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OVERVIEW AND OUTLOOK

Summary

There was a very welcome recovery in food output in 1981 which had a generally stimulative impact on the domestic economy, but the continuing falls in world coffee prices and the further steep rise in petroleum prices had strong negative influences. There was no sign of recovery in the world's important market economies as a group and these countries—the USA, Japan and EEC members, have important combined impact on the demand for Kenya's exports. In an attempt to move the domestic economy more in the direction of producing a higher proportion of the items consumed locally, increase in the customs tariff led to a significant rise in production of textiles and clothing in 1981 while the substantially higher producer prices for food-stuffs introduced in December 1981 will serve to further stimulate agricultural production. The exchange rate adjustment of the Kenya shilling against foreign currencies in September 1981 will have the effect of bringing higher returns to coffee and tea farmers and to all those whose crops are finally exported. The negative impact of these measures has already been felt in the sharp jump in consumer prices from an annual rate of around 13 per cent to one of nearly 20 per cent from December, 1981.

Even though the deficit on the current account of the balance of payments was at the high record figure of K£331 million in 1980, it stayed at about this level in 1981 and it is difficult to see much chance of any improvement in 1982. The high growth rate in agricultural output of 6.2 per cent in 1981 was not matched in the manufacturing sector where for the second year running growth was around 5 per cent. There was a fall in the volume of work carried out in the construction sector and stagnation in the commerce sector. The end result was an increase in GDP as a whole at constant prices of 4.8 per cent, much better than the 3.0 per cent recorded in 1980 but only one per cent higher than the country's population growth rate. Fewer new jobs for wage employees were created in 1981, the increase of 18,500 being the lowest recorded for many years. Job seekers appear to have moved into informal sector occupations which are generally much less well rewarded than is the case in wage employment. Although the average increase in consumer prices in Nairobi was 12.6 per cent in 1981, as indicated earlier the rate of inflation has accelerated to nearly 20 per cent since December 1981.

The International Environment

As a direct result of the second large oil price rise at the end of 1979, consumption of oil-based products has fallen significantly and success in attempts to reduce rates of inflation has led to falling levels of production and exceptional levels of unemployment in the industrialized market economies. The year 1981 can be described as an oil-glut year and one of very poor economic growth rates and high unemployment; of particular importance to the developing countries, 1981 was also one in which non-oil

primary commodity prices fell once again and in which borrowing at commercial rates was only possible at very high rates of interest. Even here it became increasingly difficult to borrow as the year progressed as international bankers looked more carefully at the credit-worthiness of particular countries. The year was one of serious balance of payments difficulties for a majority of the developing countries.

The volume of world trade fell in 1981 although the non-oil developing countries taken as a group managed to raise their export volume by about 5 per cent but prices of export commodities fell on average by 16 per cent. Measured in US dollars, coffee prices were down by 18 per cent and tea prices lower by 10 per cent.

Growth and Investment of Domestic Economy

The growth rate of the GDP was much more satisfactory in 1981 than in 1980. At constant factor cost the increase was 4.8 per cent in 1981 compared with 3.0 per cent in 1980. Inflation was still relatively high so the growth of the economy at current prices was 15.9 per cent. However, despite rises of 1 per cent in per capita GDP at constant prices and 11.7 per cent at current prices, the effective level of per capita incomes was reduced because of a further significant fall in the country's terms of trade with the outside world. The major factor behind the improved growth of the GDP in 1981 was recovery in agricultural output with the sector recording a real growth of 6.2 per cent. Manufacturing industry grew by 5 per cent but there was a fall in construction output.

Fixed capital formation fell for the third year in succession, this time by 3.2 per cent. This was despite rises for dwellings, non-residential buildings and transport equipment. There were quite large falls for other construction works and in purchases of machinery and other capital equipment. At current prices there was a rise of 13.6 per cent in gross fixed capital formation to the high level of K£682.6 million or effectively 22.6 per cent of the GDP at market prices. Stock accumulation was reduced, however, so total investment expenditure was lower by 1.9 per cent at K£752.1 million. This was financed by 53 per cent from domestic savings, and 47 per cent from external loans and grants. These proportions are the same as in 1980.

Long Term Trends in Balance of Payments

The steep decline from a position of approximate balance to one of large and increasing current account deficits can be attributed to the multiplication of oil prices since 1973 and to falling prices of main agricultural exports.

A large proportion of Kenya's earnings from exports of goods and services is now required to pay for the net cost to the country of oil products consumed while the share going to pay external debt interest has been rising rapidly especially in the last few years. Kenya's foreign reserves which were comparatively healthy in 1979 have tended to fall in 1980 and 1981 and are

now only sufficient for two months imports. Despite vigorous efforts, the development of exports of new manufactured products in particular has not yet achieved any notable successes.

Employment, Earnings and Prices

The growth of the total in wage employment in the modern sector of the economy was only 18,500 in 1981. One result was that more work-seekers had to look for employment in the informal sector in the urban areas and there appears to have been a significant increase in such employment. The total rise in employment of wage employees, self-employed and informal establishments in urban areas increased the total to 1,234,700 in 1981 compared to 1,063,800 in 1977. The average increase of 44,975 a year is a little lower than the target of 50,000 new employees a year aimed for in the current development plan period.

The total wage bill of modern establishment grew from K£664.1 million in 1980 to K£788.7 million in 1981 or by 18.8 per cent. There was a particularly large rise in public sector wage payments of 23.6 per cent resulting from the acceptance of recommendations made by the Waruhiu Commission in 1980 which brought compensation for wage lags apparent in the public sector in earlier years. Average annual earnings per employee in 1981 were K£861.2 for public sector employees and K£688.2 for the private sector where averages are held down because of the nature of agricultural industry.

The percentage increase in average earnings between 1980 and 1981 was 16.6 per cent compared to a rise of 12.6 per cent for consumer prices in Nairobi and 15.8 per cent, 17.0 per cent and 13.8 per cent in Mombasa, Kisumu and Nakuru, respectively. Generally wage employees benefitted from higher real earnings in 1981, the rise compensating for losses in earlier years. Major causes of the increase in consumer prices were higher petroleum prices leading to higher charges for transport services, rent increases and food price rises. In December 1981 the rate of inflation increased sharply to an annual rate of nearly 20 per cent because of food price hikes announced at the start of the month.

Money and Banking

Poor foreign exchange earnings stemming from the depressed demand for Kenya's major primary exports coupled with the high cost of more expensive imports caused serious external financing problems in 1981. The capital inflow during the year was not high enough to offset the current account deficit and the payments gap had to be financed by running down the country's sparse foreign reserves. Government expenditure also increased substantially during the year and there was a requirement to borrow large sums domestically in order to cover the budgetary deficit. The overall rise in the money supply was 13.3 per cent, effectively below the rate of increase in GDP at current prices. The percentage rise was kept down because despite

an increase of 77 per cent in Central Government borrowing, credit rose by only 9.9 per cent in the private sector and there was a substantial fall in net foreign assets. Money proper rose by 12.2 per cent and quasi-money (savings deposits, etc.) increased by 15.1 per cent.

Public Finance

The growth rates of current revenue and expenditure in 1981/82 were 17.2 per cent and 14.0 per cent, respectively; the lower increase for expenditure meant that the current surplus available for development and investment recovered to some extent from the low level of K£14.4 million in 1980/81 to K£39.8 million in 1981/82. However, the current surplus in 1981/82 only covered one-eighth of total capital expenditure leaving the large balance to be financed from external loans, long-term domestic loans and Treasury Bills. There was a particular recourse to Treasury Bills for finance in the latest financial year with the total rising from K£16.1 million in 1980/81 to K£184.4 million in 1981/82. As in past years the bulk of current government expenditure went on education, agriculture, forestry and fishing and on public debt charges. Capital expenditure was K£331 million in 1981/82, equal to 29.7 per cent of total current and capital expenditure which reached K£1,114 million. This level of total expenditure would be equal to about 33 per cent of the estimated GDP at market prices.

External Trade and Balance of Payments

Despite increases in the volume of exports and a reduction in the quantities imported, the trade and payments outcome in 1981 was again adverse and there was only a relatively small fall in the trade deficit but no improvement in the current account deficit of the balance of payments. A steep increase in the unit price of crude petroleum oil accompanied by rises in prices of non-oil imports and generally stagnant export prices led to an 11 per cent fall in the country's terms of trade.

The overall trade deficit fell by 4.7 per cent but was still at the level of K£423.5 million. Import restrictions were the major reason for the fall in the deficit and continued use of such measures should help reduce the size of the deficit further. However, the current account of the balance of payments worsened slightly in 1981 to a level of K£333.6 million and as the capital inflow was not sufficient to cover this deficit, Kenya's foreign reserves were reduced for the second year running.

Agriculture

The recovery in output from agriculture was one of the bright spots in the economic scene in 1981. The volume of output rose by 6.2 per cent because of the much better weather conditions and a real effort by farmers to respond to the incentives provided to increase output of food crops and livestock products. The maize crop rose by 28 per cent from 18 million bags in 1980

to 23 million in 1981. After repleneshing their own maize stores, the sale of surpluses to the National Cereals and Produce Board more than doubled from 217,887 tonnes in 1980 to 472,909 tonnes in 1981. Milk and meat supplies were much more plentiful as pastures responded to rains. However, there was no increase in the coffee crop and tea production was only a little higher than in 1980; wheat production also showed no increase on 1980 so these crops tended to hold back the rise in the volume of agricultural output.

At current prices value added from agriculture to the GDP increased by 15.9 per cent to K£917.5 million. However, despite the price rises recorded, the terms of trade of the agriculture sector vis-a-vis the rest of the economy were reduced once again to 81 per cent of their 1976 level. Price rises for domesti-cally consumed crops and products announced in December 1981 together with the effects of the currency adjustment of September 1981 on export crop prices should help restore the relative purchasing power of the rural community.

Natural Resources and Environment

Kenya's renewable natural resources will be exploited but at the same time regenerated to bring optimum benefit to the country. Forests and the top soil are for the benefit not only of the current generation but also all those that will follow and methods of exploitation and husbandry must ensure that there is minimum degration of the natural environment and maximum benefit over time.

The current interest in restoring a better balance between availability and demand for wood products indicates that there is now a better prospect of leaving a healthy forest sector for the benefit of future generation. The National Water Development policy which aims at providing clean water throughout the entire country for both livestock and human consumption by the year 2000 is increasingly becoming an operational reality. Farmers and herders are being urged to adopt methods of husbandry which will not lead to the loss of the inherent riches of the soil; riches which arc essential to the continuation of human life throughout the country. Over the range of the natural resources and the environment, activities are such that there will hopefully be a cleaner, healthier and more productive life for all in the future.

Energy

The consumption of petroleum fuels fell by 5.4 per cent in 1981 indicating the success of government measures to economize on imported petroleum while at the same time making more use of domestically-produced electricity. Total domestic consumption of fossil fuels and hydro-electricity increased by 2 per cent in 1981 at a time when the GDP at constant prices rose by 4.8 per cent. Use of hydro-electricity rose by 14.5 per cent and a total of 55 mega-watts was added to the country's hydro and geothermal generating capacity bringing the total to 540 MW and the benefits of this increase will be extended into 1982.

There is still a difficult balance of payments situation which is made worse by the increasingly large sums spent on the importation of petroleum. After allowing for earnings from exports of petroleum products locally manufactured using imported crude, the net cost of petroleum and products to Kenya rose by 72 per cent from K£116.4 million in 1980 to K£200.1 million in 1981. In 1981 the cost of imports rose by K£81 million but earnings from exports fell by K£3 million. This very steep rise in the net cost of petroleum products reinforces the policy imperatives to encourage more efficient use of all types of energy, to re-direct demand towards less costly and renewable sources and to develop further indigenous sources of energy.

Manufacturing

Despite the good growth in agricultural output in 1981, the benefits of this increase to the manufacturing sector were limited firstly because only about one-third of the processing plants in the country use domestically grown raw materials and secondly because the small-holder agricultural producer does not appear to have used much of his increased income to purchase manufactured products. Of more importance to the manufacturing sector as a whole is the influence of increasing import restrictions due to balance of payments difficulties on supplies of imported raw and semi-processed materials used in production. As the year progressed so it became apparent that growth in the sector as a whole was being reduced. The overall growth rate of the volume of manufacturing output was about 5 per cent in 1981, slightly less than in 1980 and well below the target growth rate of 9 per cent a year. Wage employment grew by 3.6 per cent to reach 146.338 in 1981 and overall output value, because of substantial price rises, grew by 22.6 per cent.

Building and Construction

Despite the record level of building plans passed in 1980, there was a fall in the value added to GDP at constant prices by building and construction in 1981. Cement consumption fell by about 6 per cent and employment in the sector was reduced by 3 per cent. The contribution to GDP of building and construction fell by 1.9 per cent in real terms though at current prices it increased by 4.4 per cent. As the year progressed it seemed to have been the case that fewer new projects were being considered and building plans passed in the last quarter of 1981 were valued at K£36.4 million or 22 per cent less than for the corresponding period in 1980 despite an increase in building costs. Activity in building and construction had been rising fairly rapidly since 1976 and 1981 was the first year to show a reversal. It seems probable that there will be a further fall in activity in 1982 as well.

Tourism

Earnings from tourism rose from K£82.5 million in 1980 to K£90.0 million in 1981 but all the increase was due to price rises. The number of bed-nights spent at hotels in Kenya by identified foreign visitors was 3,443,400 in 1981,

an increase of only 0.7 per cent on the total of 3,420,300 recorded in 1980. Based on migration statistics, the number of holiday visitors departing fell by 4.1 per cent in 1981. The relatively poor showing in tourism in Kenya is due mainly to the worsened economic conditions in the main tourist generating areas and especially the EEC countries.

Commerce

Commerce, including restaurants and hotels contributes about 10.5 per cent to Kenya's GDP and provides employment for 7 per cent of persons earning wages in the modern sector of the economy while being the economic. activity of half the persons working for themselves. In 1981, activity in this sector showed little increase when measured at constant prices. Despite the rise in agricultural output and further growth in manufacturing, there was a fall in the country's imports which was reflected in the turnover of the commerce sector.

Transport and Communications

Indications of activity for the transport sector show that 1981 was a year of reduced volume for the railways, the airports, the pipeline and in new registrations of motor vehicles. In contrast most sections of posts and telecommunications recorded higher levels of activity. Despite a fall in throughput on the railways, its financial operations benefitted from higher tariffs operative in 1981. Total wage employment in transport and communications in the modern sector of the economy rose by around 5 per cent while the number engaged in self-employed activities was probably unchanged. Some part of the overall rise in employment is due to greater use of buses, coaches and minibuses as more people travelled in this sort of vehicle raher than in their own cars. The contribution of the sector to GDP is estimated to have risen by 1.5 per cent at constant prices and by 12.2 per cent at current prices.

Education

In 1981 there were approximately 4.6 million students in primary, secondary and higher education. This total was effectively 27.9 per cent of the population of Kenya and it illustrates firstly the success achieved in the policy of universal primary education and secondly the social cost incurred. Government expenditure on education in 1981/82 is estimated at K£188.8 million and there is also substantial additional expenditure in private educational establishments. Parents contribute what is in many cases a significant portion of their total income to pay various fees and purchase uniforms, books etc., for their children's education. There were 4,134,345 pupils at primary schools in 1981, an increase of 5 per cent over the 1980 enrolment. The numbers at secondary schools rose to 464,671 or by 11 per cent. Enrolment in training colleges for primary school teachers increased from 12,126 to 12,596 in 1981 and there were more than 6,000 students at the University of Nairobi

plus a further 2,200 at Kenyatta University College. There are also institutes of technology and a very considerable effort is being made in adult education to increase the proportion of the older people who can read and write.

Health

The number of health units increased from 1,581 in 1980 to 1,613 in 1981 and hospital beds and cots rose by 2 per cent from 27,691 to 28,108. Against a population growth rate in the region of 3.8 per cent, the 2 per cent increase in hospital beds and cots meant that the coverage per 100,000 people was reduced from 174 in 1980 to 170 in 1981. However, the growth in the number of doctors and nurses in 1981 was such as to increase the coverage per 100,000 population. Various health programmes are underway to reduce the health risks of the population at large and the Ministry of Health is also participating in the implementation of the "International Drinking Water and Sanitation Decade (1981.90)" which aims to bring safe drinking water to more of the population. In the field of Maternal Child Health and Family Planning, it is the Government's intention that future population programmes should lead to a reduction of the birth rate.

Other Social Activities

The other social activities include youth development, through village polytechnics and the national youth service, community development and vocational rehabilitation. The National Social Security Fund falls in this field and for the first time ever there was a reduction in the number of employees and employers registered with the fund, the number of employees falling to 1,226,400. However, the fund is still accumulating resources at a rapid rate and its investments make a significant contribution to overall national development.

Surveys of rural literacy and child nutrition show that there are still high levels of illiteracy among older persons and in particular areas, while the findings of the second reflect the incidence of poor growth and general physical development of some children in different parts of the country. The annual rent survey in the urban areas showed that in 1981 there were still large numbers of shanty-type dwellings and that continuing shortages of suitable accommodation were leading to a situation of continued rises in rents. In fact average rents rose by 25 per cent in the urban areas in 1981.

Outlook for 1982

The indications are that there will be no real recovery in the international economy in 1982 and the growth rate of less than 1 per cent in the major industrialized market economies as a group implies some further worsening of unemployment in those countries. Inflation will be less this year and could have repercussions on average interest rates but the USA has not yet resolved its budgetary problem so that its financing requirement by loan from the rest of the economy may still result in the continuation of high interest rates.

KEY ECONOMIC INDICATORS, 1979-1982

Table 1

		1979	1980	1981	Forecast 1982
1. Population (August)	'000	15,327	15,909	16,514	17,142
2. Growth of GDP at Constant prices	percent	4.2	3.0	4.8	4.5
3. Per Capita GDP at Current factor-cost	K£	129	140	156	188
4. Investment expenditure	£Kmn	516	767	753	760
5. Consumption expenditure	£Kmn	1,897	2,175	2,534	3,200
6. GDP at market prices	K£mn	2,277	2,626	3,023	3,700
7. Domestic savings	K£mn	377	414	399	420
8. Inflow of foreign funds	K£mn	199	353	354	340
9. Net cost petroleum imports	K£mn	69	116	200	220
10. Exports	K£mn	413	516	532	640
11. Imports	K£mn	620	960	956	1,050
12. Trade balance	K£mn	-709	444	-424	-410
13. Balance of current payments	K£mn	-186	-331	.334	.330
14. Net foreign assets (December)	K£mn	179	113	15	
15. Agricultural output—value	K£mn	748	791	917	1,100
16. Coffee production	'000 tonnes	75.1	91.3	90.7	94.5
17. Tea production	'000 tonnes	99.3	89.9	90.9	92.7
18. Maize production	'000 tonnes	1,800	1,620	2,070	2,167
19. Wheat production	'000 tonnes	201	216	214	220
20. Sugar cane production	'000 tonnes	3,148	3,951	3,822	4,204
21. Milk sold	million litres	241	187	223	232
22. Manufacturing output	K£mn	1,357	1,638	2.008	2,490
23. Change in output volume	percent	+ 8	+ 5	+ 5	+ 5
24. Construction output	K£mn	260	289	308	330
25. Change in output volume	percent	+ 10	+ 6	-5	-5
26. Cement consumption	'000 tonnes	631	688	646	615
27. Petroleum consumption	'000 tonnes	1,560	1,671	1,585	1,535
28. Electricity consumption	mnkwh	1,479	1,538	1,663	1,850
29. Tourism earnings	K£mn	62.0	82.5	90.0	106.0
30. Road lengths-bitumen	Km	5,336	5,542	6,540	7,000
31. New vehicle registrations	Number	20,883	23,246	18,115	16,000
32. Rail freight	million ton/km	1,998	2,281	2,241	2,300
33. Airports-passengers handled	'000	1,791	1,847	1,801	1,800
34. Consumer price increase	percent	8.4	12.8	12.6	20.0
35. Wage employment	'000	972	1,006	1,024	1,055
36. Education—primary enrolment	'000	3,698	3,927	4,134	4,300
37. Education-secondary enrolment	'000	384	419	465	500
38. Education-higher enrolment ..	'000	20.5	20.9	21.3	21.7
39. Hospital beds and cots	Number	26,922	27,691	28,108	28,700
40. Registered doctors and dentists	Number	1,682	1,853	2,254	2,450

Domestically the long rains, although late have been very good and there is the prospect of a further 5 per cent growth in agricultural output. Manufacturing output should also advance by a similar percentage but construction will contract further. Elsewhere, the economy will be influenced by the Government's own expenditure plans and the ripple effect from the three

major productive sectors. Overall, a growth rate at constant prices around 4.5 per cent is indicated but with high inflation the increase at current prices will exceed 20 per cent.

For the balance of payments the trade deficit will remain high and there will be a requirement to finance a current account deficit of the same magnitude as in 1981. The capital inflow seems likely to be substantial and there will be a need to seek further assistance in order to balance the account. Some forecasts for 1982 are given in Table 1.

CHAPTER 1—INTERNATIONAL SCENE

Continuing inflation, high interest rates, sluggish growth with the resultant rise in unemployment and payment imbalances were the dominant global economic problems in 1981. Reducing rates of inflation was considered to be the most important task of economic management, and despite its price in terms of unemployment, many countries succeeded in reversing previous inflationary trends. Sluggish growth in the developed countries resulted in slack demand for imports and hence purchasing power of the non-oil developing countries. Although some of these countries were able to increase the volume of their exports, the fall in commodity prices had its impact on export earnings especially in those countries where structural weaknesses made higher export volume difficult. Imports were generally higher in price for virtually all developing countries so for many of them 1981 was a year of serious balance of payment difficulties.

1.2. Economic slowdown in the industrialized countries, effective conservation policies and successful efforts to substitute oil with other fuels resulted in less oil being consumed in 1981 than 1980. This created a glut in the oil markets causing the production and export earnings of the oil exporting countries to fall. World oil production is estimated to have fallen by 6.5 per cent in 1981 after a drop of 4.7 per cent in 1980. OPEC oil production alone is estimated to have dropped by 16.0 per cent. Market pressures and

KEY ECONOMIC INDICATORS IN THE SIX MAJOR OECD COUNTRIES

Table 1.1

	U.S.A.	Japan	West Germany	France	U.K.	Italy
1. Change in Industrial Production*						
1981	2.9	3.0	-2.0	-3.5	-4.1	-2.5
1980	-3.6	7.0	0.2	-0.04	-6.7	-5.6
2. Growth in GNP*						
1981	1.9	3.5	-0.3	0.5	-0.9	-1.0
1980	0.1	5.3	1.8	1.8	-2.3	3.8
3. Increase in Consumer Prices*						
1981	10.4	4.9	5.9	13.1	11.9	17.8
1980	15.8	8.0	5.5	13.3	18.0	21.2
4. Interest Rates—Prime lending Rate						
1981	16.51	6.53	10.65	14.75	15.25	20.60
1980	21.50	7.50	12.00	14.40	15.00	21.50
5. Unemployment Rate						
1981	8.2	2.2	5.3	7.9	12.3	8.2
1980	7.4	2.2	4.5	7.3	9.3	8.3

*Year to year basis

Source: International Institute Economic Review.

the need to boost their foreign exchange earnings encouraged many of the oil producing countries to reduce oil prices such that the average oil price fell from US $36 per barrel to US $35 per barrel in January 1982.

1.3. Table 1.1 summarizes the main economic indicators of the six major OECD countries. Although industrial production in four of these countries fell, the increases in USA and Japan in 1981 were sufficient to ensure a small overall rise when these six countries are considered together. Thus industrial production declined in all the countries except in the United States and Japan; with the United Kingdom recording the largest fall followed by France. Industrial production in 1980 had increased in Japan only.

1.4. The OECD countries aggregate GDP is unlikely to have increased in 1981 by more than the 1.5 per cent achieved in 1980. Except in the United States and Japan, where GDP grew by 1.9 per cent and 3.5 per cent respectively, all other countries achieved growths well below those achieved in 1980. Negative growths were registered in Italy, West Germany and the United Kingdom while growth in Japan was substantially below 1980. Despite domestic final demand being much the same as 1980 in a majority of these countries, growth was adversely affected by falls in private fixed investment because of the impact of the rise in interest rates.

1.5. Both nominal and real interest rates rose to hitherto unprecedented levels in 1980 and 1981. In August 1981 the prime lending rate in the U.S.A. and the base rate in the United Kingdom had risen to 21.5 per cent and 16.5 per cent, respectively. The rise in the USA strengthened the dollar against all the major international currencies, such that the Western European countries had to raise interest rates in order to protect the value of their own currencies. Towards the end of the year, however, United Kingdom and West Germany cut loose from the American interest rate system in order to encourage investment in their countries.

1.6. As a direct consequence, there was a cut in the base interest rate in the United Kingdom, from 15.25 per cent in December 1981 to 14.0 per cent in January 1982. Leading interest rates in West Germany dropped from 12.0 per cent to 10.65 per cent. Of all the six countries, interest rates were lowest in Japan, and highest in Italy.

1.7. Helped by stable oil prices, falling prices of other commodities and lower rates of wage increases, considerable success was achieved in reducing rates of inflation, as measured by the rate of increase in consumer prices. Inflation in the major industrialized countries as a group rose less in 1981. In these countries, an inflation rate of 9.9 per cent was recorded in 1981 compared to 11.9 per cent in 1980. In relation to 1980, those OECD countries which succeeded in reducing rates of inflation included the United States from 15.8 per cent to 10.4 per cent, Japan from 8.0 per cent to 4.9 per cent, the United Kingdom from 18.0 to 11.9 per cent and Italy from 21.2 per

cent to 17.8 per cent. The inflation rate rose marginally in West Germany from 5.5 per cent in 1980 to 5.9 per cent in 1981, while in France the 1980 rate of 13.3 per cent was virtually unchanged.

1.8. The fight against inflation was associated with depressed growth and a rapid rise in unemployment in a majority of countries, most notably in the United Kingdom where unemployment rose from 9.3 per cent in 1980 to 12.3 per cent. Japan and Italy managed to keep their unemployment rates at 1980 level of 2.2 per cent and 8.3 per cent, respectively, while increases were also recorded in West Germany from 4.5 per cent to 5.3 per cent, in the United States from 7.4 per cent to 8.2 per cent and in France from 7.3 per cent to 7.9 per cent.

1.9. The volume of world trade fell in 1981 but non-oil developing countries taken as a group raised the volume of their exports by about 5 per cent. Prices of the export commodities of these countries fell by about 16.0 per cent in general. Measured in US dollar terms, world average coffee prices were down by 18 per cent and tea prices were lower by 10 per cent.

1.10 This downturn in the world market prices for primary commodities and the delayed impact of sharp increase in prices of crude oil in 1980 caused the terms of trade of non-oil developing countries to deteriorate once again in 1981. Since 1977 the index of terms of trade of these countries as a group has fallen by a total of 11 percentage points. This with the added problem of an increased debt service burden due to the need to borrow increasingly large sums has left these countries with severe external payments problems.

COMMODITY PRICE INDEX, 1977-1981

Table 1.2 (1975=100)

	Coffee*	Tea**	Sisal***	Sugar+	Petroleum++
1977	358.4	194.0	88.4	48.3	115.7
1978	248.9	159.1	84.4	58.6	118.5
1979	264.9	156.9	121.7	70.3	158.3
1980	238.6	162.5	131.8	86.5	267.4
1981	195.8	145.9	113.6	80.7	303.2

Source: IMF International Financial Statistics

*Other milds (New York)

**Average Auction (London)

***East African (London)

+E.E.C. Import Price

++Saudi Arabia (Ras Tanura)

1.11. In the face of falling commodity prices in the world market, Kenya's major export commodities coffee and tea earned less per unit in 1981 compared to 1980; but due to increased export volumes, earnings of these

commodities increased slightly. However, higher import prices stemming from rapid inflation in the industrialized countries left Kenya's terms of trade worse off as well as leaving a large trade deficit to be financed.

1.12. The outlook for 1982 remains unclear but generally is not encouraging. While there are indications of lower interest and inflation rates, the long awaited recovery in the USA may still be at least six months away. Thus demand in the industrialized market economies may remain dampened by factors which have been determining the recent economic trends while unemployment overall should show some increase. Despite optimistic forecasts of some growth in the volume of world trade in 1982, very few if any developing countries are likely to benefit therefrom. As for the impact of the international scene on the Kenyan economy this will be much the same as in 1981 but there are already indications of some reduction of interest in new investments by foreigners.

CHAPTER 2—THE DOMESTIC ECONOMY

There was some improvement in the growth of the economy in 1981. Provisional data indicate that the Gross Domestic Products (GDP) at factor cost grew in real terms by about 4.8 per cent in 1981, compared with 3.0 per cent in 1980. Measured in current prices, the GDP grew more rapidly because of the influence of rising prices. Current price GDP expanded by 12.6 and 15.9 per cent respectively in 1980 and 1981, reflecting average price increases of 9.6 and 11.1 per cent in the two years. Despite the improvement, the real growth of GDP in 1981 remained below the revised target growth rate of 5.4 per cent for the current plan period, 1979.83. In fact, for 1979. 81 the cumulative real growth rate was only 3.9 per cent. The prospects are for growth in 1982 at a rate similar to that for 1981, so it is unlikely that the revised target growth rate for the plan period will be achieved. Per capita GDP in constant prices, as recorded in Table 2.1, went up by 1.0 per cent on average, following a decline in 1980. However, when adjustment is made for the negative effects of deteriorating terms of trade, even this small gain is eliminated and per capita incomes are shown to have declined for the fourth successive year (see Table 2.5). One other disturbing trend was a continuation of the declining real value of gross fixed capital formation.

Sectoral Contribution

2.2. The major factor behind the improved growth of GDP was a major agricultural recovery. This sector recorded a real growth of 6.2 per cent in 1981, against falls of 0.8 and 1.3 per cent in the drought years of 1979 and 1980. The 1981 rains were generally beneficial to most crops, although some were still suffering from the earlier drought. Deliveries to the marketing boards of maize, paddy rice, pineapples and tea showed substantial increases but falls were recorded in the deliveries of sugar-cane, cotton, coffee and sisal.

2.3. The manufacturing sector appears to have been affected by the somewhat depressed state of domestic demand and, towards the end of the year, by difficulties in securing needed imported supplies. Growth in this sector was about 5 per cent in constant prices, virtually the same as in 1980 but well below the growth recorded annually in 1977-79.

2.4. Following a period of steady growth in 1975-79, the construction sector experienced a setback in 1981 after a year of only slight growth in 1980. The contribution of the sector to GDP fell by 1.9 per cent in 1981 despite a large volume of building plans passed between July 1980 and June 1981.

Table 2.1 GROSS DOMESTIC PRODUCT, 1978-1981 *K£million*

	CURRENT PRICES				CONSTANT (1976) PRICES			
	1978	1979	1980	1981*	1978	1979	1980	1981*
A. TRADITIONAL ECONOMY								
Forestry	13.30	15.21	16.66	19.22	10.04	10.32	10.69	11.06
Fishing	0.43	0.46	0.55	0.73	0.34	0.35	0.37	0.42
Building and Construction	31.01	37.19	41.57	47.67	23.32	24.32	25.74	26.55
Water Collection	12.66	14.04	15.10	17.12	9.63	9.63	9.79	9.95
Ownership of Dwellings	43.15	52.06	57.79	67.41	31.86	33.17	34.54	35.95
TOTAL TRADITIONAL ECONOMY	100.55	118.96	131.67	152.15	75.12	77.79	81.13	83.93
B. MONETARY ECONOMY								
1. Enterprises and Non-Profit Institutions								
Agriculture**	631.73	648.78	688.13	791.74	533.31	529.05	522.03	554.39
Forestry	8.25	10.70	13.96	18.88	6.94	7.17	7.70	8.24
Fishing	3.52	3.70	4.37	5.91	2.75	2.89	2.97	3.52
Mining and Quarrying	4.41	5.04	5.73	5.16	4.14	4.08	4.05	3.32
Manufacturing	219.32	349.84	295.14	342.44	188.16	201.56	212.95	223.62
Building and Construction	66.87	82.26	96.33	100.56	55.26	59.38	59.92	58.78
Electricity and Water	23.05	27.57	32.48	40.86	17.82	19.57	21.21	22.49
Trade, Restaurants and Hotels	189.34	214.07	244.66	281.78	155.92	165.37	171.15	171.73
Transport, Storage and Communications**	100.84	114.65	127.81	143.39	81.40	87.26	93.46	94.86
Finance, Insurance, Real Estate and Business Services**	96.22	108.25	122.43	142.26	77.59	85.26	88.03	91.99
Ownership of Dwellings	78.43	87.20	103.41	132.52	62.49	66.62	69.97	79.65
Other Services	35.46	39.59	49.41	56.15	30.46	32.86	35.82	38.26
Less: **Imputed Bank Service Charges**	—37.31	—47.97	—47.64	—55.36	—28.76	—31.60	—32.62	—34.09
TOTAL	1,420.13	1,549.68	1,736.22	2,006.29	1,187.48	1,229.47	1,256.64	1,316.66
2. PRIVATE HOUSEHOLDS (DOMESTIC SERVICES)	17.06	21.72	28.15	32.07	13.91	16.39	19.29	20.90
3. PRODUCERS OF GOVERNMENT SERVICES								
Public Administration	56.91	61.44	71.30	84.54	47.47	..	..	..
Defence	13.49	14.19	14.90	15.26	11.37	..	..	..
Education	107.51	129.57	154.18	185.55	89.20	..	..	..
Health	27.40	31.24	36.16	36.19	20.63	..	..	..
Agricultural Services	16.51	20.69	22.24	26.49	13.68	..	..	..
Other Services	28.84	32.13	33.68	43.79	24.08	..	..	..
TOTAL	250.66	289.26	332.46	391.83	206.43	221.09	233.47	245.84
TOTAL MONETARY ECONOMY	1,687.85	1,860.66	2,096.83	2,430.19	1,407.82	1,466.95	1,509.40	1,583.40
TOTAL TRADITIONAL AND MONETARY ECONOMY	1,788.41	1,979.62	2,228.50	2,582.34	1,482.94	1,544.74	1,590.53	1,667.33
GROSS DOMESTIC PRODUCTION PER CAPITA	120.38	129.16	140.08	156.37	99.82	100.78	99.98	100.96

*Provisional.

**Later data and observation indicate that these estimates need to be revised upwards. The revisions will however have a small impact on the growth rates year by year.

Table 2.2

GROSS DOMESTIC PRODUCT; PERCENTAGE RATES OF GROWTH 1978-1981

Percentage

	CURRENT PRICES				CONSTANT(1976) PRICES			
	1978-1979	1979-1980	1980-1981*	CUMULATIVE 1976-1981*	1978-1979	1979-1980	1980-1981*	CUMULATIVE 1976-1981*
A. TRADITIONAL ECONOMY								
Forestry	14.4	9.5	15.4	15.3	2.8	3.6	3.5	3.4
Fishing	7.0	19.5	32.7	20.3	2.9	5.7	13.5	7.7
Building and Construction	20.0	11.8	14.7	16.9	4.3	5.8	3.1	4.1
Water Collection	11.0	7.5	13.4	13.9	0.7	1.7	1.6	2.3
Ownership of Dwellings	20.6	11.0	16.6	18.1	4.1	4.1	4.1	4.6
TOTAL TRADITIONAL ECONOMY	18.3	10.7	15.6	16.9	3.6	4.3	3.5	3.7
B. MONETARY ECONOMy								
1. Enterprises and Non-Profit Institutions								
Agriculture	2.7	6.0	15.1	11.2	-8.0	-1.3	6.2	3.5
Forestry	29.7	30.4	35.2	24.7	3.3	7.4	7.0	5.7
Fishing	5.1	18.1	35.2	20.1	5.1	2.8	15.2	7.7
Mining and Quarrying	14.3	13.7	-9.9	8.6	-1.4	-0.7	-18.0	—
Manufacturing	13.9	13.1	14.9	18.9	7.1	5.7	5.0	9.2
Building and Construction	23.0	17.1	4.4	17.3	7.5	0.9	-1.9	5.4
Electricity and Water	19.6	17.8	25.8	23.6	9.8	8.4	6.0	9.6
Trade, Restaurants and Hotels	13.1	14.3	15.2	16.2	6.1	3.5	0.3	5.4
Transport .Storage and Communications	13.7	11.5	12.2	15.5	7.2	7.1	1.5	6.5
Finance, Insurance, Real Estate and Business Services	12.5	38.0	16.2	16.0	9.9	3.2	4.5	6.2
Ownerships of Dwellings	11.2	18.6	28.2	17.9	6.6	5.0	13.8	6.5
Other Services	11.6	24.8	13.6	15.8	7.9	9.0	6.8	7.3
TOTAL (Excluding Imputed bank service Charges)	9.1	13.1	15.5	14.6	3.5	2.2	4.8	5.4
2. Private Households (Domestic Services)	27.3	29.6	14.1	24.0	17.8	17.7	8.3	13.8
3. Producers of Government Services								
Public Administration	7.9	16.0	18.6	14.4	..	..	..	..
Defence	5.2	5.0	2.4	9.6	..	..	..	..
Education	20.5	19.0	20.3	17.5	..	..	..	..
Health	14.0	15.7	—	15.8	..	..	..	..
Agricultural Services	25.3	7.5	19.1	18.3	..	..	..	..
Other Services	11.4	4.8	30.0	16.5	..	..	..	..
TOTAL	15.4	14.9	17.9	16.2	7.1	5.6	5.3	5.9
TOTAL MONETARY ECONOMY	10.2	12.7	15.9	17.5	4.2	2.9	4.9	5.6
TOTAL TRADITIONAL AND MONETARY ECONOMY	10.7	12.6	15.9	15.1	4.2	3.0	4.8	5.4
GROSS DOMESTIC PRODUCTION PER CAPITA	7.2	8.5	11.6	11.1	1.0	-0.8	1.0	1.7

*Provisional.

PRODUCTION ACCOUNTS, 1980 AND 1981

Table 2.3 K£million

	1980					1981*				
	Gross Output at approx. Basic Prices***	Inter-mediate Con-sumption	Gross Domestic Product (at Factor Cost)			Gross Output at approx. Basic Prices***	Inter-mediate Con-sumption	Gross Domestic Product (at Factor Cost)		
			Total	Labour Costs	Operating Surplus**			Total	Labour Costs	Operating Surplus**
A. Traditional Economy	173.89	42.22	131.67	3.43	128.24	201.84	49.70	152.15	4.04	148.11
B. Monetary Economy ..										
1. Enterprises and Non-Profit Institutions										
Agriculture	791.19	103.05	688.13	78.03	610.11	917.48	125.74	791.74	86.50	705.24
Forestry	16.19	2.23	13.96	11.09	2.88	21.55	2.67	18.88	13.66	5.22
Fishing	4.92	0.55	4.37	1.09	3.28	6.56	0.65	5.91	1.48	4.43
Mining and Quarrying	20.18	14.45	5.73	2.71	3.02	18.20	13.02	5.16	2.44	2.72
Manufacturing	1,453.14	1,158.00	295.14	116.11	179.03	1,764.64	1,422.20	342.44	116.74	226.76
Building and Construction	289.42	193.09	96.33	72.94	23.39	302.15	30.25	100.56	76.14	24.42
Electricity and Water	68.86	36.37	32.48	9.68	22.80	82.15	41.29	40.86	10.61	30.25
Trade, Restaurants and Hotels	419.77	175.11	244.66	107.86	136.80	496.78	214.99	281.78	123.75	158.03
Transport, Storage and Communications	335.90	208.10	127.81	73.54	54.26	362.50	219.11	143.39	86.59	56.80
Finance, Insurance, Real Estate & Business Services	164.43	42.00	122.43	53.73	68.70	191.07	48.81	142.26	62.44	79.82
Ownership of Dwellings	113.92	10.51	103.41		103.41	146.03	13.51	132.52	1	132.52
Other Services	113.30	63.89	49.41	38.47	10.94	130.07	73.92	56.15	43.90	11.97
Less: Imputed Bank Service Charge . .		47.64	.47.64		-47.64		55.36	-55.36		-55.36
Total	3,791.22	2,054.99	1,736.22	565.25	1,170.98	4,439.18	2,432.85	2,006.29	624.25	1,382.82
2. Private (Households Domestic Services)	28.15		28.15	28.15		32.07		32.07	32.07	
3. Producers of Government Services	56314	230.68	332.46	325.27	7.19	642.45	250.63	391.83	387.03	4.80
Total Monetary Economy	4,382.51	2,285.67	2,096.83	918.67	1,178.17	5,113.70	2,683.48	2,430.19	1,043.35	1,387.62
Total Monetary and Traditional Economy	4,556.40	2,327.89	2,228.50	922.10	1,306.41	5,315.54	2,733.18	2,582.34	1,047.34	1,535.73

*Provisional.
**Including consumption of fixed capital.
***After deduction of indirect taxes less subsidies from the total of output.

2.5. As a result of the tightening of import restrictions in the second half of 1981 and also due to the fairly tight credit squeeze, the import of goods and services fell sharply in real terms. As a consequence of this plus stagnation in tourism and also a static volume of exports, the commerce sector, including trade, restaurants and hotels, had a relatively poor year in 1981. The contribution of the sector to GDP in 1981 increased by a mere 0.3 per cent, against 3.5 per cent in 1980.

2.6. The growth of the other sectors detailed in Table 2.1 ranged from a large increase of 13.8 per cent for rental incomes, 8.3 per cent for domestic services, 5.3 per cent for government services, to a negative 18.0 per cent for mining and quarrying. The only sectors to record falls at constant prices were construction and mining and quarrying.

GROSS DOMESTIC PRODUCT

SECTOR SHARES, AT CONSTANT (1976) PRICES 1978-1981

Table 2.4 *Percentage*

	1978	1979	1980	1981*
A. TRADITIONAL ECONOMY				
Forestry	0.7	0.7	0.8	0.7
Fishing				
Building and Construction	1.6	1.6	1.6	1.6
Water Collection	0.6	0.6	0.6	0.6
Ownership of Dwellings	2.1	2.1	2.2	2.2
Total Traditional Economy	5.1	5.0	5.1	5.0
Monetary Economy				
1. Enterprises and Non-Profit Institutions				
Agriculture	36.0	34.2	32.8	33.3
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	0.2
Manufacturing	12.7	13.0	13.4	13.4
Electricity and Water	1.2	1.3	1.3	1.3
Building and Construction	3.7	3.8	3.8	3.5
Trade, Restaurants and Hotels	10.5	10.7	10.8	10.3
Transport, Storage and Communications	5.5	5.6	5.9	5.7
Finance, Insurance, Real Estate and Business Services	5.2	5.5	5.5	5.5
Ownership of Dwellings	4.2	4.3	4.4	4.8
Other Services	2.1	2.1	2.3	2.3
Less: Imputed Bank Services Charges	-1.9	-2.0	-2.1	-2.0
Total	80.0	79.6	79.0	79.0
2. Private Households (Domestic Services)	0.9	1.1	1.2	1.3
3. Producers of Government Services				
Public Administration	3.2	..	..	..
Defence	0.8	..	..	..
Education	6.0	..	..	..
Health	1.4	..	..	..
Agricultural Services	0.9	..	..	..
Other Services	1.6	..	..	..
Total	13.9	14.3	14.7	14.7
Total Monetary Economy	94.9	95.0	94.9	95.0
Total Monetary and Traditional Economy	100.0	100.0	100.0	100.0

*Provisional.

2.7. The production account showing the basic aggregates of each account is given in Table 2.3. There is a very small variation in the aggregate ratio of GDP to output for 1980 of 48.9 per cent as against 48.6 per cent in 1981. There are, however, wide variations from these averages for individual sectors. For ownership of dwellings the component of GDP to output for 1981 is 91 per cent followed by 86 per cent for agriculture, 74 per cent for finance, insurance and real estate, 56 per cent for trade, restaurants and hotels, 40 per cent for transport, storage and communications, 33 per cent for building and construction and a relatively low 19 per cent for manufacturing. The ratios of most sectors are similar to those of 1980. For 1981 labour cost as a percent of GDP for building and construction was 76 per cent, for trade, restaurants and hotels 44 per cent, for manufacturing 34 per cent, and for agriculture it was 11 per cent. The low proportion for agriculture is misleading because the large entry for the operating surplus for this sector infact contains a large component of returns to labour from self. employment.

2.8. The proportional contribution of each sector to the total GDP at constant prices is detailed in Table 2.4. The ratios have been fairly steady over the years with agriculture contributing one third of the GDP, followed by government services (14.7 per cent), manufacturing (13.4 per cent), and commerce (10.3 per cent). Overall these four sectors contribute more than 70 per cent of total GDP.

Terms of Trade

2.9. Conventional estimates of GDP at constant prices can give a misleading picture of a country's growth especially when major changes are occurring in a country's terms of international trade. The estimates have therefore to be adjusted to take into account the effect of such changes. Table 2.5 details this adjustment and its impact on real per capita GDP. The terms of trade, which are detailed in Table 7.4, fell from 89 in 1980 to

IMPACT OF COMMODITY TERMS OF TRADE ON PER CAPITA GDP, 1978-1981

Table 2.5

	1978	1979	1980	1981	1976-81
1. Unadjusted GDP at constant Factor Cost (K£mn.)	1,482.9	1,544.7	1,590.5	1,667.3	—
2. Adjustment for changes in terms of trade (K£mn)	+26.0	-14.2	-52.4	-130.8	—
3. Adjusted GDP (K£mn)	1,508.9	1,530.5	1,538.1	1,536.5	—
4. Growth in unadjusted per capita GDP per cent	+2.9	1.0	-0.8	1.0	1.7
5. Growth in adjusted per capita GDP per cent	-5.1	-1.7	-3.2	-3.8	0.2

72 in 1981, a deterioration of nearly 19 per cent. When the GDP is adjusted for the effects of this, the 1 per cent increase in per capita incomes recorded in Table 2.1 is eliminated and instead Table 2.5 shows a decline in real per capita incomes of nearly 4 per cent.

Resource Allocation

2.10. Total resources available to the country and its uses are detailed in Table 2.6. As noted earlier, due to the tightening of import restrictions in the second half of 1981, there was a fall of nearly 3.6 per cent at current prices in the imports of goods and services from K£1,051 million in 1980 to K£1,013 million in 181. Exports of goods and services at current prices, increased by only 2.0 per cent. As a consequence the import surplus as a percentage of GDP at market prices decreased from 12 per cent in 1980 to 8.7 per cent in 1981. Total resources available to the country therefore increased at current

TOTAL USE OF RESORCES AT CURRENT PRICES, 1978-1981

Table 2.6 K£*million*

	1978	1979	1980	1981*
G.D.P. at Factor Cost	1,788.41	1,979.62	2,228.50	2,582.34
Of which—				
Traditional	100.55	118.96	131.67	152.15
Monetary	1,687.85	1,860.66	2,096.83	2,430.19
+Indirect Taxes	270.25	297.58	397.78	441.68
-Subsidies	0.47	0 60	0.70	0.80
=G.D.P. at Market Prices	2,058.19	2,276 60	2,625.58	3,023.22
+Imports of goods and services	793.00	736.50	1,051.00	1,013.10
-Export of goods and services	593.10	600.10	734.80	750.00**
=Import Surplus	199.90	136.50	316.20	263.10
Total Resources available for Domestic Investment and Consumption	2,258 09	2,413.10	2,941.78	3,286.32
Gross Fixed Capital Formation	514.01	540.45	600.30	682.59
Change in Stocks	96.62	-24.20	166.79	70.22
Gross Investment	610.63	516.25	767.09	752.81
Public Consumption	398.60	447.31	533.77	623.98
Private Consumption	1,248.86	1,449.54	1,640.92	1,909.53
Total Consumption	1,647.46	1,896.85	2,174.69	2,533.51

*Provisional.

**Estimate.

prices by 11.7 per cent from K£2,942 million in 1980 to K£3,286 million in 1981. At constant prices and allowing for terms of trade effects the total resources available showed a fall.

2.11. Because of continued stock accumulations and a high level of fixed capital formation, gross investment accounted for 23 per cent of the total resources available. But despite a rise of 13.7 per cent in fixed capital formation to K£682.6 million in 1981, the reduction in stock accumulations led to a fall overall in gross investment compared to 1980. However, a percentage as high as 23 per cent of resources going to investment as in 1981 is very satisfactory indeed. Private consumption at current prices increased by nearly 16 per cent in 1981 but as prices rose by 12.8 per cent, the increase in real terms is just over 3 per cent. The proportion of consumption expenditure in the public sector was about one quarter of the total in 1981 showing no change from 1980.

2.12. Table 2.7 shows the gross capital formation and its financing for 1980 and 1981. As noted earlier gross investment declined by approximately 1.9 per cent in 1981 from K£767.09 million in 1980 to K£752.81 million in 1981. For the years 1980 and 1981 approximately 53 per cent of the gross investment was financed by domestic savings and the rest from loans and grants from the rest of world. This compares with approximately 71 per cent from domestic savings in the years 1975 to 1979.

F INANCING OF CAPITAL FORMATION, 1980-1981

Table 2.7 *K£million*

Gross Capital Formation		Financing of Gross Capital Formation	
	1980		
Gross Fixed Capital Formation	600 30	Net Borrowing from Rest of the World	331.10
Change in Stocks	+166.79	Grants from Rest of the World	21.90
		Domestic Savings (including consumption of fixed capital)	414.09
Total	767.09	Total	767.09
	1981*		
Gross Fixed Capital Formation	682.59	Net Borrowing from Rest of the World	333.60
Change in Stocks	+70.22	Grants from Rest of the World	20.00
		Domestic Savings (including consumption of fixed capital)	398.51
Total	752.81	Total	752.81

*Provisional.

Factor Incomes and National Product

2.13. Table 2.8 details the composition of the GDP by factor incomes. At current prices the total remuneration of employees increased by 13.5 per cent from K£919 million in 1980 to K£ 1,043 million in 1981. The rental surplus increased by 28.2 per cent and other operating surpluses by 16.7 per cent. It should be noted, however, that the latter item includes returns from self-employment and traditional forms of non-wage employment, and therefore does not provide a reliable guide to changes in enterprise profitability.

2.14. Table 2.8 also shows the derivation of gross national product from gross domestic product. This is obtained by substracting from gross domestic product the net factor income paid to the rest of the world, mainly in the form of profit remittances and interest payments. In 1981 the current price GNP increased by 14.6 per cent as compared to 15.9 per cent for the GDP at factor cost.

GROSS NATIONAL PRODUCTION AT CURRENT PRICES, 1978-1981

Table 2.8 K£*million*

	1978	1979	1980	1981*
FACTOR INCOMES—				
A. Traditional Economy	100.55	118.96	131.67	152.15
B. 1. Remuneration of Employees:				
Enterprises	428.87	495.42	565.25	624.25
Private Households	17.06	21.72	28.15	32.07
Producers of Government Services	245.43	283.09	325.27	387.03
	691.36	800.23	918.67	1,043.35
2. Rental Surplus (including depreciation)	78.43	87.20	103.41	132.52
3. Other Operating Surplus (including depreciation)	918.05	973.24	1,074.75	1,254.32
Total Monetary Economy	1,687.86	1,860.66	2,096.83	2,430.19
Total Factor Incomes=Gross Domestic Product	1,788.41	1,979.62	2,228.50	2,582.34
Add: Indirect Taxes	270.25	297.58	397.78	441.68
Deduct: Subsidies	0.47	0.60	0.70	0.80
Gross Domestic Product at Market Prices	2,058.19	2,276.60	2,625.58	3,023.22
Add: Factor Incomes Received from abroad	17.90	22.60	19.40	25.10
Deduct: Factor Incomes Paid Abroad	108.50	106.50	87.80	116.70
Gross National Product	1,967.59	2,192.70	2,557.18	2,931.62

*Provisional

Table 2.9 GROSS FIXED CAPITAL FORMATION BY TYPE *OF* ASSET, 1978-1981 *K£million*

	CURRENT PRICES				CONSTANT (1976) PRICES			
	1978	1979	1980	1981*	1978	1979	1980	1981*
DWELLINGS–								
PRIVATE:								
Traditional	33.17	39.65	43.64	50.49	27.24	28.76	25.76	27.37
Modern	26.71	36.78	34.94	35.80	21.93	26.31	20.62	19.40
TOTAL	59.88	76.43	78.58	86.29	49.17	54.67	46.38	46.77
PUBLIC	10.48	16.66	27.28	31.98	8.60	11.91	16.11	17.33
TOTAL	70.36	93.08	105.86	118.27	57.77	66.58	62.49	64.10
NON-RESIDENTIAL BUILDINGS–								
PRIVATE	16.58	27.68	32.02	45.39	14.30	20.75	19.90	26.49
PUBLIC	29.17	41.68	57.32	63.58	25.17	31.24	35.62	37.12
TOTAL	45.75	69.35	89.34	108.97	39.47	51.99	55.52	63.61
OTHER CONSTRUCTION WORKS–								
PRIVATE	7.45	8.19	11.46	13.14	6.32	6.05	6.99	7.44
PUBLIC	78.66	76.48	80.70	74.94	66.72	56.48	49.27	42.46
TOTAL	86.11	84.67	92.16	88.09	73.04	62.53	56.26	49.90
LAND IMPROVEMENT AND PLANTATION DEVELOPMENT–								
PRIVATE	6.87	7.20	8.21	8.75	6.27	5.98	6.61	6.53
PUBLIC	1.01	1.65	2.16	3.50	0.90	1.44	1.21	1.79
TOTAL	7.87	8.85	10.37	12.25	7.17	7.43	7.82	8.32
TRANSPORT EQUIPMENT.								
PRIVATE	64.04	50.90	61.26	74.77	49.26	33.93	38.53	43.22
PUBLIC	37.27	63.44	43.91	44.66	28.67	42.30	27.61	25.82
TOTAL	101.31	114.34	105.17	119.44	77.93	76.23	66.14	69.04
MACHINERY AND OTHER EQUIPMENT–								
PRIVATE	165.84	119.74	151.51	165.79	127.57	84.33	97.12	75.70
PUBLIC	37.10	48.84	47.97	69.76	28.54	34.40	30.75	31.86
TOTAL	202.94	168.58	199.48	235.55	156.11	118.72	127.87	107.56

GROSS FIXED CAPITAL FORMATION BY TYPE OF ASSET, 1978-1981

Table 2.9 ñ (Cont.) *K£million*

	CURRENT PRICES				CONSTANT (1976) PRICES			
	1978	1979	1980	1981*	1978	1979	1980	1981*
BREEDING STOCK AND DAIRY CATTLE—PRIVATE	-0.33	+1.57	-2.07	+0.03	-0.30	+1.26	-1.51	+0.02
Traditional Dwellings	33.17	39.65	43.64	50.49	27.24	28.36	25.76	27.37
Other	287.16	252.06	297.33	343.67	225.36	178.61	188.27	178.81
TOTAL PRIVATE	320.33	291.70	340.97	394.16	252.60	206.97	214.03	206.18
TOTAL PUBLIC	193.68	248.74	259.34	288.43	158.59	177.77	160.57	156.37
TOTAL PRIVATE AND PUBLIC	514.01	540.45	600.30	682.60	411.19	384.74	374.60	362.55

*Provisional.

GROSS FIXED CAPITAL FORMATION BY INDUSTRY, 1978-1981

Table 2.10

K£*million*

	CURRENT PRICES				CONSTANT (1976) PRICES			
	1978	1979	1980	1981*	1978	1979	1980	1981*
A. TRADITIONAL ECONOMY								
Traditional Dwellings	33.17	39.65	43.64	50.49	27.24	28.36	25.76	27.37
B. MONETARY ECONOMY								
Enterprises and Non-Profit Institutions;								
Agriculture	51.13	42.05	47.16	56.04	41.05	31.13	30.86	30.70
Forestry	0.73	0.69	0.95	0.83	0.59	0.48	0.60	0.46
Mining and Quarrying	4.95	4.10	5.02	4.82	3.81	2.88	3.22	2.22
Manufacturing	83.71	88.52	76.91	82.31	64.87	62.50	48.97	39.63
Electricity and Water	40.20	31.99	31.53	46.99	33.72	23.45	19.33	24.87
Building and Construction	32.25	25.68	33.41	31.58	24.99	18.01	21.31	15.05
Trade, Restaurants and Hotels	20.24	17.30	28.29	37.20	15.80	12.12	17.97	18.79
Transport, Storage and Communications	110.50	101.65	102.08	122.14	86.38	69.26	64.31	67.35
Finance, Insurance Real Estate and Business Services	7.57	8.25	10.19	23.85	6.20	5.98	6.37	13.59
Ownership of Dwellings	38.66	55.10	62.93	68.33	31.66	39.39	37.19	36.99
Other Services	20.33	31.76	41.25	44.58	16.48	22.71	26.03	23.54
TOTAL	410.27	407.09	439.73	518.67	325.56	288.01	276.15	273.18
Producers of Government Services								
Public Administration	14.66	14.37	18.54	17.97	11.85	10.35	11.63	9.73
Defence								
Education	8.87	11.75	20.22	22.56	7.32	8.65	12.71	12.08
Health	8.33	10.91	14.06	12.78	6.99	8.01	8.80	6.96
Agricultural Services	8.64	8.95	12.35	12.61	6.91	6.34	7.73	6.83
Other Services	30.07	47.73	51.76	47.50	25.32	35.02	31.83	26.40
TOTAL	70.56	93.70	116.94	113.42	58.39	68.38	72.70	62.00
TRADITIONAL ECONOMY	33.17	39.65	43.64	50.49	27.24	28.36	25.76	27.37
MONETARY ECONOMY	480.83	500.80	556.67	632.09	383.95	356.38	348.84	335.19
TOTAL	514.01	540.45	600.30	682.60	411.19	384.74	374.60	362.55
C. PERCENTAGE RATES OF GROWTH-								
Traditional Economy	20.6	19.5	10.1	15.7	10.1	4.1	-9.2	6.2
Monetary Economy	32.6	4.2	11.2	13.6	17.3	-7.2	-2.1	-3.9
TOTAL	31.8	5.1	11.1	13.7	16.1	-6.4	-2.6	-3.2

*Provisional.

Trends in Capital Formation

2.15. As noted earlier there has been a continuous fall in gross fixed capital formation at constant prices for the last three years, with 1979 registering a fall of 6.4 per cent, 1980 a fall of 2.6 per cent and 1981 a fall of 3.2 per cent. The fall in capital formation was attributable to declines in both public and private sectors. Public sector investment declined by 2.6 per cent in 1981 and there was a fall of 3.7 per cent in the private sector.

2.16. Table 2.9 details capital formation by type of asset at current and constant prices. In real terms capital formation on dwellings, non-residential buildings and transport equipment in 1981 increased by 2.6 per cent, 14.6 per cent and 4.4 per cent, respectively, in contrast with substantial fall in other construction works and machinery and other equipment of 11.3 per cent and 15.9 per cent.

2.17. Table 2.10 sets out the capital formation by sector. For the traditional economy capital formation increased by an estimated 6.2 per cent in 1981, whereas the enterprise sector recorded a fall of 1.1 per cent and government services a decline of 14.7 per cent. Among sectors, the largest falls of 19.1 per cent and 29.4 per cent occurred in the manufacturing and construction industry, respectively. The capital formation in the transport sector, however, increased by nearly 4.7 per cent, mainly due to increased expenditures on transport equipment.

General note on GDP Estimates

2.18. It is becoming increasingly obvious from enquiries into selected sectors of the economy and from general observation, that the methods used to make estimates of the GDP need to be revised. While any revisions of this nature are only likely to have a small impact on growth rates year by year, they could in total lift the whole level of GDP such that GDP per head might be significantly higher than is currently portrayed. A footnote to Table 2.1 indicates that both the sectors, transport and communications and finance, insurance, real estate and business services are already identified as being subject to upward revision of the current estimates. Further data as they become available will probably show that the agricultural sector is also one in which substantial upward revision may be necessary.

CHAPTER 3—THE BALANCE OF PAYMENTS SINCE 1972

As a result of changes in international and to a lesser extent in national economic factors, there has been a deterioration over the last decade in Kenya's balance of payments position. The most important single change was a 24.fold increase in the price of imported petroleum. The difficulties at the close of 1981 were acute. There was a heavy reliance upon capital inflows from the rest of the world and a rapidly growing external debt burden. Net reserves were becoming uncomfortably low, and it was necessary to place strict controls on imports. In contrast, in 1972 there was no balance of payments problem; capital receipts were more than enough to cover the modest current deficit and reserves represented four months of imports, compared with less than two months at the end of 1981. The purpose of this chapter is to examine the trends causing the balance of payments deterioration over the decade, and to analyse their causes. The resulting discussion should be useful for future policy decisions.

Payments Trends and their Impact on the Economy

3.2. The balance of payments (BoP) summarizes the country's transactions with the rest of the world, classified into three main categories: (a) the current account, which chiefly records trade in goods and services; (b) the capital account, which records movements of short-term and long-term capital (including direct investments by private companies) in and out of the country; and (c) the monetary account, which chiefly records the country's transactions with international organizations.

