



REPUBLIC OF KENYA

ECONOMIC SURVEY

*Central Bureau of Statistics
Ministry of Economic Planning
and Development*

1981

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.....ECONOMIC SURVEY

1981

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CHAPTER 0 —OVERVIEW AND OUTLOOK

Summary

The overall performance of the Kenyan economy in 1980 continued to reflect the adverse world economic environment which first became apparent in 1974 and which has had a more severe impact since the end of the world coffee and tea booms of 1976/77. Further larger increases have occurred in the price of crude petroleum and these have helped to worsen Kenya's terms of trade for the third successive year. The re-emergence of massive imbalances in the global payments situation, continuing economic depression in many industrial countries, and the inability of world monetary arrangements to recycle the OPEC surpluses in ways which meet the consequential financing gaps of the less developed oil-importing developing countries, have all created a severe foreign exchange constraint in many of them, including Kenya. In Kenya's case the adverse external environment coincided with unfavourable climatic conditions in 1979/80. The rainfall pattern continued in 1980 to be most irregular, causing a decline in agricultural output, and this had a negative effect on other sectors of the economy, notably manufacturing, both because of its depressing effect on total demand and because of shortfalls in raw material supplies.

0.2. A record deficit on the current account of the balance of payments of K£333 million, also had a negative effect on aggregate demand on the money supply. With manufacturing growing at a reduced pace and difficulties in other sectors of production, the overall growth in the gross domestic product was only 2.4 per cent, which is below the rate of population growth. The position with regard to employment creation was better than might have been feared, given the difficult overall economic situation. There was a 33,500 increase in recorded wage employment, although this was only two-thirds of the target set out in the development plan. After a fall in 1979, the rate of inflation accelerated again, with the cost of living in Nairobi rising by an average of 12.8 per cent in 1980, compared with 8.4 per cent in 1979.

The International Environment

0.3. Developments in the world economy were dominated by the near-doubling in crude oil prices in 1979/80. This re-created the large global payments imbalances which first emerged in 1974 and had nearly disappeared by 1978 and, by creating a group of OPEC surplus countries with very large payments surpluses, it necessarily had the effect of forcing the rest of the world into deficit. In relation to the value of their international trade, the oil-importing developing countries were among the hardest-hit, especially the poorer countries, most of whom do not have access to commercial sources of finance. The export earnings of primary producing countries showed only moderate growth, the terms of trade turned against them, large

payments deficits and rising debt ratios were the common experience. For the most important of the commodities exported by Kenya, the world price of coffee fell in 1980, but there was a small increase for tea; there were significant price rises for sisal and sugar but these commodities are still relatively small in total exports.

0.4. Partly as a result of the rising trend in oil prices, many of the major industrial countries increased the priority they attach to the objective of fighting inflation, even though at the short-run cost of losses in output and employment. Monetary controls and high interest rates designed for this purpose had the effect of reducing levels of economic activity and it has been estimated that the OECD countries as a group achieved a GDP growth of only 1 per cent in 1980, compared with more than 3 per cent in 1979. The volume of world trade rose by 2 to 3 per cent, far below the 6 per cent recorded in 1979 and also below the long-term trend, in the growth of world trade. The counter-inflationary measures had little impact in industrial countries during the year, however, for inflation rates remained high and there was no clear downward trend. The level of unemployment rose rapidly in most of these countries.

Economic Growth and Investment

0.5. The national accounts presented in Chapter 2 indicate that the GDP grew by only 2.4 per cent during 1980, implying a decline in average *per capita* income by 1.2 per cent. Indeed, when adjustments are made for the negative effects of the further worsening in the terms of international trade, *per capita* income fell by nearly 4 per cent. The major influence on this disappointing outcome was the drought conditions in much of the country which caused value-added in agriculture to fall by 1.3 per cent in real terms. This decline and associated difficulties had an impact on most of the other productive sectors, which generally experienced a slow-down in expansion. Taking a longer-term view, it is becoming apparent that the underlying growth trend of the economy has slowed markedly since the "oil crisis" of 1974. This is seriously undermining the Government's ability to achieve its economic objectives, and this is particularly so with the apparently sluggish underlying growth trend of agriculture.

0.6. There was also a fall in fixed capital formation, which went down in real terms by nearly 11 per cent. Much of this decline was concentrated in the public sector, where capital formation went down by a quarter in real terms. Private sector construction also moved sharply down but this was largely offset by increased private investments in machinery and equipment. A major re-building of stocks occurred during the year, following the de-stocking that occurred in 1979. A sharply diminished proportion of total investment was financed out of domestic savings; with a corresponding increase in the proportion financed by inflows of capital from the rest of the world and by running down the country's international liquidity.

Population

0.7. Some results of the population census of August 1979, are presented in Chapter 3. These highlight the problems of a rapidly-growing population and the resulting dependence of large numbers of young people on a relatively small number of workers. In brief, out of a population of 15.3 million in 1979, 7.3 million were under 15 years old, a further 1.1 million in older age groups were still in full-time education and 0.3 were aged 65 and over. This leaves a balance of 6.6 million, including all housewives, in the economically active age-groups. Of these, 4.6 million were working other than as wage employees in the rural areas, including 2.5 million females. The population in the towns was 1.9 million, or 12.4 per cent of the total and was recorded as growing at a rate of 7.2 per cent annually.

0.8. The overall ratio of the numbers of children plus other students plus the aged to the remainder of the population was 1.3, which is a very high rate of dependency by international standards. This problem is compounded by the fact that the census also reveals that many existing high-potential agricultural areas already suffer from high population densities and this creates a large pressure on resources, given the cultivation techniques currently employed in agriculture. Nevertheless and despite the process of urbanization, the rural economy will have to bear the brunt of absorbing most of the future school-leavers as they enter the labour force.

Money and Banking

0.9. Data in Chapter 4 shows that there was a clear break in 1980 with the monetary expansion which marked the later 1970s. There was hardly any change in the total money supply and domestic credit expanded at the relatively modest rate of 12.7 per cent. Credit to the private sector rose by 20.3 per cent, however, with especially large increases for the agricultural and manufacturing sectors, and to finance imports. The increased deficit on the balance of payments and the resulting loss of net foreign assets was the chief reason for the slow-down in the monetary expansion. This, plus reduced holdings of Government Treasury bills left the commercial banks in a much tighter position than is customary for them; their liquid assets as a proportion of deposits were down to near the legal minimum by the end of the year. Although there was a nominal increase in interest rates in mid-1980 there was a general decline in real terms.

External Trade and the Balance of Payments

0.10. For the third successive year Kenya's terms of trade deteriorated during 1980, with increases in export prices more than offset by considerably larger rises in the prices of crude oil and other imports. There was also a substantial rise in the quantity of imports, largely because of the relaxation early in the year of the advance import deposit scheme. The effect of these price and quantity trends was to increase the total import bill by K£321

million. There were also increases in export earnings and receipts from invisibles and transfer payments. There was a large increase in earnings from petroleum products because a much larger volume of export residues and heavy fuel oil was despatched for further refining at more sophisticated refineries abroad. There were also useful increases in earnings from pyrethrum, sisal and more minor commodities but reduced revenues were obtained from coffee, tea, hides and skins. Maize exports were virtually eliminated and the country was a large net importer of this commodity during the year. The net result of these developments was that the deficit on merchandise trade increased by K£231 million and there was a record deficit on the current account of the balance of payments of K£333 million, equal to 72 per cent of export earnings. While part of this deficit was covered by inflows of long-term capital there was a residual financial gap which could only be filled by borrowing from the International Monetary Fund and, to a lesser extent, by running down the foreign exchange reserves.

Employment, Earnings and Prices

0.11. The impact of the 1979 Presidential directive that there should be a 10 per cent rise in the numbers employed continued to be felt in the public sector during 1980 but the relatively depressed state of the economy meant that the private sector was generally unable to maintain the expansion of the previous year. Data in Chapter 5 show that overall, the numbers in wage employment rose by 3.4 per cent in 1980, or by 33,500 jobs, but there was a decline in private sector employment offset, however, by a larger increase in the public sector. The chief difficulty was experienced in private agriculture, because of the drought, where there was a sharp fall in employment.

0.12. There was another small increase in the real value of average earnings during the year but there were large differences between the private and public sector records in this respect. The real value of average earnings went up by 8 per cent in the private sector, whereas there was a 7 per cent fall in the public sector. This fall is somewhat misleading, however, because it reflects changes in the structure of public sector employment. It was found impossible to hold price inflation down to the low rates achieved in 1979. In Nairobi, an average of the three consumer price indices recorded an increase from 8.4 per cent in 1979 to 12.8 per cent in 1980 and a similar inflation rate was recorded for the rural areas.

Public Finance

0.13. The 1980/81 financial year was a poor one for the Government budget. Total current revenue increased by a mere 10 per cent whereas total expenditure increased by 24 per cent. As a result financing from external loans and grants nearly doubled from K£94.0 million in 1979/80 to K£178.5 million in 1980/81 and financing from Treasury Bills was even greater, rising from a minus K£47.7 million in 1979/80 to K£50.5 million in 1980/81.

Revenues from the three main components of indirect taxes, i.e. import duties, sales tax and excise duties increased by 16.1 per cent mainly due to 10 per cent increases on import duties on all dutiable goods introduced in the 1980 Budget but also because of increased volume of imports. Sales tax, however, showed a modest increase of 5 per cent. The share these three taxes to all taxes, has increased from 59 per cent in 1977/78 to 64 per cent in 1980/81. Revenue from income tax increased by 10.6 per cent in 1980/81 as compared to an increase in GDP at factor cost (at current prices) in the Monetary Economy of 14.1 per cent in 1980.

Agriculture

0.14. As already mentioned, 1980 was a poor year for much of agriculture, with drought conditions having a serious impact on food crops and livestock. Chapter 8 shows that there were also some bright spots, however. There were major increases in the output of coffee, sisal, cotton, pyrethrum and sugarcane, by comparison with 1979, although there were serious declines in the maize and tea crops. Overall, the losses exceeded the gains, so that value-added in agriculture is recorded in the national accounts as declining by 1.3 per cent. The domestic terms of trade turned against agriculture for the third successive year, due particularly to weak export prices and substantial increases in the rural costs of living. The difficulties of agriculture—which is by far the largest single sector of the economy—unavoidably had an adverse effect in other sectors, both by way of reducing the demand for non-agricultural goods and services, and by creating shortfalls in the raw materials of some agro-based industries. The Government has now published a sessional paper setting out a national food policy in the light of the experiences of the last two years.

Energy

0.15. Energy consumption rose overall by 3.5 per cent in 1980 but petroleum product consumption increased by 5.6 per cent as shown in Chapter 10. Thus, for the first time since 1976, the growth in petroleum consumption exceeded the rate of increase in the monetary GDP at constant prices, despite substantial price rises for petroleum products during the year. A major factor behind this rise in petroleum consumption was the need to bring into service thermal power stations which run on oil to supplement supplies of hydro-electricity. The energy statistics also show that the relative cheapness of diesel oil encouraged greater usage in motor vehicles in 1980. The net cost of imported petroleum products to Kenya rose to K£116 million in 1980, a figure equal to 36 per cent of total export earnings excluding petroleum product exports. Strenuous efforts are being made to curtail further the consumption of petroleum products but the country cannot

expect to enjoy faster economic growth without this having some impact on demand for petroleum. However, projects are under way and planned to develop more of the country's hydro and geothermal energy sources; and the plants under development to use molasses as a source of power alcohol should result in some lowering in dependence on petroleum.

Manufacturing

0.16. The increase in manufacturing value added in constant prices of 4.6 per cent in 1980 was better than growth recorded elsewhere in the economy but was well below the growth rates in 1978 and 1979 of 12.6 and 7.1 per cent respectively. The slow-down during 1980 resulted mainly from the electricity rationing which occurred in the first quarter of the year, due to very low water levels for hydro- electricity generation. There was a recovery in output from the second quarter but the sector was adversely affected by a range of problems, including sluggish demand, inadequate supplies of some materials and, after the June 1980 budget, by the rising of customs duties on items imported for further processing. Towards the end of the year import licensing became more restrictive and affected industry's supply of raw materials and spare parts.

Building and Construction

0.17. Although employment in this sector grew by 3.3 per cent and cement consumption went up by as much as 10 per cent, building and construction was nevertheless badly affected by the general slow-down in economic activity, as recorded in Chapter 12. Value-added in constant prices went up by only 0.9 per cent in 1980, against growth rates of 12.0 and 7.5 respectively in 1978 and 1979. Building plans approved during the year rose to record levels but examination of completions in relation to plans passed in the private sector suggests that only 56 per cent of plans for residential buildings reach completion, while for non-residential buildings the proportion is as low as 26 per cent. One factor behind the low completions is the non-availability of credit and there is evidence that a shortage of credit was partly responsible for the stagnation of private construction in 1980.

Domestic Trade; Tourism

0.18. The wholesale and retail trade depends primarily upon the output of manufacturing and agriculture and on imports for its supplies and growth. In 1980 there was a large increase in the volume and value of imports (although part of this was used to replenish stocks) but there was a decline in agriculture while manufacturing grew only moderately. The tourist industry recorded a modest increase in activity: The number of holiday visitor-departures increased by 2.7 per cent; use of hotel beds rose by 8.7 per cent and current-price earnings from tourism were estimated at K£82.5 million in 1980 compared to K£62 million in 1979. The contribution to the GDP

of the "wholesale and retail trade, hotels and restaurants" sector rose by 1.8 per cent in constant prices, which was well below the rather rapid expansion of the two previous years.

Transport and Communications

0.19. The transport and communications sector had another satisfactory year. Wage employment did not increase to any extent but there appears to have been a rise in self-employment in the industry. Overall, the contribution of this sector to constant-price GDP rose by an estimated 7.1 per cent. The sub-sectors recording particular gains include road transport, communications and pipeline operations. Mombasa Port handled a record level of cargo.

Outlook for 1981

0.20. The prospects for agriculture have improved as a result of the good rains so far and it is possible to contemplate a relatively rapid growth in this sector during 1981, after two poor years. Faster growth in agriculture will have a beneficial effect on the remainder of the economy, assisting the balance of payments, supplying necessary raw materials and boosting demand. So long as it can overcome difficulties associated with shortages of imports, the manufacturing sector may also experience accelerated growth, as also may the construction sector if the supply of credit is made easier. Commerce would be adversely affected by an expected reduction in the volume of imports but would be stimulated by an agricultural and industrial recovery.

0.21. The need to conserve foreign exchange by cutting down on imports is likely to emerge as the main constraint on economic growth in 1981. Indeed, current administrative measures to this end are already causing difficulties. The volume of coffee exports should increase substantially although the average price realized may well fall or at best stay static because any exports above Kenya's quota will have to be sold at a discount on the non-quota market. The prospects are also good for better earnings from larger volumes of tea and sugar exports. Sisal is also likely to be a profitable export. On the other hand, it is reasonable to expect that there will be some further weakening of the net balance of payments on petroleum products coupled with further inflation in the prices of non-oil imports. Much will depend again on what happens to the world prices of petroleum and coffee but a further worsening in the terms of trade seems more likely than not.

0.22. On balance, a growth rate between 3.5 and 4.5 per cent in the constant-price GDP is in prospect. If this occurs, the economy will for the third successive year be unable to reach even the revised target growth rate of 5.4 per cent per annum in the current development plan and will be hard pressed to do more than maintain average incomes at present levels.

CHAPTER 1—THE INTERNATIONAL SCENE

The year 1980 was the most turbulent in the world economy since the recession of 1974/75. It was a year of above-average inflation, low growth rates in world economic activity and external trade, and high unemployment. A major contributory factor was the virtual doubling between 1979 and 1980 in world crude oil prices. This had the effect of re-creating major imbalances in the global payments situation, with the major oil-exporting countries expected to record a balance of payments surplus on current account of \$115 billion in 1980, compared with \$5 billion and \$68 billion in 1978 and 1979 respectively. As counterparts to these surpluses, both industrial and oil-importing developing countries, were forced heavily into deficit. The poorer developing countries, which includes most in Africa, were particularly hard hit, experiencing current deficits very large in relation to the total value of their trade. In the face of very limited recycling of OPEC surpluses to the poorer developing countries, many of whom have been forced by the "second oil shock" even more heavily into deficit, these countries have been forced to try to contain the situation by restraining demand in their own economies and this has contributed to the slow-down in world economic activity and trade.

1.2. The fight against inflation has become a key factor in economic management in most of the major industrialized countries and as the year progressed there was some evidence of falling rates of increase of consumer prices. However, the overall effect of measures taken was not readily apparent; looking at the year to year increases as given in Table 1.1 below.

KEY ECONOMIC INDICATORS IN THE SIX MAJOR O-E-C-D COUNTRIES

	U.S.A.	Japan	West Germany	France	U.K.	Italy
1. Change in Industrial Production*						
December 1980	-1.0	4.0	-5.5	-2.0	-11.0	-4.0
December 1979	0.5	8.5	6.5	3.0	Nil	8.0
2. Growth in GNP*						
December 1980	0.1	5.3	1.8	1.8	-2.3	3.8
3. Increase in Consumer Prices*						
December 1980	12.5	7.0	5.5	13.5	15.0	21.5
December 1979	13.5	6.0	5.5	12.0	17.0	19.0
4. Interest Rates						
Prime lending Rate						
December 1980	21.50	7.50	12.00	14.40	15.00	21.50
December 1979	15.25	4.50	9.75	13.65	18.00	20.00
5. Unemployment Rate						
December 1980	7.4	2.2	4.5	7.3	9.3	8.3
December 1979	5.9	2.0	3.5	6.5	5.5	7.8

*Year to year basis.

1.3. This table sets out certain selected key economic indicators for the six most important industrialized market-economy countries, all of which are members of OECD. Industrial production declined in all of the countries except Japan in 1980 whereas in 1979 growth had generally been positive. The largest fall recorded in 1980 was for the United Kingdom where industrial production in December was 11 per cent less than a year earlier.

1.4. The growth in GNP in 1980 was also negative in the U.S.A. and U.K., a low 1.8 per cent in West Germany and France and only modest 3.8 and 4.8 per cent respectively in Italy and Japan. It is estimated that all OECD countries taken together probably recorded a rise in GNP in real terms of only 1 per cent in 1980, well below the 3.3 per cent achieved in 1979. The low GNP growth rates in 1980 and the overall decline in industrial production owe much to the high interest rates being charged. The prime lending rate was already very high in most countries at December 1979, with an average rate of 13.53 per cent in the six countries listed in Table 1.1 and this average rose to 15.32 per cent in December 1980. The prime rate stayed low in Japan but even so the increase here was from 4.5 to 7.5 per cent; the only country to record a fall in 1980 was the U.K. where the prime lending rate fell from 18 to 15 per cent.

1.5. High interest rates were basically related to high rates of increase in consumer prices; these rates were 12.5 per cent in the U.S.A., 13.5 per cent in France, 15.0 per cent in the U.K. and 21.5 per cent in Italy in December 1980. And because of the reduced level of industrial activity with its ripple effect on the economy as a whole unemployment in certain countries was at levels only previously seen in periods of deep recession. The six OECD countries reviewed had an overall unemployment rate of 5.4 per cent in December 1979, but this had risen to 6.5 per cent in December 1980. In the U.S.A. and France the rate in December 1980 was 7.3 per cent but in Italy it had reached 8.3 per cent and in U.K. was at a post-war record level of 9.3 per cent.

1.6. The very large increase in crude petroleum prices of some US\$13 per barrel had an immediate impact on consumption which in any event was low because of the recession. Thus despite the outbreak of hostilities between Iran and Iraq in the latter months of 1980 which had a severe impact on supply there was no global shortage of oil supplies; and the spot-market prices had been reduced in the early months of 1981 "With the realization that supply and demand were approximately in balance. Consumption of petroleum products outside centrally-planned economies fell by 6 per cent in 1980.

1.7. The volume of world trade is estimated to have risen by 2 to 3 per cent in 1980 after a rise of 6 per cent in 1979. This slowdown in growth can be attributed to the movement of the world economy into recession. However due to worldwide inflation and the rise in prices of items traded on world markets in 1980 the value of world trade increased by about 20 per cent.

1.8. However, while there was a rise in the value of exports from the oil exporting countries in the developing world of some 40 per cent, the increase in the value of exports from the industrial countries was only 16 per cent and for the non-oil developing countries the increase in value was somewhat less than 25 per cent.

1.9. The prices of primary commodities traded on world markets measured in U.S. dollars were generally higher in 1980 than in 1979. There were some notable exceptions and coffee prices in particular were much lower in the second half of 1980. According to wholesale price index numbers compiled by the IMF the average price of 30 major commodities excluding crude petroleum rose as follows from 1975:

MF	EX	IMV
1975	100.0	
1976	112.2	12.2
1977	135.1	20.4
1978	128.8	-4.7
1979	149.4	16.0
1980	167.3	12.0

1.10. For coffee, tea, sisal and sugar which have a particular significance in Kenya's export trade the wholesale price index numbers are as follows:

	7CZY	FM*	Sisal+	Sugar++
1975	100.0	100.0	100.0	100.0
1976	218.2	112.0	80.8	57.5
1977	358.4	194.0	88.4	48.3
1978	248.9	159.1	84.4	58.6
1979	264.9	157.0	121.7	70.3
1980	238.6	160.5	136.1	86.5

*Other Milds (New York).

**Average Auction (London).

+East African (London).

++EEC Import Price.

1.11. Thus for the Kenya's major commodity, coffee, there was a significant decline in unit values on world markets in 1980; for tea the average price was little changed but for sisal and sugar there were substantial price rises.

1.12. Imports of maize into Kenya in 1980 were particularly heavy and here the rise in price between 1979 and 1980 for maize sold from U.S. Gulf Ports was approximately 8 per cent although the price index was only about 5 per cent higher than in 1975.

1.13. The high interest rates attracted funds to the U.S.A. and U.K. markets in 1980 but as the year progressed the attractions of U.S. interest rates became much more marked and the inflow of foreign funds caused the U.S. dollar to strengthen especially against most European currencies. The pound sterling did not begin to weaken until the early months of 1981 but with its rating as a petro-currency and a strong trade surplus it still offers relative attractions on the foreign currency markets.

1.14. The outlook for 1981 is not favourable. Expectations are that the world recession will bottom out at some stage during the year but there is still a very real concern about inflation which is making authorities reluctant to take steps to restore growth to their economies. It looks as if the recovery when it starts is going to be long and relatively painful being accompanied by high levels of unemployment due to the structural changes which have taken place in the period of adjustment. The stringent monetary and fiscal policies which have been and are still being pursued in combating inflation will keep down growth in the economies concerned. While inflation is expected to decline from an average level of 12 per cent in 1980, the reduction to below 9 per cent is not expected to occur until the first half of 1982.

1.15. While there are factors at work which make it difficult to be confident about the movement of world commodity prices during the next twelve months, it seems more likely than not that countries dependent upon the export of such commodities will experience a further worsening in their terms of trade during 1981. While there may be some stimulus to demand as a result of a need to rebuild stocks, the virtual certainty that the economies of the OECD countries will continue to expand only very slowly will tend to depress the demand for, and hence the prices of, primary products. Given probable trends in the exports of the industrial and OPEC countries, it is unlikely that primary product prices will keep pace. The price of Kenya's major export crop is influenced by the coffee quotas agreed under the International Coffee Agreement; quotas have had to be reduced in order to support the agreed minimum price.

1.16. Persisting depression in many industrial countries and continuing large imbalances in the world balance of payments situation are likely to deal a severe blow to the economies of many of the poorer oil-importing developing countries in the absence of effective international action to deal with the problems. Both prudence and international bank lending policies mean that little of the financing needs of such countries will be met by commercial borrowing. At the same time the real value of development aid flows is at best static and is probably tending to decline. Low-income developing countries do not generally have large excess international reserves to fall back on and in many of them reserves are already at dangerously low levels. There is a real danger that, faced with the prospect of large financing gaps, they will have to respond by cutting back on the volume of imports,

with seriously adverse effects on the expansion of their economies. There is thus a particularly urgent need for the Mexico summit, scheduled for later in 1981, to reach agreement on rapid international action to deal with this and related problems.

CHAPTER 2—THE DOMESTIC ECONOMY

Overall Performance

Provisional data indicate slow growth in the economy during 1980 and a substantial decline in capital formation. Estimates of GDP at constant prices show a growth rate of only 2.4 per cent between 1979 and 1980 and, since this was less than the growth rate of population, average *per capita* income declined by 1.2 per cent in the same period. This result was all the more unsatisfactory because it followed a year of virtually static *per capita* income in 1979 and it is clear that economic growth is falling well behind the revised target growth rate of 5.4 per cent per annum.

2.2. One reason for the slow growth, of course, was the widespread incidence of drought conditions which not only had a strongly adverse effect on agriculture but also reduced the volume of hydro-electricity for use by industry. There is evidence that shortages of credit may have affected activity in the construction and perhaps some other sectors, and the difficulties of agriculture also spilled over into the performance of manufacturing and other sectors. The large increase in the balance of payments deficit also had a strongly negative effect, depressing money supply and aggregate demand. A further deterioration in the commodity terms of trade had an adverse effect on real incomes which is not recorded in standard estimates of the national accounts but estimates given below in Table 2.5 show that when these terms of trade effects are taken into account average *per capita* income fell by nearly 4 per cent.

2.3. Partly as a result of the methods of estimation, the traditional economy and the provision of Government services are much less affected by fluctuations in economic activity than the "enterprises" part of accounts, as is shown in Table 2.2. The behaviour of the various sectors in the "enterprises" section reveal a high degree of sensitivity to changing economic conditions and the constant-price growth rate of this fell to 1.6 per cent in 1980, compared with 6.9 and 3.6 per cent in 1978 and 1979, respectively. By contrast, the estimates for the traditional economy reveal a fairly constant growth rate in recent years of 3 to 3 1/2 per cent annually; and the output of Government services has also fluctuated within a fairly narrow range around an average since 1976 of 6.0 per cent per annum.

2.4. Turning to the contribution to growth of the various sectors, the chief negative influence was the 1.3 per cent decline in real terms value-added by agriculture. Reasons for this result are examined more fully in Chapter 8. Since this is far larger than any other single sector, a poor result in agriculture is bound to have a depressing effect on the overall growth rate of the economy. This tends to be magnified, however, by its effect on manufacturing and other sectors, which find a reduced demand for their own products in the rural economy and, in some cases, have difficulties in securing adequate

DOMESTIC PRODUCT, 1977-1980

Table 2.1

K£million

	CURRENT PRICES				CONSTANT (1976) PRICES			
	1977	1978	1979	1980*	1977	1978	1979	1980*
A. TRADITIONAL ECONOMY								
Forestry	10.77	13.30	15.21	17.53	9.88	10.04	10.32	10.62
Fishing	0.29	0.43	0.46	0.48	0.30	0.34	0.35	0.32
Building and Construction	25.99	31.01	37.19	39.53	22.71	23.32	24.32	25.08
Water Collection	11.11	12.66	14.04	14.98	9.41	9.56	9.63	9.71
Ownership of Dwellings	35.68	43.15	52.06	57.79	30.59	31.86	33.17	34.54
TOTAL TRADITIONAL ECONOMY	83.84	100.55	118.96	130.31	72.89	75.12	77.79	80.27
B. MONETARY ECONOMY								
1. Enterprises and Non-Profit Institutions								
Agriculture	668.01	631.73	648.78	688.13	513.60	533.31	529.05	522.03
Forestry	6.89	8.25	10.70	12.80	6.72	6.94	7.17	7.58
Fishing	2.33	3.52	3.70	3.90	2.36	2.75	2.89	2.55
Mining and Quarrying	4.17	4.41	5.04	5.73	4.05	4.14	4.08	4.05
Manufacturing	179.94	219.32	349.84	295.14	167.10	188.16	201.56	210.79
Building and Construction	53.94	66.87	27.57	32.37	49.34	55.26	19.57	21.21
Electricity and Water	19.96	23.05	82.26	96.33	16.42	17.82	59.38	59.92
Trade, Restaurants and Hotels	164.63	189.34	214.07	252.07	143.59	155.92	165.37	168.38
Transport, Storage and Communications	78.62	100.84	114.65	128.63	73.74	81.40	87.26	93.46
Finance, Insurance, Real Estate and Business Services	82.98	96.22	108.25	117.45	71.98	77.59	85.26	84.29
Ownership of Dwellings	67.50	78.43	87.20	102.23	60.48	62.49	66.62	71.58
Other Services	30.80	35.46	39.59	47.07	28.69	30.46	32.86	35.06
Less: Imputed Bank Service Charges	-31.80	-37.31	-41.97	-45.54	-26.79	-28.76	-31.60	-31.24
TOTAL	1,327.97	1,420.13	1,549.68	1,736.31	1,111.28	1,187.48	1,229.47	1,249.66
2. PRIVATE HOUSEHOLDS (DOMESTIC SERVICES)	13.44	17.06	21.72	28.13	12.04	13.91	16.39	19.28
3. PRODUCERS OF GOVERNMENT SERVICES								
Public Administration	48.52	56.91			44.08	47.47		
Defence	11.73	13.49			10.63	11.37		
Education	94.43	107.51			83.99	89.20		
Health	21.90	27.40			19.43	20.63		
Agricultural Services	13.78	16.51			13.52	13.68		
Other Services	25.04	28.84			22.40	24.08		
TOTAL	215.40	250.66	289.26	326.13	194.05	206.43	221.09	232.81
TOTAL MONETARY ECONOMY	1,556.81	1,687.85	1,860.66	2,090.57	1,317.37	1,407.82	1,466.95	1,501.75
TOTAL TRADITIONAL AND MONETARY ECONOMY	1,640.65	1,788.41	1,979.62	2,220.88	1,390.26	1,482.94	1,544.74	1,582.02
GROSS DOMESTIC PRODUCT PER CAPITA	114.43	120.38	129.16	139.73	96.97	99.82	100.79	99.54

*Provisional.

GROSS DOMESTIC PRODUCT; PERCENTAGE RATES OF GROWTH, 1977-1980

Table 2.2

Percentage

	CURRENT PRICES				(CONSTANT 1976) PRICES			
	1977-1978	1978-1979	1979-1980*	Cumulative 1976-1980	1977-1978	1978-1979	1979-1980*	Cumulative 1976-1980
A. TRADITIONAL ECONOMY								
Forestry..	23.5	14.4	15.3	16.7	1.6	2.8	2.9	3.1
Fishing	48.3	7.0	4.3	13.5	13.3	2.9	9.1	2.4
Building and Construction	19.3	19.9	6.3	16.0	2.7	4.3	3.1	3.6
Water Collection	14.0	10.9	6.7	12.1	1.6	0.7	0.8	2.2
Ownership of Dwellings	20.9	20.6	11.0	18.5	4.2	4.1	4.1	4.2
TOTAL TRADITIONAL ECONOMY	19.9	18.3	9.5	16.8	3.1	3.6	3.2	3.3
B. MONETARY ECONOMY								
1. Enterprises and Non-Profit Institutions								
Agriculture	-5.4	2.7	6.1	10.3	3.8	-0.8	-1.3	2.9
Forestry	19.7	29.7	19.6	19.7	3.3	3.3	5.7	4.9
Fishing	51.1	5.1	5.4	13.3	16.5	5.1	-11.8	1.9
Mining and Quarrying	5.8	14.3	13.7	13.9	2.2	-1.4	-0.7	4.4
Manufacturing	21.9	13.9	18.1	19.7	12.6	7.1	4.6	9.9
Building and Construction	24.0	23.0	17.1	20.7	12.0	7.5	0.9	7.2
Electricity and Water	15.5	19.6	17.4	22.9	8.5	9.8	8.4	10.5
Trade, Restaurants and Hotels	15.0	13.1	17.8	17.4	8.6	6.1	1.8	6.2
Transport, Storage and Communications	28.3	13.7	12.2	16.8	10.4	7.2	7.1	7.8
Finance, Insurance, Real Estate and Business Services	16.0	12.5	8.5	14.7	7.8	9.9		5.5
Ownership of Dwellings	16.2	11.2	17.2	15.2	3.3	6.6	7.4	5.3
Other Services	15.1	11.6	18.8	14.8	6.2	7.8	6.6	6.8
TOTAL (Excluding Imputed bank service Charges)	6.9	9.1	12.0	14.4	6.9	3.6	1.6	5.3
2. Private Households (Domestic Services)	26.9	27.3	29.5	26.7	15.5	17.8	17.6	15.2
3. Producers of Government Services								
Public Administration	17.3				7.7			
Defence	15.0				7.0			
Education	13.9				6.2			
Health	25.1				6.2			
Agricultural Services	19.8				1.2			
Other Services	15.2				7.6			
TOTAL	16.4	15.4	12.7	15.3	6.4	7.1	5.3	6.0
TOTAL MONETARY ECONOMY	8.4	10.2	12.4	14.7	6.9	4.2	2.4	5.5
TOTAL TRADITIONAL AND MONETARY ECONOMY	9.0	10.7	12.2	14.7	6.4	4.1	2.4	5.5
GROSS DOMESTIC PRODUCT PER CAPITA	5.2	7.3	8.2	10.9	2.9	1.0	-1.2	1.9

* Provisional.

PRODUCTION ACCOUNTS, 1979 AND 1980

Table 2.3

K£million

	1979					1980*				
	Gross Output at approx. Basic Prices+	Inter-mediate Consumption	Gross Domestic Product at Factor Cost			Gross Output at approx. Basic Prices***	Inter-mediate Consumption	Gross Domestic Product at Factor Cost		
			Total	Labour Costs	Operating Surplus**			Total	Labour Costs	Operating Surplus**
TRADITIONAL ECONOMY	151.03	32.07	118.96	2.19	116.77	166.86	36.55	130.31	2.36	127.95
MONETARY ECONOMY										
1. Enterprises and Non-Profit Institutions										
Agriculture	747.58	98.80	648.78	67.59	581.19	791.19	103.05	688.13	78.03	610.11
Forestry	12.38	1.68	10.70	9.26	1.44	14.63	1.83	12.80	10.70	2.10
Fishing	4.11	0.41	3.70	0.93	2.78	4.31	0.42	3.90	0.97	2.92
Mining and Quarrying	17.73	12.70	5.04	2.74	2.29	20.18	14.45	5.73	2.71	3.02
Manufacturing..	1,177.08	927.23	249.84	103.54	146.30	1,453.14	1,158.00	295.14	116.11	179.03
Building and Construction	260.06	177.80	82.26	63.43	18.83	289.42	193.09	96.33	72.94	23.39
Electricity and Water	58.79	31.21	27.57	10.45	17.13	70.46	38.09	32.37	13.15	19.21
Trade, Restaurants and Hotels	365.42	151.35	214.07	94.17	119.90	430.92	178.86	252.07	109.87	142.20
Transport, Storage and Communications	300.62	185.97	114.65	65.52	49.13	351.12	222.49	128.63	68.61	60.02
Finance, Insurance, Real Estate and Business Services	145.39	37.14	108.25	47.51	60.74	157.75	40.30	117.45	51.55	65.90
Ownership of Dwellings	96.05	8.85	87.20		87.20	112.68	10.45	102.23		102.23
Other Services	88.28	48.69	39.59	30.29	9.31	107.39	60.31	47.07	36.37	10.71
Less: Imputed Bank Service Charges		41.97	-41.97		-41.97		45.54	-45.54		-45.54
TOTAL	3,273.848	1,723.80	1,549.68	495.42	1,054.27	3,803.19	2,066.88	1,736.31	561.01	1,175.30
2. Private Households (Domestic Services)	21.72	—	21.72	21.72		28.13		28.13	28.13	—
3. Producers of Government Services	490.94	201.68	289.26	283.09	6.17	559.35	233.22	326.13	319.03	7.10
TOTAL MONETARY ECONOMY	3,786.14	1,925.48	1,860.66	800.23	1,060.44	4,390.67	2,300.10	2,090.57	908.17	1,182.40
TOTAL MONETARY AND TRADITIONAL ECONOMY	3,937.17	1,957.55	1,979.62	802.42	1,177.21	4,557.53	3,336.65	2,220.88	910.53	1,310.35

*Provisional.

**Including consumption of fixed capital.

***After deduction of indirect taxes less subsidies from the total of output.

agricultural raw material supplies to maintain their own output. These factors, plus the rationing of power early in 1980, help to explain the substantial slowing-down in the growth of the manufacturing, retail and wholesale trade, and construction sectors. The strong recovery of manufacturing and construction during 1978 and 1979 could not be sustained into 1980; in the case of construction the growth rate fell from 7.5 per cent in 1979 to 0.9 per cent in 1980. The transport sector, on the other hand, had a good year, recording a growth of 7.1 per cent—only fractionally below the 1979 figure.

2.5. Taking a somewhat longer-term view, the record of real growth since the first emergence of a major balance of payments deficit in 1974 is disquieting and it is becoming clear that the rapid growth of the first decade of Uhuru is not sustainable in the less favourable world environment that resulted from the "oil crisis" of 1973/74. Although there was a sharp, if temporary, revival as a result of the 1976/77 world coffee and tea booms, average *per capita* income today is only about 7 per cent above the 1973 level. Indeed, there might have been no increase at all had it not been for the largely fortuitous coffee and tea booms. An average growth in *per capita* income of under 1 per cent a year will prevent the achievement of many of the objectives set out by the Government in its development plan and elsewhere, and poses new challenges in the management of a less dynamic economy. The continuing poor record of agriculture is particularly worrisome in this context. Adverse weather has resulted in poor crops in several years since 1973 and this makes it difficult to discern the underlying trend in agricultural growth. It seems fairly clear, however, that this trend cannot be for more than a moderate growth, whereas the Government's development strategy emphasises the key importance of the development of the agricultural and rural economies. On the brighter side, the economy has throughout these difficult years been able to maintain reasonably high ratios of investment and, in most years, of saving. This provides a good spring-board for a future revival of the economy.

2.6. Data presented in Table 2.6 show a small increase in gross domestic fixed capital formation in current prices between 1979 and 1980. Table 2.9 provides constant-price estimates which imply that in real terms capital formation actually declined by nearly 11 per cent. As a result, fixed capital formation went down as a proportion of GDP at market prices from the peak level of 25.0 per cent in 1978 to 21.4 per cent in 1980. There was at the same time a major rebuilding of stocks, as indicated in Table 2.6; these had been drawn down by K£24 million in 1979 but were increased in 1980 by K£143 million. If investment in fixed capital and stocks are taken together, the investment ratio rose in 1980 from 22.7 to 26.9 per cent of GDP. Since much of this stock-building was of imported goods, it unfortunately contributed to the weakening in the balance of payments. In response to the payments situation, there was a modest increased inflow of foreign capital

plus some running-down of the country's international liquidity. A larger proportion of total investment was therefore financed by these means, with a parallel decline in the proportion of investment financed out of domestic savings.

Sectoral Contributions

2.7. Agriculture which contributes more than a third of the total GDP had a poor year in 1980. Contribution to the real GDP of the sector declined by 1.3 per cent, as shown in Table 2.1. The prolonged drought in 1980 severely curtailed production of several crops, especially tea, maize and livestock products. These were not sufficiently offset by increases in the output of coffee, sugarcane, sisal and cotton. As a result of generally weak export prices and continuing inflation at home the domestic terms of trade turned against agriculture for the third year running.

2.8. The decline in real agricultural incomes and output adversely affected production in the manufacturing sector by creating shortages of raw-materials for the agro-based industries, as well as reducing demand for manufactured products. Electric power cuts in the early months of 1980, also dampened industrial activity. In current prices, growth in GDP of the manufacturing sector amounted to 18.1 per cent in 1980 compared to 13.9 per cent in 1979, but real growth was only 4.6 per cent, which was less than the 7.1 per cent recorded a year before.

2.9. The building and construction sector, which had been bouyant since the economic boom of 1976/77, was badly affected by the general slow down in the economic activity. Unavailability of credit and rise in the cost of building materials also reduced completions of private buildings and construction. The growth in GDP of the sector in 1980 was only 0.9 per cent, compared to 12.0 and 7.5 per cent in 1978 and 1979 respectively.

2.10. The distributive trade, hotel and restaurant sector, which is the third largest sector in the economy, was adversely affected by the decline in agriculture and modest growth in manufacturing. The large increase in volume of imports, which to a considerable extent went to replenish stocks, and the moderate growth in tourism were insufficient to boost the momentum of growth in the sector. The apparent high growth in the sector at current prices from 13.1 per cent in 1979 to 17.8 per cent in 1980, was largely a result of price increases and there was a sharp slowing-down in constant-price terms from 6.1 per cent in 1979 to 1.8 per cent in 1980.

2.11. Other private sector services with the exception of finance, insurance, real estate and business services (which recorded a real decline of 1.1 per cent in 1980 compared to a growth of 9.9 per cent in 1979), had above-average performance. Ownership of dwellings recorded a real growth in 1980 of about 5.3 per cent, while other services recorded a real growth of 6.8 per

cent in the same period. Among the major productive sectors only agriculture and construction had cumulative real growth rates below the plan target for the period 1976-83 but the short-fall for agriculture was large and serious.

2.12. Table 2.3 sets out details of intermediate inputs and value added to gross output by various sectors of the economy. The manufacturing sector in 1980 used about 50 per cent of total intermediate inputs, many of which were imported. Manufacturing value-added was only 20 per cent of gross output, compared with 21 per cent in 1979. In contrast, agriculture used only 4 per cent of total intermediate inputs and 87 per cent of its output value added. The service sectors, excluding Government and domestic services, were second to agriculture with a ratio of value added to gross output of

GROSS DOMESTIC PRODUCT
SECTOR SHARES, AT CONSTANT (1976) PRICES, 1977-1980

	1977	1978	1979	1980*
A. TRADITIONAL ECONOMY				
Forestry	0.7	0.7	0.7	0.7
Fishing				
Building and Construction	1.6	1.6	1.6	11.6
Water Collection	0.7	0.6	0.6	0.6
Ownership of Dwellings	2.2	2.1	2.1	2.2
TOTAL TRADITIONAL ECONOMY	5.2	5.1	5.0	5.1
B. MONETARY ECONOMY				
1. Enterprises and Non-Profit Institutions				
Agriculture	36.9	36.0	34.2	33.0
Forestry	0.5	0.5	0.5	0.5
Fishing	0.2	0.2	0.2	0.2
Mining and Quarrying	0.3	0.3	0.3	0.3
Manufacturing	12.0	12.7	13.0	13.3
Electricity and Water	1.2	1.2	1.3	1.3
Building and Construction	3.5	3.7	3.8	3.8
Trade, Restaurants and Hotels	10.3	10.5	10.7	10.6
Transport, Storage and Communications	5.3	5.3	5.6	5.9
Finance, Insurance, Real Estate and Business Services	5.2	5.2	5.5	5.3
Ownership of Dwellings	4.4	4.2	4.3	4.5
Other Services	2.1	2.1	2.1	2.2
Imputed Bank Services Charges	-1.9	-1.9	-2.0	-2.0
TOTAL	79.9	80.1	79.6	79.0
2 Private Households (Domestic Services)	0.9	0.9	1.1	1.2
3. Producers of Government Services				
Public Administration	3.2	3.2		
Defence	0.8	0.8		
Education	6.0	6.0		
Health	1.4	1.4		
Agricultural Services	1.0	0.9		
Other Services	1.6	1.6		
TOTAL	14.0	13.9	14.3	14.7
TOTAL MONETARY ECONOMY	94.8	94.9	95.0	94.9
TOTAL MONETARY AND TRADITIONAL ECONOMY	100.0	100.0	100.0	100.0

* Provisional.

71 per cent. The respective figures for the distributive trade and hotel industry, and transport and communications were 59 and 37 per cent. For the economy as a whole, this ratio increased by one percentage point, from 50.3 per cent in 1979 to 51.3 per cent in 1980.

2.13. In Table 2.4, the proportionate contribution of each sector to GDP at constant 1976 prices is indicated. Broadly speaking, the relative shares have not changed significantly in the last four years. The share of the traditional economy has remained about 5.1 per cent, while those of private enterprises and producers of Government services have averaged 80.0 and 14.0 per cent respectively. Among the enterprises, however, the share of agriculture to total GDP declined from 36.9 per cent in 1977 to 33.0 per cent in 1980, reflecting the continuing problems of this sector. The share of manufacturing during the same period increased from 12.0 per cent in 1977 to 13.3 per cent in 1980.

Terms of Trade Effects

2.14. Conventional estimates of changes in constant-price GDP can give a misleading impression of trends in real income in periods when major changes are occurring in the country's terms of international trade. For example, the very high coffee and tea prices enjoyed by Kenya's exports in 1976/77 increased real incomes substantially in a manner which was not reflected in the constant-price national accounts. In each of the last three years, however, the terms of trade have turned against Kenya and this diminished the benefits derived by Kenyans from the country's participation in world trade. Terms of trade indices are presented in Chapter 7 (Table 7.3) and the all-items index is shown as declining from 131 in 1977 to 89 in 1980, or by 32 per cent.

2.15. This determination resulted in a loss of real incomes and Table 2.5 adjusts the constant-price GDP estimates for the impact of changes in the terms of trade. There was a large improvement in the terms of trade in 1977 and this is shown as resulting in a major increase in real income, over and

IMPACT OF COMMODITY TERMS OF TRADE ON PER CAPITA GDP, 1976-1980

Table 2.5

	1977	1978	1979	1980	1976-80
1. Unadjusted GDP at constant Factory Cost (K£m.)	1,390.3	1,482.9	1,544.9	1,582.0	
2. Adjustment for changes in terms of trade (K£m.)	+144.1	+26.0	-13.7	-52.4	
3. Adjusted GDP (K£m.)	1,534.4	1,508.9	1,531.0	1,529.6	
4. Growth in unadjusted per capita GDP percent	+5.1	+2.9	+1.0	-1.2	+1.9
5. Growth in adjusted per capita GDP percent	+15.9	-5.1	-1.7	-3.7	+0.9

above that estimated by constant-price GDP. There was a much smaller addition in 1978 and net reductions in 1979/80. These adjustments make major differences to estimates of trends in average *per capita* income. According to the adjusted data, there was a much larger increase in *per capita* income in 1977 and substantial reductions in average incomes in the following three years. For the period 1976-80 as a whole, adjusted *per capita* income is shown as growing by an average of 0.9 per cent per annum against 1.7 per cent per annum in the unadjusted series. The adverse movement of import prices relative to export prices has thus not only seriously weakened the balance of payments but has also considerably undermined the country's ability to achieve satisfactory income levels for its citizens.

Resource Allocation

2.16. The build-up of the GDP from a factor cost basis to market prices, together with estimates of the inflow of resources into Kenya, are given in Table 2.6. A number of important facts emerge from this. Perhaps the most striking is the very large stock building that occurred in 1980, especially when compared with the de-stocking of 1979. The latter was largely due to

TOTAL USE OF RESOURCES AT CURRENT PRICES, 1977—1980

Table 2.6

K£million

	1977	1978	1979	1980
G.D.P. at Factor Cost	1,640.65	1,788.41	1,979.62	2,220.88
Of which—				
Traditional	83.84	100.55	118.96	130.31
Monetary	1,556.81	1,687.86	1,860.66	2,090.57
+ Indirect Taxes	219.78	270.25	297.58	373.98
—Subsidies	0.55	0.47	0.60	0.70
=G.D.P. at Market Prices	1,859.88	2,058.19	2,276.60	2,594.16
+Imports of goods and services	587.60	793.00	736.50	1,051.00
-Export of goods and services	650.20	593.10	580.40	734.80
=Import Surplus	-62.60	199.90	156.10	316.20
Total Resources available for Domestic Investment and Consumption	1,797.28	2,278.79	2,432.70	2,910.36
Gross Fixed Capital Formation	390.01	514.01	540.45	555.99
Change in Stocks	51.22	96.62	-24.20	142.55
Gross Investment	441.23	610.63	516.25	698.24
Public Consumption	322.05	398.60	447.31	510.26
Private Consumption	1,034.00	1,248.86	1,469.14	1,701.86
TOTAL CONSUMPTION	1,356.05	1,647.46	1,916.45	2,212.12

* Provisional.

the advance import deposit scheme introduced at the end of 1978, just as much of the rebuilding of stocks can be attributed to the relaxation of this scheme early in 1980. Study of a longer time series of changes in stocks reveals a fairly clear stock cycle during the past several years, with a year or two of rapid accumulation followed by a year or two of de-stocking. Thus there was a major process of stock-building in 1973/74; a net reduction in 1975/76; further accumulation in 1977/78; a major reduction in 1979; and finally more re-stocking in 1980. It is probable that the emergence of this cycle is a result of the periodic but temporary use of import controls for balance of payments purposes, followed by a relaxation a year or two later.

2.17. Table 2.6 also draws attention to a development that has already been mentioned: The major increase in the surplus of imports over exports—which doubled from 1979 to 1980—resulting in a serious worsening in the balance of payments situation. One other disquieting feature worth noting is that during 1980 total consumption went up faster than the GDP—by 19.2 per cent in current-price terms, against 13.9 per cent for GDP at

GROSS NATIONAL PRODUCTION AT CURRENT PRICES, 1977—1980

Table 2.7

K£million

	1977	1978	1979	1980*
FACTOR INCOMES—				
A. Traditional Economy	83.84	100.55	118.96	1,303.31
1. Remuneration of Employees:				
Enterprises	367.79	428.87	495.42	561.01
Private Households	13.44	17.06	21.72	28.13
Producers of Government Services	211.83	245.43	283.09	319.03
	593.06	691.36	800.23	908.17
2. Rental Surplus (including depreciation)	67.50	78.43	87.20	102.23
3. Other Operating Surplus (including depreciation)	896.25	918.05	973.24	1,080.17
TOTAL MONETARY ECONOMY	1,556.81	1,687.86	1,860.66	2,090.57
TOTAL FACTOR INCOMES=GROSS DOMESTIC PRODUCT	1,640.65	1,788.41	1,979.62	2,220.88
Add: Indirect Taxes	219.78	270.25	297.58	373.98
Deduct: Subsidies	0.55	0.47	0.60	0.70
GROSS DOMESTIC PRODUCT AT MARKET PRICES	1,859.88	2,058.19	2,276.60	2,594.16
Add: FACTOR INCOMES RECEIVED FROM ABROAD	20.00	17.90	24.30	19.40
Deduct: FACTOR INCOMES PAID ABROAD	98.70	108.50	88.30	87.80
GROSS NATIONAL PRODUCT	1,781.18	1,967.59	2,212.60	2,525.76

* Provisional.

market prices. This relative increase in consumption implies that the proportion of GDP which was saved, and was thus available to finance investment, diminished.

2.18. Table 2.7 provides further information on the composition of gross investment and the means by which it was financed, in 1979 and 1980. As was observed earlier, there was a major shift in the composition of total investment between the two years. In 1979 all investment was in the form of fixed capital formation, i.e. in forms which were intended to add to the future capacity of the economy to produce goods and services of various kinds. There was actually a running-down of stocks. In 1980, by contrast, a major rebuilding of stocks occurred, to the extent of nearly K£143 million, and this accounted for a fifth of total investment, with the remaining four-fifths being fixed capital formation.

2.19. There were also substantial changes in the sources of financing of gross investment. In 1979 gross domestic saving had financed 61 per cent of total investment but this ratio fell to only 46 per cent in 1980. With a diminishing proportion of financing coming from domestic sources there was, of course, a corresponding increase in what is recorded in Table 2.7 as "net borrowing from the rest of the world", which together with foreign grants financed 54 per cent of total investment in 1980, against 39 per cent in 1979. There were significant increases in the inflow of capital, as is set out in more detail in Chapter 4, but this item also includes under "net borrowing" reductions in the country's international liquidity.

Table 2.8 FINANCING OF CAPITAL FORMATION, 1979—1980 *K£million*

Gross Capital Formation		Financing of Gross Capital Formation	
1979			
Gross Fixed Capital Formation	540.45	Net Borrowing from Rest of the World	189.00
Change in Stocks	-24.20	Grants from Rest of the World	10.70
		Domestic Savings (including consumption of fixed capital)	316.55
TOTAL	516.25	TOTAL	516.25
1980			
Gross Fixed Capital Formation	555.99	Net Borrowing from Rest of the World	354.70
Change in Stocks	142.55	Grants from Rest of the World	21.90
		Domestic Savings (including consumption of fixed capital)	321.64
TOTAL	698.24	TOTAL	698.24

*Provisional.

Factor Incomes and National Product

2.20. Table 2.8 sets out the composition of the GDP by factor income. At current prices the total remuneration of employees increased from K£800 million in 1979 to K£908 million in 1980, or by 13.5 per cent. The rental surplus rose by 17.2 per cent in the same period and the "other operating surplus" by 11.0 per cent. It is important to bear in mind, however, that this latter item includes returns from self-employment and from traditional forms of non-wage employment, so it does not provide a reliable guide to changes in enterprise profitability. In the case of 1980, the relatively slow growth of the "other operating surplus" item was probably due in the main to the negative growth in real agricultural value added, which has a strong influence on the non-wage labour component of this item.

2.21. Table 2.8 also details an estimate of the gross national product. Since there is invariably a net outflow of factor incomes to the rest of the world, chiefly because of the repatriation of profits by foreign-owned companies, the GNP is smaller than the GDP. In 1980 it also grew more slowly—by 11.4 per cent in current prices, against 13.9 per cent for GDP. However, the size of the difference between GDP and GNP is not large and in 1980 the recorded net outflow of factor incomes was equivalent to only 2.6 per cent of GDP.

Trends in Capital Formation

2.22. As already noted, there was a large fall in the real value of capital formation during 1980. Table 2.9 sets out details of gross fixed capital formation by type of asset and it can be calculated from the total of all types of capital formation in constant prices that there was a fall of 10.8 per cent against the 1979 level, which itself was 6.4 per cent below the peak 1978 level. Most of the overall reduction was attributable to reduced public sector investment, which declined by 21.4 per cent in 1980. The overall level of private sector investment diminished by only 1.8 per cent, although there were major reductions in some types of private investment.

2.23. Important among these was private construction activities, which went down by almost a quarter (24.8 per cent), taking all forms of construction together. However, this major fall was largely offset by increases in private investments in machinery, transport and other equipment. Public sector construction diminished by only 4.8 per cent but there were large reductions in all forms of public sector investment in machinery and equipment. Notwithstanding the fall in public investment relative to private investment in 1980, the overall share of the public sector in total fixed capital formation was 41 per cent, which is almost exactly the same as the 1976 ratio of 42 per cent.

Table 2.9

K£million

	Current Prices				Constant (1976) Prices			
	1977	1978	1979	1980*	1977	1978	1979	1980
DWELLINGS—								
PRIVATE :								
Traditional	27.51	33.17	39.65	43.69	24.74	27.24	28.36	25.79
Modern	12.20	26.71	36.78	28.76	10.79	21.93	26.31	16.98
TOTAL	39.71	59.88	76.43	72.45	35.71	49.17	54.67	42.77
PUBLIC	9.70	10.48	16.66	20.98	8.72	8.60	11.91	12.38
TOTAL	49.41	70.36	93.08	93.43	44.43	57.77	66.58	55.15
NON-RESIDENTIAL BUILDINGS-								
PRIVATE	17.01	16.58	27.68	19.90	16.41	14.30	20.75	12.36
PUBLIC	24.42	29.17	41.68	54.09	23.09	25.17	31.24	33.62
TOTAL	41.43	45.75	69.35	73.98	39.16	39.47	51.99	45.98
OTHER CONSTRUCTION WORKS								
PRIVATE	5.93	7.45	8.19	10.03	5.56	6.32	6.05	6.12
PUBLIC	70.74	78.66	76.48	79.96	66.23	66.72	56.48	48.82
TOTAL	76.67	86.11	84.67	89.99	71.79	73.04	62.53	54.94
LAND IMPROVEMENT AND PLANTATION DEVELOPMENT-								
PRIVATE	6.34	6.87	7.20	7.32	6.55	6.27	5.98	5.16
PUBLIC	0.97	1.01	1.65	1.50	1.03	0.90	1.44	0.84
TOTAL	7.37	7.87	8.85	8.82	7.58	7.17	7.43	6.00
TRANSPORT EQUIPMENT -								
PRIVATE	43.78	64.04	50.90	66.31	38.92	49.26	33.93	41.71
PUBLIC	24.93	37.27	63.44	32.51	22.16	28.67	42.30	20.45
TOTAL	68.71	101.31	114.34	98.82	61.08	77.93	76.23	62.15
MACHINERY AND OTHER EQUIPMENT--								
PRIVATE	112.72	165.84	119.74	151.69	98.44	127.57	84.33	96.62
PUBLIC	34.23	37.10	48.84	37.19	29.90	28.54	34.40	23.69
TOTAL	146.95	202.94	168.58	188.88	128.34	156.11	118.72	120.31

GROSS FIXED CAPITAL FORMATION BY TYPE OF ASSET, 1977-1980

Table 2.9

K£million

	CURRENT PRICES				CONSTANT (1976) PRICES			
	1977	1978	1979	1980	1977	1978	1979	1980
BREEDING STOCK AND DAIRY CATTLE— PRIVATE	-0.47	-0.33	+1.57	+2.08	-0.42	-0.30	+ 1.26	-1.51
Traditional Dwellings	27.51	33.17	39.65	43.69	24.74	27.24	28.36	25.79
Other	197.51	287.16	252.06	286.07	176.09	225.36	178.61	177.43
TOTAL PRIVATE	225.02	320.33	291.70	329.76	200.83	252.60	206.97	203.22
TOTAL PUBLIC	164.99	193.68	248.74	226.23	151.13	158.59	177.77	139.80
TOTAL PRIVATE AND PUBLIC	390.01	514.01	540.45	555.99	351.96	411.19	384.74	343.02

*Provisional.

