

DEVELOPMENT PLAN 1979-1983





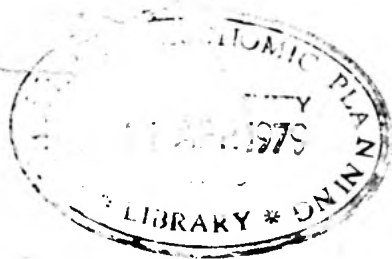
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# **DEVELOPMENT PLAN**

*For the Period 1979 to 1983*

## **PART I**



**This Plan—Kenya's fourth—covers the projected growth of the economy over the five calendar years 1979-83 and, more specifically, the investment programme of the Government in the five financial years 1978/79 to 1982/83.**

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## INTRODUCTION

by

**HIS EXCELLENCY THE PRESIDENT,  
HON. DANIEL ARAP MOI**

All Kenyans should view our fifteen years of Uhuru with a fair amount of satisfaction. Our achievements in economic and social development, and in political stability and nation building in general, have been impressive. The concerted efforts that Kenyans have made since Independence have resulted in the people having higher incomes and being better fed, clothed and housed. We now have, in all districts, more public services including education, health and water supply than ever before. However, this past progress, achieved under the dynamic and dedicated leadership of our late Father of the Nation and First President of the Republic, Mzee Jomo Kenyatta, must not make us complacent. Our incomes are still very low and the majority of our people are still very poor, while the services available to them are below desirable levels. In addition we still have a long way to go before our economy is effectively diversified. This Plan, the fourth in the series of five year national development plans since Independence, provides our nation with a comprehensive programme that will enable us to make further progress on our development course.

In our further efforts to promote our development, the basic philosophy and objectives that have guided us in the past will be maintained. Among these are individual freedom, the growth of the economy and equitable distribution of increased income and wealth among the people. Our concern for improvement in the well-being of the people is reflected in the theme "alleviation of poverty" which has been given a dominant position in the formulation of strategies and policies contained in this Plan. This broad objective will be pursued in a vigorous and comprehensive manner. Indeed, alleviation of poverty is not only an objective in our development efforts: it is also a major instrument for ensuring that our development is rapid, stable and sustainable.

We will face many challenges as we strive for continued growth and a broadened participation in the development efforts and share-out of benefits accruing from that development. These challenges call for dedicated effort by all Kenyans. I have no doubt that given that effort, Kenya will emerge at the end of this Plan period with an economy that is larger and stronger and which will provide for the well-being of her citizens more fully. I call upon all Kenyans to work for the implementation of this Plan in the spirit of our national motto *HARAMBEE*.



*President.*



## PREFACE

by

### THE MINISTER FOR ECONOMIC PLANNING AND COMMUNITY AFFAIRS

1. This Plan outlines the objectives, policies and programmes for the nation's development efforts in the next five years. Improvements of the well-being of the people remain our dominant aim. The Plan focuses sharper attention on measures to deal with the alleviation of poverty through emphasis on continued growth, raising household incomes by creating more income-earning opportunities, increasing the output and quality of services provided by Government, and improving income distribution throughout the nation.

2. The target set for overall annual growth of the economy is 6.3 per cent. This is comparable to the rates of growth attained in the years since Independence. Considering the constraints that we face, it is an ambitious goal. The most severe constraints will be our balance of payments. This Plan is launched at a time of uncertainty on the international economic scene. The prices of our major export items, coffee and tea, have fallen from their 1977 levels. On the other hand, we anticipate continued increases in the prices of capital, intermediate goods and oil. A higher rate of growth than the one we have forecast would not be feasible in the light of the realities of our balance of payments situation.

3. Two other constraints, which are closely related, are the gap between Government revenue and expenditure, and the gap between the savings that are available within the country and the amount of investment required to meet the goals we have set. Government spending has risen rapidly in recent years, largely as a result of expanding essential public services such as health, education and security. Revenues have grown less rapidly, resulting in deficits between expenditure and income. Continued deficits are forecast during the Plan period. To help close this gap, the Plan proposes actions on several fronts. Firstly, the rate of growth of Government expenditure is reduced somewhat from previous levels. Secondly, measures are outlined for the more efficient use of scarce resources, both physical and financial. Finally, improvements are planned for the nation's tax structure, in order to reduce tax evasion and to ensure that Government revenue rises at least in proportion to increases in national income. In view of financial constraints, Kenya will continue to seek foreign private investment for selected sectors, as well as grants and loans from international donors. These will be used to augment our domestic resources, because, in the final analysis, our development will depend on our own efforts.

4. The progress we have made in the past has pre-empted the easy forms of development in such sectors as agriculture and industry. We must now address ourselves to more difficult problems. Thus, in agriculture, development of arid and semi-arid areas is accorded a high priority, and will present a range of new questions to which answers must be found. There will also be an emphasis on the promotion of agricultural exports.

✓ 5. In manufacturing, our emphasis will shift from producing goods for our domestic use to the more difficult challenge of increasing our exports in highly competitive world markets. We will therefore develop new industries that are mainly reliant on domestic raw materials and which can sell part of their output in external markets. The dispersion of industrial activity throughout the country is another important objective, and appropriate incentives have been formulated for that purpose.

6. The performance of the economy depends heavily on the efficiency of the country's economic institutions. For the private sector this entails the promotion of competition and reduction of restrictions and bottlenecks to fuller utilization of capacity. For the public sector, emphasis has been placed on making marketing institutions, local authorities and operating ministries more efficient. There is a need for greater returns to producers, more cost-effective services and improved management and implementation.

7. This Fourth National Development Plan is published in two parts. Part I describes our goals, and the strategies, policies, and programmes we will pursue over the next five years. Part II provides extensive financial detail on the Ministerial programmes and projects. In addition, there is a popular version of the Plan which offers a summary in simplified form of the major policies and programmes. It is our hope that the Fourth Plan will be widely read and discussed. Its success will depend on hard work and co-operative effort between Government, the private sector and all the citizens of the nation.



## CHAPTER 1—PROGRESS, PROBLEMS AND STRATEGY

1.1. Since Independence in 1963, Kenya has made substantial progress towards the long term objectives adopted by KANU, the Government, and the nation. These objectives have been clearly stated in the Constitution, the several KANU Manifestoes, numerous addresses by the late President, Mzee Jomo Kenyatta, and H.E. the President, Hon. Daniel arap Moi, the three preceding development plans, and Sessional Paper No. 10 of 1965 entitled "African Socialism and Its Application to Planning in Kenya". They include political equality, religious freedom, social justice, freedom from want, ignorance and disease, human dignity including freedom of conscience, equal opportunity for all citizens, and high and growing *per capita* income equitably distributed.

1.2. In order to marshal the nation's resources in the pursuit of these objectives, the Government has adopted four basic principles which define the nature of the development process in Kenya. They are:—

- (i) *Widespread Participation*.—All Kenyans are expected to participate in the development process. Creating and dispersing opportunities for such participation is a major aim of development strategy.
- (ii) *Diversity of Organizational Forms and Incentives*.—A variety of forms of ownership and modes of operation is essential to the promotion of participation and efficiency. The conduct of economic and social affairs may be organized by individuals, companies, co-operatives, statutory boards and corporations, voluntary agencies, and the state. The critical question is the effectiveness of the organizational form in advancing the economic and social objectives of development.
- (iii) *Government Participation*.—The Government will play a decisive and leading role in initiating and directing development. It will also participate directly in the promotion and profits of strategic economic activities, such as the production and distribution of critical farm inputs, leading export industries, selected import substitution efforts, and important agricultural processing developments, provided that highest standards of efficiency are maintained.
- (iv) *Mutual Social Responsibility*.—Deriving from the African family tradition, a sense of mutual social responsibility will be actively promoted among all economic agencies. Competition and diffusion of ownership will be encouraged in order to limit profits, exploitation and concentration of economic power, and to enhance efficiency. Community initiatives, as exemplified by the *Harambee* movement, are

African  
Socialism

important expressions of mutual social responsibility. When private interests tend to override social concerns, the Government will regulate and control economic activities as need be.

These principles will continue to guide the Government in defining development strategy and in shaping the development process.

*1.3. In this Plan, the efforts of the Government to deal with emerging problems and to take advantage of new opportunities will be organized around the theme of the alleviation of poverty throughout the nation. Poverty persists despite the progress made since Independence. It is therefore appropriate that during this plan period the energies of Kenya's mixed economic system will be focused sharply on the relief of poverty for the majority of the people. In order to do so development must be both diversified and dispersed.*

### **Progress and Problems**

1.4. Progress towards the nation's long term objectives must take the form of improvement in the welfare of the individual and the family. In the final analysis, this is the real test of the effectiveness of the nation's development strategy and policies. There is ample evidence of the substantial progress that has been achieved since Independence, and some of it will be indicated in this section. But progress, by overcoming problems, has two effects which must be considered in reformulating the nation's development strategy for the new planning period. First, progress itself may create problems which did not exist before or aggravate problems which were formerly of lesser significance. The impact of modernization on cultural and family traditions is but one example. Second, progress in the solution of some problems may reveal others which must now be accorded a higher priority. Thus success in developing urban areas raises the priority which must be given to developing rural areas. In these ways, progress forces change in the nation's development strategy. Successful as Kenya's development strategy has been in the past, it must be modified as new needs and problems are identified. The nature of the problems now emerging largely as a result of progress so far achieved is discussed in this section. The development strategy adopted in the Plan is summarized later in this chapter. It represents Government's response to these problems.

### **Production, Income and Population**

1.5. One indication of progress made since Independence is the success that has been achieved in expanding the nation's output of goods and services. The annual rates of change in total output since 1964 are depicted in Chart 1.1. The average annual rate of growth between 1964 and 1977 was 5.8 per cent. This exceeds the growth rates achieved over the same period by most other countries throughout the world and is one of the best records attained in Africa. There have been, however, substantial variations around that average. Hence while growth averaged 6.5 per cent between 1964 and 1972, it averaged only 4.7 per cent between 1972 and 1977.



1.6. The disappointing record in recent years reflects the disorder which has characterized international economic relations since 1973. Since that time, the international economic order has undergone a series of crises reflecting sharp changes in relative prices, recessions coupled with inflation abroad, and the failure of the big nations to take essential steps to put their balances of payments in order. Kenya, as a small country in international trade, has little influence over these external events. Yet, because one-third of Kenya's domestic production is sold abroad, these events have serious effects on Kenya's development options and achievements. The need to impose restraints on the economy in 1974 and 1975 in order to correct a sizeable imbalance in the balance of payments necessarily reduced growth which was already adversely affected by bad weather. Nevertheless, the overall record is one of substantial achievement.

1.7. The increases in production achieved since Independence have been used in two ways. The largest share has been used to provide the goods and services needed by additions to population. The share used for that purpose is indicated in Chart 1.1 by the line representing annual rates of population growth. The remaining increases in production have been used for enhancing the quality of life. In the chart, this is indicated by annual rates of change in production *per capita*. As the rate of population growth has been increasing since Independence, more output growth has been used for additions to population and less has been available for improving the quality of life. Efforts to improve family welfare have increasingly been diverted to the support of larger numbers.

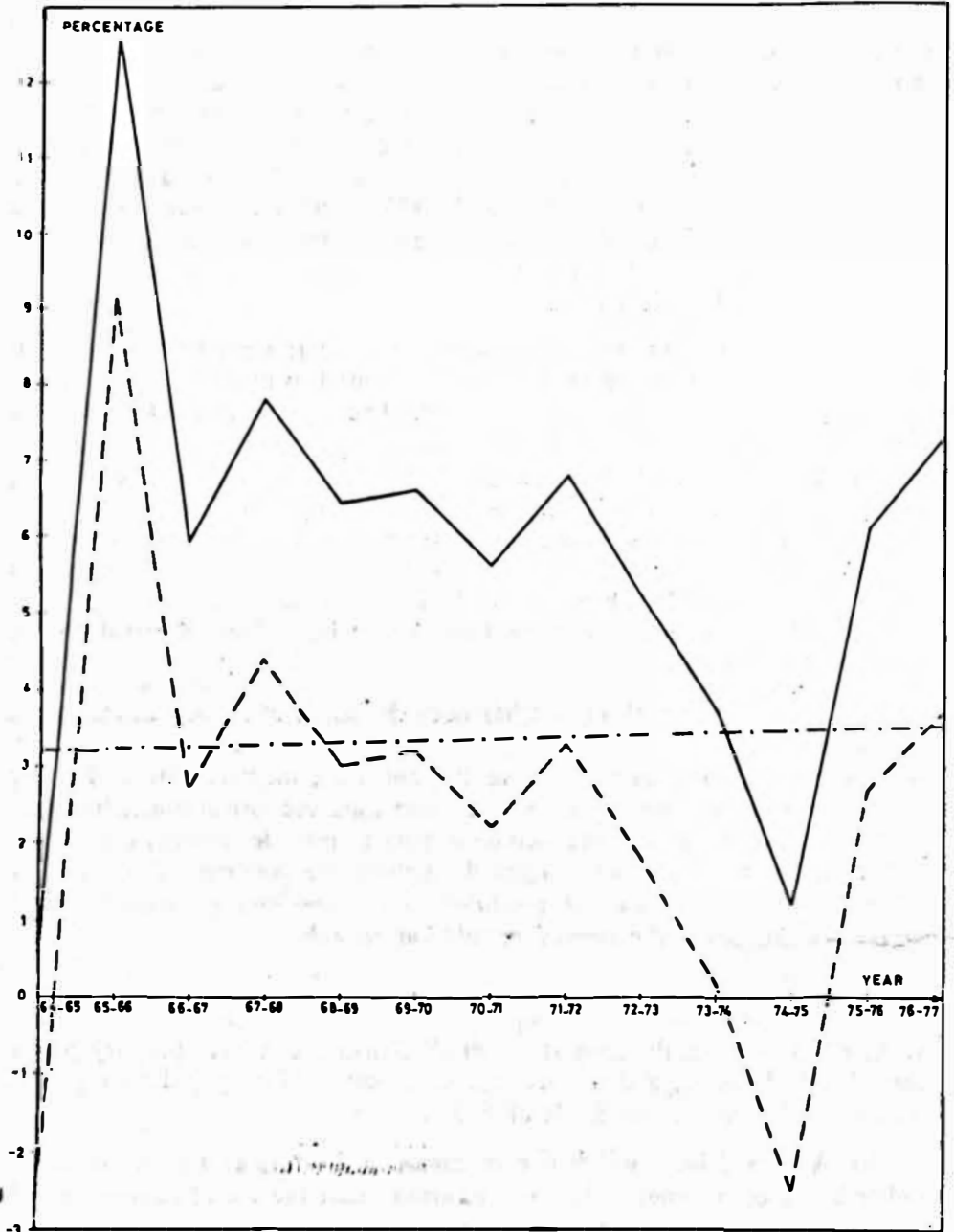
1.8. To some extent, this effect has been the result of success in increasing production. The higher incomes generated since Independence have been used in part by families to improve the nutrition, medical care and living conditions of family members. At the same time the Government has used its share of the rising national income in part to provide medical care, water and sanitation facilities more widely throughout the country. *These efforts, taken together, have reduced mortality rates significantly throughout the nation and increased the rate of population growth.*

1.9. The higher rate of population growth in turn has magnified the problems of creating income-earning opportunities for the larger numbers seeking work, and postpones the date at which all Kenyans can have primary education, decent housing, and adequate medical care. High population growth rates mean lower average levels of living.

1.10. A second issue which is now emerging, in part as a consequence of higher levels of income, is the need to ensure that the social changes which accompany modernization are constructive in nature. The roles of men and women must be redefined as agriculture becomes more specialized and education absorbs the time of children. The educational system must be tailored to the social and economic settings that are evolving with development.

Chart 1.1

**ANNUAL FLUCTUATIONS IN GDP (REAL), GDP PER CAPITA AND  
POPULATION PROJECTIONS GROWTH RATES, 1964-1977**



SOURCE CENTRAL BUREAU OF STATISTICS

— GDP Growth Rates  
- - - GDP Per Capita Growth Rates  
- · - · - Population Projections Trend



Expenditures of incomes must be guided towards socially constructive ends. These emerging social problems require more serious attention today than was the case at Independence and the Plan addresses itself to them.

### **Income Distribution**

1.11. Another measure of progress is the improvement which has occurred in income distribution since Independence. Studies carried out in 1969 and 1976 show that whereas the poorest 25 per cent of the population received approximately 4.1 per cent of the nation's income in 1969, they received 6.2 per cent of income in 1976. Similarly, while the richest 10.0 per cent of the population received 56.3 per cent of the nation's income in 1969, their share had been reduced to 37.7 per cent by 1976. While the comparison of the data in these two studies probably overstates the degree of improvement achieved over the seven-year period, it seems clear that significant improvement has occurred.

1.12. Despite the improvement, the degree of inequality in Kenya is still very high with respect to long term Government objectives and in comparison with many other countries throughout the world. *It is a major objective of the present Plan to reduce further the degree of inequality.*

### **Kenyanization and Participation in the Modern Sector**

1.13. A third indication of progress achieved as a result of past development strategies is the rate at which Kenyanization of the economy has taken place. Between 1968 and 1977, while total employment was growing at an average annual rate of 4.5 per cent, the employment of Kenyans grew at 5.2 per cent. This is because the employment of non-Kenyans was being reduced at the average annual rate of 10.7 per cent. Indeed, while non-citizens comprised 7.0 per cent of total modern sector employment in 1968, they amounted to only 1.7 per cent in 1977.

1.14. That is remarkable progress; but that very progress minimizes the scope for creating employment opportunities for Kenyans in the future. The employment of Kenyans has grown rapidly in the past for two reasons—total employment has grown and Kenyans have replaced non-Kenyans in many positions. But now replacement as a source of jobs for Kenyans is nearing its end; there are only 15,000 non-Kenyans to be replaced out of total modern sector labour force of over 900,000. In future, growth of employment for Kenyans must depend primarily on the more difficult task of increasing the total employment opportunities available.

1.15. Furthermore, in order to promote Kenyanization as rapidly as possible, it was essential to expand facilities for higher education and increase the output from the system at a rate high enough to meet normal needs for high- and middle-level manpower and to replace non-Kenyans. In future, that high rate of educational expansion will not be required to meet the needs of

normal growth in employment alone, and a more suitable balance must be found between educational expansion and the creation of employment opportunities. For this reason, the Plan takes the task of expanding employment opportunities as one of its major endeavours, while continuing the programme to Kenyanize personnel. Policies to achieve this are outlined in the next chapter.

1.16. Control over the nation's resources and institutions has progressively passed into Kenyan hands. The emphasis on the transfer of ownership remains a natural priority to be pursued throughout the planning period. But as progress is made on the Kenyanization of assets, the need to examine the functions of the institutions coming under Kenyan control assumes greater importance. Many of those institutions were initially established to serve foreign rather than domestic interests, to cater to the urban areas and the large farms in preference to the rural areas and the small farmer, to channel savings abroad instead of into domestic investment, and to create a labour supply for wealthy land owners instead of promoting the productivity of smallholders. The functions of these institutions must now be redefined to serve Kenyans rather than expatriates and to serve all Kenyans rather than the few. Much has already been done along these lines, but this Plan will put even greater emphasis, as outlined throughout the document, on the transformation of the nation's institutions to serve the needs of all Kenyans.

### **Other "Second Generation" Problems**

1.17. Just as success in Kenyanization has exposed the difficult tasks of generating new employment opportunities and redefining institutional functions, so, too, has success in other areas revealed other, often more difficult problems. The era of soft options is now over. What lies ahead is a more protracted struggle for development against obstacles that are in many ways more difficult to overcome. Some of the other more important second generation problems confronting the nation during the current planning period are outlined briefly in the following paragraphs and more extensively in relevant chapters of the Plan.

1.18. During the course of implementing earlier development plans, substantial progress has been made in building capacity throughout the nation. Trunk roads were refurbished and extended; schools, hospitals and clinics were built; rolling stock was acquired for the railway and the pipeline constructed; a new airport was built; hydro-electric facilities were put in place; several irrigation schemes were completed or expanded; the extension service was expanded; and industrial facilities of many types were put in place. Indeed, the capacity of the nation to produce has expanded even more rapidly than production. In this Plan therefore, greater emphasis will be placed on utilizing capacity in order to realize more fully the potential that already exists. Hence, the Government will allocate a larger proportion of its budget

to recurrent expenditure in order to draw into the development effort capacities which are now under-utilized for lack of recurrent fund, and policies will be outlined to encourage the private sector to utilize its existing capacity more fully.

✓ 1.19. A related but perhaps more subtle shift in emphasis is now required because of the rapid expansion that has already been achieved in making education, health and extension services available to the people. These facilities will be further expanded during this Plan but greater attention will now be given to improving the quality of these services. The expansion of basic education must not only be judged by the size of enrolments; it must also be seen in the increase in the relevance and quality of education. The extension of rural health facilities must be accompanied by improvements in the quality of all health care. And the extension services must reach the rural population with quality advice. The plan chapters on Primary Production and Basic Needs outline policies and programmes which will be followed to achieve these objectives.

1.20. The building of urban infrastructure and an emphasis on large projects was a natural early priority not only because the need was there but also because private capital and management expertise were readily available for those purposes. The construction of rural infrastructure and institutions and the dispersion of economic activity more widely and through smaller projects is a much more challenging task. The Plan addresses this issue and the Government is shifting its priorities in these directions.

✓ 1.21. Land settlement and registration together with co-operative marketing have increased farm output and created income-earning opportunities for large numbers of people. While that programme proceeds, increasing emphasis will be given in this plan to increasing the productivity of small farms and to drawing idle and under-utilized land into production.

1.22. Import substitution has proceeded very rapidly since Independence. Goods imported for final consumption by households and the Government amounted to 29.2 per cent of total imports in 1964. By 1977 such imports amounted to only 14.0 per cent of total imports. This degree of success with import substitution means, however, that if the high rate of growth of the industrial sector attained in the past is to be continued into the future, it will have to be based to a growing degree on the expansion of exports. Export growth in turn will require increasing emphasis on the promotion of industrial efficiency and decreasing emphasis on industrial protection. This second generation problem, the promotion of exports, is a much more difficult one to overcome than the earlier problem of promoting import substitution.

1.23. A closely related achievement and its associated problem derives from national policies with respect to private foreign and domestic investment. These have been successful in attracting capital to the investment

opportunities existing in Kenya. Some of those policies, particularly the investment allowance, low duties on imported capital equipment and certain forms of industrial protection have had the further effect of promoting capital-intensive, labour-saving forms of production. Indeed, some of the idle capacity now visible in Kenya can be traced to the relatively low cost of capital with respect to labour that has prevailed in the past. The present Plan attaches greater weight to the efficient and economical use of capital, to its geographic dispersion, and to its investment in forms and industries which will utilize more labour per unit capital invested.

1.24. The present Plan also addresses more directly than its predecessors the problem of promoting domestic saving. Substantial foreign aid and private capital has flowed into Kenya in the years following Independence. This flow has eased somewhat the burden which otherwise would have had to be borne by domestic saving. It is now anticipated that the share of investment financed by domestic saving will have to grow over the plan period. Furthermore, the task will be made more difficult by concurrent efforts to promote a more equitable distribution of income, a factor which will tend to reduce aggregate saving. Hence, the savings programme will improve incentives for saving and spread savings opportunities more widely throughout the country.

1.25. Since Independence, the Government has thoroughly restructured the tax system to ensure widespread participation and substantial progressivity so that those who can afford to do so shoulder a greater share of the total tax burden. While further tax reform will undoubtedly be required, the problem now being encountered is that the principles underlying the tax system may be eroded through tax evasion. This is in part an ethical problem in that many are choosing to avoid their social responsibility to pay taxes in order to further their private ends. The present Plan seeks to reduce the scope for tax evasion, but it is also necessary that those who should pay taxes recognize that the essential services provided by the Government cannot be supplied in the quality required unless taxes are paid willingly and in good conscience.

### **Constraints and Opportunities**

1.26. The task of confronting an array of second generation domestic problems in this Plan is exacerbated by the very different set of circumstances now circumscribing the development options available over the planning period. Some of these reflect external constraints following fundamental changes in international markets in which Kenya buys and sells approximately one-third of its total production. Others are constraints impinging on Government revenues and expenditures.

1.27. Inflation is subsiding abroad. Therefore, the principal task confronting Kenya over the next few years is to facilitate the adjustment of the economy to the very different relative prices which now prevail as compared

with the past. The prices of oil and oil-based products and services such as fertilizer and air travel may still continue to rise and they are likely to remain high relative to the prices of other goods. The prices of industrial products generally also seem to be settling at levels which make such products relatively more expensive to countries like Kenya that must trade raw materials and agricultural products for them. Although coffee and tea prices rose sharply in world markets in 1976 and 1977, approximately half of the increase was lost during 1978 and the outlook over the planning period is for only modest increases, if any. Hence some further deterioration in terms of trade must be expected.

1.28. As the volumes of imports and exports have adjusted more slowly than prices, the nation's balance of payments worsened considerably in 1974 and 1975. Short-term borrowing from the International Monetary Fund was required and limits had to be imposed on private credit. Despite the respite gained in 1976 and 1977 from the rise in coffee and tea prices and volumes, the outlook for the early years of the Plan—1979 and 1980—is for renewed pressures on the balance of payments.

1.29. One consequence of these trends will be that the pattern of further development will differ substantially from that preceding 1973 when it was disrupted by the international crisis. Opportunities now differ in many respects from those entertained previously; and policies for the future have therefore been designed to take full advantage of the different opportunities now available. In particular, the development and full utilization of Kenya's own resources—land, raw materials, and labour—is given even higher priority than before.

1.30. Because the means available to achieve development are not the same as before, the strategy for employing those means must also be modified. But the changing nature of the constraints on development can also be viewed as a change in the nature of the opportunities for development. The losses in terms of trade will not be regained and the need to avoid serious future deficits in the balance of payments will continue to impose constraints upon economic policy. The nation can only overcome these constraints by curtailing imports and expanding exports. But success in both these endeavours will expand both domestic production and employment opportunities, as domestic output must grow to replace imports and also to increase exports.

1.31. Similarly, higher prices of industrial products and processed goods will make them expensive to buy. This too will provide an incentive to produce such goods for domestic use and for export, since economic activities which were unprofitable will become more attractive in the future. Hence the expansion of domestic output and employment will be further assisted in the new circumstances.



1.32. One class of industrial products which is likely to remain more expensive for us to import is capital equipment. The immediate effect will be to reduce the rate of capital formation. But with an appropriate wages policy, described in Chapter 2, the higher cost of capital will induce both the public and private sectors to reduce costs by using more labour and domestic material and equipment in place of some of the capital equipment now imported. Moreover, those industries that now produce mainly with domestic materials and labour will become more profitable and be induced to expand more rapidly than those that are heavily capital intensive and dependent on imported materials. Finally, the higher cost of importing capital goods will stimulate the development and expansion of selected capital equipment industries in Kenya. These effects will be favourable to the expansion of domestic output and employment.

1.33. While developments such as these will help to redress the balance of payments and at the same time increase self-reliance, the Government itself will assist directly by limiting its borrowing from the Central Bank. As a consequence, under normal circumstances, the growth of Government expenditures will adhere closely to the growth in revenues, including foreign aid and long-term borrowing. In order to achieve the Government's objectives over the planning period, Ministries will seek economies in their operations and improvements in managerial efficiency. The moderate rate of growth in Government expenditure and the limited resort to Central Bank borrowing will ensure that the volume of credit available to the private sector will be sufficient to sustain substantial growth.

1.34. The transition from a community of three nations to a larger sub-Regional Community will take considerable time. It is a goal toward which Kenya is actively working. In the meanwhile, Kenya's industry and agriculture face the challenging tasks of increasing the efficiency of their operations, diversifying their sources of supply and assuming a more competitive and energetic posture in a larger number of international markets. The promotion of tourism will also be pressed more vigorously over the planning period.

1.35. These examples indicate that new constraints also represent new opportunities. The strategy for development in this Plan and the policies for its implementation as outlined in the next chapter are intended to build on these opportunities and to ensure that future development has firm roots in Kenya's own resources, while at the same time confronting the second generation problems that require attention.

### **The Strategy for Development**

1.36. Poverty has several dimensions. Inadequate income is the most obvious one. The Integrated Rural Survey of 1977 discloses that 41 per cent of families engaged in smallholder agriculture—a group that represents about 80 per cent of Kenya's total population—had incomes, including subsistence

production, of less than Sh. 2,000 per family in the year 1974/75. Another 14 per cent of those families had incomes in the range of Sh. 2,000 to Sh. 3,000 per family. Incomes of even that order of magnitude are not sufficient to provide more than the basic necessities of life. Clearly the Plan must focus much of its effort on increasing the incomes of smallholder families.

1.37. Poverty may also take the form of malnutrition as well as inadequate standards of living. While these outcomes may stem directly from low incomes, they may also be found in circumstances in which higher incomes are wasted through inefficient expenditure patterns or where markets fail to provide families with access to the consumer goods and services required for a varied diet and a minimum standard of life. Minimum standards of living also require access to essential social services such as health care, water and basic education.

1.38. Improving our knowledge of these several dimensions of poverty, particularly on the district level, is an important research priority of the next several years. Enough is already known, however, to be certain that poverty in all of its dimensions is both extensive and pervasive. In taking poverty alleviation as its theme, the Fourth Plan is attacking a central problem of Kenya's development. The objective of alleviating poverty will be pursued on four fronts—(1) the creation of income-earning opportunities, (2) the improvement of expenditure patterns, (3) the provision of other basic needs, such as nutrition, health care, basic education, water and housing, and (4) institution building.

