

THE DEVELOPMENT AND DIVERSITY OF NATIONAL INCOME SERIES IN EAST AFRICA SINCE 1947

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I. INTRODUCTION

1. For this paper East Africa has been defined to include Kenya, Tanganyika and Uganda, the statistical work for which is undertaken by the East African Statistical Department, which is a service of the East Africa High Commission and has offices in each territory. The Department is a central statistical organization with responsibility for statistical activities in every territory, under the authority of the East Africa High Commission Statistics Act. Included in the definition of East Africa is the Protectorate of Zanzibar, which is outside the authority of the East Africa High Commission, but the East African Statistical Department has both an advisory and an executive function in undertaking statistical work for the Government of the Protectorate.

2. No estimates of national income can be more accurate than the statistical data from which they are produced. Some research workers conveniently forget this important fact and pretend that the aggregation of bad statistical data can result in convincing national income totals. Experience in East Africa has shown that until certain fundamental statistical series have been created and maintained for a period of years no valid estimates of national income can be produced.

3. The calculation of a bench-mark national income total presupposes the existence of satisfactory series of data. If a single year's estimates can be calculated with any precision, series can be calculated also, for some organization must exist to collect such information. If a series is not attempted, all kinds of subjective guesses can be inserted after flights of statistical fancy, and there is no justification for the view held in certain quarters that such types of calculation give good orders of magnitude. The results may be entirely spurious. Where such a calculation is made, it should be done with the intention of providing a framework and system for a national income series.

Too often a figure is produced as a prestige statistic, which I have defined as a figure prepared for a territory to suggest comparison with non-comparable data for other territories, with the aim of showing the importance of that territory in political, economic or social affairs.

4. Among the basic series which have to be collected before any national income estimate can be prepared are data on employment and wages. This information in East Africa has been analysed by industry and wage bill totals prepared. Good series of export statistics and of agricultural production have to be collected either directly or through well-controlled administrative sources. The improvement of other statistics, mainly the by-product of administration, then allow first estimates to be calculated.

5. The first estimate of the income and domestic product of an East African territory was produced for Kenya for 1947 and was made in 1949. This series was continued until 1958. The next territory for which information became available was Uganda, starting with the year 1950 and, because of the structure of the economy, the estimate was of income. The third territory covered was Tanganyika and the first year was 1954. (Estimates for 1952-4 were published in the report of the national income of Tanganyika by Peacock and Dosser, *Colonial Research Study* No. 26, but the first estimate of the Department was for 1954. Incidentally, the report by Messrs. Peacock and Dosser was of the gross domestic product and not of the national income.) The first calculations for Zanzibar have not yet been finalized.

II. BASIC STATISTICAL SERIES

6. As mentioned in the Introduction, some basic statistical series have to be available before a national income calculation can be made. In East Africa the product approach was used because it was thought that the results would be of the greatest value, allowing comparisons to be made of the relative sizes of different sectors for any one year and permitting the examination of changes in relative size over time. The standard of income-tax statistics is not good and only covers a small proportion of the population while, particularly in earlier years, the information which was collected was published after long delay. These factors prevented the income approach being used

in all territories. The expenditure approach was held to be the most difficult until many more statistical series could be provided, particularly of African rural expenditure, studies which, while important, were not so important as others mentioned in this paper.

7. In an underdeveloped country there are some problems in national income calculations relating to subsistence activities. The first refers to the inclusion of a non-monetary sector. There are differing views on whether this sector should be included, but for policy purposes it is vital to include it, however badly it should be calculated. Another relates to whether the non-monetary sector should be shown separately, and it was decided in East Africa to emphasize the differing methods adopted in the collection of the data by showing the figures separately. In this way the different purposes to which the information could be put would also be highlighted.

8. In 1945 the information available in the East African territories for use in national income calculations was limited to statistics of external trade, rough estimates of agricultural, mineral and forestry production, and statistics of retail prices in certain towns. The population census was initiated in 1947 so that a better idea could be obtained of the total population of East Africa. Information on sex, age and industrial activity was collected to provide a framework for expanded studies. The next development was to hold employment and wage surveys after indexes of firms and employers had been created. The creation of these indexes is extremely time-consuming, since all kinds of records have to be combed. However, it was found that without the creation of these indexes it was impossible to have any idea of the coverage of the enumeration, particularly by industry, and only after they had been compiled and maintained for some time was the Department able to use the information collected for the purposes it had in mind. The development of an agricultural census for large-scale agriculture was also important and was first initiated in Kenya and was followed by the implementation of an industrial census to cover the activities of manufacturing and building and construction.