GROSS FIXED CAPITAL FORMATION BY INDUSTRY, 1977-1980

Table 2.10

K£million

	CURRENT PRICES				CONSTANT (1976) PRICES			
	1977	1978	1979	1980	1977	1978	1979	1980
A. TRADITIONAL ECONOMY								
Traditional Dwellings	27.51	33.17	39.65	43.69	24.74	27.24	28.36	25.79
B. MONETARY ECONOMY								
Enterprises and Non-Profit Institutions;								
Agriculture	42.93	51.13	42.05	44.96	39.13	41.05	31.13	25.94
Forestry	0.68	0.73	0.69	0.91	0.62	0.59	0.48	0.57
Mining and Quarrying	1.94	4.95	4.10	4.08	1.70	3.81	2.88	2.60
Manufacturing	63.27	83.71	88.52	84.15	55.82	64.87	62.50	53.35
Electricity and Water	33.72	40.20	31.99	26.60	31.46	33.72	23.45	16.32
Building and Construction	15.50	32.25	25.68	28.20	13.71	24.99	18.01	17.89
Trade, Restaurants and Hotels	21.42	20.24	17.30	19.06	19.05	15.80	12.21	12.08
Transport, Storage and Communications	79.41	110.50	101.65	92.64	71.08	86.38	69.26	58.32
Finance, Insurance Real Estate and Business:Services	4.42	7.67	8.25	10.36	3.98	6.20	5.98	6.50
Ownership of Dwellings	23.12	38.66	55.10	51.30	20.76	31.66	39.39	30.36
Other Services	17.25	20.33	31.76	32.13	15.67	16.48	22.71	20.25
TOTAL	303.66	410.27	407.09	394.38	272.98	325.56	288.01	244.16
Producers of Government Services;								
Public Administration	7.95	14.66	14.37	17.52	7.26	11.85	10.35	10.96
Defence								
Education	7.23	8.87	11.75	17.13	6.62	7.32	8.65	10.69
Health	8.19	8.33	10.91	12.99	7.63	6.99	8.01	8.13
Agricultural Services	9.00	8.64	8.95	10.56	8.23	6.91	6.34	6.62
Other Services	26.46	30.07	47.73	59.72	24.50	25.32	35.02	36.67
TOTAL	58.84	70.56	93.70	117.92	54.24	58.39	68.38	73.07
TRADITIONAL ECONOMY	27.51	33.17	39.65	43.69	24.74	27.24	28.36	25.79
MONETARY ECONOMY	362.50	480.83	500.80	512.30	327.22	383.95	356.38	317.23
TOTAL	390.01	514.01	540.45	555.99	351.96	411.19	384.74	343.02
C. PERCENTAGE RATES OF GROWTH—								
Traditional Economy	19.6	20.6	19.5	10.2	7.5	10.1	4.1	-9.1
Monetary Economy	35.6	32.6	4.2	2.3	22.4	17.3	-7.2	-11.0
TOTAL	34.3	31.8	5.1	2.9	21.2	16.1	-6.4	-10.8

*Provisional.

2.24. Information is provided in Table 2.10 on the distribution of fixed capital formation across sectors. It appears that the general decline in constant price capital formation was spread fairly evenly across most of the major productive sectors but that capital formation in the various Government service industries recorded an overall increase in real terms.

CHAPTER 3—HIGHLIGHTS OF THE 1979 POPULATION CENSUS

The second population census since independence was conducted throughout Kenya in August 1979 and early provisional results were available in the first part of 1980. The tabulations included in this chapter are from the computer processing of the census forms which was completed early in 1981. Analysis of the results is still continuing.

3.2. Kenya's population increased by 40 per cent between the 1969 and 1979 censuses to reach 15,327,061 persons. The growth rate of the male population at 39 per cent was below the 41 per cent recorded for the female population so that whereas in 1969 males counted slightly exceeded females, in 1979 there were 7,719,948 females and 7,607,113 males. A 40 per cent increase in population over 10 years indicates an annual rate of growth of 3.4 per cent but other inquiries suggest that the current rate of increase may be higher than 3.4 per cent.

3.3. The distribution of the population by age groups as given in Table 3.1 illustrates the impact of a high natural growth rate. There were 18.6 per cent of the total population under 5 years of age in 1979 and only 4.8 per cent

Table 3.1 POPULATION BY AGE GROUP AND SEX, AUGUST, 1979 (in thousands)

Age Group	Males	Females	Total	Percentage Distribution
0-4	1,422.0	1,421.4	2,843.4	18.6
5-9	1,247.1	1,244.8	2,491.8	16.3
10-14	1,050.9	1,023.8	2,074.8	13.5
15-19	854.1	887.7	1,741.8	11.4
20-24	641.4	686.0	1,327.4	8.7
25-29	514.5	541.3	1,055.7	6.9
30-34	405.4	412.7	818.1	5.3
35-39	290.2	325.4	615.6	4.0
40-44	261.5	273.7	535.2	3.5
45-49	218.9	222.0	440.9	2.9
50-54	182.9	191.0	373.9	2.4
55-59	140.8	134.5	275.3	1.8
60 and Over*	377.4	355.7	733.1	4.8
Total	7,607.1	7,720.0	15,327.1	100.0

*Includes a small number of persons (*002 per cent) whose ages were not stated.

aged 60 and over. The fall in the percentages in each 5-year age group between age 5 and age 59 is progressive with effectively an average of 15 per cent less persons in each age group 5-9, 10-14 and 15-19 while from age group 20-24 to age group 30-34 there were on average 23 per cent fewer persons in each 5-year group. From this point the decline in the relative numbers is less steep but there were only 275,300 persons in age group 55 to 59 compared with 615,600 in age group 35 to 39, and 1,741,800 in age group 15 to 19.

Age and Education

3.4. This predominantly young population with 48.4 per cent under 15 years of age and 59.8 per cent under 20 has important implications for education. As is shown in Table 3.2 the proportions of age group 10-14 at

POPULATION BY SEX, FIVE YEAR AGE GROUP AND SCHOOL ATTENDANCE, AUGUST, 1979

Table 3.2

Percentages

Sex	Age	At School	Left School	Never Attended	Not Stated
Males	—	—	—	100.0	—
	5-9	50.0	0.5	49.3	0.3
	10-14	85.3	2.1	12.2	0.5
	15-19	65.9	21.3	12.6	0.2
	20-24	15.1	66.6	17.7	0.5
	25-29	0.3	77.5	22.0	0.3
	30-34	0.1	73.8	25.8	0.3
	35-39	0.1	64.8	34.9	0.3
	40-44	—	57.3	42.2	0.4
	45-49	—	49.1	50.6	0.3
	50-54	—	39.6	59.9	0.4
	55 +	0.1	24.7	74.8	0.4
	NS	9.6	22.0	61.6	6.8
	TOTAL	28.7	26.0	45.0	0.3
Females	—	—	—	100.0	—
	5-9	49.8	0.5	49.5	0.3
	10-14	81.5	2.7	15.4	0.4
	15-19	45.5	31.5	22.6	0.4
	20-24	4.7	56.5	37.9	0.9
	25-29	0.1	50.0	49.6	0.3
	30-34	0.1	37.3	62.2	0.4
	35-39	0.1	27.8	71.9	0.3
	40-44	0.1	21.0	78.5	0.4
	45-49	—	17.1	82.6	0.2
	50-54	0.1	12.3	87.1	0.5
	55 +	0.1	6.4	93.0	0.5
	NS	7.4	12.4	75.4	4.8
	TOTAL	24.5	17.7	57.4	0.4

school were 85.3 per cent of the males and 81.5 per cent of the females and for the succeeding age group 15-19, 65.9 per cent of males and 45.5 per cent of the females were at school while a further 21.3 per cent and 31.5 per cent respectively had already left school.

3.5. From age group 10-14 onwards the proportion of the population that had never attended school increases significantly. In the age group 55 plus as many as 74.8 per cent of males and 93 per cent of females had never attended school while in the 10-14 age group these proportions were 12.2

per cent and 15.4 per cent respectively. In each age group the proportion of males with schooling was always higher than for females illustrating the past influence of tradition with the allocation of those scarce resources available for education being made for the benefit of the male child rather than the female. It is only in the 5 to 9 age group that the proportion of girls at school was approximately the same as the boys and this must reflect the success in spreading education to both girls and boys under the present Government policy of universal primary education.

3.6. Table 3.3 also reflects the influence of tradition on the preferential treatment of male children in the education system of the past. At all age levels a higher proportion of males had benefitted from secondary education while the percentages with Standard 5 to 7 primary education were generally higher for males than for females.

POPULATION BY SEX, FIVE YEAR AGE GROUP AND EDUCATION, AUGUST, 1979

Table 3.3

Percentages

Sex	Age	NO Education	Primary		Secondary		Not Stated
			ST: 1-4	ST: 5-7	Form 1-4	Form 5 +	
Males	0-4	100.0	—				
	5-9	49.3	48.5	0.2			2.0
	10-14	12.2	58.0	27.5	1.3		1.0
	15-19	12.6	17.0	47.0	22.2	0.8	0.5
	20-24	17.7	11.1	34.1	32.9	3.2	1.0
	25-29	22.0	12.5	35.7	26.1	3.2	0.6
	30-34	25.8	13.8	36.6	20.3	2.9	0.6
	35-39	34.9	19.1	31.0	12.0	2.4	0.6
	40-44	42.2	21.7	25.7	7.9	1.7	0.8
	45-49	50.6	22.1	19.9	5.6	1.2	0.6
	50-54	59.9	22.3	12.9	3.3	0.9	0.7
	55 +	74.8	16.6	6.2	1.2	0.5	0.7
	NS	61.6	12.4	11.8	4.2	0.5	9.6
	TOTAL	45.0	24.2	19.7	9.3	1.0	0.3
Females		100.0					
	5-9	49.5	48.3	0.3	—		1.9
	10-14	15.4	53.4	28.8	1.5		0.9
	15-19	22.6	15.1	41.4	19.7	0.6	0.6
	20-24	37.9	12.7	28.3	18.3	1.1	1.6
	25-29	49.6	14.2	25.0	9.6	0.9	0.6
	30-34	62.2	14.2	17.8	4.3	0.7	0.7
	35-39	71.9	15.1	9.8	2.1	0.6	0.6
	40-44	78.5	12.8	6.2	1.3	0.4	0.8
	45-49	82.6	1.6	4.1	0.8	0.4	0.5
	50-54	87.1	8.9	2.4	0.5	0.3	0.8
	55 +	93.0	4.5	1.1	0.3	0.3	0.8
	NS	75.4	10.2	5.8	1.9	0.1	6.7
	TOTAL	57.4	21.4	14.7	5.2	0.3	0.9

Sex Ratio

3.7. The sex ratio is a central measure of the sex composition of a population. It is defined as the number of males per 100 females. A sex ratio above 100 implies an excess of males while a sex ratio below 100 denotes an excess of females. Thus the higher the number of males the higher the sex ratio. The total population enumerated in 1979 was 15,327,061 with 7,607,113 males and 7,719,948 females, thus giving an overall sex ratio of 98.5 compared to 100.4 reported for 1969.

3.8. When the sex ratios are tabulated by age, a pattern of distortion emerges. The sex ratios indicate an excess of males over females for the age group 0-14 but also in ages 55 and above. These phenomena may be the result of young girls reporting a higher age and older women reporting a lower age than their actual ages. Similar distortions were also observed in 1962 and 1969 as shown in Table 3.4.

SEX RATIOS BY AGE GROUPS, 1962, 1969 AND 1979

Table 3.4

Age Group	Proportion of Males to Females at Census Conducted in		
	1962	1969	1979
0-4	96.2	100.4	100.0
5-9	101.2	101.1	100.2
10-14	119.7	102.6	102.6
15-19	104.6	107.7	96.2
20-24	70.2	102.8	93.5
25-29	75.0	95.1	95.0
30-34	80.7	85.0	98.2
35-39	93.1	93.9	89.2
40-44	98.0	95.2	95.5
45-49	117.0	96.0	98.6
50-54	113.7	105.3	98.8
55-59	130.8	95.2	104.6
60-64		112.2	98.3
65-69		108.4	120.0

3.9. The sex ratios by age, district and province indicate a high excess of males over females for Nairobi, Mombasa, Garissa and Wajir. On the contrary, an excess of females over males is noted in the case of Murang'a, Nyeri, Kilifi, Embu, Kitui, Machakos, Kisii, Siaya, South Nyanza, Samburu, Busia and Kakamega. It is apparent that areas with excess of males over females are those which have better employment opportunities. Areas with an excess of females are generally losers of male labour, the men having moved to areas where they can hope to find employment.

3.10. When comparison is made of sex ratios by age and district, areas that receive labour have high sex ratios for age groups 20-24 to 60-64 and this is particularly the case in Nairobi and Mombasa. As a corollary, areas that lose male labour have low sex ratios for these age groups. The reason

for such divergent sex ratios is that it is normally only the male population of the working age groups that is induced to leave their home district to work in the main towns.

Density and Distribution

3.11. The distribution of Kenya's population by province is shown in Table 3.5. The densities vary widely with high figures in Central, Nyanza and Western Provinces and low ones in Coast, Eastern and Rift Valley

PROVINCIAL POPULATIONS, 1969, 1979

Table 3.5

Province	Population		Percentage Increase	Area Sq. Km.	Density per Sq. Km. 1979
	1969	1979			
Nairobi	509,286	827,775	62.5	684	1,210*
Central	1,675,647	2,345,833	40.0	13,173	178
Coast	944,082	1,342,794	42.2	83,040	16
Eastern	1,907,301	2,719,851	42.6	155,760	17
North Eastern	245,757	373,787	52.1	126,902	2
Nyanza	2,122,045	2,643,956	24.6	12,526	211
Rift Valley	2,224,085	3,240,402	45.7	168,829	19
Western	1,328,298	1,832,663	38.0	8,223	222
TOTAL KENYA	10,956,501	15,327,061	39.9	569,137	27

*Highbecause of mainly urban concentration.

Provinces. The very high density of 1,210 persons per square kilometre in Nairobi Province is because of the small area of only 684 square kilometres which includes the capital city. In contrast the North-Eastern Province has only 2 persons per square kilometre due to the arid nature of the area.

3.12. The land area of Kenya of 569,137 square kilometres contained 15,327,061 persons in August 1979, equal to only 27 persons per square kilometre. Provinces with 200 or more persons per square kilometre are already facing high population pressures on land resources in basically rural areas.

3.13. As detailed in 3.6, the growth of urban areas has been rapid since independence and in 1979 there were 1,909,400 persons in 17 cities, towns or townships, the total having grown by 7.2 per cent a year since the census of 1969. Nairobi and Mombasa had between them 1,161,900 persons in 1979 equal to 61 per cent of these 17 urban areas' population. In 1969 the population of Mombasa and Nairobi was 79 per cent of that of all urban areas, so

DISTRIBUTION OF POPULATION IN THE MORE IMPORTANT URBAN CENTRES, 1962, 1969,
1979

Table 3.6

Urban Centre	Total Population ('000)			Annual Growth Rate (per cent)	
	1962	1969	1979	1962/69	1969/79
Nairobi	343.5	509.3	827.8	5.8	5.0
Mombasa	179.6	247.1	341.1	4.7	3.3
Kisumu	23.5	32.4	152.6	4.7	16.8
Nakuru	38.2	47.2	92.9	3.3	7.0
Machakos	4.4	6.3	84.3	5.3	29.4
Meru	3.3	4.5	70.4	4.4	31.7
Eldoret	19.6	18.2	50.5	-1.1	10.8
Thika	14.0	18.4	41.3	4.0	8.4
Nyeri	7.9	10.0	35.8	7.9	13.6
Kakamega	3.9	6.2	32.0	6.9	17.8
Kisii	4.5	6.1	30.0	4.2	17.1
Kericho	7.7	10.1	30.0	4.0	11.3
Kitale	9.3	11.6	28.3	3.3	9.3
Bungoma	1.6	4.4	25.2	15.7	19.1
Busia		1.1	24.9	—	37.2
Malindi	5.8	10.8	23.3	9.2	8.0
Nanyuki	10.4	11.6	19.0	1.4	5.1
TOTAL	677.2	955.3	1,909.4	5.1	7.2

Note: The urban boundaries were extended between 1969 and 1979 leading to the population of a larger area being covered.

the growth of the smaller urban centres has been much more rapid in the inter-censal period. This is in line with the policy of establishing growth poles throughout the country.

Implications of Current High Population Growth Rates

3.14. Table 3.1 shows very vividly how Kenya with a high population growth rate has become a country in which nearly 60 per cent of the people were under 20 years of age in 1979 and due to the policy of universal primary education, increasingly large numbers of these youngsters now enjoy schooling. In 1979 48 per cent of the population was under 15 years of age and, excluding those too young to start schooling, the overall population aged 6 to 14 and thus likely to be seeking primary education would have been more than one quarter of the total population. As well as education the young need access to specialised health care and the right kind of food for healthy growth, so high population growth rates impose special burdens on the population at large.

3.15. The population aged 15 to 64 generally covers those economically-active but also includes persons in higher primary, and those at secondary schools or in other post-primary training or education. The proportion of

the total population in the age group in 1979 was also 48 per cent and if the actual numbers aged 15 and over at school are excluded, this proportion falls to about 40 per cent.

3.16. Kenya had a situation in 1979 where 40 per cent or two-fifths of the population had by their efforts to support the remaining 60 per cent made up of the very young (under 6), the 6 to 14 school-going age group and large numbers over that age group also in education including those who may have started late or who had moved on to secondary or higher education. However only about 2 per cent of the population was aged 65 and over so the burden of caring for the aged was nowhere near as serious as it has already become in the developed world.

3.17. Thus the obtaining situation is that out of a total population of 15.3 million in 1979, 7.3 million were under 15 years of age, a further 1.1 million in higher age groups were being educated, 0.3 million were aged 65 or over and thus retired and the balance or 6.6 million, and including all the country's housewives, were economically active. Elsewhere in this survey it is shown that 1.2 million people were engaged as wage employees in 1979, or as self-employed and unpaid family workers in urban areas or were working in informal establishments in the urban areas. The number working other than as wage employees in rural areas that is mainly as peasant farmers is large and must include some 2.1 million males. The females in the rural areas in the economically-active age group exceeds the male total and their numbers are probably of the order of 2.5 million.

3.18. The 1979 population census results thus highlight the problem of dependence. They also show that certain existing high potential agricultural areas already suffer from serious population pressures based on the present technology used in agriculture. While the urban areas have been growing rapidly, such areas being growth poles for mainly non-agricultural activities, the major activity of the people of Kenya is still in agriculture mainly on small holdings and it is probably true that as many as two-thirds of the total population are still dependent on rural area activities. The high growth rate of the population as well as throwing a particular burden on the social services and food production, also creates a situation whereby increasing numbers of better educated persons enter the labour market each year. The attempts to develop non-agricultural activities to help absorb these people have had some success but it is becoming increasingly obvious that agriculture will have to bear the brunt of absorbing most of the future school-leavers.

3.19. The rapid development of agriculture is essential first to resolve the problem of periodic food shortages and secondly to produce more agriculture surpluses for export and thus improve the country's serious balance of payments situation. Increased output can result from the wider use of more modern methods of production on small farms in high potential areas

and also from making better use of marginal lands. Increasing numbers of better educated school leavers staying in the rural areas will help speed up the adoption of those methods of production required to improve yields in the high potential areas. The marginal areas will also benefit from their presence but here there will have to be more emphasis on the growing of crops better suited to the existing rainfall patterns while more use of simple irrigation techniques will also be required.

CHAPTER 4—MONEY, BANKING AND THE BALANCE OF PAYMENTS

Although there were, of course, a variety of local circumstances also at work, Kenya's experience during 1980 can be taken as illustrating the general worsening in the economic situation of the poorer oil-importing developing countries already discussed in Chapter 1. The markets for Kenya's export commodities were generally depressed, the price of crude oil imports rose sharply again, the terms of trade worsened and the inflow of capital was insufficient to meet the financing gap. Thus, despite an only modest expansion of domestic bank credit, there was a serious loss of foreign exchange reserves.

4.2. A general summary of monetary indicators is provided in Table 4.1 which illustrates some of the factors just mentioned—the sharp fall in net foreign assets and the modest increase in total domestic credit accompanied

MONETARY INDICATORS, 1977-1980

Table 4.1

Date	Net Foreign Assets K£m.	DOMESTIC CREDIT			Money** Supply K£m.	Liqui- dity Ratio per cent	Advances/ Deposits Ratio per cent
		Private* K£m.	Govern- ment K£m.	Total K£m.			
1977 December	181	373	81	454	621	28	68.8
1978 December	106	468	145	613	706	23	76.5
1979 December	179	536	156	692	820	23	77.6
1980 March	201	556	144	700	812	23	79.9
June	173	585	129	714	795	18	83.9
September	118	602	205	807	822	19	86.9
December	113	614	166	780	810	18	87.3

*Includes parastatal bodies.

**See Table 4.4 for coverage.

by a decline in money supply. The table also shows a decline in the banks' liquidity ratio from 23 per cent of deposit liabilities to 18 per cent (only a little above the legal minimum of 16 per cent). There was a parallel rise in the ratio of bank advances to deposits, from 77.6 per cent to 87.3 per cent, and these banking trends led to stringency in the availability of bank credit. Credit requests were thus subjected to special scrutiny which was exercised in favour of selected sectors, namely agriculture and manufacturing.

4.3. Details of monetary trends in recent years are provided in Tables 4.2, 4.3 and 4.4. As can be observed from Table 4.2, the second half of the 1970s was characterized by a fairly rapid monetary expansion, with total money supply increasing by 140 per cent between 1975 and 1979. There was a clear

MONEY AND QUASI MONEY SUPPLY, 1975-1980

Table 4.2

K£'000

As at end of	Money*	Quasi-Money**	Total
1975	226,996	113,711	340,707
1976	283,715	139,018	422,733
1977	421,368	199,287	620,655
1978	465,057	240,833	705,890
1979	531,847	287,964	819,811
1980-			
January	529,094	281,281	810,375
February	511,840	281,703	793,543
March	530,287	281,894	812,181
April	516,343	288,114	804,457
May	530,506	286,698	817,204
June	509,309	284,700	794,509
July	541,821	282,888	824,709
August	528,129	296,772	824,900
September	512,485	309,017	821,502
October	492,079	313,838	805,917
November	507,093	315,783	822,476
December	494,977	315,424	810,401

*Currency in circulation plus all demand deposits and 7 days notice time deposits, except those of Central Government and Non-Resident Banks.

**All other deposits except those of Central Government and Non-Resident Banks.

break with this trend in 1980, however, with Table 4.2 indicating a roughly 1 per cent fall during the year (Tables 4.3 and 4.4 indicate a minor increase due to a difference in definition). This brake on monetary expansion is likely, after a certain time lag, to reduce inflationary pressure in the economy but there is a danger that it could also lead to losses in output and employment if it were sustained over a more extended period. With the current-price GDP expanding by 12.2 per cent over the year, this meant a decline in the ratio of money supply to GDP from 41.4 per cent to 36.5 per cent between 1979 and 1980.

4.4. Table 4.3 sets out a consolidated balance sheet for the banking system as a whole, providing details of changes in the various components of money supply and of the asset structure which underlies it. This information is used in Table 4.4 to illustrate the sources of change in money supply from 1976. A number of points are worth noting. First, it is apparent that there is a general trend for the "quasi-money" element to increase as a proportion of the total money supply. Thus, quasi-money (time and savings deposits) made up 33.3 per cent of the total money supply recorded in Table 4.2 in 1975 and this had risen to 38.9 per cent by the end of 1980. This trend emphasizes the importance of using a broad definition of money supply when studying trends in the economy.

CONSOLIDATED ACCOUNTS OF THE BANKING SYSTEM, 1976-1980

Table 4.3

K£'000

	1976	1977	1978	1979	As AT THE END OF			
					1980			
					1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
LIABILITIES—								
1. Money:								
1.1 Demand Deposits	176,239	254,753	272,230	316,363	325,094	310,871	279,882	290,694
Other	27,888	54,727	71,089	50,134	50,611	62,180	71,284	67,106
1.2 Currency in Cir-								
culation:—								
Notes	87,885	117,169	127,978	147,398	146,563	145,207	145,051	167,232
Coins	3,613	4,004	4,163	4,779	4,602	4,778	4,732	4,970
SUB-TOTAL	295,625	430,653	475,460	518,674	526,870	523,036	500,949	530,002
2. Quasi-Money:								
2.1 Savings Deposits	75,687	104,157	119,065	132,461	133,974	136,086	137,986	147,381
2.2 Time Deposits	6,333	95,131	121,834	155,503	147,920	148,614	171,031	168,044
3. Other Items (Net)	62,470	5,217	3,687	64,531	92,377	79,647	114,677	47,732
SUB-TOTAL	144,490	204,505	244,586	352,495	374,271	364,347	423,694	363,157
TOTAL	440,115	635,158	720,046	871,169	901,141	887,383	924,643	893,159
ASSETS—								
4. Net foreign Assets	72,457	181,230	106,435	179,395	201,096	173,198	117,632	113,226
5. Domestic Credit:								
5.1 Central Govern-								
ment (Net)	88,042	80,833	145,459	156,133	144,432	129,137	204,848	165,974
5.2 Private Sector	244,598	325,644	445,037	488,718	504,312	549,114	574,405	587,936
5.3 Other Public Bo-	35,018	47,451	23,115	46,923	51,301	35,935	27,769	26,023
dies								
TOTAL	440,115	635,158	720,046	871,169	901,141	887,383	924,643	893,159

4.5. Second, the "sources of changes" part of Table 4.4 illustrates the great volatility of the "net foreign assets" component of the asset structure underlying the money supply. In two of the five years foreign reserves fell, thus tending to decrease money supply; in the other three years there was a rise; and all the year-to-year changes were substantial. Since it is difficult to predict movement in foreign reserves and it is also difficult to manipulate domestic credit by large amounts at short notice, these facts show how difficult it would be to use the total supply of money as an instrument of economic policy. In 1980 net foreign assets were run down by K£66 million, because of the deterioration in the balance of payments, and it was largely this which led to the cessation of monetary expansion already noted.

CHANGES IN MONEY SUPPLY AND SOURCES OF CHANGES, 1976-1980

Table 4.4

(K£million comparing year-end values)

	1976	1977	1978	1979	1980
MONEY SUPPLY—					
1. Currency plus demand deposits	+62.74	+ 135.03	+44.81	+43.21	+ 11.33
2. Quasi money and other items	+36.14	+60.01	+40.08	+ 107.91	+ 10.66
3. Total money supply	+98.87	+ 195.04	+84.89	+151.12	+21.99
SOURCES OF CHANGES—					
4. Net foreign assets	+39.34	+108.77	-74.80	+72.96	-66.17
5. Domestic credit—					
(a) to Central Government (net)	+ 15.99	-7.21	+64.63	+ 10.67	+9.84
(b) to other public sector	+6.37	+ 12.43	-24.34	+23.81	-20.90
(c) to private sector	+37.17	+81.05	+119.39	+43.68	+99.22
(d) all domestic credit	59.53	+86.27	+159.65	+78.16	+88.16
6. Total sources of changes	+98.87	+195.04	+84.88	+151.12	+21.99

4.6. A further point worth noting from Table 4.4 is that, over the period as a whole, net bank credit to the Central Government (and also to the public sector taken as a whole) has contributed only modestly to the increase in money supply. Only in 1978 was there a large amount of Government borrowing. The 1980 amount was small and for the public sector as a whole there was actually a net reduction in indebtedness to the banks.

4.7. The main source of monetary expansion was thus credit to the private sector. For the five years as a whole this accounted for 69 per cent of the total increase in money supply. There was a K£99 million increase during 1980, representing a 20.3 per cent growth over the year, without which there would have been a severe monetary contraction. Because of the reduction in net credit to the public sector there was a rather smaller increase in total domestic credit during the year, of 12.7 per cent. The implication of these

trends is thus that the control of credit to the private sector is of key importance to monetary policy in Kenya, as also is the continuing avoidance of large-scale dependence on bank borrowing by the public sector.

Interest Rates

4.8. The Government has stated its intention to make more active use of interest rates part of its monetary policies and, in pursuit of this, rates were raised at the time of the June 1980 budget. Principal interest rates are summarized in Table 4.5, from which it can be seen that the rates on deposits and advances were each raised by 1 percentage point. The interest offered

PRINCIPAL INTEREST RATES, 1978-1980

Table 4.5

Per cent

	31st DECEMBER		
	1978	1979	1980
CENTRAL BANK OF KENYA			
Discount Rate for Treasury Bills	6.80	4.60	6.03
Advances against Treasury Bills	7.50	7.50	8.00
Bills and Notes under Crop Finance Scheme:—			
Discounts	7.00	7.00	8.50
Advances	6.00	6.00	8.00
Other Bills and Notes:—			
Discounts	7.50	7.50	8.50
Advances	7.50	7.50	8.00
KENYA COMMERCIAL BANKS			
Time Deposits:—			
Minimum 30 days (7 days notice)***	5.125	5.125	+
12 months (K.Sh. 100,000-250,000)**	5.875	5.875	6.50
Savings Deposits	5.00	5.00	6.00
Loans and Advances (Maximum)*	10.00	10.00	11.00
OTHER FINANCIAL INSTITUTIONS			
Kenya Post Office Savings Bank deposits	5.00	5.00	6.00
Agricultural Finance Corporation, Loans	9.00	9.00	
(a) Land Purchase			9.00
(b) Seasonal Crop Loan			11.00
(c) Other	9.00	9.00	10.00
Hire-Purchase Companies and Merchant Banks:—			
Deposits (time)	5.00-8.00	5.00-8.00	8.00-11.00
Loans	10.00-12.00	10.00-12.00	10.00-14.00
Building Societies:—			
Deposits	6.00-8.50	6.00-8.50	6.00-9.50
Loans	8.00-12.00	8.00-12.00	11.00-14.00

*Loans and Advances for less than 3 years.

**For 1980, it refers to (KSh. 250,000-1,000,000).

***For 1980, it refers to (KSh. 250,000-500,000).

+Subject to negotiation.

for deposits and charged for loans by non-bank financial institutions is recorded as having been raised by rather more but the effective rates charged by them was considerably higher so that the table may not accurately reflect the change in that segment of the capital market.

4.9. Despite these increases, the rates prevailing in Kenya remained well below those operative in most industrial countries. They have also remained generally below the rate of inflation in Kenya, as is shown in Table 4.6. This

TRENDS IN SELECTED REAL INTEREST RATES

Table 4.6

Percentages

		Nominal Interest	Inflation Rate*	Real Interest**
1. Commercial bank savings deposit	1978	5.00	12.6	- 7.6
	1979	5.00	8.4	- 3.4
	1980	6.00	12.8	- 6.8
2. Commercial bank loans and advances (max)	1978	10.00	12.6	- 2.6
	1979	10.00	8.4	+ 1.6
	1980	11.00	12.8	- 1.8
3. POSB deposits	1978	5.00	12.6	- 7.6
	1979	5.00	8.4	- 3.4
	1980	6.00	12.8	- 6.8
4. Building society loans (max)	1978	12.00	12.6	- 0.6
	1979	12.00	8.4	+ 3.6
	1980	14.00	12.8	- 1.2

*Taken from Table 5.11.

**Nominal interest rate *minus* inflation rate.

records "real" rates of interest by deflating a selection of the nominal rates recorded in Table 4.5 by the annual inflation rate. The results can be thought of as the real return to savings, i.e. the change in the purchasing power of savings over the year in question, and the real cost of borrowing. So far as deposits are concerned, the real return on saving is shown to be negative throughout the three years in question and the real cost of borrowing is shown to be either negative or only slightly positive, certainly well below the rate of return that could be expected from a commercial investment. Since there was an increase in the average inflation rate of more than 4 percentage points between 1979 and 1980, the increase in nominal interest rates announced in June 1980 was insufficient to compensate savers and there was thus a general reduction in real interest rates. The interest rate structure thus does not offer strong incentives to would-be savers, it discourages companies from meeting their credit needs by borrowing abroad and, while it does encourage investment, it unfortunately does not discriminate between investments with high and low rates of return.

CENTRAL BANK OF KENYA—ASSETS AND LIABILITIES, 1976-1980

Table 4.7

K£'000

As AT THE END OF								
	1976	1977	1978	1979	1980			
					1st Qr.	2nd Qr.	3rd Qr.	4th Qr.
ASSETS								
1. Foreign Exchange—								
1.1 Balances with External Banks	78,727	175,095	99,095	163,294	169,020	162,751	114,344	136,586
1.2 Treasury Bills	6,658			2,330	6,995	3,050	11,504	13,436
1.3 Other Investments	27,559	29,313	30,814	32,142	30,958	27,398	26,367	26,340
1.4 Special Drawing Rights	1,388	5,988	5,293	39,821	41,560	27,110	15,781	9,730
TOTAL	114,332	210,396	135,202	237,587	248,534	220,309	167,996	186,092
2. Securities Guaranteed by Kenya Government								
Advances and Discounts	25,271	37,223	50,317	43,847	45,315	55,570	51,641	52,940
3. Advances to Kenya Government	10,000	10,000	23,326	15,908	10,000	10,000	73,336	57,089
4. Other Assets including Kenya Treasury Bills	6,302	10,397	11,012	23,226	22,383	29,615	24,056	40,432
TOTAL ASSETS	155,905	268,016	319,857	320,568	326,232	315,494	317,029	336,553
LIABILITIES								
1. Capital and General Resources Fund	2,600	2,600	2,600	4,600	4,600	7,189	7,189	7,189
2. Currency in Circulation—								
3.1 Notes	87,885	117,169	127,978	147,398	146,563	145,207	145,467	167,232
2.2 Coins	3,613	4,004	4,163	4,779	4,602	4,778	4,690	4,970
TOTAL CURRENCY	91,498	121,173	132,141	152,177	151,165	149,985	150,157	172,202
3. Deposits—								
3.1 Kenya Government	2,758	62,646			9,607	4,693		
3.2 Kenya Banks	6,659	36,497	26,721	40,575	37,908	26,592	29,707	40,023
3.3 External Banks	42,308	26,112	28,672	57,997	58,169	54,269	52,097	80,118
3.4 Other	1,895	3,995	14,450	46,357	33,957	29,776	43,504	15,109
TOTAL	53,620	129,250	69,843	144,929	139,641	115,330	125,308	135,250
4. Revaluation Account	2,088	379	4,113	9,326	9,326	11,065	11,065	11,065
5. Other Liabilities	6,099	14,614	11,160	9,536	21,500	31,925	23,316	10,847
TOTAL LIABILITIES	155,905	268,016	219,857	320,568	326,232	315,494	317,029	336,553

Bank Credit and Liquidity

4.10. By December 1980 total bills, loans and advances extended by the commercial banks amounted to K£657.9 million, compared to K£614.4 million at the end of 1979, as shown in Table 4.8. This represents a 7.1 per cent increase over the previous year, compared with a growth of 16.7 per cent in 1979 and of 22.4 per cent in 1978. This deceleration is a further reflection of the monetary slow-down reported above. While in past years the agri-

COMMERCIAL BANKS—BILLS, LOANS AND ADVANCES, 1977-1980

Table 4.8

	1977 Dec.	1978 Dec.	1979 Dec.	1980 Dec.
PUBLIC SECTOR—				
Central Government				
Local Government				
E.A. Community	114	44	131	248
Enterprises, Parastatal bodies and other Public entities	843	745	917	344
Treasury Bills	4,311			
	7,421	9,088	10,348	16,860
TOTAL PUBLIC SECTOR	68,546	62,594	82,524	46,660
PRIVATE ENTERPRISES—	81,235	72,471	93,920	64,112
Agriculture*				
Mining and Quarrying				
Manufacturing	54,395	72,517	89,999	102,361
Building and Construction	7,087	7,726	8,694	10,543
Transport, Storage and Communication	61,294	92,381	106,244	128,280
Trade:	17,086	23,474	36,013	36,224
Exports	13,466	19,450	23,698	28,231
Imports				
Domestic	17,446	18,392	24,455	24,520
Financial Institutions	16,900	30,272	23,334	32,393
Other Businesses	41,945	49,472	52,952	62,387
	20,934	16,800	34,971	16,288
TOTAL PRIVATE ENTERPRISES	61,397	76,326	85,634	116,232
PRIVATE HOUSEHOLDS—	311,950	406,810	485,995	557,459
(including non profit making institutions)				
TOTAL BILLS, LOANS AND ADVANCES	36,622	47,002	34,486	36,360
	419,807	526,283	614,401	657,931

*Including Forestry, Fishing and Wildlife.

cultural, manufacturing and construction sectors have been the main recipients of commercial bank credit, loans to the construction sector recorded a near-zero growth in 1980. However, credit to agriculture rose by 13.7 per cent, while credit to manufacturing grew by 20.7 per cent. In total, these two sectors accounted for 79.0 per cent of the total commercial bank credit increase in

1980. During 1980 there was also a substantial increase in credit to the private sector by non-bank financial institutions, which increased by K£60 million. If non-bank credit is added to that of the banks, there was a total increase in credit to the private sector of K£131.5 million, or 20.8 per cent.

4.11. Due to the relaxation of the import deposit scheme during the first half of 1980, credit for imports increased by 38.8 per cent, while credit to financial institutions decreased by 53.4 per cent. This decrease is the result of a requirement that financial institutions should not lend to companies in which they have an equity interest in excess of 25 per cent of share capital. In contrast to the previous year, when commercial bank credit to the public sector increased by 29.6 per cent, commercial bank credit to this sector fell in 1980 by 31.7 per cent.

4.12. The reduced lending by the commercial banks noted above was partly the consequence of a considerable reduction in their liquidity. As a result of the decline in the net foreign assets of the banking system noted

COMMERCIAL BANKS—LIQUID ASSETS, 1977-1980

Table 4.9

	Deposit Liabilities*	Liquid Assets+	Current Liquidity Ratio**
	K£m.	K£m.	Per cent
1977 December	510.0	144.7	28
1978 December	553.2	125.8	23
1979 December	627.1	146.9	23
1980—			
January	620.4	137.3	22
February	628.1	136.3	22
March	641.6	149.6	23
April	624.0	132.0	21
May	627.2	107.6	17
June	642.8	117.9	18
July	645.0	144.8	22
August	635.7	128.1	20
September	629.5	117.3	19
October	614.8	103.2	17
November	621.5	103.5	17
December	605.2	110.3	18
1981—			
January	617.1	110.3	18

*Includes Notes and Coins, balances at Central Bank, net inter-bank balances in Kenya and overseas (included only if positive) and Treasury bills.

**On 1st July, 1978 the prescribed minimum was fixed at 16%.

+Deposits and Liquid Assets are calculated as an average of three days balances.

earlier and also of a reduced supply of Treasury Bills, the liquid assets of the commercial banks decreased by 25 per cent from K£146.9 million to K£110.3 million, as compared with a 17 per cent increase in 1979. Further details are set out in Table 4.9. There was a small reduction in deposit liabilities during 1980 but this was not sufficient to prevent a substantial reduction in the banks' liquid assets ratio, which is recorded as having declined from 23 per cent to 18 per cent over the twelve months ended December 1980. The ratio at the end of the year was just two percentage points above the legal minimum ratio of 16 per cent of deposit liabilities. The 1980 ratio was, in fact, the lowest year-end figure recorded for many years and indicated a major constraint on the ability of the banks to further expand their lending in the absence of an infusion of new liquid assets.

4.13. Changes in the balance sheet of the Central Bank of Kenya, given in Table 4.7, were also affected by the deterioration in the balance of payments during 1980. In consequence, the foreign exchange assets of the Central Bank diminished from K£237.6 million at end-1979 to K£186.1 million twelve months later—a reduction of 22 per cent. In the case of the Central Bank and in contrast to the position of the commercial banks, there was also a large increase in the bank's lending to the Government; Central Bank holdings of Government paper went up by 81 per cent, from K£83.0 million to K£150.5 million. On the liabilities side of the balance sheet, there was an appreciable rise in the value of notes in circulation.

The Balance of Payments

4.14. Details of the balance of payments out-turn are set out in Table 4.10. As already mentioned, 1980 was a bad year for Kenya's balance of payments. The deficit on current account increased from K£178 million in 1979 to the record magnitude of K£333 million in 1980. Inflows of capital from the rest of the world covered a good deal of the current deficit but this still left a substantial financing gap which had to be filled by the use of credits from the International Monetary Fund (IMF) of K£55 million and by running down the country's foreign exchange reserves by K£17.4 million.

4.15. Table 4.11 presents balance of payments data in the form of changes between one year and the next and this makes it easier to analyse the sources of the deterioration. This makes it clear that the increased 1980 deficit on current account was wholly due to the large increase in the size of the import bill. Receipts from exports, services and transfers all went up during the year, so that by themselves they would have resulted in an improvement on current account by K£126 million. However, the cost of imports went up by nearly K£312 million, thus leaving a large net deterioration.

4.16. The large rise in the import bill was due to a variety of factors, some of which are examined further in Chapter 7. As is shown there, the price of crude petroleum imports rose by 69 per cent; there was also a 19 per cent rise in the prices of non-oil imports so that the prices of all imports taken

KENYA BALANCE OF PAYMENTS, 1978-1980

Table 4.10

K£million

	1978++			1979*			1980*		
	Debits/ Assets	Credits/ Liabili- ties	Net Credits	Debits/ Assets	Credits/ Liabili- ties	Net Credits	Debits Assets	Credits/ Liabili- ties	Net Credits
A. CURRENT ACCOUNT									
1. Merchandise transactions: Imports (c.i.f.)									
Exports (f.o.b.)	724.9	369.4	Dr. 355.5	665.0	380.3	Dr. 284.7	976.8	461.0	Dr. 515.8
2. Freight and Insurance	2.3	33.2	30.9	2.7	30.5	27.8	1.5	27.9	25.4
3. Other Transportation	24.0	82.6	58.6	24.2	76.5	52.3	26.9	127.9	101.0
4. Foreign Travel	15.5	64.5	49.0	15.5	66.1	50.6	12.4	81.3	68.9
5. International Investment Income	90.8	16.4	Dr. 74.4	70.0	20.8	Dr. 49.2	76.0	16.9	Dr. 59.1
6. Government Transactions n.e.s.	20.3	19.4	Dr. 0.9	20.4	12.7	Dr. 7.7	14.3	15.4	1.1
7. Other Services	23.7	25.5	1.8	27.0	22.2	Dr. 4.8	30.9	23.8	Dr. 7.1
8. Private Transfers	12.1	18.4	6.3	10.4	19.5	9.1	9.3	18.8	9.5
9. Government Transfers+	1.0	29.9	28.9	2.3	30.6	28.3	0.1	42.4	42.3
TOTAL CURRENT ACCOUNT	914.6	659.3	Dr. 255.3	837.5	659.2	Dr. 178.3	1,148.2	815.4	Dr. 332.8
of which; Visible Balance	724.9	369.4	Dr. 355.5	665.0	380.3	Dr. 284.7	976.8	461.0	Dr. 515.8
Invisible Balance	189.7	289.9	100.2	172.5	278.9	106.4	171.4	354.4	183.2
B. CAPITAL MOVEMENTS									
10. Private Long-term	2.3	61.1	58.8	Cr. 1.0	79.7	80.7	2.3	73.4	71.1
11. Government Long-term		99.8	114.6	Cr. 10.0	93.8	103.8		146.4	146.4
12. Government Corporations**	Cr. 14.8	Dr. 5.4	Dr. 5.4	0.5	Dr. 3.0	Dr. 3.5		Dr. 2.5	Dr. 2.5
13. Short-term	11.4	18.2	6.8	8.0	77.9	69.9	2.9	49.6	46.7
TOTAL	Cr. 1.1	173.7	174.8	Cr. 2.5	248.4	250.9	5.2	266.9	261.7
MONETARY MOVEMENTS									
14. Transactions with IMF	9.4	12.4	3.0	34.5	30.6	Dr. 3.9	Cr. 13.4	41.4	54.8
15. Other Changes in Assets and Liabilities	Cr. 74.3	0.3	74.6	68.3	1.6	Dr. 66.7	Cr. 20.1	Dr. 2.7	17.4
TOTAL	Cr. 64.9	12.7	77.6	102.8	32.2	Dr. 70.6	Cr. 33.5	38.7	72.2
D. ERRORS AND OMISSIONS			Cr. 2.9			Dr. 2.0			Dr.%%

*Provisional.

**Former E.A. Community Corporations only.

+Includes capital grants.

++Revised.

CHANGES IN KEY BALANCE OF PAYMENTS MAGNITUDES*, 1978-1980

Table 4.11

K£million

	1978	1979	1980
1. Exports (fob)	-101.5	+10.9	+80.7
2. Imports (cif)	-194.0	+59.9	-311.8
3. Services (net)	+19.3	+4.0	+62.2
4. Transfers (net)	+12.3	+2.2	+14.4
5. Change on Current Account	-263.9	+77.0	-154.5
6. Private long-term capital (net)	+28.4	+21.9	-9.6
7. Public long-term capital (net)	+47.6	-8.9	+43.6
8. Change on basic balance (net balance on lines 5-7)	-187.6	+90.0	-120.5
9. Short-term capital and errors and omissions (net)	-2.4	+58.2	-22.3
10. Net change on all above items (=Monetary Movements)	-190.3	+148.2	-142.8

*A plus sign indicates a change that improves the balance of payments outcome; a negative sign indicates a change worsening the outcome. Thus, an increase in imports or reduction in exports are marked as negative entries.

together rose by 31 per cent (*see* Table 7.2). In addition to this large rise in the unit cost of imports, there was a 15 per cent increase in the volume of imports (Table 7.3) and it was this combination of increases in both prices and volumes which had such a strong effect on the total cost of imports. It is evident that much of the rise in the volume of imports during 1980 was due to the relaxation early in the year of the advance import deposit scheme introduced at the end of 1978, and an upsurge in bank credits to finance imports, just as much of the 1979 reduction in import volumes was due to the effects of the scheme. The benefits of the scheme were thus short-lived and trends in import volumes in 1979 and 1980 are best read together. The 1980 situation was also affected by the need to import large quantities of maize.

4.17. There was at the same time a rise in the average unit value of the country's exports but this only partially offset the rise in import prices, so that the terms of trade deteriorated for the third year in succession (Table 7.4). The quantity of exports, excluding petroleum products, fell a little thus continuing the relative stagnation of export volumes that has been apparent for some years. There was, however, a K£49 million increase in net earnings from "other transportation"; this and more minor improvements on other invisibles (services) and transfers helped to moderate the final increase in the current account deficit. Nevertheless, this deficit increased by an alarming K£155 million over the 1979 level.

4.18. As regards the capital account of the balance of payments, there were a number of divergent factors at work. First, Table 4.11 shows that there was a modest decline in the net inflow of long-term private capital,

although the absolute value of this inflow remained substantial. Second, however, there was a K£44 million increase in net receipts of public long-term capital, largely in the form of increased receipts of balance of payments and development assistance. Finally, however, there was a reduction in net receipts of short-term capital, which fell to under K£47 million in 1980, against K£70 million in 1979. Taking the net result of these various changes in the flow of capital (plus the net balance of errors and omissions), there was a decline in capital receipts by nearly K£12 million which, of course, increased the financial strain imposed on the country's foreign exchange reserves and other sources of international liquidity. There was thus a major turnaround in the balance of monetary movements of nearly K£143 million. Whereas in 1979 Kenya had actually been able to add nearly K£67 million to her foreign exchange reserves and also to effect a slight reduction in indebtedness to the IMF, it was only access to the resources of the IMF which prevented the emergence of an even more serious payments situation in 1980.

International Liquidity

4.19. Further details of changes in Kenya's foreign exchange reserves and other sources of international liquidity are set out in Table 4.12. This shows that the authorities utilized K£30 million of the balance of Special Drawing Rights (SDRs) of K£40 million that existed at the beginning of the year. There was also a K£21 million run-down in the foreign reserves item and minor changes in other items. At the end of the year the total net foreign exchange reserves of the central monetary authorities was equivalent to 2.8 months-worth of imports, on the basis of the average rate of importation during 1978-80. This may be compared with the end-1979 ratio of 4.4 months of imports and with the policy of the Central Bank of maintaining reserves equivalent to at least four months of imports. The country's balance of payments difficulties were thus seriously affecting the authorities' ability to maintain the desired cushion of reserves.

4.20. During 1980 Kenya received from the IMF an allocation of SDRs equivalent to K£3.5 million and at the same time its quota was raised by an amount equivalent to K£16.7 million. The IMF also modified its policies on access to its facilities in such a way that Kenya now has potential access to a considerably larger amount of credit than was the case in 1979, i.e. 450 per cent of the new quota over a three-year period. In addition to the use of SDRs already noted, there was a K£21 million increase in the net use of IMF credit and, in total, net use of all types of IMF resources amounted to K£54.8 million, as also recorded in Table 4.10.

The Exchange Rate

4.21. The Kenyan shilling is pegged to SDR and its value has thus been relatively stable in recent years. However, movements do occur in the trade-weighted index of the exchange rate recorded in Table 4.13 because the

CENTRAL MONETARY AUTHORITIES: FOREIGN EXCHANGE RESERVES, 1975-1980

Table 4.12

K£'000

As at end of	CENTRAL BANK OF KENYA				Total Net Foreign Reserves of Central Government	Total Net Foreign Reserves of Central Monetary Authorities	GENERAL ACCOUNT WITH I.M.F.		
	S.D.R'S	Foreign Reserves	Foreign Liabilities (other than to I.M.F.)	Total Net Foreign Reserves of Central Bank**			Subscription	I.M.F. holding of Kenya Currency	Net use of Fund Credit*
1975	1,818	69,129	80	70,141	41	70,555	23,184	56,293	-33,109
1976	1,388	112,944	1,134	113,198	799	113,997	23,184	64,254	-41,070
1977	5,988	204,408	3,019	207,377	1,214	208,591	23,184	46,199	-23,015
1978	5,293	129,909	3,294	131,908	1,420	133,328	33,327	58,583	-25,256
1979	39,821	197,766	4,877	232,710	1,829	234,538	33,327	85,636	-52,309
1980-									
January	42,356	211,430	6,507	247,279	1,597	248,876	33,327	84,886	-51,559
February	42,262	213,764	5,351	250,675	1,461	252,136	33,327	84,792	-51,465
March	41,560	206,974	5,904	242,630	3,098	245,728	33,327	84,792	-51,465
April	40,811	211,446	5,627	246,630	2,597	249,227	33,327	84,042	50,715
May	41,601	196,133	4,369	233,365	2,185	235,550	33,327	83,949	-50,622
June	27,110	193,199	3,592	216,717	2,272	218,989	33,327	83,949	-50,622
July	26,360	170,348	2,014	194,694	2,269	196,963	33,327	83,199	-49,872
August	15,929	164,206	2,385	177,750	2,099	179,849	33,327	83,106	-49,779
September	15,781	152,215	2,262	165,734	2,406	168,140	33,327	83,106	-49,779
October	14,866	180,653	2,790	192,729	2,389	195,118	33,327	96,845	-63,518
November	14,072	176,264	2,410	187,926	2,537	190,493	33,327	96,751	-63,424
December	9,730	176,362	2,224	183,868	3,097	186,965	49,991	123,565	-73,574

*Figures in minus indicate use of Fund Credit.

**Excludes subscription to I.M.F.

+Liability of the member country, corresponding to the issue of S.D.R.'s.

currencies and weights used in that index differ from those used in determining the value of the SDR. As can be seen from the table, there was a small depreciation in the weighted index during 1980, which declined by about 2.6 per cent. As regards rates against individual currencies, the shilling appreciated against the Deutschmark, the French and Swiss francs and the

FOREIGN EXCHANGE RATES OF KENYA SHILLING FOR SELECTED CURRENCIES, 1977-1980

Table 4.13

Currency	MEAN RATES IN KENYA SHILLINGS			
	31st Dec. 1977	31st Dec. 1978	31st Dec. 1979	31st Dec. 1980
1 U.S. Dollar	7.947	7.404	7.328	7.568
1 Pound Sterling	15.207	15.059	16.355	18.081
1 Deutsche Mark	3.785	4.060	4.249	3.859
1 French Franc	1.697	1.771	1.823	1.671
1 Swiss Franc	3.967	4.565	4.600	4.257
100 Italian Lira	0.912	0.890	0.911	0.816
100 Japanese	3.310	3.825	3.046	3.736
1 Indian Rupee	0.966	0.913	0.919	0.977
1 Zambian Kwacha	10.479	9.431	9.431	9.431
Overall Weighted Index*—31st Dec. 1973 = 100	81.194	75.437	76.748	74.702

*Against twenty currencies.

Italian lira but depreciated against the US dollar, the pound sterling and the yen. From the base date of the index (December 1973), there had been a net depreciation of 25 per cent by end-1980, including a devaluation of 14.25 per cent in October 1975. On 3rd February 1981, there was a further devaluation, from K.Sh. 9.66 = SDR 1.0 to K.Sh. 10.15 = SDR 1.0—an adjustment of 5.1 per cent.

CHAPTER 5—EMPLOYMENT, EARNINGS AND CONSUMER PRICES

The impact of the 1979 employment directive that there should be a 10 per cent rise in the numbers in employment continued to be felt in the public sector in 1980 but the unsatisfactory economic conditions meant that private employers generally were unable to continue to respond. In the event as reported below the numbers in wage employment rose overall by 3.4 per cent in 1980 and as shown in Chapter 15 there was an increase of 77,400 in the total number of employees registered with the National Social Security Fund. The detailed information given later in this chapter shows a fall of 11 per cent in the numbers employed in agriculture and forestry in the private sector but a rise of 7 per cent in all other economic sectors including an increase of 11 per cent in public sector employment. The sharp fall in wage employment in agriculture was a direct consequence of the very difficult agricultural year due to unsatisfactory climatic conditions experienced which reduced crop yields and output of several important products. The total number working in the modern sector of the economy both employed and self-employed together with those working in informal establishments in the urban areas is estimated at 1,190,800 in 1980 compared with 1,009,900 in 1976. The rise of 180,900 over four years gives a growth rate of 4.2 per cent per annum and an average increase of 45,225 a year which is higher than the increase of 33,900 recorded in 1980 but is somewhat less than the current target of 50,000 new employees in the modern sector of the economy annually.

Employment

5.2. Wage employment in the modern sector rose by 3.4 per cent in 1980 compared with the increase of 6.7 per cent in 1979. In absolute numbers persons in wage employment rose from 972,300 in 1979 to 1,005,800 in 1980, a rise of 33,500 as shown in Table 5.1. In 1980, 120,000 people were registered as seeking employment compared to the 260,100 reported registered

PERSONS ENGAGED: RECORDED TOTALS, JUNE, 1977-1980

Table 5.1 '000's

	1977	1978	1979	1980*
Modern Establishments—Urban and Rural Areas— Wage Employees	902.9	911.6	972.3	1,005.8
Self-employed and unpaid family workers	57.0	59.6	63.0	61.9
Informal Establishments—Urban Areas	103.9	113.9	121.6	123.1
TOTAL	1,063.8	1,085.1	1,156.9	1,190.8

*Provisional.

WAGE EMPLOYMENT BY MAJOR SECTOR, 1977-1980

'000's

Table 5.2

	1977	1978	1979	1980*	Annual Percentage Change	
					1978/79	1979/80
PRIVATE SECTOR -						
Agriculture and Forestry	206.4	189.0	193.8	172.5	2.5	-11.0
Rest of Private Sector	320.1	332.6	353.7	361.8	6.3	2.3
Total Private Sector	526.5	521.6	547.5	534.3	5.0	-2.4
PUBLIC SECTOR	376.4	390.0	424.7	471.5	8.9	11.0
TOTAL	902.9	911.6	972.3	1,005.8	6.7	3.4

*Provisional.

in 1979. However, this decrease does not mean that the unemployment problem has diminished but rather most people felt that they would be unlikely to secure employment with or without such registration. Elsewhere in the modern sector the number of self-employed and unpaid family workers fell slightly by an estimated 1.7 per cent while employment in the informal sector increased by an estimated 1.2 per cent in 1980.

5.3. The 1979 Presidential Decree calling for an increase of 10 per cent in employment had much more impact on the public sector in the two years 1979 and 1980 than in the private sector. After its rise of 8.9 per cent in 1979, employment in the public sector went up by a further 46,800 or by 11.0 per cent in 1980. In contrast between 1978 and 1980 private sector employment rose in the two years by only 12,700 or 2.4 per cent because of the serious adverse impact of weather on agricultural employment in 1980 in particular.

5.4. Table 5.3 shows that wage employment in the private sector in 1980 dropped by 2.4 per cent compared to 1979. The modern agricultural sector, which is the biggest component in the private sector, registered the largest drop in employment by 21,300 to 172,500. This is due to drought which started in the later part of 1979 and the generally poor rainfall for most of 1980. The drought hit hardest those large-scale farming activities such as tea, sugar, mixed farming, forestry and ranching, sometimes culminating in occasional enforced work stoppages. There was a particularly large rise of 13.9 per cent in employment in finance, insurance, real estate and business services which continues to be a particularly fast-growing sector. However, its importance is still fairly small so its impact on overall employment in

Table 5.3

'000's

	1977	1978	1979	1980*	Percentage change 1979/80*
Agriculture and Forestry	206.4	189.0	193.8	172.5	-11.0
Mining and Quarrying	2.4	1.9	2.0	1.7	15.0
Manufacturing	94.7	105.3	112.0	111.4	-0.5
Construction	29.6	28.6	32.5	31.7	-2.5
Trade, Restaurants and Hotels	60.3	59.6	64.4	66.0	2.5
Transport and Communica- tions	19.6	20.6	23.3	23.0	-1.3
Finance, Insurance, Real Estate and Business Services	24.2	25.9	28.1	32.0	13.9
Community, Social and Per- sonal Services	89.3	90.6	91.3	95.9	5.0
TOTAL	526.5	521.6	547.5	534.3	-2.4

*Provisional.

1980 was minor. The manufacturing sector which has grown rapidly in recent years providing a particular impetus to the rise in employment in the economy as a whole, had an indifferent year in 1980 with a slight decline in numbers employed.

5.5. The mining and quarrying sector has continued to be relatively insignificant in terms of numbers employed. This sector has few large establishments, the rest being very small concerns such that employment changes in the larger concerns greatly affect the total numbers employed. In 1980 employment in this sector dropped to 1,658 compared to the total of 1,980 recorded in 1979.

5.6. Wage employment in the private manufacturing sector fell by 0.5 per cent in 1980 to reach 111,400. This small fall in employment is to some extent a result of the reduction in activity in agriculture due to drought which in turn reduced demand for products of the manufacturing sector as well as upsetting its source of raw materials. Falls in employment were recorded in concerns that use locally produced materials or supplies such as the slaughtering, preparing and preserving of meat, manufacture of dairy products and canning and preserving of fruits and vegetables. In general, the only noticeable increases in wage employment in the private sector manufacturing were in activities that have negligible linkages with agriculture. However, employment in factories processing agricultural commodities was helped to some extent by the substantial imports that were required to supplement local supplies of grain and milk.