### **The Creation of Income-earning Opportunities**

1.39. As among the four methods of attacking poverty, greatest weight will be given to the creation of income-earning opportunities. That objective will be sought through three related and mutually supporting development efforts. These are (1) capacity utilization, (2) employment creation, and (3) rural development.

#### **Capacity Utilization**

1.40. Earning incomes through productive participation in the development process is the most effective means of overcoming poverty. Equally important is the fact that the effort to create income-earning opportunities will also promote both more rapid and more widespread growth. The Plan is designed to draw into the process of production increasing amounts of the nation's resources which are presently idle or seriously under-utilized. By the end of the plan period these resources will be more effectively and fully employed and hence the rate of growth will be higher than the rate that might otherwise be attained. It is through the fuller utilization of the nation's substantial capacity to produce that the nation can both alleviate poverty and foster growth.

1.41. There is substantial evidence that much of the nation's productive capacity is not now working at full potential and hence is a source of more rapid and widespread growth. Consider first the nation's manpower resources. There are the visibly unemployed in the urban areas—the school leavers looking for jobs, the urban poor who seek employment under difficult circumstances, and the landless and aspiring young who move to the urban areas with hopes that are often frustrated. In the rural areas, there are those who are seasonally unemployed and many smallholders whose energies are wasted because they lack the simple complementary resources and productive technologies with which to work effectively. These large numbers of willing and potentially productive people will be given opportunities to earn incomes for themselves and their families and at the same time to contribute to the development of the nation.

1.42. Land is much more intensively used for productive purposes than was the case at Independence but in many places its full potential is not being realized. Only 20 per cent of the land is of high and medium potential. Of that land, some on large scale farms is seriously under-utilized; some settlement plots sit idle, their farmers being absent; some small scale farms lack essential inputs, proper guidance, and ready access to markets; and yields are often significantly lower than those attained in other parts of the world. In the arid and semi-arid areas, the productivity of land can be improved through better crop selection, improved animal husbandry, minor irrigation schemes, registration, and more efficient measures of soil conservation. Hence, the nation's land, too, has a potential from which substantial increases of output can be drawn over the planning period.

1.43. The nation's stock of capital is another source of growth for the planning period. Much industrial capacity is presently used on a one-shift basis when the potential is there for two- or even three-shift operation. The present styles of operation in many cases could be more effectively organized and more efficiently managed. Much of our productive equipment—lorries, tractors, rolling stock and machinery—lies idle because of careless handling and lack of maintenance, spare parts, or petrol. Improved efficiency in the use of our capital is another important source of growth, and all chapters of this Plan address themselves to this issue.

1.44. There is also ample capacity within Government that can be more effectively drawn into the development process over the planning period. Many Government and *Harambee* buildings and facilities are not fully utilized because of lack of staff and funds for operating costs. The Civil Service itself has a capacity that is not fully realized in practice because of the persistence of outmoded management practices and deficiencies in recurrent budgets. This potential, too, must be put to more effective use during the planning period.

1.45. The national capacity to produce that has been put in place during the implementation of preceding plans must now be put to more effective use. The present Plan concentrates on that task as a principal means of alleviating

poverty and promoting growth. It should be emphasized, however, that the Plan does not advocate the unproductive employment of resources. Paying people when there is no productive work to be done, for example, is simply another form of idle capacity. It makes no sense to employ more extension officers if those now in employment have no transport.

1.46. While the Plan emphasizes capacity utilization, it also provides for substantial building of new capacity. There are many areas of the country that require increases in productive capacity and facilities for social services. Substantial savings and their prudent investment will be required for these purposes over the planning period. Moreover, saving will also be needed to provide the complementary resources required to put idle capacities to work.

1.47. The existence of under-utilized capacity now means that many income-earning opportunities can be created over the planning period without adding to capacity. But as substantial capacity will be added, and will be utilized, income-earning opportunities will be generated at a more rapid pace than in the past when they grew with capacity alone. In order to bring about this result all projects and programmes included in this Plan have been carefully assessed against the objective of creating income-earning opportunities.

### **Employment Creation**

1.48. It is expected that the population of working age will increase over the plan period by 266,000 per annum. Of this number approximately 50,000 can expect to find work in the recorded modern sector each year. This figure will be achieved by encouraging multiple shifts in appropriate industries and locations, promoting the expansion of agricultural processing and export-oriented industries, favouring the growth of labour-intensive methods of production, and pursuing the Kenyanization of employment. Clearly there will not be enough jobs created in the modern sector to accommodate all of those seeking work. The majority of those in the labour force must find gainful employment in small scale agriculture, the rural non-farm sector and the urban informal sector.

1.49. Employment in small scale agriculture will absorb most of those seeking work. The numbers engaged in rural, non-farm activities will also be substantial. Employment opportunities in the rural areas will be expanded during the planning period through the Government's programme of rural development as discussed in the next section.

1.50. Despite these efforts to increase rural sector employment opportunities, the numbers seeking work in the urban areas will certainly exceed the number of modern sector jobs to be found there. Many of these migrants will face a low probability of finding work and a high probability of becoming discouraged and dissatisfied. Hence, opportunities in the urban informal sector will be promoted rather than discouraged. Statistics show that in 1977 over 100,000 people were so occupied. The rate of growth is substantial and the incomes

earned on the average exceed the minimum wage by a very substantial amount. These activities are important income-earning opportunities and sources of entrepreneurial talent. So long as they are conducted in safe and sanitary conditions, they will be encouraged and assisted.

### **Rural Development**

1.51. The majority of the rapidly growing younger population must find employment and self-employment in the rural areas. Hence, the emphasis on rural development in the new Plan is closely tied to the need for employment creation. Idle and under-utilized land is a serious waste of resources when many have inadequate land to farm. The Plan specifies means for ensuring better land use and provision of essential services, such as credit, extension, inputs, markets and transport, to small farmers; it addresses the problems and opportunities for those on arid and semi-arid lands; and it presents guidelines for the pricing of agricultural products intended to ensure a steady advance in the farmer's income *vis-à-vis* those in the non-agricultural sectors.

1.52. With respect to agriculture, the Plan focuses on small-scale agriculture and arid and semi-arid lands. Small farms will be given every opportunity to increase their participation in the monetary economy. Among small-scale farmers, greater attention will be given to those who have been lagging behind up to now. Rural access roads will be built so that the flow of inputs to such farms can be expanded and produce can more easily be brought to market; extension services and credit will be increasingly directed to the small farmer; consumer goods and social services will be brought within reasonable distances; water and power will be increasingly extended into the rural areas; and the means and resources devoted to identifying inexpensive and easily repairable technologies which will enhance small farm productivity and ease the problems of off-road transport will be increased.

1.53. The development of arid and semi-arid lands will also receive special attention from Government during the Fourth Plan Period. More than 20 per cent of our population lives in these areas comprising 80 per cent of the land of Kenya. Because of the complexity of the problems—economic, environmental and social—our approach to their development must be integrated, requiring a high degree of co-ordination among Ministries. The Ministry of Agriculture will play an important role in developing programmes and in establishing co-ordinated procedures. While planning will proceed on the basis of regional analysis considering watershed and agro-climatic areas, implementation will be on a district basis, relying on established administrative systems and ensuring local-level participation in assessing needs and priorities.

1.54. But while rural development must feed on and supply agriculture, it cannot be limited to agriculture if it is to be successful. Hence, the Plan will provide incentives for the dispersion of industry, and rural non-farm activities in the informal sector will be accorded high-priority. Such activities are even



now an important source of rural employment and income, with about 43 per cent of smallholder income being generated in this way. In addition, such activities lend themselves to the use of labour-intensive methods of production. Their production processes are characterized by a low capital-labour ratio. For our economy where capital is scarce and labour abundant this fact is an important consideration. Secondly, small-scale production is often the only means of meeting demand when the size of the market for any given item is small. This is particularly the case for relatively isolated local markets in small towns and rural areas. These enterprises can, therefore, play a useful role in programmes of industrial decentralization. Thirdly, they help in the tapping of resources such as entrepreneurship, capital, and raw materials, which otherwise would remain unused. They generally mobilize family or community savings which might have remained idle or been spent on unproductive activities.

1.55. Developing technologies for small farm and non-farm activities in the rural areas is also a matter of high priority. It is recognized that the currently available hand tools, like the hoe, are inefficient. On the other hand, imported farming machineries, like tractors, are either inaccessible or inappropriate for the majority of the small-scale farmers. Similarly, rural industries for processing locally available crops and other resources on small-scale basis will require technologies appropriate to their scale and location. Hence, research and development institutions will be given the encouragement and resources they require to address themselves effectively to the transfer, adaptation, and development of specific appropriate tools and technologies for the rural areas.

1.56. An essential ingredient of successful rural development is increased participation in the decision-making process at the district level. Some programmes such as the Rural Access Roads, the Rural Development Fund, and Rural Water Supplies already encourage local level participation in helping determine needs and priorities. More effort will be made during the Fourth Plan to involve local level technical staff, elected representatives and members of target groups themselves in programme decision-making. The district is seen as the basic unit for development planning and implementation. In this regard, the District Development Committees will be strengthened and revitalized.

1.57. The emphasis on rural development in this Plan will establish a more reasonable balance between urban and rural development. In the past the concentration of development in a few urban areas has attracted large numbers of people to move into them in the hope of sharing in the benefits of that development. The fact that many migrants could not be productively occupied in the urban areas has created problems for the municipalities and attempts to provide essential services for the poor in the cities has often served to increase the influx of people. By increasing development in the rural areas and by increasing incentives for industrial dispersion, the Govern-

ment expects to enhance the attractiveness of living in rural and semi-urban areas. These activities will spread development more widely, ease the flow of migrants to the major urban areas, and reduce pressures on municipal budgets.

### **Expenditure Patterns and Life Styles**

1.58. The creation of many income-earning opportunities during the course of this Plan will distribute development more widely throughout the country, reduce the pressure on municipalities, and alleviate much of the nation's poverty. Economic progress along these lines will undoubtedly produce further rapid social changes and alterations in traditional life styles. Many of the social strains that accompany modernization have already appeared in Kenya and some of these may intensify as development proceeds.

1.59. Changes in eating and drinking habits may threaten nutrition, particularly among children and juveniles; the migration of males to urban areas disrupts normal family life and removes the father from his children for prolonged periods; the restructuring of agriculture, particularly, increasing specialization, is changing the relative roles of men and women and their roles can no longer be defined along traditional lines; the rapid increase in educational facilities is redistributing the responsibilities for child guidance from parents to teachers and peer groups; rising incomes increase drinking by fathers and juveniles who might otherwise be constructively occupied; and the aspirations of school leavers, sparked by parents and teachers alike, are unrealistically high and exceed the capacity of the nation to respond. These and related problems are more directly addressed in this plan than in its forerunners.

1.60. Development must be accompanied by constructive changes in life styles and social relationships. Unfortunately, the process of social change occasioned by rapid development is not well understood. A first priority, therefore, is thorough and careful research on the nature of that process. The University of Nairobi is the obvious centre for such research. Significant research is already under way and indeed, it has contributed in useful ways to the formulation of this plan. That research will be intensified.

1.61. A number of the policy suggestions emerging from on-going research have already been adopted by Government. These are concerned with the changing roles of men and women, the aspirations of children, and the rejuvenation of the family as a pivotal social unit. Those policies are summarized in Chapter 2 and explained more fully in Chapter 5.

1.62. A problem of particular concern to Government is the changing pattern of family expenditure. The creation of incomes through the methods outlined above will not promote effective development if those higher incomes are misspent. Income alone will not guarantee that children have a healthy family environment, nutritious food, good health, appropriate schooling, and

a competitive chance at decent and productive employment. Even high income families have children who suffer from inadequate diets and poor parental guidance. And in many poor families limited incomes are dissipated on beer and *chang'aa* while the children lack food, medical attention and parental supervision.

✓ 1.63. In some respects the injudicious expenditure of incomes reflects the underlying problems of social change already referred to. In other cases, it may reflect ignorance about nutrition, the role of the family and prospects for children. Finally, advertising is playing a growing role in influencing patterns of expenditure and the life styles of both parents and children. The Government will be concerned in this Plan that people are informed about the life styles and expenditure patterns which will most benefit them, their children and the nation. The information and educational systems will play leading roles in this effort, but parents, the churches and KANU will be expected to direct more of their energies to this task as well. The Government will also adopt standards for advertising, as outlined in Chapter 2, to curb false and misleading presentations, and will limit the number of *pombe* clubs and enforce strictly the hours and age limits that they may serve.

1.64. That part of a family's income that is not spent on consumer goods and services is saved. It may be used to increase productivity, lent to others, or simply held as a reservoir of funds against future contingencies. It is true that some families consume more than their incomes because their incomes are inadequate to meet basic needs and they must rely on the Government or the extended family for subsistence. It is also true that some finance excessive consumption by refusing to repay loans, having little regard for the needs of those whose savings provided the money.

1.65. The Government will encourage all who can afford to do so to save a portion of their incomes because of the assistance savings can provide to families in bad years and old age, and because such savings are essential to national development. To this end, the Government will encourage all forms of savings institutions—commercial banks, credit societies, building and loan societies, co-operatives, and pension funds—and will expect all to extend their services as rapidly as possible into the rural areas. For its own part, Government has established several new programmes for saving and is making them accessible to people throughout the country.

### **Public Provision of Basic Needs**

1.66. The Government's role in creating income-earning opportunities and in promoting the development-oriented use of those incomes is clearly substantial. But these efforts alone will not alleviate poverty in all of its dimensions. Government must also undertake the direct provision of goods and services.

1.67. Services such as education, health care and water supply are essential to improving the quality of life. The Government accepts the responsibility for providing these services in ample supply to all Kenyans. However, in Kenya, where the *Harambee* spirit thrives, groups of private citizens will often take on the task of building their own primary schools, health clinics and water supplies. Such initiatives are welcomed and encouraged by the Government as an important aspect of development. Other voluntary agencies are also encouraged in these endeavours.

1.68. In the provision of public basic needs, the Government will allocate development expenditure on these services as equitably as possible. Individuals will receive roughly equal weight, except, for special cases needing above average public services. For example, some target groups might be identified that are particularly vulnerable to certain diseases or already suffer from specific disabilities. These groups will be allocated health services above the average to cope with their particular needs. Areas where *Harambee* activity is well developed will require less help from the Government than areas where resources and organizational ability are less abundant. During this Plan, the Government will assess the level of *Harambee* and other voluntary efforts in each district when determining its own investment proposals. In so doing, it will strive for a better overall balance in the provision of education, health and water services.

### **Institution Building**

1.69. Institutions are arrangements for conducting economic affairs, for identifying and delivering social services, and for administering and controlling the responsibilities of the Government. It is through the network of economic institutions that goods and services are traded within the nation between industry and agriculture and rural and urban areas; and outside the nation in international trade. The network of institutions also serves the function of determining the terms of trade and of distributing the proceeds among those who contributed to their attainment. Finally, it provides the means and conditions for saving and for channelling savings into those uses which will best serve development. During the planning period, the nation's institutions will be strengthened and extended more widely throughout the countryside in order to provide essential and supporting services for the programmes which have already been outlined.

1.70. The present economic institutional framework has deficiencies that will be remedied over the planning period. First, several institutional functions formerly performed by East African Community organizations must now be taken over by new Kenyan organizations, such as airways, harbours and railways. The new institutions and the functions they perform will now be shaped to serve Kenyan needs more effectively. Second, many areas of the country have inadequate access to essential farm and non-farm inputs, credit, savings channels, consumer goods and services, and transport. These services will be expanded and the quality of services will be improved.

1.71. As the nation's economic institutions are expanded and improved, they will be shaped to utilize the skills and resources available in the rural areas, to meet the needs identified by the local people, and generally to fit into the cultural, economic and social setting in which they must function. Indeed, the strength of the institutional network will depend on its ability to attract local resources and skills into the performance of its functions and to serve local needs.

1.72. Care will be taken in strengthening the economic institutional network to ensure that competition is encouraged among types of organizations. Kenya derives much of its economic strength from the wide array of institutional arrangements that serve the development process. These include public, quasi-public, and private agencies; they include private farms and firms, statutory corporations and boards, *Harambee* efforts, and co-operatives. All of these have a role to play in Kenya's development. Their diversity alone provides a variety of opportunities for people to participate in the development process and a range of incentives and rewards which serve to attract all kinds of talent and resources to productive efforts. Competition among them is healthy and will be strengthened in the years ahead. Co-operatives have firm roots in African culture and shall have every competitive chance to prove their worth in a modernizing society but they will not be given monopoly protection. Marketing boards must provide storage facilities and ensure floor prices to farmers and ceiling prices to processors and consumers, but again their success must depend on service to producers and consumers, not on a monopoly privilege. Under the Plan, all means of marketing, private and public, will be encouraged. Competition will also be encouraged among institutions providing other economic services, such as transport, repair and maintenance, credit, and facilities for saving.

1.73. Those institutions concerned with providing needed social services include, in addition to the Government which has the major responsibility, the *Harambee* movement, the churches and their affiliated organizations, other voluntary agencies, co-operatives and some private forms of organization as in education and health. The services of all of these institutions are welcome supplements to the major social programmes of the Government and will be encouraged to extend their services, particularly to the rural and urban poor.

1.74. A substantial degree of co-ordination will be required in the provision of social services to ensure that Government standards are met, that services are not offered on a discriminatory basis, and that there is not a wasteful duplication of facilities in some areas while others go without. It will be the responsibility of the Government to co-ordinate the activities of the many institutions in this field so that the largest number of people receive services of rising quality.



1.75. While the Government itself will play the primary role in the provision of economic and social services, it has an equally important responsibility to improve the effectiveness of its own administrative and control functions. The Government is the highest public service and its responsibility to be responsive to public needs and to serve the public well must be reflected in the dedication to the public interest of those elected and appointed to carry out governmental functions. Means for promoting the primacy of the public interest in all categories of public leadership are outlined in Chapter 2.

1.76. In addition, the Government will over the planning period review and improve its own management systems to ensure that all agencies of the Government are effectively serving Government objectives, that local needs are being quickly identified and served as resources permit, that projects are carefully evaluated by Kenyan standards and those selected efficiently implemented, and that means of review and budgetary control are being constantly improved.

1.77. In preparing this plan a thorough review of most of the nation's institutions has been undertaken to assess their efficiency, to examine the relevance of their functions to present and future needs, to review programmes for dispersion, to improve the distribution of the proceeds accruing to each, to encourage local participation, and to initiate efforts for co-ordination where necessary. The nation's institutions must serve the nation's interests, and must do so efficiently.

1.78. The nation's strategy for development, which will be pursued over the period covered by this Plan, will require the active participation of the public and private sectors of the economy. Nevertheless, the leading role and the major responsibility necessarily fall on the Government. The essential means for implementing the strategy is, therefore, the policy framework adopted by the Government. The policies composing that framework are the subject of the next chapter.



## CHAPTER 2—THE POLICY FRAMEWORK

2.1. The policy framework represents the instruments which the Government will use to translate the development strategy ~~outlined in Chapter 1~~ into concrete achievements over the planning period. These instruments will be subject to elaboration and addition as development proceeds and as needs arise. They are not a rigid framework but rather a comprehensive statement of the policies considered necessary for the implementation of the nation's development strategy at the time the Plan was prepared.

2.2. The same considerations have influenced the construction of the specific programmes for action described in the sectoral chapters of this volume, the selection of projects available in Volume II of the Plan, and the preparation of district plans which will be published during 1979. Hence, these policies are both essential to the realization of the development strategy and the actual implementation of the Plan.

### The Target Groups

2.3. An important consideration in selecting projects and programmes for inclusion in this Plan has been their likely contribution to the alleviation of poverty in its several dimensions—income, consumption, and nutrition. The Integrated Rural Survey and work on social indicators by the Central Bureau of Statistics is providing useful information and considerably more will be generated over the planning period. Social, economic, and agricultural research at the University and other research organizations is also being directed toward understanding poverty and the Government will actively support such research.

2.4. There are clear differences among the average incomes earned and received in the different districts of Kenya. It is Government policy to identify viable projects and programmes which will accelerate development in those districts that have so far been lagging behind. In particular, special efforts will be directed to improving the opportunities and services available to pastoralists and others living on arid and semi-arid lands.

2.5. With this possible exception, however, poverty is not easily identified on a regional basis. Rather it exists in all districts in differing degrees. Indeed, there are some pastoralists who are reasonably well off even by national standards. In most cases, poverty can be traced to a lack of access to employment opportunities, land, water, markets, credit, modern technological innovations (hybrid seed, appropriate mechanization and transport, and fertilizer, for example), power, quality education, and medical care. When access to

many of these essential income-producing opportunities is limited, poverty results. Hence, it is the policy of the Government to improve access to these opportunities for those most in need.

2.6. When opportunities are limited, incomes are limited. It is, therefore, not surprising to find that poor households tend to receive lower incomes from all sources—farm incomes, non-farm income, wage income, remittances, cash crop income and subsistence consumer—than those households who are better off. It follows that the target groups that must be drawn more fully into the development process can be identified not only by their low incomes but also by their lack of access to opportunities. And the remedy is to open up opportunities for them. Indeed, the only feasible way to reduce poverty is to assist the poor to become more productive.

2.7. Using the dual criteria of low incomes and lack of access to opportunities, five target groups have been identified for this Plan. They are:—

- (i) *Pastoralists*—those whose incomes derive mainly from the care of livestock in a nomadic setting.
- (ii) *Small farmers*—those with land who derive the majority, but usually not all, of their incomes from working the land.
- (iii) *Landless rural workers*—those who have little or no land and who derive the majority, perhaps all of their income from casual farm employment and non-farm rural activities.
- (iv) *Urban poor*—those who live in poverty in the urban areas with limited incomes derived from casual self or wage employment.
- (v) *The handicapped*—those who must be given skills commensurate with their abilities, and opportunities to use those skills productively.

2.8. The projects and programmes in this Plan are intended, directly or indirectly, to improve the prospects for development of these groups and to increase their opportunities for constructive participation. Some will have a direct impact, such as the Integrated Agricultural Development Programme, the wider distribution of educational and health care facilities, and rural access roads. Others will have indirect effects, such as improving terms of trade for farmers, accelerating the development of co-operatives, and expanding trading and other opportunities for rural non-farm activities. The effects of other projects may seem more remote, such as port and transport development, urban development projects, and export promotion, but these too, are essential to the expansion of opportunities for the poor.

2.9. Similarly, the discussion of other policies which follows is intended both to outline those policies and to show their relevance for the target groups identified above. These policies are grouped under thirteen headings for purposes of presentation, but they are for the most part mutually reinforcing and interdependent.

## **Ethical Standards and the Public Interest**

2.10. Moving from the African tradition of the extended family to the national concept of mutual social responsibility has not been without difficulties. The progress achieved since Independence has unfortunately been accompanied by an erosion of the high ethical standards that once were typical of African society. Private interests have too often been placed ahead of the public interest; the social sanctions which controlled such behaviours in the traditional African setting have not yet been successfully emulated in the modern setting of a national economy.

2.11. Early in the planning period, a strong effort will be made to strengthen ethical standards and to make the concept of mutual social responsibility a practical and effective code of behaviour for all Kenyans. The leadership in the Public Service will lead the way and set an example of high standards for others to follow. Those in such leadership roles include members of county, town and municipal councils, Members of Parliament, senior civil servants, leaders of co-operatives and welfare associations, the directors and management of statutory boards and corporations, the organizers of *Harambee* efforts, and, of course, the leaders of KANU at all levels who have the most critical role to play. At the same time, existing legislation will be reviewed and will be rigorously enforced against malpractices.

2.12. All of these leaders work in the Public Service and their conduct is naturally an example for others. That conduct should be subject to clear and established standards, and departures from those standards should be subject to clear and established sanctions. Hence, the Office of the President will establish a committee to formulate a "leadership code of conduct" for all elected and appointed public servants. The committee will also be expected to define sanctions for behaviour that is contrary to this code and to specify the role of the party leadership in monitoring the conduct of all leaders in the Public Service. The committee will also define the disclosures of private interests and holdings which are appropriate of all candidates for election or appointment to senior positions of public trust.

2.13. Many of the responsibilities for serving the public fall on the Civil Service. It is therefore essential that those who serve in it put the public interest first with an integrity that is unquestioned. Hence, private interest on the part of civil servants which conflicts with the paramountcy of the public interest will not be permitted.

2.14. The report of the Commission of Inquiry (*Public Service Structure and Remuneration Commission, 1970-71*) recommended that civil servants be permitted to engage in private sector activities subject to certain safeguards. At the time that recommendation was made, managerial talents and domestic savings were both in short supply throughout the country. The policy succeeded in spreading the managerial talent in the Civil Service over many

private sector activities, stimulating domestic savings and the reinvestment of those savings in Kenya, and accelerating the Kenyanization of the private sector. The policy was both timely and effective.

2.15. In the meanwhile the nation's pool of management talent has expanded rapidly and continues to do so. Hence, the economic justification for risking dual interests on the part of civil servants is less pressing than it was before. The Office of the President, therefore, will initiate a re-examination of the safeguards intended to ensure the paramountcy of the public interest in the Civil Service.

2.16. There are four qualities which will characterize the conduct of public leaders and the Civil Service in promoting the public interest. First is the characteristic of service. Those in positions of public trust occupy those positions in order to serve the people and to cater to their needs. Second, they will serve all of the people without distinction or favour. Indeed, if there is any discrimination, it will be in favour of the ordinary *wananchi*, particularly the interests of the target groups identified above, over those who can afford to pay. Third, actions will always be governed by considerations of national unity. Fourth, appointments and promotions within the Civil Service will as a rule be based on merit. When special qualifications are required the Government will employ Kenyans outside the civil service on contract terms.

2.17. While these standards of public service will apply to everyone in a position of public trust, those who work closely with people in local settings have perhaps the greatest responsibility because it is in those settings that development is most urgent. For this reason the Provincial Administration and the District Development Committees will make development their first concern. The Provincial and District Commissioners, whose responsibilities are assigned directly from the Office of the President, will identify local needs and development problems and direct the energies of the District Development Committees and the County Councils towards the timely and practical resolution of major bottlenecks in the way of development.

### **Constructive Social Change**

2.18. Kenya's economic development since Independence has been remarkable. This development has, however, led to profound social change. As modernization and development spread and deepen, further social change will be inevitable. The nature of those changes must be constructive—supporting development, strengthening the family, promoting national unity, respecting the rights and needs of others, and enhancing human dignity. Such directions of social change must be encouraged and supported while negative forces, such as private aggrandizement, racial and tribal jealousies, and exploitation must be discouraged and contained.



2.19. The family is the pivotal social unit. It has the main responsibility for determining family size, improving the quality of life of its members and inculcating in children the values which will guide their social and economic ✓conduct as and when they mature. It is Government policy to strengthen the family as a social unit through its several community activities, its functional literacy programme, and its support for family-oriented activities of voluntary agencies.

2.20. Education, information, and the religious institutions form another set of institutions which can foster constructive social change. Primary education in particular is influential in shaping the aspirations of children and preparing some for further education and many for the work opportunities that will await them when their formal education is concluded. Adult education and the information programmes of the Government will inform parents of family responsibilities, the importance and essential ingredients of good nutrition, and realistic prospects for employment for their children. They, together with community programmes, will encourage discussions of the changing roles of men and women in developing situations. For these and ✓other reasons, the Government is giving basic education in its several dimensions the highest educational priority. The quantity, quality and relevance of such educational opportunities will all be substantially increased during this plan period.

2.21. Many of those who leave primary and secondary schools and who form the youth of the nation require, in addition to work opportunities, an array of community activities encompassing informal education, training, constructive social settings, and sports. This is often a critical stage in the development of mature, responsible adults. The provision of a variety of healthy and constructive social and educational activities is essential if social change is to continue in positive directions. Such activities, whether sponsored by voluntary associations, local communities, county councils, or the Ministry of Housing and Social Services, will receive strong Government support.

2.22. The consumption of alcoholic beverages has grown rapidly, particularly in those areas of the country where development has been most apparent. While this is a symptom of more deep rooted adverse social change, serious efforts are required in order to control its growth while other programmes of the Government attack the more basic problems. Hence, the Government will, in order to curtail consumption of alcoholic beverages: (1) make such beverages, more expensive; (2) limit the number of *pombe* clubs which Local Authorities may license; (3) require Local Authorities to be very strict in granting licences and charge higher fees; and (4) enforce strictly through the forfeit of licences the hours when such clubs can be open and the age limits established for customers.

2.23. The life-styles of many Kenyans are unduly influenced by false and misleading advertising. Therefore, in addition to monitoring product standards through the Ministry of Commerce and Industry, the Government will

establish an Advertising Council to ensure truth in advertising. The Council will be empowered to require advertisements for specified classes of goods and services to be filed with it, to demand proof of the validity of any claims made in the advertisements, and to ban claims for which satisfactory evidence is not forthcoming.

2.24. Finally, the Central Bureau of Statistics will extend its work on social indicators to cover on a sampling basis all areas of the country and a larger number of variables. This information is essential in order to identify the directions and nature of social change and also to assess the progress made toward the attainment of the social targets of the Plan as outlined in Chapter 3. This data base is also a valuable input for University research on the nature and causes of social change and the policies appropriate for guiding change in constructive directions.

### **Economic Organization and Efficiency**

2.25. Government policy with respect to economic organization and efficiency is to promote the beneficial interaction of the public and private sectors. Both sectors have the freedom and the responsibility to participate in development, often in complementary fashion but also in competition with each other when such competition will promote efficiency and lower consumer prices. In terms of their contributions to Gross Domestic Product, the public sector accounts for approximately 24 per cent while the private sector accounts for 76 per cent. While both sectors have grown rapidly between 1974 and 1976, these relative shares have remained fairly constant over the years.