9. About the same time the Department was making an attempt to improve the statistical material of individual items. Since it was impossible to undertake an industrial census

annually and difficult to mount one at all in certain territories, quarterly information was collected on the value of production of certain main items of manufacture. A system was developed to collect statistics of buildings completed in the main municipalities and townships of East Africa. Although some building, other than that on farms, is undertaken outside municipalities and townships, the majority is constructed within. It was possible to use the municipal and township authorities to collect this information, the building inspectors being responsible for seeing that the forms were duly completed. The examination of existing systems in departments of Labour, Agriculture, Forestry and Commerce and Industry, the Treasury and Central Government, together with proposals for the improvement and change followed by their acceptance by co-operative colleagues, improved the standard of information available as a by-product of administration until such time as the Department was in a position to undertake direct surveys and sample studies.

10. The standard of information on the distribution sector was low and will continue to be low until such time as a distribution census can be taken. The method adopted to collect information in this sector was to relate the numbers reported in the population censuses as employed in distribution, analysed by employer, employee and worker on own account, to the number of employees reported in the employment enumerations. These totals and those of wage bills were then related to imports and to the cash sale of local production for internal consumption. The number of retail outlets was collected through licences issued while transport statistics were improved by taking of sample surveys of the number of road hauliers applying and receiving licences.

11. Originally the Government sector was not properly documented. It is surprising that information on the Government sector is often extremely bad until statisticians require information for national income use. Non-comparability and the use of outdated systems make a statistician's task somewhat greater than is the case in dealing with private enterprise. The large number of annual reports and other documents which are available on Government activities rarely provide the information in the form required and time has to be spent on developing the statistics of Government activities and the re-analysis of information into a form suitable for national income purposes.

12. The development of the statistics of services of all types has not improved at the rate recorded for the main industries. This is because the majority engaged in these activities are small employers of labour and are scattered throughout the territories. It is easier to collect information from a small number of large producers than from a large number of small concerns.

13. For African agriculture statistics become available through the collection of information on the sales of produce made through special marketing boards and also by estimating the amount received from cesses levied by local African District Councils. The cash aspect of this African production is fairly well documented, but unfortunately no information is readily available on sales within the district in which the crop is produced: by 'readily available' is meant without special investigations being made. It is usually where production is for sale outside the district in which the crop is produced that the quantities and total values are available.

14. The annual calculation of the income and net domestic product of Kenya and the income of Uganda continued until 1958, when a Departmental Study Group on National Income was held in Nairobi. At this meeting certain recommendations were made for the improvement of national income calculations, and a copy of these recommendations is attached as an appendix. As will be seen, it was decided that, as the first exercise, the gross domestic product approach should be attempted whenever possible, and that the non-monetary aspects of domestic output should be included in all calculations, items being shown by sectors. Also in presentation there should be a distinction between the monetary and non-monetary sectors. Owing to the special position of the territories of East Africa within a common currency area and within a Customs Union, it was decided that no estimate should be made of national income but rather of domestic income, the word 'domestic' being preferred to the previous term 'geographical', and being defined as 'any activity originating within the territory'. The balance of payments was to be prepared for the East African territories collectively, while the highest priority would be given to the calculation of the gross domestic product, followed by the domestic income, with special importance being given to the collection of information on capital formation.