5.7. In 1980 wage employment in the private construction sector dropped by 2.5 per cent compared to 1979. However, the numbers engaged estimated at 31,700 were still above the 28,600 of 1978. There is some evidence of a shortage of credit having its impact on the construction industry. Wage employment in the private transport and communications sector also experienced a slight drop compared to 1979 as regards recorded employment. Significant advances, however, were recorded in finance and other business services where wage employment went up by 13.9 per cent or 3,900 and in the community, social and personal services where employment increased by 5.0 per cent in 1980 over 1979.

5.8. As shown in Table 5.4 wage employment in the public sector rose by 11.0 per cent in 1980 following the increase of 8.9 per cent in 1979. The Central Government continued to absorb casual workers into established posts thus increasing employment by 8.9 per cent in 1980. There was a similar increment in employment in parastatal bodies which increased by 9.9 per cent while there was a particularly high increase of 28.2 per cent from 23,400 to 30,000 registered in organizations where the public sector has a majority control. There was a large increase of 17.2 per cent in employment by local authorities following a period of two years when the rise in employment had averaged only 2.6 per cent a year.

WAGE EMPLOYMENT IN THE PUBLIC SECTOR, 1977-1980

Table 5.4

'000's

	1977	1978	1979	1980*	Annual Percentage Change 1979/80*
Central Government	157.2	168.9	197.3	214.8	8.9
Parastatal Bodies**	170.0	168.0	170.1	187.0	9.9
Majority Control by the Public Sector	17.0	20.2	23.4	30.0	28.2
Local Government	32.1	32.9	33.8	39.6	17.2
Others+	0.1		0.1	0.1	—
TOTAL	376.4	390.0	424.7	471.5	11.0

*Provisional.

**Includes Teachers Service Commission, Kenya Railways Corporation, Kenya Ports Authority, Kenya Posts and Telecommunication, Kenya Airways Limited, etc.

+E.A. Development Bank and E.A. Examinations Council.

5.9. Details of employment by province are shown in Table 5.5. As in 1979, Nairobi accounted for 27 per cent of total employment in 1980. However the rise in employment in Nairobi was 5.1 per cent in 1980 compared to 6.7 per cent in 1979. Rift Valley was second in importance,

WAGE EMPLOYMENT BY PROVINCE, 1977-1980

Table 5.5

'000'S

Province	1977	1978	1979	1980*	Percentage Change 1979/80*
Nairobi	235.5	244.4	260.8	274.2	5.0
Central	143.7	137.6	145.8	149.6	2.6
Nyanza	64.8	67.3	72.0	74.5	3.5
Western	44.5	42.5	46.0	49.5	7.6
Coast	113.8	122.7	132.0	139.3	5.5
Rift Valley	225.8	221.1	234.4	232.6	-0.8
Eastern	70.1	71.0	76.0	80.6	6.0
North Eastern	4.7	4.9	5.3	5.5	3.8
TOTAL	902.9	911.5	972.3	1,005.8	3.4

*Provisional.

accounting for 23 per cent of total employment. The total number employed in Rift Valley Province, however, fell from 234,400 in 1979 to 232,600 in 1980 or a decrease of 0.8 per cent. This is largely due to the fall in agricultural sector employment as reported above which is by far the most significant economic activity in Rift Valley Province. Central and Coast Provinces accounted for 15 per cent and 14 per cent of total employment with growth rates in wage employment of 2.6 per cent and 5.5 per cent respectively.

5.10. Details of changes in wage employment in selected sectors by major towns are set out in Table 5.6. These towns accounted for 50.8 per cent of total employment in 1980. Between 1975 and 1980 employment in all towns has gone up by 38.3 per cent while over the same period employment in Nairobi has risen by only 25.3 per cent. Employment in towns other than Nairobi has gone up by 55.1 per cent. Between 1975 and 1980 employment in towns other than Nairobi has grown rapidly with recorded growths in employment between these years of 69.7 per cent in manufacturing, 84.6 per cent in construction, 89.1 per cent in financial institutions and 77.4 per cent in community and social and personal services. This growth which seems likely to continue has served to spread employment opportunities to other areas away from Nairobi. The inclusion of more smaller towns in the other towns listed in Table 5.6 has served to highlight the movement of persons living outside the cities of Nairobi and Mombasa into community and social service employment.

5.11. Table 5.7 details wage employment by industry, citizenship and sex. The total number of non-citizens employed dropped by a further 1,000 from 14,500 in 1979 to 13,500 in 1980. Non-citizen employment in 1980 thus represents only 1.3 per cent of total wage employment in the country. Non-citizen employment rose in agriculture and forestry from 1,100 to 1,300. it

WAGE EMPLOYMENT BY MAJOR TOWNS AND SELECTED INDUSTRIES, 1975 AND 1980

Table 5.6

'000's

	Manufacturing		Construction		Trade, Restaurants and Hotels		Transport and Communi- ations		Finance, Insurance, Real Estate and Business Services		Community Social and Personnal Services	
	1975	1980*	1975	1980*	1975	1980*	1975	1980*	1975	1980*	1975	1980*
Nairobi	43.8	53.4	25.9	31.1	26.3	33.3	17.1	21.1	16.9	26.5	77.6	94.9
Mombasa	13.5	19.7	2.9	4.5	7.4	11.1	19.3	24.3	2.6	7.0	23.0	25.1
Kisumu	2.5	3.8	0.9	1.5	1.5	1.5	2.0	1.2	0.7	0.8	5.4	8.6
Nakuru	4.2	5.5	1.3	1.7	2.0	2.7	0.7	0.6	0.4	0.9	4.7	7.9
Thika	6.8	9.0	0.4	0.3	0.3	0.7	0.1	0.1	0.8	0.6	2.3	3.2
Eldoret	2.8	7.2	0.2	1.4	1.0	1.1	0.7	0.4	0.3	0.5	2.7	4.1
Other Towns	4.9	12.4	3.2	5.1	7.8	9.1	4.0	3.2	1.6	2.3	26.5	61.5
Total	78.5	111.0	34.8	45.6	46.3	59.5	43.9	50.9	23.3	38.6	142.2	205.3

*Provisional.

rose in construction from 1,000 to 1,200 and also rose in finance, insurance, real estate and business services from 1,400 to 1,500 in 1980 over 1979. However, in manufacturing, non-citizen employment fell from 2,200 to 2,100, fell from 700 to 100 in electricity and water, fell from 1,500 to 900 in trade, restaurants and hotels, fell from 700 to 500 in transport and communications, and also declined from 2,700 to 2,200 in education services. Employment of females rose by 5.1 per cent from 168,200 in 1979 to 176,800 in 1980, thus increasing the share of female employment to 17.6 per cent of total wage employment from its 17.3 per cent share of 1979.

WAGE EMPLOYMENT BY CITIZENSHIP AND INDUSTRY, 1979 AND 1980

Table 5.7

'000's

	CITIZENS		NON-CITIZENS		TOTAL	
	1979	1980*	1979	1980*	1979	1980*
Agriculture and Forestry	253.4	230.1	1.1	1.3	254.5	231.4
Mining and Quarrying	2.6	2.3	**	**	2.6	2.3
Manufacturing	136.2	139.2	2.2	2.1	138.4	141.3
Electricity and Water	9.2	10.1	0.7	0.1	9.9	10.2
Construction	60.3	62.1	1.0	1.2	61.3	63.3
Trade, Restaurants and Hotels	67.2	69.6	1.5	0.9	68.7	70.5
Transport and Communications	54.1	54.6	0.7	0.5	54.8	55.1
Finance, Insurance, Real Estate and Business Services	34.3	38.3	1.4	1.5	35.7	39.8
Community, Social and Personal Services-						
Public Administration	101.0	115.8	0.2	0.2	101.2	116.0
Education Services	125.4	145.4	2.7	2.2	128.1	147.6
Domestic Services	53.7	53.4	1.4	2.0	55.1	55.4
Other Services	60.4	71.4	1.6	1.5	62.0	72.9
TOTAL	957.8	992.3	14.5	13.5	972.3	1,005.8
Of which: Males	792.0	818.0	12.1	11.0	804.1	829.0
Females	165.8	174.3	2.4	2.5	168.2	176.8

*Provisional.

**Less than 50.

Earnings

5.12. Table 5.8 shows that total wage payments rose at a particularly sharp rate during 1980. The wage bill increased by 17.8 per cent, from K£563.5 million in 1979 to K£664.1 million in 1980. This rise partly reflects the overall increase in wage employment noted above but is more strongly influenced by a larger increase in average money earnings than has occurred during the previous few years. The wage bill of the private sector went up

TOTAL WAGE PAYMENTS BY MAJOR SECTOR, 1977-1980

Table 5.8

K£million

	1977	1978	1979	1980*
PRIVATE SECTOR—				
Agriculture and Forestry	27.8	30.2	34.0	37.0
Mining and Quarrying	0.8	0.6	0.7	0.6
Manufacturing	56.5	65.2	72.1	82.6
Construction	14.6	16.1	18.7	22.5
Trade, Restaurants and Hotels	39.8	44.3	53.9	67.0
Transport and Communications	13.9	16.5	20.9	22.5
Finance, Insurance, Real Estate and Business Services	27.5	29.4	36.9	47.6
Community, Social and Personal Services	29.3	31.2	37.1	46.9
TOTAL PRIVATE SECTOR	210.0	233.5	274.3	326.8
PUBLIC SECTOR—				
Central Government	99.6	112.9	137.1	153.6
Parastatal Bodies**	96.2	105.7	116.1	133.6
Majority Control by the Public Sector	10.0	13.5	16.8	22.5
Local Government	15.6	17.4	19.1	27.5
Others+	0.1		0.1	0.1
TOTAL PUBLIC SECTOR	221.4	249.5	289.2	337.3
TOTAL	431.4	483.0	563.5	664.1

*Provisional.

**Includes Teachers Service Commission, Kenya Railways Corporation, Kenya Ports Authority, Kenya Posts and Telecommunications Corporation, Kenya Airways Limited, etc.

+E.A. Development Bank and E.A. Examinations Council.

by 19.1 per cent and in the public sector by 16.6 per cent. Different forces were at work in the two sectors, however. In the case of the private sector, the increased size of total wage payments was wholly attributable to large increases in average earnings per employee. As noted earlier the numbers employed in the private sector actually went down a little during the year. The increase in the public sector wage bill, on the other hand, was largely the result of increased numbers employed, with a much smaller proportionate increase in earnings per worker. See also Table 5.10.

5.13. Average earnings per employee rose by 13.9 per cent in 1980 over 1979 and the details of the increases by sector are shown in Tables 5.9 and 5-10. In the private sector, average earnings rose by 22.1 per cent while average earnings in the public sector increased by 5.1 per cent. The high figure for the private sector as a whole is partly due to the sharp fall in the numbers engaged in agriculture, where average earnings are still only about

AVERAGE WAGE EARNINGS PER EMPLOYEE, 1977-1980

Table 5.9

K£

	1977	1978	1979	1980*
PRIVATE SECTOR—				
Agriculture and Forestry	134.7	159.8	175.4	214.5
Mining and Quarrying	333.3	315.8	350.0	352.9
Manufacturing	596.6	619.1	643.8	741.5
Construction	490.0	562.9	575.4	709.8
Trade, Restaurants and Hotels	660.0	743.3	837.0	1,015.2
Transport and Communications	709.2	801.0	897.0	978.3
Finance, Insurance, Real Estate and Business Services	1,136.4	1,135.1	1,313.2	1,487.5
Community, Social and Personal Services	328.1	344.4	406.4	489.1
TOTAL PRIVATE SECTOR	398.9	447.7	501.0	611.6
PUBLIC SECTOR—				
Central Government	633.6	668.4	694.9	715.1
Parastatal Bodies**	565.9	629.2	682.5	714.4
Majority Control by the Public Sector	588.2	668.3	717.9	750.0
Local Government	486.0	528.9	565.1	694.4
Others+	1,000.0	—	1,000.0	1,000.0
TOTAL PUBLIC SECTOR	588.3	639.7	681.0	715.4
TOTAL	477.8	529.8	579.6	660.3

*Provisional.

**Includes Teachers Service Commission, Kenya Railways Corporation, Kenya Ports Authority, Kenya Posts and Telecommunications Corporation, Kenya Airways Limited, etc.

+E.A. Development Bank and E.A. Examinations Council.

one-third of the figure for the private sector as a whole. The small rise for the public sector results from the recruitment of large numbers of relatively lowly-paid employees in 1980.

5.14. In the private sector there was a rise in average earnings of 23.4 per cent in the construction sector and one of 22.3 per cent for the employees in agriculture and forestry. Except in transport and communications, average earnings in all industries in the private sector went up by at least 10 per cent in 1980. The highest increase in the public sector was for employees in local government, with a rise of 22.9 per cent from K£565 per employee in 1979 to K£694 in 1980. Average earnings of employees in the Central Government rose from K£695 to K£715 (or 2.9 per cent) and those in parastatal bodies rose from K£683 to K£714 (4.7 per cent). There was a 4.5 per cent increase in the average earnings for employees in organizations where the public sector has majority control.

CHANGES IN WAGE EMPLOYMENT AND AVERAGE EARNINGS, 1977-1980

Table 5.10

Per cent

	EMPLOYMENT		AVERAGE	EARNINGS
	1977-80*	1979-80*	1977-80*	1979-80*
PRIVATE SECTOR—				
Agriculture and Forestry	- 16.4	- 11.0	59.2	22.3
Mining and Quarrying	- 29.2	- 15.0	5.9	0.8
Manufacturing	17.6	- 0.5	24.3	15.2
Construction	7.1	- 2.5	44.7	23.4
Trade, Restaurants and Hotels	9.5	2.5	53.8	21.3
Transport and Communications	17.4	- 1.3	37.9	9.1
Finance, Insurance, Real Estate and Business Services	32.2	13.9	30.9	13.3
Community, Social and Personal Services	7.4	5.0	51.8	20.4
TOTAL PRIVATE SECTOR	1.5	-2.4	53.3	22.1
PUBLIC SECTOR—				
Central Government	36.6	8.9	12.9	2.9
Parastatal Bodies**	10.0	9.9	26.2	4.7
Majority Control by the Public Sector	76.5	28.2	27.5	4.5
Local Government	23.4	17.2	42.6	22.9
TOTAL PUBLIC SECTOR	25.3	11.0	21.6	5.1
TOTAL	11.4	3.4	38.2	13.9

*Provisional.

**Includes Teachers Service Commission, Kenya Railways Corporation, Kenya Ports Authority, Kenya Posts and Telecommunications Corporation, Kenya Airways Limited, etc.

5.15 Although average earnings in agriculture and forestry increased by 22.3 per cent in 1980, the 1980 average is still less than one third of average earnings in the economy as a whole. Thus the total earnings of agricultural and forestry employees make up only 5.6 per cent of the overall total while the numbers employed are equal to 17.2 per cent of total employment.

5.16. The overall increase of 13.9 per cent in average nominal earnings in 1980 already noted may be compared with an average increase of 12.8 Per cent in consumer prices. This implies a rise of 0.9 per cent in the real average wage in 1980, as shown in Table 5.11. Real average wages in 1979 also went up by the same margin of 0.9 per cent following decreases of 1.2 Per cent and 3.4 per cent in 1978 and 1977 respectively. There has thus been some small restoration of average real earnings, although in 1980 these still stood 3 per cent below the 1976 level.

CHANGES IN WAGE EMPLOYMENT, AVERAGE WAGES AND CONSUMER PRICES, 1977-1980

Table 5.11

Percentage

	1977	1978	1979	1980*
Wage employment	5.3	1.0	6.7	3.4
Current prices average wages	7.9	10.9	9.4	13.9
Consumer prices**	12.7	12.6	8.4	12.8
Real average wages	-3.4	-1.2	0.9	0.9

*Provisional.

**Percentage increases are derived from a composite weighted index of lower, middle and upper income indices calculated as an average of the indices for all 12 months.

5.17 Table 5.12 shows that there were sharp contrasts in the record of the public and private sectors in this regard. In the latter real average earnings went up by 8.2 per cent, while there was a decline of 6.9 per cent

ESTIMATED REAL AVERAGE WAGE EARNINGS** PER EMPLOYEE, 1977-1980

Table 5.12

K£

	1977	1978	1979	1980*
PRIVATE SECTOR—				
Agriculture and Forestry	105.0	110.7	112.0	121.4
Mining and Quarrying	259.8	218.7	210.9	193.1
Manufacturing	465.0	428.7	418.1	419.6
Construction	381.9	389.8	367.9	400.8
Trade, Restaurants and Hotels	514.4	514.8	534.4	574.5
Transport and Communications	552.8	554.7	573.4	554.7
Finance, Insurance, Real Estate and Business Services	885.7	786.1	838.1	844.7
Community, Social and Personal Services	255.7	238.5	259.6	276.7
TOTAL	310.9	310.0	320.0	346.2
PUBLIC SECTOR—				
Central Government	493.8	462.9	444.2	404.7
Parastatal Bodies**	441.1	435.7	436.1	404.4
Majority Control by the Public Sector	458.5	462.8	461.2	424.4
Local Government	378.8	366.3	361.6	393.0
Others	779.4		639.0	565.9
TOTAL PUBLIC SECTOR	458.5	443.0	435.1	404.9
TOTAL	372.4	366.9	370.3	373.7

*Provisional.

**Average current earnings adjusted for the rise in consumer prices. Real earnings and the consumer price indices are based on January—June, 1975.

+Includes Teachers Service Commission, Kenya Railways Corporation, Kenya Ports Authority, Kenya Posts and Telecommunications Corporation, Kenya Airways Limited, etc.

in the public sector. Central Government employees were most affected with a further decline of 8.9 per cent in their average real earnings after falls in each of the two previous years. Real average earnings in the private sector in 1980 were 11.4 per cent higher than real earnings in 1977 but in the public sector real average earnings in 1980 were 11.7 per cent below those recorded in 1977. However, this apparent decline is rather misleading because it partly reflects the fact that most of the recent increases in public sector employment have occurred in the lower-paid grades, thus tending to pull down the average.

Wage Awards

5.18. Basic minimum monthly wages of KSh. 215 for agricultural workers and K.Sh. 456 for unskilled workers in Nairobi were announced in May, 1980. Elsewhere wage increases in the private sector registered with the Ministry of Labour in 1980 indicated that wages in the manufacturing sector rose by 11.4 per cent and 10.2 per cent for workers in the lower and middle income groups respectively. Wages in retail and wholesale trade showed increases of 10.8 per cent and 8.0 per cent while for workers in transport there were rises of 13.3 and 11.3 per cent in these income groups.

Unemployment

5.19. During 1980, 120,000 jobseekers registered themselves with the Ministry of Labour which total included 67,397 brought forward from 1979. The numbers registered in 1979 had been a high 260,000 because of awakened interest in employment prospects as a result of the Presidential Decree. The fall in 1980 was because there was a general appreciation that there were relatively few (unskilled) jobs on offer. In 1980 the private sector declared 31,152 vacancies but the numbers recruited against these vacancies was 10,105. There appears to have been a general mismatch of qualifications and requirements.

Consumer Prices

5.20. During 1980 consumer prices went up by 13.8; 11.6 and 13.0 per cent in Nairobi for the lower, middle and upper income groups respectively as shown in Table 5.13. These averages are higher than the averages of 8.0; 7.2 and 10.1 for the lower, middle and upper income groups respectively recorded in 1979. Food prices and rents went up more steeply than in 1979. The food index rose by 15.2 per cent in 1980 while rents rose by 12.6 per cent compared with the rises of 8.1 and 10.8 per cent respectively in 1979. Prices for fuel, light and transport services also rose more steeply as compared to 1979. The fuel, light and water index increased by an average of 11.6 per cent in 1980 while prices for transport and communication rose by 19.9 per cent; the corresponding rises in 1979 having been 12.1 and 12.8

PERCENTAGE INCREASES IN NAIROBI CONSUMER PRICES, 1976—MARCH, 1981

Table 5.13

	1976/77	1977/78	1978/79	1979/80	March, 1980 to March, 1981
Nairobi Lower Income Index	11.8	17.0	8.0	13.8	10.0
Nairobi Middle Income Index	11.5	10.3	7.2	11.6	11.0
Nairobi Upper Income Index	8.7	9.6	10.1	13.0	11.7

per cent respectively. For the period March 1980 to March 1981, consumer prices have risen by an average of 10.8 per cent, indicating that inflationary pressures were slackening slightly. Comparing March 1981 with March 1980, there were increases of 7.5 per cent or more in virtually all groups of commodities or services, although the major increases occurred in the prices of fuel and light, in transportation and in clothing and footwear for the lower income groups. These rises for fuel and light and transportation have been caused by the impact of rises in prices of crude oil and in this context there is as yet no indication of any cessation in the rise in average prices charged by OPEC countries year by year. All rises in crude oil prices are now automatically passed on to the consumer.

NAIROBI CONSUMER PRICES INDICES, 1977-1981

Table 5.14

January-June, 1975 = 100

	Food	Rent	Others	All Groups
LOWER INCOME—				
December—1977	130.7	164.0	140.0	142.8
December—1978	147.8	187.7	153.0	162.3
December—1979	159.5	205.1	168.3	177.1
December—1980	185.3	232.0	184.6	200.3
March—1981	190.5	238.5	190.8	205.9
MIDDLE INCOME—				
December—1977	127.1	146.3	126.8	130.4
December—1978	141.1	158.7	134.0	141.0
December—1979	154.8	175.3	149.0	155.7
December—1980	178.0	195.2	161.4	173.3
March—1981	179.9	200.1	167.7	177.7
UPPER INCOME—				
December—1977	139.8	135.1	131.8	134.0
December—1978	149.9	145.7	143.0	145.1
December—1979	162.0	164.1	161.1	163.7
December—1980	185.1	186.1	181.7	185.4
March—1981	186.6	190.8	185.4	190.1

5.21. Consumer prices in Mombasa, Kisumu and Nakuru went up by 13.1, 15.5 and 10.9 per cent respectively during 1980. In Mombasa, prices of fuel and light rose by 11.7 per cent, for health and personal care by 10.6 per cent, for clothing and footwear by 13.4 per cent, and for foodstuffs by 17.9 per cent. In Nakuru prices of food, clothing and footwear, fuel and light went up by 11.4, 9.4 and 14.6 per cent respectively while in Kisumu although food prices rose by 17.8 per cent, prices of fuel and light went up by 12.6 per cent. Prices in the rural areas rose by an average of 13.5 per cent during 1980. Methods of price collection in the rural areas have been strengthened and prices are now collected monthly from the rural markets.

The Labour Force Survey

5.22. A Labour Force Survey (LFS) was conducted in the 1977/78 round of the National Integrated Sample Survey Programme. The coverage included some 3,000 households in the rural areas and the same number of households in urban areas. Although the methodology was the same in both rural and urban areas the populations were considered to be different and hence the results are here shown separately.

Rural Labour Force Activity

5.23. On any given day in rural Kenya, the large majority of the adult male and female population is engaged in gainful employment, be it working on a farm or otherwise employed for pay or profit. The distribution of population by employment status or by the kind of employment in which an individual is engaged varies quite considerably by sex and age as well as other characteristics such as educational attainment or where in Kenya the person lives.

5.24. However, there exists considerable variation from day to day in the employment status of an individual. More importantly, there is some ambiguity regarding how to define the employment status of many individuals at a particular point in time. For example, one might properly consider a man or a woman living on a holding as perpetually employed in the sense that there is a continuing series of tasks requiring attention—tasks which are not necessarily concentrated on particular days or at particular hours. Indeed, the usual distinction between indicating that one is "employed and at work" or "employed and not at work" on the particular day may be blurred. In addition, the distinctions between being employed and not at work, unemployed, not employed on the survey day, or otherwise temporarily absent from work are often not particularly meaningful in an agrarian setting where most people, to some extent at least, have a tie to the land on which they live.

5.25. The term "employed" refers to respondents who reported that they worked at least one hour on a holding or otherwise for pay or profit on the day preceding the interview. If a respondent was usually employed but did not work on the day preceding the interview, he or she was not considered as employed, and was included in a category termed "employed but not at work". Anyone not falling into either of these two categories was considered "not in the labour force".

5.26. A cursory examination of the data indicated that the term "unemployed", which usually refers to an individual who was not employed but seeking work has little meaning in rural Kenya. Very few reported themselves in this category. Undoubtedly, there were at least some respondents who reported themselves as "employed but not at work" who might properly be considered unemployed. However, it is emphasized that the concept of unemployment probably only has limited utility in an environment where most adults, at least some time during the year, are employed in agriculture and where there is a general awareness that other employment opportunities for pay or profit are not readily available.

5.27. Table 5.15 gives selected basic estimates of the rural labour force. Excluding youth under the age of fifteen it may be noted that about 70 per cent of all rural Kenyan males and 68 per cent of the females were employed and at work on the survey day. An additional 13 per cent of the males and 19 per cent of the females indicated that they were usually employed but not at work on that day. Only a relatively small percentages (17 per cent for the men and 13 per cent for the women) indicated they were not employed.

DISTRIBUTION OF RURAL LABOUR FORCE BY EMPLOYMENT STATUS, AGE AND SEX, 1977/78

Table 5.15 Percentages

Age Group	Employed And At Work	Employed But Not At Work	Not Employed	Employed For Pay And Profit Only	Employed On Holding* Only	Employed Both on Holding* And For Pay/ Profit
Males Aged—						
8-14	42.4	12.6	45.0	0.7	41.4	0.3
15-24	58.6	10.3	31.0	8.5	47.6	2.5
25-64	77.1	14.2	8.7	21.7	48.2	7.2
65 and over	66.8	17.5	15.8	3.6	61.7	1.5
Females Aged—						
8-14	36.0	19.3	44.7	0.3	35.4	0.3
15-24	59.7	19.7	20.6	2.2	56.5	1.0
25-64	72.9	19.1	8.0	3.3	68.0	1.6
65 and over	57.9	18.6	23.5	1.4	56.3	0.2

*Holding is the Household farm.

The majority of such respondents were either students or else those retired from work. Small numbers indicated a health problem and a virtually insignificant number indicated that they were "looking for work".

5.28. Among the men, there were significant proportions who were employed other than on a holding. Indeed one of every six males aged fifteen and over was employed for pay or profit. In contrast employment away from the holding among women in rural Kenya is a relatively rare event.

5.29. Table 5.16 gives data on employment by age and sex. Among men, overall employment peaks in the 25 to 29 year age group at about 80 per cent. However, the overall level of employment remains between 75 and 80 per cent for all of the adult ages between 25 and 55. There are naturally variations between the different seasons.

PERCENTAGE OF RURAL LABOUR FORCE AT WORK BY AGE AND SEX, 1977/78

Table 5.16

Age Group	Percentage At Work	
	Males	Females
8-9	41.4	32.4
10-14	43.1	37.8
15-19	50.4	54.6
20-24	71.8	66.6
25-29	79.5	70.7
30-34	76.6	74.1
35-39	77.8	73.3
40-44	77.7	74.8
45-49	78.7	74.6
50-54	76.1	74.1
55-59	74.0	72.0
60-64	73.7	66.8
65-69	72.4	64.0
70-74	71.1	55.8
75-79	64.9	56.2
80+	45.2	28.3
ALL GROUPS	60.7	58.5

5.30. The pattern of employment of women is similar to that for men but the peak levels are slightly lower. Between the ages of 25 and 60, the employment rate for women ranges between 70 and 75 per cent with no pronounced peak within any live year age group. The lowest employment levels are at the youngest ages where most youths are at school most of the year. The extent to which youth employment varies both cyclically as related to agriculture needs and according to the school holiday cycles is noted later below.

5.31. In general employment levels remain higher in rural areas at the older ages than is true in urban areas. The most dramatic contrast between the employment patterns for men and women relates to the fact that female employment is almost entirely on the household farm whereas a substantial number of men are engaged in other employment for pay or profit. The non-agricultural economy in the rural areas at this time is thus almost completely male dominated.

5.32. Seasonal variations in national labour force activity within the rural sector reflect variations from two angles. From a demand perspective, cyclical variations for the demand for agriculture employment are a major determinant of the peaks and troughs in employment variability. From the supply side, seasonal variations in the levels of school enrolment are a major determinant of the supply of the labour force.

5.33. The rural component of the LFS was completed between 20th June, 1977, and 18th June, 1978, and covered 13 consecutive four-week cycles as depicted in Table 5.17. Included in this twelve month period were all the agricultural seasons within Kenya.

ACTIVITY INDEX OF RURAL LABOUR FORCE BY SEX AND CYCLE, 1977-1978

Table 5.17

Cycle	Period	Index of Activity*	
		Males	Females
02	June 20th—July, 17, 1977	70.2	73.4
03	July 18—August 14	71.2	76.6
04	August 15—September 11	76.5	87.5
05	September 12—October 9	71.2	65.4
06	October 10—November 6	66.7	72.5
07	November 7—December 4	69.3	73.0
08	December 4—January 1, 1978	76.5	87.4
09	January 2—January 29	78.8	81.6
10	January 30—February 26	66.6	71.8
11	February 27—March 26	67.1	72.6
12	March 27—April 23	77.1	71.4
13	April 24—May 21	71.3	85.5
14	May 22—June 18	65.9	72.8
ANNUAL AVERAGE		73.7	77.8

*Percentage employed (both at work and not at work) on survey reference day.

5.34. Generally the overall cyclical variations are similar for men and women. Most dramatically it may be noted that the time intervals represented by cycles 04, cycle 08 and cycles 12 and 13 coincided with school holidays and were peak periods of work activity for the school age youth. It is thus clear that the major reasons for the variations in youth employment relates to school activity in rural Kenya.

5.35. At the other end of the age spectrum, men and women aged 65 and over surprisingly show only moderate variations in work activity from cycle to cycle, reflecting only variations in the demand for agricultural labour. One reason for a relatively continuous work activity of the old may well be that the small numbers who have managed to survive are still relatively healthy. The prime age men and women (age 25 to 64) show the least variation consistent with the premise that for the most part, their attachment to employment must, for economic reasons, be more regular.

5.36. There are major variations in the nature and extent of work activity between the provinces of Kenya reflecting to a considerable extent the variations in climate and topography within the country. Because of these variations in agricultural productivity and climate, the employment needs are not geographically uniform; what may be a peak growing season in one part of Kenya may be slack season in another. In addition, because of climatic variations, some areas of the country have greater seasonal variability than others and thus greater variations in the demand for agricultural labour.

5.37. Table 5.18 summarises the overall variation in the supply of rural labour between the provinces of Kenya. It also shows the number of hours worked per day. The overall average is 5 to 6 hours per day for men and 4 to 5 hours per day for females but there are some substantial variations by province.

PATTERN OF WORK ACTIVITY BY PROVINCE AND SEX: ANNUAL AVERAGE FOR POPULATION AGED 18 AND OVER, 1977/78—RURAL KENYA ONLY

Table 5.18

Province	Male		Female	
	Median Hours Worked Daily By Employed	Percentage Employed And At Work	Median Hours Worked Daily By Employed	Percentage Employed And At Work
Central	5.7	60.4	5.0	58.9
Coast	6.0	59.9	5.3	50.1
Eastern	6.2	60.3	5.6	60.1
Nyanza	4.6	57.4	3.7	61.8
Rift Valley	5.5	60.2	4.3	50.2
Western	4.4	65.0	3.7	63.1
KENYA AVERAGE	5.4	60.5	4.6	57.4

5.38. It has been suggested that the rural female labour force is to a great extent relatively homogeneous with the vast majority of women being employed on the households farm. In contrast the male labour force is

considerably more heterogeneous as substantial proportions are employed elsewhere. Table 5.19 summarises the distribution of the employed labour force by sex and status and is consistent with this conclusion.

DISTRIBUTION OF RURAL EMPLOYED LABOUR FORCE BY CLASS OF WORKER AND SEX,
1977/78

Table 5.19 Percentages

Activity Status	Male	Female
Employer	0.1	0.0
Self employed	4.2	1.2
Public wage employment	5.6	0.7
Private wage employment	9.4	1.7
Unpaid family worker	0.3	0.3
Engaged on own household farm	80.4	96.1
TOTAL	100.0	100.0

5.39. The rural occupational and industrial distributions of the male and female employed depicted in Tables 5.20 and 5.21 are consistent with the breakdown by class of worker noted in Table 5.19. Among men, about 85 per cent were in agricultural occupations. The other 15 per cent were widely distributed among all or other occupational categories. In contrast as many as 97 per cent of the women were reported in agricultural occupations. Also 88 per cent of the men and 98 per cent of the women were reported as being in the agricultural industry. Among the males about 5 per cent were listed as employed by Government, 3 per cent were in commerce and there were small numbers in manufacturing, construction and transport or communications.

OCCUPATIONAL DISTRIBUTION OF THE EMPLOYED RURAL AND URBAN LABOUR FORCE,
1977/78

Table 5.20 Percentages

Occupation Occupation	Rural		Urban	
	Males	Females	Males	Females
Professional and related workers	2.7	0.7	10.1	14.3
Managerial, administrative and clerical workers	1.3	0.1	19.6	16.0
Sales workers	2.3	0.9	8.1	13.3
Service workers	2.1	0.4	21.1	15.1
Agricultural, forestry and related workers	85.2	97.3	4.2	28.3
Production, manufacturing and maintenance workers	3.1	0.4	22.3	10.0
Packing storage and transport workers	1.2		7.2	0.7
General labourers	2.1	0.4	77.4	2.3
TOTAL	100.0	100.0	100.0	100.0

Table 5.21

Industry	Rural		Urban	
	Male	Female	Male	Female
Agriculture, hunting, forestry and fishing	87.5	97.7	6.1	28.7
Mining and quarrying	0.2	0.2	0.5	0.5
Manufacturing	1.9	0.3	16.5	9.0
Electricity and water		—	0.5	—
Construction	1.0	—	4.3	0.6
Wholesale/retail trade, restaurants/hotels	3.1	1.0	16.8	19.5
Transport and communications	1.0	—	14.9	3.2
Finance, insurance, real estate and business services	0.1		4.6	3.6
Government, community and social services	5.3	1.0	35.7	34.9
TOTAL	100.0	100.0	100.0	100.0

Urban Labour Force Activity

5.40. The urban component of the Labour Force Survey was conducted between October, 1977 and October 1978, using the same methodology as that used in the rural areas. It was readily determined early that the lower age limit of the urban labour force was 15 years because very few persons below that age reported themselves as attached to the labour force. Most youth were either enrolled in school or else, during the cycles coinciding with school holidays, they were doing nothing.

5.41. Table 5.22 details the distribution of the urban adult males and females by age and work activity on the survey reference day. There are significant differences between the males and the females in the labour force pattern. For example 68 per cent of the males but only 25 per cent of the females were reported as having a job and working. The percentage of males technically defined to be unemployed was two times as great as for females. The majority of women—almost 50 per cent—were doing housework. In the prime working ages of 25 to 64 years the male activity rates range from 75 to 90 per cent, peaking in the 40-44 age group. The female pattern deviates from the male significantly. Activity rates at each age are lower for females than for males with two peaks in the 25-29 age group and the 45-49 age group.

5.42. The majority of the urban labour force is engaged in the modern pay/profit sector. Consequently there are lesser variations over time due to seasonal activity as compared with the rural labour force. Table 5.24 shows that the levels of labour force participation remained fairly stable over all cycles.

**DISTRIBUTION OF URBAN POPULATION 15 YEARS AND OVER BY AGE, SEX AND NATURE
OF ACTIVITY, 1977/78**

Table 5.22

Percentages

Sex and Age Group	Job And Working	Job Not Working	Looking For Work	At School	House-Work	No Activity*
Male-						
15-19	12.6	3.1	8.2	42.1	6.1	27.8
20-24	53.5	7.6	19.2	7.4	3.6	8.7
25-29	76.7	11.0	5.7	1.9	1.1	3.5
30-34	83.0	12.1	2.0	0.4	0.4	2.0
35-39	83.8	13.1	1.9	0.1	0.2	0.9
40-44	87.0	10.8	0.8	0.3	0.2	1.1
45-49	84.5	12.2	1.2	0.1	0.4	1.5
50-54	75.7	12.6	1.3	0.2	1.1	9.1
55-59	76.3	14.3	0.2	—	0.9	8.3
60-64	76.1	8.0	3.0	0.1	1.0	11.9
65+	45.4	14.0	1.5	—	2.0	37.1
Average	68.0	10.2	5.7	6.8	1.8	7.7
Female—						
15-19	9.7	8.1	5.2	19.4	48.0	9.6
20-24	23.8	9.4	4.7	3.2	54.3	4.6
25-29	33.5	12.4	1.5	0.8	48.8	3.0
30-34	32.5	10.9	0.8	0.4	53.2	2.4
35-39	27.0	12.5	0.6	0.4	55.3	4.3
40-44	27.3	11.7	0.1	0.6	53.0	7.3
45-49	36.2	11.4	0.2	0.5	44.6	7.3
50-54	31.6	12.5	—	0.1	40.2	15.6
55-59	25.6	8.3	0.6	0.3	29.1	36.1
60-64	15.0	15.8		1.1	31.3	36.9
65+	17.1	17.6	0.3	0.2	22.3	42.4
Average	25.4	10.9	2.5	4.4	49.4	7.5

*Includesschool students during vacations and persons retired.

5.43. The variation of labour force activity in different urban centres observed in this survey owes much to the definition of "urban". For the purposes of delineating the sample, urban was defined as those towns which had a population of at least 2,000 in the 1969 population census. Some centres included by this definition do not have the same urban characteristics as those of Mombasa or Nairobi and hence there are variations. However, the activity rates in Mombasa and Nairobi for males with jobs showed little variation from the other urban areas but for females with jobs in Mombasa this rate was lower than in Nairobi and for Nairobi itself was lower than in other urban areas.

5.44. The distribution of the urban employed labour force by class of worker, occupation and industry are depicted in Tables 5.20, 5.21 and 5.23. Over 80 per cent of the males in 1977/78 were in wage employment while self-employment accounts for most of the balance of male employment. In

DISTRIBUTION OF URBAN EMPLOYED LABOUR FORCE BY CLASS OF WORKER AND SEX
1977/78

Table 5.23 *Percentages*

Activity Status	Males	Females
Employer	0.6	0.2
Self-employed	12.9	18.0
Public wage employee	30.7	22.1
Private wage employee	51.7	28.8
Unpaid family worker	1.0	3.4
Engaged on own household farm	3.1	27.4
TOTAL	100.0	100.0

contrast the female pattern of employment is more heterogeneous with a more even spread among the categories of worker. The occupational and industrial distribution of the urban labour force because of the wide spread of activities is much broader than for the rural labour force. The reader is cautioned that as the information in this survey was collected by way of

ACTIVITY INDEX OF URBAN LABOUR FORCE BY SEX AND CYCLE, 1977/78

Table 5.24

Cycle	Period	Index of Activity*	
		Males	Females
06	October 10—November 6, 1977	74.4	36.6
07	November 7—December 4	75.6	33.8
08	December 5—January 1, 1978	78.8	42.1
09	January 2—January 29	79.2	40.1
10	January 30—February 26	77.0	34.6
11	February 27—March 26	77.7	36.4
12	March 27—April 23	77.6	34.4
13	April 24—May 21	77.0	32.1
14	May 22—June 18	78.8	37.7
15	June 19—July 9	79.5	37.6
16	July 10—August 6	79.6	33.8
17	August 7—September 3	81.4	37.1
18	September 4—October 2	80.8	35.5
	ANNUAL AVERAGE	78.2	36.3

*Percentage employed (both at work and not at work) on survey reference day.

personal interview, the respondents might have exaggerated the importance of their occupations leading to a relatively small proportion of persons describing themselves as labourers.

5.45. The data in Table 5.22 also throw interesting light on the vexed question of the level of urban unemployment, which is generally regarded as high. Unemployment rates are conventionally measured as proportions of the total number of those who have jobs plus those actively looking for work.

Adopting this definition, the urban unemployment rates implicit in Table 5.22 are 6.7 per cent for males and 6.4 per cent for females, which are lower than might have been predicted. Care is needed in interpreting these results, however, because some amount of unemployment and under-employment is probably hidden in the figures. Thus, the substantial proportions reported as having a job but not working at the time of the survey may well include some who would be better considered as unemployed or as only partially employed. Similarly, the large numbers of young adults recorded as students only because they do not think they could find work; the same is likely to be true of many of the women who described themselves as housewives. Despite these qualifications, however, these results may be regarded as encouraging.

CHAPTER 6—PUBLIC FINANCE

As shown in Table 6.1 the 1980/81 financial year was a poor one for the Government budget. Under the influence of a generally static level of activity in the broader economy, Government revenues increased only sluggishly—by about 10 per cent in current prices, which implies a fall in real terms. Expenditure, on the other hand, continued to expand rapidly. Current expenditure went up by 18 per cent and capital (i.e. development plus investment) expenditures went up by as much as 38 per cent. In fact current expenditures are estimated to be K£110 million, or 20 per cent, above the original budget estimates. As a result of these trends, the surplus on current account was reduced being only sufficient to cover 9.2 per cent of capital spending. There was therefore an increased reliance on external grants and loans and on domestic borrowing in order to meet the overall deficit. Financing from external loans and grants nearly doubled from K£94.0 million in 1979/80 to K£178.5 million in 1980/81 and financing from Treasury Bills was even greater, rising from a minus K£47.7 million in 1979/80 to K£50.5 million in 1980/81.

6.2. Table 6.1 also records the percentage increases in various budgetary items over the period 1976/77 to 1980/81 and these figures also reveal some disquieting trends. Over this period current revenue slightly more than doubled, increasing by 110 per cent, but current expenditure went up by considerably more—by 127 per cent. Development expenditures recorded an even larger increase, of 168 per cent, and although investment expenditures grew more moderately the overall growth rate for capital spending was 144 per cent. Thus, both major categories of Government spending have been growing appreciably faster than current revenues, implying increased dependence on various forms of borrowing. As a result total debt outstanding as shown in Table 6.9 increased by 94 per cent, from K£442.40 million as at end of June 1977 to K£857.62 million as at end of June 1980 and will be much higher as at end of June 1981.

6.3. Further analysis of key fiscal trends is shown in Table 6.2. This analysis brings out more clearly, the deterioration in the 1980/81 financial year. The current surplus, which fluctuated around 10 per cent of current revenues and generally financed a quarter to a third of capital spending during the period 1976/77 to 1979/80, dwindled to only 4 per cent of revenues and 9 per cent of capital spending in 1980/81. Whether expressed in relation to current revenues or total expenditures, the total 1980/81 deficit also showed a very sharp deterioration by comparison with earlier years and the consequence was a large increase in reliance on external grants and loans, and on short-term domestic borrowing a reliance which is revealed in the table as also showing a long-term tendency to increase.

6.4. Table 6.2 also relates trends in Government revenues and expenditures to the current-price GDP. There is a clear tendency for both revenues and expenditures to go up relative to GDP but this trend is more strongly marked

in the case of total expenditures. The expenditure ratio went up from 28 to 37 per cent of GDP during the five years covered by the table, whereas the increase in the revenue ratio was only four percentage

CENTRAL GOVERNMENT
OUT-TURN* OF REVENUE AND EXPENDITURE, 1976/77—1980/81

Table 6.1

KE'000

	1976/77	1977/78	1978/79	1979/80**	1980/81**	% Increase 1976/77— 1980/81
Current Revenue	320,556	472,164	510,637	611,752	673,701	110
Current Expenditure	285,079	400,111	475,104	547,229	645,826	127
Current Surplus	35,477	72,053	35,533	65,423	27,875	- 2.1
Development Expenditure	86,034	115,142	146,547	171,561	230,320	168
External Grants	10,519	9,049	13,296	19,148	29,020	176
DEFICIT	-40,038	-34,040	-97,718	-87,890	-173,425	333
INVESTMENT EXPENDITURE— PURCHASE OF EQUITY ETC.						
Financial Enterprises	949	1,490	2,890	3,990	9,635	- 1.7
Non-Financial Enterprises	10,699	16,547	9,699	5,489		
LOANS TO—						
Financial Enterprises	3,871	19,204	16,881	11,504		
Non-Financial Enterprises	13,147	31,906	37,911	16,093	64,516	138
General Government	8,038	3,782	6,117	11,219		
Other	1,947	2,208	2,462	1,341		
Increase in Investment Claims	38,651	75,137	75,960	49,636	74,151	92
TOTAL DEFICIT	-78,689	-109,177	-173,678	-137,526	-247,576	115
FINANCING OF THE DEFICIT—						
External Loans	29,773	43,231	61,328	74,838	149,430	402
Long-Term Domestic Borrowing	25,600	66,942	88,543	48,626	51,500	101
SHORT-TERM BORROWING—						
Cereals and Sugar Finance Corporation	6,512	-4,248	-10,655	+ 14,358	-13,360	
Tax Reserve Certificates	2,601	-1,047	+ 834	- 181	- 540	
Treasury Bills	25,000	-24,050	+ 66,250	-47,740	+ 50,540	
IMF Trust Fund			12,110	8,870		
Advance from Central Bank	-4,400					
NET SHORT-TERM BORROWING	29,713	-29,345	+68,539	-24,693	+ 36,640	23
CHANGES IN CASH BALANCES; INCREASE = +	+ 5,797	-28,349	+ 44,729	-38,755	-10,006	
MEMORANDUM ITEMS—						
(i) Loans to University Students on Recurrent Account included with other loans	1,935	2,198	2,415			
(ii) Development Project Earnings on Development Account included with Current Revenue	6,433	766	1,121	304	990	

*This table details Kenya Government's deficit and its financing. The details on this table are set out in such a way as to isolate distortions caused by items of "Investment" expenditure. These items consist of expenditure on purchase of equity in enterprise and loans and advances to various sectors of the economy. Similarly current revenue, as shown in this table, excludes long-term and short-term financing. Basic aggregates in this table can be reconciled as follows:—

1. Current revenue as shown in this table plus short-term borrowing, minus memorandum item (ii) equals revenue on the Recurrent Account as shown in Table 6.3.
2. Current expenditure plus development expenditure and investment expenditure as shown in this table equal total expenditure shown in Table 6.7.

**Provisional.

Table 6.2

Percentages

	1976/77	1977/78	1978/79	1979/80	1980/81**
1. Current surplus as % of current revenue	11.1	15.3	7.0	10.7	4.1
2. Current surplus as % of development plus investment expenditure	28.5	37.9	16.0	29.6	9.2
3. Ratio of development plus investment expenditure to current expenditure	43.4	47.6	46.8	40.4	47.1
4. Total deficit as % of current revenue*	27.8	25.0	36.6	25.6	41.1
5. Total deficit as % of total expenditures*	21.8	20.0	26.8	20.4	29.1
6. External grants and loans as % of development plus investment expenditures	23.9	22.7	33.5	42.5	58.6
7. Net short-term borrowing as % of development plus investment expenditures+	19.2	-0.5	10.7	6.4	15.3
8. Current revenues as % of GDP at current market prices+	22.0	25.4	24.8	26.9	26.0
9. Total Government expenditure as % of GDP at current market prices	28.2	31.7	33.4	33.8	36.6

*External grants are excluded from revenue in these calculations.

**Provisional.

+Net short-term borrowing less increases in cash balances.

+Fiscal year data have been related to the GDP of the year during which the fiscal year commenced, eg 1980/81 has been related to 1980 GDP.

points. In the case of 1980/81, the revenue ratio actually went down while the expenditure ratio showed a sharp increase. In the context of an economy which is no longer expanding as rapidly as was the case during the 1960s and earlier 1970s, it is problematic whether it will remain viable to continue to increase the level of Government spending at the pace of the recent past. At current prices total expenditures have been growing at 24 per cent since 1976/77, whereas the current-price GDP has been growing at less than 15 per cent. If expenditures were to continue to rise relative to tax and other current revenues this would inevitably entail increased borrowing abroad and from the domestic economy, and would mean a shift from the Government's record of avoiding large-scale deficit financing.

6.5. As detailed in Table 6.3 gross receipts on recurrent account increased by 23 per cent from K£577.88 million in 1979/80 to K£709.35 million in 1980/81, due mainly to the higher level of internal borrowing in 1980/81*. Excluding internal borrowing, the increase in receipts was only 10 per cent in 1980/81. The Government's policy of continuously relying more on indirect taxation as a major source of revenue for development finance was again reflected in the Budget introduced in June 1980. Import duties were increased by 10 per cent on all dutiable goods. Specific increases in duty were also introduced on imported soaps, washing preparations and shampoo, wood and furniture, paper and paper-board, artificial yarns and other man made fibres, ceramic products and jewellery and on petrol propelled motor vehicles with an engine capacity exceeding 1,750 c.c. As a result of this, and also due to the higher level of imports in 1980, import duty collections rose by 31 per cent from K£102.48 million in 1979/80 to K£134.00 million in

CENTRAL GOVERNMENT
GROSS RECEIPTS ON RECURRENT ACCOUNT**, 1977/78-1980/81

Table 6.3 *K£million*

	1977/78	1978/79	1979/80	1980/81*
DIRECT TAXATION—				
Income Tax	142.34	151.07	171.85	190.00
Other	0.68	0.66	1.78	0.55
TOTAL	143.01	151.73	173.63	190.55
INDIRECT TAXATION—				
Sales Tax	92.76	99.77	154.91	163.00
Import Duties	104.20	101.27	102.48	134.00
Excise Duties	38.47	49.02	59.45	71.00
Export Duties	8.27	2.80	7.03	2.00
Licences and Fees Under Traffic Act	3.64	3.80	5.74	7.00
Other	9.42	11.31	11.88	11.18
TOTAL	256.76	267.97	341.49	388.18
Compulsory Fees, Fines and Penalties	4.77	7.16	11.32	8.87
Income From Property	26.25	30.29	26.78	41.78
Current Transfers	0.55	1.18	1.04	1.00
Charges for Goods and Services	23.57	39.87	46.21	32.68
Internal Borrowing	-29.34	56.43	-33.56	36.64
Loan Repayments	2.95	4.27	3.48	3.61
Other	13.52	7.10	7.49	6.04
GRAND TOTAL	442.05	565.94	577.88	709.35

*Provisional.

**This is the name of the account used to cover current receipts but includes internal borrowing and loan repayment receipts.

1980/81. Other major changes announced in the June 1980, budget were increases in sales tax on beer, petrol and diesel and excise tariff on tobacco. Revenue from sales tax, however, showed a modest increase of 5 per cent whereas excise revenue increased by 19 per cent in 1980/81. Revenues from these three main components of indirect taxes, i.e. import duties, sales tax and excise duties combined increased by 16.1 per cent. The share of these taxes to all taxes, however, increased from 59 per cent in 1977/78 to 64 per cent in 1980/81. Revenue from income tax on the other hand increased by 10.6 per cent from K£171.85 million in 1979/80 to K£190.00 million in 1980/81 as compared to an increase in GDP at factor cost (at current prices) in the Monetary Economy of 14.7 per cent in 1980.

6.6. At the time of going to press disaggregated data on import duty collections by Customs and Excise Department were not available. Total import duty collection in 1980, however, increased by 34 per cent.

CENTRAL GOVERNMENT
IMPORT DUTY COLLECTIONS, 1976-1980

Table 6.4

K£'000

END USE CATEGORY	1976	1977	1978	1979*	1980*
Food, drink and tobacco	3,938	6,256	6,378	5,734	..
Basic materials	2,371	2,459	2,868	2,595	..
Fuels	19,160	16,768	22,850	18,287	..
Chemicals	3,722	5,575	6,620	8,770	..
Textiles	4,726	4,972	6,518	5,616	..
Semi-manufactures	2,814	3,866	5,960	4,850	..
Metals	6,432	8,248	10,324	8,666	..
Transport Equipment	9,512	13,302	16,878	13,683	..
Machinery	7,149	12,325	18,402	14,973	..
Miscellaneous commodities	6,648	8,067	9,622	7,130	..
TOTAL	66,472	81,838	108,420	90,304	120,966

*Provisional.

CENTRAL GOVERNMENT
EXCISE REVENUE BY COMMODITIES, 1976-1979

Table 6.5

K£'000

	1976	1977	1978	1979	1980
Beer and spirits	12,541	14,319	16,122	15,884	
Sugar	5,668	9,091	11,420	14,371	
Cigarettes	8,580	12,553	17,175	23,327	
	1,861	1,860	24	32	
Other commodities**					
TOTAL	28,623	37,803	44,741	53,614	

*Provisional

**Includes transfer adjustments not allocated by commodity.

6.7. A summary of expenditure and financing of the development and investment account is given in Table 6.6. As indicated earlier, due to the sharp increase in expenditure and a reduction in current surplus, there were large increases in borrowing from both external and internal sources.

Functional and Economic Classification of Expenditure

6.8. Table 6.7 shows Central Government expenditure on Recurrent and Development Account by main services. Expenditure on the Recurrent Account increased by about 18 per cent from K£548.22 million in 1979/80 to K£646.57 million in 1980/81, whereas expenditure on the Development

CENTRAL GOVERNMENT

FINANCING OF DEVELOPMENT AND INVESTMENT ACCOUNT, 1977/78—1980/81

Table 6.6

K£million

	1977/78	1978/79	1979/80*	1980/81*
EXPENDITURE				
Development Expenditure	115.2	146.5	171.6	230.3
Investment Expenditure	75.1	76.0	49.6	74.2
TOTAL	190.3	222.5	221.2	304.5
FINANCING				
Surplus on Current Account	72.1	35.5	65.4	27.9
External Loans	43.2	61.3	74.8	149.4
External Grants	9.0	13.3	19.1	29.0
Long Term Domestic Borrowing	66.9	88.5	48.6	51.5
Treasury Bills	-24.0	66.3	-47.7	50.5
Other Short Term Borrowing	-5.3	2.3	22.2	-13.9
From Cash Balances	28.3	-44.7	38.8	10.0
TOTAL	190.3	222.5	221.2	304.5

*Provisional.

Account increased by about 38 per cent from K£220.22 million in 1979/80 to K£303.72 million in 1980/81. As a result total spending by Central Government increased by approximately 24 per cent. For the years shown the bulk of the expenditure has been on education services, the proportion of which has increased from 16.0 per cent in 1977/78 to 19.0 per cent in 1980/81. Expenditure on defence which has been increasing sharply since 1976/77 declined by about 19.7 per cent in 1980/81 from the peak expenditure of K£111.81 million in 1979/80. Most of the development expenditure has been on economic services which as a proportion of the total expenditure was 68 per cent in 1977/78, 72 per cent in 1978/79, 55 per cent in 1979/80 and 56 per cent in 1980/81. The fall in the last two years can be attributed to the decline in the loans given by the Central Government to the Government corporations for capital expenditure especially for the purchase of transport equipment.

6.9. In the year 1980/81 current expenditure increased by about 23 per cent from K£532.48 million in 1979/80 to K£652.69 million in 1980/81. Capital expenditure on the other hand, increased by 26 per cent from K£235.94 million in 1979/80 to K£297.60 million in 1980/81. As shown in Table 6.8 Central Government current expenditure as a proportion of total expenditure for the years 1977/78-1980/81 has remained steady at around 68 per cent. However, expenditure on goods and services as a proportion of total current expenditure has been increasing, from 66 per cent in 1977/78

CENTRAL GOVERNMENT

EXPENDITURE ON MAIN SERVICES, 1977/78-1980/81

Table 6.7

	1977/78			1978/79*			1979/80*			1980/81*		
	Recur- rent Account	Deve- lopment Account	Total	Recur- rent Account	Deve- lopment Account	Total	Recur- rent Account	Deve- lopment Account	Total	Recur- rent Account	Deve- lopment Account	Total
GENERAL PUBLIC ADMINISTRATION—												
General Administration	31.80	21.41	53.21	43.99	17.30	61.29	49.98	35.74	85.72	58.06	55.33	113.39
External Affairs	4.04	0.69	4.73	6.00	0.63	6.63	6.81	0.83	7.64	9.55	0.15	9.70
Public Order and Safety	31.26	3.00	34.26	32.96	2.57	35.53	34.95	4.34	39.29	50.16	8.81	58.97
TOTAL	67.10	25.10	92.20	82.95	20.50	103.45	91.74	40.91	132.65	117.77	64.29	182.06
DEFENCE	73.74	5.66	79.40	96.81	8.85	105.66	104.59	7.22	111.81	81.78	8.05	89.83
	89.11	5.39	94.50	101.51	7.60	109.11	122.58	13.83	136.41	163.14	17.83	180.97
HEALTH	29.20	7.69	36.90	35.38	7.75	43.13	42.91	10.71	53.62	40.66	11.20	51.86
HOUSING AND COMMUNITY WELFARE	1.74	8.74	10.47	1.73	6.62	8.35	1.82	8.92	10.74	2.50	14.00	16.50
SOCIAL WELFARE	7.38	3.14	10.52	9.46	4.16	13.62	11.56	5.40	16.96	13.10	9.69	22.79
ECONOMIC SERVICES—												
General Administration	5.20	7.19	12.38	6.11	10.30	16.41	7.31	8.94	16.25	15.46	17.05	32.51
Agriculture, Forestry and Fishing	22.26	32.66	54.91	25.12	39.65	64.77	27.16	33.09	60.25	47.56	56.66	104.22
Mining, Manufacturing and Construction	8.14	5.46	13.60	10.17	5.02	15.19	10.80	4.05	14.85	12.57	20.25	32.82
Electricity, Gas, Steam and Water	5.47	30.21	35.68	7.14	30.43	37.57	8.95	24.62	33.57	7.76	23.96	31.72
Roads	9.68	24.32	34.00	10.83	32.28	43.11	14.60	35.29	49.89	15.17	38.14	53.31
Transport and Communications	5.01	26.50	31.51	5.33	36.67	41.93	5.02	13.46	18.48	7.32	9.61	16.93
Other Economic Services	6.68	2.24	8.92	10.48	4.21	14.69	11.16	2.56	13.72	15.62	4.13	19.75
TOTAL ECONOMIC SERVICES	62.43	128.57	191.00	75.18	158.49	233.67	85.00	122.01	207.01	121.46	169.80	291.26
OTHER SERVICES; INCLUDING PUBLIC DEBT	71.60	3.78	75.39	74.50	6.12	80.62	88.02	11.22	99.24	105.16	8.86	115.02
TOTAL	402.31	188.08	590.39	477.52	220.09	697.61	548.22	220.22	768.44	646.57	303.72	950.29

*Provisional.