#### **The Public Sector**

2.26. The contribution of the public sector to Gross Domestic Product takes two forms—the provision of Government services, such as education, health, agricultural services and administration, and public enterprise activities as in agriculture, manufacturing, transport and communications. The first of these has grown most rapidly since Independence, its contribution to GDP rising to 14.2 per cent in 1976 from 12.9 per cent in 1964. This increase reflects Government policy following Independence to increase the essential services available to the public as rapidly as possible. Indeed, the share of education in GDP has grown from 3.4 per cent to 6.1 per cent over this period.

2.27. Two considerations now suggest that Government policy with respect to the growth of social services must be modified. First, the requirements for defence over the planning period will reduce the share of funds that the Government can allocate to both social services and public enterprise activities. Second, the rapid expansion of education will soon be followed by an upsurge in the numbers of school-leavers seeking jobs. In these circumstances it is essential that the Government devote a larger share of its resources to the creation of income-earning opportunities. Hence, the Government will increase allocation to agricultural and other economic services—the share of

agricultural services in GDP actually fell from 1.3 per cent in 1964 to 0.9 per cent in 1976—and the rate of growth of expenditures on education will be brought into line with the rate of growth of total recurrent expenditure.

2.28. The contribution to GDP of the public enterprise sector has in fact fallen from 11.2 per cent in 1964 to 10 per cent in 1976, despite the fact that the share of the nation's capital formation allocated to this sector increased from 15.2 per cent to 25.4 per cent over the same period. While much of the capital formation in the public enterprise sector in 1976 was related to the reallocation of formerly East African Community functions to Kenya, there is also cause for concern with the overall efficiency of public enterprises.

2.29. Henceforth, existing statutory boards and corporations, including public companies in the public enterprise sector, will be expected to demonstrate increasing efficiency in two ways—(1) the reduction of operating margins with benefits being passed on as appropriate to consumers or farmers or both; and (2) the payment of reasonable dividends. Annual reports showing these effects will be filed promptly with the Treasury and made public. Moreover, investments for expansion, whether from new Treasury funds or from reinvestment of earnings, and investments in new public enterprises will not be undertaken or committed without prior approval in writing from the Treasury and other relevant Ministries. In addition, such investments will be expected to meet the criteria now established for public participation with the private sector in jointly owned enterprises.

2.30. The Government will continue to participate as necessary with the private sector in the promotion and profits of jointly owned enterprises engaged in strategic economic activities. These include the production and distribution of critical farm inputs, leading export industries, major import substitution efforts, and important agricultural processing enterprises. However, the growth of such participation will not be as rapid in this plan period as it has been in the past because of the higher level of defence expenditure in the recurrent budget, and the need to allocate more funds to the rural development effort. The investments that will be undertaken will follow careful feasibility studies which must demonstrate that: (1) investments are indeed strategic; (2) the enterprises will be efficient in production and management; and (3) profits will be made and dividends paid within five years.

2.31. In its efforts to promote efficiency and to expand social services and enterprise activity, the Government will stress the full utilization of capacity. A survey is being conducted in each district to identify facilities that are under-utilized and steps will be taken to improve the degree of utilization. This action will enable the Government to expand its services in rural areas at a more rapid rate than the growth in development expenditure might suggest. In addition ways will be sought to put educational facilities to work during periods—for example, vacations and evenings—when they are idle. The introduction of extension and evening courses at the University is a case in point.

## **The Private Sector**

2.32. While the contribution of the private sector has remained fairly constant as a percentage of Gross Domestic Product, there have been significant changes in its composition. Perhaps the most important change is the decline in the share of GDP attributable to the semi-monetary (formerly the subsistence) economy from 27 per cent in 1964 to 20 per cent in 1976, accompanied by a rise in the share of the private monetary economy from 48.9 to 55.2 per cent. This shift in the share of production indicates the progress that is being made in drawing a larger share of our resources into the modern economy and gradually breaking down the dual nature of the economy. This trend will continue over the planning period and Government efforts to increase the pace of development in the rural areas and among poverty groups will accelerate it.

2.33. The share of monetary agriculture in GDP has increased from 16.1 per cent in 1964 to 17.2 per cent in 1976, but its share of private monetary economy has declined from 32.9 to 31.2 per cent. This is because the manufacturing contribution to the private monetary economy has grown from 18 to 20.1 per cent and its share of GDP from 8.8 to 11.1 per cent. This, too, is an indication of a modernizing economy. The growth of industry will continue to be encouraged but the nature and direction of that growth must now be modified.

2.34. So far, industrial growth has depended primarily on import substitution as was noted in Chapter 1. The success achieved in this regard diminishes considerably the scope for further growth through import substitution. Future industrial growth must be based increasingly on the penetration of export markets. This plan period will be used to effect the transition from an industrial sector primarily serving the domestic market to one that is actively and competitively engaged in export sales. This will require substantial increases in productive efficiency, appropriate export incentives and aggressive export-oriented management.

2.35. Import substitution was easily promoted by offering domestic firms various kinds of protection against foreign competitors exporting in Kenya. These included high tariffs, duty drawbacks and rebates, foreign exchange quotas, import licences, bans on imports, and letters of no objection. Investigations now disclose that in many cases protection has been excessive and unnecessarily prolonged. As a result many industries could afford to disregard normal efficiency criteria and sound management practices and yet earn large profits. Unfortunately this has also meant higher prices to consumers and often goods of inferior quality. It has also contributed to the weak competitive posture of many of our industries in export markets. We can no longer afford inefficiency and excessive profits in industrial expansion.

2.36. Early in the planning period, the Government will standardize the forms and levels of protection within each industry. In particular, reliance on various forms of quantitative restrictions will be phased out and tariffs will become the major form of protection as described more fully in the next section. Schedules for the reduction and elimination of quantitative restrictions and duty drawbacks and rebates will be established for each industry. The protection standards and the schedules for their reduction will be gazetted for each industry as soon as they have been formulated. It is intended to phase out all forms of non-tariff protection for existing industries within five years. Any concessions to new genuinely infant industries will also be limited to a maximum duration of five years. These measures will induce substantial increases in industrial efficiency over the planning period and put many firms in a position to compete effectively in export markets.

2.37. In a further effort to promote efficiency in trade, business, and industry, and to open up opportunities for larger numbers of Kenyans in these fields, the Government will eliminate many of the restrictions which now have the effect of limiting the entry of Kenyans. Some of these practices, such as licensing, franchising, occasional grants of monopoly rights and in some cases import quotas, were initially introduced to protect fledgling Kenyan enterprises against more experienced non-Kenyan competition. However, such practices increasingly favour some Kenyans over others. Applied in this way they tend to foreclose opportunities for many Kenyans aspiring to enter business. Licensing will continue to be employed as necessary to control the numbers and locations of non-Kenyan business activities, particularly in trade, but Kenyans will be free to enter any business of their own choosing. In some areas of business where health and safety standards are important, simple and automatic registration will be introduced subject to revocation if standards are violated.

2.38. Whereas improvements in efficiency will open up more opportunities for Kenyans to engage in industrial activities, the Government recognize that the share of industrial output contributed by Kenyan-owned industry is still very small. In order to enhance the role of Kenyans in industry, the Government will increase industrial services to small and medium sized enterprises owned by Kenyans. These will include better technical services, easier credit terms and managerial and consultancy services. Besides these measures, the Government will ensure that more companies will offer shares to Africans through the stock-exchange.

2.39. Improvements in efficiency will automatically enhance industrial competitiveness in export markets. The Government has already taken other steps to promote exports. These include restructuring and strengthening of the Kenya External Trade Authority and the introduction of the export compensation scheme. As experience is gained with compensation, the scheme will be modified to ensure that it is appropriately adjusted to the exchange

rate and continues to provide an adequate incentive for exports. In addition a study on pricing and production structure of individual industries will be undertaken to determine the problems they encounter in promoting exports.

2.40. It is important for future development that the private sector as well as the Government make every effort to increase the degree of capacity utilization. As domestic demand increases and as export markets expand, firms will be expected to meet the larger demand by expanding output from existing facilities before expanding capacity. Increasing the number of shifts, for example, may enable some firms to increase output and employment substantially with only minor modifications in plant and equipment. Such efforts will reduce pressures on Kenya's balance of payments and also conserve domestic saving for other investment needs. The Ministry of Commerce and Industry will therefore establish machinery for monitoring industrial capacity utilization on a comprehensive and continuous basis to ensure that a greater degree of plant and machinery utilization is achieved throughout industry.

2.41. It is the policy of the Government to welcome foreign private investment. This is particularly so when such investment creates employment for Kenyans, processes local materials, earns or saves foreign exchange in excess of import requirements, transfers needed technology into the country, entails participation through the public ownership of shares, and offers prospects for the reinvestment of earnings. The Government expects that in the future such opportunities will be found increasingly in export-oriented activities, in manufacturing, agricultural processing, mining and tourism. Private foreign investment is not expected to seek out opportunities in such strategic areas as basic transport, telecommunications and hydroelectric power.

2.42. Foreign investors meeting the above criteria and seeking no Government participation or special concessions will be free to establish enterprises in Kenya subject to meeting normal regulations. The negotiation of all other contracts and agreements with foreign investors including management contracts, will be the responsibility of the Treasury. An agency charged with the conduct of all negotiations with foreign private investors will be established in Treasury. It will have a core staff and the resources to marshal additional manpower as required. The agency will bring into its negotiations representatives of other ministries and public bodies, and outside experts as required. The agency will also actively promote constructive private foreign investment, conduct or arrange for project appraisals, and monitor the progress of projects and the distribution of benefits. In the case of industrial projects, the responsibilities for appraisal, evaluation and negotiation will be undertaken by the Department of Industries and the New Projects Committee. It will be responsible for advising the Government, through the normal Government machinery, on the viability or otherwise of proposals from foreign investors.

2.43. Co-operatives form a segment of the private sector that has a special role to play in promoting economic development, especially in drawing poverty groups into more productive activities. They have firm roots in African culture and will be relied upon to perform an array of functions. They have performed effectively in providing marketing outlets for farmers' produce and have also served as a means of channelling inputs to farmers. The co-operatives will therefore be used more extensively than previously, where their efficiency can be demonstrated, as a means for organizing large scale production, such as in wheat and ranching, with dispersed ownership. Efforts will also be made to encourage co-operatives to play a more active role in rural industrialization by establishing co-operatively owned rural industries, particularly for the processing of agricultural products. Co-operatives, like other forms of organization, will be expected to demonstrate increasing efficiency, through the narrowing of operating margins with a rising share of proceeds being paid out to members.

### **Tariffs and Pricing Policies**

2.44. The balance of payments constraint on the present Plan means that the country will give preference to new industrial projects which can provide a measurable net foreign exchange benefit compared with the foreign exchange cost within three to five years. Industrial projects already in existence must be encouraged, or even obliged by fiscal policy, to change their inward orientation of producing solely or mainly for the domestic market to an outward orientation in which export sales become a significant proportion of total sales.

2.45. To this end, as already noted, industrial protection by way of import licensing will be phased out, except in special cases, and remissions and rebates of import duty will be granted only rarely and then only for genuine infant industry cases with the provision that the remission or rebate will be phased out over three to five years. Special attention will be taken to assist the small scale industries within the Kenya Industrial Estates programme.

2.46. Import of industrial equipment will be liable to duty to ensure that the foreign exchange cost of such imported equipment will be taken into account before such investments are made. In addition, the imported cost of capital per unit of product must be sufficiently small that it is not a major element in unit costs.

2.47. Similarly, imports of raw materials from overseas will be subject to import duty without drawback to encourage industries based on domestic raw materials and to minimize the economic cost of imported raw materials in product value. This does not mean that raw materials will not be imported from overseas, but unless such raw materials are explicitly imported for

assembly for the export market, little or no economic benefit in terms of employment or foreign exchange saving can be expected when imported raw materials are a significant proportion of total product costs. However, the duty on finished products made of such raw materials will be set higher than the duty on the raw materials themselves in order to promote local processing.

2.48. Further, except in those cases where imported products are taxed at high rates on revenue grounds, e.g. imported spirits, cars, petroleum and certain luxuries, the general rates of protective duty on final products will gradually be reduced to 20 to 30 per cent—where they have not already been so reduced—to force domestic production costs down towards the international level.

2.49. Agricultural products will also be protected at the same level, although in most cases Kenya agricultural costs have no difficulty in competing with imported products at their proposed levels of protection. In order to emphasize the need for resource based development, agricultural capital and supplies will, in general, remain free of import duty. Some exceptions to this general rule may, however, be introduced as agricultural supply and equipment industries are established in Kenya.

2.50. A major objective of the Plan is to reduce the rate of inflation from its 1976-77 level, to a rate lower than that of Kenya's major trading partners. As part of this general objective of minimizing the rate of inflation, it is also the aim of the Government that products should be made available to consumers at the lowest possible cost in sufficient quantity to meet demand at that price and to provide for export growth consistent with the targets set out in Chapter 3.

2.51. Farm price policy is discussed in Chapter 6. To the extent that domestic demand is now met fully by domestic farm supply, agricultural prices will be based much more than hitherto on the prices at which these products can be sold in international markets. Agricultural prices will, however, be reviewed regularly each year and, if basic food requirements are underproduced in Kenya or if agricultural incomes are reduced relative to other incomes, farm prices will be adjusted upwards consistent with those objectives.

2.52. The incomes of farmers relative to urban workers have improved sharply in the last four years. It is Government policy to continue to improve the terms of trade of farmers to the extent that these are subject to Government control and not dependent on the vagaries of international markets. Care will be taken to ensure that the effects on the urban cost of living are kept within normal bounds.

2.53. Experience over the last five years has demonstrated convincingly that it is not possible to control inflation by an ever stricter imposition of price control. Price control can sometimes delay price increases. It can sometimes mitigate increases by squeezing manufacturers and traders margins.



But price control cannot persist in delaying price increases or squeezing margins without harming the consumers we try to protect. The result would be the removal of products from the market and harm to our economy through bankruptcies and the discouragement of investment and employment creation because production becomes unprofitable.

2.54. Accordingly, price control will not play anything more than a subsidiary policy role during this planning period. Indeed, it is the Government's intention to revoke the General Price Control Order and to rely entirely—in so far as price control policy is concerned—on two types of specific price controls, one covering those commodities that represent a significant proportion of the budget expenditure of the average wage earner or farmer, and the other covering specific products that are produced under monopolistic or highly protected conditions.

2.55. With regard to essential commodities, which are already price controlled, a few commodities will be removed from the schedule of items subject to control either because they are not essential to the lower income groups or because the degree of competition is sufficient to make price control redundant. At the same time, a few other essential commodities will be added to the schedule of products subject to specific price control. It will be the responsibility of the Price Controller to analyse in greater depth the effectiveness with which regulated prices are protecting the consumer and stimulating the required supplies; to recommend changes in prices wherever necessary; and to enforce established prices more effectively.

2.56. With regard to the prices of monopolized and protected products, the Price Controller will work with the Planning Department and the Director of Trade and Supplies to draw up a list of such commodities. The affected producers will be required to notify the Price Controller of prices and price changes. The Price Controller shall have the power to call for any information needed to evaluate the effects of prices on consumers and processors seeking to export. Where investigation indicates that a monopoly position is being abused at the expense of the consumer or export sales, the Government will place that product on a specific list subject to price control and enforce such statutory prices rigorously.

### **Employment and Incomes Policy**

2.57. The creation of employment opportunities, like the direction of development toward the target groups earlier identified, depends on the entire set of policies discussed in this chapter. Thus efforts to promote more intensive and extensive use of land, non-farm rural development, and fuller utilization of capacity of all types will have favourable effects on self and wage employment opportunities. This section is therefore limited to a brief discussion of productive work potential policies to promote employment supplementary to those discussed elsewhere in this chapter, and incomes policy.

## Employment Policies

2.58. Table 2.1 indicates the present state of productive work opportunities and how they are expected to grow over the plan period. The population of productive age, those of both sexes who are aged 15-59 inclusive, is expected to grow at 3.5 per cent per annum. Furthermore, as a result of the

### PRODUCTIVE WORK TARGETS

Table 2.1

	1976	1978	1983	Annual Percent- age Increase 1976-83	AVERAGE ANNUAL INCREASE 1978-83	
	Reported	Estimated	Target		Number '000's	Share %
	'000's	'000's	'000's			
<i>Labour Force:</i>						
1. Population of Productive Age (15-59) ..	6,600	7,070	8,400	3.5	266	
2. Labour Force (85%) <sup>1</sup>	5,610	6,000	7,140	3.5	228	
<i>Employment:</i>						
3. Modern Sector <sup>2</sup> ..	915	1,000	1,250	4.6	50	22.2
4. Small Scale Agri. <sup>3</sup> ..	2,665	2,810	3,210	2.7	80	35.6
5. Pastoralists ..	390	410	470	2.7	12	5.3
6. Rural Non-Farm <sup>4</sup> ..	990	1,100	1,460	5.7	72	32.0
7. Urban Informal <sup>5</sup> ..	125	140	195	6.5	11	4.9
8. TOTAL EMPLOYMENT	5,085	5,460	6,585	3.8	225	100.0
9. Residual (Row 2 less Row 8) <sup>6</sup> ..	525	540	555	0.1		
10. Residual as per cent of Labour Force ..	9.4	9.0	7.8			

<sup>1</sup> The labour force estimate excludes those of working age who are handicapped and unable to work, those who are attending school, and those who do not seek work. It includes those under the age of 15 and over the age of 59 who are actively engaged in productive work.

<sup>2</sup> Modern sector employment projections will increase as a result of the Government's decision to increase modern sector employment by 10 per cent during the 1979 calendar year.

<sup>3</sup> The man-hours employed in agriculture as given in Chapter 6 divided by 2,000 hours to convert to equivalent man-years. This figure, 3,250,000, has been reduced by 195,000, the number of workers in large-scale agriculture subsumed in row 3, and 390,000, the number reported in row 5.

<sup>4</sup> This figure is based on a study by Thorbeck and Crawford. They estimate off-farm rural employment at 1,200,000 in 1976. From this has been deducted 210,000 representing an estimate of the number employed as casual workers on small-scale farms and included in row 4.

<sup>5</sup> The figure reported in the *Economic Survey 1978* for Nairobi and Mombasa raised on a population-weighted basis to cover all urban areas.

<sup>6</sup> The residual includes those who are openly unemployed and the number representing underemployment.

Government's decision to increase modern sector employment by 10 per cent during 1979, employment projections contained in the above table will increase to that extent. The age of 15 is taken as the entry point into labour force because primary education ends at the age of 14 years. But all of those in this age group (15-59 years) will not be actively seeking work and hence are not included in the labour force. There will be some attending school and the University, others will be handicapped to such an extent that they are unable to work, and some mainly married women living in urban areas, will not want jobs. Secondly, some under the age of 15 and over the age of 59 are actively engaged in productive work. Taking these factors into account, the actual labour force is estimated to be 85 per cent of the population of productive age; it will also grow at 3.5 per cent per annum.

2.59. Total productive work opportunities will grow at a slightly faster rate if the plan targets are achieved, namely at 3.8 per cent. Hence, the residual will decline significantly as a percentage of the labour force over the planning period from 9.0 to 7.8 per cent. The residual is not, however, a clearly defined group of people. It includes those who are openly unemployed and the man-years equivalent to the time for which many people are underemployed throughout the year or seasonally. The residual is therefore a composite number and its components cannot be identified.

2.60. The relatively small size of the residual does suggest, however, that the problem of open unemployment, visible as it is in the urban areas and among school-leavers, is of smaller magnitude than the problem of the working poor, those who work, often very hard and for long hours, for very little income. Hence, the most serious employment problem, indeed, the most serious development problem, is that of the working poor. The number of families estimated to be in this category, i.e. those households with incomes of less than Sh. 3,000 per year, was 1,404,000 and included the following groups:—

	<i>Number of Families</i>	<i>Average Household Income (Sh.)</i>
Small farms (less than Sh. 2,200) ...	618,500	1,650
Landless and squatters ...	410,000	2,250
Pastoralists ...	195,000	2,000
The handicapped adults ...	140,000	1,500
Urban poor ...	40,500	2,400
	<hr/> 1,404,000 <hr/>	<hr/> 1,880 <hr/>

These families have a total population of 6,703,000 which is 49 per cent of the nation's total population. The groups include nearly all of the rural landless and squatters and pastoralists and nearly 40 per cent of small farm families. Clearly, increasing employment opportunities for those who are

not now working or who will join the labour force during the planning period is essential, but not enough; the productivity of the work being performed must be improved in order to increase the incomes of the working poor.

2.61. It is because 80 per cent of the productive work in the nation is located in the rural areas outside the modern sector and is least productive that the major development effort will be directed toward increasing the numbers and productivity of work opportunities there. But because land is fixed in supply, the rate of increase in the numbers who can find gainful employment on small farms and pastoral areas is limited, and rural incomes must be raised by increasing the productivity of the land. Nevertheless, about 80,000 work opportunities are expected to be created each year through more intensive use of land on small farms. This is the major source of new work opportunities and over 35 per cent of new entrants to the labour force must be prepared through education and aspiration to perform these kinds of work with increasing effectiveness.

2.62. The second largest source of earned incomes is rural non-farm activities, but these amount to only one third of the size of land-related activities discussed above. It is estimated that 990,000 persons of working age derived incomes from this source in 1976 and that the rural development programme for this sector will generate 72,000 new opportunities each year of the planning period, accounting for 32 per cent of all new work opportunities.

2.63. The third source of self and wage employment is the modern sector which is expected to provide 50,000 new jobs each year, amounting to 22.2 per cent of new work opportunities. This sector is important because it produces larger average incomes, is fully monetized in its activities, and will provide an increasing share of income-earning opportunities with the passage of time. It is worth emphasizing, however, that only one out of five persons entering the labour force during the planning period can expect to find employment in this sector.

2.64. Productive work in pastoral areas is the fourth largest category. As with small farms, much of the development effort for this group must be directed toward increasing productivity and access to markets. Nevertheless approximately 12,000 man-years of productive work will be created in each year of the Plan, amounting to 5.3 per cent of the nation's new work opportunities.

2.65. The urban informal sector is the smallest of the five sources of work opportunities but it is also growing most rapidly. Eleven thousand places will be created each year in this sector through the implementation of the following three policies—

- i. the abolition of harassment;
- ii. the provision of credit and extension services; and
- iii. the provision of essential services, such as running water, sewerage, and (where appropriate) power.

2.66. Clearly the major increase in employment opportunities will spring from rural development—the development of the people where they are. Policies to create rural opportunities are described more fully in the next section. In addition, a number of policies will promote employment in the modern sector. Further Kenyanization will help in this regard, tariffs on capital goods will encourage labour-intensive industries, and the promotion of exports will create employment opportunities, and the stimulation of industrial efficiency and the use of multiple shifts will increase employment by freeing capital for investment in other businesses.

2.67. Four policies directed at improving modern sector employment merit more extensive discussion. First, it is the intention of the Government to modify the investment allowance in order to make it more sensitive to both location and employment potential. At present, the investment allowance cannot be claimed for new firms locating in Nairobi or Mombasa. That will not be changed. The Government will, however, identify other urban areas in which a moderate investment allowance will be offered, reserving a larger investment allowance for the remaining areas of the country. In addition, outside of Nairobi and Mombasa, the portion of the investment allowance that can be claimed will depend on the number of jobs that will be created per £1,000 of investment. In cases where the number of jobs is large, the full investment allowance can be claimed; when the number is moderate, two thirds of the full allowance can be claimed; and when it is small, only one third will be permitted. The details of this policy will be worked out early in the plan period.

2.68. The existing training levy is a tax based on the wage bill of firms in industries for which training is being provided. Hence, it raises the cost of labour in those industries and discourages employment in precisely the industries for which the training is intended and where employment opportunities would normally be high. The new Government policy is to ensure that the burden of this levy should fall most heavily on those firms that have designed their methods of production to use the least labour. Thus, capital intensive industries will pay a greater share of the cost of training people for other industries where they can be employed. The training levy will therefore be revised early in the planning period as a tax on depreciation rather than as a tax on the wage bill. Thus training will be adequately financed without prejudice to the employment opportunities for which people are being trained.

2.69. Third, early retirement will be encouraged in the private sector so that those who wish to do so can transfer their management skills and savings to the development of the land which many in the urban sector have acquired in the rural areas. Others may wish to take up entrepreneurial opportunities which will be opening up during the planning period in rural business and

small-scale industry. In order to implement this policy, the Social Security Fund Regulations are being amended to permit retirement at an early age at actuarially reduced pensions.

2.70. Fourth are those policies to cope with the problem of employing school-leavers. The problem is already large and the numbers seeking work will increase throughout the planning period. In 1978 alone, 60,000 Form IV graduates and 6,000 Form VI graduates were added to the nation's educated labour force and there were many others with substantial education who left school without graduating. These numbers will grow over the planning period.

2.71. The problem is threefold. First, the number of jobs requiring the skills which students have upon leaving school is not growing as rapidly as the number of school-leavers. Second, the students emerge from school with aspirations that are unrealistically high and often turn down realistic employment opportunities which they consider beneath them. Such aspirations may be encouraged by parents and schools alike, but high wage differentials are probably the strongest force propelling students toward higher paid jobs and persuading them to wait for such jobs to open up. Third, graduates may find that their education does not provide them with the skills needed to qualify for medium wage job opportunities. This suggests the need to modify school curricula and to provide school-leavers with further training opportunities.

2.72. The Government will address all three aspects of the school-leaver problem, the first through its efforts to expand employment opportunities in general, to promote Kenyanization and to encourage earlier retirement in the private sector. Second, students will be encouraged through career guidance in the schools and through community programmes to address employment prospects in a more realistic manner and in particular to consider opportunities in rural areas. Government policy to reduce wage and income differentials as outlined below is critical to the redirection of aspirations. Finally, the Government is reviewing school curricula, expanding its training facilities, the Rural Works Programme, and the National Youth Service, and promoting private sector training through the Directorate of Industrial Training in order to prepare students and school-leavers more appropriately for the employment that will be available.

2.73. While these efforts to generate employment and to share existing employment opportunities more equitably are underway, the Government will also undertake to expand the knowledge of the labour force and future manpower requirement. Towards this end, the Government will initiate a labour force and manpower survey in 1979 and the policies outlined above will be modified as necessary.

2.74. An index to the chapters in which employment policies and programmes are spelt out is included in Table 2.2.

SUMMARY OF CHART ON EMPLOYMENT POLICIES AND INSTRUMENTS

Table 2.2

<i>Employment Category</i>	<i>Objectives</i>	<i>Policy Instruments and Institutional Framework</i>	<i>Plan Chapter Reference</i>
Modern Sector .. .. .	Alter relative cost of labour. Produce appropriate manpower in sufficient numbers.	Wages Policy .. .. . Trade Policy .. .. . Fiscal Policy .. .. . Education and Training Policies Kenyanization Policies .. .. . Pricing Policy .. .. . Employment Services .. .. .	2, 10 2, 7 2, 7 5, 10 2, 7, 10 2, 7 9
Small Scale Agriculture ..	Raise income levels. Increase labour productivity.	Agricultural Intensification .. .. . Agricultural Extension Services and Training. Rural Development Policy .. .. . Land Policy .. .. . Pricing and Marketing Policies Provision of basic needs .. .. .	6 6 2, 6, 7, 8 2, 6 2, 6 5
Pastoralists .. .. .	Raise income levels. Increase livestock numbers and quality.	Pricing and Marketing Policies Development of arid and semi-arid areas .. .. . Provision of basic needs .. .. .	2, 6 6 5
Rural Non-farm .. .. .	Increase productivity. Increase labour absorption. Produce some of the privately consumed basic needs goods.	Rural Development Policy .. .. . Appropriate training, e.g. the Village Polytechnic. Review of the existing legislation on rural non-farm activities and remove or amend those sections that are unnecessarily inhibitive. Provide credit extension services and other support.	2, 6, 7, 8 5, 10 7, 9 7
Urban Informal Sector ..	Generate more employment. Produce goods and services for low income groups. Produce skilled workers. Increase productivity.	Remove restriction on informal sector activities. Provide basic infrastructure including the necessary support services.	2, 7, 9, 10 7, 8

## **Incomes Policy**

2.75. It is a major policy of the Government to reduce differentials between high and low earned incomes, and to use the tax system and transfer payments through *Harambee* efforts and the extended family to narrow differentials among incomes after taxes in order to achieve a more equitable final distribution.

2.76. It was noted in Chapter 1 that income redistribution has improved in Kenya between 1969 and 1976. It is Government policy to improve it still further over the planning period because while the rural areas as a whole have made up some ground on the urban areas, the working poor in the rural areas continue to lag far behind. Increasing their access to income-earning opportunities will raise both national productivity and employment. Moreover, raising the cost of imported capital and raw materials, an aspect of incomes policy, will induce the private sector to adopt more labour-intensive forms of production, also promoting employment. Hence, overall incomes policy is composed of separate but closely interrelated policies with respect to profits, property incomes, wages, farm incomes, pastoral incomes, the tax system and the *Harambee* movement.

2.77. Profits are a necessary incentive to stimulate development through the private sector. However, the existence of profits is not necessarily a signal of successful development because high profits can be won by raising consumer prices or exploiting workers as well as by increasing efficiency. It is Government policy to ensure that profits are not made at the expense of the consumer and the worker but rather through the essential processes of increasing and expanding exports. The principal means of directing the profit incentive in socially responsible directions have already been discussed. They include the reduction of industrial protection, the imposition of tariffs on imported capital equipment and raw materials, the rigorous enforcement of price controls on essential commodities, and the establishment of price controls as required on monopolized and overly protected commodities. These measures will stimulate the efficient use of resources and encourage management to resist non-essential wage and salary increases for high and middle level manpower thus narrowing wage differentials. At the same time, wages policy will protect the lower paid worker, and the tax system will divert a proportion of profits to the Government.

