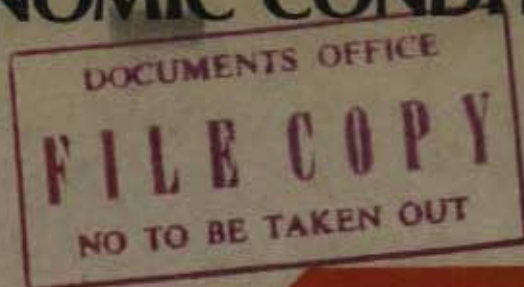


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SURVEY OF ECONOMIC CONDITIONS IN AFRICA, 1970



(Part I)

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UNITED NATIONS

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ECONOMIC COMMISSION FOR AFRICA

Addis Ababa

**SURVEY OF ECONOMIC CONDITIONS
IN AFRICA, 1970**

(Part I)



UNITED NATIONS, New York 1971

EXPLANATORY NOTES

Symbols of the United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document. United Nations documents symbols which are preceded by the designation E/CN.14... indicate that the documents are issued under the auspices of the Economic Commission for Africa.

The following symbols have been used in this Survey:

... not available, - - nil or negligible.

The use of an oblique stroke - e.g. 1960/1961 - indicates a crop year. The use of a hyphen - e.g. 1960-1966 - normally refers to an annual series for all of the calendar years between, and including, the base and terminal years indicated. A hyphen is similarly used to indicate periods over which average annual growth rates have been calculated.

A billion is one thousand million.

The term "Developing Africa" refers to Africa excluding the Republic of South Africa.

The composition of the five African sub-regions is as follows:

North Africa : Algeria, Libya, Morocco, Sudan, Tunisia, United Arab Republic.

West Africa : Dahomey, Gambia, Ghana, Guinea, Ivory Coast, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo, Upper Volta.

Central Africa : Cameroon, Central African Republic, Democratic Republic of Congo, People's Republic of the Congo, Chad, Gabon, Equatorial Guinea, Burundi, Rwanda.

East Africa : Botswana, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Somalia, Swaziland, Tanzania, Uganda, Zambia.

Other Africa : Angola, Mozambique, Namibia, Rhodesia, South Africa, Spanish Sahara, Spanish North Africa, Cape Verde Islands, Portuguese Guinea, São Tomé and Príncipe, Comoro Island, Afars and Issas, Reunion, Seychelles.

Though Burundi and Rwanda belong to the East African Sub-region, they have expressed interest in being associated with the Central African Sub-region and are, for practical purposes, administered from the Central African Sub-regional Office (Kinshasa). In this Survey, they are included in the Central African Sub-region.

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SURVEY OF ECONOMIC CONDITIONS

IN AFRICA, 1970 (Part I)

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UNITED NATIONS, New York 1971

Chapter 1. INTRODUCTION AND GENERAL APPRAISAL OF AFRICAN DEVELOPMENT

Chapter 1. Introduction and African Development

The annual survey of economic conditions in Africa is becoming recognised as one of the more important means of focussing attention on the stage reached in the economic development of the Region, on growth trends, and possibly for indicating some of the problem areas which are holding up the rate of increase in real income per head.

In this present document (Part I of the Survey for 1970) two new chapters have been included, one covering the economic outlook for most of the countries of Africa in 1970 and the other some information from recently published development plans. This means that the Survey has been considerably up-dated and also that some hint of the trends for the future can be discerned from the development plans which are covered.

In Part II of the Survey this year there is a critical examination of the National Accounts in a number of African countries as it is felt that the present stage of development of such key economic indicators in many countries on the Continent is not sufficiently advanced to be able to assist, as they should, in planning the growth of the economies in question.

The remaining chapters in Part I of the Survey cover the Gross Domestic Product, Agriculture Forestry and Fishing, Mining, Manufacturing and Construction, Energy, Transportation and Tourism, External Transactions, Finance and Manpower and Training. There is, thus, a wider coverage than the 1969 Survey with the additional chapters of Finance and Manpower and Training. To assist the presentation in the Survey, much of the statistical data has been included in a special appendix and this appendix may be a useful form of reference to researchers and other users.

The countries in the subregions of Africa used in this particular survey may vary from those in previous Surveys. There has been a deliberate attempt to align the countries covered in the subregions of North, West, Central and East Africa with the present arrangements for the ECA's own subregional offices. The subregion classified as Other Africa includes the countries of South Africa, Namibia, S. Rhodesia, Angola and Mozambique and also all those (small) areas of Africa which are still controlled by Metropolitan powers. The coverage of each of the subregions is given in the explanatory notes.

It is particularly necessary at this stage to point to one additional source of material which has, it is hoped, led to some improvement in the present survey. The Food and Agricultural Organisation in Rome very kindly made available to the Survey team

their tabulations which show production estimates for each of the agricultural crops in each African country, covering a period including the year 1969. They also provided production indices based on these data and these have been extremely valuable in view of the importance of agriculture on the economic scene in Africa. There are numerous reasons for not expecting a complete reconciliation between such production data and the estimates of the contribution of the agriculture sector to the GDP at constant factor cost and these reasons include the different treatment of agricultural seasons and the variations in the inputs from one season to another. However, the production estimates provided a valuable additional source of material which proved to be extremely important in improving the ECA's own estimates of the contribution from the agriculture sector for the latest years. There is still one factor which has caused particular problems in the treatment of the agricultural sector and this is the valuation of produce used for own consumption by peasant agriculturalists. There are virtually no indicators of price changes in African rural areas and the movement of prices in such areas cannot be related to experiences in the urban areas except with very material corrections. Various ad hoc arrangements have been used in the present survey to obtain suitable constant price series but it is likely that more improved methods in the future may lead to revisions in these series.

The present Survey has a particular significance in that it covers the last few years of the 1960s and probably illustrates the economic development trends in Africa on the threshold of the Second Development Decade. Although there are numerous exceptions, in general most African countries were not near the average growth rate of 6 per cent a year which has been laid down for the development decade of the 1970s.

Out of the forty six developing countries in Africa, only twenty achieved an average growth rate of 5.0 per cent or more a year between 1960 and 1969 and the totals for 1960 to 1965 and 1965 to 1969 were nineteen and eighteen respectively. The growth rate of 5.0 per cent was the target figure for the First Development Decade. In 1969 itself the average growth rate for Developing Africa was 3.8 per cent compared with 4.4 per cent per annum for 1960 to 1969 and the per capita growth rate was only 1.2 per cent. Amongst the forty six countries covered in the analysis sixteen achieved a growth rate of 5.0 per cent or more in 1969 and in eight others the growth rate was between 4.0 and 4.9 per cent. Whilst these twenty-four countries have probably a reasonable chance of reaching the 6.0 per cent growth rate target for the Second Development Decade the remainder (nearly one-half) must expect serious difficulties unless their economic prospects can be significantly improved.

Other important measures of the degree of progress of Africa's developing countries are the level of total GDP and the per capita GDP. In 1969 there were twenty one countries in which the total GDP was less than 300 million dollars and, of these, five had a total GDP of less than 100 million dollars. For the per capita figures fifteen countries had less than 100 dollars per person, and in eighteen others the average was between 100 and 200 dollars. Economically Africa possesses many of the smallest and poorest countries of the world and growth problems are particularly acute in such countries.

On the expenditure side there is considerable evidence that governments in Africa are increasing their share of the available resources and in 1969 public consumption accounted for 15.7 per cent of the net resources used whilst domestic capital formation represented 16.8 per cent. Both those figures are higher than in 1960 or 1965 and when it is considered that Developing Africa was a net exporter in 1969 after having been a net importer in 1960, the private consumer has experienced a very considerable squeeze during the 1960s with his relative share of the net resources being reduced from 74.2 per cent in 1960 to 65.8 per cent in 1969.

In 1970 the information available for some thirty countries of Africa suggests that the year has been a favourable one and twenty one countries out of thirty are expected to show a growth rate of their GDP of 4 per cent or more in real terms. These countries include many of the larger ones and on a population count basis the number in countries with a favourable outlook was at least 70 per cent of the total of Africa.

When the data are finally prepared the prospects are that Developing Africa as a whole will show a relative improvement in its growth performance in 1970 and the continuation of this favourable trend would naturally improve the chances of achieving the target growth rates for the 1970s.

The major growth sectors in the 1970s must continue to be those of the 1960s, that is manufacturing and mining, but if agriculture which is still the major economic sector in most countries could achieve the target growth rate of 4 per cent a year then the overall economic prospects for Africa would be infinitely better. However, the magnitude of the problem regarding agriculture can be emphasised by the relatively poor growth rate of only 2.3 per cent a year achieved between 1960 and 1969.

The later sections in this summary cover the major economic sectors starting with Agriculture, Forestry and Fishing, and ranging through Mining, Manufacturing, Construction, Energy, Transport, Tourism, External Trade, Balance of Payments, Finance and Manpower to Education. There is finally a section on some recent development plans.

Agriculture, Forestry and Fishing

In many countries in Africa this sector is still the most important productive economic sector but its relative growth is tending to hold back the development of the economy of Africa. Against a target growth rate of 4 per cent a year for agriculture during the Second Development Decade, the actual growth rate recorded based on production indices in the year 1960 to 1969 was 2.3 per cent a year for the Developing Africa. This means that the growth of this sector has to increase by about 75 per cent during the 1970s if the overall target growth rate of at least 6 per cent a year for the economy as a whole is to be achieved.

It is fortunate that against this rather gloomy picture for the 1960s as a whole that in 1969 itself agricultural production has been estimated to have increased by about 4 per cent in the developing countries of Africa and by 3.4 per cent in Africa as a whole. Another movement which has a particular significance for the future is the higher growth rate for livestock production recorded for the years 1965 to 1969 compared with the first five years of the decade. In Developing Africa livestock production increased on average by 3.6 per cent a year between 1965 and 1969 compared with only 1.9 per cent for crop production and 2.0 per cent for livestock production in the years 1960 to 1965.

One disturbing trend, however, has been the fall in the production of certain commercial crops in the years 1965 to 1969 and the slower growth rate of other commercial crops compared with the first half of the decade. There are, of course, exceptions and very encouraging development has taken place in the production of cotton, citrus fruits, tea and pulses. As far as sugar cane, coffee and palm oil are concerned the percentage increase in production was less in the latter half of the sixties than in the first, whilst groundnut, palm kernel, olive oil and sisal production in 1969 was far below the level of 1965. The 1969/70 cocoa crop was 19 per cent above the very poor crop of the previous season but still only 83 per cent of the record 1964/65 crop; grapes for wine and tobacco production remained depressed and in 1969 were only 67 and 79 per cent respectively of the levels of 1965.

Cereal production was about 59 million tons in 1969 compared with 52 million in 1965 and meat production has been estimated at 3.99 million tons in 1969 as against 3.67 million tons in 1965. Since 1960 there has been a particularly impressive growth in fish production in and around Africa and the catch increased from 2.30 million tons in 1960 to 3.31 million in 1965 and to 4.57 million tons in 1969. This means that the fish catch is now larger than the estimate of meat production but, unfortunately, a considerable portion of the catch is processed into fish meal and fish oil and exported outside Africa so the Continent is not able to use the

1/ Estimates of the Centre for Development Planning, Projections and Policies.

increase to ensure that its own population is fed at a better level of nutrient intake.

There has been significant growth in the production of industrial timbers in the years since 1960 and removals from the forests for this purpose increased by 17 per cent between 1965 and 1969. The greater proportion of this production is exported in the form of logs, sawnwood, veneers, plywood, and wood pulp but an increasing portion is being utilised in Africa itself.

Mining

The African region has abundant mineral resources and at the present time it accounts for about 28 per cent of the total value of known world mineral output. Africa occupies a predominant position in the world production of gold, diamonds and cobalt ore and is important in the production of chrome ore, phosphate rock, manganese ore, antimony, beryl, vanadium ore, platinum and copper. There is a growing output of crude petroleum, iron ore and other minerals.

In particular countries mining is a very important contributor to the GDP. In Libya mining's share of the total product reached 60 per cent in 1969, in Namibia it accounted for 41 per cent, in Zambia for 37 per cent, Liberia 32 per cent, Mauritania 29 per cent, Gabon 24 per cent and in eight other countries it contributed 10 to 20 per cent of the GDP.

The growth of mineral production in Africa since 1965 has been concentrated on crude petroleum, natural gas and nickel ore and there have been lesser but significant growth rates in the output of iron ore, bauxite, phosphate and platinum, amongst the major minerals. Only small production increases were recorded for phosphate rock, coal, cobalt, copper, tin ore and diamonds but significant falls occurred for asbestos and lead ore.

Crude petroleum production in 1969 was 247 million tons compared with only 14 million tons in 1960 and 107 million tons in 1965. Most of the increase has come from the development of petroleum production in Libya during the 1960s but there have also been impressive increases in production from Nigeria, Algeria and the UAR. Africa had seven countries in 1969 producing more than 2.5 million tons of crude petroleum and in all these countries there was an increasing trend in output.

The present world tendency is for increasing consumption of petroleum products and the future course of the industry will be strongly influenced by relative price changes between different types of energy sources. Africa's growing position in the supply of crude petroleum will naturally be strongly affected by the discovery and exploitation of oilfields in other parts of the world

but the likelihood is of a continuing increase in the share of the market supplied from Africa's oil fields. The only factor which could mar such a development would be for Africa itself to increase its prices beyond that of competitors in other areas or beyond what is practicable to compete with other sources of energy.

Natural gas production is increasing but its commercial exploitation is at present limited. Algeria, and Nigeria are at present exporters of natural gas in bulk and should be joined by Libya in the near future. Most iron ore production in Africa occurs in West Africa and Liberia is the major producer. Output increased further in 1969 continuing the trend established in the 1960s and 35.5 million tons (fe content) were mined, of which Liberia produced 14.8 million tons, Mauritania 5.5 million tons and South Africa 5.6 million tons. In 1960 only 9.3 million tons of iron ore were mined and by 1965 this had increased to 25.3 million tons.

Copper production in 1969 was also at record levels assisted by particularly high world prices and 1,266,000 tons were produced compared with 1,122,000 tons in 1965 and 984,000 tons in 1960. Zambia is the major producer in Africa with the Congo DR in second place; production from Zambia was 720,000 tons in 1969 and from the Congo DR 356,000 tons. Copper production was influenced in 1970 in the first half of the year by the continuing increase in price and in the second half by the particularly drastic fall. There was also an earth fall in one of Zambia's major mines which stopped production for two months. This probably means a fall in Africa's output in 1970.

Gold in Africa is produced mainly in South Africa and on the Continent as a whole there has been little growth in production since 1965. Diamonds are also mined in quantity in South Africa and Namibia but the most important producer in 1969 continued to be the Congo DR with 13,870,000 carats out of a total for Africa of 35,200,000 carats. There was a significant increase in Africa's production from 26,680,000 carats in 1960 to 31,490,000 in 1965 and also between 1965 and 1969.

Phosphate rock is produced mainly in Morocco and Tunisia; African output fell between 1968 and 1969 which was the first adverse movement recorded in the 1960s. The fall was mainly due to the flooding of Tunisia's mines but there was also some sign of difficult market conditions for the product.

Tin concentrate production also fell in 1969 and was nearly down to the level of 1965 after a tendency to increasing output between 1965 and 1968. Most production comes from Nigeria and the Congo DR.

Production of lead ore and zinc are increased in 1969 compared with 1968 but in each case it was still below the levels of 1965.

Activity in mineral prospecting and the proving of deposits already discovered continued at a relatively high level in 1969 and there was particular interest shown in petroleum prospecting in a number of areas.

Manufacturing

The growth of manufacturing industry continued unabated in 1969 and overall it is estimated that production increased by some 7 to 8 per cent continuing the trend established since 1960. Very roughly total domestic production is estimated to be worth nearly 12,000 million US dollars (at 1963 prices) compared with 7,000 million US dollars in 1963. One indicator of the growth of the units producing staples for domestic consumption is the estimated increase in raw materials for textile production from 77,900 metric tons in 1961-1963 (average of three years) to 185,600 tons in 1967/68.

Between 1967 and 1969 it is estimated that manufacturing output (over the two year period) increased by 20 per cent or more in 11 countries, from 12 to 20 per cent in 6 other countries, from 8 to 12 per cent in 10 countries, from 5 to 8 per cent in 8 countries and by less than 5 per cent in 9 countries. There were 17 countries with a total growth below 8 per cent and 17 with a growth of 12 per cent or more.

Details have been collected of some 400 major projects in developing countries which either started production between 1967 and 1969 or were under construction or covered by agreements. There were a large number of textile plants included in this list, a considerable number of cement plants and a significant number of sugar mills (and refineries). The distribution of the projects between subregions illustrates to some extent the different stages of industrial development reached with North Africa moving to more advanced process such as chemical production and basic iron and steel projects whilst in the other subregions textile projects (and in West Africa) cement projects were more common ventures.

There were significant entries on the list of projects such as petroleum refineries, petro-chemical complexes, other chemical industries, engineering plants, assembly of automobiles, production of automobile tyres, pulp and paper mills etc. etc. which provide an important indicator of the direction of Africa's manufacturing development.

There is a serious effort to upgrade exports in the new manufacturing ventures and also a continuation of the import substitution process. However, on the negative side there is considerable evidence of a tendency to ignore economies of scale in a number of ventures and the construction of certain projects has been delayed leading to much inflated final completion costs. Unit costs of production in Africa's manufacturing industry are high in too many cases and this has led to demands for the prohibition of imports and higher customs tariffs.

Construction

The construction industry in Developing Africa continues to operate almost on a two tier basis with large foreign concerns handling many of the important infrastructure projects (roads, dams etc.) whilst the smaller indigenous concerns deal predominantly with housing and the smaller construction activities. The shortage of skills at both the intermediate and professional level is still acute and this also entails dependence on the expatriate. Finally imported materials for the construction industry accounted for some 61 per cent of the total used in 1967 to 1969 in developing countries. Thus in what is the modern sector of the industry the costs of foreign contractors, specialist workers and imported materials accounts for a considerable proportion of the total output of this economic sector in many countries in Africa.

In the provision of housing it has been estimated that the number of units produced per annum is approximately 3 per 1,000 population whereas what is required is about 13 per 1,000. The high cost of borrowed money and the relatively high costs of the average housing unit have the effect between them of putting the price of more modern housing beyond the means of the vast majority of the African people. It is perhaps fortunate for the dwellers in the rural areas, i.e. five-sixths of Africa's total, that the traditional type houses can be built without use of modern inputs making use of available raw materials.

Energy

During the last half of the 1960s the development of energy in Africa has been characterised by the intensification of petroleum prospecting, an accelerated growth rate in the production of crude petroleum, the rapid augmentation of oil refining capacity, an appreciable increase in the production of hydro-electricity with new major schemes brought into production or started and progress in the direction of rural electrification.

The exploratory and proving work on this period has enabled a better appreciation of Africa's energy resources to be made and the present position is that Africa contains about one-third of the exploitable hydro-electric potential of the world, one-tenth of the known petroleum reserves, 23 per cent of the natural gas reserves, 15 per cent of certain types of coal, 13 per cent of the known uranium reserves and at least 7 per cent of the thorium reserves. These resources, however, are very unevenly distributed throughout the Continent with hydrocarbons in the North and the West Coast, coal in the South, hydro-electric resources in the Centre and in the great river basins, and radio active materials concentrated in the South. There are also geothermal possibilities in the Rift Valley area of East Africa.

The petroleum reserves of Africa are presently estimated at 7,300 million tons and the largest producers in 1969 were Libya, Algeria, Nigeria, the UAR, and Tunisia. Libya's production in 1969 in terms of equivalent coal was 194.6 million tons compared with 75.9 million tons in 1965. The natural gas reserves are estimated at 4,700 billion cubic metres with 90 per cent in North Africa (Algeria's Hassi R'Mel deposits contain more than one third of the total).

The production of primary energy in Africa increased from 203 million to 396 million tons of equivalent coal between 1965 and 1969 with the largest increase occurring in 1969 when an additional 72 million tons were produced. The North Africa subregion provided 71.1 per cent of the total energy in 1969 due almost entirely to the crude petroleum production. However, even with the very satisfactory rate of increase between 1965 and 1969, Africa produced only 6.2 per cent of world supply in 1969.

The picture for energy consumption in Africa is less favourable and the increase registered of 4.5 per cent a year between 1965 and 1969 does not reflect a very high growth rate of economic activity. The total consumption in Africa is estimated at 111.5 million tons in 1969 and the per capita consumption in terms of equivalent coal had reached 316 kilograms or about 17.6 per cent only of the average world consumption per head.

Total production of electricity in Africa increased from 58,073 million kwh in 1965 to an estimated 79,962 million kwh in 1969 or by 8.3 per cent a year. The growth rate in Developing Africa was higher being 11.4 per cent a year but in 1969 the developing countries produced only 35,729 million kwh.

Transport

The more important measures of development of transport in Africa all show fairly substantial growth rates during the 1960s but there has been particular growth in the scheduled air services and in exports by sea.

The railway system is still the most important means of carrying freight in Africa and between 1965 and 1969 there was an average increase in freight ton kilometres in Developing Africa of 5.1 per cent a year which was about the same as in the years 1960-1965. The number of road motor vehicles in use increased in Developing Africa from 1,487,500 in 1960 to 1,860,500 in 1965 and to an estimated 2,479,400 in 1969 but even in 1969 there were only 7.5 vehicles per 1,000 persons and only 3.9 per kilometre of main and secondary roads. The averages in developed countries are much higher with about 200 vehicles per 1,000 persons in Europe and 15 to 40 vehicles per kilometre of road.

Based on present usage it needs a massive increase in vehicles in use on the Continent of Africa to bring a more reasonable relationship between vehicles and roads and to provide the traffic volume to be able to turn a large proportion of the roads into paved roads.

Although there has been (and still is) considerable development of road networks, in 1969 there were only about 138,000 kilometres of paved road in Developing Africa which represents only about 4 Km per 1,000 square kilometres. There were approximately 1,192,000 kilometres of roads of all types but 208,000 kilometres were classed as main roads and 425,000 kilometres as secondary roads, the balance represented very low quality roads.

Africa has to move in three directions simultaneously with road development; firstly where necessary a good network of national roads must be completed. Secondly the feeder roads within a country must be built or improved to open up the various areas to modern commerce and development and thirdly international roads must be built to facilitate trade between countries and to help promote tourism.

The development of air services in Africa has resulted in a large number of countries having their own national (and sometimes international) services whilst international airports have been constructed or rebuilt to take the larger modern aircraft. The growth of international services has been particularly rapid in the 1960s and has resulted in large passenger traffic increases. In 1960 in developing countries of Africa 1,878 million passenger kilometres were flown, by 1965 this total had increased to 3,612 million and by 1969 to 5,327 million.

There has also been a very large increase in the goods loaded at African ports during the 1960's and in Developing Africa 68.4 million tons were loaded in 1960, 182.6 million in 1965 and 335.4 million tons in 1969. Crude petroleum and iron ore were mainly responsible for these increases. The growth of cargo unloaded was much less and the increase in Developing Africa from 1960 to 1965 was from 46.7 million tons to 56.6 million tons and between 1965 and 1969 there was a further growth to 64.0 million tons.

Port facilities have had to be increased in many countries to accommodate the increased traffic but much of the crude petroleum is now loaded at specially constructed oil terminals.

Tourism

Whilst it is probably wrong to say that Africa has enjoyed a tourist boom since 1965, there have been some fairly considerable increases in the numbers of tourists visiting certain favoured countries. The list of countries which have seen substantial increases in tourist arrivals includes Algeria, Libya, Morocco and Tunisia in North Africa and Ethiopia, Kenya, Tanzania and Uganda in East Africa. In contrast tourists visiting the UAR have fallen very materially between 1965 and 1969 due to the impact of the hostilities with Israel.

In Developing Africa there were 2,344,000 foreign tourists in 1965 and 3,106,000 in 1969; excluding the UAR the totals were 1,802,000 and 2,741,000 respectively. Earnings from tourism have naturally increased and in seven countries the total virtually doubled between 1965 and 1969 from 140 to 273 million US dollars.

There is still much that can be done to improve the flow of tourists to Africa. The development of the tourist infrastructures must be carried out in the best possible way, hotels must be built and managed economically to provide tourists with reasonable facilities at a moderate cost and arrangements should also be made for more charter type flights between the main tourist generating areas - Europe and North America, and Africa.

The tourist of today, who wishes to go outside the more traditional tourist areas, has come to expect package tour arrangements which limit his expenditure to a sum which is known in advance and the more successful areas in Africa have benefitted by working with agencies in Europe and elsewhere to bring this sort of tourist to their countries.

External Trade

Developing Africa's trade registered a significant increase during the period 1965 to 1969 rising from a total of 15.6 billion

US dollars in 1965 to 20.9 billion in 1969 with imports and exports accounting for 9.4 billion and 11.5 billion respectively in 1969 as against 7.9 billion and 7.7 billion in 1965.

There has been a continuous improvement in Developing Africa's trading position and a deficit in 1965 of 420 million dollars was turned into a surplus in 1969 of 1,430 million. The annual average growth rate of Africa's exports was 10.7 per cent a year and the income terms of trade, which reflect the import purchasing power of export earnings, rose from 95.2 in 1964 to 144.9 in 1969.

However, in this second half of the 1960s there was no increase in Africa's share of world trade which stayed at 4.1 per cent for 1965-1969 or the same figure as for 1960-1965. The developed market economies took the same share of Developing Africa's exports but supplied smaller proportion of her imports in the period 1965 to 1969 as in the years 1960 to 1964. Amongst these developed countries Japan supplied an increasing proportion of the imports of the Region and took more of the exports. The centrally planned economies including China also supplied more of Developing Africa's imports in the period 1965 to 1969.

Developing Africa's trade surplus in 1969 was generated almost entirely by trade with the developed market economies. The balance of trade with such countries was in Africa's favour to the extent of 1,670 million dollars but there was a deficit on trade with the developing market economies and the centrally planned economies so that eventually the overall surplus was reduced to 1,430 million dollars.

There continue to be a limited number of developing countries in Africa which account for a major share of total export earnings. In 1969 Libya, Zambia, Algeria, Nigeria and the UAR accounted for 50.7 per cent of Africa's total exports. The list was the same in 1965 and 1968 but the overall percentages were lower.

With the continued development of exports of crude petroleum, mineral fuels accounted for 26.1 per cent of all exports in 1965-1969 compared with 12.1 per cent in 1960-1964. Primary commodities still account for most of Africa's exports and in 1968 they represented 78.8 per cent of total exports compared with 81.2 per cent in 1965. However, there is some evidence of an increase in the export of manufactured products from Africa.

Crude petroleum exports continued their rapid rate of growth which between 1965 and 1969 averaged 22.6 per cent a year and the value of copper exports also increased sharply during this period. There has been a rise in the share of minerals in Africa's exports over this period which means that the relative proportion of agricultural products in such exports has fallen.

Imports continue to include a substantial proportion of machinery and transport equipment with some growth in the relative share in the years 1965 to 1969 compared with 1960 to 1964. However, the evidence of 1968 and 1969 suggests a fall in capital goods imports from 33.5 per cent of total in 1967 to 29.1 per cent in 1969 and an increase in consumer goods imports from 37.2 to 41.2 per cent of the total.

The growth rate of intra-African trade was very disappointing in the period 1965 to 1968 being about one quarter of that during the first five years of the decade. This disappointing trend must be reversed if Africa wishes to develop more swiftly. A planned expansion of intra-African trade could play an important part in diversifying the direction of Africa's trade and all possibilities of intra-regional trade expansion should be identified and exploited. With sufficient African markets these would provide 'spring boards' for the setting up of industries eventually aimed at markets located outside the region. For this purpose special forms of cooperation covering payments and trade arrangements will need to be devised between African countries.

Balance of Payments

Africa is still heavily dependent on sources outside the Region for the public transfers and capital receipts which are needed to help many countries develop. In 1968 the net total of public transfer receipts and capital inflow totalled 1,396 million dollars for 29 developing countries. On the other hand investment net payments abroad totalled 1,012 million dollars; one result of past investments made in Africa has been a very large increase in the net outflow of funds for investment income payments.

There is a strong movement towards an increase in net investment payments from Africa and it is difficult under present conditions to see this movement reversed in the immediate future.

The inflow of public and private capital and public transfers is very important in that majority of countries which are still in deficit on current account and such inflow serves to create a deficit on merchandise account because the money may be used to make additional purchases abroad.

There was a material improvement in the trade balance in a number of countries between 1965 and 1969, mainly due to increased crude petroleum exports and higher prices for other minerals, but in a few countries this balance improved because import bills were deliberately reduced as an act of policy to redress balance of payments disequilibria.

The growth of travel receipts also helped a number of countries but the UAR in particular faced reduced travel earnings and also the loss of its Suez Canal revenue in the years since 1966/67 which materially affected that country's current account balance.

Public transfer receipts have shown a tendency to increase in the years since 1965 and this has been accompanied by a fall in the public capital inflow. There is some evidence also of a fall in the net private capital inflow.

The position of the balance of payments in any individual country varies very widely between countries and over the years. The more common experience is for a country to be in deficit on both the merchandise account and on the current account as a whole with capital and transfers balancing the overall account. There appears to be evidence of a more conscious policy in individual countries to limit their balance of payments problems as part of a move towards more genuine monetary independence. If there is one problem which countries must continue to guard against it is that of a commitment to increase income payments abroad unmatched by the increase in exports necessary to pay them. Some considerable part of the foreign loans must be used to earn foreign revenue by increased exports or to save foreign exchange by import substitution developments.

Finance

The subjects under this heading include public finance and fiscal developments, external aid, a monetary survey and international liquidity.

If it is possible to summarise these various subjects it can only be to say that there has been tremendous variation in the experiences of the individual countries of Africa, under any of the headings being considered. Government revenues (and expenditures) in certain countries have increased many times (e.g., in Libya and Zambia revenue increases were twelve fold and eight fold respectively between 1960 and 1968) whereas in others the increase has been very small (e.g., Senegal 9 per cent and Algeria 14 per cent). The results of such widely divergent revenue increases naturally has a very important bearing on the expenditure changes in the various countries.

Although the result of adding the various countries together and converting their revenue receipts to US dollars, may obscure the more general experience, an examination of the government revenue of

24 developing countries shows that between 1960 and 1965 total ordinary revenue increased on average by 8.5 per cent a year and from 1965 to 1969 by 8.2 per cent a year. Direct taxes grew relatively faster than indirect taxes in both periods but the fastest growing sector was 'other domestic revenue' which included petroleum revenue in Libya and special mineral taxes in Zambia. When the other types of revenue are examined there was a fall in extraordinary revenue receipts but an increase in loans receipts particularly between 1965 and 1969.

Over the years 1960 to 1968 the proportion of the GDP represented by government expenditure rose very significantly and in twenty countries, by 1968, the average was 24 per cent of the GDP compared with about 18 per cent in 1960. The activities of various governments have been spreading more and more into the general economy.

There are still a considerable number of governments which could mobilise a higher proportion of the wealth of the community for an extension of the development effort of the public sector but for this purpose some important changes will have to be accepted particularly by the more wealthy persons in the countries concerned.

External aid to Africa has tended to favour particular countries and subregions during the 1960s with the UAR in North Africa being a major aid recipient especially in the years up to 1967. Multilateral aid to Africa from the World Bank and the IDA has shown an increasing trend since 1967 and the favoured areas for such aid are now transportation, agriculture, manufacturing industry and education. The position of bilateral aid is less easy to interpret because of a lack of data for 1969 but during the 1960s up to 1968 the developed market economies gave Africa more than five times as much in aid as was committed by the centrally planned economies.

There is some evidence that the burden of external debt repayment is continuing to increase but the more recent moves to soft loans is having some impact in holding back future increases. There are a number of countries which have particular problems in this direction at the present time.

The monetary survey also illustrates the different experiences of individual countries, with rapid inflation in Congo DR and earlier in Ghana leading to exchange rate changes, whilst for a large number of countries there was no change in exchange parities at all during the 1960s. Some sterling area countries changed their parities with the sterling devaluation in 1967 and all countries in the franc zone followed the French devaluation of 1969. The rates of growth of domestic credit and money supply have been different in individual countries. Libya and Zambia had high growth rates of credit and money supply during the 1960s but in many others the growth rates were more moderate.

quasi-money which measures the savings in the banking system showed relatively high growth rates in 32 countries in Developing Africa in 1960 to 1965 and from 1965 to 1969 and this is a very important pointer to the attempts that the banking system in Africa can make to mobilize savings. Between 1965 and 1969 in these 32 countries, quasi money (but measured at current prices) increased on average by 178 million dollars a year.

Africa as a whole has shown a fairly substantial increase since 1967 in the international liquidity reserves but most of this increase has been due to the experience of a small number of countries. If such countries are excluded there has been no increase for the majority of countries of Developing Africa and in these countries the coverage of imports by liquidity reserves has fallen making it more difficult for such countries to adopt a flexible trading policy. In twenty-two developing countries the coverage of imports by liquidity reserves fell from 38 per cent in 1960 to 22 per cent in 1965 and it remained at that level up to 1968 but fell to 20 per cent in 1969.

Manpower

Africa's population was estimated at 361.7 million in 1970 and included 340.3 million in the developing countries. The overall growth rate was 2.6 per cent a year both in Africa as a whole and in the developing countries. Over the area of the Continent the average population density was about 12 persons per square kilometre and if the urban areas are excluded the average is nearer 10 persons per square kilometre. There are particular areas of population concentration in each subregion. The total urban population in 1970 was estimated at 63.1 million in Africa and 54.75 million in Developing Africa, both having the same growth rate of 5.1 per cent a year. There is a much higher proportion of the total population in the urban areas in North Africa and Other Africa, both of which are subregions of relatively high per capita incomes.

Many countries have experienced a high rate of growth of their urban population since the early 1960s and this has led to problems such as slum housing, inadequate services and urban unemployment.

Africa's population is a very young one and taking unweighted averages of the various subregions there are 43.3 per cent under 15, 42.8 per cent between 15 and 44, 9.3 per cent between 45 and 59 and 4.6 per cent aged 60 and over. The present burden of the aged is not great at the moment but the demand for the young is for increasing educational facilities which is imposing a very appreciable burden on governments throughout the Region.

Estimates have been made of the labour force in Africa and there were 114.0 million in the labour force in 1965 and 126.7 million in 1970. The growth rate was fairly low averaging 2.1 per cent a year during this five year period and was kept down because of a higher

participation of the young in education. In the figures for 1970 were 85.3 million males and 41.4 million females; the participation rates of females were much higher in West, East and Central Africa than in North Africa.

As approximately two-thirds of the present labour force are farmers, fishermen, hunters and forestry workers the importance of the rural areas in providing economic activity needs no emphasis. Only a small proportion of the labour force is in wage employment but the proportion varies markedly between different countries and subregions. There is some evidence of a growth in wage employment in a number of countries in the years since 1966.

Education and Training

On the admittedly incomplete data available at the present time there appears to have been some slowing down in the rate of increase of enrolments at different levels of education in Developing Africa in the years 1965 to 1969 compared with 1960 to 1965. The average annual growth rates in enrolments between 1965 and 1969 were approximately 4.0 per cent for primary, 9.4 per cent for secondary and 3.8 per cent for higher education. In the period 1960 to 1965 the equivalent growth rates were 6.3 per cent for primary enrolments, 13.1 per cent for secondary enrolments and 10.7 per cent for higher education (higher education includes persons outside Africa).

There are very wide variations in the stage reached for the different levels of education and in the individual countries and subregions. There were improvements in the overall situation between 1965 and 1969 as reflected by the relationship between total population and the various enrolment figures. In 1969 approximately 8.2 per cent of the total population of Developing Africa was enrolled in primary education, 1.25 per cent in secondary education and 0.094 per cent in higher education. In 1965 these ratios had been 7.7 per cent, 0.97 per cent and 0.090 percent respectively.

North Africa and Other Africa had generally progressed further in education than in the other subregions of Africa but West Africa showed the lowest level of development,

The actual enrolment ratios (i.e., the proportion of children of school age actually at school) in 1967/68 were 80 per cent and over in primary education in seven developing countries and there were a further ten countries where the enrolment ratio was between 60 and 80 per cent. For secondary education there were only two countries with enrolment ratios of 20 per cent or more and a further six between 10 and 19 per cent.

Secondary education is still heavily weighted in the direction of the general academic course but there is some evidence of an increasing proportion of students taking vocational subjects. Between 1960 and 1967/68 the proportion of secondary students undergoing teacher training courses fell from 12 to 7 per cent.

In higher education within Africa enrolments over the period 1965 to 1967 increased by 5.4 per cent a year compared with 10.7 per cent a year from 1960 to 1965. The slowing down in the growth rates in higher education from 1965 to 1967 was observed in all subregions but there were still comparatively high growth rates in West, East and Central Africa. In 1967/68 on average nearly 40 per cent of students in higher education in 25 countries were registered for scientific and technical subjects.

The proportion of females enrolled in educational establishments continued to increase over the years 1965 to 1967 and in 1967, 39 per cent of primary students, 32 per cent of secondary students and 23 per cent of students in higher education were female.

Whilst there has been some progress, the development of education in recent years does not seem to indicate that the problems due to the shortage of qualified personnel which confront most African countries at the present time will be overcome in the foreseeable future. To make the most use of existing qualified persons and to plan adequately for the future probably calls for a really comprehensive appraisal of the supply and demand for all types of skilled personnel. African countries must assist themselves in this direction either by cooperating to set up a suitable organisation which could offer the services of specialists able to carry out comprehensive manpower planning, or by developing their own units properly staffed for this purpose.

Development Plans

There are only seven development plans covered by the analysis in the last chapter of this survey but because they include some of the larger countries of Africa the population of these seven countries was 43 per cent of Developing Africa in 1970. It is for this reason that the intentions of these countries as reflected in their development plans are of considerable significance. The countries concerned are Algeria, Sudan, Ethiopia, Kenya, Tanzania, Senegal and Nigeria.

The planned increases in the GDP in the seven countries range from 5.5 per cent to 9.0 per cent a year with four in the range 6.0 to 7.0 per cent a year. The plans run up to 1974 and the lower growth rate in the 1970s during the Second Development Decade is 6 per cent a year so the countries planning into the 1970s appear to have accepted this target growth rate.

There are considerable variations in the proportion of the GDP to be spent on investment ranging from 10.6 per cent for the Sudan to 33.4 per cent for Algeria but the more common figures lie between 15.5 and 23.8 per cent. The total investment proposed by the seven countries is more than 16,277 million US dollars and in six countries taken together some two thirds of the total was expected to be domestically financed. There was a different emphasis on the public and private sectors in the different countries with Kenya expecting 64 per cent to be provided by the private sector and Algeria's plan being a public sector plan only.

The importance given in the plans to individual productive sectors varies according to the assessment of the growth points which are likely to be operative in the countries concerned. In Nigeria and Algeria there is a considerable emphasis on crude petroleum production and manufacturing industry. In the Sudan the extension of the irrigated area is expected to lead to greatly increased cotton production as well as considerable increases in many other crops. In Kenya rural development is being emphasised although manufacturing industry will show the biggest proportional growth rate. Similarly, in Tanzania the growth rate in manufacturing industry is expected to be about twice that of agriculture. In Ethiopia manufacturing is a key growth sector but a substantial increase in agricultural production is also anticipated. In Senegal both agriculture and manufacturing industry will command considerable investment resources.

In the seven countries taken together the agriculture sector is expected to grow by 22 per cent, mining by 137 per cent and manufacturing by 70 per cent over the average period of the plans (which vary between 4 and 5 years).

The trends which appear to be established in the plans are in agriculture to grow more of the products required to feed the local population better, to reduce imports and supply more of the raw material requirements for local industry. Export products are also being increased but generally on a selective basis.

In mining the emphasis is on petroleum but there are a number of other minerals which are expected to be mined for the first time or for which production is to be increased.

The really significant developments are taking place in manufacturing industry to finish off the import substitution developments for the consumer market and then move into more basic sectors such as fertilizers, iron and steel and pulp and paper industries.

In electricity production there are a number of schemes mentioned designed to increase generating capacity or to develop the distribution systems. There are no really major schemes in the

countries under study but very significant increases in generating capacity are planned except in Nigeria where the Kainji Dam scheme was completed recently and the next stage is to develop the transmission facilities.

Water development schemes for both urban and rural areas are being pursued in virtually all countries and probably the most significant is the use of the Roseires Dam water on an extended irrigated area.

Proposed transport developments cover road, rail, air and sea (including ports and shipping) but the heavy emphasis is on road construction although Algeria intended to spend large sums on a new harbour and on shipping.

In the social field, priority is definitely being given to education with an additional 4.5 million enrolments aimed for including nearly 4 million in primary education and 500,000 in secondary education. The additional hospital beds planned total more than 20,000. Housing investments are also expected to be substantial and there is the planned development of tourist hotels particularly in Algeria and East Africa.

As a result of the proposed investments totalling 16,277 million dollars, the GDP in the seven countries is expected to increase by 37 per cent to reach 19,513 million. With a growth of exports turning a small overall trade deficit to a substantial surplus, some of the problems of shortages of foreign exchange are expected to be overcome. However, even at the end of the plan periods four of the seven countries still expect to have a deficit on visible trade.

Wage employment is expected to increase overall by about 30 per cent in the countries concerned but even at the end of the various plan periods, most countries will only have a relatively small proportion of the labour force in such employment.

If it is possible to comment on the plans as a whole it is to say that each country has taken the calculated risk which is always needed for profitable investment and on balance they should succeed. The high growth rate overall of about 7 per cent a year is higher but not out of line with the targets laid down for Africa for the Second Development Decade.

Chapter 2. GROSS DOMESTIC PRODUCT

The first four issues in this series of surveys of economic conditions in Africa covering the years 1960 to 1968 have revealed that economic performance as measured by gross domestic product was at a low level in the developing countries of Africa in the first eight years of the United Nations First Development Decade and that the rate of growth was very slow. Moreover, it has been shown that progress in the second part of the period, namely 1965-1968, was slower than in the first half. It is the task of this section of the 1970 survey to bring the picture up-to-date by examining overall performance in the year 1969; and in doing this, performance between 1968 and 1969 will be compared with the average performance in the period 1965-1969 as well as that in the period 1960-1969.

Table 2.1 Average Annual Growth Rates of GDP and GDP per Capita at 1960 Prices in Subregions of Africa 1960 to 1969

<u>Subregion</u>	1960-65	<u>Total GDP</u>		
		1965-69	1960-69	1960-69
		(in Percent per Annum)		
North Africa	5.7	4.6	3.0	5.2
West Africa	4.6	1.5	2.1	3.2
Central Africa	1.5	4.9	5.8	3.0
East Africa	4.5	5.4	5.8	5.0
Other Dev. Africa	5.1	4.7	6.3	4.5
Developing Africa	4.8	4.0	3.8	4.4
		<u>GDP per Head</u>		
North Africa	3.0	1.6	0.0	2.4
West Africa	2.3	-1.0	-0.4	0.8
Central Africa	-0.7	2.7	3.6	0.8
East Africa	2.0	2.9	3.3	2.4
Other Dev. Africa	3.0	2.3	3.8	2.3
Developing Africa	2.4	1.4	1.2	1.9

Source: ECA estimates

It is clear from Table 2.1 that real gross domestic product of Developing Africa grew at an average annual rate of 4.8 per cent between 1960 and 1965, and 4.0 per cent between 1965 and 1969, thus bringing the average annual rate of growth in the period 1960-1969 to 4.4 per cent, a rate below the 5 per cent target set for the developing countries during the United Nations First Development Decade. The rate achieved between 1968 and 1969 was 3.8 per cent which was below the average achieved during the 1965-1969 period and this confirms the finding that performance during the second half of

the period was not as good as that of the first half. The increases in the per capita GDP were 2.4 per cent a year from 1960 to 1965 and 1.4 per cent a year from 1965 to 1969.

This finding has grave implications for the United Nations Second Development Decade since a target of a minimum six per cent annual rate of growth of gross domestic product has been set, compared with 5 per cent a year for the First Development Decade. If the average rate of growth of 4.8 per cent per annum achieved during the first part of the 1960s had been maintained throughout, the task of achieving 6 per cent per annum would have remained formidable. Unfortunately, the information available indicates clearly that there was a deceleration in the growth rate of economic activity in the years 1965 to 1969 and since the achievements of the immediate past are under normal circumstances, better indicators of what may happen in the immediate future, the problem of achieving the target of the United Nations Development Decade assumes a greater dimension.

Of course, this picture of poor performance was not the same in the subregions and hence the countries of the region. Thus North Africa achieved a relatively impressive performance with a growth rate of 5.7 per cent per annum between 1960 and 1965 and 4.6 per cent a year between 1965 and 1969, with the average in the period 1960-69 being 5.2 per cent. However, the picture of slower growth in the second half of the decade is also common to North Africa. This was due to extra-economic factors which operated in the UAR and the slower rate of growth recorded in Libya in the second half of the period.

West Africa also shared the picture of good performance in the first half of the period and of poor performance in the second half. Undoubtedly, this was attributable to the Civil War in Nigeria which country occupies a predominant position in the economy of the subregion. The fall in Nigeria's total GDP in the period 1965 to 1969 obscured the relatively good performances of countries such as Mali, the Ivory Coast, Dahomey, Upper Volta and Togo where the average increases in the GDP were more than 4 per cent a year. Thus the overall performance in the subregion during the period was a growth rate as low as 1.5 per cent a year. On the other hand, because Nigeria achieved a growth rate of 4.3 per cent a year between 1960 and 1965 the subregion managed an overall increase of 4.6 per cent a year. There were a high proportion of countries where the growth rate was more than 4.6 per cent a year and Mauritania and the Ivory Coast were the most successful.

In a similar vein, the importance of Congo (DR) and the implications of what happens in it for the Central African subregion can easily be derived from the performance records of the subregion. Thus in the period 1960-1965, the subregion only managed a token rate of 1.5 per cent per annum because the GDP of the Congo (DR) fell even although Gabon achieved 4.0 per cent and the Congo (PR) 3.9 per cent a year.

However, the picture changed in the second half of the period when normalcy had returned to the Congo (Democratic Republic). Overall the subregion achieved a good rate of 4.9 per cent per annum, thanks to the growth rates of 8.0 per cent a year achieved by Cameroon, 5.7 per cent a year by Gabon, 8.0 per cent by Congo (FR) and 5.3 per cent achieved by Congo (Democratic Republic).

East Africa was another subregion to achieve a higher growth rate during the second half of the period than in the first. This was attributable to the dominant position of Zambia as a mineral producing country as well as the stable growth performances of Lesotho, Uganda, and Kenya. In the period 1960-1965, Zambia achieved a growth rate of only 3.6 per cent per annum, whereas in the period 1965-1969 it managed 7.4 per cent per annum, more than doubling its growth rate. Of the twelve countries in this sub-region, over half (in 1968-1969) registered a rate higher than the average for the period 1960-1969.

The economies of other Developing Africa are dominated by S. Rhodesia, Angola, Mozambique, Namibia and Reunion which were responsible for the relatively impressive performance of this group over the 1960s. Thus between 1960 and 1965, Namibia achieved a rate of growth of its GDP of 10.1 per cent per annum, Mozambique 4.9 per cent and Reunion 11.5 per cent all compared with 4.5 per cent per annum achieved by the group as a whole. Between 1965 and 1969, the overall achievement was 5.4 per cent per annum compared with 3.1 per cent achieved by Namibia, 5.3 per cent by Rhodesia, 5.0 per cent by Mozambique, and 6.2 per cent by Reunion.

While the review above has illustrated that the overall target rate of 6 per cent per annum in the Second Development Decade is probably unrealistic for all developing countries, it has indicated the fact that a slow overall growth rate is compatible with high rates of growth in very few countries. As a corollary, if a high overall growth rate is to be achieved, then more countries must achieve high growth rates. Moreover, this achievement of high growth rates for many countries is vital for the attainment of higher levels of human welfare.

Aggregate GDP and Per Capita Figures.

Amongst the developing countries of Africa there are some with very low aggregate products or income and many with very low per capita products (or income).

The distribution in Table 2.2 show that in 1969 21 out of 46 countries of Developing Africa had total gross products of less than 300 million dollars and in five of these the total was under 100 million dollars. At the higher level 18 countries had gross products of 1,000 million dollars or more.

Table 2.2 Distribution of Developing Countries in Africa
by Total GDP and Per Capita GDP in 1969
Aggregate GDP (in million US dollars at Market Prices)

<u>Subregion</u>	<u>Under 100</u>	<u>100-299</u>	<u>300-499</u>	<u>500-999</u>	<u>1,000 & over</u>
North Africa	-	-	-	-	6
West Africa	1	6	3	1	3
Central Africa	1	6	-	1	1
East Africa	3	3	-	1	5
Other Dev. Africa	-	1	1	-	3
Developing Africa	5	16	4	3	18

	<u>Per Capita GDP (in US dollars)</u>			
	<u>Under 100</u>	<u>100 to 199</u>	<u>200 to 299</u>	<u>300 & over</u>
North Africa	-	3	2	1
West Africa	6	5	2	1
Central Africa	4	2	2	1
East Africa	5	6	-	1
Other Dev. Africa	-	2	1	2
Developing Africa	15	18	7	6

The distribution of per capita incomes was heavily weighted with lower income countries. The total with less than 100 dollars in 1969 was 15 (out of 46) and a further 18 had per capita incomes of between 100 and 199 dollars.

This combination of low aggregate and low per capita product makes it extremely difficult for the countries concerned to develop and the reduction in overall growth rates which has occurred has probably had a particular impact on these poor small countries.

Table A5 in the appendix gives the per capita product for each of the 46 countries in the above distribution.

Distribution of countries according to growth rates. Another way of emphasizing the overall poor performance achieved by Developing African countries during the United Nations First Development Decade, and relating it to performances at the individual country levels, is to classify countries according to the growth rates achieved. This is done in Table 2.3 for 46 Developing African countries for which available data are fairly reliable.

Table 2.3 Frequency Distribution of Average Annual Growth Rates of 46 Developing Countries in Africa 1960 to 1969

<u>Period</u>	<u>Negative</u>	<u>Under 3</u>	<u>3.0 to 3.9</u>	<u>4.0 to 4.9</u>	<u>5.0 to 5.9</u>	<u>6.0 & Over</u>
1960/65	4	8	9	6	4	15
1965/69	5	9	10	4	6	12
1960/69	-	15	4	7	10	10

Source: ECA estimates

Over the period 1960 to 1969 the country with the highest growth rate was Libya averaging 25.5 per cent a year, the next highest growth rate was in Reunion with 9.3 per cent a year followed by the Ivory Coast (8.7 per cent), Swaziland (8.2 per cent) and Zambia (8.1 per cent). There were three countries (Mauritania, Togo and Lesotho) between 7 and 7.9 per cent a year. As the table shows there were 20 countries which averaged 5 per cent or more per annum in the period 1960 to 1969 but the majority of countries achieved less than 5 per cent a year. In the two periods 1960-1965 and 1965-1969 the distribution was approximately the same except for the larger number of countries with a growth rate of 6 per cent or more in the earlier period.

An examination of the per capita growth rates shows that there were eleven countries whose per capita real incomes fell between 1960 and 1969, in four others the growth rates were below 1 per cent and in a further eight the increase was between 1 and 2 per cent a year. The list of the countries in which per capita incomes fell is Algeria, Senegal, Upper Volta, Niger, Guinea, Nigeria, Chad, CAR, Rwanda, Burundi and Somalia. Most of these countries are small and with relatively low gross products and such countries have increasing difficulty in meeting the demands for improved health, education and welfare services from a falling level of per capita product.

The same problem of low level and slow rates of growth combined with that of population growth is further analysed in terms of the distribution of countries according to per capita growth rates achieved. Inevitably, the picture becomes more blurred when population growth outstrips the growth of the output of goods and services per head. Between 1960 and 1969 there were 27 out of 46 countries which achieved a per capita rate of less than 3 per cent per annum. This rate^{1/} has been suggested as the minimum that the countries of the region must aim at. While one may argue about the validity of this rate depending on one's conviction, as a working hypothesis it is a rate worth considering.

Industrial Origin of GDP Since overall performance as measured by GDP is a reflection of performances at the sectoral levels just as the overall Developing African performance is a reflection of performances at the national level, it is usual to try to explain overall GDP growth rates by performances in agriculture, mining, etc. This explanation by industrial origin is presented in tables 2.4 and 2.5 below; table 2.4 shows the percentage contributions of the different sectors in 1960, 1965 and 1969, while table 2.5 shows their growth rates.

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Table 2.4 Industrial Origin of GDP at Current Factor
Cost in the Subregions of Africa, 1960, 1965 & 1969

<u>Origin of</u> <u>GDP</u> <u>1960</u>	<u>Subregion or Area of Africa</u>					<u>Devel</u> <u>oping</u>	<u>South</u> <u>Africa</u>
	<u>North</u>	<u>West</u>	<u>Central</u>	<u>East</u>	<u>Other</u>		
	<u>Percentages</u>						
Agriculture	29.0	55.1	40.0	44.5	26.1	39.3	12.2
Mining	4.2	2.4	5.3	8.0	6.6	4.8	13.6
Manufacturing ^{a)}	14.8	6.3	12.1	7.2	12.4	10.7	21.5
Construction	5.4	5.0	3.8	4.7	3.1	4.8	2.9
Commerce	15.0	13.2	13.7	11.4	19.1	14.2	16.7
Transport	7.0	5.0	6.2	5.8	5.7	6.1	10.2
Services	15.0	6.1	7.1	12.4	19.5	11.9	13.4
Public Admin.	9.6	6.9	11.8	6.0	7.5	8.2	9.5
GDP(mn US\$)	8,897	6,314	2,332	4,293	2,439	24,274	6,763
<u>1965</u>							
Agriculture	25.6	48.1	35.1	43.1	25.2	35.2	9.9
Mining	11.4	5.1	4.8	6.2	7.8	7.9	13.1
Manufacturing ^{a)}	14.4	8.2	13.3	8.7	14.2	11.7	24.3
Construction	5.3	5.2	4.2	4.5	2.4	4.8	3.9
Commerce	12.8	14.5	15.1	12.7	18.2	13.9	17.3
Transport	6.9	5.1	5.6	5.8	5.2	6.0	9.5
Services	13.1	7.3	8.5	12.0	18.7	11.6	12.8
Public Admin.	10.5	6.5	13.4	7.0	8.3	8.9	9.2
GDP(mn US\$)	13,306	9,033	2,715	5,847	3,361	34,261	10,520
<u>1969</u>							
Agriculture	22.3	46.3	33.2	37.8	24.3	32.0	9.6
Mining	17.6	4.2	6.5	7.1	8.2	10.6	11.7
Manufacturing ^{a)}	13.3	11.1	15.8	10.3	14.9	12.6	23.7
Construction	5.5	5.0	4.5	5.1	2.8	5.0	3.8
Commerce	12.3	14.0	15.5	12.7	17.3	13.5	18.5
Transport	5.4	4.6	5.4	6.4	5.0	5.4	9.2
Services	12.6	8.1	7.1	13.6	18.3	11.8	13.0
Public Admin.	11.0	6.7	12.0	7.0	9.2	9.1	10.5
GDP(mn US\$)	17,785	11,068	3,567	7,757	4,460	44,637	14,919

Source: ECA Estimates

The most striking feature of table 2.4 is that agriculture still contributed the largest share of the GDP in 1969 in all the subregions (even though the share had declined since 1960), and consequently of the total GDP of Developing Africa. Of course, these shares varied from subregion to subregion and country to country. Thus West Africa still had 46.3 per cent of its GDP contributed in 1969 by agriculture as against 55.1 per cent in 1960. The spectacular growth in petroleum exploitation has so far failed to move Nigeria from its traditional position as an agricultural economy. In 1969, agriculture contributed 53 per cent of Nigeria's GDP and that was when oil production had regained its pre-war level and agricultural activities were still below their pre-war levels in all the war affected areas. This picture of the dominant position of agriculture in Developing African economies is not different in the Central and East African subregion, and it is this unique position that makes the growth rate of agriculture relevant to the overall growth rate.

The growth rates of the various industrial sectors are given in Table 2.5 for various periods between 1960 and 1969. The relatively low growth rate of agriculture, has been largely responsible for the disappointing experience of many individual economies. Between 1960 and 1965 agriculture's contribution to the GDP increased by only 2.4 per cent a year but it was even lower in the period 1965 to 1969 at 2.0 per cent a year. In 1969 itself the contribution of agriculture to the GDP of Developing Africa increased by 2.6 per cent.

Table 2.5 Compound Growth Rates of GDP (at 1960 factor cost)
by Industrial Origin in Developing Africa 1960-1969

Period and Subregion	Industrial Origin							
	Agri- culture	Mining	Manufac- turing ^{a/}	Const- ruction	Commerce	Tran- port	Other Services	Public Admin.
<u>1960-1965</u>	<u>(Percentages per Annum)</u>							
North Africa	3.4	26.7	5.1	5.7	1.9	5.7	2.7	7.1
West Africa	2.0	20.7	9.3	4.6	6.1	4.4	7.4	2.9
Central Africa	-1.7	-0.4	3.4	1.3	2.6	-1.1	4.8	3.8
East Africa	3.4	-1.3	7.9	2.7	5.8	3.9	3.2	6.6
Other Dev. Africa	<u>4.1</u>	<u>8.6</u>	<u>8.2</u>	<u>0.0</u>	<u>3.9</u>	<u>3.5</u>	<u>4.0</u>	<u>6.9</u>
Developing Africa	<u>2.4</u>	<u>15.0</u>	<u>6.3</u>	<u>4.2</u>	<u>3.9</u>	<u>4.3</u>	<u>3.8</u>	<u>5.7</u>
South Africa ^{b/}	2.8	6.3	9.7	13.2	7.7	5.3	5.9	6.5
<u>1965-1969</u>								
North Africa	2.0	13.8	3.1	4.5	4.2	-2.2	3.2	6.5
West Africa	1.2	-4.2	8.1	-0.1	0.0	-1.0	2.9	2.2
Central Africa	3.0	14.3	10.6	7.0	5.9	4.9	1.1	2.6
East Africa	2.1	5.0	9.4	8.6	5.0	7.0	8.5	5.3
Other Dev. Africa	<u>4.0</u>	<u>5.8</u>	<u>6.3</u>	<u>10.4</u>	<u>2.9</u>	<u>3.5</u>	<u>3.7</u>	<u>6.7</u>
Developing Africa	<u>2.0</u>	<u>9.3</u>	<u>5.9</u>	<u>4.5</u>	<u>3.2</u>	<u>0.7</u>	<u>4.1</u>	<u>5.1</u>
South Africa ^{b/}	3.6	2.4	4.7	5.4	7.1	4.7	5.9	8.8
<u>1968-1969</u>								
North Africa	-1.7	6.5	3.6	5.2	3.9	6.2	2.4	7.1
West Africa	3.4	4.0	5.1	2.3	-2.4	-1.1	-0.4	-0.5
Central Africa	7.2	6.2	8.8	4.4	8.3	6.8	6.6	4.6
East Africa	3.9	20.2	6.4	3.9	2.7	2.5	6.7	3.2
Other Dev. Africa	<u>7.5</u>	<u>18.5</u>	<u>7.9</u>	<u>7.8</u>	<u>2.3</u>	<u>7.6</u>	<u>2.6</u>	<u>4.9</u>
Developing Africa	<u>2.6</u>	<u>8.6</u>	<u>5.3</u>	<u>4.4</u>	<u>2.4</u>	<u>4.1</u>	<u>3.0</u>	<u>4.7</u>
South Africa ^{b/}	1.0	2.2	7.3	1.8	9.2	3.5	3.5	10.8
<u>1960-1969</u>								
North Africa	2.8	20.8	4.2	5.2	2.9	2.1	2.9	6.9
West Africa	1.6	9.9	8.8	2.5	3.4	2.0	5.4	2.6
Central Africa	0.4	5.9	6.5	3.8	4.0	1.5	3.1	3.2
East Africa	2.8	1.4	8.5	5.3	5.5	5.3	5.5	6.0
Other Dev. Africa	<u>4.0</u>	<u>7.3</u>	<u>7.3</u>	<u>4.5</u>	<u>3.5</u>	<u>3.5</u>	<u>3.9</u>	<u>6.8</u>
Developing Africa	<u>2.2</u>	<u>12.4</u>	<u>6.1</u>	<u>4.3</u>	<u>3.6</u>	<u>2.7</u>	<u>3.9</u>	<u>5.4</u>
South Africa ^{b/}	3.1	4.5	7.4	9.6	7.4	5.0	5.9	7.5

Source: ECA estimates.

^{a/} Includes Energy.

^{b/} Included for comparison only

The share of manufacturing in the GDP increased in most countries of the region during the decade and the aggregate share in Developing Africa rose from 10.7 per cent in 1960 to 12.6 per

cent in 1969. The rate of growth in the period 1960-1969 at 6.1 per cent per annum was higher than that of the GDP as a whole. Just as the weight of agriculture varied from subregion to subregion and country to country, so the weight of manufacturing industry also varied and in some cases inversely over the 1960s. However, by 1969 manufacturing industry was contributing 10.3 per cent or more of the GDP in all subregions and the range of 10.3 per cent to 15.8 per cent was much less than the 6.3 to 14.8 per cent of 1960. Manufacturing industry has become much more widespread in Africa.

While mining's contribution to overall Developing Africa's GDP was small in 1960 the mining sector proved to be the fastest growing sector in the decade and by 1969 its contribution had increased from 4.8 to 10.6 per cent. Although mining showed a declining rate of growth in the second half of the period due to extra-economic factors such as the civil war in Nigeria, and natural calamities such as flooding of mines in Tunisia and depletion of resources in other countries the growth rate between 1965 and 1969 was higher than any other economic sector.

The growth rates of other economic sectors did not change their relative positions to any extent. There was a tendency to a higher growth rate than the GDP for public administration but generally in Developing Africa the other sectors grew at about the same rate or somewhat less than the GDP as a whole between 1960 and 1969.

The "agriculturally-biased" economies. In the earlier discussion on the contribution of agriculture to GDP, the importance of agriculture in the economies of Developing African countries was stressed. This is not a new phenomenon. In fact, the criteria of a high share of agriculture in the GDP of Developing African countries and that of a per capita product of US\$100 or less have been used to identify African economies and classify them as "agriculturally-biased" or not as the case may be. Tables 2.6 and 2.7 below classify 46 Developing African countries according to these criteria in 1960, 1965 and 1969.

Table 2.6 The Distribution of 46 Developing African Countries by Agriculture's Share in total GDP in 1960, 1965 & 1969

Year	Share of Agriculture in Total GDP in Per Cent						
	Under 10	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60 & Over
	<u>Number of Countries</u>						
1960	-	6	6	9	8	9	8
1965	2	4	8	10	9	5	8
1969	2	5	9	11	9	6	4

Source: ECA estimates

1/ A Survey of Economic Conditions in Africa, 1969(E/CN14/480/Rev 1)
Part II

Table 2.7 Agriculture's Share of Total GDP and GDP per Capita of 46 Developing African Countries 1960 & 1969

<u>Per Capita</u> <u>Income Group</u> <u>(in US\$)</u>	<u>Weight of Agriculture in Total GDP in Percent</u>					
	<u>1960</u>			<u>1969</u>		
	<u>Under</u> <u>30</u>	<u>30 to</u> <u>49</u>	<u>50 &</u> <u>over</u>	<u>Under</u> <u>30</u>	<u>30 to</u> <u>49</u>	<u>50 &</u> <u>over</u>
	<u>Number of Countries</u>					
100 or less	-	10	16	1	8	7
101 to 125	3	4	-	-	4	2
126 to 150	1	2	1	-	4	-
151 to 200	3	-	-	5	2	-
201 to 300	4	1	-	4	2	1
Over 300	1	-	-	6	-	-

Source: ECA estimates

In the context of the criteria, 26 Developing African countries out of the 46 countries classified were "agriculturally-biased" in 1960, 22 in 1965 and 15 in 1969 and by 1969, agriculture still contributed more than 50 per cent of the GDP of the majority of the countries in this category. Unfortunately, the use of US\$100 as a cut-off point gives the impression that countries with higher income per head may not have the same problems as those with US\$100 or less where agriculture contributes more than 30 per cent of the GDP. This impression would be wrong, however. What this classification has done is to indicate that the problems of economic development may be more difficult in the countries classified as "agriculturally-biased" than in the others.

Sources and Uses of resources. Economic development is concerned both with the increase in the production of goods and services as well as their allocation into the different components of final demand, namely, gross domestic capital formation, private consumption, government consumption and exports since the allocation of existing resources particularly between consumption and investment has important implications for future productive capacity. Thus in addition to discussing the production of goods and services and their sectoral origin, it is customary to discuss the end uses to which the goods and services have been put. Table 2.8 shows the sources and uses of total available resources for Developing African economies in 1960, 1965 and 1969.

Table 2.8 Sources and Uses of Resources in Developing Africa at Current Market Prices, 1960, 1965 and 1969

<u>Developing Africa</u>	<u>1960</u>	<u>1965</u>	<u>1969</u>
<u>Sources</u>	<u>(in Percentages)</u>		
GDP	96.5	99.5	101.7
Imports less Exports ^b	3.5	0.5	- 1.7
Total	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Table 2.8 ctd.

Uses	1960	1965 (in Percentages)	1969
GDCF ^{a/}	16.5	16.2	16.8
Private Consumption	74.2	69.8	65.8
Government Consumption ^{b/}	12.8	14.5	15.7
Exports less Imports	- 3.5	-0.5	1.7
Total	100.0	100.0	100.0

Sources: ICA estimates

a/ Gross Domestic Capital Formation

b/ Total imports and total exports of goods and services had the following relationships with the GDP:-

(in percentages)	1960	1965	1969
GDP	77.5	79.8	80.3
Total Imports	22.5	20.2	19.7
Total Exports	19.0	19.7	21.4

In the appendix Table A6 is shown the uses of resources by subregions of Africa and the average annual growth rates over various periods between 1960 and 1969 are given in appendix Table A4.

Basically, there are two sources of resources, namely, domestic in terms of gross domestic product and external in terms of imports. As shown in the footnote to Table 2.8 the share of GDP in total available resources in Developing Africa increased from 77.8 per cent in 1960 to 80.3 per cent in 1969, which is a reflection of the relative decline in imports. Unfortunately, while it is easy to say that the increase in the share of GDP reflected real economic development, in fact the fall in imports is difficult to explain since it could have been due to a variety of causes ranging from import substitution developments to measures taken for balance of payments purposes.

The net position of exports less imports of goods and services improved for Developing Africa as a whole between 1960 and 1969 but much of the improvement (as indicated in Chapter 7) was due to the fortunate experience of a handful of countries. In the majority of countries imports were higher than exports in 1969.

When we turn to the uses of those resources, the preponderance of consumption (private and government) is clear. While it is reasonable to accept that more and better private consumption will tend to increase productivity, the relationship between government consumption and economic growth is less clear. However, the information available indicates that governments of the countries increased their share of consumption expenditure in the period 1960-1969. In 1969 the average experience of the developing countries in Africa was that 15.7 per cent of the net resources went on government consumption compared with 12.8 per cent in 1960.

In earlier issues of the surveys the fact was stressed that the share of gross domestic capital formation in the uses of resources in Developing African economies is different from that in developed economies. While it is now accepted that capital formation as such is not the only end product or criterion of economic development, the critical role of capital formation in development has never been gainsaid. Unfortunately, there is little reliable information on the components of the existing fixed capital assets and their industrial uses and conventionally capital formation still excludes current expenditures on education, research and development. However what little information there is available (see chapter 5) indicates that more was spent on construction and works than on machinery, plant and equipment during the 1960s. In the case of construction and works, more was spent on infrastructural investment (particularly in transport and communications and energy) than on factories, and one can only hope that the relative proportions have assisted future development.

In 1969 the data suggest that the proportion of net resources going into domestic capital formation increased slightly compared with the years 1960 and 1965. The level of 16.8 per cent for Developing Africa is some 3.2 per cent short of the target for the Second Development Decade and the only immediate means of bridging this gap is by more external aid being made available. Over the longer term African countries should be able to pay for an increasing share of their capital formation from domestic resources but here the information on domestic savings is particularly incomplete. A very rough measure suggests that in 1969 about three-quarters of domestic capital formation was financed from domestic sources.

The appendix Table A3 shows the proportionate distribution of gross domestic expenditure in the individual countries of Developing Africa in 1960 and 1969. Many show the trend towards increasing public (government) consumption and there are a majority in which domestic capital formation took a higher proportion of the net resources. Private consumption was squeezed between these two movements and in many cases the proportion fell. There were, however, a number of important exceptions to this general situation. A few countries showed a particularly high proportion of the net resources being used for net exports and two of these countries in 1969 were Libya with 32.7 per cent of net resources being used for exports and Liberia with 26.1 per cent. On the other hand the relatively high net inflow of imports allowed countries such as Botswana and Lesotho to achieve higher levels of consumption and capital formation.

This brief outline of the national accounts of African countries shows that 1969 was not a particularly good year for Developing Africa with a fairly modest growth rate of the GDF compared with the average for the nine years 1960 to 1969 and certainly a very low growth rate when compared with the target growth rate of 6 per cent a year for the Second Development Decade.

During the 1960s there has been a strong relative movement into mining and manufacturing away from the agricultural sector. This latter sector, however, still remains the important economic sector in the majority of countries and accounted in 1969 for 46.3 per cent of the GDP in all developing countries. There has been little relative movement of the other economic sectors although there is some evidence of an increase in the sector of public administration.

Governments have been able to increase their relative share in the expenditure of the available net resources and by 1969 they accounted for 15.7 per cent of total expenditure. There has also been a movement towards using a higher proportion of these resources for capital formation between 1965 and 1969. With a net import flow turning into an overall export surplus, the private consumer has been squeezed and in 1969 private consumption represented 65.8 per cent of the available net resources compared with 74.2 per cent in 1960 and 69.8 per cent in 1965. This reduction could suggest a higher rate of savings by the private sector.

Whilst Chapter 11 in this survey indicates that 1970 may have been more favourable, many countries in Developing Africa have to improve their economic performance if Africa is to come near to achieving an overall growth rate of 6 per cent a year during the 1970s.

The appendix Tables A1 to A7 give detailed information regarding the individual countries (or subregion) of Africa.

Chapter 3. AGRICULTURE, FORESTRY, FISHING

In many countries in Africa, Agriculture, Forestry and Fishing is still the most important productive economic sector. Some information has already been given in the chapter covering the GDP; this chapter will attempt to deal more specifically with the growth in output of the various products from this sector.

Whilst it is still a very important economic sector the relative lack of growth of Agriculture is tending to hold back the development of the economy of Africa. It is impossible to be completely certain of the progress of this sector of the economy because there is a lack of reliable statistics covering the basically subsistence sector of the economy which is mainly centred on the agricultural industry. Attempts at separating the more unreliable subsistence sector in the discussion of agricultural production data has generally been frustrated by lack of data.

The estimates of subsistence production as a percentage of the total agricultural output vary widely from one country to another on the Continent. Out of the sixteen countries, for which data are available, only Rhodesia at 27 per cent (in 1964), Gabon at 35 per cent (in 1960) and Senegal at 46 per cent (in 1965) were below 50 per cent, whereas subsistence output for all the other countries constituted well above 50 per cent of the total agricultural sector, reaching as much as 84 per cent in Burundi (in 1965) and 79 per cent in Ethiopia (in 1966). Moreover there has been no discernible trend in these percentages over time, as it also apparently varied widely from year to year in each country. In Tunisia, for example, subsistence production as a percentage of the total agricultural sector (at current market prices) has been estimated at 57 per cent in 1960, 45 per cent in 1965 and 61 per cent in 1967 and in Malawi (at current factor cost) at 46 per cent in 1962, 82 per cent in 1964 and 75 per cent in 1967. Part of the wide variations from country to country, as well as some of the wide annual fluctuations of these percentages may well be due to differences in methods and coverages of the statistical data. With this reservation on the reliability of the statistical data, it should be noted that until this sector is more adequately covered with more frequent agricultural censuses or surveys, it is only possible to deal with the data as they are now available.

Later in this chapter it is shown that against a target growth rate of 4 per cent a year for agriculture during the Second Development Decade, the actual growth rate recorded in the years 1960 to 1969 was 2.3 per cent per annum for Developing Africa. This means that the growth of this sector has to increase by about 75 per cent in the 1970s if the overall target growth rate for the economy as a whole of at least 6 per cent a year is to be achieved.

The factors holding up agricultural development are too well known for their recital to be included in this survey but what is perhaps disturbing in this present chapter is to learn that the production of certain commercial crops has fallen in the years since 1965, whilst the percentage increase in others has been much less than the increase in the first half of the sixties. There are, of course, exceptions and very encouraging development has taken place in the production of cotton lint, citrus fruits, tea and pulses. As far as sugar cane, coffee and palm oil are concerned the percentage increase in production was less in the latter half of the sixties than the first, whilst groundnut, palm kernel, olive oil and sisal production in 1969 was far below the level of 1965. The 1969/70 cocoa crop was some 19 per cent above the very poor crop of the previous year, but was still only 83 per cent of the 1964/65 record crop. Grapes for wine and tobacco production remained depressed and in 1969 were only 67 and 79 per cent respectively of the levels of 1965.

The other crops including cereals are grown basically for subsistence consumption and part of the recorded increase in production may be merely a statistical measurement based on population increases; however, cereal production, in particular appeared to be showing a healthy increasing trend with 1969 production at about 59 million tons compared with 52 million in 1965 and 42 million tons in 1960.

Livestock production estimates are also tied to the increase in herds, and increases in production may be statistical exercises unless the practice in the countries concerned is to count the herds at regular intervals. The extent of the changes from year to year in the totals recorded for individual countries suggests that estimates were continuously being revised.

Meat production in Africa is estimated to have increased from around 3 million tons in 1960 to 3.67 million tons in 1965 and 3.99 million tons in 1969. Since 1960, however, the real growth sector in the supply of protein foods has been fish production where the catch increased from 2.30 million tons in 1960 to 3.31 million tons in 1965 and further to 4.57 million tons in 1969. This means that the fish catch is now greater than the estimated meat supply. Unfortunately a considerable portion of the fish catch is processed into fish meal and fish oil and exported outside Africa so the Continent is not able to use the increase to ensure that its own population is fed at a better level of nutrient intake.

Some details are given in this chapter of the growth of the forest industry in Africa. Although most wood cut is still used for fuel, there has been important growth in the total wood used for industrial purposes and in the output of veneers in the years since 1960. Industrial removals in 1969 were some 17 per cent above the 1965 levels, although they still only constituted 13 per cent of total removals.

The Africa region (of FAO, which excludes UAR, Libya and Sudan) has benefitted to some extent over the last two years from an increase in export earnings of its agricultural, forestry and fish products. The details since 1965 are as follows:-

Table 3.1 Index Numbers of Export Value of
Agricultural, Forestry and Fish Products in Africa Region^{a)}

Products	1965	1966	1967 (1957-59 = 100)	1968	1969
Cereals	48	54	62	78	68
Sugar	144	126	112	116	110
Citrus fruit	150	148	139	156	123
Oil seeds and oil	107	109	85	93	95
Coffee	132	158	149	165	144
Cocoa	113	94	127	138	143
Tea	178	229	215	241	259
Cotton	99	104	109	101	95
Rubber	102	103	83	80	97
Agricultural Products	113	113	107	114	110
Fish products	102	124	118	122	122
Forest products ^{b)}	...	...	240	269	310
All products	...	...	113	121	119

a) Excludes South Africa, Libya, Sudan and UAR.

b) Weighted by relative importance of various products in export trade.

Source: FAO - State of Food and Agriculture, 1970.

In 1968 there was an increase of 7 per cent in value of exports but in 1969 a reduction of 2 per cent. The 1969 export value of tea, cocoa, fishery and forestry products increased above the 1965 levels; coffee earnings were also higher although lower than the record level of 1968. Export earnings from citrus fruits, oils and oilseeds have declined since 1965, while cotton lint exports have continued to fall from the record level of 1967 to well below the levels of 1965.

Total exports and imports of food and beverages for Developing Africa (i.e. the Continent excluding South Africa) showed the following trend since 1965:-

	1965	1966	1967	1968	1969
	(in million US dollars)				
Exports	2,290	2,240	2,320	2,530	2,630
Imports	1,320	1,320	1,350	1,260	1,160
Balance	+ 970	+ 920	+ 970	+ 1,270	+ 1,470

The total value of food and beverages imports of Developing Africa as a percentage of total food and beverages exports has declined from 58 per cent in 1965 to 44 per cent in 1969. This trend is very satisfactory and it is hoped to see the fall in imports from 1,350 to 1,160 million dollars between 1967 and 1969 continued into the future.

Land Use

The distribution of land use in Africa is compared in Table 3.2 below with that in the World as a whole; the African Continent has a larger relative area under permanent meadows and pastures but smaller areas under crops and forests.

Table 3.2 Land Use in Africa and the World^{a/}

	Total Area		Proportions	
	Africa (in million hectares)	World	Africa (per cent)	World
Arable land etc. ^{b/}	204	1,297	6.7	10.4
Permanent pastures	843	2,823	27.8	22.7
Forests	629	3,991	20.8	32.1
Other	1,354	4,325	44.7	34.8
Total	3,030	12,436	100.0	100.0

^{a/} Excluding Mainland China, and ^{b/} land under permanent crops.
Source: FAC - Production Yearbook, 1969.

Africa has a greater proportion of land not utilized than in the World as a whole but such land in Africa includes the vast areas of the Sahara and Kalahari Deserts, which could only become productive after the development of water supply schemes on a massive scale. Over 31 per cent of the World's (excluding Mainland China) unused land and just under 30 per cent of the World's permanent pastures are to be found in Africa, whereas the Continent has 16 per cent each of World's arable land and forests areas.

Details of the arable land by countries related to population, cattle holdings and forest areas are given in the appendix tables. The table that follows summarises these data by sub-region in Africa.

Table 3.3 Arable Land, Cattle and Forests Related to Population
In the Sub-regions of Africa (1968)

Sub-region	Population (million)	Arable land (mn ha)	Landman ratio (hectares)	Cattle	
				Cattle (mn)	per Forests Head (mn ha)
North Africa	80.87	31.61	0.39	17.89	0.22 101.02
West Africa	106.42	79.26 ^{a/}	0.77 ^{a/}	31.99	0.30 96.54
Central Africa	39.78	27.39	0.69	8.88	0.25 221.86
East Africa	76.25	43.47	0.57	63.97	0.85 108.11
Other Africa ^{b/}	40.16	18.55	0.46	20.35	0.51 95.91
Total ^{c/}	343.75	204.00	0.59	143.08	0.42 629.00

- a/ Excludes Guinea.
 b/ Incomplete.
 c/ Totals include estimates for countries and areas excluded.

Source: FAO Production Yearbook, 1969.

East Africa has the highest number of cattle both per person and in total in Africa; West Africa has the largest area of arable land although Central Africa has the most arable land per head. The largest forest areas are found in Central Africa with over 35 per cent of the Continent's total. More than 90 per cent of the comparatively large forest area in North Africa is made up of the forest land in Southern Sudan; elsewhere the sub-region forest areas are small.

Table 3.4 Indices of Agricultural (incl. Forestry and Fishery) Production.

	1960	1965	1967	1968	1969	Growth Rate % per annum 1965/69
North Africa	119	132	131	146	147	2.7
Western Africa	131	151	151	145	157	1.0
Central Africa	115	119	127	132	134	3.1
Eastern Africa	119	137	146	147	153	2.8
Developing countries	122	137	140	144	150	2.3
South Africa	123	138	184	160	168	5.0
Total Africa	122	137	144	146	151	2.5

Source: FAO of the United Nations, Rome, Italy.

Agricultural production in Developing Africa grew at about the same rate of 2.3 per cent per annum in the period 1965 to 1969 as in the first five years of the decade, due to a composite result of widely varying changes in different parts of the Continent. Whilst the growth rate in West Africa sub-region was more than twice as high in the first five years of the decade as in the period 1965 to 1969, it was only slightly higher in East Africa sub-region. The growth rate in production in North and Central Africa, on the other hand, was far better, particularly in Central Africa, sub-region in the latter part of the sixties than in the former. Agricultural output in the latter half of the sixties grew in Central, East and North Africa sub-regions by 3.1, 2.8 and 2.7 per cent per annum, but was most disappointing in West Africa where production increased by less than one per cent a year. Agricultural output in Developing Africa as a whole failed to keep pace with the population growth rate of 2.6 per cent per annum in the years since 1965.

Since 1960, crop production in Developing Africa has increased only slowly with growth rates of 2.4 per cent a year up to 1965 and 1.9 per cent a year from 1965, largely due to an upswing in 1969. Livestock production, which has been continuously rising

has grown substantially faster from 1965 to 1969 than in the earlier period, the figures being 2.0 per cent a year up to 1965 and 3.6 per cent a year since 1965. If South Africa is included the growth rates for the Continent were higher for crop production but lower for livestock production in the period 1965 to 1969. These trends are disappointing for crop production when set against an overall population increase in the region of 2.6 per cent a year but are encouraging for livestock production and may indicate the start of a move towards a realisation of the Continent's large livestock potential wealth through improved livestock management.

Table 3.5 Growth of Crop and Livestock Production

	1960	1965	1967	1968	1969	Growth Rates 1960-65 1965-69 (% per annum)	
<u>Crop Production</u>							
Excluding S. Africa	125	141	143	146	152	2.4	1.9
Including "	125	141	149	143	154	2.4	2.3
<u>Livestock Production</u>							
Excluding S. Africa	111	123	132	138	141	2.0	3.6
Including S. Africa	112	124	132	137	141	2.0	3.3

Source: FAO of United Nations Rome, Italy, 4 February 1971

The results for individual years will, of course, be influenced by the climatic conditions prevailing in the Region and, whilst the data may be subject to substantial amendments, the results for the year 1969 appear to be satisfactory. In 1969 total agricultural production including forestry and fishery increased by 4 per cent over the previous year, while crop and livestock production rose by more than 4 and 2 per cent respectively, in comparison to 2.3, 2.2 and 2.7 per cent average annual growth rates respectively for the 1960s.

Table 3.6 gives details of crop production from 1960 to 1969. In the first half of the 1960s the output of all the crops shown, except palm kernels, increased; but in 1969 production fell sharply for sisal, olive oil, palm kernels, and decreased slightly for groundnuts and cocoa as compared to the 1964/65/66 three-year average output.

Cereal production grew markedly up to 1967, largely due to an exceptional record maize crop in South Africa, but fell back slightly in 1968 and 1969. Sugar cane production followed a similar trend with a steep rise between 1965 and 1967, but a fall in 1968 due to a sharply reduced South African crop; there was again further marked growth in 1969. Cotton lint production which has been developing slowly throughout the 1960s rose by 23 per cent in 1969 over 1968, due to the changed government policy in both UAR and Sudan which resulted in increased areas being sown.

Table 3.6 Crop Production in Africa 1960 to 1969
(Output in million tons)

	1959/60/61 3 year average	1964/65/66 3 year average	1965	1967	1968	1969
Cereals	39.7	52.1	52.2	61.5	59.1	59.0
Root crops	50.9 ^{a/}	56.0	55.8	57.3	57.5	58.8
Pulses	3.6 ^{b/}	3.6	4.2	3.9	4.4 ^{c/}	4.6 ^{c/}
Sugar cane	24.9	34.3	32.2	44.4	41.2	46.0
Groundnuts	3.9	5.2	5.4	4.7	5.1	5.1
Coffee	0.73	1.09	1.19	1.27	1.15	1.24
Cocoa	0.79	1.01	0.86	0.98	0.84	1.00
Cotton lint	0.87	1.01	1.04	1.05	1.08	1.33
Rubber	0.15	0.16	0.16	0.17	0.17	0.18
Olive oil	0.12	0.14	0.14	0.11	0.16	0.07
Bananas	1.00	1.20	1.20	1.26	1.27	NA
Sisal	0.37	0.42	0.42	0.40	0.38	0.99
Palm oil	0.90	1.00	1.00	0.86	0.94	0.99
Palm Kernels	0.82	0.79	0.81	0.58	0.63	0.69

a/ 1960/61 2 year average

b/ 1961 only

c/ Estimate

Source: FAC Production Yearbook 1969
FAC State of Food and Agriculture 1970, and
FAC November 1970

Cereal Production

The largest producer of cereals on the Continent is the North Africa sub-region, followed by East and then West Africa sub-regions. More than half of the total of the Continent's most nutritionally rich cereals such as wheat, barley and rice crops are grown in the North Africa sub-region, whilst more than half of the Continent's total millet and sorghum output are produced in the West Africa sub-region. As can be seen in table 3.7 the largest increase in production during the second half of the decade occurred in North Africa with a rise of some 31 per cent and average yields increasing by 7 per cent. Output in South Africa increased by more than 27 per cent and in the East Africa sub-region by 14 per cent but the growth of production elsewhere in Africa was negligible.

Table 3.7 Cereal Production by Sub-Regions

Subregion or country	1964/65/66 3 Years Ave		1968/69/70 3 Years Ave	
	Output ('000 tons)	Yield per ha. (tons)	Output ('000 tons)	Yield per ha. (tons)
North Africa	12,697	1.113	16,623	1.191
West Africa	14,960	0.684	15,321	0.689
Central Africa	2,550	0.844	2,647	0.892
East Africa	13,602	0.909	15,457	0.978
Other Africa	2,507	1.025	2,133	1.106
South Africa	5,392	0.878	7,515	1.000
Total	52,114	0.851	60,349	0.928

a/ The yields are somewhat inflated as the 1968/69/70 three-year average production was used with 1968 area to calculate the yields due to lack of data on areas in 1969 and 1970.

Source: FAC, Production Yearbook 1969
FAC, State of Food and Agriculture 1970
FAC, November 1970

The major producer of cereals in North Africa is the United Arab Republic where 7,110 thousand tons were produced in 1969 at an average yield of 3.63 tons per hectare. The largest producer in West Africa is Nigeria and in 1969, 8,019 thousand tons were produced at a yield of 0.68 tons per hectare. Ethiopia is the major producer in East Africa and in 1969 the output was an estimated 5,613 thousand tons at 0.79 tons per hectare. Elsewhere in East Africa, Madagascar had a yield of 1.57 tons and Kenya 1.32 tons per hectare.

Table 3.8 Production of Major Cereals, 1965 to 1969

Cereal	1965	1966	1967	1968	1969 ^{a/}
		(output in '000 tons)			
Wheat	6,512	5,167	6,504	8,556	6,824
Barley	3,638	2,474	3,433	5,657	4,507
Maize	15,772	18,572	22,621	18,472	19,188
Millet & Sorghum	20,616	19,988	21,730	18,769	21,351
Rice Paddy	5,473	5,626	6,906	7,204	7,625
Total	52,011	51,827	61,194	58,658	59,495

a/ Estimates or rough estimates only.

Source: FAC, Production Yearbook 1969
FAC, State of Food and Agriculture 1970
FAC, November 1970.

The output of the major cereals in the period 1965 to 1969 was as shown in table 3.8. Production in 1969 for wheat and barley was sharply reduced from the high level of 1968. The wheat crop fell by more than 20 per cent with reduction throughout North Africa particularly in Morocco, where the crop was reduced by 42 per cent, (due to unfavourable weather) from the all time peak level of 1968. Similarly the 1969 barley crop in Morocco was reduced by more than 31 per cent. The Continent's rice production which continued to grow steadily throughout the period rose further by 6 per cent in 1969, with increased output in Madagascar, Nigeria and Guinea more than compensating decreases in UAR, Sierra Leone and Ivory Coast. Production increases were registered in 1969 for maize, millet and sorghum.

According to the preliminary estimates the 1970 wheat crop was expected to make some recovery from the very low level of the previous year but still remain below the 1968 record level. The 1970 barley production is estimated to have again fallen with further decline in Morocco's crop. Rice output in 1970 is estimated to have grown further with record crops in almost all the major producing countries of the Continent.

Production of Other Crops

The crops included here are sugar cane, root crops, groundnuts, palm oil, cotton, coffee, cocoa, tea, citrus, grapes, tobacco, rubber, olive oil, bananas, sisal and palm kernels. The details of production by major producers are given in the appendix tables. These commercial crops have had varying degrees of success in the years since 1965. Sugar cane, tea, citrus fruits, bananas and cotton lint production increased substantially, whilst the output in groundnuts, palm oil, grapes for wine, tobacco, olive oil, sisal and palm kernels have all shown a falling trend.

Sugar cane production in 1969 reached a new record level following the fall in production of the previous year. Africa's tea output has grown uninterrupted since 1965 and production in 1969 was more than 17 per cent above the 1968 level, with record crops almost everywhere particularly in Kenya. Similarly the production of citrus fruits continued to increase. The Continent's cotton output, which increased only very slightly up to 1968, rose by 23 per cent in 1969 due mainly to similar marked increases in the United Arab Republic and Sudan, although there were also very large increases in crops from Nigeria and Tanzania. As mentioned earlier, the governments' policy in the UAR and Sudan together with favourable growing conditions resulted in higher yields and an increased area under cotton.

Table 3.9 Production of Certain Other Crops 1965 to 1969

	1965	1966	1967	1968	1969
	(in 000 metric tons)				
Sugar cane	32,211	39,403	44,402	41,200	46,000 ^{a/}
Root crops	55,845	58,536	54,286	57,431	58,803
Groundnuts in shell	5,439	5,341	5,247	4,740	5,106
Palm oil	996	973	857	940	993
Cotton lint	1,041	1,040	1,049	1,077	1,328
Coffee	1,188	1,023	1,272	1,153	1,236
Cocoa beans	864	968	983	840	997
Tea	67	74	86	93	115
Citrus fruits	2,572	2,847	2,958	3,046	3,067
Grapes for wine	3,258	1,974	1,809	2,346	2,200 ^{a/}
Natural Rubber	156	175	171	180	183
Tobacco	246	237	211	197 ^{a/}	194 ^a
Olive oil	139	77	111	161	70

Table 3.9

<u>ctd.</u>	1965	1966	1967	1968	1969
Bananas	1,203	1,219	1,262	1,269	NA
Sisal	415	416	397	379	377
Palm kernels	809	761	576	628	688

a/ Estimates

Source: FAC, Production Yearbook 1969
FAO, State of Food and Agriculture 1970
FAC, November 1970

Africa's production of palm oil and kernel in 1969, with higher output in Nigeria and other West African countries, continued to recover from the low levels of earlier years, although palm kernel output still remained below the 1965 level. Groundnut production showed a similar trend with the 1969 output only registering partial recovery from the very low level of 1968. The production of wine grapes fell to its lowest level in 1967, with the increased restriction in the French market for Algerian wine, but made some recovery in 1968 and fell again slightly in 1969. The Continent's sisal production has continued to decline almost uninterruptedly since 1965 with particularly sharp falls in Tanzania. Tobacco production had similarly declined as a result of the adverse effect on Rhodesia tobacco output following the country's unilateral declaration of independence in 1965. The olive oil crop in 1969 was the lowest for many years, with sharply reduced crops in Morocco, Tunisia and Libya, where an off-year in the production cycle coincided with adverse weather conditions.

Coffee production recovered steeply in 1969 from the reduced level of 1968, although it was still short of the record level of 1967, due to such trends in the two major producing countries, Ivory Coast and Angola. The Continent's cocoa production followed a similar trend with a sharp recovery in output in 1969/70 from the very poor crop of 1968/69 and increased output in Ghana, Ivory Coast and Nigeria.

Further production increases have been estimated for the 1970 sugar cane, tea, citrus fruits and cotton crop. The Continent's 1970 coffee crop has been estimated to reach a new record level with increased output in many of the major producing countries offsetting reductions in Angola and the Ivory Coast. The olive oil crop was expected to recover from the very low levels of 1969; improved crops were also forecast for palm oil and kernels.

Livestock

Africa had more than 12 per cent of both cattle and sheep and 29 per cent of goats of the World in the latest year for which data are available. In comparison with these numbers, however, the Continent's beef production was only 5 per cent, mutton under

11 per cent and total meat (including pork and excluding poultry) just above 3 per cent of the total world output. The countries with the largest holdings of stock in Africa include Ethiopia and Sudan with cattle, sheep and goats, Nigeria and Morocco with sheep and goats and South Africa with sheep and cattle. Madagascar has almost four times and Chad and Niger about three times Developing Africa's average cattle density per population; whilst Mauritania, Somalia and Mali have the highest density for sheep and goats, with about 6, 5 and 3 times, respectively the average density of Developing Africa. In many other countries of the Continent, large proportions of the rural population are almost entirely dependent on livestock for their livelihood.

Table 3.10 Livestock by Type in Africa 1965 to 1969

	1965	1966	1967	1968	1969
	(million head)				
Cattle	134.06	137.95	140.26	143.08	146.00 ^{a/}
Sheep	133.43	138.96	136.02	141.89	145.90
Goats	105.79	108.62	112.09	113.86	116.00 ^{a/}
Camels	8.11	8.26	8.51	8.50	8.50 ^{a/}
Pigs	5.73	5.99	6.33	6.55	6.90 ^{a/}

a/ Estimates based on trend only.

Source: FAO, Production Yearbook, 1969

As can be seen in table 3.10, the growth rate in cattle numbers in Africa, as a whole, was estimated at 2.2 per cent per annum, and the growth rates in sheep and goats numbers were estimated at 2.2 and 2.5 per cent respectively. These growth rates are all well above the world averages; too much should not be read into these comparisons, however, as there are still wide variations in the margin of accuracy of cattle enumerations in the Continent. Moreover, there are no data to indicate that growth in livestock numbers was in proportion to the increase in available pasture and it appeared more likely that in many countries the growth rate in livestock numbers simply raised the livestock density on existing pastures. There are areas in Africa where the pressure of livestock holdings on existing pastures is already too high and some action is being taken, but not on a sufficiently large scale, to aim for a more economic exploitation of existing herds by slaughtering more stock for food at an optimum age.

As mentioned earlier, in spite of the relatively high livestock population, the Continent's livestock production still remained very low due to the prevailing poor animal husbandry practices. The estimates are given in table 3.11. Although the accuracy of these estimates is far from reliable, production of meat and milk apparently grew at some 2 per cent per annum while egg production appears to have risen at double this rate. With the increasing attention that seems to be paid to poultry production in many parts of the Continent, poultry meat has been estimated to have grown

by almost 5 per cent per annum during the second half of the 60's, although poultry meat still constituted only slightly more than 10 per cent of the Continent's total meat production in 1969.

Table 3.11 Production of Meat, Milk, Wood and Eggs 1965 to 1969

Production	1965	1966	1967	1968	1969
	(in million tons)				
Meat ^{a/}	3.67	3.76	3.77	3.88	3.99
Milk	10.98	11.49	11.80	12.32	12.50
Wool(greasy)	0.19	0.19	0.19	0.20	0.20
Hen eggs	0.48	0.51	0.54	0.56	0.60

a/ Beef, veal, mutton, goat meat, pork, poultry

Source: FAC, Production Yearbook 1969 and
FAC, November 1970

Fish Production

In 1969, the total fish catches of South Africa, Namibia (South-west Africa) and Angola represented 56 per cent of the Continent's total. The West Africa sub-region had the next highest catches amounting to 17 per cent of Africa's total, followed by East Africa with 10 per cent. Africa's production growth in the first half of the decade was 7.6 per cent per annum compared with 8.4 per cent annual growth rate for the second half of the decade.

As can be seen from table 3.12, there was a particularly marked increase in fish output since 1965 in Other Africa (mainly South Africa, Namibia and Angola). The fish catch in West Africa rose by over 9 per cent per annum between 1960 and 1965, and by 9 per cent since 1965. Sharp increases were registered in the last few years due to the stimulation of production and commerce through extensive use of cold storage facilities including the operation of factory type freezer vessels, which discharged large tonnages of cartons of frozen fish for bulk inland distribution, notably in Ghana, Senegal and Liberia. Fish catches in Senegal rose from 131 thousand in 1965 to 182 thousand tons in 1969, while Ghana's output rose from less than 73 thousand to almost 163 thousand tons in the same period.

Fish production in North Africa increased by much less in the second half of the decade than in the first, due largely to Morocco's production which, although, slightly higher in 1969, remained well below the 1966 record level. Since the bulk of Morocco's fish catch is processed into canned sardines and fish meal for export, production efforts are closely tied to sales prospects in foreign markets. Fish production in East Africa sub-region has continued to rise by more than 8 per cent throughout

the 1960s, due to a similar increase in Tanzania and more than 13 per cent annual growth rate in Uganda. Production in the Central Africa sub-region rose by almost 5 per cent per annum since 1965, as a result of sharp rises in the Congo Democratic Republic, although output in the Cameroon, the other major producer of the sub-region, has remained stagnant for several years.

Table 3.12 Fish Catch of Africa 1960-1969

Sub-region ^{a/}	Live weight Fish Catch (in '000 tons)					
	1960	1965	1966	1967	1968	1969
North Africa	303	380	471	435	399	422
West Africa	360	560	595	686	700	788
Central Africa	233	275	278	293	310	324
East Africa	221	324	333	373	420	452
Other Africa	1,127	1,609	1,522	1,954	2,507	2,561
Total	2,300	3,313	3,334	3,919	4,440	4,570

^{a/} The totals for the subregions may exclude certain countries.

^{b/} Includes estimates for countries not recorded.

Note: All figures include estimates.

Source: FAO, Yearbook of Fishery Statistics 1966, 1968, 1969, Country publications.

Although the fish catch in Africa, since 1965, has been greater than the meat production, a large proportion of the present catch is not used for human consumption in the Continent but processed into fish meal and fish oil for animal feeding mostly outside Africa. The processing of the fish into the various products including canned fish takes place at various ports on the African coasts, although some are processed directly in factory ships. In the major fishing area of Africa there are important processing plants including Walvis Bay, Cape Town and in Angola.

Forestry Production

The countries with large forest areas are shown in appendix tables to be the Sudan, Nigeria, the two Congos, Gabon, Cameroon, Tanzania, Zambia, Angola, Mozambique and Rhodesia.

Those with important forest industries are the Sudan, Ghana, The Ivory Coast, Nigeria, Cameroon, Congo (DR), Congo (FR), Gabon, Ethiopia, Madagascar, Swaziland, Tanzania, Uganda, Angola, Mozambique and South Africa. In each of these countries removals of industrial wood were more than 800,000 cubic metres in 1969, varying from 3,689 thousand for Ivory Coast, 1,922 thousand for Ghana, and 1,920 thousand for Nigeria to 810,000 for Mozambique. South Africa's production amounted to 7,969 thousand cubic metres equal to somewhat less than a quarter of Developing Africa's total industrial removals.

Table 3.13 Forestry and Paper Production, Africa 1960-69

Item	1960	1965	1966	1967	1968	1969 ^{a/}
<u>Production Removals</u>						
Total (mn m ³)	187.8	230.1	235.6	242.9	262.9	267.7
of which						
Industrial wood(")	22.6	29.4	30.3	32.3	33.3	34.4
<u>Sawnwood</u>						
Coniferous ('000 m ³)	644	1,153	1,101	1,149	1,205	1,217
Non-coniferous "	1,655	1,949	2,055	2,046	2,285	2,500
Plywood "	115	231	203	217 ^{b/}	230 ^{b/}	243 ^{b/}
Fibreboard "	66	77	80	80 ^{b/}	80 ^{b/}	80 ^{b/}
Wood Pulp ('000 tons)	110	580	656	731	727	739
<u>Paper etc.</u>						
Newsprint " "	-	59	87	90	94	94
Printing & writing " "	63	97	104	119	123	125
Other " "	256	438	469	503	536	537

a/ Preliminary

b/ Previous year's total carried forward.