CENTRAL GOVERNMENT
ECONOMIC ANALYSIS OF EXPENDITURE, 1977/78—1980/81

Table 6.8

K£million

	1977/78	1978/79	1979/80	1980/81*
CURRENT EXPENDITURE				
CONSUMPTION EXPENDITURE ON GOODS AND SERVICES				
Labour Costs	111.90	125.87	134.41	177.26
Other Goods and Services	150.53	199.39	226.16	272.89
TOTAL	262.43	325.26	360.57	450.15
SUBSIDIES	0.37	1.29	0.98	0.39
INTEREST	32.80	42.50	48.05	52.90
TRANSFERS TO:				
Households and Un-incorporated Enterprises including Private Non-profit Institutions	8.41	12.03	13.14	
Financial and Non-Financial Enterprises	3.64	7.55	4.38	
General Government	81.14	91.47	103.42	149.21
Rest of the World	1.52	3.50	1.56	
Funds	1.76	0.90	0.25	
TOTAL TRANSFERS	96.48	115.45	122.85	149.21
OTHERS	0.07	0.07	0.03	0.04
TOTAL CURRENT EXPENDITURE	392.16	484.57	532.48	652.69
CAPITAL EXPENDITURE				
Gross Fixed Capital Formation	90.69	106.99	128.65	164.10
Purchase of Equity in Enterprises	18.04	12.59	9.48	9.63
Loans	57.10	63.37	50.12	64.52
Transfers	4.52	6.61	16.97	0.44
Loan Repayments	27.82	22.93	30.72	58.91
Transfer to Funds	0.06	0.55		
TOTAL CAPITAL EXPENDITURE	198.23	213.04	235.94	297.60
TOTAL EXPENDITURE	590.39	697.61	768.42	950.29

*Provisional.

to 69 per cent in 1980/81. In contrast current transfers have decreased from about 25 per cent in 1977/78 to about 23 per cent in 1980/81. Of the total capital expenditure of K£297.60 million in 1980/81, 55 per cent was on gross fixed capital formation, 22 per cent on loans and transfers, 19 per cent on loan redemptions and 3 per cent on purchase of equity in enterprises. For the year 1977/78, however, the proportions were 46 per cent, 31 per cent, 14 per cent and 9 per cent, respectively.

Public Debt

6.10. Total Public debt excluding short-term borrowing increased sharply between 1978 and 1979 due to large borrowing from external sources to meet the high level of expenditure on defence. As a result external debt outstanding increased from K£242.62 million as at 30th June, 1978 to K£491.01

CENTRAL GOVERNMENT
PUBLIC DEBT, 1974—1980

Table 6.9

K£'000

PUBLIC DEBT*									
As at 30th June	FUNDED			UNFUNDED			TOTAL		
	Exter- nal	Inter- nal	Total	Exter- nal	Inter- nal	Total	Exter- nal	Inter- nal	Total
1974	21.21	118.52	139.73	115.13	10.61	125.74	136.34	129.13	265.46
1975	21.21	133.60	154.81	146.30	10.50	156.80	167.51	144.10	311.61
1976	21.21	108.44	201.64	188.66	10.43	199.09	209.87	190.87	400.73
1977	19.64	203.29	222.93	209.30	10.17	219.47	228.94	213.46	442.40
1978	3.08	273.46	276.54	239.54	10.11	249.86	242.62	283.57	526.20
1979	3.08	308.86	311.94	487.93	10.08	498.01	491.01	318.94	809.95
1980	3.08	347.13	350.21	497.34	10.07	507.41	500.42	357.20	857.62

*Excluding Short-Term Borrowings.

CENTRAL GOVERNMENT
SOURCES OF UNFUNDED DEBT, 1975-1980

Table 6.10

K£'000

Outstanding as at June, 30th	1975	1976	1977	1978	1979	1980
EXTERNAL DEBT						
<i>Lending Countries—</i>						
United Kingdom	43,825	40,786	37,164	36,997		
U.S.A.	15,902	18,380	19,868	14,618	21,361	17,278
West Germany	14,223	16,122	20,530	29,660	62,854	52,085
Japan	2,738	6,710	11,384	14,274	17,990	19,450
Sweden	10,004	11,981	12,245			
Netherlands	5,157	4,491	6,134	9,320	-9,305	9,854
Denmark	2,035	2,788	3,948	7,210	7,269	8,718
Finland			6,766	1,061	1,630	
Other	5,124	7,006	3,722	20,910	204,657*	237,759*
TOTAL	99,009	108,264	121,761	134,060	325,066	345,144
<i>International Organisations—</i>						
I.B.R.D	16,296	39,101	42,423	45,819	77,599	60,360
I.D.A	27,739	37,531	40,946	46,825	64,102	58,244
African Development Bank	1,970	2,243	2,672	3,211	4,329	5,475
O.P.E.C		1,517		1,952	1,869	1,826
E.F.C				2,443	12,669	6,545
I.M.F				3,837	951	17,940
Area League	1,286		1,494	1,405	1,346	1,807
TOTAL	47,291	80,392	87,535	105,491	162,865	152,197
TOTAL EXTERNAL	146,300	188,656	209,296	239,541	487,931	497,341
INTERNAL DEBT						
Central Bank of Kenya	10,000	10,000	10,000	10,000	10,000	10,000
Other	497	434	174	115	80	69
TOTAL INTERNAL	10,497	10,434	10,174	10,115	10,080	10,069
TOTAL UNFUNDED DEBT	156,796	199,091	219,470	249,655	498,011	507,410

*Includes defence loans amounting to K£137.1 million in 1979 and K£132.5 million in 1980.

CENTRAL GOVERNMENT

ANALYSIS OF PUBLIC FUNDED DEBT AT BOOK VALUE BY HOLDERS ON LOCAL REGISTER, AS AT 30th JUNE
1975-1980

Table 6.11

K£'000

	1975	1976	1977	1978	1979	1980*
INTERNAL						
PUBLIC BODIES—						
National Social Security Fund	62,185	76,220	100,478	130,294	150,268	182,554
Central Government	20,581	23,921	16,812	22,740	27,671	26,910
Local Government	721	838	734	675	709	572
Kenya Post Office Savings Bank	6,186	7,320	7,832	13,718	15,719	17,519
East African Community Institutions**	6,562	6,388	8,152	6,346	13,523	11,181
Central Bank	7,156	36,349	37,730	44,297	44,881	42,358
Other Public Sector	382	564	1,375	1,409	1,399	8,608
OTHER INTERNAL—						
Commercial Banks	9,732	8,888	8,697	30,988	30,452	31,904
Insurance Companies	5,964	7,082	9,718	11,925	12,774	13,508
Other Companies	13,192	11,943	11,263	10,584	11,053	10,431
Private Individuals	282	270	296	382	317	1,569
EXTERNAL	661	654	203	101	101	17
TOTAL	133,604	180,438	203,290	273,457	308,864	347,131

* Provisional.

** And their successors.

million as at 30th June, 1979, an increase of nearly 102 per cent. Public debt increased by a modest 1.9 per cent in 1980 as shown in Table 6.9. The proportion of unfunded debt to total debt increased from 47 per cent in 1978 to 61 per cent in 1979, but declined to 58 per cent in 1980. Table 6.10 shows the sources of unfunded debt. In 1980 the main sources of outstanding debt were West Germany, International Bank for Reconstruction and Development and International Development Association. Of the funded debt, as can be seen from Table 6.11, the National Social Security Fund holds slightly more than half of the total debt in 1980; followed by the Central Bank, Commercial Banks and others.

CENTRAL GOVERNMENT
DEBT SERVICING CHARGES, 1974-1980

Table 6.12

K£million

Year ending 30th June	ANNUAL DEBT SERVICING CHARGES			INTEREST AND LOAN REPAYMENT RECEIPTS			NET SERVICING CHARGES			Sinking Funds at Market Value
	Exter- nal	Inter- nal	Total*	Exter- nal	Inter- nal	Total	Exter- nal	Inter- nal	Total	
1974	8.61	9.40	18.04	0.01	4.96	4.97	8.63	4.44	13.07	16.37
1975	10.11	13.55	23.66	—	5.61	5.61	10.11	7.94	18.05	18.36
1976	11.96	19.09	31.05	—	5.80	5.80	11.96	13.29	25.25	20.92
1977	14.77	21.52	36.29	—	9.72	9.72	14.77	11.80	26.57	23.50
1978	31.17	29.45	60.62	—	12.26	12.26	31.17	17.19	48.36	4.42
1979	31.25	34.18	65.43	—	14.41	14.41	31.25	19.77	51.0	18.68
1980	41.94	36.84	78.78	—	10.65	10.65	41.94	26.19	68.13	

*Includes interest payments of K£million:—

1974-11.98: 1975-14.53: 1976-19.54: 1977-23.95: 1978-32.80: 1979-42.50: 1980-48.05.

6.11. Tables 6.12 and 6.13 detail the debt servicing charges for the years 1974 to 1980. For the year ending 30th June, 1980, external debt servicing charges increased to K£41.94 million; an increase of nearly 34 per cent on 1979. As a result, external debt servicing charges as a proportion of exports of goods and services increased from 5.4 per cent in 1979 to 5.7 per cent in 1980.

CENTRAL GOVERNMENT

DEBT SERVICE CHARGES ON EXTERNAL DEBT RELATED TO EXPORT OF GOODS AND SERVICES 1974-1980

Table 6.13

	Debt Service Charges on External Debt*	Exports of Goods and Services	External Debt Service Charges as a Percentage of Exports of Goods and Services
	<i>K£million</i>	<i>K£million</i>	
1974	8.6	357.2	2.4
1975	10.1	356.9	2.8
1976	12.0	471.7	2.5
1977	14.8	650.2	2.3
1978	31.2	593.1	5.3
1979	31.2	580.4	5.4
1980	41.9	734.8	5.7

*Including debt redemption. Interest payments on drawing on IMF are, however, excluded.

Local Authorities

6.12. Total expenditure by local authorities as shown in Table 6.14 increased by nearly 18 per cent from K£51.05 million in 1979 to K£60.14 million in 1980; the rate of increase for Municipalities and county councils is respectively 20 per cent and 10 per cent. The bulk of the expenditure has been by the Nairobi City Council which accounts for more than half of the total. However, this proportion has been gradually declining from 55 per cent of the total expenditure in 1976 to nearly 51 per cent in 1980.

6.13. Expenditure by municipal councils by main services is shown in Table 6.15. About 36 per cent of the total expenditure in 1980 was incurred on economic services, 28 per cent on social services, 23 per cent on community services and 13 per cent on administration. Significant increases in expenditure have taken place in sanitary health, education, water supplies and housing which as a group increased by nearly 19 per cent between 1979 and 1980. As can be seen from Table 6.16 the bulk of the expenditure by

EXPENDITURE OF LOCAL AUTHORITIES, 1976-1980

Table 6.14

K£million

	MUNICIPALITIES		Total	Town and County Councils	Total
	Nairobi City Council	Other Municipal Councils			
1976	18.74	9.71	28.34	5.58	34.03
1977	21.56	11.05	32.61	7.32	39.93
1978	24.24	11.39	35.63	9.44	45.07
1979	26.69	12.72	39.14	11.64	51.05
1980*	31.05	16.33	47.38	12.76	60.14

*Provisional.

MUNICIPAL COUNCILS: RECURRENT AND CAPITAL EXPENDITURE ON MAIN SERVICES 1976-1980

Table 6.15

K£'000

	1976	1977	1978	1979	1980*
Administration	3,352	3,556	4,350	5,178	5,938
COMMUNITY SERVICES:					
Roads	1,706	1,938	2,314	2,298	2,765
Sanitary Services	3,338	5,029	5,074	5,453	6,513
Other	1,019	1,118	1,264	1,478	1,599
TOTAL	6,063	8,086	8,652	9,229	10,877
SOCIAL SERVICES:					
Health	3,168	3,323	3,856	4,336	5,039
Education	4,925	5,320	6,126	6,692	7,578
Other	301	392	400	490	861
TOTAL	8,394	9,035	10,382	11,518	13,478
ECONOMIC SERVICES:					
General Administration	1,057	1,056	1,154	989	1,422
Water Undertakings	3,653	4,182	4,279	4,710	6,783
Housing Estates (including Staff Housing)	4,833	5,529	5,322	5,881	6,258
Other	1,094	1,167	1,489	1,904	2,626
TOTAL	10,637	11,934	12,244	13,484	17,089
TOTAL EXPENDITURE	28,446	32,611	35,628	39,409	47,382

*Provisional.

MUNICIPAL COUNCILS: ECONOMIC ANALYSIS OF EXPENDITURE, 1976-1980

Table 6.16

	1976	1977	1978	1979	1980*
CURRENT EXPENDITURE—					
Labour Costs	11,973	12,659	14,318	15,282	18,212
Other Goods and Services	5,728	6,658	7,230	9,055	10,607
Transfer to Households and Enterprises	690	423	628	552	907
Transfer to Funds (current)	294	310	578	298	446
Interest					
TOTAL CURRENT	18,685	20,050	22,754	25,187	30,172
CAPITAL EXPENDITURE—					
Gross Fixed Capital Formation	5,569	7,814	7,982	9,235	11,551
Loan Repayment**	3,918	4,498	4,495	4,930	5,028
Transfer to Funds (capital)	274	249	397	55	630
TOTAL CAPITAL	9,761	12,561	12,874	14,220	17,210
TOTAL EXPENDITURE	28,446	32,611	35,628	39,407	47,382

*Provisional.

*Includes Interest.

MUNICIPAL COUNCILS: ECONOMIC ANALYSIS OF REVENUE, 1976-1980

Table 6.17

K£'000

	1976	1977	1978	1979	1980*
CURRENT REVENUE—					
Direct Taxes (Rates**)	6,628	7,137	7,272	7,883	8,214
Indirect Taxes (Licences and cesses)	449	452	489	589	559
Income from Property	694	832	758	783	822
Current Transfers	5,654	5,326	6,420	6,954	9,791
Sales of Goods and Services	11,765	13,118	14,815	15,522	17,159
TOTAL CURRENT	25,190	26,865	29,754	31,731	36,545
CAPITAL REVENUE—					
Loans Raised	5,657	5,698	5,767	5,833	8,786
Grants					
Loan Repayments	37	36	22	38	42
TOTAL CAPITAL	5,694	5,734	5,789	5,871	8,828
TOTAL REVENUE	30,884	32,599	35,543	37,602	45,373

*Provisional.

**Paid by households and enterprises.

municipalities is on salaries and goods and services which when combined account for 60 per cent of the total expenditure in 1980. The share of labour costs, however, has declined from 42 per cent in 1976 to 38 per cent in 1980; whereas the share of gross fixed capital formation in 1980 at K£11.55 million increased from 20 per cent in 1976 to 24 per cent in 1980.

6.14. As shown in Table 6.17 the bulk of the revenue of municipalities is derived from direct taxes, sale of goods and services, current transfers from Central Government and loans raised for capital expenditure. In 1980

TOWN AND COUNTY COUNCILS: ECONOMIC ANALYSIS OF EXPENDITURE AND REVENUE
1976-1980

Table 6.18

K£'000

	1976	1977	1978	1979*	1980*
CURRENT EXPENDITURE—					
Labour Costs	2,946	3,495	4,598	5,666	6,627
Other Goods and Services	1,277	1,834	1,865	3,179	2,595
Transfers to Households and Enterprises	182	360	324	562	332
Transfer to Funds (current)	56	56	100	145	222
Interest					
TOTAL CURRENT	4,461	5,745	6,887	8,552	9,776
CAPITAL EXPENDITURE—					
Gross Fixed Capital Formation	766	1,230	2,121	2,467	2,149
Loan Repayments**	322	307	318	614	574
Transfer to Funds (capital)	31	34	112	7	264
TOTAL CAPITAL	1,119	1,571	2,551	3,088	2,987
TOTAL EXPENDITURE	5,580	7,316	9,438	11,640	12,763
CURRENT REVENUE—					
Direct Taxes (Rates+)	462	982	915	995	1,283
Indirect Taxes (Licences and cesses)	3,219	5,431	4,123	4,677	4,328
Income from Property	716	831	1,117	965	503
Current Transfers	185	262	449	298	632
Sale of Goods and Services	2,022	2,227	2,650	3,403	4,063
TOTAL CURRENT	6,704	9,733	9,254	10,338	10,809
CAPITAL REVENUE—					
Loans Raised	345	309	458	870	1,004
Grants					
Loans Repayments	19	20	21	26	46
TOTAL CAPITAL	364	329	479	896	1,050
TOTAL REVENUE	7,068	10,062	9,733	11,234	11,859

*Provisional.

**Includes Interest.

+Paid by households and enterprises.

revenue from these sources accounted for nearly 97 per cent of the total revenue. Total revenue increased by nearly 21 per cent between 1979 and 1980. This is mainly accounted for by the nearly 50 per cent increase on loans raised and a nearly 40 per cent increase in grants from the Central Government. Revenue from direct taxes and sale of goods and services, increased modestly by 4 and 10 per cent, respectively.

6.15. Table 6.18 shows the expenditure and revenue for town and county councils. Unlike the municipalities the main sources of revenue of these councils in indirect taxes, sale of goods and services, Government grants and loans while labour costs, other goods and services and gross fixed capital formation are the main categories of expenditure.

CHAPTER 7—EXTERNAL TRADE

During 1980 the level of imports rose sharply while exports increased at a much slower rate, resulting in the largest trade deficit ever recorded with exports only covering 55 per cent of imports. In 1976 exports had covered 85 per cent of imports. The large increases in crude oil prices in 1980 was accompanied by a rise in the volume of such imports. There were also increases in the import volume of many other items as a result of a relaxation of controls in the later months of 1979. At the same time a difficult 18-month period in agriculture had led to the importation of large quantities of maize. As for exports there was a substantial fall in tea earnings and a smaller reduction in earnings from coffee. These two commodities earned K£165.9 million in 1980 compared to K£173.4 million in 1979 and it is only because petroleum product exports more than doubled to K£160.9 million that the overall deficit was not even worse.

7.2. Table 7.1 shows the balance of trade position for Kenya from 1976 through 1980. Trade with markets outside East Africa registered a deficit of K£492.5 million in 1980 compared to one of K£248.3 million in 1979.

BALANCE OF TRADE, 1976-1980

Table 7.1

K£million

	1976	1977	1978	1979	1980*
IMPORTS—					
From outside East Africa	393.8	529.2	658.8	619.3	934.6
Commercial	364.1	493.3	628.8	581.8	860.3
Government	29.7	35.9	30.0	37.5	74.3
From Uganda and Tanzania	13.1	2.2	2.3	0.9	1.5
TOTAL	407.0	531.4	661.1	620.2	936.1
EXPORTS—					
To Markets outside E. Africa	268.8	428.9	336.6	351.9	426.3
Re-exports	9.7	11.0	17.9	19.1	15.8
To Uganda and Tanzania	66.6	61.9	41.2	41.8	71.6
TOTAL	345.1	501.8	395.7	412.8	513.8
BALANCE OF TRADE—					
With Markets outside E. Africa	-115.3	-89.3	-304.3	-248.3	-492.5
With Uganda and Tanzania	+53.5	+59.7	+38.9	+40.9	+70.1
TOTAL	-61.8	-29.6	-265.4	-207.4	-422.3

*Provisional.

However, Kenya earned more on the East African market, with net exports rising from K£40.9 million in 1979 to K£70.1 million in 1980, an increase of 71.4 per cent.

7.3. The overall trade deficit more than doubled during the year, rising from K£207.4 million in 1979 to K£422.3 million in 1980. The import bill for petroleum products in 1980, due to the increases in both prices and quantities, was nearly twice as high as in 1979. Since petroleum prices are unlikely to fall in the foreseeable future and since Kenya has only limited capacity to reduce such imports, this constituent of the import bill will continue to give rise to serious problems of economic management. What is also likely to cause difficulties is inflation in the industrialized countries leading to continuous increases in the cost of capital equipment that must be imported to generate future growth in the domestic economy. Despite these continuing problems it is obvious that that large trade deficit such as that experienced in 1980 must be reduced to more manageable proportions.

PRICE INDICES, 1977-1980

Table 7.2

1976 = 100

Imports	1977	1978	1979	1980
Food and live animals	87	86	76	150
Beverages and Tobacco	115	130	125	148
Crude materials, inedible	99	123	120	154
Mineral fuels	108	106	130	220
Animal and vegetable oils and fats	136	131	140	133
Chemicals	100	101	133	178
Manufactured goods	109	118	126	151
Machinery and transport equipment	114	130	144	158
Miscellaneous manufactured articles	110	122	123	148
All Imports	108	114	132	173
Non-oil Imports	109	119	132	157
EXPORTS				
Food and live animals	167	123	117	124
Beverages and tobacco	96	114	108	107
Crude materials, inedible	112	122	127	177
Mineral fuels	112	113	145	223
Animal and vegetable oils and fats	104	127	135	149
Chemicals	105	96	134	139
Manufactured goods	128	140	149	147
Machinery and transport equipment	120	127	144	144
Miscellaneous manufactured articles	124	125	130	155
All Exports	142	120	128	154
Non-oil Exports	150	123	124	135

Prices Changes

7.4. Displayed in Table 7.2 are the price indices for the years 1977 to 1980. The average price of all imports rose by 31.1 per cent in 1980 while that of non-oil imports rose by 18.9 per cent. The highest rise in prices was

in food imports where prices virtually doubled while prices of oil imports rose by an average of 69.2 per cent. Chemicals being based to a considerable extent on petroleum feedstocks rose in price by 33.8 per cent but prices in other sectors showed much more moderate increases. The increase of machinery and transport equipment for example was only 9.7 per cent.

7.5. The average price of Kenya's primary exports rose by only 6 per cent while that of petroleum products increased by 53.8 per cent. Overall export prices of all items recorded an increase of 20.3 per cent. When petroleum products are excluded the rise in prices averages 8.9 per cent.

Volume Changes

7.6. Quantum indices are shown in Table 7.3. The volume of food imports rose by 57.6 per cent in 1980 compared to a decline of 19.2 per cent the previous year. This results from increased imports of maize and wheat during

QUANTUM INDICES, 1977-1980

Table 7.3

1976=100

Imports	1977	1978	1979	1980
Food and live animals	103	172	139	219
Beverages and tobacco	58	99	107	44
Crude materials, inedible	150	103	94	91
Mineral fuels	104	107	108	126
Animal and vegetable oils and fats	90	110	101	151
Chemicals	145	155	121	128
Manufactured goods	115	128	110	118
Machinery and transport equipment	136	176	126	150
Miscellaneous manufactured articles	107	112	111	121
All Imports	122	142	116	133
Non-oil Imports	126	151	118	136
EXPORTS				
Food and live animals	116	112	115	105
Beverages and tobacco	155	120	129	319
Crude materials, inedible	85	81	93	90
Mineral fuels	107	89	80	102
Animal and vegetable oils and fats	25	13	18	16
Chemicals	85	89	75	66
Manufactured goods	74	68	66	82
Machinery and transport equipment	53	46	41	68
Miscellaneous manufactured articles	78	77	81	107
All Exports	104	96	94	97
Non-oil Exports	102	96	97	95

1980. The volume of imported animal vegetables and fats increased by 49.5 per cent due to a rise in palm oil and tallow imports, the latter being an industrial input for the manufacture of soap and candles. The quantity of imported petroleum fuels rose by 16.7 per cent though this was offset to some extent by increased export volumes. Overall, the total volume of imports rose by 14.7 per cent while for non-oil imports the increase was 15.2 per cent.

7.7. Increased oil exports caused the overall quantum index to rise by 3.2 per cent but the volume of non-oil exports dropped by 2.1 per cent. The quantities of food exports fell by 8.7 per cent whereas, the volume of exports of beverages and tobacco more than doubled due to increases in sales of beer to Uganda and Sudan.

Terms of Trade

7.8. As shown in Table 7.4, Kenya's terms of trade continued to deteriorate in 1980. Overall these fell an extra 8.2 per cent after their large reductions from the peak of the coffee and tea boom in 1977. Despite the significance of petroleum in the country's terms of trade the non-oil terms

TERMS OF TRADE, 1977-1980

Table 7.4

1976=100

	1977	1978	1979	1980
All Items	131	105	97	89
Non-oil Items	138	103	94	86

of trade dropped by 8.5 per cent in 1980 having fallen by 8.7 per cent in 1979 and 25.4 per cent in 1978. Based on the all-items index, the trade terms were 89 in 1980 compared to 100 in 1976 and 131 in 1977.

Analysis by Broad Economic Categories

7.9. *Imports.*—Imports by broad economic categories are set out in Table 7.5 while values of selected imports are shown in Table 7.6. Based on percentage shares, there was a rise in the relative importance of fuels and lubricants from 23.7 to 30.9 per cent of the total import bill in 1980 while the proportion devoted to machinery and capital equipment fell to 17.1 per cent from 20.2 per cent. The percentage of imports designated as industrial supplies fell slightly from 29.0 per cent in 1979 to 28.2 per cent in 1980 and for transport equipment there was a much more significant fall from 15.3 to 12.9 per cent.

TOTAL IMPORTS, 1976-1980

Table 7.5

By Broad Economic Category

K£'000

	1976	1977	1978	1979	1980
1. Food and Beverages	26,310	27,459	38,503	32,884	41,250
<i>Primary</i>	2,786	4,977	11,729	9,861	11,842
For Industry	393	2,894	7,245	3,006	7,230
For Household Consumption	2,393	2,083	4,484	6,855	4,612
<i>Processed</i>	23,524	22,482	26,774	23,022	29,408
For Industry	11,379	14,575	16,937	14,253	20,011
For Household Consumption	12,145	7,907	9,837	8,769	9,367
2. Industrial Supplies (Non-Food)	124,011	160,780	179,812	179,736	263,661
<i>Primary</i>	11,488	13,147	13,350	8,915	34,157
<i>Processed</i>	112,523	147,633	166,462	170,821	229,504
3. Fuels and Lubricants	103,884	117,147	117,778	147,285	288,888
<i>Primary</i>	94,159	101,007	93,861	120,934	257,561
<i>Processed</i>	9,725	16,140	23,917	26,351	31,327
Motor Spirit	796	2,652	5,000	5,334	4,662
Other	8,929	13,488	18,917	21,016	26,665
4. Machinery and other Capital Equipment	72,521	103,006	141,074	125,107	159,651
<i>Machinery and other Capital Equipment</i>	64,259	91,439	126,052	93,751	111,539
<i>Parts and Accessories</i>	8,262	11,567	15,022	31,356	48,112
5. Transport Equipment	44,116	76,054	126,652	94,877	121,122
<i>Passenger Motor Vehicles</i>	8,410	12,412	20,182	11,173	18,721
<i>Other</i>	16,955	38,502	63,706	57,852	59,752
Industrial	16,618	38,059	62,735	56,760	58,158
Non-Industrial	337	443	971	1,092	1,594
<i>Parts and Accessories</i>	18,751	25,140	42,764	25,852	42,649
6. Consumer Goods not elsewhere specified	35,219	46,355	55,299	39,621	57,491
<i>Durable</i>	7,009	9,034	12,365	7,667	13,385
<i>Semi-Durable</i>	16,578	21,431	21,202	12,623	16,491
<i>Non-Durable</i>	11,632	15,890	21,732	19,330	27,615
7. Goods not elsewhere specified	936	644	2,007	647	4,139
Total	406,997	531,446	661,125	620,156	936,202
Percentage Shares					
1. Food and Beverages	6.5	5.2	5.8	5.3	4.4
2. Industrial Supplies (Non-Food)	30.5	30.3	27.2	29.0	28.2
3. Fuels and Lubricants	25.5	22.0	17.8	23.7	30.9
4. Machinery and other Capital Equipment	17.8	19.4	21.3	20.2	17.1
5. Transport Equipment	10.8	14.3	19.2	15.3	12.9
6. Consumer Goods not elsewhere specified	8.7	8.7	8.4	6.4	6.1
7. Goods not elsewhere specified	0.2	0.1	0.3	0.1	0.4
Total	100.0	100.0	100.0	100.0	100.0

7.10. Imports of industrial inputs, which had registered at 3.4 per cent fall in 1979 rose in value by 52.3 per cent from K£197.2 million in 1979 to K£300.3 million in 1980. Other consumer goods also increased by 31.7 per cent compared to the decline of 22 per cent in the previous year; rising from K£54.3 million to K£71.5 million in 1980.

7.11. Imports of non-food industrial supplies rose by 46.7 per cent after showing no change between 1978 and 1979. Imports of these items were valued at K£179.7 million in 1979 but rose to K£263.7 million in 1980; an increase of K£84.0 million.

SELECTED IMPORTS, 1976-1980

Table 7.6

K£million

	1976	1977	1978	1979	1980
Crude Petroleum	93.47	100.60	92.34	120.09	256.58
Motor Vehicles and Chassis	23.63	40.80	68.80	45.12	67.57
Agricultural Machinery and Tractors	7.06	16.60	18.58	7.57	10.16
Industrial Machinery (including Electrical)	69.89	92.13	130.18	113.25	150.32
Iron and Steel	28.17	32.64	41.82	37.63	50.53
Cotton Fabrics	0.97	0.44	0.44	0.41	1.28
Synthetic Fabrics	3.30	3.20	2.38	1.88	2.25
Paper and Paper Products	7.60	9.03	10.26	12.30	12.91
Pharmaceuticals	6.74	10.18	13.19	11.23	15.90
Fertilizers	5.22	9.47	10.01	5.34	15.83

7.12. Imports of fuels and lubricants which registered the highest rise in value terms increased from K£147.3 million in 1979 to K£288.9 million in 1980. This increase of 96.1 per cent may be compared to one of 25.1 per cent in 1979. The value of imported primary fuels rose by 113.0 per cent from K£120.9 million to K£257.6 million in 1980. Both quantity and unit value rose in 1980, the rise in volume being necessitated by greater usage for thermal electricity generation and for various transport activities as discussed in Chapter 10.

7.13. Imports of machinery and other capital equipment, which had declined in 1979 by 11.3 per cent, rose from K£125.1 million in 1979 to K£159.6 million in 1980; an increase of 27.6 per cent. In this group imported parts and accessories registered an increase of 53.4 per cent, from K£31.4 million in 1979 to K£48.1 million; these parts and accessories were required to help maintain the increased stock of machinery in the country. This tendency to higher imports of parts and accessories must continue into the future in line with the increased mechanization of the economy.

7.14. The restrictions on imports of transport equipment necessary in 1979 still showed some effects during 1980 but here higher levels of duty designed to restrict use of larger types of motorcars also had some impact. The value of transport equipment imported rose by 27.7 per cent in 1980 but the value of K£121.1 million was still lower than that of K£126.6 million in 1978. It should also be noted that the quantity imported in 1980 was lower than in 1979.

7.15. The value of imports of unspecified consumer goods which had declined by 28.4 per cent in 1979 rose by 45.1 per cent in 1980 increasing in value from K£39.6 million to K£57.5 million in 1980. The high imports of maize in particular in 1980 had an impact on the total imports of food and beverages.

7.16. *Exports.*—Table 7.7 shows Kenya's exports by broad economic categories. During 1980, earnings from primary exports declined by 2.6 per cent from K£186.2 million to K£181.3 million. There was however a particularly large rise in exports of petroleum fuels while export of non-food industrial supplies rose in value by 13.2 per cent during 1980.

7.17. Quantity, prices and values of selected major exports together with the percentage changes in value and price between 1979 and 1980 are given in Tables 7.8, 7.9 and 7.10. As shown in Table 7.8 the quantity of coffee

TOTAL EXPORTS*. 1976-1980

Table 7.7	By Broad Economic Category K£'000				
	1976	1977	1978	1979	1980
1. Food and Beverages.	159,586	315,102	217,688	211,282	211,648
<i>Primary</i>	135,873	289,158	198,338	186,246	181,315
For Industry	95,926	206,258	126,025	112,859	109,901
For Household Consumption	39,947	82,901	72,313	73,387	71,414
<i>Processed</i>	23,713	25,943	19,350	25,036	30,334
For Industry	2,805	2,117	711	3,348	7,397
For Household Consumption	20,908	23,826	18,639	21,688	22,936
2. Industrial Supplies (Non-Food)	78,480	64,790	65,973	79,151	89,644
<i>Primary</i>	34,836	27,911	30,182	33,675	48,307
<i>Processed</i>	43,644	36,879	35,792	40,476	41,337
3. Fuel and Lubricants	69,730	83,198	68,985	77,179	161,149
<i>Primary</i>	323	220	215	14	19
<i>Processed</i>	69,407	82,978	68,771	77,165	161,129
Motor Spirit	8,966	13,578	10,390	10,815	19,651
Other	60,441	69,400	58,381	66,350	141,479
4. Machinery and other Capital Equipment	6,589	1,228	1,489	1,510	2,481
<i>Machinery and Other Capital Equipment</i>	5,319	1,162	1,450	1,286	2,224
Parts and Accessories	1,270	66	39	224	258
5. Transport Equipment	4,005	999	965	928	1,661
<i>Passenger Motor Vehicles</i>	484				9
Other	1,283	492	448	479	692
Industrial	1,269	488	443	453	518
Non-Industrial	14	4	5	26	175
<i>Parts and Accessories</i>	2,238	507	518	449	960
6. Consumer Goods not elsewhere specified	16,712	14,627	14,615	15,211	18,402
<i>Durable</i>	762	346	510	555	898
<i>Semi-Durable</i>	3,925	4,113	5,414	4,197	4,062
	12,025	10,168	8,691	10,459	13,443
7. Goods not elsewhere specified	293	314	250	272	368
TOTAL	335,395	480,252	369,965	385,533	485,354
		PERCENTAGE SHARES			
1. Food and Beverages	47.6	65.6	58.8	54.8	43.6
2. Industrial Supplies (Non-Food)	23.4	13.5	17.8	20.5	18.5
3. Fuel and Lubricants	20.8	17.3	18.6	20.0	33.2
4. Machinery and other Capital Equipment	2.0	0.3	0.4	0.4	0.5
5. Transport Equipment	1.1	0.2	0.3	0.2	0.3
6. Consumer Goods not elsewhere specified	5.0	3.0	4.0	4.0	3.8
7. Goods not elsewhere specified	0.1	0.1	0.1	0.1	0.1
TOTAL	1000	100.0	100.0	100.0	100.0

Excluding Re-exports.

exported in 1980 was 80,086 tonnes, a rise of 3.7 per cent on the 77,259 tonnes of 1979 but below the tonnages despatched in 1977 and 1978. For tea there was a fall of 20.4 per cent in 1980 in the quantity exported to 74,799 tonnes from the record 94,023 tonnes of 1979. The attractive level of sisal prices in 1980 led to exports of 40,404 tonnes in 1980 a rise of 56 per cent

QUANTITIES OF PRINCIPAL EXPORTS, 1976-1980

Table 7.8

	Unit	1976	1977	1978	1979	1980
Coffee	Tonnes	77,586	94,344	85,434	77,259	80,086
Tea		59,285	70,220	84,968	94,023	74,799
Petroleum Products	Million					
	Litres	1,564	1,634	1,399	1,174	1,814
Pyrethrum products	Tonnes	4,170	3,694	1,656	955	757
Meat Products		9,768	9,344	3,033	2,643	1,256
Sisal		29,368	24,925	26,870	25,959	40,404
Hides and skins		14,158	11,389	10,893	13,081	8,485
Soda Ash		101,131	101,787	160,526	215,669	190,527
Fluorspar		91,371	100,208	102,900	59,352	100,674
Cement		628,436	662,132	610,100	510,206	530,282
Maize (raw)		113,231	8,136	23,432	120,475	3
Canned pineapples		29,905	45,329	42,082	41,048	38,453
Butter and ghee		1,182	1,063	1,581	1,206	235
Beans and peas		11,470	22,000	14,777	9,735	10,137
Cotton (raw)		2,073	763	2,110	1,886	4,001
Wool		1,288	1,360	1,165	1,080	1,706
Animal feeds		27,223	17,730	22,626	23,030	5,201
Cashew nuts		11,543	1,100		73	10,700

over the 25,959 tonnes of 1979. Among minerals, exports of soda ash fell from 215,669 tonnes in 1979 to 190,527 tonnes in 1980 while loadings of fluorspar rose from 59,352 tonnes to 100,674 tonnes. Cement exports outside East Africa increased from 510,206 tonnes in 1979 to 530,282 tonnes in 1980 but maize exports were virtually eliminated, having been as high as 120,475 tonnes in 1979, because of the very difficult maize supply situation in the country. The rise in petroleum product exports has already been commented on, the increase from 1,174 million litres to 1,814 million between 1979 and 1980 is influenced to some extent by a higher proportion of export residues and heavy fuel oil despatched largely for further processing.

7.18. As regards unit values of exports detailed in Table 7.9 the average price realized for coffee fell once again in 1980 to 27.01 Kenya shillings per kilogram compared to 28.63 shillings in 1979, 29.20 shillings in 1978 and a record 43.33 shillings per kilogram in 1977. Tea prices were firmer in 1980 and exports averaged K.Shs. 15.47 per kilogram, a rise of 15.7 per cent on the K.Sh. 13.37 of 1979. As for petroleum products the increase was from 1.16 Kenya shillings per litre to K.Sh. 1.66 per litre and for sisal from K.Sh. 372.87 to K.Sh. 438.20 per 100 kilograms. The sharp increase in soda

ash prices of from K.Sh. 51.53 to K.Sh. 82.15 per 100 kg. appears to have had some influence on the quantity exported. Pyrethrum extract earned K.Sh. 633 per kg. in 1980 more than twice as high as the K.Sh. 281.8 per kg. of 1979 and for cement the price increase was from K.Sh. 32.7 to K.Sh. 38.3 per 100 kg., a rise of 17.1 per cent.

Export of Manufactured Goods

7.19. Processed exports, as detailed in Table 7.7, rose from K£160.6 million to K£255.7 million in 1980, an increase of 59.2 per cent. Excluding fuels valued at K£161.1 million in 1980, processed exports, including machinery, transport equipment and residual consumer goods, rose from K£83.4 million in 1979 to K£94.6 million in 1980; an increase of 13.4 per cent. This value increase is in line with the rise in prices probably indicating little change in the volume of such exports.

EXPORT PRICES, 1976-1980

Table 7.9

K.Sh./Unit

	Unit of Quantity	1976	1977	1978	1979	1980
Coffee unroasted	Kg.	24.06	43.33	29.20	28.63	27.01
Tea	Kg.	10.72	20.44	14.87	13.37	15.47
Petroleum products	1,000 Lt.	736.62	866.22	860.86	1,159.51	1,658.58
Maize	100 Kg.	99.70	162.11	60.91	88.40	—
Meat and products	Kg.	17.17	16.26	17.95	20.34	25.19
Pyrethrum extract	Kg.	225.91	238.17	312.73	281.84	633.00
Sisal	100 Kg.	285.45	315.65	303.33	372.87	438.20
Hides and skins, undressed	Kg.	12.09	14.09	18.04	21 05	22.50
Wattle extract	Kg.	2.78	3.13	3.16	3.50	3.56
Soda ash	100 Kg.	59.98	52.80	45.90	51.53	82.15
Fluorspar	100 Kg.	48.92	49.69	49.89	66.85	64.50
Cement	100 Kg.	25.68	25.88	29.53	32.72	38.30
Beans, peas, etc.	Kg.	2.89	2.49	2.90	3.06	2.99
Cashew nuts, raw	Kg.	1.73	2.29	—	15.54	3.12
Wool	Kg.	8.18	11.46	11.98	12.92	11.15
Animal feed	100 Kg.	99.97	134.55	89.94	94.33	121.56
Cotton, raw	Kg.	11.02	11.39	13.16	9.81	12.96
Pineapples, canned	Kg.	4.67	4.64	4 55	4.54	4.60
Butter and ghee	Kg.	9.69	12.25	12.03	14.04	15.50
Wattle bark	100 Kg	100.52	108.74	105.16		95.21

Direction of Trade

7.20. The pattern of Kenya's suppliers of imports is detailed in Table 7.11. During 1980, the EEC countries continued to be Kenya's major source of supply with 38.8 per cent of Kenya imports valued at K£363.1 million. This share was however much lower than that of 1979 when EEC countries

supplied 45.8 per cent of all Kenya's imports. Again, as in earlier years about half of the EEC supplies in 1980 originated in United Kingdom while West Germany supplied about one-fifth. Imports from the Middle East made up 28.7 per cent of total imports including most of the country's oil supplies while the Far East supplied 16.2 per cent. Here the contribution of Japan was particularly important. Imports into Kenya from African countries made up only 3.1 per cent of total imports in 1980 reflecting the still very embryonic nature of the continent's Intra-African trading links particularly for commodities which Kenya still has to import.

EXPORT CHANGE IN VALUE, QUANTITY AND PRICE, 1979-1980

Table 7.10

	VALUE K£'000			PERCENTAGE CHANGE IN		
	1979	1980	Change	Value	Quantity	Price
Coffee, unroasted	110,573.2	108,129.2	-2,444.0	-2.2	+3.7	-5.7
Tea	62,843.4	57,849.0	-4,994.4	-7.9	-20.4	+15.7
Petroleum products	68,051.4	150,425.7	+82,374.3	+121.0	+54.5	+43.0
Meat and products	2,688.0	1,582.0	-1,106.0	-41.1	-52.5	+23.8
Pyrethrum extract	5,502.7	8,950.7	+3,448.0	+62.7	-27.6	+124.6
Sisal	4,839.7	8,852.5	+4,012.7	+82.9	+55.6	+17.5
Hides and skins, undressed	13,770.4	9,547.3	-4,223.1	-30.7	-35.1	+6.9
Wattle extract	1,965.6	2,105.9	+140.3	+7.1	+5.3	+1.7
Soda ash	5,556.5	7,826.3	+2,269.8	+40.9	-11.7	+59.4
Fluorspar	1,983.8	3,246.7	+1,262.9	+63.7	+69.6	-3.5
Cement	8,346.7	10,154.2	+1,807.5	+21.7	+3.9	+17.1
Beans, peas etc.	1,491.7	1,517.2	+25.5	+1.7	+4.1	-2.3
Cashew nuts, raw	56.6	1,667.4	+1,610.8	+2,844.3	+14,582.7	-79.9
Wool	697.3	951.4	+254.1	+36.4	+58.0	-13.7
Animal feed	1,086.2	316.1	-770.1	-70.9	-77.4	+28.9
Cotton, raw	924.7	2,593.1	+1,668.4	+180.4	+112.2	+32.1
Pineapples, canned	9,316.0	8,853.1	-462.9	-5.0	-6.3	+1.3
Butter and ghee	846.6	182.4	-664.2	-78.5	-80.5	+10.4
Wood carvings	689.8	542.3	-147.5	-21.4	-33.0	+17.4
Metal scrap	500.6	462.0	-38.6	-7.7	-55.4	+107.3
Wattle bark	—	14.3	+14.3			
All other items	83,803.1	99,585.0	+15,781.9	+18.8		
Total	385,534.0	485,353.8	+99,819.8	+25.9		

Excluding Re-Exports.

7.21. Exports to the EEC countries as shown in Table 7.12; declined slightly in 1980 though these countries continued to make up an important market for Kenyan products. Down from 43 per cent on the previous year, the share of the EEC countries in exports was 34.1 per cent in 1980 with a total of K£175.5 million. There was a notable increase in Kenya's exports to African countries; which rose from K£99.0 million in 1979 to K£140.3 million in 1980, the proportion increasing from 24 to 27 per cent. However, much of this rise is due to the higher prices charged for petroleum fuels. Exports to the Far East doubled in 1980 rising from K£31.5 million to K£67.7 million and sales to aircraft and ships stores increased from K£32.5 to K£56.8 million. Again the rise in exports to these two categories of recipients was largely due to higher prices and increased sales of petroleum products including supplies sent for further refining.

7.22. Trade with individual African states is shown in Table 7.13. Imports from African countries increased by K£17.5 million to a total of K£29.4 million in 1980. Most of the increased imports were from Mozambique (K£18.9 million) Rwanda, (K£2.6 million) and Ethiopia (K£2.5 million). Exports to Uganda continued to dominate Kenya's African trade in 1980. This country took products valued at K£66.4 million equal to 47.3 per cent

ORIGIN OF TOTAL IMPORTS, 1976-1980

Table 7.11

K£'000

	1976	1977	1978	1979	1980
E.E.C.—					
United Kingdom	77,043	95,218	145,933	141,311	169,833
West Germany	40,974	57,852	87,755	68,809	78,512
Italy	12,914	22,006	33,490	23,743	37,724
France	10,820	26,316	30,831	17,627	32,847
Netherlands	9,601	10,901	15,096	14,112	22,938
Other	11,645	16,859	24,578	18,669	21,212
TOTAL	162,997	229,152	337,683	284,273	363,066
Other Western Europe Total	19,621	27,969	29,553	35,377	39,591
Eastern Europe Total	3,742	4,246	5,340	4,737	6,606
U.S.A	23,672	30,482	41,096	34,925	61,161
CANADA	6,270	5,276	3,877	5,589	5,229
AFRICA—					
Tanzania	12,406	1,622	353	102	309
Uganda	818	581	1,977	804	1,206
Zambia	824	1,030	1,575	1,243	1,518
Other	2,546	4,923	5,270	9,804	26,421
TOTAL	16,594	8,156	9,175	11,953	29,454
MIDDLE EAST—					
Iran	68,381	45,506	44,816	26,289	17,409
Other	28,997	44,860	28,844	109,932	251,312
TOTAL	97,378	90,366	73,660	136,221	268,721
FAR EAST AND AUSTRALIA—					
Australia	2,211	5,291	10,291	8,078	6,149
Japan	45,034	65,603	67,912	49,927	88,47
India	7,922	11,720	15,818	10,154	13,088
China (Mainland)	3,055	5,814	5,103	4,804	7,656
Other	17,492	25,552	23,832	25,583	36,757
TOTAL	75,714	113,980	122,956	98,546	152,129
All other countries	353	21,260	37,234	8,535	10,243
Parcel Post and Special Transactions	656	559	551		2
TOTAL	406,997	531,446	661,125	620,156	936,202

of all exports to African countries and to 12.9 per cent of the country's total exports. Exports to Rwanda, Sudan, Burundi and Tanzania all increased in 1980. These four countries and Zambia accounted for 28.6 per cent of exports of African countries in 1980. As is to be expected Kenyan exports to Africa are still predominantly with countries on its borders or with which it is possible to make trade contracts by road or sea. There is some growth in sales taken by air freight.

Table 7.12

KE'000

	1976	1977	1978	1979	1980
E.E.C.—					
United Kingdom	36,072	63,594	57,197	58,791	58,874
West Germany	42,123	85,951	56,813	60,836	56,363
Italy	13,874	13,442	18,891	23,804	23,733
France	3,415	6,074	5,685	5,119	6,351
Netherlands	17,052	51,345	24,351	17,702	17,697
Other	6,349	11,761	9,248	11,311	12,471
TOTAL	118,885	232,167	172,185	177,563	175,489
Other Western Europe Total	21,012	26,273	21,585	21,657	23,550
Eastern Europe Total	3,301	14,891	6,930	4,801	4,942
U.S.A	18,378	27,592	18,519	16,737	16,929
CANADA	6,096	8,458	5,336	5,715	5,070
AFRICA—					
Tanzania	33,442	9,822	2,756	4,075	5,232
Uganda	33,162	51,992	38,443	37,747	66,373
Zambia	9,018	6,897	5,702	5,847	4,949
Other	32,227	41,550	47,083	51,287	63,772
TOTAL	107,849	110,261	93,984	98,956	140,326
MIDDLE EAST—					
Iran	955	2,065	1,769		1,191
Other	5,040	10,561	8,885	14,847	18,159
TOTAL	5,995	12,626	10,654	14,847	19,350
FAR EAST AND AUSTRALIA—					
Australia	1,393	1,848	1,450	1,238	1,544
Japan	4,551	5,233	3,807	5,100	3,828
India	2,545	1,623	1,559	2,197	4,077
China (Mainland)	413	1,463	2,702	1,959	1,801
Other	17,295	16,612	16,949	21,043	56,487
TOTAL	26,197	26,779	26,467	31,537	67,737
ALL OTHER COUNTRIES	13,653	11,833	10,851	8,451	3,550
AIRCRAFT AND SHIPS STORES	23,696	30,939	29,201	32,523	56,837
ALL EXPORTS	345,062	501,819	395,712	412,787	513,780

*Excluding gold and currency but including Re-Exports.

Kenya External Trade Authority

7.23. The Kenya External Trade Authority (KETA) is the arm of the Department of External Trade in the Ministry of Commerce charged with the task of co-ordinating the efforts to expand and diversify Kenya's export markets. This Authority services both the private and the public sectors.

7.24. During 1980, a number of ventures were undertaken aimed at developing Kenya's export potential through the organization of trade fairs and exhibitions in liaison with international bodies. Assistance was also rendered to craftsmen and artisans in securing product techniques, designs and export markets. KETA is currently developing a modern trade information centre.

Table 7.13

K£'000

	Exports*					Imports				
	1976	1977	1978	1979	1980	1976	1977	1978	1979	1980
MAINLAND—										
Uganda	33,163	51,992	38,443	37,747	66,373	818	581	1,977	804	1,206
Tanzania	33,442	9,822	2,756	4,075	5,232	12,406	1,622	353	102	309
Zambia	9,018	6,897	5,702	5,847	4,949	824	1,030	1,575	1,243	1,518
Ethiopia	1,701	1,923	2,705	2,346	2,365	56	245	616	2,241	2,532
Burundi	1,306	1,855	3,412	4,552	7,335	5	—	—	1,158	115
Somalia	2,373	2,397	3,574	2,678	3,986	103	105	20	71	44
Sudan	4,165	5,035	7,027	7,665	9,946	136	1,161	23	210	8
Rwanda	6,269	6,241	7,999	8,551	12,660	765	1,259	2,333	3,289	2,623
aire	2,184	3,445	2,535	3,142	3,966	410	606	467	533	157
Malawi	415	376	407	348	285	8	104	228	211	554
Mozambique	243	577	493	443	570	11	484	1,016	527	18,916
Egypt	2,669	7,309	5,141	6,061	3,074	21	58	73	39	129
Algeria and Libya	124	51	2,887	331	2,588	—	—	—	6	
Ghana and Nigeria	655	884	1,352	675	1,713	30	20	20	12	12
Other	2,935	4,819	2,470	5,298	9,411	977	865	329	1,486	1,173
TOTAL	100,661	103,623	86,903	89,759	134,453	16,570	8,140	9,030	11,932	29,296
INDIAN OCEAN ISLAND—										
Mauritius	2,474	3,286	3,067	4,832	3,605	8	10	135	9	137
Reunion	1,524	772	717	1,377	1,090	—	—	—	—	7
Other**	3,190	2,580	3,297	2,988	1,178	16	6	10	12	14
TOTAL	107,849	110,261	93,984	98,956	140,326	16,594	8,156	9,175	11,953	29,454
Percentage of all Exports/ Imports	31.2	22.0	23.8	24.0	27.3	4.1	1.5	1.4	1.9	3.1

*Including Re-exports.

**Madagascar and Seychelles.

Outlook for 1981

7.25. During the year 1980, the trade deficit reached record levels and half of total export earnings went towards financing imports of petroleum. The terms of trade deteriorated further due to higher prices of crude petroleum and for imported manufactured goods not being matched by equivalent increases in prices of primary commodity exports. While inflation is being fought strenuously in the industrialized countries and there has been some alleviation of the upward pressures on prices for petroleum fuels, the price levels of primary commodities in general remain very depressed so there seems little prospect of any improvement in the terms of trade of Kenya in 1981.

7.266. It is anticipated that, during 1981, export earnings will increase only slightly from increases in the volume of coffee and tea exports, these being sold at lower prices for coffee but unchanged prices for tea. There should be some further scope for increased earnings from petroleum fuel exports. As regards imports, stricter control are now in force especially on the less essential and luxury items while the campaign to cut down unnecessary use of the now very expensive imported fuels is being intensified. Overall there should be a reduction in the country's trade deficit in 1981.

CHAPTER 8—AGRICULTURE

Drought conditions in much of the country during 1980 resulted in another poor year for the agricultural sector, although there were some impressive achievements. For the second year in succession there was a decline in agricultural value-added in constant prices—by 1.3 per cent in 1980, following a fall of 0.8 per cent in 1979. With the population growing rapidly, this period of decline has led to a nearly 10 per cent fall in the per capita availability of agricultural produce, as indicated by the following figures, and has necessitated the large-scale importation of maize and other supplies.

	<i>Value added,</i> <i>constant prices</i> <i>K£</i>	<i>Population</i> <i>.....</i> <i>000s</i>	<i>Value added</i> <i>per capita</i> <i>K £</i>
1978	533.3	14,760	36.1
1979	529.1	15,327	34.5
1980	522.0	15,894	32.8

However, despite the generally difficult conditions, there were substantial increases in the output of some crops, as detailed below, especially pyrethrum, sugarcane, cotton, coffee and sisal. Further details of output and inputs in current and constant prices are given in Table 8.1, which also records declines

AGRICULTURAL OUTPUT LESS RECORDED INPUT, 1976-1980

Table 8.1

K£million

	1976	1977	1978	1979	1980*
At Current Prices—					
Total Output	532.85	755.32	732.93	747.58	791.19
Less Inputs	66.70	87.31	101.21	98.80	103.05
Value Added	466.15	668.01	631.73	648.78	688.13
At Constant (1976) Prices—					
Total Output	532.85	591.68	614.99	607.55	594.27
Less Inputs	66.70	78.09	81.68	78.50	72.25
Value Added	466.15	513.60	533.31	529.05	522.03
Quantum Indices (1976=100)					
Output	100.00	111.04	115.42	114.02	111.53
Input	100.00	117.08	122.46	117.69	108.32
Price Indices (1976 = 100)					
Output	100.00	127.66	119.18	123.05	133.14
Input	100.00	111.81	123.91	125.86	142.63

*Provisional.

in constant-price terms. Prices rose over the same period, so that current price values showed increases, but this was the result of inflation rather than of a genuine recovery in this sector.

Marketed Production

8.2. Following declines in both 1978 and 1979, there was some recovery in the volume of agricultural output handled by marketing boards, as shown in Table 8.2. The overall volume index rose by 10 per cent in 1980, made up

AGRICULTURAL MARKETING PRODUCTION INDICES**, 1977-1980

Table 8.2

1976 = 100

	1977	1978	1979	1980*
QUANTUM INDICES—				
Cereals	80.93	61.64	68.92	68.70
Temporary Industrial Crops	105.97	125.71	153.28	192.19
Permanent Crops	123.46	114.61	108.81	121.06
TOTAL	111.77	103.51	104.11	115.34
Livestock and Products	115.29	132.25	113.36	104.52
TOTAL GROSS MARKETING PRO- DUCTION	111.58	107.68	102.94	113.35
PRICE INDICES—				
Cereals	111.61	113.33	112.58	130.47
Temporary Industrial Crops	122.00	134.76	141.83	147.39
Permanent Crops	167.96	123.45	118.68	120.24
TOTAL CROPS	154.86	123.20	120.50	125.12
Livestock and Products	114.78	139.80	129.03	145.58
TOTAL GROSS MARKETING PRO- DUCTION	148.60	126.06	121.89	127.98

*Provisional.

**Based on sale to Marketing Boards only.

of a large increase for crops and a decline for livestock and products. The quantities delivered to the marketing boards were larger for all crops except maize and tea. Sugarcane, pyrethrum, cotton, coffee and sisal deliveries rose substantially and there were small increases in deliveries of wheat and rice. The downward trend in the volume of livestock and livestock products handled by marketing boards continued as the share of the Kenya Meat Commission in the livestock market fell again. The price indices in Table 8.2 recorded generally small rise, with the exception of that for cereals, which went up by 15.9 per cent.

8.3. The composition of sales to marketing boards, in current prices, is shown in Table 8.3. By and large, only minor changes occurred in this composition during 1980, except for significant falls in the share of tea—which was largely due to unfavourable weather—and livestock and products. There were significant increases in the shares of pyrethrum, sugarcane and sisal.

RECORDED MARKETED PRODUCTION AT CURRENT PRICES, 1976-1980

Table 8.3

K£'000

	1976	1977	1978	1979	1980*
CEREALS—					
Wheat	12,047	11,877	11,675	14,886	17,670
Maize	21,628	18,843	10,501	9,363	10,390
Others	5,658	4,407	5,301	6,271	7,192
TOTAL	39,333	35,527	27,477	30,520	35,252
TEMPORARY INDUSTRIAL CROPS					
Pyrethrum	4,089	3,662	4,106	5,721	9,735
Sugar Cane	9,618	13,364	17,392	23,302	29,520
Others	3,670	5,440	7,941	8,755	9,966
TOTAL	17,377	22,466	29,439	37,778	49,221
OTHER TEMPORARY CROPS	8,626	6,604	6,640	8,466	8,075
PERMANENT CROPS—					
Coffee	101,333	192,919	118,822	105,684	120,290
Sisal	3,920	4,800	4,278	6,577	9,714
Tea	32,757	92,729	73,914	67,343	71,515
Others	3,477	2,945	3,185	3,105	4,422
TOTAL	141,487	293,393	200,199	182,709	205,941
TOTAL CROPS	206,823	357,991	263,755	259,473	298,489
LIVESTOCK AND PRODUCTS—					
Cattle and Calves	19,056	23,437	34,941	29,091	34,119
Dairy Products	12,050	18,836	19,587	17,465	15,007
Others	6,003	6,831	7,574	7,724	7,338
TOTAL	37,109	49,104	62,102	54,280	56,464
UNRECORDED** MARKETED PRODUCTION	6,115	7,489	7,532	7,247	7,773
TOTAL	250,047	414,584	333,389	321,000	362,726

*Provisional.

**This is only a very partial coverage.

8.4. Table 8.4 details the average prices paid to farmers for major agricultural products. The biggest blow in 1980 was a further fall in the price of coffee by 6.4 per cent, from K.Sh. 28,150 per tonne to K.Sh. 26,340 per tonne. However, there were increases in the prices of all other products except sugarcane and rice paddy, whose prices remained unchanged. The average price of tea recovered substantially, while the producer prices of maize, wheat, pyrethrum, cotton and milk were deliberately increased as an incentive to expand production.