2.78. Property incomes must be high enough to stimulate the productive use of land and an adequate supply of housing. Indeed, the best way of ensuring reasonable rents is to encourage construction and housing supply. As the Government's principal concern is with housing for the poor and the low income groups, its own housing programme will be increasingly directed to the construction of site and service schemes and to the provision of realistic levels of municipal and social services for them as well as for residents of low-cost private housing schemes. Demolition of housing by local authorities



will in general be avoided. Instead, inexpensive building materials and advice on improved construction will be made available in poverty stricken areas. Taxes on unused land in urban areas will stimulate private construction and the capital gains tax will ensure that when extraordinary gains arise from the sale of property an appropriate share of those gains accrue to the public.

2.79. The principal protection of workers from exploitation is the unions to which many of them belong and the bargaining process through which wages are determined. The Government assists in this effort in three ways—its legislation on minimum wages, the Social Security Fund, and the wage guidelines which are issued from time to time as directives to the Industrial Court. Minimum wage legislation will be considerably simplified during the planning period and will be directed mainly toward workers in the low income groups. Minimum wages will be adjusted from time to time but care will always be taken that they are not set so high as to limit the growth of employment opportunities.

2.80. Wage guidelines will continue to be issued as required. It is the policy of the Government that workers should share in increases in real productivity through increases in real wages. Such increases will be moderate in order to encourage new employment and to prevent inflation arising from adverse changes in the terms of trade. Lower paid workers will continue to receive a relatively higher compensation for changes in the cost of living compared with higher paid workers as a means of narrowing wage differentials. These guidelines will be applied to wages in the public as well as the private sector.

2.81. If small farmers, pastoralists and those engaged in non-farm activities in the rural areas do not share in the benefits of development, the bulk of the nation's poor will be left behind. The Government's rural development and land policies will play a crucial role in raising these incomes. These policies are the subject of the three sections following this one.

2.82. The tax structure is well designed to serve its two principal functions—(i) raise essential revenues without distorting the allocation of resources and (ii) tax those with higher incomes at higher rates in order to make the distribution of after-tax incomes more equitable. In practice, however, growing tax evasion threatens the very foundations of the tax system. Increasing tax evasion by non-wage earners has increased the relative burden on wage earners.

2.83. The present severity of the problem stems from three factors: (i) insufficient and inadequately trained staff to verify claims and follow up on false reporting; (ii) penalties for late payment and underpayment that are inadequate for the task at hand; and (iii) tax collections on many types that are dependent on voluntary declarations of income. The Treasury is proceeding against tax evasion on all three of these fronts because further erosion

of the tax system can threaten both the plan strategy and the implementation of the forward budgets contained in the Plan. In particular, an office will be established in Treasury to receive and follow up complaints about inefficiency and malpractices in the tax departments; and the collecting of taxes at the source, which has worked very well in the case of PAYE, will be extended through the application of standard assessments to selected other forms of income as well. In addition, as the Department becomes better staffed, it will provide assistance for those who need it to complete their income tax returns.

2.84. The *Harambee* movement and the extended family system are important means by which after tax incomes are further redistributed from the wealthier to the poorer sections of the nation. Direct transfer payments from those employed in urban areas to family members in rural areas is a source of substantial funds for rural development and the alleviation of poverty. *Harambee* efforts provide an array of social, educational, and economic facilities whose services are available to the poor. Moreover, the *Harambee* movement is growing most rapidly in some of the poorer districts of the nation. These efforts will continue to receive support and guidance from the Government as an essential ingredient of incomes policy and rural development.

#### **Rural Development Policies**

2.85. Three of the target groups identified for development in this Plan reside in rural areas and the handicapped are everywhere. As a result, all of the policies discussed in this chapter have direct or indirect relevance for rural development. Indeed, rural development is not a single programme or combination of programmes, but is an overall strategy for the development of rural areas. The components of this strategy are increased rural production and income, increased equity in the distribution of this income, increased access to services, and increased participation and decision-making at the district level. In this section, four issues of policy are discussed which are essential to successful rural development. Information is limited on some of them, and the policies now adopted will be reviewed in the process of implementing the Plan. The areas discussed are access to opportunities, a system for small project identification, decentralization of decision-making and implementation, and the Rural Development Fund.

2.86. Providing the low income groups with access to improved economic opportunities and basic needs is central to the success of the plan strategy. The Government's role in the implementation of this strategy is clear. The Government will increase its efforts to disperse facilities for education, health care and other social services more widely and will improve on the methods for bringing such services to the nomadic people in the arid and semi-arid areas; it will expand its training and extension services and focus them more sharply on the rural target groups; it will allocate more of the nation's resources to the identification of appropriate technology for those with

limited resources in the rural areas; and it will accelerate the development of water and power supplies in rural areas. These efforts will increase the productivity of the people and the land and will also enhance the attractiveness of rural living.

2.87. These lines of development will lay down the basis for increased production, but to realize the increases in practice will require even more substantial changes. Many of the rural poor in Kenya are cut off from the mainstream of economic development because they do not have physical access to the markets and commodities that are available in the monetary economy. This physical isolation is, in many cases reinforced by cultural traditions which support community systems that are self-contained and resistant to change.

2.88. Improving the physical access of such communities to the monetary economy is a matter of high priority. Hence, the expansion and maintenance of rural access roads is a central feature of Government policy. As these roads are extended through the rural areas, local authorities and the private sector will follow with the transport and marketing facilities needed to complete these physical ties. Government pricing and marketing policies will be designed to stimulate these developments. In particular, marketing boards will establish buying networks in these areas and more co-operative societies will be created. The Government will also give a higher priority to the extension of saving facilities and credit to small farmers and rural entrepreneurs.

2.89. Access to opportunities will not ensure that the rural poor will take advantage of them. In order to encourage them to produce new crops, and to adopt new methods of production, the Government will pursue two lines of policy. First, it will establish prices for selected agricultural commodities in advance of each planting season which will ensure that the production of such crops is profitable. Second, it will improve the efficiency of marketing boards and co-operative societies in order to maximize payout to the farmers.

2.90. Taken as a whole, rural development will follow from the implementation of large numbers of small public and private sector projects. In total, these many small projects will do more for development than the comparatively few large projects that will be undertaken during the planning period, although both types of projects are essential and indeed interdependent. Sophisticated analyses of many small projects is not possible—the talent is not available in the numbers required and in any event the cost would be prohibitive. Hence, the Government will develop a system for the evaluation of small projects involving simplified and uniform guidelines and means of comparison which will speed up project selection and implementation. This system will be used to assess all small public sector and *Harambee* projects in order to ensure efficient allocation of public resources to the development of rural areas.

2.91. Responsibility for implementation of rural development policies rests on the nation's network of institutions, public and private. All of them must be responsible to rural needs and opportunities. Within the Government, this will require a growing degree of administrative decentralization and reliance on local units—co-operative societies, locational development committees, etc.—to contribute to decision-making and implementation. Moreover, District Development Committees will play an increasing and central role in planning for district development, co-ordinating rural development activities, and monitoring ministry programmes at district level.

2.92. District development plans drawing on district level analysis of local opportunities and taking into account the provisions of this Plan will be published during 1979. During the planning period, the District Development Committees will be required to monitor all Government expenditures directed to district level and to identify lags in plan implementation by all ministries. In addition, in order to improve co-ordination, all other district level committees, such as District Education Boards, District Agricultural Committees, and District Community Development Committees will become sub-committees of the District Development Committees. Furthermore, all *Harambee* self-help projects will require approval of the District Development Committees before they are initiated. Finally, development committees below district level will be strengthened.

2.93. In order to encourage district level participation in development planning, monitoring and implementation, ministries will, when appropriate to their programmes—

- i. provide district level disaggregated information on planned and actual expenditures. This will permit the analysis of rural development activities in relation to plan objectives and will allow more effective monitoring and evaluation of programme results. In some cases this will require revision of present budgeting and financial reporting systems;
- ii. identify, where appropriate, output targets and in particular their effects at district level on the target groups identified in the Plan;
- iii. analyse all major programmes in terms of their impact on employment opportunities;
- iv. further develop guidelines for the geographic distribution of services and infrastructure.

Information of these kinds will enable ministries and districts to monitor more carefully the extent to which national and local rural development objectives are being realized.

2.94. In order to enhance rural development and the effectiveness of the District Development Committees, the Rural Development Fund will be nearly tripled over the planning period. In addition, the relative share of the

Rural Works Programme, whose main objectives include promoting rural employment, will rise. Additional headquarters and field staff will be added during the plan period to provide technical aid in project design, implementation, audit and evaluation.

### 7. Rural-Urban Balance

2.95. Rural development cannot be a self-contained process. The rural areas must be knit closely to urban markets for both supplies of farm inputs and consumer goods and outlets for farm produce if they are to become an integral part of the monetary economy. Self-sufficient rural communities are settings for subsistence living; their scope for development is limited until links with urban areas are established. The dependence of urban areas on the rural areas is even greater because the urban areas do not have the option of providing their own subsistence needs. They must trade in order to survive.

2.96. The interdependence of rural and urban development suggests that the two must proceed together, and that a careful balance must be maintained between them. If rural development lags behind, people will migrate to the urban areas in search of better opportunities in such large numbers that the urban areas will not be able to accommodate them. If urban development proceeds too slowly, the rural areas will suffer from lack of access to supplies and a weak demand for their products.

### The Designated Service Centre Hierarchy

2.97. In Kenya, urban areas are defined as those having a population of 2,000 people or more. Many centres smaller than this serve as essential links between the formally defined urban areas and the economic activities that are strictly rural in character and setting. Hence, the hierarchy of centres which serve the rural areas both directly and indirectly ranges from Nairobi, Mombasa and Kisumu to small villages in the countryside, most of which are not classified as urban areas at all. These centres are divided into four categories depending on the services performed, the economic potential of the area served, the population served, and the spatial distribution required to promote development throughout the nation.

2.98. The numbers of different types of centres, the average population of the centres, the average population served by the centres, and the number of centres formally classified as urban are shown in Table 2.3. It will be noted that the majority of centres are too small to be classified as urban. More importantly, however, they serve populations much larger than their own. Indeed the strategy of concentrating private and public sector investments in particular centres is designed to benefit not just the inhabitants of the centres but the surrounding rural populations and those living in nearby centres which are lower in the hierarchy.

THE DESIGNATED SERVICE CENTRE HIERARCHY

Table 2.3

Category of Centres	AVERAGE POPULATION		Number of Centres	URBAN CLASSIFIED (Over 2,000 residents)	
	Residents of Centres	Catchment Area		1978	1983
	Local Centres .. ..	Under 300	5,000	1,015	0
Market Centres .. ..	Under 1,000	15,000	420	0	0
Rural Centres .. ..	Under 1,500	40,000	150	10	11
Urban Centres .. ..	22,130*	120,000	96	58	96
TOTAL .. ..			1,681	68	108

\*Excluding the eleven municipalities, this average is 4,565.

†One of the centres now classified as local, Faza in Lamu District, is growing rapidly and is expected to achieve urban status by 1983, but its catchment area will still be about 5,000.

2.99. The Physical Planning Department initiated the policy of designating service centres in the late sixties in consultation with the Provincial Administration. The list compiled at that time is now being reviewed. Some centres may be deleted and others added so that the updated list will identify all centres which meet the criteria established for designation. The implementation of the policy has been left largely to the various ministries, and planners from Health, Works, Water, and Power and Communications have included the service centres in their criteria for siting development investments.

2.100. The extent to which each ministry has based its final siting decisions on the spatial planning guidelines implicit in the Designated Service Centre policy has varied considerably. During the planning period, the criteria for siting public sector investments in the Designated Service Centres will be strictly followed. Towards this end, the Physical Planning Department will be strengthened to enable it to advise ministries before investment decisions are taken, and to monitor investment locations selected by the ministries. The District Development Committees will also be consulted and the Ministries of Local Government, Economic Planning and Community Affairs will be informed, prior to implementation, on decisions that are at variance with the designated hierarchy of service centres.

2.101. A crucial aspect of the effort to concentrate services and infrastructure in service centres is the actual level of utilization of the facilities already constructed. District Development Committees have compiled an inventory of district infrastructure which describes the facilities available, the nature of any under-utilization and the reasons for under-utilization. The Ministry of Economic Planning and Community Affairs in consultation with the Ministry of Lands and Settlement will assist the District Development Committees to follow up on this exercise during the plan period. The aim

will be to ensure that full utilization of existing facilities is achieved before a ministry expands its facilities. District planners and local authorities will play a bigger role in providing information essential to the ministries in order to overcome bottlenecks in the implementation, operation, staffing and maintenance of such investments as health centres, dispensaries, roads and water development.

2.102. By concentrating rural infrastructure and services in the smaller designated centres, the needs of rural communities can be met more directly and at lower cost. Such centres will also serve as the nuclei around which villages will form. As residential patterns shift toward the centres, standards of living can be more easily improved and some land now required for residential purposes can be put to productive use.

### **Priorities Among Urban Centres**

2.103. Of the 1,681 designated service centres, only 68 were classified as towns, i.e. having over 2,000 residents, in 1978 and only 108 are expected to be so classified by 1983. These urban places must be appropriately located throughout the country so that they can provide direct services to their catchment populations and intermediate services to the many non-urban centres within their service areas. The balance of this section is devoted mainly to a discussion of development priorities for these urban places.

2.104. In Table 2.4, the population of Kenya is divided into its rural and urban components and their rates of change are shown for the recent past and the period covered by the Plan. The population in urban areas, places whose population exceeds 2,000, is expected to grow at more than twice the rate of the total population as new towns emerge to meet the needs of rural areas and the natural growth of existing towns is supplemented by additional migration. As a consequence, the population remaining in rural areas will grow more slowly than the total population matching closely the rate of growth of productive work opportunities in the rural areas (*see* Table 2.1). Even so, as a proportion of total population, the rural population will fall over the planning period from 85.7 per cent in 1978 to 82.8 per cent in 1983 because of the more rapid growth of the urban population.

2.105. The rapid rate of growth of urbanization is essential to the realization of the Plan, but it must be properly distributed throughout the nation. The needs of the rural areas are both widely scattered and highly differentiated. Hence, the urban centres must also be widely dispersed and able to provide the services required by the smaller centres and the rural populations they serve. Yet the urban centres, too, must be closely linked to larger urban areas for the basic services they cannot supply for themselves. It is therefore, Government policy to spread urbanization around the country rather than to permit excessive concentration in the major areas of Nairobi and Mombasa.

RURAL AND URBAN POPULATIONS

Table 2.4

	POPULATION ('000's)			Annual Percentage Rates of Change		Share of Total Population (%)		
	Census 1969	Estimated 1978	Projected 1983	1969-78	1978-83	1969	1978	1983
	Total Population	10,943	14,732	17,470	3.4	3.5	100.0	100.0
Rural Population	9,860	12,627	14,470	2.8	2.8	90.1	85.1	82.8
Urban Population	1,083	2,105	3,000	7.7	7.3	9.9	14.3	17.2
Nairobi	509	959	1,334	7.3	6.8	4.7	6.5	7.6
Mombasa	247	401	504	5.5	4.7	2.3	2.7	2.9
Kisumu (Urban)	57	115	169	8.1	8.0	0.5	0.8	1.0
Smaller/Urban Areas	270	630	993	9.9	9.5	2.5	4.3	5.7
Number of Towns (2,000+)	48	68	108					



2.106. The targets for 1983 depicted in Table 2.4 demonstrate this policy. Both Nairobi and Mombasa are expected to grow more slowly than urban areas as a whole; the population in smaller urban areas is expected to grow at 9.5 per cent per annum; and the total number of urban areas, i.e. places whose population exceeds 2,000 is expected to increase from 68 in 1978 to 108 in 1983. In short, the national objectives of balanced development and alleviation of poverty require an urban development strategy that controls polarization towards Nairobi and Mombasa, and that emphasizes the development of other centres with potential for supporting rural development. Furthermore, those smaller centres at rural and market levels with obvious spatial ties to larger centres will be provided with economic and social infrastructure in order to establish and strengthen their functional links with the larger centres particularly in regions with high rural development priorities.

2.107. Of the 96 designated urban centres, some of which have less than 2,000 people, eleven were selected in the last Plan as centres for rapid development and they merit continued priority in this Plan. These centres, all designated municipalities, are Nairobi, Mombasa, Kisumu, Nakuru, Eldoret, Thika, Kitale, Nyeri, Kakamega, Embu, and Meru. They will need to grow rapidly in order to provide the services necessary to accelerate development of the hinterlands they serve. As that development takes place it will in turn stimulate further growth of the centres. Hence, it is a mutually reinforcing relationship between each centre and its hinterland. But priorities for investment among the eleven centres are by no means equal.

2.108. Among the eleven municipalities, somewhat greater emphasis will now be given to those in western Kenya including all of Western and Nyanza Provinces and the Districts of Kericho, Nandi, Trans-Nzoia and Uasin Gishu in the Rift Valley Province. Because of the area's unrealized potential for agriculture and agricultural processing industries, its high population (40 per cent of total population in 1969), and its shortage of social and economic infrastructure, urbanization, as well as rural development, will be accelerated in the West during this plan period. Kisumu will receive first attention as a national and regional municipality. Eldoret will develop rapidly as a regional centre supplementary to Kisumu. Other municipalities, namely, Kakamega, Kitale and Nakuru (outside the area but essential to its development) will develop in response to the growth of Kisumu and Eldoret.

2.109. In addition to the eleven municipalities selected as growth centres in the last Plan, nine other urban centres have been selected for special attention in this Plan. The growth of three of these—Bungoma, Kericho and Kisii—will be promoted in order to support the development effort in western Kenya. Their expansion will bring a wider array of essential services to the task of developing the rural areas surrounding them. Hence, these urban centres will become increasingly important as links between the municipalities and the rural sector in the West.

2.110. Four other urban centres, namely, Garissa, Isiolo, Kapenguria, and Narok, have been given higher development priority in this Plan because they serve as "gateway towns" linking the arid and semi-arid areas of the country to the better developed markets elsewhere in the nation. A significant effort will be made over the planning period to improve the access of pastoralists and marginal farmers working in arid and semi-arid areas to the monetary economy which is now reasonably established along the line from Mombasa through Nairobi and Nakuru to Kisumu. This will be done by defining these urban centres as gateway towns and developing their links both to the municipalities and to the people they serve in outlying areas. The growth of these centres and their ability to provide appropriate resources to their service areas will depend on the growth of the municipalities of Embu, Meru, and Nyeri, as well as Kitale, Eldoret, and Nakuru.

2.111. The urban centres of Machakos and Malindi have also been elevated in priority but for very different reasons. The growth of these centres will generate urban industrial opportunities outside of Nairobi and Mombasa and will relieve those municipalities of unduly heavy development pressures and disperse industrial growth somewhat more widely. Machakos will be developed as a site for industrial growth alternative to Nairobi, much along the lines of Thika, and Malindi will be developed to relieve similar pressures on Mombasa.

2.112. The required spread of urbanization as indicated by these priorities will be achieved in three principal ways. First, these priorities will be reflected in the Government's allocations of funds for the construction and full utilization of essential social and economic infrastructure, and for rural development. Second, the modification of the investment allowance discussed earlier in this chapter will favour the industrial development of the smaller urban centres. Third, rural development and the establishment of essential urban services will stimulate the growth of small businesses and industries catering to rural needs and this kind of development will receive strong support from the Rural Industrial Development Centres.

2.113. Within the urban areas effective development has been impeded in the past by a conflict between standards and needs. Standards protect some groups against the means used to provide needs for others. Realistic minimum standards are essential but if they are set too high they impose needless sacrifices on those in greatest need. Low-cost housing in municipalities is a case in point. Over the last plan period only 8 per cent (ranging, however, from 5 per cent in Nairobi to 96 per cent in Western Province) of the low-cost units planned were in fact completed and these cost on the average five times the expected cost. Excessively high and unrealistic standards for building design, occupancy, and municipal services were clearly a major contributing factor. During the planning period, all municipalities will review their housing standards in order to make them appropriate for the settings to which they will

be applied and to reduce them to the minimum consistent with the provision of low-cost housing needs at reasonable cost. These standards will be raised as development creates higher and more widespread incomes.

2.114. Some activities in the urban informal sector have also been caught up in this conflict although the issue is less clearcut. Customers must be protected against unsafe drivers and vehicles, unsanitary conditions for preparing food, contaminated foods, and fraud. On the other hand, if standards are set too high, they will exclude many people from earning a legitimate livelihood and subject them to undue harassment. Again, realistic minimum standards enforced through legitimate inspection procedures are required, and early in the planning period, the Government will review these standards and spell out mechanisms for enforcing them.

2.115. Responsibilities for planning urban development fall on a number of Government agencies including municipalities, town councils and other local authorities, the District Development Committees, the Ministry of Local Government, the Physical Planning Department of Lands and Settlement, and the Ministry of Economic Planning and Community Affairs. The task of co-ordinating these efforts falls on the latter ministry particularly with respect to determining the national pattern of urban development.

2.116. Allocations of Government expenditure on major types of urban infrastructure over the planning period are shown in Table 2.5. While these are affected by differences in backlog needs, special problems, and costs, they also reflect the priorities for urban development outlined above, especially among the eleven municipalities. Hence, expenditures on housing and sewerage for western Kenya are a larger percentage of total expenditure than their share of total population.

2.117. The schedule of Service Centres, names of authorities involved in urban planning and development, and guidelines for the location of infrastructural activities are outlined in Appendices I, II and III.

### **§ Land Policy**

2.118. Land and its use are central to rural development. Policies with respect to land tenure and land use are therefore critical to successful rural development. The main lines of Government policy are clear. The small farm family that works its own land is the main instrument for farm management and rural development. Exceptions to this style of agricultural production exist where economies of scale require other forms of organization as with ranching, wheat farming, sisal and pineapple plantations, and nucleus estates. In the latter cases, the form of organization of the farming system, i.e. co-operative farming, limited liability company, partnerships, etc., will be determined by efficiency criteria.

DISTRIBUTION OF EXPENDITURE ON MAIN SERVICE INFRASTRUCTURE  
1978/79-1982/83

Table 2.5

(KE'000 in 1978/79 prices)

	Per cent of Municipalities' Population	HOUSING*		WATER†		SEWERAGE‡		ROADS§	
		Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent
<i>Municipalities</i>									
1. Nairobi	55.2	71,238.0	70.2	16,500.0	33.4	6,576.0	44.7	5,500.0	56.7
2. Mombasa	23.0	12,815.0	12.6	24,175.0	49.0	3,500.0	23.8	2,400.0	24.7
3. Western Kenya Municipalities	11.7	12,825.0	12.7	5,300.0	10.7	3,390.0	23.0	900.0	9.3
Kisumu	(6.6)	(9,637.0)	(9.5)	(2,300.0)	(4.0)	(1,340.0)	(9.1)	(450.0)	(4.6)
Eldoret	(2.7)	(1,889.0)	(1.9)	(2,100.0)	(4.3)	(1,100.0)	(7.5)	(200.0)	(2.1)
Kitale	(1.3)	(711.0)	(0.7)	(1,200.0)	(2.4)	(950.0)	(6.4)	(150.0)	(1.6)
Kakamega	(1.1)	(588.0)	(0.6)	—	—	—	—	(100.0)	(1.0)
4. Other Municipalities	10.1	4,573.0	4.5	3,400.0	6.9	1,250.0	8.5	900.0	9.3
Nakuru	(4.5)	(1,800.0)	(1.8)	(1,800.0)	(3.7)	(150.0)	(1.0)	(450.0)	(4.6)
Thika	(2.7)	(1,377.0)	(1.3)	(1,600.0)	(3.2)	—	—	(150.0)	(1.6)
Nyeri...	(1.3)	(478.0)	(0.5)	—	—	(1,100.0)	(7.5)	(100.0)	(1.1)
Embu	(0.8)	(471.0)	(0.5)	—	—	—	—	(100.0)	(1.0)
Meru	(0.8)	(447.0)	(0.4)	—	—	—	—	(100.0)	(1.0)
<b>TOTAL MUNICIPALITIES</b>	<b>100</b>	<b>101,451.0</b>	<b>100</b>	<b>49,375.0</b>	<b>100</b>	<b>14,716.0</b>	<b>100</b>	<b>9,700.0</b>	<b>100</b>
Town Councils		10,692.0		1,620.0		5,290.0		700.0	
All other Service Centres		5,600.0		26,480.0		11,277.0		—	
<b>TOTAL</b>		<b>117,743.0</b>		<b>77,475.0</b>		<b>31,283.0</b>		<b>10,400.0</b>	

\*Housing expenditures include National Housing Corporation, Ministry of Housing and Social Services, and Local Authorities own funds Private Sector, Government Staff Housing, Institutional Housing and Local Government Loans Authority (LGLA).

†Water expenditures include funds from LGLA, Ministry of Water Development; and Local Authorities own funds.

‡Sewerage expenditure includes LGLA funds, Ministry of Water Development; and Local Authorities own funds.

§Roads expenditure includes LGLA and Local Authorities own funds.

||Others include urban Councils and other smaller service centres.

## Land Tenure

2.119. The emphasis on the small farm family derives from evidence that on the whole, small farms produce more per acre, utilize land more fully, employ labour-intensive methods of production, and are a source of subsistence as well as cash crops. The family farm as the focus for agricultural development has three implications which underlie more detailed Government policies. First, the family owns its land. Second, the family manages its land. Third, the family works on its land. Ownership of large holdings of land suitable for small farming will therefore be discouraged, and so will absentee landlords, a landlord-tenant system of farming, and the holding of idle land for speculative purposes. The policies outlined below are intended to prevent such malpractices and to establish firmly the small farm as the principal decision-making unit in agricultural development.

2.120. Establishing the ownership of land in compact family farm units has been the main purpose of the land adjudication and registration programme. At the end of 1977, 16.7 per cent of all registrable land in Kenya had been registered, a further 14.0 per cent had been adjudicated, and 6.6 per cent was in the process of adjudication. Hence, work was completed or underway on 37.3 per cent of all registrable land. Nevertheless, if actual registration proceeds at the average annual rate of 550,000 hectares per year it will take another 45 years to complete the task. Clearly, this rate of progress is unsatisfactory. During the planning period, the efficiency of Land Adjudication Department will be enhanced and the resources allocated to the programme and the rate of registration will be substantially increased.

2.121. Once land has been registered it becomes a basis for credit, a source of funds if it is sold, and an object for subdivision among heirs. The first is to be encouraged; the other two must be carefully controlled if the family farm system is to flourish. With the implementation of land adjudication and registration, the volume of land transactions among smallholders has increased. Consequently, the incidence of concentration in land ownership among the better-off small-scale farmers has increased. It is the primary responsibility of the District Land Control Boards to guard against undue concentration of land ownership and any subdivisions which result in parcels of land that are uneconomic to farm. Hence, the statutory guidelines given to these Boards will be reviewed to ensure that any transfer of farm land does not result in either excessive ownership of the land by the buyer or insufficient land for the seller to farm. Moreover, the *de facto* subdivision of some large farms currently run as Shirika farms will be recognized by granting titles to the families occupying the land. Finally, in future settlement programmes, land will be allocated only to families who are genuinely landless. These measures will reduce the magnitude of landlessness and prevent undue concentrations of land among the few.

2.122. Regardless of the size of holding, land must be productively utilized. The speculative holding of land will be discouraged, particularly in the urban areas and on large farms. All agencies of Government dealing with land issues will be required to enforce the provisions of the Agriculture Act which deal with land use. Penalty levels with regard to land under-utilization will be determined by the Treasury and the Ministries of Economic Planning and Community Affairs, Agriculture, Lands and Settlement, and Local Government. In addition, the provision of Capital Gains Tax will be rigorously enforced to minimize speculation on land.

2.123. Another instrument which can be used to minimize concentration of land ownership and at the same time encourage productivity is a land tax. In Sessional Paper No. 10 of 1973 on Employment, the Government committed itself to introduce a land tax once all registrable land had been adjudicated and registered. The acceleration in land adjudication and registration, outlined in Chapter 6 of this Plan, will bring nearer the date when a land tax can be introduced throughout the nation. However, during the planning period, the Ministry of Economic Planning and Community Affairs, in consultation with the Ministries of Lands and Settlement and Local Government, will investigate the feasibility of introducing a land tax in those districts in which land registration has been substantially completed, with the tax accruing as revenue to the Local Authorities.

2.124. In addition to these specific issues, the Government will undertake early in the planning period a comprehensive assessment of land tenure policies in Kenya. A National Land Commission will be set up to consider all policy issues related to land. Detailed recommendations will be made by the Commission to ensure that land policies, laws, and regulations meet the country's future development needs. These will be implemented before the end of the plan period. The membership of the Commission will be drawn from the Government, legislature, parastatals, co-operatives, legal profession, small and large farmers, and the university.

## **Land Use**

2.125. As a result of rapid population growth, the amount of good agricultural land capable of producing adequate income with existing technology is becoming scarce. Consequently, population pressure has been forcing people to cultivate more marginal lands every year. In these circumstances, it is the policy of the Government to increase the productivity of all types of land during the planning period. This policy will be pursued along five lines: First, the Government will institute programmes which will enable farmers to use higher levels of purchased inputs, especially fertilizers. The expanded use of these inputs will increase productivity and encourage multiple farming in suitable areas. Second, drainage and irrigation programmes will be implemented at an expanded level. Third, soil and water conservation programmes will be instituted with the aim of enhancing the productivity of land. Fourth,

a programme will be introduced to intensify development of the arid and semi-arid areas of the country. Finally, through the Integrated Agricultural Development Programme, a system will be created to transfer new technologies to the farmers and to facilitate efficient marketing of their outputs. These programmes are spelt out in detail in Chapter 6.