3.3. In some of the larger countries of the world the state of the balance of payments has only a limited impact on their domestic economies. In a relatively small country like Kenya, which has a very open economy, imports and exports are of great importance to total economic activity. In 1981, for example, export earnings alone made up about one-quarter of all income sources, and imports were equivalent to two-fifths of the gross domestic product. Capital inflows in that year were sufficient to finance nearly half of total fixed investment in the country. The Central Government budget is also strongly influenced, not only because its revenues are sensitive to the general state of the economy, which in turn is much affected by the BoP, but also because approximately a quarter of total tax revenues is derived from import duties.

3.4. For these reasons, when the BoP is in difficulty in an economy like that of Kenya then the whole economy is affected. Large deficits have depressing effects on money supply and incomes. If there are shortages of essential imports, industrial output and economic efficiency will fall. A stagnant export sector will depress the home economy. The budget will also be adversely affected, making it more difficult for the Government to balance its

books without increasing taxation, cutting back on spending or generating inflation by borrowing from the banks. Kenya's BoP first ran into serious difficulties in 1974 and it is no coincidence that a decrease in the rate of economic growth dates from that year. Nor is it a coincidence that there was an economic revival in 1976-78 when the coffee boom took the pressure off the BoP. In short, what happens to the BoP has a crucial bearing on the country's entire economic prosperity.

3.5. The following discussion shows trends in the BoP during the past decade. Key indicators are summarized in Table 3.1. The deficit on current account is given on line 5 in this table. From a modest level in 1972-73—not large enough to constitute a problem—the annual deficit rose substantially in 1974-75, diminished temporarily due to the coffee boom in 1976-77, and then increased very sharply starting from 1978. Deficits on current account are not necessarily a problem, if they are satisfactorily financed. Such financing requires that capital inflows are available from the rest of the world on reasonable terms, and are put to productive uses consistent with national priorities in order to create more exports. In such circumstances they can be seen as simply a way of tapping the savings of the rest of the world, to create future income. However, this assessment has to be related to the existing level of the foreign debt and the cost of servicing it.

3.6. The best indicator of the country's ability to finance current deficits is provided by the so-called "basic balance" (line 7 of the table). As can be seen, there were surpluses on the basic balance in 1972-73, 1976-77 and 1979. On the other hand, there were particularly large deficits in 1978 and 1980-81. The large capital inflows recorded in line 6 had the inevitable effect of greatly increasing the contry's external indebtedness. By 1981, the long-term external public debt is estimated to have exceeded K£640 million and the cost of servicing this debt absorbed a significant share of export earnings in that year. In short, the large debt and the cost of servicing it are part of the BoP problems. It seems that it would be undesirable to continue to sustain the rate of expansion of these amounts which has marked the past few years.

3.7. A further indicator of the health of the BoP is provided in line 9 of Table 3.1 which gives the "overall" balance. This indicates trends in the country's international reserves. Deficits on the overall balance can only be paid for by borrowing from international organizations or by running down reserves.

3.8. Most of the remainder of this chapter is taken up with an analysis of the situation summarized above. A first view can be obtained by examining the last column of Table 3.1, which records changes in the various items over the entire period. This column shows that the deterioration in the basic and overall balances during the decade was considerably smaller than for the current account. In other words, increased inflows of long and short-term capital permitted Kenya to finance a large part of its current deficits (although

SUMMARY BALANCE OF PAYMENTS INDICATORS, 1972-1981

Table 3.1

(K£ *million unless indicated otherwise)*

	1972	1973	1974	1975	1976	1977	1978	1979	1980*	1981*	Change 1972-81
1. Export (fob)	120.5	164.5	207.5	232.4	312.1	468.0	369.4	385.5	461.0	462.8	+342.3
2. Imports (cif)	191.1	215.8	366.4	314.5	389.4	529.3	724.9	684.9	976.8	995.3	+804.2
3. BALANCE OF TRADE (1-2)	-70.6	-51.2	-158.9	-82.2	-77.3	-61.3	-355.5	-299.4	-515.8	-532.5	−461.9
4. Net Services and transfers	32.1	-6.4	32.9	-24.9	13.0	46.6	71.3	83.0	142.4	198.9	+166.8
5. CURRENT ACCOUNT (3+4)	-38.4	-57.6	-126.1	-107.0	-64.3	-14.7	-284.2	-216.4	-373.4	-333.6	-295.2
6. Net inflows of long-term capital**	44.7	58.9	82.9	80.5	103.1	111.0	196.9	219.6	257.3	182.0	+137.3
7. BASIC BALANCE (5+6)	6.3	1.3	-43.2	-26.5	38.8	96.3	-87.3	3.2	-116.1	-151.6	-157.9
8. Movements of short-term capital+	2.2	6.2	11.6	8.9	-3.2	16.4	9.7	67.4	43.9	52.5	+50.3
9. OVERALL BALANCE (7+8)	8.5	7.5	-31.5	-17.6	35.6	112.7	-77.6	70.6	-72.2	-99.1	-107.6
MEMORANDUM ITEMS—											
10. International reserves, gross of liabilities (year-end)	66.6	76.6	68.5	70.6	114.0	208.6	133.3	234.5	187.0	126.4	..
11. Months of imports represented by reserves (months) +	4.3	4.5	3.1	3.2	4.1	6.5	2.9	4.4	2.8	1.7	–
12. Proportion +of import bill covered by export earnings	63%	76%	57%	74%	80%	88%	51%	56%	47%	46%	..

*Provisional.

**Government transfers have been re-allocated from current account to long-term capital account,

+Includes errors and omissions.

+Calculated using 3.year moving average for imports.

at the cost of a rising debt burden) and thus softened the impact on the reserves. Looking at the components of the current account (lines 1, 2 and 4), there were substantial increases in receipts from exports, services and transfers, so that the entire worsening in the BoP can be attributed to the increase in the import bill, which multiplied more than five-fold (in current prices) over the period. With import costs going up more rapidly than export earnings, the latter were paying for a diminishing share of the former and line 12 shows that by the end of the period export earnings were equivalent to less than half the cost of imports.

The Influence of World Price Trends

3.9. The most obvious source of Kenya's difficulties is the huge increase that has occurred since 1972 in the world price of oil. For Kenya, the price of oil has increased 24-fold, from K£5.4 per tonne in 1972 to K£129.6 per tonne in 1981. Fortunately, Kenya is also a substantial exporter of petroleum products, so that figures of gross imports give a misleading impression. Salient statistics on Kenya's trade in petroleum and petroleum products for 1972 and 1981 are set out in Table 3.2. It can be seen from line 3 that at the beginning of the period there was a near zero balance in this trade since the

TRADE IN PETROLEUM AND PETROLEUM PRODUCTS, 1972 and 1981

Table 3.2

	1972	1981
1. Imports (K.£ million)	19.7	358.2
2. Exports (K£ million)	19.1	158.0
3. Net imports (K£ million (1.2))	0.6	200.1
4. Net imports as percent of:—		
(a) Total imports	0.3	20.9
(b) Non-oil exports	0.6	65.6
Memorandum Items—		
5. Index of consumption of petroleum products (1972 = 100)	100	318
6. Item (5) relative to constant-price monetary GDP (1972 = 100)*	100	94

* This is obtained by dividing line 5 by an index of constant-price monetary GDP.

value-added component of exports roughly covered the cost of domestic consumption. This comfortable position changed with the OPEC decision to quadruple oil prices at the end of 1973, and the petroleum account moved substantially into deficit. By the mid-seventies net oil imports represented roughly a tenth of total imports and absorbed about a fifth of export receipts.

3.10. This position remained roughly the same until the "second oil shock" in 1979, which resulted in a further three-fold price increase. The deficit on oil account consequently increased greatly in 1980.81 and in 1981 was equivalent to a fifth of total imports and two-thirds of total non-oil export

earnings. In fact, it absorbed more than the country's entire earnings from coffee and tea. A factor which has aggravated the impact of these adverse movements in oil prices has been the country's continuing large dependence on imported oil as an energy source. In 1974, imports (overwhelmingly of oil) made up no less than 98 per cent of total recorded energy consumption in the modern sector of the economy. This situation has since improved appreciably, partly because of greater production of hydro-electricity, but even in 1981 imports still accounted for 80 per cent of energy consumption. Lines 5 and 6 of Table 3.2 provide further indicators of dependence on petroleum. They show that there was a 38 per cent increase in the quantity of consumption of petroleum products in 1972-81. This was smaller than the total increase in the constant-price GDP, indicating that since 1974 consumption of petroleum products has grown less rapidly than GDP.

3.11. It would, however, be a mistake to place an exclusive emphasis on the adverse effects of oil price trends. There were also adverse developments in the prices relating to non-oil trade, as is recorded in Table 3.3. This table provides price indices for imports and exports, both including and excluding oil. The terms of trade are a measure of trends in export prices relative to import prices, as explained in the footnote to the table.

3.12. Taking the overall trade picture first, it is evident that both export and import prices have increased dramatically over the period, but at varying rates. The terms of trade deteriorated sharply in 1973-75, recovered dramatically in 1975-77 and then fell continuously and sharply until 1981. By this latest year a unit of exports would buy only two-thirds of the quantity of imports that it would have commanded in 1972. With import prices rising so rapidly and export prices generally failing to keep pace, it is not surprising that the BoP has moved further into deficit.

3.13. That the worsening in the terms of trade is only partly attributable to the direct impact of higher oil prices is demonstrated in the lower half of the table, which excludes oil from both import and export indices. Here too it can be seen that import prices have generally risen much faster than export prices, except for the coffee/tea boom years of 1976-77. During those two years the world prices of the two principal staple exports reached unprecedented levels and presented the country with windfall gains. Thereafter, the deteriorating trend in the terms of trade continued to reassert itself.

3.14. A simple example for 1981 can illustrate the importance of the terms of trade to the country's BoP. In that year, there was deficit in the balance of trade of K£532 million. If import and export prices in 1981 had remained at their 1980 levels, revaluing 1981 import and export quantities in 1980 prices would reduce the deficit on the balance of trade to K£334 million. Comparing this latter figures with the actual deficit of K£532 million, it can be calculated that during 1981 price movements worsened the BoP by roughly K£198 million, which is twice as much as the total loss of reserves in that year. Of

EXPORT AND IMPORT PRICES, AND TERMS OF TRADE, 1972-1981

Table 3.3 1972 = 100

	1973	1974	1975	1976	1977	1978	1979	1980	1981
	(A) *Total Trade*								
1. Export prices	114	152	175	238	338	286	405	367	379
2. Import prices	114	178	225	261	282	298	345	451	571
3. Terms of trade*	100	85	78	91	120	96	88	81	66
	(B) *Trade Excluding Petroleum and Petroleum Products*								
4. Export prices	115	139	150	241	321	263	265	289	270
5. Import prices	115	158	194	225	245	268	297	353	405
6. Terms of trade*	100	88	79	95	131	98	89	82	67

*The terms of trade index is obtained by dividing the export index by the import index and multiplying by 100. It is thus an index of the import purchasing power of a unit of exports.

course, as happened during the 1976-77 coffee boom, there can be gains as well as losses. On a basis similar to the illustration provided above, it can be estimated that the boom brought a terms of trade gain to Kenya of about K£264 million in 1976-77. In general, however, changes in the terms of trade have been adverse, which has reduced the benefits Kenya obtains from its international trade and has had the effect of slowing the growth of the economy and of redistributing income from Kenya to the OPEC and OECD countries in particular.

Export Performance

3.15. It was pointed out earlier that all the deterioration in the BoP could decade under review. Referring to the data in Table 3.4, it can be seen this that export performance has been unimportant. To a large extent, it is the behaviour of export earnings which determines the country's ability to import; when exports are doing well, larger imports can be permitted without creating payments difficulties. In fact the performance of Kenya's export sector has been one of the chief underlying sources of difficulty over the decade under review. Referring to the data in Table 3.4, it can be seen from line 1 that the volume index of total exports in 1981 was a mere 4 per cent higher than in 1972. Admittedly, this index was influenced by the declining volume of exports of petroleum products but even taking the volume index for non-oil exports, the implied annual growth rate is only 1.9 per cent, which is below the overall growth of the whole economy. As a proportion of constant price GDP, exports declined from 37 per cent in 1972 to 29 per cent in 1981.

3.16. Lines 3 to 5 of Table 3.4 present indices for quantities of the country's three chief exports. If petroleum is again excluded as a special case, the indices for both coffee and tea, while they fluctuate considerably, show a better performance than for non-oil exports as a whole. Comparing 1981 with 1972, the tea industry achieved an average growth rate of 5.1 per cent per annum, and the equivalent rate for coffee was 3.7 per cent. While neither of these rates is spectacular, the country's modest export performance is not attributed to stagnation in the production of its traditional staple exports. Moreover, so long as the international coffee agreement remains in force with restrictive export quotas for Kenya, there are obvious limits on the extent to which it is desirable to encourage the growth of this industry. Even with tea there is a limit to which Kenya can expect always to sell its production on world markets.

3.17. It is the objective of the Government to develop dynamic major new lines of exports and especially new manufactured products. Indeed, further diversification of exports would be desirable, in order to minimize greater dependence on the two or three chief commodities over time, as is shown in Table 3.5. As can be observed, between 1972 and 1981 the share of the three

VOLUME INDICES OF EXPORTS 1973-1981

Table 3.4 (1972=100)

	1973	1974	1975	1976	1977	1978	1979	1980	1981
1. Total exports	115	111	101	107	111	103	101	104	104
2. Nun-oil exports	117	113	104	112	114	108	109	106	119
of which:—									
3. Coffee	119	113	107	123	149	135	122	127	140
4. Tea	109	105	111	125	148	180	199	158	159
5. Petroleum and petroleum products	99	97	81	88	87	74	64	99	100

main exports went up from 46 per cent of the total to 63 per cent. For manufactured petroleum products, exports made up 12.5 per cent of the total in 1972 and 29.9 per cent in 1981. Here price rises have been the major cause of the increase in relative importance. Against this, no large new export industries have come into being, although a number of minor products now make valuable contributions, horticultural products and cement being examples. However, the loss of the former East African market dealt a particular blow to producers of items for whose market their factories had been geared and the opportunities for compensatory sales to other nearby markets have been severely constrained.

SHARE OF MAJOR EXPORTS IN TOTAL EARNINGS, SELECTED YEARS.

Table 3.5 (percentages of total exports)

	Coffee, tea and petroleum products	Coffee and tea only
1972	45.9	33.4
1975	49.7	27.0
1978	67.1	50.8
1981	63.4	33.5

3.18. Coffee and tea farmers generally have fared better than producers of other non-oil exports in the relative prices received for their products. In the case of coffee, the real value of the producer price, deflated by the rural price index, stood at 98 by 1981. The tea price has kept pace with inflation, with the index at 100 in 1981. Against this, exporters of other agricultural produce have suffered considerable falls in the real prices they received.

3.19. It is particularly in the context of export incentives that exchange rate adjustment is important. In most cases Kenya is a price taker on world markets (although pyrethrum is a partial exception). World prices are determined by global supply and demand conditions and Kenya's influence is minimal. Therefore, what most determines the real return obtained by the export industries are the exchange rate and the rate of domestic inflation. Given the poor past performance of the export sector and the difficult present payments situation, it needs to be emphasized that a sustained improvement in the BoP must depend upon a more dynamic expansion of export sales. The incentives currently available probably need to be carefully examined to establish how changes might improve performance.

Summary

3.20. The salient facts emerging from the above analysis can be summarized as follows: —

The BoP problem has reached major proportions. With net reserves considerably reduced and large deficits on current account, the situation has deteriorated. It was in recognition of this that the Government embarked upon the policies set out in Sessional Paper No. 4 of 1980 and further developed in a Sessional Paper of 1982.

The BoP situation has had adverse effects on the growth of the economy, and shortages of foreign exchange are likely to continue to be the chief obstacle to accelerated growth and development in the next few years.

Statistically, all the BoP deterioration can be attributed to the rising import bill. In turn, all this was due to rising import prices which put a brake on the volume of imports relative to total economic activity.

With the exception of 1976-77, the general trend in the terms of trade has been severely adverse. A 24.fold increase in the price of oil is a principal cause of this and net oil imports now cost more than total export earnings from coffee and tea. However, non-oil price trends have also been strongly adverse for most of the period.

The BoP situation has been undermined by a relatively poor export performance, particularly outside the traditional staples of coffee and tea.

The break-up of the former East African Community and the movement of relative prices may have served to discourage the development of new exports.

CHAPTER 4—EMPLOYMENT, EARNINGS AND CONSUMER PRICES

Increases in employment in Kenya since 1979 have been mainly in the public sector. In the private sector, because of only limited growth in the economy as a whole, wage employment in 1981 was still below that of 1979, despite a rise of 1.1 per cent in numbers employed between 1980 and 1981. On the other hand, wage employment in the public sector rose by 2.7 per cent in 1981 following its increase of 11 per cent in 1980. In 1981 the small rise in numbers in wage employment in private sector agriculture of 0.7 per cent was a disappointment, especially after the good rains experienced between March and May. It seems that employers were still being affected by the poor agricultural year of 1980 when drought reduced output and incomes quite appreciably. Another sector which returned disappointing results in 1981 was building and construction. Here total wage employment fell by 3 per cent, reversing the trend to higher employment apparent since 1978.

4.2. The total number working in the modern sector of the economy, both employed and self-employed and including those engaged in informal establishments in urban areas, is estimated at 1,243,700 in 1981 compared with 1,190,800 in 1980 and 1,063,800 in 1977. These figures show increases of 4.4 per cent in 1981 and an annual growth rate of 3.9 per cent from 1977 to 1981. Compared with the target of 50,000 new employees in the modern sector of the economy each year, envisaged in the current development plan, the average increase between 1977 to 1981 of 44,975 per year reflects a small shortfall. In 1981 itself there were 18,500 new wage employees and 34,200 more persons working in informal establishments in urban areas. However, the increase of 34,200 includes the results of an extension of the scope of the enquiry to more of the smaller urban centres. It might be the case that because of the limited opportunities for wage employment, more new entrants to the labour force took up work in the informal sector occupations.

Employment

4.3. During 1981 total wage employment in the modern sector went up by 1.8 per cent, compared with an increase of 3.4 per cent recorded in 1980. In absolute terms, as shown in Table 4.1, persons in wage employment rose from 1,005,800 in 1980 to 1,024,300 in 1981, a rise of 18,500. The number of self. employed and unpaid family workers in 1981 remained almost the same as in 1980 but for persons engaged in the informal sector there was a sharp increase of 27.8 per cent. This rise was, however, to some extent due to an expanded coverage of the enquiry in 1981 when more trading centres outside the major urban areas were covered.

4.4. The details of the changes in employment by industry in the private and public sectors are given in Table 4.2. Total employment in agriculture and forestry rose by 1.8 per cent in 1981 despite an increase of only 0.7 per

PERSONS ENGAGED : RECORDED TOTALS, JUNE 1978-1981

Table 4.1 '000's

	1978	1979	1980	1981*
Modern Establishments—Urban and Rural Areas—				
Wage Employees	911.6	972.3	1,005.8	1,024.3
Self-employed and unpaid family workers	59.6	63.0	61.9	62.1
Informal Establishments-Urban Areas	113.9	121.6	123.1	157.3
Total	1,085.9	1,156.9	1,190.8	1,243.7

*Provisional

WAGE EMPLOYMENT BY INDUSTRY AND SECTOR, 1978 -1981

Table 4.2 '000's

	1978	1979	1980	1981*
Private Sector				
Agriculture and Forestry	189.0	193.9	172.5	173.7
Mining and Quarrying	1.9	2.0	1.7	1.5
Manufacturing	105.3	112.0	111.4	116.7
Electricity and Water	—	0.1	0.1	0.2
Construction	28.6	32.5	31.7	32.6
Wholesale and Retail Trade, Restaurants and Hotels	59.6	64.4	66.0	67.7
Transport and Communications	20.6	23.3**	23.0**	18.9
Finance, Insurance, Real Estate and Business Services	25.9	28.1	31.9	31.1
Community, Social and Personal Services	90.6	91.3	95.9	97.9
Total	521.6	547.6	534.3	540.2
Public Sector—				
Agriculture and Forestry	54.1	60.7	58.9	61 .9
Mining and Quarrying	0.6	0.6	0.6	0.7
Manufacturing	24.8	26.4	29.9	29.7
Electricity and Water	9.3	9.8	10.0	10.0
Construction	26.7	28.8	31.5	28.7
Wholesale and Retail Trade, Restaurants and Hotels	3.0	4.3	4.5	4.9
Transport and Communications	30.3	31.5	32.2	36.5
Finance, Insurance, Real Estate and Business Services	6.1	7.5	7.8	8.4
Community, Social and Personal Services	235.2	255.1	296.2	303.4
Total	390.0	424.8	471.5	484.1

*Provisional
**This figure is thought to have been overstated.

cent in the private sector. The small rise in private sector employment of only 1,200 was despite the much improved climatic conditions benefiting agriculture last year. It must not be overlooked that the smallholder sector of agriculture which every year is increasing its share of total output is not covered in

the wages enquiries so the rise of only 1.8 per cent in agricultural employment in 1981 may understate what actually occurred. In manufacturing the rise in employment was 3.6 per cent. Despite its quite rapid rise since 1978, employment in modern establishments in the manufacturing sector is still significantly below that of agriculture and forestry, where the total reached 235,600 in 1981.

4.5. Industries which showed falls in employment in 1981 included construction, down by 3 per cent because the impact of lower real spending on investment began to be felt; and finance, insurance, real estate and business services where employment fell fractionally. Elsewhere there were generally moderate gains. The fall of 4,100 shown in private sector employment in transport is mainly the result of inaccurate returns received for earlier years. If corrections were made, there would probably be a rise of 5 to 6 per cent in total employment in transport and communications in 1981.

4.6. Wage employment in the public sector is shown by industry in Table 4.2 and by employer in Table 4.3. The most significant changes recorded in public sector employment in 1981 were a fall of 8.9 per cent for construction and a rise of 13.4 per cent for transport and communications. Compared to earlier years the rise in total employment in 1981 was much lower at only 2.7 per cent. The Central Government actually reduced its employment after large rises in both 1979 and 1980 but there were increases of 6.0 per cent in employment by parastatal bodies and of 5.3 per cent in employment by companies with majority control by the state. There was only a very small increase in employment by local authorities.

WAGE EMPLOYMENT IN THE PUBLIC SECTOR, 1978 - 1981

Table 4.3 '000's

	1978	1979	1980	1981*	Annual Percentage Change 1980/81
Central Government	168.9	197.3	214.8	214.5	-0 1
Parastatal Bodies**	168.0	170.1	187.0	198.3	6.0
Majority Control by the Public Sector	20.2	23.4	30.0	31 6	5.3
Local Government	32.9	33.8	39.6	39.7	0.2
Others+		0.1	0.1	—	—
Total	390.0	424.7	471.5	484.1	2.7

*Provisional.

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

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

4.7. Details of employment by province are given in Table 4.4. Taking first the changes since 1980, the largest rise in absolute terms was in Nairobi but in proportionate terms the biggest increases were in the North-Eastern and Western provinces. Relative to the overall average increase of 1.8 per cent for the country as a whole during 1981, the Rift Valley, Eastern and Coast provinces all experienced falls. Rather more interest attaches to the trends over the whole period covered by Table 4.4, 1978-81. Over that period there was a country-wide increase in recorded employment of 12.4 per cent but some provinces did considerably better than others. The largest proportionate gainer was the North-Eastern Province, where the figure increased by 57.1 per cent, although the absolute numbers for this province are, of course, tiny. The Western Province was the second-largest gainer, with a rise of 23.1 per cent. Nairobi came third (16.4 per cent) and the Nyanza, Eastern and Coast province, (14.4,13.4 and 13.7 per cent) also did a little better than the national average. The chief relative loser over these years was Rift Valley (4.1 per cent). Clearly, the geographical pattern of employment is changing over time.

WAGE EMPLOYMENT BY PROVINCE, 1978-1981

Table 4.4 '000's

Province	1978	1979	1980	1981*	Percentage Change 1980/81
Nairobi	244.4	260.8	274.2	284.5	3.8
Central	137.6	145.8	149.6	152.6	2.0
Nyanza	67.3	72.0	74.5	77.0	3.4
Western	42.5	46.0	49.5	52.3	5.7
Coast	122.7	132.0	139.3	139.5	0 2
Rift Valley	221.1	234.4	232.6	230.2	-1.0
Eastern	71.0	76.0	80.6	80.5	-0.1
North Eastern	4.9	5.3	5.5	7.7	40.0
Total	911.5	972.3	1,005.8	1,024.3	1.8

*Provisional

4.8. Wage employment in all urban areas accounted for 54.8 per cent of total employment in 1981. While between 1976 and 1981 employment in all urban areas went up by 53.7 per cent, the growth in Nairobi was only 38.1 per cent, while total employment in all other towns went up from 159,000 to 276,500, or by 73.9 per cent. Towns other than Nairobi have continued to record higher rates in the growth of wage employment as a result of the policy pursued to shift and spread employment opportunities away from the capital to the smaller centres. Table 4.5 shows changes in wage employment for six selected sectors by major towns from 1976 to 1981. Total wage employment in 1981 in the six listed major towns represents 43.8 per cent of the national

WAGE EMPLOYMENT BY MAJOR TOWNS AND SELECTED INDUSTRIES, 1976 and 1981

Table 4.5

'000's

	Manufacturing		Construction		Trade, Restaurants and Hotels		Transport and Communica-tions		Finance, Insurance, Real Estate and Business Services		Community Socia and Personal Services	
	1976	1981	1976	1981	1976	1981	1976	1981	1976	1981	1976	1981
Nairobi	46.3	54.7	30.6	32.8	28.6	33.4	18.8	20.3	17.9	27.5	77.1	103.9
Mombasa	13.9	19.6	2.7	4.7	9.1	11.4	19.9	25.6	2.8	4.6	23.3	25.0
Kisumu	2.7	3.9	1.1	1.1	1.6	1.6	2.2	1.3	0.7	0.7	5.2	7.6
Nakuru	3.8	5.6	1.3	1.6	2.2	2.8	0.9	0.8	0.5	0.8	5.1	7.8
Thika	7.5	9.4	0.3	0.4	0.5	1.0	0.1	0.1	0.8	0.4	2.3	3.1
Eldoret	3.3	7.6	0.2	1.3	1.0	1.2	0.7	0.5	0.4	0.6	2.8	4.1
Other Towns	9.0	13.2	3.0	6.1	8.5	9.2	3.3	3.0	1.6	3.0	28.3	61.9
Total	86.5	114 0	39.2	48.0	51.5	60.7	45.9	51.7	24.7	37.6	144.1	213.4

wage employment. Wage employment in manufacturing in all urban areas grew by 31.8 per cent between 1976 and 1981. Over the same period, employment in construction; trade, restaurants and hotels; and transport and communication grew more slowly, recording increases of 22.4 per cent, 17.9 per cent, 12.6 per cent respectively. On the other hand, employment in finance, insurance, real estate and business services grew by 52.2 per cent, while employment rose by 48.1 per cent in community, social and personal services. Looking at the geographical spread set out in Table 4.5, in 1981, 52 per cent of manufacturing employment was in towns other than Nairobi, compared with 46 per cent in 1976. In construction, on the other hand, there was an increase in the concentration in Nairobi, with a rise in the share of the capital city from 22 to 32 per cent. The changes for the other sectors recorded in the table were minor.

WAGE EMPLOYMENT BY CITIZENSHIP AND INDUSTRY, 1980 AND 1981

Table 4.6 '000's

	Citizens		Non-Citizens		Total	
	1980	1981*	1980	1981*	1980	1981*
Agriculture and Forestry	230.1	234.4	1.3	1.1	231.4	235.5
Mining and Quarrying	2.3	2.1	**	**	2.3	2.1
Manufacturing	139.2	144.2	2.1	2.1	141.3	146.3
Electricity and Water	10.1	10.1	0.1	0.1	10.2	10.2
Construction	62.1	60.1	1.2	1.3	63.3	61.4
Trade, Restaurants and Hotels	69.6	71.9	0.9	0.7	70.5	72.6
Transport and Communications	54.6	54.9	0.5	0.4	55.1	55.3
Finance, Insurance, Real Estate and Business Services	38.3	38.1	1.5	1.4	39.8	39.5
Community, Social and Personal Services—						
Public Administration	115.8	121.6	0 2	0.2	116.0	121.8
Education Services	145.4	149.1	2.2	2.5	147.6	151.6
Domestic Services	53.4	54.3	2.0	2.4	55.4	56.7
Other Services	71.4	69.7	1.5	1.6	72.9	71.3
Total	992.3	1,010.5	13.5	13.8	1,005.8	1,024.3
Of which: Males	818.0	829.1	11.0	10.8	829.0	839.9
Females	174.3	181.4	2.5	3.0	176.8	184.4

*Provisional.

**Less than 50.

4.9. Details of wage employment by industry, citizenship and sex are set out in Table 4.6. Although non-citizen employment in 1981 represented 1.3 Per cent of total wage employment, the number of non-citizens had increased from 13,500 to 13,800. The rise is due to increased non-citizens employment in construction, education and domestic services. Despite a 3.0 per cent fall in wage employment in the construction industry, non-citizen employment rose

from about 1,200 in 1980 to 1,300 in 1981. Most of the increase in non-citizen employment in educational services was due to the expansion of technical institutes and other institutes of higher learning. With the exception of manufacturing, employment of non-citizens fell in all other sectors in 1981, especially in trade, restaurants and hotels where a decrease of approximately 200 persons was recorded. The share of female employment in total wage employment rose from 17.6 per cent in 1980 to 18.0 per cent in 1981, continuing the trend apparent for a number of years for relatively more women to be employed in the modern sector of the economy.

Earnings

4.10. Details of total wage payments are shown in Table 4.7. The total wage bill grew by 18.8 per cent during 1981. There was a large rise in public sector wage payments of 23.6 per cent resulting from acceptance of the recommendations of the Waruhiu Commission in 1980. This increase reversed the trend of recent years for increases in public sector earnings to lag behind

ESTIMATED TOTAL WAGE PAYMENTS BY INDUSTRY AND SECTOR, 1978-1981

Table 4.7 K£'000

	1978	1979	1980	1981*
Private Sector				
Agriculture and Forestry	30,246.3	33,989.5	37,000.7	41,309.0
Mining and Quarrying	581.7	653.5	565.7	607.7
Manufacturing	65,200.9	72,099.9	82,620.1	97,375.6
Electricity and Water	10.7	41.9	92.2	156.1
Construction	16,095.7	18,722.8	22,453.1	26,446 9
Wholesale and Retail Trade Restaurants and Hotels	44,278.3	53,855.0	67,025.5	75,462.8
Transport and Communication	16,383.2	20,895.4	22,469.0	21,383.4
Finance, Insurance, Real Estate and Business Services	29,360.2	36,903.3	47,639.8	55,392.9
Community,Social and Personal Services	31,240.4	37,092.4	46,912.0	53,640.1
Total	233,397.4	274,253.7	326,778.1	371,774.5
Public Sector-				
Agriculture and Forestry	24,719.1	28,854.9	23,309.0	26,954.2
Mining and Quarrying	804.3	942.6	1,039.0	1,197 0
Manufacturing	14,994.5	17,982.3	23,534.3	23,838.9
Electricity and Water	5,545.1	6,958.2	7,816.8	10,230 0
Construction	14,280.2	17,235.0	15,014.0	18,054.7
Wholesale and Retail Trade, Restaurants and Hotels	2,708.2	3,471.4	4,590.6	6,243.6
Transport and Communications	25,860.8	31,865.4	35,665.6	45,171.9
Finance, Insurance, Real Estate and Business Services	8,937.4	10,874.9	14,309.4	18,334 4
Community, Social and Personal Services	151,577.1	171,070.8	212,063.8	265,893.1
Total	249,426.7	289,255.5	337,342.5	416,917.4

*Provisional.

the private sector. In the private sector the wage bill increased by 13.8 per cent in 1981, a rate in line with the rises of earlier years. There was a generally harmonious relationship existing in the negotiation of increased wages in the private sector in 1981 together with some realization of a more difficult employment situation.

4.11. Total payments by the various public sector employees are compared in Table 4.8. The Central Government and parastatal bodies account for more than 80 per cent of total wages paid in all years shown but their relative importance fell from 87.6 per cent in 1978 to 84.5 per cent in 1981. The

TOTAL WAGE PAYMENTS IN THE PUBLIC SECTOR, 1978-1981

Table 4.8 K£Million

	1978	1979	1980	1981*
Central Government	112.9	137.1	153.6	193.3
Parastatal Bodies**	105.7	116.1	133 6	169.1
Majority Control by the Public Sector	13.5	16 8	22.5	26 3
Local Government	17.4	19.1	27.5	28.2
TOTAL+	249.5	289.2	337.3	416.9

*Provisional.

**Includes Teachers Service Commission, Kenya Railways Corporation, Kenya Airways Ltd. etc.

+lncludes E.A. Development Bank, and Kenya Examinations Council, whose payments vary around K£50,000 a year.

increase in total wage payments by companies majority controlled by the state has been 95 per cent in the three years since 1978, compared with the overall increase for all public sector wage payments of 67 per cent.

4.12. Average earnings per employee and industry are detailed in Table 4.9. The increase in wages due to the adoption of the Waruhiu Commission report had the effect of raising the average remuneration of public sector employees from K£715 in 1980 to K£861 per employee in 1981. For the private sector the increase was from K£612 to K£688. Private sector average earnings tend to be held down by the low level of wages paid in the agriculture sector. The overall increase in average earnings was from K£660.3 to K£770 per employee in modern sector establishments.

4.13. The percentage increase for all employees in 1981 was 16.6 per cent with a rise of 20.4 per cent for public sector workers and one of 12.5 per cent for those in the private sector. The rise of 26 per cent for Central Government employees has already been commented on. Average earnings per employee went up by 10.9 per cent in private sector agriculture while in manufacturing the increase was 12.5 per cent. Average earnings of employees

AVERAGE WAGE EARNINGS PER EMPLOYEE, 1978-1981

Table 4.9

	1978	1979	1980	1981*
Private Sector—				
Agriculture and Forestry	159.8	175.4	214.5	237.9
Mining and Quarrying	315.8	350.0	352.9	412.0
Manufacturing	619.1	643.8	741.5	834.5
Electricity and Water	411.5	460.4	653.9	772.8
Construction	562.9	575.4	709.8	810.8
Trade, Restaurants and Hotels	743.3	837.0	1,015.2	1,114.7
Transport and Communications	801.0	897.0	978.3	1,132.9
Finance, Insurance, Real Estate and Business Services	1,135.1	1,313.1	1,487.5	1,781.7
Community, Social and Personal Services	344.4	406.4	489.1	547.9
Total Private Sector	447.7	501.0	611.6	688.2
Public Sector—				
Agriculture and Forestry	457.3	475.7	396.0	435.6
Mining and Quarrying	1,331.6	1,457.1	1,646.0	1,808.2
Manufacturing	604.9	642.8	788.4	837.7
Electricity and Water	598.6	707.7	779.3	1,024.3
Construction	535.7	599.0	477.3	628.1
Trade, Restaurants and Hotels	914.3	804.0	1,025.1	1,273.7
Transport and Communications	853.2	1,012.7	1,081.9	1,238.5
Finance, Insurance, Real Estate and Business Services	1,467.6	1,441.3	1,829.6	2,174.3
Community, Social and Personal Services	644.4	670.6	716.0	876.4
Total Public Sector	639.7	681.0	715.5	861.2
Total	529.8	579.6	660.3	770.0
Memorandum Items in Public Sector—				
Central Government	668.4	694.9	715.1	901.2
Parastatal Bodies**	629.2	682.5	714.4	852.8
Majority Control by the Public Sector	668.3	717.9	750.0	832.3
Local Government	528.9	565.1	694.4	710.3
Total Public Sector	639.7	681.0	715.4	861.2

*Provisional.

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

in private sector construction went up by 14.2 per cent and there was a rise of 9.8 per cent for employees in trade, restaurants and hotels. A large increase was recorded by employees in finance, insurance, real estate and business services, of 19.8 per cent. The 26.0 per cent rise in average earnings of employees in the Central Government may be compared to one of 19.4 per cent in parastatal bodies. For employees in local government the overall recorded increase was only 2.3 per cent but there are doubts about the reliability of this figure.

4.14. The share of agriculture and forestry in wage employment in both the public and private sectors, with 23.0 per cent of the total working in 1981, makes this the largest employing sector. Yet employees in agriculture and forestry earned only 8.7 per cent of total wage payment in the same year. Although average earnings in this industry increased by 11.2 per cent over 1980, the 1981 average of K£238 is still only 31 per cent of the national average of K£770.

4.15. This is the first year in which Table 4.9 has been presented so as to facilitate comparisons between earnings in private and public employment across the various sectors of activity and some interesting facts emerge. The chief one is that there is a clear tendency for earnings to be higher in the public sector in most of the productive sectors. The only significant exception to this is in construction, where public sector earnings are well below the private sector equivalent. But in agriculture, electricity and water, and financial, social and personal service activities there is a marked differential in favour of the public sector. There is a more modest differential in favour of the public sector in trade, restaurants and hotels, and transport and communications. However, average of this nature sometimes hide more than they reveal. It is always necessary to make comparisons for different occupations by industry to draw meaningful conclusions.

4.16. As shown in Table 4.10, there was an increase of 16.6 per cent in the average nominal earnings in 1981 over 1980. Compared with an average increase of 12.6 per cent in consumer prices there was thus a rise of 3.6 per cent in real earnings in 1981, as shown in Table 4.11. After the decreases of 3.4 per cent in 1977 over 1976 and 1.2 per cent in 1978 over 1977, real earnings have now regained the losses with rises of 0.9 per cent in 1979 over 1978 and also 0.9 per cent in 1980 over 1979. The 1981 figure of K£387.1 at 1975 prices shows employees enjoying real earnings almost equivalent to those of 1976 when they stood at K£388.7.

4.17. Details of changes in real earnings are set out in Table 4.12. Unlike the past three preceeding years, real earnings went up by 6.9 per cent in the public sector in 1981 over 1980, while there was no significant change in the major industries of the private sector. The most significant increase in the public sector was recorded for employees of the Central Government whose real earnings went up by 12.0 per cent. At the same time there was a decrease of 9.1 per cent in real earnings for employees in local government and a decrease of 1.4 per cent in companies where the state has majority control. Despite the large rise in real earnings by Central Government employees in 1981 their wages measured at 1975 prices were a little below the 1978 level, whereas for most private sector industries an increase had been recorded.

PERCENTAGE CHANGE IN WAGE EMPLOYMENT AND AVERAGE EARNINGS, 1976-1981

Table 4.10

	Employment		Average Earnings	
	1976-81*	1980-81*	1976-81*	1980-81*
Private Sector—				
Agriculture and Forestry	-8.1	0.7	48.9	10.9
Mining and Quarrying	-21.1	-11.8	30.5	16.7
Manufacturing	10.8	4.8	34.8	12.5
Electricity and Water	573.3	43.3	134.2	18.2
Construction	14.0	2.8	44.0	14.2
Trade, Restaurants and Hotels	13.6	2.6	50.0	9.8
Transport and Communications	-8.3	.17.8	41.4	15 8
Finance, Insurance, Real Estate and Business Services	20.1	-2.5	57.0	19.8
Community, Social and Personal Services	8.1	2.1	59.1	12.0
Total Private Sector	3.6	1.1	53.7	12.5
Public Sector—				
Agriculture and Forestry	36.5	5.1	5.0	10.0
Mining and Quarrying	-78.3	16.7	304.8	9.9
Manufacturing	43.1	-0.7	54.4	6.3
Electricity and Water	17.0	—	71.9	31.4
Construction	69.1	-8.9	28.0	31.6
Trade, Restaurants and Hotels	117.4	8.9	58.0	24.3
Transport and Communications	22.7	13.4	65.9	11.7
Finance, Insurance, Real Estate and Business Services	83.5	7.7	79.7	18.8
Community, Social and Personal Services	33.4	2.4	62.4	22.4
Total Public Sector	24.1	2.7	34.6	20.4
Total Private and Public	12.4	1.8	45.3	16.6
Memorandum Items in Public Sector—				
Central Government	27.0	-0.1	34.8	26.0
Parastatal Bodies**	18.0	6.0	35.5	19.4
Majority Control by the Public Sector	56.4	5.3	24.5	11.0
Local Government	20.7	0.3	34.3	2.3
Total Public Sector	24.1	2.7	34.6	20.4

*Provisional.

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

Wage Awards

4.18. The basic minimum monthly wages announced in May 1980 were still in force in 1981, with the minimum monthly consolidated wages for agricultural workers set at K.Sh. 215 and K.Sh. 154 for those under 18 years of age. In Nairobi and Mombasa, the minimum for unskilled workers

CHANGES IN WAGE EMPLOYMENT, AVERAGE WAGES AND CONSUMER PRICES, 1978-1981

Table 4.11 *Percentage*

	1978	1979	1980	1981*
Wage employment	1.0	6.7	3 4	1.8
Current prices average wages	10 9	9.4	13.9	16.6
Consumer prices**	12.6	8.4	12.8	12.6
Real average wages	-1.2	0.9	0.9	3.6

*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,

remained at K.Sh. 456 per month while in other municipalities and urban councils the minimum was K.Sh. 418 with a basic minimum of K.Sh. 266 for all other areas. In 1981, 174 collective wage agreements of an average duration of 25 months were concluded and registered with the Ministry of Labour compared with 230 such agreements in 1980. Employees covered by these agreements received wage increases related to the norms established for the sector concerned. Arising from these agreements, average minimum monthly wage awards in the establishments affected were K.Sh. 593, K.Sh. 1,116 and K.Sh. 3,544 for lower, middle and upper income groups respectively.

Consumer Prices

4.19. Nairobi consumer prices for 1981 increased by 11.7, 13.8 and 12.3 per cent for the lower, middle and upper income groups, respectively, as shown in Table 4.13. This resulted in an (unweighted) average increase of 12.6 per cent for 1981, similar to the 12.8 per cent for 1980. Although prices increased sharply during December 1981, the inflation rates were lower than expected because prices rose less steeply during the first half of the year.

4.20. Over the year, the highest increase was recorded in fuel and power prices which was in turn translated into higher prices for transport services. The fuel and power index and the health and personal care index numbers went up more steeply than in 1980. Fuel prices increased by 21.0 per cent, while the health and personal care index increased by 15.8 per cent. Food prices increased by 11.8 per cent, prices for transport services increased by 16.4 per cent and rent went up by 12.9 per cent.

4.21. Inflationary pressures increased for the last quarter of 1981 due to the sales tax increases of the June 1981 budget, the devaluation of the Kenya shilling in September 1981 and the sharp increase in prices of food items during December 1981. Comparing March 1982 with March 1981, there was an average increase in the indices of 22.8 per cent. The highest increase were recorded in the food, fuel and power, health and personal care, and transport services groups, with most increases over 20.0 per cent.

4.22. Consumer price indices for Mombasa, Kisumu and Nakuru are given in Table 4.15. As compared with Nairobi, where on average prices rose by 52 per cent between June 1977 and June 1981, for Mombasa the increase was 64 per cent, for Kisumu 52 per cent and Nakuru it was 60 per cent.

ESTIMATED REAL AVERAGE WAGE EARNINGS** PER EMPLOYEE, 1978-1981

Table 4.12

	1978	1979	1980	1981*
Private Sector—				
Agriculture and Forestry	110.7	112.0	131.4	119.6
Mining and Quarrying	218.7	223.6	199.7	207.1
Manufacturing	429.7	411.4	419.6	419.6
Electricity and Water	285.0	294.2	370.1	388.5
Construction	389.8	367.7	401.7	407.6
Trade, Restaurants and Hotels	514.8	534.8	574.5	560.4
Transport and Communications	554.7	573.2	553.7	569.6
Finance, Insurance, Real Estate and Business Services	786.1	839.1	841.8	695.8
Community, Social and Personal Services	238.5	295.5	276.8	275.5
Total Private Sector	310.0	320.1	346.1	346.0
Public Sector—				
Agriculture and Forestry	316.7	304.0	224.1	219.0
Mining and Quarrying	922.2	931.1	931.5	909.1
Manufacturing	418.9	410.7	446.2	421.2
Electricity and Water	414.5	452.2	441.0	515.0
Construction	371.0	382.7	270.1	315.8
Trade, Restaurants and Hotels	633.2	513.7	580.1	640.4
Transport and Communications	590.9	647.1	627.6	622.7
Finance, Insurance, Real Estate and Business Services	1,016.3	921.0	1,035.4	1,093.2
Community, Social and Personal Services	446.3	428.5	405.2	440.6
Total Public Sector	443.0	345.1	404.9	433.0
Total	366.9	370.3	373.7	387.1
Memorandum Items in Public Sector—				
Central Government	462 9	444.0	404.7	453.1
Parastatal Bodies+	435.7	436.1	404.3	428.8
Majority Control by the Public Sector	462.8	458.7	424.4	418.5
Local Government	366.3	361.1	393.0	357.1
Total Public Sector	443.0	435.1	404.9	433.0

*Provisional.

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

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

PERCENTAGE INCREASES IN NAIROBI CONSUMER PRICES, 1977-MARCH, 1982

Table 4.13

	1978/77	1979/78	1980/79	1981/80	March 1981 to March, 1982
Nairobi Lower Income Index	17.0	8.0	13.8	11.7	20.4
Nairobi Middle Income Index	10 3	7.2	11.6	13.8	27.5
Nairobi Upper Income Index	9.6	101	130	12.3	20.5
Average Increases	12.3	8.4	12.8	12.6	22.8

NAIROBI CONSUMER PRICES INDICES, 1978-1982

Table 4.14 *January-June*, 1975 = 100

	Food	Rent	Others	All Groups
Lower Income—				
December—1978	147.8	187.7	152.8	162.3
December—1979	159.5	205.1	168.2	177.1
December—1980	185.3	232.0	183.8	200.3
December—1981	219.7	277.6	223.7	239.0
March—1982	228.4	287.9	234.5	247.9
Middle Income—				
December—1978	141.1	158.7	134.8	141.0
December—1979	154.8	175.3	148.6	155.7
December—1980	178.0	195.2	160.4	173.3
December—1981	211.0	243.5	210.1	216.3
March—1982	216.8	255.1	221.6	226.5
Upper Income—				
December—1978	149.9	145.7	142.7	145.1
December—1979	162.0	164.1	160 5	163.7
December—1980	185.1	186.1	181.3	185.4
December—1981	214.1	221.0	221.5	220.5
March—1982	219.0	229.5	231.4	229.0

4.23. During 1981, consumer prices in Mombasa, Kisumu and Nakuru increased by 15.8, 17.0 and 13.8 per cent, respectively. These increases were higher than for 1980 and were also higher than for Nairobi, with, major increase recorded for the last quarter of 1981. In Mombasa, all groups except the food group rose more steeply than in 1980. Prices for food items increased by 12.5 per cent, for fuel and power by 18.5 per cent, for transport services by 23.0 per cent, for health and personal care by 16.2 per cent, and for clothing and footwear by 17.2 per cent. In Kisumu, prices rose steeply with all groups increasing by over 12.0 per cent. Prices of food, fuel and power, drinks and tobacco, and transport services increased by 16.8, 21.5, 17.1 and

CONSUMER PRICE INDICES FOR MOMBASA, KISUMU AND NAKURU

Table 4.15 *Base*: 1976 = 100

	Mombasa	Kisumu	Nakuru
June 1977	110.0	108.9	106.3
December 1977	113.9	112.4	110.9
June 1978	119.0	118.6	119.5
December 1978	123.4	121.1	124.8
June 1979	143.4	126.6	140.0
December 1979	151.6	131.7	146.2
June 1980	159 5	145.1	152.1
December 1980	167.7	156.4	161.4
June 1981	179.9	165.2	170.4
December 1981	208.8	192.2	193.5

*The above consumer price indices exclude Rent.

23.8 per cent, respectively. In Nakuru, prices of food rose by 12.9 per cent whilst fuel and power and transport services increased by 9.6 and 25.6 per cent, respectively.

4.24. With the strengthening of price collection methods in rural areas, indices are now calculated for all the provinces except the North-Eastern Province. The rural inflation rate for 1981 is estimated to have been 16.3 per cent, compared with 12.4 per cent in 1980. Most rural areas had large increases for food, fuel and power and transport services. The largest increases were recorded in food prices which, on average, increased by 19.2 per cent, as compared to 15.3 per cent in 1980. Prices for fuel and power, transport services, health and personal care, and clothing and footwear increased by 11.0, 14.3, 12.1 and 13.4 per cent, respectively. Taking the period 1978.81, there appears to be a tendency for somewhat more inflation in the rural areas than in the towns. The rural inflation rate for this period was an estimated 12.5 per cent annually, against 10.6 per cent in Nairobi.

CHAPTER 5—MONEY, BANKING AND FINANCE

The monetary aggregates reflect to some extent what has been happening in the economy as a whole. Poor foreign exchange earnings stemming from the depressed demand for Kenya's major primary exports coupled with the high cost of more expensive imports caused serious external financing problems in 1981. The capital inflow during the year was not large enough to offset the current account deficit and the payments gap had to be financed by running down the country's sparse foreign reserves. Government expenditure also increased substantially during the year with the result that there was a requirement to borrow large sums domestically in order to finance the budgetary deficit. However, the overall increase in money supply was limited because of the fall in the net foreign assets and an increase of only 9.9 per cent in credit to the private sector, partly because of large claims on credit by the public sector. The overall rise in the money supply in 1981 was 13.3 per cent, which was below the rate of increase in the GDP at current prices.

MONETARY INDICATORS, 1978-1982

Table 5.1

Date	Net Foreign Assets K£m.	Domestic Credit			Money** Supply K£m.	Liquidity Ratio per cent	Advances/ Deposits Ratio per cent
		Private* K£m.	Government K£m.	Total K£m.			
1978 December	106	468	145	613	706	23	76.5
1979 December	179	536	156	692	820	23	77.6
1980 December	113	614	166	780	810	18	87.3
1981 March	102	616	244	861	858	23	84.3
June	68	625	221	846	824	20	84.3
September	-2	635	317	951	881	23	81.7
December	15	675	294	969	918	21	84.1
1982 January	-15+	705	257+	962	876	18	91.0
February	-20+	696	338+	1,034	904	20	87.1

Source: Data provided by the Central Bank of Kenya.

*Includes parastatal bodies.

**See Table 5.2 for Coverage.

+Provisional.

5.2. Table 5.1 summarizes the main monetary indicators and illustrates some of the points noted above. Over the year, net foreign assets declined rapidly from K£113 million in December, 1980 to K£68 million in June, 1981 and further to a negative K£2 million in September before recovering to K£15 million in December, 1981. The negative total of net foreign assets at September, 1981 meant that current foreign liabilities then incurred exceeded foreign assets and urgent action was required to increase these assets and restore a positive balance. This was achieved by negotiating a new Eurocurrency loan, the first tranche of which was utilized during the last

quarter of the year. Domestic credit, which had grown by 12.9 per cent in 1979 and by 12.7 per cent in 1980, expanded by 24.2 per cent in 1981 to reach K£969 million by the end of the year. Central Government borrowing from the banking system rose by 77.1 per cent from K£166 million in December, 1980 to K£294 million at the same date in 1981 but borrowing by the private sector rose by only 9.9 per cent compared to the growth of 14.6 per cent a year earlier. The liquidity of the commercial banks, which had fallen sharply during 1980, improved from a ratio of 18 per cent in December, 1980 to 21 per cent at the end of 1981, while the advances/deposits ratio fell from 87.3 per cent in December, 1980 to 84.1 per cent at December, 1981. In the first two months of 1982 the situation revealed by the monetary aggregates was one of continued strain. Net foreign assets which had improved in December dropped to a negative K£20 million in February. Government borrowing from the banking system which had dropped in January rose sharply to K£338 million in February and this was a major factor leading to the K£28 million expansion in money supply.

MONEY AND QUASI-MONEY SUPPLY, 1976-1982

Table 5.2 K£'000

As at end of	Money*	Quasi. Money**	Total
1976	283,715	139,018	422,733
1977	421,368	199,287	620,655
1978	456,057	240,833	705,890
1979	531,847	287,964	819,811
1980	494,977	315,424	810,401
1981—			
January	505,521	315,473	820,994
February	512,224	325,834	838,058
March	522,635	335,013	857,648
April	514,285	331,232	845,517
May	506,509	342,869	849,378
June	486,333	337,603	823,935
July	537,246	353,078	890,324
August	536,020	357,339	893,359
September	528,296	352,310	880,606
October	552,932	353,734	906,666
November	556,911	361,657	918,568
December	556,277	362,944	918,221
1982—			
January	527,627	348,575	876,202
February	551,974	351,642	903,642

*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.

Source: Data provided by the Central Bank of Kenya

CONSOLIDATED ACCOUNTS OF THE BANKING SYSTEM, 1977-1981

Table 5.3 K£'000

	As at the end of							
	1977	1978	1979	1980	1981			
					1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
LIABILITIES—								
1. Money:								
1.1 Demand Deposits	254,753	272,230	316,363	290,694	294,107	307,392	300,104	318,718
Other	54,727	71,089	50,134	67,106	74,180	61,128	76,552	79,013
1.2 Currency in Circulation:—								
Notes	117,169	127,978	147,398	167,232	161,251	158,419	173,320	194,042
Coins	4,004	4,163	4,779	4,970	4,875	5,080	5,098	5,473
SUB-TOTAL	430,653	475,460	518,674	530,002	534,413	532,019	555,074	594,246
2. Quasi-Money:								
2.1 Savings Deposits	104,157	119,065	132,461	147,381	151,286	156,188	161,945	175,040
2.2 Time Deposits	95,131	121,834	155,834	168,044	183,727	181,415	190,364	187,904
3. Other Items (Net)	5,217	3,687	64,531	47,732	92,964	44,506	42,075	23,716
SUB-TOTAL	204,055	244,586	352,495	363,157	427,977	382,109	394,384	386,660
TOTAL	635,158	720,046	871,169	893,159	962,390	914,128	949,458	983,906
ASSETS—								
4. Net Foreign Assets	181,230	106,435	179,395	113,226	101,661	68,007	-1,978	15,021
5. Domestic Credit:								
5.1 Central Government (Net)	80,833	145,459	156,133	165,974	244,378	221,478	316,724	293,911
5.2 Private Sector	325,644	445,037	488,718	587,936	593,884	601,262	612,037	651,262
5.3 Other Public Bodies	47,451	23,115	46,923	26,023	22,467	23,381	22,675	23,712
TOTAL	635,158	720,046	871,169	893,159	962,390	914,128	949,458	983,906

Source: Data provided by the Central Bank of Kenya.

5.3. Data on money (notes, coins and demand deposits) and on quasi-money (time and savings deposits) are provided in Table 5.2. The same information is provided in detail in Table 5.3 while Table 5.4 explains the changes in total money. In 1981, money proper increased by 12.2 per cent and quasi-money increased by 15.1 per cent. This resulted in total money supply, broadly defined, expanding by 13.3 per cent. This was in contrast to 1980, when money proper fell by 6.9 per cent and, despite a rise of 9.5 per cent for quasi-money, total money supply contracted by 1.2 per cent. Undue monetary expansion leads to inflationary pressures and thus proper control of monetary growth is an essential part of the better economic management of the country. In 1980 and 1981 taken together the increase in the money supply was only moderate, although this was mainly due to diminishing external assets.

5.4. The consolidated balance sheet of banking system set out in Table 5.3 indicates that while demand deposits show seasonal variations and despite a fall in 1980, in general there has been a tendency for the nominal value of these deposits to increase year by year. In 1981 demand deposits rose by 9.6 per cent and there was also an increase of 15.7 per cent in currency in circulation. Savings deposits rose by 18.8 per cent in 1981 after their rise of 11.3 per cent in 1980, while time deposits increased by 11.8 per cent compared to 8.1 per cent a year earlier.

5.5. According to Table 5.4, which has a somewhat more limited coverage than Table 5.2, total money supply expanded in 1981 by K£90.8 million. This stemmed from a K£125.6 million increase in domestic credit to the public

CHAGES IN MONEY SUPPLY AND SOURCES OF CHANGES, 1977-1981

Table 5.4 *(K£ million comparing year-end values)*

	1977	1978	1979	1980	1981
Money Supply					
1. Currency plus demand deposits	+135.03	+44.81	+43.21	+11.33	+67.24
2. Quasi money and other items	+60.01	+40.08	+107.91	+10.66	+23.50
3. Total money supply*	+195.04	+84.89	+151.12	+21.99	490.75
Sources of Changes—					
4. Net foreign assets	+108.77	-74.80	+73.96	-66.17	-98.21
5. Domestic credit—					
to Central Government (net)	-7.21	+64.63	+10.67	+9.84	+127.94
(b) to other public sector	+12.43	+24.34	+23.81	-20.90	+63.33
(c) to private sector	+81.05	+ 119 39	+43.68	+99.22	-2.31
(d) all domestic credit	+86.27	+159.68	+78.16	+88.16	+188.96
6. Total sources of changes	+195.04	+84.88	+151.12	+21.99	+90.75

*Other items are included so coverage not the same as in Table 5.2.

sector. Had it not been for this increase, money supply would have contracted, since net foreign assets declined by K£98.2 million. In 1980, when monetary growth was only K£22 million, net foreign assets declined by K£66.2 million, while domestic credit rose by K£88.2 million. Lending to the private sector in 1981 rose by K£63.3 million, or by 9.9 per cent, and lending to the Central Government rose by K£127.9 million, or by 77.1 per cent. In 1980, in contrast, lending to the Central Government increased by only K£9.8 million but to the private sector it rose by K£99.2 million. Thus while the small expansion in the money supply in 1980 was essentially the result of increased credit to the private sector, the main source of monetary expansion in 1981 was credit to the Central Government. Apart from contributing to monetary expansion, both directly and by adding to the reserve assets of the banks, government borrowing to finance its deficits can "crowd out" credit to the private sector and such an influence appears to have been at work in 1981.

5.6. Large expansions in total money supply were recorded in each of the years 1977, 1978 and 1979. In both 1977 and 1979, the source was primarily a rise in net foreign assets but in 1978 the main influence was growth in credit to the private sector. Excess liquidity of commercial banks resulting from the massive rise in export earnings in 1977 and the high level of economic activity which ensued in 1978, had its own impact on private sector credit demand in 1978 which, in turn, induced substantial monetary expansion. The lagged impact of this monetary expansion has been contributory factor of Kenya's inflation since 1978.

5.7. However, the data just discussed can provide a misleading impression of the growth of monetary aggregates because of the influence of inflation and it is interesting to examine the growth of the monetary and financial

TRENDS IN THE REAL VALUE OF CERTAIN FINANCIAL AGGREGATES*

Table 5.5 *K£ million in constant (1977) prices*

	1977	1978	1979	1980	1981
1. Money	421.4	414.2	437.0	360.5	359.2
2. Quasi-money	199.3	214.4	236.6	229.7	234.7
3. Total liabilities of banking system	635.2	641.1	715.9	650.5	636.4
4. Commercial bank credit to private sector	312.0	362.2	399.3	406.0	386.0
5. Total commercial bank credit	419.8	468.7	504.8	479.2	475.9
6. Total liabilities of non-bank financial institutions	138.8	168.1	202.8	232.7	258.0**
Memorandum Item					
Line 6 as per cent of line 3	21.8	26.2	28.3	35.8	40.5

*Deflated by average price increases given in Table 4.13.

**Estimate.

system in real terms, i.e. adjusted for the influence of rising prices. This is attempted in Table 5.5 (although the price index employed to make the adjustment is not ideal for the purpose) and from this a somewhat different picture emerges. The value of the money supply (narrowly defined) was actually less in 1981 than in 1977 and the total liabilities of the banking system had remained virtually unchanged. Quasi-money (time and saving deposits) had expanded in real terms, however, as had commercial bank credit. However, the most dynamically expanding part of the system was the non-bank financial institutions, to be discussed shortly.

Interest Rates

5.8. In pursuit of its monetary policies designed to increase savings, interest rates were raised once more at the time of the 1981 Budget. Savings deposits and lending interest rates were each increased by 2 percentage points, to 8 per cent and 13 per cent, respectively. But because of the

PRINCIPAL INTEREST RATES, 1979-1981

Table 5.6 *Per cent*

	31st December		
	1979	1980	1981
Central Bank of Kenya			
Discount Rate for Treasury Bills	4.60	6.03	10.12
Advances against Treasury Bills	7.50	8.00	10.00
Bills and Notes under Crop Finance Scheme—			
Discounts	7.00	8.50	10.25
Advances	6.00	8.00	11.50
Other Bills and Notes:—			
Discounts	7.50	8.50	11.50
Advances	7.50	8.00	11.50
Kenya Commercial Banks			
Time Deposits:—			
Minimum 30 days (7 days notice)	5.12	+	+
12 months (K.Sh. 250,000-1,000,000)	5.875	6.50	8.875
Savings Deposits	5.00	6.00	8.00
Loans and Advances (Maximum)*	1000	11.00	14.00
Other Financial Institutions			
Kenya Post Office Savings Bank deposits	5.00	6 00	8.00
Agricultural Finance Corporation, Loans	9.00	9.00	12.00
(a) Land Purchase	—	9.00	12.00
(b) Seasonal Crop Loan	—	11.00	12.00
(c) Other	9.00	10.00	13.00
Hire-Purchase Companies and Merchant Banks:—			
Deposits (time)	5.00-8.00	8.00-11.00	8.00-12.00
Loans	10.00-12.00	10.00-14.00	Up to 14.00
Buildings Societies:—			
Deposits	6.00.8.50	6.00-9.50	8.00-11.50
Loans	8.00-12.00	11.00-14.00	13.00-14.00

Source; Central Bank of Kenya.
*Loans and Advances for less than 3 years.
+Subject to negotiation.

