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NATIONAL ACCOUNTS AND BALANCES: SYSTEM OF NATIONAL  
ACCOUNTS (SNA)

Report of the Economic Commission for Africa Meeting on the  
System of National Accounts (SNA)

SUMMARY

The present report contains a summary of the main recommendations and conclusions emanating from the ECA regional Meeting on the System of National Accounts Revision held in Addis Ababa, from 16 to 25 July 1990.

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## I. FEATURES OF AND CHANGES IN THE DRAFT OF THE REVISED SNA

1. During the discussions of the United Nations System of National Accounts (SNA) review topics on which expert groups had made recommendations, only a selection of issues could be dealt with due to time constraints. The selection included those issues that were thought most important for the African region. Most attention was paid to topics related to production accounts analysis and their integration into institutional sector accounts, valuation of product flows and value added, household and external sector accounts, inflation and related exchange rate questions. In particular, the topics that were not considered at the meeting related to financial corporations and financial instruments, as they were thought to be less relevant for the region.

### A. Integrated analysis of production, income generation and income distribution

#### 1. Statistical units, establishments, enterprises

2. As in the 1968 SNA, there are two main statistical units in the revised SNA. Establishments are defined as units with a homogeneous output and operating in one location, but in order to provide flexibility and link the concept with the more practical definition of establishments in the recently revised International Standard Industrial Classification of All Economic Activities (ISIC) Rev.3, the SNA allows for less homogeneous units of production, which may produce secondary products.

3. The meeting focused on the implication of the definition of establishment for gross output of agriculture as dealt with in the Food and Agriculture Organization's Handbook on Agricultural Accounts. Participants felt that the recommendation by the expert groups not to identify output produced in an establishment and used in the same establishment for intermediate consumption would have to be amended in the case of agriculture. It would be difficult to identify within output products which are used in the same agricultural holding. It was also felt that information would be lost if such intra-establishment deliveries in the case of agriculture would be consolidated out.

4. The meeting concluded that output in agriculture should be recorded gross, including products used as intermediate consumption in agriculture.

#### 2. Alternative income concepts: primary, entrepreneurial and mixed income

5. The revised system includes two new income concepts, namely primary income and entrepreneurial income. Primary income would be obtained for each sector by adding to or deducting from operating surplus compensation received or paid, and by further adding property income received net. Primary income thus would be the sectoral equivalent of national income for the national economy. Entrepreneurial income would be an intermediate concept between operating surplus and primary income.

For corporations it would be obtained by deducting property income paid and adding property income received, and for households it would be derived by deducting only property income paid in the context of running an unincorporated private enterprise. In both cases, entrepreneurial income would be close to profits before taxes. In the household sector no property income was added in the derivation of entrepreneurial income, because it was assumed that all receipts of property income by households would be received by them in their capacity as households and not as owners of unincorporated enterprises.

6. Regarding the concept of entrepreneurial income, which for corporations and households operating unincorporated enterprises would be close to profits before taxes, the assumption that all property income received by households was assumed to be received in their capacity as households and not as owners of unincorporated enterprises was questioned. Some households may receive large amounts of property income from renting out large areas of land on which cattle are raised. Such revenues could not be considered as revenues received by the households in their capacity as households.

7. Regarding the terminology change from gross national product (GNP) to gross national income (GNI), it was mentioned that the term "product" should be retained. It was explained that the term "product" would be only used in the revised SNA for gross and net output and that once proceeds generated by production were assigned and redistributed to and between sectors, the term "income" would be used.

8. Participants agreed with the introduction of three new income concepts in the sequence of accounts, namely primary income, entrepreneurial income and mixed income in the case of households. Those income concepts were thought to be useful despite the problems in compiling or developing the estimates.

### 3. Production boundary

9. The revised SNA was not substantially changed as compared with the 1968 system. Only further clarifications and specifications were introduced. The expert groups agreed that all goods production would be included in the production boundary and that services production would be included only if those services were rendered by one economic unit to another. In that definition, household services produced and used in the same household would be excluded from the production boundary.

10. The discussion focused on the distinction between goods and services as an essential element in defining the production boundary. It was mentioned that carrying water was a service and not a good, as had been recommended by the expert groups, and that even fruit gathering and hunting could be seen as services, since production was carried out not by man but by nature. According to that view, the only activity of man was to gather the freely available fruits and hunt the animals in the wild. It was pointed out, however, that such arguments could also be used in the case of oil extraction or fishing, and that in those instances there was a general consensus that goods production was involved and not the production of services.

11. It was noted that the expert groups had paid much attention to the incorporation in the production boundary of various activities that were of particular concern to the African region. Participants agreed with the expert groups that all production of goods should be included in the production boundary and production of services if they involved a transaction between two separate economic units. They confirmed that output of goods production included the products of hunting, fruit gathering and carrying of water.

#### 4. Quasi-corporations versus unincorporated enterprises

12. It was pointed out that quasi-corporations would be retained in the revised SNA. They would be added to the legally defined corporations in the case of market producers to form the two sectors of non-financial and financial corporations in the system. The main criterion for distinguishing between quasi-corporations and unincorporated enterprises was that the former kept separate accounts, and withdrawals from entrepreneurial income could be separately identified. Those criteria would apply in principle to private and public unincorporated enterprises.

13. The discussion was restricted to how small-scale production units that carried out financial operations (money lending) and other types of production would be classified. It was pointed out that such units would be included in the household sector and would be distinguished as separate establishments in the classification by kind of economic activities.

14. The meeting agreed with the expert groups that a quasi-corporate enterprise should be distinguished from an unincorporated enterprise on the basis of the availability of a complete set of accounts, including information on withdrawals from entrepreneurial income. It was noted that money lenders operating in the informal sector would be considered as unincorporated financial enterprises to be included in the household sector.