2.126. The implementation of the policies outlined in the preceding paragraphs will lead to a more intensive and efficient use of land, thereby increasing both agricultural output and employment. This is particularly important because everybody will not have access to land. Hence, access to employment as a farm worker will be one of the major sources of productive employment during the planning period.

2.127. The Land Use Committee, which is already in existence, will have an important role to play in the elaboration of the policies outlined in this section of the Plan. That Committee is concerned with the effective use of land in terms of long-term social and economic benefits. The effective implementation of the land policies identified above and by the National Land Commission will constitute the basic terms of reference for the Committee. In addition, the Committee will be responsible for identification of land to be set aside for such public uses as afforestation, wildlife, and flood control. Should privately owned land be required for such public purposes, appropriate compensation will be paid.

### **Science and Technology Policy**

2.128. The productivity of the nation and the income-earning opportunities associated with it depend crucially on the application of modern scientific knowledge to the identification and generation of improved technologies, and the use of the technologies in production processes. In this Plan, therefore, high priority is attached to scientific development and to the use of technology for the social and economic development of the nation. Because the resources available in Kenya for scientific research and technological development are limited, our planning efforts in this regard must be first, to design our research programmes on the basis of clearly identified national priorities, and second, to co-ordinate these programmes so that no effort is wasted in unnecessary duplication of research.

2.129. Those national priorities must be assigned to specific technological needs in Kenya whether these needs are met by the transfer and adaptation of research results and modern technologies found elsewhere in the world or by original research and new technologies designed in Kenya. With regard to technological transfer, we will develop our scientific capacities to the point where the results of such research can be readily assimilated in Kenya, and more importantly, modified and adapted to our needs. In this way, transfer of technology will be used as a stimulus leading to further development of technology. To facilitate this, basic supporting facilities, including standardization, patent control, documentation, and information, will be developed.

2.130. Whether the technologies are transferred from abroad or developed locally, the important point is that the technologies be as productive as modern science can devise for the settings in which they will be employed. In telecommunications, it is the most sophisticated international technologies available; in an oil refinery, it is the most efficient technology that can be incorporated in the scale of plant suitable for Kenya; in a sugar factory, it is the most productive equipment available which will make full use of Kenya's ample labour supply; and on large farms, tractor ploughing may be appropriate.

2.131. The greatest challenge and the greatest need, however, is to apply modern science to the development of technologies that can be used productively by small farmers and self-employed workers in the rural and urban informal sectors. Such technologies, if they are effective and appropriate to the small farm and informal sector settings must: (i) be more productive than the technologies now in use, (ii) be produced and sold at a cost that the intended user can afford, and (iii) cope effectively with problems confronted by the user in the setting in which he and his family work. That is appropriate technology, and its creation is a genuine challenge to the most modern and sophisticated scientific knowledge. It is the first priority for Kenya's scientific and technological research programmes.

2.132. Effective research must proceed from the identification of technological needs. As these vary considerably from one part of the country to another depending upon ecological conditions and methods for organizing production, some research must be directed toward the identification of needs in specific settings. Some of these needs as they relate to the poorest small farmers have been identified and research work is being directed toward their resolution. These include: (i) the identification of new crops and crop varieties appropriate for different soils and ecological settings, (ii) the control of insects and plant diseases, (iii) methods of farm management that will increase the amount and variety of production, (iv) low cost mechanical technologies that will increase productivity and make farm work less onerous, (v) simple transport technologies that will facilitate the movement of supplies and output from farms to roads, and (vi) solar and biogas technologies to bring some power to isolated communities at lower cost and without the transmission losses associated with the transport of power over long lines.

2.133. The technological needs of off-farm activities will also be addressed. Technologies are required in all industries, but especially in agricultural processing, capital goods—including machine tools, and export industries, which are both efficient and labour intensive. Moreover, improved technologies are needed in the provision of basic needs such as nutritious foods, housing, water, sanitation, and health care. Finally small scale technologies are needed which will make a variety of small industries viable in both the rural and urban settings. These needs will absorb much of the nation's remaining research capacity.



2.134. The normal lag between the development of appropriate technologies and their widespread adoption in the field often exceeds five years. Therefore, much is to be gained from making this lag as short as possible in Kenya. Hence, the Government will devote more resources to the development of pilot models, testing and demonstration in order to shorten the period between the identification of promising technologies and their employment in production.

2.135. A second problem beyond basic technological research is the provision of adequate networks for repair and maintenance. Much capacity is now under-utilized because these networks do not extend close enough to those requiring the services, essential parts are unreliably supplied, and people having the required maintenance skills are too few in number. Even at the research stage repair and maintenance capabilities must be assessed and the technologies designed must be consistent with realistic estimates of maintenance potential. When new technologies are introduced the repair and maintenance network must be provided simultaneously.

2.136. The manpower bottleneck is serious at each of these levels—research, translation to the Kenyan setting, and maintenance. The Government will relieve these shortages as quickly as possible by continuing its emphasis on science subjects in the school system, supporting polytechnic training, expanding the Science Teachers College, and increasing research talent through advanced degree programmes at the University of Nairobi and abroad. In addition, the primary and secondary schools will disseminate more information on the role of technology in the lives of students and develop their mechanical aptitudes so that those who emerge understand principles of maintenance.

2.137. The responsibility for expanding on these policies and co-ordinating their implementation lies with the recently created National Council for Science and Technology. Under its aegis, the Government will establish several government research institutes whose research programmes will require approval by the Council. In addition, research programmes at the University of Nairobi and at private centres, such as the Medical Research Centre, will be referred to the Council for its consideration and all research work in Government ministries will be co-ordinated by the Council.

2.138. The Government has adapted as a long term national target that 1 per cent of Gross Domestic Product should be devoted to research and development. In this Plan, the total provision for funding publicly supported research institutions in both the development and recurrent budgets is K£9.6 million in 1978/79 rising to K£15.0 million in 1982/83. In addition, the National Council for Science and Technology will have a Research Fund rising from K£200,000 in 1979/80 to K£1 million in 1982/83. Finally, the private sector will be encouraged to expand its expenditures on research and development.

2.139. Early in the planning period, an agency will be created to evaluate the technology purchased for all major investment programmes. The National Council of Science and Technology will establish terms of reference and the necessary linkages to ministries or other institutions. The new agency will advise on the appropriateness of the technology, whether old or new, prior to acquisition. Furthermore, the machinery actually delivered will be tested for conformance to specifications. The functions of the agency will be harmonized with those of the Bureau of Standards, the Industrial Survey and Promotion Centre and the Agricultural Machinery Testing Unit.

2.140. The policies outlined in this section are elaborated upon in the sectoral chapters of the Plan. To give them greater substance, the National Council for Science and Technology will, early in the planning period, formulate and publish a national science and technology policy statement.

### 10 Environmental Management Policy

2.141. The Government's policies with respect to the preservation and improvement of the environment are based on the premise that the prevention of harmful effects is less costly than their subsequent correction. Hence, environmental considerations must be entertained at the planning stage in order to ensure that the pattern and style of development is consistent with a healthy natural environment. Such a setting is essential to the well-being of present and future generations.

2.142. The potentially destructive impact of man on the natural environment not only affects adversely the quality of life, but is also likely to reduce future productivity. Unthinking and selfish practices can soon reduce the productivity of land, streams and coastline, which along with her people are Kenya's basic economic assets. The great natural beauty of the countryside and wildlife can be even more easily destroyed. In the urban areas, high rates of growth make it difficult to create an economically sensible and attractive man-made environment.

2.143. Poverty itself may have serious environmental consequences for poor farmers and pastoralists, producing food for their families today may be their only goal. It may not matter to them now that soil erosion, forest decimation, and, at the extreme, desertification will result. These processes, however, will have the impact of reducing opportunities for them and their children in the long run. Similarly, the poor in the cities may have no option but to pollute the streets, transmit disease through unsanitary conditions, and destroy trees for fuel, since their incomes and access to social services are limited. In such circumstances, efforts to alleviate poverty will clearly have beneficial effects on the natural environment.

2.144. But development, even along these lines, may also pose problems for the environment. Increasing the productivity of the land, for example, entails the increasing use of sophisticated inputs such as insecticides, pesticides, herbicides, and fertilizers. These will have deleterious effects on the

environment unless they are carefully selected and controlled in their uses. Industrial development will pollute the air and water unless it is suitably controlled and will create population densities for which essential services are difficult to provide. This bleak scenario need not be the consequence of economic development since such problems can be mitigated through proper planning. Government policies with respect to the environment are designed to ensure that development proceeds in an environmentally sound manner. These policies will continue to be refined as they relate to environmental education, resource use, presentation of environmental impact reports, monitoring of environmental hazards, human settlements, environmental law, and the co-ordination of environmental protection programmes.

2.145. As environmental considerations must come to pervade development decisions taken at every level from the family to the Government, these considerations must be brought to the attention of every citizen. Hence, environmental education will be introduced in the schools, not as a separate discipline but as a dimension to be considered in the various aspects of the curriculum as appropriate. In addition, in-service programmes, seminars and workshops for teachers, planning personnel, field officers and other professionals will emphasize the need to take account of environmental considerations in their work. An environmental newsletter will also be introduced in order to disseminate current information quickly and to promote effective communication among planners and the environment-related research establishment.

2.146. In support of these activities, a national centre on environmental research will be established to work in co-operation with national curriculum agencies and informal channels of information. This centre will conduct research and formulate environmental educational programmes thus ensuring that educational policy is based on rational and scientific analysis of facts. Apart from co-ordinating the development of projects at all educational levels, it will provide facilities for effective evaluation, dissemination and preparation of educational resource and instructional materials and the training of personnel for roles in environmental education.

2.147. Specific policies for environmental control will influence development decisions of all kinds. In formulating and implementing these policies it is necessary at the outset to concentrate on those areas where environmental risks are greatest and to develop procedures for dealing with environmental issues as they arise.

2.148. The first need, therefore, is to develop an information base disclosing the contemporary state of the environment in both its natural and man-made dimensions and to establish an economy-wide monitoring system so that changes in environmental condition are identified as they occur. This system will assist also to identify malpractices leading to deforestation, soil erosion,

overstocking, air and water pollution, impoverished human settlement, and destruction of wildlife. It will supply the basic information required for the identification of corrective measures.

2.149. The second main instrument of environmental control is preventive in character. A system of Environmental Impact Reports will be introduced. All major proposed governmental, parastatal and private projects will be required to prepare such reports, and projects will be modified before implementation if environmental standards would otherwise be threatened. In support of this policy the Government will increase its capacity for conducting project appraisals which incorporate environmental factors.

2.150. An array of environmental standards will be established over the planning period covering pollution, industrial location, reforestation, use of agricultural inputs, and human settlements among other things. Pollution standards will be the first task undertaken. Ambient (streams and open air) standards will define acceptable levels of specific pollutions in given locations; discharge standards will limit the discharge of pollutants at their sources. Discharge standards will first be established for industries processing primarily raw materials and such intermediate goods industries as chemicals and building materials. Such standards are essential for ensuring that the desired environmental quality is attained. They will also assist in assessing the adequacy of Environmental Impact Reports, particularly in respect of industrial projects.

2.151. Policies with respect to the use of resources and materials focus on the identification of natural resource supplies and local materials which can be used to promote economic development. The formulation of such policies over the planning period will be the joint responsibility of the National Environment Secretariat and the National Council of Science and Technology. Policies will also be formulated with respect to the rate and phasing of resource depletion to avoid premature exhaustion and ensure viable economic returns.

2.152. One of the main pillars of the materials policy will be the investigation of the possibilities for recycling of materials. Efforts have already been initiated in this field and have shown considerable promise in terms of the private sector's willingness to co-operate. Recycling has the double advantage of conserving materials as well as reducing the volume of wastes, particularly solid wastes, thereby reducing the cost of its disposal. It is also one area where the informal sector, using simple labour intensive technology, has a critical role to play in terms of creating income-earning opportunities particularly for the urban poor.

2.153. Policies and standards for human settlements concern mainly aspects of the man-made environment such as shelter or housing; physical infrastructure, such as water supply, waste disposal facilities, transportation

and communication networks, and energy; and public services such as recreation, health care and education. The priority areas include the provision of water for the rural areas, low cost housing in the urban areas, and sanitary, social, and community services for both. Minimum standards for construction and delivery of services in human settlements will be established so as to meet realistic needs; they will not be set so high as to seriously limit supply.

2.154. The responsibility for co-ordinating the nation's effort to ensure the maintenance and enhancement of environmental quality rests with the National Environment Secretariat established in the Office of the President. It will work closely in its endeavours with the Ministry of Economic Planning and Community Affairs, the National Council on Science and Technology, and other Government Departments whose operations relate to the environment in one way or another. In addition to the formulation of environmental policies, such as those outlined and the co-ordination of their implementation, the Secretariat will continue working closely with the United Nations Environment Programme and the Habitat Secretariat, both of whose headquarters are located in Nairobi, in addition to other operating bodies within the United Nations system.

2.155. In order to establish the necessary authority for its several functions, the Secretariat will review existing legislation as it relates to environment and will propose the changes required to give the essential force of law to the environmental standards, Environmental Impact Reporting procedures, and other preventive, corrective and enhancing measures it establishes. It must, however, be emphasized that in the solution of environmental problems, the willing co-operation of citizens, private companies and governmental institutions will always be solicited in preference to legal coercion.

### **Population Policy**

2.156. In Kenya decisions on family size rest with parents. These decisions, taken together, determine the rate of population growth in the nation. While the Government is concerned about the very rapid rate of population growth in Kenya, it is also convinced that as these concerns come to be understood in terms of effects on family welfare and the quality of life, parents will adjust their decisions in favour of smaller families.

### **Population Growth**

2.157. The rate of population growth in Kenya is estimated to be 3.5 per cent, having risen from a rate of 3.2 per cent at Independence. Rising family incomes, remarkable advances in public health care, and the provision of other social services have in combination brought about a sharp decline in mortality rates. However, birth rates have remained high so that family size and the rate of population growth have both been rising. Hence, as explained in Chapter 1, much of the nation's increases in output since Independence have had to be used to provide necessities for larger numbers and have not

been available for improving the quality of life. Similarly, much of the increases in family incomes have been required to feed, clothe and educate more children, thus, making it difficult for many families to improve their standard of living.

2.158. The Government expects that its population programme will lead to a reduction in the birth rate during this planning period and that this will be followed by a reduction in the rate of population growth so that by the end of the century the structure of the population will be more balanced than it is now and the standard of living will be improving more rapidly. Population projections based on a declining birth rate, as shown in Table 2.6, are used by the Government in its long term planning. The importance of the Government's population programmes can be seen by comparing these projections with those made on the assumption of a constant birth rate.

2.159. The present structure of the population is the result of the high and rising rate of population growth in recent years. In 1978, 48.3 per cent of the population was under the age of fifteen and 3.7 per cent was over the age of sixty. Hence, the population of productive age, 15-59, was in fact smaller than the dependent population and composed only 48.0 per cent of the population. The dependency ratio, the number of people dependent on each one hundred persons of working age, was 108.4. However, as many of those of working age were actually in school or unable (or unwilling) to work, the number of people dependent on each hundred at work would be considerably higher. Moreover, as 29.5 per cent of the population was of school age, 6-16, the effort to provide quality education in sufficient numbers represented a substantial strain on both Government and family budgets.

2.160. The effect of present population policies on the structure of population can most easily be seen in the alternative projections made for the year 2000. Table 2.6 indicates clearly how the problems confronting the Government at that time will depend on the policies we follow today. Assuming a constant birth rate, the Government will have to organize the economy to provide income-earning opportunities for 13,500,000 people and those at work will need to provide for a total population of 34,117,000. In addition, resources will have to be found to educate 10,374,000 children of school age who will then make up 30.4 per cent of the total population.

2.161. The alternative, a declining birth rate, is a more promising one. 13,100,000 income-earning opportunities will be required but as the total population will be 28,182,000, double its present size but six million less than above, the quality of life will be very substantially higher. Moreover, resources will be needed for only 7,854,000 children of school age and the quality of education will be greatly improved. Finally, as fewer resources will be required for education and other social services, more resources can be devoted to the essential task of creating the income-earning opportunities that will be required.

PROJECTED POPULATION IN KENYA 1978, 1983 AND 2000

('000)

Age Groups	ESTIMATED, 1978		PROJECTED, 1983				PROJECTED, 2000			
	Number	Per cent	Constant Birth Rate		Declining Birth Rate		Constant Birth Rate		Declining Birth Rate	
			Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Total population	14,732	100.0	17,648	100.0	17,470	100.0	34,117	100.0	28,182	100.0
Children (0-14)	7,112	48.3	8,614	48.8	8,436	48.3	17,062	50.0	11,595	41.2
Productive age (15-59)	7,070	48.0	8,404	47.6	8,404	48.1	15,895	46.6	15,427	54.8
Persons 60+	550	3.7	630	3.6	630	3.6	1,160	3.4	1,160	4.0
Pre-school age (0-5)	3,430	23.3	4,170	23.6	3,992	22.8	8,228	24.1	5,035	17.9
Primary school age (6-12)	2,972	20.2	3,592	20.3	3,592	20.6	7,155	21.0	5,200	18.4
Secondary school age (13-16)	1,366	9.3	1,640	9.3	1,640	9.3	3,219	9.4	2,654	9.4
Potential labour force*	6,000	40.7	7,140	40.5	7,140	40.9	13,500	39.6	13,100	46.5
Dependency ratio	108.4		110.0		107.9		114.6		82.7	

\*This is estimated at about 85 per cent of the population of productive age.

2.162. If this important but distant objective is to be achieved so that future generations can enjoy a higher standard of living, the families of today must realize that there are immediate benefits to be derived from smaller family size and scale their image of optimal family size downward. This is indeed the case. Decisions favouring smaller families mean improved spacing between children and a smaller aggregate population in the 0-6 age group. This means that each child can receive a larger share of parental attention, better and more nutritious food, improved health care, and a greater opportunity for quality education. It is on the quality of our children that the future of the nation depends.

2.163. The Government is aware that the quality of children's lives is a matter of increasing concern to parents, and it will assist them to understand how the quality they seek for their children can be attained. Hence, the Government will expand its information and education programmes directed to parents. The content of those programmes will emphasize the quality of children and how quality can be attained through decisions favouring smaller families. The Government will also expand the number and quality of centres and staff through which information on and methods of family planning are made available, as outlined below.

2.164. The Government adopted an official Family Planning Programme in 1967. The current five-year programme, which is a continuation and an enlargement of this programme, was commenced in 1975 and includes the following components:—

- i. the establishment of some 400 Family Planning/Maternal and Child Health Service points to provide daily family planning and maternal and child health service;
- ii. the training and deployment of 400 Community Nurses or Enrolled Nurses and some 46 Provincial and District Community Nurse Trainer Supervisors and Family Planning Field Officers;
- iii. the training and deployment of some 55 tutors to staff the Community Nurse Training Schools and to improve the teacher/student ratio; and
- iv. the extension of the coverage of health education and family planning information and education materials throughout Kenya.

2.165. The continuation of this programme through the planning period will be characterized by additional emphasis on attaining greater efficiency in implementing the programme in direct response to people's needs. The objective is to reduce birth rate by creating an environment and attitudes favourable to smaller household and family sizes. The achievement of the objective requires, however, a strategy that emphasizes the organization and delivery of services that are directly relevant to families in the settings in which they work and raise their children. The programme will therefore be



strengthened at the organizational and administrative levels in order to secure its success in the long term. Details of the programme are outlined in Chapter 5.

### **Rural-Urban Migration**

2.166. The problem of creating income-earning opportunities for 13,100,000 people by the year 2000 is a problem of great magnitude. It involves increasing the productivity of people in every sector and encouraging movements of population to those sectors where opportunities and productivity are growing most rapidly. The scope for increasing productivity most rapidly is in the use of the land where yields are now far below those attained in other parts of the world.

2.167. The need to raise agricultural yields follows directly from the fact that while population will be growing rapidly, the land available for growing food will change very little. Less than one fifth (17 per cent) or 99,050 sq. kms. of Kenya's total land area of some 569,200 sq. kms. is considered arable, i.e. high and medium potential land. The average overall population density—or average number of persons per sq. km.—was 26 in 1978, while the density on arable land was 135 (population in Nairobi and Mombasa excluded). By the year 1983, these densities will be 31 and 158 respectively, and by the year 2000, 50 and 250 respectively. Hence, the emphasis in this Plan on rural development and efficient land use must be extended for many years into the future.

2.168. The highest average population densities, as a rule, can be found in districts and areas with the highest proportion of arable land. Approximately half of Kenya's population lives in districts covering one-third of the total arable land area at densities varying from 159 to 533 persons per sq. km. (1978). Because of limited employment opportunities in highly populated areas in particular, two main streams of migration movement occur—from the rural countryside to urban areas and from high to medium potential land and land settlement areas.

2.169. The rate of natural increase in urban areas is at present considerably lower than in the rural areas, not only because of better access to social and economic amenities, information, and family planning services, but also because of the male dominance in the urban population structure. The main determinant of population growth in urban centres is, therefore, migration from rural areas leading to an urban growth rate twice the national average.

2.170. A comparison of rural-urban migration and total migration reveals that rural-rural migration is quite substantial, representing two-thirds in the case of males and three-quarters of females who had migrated at the time of the 1969 census. Thus rural-rural migration predominates, particularly from regions suffering from population pressure to regions where there is still scope for rapid agricultural improvement and for raising the population-land ratio.

Also, although migrants have accounted for between 60 and 70 per cent of urban population growth, the proportion of rural population migrating to the towns is still very low. For instance, between 1962 and 1969 only about 11 per cent of the increase in rural population moved to the towns.

2.171. Leaving the two urban areas of Nairobi and Mombasa aside, the 1969 census shows that the districts of Nyandarua, Laikipia, Nakuru, Trans-Nzoia and Uasin Gishu had net gains of population from provinces other than the one in which they are located. The districts of Lamu, Murang'a, Kiambu, Nyeri, Kisumu, Kakamega, Nandi and to some extent Kitui, Marsabit, Siaya, Elgeyo-Marakwet and Busia, on the other hand, had a net loss of population to areas outside their respective provinces.

2.172. The Government's policies with respect to rural-urban migration have been clearly stated in the earlier section on Rural-Urban Balance. Its policies with respect to rural-rural migration can be summarized as follows:—

- i. to promote the productivity of land in every rural and pastoral area so that the economic pressures for migration elsewhere are reduced in magnitude;
- ii. to encourage migration to areas of the country where opportunities and productivity are increasing most rapidly;
- iii. to ensure that movements are not in such large numbers that they exceed the opportunities available, leading to frustration and dissatisfaction.

2.173. The Government expects that in the future more of the rural-urban migration will be offset by the reverse migration of other people from the urban to the rural areas. Policies on early retirement and the improvement of living conditions in rural areas should encourage some people with management experience and accumulated savings to return to their land and participate directly in the work of rural development.

## **2. Fiscal and Monetary Policies**

2.174. Fiscal and monetary policies serve two complementary objectives. First, they are designed to promote economic development of the monetary economy and to achieve an equitable distribution of its benefits. Second, these tools are the principal means available to the Government for ensuring stability as development proceeds by dampening inflation, preventing serious and prolonged recessions, and maintaining a reasonable balance between external payments and external receipts.

2.175. Stabilization policies cannot be spelled out in advance but rather must be designed specifically to counteract destabilizing influences as they arise. A notable example of this is contained in Sessional Paper No. 4 of 1975 entitled *Economic Prospects and Policies*. The policies enunciated there

contributed substantially to Kenya's recovery from the recession of 1974/75, the correction of the severe adverse balance of payments, and the resumption of more stable and rising economic growth.

2.176. The policies required in each instance depend upon the particular destabilizing influences encountered. The Government will maintain, therefore, a high degree of short-term flexibility with respect to such policy tools as taxation, interest rates, and the availability of private credit, and will adjust these in those combinations deemed appropriate for the timely aversions of destabilizing effects.

2.177. Despite the need for these shorter-term policy adjustments, the main lines of the Government's fiscal and monetary policies are designed to support the development strategy outlined in Chapter 1 and to strengthen the policy framework set out in the preceding sections of this chapter. Fiscal policies, several of which have already been noted, are summarized first, followed by a discussion of the role of monetary policies.

### **Fiscal Policies**

2.178. Fiscal policies will support the drive for enhanced industrial and agricultural efficiency and the promotion of exports in several ways. First, the reduction of quantitative restrictions on imports and the modification of customs duties relative to sales taxes are intended to create both pressures and incentives for increasing productivity. Second, these will be reinforced through scheduled reductions in the forms and levels of industrial protection and the establishment of time limits on such protection. Third, policies with respect to parastatal and new foreign investments will establish efficiency as a prime criterion. Fourth, the export compensation scheme will be continued which, in combination with improvements in efficiency, will enable more firms and industries to compete successfully in export markets. Finally, export taxes on tea and coffee will be continued so that when windfall profits arise from favourable export prices, a reasonable share of profits will accrue to the Government.

2.179. The stimulation of employment through fiscal policy will follow from four of its aspects. First, the introduction of tariffs on capital and materials imports provides an incentive for local production and at the same time users will be induced to consider seriously more labour intensive methods of production, including increases in the number of shifts worked. Second, the modification of the investment allowance to make it more sensitive and create more job opportunities. Third, the shift in the basis for the training levy from the annual cost of labour to the annual cost of capital (depreciation) will favour the employment of labour. Finally, improving the sensitivity of the investment allowance with respect to location and increasing municipal taxes in the larger urban areas will disperse employment opportunities more widely to the smaller urban areas.

2.180. Fiscal policies in support of rural development are reflected largely in the expenditure side of the budget which is discussed fully in Chapter 4. Expenditures on rural social services, such as education and health care, will be expanded during the planning period. Expenditures on economic services for the rural areas reflect even greater growth as witnessed, for example, by budgets for rural industrial development centres. Attention to arid and semi-arid lands and the development of gateway towns are also reflected in appropriate expenditure allocations.

2.181. The progressive nature of the income tax, higher customs duties on luxuries, the exemption of essential goods from sales tax, and the capital gains tax are some of the measures under the fiscal policy intended to achieve an equitable distribution of income. The structure of the tax system has been well designed to serve the purpose as well as to raise the funds needed to finance Government services. The efforts outlined earlier in this chapter to reduce the extent of tax evasion will increase the effectiveness of the tax system as an instrument for promoting equity in income distribution.

### **Monetary Policies**

2.182. Kenya has a fairly sophisticated banking system. It is dominated by 15 commercial banks operating approximately 280 branches, sub-branches and agencies, and a few mobile bank units. Banks account for about 85 per cent of total deposits. There are about 25 banking offices per million of population and their balance sheets indicate that the private sector's financial assets are concentrated in deposit type assets. Currency in circulation comprises about 20 per cent of the money supply (broadly defined as currency outside banks plus private and other public sector deposits), a lower proportion than in many developing countries.

2.183. In addition, a diversified network of non-bank financial institutions includes a post office savings bank, housing finance companies, hire purchase companies, commercial bank subsidiaries, government development corporations and several insurance companies. The Central Bank performs the role of a principal financial institution in Kenya, with technical powers of credit creation and legal powers to regulate the operations of commercial banks. Apart from being a source of advice to the Government on financial policy and fulfilling the function of lender of last resort, the Central Bank acts as banker to the Government and administers the national debt. In its relations with the money and capital markets, it encourages the development of local financial institutions and guides their operations to meet the broad economic interests of the country. In keeping with these roles, the Bank will continue to issue directives in accordance with Government policies to improve the efficiency of the system. Particular emphasis will be placed on the requirement that banks divest themselves of cartel arrangements on rates and become competitive.

2.184. Monetary policies support economic development primarily in four ways. First, they are designed to ensure that the money supply increases rapidly enough to provide the credit required for development without generating undue inflation or balance of payments difficulties. Second, policies are selected to allocate credit to those sectors that contribute most strongly to development, and to those uses that are productive rather than speculative. Third, they are fashioned to extend banking and other financial services throughout the nation with an emphasis on the needs of the small Kenyan enterprises. Finally, monetary policies are varied from time to time to moderate destabilizing influences which may threaten progress.

2.185. The money supply should grow at an appropriate rate in order to sustain a high rate of growth in output and employment in a climate of monetary stability. The growth in money supply during the last eight years has closely reflected developments in the domestic economy and prices in two distinct phases. The economy grew in a climate of relative price stability during the years 1970-1973 when the average increase in consumer prices was between 2 per cent and 3 per cent per year and money supply increased on average by around 18 per cent. The situation changed markedly during the years 1974-1977 when inflationary pressures in the economy intensified and consumer price increases were on the average in double figures while money supply increased on average by around 23 per cent.

2.186. The rapid increase in the prices was mainly due to the unprecedented increase in the oil prices at the end of 1973 whose effects were felt in the succeeding years. It was also due to a high level of short-term borrowing by the Government from the Central Bank in 1974/75 and 1975/76. This inflationary situation cannot be permitted to carry forward into the years ahead for it would undermine the "sound money" which Kenya has been maintaining.

2.187. The Government intends to bring down inflation to manageable levels and in line with worldwide inflation during the plan period in line with intentions expressed in Sessional Paper No. 4 of 1975 on *Economic Prospects and Policies*, while at the same time achieving the growth objective for employment and the alleviation of poverty.

