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INTERNATIONAL TRADE STATISTICS FOR AFRICA

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T. INTRODUCTION

- 1. International trade statistics are essential not only for efficient customs administration but for economic planning as well. The importance of external trade in African affairs has been growing over the years and has indeed assumed a great degree of prominence in world affairs. The adoption of a joint approach in international negotiations suggests that there should be a comprehensive and continuing study of intra-African trade, and that Africa's exchange in merchandise with the rest of the world should be properly observed.
- 2. Such an exercise would be most meaningful and satisfactory if sufficiently comprehensive and detailed relevant information were available which could easily be compared for every country of the region. This paper briefly examines the availability of the international trade statistics of these countries as well as their comparability, reviews the international effort in publishing comparable relevant data and marks out a case for presenting comprehensive trade statistics for the region in one publication.

II. AVAILABILITY OF INTERNATIONAL TRADE STATISTICS

(a) Direction of Trade

3. In the ECA periodical Foreign Trade Statistics for Africa, Series A, Direction of Trade monthly cummulative values of imports and exports are presented in thousand US dollars, analysed by countries of provenance and destination in accordance with the classification scheme shown at Annex I of this paper. Although an attempt is made to cover all countries of the region, even utilising trade figures of partner countries (Annex II) no relevant data are available in respect of two countries, namely Equatorial Guinea and Spanish Sahara. Nor has it been possible to obtain relevant trade figures in respect of Botswana, Lesotho, Swaziland or Namibia, which form part of the South African customs union.

(b) Commodity Trade

- 4. Of the countries for which direction of external trade data have been so reported the United Nations Statistical Office publishes yearly statistics of international trade in respect of 39 out of the 54 listed at Annex III of this paperl/. Such data are limited to four tables as follows:
 - Table 1. Value in US dollars of imports and experts by principal countries of provenance and destination according to the United Nations Standard Country Code 2/,, data for trading partner appearing only when the value for import or export is not less than US \$100 thousand in any year.
 - Table 2 and 3. Quantity and value in US dollars of imports and exports analysed by commodity, data for commodities appearing only if the value in any year is not less than 0.3 per cent of the total trade for that year.

^{1/} United Nations: Yearbook of International Trade Statistics
2/ United Nations: Statistical Papers, Series M. No. 49

- Table 4. Historical series showing values in national currency of total imports and exports of merchandise and gold, and corresponding indices of quantum and unit value. The table also presents factors for converting total merchandise trade from national currency to US dollars.
- In respect of 36 of these countries the quantity and value in US dollars of merchandise, analysed by commodity and country of provenance and destination is published some in the United Nations Statistical Office publication Series D. Commodity Trade Statistics, some in the ECh publication, Foreign Trade Statistics for Africa, Series B. Trade by Commodity, and for about 14 countries the European Economic Community's (EEC) publication, Foreign, Trade Statistics: Associate Overseas areas. The data in Series B and D are published at the one, two, three and four digit levels of the SITC although they are available on cards and tapes at the five digit level, and those from EEC are published at the five digit level. Although trade flows for a commodity are collected regardless of the aggregate value of trade they only appear in the D-series publication if the value at whatever level shown in at least US 2100 thousand, while the threshold for publication in the B-series and by EEC is US \$1,000.
- 6. There is no duplication in the collection of trade data by the three organizations involved. Data from African associate members of the EEC are sent to Luemburg where they are put on magnetic tapes and sent to the International Computing Centre (ICC) in Geneva. Data from some other African countries are sent to Geneva either on tapes or a cards key punched from national publications. Whatever comes to hand in ECA in respect of countries not handled by EEC or the United Nations Statistical Office (UNSO) is key punched and sent to Geneva after publication.
- 7. No detailed trade data are sent to ECA on tapes at present because this organization does not possess EDP equipment capable of using magnetic tapes. However plans are afoot to up-date ECA's present EDF equipment and to establish a complete data bank in respect of African external trade statistics using ICC magnetic pates as soon afterwards as possible.
- 8. There is no duplication in the publication of external trade data by commodity between ECA's Series B and the EEC publication or between ECA's Series B and UNSO's Series D but there is a gap in the availability of some of the data by reason of the fact that ECA publishes data down to the US \$1,000 level as does EEC, while UNSO's cut-off point is US \$100,000. The regional need for statistical analysis and action-oriented programmes and projects calling for relevant data at short notice and at regular intervals require that this gap should be bridged. It is also thought that commodity by country data are desirable in respect of the 18 countries of the region for which no such data are at present available, and that such data should be published by ECA. The bridging of the gap involves a constraint in terms of the bulk of the publications that would result. For this practical reason it is therefore necessary to consider whatever the cut-off point should be retained at out US \$1,000 or something higher and whether data should be published at the four or five S.I.T.C. digit level.
- 9. In an attempt to meet the regional demand, ECA has, in addition to the statistics included in Series A and B, published series of relevant data in statistical yearbooks and the "Statistical and Economic Information Bulletin" as

shown at Annex IV to this paper. There are many gaps in these series particularly as regards indices of quantum and unit value and terms of trade.

(c) Indices of quantum and unit value and terms of trade

- 10. At its eighth session the Conference of African Statisticians requested that a comprehensive study should be made on African terms of trade. This study should be done for the region as a whole and for individual African countries and should cover a substantial period. It should include comments on prices of commodities and groups of commodities including "capital goods", and an evaluation of the effect of changes in exchange rates on terms of trade should be attempted. It is also thought that in the light of the requirements of the New International Economic Order regular analysis of the terms of trade of the region should be done annually.
- 11. An examination of the availability of relevant data reveals that indices have been published for 40 countries but that in most cases available series are short and not comparable. Indices for 1973 appear for eleven African countries 1/2/2 but only in respect of six of these 4/2 do the series go back as far as 1960. In respect of a further two of these countries, namely, Zambia and Malawi, they go back to 1964 and 1967 respectively.
- 12. The series are incomparable not only in respect of length and periods covered but also in respect of methods of construction used. Of the 24 countries for which notes on the relevant methodology are available 5/13 of them 6/obtain current weighted unit value indices and derive interdependent base weighted quantum indices; one other, namely Sudan, computes base weighted unit value indices and derives interdependent current weighted quantum indices while a further four, namely Angola, Mozambique, Nigeria and South Africa construct base weighted index numbers in respect both of quanta and unit values. Of the other countries, two compile only base weighted quantum index numbers 7/ and the remaining four employ Fisher's ideal index formula throughout 8/.
- 13. The comparability of the index numbers published for the various countries of the region are affected not only because of the reasons indicated in paragraphs 11 and 12 above, but also because of differences in concept, definition and commodity coverage obtaining in the compilation of the basic data. Some of these differences are described in Section IV, "Comparability of Country Data."

III. TIMELINESS OF EXTERNAL TRADE DATA

14. The idea behind the publications referred to at Section II above is to provide as quickly as possible external trade data on the countries of the region on a uniform basis. The availability of data on direction of trade is shown at Annex II and the availability of data on commodity trade is presented at Annex V to this document.