Source: FAO Yearbook of Forest Products, 1969FAO Forestry Division, Unpublished Information for 1968 and 1969

The industrial removals grew more rapidly than the total removals, increasing at 5.4 per cent annually between 1960 and 1965 and 4.0 per cent since 1965. As can be seen in table 3.13, despite this rapid growth rate, industrial removals in 1969 still constituted less than 13 per cent of total removals. Most of the industrial wood was non-coniferous, while almost 78 per cent of the coniferous wood was produced in South Africa. The main producing countries of sawnwood, plywood, wood pulp and pulp products were practically the same as for industrial wood, although the North African countries UAR and Morocco have continued to produce a significant share of the Continent's paper production.

Agricultural Inputs

One of the most important single inputs (apart from water supply), which may eventually make the "green revolution" a near possibility in Africa, is commercially produced fertilizers. There has been a sharp rise in the use of such fertilizers over the years since 1960 with the total (in terms of N + P₂O₅ + K₂O) increasing from 654,500 metric tons in 1960/61 to 923,100 in 1964/65 and to 1,421 700 tons in 1968/69. The growth rate in fertilizer consumption has been 11.4 per cent per annum since 1964/65, compared to 9.0 per cent annual growth rate between 1960/61 and 1964/65. Despite these apparently impressive growth rates, Africa still has a very long way to go before it reaches the present average consumption level per hectare of the developed countries, which was 73 kilograms in 1968/69 compared to 5 kilograms per hectare in Africa.

Table 3.14

Commercial Fertilizer Consumption

Sub-region or country	1960/61	1964/65	1965/66	1966/67	1967/68	1968/69
	('000 metric tons of $P_{2}O_{5} + K_{2}O$)					
North Africa	346.2	449.7	487.4	466.4	484.2	558.0
West Africa	19.1	34.0	47.0	59.0	69.5	69.8
Central Africa	5.7	11.6	14.5	20.6	23.8	30.5
East Africa	51.5	79.0	89.0	99.3	117.4	1,131.4
Other Africa	60.1	85.5	94.6	103.8	122.8	132.8
South Africa	222.0	263.3	364.1	397.9	464.3	499.2
Total	654.5	923.1	1,096.6	1,147.0	1,282.1	1,421.7

Source: FAO: Fertilizers; An annual review of production, consumption and trade 1966/7 & 1968/9.

Moreover, much of the Continent's total fertilizer consumption was concentrated in a few countries. In 1968/69, the North Africa sub-region together with South Africa used more than 74 per cent of total consumption. In the same year, the United Arab Republic used almost 58 per cent of the sub-regional total or 23 per cent of Africa's total. Fertilizer consumption in East, West and Central Africa sub-regions represented 9, 2 and 5 per cent respectively; however, four countries (Kenya, Mauritius, Zambia and Tanzania) used over 81 per cent of the East Africa sub-regional total, while three countries in West Africa (Guinea, Ivory Coast and Senegal) used 65 per cent and one country in Central Africa (Cameroon) used 57 per cent of the respective sub-regional totals. Africa's fertilizer consumption has been estimated at an average of 5 kg. per capita of the rural population; some eleven countries had already surpassed this average by 1968/69 and an additional eleven countries were likely to have reached this level in 1970.

The past growth in fertilizer consumption and its potential future growth has led to the development of facilities for fertilizer production in many parts of Africa.

Tractors used in agriculture rose from 290,000 in 1964/65 to 371,000 in 1969, although the statistical data are rather unreliable for a review of the progress of mechanized cultivation in the Continent. However, like fertilizer consumption, mechanical cultivation was heavily concentrated in a few countries, like South Africa, Algeria, Tunisia, Morocco, United Arab Republic and Rhodesia, which together had almost 90 per cent of the estimated tractors in use in Africa. In other countries tractors are being increasingly introduced in new large scale projects and efforts are also being made to bring mechanical cultivation within reach of the peasant farmers by means of ploughing campaigns and subsidized tractor hire services.

Agricultural Exports and Imports

Detailed information is available up to 1968 on, and for 1969 there are index numbers of, the volume and value of agricultural, forestry and fishery product exports. Table 3.15 shows the indices of volume and value of such exports for 1960 to 1969; table 3.16 shows exports by quantity and table 3.17 shows imports and export values of major agricultural crops of the African Continent (excluding South Africa) for 1965 and 1968.

The unit value of agricultural exports has increased since 1967 and this has helped the total value of exports. Exports of agricultural products reached a peak both in volume and value in 1968 but there was a fall in 1969.

The value of total exports of forest products has increased considerably in the years since 1967 with the index reaching 265 in 1969 compared with 200 in 1967. There was an increase in the unit value of such exports in 1969 but most of the growth since 1967 has been in volume.

In general, the unit value of the exports of agricultural products fell from 1960 to 1967 but increased from 1967 to 1969, with fish products there was an increase between 1960 and 1965 but a fall since that time; forest products were worth more per unit in 1965, than in 1960 and the 1969 unit value was nearly the same as in 1965. There was a general increase in the volumes of agriculture forestry and fishery products exports during the 1960s but the movement was more noticeable for forestry and fish products.

Table 3.15 Indices of Volume and Value of Agricultural Fishery & Forestry Products from Africa, 1960 to 1969

	1960	1965	1966	1967	1968	1969
	(Base 1957-59 = 100)					
<u>Export Volume</u>						
<u>Agricultural Products</u>	110	127	127	123	131	120
Cereals	98	74	65	134	186	121
Food and Feed	99	111	116	119	137	119
Beverages & tobacco	119	155	145	135	139	130
Raw materials	110	109	117	114	111	107
<u>Fishery Products^{a/}</u>	124	130	139	148	171	160
<u>Forest Products^{a/}</u>	124	173	182	179	205	226
<u>Total Value Exports</u>						
<u>Agricultural Products</u>	102	113	113	111	120	114
Cereals	92	78	69	153	211	150
Food and feed	96	118	120	120	136	128
Beverages & tobacco	100	114	113	114	124	118
Raw materials	112	104	105	95	96	90
<u>Fishery Products^{a/}</u>	114	126	131	134	149	142
<u>Forest Products^{a/}</u>	131	198	202	200	227	265

Table 3.15 ctd.

Unit Value Exports	1960	1965	1966	1967	1968	1969
<u>Agricultural Products</u>	93	92	90	89	91	92
Cereals	94	105	110	112	115	102
Food and feed	98	107	104	101	100	105
Beverages & tobacco	83	75	77	82	85	87
Raw materials	100	95	89	83	85	84
<u>Fishery Products^{a/}</u>	92	97	94	91	87	89
<u>Forest Products^{a/}</u>	106	114	111	112	111	113

^{a/} Figures relate to Africa Region, i.e. excluding Libya, Sudan and UAR.

Source: FAO, State of Food and Agriculture, 1970
FAO, unpublished information, 1971

Note: These data are not the same as those given in the earlier table in this Chapter; the coverage of the countries is different.

Some detailed information is available for 1969 exports of agricultural products by volume and table 3.16 compares the export tonnages of the main products.

Table 3.16 Exports of Agricultural Products 1965 to 1969
(in thousand tons)

	1965	1966	1967	1968	1969 ^{a/}
Maize	625.2	282.2	2,576.3	3,709.4	1,204
Rice	352.7	382.5	490.8	657.8	830
Coffee	843.4	940.5	903.0	987.3	985
Cocoa beans	1,078.1	882.3	837.7	814.3	700
Tea ^b	65.3	81.7	80.3	93.7	102
Wine	11,001	11,810	7,642	7,325	...
Tobacco	173.9	115.6	108.6	109.1	...
Cotton lint	720.0	800.7	799.0	765.4	720
Groundnuts	1,138.6	1,292.9	1,260.6	1,353.2	1,060
Palm oil	281.4	266.0	174.6	197.8	178
Rubber	148.6	163.3	150.7	154.8	170
Sugar	1,606.8	1,877.8	1,995.7	2,245.7	1,960
Citrus fruit	1,086.1	1,215.2	1,144.7	1,193.7	1,242
Cattle ^{c/}	388	398	349	344	350
Sheep & Goats ^{c/}	1,612	1,825	1,732	2,029	1,500

Source: FAO Rome

^{a/} Estimates

^{b/} Thousand hectolitres

^{c/} Thousand head.

Products which in 1969 continued the growth trend of recent years in exports included rice, tea, rubber and citrus fruit. There were falls in exports of cocoa, groundnuts, palm oil, cotton lint, sugar and sheep and goats in 1969 but in the case of groundnuts more local processing was a contributory factor to the fall and the same was partially true for cotton lint and cocoa.

Table 3.17 shows import and export values of major agricultural crops in the African Continent (excluding South Africa) for 1965 and 1968. During this period, there were significant increases in export earnings from cereals, fish, coffee, cocoa, sugar, meat and tea, whilst there were similar decreases for dairy products, fruit and vegetables, groundnuts and wine (of fresh grapes). The sharp rise in the export value of cereals was due to steeply increased earnings from rice and maize, more than offsetting the sharp decline from wheat. However, despite this rise in export earnings, Developing Africa still remained a net importer of cereals by more than US\$30.6 million in 1968. For dairy products, although imports fell from more than US\$135 million to US\$129 million, the region was still a net importer in 1968 to the extent of US\$123 million. As a result of reduced imports of fish, sugar and meat, Developing Africa has turned from a net importer in 1965 to a net exporter in 1968. Similarly net imports of almost US\$50 million of rice and US\$13 million of maize in 1965, became net exports of almost US\$13 million of rice and more than US\$23 million of maize in 1968. For all the other major agricultural products, Developing Africa increased its net exports during this period.

Table 3.17 Imports and Exports of Certain Agricultural Products 1965 and 1968^a (US\$ million)

Item	Imports		Exports		Balance	
	1965	1968	1965	1968	1965	1968
<u>All cereals</u>	<u>433.3</u>	<u>488.5</u>	<u>100.7</u>	<u>181.9</u>	<u>-332.6</u>	<u>-306.6</u>
Rice	(95.2)	(106.3)	(45.4)	(118.9)	(-49.8)	(12.6)
Maize	(30.4)	(15.9)	(17.6)	(39.2)	(-12.8)	(23.3)
Wheat	(295.7)	(434.3)	(19.0)	(9.9)	(-276.7)	(-425.4)
Barley	(3.8)	(5.0)	(1.4)	(0.9)	(-2.4)	(- 4.1)
<u>Dairy products</u>	<u>135.5</u>	<u>129.0</u>	<u> 9.8</u>	<u> 6.2</u>	<u>-125.7</u>	<u>-122.8</u>
<u>Fruits & veg</u>						
(less hops)	<u>51.2</u>	<u>35.4</u>	<u>237.8</u>	<u>231.9</u>	<u>186.6</u>	<u>175.5</u>
(Potatoes)	(13.3)	(13.8)	(17.2)	(14.9)	(3.9)	(1.1)
<u>Groundnuts</u>	<u> 3.9</u>	<u> 4.1</u>	<u>209.0</u>	<u>197.6</u>	<u>205.1</u>	<u>193.5</u>
<u>Fish</u>	<u>86.5</u>	<u>70.3</u>	<u>56.6</u>	<u>71.1</u>	<u>- 29.9</u>	<u> 0.8</u>
<u>Sugar</u>	<u>206.1</u>	<u>129.6</u>	<u>122.5</u>	<u>134.6</u>	<u>- 83.6</u>	<u> 5.0</u>
<u>Meat</u>	<u>50.3</u>	<u>48.9</u>	<u>47.7</u>	<u>52.5</u>	<u>- 2.6</u>	<u> 3.6</u>

Table 3.17 ctd.	Imports		Exports		Balance	
	1965	1968	1965	1968	1965	1968
<u>Beverages</u>						
Tea	83.2	68.3	56.1	79.0	27.1	10.7
Cocoa	1.4	1.6	412.3	492.9	410.9	491.3
Coffee	41.9	46.2	542.8	681.2	500.9	635.0
Wine(of fresh grapes)	48.1	55.9	131.7	82.0	83.6	26.1
<u>Tobacco</u>	51.3	47.6	169.0	102.7	117.7	55.1
<hr/>						
Jute	11.7	15.5	0.6	0.7	-11.1	-14.8
<u>Cotton, lint</u>	13.1	20.3	600.3	602.7	587.2	582.4
<hr/>						
Total of major Food & Beverages ^{T_M}	1,195.3	1,148.6	2,096.0	2,313.6	900.7	1,165.0
Total of all ^{T_A}						
Food & beverages	1,435	1,424	2,290	2,530	855	1,106
<hr/>						
Balance ^{T_A - T_M}						
	239.7	275.4	194.0	216.4	-45.7	-59.0

Source: FAC, Trade Yearbook, 1966, 1969

a/ Africa, excluding S. Africa

The appendix tables show the external trade in forest products of the African continent for the years 1960 to 1969; in summary the data are as follows:

	1960	1965	1966	1967	1968	1969
(in million U.S. dollars)						
<u>Exports</u>						
Wood, lumber, cork	182.5	215.7	205.7	221.0	252.7	308.5
Pulp and waste	3.8	36.3	53.5	50.0	49.7	52.9
Wood manufactures	24.8	30.4	27.9	31.1	35.1	36.9
Paper, board, etc	62.4	24.6	25.1	32.3	32.2	34.1
TOTAL	273.5	306.9	312.3	334.4	369.7	432.4
<hr/>						
<u>Imports</u>						
Wood, lumber, cork	95.6	113.8	114.3	111.8	98.0	111.5
Pulp and waste	8.8	14.1	15.8	16.0	20.8	24.6
Wood manufactures	35.2	40.6	40.2	39.9	39.2	44.0
Paper, board, etc	162.6	205.1	215.8	229.9	233.6	248.6
TOTAL	302.2	373.5	386.0	397.6	390.3	428.7

Africa's exports of wood, lumber and cork increased from 183 to 309 million dollars between 1960 and 1969 and imports of paper, board and products rose from 163 to 249 million dollars. These are the major items in the exports and imports but Africa is still an importer of non-coniferous timber on a significant scale.

Chapter 4. MINING

The African region has abundant mineral resources and at the present time it accounts for about 28 per cent of the total value of world mineral output. As Table 4.1. indicates the African Continent occupies a predominant position in the world production of gold, diamonds and cobalt ore, and is important in the production of chrome ore, phosphate rock, manganese ore, antimony, beryl, vanadium ore, platinum and copper. There is a growing output of crude petroleum, iron ore, and other minerals. In lead, tin and zinc output Africa holds a smaller but still significant position.

From the wide range of minerals currently exploited Africa exports a number of major and minor items and in 1969 minerals provided more than half the total export earnings of Developing Africa. The importance of the mining sector in the economies of the countries concerned needs no emphasis; besides earning large quantities of foreign exchange the minerals also provide a high proportion of Government revenue.

Table 4.1. Africa's Share of World Mineral Production
(in per cent)

<u>Leading Minerals in Africa</u>	<u>1965</u>	<u>1968</u>
Bauxite	6.1	6.0
Antimony ore	24.5 ^a /	28.8 ^a /
Beryl	15.8 ^a /	26.9 ^a /
Chrome ore	32.3	32.6
Cobalt ore	72.2	68.6
Columbium-tantalum	43.0	19.4
Copper ore	22.5	22.4
Gold	78.3 ^a /	81.0 ^a /
Iron ore	6.3	7.5
Lead ore	9.2	6.2
Manganese ore	26.3	25.9
Tin ore	11.5 ^a /	11.0 ^a /
Vanadium ore	28.9	27.5
Zinc ore	6.7	5.2
Platinum-group metals	25.1	26.9
Asbestos	14.1 ^a /	10.5 ^a /
Diamonds	84.8 ^a /	74.4 ^a /
Phosphate rock	25.9	24.0
Crude petroleum	7.0	10.0
Uranium	12.0	14.3

Sources: ECA Estimates.

UN Statistical Yearbook; 1969

Inst. of Geol. Sciences. Stat. Summary of Mineral Ind., 1963-68.

Note: Products marked a/ exclude certain producers particularly the USSR.

The development of mining has helped provide various economies with infrastructure facilities and certain minerals are important inputs into industries serving the agriculture, construction and manufacturing sectors.

The mechanised development of mineral production has provided a very suitable means of training personnel in the skills required for modern mining and in many mining countries the indigenous peoples are being encouraged to move to higher levels in the production process.

All these gains derived from the flow of mineral production constitute a significant factor making an essential contribution to the economic development of African countries.

In particular countries mining is a very important contributor to the GDP and information has already been given in the Chapter on this subject. In Libya, mining's share in the total product reached 60 per cent in 1969, in Namibia it accounted for 41 per cent, in Zambia 37 per cent, Liberia 32 per cent, Mauritania 29 per cent, Gabon 24 per cent and in eight other countries it contributed 10 to 20 per cent. The importance of mining is probably higher than the percentages shown for countries such as Libya, Namibia and Zambia because the secondary effects of the expenditure of the Government revenue derived from mining need also to be taken into account.

The relative contribution of mining to the GDP in the subregions is much less than for any individual mining country and the range is from 15 per cent in North Africa to 4 per cent only in West Africa with the other subregions obtaining 6 to 8 per cent. This low level of the relative contribution does not, however, diminish the increasing importance of mining development in providing buoyancy to the national economies in the region. There has been a mining boom in the 1960's and processing industries based on mining have been developed such as petroleum refining, natural gas liquefaction, tin, lead, copper and aluminium smelting, iron and steel plants, cement and fertilizer production.

The exceptional growth of the petroleum industry in Libya has helped to increase the contribution of mining to the GDP in the North Africa subregion and also in Africa as a whole. North Africa also has important petroleum production in Algeria, the UAR and Tunisia and there has been considerable growth in output in these three countries during the 1960's. Algeria is also an important producer of natural gas and steps have been taken in recent years to exploit commercially the gas presently being burnt in Libya.

A wide range of minerals is produced in this subregion and important products include phosphate rock in Morocco and Tunisia, whilst iron ore, lead, zinc, coal, manganese ore and limestone are amongst the other items mined.

Details are given in the appendix tables of the output of some of the more important minerals of Africa showing the major producing countries. These tables serve to illustrate some of the trends in production in the countries concerned.

Mineral production did not increase to any extent in Morocco between 1965 and 1969 but grew sharply in Tunisia except in 1969 when mining output was affected by the mine flooding which following extremely heavy rains. In the UAR there was growth up to 1967 but the Israeli occupation of Sinai Peninsula caused some fall in output which was recovered by the growth in crude petroleum production since 1967. In the last three years mineral output increased by an average of about 19 per cent a year.

In West Africa there are a considerable number of producing countries and the major one is Nigeria where crude oil and natural gas are mined. Iron ore is the major product from Liberia and Mauritania and diamonds are important in Sierra Leone and Ghana. Bauxite is mined in Guinea and Ghana and in both countries there are alumina smelters but Ghana's own bauxite deposits are not used for this purpose. Iron ore, bauxite and rutile are also mined in Sierra Leone and tin, coal and lead in Nigeria. Gold is an important product in Ghana and in Togo phosphate rock supplies half of total exports.

Crude petroleum production in Nigeria has recovered from the set back experienced during the civil war and 1969 production was nearly 30 per cent higher than in 1966 with the expectation of much increased production over the next few years. Mining production has expanded throughout the 1960's in Liberia, Mauritania and Togo but has fallen in Sierra Leone and Ghana. Mauritania expects to be exporting copper on a significant scale over the next few years which will lead to further growth in its mining industry.

The leading mineral producer in Central Africa is the Congo Democratic Republic. The Congo is Africa's second producer of copper and its output contributes about 6 per cent of the world total. Tin, manganese ore, zinc, cobalt, gold, diamonds are amongst other minerals produced there. In Gabon crude petroleum, natural gas, manganese ore, uranium and gold are produced and in the CAR diamonds are the principal product. After a period when output was disturbed by the troubles of the country, mineral production in the Congo DR recovered from 1966 onwards and was showing some growth in 1969 compared with 1960. There has been a rapid relative growth of mining in Gabon generated mainly by crude petroleum but in the CAR diamond production has not grown over the last few years although as exploitation had not really started in 1960, the growth rate over the decade was very high.

In East Africa, Zambia is the only really important mineral producer and its copper output is twice as high as in the Congo DR, and so in world production it accounts for about 12 per cent of the total. Other minerals from Zambia include lead, zinc, cobalt, manganese, coal and limestone. Copper is also produced in Uganda but on a relatively small scale; Swaziland mines iron ore and asbestos and diamonds are

the major product from Tanzania. There are a number of other minerals produced in countries in the subregion but generally on a fairly small scale. A number of important developments are projected particularly in Lesotho and Botswana with diamonds and copper/nickel ore whilst Malawi hopes to be able to mine its important bauxite deposits.

Zambia's mineral production has increased at a rapid rate particularly since 1965 helped by the high world copper prices, and production has also grown in Uganda and Swaziland but in other countries in the subregion there has been stagnation or a fall. Tanzania's diamond production increased sharply between 1960 and 1966 but has fallen from that time. Attempts are being made to exploit other minerals which exist and in Madagascar the recent development of production of chrome ore has helped stimulate an otherwise stagnant mining industry.

Other Africa which includes South Africa, S. Rhodesia, Namibia and Angola is the most important mineral producing area of Africa although the relatively advanced nature of the South African economy serves to reduce the importance of mineral production in total output. South Africa produces a very large number of minerals and the important ones include gold, diamonds, platinum, coal, copper, iron ore, uranium, asbestos and manganese ore.

Elsewhere in the developing countries of this subregion Namibia produces diamonds, copper, lead and zinc, Rhodesia a wide range of minerals including gold, copper, nickel, asbestos, chrome ore, coal, iron ore, tin and lithium and the major minerals in Angola are diamonds, crude petroleum and iron ore. There are other minerals in these countries and in other parts of the subregion; although Mozambique produces mainly bauxite and coal there are also a number of other minerals currently mined.

The search for minerals is particularly intense in this part of Africa and there is a very keen interest in petroleum prospecting; whilst minerals, which could serve both the Japanese and European economies and have already been discovered, are likely to become increasingly important over the next few years.

The growth rates of mineral production in the countries in this subregion have been comparatively rapid and the developing countries have benefitted as well as South Africa itself.

In Africa the growth rate of mineral production has been more than twice as high as in the economy as a whole in the period 1960 to 1969 but there was some slowing down in the increase in output in the last few years, because of low growth rates in several of the important mining countries.

Table 4.2. Output of Major Minerals in Africa, 1960 to 1969

Mineral	1960	1965	1966	1967	1968	1969 ^a /	Growth Rate 1965/69
<u>Developing Africa</u>	<u>Products Measured in Million Tons</u>						(% p.a.)
Bauxite	1.58	2.39	2.24	2.34	2.88	3.00	6.4
Iron ore ^b /	7.31	21.59	23.10	23.64	26.38	26.92	5.6
Manganese ore ^b /	0.89	1.40	1.36	1.18	1.18	0.94	-10.1
Phosphate rock	10.92	15.72	15.89	16.18	18.00	17.21	2.3
Salt	1.32	1.73	1.75	1.72	1.80	1.58	-1.8
Petroleum	13.84	106.98	136.79	150.74	193.47	246.96	23.3
	<u>Products Measured in Thousand Tons</u>						
Asbestos	152.3	199.9	195.2	136.1	127.4	121.8	-12.8
Chrome ore ^b /	293.7	281.1	260.2	243.0 ^a	216.6 ^a	164.2	-14.0
Cobalt ore ^b /	11.4	11.7	14.6	12.9	13.3	12.8	2.3
Copper ^b /	938.1	1062.0	1016.7	1063.3	1077.7	1140.4	1.8
Lead ore ^b /	210.0	252.2	227.4	187.2	184.7	212.0	-4.5
Tin ore ^b /	19.69	19.04	20.04	19.93	20.67	19.31	0.4
Zinc ore ^b /	267.1	292.3	245.5	242.0	263.8	284.8	-0.7
	<u>Products Measured in Metric Tons</u>						
Gold	60.2	49.8	48.1	47.6	46.9	44.2	-2.9
Silver	261.9	156.7	164.5	156.1	170.3	187.6	4.7
	<u>Other Measures</u>						
Diamonds(mn carats)	23.54	26.46	26.30	26.55	26.74	27.34	0.8
Natural gas (mn m ³) ^e	30	4119	4957	4785	3616	7157	14.8
<u>Total Africa</u>	<u>Products Measured in Million Tons</u>						
Bauxite	1.58	2.39	2.24	2.34	2.88	3.00	6.4
Iron ore ^b /	9.28	25.34	27.94	29.06	31.66	35.51	8.8
Manganese ore ^b /	1.34	2.13	2.15	2.04	2.12	2.09	-0.3
Phosphate rock	11.19	16.33	16.95	17.53	19.57	18.88	3.0
Salt	1.56	2.06	2.07	2.04	2.14	1.96	-1.0
Coal ^c /	43.28	53.56	52.73	53.66	56.61	57.04	1.5
Petroleum	13.84	106.98	136.79	150.24	193.47	246.96	23.3
	<u>Products Measured in Thousand Tons</u>						
Antimony ore ^b /	13.5	14.8	12.7	14.0	18.1	19.6	7.2
Asbestos	311.8	418.3	446.1	379.7	363.7	380.0	-3.4
Chrome ore ^b /	633.4	703.5	733.0 ^a	657.0 ^a	733.0 ^a	703.0	-
Cobalt ore ^b /	11.4	11.7	14.6	12.9	13.3	12.8	2.4
Copper ^b /	983.8	1122.2	1129.6	1180.0	1205.4	1266.0	2.4
Graphite	15.3	17.8	17.8	17.0	17.2	17.3	-0.7
Gypsum	754.7	631.6	809.9	928.8	946.0	959.0	11.0
Lead ore ^b /	210.0	252.2	227.4	187.2	184.7	212.0	-4.5

Table 4.2. Cont^d

Total Africa Cont ^d	1960	1965	1966	1967	1968	1969 ^{a/}	Growth Rate 1965/69 (% p.a.)
<u>Products Measured in Thousand Tons</u>							
Magnesite	68.0	123.6	128.0	108.1	84.2	100.0	-5.3
Nickel ore ^{b/}	3.3	4.1	8.4	8.4	9.8	10.8	27.3
Sulphur	259.0	226.0	245.0 ^{a/}	234.0 ^{d/}	230.7 ^{d/}	230.7 ^{d/}	...
Tantalite) Columbite)	3.43	2.91	2.58	2.31	1.51	2.00	-9.7
Tin ore ^{b/}	21.0	20.7	21.8	21.7	22.5	21.2	0.6
Vanadium ore	1.5 ^{a/}	2.5	2.9	3.0	3.5	3.6	9.6
Vermiculite	62.9	115.3	103.5	101.8	110.5	129.2	2.9
Zinc ore ^{b/}	267.1	292.3	245.5	242.0	263.8	284.8	-0.7
<u>Products measured in Metric Tons and Others</u>							
Beryllium	4100	831	540	740	820	700	-4.4
Cadmium ore	1300	960	870	790 ^{a/}	850 ^{a/}	810	-4.2
Gold	725	1002	1009	991	1014	1014	0.3
Mercury	6	3	9	10	11	14	47.0
Silver	331	242	262	251	273	290	4.7
Tungsten ore ^{b/}	1000	480	560	570	690	510	1.4
Uranium ore ^{b/}	5928	2811	3021	3158	3480	3600	6.4
Diamonds(mn carats)	26.68	31.49	32.34	33.22	34.17	35.20	2.9
Osmiridium('000 oz)	6.33	3.82	3.40	8.00	14.00	20.00	>50.0
Platinum ^{c/} ('000.0 oz)	406.5	750.0	783.7	833.3	914.3	975.0	6.8
Natural gas(mn m ³) ^{e/}	30	4119	4957	4789	3616	7157	14.8

^{a/} Estimates.

^{b/} Metal content.

^{c/} South Africa is the paramount producer.

^{d/} Incomplete.

^{e/} Thought to include a significant proportion not commercialised.

Sources: UN Statistical Yearbook 1969.

UN Monthly Bulletin of Statistics, January 1971.

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Production of Major Minerals

From an examination of Table 4.2. which gives information on total African production of the main minerals from 1960 to 1969, it is seen that the more spectacular increases in production were of crude petroleum, natural gas, iron ore, antimony, nickel ore and ozmiridium. There were high growth rates in the production of platinum, vanadium ore, mercury and bauxite but for a number of other minerals more modest growth rates were registered. For a limited number of minerals output stagnated or fell; these included lead ore, zinc ore, sulphur, tin ore, beryllium, cadmium ore, silver, tungsten ore, zirconium ore and uranium ore.

Between 1965 and 1969 major growth was registered in the production of crude petroleum (23.3 per cent a year), natural gas (14.8 per cent), nickel ore (27.3 per cent), mercury (47 per cent), and ozmiridium (more than 50 per cent a year). There were lesser growth rates for iron ore (8.8 per cent a year), bauxite (6.4 per cent), phosphate rock (3.0 per cent), gypsum (11.0 per cent), platinum (6.8 per cent), vanadium ore (9.6 per cent) antimony ore (7.2 per cent), and uranium (6.4 per cent a year).

For other minerals growth in production was fairly small and in a number of cases production actually fell between 1965 and 1969. Small production increases were recorded for coal, cobalt, copper, tin ore, and diamonds but significant falls for asbestos, lead ore, tantalite/columbite, beryllium and cadmium ore.

As mentioned earlier the appendix tables contain details of the output of certain important minerals showing the major producing countries. Some commentary on these products and countries now follows:

Crude Petroleum

One of the most significant economic developments of the 1960's has been the discovery and exploitation of crude petroleum in different parts of Africa. In 1960 production in Africa was 13.8 million tons and by 1969 this had increased to 247.0 million tons. Most of the increase occurred in Libya where output was nil in 1960 but reached 149.2 million tons in 1969. In Nigeria, the increase in production was not as spectacular from less than 1 million tons in 1960 to 27.0 million in 1969 but was nevertheless very rapid. Algerian production grew from 8.6 to 42.2 million tons in this nine year period and in the UAR the increase was from 3.3 to 14.2 million tons. The other important producers in 1969 were Gabon (5.0 million tons), Tunisia (3.7 million tons) and Angola (2.5 million tons).

The results of the very impressive production increases in Libya, Algeria and Nigeria in particular have had important

beneficial impacts on the economies concerned and Libya has been transformed from a poor agricultural economy to a very wealthy mineral economy. The impact in Algeria and Nigeria has been less marked but the additional wealth created has been very welcome. Nigeria expects to increase petroleum production at a very fast rate in the next few years and in 1971 was well on the way to becoming an important world producer.

Nigeria's production from the Niger Delta area was hit badly during the civil war but since the end of the hostilities output has been increased at an extremely high rate and the oil produced, being of low sulphur content and high quality, is at a premium in the European market.

Libya produces a similar type of crude petroleum which enjoys the additional advantage of being even nearer to the European market and in 1970 Libya was able to obtain higher prices for its product than had ruled before. There are a number of major oilfields in this country which are connected by pipeline to five specially built oil ocean terminals.

Algeria also has a number of oilfields and with the development of more pipelines in recent years oil exports have been increased steadily.

In the United Arab Republic petroleum production increased in 1968 and 1969 after a setback in 1967 following the loss of the Sinai oilfields. Some new discoveries have been made in the Western Desert and in the Red Sea and much of the rise in output in the last two years came from the Morgan field in the Gulf of Suez as well as the wells in the Desert.

Tunisia has had a fast relative growth in petroleum production since 1966 because of oil discoveries at El Borma and at Douled. Similar substantial growth was experienced in Gabon following both onshore and offshore oil discoveries whilst in Angola the Cabinda oilfield has been vigorously exploited during the last year or so. Oil has also been discovered close to Luanda and this will have a further influence on Angola's increasing production over the next few years.

There is production on a small and declining scale in Morocco and the Congo People's Republic but there is a very considerable effort being made by the world's large oil producers to discover oil throughout Africa. The extent of the oilfinds in recent years would probably point to the possibility of a number of other important discoveries in the years to come in Africa.

The present world tendency is for increasing consumption of petroleum products based on relatively low price and ease of transportation. The future course of the industry will be strongly

influenced by relative price changes between different types of energy sources. Africa's growing position in the supply of crude petroleum will naturally be strongly affected by the discovery and exploitation of major oilfields in other parts of the world but the likelihood is of a continuing increase in the share of the market supplied from Africa's oil fields. The only factor which could mar such a development would be for Africa itself to increase its prices for oil beyond that of competitors in other areas or beyond what is practicable to compete with other sources of energy.

Natural Gas

The discovery and exploitation of crude petroleum in Africa has been accompanied by the growth of natural gas production. The two major producers in Africa at present are Algeria and Nigeria but Libya itself has burnt large quantities of gas in the past because of the problem of commercial exploitation.

Nigeria has been able to develop a considerable supply based on its export market and production in 1969 reached 4,186 million cubic metres. In Algeria part of the production is used domestically and part is exported, output in 1969 was 2,983 million cubic metres.

Natural gas, apart from being a very useful fuel with numerous uses, is also a very convenient feedstock for nitrogenous fertilizer production and for use in chemical processes. The development of such a natural resource where it exists for such chemical processes is a further means of making use of it domestically. Nigeria, Algeria, Libya and the UAR are all expecting to develop or have already developed chemical industries based on natural gas.

Algeria has been exporting natural gas in liquified form since 1964 and in 1969 and 1970 further large contracts were concluded to supply Europe and North America. The plant at Arzew is to be supplemented by a further plant at Skikda to be able to meet the contract requirements. In Libya a liquefaction plant has been under construction at Marsa El Brega for some considerable time and once the teething troubles have been overcome, Libya expects to be exporting natural gas on a large scale. A further scheme is anticipated for Nigeria which will enable further African exports to be undertaken.

Iron Ore

Production in 1969 at some 36 million tons (fe content) represented 9 percent of world output, the main producers being Liberia, Mauritania, Angola, Sierra Leone, Algeria, Swaziland and South Africa. West Africa was the most important subregion.

Liberia is the largest African producer and its deposits at Mount Nimba began to be exploited in 1963. Other iron ore projects at Mano and Boni Hills were developed later as rail connections were built. Other developments are in process to increase the production further above the 1969 level of 14.8 million tons. In Mauritania the mines at Fort Gouraud came into full operation in 1963 and together with the deposits at Ronessa and F'Derick have been producing increasing quantities of iron ore since that time. In 1969 5.5 million tons of iron were produced compared with 0.2 million tons in 1961.

The bulk of Angola's iron ore has come from the Cassinga deposit and a sharp increase in output in 1969 to 3.4 million tons (fe) resulted from the completion of the Cassinga mine installations, a railway and a deep water port at Saco de Girane, north of Mocamedes. In Sierra Leone production of iron ore, although tending to increase throughout the 1960's, reached a difficult phase in 1969 and 1970 and production in 1969 fell a little from the level of 1968 because of mining and transport problems. Sierra Leone has increased the facilities of Pepel Port to handle large ore tankers to meet a long-term contract signed with Japanese customers and hopes to be producing at the rate of nearly 2 million tons (fe) a year.

Algeria's production of iron ore fell between 1960 and 1966 but has increased since that time and in 1969 1.6 million tons (fe) were mined. The mine at Ouenza produced most of the output but a new mine in the same area is being developed to supply the emergent steel industry at Annaba.

In Swaziland production continued to increase in 1969 and the estimated output was 1.3 million tons (fe) which was shipped from the Ngwenya mine to Japan. This mine started producing in 1964. South African production was 5.6 million tons in 1969 having increased above the previous record level of 1967. Much of this iron ore is processed at blast furnaces in South Africa itself but an important proportion is exported.

Most of the iron ore produced in Africa is high grade ore and much is exported to Europe and Japan. There is an increasing use of iron ore produced in Developing Africa in iron and steel plants which have been and are being constructed.

The continued development of iron ore production in Africa will be conditioned by the requirements of domestic and export markets. Higher ore transport costs from African ports have been restricted by the development of large ore carriers but the future should see more local processing of iron ore (to pellets or pig iron) to offset the possibility of higher sea transport costs. Within Africa the movement of iron ore to the coast from suitable deposits may become increasingly expensive and this again will tend to lead to the development of local facilities to upgrade the ore and save transport costs.

Copper

African production of copper in 1969 reached a record level of nearly 1.3 million tons and contributed about 22 per cent of world output due mainly to increases of approximately 35,000 tons each in Zambia and the Congo Democratic Republic. There had been a sharp decline in Zambia's production in 1966 due to the changed circumstances following Rhodesia's unilateral declaration of independence but subsequently production recovered and then proceeded to new record levels in 1969. There are a number of producing mines with the largest situated at Mufulira and Nchanga (Chingola) on the Copperbelt. Nchanga has a large open cast mine whilst Mufulira has the second largest underground copper mine in the world. In the Congo DR, two-thirds of the copper is produced at mines around Kolwezi.

The very sharp increase in the world copper price up to 1969 and in the first half of 1970 naturally had a very beneficial effect on the export earnings and revenue of these two countries Zambia and the Congo DR. However, in the second half of 1970 there was a very rapid decline of copper prices and the effect of this change in market conditions will be substantial in both countries.

Elsewhere in Africa, South Africa, Namibia, S. Rhodesia and Uganda are relatively important copper producers, although except in South Africa, production in each country was less than 30,000 tons in 1969 compared with 720,000 tons in Zambia, 362,000 tons in Congo DR and 126,000 tons in South Africa.

The world copper market early in 1971 was going through a period of readjustment and appeared to be settling down at a much lower price than was operating a year earlier. Supply had temporarily run ahead of demand at a time when a number of the major market economies were experiencing economic difficulties.

Gold

The major gold producer of Africa is South Africa and out of a total African production of 1,014 tons in 1969, 970 tons came from that country. Excluding gold mined in the USSR, Africa produced 81 per cent of the world output in 1968 and this proportion had increased from 78 per cent in 1965.

Gold output in South Africa reached record levels in both 1968 and 1969 and the move away from a fixed price of gold on the free market may have had the effect of stimulating output further in 1970 and 1971. The erosion of profit margins by maintaining a fixed price of US \$35 per ounce had been having some impact on decisions taken regarding some of the marginal mines but, by establishing a two price system for gold, the free market price has had the effect of restoring profitability and extending the life of such mines.

Ghana is the largest gold producer in Developing Africa but in recent years production has been stagnant. The Ashanti mine is the largest producer and has been taken over by a new company which intends to try to increase output. Elsewhere gold mining output in Southern Rhodesia has been declining and in the Congo Democratic Republic it has been slowly growing since 1965 after a severe fall from 1960. Only small amounts of gold are produced in other countries in the region.

Diamonds

Africa is also the major world producer of diamonds accounting for 80 per cent of total output in 1969. There are a number of relatively important producing countries in Africa and the two largest are Congo DR where industrial diamonds are mined and South Africa where the output consists of both gem and industrial stones.

Output in the Congo DR was 13,867,000 carats in 1969 compared with 13,453,000 in 1960 and 12,504,000 in 1965. South African production showed a continuous increase throughout the 1960's from 3,140,000 carats in 1960 to 5,026,000 in 1965 and 7,863,000 in 1969.

Production in Namibia and Angola also increased throughout the 1960's reaching 2,034,000 carats and 2,022,000 carats respectively in 1969 but there was a falling tendency in output from Ghana where production slumped from 3,273,000 carats in 1960 to 2,391,000 carats in 1969. In other producing countries the experience has been variable; in Sierra Leone 1,909,000 carats were produced in 1960, this fell to 1,400,000 in 1967 but increased sharply to 2,432,000 carats in 1968 to fall again to about 2,000,000 carats in 1969. The trend in Liberia was a fall to 1965 but from that point there was an increase to 1969 when output was 836,000 carats. In the Ivory Coast output fluctuated between 176,000 and 204,000 carats but in the CAR there was a very large relative increase between 1960 and 1965 from 70,000 to 535,000 carats but since then output has tended to stagnate.

In Tanzania output reached a peak in 1966 but has fallen from that point and in 1969 it was 780,000 carats. The Congo Peoples Republic sells diamonds but these are not produced in the country. The level of sales was 3,500,000 carats in 1961, 5,304,000 carats in 1965 but there was a slump to 1,450,000 carats in 1969.

The operation of illicit diamond buying organisations has a considerable impact on production figures in certain countries from year to year but the 1968 and 1969 results reflect a degree of control of these operations which are reflected in increased output from Sierra Leone in 1968 and Congo DR in 1969. Diamond smuggling is still a very considerable problem, however, in a number of countries.

Important diamond producing areas are Bakwanga in the Congo DR, Bizim Basin in Ghana, Jofadu and the Woa River in Sierra Leone, the Nimba field and the River Lofa Valley in Tanzania and the shore area of Namibia north of the Orange River mouth. In South Africa there are producing mines in four areas and in Angola production is concentrated in the Luanda district.

The world market for diamonds has been less bouyant in the last two years and a continuation of this trend will have some impact on future production.

Phosphate Rock

Nearly one-quarter of the world's phosphate rock was produced in Africa in 1969 but total production from Africa fell slightly in that year which was the first fall in more than a decade. Some small part of the fall was attributed to the flooding of Tunisia's mines but market conditions were not as buoyant as in past years.

The largest deposits of phosphate rock are in Morocco which is at the same time the largest producer in the region. Mounting marketing difficulties particularly in Europe resulted in stagnation in the 1969 output which at 10,622,000 tons was slightly less than in 1968. Production in Morocco had grown from 7,473,000 tons in 1960 to 10,756,000 tons in 1968. The plan to increase production further to 18,560,000 tons by 1972 may have to be postponed although 1970 exports were some 12 per cent higher in the first seven months of the year than in the same period in 1969. There are mines at five centres and new deposits at Ben Guerir.

The floods in Tunisia in 1969 did considerable damage and the disruption of the transport system caused a fall in the exports of phosphate rock from the Gasfa mines. Algeria managed to increase its production and exports in 1969 but the deposits at Kouif neared exhaustion. There are, however, new deposits at Djebel Onk which can be brought into production.

The phosphate rock in the UAR is at present mined in Safaga and Iuseir on the Red Sea Coast but new deposits are to be mined to increase production. There are phosphate rock deposits in North Africa in the Spanish Sahara and steps have been taken for their exploitation.

In West Africa production of phosphate rock continued to advance in Togo but the output of phosphates in Senegal fell slightly in 1969. South African production again increased in 1969.

Out of a total production of 18.9 million tons in 1969 10.6 million tons were from Morocco, 2.6 million from Tunisia, 1.7 million from South Africa, 1.5 million tons from Togo and 1.2 million tons from Senegal.

Bauxite

Guinea was the most important producer in 1969 and various reports have suggested that production will be increased with a target of 3 million tons for 1971 shown in the 1964-71 development plan. Production in 1968 was 2,112,000 tons and a considerable amount of new investments together with a new railway link are required to increase output. Production of bauxite since 1965 increased in Sierra Leone but fell in Ghana. There is a continuing interest in other bauxite deposits in Africa including those in Malawi and Madagascar.

Coal

South Africa produced 93 per cent of Africa's coal in 1969 and most of the rest came from the South of the Continent including S. Rhodesia, Mozambique and Zambia. Zambia has developed production since 1966 and deposits have been discovered in Tanzania which may be exploited for a new steel works. Swaziland has extensive deposits and there is a scheme to mine considerable quantities to feed a thermal electric plant. Morocco's production was 400,000 tons in 1969 and there are plans to increase this to 800,000 tons in 1972 for thermal electricity production. Nigeria's coal production ceased due to the civil war but in 1970 the mines were being rehabilitated; in 1966 640,000 tons were mined.

Tin Ore

The most important tin mine countries are Nigeria and the Congo DR which accounted for 74 per cent of Africa's output of 21,200 tons of metal in 1969. Production in both countries fell in 1969 after increasing in 1968. Other producers include Rwanda, Namibia, S. Rhodesia and South Africa but there is little evidence of an increasing trend in Africa's production for the years 1966 to 1969.

Lead Ore

Morocco and Namibia produced most of Africa's output in 1969 but whilst production in Morocco has been stable since 1965 at about 80,000 tons, there has been a fall in Namibia from 110,000 tons to 76,000 tons between 1965 and 1969. Morocco planned to increase output by about 30,000 tons a year by 1972.

Zinc Ore

Production of this mineral in 1969 was slightly less than in 1965. Output in the Congo DR fell in 1969 to 99,800 tons from 124,700 tons in 1967 but Zambia continued to increase its production which reached 68,200 tons in 1969 compared with 47,400 tons in 1965. These two countries produced most of Africa's output in 1969 and next in importance was Namibia where production was being increased and a new mine developed to feed a zinc smelter in South Africa. Production in Algeria and Morocco fell markedly between 1965 and 1966/67 but has increased since that time although the 1965 level was not recovered in 1969.

Mineral Exports

The mining industry in terms of value of exports plays a most important part in Africa's foreign trade and the appendix tables show the quantities and value of the principal minerals exported from Africa as well as the share of minerals in the total trade of individual countries. In Table 4.3 below is given the breakdown of mineral exports from Africa for 1960 to 1968 showing the major groups of minerals.

The percentage of mineral exports in the total export trade of Africa increased from 36.2 per cent in 1960 to 50.4 per cent in 1968 and probably increased further in 1969. In Developing Africa the increase was from 25.5 per cent in 1960 to 48.8 per cent in 1968. Gold has been included in the total of mineral exports in this instance because gold is produced in quantity in Africa and its export represents the result of mining activity rather than monetary movements.

The growth both absolute and relative in mineral exports from Africa in the 1960's has been due basically to the increase of production of mineral fuels but there has also been important growth in the value of metal, gold and non metallic mineral exports. Mineral fuel exports were worth 269 million dollars in 1960 but 2,950 million in 1968 and probably exceeded 3,300 million in 1969. By 1968 mineral fuels accounted for 45 per cent of mineral exports from Africa and 59 per cent from Developing Africa. They represent nearly 30 per cent of total exports from Developing Africa.

Table 4.3 Exports of Minerals From Africa 1960 to 1968

<u>Total Africa</u>	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>
	(Value in million US dollars)				
Metalliferous ores and metal scrap	460	513	495	465	551
Metals	700	1,016	1,290	1,242	1,238
Mineral fuels	269	1,653	1,864	2,166	2,950
Non metallic minerals	409	665	659	688	724
Gold	821	1,125	1,125	1,134	1,127
Total	<u>2,659</u>	<u>4,972</u>	<u>5,433</u>	<u>5,695</u>	<u>6,590</u>
<u>Developing Africa</u>					
Metalliferous ore and metal scrap	230	390	390	355	396
Metals	590	830	1,120	1,070	1,063
Mineral fuels	230	1,610	1,810	2,130	2,840
Non metallic minerals	252	470	456	464	460
Gold	70	52	50	52	50
Total	<u>1,372</u>	<u>3,352</u>	<u>3,826</u>	<u>4,071</u>	<u>4,809</u>
<u>Mineral Exports as a Percentage of Total</u>					
Africa	36.2	48.5	49.3	49.8	50.4
Developing Africa	25.5	43.5	46.2	48.2	48.8

Mineral exports from Africa have been concentrated in a small number of major commodities and in 1969 crude petroleum, copper and gold accounted for 78 per cent of the value of total mineral exports from Africa compared with 60 per cent of total mineral exports in 1960. Six minerals provided 93 per cent of exports in 1969. The six were crude petroleum, copper, gold, diamonds, iron ore and crude phosphates. From Developing Africa the products were the same except for gold which was replaced by bauxite, alumina and aluminium.

In the countries where mineral production is the major industry, the proportion of minerals in the total export trade is extremely high and Table in the appendix shows that in 1969 minerals represented 97.6 per cent or more of exports in Zambia, Libya and Mauritania, they represented 80.5 to 86.2 per cent in Sierra Leone, Congo DR and Liberia and from 59.0 per cent to 71.9 per cent in Gabon, Guinea and Algeria. In six other countries more than 30 per cent of total exports were minerals.

Crude Petroleum Exports

Libya was the major exporter of crude petroleum from Africa in 1969 and also in 1970; in 1969 148 million tons of petroleum were exported from Libya with 90 per cent going to Europe. The growth rate in such exports from Libya has been extremely high since 1961 and in 1965 exports were 58.5 million tons. Algeria was the second most important exporter of crude petroleum in 1969 and its most important customer was France. The growth rate of petroleum production in Nigeria in 1970 has probably meant that this country may have overtaken Algeria as an exporter in that year. A continuation of Nigeria's rapid petroleum development could well lead to exports reaching the level of those from Libya in a short period. In the UAR exports increased in 1969 and the rising trend of production should be reflected in higher exports in the future.

Total petroleum exports (all from Developing Africa) were 224.4 million tons in 1969 having doubled since 1965 and grown 20 times since 1960.

Copper Exports

Copper has almost the same place in Zambia's economy as petroleum has in that of Libya. Copper exports from Zambia (now mainly electrolytic copper) grew very considerably in value in 1969 due to the sharp increase in world prices accompanied by an increase in production. In 1970 average prices fell and production in Zambia was probably reduced because of an earth fall in one of the major mines. Of the total exports of 1,224,000 tons of copper from Africa in 1969 some 730,000 tons came from Zambia and 306,000 tons from the Congo DR whilst 150,000 tons were exported from South Africa and Namibia.

Exports from the Congo DR increased in line with the growth of production which was 289,000 tons in 1965 and 356,000 tons in 1969. Production in Zambia grew less during this period from 696,000 to 720,000 tons.

The world market situation for copper in 1971 does not seem particularly favourable and this will be reflected in Africa's export results for the year.

Iron Ore Exports

Total exports of iron ore and concentrates from Developing Africa reached a new record of 45 million tons in 1969 due to increased exports from most producing countries. Liberia and Mauritania are the major exporters and in both countries there has been a rapid development throughout the 1960's.

In 1960 only 11.3 million tons of iron ore was exported from Africa virtually all from the developing countries, by 1969 exports had grown to 49.6 million tons of which 44.9 million tons were from Africa excluding South Africa and Swaziland. This fourfold increase in the volume of exports has not been matched by a similar increase in value (from 98 to 322 million dollars for Developing Africa) and there has undoubtedly been some reduction in the realised value per ton. The future growth of this branch of the mineral industry in Africa will be basically tied to the rate of economic growth in the more advanced economies of the world.

Diamond Exports

African exports of diamonds continued to dominate the world trade and the Congo DR was important in the trade in industrial diamonds whilst Southern Africa supplied much of the demand for gem diamonds. Total exports of diamonds were probably in the region of 30 million carats in 1969 or half as much again as in 1960. In value the increase was from 235 million to 550 million dollars from 1960 to 1969 which serves to illustrate the favourable price trend during the decade.

Of the exporting countries diamonds are relatively much more important in Sierra Leone than in the others and the favourable trend in prices between 1967 and 1968 was very welcome in this country.

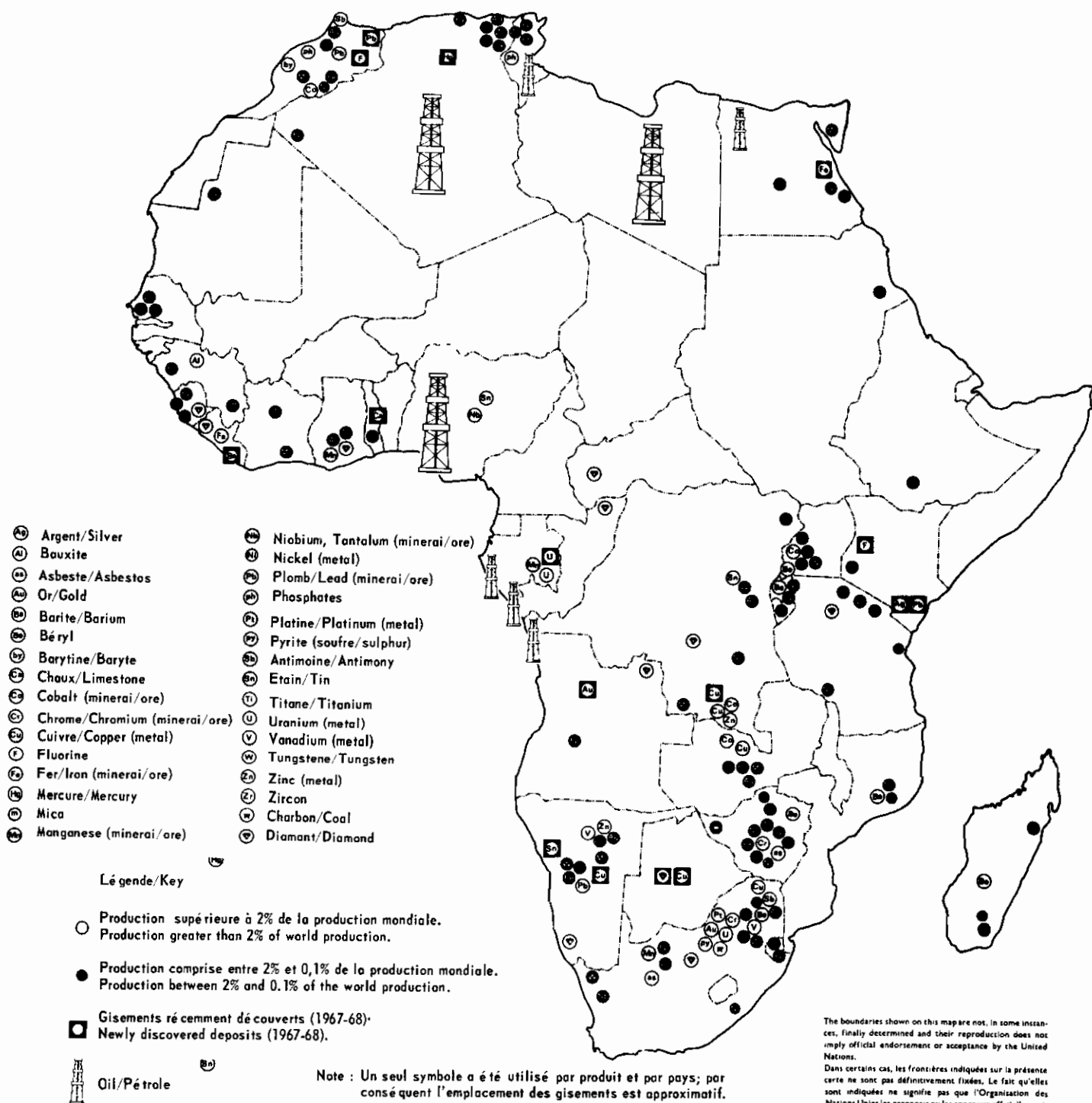
Crude Phosphate Exports

All crude phosphate exports have been from Developing Africa and the quantity increased from 10.2 to 15.2 million tons between 1960 and 1968 but fell to 14.3 million tons in 1969. The increase in total value had been from 110 million to 162 million dollars between 1960 and 1968 and this indicates that the price per ton has fallen slightly.

PRODUCTION MINERALE DE L'AFRIQUE

MINERAL PRODUCTION IN AFRICA

1968



The marketing difficulties for phosphate sales mentioned earlier affected African sales in 1969 and the fall from 15.2 to 14.3 million tons was significant. The fall in 1969 may have been temporary however, as exports from Morocco the major producer increased in the first half of 1970.

The major market for Africa's mineral exports is Western Europe and in 1968 more than three quarters of the total went to countries in this area. North America and Japan are relatively small customers but Japan's purchases from Africa have been increasing with some emphasis on iron ore and copper. Shipments of minerals from Africa to the socialist countries of Eastern Europe have also been increasing although this area remains a relatively minor customer.

Intra-African trade in minerals still remains small but with the development of industrial activities on the continent, the potentialities for such trade will naturally become increasingly important particularly as mineral resources (based on deposits already discovered) appear to be unevenly distributed.

Mineral Exploration

Over the years since 1965 mineral exploration in Africa has continued at a rapid rate to find new deposits and also to examine in depth the deposits already discovered.

The present stage reached in mineral exploration in Africa is reflected to some extent in the map on page . There are large areas of Africa where little or nothing is marked on this map whereas in other parts particularly in the North and South the present production covers a wide range of minerals.

The objectives of mineral exploration have been devoted to assessments of existing mineral resources and to the implementation of geological surveys. A substantial part of the mineral exploration programme was carried out by the UNDP and UN specialised agencies, with projects carried out in a large number of countries.

Bilateral aid has also been used to pay for mineral survey projects. French funds have paid for mineral prospecting activities in West and Central African countries including Chad, Gabon, Congo PR, Ivory Coast, Mali, Mauritania, Niger and Senegal. In a number of countries exploration was carried out with Soviet assistance and these countries include Algeria, Chad, Guinea, Senegal, Ethiopia, Tanzania, Mali and Nigeria. Rumanian, West German, Japanese and other countries technicians and mining experts have also been used for mineral exploration.

Considerable exploration has been undertaken by private mining firms and most of the petroleum prospecting was conducted by oil companies under concession agreements. A large number of countries were covered by such oil exploration and petroleum prospecting still continues in a considerable number of areas.

The other minerals covered by various surveys and explorations include coal, iron ore, copper, diamonds, gold, phosphate rock, lead, zinc, tin, manganese, bauxite and uranium. All these are at present produced in Africa but they are all commodities internationally traded and significant new discoveries will help Africa maintain its important position in the world mineral trade.

Recent discoveries of importance include a number of oilfields in various parts of the continent but mainly in North and West Africa, copper sources in Southern and Central Africa, diamonds in Southern Africa, uranium in Somalia, and various other encouraging deposits of other minerals in different areas. Work on numerous programmes of expansion of capacity and the establishment of new facilities for mining has proceeded and continues in a number of areas of Africa.

Mention can be made of the Western Desert oil wells in the UAR, the Cabinda oil deposits in Angola, the Djoua oil deposits in Mali; the Abu Madi and Aboukir natural gas discoveries in the UAR; new copper areas in Zambia and Morocco; new iron ore mines or deposits in Liberia, Guinea, Algeria, Gabon, UAR, Morocco, Ivory Coast and Angola. There are also goldfields in Gabon, Angola, the UAR, Mauritania and Tanzania; whilst new deposits of bauxite have been discovered in Guinea and Madagascar, of tin in Namibia and lead and zinc in Morocco and Algeria. A large number of limestone deposits have also been discovered and many other mineral deposits. The list given here is not meant to be exhaustive but it illustrates that mineral production in Africa is likely to continue at an accelerated rate in the years immediately ahead. Although not actually discovered in the last few years, there are a considerable number of mineral deposits which are being developed at the present time or have recently been developed.

It is of fundamental importance for modern mining developments in Africa that infrastructure facilities such as transport, water supply, electricity and various other amenities be made available. In the present circumstances such facilities would normally be expected to be provided by the Government or its agencies leaving the mining investor to contribute the resources for the actual mining operation. The slow development of infrastructure facilities has sometimes contributed to a fairly lengthy time lag between the discovery of an important new mineral deposit and its eventual exploitation. Such delays may also result from an unsatisfactory position in the world market for the particular mineral.

The development of the Akjoujt copper deposits in Mauritania, the diamond copper/nickel deposits in Botswana, the nickel deposits in Rhodesia and other mineral resources in various parts of Africa were probably held up to some extent by the need to construct infrastructure facilities or until market conditions were considered to be suitable.

Since intensive prospecting programmes in African countries are of vital importance for the future growth of the economies, it has generally been the case that recent plan documents have specified that prospecting operations to search for potential mineral resources and to prove existing resources will continue at an accelerated rate in the future. At the present stage of development this often means a high dependence on external aid and technical assistance but a number of countries are beginning to train their own nationals to take a more active part in this work. It is no coincidence that the geological map of Africa which has been reproduced in abbreviated form in this chapter shows the concentration of minerals in particular countries and areas. Successful mineral exploration is often the result of the extension of activities in a country which already produces minerals and has qualified people able to recognise early the indications which lead eventually to commercial exploitation.

Appendix tables A22 to A25 give data on mineral production and exports.

Chapter 5. MANUFACTURING AND CONSTRUCTION

Manufacturing Industry

This survey of the industrial developments during 1967 to 1969 is divided into two parts. In the first part an overall view is provided of the trends in industrial output. The performance of 44 countries in Developing Africa, individually treated, provides the main focus.

In the second part, a detailed statement is provided of the new, major industrial projects set up during 1967 to 1969, and of new, major industrial projects under construction. This statement is also country-oriented, and uses two essential criteria in determining what constitutes major projects: one, the absolute scale of a project in relation to the country's extant industrial structure; and two, significant developments, irrespective of their absolute size, if these represent path-breaking developments in terms of new products, unusual technologies or new materials, export-upgrading and so on. There is finally a necessarily incomplete presentation of various facets of the emerging pattern of new African industrialisation, the facts of the new growth as much as the efficiency and costs of the process of industrial growth as experienced in developing Africa in the years after 1966.

Trends in Overall Industrial Output: 1967 to 1969

Direct measures of total industrial output, - production indices, estimates of the contribution of the manufacturing sector to the GDP at current prices, estimates of the contribution of the manufacturing sector in terms of constant prices and estimates of the value of output in current prices - covering the years 1968 or 1968 and 1969 are available in early 1971 for twenty countries. Other data, usually production series covering specific major items are available for about thirty-five countries in all and often provide a fairly firm assessment of the directional trend in overall industrial output. In the case of other countries, usually the smaller ones, reasonable definitive assessments can be made with the help of either fragmentary information or other qualitative data. The utilization of these diverse, not always comparable, methods of evaluation necessarily limits the value of any overall assessment of trends, and equally renders it liable to future revision.

Table 5.1 brings together the available direct measures of overall output trends.

Table 5.1 Output Trends in Developing Africa's Manufacturing Industry 1967 to 1969

Country	Measure of Output ^{a/}	Base Year where relevant					Increases	
			1967	1968	1969	1968/67	1969/68	
UAR(Egypt) ^{b/}	G.O.		1,277	1,426		+11% ^{c/}	...	
Libya ^{d/}	G.O.		22	27		+21%	...	
Morocco	P.I.	1958	142	147	158	+ 4%	+7%	
Tunisia	P.I.	1966	107	112	114	+ 5%	+1%	
Sierra Leone ^{e/}	G.D.P.C.		15.5	16.3		+ 5%	...	
Ivory Coast ^{f/}	G.O.		54.3	67.8	74.3	+25%	+11%	
Liberia ^{g/}	G.D.P.C.		13.7	15.6		+14%	...	
Nigeria	P.I.	1963	171.8	172.6	216.4	+0.4%	+25%	
Ghana	P.I.	1963	122	149	166	+12%	+11%	
Senegal	P.I.	1963	112	111	111	- 1%	no change	
Tanzania ^{h/}	G.D.P.F.		424	461	530	+ 9%	+11%	
Tanzania ^{i/}	G.D.P.C.		477	519	597	+11%	+15%	
Kenya	P.I.	1964	116	124	138	+ 7%	+11%	
Uganda ^{j/}	G.D.P.F.		412	421	451	+ 2%	+ 7%	
S. Rhodesia	P.I.	1963	117	128	145	+ 9%	+13%	
Malawi ^{k/}	G.D.P.C.		7.7	8.6	9.6	+12%	+12%	
Zambia ^{l/}	P.I.	1963	208	222	220	+ 7%	- 1%	
Rwanda ^{m/}	G.D.P.C.		418	495		+18%	...	
Congo(D.R.) ^{n/}	V.A.			32.1	35.3	...	+10%	
Congo(DR)	P.I.	1966	97.5	91.0		- 7%	...	
Angola ^{o/}	G.O.		3,619	4,002		+11%	...	
Mozambique ^{p/}	G.O.		3,860	5,223		+35%	...	

Source: National sources; United Nations Monthly Bulletin of Statistics; ECA secretariat.

- a) G.O. stands for gross output; P.I. for production index; G.D.P.C. stands for the contribution of the manufacturing sector to the G.D.P. at current prices in national currency; G.D.P.F. represents the contribution of the manufacturing sector to the G.D.P. at constant prices; V.A. stands for value added according to an industrial survey.
- b) In million Egyptian £s. The figures of gross output, in current prices, relate to 1967/1968 and 1968/1969 respectively.
- c) Refers to 1968/1969 as compared to 1967/1968 only.
- d) In million Libyan £s.
- e) In million Leones. The years refer to 1967/1968 and 1968/1969.
- f) In milliard FCFA. The output of the small units and the petroleum refinery are excluded.
- g) In million U.S. dollars.
- h) In million shillings; the 1969 figure is an ECA secretariat estimate, which might be an underestimate.
- i) In million shillings; the 1969 figure is official, but provisional.
- j) In million shillings, and in constant 1966 prices.
- k) In Malawi £s.
- l) Including electricity, and in million Rwanda Francs.
- m) Million Zaires in constant 1968 prices.
- n) In million Escudos; the coverage is almost complete.
- o) In million Escudos; the coverage is almost complete.

The broad proposition that can be supported by the data in Table 5.1 is that the pace of expansion of industrial output recorded in 1960-1967 of around 7 to 8 per cent per year in terms of compounded annual rates of increase, was maintained during 1967-1969, and probably considerably exceeded during 1969 itself. This would imply, very roughly that total domestic production at ex-factory prices in 1969 was about 11,900 million US dollars, compared to 2,800 million US dollars estimated for 1950 and 7,000 million U. dollars for 1963 (all figures in 1963 prices).

A first approximation of the overall pattern of industrial demand as it has evolved up to 1969 is presented in Table 5.2.

Table 5.2 A First Approximation of the Overall Trends in Industrial Demand and Output: 1963 and 1969
(figures in million US dollars at 1963 prices)

	<u>1963^{a/}</u>	<u>1969^{b/}</u>	<u>1969 as Percent of 1963</u>	<u>Annual Average Growth Rate 1963 to 69</u>
1.Domestic ind- ustrial production	6,980	11,900	170	+9.3%
2.Industrial imports valued at importers warehouse prices ^{c/}	<u>5,710</u>	<u>8,600</u>	<u>151</u>	<u>+7.1%</u>
3.Total demand for manufactures	12,690	20,500	162	+8.3%
4.Less Exports	<u>1,060</u>	<u>1,550</u>	<u>146</u>	<u>+6.6%</u>
5.Domestic demand for Developing Africa	11,630	8,950	163	+8.4%

a/ Based on earlier studies by ECA Secretariat.

b/ 1969 figures are in the nature of a first approximation.

c/ This method of valuation, in the place of the c.i.f. basis, is adopted in order to take into account the considerable difference between ex-factory unit costs in Developing Africa generally and c.i.f. import prices per unit. The 1969 import assessment incorporates a larger customs duty element as duties have increased since 1963 on manufactured products.

The estimates in the preceding table are necessarily surrounded by a penumbra of uncertainty but serve to underline a few qualitative aspects such as rapid pace of growth of industrial output, supported by expanded domestic demand; a lower but significant growth in the exports of manufactured products and a consequential small but significant contraction in the relative role of imports in the total demand for manufactured products. The reduced relative significance of imports is most dramatic in the case of staples of mass consumption in Developing Africa. This may be illustrated from the fact that the African textile industries consumption of raw materials has increased from 77,900 metric tons on average during the period 1961 to 1963 to

185,600 metric tons in 1967-1968^{a/}. This implies an annual compounded rate of increase in textile output of over 15.5 per cent during 1961-1968, against the background of an overall constancy in total textile availability per caput around 1.5 kilograms. The reduced relative role of imports, however, probably still implies that around one-half of intermediate goods and about four-fifths of capital goods required are derived from imports by Developing Africa.

The available direct measures of output trends presented in Table 5.1 as indicated earlier, can be supplemented by various other sources, more or less specific. The resultant first approximation of the movements of real industrial output during 1967 to 1969 for forty-four countries in Developing Africa is shown in Table 5.3 which follows.

Table 5.3 A First Approximation of the Trends in Real Output of the Manufacturing Sector in Forty-four Countries of Developing Africa: 1969 compared to 1967

Subregion	Less than 5 to 8% 8 to 12% 12 to 20% 20% and					
	Negative growth	5% increase	increase	increase	increase	above increase
North African		Tunisia		Sudan Morocco	UAR	Algeria Libya
West African	Senegal	Gambia Guinea Mauritania	Sierra Leone Mali Upper Volta	Togo Dahomey Niger	Liberia	Ivory-Coast Nigeria Ghana
East African			Mauritius Somalia Zambia	Madagascar Uganda	Kenya	Ethiopia Tanzania Malawi
Central African		Congo (DR) Burundi	Gabon	Cameroon Congo (PR)	Chad C.A.R. Rwanda	
Other Africa		Swaziland Botswana	Namibia	Lesotho		Angola Mozambique S. Rhodesia
Total Countries(44)	1	8	8	10	6	11

Source: ECA secretariat.

^{a/} Based on recent FAO estimates.

The wide variations between countries in the rates of industrial output, perceivable in Table 5.1, is further amplified in Table 5.3 although several qualifications need to be made. In the first place, the movement between one year and the next (1968 and 1969) can in some countries be widely divergent in scale and direction from the pattern of movement between 1967 and 1968. Secondly, the highest rates of growth are not uniquely correlated with the countries having the largest industrial sectors. Indeed, of the ten largest countries i.e. the UAR, Morocco, Nigeria, Algeria, S. Rhodesia, Congo (DR), Mozambique, Kenya, Tunisia and Ethiopia in that order, -- two (Tunisia and Congo (DR)) had low growth rates between 1967 and 1969. Only five of them (Algeria, Nigeria, Ethiopia, S. Rhodesia and Mozambique) out of eleven countries with a real growth rate in output of 20 per cent or more during 1967-1969 belong to the 1968 list of the ten largest industrial countries. Thirdly, it is generally true that the movement in the output of the larger countries (in terms of industrialization) is reflective of a much broader range of industrial activity whereas in the smaller countries it might indicate a few isolated new projects. Finally, the country growth rates may reflect in varying degrees, the adverse or favourable impact of harvest conditions, the number of new industrial units which came into effective production, and other internal elements of the particular industrial structure of each country.

New Industrial Units in Developing Africa, 1967-1969

In appendix table A 26 details are presented of around 400 major projects which either started production during the three years 1967, 1968 and 1969 or were under construction. Where the latter category of industrial projects have come into production in the period after 1969 this has been indicated. The table covers six countries in the North African Sub-region; twelve countries in the West African sub-region; nine countries in the East African sub-region; and eight countries in the Central African sub-region. In all, reference is made to around 400 projects involving a total estimated investment of over 3,000 million dollars.

The entries in the statements are however an understatement of the developments during 1967 to 1969 inasmuch as all developments other than those classified as major are excluded, and because expansions of capacity are usually under-reported or not reported in trade and other economic reports. In addition, of course, there is always the possibility in any such wide-ranging exercise of missing out particular projects.

On the other hand, it is clear that many of the projects were begun prior to 1967 and have come into production or will come into production after 1969. In that sense, the statement reflects the unfolding pattern of new plants, products and processes broadly relevant to the second half of the 1960s, and not merely the period from 1967 to 1969.

Table 5.4 Summary of the More Common Types of Industrial Project by Subregion of Developing Africa 1967 to 1969

<u>Type of Project</u>	<u>North Africa</u>	<u>West Africa</u>	<u>East Africa</u>	<u>Central Africa</u>
	<u>Number of Projects</u>			
Meat processing	-	1	3	1
Dairy products	-	2	6	-
Canning	4	2	2	1
Fish processing	1	5	1	3
Vegetable oils	-	10	2	4
Grain milling	1	5	1	3
Sugar mills	4	3	4	2
Sugar refineries	3	1	-	1
Food products n.e.s.	4	8	3	3
Distilleries	1	1	2	-
Breweries	-	3	3	3
Cigarettes	2	1	1	1
Textile plants	12	20	26	8
Clothing	4	-	5	-
Footwear & tanning	6	1	2	4
Wood & products	2	1	-	10
Pulp & paper	2	3	4	1
Petroleum refining	-	1	3	2
Chemical fertilizers	7	2	3	1
Other chemicals	10	6	3	2
Tyres & tubes	1	2	4	1
Cement	4	14	4	4
Glassware	-	-	4	2
Iron & steel (basic)	4	-	2	-
Non ferrous metals	1	1	1	1
Metal fabrications	1	1	4	-
Motor vehicles	3	5	-	3

This distribution illustrates to some extent the different stages of industrial development in the various subregions with North Africa moving to more advanced processes such as chemical production and basic iron and steel projects whilst in the other subregions textile projects and (in West Africa) cement projects were the more common ventures.

The preceding statements reflect the large volume of industrial activity connected with new units during the three years, 1967 to 1969. The limited intention in the rest of this section is to underline certain specific facets.

In the first place, several sectors of activity -- petroleum refineries, petro-chemical complexes, other chemical industries, several developments in the metal industries and heavy engineering industries, manufacture of automobiles, production of automobile tyres and others -- have made either a new entry on the African

industrial scene or have recorded a new emphasis in terms of the number of countries in which production is recorded. Thus, by early 1970^{1/}, the countries of Developing Africa had 25 petroleum refineries with a daily distillation capacity of 581,000 barrels and six new refineries or major expansion, with a daily distillation capacity of about 100,000 barrels were proposed or under construction.

To a limited extent, the growth of new industrial sectors is based on the adoption of new technologies (as in the case of the new cashewnut processing plants which provide for the recovery of the shell liquid) or the utilization of by-products previously wasted.

The whole process is closely linked with the tendency to take up larger and more complex projects with a longer gestation period. Although it is difficult to be precise, it is not unlikely that the modal size (say, in terms of investment) of a new industrial project in Developing Africa is larger at the end of the 1960s than it was at the start of the decade.

The statements also indicate two other parallel tendencies. On the one hand, there is a serious effort to upgrade exports evidenced in the new cordage products (sisal) plants in Tanzania, the new cashewnut processing plants in Kenya, Tanzania and Angola and the phosphate fertilizer complexes in Morocco, among others. On the other hand, there is a simultaneous attempt to downgrade imports as is indicated by the setting up of several petroleum refineries based on imported crude and bag and hessian plants based on imported raw jute, among others.

It is also evident that the lists of new plants display a tendency to ignore all considerations of economies of scale in the case of some industries, of which the multiple setting up of vehicle assembly plants is the clearest example. Indeed, there now exists in one of the countries an assembly plant with a daily capacity of precisely one car!

In the second place, an aspect of new projects unrecorded in the statements should be noted, although it is not possible to either document its incidence or causation fully here. The completion of a large number of projects has lagged seriously behind early estimates. Partly as a result of the former, and partly because of other factors, a spillover of 25 to 40 per cent in the investment required has frequently created serious problems in finding the additional funds. Occasionally, as in the case of the fertilizer plant at Mombasa, second thoughts about the feasibility of the project have crystallized after construction was started, leading to expensive abandonment of the project half-way through.

Thirdly, some of the new projects have met with unanticipated (or not fully anticipated) adversities in actual operation, result-

^{1/} Based on the World Refineries Survey, Petroleum Times, 2.1.1970

ing in extraordinarily high unit costs of operation. This, in turn, has led to demand for the prohibition or limitation of imports through higher tariffs or quotas, which has resulted in a larger burden on the public exchequer than originally anticipated and a greater price of the national product for the consumer than originally estimated. The failure to use output capacities adequately has sometimes been of an unusually high order, and less frequently has caused closure of new plants.

Finally, even after allowance is made for scale and other relevant factors, there appears to be an extraordinary disparity in capital expenditure for a given capacity in a particular industry. This is evident in all the major staples of African industrialization, whether textile mills, cement plants, paper mills or petroleum refineries. The case of the cement industry, as recorded in the various entries of the statements, shows the investment per 100,000 tons of annual capacity to vary between US\$1.63 million and more than US\$10 million, during a comparatively short time period and for well-known standard technologies. To put it another way, the efficiency in the use of investment resources is highly variable, and there emerges a persuasive case that many segments of the large-scale industrialization emerging in Developing Africa are less than efficient. The overall national management of industrial development has not yet assured a rational balance between the scale of industrialization attained and the volume of investment incurred or services.

Construction and Housing

During the period 1966 to 1969 the housing and construction industry has contributed, on average, 4.8 per cent of the GDP of African countries, it has employed about 10 per cent of the total wage employment labour force and has provided some 60 per cent of the Gross Domestic Capital Formation (GDCF). Some limited data are available on the composition of the GDCF and these are given in appendix Table A 27.

The building and construction industry, in addition to its economic importance shown by the factors above, has very important social effects. On the social scene, each individual would like to have his own dwelling and in this way housing sets the character of all human settlements providing also important political side effects

Out of the total capital formation devoted to construction about half represents housing and community services. It has been estimated that the annual average per capita expenditure on housing and community facilities in Africa in the period 1966 to 1968 was about US\$4 per annum. With a population of 323 million in Developing Africa this represented a total expenditure of nearly 1,300 million dollars in 1968. On the assumption that each household would like to own its own dwelling and with minimum standard urban dwellings costing some US\$750, the increasing population of more

than 8 million persons a year in Developing Africa presents a particular problem for present and future housing. It is fortunate that only a limited proportion of the increasing population would need to be housed in urban areas (based on present trends), but any substantial change in the desires of the rural population towards better housing standards could present an almost insolvable problem. There is in any event the unsatisfactory present position in the urban areas with much substandard accommodation requiring to be replaced with more hygienic and suitable dwellings.

The housing and construction sector provides the physical evidence of economic development and helps set the character of both the rural and urban environment. A major characteristic of the construction industry is that it is sensitive to political and economic changes as well as to changes in the policies of finance and banking. The government and its agencies are generally responsible for the major civil engineering works in most African countries and consequently they are able to effect designs to incorporate desired social and economic changes.

The employment characteristics of the construction industry show, at the moment, very erratic changes which lead to high costs and uncertainty of employment. The construction industry by its very nature employs a large number of unskilled and semi-skilled labour and it is in this way the employer of the majority of rural emigrants to the cities and by so doing transforms the rural emigrant into an urban dweller.

According to, possibly, a limited study made of construction in Africa the major customer is the public sector and maintenance and repairs in 1967-69 accounted for about 16 per cent of the output. The proportion of maintenance and repair is likely to increase in future years since in a number of countries much of the present stock of buildings, roads and other capital equipment is relatively new and maintenance is minimal.

Table 55 Output of Construction Industry, Based on A Study of Selected African Developing Countries covering 1967 to 1969

<u>Sector</u>	<u>All Work</u>	<u>New Work</u>		<u>Repair and Maintenance</u>	
		<u>Public</u>	<u>Private</u>	<u>Public</u>	<u>Private</u>
		(in percentages)			
Agriculture & mining)	11	2.2	8.0	0.1	0.7
Manufacturing	12	2.4	9.0	0.1	0.5
Gas, electricity & water)	7	6.6	-	0.4	-
Communications & other public services)	24	16.0	-	8.0	-

Table 5.5 (ctd)

<u>Sector</u>	<u>All work</u>	<u>New Work</u>		<u>Repair and Maintenance</u>	
		<u>Public</u>	<u>Private</u>	<u>Public</u>	<u>Private</u>
		(in percentages)			
Commerce and other private services)	5	0.5	4.0	-	0.5
Dwellings	35	0.3	31.8	-	3.2
Education	3	2.1	0.7	0.2	-
Health etc.	3	2.3	0.5	0.2	-
Total	<u>100</u>	<u>32.4</u>	<u>53.7</u>	<u>9.0</u>	<u>4.9</u>

Source: University College Environmental Research Group, London.

The industry is characterized by a few big, usually foreign, contractors who execute most of the major infrastructural works. These are followed by a number of medium-sized local contractors who carry out maintenance and repairs and specialize, usually, in the construction of dwellings. This group forms about 30 per cent of contractors in the industry. There is then a large number of artisans and private builders who are either individual specialists executing private contracts, e.g. plumbers, electricians, or general artisans who carry out individual contracts. These constitute 50 to 60 per cent of all contractors in this sector. The construction of large projects (roads, dams, public buildings etc) is relatively modernized with the use of heavy machinery and cranes as appropriate. This coupled with relatively low labour costs, makes for lower costs in this infrastructural sector.

The situation in the housing subsector, however, is different. Work in this sector is still artisanal, productivity is low and, because of a lack of standardisation, costs are increased. The production of housing over the past three years has been of the order of three units per thousand of total population while the need is of the order of 10 to 13 units per thousand. The output of this sector is lower in quality than one would expect, from a sector which not only consumes the largest single investment resources but is also of a permanent nature. On the whole, regulations which set the technical standards of this basic infrastructure have not yet been set in the terms of physical conditions of the environment. Present standards in use are copies of various standards from different industrialized countries.

The shortage of skills in the building and construction industry is acute at the intermediate and professional levels. Recent training programmes have tended to emphasize the training at the professional (engineers, architects, town planners, quantity surveyors, etc) level and at the moment there is an acute shortage of intermediate (site supervisors, clerks of works, foremen, etc). personnel. Thus while the demand for professional services is

gradually being met from local sources, a considerable number of intermediate personnel are still being recruited from abroad often at high costs. Thus in addition to the high import content of building materials, which will be referred to later, there is also a considerable import of technical know-how into the construction industry. This has tended to increase the costs of construction.

There are only fourteen schools of engineering in Africa and only eight schools of architecture and physical planning. All these produced (and still produce) less than a thousand professionals a year, whereas the theoretical need is for about 10,000 engineers and architects. Vocational training schools exist in most countries but the output is small and the type of training programmes they follow is not related to the needs of the Continent.

As stated above, heavy mechanical equipment is used in construction. The low level of maintenance of this equipment as well as the lack of continuity in the construction industry to keep it fully utilized constitutes another cost factor in the construction industry. In this specific area there is need for careful long-term planning in order to make optimal use of plant and machinery.

By the mid sixties, a few prefabrication plants had been established mainly in North and West Africa. These plants had a high level technological content and were designed to produce buildings out of heavy load-bearing components. They have not proved to be economically feasible principally because the local markets were too small for such high capital investments. These heavy prefabrication plants have been unsuccessful because of the low level of productivity which kept costs so high as to put their prefabricated houses out of reach of the average urban dweller. Thus, it could be generally stated that the prefabricating plants so far established in Africa have not taken into account the level of technology needed, the available labour, and the size of the markets. Considering the fact that, very often, the capital investments required for big prefabricating plants are enough to satisfy, by traditional methods, the housing needs of the urban areas in which they are located it becomes clear that at the present levels of housing need and demand a different approach would be needed to utilize the available labour to produce dwellings by traditional methods but with improved techniques such as standardization, modular co-ordination and the like. This approach is the one adopted by the more successful medium-sized plants, requiring lower capital input, and employing available labour as much as possible.

The greater part of housing is still constructed by traditional methods. Because of the constraints mentioned earlier, productivity is low and the quality is uncertain. Standardization is absent and no attempt has been made to introduce modular co-ordination to any extent. The national authorities, with the exception of a few cases, have not yet promulgated building regulations which take local conditions, resources, needs and standards into account. Because of the low level of intermediate supervisory building personnel, it has not been possible to introduce techniques which would bring innovations into the building industry by the transfer of knowledge on the building site.

Imported building materials are becoming popular in many countries. Though traditional methods of construction are still widely in use, locally produced materials are used mainly in the rural and semi-urban areas. Without a definite government intervention it may not be possible to reverse this trend, and encourage the use of local materials in the urban areas as well.

Table 5.6 below shows both the value and proportion of the building materials usually used in urban housing and infrastructure construction. The traditional sector uses earth, timber, lime and thatch and although these predominantly local materials form a considerable portion (about 20 per cent) of the cost of the house or other construction, its value is not known.

Table 5.6 Construction Materials Used Showing Imports^{a/},
1967 to 1969

<u>Type of Material and Proportion</u>		<u>Locally Produced</u> (million US dollars)	<u>Imported</u>	<u>Total</u>	<u>Imports as a Percent of total</u> (Percent)
Cement	(18%)	295.5	145.5	441.0	33
Cement products	(7%)	147.5	24.0	171.5	14
Iron & steel ^{b/}	(34%)	100.0	733.0	833.0	88
Ceramics etc ^{b/}	(10%)	98.0	147.0	245.0	60
Wood	(17%)	270.5	146.0	416.5	35
Paints	(4%)	49.0	49.0	98.0	50
Electric fittings	(10%)	-	245.0	245.0	100
Total	(100%)	960.5	1,489.5	2,450.0	61

^{a/} In most developing African countries.

^{b/} Glass, ceramics and other non metallic mineral products.

Source: ECA, Housing Section Estimates

The total of imported materials used was as high as 61 per cent with imported iron and steel, ceramics, glass etc, paints and electric fittings accounting for 50 per cent or more of the total of each type used. The resources of Africa in raw materials for cement, iron and steel, ceramics and timber are adequate for her needs (although it would probably be wasteful to use the tropical timbers produced in Africa in place of the non-tropical timbers often used in construction) but the distribution is such that there would have to be cooperation between states in the Region to utilize these resources more fully. There has been a very significant development of cement plants, in particular, during the last few years (although some are based on imported clinker) and there are also signs of a growth of basic iron and steel industries so the position with respect to imported materials for the construction industry may be changing.

Between 1960 and 1969 production of cement in Africa increased from 8.7 million to 16.2 million tons and of the latter figure the developing countries produced 10.0 million tons.

The bulky nature of some building materials makes it necessary to locate industries near the point of utilization but for materials such as cement which could be transported for relatively longer distances, the distribution of producing plants in Africa could be so arranged that within any country the prices of cement produced on the Continent are no more than the world prices. Arrangements of this nature would require considerable international co-operation. In 1969 cement was priced at 15 to 43 dollars per ton in coastal areas and from 32 to 107 dollars per ton in towns in the interior.

A persistent problem of local building materials industries is that their marketing arrangements are often tied in with those of imported materials. This situation makes it very difficult for locally produced building materials industries to establish their viability on the local markets. Before a break-through can be made to reduce the costs of locally produced building materials, it may be necessary to change the present marketing arrangements.

The most important problem facing African countries in the building industries is that of high costs; this is caused to some extent by the marketing arrangements shown above. Low productivity, caused by low level manpower has aggravated the situation. In the land-locked countries where building materials have to be transported, sometimes more than 2,000km, prices are as much as $2\frac{1}{2}$ times those at the coastal ports. These costs make the establishment of the basic infrastructure in these countries even more difficult thus delaying their development.

There is no established procedure by which governments acquire land in advance for the establishment of infrastructures. Speculation just prior to the moment of construction has caused sudden jumps in land values which have further added to construction costs.

Cost levels could be brought down if governments had powers for acquiring land long before-hand so that the money spent on buying at speculative values could be diverted into actual construction. As stated earlier, housing and construction constitutes up to 60 per cent of the Gross Domestic Capital Formation. In spite of this, very few countries have housing policies which reflect not only the capacity of the building industry, but also the need and the demand as well as the materials locally available and the standards at which the houses would be constructed given the financial resources.

Most housing programmes have been unrealistic with the result that the number of houses constructed annually has regularly fallen below the target. There is, however, an increasing awareness of the need to utilize local materials and to formulate policies which truly reflect the value of financial and technical resources available for housing.

As mentioned earlier the number of units produced per annum is 3 per 1000 of population whereas the need is of the order of 13 per 1000 of population. It is estimated that \$3 or more per annum per person is spent on housing per year, whilst the cost of very low-cost dwelling unit is of the order of US\$500. It is, therefore, clear that unless some institutions are established to cope with the financial problems on a long-term basis, using local techniques as much as possible, the solutions of the housing problem may be out of reach of many countries.

Although a significant role is played by the State in the field of housing finance, the character of the established institutions does not reflect adequately the needs of the countries. The terms of the financial arrangements for housing are very often the same as those of the Commercial Banks.

Table A 28 in the appendix shows the wide variations in the terms of mortgage loans for housing. Because of the long-term nature of housing and demand it is essential to set up financial institutions which can lend at much lower rates of interest. If this were done it could have the effect of placing housing within the reach of more people and the increased demand would vitalize the building materials and construction industries.

Most countries of the region possess organizations for physical and regional planning. The densities of land utilization are much lower than would be required for optimal economic use of the available land in the urban areas. In certain residential areas of several African cities there are densities as low as one dwelling per acre. This results in very high service costs per dwelling. On the other hand, those residential areas in the older parts of these cities have very high densities which result in unhealthy conditions. These very near slum areas often do not have adequate services of water and access routes. With the exception of the North African sub-region no attempts have so far been made to rehabilitate these very high density areas.

A few countries have started research programmes in land use but their findings have not yet been incorporated into national standards for local and regional planning. The rapid growth of the urban areas and the planning problems associated with this growth have made government agencies responsible for physical and regional planning aware of the need to develop land at optimal densities so that the costs of services are maintained at a minimum. Inadequate research effort however, has so far been directed to this area, and planning criteria cannot be justified in local terms, being arbitrary or copied from elsewhere.

Thus only a few countries have formulated housing and urban development policies which take all the relevant factors into account: such as, rural-urban migration, magnitude of demand, incomes and financial resources, land use, financial institutions, labour, technology, building materials and their availability, other sectors of the construction industry, building regulations,

standardisation, modular coordination and other subjects.

In the majority of the independent countries of Africa, housing and settlement development policies are only ad-hoc programmes which complicate rather than simplify the prospects of finding permanent solutions to these problems.

Chapter 6. ENERGY

During the last half of the 1960s the development of energy in Africa has been characterised by several special elements namely the intensification of petroleum prospecting; an accelerated growth rate in the production of crude petroleum and natural gas; the rapid augmentation of oil refining capacity and of the consumption of refined products; an appreciable increase in the production of hydro electricity; the putting into service, the completion or the start of work on large hydro-electric complexes; an increase in the production of energy by the public sector, the start of geothermal prospecting in the eastern part of the Continent and progress in the direction of rural electrification.

Whilst the production of coal has only increased modestly between 1965 and 1969, and African production of uranium ore has fallen by nearly 40 per cent in the 1960s, petroleum production increased between 1965 and 1969 in a spectacular fashion from 106,980,000 to 246,960,000 tons equal to an average growth rate of 23.0 per cent a year. Natural gas production which was commercially exploited rose from 1.79 billion cubic metres to 7.16 billion cubic metres equal to a growth rate of 38.1 per cent a year.

Not the least important, the production of hydro-electricity on the Continent has seen a satisfactory rate of growth with output increasing from 13,600 million to 21,400 million Kwh equal to a rate of growth of nearly 12 per cent a year. The most important fact, however, is that this production, which represented 23.38 per cent of the total electricity production in 1965, within four years had risen to 26.78 per cent.

It is well known that Africa possesses important natural sources of energy well suited for accelerated industrial and agricultural development. These resources have long remained basically unexploited, however, and their inventory was only started some thirty years ago. The profound structural changes particularly in the 1960s in the world economic energy position have had a specially beneficial impact on the prospecting for Africa's energy resources and have stimulated production principally destined to meet the needs of an industrial consumption increasing without pause in the developed countries. A better knowledge of Africa's energy resources makes it possible at the present time to evaluate their importance more fully and to correct certain errors of the past. Prospecting and exploitation since 1965 have also enabled new African resources of primary energy to be evaluated. The actual balance, although incomplete is already satisfactory since it is evident that Africa possesses a considerable portion of the world's energy resources including about one-third of the exploitable hydro-electric potential of the globe, 10 per cent of the known petroleum reserves, 23 per cent of the natural gas reserves; 15 per cent of certain types of coal, 13 per cent of the known uranium reserves and more than 7 per cent of the thorium resources (instead of 62.5 per cent mentioned by the

World Conference on Energy and in document ECN/EP/3/ Rer 1). Africa also contains 1 per cent of the world reserves of lignite. Important deposits of bituminous shales capable of providing 15,000 million tons of oil have also been found in the Central Congolese Plateau in the region of Ponthierville.

Africa also possesses good prospects in the field of geothermic energy, especially in the Rift Valley area of the Eastern Subregion. Other prospects are evident for solar energy, principally in the arid zones of the desert or the Sahara; for windmills except in the denser humid forest areas; for thermal energy from the sea (almost exclusively in Abidjan Bay) and perhaps for tidal energy on the West Coast (particularly in Levrie Bay). On top of these, as has been indicated before, the forecast resources of Africa seem capable of providing nearly 100 million tons of equivalent coal each year.

Distribution of Principal Primary Energy Resources

These resources are very unevenly distributed on the Continent. The principal areas of concentration can be roughly identified as follows:- hydrocarbons in the North and on the Coasts, coal in the South, hydro-electric sources in the Centre, on one side or another of the Equator and in the great river basins, radioactive materials concentrated in the South (but sufficiently distributed over the whole of the Continent), and geothermal possibilities in East Africa.

The petroleum reserves of Africa are presently estimated at 7,200 million tons and are principally located in the Saharan deposits of North Africa. Libya, Algeria, the UAR and Tunisia contain 85 per cent of the reserves of crude petroleum of the Continent. With a production of nearly 150 million tons in 1969 Libya has become in eight years the fifth largest world producer of crude oil. There is a strong possibility that Libya achieved the position of third world producer in 1970.

African production undoubtedly increased significantly in 1970, with the restoration of petroleum production in the East of Nigeria and the increase in production in the UAR and Algeria. The Congo Peoples Republic could become a large producer in the years to come and Gabon also seems likely to achieve a satisfactory increase in production.

The reserves of natural gas, alone or in association with crude petroleum are estimated at 4,700 billion cubic metres. The North African subregion has nearly 90 per cent of the Continents' reserves with the deposits of Hassi R'Mel in the Algerian Sahara containing more than one-third of the total. There is a unique deposit of large quantities of methane gas held in suspension in the depths of Lake Kivu in Central Africa, the reserves are estimated at 57,000 million cubic metres.

African reserves of coal are at present estimated at nearly 89 billion tons. The principal deposits are situated, in North Africa in the Sahara basin and the northern rim of the African Plateau, and in the South and South East in the Karroo basins. The latter is the paramount area with reserves for South Africa alone estimated at 72 billion tons. More than 95 per cent of known coal reserves in Africa are situated in South Africa, S. Rhodesia and Swaziland.

The known reserves of uranium oxide are estimated to be of the order of 260,000 tons. South Africa itself possesses nearly 80 per cent of the total. The rest is unequally distributed between Niger, Gabon, the Central African Republic, the Congo Democratic Republic, Angola and Madagascar. Several possibilities have still to be evaluated amongst which are the reserves of uranium contained in deposits of phosphate in North Africa, Senegal, Togo and in the granites of Morocco, the Ivory Coast, Ghana, Nigeria, Cameroon, S. Rhodesia, Zambia, Tanzania, Mozambique, South Africa and Madagascar.

The 53,000 tons of thorium oxide of Africa is situated in West Africa, in the UAR, in Malawi, in South Africa and Madagascar.

However, the dominant energy resource of Africa is its hydro-electric potential which, unlike other sources of energy is practically inexhaustible besides being relatively cheap. Between 1965 and 1970 some large hydro-electric schemes were begun or put into service and amongst these can be cited the following:- Akosombo in Ghana, Kainji in Nigeria, the Aswan High Dam in the UAR, the Kafue Gorge in Zambia, and the Inga scheme in the Congo DR work on the first stage of which is proceeding in a satisfactory manner.

Table 6.1 compares the African reserves of primary energy estimated in 1965 and 1969.

Table 6.1 Proved Reserves of Primary Energy in Africa

<u>Source of Energy</u>	<u>1965</u>	<u>1969</u>
Exploitable H.E. Power (in TWH)	1,629	1,629
Crude petroleum (million tons)	4,818	7,288
Natural Gas (in billion m ³)	3,352	4,700
Bituminous Shales (in mn tons of oil)	-	15,000
Coal (in million tons)	88,496	88,800
Lignite (million tons)	110	130
Uranium oxide (thousand tons)	254	260
Thorium oxide (thousand tons)	1,688	53

Sources: UN; Statistical Yearbook 1966

ECA; International Petroleum Encyclopedia, 1970

ECA; Situation, Tendencies and Perspectives for the Production, Transport and Distribution of Electric Energy in Africa (E/CN.14/EP/3.Rev.1).

Production of Primary Energy

In spite of the cross currents which have stirred the Continent during the second half of the 1960's, the production of primary energy in Africa has increased in a satisfactory manner. From 1965 to 1968 the increase was from 203 million to 324 million tons of equivalent coal and according to the estimates of the ECA Secretariat production reached 396 million tons in 1969. The annual average increase has been 18.2 per cent. These figures do not take account of the radio-active minerals particularly uranium. In total production the relative importance of coal has been considerably reduced from 26.42 per cent in 1965 to 14.37 per cent in 1969. In contrast crude petroleum which accounted for 68.90 per cent of total African primary energy production in 1965 was responsible for 80.52 per cent in 1969 after its exceptional growth since 1965. Natural gas production has increased from 1.29 per cent in 1965 to 2.41 per cent of total energy production in 1969. Although the increase in the production of hydro-electric power has been substantial, the proportion of total production represented by this form of energy has been reduced from 3.37 per cent in 1965 to 2.70 per cent in 1969.

Nearly all the increase in production of energy has occurred in the North African subregion which increased its proportion of the total from 61.28 per cent in 1965 to 71.10 per cent in 1969. There has also been considerable progress in the relative contributions by West Africa and Central Africa. West Africa's proportion increased from 9.22 per cent to 10.71 per cent and that of Central Africa from 1.84 per cent to 2.20 per cent between 1965 and 1969. East Africa and the countries described as Other Africa reduced their relative contributions to Africa's primary energy production in the period under review.

Annual average growth rates from 1965 to 1969 were 22.7 per cent in North Africa, 22.7 per cent in West Africa, 23.6 per cent in Central Africa but only 3.9 per cent in East Africa and nearly 3 per cent in Other Africa. Table in the appendix shows the production of primary energy for all African countries and by subregions for the years 1965, 1967, 1968 and 1969. From this table it is seen that production of coal only increased by 1.5 per cent a year during this period whilst crude petroleum increased by 23.0 per cent, natural gas by 14.8 per cent and hydro-electric power by nearly 12 per cent.

In 1965, African primary energy production represented 3.81 per cent of world production. By 1967 the proportion had increased to 4.53 per cent, by 1968 to 5.27 per cent and by 1969 to nearly 6.20 per cent. It is likely to increase in the future with the expected increase of petroleum production from Libya, Algeria, UAR, Nigeria, Gabon, the Congo PR and Angola.

It is apparent from this table that five countries in Africa were responsible for 93.73 per cent of the total primary energy production in 1965 and 93.06 per cent in 1969. These countries are Libya, Algeria, South Africa, Nigeria and the UAR, despite the events which, in these last two countries stopped or reduced the production of petroleum in 1967 and 1968.

Over the five year period, four developing countries of Africa contributed 69.82 per cent of the total production of primary energy in 1965, 73.92 per cent in 1967 76.8 per cent in 1968 and 79.85 per cent in 1969. It is fitting to make a special reference to Africa's petroleum production which represented 6.98 per cent of world output in 1965, 8.44 per cent in 1967, 9.94 per cent in 1968 and more than 10 per cent in 1969.

Consumption of Primary Energy

The consumption of primary energy in Africa has not followed the same course as production between 1965 and 1969. In fact, from about 93.6 million tons of equivalent coal in 1965 consumption only increased to 99.5 million in 1967, to about 106 million in 1968 and to 111.5 million tons in 1969. The annual average growth rate was about 4.5 per cent. Coal consumption increased by an average of 2 per cent a year and that of liquid fuels by 6.5 per cent a year, the same rate applied to natural gas consumption whilst consumption of hydro-electric power increased by about 12 per cent a year.

Consumption of equivalent coal in Africa rose from 294 kilograms per person in 1965 to 297 in 1967, 308 in 1968 and 316 kilograms in 1969. These figures represented 18.6 per cent, 18.1 per cent, 17.8 per cent and 17.6 per cent respectively of average world consumption per head.

Table 6.2 shows, in percentages, the share of various subregions in the total primary energy consumption in the years 1965, 1967, 1968 and 1969 and Table 6.3 the share of various forms of energy for the same years.

Table 6.2 Share of Subregions in the Total Consumption of Primary Energy in Africa in 1965, 1967, 1968 and 1969

<u>Subregions</u>	<u>1965</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in percentages)			
North Africa	20.06	20.55	21.41	22.07
West Africa	6.14	5.91	6.10	6.82
Central Africa	3.67	3.58	3.66	3.76
East Africa	6.61	7.92	7.57	8.00
Other Africa	63.52	62.04	61.26	59.35
Total	100.00	100.00	100.00	100.00

Small increases have thus been registered between 1965 and 1969 for the four subregions of Developing Africa but a noticeable decrease is apparent for the relative proportion of total consumption represented by the countries making up Other Africa. At the same time a relative reduction of solid fuels in favour of other forms of primary energy has occurred.