2.188. The monetary programme for the Plan envisages a slow start during the early period due to the expected fall in the marketed crop for 1979 which was affected by the unfavourable weather conditions in the 1978 growing season. The growth in money supply is however expected to pick up in the succeeding years and is expected to be high. The programme envisages an average growth rate in money supply of about 15 per cent per annum and a reduction in the rate of inflation from the high rate of around 18 per cent in 1977 to about 7 per cent in 1983; inflation is thus expected to subside by around one percentage point per year during the plan period.

2.189. Developments in incomes, prices and domestic credit will be the key to the proposed monetary prospects. The Plan assumes measures to control the expansion of domestic credit, both to the private sector and to Government, and therefore control of the money supply and the rate of inflation. Expansion in domestic credit will have to conform to the monetary programme and expand at a rate compatible with the proposed rate for the money supply.

2.190. The expansion in domestic credit will be shared by the Government and the private sector. The level of deficit financing by the Government, which is likely to be covered from the banking system, is projected to be around K£135 million during the plan period as indicated in the forward budget in Chapter 4. These funds will mainly be obtained from commercial banks since the Government intends, as a matter of principle, not to borrow from the Central Bank in amounts which would have inflationary consequences.

2.191. Interest rates normally perform the function of allocating credit and they will continue to be the main instrument for doing so during the plan period. They will, however, be reinforced by administrative mechanisms for allocating credit intended to distribute it to its most productive uses.

2.192. The monetary authorities will continue to instruct commercial banks and non-bank financial institutions to give priority in granting credit to the agricultural, manufacturing, export business and construction (based on local materials) sectors. In granting credit to the private sector, commercial banks will be urged to give preference to the needs of small-scale businessmen and farmers. Small-scale businessmen are described as those whose annual turnover is less than Sh. 1 million while small-scale farmers are defined as those farmers whose farming enterprises after subsistence earn less than Sh. 10,000 per year.

2.193. The expansion of credit by commercial banks to the agricultural sector has been quite remarkable in recent years. It has increased from K£24.05 million at the end of December, 1974, to K£80.2 million at the end of August, 1978, a threefold increase. An important contributory factor in this impressive performance has been the directive issued by the monetary authorities in July, 1975, requesting commercial banks to increase their agricultural credits from 11 per cent of their net deposits to 17 per cent. This directive will remain in force during the plan period.

2.194. Local borrowing by eligible firms is limited to a maximum defined capital investment. This maximum credit will be based on the monthly or annual wage bill for Kenyan employees. Hence, short-term credit will reflect more closely the finance required for local costs. The proportional capital invested and the percentage of the wage bill may be modified by the Central Bank as economic circumstances require.

2.195. Although credit guidelines will continue to operate to ensure adequate flows of funds to agriculture, every effort will be made to ensure that the banking system remains sound and liquid. The Banking Act limits commercial banks to invest only 15 per cent of their funds in long-term immovable property. This rule has proved useful in protecting the liquidity of banks and will remain in force during the plan period.

2.196. Credit requirements of the small farmers and business in the rural areas are usually not granted because the stringent collateral demanded by the banks cannot be met by most of the applicants. While the need for security cannot be disputed, there is need for banks operating in developing countries to try and develop additional instruments for extending credit particularly where land has not been consolidated or titles granted. It is the duty of the monetary authorities to safeguard the depositors' money in financial institutions, and credit supervision will become more widespread especially when operational linkage is established with marketing boards and co-operative societies. The high standard of paper work required by banks when filing application forms for loans is prohibitive. There is need for streamlining paper work to the necessary minimum if the rural economy is to be monetized further. In order to alleviate some of the problems which are connected with the security requirements, it has been considered advisable for the authorities to explore the possibilities of introducing some form of a credit guarantee scheme during the plan period in order to aid small farmers and industrialists.

2.197. The basic structure of the Kenyan financial system is fundamentally sound and adequate, so that there are few, if any, institutional problems calling for basic reforms. There are, however, banking sections of co-operative unions which are transacting banking business but whose activities are at present outside the control of the Central Bank. These will be re-organized in order to conform with the banking regulations.

2.198. The insurance industry is expected to play a greater role in financing investments under the current Development Plan by investments of their surplus funds in such areas as housing, industry, etc. All foreign branches of insurance companies as well as new insurance companies will be required to be locally incorporated, and have substantial local equity participation. It is intended that additional registration for stricter supervision and control of insurance business will be enacted, with the view to protecting local policy holders. All goods purchased by Kenya importers will continue to be insured with companies licensed to transact insurance business in Kenya. A larger share of the reinsurance business shall be transacted in Kenya in order to conserve foreign exchange. All insurance companies will be required to refer their external reinsurance treaties to Kenya Reinsurance Corporation before remittances abroad for the reinsurance is permitted.

2.199. The Development objective of the current Plan is to shift development from the urban to the rural areas where the majority of the population lives. The Government expects commercial banks to help in this task by channelling some of their surplus savings into the development of rural areas instead of transmitting them to urban areas where they are used mainly for financing trade. Commercial banks which are purely urban centred in this country should not expect the authorities to look at their activities with favour during the plan period. In this respect, commercial banks will, in future, be allowed to open one branch in the urban areas for every one branch they open outside Nairobi and Mombasa or any other centre where the Central Bank opens a branch. Commercial banks will be required to onlend a substantial amount of the deposits they collect in those rural areas where these are mobilized.

2.200. A sophisticated and growing financial system needs qualified manpower. But the country has a big gap in the facilities for the professional education and training of personnel working in the financial institutions. To ensure competent staff and requisite expertise, an Institute of Banking and Finance will be established in this country during the plan period and will be financed from a training levy.

2.201. In conformity with Kenya policy of mixed economy, the Government will continue to participate in the two large banks already wholly owned. Every encouragement will however be given towards local participation in the ownership of foreign banks operating in this country.

2.202. The Government will extend its facilities towards the rural areas and will seek ways to make savings more attractive to those in the middle and lower income groups wherever located. In this respect, the Kenya Post Office Savings Bank has introduced Premium Savings Bonds which are available through specified branches of the Post Office and branches of many commercial banks. These are available in denominations as small as Sh. 10. In lieu of interest, the bonds participate in monthly drawings for prizes. Early in the planning period three other savings schemes will be introduced, one of them being a save-as-you-earn arrangement. These efforts should stimulate savings among the lower income groups in many parts of the country.

2.203. The Government will need significant amounts of imports in the course of implementing its development projects during the plan period as indicated in the forward budget. It will thus need foreign exchange for financing these imports. The Government will prepare in its annual budget exercise a foreign exchange budget showing detailed breakdown by ministries of exchange requirements. These requirements will be communicated well in advance to the Central Bank.



2.204. Monetary policy in Kenya is largely implemented on the basis of the liquid assets ratio (defined as cash, balances at the Central Bank, Treasury Bills and net positive inter-bank balances in Kenya and overseas) to net deposit liabilities. That is, banks and private non-bank financial institutions are required to maintain specifically designated liquid assets (equal at present to 18 per cent for banks and 20 per cent for non-bank financial institutions). The monetary authorities have already modified the use of this monetary instrument by adopting a variable cash reserve ratio as part of the liquid assets ratio. The proportion of the cash ratio will be increased gradually in future.

2.205. The high rate of growth which the Kenyan economy has experienced in the recent past was funded by a very high level of investment; total capital formation as a percentage of GDP increased on average by around 20 per cent for the period 1964 to 1972. By 1975 and 1976, this ratio had reached about 25 per cent.

2.206. A part of this investment was financed by foreign borrowing, but the major part was financed from domestic savings. Reinvestment of earnings accounted for a large part of this saving and other personal saving (largely through the financial system) was also important. The official sector (largely the Kenya Government directly) was an important saver in the first decade, when it accounted on average for 13 per cent of total community savings. This ratio has been falling in recent years.

2.207. Corporate savings form a major part of development finance in this country and a return of 20 per cent on invested capital is considered worthwhile world wide and attempts to distribute profits above that figure will not be viewed favourably by the Government. Companies operating in developing countries like Kenya are expected to plough back profits for increased production.

2.208. The Nairobi Stock Exchange has served as a channel of capital transfers for the domestic economy during the duration of the last two plan periods and its importance will undoubtedly increase rapidly during the next plan period as it reflects developments in the Kenyan economy. Activity on the stock exchange market has grown steadily over the years and during the 1977/78 financial year, the number of shares traded amounted to K£635,000, compared with K£465,000 during the previous year.

2.209. The market for Government stocks has developed into a principal source of domestic finance for the Central Government with annual issues ranging from K£9 million in 1969/70 to K£73.5 million in 1977/78. Total Government stocks outstanding have increased from K£47.8 million in June

1970, to K£273.5 million in June, 1978. The main factor which has increased the Government stake in the stock market has been the need to finance a growing size of public sector requirements in recent years.

2.210. Treasury Bills have also been an important source of short-term finance for the Government since the first issue was launched in 1969. Annual issues of Treasury Bills have ranged from K£8 million in June, 1969 to K£243.4 million in June, 1978. The total amount of Treasury Bills outstanding has risen from K£8 million in June, 1969, to K£54.4 million in June, 1978, having reached a maximum of K£75 million in June, 1977.

2.211. Monetary authorities have assumed the responsibility of providing guidance in the orderly development of money and capital markets in the past and will continue to do so during the plan period. The Capital Issues Committee will continue to supervise incoming foreign investment and be reinforced.

2.212. Statutory boards operating in the public sector are expected to be run on commercial lines and pay their way. The operations of some of them, especially in the agricultural sector, have revealed that they are not operating on proper commercial lines. Some of them are in deep financial difficulties and need urgent reorganization. In addition, policies with respect to debt collection will be strengthened and vigorously implemented.

2.213. Responsibilities and efficient action at the level of a corporation cannot be formulated with continued intervention and instructions from numerous outside authorities. It causes the manager innumerable excuses for failure, wastage and inefficiency where the corporation is run from a distance. The Government will therefore make every endeavour for delegation, decentralization and devolution of responsibilities in their administration of the corporations. Clear-cut policy guidelines defining the duties and responsibilities of statutory boards against those of the parent ministry will be devised leaving no room for the board to allege that its failures had been brought about by the parent ministry. The corporations will in addition be required to submit their plans consistent, coincidental, and comparative to Government Plan showing also the finances and sources of financing. Thereafter, the Government will confine itself to monitoring results of a board and correcting any deviation from the agreed plans or advanced situations affecting the whole.

2.214. The Agricultural Finance Corporation will be reorganized and become a fully fledged Agricultural Development Bank under its own Act of Parliament which will exempt it from the provisions of the Banking Act. The reorganized bank will have an adequate capital base which will enable it to raise funds on its own in the local capital market. The Industrial Development Bank will also be reorganized along the same lines during the plan period.

## 12 Institutional Development Policy

2.215. At Independence the nation inherited a set of institutions that had been created to serve the small segment of the population that then composed the modern economy. Many of these were governmental in character. The Government took over these institutions, modified and managed them, and extended their services to a larger share of the population. Since then new institutions have been created, in both the public and private sectors. At Independence there were 16 ministries, today the total is 21; the number of statutory boards and corporations has increased at an even greater rate; and co-operatives, private enterprises, trade associations and labour unions have expanded in both numbers and membership. This growth has resulted in a complex network of institutions having varied and complex relationships to each other and the international setting with which they interact.

2.216. This variety of institutions both reflects and supports the mixed economy which has been a distinguishing characteristic of Kenya's development since Independence and which will continue into the future. The many types of institutions which co-exist in Kenya have served to promote development and to multiply economic opportunities. They have also contributed in important ways to Kenya's pursuit of more basic principles, such as democracy, freedom of choice and human dignity. These accomplishments do not, however, mask the urgent need to seek improvements in the entire institutional network. Government will lead in this endeavour by re-examining those institutions for which it is directly responsible to ensure that they are addressing new needs with improved efficiency.

2.217. Government institutions have engineered much of the remarkable economic growth which has characterized the last fifteen years. Nevertheless, there is evidence that the performance of many of these must be improved if the tasks set forth in this Plan are to be accomplished. The development strategy to alleviate poverty places new demands on the nation's institutional network. Institutions which provide marketing, banking, social, and extension services are now charged with extending those services to new areas and new segments of the population. More services must be directed toward the needs of the target groups identified earlier in this chapter; the economy must be redirected from its previous emphasis on import substitution to the dynamic pursuit of exports; and the nation's idle capacity must be put to work. The performance of these functions will require a more complex array of institutions than that needed in the past. Moreover, the reorientation of strategy will require many institutions, including Government departments, to modify their styles of operation. In particular, institutions must develop a planning capability which enables them to identify the needs of the public they serve, to anticipate and overcome constraints, and to reduce costs. The critical problem of improving the access of the rural poor to essential social and economic services will in itself entail a substantial increase in the number of rural institutions as Table 2.7 indicates.

## SELECTED INDICATORS OF THE GROWTH AND DISPERSION OF GOVERNMENT RURAL INSTITUTIONS

Table 2.7

Institution, Programme or Office	1978	1983
Integrated Agriculture Development Programme ..	14 Districts	25 Districts
Co-operative Production Credit Scheme .. ..	250 Societies	460 Societies
Rural Afforestation Programme .. .. .	29 extension offices	40 extension offices
District Land Registration Offices .. .. .	11	14
District Physical Planning Offices .. .. .	0	8
District Survey Offices .. .. .	32	37
Kenya Industrial Estates .. .. .	4	8
Rural Industrial Development Centres .. .. .	10	33
District Trade Development Offices .. .. .	24 Districts	36 Districts
Rural Access Roads Programme .. .. .	16 Districts	23 Districts
Arid Zone Education Centres .. .. .	0	13
Primary School Teachers .. .. .	89,000	104,000
Pre-School Feeding Programmes .. .. .	7 Districts	12 Districts
Vocational Rehabilitation Centres .. .. .	18	23
District Libraries .. .. .	5	15
Mobile Libraries .. .. .	2	5
Government Health Centres, Sub-Health Centres, and Dispensaries .. .. .	761 Institu- tions	806 Institu- tions

2.218. In these circumstances, the Government will make a determined effort to increase the effectiveness of its institutional network. At the same time, it will ensure that both public and private institutions are mutually supporting in their activities and that these activities are directed toward the common goal of more effective development. This effort will take three forms: first, a redefinition of the purposes and functions of governmental institutions to eliminate wasteful duplication and to focus the energies of all on the important development objectives outlined in this Plan; second, the improvement of the internal performance of each institution so that its re-defined functions are accomplished at the lowest possible cost in terms of resources required; and third, the promotion of more active collaboration between public and private sector institutions in order to increase productive efficiency throughout the economy and to penetrate export markets more rapidly.

### Purposes and Functions

2.219. The Office of the President will provide leadership for the performance of these three tasks. The review of the purposes and functions—the terms of reference—of all governmental institutions is already under way. The review will cover Government corporations, marketing boards, Government departments, municipalities, and co-operative organizations. A major objective in this review will be to encourage greater participation by private and voluntary sector institutions in areas in which their effectiveness has been demonstrated or appears promising.

2.220. Some institutions will be expanded as a result of the study; others will be combined; some might be contracted; and some might be abolished. Personnel will be reassigned as required to match abilities and experience with redefined functions. The review is expected to generate recommendations as it proceeds and these will be acted upon as they emerge. Hence, once the main outlines of the institutional network have been determined, modifications will be introduced beginning with those matters that are most pressing. Implementation will parallel the review.

2.221. Three types of institutions will be given early priority. These are parastatals (including marketing boards), local authorities, and the means for providing efficient and timely repair and maintenance services. The need to improve the efficiency and profitability of many parastatals has already been noted. Marketing boards will be reviewed to determine the extent to which their services can be (i) provided more efficiently by the private sector, (ii) redirected to the needs of small farmers and pastoralists, (iii) focused on the maintenance of floor prices to farmers and the provision of reserve storage facilities, and (iv) rendered more efficiently with a larger share of their proceeds going to the producer.

2.222. In the past, many of the local authorities have conducted their affairs inefficiently and indeed irresponsibly. It was therefore necessary for the Government to take over from them several of their responsibilities, including primary education and local health care, and to administer them centrally. This is not a satisfactory long-run solution. The review will determine, authority by authority, the competence of local staff and the qualities of leadership present and, where local authorities have demonstrated efficiency and fiscal responsibility with respect to presently assigned functions, consideration will be given to expanding their functions and responsibilities.

2.223. At any one time much of the nation's transport and productive capacity is tied up awaiting parts, repair, and maintenance. This state of affairs must be remedied, because the pace of development is being seriously retarded, often for lack of foresight in both the public and private sectors. The review by the Government will consider, in consultation with the private sector, (i) how the variety of transport and mechanical equipment and tools might be restricted in order to reduce the variety of parts which must be stocked and the array of skills required to effect needed repairs, (ii) what criteria should be employed by the New Projects Committee in order to ensure that new products will be adequately serviced, (iii) how repair and maintenance services can be dispersed so that they are readily available to the consumer, and the role that Rural Industrial Development Centres should play in this regard, and (iv) what types of training need to be accelerated.

2.224. In addition to these three areas of priority, this aspect of the review will entail a detailed examination of the many pieces of enabling and regulatory legislation in which institutional purposes and functions are defined,

and the relationships among institutions are specified. This examination will lead to modifications of legislation as these are required to facilitate the implementation of institutional change.

### **Internal Performance**

2.225. The improvement of internal efficiency will be accomplished in part by the clarification of terms of reference so that the functions of institutions and their relationships with others are no longer ambiguous. Once the purposes of each organization have been clearly identified, standards of efficiency cannot be obscured by ambiguities of function.

2.226. Second, standards of internal effectiveness will be established. These will include financial standards, but will in addition encompass measures reflecting planning capacity, identification and responsiveness to the needs of the population being served, adaptability of the organization to changed circumstances, and the quality as well as quantity of services delivered. These criteria will form the basis for monitoring and evaluating performance.

2.227. Evaluation itself will be based upon periodic reports, at least once every year. These reports will be made within three months of the end of the specified period and will include material addressing all of the criteria which guide the evaluation exercise. When appropriate, profitability will be an important measure of efficiency, but when social objectives are involved, as in education and health care, the provision of required quality services at lowest possible cost will be the guide.

2.228. Internal management systems will be modernized and subjected to continuous monitoring. Such systems are the principal means of ensuring efficiency in meeting development objectives and modifying institutions in response to changing needs. The Management Unit in the Directorate of Personnel will be expanded to meet the needs for advice on management systems in ministries and departments. The efficient extension of services to the rural areas will be given the highest priority along with budgetary and financial control.

2.229. One measure to improve the efficiency of all Government institutions has already been introduced. The Office of the President has instructed all such institutions to act promptly on all requests for services directed to them. Applications for licences, registrations, credit and clearances of any kind will be acted upon promptly. All requests for information and correspondence of all kinds will be answered within a pre-determined period of receipt or the officer responsible must tender an adequate written explanation for his delay. The time lost through delays in communication cannot for the most part be regained. In total such delays act as a real brake on development progress and they will be reduced to a minimum within the Government.

2.230. The Government will not rely solely on these kinds of internal controls to evoke efficiency from its institutions. In those kinds of activities where the market can be relied upon to promote efficiency, it is Government policy to stimulate competition between the public and private sectors and among different forms of organization in each. In these areas, each institution must be prepared to demonstrate its potential for efficiency and meeting the needs of the public at large.

#### **Public and Private Sector Collaboration**

2.231. The private sector must play its role in the development process and that requires a high degree of co-operation between public and private sector institutions. In the years of this Plan, the private sector is expected to perform three functions: (i) to raise the level of integrity in the conduct of business activities, (ii) to improve the efficiency of such activities, and (iii) to promote exports. The Government will discuss these issues with leaders in the private sector and will consider all proposals which may accelerate progress in these three directions. This spirit of mutual social responsibility must be cultivated by all participants in the development process if Kenya's mixed economic system is to produce benefits for all of the people.





## CHAPTER 3—PATTERN OF DEVELOPMENT

3.1. The development strategy discussed in Chapter 1 and the policies advanced in Chapter 2 as the means for implementing that strategy will result in substantial economic growth, significant changes in the economic structure of the economy, a wider distribution of development benefits, and continuing improvements in the quality of life. This chapter (1) presents the national economic targets adopted in this Plan and (2) summarizes the impact they are expected to have on the standards of living of the people. Similar targets by districts are outlined in the several district plans, published separately. These, however, are considerably less comprehensive because the data available on the district level are much less complete in coverage.

### National Economic Targets

3.2. This Plan provides for a resumption of growth and development comparable to that achieved between 1964 and 1972. During those years, the nation's output—its gross domestic product—grew at an annual rate of 6.5 per cent. Moreover, the monetary economy grew even more rapidly—7.4 per cent per annum after adjustments for price changes—reflecting the increasing market orientation of all sectors of production.

3.3. This commendable record was disrupted in the years between 1972 and 1976 when international instability and uncertainty combined with several years of bad weather hampered our growth and forced hardship on many people, especially, in the agricultural sector. Significant changes in Government policy were required as outlined in Sessional Paper No. 4 of 1975 to cope with the situation, and indeed the very structure of the economy was affected. Gross domestic product grew at only 4.0 per cent per annum, the monetary sector at only 4.8 per cent, and monetary agriculture at only 1.5 per cent.

3.4. Despite the continuing constraint of a tight balance of payments and the need in the years immediately ahead to devote more of the nation's resources to national security, the opportunity for a more rapid rate of economic expansion and a significant improvement in the living standards of all Kenyans seems again to be at hand. Table 3.1 summarizes the main national economic targets and suggests the likely course to be followed in achieving them over the planning period.

3.5. It is planned to achieve average rates of growth in gross domestic product (GDP) of 6.3 per cent and in monetary product of 7.1 per cent. Given a rate of population growth of 3.5 per cent, total production per person

ANNUAL RATES OF CHANGE

Table 3.1

	Average Projection		Actuals		Provi- sional	Fore- cast	Targets				
	1976-1983		1975	1976	1977	1978	1979	1980	1981	1982	1983
	Semi-Monetary Product .. .. .	2.6	1.1	-1.3	3.4	1.9	1.3	3.1	2.8	2.8	2.8
Real Monetary GDP (at factor Cost) .. .. .	7.1	1.2	8.0	8.3	5.8	5.2	8.0	7.4	7.6	7.7	
Real GDP (at factor Cost) .. .. .	6.3	1.2	6.1	7.3	5.0	4.5	7.0	6.5	6.7	6.9	
Real Output per capita .. .. .	2.8	-2.5	2.7	3.7	1.5	1.0	3.5	3.0	3.2	3.4	

should grow at 2.8 per cent per annum and monetary production per capita at 3.6 per cent. By 1983 total output per capita should be 21.3 per cent higher in real terms than it was in 1976. The achievement of these overall targets will depend not only on the effective implementation of the development strategy and policies, programmes and projects outlined in the sectoral chapters of the Plan.

3.6. The path toward these targets is not however, likely to be uniform. With the very substantial rise in coffee prices, 1977 was an extremely good year. The fall in these prices in 1978 and the rain damage to the coffee crop will retard growth in both 1978 and 1979. Growth in 1979 will be particularly affected by the adverse movement in the balance of payments and the tightening of credit that event required in mid-1978. The four following years of the plan period should be marked by more substantial growth.

### **Production**

3.7. Table 3.2 shows the more detailed production targets adopted by the Government for the planning period. The concern to alleviate poverty throughout the nation permeates the structure of development as summarized there. Nevertheless, the composition of growth disclosed shows only the broad effects of the strategy for development, namely, the relationships among major sectors. It cannot show the more far reaching effects which take the form of changes in the composition, methods and locations of production within each sector and hence in the distribution of incomes earned in each sector. These effects are the subject of the several sectoral chapters which follow Chapter 4. This chapter merely outlines some of the more important changes in emphasis among sectors.

3.8. The production of Government services includes administration, defence, education, health, and agricultural services. The contribution of Government enterprises to production is classified by type of activity under "enterprises" heading. As many Government services represent the public provision of basic needs including national security they are expected to grow at a substantial rate over the plan period, namely, at 6.7 per cent. Moreover, an increasing proportion of these services will be directed toward the rural areas.

3.9. The Government recognizes, however, that substantial private initiative and investment will be required if its intention to boost development in the rural areas is to be realized. To this end, the growth of Government services will be kept somewhat below growth of gross monetary domestic product in contrast to the period following Independence when education needs in particular were so pressing. Hence, the achievement of plan targets will depend to a greater extent in the coming period on private and public sector enterprise activity, in order to generate income-earning opportunities throughout the economy.

GROSS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN  
ACTUAL 1976; PROJECTED 1983

Table 3.2

	K£ Million in 1976 Prices		Annual Growth Per Cent		Share of Total Per Cent	
	1976	1983	Actuals 1972-76	Targets 1976-83	1976	1983
ENTERPRISES AND NON-PROFIT INSTITUTIONS—						
Agriculture .. .. .	219.64	341.30	1.5	6.5	17.4	17.6
Forestry .. .. .	6.33	10.70	5.9	7.8	0.5	0.6
Fishing .. .. .	2.36	3.20	0.2	4.5	0.2	0.2
Mining and Quarrying .. .. .	4.15	7.10	11.2	8.0	0.3	0.4
Manufacturing .. .. .	167.41	306.20	9.4	9.0	13.3	15.8
Electricity and Water .. .. .	14.20	24.30	10.1	8.0	1.1	1.3
Building and Construction .. .. .	46.20	84.50	-4.7	9.0	3.7	4.4
Wholesale, Retail Trade, etc. .. .. .	144.46	211.50	2.0	5.6	11.4	10.9
Transport, Storage and Communications .. .. .	69.15	109.60	4.1	6.8	5.5	5.7
Finance, Insurance, Real Estate, etc. .. .. .	68.03	114.30	9.9	7.7	5.4	5.9
Ownership of Dwellings .. .. .	46.13	69.40	2.4	6.0	3.7	3.6
Other Services .. .. .	24.84	38.10	5.1	6.3	2.0	2.0
TOTAL ENTERPRISES .. .. .	812.90	1,320.20	4.2	7.2	64.4	68.3
Private Household (Domestic Services) .. .. .	10.93	21.30	13.6	10.0	0.9	1.1
Producers of Government Services .. .. .	178.91	281.20	6.7	6.7	14.2	14.5
TOTAL MONETARY SECTOR .. .. .	1,002.74	1,622.70	4.8	7.1	79.4	83.9
Semi-monetary sector .. .. .	260.11	311.30	0.8	2.6	20.6	16.1
TOTAL GDP AT FACTOR COST .. .. .	1,262.85	1,934.00	4.0	6.3	100.0	100.0
Add (+) Indirect Business Taxes .. .. .	167.00	268.20	-4.1	7.0	13.2	13.8
Less (-) Subsidies .. .. .	-0.77	-8.50	—	—	—	-0.4
GDP AT MARKET PRICES .. .. .	1,429.08	2,193.70	2.9	6.3	113.2	113.4

3.10. The priority given to rural development in the Plan is reflected in the target rate of growth established for monetary agriculture. The rate of 6.5 per cent exceeds by a substantial amount the rate of 5.6 per cent achieved between 1964 and 1972. This is in some respects misleading because it excludes agricultural production in the semi-monetary sector, which has been growing more slowly. This distinction is becoming increasingly blurred and it may be more meaningful to compare rates of growth of total agricultural production. That target rate is 4.9 per cent as compared with 4.6 per cent in the 1964-72 period.

3.11. The increase in agricultural production should be sufficient to maintain our basic self-sufficiency in food even with a growing population, to enhance standards of nutrition, to expand our exports of agricultural products, and to increase the availability of agricultural outputs to domestic processing industries.

3.12. The planned efforts to promote manufacturing exports and smaller scale rural industry are reflected in the 9.0 per cent target for that sector. Account has also been taken of some expected reduction in manufacturing profit margins as the economy becomes more competitive and industrial protection is progressively diminished.

3.13. The growth of value added (incomes generated) in the trade sector was 3.3 per cent per annum between 1964 and 1972 and 1.9 per cent between 1972 and 1976. The data may reflect some increase in underreporting over the period as well as some increase in competition within the sector enabling it to handle a growing turnover with a lower rate of growth in value added. The target rate for the sector also reflects Government policy that as marketing boards increasingly assume the function of stabilizing markets by acting as buyers of last resort, more agricultural output will be contracted for and sold directly to processing industries and wholesalers.

3.14. In addition to the rapid growth of agriculture and industry, building and construction, transport, and electricity will grow at fairly rapid rates as infrastructure is spread through the rural areas. It is also planned that Government services will be expanded to keep pace with the growth of the economy as a whole.

3.15. The effects of these sectoral rates of growth on modern sector employment are indicated in Table 3.3. Private and public services together will provide the largest number of new employment opportunities, followed by agriculture, manufacturing, and construction. Overall, total employment in the modern sector is expected to increase by more than 335,000 by 1983. Productivity is expected to grow most rapidly in mining and quarrying, manufacturing and transport, and most slowly in agriculture and forestry. The combined effects on the incomes of workers are noted in the next section.