III. THE POSITION IN 1959

15. The present calculations for Kenya, Tanganyika and Uganda are not strictly comparable, although they are relatively comparable between Kenya and Tanganyika. The Uganda method has not yet been brought into line owing to the difficulty of collecting certain information. The present position in each territory is summarized below:

Kenya

16. The estimates have been described fully in the report prepared by the East African Statistical Department and published in 1959 entitled: 'The Domestic Income and Product in Kenya - A Description of Sources and Methods with Revised Calculations for 1954-1958'. This report gives detailed estimates for each sector of the economy and explains the methods which have been adopted to arrive at the totals. Not only are the estimates of quantity shown fully, but also the methods adopted to obtain the prices which allow the total value estimates to be made. Full details are provided of the values of raw materials, etc., which have been deducted from the gross product to arrive at the value added. The estimates are of gross domestic product by industrial origin and also of domestic income by type, e.g. households, incorporated enterprises and public authorities. Gross capital formation estimates by type of asset and of producer have also been included in the report. These estimates are calculated annually in preliminary form for the Economic Survey and budget studies in April and in final form later in the year.

17. The weakest sectors are rentals, distribution and the non-monetary sector. The distribution sector is still calculated from imports plus local production for internal sale, the estimates being based on relationships of the wage bill of that industry to total activities and profit margins on sales. Until a distribution census has been mounted, it is impossible to do better, but it is realized that the sector is weak. For rentals, unfortunately only one population census has been held in Kenya, and that was in 1948. There is no knowledge of the total number of houses or of the rentals which are being paid. Since rent is mainly of importance in urban centres and since urban populations represent less than 7 per cent of the total population, marginal changes in demand can have a considerable effect on

rentals paid. It is difficult to make a satisfactory calculation, but it is considered that the estimates for Kenya may be too low.

18. The non-monetary sector includes fifteen kinds of food-stuffs, livestock and livestock products, forest products including firewood, and fishing and hunting activities. The methods used depend on the item, but in general rely on estimates by field officers. Hut building and beer brewing for own use and similar items are not included in the estimates.

Tanganyika

19. The Tanganyika methodology is documented in the report called 'The Gross Domestic Product of Tanganyika, 1954-1957', published in 1959 by the East African Statistical Department. Tables are provided of the gross domestic product by industrial sector, showing the monetary and non-monetary sectors separately. Unfortunately, the statistical series are not as fully developed as in Kenya, since more funds have been made available in Kenya over the last thirteen years. The absence, until 1959, of a complete industrial census has limited the information for the estimation of the manufacturing sector and the taking of only one agricultural census of large-scale enterprises has limited the source of information on agriculture. Fortunately, in African agriculture a sample survey was taken in 1950, while marketing boards provide a great deal of valuable information on agricultural production for export or for sale through Government boards and marketing channels.

20. In agriculture, plantation crops and peasant crops for export are well documented: other crops are not, and it is necessary to make estimates of their value by devious means. The industrial sector is estimated on less information than in Kenya, being based on studies of partial industrial censuses until 1959, when the first territorial census was taken. The distribution sector is one of the least accurate, the reason being the lack of real knowledge in the absence of a distribution census. The method of calculation is not similar to that developed for Kenya, a simple system having been accepted based on the number of traders' licences of different categories, and within each category each trader is assumed to earn a certain income per annum, e.g. wholesale traders were assumed to have an income of £550 in 1957 and retail traders £360. The income per

trader is then multiplied by the number of licences and a grand total obtained. Unfortunately, in the absence of a complete wage bill analysis by industry, comparisons cannot be made with other data and better studies produced.

21. Gross capital formation estimates have also been prepared, together with estimates of the non-monetary sector of the economy. Although the recommendations of the Departmental Study Group have been accepted in general by Tanganyika, certain items, particularly those of craft industries and African building and construction, have been included in the non-monetary sector. The non-monetary sector in relationship to the total gross domestic product is approximately 40 per cent, although this proportion is tending to fall as the monetary economy increases more rapidly than that of the subsistence sector. In the non-monetary sector are included agriculture, livestock forest products, hunting and fishing, craft industries, which is beer-making, and construction, which consists of African hut building. The basis of the calculation of the last two items is not satisfactory. The estimate for the brewing of beer is based on the assumption that the average consumption is one gallon per week per adult and that a valuation is satisfactory which uses a retail price based on that part of production which is sold. This pricing is, of course, an overestimate, since beer is rarely sold in many rural areas. For the construction figures, it is assumed that the number of huts in existence is equal to the number of adults in the population, that a hut lasts ten years and that it costs £10 to build. From these figures a guess is included of the total value of activity in this field.