Table 6.3 share of Different Forms of Energy in the Consumption of Primary Energy in Africa in 1965, 1967, 1968 and 1969

<u>Type of Fuel</u>	<u>1965</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		(in percentages)		
Solid fuels	56.65	53.78	52.94	51.41
Liquid fuels	34.49	36.75	36.53	37.26
Natural gas (inc. imports)	1.61	1.56	1.61	1.74
Hydro-electric power	7.25	7.91	8.92	9.59
Total	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>

Table A30 in the appendix gives details by countries and by subregions of Africa of the total consumption of primary energy in the second half of the 1960's. It is apparent from this table that nine countries have accounted for 85 per cent of the total consumption of primary energy on the Continent. These countries are the UAR, Algeria, Zambia, Morocco, the Congo Democratic Republic, Nigeria, Gabon, South Africa and S. Rhodesia whose share of the total consumption was 88.07 per cent in 1965 but fell progressively to 85.94 per cent in 1969.

Amongst these nine countries, seven excluding S. Rhodesia and South Africa accounted for 26.30 per cent of consumption in 1965 but increased this to 28.84 per cent in 1969. By itself the Republic of South Africa continued to absorb 54 per cent of the consumption of primary energy of the African continent.

Electric Energy

As indicated earlier, the production and consumption of electric energy in Africa between 1965 and 1969 has been characterised by a relative increase in the production of hydro-electric power which grew from 23.38 per cent of the total in 1965 to 26.78 per cent in 1969.

Total production of electricity was 58,073 million Kwh in 1965, 61,640 million in 1966, 66,952 million in 1967 73,781 million in 1968 and according to the ECA's estimates was 79,962 million Kwh in 1969. The average growth rate during this period has been 8.3 per cent a year. The share of different subregions in the total production of electricity is shown in Table 6.4 below.

Table 6.4 Share of Various Subregions in the African
Production of Electricity from 1965 to 1969

<u>Subregion</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in millions Kwh)				
North Africa	9,003	9,751	10,086	11,149	12,489
West Africa	2,872	3,194	4,178	5,518	6,023
Central Africa	3,887	4,052	3,734	3,949	4,341
East Africa ^{a/}	6,605	6,828	7,731	8,609	9,295
Other Africa	35,706	37,815	41,223	44,556	47,814
Total	58,073	61,640	66,952	73,781	79,962
Developing Africa	23,253	24,765	26,752	30,296	35,729
	<u>Percentages</u>				
North Africa	15.51	15.82	15.06	15.11	15.62
West Africa	4.95	5.18	6.24	7.48	7.53
Central Africa	6.69	6.57	5.58	5.35	5.43
East Africa ^{a/}	11.37	11.08	11.55	11.67	11.62
Other Africa	61.48	61.35	61.57	60.39	59.80
Total	100.00	100.00	100.00	100.00	100.00
Developing Africa	40.04	40.18	39.96	41.63	44.68

^{a/} Includes S. Rhodesia in view of the special arrangements whereby the Kariba Dam HE Scheme supplies much of its output to Zambia.

The production of electricity from hydro-electric sources increased from 13,576 million Kwh in 1965 to 15,757 million in 1967, 18,926 million in 1968 and 21,395 million Kwh in 1969. The percentage of hydro power generated in developing countries was 99.62 per cent in 1965 and according to the ECA estimates 99.63 per cent in 1969. Table 6.5 shows the share of each subregion in the production of hydro electricity from 1965 to 1969.

Table 6.5 Hydro-Electric Production in Africa From
1965 to 1969 by Subregion

<u>Subregion</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in thousand Kwh)				
North Africa	3,459	3,354	3,393	4,728	5,327
West Africa	422	914	1,912	3,001	4,029
Central Africa	3,726	3,867	3,524	3,726	4,021
East Africa ^{a/}	5,412	5,500	6,309	6,850	7,378
Other Africa	557	574	619	621	640
Total	13,576	14,209	15,757	18,926	21,395
	<u>Percentages</u>				
North Africa	25.48	23.60	21.53	24.98	24.90
West Africa	3.11	6.43	12.14	15.86	18.83
Central Africa	27.45	27.22	22.36	19.69	18.79
East Africa ^{a/}	39.86	38.71	40.04	36.19	34.46
Other Africa	4.10	4.04	3.93	3.28	3.00
Total	100.00	100.00	100.00	100.00	100.00

^{a/} Includes S. Rhodesia.

The general tendency in the evolution of electricity production ensures a preponderant part to the public sector. This sector accounted for 88 per cent of production in 1967 and nearly 90 per cent in 1969. The dynamism of the public sector makes it possible to expect that it will cover in the future more or less the whole of the production of electricity in Africa. This tendency is reflected in the increasing efficiency of the public organisation, by the growth of national agencies and the control exercised by the State on public concessions for the distribution of electric energy.

The large hydro-electric schemes developed during this second part of the 1960s have given rise to the problems of the distribution over long distances and the use of electric energy on a massive scale. It has been necessary to rethink the whole idea of the distribution networks in many countries, including the question of the voltage to be used. In the 1950s there were many 33 to 132 KV systems developed and only one of 220 KV, but in the 1960s there has been a general move towards higher voltage systems. Lines of 330 KV have been erected in Nigeria and for the Rhodesian system supplying both the Copperbelt of Zambia and the cities of Salisbury and Bulaways in S. Rhodesia. This latter system is interconnected in the North with the large power stations of the Katanga hydro-electric scheme. Two lines of 500 KV have supplied for many years the centres of consumption in the UAR from the hydro-electric power stations of Aswan and of Sad el Ali which generate from the first and second Gorges of the Nile.

These interconnections will undoubtedly multiply in the future because of the desire of African countries to promote more effective international cooperation in the field of electric energy.

During the period under review several African countries have been concerned with the complex problems posed by rural electrification. Certain countries have tried to resolve these problems either by the extension of distribution networks to the country areas or by the development of isolated low capacity power stations with autonomous distribution networks. The problem is complex, however, particularly for countries with limited incomes. The rural areas in a continent so vast and so poorly populated as Africa are characterised by several unfavourable factors amongst which are their distance from the coast, their dispersion, the poor densities of population, the absence of sustaining economic activity, a lack of skilled workers, an insufficiency in the means of transport and very trying climatic conditions. All these constraints give a special character to this problem that the African countries must, however, try to resolve in the most suitable way.

The installed capacity increased considerably between 1965 and 1969. According to the estimates of the ECA, the total was nearly 22,400 MW at the end of 1970 compared with 13,869 MW in 1965.

Such a figure corresponds to an annual average growth rate of 10 per cent between 1965 and 1970. In 1970 the hydro-electric power station of the High Dam at Aswan was put into service with an installed capacity of 2.1 million KW. This scheme, the most important in Africa up to the present time, will permit a production of the order of 10,000 million Kwh a year. The first stage of the hydro-electric scheme at Kainji in Nigeria began producing in 1968 with an installed capacity of 320 MW. During the period under consideration, work began on the first stage of power stations at Inga in the Congo Democratic Republic, at Kossow in the Ivory Coast, at Kinguele in Gabon, and the extension of the dam of M'Bakou in Cameroon will allow a considerable increase in the installed capacity of the hydro-electric power station at Idea. Several works of lesser importance have been realised in other countries in Africa, particularly in Ethiopia, Mali, Tanzania, Kenya and Uganda; in this latter country the Owen Falls power station was completed and equipped for 150 MW in 1968/69. Other works were completed in Morocco, Swaziland, Malawi and the African islands of the Indian Ocean.

The average consumption of electric energy per inhabitant increased from 182 Kwh in 1965 to 227 Kwh in 1969 giving an average growth rate of 4.7 per cent a year.

Appendix Table A34 shows the total production of electric energy and the consumption per inhabitant in the countries of Africa in 1965, 1967, 1968 and 1969.

Petroleum Products

The production of petroleum products in Africa increased considerably in the second half of the 1960s thanks to the rapid increase in refining capacity. Although relatively low, the production of refined products has increased moderately passing from 21.5 million tons in 1965 to 26.2 million in 1968 and the ECA estimates that the 1970 production should reach 32.4 million tons which equals about 80 per cent of existing refining capacity of the Continent.

In spite of this increase in production, the consumption of petroleum products remains low and there has only been a slow growth between 1965 and 1969. For the whole of the Continent it was still less than 100 kilograms per head in 1969 equal to 25 per cent of the world's average.

Consumption of products increased from 21.5 million tons in 1965 to 25.8 million in 1968 equal to only 1.6 per cent of the total world production.

Imports of petroleum products rose from 11.6 million tons in 1965 to 12.4 million tons in 1968 and exports declined slightly from 5 million to 4.8 million tons.

The appendix table A31 shows the development of refining capacity between 1966 and 1969.

Other Forms of Energy

Experiments with solar energy at centres in Niamey, Dakar and Bamaki continued satisfactorily. These centres continued to study various prototypes of solar apparatus such as stoves, water heaters, cold stores and solar pumps. An interesting test has been carried out in the utilisation of solar batteries for television mainly in Niger. The results seem to be satisfactory but the extension on a large scale of this test to the other countries of the Sahara is not yet envisaged.

Elsewhere a more intensive exploration of the geothermal possibilities in the Eastern area of Africa has been pursued in Ethiopia, Kenya and Burundi. Several UNDP projects are devoted to a study in depth of the geothermal possibilities near the border between Ethiopia and the French territory of Afars and Issas, and in Kenya.

On the question of thermal energy from the sea no new experiments have been carried out in Abidjan Bay since the work of the Georges-Claude mission ceased.

Two projects which deserve a maximum of attention are those for the exploitation of the bituminous shales of the Central Congolese Plateau and methane gas of Lake Kivu. Several preliminary studies have been carried out on these subjects but approaches to these projects by national and multinational are still hesitant.

Several tests have been carried out in the use of local products for the generation of electric energy. A number of power stations using groundnut shells as fuel have functioned for many years in Senegal and a new test is about to be carried out in the Maradi region of Niger. The use of the husks of the rice paddy and cotton seed has already been tested in the area of Niger Office in Mali but no progress has yet been noted in the extension of the processes used other than by COTONFRAN in the cotton growing area of Chad.

Chapter 7. EXTERNAL TRANSACTIONS

External Trade Major Features

Developing Africa's trade registered a significant increase during the period 1965 to 1969 rising from \$15.6 billion in 1965 to \$20.9 billion in 1969, with imports and exports accounting for \$9.4 billion and \$11.5 billion in 1969 as against \$7.9 billion and \$7.7 billion in 1965.

Over these years, Developing Africa's visible trade balance improved steadily, rising from a deficit of 420 million to a surplus of 1,430 million. The average annual growth rate of Africa's exports reached 10.7 per cent which compares favourably with the corresponding figure for world exports (10.1 per cent) and was higher than in all main country groups, except for the developed market economies. More important, the income terms of trade which reflect the import purchasing power of export earnings registered an appreciable increase, rising from 95.2 in 1964 to 144.9 in 1969, a figure slightly lower than in developed market economies (145.6), but higher than in developing countries, as a group (135.9). The terms of trade rose from 100 in 1965 to 108 in 1969, reversing the downward trend noticeable in the period 1960 to 1965. Moreover, as may be seen from Table A43 in the appendix the unit value of exports rose from 101.0 in 1964 to 110.7 in 1969 a figure higher than in developing countries as a whole (103.0) South Africa (101.0) and the developed market economies (104.9). Between the two years, the unit value of imports increased only from 99.0 to 102.9. The latter figure is the same as in developed market economies, but higher than the corresponding one for developing countries as a whole (101.0). At the same time, it will be noticed that import volumes whose rise between 1965 and 1968 had been very slow, registered an appreciable increase in 1969 but less than the increase between 1967 and 1968.

Table 7.1 Terms of Trade of Developed and Developing Countries 1960 to 1969 (1965=100)

<u>Net Barter Terms of Trade</u>	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Developed market economies	98.0	100.0	101.0	101.0	101.0	101.0
Developing countries	105.1	100.0	102.0	101.0	102.0	103.0
Developing Africa	99.0	100.0	98.0	97.0	100.0	100.0
<u>Income Terms of Trade</u>						
Developed market economies	68.6	100.0	108.4	115.3	130.0	145.6
Developing countries	78.1	100.0	106.5	109.9	122.8	135.9
Developing africa	73.8	100.0	106.6	106.4	123.0	144.9
South africa	88.2	100.0	109.7	121.9	140.6	138.6

Source: UN Monthly Bulletin of Statistics, January 1971.

Note: The net barter terms of trade measures the relationships between export and import prices, a rise indicates a favourable movement. The income terms of trade measures the import purchasing power of export earnings.

However, some unfavourable features, lack of adequate progress, or doubtful factors were apparent, if other indicators of Africa's general trade performance during the period under review are taken into consideration. To begin with, whereas the value of Africa's trade has increased to a great extent in absolute figures, there was practically no rise in the region's share in world trade. Table 7.2 shows that in the period 1965-1969, Africa's share in world exports was exactly the same as in the period 1960-1965; namely 4.1 per cent. The share of the region in world imports declined from 4.3 per cent in the period 1960-1965 to 3.6 per cent in the period 1965-1969 without there being any convincing evidence that this decline was accounted for by a substantive measure of import-substitution, or by a proportionate decrease in the import of non-development goods. In fact, the average annual rate of growth of imports for Developing Africa in 1965-1969 was, at 4.3 per cent only slightly higher than that in the period 1960-1965 (3.9 per cent), and much lower than for developed market economies (10.6 per cent), the world (9.7 per cent) centrally planned economy countries (7.5 per cent) and for developing countries as a whole (7.3 per cent) in the period 1965-1969. On the export side, the increase in export earnings in 1969 was attributable, much more than was the case in 1968, to the growth in the volume of Developing Africa's exports than to a rise in prices.

Table 7.2 Main Country Groups and Developing
Africa's Share in World Trade

	Exports			Imports		
	1960-65	1965-68	1965-69 (in percentages)	1960-65	1965-68	1965-69
<u>WORLD</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Developed market Economies	67.8	69.6	70.0	67.7	70.2	70.8
Centrally planned Economies	10.7	10.5	10.4	10.5	10.0	10.0
Developing market Economies	20.4	18.9	18.8	20.6	18.7	18.5
Developing Africa	4.1	4.0	4.1	4.3	3.7	3.6

Sources: UN Yearbook of International Trade Statistics, 1968.
UN Monthly Bulletin of Statistics, January 1971.

Importance of Foreign Trade

African economies, depend to a great extent on foreign trade for their growth. The crucial issues are the extent of the contributions of exports and imports to economic development. On the

export side, the degree of export dependence, measured as a ratio of exports to GDP does not say much about the kind of economic growth which is generated by export industries, nor does it give a real insight into the precise nature of the relationship existing between exports and the rate of growth of the economy for any given year. However, an indication is given of the size of exports, compared to GDP, from which an idea of the role of exports in the economy may be inferred.

The appendix Table A41 shows that in 1965, the share of exports in GDP exceeded 50 per cent in the case of Gabon, Libya, and Zambia, and 40 per cent for Liberia, Mauritania and Southern Rhodesia. Most countries were within the 10 to 40 per cent range. In 1969, the share of exports in GDP was more than 50 per cent in the case of Zambia, Libya, Gabon and Liberia and more than 40 per cent in the case of Mauritania and Cambodia. Most of the countries (28) were in the 10 to 40 per cent range. Thus, from 1965 to 1969, the share of exports in GDP was on the whole fairly constant although the overall average was higher. For the sake of convenience, all these features are summarized in Table 7.3.

Table 7.3 Distribution of Selected African Countries
According to the Shares of Exports in Their GDP, 1965 and 1969
Percentage of Exports of GDP

<u>Year</u>	<u>0-11</u>	<u>11-20</u>	<u>21-30</u>	<u>31-40</u>	<u>41-50</u>	<u>50+</u>	<u>Total</u>
	<u>Number of Countries</u>						
1965	5	17	6	4	3	3	38
1969	3	20	5	3	2	4	37
<u>Total Exports (million US\$)</u>							
1965	187	3,226	1,588	404	635	1,424	7,464
1969	157	4,171	1,905	1,129	197	3,579	11,038
<u>Total GDP (million US\$)</u>							
1965	2,331	21,837	6,869	1,218	1,502	2,573	36,330
1969	2,353	28,481	7,237	3,091	223	5,959	47,344

On the import side, an important measure of the dependence of African countries on foreign sources of supply, as well as of the contribution of imports to economic development, is given, by the ratio of imports of machinery and transport equipment to Gross Domestic Capital Formation (GDCF). In the same appendix table mentioned above, data are given of the relationship between these specialised imports and the GDCF for 38 developing countries in Africa. In 1965 imports of machinery and transport equipment represented 36.2 per cent of the value of GDCF and 33.3 per cent in 1969. The valuation given to the Gross Domestic Capital Formation is higher than that given to the various import items making up the total of machinery and transport equipment so the actual proportion is higher than these averages suggest. The dependence on foreign sources of supply of these products was particularly high where mining developments and railway schemes were underway and part of the reason for the small relative fall between 1965 and 1969 was because of the lower level of (non petroleum) mining developments. The heavy

dependence on foreign supplies of capital equipment is likely to continue for some considerable time in view of the limited development of facilities for the production of such equipment in Developing Africa at the present time.

Balances of Trade With Main Trading Areas

On the basis of the data available up to 1969 it appears, as may be inferred from Table 7.4 that Developing Africa's trade with the main trading areas has not undergone considerable changes over the period 1965 to 1969, as compared with 1960-1964.

Table 7.4 Developing Africa's Trade With Main Trading Areas
(in percentages)

<u>Area</u>	<u>Exports to</u>		<u>Imports From</u>	
	<u>1960-64</u>	<u>1965-69</u> (in percentages)	<u>1960-64</u>	<u>1965-69</u>
E.E.C.	45.9	45.8	40.2	35.6
EFTA	20.7	18.4	18.7	16.1
Northern America	8.7	7.8	10.9	9.8
Japan	1.8	3.5	5.3	8.1
CPET ^a & China	6.2	6.6	6.0	8.8
Developing Asia	4.6	3.6	7.1	7.1
Developing Africa	6.3	6.4	5.6	6.8
Rest of World	5.8	7.9	6.8	7.7
Total	100.0	100.0	100.0	100.0

a/ Centrally Planned Economies of Eastern Europe.

Source: See Appendix Tables A 39 and A 40.

It may be noted that developed market economy countries continue to be the most important trading area by far of Developing Africa and it is useful to illustrate the 1969 position in broad outline as follows:-

<u>Developing Africa Trade 1969</u>	<u>Exports</u>	<u>Imports</u>	<u>Balance</u>
	(in million US dollars)		
Developed market economies	9,340	7,670	+1,670
Developing market economies	1,160	1,520	- 360
Centrally planned economies of Eastern Europe	660	730	-70
Other areas	310	120	+190
Total trade	<u>11,470</u>	<u>10,040</u>	<u>+1,430</u>

Over the period 1960 to 1969 some modifications in the flows of trade have taken place. Whilst exports to developed market economies from Developing Africa remained relatively constant, the share of those countries in Africa's imports decreased. Western Europe, North America and Japan provided 75.1 per cent of Developing Africa's imports in 1960-64 and 69.6 per cent in 1965-69. The chief beneficiaries of this limited decline have been the centrally planned economies whose share in Africa's imports rose from 6.0 per cent in 1960-64 to 8.8 per cent in 1965-69. One satisfactory movement has been the increase in the share of the countries of Developing Africa in the import trade of the region.

The foregoing accounts, to some extent, for the state of Africa's trade balances with the main trading areas, as shown in Table 7.5. While Developing Africa's overall exports and in particular its exports to developed market economy countries, increased considerably, in absolute figures, over the period 1965-1969, African imports from the world, whose bulk continued to originate in the latter group of countries, increased more slowly. As a result of that trend, the surplus in Africa's overall trade balance for 1969, was, as could be expected from its size, derived solely from Africa's trade with developed market economy countries. In fact the surplus in Africa's overall trade balance for 1969, \$1.45 billion was less than that resulting from Africa's trade with developed market economy countries during the same year (\$1.67 billion).

Table 7.5 Balance of Trade of Developing Africa
With the Three Main Trading Areas
(million US \$)

	<u>1960</u>	<u>1965</u>	<u>1968</u>	<u>1969</u>
Developed market economies	-1,110	-40	1,120	1,670
Centrally planned economies ^{a/}	60	-155	-100	-70
Developing market economies	-200	-350	-290	-360

^{a/} Of Eastern Europe and USSR.

Source: UN Yearbook of International Trade Statistics, 1968.
UN Monthly Bulletin of Statistics, March 1971.

Trade Situation of Individual Countries

Developing Africa's overall trade balance, and balance with main trading areas, conceal a very wide spectrum of national trade situations. Generally speaking, there has been a relative concentration of Africa's exports in a few countries. As may be seen from Table 7.6, the share of five leading exporters, whose identity and rankings varied to a limited extent from one year to another, went up from 43.4 per cent in 1960, to 50.7 per cent in 1969. Among these countries

it may be noted that the share of Libya, which appears in the list from 1965, has been constantly on the increase, even though a small relative decline took place in 1969. It has been the leading African exporter since 1965, accounting for 18.9 per cent of the value of African exports in 1969, with Zambia, its closest follower accounting for 9.3 per cent.

Table 7.6 Share of Five Leading Exports and Import
Countries in the Total Trade of Developing Africa, 1960 to 1969

<u>1960</u>			
<u>Imports</u>	<u>Percent</u>	<u>Exports</u>	<u>Percent</u>
	<u>Of Total</u>		<u>Of Total</u>
Algeria	19.3	UAR	10.7
UAR	10.2	Congo DR	9.5
Nigeria	9.2	Nigeria	9.0
Morocco	6.1	Algeria	7.4
Ghana	5.5	Zambia	6.8
	<u>50.3</u>		<u>43.4</u>
<u>1965</u>			
UAR	11.8	Libya	10.4
Nigeria	9.7	Nigeria	9.8
Algeria	8.5	Algeria	8.3
Morocco	5.6	UAR	7.9
Ghana	5.6	Zambia	7.0
	<u>41.2</u>		<u>43.4</u>
<u>1968</u>			
Algeria	9.1	Libya	19.2
UAR	7.7	Algeria	8.5
Libya	7.4	Zambia	7.8
Morocco	6.3	UAR	6.4
Nigeria	6.2	Nigeria	6.1
	<u>36.7</u>		<u>48.0</u>
<u>1969</u>			
Algeria	10.8	Libya	18.9
Nigeria	7.4	Zambia	9.3
Libya	7.2	Algeria	8.1
UAR	6.8	Nigeria	7.9
Morocco	6.0	UAR	6.5
	<u>38.2</u>		<u>50.7</u>

In contrast to the trend shown for exports, imports were more dispersed over the period under review, with the share of five leading countries falling from 50.3 per cent in 1960 to 38.2 per cent in 1969. It will also be noted that the relative importance of the leading importer fell between 1960 and 1968 but made some recovery in 1969.

Although the existence of an adverse or positive trade balance does not in itself provide sufficient information on the adequacy of development efforts, it may be worth exploring to what extent the situation of African countries may have changed in that respect over the last few years. First of all, it is not difficult to see from Table in the appendix, that, even if there have been some modifications in the listing of the countries holding positive and negative trade balances between 1965 and 1969, the number of countries in one or another position has remained fairly constant. In 1965 and 1969, 10 and 13 respectively, out of 41 and 40 had positive trade balances. The remainder (the large majority) had deficits in their trade balances.

As regards the distribution of Africa's trade surpluses among individual countries, it is noteworthy that the situation in 1969 did not change to an appreciable extent, compared to 1965. In 1969, four countries between them were responsible for more than 80 per cent of Developing Africa's gross trade surplus, with Libya the leading country accounting for 47.6 per cent followed by Zambia (20.3 per cent) then the Congo DR and Nigeria with 7.0 per cent and 6.7 per cent respectively. In 1965 the four leading countries were Libya (44.1 per cent), Zambia (22.0 per cent) then Rhodesia (9.9 per cent) and the Ivory Coast (3.9 per cent). Uganda is shown with a higher trade surplus in the appendix table but this surplus does not take into account its trade deficit with Kenya in particular.

For the period 1965 to 1969 Developing Africa's exports increased by 10.8 per cent a year compared with 7.6 per cent a year in the period 1960 to 1965. Of 44 countries listed in appendix Table A37, a total of 26 that is nearly 60 per cent experienced growth rates in exports of more than 5 per cent a year in the period 1965 to 1969 compared with 24 in the years 1960 to 1964. However, only 15 countries among those listed achieved growth rates of more than 5 per cent a year in each period.

Structure of Exports

Some major changes occurred during the period under review, as regards the commodity composition of African exports. Part of the data on which the following analysis is based do not go, unfortunately, beyond 1968, but there are indications that most of these changes continued, or were even strengthened, in 1969 and 1970.

The share of primary commodities in African exports retained its predominance, though a not insignificant decline was recorded (78.8 per cent in 1968, against 81.2 per cent in 1965). As was the case during the period 1960-1964, four main commodity groups (SITC sections) represented the bulk of African exports in 1965-1969 (96.6 per cent in the latter period). The rankings of these commodity groups were different from one period to another, as may be seen from Table 7.7.

Table 7.7 Leading Commodity Groups (SITC) in Developing
Africa's Exports to the World (Percentages)

<u>SITC</u>	<u>1960-1964</u>	<u>1965-1969</u>
0+1 Food, beverages and tobacco	34.4	25.6
2+4 Crude materials, oils and fats	35.6	25.5
3 Mineral fuels and related materials	12.1	26.1
6+8 Other manufactured goods	15.5	19.4

The share of crude materials, oils and fats, food, beverage and tobacco decreased significantly during the period 1965-1969. The most striking development revealed by the above table, however, is the much increased weight of mineral fuels and related materials in African exports (26.1 per cent in 1965-69 against 12.1 per cent in 1960-64).

The new ranking underscores the major role which minerals, notably petroleum, played the last few years. As may be seen from Table A42 in the appendix exports of principal minerals increased steadily over the period 1965-1969, with their share in Africa's total exports going up, from 39.7 per cent in 1965 to 50.9 per cent in 1969.

Petroleum continued to rank first among Africa's exports, as has been the case since 1965. But its average annual rate of growth was lower in the period 1965 to 1969 compared with 1960 to 1964 basically because of the high increase from a low base in the earlier period. The rate of growth between 1965 and 1969 of 22.6 per cent a year is still an extremely high one. Copper exports had shown an increasing annual growth rate during the 1960's and in the period 1965 to 1969 reached 21.1 per cent a year. There has been a fall in price in 1970 (and 1971) however, and this will have reversed the growth rate (at least for a time). For petroleum in contrast there were higher prices in 1970 (and 1971) and these increases coupled with larger exports should have led to a higher growth rate for petroleum exports in value over these two years.

Given the structure of African exports, the rise in the share of minerals over the period 1965-1969 obviously means that the rate of growth in non-mineral exports, and particularly of agricultural ones, has been much slower. An illustration of this is the fact that the average annual rate of growth of commodities of such major interest to African countries as coffee beans, groundnuts, palm nuts and kernels, palm oil, groundnut oil, sisal has declined in varying degrees over the period 1965-1969, compared to the preceding period as indicated in Table A42 in the appendix. As a result of this,

5 major non-mineral commodities had their ranking reduced over the period under review, while 5 others remained at the same rank.

Direction of Exports

In view of the long-standing, commercial and other, links, existing between Africa and the buyers of her major export items, as well as of the well-known difficulties which are bound to be encountered in trying to find new outlets, radical changes in the direction of Africa's exports could hardly be expected over such a short period as that under review. Some new trends, however, are discernible in respect of some of the commodity groups. These trends, while not being altogether of major significance at the present time, may portend important changes in the future, if they continue.

Generally speaking, the major trend appears to be toward some measures of diversification of the export outlets, either as a matter of deliberate policy or due to various constraints, such as the difficulties in access to certain markets or the state of near saturation, in which the latter find themselves.

For exports of crude materials and oils and fats, an interesting feature is the decrease in EFTA's share, and in particular that of the United Kingdom, from 21.3 and 16.1 per cent in 1960-1964 to 16.6 and 10.8 respectively in 1965-69, as well as the increase of exports to Japan over the latter period (4.5 per cent as against 2.6 per cent). These details are shown in Table B9 in the appendix).

Exports of food, beverages and tobacco to EEC countries declined significantly from 46.0 per cent in 1960-64 to 37.8 per cent in 1965-69, and there were similar declines in such exports to EFTA and the United Kingdom (15.6 per cent and 11.8 per cent respectively in 1965-69, against 17.4 and 14.3 per cent in 1960-64). Over the same period, however, there was a notable expansion in the exports of this group of commodities to the centrally planned economies of Eastern Europe and Asia (6.5 per cent in 1965-69, compared to 3.2 per cent in the preceding period) and to developing market economy countries (15.2 per cent in 1965-69 against 13.8 per cent in 1960-64).

One of the most substantive changes in the pattern of Africa's trade during the more recent period is that related to mineral fuels. The value of shipments to EEC countries was reduced from 71.7 per cent in 1960-64 to 64.3 per cent in 1965-1969 whereas exports to EFTA increased.

In the case of "other manufactured goods", (SITC 6+8), the main development during the period 1965-1969 compared with the earlier period was the marked decline in exports to EFTA and most notably to the United Kingdom (the respective figures were 32.0 and 28.9 per cent in 1960-64, against 26.1 and 21.2 per cent in 1965-69).

In contrast to this, exports to Japan which consisted mainly of processed minerals, and to centrally planned economy countries, grew appreciably over the period.

Structure of Imports

The most important change in the structure of the imports of Developing Africa during the 1960s has been the increase in the proportion of the total taken up by machinery and transport equipment and a reduction in the relative importance of food, beverage and tobacco. The details are given in Table 7.8 below which shows that imports of machinery and transport equipment represented 34.7 per cent of the total in 1965-1969 compared with 28.6 per cent in 1960-64. For food, beverages and tobacco the percentages were 18.3 in 1960-64 and 15.1 in 1965-69.

Table 7.8 Leading Commodity Groups in Developing Africa's Imports

<u>SITC</u>	<u>1960-64</u>	<u>1965-69</u>
7 Machinery and transport equipment	28.6	34.7
6+8 Other	30.5	29.5
0+1 Food, beverage and tobacco	<u>18.3</u>	<u>15.1</u>
Total	<u>77.4</u>	<u>79.3</u>

A somewhat different picture emerges, however, from a brief analysis of African imports by end-use. Table 7.9 indicates that the share of consumer goods in total imports after falling up to 1967 increased significantly in 1968, whereas the share of capital increased up to 1967 but fell in 1968. In 1969 41.2 per cent of imports were consumer goods and 29.1 per cent were capital goods.

Table 7.9 Imports by End-Use Into Developing Africa

<u>Year</u>	<u>Total Imports</u>	<u>Raw Materials and Semi- Finished Products</u>		<u>Fuels</u>	<u>Capital</u>	<u>Consumer</u>
					<u>Goods</u>	<u>Goods</u>
		(percentages)				
1960	100.0	18.5		7.2	29.6	42.7
1961	100.0	18.6		7.2	28.8	43.6
1962	100.0	18.8		7.5	31.2	40.7
1963	100.0	19.0		7.5	31.7	39.9
1964	100.0	20.6		7.0	31.8	39.2
1965	100.0	21.2		6.1	33.1	38.1
1966	100.0	21.9		5.5	33.8	37.5
1967	100.0	22.1		6.1	33.5	37.2
1968	100.0	22.1		6.1	28.7	41.6
1969	100.0	22.1		6.1	29.1	41.2

Source: ECA Statistics Division.

Direction of Imports

As indicated earlier the great bulk of Africa's imports continued to originate in the developed market economies during 1965 to 1969. However, as was the case for exports, there was a tendency, through very limited in scope, toward some measure of diversification away from these traditional sources of supply. As could be expected, this trend was more discernible in the case of individual commodity groups.

From Table A40 in the appendix which lists the main groups of imports by provenance, some changes were evident comparing the periods 1960-64 and 1965-69. Thus, imports of "other manufactured goods" from EEC countries decreased noticeably from 49.3 per cent to 41.9 per cent between the two periods. A similar decrease, but of more limited proportions, occurred in the case of imports from all the major developed market economy suppliers listed in the table, with the exception of the USA and Canada. Similar declines were also evident for food, beverage and tobacco items, whose imports from major developed market economy countries' suppliers appeared, on the whole, to have diminished in the period 1965-1969, although there was a relative increase from EFTA countries.

Imports of machinery and transport equipment represented 28.6 per cent of total imports in 1960-64 and 34.7 per cent in 1965-69. Supplies from EEC and EFTA countries declined in relative importance but there was a very significant increase in the proportion from Japan (from 7.4 to 16.0 per cent).

Intra-African Trade

The annual average growth rate of intra-African trade for the period 1965-1969 was 2.8 per cent, which compares unfavourably with the annual average rate of growth of Africa's total exports (7.8 per cent) and imports (2.9 per cent) in the same period. This growth rate was much less than as in the period 1960-65 when the average increase was 11.4 per cent a year. Intra-African trade development has, therefore, been very disappointing in recent years. This should cause all the more concern as the share of intra-African trade in Developing Africa's overall trade is still a very modest one. As may be seen from Table in the appendix intra-African trade accounted for only 6.8 per cent of total exports in 1965-69, as against 6.3 per cent in years 1960-64. The corresponding figures for imports were 6.8 per cent and 5.6 per cent.

For the commodity composition of intra-African trade, it may be noted that a number of changes occurred during the period 1965-1969, compared with the preceding one. "Food, beverages and tobacco" continued to be the most important category in intra-African trade, and they accounted for 37 per cent of total exports in 1965-69 as against 50 per cent in the years 1960-64. This decline is in

marked contrast to the increase in mineral fuels in particular which registered a rise from 6 to 16 per cent in total exports to African countries. The share of manufactured goods also grew (from 18 to 25 per cent) and this probably represented an important trend for the future. These two categories 'mineral fuels and related materials' and other manufactured goods seen destined to play a more important role in intra-African trade in future years.

Summary and Conclusions

From the above review, certain major facts emerges. First of all developing Africa's visible trade balance has moved from heavy deficits in the period 1960-65 to the achievement of substantive and steadily increasing surpluses over the period 1965-1969.

These surpluses were mainly due to a continuous rise in exports, and to a much slower growth in imports. The growth in exports was, however, attributable much more to an increase in volume than to a rise in prices. Also, the advance in exports reflects chiefly the expansion in the export of minerals, including petroleum and copper, whose share now exceeds that of agricultural commodities in Developing Africa's overall exports. Largely because the great majority of African countries depend mainly on exports of agricultural commodities, this has meant an increased concentration of Africa's exports in a few countries, with five of them being responsible for more than half of the value of exports, in 1969. Likewise, more than 80 per cent of Africa's overall trade surplus was earned by four countries.

For imports there are two important trends which have been revealed. Over the sixties as a whole the relative importance of machinery and transport equipment increased and that of imports of food, beverage and tobacco was reduced. However, in the last two years 1968 and 1969 there seems to have been a significant increase in consumer goods imports and a reduction in those of capital goods. If this latter movement continues it augurs badly for Africa's future development hopes.

No basic changes occurred during the period 1965-1969 in the direction of trade. However, there is a tendency, though still limited in scope, toward some measure of diversification away from traditional partners in respect of both imports and exports.

With respect to intra-African trade, its rate of growth was much lower in the period 1965 to 1969 than in the earlier years of the 1960s and this disappointing trend must be reversed if Africa wishes to develop more swiftly. As Developing Africa embarks upon the Second United Nations Development Decade, there seems to be a growing awareness of the need to restructure Africa's trade, so as to ensure that the latter will make an optimum contribution to the economic development of the region.

Developing Africa's trade performance in the period 1965-1969, has nevertheless, not been a negligible one. Some indication of the extent to which trade has assisted in the economic development of the region, in terms notably of the contribution of imports to Gross Domestic Capital Formation, has been given in the preceding pages.

It is felt more and more, however, that the contribution of African trade to the economic and social development of the region could and should be more significant than has been the case hitherto, if this development is to be accelerated. For this major objective to be fulfilled, a strategy for the restructuration of African trade should be defined and carried out. Within the framework of that strategy, all aspects and levels of Africa's trade, would have to be brought into play. These include the domestic, intra-regional and foreign level, whose inter-relationships have come to be recognized.

Attention has been focussed increasingly in the last few years on domestic trade. In many African countries, there is a need not only to indigenize the distribution systems in one way or another, but also to ensure that these will be as efficient as possible, so as to minimize the cost of services to the economy, thus freeing additional resources to finance economic development. Moreover, if the import-substitution policies, favoured by a large number of African countries are to succeed, it will be necessary to pursue actively the integration of domestic markets which now exclude, or do not fully cover, the large subsistence sectors.

As regards foreign trade, it is now evident that, in the years to come, African countries will have to co-ordinate closely their policies in that respect. The long-term objective should be for them to change their production structures, so as to change the commodity composition of their exports, and thus maximize their earnings therefrom. These exports are now made up predominantly of primary commodities. To evolve a substantive trade in manufactures, and take advantage to the extent possible of the "general scheme of preferences for manufactures and semi-manufactures", African countries will, in many cases feel the need to co-ordinate their development plans, as they relate in particular to the setting-up of export-oriented industries.

One of the most immediate tasks at hand is the working out of the joint policies to secure remunerative and stable prices for the exports of primary commodities at the international level. This calls in particular for the establishment of associations and grouping of African primary producing countries, in co-operation with other producing countries, to protect their interests in commodity markets. It should be noted that such co-operation, with other developing countries in particular, acquires particular relevance and urgency, in view of the major share of minerals, that is to say

of non-renewable products, in Developing Africa's total exports. Particular forms of joint action should be considered, relating to agricultural products, on the one hand, and minerals products on the other.

Another major objective should be to diversify the direction of African trade, so as to lessen the dependence of the region on traditional export markets and sources of imports. As indicated earlier, some steps have been taken in that direction during the period 1965-1969, but much more could and should be done to improve the situation in a more systematic way than has been the case hitherto.

A planned expansion of intra-African trade could be one important way of diversifying the direction of Africa's trade. All possibilities of intra-regional trade expansion should be identified and exploited within the various sub-regions, as well as between them, with a view to providing sufficient markets as well as "spring boards" for the setting up of industries aimed at markets located outside the region. For these objectives to be attained, African countries will have to devise special forms of co-operation between them, especially as regards payments and trade arrangements.

It may well be that the "trade performance" of Developing Africa not just in the coming period, but throughout the whole Second United Nations Development Decade, will depend largely on the extent to which African governments will succeed in integrating the three levels of African trade in a strategy suited to their individual needs as well as to the requirements of the region as a whole.

The Balance of Payments

It has often been said that balance of payments statistics of African countries are too scanty to permit detailed analysis and firm conclusions. True, information is far from complete both in terms of country coverage as well as the degree of detail, particularly a breakdown by items and sub-items of service transactions and capital movements, but in the appendix tables are given data for thirty African countries and when it is considered that the figures for South Africa also cover Botswana, Lesotho, Namibia and Swaziland the coverage appears moderately respectable. Unfortunately at the present time there are only about half the countries in Africa for which there is a series of statistics covering the years 1965 to 1968 so this does make it more difficult to draw relevant conclusions. However, there is a definite movement towards improving the coverage and content of the balance of payments statistics and this will facilitate future analysis. Even with the present incomplete data one can safely trace certain broad lines of balance of payments evolution and draw some general conclusions.

There are only 9 countries in the appendix table for which complete information is available covering the years 1960, 1965, 1967, 1968 and 1969, for a further 9 countries the data for the years 1965, 1967, 1968 and 1969 are available and for a total of 24 countries there is information for the years 1965, 1967 and 1968. For the year 1968 there are a total of 30 countries for which some information is available and before looking at the trends which are shown over the years of the sixties it is useful to summarise the situation in 1968. This is done in Table in the appendix.

Looking at the statistical picture for the last few years, one is impressed once again by the central fact of the balance of payments of most African countries. That is that these reflect the deliberate effort to accelerate the pace of socio-economic development and the chronic deficiency of domestic resources in meeting the financing requirements. Inflows of external capital and aid are necessary to achieve even a fairly moderate level of fixed capital formation and these inflows give rise to the general balance of payments situation of a deficit on merchandise account and on the current account.

The exceptions to this general situation are few but are important in the overall balance of payments position in Africa. Libya and Zambia in particular are two countries which have balance of payments surpluses. If the word chronic can be used in this context, it is more applicable to Libya than Zambia in the period 1965 to 1968.

Economic phenomena could be described and examined in a regional and subregional setting and this is the general approach in other chapters of this economic survey. For the balance of payments such a technique might result in the deficits and surpluses largely balancing each other out; what is relevant is the balance of payments position of individual countries and this has been the approach in this chapter.

In the second half of the 1960s the majority of African countries have continued to face the same situation as in the first half of the decade with a deficit on their merchandise account. However, it must be stated that out of 25 developing countries for which there are data for 1965 and 1969 (or 1968) in 18 the position improved, and in 7 the position worsened as far as the balance of trade was concerned between 1965 and 1968. For the overall current account there were as many countries whose position improved as there were countries whose position worsened.

Countries With Current Account Surpluses

In 1968 there were five countries out of 29 developing countries with surpluses on current account but in 1965 four of these countries had been in deficit. By 1969 a further three countries had moved into surplus and the list in 1969 was Libya, Ivory Coast, Congo DR, Gabon, Zambia, Mauritius, Tanzania and Rhodesia. Most of these countries had a surplus on merchandise account between 1965 and 1969. Of the eight countries, Libya in 1968 made transfer payments abroad on both private and public account and was also repaying capital on both accounts. The Ivory Coast in 1969 received a net inflow of capital on both private and public account, public transfers were also positive but net private transfers were strongly in deficit.

The Congo DR and Zambia in 1969 and 1968 respectively had a similar experience to the Ivory Coast, but in Gabon in 1968 there were small net outflows of private and public capital whilst the public transfer receipts balanced the public transfer payments. In Mauritius in 1969 there were particularly high public transfer receipts and there were both private and public capital inflows. For Tanzania in 1969 there was a strong outflow of private capital **compensated for by** public capital inflow and the receipt of both private and public transfers. In the case of Rhodesia a fairly strong capital inflow was offset to some extent by private and public transfer payments.

There is, thus, no standard experience for the countries in surplus on current account in 1969. Where receipts from transfers and capital were also positive these were used to increase foreign exchange balances.

Countries With Current Account Deficits

In 1968 there were 24 developing countries (out of 29 covered) with deficits on the current account and of these five had a surplus on merchandise account.

For these five latter countries the payment of investment income abroad and payments for transport and travel were mainly responsible for moving the balance on current account into deficit.

Of the 21 countries in deficit on current account in 1968 (or 1969) (i.e., excluding the eight countries mentioned in the preceding section) there were 19 whose public transfers were positive and 14 which had an inflow of public capital; private transfers were also positive in 15 countries and in 11 there was a net inflow of private capital. On balance therefore these 21 countries were recipients of private and public transfers and public capital. For private capital there were nearly as many countries with an outflow as an inflow.

General Assessment

Africa is still heavily dependent on sources outside the Region for the public transfers and capital receipts which are needed to help many countries develop. The net total of public transfer receipts and capital inflow in 1968 for 29 developing countries was 1,396 million dollars. On the other hand investment net payments abroad totalled 1,012 million dollars; one result of past investments made in Africa has been a very large increase in the net outflow of funds for investment income payments.

There is a strong movement towards an increase in net investment payments from Africa and it is difficult under present conditions to see this movement reversed in the immediate future.

The inflow of public and private capital and public transfers is very important in the majority of countries which are still in deficit on current account. To some extent such inflow serves to create a deficit on merchandise account because the money may be used to make additional purchases abroad particularly of machinery and transport equipment.

There were only a small number of countries in Developing Africa which increased their foreign assets appreciably in 1968 and 1969; these countries were Libya, Nigeria, Sierra Leone, Congo DR, Kenya, Tanzania, Uganda and Zambia. There may have been a few of these countries which would have found difficulty in investing in their own countries the funds used to create new foreign assets and Libya is probably the prime example, but in general, part of the increase in foreign assets in the countries concerned was the result of favourable circumstances and foreign reserves were allowed to increase either to safeguard against unfavourable trends in future years or to restore the level of foreign assets which had run down.

The major factor leading to an improvement in Africa's overall trade balance has been the development of oil production particularly in Libya; increased copper prices have also helped particularly up to 1969 and both Zambia and the Congo DR have benefitted materially from this movement.

Overall trade balances have also improved because imports have been reduced. There are no really outstanding cases where this has happened except perhaps the UAR in 1968 and 1969 but a number of countries have reduced their import bills sometimes as a deliberate act of policy to redress balance of payments disequilibria.

With only a limited number of exceptions, mainly countries in North and East Africa, African countries have a deficit on transport and travel account but the growth of tourist earnings (apart from the special case of the UAR) is helping to prevent this sector becoming more of a burden. In the UAR the reduction of tourism due to the hostilities with Israel and the closure of the Suez Canal led to heavy falls in earnings from transport and travel. The other major invisible item is investment income and reference has already been made to this. Although not apparent from the appendix table there is a growing increase in Government's net payments abroad as more and more offices are established in foreign countries; this trend may be reaching a peak because the growth has been comparatively rapid in recent years.

The question of private transfer payments has also been mentioned earlier, generally the countries with substantial net payments under this heading have fairly large foreign expatriate communities who regularly send a proportion of their earnings **from employment to their home countries.** Public transfer receipts show a continuing tendency to increase as more aid in this form is received by the countries of Africa. The increase in these receipts has probably caused some reduction in the net public capital inflow and there is some evidence also of a fall in the net private capital inflow.

One general conclusion that can be drawn is that the development of Africa's own Central Banks has led to a more conscious policy of limiting the balance of payments problems and a desire to move towards more genuine monetary independence. A number of African countries have been particularly fortunate in the years 1965 to 1969 in increasing their foreign exchange earnings through mineral and tourist developments. The vast majority, however, are still dependent on external aid to develop their economies and the receipts of such aid automatically leads to the common balance of payments situation, i.e. a current account deficit which is compensated for by an inflow of transfers and capital. Public transfers do not lead to any future problems such as the payment of investment income abroad but the capital inflow is usually accompanied by the contingency of higher investment income payments in the future. If there is one problem which African countries must continue to guard against, it is that of a commitment to increase income payments abroad unmatched by the increase in exports necessary to pay them. Some considerable part of foreign loans must be used to earn foreign revenue by increased exports or to save foreign exchange by import substitution developments. The alternative will be to end up in financial chaos.

Chapter 8. TRANSPORT AND TOURISM

Transport

The growth of transport services in Africa has been comparatively rapid since 1960 but Table 8.1 below shows that there has been particular growth in scheduled air services and in exports by sea.

Table 8.1 Growth of Transport Services in Africa 1960-1969

<u>Transport and Means of Measurement</u>		<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		Index Numbers (1960=100)					
<u>A. Developing Africa</u>							
<u>Rail</u>	Freight ton Kms	100	129	140	140	152	157
	Passenger Kms	100	123	130	126 ^{a/}	125 ^{a/}	133
<u>Road</u>	Vehicles in use	100	125	135 ^{a/}	146 ^{a/}	157 ^{a/}	167
<u>Air</u>	Passenger Kms	100	192	214	230	252	284
	Cargo ton Kms	100	278	306	382	460	534
<u>Sea</u>	Cargo loaded	100	267	310	328	408	491
	Cargo unloaded	100	121	125	126	133	138
<u>B. Total Africa</u>							
<u>Rail</u>	Freight ton Kms	100	134	140	146	156	167
	Passenger Kms	100	129	135 ^{a/}	139 ^{a/}	142 ^{a/}	146
<u>Road</u>	Vehicles in use	100	127	137 ^{a/}	147 ^{a/}	158 ^{a/}	168
<u>Air</u>	Passenger Kms	100	200	230	250	275	314
	Cargo ton Kms	100	282	329	376	439	522
<u>Sea</u>	Cargo loaded	100	256	296	316	391	465
	Cargo unloaded	100	128	131	135	146	152

^{a/} Interpolated figures.

The detailed figures on which the above index numbers are based are given in the appendix.

In interpreting the above table it should be remembered that in 1969 the total of freight carried by rail was 101,130 million ton kilometres and by air was only 223 million ton kilometres; for passenger traffic the estimated total of passenger kilometres by rail was 37,506 million and by air was 7,505 million. This means that rail services are of paramount importance in the carriage of passengers and freight in Africa. Road transport services are also important for both passenger and freight traffic and in certain

countries water transport services on the lakes and rivers are also an essential part of the various transport systems. Pipelines are very important in the oil producing areas and are also beginning to be used for the transport of refined products and crude oil from coast ports to inland areas.

The appendix tables show that the major growth in export tonnages has come from Libya, Liberia, Nigeria, Mauritania and Angola. All these countries have been able to develop crude petroleum or iron ore production and the tonnages have increased generally at a spectacular rate. In Libya total exports by sea were 2.29 million tons in 1960 and 148.06 million tons in 1969. These tonnages are not reflected in other transport media as pipelines have been constructed to take the crude oil to the ocean terminals.

Air services have been developed throughout the Continent in the years since 1960 and whilst relative growth has been fastest in West Africa, the growth in terms of actual addition to traffic has been greatest in North Africa, East Africa and South Africa.

It is, of course, essential that the transport system in any country should be completely coordinated and where road, rail and inland waterway transport systems exist they must complement each other. The same consideration applies for the different areas and subregions of Africa but to save transshipment costs it is also advisable to complete links between various road systems (and between the individual rail systems) to facilitate transport.

Rail Transport

In 1969 there were 50 different railway administrations in Africa and some 30 countries were covered. The overall position in 1969 is reflected in Table 8.2.

Table 8.2

Rail Services 1969

<u>Item</u>	<u>Unit</u>	<u>Total Africa</u>
Route length	Km	75,352
Track length	Km	95,240
Railway vehicles	('000)	268.9
Railway administrations	(No)	50
Employees	('000)	560
Goods carried	(million tons)	294
Goods carried	(million ton Km)	101,130

In 1969 there were on average 2.5 kilometres of route length and 8.9 rail vehicles per 1,000 square kilometres in Africa. There were only 3.6 rail vehicles per route kilometre. In Europe the average was about 8 to 10 vehicles per route kilometres.

RAILWAYS

CHEMINS DE FER



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Considerable investments have been made to improve railway operations in order to meet the growing demand for railway transportation. Rolling stock has been replaced with more modern equipment, maintenance of the rolling stock and the permanent way has been improved and there has been some increase in axle loads.

Railway goods traffic in Africa increased by 67 per cent between 1960 and 1969 and this growth rate has been the highest in the world. Passenger traffic increased during the same period by a much lower percentage. For the subregions of Africa the growth of rail freight traffic is reflected in Table 8.3 which also shows the passenger traffic during this period.

Table 8.3 Railway Traffic in Africa 1960-1969

<u>Subregion</u>	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		(Freight in million net ton Km)				
North Africa	8,160	9,742	9,893	9,664	10,555	10,570
West Africa	2,735	7,143	7,574	7,478	8,291	8,568
Central Africa	2,056	2,151	2,498	2,562	2,572	2,770
East Africa	5,614	6,414	7,303	7,356	7,715	7,469
Other Africa	38,933	51,832	53,465	57,054	60,388	66,728
Total	57,498	77,282	80,733	84,114	89,522	96,105
Total Developing Africa	26,685	34,549	37,254	37,242	40,622	41,901
		(Passengers in million ton Kms)				
North Africa	5,870	8,213	8,700	8,713	8,135	8,654
West Africa	1,612	2,284	2,196	1,657	2,053	2,220
Central Africa	496	794	774	853	902	954
East Africa	1,452	1,144	1,176	1,195	1,205	1,207
Other Africa	16,222	20,863	21,673	22,844	24,014	24,471
Total	25,652	33,098	34,519	35,262	36,309	37,506
Total Developing Africa	10,152	12,998	13,669	13,262	13,159	13,956

The passenger kilometre figures in particular contain a high proportion of estimates and must be treated accordingly.

The freight totals are incomplete to the extent that they do not show any traffic for Liberia, Swaziland and Sierra Leone. The figures relate to railways serving the public and exclude privately-owned railways of plantations, mines etc. except that MIFERMA in Mauritania which is basically an iron ore railway is covered. Urban service railways are also excluded.

The average haul per ton was some 344 kilometres but this average is low because of the overall weight of the South African railway system in the total. For particular administrations in Developing Africa the following average hauls can be quoted:- Sudan Railways 837 kilometres; East African Railways 622 kilometres; Nigerian Railways 652 kilometres. These totals are typical in Developing Africa but some landlocked countries which are also dependent on other countries' rail services must accept very long hauls to reach a port for their exports and imports. Zambia sends copper to Beira, Lobito Bay and Laurencio Marques and for these three ports the distances from Kabwe on the Copperbelt are 1,273 kilometres, 2,574 kilometres and 2,141 kilometres respectively. The proposed Tanzam Railway will connect Dar Es Salaam and the Copperbelt and involve a haul of 2,055 kilometres.

During the 1960's there was only moderate development of new railways in Africa and 1,465 kilometres of track were constructed; at the end of the decade projects included the Tanzam Railway (2,055 Km) and new railways in Guinea (120 Km) and the UAR (345 Km).

At present the construction of the Tanzam railway is the biggest railway project in the world. This railway is financed and will be built by the People's Republic of China which has offered a 30 year interest free loan of US \$401 million. Various reports have suggested that this project will be completed in 1976.

In the Cameroon railway construction from Belaba to Ngaoundere is in progress and the line is scheduled to be open for traffic in 1971. An extension from Belaba to Bangui in the CAR and further continuation from Ngaoundere to Fort Archambault are under consideration.

Two other projects are the Owendo-Belinga railway of a length of 631 Km (to cost US \$162 million) and the extension of the Abidjan-Niger railway from Gao to Bamako in Upper Volta of a length of 332 Km and to cost US \$27.4 million. Both these railways are essential for the exploitation of iron ore and manganese ore. The railways in process in Guinea and the UAR are also for mineral developments. In 1970 it was reported that Zambia had begun a 160 Km railway from Mulobezi to Sesheke to help develop the timber industry in the Western Province.

The rail links developed in the 1960s included the iron ore railways of the Bong Mining Company and Lamco in Liberia of route lengths of 82 Km and 310 Km respectively; and Miferma in Mauretania of 650 Km. In Swaziland a railway of 242 Km was built basically for iron ore traffic and there was also a connection between Malawi and Mozambique of 101 Km to link Malawi with the Northern Mozambique port of Nacala. Other rail projects have also been reported for Mozambique.

There has also been some work carried out for a possible link in the Congo (DR) between Kinshasa and Luluaburg which if built will cut out the need to tranship goods as at present at the river ports.

For 1969 the total Liberian iron ore traffic was 4,230 million net ton kilometres and the Sierra Leone Development Company railway carried 322 million net-ton kilometres of iron ore. The Swaziland Railways carried 473 million net ton kilometres of freight (mainly iron ore).

Adding these totals produces a figure for Africa of 101,130 million net ton kilometres in 1969 and the probable comparable figure in 1960 was 58,500 million.

The difficulties in the UAR and Nigeria led to a fall in passenger traffic in Developing Africa in 1967 and 1968 which was recovered in 1969.

Out of 50 railway administrations, 26 are operating independently of each other. There are 5 groups of railways in which some form of linking exists which cover 24 of the total administrations. There are, at present, no uniform measures common to all African railway systems and this particularly applies to the construction and maintenance of vehicles and tracklines and to operations. A study was prepared in 1966/67 of the technical and economic problems involved in linking railway systems of different technical specifications (e.g., gauge widths, axle loads, loading gauges of tracklines, coupling and brake systems etc. etc.). The ECA has been working on detailed proposals and recommendations for future raillinks including those crossing national borders and these proposals can form the basis for integrated systems to be developed by the various African railway authorities under the most economical conditions.

Road Transport

There has been considerable development of road systems in most African countries over the last few years and this development is continuing possibly on an increasing scale.

The basic data on the growth of improved roads in Africa are incomplete but the estimated position reached in 1969 is given in Table 8.4. below.

Road lengths in Africa totalled some 1,564,000 kilometres in 1969 and of this total 240,000 kilometres were main roads, 578,000 kilometres were secondary roads and the 746,000 kilometres described as other roads included a high proportion of tracks which would not normally be usable during the rainy seasons. These totals are not complete and the total of paved roads was about 180,000 kilometres.

In a continent of some 30 million square kilometres the total length of roads is very small and the length of paved roads is about 6 kilometres per 1,000 square kilometres.

Table 8.4

Road Lengths in Africa, 1969

Subregion	Area ('000 Km ²)	Road Lengths in 1,000 Km				Roads Per 1,000 Km ²	
		Main	Secondary	Other	Total	Paved Total (1000 Km)	Main & Secondary (Km)
North Africa	8,260	50.29	44.01	96.82	191.12	72.50	11
West Africa	6,102	42.70	81.90	125.80	250.40	27.91	20
Central Africa	5,391	44.60	130.29	91.14	266.03	3.57	33
East Africa	5,716	39.03	74.96	119.72	233.71	15.88	20
Other Africa	4,467	63.73	246.75	311.76	622.24	60.73	69
Total	29,936	240.35	577.85	745.24	1563.50	180.59	27
Total less S. Africa	28,714	208.10	424.57	558.87	1191.54	137.94	22

The details for individual countries are given in the appendix Table A52.

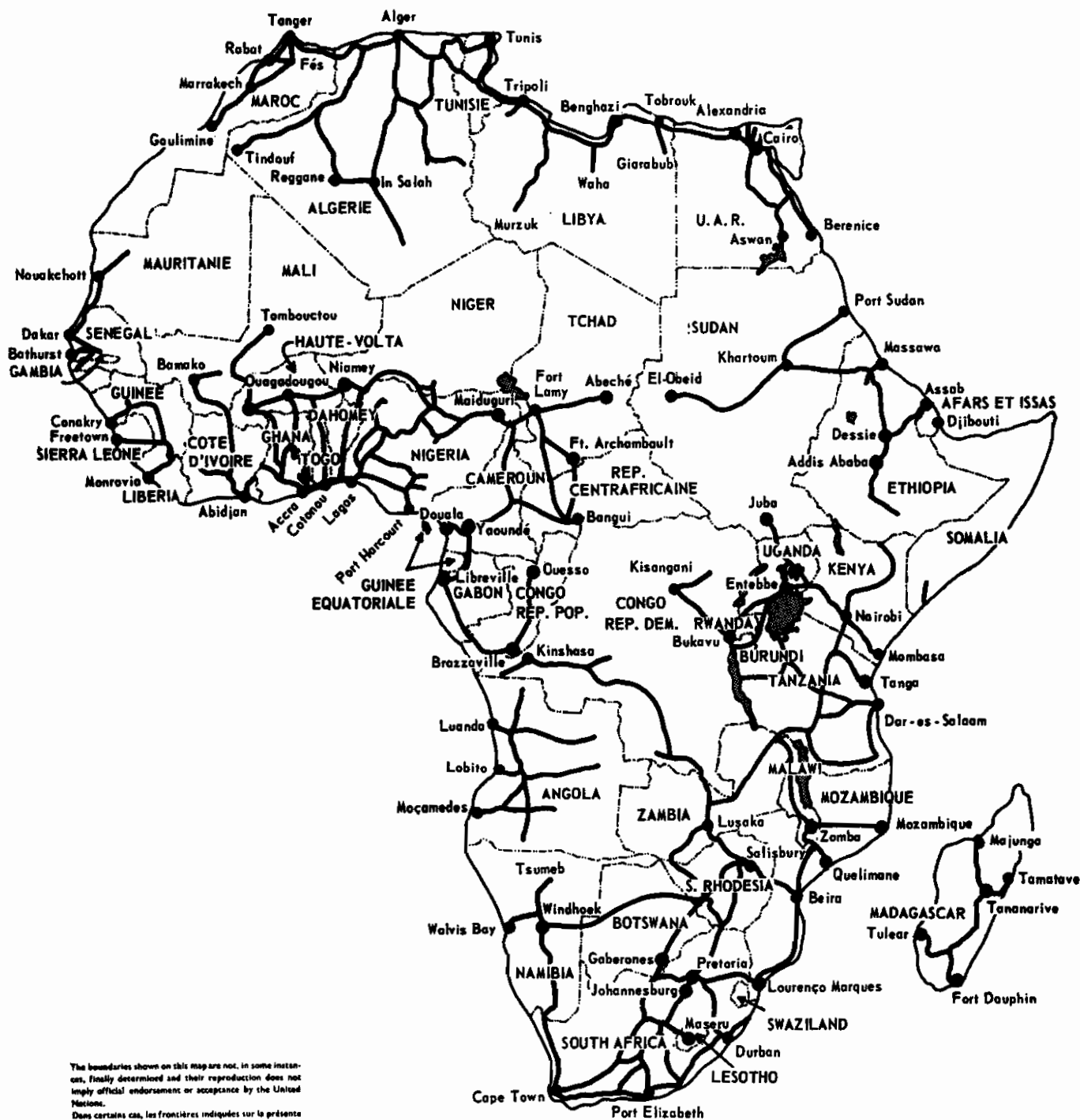
The more urgent problems in road development have tended to emphasize national road systems rather than international road systems but there has been a certain amount of international road building in different parts of Africa. Most countries in each subregion are now linked by roads of varying degrees of suitability. More progress has been made in this direction in North and South Africa than elsewhere although certain groups of countries within subregions have good connections. (Some data on the road systems are given on the map opposite).

Africa has to move in three directions simultaneously with road development; firstly where necessary a good network of national main roads must be completed. Secondly the feeder roads within a country must be built or improved to open up the various areas in a country to modern commerce and development and thirdly international roads must be built to facilitate trade between countries and to help promote tourism within Africa. Africa lacks good roads linking the various subregions of the Continent. An East-West road must be an eventual goal across the main part of the Continent just as the completion of the North-South link is needed to take traffic from one end of the Continent to the other. A Trans-Sahara route has been proposed and in its latest development plan Algeria is to start its own portion of the road.

This sort of broad linkage of the subregions of Africa is probably just beginning to command the attention of the decision makers in the Region but such international roads will be expensive ventures unless they are able to make full use of the existing national (and international) links already in being or under construction.

Information available for the countries of Africa shows that there are road projects under construction or which are about to be implemented in virtually all countries. Some details of planned developments in seven countries are given in Chapter 12.

MAIN ROADS PRINCIPALES ROUTES



ECA STAT. DIV.

The growth of road motor vehicles in use on the Continent has been continuous during the 1960s and the total in 1969 reached an estimated 4,374,000 compared with 2,610,000 in 1960, and 3,302,000 in 1965. The totals for Developing Africa were 1,488,000 in 1960, 1,861,000 in 1965 and 2,479,000 in 1969. These figures relate to private and commercial vehicles but exclude tractors, trailers and two wheeled vehicles.

Table 8.5 Vehicles in Use in Africa, 1960 to 1969

<u>Subregion</u>	<u>1960</u>	<u>1965</u>	<u>1969</u>	<u>1969</u>	<u>1969</u>	<u>Vehicles</u> <u>Per 1000</u> <u>Persons</u>
	<u>Total</u> (thousands)	<u>Total</u> (thousands)	<u>Total</u> (thousands)	<u>Private</u> (thousands)	<u>Commercial</u> (thousands)	
North Africa	631.6	702.7	936.9	643.1	293.8	11.3
West Africa	196.9	336.7	445.5	269.8	175.7	4.1
Central Africa	136.1	132.3	176.2	103.9	72.3	4.3
East Africa	294.3	367.9	500.8	293.0	207.8	6.4
Other Africa	1,350.6	1,761.9	2,315.0	1,810.0	505.0	57.9
Total ^{a/}	<u>2,609.5</u>	<u>3,301.5</u>	<u>4,374.4</u>	<u>3,119.8</u>	<u>1,254.6</u>	<u>12.5</u>
Total less S. Africa	<u>1,487.5</u>	<u>1,860.5</u>	<u>2,479.4</u>	<u>1,624.8</u>	<u>854.6</u>	<u>7.5</u>

a/ Certain small countries are excluded.

The details by individual countries are given in appendix Table A51.

The number of vehicles per thousand persons in 1969 in each subregion varied between 4.1 and 11.3 in the four subregions, North, West, Central and East, but reached 57.9 per 1,000 in Other Africa mainly due to the relatively large number of vehicles in South Africa. The average in Developing Africa was only 7.5 vehicles per thousand persons compared with a common average in Europe of about 200 vehicles per thousand.

The comparison between road distances and vehicles in Africa is particularly revealing. In Africa as a whole there were, on average, 5.4 vehicles per kilometre of main and secondary road in 1969. In Developing Africa the average was less being 3.9 vehicles per kilometre. In Europe averages from 15 to 40 vehicles per kilometre are common.

Table 8.6

Roads and Vehicles in Use, 1969

<u>Subregion</u>	<u>Vehicles Per Kilometre of Road</u>			
	<u>All Roads</u>	<u>Main Roads</u>	<u>Main and Secondary Roads</u>	<u>Paved Roads</u>
North Africa	4.9	18.6	9.9	12.9
West Africa	1.8	10.4	3.6	16.0
Central Africa	0.7	4.0	1.0	49.3
East Africa	2.1	12.8	4.4	33.4
Other Africa	<u>3.7</u>	<u>36.3</u>	<u>7.5</u>	<u>38.1</u>
Total	<u>2.8</u>	<u>18.2</u>	<u>5.3</u>	<u>24.3</u>
Developing Africa	<u>2.1</u>	<u>11.9</u>	<u>3.9</u>	<u>18.1</u>

The ratio of vehicles to kilometre of main road was much better being 18.2 vehicles per kilometre in Africa as a whole and 11.9 per kilometre in Developing Africa. For paved roads there were 24.3 vehicles per kilometre in Africa as a whole and 18.1 per kilometre in Developing Africa.

Based on present usage it needs a massive increase in vehicles in use on the Continent to bring a more reasonable relationship between vehicles and roads and to provide the traffic volume to be able to turn a large proportion of the roads to paved roads. When it is considered that most vehicles in Africa operate much of the time in Urban areas only, the road usage ratio on the Continent must be extremely low. To make better use of the existing investment in roads in the Region probably calls for modified road tax and customs duty regulations in favour of the road user outside the urban areas. There might also be a case for special external assistance to build up road fleets in the rural areas or serving the requirements of such areas.

Air Transport

The development of air services in Africa has resulted in a large number of countries having their own national (and sometimes international) services whilst international airports have been constructed or rebuilt to take the larger modern aircraft. Considerable sums have been spent on terminal buildings, extending runways and modern aircraft over more recent years.

The growth of scheduled services of airlines registered in Africa is reflected in Table 8.7.

Table 8.7 Civil Aviation Traffic in Africa, 1960 to 1969

<u>Subregion or Country</u>	<u>Total Scheduled Service Flights</u>					
	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million passenger kilometres)					
<u>A. Passengers</u>						
North Africa	781.7	1,295.3	1,537.0	1,532.6	1,839.1	2,070.8
West Africa	138.0 ^{a/}	723.7	736.3	700.9	783.3	843.3
Central Africa	288.4 ^{a/}	579.9	634.9	783.3	662.0	731.4
East Africa	455.3 ^{a/}	824.1	916.8	1,105.9	1,259.8	1,388.3
South Africa	513.2	1,159.3	1,473.4	1,660.5	1,851.2	2,177.7
Total Africa ^{b/}	2,390.7	4,771.0	5,509.5	5,978.8	6,585.2	7,505.0
Total domestic services	1,185.5	1,165.3	1,333.2	1,405.0	1,605.7	1,879.6
Total Int ^l Services	1,205.2	3,605.7	4,176.4	4,573.8	4,979.5	5,625.4
Africa less S.Africa	1,877.5	3,611.7	4,026.1	4,318.3	4,734.0	5,327.3
<u>B. Cargo</u>	(in million cargo ton kilometres)					
North Africa	...	16.2	17.5	17.3	19.4	24.6
West Africa	...	24.6	27.6	32.7	44.5	50.3
Central Africa	...	23.8	25.9	32.1	33.9	40.0
East Africa	...	21.1	25.1	37.6	46.5	52.5
South Africa	10.3	30.2	41.5	36.7	38.7	49.7
Total Africa ^{b/}	42.7	120.4	140.6	160.7	187.6	222.7
Africa excluding S. Africa	32.4	90.2	99.1	124.0	148.9	173.0

a/ Estimates.

b/ Includes other territories in Other Africa.

These tables include data for 36 countries in Africa and the dependent territories of France, Portugal and the United Kingdom. Two of the countries included Rwanda and Burundi do not at present run air services.

The growth of international services has been particularly rapid in Africa in the 1960s and has been responsible for most of the growth in traffic reflected in the above table. Detailed figures of total passenger traffic are given in appendix Table A53 for the individual countries. All countries shown in this table have increased their air traffic in the 1960s but there was more relative growth in the first half of the decade than in the years 1965 to 1969. The growth of passenger traffic in actual totals was, however, higher in the later period.

	<u>Total Passenger Traffic</u>	<u>Increase</u>
1960	2,390.7 mn passenger Km	
1965	4,771.0 "	2,380.3 million
1969	7,505.0 "	2,734.0 million

The growth rates of passenger traffic have averaged 13.0 percent a year in the ten years since 1959 and for cargo traffic the average was 13.6 per cent a year. Lower growth rates of 11.1 per cent and 11.7 percent respectively are recorded for the last five years.

These statistics do not fully measure the growth of air traffic to and from Africa, since the larger international carriers based in Europe and America are continuously increasing their services to and from Africa; and, as airports improve, they become more able to offer services to more countries on the Continent. Of course, reciprocal arrangements can be made with an increasing number of carriers based in Africa for services outside the Region.

The further improvement of services to and from Africa is essential if Africa is to attract more tourists, and the further development of package tour arrangements involving charter flights appears to be necessary to enable more countries in the Region to take advantage of the increasing interest being taken in Africa by people who wish to extend their travel beyond the more well-known tourist centres in Europe and elsewhere. Persons living in Africa would be able to take advantage of the return flights of such aircraft to visit other parts of the world at the reduced rates available for charter flights.

There is some evidence that investment in air services and facilities in Africa at the present time is less than in the earlier years of the 1960s. It is probable that in many countries the existing facilities are adequate for the foreseeable future although if countries wish to be able to land the very large jumbo-jets some investment in improving runway facilities may be required.

Sea Transport

The measurement of the goods loaded and unloaded at the ports of Africa shows the growth of the external trade of the Region. Ships carry most of the trade of the continent although there has been some growth in air freight and within Africa road transport is increasingly being used between the countries of the Region.

The detail of the traffic loaded and unloaded at the ports of Africa is given in the appendix Table A55. For the various subregions the totals for the years 1960 to 1969 are as follows:-

Table 8.8 Maritime Freight Traffic of Africa, 1960 to 1969

<u>Subregion</u>	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	<u>Goods Loaded at Ports (in '000 tons)</u>					
North Africa	37,034	104,748	122,835	135,451	184,355	213,481
West Africa	14,138	48,762	57,862	53,082	48,355	72,496
Central Africa	3,322	5,013	5,159	7,187	8,635	8,063
East Africa	2,950	4,147	4,634	5,221	5,270	5,575
Other Africa	12,612	18,005	20,993	23,628	28,736	30,822
Total Africa ^{a/}	75,000	192,000	222,000	237,000	293,000	349,000
Total less S. Africa	68,349	182,617	211,841	224,352	278,801	335,435

Table 8.8

Maritime Freight Traffic of Africa (Cont'd.)

<u>Subregion</u>	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		<u>Goods Unloaded at Ports (in '000 tons)</u>				
North Africa	19,122	21,788	22,072	21,379	23,889	24,035
West Africa	9,628	11,766	10,447	10,603	11,925	13,226
Central Africa	1,678	2,028	2,384	2,481	2,419	2,450
East Africa	3,726	5,494	6,334	6,541	7,599	7,702
Other Africa	11,466	17,178	18,086	20,589	23,359	23,852
Total Africa ^{a/}	54,000	69,000	71,000	73,000	80,000	82,000
Total less S.Africa	46,213	56,629	57,971	58,000	63,000	64,000

^{a/} Includes estimates for countries and commodities not covered.

In the 1960s in Africa the growth of exports has been mainly due to exports of crude petroleum, iron ore and other minerals. In North Africa, Libyan exports increased from 2,293,000 to 148,056,000 tons between 1960 and 1969; in Algeria the comparable figures were 14,158,000 and 41,676,000 tons and in both countries crude petroleum was responsible for virtually all the increase.

For West Africa crude petroleum from Nigeria and iron ore from Liberia, Mauritania and Sierra Leone accounted for most of the increase in the cargo loaded at the ports.

A similar situation obtained in Central Africa and in Other Africa with much of the growth in cargo loaded in Central Africa due to crude petroleum from Gabon and in Other Africa due to crude petroleum and iron ore from Angola and iron ore from South Africa.

The growth in cargo unloaded has been much smaller and the relationship between cargo loaded and unloaded from 1960 to 1969 is as follows:-

	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Cargo loaded ('000 tons)	75,000	192,000	222,000	237,000	293,000	349,000
Cargo unloaded ('000 tons)	54,000	69,000	71,000	73,000	80,000	82,000
Difference	21,000	123,000	151,000	164,000	213,000	267,000

The growing difference has been almost entirely due to the increase in petroleum and iron ore exports. Petroleum exports are being handled at special terminals and other mineral exports are similarly being loaded at special ports in some countries.

The increase in cargo unloaded has not favoured particular subregions or countries as much as was the case with cargo loaded. The overall growth of cargo unloaded from 1960 to 1969 for Africa was 52 per cent and against this average the growth was 25 per cent

for North Africa, 48 per cent in West Africa, 46 per cent in Central Africa, 107 per cent in East Africa and 99 per cent in Other Africa. These increases do not automatically reflect the relative growth rates of the economies of the various subregions and some part of the small growth rates in cargo unloaded may have been due to the development of local industries to replace imports.

Two African countries have seen total goods unloaded fall during the 1960s; these are Algeria where total goods unloaded were 7,404,000 tons in 1960 and 5,820,000 tons in 1969 and Congo D.R. where the totals were 652,000 tons and 602,000 tons respectively. In Algeria there was a fall up to 1967 to 2,335,000 tons but since 1967 totals have increased impressively.

Other countries which have had particular problems in the 1960s include the UAR where goods unloaded increased from 6,359,000 tons in 1960 to 10,073,000 tons in 1966 but there was a fall to 6,359,000 tons in 1969. In Nigeria the fall was from 3,199,000 tons in 1960 to 2,223,000 tons in 1967 but an increase to 3,276,000 tons in 1969. For Ghana there was an increase from 1,873,000 tons in 1960 to 2,822,000 tons in 1965, a fall to 2,246,000 tons in 1967 but a very impressive recovery to 2,988,000 tons in 1969.

In Developing Africa since 1965 there has been very little growth in cargo unloaded up to 1967 but in 1968 there was a very considerable increase reflected in all subregions except Central Africa and in 1969 a small increase again. For the countries for which data are available the totals were as follows:-

<u>Developing Africa</u>	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Cargo unloaded	37,833	45,881	46,294	46,593	52,191	53,265

The development of the port cargoes which have been indicated above has meant considerable investment in harbour facilities and in Libya five oil terminals have been developed connected by pipeline to the oilfields. In Algeria the ports of Arzew and Bejaia now handle the crude oil exports and Skikda is currently being developed to handle natural gas in liquified form. Oil in Nigeria is increasingly being handled at Forcados Port with facilities for 200,000 ton tankers but the restored facilities at Port Harcourt are also important.

Iron ore handling facilities have been developed at Point Central in Mauritania and Monrovia and Buchanan in Liberia.

Many other ports have been extended during the 1960s and the country development plan suggest that generally facilities were constantly being extended in advance of traffic growth anticipated. In certain areas there appeared to be some surplus capacity where traffic has not developed as expected whilst ports such as Dar-es-Salaam in Tanzania have had to face up to increased traffic from the switching of trade as by Zambia away from the ports of South Eastern Africa.

Shipping Services

In a number of countries or areas of Africa there has been a development of national shipping lines to carry coastal traffic and to provide services to and from the main trading areas such as Europe. This development has enabled individual countries to be less dependent on foreign registered fleets and has led to some saving of foreign exchange costs. Some information on the growth of locally registered merchant shipping fleets is given in Table 8.9. These data are not complete because in East Africa there are also developing shipping fleets of Ethiopia, the four countries of Kenya, Tanzania, Uganda and Zambia and of Madagascar as well as other embryo organisations in other parts of Africa. The fleet registered in Liberia is not to serve Liberia but the world at large; the registration in Liberia is for convenience only.

Table 8.9 Merchant Shipping Fleets in Africa, 1965 to 1969

<u>Country</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	in thousand gross registered tons				
Ghana	104	129	132	120	166
Liberia	17,539	20,603	22,598	25,720	29,215
Morocco	56	56	65	70	72
Nigeria	62	68	63	71	98
Somalia	-	-	...	59	295
UAR	232	237	236	250	239
South Africa	302	399	471	470	499

Source: UN; Statistical Yearbook, 1969.

In Ethiopia in 1968 there were five vessels owned by the National Shipping line trading with Europe; Madagascar had two ships of 4,500 tons and 6,100 tons respectively at the end of 1967 and a further vessel was under construction. The East Africa National Shipping line which is a cooperative venture between Kenya, Tanzania, Uganda and Zambia owned 4 vessels in 1970 and had others under charter. Independently of this line, Tanzania had signed an agreement with the China Peoples Republic for a joint shipping line of two vessels of 10,000 tons each; the company commenced operating in 1967. The Sudan Government has also established a shipping line and in April 1969 it was reported that the line had four ships and two more were being built, with all six ships the total would be 60,000 tons.

The coastal countries of Africa will undoubtedly continue to develop their shipping fleets over the coming years and this will serve to reduce their dependence on foreign shipping lines.

Tourism

Data on tourism development in Africa are not always available due to the lack of basic tourist statistics in a great number of countries, the incompleteness of the statistics in many others and usually a considerable delay in publishing such statistics.

Table A56 in the appendix presents the arrivals of foreign visitors in African countries in the years 1965 to 1969, and also shows the estimated number of rooms and beds available. From this table it can be seen that, with few exceptions, the countries lacking tourist statistics are those with rather small hotel capacity where consequently international tourism cannot have a significant volume at present.

In summary outline the information on tourism in Africa for 1965 to 1969 is presented in Table 8.10 below.

Table 8.10

Estimated Accommodation and Tourist Arrivals, 1960 to 1969

<u>Subregion</u>	<u>Estimated</u>	<u>Foreign Tourist Arrivals</u>				
	<u>Beds Available</u> (number)	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		(in thousands)				
North Africa	122,300	1,282	1,448	1,179	1,412	1,683
West Africa	12,000	90 ^{a/}	90 ^{a/}	100 ^{a/}	105 ^{a/}	140 ^{a/}
Central Africa	8,400	36 ^{a/}	38 ^{a/}	40 ^{a/}	44 ^{a/}	45 ^{a/}
East Africa	29,200	460 ^{a/}	550 ^{a/}	520 ^{a/}	620 ^{a/}	660 ^{a/}
Other Africa	140,000	733	709	757	820	898
Total	312,000	2,571	2,635	2,596	3,011	3,426
Total less S.Africa	200,000	2,344	2,378	2,320	2,711	3,106

^{a/} Includes estimates for individual countries.

A number of countries have been particularly successful in developing tourism in the years since 1965 but the picture for Africa as a whole is influenced adversely by the countries with particular problems such as the UAR.

If the UAR, which has a particularly well developed tourist industry, is excluded the total tourist arrivals in Developing Africa showed the following trend:-

	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in thousands)				
Tourist arrivals in					
Developing Africa	2,344	2,378	2,320	2,711	3,086
Less UAR	542	579	345	318	345
Net total	1,802	1,799	1,975	2,393	2,741

Since 1966 excluding the UAR there has been considerable growth of tourist arrivals in Developing Africa. The major beneficiaries are listed below:-

<u>Country</u>	<u>Tourist Arrivals in Thousands</u>				
	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Algeria	135	150	112	137	213
Libya	50	63	79	134	120 ^{a/}
Morocco	378	424	400	481	621
Tunisia	166	219	231	330	372
Ethiopia	19	40	29	42	47
Kenya	193	229	247	262	293
Tanzania	25	30	37	54	66
Uganda	20	24	38	54	74

^{a/} Estimate.

All these countries are in North and East Africa.

Tourism earns considerable foreign exchange for African countries. Data are only available for a limited number of countries which included the following:-

Table 8.11

Earnings From Travel in Selected African Countries 1965 to 1969

<u>Country</u>	<u>Travel Earnings in Million US Dollars</u>				
	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Libya	9.4	11.5	14.8	15.1	12.0 ^{a/}
Morocco	65.6	74.9	79.1	88.9	121.3
Tunisia	19.2	27.8	33.5	44.7	54.0
Ethiopia	2.7	3.9	3.5	5.7	6.5 ^{a/}
Kenya	30.5	40.3	41.1	46.0	47.0
Tanzania	5.7	9.9	10.7	9.2	10.1
Uganda	6.5	7.9	11.6	13.8	22.0 ^{a/}
Total	<u>139.6</u>	<u>176.2</u>	<u>194.3</u>	<u>223.4</u>	<u>272.9</u>

^{a/} Estimate.

Source: IMF Balance of Payments Yearbook, Vol. 20, Vol. 21.

These represent some of the more successful tourist countries in the period under review. The UAR increased its tourist earnings in 1966 but there was then a fairly drastic fall because of the hostilities with Israel. In 1966 tourism earned about 120 million US dollars.

The fast development of African tourism is based on the rapidly rising tourist demand in the main tourist generating countries in Europe and North America, overcrowding of the traditional tourist areas and congestion of the road networks, especially in Europe and the wealth and variety of the tourist attractions Africa has to offer. But in this favourable situation it is progress in transport technology and particularly in air transport which has created the necessary conditions for inexpensive holiday travel over long distances and made Africa accessible to the rapidly growing strata of the middle income public overseas.

But even under such favourable general conditions only a few African countries have succeeded with rapid tourism development. It is true that they are either in a very convenient geographical position in respect of the main tourist generating countries or have attractions of a particular kind (wildlife) without equal on other continents. One factor has greatly contributed to the rapid growth of African tourism and which is often overlooked is the existence of nucleus of local knowledge of tourism and the hotel industry. This expertise has to be further developed and to a considerable extent modified in conformity with the changing conditions. In the past it was more easily done in countries with basic facilities for tourism than in countries which had to start from the beginning and rely primarily on foreign investments and know how.

The lack of expertise in most of the African countries has been a major handicap in tourism development. Investment programmes have been elaborated based more on wishful thinking than on reliable numerical data. Hotels have been built without reliable feasibility studies. Thus the first steps were taken rather on a trial and error basis, and proved often to be very expensive leading to discouraging results. It is therefore of great importance that the useful role of technical assistance and of professional training be early recognized by countries intending to develop tourism.

In countries where some local expertise was available, considerable efforts have been made to improve professional skills through training. For example Morocco has established two hotel schools and a UNDP project should help establish an Institute for hotel administration and tourism; Tanzania, Kenya and Ethiopia, in addition to earlier ad-hoc training courses have now established hotel training schools for higher level posts. Experience gathered at these first attempts will allow the countries concerned to organise their professional training in a systematic and more economical way. The East African Community has already undertaken to assess future requirements in trained personnel and the existing facilities for training and to recommend the proper solution for higher level training. Morocco is recognizing its system of training for hotel industry, and professional training for West African countries is being recognised.

These efforts will make African countries more independent of foreign managerial and technical staff and reduce the role of foreign hotel consultant and management firms. Both should reduce operating costs and increase profitability of new investments.

The extended tourist season, cheap land and labour and the growing demand for travel to African countries make for the profitability of the hotel industry and tourist trade. On the other hand the cost of imported equipment and lack of local expertise present a handicap to its profitability. Some countries have therefore deemed it necessary to maintain investment incentives such as investment allowances, subsidy of interest, exemption of customs duties for imported construction material and equipment. The most important incentives, however, for both local and foreign private investors have proved to be a stable government giving full protection to the invested capital and the transfer of profits, and willing and able to provide the necessary infrastructures at reasonable cost.

A considerable handicap for tourism development in Africa was the lack of suitable special tourist air-fares, especially inclusive tour fares in African countries south of the Sahara. During the period under review substantial progress has been achieved in parts of Eastern Africa in obtaining much lower IT fares both from Europe and North America. The Central and West African countries, however, are still lacking the lowest IT fares recently introduced from Europe to Eastern (and Southern) Africa. There is still room for improvement even in the Eastern African fares, in respect of the length of validity of such fares and the number of stopovers allowed which would open up possibilities for organizing sightseeing tours covering a number of African countries.

Another important aspect where little had been done to date is travel promotion for African countries in the main overseas markets. Due to the high costs of this promotion, countries with a small number of tourists cannot afford it and this is considerably slowing down tourism development in Africa. Only a few African countries have an effective promotion really making impact on foreign markets. The idea of co-operation of neighbouring countries in travel promotion in overseas markets has therefore made some progress. The Organization for the Development of African Tourism (ODTA) has been reinforced and the Central and Eastern African countries are in principle favourable to the creation of sub-regional organizations for joint travel promotion.

The recent introduction of tourism statistics broken down by countries of residence of visitors has drawn the attention to the great importance of tourism between neighbouring countries. The rising living standard in African countries coupled with the modernization of road networks of individual countries has boosted considerably local and intra-regional as distinct from intercontinental tourism. The future linking of the national road networks now in progress and a bolder approach to excursion and other tourist fares including IT fares between African countries would give new impetus to the development of intra-regional African tourism.

Of great concern for the development of both the regional and inter-continental tourism in Africa is the elimination of administrative formalities which hinder tourist trade and prevent free travel of tourists within Africa. Some of these formalities are remnants of the past, but new ones have also been introduced recently by various countries. Due to their variety it is not possible to list them here, but one of them, which is generally applied and has a great impact on tourist travel merits separate mention - namely visa requirement.

Of 35 countries surveyed for visa requirements, three groups can be identified. The first group is composed of countries which are genuinely engaged in tourism development, like most of the North African countries, Kenya, Uganda, Gambia, Senegal, Ivory Coast, Cameroon and which have waived visa requirement for a large number of countries, including the most important tourist generating countries.

The second group is still using its traditional ties with the French-speaking countries on one side and the British Commonwealth on the other and only nationals of their respective groups of countries are exempted from visa requirement.

The third group requires visas from nationals of all countries. While there are important reasons for such a restrictive attitude, visa requirement for nationals of important tourist generating countries presents a serious obstacle for tourism development and it will prove more so with the growth of mobile tourism and air tours covering a range of countries.

There is increasing evidence in Africa of co-operation in the tourism field. In addition to joint promotion, already mentioned, other forms of co-operation also play a useful role. Among the Maghreb countries, co-operation has taken place, in particular, with a view to developing tourism in the Southern provinces. This cooperation includes simplification of frontier formalities, road construction and the like. With parallel development of low cost car ferry services at the closest points between Africa and Europe it could open up North Africa to large scale touring by automobile and motor-coach originating in Europe.

On the other side of the Continent, the co-operation of the Partner States of the East African Community has already brought results in setting up uniform tourist statistics, in assessing the needs for trained personnel in hotel industry and tourist trade, in co-ordinating development of adjacent areas, etc.

These examples, among others, bear testimony to the growing understanding of African countries of the problems of tourism development and the means of solving them successfully.

Chapter 9. FINANCE

This chapter covers a number of subjects which have been given the heading Finance. They include public finance and fiscal developments (which describes the trends in central government finances), external aid, a monetary survey (which covers the main elements of the banking sector) and finally international liquidity.

If it is possible to summarise these various subjects at this stage it can only be to say that there has been tremendous variation in the experience of the individual countries in Africa, under any of the headings being considered. Government revenues (and expenditures) in certain countries have increased many times (e.g. Libya and Zambia where revenue increases were twelve fold and eight fold respectively between 1960 and 1968) whereas in others the increase has been very small (e.g. Senegal 9 per cent, Algeria 14 per cent).

External aid to Africa has tended to favour particular countries and subregions in the 1960s with the UAR in North Africa being a major recipient particularly in the years to 1967. Multilateral aid to Africa from the World Bank and the IDA has shown an increasing trend since 1967 and the favoured areas for such development aid are now transportation, agriculture, manufacturing industry and education. There is some evidence that the burden of external debt repayments is continuing to increase but the more recent move to soft loans is having some impact on holding back future increases. There are a number of countries which have particular problems in this direction at the present time.

The monetary survey also illustrates the different experiences of individual countries, with rapid inflation in Congo DR and earlier in Ghana leading to exchange rate changes for their currencies whilst for a large number of African countries there was no change in exchange parities at all during the 1960s. Some sterling area countries changed their parities with the sterling devaluation in 1967 and all countries in the franc zone followed the French devaluation in 1969. The rates of growth of domestic credit and money supply have been different in individual countries. Libya and Zambia had high growth rates of credit and money supply whilst in a number of others the growth rates were moderate.

The final subject is the international liquidity reserves. Africa as a whole has shown a fairly substantial increase since 1967 but most of this is due to the experience of a small number of countries. If such countries are excluded there has been no increase for the majority of countries in Developing Africa and in these countries the coverage of imports by liquidity reserves has fallen.

Public Finance and Fiscal Developments

With the attainment of political independence, the decade of the sixties witnessed the rapid expansion in the scope and structure of the public sector in most African countries. Apart from the traditional functions of the maintenance of law and order and national security Governments had to assume greater responsibilities for economic and social development.

While the governmental machinery at different levels was strengthened and streamlined, quite a number of semi-autonomous parastatal bodies and public enterprises were set up in almost all countries to handle a variety of tasks and operations inherent in the process of economic development especially in developing infrastructure and production of goods and services for sale in the market. Specialized financial institutions and development banks were also set up in most of the countries to mobilize savings and provide credit for development purposes in approved fields.

The growth and expansion of the public sector has not however, been accompanied by adequate development of fiscal and financial statistics. The major source of public finance statistics are the budgets of the central governments. However, the figures of actual expenditures against budgeted amounts generally are not available except with a considerable time-lag after the close of the financial year. This situation is unfortunate since the state and local governments and public enterprises occupy an extremely important place in the economies of countries such as Algeria, UAR, Sudan, Nigeria, Ghana, Congo (Kinshasa), Kenya, Uganda, Tanzania and Madagascar. The adoption of different fiscal years and fairly frequent changes of Ministerial portfolios during the decade present additional problems in presentation of comparable data and their analysis. This difficulty is somewhat less in the case of some countries like Somalia and Ethiopia where by far the major share of public sector resources is collected and spent by the central government. However, even in such cases the lack of readily available financial statistics of public enterprises is a serious handicap.

The coverage of the central budget itself is not uniform in all the countries. In Sudan, for example, the central budget includes a public utilities budget - in addition to current and capital budgets - while in other countries there is one central budget only providing for all current and capital expenditures or one recurrent or ordinary budget and one capital or development budget.

These factors and limitations would have to be kept in view in going through the conclusions and analysis of trends based mainly on the budgetary and accounts data in respect of the central governments. However, since the central government is, in any case, the most important element in the public sector for most African countries the analysis of these accounts does largely reflect realistic overall trends.

Current and Capital Accounts

The budgets of the African developing countries generally maintain a distinction between the current and capital accounts. With the establishment of new institutions and expansion of existing ones and the impact of the implementation of development plans, both the current and capital expenditures increased substantially during the decade. A comparative analysis of the growth of these expenditures in percentage terms in respect of countries for which comparative data is readily available is given in Table A 59 of the appendix.

Although the capital expenditures have increased substantially in absolute terms in the case of almost all the countries, their share in total government spending is still not substantial (except in a few cases) because of a comparatively much larger increase during the decade in the level of recurrent expenditures. Out of the twenty countries analysed the share of current expenditures in 1968 in total government spending was above 90 per cent in four cases; above eighty per cent in six cases; above 70 per cent in six cases and above 50 per cent in the remaining four cases.

Looking at the functional distribution of central government spending, we find that the expenditures on general public services and defence have risen heavily in absolute terms between 1960 and 1968 in some countries such as Libya (six fold) Zambia (five fold) Ghana and Burundi (three fold in each). These expenditures more than doubled in this period in many countries like Morocco, Sudan, Niger, Nigeria, Togo, Ethiopia, Malawi, Tanzania, Kenya and Uganda. The increase in expenditure on general services was partly due to the increase in recurring liabilities generated by implementation of the development programme. However, it was in a large measure also generally due to the increase in establishments and upward revisions of salary scales. In several cases some important positions are still occupied by expatriate officers engaged on contracts of varying durations.

The expenditures on social and community services and economic services have also increased substantially under the impact of programmes of economic and social development. Taking the recurrent and capital expenditures together the bulk of government expenditures was concentrated in these fields. Their combined share in 1968 in Algeria, Libya, Morocco, Gambia, Ghana, Liberia, Sierra Leone, Ethiopia, Malawi, Tanzania, Uganda and Zambia ranged from 40 to 83 per cent with an average of 62 per cent. This reflects the concern of developing Africa for building economic and social infra-structures. Investment expenditures have gone largely into the construction of roads, dams, irrigation schemes, water supply projects, schools, hospitals, residential houses, and administrative buildings. Some governments are also investing directly in agriculture, industry, mining and other productive activities.

Some countries have also used public funds to promote new industries with a view to substituting imports, supplying internal markets and exporting manufactured products.

Comparisons of Expenditures

In view of the differences in administrative organisations in different countries, the differences in the regularity with which statistical data are published and lack of functional breakdown of expenditures in respect of many countries, an inter-governmental comparison of expenditures may sometimes be misleading. However, the most significant aspect of the central government expenditures in various countries has been their rapid growth. The relative importance and growth of the public sector have not been the same in all African countries as different ideological and historical factors have influenced the extension of the activities of African governments.

The largest increases occurred in Zambia and Libya. In Zambia total government expenditure increased by nine times in 1968 over the level in 1960 while in the case of Libya it increased by more than eight times. This phenomenal increase in government expenditures in these countries was, of course, helped by the growth of domestic revenues as a result of the exploitation of copper in Zambia and oil in Libya.

Substantial increases in government expenditures also occurred in Morocco, Gambia, Ghana, Nigeria, Central African Republic, Chad, Congo Kinshasa, Gabon, Ethiopia, Kenya, Malawi, Rhodesia, Tanzania and Uganda. Comparatively moderate increases took place in Sudan, Tunisia, Liberia, Niger, Sierra Leone, Guinea and Upper Volta.

The expansion of governmental activity in Africa during the past decade was followed by an increase in the share of GDP absorbed by it. For Togo, Burundi, Niger and Ethiopia this share was, however, still less than 15 per cent. The share of central government expenditure expressed as a percentage of GDR at factor cost of some of the countries between 1960 and 1968 is indicated in Table A 58 of the appendix. By 1968 for twenty countries the average was 24 per cent compared with 18 per cent of the GDP in 1960.

Government Revenue and Receipts

Information is available in the appendix table A 57 of the receipts of the central governments of 46 African countries for the years 1960 to 1969. Not all countries are covered for the whole period, however, and there are only 26 for which comparable data on ordinary revenue are available for the years 1960, 1965, 1968 and 1969. These 24 countries are all developing countries and they can probably be considered as representative as far as indicating trends in revenue. The totals of ordinary revenue and the main sources are shown in the next table.

Table 9.1 Ordinary Revenue by Source of 24
Developing Countries in Africa, 1960 to 1969

<u>Current Revenue in Million US Dollars</u>					
<u>Year</u>	<u>Direct Taxes</u>	<u>Indirect Taxes</u>	<u>Other Domestic</u>	<u>Grants</u>	<u>Total</u>
1960	469.2	1617.9	737.1	68.5	2892.7
1965	700.8	2298.3	1267.9	71.8	4338.8
1968	942.8	2406.1	1786.0	19.0	5153.9
1969	1001.9	2640.5	2296.3	11.1	5949.6
<u>Growth Rates Percent Per Annum</u>					
1960-1965	8.3	7.3	11.5	...	8.5
1965-1969	9.4	3.6	16.0	...	8.2

There has been an overall growth rate of ordinary or current revenue of 8.4 per cent a year between 1960 and 1969. "Other sources of domestic revenue" have grown more rapidly but indirect taxation has grown at a slower rate than the overall average. The major contributor to the growth of other revenue has been the petroleum revenue in Libya.

For the year 1968 there is information available on ordinary revenue for 39 countries and this is shown below with the countries grouped in subregions.

Table 9.2 Ordinary Revenue by Source and Subregions
of Developing Africa in 1968

<u>Ordinary Revenue in Million US Dollars</u>					
<u>Subregion and Number of Countries</u>	<u>Direct Taxes</u>	<u>Indirect Taxes</u>	<u>Other Domestic</u>	<u>Grants</u>	<u>Total</u>
North Africa (6)	621.3	1518.9	1617.9	0.7	3758.8
West Africa (12)	214.3	778.2	172.1	15.2	1180.3
Central Africa (3)	149.3	520.3	61.6	-	731.2
East Africa (12)	335.1	695.3	274.9	95.9	1401.2
Other Africa (1)	91.8	73.4	66.1	-	231.3
Total (39)	<u>1412.3</u>	<u>3586.1</u>	<u>2192.6</u>	<u>111.8</u>	<u>7302.8</u>
Proportions(percent)	<u>19.4</u>	<u>49.1</u>	<u>30.0</u>	<u>1.5</u>	<u>100.0</u>

Just under half of the government ordinary revenue in 1968 was obtained from indirect taxation, just under one fifth from direct taxation and three tenths from other domestic sources including petroleum revenue and copper mining royalties and copper export taxes; only 1.5 per cent came from grants in aid from abroad.

When extraordinary revenue is considered there is less information than for ordinary revenue and there are only 22 countries for which there are data for the period 1960 to 1969. These countries are covered in the next table.

Table 9.3 Ordinary Revenue, Extraordinary Revenue & Loan Receipts of 22 Developing Countries in Africa 1960 to 1969

	<u>Ordinary Revenue</u>	<u>Extraordinary Revenue</u>	<u>Total Revenue</u>	<u>Loans^{a/}</u>	<u>Total Receipts</u>
1960	1995.1	339.6	2334.7	134.5	2469.2
1965	2005.6	225.2	3230.8	446.0	3676.8
1968	3839.2	126.6	3965.8	586.4	4552.2
1969	4543.9	118.4	4662.3	495.8	5158.1

a/ Based on incomplete data.

Since 1960 extraordinary revenue has decreased very significantly in the 22 countries reviewed; loan receipts on the other hand increased at a high rate between 1960 and 1968 but fell somewhat in 1969. If extraordinary revenue and loans are added together they accounted for 19.2 per cent of total receipts in 1960, 18.3 per cent in 1965, 15.7 per cent in 1968 and 13.5 per cent in 1969. The importance of extraordinary revenue and loans taken together has been markedly reduced since 1960 and particularly since 1965. Because of the lower relative importance of these types of receipts the growth rate of total government receipts since 1960 has been less than for current revenue.

Mobilization of domestic revenues

With the increase in expenditures in the developing African countries a substantial growth in domestic revenues also took place. Table A 5 of the Appendix shows the growth of revenue between 1960 and 1968 and it also indicates the composition of central government receipts. However, in some cases this increase has not been commensurate with the growth in current expenditures and it has been necessary to depend on extra-budgetary resources to balance the recurrent budgets.