AVERAGE GROSS COMMODITY PRICES* TO FARMERS, 1976-1980

Table 8.4

KSh. per stated Unit

	Unit	1976	1977	1978	1979	1980
Coffee.	100 kg.	2,524	3,975	2,818	2,815	2,634
Tea	"	1,057	2,149	1,583	1,357	1,591
Sisal	"	234	298	272	361	414
Pyrethrum (extract equivalent)	kg.	492	559	720	1,006	1,200
Seed Cotton	100 kg.	209	288	315	328	341
Maize	"	77	89	89	77	95
Sugar Cane	tonne	105	127	133	133	133
Rice Paddy	100 kg.	137	136	145	151	151
Wheat	"	120	133	133	144	164
Beef (third grade)	"	479	519	676	689	795
Bacon Pigs	"	655	684	764	778	859
Milk	100 litre	105	132	132	132	146

*These Prices are for calendar year deliveries and reflect actual payouts, although average prices for two seasons overlap during a calendar year might have differed.

8.5. A further small decline in the share of marketed output originating on small farms is revealed in Table 8.5. This occurred even though there was a nearly 12 per cent rise in the current-price value of small-farm sales

SALES TO MARKETING BOARDS FROM LARGE AND SMALL FARMS, 1976-1980

Table 8.5

	LARGE FARMS		SMALL FARMS		TOTAL		PERCENT- AGE SHARE OF SMALL FARMS
	<i>K£million</i>	Annual Per cent change	<i>K£million</i>	Annual Per cent change	<i>K£million</i>	Annual Per cent change	Per cent
1976	122.1	70.1	128.0	42.1	250.0	54.3	51.2
1977	206.0	68.7	208.5	62.9	414.6	65.8	50.3
1978	147.2	-28.5	186.2	-10.7	333.4	-19.6	55.8
1979	148.2	1.0	172.5	-7.4	321.0	-3.7	53.7
1980*	170.2	14.5	192.5	11.6	362.7	13.0	53.1

*Provisional.

because there was an even larger proportionate rise in sales by large farms. Overall, there was a 13 per cent increase in the current-price value of sales to the boards and, as already noted, a 10 per cent rise in the volume of sales. This increase, following declines in the two previous years, was partly the result of stricter marketing procedures. The recorded share of small farms

in the 1980 total, of 53.1 per cent, considerably understates the overall contribution of the small farms to agricultural output. This is partly because some of the farms conventionally classified as "large" are, in fact, run on a co-operative or other collective lines which involve de facto subdivision into small-holdings. Even more important, however, is the fact that a relatively large proportion of small farm output is for family consumption or is sold outside the market board system.

8.6. Quantum indices of agricultural inputs shown in Table 8.6 reveal that there were reductions in the quantities of fuel, bags, feeds and seeds purchased by the sector but increases in amounts of fertilizer and various

AGRICULTURAL INPUT INDICES, 1977-1980

Table 8.6

1976 = 100

	1977	1978	1979	1980*
Quantum Indices-				
Fertilizers	143.6	155.6	101.8	109.9
Fuel and Power	129.2	126.8	138.6	129.3
Bags	101.5	105.8	91.6	85.7
Manufactured Feeds	121.3	142.1	113.2	107.3
Purchased Seeds	135.9	94.9	83.9	82.6
Other Material Inputs	123.7	153.5	153.8	161.9
Total Material Input	128.5	139.5	121.5	122.3
Service Inputs	99.8	106.7	107.7	107.5
Total Inputs	124.9	135.4	119.8	120.5
Price Indices—				
Fertilizers	99.2	98.3	128.9	128.9
Fuel and Power	105.9	120.2	131.0	161.2
Bags	111.1	116.4	128.3	146.3
Manufactured Feeds	117.3	132.5	121.4	137.0
Purchased Seeds	123.0	182.2	170.2	170.2
Other material Inputs	117.3	118.1	104.8	120.4
Total Material Input	110.1	118.2	122.5	136.4
Service Inputs	116.4	127.4	140.7	149.5
Total Inputs	110.7	119.1	124.5	137.9

*Provisional.

other minor inputs. The overall index of inputs, including services, rose only slightly by 0.5 per cent. There were substantial increases in the prices of most of the inputs especially fuel (23 per cent) and manufactured feeds (12.9 per cent). The price of service inputs increased by 6.3 per cent while the prices of fertilizer and seeds remained the same.

PURCHASED AGRICULTURAL INPUTS**, 1976-1980

Table 8.7

K£'000

	1976	1977	1978	1979	1980*
MATERIAL INPUTS—					
Fertilizers	9,664	13,765	14,781	12,678	13,692
Other Agricultural Chemicals	4,277	7,197	10,626	8,494	9,858
Livestock Drugs and Medicines	2,848	3,261	3,306	3,196	4,599
Fuel and Power	7,063	9,668	10,762	12,825	14,726
Bags	2,952	3,331	3,636	3,469	3,704
Manufactured Feeds	6,456	9,193	12,154	8,872	9,492
Purchased Seeds	2,615	4,370	4,522	3,732	3,677
Other Material Inputs	2,460	3,429	3,446	3,770	4,222
TOTAL	38,335	54,214	63,233	57,036	63,970
SERVICE INPUTS TOTAL	5,455	6,338	7,416	8,265	8,765
TOTAL INPUTS	43,790	60,552	70,649	65,301	72,735

*Provisional.

** Except Labour.

8.7. Table 8.8 provides terms of trade indices for the agricultural sector *vis-a-vis* the rest of the economy. For the third year in succession the price received by farmers did not keep pace with the rise in the prices they paid for inputs and consumption items and there was a consequential fall in the terms of trade index from 93.2 in 1979 to 87.1 in 1980—a decline of 6.5 per cent. There were two chief causes: the continuing inflation of prices for consumer goods and services in the rural areas, which went up by 13.1 per

PROVISIONAL TERMS OF TRADE INDICES FOR AGRICULTURE, 1978-1980

Table 8.8

1976=100

	1978	1979	1980
PRICES RECEIVED—			
Total Crops	119.1	116.4	122.3
Domestic	116.1	115.9	130.7
Export	120.9	116.8	117.4
Livestock and Products	129.3	135.6	140.6
INDEX OF PRICES RECEIVED	121.0	120.0	126.2
PRICES PAID—			
Purchased Inputs	119.3	124.8	138.0
Index of Purchased Consumer Goods—Rural Areas	117.0	130.1	147.2
INDEX OF PRICES PAID	117.6	128.8	144.9
Agriculture Sector Terms of Trade	102.9	93.2	87.1

cent during the year, and the overall stagnation of export prices. The overall price index for export crops went up by only 0.5 per cent, due largely to a fall in coffee prices. Overall, the price index for all types of agricultural output rose by 5.2 per cent but this was insufficient to offset a 12.5 per cent rise in prices paid by the farmers, which was made up of increases of 10.6 and 13.1 per cent respectively in the indices for inputs and consumer goods and services. Although the trend is somewhat distorted by the abnormally favourable coffee-boom years of 1976/77, the persisting tendency for the terms of trade to turn against the farmers in recent years is a serious matter because it tends to undermine the Government's objective of raising incentives and income in the rural economy, and of tackling the problem of rural poverty. Indeed, the combination in 1979/80 of falling agricultural output and worsening terms of trade is contrary to the strategy of the development plan, even though developments have been much influenced by weather conditions which are outside human control.

Agricultural Credit

8.8. As shown in Table 8.9, new credit to the agricultural sector from major lending institutions excluding the commercial banks increased by 10.7 per cent from K£18.93 million in 1978/79 to K£20.9 million in 1979/80. The increase is largely accounted for by the introduction early in 1980 of the New Seasonal Credit Scheme which replaced the Guaranteed Minimum Return (GMR) credit facilities. Small-scale farmers benefited most from the new scheme and credit to them rose to a new high level of K£8.39 million. Large-scale farmers, however, did not benefit as much as new credit to these farmers fell from K£4.57 million in 1978/79 to K£2.75 million in 1979/80. Co-operative societies remained the main recipients of agricultural credit although their share of total credit fell from 56 per cent in 1978/79 to 45 per cent in 1979/80. Small-scale farmers and co-operative societies received 88 per cent and 62 per cent, respectively, of their total credit receipts as short-term loans while, by contrast, the large-scale farmers maintained most of their credit receipts in the form of long-term loans.

8.9. The seasonal credit scheme was introduced early in 1980 to provide credit to farmers who had suffered a shortage of credit facilities as a result of the withdrawal of the GMR in 1979. Under the new scheme farmers are allowed to borrow up to nearly K.Sh. 1,900 per hectare and any farmer whose holding measures at least four hectares qualifies to join the scheme. A total of K£15 million was earmarked for farmers during 1980 and about K£10 million was actually borrowed under this scheme. The balance of K£5 million was not advanced mainly as a result of the stricter lending code adopted in this scheme as compared to the old GMR scheme. Loans under the scheme were also affected by the problems of agriculture, mainly the drought conditions experienced in many areas during 1980.

NEW AGRICULTURAL CREDIT ISSUED BY TYPE OF FARMER, 1976/77-1979/80*

Table 8.9

K£'000

	1976/77	1977/78	1978/79	1979/80
SMALL SCALE FARMERS—				
Short term loans	1,817	1,013	2,389	7,374
Medium term loans	595	1,905	188	60
Long term loans	29	135	64	150
Other loans	21	66	34	809
TOTAL	2,462	3,119	2,675	8,393
LARGE SCALE FARMERS—				
Short term loans	93	7,117	13	2
Medium term loans				95
Long term loans	2,294	5,683	3,020	1,430
Other loans	348	890	1,534	1,222
TOTAL	2,735	13,690	4,567	2,749
CO-OPERATIVE SOCIETIES—				
Short term loans	7,963	7,552	6,926	5,855
Medium term loans	1,883	3,019	3,676	3,353
Long term loans		12		
Other loans				302
TOTAL	9,846	10,583	10,602	9,510
OTHER FARMERS—				
Short term loans	5,576		817	299
Medium term loans		75		
Long term loans	338		267	
Other loans				
TOTAL	5,914	75	1,084	299
ALL RECEIPTS—				
Short term loans	15,451	15,682	10,144	13,530
Medium term loans	2,477	4,999	3,864	3,507
Long term loans	2,661	5,830	3,351	1,580
Other loans	370	956	1,569	2,334
TOTAL	20,957	27,467	18,928	20,951

* Revised Series.

8.10. New lending from commercial banks to the agricultural sector was K£12.36 million in 1980, a 29.3 per cent fall from K£17.48 million of new credit advanced in 1979. This was largely as a result of the credit squeeze prevailing in the country for most of 1980. Declines in the prices of some cash crops and the prolonged drought made it increasingly difficult for farmers to service outstanding loans and this reduced their ability to borrow further. The new credit issued in 1980 increased total lending from commercial banks by 13 per cent from K£90 million in 1979 to K£102 million as at December 1980.

Crop Production

8.11. *Maize*.—Total estimated maize production in 1980 fell fairly sharply compared with both 1978 and 1979. The latest estimates range between 17.3 million bags and over 18 million bags. An earlier estimate of 21 million bags for the year had to be scaled down drastically as a result of poor harvest resulting from an abrupt cessation of rainfall in certain areas which hit the growing maize at a particularly crucial time. For 1981 the long rains have started very well and provided weather conditions stay favourable a bumper crop seems likely. Large tonnages of fertilizer are being made available to farmers.

8.12. In spite of stricter control of marketing, deliveries to the National Cereals and Produce Board fell to 217,887 tonnes in 1980, as shown in Table 8.10. This is the lowest figure for a long time and accounted for

SALES TO MARKETING BOARDS OF SOME MAJOR CROPS, 1976-1980

Table 8.10

Tonnes

Crop	Year				
	1976	1977	1978	1979	1980
Wheat	186,774	169,880	165,941	200,968	204,568
Maize	564,748	423,964	236,268	241,717	217,887
Rice Paddy	39,299	41,415	35,816	37,466	37,700
Pyrethrum (Extract Equivalent)	166.1	131.1	114.0	113.7	162.2
Sugar-Cane	1,652,597	1,888,140	2,349,206	3,147,580	3,987,428
Cotton	15,803	16,257	27,190	27,597	38,129
Coffee	80,303	97,066	84,328	75,082	91,334
Sisal	33,555	33,196	31,456	36,457	46,910
Tea	61,984	86,291	93,373	99,275	89,893

only 14 per cent of estimated total production. The low deliveries are accounted for by high retention rates, estimated at 80 per cent for small-holders. After a difficult period with below-average maize production in both 1979 and 1980 the traditional stores on all farms could only be replenished by retentions for household consumption and for livestock feed. Total sales both to the produce board and to local markets are estimated at 6.4 million bags, about 37 per cent of total production.

8.13. Maize stocks at the beginning of 1980 were at an all-time low of only 44,100 tonnes. This was below one-quarter of the strategic reserve requirement of 180,000 tonnes and, being insufficient to meet local demand, had to be supplemented by large imports of both white and yellow maize. When it became apparent that the long rains crop would fall short of expectations, maize importation was stepped up to bring the total maize import over the year 1980 to 323,873 tonnes at a total cost of K£25.08 million. Stocks at the end of 1980 had been raised to 90,270 tonnes but this was still far below what could be considered a satisfactory level.

8.14. *Wheat*.—Wheat harvested during 1980 amounted to 215,674 tonnes. Deliveries to the Wheat Board are recorded in Table 8.10 as 204,568 tonnes of which about 37,011 tonnes were from the 1979 crop. The 1980 deliveries were 1.8 per cent higher than those of 1979—a much lower growth rate than the 21.1 per cent increase in deliveries recorded in 1979 over the previous year. The amount of wheat retained for seed was much higher at 11,106 tonnes in 1980, in comparison to 6,300 tonnes retained for seed in 1979. This probably indicates the intention to plant more wheat for the 1981 harvest.

8.15. Domestic consumption of wheat flour rose to a new level of 224,200 tonnes in 1980, as recorded in Table 8.11. This was 41.6 per cent higher than

WHEAT FLOUR CONSUMPTION, 1976-1980

Table 8.11

<i>Year</i>	<i>Tonnes.</i>
1976	136,488
1977	158,400
1978	184,733
1979	158,387
1980	224,200

the 1979 level of 158,387 tonnes and 21.4 per cent higher than the previous record of 184,733 tonnes in 1978. As reported last year, the low figure for 1979 was due to inadequate supply rather than reduced demand. The big rise in wheat flour consumption during 1980 could not all be met from locally grown wheat grain and it was necessary also to rely on imports, including donations from other countries. This general situation is expected to continue in 1981 with local demand for consumption and minimum stock building requirements estimated to exceed domestic production by a substantial margin. The long-term trend for wheat flour is for demand to continue to increase at a fairly rapid rate. Whether local production will be able to keep pace with this growth in demand is uncertain.

8.16. The average price paid to wheat farmers in 1980 was the highest to date. At K.Sh. 1.64 per kilogram, there was a 13.9 per cent improvement over the 1979 average price of K.Sh. 1.44 per kilogram. The producer price rise from K.Sh. 135 to K.Sh. 150 per 90 kg. bag effected in July 1980, should be a positive incentive to expand the area under wheat.

8.17. *Coffee*.—The production of coffee recorded a recovery in 1980 after the two years of decline in 1978 and 1979 (Table 8.10). Total deliveries rose to 91,334 tonnes, a 21.6 per cent rise over the low 1979 figure of only 75,082 tonnes. The 1980 deliveries were second only to those recorded during 1977. The rise in coffee production is mainly attributed to additional coffee trees planted in response to the high prices of 1976/77. Co-operatives did not share fully in the increase in output in 1980, their proportion of total output

falling from 62 per cent in 1979 to 57 per cent. Coffee exports went up from 77,259 tonnes in 1979 to 80,086 tonnes in 1980 but, because of lower world prices, total export earnings from this commodity fell a little, from K£110.6 million to K£108.1 million.

8.18. The rise in coffee production in 1980 was, however, accompanied by a fall in quality. This set-back resulted from insufficient rainfall during the critical period of berry development. During the year ending September 1980, the amount of coffee of grades one to three fell 8.2 per cent while coffee of grades seven to ten increased by 4.9 per cent. The quality of coffee from co-operative recorded the most serious decline, with a decrease of 10.2 per cent in grades one to three and a 6.5 per cent rise in grades seven to ten. Even with this relative decline the co-operatives still managed to produce coffee of better quality than the plantations.

8.19. The coffee year ending in September 1980, was characterized on the world scene by the complete recovery of coffee supplies from Brazil which had been very severely affected by a frost in 1975. Apart from Brazil, most coffee growing countries realized higher production levels as a result of harvests from the additional coffee plantings which had been encouraged by the high prices of 1976/77. The net result was a world supply of coffee much higher than world demand and this has led to a fall in world coffee prices. As a result, the quota system under the International Coffee Agreement was activated in September 1980. With a quota of 70,000 tonnes, Kenya now has an excess of over 20,000 tonnes to be sold in markets not covered by the quota system. In 1980 itself the average price paid to the Kenyan farmer was maintained in the first part of the year but there was a sharp fall from August onwards and the average for the year at K.Sh. 2,634 per 100 kg. was below the average of K.Sh. 2,815 per 100 kg. realised in 1979.

8.20. Implementation of the smallholder coffee improvement programme continued throughout 1980 and the major emphasis was on construction of new processing facilities, intensification of technical advisory and extension services, together with servicing of seasonal credit. Some problems of co-ordination were experienced by the implementing agencies and finance was not always available when needed. In consequence some aspects of the programme are one year behind schedule. Commendable progress, however, was realized in the training aspect of the programme. This aspect is undertaken by the Coffee Research Foundation and involves re-orientation and in-service courses for coffee factory managers.

8.21. A rationalization programme which involves infilling and the creation of more economic coffee holdings covered a total of 9,066 hectares in the form of new plantings, intensifications and infillings in 1980. This programme was started in 1974 and had a target area of 120,000 hectares. The target has now been exceeded by 8,226 hectares and the Coffee Board is restricting seed authorizations and licensing of new nurseries in view of rising production and falling world prices of coffee.

8.22. *Tea*.—The year 1980 recorded a setback in the tea industry in Kenya. As a result of near-drought conditions in all the major tea-growing districts, tea production is recorded in Table 8.10 as falling from the record level of 99,275 tonnes in 1979, to 89,893 tonnes in 1980—the lowest level since 1977. The dry conditions started during the 1979/80 short rain period and continued after the long rains in 1980. Kenya exports of tea fell from 94,023 tonnes in 1979 to only 74,799 tonnes in 1980. The proportion of exports to total production, therefore, also fell from 95 per cent to 83 per cent.

8.23. On the other hand, tea prices were quite steady during 1980, ranging from a minimum of K.Sh. 14.50 per kg. to K.Sh. 17.07 per kg. The average price for the year was K.Sh. 16.01 per kg. These prices were an improvement over 1979 prices which ranged from a minimum of K.Sh. 11.58 per kg. to K.Sh. 15.51 per kg. with an average of K.Sh. 13.51 per kg.

8.24. The smallholder programme recorded some expansion with the addition of 3,743 new growers and an increase in area under tea from 48,954 hectares in 1978/79 to 51,420 hectares in 1979/80 (*see* Table 8.12). The

THE DEVELOPMENT OF SMALL-HOLDER TEA, 1975/76-1979/80

Table 8.12

	Total Hectares at end of year	Number of growers at end of year	Average size of holding per grower in Hectares	Production of ready-made tea tonnes
1975/76	39,740	105,949	0.38	19,442
1976/77	43,636	115,648	0.38	27,720
1977/78	46,861	122,348	0.38	31,867
1978/79	48,954	126,169	0.39	36,196
1979/80	51,420	129,912	0.40	31,018

average area of holding rose a little from 0.388 to 0.396 hectares. However, due to drought conditions, total production of ready-made tea on small-holdings declined by 5,178 tonnes to 31,018 tonnes. This production was 14.3 per cent lower than the 1979 production of 36,196 tonnes and accounted for only 34.5 per cent of total tea production. The Kenya Tea Development Authority is still committed to expanding smallholder tea production and plans to put 3,269 more hectares under tea by the end of its fifth development plan in mid-1982. The authority also plans to minimize leaf loss by making access roads passable in all weather conditions.

8.25. *Cotton*.—The production of cotton during 1980 again increased thus continuing the rising trend which started in 1977 as a result of stepped-up expansion efforts by the Cotton Lint and Seed Marketing Board. At 38,129 tonnes, 1980 deliveries of seed cotton were 38.2 per cent above those of

1979 and more than twice the deliveries of 1977 (Table 8.10). The relatively dry weather conditions were favourable to cotton fibre development and picking. Increased production was recorded in most cotton-growing areas.

8.26. Local producer prices of cotton remained firm throughout the year ranging from a minimum of K.Sh. 2.95 per kg. to K.Sh. 3.58 per kg. The average price paid to farmers during 1980 rose by 3 cents from K.Sh. 3.28 per kg. to K.Sh. 3.31 per kg.

8.27. *Sugarcane*.—In recent years the sugar industry has experienced rapid expansion, with an average growth rate in 1976-80 of 24.6 per cent per annum. As a result the country became self-sufficient in sugar for the first time in 1979. The year 1980 recorded further growth in this industry. Total cane delivered for white sugar production rose by 26.7 per cent, from 3.15 million tonnes in 1979 to about 3.99 million tonnes in 1980. In addition 451,623 tonnes of cane is estimated to have been used in the production of jaggery. The 1980 cane deliveries are only about 500,000 tonnes short of the target to crush 4.5 million tonnes of cane by 1983.

8.28. As Table 8.13 shows, smallholders once again continued to be the major source of cane for sugar production. Cane deliveries from this sector grew by 44.2 per cent above the previous year increasing their share of total

SUGAR CANE PRODUCTION BY TYPE OF GROWER, 1977-1980

Table 8.13

Tonnes

	1977	1978	1979	1980*
Factory Estates	584,248	626,467	920,595	940,350
Large Farms	239,649	282,260	379,618	556,604
Small-Holders	630,374	846,854	1,228,876	1,772,458
Co-operative Societies	278,345	351,079	231,680	309,668
Settlement Schemes	155,524	242,548	386,811	408,348
TOTAL	1,888,140	2,349,206	3,147,580	3,987,428

*Provisional.

deliveries from 30.2 per cent in 1976 and 39.0 per cent in 1979, to 44.4 per cent in 1980. Factory estates retained the second position in importance but experienced a low growth rate of only 2.1 per cent. However, deliveries from large farms recovered and increased by 46.6 per cent, to reinstate large farmers in their former position as the third major source of cane supply. Deliveries from settlement schemes grew moderately by 5.6 per cent while co-operatives recovered from a previous decline to increase their deliveries by 33.7 per cent in 1980 over 1979. The recovery of the co-operatives is, however, not yet complete and their 1980 deliveries of 309,668 tonnes were still below the 1976 and 1978 levels.

8.29. Estimates of refined sugar production show an increase of 21.1 per cent from 359,847 tonnes of mill-white sugar in 1979 to 403,370 tonnes in 1980. Since 1979, Kenya has been a sugar exporter and during 1980 about 38,950 tonnes of sugar were exported, earning the equivalent of K£7.16 million in foreign exchange.

8.30. *Pyrethrum*.—For the last few years, the Pyrethrum Marketing Board has been expending considerable effort to arrest the decline in production which has plagued the industry since 1976. After a record production in 1975, the level of output has been falling steadily each year so that 1979 production was only 55.8 per cent of the 1975 production. The decline was, however, halted during 1980 largely as a result of corrective measures taken by the Board. Deliveries of dried flowers rose by nearly 52 per cent from 8,121 tonnes in 1979 to 12,337 tonnes in 1980. There was a fall in the pyrethrum content of flowers, from an average of 1.46 per cent in 1979 to an average of 1.35 per cent in 1980, but the resulting extract equivalent (pyrethrin) rose by nearly 43 per cent from 113.7 tonnes in 1979 to 162.2 tonnes during 1980 (Table 8.10). The 1980 production level was, however, still a little lower than 1976 production and was only 78 per cent of the record level of 1975.

8.31. The average payment to farmers for the calendar year 1979 was K.Sh. 10.06 per kg. The provisional 1980 producer price of K.Sh. 12 per kg. shows a 19.3 per cent increase over the 1979 figure. The minimum price guaranteed to farmers was fixed at K.Sh. 8.40 per kg. until the middle part of the year and was then raised to K.Sh. 11.50 per kg. of dried flowers.

8.32. The board is committed to the expansion of pyrethrum production and will continue to offer price incentives and support services. It hopes to raise deliveries of flowers to a total of 15,000 tonnes during the year ending in October, 1981.

8.33. *Sisal*.—The sisal industry in Kenya enjoyed good prices in 1980 and output was increased. Following on its modest recovery during 1979, sisal production in 1980 increased by 28.7 per cent from 36,457 tonnes in 1979 to 46,910 tonnes in 1980. This increase was stimulated by much increased prices paid to farmers, which in 1980 stood 52 per cent above the 1978 level (see Table 8.4). Production was also encouraged by the rise in price of substitutes for sisal based on petroleum feedstocks. Total demand for Kenyan sisal during 1980, in fact, exceeded production during the year, and stocks carried over from previous years were reduced. Sisal exports in 1980 amounted to 40,404 tonnes and earned the equivalent of K£8.85 million in foreign exchange. These figures represented a 56 per cent improvement in volume and an 83 per cent increase in foreign exchange earnings over those realised in 1979. The local sales of sisal also rose by nearly 40 per cent and earnings from local sales rose by 71 per cent.

8.34. The rise in world demand and prices in 1980 has been a boon for Kenya's sisal industry. If present prices are maintained, the industry is expected to recover further. It will, however, take considerable time before the industry can hope to equal the 1974 output of 86,526 tonnes.

8.35. *Horticulture*.—Exports of horticultural crops maintained their rising trend, increasing to a new level of 22,265 tonnes in 1980 (*see* Table 8.14). This was a 4.2 per cent increase over the 1979 figure of 21,377 tonnes. Earnings from these exports were K£11.35 million-K£1.62 million or 16.6 per

EXPORTS OF FRESH HORTICULTURAL PRODUCE, 1976-1980

Table 8.14

		<i>Tonnes</i>	K£
1976	..	71,963	5,117,040
1977	..	18,844	6,435,815
1978	..	21,007	7,987,850
1979	..	21,377	9,736,855
1980	..	22,265	11,353,010

cent more than earnings in 1979. Substantial increases were reported in the export of French beans, mangoes, melons, okra and vegetables. However, exports of fresh pineapples decreased by a further 24.8 per cent. Other crops which recorded significant decreases were cut flowers, avocado pears, cap-sicums, mooli and sweet potatoes. During the year there was no green maize available for export by the Horticultural Crop Development Authority as a result of the countrywide maize shortage. The United Kingdom continued to be the main buyer of Kenya's horticultural crops and increased its share of the market from 47 per cent in 1979 to 49 per cent in 1980. West Germany reduced her imports but still accounted for 19.1 per cent of export sales—followed by France who, although reducing purchases by 3.5 per cent, took 10.55 per cent of the market. Italy and Sweden drastically reduced their purchases but Holland, Belgium and Saudi Arabia appreciably increased theirs.

8.36. The Horticultural Crop Development Authority continues to increase its efforts to promote production and export of horticultural crops. There is some limitation on further rapid expansion of the industry because air cargo space is not always available when required but it is possible that the cost of this sort of cargo cannot always be borne economically. The risk element in this part of agriculture is high and market demand must be buoyant in receiving countries to justify the risk. In 1980, most of the industrialized countries which are Kenya's best customers were passing through an economic recession.

Livestock Production

8.37. The year 1980 was generally dry in most areas and grazing for most of the year was poor. Milk sales to the Kenya Co-operative Creameries fell by 54 million litres. This was mostly as a result of the drought but also because some farmers refused to sell milk to KCC at what they felt were low prices in the prevailing difficult conditions. Because of low purchases of milk by KCC, output of all dairy products but especially milk powders fell markedly (*see* Table 8.15). The industry had to import large quantities of milk powder from abroad for reconstituting and sale as liquid milk. It is

SALES TO PUBLIC ENTERPRISES OF DAIRY AND LIVESTOCK PRODUCTS, 1976-1980

Table 8.15

	Unit	1976	1977	1978	1979	1980
KENYA CO-OPERATIVE CREAMERIES Recorded Milk Production*	'000 litres	208,658	259,450	269,796	240,559	186,885
Milk Processed:						
Wholemilk and cream	'000 litres	150,422	157,880	185,557	212,255	186,892
Butter and ghee	Tonnes	3,067	4,342	3,871	3,134	2,174
Cheese		177	445	253	264	150
Evaporated milk		2,099	1,321	489	188	44
Dried Wholemilk powder		3,009	5,262	4,236	1,439	128
Dried skim-milk powder		1,489	3,440	2,956	1,218	80
Other Products		2	1			270
KENYA MEAT COMMISSION Intake of:						
Cattle and calves	'000 Head	228	158	68	68	56
Sheep		12	8	11	10	6
Lambs		1	3	—	—	—
Goats		5	6	70	2	1
TOTAL PRODUCTION OF CAR-CASS BEEF	Tonnes	26,865	20,637	8,890	7,634	6,287
UPLANDS BACON FACTORY Intake of/pigs for:						
Bacon	'000 Head	34	36	34	29	20
Pork		2	3	4	5	5
Manufactures		2	2	2	2	2

*Including sales licensed by the Kenya Dairy Board.

hoped that the milk price rise effected in October 1980, from K.Sh. 1.30 to K.Sh. 1.85 per litre, coupled with a better rainfall pattern in 1981, will result in improved milk purchases by the KCC.

8.38. The intake of cattle by the Kenya Meat Commission (KMC) fell further in 1980 by 12,000 head below the 1979 level. Declines were also reported in the intake of small stock, with the sheep intake decreasing by 4,000 head and intake of goats by 1,000 head. This indicates that the KMC plans were working at an even lower level below capacity in 1980. In addition, there was a further decrease in the commission's share of the livestock market, especially in a year characterized by near-drought conditions and the consequent depletion of stock. A survey of private slaughter-houses in and around Nairobi indicated that the KMC handled only one-third of total cattle slaughtered in the neighbourhood in 1979 and only 7.4 per cent of

the total small stocks slaughtered. The KMC has not been able to offer prices high enough to compete with private abattoirs and farmers have been reluctant to offer their stock to KMC, especially in the face of the higher cost of cattle feed. The newly formed Ministry of Livestock Development, however, has indicated that it will maintain an aggressive policy and intends to review the whole structure of the industry. When the national herd has been improved and increased, it is hoped that the KMC will once again play a key role in buying, processing and distribution of livestock products.

8.39. The total intake of pigs by the Uplands Bacon Factory recorded another decline in 1980, of 9,000 animals. At 27,000 head, the intake was the lowest for many years and the third consecutive year of decrease. Virtually all the decline has been in baconers, whose intake fell from 29,000 head in 1979 to 20,000 head in 1980. The intake of porkers and other pigs remained unchanged.

Agriculture Development Services

8.40. *Training.*—Table 8.16 sets out details on agricultural training at various institutes. The University of Nairobi had, during the academic year 1980/81, a total of 733 students for degree courses in faculties of agriculture (excluding forestry) and veterinary medicine. Some 214 of these are expected

TOTAL ENROLMENTS AT AGRICULTURAL TRAINING INSTITUTIONS, 1976-1980

Table 8.16

Numbers

	1976	1977	1978	1979	1980
DEGREE LEVEL -					
University of Nairobi—Faculty of Agriculture	202	284	353	379	408
Faculty of Veterinary Medicine	313	329	317	332	325
DIPLOMA LEVEL					
Egerton College	682	687	683	787	860
CERTIFICATE LEVEL—					
Bukura Institute of Agriculture	187	176	142	175	150*
Embu Institute of Agriculture	190	169	150	154	150*
Animal Health and Industry Training Institute	215	285	310	272	275*
SHORT-TERM VOCATIONAL COURSES—					
Naivasha Dairy Training School	490	405	356	713**	1,160

*Provisional.

**Includes short course seminars.

to graduate at the end of the current academic year—125 in agriculture and 89 in veterinary medicine. In addition nearly 200 students were taking post-graduate studies in the two faculties. The new intake for training at the certificate level remained about the same in the agricultural institutes at Embu, Bukura and in the Animal Health and Industrial Training Institute. The Naivasha Dairy Training School—offering short courses and seminars for extension workers but mostly for students from other colleges had a busy year and handled a total of 1,160 students in 1980. This number is expected to increase to 1,288 students during 1981.

8.41. *Irrigation*.—Table 8.17 shows the progress of the six irrigation schemes which are managed by the National Irrigation Board. The total area cropped under these schemes rose by only 242 hectares in 1979/80 over 1978/79. The number of plottolders rose by 270. so that the average

PROGRESS AND PRODUCTION AT SIX IRRIGATION SCHEME AREAS, 1975/76—1979/80

Table 8.17

	1975/76	1976/77	1977/78	1978/79	1979/80
MWEA—					
Area Cropped— <i>Hectarres</i>	5,609	5,616	5,648	5,767	5,767
Plot-holders— <i>Number</i>	2,972	2,973	3,003	3,149	3,150
Gross value of output—K£'000	1,851	2,088	2,054	1,926	1,637
Payments to plot-holders—K£'000	1,346	1,083	1,566	1,416	1,412
ALL (6) SCHEME AREAS—					
Area cropped— <i>Hectares</i>	8,285	8,728	8,607	9,296	9,538
Plot-holders— <i>Number</i>	4,554	4,744	4,904	5,283	5,553
Gross value of output—K£'000	2,450	2,880	2,659	2,779	2,496
Payments to plot-holders—K£'000	1,652	1,553	1,825	1,659	1,870
CROPS PRODUCED— <i>Tonnes</i>					
Mwea—Paddy	32,060	35,960	32,289	29,046	29,202
Ahero—Paddy	3,747	5,127	3,985	3,539	4,106
West Kano—Paddy	—	1,477	1,009	2,146	3,379
Bunyala—Paddy	1,189	1,074	756	681	789
Tana—Cotton	2,209	2,507	1,309	1,382	1,242
Perkerra—Onions	775	1,083	418	577	1,127
Chillies	178	172	132	165	603

size of plot fell slightly from 1.76 hectares in 1979 to 1.72 hectares in 1980. The total gross value of output fell slightly, mainly as a result of a reported fall in the quality of rice paddy from the Mwea Irrigation Scheme, accompanied by decline in the value of cotton from the Tana Irrigation Scheme.

8.42. Unlike the previous years, 1979/80 registered an increase in output of rice paddy of about 6 per cent. All the schemes produced more paddy but the largest increase, of about 1,233 tonnes, came from the West Kano Scheme. The recovery to the 1976/77 output of 43,638 tonnes is still far from completed and it will be some time before output can be restored to this level. The output of cotton from Tana Irrigation Scheme fell to 1,242 tonnes while output of chillies and onions from Perkerra both rose appreciably. Work on the Bura Irrigation Scheme in Tana River District is now completed and the first settlers were expected during April 1981. The major commercial crop in this scheme area, to be managed by the National Irrigation Board, will be cotton.

8.43. The Ministry of Agriculture continues to co-ordinate the development of small-scale irrigation schemes. The overhead irrigation scheme at Kibirigwi is now fully operational and has been officially opened. A co-operative society has been formed to co-ordinate the repayment of the capital investment and handle marketing problems. The design for the irrigation scheme at Mitunguu is being prepared while that for Muka Mukuu is ready and being reviewed. The final design for the Yala Swamp reclamation project is also at the review stage. Construction work for all three schemes is expected to start during the 1981/82 financial year. The Mtungu scheme is to be an overhead sprinkler irrigation scheme while Muka Mukuu will feature both sprinkler and farrow methods.

8.44. The New Lower Tana Irrigation Programme progressed satisfactorily during 1980. The central management office for the programme at Minjila Hill were completed and are already occupied. Schemes at Hewani and Ngao are operational and are growing bananas, maize and rice. The scheme at Sabaki is under construction while a design is under preparation for a scheme at Vanga.

8.45. Irrigation schemes in arid areas are being developed in a major effort to convert the nomadic pastoralists who occupy these areas to a settled, agriculturally productive way of life. Schemes which are already operational include Amorem in West Pokot, Katilu and Turkwell in Turkana District, the Garissa and Mandera clusters of small schemes; and the Isiolo cluster which includes Malka Daka, Merti, Rapsu and Kinna. These schemes grow maize, cotton, greengrams, cowpeas, bananas, groundnuts, citrus fruits and vegetables both for sale and subsistence.

Land Adjudication

8.46. A total of 357,200 hectares were registered during 1980, bringing the total area of registered land so far to 5.87 million hectares. The total area registered, adjudicated or under adjudication was 8,426,000 hectares as at December 1980, equal to 63.8 per cent of the total registrable land. Rift Valley Province was once again the main area of adjudication activities in 1980 and recorded a total of 334,100 hectares registered during 1980. Coast Province followed with 166,300 hectares of newly registered land, while Nyanza and Eastern Provinces registered 3,100 hectares and 3,300 hectares, respectively. The expected adjudication work in North-Eastern Province had not yet started as at end-1980.

8.47. Kajiado District had the highest share of the newly registered land with 208,994 hectares, more than half of the total. Narok with 95,454 hectares came next. Other districts were Taita, 11,737 hectares, and West Pokot, 10,042 hectares. There were no new registration in Samburu District, but Nyeri registered 352 hectares divided into 224 new holdings.

Table 8.18

	Registered Areas		Area Adjudicated but not Registered		Area in Progress	Total Land Registered Adjudicated or under Adjudication	
	000 Holdings	000 Hectares	000 Holdings	'000 Hectares	000 Hectares	'000 Hectares	% of Total Registrable Land
Western	256.0	597.5		8.7		606.2	94.6
Nyanza	310.4	622.7		19.8	401.7	1,044.2	93.1
Central	238.3	413.2				413.2	100.0
Rift Valley	107.3	3,457.3		39.0	1,306.9	4,803.2	74.8
Eastern	150.9	443.2		21.3	451.2	915.9	28.3
Coast	39.1	337.6		1.8	293.9	643.3	45.4
ALL PROVINCES	1,102.0	5,871.5		100.8	2,453.7	8,426.0	63.8
At 31-12-1979 ..	1,092.4	5,514.3		129.1	1,624.7	8,268.1	62.6
Change	9.6	357.2				157.9	1.2

National Food Policy

8.48. The Government has formulated a national food policy contained in Sessional Paper No. 4 of 1981. The major objectives of this policy are for the country to achieve and maintain self sufficiency in main foodstuffs to enable the nation to be fed without undue strain on scarce foreign exchange; achieve a calculated degree of security of food supply for every part of the country; and ensure a distribution system which enables every member of the population to get a nutritionally adequate diet.

8.49. Self-sufficiency will be achieved through broad expansion of production of major food crops at growth rates high enough to keep pace with population. The expansion programme will involve extension of crop areas as well as more intensive cultivation of land already under food crops. Farmers are to be given price incentives, provided with access to inputs as well as financial resources, together with more extension services, in-training and on-the-spot training. Security of food supply will be achieved through increasing production in all areas, especially arid areas where planting of drought resistant crops like sorghum and millet is to be encouraged. Weather will be monitored more closely and the information on forecasts and weather trends is to be disseminated more widely. There will also be stricter regulation on food exports and food will be imported only when necessary. Food security and distribution will be enhanced by expansion of storage facilities at all levels, setting up multi-commodity strategic reserves and market information services for both producers and consumers. The strategic reserves of the major food crop, maize, are to be increased from the present level of 2 million to 4 million bags.

8.50. The Ministries of Agriculture and Livestock Development will liaise closely in carrying out a comprehensive range of programmes. Implementation of these programmes will be the responsibility of five Food Policy

Committees which will be formed for this purpose, with membership drawn from all relevant Ministries, parastatals and other organizations. Four of these committees will be primarily concerned with development of detailed action programmes in each of the four areas of food production expansion; agricultural inputs; food processing and marketing; and nutritional needs. The fifth committee will be involved in the study of medium and long-term policy alternatives with a view to making recommendations and adapting to changing circumstances. This fifth committee is expected to be closely involved in preparation work for the 1984-88 Development Plan.

8.51. The Kenya Seed Company, in which the Government is the majority shareholder, is expected to step up production of seed for both food and fodder. Production and distribution of maize and wheat seed is targeted to rise by 150 per cent by 1990. Use of fertilizers is to increase at the rate of 20 per cent per annum for the next three years. Promotion of fertilizer use will be done via demonstration, and distribution of handbooks on usage. Regular importation will ensure supply and, when finances allow, the fertilizer will be sold at subsidized rates. Issue of the already operational seasonal credit scheme is to be expanded to include more crops. The scheme currently covers only maize and wheat and the food policy proposes expansion of area covered by the scheme to 607,017 hectares and 101,170 hectares for maize and wheat, respectively. Other sources of credit to be expanded are the Agricultural Finance Corporation and the Integrated Agricultural Development Programme. AFC has previously been extending credit to dairy farmers only but will be expected to include new producers of pigs, poultry and even rabbits. There is a long-term aim of decentralizing the issue of credit and also providing crop insurance cover. An information team which includes the Central Bureau of Statistics will be responsible for monitoring developments and providing information for evaluation purposes, in addition to making forecasts of crop yields.

CHAPTER 9—NATURAL RESOURCES AND ENVIRONMENT

The exploitation of Kenya's natural resources calls for policies which will ensure that these resources will remain to be of benefit to future generations. Proper management of soil, water, forestry, fisheries, rangelands and other animal life is therefore essential. The principal resources are commonly referred to as "renewable resources". The rate and technological mode of harvesting these renewable resources have an impact on the continuing well-being of the natural environment. For "non-renewable resources" such as minerals, the main concern is to establish an optimum rate of extraction to bring maximum benefit over time. Therefore, all resources if properly exploited will contribute to long term economic development, the creation of employment and directly or indirectly will enhance foreign earnings of this country with minimum degradation of the natural environment.

Water

9.2. The National Water Development Policy of providing clean and piped water to all Kenyans by the year 2000 continued to be the main basis of development. To achieve this target, the Government has diverted a significant proportion of its financial resources towards the development of water supplies as reflected in the total expenditure requirements in its current 1979-1983 Development Plan.

9.3. Phase I of the National Master Water Plan for Kenya is expected to be completed by June 1981, and will provide detailed information on the availability and reliability of the country's water resources. This phase will also contain information on the country's irrigation and hydro-power potential, the latter being an input prerequisite in the formulation of food and energy resource policies. Phase II of the National Master Water Plan which is expected to cost approximately K£3 million to detail, will provide a basis for comprehensive river basin water development. This pre-investment phase has already been started.

9.4. Table 9.1 details total expenditure on water development and related services incurred by the Central Government and other public authorities during the period 1976/77 to 1980/81. In 1980/81 total expenditure on water development declined by K£3.0 million or 9.6 per cent as compared to the previous year when K£34.1 million was spent. The completion of the Sabaki scheme in the 1980/81 period was the main reason for the overall decline in total expenditure.

9.5. The giant Sabaki water project under the Mombasa and coastal water supplies programme in the Coast Province became partly operational in November 1980, and now produces up to 18,200 cubic metres of water per day; the scheme in full operation will supply enough water to suffice a population of 600,000 people in the area. It is expected that full operational

DEVELOPMENT EXPENDITURE ON WATER SUPPLIES AND RELATED SERVICES, 1976/77-1980/81

Table 9.1

K£'000

	1976/77	1977/78	1978/79	1979/80	1980/ 81*
Ministry of Water Development—					
Urban water supplies	728	2,228	2,290	3,645	2,030
Rural water supplies	2,922	3,961	4,130	8,107	4,551
Sabaki River Project	3,186	12,225	7,715	5,343	3,250
Miscellaneous programmes	2,755	5,973	6,209	835	939
Mombasa Pipeline Board	399	650	385	37	100
Tana River Development Authority	732	10,983	8,034	11,115	14,840
Other Ministries	125	130	140	186	208
Local Authorities	2,418	3,754	4,598	4,856	5,200
TOTAL	13,265	39,904	33,501	34,124	31,118

*Provisional.

capacity will be reached by June 1981. This project is funded by the World Bank and the West German Government. Expenditure by the Tana River Development Authority rose from K£11.12 million in 1979/80 to K£14.84 million in 1980/81 or by 33.5 per cent and this scheme area should be the main focus on expenditure from now on.

9.6. Table 9.2 shows the provincial distribution of rural water supply project schemes operational or expected to be operational as at June 1979, June 1980 and June 1981, respectively. The number of projects operational by June 1981, increased from 111 in 1980 to 120. These projects involve a total expenditure of approximately K£17.96 million.

RURAL WATER SUPPLY PROJECT SCHEMES OPERATIONAL OR EXPECTED TO BE OPERATIONAL
AT JUNE, 1979, 1980 AND 1981

Table 9.2

Province	JUNE, 1979		JUNE, 1980		JUNE, 1981*	
	No.	Cost K£'000	No.	Cost K£'000	No.	Cost K£'000
Central	11	4,525	13	5,500	17	8,185
Coast	10	399	11	454	11	454
Eastern	19	2,180	19	2,180	20	2,715
North-Eastern	15	157	15	157	15	157
Nyanza	15	3,198	15	3,198	15	3,198
Rift Valley	32	917	32	917	34	1,217
Western	6	585	6	585	8	2,035
TOTAL	108	11,961	111	12,991	120	17,961

*Provisional.

9.7. A policy of decentralization of water quality and pollution control has commenced with provincial offices already established in Mombasa, Nyeri, Nakuru and Kisumu. It is hoped that this will enable the Ministry's Inspectorate Unit to control and manage sources of pollution activities in urban and rural areas more effectively. One other major activity in 1980 was the commissioning of the Dandora Sewage Treatment Plant to complete the ten-year programme for waste-water treatment facilities of the City Council of Nairobi. There is also a proposal to provide data for future management of water quality and resources for this council. The Water Act Review Committee completed its work with proposals for sterner measures to be taken against those who contravene the anti-pollution regulations.

9.8. The Ministry of Water Development working with the Ministry of Livestock Development is involved in developing a comprehensive water supply in livestock rearing areas. During the period 1980/81 water conservation projects were undertaken in Baringo, Samburu, Laikipia, Marsabit, Kwale, Kitui and Taita-Taveta districts. The Ministry also took over the operation and maintenance of the K£2.5 million Kandara Water Supply Project in Murang'a District. Under the Machakos Integrated Programme an additional 26 sub-surface dams were constructed.

9.9. The development of ground water sources is an important aspect of rural water development. The Ministry is actively involved in the exploration of ground water potential in the dry regions of the Eastern and North-Eastern provinces. In 1980, a total of 110 boreholes were drilled out of which 103 were successful. The relative success in this venture is partly attributed to the better servicing of the rotary rigs by the drilling section of the Ministry.

9.10. Due to the high demand for skilled manpower to undertake the operational construction of water supplies, the Ministry of Water Development is currently involved in various training programme activities. It is running a one-year post-graduate diploma course at the University of Nairobi in Water and Waste-water Engineering. For the lower cadre, the Ministry has training arrangements with three institutes of technology and also the Kenya Polytechnic. The Water Development Staff Training School is expected to have a cumulative number of 1,100 students by June 1981.

Forestry

9.11. Table 9.3 shows that an additional 5,000 hectares of all types of trees in plantation areas were planted in 1980. This raised the total area of planted forests from 162,100 hectares in 1979 to 167,100 hectares in 1980. Amongst these, 1,541 hectares were established in Turbo, Eldoret and Kitale divisions to supply the giant Webuye Pulp and Paper Mills with its raw-material requirements while 2,300 hectares of pines for other uses were also planted. Therefore, a total of 26,200 hectares have now been planted since 1975 and the plantation area now accounts for 10.7 per cent of the total gazetted forest land in Kenya.

FOREST PLANTATION AREA, 1976-1980

Table 9.3

'000 Hectares

	1976	1977	1978	1979	1980*
Indigenous softwoods	3.7	3.7	3.7	4.6	4.7
Indigenous hardwoods	6.4	5.4	5.4	5.3	5.4
Exotic softwoods—					
Cypress	59.5	62.8	66.5	68.1	70.6
Pines	67.1	68.4	70.4	71.5	73.8
Exotic hardwoods—					
Timber	1.8	1.8	2.2	2.8	2.8
Fuel	9.3	9.5	9.7	9.8	9.8
TOTAL AREA	147.8	151.6	157.9	162.1	167.1

*Provisional.

9.12. The Rural Afforestation Extension Scheme continued operating in the 38 administrative districts with each district running one main nursery with smaller nurseries at the divisional level. Seedlings continued to be either freely supplied or sold to the public at low price.

9.13. Forest Fire Management reported 14 cases of forest fires in 1980 which destroyed a total area of nearly 16 hectares of exotic plantations, 60 hectares of indigenous forests and large areas of grass and bush. Fires were also reported in sugar-cane areas doing very considerable damage. One estimate suggests that bush, forest and cane fires in 1980 lost resources valued at K£5 million.

9.14. Table 9.4 gives details of sales of forest products during the last five years. It is noted that about 514,000 cubic metres of sawn timber were recorded as sold in 1980, a rise of 9.8 per cent on 1979 and continuing the

RECORDED SALES OF FOREST PRODUCTS, 1976-1980

Table 9.4

	1976	1977	1978	1979	1980*
Timber '000 true cu. metres—					
Softwood	350	350	383	396	436
Hardwood	54	84	83	72	78
TOTAL	404	434	466	468	514
Fuel '000 stacked cu. metres—					
Fuelwood	64	90	104	121	69
Charcoal	115	58	38	12	1
Power and Telegraph Poles— numbers	15,221	6,193	8,684	8,893	12,364

*Provisional.

upward trend apparent since 1975. Softwood sales rose by 10.1 per cent and these sales at 436,000 cubic metres in 1980 accounted for the vast bulk of recorded forest product sales. However, it must be borne in mind that most trees in Kenya are cut for fuelwood or to make charcoal. These two uses account for much more than 10 million tonnes annually.

9.15. Forest research at the Coast is geared to experiments designed to provide standard nursery techniques. A mycorrhizal study was initiated whereby fungi from Georgia in the United States of America and from South America are being tried in the raising of *Pinus Caribeae* and *Pinus Oocarpa*. Other studies conducted to date have shown that weed competition poses the biggest problem to tree establishment and growth. In addition, a comprehensive ecological study was initiated in South Nandi and Kakamega forests under specified felling regimes. This study is designed to provide information on the rational management of the natural forests on a sustained yield basis.

Fisheries

9.16. Fish landings from both fresh water and marine water as shown in Table 9.5 declined by 15 per cent to 42,824 tonnes in 1980 compared to the 1979 total catch of 50,313 tonnes. Nevertheless, the total value of the catch rose from K£4.7 million in 1979 to estimated K£4.8 million in 1980. This

QUANTITY AND VALUE OF FISH LANDED, 1976-1980

Table 9.5

	1976	1977	1978	1979	1980*
Quantities <i>Tonnes</i> :—					
Freshwater fish—					
Lake Victoria	18,680	19,332	23,856	30,592	27,200
Lake Turkana	17,044	15,473	15,560	13,731	8,380
Other areas	1,148	1,820	2,344	2,075	3,524
TOTAL	36,872	36,625	41,760	46,398	39,104
Marine fish	3,889	4,046	4,178	2,858	3,490
Crustaceans	159	208	365	256	206
Other marine products	101	82	19	801	24
GRAND TOTAL	41,021	40,961	46,322	50,313	42,824
Value K£'000:—					
Freshwater fish	2,200	2,020	3,282	3,708	3,849
Marine fish	541	679	796	625	757
Crustaceans	70	103	216	184	147
Other marine products	89	58	47	139	4
TOTAL	2,900	2,860	4,341	4,656	4,757

*Provisional.

table also indicates that fresh water landings declined from 46,398 tonnes in 1979 to 39,104 tonnes in 1980 or by 16 per cent while marine water landings also declined from 3,915 tonnes to 3,730 tonnes or 5 per cent.

9.17. While Lake Victoria continued to dominate in total fish output by accounting for 63 per cent of the total landings in 1980, the catch declined by 11 per cent from the 1979 level. The landings from Lake Turkana showed a particularly large fall with only 8,380 tonnes caught in 1979 compared to 13,731 tonnes in 1980. This decline is attributed to storage and international marketing problems encountered by the Lake Turkana Co-operative Society. However, it is anticipated that with a more stable political atmosphere in Uganda through which the dry salted fish is transported to its major market in Zaire and with the improved processing and transportation facilities funded by NORAD, there is every possibility that fish production will be stepped up once again in this area.

9.18. Even though the Lake Turkana research project and gazetted Lake Turkana regulations have given a sound base for managing the fisheries in this region, a long-term plan needs to be developed to take into consideration the possibility of the lake's ecosystem being polluted by surface run-offs containing agricultural chemicals discharged from the irrigation schemes likely to be developed in the catchment area of the lake.

9.19. The Kenya Coast Fisheries Co-operative is being helped by a K£3.7 million loan from the World Bank to help in the construction of better motorized fishing craft thus enabling fishermen to go further afield, to fish throughout the year and stay out for much longer periods. Another (FAO) project is to cover the construction of a marine fish farm at Ngomeni, north of Malindi. While under the Nordic programme, work is being undertaken on the development of fresh water farming in Taita/Taveta District with most of the activities being concentrated in Lake Jipe and Chale areas.

9.20. Meanwhile, research continues to be carried out by the Kenya Marine Fisheries Research Institute to promote the development of fisheries at the Kenya Coast.

Mining

9.21. Table 9.6 shows that in 1980 the total value of mineral production rose from K£11,126 in 1979 to K£16,017 or by 44 per cent. The value of the output of the major minerals Soda Ash and Fluorspar increased by 73.0 per cent and 44.7 per cent respectively. Salt output also increased in value from K£698,000 to K£710,600 or nearly 2 per cent.

9.22. The average export price per tonne for Soda Ash doubled from K£25.8 in 1979 to K£52.2 in 1980 while for Fluorspar it declined slightly from K£33.4 in 1979 to K£33.1 per tonne in 1980 as indicated in Table 9.7. As exports are used to establish the value of output of Soda Ash and Fluorspar, the relationship of unit prices for exports and total value indicates a lower volume of Soda Ash exported in 1980 but a larger quantity of Fluorspar.

VALUE OF MINERAL PRODUCTION, 1976-1980

Table 9.6

	1976	1977	1978	1979	1980*
Soda Ash	3,019	2,643	3,684**	5,557	9,615**
Fluorspar	1,788	2,832	2,567	1,984	2,871**
Salt	669	719	450	698	711
Limestone Products	433	532	462	387	570
Other	1,807	2,088	1,483	2,500	2,300+
TOTAL	7,716	8,814	8,646	11,126	16,067

*Provisional.

**Export value.

+Rough estimates only.

AVERAGE EXPORT PRICES OF SELECTED MINERALS, 1977-1980

Table 9.7

k£ per tonne

	1977	1978	1979	1980*
Fluorspar	24.8	24.9	33.4	33.1
Soda Ash	26.4	23.9	25.8	51.2
Corundum—Ruby	96.0	68.5	81.2	82.1+

*Provisional.

+Rough estimate only.

9.23. Underground steam is being developed as one of Kenya's more valuable natural resources, with the Okaria field planned to become an important source of geothermal power during the decade. This topic receives further attention in the section on electricity in Chapter 10.

9.24. The Mines and Geological Department continued its exploration programme by deploying a total of three drilling rigs in Western Kenya and the Coast. A four-year project to undertake a detailed study in Samburu and Marsabit districts was launched, helped by a financial contribution amounting to K£559,000 from the British Government.

Resource Monitoring Activities

9.25. The Kenya Rangelands Ecological Monitoring Unit (KREMU) is involved in ecological monitoring of selected aspects of environmental attributes not only in the rangelands but also in the forest areas in the high potential areas of the country. The principle behind the ecological monitoring concept is that of gathering data over time for selected areas using both ground and aerial surveys and systematic sampling techniques. The data collected is then enhanced by the application of remote sensing technology. Some aspects of the results and benefits accrued from the practice of ecological monitoring form one basis to help the rational planning of the management of Kenya's renewable resources.

9.26. Tables 9.8 and 9.9 show wildlife and livestock population trends monitored throughout the rangelands area of 500,000 km² from 1977 to 1980. In 1977 the minimum total livestock population count of cattle, sheep, goats, donkeys and camels was 11,886,000 compared to 1,449,000 for wildlife herbivores. In 1978 livestock numbers increased by 1,677,000 to reach 13,563,000, a rise of 14.1 per cent. This increase was attributed to improved range forage and water availability in the rangeland areas. Wildlife herbivores rose to 1,934,000 showing a much greater rate of increase of 33.5 per cent.

9.27. The increase of 2,163,000 livestock and wildlife numbers from 1977 to 1978 consisted mainly of sheep and goats which increased by 1,436,000 or 20 per cent, cattle by 151,000 or 4 per cent, Impala by 109,000 or 75 per cent, Grant's Gazelle by 95,000 or 40 per cent. Thomson's Gazelle by 80,000 or 9 per cent and donkeys by 52,000 or 38 per cent. However, other wildlife species showed declines in their population numbers. These included for elephants a fall of 28 per cent, rhinoceros by 60 per cent, Grevy's Zebra by 41 per cent, waterbuck by 16 per cent and warthog by 3 per cent. The distribution of elephant and rhinoceros was severely constricted during the years 1977 and 1978 due to poaching and conflict with agriculture and forestry activities. In interpreting these figures, however, it should be borne in mind that they were influenced by movement of animals between national boundaries.

9.28. Livestock and wildlife populations for the ten districts of South Kenya eco-region were compared for the wet season in 1977 and the dry season in 1980 as indicated in Tables 9.8 and 9.9. Both livestock and wildlife

LIVESTOCK POPULATION* OF KENYA RANGELANDS, 1977-1980

Table 9.8

'000 Head

SPECIES	ENTIRE RANGE LANDS**		SOUTH KENYA—ECO-UNIT(+)	
	1977	1978	1977	1980
Cattle	4,073	4,224	3,231	3,399
Sheep & Goats	7,075	8,511	2,730	2,793
Donkeys	135	187	54	36
Camels	603	641	31	46
TOTAL	11,886	13,563	5,146	6,274

*This is the minimum population uncorrected for visibility bias. The actual population is believed to be 19 per cent higher.