^{3/} Sthiopia, Kenya, Malawi, Mauritius, Morocco, Rwanda, Senegal, Southern Rhodesia, Togo, Uganda and the United Republic of Cameroon.

^{4/} Ethiopia, Kenya, Mauritius, Morocco, Togo and Uganda.

^{5/} Shown at Annex III.

^{6/} Algeria, Cameroon, Egypt, Ethiopia, Ghana, Ivory Coast, Madagascar, Malawi Morocco, Togo, Tunisia, Zaire and Zambia.

^{7/} Reunion and Senegal.

^{8/} Kenya, Mauritius, Uganda and the United Republic of Tanzania.

- 15. An examination of these annexes will show that there is much tardiness in the reporting of such data. For example, in respect of 1967 and 1968 annual data on direction of trade have been published for 45 countries of the region (Annex II). The number of countries for which such data have as far been produced are only 43 for 1969, 42 for 1972 and 30 for 1973. In respect of three countries, namely, Mali, Upper Volta and Dahomey, the latest annual data published relates to 1971 and in respect of an additional country, namely Sao Tome and Princips, to 1970 only. Up to the middle of 1975 annual data on direction of trade in respect of the previous year were available to the BCA secretariat only for five African countries, namely, Ethiopia, Kenya, Mauritius, Tanzania and Uganda.
- 16. Annex V shows that in respect of 1966 a commodity by country analysis of external trade data are available for 32 countries of the region. The number of such countries for which it has been possible to present such data on a uniform basis are 30 for 1971, 22 for 1972, and 18 for 1973. In respect of ten countries the latest year for which such relevant data are available is 1971 2/, and in respect of two additional countries, namely Zaire and Algeria, to 1970 and 1967 respectively. Up to the middle of 1975 annual data for 1974 on imports and exports by commodity and trading partner were available to the United Nations only for three countries, that is, Ethiopia, Libya and Reunion.
- 17. A comparison of the dates of publication with the dates to which the published data relate provider a measure of the tardiness involved in presenting the relevant regional statistics. Such a comparison has veen drawn up from annex VI which gives details of commodity by country data published in BCA's Foreign Trade Statistics for Africa: Series B during the years 1966 to 1975 and is presented at Table 1 below:

Table 1. Number of countries for which data are published in "Series B" for years 1966 to 1975 by date of publication

Year of publication	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	Total number of
Year vo which data relates											countries
1964	14		***			_		_	_	-	14
1965	_	11	4	_	_	_		_			15
1966		-	10	3	1	_	_	_	_	-	14
1967	-	-	_	6	8	2		-			16
	` -	-		-	4	12	-	-			16
1969	-	-	_	_	_	9	3		1	-	13
1970		_		_	_	_	10		3	_	13
1971		_	_	_	_	_		8	4	_	12
1972			-		_	4			6	5	11
1973		_	_	-		Name .	_			10	10
TOTAL NUMBER OF COUNTRIES	14	11	13	9	9	17	11	8	12	10	19

Source: Annex VI

Central African Republic, Chad, Congo People's Republic, Dahomey, Gabon, Ivory Coast, Madagascar, Mali, Nigeria and Upper Volta.

18. The table shows that in most cases the data have been published two years after the date to which it relates, but in approximately one-third of time the information has been three years in arrears. In six instances it has been four years late 10/ and in one instance the data was published as much as five years after the period to which it relates 11/. The ideal would have been at the latest to present annual data at the regional level one year later than the period to which it relates, which would mean that countries should aim to issue their annual series not more than six months after the end of each calendar year.

IV. COMPARABILITY OF COUNTRY DATA

- 19. Differences as regards system of trade, method of valuation, definition of trading partner and index number construction are available for 39 countries of the region and are presented at Annex III.
- 20. At Annex III it is shown that 25 African countries are on the special trade system while 14 compile their external trade statistics in accordance with the general trade system. These 39 countries are said to value their exports f.o.b. and, except in respect of the South African Customs Union and Zambia where imports are recorded f.o.b., they all value their imports c.i.f. in principle, However in gractice there are significant differences between some countries in the meaning of c.i.f. and f.o.b. value. For example, in respect of Zambia and Malawi imports overland are valued free on rail (f.o.r.), while in respect of Nigeria the recorded value of imports arriving by air excludes 75 per cent of the cost of air freight. F.o.b. is defined to exclude export duties in Angola, Libya and Tunisia, and in Mauritius to exclude such duties and all internal taxes.
- 21. In 30 out of the 39 countries for which such data are available imports are ascribed to the country of production, but in five of them 12/ the term "country of production" denotes "last country of import." Imports are ascribed to the country of first consignment in two countries, namely agypt and Zaire, to the 'country of consignment" in one country (Sudan), the country of origin in another (Gambia) and in the remaining five countries namely, the Libyan Arab Republic, Madagascar, Mauritius, Mozambique and Somalia, to the "country of provenance".
- 22. The subtle differences between countries in the concept and definition of partner countries becomes clearer from Table 2 below. For example, of the 18 countries in respect of which exports are ascribed to countries of consignment imports are ascribed to countries of consignment in three and to countries of production in 15. Of the 19 countries in respect of which exports are ascribed to countries of destination imports are ascribed to countries of origin or production in 11, countries of provenance in four and last country of imports in a further four.

^{10/} In respect of the followin, five countries: Alberia (1967 data), Kenya and Mauritius (1970 data), Somalia (data in respect of 1967 and 1970) and Zambia (1966) data).

^{11/} Sierra Leone (1969 data).
12/ Chad, Central African Republic, Congo People's Republic, Gabon and the United Republic of Cameroon.

Table 2. Definition of trading partners for 39 African countries

				<u>N</u> umbe	er of count	tries
Exports to country of	Consi	gnment	Dest	ination	Communication	Total
Imports from country of	Last or final	un- specified	Last or final	un- specified	Consump tion	lotai
Production	15	•••	9	1	1	26
Origin		-	1	· – i	-	ı
Consignment - First - un-	2		-	·	-	2
specified		1	-	~		1
Last country of import	_	-)	4	-	-	4
Provenance	. -		-	4	1.	5
TOTAL	17	1	,14	5,	2	39

Source: Annex III

- 23. As regards differences in commodity coverage it would be best to view these in the context of international recommendations such as are presented in the United Nations document International Trade Statistics Concepts and Definitions.13/ Unfortunately however very little relevant material is available for the countries of the region and this is not sufficient to enable any meaningful comparison. However the United Nations Yearbook of International Trade Statistics 1972-1973 provides an indication of certain of these differences, some of which are examined in the following paragraphs.
- 24. Largely because of smuggling, the trade crossing land frontiers are incomplete in respect of several countries (e.g., Dahomey, Mali, Mauritania and Niger) and may be overstated in some others, for example, Gambia a large proportion of imports into which are in fact consumed in Senegal 14/.
- 25. The coverage is affected in several instances in cases of membership of customs and economic unions. For example, the member states of the Customs and Economic Union of Central Africa 15/ exclude trade with each other from their statistics and the members of the East African Community 16/ respect their external trade statistics not of trade within each other in local produce.
- 26. For some reason or other, imports of crude petroleum are not included in the statistics for Sudan, and in 1967 they were left out of those for Senegal. On the other hand exports of this commodity were excluded from Algeria's statistics for 1960 to 1962. Trade in silver bullion and exports of platinum are excluded

15/ Cameroun, Central African Republic, Chad (prior to 1969), Congo and Gabon.