The largest increases in revenue took place in Libya (twelve fold) and Zambia (eight fold); four fold increases were recorded in the Democratic Republic of Congo (compared with the level in 1965) and Burundi. There was a three fold increase in the Congo Peoples Republic, Rwanda, Central African Republic, Botswana, Ethiopia, Lesotho and Swaziland while the revenues of Uganda, Kenya, Tanzania, Gabon, Chad, Togo, Mali, Ivory Coast and Ghana more than doubled. Only in respect of 6 countries was the increase less than 50 per cent. It was 9 per cent for Senegal, 14 per cent for Algeria, 36 per cent for the Sudan, 39 per cent for Dahomey and 48 per cent for Upper Volta and Nigeria. However, in none of the African developing countries was there a revenue decrease at current prices compared with 1960. In 1960, only in respect of 10 countries did all central government revenue emanate from domestic sources, and for 8 countries, 20 per cent or more of this revenue represented grants from abroad. By 1968 however, the relative importance of these grants had been considerably reduced and it seems that by 1968, 19 countries had ceased receiving foreign grants altogether.

Generally the average annual growth of revenues was less between 1965 and 1968 than for the earlier period. Four countries namely Dahomey, Senegal, the United Arab Republic and Mauritius collected less domestic revenue in 1968 than in 1965 and for 16 other countries the average rate of growth per year was less than 10 per cent. However, 10 countries showed an accelerated growth rate for 1965-68 as compared with 1960-65 and for four of these countries namely Zambia, Malawi, the Congo Democratic Republic and Gabon, the rates of growth in 1965-68 period were more than 25 per cent per year. Revenue grew at the same rate as the gross domestic product in one of these countries and more rapidly in 33 others, increasing its share of the relevant gross domestic product by more than 20 per cent in 28 of these countries and more than doubling it in five of them namely, Mauritania, Chad, Central African Republic, Southern Rhodesia and Zambia. Countries which showed a decline in varying degrees in current domestic revenue relative to the gross domestic product are the Sudan, Tunisia, UAR, Gambia, Senegal, Sierra Leone, Liberia, Mauritius, Lesotho and Mozambique.

Tax Revenues

Tax revenues increased very rapidly over the 1960-1968 period accounting for more than 60 per cent of central government receipts including grants from abroad in 1968. If grants are excluded, tax revenue generally contributed at least 75 per cent and commonly more than 80 per cent of total ordinary government revenue. By 1968 it had doubled in 28 of the 44 countries for which comparable data are shown in Table A 57, it had trebled in 12 and was more than 4 times the 1960 figure in 5 of these countries. The significance of these increases becomes more striking when it is considered that the proportion of the gross domestic product absorbed by taxation increased during the period in 35 of these countries, and that the relative increase was more than 50 per cent for 16 and more than 100 per cent for 7 of these countries. This proportion fell however, in 4 countries in North Africa, 4 in West Africa, 1 in Central Africa and 2 in the East African sub-region. The relative decrease ranged from 9 per cent for Algeria to 13 per cent for Libya in North Africa, from 1 per cent for Togo to 45 per cent for Sierra Leone in West Africa, and was 46 per cent for Lesotho. Although in each of these 11 countries tax revenue increased over the period, none of these increases managed to keep up with the comparatively rapidly growing gross domestic products during that time.

Although it may be argued that they are not strictly tax revenues, Libya and Zambia obtain most of their Government revenue from the petroleum and copper mining industries respectively.

Composition of tax revenues

In 1968 the indirect tax receipts accounted for most of the tax revenue in virtually all of the 46 countries shown in Table A 57. In that year indirect taxation accounted for more than three

quarters of all central government revenue (including grants) in 4 of these countries and in 17 others it accounted for more than half of the revenue collected. Its importance as a source of revenue had grown for 30 countries during the 1960-68 period, and its share in all tax revenues had doubled in 3 of these countries and increased by more than 10 per cent in all the others. Customs duties continued to be the largest source of indirect taxation in most African countries. In 1968 this source provided more than half of all indirect tax revenues collected by central governments in 30 out of 36 countries for which comparable data are available.

The direct tax revenues have been gaining importance in a few countries, but income taxes still remain relatively poorly developed as sources of revenue in most countries. Kenya, Tanzania, Swaziland and Zambia have now reached the stage where they, on the average, obtain upwards of 30 per cent of their tax revenue from income taxes but in other countries the contribution is much smaller.

Role of fiscal policy in resource mobilization

So far the growth of central government revenues and expenditures has been referred to in more or less general terms without taking into account price rises. The increases in domestic revenues in different countries would in fact be much less if rises in the general price levels of the countries concerned were taken into account. Moreover, we have also referred to the problem of rises in recurrent expenditures outstripping the rises in domestic revenues in several cases.

The net domestic contribution made by different countries in financing their economic development should be a reflection of the soundness of their fiscal systems. The position of some selected countries in financing their expenditures is indicated in this section.

The term "resource mobilization for development" covers the entire spectrum of policies and institutions which normally channel resources into development uses both in the public and private sectors. Resource mobilization in the public sector involves the physical transfer of resources from the private sector in the form of taxes or public borrowings. The public sector savings mobilized for development would thus denote the excess of the public sectors' gross income over public consumption expenditure. In other words, this excess of resources would represent a levy imposed by government on the community for the purpose of restricting private claims against available resources thus freeing these resources for development expenditure in the public sector. In the private sector, on the other hand the resource mobilization effort may merely involve incentives to save and invest rather than consume. Policies required in the private sector may be largely in the nature of transfer mechanism of incomes to those individuals and institutions in a position

to save and invest from those whose propensity to consume is high. The resource mobilization effort of different African countries naturally varies being affected to some extent by the force with which various fiscal and monetary measures are applied.

In order to ensure a stable economic growth, it is necessary that taxes and other current domestic revenues should be able not only to cover the maintenance and upkeep of existing services and non-revenue producing capital assets but also provide continuously an expanding base of public savings to be utilized for public sector investment. Of course, the public savings in most cases would be too meagre even to be able to finance the minimum desirable public sector investment outlays. These have, therefore, necessarily to be supplemented by borrowing of one form or another and by any gifts or grants that may be forthcoming. Since all loans carry with them the problem of debt servicing, it is extremely important that domestic revenue should grow fast enough to be able to cope with the problem of growing debt servicing along with its capacity to meet other growing recurring liabilities.

On looking at the experiences of African developing countries during the past decade, it is unfortunately true that the above criteria were not present in a majority of the cases. Most of the countries over-borrowed and the funds obtained were not used in accordance with a rational system of national priorities with the result that the domestic output did not rise sufficiently to generate additional tax revenue to defray the increased interest and other liabilities. The export incomes of most of the countries in view of the nature of their economies also did not increase sufficiently to carry the burden of external debt, in addition to providing for essential imports.

It is often asserted that most of the countries in Africa are so poor that domestic savings in the form of taxation or otherwise would in any case be meagre. But this is not the whole truth. Though average incomes may be low in most of the countries, some incomes are high and substantial accumulation of funds does exist as a result of trading activities, the ownership of land and other forms of investment. Fiscal policy should be directed to mobilizing resources in these areas. We have already seen the major share of indirect taxes in the revenue structure of most of the countries because it is relatively easy to levy customs duties. Moreover, further heavy reliance on sales taxes and excise duties to raise resources has been possible in view of the ease of administering these taxes. But generally sufficient consideration was not given to the possibilities of developing and strengthening other forms of taxation. The shortage of revenues in most cases was due to the fact that the taxation potential was not fully exploited. In many cases it was not only due to bad tax administration but also the result of resistance from powerful pressure groups who blocked the way to effective tax reform.

In most of Africa today the bulk of income tax revenue comes from a few large business firms and from government employees. Generally less than one per cent of population is covered by income taxes. In some cases this percentage is as low as 0.2 per cent. While income taxation in the usual form is unsuitable for the mass of population a direct tax of broad application in the form of personal tax assessed on a local basis on a graduated scale has continued to be applied in some countries. Since these taxes had to be paid in money, they had the beneficial effect of forcing the farmers to sell produce or labour services.

The extension of the personal tax to small traders, artisans or professional persons raises serious administrative difficulties. Lack of adequate fiscal measures to tax the agricultural sector of the economy is also a major factor hindering the growth of revenues in many African countries. Adequate taxation of agricultural sector has, therefore, a vital role to play in accelerating economic development. Of all forms of taxation, those on land offer the greatest potentialities for expansion but their use is severely restricted by the lack of proper system of cadastral surveys, land ownership and registration. In some areas, there is still a substantial amount of nomadic agriculture with persons moving on to a new site as the existing plots lose fertility. As a consequence of these conditions, there is hardly any taxation on land.

Some countries in their anxiety to help the growth of industries put emphasis on import substitution industries involving waste of resources and insufficient emphasis on export promotion. Such industries have been protected for unduly long periods by high tariff walls and in certain cases countries have been slow in levying excise duties on import substitution industries. There has been a loss of import duties on the previous imported product which has not been made up by an extension of excise duties to the local product.

The role of marketing boards

The marketing boards - statutory monopolies established to sell particular export products - in some African countries have performed a unique role in mobilizing resources for development. Although not originally established for this purpose these boards raised considerable sums of money to build up reserves which were then diverted to development uses. These revenues were raised through trading surpluses by paying the producers less than the world prices for their products.

In Nigeria most of the marketing boards developed the formula of retaining 70 per cent of the surpluses for stabilization purposes, and allocating 22½ per cent for development. The development allocations were generally made over to Regional Production Development Boards. The above formula was not sacrosanct however, and much higher contributions for development have

been made. The Marketing Boards' contribution in Nigeria was in fact 40 per cent of the total available domestic finance for the capital programme for the 1962-68 Development Plan period. There is no doubt that Nigerian economic and social development was greatly aided through the device of channelling a portion of its export earnings via the Marketing Boards.

There is a strong body of opinion which holds the view that for as long as a country has to rely heavily on export taxation the Marketing Board trading surpluses should be converted through appropriate adjustment of the fiscal structure into export duties and treated identically with other government revenues. In this way the development responsibilities of the government would be clearly separated from those other functions now being performed by the Marketing Boards such as intra-season price stabilization, orderly marketing and so forth which can more reasonably be considered to reflect the farmers' interests.

Apart from the need to raise additional domestic resources through taxation and other means there is an urgent necessity to put a restraint on the abnormal growth of administrative and other current expenditures. Many African countries suffer from the problem of oversized administrative structures. In addition to defence and administration too much has been spent in some cases on ostentatious and prestigious purposes of various kinds like public buildings and diplomatic missions etc. There is no doubt that a serious consideration needs to be given in most of the countries to the high cost of running the government administration. Africanization as far as possible will result not only in a reduction of the foreign exchange component of the government wage bill but should also result in a decrease of the total cost of various government services. However, the individual government will make its own decision on this latter subject bearing in mind the need to maintain an efficient administration.

Aid to African Countries

Table 9.4 below shows the official aid from the developed market economies and from the centrally planned economies to Africa in the period 1960 to 1969.

There was a falling tendency in the proportion of total aid flowing to Africa from the developed market economies in the period 1960 to 1963 although in actual figures the total in 1968 was higher than in 1960. In 1968 Africa received one quarter of the net official aid from the developed market economies compared with more than one third in the years 1960 to 1962.

The flow of aid from the centrally planned economies as measured by commitments has been much more variable and Africa's share has varied between 70 per cent or more in 1963 and 1964 to 3.5 per cent in 1966 and 6.8 per cent in 1969.

The average level of aid to Africa from the developed market economies in the period 1960 to 1968 was equivalent to 1,635 million dollars a year; from the centrally planned economies the average commitments were 319 million dollars a year.

From data available relating to World Bank loans and IDA credits it is possible that the total multilateral and bilateral aid to Africa from the developed market economies increased fairly substantially in 1969 and there was likely to have been some restoration in Africa's relative share of aid on a world basis.

Table 9.4 Capital Flows to the Developing Countries

1. Net Official Flows of External Resources from Developed Market Economies and Multilateral Agencies

<u>Year</u>	<u>To Africa</u> <u>In Millions of US dollars</u>	<u>Total</u> <u>of US dollars</u>	<u>To Africa</u> <u>Proportion</u> <u>(per cent)</u>
1960	1,482	4,219	36.4
1961	1,654	4,920	35.0
1962	1,778	5,374	34.7
1963	1,663	5,920	29.6
1964	1,761	5,935	30.8
1965	1,701	6,228	28.2
1966	1,591	6,374	26.0
1967	1,601	6,897	24.1
1968	1,562	6,716	24.9

2. Commitments of Bilateral Economic Assistance of Centrally Planned Economies.

1960	414	868	47.7
1961	314	1,005	31.2
1962	55	316	17.4
1963	242	314	71.0
1964	874	1,246	70.1
1965	247	646	38.2
1966	46	1,313	3.3
1967	420	621	67.6
1968	223	758	29.4
1969	38	560	6.8

Source: UN Statistical Yearbook 1969

Bilateral Aid

The aid granted to countries in Africa by the members of the development Assistance Committee (The Developed western Marketing Economies) and by the Centrally Planned Economies for the years 1960 to 1968 is shown in appendix Table A 60.

In summary form the totals for each subregion are given in Table 9.5.

Table 9.5 Bilateral Aid^{a/} to Subregions of Africa 1960-68

<u>Subregion</u>	<u>Aid From</u>	<u>1960-64</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>
		<u>Bilateral Aid in Million US \$.</u>				
	<u>1. DAC^{b/} members</u>					
North Africa		3,643	480	349	311	...
West Africa		1,369	370	392	390	...
Central Africa		984	234	202	223	...
East Africa		1,115	285	297	287	...
Other Africa		505	116	159	184	...
		<u>7,616</u>	<u>1,485</u>	<u>1,399</u>	<u>1,395</u>	<u>1,310^{d/}</u>
	<u>2. CPE^{c/} (Aid Commitments)</u>					
North Africa		1,297	126	-	326	223
West Africa		328	62	3	100	-
Central Africa		37	29	-	-	-
East Africa		227	30	43	-	-
		<u>1,889</u>	<u>247</u>	<u>46</u>	<u>426</u>	<u>223</u>

a/ From a different source than Table 9.4

b/ Development Assistance Committee.

c/ Centrally Planned Economies.

d/ Estimate.

The most favoured subregion in Africa for bilateral aid in the period 1960-1968 was North Africa and out of a total of more than 16,000 million dollars committed or granted, some 7,000 million or more than 40 per cent went to North Africa. Within North Africa, both Algeria and the United Arab Republic received approximately 2,500 million dollars each during this period.

Only a limited number of countries in Africa were the beneficiaries of the aid committed by the centrally planned economies; these included all countries in North Africa with the exception of Libya; Ghana, Guinea, Mali, Nigeria and Sierra Leone in West Africa; the Congo Peoples Republic in Central Africa and Kenya, Somalia, Tanzania and Uganda in East Africa.

Multilateral Aid

Compared with bilateral aid, the multilateral aid flows to Africa were much smaller in the years 1960 to 1969. Total multilateral aid to all areas increased from 282 million dollars in 1960 to 1,395 million in 1969 and the proportion to Africa after

declining in the years to 1967 appears to have increased substantially in the years 1968 and 1969.

<u>Multilateral Aid Flows</u>	<u>1960-64</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		(in million US dollars)				
Total to all areas	2,332	878	895	1,055	1,190 ^{a)}	1,395 ^{a)}
Total to Africa	723	217	192	206	250 ^{a)}	400 ^{a)}
Proportion to Africa (per cent)	31.0	24.7	21.4	19.5	21.0 ^{a)}	28.7 ^{a)}

a Rough estimate only based on World Bank and IDA credits.

Multilateral aid includes IBRD, IFC, IDA, IDB, ADB, AfDB, CEC and UN agencies.

World Bank Loans and IDA Credits

Table A61 in the appendix shows the net total of World Bank loans and IDA credits at two dates June 1966 and June 1970. Between these two dates, total loans and credits to Developing Africa increased by 1,096.4 million dollars and a most welcome development has been the substantial increase in IDA (International Development Association) credits. These credits are granted on very favourable terms with low or nil interest rates and extended repayment periods.

The totals for each subregion of Africa are shown in Table 9.6.

<u>Table 9.6 World Bank Loans and IDA Credits at 1966 and 1970</u>						
<u>Net totals to subregions of Africa (in US \$ million)</u>						
<u>Subregion</u>	<u>At 30 June 1966</u>		<u>30 June 1970</u>		<u>Increases</u>	
	<u>Bank</u>	<u>IDA</u>	<u>Bank</u>	<u>IDA</u>	<u>Bank</u>	<u>IDA</u>
North Africa	314.0	29.0	490.8	108.7	176.8	79.7
West Africa	315.4	43.7	504.1	126.3	188.7	82.6
Central Africa	143.4	1.1	218.3	69.1	74.9	68.0
East Africa	219.6	71.3	472.6	244.0	253.0	172.7
Other Africa	308.7	-	328.7	-	20.0	-
	<u>1,301.1</u>	<u>145.1</u>	<u>2,014.5</u>	<u>548.1</u>	<u>713.4</u>	<u>403.0</u>
Total less South Africa	<u>1,079.3</u>	<u>145.1</u>	<u>1,772.7</u>	<u>548.1</u>	<u>693.4</u>	<u>403.0</u>

In the four years to June 1970 there was an increase of 403 million dollars in IDA credits to Africa (all to developing countries) and of 713.4 million dollars in World Bank Loans including 693.4 million to developing African countries.

The average increase in loans and credits to Developing Africa was 273 million dollars a year which suggests that since 1967, multilateral aid to Africa has increased fairly substantially. In fact from June 1966 to June 1970 the proportion of total World Bank loans and IDA credits outstanding in the world increased from 10,949 million dollars to 17,048 million and Africa's share increased from 12.68 per cent to 15.03 per cent.

By 1970 the largest proportion of World Bank loans to Africa had been allocated for transport development, second in importance was electric power development and third and fourth respectively were agriculture and industry.

Table 9.7 World Bank Loans and IDA Credits to Africa
According to Purpose, 1965 to 1970

<u>Purpose</u>	<u>Total</u>	<u>Increases in Year to 30 June</u>					<u>Total at</u>
	<u>At 30-6-1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>30-6-70</u>
Electric power	405.6	-	22.7	39.2	47.5	12.7	527.7
Transport	514.5	106.1	54.5	59.5	216.9	231.0	1,132.9
Agriculture etc.	35.7	15.0	35.8	15.1	63.7	103.7	319.0
Industry	140.5	22.5	30.0	10.0	21.0	30.0	254.0
Education	29.6	18.2	36.2	15.1	24.2	35.9	159.2
Other	44.4	7.6	13.4	0.1	25.6	28.7	119.8
Total	<u>1,220.3</u>	<u>169.4</u>	<u>193.0</u>	<u>139.0</u>	<u>398.9</u>	<u>442.0</u>	<u>2,562.6</u>

Source: World Bank and IDA, Annual Reports 1963/4 to 1969/70

This Table illustrates the direction of the World Bank and IDA efforts since 1965; transportation has been given the highest priority whilst the productive sectors, agriculture and industry have also been given priority. There has been a considerable increase in loans for educational projects; loans for electric power projects have been fairly substantial but their relative importance has been less as compared with earlier years.

European Development Funds

These development funds are financed by the present members of the European Common Market. There have been two funds, the First and Second European Development Funds, and the aid, mainly in the form of grants, to countries in Africa from the First FED totalled 521.5 million dollars as at June 1970 of which 468.6 million had been spent and 21 countries in Africa benefitted. These were the French speaking countries south of the Sahara.

Aid to Africa under the Second FED totalled 655.6 million dollars at June 1970 and of this 302.3 million had been spent.

A third European Development Fund has been agreed to which will cover some 1,000 million dollars of aid.

The Burden of Debt Repayment

Every loan to which a country commits itself involves a strict obligation for repayment of both principal and interest. Loans which are contracted by governments or under government guarantee become a public debt in the recipient country. It is of course, of fundamental importance that external loans are only accepted for projects which will help to generate the additional external funds to enable the contractual obligations for debt repayments and interest payments to be met. This is

particularly true where suppliers' credits, which have been guaranteed by the recipient government, have been used to assist development as such credits are often of relatively short duration.

An increase in soft loans for development projects in Africa has been noted earlier and such loans which have been granted by the IDA and will also be used increasingly by bilateral aid donors should have some impact on reducing the relative growth of the future debt burden on African countries.

Table 9.8 External Public Debt Outstanding and Debt Service Payments of Africa, 1961 to 1969

<u>Year</u>	<u>Debt Outstanding;</u>	<u>Debt Service</u>
	<u>December 31st</u> (million US dollars)	<u>Payments</u>
1961	3,309	172
1962	4,042	225
1963	4,971	494
1964	5,517	433
1965	6,284	468
1966	7,349	474
1967	8,058	472
1968	8,719	625
1969	...	744

Source: World Bank

The growth of debt service payments between 1961 and 1969 was from 172 to 744 million dollars and the largest increases occurred in 1963 and in 1968.

For particular countries in Africa the public debt service payments as a percentage of exports is already considerable and some of the data for individual countries are given below:

Table 9.9 Public Debt Service Payments as a Percentage of Exports

<u>Country</u>	<u>1966</u>	<u>1968</u>
	<u>Per Cent</u>	<u>Per Cent</u>
Ethiopia	7.1	9.3
Ghana	5.5	12.3
Mauritius	5.4	6.3
Morocco	4.9 ^{a/}	7.9 ^{b/}
Sudan	6.4	7.5
Tanzania	3.9	6.7
Tunisia	14.9	24.0 ^{b/}
Uganda	4.5	8.0 ^{b/}

^{a/} 1965

^{b/} Provisional.

Source: Development Assistance - Efforts and Policies of members of DAC. 1969 review.

The World Bank has also made estimates of the service payments on existing external public debt and for developing countries in Africa debt service payment will increase to 844 million dollars in 1970. On existing debt the total will fall after 1970 but it is probably not realistic to look merely at these falling totals as further loans will probably already have changed the picture for the future.

What is of significance, however, is that debt service payments on suppliers credits which totalled 128.5 million dollars in 1965 reached 242.7 million dollars in 1970. If this form of financing development projects can be avoided in the future then the burden of external debt servicing need not impose intolerable burdens on developing countries in Africa particularly if, as seems to be occurring, soft loans are increasingly used for future development financing.

Monetary survey

The major elements of any monetary survey are the level of the net foreign assets, domestic credit granted and money and quasi-money available. Money includes currency outside banks and demand deposits in the banks whilst quasi money covers time and savings deposits.

The data available for Africa are not complete but in the appendix Table A63 are shown the figures under these four headings for 33 countries of Africa.

Table 9.10 Monetary Survey 1960 to 1969

<u>Area of Africa</u>	<u>Item</u>	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
<u>33 Countries</u>		(in million US dollars)					
	Foreign assets (net)	2,219	1,695	1,869	1,579	2,543	3,196
	Domestic credit	5,167	10,303	11,388	12,461	13,359	14,630
	Money	5,280	7,347	8,020	8,538	9,432	10,472
	Quasi money	1,470	3,466	3,862	4,156	4,756	5,452
<u>32 Countries of Developing Africa</u>							
	Foreign assets (net)	2,002	1,181	1,175	880	1,180	1,908
	Domestic credit	4,203	6,410	7,264	7,897	8,754	9,276
	Money	3,891	5,290	5,774	6,071	6,598	7,343
	Quasi money	697	1,410	1,537	1,616	1,886	2,201

The countries in Developing Africa saw their net foreign assets reduced drastically in the years to 1967 but in 1969 there was a large increase due almost entirely to Libya, Zambia and Congo DR.

Domestic credit and the money supply increased continuously throughout the 1960's but the increase in credit granted was greater than that of the money supply. The total of quasi money grew relatively faster than the money supply and this reflects the increased use of banking for savings in the African countries.

The growth rates of domestic credit, money and quasi money in Developing Africa were as follows:-

<u>Growth Rates</u>	<u>1960-1965</u>	<u>1965-1969</u>
	(in percent per annum)	
Domestic credit	8.8	9.7
Money supply	6.3	6.9
Quasi money	15.0	11.8

In the second half of the decade the annual growth rates were higher than in the first five years for domestic credit and money supply but lower for quasi money.

The increase in the money supply in individual countries was related to price increases and to the growth of the economy. However, in the tables which show the increase in the money supply the conversion to US dollars has damped down the level of the increase which would have been shown if the national currency figures had been shown. This is particularly true in countries such as Ghana and Congo DR where there have been currency changes and/or changes in the rate of exchange of the currency. The sterling devaluation of 1967 and the Franc Zone devaluation of 1969 also had some impact.

Some data on consumer price increases in Africa are given in appendix Table A 62 . For each of the subregions the unweighted averages are as follows:-

Table 9.11 Consumer Prices Index Numbers (1963-100)

<u>Subregion</u>	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
North Africa	93	108	112	115	118	125
West Africa	90	112	118	118	122	130
Central Africa	85	114	121	131	151	159
East Africa	96	112	117	119	124	128
Other Africa	97	106	109	113	116	118
All countries covered	92	110	115	119	126	132

The approximate increase in consumer prices between 1960 and 1965 was 18 per cent or an average of 3.4 per cent a year; from 1965 to 1969 the rate of increase averaged 4.7 per cent a year.

These rates are below the growth rates of money supply (expressed in dollars) in Developing Africa. If the Congo DR is excluded from the data on prices, the price increase between 1965 and 1969 is reduced to an average of 3.5 per cent a year. The increase in money supply related to prices accelerated in Developing Africa in the years 1965 to 1969 but it is unlikely that the growth rate of the economies of Africa was higher in the second half of the decade. However, in the overall picture there is little evidence that the increase in money supply was unduly high when related to the real growth rate of African economies. The price increases themselves in the years 1965

to 1969 were not out of line with the experience of the world's advanced economies. This statement must be qualified to cover the rapid price increases of the Congo Democratic Republic, but this was an exceptional case and the evidence of 1970 suggests that relative price stability has returned to this country.

In Table 9.12 is shown the growth rates of domestic credit, money and quasi money in the subregions and certain countries of Africa from 1965 to 1969. For the subregional totals of West Africa, Central and East Africa the growth rates are based on the currency expressed in US dollars but for the individual countries or groups of countries shown the percentages are based on national currencies.

There were tremendous variations in the growth rates and for domestic credit the range was from 6.2 per cent to 33.5 per cent a year with the UAR showing the lower figure and Nigeria the higher one; the more common figures were from 9.3 to 17.7 per cent. For the money supply the range was from 3.3 per cent a year in the UAR to 33.0 per cent in Libya. There were, however, a number of countries showing growth rates of less than 10 per cent. With quasi money, which more strictly is a measure of the growth of savings, there were also low and very high figures. The UAR again showed the lowest average growth rate of 4.7 per cent a year whilst in the Congo DR the growth rate (from a very low base) was more than 100 per cent a year.

Special mention can be made of the different policies regarding credit and money supply in the UAR and Nigeria both of which countries suffered from hostilities during the period under review. In the UAR there has obviously been a policy of very tight control of money and credit whereas in Nigeria, whilst the growth of money supply has been moderate, domestic credit has been allowed to increase at a particularly high rate.

The Congo DR with a very high growth rate in consumer prices saw its money supply grow very sharply and in Libya the results of the oil boom also caused high growth rates in the money supply.

The relationship between rises in consumer prices and the increase in the money supply is shown in the table and in general where the increase in consumer prices was relatively high this was accompanied by a substantial increase in the money supply. Three countries in particular showed this trend, namely Libya, Congo DR and Zambia but the Congo was the country where prices increased by nearly 29 per cent a year and the money supply, by 26 per cent a year. In Libya and Zambia consumer prices increased by 6.0 and 6.8 per cent a year whilst money supply increased by 33.0 per cent and 23.6 per cent respectively.

Table 9.12 Growth Rates of Credit, Money Supply & Consumer Prices in Subregions of Africa, 1965 to 1969

Subregion and Country	Average Annual Growth Rate, 1965 to 1969			
	Domestic Credit (Per cent)	Money (Per cent)	Quasi Money (Per cent)	Consumer Prices (Per cent)
Libya	27.3	33.0	14.7	6.0
Morocco	9.3	10.1	18.2	0.2
Sudan	17.7	11.6	19.0	3.6
Tunisia	10.1	9.0	11.9	3.5
UAR	6.2	3.3	4.7	4.1 ^{d/}
<u>NORTH AFRICA</u>	<u>9.0</u>	<u>8.2</u>	<u>7.8</u>	<u>3.8^{d/}</u>
Ghana	13.5	5.1	11.6	3.6
Nigeria	33.5	7.6	10.7	3.8 ^{d/}
Afrique de l'Ouest ^{a/}	10.1	5.5	31.7	3.6 ^{d/}
<u>WEST AFRICA</u> ^{b/}	<u>14.5</u>	<u>3.6</u>	<u>12.3</u>	<u>3.8^{d/}</u>
Afrique Equatoriale ^{c/}	12.8	6.4	14.9	2.9
Congo DR	7.8	26.0	over 100	28.9 ^{d/}
<u>CENTRAL AFRICA</u> ^{b/}	<u>11.0</u>	<u>13.5</u>	<u>34.8</u>	<u>8.8^{d/}</u>
Ethiopia	16.6	5.3	20.4	...
Kenya)				
Tanzania)	12.5	18.8	18.3	2.7 ^{d/}
Uganda)				
Madagascar	17.4	7.8	41.0	3.6
Zambia	...	23.6	34.1	6.8
<u>EAST AFRICA</u> ^{b/}	<u>17.1</u>	<u>14.5</u>	<u>22.9</u>	<u>3.6^{d/}</u>
South Africa	8.2	11.0	12.1	2.9

a/ Dahomey, Ivory Coast, Mauritania, Niger, Senegal, Togo, Upper Volta.

b/ Percentages based on totals expressed in dollars.

c/ Cameroon, CAR, Chad, Congo PR, Gabon.

d/ Unweighted averages.

Exchange Rates

Exchange rate changes are necessary in a country when because of inflation or changed trading circumstances the products of that country are difficult to sell and do not provide enough to pay for the goods which must be imported.

For a considerable number of countries in Africa exchange rate changes were made during the 1960's and the major changes are shown in Table 9.13 below.

There were no exchange rate changes related to the US dollar in Libya, Morocco, Sudan, UAR, Liberia, Nigeria, Botswana, Kenya, Lesotho, Somalia, Swaziland, Tanzania, Uganda, Zambia, Angola, Mozambique, Namibia, Rhodesia and South Africa. Although the name of the currency and its value may have been changed (e.g. Zambia introduced the kwacha which was half the previous pound) the relationship with the US dollar was not changed.

Table 9.13

Major Exchange Rate Changes in Africa 1960-69

Country or Area	Unit of Currency	End Year					
		1960	1965	1966	1967	1968	1969
		Units of Currency Per US				Dollar	
Franc Zone ^{a/}	CFA Franc	246.85	246.85	246.85	246.85	246.85	277.71
Madagascar	Mg Franc	246.85	246.85	246.85	246.85	246.85	277.71
Mali	Mali Franc	246.85	246.85	246.85	493.71	493.71	555.42
Tunisia	Dinar	b/ 0.42	0.42	0.52	0.52	0.52	0.52
Congo DR	Zaire	b/ ...	...	...	0.50	0.50	0.50
Burundi	Bu Franc	50.0 ^{c/}	87.5	87.5	87.5	87.5	87.5
Rwanda	Rw Franc	50.0 ^{c/}	50.0 ^{c/}	100.0	100.0	100.0	100.0
Ethiopia	Eth. Dollar	2.484	2.50	2.50	2.50	2.50	2.50
Mauritius	Rupee	4.762	4.762	4.762	5.55	5.55	5.55
		US Dollars Per Currency Unit					
Ghana	New Cedi	1.40 ^{c/}	1.40 ^{c/}	1.40 ^{c/}	0.98	0.98	0.98
Gambia	Pound	2.80	2.80	2.80	2.40	2.40	2.40
Sierra Leone	Leone	1.40 ^{c/}	1.40 ^{c/}	1.40 ^{c/}	1.20	1.20	1.20
Malawi	Pound	2.80	2.80	2.80	2.40	2.40	2.40

a/ Dahomey, Ivory Coast, Mauritania, Niger, Senegal, Togo, Upper Volta, Cameroon, CAR, Chad, Congo PR, Gabon.

b/ At the currency reform in June 1967, 1,000 Congo Francs became worth 1 Zaire. Previously 165 Congo Francs = 1 US dollar.

c/ Equivalent in currency in use at the time.

The countries which have experienced sharp currency adjustments are the Congo Democratic Republic, Ghana, Rwanda and Burundi. After a period of continuous currency devaluation from 1961 onwards, the Zaire was introduced into the Congo DR in 1967 and a very drastic devaluation took place at this time. In 1960, 50 Congo Francs were worth 1 US dollar, in 1967 the Zaire which was equivalent to 1,000 Congo Francs was worth 2 US dollars.

In Ghana the currency was changed in 1965 from the pound (worth 2.80 US dollars) to the Cedi with 2.40 Cedis being worth 1 Ghana pound; in 1967 the New Cedi was introduced with 1.20 Cedis being worth 1 new Cedi. In July 1967 the par value of the new Cedi was altered to 1 new Cedi = 0.98 US dollars (from its previous level of 1.40 US dollars).

Liquidity Reserves

It was shown earlier that the level of net foreign assets of Developing Africa fell drastically between 1960 to 1967 but increased significantly in 1969.

The appendix Table A64 shows the level of liquidity reserves in individual African countries in the years 1960 to 1969, for each subregion the position is summarised in Table 9.14 below.

Table 9.14 International Liquidity Position by
Subregions^{a/} 1960-1969

<u>Subregion or</u> <u>Country</u>	<u>International Reserves at Year End (in US\$mn)</u>						<u>Imports</u>
	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1969</u>
North Africa	804 ^{b/}	634	622	752	876	1,250	2,402
West Africa	980 ^{b/}	559	545	408	445	428	1,976
Central Africa	125 ^{b/}	108	97	117	202	263	586
East Africa	400 ^{b/}	504	614	528	572	799	1,547
South Africa ^{c/}	266 ^{b/}	601	831	778	1,471	1,397	2,983
Total Africa ^{c/}	<u>2,800^{b/}</u>	<u>2,654</u>	<u>3,087</u>	<u>3,089</u>	<u>4,119</u>	<u>4,607</u>	<u>12,343</u>
Developing Africa	<u>2,534</u>	<u>2,053</u>	<u>2,256</u>	<u>2,311</u>	<u>2,648</u>	<u>3,210</u>	<u>9,360</u>

^{a/} Certain countries are excluded.

^{b/} Estimates.

^{c/} Includes countries previously excluded.

The table in the appendix shows that only a limited number of countries actively increased their liquidity reserves in the years since 1960; these include Libya, Congo DR, the three East African countries (Kenya, Uganda and Tanzania), Ethiopia and Zambia. In other countries reserves fell and sometimes very sharply.

The relationship between imports and the level of international reserves in Developing Africa in the years since 1960 is as follows:-

<u>Developing Africa</u>	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million US dollars)					
1. Imports	6,550	7,930	8,250	8,130	8,690	9,360
2. Liquidity reserves	2,534	2,053	2,256	2,311	2,648	3,210
Ratio (2 of 1 in percent)	39	26	27	28	30	34

There was a very sharp fall between 1960 and 1965 in the proportion of imports covered by liquidity reserves but from 1965 onwards the position has improved every year.

Unfortunately this improvement since 1965 has been due to the fortunate experience of only a handful of countries. If Libya, Zambia, Congo DR, Kenya, Tanzania and Uganda are excluded the position is very different.

<u>25 Developing Countries</u>	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million US dollars)					
1. Imports	5,485	6,479	6,539	6,315	6,621	7,204
2. Liquidity reserves	2,105	1,443	1,446	1,472	1,426	1,421
Ratio (2 of 1 in percent)	38	22	22	23	22	20

Between 1965 and 1969, the level of liquidity reserves has stayed near 20 per cent of imports and this ratio is inadequate to conduct external trade with any degree of flexibility. In 1969 there were at least eleven countries in Africa in which the coverage of imports by liquidity reserves was less than 20 per cent.

Chapter 10. MANPOWER, EDUCATION, AND TRAINING

Chapter 10 Manpower, Education and Training

Current Situation of Population and Manpower Resources

In 1970 Africa's population was approximately 362 million and had been growing at an annual rate of 2.6 per cent since 1965. In developing countries of Africa the population totalled 340 million, and this represented about 20 per cent of the population of developing countries of the world excluding Mainland China. The population of Africa is fairly well distributed by subregions although certain of these areas such as West Africa have a higher proportion of the population than of the area of the Continent.

Table 10.1 Population and Area by Subregions of Africa

<u>Subregion</u>	<u>Area</u> (million ha)	<u>Population</u> (1970) (in thousands)	<u>Percentages</u>		<u>Pop.</u> <u>Growth</u> per annum
			<u>Area</u> <u>Distribution</u>	<u>Population</u> <u>Distribution</u>	
North Africa	326	85,763	27.26	23.71	3.0
West Africa	610	111,755	20.13	30.90	2.5
Central Africa	539	41,591	17.79	11.50	2.2
East Africa	572	80,145	18.88	22.16	2.5
Other Africa	483	42,415	15.94	11.73	2.4
Total					
Africa	3,030	361,669	100.00	100.00	2.6
Total Dev. Africa	2,908	340,269	95.98	94.08	2.6

Throughout the Continent there are certain areas of population concentration with the greatest densities in Developing Africa found in North Africa along the Nile River in the UAR (particularly in the cities of Cairo and Alexandria) in the cities of Casablanca and Morocco in Morocco and along the coast of Algeria and Tunisia. The West Africa concentrations are located in the city of Accra in Ghana, in and around the Nigerian Cities of Lagos and Ibadan and in and around other capital cities of the subregion. In Central Africa, Kinshasa and the countries of Rwanda and Burundi are areas of population concentration, while in East Africa, concentrations are found around the area North of Lake Victoria and in and around the cities of Addis Ababa, Nairobi, Mombasa, Dar es Salaam, Lusaka and on the Copperbelt of Zambia. In Southern Africa the major cities are the focal points of population concentration and mention can be made of Bulawayo and Salisbury in S. Rhodesia, Lourenco Marques in Mozambique, Luanda in Angola and the Reef area and certain coastal areas of South Africa.

Although population concentrations as typified above do exist in Africa, the Region is by world standards sparsely inhabited with an average of 12 persons per square kilometre and, if the urban areas are left out of the consideration, the average population per square kilometre of the of the rural areas is probably nearer 10. It has been estimated that just over one sixth of Africa's total population in 1970 was living in urban areas and this is probably a reflection of the proportion of the population which has almost continuous contact with the modern economy.

In each subregion the estimated proportion of the population in the urban areas in 1970 is shown in Table 10.2

Table 10.2 Estimated Population in Urban Areas in the
Subregions of Africa, 1970

<u>Subregion</u>	<u>Total</u> <u>Population</u> <u>('000)</u>	<u>Urban</u> <u>Population</u> <u>('000)</u>	<u>Proportion</u> <u>(per cent)</u>	<u>Growth Rate^{a)} of</u> <u>Urban Population</u> <u>(per cent per annu)</u>
North Africa	85,763	25,700	30.0	4.9
West Africa	111,755	15,900	14.3	4.8
Central Africa	41,591	4,600	11.1	6.0
East Africa	80,145	6,000	7.5	5.4
Other Africa	42,415	10,900	25.7	5.2
Total	361,669	63,100	17.4	5.1
Developing Africa	340,269	54,750	16.1	5.1

Source: ECA estimates

a/ Fairly rough estimate based on past trends.

There is a much higher proportion of the total population in the urban areas in North Africa and in 'Other Africa'. These are the subregions with the largest per capita incomes. East Africa has the lowest percentage of the population in the urban areas and to a large extent this is caused by the relatively low urban totals for Ethiopia, Tanzania, Uganda and Malawi in which countries the agricultural industry is very important.

Many countries in Africa have since independence in the early 1960s been experiencing a very high rate of growth in urban population mainly through migration from rural areas to urban and industrial centres. The rate of increase of the urban population in Africa is the highest of the world regions. In some cities it is as high as 15 per cent per annum.

The implication of this excessive rate of growth in urban population has been a complexity of economic and social problems which have been causing much concern to many a government in the Africa region. The main problem here has been how to control the excessive in-flow, especially of young people, into the urban centres and to alleviate the economic and social ills created by their great numbers.

Different governments have resorted to different measures in dealing with the problem. There are some whose policy accepts shanty towns and slums around their big cities as part of their development process and are only trying to provide minimum basic facilities whenever and wherever possible; others have resorted to legislation to control the in-flow, such legislation providing for the repatriation of the migrants back to rural areas under penalty of imprisonment, if they returned; while still others have decided to reverse the tide by resettling the unemployed and underemployed urban population in new self-contained communal villages providing employment on the land and with basic facilities. Another move adopted by some governments has been the re-allocation of industries into low-density or slow-growth areas as a measure to counteract concentration of many people in a few big cities.

Whatever the situation in a country and the measures taken to deal with it, the position is that urban population continues to grow at a rate which poses very serious economic and social problems. These require a large expenditure of capital and technical know-how to enable governments to keep the problems generated in check.

In appendix Table A 66 is presented the estimated population of each of the countries of Africa arranged in subregions. The years 1965 to 1970 are covered and growth rates are shown for each country. The significance of the overall growth rate of population of 2.6 per cent a year is that the economy of Africa as a whole has to grow at this rate as a minimum if average per capita incomes are to be maintained. For a number of countries the population growth rates are higher than 2.6 per cent and this means the countries concerned must attain as a minimum a higher growth rate in the economy than 2.6 per cent a year.

A population growing at such a high rate as the average for Africa is necessarily a young population. Among the major manpower and educational consequences of this population expansion are the increasing number of adults seeking some form of gainful employment and the growing number of young people reaching the ages when they require education and training in fields of study and experience consistent with the priorities of economic development. African nations are consequently faced with the need to expand production in the agricultural and urban sectors at a rate sufficiently high to absorb the increasing numbers entering the labour force, to employ the persons currently unemployed and to utilise more fully those who at present are underemployed. At the same time the formal and informal educational system will have to be modified to provide the expanding population with the opportunities and means to acquire education and related skills which are in demand by public and private employers.

Table A 65 in the appendix shows the estimated distribution of population by age groups in 45 African countries in 1970. For each subregion the approximate position is given in Table 10.3.

Table 10.3 Age Structure of Africa's Population
by Subregion, 1970

<u>Subregion</u>	<u>Age Groups</u>			
<u>Unweighted</u>	<u>Under 15</u>	<u>15 to 44</u>	<u>45 to 59</u>	<u>60 and over</u>
<u>Averages a/</u>	<u>(percentages)</u>			
North Africa	45.2	41.2	8.8	4.8
West Africa	43.1	43.2	9.1	4.6
Central Africa	42.0	42.6	10.2	5.2
East Africa	44.0	42.3	9.0	4.7
Other Africa	41.8	43.3	9.9	5.0
Total	43.3	42.8	9.3	4.6

a/ Unweighted averages of countries covered in subregion.

Based on unweighted averages of the individual countries Africa had some 43.3 per cent of its population under 15 in 1970, 42.8 per cent aged 15 to 44 and 9.3 per cent and 4.6 per cent respectively aged 45 to 59 and 60 or over. Whilst the burden of the aged in Africa is very small at the present time, the young present a particular problem. There is a continually growing unsatisfied demand for education and with such a high proportion of the population under 15, considerable national resources have to be allocated to satisfy the educational and training needs of this group. With the same proportion in a higher total population in the future then the bill for education and training can be expected to increase continuously. This is without improving the present educational system; with improved facilities an even larger proportion of African countries national resources will need to be devoted to education and training than is the case at the present time.

Based on a total population of 340 million in Developing Africa in 1970, there were about 176 million persons of working age (15 to 59) in the developing countries. It is estimated that these persons were distributed among the subregions as follows:- North Africa 42.9 million, West Africa 58.5 million, Central Africa 22.0 million, East Africa 41.1 million and Other Africa 11.2 million. It is from these groups that the major portion of the labour force is drawn and they therefore represent the most important source available at present for economic development.

With different proportions of the males and females aged 15 to 64 in the various subregions considered to be in the labour force, the following estimate (given in Table 10.4) of the total labour force has been prepared for the years 1965 and 1970. In 1965 in Africa as a whole there were approximately 114 million persons in the labour force (aged 15 to 64) and in 1970 127 million which represented an annual growth rate of 2.1 per cent a year. In Table 10.4 is presented the regional distribution of this particular labour force in 1965 and 1970 by sex.

Table 10.4 Labour Force (Aged 15-64) by Subregions & Sex

<u>Subregion</u>	<u>1965</u>			<u>1970</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
North Africa	18,190	3,470	21,660	20,690	4,190	24,880
West Africa	24,200	17,180	41,380	27,530	18,720	46,250
Central Africa	8,100	5,900	14,000	8,700	6,200	14,900
East Africa	16,900	7,900	24,800	18,500	8,500	27,000
Other Africa	8,790	3,410	12,200	9,920	3,760	13,680
Total Africa	76,180	37,860	114,040	85,340	41,370	126,710

Sources ECA Population Programme Centre and Statistics Division.

When all age groups are taken into account including those under 15, there were an estimated 141 million persons in the labour force in Africa in 1970 giving a participation rate of 38.9 per cent.

The labour force participation for all age groups of the population has been slowly and steadily decreasing since 1960. In that year it was estimated that the crude activity rate was approximately 41 per cent; recent estimates suggest participation rates of 39.8 per cent in 1965 and 38.9 per cent in 1970. This trend is not unexpected since in all African countries the proportion of the young at school has been increasing significantly. It is interesting to note that the labour force participation rate of males in Africa is less but not vastly different from that of males in all developing countries. The average male participation rate for Africa was 53.1 per cent in 1965 and for all developing countries for that year it was approximately 58 per cent. There are considerable differences in the participation rates operating in countries in Africa and, although it is difficult to interpret these differences, the lower ones may indicate unfavourable situations with regard to the age and sex structures of the population and the economic factors affecting activity rates. The labour force participation rates for all ages of the population for various African subregions for the years 1965 and 1970 are presented in Table 10.5. These participation rates for the East Africa subregion must only be considered as approximate because a different grouping of countries has been used to the grouping used elsewhere in this Survey.

Table 10.5 Labour Force Participation Rates by Subregion and Sex, 1965 and 1970

<u>Subregion</u>	<u>1965</u>			<u>1970</u>		
	<u>Males</u>	<u>Females</u>	<u>Total</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
	<u>Participation Rates</u>			<u>Participation Rates</u>		
North Africa	54.4	11.3	32.8	53.0	11.5	32.2
West Africa	52.2	38.0	45.1	51.5	36.2	43.3
Central Africa	54.1	40.1	47.1	53.1	38.1	45.6
East Africa	53.3	26.4	39.8	53.1	25.8	39.4
	53.1	26.5	39.3	52.3	25.5	38.9

Source: ECA Population Programme Centre.

The very low participation rate for females in North Africa is due to the tradition which normally keeps the woman in the house. Elsewhere in Africa there is a fairly high participation by women in economic activity.

Approximately two-thirds of the African labour force are farmers, fishermen, hunters and forestry workers; only a small proportion of this group is in wage employment. Generally speaking wage-earners are employed in the modern sector of the economy and there are some in the agricultural sector particularly where large scale farming is practised. Some information is given in Table A67 in the appendix of the numbers in wage employment.

Mauritius, with an economy based on the production of sugar has a very high proportion of wage earners in its labour force.

The United Arab Republic, which has a substantial industrial sector and a well developed service sector, has about half its labour force earning wages and this helps to reflect the level of development of that country's economy, although the agriculture industry in which many peasant farmers are engaged also has a high level of efficiency and is run on modern lines in many areas.

Fairly high levels of wage employment are also the case in a number of other developing countries in North Africa, East Africa, and Southern Africa but these countries are the exception rather than the rule. Most of Africa's developing countries have a small proportion of their labour force in wage earning employment. In West Africa, for example, the Ivory Coast, Ghana and Liberia are the countries with the highest proportions of the labour force in wage employment, and Ghana and Liberia have about 20 per cent of their labour force earning wages whilst the Ivory Coast has a smaller proportion.

In Central Africa the Congo Democratic Republic, the country with the highest population, has just over 10 per cent of its labour force earning wages but in Gabon the proportion is around 30 per cent.

In Africa as a whole, a majority of countries have less than 10 per cent of the labour force in wage employment and particularly low percentages are observed in Ethiopia, Madagascar and Uganda.

The data on wage employment are particularly incomplete for recent years and in ten countries examined for a period covering 1958 to 1966 there was very little evidence of any overall trend to increased wage employment and if any conclusion could be drawn it was that most countries were having difficulty in maintaining the total numbers in wage employment. It is possible that part of the problem in increasing the numbers in wage employment was that wage rates had increased bringing benefits to persons already in employment but encouraging employers to move into the direction

of more mechanisation to reduce overall cost rises. In the last few years, however, a slightly more encouraging movement can be observed and of the 28 developing countries shown in appendix Table A 67, at least 11 have recorded some increase in total wage employment since 1966.

There has been considerable development of manufacturing industry during the 1960s and the chapter 5 in this survey shows that in the years 1967 to 1969 a very substantial number of new projects were completed or were under construction. This sort of development has increased and will increase the employment opportunities and chapter 12 in the survey which covers the development plans of seven of the larger African countries shows that the creation of employment is one of the fundamental objectives of most developing countries. However, the growth of wage employment can only be looked upon as a relatively minor means of turning entrants to the labour force into producers. The majority will still need to be used productively in the rural areas in activities connected with agriculture, forestry and fishing and perhaps the development of commerce which will follow more effective extension of the monetary economy into these areas.

Rural Development

In view of the importance of developing the rural areas, particularly as a means of bringing worthwhile activity to the increasing population of such areas, it is useful to consider certain means adopted by African countries to try to develop these areas. The discussion below covers cooperatives and agricultural credit which are both of fundamental importance in this context.

Rural development is a title for action which has grown out of the two different systems of community development which started in the English speaking countries and rural animation which first developed in certain French speaking ones. In more recent years the title rural development has become to be recognised as covering both types of action. Various conferences have been organised at the ECA during the 1960s and a strategy for action has been developed. During the last few years a regional conference and a number of subregional meetings have been held of national experts to discuss the question of harmonising policies for rural development in Africa. The groundwork has thus been laid but it needs the acceptance by all African governments of the various directives laid down to ensure more positive development in this sector.

Cooperatives and Other Associations

In the first half of the 1960s the cooperative movement developed significantly in most African countries. The growth in numbers of cooperative societies and membership has been the result of the adoption of the cooperative idea by many newly independent states. In certain countries producers cooperatives accounted for 50 to 70 per cent of the agricultural products

sent to the market, but consumer cooperatives had not shown the same growth however, and some which had been set up had experienced checks and difficulties.

In the course of the second half of the decade official enquiries have been held in a number of countries to analyse the functioning of cooperatives and to define the problems which have been encountered. From the reports following such enquiries it seems evident that the lack of qualified personnel and the defects in formation were the basic reasons for the malfunctioning of various societies. Effective control was not always maintained of their operations.

At the end of the 1960s with government support, cooperatives in several countries were responsible for handling 100 per cent of the important agricultural products. Strong efforts had been made to introduce and to develop the cooperative movement in other branches of economic activity such as for artisans, for credit and for housing, but it is in the agricultural sector that the cooperatives continue to play their most important role. Multiple purpose cooperatives which can combine the provision of means of production, the collection of the product, its treatment and sale and the furnishing of credit are considered to be the ideal for Africa and such cooperatives have been and are being developed.

Credit

Various programmes have been developed in the 1960s to provide credit facilities in a number of African countries and there has been a special emphasis on agricultural credit. However, especially in the beginning many loans were granted on a basis which can only be considered as uneconomic. Defects in the formation of various credit institutions and lack of technical ability and supervision from their staffs resulted in large numbers of persons not repaying the loans they were granted. Many credit institutions have subsequently become more prudent and more demanding in the matter of guarantees.

New credit institutions have been created such as development banks, agricultural banks, cooperative banks and the like but the funds which they have available only enable them to satisfy a small part of the needs of the solvent agriculturists who can offer the requisite guarantees.

Certain experts consider that agricultural credit in Africa is held back because agriculturalists have not registered title deeds to their properties. It is a fact that measures of agricultural reform are needed to permit a better development in this sector, but to go to the extent of making land a mortgageable good would open the whole field to speculation which might aggravate rather than improve the situation.

Other means could be used to bring to agriculturalists and livestock breeders short term, medium term and long term loans to modernise their production. By a long term policy of progressive development of production combined with an improvement of methods of storing the harvests, important sums absorbed by loans granted for consumption purposes could be freed and used for long term development. There also exist means of mobilising local savings but this is bound up with the question of education the people and winning their confidence.

The problem of loans to the smallworker to encourage the development of small scale industries is practically the same as that of agricultural credit insofar as the guarantees are really on the individual himself and on his potential for production. For this reason, in the granting of loans, priority is usually given to legally registered groups and mutual societies; not only are small loans facilitated but the joint responsibility reinforces the personal guarantee.

Although various outlines for the general direction of agricultural credit in Africa have been laid down at various conferences organised by the ECA and the FAC, unfortunately these outlines were not often followed by concrete action. In contrast the World Bank has financed important agricultural development projects at the local level and for definite purposes. The objectives of the Second Development Decade will not be attainable in the agricultural sector unless programmes of credit are developed to assure the small and medium scale agriculturalists who have not at present access to credit the means to modernise and develop their activities. Such a programme would need to cover not only the necessary finance but also the technical personnel of various categories.

Educational Development

The details regarding the growth of educational enrolments in African countries are given in appendix Table A68 for the period 1965 to 1968 (and in some cases 1969). A considerable amount of the data has been estimated but the position by sub-region of Africa appears to be as shown in Table 10.6 below.

Table 10.6 Educational Enrolments by Sub-region of Africa
1960 to 1969

Sub-region	Level of education	1960	1965	1967	1968	1969
(Estimated Enrolments (in 000))						
<u>Primary</u>						
North Africa		5,140	7,275	7,676	7,950	8,300
West Africa		4,472	5,791	5,961	6,210	6,450
Central Africa		2,721	3,875	4,346	4,560	4,750
East Africa		3,401	4,560	5,019	5,330	5,650
Other Africa		3,419	4,335	4,803	5,055	5,270
Total		19,153	25,836	27,805	29,105	30,420
Developing Africa		16,902	22,986	24,606	25,755	26,920
<u>Secondary</u>						
North Africa		889	1,568	1,955	2,090	2,240
West Africa		322	605	650	700	740
Central Africa		98	210	285	330	370
East Africa		176	378	477	540	600
Other Africa		536	703	764	809	850
Total		2,021	3,464	4,130	4,469	4,800
Developing Africa		1,558	2,888	3,510	3,819	4,120
<u>Higher^{a/}</u>						
North Africa		131.2	216.7	221.3	226.2	233.0
West Africa		13.0	23.9	25.1	27.6	30.0
Central Africa		5.2	8.2	12.5	15.2	18.0
East Africa		10.0	16.0	23.4	25.0	26.0
Other Africa		60.0	67.0	71.1	74.0	77.0
Total		219.4	331.8	353.4	368.0	384.0
Developing Africa		161.4	267.4	286.0	298.0	311.0

^{a/} Includes persons being educated abroad.

This Table illustrates the different levels of educational development in the sub-regions of Africa just as the appendix table shows the differences in country achievements.

North Africa has progressed much further than the rest of Developing Africa in secondary and higher education, and in 1969 three sub-regions out of five had reached the stage where approximately half the children of primary school age were at school, these were North Africa, Central Africa and Other Africa. The average level of primary enrolments was lowest in West Africa but the total population of this large sub-region had the effect of reducing the overall average of Africa as a whole.

On secondary education the more advanced areas were North Africa and Other Africa; there has been particularly rapid growth in enrolments during the 1960s in all sub-regions of Africa but there is still a long way to go to reach the level of the countries of Europe.

A similar pattern emerges for higher education but the relative growth rates are lower than for secondary education.

During the two periods 1960 to 1965 and 1965 to 1969 the average annual growth rates for different levels of education were as follows: (for the more recent years the growth rates are only approximate).

<u>Developing Africa</u>	<u>1960-1965</u>	<u>1965-1969</u>
	<u>Average Annual Growth Rates</u>	
Primary education	6.3%	4.0%
Secondary education	13.1%	9.4%
Higher education	10.7%	3.8%

All percentage growth rates were higher in the first five years of the 1960s than in the years 1965 to 1969. Part of the fall may be explained by countries such as the UAR having achieved reasonable levels in the various levels of education but part may have been due to the cost of education in relation to existing budgetary resources. Before looking at the individual countries it is useful to see how the different sub-regional enrolment figures are related to their total populations. The comparison is made for the years 1965 and 1969.

Table 10.7 Enrolments Related to Population by Sub-region of Africa 1965 to 1969

Item	North	West	Central	East	Other	Developing Africa
	(In thousands)					
1965 Population	73,989	98,901	37,229	70,800	36,262	298,147
Primary enrolments	7,275	5,791	3,875	4,560	4,335	22,986
Ratio (%)	9.8	5.8	10.4	6.4	12.0	7.7
Secondary enrolments	1,568	605	210	378	703	2,888
Ratio (%)	2.12	0.66	0.56	0.53	1.94	0.97
Higher enrolments	216.7	23.9	8.2	16.0	67.0	267.4
Ratio (%)	0.27	0.024	0.022	0.022	0.18	0.090
1969 Population	83,300	109,056	40,671	78,169	39,952	330,170
Primary enrolments	8,300	6,450	4,750	5,650	5,270	26,920
Ratio (%)	10.0	5.9	11.7	7.4	13.2	8.2
Secondary enrolments	2,240	740	370	600	850	4,120
Ratio %	2.70	0.68	0.99	0.77	2.13	1.25
Higher enrolments	233.0	30.0	18.0	26.0	77.0	311.0
Ratio (%)	0.28	0.027	0.044	0.033	0.19	0.094

The relative growth rates in primary education have been most marked in Central, East and Other Africa over the period 1965 to 1969 and lowest in West Africa.

For secondary education all sub-regions show an improvement but again it is West Africa which has the worst relative performance.

For higher education, enrolments in Central Africa related to population doubled between 1965 and 1969 and increased by 50 per cent in East Africa but elsewhere very little change occurred.

Developments 1965 to 1969

In the Addis Ababa plan for education, the target growth rate for primary enrolments was 6 per cent a year. Based on the admittedly incomplete data the actual growth of enrolments in Developing Africa from 1965 to 1969 was 4.0 per cent a year and for the individual sub-regions growth rates were 3.4 per cent a year in North Africa, 2.9 per cent in West Africa, 5.4 per cent in Central Africa and the same percentage in East Africa. It is only the last two sub-regions which have come near to the target growth rate. The position varies very greatly between countries and for the period 1965 to 1968 for which the data are more complete the growth rates for primary education are shown in table 10.8 which also shows secondary education growth rates.

In North Africa all countries achieved average growth rates of more than 6 per cent for primary enrolments in the years 1960 to 1965 but only two, Libya and the Sudan, managed more than 6 per cent a year in the period 1965 to 1968. In West Africa all countries with the exception of Nigeria had growth rates of more than 6 per cent a year from 1960 to 1965 but in the second period only half of the countries achieved this growth rate. Nigeria which had more than half the total students in primary education in 1960-1965 did not manage any increase in enrolments during this period so the overall average for the sub-region was sharply reduced.

In Central Africa all countries showed an average annual increase of primary enrolments of 5.9 per cent or more in the years 1960 to 1965 but in the later years six out of nine countries showed a rate of increase in primary enrolments of 5.5 per cent or less. There was thus a relative lack of progress during 1965 to 1968 compared with the earlier years of the decade. In East Africa there was considerable variation between countries and during the two periods being compared, with five countries having growth rates of 5.3 per cent or less per annum in the years 1960 to 1965 and seven with growth rates of 6.1 per cent or more. From 1965 to 1968 there were 6 countries with an annual growth rate of 6.1 per cent or more, and overall seven countries showed lower growth rates between the two periods.

There are six of the countries in the group called Other Africa covered in the Table and for primary enrolments fairly low growth rates were the common experience with four countries registering 5.3 per cent or less per year in the period 1960 to 1965 and five showing increases of 5.3 per cent per year or less between 1965 and 1968.

Table 10.8 Growth Rates of Primary and Secondary Education Enrolments in Individual Countries in Africa, 1960 to 1968

Sub-region and Country	Primary Education		Secondary Education	
	Annual Average Growth Rates in Percentages			
	1960/65	1965/68	1960/65	1965/68
<u>North Africa</u>				
Algeria	11.5	4.5	3.8	8.0
Libya	8.5	10.6	12.8	12.0
Morocco	7.0	1.3	19.6	11.6
Sudan	6.1	10.3	6.6	17.1
Tunisia	10.3	5.5 ^{a/}	11.0	15.6 ^{a/}
UAR	6.7	1.0	12.8	8.9
<u>West Africa</u>				
Dahomey	7.9	3.5 ^{a/}	25.1	5.8 ^{a/}
Gambia	12.5	8.9	14.9	8.3
Ghana	16.7	Negative	16.5	7.8
Guinea	9.3	...	19.7	...
Ivory Coast	8.2	8.3	23.7	14.2
Liberia	6.2	11.3 ^{a/}	26.0	14.2
Mali	19.7	7.3 ^{a/}	Negative	...
Mauritania	11.8	9.4	27.2	9.2
Niger	18.4	7.7	19.4	7.4
Nigeria	nil	2.1	8.5	Negative
Senegal	11.2	6.8 ^{a/}	22.8	14.1 ^{a/}
Sierra Leone	7.9	3.6	12.8	18.9
Togo	9.6	1.3 ^{a/}	19.6	7.3 ^{a/}
Upper Volta	13.7	2.9 ^{a/}	28.9	2.7 ^{a/}
<u>Central Africa</u>				
Cameroon	8.8	5.1 ^{a/}	19.0	12.4 ^{a/}
CAR	13.7	9.3 ^{a/}	19.9	10.9 ^{a/}
Chad	17.8	2.9	29.4	9.2
Congo DR	5.9	4.5 ^{a/}	12.9	14.9
Congo PR	8.3	5.5 ^{a/}	21.7	13.8 ^{a/}
Gabon	6.7	6.1	17.3	6.0
Equatorial Guinea	8.6	...	23.6	...
Burundi	7.6	5.4	10.2	10.1
Rwanda	6.0	3.6	5.3	3.9
<u>East Africa</u>				
Botswana	12.7	6.1 ^{a/}	20.8	21.1 ^{a/}
Ethiopia	8.6	9.3 ^{a/}	41.0	19.5 ^{a/}
Kenya	5.3	6.1	16.0	24.6
Lesotho	4.3	2.2	2.4	23.0
Madagascar	8.3	5.2	15.0	6.3
Malawi	3.1	0.2	26.8	Negative
Mauritius	3.6	2.1	8.1	5.5
Somalia	6.1	3.5	24.6	5.4
Swaziland	7.5	7.8	13.5	27.3
Tanzania	10.2	2.8	5.0	7.9
Uganda	1.3	14.1	14.3	9.8
Zambia	6.1	14.1	17.1	25.0

TABLE 10.8 (Cont'd.)

Sub-region and Country	Primary Education		Secondary Education	
	Annual Average Growth Rates in Percentage		Rates in Percentage	
	1960/65	1965/68	1960/65	1965/68
<u>Other Africa</u>				
Angola	15.7	10.7	18.0	9.8
Mozambique	0.3	4.7	8.6	15.9
Namibia	10.1	5.3	...	...
Reunion	4.9	2.9	16.5	2.6
S. Rhodesia	5.3	2.0	6.9	6.2
S. Africa	4.8	5.5	4.6	3.9

Source: See Appendix Table A68
a/ 1965 to 1967 only.

Enrolments in secondary education increased generally at much higher rates than for primary education throughout the decade. In North Africa there were two countries with average growth rates of 6.6 per cent or less per annum between 1960 and 1965 but four with growth rates greater than 11.5 per cent a year.

Growth rates in West African countries showed common averages of around 19 per cent a year from 1960 to 1965 and there were in fact 8 countries out of 14 with average growth rates of 19.4 per cent or more a year. From 1965 to 1968 there were substantial falls in average growth rates in virtually all countries and out of 12 countries for which there are data six showed growth rates below 8.3 per cent a year.

Central Africa presented a similar picture with all countries except two in 1960-1965 enjoying average increases in secondary enrolments of 12.9 per cent or more a year, but in 1965 to 1968 all countries except one showed reduced rates of growth with high figures between 10 to 15 per cent rather than between 17 and 30 per cent as in the earlier period.

In East Africa there were some fairly substantial relative increases in secondary enrolments between 1960 and 1965 with nine countries showing growth rates of between 13.5 per cent and 41.0 per cent a year. In the period 1965 to 1968 there were 6 countries with growth rates between 19.5 per cent and 27.3 per cent a year whilst all but one of the remainder were in the range 5.5 to 9.8 per cent a year.

Other Africa showed lower growth rates and out of five countries for which data are available, in two the growth rates in secondary enrolments were 16.5 per cent and 18.0 per cent a year; in the other three countries average growth rates were 4.6 to 8.6 per cent a year. Four countries out of five showed lower average growth rates in the period 1965 to 1968.

Table 10.8 and this summary illustrates the varying fortunes in the development of educational facilities in the countries of Africa. The influence of certain large countries has had a very material impact on the growth recorded in the different sub-regions and particular reference can be made to the UAR in North Africa with an average

growth rate of only 1 per cent a year for primary education between 1965 and 1968 and Nigeria in West Africa where primary education enrolments grew very slowly during the 1960s.

When comparing average growth rates in primary education with the Addis Ababa target of 6 per cent a year, Table 10.8 shows that 35 countries out of 47 covered had growth rates in 1960-1965 equal to or greater than this figure but in the period 1965 to 1968 the numbers had slumped to 18 out of 44.

In secondary education the Addis Ababa target (approximately 14 per cent a year) was much higher. Whilst secondary enrolments in Developing Africa grew at a fast rate in both periods 1960-1965 and 1965 to 1968, the average of 13.1 per cent a year approximated to the target in 1960 to 1965, but that of 9.4 per cent a year was materially less in the period 1965 to 1968.

However 33 countries out of 46 had growth rates in secondary enrolments of 12.8 per cent or more a year from 1960 to 1965 but only 17 out of 42 had growth rates of 12.0 per cent or more a year from 1965 to 1968.

For both primary and secondary education there was a reduced level of growth achieved in the period 1965 to 1968 as compared with the first five years of the 1960s.

Enrolment Ratios

Although enrolments are available in a number cases for subsequent years, the information on enrolment ratios relates to the year 1967/68 as the latest date. This information is given in Table 10.9 below for primary and secondary education and covers 30 countries.

There are only a handful of countries with primary enrolment ratios of 80 per cent or more and only two countries with secondary enrolment ratios of 20 per cent or more.

Table 10.9 Enrolment Ratios in Selected African Countries for the 1967/68 School Year

A. <u>Primary Education Enrolment Ratio in Country Shown</u>			
<u>Less than 30%</u>	<u>30 to 59%</u>	<u>60 to 79%</u>	<u>80% and over</u>
Burundi	Dahomey	Algeria	Congo PR
Ethiopia	Gambia	Botswana	Gabon
Upper Volta	Kenya	CAR	Ghana
Mali	Malawi	Ivory Coast	Libya
Niger	Morocco	Liberia	Lesotho
	Sierra Leone	Madagascar	Mauritius
	Sudan	UAR	Tunisia
	Tanzania	Rwanda	
		Swaziland	
		Togo	

TABLE 10.9 (Cont'd.)

B. Secondary Education Enrolment Ratio in Country Shown			
<u>Less than 5%</u>	<u>5 to 9%</u>	<u>10 to 19%</u>	<u>20% and over</u>
Botswana	Algeria	Congo PR	Mauritius
Burundi	Ivory Coast	Gabon	UAR
CAR	Gambia	Ghana	
Dahomey	Kenya	Libya	
Ethiopia	Liberia	Morocco	
Upper Volta	Madagascar	Tunisia	
Lesotho	Mali		
Malawi	Sierra Leone		
Niger	Sudan		
Rwanda	Swaziland		
Somalia			
Tanzania			

Source: Unesco Statistical Yearbook 1969Secondary Education by Category

The three divisions of secondary education are general, vocational and teacher training. There has been a desire to orientate secondary education in Africa to produce a higher proportion of persons with technical qualifications but the actual position in the 1960s has remained largely unchanged with some fourfifths of students at general secondary schools throughout the period.

It had been hoped to reduce the proportion in general secondary education to about three-quarters but this has not yet been achieved. The data available on the division of secondary enrolments suggests the following proportions in 1960, 1965 and 1967/68.

<u>Type of Secondary Education</u>	<u>Percentages</u>			<u>Addis Ababa</u>
	<u>1960</u>	<u>1965</u>	<u>1967/68</u>	<u>Target</u>
General	79	83	82	76
Vocational	9	8	11	12
Teacher training	12	9	7	12

There has been a movement towards a higher proportion of students in vocational training but a reduction in the proportion undergoing teacher training.

At the country level the situation in 1967/68 was very variable and the proportion of students in the different categories of secondary education is shown in Table 10.10 for 22 African countries. The more common percentages range from 71.5 to 93.0 per cent for general secondary education, from 5.1 to 18.5 per cent for vocational education and from 2.5 to 12.4 per cent for teacher training.

Table 10.10 Secondary Enrolments by Different Categories in 22 African Countries in 1967/68

<u>Country</u>	<u>General Secondary</u>	<u>Vocational</u>	<u>Teacher Training</u>
	<u>Percentages</u>		
Algeria	88.2	7.7	4.1
Botswana ^a	71.5	18.5	10.0

TABLE 10.10 (Cont'd.)

<u>Country</u>	<u>General Secondary</u>	<u>Vocational</u>	<u>Teacher Training</u>
Burundi	43.4	28.0	28.6
CAR	81.0	17.0	2.0
Dahomey	94.0	5.1	0.9
Ethiopia	89.8	7.9	2.3
Gabon	77.0	21.1	1.9
Gambia ^{a/}	93.6	2.8	3.6
Kenya ^{a/}	92.3	1.7	6.0
Lesotho	74.5	11.0	14.5
Liberia ^{a/}	91.0	6.5	2.5
Madagascar	91.1	5.4	3.5
Malawi	77.8	10.7	11.5
Mauritius	96.9	1.5	1.6
Nigeria ^{b/}	79.4	9.4	11.2
UAR	83.9	13.2	2.9
Rwanda	73.1	10.3	16.6
Sierra Leone	89.7	7.0	3.3
Swaziland	95.1	1.2	3.7
Tanzania	85.2	6.4	8.4
Tunisia	60.7	33.9	5.4
Upper Volta	74.4	13.2	12.4

Source: Unesco Statistical Yearbook 1969.
National Publications.

^{a/} Year 1968/69

^{b/} Incomplete

Higher Education

In higher education in Africa (as distinct from the estimated total of higher education students studying inside and outside Africa which has been covered earlier) the enrolments increased by 5.4 per cent a year in the period 1965 to 1967 compared with a growth rate of 10.7 per cent a year for the years 1960 to 1965. This slowing down has been observed in all sub-regions of Africa. In West Africa the growth rates were 25.8 per cent a year in the first half of the decade and 13.5 per cent since 1965; in East Africa 23.8 per cent and 22.8 per cent respectively; in Central Africa 41.5 per cent a year up to 1965 and 15.7 per cent a year for 1965 to 1967. In North Africa the growth rates were 10.4 per cent a year from 1960 to 1965 and 3.0 per cent only from 1965 to 1967 and in Other Africa 6.6 per cent and 6.0 per cent respectively.

In the 1967/68 scholastic year nearly 40 per cent of total students in higher education in 25 countries were registered for scientific and technical subjects. There has been a small increase in the overall percentage since 1965 but there is a considerable variation in the countries for which data are available.

Table 10.11. Proportion of Students Registered for Scientific and Technical Subjects in 1967/68 in 25 Countries

<u>Less than 20%</u>	<u>20 to 40%</u>	<u>41 to 60%</u>	<u>More than 60%</u>
Cameroon	Burundi	Kenya	Dahomey
Upper Volta	Congo DR	Mauritius	Swaziland
Liberia	Congo PR	Malawi	
Morocco	Ivory Coast	UAR	
Tanzania	Ethiopia	Senegal	
	Ghana	Uganda	
	Mali		
	Madagascar		
	Nigeria		
	Rwanda		
	Sierra Leone		
	Tunisia		

Female Education

For all levels of education the growth rate of female students registered was 7.8 per cent a year between 1960 and 1965 but had fallen to 6.0 per cent a year from 1965 to 1967. There was an increase in the growth rate in secondary education (from 10.7 to 12.8 per cent a year) but this was offset by reductions in the increase of primary enrolments from 7.5 per cent a year to 5.2 per cent a year. From 1965 to 1967 the relatively high growth rate of women in higher education continued although at 9.6 per cent a year this was below the rate for of 12.4 per cent a year for 1960 to 1965.

Even although the relative growth rates were generally reduced, the proportion of female students in the totals increased from 38 to 39 per cent for primary education, from 30 to 32 per cent for secondary education and from 22 to 23 per cent for higher education between 1965 and 1967.

Once again the experiences in the various sub-regions were different, growth rates of female enrolments fell in West Africa at all levels of education; in East Africa they increased for students in higher education from 25.9 to 29.8 per cent a year. In North and Central Africa growth rates for secondary students accelerated. In all these four sub-regions there was some fall of in growth rates for all female students when 1965 to 1967 is compared with 1960 to 1965.

Requirements of Qualified Personnel

In most African countries the general experience in the years under review was of a grave shortages of qualified personnel in industry, agriculture, teaching, communications and other fields. The major shortages were for scientific, technical and managerial staff.

There are no overall studies of the exact requirements nor pertaining to the development and utilization of Africa's human resources, but it has been estimated that West Africa required 4,000 managerial staff, 7,000 engineers and scientists, 26,000 technicians, 35,000 office workers and more than 290,000 qualified artisans for its planned

development over the years 1965 to 1975. Similarly the needs for East Africa for the same period have been assessed at 2,500 managers, 4,800 engineers and scientists, 17,500 technicians, 24,000 office workers and more than 190,000 qualified artisans.

It has also been estimated that Africa needs 62,000 qualified agricultural workers at all levels by 1975. The above estimates cover only 22 countries of Africa so it seems certain that the actual requirements of Africa as a whole are much higher.

In education there is a considerable proportion of expatriates presently engaged in a large number of African countries. Out of 2,253 qualified secondary teachers in Kenya in 1968 only 280 were nationals. In Uganda 13 per cent of the total of 1,491 only were nationals of that country in 1967, and even here a number of these nationals were not properly qualified. Finally out of 375 science and mathematics teachers and 372 arts teachers in Tanzania in 1968 only 92 and 101 respectively were Tanzanian.

In a number of countries including the Congo DR, Nigeria and Ghana, however, the situation was better. In these countries the proportions of nationals teaching in secondary education were 42, 58 and 44 per cent respectively. There were other countries such as Zambia where nearly all the teachers were expatriates.

Table 10.12 shows the numbers of qualified scientists, engineers and technicians in certain African countries.

Table 10.12. Number of Scientists, Engineers and Technicians in Selected African Countries Around 1967

<u>Country</u>	<u>Exact</u> <u>scien-</u> <u>ces</u>	<u>Engi-</u> <u>neers</u>	<u>Doctors</u>	<u>Agricul-</u> <u>tural-</u> <u>ists</u>	<u>Social</u> <u>scien-</u> <u>ces</u>	<u>Total</u>	<u>Techni-</u> <u>cians</u> <u>Total</u>
Botswana	29	21	19	99	12	180	606
Cameroon	...	...	...	...	...	800	3,000
Congo PR	68	23	46	9	85	231	415
Ghana	642	774	919	780	450	2,208	27,893
Upper Volta	15	20	76	24	25	160	102
Malawi	72	148	369	109	555	1,253	5,028
Mauritius	80	110	211	49	104	554	2,010
Nigeria	635	1,200	1,300	435	400	3,970	6,997
Rwanda	25	13	75	24	70	207	454
Sudan	330	228	402	298	410	1,668	3,409

Source: Unesco, Statistical Yearbook, 1969.

A Unesco conference held in 1964 had recommended that African countries should aim for 200 scientists and engineers for each million of the population in the period 1965 to 1980. Of the countries shown above Ghana, Mauritius Malawi and Congo PR had more than 200 scientists and engineers per million people and the other 6 countries had less than 200 with some proportions being extremely low. In any event the numbers of scientists and engineers shown includes a high proportion

of expatriates and this is the general position in most African countries. The same situation applies for the numbers of technicians shown.

The development of education during the period being reviewed does not seem to indicate that the problems of the shortages of qualified personnel which confront most African countries at the present time will be overcome in the foreseeable future.

Over the period 1960 to 1965 it has been estimated that the percentage of higher education students enrolled for scientific and technical subjects had fallen from 39.5 to 32.6 per cent of the total. Judging from the data in Table 10.11 for 25 countries there appears to have been some improvement between 1965 and 1967/68 in the proportion taking scientific and technical subjects and the overall average was around 40 per cent in the later year.

An examination of the diplomas granted in 17 countries to successful students in one year around 1967 shows that of approximately 33,000 in higher education, 22,000 were in science and technology including agriculture and medicine. A total of 26,886 diplomas were given in the UAR including 7,912 in arts subjects, 14,917 in sciences and 4,057 in agriculture. In 16 other countries 6,123 diplomas were granted and 3,276 were in arts subjects with the balance in science and technical subjects. In these 16 countries less than 350 diplomas were awarded for agriculture which is a particularly low total when the importance of agriculture in African countries is considered.

The Need for a Planned Development of Human Resources

Briefly it appears that in the 1960's the expansion of educational enrolments has continued but the educational system has lost none of its rigidities. The problems posed by the shortage of qualified persons of all types and at all levels do not seem to have begun to be solved. Such a situation can only exist from a lack of a national policy in the field of education and training. This points to the basic need for a planned development of human resources in African countries.

During the period being examined, a good number of African countries have elaborated and put into operation what it is convenient to call plans for the work force. For example, Kenya, Uganda, Tanzania, Zambia, Nigeria, Cameroon, Ghana to quote only the more important, have elaborated such plans but these plans have been inoperative in a number of directions. They have not been linked to the development plans in some of the countries concerned. Some have been elaborated in the absence of a general plan of development. A poor level of co-ordination between the different plans and schemes produced a particularly inadequate result. Also most work force plans only touched incidentally on the needs of the agricultural sector.

These observations illustrate the different tasks which African countries must face up to in the future. A plan for the development of human resources is a necessity for African countries taking account

of their needs for qualified persons and the inadequacy of the educational systems, and for such a plan to be effective requires the realization of a number of conditions.

In the first case the countries must collect all the necessary statistics to develop a worthwhile plan for the work force. Data on population, employment, education and training, and professional mobility are all required.

Secondly a methodology must be used which gives due weight to all the conditions actually prevalent in Africa and in particular in the country concerned. Social habits must be included in the study.

To realize the above tasks, African countries must develop a suitable organization with adequate human and material resources. The question of location of such an organization does not appear to be particularly difficult to resolve. Wherever it is situated the service must work out a meaningful collaboration with the principal users and the principal trainers of qualified personnel. Its principal attribute should be that of co-ordinating the activities of various services and organizations concerned with the problems of the work force and training in both the public and private sectors.

If such an organization is not feasible, African countries will have to face up to the problems of the development of the labour force individually. Without a proper system of manpower planning there will always be bottlenecks created which will hold back the rate of economic development in the countries concerned.

Chapter 11. OUTLOOK FOR PARTICULAR COUNTRIES IN 1970

Any analysis of the individual countries in Africa will show that there are a limited number of products and services which are of fundamental importance in the monetary economy. It is possible, by obtaining up-to-date information on such key goods and services to be able to make some assessment of the economic outlook of the country concerned and the present chapter attempts to do this.

Unfortunately this assessment of the economic outlook which was prepared early in 1971 actually relates to 1970. Whilst this may be unsatisfactory it is an advance on the practice in past economic surveys in that there was usually a lag of eighteen months or longer between the period covered by the survey and the time of publication.

The number of countries covered in this chapter is thirty and they include all the larger countries of Africa. These countries actually cover a total population of 315 million (or 87 per cent) out of a total for the Region of 362 million in 1970.

The overwhelming impression from the economic data available is that 1970 has been a favourable year in Africa. The table below summarizes the assessment of the outlook in each country and out of the thirty countries only two are expected to show an unfavourable year i.e. a year with no growth or a fall in the GDP; in seven others the year has not been particularly good and the likely growth rate is from 1 to 4 per cent in real terms; in the remaining twenty-one countries the likelihood is that the GDP grew by more than 4 per cent.

Whilst a growth rate of 4 per cent is not allowing such for improved per capita incomes especially in countries with high population growth rates, an average GDP increase of 4 per cent or more against an average population growth rate of 2.6 per cent (the average for Africa) is reasonably satisfactory.

Because the table only covers countries for which data are available, it is incomplete and on balance it is probably true that the countries for which data are not available are those which are likely to be doing less well. However on a population count basis the proportion of the total in countries where 1970 was favourable was at least 70 per cent.

Table 11.1 Assessment of Economic Outlook for Particular Countries in 1970

Sub-region and Country	Population		Economic Outlook for 1970		
	Total	Growth Rate	Favourable	Some Growth	Unfavourable
	('000)	P.a. (per cent)			
<u>North Africa</u>					
Algeria	13,622	3.2	x		
Libya	1,915	3.6	x		
Morocco	15,779	3.1	x		
Sudan	15,500	3.8	x		
Tunisia	5,075	3.1	x		
United Arab Republic	33,872	2.8	x		
<u>West Africa</u>					
Ghana	8,546	2.4	x		
Ivory Coast	4,980	3.0	x		
Mauritania	1,171	2.2	x		
Niger	3,848	2.9	x		
Nigeria	66,174	2.5	x		
Senegal	3,925	2.4		x	
Sierra Leone	2,644	2.3		x	
<u>Central Africa</u>					
Cameroon	5,836	2.1	x		
Congo DR	21,638	2.2		x	
Congo PR	936	2.1	x		
Gabon	481	0.8	x		
<u>East Africa</u>					
Botswana	623	2.1		x	
Ethiopia	25,046	2.1	x		
Kenya	10,898	2.9	x		
Madagascar	6,932	2.7		x	
Malawi	4,443	2.6	x		
Mauritius	861	2.5			x
Tanzania	13,236	2.7	x		
Uganda	9,800	3.0		x	
Zambia	4,155	2.5			x
<u>Other Africa</u>					
Angola	5,693	2.0	x		
Namibia	632	2.4	x		
Rhodesia	5,049			x	
South Africa	21,400	2.5	x		

Note: 'Favourable', means a growth rate of more than 4 per cent in real terms.

'Some Growth', covers a growth rate of 1 to 4 per cent.

'Unfavourable', means no growth or some reduction.

The copper producing countries of Congo DR and Zambia had a less successful year in 1970 than in 1969 with lower prices and in the case of Zambia lower production. Mauritius is a sugar producing country and its production in 1970 was reduced because of a cyclone which hit the island early in the year.

For each country the bases of the individual assessments are given below. The sources used include national publications, FAO data, UN and IMF statistical publications and press reports.

Algeria, major items: Crude petroleum, natural gas, wheat, citrus, wine, manufactures, tourism.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>
		(in million dinars)	
At current prices	14,459	14,880	15,760

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		(in million dinars)			
Exports	3,510	3,574	3,607	4,018	4,258
Imports	3,571	3,154	3,154	3,889	4,501

Note: 4.937 dinars = 1 US dollar.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Crude petroleum ('000 tons)	26,028	33,864	38,388	42,168	43,824
Natural gas ('000 m ³)	1,839	2,046	2,158	2,660	2,983
Wheat ('000 tons)	1,325	630	1,266	1,534	1,100 ^{a/}
Citrus fruit ('000 tons)	415	403	400	429	430 ^{a/}
Wine ('000 tons)	1,484	682	645	995	1,000 ^{a/}
Manufacturing b/ (contribution to GDP in mn dinars)	1,362 ^{c/}	...	...	...	2,040 ^{a/}
Foreign tourists ('000)	135 ^{a/}	150 ^{a/}	112	137	213

a/ Estimates. b/ Excludes hydro-carbons. c/ 1964.

Economic Outlook

In 1969 the "Production Interieure Brut" was estimated at 14,640 million dinars and a relatively high growth rate (9 per cent a year) was aimed for in the Four Year Plan to 1973. The results for 1970 should show increases in crude oil and natural gas production and a figure of 50 million tons of crude oil (or 5 million tons more than 1969) has been forecast. The agriculture season 1969/70 in North Africa was adversely affected by but also benefitted from the very heavy rains of the late months of 1969 and on balance Algeria was likely to have had a good result in 1970. In manufacturing industry a number of projects reached the production stage and other benefits would have occurred from plants which started production in earlier years. In 1970

the phosphate fertilizer plant at Arzew had been expected to come into production whilst the ammonia and nitrate fertilizer plant in the same town was reported to have been operating since March 1969.

Whilst it is unlikely that a 9 per cent growth rate would have been achieved in 1970 itself, the indications are that the growth rate would probably have exceeded 5 per cent in real terms.

Libya, main product: Crude petroleum.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>
	<u>(in million Libyan Pounds)</u>			
At current factor cost	504.1	633.1	760.9	1,095.3
At constant (1964) factor cost	477.4	556.2	627.0	850.8

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	<u>(in million Libyan Pounds)</u>				
Exports and reexports	284.3	327.4	420.7	669.9	774.0
Imports	114.4	144.7	170.2	230.2	241.9

Note: 1 Libyan pound = 2.80 US dollars.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Crude petroleum ('000 tons)	58,378	72,645	83,477	125,539	149,180

Economic Outlook

In 1969 Libya achieved another high growth rate in its National Economy due to the large increase in crude oil exports of 18 per cent. At the end of 1969 there were indications of a slow down in activity in the non-petroleum sectors of the economy. The position in 1970 was clouded by the steps being taken by the Government to obtain a higher posted price for crude oil and the decision announced in July confiscating the property of Italians living in Libya. In the latter half of the year various reports indicated that Libya had managed to obtain a higher posted price for its crude oil from the oil concessionaires and the increase appears to have been some 15 per cent above the previous level of US\$2.21 per barrel. The increase in Government revenue from this higher price would have been substantial and petroleum production for the first five months of 1970 was running at a rate 20 per cent higher than in the same period in 1969.

A considerable portion of Libya's increased earnings from petroleum production has tended to be channelled into an increase in its net foreign assets and in July 1970 these stood at 581 million Libyan pounds compared with 328 million at the end of June 1969.

On balance there was likely to have been an increase of more than 10 per cent in the Gross National Product of Libya in 1970; a high increase from the petroleum sector would have been offset to some extent by a decline in the contribution from some of the non-petroleum sectors.

Morocco, items:- Phosphates, citrus, wheat, barley, tomatoes, olives, fish, manufacturing, tourism.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		<u>(in million dirhams)</u>			
At current market prices	13,160	12,840	13,600	15,310	15,920
At 1960 market prices <u>a/</u>	9,690	9,470	10,100	11,380	12,880

a/ Gross Domestic Production.

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		<u>(in million dirhams)</u>			
Exports	2,177	2,168	2,146	2,278	2,455
Imports	2,295	2,415	2,620	2,790	2,840

Note: 5.06 dirhams = 1 US dollar.

<u>Production etc.</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Phosphate rock ('000 tons)	9,825	9,428	9,922	10,756	10,662
Wheat ('000 tons)	1,580	1,000	1,310	2,556	1,469 ^{a/}
Barley ('000 tons)	1,432	612	1,322	3,217	2,207 ^{a/}
Citrus fruit ('000 tons)	543	640	719	789	720 ^{a/}
Tomatoes ^{a/} ('000 tons)	291	143	277	155	280 ^{b/}
Olive oil ('000 tons)	44	23	20	60	22
Fish catch ('000 tons)	215	303	258	219	226
Manufacturing (1958 = 100)	129	136	142	148	158
Foreign Tourists ('000)	378	424	400	481	621

a/ Provisional. b/ Estimates.

Economic Outlook

In 1969 the growth rate of the economy was much less than in 1968 because agriculture had a relatively poor year. For 1970 the heavy rainfall in the latter months of 1969 (even though large areas were flooded) should have produced some good harvests and resulted in exceptional grazing conditions for livestock.

In the first half of 1970 exports increased in value but only to a small extent compared with the first half of 1969; imports in contrast showed an increase of approximately 25 per cent.

The number of tourists in the first half of 1970 was 20 per cent higher than in the same period for 1969 and tourist receipts would have helped redress the worsening of the visible trade balance.

Investment levels were expected to be higher in 1970 than in 1969 and phosphate production had been forecast at 13.5 million tons in 1970 or 2.2 million tons higher than in 1969. Overall production was expected to be some 4 per cent higher.

With a good agricultural season Morocco should have enjoyed another year of reasonable growth in its GDP.

Sudan, items: Cotton, groundnuts, sesame, sugar, gum arabic, textiles.

<u>Latest GDP</u>	<u>1964/5</u>	<u>1965/6</u>	<u>1966/7</u>	<u>1967/8^{a/}</u>	<u>1969/70^{b/}</u>
	(in million Sudanese Pounds)				
At current factor cost	442.2	455.3	464.8	497.6	
At 1964/5 prices	442.2	454.8	461.3	490.9	
At 1967/8 prices				497.6	564.0

^{a/} Rough estimate only. ^{b/} Shown in New Five Year Plan.

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million Sudanese Pounds)				
Exports and reexports	67.96	70.73	74.70	81.15	85.90
Imports	72.29	77.46	81.18	87.00	92.48

Note: 1 Sudanese Pound = 2.872 US dollars.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Seed cotton ('000 tons)	441	444	531	518	646
Groundnuts ('000 tons)	305	324	297	197	383
Sesame ('000 tons)	160	134	186	122	202
Sugar ('000 tons)	16.6	25.7	71.1	93.3	90.8
Gum arabic	48.1	50.8	45.0	61.5	46.0
Textiles (million metres)	36.4	...	51.4	85.2	92.7

Economic Outlook

In its new five year plan to 1974/75 the GDP in 1969/70 has been estimated at 564 million Sudanese pounds or 13 per cent higher than in 1967/68 at constant prices.

The cotton crop in 1970 forecast at 4,650,000 kantars or about 650,000 tons is about the same as in 1969 but more than 20 per cent higher than in 1968. In 1970 cotton prices in export markets were higher on average than in 1969 so this would have benefitted the Sudan cotton industry.

In the first six months of 1970 exports totalled 57.3 million Sudanese pounds and imports 54.3 million, the corresponding figures for 1969 were exports 44.2 million and imports 47.8 million. Cotton fibres exports were valued at 37.2 million in January-June 1970 and 23.9 million in January to June 1969.

An ambitious development plan has been published covering the five years to 1974/75 and a growth rate of 8.1 per cent a year is aimed at compared with 4.7 per cent a year in the previous plan period. The new plan envisages a high rate of investment expenditure and the total of £S 370 million over five years means an average of £S 74 million a year.

On the basis of the plan the growth rate of the economy is likely to accelerate from 1969/70 to 1974/75 and for 1970 would probably mean a growth rate of 6 to 7 per cent. The major growth point in the economy will come from the extension of the irrigated area in the

Sudan and much of the new irrigated land will be used for increased cotton production. The season 1970/71 should have started to see the results of this determination to increase agricultural production.

Tunisia: items:- Crude petroleum, phosphates, wheat, olives, citrus, grapes, manufactures, tourism.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1969</u>
	(in million dinars)			
At current factor cost	428.0	429.9	453.5	490.3
At (1966) factor cost	441.7	429.9	434.7	470.3
<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>
Exports	62.92	73.69	78.36	82.83
Imports	129.06	131.22	137.09	114.50

Note: 0.525 dinars = 1 US dollar.

<u>Production, etc.</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969^{a/}</u>
Crude petroleum('000 tons)	750	819	2,240	3,191	3,708
Phosphate rock ('000 tons)	3,041	3,220	2,809	3,361	2,599
Wheat ('000 tons)	520	349	330	383	350
Olive oil ('000 tons)	60	22	51	59	25
Citrus fruit ('000 tons)	83	111	78	98	80
Wine ('000 tons)	185	127	93	99 ^{b/}	105 ^{b/}
Manufactures (1966 = 100)	96.3	100	109	110.3 ^{b/}	115.2 ^{b/}
Foreign Tourists('000)	166	219	231	330	372
Tourists ('000 nights)	1,320	1,650 ^{c/}	1,973 ^{c/}	3,072 ^{c/}	3,640 ^{c/}

a/ Provisional. b/ Excludes petroleum industry. c/ Estimates.

Economic Outlook

The economy suffered to a significant extent in 1969 from the excessive rains that fell in the latter months of the year and mineral production was hit when mines were flooded.

The heavy rainfall, however, produced its benefits in the crops reaped in 1970 and early estimates show that wheat production would have been about 580,000 tons compared with 350,000 tons in 1969 making it the best result for years. The olives were expected to benefit from the water soaking into the soil and pastures have been very good for livestock.

In the first five months of 1970 crude oil production continued to increase and was running at a rate in excess of 4 million tons a year; mineral production was variable, phosphate production had virtually recovered the production level of 1968 but iron ore output was only about 60 per cent. Lead ore production was at about the same level as in 1969 but zinc ore production was higher by about 30 per cent.

The index of industrial production averaged 116.5 in the first five months of 1970 compared with 113.1 for the whole of 1969.

Allowing for a complete recovery in mineral production in the latter part of 1970, the year as a whole should have produced an increase of at least 5 per cent in the GDP.

United Arab Republic, items:- Crude petroleum, cotton, rice, sugar, manufactures, transport, tourism.

<u>Latest GDP</u>	<u>1964/5</u>	<u>1965/6</u>	<u>1966/7</u>	<u>1967/8</u>	<u>1968/9</u>
	(in million Egyptian Pounds)				
GDP at current market prices	2,214	2,403	2,481	2,534	2,696
GDP at 1964/5 market prices	2,214	2,325	2,318	2,298	2,429
<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million Egyptian Pounds)				
Exports and reexports	263.1	263.2	246.2	270.3	324.1
Imports	405.9	465.9	344.0	289.6	276.5

Note: 1 Egyptian pound = 2.30 US dollars.

<u>Production etc.</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Crude petroleum ('000 tons)	6,481	6,264	5,720	8,995	12,960 ^{b/}
Seed cotton ('000 tons)	1,501	1,289	1,208	1,210	1,462 ^{b/}
Rice Paddy ('000 tons)	1,788	1,679	2,279	2,586	2,557 ^{b/}
Sugar ('000 tons) ^{c/}	404	366	363	379	408
Manufactures (1963 = 100)	121	116	112 ^{d/}	124	136 ^{a/}
Suez Canal Cargo (Million tons)	225	242	109 ^{d/}	nil	nil
Tourists ('000)	542	579	345	318	345

a/ Unofficial figures. b/ Estimates. c/ Season beginning in year.
d/ Upto May only.

Economic Outlook

This is still confused because of the hostilities with Israel. The cease fire in operation from August 1970, should, however, have operated in the direction of encouraging more economic growth than would otherwise have occurred.

The benefits from the Aswan High Dam project began to have some influence on the economy in 1969 but the full impact will increasingly be felt over the next few years.

The 1970 cotton crop has been reported to be about the same level as in 1969 i.e. nearly back to the level of 1965. With higher prices operating in export markets there would have been an encouragement for greater tonnages to be exported bringing benefits to the balance of payments. In agriculture generally the increased areas under perennial irrigation would have produced considerable benefits.

The production of crude oil in 1970 has been forecast at 17 million tons or nearly twice as high as in 1968 and the rate of production was increasing throughout the year. Again increased crude oil exports would have benefited the trade balance.

Manufacturing industry should have continued the growth pattern of recent years and some of the considerable number of projects being developed should have reached the production stage.

The level of investment activity in 1970 should have been restored to that of 1966/67 and the promise of higher rates of investment in the five years to 1975 should also have had a beneficial impact.

The UAR is still losing its Suez Canal revenue and the tourist receipts are still well below those of 1966/67 but on balance 1970 was likely to have seen an increase of the GDP of about 8 per cent at current prices compared with 1969 and at constant prices 4 to 5 per cent.

West Africa

Ghana, items:- Gold, diamonds, aluminium, cocoa, timber, manufactures

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		(in million new cedis)			
At current market prices	1,608	1,793	1,778	2,078	2,344
At 1960 prices	1,112	1,113	1,133	1,156	1,182

For 1970 the GDP has been forecast to increase by 5 per cent in real terms.

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		(in million new cedis)			
Exports	226.9	191.4	246.0	343.0	394.7
Imports	320.7	250.6	261.5	314.0	354.4

Note: From February to July 1967 the new cedi was valued at 1.40 US dollars; since July 1967 it has been worth 0.98 US dollars.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Gold ('000 kg.)	23.5	21.3	23.7	23.0	22.0
Diamonds ('000 carats) <u>a/</u>	2,273	2,819	2,537	2,447	2,391
Aluminium ('000 tons) <u>a/</u>	-	-	39.7	110.6	111.7
Cocoa ('000 tons) <u>b/</u>	416	381	424	327	416
Timber ('000 m ³)	1,921	636	1,609	1,664	1,922
Manufactures (1962=100)	134	151	169	207	231

a/ Source: World Metal Statistics.

b/ Season beginning in year.

Economic Outlook

Ghana's money economy is still heavily dependent on cocoa and the high prices in 1969 improved the balance of trade very considerably. For 1969/70 the crop has been forecast at 416,000 metric tons after 327,000 tons in 1968/69 but prices in 1970 have been lower than in 1969 and for the first eight months of the year the average price was about three quarters of the average price for 1969. This probably means that the 1969/70 crop would be worth about 90 per cent of the value of the 1968/9 crop.

The manufacturing sector should have continued to grow both in 1969 and 1970 from the number of new projects reported from 1968 and from increases in production from existing units.

The Government's own capital budget has been increased progressively since 1968 and for 1969 averaged 114 million new cedis compared with 67 million in 1968; in 1970 there was a further increase to NC 130 million.

In the first half of 1970 imports were NC 204.5 million compared with 159.5 million in the first half of 1969 and 354.4 million for the year. The level of increase points to greatly increased economic activity in Ghana in 1970.

Ivory Coast, items:- Rice, coffee, cocoa, timber, fish, manufactures

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in milliard francs CFA)				
At current market price	239.6	258.0	275.7	326.5	362.1
<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in milliard francs CFA)				
Exports	68.42	76.66	80.26	104.89	118.22
Imports	58.34	63.61	65.05	77.63	86.28

Note: Up to August 1969 246.85 CFA francs = 1 US dollar
From September 1st 1969 277.71 CFA francs = 1 US dollar.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Rice paddy ('000 tons)	250.0	275.0	347.0	365.0	290.0
Cocoa ('000 tons) ^{a/}	113.0	150.0	147.0	145.0	180.0
Coffee ('000 tons) ^{a/}	273.0	131.0	288.0	205.0	276.0
Timber ('000 m ³)	2,605	2,600	3,022	3,470	4,280
Fish ('000 tons)	61.5	61.6	66.9	69.8	71.0
Manufacturing (1965=100) ^{b/}	100	114	132	157	167

^{a/} Season beginning in year.

^{b/} Value of production deflated by consumer price index number.

Economic Outlook

The agricultural sector based on the 1969/70 season seems to have been completely satisfactory and sales of coffee could have reached 280,000 tons and those of cocoa 175,000 tons. Producer incomes were expected to increase to 40,000 million francs CFA compared with 30,600 million in 1968/69.

The industrial sector should have shown another impressive increase and the outlook for the construction industry based on the anticipated level of public investments was favourable.

Total wages and salaries have been forecast to be 14,000 million francs CFA higher because of wage increase and increased employment.

The budget for 1970 has been fixed at 57,000 million francs CFA for the current sector and 44,100 million for the investment sector. The total of 101,100 million may be compared with 77,300 million in 1969.