22. The rental figure is calculated on roughly the same basis as that in Kenya.

Uganda

23. The Uganda economy is different from that of Kenya or Tanganyika. Its main source of income is African agriculture, particularly from crops for export. Exports from Uganda totalled some £42 million in 1959, with cotton and coffee representing some 80 per cent of the total domestic exports overseas. Cotton and coffee together represented some 30 per cent of the cash domestic income. The organization of cotton and coffee marketing through the Lint and Coffee Marketing Boards allows accurate information to be included on these two crops.

All the sales of cotton and coffee produced by Africans in Uganda are made through these boards, which pay a guaranteed price for the crops. The price to be paid in a season is fixed annually, the only variations taking place when considerable changes in world prices are felt. These two boards have built up large surpluses over the years and these surpluses form price assistance funds. For cotton and coffee it is easy to obtain detailed statements of the cash received by peasant farmers, while other crops which are exported or marketed internally through recognized channels are well recorded, and estimates can be made of the amount of money received from the sale of maize and livestock.

24. General manufacturing is still a minor activity in Uganda and where it does exist is either small-scale and not important or large-scale and well recorded. Agriculture is, therefore, more easily estimated from the income approach than from the output side, since in general few fertilizers and tractors are used and not a great amount of paid labour is involved. In manufacturing the majority of the firms are large-scale and it is possible to obtain information on wages and profits, while a full-scale wages and labour enumeration is undertaken annually by the East African Statistical Department, and from this survey wage bills can be calculated by industry. From these wage bills a domestic income can be calculated with estimates of profits, wages, etc.

25. For cotton and coffee separate sector accounts are provided. For the other activities, no detailed analysis has been provided, since it is not thought that the statistics available justify the production of information by these sectors.

26. For the non-monetary sector no detailed estimates are at present provided. The non-monetary items included are based on estimates of consumption and include the consumption of all home-produced vegetables and cereal foodstuffs, eggs and milk. Meat is currently excluded and allocated entirely to the cash sector. The main foodstuffs are plantains, sweet potatoes, groundnuts, beans, cassava and green vegetables. Firewood is not included, nor is craft industry or the building of huts. The method of calculation used is to take the food consumption estimates obtained from the budgetary surveys made at Kampala, Mbale and Jinja and on the basis of the quantities obtained from these surveys value them at half the prices reigning

in Kampala markets. The reason for using prices equivalent to half retail prices in urban centres is to try to approximate to producer prices for African cultivators. Unlike the rest of the estimate, however, the consumption approach has been used in this sector.

IV. PROBLEMS

27. The main problem faced in maintaining the series of national incomes as described above is the collection of satisfactory data which will allow a factual calculation to be made without relying on the subjective judgements of individuals. It is for this reason that generally throughout the national income calculations in East Africa nothing has been included for those items where it has been impossible to obtain quantities or values. For example, in the case of the craft industries in Tanganyika, which refer to beer production, it is easy to alter the size of the national income in a year by the simple process of suggesting that each African drinks two gallons of beer per week and that the price is twice as high as that used in the previous year. No one knows, although many opinions are expressed. The size of the national income can be severely reduced by an opposite approach. In these cases the subjective judgement of the person calculating is the controlling factor, and since it is not possible for the same person to be responsible for the calculation each year, some system has to be put into force which will reduce subjective judgement to the minimum. National income calculations should not be the annual aggregation of diverse opinions. If they are, large fluctuations are recorded or the figures change little. Neither system has anything to recommend it.

28. In East Africa the reduction of the subjective judgement has been achieved by including in the estimates only those items for which some records are available, including those in the subsistence sector. In the cash sector no items are included where it is not possible to obtain estimates of quantity on a factual basis which can be maintained over time. The worst estimate is that of rentals, which has to be based on the number of dwellings and an average rental value. It is possible to obtain some ideas of rentals, and from the estimates of the number of people residing in urban centres it is possible to make an estimate of the total rental value. For African dwellings, however, since the

Department has no knowledge of the number of dwellings, no idea of how long these last and no knowledge at all on possible rentals, since huts in rural areas are rarely rented, it has been decided to exclude them, except in Tanganyika.