CENTRAL BANK OF KENYA—ASSETS AND LIABILITIES, 1977-1981

Table 5.7

	As at the end of							
	1977	1978	1979	1980	1981			
					1st Qr.	2nd Qr.	3rd Qr.	4th Qr.
ASSETS								
Foreign Exchange—								
1.1 Balances with External Banks	175,095	99,095	163,294	136,586	135,230	103,643	75,546	70,768
4.2 Treasury Bills			2,330	13,436	11,150	13,131	4,766	17,852
1.3 Other Investments	29,313	30,814	32.142	26,340	27,051	28,723	30,722	30,560
1.4 Special Drawing Rights	5,988	5,293	39,821	9,730	11,887	10,450	8,098	5,615
TOTAL	210,396	135,202	237,587	186,092	185,318	155,947	118,432	124,795
Securities Guaranteed by Kenya Government								
Advances and Discounts	37,223	50,317	43,847	52,940	51,326	43,961	42,421	48,775
Advances to Kenya Government	10,000	23,326	15,908	57,089	131,813	90,740	14,848	10,000
Other Assets including Kenya Treasury Bills	10,397	11,012	23,226	40,432	11,241	57,986	212,830	218,110
TOTAL ASSETS	268, 016	219,857	320,568	336,553	379,698	348,634	388,531	401,680
LIABILITIES								
Capital and General Resources Fund	2,600	2,600	4,600	7,189	7,189	8,521	8,521	8,521
Currency in Circulation—								
2.1 Notes	117,169	127,978	147,398	167,232	161,251	158,419	173,320	194,042
2.2 Coins	4,000	4,163	4,779	4,970	4,875	5,080	5,098	5,473
TOTAL CURRENCY	121,173	132,141	152,177	172,202	166, 126	163,499	178,418	199,515
Deposits—								
3.1 Kenya Government	62,646							5,149
3.2 Kenya Banks	36,497	26,721	40.575	40,023	64,537	26,006	42,291	28,034
3.3 External Banks	26,112	28,672	57,997	80,118	98,378	98,375	114,402	112,389
3.4 Other	3,995	14,450	46,357	15,109	14,145	8,048	12,520	9,040
TOTAL	129,250	69,843	144,929	135,250	177,060	132,429	169,213	154,612
4. Revaluation Account	379	4,113	9,326	11,065	17,257	22,660	21,660	24,534
5. Other Liabilities	14.614	11,160	9,536	10,847	12,066	21,525	10,597	14,498
TOTAL LIABILITIES	268, 016	219,857	320,568	336,553	379,698	348,634	388,531	401,680

Source: Data provided by The Central Bank of Kenya.

demand for credit on the one hand and only a limited response by savers on the other, the commercial banks' lending rate has since risen to 14 per cent. By raising domestic interest rates, the differentials between domestic and international money market rates have been narrowed so that there is now more incentive to borrow abroad. Details of the principal interest rates are provided in Table 5.6.

5.9. If allowance is made for the continuing inflation in Kenya, then real interest rates remain negative for savers while borrowers tend to pay small positive real rates of interest. In 1981, the Post Office Savings Bank and the commercial banks were offering 8 per cent interest on savers deposits but the inflation rate was more than 12 per cent. Borrowers were paying around 14 per cent on loans so here there was a real interest rate of 1 or 2 per cent. While interest rates have been rising in Kenya, they are still low measured by current levels in countries like UK and USA, where in the early months of 1982 it was possible for savers to obtain real rates of return of 3 per cent or more on long-term investments in fixed interest securities. Borrowers in these countries were paying such high nominal rates of interest that, set against a scenario of falling inflation, many were led to reconsider their borrowing requirements with a view to scaling them down. Spillover effects of high interest rates in the USA and most of Europe have contributed to the present difficult world economic situation. However, to judge from the continued buoyant demand for loans from non-bank financial institutions, which effectively charge substantially higher interest rates than the banks, interest rates in Kenya may not yet have reached levels where they seriously threaten productive investment. At the same time, real interest rates for savers remain substantially negative.

Bank Credit and Liquidity

5.10. Loans and advances extended by the commercial banks increased by 12.0 per cent from K£657.9 million in December, 1980 to K£735.8 million at the end of 1981 (Table 5.8). This rate of growth is well above that of 7.1 per cent shown in 1980 but is less than the 16.7 per cent growth recorded in 1979. Commercial bank holdings of treasury bills, which are the chief form of commercial bank lending to the Central Government, increased by 63.0 per cent from K£46.7 million in 1980 to K£76.1 million in 1981. While in 1980, public sector borrowing from the commercial banks accounted for 9.7 per cent of their total lending, this proportion rose to 12.7 per cent in 1981. In the private sector, manufacturing, agriculture and trade continued to be major recipients of commercial bank loans, taking 21.7 per cent, 15.0 per cent and 17.4 per cent of the total respectively in 1981. While loans to agriculture rose by only 8 per cent in that year, those to manufacturing increased by 24 per cent, a figure well ahead of the average rise of 12 per cent for all loans. For the trade sector the increase in 1981 was

COMMERCIAL BANKS—BILLS, LOANS AND ADVANCES, 1978-1981

Table 5.8 K£'000

	1978 Dec.	1979 Dec.	1980 Dec.	1981 Dec.
Public Sector				
Central Government	44	131	232	24
Local Government	745	917	349	424
Enterprises, Parastatal bodies and other Public entities	9,088	10,348	16,871	16,651
Treasury Bills	62,594	82,524	46,660	76,068
Total Public Sector	72,471	93,920	64,112	93,167
Private Enterprises—				
Agriculture	72,517	89,999	102,361	110,592
Mining and Quarrying	7,726	8,694	10,543	10,392
Manufacturing	92,381	106,244	128,280	159,330
Building and Construction	23,474	36,013	36,224	33,905
Transport, Storage and Communication	19,450	23,698	28,231	34,297
Trade:				
Exports	18,392	24,455	24,520	29,732
Imports	30,272	23,334	32,393	28,132
Domestic	49,472	52,952	62.387	70,459
Financial Institutions	16,800	34,971	16,288	11,834
Other Business	76,326	85,634	116,232	108,114
Total Private Enterprises	406,810	485,995	557,459	596,787
Private Households— (including non-profit making institutions)	47,002	34,486	36,360	45,804
Total Bills, Loans and Advances	526,283	614,401	657,931	735,758

Source: Central Bank of Kenya Data.

nearly 8 per cent but for building and construction, bank lending fell by 6 per cent. The limited expansion of commercial bank lending to the private sector led the Government in April 1981 to remove the statutory cash reserve limits restricting such lending and banks were left free to decide on and maintain cash reserves according to their banking needs. It was hoped that this would encourage more bank lending to the private sector.

5.11. Consequent on the rise in their holdings of treasury bills, commercial bank liquid assets increased by 25.1 per cent in 1981. Deposit liabilities increased by 13.4 per cent. As a result the liquidity ratio rose, as noted earlier. The end-1981 level of 21 per cent was well above the statutory minimum of 15 per cent. Table 5.9 details the deposit liabilities and liquid assets of the commercial banks. As a result of the removal of the statutory cash reserve ratio in April 1981, the cash reserve ratio fell from 11.3 per cent in March to 6.2 per cent in June 1981 and ended the year at 6.3 per cent.

COMMERCIAL BANKS—LIQUID ASSETS, 1978-1982

Table 5.9

	Deposit Liabilities* K£m	Liquid Assets+ K£m	Current Liquidity Ratio** Per cent
1978 December	553.2	125.8	23
1979 December	627.1	146.9	23
1980 December	605.2	110.3	18
1981—			
January	617.1	118.0	19
February	642.3	130.7	21
March	661.1	156.6	23
April	636.0	123.4	20
May	662.2	125.5	20
June	672.0	129 9	20
July	602.2	165.1	23
August	696.9	169.3	24
September	681.7	157.4	23
October	704.7	163.2	23
November	689.4	137.5	21
December	686.1	138.0	21
1982—			
January	665.2	103.6	18
February	692.3	139.5	20

Source: Data provided by the Central Bank of Kenya.

*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.

Non-Bank Financial Institutions

5.12. As noted in Table 5.4, there has been a particularly notable growth of non-bank financial institutions in the country over the last few years. As of December 1981, 23 institutions of this type were operating. As Table 5.10 shows, the total liabilities of these institutions rose from K£138.8 million in 1977 to K£319.5 million in 1980 and there was further substantial growth in the first three quarters of 1981, with total liabilities rising to K£376.7 million at September 1981. Lending by these institutions has more than trebled over the last four years, from K£89.5 million at December, 1977 to K£266.8 million at the end of September 1981. At the latter date lending by non-bank institutions was equal to more than one-third of lending by commercial banks. However, in contrast to the commercial banks, the main lending by non-bank institutions (47 per cent of the total in 1981) has been for housing, building and construction. This is in line with the nature of such institutions, which include building societies, trade financiers, hire purchase companies and discount houses.

ASSETS AND LIABILITIES OF NON-BANK FINANCIAL INSTITUTIONS, 1977-1981

Table 5.10 K£million

LIABILITIES	As at end of				1981		
	1977	1978	1979	1980	1st Qr.	2nd Qr.	3rd. Qr.
Deposits:—							
Central & Local Government	14.4	24.3	22.6	25.0	22.8	22.4	26.0
Other Public Sector	22.8	26.6	52.3	67.5	67.8	77.2	93.1
Other Depositors	68.2	90.5	11.8	150.2	145.0	146.7	155.1
Other Liabilities	33.5	47.4	60.1	76.9	80.0	86.8	102.6
TOTAL LIABILITIES	138.8	188.8	246.8	319.5	315.5	333.0	376.7
ASSETS							
Cash & Banks	22.9	26.4	34.1	42.4	35.4	28.8	37.5
Other Financial Institutions	6.2	7.7	8.5	8.9	8.9	13.1	17.9
Associated Companies	11.6	25.8	43.0	37.5	32.9	33.7	38.8
Investments, Loans, Advances, etc.—							
Public Sector	0.9	2.7	3.6	13.3	18.5	21.5	25.5
Private Sector	88.6	120.3	146.8	206.8	207.4	220.7	241.3
Other Assets	8.5	6.0	9.7	11.1	12.6	15.3	15.9
TOTAL ASSETS	138.8	188.8	246.8	319.5	315.5	333.0	376.7

Source: Central Bank of Kenya.

5.13. The rapid growth of the non-bank institutions relative to the banks has a number of implications. Since they are not as effectively under the supervision of the central bank as the commercial banks, their relative growth represents some diminution in the degree of effective central control over the system as a whole. In fact, it is believed that one reason why these institutions have been expanding so rapidly is precisely because they are subject to less stringent controls. Since they are at least partial substitutes for commercial banks, the credit extended by them can be regarded as similar in its effects to domestic credit by the banking system. While in 1977-81 domestic credit by the banking system proper slightly more than doubled, in the same period the non-bank institutions tripled their lending, so that the overall rate of credit expansion has been significantly faster than recorded by normal banking statistics. By end-1981 non-bank credit is estimated to have made up nearly a quarter of the total credit of the financial system.

The Coverage of Kenya's Banking System

5.14. By December 1981, 16 commercial banks were operating in Kenya and a further two were already licensed to operate but had not started. Of the 16 banks, four were local and the rest were foreign. Until recently a majority of the foreign banking institutions were of European and Asian origin but an influx of American banks in the 1970's was followed by Arab banks in 1981, so that the banking system today has a truly international composition.

5.15. However banking business is currently dominated by three banks, one local and two foreign. With the exception of these, other foreign banks have not yet extended their services to the rural areas. Thus most business of a majority of the foreign banks is carried out exclusively in Nairobi, Mombasa, Kisumu and Nakuru. For those few banks which have already made serious attempts to extend their coverage to the rural community, such services are provided either by branches in townships which can be many miles away from most of the people or by mobile units whose services may be extremely limited. This implies that many small-holder farmers still have no ready access to comprehensive banking services unless they make long journeys to the major towns and cities.

5.16. Gross farm revenue from recorded marked production of small-holder farmers in 1980 was nearing K£200 million. In addition, produce is sold by such farmers in nearby village markets. Although receipts for the produce marketed by the farmers through marketing boards are usually channelled through the banks, the absence of readily accessible local banking services may be leading to a situation where a substantial amount of money may not be banked in those areas. The banking system as a whole certainly needs to be extended to better serve the rural areas. Benefits would accrue from such extension to the farming community as a whole

while money originating in the high potential farming areas would stand a better chance of being invested in those areas rather than in the main urban centres where these monies are currently being deposited.

Insurance

5.17. The number of insurance companies in Kenya varied between 45 and 50 in the five year 1975 to 1979. A majority of these companies were engaged in non-life business including fire and theft, motor vehicle, employers liability, marine and other types of insurance. There were 27 of such companies in 1979 and a further 11 who engaged in life business; 12 additional companies carried out both life and non-life insurance.

5.18. As shown in Table 5.11, premium income for non-life business has grown rapidly for all classes of business since 1975. The total premiums paid were K£19.9 million in 1975 but had risen to K£44.3 million in 1979. Motor vehicle insurance is the most important single sector, with gross premiums of K£18.0 million in 1979 compared to K£11.5 million for miscellaneous accidents and K£9.1 million for fire insurance. The total gross claims amounted to K£8.2 million in 1975 and K£19.9 million in 1979; net claims were K£6.8 and K£9.4 million respectively. It would appear from the figures

TOTAL NON-LIFE INSURANCE BUSINESS TRANSACTED IN KENYA, 1975-1979

Table 5.11 K£'000

	1975	1976	1977	1978	1979
Motor Vehicles—					
Gross Premium	8,964	11,873	13,840	16,646	18,037
Gross Claims	5,552	6,199	9,552	7,567	9,600
Net Claims	4,182	4,979	5,975	5,049	5,654
Fire—					
Gross Premium	4,842	5,820	6,695	7,460	9,084
Gross Claims	721	2,957	1,921	1,665	1,757
Net Claims	567	1,101	1,352	984	793
Miscellaneous Accidents—					
Gross Premium	3,724	4,373	5,866	8,251	11,526
Gross Claims	1,580	1,949	3,014	3,946	5.916
Net Claims	1,137	1,368	2,010	2,787	1,447
Marine, Aviation and Transit—					
Gross Premium	1,467	1,985	2,757	3,143	3,999
Gross Claims	764	879	1,093	1,078	2,052
Net Claims	623	567	727	636	1,251
Workmen's Compensation—					
Gross Premium	918	1,007	1,269	1,542	1,625
Gross Claims	335	373	556	401	537
Net Claims	253	295	400	260	270

given in the table comparing gross claims and gross premiums that those sectors most profitable in terms of the gap between premiums and claims were fire insurance and workmen's compensation, where gross claims only represented 19.3 per cent and 33.0 per cent respectively of premium income in 1979. For all other sectors shown in the table gross claims were more than half the premium income. When management expenses are added the margins between premiums and claims are reduced substantially.

5.19. The data available on life insurance are given in Table 5.12. Gross premiums on life assurance policies were K£7.0 million in 1975 but rose to K£12.2 million in 1979. For annuities, the premiums were K£1.6 million and K£3.3 million respectively. Thus the total gross premiums paid for both classes of life business were K£8.6 million in 1975 and K£15.5 million in 1979. Compared to these figures total claims and other expenses rose from K£9.0 million to K£13.0 million between 1975 and 1979.

LIFE ASSURANCE AND ANNUITY BUSINESS, 1975-1979

Table 5.12 K£'000

	1975	1976	1977	1978	1979
Life Assurance—					
Gross Premium	6,980	7,687	9,105	10,614	12,193
Gross Claims	4,783	3,640	4,164	4,305	5,067
Balance	2,197	4,047	4,941	6,309	7,126
Annuities—					
Gross Premium	1,586	1,671	1,531	2,395	3,296
Outgoings	515	557	659	1,149	1,196
Balance	1,071	1,114	872	1,246	2,100
Total Claims Plus Other Expenses	8,973	8,239	9,705	11,558	12,968

5.20. Most insurance companies have been able to increase their domestic investments since 1975 and the total has risen from K£20 million in 1975 to K£37 million in 1979 or by 85 per cent. In 1979 life companies had K£23 million invested while for non-life companies the total was K£14 million but the increases have been much greater for non-life companies since 1975 than for life companies.

5.21. So far as it has been possible for the companies engaged in both life and non-life business to allocate their expenses accurately between these different types, the details given in Table 5.13 show that in 1979, 54.2 per cent of insurance companies' management expenses were for non-life business and 45.8 per cent for life assurance. In 1976, the proportions had been 60 per cent and 40 per cent respectively.

MANAGEMENT EXPENSES OF INSURANCE COMPANIES IN KENYA, 1976-1979

Table 5.13 K£'000

	1976	1977	1978	1979
Life Business	4,042	4,882	6,104	6,704
Non-Life Business	6,050	6,102	7,368	7,927
Total	10,092	10,984	13,472	14,631

5.22. A summary of gross premiums, gross claims and management expenses for 1976 and 1979 gives the following comparison (K£000):

	1976	*1979*
Gross premiums, Life	9,358	15,489
Non-Life	25,051	44,271
Gross Claims and Management Expenses		
Life	8,239	12,968
Non-Life	20,198	28,169
Apparent Surplus, Life	1,119	3,521
Non-Life	4,853	16,102

As can be seen, the apparent surpluses are still substantial, especially for non-life business, where in 1979 the surplus was equal to 36 per cent of premiums and 48 per cent of claims and expenses.

CHAPTER 6—PUBLIC FINANCE

The growth of revenue and expenditure in the financial year 1981/82 was in line with the increase in the GDP at current prices. Current revenue increased by 17.2 per cent and current expenditure increased by 14.0 per cent. As a result, the current surplus available for development and investment expenditure recovered to some extent from the very low level of K£14.40 million in 1980/81 to K£39.76 million in 1981/82. Measured by total capital expenditure (i.e. investment plus development expenditure) the current surplus covered one-eighth in 1981/82; in 1980/81 its coverage had been only one-twentieth. Both ratios are well below the average of the three years 1977/78 to 1979/80 when the current surplus covered about one-quarter of total capital expenditure. The overall deficit on current and capital account increased from K£240.99 million in 1980/81 to K£273.27 million in 1981/82 and was mainly financed from external loans (K£138.53 million), long term domestic borrowing in the form of stock issues of K£50.00 million and a large increase in the issue of Treasury Bills from K£16.14 million in 1980/81 to K£184.40 million in 1981/82.

6.2. Table 6.1 also shows the percentage increase in selected items of the budget from 1977/78.1981/82. Over this period current revenue increased by 74 per cent whereas current and capital expenditures increased by 96 per cent and 74 per cent respectively. When the two categories of expenditure are combined total expenditure over the period shows an increase of 89 per cent. Since the total expenditure has been increasing at a much faster rate than current revenue there has in a consequence been an increased reliance on various forms of borrowing to finance the deficit. A major source of this financing was from external loans and grants which increased nearly three-fold from K£52.28 million in 1977/78 to K£156.92 million in 1981/82. Thus the total external debt of the Central Government outstanding as shown later in Table 6.10 increased from K£242.62 million as at end of June, 1978 to K£649.95 million as at the end of June, 1981. Internal borrowing reflects a similar trend and increased from K£283.57 million to K£437.86 million over the same period.

6.3. An analysis of key fiscal trends is provided in Table 6.2; 1981/82 shows only a small improvement from the results of 1980/81. The current account surplus as a percentage of current revenue increased from 2.1 per cent in 1980/81 to 4.8 per cent in 1981/82, both figures well below the 1977/78 level when the ratio was 15.3 per cent. Over the period 1977/78 to 1981/82 current revenue and total expenditure as percentages of GDP at current market prices, show increasing trends with the former rising from 24.1 per cent in 1977/78 to 24.5 per cent in 1981/82 and the latter increasing from 30.1 per cent in 1977/78 to 33.2 per cent in 1981/82.

CENTRAL GOVERNMENT

OUT TURN* OF REVENUE AND EXPENDITURE, 1977/78-1981/82

Table 6.1 *K£'000*

	1977/78	1978/79	1979/80	1980/81**	1981/82**	%Increase 1977/78-1981/82
Current Revenue	472,164	510,637	610,980	701,523	822,738	74
Current Expenditure	400,111	475,104	546,350	687,124	782,983	96
Current Surplus	72,053	35,533	64,630	14,399	39,755	-45
Development Expenditure	115,142	146,547	171,916	203,575	251,829	119
External Grants	9,049	13,296	19,148	19,604	18,400	103
Deficit	-34,040	-97,718	-88,138	.169,572	.193,674	468
Investment Expenditure—						
Purchase of Equity etc.						
Financial Enterprises	1,490	2,890	3,990	980		
Non-Financial Enterprises	16,547	9,699	5,489	4,241	7,358	-60
Loans to—						
Financial Enterprises	19,204	16,881	24,158	27,718		
Non-Financial Enterprises	31,906	37,911	14,538	22,642	72,239	27
General Government	3,782	6,117	11,219	11,271		
Other	2,208	2,462	3,644	4,561		
Increase in investment Claims	75,137	75,960	63,038	71,413	79,597	6
Total Deficit	-109,177	-173,678	.151,176	-240,985	-273,271	150
Financing of the Deficit—						
External Loans	43,231	61,328	74,709	126,787	-138,528	220
Long-Term Domestic Borrowing	66,942	88,543	48,626	66.380	50,000	-25
Short-Term Borrowing—						
Cereals and Sugar Finance Corporation	-4,248	-10,655	+14,358	-17,850	-39,750	
Tax Reserve Certificates	-1,047	+834	-181	-604	170	
Treasury Bills	-24,050	+66,250	-47,740	+ 16,140	+184,400	
IMF Trust Fund		12,110	8,870	3,399		
Advance from Central Bank	—	—	—	—	—	—
Net Short-Term Borrowing	-29,345	+68,539	.24,693	+ 1,085	+144,820	
Changes in Cash Balances; Increase = +	-28,349	+44,729	.52,534	.46,733	+ 60,074	
Memorandum Items—						
(i) Loans to University Students on Recurrent Account included with other loans	2,198	2,415	2,910	4,061	4.467	
(ii) Development Project Earnings on Development Account included with Current Revenue	766	1,121	304	1,487	2,643	

*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 enterprises 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 6.4.
2. Current expenditure plus development expenditure and investment expenditure as shown in this table equals total expenditure shown in Table 6.8

**Provisional.

Table 6.2 *Percentages*

	1977/78	1978/79	1979/80	1980/81	1981/82**
1. Current surplus as of current revenue . .	15.3	7.0	10.7	2.1	4.8
2. Current surplus as % of development plus investment expenditure	37.9	16.0	27.6	5.2	12.0
3. Ratio of development plus investment expenditure to current expenditure	47.6	46.8	43.0	39.2	42.3
4. Total deficit as % of current revenue*	25.0	36.6	27.9	37.1	35.5
J. Total deficit as % of total expenditures*	20.0	26.8	21.6	27.0	26.2
6. External grants and loans as % of development plus investment expenditures	22.7	33.5	39.9	53.2	47.3
7. Net short-term borrowing as % of development plus investment expenditures +	-0.5	10.7	11.8	17.4	20.6
8. Current revenues as % of GDP at current market prices	24.1	23.6	24.9	24.8	24.5
9. Total Government expenditure as % of GDP at current market prices	30.1	32.2	31.9	34.1	33.2

*External grants are excluded from revenue in these calculations.

**Provisional.

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

6.4. Budget estimates and the actual out-turns for the period 1978/79 and 1980/81, are detailed in Table 6.3 and these reveal trends in line with inflation. Actual current expenditure and revenue, with the exception of expenditure in 1978/79, are each higher than the original budget estimates. When considered over the three years shown in the table, actual current revenue is higher than the budget estimates by approximately 4.9 per cent whereas actual current expenditure is greater by 5.2 per cent. The difference in capital expenditure varies widely for the individual years from plus 26.7 per cent of the budget estimates in 1978/79 to minus 4.4 per cent in 1979/80 and minus 9.7 per cent for 1980/81. When considered over the whole period, however, the difference averages only 0.9 per cent. External financing in the budget has, over the period, been overestimated by as much as 18.8 per cent. Part of this difference is due to the generally slow negotiation of such external finance which has led to more domestic financing being necessary.

6.5. Gross receipts on Recurrent Account as detailed in Table 6.4 increased by 26 per cent from K£762.48 million in 1980/81 to K£964.92 million in 1981/82 largely due to the steep increase in internal borrowing. When internal borrowing is excluded, the increase in the receipts reduces to 17.4 per cent as compared to the 15.1 per cent increase in gross domestic product at current market prices in 1981. In the Budget for the fiscal year 1981/82 significant changes were effected in the rates of direct and indirect taxes. On income tax, the tax brackets were widened by K£300 which had the effect of reducing personal tax payable by individuals in the lower brackets by 25 per cent and in the upper brackets by 15 per cent. In addition, personal reliefs to all categories of individuals were increased by Sh. 120 per year. As a result of this and other changes, revenue from income tax increased by only 3.8 per cent from K£197.58 million in 1980/81 to K£205.00 million in 1981/82.

COMPARISON OF BUDGET ESTIMATES WITH ACTUAL OUT-TURNS, 1978/79-1980/81

Table 6.3 K£'000

	1978/79			1979/80			1980/81		
	Budget	Actual	Difference	Budget	Actual	Difference	Budget	Actual	Difference
Current revenue	502,341	510,637	+8,296	562,412	610,980	+48,568	673,701	701,523	+ 27,822
Current expenditure	480,912	475,104	- 5,808	497,316	546,350	+49,034	645,826	687,124	+41,298
Current balance	21,429	35,533	+ 14,104	65,096	64,630	466	27,875	14,399	-13,476
Capital expenditure	175,514	222,507	+46,993	245,676	234,954	-10,722	304,471	274,988	-29,483
External financing	86,869	74,624	-12,245	122,563	93,857	-28,706	178,450	146,391	-32,059
Balance for domestic financing	67,216	112,350	+45,134	58,017	76,467	+ 18,450	98,146	114,198	+16,052

CENTRAL GOVERNMENT

GROSS RECEIPTS ON RECURRENT ACCOUNT**, 1978/79-1981/82

Table 6.4 K£million

	1978/79	1979/80	1980/81	1981/82*
Direct Taxation—				
Income Tax	151.07	171.85	197.58	205.00
Other	0.66	1.78	0.68	0.55
Total	151.73	173.63	198.26	205.55
Indirect Taxation—				
Sales Tax	99.77	154.91	179.39	210.00
Import Duties	101.27	102.48	145.97	182.10
Excise Duties	49.02	59.45	60.24	65.80
Export Duties	2.80	7.03	3.13	3.85
Licences and Fees Under Traffic Act	3.80	5.74	5.80	6.58
Other	11.31	11.88	15.71	22.76
Total	267.97	341.49	410.24	491.09
Compulsory Fees, Fines and Penalties	7.16	11.32	12.60	7.43
Income From Property	30.29	26.78	39.63	30.35
Current Transfers	1.18	10.4	0.07	1.32
Charges for Goods and Services	39.87	46.21	30.61	74.56
Internal Borrowing	56.43	-33.56	64.07	144.84
Loan Repayments	4.27	3.48	3.60	4.43
Other	7.10	7.49	3.40	5.35
Grand Total	565.94	577.88	762.48	964.92

*Provisional.

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

6.6. In addition to the changes in income tax, major changes were also effected in the Budget on the rates of import duties. Duties on soft drinks were raised from 50 per cent to 80 per cent and those on wooden items, glass and other finished products of iron and steel from 50 to 70 per cent. The other major change was an increase on duty on plant and equipment, from 10 per cent to 20 per cent. There was an increase in revenue from import duties which increased by 24.8 per cent from K£145.97 million in 1980/81 to K£182.10 million in 1981/82.

6.7. The increase in sales tax from K£179.39 million in 1980/81 to K£210.00 million in 1981/82, an increase of 17.1 per cent, is largely due to price rises but includes the result of changes introduced. While sales tax on imported capital equipment was abolished, the rates for beer, mineral waters, cameras, television and radio receivers and recorders and on petrol and petroleum products were all increased. The other component of revenue which

shows a large increase is charges for sales of goods and services which increased from K£30.61 million in 1980/81 to K£74.56 million in 1981/82.

6.8. Table 6.5 shows the import duty collections by the Customs and Excise Department which increased from K£141.82 million in 1980 to K£148.98 million in 1981. Major increases were recorded in the duty collection from basic materials, chemicals and machinery. Falls were recorded for certain groups of products as a result of lower imports of transport equipment and miscellaneous items in particular. At the time of going to press excise duty collections for 1981 were not available. In 1980, however, excise duty collections show an increase of 12.4 per cent and will be higher in 1981 due to the changes effected in the last budget on tobacco excise.

CENTRAL GOVERNMENT

IMPORT DUTY COLLECTION, 1977-1981

Table 6.5 K£'000

End Use Category	1977	1978	1979	1980	1981*
Food, drink and tobacco	6,256	6,378	5,734	6,386	4,276
Basic materials	2,459	2,868	2,595	4,999	11,447
Fuels	16,768	22,850	18,287	23,604	24,748
Chemicals	5,575	8,620	8,770	15,439	19,616
Textiles	4,972	6,518	5,616	6,761	5,552
Semi-manufactures	3,866	5,960	4,850	8,921	9,349
Metals	8,248	10,324	8,666	17,083	18,317
Transport Equipment	13,302	16,878	13,683	22,426	18,239
Machinery	12,325	18,402	14,973	26,137	30,059
Miscellaneous commodities	8,067	9,622	7,130	10,065	7,379
Total	81,838	108,420	90,304	141,821	148,982

*Provisional.

CENTRAL GOVERNMENT

EXCISE DUTY BY COMMODITIES, 1977-1980

Table 6.6 K£'000

	1977	1978	1979	1980
Beer and spirits	14,319	16,122	15,884	17,649
Sugar	9,091	11,420	14,371	17,326
Cigarettes	12,553	17,175	23,327	25,251
Other commodities*	1,840	24	32	31
Total	37,803	44,741	53,614	60,257

*Includes transfer adjustments not allocated by commodity.

FINANCING OF DEVELOPMENT AND INVESTMENT ACCOUNT, 1978/79-1981/82

Table 6.7 K£million

	1978/79	1979/80	1980/81	1981/82*
Expenditure				
Development Expenditure	146.5	171.9	203.6	251.8
Investment Expenditure	76.0	63.0	71.4	79.6
Total	222.5	234.9	275.0	331 4
Financing				
Surplus on Current Account	35.5	64.6	14.4	39.8
External Loans	61.3	74.7	126.8	138.5
External Grants	13.3	19.1	19.6	18.4
Long Term Domestic Borrowing	88.5	48.6	66.4	50.0
Treasury Bills	66.3	-47.7	16.1	184.4
Other Short-Term Borrowing ..	2.3	23.0	-15.1	-39.6
From Cash Balances	-44.7	52.6	46.8	-60.1
Total	222.5	234.9	275.0	331.4

*Provisional.

Functional and Economic Classification of Expenditure

6.9. As shown in Table 6.8 total Central Government expenditure increased by 15.8 per cent in 1981/82. Of this, recurrent expenditure increased by 13.9 per cent from K£691.18 million in 1980/81 to K£787.45 million in 1981/82 and the expenditure on the Development Account increased by 20.7 per cent from K£270.93 million in 1980/81 to K£326.96 million in 1981/82. As in the past, the bulk of expenditure in the years 1978/79 to 1981/82 was on education, general public administration, agriculture, forestry and fishing and on public debt. The expenditure on all these services when combined accounts for 70.3 per cent of the total in 1981/82.

6.10. The economic analysis of expenditure of the Central Government is shown in Table 6.9. In 1981/82 labour costs accounted for 19.8 per cent of the total expenditure; other goods and services 24.2 per cent; interest 7.1 per cent, current transfers including subsidies 16.3 per cent; gross fixed capital formation 17.5 per cent; loan disbursements 6.5 per cent, loan repayments 6.9 per cent and the residual 1.7 per cent was for capital transfers and purchase of equity in enterprises. Labour costs are significantly higher than in 1980/81 and expenditure on other goods and services lower. For most other categories the changes are fairly small except for a reduction in the proportion going on gross fixed capital formation.

CENTRAL GOVERNMENT

EXPENDITURE ON MAIN SERVICES. 1978/79-1981/82

Table 6.8 *K£million*

	1978/79			1979/80			1980/81			1981/82*		
	Recurrent Account	Development Account	Total	Recurrent Account	Development Account	Total	Recurrent Account	Development Account	Total	Recurrent Account	Development Account	Total
GENERAL PUBlic ADMINISTRATION—												
General Administration	39.81	17.30	57.11	44.94	34.76	79.70	51.34	45.04	96.38	61.99	48.37	110.36
External Affairs	6.00	0.63	6.63	6.85	0.83	7.68	8.75	0.12	8.87	11.29	0.10	11.39
Public Order and Safety	32.96	2.57	35.53	34.99	4.60	39.59	50.80	7.64	58.44	49.13	12.85	61.98
TOTAL	78.77	20.51	99.28	86.78	40.19	126.97	110.89	52.80	163.69	122.41	61.32	183.73
DEFENCE	96.81	8.85	105.66	104.61	7.23	111.84	81.93	7.81	89.74	124.35	10.23	134.58
EDUCATION	101.51	7.60	109.11	122.57	14.47	137.04	162.35	12.44	174.79	179.61	20.03	199.64
HEALTH	35.38	7.75	43.12	43.72	10.75	54.47	52.57	12.68	65.25	46.75	12.12	58.87
HOUSINg AND COMMUNITY WELFARE	1.73	6.62	8.35	2.17	8.92	11.09	2.64	12.12	14.76	2.45	5.36	7.81
SOCIAL WELFARE	9.46	4.16	13.62	10.64	6.38	17.02	13.88	7.76	21.64	15.61	13.67	29.28
ECONOMIC SERVICES—												
General Administration	6.11	10.30	16.41	7.61	10.32	17.93	14.80	11.63	26.43	22.22	17.20	39.42
Agriculture, Forestry and Fishing	25.12	39.65	64.77	27.53	40.05	67.58	51.42	57.46	108.88	38.62	57.63	96.25
Mining, Manufacturing and Construction	10.17	5.02	15.19	10.81	9.52	20.33	12.75	11.33	24.08	13.96	28.15	42.11
Electricity, Gas, Steam and Water	7.14	30.43	37.57	8.97	24.56	33.53	13.20	27.90	41.10	10.75	32.72	43.47
Roads	10.83	32.28	43.11	14.74	41.74	56.48	17.41	40.60	58.01	16.95	57.94	74.89
Transport and Communications	5.33	36.60	41.93	4.88	4.28	9.16	6.18	2.94	9.12	7.41	5.71	13.12
Other Economic Services	10.48	4.21	14.69	10.47	2.43	12.90	13.33	3.77	17.10	16.70	4.87	21.57
TOTAL ECONOMIC SERVICES	75.18	158.49	233.67	85.02	132.89	217.91	129.09	155.63	284.72	126.60	204.23	330.83
OTHER SERVICES; INCLUDING PUBLIC DEBT	78.68	6.12	84.79	93.76	11.22	104.98	137.83	9.69	147.52	169.67	–	169.67
TOTAL	477.52	220.10	697.61	549.26	232.05	781.32	691.18	270.93	962.11	787.45	326.96	1,114.41

*Provisional.

given in the table comparing gross claims and gross premiums that those sectors most profitable in terms of the gap between premiums and claims were fire insurance and workmen's compensation, where gross claims only represented 19.3 per cent and 33.0 per cent respectively of premium income in 1979. For all other sectors shown in the table gross claims were more than half the premium income. When management expenses are added the margins between premiums and claims are reduced substantially.

5.19. The data available on life insurance are given in Table 5.12. Gross premiums on life assurance policies were K£7.0 million in 1975 but rose to K£12.2 million in 1979. For annuities, the premiums were K£1.6 million and K£3.3 million respectively. Thus the total gross premiums paid for both classes of life business were K£8.6 million in 1975 and K£15.5 million in 1979. Compared to these figures total claims and other expenses rose from K£9.0 million to K£13.0 million between 1975 and 1979.

LIFE ASSURANCE AND ANNUITY BUSINESS, 1975-1979

Table 5.12 K£'000

	1975	1976	1977	1978	1979
Life Assurance—					
Gross Premium	6,980	7,687	9,105	10,614	12,193
Gross Claims	4,783	3,640	4,164	4,305	5,067
Balance	2,197	4,047	4,941	6,309	7,126
Annuities—					
Gross Premium	1,586	1,671	1,531	2,395	3,296
Outgoings	515	557	659	1,149	1,196
Balance	1,071	1,114	872	1,246	2,100
Total Claims Plus Other Expenses	8,973	8,239	9,705	11,558	12,968

5.20. Most insurance companies have been able to increase their domestic investments since 1975 and the total has risen from K£20 million in 1975 to K£37 million in 1979 or by 85 per cent. In 1979 life companies had K£23 million invested while for non-life companies the total was K£14 million but the increases have been much greater for non-life companies since 1975 than for life companies.

5.21. So far as it has been possible for the companies engaged in both life and non-life business to allocate their expenses accurately between these different types, the details given in Table 5.13 show that in 1979, 54.2 per cent of insurance companies' management expenses were for non-life business and 45.8 per cent for life assurance. In 1976, the proportions had been 60 per cent and 40 per cent respectively.

unfunded debt are detailed in Table 6.11. In 1981 the main sources of unfunded debt excluding the special defence loans were International Bank for Reconstruction and Development and International Development Association. Of the funded internal debt as shown in Table 6.12, the National Social Security Fund held more than 53 per cent of the total in 1981, followed by the Central Bank, and then domestic commercial banks.

CENTRAL GOVERNMENT

PUBLIC DEBT, 1977-1981

Table 6.10 K£'000

As at 30th June	Public Debt*								
	Funded			Unfunded			Total		
	External	Internal	Total	External	Internal	Total	External	Internal	Total
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	249.65	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
1981	4.12	427.86	431.98	645.83	10.00	655.83	649.95	437.86	1087.81

*Excluding Short-Term Borrowings.

CENTRAL GOVERNMENT

SOURCES OF UNFUNDED DEBT, 1977-1981

Table 6.11 K£'000

Outstanding as at June, 30th	1977	1978	1979	1980	1981
External Debt					
Lending Countries—					
United Kingdom	37,164	36,997			
U.S.A.	19,868	14,618	21,361	17,278	30.034
West Germany	20,530	29,660	62,854	52,085	50,713
Japan	11,384	14,274	17,990	19,450	28,397
Sweden	12,245				
Netherlands	6,134	9,320	9,305	9,854	9,351
Denmark	3,948	7,210	7,269	8,718	8,353
Finland	6,766	1,061	1,630		
Other	3,722	20,910	204,657*	237,759*	286,786*
Total	121,761	134,050	325,066	345,144	413,634
International Organisations—					
I.B.R.D.	42,423	45,819	77,599	60,360	78,961
I.D.A. ..	40,946	46,825	64,102	58,244	105,656
Development Bank	2,672	3,211	4,329	5,475	9,471
		1,952	1,869	1,826	2,502
E.E.C		2,443	12,669	6,545	8,460
I.M.F.		3,837	951	17,940	24,936
Arab League	1,494	1,405	1,346	1,807	2,212
Total	87,535	105,491	162,865	152,197	232,198
Total External	209,296	239,541	487,931	497,341	645,832
Internal Debt					
Central Bank of Kenya	10,000	10,000	10,000	10,000	10,000
	174	115	80	69	
Total Internal	10,174	10,115	10,080	10,069	10,000
Total Unfunded Debt	219,470	249,655	498.011	507,410	655,833

*Includes defence loans amounting to K£137.1 million in 1979, K£132.5 million in 1980 and K£127.9

ANALYSIS OF PUBLIC FUNDED DEBT AT BOOK VALUE HOLDER ON LOCAL REGISTER, AS AT 30TH JUNE 1977-1981

Table 6.12 K£'000

	1977	1978	1979	1980	1981*
Internal					
Public Bodies—					
National Social Security Fund	100,478	130,294	150,268	182,554	214,609
Central Government	16,812	22,740	27,671	26,910	34,996
Local Government	734	675	709	572	546
Kenya Post Office Savings Bank	7,832	13,718	15,719	17,519	20,797
East African Community Institutions**	8,152	6,346	13,523	11,181	17,961
Central Bank	37,730	44,297	44,881	42,358	43,593
Other Public Sector	1,375	1,409	1,399	8,608	8,608
Other Internal—					
Commercial Banks	8,697	30,988	30,452	31,904	31,367
Insurance Companies	9,718	11,925	12,774	13,508	13,823
Other Companies	11,263	10,584	11,053	10,431	16,636
Private Individuals	296	382	317	1,509	306
External	203	101	101	17	17
Total	203,290	273,457	308,864	347,131	403,259+

*Provisional.

**And their successors.

+The total as shown here and the one in Table 6.10 differ. At the time of going to the press this inconsistency could not be resolved.

6.12. As a result of large external borrowing in the last two years, the net external debt servicing charges as at the end of June 1981 increased to K£70.68 million from K£41.94 million in 1980, or by 68.5 per cent. Since there has not been a comparable increase in external earnings from goods and services, the proportion of debt service charges to earnings from such exports has risen from 5.7 per cent in 1980 to 9.2 per cent in 1981. (See Tables 6.13 and 6.14).

CENTRAL GOVERNMENT

DEBT SERVICING CHARGES, 1977-1981

Table 6.13 K£million

Year ending 30th June	Annual Debt Servicing Charges			Interest and Loan Repayment Receipts			Net Servicing Charges			Sinking Funds at Market Value
	External	Internal	Total*	External	Internal	Total	External	Internal	Total	
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	51.02	18.68
1980	41.94	36.84	78.78	-	10.65	10.65	41.94	26.19	68.13	
1981	70.68	51.23	121.91	-	12.96	12.96	70.68	38.27	108.95	

*Includes interest payments of K£million:—

1977-23.95: 1978-32.80: 1979-42.50: 1980-48.05: 1981-68.68.

DEBT SERVICE CHARGES ON EXTERNAL DEBT RELATED TO EXPORT OF GOODS AND SERVICES
1977-1981

Table 6.14

	Debt Service Charges on External Debt*	Export of Goods and Services	External Debt Service Charges as a Percentage of Exports of Goods and Services
	K£million	K£million	
1977	14.8	650.2	2.3
1978	31.2	593.1	5.3
1979	31.2	600.1	5.2
1980	41.9	734.8	5.7
1981	70.7	764.5	9.2

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

Local Authorities

6.13. Total expenditure by municipal, town, urban and county councils is shown in Table 6.15. It should be noted that data for both 1980 and 1981 are provisional as the final accounts for some of the municipalities were not available at the time of the analysis. The municipalities for which accounts showing the actual 1980 and 1981 expenditure and revenue were not available include Thika, Nyeri, Meru and Kitale. However, based on the provisional data available, expenditure by all local authorities increased from K£60.14 million in 1980 to K£78.30 million in 1981 or by 30.2 per cent. The Nairobi City Council, whose expenditure increased by 33 per cent from K£31.5 million to K£41.40 million still accounts for more than half the total expenditure of local authorities.

EXPENDITURE OF LOCAL AUTHORITIES, 1977-1981

Table 6.15

K£million

	Municipalities			Town, Urban and County Councils	Total
	Nairobi City Council	Other Municipal Councils	Total		
1977	21.56	11.05	32.05	7.32	39.93
1978	24.24	11.39	35.63	9 44	45.07
1979	26.69	12.72	39.41	9.63	49.04
1980*	31.05	16.33	47.38	12.76	60.14
1981*	41.40	18.51	59.91	18.39	78.30

* Provisional.

6.14. Expenditure of the municipal councils on main services is shown in Table 6.16. Total expenditure increased from K£47.38 million in 1980 to K£59.91 million in 1981; an increase of approximately 26 per cent. There are significant increases in expenditure on all the services except on roads and sanitary services which declined by 15 per cent and 20 per cent, respectively.

MUNICIPAL COUNCILS: CURRENT AND CAPITAL EXPENDITURE ON MAIN SERVICES
1977-1981

Table 6.16 K£'000

	1977	1978	1979	1980*	1981*
Administration	3,556	4,350	5,178	5,938	8,909
Community Services:					
Roads	1,938	2,314	2,298	2,765	2,351
Sanitary Services	5,029	5,074	5,453	6,513	5,257
Other	1,118	1,264	1,478	1,599	2,364
Total	8,086	8,652	9,229	10,877	9,972
Social Services:					
Health	3,323	3,856	4,336	5,039	7,629
Education	5,320	6,126	6,692	7,578	10,818
Other	392	400	490	861	1,599
Total	9,035	10,382	11,518	13,478	20,046
Economic Services:					
General Administration	1,056	1,154	989	1,422	1,414
Water Undertakings	4,182	4,279	4,710	6,783	6,428
Housing Estates (Including Staff Housing)	5,529	5,322	5,881	6,258	6,063
Other	1,167	1,489	1,904	2,626	7,082
Total	11,934	12,244	13,484	17,089	20,987
Total Expenditure	32,611	35,628	39,409	47,382	59,914

*Provisional.

6.15. Economic expenditure by municipal councils is detailed in Table 6.17. Current expenditure which accounts for nearly 61 per cent of the total expenditure in 1981 increased by 22 per cent from K£30.17 million in 1980 to K£36.84 million in 1981. Capital expenditure on the other hand increased at a faster rate mainly due to the 42 per cent increase in expenditure on gross fixed capital formation from K£11.55 million in 1980 to K£16.42 million in 1981.

6.16. As detailed in Table 6.18 the major sources of revenue of the municipalities are direct taxes, sale of goods and services and loans. These three sources account for more than 90 per cent of the revenue of the municipalities. The large increase in loans raised was mainly used to finance higher capital formation. Overall, however, the revenue of the municipalities increased by

a modest 7 per cent mainly due to the fall in transfers from the Central Government which declined from K£9.79 million in 1980 to K£2.28 million in 1981.

MUNICIPAL COUNCILS: ECONOMIC ANALYSIS OF EXPENDITURE, 1977-1981

Table 6.17 K£'000

	1977	1978	1979	1980	1981*
Current Expenditure—					
Labour Costs	12,659	14,318	15,282	18,212	21,225
Other Goods and Services	6,658	7,230	9,055	10,607	14,368
Transfer to Households and Enterprises	423	628	552	907	879
Transfer to Funds (current)	310	578	298	446	365
Interest					
Total	20,050	22,754	25,187	30,172	36,837
Capital Expendture					
Gross Fixed Capital Formation	7,814	7,982	9,235	11,551	16,423
Loan Repayment**	4,498	4,495	4,930	5,028	5,906
Transfer to Funds (capital)	249	397	55	630	748
Total	12,561	12,874	14,220	17,210	23,077
Total Expenditure	32,611	35,628	39,407	47,382	59,914

*Provisional.
**Includes Interest

MUNICIPAL COUNCILS: ECONOMIC ANALYSIS OF REVENUE, 1977-1981

Table 6.18 K£'000

	1977	1978	1979	1980*	1981*
Current Revenue					
Direct Taxes (Rates**)	7,137	7,272	7,883	8,214	10,422
Indirect Taxes (Licences and cesses)	452	489	589	559	846
Income from Property	832	758	783	822	997
Current Transfers	5,326	6,420	6,954	9,791	2,284
Sales of Goods and Services	13,118	14,815	15,522	17,159	21,297
Total	26,865	29,754	31,731	36,545	35,846
Capital Revenue					
Loans Raised	5,698	5,767	5,833	8,786	12,107
Grants					
Loan Repayments	36	22	38	42	573
Total	5,734	5,789	5,871	8,828	12,680
Total Revenue	32,599	35,453	37,602	45,373	48,526

*Provisional.

**Paid by households and enterprises.

6.17. Expenditure and revenue of town, urban and county councils are shown in Table 6.19. The main expenditure of these councils is on labour costs, other goods and services and gross fixed capital formation whereas direct and indirect taxes, sales of goods and services and loans are the major components of revenue.

TOWN, URBAN AND COUNTY COUNCILS: ECONOMIC ANALYSIS OF EXPENDITURE AND REVENUE, 1977-1981

Table 6.19 K£'000

	1977	1978	1979	1980*	1981*
Current Expenditure—					
Labour Costs	3,495	4,598	5,397	6,627	8,415
Other Goods and Services	1,834	1,865	1,789	2,595	3,473
Transfers to Households and and Enterprises	360	324	471	332	554
Transfer to Funds (current)	56	100	139	222	396
Interest					
Total	5,745	6,887	7,796	9,776	12,838
Capital Expenditure—					
Gross Fixed Capital Formation	1,230	2,121	1,463	2,149	4,649
Loan Repayments**	307	318	339	574	712
Transfer to Funds (capital)	34	112	33	264	187
Total	1,571	2,551	1,835	2,987	5,548
Total Expenditure	7,316	9,438	9,631	12,763	18,386
Capital Revenue—					
Direct Taxes (Rates+)	982	915	1,000	1,283	1,237
Indirect Taxes (Licences and cesses)	5,431	4,123	3,770	4,328	5,418
Income from Property	831	1,117	1,026	503	1,289
Current Transfers	262	449	450	632	699
Sale of Goods and Services	2,227	2,650	2,792	4,063	4,676
Total	9,733	9,254	9,038	10,809	13,319
Capital Revenue—					
Loans Raised	309	458	630	1,004	3,116
Grants					
Loans Repayments	20	21	16	46	34
Total	329	479	646	1,050	3,150
Total Revenue	10,062	9,733	9,684	11,859	16,489

*Provisional.

**Includes Interest.

+Paid by households and enterprises.

CHAPTER 7—EXTERNAL TRADE AND THE BALANCE OF PAYMENTS

Despite increases in the quantities of Kenya's traditional exports and a major cut in the volume of imports, the trade and payments outcome for 1981 was again adverse. Steep increases in the unit prices of oil and non-oil imports in conjunction with generally stagnant export prices resulted in another increase in the import bill, and in a current account deficit on the balance of payments which exceeded the previous record deficit of 1980. Also because of reduced inflows of capital from the rest of the world, the government was forced to finance the large remaining payments gap by further borrowing and by running down the foreign exchange reserves.

Balance of Trade

7.2. Uganda and Tanzania remained the only trade surplus markets for Kenya. Table 7.1 shows that the combined surplus with these two markets dropped from K£70.1 million in 1980 to K£57.8 million in 1981 due to reduced level of export sales to Uganda. A substantial trade deficit was recorded with markets outside East Africa. Physical curbs on selected imports reduced the size of this deficit from K£514.5 million in 1980 to K£481.4 million, representing a fall of 6.4 per cent.

BALANCE OF TRADE, 1977-1981

Table 7.1 K£million

	1977	1978	1979	1980	1981*
Exports—					
To Markets outside E. Africa	428.9	336.6	351.9	428.6	457.5
Re-exports	11.0	17.9	19.1	15.5	15.9
To Uganda and Tanzania	61.9	41.2	41.8	71.6	58.9
Total	501.8	395.7	412.8	515.7	532 4
Imports—					
From outside East Africa	529.2	658.8	619.3	958.6	954.8
Commercial	493.3	628.8	581.8	888.7	871.8
Government	35.9	30.0	37.5	69.9	83.0
From Uganda and Tanzania	2.2	2.3	0.9	1.5	1.1
Total	531 4	661.1	620.2	960.1	955.9
Balance of Trade—					
With Markets outside E. Africa	-89.3	-304.3	-248.3	-514.5	-481.4
With Uganda and Tanzania	+59.7	+38.9	+40.9	+70.1	+57.8
Total	-29.6	-265.4	-207.4	-444.4	-423.5

*Provisional.

7.3. The overall trade deficit decreased by 4.7 per cent in response to current import restrictions. Continued use of such policy measures would reduce the size of the deficit further, but the eventual relief would depend on the type of structural changes effected in the domestic economy. In an economy heavily dependent on imported fuel, inputs to manufacturing industry and capital equipment, the degree of physical restrictions must necessarily be limited. Sustained industrial output is imperative for levels of employment and growth to be maintained. The demand for major industrial imports and fuel is therefore comparatively inelastic, and because of their substantial contribution to the import bill, solutions for further reduction in the trade deficit could perhaps better be sought in production changes for the export markets including diversification of export commodities. The scope for import-substitution, except in agricultural commodities, will remain limited until the next phase of industrial development into intermediate production to supply inputs currently imported has been reached.

Price Changes

7.4. Table 7.2 shows the export and import price indices for 1977-1981. In 1981, the average price of non-oil exports fell by 6.7 per cent largely

PRICE INDICES, 1977-1981

Table 7.2 1976 = 100

Exports	1977	1978	1979	1980	1981
Food and live animals	167	123	117	124	121
Beverages and tobacco	96	114	108	107	108
Crude materials, inedible	112	122	127	177	110
Mineral fuels	112	113	145	223	307
Animal and vegetable oils and fats	104	127	135	149	189
Chemicals	105	96	134	139	147
Manufactured goods	128	140	149	147	160
Machinery and transport equipment	120	127	144	144	157
Miscellaneous manufactured articles	124	125	130	155	124
All Exports	142	120	128	154	159
Non-oil Exports	150	123	124	135	126
Imports					
Food and live animals	87	86	76	150	185
Beverages and tobacco	115	130	125	148	168
Crude materials, inedible	99	123	120	154	146
Mineral fuels	108	106	130	220	336
Animal and vegetable oils and fats	136	131	140	133	116
Chemicals	100	101	133	178	189
Manufactured goods	109	118	126	151	154
Machinery and transport equipment	114	130	144	158	205
Miscellaneous manufactured articles	110	122	123	148	195
All Imports	108	114	132	173	220
Non-oil Imports	109	119	132	157	180

because of the reduction in prices of inedible crude materials including sisal, hides, skins and like items. The continuing difficulties on the world economic scene appears to have had a particular impact on this group of commodities in the year under review. The overall index for exports including refined petroleum actually showed an increase of 3.2 per cent in price in 1981.

7.5. The average price of all imports rose by 26.5 per cent between 1980 and 1981. The major element in this price rise was the increase of 52.7 per cent for crude petroleum. In the last two years the price of crude petroleum has risen by 158 per cent. Excluding oil imports, prices of imports rose by 14.6 per cent in line with inflation levels in Kenya's major trading partners and also as a result of the devaluations which took place during the year. Among groups of products, all showed rises except inedible crude materials and animal and vegetable oils and fats. Kenya's suppliers of inedible raw materials and animal and vegetable oils and fats are mainly other developing countries and their experience has been for a reduction in earnings from such products.

Volume Changes

7.6. Quantum indices shown in Table 7.3 indicate a significant increase in the volume of non-oil exports including the main agricultural commodities. The overall export volume, however, remained unchanged, despite a decrease in the volume of petroleum product exports to neighbouring countries. The volume of imports, on the other hand, decreased sharply by 19.5 per cent in 1981. Apart from animal and vegetable oils and fats and inedible crude materials, which recorded small volume increases, all other imported items, particularly mineral fuels, food, machinery and transport equipment experienced substantial falls in volume. The drop in the volume of food imports reflects the much improved maize production recorded later in 1981 in response to better weather conditions. The reduced volume of crude petroleum imports, on the other hand, reflects lower domestic demand but more particularly less processing for export while the drop in the volume of imports of transport equipment is a response to import controls.

Terms of Trade

7.7. Kenya's terms of trade deteriorated further in 1981 due to the much higher prices of imports. The terms of trade for all items dropped from 89 to 72 representing a fall of 19.1 per cent. The terms of trade for non-oil items fell by smaller proportion of 18.6 per cent.

Analysis by Broad Economic Categories

7.8. Exports.—Table 7.5 gives details on exports by broad economic category. The exports of unprocessed food and beverages which include coffee tea continue to be the chief source of foreign exchange earnings. The

QUANTUM INDICES, 1977-1981

Table 7.3 1976 = 100

Exports	1977	1978	1979	1980	1981
Food and live animals	116	112	115	105	119
Beverages and tobacco	155	120	129	319	208
Crude materials, inedible	85	81	93	90	154
Mineral fuels	107	89	80	102	75
Animal and vegetable oils and fats	25	13	18	16	18
Chemicals	85	89	75	66	65
Manufactured goods	74	68	66	82	69
Machinery and transport equipment	53	46	41	68	46
Miscellaneous manufactured articles	78	77	81	103	93
All Exports	104	96	94	97	97
Non-oil Exports	102	96	97	95	107
Imports					
Food and live animals	103	172	139	219	113
Beverages and tobacco	58	99	107	44	27
Crude materials, inedible	150	103	94	91	116
Mineral fuels	104	107	108	126	106
Animal and vegetable oils and fats	90	110	101	151	182
Chemicals	145	155	121	128	122
Manufactured goods	115	128	110	118	93
Machinery and transport equipment	136	176	126	150	105
Miscellaneous manufactured articles	107	112	111	121	99
All Imports	122	142	116	133	107
Non-oil Imports	126	151	118	136	107

TERMS OF TRADE, 1977-1981

Table 7.4 1976 = 100

	1977	1978	1979	1980	1981
All Items	131	105	97	89	72
Non-oil Items	138	103	94	86	70

value of these exports increased by 6 per cent from K£181.5 million in 1980 to K£192.3 million in 1981. The export earnings of processed food and beverages, including those for household consumption, experienced the substantial increase of 36 per cent which indicates some increase in the domestic processing of primary food supplies. Export earnings from fuel and lubricants decreased by 2.5 per cent, and the share of these commodities in overall export earnings decreased from 33.3 per cent in 1980 to 31.2 per cent in 1981. The share of food and beverages increased from 43.6 per cent in 1980 to 46.1 per cent in 1981. The remaining exports are mostly non-food industrial supplies, whose total value increased from K£89.7 million in

1980 to K£92.8 million in 1981 representing a percentage increase of 3.4. Total processed products, including consumer durables, were equal to 49 per cent and 48 per cent respectively of total exports but excluding processed petroleum products the shares fell to 16 and 17 per cent respectively in 1980 and 1981.

Table 7.5 TOTAL EXPORTS* BY BROAD ECONOMIC CATEGORY,1977-1981 K£'000

	1977	1978	1979	1980	1981
1. Food and Beverages	315,102	217,688	211,282	312,547	234,733
Primary	289,158	198,338	186,246	181,459	192,332
For Industry	206,258	126,025	112,859	109,901	112,793
For Household Consumption	82,901	72,313	73,387	71,558	79,539
Processed	25,943	19,350	25,036	31,088	42,401
For Industry	2,117	711	3,348	13,868	15,741
For Household Consumption	23,826	18,639	21,688	17,220	26,660
2. Industrial Supplies (Non-Food)	64,790	65,973	79,151	89,668	92,800
Primary	27,911	30,182	38,675	48,385	52,414
Processed	36,879	35,792	40,476	41,283	40,385
3. Fuel and Lubricants	83,198	68,985	77,179	162,533	158,354
Primary	220	215	14	19	21
Processed	82,978	68,771	77,165	162,514	158,332
Motor Spirit	13,578	10,390	10,815	19,651	21,883
Other	69,400	58,381	66,350	142,863	136,449
4. Machinery and other Capital Equipment .	1,228	1,489	1,510	2,481	1,978
Machinery and Other Capital Equipment	1,162	1,450	1,286	2,224	1,729
Parts and Accessories	66	39	224	258	250
5. Transport Equipment	999	965	928	1,662	2,159
Passenger Motor Vehicles				9	
Other	492	448	479	692	350
Industrial	488	463	453	518	312
Non-Industrial	4	5	26	175	38
Parts and Accessories	507	518	449	960	1,810
6. Consumer Goods not elsewhere specified	14,627	14,615	15,211	18,385	18,685
Durable	346	510	555	898	649
Semi-Durable	4,113	5,414	4,197	4,062	4,216
Non-Durable	10,168	8,691	10,459	13,425	13,819
7. Goods not elsewhere specified	314	250	272	368	209
Total	480,259	369,965	385,533	487,644	508,918
Percentage Shares					
1. Food and Beverages	65.6	58.8	54.8	43.6	46.1
2. Industrial Supplies (Non-Food)	13.5	17.8	20.5	18.4	18.2
3. Fuel and Lubricants	17.3	18.6	20.0	33.3	31.1
4. Machinery and other Capital Equipment	0.3	0.4	0.4	0.5	0.4
5. Transport Equipment	0.2	0.3	0.2	0.3	0.4
6. Consumer Goods not elsewhere specified	3.0	4.0	4.0	3.8	3.7
Goods not elsewhere specified	0.1	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0

*Excluding Re-exports.