There would have been some price increases and the likelihood would have been an increase higher than in 1969 (when the average increase was 3 to 4 per cent).

In money terms an increase of at least 10 per cent in the GDP for 1970 was quite possible; in real terms the increase would probably have been at least 5 per cent.

Mauritania, items:- Iron ore, (later copper), gum arabic, fish

<u>Latest GDP</u>	<u>1964</u>	<u>1968</u>
	(in million francs CFA)	
At current market prices	34,580	47,144

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million francs CFA)				
Exports	14,219	17,089	18,219	18,204	20,001
Imports	6,140	5,678	8,408	9,341	11,763

Note: Up to August 1969 246.85 CFA francs = 1 US dollar
 From 1st September 1969 277.71 CFA francs = 1 US dollar.

<u>Production etc.</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Iron ore exports ('000 tons)	5,961 ^{a/}	7,135	7,455	7,702	8,539
Gum arabic prod (tons)	2,300 ^{a/}	3,330	4,437	4,962	5,324
Fish catch ('000 tons)	...	...	30.7	...	49.3

^{a/} Estimate.

Economic Outlook

The Akjoujt copper exploitation project was expected to lead to production starting in 1970 and the report of Charter Consolidated dated March 1970 spoke of production commencing shortly with a rapid build up to a level of 30,000 tons of concentrates a year.

The continuation of iron ore development was expected to result in the same tonnage being produced in 1970 as in 1969 but in the first quarter of 1970 2,474,000 tons were exported so the result for the year might have been higher than in 1969 when 8,539,000 tons were exported.

The 1970 fish production figures were expected to be a record at more than 50,000 tons but much would have depended on the success of the IMAPEC organization in obtaining the fish it needed for its processing facilities.

Gum arabic production should have continued to increase.

On balance there should have been some increase in the gross product in 1970, the actual level decided by the date when copper production started. A late report stated the copper concentrate output started in December.

Niger, items:- Groundnuts, livestock, (later uranium)

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	
	(in million francs CFA)			
At current market prices	74,138	78,842	73,000	a/

a/ Unofficial report.

A report on 1968 stated that the fall in production of groundnuts and loss of livestock had caused a fall in the national income of over 3,000 million francs CFA.

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969^{a/}</u>
Exports	5,260	8,574	8,226	7,125	7,100
Imports	9,300	11,115	11,352	10,237	11,000

a/ Estimate based on 9 months.

Note: Up to August 1969, 246.85 francs CFA = 1 US dollar.

From September 1st 1969, 277.71 francs CFA = 1 US dollar.

<u>Production etc.</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Groundnuts ('000 tons)	277	288	298	252	207
Cattle herds ('000)	3,900	3,970	4,000	2,115	...
Sheep and goat herds ('000)	7,500	7,950	8,100	4,500	...

Economic Outlook (This is based on a report by the Moniteur Africain du Commerce et de l'Industrie)

1968 was a year of economic disaster with large livestock losses and a fall in world groundnut prices. The crisis point was reached in May 1969 and international aid was required to alleviate shortages. Since then a favourable trend has developed with better prices for the main export crops and the conclusion of various industrial and mining projects.

There was a recovery in food crop production in 1969/70, cotton production also improved but groundnut production was still failing. Livestock herds were being built up again.

Industrial and mining production showed a high growth rate and the Somair plant was due to come into production at the end of 1970 to produce uranium concentrates.

Nigeria, items:- Crude petroleum, tin, groundnuts, palm products, rubber, cocoa, cotton.

<u>Latest GDP</u>	<u>1964/5</u>	<u>1965/6</u>	<u>1966/7</u>	<u>1967/8^{a/}</u>	<u>1968/9^{a/}</u>
	(in million Nigeria Pounds)				
At current factor cost	1,457.0	1,540.3	1,605.0	1,525.9	1,570.4 ^{b/}
At 1962 factor cost	1,463.4	1,543.0	1,583.1	1,462.4	1,475.2 ^{b/}

a/ Shown in new development plan. b/ Projected.

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million Nigeria Pounds)				
Exports and re-exports	268.3	284.3	241.8	211.1	323.2
Imports	275.1	256.4	223.6	193.2	248.7

Note: 1 Nigeria pound = 2.80 US dollars.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Crude petroleum ('000 tons)	13,538	21,000	16,812	7,128	26,977
Tin (Sn content)(tons)	9,700	9,687	9,490	9,804	8,736
Groundnuts ('000 tons)	1,687	1,755	1,256	1,447	1,361
Cocoa ('000 tons)	185	267	238	186	211

<u>Purchases</u>					
Groundnuts ('000 tons)	690	994	1,043	690	776
Palm kernels ('000 tons)	454	415	220	191	169
Cocoa ('000 tons)	299	185	267	239	188
Seed cotton ('000 tons)	132	129	150	80	165
Rubber exports ('000 tons)	69	71	49	53	57

Economic Outlook

With the cessation of hostilities, Nigeria has an exceptional opportunity, based on the exploitation of its oil deposits, to embark on a high rate of expansion. The restoration and reconstruction of war damaged or war affected installations should be possible with moderate expenditure and the overall picture is one of growth and expansion.

Crude oil production has been forecast to increase from 27.0 million tons in 1969 to some 50 million tons in 1970 and total exports in the first half of 1970 were 27 per cent higher than in the first half of 1969. Most of the increase in exports was due to crude oil.

For the agricultural sector there may be a period of stagnation or only moderate growth because of the impact of the war years but recovery from fairly depressed levels for groundnut and palm kernel production in particular should not be long delayed.

Manufacturing industry should be able to make a fairly quick recovery in the areas where production was badly hit and the reports of new investments indicate that some substantial increases in production could have been achieved.

The problems of this large country are numerous and have been accentuated by the civil war but considerable growth in the economy as a whole seems to have been the picture for 1970.

Senegal, items:- Groundnuts, phosphates, fish, manufactures.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million francs CFA)				
At current market prices	191,910	200,210	194,240	205,590	198,60

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		(in million francs CFA)			
Exports	31,712	36,764	33,890	37,369	31,907
Imports	39,583	38,313	38,904	44,529	51,299

Note: Up to August 1969, 246.85 CFA francs = 1 US dollar.

From 1st September 1969, 277.71 CFA francs = 1 US dollar.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Phosphate rock('000 tons)	1,038	1,135	1,266	1,270	1,199
Groundnuts ('000 tons)a/	1,124	861	1,005	828	885
Fish ('000 tons)	131	142	155	175	182
Manufactures (1959=100)	120	137	133	132	126

a/ Season beginning in year.

Economic Outlook

The production of groundnuts is very important in the Senegalese economy, both in the agricultural and industrial sectors. In 1965/6 when there was a very good groundnut crop of 1,124,000 tons, the contribution to the GDP by groundnuts in agriculture and manufacturing industry was more than 50,000 million francs CFA.

In 1968/69 groundnut production had fallen to 828,000 tons and 885,000 tons were expected in 1969/70. Between 1965/6 and 1968/9 the contribution of groundnuts to the GDP fell by 20,000 million francs CFA.

With such a reduction it has been difficult for the GDP to grow and from 1966 to 1968 the increase was only from 200,000 to 206,000 million francs CFA (at current prices); for 1969 there was a reduction to 198,000 million francs CFA.

The third four year plan (1969 to 1973) aims at an annual investment level of 36,000 million francs CFA a year compared with less than 30,000 million in the previous plan period.

In 1969 there was a large increase in the external aid promised to Senegal and 1970 should have benefitted from the receipt of the sums actually promised.

In the first three months of 1970 imports were 4 per cent higher and exports about the same level as in the same period in 1969. From January to April 1970 448,000 tons of phosphate rock were produced, compared with 1,200,000 tons for the whole of 1969.

The year 1970 seemed to promise some growth in the GDP after a fall in 1969 but Senegal is unlikely to achieve the growth rate laid down in the third plan of 5.5 per cent. Until there is a recovery in groundnut production the continued sluggishness of production of this crop will continue to hold back the advance of the economy.

Sierra Leone, items:- Diamonds, iron ore, palm kernels, rice

<u>Latest GDP</u>	<u>1964/5</u>	<u>1965/6</u>	<u>1966/7</u>	<u>1967/8</u>	<u>1968/9</u>
	(in million leones)				
At current factor cost	226.2	240.4	248.0	260.6	290.8
At constant (1963) factor cost	214.7	225.0	223.5	225.3	241.1
<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million leones)				
Exports	63.22	59.06	50.54	79.71	88.35
Imports	77.40	71.70	65.29	75.48	93.02

Note: Up to November 1967 the leone was worth 1.40 US dollars,
since then it has been worth 1.20 US dollars.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Diamonds ('000 carats)	1,462	1,462	1,400	2,426 ^{a/}	2,001 ^{a/}
Iron ore ('000 tons)	2,334	2,218	2,152	2,546	2,416
Palm kernels ('000 tons)	58.3	55.3	61.3	66.4	68.0 ^{a/}
Rice paddy ('000 tons)	399	434	468	426	407

^{a/} Exports.

The 1969 rice crop was the lowest for years, but some recovery was forecast in 1970.

Economic Outlook

In the first eight months of 1970 exports of diamonds were 1,538,000 carats worth le 40.92 million compared with 1,290,000 carats worth le 41.03 million in the same period in 1969. Iron ore production was down slightly being 1,456,000 tons compared with 1,565,000 tons.

The forecast production for rutile and bauxite suggests these mines would have been a relatively successful year.

The 1969/70 commercial purchases of 52,700 tons of palm kernels, 4,088 tons of cocoa and 6,200 tons of coffee were better than those of the previous season except for coffee (in 1968 8,124 tons were purchased).

Total exports for January-August 1970 were valued at le 62.43 million (61.32 million in January-August 1969) and imports were estimated at le 65.5 million compared with le 56.4 million in the same period in 1969. A higher level of imports of machinery and transport equipment has been reported for the first half of 1970 (le 13.6 million) compared with le 10.5 million in the first half of 1969.

The Governments own development expenditure estimates averaging 12.5 million leones in 1970 were higher than in the years since 1964.

The year 1969 was a good one and the GDP in 1968/9 increased by more than 7 per cent in real terms; in 1969/70 a further increase

would have occurred as the diamond trade was relatively bouyant. For the calendar year 1970 the outlook was less optimistic and on balance only a small increase in the GDP was likely, compared with 1969.

Central Africa

Cameroon, items:- Cocoa, cotton, coffee, aluminium, timber.

<u>Latest GDP</u>	<u>1964/5</u>	<u>1965/6</u>	<u>1966/7</u>	<u>1967/8</u>	<u>1968</u>
		(in million francs CFA)			
At current market prices	167,700	177,300	196,000	222,300	243,400
<u>External Trade</u>	<u>1965/6</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		(in million francs CFA)			
Exports	37,547	35,833	37,539	46,723	58,573
Imports	37,566	36,114	46,919	46,320	43,000

Note: Up to August 1969 246.85 CFA francs = 1 US dollar.

From 1st September 1969 277.71 CFA francs = 1 US dollar.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Cocoa ('000 tons) ^{a/}	79.0	87.0	93.0	105.0	110.0
Seed cotton ('000 tons)	54.0	53.0	50.0	64.0	86.0
Coffee ('000 tons) ^{a/}	74.0	63.0	80.0	82.0	82.0
Aluminium ('000 tons)	51.0	48.2	48.3	45.4	50.0 ^{b/}
Wood exports ('000 tons) ^{c/}	231 ^{b/}	266	270	321	381

^{a/} Season beginning in year. ^{b/} Estimates. ^{c/} Rough wood only.

Economic Outlook

The forecast production figures for seed cotton, cocoa and coffee for the 1969/70 season show increases (and in the case of cotton a considerable increase) compared with the 1968/69 season. In all cases producer prices are higher (for cocoa by 20 per cent) and the net result should have been a considerable increase in the gross output of agricultural production.

The budget of the Federal Government for 1970/71 has been fixed at a level some 20 per cent higher than in 1969/70 and there are a number of large scale development schemes one of which is the next stage of the Trans Cameroon Railway for which a contract for the equivalent of 13,000 million CFA francs was signed in January 1970.

After reaching record levels in 1969, exports should have increased substantially in 1970; imports should also have increased because of the increased tempo of development.

The prospects for the Cameroon in 1970 were for a further substantial increase in the GDP.

Congo Democratic Republic, items:- Copper, tin, cobalt, zinc, diamonds, coffee, palm products, rubber, fish.

<u>Latest GDP</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million zaires)			
At current market prices	304	460	720	882
At 1968 prices	...	...	720	773
At 1966 prices	304	301	325	...

In real terms the GDP increased by 7.8 per cent in 1968 and in 1969 by 7.4 per cent after a fall of 1 per cent in 1967.

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969^{a/}</u>
	(in million zaires)				
Exports	168.7	234.0	220.5	254.7	305
Imports	159.6	168.2	128.1	154.8	195

^{a/} Estimates based on Balance of Payments estimates.

Note: 1 zaire = 2 US dollars.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Copper ('000 tons)	288.6	316.9	320.5	326.0	356.0
Cobalt ('000 tons)	8.4	11.3	9.7	10.4	10.6
Tin ('000 tons)	6.3	7.0	7.1	7.5	6.7
Diamonds (million carats)	12.5	12.4	13.2	11.9	13.9
Zinc ('000 tons)	117.4	116.3	124.7	119.3	99.8
Coffee ('000 tons)	24.1	36.1	38.9	48.8	44.0 ^{a/}
Palm oil ('000 tons)	162	168	203	244	224
Rubber ('000 tons)	21.0	28.0	32.0	40.0	35.0
Fish catch ('000 tons)	81.0	84.0	93.2	110.2	...

^{a/} Estimate based on exports.

Economic Outlook

The major economic sector is mining and copper mining in the most important mineral produced. After a fairly sharp rise in 1969, copper production was probably at about the same level in 1970 as in 1969. In the first half of the year copper prices reached new record level but there was a considerable fall in the second half of the year and on balance a lower average price for 1970 was likely.

Manufacturing industry was expected to show an increase in 1970 particularly following the wage increases granted in January.

The slow down of price inflation in 1969 creating much more stable conditions in the second half of the year could have brought very considerable benefits if these conditions continued in 1970. The information available on the first quarter of 1970 suggests that price stability has in fact continued.

The budget estimates for 1970 valued the fiscal receipt at about 215 million zaires and ordinary expenditure at 163 million zaires (or about the same level as in 1969); capital expenditure from local resources was fixed at 51 million zaires.

Without a particularly good agricultural season the outlook for 1970 was for a comparatively small increase in the GDP in real terms over 1969 when there was an increase of 7.4 per cent.

Congo Peoples Republic, items:- Timber, sugar (later potash and petroleum)

<u>Latest GDP</u>	<u>1964</u>	<u>1967</u>
	(in million francs CFA)	
At current prices	...	56,159
Gross internal production	31,740	47,507

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million francs CFA)				
Exports	11,554	10,659	11,730	12,189	11,384
Imports	15,974	17,189	20,239	20,614	20,292

<u>UDEAC Trade^{a/}</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million francs CFA)				
Exports	2,221	2,642	2,658	2,931	1,778
Imports	...	205	346	657	655

^{a/} Probably incomplete.

Note: Up to August 1969 246.85 CFA francs = 1 US dollar.

From 1st September 1969 277.71 CFA francs = 1 US dollar.

<u>Exports, etc.</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Rough wood ('000 tons)	384	401	360	409	441
Veneers ('000 tons)	20.4	16.9	18.7	25.7	23.0
Sugar production ^{a/} ('000 tons)	31	56	96	88	95

^{a/} Season beginning in year.

Diamonds have been exported in quantity but this is strictly a transit trade.

	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Exports ('000 carats)	5,304	4,252	4,153	4,343	1,450 ^{a/}

^{a/} Estimate.

Economic Outlook

The first export of potash from the deposits being mined at Hollé took place in 1969. Towards the end of the year some 2,000 tons were being mined daily and the immediate target was to reach 5,500 tons a day by March 1970. Eventually 500,000 tons of potassium oxide a year will be mined.

Petroleum prospecting resulted in two rich oil strikes being reported in 1970.

The other growth factor in the economy was the continuation of the increased value of exports of timbers and products. The trend established since 1967 should have continued although the more difficult trading conditions in Europe in 1970 would have affected the result.

The level of the 1970 Government budget (up 2,000 million francs CFA at 18,100 million) suggests that 1970 was expected to be relatively a buoyant year.

Gabon, items:- Crude petroleum, manganese, uranium, timber.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>		
	<u>(in million CFA francs)</u>				
At current market prices	50,800	56,500	58,800		
<u>External Trade</u> ^{a/}	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	<u>(in million CFA francs)</u>				
Exports	25,905	25,920	29,680	30,803	36,719
Imports	15,425	16,385	16,648	15,933	20,190
<u>a/ Excluding UDEAC trade.</u>					
<u>Including UDEAC Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	
Exports	26,294	26,100	30,018	36,719	
Imports	17,221	18,344	18,817	18,076	

Note: Up to August 1969, 246.85 CFA francs = 1 US dollar.
From 1st September 1969 277.71 CFA francs = 1 US dollar.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Crude petroleum ('000 tons)	1,264	1,447	3,444	4,642	5,052
Uranium exports (tons)	1,521	1,444	1,398	1,137	1,133
Manganese ore ('000 tons)	1,280	1,274	1,148	1,255	1,393
Timber exports ('000 tons)	813	796	787	869	1,068

Economic Outlook

The budget of the Central Government was 20,000 million francs CFA in 1970 compared with 17,800 million in 1969. This increase suggests a 10 per cent rise in the revenue earning sectors of the economy in 1970.

The major growth sector in 1970 was expected to be crude oil production with unofficial forecasts of 10 million tons in 1970 compared with 5 million in 1969. However in the first half of the year there was little sign that production was expanding significantly.

Two major schemes were started in 1968 and 1969, the Kinguele Dam and the deep water port at Owendo. Road construction was also being stepped up to open up new forest areas for exploitation so the investment sector would have been busy in 1970.

Manufacturing industry projects covering a variety of products have also been reported and their impact would also have increased the level of investments in 1970; completed projects would have led to increased production in this sector of the economy.

Gabon should have had a fairly substantial increase in GDP in 1970 following two very satisfactory years, 1968 and 1969.

East Africa

Botswana, items:- Cattle, (later diamonds and copper/nickel)

Latest GDP	<u>1965</u>	<u>1966</u>	<u>1967</u>
	(in million rand)		
At current market prices	37.84	40.57	42.21

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>
	(in million rand)			
Exports	10,239	10,772	9,218	7,491
Imports	16,591	18,825	22,370	23,231

Note: 1 Rand = 1.40 US dollars.

<u>Production etc.</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Cattle herds ('000)	1,097	916	1,105	1,250	1,320 ^{a/}
Commercial offtake ('000)	162	149	96	110	100 ^{a/}

a/ Estimates.

There were prolonged droughts in the five years to 1967 which reduced the cattle herds considerably.

Economic Outlook

Two large ventures which will bring very considerable benefits to the economy are the exploitation of the copper/nickel ore and sulphur deposits in the Selebi/Pikwe area and the development of the Orapa mine to produce diamonds in the Letlhakane area.

An agreement has been signed by the Government and the De Beers group covering the lease and tax payments and the Government's 13 per cent interest in the diamond project. Mining at Pipe AK/1 is expected to start in the second half of 1971 but in the meantime large sums are being spent to provide the necessary facilities for the venture.

A 60 megawatt power station is to be established based on coal deposits near Palapye to supply the Selebi/Pikwe project. The exploitation of the copper nickel deposits will involve high capital expenditure and the speed of the development will be dependent on the rate at which infrastructure requirements are provided.

The new customs agreement with South Africa provides for greatly increased customs revenue for Botswana, Lesotho and Swaziland but in the case of Botswana part of the benefit in 1970/71 will be used to reduce the budgetary aid from the United Kingdom.

The cattle industry which is one of the current mainstays of the economy, was expected to have a better year in 1970 than in 1969.

Ethiopia, items:- Coffee, cereals, sugar, cotton, livestock, manufactures.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>Estimates</u> <u>1969</u>
		(in million Eth. \$)			
At current factor cost	2,802	3,193	3,388	3,586	3,723
At 1965/6 prices	<u>1964/5</u> 3,124	<u>1965/6</u> 3,248	<u>1966/7</u> 3,412	<u>1967/8</u> 3,575	
<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Exports and r-exports	289.8	277.0	252.7	266.0	298.4
Imports	375.7	404.3	357.4	432.5	388.2

Note: Eth. 2.50 = 1 US dollar.

<u>Production etc.</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Coffee ('000 tons)	140.0	155.0	201.0	210.0	205.0
Cereals ('000 tons)	5,099	5,206	5,320	5,480	5,600 ^{a/}
Raw sugar ('000 tons)	67	75	84	74	72 ^{a/}
Seed cotton ('000 tons)	10	22	25	30	30 ^{a/}
Cattle herds (million)	25.4	25.6	25.8	30.0	...
Sheep & goats (million)	22.8	23.0	23.3	23.5	...
Manufacturing contribution to GDP at 1961 prices (mn US \$)	82	90 ^{a/}	100 ^{a/}	115 ^{a/}	125 ^{a/}

a/ Estimate.

Economic Outlook

The more important economic sectors - agriculture, manufacturing, commerce and services should all have shown some increase in 1970 and there might have been a small increase in construction activity; the high world prices for coffee should also have been reflected in higher export earnings for Ethiopia during the year.

Exports as measured by export permits totalled 258.2 million Ethiopian dollars in the first 9 months of 1970 compared with 221.2 million in the same period of 1969.

The projected growth rate in the plan to 1972/73 is 6.0 per cent per annum. The attainment of this level in any year will depend to a considerable extent on the climatic conditions because Ethiopia's economy is heavily weighted in the direction of agriculture. The rains in 1970 were heavy and of long duration, they should have resulted in good pastures and also have been beneficial for crop production.

Kenya, items:- Coffee, tea, maize, wheat, sugar, livestock, manufactures, tourism, transport.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		(in million Kenya pounds)			
At current factor cost	330.5	385.0	406.7	441.9	476.3
At 1964 factor cost	333.0	381.4	396.1	425.6	449.5

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		(in million K £)			
Total exports	81.5	56.9	48.0	39.6	53.7
Total imports	100.7	123.5	120.0	127.1	128.8

Note: Kenya pound = 2.80 US dollars.

<u>Production etc.</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Coffee <u>a/</u> ('000 tons)	39.3	56.9	48.0	39.6	53.7
Tea <u>b/</u> ('000 tons)	18.9	21.4	22.8	28.9	36.0
Wheat <u>b/</u> ('000 tons)	172	128	162	216	221
Maize <u>b/</u> ('000 tons)	104	134	249	353	282
Sugar <u>c/</u> ('000 tons)	32	40	66	88	127
Milk sales (mn litres)	78	89	97	97	102
Cattle <u>d/</u> ('000)	185	188	216	184	185
Pigs <u>d/</u> ('000)	55	55	48	53	52
Manufactures index (1964=100)	105	112	116	124	138
Tourist earnings (mn US\$)	30.5	39.8	44.8	48.4	46.8
Mombasa freight <u>e/</u> ('000 tons)	4,584	5,112	5,183	5,529	5,110

a/ Clean coffee for sale.

b/ Delivered to Marketing Board.

c/ Season ending in year.

d/ Purchased for slaughter.

e/ Handled at port.

Economic Outlook

The long rains were good but deliveries of cereals in 1970 would have been largely influenced by conditions in the 1969/70 season; wheat deliveries were expected to be about the same as in 1969 but maize deliveries much less; paddy rice production could have been about 30 per cent higher. A larger coffee crop was expected, tea production should have been greater by about 5,000 tons; sisal output would have been about the same, pyrethrum production should have shown some recovery from the very low 1969 level, a sugar production of 125,000 tons was expected (10,000 tons more than in 1969) and the cotton crop could have been equal to the record 1969 crop. Livestock output should have increased with the better pastures.

An increase in the value of marketed agricultural products of about 10 per cent was forecast at current prices.

In manufacturing sales were expected to increase by more than 10 per cent; construction activity should have been at least equal that of 1969; tourism showed considerable increase from the 1969 levels.

Exports could have increased by 5 to 6 per cent overall and imports were expected to be some 9 per cent higher with larger imports of capital goods.

Overall a growth rate of the economy of 7 to 8 per cent at 1969 prices was forecast.

Madagascar, items:- Rice, sugar, coffee, vanilla.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>
	(in million francs MG)		
At current factor cost	143,300	149,000	...
At current market prices	166,200	174,600	182,000

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million francs MG)				
Exports	22,632	24,132	25,711	28,608	29,154
Imports	34,166	35,074	35,885	42,024	46,199

Note: Up to September 1969 the Malagasy franc had an exchange rate of 246.85 = 1 US dollars; from 1st September 1969 277.71 FMG = 1 US dollar.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Rice paddy ('000 tons)	1,240	1,360	1,700	1,762	1,785
Sugar ('000 tons)	105	109	96	99	100
Coffee ('000 tons)	55.0	52.0	71.0	67.0	55.0
Vanilla ('000 tons)	0.5	1.0	1.5	0.7	1.1 ^{a/}

^{a/} Exports.

Economic Outlook

The economic situation in 1969 was reported as not being particularly favourable; agricultural production increased only slightly compared with 1968 and was actually lower than in 1967 which was a record year. Production of coffee and pepper was reduced in 1969 whilst rice, vanilla, clove, cotton, sisal, tobacco and pea production increased. Industrial production was higher but the rate of growth had fallen particularly because agro-industrial industries such as vegetable oils, sugar, sacking and meat had not grown. The textile industries, soap, beer, cement, paper and matches had continued to advance.

In 1969 the exports of chrome from Andriamena started and 1970 should have seen a full year's exploitation. The search for petroleum was continued.

For 1970 rice production has been forecast at 1,800,000 tons.

In the first four months of 1970 exports were valued at 12,146 million FMG compared with 8,018 million in the same period in 1969. The increase was due mainly to higher exports of coffee at a higher price, a very large increase in clove exports, increased rice exports and the export of chrome ore. Sugar exports were actually reduced during this period and the reported withdrawal of Senegal from the

OCAMM sugar council would have caused difficulties as Senegal used to take 30,000 tons of sugar a year.

Imports were reduced from 15,139 million FMG in the first four months of 1969 to 14,025 million in the same period in 1970 so overall the deficit on the balance of trade was reduced considerably. Imports of machinery and transport equipment were running at about the same level as in 1969.

Malawi, items:- Cotton, groundnuts, tea, tobacco.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million Malawi pounds)				
At current factor cost	87.0	88.7	94.0	101.6	110.8
At current market prices	90.5	93.6	99.6	107.2	117.3
<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in £ M million)				
Exports and re-exports	14.39	17.41	20.45	20.02	21.98
Imports	20.40	27.15	25.43	29.09	30.74

Note: Up to November 1967 £ 1 Malawi = 2.80 US dollars.
Since then £ 1 Malawi = 2.40 US dollars.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Seed cotton ('000 tons)	20.6	13.3	12.0	11.6	19.5
Tea (million lbs.)	28.6	33.9	37.1	34.9	37.3
Tobacco (million lbs.)	49.2	41.3	45.8	32.1	26.3
Tobacco (million US\$)	11.6	9.6	7.9	9.0	10.3
Groundnuts ('000 tons) ^{a/}	22.8	42.3	43.0	22.7	37.0

Economic Outlook ^{a/} for sale.

There are reports of a tobacco crop of 50 million pound weight and in general other agricultural output should also have been greater in 1970 than in 1969. A higher level of public fixed investment was planned whilst fixed investment in the private sector might have been at a similar level to that in 1969. The result is an estimated increase of 7 to 8 per cent in monetary output (in real terms). (The monetary sector accounts for 58 per cent of the total GDP so the overall result would have been an increase of about 5 to 6 per cent allowing for some growth also in the non-monetary sector).

Mauritius, item:- Sugar.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>
	(in million rupees)			
At current factor cost	808	792	841	927

An increase of 7 per cent is reported for 1969.

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million rupees)				
Exports	313.4	337.6	306.8	354.0	366.0
Imports	367.3	333.2	371.1	421.1	376.1

Note: Up to November 1967 4.762 rupees = 1 US dollar.
From November 1967 5.55 rupees = 1 US dollar.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Raw sugar ('000 tons)	664.4	561.8	638.3	596.5	668.7

Economic Outlook

Mauritius is still heavily dependent on its sugar crop and the latest production estimate for 1970 is 590,000 tons compared with 668,700 tons in 1969. Production was reduced by a cyclone which hit the island early in the year.

Tea production has been increasing rapidly and for 1970 4,500 tons of made tea have been forecast after 3,200 tons in 1969 and manufacturing industry continued to develop.

The Governments' own development programme totalled 83 million rupees in 1970 compared with 60 million in 1969. Generally domestic investment was expected to be considerably higher in 1970 than in 1969 and exports were forecast to be 5 per cent higher.

In November 1970 a Free Trade Zone was reportedly opened in Mauritius. This development could stimulate a new era of industrial development with enterprises established to supply external markets.

The reduction of the sugar crop in 1970 would probably have prevented any increase in the GDP in real terms for the year.

Tanzania, items:- Coffee, cotton, cloves, sisal, cashew nuts, sugar, cattle, fish, diamonds.

<u>Latest GDP</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million Tanzania Sillings)			
At current factor cost	6,592	6,883	7,398	7,819
At (1966) factor cost	6,592	6,935	7,326	7,554

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million Tanzania Shillings)				
Total exports	1,465	1,879	1,759	1,717	1,793
Total imports	1,405	1,711	1,643	1,834	1,710

Note: 20 Tanzania Shillings = 2.80 US dollars.

<u>Production etc.</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
<u>Cash crops marketed</u>					
Sisal ('000 tons)	219.0	208.7	219.5	205.6	188.8
Cotton lint ('000 tons)	67.1	78.8	70.8	51.3	72.1
Cotton seed ('000 tons)	100.6	122.9	103.6	72.1	109.7
Clean coffee ('000 tons)	29.1	49.3	40.9	50.2	53.0
Cashew nuts ('000 tons)	74.3	82.5	76.5	106.7	118.2
Sugar ('000 tons)	67.4	71.0	71.7	82.4	92.1
Clove exports ('000 tons)	8.5	14.4	19.7	13.7	7.3
Cattle sales ('000 head)	992	1,116	1,002	999	...

<u>Production etc. (Cont'd.)</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
<u>Cash crops marketed</u>					
Fish catch ('000 tons)	92.9	101.0	118.7	142.1	140.2
Diamond prod ('000 carats)	757	947	927	683	780

Economic Outlook

The prospects appeared favourable for 1970 with better weather than in any of the past three years. The possibility of a 7 per cent growth in real terms for the economy has been expressed in the 1970 Economic Survey with imports and exports up by 5 to 7 per cent.

Growth in investment will largely be determined by the public sector performance as the likelihood is of stagnant private investment.

The start of the Tanzania-Zambia railway project was inaugurated in November 1970 and the total expenditure in the region of 3,000 million shillings over a six year period will help stimulate economic activity.

In the 1969/70 Budget Estimates development expenditure was 676 million shillings; for 1970/71 the allocation has been increased to 951 million shillings as part of the effort to increase total investment in line with the requirements of the five year plan to 1974.

Uganda, items:- Coffee, cotton, sugar, tea copper, fish.

	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>Estimate</u> <u>1969</u>
	(in million Uganda shillings)				
At current factor cost	5,792	6,112	6,296	6,440	7,146
Growth rate at constant prices %	6.1	5.5	3.0	2.3	11.0
<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million Uganda shillings)				
Total exports	1,474	1,652	1,563	1,641	1,602
Total imports	1,151	1,188	1,138	1,176	1,253

Note: 20 Uganda shillings = 2.80 US dollars.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Coffee ('000 tons) ^{a/}	220	164	156	147	162
Cotton lint ('000 tons) ^{a/}	81	78	63	76	86
Cotton seed ('000 tons) ^{a/}	177	179	138	168	189
Sugar ('000 tons) ^{a/}	129	140	149	166	146
Tea ('000 tons)	8.4	11.2	11.2	15.2	17.5
Fish ('000 tons)	75.4	85.1	91.4	108.0	123.0
Copper ('000 tons)	17.1	16.1	14.5	15.6	16.6

a/ Season beginning in year.

Economic Outlook

For 1970 coffee production was forecast at 174,000 tons, cotton lint at 95,000 tons, sugar at 157,000 tons and tea at 20,400 tons. A total of 17,000 tons of copper was expected to be produced.

The forecast for the 1970 GDP was 7,220 million Uganda shillings or only 1 per cent better than 1969. This is because after the very large increase in 1969 some stagnation was expected to occur. This forecast might have been unduly pessimistic particularly in view of the high prices for coffee operating in 1970 and the hardening of cotton prices which has occurred.

Zambia, items:- Copper, manufacturing

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	
	(in million Kwacha)				
At current factor cost	548.6	644.5	751.1	801.2	
At current market prices	649.9	782.3	891.1	978.0	
GNP at 1965 prices	604.4	682.7	726.1	756.1	
<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million Kwacha)				
Exports & re-exports	380.3	493.4	470.0	544.4	766.5
Imports	210.7	246.1	306.3	325.2	311.8

Note: 1 Kwacha = 1.40 US dollars.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Blister copper ('000 tons)	163.6	88.5	82.3	93.1	104.9
Electrolytic copper ('000 tons)	521.2	497.6	534.2	571.9	654.1
Manufactures (1961=100)	162	173	221	237	234

Economic Outlook

The budget for the year 1970 aimed at continued real growth in the economy with steadily rising employment and the overseas payments in balance. The 1969 GDP had been at record levels (1,100 million Kwacha) because of high copper production and record price but the evidence to January 1971 appears to indicate a lower copper production particularly following the earth fall in one of the larger mines on September 25th, 1970 which resulted in the mines closure for two months and a probable loss of production in 1970 of some 40,000 tons.

In 1969 cash electrolytic wire bar copper averaged 1,064 Kwachas per ton. In the first half of 1970 realizations were averaging 1,124 Kwacha per ton but by August 1970 the price was down to about 870 Kwacha per ton and by November to about 800 Kwacha per ton. This would appear to indicate an average price of less than 1,000 Kwacha per ton in 1970. This is still a very high average price (in 1968 it was 886 Kwacha per ton) but it means that Zambia would not have met the earlier forecast for 1970 of a GDP at nearly the same level as in 1969.

Other Africa

Angola, items:-- Crude petroleum, diamonds, iron ore, coffee, fish.

Latest GDP

1965 1966
(in million escudos)
25,011 25,495

At 1963 market prices

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		(in million escudos)			
Exports	5,747	6,359	6,838	7,788	9,390
Imports	5,601	5,948	7,909	8,710	9,261

Note: 28.75 escudos = 1 US dollar.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Crude petroleum ('000 tons)	655	631	537	750	2,458
Diamonds ('000 carats)	1,156	1,268	1,289	1,667	2,021
Iron ore ('000 tons)	815	791	1,154	3,218	5,478
Coffee ('000 tons)	205	226	235	198	204
Fish catch ('000 tons)	257	327	292	293	418

Economic Outlook

The economy has gone through a period of rapid expansion over the last few years. The intention of the Portuguese Government to bring about extensive development and the encouragement of foreign investment has already led to the level of investment being increased three-fold between 1963 and 1968.

The more important developments have been the mining of iron ore at Cassinga, the oil production from Cabinda and the very impressive increase in diamond production. The output of manufacturing industry has been growing rapidly and there are numerous reports of new ventures in this field.

The agriculture (and fishing sectors) have not experienced much growth in the last few years although cotton production is a particular exception. The 1969 fish catch was, however, a record at 418,000 tons.

For 1970 there should have been further increase in crude oil production and some increase in diamond and iron ore production. Manufacturing industry should also have shown a further increase in the value of its output.

The expenditure on investments in 1970 would probably have been at a similar level to that of 1968 and 1969 and this would have helped the construction industry.

The result of previous investment activity and the continuation of a relatively high level of current investment should lead to a further satisfactory increase in the GDP of Angola in 1970.

Namibia, items:- Diamonds, copper, Karakul sheep, cattle, fish.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		(in million rand)			
At current factor cost	244	258	285 a/	310 a/	340 a/

a/ Rough estimate.

Note: 1 Rand = 1.4 US dollars.

<u>Production etc.</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Diamond prod ⁿ ('000 carats)	1,656	1,759	1,731	1,722	2,034
Copper prod ⁿ ('000 tons) a/	37.7	37.3	33.8	30.2	33.0
Karakul pelts exports ('000)	2,241	2,977	3,000 b/	3,450 b/	4,000 b/
Cattle exports ('000)	247	177	239	259	241
Fish catch ('000 tons)	678.5	650.0	740.2	982.7	856.1 c/

a/ Cu content. b/ Estimates. c/ Unofficial.

Economic Outlook

The economy is particularly dependent on the world market for diamonds and on the fishing, cattle and Karakul sheep industries; the level of Government spending particularly on construction projects would also have made a fairly large contribution to the overall result.

The latest report of one of the world's largest diamond producers reflected some uncertainty about the 1970 world diamond market; the fishing industry should have had a larger catch in 1970 than in 1969 on the basis of quotas allocated and the market prices for products should have been higher. The Karakul pelt auctions in the first half of 1970 produced slightly lower prices than in 1969 but the offerings were expected to be higher over the year. Cattle exports in the first 4 months of the year were about 20 per cent higher than in the same period in 1969.

With a relatively high level of work in the construction industry and very considerable activity in mineral developments, the overall expectation was for a higher GDP in 1970 than in 1969.

S. Rhodesia, items:- Tobacco, sugar, maize, cotton, copper, gold, asbestos, manufactures.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million Rhodesia dollars)				
At current factor cost	708.7	692.3	744.1	782.6	892.4
At 1965 market prices	762	758	802	822	860

<u>External Trade</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million Rhodesia dollars)				
Exports	329.4	207.8	201.4	195.1	239.8
Imports	239.6	169.4	187.1	207.0	198.6

Note: 1 Rhodesia Dollar = 1.4 US Dollars.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Tobacco sales (mn lb)	246	250	186	132 ^{a/}	132 ^{a/}
Maize ('000 tons) ^{b/}	822	952	1,000	1,020	1,020
Sugar ('000 tons)	226	260	132	117	117
Seed cotton ('000 tons)	17	27	39	51	129
Gold ('000 kg)	16.9	17.1	15.5 ^{c/}	15.5 ^{c/}	14.1 ^{c/}
Copper ('000 tons)	18.0	15.0	17.0	18.1	19.5
Asbestos ('000 tons)	160	160	150 ^{c/}	...	...
Manufactures index (1964 = 100)	108	97	107	118	134

^{a/} Quota. ^{b/} Season beginning in year. ^{c/} Estimate.

Economic Outlook

The season 1969/70 was again one of drought conditions and this would have slowed down the rate of growth of the economy which has averaged 6.5 per cent a year in real terms since 1966. It is now policy to aim at a high level of activity in the construction industry and this will itself help to sustain the forward momentum.

The total amount to be spent on the 1970/71 Public Sector Investment Programme was assessed at R \$94.6 million compared with R \$68.0 million in 1969/70.

The output of manufacturing and mining should have showed further increases in 1970 from projects developed in recent years.

On balance some growth of the economy was likely in 1970 although the full benefits of previous investment would have been held back by the effect of the poor climatic conditions on the agricultural industry.

In the second half of 1970 it was reported that the railways were unable to carry all the traffic on offer and that the foreign exchange earnings were not sufficient for all the requirements of the economy at its existing level of growth.

South Africa, items:- Gold, diamonds, copper, coal, maize, sugar, livestock, fish, manufacturing production.

<u>Latest GDP</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
		<u>(in million rand)</u>			
At current factor cost ^{a/}	7,583	8,259	9,134	9,735	10,791
At current factor cost ^{b/}	7,514	8,180	9,050	9,641	...
At 1958 market prices ^{a/}	6,997	7,344	7,905	8,163	8,768
S. Africa alone ^{c/}	7,270	7,922	8,765	9,331	10,336

^{a/} Includes Namibia, Botswana, Lesotho, Swaziland.

^{b/} Includes Namibia only.

^{c/} Estimate at current factor cost.

<u>External Trade</u> ^{a/}	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
	(in million rand)				
Exports	1,061	1,206	1,362	1,502	1,528
Gold output	775	768	773	769	847
Imports	1,756	1,646	1,914	1,877	2,137

a/ Trade to and from S. African Customs Union Area which includes Namibia, Botswana, Lesotho and Swaziland.

Note: 1 Rand = 1.40 US dollars.

<u>Production</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
Gold ('000 kg.)	950.3	960.5	943.4	966.9	969.7
Diamonds ('000 carats)	5,026	6,037	6,668	7,433	7,863 ^{a/}
Copper ('000 tons)	60.2	117.0	126.7	127.7	126.0 ^{a/}
Coal ('000 tons)	48,460	47,942	49,300	51,655	52,752
Maize ('000 tons)	4,490	5,056	9,762	5,316	5,339
Sugar ('000 tons)	909	1,628	1,822	1,505	1,622
Cattle slaughtered ^{b/} ('000)	1,970	1,957	1,873	1,655	1,560
Sheep & goats slaughtered ('000)	5,417	6,118	6,432	6,620	7,700
Pigs slaughtered ('000)	812	958	1,038	960	1,100
Wool ^{c/} ('000 tons)	148	136	140	146	150
Fish catch ^{d/} ('000 tons)	787.6	633.3	1,046.1	1,311.9	1,324.3 ^{a/}
Manufactures (1958 = 100)	176.2	187.6	199.5	208.1	230.0

a/ Estimate. b/ Commercial slaughterings. c/ Season beginning in year.

d/ Total for S. Africa and Namibia less catch processed in Namibia including Walvis Bay.

Economic Outlook

After an exceptionally high rate of growth in 1969 when the GDP at current prices increased by 11 per cent and the real GDP by at least 7 per cent, there was a slowing down of the rate of growth in the first quarter of 1970.

Mineral production was some 5 per cent higher in the first quarter of 1970 compared with the same period in 1969 and electricity production was 6 per cent higher. Exports were running at a rate 5 per cent higher than 1969 in the first half of 1970 and imports had increased by more than 20 per cent.

In the first quarter of 1970 there were also increases in the contribution of manufacturing, agriculture and services to the GDP but the other sectors were virtually unchanged or down slightly. However, even if no growth was achieved for the remainder of the year (which was unlikely) the total GDP in 1970 would have been about 4 per cent higher than in 1969. On balance an increase of from 6 to 10 per cent at current prices was likely for 1970 but in real terms the increase was likely to be below that for 1969.

In the year to June 1970 the GDP increased by about 6 per cent at constant prices.

Chapter 12. SOME RECENT DEVELOPMENT PLANS

A number of countries in Africa have published development plans over the last eighteen months and some of these are covered in the analysis below.

The countries concerned, the plans and population are shown in Table 12.1. Of the seven countries Algeria and Sudan are North African countries; Ethiopia, Kenya and Tanzania are in East Africa and Senegal and Nigeria in West Africa.

Table 12.1 Plans and Population of Seven African Countries

<u>Country</u>	<u>Plan Period</u>	<u>Years</u>	<u>1970</u>
			<u>Population ('000)</u>
Algeria	1970 to 1973	4	13,622
Sudan	1970/1 to 1974/5	5	15,500
Ethiopia	1968 to 1973	5	25,046
Kenya	1969/70 to 1973/4	5	10,898
Tanzania	1969/70 to 1973/4	5	13,236
Senegal	1969 to 1973	4	3,925
Nigeria	1970/1 to 1973/4	4	66,174

The total population of the countries covered by the plans was 148 million in 1970 out of a total for Developing Africa of 340 million so the proportion in these seven countries was 43 per cent. It is for this reason that the intentions of these countries as reflected in their development plans are of considerable significance.

The progress of a country is measured by the increase in the real Gross Domestic Product (GDP) and of particular importance is the relationship between GDP and population; the increase in real GDP per head is one measure of the average level of advancement of the people of the particular country. The rate of growth of the population of the seven countries is compared with the planned rate of growth of the GDP during plan periods.

Table 12.2 Population Growth and Planned Increase in GDP

<u>Country</u>	<u>Population Growth Rate</u>	<u>Planned Increase in GDP</u>
	<u>Per Annum</u> (per cent)	<u>Per Annum</u> (per cent)
Algeria	3.2	9.0
Sudan	2.8	8.1
Ethiopia	2.1	6.0
Kenya	2.9	6.7
Tanzania	2.7	6.5
Senegal	2.4	5.5
Nigeria	2.5	7.0

The planned increases in the GDP are well ahead of the present population growth rates and are particularly high in Algeria, Nigeria and the Sudan. Nigeria and Algeria are countries where crude petroleum production is being increased at a fast rate at the present time and the increase of petroleum exports is expected to finance much of the planned developments. In the Sudan the benefits of the Roseires irrigation scheme are expected to bring fairly considerable developments over the next few years and the major crop to be grown on a much greater scale is cotton.

The planned growth rates for the remaining countries are less impressive but being lower they may be more readily attainable.

To attain increases in the GDP the basic requirement is the level of investment; a high level of effective investment related to the total GDP is often a necessary requirement for a high growth rate of the GDP. There are some sectors, and petroleum mining is one, where the amount of capital investment required to produce a unit increase in the level of the GDP is much lower than in others.

The different proportions of the GDP required to finance the level of investment shown in the development plans are given in Table 12.3. Generally the investment expenditure in each country is expected to increase throughout the plan period.

Table 12.3 Total Planned Investment as a Proportion of GDP

<u>Country</u>	<u>Annual Average</u> <u>Investment Planned</u> (in million US dollars)	<u>Proportion of</u> <u>GDP</u> (per cent)
Algeria	1,404 ^{a/}	33.4 ^{b/}
Sudan	213	10.6
Ethiopia	273	16.1
Kenya	409	23.8
Tanzania	246	21.2
Senegal	147	15.5
Nigeria	1,081	18.3

^{a/} Public sector only

^{b/} From estimated GDP

There is a very wide range in the proportion of the GDP which would be needed in the seven countries from 10.6 per cent for Sudan to 33.4 per cent for Algeria. Against an anticipated increase of the GDP of 8.1 per cent per annum for Sudan the level of investment in relation to the GDP seems much too low but here it is hoped to make more effective use of past investments. It must also be doubted whether Algeria will be able to sustain an investment level equal to 33.4 per cent of its GDP over the four years of its own development plan.

For the remaining five countries the relationship between increase in GDP and investment as a proportion of GDP is as follows:-

	<u>Increase in GDP</u>		<u>Investment as Proportion</u>
	<u>Per Cent</u>	<u>Per Annum</u>	<u>of GDP in Per Cent</u>
Ethiopia		6.0	16.1
Kenya		6.7	23.8
Tanzania		6.5	21.5
Senegal		5.5	15.5
Nigeria		7.0	18.3

Most countries in their development plans have indicated the level of foreign financing required for the expected level of investment and the next table summarises these expectations.

Table 12.4 Total Investment and Source of Financing

<u>Country</u>	<u>Period</u>	<u>Total Investment</u>	<u>Financing</u>	
			<u>Domestic</u>	<u>Foreign</u>
			(in million US dollars)	
Algeria	1970 to 1973	5,618	a/	a/
Sudan	1970/1 to 1974/5	1,062	789 ^{b/}	273
Ethiopia	1968 to 1973	1,366	946	420 ^{c/}
Kenya	1969/70 to 1973/4	2,045 ^{d/}	1,289	756
Tanzania	1969/70 to 1973/4	1,128	789	339
Senegal	1969 to 1973	589	205	384
Nigeria	1970/1 to 1973/4	4,469	3,083	1,386

a/ To be financed largely from domestic sources.

b/ Assumes all private investment will be domestically financed.

c/ Allows for interest payments and loan repayments.

d/ Includes changes in stocks.

Taking the six countries for which data is reasonably complete, the total investment is equivalent to 10,659 million US dollars of which 7,101 million or 66.6 per cent is for domestic financing and 3,558 million or 33.4 per cent for external financing. Thus domestic sources are expected to finance some two thirds of total investment.

If only domestic sources of finance were available the average growth rate of the GDP would probably be reduced from the overall average of 7.0 per cent to less than 5 per cent per annum.

The foreign sector is important as a source of finance when aiming for a comparatively high growth rate in the economy.

There are considerable differences in the treatment by the individual countries of private investment as a source for development.

Algeria has a plan which only really covers the public sector but the level of Government controlled activities is now so wide that little is left for the private sector. Tanzania has adopted a socialist policy which is emphasised in its latest plan and the share of the investments expected to be taken by the private sector is 27 per cent. In Senegal the public sector's share is also high at 82 per cent.

In the remaining four countries the share by the private sector varies between 46 and 64 per cent, being highest in Kenya and lowest in Sudan.

Table 12.5 Public and Private Sector Investments Anticipated

Country	Investments (Million US\$)			Proportions (per cent)	
	Public	Private	Total	Public	Private
Algeria ^{a/}	5,618	-	5,618	100	-
Sudan	574	488 ^{b/}	1,062	54	46
Ethiopia	594	772 ^{b/}	1,366	43	57
Kenya	745	1,300 ^{b/}	2,045	36	64
Tanzania	828	300	1,128	73	27
Senegal	480	109	589	82	18
Nigeria	2,184	2,285	4,469	49	51

a/ The plan only covers the public sector.

b/ Includes non-monetary investments.

The Productive Sectors

The importance given in the plans to individual productive sectors varies according to the assessment of the growth points which are likely to be operative in the economies concerned. In Nigeria there is a strong emphasis on petroleum and manufacturing developments; in Algeria production of crude petroleum and natural gas is to be increased significantly but the plan generally gives more emphasis to industry; in the Sudan the extension of the irrigated area is expected to lead to greatly increased cotton production as well as considerable increases in many other crops. In Kenya rural development is being emphasised although manufacturing industry will show the biggest proportional growth rate. Similarly, in Tanzania the growth rate in manufacturing industry will be about twice that of agriculture but the latter because of its initial size will in fact add considerably more in total to the GDP over the period of the plan. In Ethiopia manufacturing is a key growth sector but a substantial increase in agricultural production is also anticipated. A high proportion of investment in Senegal is scheduled for agriculture but again considerable sums will also be spent developing manufacturing industry.

The results expected from the investments proposed together with natural growth of existing economic sectors is given below for the productive sectors, i.e. agriculture, mining and manufacturing.

Table 12.6 Growth of Productive Sectors During Plan Periods

	Contribution to Gross Domestic Product From					
	Agriculture etc. ^{a/}		Mining		Manufacturing	
	First Year ^{b/}	Last Year ^{c/}	First Year ^{b/}	Last Year ^{c/}	First Year ^{b/}	Last Year ^{c/}
	(in million US dollars)					
Algeria	486	547	559 ^{e/}	995 ^{e/}	414	694
Sudan	862	1,362	(d)	(d)	117	210
Ethiopia	843	974	6	18	115	190
Kenya	437	551	7	9	155	230
Tanzania	425	563	20 ^{f/}	18 ^{f/}	78	126
Senegal	217	328	11 ^{f/}	13 ^{f/}	98	145
Nigeria	2,422	2,646	170	787	435	798

^{a/} Agriculture, livestock, forestry, fishing.

^{b/} Comparison year before plan.

^{c/} Last year of plan.

^{d/} Small or negligible.

^{e/} Includes hydrocarbons.

^{f/} Rough estimate only.

The more important sectors from the point of view of growth in the above table are agriculture in Sudan, mining in Algeria and Nigeria and manufacturing in Algeria, Sudan, Ethiopia, Kenya and Nairobi, all these sectors are expected to show a growth rate of more than 50 per cent over the period of the plans of the countries concerned.

Taking the seven countries together the picture is as follows:-

<u>Sector</u>	<u>Growth Over Plan Period</u>
Agriculture:	From 5,712 to 6,971 million dollars or by 22 per cent
Mining:	From 778 to 1,847 million dollars or by 137 per cent
Manufacturing:	From 1,407 to 2,386 million dollars or by 70 per cent
Three sectors:	From 7,897 to 11,214 million dollars or by 42 per cent

Agriculture is only expected to grow fairly slowly compared with the other two sectors. The most dramatic increases expected are from petroleum mining in Algeria and Nigeria.

Some of the more important developments are listed below, by countries.

Algeria

Crude petroleum - production is expected to be increased to 65 million tons in 1973 after 45.6 million tons in 1969.

Natural gas - production is forecast at 7.8 million cubic metres in 1973 compared with 3.7 million in 1969.

Steel - by 1973 production is forecast to be 300,000 tons a year; hot and cold rolling mills are expected to be built during the plan period. Eventually a national integrated steelworks with a capacity of 1.5 to 1.8 million tons is to be built.

Compound fertilizers - here the target is 1,200,000 tons in 1973 compared with 120,000 tons in 1969.

Cement - the capacity for cement production is expected to be raised to 2.3 million tons from around 1 million tons in 1969.

Fabrics - total production is to be doubled to 109 million square metres in 1973.

Agriculture - the emphasis of development is to increase production of cereals, market gardening, meat, milk and fruit. The irrigated area is expected to rise to 340,000 hectares by 1974.

Sudan

Agriculture - the total planned increase in the irrigated areas is 726,000 feddans (1 feddan = 4,200 square metres) and large areas are to be added to those dependent on rainfall. The irrigation system from the Roseires Reservoir was only started in 1970 and eventually a total of 3,827,000 feddans will be covered.

Cotton - production in 1974/5 is expected to be 9,102,000 kantars (1,300,000 tons) compared with 4,655,000 Kantars in 1969/70.

Other crops - it is planned to increase some other crops by considerable amounts; of interest are the groundnut target of 548,000 tons the wheat target of 560,000 tons and that of dura of 2,550,000 tons.

Livestock - meat production is expected to rise to 650,000 tons in 1974/5 (421,000 tons in 1969/70), milk production is also scheduled to be increased very markedly.

Textiles - the target here is 180 million metres in 1974/5 or double the 1969/70 production estimate.

Sugar - production in 1974/5 is scheduled to be 130,000 tons compared with 80,000 tons in 1969/70.

Other products - cotton seed cake production is to be increased by 77 per cent to 700,000 tons in 1974/5 and cement production to be doubled to 300,000 tons.

Ethiopia

Cereals - the target production figure is 6,226,000 tons in 1972/73 compared with 5,480,000 tons in 1967/8.

Oilseeds - here the increase is from 437,000 to 608,000 tons.

Various other crops will also be increased including sugar cane and coffee, the latter to 185,000 tons by 1972/73.

Livestock - a major item is the intention to increase meat production from an estimated 390,000 tons in 1967/8 to 465,000 tons in 1972/73.

Mining - potash development to produce 750,000 tons in 1972/73 is the major project under this heading.

Manufacturing - the larger public projects expected by 1972/3 are leather and shoe production, cement production, vehicle tyres and textiles and clothing; sugar production is to be increased significantly and the output of the beverage industries would grow by 30 per cent. The largest sector increase is to be in the textile industry with an increase in the value of output from 103 million Eth \$ in 1966/7 to 180 million in 1972/3.

Kenya

Agriculture - the growth of water supplies and settlement of peasant farmers are emphasised and major production goals include 610,000 tons of maize and 230,000 tons of wheat (for sale), 64,000 tons of coffee, 45,750 tons of tea and 1,750,000 tons of sugar cane. Various other crops will also be grown on a greater scale.

Manufacturing - major new projects include the Broderick Falls pulp and paper mill, a motor tyre factory and a lubricating oil plant.

Much of the total investment of 280 million dollars is, however, for the expansion of existing industries.

Tanzania

Agriculture - the production of cotton, cashew nuts, tea, flue-cured tobacco, rice, wheat, maize and oilseeds is to be increased but production of coffee and sisal is not being allowed to increase.

Livestock and fishing - production of meat and fish are both to be increased to improve nutrition standards in Tanzania.

Manufacturing - a total investment of 182 million (US) dollars is envisaged and the more important projects include a fertilizer plant to produce ammonium sulphate, triple superphosphates and granular compounds; cement production and oil refining may be expanded and investigations are proceeding into the possibility of an iron and steel industry using local coal and titaniferous iron ore (49 per cent iron and 13 per cent titanium oxide).

Senegal

Agriculture - the main development is expected to be an increase in groundnut production from 1,005,000 tons in 1968 to 1,420,000 tons by 1973; rice production is to be doubled to 220,000 tons of paddy and seed cotton production would be trebled to 30,000 tons, sugar cane production is also to be started.

Fishing - the trend of increased production which has operated in the 1960's is to be continued in the 1970's with a target of 200,000 tons for 1973.

Mining - the major mineral produced is phosphate rock and in 1971 production is due to expand from 1.1 to more than 1.2 million tons.

Manufacturing - a total investment of 56 million dollars is included in the 1969 to 1973 plan for manufacturing industry, most of it for new plants. The major projects are a tunny fish canning plant, increased groundnut oil processing, expansion of the textile industry, a crude sugar refinery and a steel plant based on electric reduction.

Nigeria

Agriculture - in the four years to 1973/4 public sector investment in this sector is to be 302 million dollars with the major objectives being to increase food supplies, to expand export crops (including

groundnuts and palm products) and to provide raw materials for local industry. Sugar cane production is to be increased to allow the local mills to produce 150,000 tons of sugar a year. Irrigation is to be developed in the North of the country.

Livestock, forestry, fishing - here to public sector investment is equivalent to 70 million dollars with the object of improving meat and milk supplies, regenerating forest areas and increasing the fish catch.

Mining - as mentioned earlier petroleum mining is to be the main growth sector and a target figure of 75 million tons of crude petroleum for 1973 has been mentioned compared with 26,573,000 tons in 1969 and a forecast 50 million tons in 1970. Total anticipated investment in mining by the private sector is equivalent to 748 million dollars.

Manufacturing - total public and private sector investment during the plan period is expected to total 1,302 million dollars, and this sector is, therefore, the most important.

Public sector investments include funds to rehabilitate war damaged industries, to expand sugar production (from 25,000 to 150,000 tons), to build a pulp and paper mill to produce 40,000 tons of kraft pulp and 70,000 tons of industrial paper a year. A chemical complex to produce caustic soda, PVC and polyethylene, an ammonia and urea plant using natural gas, a liquified natural gas plant, a single superphosphate plant (100,000 tons a year), a second petroleum refinery and a salt refinery are included in the chemical sector.

Of particular significance is an iron and steel plant with a 750,000 ton capacity costing eventually 336 million dollars scheduled to be started during the plan period.

Other projects which have been mentioned include three car assembly plants to produce 18,000 vehicles a year and palm kernel crushing plants.

The private sector is expected to be the major investor in manufacturing industry, and judging from the projects mentioned in various reports recently investments will be in a whole range of products with some emphasis on textiles and expansion of existing industries.

Development Trends in Productive Sectors

From the outline given above certain trends appear to be established. Firstly in agriculture there is a desire to produce more of the products required to feed the local population better, to cut out imports and to supply more of the raw material requirements for local industry. Exports products are also being increased but generally on a selective basis.

In the mining sector the emphasis is on petroleum and here obviously where oil and natural gas has been discovered the sooner the product can be got to the market the better. In the countries considered there are few significant new developments in other minerals (Ethiopia is developing potash production) but elsewhere in Africa there are continuous reports of new mines being developed. Algeria intends to increase the production of lead, zinc, copper, phosphate, coal and iron ore.

The really significant developments are taking place in manufacturing industry. There is a desire expressed to finish off the development of the **import** substitution projects for the consumer market and to move into the more basic sectors such as fertilisers for the agricultural industry, iron and steel and pulp and paper industries.

Two countries are both developing fairly large scale iron and steel projects and three countries intend to increase or develop fertilizer production. Three countries also mention pulp and paper projects.

The consumer good industries include considerable further textile developments, a large number of sugar mills and refineries, tyre factories and motor vehicle assembly plants.

Cement industries are being expanded and in the petroleum field, refineries are projected and lubricating oil plants to be built. Many agricultural processing developments are also shown in the plans.

The start of basic chemical industries is being considered in Nigeria and Algeria.

The overall picture is of the start of the move to a more widespread and comprehensive manufacturing sector and attempts to diversify the economies of the countries being examined.

Infrastructure Developments including Transport

The next table shows the anticipated contribution to the GDP before and at the end of the various plan periods in the countries concerned by the sectors electricity and water supply and transport and communications.

Table 12.7 Anticipated Increases in GDP from Infrastructure Developments

Country	Contribution to Gross Domestic Product by			
	Electricity and Water etc.		Transport and Communications	
	First Year ^a	Last Year ^b	First Year ^a	Last Year ^b
	(in million US dollars)			
Algeria	65	81	121	152
Sudan	14	20	97	148
Ethiopia	8	18	56	91
Kenya	29	39	112	176
Tanzania	11	18	94	113
Senegal	11	14	42	50
Nigeria	29	45	175	213
<hr/>				
a/ Reference year before plan. b/ Last year of plan.				

The anticipated increase in the contribution of electricity and water to the GDP is from 164 to 235 million US dollars or 43 per cent; for transport and communications it is from 697 million to 963 million dollars or 38 per cent.

Major Developments in Electricity Production

In Algeria a producing centre is to be established at Annaba and the one at Oran will be extended. Total capacity is to be increased from 608,000 to 848,000 kw and there is a prospect of a further 240,000 kw development at Skikda.

In the Sudan total capacity is to be increased from 138,200 kw in 1969/70 to 253,000 kw in 1974/75. The first stage of the Roseires HE station with 90,000 kw is to be completed.

In Ethiopia the planned expansion of capacity is from 184,198 kw in 1967/8 to 325,300 kw in 1972/3. The Fincha Dam HE scheme would add 66,000 kw (or 100,000 kw) on completion.

In 1969 Kenya had a generating capacity of 152,970 kw and in the plan it is proposed to add 104,000 kw by 1974 including 50,000 kw at the Kambura HE station, by installing units 1 and 2, and 42,000 kw at Kipevu.

The start of Tanzania's largest HE power station at Kidati near Mikums has been reported and the first phase of this scheme to be completed by 1973 will add 50,000 kw (capacity in Tanzania was 101,380 kw in 1969). The total scheme will eventually supply 200,000 kw. Additional capacity is also being installed elsewhere.

In Senegal a total of 52,500 kw was scheduled to be added by 1973, in 1969 the total capacity was probably the same as in 1967, i.e. 95,488 kw.

Nigeria had developed the Kainji Dam scheme in the period to 1969 and in that year most of the production of electricity was provided by generators at the dam which were 320,000 kw out of the total in Nigeria of 647,000 kw. No increase is proposed during the Second Plan period to 1974 but transmission facilities are to be developed.

Generally African countries are continuously increasing electricity production facilities and extending the transmission network.

Water Development Schemes

Algeria intends to start dams in 14 places and there are also plans to tap underground water supplies. In the Sudan the expansion of the irrigated area is the key to the development proposed in the new plan period. The irrigation system of the Roseires Reservoir which was started in 1970 will eventually cover 3,827,000 feddans (about 1,600,000 hectares) which is a very considerable addition to the 3,542,000 feddans irrigated at January 1970. The total increase in the irrigated area during the period to 1974/5 has been assessed at 726,000 feddans but more of the existing areas will also be double cropped.

The Awash Valley in Ethiopia is probably the area where immediate benefits can be obtained from water control schemes and the plan foresees the possibility of irrigation on a further 34,000 hectares.

Kenya's plan places considerable emphasis on the improvement of water supplies for agriculture and the public sector programme includes 22 million dollars for this purpose.

In Tanzania the plan includes provision for the implementation of large scale irrigation projects in two areas, for a comparatively large number of village water supply scheme and for considerable expenditure on urban water supplies.

In Senegal there are also considerable sums included in the plan for the improvement of urban water supplies and in Nigeria irrigation schemes are to be developed in the northern areas and there are water supply schemes (for the urban areas) in all twelve states.

Transport and Communications

The emphasis for transport in the countries concerned depends on the importance of the particular medium of transport. In Kenya, Tanzania and the Sudan the rail sector is of fundamental importance but in Kenya and Tanzania there are also very significant road development schemes. In Ethiopia the developing surface transport medium is road transport and in Nigeria the plan also emphasises road transport. In Algeria there is considerable expenditure proposed for each of the four systems; road, rail, air and sea transports.

In summary form the division of investment expenditure between the various transport media by Country is as follows:-

<u>Country</u>	<u>Road</u>	<u>Rail</u>	<u>Air</u>	<u>Sea</u> ^{a/}	<u>Total</u> ^{b/}
	(in million US dollars)				
Algeria	100	60	40	158	431
Sudan	96 ^{c)} _{d/}	43	14	13 ^{e/}	175
Ethiopia	162 ^{c)} _{d/}	-	46	11	250
Kenya	260 ^{c)} _{d/}	60	39	32	410
Tanzania	217 ^{c)}	52	12	33	324
Senegal	40 ^{c/}	14	6	7	83
Nigeria	528 ^{c/}	61	72	75 ^{e/}	855

a/ Includes ports and shipping

b/ Includes communications.

c/ Includes vehicles.

d/ Estimates

e/ Includes water transport

In certain countries the expenditure on posts and telecommunications is comparatively high as facilities are to be developed in line with the requirements of the economy.

This summary shows that road transport is the major sector being developed in most countries under consideration. Out of a total

expenditure of 2,528 million US dollars on transport and communications in seven countries, 1,403 million or 55 per cent is scheduled for road transport, 290 million or 11 per cent for rail transport, 229 million or 9 per cent for air transport and 329 million or 13 per cent for sea and water transport.

Transport and communications command 15.5 per cent of all development expenditure.

Roads - the major road schemes being developed in each country are given below:-

Algeria - the roads between Oran and Arzew, Skikda and Constantine and Skikda-Annaba are to be improved and the first stage of the proposed Trans-Sahara Highway is to be started from El Golea to Tamanrasset.

Sudan - major projects are roads from Dubeibat-Dilling-Kadugli and from Wadi Medani to Khartoum.

Ethiopia - of importance to the East African road system is the road from Dilla-Moyale (400 km) which will complete the Ethiopian portion of the Addis Ababa-Nairobi road. The total distance of primary roads to be constructed during the plan period is 725 km and there are also considerable distances of other types of road.

Kenya - here there is some emphasis on the secondary road system as the primary system is good by African standards but even so half the total investment is for the trunk roads. Work on the gravel road from Nairobi to the Ethiopian border was started in 1968. Other trunk roads include Timau-Meru, Embu-Lua and Kutus-Kerugoya, Ahero-Isebania, Eldoret-Kabsabet, Kakamega to Broderick Falls and also Msambweni to Lunga Lungu.

Tanzania - a major item in the plan is the improvement of the Tanzania-Zambia highway. The construction of the section of 232 km between Tunduma and Iyayi had been expected to be completed by 1971 and the Iyayi/Mahenge section of 268 km by 1972. Other trunk roads include Usagana-Chinyanga (141 km), Makuyuni-Oldeani (72 km) and Mtwara-Mingoyo-Masasi (202 km). The Arusha-Mwanza road of 320 km is to be built to engineered gravel standards. There is a very long list of road projects.

Senegal - the major projects are the Dieri road, the Ziguincha-Tanoff-Kolda road (185 km) and the Maleme-Hoddar-Kounghuel-Tambacounda road (191 km).

Nigeria - has a very large programme by both Federal and State Governments. The primary roads to be built will connect the main centres to the ocean ports of Lagos, Warri, Port Harcourt and Calabar and to the main state border crossings.

Rail - the developments proposed were basically to improve the performance of the existing rail system including track relaying and purchase of additional rolling stock.

Air - Here also the objective is improvement and expansion of existing service. In a number of cases more modern (and larger) aircraft are to be purchased and runways at various international airports improved or extended.

Sea - harbour development is the major expenditure item, although most countries are also proposing to spend considerable sums on new ships. Harbours being developed or improved include Skikda in Algeria, Port Sudan, Assab and Massawa in Ethiopia, Mombasa in Kenya, Dar es Salaam in Tanzania, Dakar in Senegal, and Lagos, Calabar and Warri in Nigeria.

These projected developments amply illustrate the importance of the continuing growth of the transport systems in Africa as a means of joining the countries more closely together, to open up new areas and to handle the increasing internal and external trade.

Education and Health Services

Large sums are expected to be spent on the development of education and health services but the priority is definitely being given in all the countries considered to education. The major increases in enrolments are to occur in primary level education and total enrolments in all fields of education are planned to increase by an estimated 4,487,000 at a cost of 1,164 million US dollars.

In the health field the total number of hospital beds should increase by about 20,000, but the total investment of 340 million dollars in health services also includes the development of health clinics, training facilities, preventative services and similar projects.

Table 12.8 Development of Education and Health Services
Primary and Secondary

<u>Country</u>	<u>Education</u>		<u>Health</u>	
	<u>Investment</u> (million US\$)	<u>Additional</u> <u>Enrolments</u>	<u>Investment</u> (million US\$)	<u>Additional</u> <u>Hospital Beds</u>
Algeria	551	1,142,000	63	6,000
Sudan	63	551,000	24	2,300
Ethiopia	43	289,000	16	1,000
Kenya	46	550,000 ^{a/}	41	2,000
Tanzania	42	300,000 ^{a/}	14	1,000 ^{c/}
Senegal	32	55,000 ^{a/}	11	1,370 ^{b/}
Nigeria	389	1,600,000 ^{c/}	151	7,000 ^{c/}

^{a/} Approximate figure.

^{b/} Includes 1,100 beds in 3 hospitals started in the previous plan period.

^{c/} Rough estimate only.

Even after the planned investments have been completed the primary enrolment levels in certain of the countries covered in this analysis will still be low and in the case of Ethiopia extremely low.

Table 12.9 Planned Education Enrolments by Standard of Education

Country	Primary Enrolments		Enrol- ment Rate ^{a)} (per cent)	Secondary Enrolments		Higher Enrolments Rate ^{a)} (per cent)
	Start Plan (thousands)	End Plan (thousands)		Start Plan (thousands)	End Plan (thousands)	
Algeria	1,758	2,622	76	183	445	27
Sudan	698	1,195	45 ^{d/}	85	135	16
Ethiopia	452	792	20 ^{d/}	71	118	5
Kenya	1,282	1,800	75	115	135	4
Tanzania ^{c/}	851	1,140	52	30	35	2
Senegal	222	263	45 ^{d/}	30	40	...
Nigeria	3,300 ^{b/}	4,800 ^{d/}	40 ^{d/}	240 ^{a/}	340 ^{d/}	15

^{a/} Planned.

^{b/} Approximate

^{c/} Mainland only.

^{d/} Rough estimate only.

At the end of the various plan periods the countries under analysis will be in a better position to supply the persons required at various levels of educational attainment for the future growth of the economy.

Other Sectors

Although most of the important fields for development have already been covered, there are a fairly large number of other headings most of which are of relatively minor significance but two which are of some significance are housing and tourism. The next table shows the intentions of the various countries in these two fields.

Table 12.10 Housing and Tourism Investments

Country	Housing		Tourism	
	Investment (million US\$)	Housing Units	Investment (million US\$)	Beds for Tourists
Algeria	305	85,000	142	14,000
Sudan	226	...	1 ^{a/}	...
Ethiopia	210	...	11	...
Kenya	98	...	26	5,000
Tanzania	129	40,000 ^{c/}	33 ^{a/}	3,500
Senegal	41	14,000 ^{d/}	21	2,000 ^{b/}
Nigeria	168 ^{b/}	...	...	...

^{a/} Public sector only.

^{b/} Part estimated

^{c/} In urban areas

^{d/} Minimum figure

In most countries housing development is looked upon as basically a function of private enterprise but in Algeria the amounts shown in the above table are for public sector investments.

Tourism is particularly important at present in Algeria and Kenya and important but of lesser significance in Tanzania and Ethiopia. Nigeria has not actively developed a policy of attracting tourists and in Sudan there are only limited numbers of such visitors; in Senegal there is a growing tourist trade and the sums to be spent during the current development plan period indicate an interest in building up tourism fairly quickly.

There is an obvious desire in the countries being considered to increase the flow of tourists to Africa to earn foreign currency and to help stimulate their individual economies.

Summary of Development Investment

The next table compares the development expenditure by sectors with the increase in the GDP forecast during the various plan periods. Just under half of the total investment proposed is for the productive sectors (agriculture, mining and manufacturing) and these sectors are expected to produce 63 per cent of the increase in the GDP.

Table 12.11 Investment and Growth of GDP by Sectors

<u>Sector</u>	<u>Investment Proposed</u>		<u>Increase in GDP</u>		<u>Growth Rate</u> (per cent)
	<u>Total</u> (million US\$)	<u>Proportion</u> (per cent)	<u>From</u> (million dollars)	<u>To</u>	
Agriculture etc.	2,586	15.9	5,712	6,971	22
Mining ^{a/}	2,119	13.1	778	1,847	137
Manufacturing	3,356	20.6	1,407	2,386	70
Electricity & water	749 ^{b/}	4.6 ^{b/}	164	235	43
Construction	... ^{b/}	... ^{b/}	701	1,117	59
Commerce	... ^{b/}	... ^{b/}	2,138	2,631	23
Transport etc.	2,528	15.5	697	963	38
Education	1,164	7.2)))
Health	340	2.1)))
Housing	1,177	7.2	) 2,686	) 3,363	) 25
Tourism	234	1.4 ^{c/})))
Other	2,024 ^{c/}	12.4 ^{c/})))
Total	16,277	100.0	14,283	19,513	37

^{a/} Includes hydro-carbons

^{b/} Included in other

^{c/} Includes some unallocated expenditures.

The main growth sectors envisaged in the productive sectors are mining and manufacturing industry; the infrastructure sectors of transport and communications and electricity and water are being developed in line with the requirements of the economy and its ability to bear the development costs. In the social sectors education, health and housing services are to grow in line with the ability of the various economies to bear the costs but related to the aspirations of the people. Tourism is of growing importance in the African scene and this is recognised in the development plans.

The ability of the individual countries to support the foreign exchange costs in economies where imports are increased due to higher purchases of machinery and transport equipment and due to the growth of the economies is related to a considerable extent to the increased level of exports. Where invisible earnings such as tourism and transport services are important these are also fundamental to the overall balance of the balance of payments but as was shown earlier foreign sources are generally required to finance part of the plan and this also helps to increase foreign exchange supplies.

The estimates by individual countries of their imports and exports are as follows.-

Table 12.12 Total External Trade Before and After Development Plans in Seven African Countries

<u>Country</u> (in million US dollars)	<u>Before Plan</u>		<u>End Plan</u>	
	<u>Imports</u>	<u>Exports</u>	<u>Imports</u>	<u>Exports</u>
Algeria	912	862	1,174	1,377
Sudan	266	247	448	504
Ethiopia	173	106	279	193
Kenya	361	274	540	336
Tanzania	239	251	370	345
Senegal	199	120	186	176
Nigeria	696	905	1,315	1,747

Total exports from the seven countries are expected to grow from 2,765 million to 4,678 million (US) dollars or by 70 per cent and imports from 2,846 million to 4,312 million dollars or by 52 per cent. A small overall deficit would thereby be changed into a surplus. However, at the end of the plan periods four of the seven countries are still expecting to be running visible trade deficits.

Employment

Some details are given of the increases in wage employment likely as a result of the implementation of the plans and these are summarised below. Wage employment is still only a relatively minor part of the

total occupied labour force in many of the countries concerned but the expected increase in total wage employment is fairly substantial being about 30 per cent overall.

Table 12.13 Growth of Wage Employment

Country	<u>Increase in Wage Employment Expected</u>		
	<u>From</u>	<u>To</u>	<u>Increase</u>
Algeria	1,148,000	1,451,000	303,000
Sudan (in towns) <u>b/</u>	520,000	670,000	150,000
Ethiopia	...	...	...
Kenya	1,072,000	1,447,000 <u>a/</u>	375,000 <u>a/</u>
Tanzania	360,000	458,000	98,000
Senegal	125,000	151,000	26,000
Nigeria	1,385,000	1,790,000	405,000

a/ Estimate based on percentage increase shown.

b/ Totals in rural areas economically active = 5.9 million & 6.4 million.

Some considerable increases in wage employment have been forecast and most of these increases are essential to prevent the further development of unemployment in the countries concerned. Unemployment in urban areas has already been identified as one of the real problems of the developing countries in Africa and the development plans tend to aim for labour intensive projects which will damp down its emergence.

General Comment

This short analysis shows the variations in development plans in different African countries but also indicates the points of similarity in the decisions made regarding the growth sectors in the various economies. There is a general desire to develop manufacturing industry rapidly and as already mentioned to move into more basic sectors such as iron and steel industries and chemicals. It is planned to build up educational enrolments at a very rapid rate, to stimulate tourism, to increase electricity production and to develop transport systems to serve the economies more adequately. A high growth rate is not possible except in exceptional circumstances from purely local sources of savings and the plans show a reliance on external sources for an average of one third of the capital required.

In most countries there is some similarity in the relationships between the proportion of the Gross Product of a country concerned spent on capital formation and the expected growth of the GDP, but there are exceptions such as the Sudan where the current plan period is expected to benefit from the investments made on the Roseires Dam in the previous plan period. The very high proportion of the GDP to be spent on investment in Algeria will only be realisable if the targets for crude oil and natural gas production are achieved and in other countries there is a reliance on a handful of products to provide the additional revenue or stimulus to the economy required to pay for the investments in the plan. Each country has taken the calculated risk which is always needed for profitable investment and on balance they should succeed. The high growth rate of 7 per cent overall is in line with the targets laid down for Africa in the Second Development Decade.

NATIONAL ACCOUNTS TABLES

TABLE A1 GDP AT CURRENT FACTOR COST BY INDUSTRY OF AFRICAN COUNTRIES, 1960 TO 1969

Subregion & Country	INDUSTRIAL ORIGIN						Total inc. other
	Agri- culture	Mining	Manufac- turing ^{a)}	Constru- tion	Commerce	Transport	
NORTH AFRICA							
<u>Algeria</u>	(in million US dollars)						
1960	566.3	173.0	268.0	188.0	376.0	170.0	2,345.0
1965	499.3	450.0	257.0	143.0	367.0	119.0	2,530.0
1968	579.0	530.0	329.0	189.0	422.0	139.0	2,953.0
1969	525.0	552.0	353.0	190.0	434.0	143.0	2,984.0
<u>Libya</u>							
1960	42.0	18.0	24.0	28.0	32.0	16.0	269.0
1965	70.8	765.2	39.8	98.6	113.1	49.6	1,411.5
1968	92.4	1,838.8	64.4	255.1	211.7	105.3	3,067.0
1969	90.0	2,131.0	75.0	283.0	243.0	122.0	3,540.0
<u>Morocco</u>							
1960	523.5	99.0	236.0	58.0	274.0	99.0	1,628.4
1965	758.4	136.0	364.0	106.0	380.0	143.0	2,399.2
1968	627.9	130.0	400.0	128.0	420.0	157.0	2,755.0
1969	813.0	136.0	430.0	139.0	483.0	191.0	2,842.0
<u>Sudan</u>							
1960	391.0	5.0	85.0	59.0	234.0	68.0	977.0
1965	489.0	5.0	135.0	65.0	290.0	85.0	1,264.0
1968	574.1	6.6	167.1	69.8	364.7	97.1	1,513.5
1969	639.0	9.0	194.0	75.0	385.0	101.0	1,675.0
<u>Tunisia</u>							
1960	134.9	11.9	84.5	40.4	89.0	36.5	541.3
1965	186.7	20.4	128.0	76.2	126.7	70.5	815.4
1968	160.0	52.0	158.7	72.4	127.6	85.7	933.9
1969	146.0	57.0	161.0	79.0	135.0	88.0	1,006.0
<u>UAR</u>							
1960	925.6	68.0	617.0	161.7	333.7	235.1	3,136.1
1965	1,400.4	135.0	925.0	218.3	417.5	452.2	4,885.5
1968	1,627.0	205.0	1,094.0	190.0	485.0	286.0	5,380.2
1969	1,752.0	248.0	1,156.0	221.0	501.0	313.0	5,738.0
WEST AFRICA							
<u>Dahomey</u>							
1960	54.0	-	4.0	7.0	25.0	9.0	122.0
1965	65.0	-	9.4	7.8	25.6	11.4	152.4
1968	81.0	-	12.0	13.0	32.0	14.0	188.0
1969	88.0	-	14.0	14.0	36.0	15.0	207.0
<u>Gambia</u>							
1960	13.0	-	1.0	-	3.0	1.0	23.0
1965	19.0	0.3	1.5	0.2	4.5	1.1	31.8
1968	21.0	-	2.0	-	6.0	1.0	36.0
1969	22.0	-	2.0	-	7.0	1.0	39.0
<u>Ghana</u>							
1960	412.0	29.0	68.0	56.0	99.0	50.0	843.0
1965	613.9	35.0	167.0	88.0	185.0	75.0	1,387.7
1968	751.3	41.0	295.0	91.0	239.0	80.0	1,831.0
1969	862.7	37.0	348.0	107.0	261.0	84.0	2,053.7

NATIONAL ACCOUNTS TABLES

TABLE A1 (ctd)

WEST AFRICA ctd.	Agri- culture	Mining	Manufac- turing ^{a)}	Constr- uction	Commerce	Transport	Total inc. other
<u>Guinea</u>							
1960	79.0	9.0	13.0	12.0	19.0	11.0	185.0
1965	75.0	28.0	17.0	17.0	30.0	13.0	238.0
1968	88.0	29.0	19.0	16.0	31.0	12.0	263.0
1969	94.0	29.0	20.0	17.0	32.0	12.0	273.0
<u>Ivory Coast</u>							
1960	220.4	3.1	38.9	23.4	63.0	35.9	445.1
1965	299.8	4.3	75.9	41.3	105.6	68.9	730.2
1968	365.9	2.0	126.0	58.0	154.3	87.0	978.0
1969	384.6	3.0	147.0	70.0	164.4	99.0	1,075.0
<u>Liberia</u>							
1960	63.4	37.0	12.0	15.0	27.0	16.0	206.4
1965	75.8	86.8	10.4	10.6	27.3	15.9	278.0
1968	74.4	103.5	15.6	16.0	37.9	21.3	330.3
1969	82.9	114.8	20.3	15.0	40.0	24.0	362.0
<u>Mali</u>							
1960	128.0	-	13.0	12.0	26.0	12.0	222.0
1965	161.2	-	21.0	19.0	52.0	9.0	313.4
1968	193.0	-	27.0	21.0	67.0	11.0	396.0
1969	208.0	-	29.0	23.0	73.0	12.0	424.0
<u>Mauritania</u>							
1960	39.0	2.0	1.0	10.0	4.0	1.0	68.0
1965	53.0	32.0	2.0	4.0	12.0	3.0	128.0
1968	64.7	41.6	4.0	11.0	10.0	3.0	154.0
1969	67.0	46.0	4.0	13.0	11.0	3.0	166.0
<u>Niger</u>							
1960	112.3	9.0	11.0	11.0	3.0	11.0	171.7
1965	162.7	14.0	13.0	27.0	6.0	15.0	252.1
1968	156.0	17.0	12.0	32.0	8.0	18.0	263.0
1969	165.0	18.0	12.0	34.0	9.0	19.0	277.0
<u>Nigeria</u>							
1960	1,984.6	36.4	164.6	132.7	397.0	139.3	3,142.4
1965	2,368.5	208.0	296.0	225.7	605.9	189.8	4,312.8
1968	2,403.0	126.0	396.0	214.0	593.0	172.0	4,397.0
1969	2,625.0	168.0	453.0	228.0	605.0	175.0	4,755.0
<u>Senegal</u>							
1960	157.3	1.3	42.7	19.8	106.3	18.2	450.7
1965	192.4	1.4	75.9	20.6	147.9	40.7	593.7
1968	221.5	2.0	87.0	21.0	150.0	41.0	646.6
1969	191.9	2.0	87.0	21.0	150.0	41.0	621.3
<u>Sierra Leone</u>							
1960	75.0	31.0	11.0	7.0	25.0	12.0	189.0
1965	90.2	55.4	20.5	10.4	46.0	22.3	288.4
1968	123.8	54.5	22.4	14.4	56.8	27.5	348.9
1969	126.0	52.0	23.0	17.0	63.0	30.0	363.0
<u>Togo</u>							
1960	58.0	3.0	6.0	3.0	8.0	4.0	93.0
1965	71.4	8.9	12.1	5.5	17.5	8.7	143.2
1968	88.0	11.0	31.0	6.0	27.0	11.0	198.0
1969	94.0	11.0	35.0	7.0	31.0	12.0	215.0
<u>Upper Volta</u>							
1960	84.0	-	13.0	7.0	20.0	5.0	153.0
1965	95.9	0.8	15.0	7.6	24.8	14.7	182.9
1968	107.0	-	19.0	10.0	34.0	17.0	214.0
1969	117.0	-	22.0	12.0	38.0	18.0	237.0

NATIONAL ACCOUNTS TABLES

TABLE A1 (Ctd)

CENTRAL AFRICA	Agriculture.	Mining	Manufacturing	Construction	Commerce	Transport	Total inc.other
<u>Cameroon</u>							
1960	172.0	1.0	56.0	23.0	72.0	22.0	406.0
1965	215.4	1.0	85.0	42.0	91.0	34.0	569.7
1968	299.7	2.0	117.0	50.0	138.0	44.0	781.5
1969	331.0	2.0	128.0	46.0	156.0	48.0	855.0
<u>CAR</u>							
1960	56.0	4.0	7.0	4.0	23.0	2.0	119.0
1965	52.0	8.0	13.0	4.0	20.0	3.0	129.0
1968	67.0	11.0	15.0	5.0	27.0	3.0	165.0
1969	70.0	10.0	15.0	6.0	29.0	4.0	173.0
<u>Chad</u>							
1960	83.0	-	6.0	8.0	27.0	2.0	151.0
1965	99.8	-	10.0	9.0	34.0	3.0	195.0
1968	106.0	-	12.0	11.0	35.0	3.0	209.0
1969	105.0	-	14.0	13.0	38.0	3.0	217.0
<u>Congo (DR)</u>							
1960	374.0	98.0	189.0	27.0	141.0	92.0	1,202.0
1965	277.0	88.0	214.0	25.0	191.0	75.0	1,193.0
1968	311.0	151.8	315.1	35.2	196.9	83.0	1,381.5
1969	301.1	162.1	347.0	42.2	218.0	89.6	1,464.5
<u>Congo PR</u>							
1960	18.0	1.0	11.0	8.0	23.0	16.0	93.0
1965	22.0	1.0	19.0	13.0	33.0	22.0	144.0
1968	28.0	2.0	25.0	21.0	53.0	28.0	203.0
1969	29.0	1.0	26.0	20.0	55.0	30.0	214.0
<u>Gabon</u>							
1960	28.7	17.3	7.3	8.7	17.6	5.5	99.7
1965	46.8	29.3	8.8	10.9	18.6	10.5	151.6
1968	49.0	44.0	13.0	14.0	21.0	13.0	189.0
1969	58.0	51.0	15.0	16.0	23.0	14.0	216.0
<u>Equat.l Guinea</u>							
1960	24.0	-	1.0	2.0	2.0	1.0	34.0
1965	36.3	-	2.0	3.0	3.0	1.0	51.2
1968	43.0	-	3.0	4.0	4.0	1.0	64.0
1969	46.0	-	3.0	4.0	5.0	1.0	69.0
<u>Burundi</u>							
1960	82.0	-	4.0	4.0	8.0	2.0	82.0
1965	104.6	-	6.2	3.6	11.3	1.9	144.1
1968	121.0	-	7.0	4.0	14.0	2.0	170.0
1969	132.0	-	8.0	5.0	14.0	2.0	184.0
<u>Rwanda</u>							
1960	95.0	3.0	2.0	4.0	5.0	1.0	119.0
1965	100.0	3.0	5.0	4.0	9.0	1.0	137.0
1968	108.6	3.7	6.0	7.3	13.7	1.9	164.3
1969	113.0	4.0	7.0	8.0	15.0	2.0	174.0
<u>EAST AFRICA</u>							
<u>Botswana</u>							
1960	19.0	-	3.0	1.0	3.0	2.0	33.0
1965	22.6	0.3	5.6	2.9	6.0	3.8	50.2
1968	28.0	-	6.0	3.0	8.0	4.0	60.0
1969	30.0	-	7.0	3.0	8.0	4.0	64.0

NATIONAL ACCOUNTS TABLES
TABLE A1 (ctd)

	<u>Agri-</u> <u>culture</u>	<u>Mining</u>	<u>Manuf-</u> <u>acturing</u> ^{a)}	<u>Const-</u> <u>ruction</u>	<u>Commerce</u>	<u>Transport</u>	<u>Total</u> <u>inc. other</u>
<u>Ethiopia</u>							
1960	577.0	1.0	59.0	52.0	61.0	27.0	892.0
1965	789.1	3.8	94.2	66.3	104.3	44.4	1,277.3
1968	813.6	5.6	140.0	82.4	118.0	52.8	1,434.4
1969	829.0	6.0	153.0	82.0	122.0	58.0	1,489.0
<u>Kenya</u>							
1960	271.0	2.0	78.0	47.0	106.0	55.0	747.0
1965	323.5	3.8	125.1	37.5	134.0	77.3	925.3
1968	416.6	6.5	166.7	65.6	172.3	106.5	1,237.5
1969	436.8	6.7	183.6	73.7	180.2	112.3	1,333.4
<u>Lesotho</u>							
1960	24.0	-	-	-	2.0	-	33.0
1965	34.2	0.9	0.7	1.0	2.6	0.5	52.4
1968	49.0	1.0	1.0	1.0	4.0	1.0	74.0
1969	49.0	2.0	1.0	1.0	5.0	1.0	77.0
<u>Madagascar</u>							
1960	166.1	2.0	39.0	17.0	69.0	32.0	436.1
1965	186.0	2.0	59.0	24.0	76.0	40.0	545.0
1968	213.0	3.0	73.0	87.0	47.0	74.0	644.0
1969	220.0	3.0	76.0	90.0	49.0	78.0	673.0
<u>Malawi</u>							
1960	73.5	-	7.2	4.8	14.4	5.8	128.0
1965	137.9	0.1	13.5	4.4	18.3	7.8	208.9
1968	142.3	0.2	23.4	7.8	22.8	11.7	243.9
1969	149.8	0.5	26.9	13.2	25.2	12.7	266.0
<u>Mauritius</u>							
1960	21.2	0.2	15.5	12.6	15.1	16.1	107.1
1965	35.6	0.2	27.7	9.9	18.4	18.4	145.4
1968	34.7	-	27.7	8.8	20.0	18.4	148.8
1969	39.0	-	31.0	9.0	21.0	19.0	160.0
<u>Somalia</u>							
1960	43.0	8.0	7.0	4.0	11.0	6.0	97.0
1965	56.0	8.0	11.0	6.0	17.0	7.0	130.0
1968	58.0	9.0	15.0	8.0	20.0	10.0	151.0
1969	59.0	11.0	17.0	8.0	20.0	10.0	158.0
<u>Swaziland</u>							
1960	11.0	5.0	2.0	1.0	5.0	2.0	34.0
1965	23.6	11.0	6.7	4.0	6.3	5.2	67.1
1968	21.0	12.0	12.0	3.0	10.0	7.0	76.0
1969	22.0	13.0	13.0	3.0	10.0	8.0	81.0
<u>Tanzania</u>							
1960	331.3	21.0	36.0	18.0	77.0	52.0	650.0
1965	388.0	25.0	59.0	31.0	120.0	63.0	859.0
1968	430.2	20.8	86.3	48.3	166.7	96.8	1,071.7
1969	447.2	25.1	99.1	52.1	178.2	94.7	1,132.7
<u>Uganda</u>							
1960	310.0	5.0	29.0	14.0	75.0	23.0	557.0
1965	444.8	17.1	45.2	17.6	112.7	29.1	713.0
1968	475.4	9.2	57.1	21.1	133.8	35.4	912.0
1969	552.2	9.7	61.2	23.4	143.1	39.1	1,026.2
<u>Zambia</u>							
1960	63.6	300.4	34.7	28.6	50.7	29.1	578.5
1965	76.7	292.5	63.4	55.2	127.7	45.4	768.3
1968	88.3	365.0	121.9	93.8	169.7	75.5	1,121.6
1969	98.0	473.0	131.0	97.0	184.0	85.0	1,297.0

NATIONAL ACCOUNTS TABLES

TABLE A1 (ctd)

	<u>Agri- culture</u>	<u>Mining</u>	<u>Manufac- turing</u>	<u>Const- ruction</u>	<u>Commerce</u>	<u>Transport</u>	<u>Total inc. other</u>
<u>OTHER AFRICA</u>							
<u>Angola</u>							
1960	156.2	18.0	33.0	5.0	132.0	25.0	542.0
1965	199.0	22.0	45.0	4.0	175.0	30.0	717.0
1968	234.0	42.0	60.0	8.0	210.0	37.0	904.0
1969	261.0	60.0	66.0	9.0	220.0	40.0	995.0
<u>Mozambique</u>							
1960	218.4	3.0	68.0	4.0	126.0	13.0	655.0
1965	261.0	3.0	118.0	13.0	177.0	19.0	904.0
1968	347.0	4.0	180.0	17.0	223.0	23.0	1,187.0
1969	352.0	4.0	192.0	19.0	233.0	25.0	1,242.0
<u>Namibia</u>							
1960	42.0	69.0	15.0	3.0	20.0	13.0	195.0
1965	102.0	139.0	20.0	8.0	19.0	17.0	341.0
1968	120.0	146.0	21.0	11.0	18.0	23.0	382.0
1969	124.0	173.0	23.0	13.0	19.0	25.0	423.0
<u>Reunion</u>							
1960	15.0	11.0	18.0	3.0	17.0	9.0	95.0
1965	25.0	21.0	43.0	7.0	34.0	16.0	190.0
1968	32.0	26.0	55.0	10.0	46.0	21.0	253.0
1969	33.0	27.0	59.0	10.0	50.0	22.0	268.0
<u>S. Rhodesia</u>							
1960	149.2	53.5	153.7	58.0	141.1	72.2	794.3
1965	188.6	67.5	227.2	44.5	169.0	85.8	992.2
1968	175.8	66.9	258.3	66.5	185.4	86.5	1,095.1
1969	229.3	86.8	290.2	70.8	197.4	97.0	1,249.1
<u>South Africa</u>							
1960	823.2	918.4	1,451.8	196.0	1,134.0	691.6	6,763
1965	1,045.8	1,381.8	2,557.8	403.2	1,824.2	994.0	10,520
1968	1,316.0	1,639.4	3,154.2	539.0	2,420.6	1,272.6	13,497
1969	1,435.0	1,747.0	3,530.0	572.0	2,755.0	1,373.0	14,919

Sources: National Publications

UN National Accounts Yearbook, 1969

UN Monthly Statistical Bulletin, Issues in 1970 and 1971

MCA estimates

a/ and electricity.

NATIONAL ACCOUNTS TABLES

TABLE A2 EXPENDITURE ON GDP AT CURRENT MARKET PRICES OF AFRICAN COUNTRIES 1960 TO 1969

Sub-region and Country		Private Consumption	Government Consumption	GDCF ^{a/}	Net ^{b/} Exports	GDP
		(in million US dollars)				
<u>North Africa</u>						
<u>Algeria</u>	1960	1,967.3	388.8	942.3	-669.0	2,638.6
	1965	1,756.1	612.1	490.2	70.3	2,928.7
	1968	2,008.0	715.0	733.0	- 11.0	3,445.0
	1969	2,088.0	752.0	758.0	-118.0	3,480.0
<u>Libya</u>	1960	203.1	40.0	90.0	- 24.1	309.0
	1965	577.6	174.7	408.0	324.0	1,484.3
	1968	1,039.9	363.2	791.8	990.4	3,185.3
	1969	1,133.0	436.0	856.0	1,243.0	3,668.0
<u>Morocco</u>	1960	1,347.8	241.1	189.7	17.7	1,796.3
	1965	1,924.9	353.7	284.6	37.6	2,600.8
	1968	2,126.4	419.0	531.6	- 51.4	3,025.6
	1969	2,328.1	454.5	397.2	- 33.6	3,146.2
<u>Sudan</u>	1960	852.0	103.0	131.0	- 3.0	1,093.0
	1965	1,023.0	161.0	231.0	- 31.0	1,384.0
	1968	1,263.6	225.2	229.8	- 43.6	1,675.0
	1969	1,360.0	274.0	248.0	- 30.0	1,852.0
<u>Tunisia</u>	1960	482.7	106.8	92.1	- 44.9	636.7
	1965	665.0	151.1	263.6	-135.1	944.6
	1968	706.9	210.9	229.5	- 57.7	1,090.0
	1969	749.0	285.0	250.0	-101.1	1,183.0
<u>UAR</u>	1960	2,284.6	588.6	518.9	- 42.8	3,349.3
	1965	3,641.6	1,108.4	1,026.3	-180.9	5,495.4
	1968	4,137.7	1,482.6	731.9	-140.9	6,201.3
	1969	4,380.0	1,555.0	968.0	-298.0	6,605.0
<u>West Africa</u>						
<u>Dahomey</u>	1960	93.8	25.0	23.0	- 10.0	131.8
	1965	135.9	27.7	22.5	- 18.8	167.3
	1968	159.0	28.0	35.0	- 21.0	201.0
	1969	173.0	32.0	38.0	- 19.0	224.0
<u>Gambia</u>	1960	16.0	7.0	3.0	- 1.0	25.0
	1965	29.5	4.4	4.8	- 2.6	36.1
	1968	34.0	6.0	8.0	- 5.0	43.0
	1969	35.0	6.0	9.0	- 6.0	44.0
<u>Ghana</u>	1960	680.1	94.1	211.7	- 49.0	936.4
	1965	1,229.9	200.9	266.6	-121.5	1,575.9
	1968	1,433.7	355.7	221.5	14.7	2,025.6
	1969	1,593.5	403.8	253.8	30.4	2,281.5

NATIONAL ACCOUNT TABLES

TABLE A2 (Cont'd.)

Sub-region and Country		Private Consumption	Government Consumption	GDP ^{a/}	Net Exports ^{b/}	GDP
West Africa (cont'd)		(in million US dollars)				
<u>Guinea</u>	1960	155.0	29.0	11.0	1.0	196.0
	1965	175.0	57.0	19.0	2.0	253.0
	1968	183.0	68.0	19.0	10.0	280.0
	1969	195.0	71.0	22.0	2.0	290.0
<u>Ivory Coast</u>						
	1960	341.0	52.9	73.6	39.3	506.8
	1965	563.2	116.8	161.9	20.9	862.8
	1968	731.5	151.0	200.0	93.0	1,175.5
	1969	789.3	164.0	250.7	100.0	1,304.0
<u>Liberia</u>	1960	147.1	24.0	30.0	21.0	222.1
	1965	168.1	35.6	49.6	44.0	297.3
	1968	187.0	42.5	44.0	77.2	350.7
	1969	199.0	43.7	41.0	102.3	386.0
<u>Mali</u>	1960	187.8	35.0	27.0	- 8.0	241.8
	1965	263.6	52.5	52.0	- 27.4	340.7
	1968	324.0	82.0	63.0	- 21.0	448.0
	1969	342.0	84.0	73.0	- 17.0	482.0
<u>Mauritania</u>						
	1960	53.4	17.0	26.0	- 27.0	69.4
	1965	76.0	24.0	19.1	21.0	139.0
	1968	88.5	20.3	44.0	17.0	169.8
	1969	96.0	23.0	49.0	16.0	184.0
<u>Niger</u>	1960	138.3	25.3	16.5	0.3	180.4
	1965	208.1	30.9	29.6	- 1.6	267.0
	1968	208.0	41.0	35.0	- 1.0	283.0
	1969	228.0	42.0	41.0	- 12.0	299.0
<u>Nigeria</u>	1960	2,933.8	215.3	361.5	- 180.6	3,330.0
	1965	3,786.4	272.4	655.5	- 100.8	4,613.5
	1968	3,821.0	298.0	584.0	- 13.0	4,690.0
	1969	4,122.0	329.0	643.0	122.0	5,216.0
<u>Senegal</u>	1960	358.8	123.3	54.2	- 11.2	525.1
	1965	504.3	124.3	85.9	- 23.4	691.1
	1968	526.3	141.0	97.0	- 24.0	740.3
	1969	524.2	147.0	110.0	- 68.0	713.2
<u>Sierra Leone</u>						
	1960	165.0	18.0	15.0	5.0	204.0
	1965	249.7	23.8	48.0	- 12.4	309.1
	1968	293.8	27.0	54.8	9.1	384.7
	1969	315.0	29.0	68.0	- 5.0	407.0

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TABLE A2 (Cont'd.)