29. In the distribution sector the methods adopted, while not as satisfactory as those based upon distribution censuses, allow a comparable system to be continued. The use of wage enumeration figures together with imports and exports allow calculations to be made of the gross domestic product from that sector. Too often in national income estimates rough figures are included and it is assumed that someone will alter them the following year on the basis of his own views. It has been the policy of the East African Statistical Department to limit this change to a minimum by excluding from the national income totals all those items which cannot be subjected to some kind of quantitative test. Where both quantities and values are merely the subjective guess of an individual research worker, they have been rigorously struck out. It is accepted that in doing this the totals may be lower than would be the case if records were available, but it is thought that the maintenance of comparable series over time is of a higher value than the calculation of a total, the significance of which over time no one knows.

30. The non-monetary sector is one which could involve the Department in a terrific amount of work, but it is considered that until such time as detailed agricultural and rural surveys have been made, too much time spent on this sector would be just wasted. Quoting from the paper by the Department to the E.C.A. working party on the non-monetary sector: 'To strive to improve the non-monetary sector without the development of censuses is merely straining at a gnat.' For this reason the development of the non-monetary sector has been delayed until the monetary sector has been adequately covered, although it is realized that in certain sectors much more work still has to be done.

V FUTURE DEVELOPMENTS

31. The main developments in the national income series in East Africa will be of two distinct types. The first will be the improvement of the gross domestic product in the case of Kenya and Tanganyika, and the change to the gross domestic product in the case of Uganda. Secondly, the development of social

accounts, particularly estimates of income and of expenditure. The latter is of the greatest importance in the study of the development of the economy with the improvement of the standard of living of the African population. These two improvements will be examined separately.

32. It is planned to hold industrial censuses at periodical intervals in those territories where a comprehensive census is not yet undertaken. In the three territories it is planned to develop distribution censuses on a simple basis in the first instance, in order that better information can be provided on this sector. It is intended that periodical rural surveys will be held in all three territories in order that estimates of total production and production for sale in African areas can be calculated, together with the collection of information on prices. An agricultural census in African areas is at present being mounted in Kenya, while rural surveys have already started in pilot form in Tanganyika and Uganda. In these surveys the quantities are considered to be of greater importance than prices and if successful prices are not obtained it is intended to use a general price for the calculation of the total value of the non-monetary sector. With these improvements the national incomes of the three East African territories should be satisfactory, but it is realized that over the years there will be improvements in the coverage and quality of information. It has, therefore, been decided that revisions will be made from time to time to national income estimates, but that a period of some five years should elapse before any new estimates are published. The alternative is not to re-publish calculations unless a five-year series is available. It has been found that nothing is more frustrating to the users of national income calculations than to have a number of series all of which are on a non-comparable basis. It is of the greatest value to have a series which shows growth over time rather than accurate figures for individual years but with no comparison between them.

33. The second stage of the development of national income series in East Africa will be the expansion of the income, product and expenditure approaches to form an articulated series of social accounts. It is the intention in East Africa to develop social accounts in part, if not in whole. The problem which faces the East African Statistical Department is that in some areas of the social accounts the same figures have to be in-

cluded under different heads and some of the tables cannot be completed at all because the balance of payments refers to East Africa and not to each territory. The expansion will be in the form of an East African set of social accounts with a national income and a balance of payments, and in the territories separate sets of social accounts appropriate to the present stage of the economies and the particular interests of the individual policy plans.

34. It is often forgotten by those who work only or mainly on social accounts and allied subjects that the main purpose of a Governmental statistical organization is not to produce social accounts. Although these accounts are extremely valuable, by providing a summarized picture of the economy and showing the various sectors and the interrelations, there are many other needs for quantitative data in Government planning. Basic information on quantity and value of production of all types, agricultural and industrial, the need for knowledge of employment by occupations and the wage structure, the importance of unemployment and social security statistics, to say nothing of the basic series of population and vital records, currency, banking and insurance statistics and general information of imports and exports for other purposes than national income studies, is fundamental for general planning by the Government and specific planning and administration in ministries and departments of Government. It is held in some quarters that if social accounts are provided they suffice for Government planning. This is not the case, and social accounts in East Africa will have an important role to play in economic and statistical development, but they will not be the only reason for the expansion of economic research and statistics in the three territories. It is accepted that the improvement of statistical knowledge comes about often from the desire of Governments to have national income statistics, and this is a very useful purpose for the improvement of series, but it is not an end in itself. The end of economic research and statistical policy should be knowledge of all sectors to allow the Government and the businessman in the private sector to have data available on which to plan future developments in the light of existing conditions.