.6/ Kenya, Uganda and the United Republic of Tanzania.

United Nations: Statistical Papers Series N. No. 52 (New York 1970).

Vide ECA document E/CN.14/CAS.7/TRAD/2 Areas of Difficulties Encountered by African Countries in the Development of their Trade Statistics.

in respect of Ethiopia, and Liberia excludes all exports of silver. Another important item which should be included in the trade statistics is parcels post trade, but all exports through parcels post are omitted in Kenya, Mozambique, Uganda and Tanzania and all parcels post duty-free trade is excluded from the statistics of the Central African Republic, Chad, Congo People's Republic and Gabon.

- 27. It has been recommended that monetary sold should be excluded from international trade statistics and that the following should be recorded separately.
 - (i) non-monetary gold
 - (ii) improvement and repair trade
 - (iii) goods on lease
 - (iv) bunkers, stores, ballast and dunnage for ships and aircraft.
 - (v) marine products of all kinds and salvage
 - (a) sold abroad or to foreign vessels off national vessels
 - (b) landed from foreign vessels in national ports.

However there are wide variations in practice.

- 28. It would appear that all transactions in gold are included in merchandise trade in Rwanda and Pogo and that such has been the case in the Ivory Coast during the period 1970 to 1972. In Dahomey all imports of gold are recorded as imports of merchandise but exports of gold are recorded separately.
- 29. Goods shipped temporarily for improvement or repair are excluded from the export statistics of 5 countries, namely Togo, the Central African Republic, Chad, Congo People's Republic and Gabon, but it is not known whether goods returning from repair are excluded from the corresponding imports. On the other hand all movements in the repair and improvement trade are included in Angola's trade statistics while in respect of Malawi and Zambia only the value added is said to be taken into account.
- 30. Prior to 1962 the external trade statistics of Egypt included the quantity and value of exposed cinematographic films on rent. It is not known whether at present in respect of Egypt and the other countries of the region movements of such and other goods on rent or lease are recorded separately or whether no record whatever is kept of such movements.
- 31. In at least 28 countries of the region stores and bunkers for ships and aircraft are included in the trade statistics. In respect of 22 of these countries 17/ records are kept only of supplies for foreign ships and aircraft, but in respect of the remaining 6 of these countries it is not clear whether the transactions recorded also relate to supplies purchased from foreign vessels in the national territory or from abroad.18/
- 32. Sponges fished in territorial waters by foreign vessels are recorded with merchandise exports in the external trade statistics of Libya. On the other hand, in respect of Ghana, fish landed directly by foreign fishing vessels are excluded

18/ Angola, Mali, Mauritania, Reunion, Senegal & the United Rep. of Cameroon.

^{17/} Algeria, Central African Republic, Chad, Congo, Dahomey, Egypt, Gabon, Gambia, Ivory Coast, Kenya, Madagascar, Morocco, Mozambique, Nigeria, Sierra Leone, Somalia, South Africa, Sudan, Tunisia, Ugenda, Zaire & the United Arab of Tanzania.

completely from the trade statistics. The practice obtaining in other countries of the region regarding the treatment of fish, other marine products and salvage sold off national vessls or landed from foreign vessels is not known.

V. TOWARDS COMPREHENSIVE TRADE STATISTICS

- 33. At paragraph 8 above it has been shown that there is a serious gap between the African external trade data published by the three interested international organizations, namely, the European Economic Community, the United Nations Statistical Office and the Economic Commission for Africa, and that there is a need to bridge this gap. The bridging of this gap will involve the expansion of the ECA publication Foreign Trade Statistics for Africa, Series B; Trade by Commodity.
- 34. There is also a need for analytical data on a regional basis. However, before this need can be adequately met a comprehensive study must be made of the practices obtaining in every country of the region as regards the compilation, analysis and publication of external trade statistics including concepts and definitions used. Such a study would provide the basis for the explanatory notes which would be necessary for a regional publication, and would go a long way towards establishing comparability between country data.
- 35. In order to meet the growing demand for complete analysis of African external trade data on a regional and sub-regional basis it is thought that the following tables should be published regularly on an annual basis:-
 - (i) Total value of imports and exports of the retion in US \$10,000 by importing and exporting country, country of provenance and destination, by sections and groups of the SITC 19/ and by broad economic categories.20/
 - (ii) Index numbers of Quantum and unit value by sections of the SIFC and for particular commodities within sections, and terms of trade;
 - (iii) Matrices of intra-african imports and exports in respect of total trade, sections, divisions and groups of the SITC. (in US \$1,000);
 - (iv) Trade balance of BCA countries with (a) the rest of the world and (b) with other BCA countries;
 - (v) Principal imports and exports of the region by quantity and value (in US \$10,000) and by importing and exporting country distinguishing between intra-african and other external trade.

All these should be published in addition to the data included in Series A and B and the ECA statistical yearbook and would necessitate an additional publication. It is proposed that this should be an annual publication and should be entitled Foreign Trade Statistics for Africa, Series C: Summary Tables.

36. ECA would like to implement the revision of regional publications along the lines suggested in this paper as soon as satisfactory electronic data processing

^{19/} United Nations document E/CN.3/456 Draft Standard International Trade Classification (SITC) Rev.2.

^{20/} United Nations Statistical Papers, Series N. No.5], Classification by Broad Economic Categories.

equipment has been installed. But it has to be remembered that the overall success of the operation depends on the speed with which countries can supply the basic material.

Annex I

Country Classification Scheme for Series A, Direction of Trade

WORLD

EUROPEAN ECONOMIC COMMUNITY

WESTERN EUROPE

EASTERN EUROP:

AFRICA

Morocco

Algeria

Libyan Arab Republic

Egypt

Sudan

Mauri tania

Senegal

Mali

Ivory Coast

Upper Volta

Dahomey

Niger

Guinea

Sierra Leone

Liberia

Ghana

Togo

Nigeria

Cameroon, United Republic of

Equatorial Customs Union

Zaire

Angola South Africa

Zambia

Southern Rhodesia

Malawi

Rhodesia and Nyasaland

Mozambique

Madagascar

Réunion

Mauritius

Tanzania, United Republic of

Tanganyika

Uganda

Kenya

Ethiopia

Other in Africa

EUROP**E**

Netherlands

Belgium and Luxembourg

Germany, Federal Republic

France

Italy

United Kindgom

Norway

Sweden

Denmark
Switzerland
Austria
Portugal
Spain
U.S.S.R.
German Democratic Republic
Poland
Czechoslovakia
Yugoslovia
Other in Europe

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AMURICA

Canada
United States of America
Netherland Territories
Cuba
Veneguela
Other in America