#### 5. Market and non-market production

15. The expert groups proposed that a distinction be made between market and non-market producers and products. Typically, market producers would cover 50 per cent or more of their cost through sales and non-market producers less than 50 per cent. The price of market products should be determined on the basis of a market price, while non-market products should be valued on the basis of cost. The question remained whether or not to classify all corporations as market producers and, if so, to apply the 50 per cent criterion. Another issue was whether to allocate quasi-corporations which do not meet the 50 per cent criterion to the government sector or to the corporate sector, and when the latter option is taken, whether to value their output at prices actually paid with subsidy to cover the shortfall, or whether to value their output at cost and treat the cost not covered by sales as government consumption.

16. The participants presented some examples of producing units in their countries with features that should be taken into account in determining the criteria for

distinguishing between market and non-market producers and products: (i) a public enterprise with large deficits, its wage bill and parts of its other costs directly paid by the government; (ii) a public enterprise providing irrigation services to farmers: would the payments by farmers be treated as tax or as sales? (iii) a co-operative enterprise with individuals participating in its capital, whose profits are entirely paid out to its shareholders; (iv) a bank, following Islamic law, does not charge any interest. The main capital of the bank is foreign. The bank repays loans and deposits on the expiration date without interest payments. It uses the funds given to the bank to involve itself in commercial operations from which it obtains its revenues. Is it a bank or is it a trading corporation? (v) the statistical office in one country is a public corporation by law. However, its only sales are publications and those sales do not cover by far the cost; (vi) a government agency purchases the production of small farmers (e.g. coffee) and sells (in most cases, exports) that production on a wholesale basis. Is that agency a quasi-corporation?

17. In discussing the above examples, some further clarifications were obtained. In the case of payments that are clearly for the purpose of a service rendered, as in the case of (ii) above, the payment should be considered as a sale and not as a tax. Community services, including foreign-sponsored, non-profit organizations, should be treated as non-profit institutions to be included in a subsector of the household sector. The view was expressed that the distinction between market and non-market producers should be based on the objective of the producing unit in question. If it was profit-oriented, it should be classified as a market producer.

18. It was agreed that the distinction between market and non-market to describe producers and products was desirable and that the revised SNA should contain clear criteria for making that distinction. No definite conclusions with regard to these criteria were reached. However, the many examples cited reflected the variety of situations in different countries which had to be taken into account in drawing up the final criteria for the market versus non-market distinction in the SNA.

#### 6. Financial intermediaries: bank and insurance services

19. A number of changes were suggested with regard to the output and distribution of output of financial intermediaries. In the case of banks, it had been proposed that bank output was a real output which could be approximated only by adding to actual bank service charges, imputed charges based on the difference between property income received and paid. In other words, the character of the imputation had been changed. Furthermore, it had been recommended that the imputed charges be allocated to users together with the actual bank service charges. The imputed service charge to be allocated to each sector would be the difference between interest received or paid on the one hand, and a reference interest rate on the other. The imputed service paid by each user would be deducted from the interest paid by bank borrowers and added to the interest received by depositors in order to arrive at a pure interest rate. The latter would be recorded as property income received and paid in the Appropriation of Primary Income Account.

20. In the case of insurance service charges, the expert groups recommended that property income on technical reserves be added in calculating the service charge. That recommendation was based on the recognition that premiums of insurance companies had been reduced in recent years, since those companies draw part of their revenues from investments of their technical reserves. As this is the case for life insurance and casualty insurance, it was recommended that the amendment be applied to both types of insurance service charges.

21. Participants agreed with the distribution of imputed bank service charges between sectors, which would imply that a treatment similar to that of the 1953 SNA would be reinstated in the revised system. However, the wish was expressed that more specific and practical guidelines be developed for selecting the appropriate reference interest rate that would be used as a key for the distribution of the bank service charges between sectors. It was also agreed that the 1968 SNA imputed insurance service charges be amended to take into account property income on technical reserves.

#### 7. Imputation of rent on government buildings

22. There was a proposal by the expert groups to introduce into the revised SNA imputations for rent on government-owned buildings. That would effectively increase the contribution of the government sector to the gross domestic product (GDP), as it would introduce cost of capital into the calculation of output of government, which would be reflected in net operating surplus of that sector. That imputation would be in addition to another imputation recommended by the expert groups namely to introduce consumption of fixed capital on all government fixed assets, including government buildings, roads, dams and similar structures. In recording the imputations, two options were advanced by the expert group. One would be to add consumption of fixed capital and cost of capital on owner-occupied buildings to cost in the calculation of output of government services. The other option would be to create a separate establishment which would bring together all costs of government-owned buildings and would have building services as an output, which would be recorded separately from the output of government services.

23. In most countries, the operation of government buildings is managed by a specific department or ministry. Therefore, it would not be too difficult to identify the cost related to the operation of government buildings in case imputations for government buildings were made. In some instances the same ministry is also in charge of renting from or to others private buildings that were used by government agencies or government-owned buildings that were rented to others. There were questions on the valuation and classification of the imputed output of government-owned buildings. It was mentioned that it would be difficult to obtain realistic prices for valuing the imputed rents, and that it would be difficult to have a complete record of all government-owned buildings.

24. The imputation of rental services on government-owned buildings, had implications for the valuation of imputed building services output, the incorporation of cost of capital in the calculation of output of government services and the classification of government services. Participants felt that

further thought needed to be given to the conceptual and data implications on that point. Most participants agreed, however, that if imputations were made for the rental services of government-owned buildings, a separate establishment would have to be created.