PROJECTED 1983 MODERN SECTOR EMPLOYMENT

Table 3.3

Sector	Employment 1976 ('000's)	1976-83 Target GDP Growth Per Cent	Labour Productivity Growth Per Annum Per Cent	Employment Growth Per Annum Per Cent	Employment 1983 ('000's)	Increase in Employment 1976-83 ('000's)
<i>Wage Employment</i>						
Agriculture and Fishing	210.6	6.5	1.5	5.0	296.3	85.7
Forestry	32.4	7.8	1.5	6.3	49.7	17.3
Mining, Quarrying	3.9	8.0	4.0	4.0	5.1	1.2
Manufacturing...	108.8	9.0	3.5	5.5	158.3	49.5
Electricity/Water	8.6	8.0	3.0	5.0	12.1	3.5
Construction	47.1	9.0	3.0	6.0	70.8	23.7
Trade, Hotels	60.2	5.6	2.5	3.1	74.5	14.3
Transport/Communication	47.7	6.8	3.5	3.3	59.9	12.2
Private and Public Services	338.2	6.6	2.5	4.1	448.1	109.9
<b>TOTAL WAGE EMPLOYMENT SERVICES</b>	<b>857.5</b>	<b>7.1</b>	<b>2.5</b>	<b>4.6</b>	<b>1,174.8</b>	<b>317.3</b>
<b>Self Wage Employment</b>	<b>57.5</b>	<b>—</b>	<b>—</b>	<b>3.9</b>	<b>75.2</b>	<b>17.7</b>
<b>TOTAL EMPLOYMENT</b>	<b>915.0</b>	<b>7.1</b>	<b>2.5</b>	<b>4.6</b>	<b>1,250.0</b>	<b>335.0</b>

## Income

3.16. The process of production provides the goods and services the economy uses or trades for goods and services not produced domestically. It also generates the incomes which can be used to purchase those goods and services. These incomes are summarized in Table 3.4.

Table 3.4  
GROSS DOMESTIC INCOME  
ACTUAL 1976; PROJECTED 1983

	1976	1983	Average Growth Percentage	SHARE OF TOTAL	
	K£m. AT 1976 PRICES			1976 Percentage	1983 Percentage
Semi-monetary Income ..	260.11	311.3	2.6	18.2	14.4
Wages and Salaries .. ..	505.87	808.0	6.9	35.4	37.3
Property Income .. ..	288.22	444.8	6.4	20.2	20.5
Government Income: less					
Subsidies .. ..	249.63	405.7	7.2	17.5	18.7
Business Saving .. ..	125.25	196.4	6.6	8.7	9.1
<b>TOTAL .. ..</b>	<b>1,429.08</b>	<b>2,166.2</b>	<b>6.1</b>	<b>100.0</b>	<b>100.0</b>

3.17. The total of this table differs from that in Table 3.2 by the amount of the item, "Terms of Trade Losses". In Table 3.2 it is the prices of goods produced that are treated as constant in order to set production targets in real terms. In Table 3.4, on the other hand, it is recognized that the goods and services sold abroad are expected to lose purchasing power because the prices of imports will rise somewhat more rapidly than export prices. The purchasing power of production when exports are traded for imports is expected to drop by 1983 by K£51 million which amounts to K£27.5 million in 1976 units of purchasing power. This computation is shown in Table 3.5.

Table 3.5  
TERMS OF TRADE LOSSES ON 1983 EXPORTS  
(Millions of Kenya Pounds)

Exports of goods at 1983 export prices .. ..	786.3	
Export of services at 1983 export prices .. ..	469.2	
<b>TOTAL .. ..</b>		<b>1,255.5</b>
Export of goods at 1976 export prices .. ..	461.8	
Exports of services at 1976 export prices .. ..	243.8	
<b>TOTAL .. ..</b>	<b>705.6</b>	
Value of exports in 1983 import prices (Index, 1976=100, is 185.165)		<b>1,306.5</b>
Terms of trade losses in 1983 purchasing power .. ..		<b>51.0</b>
Terms of trade losses in 1976 purchasing power (Divide by 1.85165)		<b>27.5</b>

3.18. The changes in income expected to occur through 1983, as delineated in Table 3.4, do not reveal the full consequences expected of the development strategy because again many of these effects will occur within income

categories. Semi-monetary income is expected to grow at 2.6 per cent per annum and, as more incomes will be generated in the monetary sector, will amount to only 14.4 per cent of total income in 1983. Moreover, as Government income (which however excludes personal taxes) will grow at only 7.2 per cent, there is considerable freedom allowed for the growth of earned incomes in the private monetary sector.

3.19. Wages and salaries are expected to grow at 6.9 per cent, partly because of increase in productivity that can be attributed to those employed and partly because of the creation of new jobs in the urban and especially in the rural areas. Moreover, the Plan calls for the largest increase in wages and salaries to go to those in the lowest paid brackets in both urban and rural areas.

3.20. Property incomes should grow at about 6.4 per cent but within this category much of the increase is expected to go to small farmers, tradesmen, craftsmen and manufacturers in the rural areas. Business saving will grow at 6.6 per cent reflecting a more economical use of capital than in the past as growth will now be directed to a larger extent to sectors and rural areas where output-capital ratios are higher.

### **Expenditure**

3.21. The incomes generated through production are in large part earned incomes. These are redistributed in various ways from one sector to another as personal income taxes paid by households to the Government, and transfer payments of various kinds such as grants from abroad and pension payments by the Government, to determine the disposable incomes finally available to each sector. Disposable incomes may be used for the purchase of final goods and services or saved but some sectors, especially business, may spend more than their disposable incomes by borrowing from other sectors.

3.22. Table 3.6 indicates the pattern of the nation's expenditure in 1976 and how it is expected to change by 1983. The ultimate purpose of all productive activity is to serve the consumption needs of the nation's population either immediately or in the future. Investment—capital formation and changes in stocks—can rightly be regarded as a reduction in present consumption undertaken in order to increase our capacity to consume in the future. The pattern depicted in Table 3.6 strikes an appropriate balance between these two uses of goods and services.

3.23. Consumption, personal and Government, is expected to grow at 6.0 per cent per annum. Personal consumption should rise by 5.7 per cent but much of this increase will be required to provide consumer goods and services for the increase of population. When that adjustment has been made, consumption per capita will grow at approximately 2.2 per cent per annum, representing an increase in average consumption per person of 16.5 per cent between 1976 and 1983.



**GROSS DOMESTIC PRODUCT**  
**ACTUAL 1976; PROJECTED 1983**

Table 3.6

	1976		1983		Per Cent Annual Increase 1976-83	PERCENTAGE OF TOTAL	
	K£ MILLION AT 1976 PRICES					1976	1983
Personal Consumption ..	877.10	1,296.8	5.7	61.4	59.9		
Government Consumption ..	247.15	396.9	7.0	17.3	18.3		
Capital Formation ..	291.99	446.0	6.2	20.4	20.6		
Changes in Stocks ..	6.64	47.0	32.3	0.5	2.2		
Exports (+) ..	478.00	705.6	5.7	33.4	32.6		
Imports (-) ..	-471.80	-698.6	5.8	-33.0	-32.3		
Terms of Trade Losses (-) ..	—	-27.5	—	—	-1.3		
<b>TOTAL ..</b>	<b>1,429.08</b>	<b>2,166.2</b>	<b>6.1</b>	<b>100.0</b>	<b>100.0</b>		

3.24. While total domestic investment is expected to grow at 7.4 per cent, changes in stocks, which were very small in 1976, will resume their normal growth by 1983. This means that capital formation taken by itself is expected to grow at an average rate of only 6.2 per cent. Three principal reasons account for this low rate of growth. First, 1976 was a year in which substantial excess capacity was to be found in most sectors of the economy; as capacity will be more fully utilized in 1983 some of the growth in production between now and then will not require new investment. Second, the strategy for development places emphasis on sectors and on productive methods within sectors that are inherently more economical in the use of capital so that a large growth rate can be achieved with the same level of investment, properly redirected. In order to realize this effect, the relevant policies outlined in Chapter 2 must be faithfully implemented and the private sector must cooperate with the Government in seeking to use our limited capital as economically as possible. Third, we expect the inflow of private foreign capital to diminish in real terms over the new planning period as we rely more heavily on our own domestic saving to finance investment. It is essential, therefore, that our limited investment be used to foster as much growth of output and employment as possible.

3.25. Finally, it should be noted that as the national economy is becoming more self-reliant, its dependence on imports will be decreasing. Indeed, imports of goods and services as shown in Table 3.6, will be increasing at an annual rate of only 5.8 per cent while Gross Domestic Product will be growing at 6.3 per cent. Yet, the decline in dependence on imports is even greater than these figures indicate, as Table 3.7 discloses. First, total imports of goods must be reduced by imports of defence goods because they are not directly related to production. Second, the table shows that in 1976 the total imports used in production and consumption were made up of K£407.9 million of current imports less only K£2.2 million of imports which were added to stocks. In 1983 it is expected that out of total imports (excluding defence goods) of K£600.8 million only K£585.1 million will be used in production and consumption, the balance being added to stocks. Hence, the annual rate of increase in imports used in production and consumption is expected to be only 5.4 per cent. This represents an important decrease in import dependence.

3.26. These, then, are the main lines of the macro-framework of the new Plan. The development strategy outlined in Chapter 1 and the implementation of the policies discussed in Chapter 2 will bend and modify past trends and will produce a more effective configuration of development activities and outcomes. This can be seen in greater detail in the sections which follow dealing with the capital formation required to achieve these targets and the roles of the major sectors.

IMPORTS USED IN CONSUMPTION AND PRODUCTION

Table 3.7

	1976 Actuals (K£m.)	1983 Forecast in 1976 prices (K£m.)	Annual Rates of Change 1976-1983 (%)
Imports of goods .. .. .	407.9	613.3	6.0
Less: Defence Imports .. .. .	—	12.5	
Imports Available for use .. .. .	407.9	600.8	5.7
Less: Imports added to stocks (estimated at 33% of the gross increase in stocks) ..	2.2	15.7	
Imported goods used .. .. .	405.7	585.1	5.4

**Capital Formation**

3.27. Sectoral estimates of capital formation are presented in Table 3.8. The amount specified for each sector for 1983 is the amount expected to be required in that year in order to extend the sectoral rates of growth given as targets in Table 3.2 into succeeding years. The economy then will be operating at a normal rate of capacity utilization so that idle capacity will not be a factor and investment in 1983 can reasonably be related for most sectors to the increase in output planned for the sector in later years.

3.28. It will be noted in Table 3.8 that while total capital formation will grow at 6.2 per cent per annum, capital formation in enterprises will grow at 6.8 per cent per annum. This is because investment in the semi-monetary sector, which is being increasingly absorbed in monetary activities, is expected to grow at only 2.6 per cent and capital formation in support of general Government services is projected to grow at only 5.6 per cent. The redirection of growth in Government services can be provided without a substantial increase in capital formation.

3.29. The sectoral growth rates for capital formation reflect the intentions of the Government to promote rural development and to economize in the nation's use of capital in all sectors. The rate of growth of capital formation in agriculture is of course most significant because agricultural growth lies at the heart of rural development. A substantial part of this investment will be undertaken in the private sector—firms, farmers and co-operatives—and Government policies have been designed to stimulate such investment.

3.30. The other sectors are reasonably straightforward. Capital formation in manufacturing will grow more slowly than manufacturing output reflecting the rural bias in development and the emphasis on employment of intensive methods of production. The high rate of growth of capital formation expected in building and construction is required to gear up the industry for higher

**CAPITAL FORMATION**  
**ACTUAL 1976; PROJECTED 1983**

Table 3.8

	K£ MILLION AT 1976 PRICES		Average Growth Percentage	SHARE OF TOTAL PERCENTAGE	
	1976	1983		1976	1983
<i>Monetary Sector</i>					
Agriculture .. .. .	26.49	47.00	8.5	9.1	10.5
Forestry .. .. .	0.34	1.27	20.7	0.1	0.3
Mining and Quarrying .. .. .	1.62	2.00	3.1	0.6	0.4
Manufacturing .. .. .	45.96	78.00	7.8	15.7	17.5
Electricity and Water .. .. .	33.15	47.00	5.1	11.3	10.5
Building and Construction .. .. .	9.72	24.06	13.8	3.3	5.4
Wholesale, Retail Trade, Hotels, etc. .. .. .	20.61	31.00	6.0	7.0	7.0
Transport, Storage and Communications .. .. .	50.41	63.60	3.4	17.3	14.3
Finance, Insurance, Real Estate and Business .. .. .	3.46	5.47	6.8	1.2	1.2
Ownership of Dwellings .. .. .	17.12	31.46	9.1	5.9	7.1
Other Services .. .. .	11.63	18.64	7.0	4.0	4.2
<b>TOTAL ENTERPRISES</b> .. .. .	<b>220.51</b>	<b>349.50</b>	<b>6.8</b>	<b>75.5</b>	<b>78.4</b>
General Government .. .. .	48.46	69.00	5.2	16.6	15.4
Monetary Economy .. .. .	268.97	418.50	6.5	92.1	93.8
Semi-Monetary Economy .. .. .	23.01	27.50	2.6	7.9	6.2
<b>TOTAL CAPITAL FORMATION</b> .. .. .	<b>291.98</b>	<b>446.00</b>	<b>6.2</b>	<b>100.0</b>	<b>100.0</b>

levels of activity after the prolonged slump the industry has suffered. Capacity has been seriously reduced in the industry and much new investment will be needed.

### Personal Consumption

3.31. The first three items in Table 3.9 comprise the earned incomes of households. In addition, households receive transfer payments—remittances and pensions, for example—from Government and the rest of the world. Households, in turn, must pay income taxes and also make certain transfer payments to the rest of the world. The amount left with households after these transactions is their disposable income. Households decide how much of this to spend on consumption and how much to save as shown at the bottom of the table.

#### HOUSEHOLDS' INCOME AND EXPENDITURE

Table 3.9

(Millions of Kenya Pounds in 1976 Prices)

	1976 Actual	1983 Projected	Percentage Annual Increase
<b>Income:</b>			
Non-monetary income.. .. .	260.11	311.3	2.6
Wages and salaries .. .. .	505.87	808.0	6.9
Property income .. .. .	259.32	429.4	7.5
<b>Transfers received:</b>			
From rest of world .. .. .	7.20	9.8	4.5
From Government .. .. .	8.70	13.5	6.5
<b>Gross Income .. .. .</b>	<b>1,041.20</b>	<b>1,572.0</b>	<b>6.1</b>
<b>Less:</b>			
Taxes .. .. .	48.00	80.0	7.6
Transfers to rest of world .. .. .	9.30	10.0	1.0
<b>Personal disposable Income .. .. .</b>	<b>983.90</b>	<b>1,482.0</b>	<b>6.0</b>
<b>Less:</b>			
Personal consumption .. .. .	877.10	1,296.8	5.7
<b>Personal saving .. .. .</b>	<b>106.80</b>	<b>185.2</b>	<b>8.2</b>

3.32. The proportion of disposable income consumed is expected to fall over the planning period from about 89 per cent in 1976 to 87.5 per cent in 1983. Hence, saving will grow more rapidly than consumption. This result follows from a combination of two opposing forces. In the first place, development strategy calls for an improvement over the planning period in the distribution of both earned and disposable incomes. This may tend to diminish the largest increase in income need to spend most of such increases for consumption. On the other hand, the Government effort to stimulate saving through co-operatives, special savings programmes, and higher real

interest rates will encourage everyone to save somewhat more than before. The latter effect will outweigh the former so that the saving rate should increase from 11 to 12.5 per cent by 1983.

3.33. The rise in personal income taxes at a rate of 7.6 per cent reflects largely two factors. As people move into higher income brackets they will pay taxes at somewhat higher marginal rates; and improved tax administration and collection procedures will reduce substantially the degree of tax evasion.

### **Government Income and Expenditure**

3.34. Table 3.10 outlines Government's income and expenditure. This table summarizes Government's role in the national economy and includes municipal and county councils as well as Central Government activities. The data cannot therefore be directly compared with the Central Government's forward budget discussed in the next chapter.

3.35. The principal source of Government revenues will continue to be indirect taxes, composed mainly of customs duties, excise taxes and sales taxes. These will, however, make up less than 50 per cent of total Government income in 1983. Direct taxes on business and households are the next largest sources which taken together will provide about 29 per cent of total revenues. Government profits will grow rapidly over the period as efforts to improve the efficiency of parastatals will be reflected in increased returns to the Government. Finally, the grant element in foreign aid is expected to grow as a share of total foreign aid and hence transfers from the rest of the world will become a more important source of income. As foreign aid loans will grow more slowly than grants, however, the relative dependence on foreign aid will diminish to some extent.

3.36. The principal expenditure to be financed with this income is Government consumption. Interest payments will rise as foreign and domestic debt increase but will show little change as a proportion of gross monetary domestic product because both are growing at about the same rate. Provision has been made for a somewhat higher level of subsidies to business to reflect Government's intent to promote rural industry through Kenya Industrial Estates and the increase in numbers of Rural Industrial Development Centres and to provide essential services to small farmers at prices which will stimulate increases in productivity.

3.37. The final line shows that Government saving will rise from K£32 million in 1976 to K£69.7 million in 1983, or at an annual rate of 11.9 per cent. This rapid rate of increase is essential because foreign aid is expected to finance a diminishing proportion of development expenditure over the planning period. It is a further indication of Government's intention to make the economy more self-reliant in the years ahead.

**GENERAL GOVERNMENT ACCOUNT**  
(INCLUDING CENTRAL GOVERNMENT, MUNICIPAL, COUNTY, TOWN COUNCILS)  
ACTUAL 1976; PROJECTED 1983

Table 3.10

	1976		1983		Annual Increase 1976-83 Percentage	SHARE OF TOTAL INCOME	
	K£ MILLION AT 1976 PRICES		1983			1976 Percentage	1983 Percentage
<b>INCOME</b>							
Direct Taxes:							
On business ..	48.00	78.0			7.2	14.8	14.3
On households ..	48.00	80.0			7.6	14.8	14.7
Indirect taxes ..	167.00	268.2			7.0	51.7	49.3
Government profits ..	25.40	55.0			11.7	7.9	10.1
Imputed income ..	10.00	13.0			3.8	3.1	2.4
Transfers from rest of world ..	24.80*	49.9*			10.5	7.7	9.2
<b>TOTAL INCOME</b> ..	323.20	544.1			7.6	100.0	100.0
Expenditure:							
Interest ..	25.70	40.8			6.8	8.0	7.5
Subsidies to business ..	0.77	8.5			—	0.2	1.6
Transfer payments:							
To rest of world ..	9.20	14.7			6.9	2.8	2.7
To households ..	8.70	13.5			6.5	2.7	2.5
Government consumption ..	247.15	396.9			7.0	76.5	72.9
<b>TOTAL EXPENDITURE ON CURRENT ACCOUNT</b> ..	291.52	474.4			7.2	90.2	87.2
Government Saving (Income less Expenditure) ..	31.68	69.7			11.9	9.8	12.8

\*Includes capital grants of £7.1 million in 1976 and £27.7 million in 1983.

## **Exports, Imports and Balance of Payments**

3.38. The nation's economic relations with the rest of the world and how they are expected to change through 1983 are indicated in Table 3.11. Table 3.6 has already shown that about a third of the nation's output of goods and services is sold abroad in order to obtain the foreign exchange required for the import of other goods and services needed to promote development. Clearly events in the rest of the world have a substantial impact on the opportunities for domestic development.

3.39. Exports of goods are expected to grow at a rate of 5.8 per cent. This reflects the substantial growth planned for agriculture, and the planned expansion of manufactured exports.

3.40. Imports of goods are expected to grow somewhat more rapidly at 6 per cent, but as already discussed the use of imported goods will grow at only 5.4 per cent because of the need to replenish stocks. Nevertheless, the excess of imports of goods over exports is expected to increase in 1976 prices from K£96.7 million in 1976 to K£151.5 million in 1983. In 1983 prices this trade deficit will amount to K£349.3 million, worsened in part by the expectation that import prices will rise more rapidly than export prices.

3.41. Services transactions, on the other hand, are expected to be favourable to Kenya. The continued growth of tourism is a major contributing factor—the Plan calls for a growth rate of 8 per cent (*see* "foreign travel, Cr"), below earlier experience but nevertheless significant. Foreign exchange earned through freight and insurance services should grow at 5 per cent and that earned through other transport at 5.6 per cent. Moreover, net investment income paid abroad is expected to grow by only 2.4 per cent in real terms, a substantial improvement. Overall, the Plan calls for a favourable balance on these invisible items of K£207.3 million in 1983 which in 1976 prices amounts to K£102.3 million.

3.42. When account is taken of transfers from abroad, means of financing must be found to cover a net deficit on current account of K£77.2 million in 1983. Strong efforts will be needed to secure an inflow of private and foreign capital large enough to cover this deficit and to improve the reserve position. Indeed, the target has been set at K£126.5 million, which will enable the nation's foreign exchange reserves to be increased by K£49.3 million in 1983.

3.43. An increase of this magnitude will be a substantial achievement, but it is considerably less in real terms than the increase realized in 1976 and 1977 most of which will be required to meet residual balance of payments deficits in 1978 and 1979. The increase expected in 1983 is also insufficient to maintain a level of reserves equal to three months of imports at the end of the planning period. Drains on those reserves are expected to be fairly substantial in intermediate years of the Plan.



BALANCE OF PAYMENT

Table 3.11

	1976 Actual (K.£m.)	1983 Projected (K.£m. 1976)	Annual Rates of Growth (Percentage) 1976-83	1983 Projected (K.£m. 1983 Prices)	Annual Rates of Price Change (Percentage) 1976-83
Imports of goods	407.9	613.3	6.0	1,135.6	9.2
Exports of goods	311.2	461.8	5.8	786.3	7.9
		96.7		349.3	
Trade Balance, Dr.	27.5	38.7	5.0	77.8	10.5
Freight and Insurance, Cr.	4.6	6.1	4.0	11.3	9.2
Dr.	75.8	111.0	5.6	223.3	10.5
Other Transport, Cr.	27.9	39.3	5.0	72.8	9.2
Dr.	42.9	73.5	8.0	130.1	8.5
Foreign Travel, Cr.	13.0	16.0	3.0	29.6	9.2
Dr.	47.6	56.2	2.4	104.1	9.2
Investment Income, net Dr.	3.1	—	—	—	—
Government Transactions, net Dr.	1.7	3.3	-5.2	6.1	9.2
Other Services, net Dr.	—	—	—	—	—
	48.3	102.3	14.6	207.3	9.2
Total Invisibles, Cr.	13.5	35.0		64.8	
Transfer, net Cr.	—	—		—	
	34.9	14.2	-0.5	77.2	9.2
Total Current Account, Dr.	70.6	68.3		126.5	
Total Capital Account*, Cr.	—	Dr. 27.5		—	
Terms of Trade Losses	—	—		—	
Monetary Sector	Dr. 35.7	Dr. 26.6		Dr. 49.3	9.2

\* Including Errors and Omissions

3.44. It should be noted that the capital inflow planned for 1983 is a little less in real terms than the amount obtained in 1976. In 1976 prices the 1983 inflow is K£68.3 million which compares with an actual inflow in 1976 of K£70.6 million. This represents a small reduction in our overall reliance on foreign capital inflows, excluding grants, of about 3.3 per cent. It is expected that a significant increase in flows into the public sector will be offset by the decline in the inflow of real private capital.

### **Savings and Investment**

3.45. A convenient way of summarizing the macro-effects of the Plan is to consider the nation's investment requirements and the sources of funds required in order to finance them. This is done in Table 3.12. Here it can be seen at a glance how the sharp rise in Government saving coupled with substantial increases in business and personal saving will make up for the slight decline in the inflow of international capital and thus enable the nation to increase its total investment at an annual rate of 7.4 per cent.

### **Economic Interdependencies**

3.46. Finally, attention is directed to the highly interdependent character of development, only the main lines of which are indicated in Tables 3.13 and 3.14, the first showing interrelationships in 1976, the second in 1983. It can be seen that the costs incurred in producing output, Column (1), are equal to the value of that output, Column (2). More important, those costs all accrue to someone—Government, rest of the world, households, and national investors—as incomes as shown in Columns (4), (6), (8) and (10). These incomes are in turn used to purchase the goods and services required by the different sectors, as shown in Columns (3), (5), (7) and (9). The economic activities of each group and indeed of each family affect the incomes and the opportunities of every other group and family.

3.47. The national view of development taken in this chapter seeks to disclose those interdependencies in aggregate form. It should not obscure the more fundamental fact that national development depends upon the active participation and increasing productivity of every person who wishes to share in Kenya's progress. Moreover, these national targets must be reflected in improvements in the quality of life of the people, who in the final analysis, are responsible for their achievement. Selected indicators of standards of living and how they are expected to change over the planning period are discussed in the next section.

### **Standards of Living**

3.48. The quality of life depends on much more than the macro-economic variables discussed in the previous section. The nature and cleanliness of the natural environment, the satisfactions of family life, the quality and extent of living space, and the rewards derived from work and leisure are all

INVESTMENT AND SAVING ACCOUNT  
PRELIMINARY 1976; PROJECTED 1983

Table 3.12

	1976		1983		Average Growth Percentage	SHARE OF TOTAL	
	(MILLIONS OF KENYA POUNDS IN 1976 PRICES)					1976 Percentage	1983 Percentage
<i>Investment</i>							
Capital formation .. .. .	292.0	446.0			6.2	97.8	90.5
Changes in stocks .. .. .	6.6	47.0			32.3	2.2	9.5
TOTAL INVESTMENT .. .. .	298.6	493.0			7.4	100.0	100.0
<i>Sources of investment funds</i>							
Business saving .. .. .	125.2	196.4			6.6	41.9	39.8
Personal saving .. .. .	106.8	185.2			8.2	35.8	37.6
Government Saving* .. .. .	31.7	69.7			11.9	10.6	14.1
Net inflow of international capital .. .. .	70.6	68.3			-0.5	23.6	13.9
Net decreases in international reserves .. .. .	-35.7	-26.6			-4.1	-11.9	-5.4
TOTAL SOURCES .. .. .	298.6	493.0			7.4	100.0	100.0

\*Includes capital grants of £7.1m. in 1976 and £27.7m. in 1983

THE NATIONAL ECONOMIC RELATIONSHIPS  
GROSS DOMESTIC PRODUCT AND RELATED ACCOUNTS, 1976

Table 3.13

	PRODUCTION ACCOUNT		GOVERNMENT ACCOUNT		REST OF WORLD ACCOUNT		HOUSEHOLD ACCOUNT		INVESTMENT AND SAVING ACCOUNT		Sources of Funds (Credit) (10)
	Gross Domestic Income (Debit) (1)	Gross Domestic Product (Credit) (2)	Expenditure and Saving (Debit) (3)	Receipts (Credit) (4)	Payments to Kenya (Debit) (5)	Receipts from Kenya (Credit) (6)	Expenditure and Saving (Debit) (7)	Receipts (Credit) (8)	Domestic Investment (Debit) (9)		
Non-monetary income .. .. .	260.11										
Wages and Salaries .. .. .	505.87										
Property Income .. .. .	288.22										
Business Saving .. .. .	125.25		25.70		8.50	63.10					125.25
Direct Business Taxes .. .. .	48.00			48.00							
Indirect Business Taxes .. .. .	167.00			167.00							
Government Profits .. .. .	25.40			25.40							
Imputed Government Income .. .. .	10.00			10.00							
Business Subsidies .. .. .	-0.77		0.77								
Personal Taxes .. .. .				48.00							
Transfer Payments (net) .. .. .				6.90	13.50			-48.00			
Personal Consumption .. .. .		877.10	247.15				877.10	6.60			
Government Consumption .. .. .		247.15									
Capital Formation .. .. .		291.99							291.99		
Changes in Stocks .. .. .		6.64							6.64		
Exports .. .. .		478.00			478.00	471.80					
Imports .. .. .		-471.80				-0-					
Balance of Payments Gains .. .. .		-0-									
Net Decreases in Reserves .. .. .					-35.70						-35.70
Personal Saving .. .. .			31.68				106.80				106.80
Government Saving .. .. .					70.60						31.68
Net Inflow of Capital .. .. .											70.60
	1,429.08	1,429.08	305.30	305.30	534.90	534.90	983.90	983.90	298.63	298.63	298.63

K£ million

THE NATIONAL ECONOMIC RELATIONSHIPS  
PROJECTED GROSS DOMESTIC PRODUCT AND RELATED ACCOUNTS, 1983

Table 3.14

(K£ Million at 1976 Prices)

	PRODUCTION ACCOUNT		GOVERNMENT ACCOUNT		REST OF WORLD ACCOUNT		HOUSEHOLD ACCOUNT		INVESTMENT AND SAVING ACCOUNT	
	Gross Domestic Income (Debit) (1)	Gross Domestic Product (Credit) (2)	Expenditure and Saving (Debit) (3)	Receipts (Credit) (4)	Payments to Kenya (Debit) (5)	Receipts from Kenya (Credit) (6)	Expenditure and Saving (Debit) (7)	Receipts (Credit) (8)	Domestic Investment (Debit) (9)	Sources of Funds (Credit) (10)
Non-monetary Income .. .. .	311.3							311.3		
Wages and Salaries .. .. .	808.0							808.0		
Property Income .. .. .	444.8		40.8		17.8	74.0		429.4		196.4
Business Saving .. .. .	196.4									
Direct Business Taxes .. .. .	78.0			78.0						
Indirect Business Taxes .. .. .	268.2			268.2						
Government Profits .. .. .	55.0			55.0						
Imputed Government Income .. .. .	13.0			13.0						
Business Subsidies .. .. .	-8.5		8.5							
Personal Taxes .. .. .				80.0	35.0*			-80.0		
Transfer Payments (net) .. .. .				21.7*				13.3		
Personal Consumption .. .. .		1,296.8					1,296.8			
Government Consumption .. .. .		396.9		396.9					446.0	
Capital Formation .. .. .		446.0							47.0	
Changes in Stocks .. .. .		47.0			705.6	698.6				
Exports .. .. .		705.6				27.5				
Imports .. .. .		-698.6								
Balance of Payments Gains .. .. .		-27.5								
Net Decreases in Reserves .. .. .					-26.6					-26.6
Government Saving .. .. .			69.7							185.2
Net Inflow of Capital .. .. .					68.3					69.7
	2,166.2	2,166.2	515.9	515.9	800.1	800.1	1,482.0	1,482.0	493.0	493.0

\*Includes Capital Grants of £27.7m.

important factors which defy measurement. Hence, efforts to quantify improvements in living standards must necessarily focus on indicators and evidence of material progress.