Export Quantities

7.9. *Primary and manufactured goods.*—The export quantities of most agricultural and manufactured commodities, including coffee, tea, sisal, hides and skins, cement, canned pineapples and maize, experienced moderate

increases in 1981. As indicated in Table 7.6, the quantity of coffee exported increased from 80,086 tonnes in 1980 to 88,641 tonnes in 1981 representing an increase of 10.6 per cent. This quantity may be compared with the record quantity of 94,344 tonnes exported during the coffee boom of 1977. The

QUANTITIES OF PRINCIPAL EXPORTS, 1977-1981

Table 7.6

	Unit	1977	1978	1979	1980	1981*
Coffee	Tonnes	94,344	85,434	77,259	80,086	88,641
Tea	"	70,220	84,968	94,023	74,799	75,438
Petroleum Products	Million Litres	1,634	1,399	1,174	1,825	1,336
Pyrethrum products	Tonnes	3,694	1,656	955	759	598
Meat Products	"	9,344	3,033	2,643	1,253	1,879
Sisal	"	24,925	26,870	25,959	40,415	41,536
Hides and skins	"	11,389	10,893	13,081	8,485	12,964
Soda Ash	"	101,787	160,625	215,669	192,821	113,659
Fluorspar	"	100,208	102,900	59,352	100,674	88,192
Cement	"	662,132	610,100	510,206	530,393	652,463
Maize (raw)	"	8,136	23,432	120,475	20	991
Canned pineapples	"	45,329	42,082	41,048	38,453	40,819
Butter and ghee	"	1,063	1,581	1,206	230	565
Beans and peas	"		14,777	9,735	10,137	6,783
Cotton (raw)	"	763	2,110	1,886	4,020	3,179
Wool	"	1,360	1,165	1,080	1,706	1,277
Animal feeds	"	17,730	22,626	23,030	5,201	7,828
Cashew nuts	"	1,100	-	73	10,700	3,372

*Provisional.

volume of tea exported in 1981 also rose a little but the volume of 75,438 tonnes was much lower than the quantities dispatched in 1978 and 1979. Other commodities whose export volumes increased in 1981 include animal feeds, butter and ghee. In spite of volume increases of the export commodities referred to, the overall trend in volume changes was effected by the decrease in petroleum products, which dropped from 1,825 million litres in 1980 to only 1,336 million litres in 1981. A significant decrease was also recorded in the quantities of soda ash which dropped by 39 per cent.

Export Prices

7.10. The average coffee export price dropped in 1981 to its lowest level in five years, as shown in Table 7.7. The table also shows that the experience of other primary commodities was not favourable either; sisal, hides and skins, and raw cotton are among the commodities whose prices fell in 1981. The price of raw cotton, for example, dropped by 3.5 per cent and sisal prices fell by the same proportion.

7.11. Significant price increases were recorded for petroleum product exports, which increased by 37 per cent during the year. Tea prices showed a rise of 5.3 per cent and soda ash, fluorspar and wattle bark experienced more significant increases, as can be seen in Table 7.7.

EXPORT PRICES, 1977-1981

Table 7.7 *K.Sh.*/Unit

	Unit of Quantity	1977	1978	1979	1980	1981*
Coffee unroasted	Kg.	43.33	29.20	28.63	27.01	24.71
Tea	Kg.	20.44	14.87	13.37	15.51	16.19
Petroleum products	1,000 Lt.	866.22	860.86	1,159.51	1,663.94	2,277.77
Maize	100 Kg.	162.11	60.91	88.40	406.42	136.44
Meat and products	Kg.	16.26	17.95	20.34	25.25	27.75
Pyrethrum extract	Kg.	238.17	312.73	281.84	633.82	676.60
Sisal	100 Kg.	315.65	303.33	372.87	438.08	423.73
Hides and skins, undressed	Kg.	14.09	18.04	21.05	22.50	14.20
Wattle extract	Kg.	3.13	3.16	3.50	3.56	5.17
Soda ash	100 Kg.	52.80	45.90	51.53	81.07	126.83
Fluorspar	100 Kg.	49.69	49.89	66.85	64.50	97.79
Cement	100 Kg.	25.88	29.53	32.72	38.29	43.99
Beans, peas, etc.	Kg.	2.49	2.90	3.06	2.99	5.58
Cashew nuts, raw	Kg.	2.29	–	15.54	3.12	7.83
Wool	Kg.	11.46	11.98	12.92	11.15	15.27
Animal feed	100 Kg.	134.55	89.94	94.33	121.56	98.66
Cotton, raw	Kg.	11.39	13.16	9.81	12.96	12.50
Pineapples, canned	Kg.	4.64	4.55	4.54	4.60	5.88
Butter and ghee	Kg.	12.25	12.03	14.04	15.89	20.39
Wattle bark	100 Kg.	108.74	105.16	–	95.21	146.78

*Provisional.

EXPORT CHANGE IN VALUE, QUANTITY AND PRICE,* 1980-1981

Table 7.8

	VALUE K£'000			PERCENTAGE CHANGE IN		
	1980	1981**	Change	Value	Quantity	Price
Coffee, unroasted	108,129.2	109,441.2	1,312.0	1.2	10.7	-8.5
Tea	58,003.5	61,082.1	3,078.6	5.3	0.9	4.4
Petroleum products	151,810.1	152,170.3	360.2	0.2	-26.8	36.9
Meat and products	1,582.5	2,607.7	1,025.2	64.8	50.0	9.9
Pyrethrum extract	9,027.5	5,971.7	-3,055.8	-33.8	38.0	6.7
Sisal	8,852.5	8,800.0	-52.5	-0.6	2.8	-3.3
Hides and skins, undressed	9,547.3	9,206.2	-341.1	-3.6	52.6	-36.9
Wattle extract	2,105.9	2,743.1	637.2	30.3	-10.2	45.2
Soda ash	7,816.4	7,207.7	-608.7	-7.8	-41.1	56.4
Fluorspar	3,246.7	4,312.0	1,065.3	32.8	-12.4	51.6
Cement ..	10,154.2	14,349.8	4,195.6	41.3	23.0	14.9
Beans, peas etc.	1,517.2	1,892.9	375.7	24.8	-33.1	86.6
Cashewnuts,raw	1,667.1	1,319.3	-347.8	-20.9	-68.5	151.0
Wool	951.4	975.1	23.7	2.5	-25.1	37.0
Animal feed	316.1	386.2	70.1	22.2	50.5	-18.8
Cotton, raw	1,605.0	1,986.9	-618.1	-23.7	-20.9	-3.5
Pineapples, canned	8,853.1	11,997.7	3,144.6	35.5	6.2	27.8
Butter and ghee .	182.4	575.7	393.3	215.6	145.7	28.3
wood carvings	542.3	551.1	8.8	1.6	-3.7	5.5
Metal scrap	462.0	499.7	37.7	8.2	-8.9	18.7
Wattle bark	14.3	56.1	41.8	292.3	154.3	54.2
All other items	100,257.3	110,785.7	10,528.4	10.5	–	–
TOTAL	487,644.0	508,918.2	21,274.2	4.4	-	ð

Excluding Re-exports.
**Provisional.

7.12. The fourth development plan for 1979-83 stipulates that special efforts be made to encourage local industries to become more export oriented. The Kenya External Trade Authority, which is a division of the Department of External Trade, has had a direct administrative responsibility to generate such efforts geared towards the expansion and diversification of Kenya's export markets. During 1981, KETA organized a trade fair in London and participated in seven other trade fairs and exhibitions in Zambia, Zimbabwe, Sudan, West Germany, Egypt, Iraq and India. The authority also conducted a comprehensive market survey in Zimbabwe. These and other programmes on export marketing had a direct impact on the expansion of Kenya's external market.

7.13. *Imports*.—Table 7.9 indicates total imports by broad economic categories in 1977-81 while Table 7.10 shows selected imports over the same period. The pattern of the country's import demand has changed to some extent since 1977, when non-food industrial supplies had the largest percentage share of total imports. The price rises for crude petroleum were such that the share of fuels and lubricants rose from 22.0 per cent in 1977 to 33.6 per cent in 1980 and 38.7 per cent in 1981. Machinery and other capital equipment accounted for 17.3 per cent of imports in 1981, a rise from the 16.1 per cent of 1980 but below the average of 20.8 per cent for 1978 to 1979.

7.14. Imports of primary foods and beverages for industrial purposes rose by the small margin of 3 per cent in 1981. Processed food items used in industry rose from K£20.0 to K£23.4 million only, but food items intended for household consumption decreased. Total imports of food and beverages represented only 4.6 per cent of the total import bill in 1981.

7.15. Imports of non-food industrial supplies decreased by 9.2 per cent in 1981. The principal import, mainly fuels and lubricants, increased by 14.7 per cent in 1981, rising in value from K£322.4 million in 1980 to K£369.9 million in 1981. The component of primary fuels and lubricants increased by the larger proportion of 20.5 per cent, while the imports of processed fuels decreased sharply.

7.16. Table 7.10 indicates that crude petroleum is the largest import component of fuel imports. The value of crude petroleum imports rose by 20.0 per cent, from K£281.7 million in 1980 to K£338.1 million in 1981. The volume of crude petroleum imports dropped, however, by 15 per cent from 3.1 million tonnes in 1980 to 2.6 million tonnes in 1981 (see Chapter 10).

7.17. Imports of machinery and other capital equipment increased by 6.8 per cent in 1981. As price rises for such equipment were much more than this percentage, the figures indicate a lower volume of imports and this will have an impact on investment and growth in the economy.

The imports of transport equipment, including motor vehicle parts and accessories, decreased sharply by 27.3 per cent in response to restrictive policies on imports of complete vehicles. This was also the case with a range of unspecified consumer items imports which fell by 16.5 per cent. For a country whose exports are still basically coffee, tea and petroleum products, the impact of relatively poor world trading conditions can be particularly significant. When import restrictions have to be resorted to, their impact will naturally be greater on consumer-type products than on those required to sustain investment and industrial activity.

TOTAL IMPORTS BY BROAD ECONOMIC CATEGORY, 1977-1981

Table 7.9 K£'000

	1977	1978	1979	1980	1981*
1. Food and Beverages	27,459	38,503	32,884	41,261	43,841
Primary	4,977	11,729	9,861	11,842	12,202
For Industry	2,894	7,245	3,006	7,230	6,326
For Household Consumption	2,083	4,484	6,855	4,612	5,876
Processed	22,482	26,774	23,022	29,419	31,639
For Industry	14,575	16,937	14,253	20,051	23,446
For Household Consumption	7,907	9,837	8,769	9,368	8,193
2. Industrial Supplies (Non-Food)	160,780	179,812	179,736	262,606	238,424
Primary	13,147	13,350	8,915	33,951	15,274
Processed	147,633	166,462	170,821	228,655	223,150
3. Fuels and Lubricants	117,147	117,778	147,285	322,403	369,924
Primary	101,007	93,861	120,934	282,698	340,741
Processed	16,140	23,917	26,351	39,705	29,183
Motor Spirit	2,652	5,000	5,334	4,661	1,672
Other	13,488	18,917	21,016	35,043	27,511
4. Machinery and other Capital Equipment	103,006	141,074	125,107	154,604	165,203
Machinery and other Capital Equipment	91,439	126,052	93,751	111,686	116,274
Parts and Accessories	11,567	15,022	31,356	42,919	48,929
5. Transport Equipment	76,054	126,652	94,877	121,146	87,990
Passenger Motor Vehicles	12,412	20,182	11,173	18,718	8,132
Other	38,502	63,706	57,852	59,752	46,781
Industrial	38,059	62,735	56,760	58,158	45,569
Non-Industrial	443	971	1,092	1,594	1,212
Parts and Accessories	25,140	42,764	25,852	42,676	33,077
6. Consumer Goods not elsewhere specified	46,355	55,299	39,621	57,740	48,213
Durable	9,034	12,365	7,667	13,380	10,396
Semi-Durable	21,431	21,202	12,623	16,577	11,929
Non-Durable	15,890	21,732	19,330	27,783	25,887
7. Goods not elsewhere specified	644	2,007	647	367	2,310
Total	531,446	661,125	620,156	960,127	955,905

PERCENTAGE SHARES

1. Food and Beverages	5.2	5.8	5.3	4.3	4.6
2. Industrial Supplies (Non-Food)	30.3	27.2	29.0	27.4	24.9
3. Fuels and Lubricants	22.0	17.8	23.7	33.6	38.7
4.Machinery and other Capital Equipment	19.4	21.3	20.2	16.1	17.3
5.Transport Equipment	14.3	19.2	15.3	12.6	9.2
6. Consumer Goods not elsewhere specified	8.7	8.4	6.4	6.0	5.1
7. Goods not elsewhere specified	0.1	0.3	0.1		0.2
Total	100.0	100.0	100.0	100.0	100.0

*Provisional.

Table 7.10 SELECTED IMPORTS, 1977-1981

K£ *million*

	1977	1978	1979	1980	1981
Crude Petroleum	100.60	92.34	120.09	281.72	338.13
Motor Vehicles and Chassis	40.80	68.80	45.12	67.56	44.91
Agricultural Machinery and Tractors	16.60	18.58	7.57	10.16	11.59
Industrial Machinery (including Electrical	92.13	130.18	113.25	145.42	153.93
Iron and Steel	32.64	41.82	37.63	50.47	36.94
Cotton Fabrics	0.44	0.44	0.41	1.16	0.29
Synthetic Fabrics	3.20	2.38	1.88	2.25	2.71
Paper and Paper Products	9.03	10.26	12.30	12.91	14.30
Pharmaceuticals	10.18	13.19	11.23	15.90	17.69
Fertilizers	9.47	10.01	5.34	15.84	24.07

Table 7.11 DESTINATION OF TOTAL EXPORTS*, 1977-1981

K£'000

	1977	1978	1979	1980	1981
E.E.C.—					
United Kingdom	63,594	57,197	58,791	58,846	59,914
West Germany	85,951	56,813	60,836	56,017	58,441
Italy	13,442	18,891	23,804	23,733	20,193
France	6,074	5,685	5,119	6,349	5,884
Netherlands	51,345	24,351	17,702	17,692	21,050
Other	11,716	9,248	11,311	12,470	12,605
Total	232,167	172,185	177,563	175,107	178,087
Other Western Europe Total	26,273	21,585	21,657	23,550	18,927
Eastern Europe Total	14,891	6,930	4,801	4,942	6.951
U.S.A	27,592	18,519	16,737	16,929	19,547
Canada	8,458	5,336	5,715	5,070	4,024
africa—					
Tanzania	9,822	2,756	4,075	5,216	6,326
Uganda	51,992	38,443	37,747	66,378	52,619
Zambia	6,897	5,702	5,847	4,948	2,160
Other	41,550	47,083	51,287	64,463	96,689
Total	110,261	93,984	98,956	141,005	157,794
Middle East—					
Iran	2,065	1,769		1,191	1,779
Other	10,561	8,885	14,847	18,159	23,623
Total	12,626	10,654	14,847	19,350	25,402
Far East and Australia—					
Australia	1,848	1,450	1,238	1,621	2,382
Japan	5,233	3,807	5,100	3,828	3,749
India	1,623	1,559	2,197	4,077	4,950
China (Mainland)	1,463	2,702	1,959	1,956	633
Other	16,612	1,6949	21,043	56,498	57,466
Total	26,779	26,467	31,537	67,980	69,180
All Other Countries	11,833	10,851	8,451	3,549	2,961
Aircraft and Ships Stores	30,939	29,201	32,523	58,222	49,478
All Exports	501,819	395,712	412,787	515,704	632,350

*Excluding gold and currency but including Re-Exports.

Direction of Trade

7.19. The destination of Kenya's total exports in 1977 to 1981 is shown in Table 7.11. The principal destinations of Kenya's exports are the European Economic Community (EEC) and African countries. In both 1980 and 1981 about a third of Kenya's exports were sold to the EEC markets, mainly the United Kingdom and West Germany, in both years the EEC was Kenya's largest single regional market.

7.20. Following the EEC, Africa takes the second position as a principal consumer of Kenyan exports. The proportion of exports going to African countries rose from 27.3 per cent in 1980 to 29.6 per cent in 1981. This increase is due to Kenya's position as an enclave of manufacturing activity, supplying a range of manufactured and processed items to the neighbouring countries. Uganda is our principal trading partner in Africa. Uganda's share of Kenya exports to Africa rose from 38 per cent in 1979 to 47 per cent in 1980 but fell to 33 per cent in 1981. The main export items destined for the Ugandan market are refined petroleum products and various manufactured items.

7.21. Australia and the Far East are relatively small markets for Kenya goods, accounting for an average of 6.1 per cent of the total Kenyan exports from 1977 to 1979. This percentage increased to 13.2 in 1980 but fell slightly to 12.9 per cent in 1981. The steep rise in the percentage value of exports to those destinations in 1980 indicates a growing significance of those markets particularly India and Australia. The U.S.A. and the Middle East remain comparatively small but growing markets. The share of the USA in Kenyan exports rose from 3.3 per cent in 1980 to 3.6 per cent in 1981. The Middle East share was somewhat larger, and rose from 3.7 per cent in 1980 to 4.7 per cent in 1981. This increase in the share of trade between Kenya and such non-traditional markets indicates some diversification of Kenya's export markets.

Origin of Total Imports

7.22. Table 7.12 indicates that the EEC also remains the leading source of Kenya's imports. In 1981, 35.5 per cent of Kenya's total imports originated from the EEC, a little lower than the 1980 percentage under the influence of the growing cost of oil imports from the Middle East. Imports from the EEC decreased in value from K£354.5 million in 1980 to K£328.8 million in 1981. The Middle East is the second largest source of Kenya's imports, almost entirely comprised of crude petroleum. Imports from the Middle East increased by 4.8 per cent.

7.23 The U.S.A. and Japan constitute the remaining major sources of imports. Imports from U.S.A. increased by 4.4 per cent in 1981, while imports Japan decreased by 17.2 per cent largely because of restrictions on vehicle imports.

Table 7.12 ORIGIN OF TOTAL IMPORTS, 1977-1981 K£'000

	1977	1978	1979	1980	1981
E.E.C.—					
United Kingdom..	95,218	145,933	141,311	162,558	156,579
West Germany	57,852	87,755	68,809	77,661	75,034
Italy	22,006	33,490	23,743	37,693	25,046
France	26,316	30,831	17,627	32,690	31,038
Netherlands	10,901	15,096	14,112	22,879	21,059
Other	16,859	34,578	18,669	21,052	20,080
Total	229,152	337,683	284,273	354,533	328,836
Other Western Europe Total	27,969	29,553	35,377	39,070	44,929
Eastern Europe Total	4,246	5,340	4,737	6,606	6,209
U.S.A.	30,482	41,096	34,925	60,998	63,640
Canada	5,276	3,877	5,589	5,117	11,771
Africa—					
Tanzania	1,622	353	102	309	273
Uganda	581	1,977	804	1,206	800
Zambia	1,030	1,575	1,243	1,518	1,592
Other	4,923	5,270	9,804	26,414	14,521
Total	8,156	9,175	11,953	29,447	17,186
Middle East—					
Iran	45,506	44,816	26,289	20,577	24,179
Other	44,860	28,844	109,932	281,593	323,112
Total	90,366	73,660	136,221	302,170	347,300
Far East and Australia—					
Australia	5,291	10,291	8,078	6,130	8,403
Japan	65,603	67,912	49,927	88,409	73,263
India	11,720	15,818	10,154	13,007	10,133
China (Mainland)	5,814	5,103	4,804	7,608	8,142
Other	25,552	23,832	25,583	36,786	32,625
Total	113,980	122,956	98,546	151,940	132,566
All other countries	21,260	37,234	8,535	10,244	3,468
Parcel Post and Special Transactions	559	551		2	
Total	531,446	661,125	620,156	960,127	955,905

7.24. Kenya's trade with other African countries is shown in Table 7.13. The greatest barrier to intra-African trade is the lack of developed transport and communication systems, as a result of which the pattern of continental trade has been highly localized. Accessibility problems have made it necessary for countries to forge close trading ties with those neighbours with whom reasonable road and rail transport links exist. With the Tanzania border remaining closed, it is not surprising that Uganda is Kenya's main trading partner and that Rwanda, Burundi and Sudan are also important. The overall volume of Afro-Kenyan trade increased by 2.6 per cent in 1981, with the value of exports increasing by 11.8 per cent. Substantial increases were recorded in exports to Burundi, Sudan, Rwanda and Mozambique among others. Exports to Zambia remained small and handicapped by the continued closure of the Tanzania-Kenya border. Kenya's imports from African countries decreased sharply by 41.6 per cent in 1981. This was due to a dramatic fall in imports from Mozambique, as can be seen from the table.

TRADE WITH AFRICAN COUNTRIES, 1977-1981

K£'000

Table 7.13

	EXPORTS*					IMPORTS				
	1977	1978	1979	1980	1981	1977	1978	1979	1980	1981
MAINLAND—	51,992	38,443	37,747	66,378	52,619	581	1,977	804	1,206	800
Uganda	9,822	2,756	4,075	5,216	6,326	1,622	353	102	309	273
Tanzania	6,897	5,702	5,847	4,948	2,160	1,030	1,575	1,243	1,518	1,592
Zambia	1,923	2,705	2,346	2,365	1,580	245	616	2,241	2,526	4,259
Ethiopia	1,855	3,412	4,552	7,329	12,929	–	–	1,158	115	274
Burundi	2,397	3,574	2,678	4.738	1,961	105	20	71	44	29
Somalia	5,035	7,027	7,665	9,949	12,401	1,161	23	210	8	22
Sudan	6,241	7,999	8,551	12,638	22,164	1,259	2,333	3,289	2,623	3,690
Rwanda	3,445	2,535	3,142	3,909	5,579	606	467	533	157	720
Zaire	376	407	348	285	519	104	228	211	554	587
Malawi	577	493	443	570	10,541	484	1,016	527	18,916	2,547
Mozambique	7,309	5,141	6,061	3,074	3,271	58	73	39	129	49
Egypt	51	2,887	331	2,588	228	–	-	6	-	–
Algeria and Libya	884	1,352	675	1,713	2,138	20	20	12	12	29
Ghana and Nigeria	4,819	2,470	5,298	9,438	14,679	865	329	1,486	1,172	2,118
Other										
TOTAL	103,623	86,903	89,759	135,138	149,095	8,140	9,030	11,932	29,289	16,989
–										
	3,286	3,067	4,832	3,605	5,231	10	135	9	137	192
Mauritius	772	717	1,377	1,090	1,871		-	-	7	–
Reunion	2,580	3,297	2,988	1,172	1,597	6	10	12	14	5
Others**										
TOTAL	110,261	93,984	98,956	141,005	157,794	8,156	9,175	11,953	29,447	17,186
Percentage of all Exports/ Imports	22.0	23.8	24.0	27.3	29.6	1.5	1.4	1.9	3.1	1.8

*Including Re-exporters.

**Madagascar and Seychelles.

KENYA BALANCE OF PAYMENTS, 1979-1981

Table 7.14 *K£million*

	1979 ++			1980			1981*		
	Debits/ Assets	Credits/ Liabilities	Net Credits	Debits/ Assets	Credits/ Liabilities	Net Credits	Debits/ Assets	Credits/ Liabilities	Net Credits
A. CURRENT ACCOUNT									
1. Merchandise transactions: Imports (c.i.f.) Exports (f.o.b.)	684.9	385.5	*Dr.* 299.4	976.8	461.0	*Dr.* 515.8	995.3	462.8	*Dr.* 532.5
2. Freight and Insurance	3.2	39.3	36.1	1.5	27.9	26.4	3.7	42.3	38.6
3. Other Transportation	18.7	81.5	62.8	26.9	127.9	101.0	17.6	115.8	98.2
4. Foreign Travel	1.3	65.1	53.8	12.4	83.0	70.6	5.1	96.8	91.7
5. International Investment Income	91.0	19.0	*Dr.* 72.0	76.0	16.9	*Dr.* 59.1	109.3	20.6	*Dr.* 88.7
6. Government Transactions n.e.s.	17.6	10.7	*Dr.* 6.9	14.3	15.4	1.1	15.7	22.3	6.6
7. Other Services	16.4	21.6	5.2	30.9	23.8	*Dr.* 7.1	16.7	29.0	2.3
8. Private Transfers	9.9	13.9	4.0	9.3	18.8	9.5	8.5	13.7	5.2
9. Government Transfers+	2.5	32.6	30.1	0.1	42.4	42.3	2.3	37.3	35.0
TOTAL CURRENT ACCOUNT	855.5	669.2	*Dr.* 186.3	1,148.2	817.1	*Dr.* 331.1	1,174.2	840.6	*Dr.* 333.6
of which; Visible Balance	684.9	385.5	*Dr.* 299.4	976.8	461.0	*Dr.* 515.8	995.3	462.8	*Dr.* 532.5
Invisible Balance	170.6	283.7	113.1	171.4	356.1	184.7	178.9	377.8	198.9
B. CAPITAL MOVEMENTS									
10. Private Long-term	2.8	80.3	77.5	2.3	73.4	71.1	3.2	76.4	73.2
11. Government Long-term	—	113.1	113.1	—	146.4	146.4	—	92.6	92.6
12. Government Corporations**	—	*Dr.* 1.1	*Dr.* 1.1	—	*Dr.* 2.5	*Dr.* 2.5		16.2	16.2
13. Short-term	13.0	77.3	64.3	2.9	49.6	46.7	20.5	70.3	49.8
TOTAL	15.8	269.6	253.8	5.2	266.9	261.7	23.7	255.5	231.8
C. MONETARY MOVEMENTS									
14. Transactions with IMF	34.5	30.6	*Dr.* 3.9	*Cr.* 13.4	41.4	54.8	7.8	50.5	47.7
15. Other Changes in Assets and Liabilities	68.3	1.6	*Dr.* 66.7	*Cr.* 20.1	*Dr.* 2.7	17.4	*Cr.* 56.3	0.1	56.4
TOTAL	102.8	32.2	*Dr.* 70.6	*Cr.* 33.5	38.7	72.2	*Cr.* 48.5	50.6	99.1
D. ERRORS AND OMISSIONS			3.1			*Dr.* 2.8			2.7

*Provisional.
**Former E.A. Community Corporations only.
+Includes capital grants.
++Revised.

The Balance of Payments

7.25. Longer-term developments in Kenya's balance of payments are analysed in Chapter 3. So far as 1981 is concerned, the payments outturn is provided in Table 7.14 and the major changes are summarized in Table 7.15. The salient facts are that Kenya suffered an even larger deficit on current account in 1981 than the record deficit of 1980. Inflows of capital, which could finance this deficit, unfortunately dropped off, leaving a larger part of crude petroleum imports, on the other hand, reflects lower domestic demand the current deficit to be financed by borrowing from abroad and by running down the country's international reserves. Thus, the balance of payments has become a problem during the past few years.

7.26. A major reason for the poor outturn in 1981 was adverse movement in the terms of trade noted earlier—the fourth successive year in which a worsening had been experienced. It was the terms of trade, rather than adverse movements in the quantities traded, that was crucial, for it has already been noted that there was a sharp cut in the quantity of imports, while export volumes remained constant overall.

CHANGES IN KEY BALANCE OF PAYMENTS MAGNITUDES*, 1979-1981

Table 7.15 *K£ million*

	1979	1980	1981
Exports (fob)	+16.1	+75.5	+1.8
Imports (cif)	+40.0	-291.9	-18.5
Services (net)	+14.0	+53.9	+25.8
Transfers (net)	-1.1	+17.7	-11.6
Change on Current Account	+69.0	-144.8	-2.5
Private long-term capital (net)	+18.7	-6.4	+2.1
Public long-term capital (net)	+2.8	+31.9	-35.0
Change on basic balance (net balance on lines 5.7)	+90.5	-119.3	-35.5
Short-term capital and errors and omissions (net)	+57.7	-23.5	+8.6
Net change on all above items (= Monetary Movements)	+148.2	-142.8	-26.9

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

7.27. Table 7.15 shows that there was an improvement in the net balance services but that there was a fall in net receipts of transfers. Even more nous, in the light of the large current deficit to be financed, was the K£35 million decline in receipts of long-term capital in the public sector.

CENTRAL MONETARY AUTHORITIES: FOREIGN EXCHANGE RESERVES, 1976-1981

Table 7.16

K£'000

As at end of	CENTRAL BANK OF KENYA				Total Net Foreign Reserves of Central Govern-ment	Total Net Foreign Reserves of Central Monetary Authorities	GENERAL ACCOUNT WITH I.M.F.			Counter-part Liability+ S.D.R. Account
	S.D.R'S	Foreign Reserves	Foreign Liabilities (other than to I.M.F.)	Total Net Foreign Reserves of Central Bank**			Sub-scription	I.M.F. holding of Kenya Currency	Net use of Fund Credit*	
1976	1,388	112,944	1,134	113,198	799	113,997	23,184	64,254	41,070	6,721
1977	5,988	204,408	3,019	207,377	1,214	208,591	23,184	46,199	23,015	6,721
1978	5,293	129,909	3,294	131,908	1,420	133,328	33,327	58,583	25,256	6,721
1979	39,821	197,766	4,877	232,710	1,829	234,538	33,327	85,636	52.309	10,781
1980	9,730	176,362	2,224	183,868	3,097	186,965	49,991	123,565	73,574	14,467
1981—										
January	12,175	167,800	2,387	177,588	3,028	180,616	49,991	122,816	72,825	17,866
February	11,887	171,132	2,427	180,592	2,626	183,218	52,527	128,947	76,420	18,775
March	11,887	173,431	2,112	183,206	4,281	187,487	52,527	144,172	91,645	18,775
April	11,099	158,699	2,392	167,406	2,426	169,832	52,527	143,383	90,856	18,775
May	10,173	156,450	2,866	163,757	2,609	166,366	52,527	143,285	90,758	18,775
June	10,450	145,497	2,997	152,950	2,136	155,086	52,527	145,821	93,294	18,775
July	8,026	129,842	2,881	134,987	2,569	137,556	52,527	144,936	92,409	18,775
August	6,878	116,661	2,811	120,728	3,145	123,873	52,527	144,837	92,310	18,775
September	8,098	110,334	3,267	115,165	3,586	118,751	61,842	167,537	105,695	22,102
October	6,944	98,900	2,863	102,981	3,629	106,610	61,842	166,610	104,768	22,102
November	5,615	128,459	2,512	131,562	4,069	135,631	61,842	166,494	104,652	22,102
December	5,615	119,180	2,297	122,498	3,933	126,431	61,842	166,494	104.652	22,102

Source: Central Bank of Kenya.
*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.

International Liquidity

7.28. The foreign exchange reserves of the central monetary authorities are detailed in Table 7.16. As shown in this table, Special Drawing Rights (SDR's), after their particularly sharp rise in 1979, had fallen by December back to their 1977/1978 levels and were valued at K£5.6 million. Foreign reserves of the Central Bank of Kenya fell sharply in 1981 so that by the end of the year they stood at K£ 122.5 million. At December 1979 they had been as high as K£232.7 million but fell by K£48.8 million in 1980 and further by K£61.4 million in 1981. Thus at the end of 1981 the country's reserves including those of the Central Government were equivalent to under two months worth of imports at the 1979-81 importation rate. This is well below the minimum required reserve holding equal to four months-worth of imports.

Exchange Rates

7.29. Since 1975 Kenya's currency has been pegged to the SDR, the IMF unit of account whose value is now calculated on the basis of the values of a trade-weighted basket of five major international currencies-the Japanese

FOREIGN EXCHANGE RATES OF KENYA SHILING FOR SELECTED CURRENCIES, 1978-1981

Table 7.17

Currency	MEAN RATES IN KENYA SHILLINGS			
	31st Dec. 1978	31st Dec. 1979	31st Dec. 1980	31st Dec. 1981
1 U.S. Dollar	7.404	7.328	7.568	10.286
1 Pound Sterling	15.059	16.355	18.081	19.677
1 Deutsche Mark	4.060	4.249	3.859	4.576
1 French Franc	1.771	1.823	1.671	1.798
1 Swiss Franc	4.565	4.600	4.257	5.727
•00 Italian Lira	0.890	0.911	0.816	0.856
100 Japanese Yen	3.825	3.046	3.736	4.685
1 Indian Rupee	0.913	0.919	0.977	1.141
1 Zambian Kwacha	9.431	9.431	9.431	11.667
Overall Weighted Index*-31st Dec. 1973 = 100	75.437	76.748	74.702	56.032

*Against twenty currencies.
Source: Central Bank of Kenya.

Yen, the US Dollar, the Deutsche Mark, the Pound Sterling and the French Franc.

The exchange rate was held constant from 1975 to 1980, at Kshs. 9.60 = SDR 1.0, but on 3rd February, 1981, the shilling was adjusted to K.Sh. 10.15 and on 1st September, 1981 it was further adjusted to K.Sh.11.95 = 1 SDR. The total effect of these two changes was an adjustment of 23.7 per cent.

CHAPTER 8—AGRICULTURE

The generally improved weather conditions, particularly the long rains which in 1981 came on time accompanied by increased producer prices resulted in a strong recovery in output from the agricultural sector. Production of major food crops especially maize recovered substantially from the low level in 1980. Total maize deliveries to the National Cereal and Produce Board more than doubled from 217,887 tonnes in 1980 to 472,909 tonnes in 1981 and the value of such sales rose from K£10.4 million to K£23.6 million. Other notable increases in output were recorded for rice paddy, pyrethrum and tea production. Further details of output and inputs at current and constant prices are given in Table 8.1 which also shows quantity and price

AGRICULTURAL OUTPUT LESS RECORDED INPUT, 1977-1981

Table 8.1 K£*million*

	1977	1978	1979	1980	1981*
At Current Prices—					
Total Output	755.32	732.93	747.58	791.19	917.48
Less Inputs	87.31	101.21	98.80	103.05	125.74
Value Added	668.01	631.73	648.78	688.13	791.74
At Constant (1976) Prices—					
Total Output	591.68	614.99	607.55	594.27	629.12
Less Inputs	78.09	81.68	78.50	72.25	74.23
Value Added	513.60	533.31	529.05	522.03	554.89
Quantum Indices (1976 = 100)					
Output	111.0	115.4	114.0	111.5	118.1
Input	117.1	122.5	117.7	108.3	111.3
Price Indices (1976=100)					
Output	127.7	119.2	123.1	133.1	145.8
Input	111.8	123.9	125.9	142.6	159.4

*Provisional.

index numbers. Prices rose significantly in 1981 helping enhance the recovery over the year in total agricultural output. Total output rose by 16 per cent in 1981 at current prices and value added by 15.1 per cent; at 1976 prices increases were 5.9 per cent and 6.3 per cent respectively.

Marketed Production

8.2. The volume of agricultural output handled by the marketing boards has shown a steady improvement over two successive years in 1980 and 1981. As can be seen from Table 8.2, the overall volume index in 1981 rose by 4.9 per cent as a result of larger purchases of cereals and livestock products. But despite increases in pyrethrum and tea deliveries, the volume indices for both temporary and permanent industrial crops recorded declines mainly as a

AGRICULTURAL MARKETED PRODUCTION INDICES**, 1978-1981

Table 8.2 1976 = 100

	1978	1979	1980	1981*
Quantum Indices—				
Cereals	61.6	68.9	68.7	92.2
Temporary Industrial Crops	125.7	153.3	192.2	191.4
Permanent Crops	114.6	108.8	121.1	119.8
Total	103.5	104.1	115.3	119.2
Livestock and Products	132.3	113.4	104.5	120.1
Total Gross Marketed Production	107.8	102.9	113.4	118.9
Price Indices—				
Cereals	113.3	112.6	130.5	134.4
Temporary Industrial Crops	134.8	141.8	147.4	161.2
Permanent Crops	123.5	118.7	119.4	115.5
Total Crops	123.2	120.5	124.5	124.8
Livestock and Products	139.8	129.0	145.0	156.0
Total Gross Marketed Proction	126.1	121.9	127.4	133.0

*Provisional.

**Based on sales to Marketing Boards only.

results of drop in cotton, coffee and sisal production in the year. The price indices as reflected in the same table also recorded appreciable increases particularly for livestock and products, temporary industrial crops and cereals. Overall the prices of agricultural products purchased by marketing boards rose by 4.4 per cent in 1981 so that they were standing at 33 per cent above their level in 1976.

8.3. Table 8.3 shows the composition of sales to marketing boards at current prices; the overall value or these sales increased by K£34.4 million or 9.5 per cent in 1981 as compared to 1980. This growth was, however, low compared to the 1980 growth rate of 12 per cent which was occasioned by substantial increases for pyrethrum and sugar-cane, coffee and sisal. Increases in 1981 came particularly from sales of maize, pyrethrum, tea and livestock products offset to some extent by falls in purchases of coffee and sisal.

8.4. The average prices paid to farms for major agricultural products are shown in Table8.4. The most significant increases were in the prices of tea which went up by 11.5 per cent from K.Sh. 15,910 per tonne in 1980 to 17,740 per tonne in 1981; sugar-cane which went up by 9 per cent

from K.Sh. 133 per tonne in 1980 to K.Sh. 145 per tonne in 1981. Maize prices rose only moderately from K.Sh. 950 per tonne to K.Sh. 1,000 per tonne. Realised coffee price, on the other hand, fell further to K.Sh. 22,580 per tonne in 1981 as compared to the already low 1980 price of K.Sh. 26,340 per tonne. However, significant increases were recorded in beef and wholemilk prices which in 1981 rose by 20.8 per cent and 27.4 per cent respectively. Prices paid for pigs for slaughter rose by 13.5 per cent.

RECORDED MARKETED PRODUCTION AT CURRENT PRICES, 1977-1981

Table 8.3 K£'000

	1977	1978	1979	1980	1981*
Cereals—					
Maize	18,843	10,501	9,363	10,390	23,645
Wheat	11,877	11,675	14,886	17,670	17,869
Others	4,407	5,301	6,271	7,192	7,213
Total	35,127	27,477	30,520	35,252	48,727
Temporary Industrial Crops.					
Sugar Cane	13,364	17,392	23,302	29,520	30,877
Pyrethrum	3,662	4,106	5,721	9,735	13,969
Others	5,440	7,941	8,755	9,966	8,777
Total	22,466	29,439	37,778	49,221	53,623
Other Temporary Crops	6,604	6,640	8,466	8,075	9,837
Permanent Crops—					
Coffee	192,919	118,822	105,684	118,856	102,471
Tea	92,729	73,914	67,343	71,515	80,590
Sisal	4,800	4,278	6,577	9,714	8,512
Others	2,945	3,185	3,105	4,422	4,057
Total	293,393	200,199	182,709	204,507	195,630
Total Crops	357,590	263,755	259,473	297,055	307,817
Livestock and Products—					
Cattle and Calves	23,437	34,941	29,091	33,709	47,945
Dairy Products	18,836	19,587	17,465	15,007	22,802
Others	6,831	7,574	7,724	7,338	8,004
Total	49,104	62,102	54,280	56,054	78,751
Unrecorded** Marketed Production	7,489	7,532	7,247	7,768	8,722
Total	414,183	333,389	321,000	360,877	395,290

*Provisional.

**This is only a very partial coverage.

AVERAGE GROSS COMMODITY PRICES* TO FARMERS, 1977-1981

Table 8.4 *KSh. per stated Unit*

	Unit	1977	1978	1979	1980	1981
Coffee	100 kg.	3,975	2,818	2,815	2,634	2,258
Tea	"	2,149	1,583	1,357	1,591	1,774
Sisal	"	298	272	361	414	412
Sugar Cane	tonne	127	133	133	133	145
Pyrethrum (extract equivalent)	kg.	559	720	1,006	1,200	1,200
Seed Cotton	100 kg.	288	315	328	331	341
Maize	"	89	89	77	95	100
Wheat	"	133	133	144	164	167
Rice Paddy	100 kg.	136	145	151	151	148
Beef (third grade)	"	519	676	689	795	960
Bacon Pigs	"	684	764	778	859	975
Milk	100 litre	132	132	132	146	186

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

8.5. After reflecting a slight decline in 1980, the share of marketed agricultural output originating from smallholder producers recorded an increase of 3 per cent in 1981. As a result, a significant increase in the value of sales from small farms of 12.7 per cent was recorded as can be seen in Table 8.5. This achievement endorses the ever-growing importance of smallholder agricultural production. Sales from large farms in 1981 increased by 5.8 per cent—a lower increase rate than in 1980 when such sales rose by 13.9 per cent. Out of total recorded sales to marketing boards of K£395 million in 1981, K£178.6 million was from large farms and K£216.7 million from small farms. In 1976 roughly half of the total originated in each type of farm.

SALES TO MARKETING BOARDS FROM LARGE AND SMALL FARMS, 1977-1981

Table 8.5

	Large Farms		Small Farms		Total		Percentage Share of Small Farms
	K£million	Annual Per cent change	K£million	Annual Per cent change	K£million	Annual Per cent change	Per cent
1977..	206.0	68.7	208.5	62.9	414.5	65.8	50.3
1978..	147.2	-28.5	186.2	-10.7	333.4	-19.6	55.8
1979..	148.2	0.7	172.5	-7.4	320.7	-3.7	53.8
1980..	168.8	13.9	192.3	11.5	361.1	12.5	53.2
1981*	178.6	5.8	216.7	12.7	395.3	9.5	54.8

*Provisional.

8.6. Details on quantum indices of agricultural inputs as reflected in Table 8.6 show a 14.3 per cent increase in the volume of inputs purchased by farmers in 1981. The index for purchased materials went up by 22.2 per cent

AGRICULTURAL INPUT INDICES**, 1978-1981

Table 8.6 1976=100

	1978	1979	1980	1981*
QUANTUM INDICES—				
Fertilizers	155.6	101.8	109 9	137.6
Fuel and Power	126.8	138.6	90.1	102.5
Bags	105.8	91.6	102.1	114.3
Manufactured Feeds	142.1	113.2	113.5	129.4
Purchased Seeds	94.9	83.9	82.6	92.1
Other Material Inputs	153.5	153.8	161.9	181.6
TOTAL MATERIAL INPUT	139 5	121.5	122.3	149.4
Service Inputs	106.7	107.7	107.5	110.7
TOTAL INPUTS	135.4	119.8	120 4	137.6
PRICE INDICES—				
Fertilizers	98.3	128.9	128.9	131.3
Fuel and Power	120.2	131.0	161.2	221.6
Bags	116.4	128.3	146.8	159.3
Manufactured Feeds	132.5	121.4	137.0	142.7
Purchased Seeds	182.2	170.2	170.2	173.6
Other Material Inputs	118.1	104.8	120.4	124.5
TOTAL MATERIAL INPUT	118.2	122.5	136.4	153.2
SERVICE INPUTS	127.4	140.7	149.5	154.0
TOTAL INPUTS	119.1	124.5	137.9	153.3

*Provisional.
**Coverage not the same as for Table 8.1.

PURCHASED AGRICULTURAL INPUTS**, 1977.1981

Table 8.7 K£'000

	1977	1978	1979	1980	1981*
MATERIAL INPUTS—					
Fertilizers	13,765	14,781	12,678	13,692	14,518
Other Agricultural Chemicals	7,197	10,626	8,494	9,858	12,902
Livestock Drugs and Medicines	3,261	3,306	3,196	4,599	5,053
Fuel and Power	9,668	10,762	12,825	14,726	16,754
Bags	3,331	3,636	3,469	3,704	5,548
Manufactured Feeds	9,193	12,154	8,872	9,492	13,753
Purchased Seeds	4,370	4,522	3,732	3,677	4,088
Other Material Inputs	3,429	3,446	3,770	4,222	4,275
TOTAL	54,214	63,233	57,036	63,970	76,891
SERVICE INPUTS TOTAL	6,338	7,416	8,265	8,765	9,028
TOTAL INPUTS	60,552	70,649	65,301	72,735	85,919

*Provisional.
**Except Labour.

but for services inputs there was only a 3 per cent increase. The rises recorded were for purchases of fertilizers, 25.2 per cent, fuel 14 per cent and other minor material inputs, 12.2 per cent. There were also substantial increases in the prices of most of the inputs but especially for fuel and power whose price escalated by 37.5 per cent. The increase in the price of manufactured feed was more modest at 4.2 per cent. The overall price index for material inputs increased by 12.3 per cent in 1981 over 1980 while the price for service inputs recorded a rise of 3 per cent.

8.7. Table 8.8 gives details on terms of trade indices for the agricultural sector in its relations with the rest of the economy. For the fourth year in succession prices received by farmers have not managed to keep pace with the rise in the prices they paid for agricultural inputs and consumption items. As a result there was a further fall in the agricultural terms of trade index

PROVISIONAL TERMS OF TRADE INDICES FOR AGRICULTURE, 1979-1981

Table 8.8 1976=100

	1979	1980	1981
Prices Received			
Total Crops	116.4	122.3	129.7
Domestic	115.9	130.7	141.3
Export	116.8	117.4	112.3
Livestock and Products	135.6	140.6	151.2
Index of Prices Received	120.0	126.2	134.4
Prices Paid—			
Purchased Inputs	124.8	138.0	153.1
Index of Purchased Consumer Goods—Rural Areas	130.1	146.1	169.9
Index of Prices Paid	128.8	144.0	165.7
Agriculture Sector Terms of Trade	93.2	87.6	81.1

from 87.6 in 1980 to 81.1 in 1981. The major causes for this unfavourable situation were the continuing inflation of prices for consumer goods and services in rural areas which in 1981 went up by 16.3 per cent coupled with a deterioration in export prices especially for coffee. The overall price index for all types of agricultural output rose by only 6.5 per cent and this was certainly not enough to offset a 15.1 per cent increase in prices paid by farmers for inputs including consumer goods in rural areas. Price rises for various agricultural products purchased on local markets announced in December 1981 will, it is hoped go some way to restoring the relative position of the Kenyan farmer. Little can be done within Kenya to compensate for low prices on world markets for coffee in particular but here the devaluation of the currency in September 1981 will also be of considerable benefit to coffee and tea producers whose receipts are, of course, paid in Kenya shillings.

Agricultural Credit

8.8. Owing to the drought conditions in the years 1979 and 1980, credit to farmers fell in these two years by over K£2 million but the good rains for the year 1981 helped in a rise of credit facilities to farmers by K£5.6 million or 34 per cent. Out of K£22.57 million credit to farmers in 1981, small scale farmers and co-operative societies had the lion's share of K£13.27 million or 59 per cent. The co-operatives are the preferred vehicle for credit to the small-holder and in 1980/81 the total to these societies rose to K£11.5

NEW AGRICULTURAL CREDIT ISSUED BY TYPE OF FARMER, 1977/78-1980/81

Table 8.9 K£'000

	1977/78	1978/79	1979/80	1980/81
Small Scale Farmers—				
Short term loans	1,013	2,389	362	455
Medium term loans	1,905	188	60	938
Long term loans	135	64	150	85
Other loans	66	34	809	336
Total	3,119	2,675	1,381	1,814
Large Scale Farmers.				
Short term loans	7,117	13	2	
Medium term loans	—	—	95	—
Long term loans	5,683	3,020	1,430	2,119
Other loans	890	1,534	1,222	1,071
Total	13,690	4,567	2,749	3,190
Co-operative Societies—				
Short-term loans	7,552	6,926	5,855	9,507
Medium term loans	3,019	3,676	3,353	1,453
Long term loans	12	—	—	469
Other loans	—	—	302	23
Total	10,583	10,602	9,510	11,452
Other Farmers				
Short term loans	—	817	3,211	6,114
Medium term loans	75	—	—	—
Long term loans	—	267	—	—
Other loans	—	—	—	—
Total	75	1,084	3,211	6,114
All Receipts—				
Short term loans	15,682	10,144	9,430	16,077
Medium term loans	4,999	3,864	3,507	2,391
Long term loans	5,830	3,351	1,580	2,673
Other loans	956	1,569	2,334	1,429
Total	27,467	18,928	16,851	22,570

million. Small-scale farmers and co-operative societies continue to receive most of their credits in the form of short term loans. Long term loans are more common for large-scale farmers.

8.9. The seasonal credit schemes that replaced the guaranteed minimum return scheme continued to function to the benefit of the small-scale farmers and there was a rise of 31 per cent in credit facilities to such during 1980/81 as compared to 1979/80. The largest increase in credit facilities was recorded by poultry, pig and horticultural farmers during 1980/81, Easier access to credit naturally has a beneficial impact on agricultural production.

8.10. Total lending by the commercial banks to the farmers increased by 7.8 per cent in 1981 from K£102 million to K£110 million but this rate of increase in 1981 was fairly small because of the effect of the difficult credit situation facing the country.

8.11. There was a general increase in the prices of fertilizers just before the planting season in 1982 and unless more credit can be advanced to the farmers, there is some fear that such price increases for essential inputs will have some impact on the total crop. The small-scale farmers are the ones whose output can most rapidly increase with the use of more of certain types of input and it is therefore important for the necessary credit to be available at the right moment to encourage the adoption of more scientific farming by these growers.

Crop Forecast Surveys

8.12. Table 8.10 shows estimates of production for selected agricultural commodities arising from the bi-annual crop forecasting surveys. Maize output for the 1981/82 agricultural year is estimated to be 21.9 million bags from an area sown to maize of 2.2 million hectares. This output represents an increase of about 24 per cent over the previous drought year. Allowing for a five per cent error margin, maximum production during the year would be 23 million bags. The bulk of the harvest is attributed to the good weather conditions during 1981 long rains. Maize sales over the period were 7.5 million bags.

ESTIMATED PRODUCTION FOR SELECTED AGRICULTURAL COMMODITIES IN AGRICULTURAL YEARS 1979/80 to 1981/82

(Based on Crop Forecast Surveys)

Table 8.10 *million bags*

Crop	1979/80	1980/81	1981/82
Maize	19.50	17.60	21.86
Beans	1.73	1.34	2.22
Potatoes		2.40	4.24

8.13. Bean production for 1981/82 is estimated to be 2.2 million bags from an area sown to beans of 1.1 million hectares. This output represented an increase of about 69 per cent when compared to the previous year's production figure of only 1.3 million bags. Favourable weather conditions, higher prices and a special effort from individual farmers made this possible. Bean sales are estimated to be 630,000 bags.

8.14. Potato production also showed a remarkable improvement in 1981/82 over the previous year, and as a result prices have fallen sharply in the potato producing districts. A harvest figure of 4.24 million bags was recorded during the year of which total sales amounted to 2.38 million bags. The area sown under English potatoes is estimated to have been 180,000 hectares.

Production by Crop

8.15. Maize.—Accurate estimates of national maize production have not been easy in the past due to lack of adequate coverage of non-marketed component in the total output. This position is now improving as a result of the crop forecast exercises currently being undertaken by the Bureau in collaboration with the Ministry of Agriculture and the National Cereals and Produce Board. In 1981, total maize production was estimated to have reached a level of 23 million bags as compared to the 1980 estimates of only 18 million bags. The 1981 production estimates therefore reflects an improvement of 5 million bags or 27.8 per cent over the 1980 estimates. The low harvest in 1980 was, of course, due to the very poor rainfall in that year. Out of 23 million bags, nearly 18 million bags were thought to have come from long rains harvest in 1981 while the short rains harvest contributed the rest. The bumper crop was a result of the generally improved weather conditions, especially the long rains which in 1981 came on time; better organization of the arrangements for seasonal credits and higher prices for farmers also provided incentives. As the staple food crop, a large proportion of maize production from the small-holder is retained on farm for own consumption. Thus a further reason for the much improved output in 1981 was the need for grain stores on farms to be replenished following the substantial reductions in 1980.

8.16. Total maize purchases by the National Cereals and Produce Marketing Board in 1981 more than doubled to 472,909 tonnes from 217,887 tonnes purchased in 1980. These sales resulted in a gross marketed income to farmers of K£23.6 million as compared to K£10.4 million realized in 1980. Deliveries during the first six months of 1981 of 254,475 tonnes surpassed deliveries for the whole of 1980. Maize deliveries during the second half of the year were also high particularly during the fourth quarter when 178,959 tonnes were purchased as compared to 112,872 tonnes in the same period of 1980. Subject to a repetition of good weather conditions coupled with the price increase from K.Sh. 90 to K.Sh. 135 per 90 kg. bag for the current season and adequate credit facilities, production during 1982 is likely to increase even further.

SALES TO MARKETING BOARDS OF SOME MAJOR CROPS, 1977-1981

Table 8.11 *tonnes*

Crop	Year				
	1977	1978	1979	1980	1981
Maize	423,964	236,268	241,717	217,887	472,909
Wheat	169,880	165,941	200,968	215,674	214,437
Rice Paddy	41,415	35,816	37,466	36,408	41,153
Sugar-Cane	1,888,140	2,349,206	3,147,580	3,987,428	3,821,980
Pyrethrum (Extract Equivalent)	1311	114.0	113.7	162.2	232.8
Cotton	16,257	27,190	27,597	38,129	25,484
Coffee	97,066	84,328	75,082	91,334	90,746
Tea	86,291	93,373	99,275	89,893	90,941
Sisal	33,196	31,456	36,457	46,910	41,326

8.17. In previous years, lack of sufficient maize storage facilities was a serious bottleneck to the expansion of NGPB purchases. More recently considerable progress has been made in the construction of storage facilities at major purchasing centres; and this has been a great help in the effort of the Produce Board to increase maize purchases. Consequently, Kenya is now in a better position to build up and maintain the needed strategic maize reserve of 4 million bags. In a normal year average maize consumption per head is in the region of 120 kilograms or one and a third bags. Thus while the reserve of four million bags would only be sufficient for three million persons, the continuing practice of keeping a maize store on most farms means that the Produce Board's own reserve is only intended to serve the urban population and a small part of the rural areas.

8.18. *Wheat.*—Total wheat production in 1981 including the quantity retained by farmers for seed was 214,437 tonnes; only 1,237 tonnes less than the 1980 total production of 215,674 tonnes. This is an improvement over the early estimates which had put total production in 1981 at a much lower level. Purchases by the National Cereals and Produce Marketing Board during the first six months of the year were 29,032 tonnes as compared to 34,511 tonnes of wheat purchased during the same period in 1980. There was, however, a big improvement during the second half of 1981 when a total of 174,363 tonnes was delivered to the Board; 4,306 tonnes or 2.5 per cent above deliveries for the same period in 1980. It would appear therefore that the heavy rains which were thought to have adversely affected the crop ceased in time to allow normal maturing of the wheat.

8.19. Demand for wheat flour and wheat products such as bread has increased tremendously in recent years, thereby outstripping production. The increase which is attributable to the changing consumption pattern, particularly for the low income urban population, coupled with urban population growth means that Kenya has to import wheat in order to satisfy domestic

requirements. Total wheat flour consumption since 1977 is given in Table 8.12. The small reduction in consumption in 1981 from the record level of 224,000 tonnes in 1980 is due to availability of white maize flour in urban areas. There is a relationship of 100 to 80 between the quantity of wheat available and wheat flour produced; the total of 216,700 tonnes of wheat flour consumed in 1981 thus required 271,000 tonnes of wheat to be available. However, wheat available in that year was 342,832 tonnes, so some part must have been carried forward for use in 1982.

WHEAT PRODUCTION, IMPORTS AND FLOUR CONSUMPTION 1977-81

Table 8.12 *Tonnes*

Year	Wheat Production*	Wheat Imports	Flour Consumption
1977	161,600	32,808	158,400
1978	156,761	90,980	184,733
1979	194,668	25,500	158,387
1980	204,568	92,386	224,200
1981	203,395	139,437	216,700

*Excludes retentions for seed.

8.20. As can be seen from the table, the annual average increase in wheat production has been in the range of about 5 per cent while wheat flour consumption has been increasing at a much faster rate of approximately 8 per cent per annum, hence the need to continue to import wheat. Wheat imports were at the record level of 139,437 tonnes in 1981 or 50.9 per cent above the 1980 level.

8.21. In 1977, 137,764 hectares were planted to wheat. Since then there has been a steep decline so that by 1981 only 96,715 hectares were cultivated. The diminishing area under wheat production is a result of fragmentation of farms within the traditional wheat producing zones. The situation would have been worse but for the introduction of wheat production in Narok and Ol Kalou where higher yields per hectare have been reported. Plans are under way to encourage more wheat production, these include the implementation of the Narok Development Project under which a survey of wheat farms is to be undertaken; there is also the World Bank-aided group farms rehabilitation programme by which mismanaged large-scale group farms are to be restored to their previous productive levels. As part of its intention to encourage increased wheat production, the Government in December, 1981 announced an increased producer price for the 1982 crop to K.Sh. 175 per bag from K.Sh. 150 a bag in 1980/81; an increase of nearly 17 per cent.

8.22. *Coffee*.—In 1981 a total of 90,746 tonnes of coffee were delivered to the Coffee Marketing Board showing no appreciable change from the 1980 deliveries of 91,334 tonnes. Of the 1981 deliveries, 57,963 tonnes or 63.9 per

cent came from the co-operative sectors underscoring the importance of small-holder coffee production. Some 48,340 tonnes were delivered during the first six months of 1981 as compared to 51,025 tonnes of coffee delivered during similar period in 1980. Deliveries for the second half of 1981 showed an improvement of some 2,097 tonnes over deliveries for the same period in the preceeding year. Despite the approximately similar level of coffee deliveries in 1981 as compared to 1980, total gross cash receipts by farmers dropped by 13.8 per cent to K£102.5 million from K£118.9 million realized in 1980. This decline in earnings in the year was due to lower average coffee prices prevailing in world markets which reached the low level of K£795 per tonne between May and June, 1981. The average price paid to farmers in 1981 was K£1,129 per tonne which was the lowest price realized since 1975, and before the 1976/1977 coffee boom period.

8.23. The stagnation in coffee production during 1981 was accompanied by a further deterioration in its overall quality. Although the rains were to a large extent timely in most coffee growing districts, they were reportedly inadequate, erratic and poorly distributed. And except for the districts in Central Province, there was deficit moisture conservation leading to poor development of the coffee bean berry which resulted in a substantial proportion of the year's production being composed of lights which lowered the overall average quality. Consequently, the quality of coffee in classes 1 to 3 dropped by 15.4 per cent while coffee in classes 4 to 6 recorded a further drop of nearly 5 per cent. These falls were reflected in the increase in the proportion of coffee in classes 7 to 10 and Mbuni where quality improved by 3.1 per cent and 3.7 per cent, respectively. According to the type of grower, a quality decline of 9.8 per cent was recorded for the co-operative sector in classes 1 to 3 while for classes 7 to 10 and Mbuni it increased by 2.3 per cent and 4.9 per cent respectively. For the plantation growers, classes 1 to 3 recorded a 1.1 per cent increase while for classes 4 to 6 a fall of 5.2 per cent occurred. Classes 7 to 10 and Mbuni showed quality increases of 3.8 per cent and 0.3 per cent respectively. The co-operative sector continues to lead in the production of top quality coffee despite the general absence of overhead irrigation facilities. This indicates that experienced small-holders growing coffee can be expected to produce a better than average crop.

8.24. The global coffee quota fixed by the International Coffee Organization (ICO) was 3.6 million tonnes (60 million bags) for 1981—leaving some 360,000 tonnes (6 million bags) to be sold in the non-quota markets. Kenya's share of the quota market was 1.12 million bags of 60 kg. or 67,200 tonnes with additional 24,000 tonnes to be exported to non-quota markets. And although Kenya exported 88,578 tonnes worth some K£109.4 million to both quota and non-quota markets in the year, the measures taken to support and stabilize global coffee prices at the quota level caught many exporting countries with surplus stocks which eventually proved difficult to dispose of.

One result was that Kenya had a surplus stock of 569,000 bags and this added

to the 1980/81 production of 1.6 million bags resulted in a total exportable quantity of 2.17 million bags. This, taken against Kenya effective quota of 1.12 million bags resulted in a 1980/81 year-end surplus of 1.05 million bags which could only be exported to non-quota markets or sold locally.

8.25. The coffee rationalization programme which involves rehabilitation and additional coffee planting continued during the year. However, there was a marked decrease in the tempo of the programme both as additional land for planting became scarce and as uncertaintities about the future world coffee market prices increased. Actual additional planting were considerably reduced and largely involved infilling and intensification (close spacing). The area planted under coffee by the end of the season was 135,910 hectares out of which 117,751 hectares were under mature crops and 18,339 hectares were for coffee trees of less than two years of age. As the pace of new coffee plantings has slowed, Kenyan farmers need to intensify crop husbandry techniques so as to obtain increased per hectare yields which currently average 906 kg. for both the estates and co-operative sectors. If all farms could reach this average level there would be a significant increase in overall output. By improving quality at the same time the end-result would substantially enhance overall earnings. The fall in value of the local currency against the US dollar of some 30 per cent or more in 1981 means that average realization per tonne expressed in the Kenya shilling should be higher in 1982 with benefit to the total farming incomes.

8.16. *Tea*.—The performance of tea industry during 1981 was of a fairly substantial improvement on 1980. Although production only showed a small improvement to 90,941 tonnes over the 1980 revised total production of 89,893 tonnes, there was a rise in average prices so that realizations increased from K£71.5 million to K£80.6 million. The increase in production was the result of good rainfall in the tea growing areas. Because of poor rainfall up to April, there was a decline in deliveries of 1,029 tonnes during the first six months of the year as compared to the same period in 1980 but the position changed substantially in the second half of 1981 when 50,705 tonnes of tea were delivered as opposed to 48,672 tonnes for the same period in 1980. Deliveries were particularly heavy during the fourth quarter of the year. There was also a slight improvement in Kenya's tea export volume of 639 tonnes over the 1980 total export of 74,799 tonnes. The quantity exported in the year was nearly 83 per cent of the total deliveries.