## B. Valuation

### Valuation of final demand and value added

25. The three valuation alternatives for output were discussed as were the corresponding valuation of value added, the treatment of product taxes and the proposed valuation of intermediate and final uses in purchasers' values. Clarifications were requested in the presentation of the following issues: sequence of accounts, the supply and use framework, the relation between the proposed alternative valuations of gross output, the treatment of taxes linked to production and imports and the corresponding valuation of value added by kind of economic activity. Questions were raised concerning the relation between the present experiences of the participants, which were often referred to as using valuations in market prices and factor cost, to the valuations that were proposed for the revised SNA.

26. Most participants agreed with the flexibility in valuation of output which had been incorporated into the revised SNA, given that many countries had different fiscal systems which might not necessarily allow for observing the ideal valuation of gross output in basic values. Other participants wondered whether flexibility would not lead to reduced incomparability of data. It was pointed out that total GDP would not be affected; whatever valuation would be used for output and value added would only affect the activity breakdown of GDP. On the other hand, international comparability of GDP by activities would be optimal only if basic values are used, as such valuation would eliminate from the valuation of output and value added any incomparabilities that may be caused by different fiscal systems in different countries. Valuation in producers' values, whether in the absence or presence of VAT, even if used by all countries, would not result in data that would be strictly internationally comparable.

27. The meeting agreed on the incorporation in the revised SNA of three valuation alternatives for gross output and value added: (a) basic prices; (b) producers' prices in the absence of VAT; and (c) producers' prices in the presence of VAT. It was emphasized, however, that for the purposes of international comparability, alternative (a) would be preferable. Participants also agreed with the valuation in purchasers' prices of intermediate and final uses in the institutional sector accounts and the supply and use table.



C. Integration of stock analysis with the traditional flow analysis of national accounts

28. Concerning the valuation, classification and coverage of assets, it was pointed out that the asset question as a whole was as yet unresolved. Participants were urged to present their views so that they could be taken into account by the upcoming Expert Group Meeting on SNA Co-ordination to be held in December 1990.

1. Coverage, classification, moment of recording of assets and changes in assets

29. The revised SNA would distinguish at the first level of detail between non-financial and financial assets. Within the non-financial assets, a second level distinction would be made between produced and non-produced assets, and within each at the third level of detail between tangible and intangible assets. An innovation that had been discussed by the expert groups was to introduce into the system fixed assets that would be intangible but produced, including research and development, capitalized mineral exploration cost, computer software and literary artistic work. In the changes of assets, a distinction is made between gross capital formation, net purchases of land and other non-produced assets, other volume changes in assets and liabilities, nominal holding gains or losses, and changes in classification and structure (of assets and liabilities). The distinction between produced and non-produced assets is not necessarily the same between the classification of stocks of assets and the changes therein. One could have gross capital formation, which would not appear as an asset in the stock of assets, since it would be incorporated into the value of the land. Similarly, capital repairs are a category in gross fixed capital formation but do not show up as a separate asset in the stock of assets, as its value is incorporated in the value of the buildings or structures to which the capital repairs have been applied.

30. Discussion focused on the treatment of historical monuments, pre-investment or feasibility studies and on the coverage of buildings in fixed assets. It was explained that historical monuments may be incorporated in the system only when actual transactions take place. Pre-investment studies may be treated as part of capital formation, if they form an integral part of an investment project in the SNA sense. Buildings are to be included as fixed assets only if they had been sold; if not, they are treated as part of stocks (inventories).

31. The meeting did not arrive at a particular conclusion regarding the classification, valuation and moment of recording of assets. However, experts in the review of SNA were urged to take into account in the final recommendations how to deal with the asset question in SNA.

## 2. Mineral exploration

32. The expert groups recommended that expenditures on mineral exploration be treated as part of gross fixed capital formation, whether such exploration was successful or not. That would change the present SNA which included all such expenses as intermediate consumption. The meeting dealt with exploration expenditures and the treatment of mineral deposits as assets.

33. The meeting agreed that expenditures on mineral exploration were treated as capital formation, no matter whether the exploration was successful or not. No final conclusions were reached with regard to the incorporation of mineral deposits in the asset boundary of the SNA as there were still too many questions to resolve on valuation of these assets.

## 3. Environmental assets, including natural growth

34. Environmental assets fell into three main groups: natural cultivated assets, which are included under produced fixed assets, and land and subsoil assets, which are included under tangible non-produced assets. Natural cultivated assets included all products or animals for breeding, dairy, draught; timber tracts and cultivated forests; plantations (orchards, vineyards); fisheries. It was proposed that all such products of controlled or cultivated natural growth be recorded as output at the moment of growth. Output of such controlled natural growth processes was considered as work-in-progress, which added to changes in stocks and in some instances to gross fixed capital formation, such as in the case of the growth of animals for breeding, dairy and draught. The output value may be based on market values. With regard to agricultural output, it was argued that the proposed treatment could be replaced by an alternative one, in which information on the agricultural year would be included in the national accounts in a manner similar to the incorporation of financial information, which was incorporated in the national accounts on the basis of fiscal year data. In response it was pointed out that such treatment would not eliminate distortions in value added under high inflation circumstances.

35. Questions were raised concerning the treatment of severe losses due to draught between the growth and harvest. In response it was pointed out that such losses would be dealt with as other volume changes in assets (stocks of agricultural goods); if changes between growth and harvest would be value changes, they would be dealt with in the revaluation accounts. Both changes would also be reflected in changes in stocks. A question remained, however, as to what extent such changes were severe enough to be treated as other volume changes and when they would constitute part of the normal variation in output over the years and thus should be reflected in a negative adjustment to output. Participants felt that national parks, beaches and similar natural assets should be considered for incorporation into the asset boundary of the SNA. Those assets were an important basis for the tourist industry of the countries concerned, and any deterioration in those assets immediately had an effect on the tourist revenues of those countries. Also, national parks needed to be maintained; that was a clear cost to the country. Most

participants felt that since those assets generated revenues, they should be considered as part of the national wealth.