**Rangelands districts include: Kajiado, Nakuru, Narok, Kitui, Machakos, Lamu, Tana River, Kilifi, Taita Taveta, Kwale, Marsabit, Wajir, Mandera, Turkana, Elgeyo Marakwet, Baringo, Samburu, Isiolo, Meru, Garissa, Laikipia and West Pokot.

+South Kenya Eco-Unit districts include: Kajiado, Nakuru, Narok, Kitui, Machakos, Lamu, Tana River, Kilifi, Taita-Taveta and Kwale.

WILDLIFE POPULATION* OF KENYA RANGELANDS, 1977-1980

Table 9.9

'000 Head

SPECIES	ENTIRE RANGELANDS**		SOUTH KENYA ECO-UNIT(+)	
	1977	1978	1977	1980
Elephant	60	43	43	29
Rhinoceros	2	1	2	1
G. Gazelle	236	331	61	78
T. Gazelle	164	244	121	66
Impala	145	254	112	90
Wildebeest	148	207	148	1,253
B. Zebra	147	182	120	169
G. Zebra	13	8	0	0
Topi	88	139	82	167
Kongoni	40	59	36	47
Buffalo	63	85	58	58
Giraffe	79	78	39	40
Oryx	64	75	26	33
Eland	41	51	28	21
Gerenuk	49	56	7	14
Waterbuck	22	18	18	24
L. Kudu	17	19	8	11
Hittartebeest	2	8	2	13
Warthog	37	36	30	20
Ostrich	32	40	11	13
TOTALS	1,449	1,934	952	2,147

*This is the minimum population uncorrected for visibility bias. The actual population is believed to be 33 per cent higher.

(**) and (+) as indicated in Table 9.8.

populations continued to increase up to 1980 throughout the eco-region but the number of elephants declined by 32.6 per cent and of rhinoceros by 68.8 per cent. For other species there were large seasonal differences in population estimates because of movements across national borders as well as between the North and South Kenya eco-regions. Another factor that affects seasonal estimates is the visibility bias, which is more acute during the wet season.

9.29. The heaviest stocking rates occur in the South-West eco-region where livestock plus wild herbivore densities averaged 132 herbivores/km² in 1979. This amounted to a biomass density of 16 tonnes/km². Wildlife species increased at the rates of 5 to 10 per cent annually and the wildebeest populations on the Mara and Loita Plains in 1979 were 6 times higher than in 1961. As livestock populations have also increased significantly on many rangelands, there is a serious conflict between livestock and wildlife and the productivity of these areas is at risk.

9.30. KREMU is also monitoring long term vegetation trends and assessing plant biomass over the rangelands. Over 140 vegetation plots have been established and it is expected that 250 such vegetation plots will be developed covering the entire rangelands. Data is available on range condition, trends, biomass-carrying capacity, detailed plant check-lists and description of flora in representative areas. Such data is useful in assessment of potential fuel-wood availability as well as determining vegetation trends in the country.

9.31. Use of remote sensing technology enhances the knowledge of the rangeland areas. The use of this method has been instrumental in habitat mapping for such areas as Lamu, Narok and in estimating areas of green biomass. The technology is also being applied to delineate existing forest boundaries and detect the extent of possible forest cover changes in the high potential areas. There is also a potential in using this technology in determining the extent of agricultural encroachment in the rangelands of Kenya, crop assessments, detection of diseased plants, drought, floods and sedimentation. Preliminary land-use pattern maps of the entire country as an input for rational planning and management for renewable resources are being processed.

9.32. Training programmes have also formed an integral part of KREMU's activities. Both ecologist and biologist technical assistants have been sponsored through the Canadian International Development Assistance Agency (CIDA) for post-graduate training at both degree and diploma levels. This is in addition to in-service and on-the-job training programmes. A training institute for the department is now being built.

9.33. The Wildlife Conservation and Management Department has completed a comprehensive study and made recommendations for a rational management of Very Large Herbivores (VLH) namely buffalo, elephant, hippo and rhino. This project was funded by the International Bank for Reconstruction and Development (IBRD-World Bank). The basic ecological data for this study was retrieved from KREMU.

State of the Environment

9.34. Since the 1972 UN Conference on Human Environment, many countries have been reviewing their environment situations. It is a way of responding to public demands for environmental information, it assists in the definition, implementation and evaluation of environmental policies and helps to incorporate environmental concerns in decision making.

9.35. The Kenya Government policies with respect to the preservation and improvement of the environment are based on the premise that the prevention of harmful effects is less costly than their subsequent correction. Hence, environmental considerations must be incorporated at the planning stage of development projects to ensure that the patterns and styles of development are consistent with a healthy and sustainable environment.

9.36. This country's environmental concerns fall into three broad categories. The first category are those arising out of the poverty or inadequacy of development. These are the most important and pressing environmental problems and consist of inadequate water supplies, inadequate sewage and other waste disposal facilities, poor housing and slum generation. The second category covers those environmental problems connected with development. These are water, air, noise and rubbish pollution, dangers connected with increased use of chemicals, congestion and loss of sense of community, and depletion of resources. The final category of environmental concerns encompasses those problems which result from natural phenomena. These include floods, crop-pest insects, storms and others.

9.37. In agricultural development, there is a threatening danger of loss or degeneration of quality of the soil itself and harmful effects of the application of certain chemicals. Large-scale irrigation projects have been associated with dangers of flooding, siltation, salinity, diseases and water management problems as in some cases environmental considerations were not fully taken into account during the planning stages.

9.38. Forests are renewable if harvested under rational management procedures. The multiple uses of forest land are often to a degree incompatible, but for them to continue, preservation or regeneration of forests is necessary. Accordingly, much of the environmental considerations focuses on deforestation and its consequences. In this country large numbers of trees are felled each year for fuel. Clear forest cutting and uncontrolled forest fires increase erodability. Soil erosion has not only an impact on agricultural productivity but it encourages silting in the hydro-scheme dams and thus reduces their output. For example it is estimated that Tana River basin between Seven Forks and Grand Falls has been losing 16 million tonnes of top soil annually. Therefore, such environmental problems have a high impact on the future of energy resources in this country.

9.39. The National Environmental Secretariat is conducting a project on environment and development, being a joint venture of the Government of Kenya, the United Nations Environment Programme and the United Nations Development Programme. The main objective of this project is to establish the inter-relationships between environment and development in Kenya in order to assist in the harmonization of the measures taken with appropriate policies. The Secretariat has also initiated a project called District Environment Assessment. Exercises were completed in Kajiado, Nyeri, Kisii and Kitui districts and work is now underway in Murang'a, Nakuru, Kilifi and Busia districts.

9.40. Two research projects on human settlements and health have also been initiated. They are aimed at innovating appropriate technologies for shelter, infrastructure, services and improving the quality of low-cost building materials for low-income dwellers in urban areas.

9.41. There are also proposals to carry out co-ordinative work and research on the ecosystems of Lakes Nakuru and Naivasha; to have a close work relationships with the Permanent Presidential Commission on soil conservation and re-afforestation; to make an assessment of the on-going project of agricultural land reclamation of the Yala Swamp and finally to establish the National Environment Research Centre and Monitoring Unit.

9.42. Non-governmental organizations in co-operation with the Government and co-ordinated by the Nairobi-based Environment Liaison Centre, have increased their activities in the field of environment. They direct their activities towards the adoption, both locally and nationally, of patterns of development and life-styles which are consistent with the satisfaction of basic human needs for present and future generations without serious environmental degradation.

CHAPTER 10—ENERGY

The consumption of energy derived from oil, coal, coke and electricity in the modern sector of the economy continued its upward trend and grew by 4 per cent in 1980 as compared with 2 per cent in 1979. The total increase for the two years approximates to the rise in GDP at constant prices. The high rate of population growth of at least 3.4 per cent a year means that per capita consumption of these fuels has actually fallen since 1978.

10.2. The relationship between the rise in consumption of energy and the growth of the economy is brought out in the following sets of figures which show in index number form growth in monetary economy in real terms and the increase in volume of total consumption of commercial energy with oil consumption given separately.

	Index of Monetary GDP at Constant Prices	Index of Consumption Oil, Coal and Coke and Electricity	Index of Consumption of Petroleum Products
1974	94	89	87
1975	98	91	89
1976	100	100	100
1977	109	104	103
1978	116	111	106
1979	120	113	%+
1980	124	%%+	%%

In Kenya as in any other developing country energy plays a crucial role in economic growth and at the current stage of its development the increase in "commercial" energy usage in the past was typically greater than the rise in GDP at constant prices. This tendency prevailed up to 1976 but from then on because energy has become more expensive, the growth in GDP has been more rapid than the increase in consumption of these types of energy. Since 1976 the GDP at constant prices has grown by 24 per cent but energy consumption has risen by only 17 per cent. More significantly consumption of petroleum products has risen by only 13 per cent. In 1980 itself the relationship was not as satisfactory as in the three years to 1979 with the consumption of petroleum products growing by 6 per cent but the GDP increase being less than 3 per cent. But there were special circumstances in 1980 including the need to use extra oil to generate thermal electricity which must be taken into account.

Oil Products

10.3. In Kenya about 84 per cent of "commercial" energy consumed in 1980 was derived from oil, about 16 per cent from electricity, and only a very small proportion from coal. Oil therefore continues to constitute the major source of the commercial energy supply in the country. This overwhelming predominance of oil in the energy equation is not lost in spite of

continuous increase of electricity sales. The trend towards an increased proportion of energy being supplied by electricity is certain but there are fluctuations in the proportion from year to year, as for example, when drought reduced output of hydro-electricity in 1976 and 1980. In such a situation stand-by oil-fired installations are put into use to make up for the shortfalls and normally at a severe financial strain. In 1980, for example, Kenya used 8 per cent of her total oil for thermal generation as compared with only 5 per cent in 1979. An increase in such thermal production leads to an increase in the demand for imported fuels required for their generation. Also as much as 18 per cent of hydro-electricity consumed in Kenya was imported from Uganda in 1980 as increased supplies were sought to help make up for the fall-off in domestic generation.

10.4. Table 10.1 shows that imports of crude petroleum rose from 2,471,500 tonnes in 1979 to 3,075,500 tonnes in 1980 while their values dramatically increased by 114 per cent from K£120.1 million in 1979 to K£256.6 million in 1980, indicating a rise of 72 per cent in the unit price from K£48.6 per tonne in 1979 to K£83.4 per tonne in 1980. The unit price of imported petroleum products also rose from K£71.0 per tonne in 1979 to K£118.3 per tonne in 1980, an increase of 67 per cent.

10.5. Although an increase in the total output of petroleum products from the Mombasa oil refinery, led to a fall in the imports of petroleum fuels which declined from 288,300 tonnes in 1979 to 166,500 tonnes in 1980 worth K£20.5 million and K£19.7 million respectively; total imports of crude petroleum and products cost some K£277.3 million, a tremendous rise on the K£145.7 million spent in 1979. Thus with the continuous rise in oil prices the relative importance of oil in the import bill has continued to grow throwing a serious strain on the balance of payments.

10.6. In spite of continuous problem in Uganda and a critical shortage of foreign exchange in that country in 1980, petroleum fuel exports to that country rose by 31 per cent from 202,800 tonnes in 1979 to 266,300 tonnes in 1980 although this tonnage represented only 17 per cent of total petroleum exported in 1980 as compared to 28 and 22 per cent in 1978 and 1979 respectively. There were also increases in the demand from other client countries despite their association with difficult world economic situation. Also the export of refinery residues and heavy fuel oil for bunkering rose substantially in 1980 although sales were made at less than the cost of the crude petroleum. As a result both the total export quantity of petroleum and its value rose sharply in 1980. The quantity rose by 56 per cent from 1,036,900 tonnes in 1979 to the highest figure ever of 1,618,400 tonnes in 1980, and the value rose by over 100 per cent, increasing from K£76.9 million in 1979 to about K£160.9 million in 1980. The average price realized on all petroleum fuels (including export residues) exported in 1980 was K£95 per tonne, a rise of 40 per cent over the average price realized in 1979.

Table 10.1 QUANTITY AND VALUE OF IMPORTS AND EXPORTS OF PETROLEUM PRODUCTS, 1976-1980

	1976		1977		1978		1979		1980	
	Quantity '000 tonnes	Value K£'000	Quantity '000 tonnes	Value K£'000	Quantity '000 tonnes	Value K£'000	Quantity '000 tonnes	Value K£'000	Quantity '000 tonnes	Value K£'000
IMPORTS—										
Crude Petroleum	2,496.7	93,469.5	2,551.5	100,158.4	2,369.2	92,337.6	2,471.5	120,085.3	3,075.5	256,582.0
Petroleum Fuels	47.7	3,345.7	104.7	8,269.9	258.3	16,899.4	288.3	20,480.8	166.5	19,691.9
Lubricating oils	53.0	5,678.9	73.9	6,927.7	65.4	6,636.1	47.9	5,100.0	54.8	919.0
Lubricating greases	0.1	41.5	0.2	65.1	0.2	75.2	0.1	47.5	0.1	84.1
TOTAL	2,597.5	102,535.6	2,730.3	115,421.1	2,693.1	115,948.3	2,807.8	145,713.6	3,296.9	277,277.0
EXPORTS—										
Petroleum Fuels	1,372.0	57,603.4	1,365.0	72,398.3	1,173.3	60,372.6	1,001.7	68,138.3	1,581.8	150,557.5
Lubricating oils	57.3	10,584.7	50.0	10,253.8	38.9	8,172.2	33.9	8,311.3	35.5	9,976.5
Lubricating greases	1.5	372.2	1.5	350.3	1.3	378.7		409.8	1.1	350.7
TOTAL	1,430.8	68,560.3	1,416.5	83,002.4	1,213.5	68,923.5	1,036.9	76,859.4	1,618.4	160,884.8
NET BALANCE	1,166.7	33,975.3	1,313.8	32,418.7	1,479.6	47,024.8	1,770.9	68,854.2	1,678.5	116,392.2

10.7. Although trade in oil is not the only major cause of instability in Kenya's balance on merchandise account, it is one of the major contributory factors of the widening total trade deficit that has risen continuously since 1973. The net cost of petroleum and its products to Kenya has more than trebled from K£34 million in 1976 to an estimated K£116 million in 1980. It absorbed more than a third (36 per cent) of the value of non-oil exports in the latter year, compared with 13 per cent in 1976 and less than 1 per cent in 1973.

10.8. As can be noted, the situation that existed before the oil crisis of 1973 whereby oil exports were capable of covering virtually all the cost of imported petroleum did not continue and this fortunate circumstance is not likely to recur in the foreseeable future. Before 1973, export sales of petroleum were about 54 per cent of the refined product output at Mombasa refinery. The decline in relative importance of the export market that has occurred due to higher domestic demand and also to changed trading conditions for export sales, has meant that exports in 1980 were down to 47 per

SALES OF MOMBASA OIL REFINERY PRODUCTS

	Domestic Sales per cent	Export Sales per cent	Total
1973	45.7	54.3	100.0
1974	46.0	54.0	100.0
1975	51.4	48.6	100.0
1976	53.3	46.7	100.0
1977	54.1	45.9	100.0
1978	58.6	41.4	100.0
1979	62.5	37.5	100.0
1980	52.8	47.2	100.0

cent of the output of refinery. However, exports of residues and heavy fuel oil which are normally sold below the cost of the imported crude petroleum increased substantially in 1980 probably because a different crude feedstock was used at the refinery. These increased exports helped raise the proportion of output sold outside Kenya in 1980 but the long-term trend for a higher percentage of output to be sold on the domestic market is expected to continue at least into the foreseeable future.

10.9. The effect of this long-term shift of sales in favour of the domestic market has been compounded by the rises in oil prices since 1973, and the increase announced by the OPEC countries of a further 10 per cent from January 1981, will add yet another burden to Kenya's already very difficult balance of payments position. It cannot be stressed too strongly that a developing country such as Kenya has only very limited possibilities of economising on energy if it wishes to continue to grow at a reasonable level. Although electricity generation is being developed, the modern economy still relies heavily on petroleum based on crude imports and is thus exposed and at risk with every price rise that eventuates.

10.10. The world market for crude petroleum continues to be influenced unduly by unfavourable events. The war between Iran and Iraq in 1980 for example, caused spot market prices to rise to US\$41 per barrel. In 1980, Kenya's purchases of crude petroleum averaged about US\$31 per barrel and with the new prices announced recently together with other market adjustments imports in 1981 could cost around 36 dollars per barrel. One result of the world recession and the intensive efforts at conservation in major consuming countries is that in the early months of 1981 the market situation was more favourable to consumers but OPEC countries are now considering curtailing production which may lead to spot market prices hardening once again. The continuous use of more non-oil energy sources together with measures designed to economize on energy as a whole are the only realistic policy options for all oil consuming countries.

WHOLESALE PRICES* OF PETROLEUM PRODUCTS AT MOMBASA, ON 30TH SEPTEMBER, 1973, 26TH SEPTEMBER, 1979, 9TH MARCH, 1980, 20TH JUNE, 1980, AND 21ST FEBRUARY, 1981

Table 10.2

KSh. per tonne

	30-9-1973	26-9-1979	9-3-1980	20-6-1980	21-2-1981	Ratio 1981/73 Percent
L.P.G.**	2,060	3,644	4,044	4,050	4,345	210.9
Premium motor gasoline	1,551	5,135	6,022	6,714	7,670	494.5
Regular motor gasoline	1,468	4,703	5,475	6,003	7,280	496.0
Illuminating kerosene	736	2,029	2,539	2,612	2,994	406.8
Power kerosene	763	2,785	3,369	3,397	4,204	551.0
Light diesel oil . . .	892	2,671	3,207	3,394	4,109	460.7
Industrial diesel oil	471	1,774	2,245	2,256	2,554	542.3
Fuel oil	334	1,214	1,639	1,639	1,639	490.7

*Including duties and sales taxes.

**Liquified petroleum gases.

10.11. Table 10.2 details information on wholesale prices of petroleum products at Mombasa with 1973 as a base year. As noted in the table the prices of power kerosene and industrial diesel oil in 1980 at K.Sh. 4,204 and K.Sh. 2,554 per tonne were about 5.5 and 5.4 times higher than the prices of K.Sh. 763 and K.Sh. 471 respectively in 1973. Apart from liquified petroleum gas whose price in 1980 was about 2.1 times that of 1973, the rest of the major selected oil products: illuminating kerosene, motor spirit, light diesel oil and fuel oil had their prices increased substantially each being between 4.1 to 5.0 times more expensive in 1980 than in 1973. Although the prices of fuel oil remained unchanged between March 1980 and February 1981, the price increases for the rest of the oil products during the period were generally between 14 and 28 per cent with LPG increasing by about 7 per cent and regular motor gasoline by 33 per cent. Retail prices of motor spirit and gas oil were also increased and rose twice by a total of 37 per cent in 1980 as compared to the rise of 24 per cent in 1979. However, this was a considerably smaller increase than the 72 per cent rise in the price of imported crude oil recorded in para 10.3 above. Nairobi retail prices since 1974 are given below.

NAIROBI RETAIL PRICES 1974—1981

KSh. per tonne

Date	MOTOR SPIRIT		Gas Oil
	Premium	Regular	
12-4-74	2,211.30	2,104.50	1,381.56
20-3-75	2,770.95	2,679.73	1,619.76
6-12-75	3,371.55	3,297.05	1,988.97
10-3-76	3,508.05	3,437.35	2,108.07
14-4-77	3,603.60	3,535.56	2,191.44
16-6-78	3,876.60	4,092.73	2,513.01
8-4-79	3,944.85	4,433.48	2,751.21
8-6-79	4,135.95	4,714.08	2,751.21
26-9-79	4,613.70	5,261.25	3,096.60
9-3-80	5,023.20	6,032.90	3,632.55
20-6-80	7,302.75	6,594.10	3,846.93
21-2-81	8,394.75	8,011.13	4,680.63

10.12. Table 10.3 shows that the total volume of refinery throughput which in 1980 was 3,038,600 tonnes has increased by 18 per cent since 1976 the average daily production in 1980 was over 8,300 tonnes as compared with 7,500 tonnes in 1979, an increase of 11 per cent. There was a fall in output in 1977 but since then throughput has been rising steadily although

OIL REFINERY: THROUGHPUT AND OUTPUT OF FINISHED PETROLEUM PRODUCTS*, 1976-1980

Table 10.3

'000 tonnes

	1976	1977	1978	1979	1980
Crude petroleum throughput	2,574.8	2,570.2	2,584.7	2,739.1	3,038.1
OUTPUT—					
L.P.G.**	19.2	19.4	19.3	21.0	24.1
Motor gasoline premium	228.9	221.3	241.8	223.5	272.4
Motor gasoline regular	122.5	144.8	136.0	147.6	154.6
Illuminating kerosene					
Jet/turbo fuel	422.0	376.6	386.0	426.2	436.5
Light diesel oil	395.5	446.9	468.5	436.9	523.8
Heavy diesel oil					
Marine diesel oil	104.0	106.2	81.7	111.5	84.7
Fuel oil	852.9	832.9	746.1	862.7	851.3
Export residues	283.8	276.4	366.5	362.5	561.4
Bitumen	42.2	34.0	22.1	36.7	31.0
Intermediates	-3.3	8.6	-5.3	0.9	1.6
Refinery usage	107.0	103.0	122.0	109.6	97.2
TOTAL OUTPUT	2,574.8	2,570.2	2,584.7	2,739.1	3,038.6

*Excludes lubricants.

**Liquified petroleum gas.

the Mombasa refinery is still only working at little over 60 per cent of capacity. Existing capacity is thus ample to meet expanding demand for some time to come, because yields are expected to improve, when the energy conservation policy to introduce a cracking facility for residue fuels at the Mombasa Oil Refinery becomes effective.

10.13. The largest fall in product output since 1976 has occurred in heavy diesel fuel and marine diesel oil both of which declined by 19 per cent; for fuel oil there was a fall of less than one per cent. Output of export residues shows the highest increase of about 98 per cent between 1976 and 1980 and apart from illuminating kerosene and jet/turbo fuel which together show a moderate increase of 3 per cent, the increase in the output of the remaining products listed ranges between 19 to 32 per cent.

10.14. Table 10.4 indicates that total domestic sales of petroleum products rose by 7 per cent from 1,559,700 tonnes in 1979 to 1,671,000 tonnes in

PETROLEUM SUPPLY AND DEMAND BALANCE, 1976-1980

Table 10.4

'000tonnes

	1976	1977	1978	1979	1980
DEMAND—					
L.P.G	14.7	17.1	17.3	20.2	21.5
Motor spirit premium and regular	241.0	270.5	290.8	302.0	300.8
Aviation spirit	5.7	6.2	6.5	5.4	5.6
Jet turbo fuel*	305.2	290.0	328.0	330.1	347.9
Illuminating kerosene	53.2	64.3	78.0	89.3	85.6
Power kerosene	0.2	0.2	0.2	0.2	0.1
Light diesel oil	288.3	311.8	324.2	349.2	408.5
Heavy diesel oil	44.7	32.6	29.0	30.9	38.9
Fuel oil..	503.3	512.1	463.9	432.4	462.1
TOTAL	1,456.5	1,504.8	1,537.9	1,559.7	1,671.0
Refinery usage	107.0	103.0	122.0	109.6	97.2
TOTAL DOMESTIC DEMAND	1,563.5	1,607.8	1,659.9	1,669.3	1,768.2
Exports of Petroleum fuels	1,372.0	1,365.0	1,173.3	1,001.7	1,581.8
TOTAL DEMAND	2,935.5	2,972.8	2,833.2	2,671.0	3,350.0
SUPPLY—					
Imports:					
Crude oil	2,496.7	2,551.5	2,369.2	2,471.5	3,075.5
Petroleum fuels	47.7	104.7	258.3	288.3	166.5
TOTAL	2,544.4	2,656.2	2,627.5	2,759.8	3,242.0
Adjustment**	391.1	316.6	205.7	-88.8	108.0
TOTAL SUPPLY	2,935.5	2,972.8	2,833.2	2,671.0	3,350.0

*Includes about 87 per cent of its total sales to foreign airlines at airports in Kenya.

**Adjustment for inventory changes and losses in production.

1980, and the average daily consumption was about 4,578 tonnes in 1980 as compared with 4,273 tonnes in 1979. Since 1976 there has been a continuous upward trend in total domestic sales and the total in 1980 was 13 per cent higher than 1976. Significant increases in 1980 were noted in sales of light and heavy diesel oil. There were declines in the sales of motor spirit, illuminating and power kerosene thus marking a reversal of the trend towards increased sales in motor spirit and illuminating kerosene which had been prevalent since 1976. Total sales will in the future be influenced by the continuous calls by the Government to the public to conserve energy and by its intention to use prices as a means of reducing demand. It is hoped this will help to reduce energy consumption or at least lead to a situation where the relationship of a rise in energy consumption tied to a rise in GDP can be broken. The most beneficial impact of effective economies in petroleum product usage will be on the country's balance of payments.

10.15. The largest increase in sales in 1980 occurred for light and heavy diesel oils. The volumes of these products sold increased by 17 and 26 per cent respectively. A substantial increase in the sale of heavy diesel oil, although it accounted for only 2 per cent of the total oil products sold in 1980, was mainly because of the increased use in hotels and schools. In spite of a decline in bunkering of nearly 40 per cent, sales of light diesel oil rose sharply mainly because of the increase in its use in the transport sector. There has been a greater use in diesel locomotives and by the road transport system. Sales of fuel oil rose moderately by 7 per cent from 432,400 tonnes in 1979 to 462,000 tonnes in 1980. In spite of this increase the volume was still below the higher level of 503,300 and 512,100 tonnes used in 1976 and 1977 respectively, when large quantities were used in thermal electricity generation.

10.16. Sales of jet/turbo fuel increased by about 5 per cent from 330,100 tonnes in 1979 to 347,900 tonnes in 1980. This is attributed to an increase in local purchases for use in foreign aircraft which effectively consume about 87 per cent of the total jet fuel sold in Kenya. This fact of local purchase by foreign airlines, when added to other recorded exports would help reduce the margin of the actual oil deficit. Consumption by these foreign airlines rose by about 6 per cent from 286,000 tonnes in 1979 to 303,000 tonnes in 1980.

10.17. The sales of illuminating kerosene decreased by 4 per cent from 89,300 tonnes in 1979 to 85,600 tonnes in 1980. This decline can be attributed to continuous rise in the prices of petroleum products which in 1980 coincided with a difficult agricultural year with reduced real incomes for most small farmers leading to a fall in overall consumption.

10.18. Sales of motor spirits after rising continuously since 1976 fell slightly from 302,000 tonnes in 1979 to 300,800 tonnes in 1980 partly because of increase in the price of these products which forced consumers to economize and partly because of the generally difficult economic situation.

10.19. The petroleum supply and demand balance sheet given in Table 10.4 illustrates what has been indicated before that domestic demand is increasing annually while exports despite the rise in 1980 have been declining. Total home and export sales in 1980 rose by 25 per cent with an increase in exports the substantially higher figure of 58 per cent. However, the export figures in 1980 included very large quantities of export residues and heavy fuel oil which must be sent for processing to more sophisticated refineries abroad.

10.20. Table 10.5 shows net domestic sales of petroleum products by category of consumer. The various transport media take roughly 60 per cent of the total supplied and in 1980 there was a fall in road transport use but increases for air transport and rail transport. The private motorist is not directly a very large consumer taking an estimated 20 per cent of the total supply but the categories industry, commerce and services also include use of fuels in road motor vehicles which are supplied to various staff members. Including the fuels purchased for road motor vehicles owned in agriculture, industry, commerce and services, it seems likely that as much as 80 per cent of Kenya's total petroleum demand is for transport while most of the balance is probably used for plants in industry and for thermal electricity generation. Use for electricity generation fluctuates annually dependent on whether the standby thermal plants have to be brought into use, as was the case in 1980.

NET DOMESTIC SALES OF PETROLEUM FUELS BY CONSUMER CATEGORY, 1976-1980

Table 10.5

000'tonnes

USER	1976	1977	1978	1979	1980*
Agriculture	56.6	64.0	75.8	77.2	69.0
Retail pump outlets and road transport	374.3	428.0	433.8	453.4	476.7
Rail Transport	77.9	89.8	90.3	50.6	70.5
Marine (Excluding Naval Forces)	82.8	132.4	111.4	148.1	134.5
Aviation (excl. Government)**	319.1	324.2	339.4	261.5	352.4
Power Generation	169.3	124.4	106.9	92.6	151.5
Industrial, Commercial and Other	369.5	360.7	363.2	418.1	431.5
Government	47.3	48.7	63.3	66.2	72.6
Balancing Item	-40.3	-67.4	-46.2	-8.0	-87.7
TOTAL	1,456.5	1,504.8	1,537.9	1,559.7	1,671.0

*Provisional.

**Includes about 87 per cent of its total sales to foreign airlines at airports in Kenya.

Electricity

10.21. The commissioning of the geothermal electric plant at Olkaria sometime in 1981 will mean that a new energy source has been added to those already being tapped in Kenya. However, primary sources of energy

from domestic sources are currently hydro-electricity, fuelwood and charcoal and these three sources will continue to be important in future years. The most significant developments expected are an almost doubling of the present hydro capacity and the commissioning of large geothermal plants as discussed below. The Ministry of Energy is now carrying out feasibility studies to establish more sites for hydro and geothermal electricity generation and charcoal from coffee husks has just been introduced for the urban markets. Despite these developments, fuel-wood will continue to be important in the rural areas, supplying energy to a rural population of some 13 million people.

10.22. Table 16.6 indicates that total installed generating capacity for hydro and thermal electricity rose by less than 1 per cent from 480.9 MW in 1979 to 485.1 MW in 1980. This modest overall growth rate is accounted for by a fall in hydro capacity due to rerating and only a relatively small

INSTALLED CAPACITY AND GENERATION OF ELECTRICITY, 1976-1980

Table 10.6

	INSTALLED CAPACITY* MW**			GENERATION* GWH +		
	Hydro	Thermal	Total	Hydro	Thermal	Total
1976	171.4	181.7	353.1	583.2	574.7	1,157.9
1977	173.5	182.9	356.4	749.3	364.0	1,113.3
1978	311.5	171.6	483.1	1,072.8	308.9	1,381.7
1979	318.0	162.9	480.9	1,308.2	259.4	1,567.6
1980	313.5	171.6	485.1	1,060.0	430.0	1,490.0

*Includes estimates for industrial establishment with generation capacity.

**1 megawatt = 1 million watts = 1,000 kilowatts,

+1 gigawatt hour = 1,000,000 kilowatt hours.

rise in thermal generating capacity. Hydro capacity is generally increased in fairly substantial steps as new projects come on stream. 1980 was not such a year but there has been a long-term trend to substantially greater hydro capacity and this trend will continue pointing to a better utilization of Kenya's natural resources in the production of energy.

10.23. Total installed generating capacity is expected to reach about 555 MW in 1983 with 40 MW from hydro and 30 MW geothermal added to the system in 1981 and 1983 respectively. The potential supply of electricity to meet the anticipated high growth in energy demand is to be met first by harnessing the country's hydro potential and increasingly by making use of the geothermal resources projected as follows:

PROJECTED ELECTRICITY SUPPLY POTENTIAL AND DEMAND 1983-2000

Megawatts

	1983	1988	1993	2000
Supply-Hydro	600	600	600	600
Geothermal	30	170	500	500
Total supply potential	630	770	1,100	1,200
Projected demand	362	517	747	1,267
Surplus or deficit	208	253	353	- 1 6 7

The development of the country's geothermal potential will thus complement projected hydro-electric facilities to help Kenya meet its growing energy demand.

10.24. Variations in the rainfall have had some impact on hydro-electricity generated although growth in output since 1976 had generally been related to the additions to capacity. In 1980 itself as in 1976 rainfall was inadequate and the hydro-electricity generated dropped from 1,308.2 GWH in 1979 to only 1,060.0 GWH in 1980, a decline of 19 per cent as compared to the rise of 22 per cent in 1979. The decline can be accounted for by the drought in the earlier parts of 1980 which had such an impact as to lead to electricity rationing. The amount of thermal generation after a continuous decline since 1976, rose from 259.4 GWH to 430.0 GWH in 1980, an increase of 66 per cent as standby plants came back into service. Thus total electricity generated in 1980 declined by 5 per cent from 1,567.6 GWH in 1979 to only 1,490.0 GWH in 1980.

ELECTRICITY ENERGY SUPPLY AND DEMAND BALANCE, 1976-1980

Table 10.7

million KWH

	1976	1977	1978	1979	1980
DEMAND—					
Domestic and Small Commercial	302	339	360	385	402
Large Commercial and Industrial	709	812	884	961	1,014
Off-peak	130	111	117	123	111
Street Lighting	11	11	10	10	11
TOTAL	1,152	1,273	1,371	1,479	1,538
Transmission losses and unallocated demand	170	84	203	224	238
TOTAL DEMAND = TOTAL SUPPLY	1,322	1,357	1,574	1,703	1,776
Of which imports from Uganda	242	272	217	160	315
Net generation	1,080	1,085	1,357	1,543	1,461

10.25 Total domestic consumption of electricity as shown in Table 10.7 which has been rising rapidly since 1976 continued its upward movement in 1980 but the rise of 4 per cent was very modest against the average increase of 8.7 per cent annually between 1976 and 1979, due entirely to rationing found necessary in the first quarter of the year. A total of 1,538 million Kwh was consumed in 1980 against 1,152 million in 1976.

10.26. There has been continuous growth in consumption of electricity by both domestic and small scale users and large commercial and industrial users since 1976. As shown in Table 10.7 two-thirds of the total demand in 1980 was from large commercial and industrial users and their consumption rose in that year by 5.5 per cent to 1,014 million Kwh. It would undoubtedly have been higher but for the period of rationing.

10.27. Imports of electricity from Uganda which had been declining since 1977 rose by 97 per cent from 160 million Kwh in 1979 to 315 million Kwh in 1980, and at this level was equivalent to 18 per cent of total electricity consumed in the country in 1980, as compared with 9 per cent in 1979. However, this position is likely to change with completion of Masinga Dam in 1981. Beside adding another 40 megawatts to the present 260 megawatts at Kindaruma, Gitaru and Kamburu stations, the dam as a regulatory dam would also raise the potential of these other dams. Electricity generated by geothermal sources at the Olkaria field will add 15 megawatts which will be fed into the grid during 1981. The information given earlier shows the projected build up of geothermal capacity; there is a possible target capacity of 500 megawatts from this source.

10.28. The planning and expansion of domestic electricity generation capacity has continued to be based on growth of the economy at a relatively high rate. Currently the East African Power and Lighting Company is trying to meet the needs of new industries. Major individual new loads connected during the year were for a steel rolling mill at Dandora, a plywood factory at Eldoret, and the Water Supply Scheme at the Coast.

10.29. As regards rural electrification, Rumuruti scheme in Rift Valley and Mambrui township scheme at the Coast were completed. The distribution system of Busia township in Western Province was taken over from the Uganda Electricity Board and connected to the Kenya supply. Work was also at an advanced stage in respect of schemes at Chura, Kaloleni, Ribe, Rabai, Maandani, and Kimmunya. Construction was started on other schemes like Kiharu, Mukurweini, Maralal, Nkubu and the power station at Wajir. The Government is also currently exploring areas of high potential consumption for example Kerio Valley, and the Lake Basin so as to build small scale power stations in those areas.

Energy Balance

10.30. Table 10.8 gives figures on consumption of fuels other than fuelwood and charcoal in terms of oil equivalents. From the table, it can be noted that Kenya's modern sector still relies very heavily on imported energy. The proportion of energy supplied from nationally-generated hydro power though in decline in 1980, had increased up to 1979, and in 1980 it accounted for only 12.0 per cent of consumption as compared to 12.8 and 15.4 per

PRODUCTION, TRADE AND CONSUMPTION OF ENERGY* EXPRESSED IN TERMS OF THE PRIMARY SOURCES, 1976-1980

Table 10.8 '000 Tonnes Oil Equivalent

	1976	1977	1978	1979	1980
COAL AND COKE IMPORTS	44.9	43.8	34.8	11.3	16.9
OIL—					
Imports of crude oil ..	2,496.7	2,551.5	2,369.2	2,471.5	3,075.5
Net - exports of petroleum fuels	-1,324.3	-1,260.3	-915.0	-713.4	1,415.3
Stock charges and balancing item	391.1	316.6	205.7	88.8	108.0
TOTAL CONSUMPTION OF LIQUID FUELS	1,563.5	1,607.8	1,659.9	1,669.3	1,768.2
HYDRO ENERGY—					
Local production of hydro-power	140.0	167.4	257.5	314.0	254.4
Imports of hydro-power ..	58.1	65.2	52.1	38.4	75.6
TOTAL CONSUMPTION OF HYDRO-ENERGY	198.1	232.6	309.6	352.4	330.0
TOTAL LOCAL ENERGY PRODUCTION	140.0	167.4	257.5	314.0	254.4
TOTAL IMPORTS	1,275.5	1,400.2	1,541.1	1,807.8	1,752.7
Use of stock and balancing item	391.1	316.6	205.7	-88.8	108.0
TOTAL ENERGY CONSUMPTION	1,806.5	1,884.2	2,004.3	2,033.0	2,115.1
LOCAL PRODUCTION AS PERCENTAGE OF TOTAL	7.7	8.9	12.8	15.4	12.0
PER CAPITA CONSUMPTION IN TERMS OF KILOGRAM OF OIL EQUIVALENT	130	131	135	133	132

*Modernsector only: fuelwood and charcoal are excluded.

cent in 1978 and 1979 respectively. The consumption of coal and coke has fallen sharply since 1976 and was only covering 1 per cent of energy usage in 1980 but the increased competitiveness of this fuel because of high oil price increases is expected to lead to its much increased use in factories such

as cement producers in the future. As for domestically supplied primary energy, there are expected to be substantial rises in the future as hydro and geothermal sources are tapped more fully.

10.31. Oil, however, will continue to remain the major primary source of energy for use in the modern sector of the economy. The large amounts of money involved in paying for crude oil imports both absolutely and relatively, means that a crucial factor in Kenya's economic situation is outside its control. At the time of the oil crisis in 1974 and 1980, coinciding in both years with drought conditions in Kenya, there was little that could be done domestically to counter the adverse impact of the massive rise in the price of crude oil on living standards and on the Government's economic strategy.

10.32. The current effort by the Government to develop the country's hydro power potential and geothermal energy sources is being supplemented by building power-alcohol factories at Kisumu and Muhoroni, using molasses as a raw material. These latter plants are expected to produce 38 million litres of alcohol annually equal to about 13 per cent of the total motor spirit consumed in the country. This alcohol will be blended with gasoline for use in automobiles and will help secure some slight alleviation of the present dependence on imported oil thus saving foreign exchange.

Energy Policy

10.33. The Government has carefully assessed the energy situation prevailing in the country and particularly with regard to the supply of oil. Consequently the following measures have been decided upon:

Long-term Measures

Like most other countries it is necessary to take structural measures to reduce reliance on oil as a source of energy and to ensure that the maximum benefit is obtained from the limited quantities of crude oil it will be possible to finance. For this purpose, it has been found necessary that a long-term strategy be prepared now, to include the following:

- (a) An urgent assessment of the economics of establishing a "cracking" facility at the Mombasa Oil Refinery, which will increase the yield of finished petroleum products from the same quantity of crude oil.
- (b) The need for vehicle assemblers in the country to assemble more diesel-propelled vehicles than petrol-propelled ones.
- (c) An immediate study of the most appropriate means of oil rationing. However, this does not mean that the Government has any intention of instituting oil rationing.
- (d) A study on the development of mass transportation requirements of the main urban areas with emphasis on those means that are less dependent on use of oil, such as electric rail system (tramways) and the like.

- (e) A requirement that all big firms and Government offices provide "cafeteria" facilities within or near their working premises. This should result in a reduction of traffic congestion in urban areas during the lunch break.
- (f) Encouragement of pooled school-bussing systems in urban areas. This will reduce the number of trips made by parents in taking children to and from school.
- (g) Encouragement of big firms in town to provide transport to their employees. This should result in the provision of transport for employees, thereby reducing use of personal vehicles.
- (h) The institution of an intensive systematic programme for re-afforestation. The need for tree planting for energy will be publicized through the mass media and at political rallies.
- (i) Taking whatever necessary measures to intensify the search for oil both on land and in the economic off-shore zone of Kenya.

Short-term Measures

10.34. Various measures are required to be taken from time to time to deal with the emerging short-term situation. For example it has already been agreed that the full effect of any OPEC price increases should be passed on to the consumer and that the octane rating of premium petrol distributed in inland centres can be reduced from 95 to about 91 to increase the yield from a given supply of crude oil. Other measures taken would lead to a more efficient use of the funds expended on Government vehicles while a study will be carried out to establish the most desirable composition and maintenance of the national transport capacity. Advertising is being used to emphasize the seriousness of the energy situation and to encourage conservation while consideration is to be given to the establishment of a specific annual quota of foreign exchange for use in the purchase of crude oil and petroleum products. In addition a study of the exact cost of the country's oil imports, the nature of its usage, the area of potential saving and the scope for expanding exports will be carried out urgently.

10.35. These measures and others being formulated should hopefully lead to some easing of the basic problem facing the economy which is how to bridge the external payments gap that has arisen basically because of the multifold increase in oil imports since 1973. However, as 1980 has shown it is sometimes necessary to increase oil usage in a year of serious price escalation because drought reduced domestic hydro-electricity output and this had to be supplemented by additional thermal generation which could only be undertaken by using imported fuel.

CHAPTER 11—MANUFACTURING

The growth of industrial production in 1980 was far below the average annual target of 9.0 per cent stipulated in the current development plan. The overall growth rate of 4.6 per cent in volume as shown in Table 11.2 was below the growth rates achieved in 1978 and 1979 when increases of 12.6 and 7.6 per cent respectively were achieved. Total employment was 141,300 in 1980 as compared to 138,400 for 1979, a modest rise of only 2.1 per cent. The year 1980 thus achieved one of the lowest growth rates since measurement of output volume in this industry was attempted. This low growth can be attributed to a number of factors. The major factor was the poor rainfall pattern experienced in the 18 months to December 1980 which reduced both crop production in agriculture and supplies to industry, and also reduced river flows so much so that electricity rationing was necessary in the earlier months of 1980. This rationing led to a fall in output from manufacturing industry in the first quarter of the year. The allocation of foreign currency for essential inputs to the industry was much better in the first nine months of the year than in 1979 but from thereafter difficulties arose as foreign exchange allocations were reduced. The budget changes introduced in June 1980 which increased duties on many products were another source of difficulty for the industry as was the rise in petroleum prices. It seems likely that demand for the products of manufacturing plants in Kenya was reduced because of the poor performance in agriculture leading to lower rural incomes for many smallholding households.

11.2. Table 11.1 indicates that the value of gross output of the manufacturing sector in current prices expanded by 20.7 per cent from K£1,357 million in 1979 to K£1,638 million in 1980. This large rise is due almost entirely to inflation and was influenced particularly by the doubling of crude oil prices. The rise in value added for GDP at current prices was much less than for gross output because of a rise in the share of intermediate consumption.

MANUFACTURING SECTOR: OUTPUT AND PRODUCT*, 1978-1980

Table 11.1

K£million

	Value of Output	Intermediate Consumption	Value Added
		<i>At Current Prices</i>	
1978**	1,201	958	243
1979**	1,357	1,082	275
1980+	1,638	1,322	316

*Includes tea processing.

**Provisional.

+Early estimates.

tion in gross output and here the increase is estimated at 15 per cent compared to a rise in value added at constant prices in the region of 4 per cent. The proportion of value added in gross output was 19.3 per cent in 1980 compared to 20.3 per cent in 1979.

Business Expectations Enquiry

11.3. This enquiry, which, however, only covers a sample of industry, showed that the value of sales from the manufacturing sector grew by 17.5 per cent in 1980 with fairly high growth rates being achieved for paper and products, chemicals and petroleum products, rubber manufactures, non-metallic minerals, and in the miscellaneous group. However, much of the growth recorded was due to price rises and, as shown later, the volume increases were generally much smaller or even negative.

11.4. Stocks in this sector at December 1980 rose by 16 per cent over the level a year earlier. At K£233.4 million at December 1980 these stocks were effectively 22.2 per cent of the provisional value of sales of the reporting firms estimated at K£1,051.3 million. The rise in value of stocks in 1980 is almost entirely due to price rises but may also indicate a small rise in volume. t

11.5. The indices of output of manufacturing industry are shown in Table 11.2. While the volume of manufacturing output grew by only 4.6 per cent in 1980, for reasons already mentioned, there were some relatively successful industries as well as some which did poorly. The largest increases were in grain mill products, non-electrical machinery, paper and paper products, chemicals, textiles, sugar and confectionery and printing and publishing in that order of ranking. The good result in the grain milling sector is entirely due to the large imports of maize made in 1980. Apart from meat and dairy products, miscellaneous foods, tobacco, clothing, leather and footwear, and furniture and fixtures which showed declines, the rest of the commodities showed moderate growth rates in their output.

11.6. Overall output of the food processing industry grew by a mere 0.2 per cent in 1980 as compared with a 4.2 per cent rise in 1979, but a decline of 3.1 per cent in 1978. This stagnation in food output was largely due to a drop in agricultural production mainly due to drought which caused declines in processing of meat and dairy products and in miscellaneous food processing. The large increases in the remaining food manufacturing activities, namely grain milling, sugar refining, canning, and bakery products were not sufficient to offset the decline in the other sub-sectors.

11.7. The production of meat and dairy products has been in continuous decline and fell further by 19.4 per cent in 1980 as compared to the reduction of 14.2 per cent in 1979. The quantity of beef and pork processed dropped

by 13 and 20 per cent respectively in 1980. This can be attributed to falls in deliveries of cattle, calves and pigs to the Kenya Meat Commission and Uplands Bacon Factory, to some extent due to the difficulties faced by livestock herders but also in line with the continued movement away from the

QUANTITY INDEX OF MANUFACTURING PRODUCTION, 1978-1980

Table 11.2

1976=100

	1978	1979	1980*	Percentage Change 1979 to 1980*
Meat and Dairy Products	70.4	60.4	48.7	-19.4
Canned Vegetables, Fish, Oils and Fats	139.8	143.5	158.8	10.7
Grain Mill Products	99.8	97.6	125.3	28.4
Bakery Products	107.6	84.3	92.4	9.6
Sugar and Confectionery	125.0	149.0	168.8	13.3
Miscellaneous Foods	122.6	130.4	109.0	-16.4
Food Manufacturing	106.0	110.5	110.7	0.2
Beverages	134.5	138.1	143.8	4.1
Tobacco	125.3	125.5	124.0	-1.2
Beverages and Tobacco	128.9	131.6	135.1	+2.7
Textiles	140.3	152.5	175.0	14.8
Clothing	205.4	234.2	218.3	-6.8
Leather and Footwear	115.0	100.4	94.6	-5.8
Wood and Cork Products	121.2	130.1	133.8	2.8
Furniture and Fixtures	94.0	58.0	54.2	-6.6
Paper and Paper Products	144.9	156.2	188.5	20.7
Printing and Publishing	157.2	214.7	240.0	11.8
Basic Industrial Chemicals..	127.1	147.2	174.6	18.6
Petroleum and Other Chemicals	128.6	136.5	161.5	18.3
Rubber Products ..	123.0	182.7	192.5	5.4
Plastic Products ..	179.0	196.7	207.7	5.6
Clay and Glass Products	239.2	246.9	289.9	17.4
Non-Metallic Minerals	112.6	115.5	124.4	7.7
Metal Products	123.6	134.9	129.4	-4.1
Non-Electrical Machinery	100.0	97.4	123.8	27.1
Electrical Machinery	159.5	152.5	157.8	3.5
Transport Equipment	574.7	642.6	658.6	2.5
Miscellaneous Manufactures	98.2	124.4	137.1	10.2
TOTAL MANUFACTURING	130.5	140.4	146.9	4.6

*Provisional

public sector to the private sector by livestock producers seeking better prices for their animals. One result of poor cattle deliveries to the Kenya Meat Commission was that exports of meat products were halved in 1980.

11.8. The output of dairy products fell by 14.7 per cent in 1980 as compared to a fall of 13.5 per cent in 1979. The production of processed whole milk and cream declined by 11.9 per cent in 1980 to 186,892 thousand litres

from 212,255 thousand litres recorded for 1979. This decline is attributed to the drought that prevailed during the year. In fact local milk supply had to be supplemented by a large quantity of imported milk powder to meet increasing demand. As a result the quantity of milk powder imported increased from 583 tonnes in 1979 to 12,888 tonnes in 1980. Other dairy products including baby foods also experienced declines. However, the output of milk and milk products is expected to increase when the current programme to establish milk sterilization centres to ease distribution of school milk, particularly in hot areas, and the plan to construct a K£1 million milk factory at Kapsabet by the Kenya Co-operative Creameries becomes operational in 1981.

11.9. The output of canned fruits and vegetables, fish processing and fats rose in 1980 by 10.7 per cent. The rise in fats which was 22.8 per cent, was large enough to offset the falls of 12.6 per cent and 42.8 per cent registered in the canning of fruits and vegetables and fish processing, respectively. Export demand for canned pineapples declined from 41,048 tonnes in 1979 to 38,453 tonnes in 1980, a fall of 6 per cent due to poor market conditions in Europe.

11.10. The output of grain mill products rose in 1980 by 28.4 per cent, compared to a decline of 2.2 per cent in 1979. The relatively high rise for 1980 was largely due to the imports of maize, wheat and rice needed to supplement local supply. In fact maize imports rose to nearly 324,000 tonnes in 1980.

11.11. Table 11.3 below details the production of selected grain mill products. Sifted maize meal rose by 8.1 per cent from 255,700 tonnes to 276,500 tonnes in 1980, while rice and broken rice rose from 24,300 tonnes to 28,800 tonnes. Bakery products rose in volume by 9.6 per cent in 1980 as compared to the 21.7 per cent decline experienced in the 1979. This increase was helped by the rise in export demand for biscuits. Wheat deliveries for milling rose by 4.1 per cent in 1980 from 207,000 tonnes to 216,000 tonnes. Wheat flour produced increased by about 35 per cent from 141,700 tonnes in 1979 to 191,400 tonnes in 1980.

PRODUCTION OF GRAIN MILL PRODUCTS, 1976-1980

Table 11.3

'000 tonnes

Year	Wheat Flour	Sifted Maizemeal	Rice	Broken Rice
1976 ..	137.8	219.2	24.2	1.5
1977 ..	149.4	190.9	20.1	1.8
1978 ..	156.9	227.1	18.3	4.5
1979 ..	141.7	255.7	22.6	1.7
1980 ..	191.4	276.5	26.8	2.0

11.12. The output of sugar again grew significantly in 1980. The increase in 1980 was 13.3 per cent compared to one of 19.2 per cent in 1979. The industry is expected to achieve still higher output in the future when the current expansion in capacity is completed. A refined sugar plant is being developed to supplement supplies of mill-white sugar now produced.

11.13. The output of the miscellaneous food groups fell by 16.4 per cent in 1980 against a rise of 6.4 per cent the previous year. This group covers a number of products, the major ones being coffee, tea, cashew nuts, salt and animal feeds. The output of processed tea declined by just over 9.1 per cent from 99,000 tonnes in 1979 to 90,000 tonnes in 1980 due to unfavourable weather conditions. On the other hand coffee processed rose dramatically by 21.3 per cent from 75,000 to 91,000 tonnes during the period. Most of the remaining items in this group registered falls in output.

11.14. The combined output of beverages and tobacco grew marginally by 2.6 per cent in 1980. While the output of beer and spirits rose by 6.2 per cent and 14.7 per cent, respectively, that of mineral waters and tobacco declined, the former by 4.1 per cent. Of the increased beer production, 4,535,000 litres were exported in 1980 earning the country K£1.5 million in foreign exchange. The beverage industry is expected to register higher output from 1981 onwards when a brewery plant at Kisumu becomes fully operational. Table 11.4 below gives production figures for beverages and cigarettes.

PRODUCTION OF BEVERAGES AND TOBACCO, 1976-1980

Table 11.4

	Spirits	Beer	Mineral waters	Cigarettes
	<i>litres</i>	'000 <i>litres</i>	'000 <i>litres</i>	<i>Million</i>
1976	356,838	165,817	81,193	3,703
1977	420,180	195,160	99,411	3,944
1978	407,796	211,365	108,019	4,546
1979	415,694	212,712	137,926	4,561
1980	476,651	225,933	132,112	4,501

11.15. The high level of investment planned and being executed in the textile industry is having an important impact, and output of textile mills increased by 14.8 per cent in 1980 as compared to a rise of 8.7 per cent in 1979. Growth was registered by knitting mills, rope and twine and cotton ginneries but declines were experienced in both weaving and finishing of textiles and for made-up textiles. The production of rope and twine more than doubled between 1979 and 1980, resulting in a rise of over 50 per cent in quantity exported, from 26,000 tonnes to 40,000 tonnes.

11.16. The clothing industry registered a decline of 6.8 per cent in 1980 after a 14.0 per cent rise in 1979. The reduced growth rate was mainly due to the poor level of local demand but there were also problems due to higher raw material costs and stiffer regulations governing the purchase of imported materials.

11.17. The leather products and footwear manufacturing continued to perform rather poorly in 1980. The output in this industry declined by a further 5.8 per cent in 1980 after a decline of 12.7 per cent in 1979. The fall largely reflects a 13.0 per cent fall in the production of leather shoes although production of much cheaper plastic shoes continued to increase. However, the leather processing activity registered a growth of 20.3 per cent and other rises were experienced in output of sole leather whose production doubled and in production of P.V.C. leather cloth whose output rose by 60.7 per cent. This sub-sector of the industry is still small so these increases were not sufficient to offset the decline in the output of the sector as a whole. Some production was exported but imported shoes cost far more than export earnings from footwear.

11.18. The production of wood and cork products rose by a mere 2.8 per cent in 1980 against the 7.3 per cent rise experienced in 1979. As for wooden furniture and fixtures, this sector saw a decline of 6.6 per cent in production in 1980 after the sharp fall of 38.3 per cent in the previous year.

11.19. The output of the paper and paper products industry registered a sharp rise of 20.7 per cent in 1980 against a rise of 7.8 per cent a year earlier. Rises were recorded in the production of duplicating paper, packing containers, wrapping paper and other stationery but declines were registered in the production of exercise books and paper bags. On the other hand domestic demand for certain types of paper and products not manufactured locally necessitated the continued importation of such items. In 1980, 32,400 tonnes of such paper and products valued at K£12.91 million were imported. The output of this sector is expected to grow faster in 1981 with the current expansion plan by Pan African Paper Mill to increase the rated capacity from 45,000 to 60,000 tonnes annually at a cost of K£7.65 million, and the recent commissioning of the Madhu Paper Factory.

11.20. The output of the printing and publishing industry increased by 11.8 per cent in 1980 compared to the sharp rise of 36.6 per cent in 1979. Although a greater proportion of the material used for printing and publishing is being made locally these supplies nonetheless had to be supplemented significantly by imports. Consequently, imports of newsprint increased. However, the quantity of newsprint imported is expected to be drastically reduced once domestic production, at a total investment of K£6 million becomes a reality. This project will utilize sawmill waste, mixed with fresh wood from the forest as its chief raw materials.

11.21. Production of the basic industrial chemical industries rose by 18.6 per cent in 1980, which compares with a rise of 15.8 per cent for the previous year. This increase is accounted for by rises in oxygen, nitrogen, hydrogen, acetylene, pyrethrum extract and powder, and to a certain extent pesticides. Wattle bark extract on the other hand declined by about 12.6 per cent, after its increase of 58.0 per cent in 1979. Nearly 300 tonnes of pyrethrum extract were exported in 1980 and earned the country K£8.95 million in foreign exchange. This compares with nearly 400 tonnes valued at K£5.50 million exported during 1979. A total of 4,400 tonnes of insecticides valued at K£2.43 million were also exported in 1980. On the other hand it has continued to be necessary to bridge the gap arising from the absence of domestic manufacturing of fertilizers through importation so as to meet the demand of the agricultural sector. The quantity and value of fertilizer imports more than doubled between 1979 and 1980, rising from 64,000 tonnes to 130,000 tonnes, valued at K£6.5 million and K£15.8 million, respectively. In order to reduce this large expenditure on imports, negotiations are underway for the establishment of a fertilizer plant in the near future.

11.22. The production of petroleum and other chemical products which include paints, distempers, lacquers, varnishes, drugs, soaps, cleaning preparations, matches and shoe polish rose by 18.3 per cent in 1980, compared with an increase of 6.1 per cent in the previous year. Growth rates for individual products of this group varied widely, ranging between a minus 17.5 per cent for paints, varnishes and lacquers to a positive 47.0 per cent for matches, shoe polish and resin emulsions taken together. Part of the industry's output was exported and this earned the following amounts in 1980: paints K£0.88 million; drugs K£2.18 million and soaps K£4.19 million. The total of these three items at K£7.25 million may be compared with K£4.56 million for 1979. However, imports of pharmaceuticals continue to supplement domestic supply. In 1979 and 1980 such imports cost K£11.23 million and K£15.90 million, respectively. Output in this sector is expected to increase substantially when current construction work on a new K£175,000 chemical plant is completed in 1981.

11.23. The output of rubber products increased moderately by 5.4 per cent in 1980 after a sharp rise of 48.5 per cent in 1979. This slow-down results from a fall in output of new tyres by 3.3 per cent, but there was increased production of tubes and retreaded tyres. Declines were also experienced in the output of new bicycle tyres and rubber shoes and soles. Tyres worth K£4.38 million were imported in 1980 compared with the K£2.35 million in 1979.

11.24. In spite of increases in both domestic and export demand, the output of plastic products moderately increased by 5.6 per cent in 1980, after a rise of 9.9 per cent in 1979. Large increases were registered in the manufacture of PVC pipes, which rose by 9.9 per cent, plastic shoes by 25.1 per cent and

plastic containers with an increase of 17.8 per cent. Polythene film bags and plastic crates, on the other hand, declined by 22.1 per cent and 41.6 per cent, respectively.