8.27. Improvement in tea prices reported in 1980 continued into 1981 with the average rising to K.Sh. 17.74 per kg. in 1981 as compared to the average price of K.Sh. 15.91 per kg. a year earlier. As a result of the price and tea output increases, total gross earnings by the producers increased by K£9.1 million or 12.7 per cent to reach nearly K£80.6 million in 1981. This figure was the highest since consumers switched from coffee to tea due to exceptionally high prices for coffee in 1977/78.

8.28. The small-holder tea development programme under the management of Kenya Tea Development Authority (KTDA) progressed satisfactorily during 1981 when an additional 2,900 hectares were planted by some 7,776 new growers. Thus the total area planted by small-holders with tea in 1981 was 53,586 hectares involving 137,832 small-holders each cultivating an average tea plot of 0.39 hectares. Table 8.13 gives details on small-holders tea development since 1976/77. Despite the increase of some 10,000 hectares under small-holder tea production over four years, the proportion of the crop grown by small-holders in 1980/81 was still only 36 per cent of the total.

THE DEVELOPMENT OF SMALL-HOLDER TEA, 1976/77-1980/81

Table 8.13

	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
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
1980/81	53,586	137,832	0.39	32,729

8.29. The drought conditions that prevailed in the latter part of 1980 and the early part of 1981 adversely affected leaf yields in the small-holders sector. A total of 145,924 tonnes of green leaf were produced in 1981 to provide 32,729 tonnes of made tea. This output was above the 1980 production by 1,711 tonnes or 5.5 per cent. The Kenya Tea Development Authority planting expansion programme in the current plan period ends on 30th June, 1982 and when completed is expected to bring the total area planted with tea by small-holders to 54,689 hectares involving some 150,000 growers. While consideration will be given as to whether a further tea development plan should be instituted, a deciding factor will be the potential returns in relation to the expenditure involved, especially since the cost of extension services has become very high. As with coffee, there may be more merit in aiming for higher production of better quality tea from the areas already planted. In 1980/81 small-holders with mature bushes averaged a maximum of only K£217 per plot of 0.39 hectares.

8.30. *Cotton*.- After maintaining a steady during the preceeding three years (1978-1980), cotton production in 1981 fell substantially by 12,642 tonnes or 33.2 per cent below the 1980 record output of 38,129 tonnes, Several factors were responsible for this drop. First, the campaign for increased food production mounted in the year at the national level resulted in increased farm land being used for food crop production thus using land

which otherwise might have been planted with cotton. Nearly 47,000 hectares out of 168,000 hectares originally prepared for cotton plantation was reported to have been converted to food crop cultivation. Second, a reported failure to pay farmers prompty for cotton delivered and the subsequent deterioration in credit facilities meant that farmers were unable to purchase those inputs necessary for cotton production. Towards resolving the financial shortcomings of the board responsible for cotton production, the Government recently guaranteed it a long term overdraft of K£8 million.

8.31. In an effort to restore cotton production to previous levels, prices to producers have been further increased. In December, 1981 prices for grade one cotton (AR) were increased by 20 cents from K.Sh. 3.60 per kg. to K.Sh. 3.80 per kg. while the price for second grade cotton (BR) was increased by 10 cents to K.Sh. 1.85 per kg. from the previous prices of K.Sh. 1.75 per kg. Further price increases are anticipated in July, 1982.

8.32. Plans are underway to modernize the cotton industry under which the World Bank is to lend the Cotton Lint and Seed Market Board an interest-free loan effective from July, 1982. This loan is to be utilized for improving transport and equipment, and constructing storage facilities both in the field and at ginneries owned by the Board and the co-operatives. The board and co-operatives engaged in cotton production are to be strengthened. These measures are expected to effect improvements in the industry as a whole.

8.33. *Sugar-cane*.—The six sugar factories (excluding small sugar plants) together in 1981 crushed a total of 3,821,980 tonnes of cane to produce 366,818 tonnes of plantation white sugar thus resulting in an average cane/sugar ratio of only 9.5 to 1. During 1980, a total of 3,950,742 tonnes had been crushed to produce 401,251 tonnes of sugar. Both cane deliveries and sugar production in 1981 were below the 1980 performance by 3.3 and 8.6 per cent respectively. A drop is also recorded in the production of molasses which stood at 120,211 tonnes in 1981 as opposed to 133,900 tonnes in 1980. The importance of molasses as a by-product has been enhanced by the decision to utilize it for the production of power alcohol and other products at plants in Kisumu and Muhoroni.

8.34. Domestic consumption of sugar rose by 8 per cent from 299,544 tonnes in 1980 to 324,054 tonnes in 1981 to allow for some 69,054 tonnes to be exported as compared to 94,674 tonnes exported in 1980. At the end of the current development plan period, it had been estimated that total sugar production would rise to some 470,000 tonnes while domestic consumption would reach 325,000 tonnes thus enabling some 145,000 tonnes to be exported. This target is now doubtful after the disappointing 1981 results. Table 8.14 shows performance of the sugar industry in terms of production, imports, consumption and exports since 1977.

8.35. As can be seen from Table 8.14, Kenya became self.sufficient in sugar production in 1979 and has since been exporting the surpluses. Plans are already underway to modify Miwani Sugar Mills so as to be able to produce refined industrial sugar. At the same time, Nzoia Sugar Company is to be expanded by nearly 50 per cent from its present capacity of 50,000 tonnes of sugar to 75,000 tonnes per annum. This expansion programme is estimated to cost the company about K£11.2 million.

PRODUCTION, IMPORTS, CONSUMPTION AND EXPORTS OF SUGAR, 1977-1981

Table 8.14 *tonnes*

Year	Production	Imports	Consumption	Exports
1977	181,207	36,308	223,198	—
1978	237,529	46,112	251,186	—
1979	295,999	12,504	253,416	1,983
1980	401,250	1,751	299,514	94,674
1981	366,818	1,756	324,054	69,054

8.36. Table 8.15 shows total cane deliveries by source, most of which sources in 1981 recorded declines except for the large-scale farmers whose deliveries were 21.5 per cent higher than in 1980. In terms of importance, small-holders continued to be the main supply source followed by the factory nuclear estates and large-scale farmers in that order. Current indications are that there has been a general decline in cane deliveries especially within the traditional Nyanza Sugar Belt.

SUGAR CANE PRODUCTION BY TYPE OF GROWER, 1978-1981

Table 8.15 *tonnes*

	1978	1979	1980	1981*
Factory Estates	626,467	920,595	924,978	839,423
Large Farms	282,260	379,618	555,927	675,694
Small-Holders	846,854	1,228,876	1,772,264	1,720,520
Co-operative Societies ..	351,079	231,680	310,762	260,831
Settlement Schemes	242,548	386,811	386,811	325,512
Total	2,349,208	3,147,580	3,950,742	3,821,980

*Provisional.

8.37. According to a survey jointly conducted by the Ministry of Labour and the Kenya Sugar Authority (KSA) in April, 1980 sugar companies together employed some 15,300 workers. About half this number were Permanent employees engaged in plantation work which included cane plant. ing,weedingandharvesting.

8.38. *Horticulture*.—There has been a spectacular growth in the horticultural crop exports from Kenya since 1970. During 1981 alone, a total of 23,352 tonnes of various products were exported; 1,090 tonnes or 4.9 per cent more than the quantities exported in 1980. Total earnings increased by K£1.2 million or 10.8 per cent to reach K£ 12.58 million reflecting higher prices for Kenya horticultural products. The United Kingdom continues to be Kenya's major importer accounting for 48 per cent of the total export volume. The second place was taken by West Germany whose horticultural crop imports from Kenya represented 17.5 per cent of the total export trade while France, though relatively new for Kenyan produce, ranked third with 13.4 per cent share of the volume exported in 1981. Exports of both fresh beans and mangoes increased by 449 tonnes and 1,012 tonnes respectively but exports of cut flowers were reduced by more than half from 1,882 tonnes in 1980 to only 687 tonnes in 1981. This is probably a reflection of the poor economic climate in the UK in particular.

8.39. The achievement by the Horticultural Crop Development Authority is shown by the increased exports since 1970. Details for 1977 to 1981 are given in Table 8.16 and show the continued results of the concerted effort in promoting production and extensive export market research conducted through the Kenya External Trade Authority (KETA). The currency

EXPORT OF FRESH HORTICULTURAL PRODUCE, 1970, 1977-1981

Table 8.16

Year	Volume (Metric tons)	Value K£
1970	3,224	342,088
1977	18,843	6,435,815
1978	21,007	7,987,850
1979	21,327	9,736,855
1980	22,266	11,353,010
1981	23,352	12,580,635

devaluation of the Kenya shilling of September 1981 may serve to increase demand for Kenya's horticultural products in European markets but much depends on whether the devaluation serves to cheapen prices for purchasers, or merely to raise returns to the growers and the middle-men. There is some sign of a slight easing of economic difficulties in the EEC so this in itself may serve to increase demand.

8.40. *Pyrethrum*.—There has been considerable progress in the expansion of pyrethrum production since 1979. This improvement which continued into 1981 resulted in deliveries of pyrethrum flowers in 1981 reaching 17,560 tonnes; or 42.3 per cent above the quantities delivered in 1980 and more than double the 1979 deliveries of 8,121 tonnes. This achievement is the combined

result of earlier corrective measures taken by the Pyrethrum Board of Kenya and the extremely favourable weather conditions in the major pyrethrum growing district of Nakuru (Molo), Nyandarua and Kisii. Small-holders continued to account for the bulk of production with deliveries in 1981 of 10,875 tonnes or nearly 62 per cent of the total. Deliveries by large-scale farmers showed a particular large improvement of 2,656.2 tonnes or 65.9 per cent over the 1980 deliveries of 4,028.8 tonnes. There was a small fall in the pyrethrum contents of the flowers from an average of 1.35 per cent in 1980 to an average of 1.33 per cent in 1981. However, the resulting pyrethrum extract equivalent rose by 43.5 per cent from 162.2 tonnes in 1980 to 232.8 tonnes in 1981.

8.41. The producer price of K.Sh. 12 per kg. effective since 1980 also applied to the 1981 crop and was a further incentive for increased production in that year. Together with the expansion programme being instituted by the Board, the future of the industry remains promising especially in the face of continued high demand of Kenya pyrethrum in the world market.

8.42. *Sisal*.—After the bad period of 1977 when total sisal production reached its lowest level, there was an appreciable recovery in the period that followed culminating in all-time record deliveries of 46,910 tonnes in 1980. However, this position was again reversed during 1981 when total deliveries fell by 5,584 tonnes or 12 per cent. The 1981 decline was probably attributable to lower cuttings rather than any curtailment in total area under cultivation. In 1981, a total of 41,547 tonnes were exported earning K£8.7 million. 1981 exports were slightly higher than those of 1980 in volume but earnings showed to significant change during the two years. The fact that slightly more sisal was exported in the year than produced is a reflection of carry-over stocks from 1980. Overall, gross receipts by farmers fell by 12.4 per cent below the 1980 total gross receipts of K£9.7 million.

8.43. The future of sisal industry seems to be dictated by the level at which synthetic fibres are in demand. However, with the continued high oil prices, good prospects could be expected for increased utilization of sisal fibres leading to a fair demand on world markets.

Integrated Rural Survey

8.44. Integrated Rural Survey 4 (IRS4) was conducted covering the 1978/ farming year. This major survey covered small-scale farms with less than eight hectares (20 acres) in all parts of Kenya except the North-Eastern Provinceand the districts of Marsabit and Isiolo in Eastern Province and Samburuand Turkana in Rift Valley Province. These excluded areas cover only 5 per cent of the Kenya's total population. Some supplementary data on livestock are included with those obtained from the small holdings; this additional information originates from the survey covering intermediate farms and the census of large farms.

8.45. The grossed-up totals from the small farm enquiries showed that there were some 2,693,000 households with an average of 5.1 persons per household. The output of crops and liquid milk, is estimated at the totals shown in Table 8.18; some 1,541,700 tonnes of maize, 810,000 tonnes of potatoes, 573,300 tonnes of beans, 442,800 tonnes of vegetables and 769 million litres of milk are amongst the major products from small-holdings. Tea and coffee are also grown in quantity but details have been given earlier under the appropriate sections. The value of 295.4 million litres of milk sold from small farms in 1978/79 was K£18.49 million, selling at K.Sh. 1.25 per litre. A larger quantity was consumed on the farms themselves.

8.46. Livestock population by type in the areas covered by the various surveys and the large farm census is given in Table 8.17. At about May, 1979 there were an estimated 11,453,000 cattle, 8,282,000 goats. 4,299,000 sheep, 111,500 pigs and 26,864,000 poultry. There are also significant hold.

LIVESTOCK HOLDINGS, MAY 1979

Table 8.17 '000

Livestock	Total	Type of Farms by Size		
		Small	Intermediate	Large
Cattle	11,453.4	9,754.1	990.7	708.6
Goats	8,282.0	7,542.7	693.3	46.0
Sheep	4,299.0	3,565.8	411.5	321.7
Pigs	111.5	92.2	*	19.3
Poultry	26,864.0	26,559.9	*	304.1

*Not covered in enquiry.

ings of livestock in the mainly dry areas not covered in the enquiries. Livestock holdings are widespread throughout Kenya with Rift Valley having more than half the cattle and sheep in 1979 while two-thirds of the goats were found in the two provinces of Eastern and Rift Valley. As regards poultry there were large holdings in all provinces with particularly high totals in Nyanza and Eastern Provinces.

8.47. Thus the small farms accounted for most of the livestock on farms in Kenya in 1979. The surveys carried out between 1976 and 1979 in small farms suggest that the growth rate of herds is quite rapid though this growth is not matched with acceptable off-take rates.

8.48. Inputs purchased by small farmers in 1978/79 are tentatively valued at K£19.4 million, with fertilizer accounting for one-quarter of this total, wages one-third and a limited range of other items for the balance. Against a total output valued in the region of K£400 million, the expenditure on inputs is only about 5 per cent of the output value. This proportion probably illustrates

SMALL HOLDER CROP AND MILK PRODUCTION IN THE FARMING YEAR 1978/79

Table 8.18

Crop or Product	Total (*000 tonnes)*	Main Producing Provinces
Maize	1,541.7	Rift Valley, Central, Nyanza, Eastern, Western.
Millet and Sorghum	166.5	Nyanza.
Other cereals	120.6	
Beans	573 3	Central, Eastern.
Peas	106 5	
Groundnuts	135.9	Nyanza, Eastern.
Other nuts	218 7	Coast, Rift Valley.
Potatoes	810.0	Central, Rift Valley.
Sweet potatoes	197.0	Central, Western, Nyanza.
Cassava	230.4	Nyanza, Western.
Other root crops	61.2	
Bananas	186.4	Western.
Other fruits	111.6	Coast, Nyanza.
Vegetables	442.8	All areas.
Oilseeds	117.9	Western.
Sugarcane	66 6	Nyanza.
Pyrethrum (dried)	2.7	Rift Valley, Central, Nyanza.
Cotton	24.0	Central, Coast, Eastern, Nyanza.
Other temporary crops	117.0	
Coffee (clean)	423.9	Central, Eastern, Nyanza.
Tea	380.7	Central, Rift Valley,Nyanza
Cashew nuts	15 3	Coast, Western.
Coconuts	72.0	Coast.
Other permanent crops	70.2	
Milk (million litres)	769.0	Rift Valley, Central.

the undeveloped nature of small-holder farming methods presently in use more starkly than any other measure. Significantly higher yields from small farms will only be obtained by much greater use of fertilizer, farm chemicals and other inputs, and continued education on husbandry.

8.49. A total area of 925,800 hectares was planted to maize in 1978/79 during the long rains, 267,200 hectares to beans, 180,200 hectares to sorghum and millet, 102,200 hectares to cassava and 118,300 hectares to coffee or tea. The total area cultivated to all crops was 2,046,200 hectares but certain items would have been planted with others so this total overstates the actual area under cultivation. The overall land farmed by small holders was 3.22 million hectares. In 1978 for comparison some 1,132,600 hectares were planted to cereals, 435,500 to pulses and nuts.. 162,500 hectares to root-crops 81,900 to fruit, vegetables and oilseeds, 109,600 hectares to "temporary" industrial crops and 124,100 hectares to so-called permanent crops (mainly coffee and tea).

8.50. Farm buildings show high totals; there were 4,690,200 domestic dwellings, 827,700 animal shelters, 1,923,000 crop stores and 104,900 other hidings; most farms having two domestic dwellings and a crop store. However, holdings of farm equipment are much more limited; there were 372,900

ploughs on the 2.69 million small holdings, 214,500 water tanks and only 30,400 tractors. The number of bicycles at 459,800 was more than ten times as great as the 42,300 cars or vans and 30 times the 15,300 lorries reported. There were only 88,600 hand pumps on the 2,693,000 small-holdings or only one farm in 30 had such an item of equipment. Power-driven pumps numbered 19,000 giving a ratio of 1 per 140 farms; the tractor ratio was 1 per 90 farms while for lorries, cars and vans the ratio was 1 per 50 farms. Again the very limited use of what can be considered modern items of farming equipment militates against the achievement of acceptable output totals from the small-holder farming sector.

Livestock Production

8.52. Because of the lack of reliable base, the estimates currently available of Kenya's livestock population must be considered as subject to considerable correction. Past attempt to estimate the numbers of cattle, goats, sheep, pigs and poultry have not been markedly successful. However, the Ministry of Livestock Development has plans to conduct a head count of all such animals in the country. Because of the lack of a nation-wide census to serve as a basis, estimates on livestock based on district and provincial animal production, the integrated rural survey and aerial surveys conducted by the Kenya Range-land and Ecological Monitoring Unit (KREMU) have been made. From these sources (see Table 8.19 and also Chapter 9) it is estimated that there are between 12.0 to 13.5 million head of cattle; between 11.0 to 14.0 million head of sheep and goats combined; around 100,000 pigs and about 27 million poultry in Kenya. Examination of provincial distribution of livestock shows that Rift Valley has the largest concentration of cattle (approximately 6.5 million) while Eastern Province has the largest concentration of goats (over 1.3 million).

8.53. According to the Veterinary Department of the Ministry of Live-stock Development, 1,263,000 and 1,046,000 hides were purchased in 1980 and 1981 respectively. For sheep and goats, 2,915,000 skins were purchased in 1980 and 2,511,000 in 1981. These figures probably represent about 75 per cent of total animals slaughtered in the two years. Of the estimated cattle slaughtered in 1981, intake by the Kenya Meat Commission which now faces stiff competition from private slaughter houses was only 61,000 heads. This intake was above the 1980 figure by some 5,000 head or 8.9 per cent. The intake of pigs to the Uplands Bacon Factory dropped further from 20,000 head in 1980 for baconers to 12,000 head in 1981 and from 5.000 head for porkers in 1980 to 2,000 head in 1981. Intake of pigs classed as manufactures (mainly for lard) doubled from 2,000 head in 1980 to 4,000 head in 1981. There is a private factory which has increased its intake of pigs significantly, building up its market at the expense of the Uplands factory.

8.54. The estimated total wholemilk production for 1981 was 1,300 million litres out of which nearly 1,002 million litres were produced by cattle. Both

the Kenya Co-operative Creameries Limited and the Kenya Dairy Board recorded a total intake of 222.9 million litres which represented nearly 17 per cent of estimated production. The 1981 deliveries showed an improvement of 36.0 million litres over 1980 mainly as a result of the good rains

SALES TO PUBLIC ENTERPRISES OF DAIRY AN DLIVESTOCK PRODUCTS, 1977-1981

Table 8.19

	Unit	1977	1978	1979	1980	1981
Kenya Co-operative Creameries						
Recorded Milk Production*	'000 litres	259,450	269,796	240,559	186,885	222,895
Milk Processed:						
Wholemilk and cream	'000 litres	157,880	185,557	212,255	186,892	222,335
Butter and ghee	Tonnes	4,342	3,871	3,134	2,174	2,729
Cheese		445	253	264	150	210
Evaporated milk		1,321	489	188	44	—
Dried Wholemilk powder		5,262	4,236	1,439	128	1,334
Dried skim-milk powder		3,440	2,956	1,218	80	469
Other Products		1	—	—	270	131
Kenya Meat Commission						
Intake of:						
Cattle and calves	'000 Head	158	68	68	56	61
Sheep		8	11	10	6	7
Lambs		3	—	—	—	1
Goats		6	70	2	1	1
Total Production of Carcass Beef	Tonnes	20,637	8,890	7,634	6,438	8,410
Uplands Bacon Factory						
Intake of pigs for:						
Bacon	'000 Head	36	34	29	20	12
Pork	,,	3	4	5	5	2
Manufactures		2	2	2	2	4

*Including sales licensed by the Kenya Dairy Board.

while the increased prices for milk were an important incentive to farmers. However, Kenya still imports milk powder to meet the rising demand including the school milk programme.

Irrigation

8.55. The Kenya Government through the Ministry of Agriculture has two main institutions through which the planning and implementation of irrigation and drainage projects are executed.

These are—

(a) the National Irrigation Board (NIB) which deals with planning, implementation and management of gazetted large scale settlement schemes on which farmers are settled as tenants such as Mwea, Ahero Pilot Scheme, West Kano, Bunyala, Perkerra and Bura irrigation settlements; and

(b) Irrigation and Drainage Branch of the Land Reclamation and Drainage Department (I.R.D.) which was established in 1979 with the aim of assisting groups of small-holders in the rural areas to participate in irrigation and drainage development.

8.56. Satisfactory progress was made by the large.scale irrigation schemes where an additional 569 hectares were brought into production bringing the total area irrigated in 1980/81 to 10,107 hectares as compared to 9,538 hectares in 1979/80. However, there was reduction in the total number of

PROGRESS AND PRODUCTION AT SIX IRRIGATION SCHEME AREAS, 1976/77-1980/81

Table 8.20

	1976/77	1977/87	1978/79	1979/80	1980/81
Mwea—					
Area Cropped—Hectares	5,616	5,648	5,767	5,767	6,313
Plot-holders—Number	2,973	3,003	3,149	3,150	3,150
Gross value of output—K£'000	2,088	2,054	1,926	1,637	2,029
Payments to plot-holders— K£'000	1,083	1,566	1,416	1,412	1,425
All (6) Scheme Areas—					
Area cropped—Hectares	8,728	8,607	9,296	9,538	10,107
Plot-holders—Number	4,744	4,904	5,283	5,553	5,289
Gross value of output—K£'000	2,880	2,659	2,779	2,496	3,239
Payments to plot-holders. K£'000	1,553	1,825	1,659	1,870	1,896
Crops Produced— Tonnes					
Mwea—Paddy	35,960	32,289	29,046	29,202	32,248
Ahero—Paddy	5,127	3,985	3,539	4,106	4,327
W. Kano—Paddy	1,477	1,009	2,146	3,379	3,583
W. Kano—Sugar Cane	—	—	—	—	11,395
Bunyala—Paddy	1,074	756	681	789	995
Tana—Cotton	2,507	1,309	1,382	1,242	2,337
Perkerra—Onions	1,083	418	577	1,127	1,256
Chillies	172	132	165	603	173

plot holders from 5,553 in 1979/80 to 5,289 in 1980/81 resulting in a rise in the average size of plot to 1.91 hectares as opposed to 1.72 hectares reported in 1979/80. Total gross value of output increased by K£743 per plot-holder or by 29.8 per cent from K£2,496 during 1979/80 to K£3,239 in the 1980/81 crop season. The output of rice paddy recorded an increase of 3,677 tonnes to 41,153 tonnes while both cotton and onion production increased slightly above the 1979/80 levels. Details are given in Table 8.20.

8.57. During the late 1960's the Government launched the Minor Irrigation Programme with assistance from UNDP/FAO and under this programme about 90 nomadic families have been settled on schemes in Turkana (Turkwell. 35 hectares); Katilu—220 hectares); West Pokot (Amolem-45 hectares) and in Isiolo District (Malka Daka—80 hectares; Merti—65 hectares). Two more sites have been identified for future development at Sigor in West Pokot (200 hectares) and at Carfassa in Isiolo District (200 hectares). The two schemes are expected to accommodate another 600 families when completed.

8.58. Provincial Irrigation Units (PIU) have been established since 1979 to deal with specific problems on minor irrigation schemes and also to identify potential irrigable sites in rural areas where increased crop production could be undertaken. The schemes currently being monitored by PIU's include Muka Mukuu and Mitunguu in Eastern Province which were started during the 1981/82 financial year with assistance from the Federal Republic of Germany at an estimated cost of K£5 million. The implementation of Ishiara (35 hectares) was completed in 1981 with assistance from EEC and the Italian Volunteers Organization. The Lower Tana Village Irrigation Programme around Garsen with assistance from World Bank, the Netherlands Government and the National Christian Council of Kenya was started during the 1981/82 financial year. Other projects at the coast include the schemes along the Sabaki River, the rice schemes in Vanga and the irrigation scheme in Taveta.

8.59. In Rift Valley Province, plans for rehabilitation and expansion of existing but poorly operated schemes have been completed with priorities for Baringo (Barwesa), Elgeyo Marakwet (Chesoi Canal), West Pokot (Sigor, Sangat and Lamut), Narok (Narosura) and Samburu District (Amaya).

Agricultural Development Services

8.59. *Training.*—Details on training programmes offered by various institutions including the University of Nairobi are set in Table 8.21. Some 450 students were undergoing training in the Faculty of Africulture out of whom 80 students are expected to graduate this year. In addition 301 students were undergoing training in the Faculty of Veterinary Medicine with 67 expected to graduate this year.

TOTAL ENROLMENTS AT AGRICULTURAL TRAINING INSTITUTIONS, 1977-1981

Table 8.21 *Numbers*

	1977	1978	1979	1980	1981
Degree Level.					
University of Nairobi—Faculty of Agriculture	284	353	379	408	450
Diploma Level—	329	317	332	325	301
Egerton College	687	683	787	860	938
Certificate Level.					
Bukura Institute of Agriculture	176	142	175	150*	170
Embu Institute of Agriculture	169	150	154	150*	150
Health and Industry Training Institute	285	310	272	275*	536+
SHORT-Term Vocational Courses.	405	356	713**	1,160	1,059
Naivasha Dairy Training School					198
Athi River M.T. School					

*Provisional.

**Includes short course seminars,

+Includes Students at Ahiti—Nyahururu.

8.60. There was considerable expansion in the training component of the agricultural development services during 1981. The programme included expansion of Egerton College in which the total first year intake increased to 420 students, nearly double the previous year's intake. Total students at the college numbered 938 with 249 students graduating at the end of the current academic year. A further development was the opening of Jomo Kenyatta College of Agriculture and Technology in May, 1981 in which 198 students were enrolled with 86 of them taking courses in agriculture. The college is expected to increase its annual intake during this year. Enrolments of students taking certificate courses both at Bukura and Embu Institutes of Agriculture and at the Animal Health and Industry Training Institute were 170; 150 and 536 students respectively. The Bukura Agricultural Institute increased its intake by an additional 20 students in 1981. Short courses continued to be offered at Naivasha Dairy Training School in which 1,059 students took part; there is a Meat Inspection Training School at Athi River in addition to Large Scale Farm Training Centres in Eldoret and at Nyahururu. In general training facilities are being expanded in line with the expanded requirements of the agricultural sector.

CHAPTER 9—NATURAL RESOURCES AND ENVIRONMENT

Development and environment are so closely interrelated that the two must be looked upon as different sides of the same coin. Kenya's economic development depends very much on the exploitation of its natural resources but the management of these natural resources calls for policies which will ensure that they remain to be of benefit for future generations. Proper management of soil, water, fisheries, forestry, rangelands and other animal life is therefore essential. The principal resources are commonly referred to as "renewable resources" and the rate and methods of harvesting such 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 benefits 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 Supplies

9.2. The National Water Development policy which aims at providing clean and piped water throughout the entire country for both livestock and human consumption by the year 2000 is increasingly becoming an operational reality. In order to achieve this water development target, the Government of Kenya has adopted the goals of the International Drinking Water Supply and Sanitation Decade (1981-1990) and the Ministry of Water Development has set the targets of population coverage to be achieved by the year 1990. The targets for water supply are complete coverage in all designated urban areas and 75 per cent of all the rural areas; for sanitation coverage of 90 per cent of all designated urban areas and 50 per cent of all rural areas. The Government has formed the National Action Committee for Water which comprises representatives from various related ministries and organizations and its objective is to formulate policies, strategies and specific programmes for the decade activities.

9.3. Phase I of the National Master Water Plan which contains information on the availability, reliability and quality of the country's water resources and potential alternatives to satisfy the existing and forecast demand up to the year 2010 has been completed; Phase II of the plan to provide a detailed programme of the Comprehensive River Basin Development Authorities aimed at enhancing rapid development planning is now virtually completed. The implementation of the various projects envisaged will aim at meeting the targets on time.

9.4. Table 9.1 details total expenditure on water development and related services incurred by the Central Government and other public authorities the period 1977/78 to 1981/82. In 1981/82 total expenditure on

Development Expenditure on Water Supplies and Related Services, 1977/78-1981/82

Table 9.1 K£'000

	1977/78	1978/79	1979/80	1980/81	1981/82*
Ministry of Water Development—					
Urban water supplies	2,228	2,290	3,645	2,495	1,712
Rural water supplies	3,961	4,130	8,107	7,566+	9,722
Sabaki River Project	12,225	7,715	5,343	6,573	1,780 ‡
Miscellaneous programmes**	5,973	6,209	2,466	4,510	3,141
Mombasa Pipeline Board	650	385	37	100	100
Tana River Development Authority	10,983	8,034	11,115	14,840	7,122
Other Ministries	130	140	186	210	391
Local Authorities	3,754	4,598	4,856	3,615	5,400
Total	39,904	33,501	35,755	39,909	29,368

*Provisional.

**Include water resources and pollution control, Water Conservation, Rehabilitation of Water Supplies, The Integrated Water Development, and other Miscellaneous Water Programmes.

+lncludes Water Supply for Livestock Development.

‡Includes Range Development for North Eastern Province.

water development declined by K£10.5 million or 36 per cent as compared to 1980/81. The completion of the giant Sabaki Water Project under Mombasa and Coastal Water Supplies and the Tana River Development Authority (T.R.D.A.) in the period 1981/82 was the main reason for the temporary overall decline in total expenditure.

9.5. The Sabaki Water Project became operational in 1981 and now produces enough water to serve the population of 600,000 people in its area. This project which was funded by the World Bank and the West German Government is expected to be commissioned by June 1982 supplying water to the Mombasa Municipality and other surrounding areas. In October 1981 the project's water capacity began to supply Mombasa Island and hence alleviated the persistent water shortages there. On full commissioning of this joint venture by June 1982, the project would have cost a total of K£45 million.

9.6. The provincial distribution of rural water supply project schemes operational or expected to be operational as at June 1980, June 1981 and June 1982 respectively is given in Table 9.2. The number of projects operational by 1982 increased to 118 compared to 124 in 1981 continuing this upward trend in the number of projects apparent for some years. The 1982 projects are expected to involve a total expenditure of K£20.9 million. The details given in the table show that expenditure on rural projects has

increased rapidly since 1980 with the 1982 total some 6 per cent higher than in 1980. It seems obvious that in the central and western provinces a number of larger projects have been started in 1981 and 1982.

RURAL WATER SUPPLY PROJECT SCHEMES OPERATIONAL OR EXPECTED TO BE OPERATIONAL AT JUNE, 1980, 1981 AND 1982

Table 9.2

	June, 1980		June, 1981		June, 1982*	
	No.	Cost K£'000	No.	Cost K£'000	No.	Cost K£'000
Central	13	5,500	15	6,000	18	8,985
Coast	11	454	11	454	11	454
Eastern	19	2,180	20	2,780	21	2,880
North-Eastern	15	157	15	157	15	157
Nyanza	15	3,198	15	3,198	15	3,198
Rift Valley	32	917	33	1,035	34	1,309
Western	6	585	9	2,585	10	3,935
Total	111	12,991	118	16,209	124	20,918

*Provisional.

9.7. The policy of decentralization of water quality and pollution control to provincial offices in Mombasa, Nyeri, Nakuru, and Kisumu has started to produce worthwhile results: for example it is now possible for the Ministry's Inspectorate Unit to control and manage sources of pollution in urban and rural areas more effectively. One major activity in 1981 was an agreement for the World Bank to sponsor the Coffee Small-holder Rehabilitation Project which is intended to cover 415 coffee factories throughout the country. Under the project it is hoped to up-grade the factories and control the waste waters arising from the wet processing of coffee berries that at present forms the most serious agricultural-based-pollutant in the country. This approach will allow recirculation of these waste waters to the benefit of the areas concerned.

9.8. The Ministry of Water Development has also embarked on its Rehabilitation of Water Supplies Programme. The aim of this project is to renovate the various water supply system so as to be able to meet the water demand targets originally envisaged in the plan. About 29 water supply systems thoughout the country are due for rehabilitation during the period 1982/85.

9.9. The Ministry, working with the Ministry of Livestock Development is also actively involved in developing better water supplies in livestock-rearing areas. In 1981, ranch planning offices were opened in Baringo, Kajiado, Lamu, Mombasa, Nakuru and Narok districts to enhance the Ministry's policy in developing primary water needs in these ranch areas. In addition, water conservation activities were concentrated in Baringo, Kitui, Laikipia, Machakos and Samburu districts. About 15 pans and five dams were completed while others were approved for construction.

9.10. The development of ground water sources continued to be an important aspect of rural water development. In 1981 the Ministry localized its exploration of groundwater potential in Kiambu, Kilifi, Kisii, Laikipia, Machakos, Nairobi, Nakuru, Narok, Uasin Gishu and Wajir districts. The drilling section acquired two new rotary rigs bringing the total of rotary rigs to seven. Nevertheless, it was noted that a total number of successfully drilled bore-holes declined from 103 in 1980 to only 50 in 1981. Such a drastic decrease in work performance was attributed to the persistent delays in servicing and repairs of the rotary rigs and inadequate provision of trained manpower, transport and communication facilities experienced by the section in enhancing its work priorities.

9.11. The Ministry proposes to undertake a future manpower requirement study. This will help in formulating a Comprehensive Manpower Development Programme at all levels in order to plan, design, construct and maintain the operation of water supply and sanitation systems in the entire country. The water development training school which trains sub-professional level staff increased its annual intake of trainees from 185 in 1981 to 200 in 1982 for technicians and 40 to 60 respectively for craftsmen. The total number of the trained staff who have passed through the school is expected to rise to 1,360 by June 1982. There is also a proposal to set up a Water Training Institute at Kajiado.

Forestry

9.12. The establishment or re-establishment and maintainance of a proper vegetation cover on both private and public land is the main objective of the Forest Department but for this it needs the fullest co-operation of the public at large. Achievement of such cover country-wide could ensure the ultimate goal of helping satisfy the growing demand for domestic fuel, building materials and other industrial and wood products while at the same time conserving soil and protecting catchment areas. While there are still only limited data on the country's forest areas over the years and any assessment of the degradation of these areas over time cannot be too specific, the current interest in restoring a better balance between availability and demand for wood products indicates that there is now a better prospect of leaving a healthy forest sector for the benefit of future generation. The section on resource monitoring activities given later in this chapter attempts to fill in some of the data gaps on forests and their degradation. It is estimated for example, that 1.37 million hectares or 2.4 per cent of the total area of Kenya is now covered by indigenous forests and mangroves.

9.13. Table 9.3 shows that an additional 5,800 hectares of all types of trees in plantation areas were planted in 1981 compared to an additional 6.300 hectares planted in 1980. This raised the total areas of planted forests from 168,400 hectares in 1980 to 174,300 hectares in 1981. Amongst these, 1,600

hectares were established in Turbo, Eldoret and Kitale divisions to continue supplying raw material requirements for the giant Webuye Pulp and Paper Mills.

FOREST PLANTATION AREA, 1977-1981

Table 9.3 '000 *Hectares*

	1977	1978	1979	1980	1981*
Indigenous softwoods	3.7	3.7	4.6	4.7	5.0
Indigenous hardwoods	5.4	5.4	5.3	5.4	5.7
Exotic softwoods—					
Cypress	62.8	66.5	68.1	71.2	74.3
Pines	68.4	70.4	71.5	74.4	75.8
Exotic hardwoods—					
Timber	1.8	2.2	2.8	2.8	3.0
Fuel	9.5	9.7	9.8	9.9	10.5
Total Area	151.6	157.9	162.1	168.4	174.3

*Provisional.

9.14. The Rural Afforestation Extension Scheme continued operating in 38 adminstrative districts. There are 154 forest nurseries under this scheme for raising seedlings that are either supplied free of charge or sold to the public at low price. There are also 192 chief's nurseries that have been started under the guidance of officers of the Forest Department.

9.15. Forest Fire Management reported 12 cases of forest fires in 1981 which destroyed a total area of 20 hectares of exotic plantation, 51 hectares of indigenous forests and large areas of grass and bush. Fires were also reported in many sugar-cane areas causing considerable damage. One estimate suggests that bush, forest and cane fires in 1981 lost resources valued at K£10 million.

9.16. Table 9.4 gives details of recorded sales of forest products during the last five years. It is noted that the recorded consumption of timber declined from 514,000 cubic metres in 1980 to 477.000 cubic metres in 1981 ora decline of 6.5 per cent. While sales of soft-wood dropped from 436,000 cubic metres in 1980 to 352,000 or by 20 per cent, hardwood sales rose from 78,000cubic metres to 125,000 cubic metres or by 60 per cent during the same period.

9.17. The World Bank and its International Development Association affiliate has approved K£18.6 million in funds to help Kenya improve its forestry resources. The money will help finance tree planting and restore and maintainforestareas.

9.18. Research activities continued to be a major component of forestry development in the country. The International Council for Research on Agro-Forestry (ICRAF) opened its 35-acre field station in Machakos in addition to

RECORDED SALES OF FORESTS PRODUCTS, 1977-1981

Table 9.4

	1977	1978	1979	1980	1981*
Timber '000 true cu. metres—					
Softwood	350	383	396	436	352
Hardwood	84	83	72	78	125
Total	434	466	468	514	477
Fuel '000 stacked cu. metres—					
Fuelwood	90	104	121	69	59
Charcoal	58	38	12	1	
Power and Telegraph Poles—numbers	6,193	8,684	8,893	12,364	10,200

*Provisional.

the site in Nairobi for ICRAF permanent headquarters. One of its aims is to develop ways of investigating existing on-farm agro-forest systems including studies of maintaining a balance between agriculture, animal production and forestry without causing undue environmental deterioration. This will, therefore, enable agricultural land to be utilized for both food production and the growing of multi-purpose trees that are compatible with food production.

9.19. Afforestation of Arid and Semi-Arid Lands (ASAL) has become an important component of Soil Conservation and Re-Afforestation Programme in the country. There are Integrated Development Projects for this purpose localized in Machakos, Turkana, Embu-Meru-Isiolo, Maragini Settlement Scheme, Baringo and Kitui areas. In addition, the Euphorbia Tirucalli projects aimed at experimenting with the growing of euphorbia to maximize production of synthetic petrol to alleviate some of Kenya's energy problems have also been initiated in Kibwezi, Jilore and Baringo areas. This plant species is envisaged to be a future major crop for re-afforestion, soil conservation and for improving water catchment in the areas concerned.

Fisheries

9.20. The fishing industry had generally a successful year in 1981. Table 9.5 indicates that total fish landings rose by 20.3 per cent to 57,987 tonnes in 1981 compared to the total catch of 48,218 tonnes in 1980. The total value of the catch showed an increase of 63.1 per cent from K£4.5 million in 1980 to K£7.3 million in 1981. Such an improvement in fish output is attributed mainly to the use of improved fishing techniques, better storage and transport facilities for both local and international markets and an increase in the number of fishermen on the Lake Victoria.

QUANTITY AND VALUE OF FISH LANDED, 1977-1981

Table 9.5

	1977	1978	1979	1980	1981*
Quantitities Tonnes:—					
Freshwater fish—					
Lake Victoria	19,332	23,856	30,592	26,914	39,231
Lake Turkana	15,473	15,560	13,731	12,384	10,863
Other areas	1,820	2,344	2,075	3,584	3,500
Total	36,625	41,760	46,398	42,882	53,594
Marine fish	4,046	4,178	2,858	4,905	4,136
Crustaceans	208	365	256	400	225
Other marine products	82	19	801	31	32
Grand Total	40,961	46,322	50,313	48,218	57,987
Value K£'000:—					
Freshwater fish	2,020	3,282	3,708	3,959	6,156
Marine fish	679	796	625	156	961
Crustaceans	103	216	184	341	160
Other marine products	58	47	139	9	6
Total	2,860	4,341	4,656	4,465	7,283

*Provisional.

9.21. Lake Victoria continues to dominate the fishing industry as it accounted for 67.7 per cent of the total catch in 1981 as compared to 62.8 per cent in the previous year. There was a large rise in production from Lake Victoria from 26,914 tonnes to 39,231 tonnes between 1980 to 1981, but output from Lake Turkana fell for the third year in succession with 10,863 tonnes being produced. Some problems were experienced in estimation of fish output on the eastern coast of the lake as well as in transporting dry salted fish to Zaire.

9.22. With the help of K£3.7 million on loan from the World Bank, the Kenya Coast Fisheries Cooperative embarked on the construction of more suitable motorized fishing craft thus enabling fishermen to go further at sea to fish throughout the year and stay out much longer periods. So far the World Bank has granted the Kenya Government more than K£4.0 million to be spent on the development of the fish industry of the country.

9.23. Research on development of fisheries at the Kenya Coast continued to be carried out by the Kenya Marine Fisheries Research Institute. There is also a project to build at K£1.5 million aqua-culture farm in Kano Location, Nyanza Province helped by financial assistance from the World Bank which will serve as a research centre, commercial fish store and as a source of fingerlingsfor stocking farms in Western Kenya.

Mining

9.24. Table 9.6 shows that the total value of mineral production declined from K£16,067,000 in 1980 to K£14,564,000 in 1981 or by 9.3 per cent. This decrease is accounted for by Soda Ash where the value of exports fell by 38.8 per cent from K£9.6 million. In contrast output of Fluorspar increased from K£2,871,000 in 1980 to K£4,443,000 in 1981 or by 54.8 per cent and

QUANTITY AND VALUE OF MINERAL PRODUCTION 1977-1981

Table 9.6

	1977	1978	1979	1980	1981*
Quantities Tonnes:—					
Minerals—					
Soda Ash	—	—	—	203,768	157,870
Fluorspar	—	—	—	93,378	90,099
Salt	—	—	—	48,796	27,796
Limestone Products	—	—	—	37,658	169,464
Other	—	—	—	35,394	20,052
Total	—	—	—	418,994	465,281
Value K£'000:—					
Soda Ash	2,643	3,684**	5,557	9,615	5,884**
Fluorspar	2,832	2,567	1,984	2,871	4,443**
Salt	719	450	698	711	223
Limestone Products	352	462	387	570	2,676
Other	2,088	1,483	2,500	2,300+	1,338+
Total	8,814	8,646	11,126	16,067	14,564

*Provisional. ** Export value.

+Rough estimates only.

it seems probable that for limestone quantities and values were under-recorded in earlier years. As in past years, output value of Fluorspar and Soda Ash accounted for most of the country's mineral production; in 1981 the proportion was 71 per cent.

9.25. The average export price per tonne for Fluorspar increased from K£33.1 in 1980 to K£52.1 in 1981 while for Soda Ash it dropped from K£51.2 to K£48.9 per tonne.

9.26. The geothermal resources of Kenya are now being harnessed to produce electricity and it is expected that the Okaria field will become an important source of geothermal power during this decade. Details of geothermal energy are given in Chapter 10 on Energy.

9.27. The Mines and Geological Department intensified its exploration programme by deploying a total of six drilling rigs in Western Kenya and Coast. With assistance amounting to K£559,000 from the British Government, the four-year project aims to undertake a detailed study in Samburu and Marsabit districts and entered into its second year of operation.

Average Export Prices of Selected Minerals, 1977-1981

Table 9.7 *K£ per tonne*

	1977	1978	1979	1980	1981*
Fluorspar	24.8	24 9	33.1	33.1	52.1
Soda Ash	26.4	23 9	25.8	51.2	48 9
Corundum—Ruby	96 0	68.5	81 2	82.1	84.1+

*Provisional.

+Rough estimate only.

9.28. There are plans to carry out an airborne geophysical survey in Kenya's mineral potential area in the Kerio Valley covering an area of about 50,000 square kilometres with financial assistance of more than K£0.5 million from the European Economic Community (EEC) hopefully to ascertain the mineral resources in that area. The survey would include magnetics and radio metrics for detection of radio-potential areas of base metals such as gold, lead, zinc, copper and nickel.

9.29. In 1981, the Kenya Rangeland Ecological Monitoring Unit (KREMU) continued to be involved in ecological monitoring of selected aspects of environmental attributes not only in the rangelands but also in high potential areas of the entire country. The principle behind the ecological concept is that of gathering data over time by selected surveys and using 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, The strategy for the future will be for KREMU to approach its data gathering and analysis systems in an integrated manner so as to be able to develop and build predictive models on some aspects of land use in Kenya.

9.30. The use of satelite imagery in remote sensing technology enhances the knowledge for the mapping the estimated area coverage of green biomass and is therefore used to delineate existing forest-cover changes. A total of

indigenous forests and mangroves have been mapped throughout the country. This technique has revealed that out of the 58,036,700 hectares total area for Kenya, only 1,370,160 hectares or 2.4 per cent are currently covered by indigenous forests and mangroves. However, by adding the re-afforestation

programme plantations, the country's total forestry cover is increased to about 3 per cent. The provincial administrative areas have disproportionate areas of indigenous forest cover as shown by the following bracketed figures indicating the percentage areas of the total that is under forest or mangrove cover: Central (20.6), Western (7.8), Rift Valley (4.7), Nairobi (3.2), Eastern (0.9), Coast (0.9), Nyanza (0.3) and North Eastern (Nil). Again these percentage proportional figures are slightly higher when the re-afforestation programme plantations are added. Ten natural forests and mangroves have been analysed for the change in cover over a period of 20 years (1960-1980). The bracketed figures below show the current area coverage as a percentage proportion of the original total forests measured in 1960: Kakamega (86.3), Nandi (79.1), Ururu (Nil), Malaba (87.8), Bunyala (Nil), Marsabit (100), Ngong Hills (39.6), Endau 63.2), Teressia (100) and Kaptraroi (100). Preliminary land-use maps of the entire country as an input for rational planning and management for renewable resources are now available.

9.31. KREMU is also monitoring the extent and rate of change in the natural vegetation and also offering an assessment of species composition and plant production. Over 170 representative vegetation plots have now been established over most of the rangelands, an increase of 30 over 1980. Baseline data on range condition for most of the covered rangelands in addition to plant biomass production and a general description of flora of Kenya are now available. Such data is useful in assessing potential fuelwood availability as well as determining vegetation trends in the country.

9.32. In 1981 KREMU in collaboration with the Ministry of Energy carried out a survey on natural wood supplies in Kenya and an assessment of the ecological impact on its usage. It is estimated that the rangelands support 611 million metric tonnes of wood out of which potential usable wood for charcoal production amounts to 250 million metric tonnes. Most of the wood is presently extracted from agricultural lands and fringing areas. With an expected increasing demand for fuelwood, it is anticipated that this will result in shortfalls and hence potentially severe consequences on forests unless prevailing tree cutting methods are modified in such a way as to enable the forests to be restored or maintained.

9.33. Wildlife and livestock populations throughout the rangelands continued to increase significantly. As shown in Table 9.8 and based on the techniques used for measurement, livestock population in these areas consisted of about 11,000,000 sheep and goats, 5,400,000 cattle, 1,000,000 camels and 300,000 donkeys in 1981. Therefore, there has been an increase of 7 to 10 per cent in the livestock population during the period 1978 to 1981 with the heaviest stocking rates and greatest increase of 20 per cent in South Kenya. Rhinoceroses declined from 1,080 in 1978 to 870 in 1981. Similarly, the number of elephants declined from 63,000 in 1978 to 52,650 in 1981. However, other wildlife species such as Gazelle, Impala, Wildbeest, Topi,

LIVESTOCK POPULATION** OF KENYA RANGELANDS+, 1977-1981

Table 9.8 '000 *Head*

SPECIES	1977	1978	1981*
Cattle	4,073	4,224	5,409
Sheep and Goats	7,075	8,511	10,997
Donkeys	135	187	268
Camels	603	641	916
TOTAL	11,886	13,563	17,590

*Provisional.

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

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

Kongoni, Eland all showed considerable increases in their numbers over the same period. Aerial surveys showed that a major die-off in livestock occurred in Turkana and Samburu regions as a result of continuous droughts. In interpreting these population estimates, it should be borne in mind that such figures could also be influenced by movement of wild animals between national boundaries.

Activities to Preserve the Environment

9.34. The decade of the 80's started by witnessing an increasing awareness of problems associated with the environment and as a result the country's environmental reporting is to-day an important activity. It is a way of responding to public demands for environmental information, it assists in the definition, implementation and evaluation of environmental policies and it helps to incorporate environmental concerns in decision making. In agricultural development, the expansion of the farming sector both in terms of complexity and size has continued to pose dangers to the natural environment especially in causing soil erosion. The increasing use of sophisticated inputs such as fertilizers, insecticides and herbicides may harm the environment unless sufficient awareness and care exists on the part of farmers, agricultural advisers and manufacturers.

9.35. Forests are renewable if harvested under rational management procedures. The multiple uses of forestland are often to a degree incompatible but for the forest area to be maintained, preservation and regeneration of forests is necessary. There have been many reported cases of clear cutting of trees and uncontrolled fires which could create conditions leading to soil erosion and desertification. Soil erosion has not only an impact on agricultu- productivity but it causes silting in the hydro scheme dams and thus

reduces their future ouput. Considerable efforts are being made to curb soil loss. On two occasions, His Excellency, the President of Kenya has declared periods of one week for a joint practical involvement of all politicians, senior government officials and the public in construction of gabions and other soil conservation activities throughout the country. Follow-up activities in respect to this embarkation are being closely monitored by the appointed Permanent Presidential Commission on soil conservation and re-afforestation in conjuction with the Ministry of Environment and Natural Resources.

9.36. The final decision by the Tana and Athi Rivers Development Authority to go ahead with plans to build the giant Munyu Dam on Athi River downstream gave water quality control a considerable significance. The dam's viability will now depend on the maintainance of acceptable standards of water quality especially from the Nairobi City Council sewerage system and the pollutant affluents from neighbouring agricultural areas.

9.37. Freshwater pollution resulting from industrial processes have adverse effects on human and marine life. The water quality and pollution control division successfully won a prosecution against a textile mill in Eldoret for causing pollution of the Sosian River. Although the division had frequently closed down factories using the powers of the Water Apportionment and Catchment Board's Tribunal, this was the first case in the Republic's history where a court action by the Board has been taken against a company obtaining a public water supply source from a municipality.

9.38. The National Environment Secretariat completed a major study on Environment and Development which was a joint venture of Government of Kenya, United Nations Environment Programme and the United Nations Development Programme. The project was aimed at analysing the interrelationships between environment and development with a view to proposing ways and means by which environmental parameters could be better in corporated in development planning.

CHAPTER 10—ENERGY

Total domestic consumption of fossil fuels and hyro-electricity increased by 2 per cent in 1981 following on the increase of 4 per cent in 1980. However, the use of hydro-elecricity rose by 14.5 per cent while consumption of petroleum fuels fell by 5.4 per cent indicating the success of government measures to economise on imported petroleum and make more use of domestically produced electricity. In fact, domestically produced hydro-electricity rose by 30 per cent in 1981 allowing imports of this product from Uganda to be reduced. In Kenya the increased prices for petroleum products and the bringing on stream of new hydro-electricity capacity over the last few years has helped to keep in check the alarming situation resulting from the continuous rise in crude petroleum prices on world markets.

10.2. The comparison in Table 10.1 shows in index number form, the growth in the monetary GDP and consumption of energy with consumption of oil separately identified.

Index Numbers of Growth in Monetary Economy and Energy Consumption

Table 10.1 1976 = 100

	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	107
1980	124	117	113
1981	130*	119	107

•Provisional.

10.3. These figures indicate that since 1976 the increase in monetary GDP at constant prices has been higher than the growth rate of energy in the modem sector of the economy. While monetary GDP at constant prices grew by 30 per cent between 1976 and 1981, consumption of fossil fuels and hyro-electricity together grew by only 19 per cent. Kenya has been quite fortunate in being able to achieve a relatively satisfactory GDP growth rate since 1976 but being a developing country and not having large opportunities to curtail energy usage by cutting out wasteful consumption, its achievements in reducing the rate of growth of energy has been fairly good. For petroleum products, consumption has grown by only 7 per cent since 1976, equal to only one. quarter of the GDP growth rate.

Petroleum

10.4. Oil continues to be the major source of energy used in modern sector of the economy. Despite the lower growth rate in its consumption in relation to monetary GDP and to total energy usage, it still accounted for about 78.1 per cent of total energy (excluding fuelwood and charcoal) consumed in 1981. The decline from the average of over 80 per cent can be accounted for by greater use of hydro-electricity whose share of the total energy consumption readied 17.7 per cent while use of imported coal increased five-fold to make up 4.2 per cent of energy consumption in the modern economy. Thus some progress has been achieved in speeding up the shift away from oil as the overwhelmingly important source of energy. The share of hydro and geothermal electricity in total consumption of energy has increased from 12 per cent in 1980 to about 17.7 per cent in 1981. The 4.2 per cent of energy consumption filled by coal and coke is expected to rise significantly when the two cement factories in the country at Bamburi and Portland complete the conversion of their kilns to coal firing. The more traditional sources of energy, i.e. fuelwood and charcoal, which serve virtually all the rural population are excluded from this comparison but if they were included the relative share of oil in total consumption of energy would be significantly reduced, say to less than 40 per cent of the Kenya's present total energy demand. Fuelwood and charcoal have continued to occupy a very important place within the overall energy balance in Kenya, the use of these types of fuels in virtually all rural households and enterprises is probably still on the increase as there is a fairly uniform relationship between total population and consumption per capita. However, increasing control is being exercised by the Government over the country's forests to ensure they will continue to meet the future needs of the country.

10.5. Table 10.2 shows that the total quantity of imported crude oil into Kenya fell by 15 per cent from 3,075,500 tonnes in 1980 to 2,611,100 tonnes in 1981; its value because of the large rise in prices rose by 31.8 per cent from K£256.6 million in 1980 to K£338.1 million in 1981 indicating an increase in the unit price of K£46.6 per tonne or 56 per cent from K£83.4 per tonne in 1980 to almost K£130.0 per tonne in 1981. Imports of refined petroleum fuel declined by 51 per cent from 166,500 tonnes in 1980 valued at K£19.69 million to only 85,100 tonnes worth K£8.17 million in 1981. The total bill for imports of oil products went up from K£277.3 million in 1980 to K£358.2 million in 1981. This can be accounted for by the increase in prices as indicated in Table 10.3 below accompanied by a reduction of the value of Kenya shilling against the US dollar.

10.6. World inflation accompanied by the generally unsatisfactory economic climate had their impact on Kenya's exports of petroleum products. The share of exports to Uganda dropped significantly, from 17 per cent of the total in 1980 to only 13 per cent in 1981 and the quantity exported dropped by 40 per cent from 266,300 tonnes to only 159,000 tonnes. Exports to other countries

Table 10.2

QUANTITY AND VALUE OF IMPORTS AND EXPORTS OF PETROLEUM PRODUCTS, 1977-1981

	1977		1978		1979		1980		1981	
	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	2,551.5	100,158.4	2,369.2	92,337.6	2,471.5	120,085.3	3,075.5	256,582.0	2,611.1*	338,132.4*
Petroleum Fuels	104.7	8,269.9	258.3	16,899.4	288.3	20,480.8	166.5	19,691.9	85.1	8,171.0
Lubricating oil	73.9	6,927.7	65.4	6,636.1	47.9	5,100.0	54.8	919.0	50.4	11,719.4
Lubricating greases	0.2	65.1	0.2	75.2	0.1	47.5	0.1	84.1	0.2	127.4
TOTAL	2,730.3	115,421.1	2,693.1	115,948.3	2,807.8	145,713.6	3,296.9	277,277.0	2,746.8	358,150.2
EXPORTS—										
Petroleum Fuels	1,365.0	72,398.3	1,173.3	60,372.6	1,001.7	68,138.8	1,581.8	150,557.5	1,169.5	152,283.8
Lubricating oils	50.0	10,253.8	38.9	8,172.2	33.9	8,311.3	35.5	9,976.6	15.8	5,499.3
Lubricating greases	1.5	350.3	1.3	378.7	1.3	409.8	1.1	350.7	0.5	232.2
TOTAL	1,416.5	83,002.4	1,213.5	68,923.5	1,036.9	76,859.4	1,618.4	160,884.8	1,185.8	158,015.3
NET BALANCE	1,313.8	32,418.7	1,479.6	47,024.8	1,770.9	68,854.2	1,678.5	116,392.2	1,561.0	200,134.9

*Provisional.

Prices of Imported Crude into Kenya by Type, December, 1978 to February, 1982

Table 10.3 *US$ per Barrel*

Crude Oil Type	December 1978	December 1979	December 1980	December 1981	February 1982
Arabian Light	12.70	24.70	32.00	34.99	34.00
Arabian Medium	12.32	23.55	31.45	33.00	32.40
Arabian Heavy	12.02	23.17	31.00	31.50	31.00
Iranian Light	12.81	28.71	35.37	34.60	30.20
Iranian Medium	12.49	27.98	34.37	33.40	28.20
Qatar Marine	13.00	27.23	31.23	35.50	35.30
Qatar Durkhan	13.19	27.42	31.42	35.65	35.45
Kuwait	12.27	25.50	29.50	33.00	32.30
Zakum	13.17	27.46	31.46	35.60	35.40
Basrah	12.66	25.96	29.96	34.71	34.21
Murban	13.26	27.56	31.56	35.70	35.50
Dubai	12.64	25.93	31.93	33.86	33.86
Abu Bukhoosh	12 65	—	28.75	35.75	34.69
Oman	13.00	30.20	30.20	36.00	32.00
Average	12.73	26.51	31.44	34.52	33.18
Averages* Midyear	—	19.62	28.97	32.98	—

*Average of December prices of two consecutive years.

also decreased. As a result the total quantity of petroleum products declined by 27 per cent from 1,618,400 tonnes valued at K£160.9 million in 1980 to 1,185,800 tonnes worth K£158.0 million in 1981. The average price earned from petroleum fuels exported was K£130 per tonne as compared with K£95 per tonne in 1980.

10.7. Although the trade in oil is not the only cause of instability in Kenya's balance of payments on its external merchandise account, it has been a major contributory factor to the widening of the deficit in the current account since 1973. Figures in Table 10.4 below show the continuous increase in the

Average Prices of Middle Eastern Crude Oil, 1960-1981

Table 10.4

Year	U.S. $ per barrel	K£ per tonne
1960	1.86	4.88
1970	1.35	3.54
1973	2.74	6.93
1974	9.55	25.00
1976	11.51	35.06
1977	12.40	36.12
1979—March	13.48	37.10
December	22.84	61.34
1980—March	27.17	76.52
September	30.21	81.53
1981—March	32.00*	97.24
December	34.00*	128.17

*Saudi Arabia base price.

dollar price of crude petroleum from 1960. The increase in local currency terms has been even larger because of devaluation in 1975 and 1981, but this has helped to achieve the economies in oil use referred to above.

10.8. In dollar terms the average price of crude oil was 12.4 times greater at the end of 1981 than the average for 1973. In Kenya's own currency the increase was greater with prices per tonne 18.5 times more. Such large increases have not been matched by rises in prices of Kenya's major exports-coffee and tea-with the result that the margin between total export earnings and the cost of essential petroleum imports has shrunk at an alarming rate. In 1980 the net cost of petroleum imports to Kenya after allowing for product exports was equal to 33 per cent of non-oil exports; in 1981 this proportion has risen to 54 per cent.

10.9. Before 1973, the oil refinery at Mombasa exported about 55 per cent of its output at prices which covered most of the production costs of the refinery. However, since then with higher domestic demand and lower exports, the proportion of export sales to total refinery output had fallen by 1981 from 54.3 per cent to 44 per cent, this despite the strong recovery in export sales in 1980. This has had a big impact on the net cost of consumption of oil products in Kenya. The decline in exports of oil refinery as shown in Table 10.5 has been generally consistent apart from the recovery seen in 1980 and it seems likely that the trend to a larger proportion of refinery output being taken by domestic consumption will continue.

Sales of Mombasa Oil Refinery Products, 1973-1981

Table 10.5 *Percentage*

Year	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
1981	56.0	44.0	100.0

10.10. Table 10.6 details the changes in wholesale prices of petroleum products at Mombasa from September 1973 to November, 1981. The price of industrial diesel oil in 1981 at KSh. 3,666 per tonne was 7.8 times higher than the price of KSh. 471 in 1973. With the exception of liquified petroleum gas, whose price in 1981 was about 2.9 times that of KSh. 2,060 in 1973, prices for the rest of the oil products, illuminating kerosene, premium and regular motor gasoline, light diesel oil, fuel oil, and power kerosene have risen by between 5.7 to 7.3 times since 1973.