Sub-region and Country		Private Consumption	Government Consumption	GDCF ^{a/}	Net ^{b/} Exports	GDP
(in million US dollars)						
<u>West Africa (cont'd.)</u>						
<u>Togo</u>	1960	86.7	15.0	12.0	- 11.0	102.7
	1965	116.6	12.7	37.0	- 9.7	156.6
	1968	165.0	17.0	31.0	- 2.0	215.0
	1969	186.0	17.0	34.0	- 3.0	234.0
<u>Upper Volta</u>	1960	129.2	25.0	13.0	- 3.0	164.2
	1965	168.5	22.8	30.9	- 18.9	203.3
	1968	197.0	21.0	35.0	- 19.0	234.0
	1969	219.0	23.0	50.0	- 33.0	259.0
<u>Central Africa</u>						
<u>Cameroon</u>	1960	315.0	61.0	45.0	- 20.0	441.0
	1965	430.0	111.6	100.4	- 9.3	632.7
	1968	588.5	145.7	115.5	- 7.1	868.8
	1969	664.0	161.0	124.0	- 9.0	958.0
<u>CAR</u>	1960	91.0	23.0	20.0	- 6.0	128.0
	1965	111.6	29.0	27.3	- 8.0	159.6
	1968	127.0	35.0	37.0	- 9.0	182.0
	1969	133.0	33.0	35.0	- 10.0	191.0
<u>Chad</u>	1960	132.0	21.0	18.0	- 11.0	160.0
	1965	179.7	30.0	19.4	- 16.7	212.4
	1968	190.0	38.0	29.0	- 23.0	234.0
	1969	215.0	41.0	34.0	- 46.0	244.0
<u>Congo DR</u>	1960	774.0	228.0	173.0	- 117.0	1,292.0
	1965	802.0	281.0	199.0	- 52.0	1,334.0
	1968	779.1	320.9	209.4	- 102.1	1,491.5
	1969	821.6	295.2	417.3	- 66.9	1,601.0
<u>Congo PR</u>	1960	80.0	19.0	52.0	- 52.0	99.0
	1965	84.0	27.0	33.0	- 9.0	153.0
	1968	116.0	37.0	72.0	- 8.0	217.0
	1969	128.0	48.0	70.0	- 16.0	230.0
<u>Gabon</u>	1960	51.3	15.5	44.8	- 2.2	113.8
	1965	86.3	30.4	45.9	- 16.5	179.1
	1968	97.0	50.0	55.0	- 24.0	226.0
	1969	116.0	55.0	64.0	- 23.0	258.0
<u>Equat¹ Guinea</u>	1960	18.0	3.0	4.0	- 10.0	35.0
	1965	26.2	6.0	8.9	- 11.7	52.8
	1968	33.0	10.0	13.0	- 10.0	66.0
	1969	36.0	11.0	14.0	- 10.0	71.0
<u>Burundi</u>	1960	103.0	3.0	7.0	- 1.0	112.0
	1965	137.4	10.7	8.8	- 3.3	153.6
	1968	165.0	14.0	11.0	- 6.0	184.0
	1969	173.0	16.0	13.0	- 4.0	198.0

NATIONAL ACCOUNT TABLES

TABLE A2 (cont'd.)

Sub-region and Country		Private Consumption	Government Consumption	GDCP ^{a/}	Net ^{b/} Exports	GDP
<u>Central Africa</u> (cont'd.)			(in million US dollars)			
<u>Rwanda</u>	1960	82.0	19.0	19.0	4.0	124.0
	1965	95.0	27.0	23.0	- 1.0	144.0
	1968	115.3	34.0	27.0	- 3.3	173.0
	1969	123.0	38.0	27.0	- 5.0	183.0
<u>East Africa</u>						
<u>Botswana</u>	1960	31.0	5.0	3.0	- 4.0	35.0
	1965	40.8	11.0	9.8	- 8.6	53.0
	1968	66.0	17.0	11.0	- 30.0	64.0
	1969	69.0	19.0	11.0	- 31.0	68.0
<u>Ethiopia</u>	1960	770.0	64.0	108.0	- 9.0	933.0
	1965	1,089.6	130.3	164.4	- 26.1	1,358.2
	1968	1,211.0	156.0	217.0	- 48.0	1,536.0
	1969	1,218.0	161.0	230.0	- 8.0	1,601.0
<u>Kenya</u>	1960	587.0	84.0	151.0	- 21.0	801.0
	1965	696.1	148.1	145.6	- 9.8	999.6
	1968	911.7	208.0	259.3	- 42.3	1,336.7
	1969	982.5	225.7	259.0	- 26.0	1,441.2
<u>Lesotho</u>	1960	37.4	5.7	0.7	- 9.2	34.6
	1965	58.6	9.7	6.3	- 20.8	53.8
	1968	80.0	18.0	9.0	- 29.0	78.0
	1969	83.0	19.0	10.0	- 30.0	82.0
<u>Madagascar</u>	1960	364.4	97.3	53.3	- 31.3	483.7
	1965	441.0	135.0	85.0	- 45.0	616.0
	1968	515.0	161.0	110.0	- 51.0	735.0
	1969	540.0	172.0	126.0	- 66.0	772.0
<u>Malawi</u>	1960	112.9	18.2	20.9	- 20.0	132.0
	1965	183.8	31.0	28.3	- 25.9	217.2
	1968	210.0	42.7	40.3	- 36.0	257.0
	1969	222.7	44.9	50.6	- 36.7	281.5
<u>Mauritius</u>	1960	98.3	16.9	34.9	- 29.0	121.1
	1965	114.1	24.9	27.8	- 0.9	165.9
	1968	128.0	27.7	25.4	- 7.1	174.0
	1969	129.0	28.0	27.0	- 2.0	186.0
<u>Somalia</u>	1960	78.0	21.0	16.0	- 8.0	107.0
	1965	114.0	28.0	25.0	- 22.5	145.0
	1968	118.0	39.0	32.0	- 19.0	170.0
	1969	125.0	42.0	34.0	- 23.0	178.0
<u>Swaziland</u>	1960	18.0	6.0	6.0	5.0	35.0
	1965	34.0	9.0	21.0	6.3	70.3
	1968	48.0	11.0	17.0	4.0	80.0
	1969	53.0	11.0	15.0	7.0	86.0
<u>Tanzania</u>	1960	536.2	64.0	78.0	12.6	690.8
	1965	667.2	100.0	148.0	8.8	824.0
	1968	852.2	128.2	206.9	- 15.8	1,171.5
	1969	908.7	140.0	204.4	- 1.4	1,251.7

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TABLE A2 (cont'd.)

Sub-region and Country		Private Consumption	Government Consumption	GDCF ^{a/}	Net ^{b/} Exports	GDP
East Africa (cont'd.)		(in million US dollars)				
<u>Uganda</u>	1960	440.0	49.0	61.0	23.0	573.0
	1965	656.6	87.2	115.5	9.8	869.1
	1968	742.0	111.6	141.4	14.2	1,009.2
	1969	817.2	124.6	184.8	9.5	1,136.1
<u>Zambia</u>	1960	282.0	59.1	139.2	105.3	585.6
	1965	420.3	116.5	218.3	154.8	909.9
	1968	659.4	173.0	443.7	93.1	1,369.2
	1969	691.0	178.0	425.0	349.0	1,643.0
<u>Other Africa</u>						
<u>Angola</u>	1960	403.4	67.7	83.2	14.7	569.0
	1965	533.0	118.0	97.0	25.0	773.0
	1968	669.0	166.0	180.0	- 14.0	1,001.0
	1969	705.0	187.0	189.0	24.0	1,105.0
<u>Mozambique</u>	1960	516.2	97.0	82.6	- 12.8	683.0
	1965	727.0	141.0	106.0	- 25.0	949.0
	1968	935.0	191.0	150.0	- 26.0	1,250.0
	1969	996.0	211.0	170.0	- 68.0	1,309.0
<u>Namibia</u>	1960	166.0	31.0	29.0	- 14.0	212.0
	1965	253.0	52.0	42.0	- 14.0	361.0
	1968	325.0	69.0	63.0	- 51.0	406.0
	1969	357.0	77.0	70.0	- 55.0	449.0
<u>Reunion</u>	1960	77.0	15.0	25.0	- 14.0	103.0
	1965	179.0	26.9	52.5	- 52.8	205.6
	1968	242.5	37.0	63.0	- 66.0	276.5
	1969	268.0	40.0	72.0	- 87.0	293.0
<u>S. Rhodesia</u>	1960	565.1	88.5	194.3	- 4.0	- 844.2
	1965	708.1	131.3	140.6	- 86.8	1,066.8
	1968	629.6	150.6	238.6	- 43.1	1,175.7
	1969	888.9	161.0	254.0	33.1	1,337.0
<u>South Africa</u>	1960	4,855.2	746.2	1,671.6	308.0	7,581.0
	1965	7,019.6	1,302.0	3,276.0	- 144.2	11,453.4
	1968	9,156.0	1,754.2	3,292.8	345.8	14,548.8
	1969	10,060.4	2,039.8	4,058.6	29.4	16,188.2

Sources: UN: National Accounts Yearbook, 1969

UN: Monthly Bulletin of Statistics, Issues in 1970 and 1971
National Publications
ECA estimates.

a/ Gross Domestic Capital Formation

b/ Exports less imports of goods and services.

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TABLE A3 GROSS DOMESTIC EXPENDITURE AT 1960 MARKET PRICES
IN DEVELOPING COUNTRIES OF AFRICA (IN PERCENTAGES)

Subregion and Country		Consumption		GDCF ^{a/}	Net Exports ^{b/}	Total
		Private	Public			
(in percentages)						
<u>North Africa</u>						
<u>Algeria</u>	1960	74.6	14.7	35.7	-25.0	100.0
	1969	59.8	21.7	21.9	-3.4	100.0
<u>Libya</u>	1960	65.7	13.0	29.1	-7.8	100.0
	1969	33.2	11.5	22.6	32.7	100.0
<u>Morocco</u>	1960	75.0	13.4	10.6	1.0	100.0
	1969	74.1	14.4	12.6	-1.1	100.0
<u>Sudan</u>	1960	78.9	9.4	12.0	-0.3	100.0
	1969	72.8	15.1	13.7	-1.6	100.0
<u>Tunisia</u>	1960	74.8	16.6	14.3	-5.7	100.0
	1969	63.6	23.9	21.0	-8.5	100.0
<u>UAR</u>	1960	68.2	17.6	15.5	-1.3	100.0
	1969	66.4	23.5	14.6	-4.5	100.0
<u>West Africa</u>						
<u>Dahomey</u>	1960	71.1	19.0	17.5	-7.6	100.0
	1969	77.0	14.5	17.1	-8.6	100.0
<u>Gambia</u>	1960	64.0	28.1	12.0	-4.1	100.0
	1969	79.5	13.6	20.5	-13.6	100.0
<u>Ghana</u>	1960	72.6	10.0	22.6	-5.2	100.0
	1969	73.2	15.7	9.9	1.2	100.0
<u>Guinea</u>	1960	79.1	14.8	5.6	0.5	100.0
	1969	67.9	24.0	7.4	0.6	100.0
<u>Ivory Coast</u>	1960	67.3	10.4	14.5	7.8	100.0
	1969	60.8	12.5	19.1	7.6	100.0
<u>Liberia</u>	1960	66.2	10.8	13.5	9.1	100.0
	1969	52.2	11.2	10.5	26.1	100.0
<u>Mali</u>	1960	77.6	14.5	11.2	-3.3	100.0
	1969	71.4	17.1	14.9	-3.4	100.0
<u>Mauritania</u>	1960	77.0	24.4	37.5	-38.9	100.0
	1969	53.7	12.1	25.8	8.4	100.0
<u>Niger</u>	1960	76.7	14.0	9.2	0.1	100.0
	1969	76.6	13.9	13.5	-4.0	100.0
<u>Nigeria</u>	1960	88.1	6.5	10.8	-5.4	100.0
	1969	79.4	6.2	12.1	2.3	100.0
<u>Senegal</u>	1960	68.3	23.5	10.3	-2.1	100.0
	1969	74.1	20.1	15.1	-9.3	100.0
<u>Sierra Leone</u>	1960	80.9	8.8	7.4	2.9	100.0
	1969	77.4	7.1	16.7	-1.2	100.0
<u>Togo</u>	1960	84.4	14.6	11.7	-10.7	100.0
	1969	79.4	7.3	14.6	-1.3	100.0

NATIONAL ACCOUNTS TABLES

TABLE A3 GROSS DOMESTIC EXPENDITURE AT 1960 MARKET PRICES
IN DEVELOPING COUNTRIES OF AFRICA (IN PERCENTAGES)
(Cont'd)

Subregion and Country		Consumption		GDCF ^a / (in percentages)	Net Exports ^b / (in percentages)	Total
		Private	Public			
<u>West Africa (Cont'd)</u>						
<u>Upper Volta</u>	1960	78.7	15.2	7.9	-1.8	100.0
	1969	85.7	8.2	17.9	-11.8	100.0
<u>Central Africa</u>						
<u>Cameroon</u>	1960	71.4	13.8	10.2	4.5	100.0
	1969	70.2	16.3	12.6	0.9	100.0
<u>CAR</u>	1960	71.1	18.0	15.6	-4.7	100.0
	1969	70.7	16.6	17.7	-5.0	100.0
<u>Chad</u>	1960	82.5	13.1	11.3	-6.3	100.0
	1969	89.1	15.5	12.8	-17.4	100.0
<u>Congo DR</u>	1960	59.9	17.6	13.4	9.1	100.0
	1969	51.3	18.4	26.1	4.2	100.0
<u>Congo PR</u>	1960	80.8	19.2	52.5	-52.5	100.0
	1969	56.6	20.4	29.8	-6.8	100.0
<u>Gabon</u>	1960	45.1	13.6	39.3	2.0	100.0
	1969	46.5	20.9	24.3	8.2	100.0
<u>Eq¹ Guinea</u>	1960	51.3	8.6	11.5	28.6	100.0
	1969	53.4	14.7	18.6	13.3	100.0
<u>Burundi</u>	1960	91.9	2.7	6.3	-0.9	100.0
	1969	87.0	8.3	6.8	-2.1	100.0
<u>Rwanda</u>	1960	66.1	15.3	15.3	3.2	100.0
	1969	67.2	20.8	14.7	-2.7	100.0
<u>East Africa</u>						
<u>Botswana</u>	1960	88.6	14.3	8.5	-11.4	100.0
	1969	101.9	34.6	20.1	-56.6	100.0
<u>Ethiopia</u>	1960	82.5	6.9	11.6	-1.0	100.0
	1969	75.8	10.2	14.5	-0.5	100.0
<u>Kenya</u>	1960	73.3	10.5	18.8	-2.6	100.0
	1969	67.8	15.8	18.2	-1.8	100.0
<u>Lesotho</u>	1960	108.1	16.5	2.0	-26.6	100.0
	1969	101.2	22.7	11.9	-35.8	100.0
<u>Madagascar</u>	1960	75.3	20.1	11.0	-6.5	100.0
	1969	70.3	22.0	16.1	-8.4	100.0
<u>Malawi</u>	1960	85.5	13.8	15.8	-15.1	100.0
	1969	80.0	15.3	17.2	-12.5	100.0
<u>Mauritius</u>	1960	81.2	14.0	28.8	-24.0	100.0
	1969	69.3	15.1	14.5	1.1	100.0
<u>Somalia</u>	1960	72.9	19.6	15.0	-7.5	100.0
	1969	73.1	21.4	17.3	-11.7	100.0

NATIONAL ACCOUNTS TABLES

TABLE A3 GROSS DOMESTIC EXPENDITURE AT 1960 MARKET PRICES
IN DEVELOPING COUNTRIES OF AFRICA (IN PERCENTAGES)
(Cont'd)

Subregion and Country		Consumption		GDCP ^a / (in percentages)	Net Exports ^b / (in percentages)	Total
		Private	Public			
<u>East Africa (Cont)</u>						
<u>Swaziland</u>	1960	51.4	17.1	17.1	14.3	100.0
	1969	61.8	12.7	17.3	8.2	100.0
<u>Tanzania</u>	1960	77.6	9.3	11.3	1.8	100.0
	1969	71.3	11.7	17.1	-0.1	100.0
<u>Uganda</u>	1960	76.8	8.6	10.6	4.0	100.0
	1969	72.1	10.9	16.2	0.8	100.0
<u>Zambia</u>	1960	48.1	10.1	23.8	18.0	100.0
	1969	42.6	10.7	25.6	21.0	100.0
<u>Other Africa</u>						
<u>Angola</u>	1960	70.9	11.9	14.6	2.6	100.0
	1969	64.7	16.5	16.7	2.1	100.0
<u>Mozambique</u>	1960	75.6	14.2	12.1	-1.9	100.0
	1969	76.2	16.0	12.9	-5.2	100.0
<u>Namibia</u>	1960	78.3	14.6	13.7	-6.6	100.0
	1969	79.5	17.1	15.6	-12.2	100.0
<u>Reunion</u>	1960	74.8	14.6	24.2	-13.6	100.0
	1969	91.4	13.7	24.6	-29.7	100.0
<u>S. Rhodesia</u>	1960	67.0	10.5	23.0	-0.5	100.0
	1969	66.3	12.1	19.1	2.5	100.0
<u>S. Africa</u>	1960	64.0	9.8	22.1	4.1	100.0
	1969	62.1	12.6	25.1	0.2	100.0

Source: ECA estimates.

a/ Gross Domestic Capital Formation.

b/ Exports of Goods and Services less Imports of Goods and Services.

TABLE A4 AVERAGE ANNUAL GROWTH RATES OF RESOURCES AND
USES (AT CONSTANT PRICES) BY SUBREGION OF AFRICA, 1960 to 1969

North Africa Resources	Average Annual Growth Rates in Percentages			
	1960-65	1965-69	1968-69	1960-69
GDP	5.7	4.6	3.0	5.2
Imports	1.2	3.7	10.8	2.3
<u>Uses</u>				
GDCP ^a / Pte consumption	4.3	2.5	4.3	3.5
Govt consumption	3.5	3.4	3.1	3.4
Exports	8.7	7.4	6.1	8.1
	6.1	6.1	6.3	6.1

TABLE A4 AVERAGE ANNUAL GROWTH RATES OF RESOURCES AND
USES (AT CONSTANT PRICES) BY SUBREGION OF AFRICA, 1960 TO 1969 (Cont'd.)

	<u>Average Annual Growth Rates in Percentages</u>			
	<u>1960-65</u>	<u>1965-69</u>	<u>1968-69</u>	<u>1960-69</u>
<u>West Africa</u>				
<u>Resources</u>				
GDP	4.6	1.5	2.1	3.2
Imports	2.6	-0.8	10.2	1.1
<u>Uses</u>				
<u>GDCA^a</u>	7.3	-0.7	6.7	3.7
Pte consumption	4.0	0.3	0.9	2.3
Govt consumption	3.7	4.0	1.2	3.8
Exports	3.3	4.0	12.2	3.6
<u>Central Africa</u>				
<u>Resources</u>				
GDP	1.5	4.9	5.8	3.0
Imports	-2.9	5.3	-4.8	0.7
<u>Uses</u>				
<u>GDCA^a</u>	1.3	12.8	22.7	6.3
Pte consumption	1.1	3.4	5.9	2.1
Govt consumption	4.9	4.2	-0.1	4.6
Exports	-3.5	4.6	-10.9	0.1
<u>East Africa</u>				
<u>Resources</u>				
GDP	4.5	5.4	5.8	4.9
Imports	3.1	5.1	-3.6	4.0
<u>Uses</u>				
<u>GDCA^a</u>	5.3	9.4	1.2	7.1
Pte consumption	3.6	4.2	2.4	3.9
Govt consumption	8.2	6.5	3.5	7.4
Exports	3.6	5.5	9.0	4.4
<u>Other Dev. Africa</u>				
<u>Resources</u>				
GDP	5.1	4.8	6.3	5.0
Imports	5.5	2.1	-0.2	3.9
<u>Uses</u>				
<u>GDCA^a</u>	0.1	10.9	5.4	4.8
Pte consumption	5.0	4.8	4.4	5.0
Govt consumption	7.9	6.4	6.3	7.2
Exports	6.9	-1.7	4.0	3.0

Source: ECA estimates.

^a/ Gross Domestic Capital Formation.

NATIONAL ACCOUNTS TABLES

TABLE A5 GROSS DOMESTIC PRODUCT PER HEAD IN FORTY-SIX DEVELOPING
AFRICAN COUNTRIES, 1960, 1965, 1968 and 1969
(IN US\$ AT CURRENT FACTOR COSTS)

Sub-region and country	1960	1965	1968	1969	Share of Agriculture in GDP; 1969 in %
<u>North Africa</u>					
Algeria	228	217	231	226	18
Libya	199	870	1,701	1,895	3
Morocco	139	179	186	186	29
Sudan	83	94	103	111	38
Tunisia	143	187	195	204	15
UAR	121	166	168	174	31
<u>West Africa</u>					
Dahomey	58	64	74	79	43
Gambia	76	96	103	109	56
Ghana	125	183	225	246	42
Guinea	58	68	70	71	34
Ivory Coast	117	170	208	222	36
Liberia	207	260	292	315	23
Mali	54	69	82	85	49
Mauritania	72	122	137	145	40
Niger	59	76	72	74	60
Nigeria	61	74	70	74	55
Senegal	145	170	173	162	31
Sierra Leone	88	122	138	140	35
Togo	63	87	112	119	44
Upper Volta	35	38	41	45	49
<u>Central Africa</u>					
Burundi	37	45	49	52	72
Cameroon	87	108	140	150	39
CAR	95	94	113	116	40
Chad	51	59	59	60	48
Congo (DR)	68	61	67	69	21
Congo (PR)	122	171	226	234	14
Equatorial Guinea	135	192	230	246	67
Gabon	221	327	399	452	27
Rwanda	43	44	48	50	65
<u>East Africa</u>					
Botswana	65	90	101	105	47
Ethiopia	43	57	60	61	56
Kenya	92	99	121	126	33
Lesotho	37	55	74	75	64
Madagascar	81	90	99	100	33
Malawi	37	53	58	61	56
Mauritius	162	191	181	190	24
Somalia	44	52	56	57	37
Swaziland	106	184	191	198	27
Tanzania	63	74	85	88	39
Uganda	74	97	99	108	54
Zambia	181	209	284	320	8

NATIONAL ACCOUNTS TABLES

TABLE A5 (Cont'd.)

Sub-region and country	1960	1965	1968	1969	Share of Agriculture in GDP; 1969 in %
<u>Other Developing Africa</u>					
Angola	115	139	165	178	26
Mozambique	102	130	161	165	28
Namibia	369	594	628	683	29
Reunion	281	480	582	596	12
Rhodesia	218	233	232	256	18

Source: ECA secretariat.

TABLE SOURCES AND USES OF AVAILABLE RESOURCES BY SUB-REGIONS
OF DEVELOPING AFRICA (BASED ON CURRENT MARKET PRICES)
1960, 1965 AND 1969

Sub-region	1960	1965	1969
<u>North Africa</u>		(Percentages)	
<u>Sources</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
GDP	92.3	99.9	103.3
Imports less Exports	<u>7.7</u>	<u>0.1</u>	<u>-3.3</u>
<u>Uses</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
GDGF a/	20.0	18.2	17.5
Private Consumption	72.7	64.6	60.4
Government Consumption	15.0	17.3	18.8
Exports less Imports	-7.7	-0.1	3.3
<u>West Africa</u>			
<u>Sources</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
GDP	96.7	97.5	101.7
Imports less Exports	<u>3.3</u>	<u>2.5</u>	<u>-1.7</u>
<u>Uses</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
GDGF a/	12.8	14.9	13.7
Private Consumption	80.2	77.4	73.1
Government Consumption	10.3	10.2	11.5
Exports less Imports	-3.3	-2.5	1.7
<u>Central Africa</u>			
<u>Sources</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
GDP	103.3	101.7	100.7
Imports less Exports	<u>-3.3</u>	<u>-1.7</u>	<u>-0.7</u>
<u>Uses</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
GDGF a/	15.3	15.4	20.3
Private Consumption	65.7	64.6	61.3
Government Consumption	15.7	18.3	17.7
Exports less Imports	3.3	1.7	0.7

NATIONAL ACCOUNTS TABLES

TABLE A6 (Cont'd.)

Sub-region	1960	1965	1969
<u>East Africa</u>		(Percentages)	
<u>Sources</u>	100.0	100.0	100.0
GDP	100.4	100.6	101.6
Imports less Exports	-0.4	-0.6	-1.6
<u>Uses</u>	100.0	100.0	100.0
GDCF ^{a/}	14.8	15.6	18.1
Private Consumption	74.0	70.8	66.9
Government Consumption	10.8	13.0	13.4
Exports less Imports	0.4	0.6	1.6
<u>Other Developing Africa</u>			
<u>Sources</u>	100.0	100.0	100.0
GDP	98.1	100.3	95.8
Imports less Exports	1.9	-0.3	4.2
<u>Uses</u>	100.0	100.0	100.0
GDCF ^{a/}	17.0	13.3	16.7
Private Consumption	72.3	72.1	72.0
Government Consumption	12.6	14.3	15.5
Exports less Imports	-1.9	0.3	-4.2

Source: ECA estimates

^{a/} Gross Domestic Capital Formation.

TABLE A7 GDP PER CAPITA AT 1960 PRICES OF INDIVIDUAL AFRICAN COUNTRIES
1960, 1965 TO 1969

Sub-region and Country	1960	Per Capita GDP (in US dollars)				
		1965	1966	1967	1968	1969
<u>North Africa</u>						
Algeria	257	216	217	221	228	215
Libya	229	749	846	911	1,194	1,229
Morocco	154	160	153	158	171	167
Sudan	93	96	94	94	102	108
Tunisia	211	237	229	223	232	238
UAR	162	205	202	192	198	199
Sub-region	167	193	192	190	205	205
<u>West Africa</u>						
Dahomey	70	65	66	64	69	72
Gambia	97	119	126	124	127	125
Ghana	166	182	181	178	181	184
Guinea	69	70	66	68	67	66
Ivory Coast	150	206	210	215	239	247
Mali	67	72	77	83	86	88
Mauritania	82	122	123	124	125	128
Niger	70	79	76	74	68	65
Nigeria	64	71	71	64	62	61
Senegal	190	190	189	178	181	167
Sierra Leone	111	136	138	140	154	151

APPENDIX TABLES

TABLE A7 (Cont'd.)

<u>Sub-region and Country</u>	<u>Per Capita GDP (in US dollars)</u>					1969
	1960	1965	1966	1967	1968	
<u>West Africa(Cont'd.)</u>						
Togo	79	94	110	109	115	123
Upper Volta	42	37	36	37	39	40
Sub-region	83	93	93	89	90	89
<u>Central Africa</u>						
Cameroon	106	112	118	128	135	142
CAR	115	102	109	105	110	101
Chad	61	59	57	53	55	56
Congo DR	74	69	70	68	72	76
Congo PR	146	159	167	187	193	202
Gabon	283	347	369	379	393	427
Equatorial Guinea	163	192	196	206	209	214
Burundi	67	59	59	62	60	59
Rwanda	91	83	79	79	81	81
Sub-region	84	82	84	84	88	91
<u>East Africa</u>						
Botswana	69	86	87	69	68	69
Ethiopia	45	53	54	55	55	55
Kenya	99	101	112	112	117	119
Lesotho	39	51	63	66	63	65
Madagascar	101	99	100	102	104	103
Malawi	45	55	56	58	59	60
Mauritius	213	248	233	238	216	220
Somalia	48	46	47	47	48	47
Swaziland	109	174	179	166	168	171
Tanzania	64	67	72	72	74	74
Uganda	76	87	91	92	91	98
Zambia	184	222	246	256	259	286
Sub-region	73	81	86	87	88	91
<u>Other Africa</u>						
Angola	120	133	135	142	143	143
Mozambique	107	125	129	135	141	141
Namibia	402	582	582	576	573	611
Reunion	343	508	513	533	574	572
S. Rhodesia	232	242	232	237	235	258
Sub-total	155	180	180	186	189	197

Source: ECA estimates.

AGRICULTURAL TABLES

TABLE A8 MAJOR PRODUCERS OF CEREALS IN AFRICA 1965 to 1969

Wheat (1,000 m.t.)	1965	1966	1967	1968	1969
Algeria	1,325	630	1,266	1,534	1,100
Ethiopia	722	739	745	755	770
Kenya	172	128	162	216	210
Morocco	1,580	1,000	1,310	2,556	1,469
South Africa	669	567	1,089	1,270	1,279
Tunisia	520	349	330	383	350
UAR	1,272	1,465	1,291	1,518	1,269
Total Africa	6,512	5,167	6,504	8,556	6,824
Barley (1,000 m.t.)					
Algeria	379	130	340	538	465
Ethiopia	1,372	1,399	1,423	1,499	1,500
Morocco	1,432	1,612	1,320	3,217	2,207
Tunisia	180	80	70	130	80
UAR	130	102	114	121	105
Total Africa	3,638	2,474	3,433	5,657	4,507
Maize (1,000 m.t.)					
Angola	381	340	380	400	430
Cameroon	341	381	291	319	320
Ethiopia	812	827	853	850	869
Kenya	900	1,200	1,343	1,425	1,600
Malawi	1,000	1,200	1,269	1,089	998
Mozambique	390	440	500	560	500
Nigeria	914	1,219	950	1,187	1,219
Rhodesia	822	952	1,000	1,020	1,020
South Africa	4,490	5,056	9,638	5,316	5,339
Tanzania	513	1,151	642	678	750
UAR	2,141	2,376	2,163	2,297	2,366
Zambia	580	841	780	595	655
Total Africa	15,772	18,572	22,621	18,472	19,118
Millet and Sorghum (1,000 m.t.)					
Chad	800	694	674	711	651
Ethiopia	2,301	2,356	2,394	2,425	2,467
Mali	720	765	865	757	900
Niger	1,055	1,119	1,342	1,281	1,511
Nigeria	6,610	6,600	5,980	5,493	6,300
Sudan	1,347	1,118	2,349	788	1,844
Tanzania	1,100	1,122	1,145	1,150	1,155
Uganda	700	777	843	880	962
UAR	806	859	881	906	813
Upper Volta	1,189	914	914	907	1,015
Total Africa	20,616	19,988	21,730	18,769	21,351

AGRICULTURAL TABLES

TABLE A10 MAJOR PRODUCERS OF OTHER COMMERCIAL
CROPS IN AFRICA, 1965 to 1969 (Cont'd.)

<u>Groundnuts in shell</u> (1,000 m.t.)	1965	1966	1967	1968	1969	
Niger	277	288	298	252	209	
Nigeria	1,687	1,755	1,256	1,447	1,361	
Senegal	1,124	861	1,005	828	885	
S. Africa	197	200	429	227	368	
Sudan	305	324	297	197	383	
Uganda	195	217	200	234	234	
Total Africa	5,439	5,341	5,247	4,740	5,106	
<u>Palm Oil (100 m.t.)</u>						
Angola	320	350	350	350	350	
Cameroon	444	394	600	460	500	
Congo (D.R.)	1,620	1,676	2,032	2,439	2,240	
Dahomey	430	301	250	350	400	
Ghana	370	440	560	540	550	
Ivory Coast	270	280	298	310	380	
Liberia	412	412	412	412	412	
Nigeria	5,300	5,080	3,250	3,700	4,250	
Sierra Leone	390	400	410	430	460	
Total Africa	9,964	9,730	8,570	9,400	9,930	
<u>Cotton Lint</u> (1,000 m.t.)	1965	1966	1967	1968	1969	1970
Chad	31	45	39	57	40	46
Mozambique	29	38	42	42	43	43
Nigeria	44	43	50	27	55	62
Sudan	150	159	188	184	223	225
Tanzania	67	80	68	51	71	85
Uganda	81	78	63	76	86	95
UAR	521	455	437	437	541	540
Total Africa	1,041	1,040	1,049	1,077	1,328	1,340
<u>Olive Oil (1,000 m.t.)</u>	1965	1966	1967	1968	1969	
Algeria	16	14	20	18	17	
Libya	19	18	20	24	6	
Morocco	44	23	20	60	22	
Tunisia	60	22	51	59	25	
Total Africa	139	77	111	161	70	

AGRICULTURAL TABLES

TABLE A10 MAJOR PRODUCERS OF OTHER COMMERCIAL
CROPS IN AFRICA, 1965 to 1969 (Cont'd.)

Natural Rubber (100 m.t.)	1965	1966	1967	1968	1969
Cameroon	111	160	210	130	130
Congo (D.R.)	211	277	323	400	350
Ivory Coast	36	50	59	70	90
Liberia	492	529	623	640	670
Nigeria	689	710	479	530	560
Total Africa	1,565	1,750	1,710	1,800	1,830

Source: FAO Production Yearbook 1969 and subsequent revisions

TABLE All POPULATION, ARABLE LAND, LAND/MAN RATIO, FORESTED
LAND AND CATTLE UNITS IN THE AFRICAN REGION^{a/}

Sub-region	Population (Mln.)	Arable land (Mln. ha)	Land/man ratio	Cattle (Mln.)	Cattle per head	Forest land (Mln. ha)
<u>North Africa</u>	80.87	31.61	0.39	17.89	0.22	101.02
Algeria	12.79	6.79	0.53	0.84	0.07	2.42
Libya	1.80	2.51	1.39	0.12	0.07	0.50
Morocco	14.78	7.90	0.53	3.43	0.23	5.35
Sudan	14.67	7.10	0.49	11.20	0.78	91.50
Tunisia	4.78	4.51	0.97	0.63	0.14	1.24
UAR	32.05	2.80	0.09	1.67	0.05	-
<u>West Africa</u>	106.42	79.26 ^{b/}	0.77 ^{b/}	31.99	0.30	96.54
Dahomey	2.55	1.55	0.60	0.52	0.20	2.16
Gambia	0.35	0.20	0.57	0.22	0.63	0.03
Ghana	8.15	2.84	0.35	0.66	0.08	2.45
Guinea	3.75	...	...	1.78	0.47	1.05
Ivory Coast	4.69	8.86	1.89	0.38	0.08	12.00
Liberia	1.13	3.85	3.41	0.026	0.02	3.62
Mali	4.86	7.20	1.48	5.07	1.04	4.46
Mauritania	1.12	0.26	0.23	2.10	1.88	15.13
Niger	3.63	11.50	3.17	4.10	1.13	15.60
Nigeria	62.99	21.80	0.35	11.41	0.18	31.59
Senegal	3.75	5.72	1.53	2.75	0.73	5.32
Sierra Leone	2.53	3.66	1.45	0.21	0.08	0.30
Togo	1.77	2.16	1.22	0.17	0.10	0.53
Upper Volta	5.16	9.66	1.87	2.60	0.50	2.30

AGRICULTURAL TABLES

TABLE All POPULATION, ARABLE LAND, LAND/MAN RATIO FORESTED
LAND AND CATTLE UNITS IN THE AFRICAN REGION^{a/} (Cont'd.)

Sub-region	Population (Mln.)	Arable land (Mln. ha)	Land/man ratio	Cattle (Mln.)	Cattle per head	Forest land (Mln. ha)
<u>Central Africa</u>	39.78	27.39	0.69	8.88	0.22	221.86
Burundi	3.44	1.01	0.29	0.60	0.18	0.12
Cameroon	5.60	4.30	0.77	1.90	0.34	30.00
CAR	1.46	5.90	4.13	0.46	0.32	7.40
Chad	3.54	7.00	1.98	4.50	1.27	16.50
Congo (P.R.)	0.90	0.63	0.70	0.029	0.03	16.25
Congo (D.R.)	20.71	7.20	0.35	0.75	0.04	129.14
Equat. Guinea	0.28	0.22	0.78	0.003	0.001	2.29
Gabon	0.47	0.13	0.27	0.005	0.01	20.00
Rwanda	3.39	1.00	0.22	0.63	0.19	0.16
<u>East Africa</u>	76.25	43.47	0.57	63.97	0.84	108.11
Botswana	0.60	0.43	0.77	1.25	2.23	0.96
Ethiopia	24.05	12.53	0.52	25.80	1.07	8.97
Kenya	10.26	1.67	0.16	7.75	0.76	2.27
Lesotho	0.88	0.35	0.40	0.38	0.43	-
Madagascar	6.51	2.86	0.46	9.71	1.49	12.47
Malawi	4.23	2.93	0.69	0.47	0.11	2.31
Mauritius	0.82	0.10	0.093	0.046	0.04	0.06
Somalia	2.69	0.96	0.36	1.94	0.72	14.40
Swaziland	0.40	0.25	0.63	0.51	1.27	0.13
Tanzania	12.57	11.70	0.95	11.06	0.90	31.07
Uganda	9.24	4.89	0.53	3.78	0.41	1.47
Zambia	3.96	4.80	1.21	1.27	0.32	34.00
<u>Other Africa^{c/}</u>	40.16	18.55	0.46	20.35	0.51	25.91
Angola	5.47	0.90	0.16	1.19	0.22	43.20
Mozambique	7.40	2.65	0.36	1.18	0.16	19.40
Namibia	0.61	0.64	1.06	2.40	3.97	5.30
Rhodesia	4.71	1.84	0.40	3.70	0.81	23.57
S. Africa	20.37	12.06	0.61	11.50	0.58	4.11
Cape Verde Island	0.24	0.03	0.12	0.014	0.06	-
Port. Guinea	0.54	0.26	0.50	0.25	0.46	0.23
Reunion	0.44	0.062	0.14	0.04	0.09	0.05
Comoro Island	0.24	0.09	0.38	0.063	0.26	0.035
Fr. Affairs & Is.	0.085	0.001	0.012	0.014	0.16	0.008
Seychelles	0.051	0.017	0.33	0.003	0.06	0.005
<u>Africa^{d/}</u>	343.75	204.00	0.59	143.08	0.42	629.0

Source: FAO, Production Yearbook, 1969.

a/ The land use may relate to any period from 1953 to 1968, the production and cattle totals are for 1968. b/ Excludes Guinea.

c/ Incomplete. d/ May include certain estimates or figures for area not shown.

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TABLE A12 PRODUCTION OF MEAT, MILK AND EGGS IN AFRICA, 1965 to 1969

Meat, (beef, veal, mutton, lamb & pork) production from indigenous animals					
	1,000 m.t.				
	1965	1966	1967	1968	1969
Ethiopia	317	326	330	336	336
Madagascar	182	181	177	190	191
Morocco	130	139	145	162	159
Nigeria	254	258	262	265	270
S. Africa	615	608	558	570	590
Sudan	180	188	186	204	225
Tanzania	146	168	158	156	161
Uganda	127	141	153	155	157
UAR	213	216	225	226	231
Total Africa ^{a/}	3,324	3,369	3,357	3,472	3,555

Milk Production (cow, buffalo, sheep & goat)					
	1,000 m.t.				
Algeria	211	238	273	300	325
Ethiopia	547	558	571	575	587
Kenya	390	396	393	396	400
Morocco	794	862	904	926	948
Nigeria	388	392	396	400	403
S. Africa	2,540	2,600	2,620	2,650	2,700
Sudan	1,546	1,756	1,830	1,875	1,915
Tanzania	542	564	605	623	631
Uganda	424	449	460	501	508
UAR	1,161	1,179	1,195	1,545	1,559
Total Africa ^{a/}	10,980	11,492	11,800	12,325	12,500

Hens Eggs(million)					
Congo (D.R.)	400	400	400	400	400
Dahomey	360	360	360	365	360
Ethiopia	1,534	1,530	1,530	1,534	1,530
Ghana	1,710	1,710	1,813	1,870	2,040
Kenya	255	270	300	291	300
Madagascar	430	450	450	455	455
Morocco	800	890	890	890	890
Nigeria	1,120	1,015	1,120	1,150	1,190
S. Africa	1,214	1,268	1,357	1,429	1,530
Sudan	390	390	398	395	395
Tanzania	321	327	334	340	346
UAR	1,092	1,244	1,366	1,650	1,750
Upper Volta	290	290	290	295	295
Total Africa ^{a/}	11,920	12,308	12,840	13,186	13,700

Source: FAO, Production Yearbook, 1969 and subsequent revisions.

^{a/} Includes other producers.

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TABLE A13 COMMERCIAL FERTILIZER CONSUMPTION PER CAPITA OF
THE RURAL POPULATION (in kg. per capita)

Sub-region	1960/1	1964/5	1966/7	1968/9
North	7.02	8.47	8.43	9.62
West	0.25	0.40	0.67	0.76
Central	0.18	0.35	0.61	0.86
East	0.88	1.23	1.49	1.88
S. Africa	20.86	23.59	34.93	43.06
Other (ex.S.A.)	4.08	5.40	6.29	7.73
Total Africa	2.72	3.53	4.22	5.02
<u>North Africa</u>				
UAR	12.87	17.01	16.50	16.71
Tunisia	5.02	6.08	7.04	11.94
Morocco	3.67	4.06	5.72	7.65
Libya	4.98	3.09	5.33	7.45
Algeria	6.78	5.97	5.46	5.21
Sudan	1.75	2.42	3.91	3.86
<u>West Africa</u>				
Guinea	1.08	2.03	3.70	4.96
Ivory Coast	1.84	3.42	3.75	4.83
Sénégal	2.35	3.86	6.55	4.40
Gambia	-	0.16	1.81	2.13
Ghana	0.08	0.12	0.78	1.02
Mali	0.04	0.40	0.79	0.95
Dahomey	0.22	0.39	0.44	0.62
Sierra Leone	0.02	0.10	0.23	0.47
Upper Volta	0.01	0.03	0.15	0.24
Nigeria	0.07	0.06	0.14	0.16
<u>Central Africa</u>				
Equat. Guinea	5.48	13.09	18.85	...
Cameroon	0.71	1.44	2.41	3.37
Congo (P.R.)	0.14	0.03	0.65	2.69
CAR	0.27	0.34	0.83	1.29
Chad	0.04	0.03	0.15	0.42
Congo (D.R.)	0.06	0.09	0.13	0.19
<u>East Africa</u>				
Mauritius	43.02	59.77	44.68	59.21
Botswana	2.57	3.56	4.59	7.35
Zambia	2.53	3.62	4.61	6.09
Kenya	1.28	2.26	3.00	3.99
Malawi	1.27	1.30	1.36	1.72
Somalia	...	...	0.47	1.25
Madagascar	0.37	0.81	1.12	1.10
Tanzania	0.25	0.36	0.76	1.09
Uganda	0.41	0.53	0.59	0.57

AGRICULTURAL TABLES

TABLE A13 COMMERCIAL FERTILIZER CONSUMPTION PER CAPITA OF
THE RURAL POPULATION (in kg. per capita) (Cont'd.)

Sub-region	1960/1	1964/5	1966/7	1968/9
<u>Other Africa</u>				
Reunion	19.63	28.15	45.17	54.57
Rhodesia	16.50	19.47	20.48	23.31
Mozambique	0.56	1.20	1.34	2.00
Angola	0.14	0.34	0.91	1.67
S. Africa	20.86	23.59	34.93	43.06

Source: Fertilizers; production, consumption & trade.
ECA population centre.

TABLE A14 EXPORTS OF AGRICULTURAL PRODUCTS 1965 to 1969

Item	1965	1966	1967	1968	1969
	(in thousand metric tons)				
<u>Cereals</u>					
<u>Wheat</u> Total	150.0	189.0	58.0	56.4	...
<u>Maize</u> Total	625.2	282.2	2,576.3	3,709.4	1,240.0 ^a /
Of which S. Africa	(326.6)	(46.1)	(2,004.0)	(2,955.6)	(750.9)
<u>Rice</u> Total	352.7	382.5	490.8	657.8	830.0
Of which UAR	(330.4)	(346.7)	(434.9)	(569.9)	(772.2)
<u>Beverages & Tobacco</u>					
<u>Coffee</u> Total	843.4	940.5	903.0	987.3	985.0 ^a /
Of which Angola	(159.2)	(156.4)	(196.5)	(188.6)	(182.9)
Ethiopia	(88.0)	(74.4)	(74.4)	(80.9)	(88.5)
Ivory Coast	(185.7)	(181.5)	(149.0)	(214.5)	(178.3)
Uganda	(157.9)	(167.3)	(159.5)	(152.0)	(180.6)
<u>Cocoa Beans</u> Total	1,078.1	882.3	837.7	814.3	700.0 ^a /
Of which Cameroon	(77.8)	(84.6)	(69.8)	(65.6)	(73.8)
Ghana	(501.9)	(397.9)	(334.9)	(335.3)	(245.8)
Ivory Coast	(126.4)	(124.3)	(105.2)	(121.5)	(118.9)
Nigeria	(305.6)	(193.3)	(248.2)	(208.9)	(173.6)
<u>Tea</u> Total	65.3	81.7	80.3	93.7	102.0 ^a /
Of which Kenya	(23.3)	(30.1)	(25.0)	(33.7)	(37.5)
Malawi	(13.2)	(15.2)	(16.8)	(15.8)	(17.3)
Mozambique	(10.1)	(13.0)	(14.4)	(14.1)	...
Uganda	(6.9)	(8.9)	(9.6)	(11.4)	(15.9)
<u>Wine</u> ('000 hl) Total	11,001	11,810	7,642	7,325	...
Of which Algeria	(8,486)	(8,756)	(5,190)	(5,680)	...
Morocco	(1,595)	(1,595)	(1,223)	(793)	1,055
<u>Tobacco</u> Total	173.9	115.6	108.6	109.1	...
<u>Livestock</u> ('000 head)					
<u>Cattle</u> Total	388	398	349	344	350 ^a /
<u>Sheep & goats</u> Total	1,612	1,825	1,732	2,029	1,500 ^a /
Of which Somalia	(793)	(1,098)	(869)	(1,225)	(712)

AGRICULTURAL TABLES

TABLE A14 EXPORTS OF AGRICULTURAL PRODUCTS 1965 to 1969 (Cont'd.)

Item		1965	1966	1967	1968	1969
(in thousand metric tons)						
<u>Other Commodities</u>						
<u>Cotton lint</u>	Total	720.0	800.7	799.0	765.4	720.0 ^{a/}
Of which Sudan		(106.4)	(141.5)	(171.5)	(183.5)	(172.0)
UAR		(329.7)	(347.6)	(296.4)	(264.0)	(227.1)
<u>Groundnuts</u>	Total	1,138.6	1,292.9	1,260.6	1,353.2	1,060.0 ^{a/}
Of which Niger		(86.4)	(163.6)	(160.0)	(169.9)	(139.4)
Nigeria		(520.2)	(582.1)	(548.7)	(648.3)	(525.3)
Senegal		(216.9)	(298.1)	(181.1)	(243.1)	(96.0)
Sudan		(152.2)	(99.3)	(104.7)	(82.0)	(74.7)
<u>Palm oil</u>	Total	281.4	266.0	174.6	197.8	178.0 ^{a/}
Of which Congo DR		(79.0)	(84.0)	(116.2)	(158.8)	(133.0)
Nigeria		(152.4)	(145.5)	(16.7)	(3.4)	(8.1)
<u>Rubber</u>	Total	148.6	163.3	150.7	154.8	170.0 ^{a/}
Of which Congo DR		(21.1)	(29.7)	(31.1)	(33.0)	(40.8)
Liberia		(43.6)	(45.2)	(51.9)	(52.0)	(54.2)
Nigeria		(69.0)	(71.4)	(48.7)	(52.8)	(57.3)
<u>Sugar</u>	Total	1,606.8	1,877.8	1,995.7	2,245.7	1,960.0 ^{a/}
Of which Mauritius		(569.4)	(579.9)	(515.8)	(596.1)	(610.0) ^{a/}
Reunion		(191.0)	(221.7)	(209.9)	(283.4)	(209.5)
S. Africa		(375.4)	(724.7)	(883.4)	(961.3)	(713.6)
<u>Citrus fruit</u>	Total	1,086.1	1,215.2	1,144.7	1,193.7	1,242.0 ^{a/}
Of which Algeria		(209.1)	(185.6)	(143.7)	(121.0)	(176.4)
Morocco		(435.6)	(474.5)	(517.8)	(589.4)	(568.1)
S. Africa		(338.5)	(392.9)	(345.9)	(362.0)	(299.5)
UAR		(6.8)	(11.5)	(14.1)	(41.1)	(79.8)

^{a/} Estimates from ECA.

Source: FAO, Trade Yearbook 1969.
FAO, Statistical Division.

FISHING TABLES

TABLE A15 LIVWEIGHT FISH CATCH OF AFRICA 1960 to 1969

Sub-region and Country	1960	1965	1966	1967	1968	1969
	(in thousand tons)					
<u>North Africa</u>						
Algeria	25.4	18.2	20.3	21.0	18.2	23.2
Libya	2.2	2.9	3.3	4.2	5.5	11.3
Morocco	154.1	214.9	303.4 ^{a/}	258.0	219.4	226.2 ^{a/}
Sudan	16.5	19.2	19.6 ^{a/}	20.0	21.5	22.5 ^{a/}
Tunisia	16.3	22.8	25.8	33.1	34.5 ^{a/}	39.0 ^{a/}
UAR	88.5	102.4	99.0	99.0	100.0 ^{a/}	100.0 ^{a/}
Sub-total	303.0	380.4	471.4	435.3	399.1	422.2
<u>West Africa</u>						
Dahomey	28.0	20.0	18.7	35.6	40.0 ^{a/}	45.0 ^{a/}
Gambia	1.0 ^{a/}	3.0	3.7	4.1	5.1	6.0 ^{a/}
Ghana ^{b/}	31.8	72.5	79.1	110.1	102.0	162.8
Ivory Coast	44.0	61.5	61.6	66.8	69.8	71.0
Liberia	2.2	11.5	11.8	13.5	15.6	18.5
Mali	28.0	90.0	95.0 ^{a/}	100.0 ^{a/}	100.0 ^{a/}	100.0 ^{a/}
Mauritania	...	...	25.0 ^{a/}	30.7	40.0 ^{a/}	45.0 ^{a/}
Niger	3.4 ^{a/}	6.0 ^{a/}	5.0 ^{a/}	3.7	4.3 ^{a/}	5.0 ^{a/}
Nigeria	58.5 ^{a/}	100.0 ^{a/}	110.0 ^{a/}	119.3	110.0 ^{a/}	110.0 ^{a/}
Senegal	122.1	131.4	141.5	155.0	174.7	182.1
Sierra Leone	17.4	32.6	32.2	33.6	23.5	25.5
Togo	3.6 ^{a/}	6.0	7.0	9.0 ^{a/}	10.5 ^{a/}	12.3 ^{a/}
Upper Volta	3.2	3.5	4.0	4.5	4.5	5.0
Sub-total	360.0 ^{a/}	560.0 ^{a/}	594.6	685.9	700.0	788.2
<u>Central Africa</u>						
Cameroon	52.0 ^{a/}	58.5	59.5 ^{a/}	60.9	62.6	65.5
Chad	100.0	100.0	100.0	110.0	110.0	110.0
Congo D.R.	52.0 ^{a/}	81.0	84.0	93.2	110.2	120.0 ^{a/}
Congo P.R.	12.7 ^{a/}	14.0	14.2	13.6	13.1	12.4
Gabon	1.0 ^{a/}	1.2	4.1	3.2	3.5 ^{a/}	3.8
Burundi	15.0 ^{a/}	20.2	16.6	12.3	11.0	12.0
Sub-total	232.7	274.9	278.4	293.2	310.4	323.7
<u>East Africa</u>						
Ethiopia	19.1	15.2	12.8	10.8	11.0 ^{a/}	11.0 ^{a/}
Kenya	12.6	23.4	27.9	27.3	28.1	31.9
Madagascar	3.0	44.1	54.8	57.9	63.0	69.0
Malawi	11.0 ^{a/}	18.9	17.5	14.3	17.9	23.2
Mauritius	1.4	1.3	1.4	2.0 ^{a/}	2.2 ^{a/}	2.5 ^{a/}
Somalia	2.0 ^{a/}	2.0 ^{a/}	3.0 ^{a/}	4.0 ^{a/}	5.5	5.5 ^{a/}
Tanzania	69.1	102.9	92.0	118.4	142.1	140.2
Uganda	62.2	76.3	83.3	99.6	108.6	124.5
Zambia	41.0 ^{a/}	40.1	40.1	38.5	41.3	44.0
Sub-total	221.4	324.2	332.8	372.8	419.7	451.8

FISHING TABLES

TABLE A15 LIVWEIGHT FISH CATCH OF AFRICA 1960 to 1969 (Cont'd.)

<u>Sub-region and</u> <u>Country</u>	1960	1965	1966	1967	1968	1969
	(in thousand tons)					
<u>Other Africa</u>						
Angola	252.0	256.6	327.5	293.4	293.4	417.5
Mozambique	3.9	4.2	5.3	5.0	5.7	7.0
Namibia	289.6	678.5	650.0	742.4	982.7	) 2130.0
S. Africa	577.9	663.9	532.2	904.2	1217.7	
Cape Verde Is.	1.6	3.5	4.0	5.9	4.9	4.0
Reunion	1.6	2.2	2.6	2.8	2.9	2.6
Sub-total	<u>1126.6</u>	<u>1608.9</u>	<u>1521.6</u>	<u>1953.7</u>	<u>2507.3</u>	<u>2561.1</u>
Total Africa ^{c/}	<u>2300.0</u>	<u>3313.1</u>	<u>3334.4</u>	<u>3919.1</u>	<u>4440.4</u>	<u>4570.0</u>

Sources FAO, Yearbook of Fishery Statistics, 1966, 1968, 1969.
Country Publications.

a/ Estimate.

b/ Excludes catches by chartered foreign vessels.

c/ Includes estimates for countries not shown.

d/ May be incomplete.

FORESTRY TABLES

TABLE A16 FORESTRY AND PAPER PRODUCTION, EXPORTS AND IMPORTS IN AFRICA
1960-1969

Item		1960	1965	1966	1967	1968	1969 ^{a/}
<u>Production</u>							
<u>Removals</u>							
Total	(mn m ³)	187.8	230.1	235.6	242.9	262.9	267.7
Of which							
Industrial wood	(")	22.6	29.4	30.3	32.2	33.3	34.4
<u>Sawnwood</u>							
Coniferous	('000 m ³)	644	1,153	1,101	1,149	1,205	1,217
Non Coniferous	(")	1,655	1,949	2,055	2,046	2,285	2,500
Plywood	('000 m ³)	115	231	203	217 ^{b/}	230 ^{b/}	243 ^{b/}
Fibreboard	('000 m ³)	66	77	80	80 ^{b/}	80 ^{b/}	80 ^{b/}
Wood Pulp	('000 tons)	110	580	656	731	727	739
<u>Paper etc.</u>							
Newsprint	('000 tons)	-	59	87	90	94	94
Printing & writing	(" ")	63	97	104	119	123	125
Other	(" ")	256	438	469	503	536	537
<u>Exports</u>							
<u>Sawnwood</u>							
Coniferous	('000 m ³)	34	36	41	79	85	90
Non coniferous	(" ")	609	725	757	698	742	730
Veneers	(" ")	47	114	123	135	136	126
Plywood	(" ")	80	109	99	101	129	126
Fibreboard	('000 tons)	47	42	47	46	47	42
Wood Pulp	(" ")	88	295	387	355	414	442
Printing & writing paper	(" ")	3	20	22	23	21	21
Other paper etc.	(" ")	44	26	39	35	47	44
<u>Logs</u>							
Non coniferous	('000 m ³)	4,595	5,227	5,121	5,180	5,990	7,529
<u>Imports</u>							
<u>Sawnwood</u>							
Conifers	('000 m ³)	1,282	1,258	1,301	1,260	1,049	1,103
Non conifers	(" ")	547	378	333	356	407	417
Veneers	(" ")	22	49	36	32	33	47
Plywood	(" ")	75	92	118	78	72	81
Fibreboard	('000 tons)	34	38	33	30	48	47
Wood pulp	(" ")	58	85	97	99	127	159
Newsprint	(" ")	162	136	126	92	79	99
Printing & writing paper	(" ")	104	145	168	155	147	159
Other paper etc.	(" ")	247	301	294	340	452	409
<u>Logs</u>							
Non conifers	('000 m ³)	104	200	235	203	206	271
Conifers	(" ")	18	100	105	73	21	24

Sources: FAO Yearbook of Forest Products. 1969.

FAO Forestry Division, Unpublished Information for 1968 and 1969

^{a/} Preliminary.^{b/} Previous year's total carried forward.

FORESTRY TABLES

TABLE A17 EXTERNAL TRADE IN FOREST PRODUCTS
TO AND FROM AFRICAN COUNTRIES, 1960 TO 1969

Exports	1960	1965	1966	1967	1968	1969 ^{a/}
	(in million US dollars)					
Total	273.5	306.9	312.3	334.4	369.7	432.4
Of which						
Wood, lumber cork	182.5	215.7	205.7	221.0	252.7	308.5
Pulp and waste	3.8	36.3	53.5	50.0	49.7	52.9
Wood manufacture	24.8	30.4	27.9	31.1	35.1	36.9
Paper, board etc.	62.4	24.6	25.1	32.3	32.2	34.1
<u>Main Exporters</u>						
Cameroon	5.5	10.0	11.1	13.8	18.3	20.0
Congo P.R.	12.8	20.8	20.2	18.6	25.5	24.5
Gabon	35.1	41.2	40.7	39.5	41.8	52.4
Ghana	45.5	36.7	31.5	29.8	32.7	43.0
Ivory Coast	26.3	75.3	73.9	88.6	105.6	136.1
Nigeria	23.0	21.5	19.3	12.3	12.1	13.8
Swaziland	1.4	12.8	21.3	19.2	13.9	13.0
S. Africa	88.3	31.2	39.2	44.2	48.7	51.0
<u>Imports</u>						
Total	302.2	373.5	386.0	397.6	390.3	428.7
Of which						
Wood, lumber, cork	95.6	113.8	114.3	111.8	98.0	111.5
Pulp and waste	8.8	14.1	15.8	16.0	20.8	24.6
Wood manufactures	35.2	40.6	40.2	39.9	39.2	44.0
Paper board etc.	162.6	205.1	215.8	229.9	233.6	248.6
<u>Main Importers</u>						
Algeria	52.9	24.7	26.7	29.0	28.7	37.4
Kenya	9.8	12.9	15.3	16.2	17.7	19.4
Libya	3.3	8.2	12.8	15.1	19.0	19.0
Morocco	13.8	20.4	24.1	24.5	26.8	29.9
Nigeria	10.5	20.6	19.1	17.7	14.2	12.3
S. Rhodesia	12.6 ^{b/}	14.8	14.8 ^{c/}	14.8 ^{c/}	14.8 ^{c/}	14.8 ^{c/}
Tunisia	10.2	11.5	13.3	14.0	11.1	11.6
UAR	49.3 ^{b/}	62.3	77.2	56.3	32.9	30.8
Zambia	6.3 ^{b/}	9.8	12.0	14.1	16.1	16.1
S. Africa	88.3	101.5	81.1	93.8	95.3	120.9

Sources: FAO, Yearbook of Forest Products, 1962, 1966, 1969.FAO, Forestry Division, Unpublished Information for 1968 and 1969.^{a/} Preliminary.^{b/} Part estimated.^{c/} 1965 total carried forward.

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TABLE A18 ROUNDWOOD PRODUCTION IN AFRICA SHOWING THE MAJOR PRODUCERS, 1960 to 1969

Country	1960	1965	1966	1967	1968	1969 ^{a/}
	(in '000 cubic metres)					
Angola	2,630	5,980	5,980	6,100	6,349	6,459
Cameroon	5,600	5,800	5,784	7,009	7,070	7,070
Congo D.R.	9,325	10,925	11,450	11,450	11,588	11,588
Ethiopia	29,452	24,136	25,515	21,537	22,038	22,038
Ghana	12,639	9,841	7,220	8,604	8,702	9,197
Ivory Coast	6,088	8,184	8,348	8,397	8,939	8,989
Kenya	7,575	7,896	7,968	8,153	8,174	8,341
Madagascar	3,705	4,297	4,460	4,906	4,781	4,862
Mozambique	6,600	7,550	7,550	7,550	7,560	7,560
Nigeria	29,871	49,376	50,841	52,244	53,492	55,235
Sudan	13,986	11,769	20,422	20,984	20,982	20,982
Tanzania	10,895	11,562	11,672	13,027	29,477	30,525
Uganda	10,689	10,778	10,809	10,936	11,040	11,264
Total Developing Africa	179,247	215,182	229,598	233,860	254,064	258,791
South Africa	4,333	8,163	8,780	9,075	8,883	8,883
Total Africa	183,580	223,345	238,378	242,935	262,947	267,674
Subsequently revised to	187,800	230,100	235,600			

Note: In certain cases the previous years production figures has been carried forward.

Source: As previous tables.

a/ Preliminary.

TABLE A19

PRODUCTION OF INDUSTRIAL TIMBERS IN AFRICA SHOWING MAJOR PRODUCERS, 1960 to 1969

	1960	1965	1966	1967	1968	1969 ^{a/}
	(in '000 cubic metres)					
Angola	160	780	780	800	999	1,059
Cameroon	725	875	844	1,009	1,070	1,070
Congo D.R.	545	1,425	1,450	1,450	1,588	1,588
Congo P.R.	433	732	821	821	980	950
Ethiopia	52	136	1,015	1,037	1,038	1,038
Gabon	1,838	1,261	1,498	1,531	1,639	1,835
Ghana	2,149	1,921	1,636	1,609	1,664	1,922
Ivory Coast	1,298	2,884	2,948	3,197	3,689	3,689
Madagascar	455	677	760	906	1,131	1,142
Mozambique	230	900	900	800	810	810
Nigeria	1,371	2,006	2,051	1,994	1,732	1,920
Sudan	486	571	622	1,094	1,092	1,092
Swaziland	57	652	652	836	838	838
Tanzania	610	562	572	849	977	1,025
Uganda	777	778	809	836	840	864
Total Developing Africa	14,342	20,792	22,191	24,000	25,335	26,437
South Africa	3,778	7,313	7,909	8,183	7,969	7,969
Total Africa	18,120	28,105	30,100	32,183	33,304	34,406
Subsequently revised to	22,600	29,400	30,300			

Note: In certain cases the previous years production figure has been carried forward.

Source: as previous tables.

a/ preliminary.

FORESTRY TABLES

TABLE A20 SAWNWOOD, VENEER AND PLYWOOD PRODUCTION IN AFRICA, 1960 to 1969

Production (in '000 m ³)	1960	1965	1966	1967	1968	1969
<u>Sawnwood</u>						
Coniferous	631	1,103	1,127	1,149	1,205	1,217
Of which from S. Africa	(495)	(806)	(887)	(860)	(940)	(940)
Non coniferous	1,630	1,992	2,042	2,046	2,285	2,500
Of which from Angola	(13)	(95)	(95)	(110)	(190)	(281)
Congo D.R.	(200)	(141)	(150)	(150)	(142)	(142)
Ghana	(375)	(450)	(398)	(329)	(310)	(365)
Ivory Coast	(97)	(258)	(285)	(271)	(271)	(271)
Nigeria	(297)	(293)	(320)	(340)	(425)	(494)
Veneers - total	...	...	...	197	222	231
Of which, Cameroon	...	(20)	(16)	(24)	(30)	(30)
Congo D.R.	...	...	(40)	(40)	(49)	(49)
Congo P.R.	...	(39)	(38)	(38)	(60)	(71)
Gabon	...	...	(40)	(40)	(49)	(49)
Ivory Coast	...	(23)	(24)	(20)	(8)	(5)
Nigeria	...	...	(23)	(23)	(23)	(23)
Plywood - total	130	216	179	217	230	243
Of which, Gabon	(54)	(89)	(61)	(63)	(69)	(75)
Ghana	(7)	(20)	(24)	(27)	(27)	(25)
Nigeria	(20)	(21)	(31)	(20)	(24)	(28)
S. Africa	(7)	(12)	(11)	(45)	(45)	(45)

Note: The production total for 1960 to 1966 have subsequently been revised as follows:

	1960	1965	1966
Sawnwood-coniferous	644	1,153	1,101
Sawnwood-non-coniferous	1,655	1,949	2,055
Plywood	115	231	203

Source: as previous tables.

TABLE A21 WOOD PULP, PAPER AND PAPER BOARD PRODUCTION IN AFRICA, 1960 to 1969

Production in thousand tons	1960	1965	1966	1967	1968	1969 ^{a/}
<u>Wood Pulp - total</u>	165	539	656	730	739	754
Of which, Angola	(...)	(25)	(21)	(21)	(26)	(33)
Morocco	(17)	(34)	(31)	(30)	(39)	(39)
Swaziland	(...)	(88)	(89)	(90)	(90)	(95)
S. Africa	(145)	(388)	(511)	(585)	(579)	(579)
<u>Paper and Paper Board - Total</u>	320	550	661	712	753	757
Of which, Algeria	(35)	(31)	(23)	(35)	(33)	(33)
Morocco	(42)	(41)	(53)	(53)	(53)	(53)
S. Rhodesia	(7)	(19)	(19)	(20)	(20)	(20)
S. Africa	(173)	(334)	(445)	(470)	(501)	(501)
UAR	(56)	(106)	(108)	(108)	(93)	(114)

Note: The production totals for 1960 to 1966 have subsequently been revised as follows:

	1960	1965	1966
Wood pulp	110	580	656
Paper and paper board	319	594	660

Source: as previous tables.

^{a/} Preliminary

MINERAL TABLES

TABLE A22 PRODUCTION OF SELECTED MINERALS IN AFRICA 1960 TO 1969
SHOWING THE MAJOR PRODUCING COUNTRIES

Mineral and Country	1960	1965	1966	1967	1968	1969 ^{a/}
	(in million tons)					
<u>Crude Petroleum</u>						
Libya	nil	58.38	72.65	83.48	125.54	149.18
Algeria	8.63	26.03	33.27	38.39	42.17	43.82
Nigeria	0.85	13.54	21.00	16.81	7.13	27.00
UAR	3.32	6.48	6.26	5.72	9.00	12.96
Gabon	0.80	1.26	1.45	3.44	4.64	5.05
Tunisia	-	-	0.77	2.24	3.19	3.71
Angola	0.07	0.66	0.63	0.54	0.75	2.46
Total Africa	13.84	106.98	136.79	150.74	193.47	246.96
<u>Natural Gas</u>		(in million cubic metres)				
Algeria	7	1,839	2,046	2,158	2,478	2,988
Nigeria ^{d/}	-	2,250	2,877	2,593	1,093	4,123
Morocco	9	11	13	11	11	12
Tunisia	7	8	8	9	9	9
Gabon	7	11	12	17	24	24
Total Africa	30	4,119	4,957	4,789	3,616	7,157
<u>Iron ore (Fe Content)</u>		(in million tons)				
Liberia	2.19 ^{b/}	10.99	11.54	12.58	13.29	14.79
Mauritania	0.20	3.88	4.64	4.65	5.01	5.50
Angola	0.41	0.51	0.49	0.71	2.00	3.43
Sierra Leone	0.88	1.29	1.38	1.26	1.50 ^{a/}	1.40 ^{a/}
Algeria	1.79	1.64	0.95	1.39	1.66	1.62
Swaziland	-	0.64	1.00	1.10	1.29	1.30
Tunisia	0.56	0.61	0.62	0.50	0.55	0.52
Morocco	0.87	0.57	0.60	0.68	0.49	0.43
S. Rhodesia	0.10	0.82	0.83	0.53 ^{a/}	0.19 ^{a/}	0.19
Guinea	0.39	0.38	0.80	0.36	0.37	0.37
UAR	0.12	0.25	0.22	0.21	0.22	0.25
South Africa	1.97	3.75	4.84	5.42	5.28	5.59
Total Africa	9.28	25.34	27.94	29.06	31.66	35.51
<u>Copper (Cu Content)</u>		(in thousand tons)				
Zambia	576	696	623	663	685	720
Congo DR	302	289	317	321	326	356
Namibia	20	38	37	34	30	26
S. Rhodesia	14	18	15	17	18	20
Uganda	19	17	16	15	15	17
South Africa	46	60	117	127	128	126
Total Africa	984	1,122	1,130	1,180	1,205	1,266
<u>Gold</u>		(in metric tons)				
Ghana	27.3	23.5	21.3	23.7	23.0	22.0
S. Rhodesia	17.5	16.9	17.1	15.5	15.5	14.1
Congo DR	9.9	2.8	5.0	4.8	5.3	5.5
Kenya	0.3	0.4	0.4	1.0	1.0	...
Ethiopia	0.5	0.8	0.7	0.7	1.1	0.8
Tanzania	3.3	2.8	1.7	0.6	0.5	...
Gabon	0.5	1.2	1.1	0.7	0.5	0.4

MINERAL TABLES

TABLE A22 PRODUCTION OF SELECTED MINERALS IN AFRICA 1960 TO 1969
SHOWING THE MAJOR PRODUCING COUNTRIES (Cont'd.)

Mineral and Country	1960	1965	1966	1967	1968	1969 ^{a/}
<u>Gold (Cont'd.)</u> (in metric tons)						
Zambia	0.2	0.2	0.2	0.2	0.2	0.2
Congo PR	0.1	0.1	0.1	0.2	-	0.1
Liberia	0.03	0.05	0.1	0.2	0.1	0.1
South Africa	665.1	950.3	960.5	943.4	966.9	969.7
Total Africa	725.3	1,000.1	1,008.6	991.0	1,013.8	1,013.9
<u>Diamonds</u> (in million carats)						
Congo DR	13.45	12.50	12.43	13.15	11.90	13.87
Ghana	3.27	2.27	2.82	2.54	2.45	2.39
Namibia	0.94	1.66	1.76	1.73	1.72	2.03
Angola	1.06	1.16	1.27	1.29	1.67	2.02
Sierra Leone	1.91	1.46	1.46	1.40	2.43	2.00
Congo PR ^{c/}	3.50 ^{b/}	5.30	4.26	4.15	4.34	1.45
Liberia ^c	0.98	0.54	0.56	0.57	0.73	0.84
CAR	0.07	0.54	0.54	0.52	0.61	0.54
Tanzania	0.55	0.76	0.95	0.93	0.68	0.78
Ivory Coast	0.20	0.20	0.18	0.18	0.19	0.20
South Africa	3.14	5.03	6.04	6.67	7.43	7.86
Total Africa	26.68	31.49	32.34	33.22	34.17	35.20
<u>Phosphate Rock</u> (in million tons)						
Morocco	7.47	9.83	9.44	9.92	10.76	10.62
Tunisia	2.10	3.04	3.22	2.81	3.36	2.60
Togo	-	0.97	1.15	1.14	1.38	1.47
Senegal	0.20	1.04	1.14	1.28	1.27	1.20
UAR	0.57	0.59	0.66	0.68	0.72 ^{a/}	0.66
Algeria	0.56	0.09	0.12	0.20	0.36	0.42
South Africa	0.27	0.61	1.06	1.35	1.57	1.68
Total Africa	11.19	16.33	16.95	17.53	19.57 ^{a/}	18.88
<u>Bauxite</u> (in thousand tons)						
Guinea	1,378	1,870	1,609	1,639	2,118	...
Sierra Leone	-	207	272	342	470	451
Ghana	194	309	352	351	285	246
Total Africa	1,580	2,390	2,240	2,340	2,880	3,000
<u>Coal</u> (in million tons)						
S. Rhodesia	3,559	3,509	3,040	2,739	2,969	3,000
Zambia	-	-	114	399	573	397
Morocco	412	419	451	482	451	396
Mozambique	270	237	295	282	314	277
Nigeria	571	740	640	203	...	...
South Africa	38,173	48,460	47,942	49,300	51,655	52,752
Total Africa	43,280	53,560	52,730	53,660	56,610	57,040
<u>Tin Concentrates</u> (Sn Content) (in metric tons)						
Nigeria	7,798	7,900	9,687	9,490	9,804	8,976
Congo DR	9,350	6,311	7,036	7,126	7,495	6,672
Rwanda	1,297	1,443	1,303	1,343	1,340	1,340
Namibia	265	421	698	730 ^{a/}	730 ^{a/}	730

MINERAL TABLES

TABLE A22 PRODUCTION OF SELECTED MINERALS IN AFRICA 1960 TO 1969
SHOWING THE MAJOR PRODUCING COUNTRIES (Cont'd.)

Mineral and Country	1960	1965	1966	1967	1968	1969 ^{a/}
<u>Tin Concentrates</u> (Cont'd.)						
(Sn Content)			(in metric tons)			
S.Rhodesia	652	520	610 ^{a/}	610 ^{a/}	610 ^{a/}	610
South Africa	1,305	1,694	1,773	1,792	1,866	1,884
Total Africa	21,009	20,726	21,815	21,723	22,540	21,193
<u>Lead ore</u> (Pb Content)						
			(in thousand tons)			
Morocco	94.3	77.8	80.3	77.9	80.4	80.0
Namibia	61.5	109.9	102.4	70.2	60.9	75.7
Zambia	14.7	34.1	21.3	19.6	22.7	22.9
Tunisia	17.9	15.8	14.2	13.6	14.9	23.6
Total Africa	210.0	252.2	227.4	187.2	184.7	210.3
<u>Zinc ore</u> (Zn Content)						
			(in thousand tons)			
Congo DR	109.2	117.4	116.3	124.7	119.3	99.8
Zambia	40.2	47.4	32.0	54.4	67.3	68.2
Namibia	24.4	29.9	28.2	23.8	24.1	33.0
Morocco	49.4	49.5	46.4	26.0	30.5	32.4
Algeria	40.1	36.8	13.1	6.7	15.4	21.6
Total Africa	267.1	292.3	245.5	242.0	263.8	284.8

Source: United Nations; Statistical Yearbook 1969.
United Nations; Monthly Bulletin of Statistics, February 1971.
Inst. of Geol. Sciences; Statistical Summary of Mining Industry, 1960-1965, 1963-1968.
World Metal Statistics.
National Publications.
World Energy Supplies, 1965-1968 (Series J-13).

^{a/} Preliminary estimates.

^{b/} 1961.

^{c/} Sales.

^{d/} The production figures are thought to contain a significant proportion of gas not commercialised.

MINERAL TABLES

TABLE A23 EXPORTS OF PRINCIPAL MINERALS^{a/} FROM AFRICA BY VOLUME, 1960 TO 1969

Mineral ^{b/}	Unit	1960	1965	1966	1967	1968	1969 ^{c/}
<u>Africa</u>		(in metric tons)					
Crude petroleum	(million)	10.6	97.7	121.2	139.1	178.2	224.4
Natural gas ^{d/}	('000)	-	-	279 ^{e/}	951 ^{e/}	1,141 ^{e/}	1,370 ^{e/}
Bauxite, alumina) aluminium	('000)	1,151	516 ^{e/}	609 ^{e/}	728 ^{e/}	826 ^{e/}	855 ^{e/}
Cobalt	('000)	13	16	13	10	11	26
Copper	('000)	948	1,125	1,098	1,090	1,124	1,224
Lead	('000)	383	357	288	222	201	202
Iron ore	(million)	11.29	30.44	31.88	34.18	41.53	49.64
Manganese ore	(million)	2.39	3.71	4.00	3.69	3.93	4.10
Tin	('000)	27	22	26	25	25	22
Zinc	('000)	345	420	351	334	291	241
Crude phosphate	(million)	10.20	13.92	13.76	14.06	15.20	14.29
Diamonds		20.23 ^{e/}	28.38 ^{e/}	26.40 ^{e/}	26.92 ^{e/}	28.23 ^{e/}	...
<u>Developing Africa^{f/}</u>		(in metric tons)					
Crude petroleum	(million)	10.6	97.7	121.2	139.1	178.2	224.4
Natural gas	('000)	-	-	279	951	1,141	1,371
Bauxite, alumina) aluminium	('000)	1,151	516 ^{e/}	608 ^{e/}	727 ^{e/}	824 ^{e/}	855 ^{e/}
Cobalt	('000)	13	16	13	10	11	26
Copper	('000)	892	1,020	955	935	975	1,074
Lead	('000)	204	203	152	152	146	151
Iron ore	(million)	10.81	28.19	28.74	29.91	37.05	44.88
Manganese ore	(million)	1.50	2.72	2.65	2.34	2.16	2.30
Tin	('000)	25	20	24	23	22	19
Zinc	('000)	315	364	306	295	255	330
Crude phosphate	(million)	10.20	13.92	13.76	14.06	15.20	14.29
Diamonds		18.51 ^{e/}	25.30 ^{e/}	23.59 ^{e/}	21.87 ^{e/}	21.93 ^{e/}	19.16 ^{e/}

^{a/} Excludes gold because data for S. Africa are not available.^{b/} Includes metal, ore and concentrates.^{c/} Preliminary estimates.^{d/} Liquified.^{e/} Excludes Guinea.^{f/} Excludes South Africa, Namibia, Lesotho, Swaziland, Botswana.Source: UN Yearbook of International Trade, 1960 to 1968.
National Publications.

MINERAL TABLES

TABLE A24 EXPORTS OF PRINCIPAL MINERALS FROM AFRICA BY VALUE 1960 TO 1969

<u>Mineral</u> ^{a/}	<u>1960</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u> ^{b/}
<u>Africa</u>		<u>Value in Million US Dollars</u>				
Crude petroleum	200	1,336	1,637	1,937	2,620	3,250
Copper	540	775	1,080	1,078	1,258	1,660
Gold	820	1,126	1,135	1,118	1,127	1,130
Diamonds	235	352	409	414	521	550
Iron ore	102	215	229	249	291	385
Crude phosphate	110	156	160	161	162	158
Bauxite, alumina) aluminium)	35	56	58	70	85	104
Manganese ore	60	78	94	85	76	76
Asbestos	60	69	56 ^{b/}	65 ^{b/}	68 ^{b/}	68
Tin	38	72	80	69	64	58
Uranium and thorium	152	56	55 ^{b/}	55 ^{b/}	55 ^{b/}	55
Zinc	30	51	44	40	32	42
Natural gas	-	-	8	28	30	36
Cobalt	20	23	36	29	34	39
Lead	45	67	49	37	36	29
<u>Developing Africa</u> ^{c/}						
Crude petroleum	200	1,336	1,637	1,937	2,620	3,250
Copper	517	695	949	912	1,094	1,497
Gold	71	53	48	50	47	50
Diamonds	141	178	185	190	206	219
Iron ore	98	201	208	216	238	322
Crude phosphate	110	157	160	161	162	158
Bauxite, alumina) Aluminium)	35	55	57	68	82	101
Manganese ore	47	60	68	59	48	46
Asbestos	23	30	20 ^{b/}	20 ^{b/}	20 ^{b/}	25
Tin	36	69	75	64	59	57
Zinc	28	47	41	37	29	43
Natural gas	-	-	8	28	30	36
Cobalt	20	23	36	29	34	39

^{a/} Includes metal, ore and concentrates.^{b/} Preliminary estimates.^{c/} Excludes South Africa, Namibia, Lesotho, Swaziland, Botswana.Source: UN Yearbook of International Trade Statistics; 1960 to 1968.
National Publications.

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TABLE A25 SHARE OF MINERAL EXPORTS IN TOTAL EXPORTS
IN AFRICAN COUNTRIES, 1960 to 1969

Country	Mineral Exports			Share of Total Exports			Major Mineral in 1969
	1960	1965	1969 ^{a/}	1966	1965	1969 ^{a/}	
	(in million US \$)			Percentage			
Libya	-	785	2,161	-	98.5	99.9	Petroleum
Mauritania	-	54	78	-	93.8	99.5	Iron ore
Zambia	359	505	1,047	...	94.9	97.6	Copper
Liberia	37	97	169	44.5	71.9	86.2	Iron ore
Congo DR	...	259	525	...	77.1	86.0	Copper
Sierra Leone	58	69	87	69.5	78.0	80.5	Diamonds
Algeria	209	350	620	53.1	54.9	71.9	Petroleum
Guinea	24	35	34	43.6	67.3	59.6	Alumina
Gabon	10	41	84	22.3	42.7	59.0	Petroleum
Nigeria	30	233	415	6.3	31.0	45.9	Petroleum
CAR	2	14	16	12.1	53.2	44.4	Diamonds
Angola	23	38	120	18.8	19.0	36.6	Diamonds
Togo	-	9	16	-	33.3	35.3	Phosphate rock
Rwanda	...	-	4.4	...	-	31.0	Tin ore
Morocco	126	165	149	35.6	38.4	30.8	Phosphate rock
Ghana	78	61	90	26.5	21.0	23.3	Aluminium
S. Rhodesia	43	85	72	24.8	19.2	22.6	Copper
Tunisia	27	36	37	22.6	30.0	22.2	Petroleum
Congo PR	1.1	22	7	6.1	47.2	13.5	Diamonds
Tanzania	20	23	25	11.5	12.3	10.8	Diamonds
Cameroon	18	20	22	18.6	14.4	9.5	Aluminium
Senegal	1.9	11	12	1.7	8.5	9.3	Phosphate rock
Uganda	10	23	17	8.7	12.8	8.8	Copper
UAR	15	20	15	2.6	3.3	2.1	Petroleum
Ivory Coast	2.0	4.9	2.6	1.3	1.8	0.6	Iron ore

^{a/} Preliminary Estimates.Source: UN; Yearbook of International Trade Statistics, 1960 to 1968.
National Publications.

INDUSTRY TABLES

TABLE A26 SUMMARY OF MAJOR INDUSTRIAL UNITS ESTABLISHED OR UNDER CONSTRUCTION
IN NORTH, WEST, EAST AND CENTRAL AFRICA 1967 TO 1969

Sub-region and Country	Projects	Investment (US\$ mn)	Capacity	Date
<u>North Africa</u>				
Algeria	Cotton mills	...	...	Operating 1967
	Sugar mills	...	...	Operating 1967/68
	Sugar refinery	...	Over 80,000 tons	Completed 1968
	Tannery	...	3,000 tons	Operating 1967
	Shoe factories	...	1 million prs.	Operating 1967
	Iron & steel complex	...	350,000 tons	Steel section 1971
	<u>Petro chemicals</u>			
	Ammonia	...	350,000 tons)	Under construction.
	Nitric acid	...	150,000 tons)	Complex to be
	Ammonium nitrate	...	175,000 tons)	completed 1971
	Urea	...	150,000 tons)	
	Date factories	...	24,000 tons	Operating 1969
	<u>Engineering complex</u>	26.53		
	Cast iron foundry		7,500 tons)	Expected to start operating 1973
	Steel foundry		2,800 tons)	
	Bronze foundry		...	
	Sluice gates		3,750 tons)	
	Methanol plant	7.20	100,000 tons	End 1972
	Cement plant	16.20	1 million tons	Under construction
	Canneries	...	45,000 tons	End 1972
	Timber factory	10.13	28,000 m ³	Early 1972
	Pulp and paper	44.55	200 tons pulp day	Believed under construction.
			110 tons paper/ day	
Libya	Gas liquefaction	168.0		Finished (1970?)
	Water desalination	2.5	19 mn litres/ day	1970?
	Cement plant	4.2	120,000 tons	1969/70
	Sardine plant	1.1	10 tons/day	Under construction
	<u>Chemical complex</u>	...		
	Ammonia		350,000 tons)	Long term project 1975 possible date for produc- tion.
	Ammonium nitrate		175,000 tons)	
	Nitric acid		150,000 tons)	
	Urea		140,000 tons)	
	Textile mill	...	...	Reported under construction.

INDUSTRY TABLES

TABLE A26 SUMMARY OF MAJOR INDUSTRIAL UNITS ESTABLISHED OR UNDER CONSTRUCTION
IN NORTH, WEST, EAST AND CENTRAL AFRICA 1967 TO 1969 (Cont'd.)

Sub-region and Country	Projects	Investment (US\$ mn)	Capacity	Date
Morocco	Beet sugar mills	...	...	One in 1969, one 1971
	Textile plants	...	55 million metres	Opened 1967/68
	Auto assembly	...	...	Opened 1967
	Sugar refineries	...	...	Under construction
	Synthetic fibre plant	...	...	Construction approved
Sudan	Plant for durra processing	Over 5	70 tons/day	...
	Cement factory	6.0	350 tons/day	Operating end 1970
	Tannery	16.1	8 tons hides/day 3,000 skins/day	Agreement signed
Tunisia	Paper mill		25,000 tons	Completion 1969?
	<u>Chemical complex</u>			
	Diammonium phosphate		200,000 tons)	Production 1970
	Phosphoric acid		100,000 tons)	
	Sulphuric acid		300,000 tons)	
	<u>Chemical complex</u> (Extension)			
	Sulphuric acid		70,000 tons }	Production 1970
	Phosphoric acid		40,000 tons }	
	Triple superphosphate		100,000 tons }	
	Clothing factories			In operation
UAR	Cigarette factory			In operation
	Wool textile plant			In operation
	Synthetic fibre plant			In operation
	Helwan Steel Rolling mill	156.0	300,000 tons hot and cold rollings	Opened 1969
	Auto plant			Reported under construction end 1967.
	Chloro sulphuric acid plant.			
	Cigarette filter plant	1.6	6 mn/day	Operating 1968
	Helwan iron and Steel complex	828.0	1.25 mn tons steel	To start 1971 Full capacity 1977.
	Textile plant	...	...	...
	Aluminium plant	...	100,000 tons	Approved 1969
	Fertilizer complex	...	200,000 tons	Approved 1969
	Superphosphates			
	Ferro silicon plant	...	20,000 tons	Completion 1974

INDUSTRY TABLES

TABLE A26 SUMMARY OF MAJOR INDUSTRIAL UNITS ESTABLISHED OR UNDER CONSTRUCTION
IN NORTH, WEST, EAST AND CENTRAL AFRICA 1967 TO 1969 (Cont'd.)

Sub-region and Country	Projects	Investment (US\$ mn)	Capacity	Date
UAR(Cont'd.)	Tannery	...	...	First stage 1968
	M/cycle plant	...	14,000	Opened 1969
	Slag cement plants	...	300,000 tons	Opened 1968/69
	Motor tyres	...	...	...
	Sulphuric acid	...	100,000 tons)	To be commissioned 1970
	Sulphuric acid	...	40,000 tons)	
	<u>Chemical Complexes</u>			
	1. Sulphuric acid	...	83,000 tons)	To be commissioned 1970
	<u>Single superphosphates</u>	...	200,000 tons)	
	2. Ammonia	...	130,000 tons)	To be commissioned 1970
	Nitric acid (55%)	...	198,000 tons)	
	Calcium ammonium	...	370,000 tons)	
	<u>Nitrate (20.5%N)</u>	...		
	3. Ammonia	...	52,000 tons)	To be commissioned 1970
	Nitric acid	...	95,000 tons)	
	Calcium ammonium	...	200,000 tons)	
	<u>Nitrate (20.5% N)</u>	...		
West Africa	Distillery	...	...	Opened 1969
	Yeast plant	...	...	Opened 1969
	Vinegar plant	...	...	Opened 1969
	Glacial acetic acid	...	...	Opened 1969
	Textile plant	...	26,500 spindles) 192 loom)	Expansion existing plant
	Cement plant	21.6	300,000 tons	Under construction
	Clinker based) cement plant)	1.0	100,000 tons	Opened 1970
	Oil palm plants	...	...	Some completed
	Edible food pastes	...	...	Opened 1968
	Bicycle assembly	...	...	1969/70?
	Cotton textiles	7.2	8 million metres	Agreement 1969
	Textile plants	28.0	50 million yards	1967?
	Aluminium smelter	128.8	100,000 tons	Operating 1967
	Sugar mill	12.6	100 tons/day	Opened 1967
	Cement plants (clinker based)	7.0	600,000 tons	1967 and 1968
	Cocoa processing	5.6	36,000 tons	Opened 1968
	Motor tyres	5.6	120,000 tyres	Production 1969
Ghana	Pharmaceuticals	2.2	...	Opened 1967
	Flour mills	...	...	1968 and 1969
	Plywood and veneers	3.8	...	Production 1969
	Oil palm plants	...	...	...

INDUSTRIAL TABLES

TABLE A26 SUMMARY OF MAJOR INDUSTRIAL UNITS ESTABLISHED OR UNDER CONSTRUCTION
IN NORTH, WEST, EAST AND CENTRAL AFRICA 1967 TO 1969 (Cont'd.)

Sub-region and Country	Projects	Investment (US\$ mn)	Capacity	Date
Ghana (Cont'd.)	Vehicle assembly	...	1,200 cars	Production 1969
	Vehicle assembly	...	6,000 cars	1971?
	Brewery	2.6	...	Construction 1968
	Asbestos cement	1.8	23,000 tons	...
	Evaporated milk	2.3	\$3 million	Construction 1969
	Paper mill	3.0	...	Under construction
	Distillery	...	...	Opened 1969
	Margarine	1.6	...	Under Construction
Guinea	Cotton textile plant	...	...	Probably 1969/70
	Cement plant	18.0	100,000 tons	Under construction
Ivory Coast	Tuna canning	2.0	...	Commenced production
	Palm oil plants	...	...	175,000 tons tar- get 1975
	Essences and juices	1.2	...	Opened 1969
	Bakeries and) Confectioneries)	1.1	12.5 tons/day	Construction 1969
	Brick plant	1.3	30,000 tons	Opened 1968
	Pineapple processing	2.9	...	Completed 69/70
	Fertilizer complex	5.4		
	Single superphosphates		6,000 tons)	Operation
	Ammonium sulphate		20,000 tons)	scheduled 1971
	Compounds (NPK)		35,000 tons)	
	Sisal sack plant	...	1.5 million	Probably 1968
	Cement (clinker based)	1.5	150,000 tons	Opened 1967
	Textile plants	...	...	...
Liberia	Cement plant (clinker based)	2.0	125,000 tons	Opened 1968
	Petroleum refinery	11.0	10,000 b/d	Opened 1968
Mali	Textile plant	4.0	9 million metres	Production 1968
	Cement plant	7.5	...	Production 1968?
	Textile plant	8.8	8 million metres (prints)	Production 1972?
	Dairy products	...	4,000 litres/ day	Under construction
	Cement plant	...	50,000 tons	Production 1970
	Rice mill	...	...	Opened 1968
	Flour mill	...	7,200 tons	Construction 1969

INDUSTRIAL TABLES

**TABLE A26 SUMMARY OF MAJOR INDUSTRIAL UNITS ESTABLISHED OR UNDER CONSTRUCTION
IN NORTH, WEST, EAST AND CENTRAL AFRICA 1967 TO 1969 (Cont'd.)**

Sub-region and Country	Projects	Investment (US\$ mn)	Capacity	Date
Mauritania	<u>Fish processing</u> <u>Plants (2)</u> for fish flour Fish oil Preserved fish Tinned fish	...	3,300 tons) 2,000 tons) 6,000 tons) 6,000 tons)	Probably opened 1968
Niger	Cotton textiles Maize mill Brewery Jute bags Textile plant Sugar mill Tannery (for skins and hides)	7.5 ... 1.4 1.4 7.9 7.9 0.7	1,520 tons 1,620 tons	Production 1968 Completed 1967 Opened 1969 Construction 1970 Production 1968 Construction 1970 Production 1970?
Nigeria	Jute bags Groundnut mills Cocoa processing Paper mill Vehicle assembly Cement plants Cement plant Brewery Paper mill Pharmaceuticals Textile plants Iron and steel complex	... 11.2 11.2 6.4 14.0 3.9 11.2 14.0 ... ...	... 400,000 tons (nuts) 50,000 tons (beans) 12,000 tons 100,000 tons ... 40 tons/day	Opened 1967 Opened 1967/68 Opened 1967 Some units 1967 Some in 1967 Other 1969/70 Inaugurated 1969, Production 1968? Production 1969 Construction 1969 Set up in 1967, 1968, 1969 Agreement signed
Senegal	Tuna processing Fertilizer plant (Superphosphates) (Mixed fertilizers) Cotton textiles Lubricating oil Textile plant Sugar mill & refinery	6.5 12.4 ... 4.0 5.6	25,000 tons 110,000 tons 10 million metres 6,000 tons 24 million metres 30,000 tons) raw 12,000 tons refined	Opened 1968/69 Opened 1968 Production 1970 Opened 1969 Opened 1969 Under construction

INDUSTRIAL TABLES

TABLE A26 SUMMARY OF MAJOR INDUSTRIAL UNITS ESTABLISHED OR UNDER CONSTRUCTION
IN NORTH, WEST, EAST AND CENTRAL AFRICA 1967 TO 1969 (Cont'd.)

Sub-region and Country	Projects	Investment (US\$ mn)	Capacity	Date
Sierra Leone	Petroleum refinery	7.2	450,000 tons crude	Opened 1969
	Cotton textiles	3.6	...	Agreement 1968
Togo	Fish processing and Abattoir	1.2	15 tons fish/ day 13 tons meat/ day	Production 1970?
	Cement plant (clinker based)	...	100,000 tons	Production 1970?
Upper Volta	Sugar refinery	1.1	1,500 tons	Completion 1970
	Tomato paste	0.6	750 tons	Opened 1969/70
	Textile plant	5.4	1,000 tons yarn	Opened 1970
			2,500 tons cloth	
	Cigarette plant	0.4	240 tons	In production
	Bicycle tyres		...	Construction 1969
<u>East Africa</u>				
Ethiopia	Soap and glycerine	0.5	...	Opened 1968/9
	Brewery	2.4	110,000 hl	Opened 1967
	Sugar mill	...	47,000 tons	Opened 1970
	Motor tyres	5.8	60,000	Under construction
	Worsted/synthetic)	1.0	65 looms	Plant now closed
	Textiles			
	Petroleum refinery	17.0	500,000 tons crude	Opened 1968
	Paper mill	8.7	7,500 tons	Opened 1970
	Flour mill	0.3	13,500 tons	Production 1969
	Sewing thread	0.5	548 tons	Production 1968/69
	Textiles	1.2	600,000 metres 270,000 blankets	Production 1968
	Sisal products	0.7	1.2 mn sacks	Production 1969
	Asbestos cement	1.8	23,500 tons	In production
	Spice extraction	0.6	176 tons paprika	Opened 1969
	Mineral water	1.2	26 mn bottles	Opened 1970/71
	Jute products	1.3	5,000 tons	Production 1969/70
	Cotton textiles	...	...	...
	Cement plant	10.0	200,000 tons	Under construction
	Glassware	...	...
	Metal hand tools	1.2	1,000 tons	Under construction

INDUSTRIAL TABLES

TABLE A26 SUMMARY OF MAJOR INDUSTRIAL UNITS ESTABLISHED OR UNDER CONSTRUCTION
IN NORTH, WEST, EAST AND CENTRAL AFRICA 1967 TO 1969 (Cont'd.)

Sub-region and Country	Projects	Investment (US\$ mn)	Capacity	Date
Ethiopia (Cont'd.)	Metal containers etc.	0.2	...	In production
	Leather tannery	9.8	15.3 mn sq.ft.	Agreement signed
Kenya	Sugar mill	...	16,000 tons	Production 1967
	Pineapple canning	14.0	...	...
	Cashewnuts	1.7	10,000 tons	Opened 1969?
	Cigarettes	1.7	...	Opened 1967
	Cement (expansion)	1.4	+200,000 tons	Completed 1970
	Textiles	7.6	10 mn yards	Construction 1968
	Cotton textiles	9.0	14.5 " "	...
	Knitting wool	...	...	Production 1968/9
	Lubricating oil	...	60,000 tons	Under Construction
	Electric bulbs, records etc.	1.1	...	In production
	Pulp & paper	36.4	45,000 tons	Agreement signed
	Motor tyres & tubes	15.4	150,000 tyres	Production 1971
	Steel rolling mill	2.8	36,000 tons	In production
Madagascar	Textile complex	...	15 mn metres	Opened 1970/71
	Soap plant	...	7,000 tons	Opened 1969
	Mixed fertilizers	...	3,000 tons	...
Malawi	Rice mill	...	...	Construction started 1968
	Textile expansion	1.7	104 looms	Completed 1969/70
	Brewery	2.8	40,000 hl	Opened 1968
	Traditional beer	1.0	...	In production
	Distillery	...	...	Opened 1967
Mauritius	Vegetable oil refinery	...	...	Opened 1969/70?
	Margarine factory	...	...	Established 1967
Somalia	Meat processing	...	5,100 tons canned meat 2,100 tons other	Opened 1969
	Tuna processing	...	2,605 tons	Opened 1969
	Soap plant	...	...	Opened 1969
	Cotton textile complex	3.8	8.5 mn yards	Opened 1969

INDUSTRIAL TABLES

TABLE A26 SUMMARY OF MAJOR INDUSTRIAL UNITS ESTABLISHED OR UNDER CONSTRUCTION
IN NORTH, WEST, EAST AND CENTRAL AFRICA 1967 TO 1969 (Cont'd.)

Sub-region and Country	Projects	Investment (US\$ mn)	Capacity	Date
Tanzania	Cashewnut processing	3.4	30,000 tons	1969 and 1970
	Meat processing	3.6	12 mn lb.	1968/69
	Instant coffee	0.9	600 tons	Opened 1968/69
	Sisal cordage	...	...
	Cotton textiles	...	65 mn sq. metres	Built since 1967
	Sisal bags	1.3	12 million	Opened 1970
	Petroleum refinery	...	600,000 tons	On stream 1967
	Tannery	0.8	...	Opened 1969
	Milk & products	2.5	...	Opened 1969 & 1970
	Farm implements	0.5	...	In production?
	Fertilizer complex	16.5		
	Ammonium sulphate		20,000 tons	Under construction
	Diammonium phosphate		15,000 tons	
	Triple superphosphates		25,000 tons	
	Compounds (NPK)		45,000 tons	
	Steel rolling mill	1.5	30,000 tons	Opening 1970?
	Motor tyres	9.1	250,000	Under construction
	Cement expansion	5.1	240,000 tons	Under construction
	Distillery	0.4	...	Under construction
	Razor blades	0.6	...	In production
	Fishnet	0.7	1,200 tons	In production
	Clothing plants	...	...	Under construction
	Kenaf fibre	...	...	...
Uganda	Meat processing	2.8	...	Opened 1968/69
	Glassware	2.0	25 tons/day	Opened 1969
	Brewery expansion	2.8		Completed
	Cotton textiles	11.7	3,800 tons double and single yarns)	Under construction
	Jute bags	3.2	6 million bags) 2 mn yds. hessian	
	Paper mill	0.8	20 tons/day	Opened
	Electric light bulbs	0.7	4 million	In production
	Milk processing	2.1	36,000 galls/ day	Opened 1970
	Cardboard cartons	0.9	...	1969 and 1970
	Cotton textiles	...	...	Opened 1968
	Cement expansion	...	100,000 tons	Opened 1968
				In operation

INDUSTRIAL TABLES

TABLE A26 SUMMARY OF MAJOR INDUSTRIAL UNITS ESTABLISHED OR UNDER CONSTRUCTION
IN NORTH, WEST, EAST AND CENTRAL AFRICA 1967 TO 1969 (Cont'd.)