11.25. As a result of increases in the domestic demand for clay and glass products, the output of these two items increased by 17.4 per cent in 1980 which was above the 3.2 per cent achieved in 1979. It is probable that this industry would have grown faster had there not been a dispute about bottle prices. Imports of certain glass products continue to supplement local production. Such imports were valued at K£1.42 million and K£1.91 million in 1979 and 1980, respectively.

11.26. A growth rate of 7.7 per cent was achieved in the production of non-metallic mineral products in 1980 against a 2.6 per cent increase in 1979. Output of cement, the major component in this sector, grew by 4.3 per cent against a 3.9 per cent rise for 1979 (*see* Table 11.5).

CEMENT PRODUCTION AND UTILIZATION, 1976-1980

Table 11.5

'000 tonnes

	PRODUCT- ION	IMPORTS		EXPORTS		CONSUMP- TION AND STOCKS
		From Uganda and Tan- zania	From Over- seas	To Uganda and Tanza- nia	To Overseas	
1976 ..	986.9	—	—	27.4	601.0	358.5
1977 ..	1,144.4	—	—	5.8	656.3	482.5
1978 ..	1,133.3	—	0.2	12.8	597.3	523.4
1979* ..	1,177.5	—	0.9	16.8	510.2	651.4
1980* ..	1,228.1	—	0.9	20.3	530.3	678.4

*Provisional.

11.27. In 1980 the production of basic and other metal manufactures declined by 4.1 per cent after an increase of 9.1 per cent a year earlier. This decline was accounted for by falls of 6.1 per cent, 3.4 per cent and 14.4 per cent, respectively, in the output of galvanized corrugated iron sheets, metal cans and tins and padlocks. On the other hand there were rises in output of the remaining but less important products made in this sector.

11.28. The output of non-electrical machinery increased by 27.1 per cent during the year under review against a fall of 2.6 per cent for 1979. Despite the high growth rate in 1980, it is still necessary to import certain types of non-electrical machinery. The production of electrical machinery and related items grew by 3.5 per cent in 1980 which compares with a decline of 4.4 per cent for the year before. Apart from assembled radio kits which experienced a fall of 5.4 per cent, all other items registered growths ranging between 1.3 per cent for dry cells and 20.9 per cent for electrical lamps.

11.29. After an increase of 11.8 per cent in output of transport equipment in 1979, there was a lower growth rate of 2.5 per cent in the year under review. The number of assembled vehicles increased by 7.2 per cent in 1980, while declines of 11.6 per cent and 9.5 per cent respectively were registered in the number of coach and bus bodies and lorry bodies built. There are still heavy imports of motor vehicles of all kinds because of the limited range produced locally.

11.30. The output of miscellaneous manufactures grew by 10.2 per cent in 1980 against a growth of 26.7 per cent achieved the year before. All the items of this activity which include ball point pens, and household, industrial and paint brushes grew during the year under review.

Investments in Manufacturing Industry

11.31. The main industrial development objectives of the Government of Kenya according to its current development plan, include production for both domestic and export markets; reduction of dependence on foreign inputs; creation of employment opportunities; Kenyanization of the sector; expansion, diversification and dispersion of plants; greater efficiency in production; and high growth rates leading to increased revenue. The institutional framework for achieving these goals is already in existence but it is being strengthened and now includes departments such as the Industrial Promotion Department of the Ministry of Industry and organizations such as the Industrial and Commercial Development Corporation (ICDC), the Industrial Development Bank Limited (IDB), Development Finance Company of Kenya Limited (DFCK) and Kenya Industrial Estates Limited (KIE).

11.32. It is clear from the development plan the ICDC and KIE, are expected to make major contributions to the expansion of the manufacturing sector, with the former participating in the equity of those enterprises which are accorded high priority in the plan. DFCK and IDB also make significant contributions through loans and equity participation in industries. Sources of finance for these organizations range from funds from the exchequer account, to loans negotiated abroad, as well as funds generated internally. IDB and DFCK depend particularly on both external loans and funds generated by their own operations. Information on the projects approved and the expenditures on them by the organizations under discussion is given in Table 11.6. These four organizations approved 76, 139 and 110 projects, respectively, during the years 1978, 1979 and 1980, with corresponding expenditure approvals of K£10.4 million, K£14.0 million and K£17.1 million, respectively.

11.33. Kenya Industrial Estates, the Government's main agency for promoting small-scale and rural industries, plans to establish a total of 2,251 workshops and factories at a cost of K£15.3 million during the current development plan period. The exchequer account will provide about K£10 million

**INDUSTRIAL PROJECTS APPROVED BY SELECTED GOVERNMENT AND QUASI-GOVERNMENT
INSTITUTIONS 1978 TO 1980**

Table 1 1.6

	Number of Projects			Approved Expenditure K £000		
	1978	1979	1980	1978	1979	1980
Industrial and Commercial Development Corporation	3	2	3	1,055	515	619
Development Finance Company of Kenya Limited	28	28	33	3,561	4,300	3,852
Industrial Development Bank Limited	22	21	29	5,350	6,775	10,744
Kenya Industrial Estates Limited	23	88	45	461	2,387	1,920
TOTAL	76	139	110	10,427	13,977	17,135

and the balance will be obtained from foreign bilateral and multilateral institutions. The distribution of the expenditure and projects by location favours areas outside Nairobi and it is clear that by the end of the plan period the smaller towns in particular will benefit from substantial additional capacity available for small-scale industries.

11.34. To date, Kenya Industrial Estates has been able to develop not more than 100 projects in each year 1978, 1979 and 1980, committing total funds of K£5.1 million, with K£1.9 million spent in 1980. However, this is a substantially smaller number of projects than envisaged in the development plan, which calls for an average of 450 per year. The number of industrial estates in existence stayed at five between 1978 and 1980, but the number of rural industrial development centres rose from 5 to 10 during this three-year period. The number of jobs created through this programme increased from 2,829 in 1978 to 4,179 in 1980. The bulk of loans made were in industrial estates in 1980. The average loan per project was K£20,735 in 1978 and K£19,507 in 1980 while the average loan per job created fell by 16.4 per cent from K£1,473 in 1978 to K£1,232 in 1980. This fall indicates a trend towards greater labour-intensity and implies that the number of new jobs per project rose from 14 to 16 between the two years. On average a project on an industrial estate costs seven times as much as a project on a rural industrial development centre and each job created requires four times as much capital. The emphasis on a greater proportion of projects approved for rural industrial development centres in 1980 has an important influence in creating a greater number of jobs for the same expenditure of loan funds.

11.35. The distribution of KIE projects, jobs created and loans committed by industry groups shows that the majority of projects assisted were for wood, furniture and handicrafts, mechanical workshops, tinsmiths and

autorepairers. The metal industries received the largest share, at 23.1 per cent of loans made in 1980; the largest number of jobs was created in food, textile and wood, furniture and handicraft industries which combined gave employment to 46.6 per cent of all persons engaged in KIE projects.

11.36. The Industrial and Commercial Development Corporation spent K£619,000 on three existing medium-sized projects and committed another K£51,000 to five small enterprises in 1980. In the previous two years the corporation had spent K£515,000 and K£1,055,000, respectively, on medium-sized projects. In a number of cases the corporation has been able to negotiate suppliers credits to help particular enterprises. It has continued to participate in equity, especially in medium and large scale enterprises. In the three enterprises to which funds were disbursed in 1980, the corporation's equity now ranges between 23 and 51 per cent.

11.37. The Industrial Development Bank approved 29 projects in 1980 against 21 in 1979 and 22 in 1978 and committed K£10.744 million in 1980, a rise of 58.6 per cent above the K£6.775 million for 1979. Loan commitments rose by 73.6 per cent from K£6,055,000 to K£10,512,000 between 1979 and 1980. Since its inception, the bank has concentrated on basic metal and engineering, food and beverage, textile, paper, and tourism industries.

11.38. The Development Finance Company of Kenya continues to provide loans for small- and medium-sized projects throughout the country. In 1980 the company financed 33 projects against 28 in both 1979 and 1978. In 1980 funds amounting to K£3,852,000 were committed, which was 10.4 per cent lower than the K£4,300,000 spent in 1979. Forty per cent of the 1980 total was spent on 16 entirely new projects and 33.2 per cent on existing projects which were new to DFCK; the balance went to existing DFCK projects. In 1980, 21.7 per cent of loan funds went to the food industry, 24.2 per cent to engineering and construction, 18.1 per cent to paper and printing, 13.2 per cent to wood and furniture and 12.1 per cent to metallic and plastic product industries.

11.39. With the number of smallholder tea growers and related hectareage increasing since independence the Kenya Tea Development Authority (KTDA) has been expanding its capacity for tea processing mainly through the construction of new factories in tea-growing areas. As at the end of June 1980, 25 KTDA factories were operational and during the 1979/80 financial year four factories were commissioned, compared to three in 1978/79. Fifteen other tea factories whose construction has already started at an estimated cost of K£16.89 million, are expected to be operational between February 1981 and November 1982. When all are operational, these factories will boost KTDA's tea processing capacity by 25,200 tonnes of made tea a year.

11.40. Other investments in the manufacturing sector included the following, some of which have already been mentioned:

1. Two milk processing plants will be built at Kapsabet and Eldoret at a cost of K£1 million and K£2.25 million respectively.
2. A biscuit manufacturing firm which expanded its production lines in 1980 at a cost of K£2 million was expected to generate employment for a further 300 persons.
3. The textile industry is to benefit from a training institute to be built at a cost of K£2,750,000, to be located in Nairobi.
4. Two textile factories located at Nanyuki and Thika were under construction during the year 1980; when operational they will increase the production of nylon polyester filament and yarn.
5. An ethonal alcohol plant is planned for Kilifi District at a cost of K£500,000, to become operational in 1981. The plant will use cassava as its raw material and will provide employment for 900 persons when operating at full capacity.
6. The paper mill in Western Kenya has plans to expand its capacity to 100,000 tonnes of paper a year, at a cost of K£56 million. This expansion is expected to be financed by the World Bank, and construction work is due to start by 1984.
7. A brewery plant at Kisumu which cost K£14 million was opened towards the end of 1980.
8. As regards sugar production, the Nzoia Sugar Factory is to be expanded from its present crushing capacity of 2,000 tonnes to 5,000 tonnes a day. A refined sugar factory at Miwani is expected to be operational by the end of 1981 with a processing capacity of 240 tonnes a day. This is expected to satisfy domestic demand for refined sugar. Two new sugar factories are also to be built, in Nandi and Kericho districts.
9. The cement industry is being expanded with the aid of a K£7.2 million loan from the Commonwealth Development Corporation.
10. The Kenya Railways Corporation plans to spend K£9 million on the construction and equipment of a diesel workshop to improve the servicing and maintenance of its fleet of diesel engines.

Labour Costs and Productivity

11.41. As already mentioned, the overall index of manufacturing output indicates an increase of 4.1 per cent during 1980. Chapter 5, however, has shown that recorded employment in manufacturing grew by only 2.1 per cent and this implies an increase in the average output per worker. Table 11.7 sets out information on this and on trends in wage costs during 1978/80. Average output per worker has been growing at a very moderate pace during the past three years, with increases in output being nearly equally matched by increases in the numbers employed. It would be customary to expect a more rapid expansion in average productivity than that revealed here.

INDICATORS OF LABOUR COSTS AND PRODUCTIVITY IN MANUFACTURING, 1978-1980

Table 11.7

	1978	1979	1980
1. Change in the quantity index of manufacturing (%)	+ 12.6	+7.6	+4.1
2. Change in the numbers employed in manufacturing (%)	+ 10.3	+6.4	+ 2.1
3. Implicit change in average output per worker (%) ..	+2.3	+ 1.2	+ 2.0
4. Gross output in manufacturing (K£million, in current prices)	1,201	1,357	1,638
5. Value added in manufacturing (K£million, in current prices)	243	275	316
6. Total wage bill in manufacturing (K£million, in current prices)	80.2	90.1	106.2
7. Wage costs as % of gross output	6.7	6.6	6.5
8. Wage costs as % of value added	33.0	32.8	33.6

11.42. The data set out on trends in manufacturing wage costs, is in current prices and including both the private and public sectors. A general tendency for wage costs to diminish as a proportion of gross output (and therefore, probably, as a proportion of total costs), is discernible although it remains to be seen whether this downward drift will continue in the future. In relation to value added wage costs have virtually been constant at about a third of the total throughout the three years. Taking a somewhat longer-term view, there does seem to be a tendency towards a reduction of labour costs in the total because the wage bill was equivalent to an average of 7.9 per cent of gross output in 1974-76, against the 6.5 per cent of 1980. This partly reflects the large rises in the cost of petroleum and other intermediate inputs and partly a gradual decline in the share of wages in value added. Wages made up 35.5 per cent of value added in 1974-76, against 33.6 per cent in 1980. Being equivalent to such a relatively small proportion of gross output, the cost of labour emerges as a relatively minor component of the cost structure of the manufacturing sector, although this no doubt varies from industry to industry.

CHAPTER 12—BUILDING AND CONSTRUCTION

The contribution of building and construction activity to the GDP continued with its rising trend, and increased further by 0.9 per cent in 1980. This lower rate of increase compared with earlier years was affected by the credit squeeze which particularly influenced the contribution of private developers. Nevertheless, because of the nature of construction work in the public sector, where projects are usually large and time consuming, consumption of cement, a major ingredient in building and construction industry, probably rose once again by more than 10 per cent in 1980. This increase, however, overstates the growth rate in output from the industry as a whole as there is a trend to more cement usage in most building projects.

12.2. In response to the rise in the number of public building and construction projects, the number of people employed in construction activity in the public sector, that is working for the Central Government and local authorities, rose by 9 per cent in 1980, whilst wage employment in this activity in the private sector is reported to have declined by about 3 per cent. There would have been a fairly substantial increase also in private sector employment if credit had not been restricted because as shown later in this chapter building plans passed in 1980 reached record levels.

12.3. Provisional results from the Business Expectation Enquiry indicate that in 1980 total receipts for work done by private contractors rose by 19 per cent. This increase probably reflects a real rate of growth of 5 to 6 per cent while the rise in input prices accounts for much of the balance. At the end of 1980 these contractors reported stocks and work-in-progress of K£31.7 million compared with K£28.2 million at December 1979. The increase of 12.4 per cent is almost exactly the same as the rise in building material and labour inputs during the year which means that the volume of work-in-progress was about the same at the end of 1980 as a year earlier.

12.4. After the trend to a falling total value of building plans approved which was apparent in the second half of 1979 there was a strong recovery in 1980 with a particularly high total in the last quarter of the year. Thus in 1980 there were 3,775 plans approved for new buildings for a total value of K£126.0 million as compared with 3,620 approvals in 1979 valued at K£96.5 million, making increases of 4.3 and 30.6 per cent in units and values respectively. In line with past experience a majority of building plans approved were in Nairobi, with Mombasa next in importance. Nairobi alone accounted for about 82 per cent of all plans approved by all municipalities in 1980 compared to 77 per cent in 1979. Nairobi as a rapidly growing capital city continues to be attractive to all types of investors. In the last quarter of the year plan approvals in all towns were valued in total at K£43,623,000 equal to more than one-third of the gross value for the year as a whole.

BUILDING PLANS APPROVED BY NAIROBI AND OTHER TOWNS, 1978-1980

Table 12.1

K£'000

	Nairobi	Other Towns	Total
1978 1st Quarter	14,509	5,471	19,980
2nd Quarter	10,539	4,248	14,787
3rd Quarter	13,026	13,485	26,511
4th Quarter	20,165	2,994	23,159
1979 1st Quarter	22,902	6,364	29,266
2nd Quarter	16,565	13,425	29,990
3rd Quarter	15,871	7,074	22,945
4th Quarter	12,114	2,179	14,293
1980 1st Quarter	24,140	4,878	29,018
2nd Quarter	27,356	7,258	34,614
3rd Quarter	13,413	5,296	18,709
4th Quarter	37,933	5,690	43,623

12.5. The increase of 31 per cent in 1980 in the value of plans approved, as compared with 14 per cent registered in 1979, is only partly accounted for by the 12 per cent rise in building costs; the main reason is the inclusion of several large projects. However, on a quarterly basis the values of plans approved in the first three quarters of 1980 showed no noticeable change over the corresponding period 1979. This situation can be to some extent be accounted for by credit squeeze in the country which made it more difficult for developers to construct planned buildings to an original time schedule. As shown in Chapter 4 on Money and Banking, total loans and advances to the private building and construction sector from the commercial banks were K£36.2 million at December 1980 compared with KE36.0 million in December 1979, a decline in real terms, when deflated by the building cost index of about 10 per cent.

12.6. Despite the high increase in values of building plans passed in 1980 which might at first glance suggest that the years 1981 and 1982 should benefit from a buoyant construction industry, past experience suggests that there is

	Plans Approved	Building Work Completed
	K£ million	K£ million
1976	27.91	12.51
1977—	43.29	13.92
1978	75.81	14.62
1979	82.48	33.11
1980	110.08	35.00

often a very considerable delay before projects are actually completed. For example the comparison of building plans passed and projects completed in the private sector from 1976 to 1980 is as follows:

12.7. Even allowing for a time lag of two years, it is obvious that the level of completions is usually only about one-half or less of the total plans approved. However, the trend in the value of building plans passed is firmly upward and this should be reflected eventually in a higher level of building activity in Kenya in 1981 although credit to the industry will have to be more liberal to enable this to occur.

12.8. Table 12.2 indicates that the overall building and construction costs index showed a more moderate rise of 11.9 per cent in 1980 as compared to the 13.9 per cent increase in 1979 but was more than the 8.3 per cent recorded in 1978. The rise in 1980, which was about the same as the general rate of

PERCENTAGE INCREASE IN BUILDING AND CONSTRUCTION COST INDICES, 1978-1980

Table 12.2

	MATERIALS			LABOUR			TOTAL		
	1978	1979	1980	1978	1979	1980	1978	1979	1980
Residential Buildings	10.4	15.7	12.3		10.6	11.5	6.4	14.8	12.1
Non-Residential Buildings	11.3	16.0	12.2		10.6	11.5	9.6	14.8	12.1
All Buildings	10.9	15.1	12.2		10.6	11.5	9.0	15.0	12.1
"Other" Construction	10.9	11.7	11.6	—	10.6	11.5	6.8	11.4	11.6
TOTAL COST INDEX	10.9	15.0	12.0		10.6	11.5	8.3	13.9	11.9

*From December to December.

inflation in the economy, is accounted for by a 12 per cent increase in the cost of materials and one of 11.5 per cent for labour. In 1979 these two constituents had risen by 15 per cent and 10.6 per cent respectively. Prices of some input materials in the building sector such as sand, aggregate and building blocks remained unchanged in 1980 but in contrast the price of cement rose sharply from K.Sh. 737 per tonne in 1979 to K.Sh. 953 per tonne in 1980, an increase of 29 per cent. Among other materials which registered more modern price increase during the year were timber, hardware and windows, paints and glass. In general price rises for these other items were fairly restrained and thus the overall rise in input material prices was less than in 1979. The rise in labour costs in 1980 is a result of a wages award of 11.5 per cent. The rises in construction costs for residential and non-residential buildings were the same at 12.1 per cent but for other constructions the increase was slightly less at 11.6 per cent.

12.9. Table 12.3 and 12.4 detail the values and numbers of reported private building work completed in main towns both on new buildings constructed and extensions effected to existing buildings. The tables indicate that when

allowing for the rise in building costs, the level of completions in 1980 in real terms in the main towns was probably less or no more than in 1979. It is interesting to relate the levels of credit advanced to the private building and construction industry from the commercial banks with the value of buildings completed in that sector. Thus at December 1978, credit from the commercial banks was K£23.74 million, at December 1979, it rose to K£36.0 million but then rose only slightly to K£36.2 million at December 1980. The full year averages for 1979 and 1980 were K£29.7 million and K£36.1 million respectively, while buildings completed were valued at K£33.1 million in 1979 and an estimated K£35 million in 1980. There is thus an apparent strong correlation between the activity of the building industry and the amount of credit it receives. Between 1976 and 1979 the value of buildings completed in the main towns rose from K£12.5 million to K£33.1 million while average credit available increased from K£12.85 million to K£29.7 million.

12.10. Table 12.3 shows how Nairobi and Mombasa receive the lion share of building activity. These two major commercial centres in the country start with much larger populations and better public services while established and new businesses of all kinds continue to create increased economic activity providing the essential basis for the demand for both residential and non-residential buildings. New businesses particularly affect the demand for both high quality residential and non-residential buildings. Another factor which has made Nairobi in particular such a focal point is that it has become an

THE VALUE OF ALL REPORTED PRIVATE BUILDING** WORKS COMPLETED IN MAIN TOWNS—1976-1980

Table 12.3

K£million

	Nairobi	Mombasa	Nakuru	Kisumu	Kitale	Eldoret	Thika	Others	Total
			Total or Year						
1976	9.02	1.80	0.42	0.15		0.10	0.83	0.19	12.51
1977	8.86	2.53	0.10	0.02		1.55	0.71	0.15	13.92
1978	10.19	2.85	0.29	—		0.11	1.05	0.13	14.62
1979	26.37	4.41	0.60	0.49		0.15	1.09		33.11
				Returns received to date*					
1979	22.23	4.28	0.48	0.40	—	0.12	0.73		28.24
1980	15.70	12.55	0.97	0.18		0.05	0.73		30.18

*Provisional and incomplete. The late receipt of returns adds significantly to the year' total. 1979 figures for comparisons only.

**Including the value of extensions.

important centre for international agencies and international bankers. However, figures so far available for 1980 show that the value of new buildings completed in Mombasa was three times the level of 1979 whereas in Nairobi there may have been a reduction.

REPORTED COMPLETIONS OF NEW PRIVATE BUILDINGS IN MAIN TOWNS, 1976-1980**

Table 12.4

	NUM BER		ESTIMATED COST K'£ <i>million</i>		
	Residential	Non-Residential	Residential	Non-Residential	Total
TOTAL FOR YEAR					
1976	791	114	4.88	6.25	11.13
1977 ..	815	68	5.08	5.51	10.59
1978 ..	1,216	89	8.83	3.92	12.75
1979 ..	2,716	103	23.12	6.01	29.13
RETURNS RECEIVED TO DATE*					
1979 ..	2,273	80	19.93	5.04	24.97
1980 ..	1,137	57	14.84	12.60	27.44

**provisional and incomplete. The late receipt of returns adds significantly to the year's total. 1979 figures for comparison only.

**Excluding the value of extensions.

12.11. The distribution of buildings completed between residential and non-residential as given in Table 12.4 shows that there was more emphasis on non-residential buildings in 1980 than in earlier years. In 1979 2,716 new residential projects were completed valued at K£23.1 million with Nairobi accounting for 84 per cent. In 1980 the total residential building projects seems unlikely to exceed 1,500 valued at probably K£18 million. In contrast the value of new non-residential buildings completed in 1980 should exceed K£14 million compared with K£6.0 million in 1979. A generally poor economic climate in 1980 has had much more impact on housing than on non-residential buildings at least as regards completions. Provisional data for the main towns other than Nairobi and Mombasa show a similar trend to somewhat stagnant building activity in 1980. However, the increased efforts to build more residential houses in these other towns is an indication that the Government wishes to continue to use the building industry to generate economic activity throughout the whole of Kenya.

12.12. The provisional information available on reported completions of new public buildings in the main towns, as shown in Table 12.5 seems to indicate that in 1980 there was more public sector building activity than in 1978 and 1979. There were at least 310 public buildings completed in 1980, an increase of 37 per cent over 1979 while their values increased from only K£1.76 million in 1979 to more than K£6.95 million in 1980. However, this large rise in values in 1980 is somewhat misleading because there were many larger projects underway in 1979 which were actually completed in 1980. It seems more appropriate to take an average of consecutive bi-annual periods to establish what trend if any is apparent for public sector building completions. Thus in 1976 and 1977 the average annual value of such completions

in the main towns was K£8,646,000. In 1979 and 1980 this average fell to K£4,357,000 based on the information currently available. Public sector building as the building plans passed in Nairobi suggest is stimulated when private sector buildings activity is flat and is scaled down when there are plenty of private sector projects. The level of public sector building plans approved for 1980 suggests that there is a current attempt to keep overall building activity at a fairly high level.

REPORTED COMPLETIONS OF NEW PUBLIC BUILDINGS IN MAIN TOWNS, 176-1980

Table 12.5

	NUMBER		COST K£'000			
	Residential	Non-Residential	Residential	Non-Residential	Total	Total**
TOTAL FOR YEAR						
1976	1,068	149	4,004.1	2,166.9	6,171.1	6,308.5
1977	475	131	1,944.4	8,991.5	10,935.9	10,983.9
1978	582	76	2,634.5	2,775.7	5,410.2	5,452.9
1979	221	5	1,195.5	40.2	1,235.7	1,759.7
RETURNS RECEIVED TO DATE*						
1979	207	5	1,005.7	40.2	1,045.9	1,562.4
1980	302	8	4,230.9	2,589.9	6,820.8	6,953.9

*Provisional and incomplete. The late receipt of returns adds significantly to the year's total. 1979 figures for comparisons only.

**Including the value of extensions.

12.13. Some of the building projects which were at advanced stage by the end of 1979 had been completed in the course of 1980. These included among others Bandari College in Mombasa, the Co-operative Bank House, new Treasury Building, and the American Embassy Building in Nairobi. The major extensions completed during 1980 included the Central Bank of Kenya building in Mombasa and the extension work on the Kenya Polytechnic in Nairobi. These completions plus extension have raised the value of completions by at least K£5.19 million over the total for 1979. Other major building projects which were at an advanced stage at the end of 1980 included the State Reinsurance Corporation House, extensions to Nairobi City Council building, and the Nairobi Provincial Headquarters.

12.14. The value of direct expenditure by the Central Government on housing is shown in Table 12.6. The total approved expenditure on housing for the whole country declined from K£9.09 million for 1979/80 to K£8.05 million for 1980/81. Up to 1979/80 such approved expenditure on housing had shown an upward trend. In 1977/78 approved total expenditure on housing was K£7.69 million equivalent to more than double the amount in the 1976/77 financial year. Housing expenditure in 1978/79 increased further by 10 per cent to K£8.49 million and in the following year, 1979/80, it rose by 7 per cent to K£9.09 million. The fall of 12 per cent in the 1980/81 estimates over 1979/80 bearing in mind the rise in building costs means that

the direct effort being made to build houses has been reduced. However, it is significant to note that Government loans to both National Housing Corporation and Housing Finance Company of Kenya, the two public institutions which have been entrusted with the duty of providing houses on long term loan schemes, have continued to increase. In 1980/81 for example, loans to

APPROVED AND ACTUAL CENTRAL GOVERNMENT EXPENDITURE ON HOUSING, 1975/76
1980/81

Table 12.6 K£'000

Year	Approved	Actual	Approved Expenditure as percentage of Development Expenditure
1975/76	4,721.5	4,439.9	4.3
1976/77	3,451.0	3,416.6	2.7
1977/78	7,686.1	7,098.9	3.9
1978/79	8,490.6	7,764.9	2.8
1979/80	9,092.5	7,303.6	3.9

the National Housing Corporation and Housing Finance Company of Kenya increased from K£6.53 million to K£6.71 million and from K£1.00 million to K£1.25 million respectively. This underscores the importance the Government attaches to these institutions to help make a success of its current housing policy.

12.15. Table 12.7 indicates that the provisional number of housing units completed by National Housing Corporation in 1980 was 3,527 valued at K£5.66 million, reductions of 14 per cent and 13 per cent respectively compared with 1979. However, the figures for 1979 of 4,085 dwelling units valued at K£6.48 million had been very much higher than in the years 1976 to 1978. The housing units completed in 1980 were much more widely spread than in 1979 when Nairobi was the beneficiary of three-quarters of all completions. In 1980 Rift Valley Province received 1,417 units and Nairobi 616 while in the remaining provinces figures varied between 249 and 350 units. However, there was no building activity by the Corporation in North-Eastern Province. Out of 12,751 units valued at K£20 million completed by Corporation throughout the country since 1976, 6,151 units or nearly one-half valued at K£11.42 million were located in Nairobi. This large share in the Corporation's activity in providing residential houses in Nairobi is mainly due to the very difficult housing situation in the capital city for low- and middle-income earners.

12.16. Apart from building residential units, the National Housing Corporation also undertakes the provision of site and service plots all over the country. This scheme has attracted support especially from the low-income earners in the towns who do not have enough assets or savings to raise the

deposits required by the Corporation to be able to buy a completed dwelling. The total number of plots completed in 1980 rose to 2,454, 2.7 per cent more than in 1979 and more than double the 1,077 completed in 1978. Thus the total of completed dwellings and serviced plots by the Corporation was 5,981 in 1980 compared with 6,474 in 1979 and an average of only 2,533 annually from 1976 to 1979.

HOUSING UNITS COMPLETED BY THE NATIONAL HOUSING CORPORATION, 1976-1980

Table 12.7

	1976	1977	1978	1979	1980
<i>Units Completed</i>					
PROVINCE—					
Central	38	433	159	207	337
Coast	516	—	51	190	350
Eastern	—	186	51	—	249
Nairobi	1,031	586	862	3,056	616
North Eastern	—	—	—	—	—
Nyanza	94	17	300	—	286
Western	104	306	—	171	272
Rift Valley	—	284	121	461	1,417
TOTAL NUMBER	1,783	1,812	1,544	4,085	3,527
<i>Value of Units Completed</i> K£'000					
Central	56	332	284	160	370
Coast	719	—	107	157	875
Eastern	—	175	99	—	331
Nairobi	614	1,406	2,622	5,177	1,604
North Eastern	—	—	—	—	—
Nyanza	38	181	277	—	612
Western	62	9	207	165	206
Rift Valley	—	375	295	819	1,666
TOTAL VALUE	1,489	2,478	3,891	6,478	5,664
<i>Site and Service Plots Completed: No.</i>	1,128	355	1,077	2,389	2,454

12.17. The value of all building plans approved by the Nairobi City Council since 1976 has shown a firm upward trend as depicted in Table 12.8 below. If building plans are any indication, then the demand for both residential and non-residential buildings in Nairobi has remained high since 1976. Whereas the total value of plans passed was K£19.75 million in 1976, in 1979 it has risen to K£67.45 million and there was a spectacular increase to K£102.84 million in 1980. In the first three quarters of 1980 the value of plans passed was K£64.91 million which figure allowing for inflation probably represented the same area of floor space as in the first three quarters of 1979.

However, in the fourth quarter 996 plans valued at K£37.9 were passed, easily the highest quarterly value since records were kept. This large increase in value of fourth quarter 1980 plans passed is influenced by such large schemes as a shopping centre and office block to be built at a cost of K£4.5 million in Parklands, a complex along Koinange Street to cost K£3.25 million and a residential estate on which K£2.61 million is projected.

PRIVATE AND PUBLIC BUILDING PLANS APPROVED BY THE NAIROBI CITY COUNCIL, 1976-1980

Table 12.8

Estimated Cost K£'000

	PRIVATE			PUBLIC			All Buildings
	Residential	Non-Residential	Total	Residential	Non-Residential	Total	
1976	6,927	9,832	15,759	598	3,397	3,995	19,754
1977	15,177	15,609	30,786	2,965	8,705	11,670	42,456
1978	26,202	25,206	51,408	4,716	2,716	6,831	58,239
1979	33,641	23,478	57,119	1,765	8,570	10,335	67,454
1980	53,238	35,719	88,957	1,322	12,563	13,885	102,842
1978—							
1st Qr.	6,870	7,399	14,269	14	226	240	14,509
2nd Qr.	4,970	3,818	8,788	3	1,748	1,751	10,539
3rd Qr.	6,107	4,563	10,670	2,186	170	2,356	13,026
4th Qr.	8,255	9,426	17,681	1,912	572	2,484	20,165
1979—							
1st Qr.	10,179	6,070	16,249	936	5,717	6,653	22,902
2nd Qr.	6,852	7,843	14,695	132	1,738	1,870	16,565
3rd Qr.	8,820	6,236	15,056	165	650	815	15,871
4th Qr.	7,789	3,328	11,117	532	465	997	12,114
1980—							
1st Qr.	16,085	5,360	21,445	476	2,219	2,695	24,140
2nd Qr.	13,602	9,426	23,028	418	39,10	4,328	27,356
3rd Qr.	7,625	4,863	12,488	169	756	925	13,413
4th Qr.	15,926	16,070	31,996	259	5,678	5,937	37,933

12.18. Private developers have continued to play a leading role in the supply of both residential and non-residential buildings in the city. And although the public sector has been increasing its share certainly since 1978, this effort continues to be overshadowed by private developers. Residential buildings accounted for more than half the value of plans passed in 1978 and 1979 and in 1980 the value of non-residential plans approved both for private and public sectors accounted for over 47 per cent of the total. Despite the qualification made earlier that probably as many as half the total plans passed in the period 1976 to 1979 has not yet been proceeded with, the proportion of private non-residential building schemes not yet built appears to be as high as 75 per cent.

12.19. The total value of plans approved in other municipal areas fell from K£29.04 million in 1979 to K£23.13 million in 1980, a fall of 20 per cent. As in Nairobi private developers have continued to play a significant role in new developments in these other towns. For the years 1976 to 1980, the

private sector accounted for between 85 and 91 per cent of the total building plan approvals. In 1980 46 per cent of building plans passed were for non-residential buildings and 54 per cent for residential dwellings.

PRIVATE AND PUBLIC BUILDING PLANS APPROVED BY OTHER MUNICIPALITIES, 1976-1980

Table 12.9

Estimated Cost K£'000

	PRIVATE			PUBLIC			All Buildings
	Residential	Non-Residential	Total	Residential	Non-Residential	Total	
1976	4,440	7,709	12,149	1,364	430	1,794	13,943
1977	4,072	8,432	12,501	125	2,059	2,184	14,688
1978	8,266	16,132	24,398	540	1,260	1,800	26,198
1979	12,808	12,551	25,359	693	2,991	3,684	29,043
1980	10,827	10,299	21,126	1,637	359	1,996	23,122
1978—							
1st Qr.	2,113	3,320	5,433	30	8	38	5,471
2nd Qr.	2,123	2,123	4,246		2	2	4,248
3rd Qr.	2,687	9,283	11,970	265	1,250	1,515	13,485
4th Qr.	1,343	1,406	2,749	245		245	2,994
1979—							
1st Qr.	4,094	2,011	6,105	23	236	259	6,364
2nd Qr.	3,644	6,678	10,322	350	2,753	3,103	13,425
3rd Qr.	3,829	2,928	6,752	320	2	322	7,074
4th Qr.	1,241	938	2,179				2,179
1980—							
1st Qr.	2,475	1,203	3,678	1,200		1,200	4,878
2nd Qr.	2,633	4,135	6,768	400	90	490	7,258
3rd Qr.	2,847	2,225	5,072		224	224	5,296
4th Qr.	2,872	2,736	5,608	38	45	83	5,690

12.20. It is useful at this stage to summarize the relationship between private sector building plan approvals and the value of buildings completed both for residential and non-residential. The comparison since 1976 for the main urban areas is as follows:

	Residential		Non-Residential	
	Plans	Completions	Plans	Completions
	K£ million	K£million	K£million	K£million
1976	11.37	5.50	16.54	6.25
1977	19.25	6.80	24.04	5.51
1978	34.47	9.72	41.34	3.92
1979	46.45	25.10	36.03	6.01
1980	64.07	20.00	46.02	15.00
TOTALS	175.61	67.12	163.97	36.69

Proportions*

56 per cent

26 per cent

*Completions related to plans excluding plans for 1980 and completions in 1976.

12.21. This comparison shows quite clearly that the value of completed private sector non-residential buildings has been very low in relation to plans passed since 1976 and must reflect the influence of many schemes aborted before starting and those presented before the problems of raising finance were properly investigated. However, the relationship of completions to plans passed is much more satisfactory for residential dwellings.

Roads and Other Construction

12.22. Total expenditure on new road constructions dropped by 14 per cent from K£37.34 million in 1979/80 to K£32.18 million in 1980/81 or by nearly a quarter in real terms. The 14 per cent fall may be compared with an increase of 21 per cent in 1979/80. As shown in Table 12.10 there was a particular reduction in funds provided for miscellaneous road projects with expenditure falling from K£16.63 million in 1979/80 to K£7.62 million in

TOTAL EXPENDITURE ON ROADS, 1978/79-1980/81

Table 12.10

K£'000

	1978/79	1979/80	1980/81
DEVELOPMENT			
Trunk Roads	11,490.0	9,730.0	14,700.0
Primary Roads	4,950.0	7,564.9	5,170.0
Secondary	1,610.0	3,250.0	2,265.0
Unclassified Roads	1,320.0	165.0	2,410.0
Miscellaneous Roads	10,789.0	16,634.5	7,620.0
Implementation of road maintenance organization	600.0	100.0	20.0
TOTAL	30,759.0	37,344.4	32,185.0
RECURRENT (maintenance and repair)	10,564.3	12,214.8	12,181.0
TOTAL	41,323.3	49,559.2	44,366.0

1980/81. There was in contrast a rise of 51 per cent from K£9.73 million to K£14.7 million for trunk road projects but there were falls for primary and secondary roads. Unclassed roads probably include roads in farm areas and here expenditure in 1980/81 rose to K£2.41 million. As for road maintenance and repair, total expenditure in 1980/81 stayed at about the same level as in 1979/80 at K£12.18 million, implying a reduction in real terms.

12.23. The highest proportion of expenditure on maintenance and repair went to the Rift Valley Province in 1980/81 with K£3.56 million while Central Province had the second highest share amounting to K£2.22 million. Maintenance and repair of roads in Nairobi itself is carried out by the City Council.

Both the new 4 kilometre Nyali bridge and the New Mtwapa bridge of 1.5 km. were completed in 1980. These two projects were funded with aid from Japan. The other major projects completed in 1980 were the Longo-not Turn Off-Naivasha road of 26 km. and the Nyahururu-Ndindika road of 48.5 km. The other major construction works in progress in 1980/81 were Limuru-Uplands road of 11 km. and Naivasha-Lanet road of 55.6 km. Both these projects are being financed by the World Bank. The other major project which is financed by Kenya Government still in progress is Kisran-Bondo road of 31.1 km. where the contract has been re-awarded after the first contractor failed to complete the work.

Other Construction Works

12.24. Other major construction projects such as the Masinga Dam and the Olkaria geothermal project near Naivasha were taken further in 1980 and both were scheduled for completion in 1981. The Kiambere Hydro-electric project which will produce 14 megawatts on completion at a cost of K£1.5 million is also in progress. With the current policy to take water to the majority of the people in the rural areas by the year 2000 being followed vigorously, much construction work is being carried out by the Ministry of Water Development. The chapter on Natural Resources includes a section on water development. There are many other public sector projects which have been or are being developed outside the main towns and these naturally have an impact on the general level of activity in the construction sector. The total capital expenditure of the Central Government is shown in Chapter 6 which chapter also provides information on capital spending by municipal councils and town and county councils. Chapter 2 on the domestic economy includes tables on gross capital formation, its financing and the type of asset developed. Buildings and constructions naturally play a fundamental part in the build-up of the capital stock of the country and from 1976 to 1980 they made up about 45 per cent of gross capital formation in Kenya.

CHAPTER 13—TOURISM

Like other economic activities, world tourism did not escape the ravages of the global recession that afflicted industrialized and non-industrialized countries in 1980. Inflation and rising unemployment has considerably reduced private consumption in the industrialized countries, while the increases in the price of crude oil since 1979 have raised the level of inter-continental airfares beyond the reach of many people in the tourist-generating areas. According to preliminary figures released by World Tourism Organization (WTO), international tourism only grew by about 6 per cent in 1980.

13.2. In the past few years there has been an increase in the number of tourists coming to Kenya on package tours. There are signs, however, that this trend may not continue in the near future due to the decline in real incomes in some industrial countries, as well as the high costs of holidays in

ARRIVING AND DEPARTING VISITORS BY PURPOSE OF VISIT, 1978-1980

Table 13.1

'000

Quarter/Purpose		ARRIVALS			DEPARTURES		
		1978	1979	1980*	1978	1979	1980*
1st Qr.	Holiday	79.9	78.6	83.2	84.3	90.5	93.5
	Business	10.6	13.1	12.3	5.1	8.3	9.1
	Transit	100	11.9	12.9	7.8	7.7	10.7
	TOTAL	100.5	103.6	108.4	97.2	106.4	113.2
2nd Qr.	Holiday	45.1	48.5	65.3	46.9	48.9	53.6
	Business	12.3	10.4	15.5	7.7	6.1	7.7
	Transit	11.7	11.3	16.7	10.1	7.5	11.6
	TOTAL	69.1	70.2	97.5	64.8	62.5	72.9
3rd Qr.	Holiday	62.8	72.6	63.5	70.6	70.8	65.7
	Business	13.2	15.2	9.7	5.1	8.3	6.6
	Transit	14.4	14.7	11.9	10.3	8.8	11.6
	TOTAL	90.3	102.5	85.1	86.0	87.8	83.9
4th Qr.	Holiday	75.1	79.2	78.7	66.6	64.5	69.3
	Business	12.7	12.9	11.4	8.3	15.2	12.6
	Transit	12.8	14.6	12.2	10.5	10.7	10.7
	TOTAL	100.7	106.8	102.3	85.3	90.5	92.6
Year	Holiday	263.0	278.9	290.7	268.4	274.7	282.1
	Business	48.9	51.6	48.9	26.1	37.8	36.0
	Transit	48.8	52.6	53.7	38.8	34.7	44.6
	TOTAL	360.6	383.1	393.3	333.3	347.2	362.7

*Provisional.

Kenya as compared with alternative destinations. Kenya's participation in world tourism in 1980, as measured by the number of holiday visitor-departures, increased by only 2.7 per cent—slightly above the 2.3 per cent growth of 1979 but well below the 6 per cent growth in total world tourism.

13.3. Details of visitor-arrivals and departures for 1978-80 are set out in Table 13.1. The total number of visitor-arrivals rose from 383,100 in 1979 to 393,300 in 1980—an increase of 2.7 per cent, compared with 6.2 per cent in 1979. The percentage rise in total visitor-departures was larger, however, at 4.5 per cent, against 4.2 per cent in 1979. These discrepancies between arrival and departure statistics arise partly because of timing factors and partly because visitors report their categories differently on arrival and departure; departures are felt to represent a more realistic basis for the assessment of changes.

13.4. During the year the number of business visitors declined for the first time since 1977. Another interesting development was the substantial rise in the number of visitor-arrivals in the second quarter of the year. In a normal year, the second quarter is an off-peak season.

Table 13.2 VISITOR DEPARTURES BY COUNTRY OF RESIDENCE, 1978-1980 '000

	HOLIDAY VISITORS			ALL VISITORS*		
	1978	1979	1980	1978	1979	1980
United Kingdom	38.3	39.8	40.9	48.1	49.4	49.9
West Germany	53.0	59.0	60.6	55.9	61.7	76.2
Italy	16.3	16.3	16.7	18.1	18.0	21.6
France	13.7	14.2	14.6	15.7	16.0	15.6
Switzerland	24.8	23.6	24.2	26.0	24.8	27.3
Other Europe ..	32.1	28.3	30.6	36.4	32.7	36.6
TOTAL EUROPE	178.3	181.2	187.6	200.3	202.6	227.2
United States	22.4	25.6	26.3	26.9	31.0	30.8
Canada	3.8	4.1	4.2	4.6	4.9	5.0
TOTAL N. AMERICA	26.2	29.7	30.5	31.4	35.9	35.8
TOTAL ASIA	16.8	17.5	19.0	25.5	25.7	27.1
Uganda ..	5.2	7.4	7.6	8.5	14.9	10.4
Tanzania	11.8	6.1	2.4	15.0	9.8	3.5
Zambia ..	4.4	4.5	4.6	8.7	9.1	7.6
Other Africa	21.2	23.5	24.9	38.3	43.0	43.1
TOTAL AFRICA	42.6	41.4	39.5	70.5	76.7	64.6
TOTAL OTHER	4.6	4.8	5.5	5.7	6.3	7.9
GRAND TOTAL	268.4	274.6	282.1	333.3	347.2	362.6

*Includes business visitors and persons in transit.

13.5. Table 13.2 provides details of visitor-departures by country of residence. Departures of visitors from Europe increased by 12.1 per cent from 202,600 in 1979 to 227,200 in 1980. Residents of West Germany recorded the largest increase of 23.5 per cent, followed by Italy and Switzerland at 20.1 and 10.1 per cent, respectively. There was a slight decline in number of visitors from France, although French holiday visitors increased by 2.8 per cent. The number of visitors from North America fell marginally, chiefly due to decline in number of visitors from the U.S.A. The number of visitors from African countries declined by 15.8 per cent from 76,700 in 1979 to 64,600 in 1980, mainly because of fewer business and transit visitors.

13.6. The closure of the border with Tanzania has reduced the number of visitors travelling by road and successive increases in the price of oil has also reduced the attractions of private road transportation as a means of touring. As a result, air transportation has continued to dominate tourist travel, despite the rise in airfares, as indicated in Table 13.3.

VISITOR DEPARTURES BY METHOD OF TRAVEL, 1976-1980

Table 13.3

'000

	1976	1977	1978	1979	19780
Air	337.7	315.8	309.6	326.3	344.0
Sea	1.6	0.8	1.5	0.9	1.3
Road	84.9	27.8	22.2	20.0	17.4
Lake	—	—	—	—	—
Rail	0.1	—	—	—	—
TOTAL	424.2	344.4	333.3	347.2	362.7

13.7. Although the number of visitor arrivals in 1980 increased by less than in 1979, the average length of stay of visitors increased from 15.5 to 15.7 days, as shown in Table 13.4. The average length of stay of visitors staying 0-14 and over 28 days increased from 6.7 and 62.2 days in 1979 to 7.4 and 72.6 days in 1980, respectively, while the average for those staying between 15-28 days was little changed. As a result the total number of visitor-days increased by 5.6 per cent from 5.4 million in 1979 to 5.7 million in 1980. The total number of days attributable to those staying over 28 days, however declined from 2.3 million to 2.1 million despite the increase in average length of stay.

13.8. Holiday visitors accounted for 5.04 million days, or 88 per cent of the total while most of the remainder was attributable to business visitors. Residents of West Germany accounted for 23.3 per cent of the 5.7 million days while United Kingdom and other Europe accounted for 17.1 and 25.9 per cent respectively. There were declines in the number of days stayed by visitors from North America and Africa. The number of days stayed by residents of East Africa declined by 40.2 per cent from 368,000 in 1979 to 220,000 in 1980.

TOTAL STAY OF DEPARTING VISITORS AND AVERAGE LENGTH OF VISIT, 1976-1980

Table 13.4

Length of Stay	1976	1977	1978	1979	1980
	Total Stay—'000 Days				
0-14 Days	1,942	1,569	1,547	1,586	1,838
15-28 Days	1,458	1,459	1,478	1,510	1,773
Over 28 days	1,908	2,072	1,720	2,300	2,086
TOTAL	5,308	5,101	4,745	5,397	5,697
	Average Length of Stay—Days				
0-14 Days	6.0	6.5	6.6	6.7	7.4
15-28 Days	20.3	20.2	20.2	20.2	20.5
Over 28 days	61.2	65.4	64.2	62.2	72.6
TOTAL	12.8	14.8	14.2	15.5	15.7
	Total Stay by Originating Areas—'000 Days				
East Africa	944	541	348	368	220
Other Africa	421	469	443	602	547
United Kingdom	860	819	840	931	973
West Germany	700	846	893	1,054	1,328
Other Europe	1,284	1,417	1,323	1,346	1,476
North America	640	591	478	599	586
Asia	335	323	329	409	443
All Other	123	94	91	89	124
TOTAL	5,308	5,101	4,745	5,397	5,697
	Total Stay by Purpose of Visit—'000 Days				
Holiday	4,688	4,800	4,382	4,851	5,039
Business	561	243	307	492	512
Transit	59	58	57	55	146

Tourist Receipts

13.9. Despite the slower growth in the number of visitors to Kenya in 1980 and the global recession that has affected most economic activities, revenue from tourism in Kenya increased by one-third from K£62 million in 1979 to K£82.5 million in 1980. Even after adjustment for price increases this is a large increase in real terms. The increase in revenue can be attributed to more effective and closer monitoring of remittances from overseas by tour operators and also to increases in hotel tariffs, which averaged about 10 per cent in the up-country hotels. At the same time, as noted earlier, the average length of stay of visitors increased, which led to greater utilization of tourist facilities as indicated below.

13.10. Following the tourism pricing study and the efforts being made by the Ministry of Tourism to harmonize hotel prices and those of Directorate of Civil Aviation to regulate charter operators, large receipts of tourist earnings that had hitherto been withheld abroad through vertically integrated tourist operations can be anticipated.

Hotel Occupancy

13.11. The bed-capacity in the hotel industry increased by 3.5 per cent during 1980 compared to 9.3 per cent in 1979. The number of hotel beds occupied, however, rose much faster than capacity, from 4,338,000 bed-nights in 1979 to 4,717,000 in 1980, or 8.7 per cent. As a result the hotel occupancy rate, rose from 53.9 per cent in 1979 to 56.7 per cent in 1980, as shown in Table 13.5, which indicates better utilization of accommodation facilities.

HOTEL BED OCCUPANCY, 1976-1980

Table 13.5

'000 *Bed-Nights*

	1976	1977	1978	1979	1980
Permanent Occupants*	364	356	368	382	410
Kenya Residents	577	642	701	802	789
Residents of—					
Uganda and Tanzania	127	98	84	99	98
Foreign Residents	2,506	2,741	2,829	3,055	3,420
TOTAL BEDS OCCUPIED	3,574	3,838	3,982	4,338	4,717
TOTAL BEDS AVAILABLE ..	6,983	7,028	7,358	8,043	8,325
Bed Occupancy Rate <i>per cent</i>	51.2	54.6	54.1	53.9	56.7

*Persons staying one month or more in one hotel—includes some block bookings for aircrew.

Foreign residents accounted for 96 per cent of the increase while bed-nights attributed to Kenya residents declined by 2 per cent.

13.12. Table 13.6 shows details of hotel occupancy by major tourist zones. Out of the 4,717,3000 beds occupied in 1980, coastal hotels accounted for 50.9 per cent while Nairobi accounted for 32.1 per cent. With the exception of Nairobi high class hotels, which registered a small decline in bed-nights occupied, most zones recorded increases. Masailand hotels had the highest increase of 19.6 per cent.

13.13. Details of hotel bed and room availability by the major tourist zones are set-out in Table 13.7. Total number of rooms available increased by 1.7 per cent from 4.346 million in 1979 to 4.418 million in 1980 while the number of beds available increased by 3.1 per cent from 8.075 million to 8.325 million. Nairobi and coastal hotels have generally higher room and bed occupancy rates than the rest of the country. However, the difference between room and bed occupancy rates for Nairobi high class hotels is bigger

HOTEL BEDS OCCUPIED BY AREA, 1976-1980

Table 13.6

'000 *Bed-Nights*

	1976	1977	1978	1979	1980
Nairobi—High Class	586.2	552.7	570.9	611.0	609.8
Other	847.2	854.7	839.1	884.2	904.3
Coastal—Beach	1,354.4	1,543.6	1,654.0	1,809.6	2,055.3
Other	220.7	234.6	254.5	305.4	345.4
Coast Hinterland	118.8	137.7	121.0	120.5	134.9
Masailand	151.6	156.4	152.2	161.8	193.5
Central	217.7	250.2	269.0	287.0	318.4
Other	77.2	107.7	121.6	158.6	155.6
TOTAL	3,573.7	3,837.9	3,982.3	4,338.1	4,717.3
Of which:—					
Foreigners	2,505.5	2,740.8	2,828.6	3,055.1	3,420.3
E.A. Residents*	1,068.2	1,097.1	1,153.7	1,283.0	1,297.0
TOTAL BEDS AVAILABLE	6,983.1	7,028.3	7,385.0	8,043.5	8,324.9
Occupancy rate <i>per cent</i>	51.2	54.6	54.1	53.9	56.7

*Includes all persons staying one month or more in one hotel.

than elsewhere. In 1980, for example, there was a slight improvement in room occupancy for Nairobi high class hotels but the bed occupancy rate declined from 52 per cent in 1979 to 49 per cent in 1980. Beach hotels on the other hand, increased their respective room and bed occupancy from 70 and 64 per cent to 78 and 72 per cent. The greater demand for rooms than beds in Nairobi is a reflection of conference and business visitors, while coastal hotels generally accommodate holiday visitors who are usually accompanied.

13.14. Table 13.8 details the areas where residents of various countries spent their stay in Kenya. Excluding residents, a total of 3,518,000 nights, or 62 per cent of visitor days in Kenya in 1980, were spent in hotels and lodges, compared to 58 per cent in 1979. Residents of all countries spent 50.9 per cent of their hotel nights at the coast, while Nairobi and game lodges respectively provided 32.1 and 8.5 per cent of the bed-nights. Visitors from Europe spent 70 per cent of their stay at the Coast. Swiss visitors led the list with 84.6 per cent of their stay at the Coast, followed by residents of West Germany, Italy, France and United Kingdom in that order. Americans and residents of other African countries, however, spent most of their stay in Nairobi.

As indicated in Table 13.9, there was considerable improvement in bed occupancy in game lodges, especially those located in game reserves, which rose from 61.0 per cent in 1979 to 69.2 per cent in 1980. Bed-nights spent by East African residents in the game lodges increased by 31.4 per cent while those spent by foreigners increased by 30.3 per cent.

HOTEL ROOM AND BED AVAILABILITY AND OCCUPANCY RATES, BY AREA, 1976-1980

Table 13.7

	NAIROBI		COASTAL		OTHERS						All Hotels
	High Class	Other	Beach	Mombasa Island	Coast Hinterland	Masai land	Nyanza Basin	Western	Central	Nothern	
1976											
Rooms available—'000 nights	592	994	1,119	275	129	141	74	62	319	22	3,728
Occupancy rate—per cent	75	63	67	61	47	60	55	38	43	22	62
Beds available—'000 nights	1,119	1,778	2,202	507	274	286	127	66	579	44	6,983
Occupancy rate—per cent	52	48	62	44	43	53	40	29	38	18	51
1977—											
Rooms available—'000 nights	613	962	1,154	284	128	148	89	41	313	26	3,758
Occupancy rate—per cent	66	63	75	63	58	58	63	44	49	26	65
Beds available—'000 nights	1,124	1,723	2,268	510	265	298	157	68	565	51	7,028
Occupancy rate—per cent	49	50	68	46	52	53	47	34	44	22	55
1978—											
Rooms available—'000 nights	665	906	1,262	290	132	150	114	61	358	27	3,964
Occupancy rate—per cent	68	64	72	64	49	56	56	39	48	21	64
Beds available—'000 nights	1,118	1,621	2,523	531	271	302	196	102	641	53	7,358
Occupancy rate—per cent	51	52	66	48	45	50	42	30	42	18	54
1979—											
Rooms available—'000 nights	664	920	1,401	331	137	156	147	98	462	28	4,346
Occupancy rate—per cent	70	68	70	64	47	56	54	37	42	24	63
Beds available—'000 nights	1,184	1,631	2,813	614	285	312	253	149	777	57	8,075
Occupancy rate—per cent	52	54	64	50	42	52	42	28	37	20	54
1980—											
Rooms available—'000 nights	647	917	1,431	351	137	168	156	100	482	31	4,418
Occupancy rate—per cent	71	69	78	66	52	62	50	35	43	21	66
Beds available—'000 nights	1,259	1,629	2,856	649	289	336	270	156	835	56	8,325
Occupancy rate—per cent	49	55	72	53	47	58	38	38	38	20	57

HOTEL GUESTS BY COUNTRY OF RESIDENCE, 1980

Table 13.8

'000 Bed-Nights

Country of Residence	Nairobi	Coast	Lodges	Other	Total
Kenya	245.0	267.9	51.7	224.3	788.8
Uganda	59.7	14.0	0.5	5.7	79.8
Tanzania	12.8	4.5	0.1	0.7	18.1
Other Africa	107.9	26.1	3.7	3.6	141.3
United Kingdom	184.4	241.3	43.2	21.8	490.7
West Germany	92.8	942.4	68.5	19.7	1,123.4
France	33.1	69.2	29.8	8.8	140.9
Italy	37.0	121.8	23.9	10.4	193.0
Switzerland	27.6	386.8	33.9	9.1	457.3
Scandinavia	39.8	34.7	11.9	5.0	91.5
Other Europe	71.6	151.4	29.3	16.9	269.2
U.S.A.	122.2	32.1	64.8	30.8	250.0
Canada	25.3	5.9	10.4	3.9	45.4
Asia	74.7	16.3	11.8	6.7	109.4
All Other	47.7	33.7	17.3	9.6	108.3
Permanent Occupants	332.5	52.7	2.1	22.8	410.3
TOTAL	1,514.1	2,400.7	402.7	399.8	4,717.3

GAME LODGE* OCCUPANCY, 1978-1980

Table 13.9

LODGE LOCATION/ TYPE	BEDS OCCUPIED '000 Nights						BED OCCUPANCY RATE Percentage		
	E.A Residents			Foreign Residents					
	1978	1979	1980	1978	1979	1980	1978	1979	1980
National Parks..	21.4	23.9	38.6	98.3	89.5	144.8	48.8	44.4	44.4
Game Reserves	16.6	17.5	15.8	162.2	177.8	203.6	60.0	61.0	69.2
TOTAL	38.0	41.4	54.4	260.5	267.3	348.4	54.9	53.7	55.2
Full Catering ..	28.2	30.0	43.7	254.0	257.8	334.0	57.1	56.1	57.2
Sell-Service	9.8	11.4	10.7	6.5	9.5	14.4	33.3	33.7	36.3

*Lodges in National Parks and Game Reserves only.