ASIA

Israel
Pakistan
India
Singapore
Malaya
Hong Kong
China
Japan
Other in Asia

OCHANIA

Australia New Lealand Other in Oceania

MISCELLANEOUS UNSPECIFIED COUNTRIES

Annex II

Availability of data on direction of external trade in ECA Publication

Foreign Trade Statistics for Arrica: Series A

for the years 1964 to 1973 as at end of June 1975

								Issue nu	mber of	<u>publicat</u>	ion
	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
NORTH AFRICA											
Morocco	21	21	21	21	21	21	21	21	23	-	
Algeria	21	21	21	21	21	21	21	21	25	25	
Tunisia	21	21	21	21	21	21	21	21	23	_	-
Libya	21	21	21	21	21	21	21	21	24	25	
Egypt	21	21	21	21	21	21	21	21	25	25	•
Sudan	21	21	21	21	21	21	21	21	23	25	-
WEST AFRICA											
Mauritania	21	21	21	21	21	21	21	21	23	_	
Senegal	21	21	21	21	21	21	21	23	23	25	
Mali	21	21	21	21	21	21	23	23	_	_	_
Ivory Coast	21	21	21	21	21	21	21	23	23	25	-
Upper Volta	21	21	21	21	21	21	21	23		_	-
Dahomey	21	21	21	21	21	21	23	23			<u> </u>
Niger	21	21	21	21	21	21	21	23	24	25	
Gambia	21	21	21	21	21	21	21	23	23	25	**
Guinea	-	-	21	21	21	21	21 *	23*	23 *	25*	-
Guinea Bissau	_	-	_	21	21	-	-	23	23		. -
Sierra Leone	21	21	21	21	21	21	21	23	23	25	_
Liberia	-	21	21	21	21	21	21	23	23	25	
Ghana	21	21	21	21	21	21	21	23	23	25	_
Togo	21	21	21	21	21	21	21	21	23	_	
Nigeria	21	21	21	21	21	21	21	21	23	25	_
€ENTRAL AFRICA											
Cameroon	21	21	21	21	21	21	21	2 3	23	_	-
Chad	21	21	21	21	21	21	21	21	23	25	_
C.A.R	21	21	21	21	21	21	21	23	25	_	_
Gabon	21	21	21	21	21	21	21	23	23	25	_
Congo	21	21	21	21	21	21	21*	23 *	24	-	•••
Zaire	21	21	21			21	23*	23*	23*	25 *	_
Rwanda		21	21	21	21	21	23*	23	23	2 <u>5</u>	-
Burundi	21	21	21	21	21			24	24	25	-
			-		- -			- 1	1	- /	

Direction of External Trade Data available in ECA publication (cont'd)

								Issue number of publication				
•	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	
FEST AFRICA				=		-			_			
Southern Rhodesia	. 21	21	-	-	-		-	-	_	-	- ,	
Zambia	21	21	21	21	21	21	21		24	_		
alawi	21	21	21	21	21	21	21	21	23	25	_	
Madagascar	21	21	21	21	21	21	21	21	23	25	- 0/	
Nauritius	- 21		21	21	21	21	21	21	23		x2/ x2/ x2/ x2/ x2/	
Tanzania	21	21	21	21	21	21	21	21	23	25	$X \leq 1$	
Uganda	21	21	21	21	21	21	21	21	23	25	$X^{\frac{2}{2}}$	
Kenya	21	21	21	21	21	21, /	21	21	23	25	<u>x</u> 2/	
Somalia	21	21	21	21	21	21 -1 /	21	21	24	_	-0/	
Ethiopia	. 21	-	21	21	21	21	21	21	23	25	<u>x</u> 2/	
Caher AFRICA												
Comoro Islands	21	21	-	-	_	_	- .	- `.	-		_	
Seychelles	-	_	21	21	21	_	_		25*	25*		
Reunion	. 21	21	21	21	21	21	21	23 *	23 *	25	_	
Fr. Afars & Issas	21	21	21	21	21	21	21	23	23	25	_	
Angola	21	21	21	21	21	21	21	21	23	25	_	
South Africa	21	21	21	21	21	21	23*	23*	23*	25	_	
Mozambique	21	-	21	21	21	21	21	21	23	25	-	
Sao Tomé and Principe	_	21	21	21	21	21	21	_		_	-	
Cape Verde Islands	21	-	-	21	21	21	21	21	23	_		

^{1/} Direction for exports is missing.

^{2/} Data available but not yet published.

^{*} Data obtained from trade figures of partner countries.

Annex VI Detailed External Trade Statistics available in Series E Commodity by country, ECA for the years 1964 - 1973

	<u> </u>						(Quantit	ies and	values ir	1,000 US \$)
	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Algeria	- 4–10*	4-13**		4-18 4-17	- 4-19	-		-	-	-
Ethiopia*	3-10 4-9 4-10	4-11 4-11	3-13 4-13 4-13	3-15 4-17 4-15	3-17 4-17 4-18	3-19 4-19 4-20	4-21 4-22 4-21	3-23 - 4-23	4 - 25 - 4 - 25	4-26 4-26
Liberia* Libya Malawi Mauritius* Morocco*	3-9 3-9 3-9	4-11 4-13 3-13 -12	4-13 4-15 3-14 4-13	3-15 4-16 4-16 4-16 4-15	4-20 4-17 4-18 4-18	4-22 4-20 4-19 - 3-19	4-22 4-24 4-21 4-24 3-21	4-23 4-24 4-24 3-23	4-26 - 4-27 3-25	2-27 - 4-28 ¹ /
Nigeria* ,	4-9 4-9 - 3-9** 4-10	4-11 -12 - 4-11 4-11	4-13 - 4-15 - 4-15	4-16 - 4-19 - 4-16	4-17 4-20 4-20 - 4-18	4-22 4-24 - - 4-19	4-22 4-24 - 4-22	4-24 - 4-25 - 4-23	4-26** 4-26 ₁ / 4-27 ¹ / 4-25	$ 4-27\frac{1}{1} 4-27\frac{1}{1} 4-28\frac{1}{1} 4-27\frac{1}{1} $
Tanzania*	4-10 4-10 3-9	4-11 -12 4-11 3-13	4-13 4-14 4-13 4-16	4-15 - 4-15 4-16	4-18 4-18 4-18 4-19	4-20 4-20 4-21	4-21 4-21	4-23 4-23 4-23	4 <u>-</u> 25 4 <u>-</u> 25	4-26 - 4-26 -
Total numbers of countries	14	15	14	16	16	13	13	12	11	11

^{3:} Series B given data in SITC 3 digits level (group)

^{4:} Series E given data in SITC 4 digits level (sul-groups)

^{**:} Incomplete coverage

^{-:} Numbers following the dash sign (-) indicate the number of series E publication in which the data are printed.

^{*} According to special agreements with Headquarters N.Y., ECA will publish data, in future series P issues, only for the marked African countries.