Sub-region and Country	Projects	Investment (US\$ mn)	Capacity	Date		
Zambia	Sugar mill	...	30,000 tons	Opened 1968		
	Sugar refinery	14.0	...	...
	Tyre plant	8.4	120,000 vehicle tyres	Opened 1969		
			540,000 cycle tyres			
	Copper wire & cable	4.2	4,000 tons	Opened 1971		
	Cotton textiles	11.2	14 million yards	Opened 1970		
	Soft drinks (expansion)	1.4	...	Completed 1969		
	Petroleum refinery	3.9	1.1 mn tons	Under construction		
	Fertilizers Explosures and Chemicals	25.2	26,000 tons N of ammonium nitrate. Ammonia. Nitric acid.	In production		
	Flax and hessian		4.2		5 mn yards flax 1.4 mn yards hessian	In production
<u>Central Africa</u>						
Burundi	Cotton textile plant	...	130 tons yarn for sale 650 tons fabric	Opened 1968		
Rwanda	Cotton textile plant	...	...	...
Cameroon	Sugar mill	...	20,000 tons	Opened 1968		
	Oil mills	...	...	
	Aluminium rolling Mill (expansion)	3.4	8,000 tons	Opened 1968		
	Shoe factory	1.8	...	Under construction		
	Saw mills	2.4	68,000 m ³	Construction 1967/68		
	Brewery	3.1	25,000 hl	Production 1969		
	Cement plant	4.2	22,000 tons	Production 1971		
	Cement (clinker based)	1.8	110,000 tons	Production 1971		
	Shrimp canning	1.3	800 tons	Production 1968/69		
	Brewery	2.2	55,000 hl	Under construction		
	Agriculture proces- sing	...	...	...

INDUSTRIAL TABLES

TABLE A26 SUMMARY OF MAJOR INDUSTRIAL UNITS ESTABLISHED OR UNDER CONSTRUCTION
IN NORTH, WEST, EAST AND CENTRAL AFRICA 1967 TO 1969 (Cont'd.)

Sub-region and Country	Projects	Investment (US\$ mn)	Capacity	Date
Cameroon	Chocolates	...	4,000 tons	Opened 1969
	Glassware	...	6,500 tons	Opened 1969/1970
CAR	Cotton textiles	10.1	8 mn metres	Opened 1967
	Flour mills, oil mill, refinery,	2.3	...	Production 1968
	Soap mill, feed mill			
	Jute bags	0.5	1,000 tons	Opened 1968
	Saw mills	...	...	...
Chad	Sugar packing etc.	1.2	6,000 tons	...
	Sugar mill	9.0	15,000 tons	Production 1969
	Textiles	7.3	8 million metres	Opened 1967
	Cigarette factor	0.4	250 tons	Opened 1969
	Abattoir			
	Metal cans	2.8	...	Under construction
	Tannery			
Congo DR	Footwear			
	Petroleum refinery	...	600,000 tons crude	Opened 1967
	Vehicle tyres	...	184,000 tyres	Open 1970?
	Vehicle assembly	...	...	1968/1969
	Flour mill	...	...	Under construction
	Textile plant	...	...	Under construction
Congo PR	Fish drying	...	...	Under construction
	Textile complex	6.1	3.5 mn metres cloth knitwear	In production 1969
	Cement plant	8.1	90,000 tons	Opened 1969
	Glass bottles			Production 1968
	Paper pulp	14.2	...	Project approved
	Matches	1.1	20 mn boxes	Operating 1969
	Gramophone records	1.0	1 million	Opened 1969
	Fish flour	...	5,000 tons	Opened 1969
Gabon	Cement plant (clinker based)	1.3	50,000 tons	Opened 1969
	Petroleum refinery	17.2	625,000 tons	Production 1967
	Brewery	1.4	50,000 hl beer	Opened 1968
	Explosives	...	1,500 tons	Opened 1969
	Textile plant(prints)	1.7	5 mn metres	Opened 1969
	Wood processing	...	...
	Flour mill	1.4	8,000 tons	Opened 1969

CONSTRUCTION TABLES

TABLE A27 GROSS DOMESTIC FIXED CAPITAL FORMATION IN CONSTRUCTION AND HOUSING AT CURRENT MARKET PRICES IN SELECTED AFRICAN DEVELOPING COUNTRIES, 1966 to 1968

	Land	Dwelling	Non-resi dential buildings	Other con- struction works	Total	Total GDFCF
1. Cameroon (milliard CFA francs)						
1966	-	13.0		6.2	19.2	30.2
1967	-	14.4		5.6	20.0	31.7
2. Ethiopia (million Eth.\$)						
1966		304			304	448
1967		362			362	511
3. Ghana (million New Cedis)						
1966	-	107		65	172	246
1967	-	92		56	148	213
1968	-	90		53	143	234
4. Ivory Coast (milliard CFA francs)						
1966		26.2			26.2	47.1
1967		-			-	49.8
1968		-			-	58.9
5. Kenya (million pounds)						
1966	2.7	9.2	6.1	11.6	29.6	61.2
1967	2.9	12.5	10.2	15.9	41.5	87.3
1968	3.3	15.1	13.9	17.8	50.1	91.0
6. Lesotho (million Rand)						
1966/7	0.20	1.62	2.42		4.24	5.34
7. Libya (million pounds)						
1966	40	79			119	167
1967	26	117			143	195
1968	43	163			206	274
8. Mauritius (million Rupees)						
1966	2	29	21	28	80	133
1967	2	37	29	27	95	145
1968	4	32	21	24	81	141
9. Morocco (000 million Dirhams)						
1966	-	0.34		0.59	0.93	1.53
1967	-	0.35		0.75	1.10	1.89
1968	-	0.38		0.73	1.11	1.97
10. Niger (million CFA francs)						
1966	644	3780		1275	5699	8890
11. Nigeria (million Nigerian £)						
1966	35.8	58.2		52.4	146.4	242.6
12. Sierra Leone (million Leones)						
1966	0.9	5.9	0.8	9.9	17.5	34.8
1967	0.1	9.3	1.5	7.9	18.8	56.6
1968	0.2	11.9	1.9	8.9	22.9	42.0

CONSTRUCTION TABLES

TABLE A27(Cont'd.)

	Land	Dwelling	Non-resi- dential buildings	Other con- struction works	Total	Total GDFCF
13. South Africa (million Rand)						
1966		995			995	2119
1967		1078			1078	2280
1968		1072			1072	2351
14. Southern Rhodesia (million pounds)						
1966		21.3			21.3	39.8
1967		25.7			25.7	51.0
1968		38.3			38.3	68.9
15. Swaziland (million Rand)						
1966	-	2.6		1.9	4.5	10.5
1967	0.9	2.4	1.6	1.1	5.1	11.2
16. Tanzania (million pounds)						
1966	-	11.9		9.5	21.4	42.7
1967	-	13.3		13.5	26.8	53.5
17. Togo (million CFA Francs)						
1966		1406		2111	3517	7322
18. Tunisia (million Dinars)						
1966	-	10.2	75.7		85.9	128.9
1967	-	11.7	73.7		85.4	126.8
1968	-	-	-		-	117.9
19. Zambia (million Kwacha)						
1966	4.1	22.1	9.2	56.9	92.3	175.8
1967			120.7		120.7	225.3
1968			145.9		145.9	266.2
20. Sudan (million pounds)						
1966	-	6.8	10.8	9.2	26.8	46.2
1967	-	6.9	14.0	11.2	32.1	62.8
1968	-	6.9	16.5	20.3	43.7	68.6
21. Upper Volta (milliard frs. CFA)						
1965	-	2.8		1.5	4.3	7.0
1966	-	2.5		1.8	4.3	7.1
22. Madagascar (milliard frs. CFA)						
1966	-	13.4		-	13.4	22.4
23. Malawi (000 pounds)						
1966	345		5358		5703	13,845
1967	416		4212		4628	11,359
1968	271		6835		7106	17,918

Source: United Nations; Yearbook of National Accounts, 1969.

CONSTRUCTION TABLES

TABLE A28 DETAILS OF TERMS FOR HOUSE MORTGAGE LOANS IN SELECTED
AFRICAN COUNTRIES IN 1969

Country	Organization	Period of repayment of loans	Rate of interest per annum
<u>Botswana</u>	Commercial Banks	Not known but probably not in excess of 5 years.	Not known, but probably those prevailing in the Republic of South Africa 8½-10 per cent.
<u>Central African Republic</u>	National Development Bank	5-10 years	8-10 per cent
<u>Ethiopia</u>	Mortgage Company of Ethiopia	5 years	8½ per cent plus 1 per cent additional on approval of loan
	Imperial Savings and Home Ownership Public Association	16 years	Up to 7 per cent
<u>Ghana</u>	First Ghana Building Society	5-15 years	9 per cent
<u>Kenya</u>	Housing Finance Company Kenya Ltd.	15-25 years	8½ per cent
	East African Building Society (Housing Bank suggested)	5-15 years	9-10 per cent
<u>Liberia</u>	Commercial Banks (Housing Bank proposed)	1 to 5 years	9-10 per cent discounted initially
<u>Madagascar</u>	A Social Welfare Body not named	up to 20 years	3 per cent
	Madagascar National Bank	10 years	5-7 per cent
	" " "	5 years	8 per cent (50 per cent loans for sums in excess of 2.5 million Madagascar francs)
<u>Malawi</u>	New Building Society	not stated	7½ per cent freehold 8½ " " leasehold
<u>Mauritius</u>	Commonwealth Development Corporation	Up to 20 years	Approx. 8½ per cent

CONSTRUCTION TABLES

TABLE A28 DETAILS OF TERMS FOR HOUSE MORTGAGE LOANS IN SELECTED
AFRICAN COUNTRIES IN 1969 (Cont'd.)

Country	Organization	Period of repayment of loans	Rate of interest per annum
<u>Morocco</u>	Caisse Immobiliere et Hoteliere	15 years	4 per cent (on low-cost housing)
	- " -	15 years	4-8 $\frac{1}{2}$ per cent on ordinary loans
<u>Nigeria</u>	Western State Housing Corporation	10-15 years	7 $\frac{1}{2}$ per cent
		up to 20 years	8 $\frac{1}{2}$ per cent
<u>Sierra Leone</u>	Not known but probably from Commercial Banks as Botswana		
<u>Somalia</u>	Credito Somale (Government Commercial Bank)	5 to 25 years	5 per cent
<u>Sudan</u>	Sudan Estates Bank	18 years	3 per cent for low-income groups loan to £S 2,000
	" " "	18 years	3 per cent for middle-income groups loan up to £S.7,000
	" " "	not stated	6-9 per cent for high incomes over £S450 per annum. Loans up to £S25,000.
<u>Swaziland</u>	Swaziland Credit and Savings Bank	up to 15 years	8 $\frac{1}{2}$ per cent
	Swaziland Building Society	" "	9 per cent
<u>Tanzania</u>	Housing Finance Company of Tanzania Ltd.	15 to 25 years	8 $\frac{1}{2}$ per cent
<u>UAR</u>	Not named	Up to 15 years	5-6 per cent
<u>Uganda</u>	Housing Finance Company of Uganda Ltd.	15-25 years	8 $\frac{1}{2}$ per cent

Source: ECA
National Data

ENERGY TABLES

TABLE A29 PRODUCTION OF PRIMARY ENERGY BY TYPE OF ENERGY IN AFRICA
1965 TO 1969

Sub-region and Country	Item	1965	1967	1968	1969
(in thousand tons of coal equivalent)					
<u>North Africa</u>					
<u>Algeria</u>	Coal	45	17	-	17
	Crude petroleum	35,109	51,832	56,916	58,231
	Natural gas	2,450	2,874	3,301	3,980
	Hydro electricity	200	204	280	280
	Total	37,804	54,927	60,497	62,508
<u>Libya</u>	Crude petroleum	75,891	108,520	163,201	194,610
<u>Morocco</u>	Coal	419	482	451	396
	Crude petroleum	134	129	116	75
	Natural gas	15	15	17	16
	Hydro electricity	608	464	536	708
	Total	1,176	1,090	1,120	1,195
<u>Sudan</u>	Hydro electricity	16	48	52	52
<u>Tunisia</u>	Crude petroleum	-	2,913	4,148	4,820
	Natural gas	11	13	13	12
	Hydro electricity	21	20	16	20
	Total	32	2,946	4,177	4,852
<u>UAR</u>	Coal	20	20	-	-
	Crude petroleum	8,441	7,450	11,706	16,848
	Hydro electricity	888	956	1,476	1,000
	Total	9,349	8,426	13,182	18,448
<u>Sub-region</u>	Coal	484	519	451	413
	Crude petroleum	119,575	170,844	236,087	274,584
	Natural gas	2,476	2,902	3,331	4,008
	Hydro electricity	1,733	1,692	2,360	2,663
	Total	124,268	175,957	242,229	281,668
<u>West Africa</u>					
<u>Ghana</u>	Hydro electricity	54	748	1,260	1,364
<u>Guinea</u>	Hydro electricity	22	8	12	15
<u>Ivory Coast</u>	Hydro electricity	72	96	128	127
<u>Liberia</u>	Hydro electricity	10	18	16	110
<u>Mali</u>	Hydro electricity	-	10	13	15
<u>Nigeria</u>	Coal	740	203	240	29
	Crude petroleum	17,599	20,264	9,487	34,616
	Natural gas a/	131	246	1,966	5,496
	Hydro electricity	66	72	64	380
	Total	18,536	20,785	11,757	40,782
<u>Togo</u>	Hydro electricity	2	4	4	3
<u>Sub-region</u>	Coal	740	203	240	290
	Crude petroleum	17,599	20,264	9,487	34,616
	Natural gas a/	131	246	1,966	5,496
	Hydro electricity	226	954	1,497	2,014
	Total	18,696	21,687	13,190	42,416

ENERGY TABLES

TABLE A29 PRODUCTION OF PRIMARY ENERGY BY TYPE OF ENERGY IN AFRICA
1965 TO 1969 (Cont'd.)

Sub-region and Country	Item	1965	1967	1968	1969
(in thousand tons of coal equivalent)					
<u>Central Africa</u>					
<u>Cameroon</u>	Hydro electricity	536	476	492	515
<u>CAR</u>	Hydro electricity	12	12	16	20
<u>Congo DR</u>	Coal	114	133	71	65
	Hydro electricity	1,288	1,224	1,304	1,420
	Total	1,402	1,357	1,375	1,485
<u>Congo PR</u>	Crude petroleum	92	65	56	31
	Hydro electricity	14	16	16	19
	Total	106	81	72	50
<u>Gabon</u>	Crude petroleum	1,643	4,477	6,035	6,568
	Natural gas	15	23	32	32
	Total	1,658	4,500	6,067	6,600
<u>Rwanda</u>	Natural gas	-	1	1	1
	Hydro electricity	16	28	32	35
	Total	16	29	33	36
<u>Equatorial</u>					
<u>Guinea</u>	Hydro electricity	1	1	1	1
<u>Sub-region</u>	Coal	114	133	71	65
	Crude petroleum	1,735	4,542	6,091	6,599
	Natural gas	15	24	33	33
	Hydro electricity	1,867	1,757	1,861	2,010
	Total	3,731	6,456	8,056	8,707
<u>East Africa</u>					
<u>Ethiopia</u>	Hydro electricity	77	104	116	125
<u>Madagascar</u>	Coal	2	2	-	-
	Hydro electricity	42	48	52	60
	Total	44	50	52	60
<u>Malawi</u>	Hydro electricity	6	44	52	55
<u>Mauritius</u>	Hydro electricity	32	28	24	26
<u>S. Rhodesia^{b/}</u>	Coal	3,509	2,739	2,969	3,100
	Hydro electricity	1,932	2,236	2,416	2,626
	Total	5,441	5,075	5,385	5,726
<u>Swaziland</u>	Coal	30	78	96	110
<u>Tanzania</u>	Coal	2	2	3	3
	Hydro electricity	89	108	120	130
	Total	91	110	123	133
<u>Uganda</u>	Hydro electricity	296	360	372	363
<u>Zambia</u>	Coal	-	399	573	397
	Hydro electricity	138	124	148	160
	Total	138	523	721	557
<u>Sub-total^{b/}</u>	Coal	3,543	3,220	3,641	3,610
	Hydro electricity	2,712	3,152	3,424	3,689
	Total	6,255	6,372	7,065	7,299

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TABLES A29 PRODUCTION OF PRIMARY ENERGY BY TYPE OF ENERGY IN AFRICA
1965 TO 1969 (Cont'd.)

Sub-region and Country	Item	1965	1967	1968	1969
	(in thousand tons of coal equivalent)				
<u>Other Africa</u>					
<u>Angola</u>	Crude petroleum	852	698	975	3,195
	Hydro electricity	136	168	192	200
	Total	988	866	1,167	3,395
<u>Mozambique</u>	Coal	237	282	314	277
	Hydro electricity	104	96	64	65
	Total	341	378	378	342
<u>South Africa</u>	Coal	48,460	49,300	51,656	52,296
	Hydro electricity	25	38	40	40
	Total	48,485	49,338	51,696	52,336
<u>Reunion</u>	Hydro electricity	13	4	12	15
<u>Sub-total</u>	Coal	48,697	49,582	51,970	52,573
	Crude petroleum	852	698	975	3,195
	Hydro electricity	278	306	308	320
	Total	49,827	50,586	53,253	56,088
<u>Total Africa</u>	Coal	53,578	53,657	56,373	56,951
	Crude petroleum	139,761	196,348	252,640	318,994
	Natural gas	2,622	3,172	5,330	9,537
	Hydro electricity	6,816	7,861	9,450	10,696
	Total	202,777	261,038	323,793	396,178
<u>Developing Africa</u>	Coal	5,118	4,357	4,717	4,655
	Crude petroleum	139,761	196,348	252,640	318,994
	Natural gas	2,622	3,172	5,330	9,537
	Hydro electricity	6,791	7,823	9,410	10,656
	Total	154,292	211,700	272,097	343,842

Source World Energy Supplies 1965-1968 J-13

ECA estimates

a/ Estimated commercial production.

b/ S. Rhodesia is included in East Africa because of the importance of Zambia as a consumer of Kariba electricity and Wankie Coal.

TABLE A30 CONSUMPTION OF PRIMARY ENERGY BY TYPE OF ENERGY IN AFRICA
1965 TO 1969

Sub-region and Country	Item	1965	1967	1968	1969
	(in thousand tons of coal equivalent)				
<u>North Africa</u>					
<u>Algeria</u>	Solid fuels	101	68	57	50
	Liquid fuels	2,332	3,676	3,863	4,100
	Natural gas	1,333	1,265	1,451	1,620
	Hydro electricity	200	204	280	280
	Total	3,966	5,213	5,651	6,050

ENERGY TABLES

TABLE A30 CONSUMPTION OF PRIMARY ENERGY BY TYPE OF ENERGY IN AFRICA
(Cont'd.)
1965 TO 1969

Sub-region and Country	Item	1965	1967	1968	1969
(in thousand tons of coal equivalent)					
<u>North Africa</u> (cont'd.)					
<u>Libya</u>	Solid fuels	7	2	4	5
	Liquid fuels	448	826	886	1,020
	Total	455	828	890	1,025
<u>Morocco</u>	Solid fuels	292	448	480	500
	Liquid fuels	1,636	1,936	2,008	2,200
	Natural gas	15	15	15	15
	Hydro electricity	608	476	540	708
	Total	2,551	2,875	3,043	3,423
<u>Sudan</u>	Solid fuels	7	3	1	1
	Liquid fuels	1,089	1,484	1,307	1,450
	Hydro electricity	16	48	52	55
	Total	1,112	1,535	1,360	1,506
<u>Tunisia</u>	Solid fuels	49	135	120	140
	Liquid fuels	924	914	963	1,020
	Natural gas	11	12	12	13
	Hydro electricity	20	20	16	20
	Total	1,004	1,081	1,111	1,193
<u>UAR</u>	Solid fuels	459	480	500	600
	Liquid fuels	8,339	7,486	8,872	9,200
	Hydro electricity	888	956	1,476	1,600
	Total	9,686	8,922	10,648	11,400
<u>Sub-region</u>	Solid fuels	915	1,136	1,162	1,296
	Liquid fuels	14,786	16,322	17,699	18,990
	Natural gas	1,359	1,292	1,478	1,620
	Hydro electricity	1,732	1,704	2,364	2,663
	Total	18,774	20,454	22,703	24,597
<u>West Africa</u>					
<u>Dahoméy</u>	Liquid fuels	73	64	78	80
<u>Gambia</u>	Liquid fuels	13	15	15	16
<u>Ghana</u>	Solid fuels	27	29	23	30
	Liquid fuels	731	656	719	800
	Hydro electricity	52	748	1,260	1,364
	Total	810	1,433	2,002	2,194
<u>Guinea</u>	Liquid fuels	343	357	369	380
	Hydro electricity	11	8	12	15
	Total	354	365	381	395
<u>Ivory Coast</u>	Liquid fuels	532	581	655	675
	Hydro-electricity	72	96	128	127
	Total	604	677	783	802
<u>Liberia</u>	Liquid fuels	274	307	319	325
	Hydro electricity	10	16	16	110
	Total	284	323	335	435

ENERGY TABLES

TABLE A30 CONSUMPTION OF PRIMARY ENERGY BY TYPE OF ENERGY IN AFRICA
1965 TO 1969 (Cont'd.)

Sub-region and Country	Item	1965	1967	1968	1969
(in thousand tons of coal equivalent)					
<u>West Africa</u> (Cont'd.)					
<u>Mali</u>	Liquid fuels	99	114	103	110
	Hydro electricity	-	10	13	15
	Total	99	124	116	125
<u>Mauritania</u>	Liquid fuels	51	58	67	70
<u>Niger</u>	Liquid fuels	43	57	57	60
<u>Nigeria</u>	Solid fuels	706	279	2	100
	Liquid fuels	1,728	1,408	1,534	1,800
	Natural gas	131	241	193	250
	Hydro electricity	64	72	64	380
	Total	2,629	2,000	1,793	2,530
<u>Senegal</u>	Liquid fuels	518	509	541	580
<u>Sierra Leone</u>	Solid fuels	4	-	-	-
	Liquid fuels	145	103	151	160
	Total	149	103	151	160
<u>Togo</u>	Liquid fuels	67	97	94	97
	Hydro electricity	2	4	4	3
	Total	69	101	98	100
<u>Upper Volta</u>	Liquid fuels	51	51	52	53
<u>Sub-region</u>	Solid fuels	737	308	25	130
	Liquid fuels	4,668	4,377	4,754	5,206
	Natural gas	131	241	193	250
	Hydro electricity	211	954	1,497	2,814
	Total	5,747	5,880	6,469	7,600
<u>Central Africa</u>					
<u>Cameroon</u>	Liquid fuels	237	305	339	350
	Hydro electricity	536	476	492	515
	Total	773	781	831	865
<u>CAR</u>	Liquid fuels	48	48	49	50
	Hydro electricity	12	12	16	20
	Total	60	60	65	70
<u>Chad</u>	Liquid fuels	49	55	61	65
<u>Congo DR</u>	Solid fuels	444	358	267	300
	Liquid fuels	599	603	840	880
	Hydro electricity	1,148	1,212	1,272	1,420
	Total	2,191	2,173	2,379	2,600
<u>Congo PR</u>	Liquid fuels	122	158	174	180
	Hydro electricity	12	16	16	19
	Total	134	174	190	199

ENERGY TABLES

TABLE A30 CONSUMPTION OF PRIMARY ENERGY BY TYPE OF ENERGY IN AFRICA
1965 TO 1969 (Cont'd.)

Sub-region and Country	Item	1965	1967	1968	1969
(in thousand tons of coal equivalent)					
<u>Central Africa</u> (Cont'd.)					
<u>Gabon</u>	Liquid fuels	98	170	180	200
	Natural gas	15	23	32	35
	Total	113	193	212	235
<u>Burundi</u>	Liquid fuels	21	22	28	30
	Hydro electricity	8	8	8	9
	Total	29	30	36	39
<u>Rwanda</u>	Liquid fuels	22	19	25	28
	Natural gas	1	1	1	2
	Hydro electricity	16	28	32	35
	Total	39	48	58	65
<u>Equatorial Guinea Sub-region</u>	Liquid fuels	43	43	45	47
	Solid fuels	444	358	267	300
	Liquid fuels	1,239	1,423	1,741	1,830
	Natural gas	16	24	33	37
	Hydro electricity	1,733	1,753	1,837	2,019
	Total	3,432	3,558	3,878	4,186
<u>East Africa</u>					
<u>Ethiopia</u>	Solid fuels	9	9	10	11
	Liquid fuels	264	398	504	520
	Hydro electricity	72	104	116	125
	Total	345	511	630	656
<u>Kenya</u>	Solid fuels	55	49	41	45
	Liquid fuels	1,053	1,331	1,379	1,410
	Hydro electricity	192	220	236	245
	Total	1,300	1,600	1,656	1,700
<u>Madagascar</u>	Solid fuels	17	19	21	25
	Liquid fuels	230	338	358	370
	Hydro electricity	40	48	52	60
	Total	287	405	431	455
<u>Malawi</u>	Solid fuels	68	54	48	50
	Liquid fuels	75	99	112	115
	Hydro electricity	4	44	52	55
	Total	147	197	212	220
<u>Mauritius</u>	Solid fuels	2	1	1	2
	Liquid fuels	114	132	135	140
	Hydro electricity	32	28	24	26
	Total	148	161	160	168
<u>Somalia</u>	Liquid fuels	64	111	75	90

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TABLE A30 CONSUMPTION OF PRIMARY ENERGY BY TYPE OF ENERGY IN AFRICA
1965 TO 1969 (Cont'd.)

Sub-region and Country	Item	1965	1967	1968	1969
(in thousand tons of coal equivalent)					
<u>East Africa</u> (Cont'd.)					
<u>Tanzania</u>	Solid fuels	2	2	4	6
	Liquid fuels	558	834	636	820
	Hydro electricity	88	108	120	130
	Total	648	944	760	956
<u>Uganda</u>	Liquid fuels	273	356	438	450
	Hydro electricity	200	240	260	280
	Total	473	596	698	730
<u>Zambia</u>	Solid fuels	1,214	1,449	1,351	1,500
	Liquid fuels	285	471	527	800
	Hydro electricity	1,276	1,436	1,524	1,650
	Total	2,775	3,356	3,402	3,950
<u>Sub-region</u>	Solid fuels	1,367	1,583	1,476	1,639
	Liquid fuels	2,916	4,070	4,164	4,715
	Hydro electricity	1,904	2,228	2,384	2,571
	Total	6,187	7,881	8,024	8,925
<u>Other Africa</u>					
<u>Angola</u>	Solid fuels	21	21	38	40
	Liquid fuels	472	464	690	700
	Hydro electricity	136	168	192	200
	Total	629	653	920	940
<u>Mozambique</u>	Solid fuels	478	419	558	600
	Liquid fuels	250	386	538	620
	Hydro electricity	48	48	52	70
	Total	776	853	1,148	1,290
<u>S. Rhodesia</u>	Solid fuels	1,754	1,568	2,095	2,200
	Liquid fuels	588	446	402	500
	Hydro electricity	984	972	1,076	1,100
	Total	3,326	2,986	3,573	3,800
<u>South Africa</u> ^{a/}	Solid fuel	47,290	48,125	50,514	51,100
	Liquid fuels	7,152	8,828	8,509	8,700
	Hydro electricity	24	36	40	45
	Total	54,366	56,989	59,063	59,845
<u>7 Other Areas</u> ^{b/}	Liquid fuels	217	253	238	265
	Hydro electricity	12	4	12	15
	Total	229	257	250	280
<u>Sub-total</u>	Solid fuels	49,543	50,133	53,205	53,940
	Liquid fuels	8,679	10,377	10,377	10,785
	Hydro electricity	1,204	1,228	1,372	1,430
	Total	59,426	61,738	64,954	66,155

ENERGY TABLES

TABLE A30 CONSUMPTION OF PRIMARY ENERGY BY TYPE OF ENERGY IN AFRICA
1965 TO 1969 (Cont'd.)

Sub-region and Country	Item	1965	1967	1968	1969
(in thousand tons of coal equivalent)					
<u>Total Africa</u>	Solid fuels	53,006	53,518	56,135	57,305
	Liquid fuels	32,270	36,569	38,735	41,526
	Natural gas	1,506	1,557	1,704	1,935
	Hydro electricity	6,784	7,867	9,454	10,697
	Total	93,566	99,511	106,028	111,463
<u>Developing Africa c/</u>	Solid fuels	5,716	5,393	5,621	6,205
	Liquid fuels	25,118	27,741	30,226	32,826
	Natural gas	1,506	1,557	1,704	1,935
	Hydro electricity	6,760	7,831	9,414	10,652
	Total	39,100	42,522	46,965	51,618

Source: World Energy Supplies 1965-1968 J-13
ECA estimates.

- a/ Includes Botswana, Lesotho, Swaziland, Namibia.
 b/ Cape Vert Isles, Portuguese Guinea, Reunion, Comores Isles,
 Affars and Issas, Seychelles Isles, Sao Tome and Principe.
 c/ Incomplete.

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TABLE A31 PETROLEUM REFINERIES AND
THEIR CAPACITIES IN AFRICA 1966 AND 1969

<u>Subregion and</u> <u>Country</u>	<u>Units</u> (number)	<u>Capacity</u> (million tons)	<u>Units</u> (number)	<u>Capacity</u> (million tons)
<u>North Africa</u>				
Algeria	2	2,300	2	2,300
Libya	2	520	2	520
Morocco	2	1,500	2	1,500
Sudan	1	1,000	1	1,000
Tunisia	1	1,000	1	1,000
UAR	3	8,200	3	11,025
Subtotal	<u>11</u>	<u>14,520</u>	<u>11</u>	<u>17,345</u>
<u>West Africa</u>				
Ghana	1	1,250	1	1,250
Ivory Coast	1	800	1	1,200
Liberia	-	-	1	750
Nigeria	1	2,150	1	2,150
Senegal	1	700	1	1,000
Sierra Leone	-	-	1	500
Subtotal	<u>4</u>	<u>4,900</u>	<u>6</u>	<u>6,850</u>
<u>Central Africa</u>				
Congo DR	-	-	1	690
Gabon	-	-	1	680
Subtotal	<u>-</u>	<u>-</u>	<u>2</u>	<u>1,370</u>
<u>East Africa</u>				
Ethiopia	-	-	1	500
Kenya	1	1,850	1	1,850
Madagascar	-	-	1	600
Tanzania	-	-	1	1,000
Subtotal	<u>1</u>	<u>1,850</u>	<u>4</u>	<u>3,950</u>
<u>Other Africa</u>				
Angola	1	500	1	500
Mozambique	1	600	1	800
S. Rhodesia	1	1,000	1	1,000
South Africa	3	5,375	4	8,125
Subtotal	<u>6</u>	<u>7,475</u>	<u>7</u>	<u>10,425</u>
Total Africa	<u>22</u>	<u>28,745</u>	<u>30</u>	<u>39,940</u>
Total Developing Africa	<u>19</u>	<u>23,370</u>	<u>26</u>	<u>31,815</u>

Source: Petroleum Press Service
ECA

ENERGY TABLES

TABLE A32 PRODUCTION OF PETROLEUM PRODUCTS IN AFRICA, 1965 TO 1968

<u>Subregion and</u> <u>Country</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>
<u>North Africa</u>		(in million tons)		
Algeria	2.35	2.36	2.72	2.98
Libya	-	-	0.25	0.36
Morocco	1.09	1.16	1.24	1.31
Sudan	0.56	0.75	0.82	0.53
Tunisia	0.65	0.73	0.73	0.84
UAR	7.78	7.58	6.06	5.49
Subregion	<u>12.43</u>	<u>12.58</u>	<u>11.82</u>	<u>11.51</u>
<u>West Africa</u>				
Ghana	0.72	0.64	0.67	0.68
Ivory Coast	0.17	0.59	0.63	0.71
Liberia	-	-	-	0.02
Nigeria	0.17	1.54	0.57	-
Senegal	0.44	0.44	0.51	0.55
Subregion	<u>1.50</u>	<u>3.21</u>	<u>2.38</u>	<u>1.96</u>
<u>Central Africa</u>				
Congo DR	-	-	-	0.54
Gabon	-	-	0.07	0.71
Subregion	<u>-</u>	<u>-</u>	<u>0.07</u>	<u>1.25</u>
<u>East Africa</u>				
Ethiopia	-	-	0.15	0.42
Kenya	1.75	1.82	1.95	1.96
Madagascar	-	0.09	0.30	0.41
Tanzania	-	0.26	0.68	0.66
Subregion	<u>1.75</u>	<u>2.17</u>	<u>3.08</u>	<u>3.45</u>
<u>Other Africa</u>				
Angola	0.52	0.59	0.58	0.62
Mozambique	0.50	0.62	0.72	0.77
S. Rhodesia	0.43	-	-	-
South Africa	4.36	5.25	6.88	6.64
Subtotal	<u>5.81</u>	<u>6.46</u>	<u>8.18</u>	<u>8.03</u>
Total Africa	<u>21.49</u>	<u>24.42</u>	<u>25.53</u>	<u>26.20</u>
Total Developing Africa	<u>17.13</u>	<u>19.15</u>	<u>18.65</u>	<u>19.96</u>

Source: UN World Energy Supplies 1965-1968 J. 13

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TABLE A33 CONSUMPTION OF PETROLEUM PRODUCTS IN AFRICA 1965 TO 1968

Sub-region and Country	Total Consumption				Consumption per Head			
	1965	1966	1967	1968	1965	1966	1967	1968
	(in million tons)				(kilograms per head)			
North Africa								
Algeria	1.55	2.06	2.45	2.58	130	169	195	198
Libya	0.30	0.41	0.55	0.59	184	244	316	327
Morocco	1.09	1.19	1.29	1.34	81	86	91	91
Sudan	0.73	0.71	0.99	0.87	53	51	68	58
Tunisia	0.62	0.64	0.61	0.64	141	144	133	137
UAR	5.56	6.01	4.99	5.78	189	199	161	182
Sub-region	9.85	11.02	10.88	11.80	133	143	139	146
West Africa								
Dahomey	0.05	0.04	0.04	0.05	20	15	17	20
Gambia	0.01	0.01	0.01	0.01	27	26	29	28
Ghana	0.49	0.41	0.44	0.48	62	52	53	57
Guinea	0.23	0.24	0.24	0.25	65	65	64	64
Ivory Coast	0.35	0.37	0.39	0.44	92	94	96	106
Liberia	0.18	0.20	0.20	0.21	171	183	184	188
Mali	0.07	0.06	0.08	0.07	14	14	16	14
Mauritania	0.03	0.04	0.04	0.04	32	35	35	40
Niger	0.03	0.04	0.04	0.04	8	11	10	9
Nigeria	1.15	1.43	0.94	1.02	19	23	15	16
Senegal	0.35	0.35	0.34	0.36	99	97	93	97
Sierra Leone	0.10	0.06	0.07	0.10	40	25	28	40
Togo	0.04	0.06	0.06	0.06	27	35	37	35
Upper Volta	0.03	0.04	0.03	0.03	6	7	6	6
Sub-region	3.11	3.35	2.92	3.16	31	33	28	30
Central Africa								
Cameroon	0.16	0.18	0.20	0.23	30	33	37	40
CAR	0.03	0.03	0.03	0.03	23	20	21	22
Chad	0.03	0.03	0.04	0.04	9	7	10	11
Congo DR	0.40	0.44	0.40	0.56	25	27	24	33
Congo PR	0.08	0.10	0.10	0.12	96	118	122	133
Gabon	0.07	0.08	0.11	0.12	140	169	239	250
Equatorial								
Guinea	0.03	0.03	0.03	0.03	108	102	104	106
Burundi	0.01	0.01	0.01	0.02	4	4	4	5
Rwanda	0.01	0.01	0.01	0.02	4	4	3	4
Sub-region	0.82	0.91	0.94	1.17	22	24	24	29
East Africa								
Ethiopia	0.18	0.23	0.27	0.34	7	9	11	13
Kenya	0.70	0.84	0.89	0.92	74	87	89	90
Madagascar	0.15	0.19	0.23	0.24	25	30	35	36
Malawi	0.05	0.06	0.07	0.07	12	15	15	17
Mauritius	0.08	0.06	0.09	0.09	102	79	113	114
Somalia	0.04	0.04	0.07	0.05	17	17	27	18
Tanzania	0.37	0.41	0.55	0.41	31	34	45	33
Uganda	0.18	0.22	0.24	0.29	24	28	29	35
Zambia	0.19	0.18	0.31	0.35	51	47	79	86
Sub-region	1.94	2.23	2.72	2.76	27	29	37	36

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TABLE A33 CONSUMPTION OF PETROLEUM PRODUCTS IN AFRICA 1965 TO 1968
(Cont'd.)

Sub-region and Country	Total Consumption				Consumption per Head			
	1965	1966	1967	1968	1965	1966	1967	1968
<u>Other Africa</u>								
Angola	0.31	0.40	0.31	0.46	61	76	58	85
Mozambique	0.17	0.24	0.26	0.36	23	24	36	49
S. Rhodesia	0.39	0.37	0.30	0.27	87	79	62	54
South Africa	4.77	5.53	5.89	5.67	236	267	277	261
Cape Vert Isles	0.02	0.02	0.02	0.02	71	73	67	65
Portugues Guinea	0.02	0.02	0.02	0.02	32	41	37	39
Reunion	0.05	0.06	0.07	0.06	124	141	165	129
Comores Isles	-	0.01	0.01	0.01	...	24	23	23
Affars & Issas	0.05	0.05	0.05	0.05	593	574	537	550
Seychelles Isles	-	0.01	0.01	0.01	...	125	122	119
Sub-total	5.78	6.71	6.93	6.93	151	170	172	170
Total Africa	21.50	24.22	24.39	25.82	68	75	74	76
Total Develop- ing Africa	16.73	18.69	18.50	20.15	56	61	59	63

Source: UN World Energy Supplies, 1965-1968 J.13.

TABLE A34 PRODUCTION AND CONSUMPTION OF ELECTRICITY IN AFRICA
1965 TO 1969

Sub-region and Country	Electricity Production				Consumption per Head		
	1965	1967	1968	1969	1965	1968	1969
	(in million kwh)				(in kwh per head)		
<u>North Africa</u>							
Algeria	1,348	1,476	1,590	1,620	113	122	123
Libya	152	212	274	346	94	151	185
Morocco	1,362	1,448	1,538	1,668	102	105	109
Sudan	174	318	334	350	12	22	23
Tunisia	494	623	678	760	113	145	150
UAR	5,473	6,009	6,735	7,745	186	212	235
Sub-region	9,003	10,086	11,149	12,489	122	135	150
<u>West Africa</u>							
Dahomey	22	23	25	28	9	9	11
Gambia	8	11	12	13	24	34	36
Ghana	528	1,560	2,589	2,773	68	309	332
Guinea	174	200	225	250	49	59	65
Ivory Coast	220	314	372	441	57	90	91
Liberia	278	391	573	595	259	507	517
Mali	28	33	35	38	6	7	8
Mauritania	30	38	44	48	28	39	42
Niger	16	24	28	34	4	7	9
Nigeria	1,177	1,112	1,105	1,235	20	17	19
Senegal	230	274	287	321	65	77	84
Sierra Leone	106	129	144	162	44	58	63
Togo	34	48	56	60	20	31	33
Upper Volta	21	21	23	25	4	4	5
Sub-region	2,872	4,178	5,518	6,023	29	52	55

ENERGY TABLES

TABLE A34 PRODUCTION AND CONSUMPTION OF ELECTRICITY IN AFRICA
(Cont'd.)
1965 TO 1969

Sub-region and Country	Electricity Production				Consumption per Head		
	1965	1966	1967	1968	1965	1968	1969
	(in million kwh)				(in kwh per head)		
<u>Central Africa</u>							
Cameroon	1,100	998	1,006	1,100	210	180	193
CAR	21	28	34	41	15	22	28
Chad	18	26	31	38	5	8	10
Congo DR	2,618	2,506	2,664	2,920	140	128	138
Congo PR	42	48	55	64	49	63	70
Gabon	42	56	74	86	90	154	180
Equatorial Guinea	8	13	15	18	29	53	64
Burundi	2	1	1	2	4	4	6
Rwanda	8	13	15	18	11	20	21
Sub-region	3,887	3,734	3,949	4,341	104	99	107
<u>East Africa</u>							
Ethiopia	246	320	361	400	10	14	16
Kenya	328	339	402	459	55	61	64
Madagascar	152	180	195	215	24	29	32
Malawi	66	100	117	125	16	27	29
Mauritius	180	198	203	230	242	257	274
Somalia	12	14	16	19	4	5	7
Tanzania	227	284	315	358	19	25	28
Uganda	607	740	765	801	55	66	72
Zambia	666	604	659	688	792 ^{a/}	836 ^{a/}	892 ^{a/}
Sub-total	2,484	2,779	3,033	3,295	65	78	80
<u>Other Africa</u>							
Angola	317	391	457	605	61	85	108
Mozambique	425	455	418	410	45 ^{b/}	53 ^{b/}	54 ^{b/}
S. Rhodesia ^{c/}	4,121	4,952	5,576	6,000	495 ^{b/}	586 ^{b/}	656 ^{b/}
South Africa ^{c/}	34,820	40,200	43,485	46,561	1,723	2,005	1,989
Spanish Sahara	10	12	14	18	...	...	38
Spanish North Africa	5	6	6	8	...	...	49
Cape Vert Isles	9	8	9	9	40	36	36
Portuguese Guinea	5	8	9	10	9	17	18
Reunion	67	84	92	120	169	215	267
Comores Isles	15	18	20	22	...	...	89
Affars and Issas	22	28	34	37	271	414	435
Seychelles Isles	5	6	6	7	...	...	132
Sao Tome & Principe	6	7	6	7	98	92	115
Sub-total	39,827	46,175	50,132	53,814	960	1,119	1,187
Total Africa	58,073	66,952	73,781	79,962	182	215	228
Total Develop- ing Africa	23,251	26,752	30,296	33,401	78	97	101

Source: UN World Energy Supplies, 1965-1968, J.13.
ECA estimates.

a/ Includes imports mainly from S. Rhodesia.

b/ Much of the production is exported to Zambia.

c/ Probably includes Botswana, Lesotho, Swaziland, Namibia.

EXTERNAL TRADE TABLES

TABLE A35 BALANCE OF TRADE IN SELECTED AFRICAN DEVELOPING COUNTRIES
1960 TO 1969

Sub-region and Country	Balance of Trade in Million US dollars					
	1960	1965	1966	1967	1968	1969
NORTH AFRICA						
Algeria	-871	- 34	- 17	- 85	- 15	- 75
Libya	-158	-476	590	701	1,231	1,490
Morocco	- 43	- 15	- 48	- 93	-110	- 77
Sudan	-	- 12	- 18	- 19	- 35	- 19
Tunisia	- 69	-125	-109	-112	- 59 ^{a/}	- 99 ^{a/}
UAR	- 99	-329	-467	-226	- 44 ^{a/}	107 ^{a/}
Sub-total	-1,240	- 34	- 69	+336	+998	+1,327
WEST AFRICA						
Dahomey	- 13	- 20	- 23	- 28	- 28	- 32
Gambia	- 1	- 2	- 3	- 2	- 5	- 3
Ghana	- 69	-154	-108	- 32	- 1	- 46
Guinea	2	-	5	7	...	...
Ivory Coast	31	41	54	62	111	119
Liberia	14	30	34	28	62	81
Mali	- 10	- 27	- 23	- 35	- 26	- 22
Mauritania	- 8	33	46	40	36	32
Niger	-	- 13	- 10	- 13	- 4	- 3
Nigeria	-129	- 19	77	51	51	209
Senegal	- 64	- 31	- 6	- 20	- 30	- 74
Sierra Leone	9	- 19	- 17	- 20	5	11
Togo	- 11	- 18	- 11	- 13	- 8	- 12
Upper Volta	- 24	- 22	- 22	- 18	- 20	- 29
Sub-total	-273	-221	- 27	+ 7	+143	+231
CENTRAL AFRICA						
Cameroon	13	- 21	- 1	- 30	9	21
CAR	- 6	- 1	-	- 11	-	- 1
Chad	- 12	- 4	- 6	- 10	- 6	- 23
Congo DR	195	16	124	179	263	220
Congo PR	- 52	- 18	- 27	- 34	- 35	- 34
Gabon	15	34	34	53	60	64 ^{b/}
Burundi)	- 5	- 9	- 6	- 3	- 6	- 8 ^{b/}
Rwanda)	- 5	- 7	- 6	- 6	- 8	- 9
Sub total	+133	- 1	+111	+138	+277	+231
EAST AFRICA						
Ethiopia	- 11	- 34	- 51	- 42	- 67	- 36
Kenya ^{c/}	- 84	-104	-140	-132	-146	-136
Madagascar	- 36	- 46	- 44	- 41	- 54	- 67
Malawi	...	- 17	- 37	- 23	- 22	- 21
Mauritius	- 31	- 11	1	- 14	- 12	- 2 ^{b/}
Somalia ^{c/}	- 7	- 23	- 12	- 12	- 18	- 18 ^{b/}
Tanzania ^{c/}	51	35	58	47	13	37
Uganda ^{c/}	47	65	69	68	63	71
Zambia	...	237	346	229	308	636
Sub-total	+100 ^{b/}	+102	+188	+ 84	+ 65	+464

EXTERNAL TRADE TABLES

TABLE A35 BALANCE OF TRADE IN SELECTED AFRICAN DEVELOPING COUNTRIES
1960 TO 1969 (Cont'd.)

Sub-region and Country	Balance of Trade in Million US dollars					
	1960	1965	1966	1967	1968	1969
OTHER AFRICA						
Angola	- 4	5	12	- 37	- 32	4
Mozambique	- 55	- 65	- 96	- 77	- 80	-119
Reunion	- 16	- 63	- 66	- 80	- 80	-103
S. Rhodesia	...	107	36	2	- 34	39
Sub-total	- 30b/	- 15	-114	-192	-226	-179

Source: United Nations; Monthly Bulletin of Statistics, December 1968 and January 1971.

ECA Research and Statistics Division.

a/ Excluding crude petroleum.

b/ Estimate

c/ Excluding intra-trade between Kenya, Uganda, Tanzania.

TABLE A36 IMPORT COVERAGE BY EXPORTS IN SELECTED AFRICAN
DEVELOPING COUNTRIES, 1960 TO 1969

Sub-region and Country	Import Coverage by Exports in Percent					
	1960	1965	1966	1967	1968	1969
NORTH AFRICA						
Algeria	31.1	94.9	97.3	113.3	101.8	92.6
Libya	6.5	248.8	245.7	247.0	290.9	320.1
Morocco	89.2	96.6	89.9	82.0	80.5	86.3
Sudan	100.0	94.2	91.9	91.8	86.4	92.9
Tunisia	63.5	49.0	56.2	57.1	72.8	62.6
UAR	85.2	64.7	56.4	71.5	93.4	116.8
WEST AFRICA						
Dahomey	58.1	41.2	30.3	34.9	44.0	44.8
Gambia	88.9	87.5	85.0	90.0	72.2	86.4
Ghana	81.0	65.4	69.3	89.7	99.7	86.7
Guinea	104.0	100.0	109.4	115.9	...	...
Ivory Coast	125.8	117.4	121.0	123.6	135.3	135.6
Liberia	120.3	128.6	130.3	122.4	157.9	170.4
Mali	37.5	37.2	36.1	32.7	29.7	43.6
Mauritania	20.0	232.0	300.0	216.7	194.7	169.6
Niger	100.0	65.8	77.8	71.7	90.5	93.0
Nigeria	78.6	97.5	110.7	108.1	109.4	130.0
Senegal	64.2	80.6	96.3	87.3	83.4	63.0
Sierra Leone	112.2	82.4	83.0	78.0	105.5	90.2
Togo	57.7	60.0	76.6	71.1	83.0	78.0
Upper Volta	14.3	40.5	42.1	50.0	51.2	42.0

EXTERNAL TRADE TABLES

TABLE A36 IMPORT COVERAGE BY EXPORTS IN SELECTED AFRICAN DEVELOPING COUNTRIES, 1960 TO 1969 (Cont'd.)

Sub-region and Country	Import Coverage by Exports in Percent					
	1960	1965	1966	1967	1968	1969
<u>Central Africa</u>						
Cameroon	115.5	92.0	99.3	84.0	104.8	110.2
CAR	70.0	96.3	100.0	72.5	100.0	97.3
Chad	52.0	87.1	80.0	73.0	82.4	58.2
Congo DR	163.3	105.0	136.8	169.9	184.8	154.4
Congo PR	25.7	72.3	61.4	58.5	58.3	56.4
Gabon	146.9	154.8	151.5	179.1	193.8	181.0
Burundi	90.0	50.0	70.0	84.2	73.9	60.0 ^{a/}
Rwanda		66.7	63.1	70.0	66.1	60.2
<u>East Africa</u>						
Ethiopia	86.9	77.5	68.5	70.8	61.3	76.8
Kenya ^{a/}	57.1	58.2	55.4	55.7	54.5	58.4
Madagascar	67.6	66.7	69.0	71.7	68.2	62.8
Malawi	...	70.2	57.0	71.2	69.0	71.6
Mauritius	55.7	85.7	101.4	82.1	84.2	97.1
Somalia	76.7	54.0	71.4	70.0	62.5	64.0
Tanzania ^{a/}	142.5	123.0	130.4	124.7	106.5	118.6
Uganda ^{a/}	164.4	157.0	158.0	158.6	151.2	155.9
Zambia	...	180.3	200.3	153.4	167.8	245.5
<u>Other Africa</u>						
Angola	96.9	102.6	105.7	86.5	89.4	101.2
Mozambique	57.0	62.4	53.8	61.3	65.8	54.4
Reunion	69.2	35.1	37.1	31.0	36.5	29.9
S. Rhodesia	...	131.9	115.2	100.8	88.3	114.0

Source: As previous table.

^{a/} The exclusion of the intra-trade between Kenya, Tanzania and Uganda has the effect of reducing Kenya's coverage of imports but increasing that of Tanzania and Uganda.

TABLE A37 TOTAL EXPORTS OF SELECTED DEVELOPING AFRICAN COUNTRIES 1960 TO 1969 SHOWING AVERAGE ANNUAL GROWTH RATES

Sub region and Country	Exports (fob)(in mn. US \$)				Average Annual Growth Rate (per cent)	
	1960	1965	1968	1969	1960-65	1965-69
<u>North Africa</u>						
Algeria	394.0	637.3	830.0	934.0	10.1	10.0
Libya	11.2	796.5	1,876.1	2,167.0	^{a/}	28.5
Morocco	354.0	430.0	453.0	485	3.9	3.0
Sudan	182.0	195.9	223.3	248.0	1.5	6.1
Tunisia	119.6	119.8	158.0	165.0	-	8.3
UAR	567.8	604.0	621.6	745.0	1.2	5.4
Sub-total	1,628.6	2,783.5	4,162.0	4,744.0	11.3	14.3

EXTERNAL TRADE TABLES

TABLE A37 TOTAL EXPORTS OF SELECTED DEVELOPING AFRICAN COUNTRIES
1960 TO 1969 SHOWING AVERAGE ANNUAL GROWTH RATES (Cont'd.)

Sub-region and Country	Exports (fob)(in mn US \$)				Average Annual Growth Rate (per cent)	
	1960	1965	1968	1969	1960-65	1965-69
<u>West Africa</u>						
Dahomey	18.2	13.6	21.8	26.0	-5.7	17.6
Gambia	7.7	13.6	14.0	19.0	12.1	8.7
Ghana	293.7	290.9	306.7	301.0	-0.2	0.9
Guinea	52.0	52.0	...	...	-	...
Ivory Coast	151.2	277.1	424.8	453.0	12.8	13.1
Liberia	82.6	135.0	169.0	196.0	10.3	9.8
Mali	6.0	15.7	10.7	17.0	21.2	2.0
Mauritania	2.0	57.6	73.7	78.0	a/	7.9
Niger	12.5	25.3	38.0	40.0	15.1	12.2
Nigeria	475.1	751.1	591.0	905.0	9.6	4.8
Senegal	115.0	129.0	151.1	126.0	2.3	-0.6
Sierra Leone	82.9	88.5	95.6	101.0	1.4	3.4
Togo	14.5	27.0	38.6	45.0	13.2	13.6
Upper Volta	4.2	15.0	21.0	21.0	29.0	8.8
Sub-total	1,317.6	1,891.4	2,010.0 ^{b/}	2,380.0 ^{b/}	7.5	5.9
<u>Central Africa</u>						
Cameroon	97.0	139.1	197.0	226.0	7.4	12.9
CAR	13.8	26.3	35.7	36.0	13.7	8.1
Chad	13.2	27.2	27.6	32.0	12.8	4.1
Congo PR	17.8	46.6	49.3	44.0 ^{b/}	17.4	-1.4
Congo DR	503.0	336.0	573.0	610.0 ^{b/}	-7.8	16.1
Gabon	47.3	95.9	124.0	142.0 ^{b/}	15.3	10.3
Burundi	45.0	9.2	16.5	12.9 ^{b/}	...	8.8
Rwanda		14.0	14.8	14.2	...	-
Sub-total	737.1	694.3	1,037.8	1,117.1	-1.2	12.6
<u>East Africa</u>						
Ethiopia	73.0	116.6	106.4	119.0	9.9	0.5
Kenya ^{c/}	112.2	145.2	175.3	191.0	5.2	7.1
Madagascar	74.8 ^{b/c/}	91.6	115.8	112.0	4.1	5.2
Malawi	30.0 ^{b/c/}	40.2	48.6	53.0	...	7.1
Mauritius	38.8	65.8	63.5	66.0 ^{b/}	11.2	0.1
Somalia ^{c/}	22.9	27.0	30.0	32.0 ^{b/}	3.4	4.3
Tanzania ^{c/}	170.6	187.4	227.0	236.0	1.9	5.9
Uganda ^{c/}	120.1 ^{c/}	179.0	185.7	198.0	8.3	2.6
Zambia	362.0 ^{c/}	532.4	762.0	1,073.0	...	19.1
Sub-total	1,004.4	1,385.2	1,714.3	2,080.0	6.6	10.7
<u>Other Africa</u>						
Angola	124.0	199.8	271.1	327.0	10.0	13.1
Mozambique	73.0	108.0	153.7	142.0	8.2	7.1
Reunion	36.4	34.4	46.1	44.0	-1.2	

EXTERNAL TRADE TABLES

TABLE A37 TOTAL EXPORTS OF SELECTED DEVELOPING AFRICAN COUNTRIES
1960 TO 1969 SHOWING AVERAGE ANNUAL GROWTH RATES (Cont'd.)

Sub-region and Country	Exports (fob)(in mn US \$)				Average Annual Growth Rate (per cent)	
	1960	1965	1968	1969	1960-65	1965-69
<u>Other Africa (Cont'd.)</u>						
S. Rhodesia	173.0 ^{a/}	442.1	256.4	318.0	...	-7.9
Sao Tome & Principe	7.3	5.0	8.6	...	-7.4	...
Sub-total	413.7	789.3	735.9	841.0 ^{b/}	13.8	1.6
Developing Africa d/	5,300	7,650	9,810	11,480	7.6	10.6

Source: United Nations, Monthly Bulletin of Statistics, January 1971
ECA, Research and Statistics Division.

- a/ A very large increase from a small initial base.
b/ Provisional estimate or part estimated
c/ Excludes intra-trade.
d/ Excludes Botswana, Lesotho, Swaziland and Namibia.

TABLE A38 TOTAL IMPORTS OF SELECTED DEVELOPING AFRICAN COUNTRIES
1960 TO 1969 SHOWING AVERAGE ANNUAL GROWTH RATES

Sub-region and Country	Imports (cif)(in mn US \$)				Average Annual Growth Rate (in per cent)	
	1960	1965	1968	1969	1960-65	1965-69
<u>North Africa</u>						
Algeria	1,264.5	671.0	815.0	1,009.0	-11.9	10.8
Libya	169.0	320.3	645.0	676.0	13.6	20.5
Morocco	397.2	444.7	563.0	561.0	2.3	6.0
Sudan	182.1	208.0	258.0	266.0	2.7	6.3
Tunisia	189.2	245.0	217.0	265.0	5.2	2.0
UAR	646.1	933.4	666.0	638.0	7.6	-9.1
Sub-total	2,848.1	2,822.4	3,164.0	3,415.0	-0.2	4.9
<u>West Africa</u>						
Dahomey	30.9	34.3	50.0	58.0	2.1	14.0
Gambia	9.0	16.2	19.0	22.0	12.5	7.9
Guinea	50.2	52.0	...	...	0.7	...
Ivory Coast	119.9	236.3	314.4	334.0	14.5	9.0
Liberia	69.1	104.5	106.8	115.0	8.6	2.4
Mali	16.0	42.9	37.0	39.0	21.8	-2.3
Mauritania	10.0	24.8	38.0	46.0	19.9	16.7
Niger	12.9	37.6	42.0	43.0	23.9	3.4
Nigeria	604.4	770.4	540.1	696.0	4.9	-2.5
Senegal	179.0	160.0	180.9	200.0	-2.3	5.7
Sierra Leone	73.7	108.3	90.5	112.0	8.0	0.9
Togo	26.1	44.9	47.0	56.0	11.5	5.7
Upper Volta	28.0	37.1	41.0	50.0	5.7	7.7
Sub-total	1,229.2	1,669.3	1,560.0 ^{a/}	1,820.0 ^{a/}	6.3	2.2

EXTERNAL TRADE TABLES

TABLE A38 TOTAL IMPORTS OF SELECTED DEVELOPING AFRICAN COUNTRIES
1960 TO 1969 SHOWING AVERAGE ANNUAL GROWTH RATES (Cont'd.)

Sub-region and Country	Imports (cif)(in mn US \$)				Average Annual Growth Rate (in per cent)	
	1960	1965	1968	1969	1960-65	1965-69
<u>Central Africa</u>						
CAR	84.0	151.4	187.6	205.0	12.5	7.9
Chad	25.2	31.1	34.0	55.0	4.2	15.3
Congo DR	308.0	319.9	310.0	390.0 ^{a/}	0.8	5.1
Congo PR	70.1	64.7	83.5	78.0	-1.6	4.8
Gabon	31.7	62.4	64.5	78.0	14.5	5.7
Burundi	49.8	18.3	22.7	...	...	...
Rwanda	20.9	22.4	23.6	...	...	3.1
Sub-total	568.8	668.7	724.7	850.0 ^{a/}	3.3	6.2
<u>East Africa</u>						
Ethiopia	84.0	151.2	173.0	155.0	12.5	0.6
Kenya ^{b/}	196.1	249.0	321.0	327.0	4.9	7.1
Madagascar	111.4	138.0	170.2	179.0	-4.4	6.7
Malawi	...	57.1	71.0	74.0	...	6.7
Mauritius	69.6	77.1	75.7	68.0	2.1	-3.1
Somalia ^{b/}	30.2	49.5	48.0	50.0	10.4	0.2
Tanzania ^{b/}	120.4	151.6	214.0	199.0	4.7	7.0
Uganda ^{b/}	72.8	114.3	122.6	127.0	9.4	2.7
Zambia	...	295.0	454.0	437.0	...	10.3
Sub-total	1,000.0 ^{a/}	1,282.8	1,649.5	1,616.0	5.1	5.9
<u>Other Africa</u>						
Angola	127.6	194.8	303.0	322.0	8.9	13.4
Mozambique	128.4	173.2	234.4	261.0	6.2	10.8
Reunion	52.2	97.0	125.9	147.0	13.2	10.9
S. Rhodesia	...	335.4	289.8	279.0	...	-4.5
Sao Tome & Principe	4.7	5.0	6.3	...	1.2	...
Sub-total	600.0 ^{a/}	805.4	959.4	1,015.0 ^{a/}	9.8	5.9
Developing Africa ^{c/}	6,560	7,930	8,690	9,360	3.9	4.2

Source: UN; Monthly Bulletin of Statistics, January 1971.
ECA; Research and Statistics Division.

^{a/} Provisional estimates or part estimated.

^{b/} Excludes intra-trade between members of East African Community.

^{c/} Includes certain other countries including Botswana, Lesotho, Swaziland, Namibia, Equatorial Guinea.

EXTERNAL TRADE TABLES

TABLE A39 DIRECTION OF DEVELOPING AFRICA'S EXPORTS BY MAIN
COMMODITY GROUPS

	1960 To 1964 (Averages)					
	Food beve- rages & tobacco	Crude mater- ials eto.	Mineral fuels etc.	Manu- factures	All items	
	(Percentages)	(Percentages)	(Percentages)	(Percentages)	(Per cent)	(mn US\$)
EEC	46.0	41.4	71.7	38.2	45.9	2,720
EFTA	17.4	21.3	13.9	32.0	20.7	1,228
of which UK	(14.3)	(16.1)	(13.1)	(28.9)	(17.0)	(1,006)
USA & Canada	14.6	7.3	2.4	4.4	8.7	514
Japan	0.9	2.6	-	3.0	1.8	104
CPEEE & Asia ^{a/}	3.2	12.3	0.4	3.7	6.2	366
Australasia	0.8	0.4	-	0.1	0.5	27
<u>Developing</u>						
Asia	4.0	6.5	0.1	4.9	4.6	275
Latin America	0.6	0.4	0.6	1.1	0.7	39
Africa	9.2	2.7	3.1	7.5	6.3	375
Rest of world	3.3	5.1	7.8	5.1	4.6	282
Total	100.0	100.0	100.0	100.0	100.0	
Total value (mn US\$)	2,038	2,110	717	924		5,930
1965 TO 1969 (Averages)						
EEC	37.8	44.0	64.3	37.7	45.8	4,188
EFTA	15.6	16.6	17.7	26.1	18.4	1,678
of which UK	(11.8)	(10.8)	(13.9)	(21.2)	(13.7)	(1,252)
USA & Canada	15.9	6.5	4.6	3.4	7.8	411
Japan	1.6	4.5	-	9.5	3.5	317
CPEEE & Asia ^{a/}	6.5	13.0	0.4	5.1	6.6	599
Australasia	0.6	0.5	-	-	0.3	27
<u>Developing</u>						
Asia	5.9	5.6	0.1	2.2	3.6	332
Latin America	0.4	0.2	1.0	0.6	0.6	51
Africa	8.9	3.3	3.9	8.3	6.4	590
Rest of world	6.8	5.8	8.0	7.1	7.0	643
Total	100.0	100.0	100.0	100.0	100.0	
Total value (mn US\$)	2,442	2,332	2,386	1,770		9,136

Source: as previous table.

^{a/} Centrally Planned Economies of Eastern Europe and Asia.

EXTERNAL TRADE TABLES

TABLE A40 DIRECTION OF DEVELOPING AFRICA'S IMPORTS BY MAIN
COMMODITY GROUPS

Area	1960 to 1964 (Averages)				
	Food and tobacco	Beverages and tobacco	Manufactured goods	Machinery and transport equipment	All Items
	(Percentages)			Percent (mn. US\$)	
EEC	31.7	49.3	42.5	40.2	2,680
EFTA	9.4	20.0	26.2	18.7	1,246
of which UK	(5.3)	(14.0)	(20.8)	(13.8)	(922)
USA & Canada	22.1	4.1	11.7	10.9	727
Japan	0.7	9.9	7.4	5.3	353
CPEEE & Asia ^{a/}	3.4	6.1	7.8	6.0	401
<u>Developing</u>					
Africa	15.5	3.6	0.7	5.6	375
Other areas	11.4	6.9	0.3	7.8	520
Rest of world	5.8	0.1	3.4	5.5	360
Total	100.0	100.0	100.0	100.0	
Total value(mn US\$)	1,216	2,030	1,908		6,662
	(1965 TO 1969 (Averages))				
EEC	27.8	41.9	36.5	35.6	3,112
EFTA	10.2	16.4	20.9	16.1	1,406
of which UK	(5.1)	(10.0)	(14.9)	(10.9)	(948)
USA & Canada	16.2	5.2	11.5	9.8	854
Japan	0.5	8.3	16.0	8.1	710
CPEEE & Asia ^{a/}	9.3	8.1	9.5	8.8	772
<u>Developing</u>					
Africa	16.5	5.7	0.8	6.8	590
Other areas	11.8	7.7	0.7	7.8	684
Rest of world	7.7	6.7	4.1	7.0	600
Total	100.0	100.0	100.0	100.0	
Total value(mn US\$)	1,318	2,578	3,030		8,728

Source: ECA estimates based on UN Yearbook of International Trade, 1968 and UN Monthly Bulletin of Statistics, March 1971

EXTERNAL TRADE TABLES

TABLE A41 EXPORTS AS A PROPORTION OF GDP: MACHINERY AND TRANSPORT EQUIPMENT
IMPORTS AS A PROPORTION OF TOTAL IMPORTS AND OF GDCF_a/, 1965 AND 1969

Sub-region and Country	1965 Proportions			1969 Proportions		
	Exports of GDP	Machinery & Transport Equipment Imports of		Exports of GDP	Machinery & Transport Equipment Imports of	
	Per cent	GDCF	Total Imports	Per cent	GDCF	Total Imports
NORTH AFRICA						
Algeria	21.8	...	...	27.2	35.3	29.6 ^{b/}
Libya	53.6	28.5	36.3	59.0	31.2	39.5
Morocco	16.5	28.9	18.6	15.4	43.2	30.6
Sudan	14.2	18.9	21.0	13.7	26.0	24.1
Tunisia	12.7	19.1	31.3	14.0	26.9	25.3 ^{b/}
UAR	11.0	21.2	23.4	11.5	19.8	24.4 ^{b/}
Sub-total	18.8	24.3	25.0	23.5	29.0 ^{c/}	30.0 ^{c/}
WEST AFRICA						
Dahomey	8.6	21.9	16.8	11.6	...	...
Gambia	38.8	68.8	20.6	43.2	46.3 ^{b/}	19.5 ^{b/}
Ghana	18.5	55.6	33.3	13.2	36.5	26.7
Ivory Coast	32.1	41.0	28.1	34.7	43.9	32.9
Liberia	45.4	70.6	33.3	50.8	89.3	31.8
Mali	4.7	18.8	22.8	3.5	22.2	43.3
Mauritania	42.0	76.7	56.0	43.6	37.3	38.9
Niger	14.2	27.4	21.3	14.3	...	...
Nigeria	16.3	39.4	33.6	17.9	32.0	29.5
Senegal	18.7	27.2	14.6	17.1	33.7	19.6
Sierra Leone	28.8	66.3	29.4	24.8	39.1	23.8
Togo	17.0	39.5	32.5	18.9	41.2	24.6
Upper Volta	18.2	23.3	19.5	8.0	24.9	25.4
Sub-total	19.3	42.9	30.4	19.6	35.7 ^{c/}	28.6 ^{c/}
CENTRAL AFRICA						
Cameroon	22.0	37.8	25.2	23.5 ^{b/}	52.2	31.7
CAR	16.3	30.4	29.6	19.1 ^{b/}	27.9 ^{b/}	25.7 ^{b/}
Chad	12.7	34.0	21.3	13.1	28.6 ^{b/}	24.4 ^{b/}
Congo DR	25.1	53.2	33.1	38.1	...	...
Congo PR	30.7	67.6	34.3	19.1	36.1	32.1
Gabon	53.7	52.1	38.7	55.4	47.7	38.6
Sub-total	27.1	47.9	30.9	30.9	42.8 ^{c/}	32.4 ^{c/}
EAST AFRICA						
Ethiopia	8.6	34.2	37.1	7.4	23.2	34.5
Kenya	14.5	44.2	25.8	13.3	43.9	34.8
Madagascar	14.9	41.1	25.3	14.8	37.2	25.8
Malawi	18.4	41.7	20.7	18.8	42.9	29.3
Mauritius	39.8	42.4	15.3	35.5	29.6 ^{b/}	11.8 ^{b/}
Somalia	18.6	46.8	23.4	18.0	27.6 ^{b/}	19.0 ^{b/}
Tanzania	21.0	31.5	29.6	19.4	32.9	32.7
Uganda	20.6	36.0	36.5	17.4	25.4	36.9
Zambia	58.5	45.7	33.0	65.4	39.1	38.1
Sub-total	21.8	39.6	29.2	24.6	34.1 ^{c/}	32.8 ^{c/}

EXTERNAL TRADE TABLES

TABLE A41 EXPORTS AS A PROPORTION OF GDP: MACHINERY AND TRANSPORT EQUIPMENT IMPORTS AS A PROPORTION OF TOTAL IMPORTS AND OF GDCF^a, 1965 AND 1969 (Cont'd.)

Sub-region and Country	Exports of GDP	Machinery & Transport Equipment Imports of		Exports of GDP	Machinery & Transport Equipment Imports of	
	GDCF	Total Imports		GDCF	Total Imports	
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
OTHER AFRICA						
Angola	25.9	58.4	29.0	21.8	58.1 ^b	34.0 ^b
Mozambique	11.4	42.4	26.2	10.8	43.4 ^b	27.4 ^b
Reunion	16.4	37.1	20.1	24.6	...	...
S. Rhodesia	41.4	75.7	31.8	23.7	...	...
Sub-total	26.2	57.4	28.5	20.5	51.6 ^c	31.2 ^c
Total	20.6	36.2	28.6	23.3	33.3	30.5

Source: ECA Estimates.

^a/ GDCF = Gross Domestic Capital Formation.^b/ 1968^c/ Incomplete or includes 1968 data in part.

TABLE A42 EXPORT OF 20 LEADING PRIMARY PRODUCTS FROM DEVELOPING AFRICA

Commodity	1960	1965	1966	1967	1968	1969	Average Growth
							Rate 1965/69
							(% p.a.)
			Value in million US dollars				
Crude petroleum	200	1,336	1,637	1,937	2,620	3,250	22.6
Copper & ore	517	695	949	912	1,094	1,497	21.1
Raw cotton	640	602	612	584	603	660	2.3
Coffee beans	357	540	645	614	681	644	4.5
Cocoa beans	393	412	338	448	497	561	8.0
Groundnuts	158	209	235	198	197	176	4.2
Wood & timber	149	205	199	202	238	311	11.0
Iron ore	98	201	208	216	238	322	12.7
Diamonds	141	178	185	190	206	219	7.2
Crude phosphate	110	157	160	161	162	158	0.2
Sugar	93	122	134	131	134	104	- 3.9
Palm nuts etc.	107	102	85	38	56	51	-15.9
Groundnut oil	63	93	90	89	93	79	- 4.1
Citrus fruit	68	87	111	100	111	116	7.4
Rubber	108	75	79	63	59	75	-
Sisal	78	72	61	49	41	41	-13.2
Tin & tin ore	36	69	75	64	59	57	- 4.7
Palm oil	78	64	54	34	31	24	-21.8
Manganese ore	47	60	68	59	48	46	- 6.5
Tea	40	50	65	62	72	85	14.2
Total twenty	3,480	5,329	5,990	6,151	7,240	8,476	12.3
Total exports ^{a/}	5,300	7,650	8,130	8,390	9,810	11,480	10.7

^a/ Excludes Gold.

EXTERNAL TRADE TABLES

TABLE A42 EXPORT OF 20 LEADING PRIMARY PRODUCTS FROM
DEVELOPING AFRICA (Cont'd.)

Commodity	1960	1965	1966	1967	1968	1969
	Percentage of total exports					
Crude petroleum	3.8	17.5	19.8	23.1	26.7	28.3
Copper	9.8	9.1	11.5	10.8	11.2	13.0
Raw cotton	12.1	7.9	7.4	7.0	6.1	5.7
Coffee beans	6.7	7.1	7.8	7.3	6.9	5.6
Cocoa beans	7.4	5.4	4.1	5.3	5.1	4.9
Groundnuts	3.0	2.7	2.9	2.4	2.0	1.5
Wood & timber	2.8	2.7	2.4	2.4	2.4	2.7
Iron ore	1.8	2.6	2.5	2.6	2.4	2.8
Diamonds	2.7	2.3	2.3	2.3	2.1	1.9
Crude phosphate	2.1	2.1	2.0	1.9	1.6	1.4
Other ten	12.9	10.1	10.1	7.9	7.1	6.0
Total twenty	65.7	69.3	72.8	73.0	73.8	73.8

Source: ECA estimates.

United Nations Yearbook of International Trade
Statistics, 1960 to 1968.
National Publications.TABLE A43 INDICES OF TRADE OF DEVELOPED AND DEVELOPING
COUNTRIES, 1960 TO 1969 (1965=100)

	1960	1966	1967	1968	1969
<u>Value</u> <u>Exports</u>					
Developed market economies	66.6	110.5	116.4	120.5	151.3
Developing countries	74.3	105.4	108.8	120.4	135.7
Developing Africa	68.3	107.4	109.3	126.3	148.6
South Africa	82.3	113.0	123.3	137.9	140.0
<u>Imports</u>					
Developed market economies	64.8	110.4	117.2	130.0	149.2
Developing countries	79.8	107.1	111.6	121.1	132.5
Developing Africa	82.6	103.6	103.8	109.0	118.2
South Africa	61.4	92.0	107.0	105.1	119.0
<u>Quantum</u> <u>Exports</u>					
Developed market economies	70.0	108.4	114.2	129.2	144.2
Developing countries	74.3	104.4	108.8	120.4	131.9
Developing Africa	68.3	102.5	103.3	118.3	134.2
South Africa	89.1	111.9	125.7	140.6	138.6
<u>Imports</u>					
Developed market economies	66.7	108.3	115.0	130.0	145.0
Developing countries	83.0	107.1	111.6	122.3	131.2
Developing Africa	88.6	102.6	100.9	107.9	114.9
South Africa	65.7	88.6	105.0	107.1	117.9

EXTERNAL TRADE TABLES

TABLE A43 INDICES OF TRADE OF DEVELOPED AND DEVELOPING COUNTRIES, 1960 TO 1969 (1965=100) (Cont'd.)

	1960	1966	1967	1968	1969
<u>Unit Values</u>					
<u>Exports</u>					
Developed market economies	95.1	101.9	101.9	101.0	104.9
Developing countries	100.0	101.0	100.0	100.0	102.9
Developing Africa	100.0	104.8	105.8	106.8	110.7
South Africa	92.4	101.0	98.1	98.1	101.0
<u>Imports</u>					
Developed market economies	97.1	101.9	101.9	100.0	102.9
Developing countries	96.1	100.0	100.0	99.0	101.0
Developing Africa	93.2	101.0	102.9	101.9	102.9
South Africa	93.4	103.8	101.9	98.1	100.9

Source: United Nations Monthly Bulletin of Statistics, January 1971.

BALANCE OF PAYMENTS TABLES

TABLE A44 BALANCE OF PAYMENTS OF COUNTRIES OF AFRICA 1960 to 1969

Subregion and Country		Balances in Million US Dollars							
		Current Account			Total (Inc. Other)	Transfers		Capital	
		Goods	Transport & Travel	Investment Income		Private	Public	Private	Public
<u>North Africa</u>									
<u>Libya</u>	1960	-166.1	-2.6	-0.3	-199.1	+3.6	+32.1	+170.9	+3.7
	1965	+476.8	-17.9	-188.4	+104.4	+21.6	+ 6.4	-28.8	-0.8
	1967	+699.2	-28.0	-276.1	+165.2	-43.7	-77.3	+13.2	-1.1
	1968	+1223.3	-42.8	-516.6	+379.4	-43.4	-83.7	-65.2	-2.0
<u>Morocco</u>	1960	+6.1	-22.1	-20.0	+34.8	-17.6	+25.7	+0.8	+39.9
	1965	+39.9	+26.3	-29.2	+23.7	-37.5	+18.0	+4.2	+96.8
	1967	-55.5	+5.3	-36.2	-105.5	+25.3	+11.1	-6.5	+58.9
	1968	-60.1	+8.5	-43.9	-103.9	+27.7	+19.2	-15.0	+46.0
	1969	-36.4	+29.2	-40.7	-82.4	+53.7	+15.8	-7.9	+39.1
<u>Sudan</u>	1960	+6.0	-5.2	+1.1	-5.2	-1.1	+19.8	+0.3	+19.2
	1965	-10.0	-10.6	-7.2	-40.2	-1.7	+3.7	+2.0	+16.9
	1967	-20.7	-11.2	-8.6	-48.5	-0.6	+2.3	-0.3	+26.4
	1968	-39.6	-12.6	-10.3	-62.9	-0.6	-1.4	+0.3	+20.1
	1969	+2.3	-13.2	-14.6	-27.9	-0.6	-1.2	+0.9	+35.9
<u>Tunisia</u>	1960	-67.2	-17.0	+2.4	-61.5	+1.5	+43.6	+22.3	-0.8
	1965	-130.0	-18.0	-8.4	-170.2	+2.7	+22.9	+75.4	+77.3
	1967	-113.2	-3.4	-18.3	-143.8	+7.1	+21.7	+30.9	+75.6
	1968	-60.0	+7.9	-22.3	-74.5	+10.2	+29.8	+9.9	+38.8
	1969	-90.0	+5.0	-24.0	-88.0	+9.0	+32.0	+25.0	+39.0
<u>UAR</u>	1960	-180.2	+165.0 ^{a/}	+6.0	-92.0	+13.6	-2.2	+32.6	+1.4
	1965	-392.0	+261.0 ^{a/}	-17.0	-262.0	+10.0	+10.0	-16.0	+147.0
	1967	-360.0	+169.0 ^{a/}	-25.0	-298.0	+12.0	+122.0	-14.0	+108.0
	1968	-185.0	+66.0 ^{a/}	-23.0	-248.0	+3.0	+251.0	-17.0	+19.0
	1969	-226.0	+70.0 ^{a/}	-27.0	-303.0	+8.0	+288.0	-10.0	-73.0
^{a/} Estimates or part estimates.									
<u>West Africa</u>									
<u>Dahomey</u>	1965	-22.2	...	-	-19.4	+3.0	+15.9	+0.5	+4.4
	1967	-39.7	...	-0.4	-35.6	+2.8	+17.4	+7.3	-0.8
	1968	-25.2	+1.7	-1.3	-27.3	+4.8	+19.0	+0.2	...
<u>Ghana</u>	1960	-45.4	-39.0	-15.4	-94.9	-11.7	-1.7	+10.3	+136.8
	1965	-144.9	-51.5	-27.0	-212.1	-14.5	+3.6	+85.9	+49.3
	1967	-5.8	-44.7	-24.2	-69.3	-15.5	+0.3	+31.3	+19.4
	1968	+19.4	-40.5	-32.1	-40.0	-15.9	-	+19.8	+25.0
	1969	+14.1	-47.6	-35.3	-46.7	-13.2	+0.8	+19.1	+51.1
<u>Ivory Coast</u>	1965	+31.2	+0.4	-26.7	-7.3	-30.4	+21.9	+12.2	+13.9
	1967	+40.5	-	-36.0	-22.3	-36.1	+14.6	+12.2	+0.4
	1968	+104.5	+4.5	-38.5	+36.5	-37.3	+15.4	+7.3	+19.4
	1969	+115.0	+11.0	-41.0	+37.0	-37.0	+18.0	+7.0	+21.0

BALANCE OF PAYMENTS TABLES

TABLE A44

BALANCE OF PAYMENTS OF COUNTRIES OF AFRICA 1960 to 1969 (Cont^d)

Subregion and Country		Balances in Million US Dollars							
		Current Account				Transfers		Capital	
		Goods	Transport & Travel	Investment Income	Total (Inc. Other)	Private	Public	Private	Public
<u>West Africa</u> (Cont ^d)									
<u>Mali</u>	1965	-21.3	-19.5	-0.1	-49.5	+5.7	+15.4	-5.1	+13.1
	1967	-16.9	-17.2	-0.7	-49.1	+4.6	+13.0	-2.1	+22.0
	1968	-12.6	-15.0	-1.5	-37.0	+5.1	+7.9	-13.4	+18.9
<u>Niger</u>	1968	-17.3	+0.7	-0.6	-27.0	+0.1	+21.5	-4.5	-0.5
<u>Nigeria</u>	1960	-124.0	-17.9	-12.6	-189.3	+16.2	+11.5	+133.8	+38.2
	1965	-7.0	-26.6	-146.7	-257.9	-18.8	+26.3	+213.0	+57.4
	1967	+57.1	-27.7	-113.1	-254.0	-12.6	+34.2	+138.3	+32.5
	1968	+48.4	-37.5	-150.9	-283.6	+9.8	+38.4	+226.5	-2.5
	1969	+235.2	-25.2	-154.0	-170.8	+5.6	+25.2	+100.8	+5.6
<u>Sierra Leone</u>	1965	-10.6	-4.8	-12.0	-38.6	+0.4	+3.6	+25.9	+4.4
	1967	-10.8	-1.6	-11.2	-30.0	-0.3	+2.5	+12.5	+8.9
	1968	+12.0	-1.8	-9.7	-6.4	+1.4	+2.2	+8.5	+6.6
	1969	-8.0 ^{a/}	-	-12.0 ^{a/}	-14.3	+2.0 ^{a/}	+2.3 ^{a/}	+16.3	+2.3
		^{a/} Estimates.							
<u>Togo</u>	1965	+10.1	-1.1	-5.5	-19.5	+1.6	+11.2	+3.4	+2.3
	1967	+0.9	-0.6	-3.4	-6.5	+1.3	+8.4	-2.1	+3.4
	1968	+6.3	-1.9	-5.3	-4.7	+1.1	+10.2	-0.6	+1.3
<u>Upper Volta</u>	1964	-25.9 ^{a/}	-3.0 ^{a/}	-1.5 ^{a/}	-30.7	+5.3	+16.2	-0.1	+9.4
	1968	-20.5	-2.9	-1.7	-22.6	+10.8	+20.2	+0.1	-0.4
		^{a/} Estimates.							
<u>Central Africa</u>									
<u>CAR</u>	1964	...	...	...	-11.0	-12.1	+23.9	...	...
<u>Chad</u>	1968	-2.9	-18.6	-2.7	-20.0	+2.8	+15.9	-1.5	+1.1
	1969	-7.5	-20.4	-2.5	-26.2	-	+17.4	+2.6	-0.6
<u>Congo DR</u>	1965	+114.5	-65.8	-1.5	-38.5	-63.3	+63.1	-10.7	+22.0
	1967	+204.7	-59.1	-2.9	+41.9	-63.5	+37.1	+4.7	+21.0
	1968	+233.7	-76.4	-10.8	+26.9	-65.2	+39.2	+7.6	+42.7
	1969	+271.1	-71.0	-14.5	+80.3	-75.1	+38.5	+5.3	+5.1
<u>Congo PR</u>	1965	-26.1	+12.6	...	+1.2	-38.1	...	...	+38.9
	1967	-35.2	+13.0	...	-8.5	-21.5	...	...	+31.6
	1968	-56.7	+13.4	...	-32.4	-32.4	...	...	+64.0
<u>Gabon</u>	1964	+33.8	-16.0	-25.2	-8.2	-20.3	+10.9	...	...
	1968	+74.0	-19.1	-22.3	+4.8	-10.7	+10.9	-2.9	-1.1

BALANCE OF PAYMENTS OF COUNTRIES OF AFRICA 1960 to 1969 (Cont^d)

Subregion and Country		Balances in Million US Dollars							
		Current Account				Transfers		Capital	
		Goods	& Travel	Investment Income	Total (Inc. Other)	Private	Public	Private	Public
Central Africa (Cont ^d)									
<u>Burundi</u>	1965	-0.7	...	-	-1.7	-0.9	+1.4	...	-0.4
	1967	-0.5	...	-1.0	-2.4	-1.4	+2.5	...	-0.4
	1968	-3.8	...	-1.1	-4.8	-1.6	+4.9	...	-0.4
	1969	-3.2	...	-0.9	-3.4	-0.3	+5.0	...	-0.4
<u>Rwanda</u>	1967	-0.2	...	...	-3.0	+0.7	+2.9	...	...
	1968	-0.2	...	...	-3.6	-1.4	+3.8	...	...
	1969	-2.1	...	...	-5.6	-	+3.4	...	...
East Africa									
<u>Ethiopia</u>	1960	+0.7	-8.2	-4.6	-12.4	-3.3	+8.1	+1.8	+6.4
	1965	-16.4	-15.3	-3.8	-30.2	+0.6	+12.5	+27.5	+1.9
	1967	-24.9	-9.2	-6.9	-37.6	-4.0	+10.4	+7.5	+7.8
	1968	-38.8	-12.4	-9.0	-42.9	-2.4	+14.2	+21.3	+8.8
	1969	-11.4	-10.0	-8.1	-20.2	-3.0	+14.2	-1.1	+13.8
<u>Kenya</u>	1965	-54.4	+50.0	-25.1	-15.5	-4.3	+20.3	-0.1	+21.0
	1967	-105.0	+71.2	-39.9	-60.3	-1.8	+4.5	+21.7	+10.1
	1968	-101.9	+68.9	-39.0	-63.3	-	+24.6	+35.1	+20.4
	1969	-89.0	+79.0	-37.0	-43.0	+3.0	+20.0	+51.0	+18.0
<u>Malawi</u>	1965	-17.3	-10.5	-8.1	-35.0	+1.4	+34.1	+7.1	-0.5
	1967	-13.4	-9.9	-11.5	-39.9	+1.7	+19.9	+10.9	+8.1
	1968	-20.6	-10.0	-8.4	-43.7	+1.9	+15.9	+17.7	+9.1
	1969	-20.2	-10.3	-10.0	-48.8	+2.0	+16.6	+9.6	+18.5
<u>Mauritius</u>	1965	-0.2	-13.1	-1.2	-10.1	-2.4	+1.1	-1.0	-1.3
	1967	-5.3	-10.6	-1.2	-15.2	-1.4	+2.6	-1.0	+3.7
	1968	-0.1	-6.6	-0.7	-5.4	-0.9	+5.3	-0.5	+3.3
	1969	+7.0	-3.8	-0.2	+5.0	-0.2	+2.2	-2.3	+4.1
<u>Somalia</u>	1961	-9.1	-2.0	-0.3	-13.9	-0.8	+16.2	+3.9	+3.6
	1965	-23.8	-3.4	-0.1	-30.0	-1.8	+17.4	+0.3	+10.0
	1967	-15.5	-4.0	-0.4	-23.8	+0.8	+11.9	+2.4	+7.3
	1968	-16.0	-6.2	-0.8	-22.8	+0.6	+19.0	+2.4	+3.9
	1969	-17.5	-2.2	-	-17.5	+1.4	+10.4	+1.0	+10.2
<u>Tanzania</u>	1965	+3.5	+2.1	-14.4	-6.5	-	+4.6	-8.8	+16.3
	1967	-0.4	+10.2	-16.8	-9.7	+4.1	+3.2	-11.0	+22.2
	1968	-26.9	+16.6	-6.0	-17.6	+3.3	-0.8	-	+23.4
	1969	-0.8	+21.8	-3.0	+16.4	+8.5	+1.2	-20.8	+11.0
<u>Uganda</u>	1967	+25.0	-6.2	-18.9	-10.1	-2.9	+2.9	+8.1	+14.8
	1968	+23.4	-3.2	-17.5	-3.4	+4.6	-4.2	-2.1	+12.6
	1969	+18.3	-3.0 ^{a/}	-14.4	-4.9	-----	-2.1-----	-1.8	+17.5
<u>Zambia</u>	1965	+201.0	-40.3	-42.8	+113.5	-14.6	-11.3	-0.4	-77.4
	1967	+185.8	-79.3	-70.8	+14.6	-13.0	+13.2	+20.4	+39.9
	1968	+228.1	-96.5	-81.9	+11.2	-37.4	+2.5	+40.6	+47.2

^{a/} Estimate.

BALANCE OF PAYMENTS TABLES

TABLE A44 (Cont'd.)

BALANCE OF PAYMENTS OF COUNTRIES OF AFRICA 1960 to 1969 (Cont'd)

		Balances in Million US Dollars							
Subregion and Country		Current Account				Transfers		Capital	
		Transport		Investment	Total	Private	Public	Private	Public
		Goods & Travel	Income	(Inc. Other)					
<u>Other Africa</u>									
<u>South</u>	1960	+394.8 ^{b/}	-117.6	-210.0	+44.8	-33.6	+18.2	-208.6	-30.8
<u>Africa</u>	1965	+22.4 ^{b/}	-166.6	-259.0	-464.8	+12.6	+40.6	+168.0	+56.0
	1967	+135.8 ^{b/}	-113.4	-299.6	-361.2	+28.0	+72.8	+233.8	-60.2
	1968	+467.6 ^{b/}	-99.4	-306.6	-26.6	+60.2	+92.4	+393.4	+12.6
	1969	+255.0 ^{b/}	-110.0 ^{a/}	-397.0	-447.0	+39.2	+42.0	+215.6	-7.0
<u>S.Rhodesia</u>	1965	+117.0 ^{b/}	-23.2	-41.4	+45.1	-7.3	+4.2	+9.0	+3.4
	1967	+27.2 ^{b/}	-23.8	-21.0	-21.8	+2.1	-0.4	+27.7	+7.8
	1968	-26.2 ^{b/}	-11.6	-33.6	-77.0	+1.0	-0.4	+78.3	+5.9
	1969	+49.3 ^{b/}	-4.2	-35.4	+2.8	-6.2	-0.3	+13.6	+3.9

a/ Estimate.

b/ Includes gold.

Sources: IMF; Balance of Payments Yearbook, Vol. 17, Vol. 21, Vol. 22, (provisional).
IMF; International Financial Statistics, January 1971.
Country Publications.

BALANCE OF PAYMENTS TABLES

TABLE A45 BALANCE OF PAYMENTS SUMMARY 1968

Sub-region and number of countries	Current Account				Transfers		Capital	
	Goods	Transport Travel	Invest- ment income	Total (inc. other)	Private	Public	Private	Public
(in million US dollars)								
North (5)	+878.6	+26.5	-616.1	-109.9	-3.1	+318.9	-87.0	+121.9
West (9)	+115.0	-94.9	-241.6	-412.1	-20.1	+134.4	+243.9	+67.8
Central (6)	+244.1	-100.7	-36.9	-28.5	-108.5	+74.7	+35.2	+74.3
East (8)	+47.2	-50.3	-83.3	-207.9	-39.5	+84.9	+114.5	+128.7
Sub-total(28)	+1,284.9	-219.4	-977.9	-758.4	-171.2	+613.3	+306.6	+392.7
Other (2) ^{a/}	+441.4	-111.0	-340.2	-103.6	+61.2	+92.8	+471.7	+18.5
Total (30)	+1,726.3	-330.4	-1,318.1	-862.0	-110.0	+706.1	+778.3	+411.2

^{a/} South Africa and S. Rhodesia.

TABLE A46 BALANCE OF PAYMENTS SUMMARY OF 17 DEVELOPING COUNTRIES IN AFRICA, 1965 TO 1969 ^{a/}

Year	Current Account				Transfers		Capital	
	Goods	Transport & travel	Invest- ment income	Total (inc. other)	Private	Public	Private	Public
(in million US dollars)								
1965	-501.2	+97.0	-369.8	-987.0	-166.8	+270.7	+425.9	+535.3
1967	-411.4	+50.5	-374.2	-1,140.2	-83.9	+300.4	+267.3	+417.6
1968	-161.0	+44.4	-440.1	-1,033.4	-65.4	+476.5	+402.2	+289.1
1969	+191.5	-46.9	-457.7	-724.5	+42.4	+488.7	+207.5	+205.2

^{a/} Excludes Libya and Zambia, the major surplus countries on current account.

TABLE A47 BALANCE OF PAYMENTS SUMMARY OF 23 DEVELOPING COUNTRIES IN AFRICA 1965 TO 1968

Year	Current Account				Transfers		Capital	
	Goods	Transport & travel	Investment income	Total (inc. other)	Private	Public	Private	Public
(in million US dollars)								
1965	+117.1	+30.8	-606.6	-846.3	-231.8	+306.3	+414.0	+513.3
1967	+392.7	-61.6	-725.6	-1060.1	-153.4	+273.1	+319.8	+497.9
1968	+1202.2	-175.5	-1046.7	-744.2	-167.6	+432.4	+395.8	+386.9

TABLE A48 BALANCE OF PAYMENTS SUMMARY OF 9 AFRICAN COUNTRIES 1960 TO 1969

Year	Current Account				Transfers		Capital	
	Goods	Transport & travel	Investment income	Total (inc. other)	Private	Public	Private	Public
(in million US dollars)								
1960	-18.3	-64.0	-253.4	-389.6	-69.2	+139.2	-2.8	+213.9
1965	-661.8	-4.7	-498.4	-1,343.7	-48.4	-155.0	+560.3	+512.6
1967	-402.6	-39.3	-532.3	-1,341.7	-40.5	+286.7	+423.4	+275.7
1968	-135.9	-126.2	-598.5	-905.2	+92.6	+462.6	+641.6	+171.7
1969	+125.3	-104.0	-700.7	-1,203.5	+100.1	+427.2	+343.4	+114.7

Sources: IMF; Balance of Payments Yearbook, Vol. 17, Vol.21, Vol.22.

IMF: International Financial Statistics, January 1971

National Publications

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TABLE A49 RAILWAY FREIGHT TRAFFIC IN AFRICA, 1960 TO 1969^{a/}

Sub-region and Country	1960	1965	1966	1967	1968	1969
	(freight in million net ton kilometres)					
North Africa						
Algeria	1,728	1,050	728	912	1,236	1,332
Morocco	1,757	2,032	2,216	2,334	2,640	2,400 ^{f/}
Sudan	1,608	2,139	2,253	2,162	2,366	2,800 ^{f/}
Tunisia	971	1,234	1,309	1,188	1,312	1,093
UAR	2,096	3,287	3,387	3,068	3,001	2,945
Sub-total	8,160	9,742	9,893	9,664	10,555	10,570
West Africa						
Dahomey	46	44	56	73	76	85
Ghana	357	353	310	282	271	302
Ivory Coast	213 ^{b/}	325	311	319	346	394 ^{f/}
Mali	15 ^{b/}	125	100	116	110	100 ^{f/}
Mauritania	-	4,000	4,947	4,876	5,456	5,872
Nigeria	1,931	1,987	1,637	1,613	1,788	1,620
Senegal	140	302	206	188	232	182
Sierra Leone	25	-	-	-	-	-
Togo	8	7	7	11	12	13
Sub-total	2,735	7,143	7,574	7,478	8,291	8,568
Central Africa						
Cameroon	122	175	174	200	208	214 ^{f/}
Congo DR	1,725	1,668	1,969	1,961	1,959	2,066 ^{f/}
Congo PR	209	308	355	401	406	490
Sub-total	2,056	2,151	2,498	2,562	2,573	2,770
East Africa						
Ethiopia	200 ^{f/}	226	251	236	195	220 ^{f/}
Kenya, Tanzania)	2,925	3,308	3,851	3,844	4,092	3,888
Uganda						
Madagascar	131	168	160	179	218	209
Malawi	116	101	151	197 ^{f/}	210	152 ^{f/}
Zambia	2,242 ^{c/}	2,611 ^{c/}	2,890 ^{c/}	2,900 ^{f/}	3,000 ^{f/}	3,000 ^{f/}
Sub-total	5,614	6,414	7,303	7,356	7,715	7,469
Other Africa						
Angola	1,625	1,476	1,797	2,163	3,432	4,524 ^{f/}
Mozambique	2,020	2,400	2,408	2,719	2,676	2,500 ^{f/}
South Africa ^{d/}	30,803	42,733	43,479	46,872 ^{f/}	48,900 ^{g/}	54,204 ^{f/}
S. Rhodesia	4,484 ^{e/}	5,223 ^{e/}	5,781 ^{e/}	5,300 ^{f/}	5,380 ^{g/}	5,500 ^{f/}
Sub-total	38,933	51,832	53,465	57,054	60,388	66,728
Total of Above	57,498	77,282	80,733	84,114	89,522	96,105
Index	100	134	140	146	156	167

Sources: UN Statistical Yearbook, 1969

UN Monthly Bulletin of Statistics, January 1971
Country Publications

See notes on following page.

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Note: Some of the statistics relate to a financial year ending in year shown.

- a/ Railways serving the public; privately-owned railways of plantations, mines etc. are excluded except for MIFERMA in Mauritania.
- b/ 1961.
- c/ One third of traffic of previous system serving Rhodesia and Zambia.
- d/ Includes Namibia traffic.
- e/ Two-thirds of traffic of previous system serving Rhodesia and Zambia.
- f/ Estimates.
- g/ Includes Botswana traffic.

TABLE A50 RAILWAY PASSENGER TRAFFIC IN AFRICA 1960 TO 1969^{a/}

Sub-region and Country	1960	1965	1966	1967	1968	1969 ^{b/}
	(Passengers in million passenger kilometres)					
<u>North Africa</u>						
Algeria	626	636	681	715	858	954
Morocco	477 ^{c/}	470	449	408	416	506
Sudan d/	782 ^{c/}	840	880	911	912	959
Tunisia	351	479	520	411	437	439
UAR	3,634	5,788	6,170	6,268	5,512	5,796
Sub-total	5,870	8,213	8,700	8,713	8,135	8,654
<u>West Africa</u>						
Dahomey	71	78	70	67	63	65
Ghana	276	498	417	404	425	474
Ivory Coast	220	507	517	479	541	522 ^{d/}
Mali	53 ^{c/}	56	62	66	78	80 ^{d/}
Nigeria	698	859	859	388	586	728
Senegal	197	291	268	249	281	264
Sierra Leone	89	-	-	-	-	- ^{d/}
Togo	79	73	73	71	79	87 ^{d/}
Sub-total	1,612	2,284	2,196	1,657	2,053	2,220
<u>Central Africa</u>						
Cameroon	90	107	124	140	149	151
Congo D.R.	344	578	532	585	619	660
Congo P.R.	62	109	118	128	134	143
Sub-total	496	794	774	853	902	954
<u>East Africa</u>						
Ethiopia	85 ^{d/}	97	103	100	96	100 ^{d/}
Kenya, Tanzania) ^{d/}	971	638	660	660	669	669
Uganda						
Madagascar	136	148	150	171	181	175
Malawi ^{d/}	48	48	48	48	49	54
Zambia ^{d/}	212	213	215	216	210	200
Sub-total	1,452	1,144	1,176	1,195	1,205	1,207

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TABLE A50 RAILWAY PASSENGER TRAFFIC IN AFRICA 1960 TO 1969^{a/} (Cont'd.)

Sub-region and Country	1960	1965	1966	1967	1968	1969 ^{b/}
	(Passengers in million passenger kilometres)					
<u>Other Africa</u>						
Angola	99	122	155	151	158	175
Mozambique	199	216	238	253	256	276 ^{d/}
South Africa ^{d/}	15,500 ^{c/}	20,100	20,850	22,000	23,150	23,550
S. Rhodesia ^{d/}	424	425	430	440	460	470
Sub-total ^{d/}	16,222	20,863	21,673	22,844	24,014	24,471
Total of Above ^{d/}	25,652	33,098	34,519	35,262	36,309	37,506
Total less S. Africa ^{d/}	10,152	12,998	13,669	13,262	13,159	13,956
Index	100	123	130	126	125	133

Note: for some countries a financial year ending in the year shown has been used.

Source: United Nations; Statistical Yearbook, 1969.
United Nations; Monthly Bulletin of Statistics, January 1971.
National Publications.
Railways Reports.
Jane's World Railways

^{a/} Railways serving the public; privately-owned railways of plantations, mines etc. are excluded.

^{b/} Provisional estimates.

^{c/} 1961.

^{d/} Rough estimates only. For Sudan, Kenya, Tanzania, Uganda, South Africa, Rhodesia and Zambia the passenger/kilometres have been estimated from assumed average journeys.