36. There was much support for basing agricultural output on the growth of agricultural products rather than on their harvest. However, more study is needed on how to value such output before a final decision could be taken. It was felt that the issues of coverage, classification and valuation of environmental assets were as yet unresolved. Experts in the SNA review were urged to explore further the inclusion in the asset boundary of the SNA of national parks, beaches and natural monuments, which were environmental assets important in the development of recreation and tourism. This study is necessary as these assets are clearly of a type that fell somewhere between natural cultivated assets, which should be treated as fixed assets, and virgin forests or animals living in the wild which were clearly assets outside the boundary of the SNA. Many felt that those assets could be considered as a part of the national wealth of countries.

#### 4. Military durables

37. Military durables to be included in gross fixed capital formation are to be extended as compared with the 1968 SNA. It was proposed that all military equipment that could be acquired by civilian users for purposes of production and that the military actually used in the same way be included. All destructive military weapons would continue to be treated as part of the intermediate consumption of the production of government services and thus included in government final consumption expenditure.

38. Most of the participants seemed to prefer a wider definition of capital formation as concerned military goods. A number of examples justifying such an extension of capital formation were mentioned, such as roads and bridges that were built by the military but were used mainly for civilian purposes and military aircraft that were used for civilian purposes. Others suggested that instead of treating military expenditures as final expenditures added to GDP, they should be treated as cost or negative income, which would result in a reduction of GDP. The difficulty of obtaining reliable and detailed data with regard to military expenditures made it difficult to distinguish between expenditures to be treated as intermediate consumption and expenditures to be included in gross fixed capital formation.

39. It was agreed that all military equipment and other assets, such as schools and hospitals, which could be acquired by civilian users for the purposes of production and which the military would normally use in the same way, should be classified under capital formation.

D. Transfer of resources between countries

40. Regarding to the external account of SNA, it was pointed out that many of the changes proposed were made in order to align SNA and the Balance of Payments Manual. 1/ In some instances, the changes constituted a change or adaptation both in the SNA and/or the Balance of Payments Manual.

1. Residence: individuals, enterprises, international organizations, foreign control of enterprises

41. The basic principle of residence would assign residence to units on the basis of their centre of interest. That principle was worked out by the expert groups in operational terms for individuals, enterprises and international organizations. It was recommended that residence in a country for one year would be sufficient for an individual to be considered resident of a country, with the exception of students, who were proposed to be treated as residents of their country of origin. It was recommended that enterprises be treated as residents if the purpose of the production unit was to carry out production in a country on a significant level over a longer period of time (one year or more). The one year rule should be applied in a flexible manner, however, particularly in the case of construction activity undertaken abroad. Generally not included as residents are operators of mobile equipment, ships' flags of convenience of the country in question, or enterprises engaged in installing equipment abroad. International and regional organizations remain treated as extra-territorial units as in the present SNA.

42. An example of jointly owned and/or operated facilities was presented: a dam for the generation of electricity was jointly owned and operated by three countries. It was constructed by an enterprise which does not have a legal residence in any one of the three countries. The dam was located in the territory of one of the countries, but its construction had involved workers and materials from all three countries and from other countries as well. Participants discussed the residence of the company which had built the dam and the residence of the company subsequently operating the dam; they analysed the effect of such residence on the allocation of capital formation among the three countries and on the exports and imports of each country. In a further discussion on residence, it was asked why students were considered as residents of their country of origin if they received most of their income from foreign grants and also spent those grants in a foreign country.

43. There was general agreement on the principal resident criterion based on the concept of centre of economic interest, to be applied to individuals, enterprises and international organizations, as proposed by the expert groups in the SNA review. However, the experts were requested to provide further guidelines with respect to the residence of students in the case of individuals, and also with regard to enterprises jointly operated by countries.

## 2. Exports and imports of goods and services

44. A number of modifications were proposed with regard to the treatment of exports and imports of goods and services. Goods sent for processing abroad would be treated gross and included in exports and imports if there were significant changes in the characteristics of the goods as a result of the processing. Goods shipped between a parent company and its foreign subsidiary would be treated as if they had changed ownership, and therefore were to be included in exports or imports. Repairs, if applied to capital goods, would be treated as foreign trade in goods. Direct purchases abroad by residents and direct purchases by non-residents in the domestic market would be treated as imports and exports, respectively. The aggregate of imports would be valued FOB, but when dealing with the details of imports in a supply and use table or input-output table, CIF valuations would continue to be used, and an adjustment item would be included to link the two valuations of imports. The appropriateness of including direct purchases abroad by residents and direct purchases in domestic market by non-residents in imports and exports, respectively, was discussed. Some thought that such a change in the SNA could not easily be implemented, since product detail was lacking in those direct purchases.

45. The difficulty that countries faced in the combined use of customs data based on physical movement and balance-of-payments data, which are based on recording transactions in monetary terms, was mentioned. More attention should be paid by the expert groups to links between the SNA and foreign trade statistics, in addition to the links between SNA and the Balance of Payments Manual.

46. At the meeting, it was suggested that the expert groups reconsider the proposed inclusion of direct purchases abroad by residents as imports and in the country by non-residents as exports. It was agreed that change of ownership should be the primary guide for recording merchandise transactions and noted the proposed changes in the SNA and Balance of Payments Manual with regard to the gross treatment of goods for processing abroad and the treatment of repairs on investment goods, as goods. No conclusions were reached, however, on the change in the valuation of imports from a CIF valuation in the 1968 SNA to a FOB value in line with the treatment in the Balance of Payments Manual.