^{1/:} Series B Nos. 27 and 28 are under preparation

Note: The dates of issue of the publications under reference are as follows:

^{1966,} Nos. 9 and 10; 1967, Nos. 11 and 12; 1968, Nos. 13 and 14; 1969, No. 15;

^{1970,} Nos. 16 and 17; 1971, Nos. 18 to 20; 1972. Nos. 21 and 22; 1973. No. 2);

^{1974,} Nos. 24 and 25, 1975, Nos. 26 to 28.

Annox VII

Plan for study of African Terms of Trade

1. Project: Study on African Terms of Trade

Requested by the 8th session of the Conference of African Statisticians.

- 2. Scope of study: The study should be done for:
 - a) the region as a whole and
 - b) individual countries. It should include comments on prices of commodities and groups of commodities including "capital goods", and should cover the period 1960 to 1975. Also an evaluation of the effect of changes in exchange rates on terms of trade should be attempted.
- Requirements: Index numbers of unit value and quantum for the period 1960 onwards for:
 - a) the region as a whole and
 - b) individual countries of the region as regards (i) imports (ii) domestic exports, in respect of SITC sections as well as economic categories (e.g., consumer goods, capital goods, etc.)
- 4. <u>Issues</u> 4.1. Countries trade with each other and so intra-african trade included in country data.
 - 4.2. Patterns of trade different for each country.
 - 4.3. High rate of change in commodity composition of imports within countries yearly.
 - 4.4. Degree of quantification of trade statistics different between countries.
 - 4.5. Items identified sometimes different between countries.
 - 4.6. Quantified items and quantity units for similar items sometimes different between countries.
 - 4.7. Country currency units different for most countries.
 - 4.8. The longest relevant series of data available for a fair number of countries are as follows:-

Period		Number of countries
1960-70		24
1960-71	•	23
1960-72		17
1960-73		14

4.9. The largest number of countries of the region for which relevant data are available first compute current weighted unit value indices and then derive base weighted quantum indices.

Annex V

Availability of Annual Commodity-By-Product External Trade Date on 31 May 1975 at UN Statistical Office and/or ECA Statistics Division

1)64 To 1974

Country	1964	1965	1, 66	1967	1968	1969	1970	1971	1972	1973	1974
Algeria		X		<u>.</u>					_	_	
Angola	i - I	_ \	<u> -</u>	_	-	-	-	_ '		_	_
Potswana		_	_ !	_	_		_	~	_	_	
Burundi	i l	Х	-	_ [- Ì	_		_	_	-	_
Cameroon	\bar{X}	X	X	x	X	\overline{X}	Х	Х	Х	-	_
		~			i			1		,	_
Cape Verde Islands	-	-	-	_ !	- v	_ X	_ X	- Х	_		_
Central African Republic	X	X	- As - 27	X (X		X	X	_		_
Chad	X	X	X	X]	X	X		^	_	_ '	
Comoro Islands	_ [-	_	 	-	v	X	X	_	-	_
Congo People's Republic	X	X	X	X	X	X	Λ.	^	_		_
Dahomey	X /	X X a /	X	Х	X	Х	X	X	_		-
Egypt	$\frac{X}{X}$ a/	X a /	Х.		X	Х	X	Х	X	X	-
Equatorial Guinea	_	!	x	-	- }	-	-	-	-	-	-
Ethiopia	Х	~-	X	X	Х	X	Х	Х	X	X	X
French Territory of Afars & Issas	_	_	-	- 1			_	-	-		_
Gabon	х	х	Х	x		Х	х	X	+	· - !	-
	X		_ i	i	_	-	_	_	_	_	_
	X	X	X	χ	X	X	Х	Х	Х	X	_
Ghana	_ ^	<u>.</u>	~		_]			_	_
Guinea	-	_]	-	_ }		_	_	_	- 1	· 1	_
Guinea Eissau	-	_		j	Į			<u>. </u>	•		
Ivory Coast	X	X	X	X	X	X	X	X	 ਬ		_
Kenya	-	Х	X	ă [X	X	X	X	X	X	
Lesotho) -	-	-	i - I	-	-	~	-	_		-
Liberia	l - i	~	-	Ä	Λ	X	X	-	Х	Х	_
Libya Arab Republic	X	Ā	X	Z ¦	х]	X	Х	X	X	X	X
Madagascar	X	X	Х	Ā	Х	X	X	X	- 1	-	-
Malawi	x	$\widetilde{\mathbf{\lambda}}$	X		X	X	Х	X	X	Х	~
Mali	х	$\overline{\lambda}$	X		X.	Х	X	Х	-	-	_
Mauritania		X	Х	X I	X		X	Х	Х	- i	-
Mauritius	X	Х	X	ä	X	~	Х	X	Х	Х	-
	X	X	X	x	_	X	l x	Х	x	\mathbf{x}	_
Morocco	^	^	A		_				-		_
Mozambique	\	_	-	_		_		`	_ ,		_
Nambia		_ v	-	l i	X	X	X	X	<u> </u>	X	_
Niger	X	X	_ v	X	X X	X	x	X		A.	=
Nigeria	X	X	X	_ ^	Λ	Λ	!		_	_]	-
Reunion	\ -	-	Х	X	X	Х	X	Х	Х	X	X
Rwanda	[-	- 1	_	-			ļ - '	-	-	, -]	-
Sao Tomé & Principe	-	- 	-	-			-	_	~	' - i	-
Senegal	X	Х	X	X	X	X	X	Х	X	_	
Seychelles	{ -	-	_			_		-	-	-	_
Sierra Leone	l x	х		_ [X	х	_ '	_	X	х	_
Somalia			X	x	X		i x	Х	x	X	_
South Africa	_	X	X	- 1	_	_	=	_	_ [
South Alflea	X	X	-	<u> </u>			ì <u> </u>	_		_	_
Spanish Sahara	_ ^			_ !	_	_	_ '	[_	_ {	_
obentran center	,	_	_	i i]				
Sudan	Х	X	X	X	X	X	X	X	Х	X	-
Swaziland	_	_	-] - [-	_				~	-
lanzania	X	<u>, , , , , , , , , , , , , , , , , , , </u>	X	X	X	Х	X	X	X	X (-
Togo	Ä	X	X	X	X	X	X	X	X	-	
Tunisia	X	Х	X	X	Х	X	X	Х	Х	Х	-
Uganda	X	X	X	Å	X	х	Х	Х	Х	Х	_
Upper Volta	X	X	X	x	Х	X	х	Х	- 1	- 1	_
Zaire	_	X		\ _		l	X		-	_	_
	X	X	X	x	X) x	X	х	х	X	

a/ Incomplete coverage.