TRANSPORT TABLES

TABLE A51 ROAD MOTOR VEHICLES IN USE^{a/} IN AFRICAN COUNTRIES, 1960-1969

Sub-region and Country	1960	1965	1969	1969	1969	1969	
	Total	Total	Total (in thousands)	Private	Commercial	Vehicles Per 1000 Persons	Km of Road b/
NORTH AFRICA							
Algeria	245.0	166.9	220.0 ^{c/}	126.0	94.0	16.7	5.9
Libya	26.9	63.0	144.5	102.0	42.5	75.5	32.8
Morocco	171.9	227.8	278.5	202.8	75.7	20.8	20.8
Sudan	28.9	41.6	46.8	28.0	18.8	3.1	17.4
Tunisia	68.1	81.3	97.1	62.3	34.8	19.7	6.0
UAR	90.8	123.7	150.0 ^{b/}	122.0	28.0	4.6	7.4
Sub-total	631.6	704.3	936.9	643.1	293.8	11.3	9.9
WEST AFRICA							
Dahomey	5.1	11.8	17.7 ^{c/}	11.1	6.6	6.8	3.9
Gambia	1.3	2.1	5.0 ^{c/}	2.7	2.3	14.0	6.9
Ghana	38.4	44.2	60.0 ^{c/}	36.0	24.0	7.2	3.8
Guinea	13.3	22.8	19.3	7.3	12.0	5.0	3.9
Ivory Coast	22.7	55.2	75.4	46.9	28.5	15.6	5.8
Liberia	2.8	12.6	23.7	14.1	9.6	20.6	3.5
Mali	5.7	9.4	10.4	4.6	5.8	2.1	1.4
Mauritania	2.0	4.1	9.5	4.2	5.3	8.3	2.9
Niger	2.9	7.3	10.5	3.8	6.7	2.8	3.7
Nigeria	50.7	84.3	109.2	73.8	35.4	1.7	2.4
Senegal	35.2	46.2	56.2 ^{c/}	36.0	20.2	14.7	6.0
Sierra Leone	8.2 ^{c/}	21.3	24.6 ^{c/}	17.0	7.6	9.5	8.1
Togo	3.0 ^{c/}	6.5	11.2	6.4	4.8	6.2	6.3
Upper Volta	5.6	8.9	12.8	5.9	6.9	2.4	2.2
Sub-total	196.9	336.7	445.5	269.8	175.7	4.1	3.6
CENTRAL AFRICA							
Cameroon	29.8	39.2	54.8	27.5	27.3	9.6	3.0
CAR	4.5	9.3	10.2	7.5	2.7	6.8	1.1
Chad	6.5	8.1	9.1 ^{c/}	3.7	5.4	2.5	1.5
Congo DR	76.8 ^{c/}	55.8 ^{c/}	71.0 ^{c/}	48.0	23.0	3.4	0.6
Congo PR	7.0 ^{c/}	7.0 ^{c/}	8.0	5.0	3.0	8.7	1.0
Gabon	5.6 ^{c/}	7.2	13.0 ^{c/}	5.5	7.5	27.2	2.6
Burundi	4.0 ^{c/}	3.4	5.0 ^{c/}	3.4	1.6	1.4	2.9
Rwanda	1.9 ^{c/}	2.3	5.1 ^{c/}	3.3	1.8	1.5	2.2
Sub-total	136.1	132.3	176.2	103.9	72.3	4.3	1.0
EAST AFRICA							
Botswana	1.8	3.6	6.1 ^{c/}	3.9	2.2	10.0	1.4
Ethiopia	24.0	32.8	43.0 ^{c/}	32.0	11.0	1.8	6.3
Kenya	77.7 ^{c/}	83.9	103.9	53.5	50.4	9.8	4.7
Lesotho	3.0 ^{c/}	5.0	8.0 ^{c/}	5.0	3.0	6.9	7.4
Madagascar	41.8	59.2	73.0 ^{c/}	44.0	29.0	10.8	3.0
Malawi	11.7	10.9	16.6	9.9	6.7	3.8	3.2
Mauritius	12.8	19.0	19.5	12.6	6.9	23.7	16.0
Somalia	6.5 ^{c/}	11.3	13.9	5.9	8.0	5.1	3.3
Swaziland	5.0 ^{c/}	6.7	8.3	4.5	3.8	20.3	3.2
Tanzania	35.6	42.9	72.9	35.2	37.7	5.7	16.0
Uganda	30.9	36.2	39.4	25.4	14.0	4.2	6.5
Zambia	43.5	56.4	96.2	61.1	35.1	23.8	3.4
Sub-total	294.3	367.9	500.8	293.0	207.8	6.4	4.4

TRANSPORT TABLES

TABLE A51 ROAD MOTOR VEHICLES IN USE^{a/} IN AFRICAN COUNTRIES, 1960-1969 (Cont'd.)

Sources: UN; Statistical Yearbook, 1969.

International Road Federation, World Road Statistics, 1965-1969.

International Road Federation, Preliminary World Highway Statistics, 1969.

National Publications.

^{a/} Excludes tractors, trailers, and two wheeled vehicles.

^{b/} Of main and secondary roads only.

^{c/} Estimates.

^{d/} Certain small countries are excluded.

TRANSPORT TABLES

TABLE A52 ROAD LENGTHS IN AFRICA, 1969

Note: The data have been taken from a variety of sources and may not be strictly comparable.

not be strictly comparable

Sub-region and Country	Area of country (¹ 000 Km ²)	Road lengths				Total Paved	Vehicles ^{a/} in use (¹ 000)
		Main	Secondary	Other	Total		
		(Thousand kilometres)					
NORTH AFRICA							
Algeria	2,382	18.48	18.95	38.50	75.93	33.38	220.0
Libya ^{b/}	1,760	4.00	0.40	1.50	5.90	4.00	144.5
Morocco	447	7.30	6.12	11.26	24.68	18.00	278.5
Sudan	2,506	0.51	2.18	16.85	19.54	0.31	46.8
Tunisia	164	10.48	5.60	1.71	17.79	7.29	97.1
UAR ^{b/}	1,001	9.52	10.76	27.00	47.28	9.52	150.0
Sub-total	8,260	50.29	44.01	96.82	191.12	72.50	936.9
WEST AFRICA							
Dahomey	113	3.44	1.15	2.33	6.92	0.80	17.7
Gambia ^{b/}	11	0.28	0.44	0.46	1.18	0.28	5.0
Ghana ^{b/}	239	3.94 ^{d/}	11.94 ^{d/}	17.39	33.27	3.94 ^{c/}	60.0
Guinea ^{b/}	246	1.70 ^{d/}	3.25 ^{d/}	2.65	7.60	1.70 ^{c/}	19.3
Ivory Coast	322	5.95	7.08	21.92	34.95	1.30	75.4
Liberia ^{b/}	111	0.52	6.17	...	6.69	0.52	23.7
Mali	1,240	1.61 ^{d/}	5.65 ^{d/}	4.82	12.08	1.11	10.4
Mauritania	1,031	1.37 ^{d/}	1.88 ^{d/}	2.94	6.19	0.19	9.5
Niger ^{b/}	1,267	1.00 ^{d/}	1.84 ^{d/}	3.91 ^{d/}	6.75	0.42	10.5
Nigeria ^{b/}	924	15.25	30.00 ^{d/}	43.68 ^{d/}	88.93	15.25	109.2
Senegal	196	5.00	4.42	6.00	15.42	2.04	56.2
Sierra Leone ^{b/}	72	0.48 ^{d/}	2.55 ^{d/}	3.70	6.73	0.48	24.6
Togo (1968)	56	0.61 ^{d/}	1.18 ^{d/}	5.50	7.29	0.38	11.2
Upper Volta	274	3.25 ^{d/}	2.65 ^{d/}	10.50	16.40	0.20	12.8
Sub-total	6,102	42.70	81.90	125.80	250.40	27.91	445.5
CENTRAL AFRICA							
Cameroon	475	5.42	12.96	26.74	45.12	1.23	54.8
CAR	623	3.80	5.50	12.00	21.30	0.08	10.2
Chad	1,284	2.72	3.42	24.59	30.73	0.21	9.1
Congo DR(1968)	2,345	29.16	94.64	17.50	141.30	1.50	71.0
Congo PR ^{b/}	342	0.23	8.04	2.57 ^{e/}	10.84	0.23	8.0
Gabon	268	2.44	2.56	0.74 ^{e/}	5.74	0.14	13.0
Burundi	28	0.55 ^{d/}	1.17 ^{d/}	4.28	6.00	0.12	5.0
Rwanda	26	0.28 ^{d/}	2.00 ^{d/}	2.72	5.00	0.06	5.1
Sub-total	5,391	44.60	130.29	91.14	266.03	3.57	176.2
EAST AFRICA							
Botswana	600	2.52	1.91	3.35	7.78	0.03	6.1
Ethiopia	1,222	1.87	4.98	16.55	23.40	1.76	43.0
Kenya ^{b/}	583	5.47	17.03	19.36	41.86	3.03	103.9
Lesotho ^{b/}	30	0.17	0.91	1.06	2.14	0.17	8.0
Madagascar	587	8.51	15.99	13.61	38.11	2.56	73.0
Malawi	118	2.95	2.27	5.28	10.50	0.56	16.6
Mauritius (1966)	2	0.56	0.66	0.51	1.73	0.58	19.5
Somalia	638	0.79	3.47	9.14	13.40	0.64	13.9

TRANSPORT TABLES

TABLE A52 ROAD LENGTHS IN AFRICA, 1969 (Cont'd.)

Sub-region and Country	Area of country (¹ 000 Km ²)	Road lengths				Total Paved	Vehicles ^{a/} in use (¹ 000)
		Main	Secondary	Other	Total		
		(Thousand kilometres)					
EAST AFRICA (Cont'd.)							
Swaziland (1968)	17	1.60	0.97	...	2.57	0.22	8.3
Tanzania	940	5.42	1.46	27.09	33.97	1.89	72.9
Uganda (1967)	236	2.94	3.09	18.14	24.17	1.47	39.4
Zambia	753	6.23	22.22	5.63	34.08	2.43	96.2
Sub-total	5,716	39.03	74.96	119.72	233.71	15.88	500.8
OTHER AFRICA ^{e/}							
Angola (1968)	1,247	5.82 ^{d/}	40.00 ^{d/}	26.47	72.29	3.50	100.0
Mozambique (1968)	783	3.60	7.80	26.12	37.52	3.60	82.0
Namibia (1968)	823	12.69	19.71	27.30	59.70	1.98	50.0
Reunion ^{b/}	3	0.90	1.40	-	2.30	0.90	38.0
S. Rhodesia (1968)	389	8.47	24.50	45.50	78.47	8.00	150.0
S. Africa (1967)	1,222	32.25	153.34	186.37	371.96	42.65	1,895.0
Sub-total	4,467	63.73	246.75	311.76	622.24	60.73	2,315.0
Total above countries	29,936	240.35	577.85	745.24	1,563.50	180.59	4,374.4
Total excluding South Africa	28,714	208.10	424.57	558.87	1,191.54	137.94	2,479.4

Sources: International Road Federation, World Road Statistics 1965-1969.
International Road Federation, Preliminary World Highway Statistics, 1969
National Publications.

- ^{a/} Excludes tractors, trailers and two wheeled vehicles.
- ^{b/} Roads described as paved, improved and unimproved.
- ^{c/} Estimate.
- ^{d/} Division part estimated.
- ^{e/} Incomplete.

TRANSPORT TABLES

TABLE A53 CIVIL AVIATION IN AFRICA 1960 TO 1969 A. PASSENGERS

Sub-region and Country	Total Scheduled Services					
	1960	1965	1966	1967	1968	1969
	(million passenger kilometres)					
<u>North Africa</u>						
Algeria	237.8 ^{a/} b/	236.3	282.5	293.4	362.7	417.5
Libya	27.1 ^{b/}	30.5	124.0	167.9	210.8	191.5
Morocco	157.5	213.3	238.4	266.1	315.6	365.9
Sudan	45.7	110.9	108.3	97.0	151.7	138.3
Tunisia	72.7	110.3	125.5	134.9	177.8	195.2
UAR	240.9	594.0	658.3	573.3	620.5	762.4
Sub-total	781.7	1,295.3	1,537.0	1,532.6	1,839.1	2,070.8
<u>West Africa</u>						
Dahomey	5.7 ^{b/}	48.8	53.0	56.2	54.4	60.5
Ghana	59.9 ^{b/}	149.7	137.4	122.7	132.0	134.1
Guinea	8.0 ^{b/}	9.1	12.0	12.6	14.0	15.9
Ivory Coast	1.9 ^{b/}	51.8	56.0	59.8	59.0	65.8
Mali	1.2 ^{b/}	48.3	50.7	48.0	26.6	44.3
Mauritania	5.7 ^{b/}	61.2	65.0	68.7	67.4	74.6
Niger	6.4 ^{b/}	48.8	56.2	61.5	60.6	67.4
Nigeria	37.8 ^{b/}	202.7	193.9	152.9	154.3	190.5
Senegal	5.7 ^{b/}	54.4	68.5	61.9	60.5	68.9
Togo	-	0.1	0.6	0.4	54.7	60.6
Upper Volta	5.7 ^{b/}	48.8	53.0	56.2	54.8	60.7
Sub-total	138.0	723.7	736.3	700.9	738.3	843.3
<u>Central Africa</u>						
Cameroon	20.7 ^{a/}	78.5	77.6	79.0	74.8	82.9
Central African Rep.	28.5 ^{a/}	48.5	53.0	57.5	55.7	61.9
Chad	36.1 ^{a/}	48.8	56.3	61.1	65.3	73.4
Congo D.R.	128.1 ^{a/}	282.0	311.3	445.7	330.9	364.8
Congo P.R.	38.9 ^{a/}	62.1	66.6	65.2	61.2	67.7
Gabon	36.1 ^{a/}	59.7	70.1	74.8	74.1	80.7
Sub-total	288.4	579.9	634.9	783.3	662.0	731.4
<u>East Africa</u>						
Ethiopia	104.8 ^{b/}	233.2	259.3	284.6	298.7	300.4
Kenya	81.4 ^{a/}	117.4	133.4	184.4	222.2	233.4
Madagascar	36.3 ^{c/}	145.1	162.8	179.2	197.8	216.2
Malawi	15.0 ^{c/}	15.8	16.0	15.5	13.7	20.6
Somalia	5.0 ^{b/}	6.5	7.0	7.2	8.4	12.8
Tanzania	81.4 ^{b/}	117.4	133.1	184.4	222.2	233.4
Uganda	81.4 ^{b/}	117.4	133.1	184.4	222.2	233.4
Zambia	50.0 ^{c/}	71.3	72.1	66.2	74.6	138.1
Sub-total	455.3	824.1	916.8	1,105.9	1,259.8	1,388.3

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TABLE A53 CIVIL AVIATION IN AFRICA 1960 TO 1969 (Cont'd.)

Sub-region and Country	Total Scheduled Services					
	1960	1965	1966	1967	1968	1969
	(million passenger kilometres)					
Other Africa						
South Africa	513.2	1,159.3	1,473.4	1,660.5	1,851.2	2,177.7
Total of Above	2,176.6	4,582.3	5,298.4	5,783.2	6,350.4	7,211.5
Total of Africa	2,390.7	4,771.0	5,509.5	5,978.8	6,585.2	7,505.0
Africa excluding S.Africa	1,877.5	3,611.7	4,026.1	4,318.3	4,734.0	5,327.3
Index	100	192	214	230	252	284

Sources: United Nations Statistical Yearbook, 1967, 1968, 1969.
ICAO Traffic Statistics, 1969.

- a/ 1962.
b/ 1961.
c/ Rough estimate only.

TABLE A54 CIVIL AVIATION IN AFRICA 1960 TO 1969 B. CARGO

Sub-region and Country	Total Scheduled Services					
	1961	1965	1966	1967	1968	1969
	(million Cargo ton kilometres)					
<u>North Africa</u>						
Algeria	...	2.2	2.7	3.0	3.2	2.9
Libya	...	0.4	0.8	1.0	1.5	1.5
Morocco	3.0	4.0	3.9	3.7	3.6	3.3
Sudan	1.2	1.9	1.8	1.9	2.2	2.0
Tunisia	1.0	1.4	1.7	1.9	1.7	1.9
UAR	2.9	6.3	6.6	5.8	7.2	13.0
Sub-total	9.0a/	16.2	17.5	17.3	19.4	24.6
<u>West Africa</u>						
Dahomey	0.6	2.6	2.5	3.4	4.7	5.5
Ghana	2.0	4.2	4.8	4.7	5.1	3.3
Guinea	0.1	0.1	0.1	0.1	0.1	0.1
Ivory Coast	0.7	2.7	2.6	3.4	4.8	5.6
Mali	-	2.0	2.7	2.8	1.6	2.6
Mauritania	0.6	2.6	2.6	3.4	4.7	5.6
Niger	0.6	2.6	2.5	3.4	4.7	5.6
Nigeria	2.6	4.6	4.8	4.7	4.7	5.4
Senegal	0.6	2.6	2.5	3.4	4.7	5.6
Togo	-	-	-	-	4.7	5.5
Upper Volta	0.6	2.6	2.5	3.4	4.7	5.5
Sub-total	8.4	24.6	27.6	32.7	44.5	50.3
<u>Central Africa</u>						
Cameroon	0.9	2.8	2.7	3.5	4.8	5.7
CAR	0.6	2.6	2.5	3.4	4.7	5.5
Chad	0.6	2.6	2.6	3.5	5.1	6.2
Congo D.R.	...	10.3	12.7	14.7	9.7	11.2
Congo P.R.	0.6	2.8	2.7	3.5	4.8	5.7

TRANSPORT TABLES

TABLE A54 CIVIL AVIATION IN AFRICA 1960 TO 1969 (Cont'd.)

Sub-region and Country	Total Scheduled Services					
	1961	1965	1966	1967	1968	1969
<u>Central Africa</u> (Cont'd.)	(million Cargo ton kilometres)					
Gabon	...	2.7	2.7	3.5	4.8	5.7
Sub-total	8.0 a/	23.8	25.9	52.1	33.9	40.0
<u>East Africa</u>						
Ethiopia	4.9	8.1	10.6	12.8	16.9	15.8
Kenya	...	2.4	2.9	6.0	7.5	8.9
Madagascar	1.9	4.7	4.8	5.8	5.7	6.6
Malawi	...	0.2	0.2	0.2	0.4	0.3
Somalia	-	0.1	0.1	0.1	0.1	0.1
Tanzania	...	2.4	2.9	6.0	7.5	8.9
Uganda	...	2.4	2.9	6.0	7.5	8.9
Zambia	...	0.8	0.7	0.7	0.9	3.0
Sub-total	10.0 a/	21.1	25.1	37.6	46.5	52.5
South Africa	15.8	30.2	41.5	36.7	38.7	49.7
Total of Above	53.4	115.9	137.6	156.4	183.0	217.8
Total of Africa	54.9 b/	120.4	140.6	160.7	187.6	222.7
Total Less S.Africa	39.1	90.2	99.1	124.0	148.9	173.0

Sources: United Nations Statistical Yearbook 1967, 1969.
ICAO Statistical Digest 1970.

a/ Estimates.

b/ The 1960 total was 42.7 million of which S.Africa contributed 10.3 million.

TRANSPORT TABLES

TABLE A55 MARITIME FREIGHT TRAFFIC OF AFRICA 1960 TO 1969

Sub-region and Country	Goods Loaded at Ports					
	1960	1965	1966	1967	1968	1969 ^{a/}
	(in thousand metric tons)					
North Africa						
Algeria	14,158	21,092	25,950	31,130	36,890	41,676
Libya	2,293	58,509	72,278	82,873	124,829	148,056
Morocco	10,609	11,675	11,281	11,390	12,449	13,068
Sudan	690	905	923	838	928	925
Tunisia	3,876	5,122	5,414	4,766	5,078	4,656
UAR	5,408	7,445	6,989	4,454	4,179	5,100
Sub-total	37,034	104,748	122,835	135,451	184,353	213,481
West Africa						
Dahomey	126	94	104	156	162	170
Gambia	50	79	85	99	72	88
Ghana	2,068	2,385	2,199	1,992	2,178	2,244 ^{b/}
Guinea	1,725	1,471	1,340	975	1,260	1,300 ^{b/}
Ivory Coast	1,113	2,461	2,793	2,739	3,156	3,252
Liberia	3,214	15,435	16,692	17,600	18,300	21,255
Nigeria	3,144	15,749	21,845	16,765	9,181	28,896
Mauritania	15	6,042	7,145	7,549	7,710	9,211
Senegal	971	1,668	2,100	1,725	2,015	1,692 ^{b/}
Sierra Leone	1,664	2,509	2,530	2,408	3,000	2,850 ^{b/}
Togo	48	869	1,029	1,074	1,321	1,538
Sub-total	14,138	48,762	57,862	53,082	48,355	72,496
Central Africa						
Cameroon	388	515	521	617	760	737
Congo DR	692	448	501	571	710	684
Congo PR	425	1,738	1,739	1,881	1,960	2,323
Gabon	1,540	1,982	2,108	3,834	4,885	3,984 ^{b/}
Equatorial Guinea	277	330	290	284	320	330 ^{b/}
Sub-total	3,322	5,013	5,159	7,187	8,635	8,058
East Africa						
Ethiopia	239	351	404	475	490	510 ^{b/}
Kenya	1,018	1,737	1,907	2,104	1,749	2,040
Madagascar	235	307	399	538	591	644
Mauritius	357	707	746	627	779	773
Somalia	220	252	215	230	283	305
Tanzania	881	793	963	1,247	1,378	1,303
Sub-total	2,950	4,147	4,634	5,221	5,270	5,575
Other Africa						
Angola	1,906	2,268	2,259	1,973	4,571	8,424
Mozambique	3,843	6,143	7,327	8,747	9,624	8,592
S. Africa	6,651	9,383	10,159	12,648	14,199	13,565
Reunion	212	211	248	259	342	241
Sub-total	12,612	18,005	20,993	23,628	28,736	30,822
Total of Above	70,056	180,675	209,483	224,569	275,349	330,437
Total less S. Africa	63,405	171,292	199,324	211,921	260,150	316,872
Total for Africa ^{c/}	75,000	192,000	222,000	237,000	293,000	349,000

TRANSPORT TABLES

TABLE A55 MARITIME FREIGHT TRAFFIC OF AFRICA 1960 TO 1969 (Cont'd.)

Sub-region and Country	Goods Unloaded at Ports ^{a/}					
	1960	1965	1966	1967	1968	1969 ^{a/}
	(in thousand metric tons)					
<u>North Africa</u>						
Algeria	7,404	3,708	2,450	2,335	5,740	5,820
Libya	825	1,626	2,057	3,629	3,049	3,096
Morocco	2,197	2,881	3,290	3,721	3,835	3,732
Sudan	974	1,441	1,410	1,532	1,594	1,583
Tunisia	1,363	2,461	2,792	3,020	2,931	3,420
UAR	6,359	9,671	10,073	8,142	6,740	6,384
Sub-total	19,122	21,788	22,072	21,379	23,889	24,035
<u>West Africa</u>						
Dahomey	179	228	265	290	284	374
Gambia	51	67	74	92	88	92
Ghana	1,873	2,822	2,308	2,246	2,399	2,988 ^{b/}
Guinea	374	544	550	435	510	550 ^{b/}
Ivory Coast	769	1,409	1,681	1,651	1,954	2,076
Liberia	284	370	373	557	638	760
Nigeria	3,199	3,646	2,553	2,223	2,832	3,276
Mauritania	36	106	76	142	164	97
Senegal	2,188	1,788	1,760	2,213	2,151	1,980 ^{b/}
Sierra Leone	649	669	667	629	733	800 ^{b/}
Togo	86	117	140	125	172	233
Sub-total	9,628	11,766	10,447	10,603	11,925	13,226
<u>Central Africa</u>						
Cameroon	419	649	652	844	976	950
Congo DR	650	616	884	776	569	602
Congo PR	342	470	528	582	552	508
Gabon	157	188	218	210	210	270 ^{b/}
Equatorial Guinea	110	105	102	123	112	120 ^{b/}
Sub-total	1,678	2,028	2,384	2,481	2,419	2,450
<u>East Africa</u>						
Ethiopia	239	494	542	569	690	800 ^{b/}
Kenya	1,659	2,677	3,185	2,879	3,444	3,048
Madagascar	450	568	601	680	803	992
Mauritius	479	550	462	594	583	614
Somalia	131	322	237	187	217	260
Tanzania	768	883	1,307	1,632	1,862	1,988
Sub-total	3,726	5,494	6,334	6,541	7,599	7,702
<u>Other Africa</u>						
Angola	653	785	839	990	1,302	1,496
Mozambique	2,766	3,609	3,766	4,117 ^{b/}	4,576 ^{b/}	3,804 ^{b/}
S. Africa	7,787	12,371	13,029	15,000 ^{b/}	17,000 ^{b/}	18,000 ^{b/}
Reunion	260	413	452	482	481	552
Sub-total	11,466	17,178	18,086	20,589	23,359	23,852

TRANSPORT TABLES

TABLE A55 MARITIME FREIGHT TRAFFIC OF AFRICA 1960 TO 1969 (Cont'd.)

Sub-region and Country	Goods Unloaded at Ports					
	1960	1965	1966	1967	1968	1969 ^{a/}
	(in thousand metric tons)					
Total of Above	45,620	58,254	59,323	61,593	69,191	71,265
Total Less S. Africa	37,833	45,881	46,294	46,593	52,191	53,265
Total for Africa ^{c/}	54,000	69,000	71,000	73,000	80,000	82,000

Sources: United Nations Statistical Yearbook 1968, 1969.
 United Nations Monthly Bulletin of Statistics, November 1970,
 January 1971.
 National Publications.

^{a/} Preliminary.

^{b/} Rough estimates only.

^{c/} Includes estimates for countries and commodities not covered.

TOURISM TABLES

TABLE A56 TOURIST FACILITIES AND TOURIST ARRIVALS 1965 to 1969

Sub-region and Country	Accommodation		Foreign Tourist Arrivals				
	Rooms	Beds	1965	1966	1967	1968	1969
	(number)		(in thousands)				
NORTH AFRICA							
Algeria (1968)		18,726	135 ^{a/}	150 ^{a/}	112	137	213
Libya (1968)	3,865	6,907	50 ^{a/}	63	79	134	120 ^{a/}
Morocco (1969)		25,280	378	424	400	481	621
Sudan (1967)		1,290	11	13	12 ^{a/}	12 ^{a/}	12 ^{a/}
Tunisia (1968)		26,000	166	219	231	330	372
UAR (1968)	22,161	44,095	542	579	345	318	345
Sub-total	62,400 ^{a/}	122,298	1,282	1,448	1,179	1,412	1,683
WEST AFRICA							
Dahomey (1968)	247	...	...	...	10	11	12 ^{a/}
Gambia (1969)		280	...	...	...	2	5
Ghana (1969)		1,490	20	16	22	15	40
Ivory Coast (1968)	1,350		...	...	...	10	...
Liberia (1968)	347		...	...	6	...	...
Mali (1968)	195		...	...	1	2	...
Mauritania (1968)	110		...	...	...	...	...
Niger (1970)	300		1 ^{a/}	1 ^{a/}	1 ^{a/}	1	1
Nigeria (1968)		2,174	21	17	20	18	19 ^{a/}
Senegal (1969)	998		...	...	13 ^{c/}	23 ^{c/}	28 ^{c/}
Sierra Leone (1968)		260	...	...	5	...	...
Togo (1968)	145		...	...	...	...	...
Upper Volta (1968)	237		...	...	10	...	...
Sub-total	6,040 ^{a/}	12,000 ^{a/}	90 ^{a/}	90 ^{a/}	100 ^{a/}	105 ^{a/}	140 ^{a/}
CENTRAL AFRICA							
Cameroon (1970)		2,263	11 ^{a/}	12 ^{a/}	13	14	15
CAR (1970)	200		...	...	...	...	...
Chad (1970)	370		2 ^{a/}	2 ^{a/}	2 ^{a/}	3 ^{a/}	3 ^{a/}
Congo DR (1970)		3,100	15 ^{a/}	15 ^{a/}	16	19	17
Congo PR (1970)	429		1 ^{a/}	1 ^{a/}	1 ^{a/}	1 ^{a/}	1 ^{a/}
Gabon (1970)	230		5	6	6	5	7
Burundi (1970)	189		...	...	...	...	...
Rwanda (1967)		203	...	...	...	...	...
	4,220 ^{a/}	8,400 ^{a/}	36 ^{a/}	38 ^{a/}	40 ^{a/}	44 ^{a/}	45 ^{a/}
EAST AFRICA							
Botswana (1967)		425	...	...	...	...	...
Ethiopia (1970)		2,832	19	40	29	42	47
Kenya (1970)		10,766	193	229	247	262	293
Lesotho (1970)		233	...	...	...	...	...
Madagascar (1970)	1,736 ^{a/}		...	...	...	...	...
Malawi (1970)	415 ^{a/}		...	...	20	...	...
Mauritius (1970)	550		10	13	15	16	21
Somalia (1970)		200 ^{a/}	...	...	...	...	...
Swaziland (1967)	412		...	...	...	...	...
Tanzania (1970)		4,300	25 ^{a/}	30 ^{a/}	37 ^{a/}	54	66

TOURISM TABLES

TABLE A56 TOURIST FACILITIES AND TOURIST ARRIVALS 1965 TO 1969
(Cont'd.)

Sub-region and Country	Accommodation		Foreign Tourist Arrivals				
	Rooms	Beds	1965	1966	1967	1968	1969
EAST AFRICA (Cont'd.)	(number)		(in thousands)				
Uganda	2,294	20	24	38	54	74	
Zambia (1970)	2,060	118	109	68	97	37	
Sub-total	15,000 ^{a/}	29,200 ^{a/}	460 ^{a/}	550 ^{a/}	520 ^{a/}	620 ^{a/}	660 ^{a/}
OTHER AFRICA							
Angola (1969)	4,571		76 ^{b/}	78 ^{b/}	81 ^{b/}	94 ^{b/}	110 ^{b/}
Mozambique (1965)	4,596		172 ^{b/}	158 ^{b/}	161 ^{b/}	170 ^{b/}	188 ^{b/}
S. Rhodesia	...	...	258	216	239	266	280 ^{a/}
S. Africa (1968)	60,346		227	257	276	300	320 ^{a/}
Sub-total ^{a/}	74,000	140,000	733	709	757	830	898
Total of above	161,700	312,000	2,571	2,635	2,596	3,011	3,426
Total less S.Africa	101,300	200,000	2,344	2,378	2,320	2,711	3,106

Sources: United Nations Statistical Yearbook 1967, 1968, 1969.
National Publications and Unpublished data.

^{a/} Estimates or part estimates.

^{b/} Guests arriving at hotels and pensions.

^{c/} Only clients of travel agent.

FINANCE TABLES

TABLE A57 ANALYSIS OF CENTRAL GOVERNMENT RECEIPTS, 1960-1969

Sub-region and Country	Year	Ordinary Revenue				Million US Dollars		
		Direct taxes	Indirect taxes	Other domestic	Total inc. grants	Extra- ordinary revenue	Total revenue	Loans
NORTH AFRICA								
<u>Algeria</u>	1960	119.7	369.7	69.7	559.2	243.3	802.3	237.0
	1965	129.7	376.8	135.3	641.8	127.6	769.5	...
	1968	166.1	391.0	297.8	855.0	62.8	917.8	...
	1969	168.2	414.9	478.5	1061.6	20.3	1081.9	...
<u>Libya</u>	1960	3.8	23.6	4.9	41.4	10.0	51.4	...
	1965	18.2	54.8	148.2	230.2	10.0	240.2	...
	1968	29.2	88.9	514.7	632.8	-	632.8	...
	1969	43.7	114.4	807.9	966.0	2.1	968.1	...
<u>Morocco</u>	1960	45.4	165.7	38.8	249.9	-	249.9	25.7
	1965	65.0	229.9	120.5	415.5	11.9	427.3	141.1
	1968	115.3	269.1	108.1	492.5	25.2	517.6	205.4
	1969	134.3	368.1	45.9	548.3	29.7	577.9	200.4
<u>Sudan</u>	1960	5.5	113.7	74.7	193.8	-	193.8	...
	1965	10.9	104.0	96.8	211.6	-	211.6	...
	1968	11.5	136.4	116.0	263.9	-	263.9	...
	1969	19.5	167.4	139.0	325.9	-	325.9	...
<u>Tunisia</u>	1960	37.8	126.0	4.8	170.5	42.4	212.9	21.0
	1965	39.4	137.7	20.6	198.1	24.6	222.7	74.1
	1968	52.9	162.1	23.8	239.5	24.0	263.5	101.1
	1969	51.1	132.0	67.2	250.3	17.3	267.5	82.1
<u>United Arab Republic</u>	1960	104.2	346.3	423.0	873.5	...	...	...
	1965	169.7	545.6	590.9	1306.2	...	...	...
	1968	246.3	471.3	557.5	1275.1	...	...	...
	1969	264.3	504.6	594.8	1363.7	...	...	...
WEST AFRICA								
<u>Dahomey</u>	1960	2.8	11.3	1.2	22.7	-	22.7	-
	1965	2.0	16.2	12.2	33.6	-	33.6	-
	1968	7.7	17.0	4.5	31.6	-	31.6	-
	1969	7.2	14.8	5.0	27.0	2.2	29.2	-
<u>Gambia</u>	1960	0.4	2.5	1.5	4.4	0.8	5.2	-
	1966	0.5	5.0	2.0	9.1	3.1	12.3	0.8
	1968	0.6	4.5	2.1	7.5	0.1	7.6	1.3
	1969	0.7	6.4	2.2	9.5	0.8	10.3	2.3
<u>Ghana</u>	1960	20.0	126.6	34.0	180.6	20.1	200.6	62.4
	1965	78.8	269.4	47.2	395.4	2.0	397.3	154.6
	1968	59.9	194.5	37.0	291.5	2.1	293.5	121.1
	1969	65.6	227.8	31.7	325.0	5.8	330.8	78.7
<u>Ivory Coast</u>	1960	6.7	90.2	2.7	110.1	-	110.1	9.9
	1965	18.3	171.5	5.5	220.2	-	220.2	7.0
	1967	23.9	181.1	45.4	280.7	-	280.7	8.9
<u>Liberia</u>	1965	11.7	23.6	7.2	51.8	3.0	54.8	18.0
	1968	14.5	27.0	9.7	63.4	-	63.4	7.3
<u>Mali</u>	1960	10.5	6.1	10.9	27.5	-	27.5	0.4
	1965	10.9	29.6	2.0	42.5	-	42.5	-
	1968	4.3	23.9	5.1	33.4	-	33.4	7.1
	1969	3.4	20.2	4.7	28.3	-	28.3	...

FINANCE TABLES

TABLE A57

ANALYSIS OF CENTRAL GOVERNMENT RECEIPTS, 1960-1969 (Cont'd.)

Sub-region and Country	Year	Million US Dollars						
		Ordinary Revenue				Extra-ordinary revenue	Total revenue	Loans
		Direct tax	Indirect taxes	Other domestic	Total inc. grants			
WEST AFRICA (Cont'd.)								
<u>Mauritania</u>	1960	1.2	2.9	0.8	12.2	0.4	12.6	0.8
	1965	4.0	12.2	0.8	17.0	2.4	19.4	0.4
	1968	4.5	18.6	1.2	24.3	0.4	24.7	-
	1969	5.0	18.0	1.1	24.1	1.2	25.2	-
<u>Niger</u>	1960	5.7	9.5	3.1	22.5	-	22.5	-
	1965	10.1	16.6	1.6	28.4	1.6	30.0	1.6
	1968	14.9	22.7	1.1	38.8	1.1	39.9	-
	1969	12.6	21.2	1.8	35.6	1.1	36.7	-
<u>Nigeria</u>	1962	24.4	215.3	58.0	297.9	5.9	303.8	49.3
(Fed.Govt.)	1965	22.7	316.4	56.4	395.6	3.9	399.8	94.6
	1968	52.6	295.6	92.1	440.2	9.8	450.0	175.6
<u>Senegal</u>	1960	—106.5	—	16.2	132.0	-	132.0	-
	1965	29.2	108.6	10.9	174.6	-	174.6	-
	1968	32.4	104.1	7.7	144.6	-	144.6	42.6
	1969	29.8	96.1	6.4	132.2	-	132.2	45.7
<u>Sierra Leone</u>	1960	7.0	15.4	5.2	29.1	2.4	31.5	4.2
	1965	10.1	28.0	10.6	49.0	-	49.0	3.5
	1968	11.5	30.1	3.8	45.5	-	45.5	6.8
	1969	14.6	31.6	2.8	49.0	5.6	54.6	4.2
<u>Togo</u>	1960	0.8	8.9	1.6	11.3	0.4	11.7	...
	1965	1.6	15.0	2.8	21.9	10.1	32.0	-
	1968	2.4	18.6	3.6	24.7	-	24.7	-
	1969	2.9	17.3	3.2	23.4	-	23.4	-
<u>Upper Volta</u>	1960	5.1	7.4	1.9	14.5	9.1	23.5	0.4
	1965	7.7	23.1	2.4	37.3	8.1	45.4	3.2
	1968	9.3	21.5	4.1	34.8	-	34.8	-
	1969	7.9	22.0	2.5	32.4	-	32.4	-
CENTRAL AFRICA								
<u>Burundi</u>	1961	3.0	4.3	1.7	9.1	-	...	-
	1965	3.3	8.2	2.2	14.3	-	14.3	1.7
	1968	6.5	12.6	1.5	20.6	0.4	21.1	1.9
<u>Cameroon</u>	1962	16.6	51.9	8.5	84.3	0.8	85.1	0.8
(Fed.Gov.	1965	28.0	61.2	8.5	97.6	2.4	100.1	-
of)	1968	34.0	91.1	14.6	139.8	0.8	140.6	-
	1969	—124.9	—	14.8	139.7	0.4	140.1	-
<u>Central</u>	1960	2.8	6.1	0.8	11.3	0.4	11.7	0.4
<u>African</u>	1965	4.9	19.4	6.1	31.2	1.6	32.8	2.8
<u>Republic</u>	1968	8.5	23.9	4.1	36.5	2.4	38.9	0.4
	1969	9.7	23.4	4.3	37.5	1.6	38.9	-
<u>Chad</u>	1960	3.6	6.1	3.2	18.2	-	18.2	0.4
	1965	9.5	17.2	7.3	34.0	1.9	35.9	-
	1968	13.4	23.1	11.7	48.2	-	48.2	-
	1969	11.2	25.2	9.0	45.4	-	45.4	-
<u>Congo (Dem.</u>	1960	...	5.6	...	...	...	...	...
Rep. of)	1965	19.2	32.2	6.0	57.4	34.6	91.8	37.8
	1968	56.0	285.0	19.0	360.2	-	360.2	...

FINANCE TABLES

TABLE A57 ANALYSIS OF CENTRAL GOVERNMENT RECEIPTS, 1960-1969 (Cont'd.)

Sub-region and Country	Year	Ordinary Revenue				Million US Dollars		
		Direct taxes	Indirect taxes	Other domestic	Total inc. grants	Extra- ordinary revenue	Total revenue	Loans
CENTRAL AFRICA (Cont'd.)								
<u>Congo (Rep. of)</u>	1960	3.6	13.0	1.2	18.6	-	18.6	-
	1965	6.5	29.2	2.4	38.1	-	38.1	5.3
	1968	10.0	38.4	3.9	52.3	7.6	59.8	0.2
	1969	9.7	41.4	3.6	54.7	2.9	57.6	-
<u>Equatorial Guinea</u>	1960	4.2	1.4	...	6.5	...	...	...
	1965	4.1	2.6	0.4	20.9	...	...	...
	1967	4.1	2.6	0.4	20.9	...	...	...
<u>Gabon</u>	1960	4.1	13.8	3.6	21.5	-	21.5	0.4
	1965	8.5	28.8	2.4	40.1	-	40.1	7.3
	1968	16.6	38.1	5.7	60.4	-	60.4	2.8
	1969	11.5	41.4	5.0	58.0	-	58.0	6.1
<u>Rwanda</u>	1963	2.6	3.2	0.6	6.6	0.6	7.2	...
	1965	5.0	5.6	1.6	12.4	-	12.4	...
	1968	4.2	7.9	1.1	13.2	-	13.2	...
EAST AFRICA								
<u>Botswana</u>	1960	1.0	1.3	1.3	5.3	0.8	6.0	-
	1965	2.0	1.7	2.0	10.9	2.8	13.7	-
	1968	1.7	2.7	3.4	17.1	4.1	21.1	0.4
<u>Ethiopia</u>	1960	14.4	43.6	6.3	64.3	2.6	66.9	4.7
	1965	23.6	81.9	12.2	152.9	0.6	153.5	5.1
	1968	30.6	96.4	19.2	184.4	0.5	184.9	14.8
<u>Kenya</u>	1960	34.7	46.8	21.6	105.6	5.6	111.2	17.6
	1965	37.8	74.8	27.7	154.0	17.4	171.4	33.0
	1968	66.4	100.5	49.0	220.3	3.1	223.2	45.3
	1969	71.4	110.9	55.7	240.0	2.0	241.9	42.8
<u>Lesotho</u>	1960	1.1	2.9	1.1	5.2	-	5.2	...
	1965	1.4	4.2	0.6	10.9	-	10.9	...
	1968	1.8	2.9	2.1	15.4	-	15.4	0.1
<u>Madagascar</u>	1960	8.5	48.2	3.6	64.0	4.5	68.5	-
	1965	15.2	74.9	6.8	104.6	-	104.6	18.3
	1968	22.7	85.5	5.7	121.5	-	121.5	52.3
	1969	20.9	97.6	5.4	130.0	-	130.0	33.5
<u>Malawi</u>	1965	7.2	10.3	3.9	41.2	10.9	52.1	4.7
	1968	11.5	13.7	10.6	47.3	7.0	54.2	14.9
<u>Mauritius</u>	1960	8.9	14.3	4.3	27.5	0.5	28.0	6.1
	1965	19.0	23.5	6.2	48.7	1.5	50.1	3.6
	1968	10.0	21.8	6.7	41.7	3.1	44.8	7.5
<u>Swaziland</u>	1960	2.0	1.0	1.0	4.1	-	4.1	...
	1965	3.1	1.5	1.5	10.8	2.2	13.0	2.1
	1968	5.9	3.8	2.2	14.6	0.1	14.8	...
<u>Somalia</u>	1961	1.3	13.7	2.3	24.1	...	...	...
	1965	2.5	20.4	1.9	27.0	...	...	...
	1968	2.3	30.9	3.1	39.4	...	...	...
	1969	2.7	32.9	3.8	42.2	...	...	...

FINANCE TABLES

TABLE A57

ANALYSIS OF CENTRAL GOVERNMENT RECEIPTS, 1960-1969 (Cont'd.)

Sub-region and Country	Year	Ordinary Revenue				Million US Dollars		
		Direct taxes	Indirect taxes	Other domestic	Total inc. grants	Extra ordinary revenue	Total revenue	Loans
EAST AFRICA(contd)								
<u>Tanzania</u>	1960	15.4	32.2	13.4	61.0	5.9	66.9	4.8
	1965	21.3	56.8	16.5	94.6	11.8	106.4	15.4
	1968	33.0	81.5	18.2	132.7	26.0	158.8	20.4
<u>Uganda</u>	1960	12.0	35.6	13.2	60.8	2.8	63.6	18.8
	1965	11.8	78.4	19.6	115.4	1.9	117.3	52.6
	1968	28.3	88.8	21.3	138.3	6.7	145.0	62.7
<u>Zambia</u>	1965	93.9	34.4	81.6	210.0	11.9	221.9	24.9
	1968	121.0	167.0	133.4	428.5	4.9	433.4	88.8
	1969	159.5	225.5	168.0	560.1	17.8	577.9	56.0
OTHER AFRICA								
<u>Angola</u>	1960	13.9	20.9	34.8	69.6	24.3	93.9	-
	1965	22.3	42.8	84.3	149.5	32.7	182.2	-
	1967	24.3	55.6	100.9	180.9	34.8	215.6	-
<u>Cape Verde</u>	1960	0.3	0.7	1.0	2.0	4.4	6.4	-
<u>Islands</u>	1965	0.6	0.9	1.5	3.1	1.9	5.0	-
	1967	0.8	1.7	1.9	4.4	3.0	7.4	-
<u>Portuguese</u>	1960	1.1	1.1	1.7	3.9	1.0	4.9	-
<u>Guinea</u>	1965	1.3	2.7	2.6	6.7	1.5	8.2	-
	1967	1.3	3.0	3.3	7.6	3.1	10.7	-
<u>Rhodesia</u>	1965	75.3	64.7	59.9	211.1	11.2	222.3	42.0
	1968	91.8	73.4	66.1	231.3	28.8	260.1	87.6
	1969	111.2	76.2	70.3	257.6	26.6	284.2	86.8
<u>Sao Tome and</u>	1960	0.6	0.6	0.9	2.1	1.2	3.4	-
<u>Principe</u>	1965	0.6	0.9	1.0	2.6	0.8	3.3	-
	1967	0.7	1.3	0.9	2.9	1.1	4.0	-
<u>Mozambique</u>	1960	14.5	26.9	98.5	140.3	25.8	166.0	-
	1965	23.3	36.8	101.5	161.6	19.0	180.6	-
	1967	31.7	42.8	121.2	195.7	28.6	224.3	-

Source: UN Statistical Yearbook, 1963 to 1969
Country Publications.

Note: Some figures are estimates rather than actual revenue.
There are also numerous qualifications for the data which
may affect direct comparability.

FINANCE TABLES

TABLE A58 CENTRAL GOVERNMENT EXPENDITURE EXPRESSED AS
PERCENTAGE OF GROSS DOMESTIC PRODUCT AT FACTORCOST

<u>NORTH AFRICA</u>	<u>1960</u>	<u>1968</u>
Algeria	37.8	45.7
Libya	21.5	25.5
Morocco	21.3	27.1
Sudan	16.5	20.9
Tunisia	37.9	...
<u>WEST AFRICA</u>		
Gambia	26.3	27.2
Ghana	19.5	19.6
Liberia	22.6	21.4
Niger	12.7	12.8
Nigeria (Fed. Govt.)	9.8	17.0
Sierra Leone	20.1	16.2
Togo	13.9	11.3
Upper Volta	14.2	16.5
<u>CENTRAL AFRICA</u>		
Burundi	12.0	13.5
<u>EAST AFRICA</u>		
Ethiopia	8.5	14.8
Kenya	17.4	21.8
Malawi	22.4	35.9
Rhodesia	...	31.8
Tanzania	16.5	23.0
Uganda	21.2	23.5
Zambia	...	50.4

ECA estimates based on compilation of Public Finance Statistics.

FINANCE TABLES

TABLE A59 FUNCTIONAL ANALYSIS OF CENTRAL GOVERNMENT
EXPENDITURE OF AFRICAN COUNTRIES, 1960 & 1968

Subregion and Country		Current Expenditure				Capital Expenditure			
		Defence and Admin ⁿ	Social ^a / Services	Economic Services	Total (Inc. Other)	Defence and Admin ⁿ	Social ^a / Services	Economic Services	Total (Inc. Other)
		(Percentage of total expenditure)							
NORTH AFRICA									
Algeria	1960	35	15	12	62	2	14	20	38
	1968	16	32	6	54	1	6	39	46
Libya	1960	38	30	19	87	1	5	7	13
	1968	15	13	7	58	3	13	22	42
Morocco	1960	32	24	12	79	2	4	14	21
	1968	29	21	10	70	3	4	23	30
Sudan	1960				79				21
	1968				77				23
WEST AFRICA									
Gambia	1960	23	24	32	80	4	2	14	20
	1968	26	22	28	77	1	2	20	23
Ghana	1960	19	20	18	59	6	9	21	41
	1968	27	36	11	82	4	6	8	18
Liberia	1964	35	22	8	74	4	4	7	26
	1968	27	20	14	73	3	7	5	27
Niger	1960	27	22	10	94				6
	1968				92				8
Nigeria	1960	14	8	6	70	4	5	14	30
	1968	18	9	7	67	5	2	19	33
Sierra Leone	1960	23	22	18	71	4	4	21	30
Upper Volta	1968	22	27	14	82	1	2	14	18
	1960	39	29	21	89				11
	1968				92				8
CENTRAL AFRICA									
Cameroon	1960				90				10
	1968				89				11
CAR	1960				94				6
	1968				97				3
Chad	1960				90				10
	1968				94				6
Congo(PR)	1960				85				5
	1968				81				19
EAST AFRICA									
Ethiopia	1960	50	15	18	84				16
	1968	38	18	8	81	1	2	12	19
Malawi	1960	35	14	23	79	5	6	9	21
	1968	23	27	17	71	2	7	18	29
Tanzania	1960	30	28	18	85	4	6	5	15
	1968	23	20	15	69	6	3	20	31
Uganda	1960	17	26	33	81	4	5	6	19
	1968	20	24	27	83	2	4	10	17
Zambia	1960	31	15	14	63	6	12	11	37
	1968	19	16	12	50	2	8	32	50

a/ Social and Community Services.

Source: Public Finance Statistics 1960-68 ECA Statistics Division.

FINANCE TABLES

TABLE A60 BILATERAL AID TO COUNTRIES OF AFRICA 1960-1968

Note: DAC = Development Assistance Committee Countries.
CPE = Centrally Planned Economies, Aid Commitments.

Subregion and Country	From	1960-1964	1965	1966	1967	1968
North Africa		(in million US dollars)				
<u>Algeria</u>	DAC	1,695	144	121	107	...
	CPE	299	-	-	170	-
<u>Libya</u>	DAC	152	7	3	1	...
<u>Morocco</u>	DAC	443	104	81	63	...
	CPE	17	-	-	19	-
<u>Sudan</u>	DAC	74	25	10	13	...
	CPE	22	-	-	10	-
<u>Tunisia</u>	DAC	362	87	65	99	...
	CPE	54	-	-	7	55
<u>UAR</u>	DAC	887	113	68	28	...
	CPE	905	126	-	120	168
<u>Subtotal</u>	DAC	3,643 ^{a/}	480	349	311	...
	CPE	1,297	126	-	326	223
West Africa						
<u>Dahomey</u>	DAC	70 ^{b/}	14	11	14	...
<u>Gambia</u>	DAC	12	4	3	3	...
<u>Ghana</u>	DAC	47	45	77	67	...
	CPE	168	20	-	-	-
<u>Guinea</u>	DAC	60 ^{b/}	23	14	8	...
	CPE	58	-	3	-	-
<u>Ivory Coast</u>	DAC	150 ^{b/}	28	34	28	...
<u>Liberia</u>	DAC	165	34	46	38	...
	CPE	3	-	-	-	...
<u>Mali</u>	DAC	45 ^{b/}	11	9	10	...
	CPE	92	-	-	-	-
<u>Mauritania</u>	DAC	35 ^{b/}	7	4	8	...
<u>Niger</u>	DAC	70 ^{b/}	14	16	15	...
<u>Nigeria</u>	DAC	155	68	72	71	...
	CPE	-	14	-	100	-
<u>Senegal</u>	DAC	190 ^{b/}	34	30	35	...
	CPE	7	-	-	-	-
<u>Sierra Leone</u>	DAC	47	17	12	7	...
	CPE	-	28	-	-	-
<u>Togo</u>	DAC	50 ^{b/}	10	9	11	...
<u>Upper Volta</u>	DAC	58 ^{b/}	11	10	16	...
<u>Subtotal</u>	DAC	1,369 ^{a/}	370 ^{a/}	392 ^{a/}	390 ^{a/}	...
	CPE	328	62	3	100	-
Central Africa						
<u>Cameroon</u>	DAC	110 ^{b/}	19	25	25	...
<u>CAR</u>	DAC	70 ^{b/}	12	11	16	...
	CPE	4	-	-	-	-
<u>Chad</u>	DAC	65 ^{b/}	14	14	15	...
<u>Congo DR</u>	DAC	457	136	89	92	...
<u>Congo PR</u>	DAC	60 ^{b/}	11	14	11	...
	CPE	33	29	-	-	-

FINANCE TABLES

TABLE A60 BILATERAL AID TO COUNTRIES OF AFRICA 1960-68 (Cont^d)

Subregion and Country	From	1960-1964	1965	1966	1967	1968
<u>Gabon</u>	DAC	50 ^{b/}	9	9	11	...
<u>Burundi</u>	DAC	36	4	7	9	...
<u>Rwanda</u>	DAC	36	7	10	12	...
<u>Subtotal</u>	DAC	984	234	202	223	...
	CPE	37	29	-	-	-
<u>East Africa</u>						
<u>Botswana</u>	DAC	28	9	16	17	...
<u>Ethiopia</u>	DAC	95	16	30	23	...
	CPE	2	-	-	-	-
<u>Kenya</u>	DAC	242	69	55	32	...
	CPE	55	-	11	-	-
<u>Lesotho</u>	DAC	22	9	11	12	...
<u>Malawi</u>	DAC	73	35	31	29	...
<u>Mauritius</u>	DAC	17	2	4	5	...
<u>Madagascar</u>	DAC	175 ^{b/}	38	31	30	...
<u>Somalia</u>	DAC	109	25	14	11	...
	CPE	104	-	6	-	-
<u>Swaziland</u>	DAC	43	15	10	9	...
<u>Tanzania</u>	DAC	168	35	37	31	...
	CPE	51	-	26	-	-
<u>Uganda</u>	DAC	109	19	24	20	...
	CPE	15	30	-	-	-
<u>Zambia</u>	DAC	34	13	34	68	...
<u>Subtotal</u>	DAC	1,115	285	297	287	...
	CPE	227	30	43	-	-
<u>Other Africa</u>						
<u>French Overseas)</u>						
<u>Territories)</u>	DAC	205	61	86	98	...
<u>Portuguese O'Seas)</u>						
<u>Provinces)</u>	DAC	226	23	24	46	...
<u>Rhodesia</u>	DAC	15	4	-	-	...
<u>Seychelles</u>	DAC	4	2	1	2	...
<u>St. Helena</u>	DAC	3	1	2	1	...
<u>Unallocated etc.</u>	DAC	52	25	46	37	...
<u>Subtotal</u>	DAC	505	116	159	184	...
<u>Total Africa</u>						
	DAC	7,616	1,485	1,399	1,395	1,310
	CPE	1,889	247	46	426	223
<u>Total</u>		9,505	1,732	1,445	1,821	1,533

a/ Includes aid not shown as allocated to any individual country.

b/ Estimates or part estimates.

Sources: Development Assistance, Efforts and Policies of Members of DAC, 1969 Review.
International Flow of Long-Term Capital and Official Donations, 1964-68, 1969.

FINANCE TABLES

TABLE A61 WORLD BANK LOANS AND IDA CREDITS
TO AFRICAN COUNTRIES AS AT 1966 AND 1970

Subregion and Country	Net Totals to Individual African Countries(US \$ Million)					
	At 30th June 1966		30th June 1970		Increases	
	Bank	IDA	Bank	IDA	Bank	IDA
North Africa						
Algeria	80.5	-	80.5	-	-	-
Morocco	60.0	11.0	143.0	18.3	83.0	7.3
Sudan	105.0	13.0	134.0	21.5	29.0	8.5
Tunisia	12.0	5.0	76.8	42.9	64.8	37.9
UAR	56.5	-	56.5	26.0	-	26.0
Subtotal	<u>314.0</u>	<u>29.0</u>	<u>490.8</u>	<u>108.7</u>	<u>176.8</u>	<u>79.7</u>
West Africa						
Dahomey	-	-	-	4.6	-	4.6
Gambia	-	-	-	2.1	-	2.1
Ghana	47.0	-	53.0	24.8	6.0	24.8
Guinea	1.7	-	64.5	-	62.8	-
Ivory Coast	7.1	-	48.5	-	41.4	-
Liberia	4.3	-	15.3	-	11.0	-
Mali	-	-	-	16.8	-	16.8
Mauritania	66.0	6.7	66.0	9.7	-	3.0
Niger	-	1.5	-	8.2	-	6.7
Nigeria	185.5	35.5	241.6	35.5	56.1	-
Senegal	-	-	7.5	17.1	7.5	17.1
Sierra Leone	3.8	-	7.7	3.0	3.9	3.0
Togo	-	-	-	3.7	-	3.7
Upper Volta	-	-	-	0.8	-	0.8
Subtotal	<u>315.4</u>	<u>43.7</u>	<u>504.1</u>	<u>126.3</u>	<u>188.7</u>	<u>82.6</u>
Central Africa						
Cameroon	-	-	37.1	29.0	37.1	29.0
CAR	-	-	-	8.5	-	8.5
Chad	-	-	-	5.9	-	5.9
Congo DR	91.6	-	91.6	11.0	-	11.0
Congo PR	-	-	30.0	2.1	30.0	2.1
Gabon	47.0	-	54.8	-	7.8	-
Burundi	4.8	1.1	4.8	3.3	-	2.2
Rwanda	-	-	-	9.3	-	9.3
Subtotal	<u>143.4</u>	<u>1.1</u>	<u>218.3</u>	<u>69.1</u>	<u>74.9</u>	<u>68.0</u>
East Africa						
Botswana	-	3.6	-	6.1	0	2.5
Ethiopia	56.7	20.7	197.8	35.0	41.1	14.3
Kenya	52.0	10.3	197.5	48.7	145.5	38.4
Lesotho	-	4.1	-	4.1	-	-
Madagascar	-	-	11.1	24.1	11.1	24.1
Malawi	-	-	-	32.7	-	32.7
Mauritius	6.9	-	7.0	-	0.1	-
Somalia	-	6.2	-	9.1	-	2.9
Swaziland	4.2	2.8	7.0	2.8	2.8	-
Tanzania	24.0	23.6	12.2	28.4	-11.8	24.8
Uganda	8.4	-	8.4	33.0	-	33.0
Zambia	67.4	-	131.6	-	64.2	-
Subtotal	<u>219.6</u>	<u>71.3</u>	<u>472.6</u>	<u>244.0</u>	<u>253.0</u>	<u>172.7</u>
Other Africa						
S. Rhodesia	86.9	-	86.9	-	-	-
S. Africa	221.8	-	241.8	-	20.0	-
Subtotal	<u>308.7</u>	<u>145.1</u>	<u>328.7</u>	<u>-</u>	<u>20.0</u>	<u>-</u>
Developing Africa	<u>1079.3</u>	<u>145.1</u>	<u>1772.7</u>	<u>548.1</u>	<u>693.4</u>	<u>403.0</u>
Total Africa	<u>1301.1</u>	<u>145.1</u>	<u>2014.5</u>	<u>548.1</u>	<u>713.4</u>	<u>403.0</u>

Sources: World Bank and IDA Annual Reports.

FINANCE TABLES

TABLE A62 CONSUMER PRICES INDEX NUMBER IN AFRICAN COUNTRIES 1960-1969
(Index numbers for capital cities)

Subregion and Country	Base Year	1960	1965	1966	1967	1968	1969
North Africa							
Algeria	(1963=100)	97	105	103	104	...	...
Libya	(1964=100)	...	106	114	118	124	134
Morocco	(1963=100)	88	108	107	106	106	109
Sudan	(1963=100)	86	101	103	114	103	116
Tunisia	(1963=100)	...	108	112	116	118	123
UAR	(1963=100)	102	119	130	131	135	140
Unweighted average	(1963=100)	93	108	112	115	118	125
West Africa							
Ghana	(1963=100)	82	144	151	140	154	168
Ivory Coast	(1963=100)	92	104	108	111	117	122
Liberia	(1965=100)	...	100	103	109	112	123
Mauritania	(1963=100)	...	107	112	116	120	124
Niger	(1964=100)	...	104	115	116	113	125
Nigeria	(1963=100)	91	107	116	111	113	124
Senegal	(1963=100)	90	106	109	108	109	113
Sierra Leone	(1963=100)	96	117	122	128	129	134
Unweighted average	(1963=100)	90	112	118	118	122	130
Central Africa							
Cameroon	(1963=100)	...	108	111	114	116	117
CAR	(1963=100)	84	120	124	126	132	132
Chad	(1963=100)	88	114	121	125	126	131
Congo DR	(1963=100)	...	134	155	212	325	369
Congo PR	(1963=100)	79	104	110	114	118	117
Gabon	(1963=100)	88	106	109	112	114	118
Burundi	(1965=100)	...	100	104	103	110	114
Unweighted average	(1963=100)	85	114	121	131	151	159
Less Congo DR	(1963=100)	85	111	115	118	121	123
East Africa							
Ethiopia	(1963=100)	...	...	127	128	128	130
Kenya	(1963=100)	94	104	108	110	111	110
Madagascar	(1963=100)	94	108	111	114	117	123
Mauritius	(1963=100)	...	104	106	108	116	119
Somalia	(1963=100)	89	128	124	124	128	136
Tanzania	(1963=100)	102	108	114	116	121	122
Uganda	(1961=100)	...	120	122	126	127	138
Zambia	(1963=100)	99	112	123	129	143	146
Unweighted average	(1963=100)	96	112	117	119	124	128
Other Africa							
Mozambique	(1963=100)	100	104	107	111	116	119
S. Rhodesia	(1963=100)	96	108	111	113	115	116
S. Africa	(1963=100)	96	106	110	114	116	119
Unweighted Average	(1963=100)	97	106	109	113	116	118
Unweighted Average for Africa ^{a/}		92	110	115	119	126	132

a/ Average of five subregions.

Sources: UN Statistical Yearbook, 1969.

UN Monthly Bulletin of Statistics, January 1971.
Country Data.

FINANCE TABLES

TABLE A63 MONETARY SURVEY OF AFRICAN COUNTRIES 1960 TO 1969

Sub-region and Country	Item	December					
		1960	1965	1966	1967	1968	1969
NORTH AFRICA		(in million US dollars)					
<u>Libya</u>	Foreign assets(net)	85.8	249.9	340.2	380.7	532.2	914.4
	Domestic credit ^{a/}	40.5	98.6	132.6	152.0	205.7	259.6
	Money	61.6	187.1	261.8	339.6	441.0	586.3
	Quasi money	20.0	86.8	88.8	103.8	124.3	150.2
<u>Morocco</u>	Foreign assets(net)	256.5	120.7	108.3	88.3	61.3	82.0
	Domestic credit	323.9	701.8	733.2	824.7	961.5	1006.5
	Money	522.1	762.4	764.6	836.8	933.4	1019.6
	Quasi money	44.8	45.8	51.4	59.5	80.6	89.1
<u>Sudan</u>	Foreign assets(net)	167.8	44.6	22.9	10.4	-26.6	-22.1
	Domestic credit	-25.8	213.4	268.2	307.4	356.0	410.4
	Money	106.6	177.5	201.1	216.6	225.7	274.9
	Quasi money	12.0	30.0	38.5	46.8	54.0	59.7
<u>Tunisia</u>	Foreign assets(net)	92.0	-13.1	-27.5	-39.9	-22.7	-7.9
	Domestic credit	200.4	439.1	525.8	556.7	606.0	645.5
	Money	209.2	249.1	274.8	287.0	321.7	350.4
	Quasi money	16.0	62.0	80.0	85.7	95.0	97.1
<u>UAR</u>	Foreign assets(net)	150.1	-131.1	-235.1	-293.7	-302.7	-322.0
	Domestic credit	1731.7	2642.7	2857.8	3047.5	3208.0	3361.2
	Money	1148.8	1500.3	1567.9	1622.4	1656.5	1714.4
	Quasi money	342.5	624.2	590.6	640.1	674.1	748.0
<u>Sub-total</u>	Foreign assets(net)	752.2	271.0	208.8	145.8	241.5	644.4
	Domestic credit	2270.7	4095.6	4517.6	4888.3	5337.2	5683.2
	Money	2048.3	2876.4	3070.2	3302.4	3578.3	3945.6
	Quasi money	435.3	848.8	849.3	935.9	1028.0	1144.1
WEST AFRICA							
<u>Afrique de L'ouest</u> ^{b/}	Foreign assets(net)	144.6	134.1	168.4	145.4	163.8	172.4
	Domestic credit	245.4	329.7	324.8	369.2	448.3	483.2
	Money	349.0	395.8	413.6	368.0	488.7	492.6
	Quasi money	15.8	33.3	37.0	48.6	70.3	99.3
<u>Ghana</u>	Foreign assets(net)	309.7	8.1	-21.3	-41.7	-54.7	-73.6
	Domestic credit	-72.4	472.6	601.4	453.7	508.3	550.6
	Money	188.2	336.6	346.9	236.2	251.3	285.1
	Quasi money	36.1	84.1	94.1	76.5	91.3	96.9
<u>Nigeria</u>	Foreign assets(net)	336.6	223.4	193.2	77.6	111.7	131.9
	Domestic credit	79.5	499.8	614.6	657.2	868.8	1189.4
	Money	336.8	457.0	498.1	448.3	464.5	623.0
	Quasi money	86.2	205.0	235.5	191.0	263.8	308.6
<u>Mali</u>	Foreign assets(net)	4.4	-33.4	-48.6	-111.3	-73.9	-80.6
	Domestic credit	56.2	119.6	153.8	219.4	125.0	144.6
	Money	52.8	74.4	90.6	99.2	45.8	52.3
	Quasi money	1.5	2.7	2.1	2.1	2.1	3.0
<u>Sierra Leone</u>	Foreign assets(net)	14.4	13.6	11.3	5.4	19.0	29.9
	Domestic credit	13.2	26.9	32.9	32.2	29.7	25.8
	Money	25.6	29.6	30.7	26.2	31.8	36.5
	Quasi money	4.6	11.0	12.5	10.9	13.9	16.8

FINANCE TABLES

TABLE A63 MONETARY SURVEY OF AFRICAN COUNTRIES 1960 TO 1969 (Cont'd.)

Sub-region and Country		December					
		1960	1965	1966	1967	1968	1969
		(in million US dollars)					
WEST AFRICA (Cont'd.)							
<u>Sub-total</u>	Foreign assets(net)	809.7	345.8	303.0	75.4	165.9	180.0
	Domestic credit	321.9	1448.4	1727.5	1731.7	1980.1	2393.4
	Money	952.4	1293.4	1379.9	1277.9	1282.1	1489.5
	Quasi money	144.2	336.1	381.2	329.1	441.4	524.6
CENTRAL AFRICA							
<u>Afrique Equatorale^{c/}</u>	Foreign assets(net)	42.0	51.6	35.0	7.3	16.3	9.9
	Domestic credit	151.9	189.6	230.5	275.4	303.6	306.9
	Money	159.0	200.4	219.5	234.1	265.1	257.3
	Quasi money	4.3	15.2	17.0	20.6	23.2	26.5
<u>Congo DR</u>	Foreign assets(net)	14.4 ^{f/}	10.2	20.5	121.7	169.8	225.2
	Domestic credit	109.1 ^{f/}	163.5	180.6	193.0	215.9	221.0
	Money	87.8 ^{f/}	120.5	146.8	221.6	270.1	303.4
	Quasi money	1.3 ^{f/}	3.7	8.3	8.5	31.2	38.9
<u>Burundi</u>	Foreign assets(net)	...	9.2	6.1	4.2	0.2	0.8
	Domestic credit	...	6.4	9.2	13.3	15.3	15.1
	Money	...	15.0	14.7	17.8	17.8	18.0
	Quasi money	...	0.9	1.0	0.6	0.5	0.8
<u>Rwanda</u>	Foreign assets(net)	...	1.3	-2.5	-0.8	-1.2	-3.1
	Domestic credit	...	6.3	9.5	11.1	11.5	14.4
	Money	...	23.4	12.3	14.7	15.2	17.8
	Quasi money	...	0.4	0.3	0.3	0.3	0.5
<u>Sub-total</u>	Foreign assets(net)	70.0 ^{e/}	72.3	59.1	132.4	185.1	232.8
	Domestic credit	270.0 ^{e/}	365.8	429.8	492.8	546.3	557.4
	Money	270.0 ^{e/}	359.3	393.3	488.2	568.2	596.5
	Quasi money	8.0 ^{e/}	20.2	26.6	30.0	55.2	66.7
EAST AFRICA							
<u>Ethiopia</u>	Foreign assets(net)	49.5	85.7	82.6	65.1	68.3	72.3
	Domestic credit	48.6	96.2	108.1	128.0	153.6	177.8
	Money	87.7	140.0	145.5	142.4	153.5	172.7
	Quasi money	17.1	28.6	34.3	40.1	50.0	60.0
<u>Kenya</u>	Foreign assets(net)	126.6 ^{d/}	117.6 ^{d/}	108.5	83.2	110.5	176.3
	Domestic credit	223.2 ^{d/}	332.4 ^{d/}	140.0	180.7	187.6	200.1
	Money	295.1 ^{d/}	333.2 ^{d/}	186.7	197.5	227.8	271.9
	Quasi money	59.6 ^{d/}	112.6 ^{d/}	77.3	94.6	96.6	114.9
<u>Tanzania</u>	Foreign assets(net)	Included in		83.2	83.0	98.3	115.2
	Domestic credit	Kenya		93.7	105.0	121.1	170.9
	Money	— " —		157.2	160.7	202.0	244.4
	Quasi money	— " —		39.9	33.9	38.4	45.9
<u>Uganda</u>	Foreign assets(net)	— " —		30.4	40.0	50.4	59.8
	Domestic credit	— " —		107.1	111.9	127.4	161.3
	Money	— " —		94.5	106.1	125.4	136.4
	Quasi money	— " —		47.0	51.1	56.0	59.8
<u>Madagascar</u>	Foreign assets(net)	59.4 ^{f/}	51.3	53.3	47.2	35.6	25.1
	Domestic credit	56.9 ^{f/}	89.5	101.9	124.3	146.2	151.5
	Money	105.2 ^{f/}	118.4	128.2	141.4	151.1	141.8
	Quasi money	2.2 ^{f/}	6.4	9.7	16.8	17.2	22.2

FINANCE TABLES

TABLE A63 MONETARY SURVEY OF AFRICAN COUNTRIES 1960 TO 1969 (Cont'd.)

Sub-region and Country		December					1969
		1960	1965	1966	1967	1968	
EAST AFRICA (Cont'd.)		(in million US dollars)					
<u>Malawi</u>	Foreign assets(net)	...	25.5	19.2	16.4	18.3	17.9
	Domestic credit	...	11.7	24.6	29.2	29.9	34.1
	Money	...	27.6	31.4	30.7	31.5	35.2
	Quasi money	...	9.0	11.3	13.1	16.1	16.2
<u>Somalia</u>	Foreign assets(net)	9.3	0.8	2.1	1.1	4.9	7.2
	Domestic credit	4.7	29.6	31.4	37.5	37.6	41.4
	Money	13.3	26.8	28.3	31.5	35.0	39.2
	Quasi money	1.7	3.9	4.3	5.2	6.3	6.7
<u>Zambia</u>	Foreign assets(net)	...	211.1	224.3	191.2	200.2	377.0
	Domestic credit	...	-59.3	-18.2	53.5	87.9	5.4
	Money	...	115.7	158.8	192.3	241.8	269.8
	Quasi money	...	43.5	56.1	66.5	81.2	140.3
<u>Sub-total</u>	Foreign assets(net)	370.0 ^{e/}	492.0	603.6	527.2	586.5	850.8
	Domestic credit	340.0 ^{e/}	500.1	588.6	783.9	891.3	942.5
	Money	620.0 ^{e/}	761.7	930.6	1002.6	1168.1	1311.4
	Quasi money	110.0 ^{e/}	204.0	279.9	321.3	361.8	466.0
<u>South Africa</u>	Foreign assets(net)	217.0	513.8	694.4	698.6	1363.6	1288.0
	Domestic credit	1964.2	3893.4	4124.4	4564.0	4604.6	5353.6
	Money	1388.8	2056.6	2245.6	2466.8	2884.0	3129.0
	Quasi money	772.8	2056.6	2325.4	2539.6	2870.0	3250.8

Source: IMF International Financial Statistics, January 1968, August 1968, January 1971.

- a/ To private sector only.
- b/ Dahomey, Ivory Coast, Mauritania, Niger, Senegal, Togo, Upper Volta.
- c/ Cameroon, CAR, Chad, Congo PR, Gabon.
- d/ Includes Tanzania and Uganda figures.
- e/ Estimates.
- f/ 1962 or 1963.

FINANCE TABLES

TABLE A64 INTERNATIONAL LIQUIDITY OF AFRICAN COUNTRIES, 1960-1969

Subregion and Country	Liquidity Position at End Year International Reserves in Million US Dollars						Imports (c.i.f.)
	1960	1965	1966	1967	1968	1969	1969
North Africa							
Libya	82	246	339	385	539	918	676
Morocco	206	99	82	76	85	114	561
Sudan	167	60	57	55	48	36	266
Tunisia	85	36	28	40	36	37	261
UAR	264	193	156	196	168	145	638
Subtotal	804	634	662	752	876	1250	2402
West Africa							
Afrique de l'ouest ^{a/}	129	157	173	169	177	167	782 ^{d/}
Ghana	388	132	126	100	113	87	347
Mali	...	3	-	1	1	1	39
Nigeria	434	246	227	122	126	138	696
Sierra Leone	...	21	19	16	28	35	112
Subtotal	980	559	545	408	445	428	1976
Central Africa							
Equatorial Africa ^{b/}	47	75	66	39	55	55	453
Congo DR	63	21	21	68	138	198	390 ^{d/}
Burundi	...	8	5	3	3	7	22 ^{d/}
Rwanda	...	4	5	7	6	3	21
Subtotal	125	108	97	117	202	263	586
East Africa							
Ethiopia	53	77	79	65	66	72	155
Kenya							327
Tanzania	184	143	239	206	246	305	199
Uganda							127
Madagascar	45 ^{d/}	50	52	43	31	19	179
Malawi	...	25	21	23	23	21	74
Somalia	11	9	12	11	7	13	49 ^{d/}
Zambia	...	200	211	180	199	369	437
Subtotal	400	504	614	528	572	799	1547
Other Africa							
South Africa	266	601	831	778	1471	1397	2983
Total of Above	2575	2406	2749	2583	3566	4137	9494
Total less S. Africa	2309	1805	1918	1805	2095	2740	6511
Total Africa ^{c/}	2800 ^{d/}	2654	3087	3089	4119	4607	12343
Developing Africa	2534 ^{d/}	2053	2256	2311	2648	3210	9360

^{a/} Dahomey, Ivory Coast, Mauritania, Niger, Senegal, Togo, Upper Volta.

^{b/} Cameroon, CAR, Chad, Congo PR, Gabon.

^{c/} Includes Algeria and limited data for all other member countries.

^{d/} Estimates.

Sources: IMF International Financial Statistics, January 1968, January 1971.
UN Monthly Bulletin of Statistics, January 1971.

POPULATION TABLES

TABLE A65 PERCENTAGE DISTRIBUTION OF THE POPULATION BY AGE GROUPS, 1970

<u>Sub-region and Country</u>	<u>Age Group</u>			
	<u>Under 15</u>	<u>15 to 44</u>	<u>45 to 59</u>	<u>60 and Over</u>
<u>North Africa</u>				
Algeria	47.2	39.8	8.3	4.7
Libya	44.5	41.2	9.2	5.1
Morocco	46.0	41.2	8.5	4.3
Sudan	45.1	41.8	8.7	4.4
Tunisia	45.4	40.5	8.8	5.2
UAR	42.8	42.5	9.5	5.2
Range	<u>42.8 to 47.2</u>	<u>39.8 to 42.5</u>	<u>8.3 to 9.5</u>	<u>4.3 to 5.2</u>
<u>West Africa</u>				
Dahomey	44.9	42.2	8.7	4.2
Gambia	40.1	43.2	10.4	6.1
Ghana	46.6	42.7	8.0	2.7
Guinea	42.6	43.1	9.6	4.7
Ivory Coast	42.4	43.2	9.7	4.7
Liberia	38.8	43.7	11.2	6.3
Mali	43.9	42.5	9.1	4.5
Mauritania	42.0	43.1	9.8	5.1
Niger	46.7	41.5	8.0	3.8
Nigeria	43.0	48.4	5.1	3.5
Senegal	42.8	42.9	9.5	4.8
Sierra Leone	42.4	42.9	9.6	5.1
Togo	45.0	42.1	8.7	4.2
Upper Volta	42.8	42.9	9.6	4.7
Range	<u>38.8 to 46.7</u>	<u>41.5 to 48.4</u>	<u>5.1 to 11.2</u>	<u>2.7 to 6.3</u>
<u>Central Africa</u>				
Cameroon	41.3	41.4	11.9	5.4
CAR	42.1	43.2	9.7	5.0
Chad	44.3	42.5	8.8	4.4
Congo DR	44.3	41.8	9.3	4.6
Congo PR	41.9	43.0	9.9	5.2
Gabon	33.1	44.5	13.7	8.7
Burundi	43.1	42.7	9.5	4.7
Rwanda	46.0	41.6	8.4	4.0
Range	<u>33.1 to 46.0</u>	<u>41.4 to 44.5</u>	<u>8.4 to 13.7</u>	<u>4.0 to 8.7</u>
<u>East Africa</u>				
Botswana	41.7	43.4	9.8	5.1
Ethiopia	41.6	43.2	10.0	5.2
Kenya	46.6	41.6	7.9	3.9

POPULATION TABLES

TABLE A65 (Cont'd.)

<u>Sub-region and Country</u>	<u>Age Group</u>			
	<u>Under 15</u>	<u>15 to 44</u>	<u>45 to 59</u>	<u>60 and Over</u>
<u>East Africa (cont'd)</u>				
Lesotho	38.5	43.3	11.3	6.9
Madagascar	45.1	42.1	8.6	4.2
Malawi	45.0	42.4	8.5	4.1
Mauritius	41.7	41.9	10.5	5.9
Somalia	46.5	42.5	7.6	3.4
Swaziland	47.3	40.6	8.1	4.0
Tanzania	44.4	42.4	8.8	4.4
Uganda	42.9	42.7	9.4	5.0
Zambia	46.9	41.5	7.8	3.8
Range	38.5 to 47.3	40.6 to 43.4	7.6 to 11.3	3.4 to 6.9
<u>Other Africa</u>				
Angola	42.0	44.3	9.5	4.2
Mozambique	40.4	43.0	10.7	5.9
Namibia	39.9	44.3	10.3	5.5
S. Rhodesia	46.7	41.9	8.1	3.3
S. Africa	40.1	43.2	10.8	5.9
Range	39.9 to 46.7	41.9 to 44.3	8.1 to 10.8	3.3 to 5.9

Source: UN Population Division, New York, Population Projecti

TABLE A66 ESTIMATED MIDYEAR POPULATION^{a/} BY SUBREGION AND COUNTRY

<u>Sub-region or Country</u>	<u>1965</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>Growth Rate</u> (Percent p.a.)
			(in thousands)			
<u>North Africa</u>						
Algeria	11,640	12,394	12,791	13,200	13,622	3.2
Libya	1,622	1,740	1,803	1,868	1,915	3.6
Morocco	13,375	14,297	14,782	15,284	15,779	3.4
Sudan	13,493	14,267	14,667	15,078	15,500	2.8
Tunisia	4,360	4,635	4,778	4,926	5,075	3.1
UAR	<u>29,499</u>	<u>31,174</u>	<u>32,047</u>	<u>32,944</u>	<u>33,872</u>	<u>2.8</u>
Total	<u>73,989</u>	<u>78,507</u>	<u>80,868</u>	<u>83,300</u>	<u>85,763</u>	<u>3.0</u>
<u>West Africa</u>						
Dahomey	2,365	2,488	2,552	2,618	2,686	2.6
Gambia	330	343	350	357	364	2.0
Ghana	7,580	7,958	8,149	8,345	8,546	2.4
Guinea	3,510	3,668	3,750	3,835	3,921	2.3
Ivory Coast	4,295	4,557	4,694	4,835	4,980	3.0
Liberia	1,071	1,110	1,130	1,150	1,171	1.8
Mali	4,530	4,745	4,856	4,970	5,088	2.3
Mauritania	1,050	1,097	1,121	1,146	1,171	2.2

TABLE A66 ESTIMATED MID YEAR POPULATION BY SUB-REGION
AND COUNTRY (Cont'd.)

Sub-region or Country	1965	1967	1968	1969	1970	Growth Rate (Percent p.a.)
(in thousands)						
<u>West Africa (cont'd)</u>						
Niger	3,328	3,527	3,631	3,738	3,848	2.9
Nigeria	58,408	61,449	62,985	64,560	66,174	2.5
Senegal	3,490	3,558	3,745	3,835	3,925	2.4
Sierra Leone	2,367	2,474	2,529	2,585	2,644	2.3
Togo	1,639	1,724	1,768	1,814	1,861	2.6
Upper Volta	4,858	5,058	5,162	5,268	5,376	2.0
Total	98,901	103,856	106,422	109,056	111,755	2.5
<u>Central Africa</u>						
Cameroon	5,260	5,482	5,597	5,714	5,836	2.1
CAR	1,370	1,428	1,458	1,489	1,522	2.2
Congo DR	19,403	20,267	20,713	21,169	21,638	2.2
Congo PR	840	877	897	916	936	2.2
Chad	3,306	3,460	3,539	3,621	3,706	2.3
Gabon	463	470	474	478	481	0.8
Equat - Guinea	257	274	278	281	285	1.4
Burundi	3,210	3,359	3,437	3,516	3,600	2.4
Rwanda	3,110	3,293	3,389	3,487	3,587	2.9
Total	37,229	38,910	39,782	40,671	41,591	2.2
<u>East Africa</u>						
Botswana	559	584	597	610	623	2.1
Ethiopia	22,600	23,559	24,054	24,559	25,046	2.1
Kenya	9,365	9,955	10,263	10,581	10,898	3.1
Lesotho	832	862	878	894	910	1.8
Madagascar	6,059	6,391	6,513	6,740	6,932	2.7
Malawi	3,940	4,131	4,231	4,332	4,443	2.4
Mauritius	761	800	820	840	861	2.5
Somalia	2,500	2,622	2,685	2,749	2,820	2.4
Swaziland	354	386	397	409	421	2.9
Tanzania	11,674	12,255	12,572	12,886	13,236	2.5
Uganda	8,473	8,969	9,238	9,515	9,800	3.0
Zambia	3,673	3,858	3,955	4,054	4,155	2.5
Total	70,800	74,382	76,253	78,169	80,145	2.5
<u>Other Africa</u>						
Angola	5,154	5,353	5,471	5,581	5,693	2.0
Mozambique	6,956	7,246	7,395	7,547	7,704	2.1
Namibia	574	596	608	619	632	2.4
Rhodesia	4,258	4,557	4,714	4,877	5,049	3.5
South Africa	18,934	19,872	20,369	20,878	21,400	2.5
Spanish Sahara	48	48	48	48	48	-
Spanish N. Africa	158	161	162	164	165	0.8
Cape Verde Is ^{b/}	230	238	242	247	251	2.2
Portuguese Guinea	527	539	545	551	556	1.3
Sao Tome ^{c/}	61	61	61	61	61	-
Comoro Island	220	233	239	246	253	2.8
Afars and Issas	85	85	85	85	85	-
Reunion	396	422	435	450	464	3.3
Seychelles	47	50	51	53	54	2.6
Total	37,648	39,471	40,425	41,407	42,415	2.4
Total Africa	318,567	335,126	343,750	352,603	361,669	2.6

Source: National Publications; ICA; UN Population Division.

a/ De facto where known. b/ and St. Helena. c/ and Principe

EMPLOYMENT TABLES

TABLE A67 WAGE EMPLOYMENT RELATED TO POPULATION IN LATEST AVAILABLE YEAR IN CERTAIN AFRICAN COUNTRIES

<u>Sub-region and Country</u>	<u>Total Population</u>	<u>Wage Employment</u>	<u>Comments on Wage Employment</u>
<u>North Africa</u>	(000)	(000)	
Algeria (1968)	12,791	1,148 ^{a/}	
Libya (1968)	1,868	250 ^{a/}	Growth recorded since 1966
UAR (1966/7)	32,944	7,714	Growth recorded.
<u>West Africa</u>			
Dahomey (1967)	2,488	30 ^{a/}	
Ivory Coast (1965)	4,295	215 ^{a/}	Growth recorded since 1966
Liberia (1965)	1,071	90 ^{a/}	
Mali (1966)	4,640	52	
Mauritania (1969)	1,146	17	
Nigeria (1970)	66,174	1,385	Growth recorded since 1966
Togo (1968)	1,768	34	
<u>Central Africa</u>			
Cameroon (1966)	5,370	94 ^{a/}	
CAR (1966)	1,400	50 ^{a/}	
Chad (1965)	3,306	60 ^{a/}	
Congo DR (1967)	20,267	1,035 ^{a/}	
Gabon (1968)	474	70 ^{a/}	Growth recorded since 1966
Rwanda (1967)	3,293	85 ^{a/}	
<u>East Africa</u>			
Botswana (1967/8)	590	28 ^{b/}	
Kenya (1969)	10,581	1,072 ^{b/}	
Lesotho (1969)	894	20 ^{b/}	
Madagascar (1966)	6,230	250	
Malawi (1969)	4,332	139 ^{a/}	Growth recorded since 1966
Mauritius (1968)	820	190 ^{b/}	
Swaziland (1968)	397	52 ^{a/}	Growth recorded since 1966
Tanzania (1969)	12,886	368	Growth recorded since 1966
Uganda (1969)	9,515	295	Growth recorded since 1966
Zambia (1968)	3,955	354	Growth recorded since 1966
<u>Other Africa</u>			
Namibia (1966)	585	100 ^{a/}	
S. Rhodesia (1969)	4,877	796	Growth recorded since 1966
South Africa (1969)	20,878	6,300 ^{a/}	Growth recorded since 1966

^{a/} Estimates only

^{b/} Excludes workers in South Africa which for Lesotho totalled 80,000 in 1968.

SOURCE: National Publications

EDUCATION TABLES

TABLE A68 EVOLUTION OF EDUCATION ENROLMENTS FROM 1960 TO 1969

Note: Higher education includes students abroad where known.

<u>Sub-Region and Country</u>	<u>Level of Education</u>	<u>1960</u>	<u>1965</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
(Enrolments in thousands)						
<u>North Africa</u>						
<u>Algeria</u>	Primary	787.6	1,357.6	1,485.4	1,551.0	1,758.0
	Secondary	109.4	131.9	169.4	166.0	183.0
	Higher	7.2	8.2	9.7	9.4	10.8
<u>Libya</u>	Primary	126.2	139.8	221.5	256.6	289.9
	Secondary	16.6	30.3	37.6	42.6	45.9
	Higher	0.74	1.93	2.23	2.89	3.43
<u>Morocco</u>	Primary	795.9	1,115.7	1,139.5	1,160.3	...
	Secondary	86.1	211.0	283.3	292.4	...
	Higher	7.0 ^{a/}	11.5 ^{a/}	13.0	13.6 ^{a/}	...
<u>Sudan</u>	Primary	317.7	427.2	493.6	572.6	...
	Secondary	70.4	96.9	142.9	155.6	...
	Higher	4.0	7.7	10.6	10.9	...
<u>Tunisia</u>	Primary	449.2	734.1	830.0 ^{a/}	...	...
	Secondary	60.0	101.0	135.0 ^{a/}	...	...
	Higher	5.5 ^{a/}	10.3	11.2	...	...
<u>UAR</u>	Primary	2,663.2	3,450.3	3,506.4	3,550.1	...
	Secondary	546.2	996.5	1,195.3	1,283.4	...
	Higher	106.8	177.1	174.6	177.4	...
<u>Sub-region</u>	Primary	5,139.8	7,274.7	7,676.4	7,950.0 ^{a/}	8,300 ^{a/}
	Secondary	888.7	1,567.6	1,954.5	2,090.0 ^{a/}	2,240 ^{a/}
	Higher	131.2	216.7	221.3	226.2	233 ^{a/}
<u>West Africa</u>						
<u>Dahomey</u>	Primary	39.1	130.8	139.7	...	...
	Secondary	4.9	12.0	14.2	...	...
	Higher	...	0.66	0.70 ^{a/}	...	...
<u>Gambia</u>	Primary	7.0	12.6	15.4	16.2	...
	Secondary	1.7	3.4	4.1	4.3	...
	Higher	...	0.1	0.1	0.1	...
<u>Ghana</u>	Primary	596.7	1,293.8	1,288.4	...	1,230.2 ^{a/}
	Secondary	89.7	192.4	214.8 ^{a/}	...	248.5 ^{a/}
	Higher	3.0	4.3	4.8	...	5.5
<u>Guinea</u>	Primary	96.6	164.1	...	...	...
	Secondary	9.5	23.4	...	...	...
	Higher	...	1.0 ^{a/}	...	...	...
<u>Ivory Coast</u>	Primary	238.8	353.7	407.6	427.0	...
	Secondary	11.6	33.7	42.2	50.1	...
	Higher	1.0 ^{a/}	1.8 ^{a/}	2.0	2.0	...

EDUCATION TABLES

TABLE A68 (cont'd.)

<u>Sub-region and Country</u>	<u>Level of Education</u>	<u>1960</u>	<u>1965</u> (Enrolments in thousands)	<u>1967</u>	<u>1968</u>	<u>1969</u>
<u>Liberia</u>	Primary	53.9	72.6	95.0 ^{a/}	100.0 ^{a/}	105.1
	Secondary	3.0	9.5	12.9	14.1 ^{a/}	15.6
	Higher	0.71	0.69	1.08	1.1 ^{a/}	1.23
<u>Mali</u>	Primary	64.9	161.6	186.0	...	...
	Secondary	4.4 ^{a/}	3.2	6.2 ^{a/}	...	...
	Higher	0.6 ^{a/}	0.95	1.0 ^{a/}	...	...
<u>Mauritania</u>	Primary	11.2	20.0	25.8	26.2	...
	Secondary	0.6	2.0 ^{a/}	2.6	3.2	...
	Higher	0.03 ^{a/}	0.08	0.19	0.15	...
<u>Niger</u>	Primary	26.6	61.9	70.7 ^{a/}	77.3	92.3
	Secondary	1.4	3.4	4.0 ^{a/}	4.2	5.2
	Higher	0.10 ^{a/}	0.12	0.15 ^{a/}	0.17	0.20 ^{a/}
<u>Nigeria</u>	Primary	2,912.2	2,911.7	2,900 ^{a/}	3,100 ^{a/}	3,300 ^{a/}
	Secondary	166.3	250.0	230 ^{a/}	240 ^{a/}	240 ^{a/}
	Higher	5.0 ^{a/}	11.6	10.5 ^{a/}	12.0 ^{a/}	...
<u>Senegal</u>	Primary	128.8	218.8	248.7	...	...
	Secondary	12.4	34.6	45.1	...	...
	Higher	1.0 ^{a/}	1.2	1.8 ^{a/}	...	...
<u>Sierra Leone</u>	Primary	86.2	126.0	136.8	139.4	...
	Secondary	8.7	15.9	24.7	36.8	...
	Higher	0.35	0.72	0.81	0.90	...
<u>Togo</u>	Primary	103.3	155.8	160.0 ^{a/}	...	...
	Secondary	5.4	13.2	15.2 ^{a/}	...	...
	Higher	...	0.5 ^{a/}	0.53	...	...
<u>Upper Volta</u>	Primary	56.6	107.6	117.4 ^{a/}	...	...
	Secondary	3.0	8.3	9.0	...	...
	Higher	...	0.25	0.35 ^{a/}	...	...
<u>Sub-region</u>	Primary	4,472.3	5,791.0	5,961.5	6,210 ^{a/}	6,450 ^{a/}
	Secondary	322.6	605.0	650.0	700 ^{a/}	740 ^{a/}
	Higher	13.0 ^{a/}	23.9	25.1	27.6 ^{a/}	30 ^{a/}
<u>Central Africa</u>						
<u>Cameroon</u>	Primary	468.0	713.6	800.0 ^{a/}	830.0 ^{a/}	...
	Secondary	17.1	40.9	50.5 ^{a/}	57.0	...
	Higher	1.5 ^{a/}	1.9 ^{a/}	3.1 ^{a/}	2.8 ^{a/}	...
<u>C.A.R.</u>	Primary	67.5	128.4	153.3	...	...
	Secondary	2.1	5.2	6.4	...	...
	Higher	...	0.07	0.10	...	...
<u>Chad</u>	Primary	72.2	164.0	178.7	178.9	...
	Secondary	1.9	6.9	9.6	9.8	...
	Higher	...	0.10 ^{a/}	0.12	0.20	...

EDUCATION TABLES

TABLE A68 (cont'd.)

<u>Sub-region and country</u>	<u>Level of Education</u>	<u>1960</u>	<u>1965</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
<u>(Enrolments in thousands)</u>						
<u>Central Africa (cont'd.)</u>						
<u>Congo DR</u>	Primary	1,550.0	2,066.8	2,338.9	2,455.8	...
	Secondary	57.1	118.1	171.3	204.8	...
	Higher	2.0 ^{a/}	3.8	5.8	8.4	...
<u>Congo PR</u>	Primary	116.0	186.5	207.6	...	...
	Secondary	6.0	16.0	20.7 ^{a/}	...	...
	Higher	0.7 ^{a/}	1.1	1.3 ^{a/}	...	...
<u>Gabon</u>	Primary	57.1	79.2	85.3	89.2	...
	Secondary	3.0	6.6	7.0	7.4	...
	Higher	...	0.25	0.67	0.65	...
<u>Equatorial Guinea</u>						
	Primary	24.8	37.4	39.0 ^{a/}	...	...
	Secondary	0.8	2.3	3.2 ^{a/}	...	...
	Higher	...	...	...	...	...
<u>Burundi</u>	Primary	101.8	146.9	170.9	181.5	...
	Secondary	3.7	6.0	7.6	8.0	...
	Higher	...	0.54	0.69	0.8 ^{a/}	...
<u>Rwanda</u>	Primary	263.6	352.4	372.2	394.1	...
	Secondary	6.4	8.3	8.8	9.3	...
	Higher	0.3 ^{a/}	0.43 ^{a/}	0.50	0.45	...
<u>Sub-region</u>	Primary	2,721.0	3,875.2	4,345.9	4,560.0 ^{a/}	4,750 ^{a/}
	Secondary	98.1	210.3	285.1	330.0 ^{a/}	370 ^{a/}
	Higher	5.2 ^{a/}	8.2	12.6	15.2 ^{a/}	18 ^{a/}
<u>East Africa</u>						
<u>Botswana</u>	Primary	36.3	66.1	71.6	79.0	82.2
	Secondary	0.7	1.8	2.5 ^{a/}	3.2	3.5 ^{a/}
	Higher	...	0.1	0.2 ^{a/}	0.2	0.2
<u>Ethiopia</u>	Primary	250.5	378.8	452.5	...	...
	Secondary	9.7 ^{a/}	55.6	79.5	...	...
	Higher	2.4 ^{a/}	3.8	5.1	...	...
<u>Kenya</u>	Primary	781.3	1,010.9	1,133.2	1,209.7	1,282.3
	Secondary	27.0 ^{a/}	56.8	90.7	110.0	124.7
	Higher	2.0 ^{a/}	2.5 ^{a/}	4.4	4.2	3.5
<u>Lesotho</u>	Primary	136.1	168.2	167.8	179.4	...
	Secondary	3.1	3.5	4.3	5.3	...
	Higher	0.17	0.23	0.30	0.33 ^{a/}	...
<u>Madagascar</u>	Primary	450.1	672.1	743.5	...	...
	Secondary	32.4	65.2	73.7	...	...
	Higher	1.13	3.08	4.50	...	...
<u>Malawi</u>	Primary	285.2	331.3	297.5	333.9	...
	Secondary	3.2	10.5	10.2	10.2	...
	Higher	...	0.92	0.64	0.69	...

EDUCATION TABLES

TABLE A68 (cont'd.)

Sub-region and country	Level of Education	1960	1965 (Enrolments in thous nds)	1967	1968	1969
<u>East Africa (cont'd)</u>						
<u>Mauritius</u>	Primary	112.4	134.5	140.5	143.0	...
	Secondary	23.6	34.9	39.8	41.0	...
	Higher	...	1.3 ^{a/}	1.5 ^{a/}	1.5 ^{a/}	...
<u>Somalia</u>	Primary	21.5	28.9	30.0 ^{a/}	32.0 ^{a/}	31.6
	Secondary	3.5	10.5	14.0 ^{a/}	18.0 ^{a/}	23.5
	Higher	0.05	0.60	0.60 ^{a/}	0.60 ^{a/}	0.55
<u>Swaziland</u>	Primary	34.5	49.5	59.3	62.1	65.0
	Secondary	1.7	3.2	4.0	6.6	7.5
	Higher	...	0.15	0.16	0.19	0.20
<u>Tanzania</u>	Primary	455.3	739.9	792.0 ^{a/}	804.0 ^{a/}	850.0 ^{a/}
	Secondary	22.4	28.6	35.0 ^{a/}	36.0 ^{a/}	37.5 ^{a/}
	Higher	...	1.6	2.6	2.6 ^{a/}	3.3 ^{a/}
<u>Uganda</u>	Primary	532.9	569.2	593.2 ^{a/}	610.0 ^{a/}	...
	Secondary	38.7	75.5	86.0 ^{a/}	100.0 ^{a/}	...
	Higher	0.9	1.2	2.9	3.0 ^{a/}	...
<u>Zambia</u>	Primary	305.0 ^{a/}	410.2	539.4	608.9	...
	Secondary	10.0 ^{a/}	22.0	37.0	43.0 ^{a/}	...
	Higher	...	...	0.54	0.95	...
<u>Sub-region</u>	Primary	3,401.0 ^{a/}	4,559.6	5,018.9	5,330.0 ^{a/}	5,650 ^{a/}
	Secondary	176.0 ^{a/}	378.1	476.7	540.0 ^{a/}	600 ^{a/}
	Higher	10.0 ^{a/}	16.0	23.4	25.0 ^{a/}	26 ^{a/}
<u>Other Africa</u>						
<u>Angola</u>	Primary	105.4	218.6	255.0 ^{a/}	296.3	...
	Secondary	13.5	30.8	36.0 ^{a/}	40.8	...
	Higher	...	1.6 ^{a/}	1.9 ^{a/}	2.2	...
<u>Mozambique</u>	Primary	415.6	422.8	455.0 ^{a/}	485.0	...
	Secondary	15.2	23.0	30.0 ^{a/}	35.8	...
	Higher	...	1.1 ^{a/}	1.4 ^{a/}	1.6	...
<u>Namibia</u>	Primary	58.6	95.3 ^{a/}	105.0 ^{a/}	113.5	...
	Secondary	...				
	Higher	...				
<u>Reunion</u>	Primary	65.4	83.1	90.5	...	...
	Secondary	9.3	20.0	21.6	...	...
	Higher	...	0.41	0.40 ^{a/}	...	...
<u>S. Rhodesia</u>	Primary	522.8	675.1	709.2	730.2	715.0
	Secondary	27.6	38.6	44.1	46.3	50.0
	Higher	...	...	...	...	...
<u>S. Africa</u>	Primary	2,251.3	2,350 ^{a/}	3,200 ^{a/}	3,350 ^{a/}	...
	Secondary	463.1	580 ^{a/}	620 ^{a/}	650 ^{a/}	...
	Higher	58.0	64.0 ^{a/}	67.4	70 ^{a/}	...

EDUCATION TABLES
TABLE A68 (cont'd.)

<u>Sub-region and Country</u>	<u>Level of Education</u>	<u>1960</u>	<u>1965</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
(Enrolments in thousands)						
<u>Other Africa (cont'd.)</u>						
<u>Sub-total</u>	Primary	3,419.1	4,335.0 ^{a/}	4,803 ^{a/}	5,055 ^{a/}	5,270 ^{a/}
	Secondary	535.7	703.0 ^{a/}	764 ^{a/}	809 ^{a/}	850 ^{a/}
	Higher	60.0	67.0 ^{a/}	71.1	74.0 ^{a/}	77 ^{a/}
<u>Total Africa^{c/}</u>	Primary	19,153.2	25,835.5	27,805.7	29,105.0	30,420 ^{a/}
	Secondary	2,021.1	3,464.0	4,130.3	4,469.0	4,800 ^{a/}
	Higher	219.4	331.8	353.4	368.0	384 ^{a/}
<u>Developing Africa^{c/}</u>						
	Primary	16,901.9	22,985.5	24,605.7	25,755 ^{a/}	26,920 ^{a/}
	Secondary	1,558.0	2,888.0	3,510.3	3,819 ^{a/}	4,120 ^{a/}
	Higher	161.4	267.4	286.0	298 ^{a/}	311 ^{a/}

Source UNESCO Statistical Yearbook, 1969
National Publications

- a/ Estimates or part estimates
b/ Excludes foreign students
c/ Total of countries covered only.

Note: The figures for 1968 and 1969 for the sub-regions and for the Region are estimates based on the available data.

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