  
Chief, Statistical Services  
Division  
Economics Department  
IBRD  
Washington D.C.  
U.S.A.

Other National Agencies

Mr. P. Schmidt  
President  
Statistisches Bundesamt  
Gustav-Stresemann-Ring 11  
Postfach 828  
62 Wiesbaden  
Germany

M. Ripert  
Directeur général  
INSEE  
26 Quai Branly  
Paris  
France

Mr. Ficatier  
Chef du Département de la  
Coopération de l'INSEE  
2<sup>e</sup> Neuve St. Pierre  
Paris IV  
France

Sir Claus Moser  
Director  
Central Statistical Office  
Great George Street  
London S.W.1. P3AQ  
England

Mr. K.V. Henderson  
Chief Statistician  
Ministry of Overseas Development  
Eland House  
Stag Place  
London S.W.1.  
England