RECOMMENDATIONS OF THE DEPARTMENTAL STUDY
GROUP ON THE NATIONAL INCOMES OF KENYA,
TANGANYIKA AND UGANDA

(January 27th to 29th, 1958)

CONCEPTS

It was recommended:

1. That for the future the term 'domestic' should be used instead of 'geographical' in defining activity within a territory.

2. (a) That of the three concepts, the East African territories should attempt to calculate the gross domestic output. Subject to limitations resulting from existing methods, each Territory should give this method the highest priority in order that comparability could be achieved.

(b) That the domestic income approach should form the second priority, while the expenditure approach should be attempted when resources permitted. Preliminary estimates of expenditure should be made through means of sales statistics and not through studies of direct consumption.

3. That a racial division of domestic income aggregates should not form part of the presentation of general tables for publication.

4. That while estimates should be made of the gross domestic product, no territory should be prevented from including a net domestic product calculation, in which case depreciation estimates should be shown as a single deduction and not estimated by sectors.

METHODS

It was recommended:

5. (a) That the non-monetary aspects of domestic output should be included in all calculations and that the items should be shown by sectors and not as a total figure.

(b) That as a first step all territories should adopt a method of estimation of food crops based on dietary and family budget surveys and that these calculations should be made from fixed quantities *per capita*, with allowances for population changes and with prices adjusted annually on the basis of market information. However the possibility of introducing methods of estimation based on statistics of food production should be kept under review in the light of any improvement in the statistics of crop production which may have resulted from surveys already taken or which will result from sample surveys to be taken as part of the 1960 World Census of Agriculture. Where any other crop estimates had been made, these also should be taken into consideration in preparing calculations.

(c) That the proposals made in (b) for agricultural food crops should apply to the livestock industry also, with the proviso that where estimates could be made on the basis of data supplied by the veterinary departments, this information could be used.

6. (a) That with regard to elements included in the non-market economy, their valuation be considered in three separate categories depending on the stage of knowledge available.

- (i) Known quantities and estimated market prices.
- (ii) Estimated quantities and imputed values.
- (iii) Gessed quantities and gessed values.

It was considered that any items which fell into category (iii) should not be included in the main table of gross domestic product, but should be included in a supplementary table. The decision as to which items should be included in these supplementary tables would be left to the Statistical Adviser/Director to decide.

(b) That each Unit would submit to the Director the methods of assessment used for these items in order that a decision could be taken by him as to the category into which they would fall.

(c) That where an item was excluded from the main table of gross domestic product of any one territory, this item should be excluded from the main table of all territories, but might be included in the supplementary table mentioned in 6 (a), with footnotes explaining the position fully.

PRESENTATION

It was recommended:

7. That the presentation of gross domestic product should be as follows:

(a) A main table of gross domestic product which would include all items other than those to be placed in the supplementary table mentioned in Recommendation 6. The table would be comparable for the three territories of Kenya, Tanganyika and Uganda and would include both the recorded production within the monetary economy, together with all other production.

(b) In addition there should be another table which would be divided into two parts:

- (i) Recorded production within the monetary economy and
- (ii) Balance (other production).

The first part of the table might not be comparable between the territories owing to the varying degrees of accuracy of recording cash transactions. Only estimates of reported cash transactions would be included in this table and where estimates were not based on recorded data, these figures would be included in the second part of the table. The second part would not be comparable for the same reason. All other items of production would be included in this table and coverage would differ between the territories.

The final subsidiary table (Recommendation 6 category (c)) would include items which were the result of subjective judgements in at least one territory.

SECTOR ACCOUNTS

It was recommended:

8. (a) That sector accounts should be prepared wherever possible for major industries, but that no input-output tables would be prepared at present.

(b) That the sectors to be included in the main tables would be those recommended by the United Nations Statistical Office and that the coverage and definitions should be defined in the United Nations Standard Industrial Classification.