## 3. Reinvested earnings

47. The proposed introduction of reinvested earnings into SNA would harmonize SNA with the present treatment of balance of payments. The reinvested earnings would be introduced as part of property income paid/received in the external sector and, at the same time, would be reflected as an increase in foreign assets/liabilities. It was noted that such imputed flows could easily be identified in the accounts as re-invested earnings and would be presented as a separate item in the external account.

48. The meeting endorsed the proposed introduction of reinvested earnings.

#### 4. Valuation of external transactions

49. It is generally agreed that transactions carried out in a foreign currency should be converted to local currency on the basis of the actual exchange rate used in the conversion. There was a proposal to treat revenues obtained as a result of exchange rate differentials as a bank service charge if it concerned a normal difference between the purchase and sales price of foreign currency, as a capital gain or loss if revenues were obtained as a result of increases over time in the foreign exchange rate, and as a product tax in the presence of a multiple exchange rate system whereby the Government or central bank would obtain the exchange rate differentials. There had been no agreement yet on how to treat the exchange rate differential if it was received by black market or parallel market dealers in foreign exchange.

50. The expert groups further proposed that the average between buying and selling rates of exchange be used to convert transactions in foreign currency domestic currency, and that the implicit bank service charge obtained in trading foreign currencies be incorporated in the value of the external transactions and their domestic counterparts. Exchange rate differentials that are treated as product taxes/subsidies should not be incorporated in the external and counterpart domestic transactions on which they are assumed to be levied. Instead, they are presented as global adjustment items in the external account. A unitary rate of exchange is used as a basis for the allocation of exchange rates between different taxes. The unitary rate is used in computing the difference between the actual exchange rate of each transaction and the unitary rate, thus allocating the taxes or subsidies among product, income and wealth taxes that are presented as global adjustments in the external trade account, the external transactions accounts and the capital account of the external sector.

51. The discussion focused on the revenues obtained as a result of considerable differences between the black market exchange rate and official exchange rates. The distortion that occurred in the calculation of GDP when nearly all imports are obtained on the basis of a high parallel market exchange rate was mentioned; most exports are traded on the basis of a much lower official rate of exchange in terms of local currency. The difference between the two would have to be reflected in revenues by parallel market exchange rate dealers, whose revenues were probably underestimated in the calculation of GDP.

52. It was pointed out that GDP was affected not only by the large differences between official and parallel market exchange rates but also by changes in the terms of trade, when import prices in terms of foreign currency were increasing faster than export prices in foreign currency. Those terms of trade effects would have to be reflected in GDP at constant prices in order to arrive at real GDI. Some participants saw difficulties in the application of a unitary rate. Others felt that instead of global adjustments in the external account, implicit taxes and subsidies affecting sectors of the economy differently would have to be made explicit.

53. The meeting did not arrive at a particular conclusion regarding the valuation of external transactions. In view of the importance of the difference between the

official and parallel exchange rates in most countries of the region, the expert groups were urged to consider further the treatment of the parallel market rate in the valuation of transactions and in the generation of income.

#### E. Analysis of inflation

54. Due to time constraints, the discussion of constant price accounting was restricted to two main issues - chain indices and the revaluation of changes in stocks. Many other issues related to constant price accounting were not discussed.

##### 1. Chain indices

55. The question was raised whether fixed-base Laspeyere volume indices would need to be replaced or supplemented by chain indices with moving weights which would change from year to year. The expert groups suggested that the annually chained indices be presented as supplements to the fixed-base volume indicators.

56. Some participants thought that chain indices were preferable to fixed-base indices in times of inflation. Others thought that chain indices would have all the disadvantages of fixed-base indices when the latter were using abnormal base years. Others thought that updating the weights of indices would be an impossible task as statistical offices would not carry out annual surveys in various sectors of the economy which would be needed to permit such re-weighting of the indices. Furthermore, survey results became available after many delays, which would forfeit the purpose of the chain indices which, on the contrary, should be as recent as possible. It was mentioned that the annual weights of price indices in general would have to be well stratified by region and population groups in order to make the chain indices useful for analysis.

57. The meeting concluded that there were advantages and disadvantages to any type of volume index, and that the revised SNA should therefore be flexible and include alternative index measures. Countries could then choose which one would best suit their particular analysis and circumstances.

##### 2. Revaluation of changes in stocks, including work-in-progress

58. Changes in stocks may be approximated under non-inflationary conditions by two methods which yield approximately the same result: (a) calculation of the difference between the opening and closing stocks in volume terms and application of an average price to arrive at the changes in stocks in current prices; (b) calculation of changes in stocks as the difference between ingoing flows and outgoing flows valued at the prices at the time they occurred. In situations of high inflation, however, the two methods give different results because there are considerable differences in the second method between the value of ingoing flows and outgoing flows. In other words, under situations of high inflation, changes in stocks should not only reflect volume changes but also price changes that occur between the moment that goods enter stocks and the moment they leave. As a matter

of fact, changes in stocks under such circumstances could be negative because the goods withdrawn have a much higher price than the goods entering the stocks, not because there are negative volume changes in the stocks.

59. In a similar manner, changes in stocks would reflect price changes over time in the case of work-in-progress on large equipment and construction that would take a long time to complete. Output representing part of the work completed would have to be entered into stocks at the price at the moment the output was generated and, thereafter, periodic price changes would have to be included in the revaluation accounts. Once the equipment or building is completed and entered as gross fixed capital formation, it should be taken out of the stocks at the value prevailing at the time of completion. This treatment implies that changes in stocks would also reflect the differences between the price at which work-in-progress was valued at the moment it was entered into stocks and the final value of the equipment or building once it was completed and recorded as part of capital formation.

60. A question was raised with regard to price changes in agricultural products that were entering and leaving stocks. There may be seasonal price changes that fluctuate over time. It was suggested that they may not have to be reflected in the changes in stocks. There could also be different movements of prices between inputs and outputs and of agriculture. Care should be taken not to eliminate those price changes from the calculation of value added in agriculture.