WHOLESALE PRICES* OF PETROLEUM PRODUCTS AT MOMBASA, ON 30TH SEPTEMBER, 1973, 21ST FEBRUARY 1981, 17TH JUNE, 1981, 10TH JULY, 1981, AND 5TH NOVEMBER, 1981

Table 10.6 *KSh. per tonne*

	30-9-1973	21-2-1981	17-6-1981	10-7-1981	5-11-1981	Ratio 1981-1973 per cent
L.P.G**	2,060	4,345	4,546	4,946	6,050	293.7
Premium motor gasoline	1,551	7,670	7.943	8,489	9,434	608.3
Regular motor gasoline. .	1,468	7,280	7,561	8,122	9,037	615.6
Illuminating kerosene	736	2,994	2,994	2,994	4,205	571.3
Power kerosene	763	4,204	4,414	4,572	5,571	730.1
Light diesel oil	892	4,109	4,347	4,824	5,529	619.8
Industrial diesel oil	471	2,554	2,554	2,943	3,666	778.3
Fuel oil	334	1,639	1,639	1,751	2,180	652.7

*Including duties and sales taxes.

**Liquified petroleum gases.

10.11. Retail prices of petroleum products in Nairobi rose four times during 1981 by a total of 48 per cent over 1980. The world market for crude petroleum continues to be one of oversupply but even with the welcome fall in the US dollar price of crude petroleum, Kenya's benefits have been affected by the sharp devaluation of its currency plus the strengthening of the dollar in 1981. World-wide energy conservation measures have been a major contributory factor of the present oil glut but the very rapid escalation of prices in the recent past has enforced such conservation. With a retail pump prices for motor spirit and gasoil in 1981 some five times the level of 1974, there has been a tendency to reduce the use of these products especially for private motoring.

NAIROBI RETAIL PRICES, 1974-1981

Table 10.7 *KSh. per litre*

Date	MOTOR SPIRIT		Gas Oil
	Premium	Regular	
12-4-74	1.62	1.50	1.16
14-4-77	2.64	2.52	1.84
16-6-78	3.03	2.91	2.11
8-4-79	3.38	316	2.31
8-6-79	3.36	3.36	2.31
26-9-79	4.17	3.75	2.60
9-3-80	4.82	4.30	3.05
20-6-80	5.35	4.70	3.23
21-2-81	6.15	5.71	3.93
17-6-81	6.35	5 91	4.13
10-7-81	6.75	6.31	4.53
5-11-81	7.50	7.02	5.18

10.12. Table 10.8 which shows the source of the crude petroleum processed at the Mombasa Refinery also indicates that the refinery throughput of crude intake has fallen by 11 per cent in 1981, the same as the rise of 11 per cent in 1980. Thus the throughput in 1981 was almost identical with that of 1979 though higher than the figures of 2,570,200 tonnes and 2,584,700 tonnes in

CRUDE OIL INTAKE AT EAST AFRICAN MOMBASA OIL REFINERY BY TYPE, 1977-1981

Table 10.8 '000 tonnes

Crude Intake	A.P.I. Gravity	1977	1978	1979	1980	1981*
Arabian Light	33.4	866.5	624.2	1,068.2	876.0	785.2
Arabian Medium	31 0	–	14 4	166.2	673.2	658.7
Arabian Heavy	27.9	–	–	–	73.5	75.5
Iranian Light	33.9	324.4	542.9	123 6	—	67.5
Iranian Medium	–	602.4	536.8	370.7	92 6	65.7
Qatar Marine	36.7	512.8	427.8	379 9	523 6	34.2
Qatar Durkhan	41 2	42.8	259.7	—	52.0	52.6
Kuwait	32 0	–	–	185.3	383.9	67.5
Zakum	40.1	217.7	136.0	257.4	292.9	50.9
Basrah	34.1	—	48 0	120.1	—	—
Murban	39 6	—	—	–	63 8	584.7
Dubai	32.4	—	—	—	—	66.8
Abu A1 Bukhoosh	—	—	—	57.2	—	—
Oman	–	–	—	—	—	195.0
Slops	–	3.6**	4 9	10 5	7.1	4.5**
TOTAL	—	2,570 2	2,584.7	2,739.1	3,038 6	2,708.8

*Provisional.

**Estimated.

1977 and 1978, respectively. Because of the fall in 1981, the Mombasa refinery has been working at only 65 per cent of its 4.2 million tonnes operational capacity. As there is still substantial capacity available, no increase in capacity is presently envisaged but yields should be improved as a computerized process supervisory system and a secondary processing unit become operational. This table shows that there has been a shift in the source of Kenya's crude oil supply. Before 1978, Iran and Saudi Arabia were the most important sources of crude oil but with difficulties over supplies from Iran, Saudi Arabia since has become particularly important.

10.13. Data on refinery throughput and output are given in Table 10.9. In 1981 itself the largest falls in output of particular products occurred for premium motor gasolene, light diesel oil and fuel oil. Export residues were also reduced but their proportion of total throughput at 20 per cent was higher than in 1980 and very much greater than the figures of 10.8 per cent recorded in 1977. The higher proportion of throughput reflected in export residues in 1980 and 1981 is related mainly to the changed pattern of supply

Oil Refinery: Throughput and Output of Finished Petroleum Products*, 1977.1981

Table 10.9 '000 tonnes

	1977	1978	1979	1980	1981
Crude petroleum throughput..	2,570.2	2,584.7	2,739.1	3,038 6	2,708.8
OUTPUT—					
L.P.G.**	19.4	19.3	21.0	24.1	22.3
Motor gasoline premium	221.3	241.8	223.5	274.4	213.9
Motor gasoline regular	144.8	136.0	147.6	154.6	155.4
Illuminating kerosene					
Jet/turbo fuel	376.6	386.0	426.2	436.5	474.8
Light diesel oil	446.9	468.5	436.9	523.8	466.6
Heavy diesel oil					
Marine diesel oil	106.2	81.7	111.5	84.7	68.2
Fuel oil	832.9	746.1	862.7	851.3	647.6
Export residues	276.4	366.5	362.5	561.4	542.3
Bitumen	34.0	22.1	36.7	31.0	33.1
Intermediates	8.6	-5.3	0.9	-0.4	-3.2
Refinery usage	103.0	122.0	109.6	97.2	87.8
Total Output	2,570.2	2,584.7	2,739.1	3,038.6	2,708.8

*Excludes lubricants.

**Liquified petroleum gas.

reflected in Table 10.8. Since 1979 the oil refinery has been receiving a total supply not optimally related to its production arrangements. Output of regular motor gasoline was unchanged in 1981, but there was a further significant rise in production of dual-purpose kerosene although most of the product went to supply jet aircraft.

10.14. Sales of petroleum products for domestic consumption in Kenya as given in Table 10.10 declined by about 5 per cent from 1,671,000 tonnes in 1980 to 1,584,500 tonnes in 1981. Despite the decline in 1981, there has been upward trend in domestic consumption of petroleum products since 1977. However, total domestic sales of petroleum products in 1981 were only 5 per cent higher than in 1977. Government's efforts to use pricing to curtail petroleum consumption have had an appreciable impact on the growth in the use of petroleum products since 1979. The figures though designed to show domestic consumption, need some adjustment as jet fuel supplied to foreign aircraft is also included. About 87 per cent of the total jet fuel is sold to foreign airlines at airports in Kenya.

10.15. Apart from illuminating kerosene and aviation spirit which showed increases in sales of 4 per cent from 85,600 tonnes to 91,000 tonnes and 8 per cent from 5,600 tonnes to 6,100 tonnes in 1981, as shown, the rest of the oil products showed declines in their domestic consumption. The higher price of charcoal and the continuing urban drift of the population probably accounts for the increase in sales of kerosene which has now been

Petroleum Supply and Demand Balance, 1977-1981

Table 10.10 '000 tonnes

	1977	1978	1979	1980	1981+
Demand—					
L.P.G.	17.1	17.3	20.2	21.5	21.1
Motor spirit premium and regular	270.5	290.8	302.0	300.8	298.5
Aviation spirit	6.2	6.5	5.4	5.6	6.1
Jet/turbo fuel*	290.0	328.0	330.1	347.9	343.5
Illuminating kerosene	64.3	78.0	89.3	85.6	88.6
Power kerosene	0.2	0.2	0.2	0.1	
Light diesel oil	311.8	324.2	349.2	408.5	375.6
Heavy diesel oil	32.6	29.0	30.9	38.9	30.7
Fuel oil..	512.1	463.9	432.4	462.1	420.4
Total	1,504.8	1,537.9	1,559.7	1,671 0	1,584 5
Refinery usage	103.0	122.0	109 6	97.2	87.8
Total Domestic Demand	1,607.8	1,659.9	1,669 3	1,768.2	1,672.3
Exports of Petroleum fuels	1,365.0	1,173.3	1,001.7	1,581.8	1,169 5
Total Demand	2,972.8	2,833.2	2,671.0	3,350.0	2,841.8
Supply—					
Imports:					
Crude oil	2,551.5	2,369.2	2,471.5	3,075.5	2,611.1
Petroleum fuels	104.7	258.3	288.3	166.5	85.1
Total	2,656.2	2,627.5	2,759.8	3,242.0	2,696.2
Adjustment**	316.6	205.7	-88.8	108.0	145.6
Total Supply	2,972.8	2,833.2	2,671.0	3,3500	2,841.8

*Includes about 87 per cent of its total sales to foreign airlines at airports in Kenya.
**Adjustment for inventory changes and losses in production.
+Provisional.

adopted as a cooking fuel especially by low income householders. The increase in the consumption of kerosene would have been higher, had it not been for the inability of the hydro-skimming plant at Mombasa to produce more kerosene than 18 per cent from the average barrel of crude oil. Since kerosene is a dual-purpose product, most of what is produced because of price advantages is used jet fuel with only about 20 per cent passing to the domestic consumer, Since it is Government policy to discourage use of fuelwood and charcoal, the income householders appear to require a better supply of kerosene to enable more of them to switch to this product for cooking.

10.16 The most significant declines in product consumption in 1981 occurred in the sales of heavy diesel oil, fuel oil and light diesel oil. The volume of sales of these three products declined by 21.9, and 8 per cent, respectively.

Sales of liquified petroleum gas, aviation and motor spirit, both premium and regular, and jet/turbo fuel showed declines of 1 to 2 per cent between 1980 and 1981. The small declines in sales of these latter products owes much to the flat level of general consumer demand.

10.17. Table 10.11 gives the changes in petroleum product consumption since 1976 in index number form. As can be noted from this table the highest consumption growth of 67 per cent was noted in illuminating kerosene between 1976 and 1981. L.P.G., light diesel oil, motor spirit (premium and regular), jet turbo fuel and aviation spirit also showed increases of 43, 30, 24, 13 and 7

INDEX OF PETROLEUM PRODUCTS CONSUMPTION BY PRODUCT, 1977-1981

Table 10.11 1976 = 100

PRODUCT	1977	1978	1979	1980	1981
L.P.G	116.3	117.7	137 4	146.3	143.5
Motor spirit: Premium and Regular	112.2	120.7	125.3	124 8	123.9
Aviation Spirit	108.8	114.0	94.7	98.2	107.0
Jet/Turbo fuel	95.0	107.5	108.2	114.0	112.5
Illuminating kerosene	120.9	146.6	167.9	160 9	166.5
Power kerosene	–	–	–	–	
Light diesel oil	108.2	112 5	121.1	141.7	130.3
Heavy diesel oil	72.9	64.9	69.1	87.0	68.7
Fuel oil	101.7	92.2	85.9	91.8	83.5
TOTAL	103.3	105.6	107.1	114.7	108. 8

per cent, respectively during the period, but, for the rest of the oil products, declines in consumption were recorded. For motor spirit, the regular product which had shown a less rapid growth up to 1979, became the substitute for premium in 1980 and 1981 as motorists endeavoured to economize on their total fuel bills. There has also been a shift from motor spirit to gas oil in road transport vehicles; this cheaper fuel is also important in agriculture. The sales of fuel oil have shown fluctuations to a large extent dictated by use in thermal power stations. In 1980 consumption increased as standby power stations had to be brought into production because of the impact of poor rainfall on hydro-elecric production. It is also possible that major industrial users have been economising their consumption of residual fuel oil and heavy diesel oil per unit of output, while there has also been some shift from fuel oil consumption to gas oil by the railways. The overall petroleum supply and demand balance sheet given in Table 10.10 illustrates the trends in domestic consumption ana export of petroleum products and their net effect on total demand, which because of a sharp fall in exports in 1981, was reduced by 15 per cent.

10.18 Sales by consumer category are given in Table 10.12 and the different transport modes took about 57 per cent of the total oil supplied in 1981. This shows a decline in the share as compared to the 60 per cent of 1980.

Net Domestic Sales of Petroleum Fuels by Consumer Category, 1977-1981

Table 10.12 '000*tonnes*

User	1977	1978	1979	1980	1981*
Agriculture	64.0	75.8	77.2	69.1	71.9
Retail pump outlets and road transport	428.0	433.8	453.4	520.8	515.7
Rail Transport	89.8	90.3	50.6	70.7	45.2+
Marine (Excluding Naval Forces)	132.4	111.4	248.5	142.4	182.0
Aviation (excl. Government)**	324.2	339.4	336.4	372.1	349.6
Power Generation	124.4	106.9	92.6	150.7	109.9
Industrial, Commercial and Other	360.7	363.2	418.1	497.3	464.0
Government	48.7	63.3	66.2	92.5	95.3
Balancing Item	-67.4	-46.2	-183.3	-244.6	-249.1
Total	1,504.8	1,537 9	1,559.7	1,671.0	1,584.5

*Provisional.

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

+Estimated by Kenya Railways.

Major declines were in the sales to rail and air transport sectors. A 28 per cent decline in thermal power generation, which accounted for about 7 per cent of total oil consumed in 1981, is due to good rainfall which helped to raise the level of water for hydro-electrict generation. Consumption in road transport, industry, commerce and agriculture rose moderately in the year under review.

Electricity

10.19. The commissioning of the 15 MW geothermal generation in July 1981 added this new source of energy to the country's domestic output. A second geothermal plant also of 15 MW is expected to come on the stream in 1983 while a third 15 MW is planned for 1984. This is one of the options for substitution which the Government is taking for the purpose of increasing the use of domestic sources of energy.

10.20 Table 10.13 indicates that the total installed generating capacity for hydro, geothermal and thermal electricity rose by 11 per cent from 485 MW in 1980 to 540 MW in 1981. This increase in 1981 is accounted by the commissioning of 40 MW hydro generating capacity at Masinga Dam which was added to the geothermal generator already mentioned. Table 10.14 details the existing and future hydro potential of Kenya by source.

INSTALLED CAPACITY AND GENERATION OF ELECTRICITY, 1977-1981

Table 10.18

	INSTALLED CAPACITY* MW**			GENERATION*GW H+		
	Hydro	Thermal ++	Total	Hydro	Thermal	Total
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
1981	353.5	186.6	540.1	1,381.0	373.0	1,754.0

*Includes estimates for industrial establishment with generation capacity.
**1 megawatt = 1 million watts = 1,000 kilowatts,
+1 gigawatt hour = 1,000,000 kilowatt hours,
++includes 15MW for geothermal added to the system in 1981.

HYDRO POTENTIAL OF KENYA ALREADY IDENTIFIED

Table 10.14

	Installed Capacity MW	Average MW	Firm Power MW
EXISTING—			
Tana	15	12	10
Wanjii	8	6	5
Kindaruma	44	23	20
Kamburu	92	48	43
Gitaru	145	78	69
Masinga	40	20	15
Small hydro	6	3	3
	350	190	165
FUTURE—			
From Tana River:			
Kiambere Tana	140	90	65
Grand Falls Tana	180	120	90
Adamsons Tana	60	36	28
Korech	80	48	36
Karura	40	25	20
	500	319	239
From Other Rivers			
Turkwel	120	60	50
Ewasen Nyiro	100	50	36
Sondu	60	60	20
Webuye	20	15	10
Nyando	35	20	10
Arror	15	15	5
Athi	60	25	15
	410	208	146
Grand Total	1,260	717	550

10.21. Kenya's hydro-electricity potential is concentrated on the Tana River. Turkwel and Ewasen Nyiro. Of the future possible 910 MW capacity, 500 MW or more than half could originate in the Tana River, 120 MW in Turkwel and 100 MW in Ewasen Nyiro. It is planned to commission new capacity of 140 MW at Kiambere on the Tana River in 1986 and 120 MW at Turkwel in 1988.

10.22. Taking both hydro and geothermal sources together, it is obvious that in the long-run, as per figures detailed in Table 10.15 the expected increase in demand will be met increasingly using electricity obtained by harnessing these sources of energy. It is hoped to reduce further the preponderance of oil-supplied energy for the country's requirements.

Projected Electricity Supply Potential and Demand, 1983-2000

Table 10.15 (MW)

	1983	1988	1993	2000
Hydro	600	600	600	600
Geothermal	30	170	500	500
Total Supply Potential	630	770	1,100	1,100
Surplus/Deficit	268	253	353	-167

10.23. This table shows that a large share of electricity will continue to be produced from hydro-electricity up to 1983, when there could be a shift with geothermal energy accounting for about 45 per cent of the total capacity then installed. In 1993 there should be a substantial surplus of elecricity but it is likely that hydro and geothermal together should be able to supply only 87 per cent of projected electrical energy demand in the year 2000. The balance at that time would be met by thermal electric generation and possibly by importing electricity from neighbouring countries. However, this time schedule is too long to be really specific on what will be the actual supply/demand relationship for electricity at the end of the century.

10.24. In 1981 rainfall was more nearly normal, so river Hows were good and there was also the additional 55 MW capacity brought on stream. Thus total electricity generated rose from 1490 GWH to 1754 GWH or by 17.7 percent and hydro-electricity increased its share from 71 per cent to 79 per cent. Thermal electricity production was substantially reduced as were imports from Uganda leading to savings in foreign exchange for payments of oil and electricity. Despite the large drop in the generation of thermal power, the Proportion of electricity generated domestically rose from 83 per cent in 1980 to 90 per cent in 1981. Details of domestically generated electricity appear in Table 10.13.

10.25. The electricity supply and demand balance sheet for 1977 to 1981 is presented in Table 10.16. Total consumption of electricity rose from 1,776 million Kwh in 1980 to 1,919 million Kwh in 1981 and in the later year only 194 million Kwh was imported from Uganda, a reduction of 38 per cent of the high figure of 315 million Kwh in 1980. The largest percentage increase in

Electricity Energy Supply and Demand Balance, 1977-1981

Table 10.16 *million* KWH

	1977	1978	1979	1980	1981
Demand—					
Domestic and Small Commercial	339	360	385	402	438
Large Commercial and Industrial	812	884	961	1,014	1,096
Off-peak	111	117	123	111	118
Street Lighting	11	10	10	11	11
Total	1,273	1,371	1,479	1,538	1,663
Transmission losses and unallocated demand	84	203	223	238	256
Total Demand = Total Supply	1,357	1,574	1,703	1,776	1,919
Of which imports from Uganda	272	217	160	315	194
Net generation	1,085	1,357	1,543	1,461	1,725

consumption was recorded in electricity used by large commercial and Industrial consumer whose purchase rose by 8.1 per cent from 1,014 million Kwh in 1980 to 1,096 million in 1981. In 1977 such consumers had purchased 812 million Kwh. For domestic and the small scale commercial users the increase in 1981 was from 402 to 438 million Kwh; for comparison these customers used 339 million Kwh in 1977. Consumption in off-peak periods for water heating and irrigation increased moderately by 6 per cent from 111 million Kwh in 1980 to 118 Kwh in 1981. The total rise in demand excluding transmission losses has been from 1,273 million Kwh in 1977 to 1,663 million Kwh in 1981, a rise of 30.6 per cent over four years.

10.26. The development in generating capacity for electricity has been undertaken in anticipation of the potential demand which is expected to be high due to increased industrialization and Government rural electrification programme. The East African Power and Lighting Company has embarked on an expansion programme aimed at improving the electricity supply in Western Kenya to meet the rapidly growing demand as a result of industralization currently taking place in that area. The construction of a 167 kilometre transmission line in planned which will run from Lessos to Kisumu and from Lessos to Eldoret and an extension to Chemosit from Muhoroni is also being developed. A second project, to cope with the current high demand

for electricity in Mombasa is planned which involves the construction of an electricity transmission line from Kamburu to Mombasa. This 417 kilometre line of 220 KV will enable Mombasa to obtain a direct supply from the Kamburu electricity generating station.

Total Energy Supply and Demand

10.27. Table 10.17 gives figures on usage of energy in the modern sector of the economy in terms of oil equivalent. As noted earlier Kenya's modern sector relies heavily on imported energy though production from hydro power and now geothermal has been increasing. In 1981 domestic primary energy

Production. Trade and Consumption of Energy* Expressed in Terms of the Primary Sources, 1977-1981

Table 10.17 '000 *Tonnes Oil Equivalent*

	1977	1978	1979	1980	1981
Coal and Coke Imports	43.8	34.8	11.3	16 9	90.9
Oil—					
Imports of crude oil	2,551.5	2,369.2	2,471.5	3,075.5	2,611.1
Net exports of petroleum fuels	-1,260.3	-915.0	-713.4	-1,415.3	-1,084.4
Stock changes and balancing item	316.6	205.7	-88.8	108.0	145.6
Total Consumption of Liquid Fuels	1,607.8	1,659.9	1,669.3	1,768.2	1,672.3
Hydro Energy—					
Local production of hydro. power	167.4	257.5	314.0	254.4	331.4
Imports of hydro-power	65.2	52.1	38.4	75.6	46.6
Total Consumption of Hydro-Energy	232.6	309.6	352.4	330.0	378.0
Total Local Energy Production	167.4	257.5	314.0	254.4	331.4
Total Imports	1,400.2	1,541.1	1,807.8	1,752.7	1,727.3
Use of stock and balancing item	316.6	205.7	-88.8	108.0	145.6
Total Energy Consumption	1,884.2	2,004.3	2,033 0	2,115.1	2,204.3
Local Production as Percentage of Total	8.9	12 8	15 4	12.0	15.5
Per Capita Consumption in Terms of Kilogram of Oil Equivalent	131	135	133	133	130

*Modern sector only: fuelwood and charcoal are excluded.

still accounted for only 15.5 per cent of total consumption in the modern sector of the economy but this is a substantial rise from the 12 per cent recorded in 1980. The proportion of energy generated from primary domestic sources is, however, expected to rise substantially in future as more of the

country's hydro and geothermal resources are harnessed. Imports of coal and coke rose substantially in 1981 as the cement plants began to change over to this more economical source of energy. At present it is possible to import coal and coke more cheaply than the equivalent oil product.

Household Energy Use

10.28. Rural households contain 85 per cent of Kenya's population and for them energy comes from 3 main sources: wood, charcoal and paraffin. They use these sources of energy for cooking, heating and lighting with cooking alone accounting for over 70 per cent of the total. An analysis of fuel consumption by rural households has been done using the 1978 Energy Consumption Survey. The results imply that the adoption of purchased fuels is due to two forces: wood shortages and "modernizing" influences among households with cash incomes, but such adoption is presently confined to only a minority of households. But both forces are likely to increase over time and the stress caused by wood shortages will be heaviest among households with lowest incomes.

10.29. Table 10.18 shows the provincial average energy use by rural small holders. Total effective energy is calculated by multiplying the amounts of each energy source by the energy content of the source and applying correction factors based on the relative cooking efficiencies of wood fires, charcoal "jikos" and paraffin cookers. Gas and electricity are not used by smallholders and

SMALLHOLDER ENERGY USE PER HOUSEHOLD* BY PROVINCE

Table 10.18

	Effective Energy Usage Megajoules/** (Ms)	Per cent of Energy from Wood	Per cent of Energy from Charcoal	Per cent of Energy from Paraffin
Coast	573.6	82.2	4.9	12 9
Eastern	607.5	88.1	4.3	7.6
Central	617.8	81.2	9 0	9.8
Rift Valley	617.2	84.4	8.6	7 0
Nyanza	550.5	83.6	4.2	12.2
Western	441.1	83.4	4 1	12.5
KENYA	566.6	83.9	5.8	10.3

*Based on the projected figures for the "Rural/Urban Household Energy Consumption Survey, 1978" and "Household Energy Use 1981".

**There are 1.2 megajoules of energy available for cooking in a kilogram of firewood.

data are not available for cow dung, crop wastes and other occassionally-used fuels. Analysis of total energy use by household type showed that the heaviest energy users were those with: high monthly incomes, large land holdings, large family sizes, more education and some members working in jobs other

than in agriculture, fishing and forestry. Energy use was particularly low among households raising only traditional crops, households using paraffin as their major fuel source, households with land holdings of up to half a hectare, households with only one adult member and households reporting no monthly income.

10.30. The breakdown of energy use by the type of fuel shows an overwhelming dependence on wood. At the national level 83.9 per cent of the energy consumed by smallholders comes from firewood. The reason is obvious: it involves no cash outlay so the wood is used not only for cooking but also for lighting and at certain times of the year for heating. The traditional Kenya three-stone fire has a low cooking efficiency, but much of the "loss" provides useful light and heat. Paraffin is used by three-fifths of the households, nearly always for lighting. These findings are in contrast to the urban areas where charcoal is the most common source of fuel for cooking while paraffin is increasingly in use as a replacement cooking fuel because of the rise in charcoal prices. In rural areas charcoal is used by the high income groups, single member households, the landless, those with secondary school education, and households with some non-agricultural workers. Combining these characteristics, it is probable that charcoal users are men living by themselves, households with significant off-farm income, and households in land-scarce areas where the limited wood supplies are privately owned. Few rural households rely on paraffin as their sole or even main cooking fuel, so only 5 per cent of households have to do some cooking with paraffin.

Energy Policy

10.31. Although the current oversupply has helped to bring down world prices of crude oil, the ever-rising cost of this source of energy since 1973 has caused all oil importing nations serious balance of payments problems. Despite the present more favourable situation, it seems that high prices of crude oil relative to other sources of energy will continue. In any event any benefits Kenya might have obtained by the reduction of the dollar price of crude oil were outweighed by the depreciation of the shilling against the US dollar in 1981. The prospects for 1982 are more promising in this respect, however. Thus the policies to help contain the situation continue and are as follows:

(i) to ensure that demand reflects development priorities and the essential need of the people,

(ii) to encourage the more efficient use of energy;

to re-direct demand towards less costly and renewable sources of energy; and

(iv) to develop further indigenous sources of energy supply.

10.32. In these respects effort has been made to use the pricing policy as one of the measures to conserve energy consumption. A cost-reflecting tariff structure for electricity was introduced in 1979 in order to shift demand from peak to off-peak hours and reduce transmission losses. The high prices of petroleum products over the last few years have certainly helped reduce growth in demand.

10.33. In addition there are other studies being carried out to reduce fuel oil consumption. In this respect it is anticipated that the industrial sector could save as much as 15 per cent of the energy it now uses through more efficient plant processes and replacing out-dated machinery.

10.34. Another method of oil conservation being considered is the substitution method. This requires availability of other options and major efforts have been initiated in Kenya to increase non-oil sources of energy for commercial energy, and to develop substitutes for wood and charcoal in the rural areas. In light of this, the first 15 MW geothermal electricity plant to aid the reduction of other thermal electricity use has already been commissioned.

10.35. Currently the product-mix from the oil refinery at Mombasa does not match demand, resulting in re-exports of fuel oil and some importation of finished products. For some time Government has been concerned about this imbalance, and several studies have been carried out with the aim of identifying the best option of modifying the refinery i.e., by installing additional process equipment to take in the heavier petroleum fractions and up-grade them to lighter fractions related to actual demand in the market place. A more thorough study was necessary to justify the high cost of the proposed modification. The Government, through the Ministry of Energy, has invited USAID to carry out such a study as part of USAID technical assistance to Kenya. The actual study will constitute two distinct phases—

(i) projection of petroleum products demand in Kenya and in the regions currently served by the Mombasa refinery;

(ii) based on (i), identification of various technological options available for revamping the refinery.

10.36. Phase one is already underway, the exercise being carried out by Government and oil company officials: the result will later be verified by independent consultants. This phase of the study is expected to be completed by early May 1982, and subsequent verification by August, 1982. Results from phase two should be available by late October. Preliminary estimates suggest that results from the whole study will be available by early November, 1982 so that a decision on the best option for modification can be made, and arrangements for financing can commence.

10.37. Another form of greater use of domestic energy resources has been the development of the plant(s) to produce power alcohol using as a feed-stock molasses which are a by product of sugar-cane output.

CHAPTER 11—MANUFACTURING

Despite the good growth rate of agricultural output in 1981, the benefits of this increase to the manufacturing sector were limited firstly because only about one-third of the processing plants in the country use domestically-grown raw materials and secondly because the peasant agriculturalist does not appear to have used much of his increased income to purchase manufactured products. Of more importance to the manufacturing sector as a whole is the influence of the increasingly severe import restrictions due to balance of payments difficulties on supplies of imported raw and semi-processed materials used in production. As the year progressed so it became apparent that growth in the sector as a whole was being reduced; the two influences—shortages of imported inputs and only slowly rising consumer demand seem to have been responsible. Thus the overall growth rate of the volume of manufacturing output was about 5 per cent in 1981 or slightly less than in 1980 and well below the 7.6 per cent recorded in 1979. The target growth rate for this sector is 9 per cent a year.

11.2. The highest rates of increase by groups of products in 1981 were recorded for textiles and clothing and for assembly of motor vehicles. There was also above average growth for certain groups of chemicals and drinks and tobacco, but for most other products the increases were fairly limited. This was the case for foodstuffs as whole despite the strong recovery in output of meat, dairy products and good growth rates for bakery products, miscellaneous foodstuffs and animal feedstuffs. There were falls in output of leather and footwear, petroleum products, metal products, and printing and publishing. Sugar production was also lower as was output of edible oils and fats.

11.3. Despite the relatively low overall growth in output, wage employment in the modern manufacturing sector grew by 3.6 per cent from 141,280 persons in 1980 to 146,338 in 1981 and wage earnings rose by 15.1 per cent. The increase in average earnings in manufacturing industry was a little below the rate of increase of consumer prices. Interest rates were higher in 1981 and this coupled with much higher costs for imported raw materials led to some substantial rises in the prices of the finished products. Overall, the output value of the products of the manufacturing sector is estimated to have risen by 22.6 per cent.

11.4. Fairly high growth rates in the value of sales at current prices were attained in the food, non-metallic mineral products, chemicals and petroleum products, printing and publishing and miscellaneous manufactures industries. And except for paper and paper products, the values of sales from other groups of enterprises all showed moderate growth rates. The overall growth rate of value of sales in manufacturing enterprises covered by the business

expectation enquiry was 19 per cent in 1981 which compares with 17.5 per cent in 1980. But as already indicated, increases in the volume of output were relatively small so most of the increase in the value of sales was due to price increases. The value of stocks increased by 17.3 per cent from K£248.1 million in 1980 to K£291.1 million in 1981. This relatively large increase in the value of stocks is mainly due to inflation. The wholesale price index for manufactured products showed a rise of nearly 10 per cent between the first and third quarters of 1981 and there was a particularly sharp increase in the last quarter of the year.

Changes in Production in 1981

11.5. Details of estimated output values, intermediate consumption, value added and wages paid in manufacturing are given in Table 11.1. The value of output rose by 22.6 per cent in 1981 compared to a rise of 20.7 per cent attained in 1980. Value added increased by 15.2 per cent following the rise of 14.9 per cent in 1980. Thus gross output in 1981 is valued at K£2,008 million or 67 per cent more than the K£1,201 million recorded in 1978. But output volume over these three years has risen by only 19 per cent; prices in contrast have gone up by 40 per cent.

Manufacturing Sector—Output, Wages and Product*, 1979-1981

Table 11.1 *K£million*

	Value of Output	Intermediate Consumption	Value Added	Total Wages Paid
1979**	1,357	1,082	275	90
1980**	1,638	1,327	316	106
1981+	2,008	1,644	364	135

*Includes tea processing.

**Provisional.

+Early estimates.

11.6. Detailed in Table 11.2 are the indices of industrial output for the period of 1979 to 1981. Output growth rates of individual sub-groups of manufacturing sector varied widely either because of changes in export or domestic demand or because of the influence of the availability of imported inputs.

11.7. The volume of output in food processing enterprises which contributes about one third of the total gross output of manufacturing sector, grew by 4.6 per cent in 1981 as compared to only 0.2 per cent in 1980. This recovery in output of food processing industries is attributed to increased agricultural production arising from more favourable weather conditions, conducive short. term government measures taken in 1981 and continued importation of grain, in particular, wheat.

Quantity Index of Manufacturing Production, 1979-1981

Table 11.2 1976 = 100

	1979	1980	1981*	Percentage Change 1981/1980
Meat and Dairy Products	60.4	48.7	58.0	19.1
Canned Vegetables, Fish, Oils and Fats	143.5	158.8	168.8	6.3
Grain Mill Products	97.6	125.3	139.0	10.9
Bakery Products	84.3	92.4	102.2	10 6
Sugar and Confectionery	149 0	168.8	166.8	-1.2
Miscellaneous Foods	130.4	1090	116.0	6.4
Food Manufacturing	110.5	110.7	115.8	4.6
Beverages	138.1	143.8	155.4	8.1
Tobacco	125.5	124.0	135.5	9.3
Beverages and Tobacco	131.6	135.1	146.4	8.4
Textiles	152.4	175.0	213.0	21.7
Clothing	234.2	218.3	258.5	18.4
Leather and Footwear	100.4	94.6	89.3	-5.6
Wood and Cork Products	130.1	135.0	121.5	-10.0
Furniture and Fixtures	58.0	54.2	56.0	3.3
Paper and Paper Products	156.2	188.5	195.1	3.5
Printing and Publishing	214.7	240.0	222.7	-7.2
Basic Industrial Chemicals	147.2	174.6	198.0	13 4
Petroleum and Other Chemicals	136.5	161.5	167.6	3.8
Rubber Products	182.7	192.5	206.6	7.3
Plastic Products	196.7	207.7	225.4	8.5
Clay and Glass Products	246.9	289.9	233.4	-19.5
Non-Metallic Minerals	115.5	124.4	125.9	1.2
Metal Products	134.9	129.4	107.3	-17.1
Non-Electrical Machinery	97.4	123.8	135.9	9.8
Electrical Equipment	152.5	157.8	145.3	-8.0
Transport Equipment	642.6	658.6	794.9	20.7
Miscellaneous Manufactures	-124.4	137.6	108.2	-21.4
Total Manufacturing	140.4	147.7	155.1	5.0

*Provisional.

11.8. Output of meat and dairy products increased substantially during the year under review. The increase of 19.1 per cent was due to good rains which had a favourable impact on pastures and milk production. The production of beef alone increased by 30.6 per cent from 6,438 tonnes in 1980 to 8,410 tonnes in 1981. This was consistent with the increase in the sale cattle and calves to Kenya Meat Commission (KMC) which improved significantly during 1981, to some extent due to herders showing more confidence the Commission. The quantity of meat products exported rose from 1,253 tonnes in 1980 to 1,880 tonnes in 1981. The throughput of animals

handled by the KMC should rise further in 1982 but only a very small part of current urban demand is met by the Commission, the balance being supplied by private slaughter-houses. The increases in prices for purchased livestock announced in December 1981 will encourage more slaughtering but have apparently dampened demand.

11.9. The increased production of milk resulting from good pastures has helped raise the capacity utilization of the milk processing plants and there has been a particular recovery in the production of dried whole milk, cheese and dried skim milk. In 1981, 24,000 tonnes of milk powder were received as aid from abroad and sales of this milk powder were expected to raise between K£15 and K£20 million to be used to improve the dairy industry as a whole.

11.10. Despite a decrease in export sales of canned vegetables and fruits by 4 per cent from 90,438 tonnes in 1980 to 86,939 tonnes in 1981, output of canned fruits and vegetables as a whole rose by 6.3 per cent. However, this increase was lower than the 10.7 per cent rise obtained in 1980.

11.11. The output of grain mill products increased significantly after two years of decline. Favourable weather conditions and a very good response from farmers as whole to the price incentives offered together with better seasonal credits resulted in the production of much larger quantities of maize products. There was no shortage of grain to the millers so they were able to work in an optimum way to meet demand. Output of wheat flour, maize meal and animal feeds all increased but rice production fell slightly from 23,400 to 22,200 tonnes. Table 11.3 details the production of selected grain mill products.

Production of Grain Mill Products, 1977-1981

Table 11.3 '000 *tonnes*

Year	COMMODITY			
	Sifted Maizemeal	Wheat Flour	Rice	Broken Rice
1977	190.9	149.4	20.1	1.8
1978	227.1	156.9	18.3	4.5
1979	255.7	141.7	22.6	1.7
1980	276.5	191.4	23.4	2.0
1981	290.2	216.6	22.2	3.3

11.12. The output of bakery products went up by 10.6 per cent and this is accounted for by the better availability of wheat flour in 1981. Most of the production from this group of products is made up of bread with much more limited output of cakes, scones, biscuits and the like.

11.13. Sugar and confectionery output decreased marginally in 1981. Sugar production fell from 372,835 tonnes in 1980 to 370,000 tonnes in 1981. A number of factors led to the decline of supply of cane to millers: a decrease in the area under cultivation, poor crop husbandry and delays in implementation of the rehabilitation projects in Miwani and Ramisi. With higher domestic demand and lower production, sugar exports decreased by 27 per cent from 94,700 tonnes in 1980 to 69,100 tonnes in 1981. Several sugar factories and in particular Mumias, the largest sugar company in the country, have started expansion programmes designed to help meet the 570,000 tonnes domestic demand expected by 1989.

11.14. Miscellaneous foodstuffs which include processed coffee and tea, the manufacture of animal feeds and cashew nuts output rose by 6.4 per cent in 1981 recovering some of the loss in output of 16.4 per cent in the previous year. Increases in the production of milled coffee, poultry and pig feeds help explain the growth attained in this sub-group.

11.15. Increases of 9.3 per cent in the output of tobacco and 8.1 per cent for beverages result from the increase in domestic demand for cigarettes, beer and soft drinks in particular. The higher demand for beverages probably reflects the long periods of sunshine experienced at times in 1981. Details on the output of individual products appear in Table 11.4. The higher production of spirits in 1981 results from the desire to have more of the drinks concerned bottled locally.

Production of Beverages and Tobacco, 1977-1981

Table 11.4

Year	COMMODITY			
	Spirits	Beer	Mineral Waters	Cigarettes
	Litres	'000 *litres*	'000 *litres*	*Million*
1977	420,180	195,160	99,411	3,944
1978	407,796	221,365	108,019	4,546
1979	415,694	212,712	127,926	4,554*
1980	462,956	232,424*	142,953*	4,556*
1981**	609,763	248,264	171,800	4,873

*Revised.

**Provisional.

11.16. The output of textiles registered a significant increase of 21.7 per cent in 1981. There were large increases in local output from the weaving mills in particular. But the production of ropes and twines decreased by 40 per cent, thus affecting the output of rope, twine and related sisal products, The export of textile yarn increased from 39 tonnes in 1980 to 49 tonnes in 1981 and imports of textile fabrics also increased.

11.17. The clothing industry also registered a significant increase in output, in this case 18.4 per cent compared to the 6.8 per cent decrease in 1980. Large rises were recorded in the output of underwear, uniforms and dresses respectively to meet local demand. The increases in output in 1981 stem largely from customs tariff changes which make it more expensive to import clothing and textile items.

11.18. Inspite of an increase in the export demand for footwear, output of leather products and footwear declined by 5.6 per cent in 1981. This was accounted for by a large decrease in the production of leather and a smaller decline in the output of footwear. Imports of footwear decreased by 61 per cent while exports rose by 20.2 per cent from 603,000 pairs in 1980 to 725,000 pairs in 1981.

11.19. The output of paper and paper products registered a 3.5 per cent rise in output in 1981 but this increase was small compared to that of 20.7 per cent achieved in 1980. The small increase in this subgroup is influenced by some fall in output of wrapping paper, paper bags and sacks, and cartons, and a decrease in the exports of paper and paper products from 23,902 tonnes to 9,116 tonnes in 1981. Imports were 5 per cent lower in 1981 but were still in excess of 30,000 tonnes. However, other products showed a rise in output in line with the requirements of an expanding domestic economy.

11.20. For printing and publishing industry there is thought to have been some decline in output. Use of locally made paper decreased by 2 per cent and the imports of newsprint also fell. However, this sector has expanded significantly in recent years and output in 1981 was more that twice that of 1976.

11.21. Despite a fall in the output of individual products, the production of basic industrial chemicals rose by 13.4 per cent compared to a rise of 18.6 per cent in 1980. The increase in 1981 is accounted for by rises in the local production of pyrethrum extract and other products offsetting falls for wattle extract, insecticides and other pesticides. Fertilizers are not currently manufactured but the quantity and value of imports of fertilizers. continued to increase as a result of the increased local demand. Imports of fertilizers increased in quantity by 59.2 per cent from 130,000 tonnes in 1980 to 207.000 tonnes in 1981, and the value rose in line with this increase in quantity.

11.22. Output of petroleum and other chemicals rose by 3.8 per cent compared to 18.3 per cent in 1980. Local production of paints and varnishes, shoe polish and refined petroleum all fell in 1981 and this accounts for the sluggish rate of increase in output in this subgroup as a whole. The only real increase in output was registered, in the production of pharmaceutical products including drugs and medicines. Imports of pharmaceutical products fell from 4,972 tonnes in 1980 to 2,569 tonnes in 1981.

11.23. Despite a decrease in the production of rubber tubes and soles, the output of rubber products increased by 7.3 per cent. It seems that consumers have tended to favour retreaded tyres as they are cheaper than purchasing the

new product. The value of imported rubber products fell from K£9.3 million in 1980 to K£5.2 million in 1981, largely because more of the demand for rubber tyres in particular was met from local production.

11.24. The output of plastic products rose further by 8.5 per cent in 1981 after the rise of 5.6 per cent in 1980. But the output of plastic shoes fell slightly. Increased local demand helps explain the large increase in the production of polythene film and bags and all types of plastic crates. The quantity and value of imported plastic products fell to 747 tonnes worth K£2.9 million in 1981 from 1,931 tonnes worth K£4.1 million in 1980.

11.25. Overall the output of clay and glass products fell substantially. The 19.5 per cent decrease in output is mainly accounted by 34 per cent decrease in the production of glass bottles/jars and plates. Both imports and and exports of glassware declined during the year under review.

11.26. A fall in the output of lime accounts for the relatively low increase achieved for the non-metallic minerals. There was virtually no change in cement production, but compared with 1980, local demand for this product fell significantly in 1981. However, exports overseas increased by 23 per cent from 530,300 tonnes in 1980 to 652,400 tonnes in 1981. The fall in local demand of cement is estimated at 6 per cent in 1981. There was some reduction in stocks held at the two factories, so combined local consumption and stocks fell by 16 per cent over the year. Details for the last five years are given in Table 11.5.

CEMENT PRODUCTION AND UTILIZATION, 1977-1981

Table 11.5 '000 *tonnes*

Year	Production	IMPORTS		EXPORTS		CONSUMPTION AND STOCKS
		From Uganda and Tanzania	From Overseas	To Uganda and Tanzania	To Overseas	
1977	1,144.4			5.8	656.3	482.3
1978	1,133.3		0.2	12.8	597.3	523.4
1979	1,147.7*		0.9	16.8	510.2	621.6
1980	1,279.8*		0.9	20.9	530.3	729.5
1981	1,280.3**			16.2	652.4	611.7

*Revised.

**Provisional.

11.27. The output of metal production declined further by 16.3 per cent 1981 after the decrease of 4.1 per cent in 1980. Increases in production of jembes, padlocks, nails, wire products and sheet metal were not enough to offset the decrease in output of products like reinforcing rods, galvanized

sheets and tin cans. Total imports of iron and steel in value terms decreased by 26.6 per cent from K£50.3 million in 1980 to K£36.9 million in 1981 showing that the fall in local production was due solely to falling demand.

11.28. The output of non-electrical machinery increased by 9.8 per cent compared to the larger increase of 27.1 per cent in 1980. The output of electrical equipment, however, went down by 8.0 per cent. This is accounted for mainly by decreases in local demand or shortages of imported inputs. Output of dry cell batteries fell by 6.5 per cent and production of motor vehicle batteries was reduced by 2 per cent but there was a rise of 10 per cent in output of electric light bulbs.

11.29. In 1981 the output of transport equipment rose significantly by 20.7 per cent compared to increases of 4 per cent and 2.5 per cent in 1979 and 1980 respectively. This rise in output was almost entirely due to greater motor vehicle assembly in Kenya. With the restriction of complete vehicle importation, the number of local vehicles produced increased substantially from 8,648 in 1980 to 10,482 in 1981. Output of assembled vehicles rose by 20.6 per cent; and there were smaller rises for lorry, bus and coach bodies built on imported chassis.

Development of Manufacturing Enterprises

11.30. The Government has established a network of institutions to promote and finance industrial development, and in 1981, they continued their catalytic role of helping new developments and assisting existing industries. In 1981 the Kenya Industrial Estates (KIE) approved a record number of 131 projects to which it committed funds of K£3.3 million, a rise of 74 per cent over the funds committed in 1980. KIE paid particular attention to promoting industries in rural areas and out of the 131 projects approved in 1981, 95 were located in these areas. Out of the total loans committed, 40 per cent were for metal, plastic, rubber and glass products while 43.4 per cent of the expected increase in the numbers employed in KIE projects was in food, textile and wood, furniture and handicraft industries.

11.31. In 1981, the Industrial Commercial and Development Corporation (ICDC) concentrated its activities on the rehabilitation of certain on-going projects. It did approve one new project to which it committed K£125,000 in equity; additionally ICDC made equity investment amounting to K£835,000 in two projects helping to create additional employment for some 3,500 persons.

11.32. The Industrial Development Bank (IBD) approved 32 projects and committed total equity and loan funds of K£11,471,000, a rise of 6.8 per cent over the total committed in 1980. The bank also extended short term finance to four important projects in which it is co-operating.

11.33. The Development Finance Company of Kenya (DFCK) extended its activities to more small-scale industries in 1981, making commitments for 10 entirely new small-scale enterprises. The number of DFCK financed projects grew to 35 in 1981 from 33 in 1980. Most of the funds committeed by DFCK went into existing DFCK projects and also existing projects that are new to DFCK. Table 11.6 details the number of industrial projects approved by these four institutions for the year 1979 to 1981. The total projects committed were K£19.71 million in 1981, an increase of 15 per cent over the K£17.14 million of 1980. In 1979 the total was K£14.0 million.

INDUSTRIAL PROJECTS APPROVED BY SELECTED GOVERNMENT OR QUASI-GOVERNMENT INSTITUTIONS, 1979-1981

Table 11.6

	Number of Projects			Approved Expenditure K£'000		
	1979	1980	1981	1979	1980	1981
Industrial and Commercial Development Corporation (I.C.D.C.)	2	3		515	619	960
Development Finance Company of Kenya (DFCK)	28	33	35	4,300	3,852	4,005
Industrial Development Bank Ltd. (I.D.B.)	21	29	32	6,775	10,744	11,471
Kenya Industrial Estates Ltd. (K.I.E.)	88	45	131	2,387	1.920	3,271
Total	139	110	201	13,977	17,135	19,707

11.34. The area under tea rose once again in 1981. This called for the expansion of tea processing facilities to cope with the expected increased supply of green tea. Thus the Kenya Tea Development Authority (KTDA) commissioned seven new tea factories in 1981. The total amount invested in these seven factories amounted to K£7.9 million and KTDA expects production capacity to increase by 12,600 tonnes of made tea per year.

11.35. Other investments announced for the manufacturing sector included the following:

1. A plant for packaging milk in the form of Tetra-Pak at the cost of K£7 million.
2. A plan to build a K£3.75 million milk factory at Miritini area in Mombasa.
3. Plans to build a pineapple juice extracting plant in Malindi to use products grown on a 200.acre plot.

A plant for processing of hides and skins for export at a cost of K£2.2 million.

5. The construction of a new alkali resin plant in Nairobi involving an investment of K£1.2 million is underway. This will supply raw materials for Kenya's paint industry.
6. Plans are underway to expand the Mombasa oil refinery at a total cost of K£50 million and for investments of around K£45 million each for expansions at Magadi Soda Ash and for a new unit to manufacture P.V.C. plastic materials from sugar-cane by-products.
7. An aluminium foil plant involving investment of K£22 million has also been reported.
8. The conversion of diesel-oil to coal firing for the cement plants at a cost of around K£13 million.
9. The production of duplex board for the production of safety matches in Kenya involving an investment of K£9 million.
10. Two tyre factories:
    (i) A K£15 million plastic tyre factory is planned for Kisumu which will use liquid injection moulding to produce up to 360,000 tyres per year.
    (ii) A tyre factory at a cost of K£30 million is also being planned by Dunlop to produce 300,000 tyres per year.
11. The power-alcohol and other product plant at Kisumu estimated to cost at least K£50 million is still not yet completed. When completed, power-alcohol to be produced is expected to reduce oil importations by 170,000 barrels of oil per year.

Trends in Manufacturing

Table 11.7 provides selected indices on output and employment in manufacturing industry. Productivity of labour has continued to rise as has the proportion of wage costs in the contribution of the sector to GDP. However, gross output in manufacturing is particularly high in relation to wage costs because activities are largely that of processing local and imported materials. The imported materials in particular have generally undergone some degree

Indicators of Labour Costs and Productivity in Manufacturing, 1979-1981

Table 11.7 *Percent*

	1979	1980	1981
1. Change in manufacturing output	+7.6	+5.2	+5.0
2. Change in the numbers employed	+6.4	+2.1	+3.4
3. Implicit change in output per worker	+1.2	+3.0	+1.5
3. Wage costs as percentage of gross output	6.6	6.5	6.7
5. Wage costs as percentage of value added	32.8	33.6	37.2

of processing before being used in Kenya industry so that their cost to Kenya's manufacturing establishments is high and makes up a substantial part of the price of finished product. Thus labour costs in 1981 represented only 6.7 per cent of the output value of the products of manufacturing industry. Profits, depreciation allowances and interest payments accounted for further 11.4 per cent of gross output value. Based on data given earlier in Table 11.1, the total value added by manufacturing establishments in Kenya represented only 18.1 per cent of the output value of the products concerned in 1981. This ratio is less than that of 20.2 per cent recorded for 1979; the fall between 1979 and 1981 is a result of prices for imported inputs for the industry rising faster than those for the finished products.

CHAPTER 12 BUILDING AND CONSTRUCTION

The building and construction sector started 1981 with prospects for a continuation of the buoyant conditions of the last few years but as the year progressed so it became increasingly evident that the general state of the economy and poor prospects were adversely affecting investment intentions. It seems to have been the case that at the end of 1981 the prospects for this sector of the economy were much less rosy than at the start of the year and there was increasing evidence of a lower level of employment. For the year as a whole, cement consumption in Kenya fell by about 6 per cent while employment in building and construction was lower by 3 per cent. The contribution of this sector to GDP was lower in real terms by 1.9 per cent but at current prices there was a rise of 4.4 percent.

12.2. Table 12.1 gives certain indicators of real output in building and construction from 1977 to 1981; in general the indicators so far available for 1981 show a decline in output. As shown later the value of completions for private building work reached a record level in 1981 but part of the rise was a result of delays in the issue of final certificates of occupation for certain projects and some of these were allocated to 1981 rather than 1980.

Real Trends in Building and Construction, 1977-1981*

Table 12.1 1976 = 100

	1977	1978	1979	1980	1981**
Index of reported private building work completed in main towns	100.1	132.6	145.9	147.1	
Index of reported public building work completed in main towns	118.3		114.1	116.7	
Index of Government expenditure on roads	110.3	123.9	131.5	118.0	110.6
Cement consumption ('000 tonnes)	509.5	512.4	531.0	687.8	646.0+
Index	118.1	118.7	146.2	159.4	149.7
Employment No.	48,899	55,304	61,293	63,200	61,300
Index	103.8	117.3	130.1	134.0	130.1

*Actuals deflated by various buildings or construction cost indexes except lines 4 to 7. The average of two succeeding years is taken in each case for reported completions of buildings.

**Provisional.

+Part estimated.

12.3. In response to the drop in the number of public building and construction projects, the number of people employed in construction activity in the public sector at June, that is working for Central Government, local authorities and statutory boards, dropped by 9 per cent in 1981, whilst wage

employment in this activity in the private sector is reported to have increased by 3 per cent. This reflects a better performance for the private sector in mid-1981 compared to mid.1980 whilst the public sector which experienced an increase of 9 per cent in employment in 1980 showed a drop of the same percentage in 1981. However, the slowdown of building activity as the year progressed suggests that at the year end employment in building and construction was also lower in the private sector.

12.4. Provisional results from the business expectation enquiry indicate that in 1981 total receipts for work done by private contractors rose by 7 per cent compared to a rise of 19 per cent in 1980. At the end of 1981, these contractors reported stocks and work in progress of K£25.8 million compared with K£39.1 million at December, 1980. This drop of 34 per cent in stocks and work in progress helps underline the onset of difficult times for the building and construction sector as 1981 progressed.

12.5. Total value of building plans approved in the urban areas declined by 7.4 per cent from K£135.3 million in 1980 to K£125.9 million in 1981. The effect of the credit squeeze and high interest rates experienced made it more difficult for developers of dwelling units to acquire finance for large projects while final purchasers of dwellings had problems in obtaining funds to meet 10 per cent deposit requirements for purchase. Past experience showing that a majority of building plans approved were in Nairobi and Mombasa still holds good as these two urban areas are considered most attractive to private developers who require quick returns on capital invested.

BUILDING PLANS APPROVED BY NAIROBI AND OTHER TOWNS, 1979-1981

Table 12.2 K£'000

	Nairobi	Other Towns	Total
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	7,322	31,462
2nd Quarter	27,356	8,602	35,958
3rd Quarter	13,413	7,868	21,281
4th Quarter	37,933	8,669	46,602
1981 1st Quarter*	24,547	7,407	31,954
2nd Quarter*	20,133	4,199	24,332
3rd Quarter*	20,527	12,648	33,175
4th Quarter*	25,910	10,493	36,403

*Provisional.

Nairobi alone accounted for 72 per cent of all plans approved by all municipalities in 1981 compared to 76 per cent in 1980 and the plans approved reflect a higher demand for dwelling units in the urban areas. However, with

the level of completions always lower than plan approvals arising from problems of financing, the continuing situation of an inadequate supply of suitable dwelling units is still exerting pressure for higher rents in Nairobi in particular.

12.6. Contrary to indications at the start of the year based on the high level of building plans passed in 1980 which suggested a continuation of buoyant construction activity, the year 1981 as a whole was not particularly favourable and as the year progressed so the indications are that employment was reduced. In periods of difficulty, building projects under construction tend to be completed more quickly and the very much reduced level of work in progress at the end of 1981 suggests that a difficult situation prevailed in the building industry in the latter part of the year. It is always a problem to measure progress in the building industry because of late receipt of information from various sources while statistics on the value of completions suffer because of delays in certificates being issued at certain times. Despite its imperfection, Table 12.3 which follows attempts to compare building plans passed and reported completions of projects in the main urban areas of Kenya.

12.7. With a time lag of one year, reported building completions were running at a rate of 37 per cent of the value of plans approved in 1978 and 1979 while in 1980 and 1981 the proportion was 38 per cent. If reported completions are an accurate reflection of work actually carried out then it seems possible that either the capacity of the building sector is not adequate to cope with all the plans passed or more likely that building plans are approved for which there is little immediate likelihood of obtaining adequate finance. Taking the five years covered in Table 12.3, total plans approved were K£425 million and completions K£134 million or only 31.5 per cent.

Comparison of Plans Approved and Buildings Completed for Private Sector in Main Urban Areas, 1977-1981

Table 12.3 *K£ million*

	Plans Approved	Building Work Completed
1977	43.29	13.92
1978	75.81	14.62
1979	82.48	33.11
1980	110.08	26.98
1981*	113.22	45.50

*Provisional.

12.8. Table 12.4 indicates that the overall building and construction cost index showed a rise of 9.3 per cent in 1981 compared to 11.9 per cent in 1980 and 13.9 per cent in 1979. The increase in the construction cost index was accounted for solely by a 14.1 per cent increase in the cost of materials;

because of a generally difficult year for employment, there was no increase in labour costs. The total cost of building rose by 10.7 per cent in 1981 while for other construction the increase was much lower at 7.9 per cent.

Annual Percentage Increase in Building and Construction Cost Indices. 1979-1981

Table 12.4

	Materials			Labour			Total		
	1979	1980	1981	1979	1980	1981	1979	1980	1981*
Residential Buildings	15.7	12.3	17.1	10.6	11.5	—	14.8	12.1	12.9
Non-Residential Buildings	16.0	12.2	12.5	10.6	11.5	—	14.8	12.1	8.5
All Buildings	15.1	12.2	150	10.6	11.5	—	15.0	12.1	10.7
"Other" Construction	11.7	11.6	13.2	10.6	11.5	—	11.4	11.6	7.9
Total Cost Index	15.0	12.0	14.1	10.6	11.5	—	13.9	11.9	9.3

*From December to December.

12.9. The values and numbers of reported private building work completed in main towns both of new buildings and extensions effected are given in Tables 12.5 and 12.6. After allowing for the rise in building costs, the level of completions in 1981 in real terms in the main towns was substantially greater than in 1980. Allowing for late returns the value of buildings completed for the private sector was in the region of K£50 million in 1981 effectively 85 per cent greater than in 1980 at a time when building costs rose by 10.7 per cent. However it may be that work actually completed in 1980 was not officially approved until 1981. So some part of the rise in 1981 may be due to this cause.

The Value of All Reported Private Building* Works Completed in Main Towns—1977-1981

Table 12.5 *K£ million*

	Nairobi	Mombasa	Nakuru	Kisumu	Kitale	Eldoret	Thika	Others	Total
				Total for Year					
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
1980	17.71	5.99	1.08	0.18	—	0.38	0.90	0.74	26.98
				Returns received to date**					
1980	15.70	4.48	0.97	0.18	—	0.05	0.72	—	22.10
1981	30.11	8.61	1.68	0.54	0.12	0.27	0.12	4.05	45.50 *

* Including the value of extensions.
**Provisional and incomplete. The late receipt of returns adds significantly to the year's total. 1980 figures for comparison only.

12.10. It is evident from Table 12.5 that Nairobi and Mombasa continue to receive the lion's share of building activity. These two major commercial centres in the country start with much larger populations and better public services conducive to economic activities providing the basis for the demand

for both residential and non-residential buildings. New businesses in particular influence the demand for both high quality residential and non-residential buildings. Nairobi's position as a focal point for international agencies and bankers is another factor increasing the demand for high-quality residential and non-residential buildings.

12.11. The distribution of private buildings completed between residential and non-residential as given in Table 12.6 shows that there were substantial increase in 1981. For 1981 the total of residential building projects is likely to rise significantly above the level of 1465 units in 1980 when the final revised data for 1981 are available. The value went up from K£18 million in 1980 to possibly K£24 million in 1981. At the same time the value of new non-residential buildings completed in 1981 is likely to exceed K£18 million compared to only K£5.3 million in 1980.

Reported Completions of New Private Buildings* in Main Towns, 1977-1981

Table 12.6

	Number		Estimated Cost K£ million		
	Residential	Non. Residential	Residential	Non. Residential	Total
Total for Year					
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
1980	1,465	74	17.72	5.28	23.00
Returns Received to Date**					
1980	1,137	57	14.84	4.53	19.37
1981	1,466	68	20.98	17.71	38.69

*Excluding the value of extensions.

**Provisional and incomplete. The late receipt of returns add significantly to the year's total. 1980 figures for comparison only.

12.12. Late returns have a particularly important influence on the figures for the completion of new public buildings. As is shown in Table 12.7, the adjustments made for 1980 by late returns changed the picture so greatly that anything written before was misleading. Thus the total completions in 1980 are now valued at K£20.8 million compared to only K£1.2 million in 1979. But it seems evident that late completion of formalities leading to the issue of a certificate of occupation was responsible for the exceedingly low figure for 1979 and the exceptionally high figure for 1980. The results for 1981 when finalized will show a large fall compared with the 1980 out-turn and it seems imprudent at this stage to try to make any estimates. Building plans approved for the public sector in 1981 in Nairobi were valued at K£8.6 million and a further K£4.0 million was approved for other municipalities. This total of K£12.6 million is below the K£16.0 million of 1980 and about the same as plans passed in 1979.

Reported Completions of New Public Buildings* in Main Towns, 1977-1981

Table 12.7

	Number		Cost K£'000			
	Residential	Non. Residential	Residential	Non. Residential	Total	Total*
Total for Year						
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
1980	481	58	7,548.6	13,298.1	20,846.7	21,535.8
Returns Received to Date**						
1980	302	8	4,230.9	2,589.9	6,820.8	6,953.9
1981	83	7	2,375.3	303.7	2,679.0	2,679.0

*Including the value of extensions.