CAPITAL FORMATION

It was recommended:

9. That in the estimation of capital formation, present studies should be made on a combination of the commodity flow and expenditure methods, but that with the development of statistical research, the aim

should be to obtain capital formation estimates based on the expenditure method.

10. That in view of the difficulty of explaining the economic term 'capital formation' in discussions with the public, the words 'capital expenditure' should be used in other than technical documentation.

11. That the United Nations classification of items to be included in capital formation as defined in U.N. Studies in Methods F. No. 3 'Concepts and Definitions of Capital Formation' be accepted for the East African territories.

12. That in accordance with the U.N. definitions, small items with a life of more than one year should be included in capital formation estimates where information and comparability permitted.

13. That an attempt be made to evaluate capital formation by peasant farmers on land development, but that this item should be separated from the main capital formation estimated and be termed 'Other capital formation' to correspond with the system adopted in Recommendation 6 category (c) for the gross domestic product tables.

14. That the valuation to be used in the estimation of capital formation should be the final price paid by the purchaser, i.e., including transport costs, installation charges, dealers' expenses, profits, etc.

15. That stock changes would not be included in net estimates of capital formation at the present time, but that when stock statistics became available in all territories for any sector, allowances should be made for this item.

16. That estimates of depreciation should be made wherever possible, but studies of net consumption should take a secondary place to the estimation of gross capital formation.

TAXES

It was recommended:

17. (a) That in the calculation of the gross domestic product export taxes should be treated as direct taxes and that cesses and local authority produce taxes should also be treated as direct taxes.

(b) That municipal rates, stamp duties, licences and similar taxes should be treated as indirect taxes and deducted before the estimation was made of gross domestic product.

(c) That wherever possible the deduction of indirect taxes should be made by sectors and not as a single total.

POSITION OF INTERTERRITORIAL ORGANIZATIONS

It was recommended:

18. That surpluses or losses of public interterritorial organizations, such as the E.A. Railways and Harbours Administration, the E.A. Posts and Telecommunications Administration and the East African Airways, should be divided arbitrarily between Kenya, Tanganyika and Uganda in equal proportions, but that for wages and salaries, the place of residence would be used as a basis for territorial division.

19. That the profits of private interterritorial organizations be divided on the basis of the Income Tax Department's estimation of territorial profits.

20. That the fixed assets of interterritorial organizations should be divided according to the place of construction, but that all mobile assets, such as transport vehicles (road, rail and air) should be divided equally among the territories.

BALANCE OF PAYMENTS

It was recommended:

21. That the possible use of the records and returns received by the Income Tax Department should be explored through discussions between the Financial Secretary, East Africa High Commission, the E.A. Commissioner of Income Tax and the Director of the E.A. Statistical Department with a view to reducing the demands on the general public and on the business communities.

22. That individual Governments should be kept informed of the progress of the balance of payments enquiry and that regular reports should be submitted to the various Governments explaining where the delay was occurring due to lack of response by private organizations or Government departments.

IMPROVEMENT IN EXTENSION OF SOURCES OF STATISTICAL INFORMATION

It was recommended:

23. That Governments be informed of the inefficient use of resources resulting from the inability of the East African Statistical Department to have access to income-tax records held by the Income Tax Department and to the returns as submitted by the various companies and organizations. In most countries in similar stages of development, this information was available to the Statistical Department and this made the calculation of national income estimates less expensive and more speedy.

24. That calculations of regional income trends should be made whenever resources permitted on the understanding that no complete regional sector accounts could be made.

PROBLEMS OF ESTIMATING SERIES WITHOUT ANNUAL INFORMATION

It was recommended:

25. That small-scale sample surveys should be carried out, preferably at annual intervals, to provide an adequate basis for the adjustment of estimates obtained either from surveys carried out at irregular intervals or from subjective judgement calculations for a point in time.

COMPARABILITY

It was recommended:

26. That the advice of the International Monetary Fund and the Statistical Office of the United Nations be sought on the treatment of the payment to British troops in Kenya. The problem arose because their activities were partly financed from the United Kingdom and partly from Kenya.

27. That information from local banks and finance houses should be sought in order to decide the treatment of investment profits of all financial institutions in national income calculations for Kenya, Tanganyika and Uganda.