61. The meeting agreed with the methods developed by the expert groups which would eliminate price changes of goods between the moment that those goods entered and left stocks from value added. Participants supported the proposals that those prices be reflected in changes in stocks in addition to the volume changes in those stocks.

#### F. Role of the household sector

62. The meeting was pleased that many of the aspects of the household sector had been extensively considered by the expert groups, as it was an important sector in African economies.

##### 1. Breakdown of households by socio-economic groups

63. It was proposed that the revised SNA should include two main subsectors in the household sector: households (excluding non-profit institutions serving households) and non-profit institutions serving households. A main breakdown of the households was proposed to be based mainly on source of income criteria (employees, employers, own account workers, and recipients of transfers and property income). Alternative breakdowns would also be included in the system but would be used only for special analysis of the household sector.

64. Participants were of the opinion that classifications other than those based on source of income would have to be used as the basis for a further breakdown of households within that sector. They argued that the reference person and several



members of the household might have different sources of income. For example, a civil servant (employee) might at the same time be an employer running his own business, while a recipient of property income might at the same time be a wage earner. An example of an alternative classification used in one of the countries distinguished between civil servants and trade and crafts people, and in another example, international experts and embassy personnel were included in a separate category.

65. It was concluded that countries may adopt extra breakdowns of households that would suit their national analytical and policy needs, but those breakdowns would have to be consistent with classification principles applied elsewhere in the system.

## 2. Formal and informal sectors

66. The distinction between formal and informal sectors is one that is made between units within the household sector and applied to all their accounts. The distinction will be included in the SNA, but still there is no agreement on the criteria for making the distinction.

67. Some participants were of the opinion that the informal sector could be defined in a negative manner by excluding from the total of all production units those that were clearly belonging to the formal sector, that is, non-financial and financial corporations and possibly some others. Others suggested that the informal sector should be equated with the total of all private unincorporated enterprises that were included in the household sector. In response it was pointed out that even within the private unincorporated sector, there might be units that were small but clearly not belonging to the informal sector. A more difficult problem was to obtain data on the informal sector and implicit in these suggestions was the assumption that the informal sector would be confined to those units for which it would be difficult to obtain data. It was suggested that the informal sector be defined on the basis of technology used, staffing, and so on. It was mentioned that the distinction between formal and informal might not be applied to all accounts and transactions but only to a selected set of data, such as mixed income.

68. In concluding, participants urged the expert groups to develop an internationally acceptable definition of the informal sector, because the distinction was an important one both for the African region and for all developing countries.

## 3. Non-profit institutions and community activities

69. There were three issues regarding non-profit institutions on which the present meeting should give its views. The first one was the recommendation that there should no longer be a separate sector for non-profit institutions serving households as in the 1968 SNA. The second issue concerned the criteria on the basis of which non-profit institutions were allocated to the household, government

and corporations sectors. The expert groups recommended that all institutions financed and controlled by the government be included in the government sector and the remaining ones be allocated to the household and enterprise sectors on the basis of which sector they served. The third issue concerned the treatment of communal production activities leading to the construction of buildings, schools, roads, and so on. The expert groups had recommended that that output be considered as an output of non-profit institutions, and that if output was capital goods, that it should be included with capital formation of the sector responsible for the upkeep of those capital goods.

70. Participants commented on the proposed incorporation of non-profit institutions serving households as a subsector of the household sector. Participants from francophone countries found that solution particularly difficult to accept, as non-profit institutions in their countries (administrations privées) often carried out functions that were close to those of government and were not directly serving households.

71. From the discussion it became clear that churches and religious organizations would be considered as non-profit institutions, even though the government provided most of the finance. The same would apply to political parties, as long as they did not constitute the main element of the government. Participants commented on the valuation of free labour that was used in the construction of roads, buildings and so on. In one country such activity was even organized officially, and local law required citizens to contribute voluntary labour at least one day a week or otherwise make monetary contributions to such communal construction activities. Most participants suggested that a cost should be imputed for the use of the voluntary labour.

72. Some questions were also raised about the allocation of the capital goods to the sector that would be responsible for its upkeep. It was felt that such capital goods would be included with capital formation of the sector that was also responsible for the construction of the schools, roads and other buildings.

73. The meeting urged the expert groups to come up with clear guidelines for the valuation of voluntary labour used in the construction of public assets. It further asked them to reconsider the criteria of finance and control that were used to allocate them to the government sector.

#### 4. Consumption expenditure, actual consumption and disposable income

74. In presenting the sequence of accounts, there was a proposal to include in the revised SNA two consumption concepts for households and government. One concept, called final consumption expenditure, would refer to payments made by households and government for items of consumption. The second concept, called actual final consumption, would include with households those expenditures made by government that could be individualized, such as education and health, while other final consumption expenditures by government of a collective nature would remain in the actual final consumption of the government sector. The distinction between

individualized consumption and collective consumption paid for by the government would be made on the basis of the categories established in the Classification of the Functions of Government. 2/ Two alternative income concepts - disposable income and adjusted disposable income - correspond to the two consumption concepts for the two sectors. The difference between the two would be transfers in kind from government to households, which would constitute the difference between actual final consumption and final consumption expenditure of households. The total of final consumption expenditure and actual final consumption of households and government together would be the same. Also, disposable income minus consumption expenditure and adjusted disposable income minus actual final consumption for households and government would give the same savings for each sector.