**Provisional an incomplete. The late receipt of returns adds significantly to the year's total. 1980 figures for comparisons only.

12.13. Some of the building projects which were at an advanced stage in 1980 and which were completed in 1981 included the State Reinsurance Corporation House, ICEA Building, Extensions of Nairobi City Council Building, Insurance Corporation and BIMA Court. Other major building projects which were at an advanced stage at the end of 1981 included, Kimathi House, Nairobi Provincial Headquarters, and rebuilding of extensions to Norfolk Hotel in Nairobi. Also at an advanced stage at the coast were: Bima Towers, Ambalal House, Reinsurance Plaza, Cannon Towers and Fatemi House—all in Mombasa and a new luxury resort complex at Diani Beach Hotel. Kakamega Golf Hotel was another major project at an advanced stage at the end of 1981.

12.14. The value of direct expenditure by the Central Government on housing is shown in Table 12.8. The total approved expenditure on housing for the whole country increased from K£8.05 million for 1980/81 to K£8.18 million for 1981/82. In 1978/79 approved total expenditure on housing was K£8.49 million. This increased by 7 per cent to K£9.09 million in 1979/80 but

Approved and Actual Central Government Expenditure on Housing, 1976/77—1981/82

Table 12.8 K£'000

Year	Approved	Actual	Approved Expenditure as percentage of Development Expenditure
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
1980/81	8,052.0	7,334 4	3.5
1981/82	8,180.0	—	—

in the following year 1980/81 it dropped by 11 per cent to K£8.05 million. However, it is significant to note that Government loans to both National Housing Corporation and Housing Finance Company of Kenya, the two public institutions entrusted with the duty of providing houses on long term loan schemes, have continued to increase. In 1980/81, loans to 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, and an upward trend is predicted in 1981/82. This, however, underscores the importance the Government attaches to these institutions to help make a success of its current housing policy.

12.15. Based on early provisional figures as given in Table 12.9 there was a very sharp fall in housing units completed by the National Housing Corporation in 1981. Total housing units costing K£1,807,000 were completed. Eastern Province had 44 housing units costing K£96,000 whilst 51 units costing K£104,000 were constructed at the Coast Province.

Housing Units Completed by the National Housing Corporation, 1977-1981

Table 12.9

	1977	1978	1979	1980	1981
Units Completed					
Province—					
Central	433	159	207	337	—
Coast	—	51	190	350	51
Eastern	186	51	—	249	44
Nairobi	586	862	3,056	616	616
North Eastern	—	—	—	—	—
Nyanza	17	300	—	286	—
Western	306	—	171	272	—
Rift Valley	284	121	461	1,417	—
Total Number	1,812	1,544	4,085	3,527	711
Value of Units Completed K£'000					
Central	332	284	160	370	—
Coast	—	107	157	875	104
Eastern	175	99	—	331	96
Nairobi	1,406	2,622	5,177	1,604	1,607
North Eastern	—	—	—	—	—
Nyanza	181	277	—	612	—
Western	9	207	165	206	—
Rift Valley	375	295	819	1,666	
Total Value	2,478	3,891	6,478	5,664	1,807
Site and Service Plots Completed: No.	355	1,077	2,389	2,454	3,002

12.16. Apart from building residential units, the National Housing Corporation also undertakes the provision of site and service plots throughout the country. This scheme is attractive especially to the low-income earners in the towns who do not have enough capital 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 1981 was 3,002 compared to 2,454 in 1980. Thus the total of completed dwellings and serviced plots by the corporation was 3,713 in 1981 compared to 5,981 in 1980.

12.17. The value of all building plans approved by the Nairobi City Council since 1977 has shown an upward trend but dropped in 1981 as shown in Table 12.10. This reflects the effects of the worsening economic circumstances affecting investment decisions in 1981. In the first three quarters of 1981 the value of plans passed was K£65.21 million compared to K£54.91 million for the similar period in 1980. However, in the fourth quarter the value of plans passed fell from K£37.93 million in 1980 to K£25.91 million in 1981, a drop of 31.7 per cent. The drop in the value of plans passed in 1981 is explained by the fact that the number of large projects was reduced.

Private and Public Building Plans Approved by the Nairobi City Council, 1977-1981

Table 12.10 *Estimated Cost K£'000*

	Private			Public			All Buildings
	Residential	Non. Residential	Total	Residential	Non. Residential	Total	
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	7,432	58,840
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
1981	56,269	26,222	82,491	1,327	7,299	8,626	91,117
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	3,910	4,328	27,356
3rd Qr.	7,635	4,863	12,488	169	756	925	13,413
4th Qr.	15,926	16,070	31,996	259	5,678	5,937	37,933
1981—							
1st Qr.	14,051	5,926	19,977	769	3,801	4,570	24,547
2nd Qr.	13,167	6,663	19,830		303	303	20,133
3rd Qr.	12,535	7,386	19,921	400	206	606	20,527
4th Qr.	16,516	6,247	22,763	158	2,989	3,147	25,910

12.18. Private developers played a leading role in the supply of both residential and non-residential buildings in Nairobi and certainly overshadowed contribution of the public sector in 1979 to 1981. In 1981 private residential building plans were worth K£56.3 million but public plans only K£1.3 million. Total plans for residential building accounted for 52 per cent of all plans passed in 1979, 53 per cent in 1980 while in 1981 the proportion rose

to 63 per cent. But it is unfortunately the case that most private plans are for the better-quality, more expensive housing units. Such units when built do not help to alleviate what is the basic problem of housing in Nairobi which is a shortage of housing for the low-income earners. Phase II of the Umoja Housing Estate comprising 4,000 units financed by the US Government will, when completed, help to a limited extent to meet some of the pent-up demand for housing for low-income earners.

Private and Public Building Plans Approved by Other Municipalities, 1977-1981

Table 12.11 *Estimated Cost K£'000*

	Private			Public			All Buildings
	Residential	Non. Residential	Total	Resident	Non-Resident	Total	
1977	4,072	8,432	12,504	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	15,794	14,605	30,399	1,653	409	2,062	32,461
1981*	14,215	16,515	30,730	2.438	1,579	4,017	34,747
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	6,757	320	2	322	7,079
4th Qr.	1,241	938	2,179				2,179
1980—							
1st Qr.	3,571	2,521	6,092	1,200	30	1,230	7,322
2nd Qr.	3,063	5,049	8,112	400	90	490	8,602
3rd Qr.	4,663	2,946	7,609	15	244	259	7,868
4th Qr.	4,497	4,089	8,586	38	45	83	8,669
1981*—							
1st Qr.	3,865	2,277	6,142		1,265	1,265	7,407
2nd Qr.	2,150	1,971	4,121	40	38	78	4,199
3rd Qr.	4,766	5,780	10,546	2,002	100	2,102	12,648
4th Qr.	3,434	6,487	9,921	396	176	572	10,493

*Provisional.

12.19. Action is required to reduce the present impediments holding up the development of sufficient housing units for the low income groups. Cheaper infrastructure services, relaxation of existing building by-laws and regulations, special low-interest funds and other measures all seem to be required to start to break the log-jam preventing suitable housing units being built.

12.20. The total value of plans approved in the other municipal areas increased from K£32.4 million in 1980 to K£34.7 million in 1981. As in Nairobi, private developers have continued to play a significant role in new development in these other towns. For the years 1977 to 1981, the private sector accounted for between 85 per cent and 88 per cent of total building plan approvals. In 1981, 52 per cent of building plans passed were for non-residential building and 48 per cent for residential buildings.

12.21. It is useful at this stage to summarise the relationship between private sector building plan approvals and the value of buildings completed both for residential and non-residential purposes. The comparison since 1977 for the main urban areas is as follow: (see Table 12.12).

Comparison of Building Plans and Completion Distinguishing Between Residential and Non-Residential Units, 1977 to 1981

Table 12.12

	Residential		Non-Residential	
	Plans	Completions	Plans	Completions
	K£ million	K£ million	K£ million	K£ million
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
1981	70.48	20.98	42.74	17.17
Total	234.72	82.60	190.17	48.15
Proportions*	40 per cent		28 per cent	

*Completions related to plans, excluding plans for 1981 and completions in 1977.

12.22. The comparison above shows clearly that the value of completed private sector non-residential buildings has been very low in relation to plans passed since 1977, and possibly reflects the influence of many schemes aborted before starting and those presented before the problems of raising finance were properly investigated. In the period reviewed in Table 12.12, only 28 per cent of the value of those non-residential buildings reflected by plans passed in 1977 to 1980 were completed in 1978 to 1981 but for residential dwellings the proportion rose to 40 per cent.

Roads

12.23. Road transport is one of the most vital modes of transport in this country. At the time of independence there were only a meagre 1,800 km. of paved roads compared to the present day 6,540 km. of bitumen roads. This latter total is supplemented by 47,037 km. of earth/gravel roads making a total classified network of 53,500 km. In addition to this there are known to be approximately 100,000 km. of tracks and other unclassified roads mainly in the rural areas.

12.24. Table 12.13 below shows road distances in 1977 and 1981 by type and classification. It can be noticed that one third of international trunk roads were still of earth/gravel standard in 1981 compared to 38 per cent in 1977 but the length has increased substantially between these two dates. It is also significant to point out that more kilometres of national trunk roads are being upgraded to bitumen standard annually. Thus, while there were 958.7 km. of bitumen-standard national trunk roads in 1980, by 1981 the figure had risen to 1,219.6 km. These figures compare with 1,747.0 km. and 1,566.5 km. earth/gravel national trunk roads in 1980 and 1981 respectively.

Kilometres of Roads as at 1st July, 1977 and 1st July, 1981

By Type and Classification

Table 12.13

	1977		1981	
	Bitumen*	Earth/ Gravel***	Bitumen*	Earth/ Gravel**
A—International Trunk Roads	1,799.7	1,126.3	2,337.8	1,256 4
B—National Trunk Roads	749.1	1,659.8	1,219.6	1,566.5
C—Primary Roads	1,342.9	6,536.6	1,845.5	5,905.3
D—Secondary Roads	350.0	9,814.0	723.9	10,342.1
E—Minor Roads	134.6	20,020.9	218.1	20,690.3
F—Special Purpose Roads	—	6,869.9	195.3	7,316.2
	4,376.3	46,027.5	6,540.2	47,076.8

*Bitumen Roads:—Include Government access, Township and Municipality roads.
**Earth/Gravel:—Include township, settlements, strategic, tourist, sugar, tea, wheat and Special Rural Development programme (S.R.D.P.) roads.

12.25. A major item in the road construction programme by the Ministry of Transport and Communication is the Rural Access Roads Programme (RARP) which has been in operation since 1974. This programme aims at easing transport problems and providing employment to the rural population. The programme presently covers 26 districts throughout the country. As at December 1981 about 4,500 km. of road had been constructed and over 1,400 km. gravelled. It is intended that this programme will be extended to cover other districts. Parallel to RARP is the Gravelling, Bridging and Culverting Programme (GBCP). This programme which was started in 1976, aims at raising secondary and minor roads to all-weather standard by providing gravel. riding surfaces and bridges at river crossing. Like the RARP, the programme aims to facilitate the moving of agricultural products from rural areas to market centres. As far as Pan-African Highways are concerned, Kenya is traversed by two such highways, namely, part of the Trans-Africa Highway running from Mombasa to Lagos (Nigeria) and part of the Trans-East Africa Highway from Gaberone (Botswana) through Kenya to Cairo in Egypt. Plans to improve Kenya's sections of these two continental highways to bitumen standard are in various stages of implementation.

12.26 Total expenditure on new road construction dropped by 1.4 per cent from K£37.58 million in 1980/81 to K£37.06 million in 1981/82. As shown in Table 12.14 the expenditure of funds on miscellaneous road projects which had dropped from K£16.63 million in 1979/80 to K£9.03 million in 1980/81 increased slightly to K£9.28 million in 1981/82. Expenditure on trunk road projects showed a rise of 19 per cent from K£14.7 million in 1980/81 to K£17.5 million in 1981/82, compared to the increase of 52 per cent from

K£9.73 million in 1979/80 to K£14.7 million in 1980/81. Expenditure on unclassified roads, mostly roads in farm areas dropped from K£2.82 million in 1980/81 to K£0.90 million in 1981/82. Expenditure on road maintenance and repair also fell from K£15.98 million in 1980/81 to K£13.72 million in 1981/82.

Total Expenditure on Roads, 1979/80-1981/82

Table 12.14 K£'000

	1979/80	1980/81	1981/82
Development			
Trunk Roads	9,730.0	14,749.2	17,252.1
Primary Roads	7,564.9	8,395.1	7,500.1
Secondary	3,250.0	2,587.4	1,850.1
Unclassified Roads	65.0	2,823.2	900.0
Miscellaneous Roads	16,634.5	9,025.0	9,280.0
Implementation of road maintenance organization	100.0	0.3	—
Total	37,344.4	37,580.2	37 055.3
Recurrent (maintenance and repair)	12,214.8	15,984.9	13,722.6
Total	49,559.2	53,565.1	50,777.9

12.27. Expenditure on maintenance and repair of roads is carried out by the Roads Department while the work in Nairobi is undertaken by the Nairobi City Council. Major projects completed in 1981/82 included New Tana River Bridge and its approaches and roads from Kiganjo-Sagana State Lodge, Kisian-Bondo Road, Meru-Maua and Meru Tea Roads, Mumias Sugar Road; Kisii-Nyagusu-Kilgoris and the Ruiru-Kiambu-Kiambu Road. Other bridge projects included the Athi/Thika River Bridge and the Garissa Bridge and their approaches.

Other Construction Work

12.28. The Masinga Dam and Olkaria geothermal project near Naivasha were completed in 1981 and the Kiambere Hydro-Electric Project was in progress. Substantial construction work is still being carried out by the Ministry of Water Development in order to meet the target of a piped water supply to all rural areas by the year 2000. Total capital expenditure by the Central Government, municipal, town and county council is shown in Chapter 6 while Chapter 2 on the Domestic Economy includes tables on gross capital formation, its financing and the type of asset developed. Details of expenditure on water projects are given in Chapter 9.

CHAPTER 13—TOURISM AND COMMERCE

The worsened global economic conditions have continued to plague tourism in countries such as Kenya. Although inflation in some of the tourist generating countries has dropped slightly there has not been any significant improvements in real incomes and unemployment has continued to rise. The recent fall in crude oil prices has also not led to any fall in travel costs. Air fares remain high, which coupled with the other factors continue to have a dampening effect on tourism especially where travel for long distances is involved.

Arriving and Departing Visitors by Purpose of Visit, 1979-1981

Table 13.1 '000

Quarter/Purpose	Arrivals			Departures		
	1979	1980	1981*	1979	1980	1981*
1st Qr. Holiday	78.6	83.2	74.5	90.5	93.4	92.7
Business	13.1	12.3	11.5	8.3	9.1	8.1
Transit	11.9	12.9	9.5	7.7	10.7	10.1
Total	103.6	108.4	95.5	106 5	113.2	110.9
2nd Qr. Holiday	48.5	65.3	44.5	48.9	53.6	49.8
Business	10.4	15.5	13.3	6.1	7.7	10.9
Transit	11.3	16.7	10.4	7.5	11.6	9.4
Total	70.2	97.5	68.2	62.5	72.9	70.1
3rd Qr. Holiday	72.6	63.5	77.5	70.8	65.7	64.6
Business	15.2	9.7	12.8	8.2	6.6	10.1
Transit	14.7	11.9	12.6	8.8	11.6	12.0
Total	102.5	85.1	102.9	87.8	83.9	86.7
4th Qr. Holiday	79.2	78.7	77.4	64.5	69.3	63.4
Business	12.9	11.4	10.4	15.2	12.6	11.5
Transit	14.6	12.2	10.8	10.7	10.7	9.6
Total	106.7	102.3	98.6	90.4	92.6	84.5
Year Holiday	278.9	290.7	273.9	274.7	282.1	270.5
Business	51.6	48.9	48.0	37.8	36.0	40.5
	52.5	53.7	43.3	34.7	44.6	41.2
Total	383.0	393.3	365.2	347.2	362.6	352.2

*Provisional,

13.2. There was a decline in the number of tourists coming to Kenya in 1981. The fall in numbers of tourists arriving appears to have begun at the end of 1980. The number of holiday visitor departures showed a decline of

4.1 per cent in 1981 compared to the 2.7 per cent increase in 1980. Based on arrivals, the fall in 1981 was 8 per cent.

Visitor Departures by Country of Residence, 1979-1981

Table 13.2 '000

	Holiday Visitors			All Visitors*		
	1979	1980	1981	1979	1980	1981
United Kingdom	39.8	40.9	33 4	49.4	49.9	43.5
West Germany	59.0	60.6	57.9	61.7	76.2	75.3
Italy	16.3	16.7	16.8	18.0	21.6	21.9
France	14.2	14.6	11.1	16.0	15.6	14.5
Switzerland	23 6	24.2	19.9	24.8	27.3	25.9
Other Europe	28.3	30.6	24.0	32.7	36.6	31.3
Total Europe	181.2	187.6	163.1	202.6	227.2	212.4
United States	25.6	26.3	26.0	31.0	30.8	33.8
Canada	4.1	4.2	4.0	4.9	5.0	5.2
Total N. America	29.7	30.5	30.0	35.9	35.8	39.1
Total Asia	17.5	19.0	19.8	25.7	27.1	25.8
Uganda	7.4	7.6	4.3	14.9	10.4	5.6
Tanzania	6.1	2.4	5.3	9.8	3.5	6.9
Zambia	4.5	4.6	4.6	9.0	7.6	5.9
Other Africa	23.5	24.9	34.0	43.0	43.1	44.2
Total Africa	41.5	39.5	48.2	76.7	64.6	62.6
Total Other	4.8	5.5	9.4	6.3	7.9	12.3
Grand Total	274.7	282.1	270.5	347.2	362.6	352.2

*Includes business visitors and persons in transit.

13.3. Table 13.1 sets out the details of visitor arrivals and departures. As is often the case, there is a discrepancy between arrivals and departures; for arrivals there is a fall of 7.1 per cent in 1981 while for departures the reduction is less at 2.9 per cent. Examination of the quarterly data shows falls for arrivals and departures in all quarters except the third. However, the fall in visitor arrivals and departures is not reflected in the hotel occupancy statistics given later (Table 13.6). Persons identified at hotels as foreigners spent 3,443,400 bed-nights at hotels in Kenya in 1981, an increase of 0.7 per per cent on the total of 3,420,300 recorded in 1980.

13.4. Based on arrival statistics there were fewer of all categories of visitor in 1981 but departure statistics show more business visitors while confirming the drop in holiday and transit visitors. Most visitors come to Kenya for holiday purposes and here the information has been given in paragraph 13.2.

One encouraging aspect of the visitor statistics is that the proportion of visitors in the second quarter (the normal off-season) based on departures was 19.9 per cent of the yearly total in 1981, only slightly less than the 20.1 per cent recorded in 1980.

13.5. Visitor departures by country of residence are shown in Table 13.2 European visitors declined from 227,200 in 1980 to 212,400 in 1981 or by 6.5 per cent. West Germany, UK, Switzerland, France and other areas all registered a decline with only Italy indicating a marginal increase in the number of visitors. There was a small rise in visitors from Africa other than the former East African countries and Zambia. The increase was from 43,100 in 1980 to 44,200 in 1981 or by 2.6 per cent. The decline in Uganda visitors, however, led to a fall in the total number of visitors from Africa. The number of visitors from North America increased to 39,100 in 1981 from 35,800 in 1980 or by 9.2 per cent. Both USA and Canada showed increases. These increases are most welcome but the numbers coming from this part of the world are still small in relation to those from Europe. The cost of travel between America and Africa must still be an inhibiting factor.

13.6. Table 13.3 gives details of visitor departures by the method of travel. Even fewer visitors came to Kenya by road or by sea in 1981. Air travel is now virtually the only form of tourist travel. The Trans-African high.

Visitor Departures by Method of Travel, 1977-1981

Table 13.3 '000

		1977	1978	1979	1980	1981
Air		315.8	309.6	326.3	344.0	336.0
Sea		0.8	1.5	0.9	1.3	1.0
Road		27.8	22.2	20.0	17.4	15.2
Lake		—	—	—	—	—
Rail		—	—	—	—	—
	Total	344.4	333.3	347.2	362.7	352.2

way projects and the linking of Kenya to Sudan and Ethiopia may have some impact on tourism by road in the future but much more important factors will be the reopening of the borders with Tanzania and a better security situation in Uganda.

13.7. After an increase in 1980 to 15.7 days from 15.5 in 1979 the average length of stay declined to 15.2 days in 1981. The average length of stay for those staying upto 14 days remained unchanged while the fall for those staying over 28 days and between 15 and 28 days was from 72.6 days and 20.5 days to 70.0 days and 20.3 days, respectively. Overall, the total number of days spent by visitors in 1981 based on statistics of those departing

declined from 5.7 million to 5.4 million days or by 6.1 per cent, the same margin as in the increase in the previous year. These changes are indicated in Table 13.4.

13.8. The number of days spent by holiday-makers, businessmen and transit visitors all show a fall in Table 13.4. The sharp rise in days spent by German visitors recorded in 1980 was not repeated in 1981 and this was an important

Total Stay of Departing Visitors and Average Length of Visit, 1977-1981
Table 13.4

Length of Stay	1977	1978	1979	1980	1981
	Total Stay—'000 Days				
0-14 Days	1,569	1,547	1,586	1,838	1,754
15-28 Days	1,459	1,478	1,510	1,773	1,752
Over 28 days	2,073	1,720	2,301	2,086	1,839
Total	5,101	4,745	5,397	5,697	5,345
	Average Length of Stay—Days				
0-14 Days	6 5	6 6	6.7	7.4	7 4
15-28 Days	20.2	20.2	20.2	20.5	20.3
Over 28 days	65 4	64.2	62.2	72.6	70.0
Total	14.8	14.2	15.5	15.7	15.2
	Total Stay by Originating Areas—'000 Days				
East Africa	541	348	368	220	154
Other Africa	469	443	602	547	476
United Kingdom	819	840	931	973	866
West Germany	846	893	1,054	1,328	1,317
Other Europe	1,417	1,323	1,346	1,476	1,372
North America	591	478	599	586	570
Asia	323	329	409	443	389
All Other	95	91	88	124	191
Total	5,101	4,745	5,397	5,697	5,345
	Total Stay by Purpose of Visit—'000 Days				
Holiday	4,800	4,382	4,851	5,039	4,766
Business	243	307	492	512	458
Transit	58	57	55	146	121

factor in the lack of growth of tourism last year. Visitors from the United Kingdom and the rest of Europe spent fewer days in Kenya than in 1980. Persons normally resident in Europe accounted for 66.2 per cent of the total days spent by foreigners in Kenya in 1980 and 66.5 per cent in 1981. The number of days spent by East African residents and those from Asia fell significantly in 1981.

Tourist Receipts

13.9. The tourist industry earned more revenue in 1981 than in 1980. There was a rise in estimated receipts from K£82.5 million in 1980 to K£90.0 million in 1981, an increase of 9.1 per cent. This increase was almost entirely due to the lower value of the Kenya currency in 1981.

13.10. As indicated in Table 13.5 hotel occupancy in 1981 dropped from 4,717,000 bed-nights in 1980 to 4,691,000 bed-nights in the year. Capacity, however, increased from 8,325,000 bed-nights in 1980 to 8,525,000 bed-nights in 1981. The increase in bed availability by 2.4 per cent and the reduction

Hotel Bed Occupancy, 1977-1981

Table 13.5. '000 Bed-Nights

	1977	1978	1979	1980	1981
Permanent Occupants*	356	368	382	410	364
Kenya Residents	642	701	802	789	794
Residents of—					
Uganda and Tanzania	98	84	99	98	90
Foreign Residents	2,742	2,829	3,055	3,420	3,443
Total Beds Occupied	3,838	3,982	4,338	4,717	4,691
Total Beds Available	7,028	7,358	8,043	8,325	8,525
Bed Occupancy Rate per cent	54.6	54.1	53.9	56.7	55.0

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

in bed occupancy by 0.6 per cent led to a fall in the overall occupancy rate from 56.7 per cent in 1980 to 55.0 per cent in 1981. This fall in total hotel occupancy was entirely due to the reduction of periods spent by so-called permanent occupants who would be largely from Kenya. Persons identified as foreign residents, and these would include most tourists, showed a small rise from 3,420,000 to 3.443,000 bed-nights spent in Kenyan hotels from 1980 to 1981.

13.11. Hotel occupancy by major tourist zones as given in Table 13.6 continues to reflect the dominance of Coastal and Nairobi hotels. The share of Nairobi hotels in total bed-nights was 31.5 per cent in 1981, of coastal hotels it was 50.8 per cent while all other areas together accounted for 17.7 per cent. However, there was a substantial rise in bed-nights spent in Central Area hotels from 318,400 to 343,800 between 1980 and 1981. The improvement in the occupancy rate in this Central area from 38 per cent in 1980 to 40 per cent in 1981 meant that more use was being made of the additional accommodation built since 1977.

Hotel Beds Occupied by Area, 1977-1981

Table 13.6 '000 Bed-Nights

	1977	1978	1979	1980	1981
Nairobi—High Class	552.7	570.9	611.0	609.8	586.9
Other	854.7	839.1	884.2	904.3	890.0
Coastal—Beach	1,543.6	1,654.0	1,809.6	2,055.3	2,039.1
Other	234.6	254.5	305.4	345.4	344.3
Coast Hinterland	137.7	121.0	120.5	134.9	131.3
Masailand	156.4	152.2	161.8	193.5	193.3
Central	250.2	269.0	287.0	318.4	343.8
Other	108.0	121.6	158.6	155.6	162.3
Total	3,837.9	3,982.3	4,338.1	4,717.3	4,691.0
Of which:—					
Foreigners	2,740.8	2,828.6	3,055.1	3,420.3	3,443.4
E.A. Residents*	1,097.1	1,153.7	1,283.0	1,297.0	1,247.6
Total Beds Available	7,028.3	7,385.0	8,043.5	8,324.9	8,525.5
Occupancy rate per cent	54.6	54.1	53.9	56.7	55.0

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

13. 12. It is also evident from Table 13.6 that Kenyan and East African residents together with those classed as permanent occupants (see Table 13.5) spent fewer nights in Kenyan hotels in 1981. Compared to 1980 there was a fall of 49,400 bed-nights or 3.8 per cent but these categories still accounted for 26.6 per cent of the total. In 1981 also, 2.4 per cent fewer bed-nights in total were spent at Nairobi hotels and 0.7 per cent less at Coast hotels.

13.13. Table 13.7 details hotel bed and room availability in the major tourist zones. There was an increase in rooms and beds available in virtually all areas with only a few areas . Coast Hinterland, Masailand and Northern Area showing slight decreases. Total rooms available increased from 4,418,000 room-nights in 1980 to 4,467,000 in 1981 or by 1.1 per cent while beds available increased by 2.4 per cent. Overall room occupancy declined slightly from 66 per cent in 1980 to 65 per cent in 1981. Despite this drop, Masailand, Nyanza Basin and the Central Area all showed improved room occupancy; all other areas indicated marginal declines. Bed occupancy fell overall from 56.7 per cent in 1980 to 55.0 per cent in 1981, but this was a better level than in both 1978 and 1979.

13.14. In 1981 as detailed in Table 13.8 the highest percentage of visitor days were spent in the Coast and Nairobi. About 82.2 per cent of all bed-nights were spent in these two areas. Compared with 1980 West Germany and UK residents registered increases in their bed. night stays at the coast by 0.9 per cent and 2.5 per cent respecti-vely. Among East African residents, Kenyan residents increased their bed.

Hotel Room and Bed Availability and Occupancy Rates, by Area, 1977-1981

Table 13.7

	Nairobi		coastal		Others						
	High Class	Other	Beach	Mombasa Island	Coast Hinterland	Masai land	Nyanza Basin	Western	Central	Northern	All Hotel
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	2,781	614	285	312	253	149	777	57	8.043
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
1981—											
Rooms available—'000 nights	653	934	1,439	354	139	164	156	108	494	26	4,467
Occupancy rate -per cent	70	67	76	64	52	64	51	36	45	21	65
Beds available—'000 nights	1,268	1,681	2,959	652	288	325	272	164	866	51	8.526
Occupancy rate—per cent	46	53	69	51	46	60	39	30	40	18	55

HOTEL Beds Occupied by Country of Residence, 1981

Table 13.8 '000 Bed-Nights

Country of Residence	Nairobi	Coast	Lodges	Other	Total
Kenya	243.8	279.1	49.8	220.8	793.5
Uganda	51.0	12 4	0.6	6.4	70.4
Tanzania	14.4	4.4	0.2	0.5	19.5
Other Africa	132.3	23.7	3.1	4.1	163.2
United Kingdom	174.8	247.4	51.3	23.3	496.8
West Germany	89.0	951.5	74.9	27.7	1,143.1
France	34.6	69.0	34.0	8.2	145.8
Italy	32.0	115.2	28.7	9.1	185.0
Switzerland	26.6	382.5	36.5	4.4	450.0
Scandinavia	38.0	36.5	11.2	5.8	91 5
Other Europe	65.7	137.8	25.0	19.6	248.1
U.S.A.	120.0	36.2	83.0	28.3	267.5
Canada	26 6	7.4	7.1	3.4	44.5
Asia	73.8	15.9	13 5	6.5	109.7
All Other	47.9	28.7	14.5	7.1	98.2
Permanent Occupants	306.4	35.7	0.8	21.3	364.2
Total	1,476.9	2,383.4	434.2	396.5	4,691.0

night occupancy, mainly due to more making visits to the Coast. Bed-nights spent by Ugandans on the other hand indicated a decline, which is also reflected in the total number of visitors from that country. More residents of USA spent more bed-nights in lodges which indicates that more are engaging in safari when they visit Kenya. In the overall however, the trend for many countries—Germany, France, Canada, Italy and Switzerland remains the same with only minor changes in bed-nights spent in different areas. Bed. nights spent by residents from Africa other than Uganda, Tanzania and Zambia registered an increase of 15 per cent which was mainly due to conferences and it is noticeable that most bed-nights were spent in Nairobi.

Game Lodge* Occupancy, 1979–1981

Table 13.9

Lodge Locality/ Type	Beds Occupied '000 Nights						Bed Occupancy Rate		
	E.A. Residents			Foreign Residents					
	1979	1980	1981	1979	1980	1981	1979	1980	1981
National Parks	23.9	38.6	37.4	89.5	144.8	175.2	44.4	44.4	49.7
Game Reserves	17.5	15.8	13.6	177.8	203.6	208.0	61.0	69.2	59.8
Total	41.4	54.4	51.0	267.3	348.4	383.2	53.7	55.2	54.3
	30.0	43.7	37.9	257.8	334.0	368.2	56.1	57.2	58.1
	11.4	10.7	13.1	9.5	14.4	15.0	33.7	36.3	28.5

*Lodges in National Parks and Game Reserves only.

13.15. For the second year there was continued improvement in bed occupancy in game lodges. As detailed in Table 13.9 beds occupied increased from 402,800 bed-nights in 1980 to 434,200 bed-nights in 1981 or by 7.8 per cent. The increase was as a result of foreign residents spending more nights in game lodges. Occupancy rates in national parks improved to 49.7 per cent in 1981 from 44.4 per cent in the previous two years. The improvement even surpassed the 1978 figure of 48.8 per cent. Full catering lodges were favoured relative to self-service lodges. This is indicated by improved bed-night occupancy of 58.1 per cent in 1981 compared to 57.2 per cent in 1980 for full catering lodges but a fall to 28.5 per cent in 1981 compared to 36.3 per cent in 1980, for self-service lodges.

Total Number of Visitors to National Parks, 1977-1981

Table 13.10 *Numbers*

	1977	1978	1979	1980	1981
Aberdare	46,050	39,891	44,892	39,551	43,923
Amboseli	83,233	67,379	80,905	82,128	93,477
Kisite Mpunguni	851	852	2,378	3,911	4,761
Lake Nakuru	80,635	94,805	72,399	88,720	91,707
Marine	37,245	41,424	48,705	38,019	47,135
Marsabit	3,781	2,673	2,701	2,740	2,217
Meru	36,945	32,296	25,867	22,443	23,413
Mt. Elgon	2,782	2,634	3,134	3,557	2,907
Mt. Kenya	9,484	8,919	8,260	7,358	8,369
Nairobi	141,861	119,364	108,308	124,554	147,801
Saiwa Swamp	1,853	1,719	1,350	1,352	1,983
Simba Hills	12,112	12,124	14,000	15,809	16,265
Tsavo (East)	65,530	57,001	55,081	60,589	62,588
Tsavo (West)	82,537	80,336	97,832	117,832	113,755
	604,899	561,417	565,812	608,563	660,301

13.16. In 1981, the number of visitors to National Parks was 660,301 compared to 608,563 in 1980, an increase of 8.5 per cent. The rise reflected in Table 13.10 does not include 69,674 visitors who visited Masai Mara, Oldonyo Sabuk and Lake Bogoria. Considerable growth resulted from the increases in both adult and child visitors; while for Nairobi the number of non-paying visitors also rose considerably, possibly due to the fact that many delegates coming for OAU meetings also visited the park. Only Kisite/ Mpunguti, Marsabit and Tsavo West indicated slight falls. Table 13.11. however, indicates that the number of visitors to museums and historical sites fell for the second year running from 508.191 in 1980 to 467,861 in 1981 or by 7.9 per cent. The fall could be attributed to fewer group visits, especially by school children. Significant declines were reported for the National Museum, Fort Jesus and the Snake Park. Fort Jesus indicated its first visitor decline in over ten years while the Snake Park showed a decline for the second year running.

Visitors to Museums, Snake Park and Sites, 1977-1981

Table 13.11 *Numbers*

	1977	1978	1979	1980	1981
National Museum	182,293	172,491	143,396	175,000	160,077
Lamu Museum	8,216	7,163	15,829	15,670	15,177
Snake Park	135,139	141,774	141,803	127,163	117,000
Fort Jesus	107,107	121,595	111,639	140,925	129,639
Gedi	25,801	29,747	36,838	34,088	31,751
Olorgesailie	3,991	5,717	4,985	5,090	4,683
Kariandusi	4,539	2,721	2,851	3,120	2,918
Hyrax Hill	1,413	1,285	1,440	1,680	1,516
Jumba la Mtwana	3,009	3,347	4,306	5,455	5,100
Total	471,508	485,840	463,087	508,191	467,861

13.17. Conference tourism continues to improve as the number of conferences held at Kenyatta International Conference Centre indicates. In 1981, 40 conferences were held, which continues the increases in the number of conferences since 1978 (27 in 1978, 32 in 1979 and 38 in 1980). But only 9,500 delegates attended these conferences which shows a drop from 10,700 delegates in 1980. This led to a slight fall in the occupancy rate from 74.8 per cent in 1980 to 72 per cent in 1981. The number of conference days also dropped from 273 to 263 between 1980 to 1981. According to bookings already made for 1982, the number of delegates is expected to rise because of certain large conferences to be held this year.

Development of Tourism

13.18. Kenya Tourist Development Corporation's (KTDC) new equity investment in the year 1980/81 was K£5.4 million which shows an increase of K£0.2 million over the previous year. This expenditure is, however, an understatement because it does not include equity investments by KTDC's associated subsidiary companies. Loans provided by the Corporation in the same period increased substantially by 34 per cent, from K£2.9 million in 1979/80 to K£3.9 million in 1980/81. Of these loans, K£1.9 million was spent on the Kenyanization programme as compared to K£1.5 million in the previous year. Achievements under the equity programme included the completion of 40 apartments at Milimani Hotel at a cost of K£350,000; purchase of more shares at the Panafric Hotel Ltd.; and purchase of additional shares in Tourism Promotion Services (K) Ltd. Golf Hotel (120 beds) in Kakamega was also completed and opened for business. Nearing completion at the end of the calendar year were the 200-bed Sirikwa Hotel at Eldoret, 60.bed Kabarnet Hotel and Utalii House, which is the new KTDC headquarters.

13.19. The Government continues to enhance road development in order to improvethe infrastructure needed by the tourist industry. In 1981, about K£5 million was spent in the north tourist circuit zone. This is part of Phase IV

of the Tourist Roads Programme which commenced in 1977. Also part of this project awaiting implementation is the 70 km. Makutano-Kilanguni Lodge road in the Chyulu Hills.

13.20. The 1979/83 development plan stipulates the development of regional museums with the assistance of district development committees. The recent decision to open a museum at Murang'a (Mukurwe-Nyagathanga) represents an effort to move in this direction.

13.21. In 1981, major improvements were undertaken at the Kenyatta International Conference Centre. Among these were improvement in booths and installation of TV monitors to meet new standards of international conferences. Also recently introduced was an eight-language system in place of the seven-language system used previously. All these efforts are being made to enable the KICC to conform to present international standards and thus encouraging more and continued use of the Centre.

Commerce Sector

13.22. The commerce sector or distribution, covers wholesale and retail trade, hotels and restaurants. Most activities of oil companies and petrol stations are also covered. Except for marketing boards which are statutory bodies the whole of the distribution sector is in private hands.

13.23. Table 13.12 gives the breakdown of the wage employees and the self-employed for this sector for the years 1977.80. Measured against the whole economy, wage employment in the commerce sector covers 7 per cent of the total whereas for the self-employed the coverage has ranged between 46 per cent to 52 per cent in the years covered because most enterprises run by the self-employed are engaged in wholesale and retail activities. Between 75 per cent and 80 per cent of the self-employed engage in retail activities. For the year 1980, the commerce sector accounted for 46.1 per cent of persons self-employed and 7.0 per cent for the wage employees. Employment of oil companies is included in wholesale trade and that of petrol stations is in retail trade. Nairobi has the highest proportion of both the self-employed and the wage earners in this sector. The average percentages for 1977-80 of wage employees were Nairobi 47 per cent; Central Province 8 per cent; Nyanza 4 per cent; Western 2 per cent; Coast 20 per cent; Rift Valley 14 per cent; Eastern and NorthEastern Provinces together 5 per cent. The corresponding percentages for the self-employed were 30; 12; 15; 9; 13; 14 and 7 per cent respectively.

13.24. For the self-employed, commerce is a source of income as well as economic activity. Many self-employed operations are managed by members of the same family but in other cases the employment of non-family members can be quite extensive. The enterprises concerned often own the premises occupied and the transport equipment used.

COMMERCE SECTOR-EMPLOYMENT BY TYPE OF ACTIVITY,1977-1980

Table 13.12 *Numbers*

Activity	1977		1978		1979		1980	
	Wage Em-ployees	Self Em-ployed*	Wage Em-ployees	Self Em-ployed*	Wage Em-ployees	Self Em-ployed*	Wage Em-ployees	Self Em-ployed*
Joint Wholesale/Retail Trade	8,463	506	9,303	444	10,869	360	10,213	32
Wholesale Trade	19,732	2,715	20,199	2,482	23,862	2,995	25,081	203
Retail Trade	14,244	63,719	13,143	67,670	13,249	70,054	14,316	67,847
Hotels and Restaurants	20,155	17,368	19.882	15,842	20,743	16,396	20,984	17,247
Total	62,594	84,308	62,527	86,438	68,723	89,805	70,504	85,329
Proportion of total em-ployed in whole economy	6 . 9	52.4	6.9	49.8	7.1	48.6	7.0	46.1

*Includes informal sector.

Wage Employees—Includes both regular and casual.
Self-Employed -Includes unpaid family workers.

13.25. The informal sector constitutes mainly those retail and catering activities in rural and urban areas which are not operated from fixed addresses. It is an important contributor to activity in commerce; much activity is carried out in such places as open air markets and by street trading. The GDP contribution by the informal sector is not easy to measure but rough estimates can be made using the annual enquiry.

Commerce Sector—GDP by Type or Activity at Constant (1976) Prices, 1977-1981

Table 13.13 K£'000

Activity	1977	1978	1979	1980	1981
Joint Wholesale/Retail Trade	20,333	19,387	23,326	21,852	20,686
Wholesale Trade	33,306	37,870	36,358	37,870	36,821
Retail Trade	12,743	19,587	26,866	29,640	28,475
Oil Companies	25,040	22,881	23,778	23,205	24,000
Petrol Stations	3,226	2,948	3,063	3,182	3,428
Rural Areas	16,425	17,593	16,186	16,168	18,159
Restaurants and Hotels	29,693	31,188	31,891	34,787	34,305
Total	140,766	151,454	161,468	166,704	165,874
Marketing Boards	2,823	4,470	3,904	4,447	5,855
Grand Total (Public and Private	143,589	155,924	165,372	171,151	171,729
Sector GPD contribution as pro-Portion of whole economy, Percentage	10.3	10.5	10.7	10.8	10.3
GPD—growth rate at constant (1976) prices		8.6	6.1	3.4	0.3

13.26. A breakdown of the gross domestic product of the commerce sector for the years 1977-81 at constant (1976) prices is given in Table 13.13. In the latest year, the sector's GDP increased by 15.1 per cent at current prices and 0.3 per cent at constant prices giving an apparent deflator of 14.8 per cent. Measured against the whole economy (traditional and monetary), the

sector's GDP contribution at constant prices has averaged 10 per cent over the years 1977.81 but has tended to increase from year to year. The GDP contribution for the year 1981 was 10.3 per cent or the same as in 1977. GDP contribution by the marketing boards has more than doubled between the years 1977 and 1981, despite the market decline of 14 per cent in 1979 due to the shortage of maize. Because of a more restrained level of overall economic activity, commerce sector growth rate in real terms has declined from 8.3 per cent in 1977 to 0.3 per cent in 1981.

CHAPTER 14—TRANSPORT AND COMMUNICATIONS

Indicators of activity for the transport sector show that 1981 was a year of reduced volume for the railways, the airports, the pipeline and in new registrations of motor vehicles. In contrast most sections of posts and telecommunications recorded higher levels of activity. Despite the fall in throughput on the railways, its financial operations benefitted from the higher tariffs operative in 1981. Total wage employment in transport and communications in the modern sector of the economy as shown in Chapter 4 on employment rose by around 5 per cent while the number engaged in self-employed activities were probably unchanged. There is also thought to have been a rise in the numbers employed in the urban informal sector. Some part of this overall rise in employment is due to greater use of buses, coaches, minibuses and matatu as more people travelled on this sort of vehicle rather than in their own cars. On balance it appears that the overall volume of work carried out in transport and communications rose by a small percentage in 1981.

14.2. The gross value of measurable output in the sector increased at current prices by 7.6 per cent in 1981 as shown in Table 14.1. However, this measurement of output excludes matatu operations, country bus services

Transport and Communications—Value of Output, 1977-1981

Table 14.1 K£'000

	1977	1978	1979	1980	1981*
Railway Transport	27,480	28,585	29,045	32,871	38,840
Road Transport	53,004	69,270	77,653	92,311	98,985
Water Transport	43,104	53,868	55,449	62,712	65,306
Air Transport	23,494	34,785	40,009	41,645	39,862
Services Incidental to Transport	36,615	41,091	40,822	31,236	37,494
Total Transport	183,697	227,599	242,978	260,775	280,487
Pipeline		6,167	11,247	18,624	18,536
Communication	30,440	38,685	47,561	57,505	63,471
Grand Total	214,137	272,451	301,786	336,904	362,494

*Provisional.

and small lorry owners and these excluded sections were ones where growth was substantial during the year. So it seems likely that the overall increase of gross output in 1981 was higher than that shown. The contribution ofthe sector to GDP is estimated to have risen by 1.5 per cent at constant Prices and by 12 per cent at current prices.

14.3. Receipts from road and rail transport are recorded in Table 14.2. Road transport gained in 1981 from a higher overall level of activity marked by increases in number of buses and minibuses in operation. However, haulage

receipts from road-freight transportation activity at current prices are estimated to have increased by 4.8 per cent from K£65.6 million in 1980 to K£68.7 million in 1981; and for road passenger traffic receipts they increased by 13.2

Earnings from Road and Rail Traffic, 1977-1981

Table 14.2 K£'000

	1977	1978	1979	1980	1981*
Passenger Traffic.					
Rail	1,200	1,629	2,190	3,136	4,074
Road	18,662	25,107	25,179	26,717	30,248
Total	19,862	26,736	27,369	29,853	34,322
Freight Traffic.					
Rail**	26,280	26,956	26,855	29,735	34,766
Road	34,342	44,163	52,474	65,594	68,737
Total	60,622	71,119	79,329	95,329	103,503
Total Rail Traffic	27,480	28,585	29,045	32,871	38,840
Total Road Traffic	53,004	69,270	77,653	92,311	98,985

*Provisional.

**Includes other revenue.

per cent from K£26.7 million in 1980 to K£30.3 million in 1981. As suggested later in paragraph 14.7, matatu operators probably had a gross turnover of some K£30 million but this figure is not shown in Table 14.1 or 14.2. Total receipts from rail traffic increased by 18.2 per cent from K£32.9 million in 1980 to K£38.8 million in 1981; this increase in 1981 is solely due to the tariff increases introduced as traffic volume handled declined.

Road Transport

14.4. Details of new registration of road vehicles are given in Table 14.3. The number of newly registered vehicles has been reduced by the imposition of restrictions on imported goods into the country. The result of these restrictions is a decrease in the number of newly registered vehicles by 22.1 per cent from 23,246 in 1980 to 18,115 in 1981. In particular newly registered saloon cars dropped by more than 60 per cent from 6,881 vehicles in 1980 to only 2,751 in 1981. In addition to the tighter import controls, this decrease on saloon cars registered during 1981 is also attributable to prevailing high prices of cars and imported goods generally. A much more modest decrease of 11.5 per cent was recorded in registrations of vans and pick-ups between 1980 and 1981 reflecting the continuing significance of this type of vehicle, but in any event, virtually all these types of vehicles are assembled in Kenya

NEW REGISTRATIONS OF ROAD VEHICLES 1977-1981

Table 14.3 *Number*

	1977	1978	1979	1980
Saloon Cars	7,296	7,842	4,881	6,881
Station Wagons	2,517	2,749	2,312	2,298
Panel Vans, Pick-ups, etc.	7,354	5,717	5,979	7,454
Lorries/Trucks	1,857	2,848	2,669	2,255
Buses and Coaches	171	205	275	208
Mini Buses	214	169	216	217
Special Purposes Vehicles	100	82	380	163
Trailers	827	1,244	1,030	763
Rollers, Graders, Cranes	73	94	153	207
Wheeled Tractors	1,916	2,032	1,141	1,023
Crawler Tractors	46	114	152	14
Motor and Auto Cycles	1,707	1,861	1,757	1,749
Three Wheelers	27	14	8	14
All Vehicles	24,105	24,971	20,883	23,246

and import restrictions have tended to concentrate on the less essential vehicles. As for station wagons, the reduction in registrations between 1980 and 1981 was 32.1 per cent and for lorries the fall was only 7.3 per cent again reflecting the overall policy. By contrast newly registered buses and coaches and minibuses increased by 18.8 and 100 per cent, respectively. The latter rise reflects the increasing popularity of this mode of transport particularly as they are increasingly in use as matatus. Although imported goods continue to cost more, this did not affect the demand for trailers, wheeled tractors and crawler tractors whose new registrations rose by 13.8 per cent, 19.0 per cent and 235.7 per cent, respectively between 1980 and 1981. These increases are, of course, attributed to the commercial utility of these vehicles and to the increased demand for crawler and wheeled tractors especially in the sugar growing areas where they are used to transport sugar-cane to factories.

14.5. Table 14.4 details the number of licences issued for vehicles on hire for passenger and freight transport. There were falls although quite minor in the number of licences for both passenger services and freight transport vehicles in 1981; with the latter the fall was 3.3 per cent from 5,931 in 1980 to 5,733 in 1981. It is conceivable that the increased costs of operating these vehicles especially due to increases in prices of petroleum products may have reduced the number of applicants for such licences. The total number of licences for

Licences Issued for Vehicles on Hire, 1977-1981

Table 14.4 *Numbers*

	1977	1978	1979	1980	1981
Passenger Service Vehicles	2,720	2,959	2,967	2,952	2,938
Freight Transport Vehicles	4,150	4,996	3,897	5,931	5,733
Total	6,870	7,955	6,864	8,883	8,671

both types of vehicles issued thus declined from 8,883 in 1980 to 8,671 during 1981, a drop of 2.4 per cent.

14.6. Kenatco, the transport company owned by the public sector continued to provide all types of road transport service throughout Kenya and in the neighbouring countries during 1981. The company's essential operations were held up at one time, when the Uganda Coffee Marketing Board declined to issue the transit bond for the vehicles and thus caused delays in the company's haulage operations in Uganda. The total revenue earned in 1981 was only K£4,568,005 compared to K£7,241,773 earned in 1980. Other activities of the company notably taxi operations and Kenatco Agip Station, made improvements in their sectional operations. The escort of vehicles (by a security firm on hire by Kenatco) which was introduced in 1980 has been withdrawn following a presidential directive. Now all vehicles transporting cargo to and from Uganda, Rwanda, Zaire and Sudan are escorted by Kenatco escort vehicles. The company has therefore, hired guards to provide the security for their freights passing through Kenya and the neighbouring countries. The switch to use of Kenatco guards has helped reduce overall company costs.

14.7. One feature of the road transport scene which has not been ventilated in past publications of this sort is that of matatu operators. Recent guestimates suggest there are as many as 4,000 vehicles of this sort operating in Kenya as small buses, and without them passenger transport would be much more limited. Total earnings by this sort of transport may be as high as K£30 million and possibly half this total would accrue as GDP but so far it has not been included. There were 247 new buses registered in 1981 and a total of 1,106 in the five years 1977 to 1981. This means that transport by buses throughout the country has been increasing at a fairly rapid rate. The more rapidly matatu and bus services are increased, the greater can be the saving on private vehicles in taking people to and from work. The expansion of both sorts of service over the last few years has undoubtedly helped to contain the growth of petroleum consumption in the country as well as reducing traffic densities at peak hours. The growth of these services has, however, highlighted the poor driving ability of many matatu operators and the fact that certain roads in use in urban areas were not designed for the increase in bus and matatu operations that has taken place. However, effective steps are underway to bring about the operation of the matatu vehicles within the road transport regulatory framework. The contribution of this intermediate form of public passenger transport has helped alleviate, to a considerable extent, the congestion problem and meet the peak demands for public transport. The matatu vehicle is sought to be standardized and its operation to meet the basic requirements of vehicle fitness, insurance and safely regulations. In view of the advantages of fuel-efficient public transport, local public

authorities are also initiating measures towards better road maintenance and traffic engineering improvements in the major urban areas. Some details on the length of Kenya's roads are given in Chapter 12.

Kenya Railways

14.8. Demand for rail transport remained fairly high during 1981. However, due to the economic problems facing the country, the stagnant exports, the restrictions on imports imposed by the Government as well as stiff road competition, the tonnages of freight handled by Kenya railways declined slightly. However, the downward trend in the railways freight traffic is more marked in respect of longhaul traffic, even though the railways are known to be relatively cost efficient in this kind of traffic. This appears to have taken place due to the diversion of transit traffic, mostly to Uganda, from rail to road transport. It is expected that with better organization and discipline in the transport sector and with increased normality coming back in Uganda, the transit traffic from / to Mombasa could be diverted back to the Railways, to the benefit of everyone concerned.

Railway Traffic, 1979-1981

Table 14.5

	1979	1980	1981
Freight '000 tonnes	3,853	4,464	4,249
million tonne/km.	1,998	2,281	2,241
Revenue K£million	24.50	29.74	34.77
Passengers '000	1,832	2,401	2,300
Revenue K£million	2.10	3.1	4.1

14.9. The total tonnage of freight carried by the Railways in 1981 showed a decline of about 5.0 per cent from 4,464,000 tonnes in 1980 to 4,249,000 tonnes in 1981. This figure, however, is still 9.0 per cent higher than that of 1979. Total revenue receipts for the railways during 1981 increased by about 17.9 per cent, from K£32.9 million in 1980 to K£38.8 million in 1981. The gross volume of goods traffic handled by the railways decreased from 2,281 million tonne kilometre in 1980 to 2,241 million tonne kilometres in 1981 which is a drop of 1.8 per cent.

14.10. Revenue from passenger traffic and other coaching earned the Railways K£4.1 million in 1981; this higher level of revenue is due to tariff increases of 16.0 per cent and 26.0 per cent effected by Kenya Railways in December 1980 and July 1981, respectively. Total passengers carried by the railways in all classes that is first, second and third actually recorded an overall decrease of 4.2 per cent from 2,401,000 in 1980 to 2,300,000 in 1981. This fall in passenger traffic mostly in third class travel, reflects a lack of seating capacity, and restrictions by the railways authority on over-crowding in the trains.

14.11. With the complete dieselization of railway operations, it became necessary to provide diesel repair facilities in the mechanical workshops at Nairobi, Eldoret and Sagana. This work has now been completed at an estimated cost of K£5.8 million, financed through a loan from West Germany. The delivery of 13 new third class coaches from Sweden financed through a grant from that country is expected within the current year. The African Development Bank has also agreed to finance the purchase of some 10 third class coaches for the Kenya Railways. These may be delivered during 1983. Similarly, the negotiation to utilise a British grant and Lloyds Bank loan to obtain passenger coaches and restaurant cars from Britain is in advanced stage. This programme when implemented is likely to further strengthen the Kenya Railways capacity to provide more passenger seating capacity thereby minimizing the need for private motoring on the road.

14.12. During 1981 Kenya Railways continued with realignment work between Mazeras and Mariakani while construction work on a siding at Changamwe East Industrial Area was in progress. Other works in progress during 1981 included provision of a sorting grid at Makadara Station, re-rail. ing curves on various sections of the line and relaying Kibini Hill siding and Makadara/Thika and Eldoret/Malaba sections; all the works shown are estimated to cost K£3.2 million.

Harbours and Shipping

14.13. In addition to Kenya, the Port of Mombasa continued to serve Uganda, Burundi, Rwanda, Zaire, Sudan and to a limited extent Zambia during 1981. Complete figures are not available but dry cargo handled rose by about 4.4 per cent in 1981. The throughput figures of the Mombasa Oil Refinery show a fall of nearly 10 per cent in 1981 so it would seem that overall handling of bulk liquids at the port would also have registered a decline. Total revenue earned by the harbour authorities as shown in Table 14.1 under water transport rose in 1981 by about 4 per cent.

Freight Handled at Mombasa Harbour, 1977-1981

Table 14.6 '000 *tonnes*

	1977	1978	1979	1980	1981
Landed;					
Dry Cargo	1,336	1,480	1,037	2,003	2,060
Bulk Liquids	2,618	2,787	2,822	3,467	
Total	3,954	4,267	3,859	5,470	..
Loaded;					
Dry Cargo	1,460	1,486	1,560	1,438	1,531
Bulk Liquids	461	314	474	598	
Total	1,921	1,800	2,034	2,036	..
Total Freight Handled	5,875	6,067	5,893	7,506	..

14.14. On the imports side, dry cargo imports remained more or less constant at around 2 million tonnes in both 1980 and 1981 while dry cargo exports were higher by some 93,000 tonnes at 1,531,000 tonnes. There were volume increases for tea, coffee and cement. A total of 1,557 ship arrivals were recorded in 1981 compared to 1,408 in 1980. This rise of 10.6 per cent gives an average of 121 ship calls per month.

14.15. In 1981 the Ports Authority continued to pursue its policy of ensuring adequate and timely provision of facilities. Thus apart from the 24 tractors and 72 trailers acquired during the first quarter of 1981 for use in the container terminal, it is also expected that delivery of 3 bridge cranes and six transtainers for container handling will be effected by October, 1982. In addition the Authority acquired 16 mobile cranes in June 1981 and also put into service 28 goosenecks during the year. Projects currently under study include the remodelling of entrances, container terminal improvement works for berths 16, 17 and 18 as well as the development of the Mombasa container base. Plans are also under way for the extension of Mbaraki Wharf to provide more bulk handling facilities.

Pipeline Transportation

14.16. The Kenya Pipeline Company, incorporated in Kenya as a private company with limited liability, was first commissioned in February 1978. The principal activity of the company is to transport petroleum products via a pipeline from Mombasa to Nairobi. During the first six months of 1981, the company earned a gross revenue amounting to K£9,458,800 compared to K£8,588,765 in 1980. This represents an increase of 10.1 per cent. Although revenue for the first six months of 1981 had shown an upward trend, the total pipeline throughput of white petroleum products during 1981 dropped by 1.7 per cent compared to 1980, that is from 1,463,690 cubic metres to 1,438,526 cubic metres. This drop in total throughput during 1981 is reflected in a slight decline in revenue. Details on the pipeline throughput since 1978 are shown in Table 14.7. The only fall in throughput in 1981 was for premium motor spirit; for all other products, small increases were recorded.

Pipeline Throughput of White Petroleum Products, 1978-1981

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	1,371,378
1980	337,487	203,377	102,886	417,813	—	402,127	1,463,690
1981	276,386	209,777	111,936	431,022	—	409,405	1,438,526

*Not complete year.

Air Transport

14.17. The year 1981 was the fourth since Kenya Airways was founded. The airline made no new pool and bilateral passenger sharing arrangements with other airlines during 1981. The Kenya Government appointed an IATA Co-ordinated Project Team to look into the airline's problems and this team has recommended a restructuring of the airways by modernizing the fleet and reorganizing management. On 1st October, 1981, the airline announced a new structure designed to improve performance. Traffic performance of Kenya Airways as detailed in Table 14.8 showed a drop during 1981 with passenger/kilometres decreasing from 1,018.4 million to 968.4 million. However, despite this fall, the rate of utilization of passenger capacity available on domestic flights increased from 59.5 per cent in 1980 to 61.0 per cent in 1981. International traffic also recorded a rise from 57.5 per cent in 1980 to 62.0 per cent in 1981. There was a decrease in freight handled by Kenya Airways from 111.6 million kilogram/kilometres in 1980 to 106.1 million kilo-

Kenya Airways Traffic Performance, 1980-1981

Table 14.8

	Domestic		International		Total	
	1980	1981	1980	1981	1980	1981
Passenger						
Passenger—kilometers						
Millions	80.6	77.0	937.8	891.4	1,018.4	968.4
Utilisation: Per cent	59.5	61.0	57.3	62.0	57.5	62.0
Freight						
Total Carried:						
Million Kg/Km	7.5	7.2	104.1	98.9	111.6	106.1
Utilisation: Per cent	49.1	51.3	45.4	48.3	45.6	48.4

gram/kilometres during 1981, but the overall freight capacity utilization rate increased from 45.6 per cent to 48.4 per cent. There thus appears to have been a reduction in the actual fleet in operation.

14.18. Of the total 1.80 million international passengers passing through both Nairobi and Mombasa airports in 1981, Kenya Airways handled 298,507 or 16.6 per cent. When transit passengers are excluded. Kenya Airways share of the market was 23.4 per cent, that is 298,507 out of 1.28 million international passengers originating and terminating in Kenya. It is also estimated that Kenya Airways operated 17 per cent of all flights into and out Kenya in 1981. During 1981 domestic routes were operated by the Fokker 27 and DC 9 aircraft; international routes were operated by Boeing 707, 720 and 747 planes. The Kenya Airways experienced a number of delays and aircraft breakdowns during 1981 which had some effect on passenger revenue which was reduced by 3.9 per cent compared to 1980.

14.19. Some development work was carried out at the two international airports of Nairobi and Mombasa and at other airstrips during 1981. There were special modifications to the state pavilion to accommodate facilities such as protocol, customs, immigration and health during the O.A.U. Summit in June. Construction was also completed of service roads to specialized freight areas to provide access to future development sites. At Moi Airport Mombasa, surfacing work was carried out to strengthen the pavements for heavier aircraft. Work also included landscaping and planting of flowers and trees around the airport. The re-sealing of Kitui and Homa Bay airstrips was completed during the year.

14.20. The two main Kenya airports at Nairobi and Mombasa experienced a fall in traffic handled in 1981. The number of passengers passing through these two airports decreased from 1,847,100 in 1980 to 1.800,400 in 1981, or by 2.5 per cent. At Jomo Kenyatta Airport, Nairobi, the number of passengers handled during the year fell from 1,467,100 in 1980 to 1,432,400 in 1981, or by 2.4 per cent while total cargo passing through this airport dropped from 30,226 tonnes in 1980 to 28,872 tonnes, or 4.4 per cent. These details are shown in Table 14.9.

Commercial Traffic at Nairobi Airport, 1977-1981

Table 14.9

	1977	1978	1979	1980	1981*
Passengers—000's					
Landed	407.3	437.6	472.9	476.7	468.4
Embarked	420.7	431.1	476.2	470.0	473.4
In Transit	521.8	484.4	506.1	520.0	490.6
Total	1,349.8	1,353.1	1,455.2	1,466.7	1,432.4
Freight—tonnes					
Cargo: Landed	8,585.5	9,418.9	7,752.3	7,834.8	6,506.9
Loaded	24,592.7	20,884.5	18,650.0	20,721.7	20,733.3
Mail: Landed	855.1	596.8	979.0	926.7	894.8
Loaded	801.3	787.8	834.4	742.5	736.5
Total	34,834.6	31,688.0	28,215.7	30,225.7	28,871.5

*Provisional.