External Trade Statistics for African Countries Series Published in ECA Statistical Yearbooks 1965 to 1974 a/b/

SUB-REGION COUNTRY	TOTAL VALUES	QUANTUM	Quantum indices		UNIT VAIUE INDICES		DIRECTION OF	TRADE BY SECTI		IMPORTS BY END	TOTALS OF	f SELECTE ITIES
	IMPORTS EXPORTS	IMPORTS	EXPORTS	Lapons	EXPORTS	TRADE	TRADE	IMPORTS	EXPORTS	USE	IMPORTS	EXPORTS
EAST AFRICA											1	
Affars & Issas	 1950 - 68 	-	-	-			-	1961-66	1965–66	_	_	-
Botswana	 1960-71		-	-	<u></u>	_		1967–68	-	_	1965-67	1960-69
Ethiopia	1950-73	196	0-73	1958, 60 - 73	1953 , 60-73	1958, 60–73	1960–73	1958 60 6273	196	2-73	196	55-73
Kenya		0-73		1954-73	1950-73	1954-73	1960-73		-73	1960-73	1965-73	1960-7
Lesotho	 1965-73	}	_	-	-			_	_		196	
Madagascar			0-67		· 1950-70 —	 .	1960-73	1954-71	1959-71	1960-73	196	
Malawi	 1950-53,64-73	1967-73	1964-73	1967 -7 3	1964-73	1967-73	1965-73		- 1964 - 73		196	
Mauritius	 1950-73	ļ 		1950 -73 -			1960 - 73	1954-73	1959-73	1960–68	196	50-73
Somalia	 1950 - 73	196	0-63	-	-		1960-73	1954	-73	1962-64, 66-67	196	60-73
S. Rhodesia	—1950-53 , 64·72-		_		- 1965-73		_		– 1964–65 -		-	
Swaziland	1965-73 1960-73	-	-	-	-	- 1	ĺ	1965-73	1969-73	· -	1967-73	1960-7.
Tanzania	 1950 - 73 	1954-72	1950-72	195÷-72	1950-72	1954-72	1960-73	1954-73	1959-73	1966-73	1965-73	1960-7.
Uganda	1950- <i>1</i> 3	1954-73	1950-73	1954~73	1950-73	1954-73	1960-73		-73 ——	1960-70	1965-73	1960-7.
Zambia	 195053,64 - 73 - 			1964 -73 - -		——— (1965-73		- 1964-73 -	 1	1965-72	1965-73
OTHER IN ATLICA	,											
Angola	1950-73	-	-	•	· -		1958–73	1958–60, 69–72	1959-63, 69-72	-	1965-73	1960-73
Cape Verde Islands	1950-69 1961-69	_	_	_	~	_	_			-		-
Comero Islands	 195268	_	1961-65	name.	1962-65		-	1961-65	_		_	_
Mozambique	 1950-73			1961 - 67 -			1954-73	 1968	-70 J	1960	 196	50-73
Nam Discourse Transfer of the Name of the	196566,68-71		-			- 1	[~	_	-	-	1971
Réunion	 1950-69 	<u> -</u>	1961-67		1961-67	-	-	1961-67	1959-67	1950–67	-	
Sao Tomé & Principe	195069 	_	_	-	/ mg	-	- (-	_	- 1	-	_
Seychelles	1950-68 	-			_		-	196165	_		_	_

a/ In addition the following have been published therein in respect of the periods shown:

	Description of Series	Period
1. 2,	Total imports and exports for (a) Africa as a whole and (b) developing Africa by sub-region and country Total imports by sections of the SITC for (a) all Africa by sub-region and country (b) Developing Africa by sub-region and country Total exports by sections of the S.I.T.C. for (a) all Africa and (b) developing country Country and wait relations for (a) all Africa and (b) developing country	1950-60 1958-66 1959-66 1959-66
4· 5.	Quantum and unit value indices for (a) all Africa (b) developing Africa (i) Total imports and exjorts (ii) Exports of agricultural produce by commodity (iii) Exports of minerals by commodity Exports of developing Africa by commodity classes and sub-regions	1950-67 1950-69 1950-69 1950-69
6.	Trade balance of agricultural products for (a) Africa and (b) developing Africa by sub-region, country and commodity	1955 - 68 1960 - 68
7•	also available by sections of the S.1.7.0 for the years 1965 (30 countries), 1968 (32 countries), 1,69 (27 countries), 1970 (23 countries), 1971 (11 countries), in the ECA Statistical and Economic Information Bulletin numbers 1 to 37	1960–69
8.	Quantity and value of exports of selected commodities for (a) all Africa and (b) developing Africa, by sub-region and exporting country	1950-59
~ /		

The yearbooks under reference are the following:
1. UNECA Statistical Bulletin for Africa No. 1, November 1965 Part I, Tables 48-52; No. 2, March 1967 Part I, Tables 54-60

2. UNECA Statistical Yearbook, 1970 Part 2 Foreign Trade; 1972, Parts 1 to 4, Tables 31 to 38; 1973 Parts 1 to 4, Tables 31 to 38; 1974, Parts 1 to 4, Tables 31 to 38.

Annex IV

External Trade Statistics for African Countries Series Published in ECA Statistical Yearbooks 1965 to 1974

SUB-REGION COUNTRY	TCTAL VALUES	QUANTUM	INDICES	UNLT VAL	UN INDICES	OF	DIRECTION OF	TRADE BY SITC SECTIONS		IMPORTS BY	TOTALS OF COMMODI	
goog sweets and see the second	IMPORTS EXPORTS	IMPORTS	EXPORTS	IMPOLIE	EXPORTS	TRADE	TRADE	IMPORTS	EXPORTS	END USE	IMPORTS	EXPORTS
NORTH AFRICA	·								1			
Algeria			·	- 1967-71 -			1960-72	1959-61, 63-64, 66-67, 69-71	As for imports	1.960-7	72	1960-71
Egypt	1950-73 1950-73 1950-73			- 1962 - 70 -		······	1960-72 1960-72 1960-73	 1954	-72 -72 1960-73	1960-71 1960-72	196	0-72
Sudan	——————————————————————————————————————			- 1950 - 72 - - 1950 - 72 -			1960-73 1960-73	1954 - 73 1955 - 73	1959-73 195973	1960-72		0-73 ——
WEST AFRICA Dahomey	1950 <u>_</u> 72 	1962–71	1961–71	1962-71	1961-71	1962–71	1960-72	——— 1959	-71	1960–68;	196	0-71
Gambia Ghana Guinea Guinea Fissau (Portuguece	1950-73 ————————————————————————————————————	1965			1956-72 -	,	1960-72 1960-73 1960-70	1954-73	1960-72 -73 -	70–71 196572 196068	1960-72 1960-73 1960-70	1960-71 1960-73 1960-71
Guinea) lvcry Coast	1950-68 1950-73 1950-73	 1968 – 70	1965-72	- 1960–66 1968–70	- 1965–72	1968-70	1960-72 196072	——————————————————————————————————————	-71 195455, 5773	1960-72 1960-63, 65-68	1960-71 1960-73	1960-73 1960-73
Mali	1961-73 1961-72 1950-73	1962-66 1962-66	1961 – 67 1961–66	195266 - 1965 66 19626	1961–66 1961–66	1965-66 1962-66	196571 196571 196573	——————————————————————————————————————	71	1961-69 1961-66 1960-67, 69-73	196 1965-72 1960-73	5-71 1965-72 1960-73
Nigeria	1950-73	1950-64, 70-72	1950–64, 70–72	1950 – 64, 70–72	1950–64, 70–72	1950–64, 7072	1960-73		73	09-19		
Senegal Sierra Leone Togo Upper Volta		1957 1960-70 1962-66	7–66 – 1961–66	1960-70 - 1950-73 1962-66	1957-73 - 	1962-66	1960-72 1960-73 1960-73 1965-72	1959 1954 1959 1959-72	-73 -71	1960-73 1960-67 1960-66		1960-73 0-73 5-72
CENTRAL AFRICA												
Eurundi Cameroon Central African Republic Chad Congo	1962-73 ————————————————————————————————————	1962-69 1962-66 1963-66	1961-70 1961-67 196 1- 67		73 1961-70 1961-67 1961-67	1962-69 1962-66 1962-66	1965-73 1960-73 1960-72 1960-73 1960-7 2	1954-73 1959 1959		1960-71 1960-73 1960-70	1960-73 -	072 196073 196072
Equatorial Guinea	1950-67 1950-67 1950-73 1962-73 1950-73	1962-66 1965-70	1961 – 67 1962 – 70	- 1962-66 - 1969-73 - 1965-71	196167	1962-66 1965-71	- 1960-73 1965-73 1960-73	1959 1963 196370		1960-72 1967-73 ——— 1960	1960-72 196573)-73	1960-73 1965-73 1965-73