75. Questions were raised concerning the difference between household and government final consumption expenditure and actual final consumption by households and government. Other questions concerned how transfers in kind would be added both to consumption and income in order to arrive, respectively, at actual final consumption and adjusted disposable income without having an effect on the concept of saving in the two sectors. The point raised was that if income were increased by reimbursements for expenditures incurred during previous periods, such reimbursements could add to savings in that period if the reimbursement were not actually spent. A numerical example was given to illustrate the fact that savings were the same in both cases. Further interventions focused on how to treat government transfers that were aimed at lowering the price of goods used for private consumption purposes. Some participants felt that those transfers should be treated as transfers to households rather than as subsidies paid to producers. If treated as subsidies, they thought that that would understate actual household consumption.

76. Participants generally agreed with the incorporation into the system of the two consumption concepts. The meeting concluded that in dealing with expenditures by government that reduced the price of goods included in household consumption, it would be preferable to identify those expenditures as transfers to households rather than as subsidies to producers.

#### G. Role of the public sector

77. Because of time constraints, only one issue was dealt with - the distinction between public corporations, "departmental" enterprises and private enterprises.

#### Public enterprises versus unincorporated government enterprises and private enterprises

78. Public corporations include public quasi-corporations. The feature that distinguishes public quasi-corporations from unincorporated government enterprises (known as departmental enterprises) is that they keep full accounts and withdrawals from entrepreneurial income can be identified in those accounts. In public corporations the government owns more than 50 per cent of the equity or exercises control over their economic behaviour even if it owns 50 per cent or less of the equity.

79. One participant asked if the availability of complete accounts was a necessary condition. He gave many examples of public corporations that had not published their accounts for several years. In spite of that, he felt that those entities, which were corporations by law, should be considered as public corporations, even though they did not present complete accounts. Other examples of "public" enterprises included the following: (a) ones in which the government held more than 50 per cent of the capital together with foreign investors, but where the foreign investors controlled the day-to-day operations of the enterprise; (b) enterprises taken over from foreign investors and legally transferred into the hands of the workers; the government, however, provided all the capital that was needed to withdraw the foreign interests; (c) a political party operating an enterprise, while the political party itself was financed for more than 50 per cent of its funds by the government.

80. In all those cases, it would normally be assumed that the enterprises in question were private, even though the mechanical criterion of majority finance would classify the entities as public corporations. In the case of the political party running an enterprise, there was also the question of whether that political party, mainly financed by the government, was part of the government sector or whether it was a private, non-profit institution serving households. The question was raised in the latter case whether another exception - political parties and churches - should be made to majority finance and control as decisive criteria for the allocation of NPI's between the household sector and the government sector (see also paras. 83-89). It was noted that the 50 per cent rule should be used as a rule of thumb and should not be applied in a rigorous manner.

81. Based on the examples of institutions, which were financed for more than 50 per cent by government-controlled funds, but could not be considered as being either public corporations or part of general government (churches, political parties, some "public" enterprises controlled by foreign or private interests), participants urged the expert groups to reconsider the control and finance criteria used to separate public corporations and non-profit institutions from general government.

## II. SNA REVIEW FROM THE AFRICAN POINT OF VIEW

82. The background document for this discussion was "Summary of main recommendations and conclusions emanating from regional working groups and seminars in national accounts held in Africa in the period 1985-1988". The secretariat of the Economic Commission for Africa (ECA) recalled that during the period 1985 to 1988 the following meetings were held under the sponsorship of the ECA and the member States concerned: (a) Training Workshop in National Accounts (Addis Ababa, 30 September to 11 October 1985); (b) Seminar on the Review of the United Nations System of National Accounts (Addis Ababa, 29 November to 3 October 1986); (c) Working Group on capital formation and national accounts at constant prices (Addis Ababa, 28 September to 2 October 1987); (d) Working Group on improving the basic economic statistics required for planning purposes (Addis Ababa, 19-23 September 1988).

83. It was noted that the majority of the recommendations on the SNA review were made at the regional seminar held in 1986, while the other meetings dealt mostly with basic economic statistics. The secretariat further noted that a number of the proposals made by the African region had been, or were in the process of being, implemented in the review exercise, while several others, which had a bearing on the special circumstances and needs of the developing countries and statistically less developed systems, remained to be adopted or implemented.

84. It was noted that the following were among the recommendations which appeared to have been taken into account in the revised SNA:

Structure of the revised SNA

(a) The revised SNA should apply equally to all countries; there should not be a separate chapter on developing countries in the revised SNA;

(b) The structure of the SNA should remain broadly unchanged; production accounts for institutional sectors should be included; guidelines should be given in handbooks, the operations of the institutional sectors should be arranged in a sequence of accounts explicitly linked by balancing items; the SNA should be harmonized with other statistical systems (standards); retention of the T-Accounts;

Transactors of the SNA

(c) Retention of dual sectoring; the distinction between public and private enterprises should be based on ownership (more than 50 per cent of shares) and control;

Transactions of the SNA

(d) Estimation of consumption of fixed capital in respect of roads, bridges etc; retention of the basic concept of the production boundary as defined in the 1968 SNA with minor amendments or inclusions, for example, the inclusion of illegal and other activities if it is felt that their contribution to GDP is significant.

85. In the discussion that followed, participants recommended that the seminar express its appreciation to the Intersecretariat Working Group on National Accounts and all concerned for the attention given so far to the recommendations from the African region.

86. It was noted that the aim of the revised SNA was to present a system that was conceptually sound and one which could be applicable universally. Nevertheless, further attention should be given to some of the special concerns of the developing countries and less developed statistical systems. It was further noted that it would be rather difficult for priorities to be treated in the revised SNA (they were perhaps better addressed in the Handbooks, for example, the planned "Handbook on Enterprise Accounting" as priorities could differ from one region to another and from country to country. However, that was not to say that some concerns of developing countries would not be taken into account in the revised SNA. One such concern that was being discussed and that was of particular interest to developing economies was that of multiple rates of exchange.