13.16. As indicated in Tables 13.10 and 13.11, there was a substantial rise in number of visitors to national parks, museums and other places of historical interest. The number of visitors to national parks rose by 7.6 per cent from 565,812 in 1979 to 608,563 in 1980—surpassing the 603,899 recorded in 1977. The largest increase were recorded in Nairobi and Tsavo national parks, mainly due to visits by school children and members of wildlife clubs. Some declines were reported in visitors to the marine and some up-country game reserves. The number of visitors to museums and historical sites, which had declined to 463,087 in 1979, as compared to 485,840 in 1978, rose again in 1980 to stand at 508,191, thereby resuming

TOTAL NUMBER OF Visitors TO NATIONAL PARKS, 1976-1980

Table 13.10

Numbers

	1976	1977	1978	1979	1980
Aberdare	44,904	46,050	39,891	44,892	39,551
Amboseli	100,339	83,233	67,379	80,905	82,128
Kisite Mpunguni	1,463	851	852	2,378	3,911
Lake Nakuru	68,098	80,635	94,805	72,399	88,720
Marine	37,764	37,245	41,424	48,705	38,019
Marsabit	3,238	3,781	2,673	2,701	2,740
Meru	25,826	36,945	32,296	25,867	22,443
Mt. Elgon	2,455	2,782	2,634	3,134	3,557
Mt. Kenya	9,790	9,484	8,919	8,260	7,358
Nairobi	134,790	141,861	119,364	108,308	124,554
Saiwa Swamp	830	1,853	1,719	1,350	1,352
Simba Hills	9,882	12,112	12,124	14,000	15,809
Tsavo (East)	61,588	65,530	57,001	55,081	60,589
Tsavo (West)	89,882	82,537	80,336	97,832	117,832
TOTAL	590,849	603,899	561,417	565,812	608,563

VISITORS TO MUSEUMS, SNAKE PARK AND SITES, 1976-1980

Table 13.11

Numbers

	1976	1977	1978	1979	1980
National Museum	154,053	182,293	172,491	143,396	175,000
Lamu Museum	6,169	8,216	7,163	15,829	15,670
Snake Park	131,500	135,139	141,774	141,803	127,163
Fort Jesus	100,160	107,107	121,595	111,639	140,925
Gedi	29,396	25,801	29,747	36,838	34,088
Olgosailie	3,465	3,991	5,717	4,985	5,090
Kariandusi	2,959	4,539	2,721	2,851	3,120
Hyrax Hill	1,020	1,413	1,285	1,440	1,680
Jumba la Mtwana	4,412	3,009	3,347	4,306	5,455
TOTAL	433,134	471,508	485,840	463,087	508,191

the upward trend of earlier years. The largest increases were reported in the National and Fort Jesus Museums, while the Snake Park is the only centre that recorded a significant decline in visitors.

13.17. In 1980 54 conferences and other functions were held at the Kenyatta Conference Centre, with an attendance of about 11,815 delegates. About 8,640 foreign delegates attended the 37 international conferences held at the Centre. As a result, the occupancy rate of the Centre improved from 194 days or 53 per cent in 1979 to 307 days or 84 per cent in 1980 and bookings to date indicate that 1981 will be another successful year. The O.A.U. Heads of State meeting in June and the U.N. Conference on Renewable Resources later in the year are expected to bring over 4,000 foreign delegates combined. Conference tourism is therefore expected to rise in the future.

Development of Tourism

13.18. The Kenya Tourist Development Corporation increased its equity investment in the tourist industry by K£0.8 million to K£5.2 million in 1979/80. Loans provided by the Corporation increased slightly from K£2.8 million in 1978/79 to K£2.9 million in 1979/80. The Kenyanization programme, under which the Corporation provides loan capital to facilitate Kenyanization of the industry, amounted to K£1.5 million compared to K£1.3 million a year before.

13.9. Major achievements during the period under review included the completion of Panafric Hotel Apartments and the opening of the Lions Hill Camp at Lake Nakuru in November 1979. Plans for construction of hotels at Busia, Othaya and Bungoma were under way. Construction of the 200-bed Eldoret Sirikwa Hotel, 60-bed Kabarnet Hotel and the 120-bed Kakamega Hotel was still in progress.

CHAPTER 14—TRANSPORT AND COMMUNICATIONS

The indicators available for transport and communications have shown that 1980 was a successful year for the industry, despite the economic difficulties facing the country. Increases were recorded in the number of road vehicles in use especially saloon cars, vans and pickups, the through-flow of the pipeline rose, and the number of passengers handled at Nairobi and Mombasa airports and those travelling by rail increased. Freight handled by air in Nairobi and Mombasa airports, by rail and at Mombasa port all increased. The major road freight operator, Kenatco, increased its operations within Kenya during 1980. All sections of postal and telecommunication operations registered increases in activity ranging from a rise of 5.2 per cent in the number of ordinary letters handled to increases of 13.4 per cent in the number of private postal boxes in use and 16.2 per cent for manual telephone calls made.

14.2. The gross value of output of the transport and communications sector rose overall by 16.8 per cent in 1980 as shown in Table 14.1. The contribution of the sector to GDP rose by 12.2 per cent at current prices and by 7.1 per cent at constant prices. The leading increases in gross output were in the communications sector with a rise of 19.5 per cent, and in road transport with an increase of 19.8 per cent.

TRANSPORT AND COMMUNICATIONS—VALUE OF OUTPUT, 1976-1980

Table 14.1

K£'000

	1976	1977	1978	1979	1980*
Railway Transport	26,700	27,480	28,585	29,045	33,125
Road Transport	52,593	53,004	69,270	77,653	93,011
Water Transport	40,537	43,104	53,868	55,449	62,306
Air Transport	41,416	23,494	34,785	40,009	41,645
Services Incidental to Transport	22,877	36,615	41,091	40,822	47,250
TOTAL TRANSPORT	184,123	183,687	227,599	242,978	277,337
Pipeline Communications	24,187	30,440	6,167 38,685	11,247 47,561	18,188 56,831
GRAND TOTAL	208,310	214,137	272,451	301,786	352,356

*Provisional.

14.3. Receipts from road and rail transport are recorded in Table 14.2. Road transport gained in 1980 from a higher overall level of activity as the number of trucks and lorries in operation increased. Haulage receipts from road freight transportation activity at current prices are estimated to have increased by 25.9 per cent from K£52.5 million in 1979 to K£66.1 million in 1980, and for road passenger traffic they increased by 7 per cent from

EARNINGS FROM ROAD AND RAIL TRAFFIC, 1976-1980

Table 14.2

K£'000

	1976	1977	1978	1979	1980*
Passenger Traffic—					
Rail	1,100	1,200	1,629	2,190	2,770
Road	14,491	18,662	25,107	25,179	26,945
TOTAL	15,591	19,862	26,736	27,369	29,715
Freight Traffic—					
Rail**	25,600	26,280	26,956	26,855	30,355
Road	38,102	34,342	44,163	52,474	66,066
TOTAL	63,702	60,622	71,119	76,909	93,369
TOTAL RAIL TRAFFIC	26,700	27,480	28,585	29,045	33,125
TOTAL ROAD TRAFFIC	52,593	53,004	69,270	77,653	93,011

*Provisional.

**Includes other revenue.

K£25.18 million in 1979 to K£26.95 million in 1980. Total receipts from rail traffic increased by 14.1 per cent from K£29 million in 1979 to K£33.1 million in 1980; here the large injections of new rolling stock into the system in 1979 have aided this more successful operation in 1980.

Road Transport

14.4. Details of new registration of road vehicles are given in Table 14.3. The total number of newly registered vehicles increased by 11.3 per cent in 1980. The total of 23,246 new registrations is high in view of the prevailing

NEW REGISTRATIONS OF ROAD VEHICLES, 1976-1980

Table 14.3

Numbers

	1976	1977	1978	1979	1980
Saloon Cars	4,981	7,296	7,842	4,811	6,881
Station Wagons	1,942	2,517	2,749	2,312	2,298
Panel Vans, Pick-ups, etc.	4,156	7,354	5,717	5,979	7,454
Lorries/Trucks	1,417	1,857	2,848	2,669	2,255
Buses and Coaches	215	171	205	275	208
Mini Buses	202	214	169	216	217
Special Purposes Vehicles	120	100	82	380	163
Trailers	669	827	1,244	1,030	763
Rollers, Graders, Cranes	89	73	94	153	207
Wheeled Tractors	1,129	1,916	2,032	1,141	1,023
Crawler Tractors	3	46	114	152	14
Motor and Auto Cycles	1,316	1,707	1,861	1,757	1,749
Three Wheelers	7	27	14	8	14
ALL VEHICLES	16,246	24,105	24,971	20,883	23,246

economic conditions in Kenya although it is lower than the registrations in the boom years 1977 and 1978. There was an increase of 1,475 to 7,454 in the number of vans and pickups newly registered in 1980 while new registrations of saloon cars increased from 4,811 to 6,881 but of station wagons declined from 2,312 to 2,298 in 1980. New registration of lorries and trucks also declined from 2,669 in 1979 to 2,225 in 1980 although the 1980 figure was much higher than the average for the years 1976 and 1977.

14.5. Table 14.4 shows details of the number of licences issued for vehicles on hire for passenger and freight transport. There was a decline in the number of licences that had been issued for passenger vehicles in 1980, while the number of licences issued for freight vehicles increased by 52.2 per cent. The total number of licences issued thus increased from 6,864 in 1979 to 8,883 in 1980 which is an increase of 29.4 per cent. The total of licences issued for vehicles on hire is the highest ever.

LICENCES ISSUED FOR VEHICLES ON HIRE, 1976-1980

<i>Table 14.4</i>	<i>Numbers</i>				
	1976	1977	1978	1979	1980
Passenger Service Vehicles	2,996	2,720	2,959	2,967	2,952
Freight Transport Vehicles	4,388	4,150	4,996	3,897	5,931
TOTAL	7,384	6,870	7,955	6,864	8,883

14.6. Kenatco the transport company owned by the public sector continued to improve its operations in various sections. The taxi operations which had been only operating in Nairobi and Mombasa were extended to Kisumu to serve Western Kenya and the gross profit made from such operations during 1980 was K£134,372. The company also introduced a new operation known as Escort during 1980. This involved escorting vehicles carrying Uganda, Rwanda and Eastern Zaire coffee and tea from Malaba to Mombasa. The work had first been carried out by Kenya Police but they were withdrawn and now the company employs the services of Nairobi-based security firm to provide the security escort for these commodities. Under this operation the company made a net profit of K£115,020 during 1980. The main operations of the company during 1980 were on the Western route to Uganda, Rwanda, Burundi and Eastern Zaire which still account for more than 90 per cent of the freight earnings and most of the profits earned.

Railways

14.7. The Kenya Railways had a very busy year in 1980. It continued to attract more traffic and during the year under review, it made up for the loss of the petroleum products traffic which had been taken over by the Kenya Pipeline in 1978. The total tonnage of freight carried by the railways showed an increase from 3,783,000 tonnes in 1979 to 4,327,000 tonnes in 1980. The

total revenue receipts of the railways also rose from K£29 million in 1979 to K£33.1 million in 1980 of which goods traffic earned K£27.3 million, while passenger traffic and other coaching receipts earned K£3.2 million. However, while the railway may be gratified by the increase in the volume of traffic it is handling, it is evident from the figures in Table 14.5 that over the last two years the proportionate increase in revenue from freight traffic fell below the increase in volume, so that average revenue per tonne/km. fell from

RAILWAY TRAFFIC, 1978-1980

Table 14.5

	1978	1979	1980
Freight '000 tonnes	3,853	3,853	4,327
million tonne/km	1,987	1,998	2,373
Revenue K£million	24.55	24.0	27.30
Passengers '000	1,576	1,832	2,359
Revenue K£million	1.63	2.10	3.2

25.4 cents in 1978 to 23.5 cents in 1980, despite the general inflation of these years. Similarly, total revenue over these years went up by only 15 per cent, which is well below the general rate of inflation and is below the increase in railway costs. In December 1980, the railways introduced a tariff increase of 16 per cent across the board.

14.8. The year 1980 saw the complete dieselization of the railway operations with the delivery of the last 6 of 36 diesel shunting locomotives. The remainder of the 1,200 wagons purchased were also commissioned, as were the last 8 of the third class coaches ordered from Sweden. The 110 self-discharging hopper wagons for conveyance of soda ash in bulk from Magadi to Mombasa were all received in 1980. Kenya Railways is negotiating with Kreditanstalt Wiedebahn of West Germany for a loan of DM. 4.5 million for modernization and improvement of its diesel facilities, and is also in contact with the World Bank, the African Development Bank and the French Government to finance projects for the general improvement of the railway system and operations.

14.9. A major consideration of Kenya Railways in 1980 was to continue with the rehabilitation and line improvement between Mazeras and Mariakani stations at an estimated cost of K£8.1 million. Work was also underway on rerailing curves on various sections of the line at an estimated cost of K£6.2 million. Progress was also made in works for relaying track at the Kibini Hill Siding, and between Thika and Eldoret and Malaba stations, the cost of which were estimated at K£23.5 million.

14.10. Some short summary of Kenya Railways operations appears in Table 14.5. The volume of goods traffic handled by the railways increased from 1,998 million tonne/kilometres in 1979 to 2,373 million in 1980 which

is a rise of 18.8 per cent. Regarding the passengers carried by the railways in all classes, that is first, second and third, there was an overall increase of 23.1 per cent from 1,915,939 in 1979 to 2,359,118 at the end of 1980. Most passengers travel third class and here the number of passengers exceeded the number of seats available.

Harbours and Shipping

14.11. The port of Mombasa is the major seaport of Kenya. The port serves Kenya, Uganda, Rwanda, Eastern Zaire and Sudan. There was a significant increase in total freight handled in 1980 over both 1978 and 1979, the main reason being the high importation of foodstuffs to meet local shortages. The overall increase was from 5,983,000 tonnes in 1979 to 7,426,000 tonnes in 1980, or by 26.0 per cent for the total tonnage landed and loaded of both dry and liquid cargoes. The total of dry cargo handled increased by 32.0 per cent and of petroleum by 21.3 per cent. However, all the increase was in imports, goods loaded were virtually the same at 2,036,000 tonnes as in 1979. Of this total loaded 1,438,000 tonnes were dry cargo and 598,000 tonnes bulk liquids compared with 1,560,000 tonnes and 474,000 tonnes respectively in the previous year.

14.12. As for imports, dry cargo rose from 1,037,000 tonnes in 1979 to 1,990,000 tonnes in 1980 and bulk liquids from 2,822,000 to 3,400,000 tonnes. The number of ships calling at Mombasa dropped from 1,561 to 1,453 reflecting the continuing movement in the use of larger ships in trade to and from this port. Details of goods loaded and landed since 1976 appear in Table 14.6.

FREIGHT HANDLED AT MOMBASA HARBOUR, 1976-1980

Table 14.6 000 tonnes

	1976	1977	1978	1979	1980
Landed;					
Dry Cargo	1,355	1,301	1,482	1,037	1,990
Bulk Liquids	2,618	2,618	2,787	2,822	3,400
TOTAL	3,973	3,919	4,269	3,859	5,390
Loaded;					
Dry Cargo	1,565	1,465	1,488	1,560	1,438
Bulk Liquids	375	461	314	474	598
TOTAL	1,940	1,926	1,802	2,034	2,036
TOTAL FREIGHT HANDED	5,913	5,845	6,071	5,893	7,426

14.13. Good progress continued to be made during the year on development aimed at further expansion and modernization of the facilities including the acquisition of new equipment at the port. In 1980 72 trailers and 24 tractors for container traffic were obtained while arrangements to acquire 3 bridge

cranes and 6 transtainers for container handling as well as some mobile cranes for yard traffic made some progress. Development on the rehabilitation of port facilities also continued to be made during the year under review. Stabilization of the bank behind berths 11 to 14 was completed and dredging was started. The construction of Bandari College for training harbour staff was completed and was commissioned by the President on 26th August, 1980. The year saw also the commissioning of the first solar powered navigational light system at Ras Serani.

Pipeline Transportation

14.14. As indicated in earlier surveys the Mombasa-Nairobi oil product pipeline operated by Kenya Pipeline Company was first commissioned in February 1978. In 1980 the company earned a gross revenue amounting to K£18.0 million. During the year total throughput rose by 6.7 per cent to 1,463,690 cubic metres compared with 1,373,379 cubic metres in 1979, the first full year of operation. The distribution of the products after they had reached Nairobi is made by wholesalers who carry the fuels to their destinations mainly by road tankers. Details on the pipeline throughput since 1978 are given in Table 14.7. There were increases in the carriage of all products.

PIPELINE THROUGHPUT OF WHITE PETROLEUM PRODUCTS, 1978-1980

Table 14.7

Cubic Metres

	Motor Spirit Premium	Motor Spirit Regular	Kerosene illumina- ting Oil	Light Diesel Oil	Industrial Diesel Oil	Autur Jet fuel	Total
1978*	277,028	125,902	56,602	275,448	4,990	276,806	1,016,776
1979	316,985	185,105	92,251	396,273		380,764	1,371,379
1980	337,487	203,377	102,886	417,813		402,127	1,463,690

*Not complete year.

Air Transport

14.15. Kenya Airways entered its fourth year of operation in 1980. The airline has concluded various pool and bilateral passenger sharing arrangements with other airlines, thereby placing the national carrier in a stronger operational position as a world airline. Its performance as detailed in Table 14.8 showed improvement during 1980 with passenger/kilometers rising from 880 to 1,018 million. The rate of utilization of the passenger capacity available

KENYA AIRWAYS TRAFFIC PERFORMANCE, 1979-1980

Table 14.8

	DOMESTIC		INTERNATIONAL		TO TAL	
	1979	1980	1979	1980	1979	1980
PASSENGER						
Passenger—kilometers						
<i>Millions</i>	79.7	80.6	808.3	937.8	880.0	1,018.4
Utilisation: <i>Per cent</i>	63.1	59.5	52.7	57.3	53.5	57.5
FREIGHT						
Total Carried:						
<i>Million Kg/Km.</i>	7.4	7.5	94.1	104.1	101.5	111.6
Utilisation: <i>Per cent</i>	54.4	49.1	45.9	45.4	46.4	45.6

on domestic flights fell from 63.1 per cent in 1979 to 59.5 per cent in 1980, but for international traffic showed a significant improvement, from 52.7 per cent to 57.3 per cent. Overall the rate of passenger capacity utilization rose from 53.2 to 57.5 per cent. There was also an increase in freight handled by Kenya Airways from 101.5 million to 111.6 million kilogram/kilometers but the overall freight capacity utilization rate fell from 46.4 per cent in 1979 to 45.6 per cent in 1980.

14.16. Of the total 1.85 million international passengers passing through both Nairobi and Mombasa airports in 1980, Kenya Airways handled 233,833 or 12.6 per cent. When transit passengers are excluded Kenya Airways share of the market stands at 17.8 per cent, that is 233,833 of the 1.31 million international passenger originating and terminating in Kenya. It is estimated that Kenya Airways operated 13 per cent of all flights into and out of Kenya in 1980. During the year domestic routes were operated by the Fokker 27 and DC 9 aircraft. International routes were operated by Boeing 707 and Boeing 747 planes. Kenya Airways is working on a five year development plan which will include consideration of new routes as well as acquisition of aircraft of different types for the various routes planned.

14.17. The two international airports, that is Nairobi and Mombasa operated successfully in 1980. The number of passengers passing through Nairobi and Mombasa airports increased from 1,790,900 in 1979 to 1,847,100 in 1980; an increase of 3.1 per cent. At Jomo Kenyatta Airport, Nairobi, the number of passengers handled increased from 1,455,200 to 1,467,100 or by just under 1 per cent. The total cargo handled in 1980 rose from 28,216 tonnes in 1979 to 30,226 tonnes in 1980, or by 7.1 per cent. These details can be seen in Table 14.9.

COMMERCIAL TRAFFIC AT NAIROBI AIRPORT, 1976-1980

Table 14.9

	1976	1977	1978	1979	1980*
PASSENGERS—000's					
Landed	459.4	407.3	437.6	472.9	476.7
Embarked	469.1	420.7	431.1	476.2	470.0
In Transit	493.4	521.8	484.4	506.1	520.0
TOTAL	1,421.9	1,349.8	1,353.1	1,455.2	1,467.1
FREIGHT—tonnes					
Cargo: Landed	7,837.2	8,585.5	9,418.9	7,752.3	7,834.8
Loaded	23,843.1	24,592.7	20,884.5	18,650.0	20,721.7
Mail: Landed	976.9	855.1	596.8	979.0	926.7
Loaded	1,035.1	801.3	787.8	834.4	742.5
TOTAL	33,692.3	34,834.6	31,688.0	28,215.7	30,225.7

*Provisional.

14.18. Moi Airport, Mombasa which was opened two years ago made particular progress in 1980 as detailed in Table 14.10. The number of passengers increased from 335,700 in 1979 to 380,000 in 1980 or by 13.2 per cent and freight handled increased from 18,346 tonnes in 1979 to 26,814

COMMERCIAL TRAFFIC AT MOMBASA AIRPORT, 1976-1980

Table 14.10

	1976	1977	1978	1979	1980*
PASSENGERS—000's					
Landed	140.9	131.5	152.8	159.0	177.6
Embarked	138.5	136.3	156.0	160.5	181.9
In Transit	75.0	20.3	18.3	16.2	20.5
TOTAL	354.4	288.2	327.1	335.7	380.0
FREIGHT—tonnes					
Cargo: Landed	227.4	4,912.2	16,436.1	10,290.6	16,491.7
Loaded	316.8	1,161.6	9,723.9	7,937.8	10,199.1
Mail: Landed	55.0	77.7	76.2	80.3	85.9
Loaded	40.1	36.1	36.4	37.5	37.8
TOTAL	639.3	6,187.6	26,272.6	18,346.2	26,814.5

*Provisional.

tonnes in 1980 that is by 46.2 per cent. This rise in freight traffic was due to more Uganda coffee being airlifted to Mombasa. The rise in passengers handled is due mainly to the increased numbers of tourists from Europe flying directly to Kenya coastal resorts.

Posts and Telecommunications

14.19. The Kenya Posts and Telecommunications Corporation was established in 1977 under an Act of Parliament after the collapse of E.A. Community. This Act authorizes the Corporation to establish and operate postal and telecommunications services throughout the country. During the 1980 financial year the aim of the corporation was to provide a cheap, reliable and fast communications network for the people this giving an essential input for the overall development of the nation. The Corporation plans to provide the following additional services during the current plan period—

- (a) establishing new sub-post offices in the rural areas, especially the remoter places;
- (b) increasing the number of new post offices and expanding the existing ones according to demand;
- (c) extending the use of telephone services in the rural areas and modernising the telephone network by replacing manual and old automatic equipment with new facilities.

14.20. Total expenditure of the corporation was K£37 million in 1979 and K£44 million in 1980, a growth rate of 18.9 per cent. In telecommunication services, 17 new manual exchanges all in rural areas were installed during 1980, and the corporation plans to instal 22 automatic and 40 manual exchanges during 1981. A major investment by the corporation in telecommunication during 1980 was on the Pan African Telecommunications Network (PANAFTTEL) with K£2.4 million spent on implementing work required for the Kenya section of the network. The Nairobi/Arusha link connecting Kenya with Tanzania, Zambia, Malawi and other Central African countries has been completed and will be operational shortly. The Nairobi/Nyeri/Moyale links connecting Kenya with Ethiopia should be completed by mid-1981, and the third route is also planned to link Kenya with Sudan. When completed, the PANAFTTEL network will cater for both international and national telecommunications. Thus the PANAFTTEL network will help open up rural areas in the country along its route for future telecommunications expansion.

14.21. As detailed in Table 14.11, all the operations of the corporation recorded an improvement in 1980. The number of post offices increased by 3.1 per cent and of private boxes by 16.2 per cent. The number of ordinary letters handled rose by 5.2 per cent, registered insured items increased by 10.0 per cent and there was a small rise of 2.2 per cent in parcels handled. The number of telephone subscriber lines increased by 5.7 per cent; public call offices by 2.9 per cent, telegrams by 12.2 per cent, and manual telephone calls by 13.6 per cent.

POSTAL AND TELECOMMUNICATIONS SERVICES, 1976-1980

Table 14.11

Number

	1976	1977	1978	1979	1980*
Post Offices	550	600	634	668	689
Post Office Private Boxes	91,321	112,254	124,131	130,000	151,000
Telephone Subscriber's Lines	57,050	62,408	65,344	69,920	73,932
Public Call Offices	396	439	474	514	529
Telegrams Handled—'000's	609	718	753	851	955
Parcels Handled—'000's	543	548	379	403	412
Manual Telephone Calls Made —'000's	10,018	10,555	11,403	12,291	13,968
Registered and Insured Items —'000's	4,535	4,530	2,294	5,314	5,843
Telex Subscribers	757	848	1,017	1,169	1,173
Ordinary letters handled <i>Million</i>	139	140	168	172	181

*Provisional.

14.22. As shown in the Table 14.12 the services of the corporation's subsidiary, Kenya Extelcoms, also continued to expand. The number of paid minutes of telephone service increased by 18.8 per cent and telex services rose by 4.4 per cent. The latter increase, however, continues to affect the decline of the telegraphic service, which decreased by 7.1 per cent.

EXTERNAL TELECOMMUNICATIONS TRAFFIC, 1976-1980

Table 14.12

	1976	1977	1978	1979	1980
Telegraph Service '000 <i>cables</i>	259.8	253.5	226.0	215.7	200.3
Telephone Service '000 <i>paid minutes</i>	2,560.6	2,674.5	2,937.3	3,474.7	4,127.0
Telex Service '000 <i>paid minutes</i>	1,319.0	1,625.0	1,939.4	2,176.0	2,271.2

Information and Mass Media

14.23. The Department of Information continued to make progress during 1980 and set up an office block at Kericho to house the rural printing press. One sub-information office was opened during the year, and SSB/VHF facilities were installed at Homa Bay. There are plans to extend these facilities to Kisumu and Kakamega Provincial Offices. Two rural newspapers—*Sauti ya Kericho* and *Sauti ya Kwale* were started during 1980, and printing presses donated by UNESCO were installed at Kericho and Kwale. Construction

work on the Machakos District Office continued during the year and it is hoped that this office will be completed in 1981. Work was also started for the construction of Isiolo and Hola offices while plans were under way to start construction of the Kiambu office.

14.24. Details on the number of new radio sets bought are given in Table 14.13. The number of radio sets bought increased by 26.1 per cent in 1980 to 201,262 while the purchase of T.V. sets increased from 7,147 in 1979

NEW RADIOS AND T.V. SETS SOLD AND LICENSED, 1976-1980

<i>Table 14.13</i>		<i>Numbers</i>				
		1976	1977	1978	1979	1980
Radios		97,971	145,969	131,355	159,657	201,262
Television Sets		3,458	4,901	7,309	7,147	11,874

to 11,874 in 1980. It is estimated that there were 2.1 million radio and 82,000 T.V. sets in Kenya in 1980. Construction work on buildings for radio stations at Nakuru, Nyeri and Meru were completed.

14.25. The Institute of Mass Communications continued to assist in the development of news and information services in Kenya. Two important projects were completed—the film production and training complex and the engineering training block with its classrooms and laboratories. The cost of the two buildings was approximately K£600,000. During the year the institute enrolled 244 trainees in the field of engineering, programme production (radio and T.V.), information and film production.

14.26. Table 14.14 details the average daily/weekly newspaper circulation. The morning English language newspapers recorded a 1 per cent increase in sales with daily circulation rising from 150,704 in 1979 to 152,569 in 1980

DAILY/WEEKLY AVERAGE NEWSPAPER CIRCULATION, 1978-1980

<i>Table 14.14</i>		<i>Number</i>		
		1978	1979	1980
MORNING NEWSPAPERS	English	140,061	150,704	205,966
	Swahili	38,165	54,278	52,893
OTHER NEWSPAPERS	English Weeklies	95,165	150,301	255,209
	Swahili Weeklies	88,912	97,296	66,660

but the Swahili language newspaper sales declined from 54,278 to 52,893 Weekly newspapers too increased their circulation, the English language papers rising by 20.1 per cent while Swahili language papers declined by 31.5 per cent chiefly due to the cessation of the *Baraza* weekly during the year.

CHAPTER 15—THE SOCIAL SCENE

The Government, which attaches great importance to the development of human resources and the well-being of the people, allocates a substantial part of its expenditure to social services. As shown in Table 15.1, it is estimated that the Government incurred a total expenditure of K£209 million on social services in 1980/81, an increase of 6 per cent, of which recurrent expenditure was estimated at K£172 million. An additional K£14 million, as shown in Table 15.2, was spent by local authorities on social services during this period. This chapter seeks to describe developments in social services, except employment which is dealt with in Chapter 5 of the survey.

CENTRAL GOVERNMENT EXPENDITURE ON SOCIAL SERVICES, 1977/78—1980/81

Table 15.1

K£'000

	1977/78	1978/79	1979/80	1980/81*
RECURRENT EXPENDITURE—				
Ministry of Education	86,425.2	96,366.4	114,989.3	126,026.9
Ministry of Health	26,874.4	35,379.3	42,912.0	36,299.0
Ministry of Labour	3,991.5	5,138.1	2,928.5	3,257.3
Ministry of Housing and Social Services	2,252.9	3,443.8	4,753.5	6,901.8
DEVELOPMENT EXPENDITURE—				
Ministry of Education	5,100.6	5,098.7	11,032.1	12,517.7
Ministry of Health	10,740.2	7,734.3	10,709.0	11,571.0
Ministry of Labour	1,030.2	1,870.7	1,494.8	607.1
Ministry of Housing and Social Services	9,171.9	7,764.8	8,581.4	12,195.1
TOTAL EXPENDITURE	145,586.9	162,796.1	197,400.6	209,375.9

*Estimates.

LOCAL GOVERNMENT EXPENDITURE ON SOCIAL SERVICES, 1976-1980

Table 15.2

K£'000

	1976	1977	1978	1979*	1980*
Education	4,993	5,548	6,358	7,825	8,115
Health	3,168	3,323	3,726	4,801	4,815
Other Social Services	280	306	440	437	758
TOTAL	8,441	9,177	10,524	13,063	13,688

*Provisional.

Education

15.2. Education continued to account for the largest share of the total Government expenditure on social services in 1980/81. Recurrent expenditure on education rose by nearly 10 per cent to K£126 million. As detailed in Table 15.3, primary education continues to receive the largest allocation, accounting for 64 per cent of the total recurrent expenditure on education.

MINISTRY OF EDUCATION EXPENDITURE, 1977/78—1980/81*

Table 15.3

K£'000

	1977/78	1978/79	1979/80	1980/81*
RECURRENT EXPENDITURE—				
General Administration and Planning	3,977.8	4,428.7	5,076.9	5,828.2
Primary Education	55,421.6	59,740.1	74,664.1	80,555.0
Secondary Education	11,455.0	13,003.0	13,519.1	14,544.8
Technical Education	1,036.6	1,093.9	1,176.6	1,286.7
Teacher's Training	3,027.7	3,239.6	3,783.0	4,137.5
Special Schools*	358.9	392.1	473.0	499.2
Polytechnic Education	1,285.8	1,542.0	1,737.1	2,142.7
Higher Education**	8,929.4	11,587.8	13,164.4	14,751.9
Miscellaneous	932.4	1,339.1	1,395.0	2,281.0
TOTAL	86,425.3	96,366.3	114,989.2	126,027.0
DEVELOPMENT EXPENDITURE—				
General Administration and Planning	152.2	128.3	208.5	980.8
Primary Education	308.2	129.1	370.8	1,992.2
Secondary Education	916.1	1,127.5	1,476.9	1,739.6
Technical Education	639.5	205.7	903.8	2,350.0
Teachers' Training	2,002.9	548.9	271.6	1,438.7
Special Education	55.0	87.5	83.0	165.0
Polytechnic Education	728.5	2,278.8	6,458.2	2,225.4
Higher Education**	251.1	570.2	1,030.6	1,626.0
Miscellaneous	47.1	22.6	228.6	—
TOTAL	5,100.6	5,098.6	11,032.0	12,517.7

*Estimates.

**Includes expenditure on University of Nairobi, Kenyatta University College and other institutions of higher education not specified above.

However, higher education has been the most rapidly expanding sector in recent years, with recurrent expenditure growing at an average rate of 13.4 per cent p.a. in the four years covered by the table, although the increase was down to 12.1 per cent over the last 12 months.

15.3. The development of education and the expansion of educational opportunities continue to be the policy objective of the Government. Universal free primary education which was introduced gradually from 1974 was finally achieved in 1980. At primary school level, local communities through

PRIMARY SCHOOL ENROLMENT BY PROVINCE AND SEX, 1979 AND 1980

Table 15.4

	1979				1980*			
	MALE	FEMALE	% COHORT AGED 6-12	% PUPILS AGED 13 +	MALE	FEMALE	% COHORT AGED 6-12	% PUPILS AGED 13+
CENTRAL	333.6	329.4	101.9	24.5	351.0	346.9	102.3	25.3
COAST	127.3	83.1	65.5	25.0	137.6	92.6	67.8	26.1
EASTERN	365.5	341.1	108.6	18.5	388.1	366.9	107.7	21.4
NAIROBI	48.4	45.8	73.6	14.0	50.2	47.8	74.4	12.7
NORTH EASTERN	7.8	2.8	12.2	28.9	9.1	3.1	13.1	30.0
NYANZA	411.8	355.5	102.1	15.3	418.6	367.6	97.1	18.4
RIFT VALLEY	378.5	327.8	89.7	18.6	417.9	364.9	92.7	21.1
WESTERN	280.6	259.4	111.1	17.7	292.9	276.3	109.0	20.4
TOTAL	1,953.5	1,744.9	96.1	19.1	2,065.4	1,866.1	95.6	21.4
NO. OF SCHOOLS			9,622				10,268	

*Provisional.

Parents Associations raise funds to construct school buildings and teachers' houses while the Government provides recurrent costs for teachers' salaries and school equipment. The focus now is on improving the quality and relevance of education and full utilization of existing facilities. The two Ministries independently focusing on Basic and Higher Education will hopefully facilitate improvements in the management of education in the country.

15.4. The school milk programme for primary schools introduced in 1979 covers the entire Republic with particular attention given to arid and semi-arid districts. The milk, 80 per cent of which is UHT and the remainder pasteurized, is transported to the district headquarters by Kenya Co-operative Creameries then to schools by Government vehicles. The aim of the programme is to improve the nutritional status of the child, thus reducing the burden on the health services and promoting more effective schooling.

15.5. There was a modest increase in total enrolment in primary schools from 3,698,246 in 1979 to 3,931,500 in 1980. As shown in Table 15.4, enrolments in 1980 approximated 96 per cent of the estimated population aged 6 to 12. Enrolments of pupils reported to be within the 6-12 age group in three provinces—Central, Eastern and Western—exceeded the estimated size of this age group. This could be because of either errors in age reporting or under-estimation of the population aged 6 and 12 in these provinces. Enrolments in North-Eastern and Coast provinces still continue to lag behind the remainder of the country.

15.6. Table 15.5 details enrolments in primary schools by standard. The largest increase, of about 25 per cent, occurred in Standards 2 and 7. The rush for Standard 1 places due to the elimination of building and other fees was reversed in 1980, when there was a 7 per cent fall in Standard 1 enrol-

ENROLMENT IN PRIMARY SCHOOLS BY STANDARD, 1976-1980

Table 15.5

Numbers

	1976	1977	1978	1979	1980*
Standard 1	571,872	602,076	599,057	977,368	906,478
Standard 2	545,406	489,222	479,337	579,620	723,347
Standard 3	597,690	512,296	455,206	507,973	548,017
Standard 4	382,735	510,825	466,977	483,188	496,965
Standard 5	300,670	338,509	433,711	450,940	457,095
Standard 6	253,030	281,386	302,093	417,468	447,229
Standard 7	243,214	236,925	258,610	281,689	351,860
TOTAL	2,894,617	2,971,239	2,994,991	3,698,246	3,930,991

*Provisional

ments. Total enrolment in all standards increased by about 6 per cent. School building and teacher recruitment expanded ahead of the growing numbers enrolled so that there were small declines in the average numbers of pupils per primary school and per teacher, although the number of pupils per qualified teacher rose fractionally.

15.7. Details of enrolment in secondary schools are noted in Tables 15.6 and 15.7. Total enrolment in secondary schools in 1980 reached 419,201. This represents an increase of 9 per cent from the 384,389 recorded in 1979. Form I enrolment rose by only 3 per cent between 1979 and 1980 which further reflects the slow-down in expansion of secondary schools. Enrolment in maintained and assisted schools continues to increase while enrolment in unaided schools shows a declining trend. Maintained schools enrolled 41 and 46 per cent of the total number of students in 1979 and 1980 respectively.

ENROLMENT IN SECONDARY SCHOOLS BY FORM, 1979-1980

Table 15.6

Numbers

	1979			1980*		
	Maintained	Assisted	Unaided	Maintained	Assisted	Unaided
Form I	38,775	24,692	45,707	45,245	27,851	39,089
Form II	36,431	22,576	38,598	42,582	25,522	32,650
Form III	36,413	22,360	30,904	42,391	25,231	32,449
Form IV	33,738	15,857	22,258	43,848	17,952	25,200
Form V	7,402	259	1,085	9,064	291	992
Form VI	6,507	133	694	7,989	194	661
TOTAL	159,266	85,877	139,246	191,119	97,041	131,041
Boys	107,924	43,127	76,683	129,579	48,715	72,204
Girls	51,342	42,750	62,563	61,540	48,326	58,837

*Provisional.

SECONDARY SCHOOLS ENROLMENT IN MAINTAINED SCHOOLS BY PROVINCE AND SEX, 1978-1980

Table 15.7

Numbers

	1978		1979		1980*	
	Boys	Girls	Boys	Girls	Boys	Girls
Coast	5,202	2,716	6,083	2,970	7,645	3,877
Central	19,329	9,443	26,022	14,063	30,192	15,816
Eastern	13,048	6,417	16,814	7,862	19,955	9,723
Nairobi	9,445	5,396	9,741	5,675	12,958	7,631
North Eastern	487	158	603	189	777	246
Nyanza	14,446	5,279	17,108	6,554	21,251	8,062
Rift Valley	12,205	6,060	15,040	7,803	18,271	9,416
Western	11,276	3,907	16,513	6,226	18,530	6,769
TOTAL	85,438	39,376	107,924	51,342	129,579	61,540

*Provisional.

Enrolment in unaided schools was 36 and 31 per cent of the total respectively during the same periods. Females constituted 40 per cent of secondary enrolment but only 32 per cent of enrolment in maintained schools. There was a small deterioration in average student/staff ratios in secondary schools between 1979 and 1980.

15.8. As outlined in Table 15.8, the teaching force was composed of 118,405 teachers of whom 87 per cent were teaching in primary schools. In total there was a growth of 10 per cent in the teaching corps over 1979. Of the primary schools teachers, 70 per cent were trained and 99.5 per cent were Kenya citizens. However, the percentage of untrained primary school teachers

QUALIFICATIONS OF TEACHERS IN EDUCATIONAL INSTITUTIONS, 1978-1980

Table 15.8

Numbers

	PRIMARY			SECONDARY		
	1978	1979	1980	1978	1979	1980*
TRAINED						
Graduate	64	109	154	3,207	3,953	4,277
Approved*	—	—	—	714	327	1262
S1	2,499	2,619	2,642	2,752	2,947	3,069
P1	19,747	22,813	24,708	244	305	321
P2	24,071	25,631	26,697	—	—	—
P3	15,561	15,612	15,547	—	—	—
P4	1,550	1,483	1,449	—	—	—
Other	420	125	832	811	376	300
TOTAL	63,912	68,392	72,029	7,728	7,908	8,229
UNTRAINED						
Graduate	24	20	29	487	795	982
E.A.A.C.E.	574	519	578	4,185	4,616	4,897
E.A.C.E.	17,623	14,721	20,392	1,944	1,810	1,683
J.K.S.E.	7,766	6,507	7,663	—	—	—
C.P.E.	2,021	1,294	1,571	—	—	—
Other	126	1,374	227	322	175	122
TOTAL	28,134	24,435	30,460	6,938	7,396	7,687
Citizens	91,264	92,297	101,979	11,702	12,844	13,874
Non-Citizens	782	530	510	2,964	2,460	2,042
TOTAL	92,046	92,827	102,489	14,666	15,304	15,916

*An approved teacher has completed the equivalent of a University Education.

**Provisional.

increased from 26 per cent in 1979 to 30 per cent in 1980. A total of 52 per cent of all teachers in secondary schools in 1980 were trained, half of whom were graduates. The proportion of citizen teachers in secondary schools rose to 87 per cent from 84 per cent in 1979.

15.9. Enrolments in teacher training colleges for primary school teachers increased from 9,899 in 1979 to 12,126 in 1980 composing 7,246 males and 4,880 females. The trend is consonant with the Government policy of increasing the number of trained teachers in order to phase out gradually the employment of untrained teachers in primary schools. The training policy which was revised in 1977 was reversed in 1980 and candidates will be graded on admission as was the case prior to 1977 policy revision. Individual performance in the final public examination will be the determining factor in grading teachers into P1, P2 and P3 categories. Minimum requirement for admission into a teacher training course will be Division 3 in the Kenya Certificate of Education. Facilities in teacher training colleges are being expanded to accommodate an extra 200 students annually. Table 15.9 details 1980 enrolment in training colleges for primary school teachers by qualification of entrants.

STUDENTS ENROLMENT IN ALL PRIMARY TEACHERS COLLEGES BY QUALIFICATION, 1980

Table 15.9

	1ST YEAR		2ND YEAR		TOTAL	
	Male	Female	Male	Female	Male	Female
E.A.A.C.E	28	11	33	19	61	30
E.A.C.E.	3,381	2,293	2,966	1,866	6,347	4,159
K.J.S.E	449	395	340	238	789	633
C.P.E	44	55	5	3	49	58
TOTAL	3,902	2,754	3,344	2,126	7,246	4,880

15.10. The Harambee Institutes of Technology which have been established throughout Kenya as a result of local initiatives are financed locally through contributions. There were 15 such institutes registered with the Ministry of Higher Education of which 10 were operational, with a combined enrolment of 1,312 students. The Kaimosi Institute had 203 students, Kiambu 267, Murang'a 163, RIAT 55, Gusii 55, Sangalo 81, Kirinyaga 136, Kimathi 110, WECO 164 and Rift Valley 78. Out of the total enrolment 1,002 were males and 310 were females. The largest enrolment of students were in three types of courses: business studies, secretarial studies and masonry with smaller numbers being trained in carpentry, plumbing, electrical and mechanical engineering and business administration. The Ministry of Higher Education administers a Government grant to the institutes amounting to K£130 per student per annum and continues to guide the institutes in their planning and development. The current high recurrent cost of the institutes, amounting to about K£700 per student, can hopefully be reduced by higher enrolment.

UNIVERSITY OF NAIROBI—STUDENTS BY FACULTY AND SEX, 1979/80-1980/81

Table 15.10

	1979/1980			1980/1981*		
	Males	Females	Total	Males	Females	Total
Undergraduate Course—						
Agriculture**	274	79	353	286	77	363
Architecture and Design	182	44	226	191	30	221
Building Economics and Land Economics	106	13	119	115	25	140
Art	803	502	1,305	891	520	1,411
Commerce	427	162	589	379	160	539
Engineering	540	72	612	520	8	528
Law	149	75	224	149	85	234
Medicine	432	125	557	453	118	571
Science	843	105	948	817	96	913
Veterinary Medicine	288	32	320	288	37	325
Dental Surgery	51	43	94	45	37	82
Pharmacy	82	43	125	70	41	111
TOTAL	4,177	1,295	5,472	4,204	1,234	5,438
Of which Kenya Students	4,051	1,238	5,289	4,160	1,218	5,378
Diploma Courses ***Total	18	53	71	28	44	72
of which Kenya Students	18	42	60	23	42	65
Postgraduate Courses—						
Agriculture	171	30	201	115	24	139
Architecture and Design	36	3	39	45	6	51
Arts	135	61	196	119	51	710
Commerce	43	8	51	39	6	45
Education	72	46	118	111	58	169
Engineering	46	—	46	45		45
Law	17	6	23	18	5	23
Medicine	134	27	161	143	32	175
Science	204	21	225	193	26	219
Veterinary Medicine	36	7	43	68	7	75
School of Journalism	10	2	12	9		9
TOTAL	904	211	1,115	905	215	1,120
of which Kenya Students	700	164	864	695	161	856
Total Enrolment-						
All Kenya Students	4,769	1,444	6,213	4,878	1,421	6,299
Students from other Countries	330	115	445	259	72	331
TOTAL	5,099	1,559	6,658	5,137	1,493	6,630

*Provisional.

**Includes Courses on Food Science and Technology and Forestry.

***Diploma Courses were offered in Advance Nursing and Adult Studies.

15.11. Enrolment at the University of Nairobi was 6,630 in 1980/81 compared with 6,658 in 1979/80. This apparent decline was due to a number of students who had not registered by March 1980. All students are expected to register at the beginning of every academic year including continuing students. The distribution of students into undergraduate, diplomate and postgraduate categories is shown in Table 15.10. There has been a modest increase in enrolment in the faculties of agriculture, arts, law, medicine and veterinary science, but there was a 14 per cent decline in engineering. Enrolments in postgraduate courses have also risen in the faculties of medicine, architecture and design, education and veterinary medicine, but there was a major decline in agriculture. Women accounted for 22 per cent of the total enrolment in 1980/81 and students from other countries numbered 5 per cent of the total.

15.12. The rise in enrolment at Kenyatta University College which started in 1978/79 continued in 1980/81. Total enrolment as shown in Table 15.11 increased from 1,769 in 1979/80 to 2,138 in 1980/81. Postgraduate students in education, though they take their courses at Kenyatta College campus, are included in the postgraduate roll of the main campus.

KENYATTA UNIVERSITY COLLEGE STUDENTS COURSES AND SEX, 1979/80-1980/81

Table 15.11

	1979/80			1980/81		
	Males	Females	Total	Males	Females	Total
Diploma in Education	122	66	188	210	108	318
Bachelor of Education	980	593	1,573	1,040	780	1,820
TOTAL	1,102	659	1,761	1,250	888	2,138

15.13. The Education Media Service continues to produce radio programmes with supporting printed material to aid primary and secondary schools. During each term, 35 programmes for secondary school students and 15 programmes for primary school pupils, 20 programmes for secondary school teachers and 15 programmes for primary school teachers are broadcast during eight weeks of school term. Broadcasts to primary schools cover subjects such as English, Music, History, Geography, Religious Education and Agriculture. Programmes for school teachers are designed to improve the facility of teachers in primary schools in presentation of courses in Mathematics, English and Kiswahili.

Health

15.14. A new and improved child immunization programme was launched by the Ministry of Health in June 1980 under the name of Kenya Expanded Programme on Immunization (K.E.P.I.). The aim of the programme is to reduce morbidity mortality in children between 0-2 years from measles, whooping cough, tetanus, T.B., polio and diphtheria. The programme will be operational from April 1981 in one district (Kirinyaga District) and will be gradually expanded until it covers the whole of the Republic by 1986. The means for improving the expanding health services are better management and more and better equipment. An extensive training programme will be executed to cover all health staff involved in immunizations.

15.15. Health services are also being improved through additional provision of physical facilities and personnel to dispense health services and through education in personal hygiene. Table 15.12 shows the number of health units, beds and cots in 1980. The number of health units increased from 1,547 in 1979 to 1,581 in 1980 but there was a drop in the number of hospitals due to the closure of several small establishments. The number of

HEALTH INSTITUTIONS AND HOSPITALS BEDS AND COTS BY PROVINCE, 1980

Table 15.12

					HOSPITAL BEDS AND COTS	
	Hospitals	Health Centres	Health Sub- Centres and Dis- pensaries	Total	No. of Beds and Cots	No. per 100,000 Popula- tion
Nairobi	17	8	61	86	5,043	586
Central	46	37	175	249	4,511	185
Coast	23	19	133	175	2,512	180
Eastern	27	25	197	249	3,630	128
North-Eastern	3	4	18	25	348	90
Nyanza	34	39	138	216	4,025	146
Rift Valley	51	72	331	495	4,954	147
Western	15	37	34	86	2,668	140
TOTAL 1980	216	241	1,087	1,581	27,691	174
TOTAL 1979	226	213	1,088	1,547	26,922	175

hospital beds and cots increased from 26,922 in 1979 to 27,691 in 1980—a rise of 3 per cent. This increase is somewhat less than the growth of population so the number of beds per 100,000 people decreased from the 1979 level of 175 to 174 in 1980. Rapid population growth means that the provision of health services will have to be continued at a faster rate if access to the services is to be increased to a level which is adequate to meet the needs of the people more effectively.

15.16. The Government embarked on a programme of major extensions of all provincial hospital OPD and Service Department in 1980. The work on the enlargement of Kenyatta National Hospital was extended to 1981. New district hospitals at Makueni and Nyamira have been completed and the one at Iten is now in advanced stage of completion. Work is scheduled to start on the construction of 10 hospitals at Vihiga, Webuye, Marigat, Rumuruti, Bondo, Mwingi, Mkowc, Othaya, Msambweni and Nairobi in the 1981/82 financial year subject to availability of funds.

Maternal and Child Health/Family Planning

15.17. The Maternal and Child Health/Family Planning (MCH/FP) of the Ministry of Health had two objectives during the five-year period ending in 1979—

- (i) enhancing the health of mothers and of children under age five, thus reducing maternal and infant morbidity and mortality: and
- (ii) increasing and encouraging family planning activities in order to reduce the present high population growth rate.

15.18. Over the five-year period, the MCH/FP programme was much more successful in building up its infrastructure such as construction of a management centre (National Family Welfare Centre) for co-ordinating and supporting various activities in the field, establishing service delivery points, and training staff than in meeting its targets in terms of population coverage. In the area of antenatal care, the programme was very successful and reached about 63 per cent of the pregnant women (about 661,525 antenatal mothers visited the clinic at least once). About 23 per cent of the children under age five had also been covered. In family planning 68 per cent of the revised targets of family planning acceptors were recruited. However, the programme still needs to make a particular effort in the areas of child welfare and family planning.

15.19. The MCH/FP programme which is in the process of being integrated into the Rural Health and Family Planning Project, will now aim at an increased coverage and the intensification of its activities especially in the area of information, education and motivation. Greater coordination with other agencies involved in MCH/FP activities will be encouraged. The strategy for achieving the objectives in the next plan period (1981-86) will also involve moving away from clinic-based health care to community-based programmes.

15.20. Table 15.13 details the number of registered medical personnel including those in training institutions. The number of doctors/dentists increased from 1,682 in 1979 to 1,853 in 1980—a 10.2 per cent increase while there were further increases in other cadres of medical personnel including clinical officers. The number of clinical officers refers to those in public-service. It is estimated that there are also about 200 clinical officers in the private sector adding up to a total of about 1,818 in 1980. As shown in

REGISTERED MEDICAL PERSONNEL, 1978-1980

Table 15.13

Number

	1978	1979	1980		IN TRAINING	
			Number	No. per 100,000 Population	1979/80	1980/81
Doctors/Dentists	1,596	1,682	1,853	12.09	654	667
Clinical Officers	1,459	1,534	1,618	10.56	330	314
Pharmaceutical Technologists	245	272	299	1.95	124	103
Registered Nurses	6,388	6,542	6,692	43.66	863	608
Enrolled Nurses	7,908	8,317	8,722	56.91	1,765	1,911

Table 15.13 the number of all types of medical personnel increased in 1980 and in almost all cases the proportion per 100,000 population increased over the 1979 level.

15.21. The Ministry has also intensified its efforts in disease surveillance and control of communicable diseases. Some isolated outbreaks of cholera were quickly checked by the surveillance teams. There was also a new outbreak of sleeping sickness detected in Lambwe Valley in South Nyanza District which was quickly contained. New laboratories for control of these diseases were completed in Homa Bay and Kwale District while one at Kacheliba in West Pokot is near completion. A malaria control programme was started in West Seme Location and is expected to be expanded to the rest of the Kisumu District.

15.22. Table 15.14 shows that contributions made to the National Hospital Insurance Fund rose by K£427,555 in 1979/80 while benefits paid rose by K£232,404, thus leaving the fund with a high net balance of K£1,191,051 compared with the figure of K£995,900 reported in 1978/79.

NATIONAL HOSPITAL INSURANCE FUND, 1973/74-1979/80

Table 15.14

K£

	Receipts*	Benefits**	Contribution Net of Benefits
1973/74 Annual Average	1,166,705	1,072,758	93,947
1974/75 Annual Average	1,420,338	1,311,911	108,427
1975/76 Annual Average	1,741,671	1,649,669	92,002
1976/77 Annual Average	1,629,411	1,984,411	-355,387
1977/78 Average	2,166,762	2,133,481	33,281
1978/79 Annual Average	2,575,800	1,579,900	995,900
1979/80 Annual Average	3,003,355	1,812,304	1,191,051

*Includes both compulsory and voluntary contributions and other receipts.

**Benefits include other payments, e.g. management expenses.

Other Social Services

15.23. *Youth Development.*—The number of village polytechnics receiving annual Government grants totalled 244 in 1980, distributed throughout the Republic as in Table 15.15. While there was a drop in enrolment from 17,460 in 1979 to 14,997 in 1980, the number of instructors increased from 1,304 to 1,335 in the same period. Most of the village polytechnics offer

ENROLMENT IN VILLAGE POLYTECHNICS, 1980

Table 15.15

Number

	No. of Village Polytechnics	Enrolment	No. of Instructors
Coast	37	2,268	192
Central	49	3,405	289
Eastern	39	2,715	205
Nairobi	2	285	15
North Eastern	7	196	32
Nyanza	45	2,427	231
Rift Valley	30	1,833	176
Western	35	1,868	195
TOTAL	244	14,997	1,335

carpentry, masonry, motor-mechanics tailoring and dress-making, home economics and a variety of other courses which lead to gainful employment. About 79 per cent of the graduates from village polytechnics end up either self- or wage-employed and a further 10 per cent work in groups after graduating.

15.24. *National Social Security Fund.*—The total number of employees registered with the National Social Security Fund rose to 1,262,500 in 1980 an increase of 77,400 compared with 1979 while the number of employers rose from 29,500 to 31,400 over the same period. The annual benefits paid were only a small part of the contributions received—K£2.3 million out of K£28.5 million. It was therefore possible to invest the difference after deducting administrative expenses. The increase in investments in 1980 amounted to K£53.8 million. These details are set out in Table 15.16.

NATIONAL SOCIAL SECURITY FUND, 1976-1980

Table 15.16

	1976	1977	1978	1979	1980
Employers registered '000	26.4	27.4	28.4	29.5	31.4
Employees registered '000	982.0	1,044.9	1,111.6	1,186.1	1,262.5
Members paid out '000	65.8	75.8	85.3	90.8	99.0
Annual contribution K.£.m.	12.05	16.55	19.55	24.55	28.5
Annual benefits paid K.£.m.	1.01	1.80	1.96	1.35	2.3
Increase in investments K.£.m.	18.75	23.40	28.11	26.55	53.8

15.25. *Community Development*.—Community development programmes are geared to mobilize people to co-operate in nation-building activities to supplement the Government effort in development. These activities consist of Harambee self-help projects, family life training centres, craft development and women's programmes. A total of 11,956 projects were undertaken in 1979 compared to 11,712 in 1978. A total of 1,111 projects were completed during 1979 and 439 projects abandoned. The distribution of self-help projects by type shows that educational projects dominated self-help movement with a value of K£5.8 million, about 57 per cent of the total contribution. These details are shown in Table 15.17.

VALUE OF SELF-HELP PROJECTS*, 1978-1979

Table 15.17

	1978		1979	
	No. of Projects	Value K.£'000	No. of Projects	Value K.£'000
Education—				
Primary Schools	3,743	3,322	4,756	3,688
Secondary Schools	675	2,322	680	1,335
Teachers Houses	440	234	297	280
Nurseries	1,629	239	1,123	529
SUB-TOTAL	6,487	6,117	6,856	5,832
Health	307	502	343	333
Social Welfare and Recreation	1,386	1,388	1,849	2,254
Domestic	540	120	136	43
Water Supply	854	1,074	866	909
Transport and Communications	435	58	232	50
Agriculture	1,211	357	1,101	425
Miscellaneous	492	823	573	435
TOTAL	11,712	10,439	11,956	10,281

*Number of projects continued from the previous year plus the number started less numbers abandoned and completed.

15.26. A total of nine family life training centres with an enrolment of 2,569 mothers and 4,811 children were operating in 1980. Two more centres are expected to start operating before July 1981. The programme aims at educating mothers on nutrition and other subjects related to child health in an attempt to eradicate malnutrition.

15.27. *Vocational Rehabilitation*.—The number of vocational rehabilitation centres increased from eight in 1979 to nine in 1980. The nine centres at Bura, Nyandarua, Kericho, Kisii, Kakamega, Itandu, Embu, Murang'a and Nairobi had an enrolment of about 270. The programme aims to restore persons suffering from mental impairments to useful employment and economic independence.

15.28. *National Youth Service*—A total of 4,299 were enrolled in 1980, of whom 3,721 were men and 578 were women. About 1,168 servicemen and servicewomen were recruited while 732 graduated during the year. The total revenue earned from sales of farm produce run by the service rose from K£303,000 in 1979 to K£364,000 in 1980. The service also constructs roads and dams and help build airstrips but these national development projects do not earn the service any revenue. Completed projects included the Mwingi-Kalanga Corner Road while on-going projects include a number of road constructions, irrigation development in West Pokot, construction of a vocational training complex and an agricultural school, both at Yatta Field Unit in Machakos District. Among the new projects expected are the Lamu-Triangle Road construction unit and tarmac for the Thika-Garissa Road.

15.29. *Adult Education*.—A total of about 12,000 education centres were in existence in 1980 with an enrolment of about 350,000 adult learners. Of the total number of centres the 8,000 being run by the Government had a total enrolment of about 168,000. The remaining centres, about 4,000 were managed on a self-help basis by either local communities or private organizations. During the year 1980, a total of 1,093 candidates from the centres registered for the C.P.E. examination of whom 357 passed.

15.30. Eradication of illiteracy among the adults in Kenya is a priority plan objective and it is anticipated that by the end of the current plan period, a majority should have learned how to read and write. About 3,000 full-time and 5,000 part-time teachers have been recruited for the programme. Some 172 Assistant Adult Education Officers were recruited in 1979 to take charge of the programme in administrative divisions and courses in administration were frequently conducted for field officers in charge of the programme including district and provincial adult education officers. From workshops and seminars organized, it was possible to prepare literacy curriculum and supporting materials. As a follow-up a national literacy survey was being conducted in 1980/81 in an attempt to establish the level of literacy in the country and also to appraise the Government effort to eradicate illiteracy.