External Trade Statistics for African Countries published in the United Nations Yearbook of International Trade Statistics.

	System	METHOD OF	VALUA-	_			1	INI	DIX NUNFERS	
· · · · · · · · · · · · · · · · · · ·	of Trade (G=General S=Special)	TION	ſ	DIRECTIO	N Cl TRADE	(JUA)	TUM	LINU	r value	REMARKS
	Deopedial)	IMPORTS	EXPORTS	IMPORTS	EXPORTS	Latest year	NATURE	Latest: year	NATURE	CZNAMIN
Réunion	S	Ċ	f	Country of production	Country of last con- signment	1955	Base weighted	·	_	_
Rwanda	S	C	f	Country of production	Country of last con- signment	_		**		
Sao Tomé & Principe 33/		• • ;	• • •	& 	- * * *					-
Senegal	S	C	f	Country of production	Country of last known destination	1956	Fase weighted $\frac{2}{1}$	5/ _	- · · · · · · · · · · · · · · · · · · ·	
Sexchelles 33/	• • •	• • •	• • •	•••	• • •			-	-	-
Sierra Leone	G	С	f	Country of production	Country of last con- signment				-	- · · · · · · · · · · · · · · · · · · ·
Somalia	S	C	f	Country of provenance	Ocuntry of destination		- Bus	***	• •	-
South Afr. Customs 27/	. G	f ²⁶ /	f ²⁸ /	Country of production	Ccuntry of destination	1972/73	Weights of pre		heights of pre-	Interdependent
Southern Rhodesia 33/		• • •		•••	< • •	. .	vious year29/	19 7 2/73 1971	vicus year 29/	and chained 31/
Spanish Sahara	•••	• • •	4	4 • •	a • •	.	• • •	4714 6 • 0	• • •	•••
Sudan	G	С	f	Country of consignment	Ccuntry of consignment	1972	Current weigh-			
Swaziland 33/	•••	•••	·; <u>14</u> /	•••			ted -	1972	Ease weighted	Interdependent 30,
Tanzania,	G	C <u>13</u> /	1 = 1	Country of production	Country of last consign- ment	1970	Fisher Ideal formula 15/	1970	Fisher Ideal formula 15/	Interdependent ³¹
Togo	S	C .	f	Country of production	Country of last known destination	1972	Base weighted	1972	Current weighted	Interdependent
Tunisia	S	C	f ² /	Country of production	Country of Last consign-				,	
Uganda	G	<u>c13</u> /	_F 14/	Country of production	ment	1972	Fase weighted	1972	Current weighted	Interdependent
	Í	O	1	country of production	Country of last consign- ment	1972	Fisher Ideal formula 15/	1972	Fisher Ideal formula 15/	Interdependent31/
Upper Volta	S	C	f	Country of production	Ccuntry of last known destination			· 	- 	<u>.</u>
Zaire	s	C	f	Country of first consign-	Country of last consign-				. –	_
Zambia	₈ 32/	<u>1</u> 7/	f	ment Country of production	ment Country of last consign-	1970	Base weighted	1970	Current weighted	Interdependent
					ment	1969	Base weighted	1969	Current weighted	Interdependent

Excludes freight and insurance charges between French metropolitan ports and Algerian ports. Prior to 1960, first country of import; 1960 and after last country of import.

Customs and Economic Union of Central Africa. This frontier has varied from time to time, including Chad up to 1969 and not including Cameroon prior to 1966.

From 1951 to 1962, exchange transactions involved premimums, surcharges and rights to purchase which are not included in values shown for that period. From 1962 data include value of premimums.

Does not include freight, insurance and other charges or railway to frontier.

Export indices include gold and monetary items.

11/ 13/ 15/ 17/ 19/ 21/ 23/ 25/ 29/ 31/ 33/ Beginning 1964. Prior to 1965, quantum index base weighted and unit value index current weighted.

Imports overland f.o.r. point of dispatch Point of dispatch.

Expludes internal taxes.

Goods arriving by air include only 25 per cent of air freight

Includes stores and bunkers for ships and aircraft, Includes lotswana, Lesotho, Swaziland and Nambia.

Export indexes exclude semi-processed and other forms of gold.

Export indexes relate to national exports only.

Some figures in respect of the 14 countries marked thus have been published in the LC. Statistical Yearlook as shown at Annex IV.

Does not include export duties.

Refer to East Cameroon only.

Prior to 1969 fcotnote 5/ applied.

Only beginning 1963. No indices between 1959 and 1963. From 1946 to 1963, chained after applying Fisher Ideal Formula.

Import indices relate to retained imports only.

Prior to 1968, special trade.

Port of exit members of East African Community.

1954 to 1963, Mational exports only,

Prior to 1971 f.o.k.

Imported goods re-exported from bond valued as recorded on first importation

Includes gold.

hubber and metallic ores valued at market price ruling in London at prescribed time.

Transaction value exporting country

Transaction value point of despatch but values of citrus fruits, metals and minerals based on prices realized abroad less freight, insurance and other charges incurred overseas.

Export indexes include camels on hoof to Egypt. Prior to 1969 General trade.