### III. IMPLEMENTATION OF THE REVISED SNA

87. There was much discussion on the implementation of the SNA, and many interesting ideas were presented. The issues raised concerned education of national and international experts in the application of the revised SNA, the preparation of Handbooks that would guide national experts in the use of the system, the development of a compilation methodology using microcomputers, the further improvement of basic statistics and survey methodology, bilateral and international technical assistance, and finally, the funding of all those efforts that would support the implementation of the revised SNA.

88. Several participants stressed the importance of the Handbooks being made available to national accounts experts as soon as possible. Two Handbooks were mentioned in particular in that discussion, the Handbook on National Accounts Compilation and the Handbook on Enterprise Accounts. The latter was thought to be important as a means of developing an intermediate system of enterprise accounts which would act as a channel through which the information obtained from the diverse systems used in business accounting could be processed for use in national accounts.

89. Interest was also expressed in the national accounts compilation methodology developed by the Statistical Office of the United Nations Secretariat. The Statistical Office representative was asked to forward documents on that methodology to participants. He mentioned that those documents would be incorporated in a Handbook on National Accounts Compilation, the first draft of which is expected to be available at the beginning of 1991. The representative pointed out that the development of Handbooks required the expertise of national accountants in individual countries and that therefore the Handbooks would not become ready-made prescriptions for national accounts compilation, but would be sent, over time, as drafts to experts in different countries in order to obtain their comments; in the end they would reflect a rich variety of different country situations.

90. Participants also stressed the need to hold workshops that would permit explanation of the revised system in a more detailed manner than was possible during the four days of training sessions prior to the present meeting. It was suggested that two workshops be held in the African region prior to the completion of the revised SNA in 1993 and that subsequent to the finalization of the SNA - possibly in 1995 - a seminar should be held which would review the experiences of countries with the revised SNA. One participant mentioned that it was essential that in such workshops IMF experts and country experts working in statistical areas related to IMF systems (e.g. central bank staff) would participate in order to establish the link between the SNA and those systems at the national working level.

91. The representative of the ECA secretariat pointed out that funds for workshops might be available through the Statistical Training Programme which is carried out with the help of 15 statistical training centres in Africa.

92. Some participants stressed the need for the Statistical Office to be responsive to correspondence from developing countries' national accountants who

would ask written advice in specific areas related to the implementation of the system. The Statistical Office could co-ordinate responses to such requests by sending them to different experts for response. It was also suggested that the Statistical Office send conceptual questionnaires to countries in order to evaluate the experiences obtained in each country with the revised system. Participants were urged to respond to such questionnaires in as comprehensive a manner as possible. The Statistical Office representative pointed out that contact with national experts in national accounts would be very desirable but could only be handled by the Statistical Office if that were done in close co-operation with ECA.

Notes

- 1/ Washington, D.C., International Monetary Fund, 1977, 4th edition.
- 2/ United Nations publication, Sales No. E.80.XVII.17.

Annex I

LIST OF PARTICIPANTS

<u>Cameroon</u>	Irénée Taboué, Ministère du Plan et de l'aménagement du territoire
<u>Côte d'Ivoire</u>	G. Doffou N'guessan, Ministère du plan et de l'industrie
<u>Egypt</u>	Mohamed Salah Abd El-Hamed Farag, CAPMAS
<u>Gambia</u>	Alieu S. M. Ndow, MEPID
<u>Ghana</u>	Kwadwo Addomah-Gyabaah, Ghana Statistical Service.
<u>Guinea-Bissau</u>	Issufi Sané, Direction générale de la statistique
<u>Guinea</u>	Sekou Dioubate, Direction générale de la statistique et de l'informatique
<u>Equatorial Guinea</u>	Roberto Lobede Mell, Ministerio de Planificacion y desarrollo economico
<u>Kenya</u>	P. Kallaa, Central Bureau of Statistics L. A. Ojiambo, Central Bureau of Statistics
<u>Madagascar</u>	Ranivoharisoa Lanto Harivelo, Banque de données de l'Etat
<u>Malawi</u>	S. W. K. Mkandawire, National Statistical Office
<u>Nigeria</u>	J. Oladoye, Federal Office of Statistics
<u>Niger</u>	Tassiou Almadjir, Direction de la statistique et de la démographie
<u>Rwanda</u>	Innocent Nyabyenda, Ministère du Plan
<u>Senegal</u>	Daouda Diarra, Direction de la Prévision et de la Statistique
<u>Swaziland</u>	Isabela Hlophe, Central Statistical Office
<u>Tanzania</u>	Peter Ndimila, Ministry of Planning and Economic Affairs
<u>Togo</u>	Kofi Dalaedem Achoribo, Direction de la Statistique
<u>Zaire</u>	Muhindo Gyenano, Institut national de la statistique
<u>Zambia</u>	Ackim T. Here, Central Statistical Office
<u>Zimbabwe</u>	Robert Tendere, Central Statistical Office



United Nations Secretariat

Statistical Office of the  
United Nations Secretariat

Economic Commission for Africa

Jan van Tongeren  
André Vanoli (consultant)

F. Adrianasolo  
A. E. Cummings-Palmer  
K. C. Wang  
S. Traore  
E. F. Ching'anda  
A. P. Ngwako

United Nations bodies

United Nations Development Programme,  
Regional Liaison Office

Sosena Demessie

Specialized agencies

Food and Agriculture Organization  
of the United Nations

J. Hotakhanh

Other intergovernmental organizations

African Development Bank (Harare)

Amsale Mekasha

Economic Commission of West African States

A. Adjogou

Annex II

DOCUMENTS

1. "System of National Accounts (SNA) review issues", prepared by the Intersecretariat Working Group on National Accounts for the 1990 Regional Commissions meeting on SNA
2. "Summary of main recommendations and conclusions emanating from the regional working groups and seminars in national accounts held in Africa, 1985-1988"

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