14.21. Moi Airport, Mombasa, also experienced a lower volume of traffic during 1981 as detailed in Table 14.10. The number of passengers handled decreased from 380,000 in 1980 to 368,100 in 1981 i.e. by 3.1 per cent while freight handled at the airport also fell from 26,814 tonnes in 1980 to 22,184 tonnes in 1981. This decrease was 17.3 per cent, but the tonnage handled during 1981 was higher by 21 per cent than in 1979.

Commercial Traffic at Mombasa Airport, 1977-1981

Table 14.10

	1977	1978	1979	1980	1981*
Passengers—000's					
Landed	131.5	152.8	159.0	177.6	171.5
Embarked	136.3	156.0	160.5	181.9	180.8
In Transit	20.3	18.3	16.2	20.5	15.8
Total	288.2	327.1	335.7	380.0	368.1
Freight—tonnes					
Cargo: Landed	4,912.2	16,436.1	10,290.6	16,491.7	12,224.3
Loaded	1,161.6	9,723.9	7,937.8	10,199.1	9,840.3
Mail: Landed	77.7	76.2	80.3	85.9	77.1
Loaded	36.1	36.4	37.5	37.8	42.2
Total	6,187.6	26,272.6	18,346.2	26,814.5	22,183.9

*Provisional.

Posts and Telecommunications

14.22. The Kenya Posts and Telecommunications Corporation (KPTC) whose main functions remain the establishment and operation of postal and telecommunications services throughout the country celebrated its fourth birthday in 1981. The activities of KPTC are influenced both by the relevant sectors of the 1977 KPTC Act as well as by national development aspirations and guidelines. Thus in 1981 KPTC aimed at improving the quality and quantity of telephone and postal services in both urban and rural areas.

14.23. During 1981 the Corporation spent approximately K£41.8 million on operations compared to K£36.8 million in 1980. This represented a growth in expenditure of 13.6 per cent from 1980 to 1981 compared to the increase of 18.9 per cent in the previous year. Revenue receipts were K£41.5 million in 1980 and K£44.2 million in 1981. Capital formation by the Corporation increased from K£9.9 million in 1980 to K£11.0 million in 1981. Major capital expenditure items included telegraph and telephone and residential buildings.

14.24. Table 14.11 compares various services available between 1977 and 1981. The table shows that in 1981, 22 new post offices were opened bringing the total to 711. Further 7,000 new post office private boxes were made available bringing the total number of boxes in 1981 to 158,000. Registered and insured items handled increased to 3,172,000 in 1981 from 2,930,000 in 1980 or by 8.3 per cent. A similar trend was noticed in ordinary letters handled which went up from 185 million in 1980 to 200 million in 1981 or 8.1 per cent. However, a declining trend continues for parcels handled which is attributable to some extent to the competition provided by private transporters.

Postal and Telecommunications Services, 1977-1981

Table 14.11 *Number*

	1977	1978	1979	1980	1981*
Post Offices	596	636	668	689	711
Post Office Private Boxes	112,000	124,000	130,000	151,000	158,000
Telephone Subscriber's Lines	62,408	65,344	69,669	73,932	80,206
Public Call Offices	439	474	514	529	573
Telegrams Handled '000's	718	753	851	955	1,076
Parcels Handled—'000's	389	379	403	412	421
Manual Telephone Calls Made -000's	10,555	11,403	12,291	13,968	14,016
Registered and Insured Items —000's	2,294	2,294	2,699	2,930	3,172
Telex Subscribers	796	1,014	1,114	1,170	1,358
Ordinary letters handled Million	140	168	172	185	200

*Provisional.

14.25. As regards telecommunication services, the number of telephone subscribers rose from 73,932 in 1980 to 80,206 in 1981. This represents a rise of 8.5 per cent. The number of telex subscribers also increased, this time by 16.1 per cent. This increase reflects the superiority of telexes over other forms of communication for both business and government needs. Manual telephone calls made increased only slightly in volume in 1981 after the large rise in 1980. This illustrates the increasing use of automatic telephone facilities by members of the public. Public call offices and rented private boxes grew by 8.3 per cent and 4.6 per cent, respectively. A major development in 1981 was the completion of the Pan African Telecommunications Network (PANAFTEL). This project, which was started in 1980 (See Economic Survey 1981), provides links between Nairobi and Addis Ababa and also between Nairobi and Arusha. It became operational in August, 1981.

14.26. The Corporation will continue with its development plans during 1982. In particular the five year Second Telecommunications Project (1982-86) is to be started. When completed it is expected that this project will have cost K£65 million with the World Bank providing a loan of K£23 million to cover part of the foreign exchange costs; the balance is being sought from local and other external sources. This project is a high priority part of the total telecommunications investment programme that the Corporation plans to implement during the period 1982-1986. The total package is estimated to cost approximately K£117 million. During 1982 it is planned to expand total exchange capacity to 131,680 lines from 127,080 in 1981. Direct exchange lines will also be increased to 94,000 lines from 80,234 lines in 1981. During the same period, it is planned to open 33 post offices and establish 34 sub-post offices.

Kenya External Telecommunications

14.27. This company was incorporated first in Kenya on 28th July, 1978 being registered as a limited liability company. Its major activity is the provision of external telecommunication services to both the public and the private sector. The company operations achieved satisfactory results during 1981. As shown in Table 14.12 most of the revenue earned by the company

External Telecommunications Traffic, 1977-1981

Table 14.12

	1977	1978	1979	1980	1981*
Telegraph Service '000 cables. .	253.5	226.0	215.7	200.3	173.2
Telephone Service '000 paid minutes	2,674.5	2,937.3	3,474.7	4,127.0	4,482.0
Telex Service '000 paid minutes	1,625.0	1,939.4	2,176.0	2,271.2	2,620.5

*Provisional.

came from telephone and telex services. The number of paid minutes of telephone and telex services increased by 8.6 per cent and 15.4 per cent, respectively between 1980 and 1981. Telegraph traffic dropped by 13.5 per cent which reflects the world-wide trend to use less of this medium of external communications. Most subscribers now prefer telexes or telephones for quicker contacts. The company revenue during 1981 rose by 19.2 per cent to K£19.2 million from K£16.1 million in 1980.

14.28. Significant progress was made by the company during 1981 in connecting Kenya to the outside world through satellites. Work was completed and operations commenced connecting Kenya via Longonot II earth station to Western Africa/Europe/America. The company also established new direct links to Canada/USA/UK/Poland and Germany. There was an increase of international circuits to a total of 235 as at the end of December 1981 and it is expected to have a total of 343 international circuits via satellite by the end of 1982. This will put the company in a better position to undertake a modernization programme of its marine communications. The new destinations which may be completed during 1982 are Nigeria/Greece/ Ivory Coast/Austria/Belgium/Benin Israel/Switzerland/Nordic/ Sri-lanka / Rwanda/Hong Kong/Madagascar and United Arab Emirates (Dubai).

Information and Mass Media

14.29. The Department of Information is implementing a number of development projects during the current 5.year development plan involving the construction of district information offices. Three new offices were under construction at Kiambu, Isiolo and Hola. The building at Hola will not be completed on schedule because the contractor abandoned the site in 1980.

The Ministry of Works has engaged a new contractor who expects to continue with the work well into 1982/83. The same situation applies to Isiolo. New plots have been acquired for the construction of information offices at Kabarnet, Siaya, Murang'a and Kwale. All these offices will be equipped with sound studios, tape recorders, cameras and public address equipment.

14.30. During the 1981/82 financial year the installation of SSB/HF radio facilities has continued at a number of stations improving the communication infrastracture to be able to increase the flow and speed of news from the field offices to the Kenya News Agency in Nairobi. Such equipment was installed at Migori, Kisumu, Kitale, Kakamega, Makueni, Mwingi and Nyahururu. The same equipment is planned to be installed at Eldoret, Iten, Kisii, Siaya, Nanyuki, Nyeri, Murang'a, Machakos and Kilifi during 1982/83. New newspapers to serve different rural areas are being developed. "Sauti ya Kericho" was started in January 1980 and "Sauti ya Kwale" in November 1980. The rural press programme has now been extended to "Sauti ya Gusii" in September 1981 and "Habari" for readers in North-Eastern Province. Circulation of these papers is still small but it is building fast with "Kericho" having reached 6,000 and "Gusii" 2,000 copies per issue.

14.31. Details on the number of new radio and television sets bought are given in Table 14.13. The total number of radio sets purchased decreased by 3.9 per cent during 1981 to 193,490 from 201,262 in 1980. Total T.V. sets licenced during 1981 also dropped by 11.3 per cent from 11,874 in 1980 to 10,531 in 1981. It is estimated that there were 2.3 million radio sets and 92,531 T.V. sets in the country during 1981.

New Radios and T.V. Sets Sold and Licensed, 1977-1981

Table 14.13 *Numbers*

	1977	1978	1979	1980	1981
Radios	145,969	131,355	159,657	201,262	193,490
Television Sets	4,901	7,309	7,147	11,874	10,531

14.32. The Institute of Mass Communications continued to assist with the development of news and information services in Kenya. The projects which were completed in 1981 included a film training complex and engineering training blocks. There was no change in total enrolment of trainees because the ones recruited in 1980 and 1979 continued with the training programmes and no new trainees were recruited in 1981. During 1981 the Institute had 217 trainees in the field of engineering, programme production (radio and T.V.) information and film production. It also offered in-service courses for 46 participants for licences investigations officers, T.V. producers and a regional trainees course sponsored by UNESCO.

14.33. Table 14.14 details the average daily/weekly newspapers in circulation. The morning English language newspapers recorded a 6.2 per cent increase sales with daily circulation rising from 153,827 in 1980 to 163,425 in 1981 but the Swahili language newspapers sales declined from 52,893 in 1980 to 52,563 in 1981. Weekly newspapers too increased their overall circulation, the English language paper rising by 3.8 per cent but Swahili language papers declined from 66,600 in 1980 to 66,045 in 1981. There has been substantial decline in Swahili language weekly newspaper circulation since 1979 balanced by an increase for English weeklies.

Daily/Weekly Average Newspaper Circulation, 1979-1981

Table 14.14 *Number*

	1979	1980	1981
Morning Newspapers			
English	150,704	153,827	163,425
Swahili	54,278	52,893	52,563
Other Newspapers			
English Weeklies	150,301	184,662	191,727
Swahili Weeklies	97,296	66,660	66,045

CHAPTER 15—THE SOCIAL SCENE

The importance which the Government accords to the development of human resources and the well-being of the people is shown by the continued substantial allocation to social services during the 1981/82 period. The estimated total government expenditure on social services of K£250 million represents a 4 per cent increase over the 1980-81 expenditure. As detailed in Table 15.1, the estimated recurrent expenditure of K£218 million absorbed

Central Government Expenditure on Social Services, 1978/79-1981/82

Table 15.1 K£'000

	1978/79	1979/80	1980/81	1981/82*
Recurrent Expenditure—				
Ministry of Education	96,366.4	114,989.3	149,531.8	164,184.4
Ministry of Health	35,379.3	42,912.0	52,868.7	42,783.5
Ministry of Labour	5,138.1	2,928.5	3,567.4	3,839.5
Ministry of Culture and Social Services	3,443.8	4,753.5	6,703.4	7,422.0
Development Expenditure—				
Ministry of Education	5,098.7	11,032.1	10,616.6	14,785.2
Ministry of Health	7,734.3	10,709.0	12,831.4	10,901.2
Ministry of Labour	1,870.6	1,494.8	547.7	1,000.1
Ministry of Culture and Social Services	7,764.8	8,581.4	3,679.9	5,304.1
Total Expenditure	162,796.1	197,400.6	240,346.9	250,220.0

*Estimates excluding supplementaries.

87 per cent of the total, approximately the same proportion as during the previous four years. As shown in Table 15.2, an additional K£16 million was spent by local authorities on social services during 1981, an increase of 16 per cent over 1980. This is a similar gain to the 18 per cent increase between 1979 and 1980, and considerably higher than the 10 per cent increase between 1978 and 1979. This chapter describes developments in social services, except employment which is dealt with in Chapter 4.

Local Government Expenditure on Social Services, 1977-1981

Table 15.2 K£'000

	1977	1978	1979	1980*	1981*
Education	5,548	6,358	7,026	8,115	9,756
Health	3,323	3,726	4,182	4,815	5,598
Other Social Services	306	440	409	758	553
Total Expenditure	9,177	10,524	11,617	13,688	15,907

*Provisional.

Education

15.2. Education continued to account for a preponderant share of the total government expenditure on social services in 1981/82. On the whole, about 30 per cent of the national budget is allocated to the Ministries of Basic and Higher Education, and, if the expenditures on training by the other ministries are included, educational expenditure rises to about 41 per cent of the national budget. As shown in Table 15.3, 92 per cent of the total expendi-

Ministry of Education Expenditure, 1978/79-1981/82*

Table 15.3 K£'000

	1978/79	1979/80	1980/81	1981/82
Recurrent Expenditure—				
General Administration and Planning	4,428.7	5,076.9	6,582.4	6,139.8
Primary Education	59,740.1	74,664.1	96,717.5	107,181.6
Secondary Education	13,003 3	13,519.1	18,089.3	19,238.9
Technical Education	1,093 9	1,176.6	1,456.0	1,571.1
Teacher Training	3,239.6	3,783.0	4,844 4	5,285.5
Special Schools	392.1	473.0	585.5	666.0
Polytechnic Education	1,542.0	1,737.1	2,178.2	2,568.0
Higher Education**	11,587.8	13,164.4	16,747.8	18,896.8
Miscellaneous	1,339.1	1,395.0	2,333.7	2,636.6
Total	96,366.3	114,929.2	148,931.8	164,184.3
Development Expenditure—				
General Administration and Planning	128.3	208.5	625.8	1,273.9
Primary Education	129.1	370.8	946.4	2,455.8
Secondary Education	1,127.5	1,476.9	1,779.7	2,255.5
Technical Education	205.7	903.8	572.4	1,972.0
Teacher Training	548.9	271.6	446.5	2,027.0
Special Education	87.5	83.0	147.0	165.0
Polytechnic Education	2,278.8	6,458.2	4,932.0	1,543.1
Higher Education**	570.2	1,030.6	1,166.8	3,093.0
Miscellaneous	22.6	228.6	-	-
Total	5,098.6	11,032.0	10,616.6	14,785.3

*Estimates.

**Includes expenditure on University of Nairobi, Kenyatta University College and other institutions of higher education not specified above.

ture by the Ministries of Basic and Higher Education in 1981/82 was apportioned to recurrent expenditure which rose by about 10 per cent to K£164 million. Primary education received the largest allocation of K£107 million, accounting as in the past two years for 65 per cent of total recurrent expenditure. Recurrent expenditure on higher education has grown more rapidly than the other educational sectors; between 1980/81 and 1981/82, the rate of growth was 13 per cent.

15.3. The development of education and the expansion of educational opportunities continue to be the policy objectives of the Government. During 1981, the Government vigorously promoted the previously announced principle of community responsibility for the construction and maintenance of primary school buildings and teachers' houses to safeguard the free access of all children to primary schooling. As in past years, the recurrent costs of primary teachers' salaries and school equipment were provided by the Government.

15.4. The estimated enrolment in primary schools for 1981 was 4,134,345, a 5 per cent increase over the previous year's total of 3,926,629. A comparison of the total primary school enrolment in 1981 and in 1978, the year before the complete elimination of school and supplementary fees and the introduction of the school milk scheme, shows an increase of over 1,139,000 pupils, or 38 per cent. Table 15.4 details the enrolment in primary school by

Primary School Enrolment by Standard, 1977-1981

Table 15.4 *Numbers*

	1977	1978	1979	1980	1981*
Standard 1	602,076	599,057	977,368	906,118	848,977
Standard 2	489,222	479,337	579,620	722,286	722,750
Standard 3	512,296	455,206	507,973	547,790	627,994
Standard 4	510,825	466,977	483,188	496,025	518,906
Standard 5	338,509	433,711	450,940	456,650	583,107
Standard 6	281,386	302,093	417,468	446,353	463,223
Standard 7	236,925	258,610	281,689	351,407	369,388
Total	2,971,239	2,994,991	3,698,246	3,926,629	4,134,345

*Provisional

standard. Standard 1 enrolment fell from the 1979 level by 7 per cent in 1980 and then by 13 per cent in 1981. However, the estimated Standard 1 enrolment in 1981 was a 42 per cent increase over the enrolment in 1978. Enrol ments in all standards, except Standard 4, show comparable increases over the pre-1979 levels. Nationally, the gap between girls' and boys' enrolments in primary school grows smaller each year. The overall ratio of girls-to-boys is now higher than 90 per cent for all primary school standards except Standard 7. A larger proportion of Standard 7 repeaters are boys, which reduces the ratio of girls-to-boys in Standard 7 to about 75 per cent.

15.5. At the secondary level, the present National Development Plan (1979/83) provides for the opening of 20 Form I and 9 Form V maintained classes each year of the plan period. However, in 1980, 65 new Form I and 50 new Form V classes were opened. In 1981, the corresponding figures were 100 Form I and 17 Form V classes. As a result, there has been a need to recruit more secondary school teachers.

15.6. The total enrolment in secondary schools in 1981 is estimated to have reached 464,671. This represents an 11 per cent increase over the 419,201 recorded in 1980. Details of secondary school enrolments are given in Tables 15.5 and 15.6. The estimated 5 per cent increase in Form I enrolment in 1981 was lower than the increases in the other classes, but higher than the 3 per cent increase in Form I enrolment of the previous year. The estimated enrolment in unaided schools in 1981 shows a decline of 4 per cent from 1980, a continuation of the trend which began in 1978. The estimated enrolments in maintained and assisted schools in 1981 show increases of 20 per cent and 13 per cent respectively over 1980. It is estimated that in 1981, 49

Enrolment in Secondary Schools by Form, 1980-1981

Table 15.5 *Numbers*

	1980			1981*		
	Maintained	Assisted	Unaided	Maintained	Assisted	Unaided
Form I	45,245	27,851	39,089	52,795	31,414	33,429
Form II	42,582	25,522	32,650	49,772	28,852	27,619
Form III	42,391	25,231	32,449	49,350	28,471	34,071
Form IV	43,848	17,952	25,200	56,988	20,324	28,581
Form V	9,064	291	992	11,099	327	907
Form VI	7,989	194	661	9,809	283	630
Total	191,119	97,041	131,041	229,813	109,671	125,237
Boys	129,579	48,715	72,204	155,814	55,055	69,006
Girls	61,540	48,326	58,837	73,999	54,616	56,231

*Provisional.

Secondary Schools Enrolment in Maintained Schools by Province and Sex, 1979-81

Table 15.6 *Numbers*

	1979		1980		1981 *	
	Boys	Girls	Boys	Girls	Boys	Girls
Coast	6,083	2,970	7,645	3,877	9,591	5,048
Central	26,022	14,063	30,192	15,816	35,013	17,775
Eastern	16,814	7,862	19,955	9,723	23,666	12,014
Nairobi	9,741	5,675	12,958	7,631	17,221	10,250
North Eastern	603	189	777	246	986	309
Nyanza	17,108	6,554	21,251	8,062	26,381	9,906
Rift Valley	15,040	7,803	18,271	9,416	22,180	31,151
Western	16,513	6,226	18,530	6,769	20,776	7,346
Total	107,924	51,342	129,579	61,540	155,814	73,999

*Provisional.

per cent, 24 per cent and 27 per cent of the secondary students were enrolled in maintained, assisted and unaided schools respectively. The corresponding figures for 1980 are 46 per cent, 23 per cent and 31 per cent. Girls continued to be under-represented in maintained secondary schools. The estimated proportion of girls in maintained secondary schools in 1981 was 32 per cent, compared to their representation in assisted and unaided schools of 50 per cent and 45 per cent respectively. The proportion of girls in maintained secondary schools is higher than national average in Central, Nairobi and Coast provinces; considerably below the national average in Nyanza and Western provinces; and extremely low in North-Eastern Province.

15.7. As detailed in Table 15.7, the teaching force was estimated at 127,580 in 1981, an increase of 8 per cent over 1980. Eighty-seven per cent of this total were leaching in primary schools, giving an average teacher-to-pupil ratio of 1:37. About 66 per cent of the primary school teachers are trained. During the past three years, the proportion of untrained primary school teachers has increased from 26 per cent of the total in 1979, to 30 per cent and 34 per

Number of Teachers in Schools by Qualification and School Level, 1979-1981

Table 15.7 *Numbers*

	Primary			Secondary		
	1979	1980	1981**	1979	1980	1981**
Trained						
Graduate	109	145	98	3,953	4,277	4,628
Approved*	—	—	—	327	262	210
S1	2,619	2,642	2,843	2,947	3,069	3,196
PI	22,813	24,708	26,196	305	321	338
P2	25,631	26,697	27,278	—		—
P3	15,612	15,547	15,982	—	—	—
P4	1,483	1,449	1,102	—	—	—
Other	125	831	—	376	300	239
Total	68,392	72,029	73,499	7,908	8,229	8,611
Untrained						
Graduate	20	29	—	795	982	1,213
E.A.A.C.E.	519	578	773	4,616	4,897	5,195
E.A.C.E.	14,721	20,392	25,839	1,810	1,683	1,565
J.K.S.E.	6,507	7,663	8,940	—	—	—
C.P.E.	1,294	1,571	1,624	—	—	—
Other	1,374	227	236	175	122	85
Total	24,435	30,460	37,412	7,396	7,684	8,058
Total	92,827	102,489	110,911	15,304	15,913	16,669

*An approved teacher has completed the equivalent of a University Education
**Estimated.

cent in 1980 and 1981 respectively. At the secondary level, the average teacher-to-pupil ratio was estimated at 1:28 in 1981. Approximately half of the secondary school teachers are trained, a proportion which has remained constant for the past three years.

15.8. The enrolment in training colleges for primary school teachers increased from 12,126 in 1980 to 12,596 in 1981. The number of teacher training colleges was reduced to 16 by the upgrading of Siriba and Kagumo to secondary teacher training colleges. In view of the rapidly expanding primary school enrolments and the increasing proportion of untrained teachers in primary schools, the Ministry of Basic Education announced its intention to alter the teacher training curriculum to provide one year of residential instruction and one year of supervised practical teaching experience. This plan would increase considerably the number of students who could be admitted into the primary teacher training colleges each year. Details of the qualifications of the students currently enrolled in primary teacher training colleges are given in Table 15.8.

Student Enrolment in all Primary Teachers Colleges by Qualification, 1981

Table 15.8 *Numbers*

	1st Year		2nd Year		Total	
	Male	Female	Male	Female	Male	Female
E.A.A.C.E.	5	2	28	11	33	13
E.A.C.E.	3,297	2,293	3,381	2,293	6,678	4,586
K.J.S.E.	100	144	449	395	549	539
C.P.E.	23	76	44	55	67	131
Total	3,425	2,515	3,902	2,754	7,327	5,269

15.9. The take-over of two training colleges by the Ministry of Higher Education as specified in paragraph 15.8 will greatly increase the annual output of trained secondary school teachers. When fully operational the two colleges will have a total capacity of 1,080. The first intake of approximately 250 students per college was admitted in May 1982 for a two-year course leading to the Diploma in Education. The minimum requirements for admission are:

(i) A Kenya Advanced Certificate of Education or equivalent with one principal level pass and one subsidiary pass in the following subjects English, Geography, History, Kiswahili, Religious Education, Home Economics, French, Music, Fine Arts and Mathematics.

(ii) A Kenya Certificate of Education or equivalent with four credit passes, two of which must be in the subjects being studied in the diploma course.

UNIVERSITY OF NAIROBI STUDENTS BY FACULTY AND SEX, 1980/81-1981/82

Table 15.9 *Numbers*

	1980/1981			1981/1982*		
	Males	Females	Total	Males	Females	Total
Undergraduate Course —						
Agriculture**	286	77	363	306	74	380
Architecture and Design	191	30	221	208	25	233
Building Economics and Land Economics	115	25	140	126	28	154
Art	891	520	1,411	786	468	1,254
Commerce	379	160	539	364	169	533
Engineering	520	8	528	561	7	568
Law	149	85	234	154	107	261
Medicine	453	118	571	450	111	561
Science	817	96	913	756	113	869
Veterinary Medicine	288	37	325	281	30	311
Dental Surgery	45	37	82	38	37	75
Pharmacy	70	41	111	75	33	108
TOTAL	4,204	1,234	5,438	4,105	1,202	5,307
of which Kenya Students	4,160	1,218	5,378	4,039	1,177	5,216
Diploma Courses+ Total	28	44	72	31	44	75
of which Kenya Students	23	42	65	26	42	68
Postgraduate Courses— ++						
Agriculture	115	24	139	..	..	..
Architecture and Design	45	6	51	..	..	..
Art	119	51	170	..	..	..
Commerce	39	6	45	..	..	..
Education	111	58	169	..	..	..
Engineering	45	–	45	..	..	..
Law	18	5	23	..	..	..
Medicine	143	32	175	..	..	..
Science	193	26	219	..	..	.. ..
Veterinary Medicine	68	7	75	..	..	..
School of Journalism	9	–	9			
TOTAL	905	215	1,120	..	..	..
Of which Kenya Students	695	161	856	..	..	..
Total Enrolment—						
All Kenya students	4,878	1,421	6,299	..	..	..
Students from other countries	256	72	328	..	..	..
TOTAL	5,134	1,493	6,627	..	..	..

*Provisional.

**Includes courses on Food Science and Technology and Forestry.

+Diploma courses were offered in Advanced Nursing and Adult Studies.

++The 1981/82 Nominal Roll for post-graduate students was not ready at the time of writing this chapter.

15.10. The Ministry of Basic Education conducted a census of primary school teachers in the early part of 1982. The provisional results of this exercise revealed a total of 4,583 teachers who could not be accounted for at the time of the initial head-count. This figure dropped to about 4,000 after teachers who were left out of the exercise had time to clear themselves. Uncounted teachers include teachers on study leave, primary school teachers who are teaching in secondary schools, teachers who have been transferred from classroom teaching to administrative jobs, teachers who have been transferred from one duty station to another but are still drawing salary from the old duty station, and untrained teachers admitted to teacher training colleges.

15.11. The Harambee Institutes of Technology which have been established as a result of local initiative throughout the country had a combined enrolment of 2,094 students in 1981. Eleven of the 15 institutes which are registered with the Ministry of Higher Education were operational in 1981. Their respective enrolments were: Kaimosi Institute 250, Kiambu 395, Murang'a 192, RIAT 182, Gusii 66, Sangalo 75, Kirinyaga 150,Kimathi 132, WECO 84, Rift Valley 544 and Coast 24. The largest concentration of students was in Secretarial courses, Masonry and Accountancy, with smaller numbers in Mechanical Engineering, Textiles and Plumbing.

15.12. Undergraduate and diploma enrolment at the University of Nairobi was 5,382 in 1981/82, compared with 5,510 in 1980/81. This total does not include the post-gradute students, estimated at about 1,000. There has been a modest increase in enrolment in the faculties of Economics and Engineering, while enrolment in all other faculties declined. Women accounted for 23 per cent of the total enrolment in 1981/82 and students from other countries for 2 per cent.

15.13. Enrolment at Kenyatta University College which increased by 21 per cent between 1978/79 and 1980/81 only rose by 3 per cent between 1980/81 and 1981/82, with a total of 2,200. As shown in Table 15.10, the reduction in growth was due to the phasing-out of the course leading to the

Kenyatta University College students by Courses and Sex, 1980/81-1981/82

Table 15.10

	1980/81			1981/82		
	Males	Females	Total	Males	Females	Total
Diploma in Education	210	108	318	114	48	162
Bachelor of Education	1,040	780	1,820	1,133	905	2,038
Total	1,250	888	2,138	1,247	953	2,200

Diploma in Education. For the first time in 1981/82, no new Dip.Ed. students were admitted to KUC. Instead they were enrolled at Siriba and Kagunio teacher training colleges.

15.14. The Education Media Service produced radio programmes with supporting printed material to aid primary and secondary schools. During each term of the 1981 academic year, programmes were broadcast for primary schools pupils in various subjects. These included eight programmes per term for Kiswahili, English. History. Geography. Home Science and Music. Eight programmes per term also were broadcast for primary school teachers in Mathematics, English and Health. Termly programmes also were broadcast for secondary school students and teachers in English Literature, Creative Writing, English Usage, Kiswahili, History, Biology, Geography and CRE. A majority of the subjects were covered during a single term, but a few were given sixteen programmes for a two-term period. Secondary school teachers also had an eight-programme series in Oral Literature.

Health

15.15. The Ministry of Health initiated the diarrhoea control programme with the help of WHO in 1980. The main objective of the programme was to reduce mortality and morbidity especially among children under five years of age. A pilot study was started in 1981 at the Kenyatta National Hospital Paediatric Observation Ward to find out the symptomatology, aetiology and appropriate management of such cases using oral rehydration salts. Preliminary information seems to indicate that the use of oral rehydration salts had tremendously reduced the use of intravenous fluids in the observation ward. Similar studies are planned for a rural health unit before the programme is extended to the rest of the country.

15.16. Cholera is another major disease which was widespread in 1981. It affected all provinces except North-Eastern and Eastern Provinces. Several measures were taken by the Ministry which included—

(ii) active and passive surveillance;

(ii) treatment of cases and their close contacts;

(iii) improvement of environmental sanitation;

(iv) reinforcement of health education to the public directed towards personal and community hygiene, water and food hygiene.

These measures helped in eradicating the disease in most parts of the country. In some areas, however, the disease persisted to recur after a few months. The control and eradication of the disease demand inter-country programmes without which the disease seems certain to recur.

15.17. Rabies, a zoonotic disease, plagued several areas of the country, particularly Nyanza and Rift Valley provinces in 1981. It is felt that this was due mainly to the escape of infected wild dogs and hyenas from a neighouring country.

15.18. The year 1980 saw the first major outbreak of sleeping sickness since the 1960's. The cases appeared in Lambwe Valley of South Nyanza District. 1981 also saw the appearance of a few cases despite the efforts made early in the year which included aerial and ground spraying, surveillance and treatment of human and animal cases. These measures were intensified by the Ministry of Health, including bush clearing around the game park to reduce the tsetse fly population. No deaths, however, were caused by this disease during the year 1981.

15.19. Cases of Kala-azer continued to be detected in various parts of Kenya especially in Baringo, Turkana, West Pokot, Machakos and Kitui districts. Work on field surveillance was carried out in Tseikuru in northern Kitui and many cases were detected and treated This reduced the number of cases appearing in the area. No sandfly control measures were undertaken, but the biting habits of the sandfly are still being studied to help pinpoint the best times to attack this pest.

15.20. The number of health units increased from 1,581 in 1980 to 1,613 in 1981 as detailed in Table 15.11. The number of hospital beds and cots increased by about 2 per cent from 27,691 in 1980 to 28,108 in 1981 largely due to the opening of the extension of Kenyatta National Hospital. The

Health Institutions and Hospital Beds and Cots by Province, 1981

Table 15.11 *Numbers*

	Health Institutions				Hospital Beds and cots	
	Hospitals	Health Centres	Health Sub. Centres and Dispensaries	Total	No. of Beds and Cots	No. per 100,000 Population
Nairobi	17	8	62	87	6,253	720
Central	45	38	180	263	4,351	179
Coast	24	22	133	179	2,930	211
Eastern	27	27	193	247	3,827	136
North-Eastern	3	3	18	24	354	91
Nyanza	38	39	142	219	2,937	109
Rift Valley	52	86	363	501	4,987	147
Western	15	39	39	93	2,469	130
Total 1981	221	262	1,130	1,613	28,108	177
Total 1980	216	241	1,087	1,544	27,691	174

number of beds per 100,000 people decreased from 174 in 1980 to 170 in 1981. Nairobi registered a significant growth in bed-population ratio from 586 in 1980 to 720 in 1981 per 100,000 population. As the population continues to grow there is a continuing urgent need to expand health services to meet the increasing demand.

15.21. Since 1980. a programme of major extensions of all provincial hospitals, out-patient departments and service departments has continued. The work on the enlargement of Kenyatta National Hospital is now complete. Work on the proposed ten hospitals at Vihiga, Webuye, Marigat, Rumuruti, Bondo, Mwingi, Mkowe, Othaya, Msambweni and Nairobi is scheduled to start when requisite financial resources are secured.

15.22. The activities of the Environmental Health Programme of the Ministry of Health during the 1979.1983 Plan period have mainly been centered on environmental health improvement. The programmes to be undertaken within the plan period include development of the small-scale community water supply schemes, water quality monitoring and control programmes, and improved methods of waste disposal. Most of these activities will take place in the rural areas where the majority of the people live. The Government, in this respect, through the Ministry of Health, plans to construct 270 water supply projects over the next five years at an estimated cost of K£735,000. Self-help contributions are expected to supplement government effort in the form of cash, labour and/or materials.

15.23. In addition to the projects planned for development under the National Five Year Development Plan, the Ministry is also participating in the implementation of the activities of the declared International Drinking Water and Sanitation Decade (1981.90). Water quality monitoring and control activities will be incorporated in the programme. The objective of the Ministry is to ensure that the quality of the water provided to the community for drinking is safe. This is to be achieved through the incorporation of slow-sand filtration methods in some of the already completed and operating water supply plants. It is expected that 180 water-quality improvement projects will be undertaken during the plan period.

15.24. In 1979, the Five Year (1974.79) Maternal Child Health and Family Planning (MCH/FP) Programme was ended. It was also the year in which some results were first published from the Kenya Fertility Survey. Consequently, experience from this programme, together with new information from the Kenya Fertility Survey, suggests that a more itensified MCH/FP Programme must be launched in the next five years especially in the area of family planning. In the present development plan period, the high rate of population growth has been identified as one of the problems the Government will have to grapple with urgently. It is the Government's intention that future population programmes should lead to a reduction in the birth rate.

15.25. Arrangements are currently underway to integrate the MCH/FP Programme with Rural Health Services as from July 1982. The new programme will be known as the Integrated Rural Health and Family Planning Services. The Ministry of Health will incorporate the efforts of other related Government ministries and non-government organizations in the area of

MCH/FP Attendance by Services, 1979-1980

Table 15.12 *Numbers*

	Clinics*		First Visitors Only		
	Established	Reported	Child Welfare	Ante. Natal	Family Planning
1979	505	422	678,059	551,493	64,820
1980	558	450	422,128**	302,763**	64,560+

*All clinics give both full-time and part-time services especially in the field of family planning.

**Data for Nairobi is excluded.

+Poor reporting system especially in Central Province has slightly affected the figures.

MCH/FP with the view of generating a greater impact. Special attention will be given to the dissemination of MCH/FP information. Table 15.12 sets out data on MCH/FP attendance by services in 1979 and 1980.

15.26. As shown in Table 15.13 most types of medical personnel increased in 1981 and so did their proportion per 100.000 population. The only exception is for registered nurses whose ratio per 100,000 population slightly decreased.

Registered Medical Personnel, 1979-1981

Table 15.13 *Numbers*

	1979	1980	1981		In Training	
	Number	Number	Number	No. per 100,000 Popu-lation	1980/81	1981/82
Doctors	1,682	1,853	2,057	12.96	667	500
Dentists			197	1.24		100
Pharmacists			84	0.53	120	120
Pharmaceutical Technologists	272	299	326	2.05	103	120
Registered Nurses	6,542	6,692	6,892	43.44	608	640
Enrolled Nurses	8,317	8,722	9,190	57.92	1,911	1,138
Clinical Officers	1,534	1,681	1,723	10.86	314	330

15.27. The contributions to the National Hospital Insurance Fund rose by 31 per cent from K£3,003,355 in 1979/80 to K£3,563,306 in 1980/81. The benefits paid rose by K£129,241 over the same period, leaving the fund with a net balance of K£1,621,761 compared with K£1,191,051 reported in 1979/80. The details are set in Table 15.14.

National Hospital Insurance Fund, 1974/75-1980/81

Table 15.14 K£

	Receipts**	Benefits*	Contribution Net of Benefits
1974/75 Annual Average	1,420,338	1,311,911	108,427
1975/76 Annual Average	1,741,671	1,648,669	92,002
1976/77 Annual Average	1,629,411	1,984,411	-355,387
1977/78 Annual 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
1980/81 Annual Average	3,563,306	1,941,545	1,621,761

*Includes both compulsory and voluntary contributions and other receipts.

**Benefits include other payments, e.g. management expenses.

Other Social Services

15.28. *Youth Development.*—The number of village polytechnics receiving government grants rose to 253 in 1981 as compared to 244 in 1980. The increase occurred in Central (3), Rift Valley (5) and Nyanza (1) provinces. Total enrolment also rose to 15,497, an increase of 500 students over the previous year. The number of instructors rose from 1,335 in 1980 to 1,355 in 1981. A variety of courses are offered in the village polytechnics. These courses include Masonry, Carpentry, Tailoring/Dressmaking, Home Economics, Agriculture and Range Management. Table 15.15 gives the number of village polytechnics, enrolment and number of instructors since 1980. These village polytechnics are planned to generate a cadre of graduates who will be able to seek gainful employment in self and wage employment activities.

15.29. *National Social Security Fund.*—The number of employees and employers registered with the National Social Security Fund both fell by 3.0 per cent from 1,262,500 to 1,226,400 and 31,400 to 30,400, respectively between 1980 and 1981. A total of K£34.14 million was contributed in 1981 of which K£3.79 million was paid out to 112,400 members as benefits over the same period. Total investments made during the year amounted to K£69.24 million of which long-term investments amounted to K£43.74 million while short-term investment amounted to K£25.50 million. The details are set out in Table 15.16. The National Social Security Fund continues to contribute significantly to overall national development. The activities of the Fund are expected to increase further with the recovery of the economy.

Enrolment in Village Polytechnics, 1980-1981

Table 15.15 *Number*

	Year	Provinces								Total
		Coast	Eastern	North Eastern	Central	Nairobi	Rift Valley	Nyanza	Western	
Number of Village Polytechnics	1980	37	39	7	49	2	30	45	35	244
	1981	37	39	7	52	2	35	46	35	253
Total Enrolment	1980	2,268	2,715	196	3,405	285	1,833	2,427	1,868	14,997
	1981	2,268	2,715	196	3,705	285	1,933	2,527	1,868	15,497
Number of Instructors	1980	192	205	32	289	15	176	231	195	1,335
	1981	192	205	32	301	15	180	235	195	1,355

National Social Security Fund, 1977-1981

Table 15.16

	1977	1978	1979	1980	1981
Employers registered '000 ..	27.4	28.4	39.5	31.4	30.4
Employees registered '000	1,044.9	1,111.6	1,186.1	1,262.5	1,226.4
Members paid out '000	75.8	85.3	90.8	99.0	112.4
Annual contribution K£m	16 6	19.55	24.6	28.5	34.1
Annual benefits paid K£m	1.8	2.0	1.4	2.3	3.8
Increase in investments K£m	23.4	28.1	26.6	53.8	69.2

15.30. Vocational Rehabilitation.—In 1981, there were nine vocational rehabilitation centres in the country. The centres are located in Bura, Embu, Murang'a, Nyandarua, Nairobi, Kericho, Itandu, Kisii and Kakamega. These centre enrolled 432 students. There is also an Orthopaedic Workshop located in Nairobi. The centres train persons suffering from various disabilities for gainful employment and economic independence.

Number and Value of Self-Help Projects*, 1978-1980

Table 15.17

	1978		1979		1980	
	No. of Projects	Value K£'000	No. of Projects	Value K£'000	No. of Projects	Value K£'000
Education—						
Primary Schools	3,743	3,322	4,756	3,688	3,778	9,471
Secondary Schools	675	2,322	680	1,335	643	2,578
Teachers Houses	440	234	297	280	272	238
Nurseries	1,629	239	1,123	529	1,114	1,443
Sub-Total	6,487	6,117	6,856	5,832	5,807	13,730
Health	307	502	343	333	320	342
Social Welfare and Recreation.	1,386	1,388	1,849	2,254	1,682	2,003
Domestic	540	120	136	43	152	54
Water Supply	854	1,074	866	909	570	680
Transport and Communications	435	58	232	50	133	26
Agriculture	1,211	357	1,101	425	875	1,339
Miscellaneous	492	823	573	435	790	599
Sub-Total	5,225	4,322	5,100	4,449	4,522	5,043
Total	11,712	10,439	11,956	10,281	10,329	18,773

*Number of projects continued from the previous year plus the number started less numbers abandoned and completed.

15.31. *Community Development*—The, community development programmes have continued to provide the Government with supplementary support in implementing development projects. The projects involved are both social and economic in character. A total of 9,929 projects were continued from 1979 while 3,212 new projects were initiated in 1980. Of these projects, 351 were abandoned while 2,461 were completed during 1980. A total of 10,329 projects was carried forward to 1981. The total value of all projects (both new and old) carried out in 1980 amounted to K£18.77 million. As in 1979, educational projects dominated self-help activities—constituting 65.5 per cent of overall contributions. Table 15.17 shows the number of projects in progress and their value as at the end of 1980.

15.32. *Adult Education*.—By September 1981, there were 11,766 adult education centres with a total enrolment of 382,351 adult learners. Government institutions had a total of 231,443 learners. The number of teachers in self-help and private institutions was 5,315 (mostly volunteers). A total of 239 Adult Education Officers and Assistant Adult Education Officers was also deployed in this important national exercise. In 1981, 839 candidates registered for C.P.E. examination of whom 540 passed. During the same period 186 candidates registered for KJSE examination and 21 passed.

15.33. *National Youth Service*.—The total strength of the National Youth Service in 1981 was 4,560 servicemen and servicewomen of whom 3,894 were men and 666 were women. A total of 1,584 servicemen and servicewomen were recruited in 1981, of whom 1,278 were men and 306 were women. There were 753 graduates during the same year. The Service earned from farm produce a total of K£57,039 which was a big drop from the revenue earned in 1980 (K£364,000). The Service also engages in other development activities. The activities include road construction, irrigation projects, bush clearing and other construction.

15.34. *Women's Bureau Activities*.—The Unit was set up in the Ministry of Culture and Social Services in 1975 to monitor and assist women's development activities both in rural and urban areas. In 1981, projects assisted by the Women's Bureau included agricultural projects, handicrafts, small-scale businesses, home improvements, water projects, and other social activities. In 1981, a total of K£400,000 was allocated to the Bureau by the Government and other donors. A total of K£274,000 of this amount was spent as indicated in Table 15.18. Agricultural projects accounted for 47.5 per cent of the funds expended by the Bureau, while small-scale business secured 30 per cent. From March 1982, the activities of the Bureau will be limited to Nairobi Municipality only. The other areas will henceforth be catered for by the Maendeleo ya Wanawake organization.

PROJECTS ASSISTED BY THE WOMENS' BUREAU BY PROVINCE, 1981

Table 15.18

KSh.'000

	PROVINCES								Total
	Coast	Eastern	North Eastern	Central	Nairobi	Rift Valley	Nyanza	Western	
Agricultural Projects	322.3	513.0	20.0	293.0	37.5	616.0	448.5	379.0	2,629.3
Handicrafts	165.0	82.0	88.0	17.5	57.0	140.5	89.5	40.0	679.5
Small-scale Businesses	190.5	206.0	28.0	250.0	62.5	833.5	62.5	40.0	1,673.0
Home Improvements	20.0	41.0		50.0		46.0	7.5		164.5
Water Projects	15.0								15.0
Social Activities	140.0	48.0		80.0		108.5			376.5
TOTAL	852.8	890.0	136.0	690.5	157.0	1,744.5	608.0	459.0	5,537.8

Other Social Indicators

15.35. *Population Growth*.—The population census conducted in August, 1979 enumerated a total population of 15,327,061 persons. This total constituted an increase of 40 per cent over that enumerated in 1969. A total of 7,410,017 persons constituting 48.3 per cent were those born since independence in 1963. The above total population gave an intercensal annual rate of growth of 3.4 per cent during the decade 1969/79. This intercensal average of growth is lower than the rate at which Kenya's population has been growing in recent years since it is based on population totals from the 1969 and 1979 censuses. The effect of differential coverage in the two censuses has not been accounted for. During the intercensal decade, mortality significantly declined and fertility remained more or less constant. An analysis of the data on fertility and mortality secured in the 1979 population census has been effected. A crude birth rate of 52 per thousand and a crude death rate of 14 per thousand have been estimated. The difference between the two rates is therefore 38 per thousand or 3.8 per cent. Thus 3.8 per cent is the estimate of the rate of growth of Kenya's population in 1979 itself. At this level of fertility and mortality, Kenya's population is projected to be 17.2 million in mid-1982 and 24.6 million in 1990. The two rates imply that during 1979 alone, nearly 580,000 more people were added to Kenya's population. This increase is expected to reach nearly a million by 1990 should fertility and mortality levels remain unchanged. More development effort in terms of investment in basic needs and employment-generating activities will have to be enhanced to cater for this rapid increase in population.

15.36. *Rural Literacy Survey 1980/81*.—In an attempt to establish the level of literacy and appraise the current effort to eradicate illiteracy, a national rural literacy survey was conducted in 1980/81. The survey was undertaken within the on-going National Sample Survey and Evaluation Programme (NASSEP) currently being executed by the Central Bureau of Statistics. The survey deployed both subjective declaration and objective tests to determine the ability to read and write in mother tongue, Swahili and English languages of all persons aged 12 years and above. The preliminary findings indicate that approximately 48 per cent of the target population was literate in any of the three languages including 61 per cent of males and 38 per cent of females. At the provincial level, the percentages varied from 65 per cent of the total in Central Province to 39 per cent in Nyanza Province as shown in Table 15.19. Literacy rates are highest in all mother languages. The comparison of the literacy rates in Swahili and English as set out in Table 15.20 indicates that 39 per cent and 32 per cent of the population could read in Swahili and English, respectively. A further analysis of the data by age cohorts in terms of the ability to read in any language reflects the impact of the current education system. The overall figures range from 78 per cent for age group 15.17 to 12 per cent for age group 70 and over as detailed in Table 15.21. When measured by suceeding five year age groups, there is an average

increase of about 6 per cent every 5 years. Assuming that the number of illiterate old people will continue to decline and that the number of literate young will gradually increase, the level of literacy is estimated to increase to about 80 per cent in the year 2000. However, the implications of the present

Percentage Distribution of Population by Actual Ability to Read in any Language, by Sex, District and Province, 1980/81

Table 15.19

	Male	Female	Total
Coast	58.4	34.9	44.7
Kilifi/Lamu/Tana River	47.2	20.7	31.7
Kwale	65.2	51.4	57.5
Taita Taveta	79.7	50.8	68.0
Eastern	61.9	38.6	48.3
Embu	64.7	40.8	50.5
Kitui	55.1	29.3	39.0
Machakos	68.3	42.1	54.1
Meru	54.5	37.7	44.9
Central	77.3	56.7	65.4
Kiambu	83.4	57.8	68.6
Kirinyaga	76.2	49.2	61.3
Muranga	74.4	56.3	64.1
Nyandarua	75.7	52.5	62.1
Nyeri	74.3	61.5	66.7
Rift Valley	53.2	30.1	40.9
Kajiado/Narok	28.8	16.1	21.7
Kericho	59.4	28.8	44.5
Nakuru	65.7	37.8	49.5
Nandi	52.0	38.3	44.9
Baringo/Laikipia	45.1	28.6	35.9
Trans Nzoia	63.2	38.0	50.1
Uasin Gishu	56.8	41.9	48.7
West Pokot/Elgeyo Marakwet	48.0	33.8	40.8
Nyanza	54.2	28.7	39.1
Kisii	51.5	28.7	39.0
Kisumu	57.1	33.8	43.0
Siaya	63.0	29.9	41.5
South Nyanza	51.3	25.5	35.7
Western	61.8	38.0	48.2
Bungoma	65.5	35.8	48.3
Busia	57.9	26.5	40.6
Kakamega	61.7	42.0	50.3
Kenya	61.1	38.4	48.1

PERCENTAGE DISTRIBUTION OF POPULATION BY ACTUAL ABILITY TO READ IN SWAHILI AND ENGLISH BY SEX, DISTRICT AND PROVINCE, 1980/81

Table 15.20

	SWAHILI			ENGLISH		
	Male	Female	Total	Male	Female	Total
COAST	47.6	18.3	30.5	32.0	13.2	21.1
Kilifi/Lamu/ Tana River	42.3	10.7	23.8	28.8	7.2	16.2
Kwale	40.3	12.3	24.6	25.6	8.2	15 9
Taita Taveta	74.3	45.1	56.5	51.1	34.9	41.2
EASTERN	54.1	31.9	41.2	41.5	27.9	33.6
Embu	55.1	32.9	41.9	44.9	28.7	35.2
Kitui	49.3	24.0	33.4	37.9	21.1	27.4
Machakos	60.4	37.0	47.2	45.0	30.1	36.7
Meru	46.2	29.6	36.6	36.5	29.3	32.4
CENTRAL	68.4	43.9	54.3	60.2	41.6	49.5
Kiambu	73.1	43.4	56.0	66.8	44.1	53.7
Kirinyaga	661	39.2	51.2	59.6	36.8	47.0
Muranga	67.9	43.5	53.9	56.9	39.9	47.2
Nyandarua	64.1	40.7	50.4	54.6	34.1	42.6
Nyeri	65.7	48.7	55.6	58.1	45.9	50.8
RIFT VALLEY	43.6	23.7	33.2	34.5	19.9	26.7
Kajiado/Narok	24.0	10.1	16.2	19.1	11.5	14.9
Kericho	40.6	14.7	28.0	35.6	17.8	27.0
Nakuru	57.4	30.5	41.8	42.6	22.5	30.9
Nandi	47.3	33.5	40.0	33.6	26.0	29.2
Baringo/Laiki. pia	39.3	21.7	29.4	29.9	17.5	22.9
Trans Nzoia ..	56.3	29.0	42.1	41.1	22.4	32.9
Uasin Gishu ..	49.0	36.1	41.9	39.9	22.5	32.5
West Pokot/EI. geyo Marakwet	41.9	23.9	32.7	24.0	18.0	25.0
NYANZA	43.0	19 4	29.0	36.3	17.5	25.1
Kisii	42.1	18.8	29.3	36.1	17.3	25.8
Kisumu	50.5	26.2	35.9	44.4	22.7	31.4
Siaya	51.6	21.4	32.0	39.7	17.8	25.5
South Nyanza	35.8	15.5	23.6	30.7	15.0	21.5
WESTERN	52.8	29.7	39.3	41.1	24.2	31.4
Bungoma	58.8	27.3	40.6	46.0	22.9	32.6
Busia	49.0	18 8	32.4	38.5	16.9	26.2
Kakamega	51 8	32.8	40.8	40.2	26.9	32.5
KENYA	51.6	28.6	38.5	41.5	25.1	32.1

Percentage Distribution of Population by Actual Ability to read in Any Language by Age Group and Sex, 1980/81

Table 15.21

	Male	Female	Total
12-14	74.0	70.0	72.0
15-17	83.2	73.8	78.3
18-19	86 0	60.2	71 0
20-24	74.1	52.6	60.0
25-29	66.0	42.5	51.3
30-34	69 5	24.4	49.0
35-39	60.7	23.0	37.4
40-44	53 0	19.5	32.9
45-49	43.4	15.1	26.6
50-54	39.2	9.9	22.3
55-59	37.9	6.7	21.5
60-69	27.5	5.8	16.1
70 and over	19 5	3.5	12.4
Total	61.0	38.4	48.1

situation and the possible changes up to 1984 are that there will still be about half of all persons aged 18 and over who will be illiterate in that year. This has a particular relevance for the conduct of the next country-wide elections for the National Assembly. In certain provinces the proportion of illiterates will be higher than 50 per cent.

Child Nutrition

15.37. Two nutrition surveys have been carried out in 1977 and 1978/79 to ascertain the nutrition status of children aged 1 year to 4 years in 1977 and 1 year to 5 years in 1978/79. The 1977 survey was, however, a positive move in an attempt to examine and question hypotheses which had often been propounded in the absence of statistical evidence. Both surveys solicited for data on anthropometric measurements—weight and height—for all eligible children. In addition, data on the age of the children, food consumption and morbidity were also collected.

15.38. Table 15.22 shows the per cent of children below 90th centile based on the "Harvard Standard". The 1978/79 survey indicated a small overall improvement in the nutrition status. This small improvement can possibly be attributed to both seasonality and increase in the sample size. It is further noticeable that the large differences between provinces seen in the 1977 survey were less marked in the 1978/79 survey.

15.39. A comparison of urban and rural children during the 1978/79 survey revealed that the proportion of children with a low height for age (stunted) was greatest in the rural parts of Coast and Nyanza provinces and

Comparison of Results of First and Second Kenya Nutrition Surveys: Percent of Children Below 90th Centile

Table 15.22

	Height for Age "Stunting"		Weight for Height "Wasting"	
	1977	1979	1977	1979
Coast	19.0	37.0	30.0	26.3
Eastern	38.0	23.8	32.0	30.6
Central	31.0	22.0	33.0	20.3
Rift Valley	29.0	24.7	27.1	31.1
Nyanza	25.5	32.0	27.0	26.1
Western	21.0	26.4	29.0	22.6
Total	26.7	26.7	28.5	26.3

lowest in the bigger towns of Nairobi and Mombasa. The proportion of children with low weight for height (wasted) was highest in the rural and urban areas of Coast Province and lowest in rural areas of Central and Western provinces. These results are shown in Table 15.23. Plans are currently underway to carry out a detailed survey in June/August 1982, to facilitate the launching of a nutrition surveillance programme in the country.

Nutritional Status by Province, Rural—Urban—Child Nutrition Survey, 1978/79

Table 15.23

	Normal	Stunted Only H/A*	Wasted Only W/H**	Wasted and Stunted W/H H/A
Rural				
Coast	46.7	43.9	7.0	2.4
Eastern	57.8	36.0	4.7	1.5
Central	65.4	32.6	2.0	0.0
Rift Valley	61.1	33.0	4.2	1.7
Nyanza	56.1	38.2	3.6	2.1
Western	62.8	34.2	1.8	1.1
Urban				
Coast	64.8	25.8	6.4	3.0
Nairobi	74.3	20.4	5.0	0.3
Other	67.6	26.6	3.2	2.6

*Height for Age.
**Weight for Height.

15.40. Data on nutrition status of children provide an indication of relative deprivation of a household or community. The data are also a valuable adjunct to the level of farm production and income showing how effective these are in meeting household basic needs. Increasing emphasis is being given by the Government on the need to consider nutritional objectives in overall economic development.

Urban Housing

15.41. The 1981 Rent Survey showed that the 16 major urban centres in the country had 360,000 privately-owned and 80,900 publicly-owned dwelling units. Corresponding units for 1980 were 352,600 and 69,600 respectively. Dwelling units range from one-roomed units to much larger self-contained flats, maisonettes and houses. Table 15.24 gives some grossed-up results from the sample surveys for 1980 and 1981. In 1981, 66.9 per cent of privately-owned dwelling units were in urban areas and 33.1 per cent peri-urban

Urban and Peri-urban Dwellings, 1980-1981*

Table 15.24

		Estimated Number of Dwelling Units**	Average Monthly Rent per Unit KSh.	Total Rent Per Annum K£ million
1980	Privately Owned—			
	Urban Areas	238,389	628	89.31
	Peri-urban Areas	114,203	94	7.00
	Total	352,592	455	96.31
	Publicly Owned—			
	Urban Areas	69,595	352	15.76
	Total Private and Public	422,187	436	112.07
	Nairobi	161,311	794	76.14
	Mombasa	136,004	250	20.38
	Kisumu	21,915	169	2.22
	Nakuru	21,920	200	2.64
	All Other Areas	81,037	181	10.69
	Total	422,187	436	112.07
1981	Privately Owned—			
	Urban Areas	240,689	807	116.60
	Peri-urban Areas	119,305	105	7.52
	Total	359,994	575	124.12
	Publicly Owned—			
	Urban Areas	80,885	412	20.02
	Total Private and Public	440,879	545	144.14
	Nairobi	180,063	939	101.47
	Mombasa	120,627	352	25.49
	Kisumu	26,253	198	3.12
	Nakuru	22,945	255	3.51
	All Other Areas	90,991	193	10.55
	Total	440,879	545	144.14

*Provisional results.

**Estimated using valuation rolls.

areas. Urban private dwelling units are permanent units built of stone or with cement block-walls having tiled or corrugated iron roofs. Peri-urban private dwellings units (shanty-type) are units constructed with poor building materials, often lacking sanitation and other amenities like piped water and electricity.

15.42. Based on reported occupancy rates, the survey in 1981 covered about three-quarters of the estimated population in the 16 urban centres. According to the reported number of occupants, privately-owned units were accommodating 1,243,572 occupants in 1981 of which 34.6 per cent were living in shanty. type units. Occupants reported an average of 3.38 and 3.61 occupants per unit in the urban and peri-urban dwellings respectively in 1981, whilst in 1980, the corresponding averages were 3.83 and 3.57. The publicly-owned dwelling units formed 18.4 per cent of the total stocks of dwellings as compared to 16.5 per cent in 1980. Such publicly-owned dwellings had more occupants per unit than private dwellings, and the average number of occupants per unit for both 1980 and 1981 was 4.12. The surveys have shown that the average number of occupants in all units surveyed was 3.61 in 1980 and 3.58 in 1981. Since the grossed-up estimated number of occupants was less than the actual population size, both the average number of occupants per unit and the number of dwelling units may be under-stated. In any event the rent survey would exclude persons in institutions such as hospitals, boarding schools and prisons as well as those in hotels, boarding houses, etc.

15.43. The average monthly rent for privately-owned urban units increased by 20.5 per cent from KSh. 628 in 1980 to KSh. 807 in 1981, whilst for shanty-type units, it increased by 11.7 per cent from KSh. 94 to KSh. 105. For publicly-owned units, the increase was 17.1 per cent from KSh. 352 to KSh. 412 per month. The lower rents for publicly-owned dwelling units than for private housing units in urban areas reflects an element of subsidy and also an element of age since many of these units were built many years ago. However, the increase in the average rent in 1981 at 17.1 per cent for publicly-owned units is high.

15.44. Table 15.25 sets out average monthly rent by size of dwelling unit in three of the major urban centres in the country. In Nairobi, the monthly rent charged for a one-roomed dwelling unit increased by 19.6 per cent

AVERAGE MONTHLY RENT BY SIZE OF DWELLING UNIT, 1980-1981

Table 15.25 *KSh. / Month*

	One Roomed Dwelling Unit**		Four or More Roomed Dwelling Unit	
	1980	1981*	1980	1981*
Urban Centre				
Nairobi	112	134	3,670	3,895
Mombasa	83	121	1,149	1,245
Nakuru	69	130	1,306	1,433

*Provisional results.
**One-roomed dwellings shown as peri-urban.

Other Social Indicators

15.35. *Population Growth*.—The population census conducted in August, 1979 enumerated a total population of 15,327,061 persons. This total constituted an increase of 40 per cent over that enumerated in 1969. A total of 7,410,017 persons constituting 48.3 per cent were those born since independence in 1963. The above total population gave an intercensal annual rate of growth of 3.4 per cent during the decade 1969/79. This intercensal average of growth is lower than the rate at which Kenya's population has been growing in recent years since it is based on population totals from the 1969 and 1979 censuses. The effect of differential coverage in the two censuses has not been accounted for. During the intercensal decade, mortality significantly declined and fertility remained more or less constant. An analysis of the data on fertility and mortality secured in the 1979 population census has been effected. A crude birth rate of 52 per thousand and a crude death rate of 14 per thousand have been estimated. The difference between the two rates is therefore 38 per thousand or 3.8 per cent. Thus 3.8 per cent is the estimate of the rate of growth of Kenya's population in 1979 itself. At this level of fertility and mortality, Kenya's population is projected to be 17.2 million in mid-1982 and 24.6 million in 1990. The two rates imply that during 1979 alone, nearly 580,000 more people were added to Kenya's population. This increase is expected to reach nearly a million by 1990 should fertility and mortality levels remain unchanged. More development effort in terms of investment in basic needs and employment-generating activities will have to be enhanced to cater for this rapid increase in population.

15.36. *Rural Literacy Survey 1980/81*.—In an attempt to establish the level of literacy and appraise the current effort to eradicate illiteracy, a national rural literacy survey was conducted in 1980/81. The survey was undertaken within the on-going National Sample Survey and Evaluation Programme (NASSEP) currently being executed by the Central Bureau of Statistics. The survey deployed both subjective declaration and objective tests to determine the ability to read and write in mother tongue, Swahili and English languages of all persons aged 12 years and above. The preliminary findings indicate that approximately 48 per cent of the target population was literate in any of the three languages including 61 per cent of males and 38 per cent of females. At the provincial level, the percentages varied from 65 per cent of the total in Central Province to 39 per cent in Nyanza Province as shown in Table 15.19. Literacy rates are highest in all mother languages. The comparison of the literacy rates in Swahili and English as set out in Table 15.20 indicates that 39 per cent and 32 per cent of the population could read in Swahili and English, respectively. A further analysis of the data by age cohorts in terms of the ability to read in any language reflects the impact of the current education system. The overall figures range from 78 per cent for age group 15.17 to 12 per cent for age group 70 and over as detailed in Table 15.21. When measured by suceeding five year age groups, there is an average