External Trade Statistics for African countries published in the United Nations Yearbook of International Trade Statistics, 1972-1973

Country	System of Trade (G = General	METHOD OF		INDEX NUMEERS					
		VALUATION (c=c.1.f.;f=f.o.	DIRECTION OF TRALE		QUANTUM		UNIT VALUE		REMARKS
·	S = Special)	IMPORTS EXPORT		EX. CRTS	Latest year	NATURE	Lates t year	NATURE	
Algeria	S	$\begin{pmatrix} c^{1} & f \\ c & f^{2} \end{pmatrix}$	Country of production(Country of last consignment Country of consignment	1969) 1960)	Base weighted	(1969 (1960	Current weighted Fase weighted	Interdependent -
Botswan 33/ Burundi 33/	•••		•••	• • • • · · ·	-		_		_ _ -
Cameroon	s	C f	Country of production3	Country of last known Destination	1967	Base weighted	1967	Current weighted	Interdependent $^{4/}$
Cape Verde Islands 33/ Central African Republic	• • • • · · · · · · · · · · · · · · · ·		Country of production	Country of last known	_	-	_	-	_
Chad	S	c ² / <u>f</u> 6/	Country of production 3	Destination Country of last known Destination	_	_] _	_	
Comoro Islands 33/	 S	<u>5</u> / <u>6</u> /	Country of production	/ ··· Country of last known	1965	•••	1965	•••	Imports only
Dahomey	S	C f	Country of production	Destination Country of last known	-	-	-	- ·	-
Egypt		01/ f1/	Country of first	Destination Country of last		- 8	-		
Equatorial Guinea 33/	•••	_f 2/	consignment	consignment Country of last	1971	Rase weighted————————————————————————————————————	_	-	Interdependent ^{8/}
Ethiopia	G	C f 2/	Country of production	Consignment Consignment	1962	Weighted 10/	1962	Current weighted 10/	Interdependent ³¹
& Issas 33/	i .	 c5/ r5/	Country of production 3	Country of last known	-	-	-	-	, -
Gambia		C f	Country of origin	Destination Country of final	-	-			. -
Ghana	G	C f	Country of production	Destination Country of last consign- ment	- 1970	 Base weighted	1970	- Current weighted	Interdepen-
Guinea 33/			•••	nice t	-		-	-	$\frac{\text{Interdepen}_{\overline{z}}}{\text{dent}} / \frac{31}{31}$
Guinea Fissau 33/	12/	0 f	Country of production	Country of last known	_	~	-	-	<u></u>
Ivory Coast	_	0 ¹³ / f ¹⁴ /	Country of production	Destination Country of last consign-	1966	Pase weighted Fisher ideal		Current weighted Fisher ideal	_
Lesotho33/			Country of production	ment Country of finel consignment	1972 -	formula 15/	1972	formula <u>15</u> / -	Interdependent 31
Liberia	G .	C f ₂ /	Country of production Country of provenance	Country of destination	-	-	-		
Madagascar Malawi Mali	G 10/	C17/18/ f19/20	Country of provenance Country of production Country of production	Country of destination Country of last consignment Country of last known	1969 1972	Base weighted Base weighted	1969 1972	Current weighted Current weighted	· ·
Mauritania	S	C f	Country of production	Destination Country of last known		~ -	-	_ '. '	<u>-</u>
Mauritius	G	c _f 2/25/	Country of provenance	destination Country of destination	1968	Fisher ideal formula	- 1968	Fisher ideal formula	_
Morocco	1	C f	Country of production Country of provenance	Country of last consignment Country of consumption	1971 1967	Base weighted Base weighted		Current weighted Base weighted	Interdependent ²²
Nambia <u>33</u> /	•	C f	Country of production	Country of last anoun	-	~ .		••	-
Nigeria	G	c ²³ / f ²⁴ /	Country of production	destination Country of last consignment	<u> </u>	Fase weighted	1964	Base weighted	Exports relate to national exports only.

5. Inferences and recommendations

- 5.1. Intra-african trade should be excluded for regional analysis but included for country analysis.
- 5.2. Because of heterogeneous conditions stated above calculations should be carried out with shifting base and the resulting index numbers chained. However in view of staff difficulties and the quantity of work involved it is recommended that simple straight forward calculations should be employed using a fixed base, preferably 1965, since this could be described as a normal year and is not too far removed from 1960. Subsequently the base could be shifted to 1970 when sufficient data became available in view of the length of the period.
- 5.3 Also, because of heterogeneous conditions, calculations should be carried out for each country and the results combined on the basis of the importance of the countries! trade as compared with that of the region as a whole.
- 5.4. In order to study the effect of variations in exchange rates, calculations should be carried out both in national currency and in U.S. dollars, the latter being the currency against which currencies were either devalued or revalued.
- 5.5. For certain unquantified items of imports it may be necessary to derive relevant average values from export statistics of appropriate trading partners.
- 5.6. Adjustments for incomplete average of items necessary for quantum index numbers.

6. Statistical methodology

6.1. Estimates for individual countries

6.1.1. Compute unit value index numbers of imports (Pi) and domestic exports (Pe) for each country thus using all quantified items:

$$P = \frac{\sum r_n q_n}{\sum p_{1965} q_n}$$

where " denotes "summation"

"p" denotes "average unit value of commodity"
"q" denotes "quantity of item imported or
exported"

"n" denotes "the current year" such indexes should be computed for (a) total imports (b) total domestic exports (c) sections of the SITC and (d) Economic categories. The calculations should be done in terms of (i) national currencies and (ii) U.S. dollars at current year exchange rates, so that there would be two sets of indexes per country.

6.1.2. Derive corresponding quantum index numbers for imports (Q_1) and exports (Q_2) for each country thus:

$$Q = \frac{v_n}{PV_{1965}}$$

where "V" denotes "total imports (V_1) or total exports V_e),

6.1.3. Compute measures of terms of trade as follows for each country, using indexes resulting from calculations in (1) relevant national currency and (2) U.S. dollars:

Gross terms of trade =
$$\frac{Q_i}{Q_e}$$

Net terms of trade = $\frac{P_e}{P_i}$

Income terms of trade =
$$\frac{Q_e P_e}{P_i}$$

Thus there will be two sets of indicators for each country.

6.2. Estimates for the region as a whole

6.2.1. Compute unit value index numbers as at 6.1.1. above after deducting relevant amounts of intra-territorial trade thus:

$$P'' = \frac{\sum_{n=1}^{p_1} q_n'}{\sum_{n=1}^{p_1} q_{65}' q_n'}$$

where the symbols p, , p, qp and n have the same connectations as before and the symbol "'" denotes that trade with all other african countries has been excluded. As before two sets of index numbers per country should be computed, one in the basis of national currencies and the other in the basis of U.S. dollars at current exchange rates.

6.2.2. Combine the resultant country unit values thus to obtain regional unit value index numbers of imports (P,"), and exports (P,"), in respect of each set of data and in respect of items (a) to (d) inclusive listed at 6.1.1. above.

In cases where P' has been obtained without the use of the United States currency, V' should be converted to U.S. dollars in the basis of the 1965 exchange rates only.

6.2.3. Derive corresponding quantum index numbers thus:

$$Q'' = \frac{V''}{P'' V'' 1965}$$

6.2.4. Compute measures of terms of trade for the region as a whole thus:

Gross terms of trade =
$$\frac{Q^n}{Q^n}$$

Income terms of trade =
$$\frac{Q^n P^n}{e e}$$

Two sets of results should be obtained, one relating to the exercise which has been carried out mainly in terms of national currency and the other to that which carried out entirely on the basis of U.S. dollars.