3.49. Progress since Independence has already improved living standards in significant ways. Between 1964 and 1976 total real output has more than doubled, employment in the modern sector has increased by over 300,000 and was more than 50 per cent higher in 1976 than it was in 1964. As the present plan focuses on those target groups who have lagged behind, a more equal distribution of the development achieved during this planning period is expected to result. Hence, some of the targets relating to standards of living in 1983 relate to increases in access to specified kinds of social and economic services.

3.50. Table 3.15 presents a number of basic needs targets that the Government plans to reach by 1983. In real terms, gross domestic product at market prices should amount to K£125.6 per person in 1983 as compared with the amount of K£103.9 in 1976. This is an increase of nearly 21 per cent or 2.8 per cent per annum. Losses from the terms on which exports are exchanged for imports mean that the average rate of increase in real purchasing power will amount to 2.6 per cent per annum. This increase in per capita incomes amounting to about one-fifth over the planning period represents a real improvement in the quality of life.

3.51. A primary objective of fiscal and monetary policies will be to moderate wholesale and retail prices changes. The Plan anticipates that domestic inflation will come down to 6.8 per cent by 1983. There will be some adjustment of agricultural prices to improve farmers' terms of trade. These will be reflected in some increases in consumer prices. However, prices of essential goods will continue to be controlled. The list of items subject to specific price control will represent about 50 per cent of the budget of lower income workers. Thus the Government will exercise firm control over the differential impact of inflation so that low income groups will not bear more than their fair share.

### **Employment**

3.52. In order to achieve the specified income targets, Government policy seeks to increase the numbers employed and overall productivity. Gross investment will rise at 6.2 per cent per year from K£292 million in 1976 to K£446 million in 1983. It is expected that the investment provided for in this Plan will generate about 236,000 new jobs annually of which 50,000 will be in the modern sector. At the end of the plan period total employment will be 6,585,000 or 92.2 per cent of the labour force. This achievement will depend very heavily on the more intensive and productive use of the land.

3.53. The Government will continue to encourage the elimination of male/female differentials in earnings and also ensure diversification of women's participation in the modern sector.

## **Education**

3.54. The Government commitment to education is underlined by allocating a 25.6 per cent share in recurrent expenditure and 2.6 per cent in the development budget. This effort is substantially supplemented by *Harambee* efforts. In 1978 the enrolment in primary schools was about 3 million or 85.6 per cent of those of the ages of 6 to 12. It is projected that this proportion will increase to over 95 per cent by the end of the current Plan. During the plan period the Government will abolish all major fees and levies to make primary education universal and free as early as possible. Special efforts will be made to reach at least 10,000 pupils annually in remote areas. Since most will not have the opportunity to go beyond primary school there will be an increased orientation in the primary school curriculum towards preparation for employment at this stage.

3.55. At all levels, secondary, higher, and tertiary, the policy will be to bring programmes more into harmony with the nation's needs and aspirations. To this end there will be a redirection of education towards more technical and vocational skills. The employment of skilled technical expatriates will be progressively reduced. Consequently citizens will fill up to 95 per cent of high and middle level manpower requirements by 1983.

3.56. The Literacy Survey, 1976/77, indicates that reading ability in any language in the rural areas is limited to 65 per cent of the male and 31 per cent of the female populations over the age of 15 years. The mass literacy campaign during the Plan is targeted towards achieving universal adult literacy in Kenya. This will be done by a judicious mix of Government, the ruling party KANU and local efforts. Thousands of people will be reached through radio programmes on social education and general community matters. This effort will be complemented by training institutions in the rural areas which are expected yearly to train about 150,000 farmers, traders, club leaders, chiefs, literacy teachers, community leaders and councillors. In addition about 10,000 small- and large-scale enterprise managers and businessmen are expected to benefit from skill development programmes. Finally, most districts will have public libraries.

## **Health and Nutrition**

3.57. The strategy for health planning seeks to strike a balance between curative and the less expensive preventive measures. The number of provincial and district hospitals will increase from 64 in 1978 to 70 in 1983, and the Government will continue to make available free medical services to out-patients. The number of doctors and nurses will be expanded from 105 in 1976 to 123 per 100,000 people, and the National Family Planning Programme will be strengthened by the addition of 1,175 field staff to the 430 employed in 1978. The distribution of health facilities will be improved so that health and family life information will be available to many more people.

Table 3.15 BASIC NEEDS TARGETS<sup>1</sup>

	Target		1983		Measurement	
	1976	1978	1976	1978	1976	1978
GDP at Market Prices	..	..	..	..	2,194	K£ million
GDP per Capita	1,429	..	1,429	..	125.6	K£ 1976.
Inflation	103.9	..	103.9	..	6.8%	Annual Rate, GDP.
Population	16	..	16	..	17,470,000	Based on a 3.5% growth rate.
Population Growth Rate	13,752,000	..	13,752,000	..	3.5%	This may be slightly higher.
Crude Birth Rate	3.5%	..	3.5%	..	46.5	Births/1,000 population.
..	49.0	..	49.0	..		
<b>Employment</b>						
Modern Sector	915,000	..	915,000	..	1,250,000	
Rural	4,045,000	..	4,045,000	..	5,140,000	
Urban Informal	125,000	..	125,000	..	195,000	
	5,085,000	..	5,085,000	..	6,585,000	
	90.6	..	90.6	..	92.2	
<b>Employment as Percentage of Labour Force</b>						
..	..	..	..	..	..	..
<b>Education (1978-84)</b>						
Rural Literacy, 15+ Population	..	..	..	..	..	Ability to read in any language.
Primary	65%M	31%F	100%M	100%F	3,825,000	Total enrolment.
Secondary (Government Aided)	3,135,000	..	3,135,000	..	157,000	Form I to VI includes vocational, Agricultural, Commercial.
..	133,000	..	133,000	..	3,859	Assisted and aided including Church and Private.
Harambee Institutes of Technology	1,007	..	1,007	..	233,000	
Harambee other than Institutes of Technology	190,799	..	190,799	..	8,424	
Technical	6,480	..	6,480	..	4,185	
Polytechnic	3,282	..	3,282	..	9,629	
Special Education	3,619	..	3,619	..	8,900	
University	6,250	..	6,250	..		
<b>Health Care</b>						
Hospitals	64	..	64	..	70	Government Hospitals—Province and District.
Health Institutions	761	..	761	..	806	Government Hospitals, Health Centres and Sub-centres, Dispensaries.
Doctor Density	10.3	..	10.3	..	11.9	No. per 100,000 population.
Registered and Enrolled Nurses Density	95	..	95	..	110	Household less than 2 km. distant.
Access to Health Centres—Rural	11%	..	11%	..	12%	Number of cases.
Malaria	250,000	..	250,000	..	150,000	
	(1977)	..	(1977)	..		



<i>Water<sup>2</sup></i>											
Rural Holdings	..	..	..	..	..	..	..	..	..	60%	Holdings with water.
Rural access to water	..	..	..	..	..	..	..	..	..	8%	Over 2 km. to water service.
<i>Housing</i>											
Rural <sup>2</sup> No. Perm Structure	..	..	..	..	..	..	..	..	..	30%	Dwellings with corrugated roof.
Dwellings with more than two rooms	..	..	..	..	..	..	..	..	..	52%	
Houses with electricity	..	..	..	..	..	..	..	..	..	1.2%	
<i>Urban</i>											
Number of units planned	..	..	..	..	..	..	..	..	..	13.6	Thousands per annum.
Number of plots serviced	..	..	..	..	..	..	..	..	..	5.6	Thousands per annum.
<i>Food<sup>3</sup></i>											
Calories per capita	..	..	..	..	..	..	..	..	..	2,220	Per capita/day.
Protein Grams	..	..	..	..	..	..	..	..	..	65.5	Per capita/day.
Mildly Malnourished	..	..	..	..	..	..	..	..	..	22%	Children aged 1-4 years.
Severely Malnourished	..	..	..	..	..	..	..	..	..	2.5%	Children aged 1-4 years.
Rural Impoverished	..	..	..	..	..	..	..	..	..	33%	Household income less than K£120 (1975) per year.
<i>Infrastructure</i>											
Rural access to—	..	..	..	..	..	..	..	..	..	..	..
Co-op. Store	..	..	..	..	..	..	..	..	..	21%	Less than 2 km.
Market	..	..	..	..	..	..	..	..	..	47%	Less than 2 km.
Duka	..	..	..	..	..	..	..	..	..	70%	Less than 2 km.
Bus	..	..	..	..	..	..	..	..	..	51%	Less than 2 km. to public bus route.
Matatu	..	..	..	..	..	..	..	..	..	67%	Less than 2 km.
School—Primary	..	..	..	..	..	..	..	..	..	72%	Less than 8 km.
School—Secondary	..	..	..	..	..	..	..	..	..	60%	Less than 8 km.
Telephone	..	..	..	..	..	..	..	..	..	1.52	Per thousand population.
										(1978)	1.01
<i>Security</i>											
National Social Security Fund	..	..	..	..	..	..	..	..	..	1,333,000	No. employees registered.
										1,028,000	

<sup>1</sup> This is a selection of targets and is not meant to be exhaustive.

<sup>2</sup> Based on IRS II 1976-77 Data. This survey covered rural smallholders and rural non-agricultural population which are estimated at 11.7 million or about 80% of the total population.

<sup>3</sup> Based on IRS I 1974-75. This survey covered rural smallholders and represents a population of about 10 million. Parts of the Rift Valley were somewhat under-represented.

As a result, the more than 250,000 cases of malaria reported in 1977 will fall by 40 per cent over the course of the plan period, and similar reductions are expected for communicable diseases.

3.58. The 1977 Rural Kenyan Nutrition Survey suggests that 5 per cent of children aged 1 to 4 years were below 90 per cent of standard both weight for height and height for age scales. It is expected to reduce this by 50 per cent by 1983 through improved food availability together with guidance provided by an additional 300 nutrition field workers.

3.59. Real expenditure on food by households should increase at about 1.7 per cent per capita per year. To supply enough food for increases in population as well, total food availability will have to increase by 5.2 per cent per year. The aggregate annual expenditure increase on particular foods will range from 3.9 per cent on staples like maize to 5.9 per cent on sugar and milk to 6.7 per cent on fats and oils. However, for some groups these gradual increases are not considered sufficient. For primary school children it is proposed to make free milk available. This will give a direct benefit to their nutrition and also have a progressive impact on the purchasing power of households.

3.60. As it is not planned to have any significant relative change in the consumer prices of foods, the projected increases in production of agricultural commodities will keep pace with these demand increases. Some typical annual projected rates of growth for domestic production over the period 1976-83 are 3.5 per cent for maize, 10.9 per cent for sugar-cane, 5.1 per cent for milk and 6.7 per cent for oil seeds and nuts. Thus maize and milk production will keep pace with domestic demand while sugar imports will cease after 1980.

3.61. The total impact of the Plan on caloric intake will bring about an increase of around one per cent per capita per year while the corresponding figure for protein should be twice this. This overall improvement when viewed in conjunction with specific target group oriented policies will ensure a significant reduction in the numbers of those suffering from deficient protein and energy intake.

3.62. There are a number of target groups who need particular attention so that they can realize their full potential. These include the physically handicapped who number about 280,000. During the Plan, the rehabilitation programme which currently has 18 centres will be expanded by an expenditure of K£758,000. In addition, it is intended to cover approximately 15,000 children in the pre-school feeding programme which will be expanded from its present seven to twelve districts.

3.63. It is anticipated that there will be a 25 per cent increase in the construction of rural health facilities while existing but inadequate facilities will be upgraded. This together with the rural road extension programme will increase the percentage of rural households travelling less than 2 km. to the nearest health centre to 12 per cent.

## **Water**

3.64. It is intended to have an adequate water supply available to the entire population soon after the year 2000. In 1978 about 44 per cent of rural smallholders have some form of water on their holding. This is projected to increase to 60 per cent by 1983. In line with the basic needs strategy of making water available to all, Government investment will be primarily oriented towards communal water points while individual connections will be provided at the consumer's own expense.

3.65. Water together with irrigation and drainage will facilitate increased agricultural production through higher yields, additional cultivable land and added flexibility in choosing cropping patterns. Substandard water is a major source of health problems which in turn lead to under-utilization of nutrient intake. The problem is severe for infants where diarrhoea often results at the time that the mother seeks to supplement breast milk.

3.66. The total share of the Development Forward Budget allocated for water is set at 14.6 per cent. This substantial effort is expected to produce significant gains in income and improved health and nutrition.

## **Housing**

3.67. In its basic needs strategy the Government seeks to assist *wananchi* to have better shelter, adequately serviced to ensure good health and well-being. While the Government provides some housing for the low income groups its primary role is as a catalyst to the housing industry. Hence, the Government directs much of its investment in this sector to provision of site and service schemes which have a much greater impact on total housing needs than would follow from similar levels of expenditure devoted to the construction of complete units. Thus 90 per cent of all urban development funds allocated for housing through the National Housing Corporation will be used to finance site and service schemes and other forms of low income housing.

3.68. The public sector will provide some 24 per cent of the housing units while the remainder will be provided by private agencies and voluntary organizations. During 1979-83 about 47,332 low cost housing units will be constructed using the Government allocation while 28,022 plots will be serviced. Much of this will be directed towards the urban poor.

## **Infrastructure**

3.69. The expansion of road projects and programmes will ensure a reduction in the percentages of rural households who must travel more than 2 km. in order to reach essential services. This programme will also enable bus and *matatu* services to be improved. By 1983 it is anticipated that 51 per cent of rural small-holders will be within 2 km. of a bus route. Rural electrification programmes will be primarily directed towards market and other rural centres where they will benefit an additional 500,000 people. There will be a modest increase in the number of rural houses with electricity.

## **Working and Living Conditions**

3.70. The Government recognizes the need for safe and healthy working conditions and will continue to enforce existing regulations. At the same time encouragement will be given to the development of sports, games, music, drama, dance and other leisure activities. It will seek to protect the national cultural heritage for the benefit of both present and future generations.

3.71. The National Environment Secretariat in collaboration with the Attorney-General's Chambers will review existing laws to restrain environmental harmful developments. The law will be devised to embody both preventive and corrective aspects to protect wildlife, their natural habitat and ensure good practice in water conservation and management.

3.72. These indicators of material welfare are of two types. Some indicate that the average availability of goods and services—income, food, medical services, calories, and protein are examples—will improve. These data demonstrate that some people will be better off and that it is possible with the goods and services available to improve the quality of life for many people. The second type indicates more directly improvements in the distribution of the benefits of development by identifying changes in the proportion of the population having access to essential services such as adequate nutrition, water, permanent dwellings, electricity, markets, and transport. In many respects, it is measures of the second type which are most meaningful. They reflect the growing access to both social and economic services on which income-earning opportunities depend and hence the realization of a better life for an ever growing majority of the population.



## CHAPTER 4—THE FORWARD BUDGET

4.1. The public sector includes the Central Government, Local Authorities and parastatal organizations. As a whole the sector plays a significant role in our economy. It accounts for about 24 per cent of gross domestic product and contributes about 40 per cent to total capital formation. Over 40 per cent of salary and wage paid employees in the country work in this sector. Of the public sector component the Central Government plays the dominant role. Hence, the Forward Budget\* which is discussed in this chapter has a strong impact on the development and performance of the economy as the following sections demonstrate.

4.2. The Forward Budget is first of all a major mechanism for achieving national objectives for social and economic development and in particular the development strategies and policies that have been adopted to attain these objectives. For this Plan the Forward Budget has been formulated with the deliberate effort of directing public sector activities to the tasks of alleviating poverty and increasing the provision for basic needs. The sectoral chapters that follow provide details on how the programmes and projects which are allocated funds in the votes of the several ministries are geared to the attainment of the objectives and targets for the specific sectors.

4.3. In addition, the Forward Budget is the principal instrument for co-ordinating planning and budgeting activities of the Central Government. To this end the budgetary system of the Government serves three complementary objectives. First, it integrates planning and budgetary procedures; second, it introduces modern management techniques into Government activities; and third, it enhances the effectiveness of financial control.

4.4. In the Forward Budget, Government revenues are forecast for each revenue source for the five year period covered by the Budget. For expenditures, forecasts are made on the vote level for the same period. Estimates are prepared for both development and current expenditure. These are reviewed annually and adjustments are made to take into account changes in economic circumstances and financial condition.

4.5. In formulating this Forward Budget, special attention has been given to the following points—

- i. providing budgetary support for better utilization of the established capacity for rendering services and producing goods;

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\*The Forward Budget includes funds coming from the Central Government budget. It does not include funds generated internally or borrowed directly by local authorities and parastatal organizations.

- ii. directing appropriate amounts of resources to ministries and Government agencies that produce goods and services that provide for basic needs;
- iii. strengthening national security;
- iv. financing recurrent and development expenditure with little or no reliance on external commercial borrowing.

Table 4.1 provides a summary of the revenue and expenditures of the Central Government during the plan period. These are explained more fully in the following sections.

### Revenue

4.6. The success of Government in acquiring revenue from the economy has since Independence been considerable. Government revenue as a percentage of gross domestic product has risen from 20 per cent of monetary sector gross domestic product in 1964 to nearly 32 per cent in 1976. The rise in the percentage of gross domestic product that has been acquired for Government revenue has mainly been the result of revisions in tax rates, and the broadening of the tax base. It should be noted that changes in tax rates have also aimed at improving the equity effects of the tax system.

4.7. The present scope for increasing tax rates is somewhat limited. The rates of direct taxation of income now in force are progressive and for persons in the upper income brackets they are relatively high. In addition, the rate of taxation of corporation profits has been established at levels competitive with rates in other countries. In view of these facts the growth in tax revenue will largely arise from the growth of economy and increased efficiency in tax collection, supplemented by some modifications in tax rates. It is planned to maintain the buoyancy ratio\* of tax revenue above 1.0, so that tax revenues including changes in tax rates, should grow a little faster than monetary gross domestic product.

4.8. The projections of current revenue in line 1 of Table 4.1 can be conveniently divided into two parts. The first represents the growth of revenue which naturally follows from the growth of the economy. The second represents increases in revenue which result from new measures such as improvements in collection, reductions in the degree of tax evasion, changes in tax rates, and efforts to broaden the tax base. Table 4.2 contains projections of the natural growth of major taxes and non-tax revenues. To these figures is added "Revenue from Unidentified Sources", which will be obtained through new measures, to obtain the current revenue targets for the Plan. These amounts appear both in the last line of Table 4.2 and in the first line of Table 4.1.

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\* The buoyancy ratio of the tax system is the percentage growth in total tax receipts divided by the growth of GDP (Monetary Sector). It includes the effects of changes in the tax structure (new taxes, new rates, etc.) as well as the influence in the growth of the economy.

OUT-TURNS OF GOVERNMENT FORWARD BUDGET 1978/79-1982/83

Table 4.1

(Millions of Pounds in 1978/79 Prices)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
A. Current Revenue	540.4	570.3	612.9	658.8	708.1	3,090.5
B. Current Expenditure of Ministries	376.4	398.2	426.4	456.5	490.5	2,148.0
C. Interest on Debt, Pensions, etc.	33.5	34.9	59.5	64.7	67.8	300.4
D. Total Current Expenditure* (= B + C)	429.9	453.1	485.9	521.2	558.3	2,448.4
E. Current Surplus (= A - D)	110.5	117.2	127.0	137.6	149.8	642.1
F. Foreign Grants	20.6	25.0	27.0	31.0	33.0	136.6
G. Development Expenditure of Ministries	258.0	269.3	273.3	274.1	296.4	1,371.1
H. Overall Deficit (= E + F - G)	-126.9	-127.1	-119.3	-105.3	-113.6	-592.4
<i>Financed by:-</i>						
J. Net External Concessional Loans (1)	40.9	68.8	73.7	65.3	69.5	318.2
K. Net External Commercial Loans (2)	23.2	0.4	-20.5	-21.0	-22.6	-40.5
L. Net Domestic (non-bank) Borrowing (3)	33.5	34.5	36.0	37.0	38.0	179.0
M. Total Net Non-Bank Borrowing (= J + K + L)	97.6	103.7	89.2	81.3	84.9	456.7
N. Residual Deficit (= H - M)	-29.3	-23.4	-30.1	-24.2	-28.7	-135.7
<i>Memorandum Items:</i>						
(1) Gross Borrowing and Grants	69.0	100.8	110.5	110.1	117.5	507.9
Repayments of (1)	7.5	7.0	9.8	13.8	15.0	53.1
(2) Gross Borrowing	33.3	19.3	—	—	—	52.6
Repayments of (2)	10.1	18.9	20.5	21.0	22.6	93.1
(3) Gross Borrowing	38.4	48.9	49.4	113.5	46.6	296.8
Repayments of (3)	4.9	14.4	13.4	76.5	8.6	117.8

\*Total Current Expenditure excludes repayments of public debt reflected in the memorandum items.

PROJECTED REVENUE

(Thousands of Pounds in 1978/79 Prices)

Table 4.2

	1978/79	1979/80	1980/81	1981/82	1982/83	Total	% Share	% Growth
Income Taxation	170,444	194,634	208,858	224,945	242,680	1,041,561	33.7	7.2*
Sales Tax	117,412	117,641	120,232	126,925	134,366	616,576	19.9	3.4
Import Duties	109,411	109,613	111,923	117,892	124,550	573,389	18.5	3.3
Excise Taxes	58,792	58,919	60,372	64,140	68,379	310,602	10.1	3.8
Other Taxation	20,897	21,418	22,043	22,676	23,433	110,467	3.6	2.9
Total Tax Revenue	476,956	502,225	523,428	556,578	593,408	2,652,595	85.8	5.6
Non-Tax Revenue	63,400	66,569	70,503	74,893	79,703	355,068	11.5	5.9
Revenue from Unidentified Sources	—	1,306	18,969	27,329	34,989	82,793	2.7	—
Current Revenue	540,356	570,300	612,900	658,800	708,100	3,090,456	100.0	7.0

\*Part of the increase from 1978/79 to 1979/80 is due to the collection of arrears. As this amount is of a non-recurring nature, it is netted out of the growth rate.



4.9. Revenue from taxation, excluding new measures, is expected to grow at 5.6 per cent throughout the plan period. This implies a built-in elasticity\* of about .8 over the planning period. Hence, "Revenue from Unidentified Sources" must yield the balance required. The natural growth of each type of tax is outlined in succeeding paragraphs.

4.10. Although the share of direct taxes has consistently increased as a share of total tax revenue following increases in company tax rates and the effective rate of personal income tax, indirect taxes remain the principal sources of revenue. As for individual revenue sources, income tax, sales tax, and import duties will be the leading sources in that order.

4.11. Income taxation will continue to be the most important single source of tax revenue with over 33 per cent of current revenue expected to come from this source. Receipts from income taxation should grow at 7.2 per cent. This reflects both the growth of monetary sector GDP of 7.1 per cent between 1978 and 1983 and the relatively high built-in elasticity of income taxation.

4.12. The rather large increase in receipts between 1978/79 and 1979/80 is due, in part, to the collection of arrears. It is expected that this effect will be of a temporary nature as it will cause a once and for all increase in receipts. However, efforts to increase the efficiency of the collection process will result in lasting increases in revenue.

4.13. Indirect taxes are related to expenditure rather than to production as they are taxes levied on the purchase of goods and services. Gross domestic expenditure is expected to grow at 4.2 per cent per annum throughout the plan period. Overall, revenue from indirect taxation is expected to grow at 3.4 per cent. The distribution of this revenue among the various taxes (sales tax, import duties, excise taxes and other taxation) is expected to remain fairly constant over the plan period.

4.14. The sales tax was introduced in 1973 and has lessened our reliance on excise and import duties. The introduction of the sales tax broadened the tax base and improved the effects of the tax system on the allocation of resources. In 1977 revenue from the sales tax accounted for almost 40 per cent of indirect tax revenue, and will grow at approximately 3.4 per cent per annum during the plan period.

4.15. Revenue from excises is expected to be closely related to the growth of gross domestic expenditure and is estimated to grow at 3.8 per cent per year. The principal commodities now subject to excise tax are beer, sugar and cigarettes.

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\* The built-in elasticity of a tax system measures the responsiveness of tax-receipts to the growth of the economy. Unlike the buoyancy measures, it does not include the effect of tax-receipts or changes in the tax structure. For this reason, it is usually lower than the buoyancy measure.

4.16. Import duties will grow on average at 3.3 per cent throughout the plan period. This apparently low rate of growth results from the fact that the base year, 1978, was one in which imports and import duties were exceptionally high.

4.17. Non-tax revenue includes—

- i. earnings from the provision of goods and services;
- ii. loan charges;
- iii. reimbursement from other administrations; and
- iv. development project earnings.

The growth of earnings from this source is expected to follow the general economic performance of the economy and is expected to grow at 5.9 per cent per annum. Although this revenue source has not been very buoyant in the past, new Government policies on the efficiency of Government and parastatal bodies will result in further increases in revenue.

4.18. These several sources of Government revenue should yield through natural growth about 97.3 per cent of the revenue target established for the plan period. The balance, amounting to K£82.8 million over five years, will be raised through new tax measures. Of these the most important will be efforts to reduce the degree of tax evasion. Changes in tax rates, if required, will be defined with a view to improving equity as well as increasing revenues.

#### **Domestic Long-term Borrowing**

4.19. It is expected that domestic borrowing will increase over the plan period. The Government intends to draw more heavily on domestic saving during the plan period. A variety of measures are already being taken to achieve this target. First, changes in rates of contribution to the National Security Fund and the inclusion of women in the Scheme will considerably raise the amount of contributions to the Fund part of which will be invested in Government Securities. Second, the Kenya Post Office Savings Bank has introduced a Premium Bond Scheme which will provide additional investment resources. Third, requirements now being enforced on insurance companies including local incorporation, larger proportions of reinsurance cession being locally covered will result in the insurance industry having a large surplus of funds for local investment including investment in Government Securities. Fourth, interest rates on Government stocks and Treasury notes will be made flexible to reflect market return for similar investment. Fifth, the Government will make available to the money market more frequently than in the past medium-term stocks and promissory notes with a maturity of five years and above to attract medium-term investors in Government Securities. Sixth, it is expected that commercial banks and financial institutions will increase their investments in medium and long dated Government Securities.

## **Foreign Resources**

4.20. Government investment efforts have progressed rapidly over the years and the volume of foreign capital required has risen absolutely. Government dependence on foreign resources has, however, declined in relative terms. Whereas they financed 43 per cent of development expenditure in the early years of Independence, they financed less than 30 per cent of the same account in 1977.

4.21. About K£454.8 million in net development aid (K£507.9 million gross) is expected between 1978 and 1983. Net concessionary loans—those with a large grant element in terms of longer grace periods and lower rates of interest—will account for 70 per cent of the total net aid. Pure grants will provide the remaining 30 per cent. Net concessionary loans and grants will finance 33.6 per cent of the total development expenditure. Net foreign loans, concessionary and commercial, will finance 20.6 per cent of development expenditure over the planning period, falling from 24.8 per cent in 1978/79 to 15.9 per cent in 1982/83 largely because of the net repayment of commercial loans in the latter part of the period.

4.22. It is planned to limit to the minimum the reliance on foreign commercial loans and suppliers credits as sources of finance. Past experience has shown that they are high cost sources. The Government will confine its use of these forms of finance to projects which have high rates of return on investment and capacities to earn foreign exchange.

## **Residual Deficits**

4.23. It will be observed from Table 4.1 that the overall deficits between current revenue (including grants) and total expenditure range between K£127.1 million in 1979/80 to K£105.5 million in 1981/82, and total K£592.4 million for the period. Net concessionary and commercial external loans will finance K£277.7 million of this and net domestic non-bank borrowing will cover K£179 million. These sources will not, however, finance the whole of the overall deficits and will leave residual balances over the plan period amounting in total to K£135.7 million. These residuals will be financed by short-term borrowing from the domestic banking system. The proposed levels of short-term borrowing take into account the balance of payments constraint and are consistent with the objective of reducing domestic inflation to less than 7 per cent by the end of the plan period.

## **Total Expenditure**

4.24. In one important respect the analysis of total expenditures is more revealing than the analysis of development and current expenditures taken separately. This is because division of expenditure between development and current is in many ways arbitrary and the distinction has lost some meaning over the years.

4.25. The comparison of total actual expenditure for the 1973/74-1977/78 period and allocations for 1978/79-1982/83 shown in Table 4.3 reveals

important changes in composition. Comparisons of absolute numbers cannot be made because figures for the two periods are stated in different prices. The principal ministries whose shares of total expenditures will increase in the current planning period as compared with the last are Agriculture, Local Government, Labour, Tourism and Wildlife, Housing and Social Services,

COMPARISON OF TOTAL EXPENDITURES  
1973/74-1977/78 (ACTUAL)\* AND 1978/79-1982/83 (PROPOSED)

Table 4.3

Vote	1973/74-1977/78 (In Current Prices)		1978/79-1982/83 (In 1978/79 Prices)	
	K£'000	% Share	K£'000	% Share
V- 1. Office of the President .. .. .	94,511	5.4	199,802	5.7
V- 2. The State House .. .. .	1,994	0.1	3,249	0.1
V- 3. Directorate of Personnel Management .. .. .	10,667	0.6	22,370	0.6
V- 4. Ministry of Foreign Affairs .. .. .	15,727	0.9	31,672	0.9
V- 5. Ministry of Home Affairs .. .. .	70,525	4.0	60,755	1.7
V- 6. Ministry of Economic Planning and Community Affairs .. .. .	92,153	5.2	128,981	3.7
V- 7. Office of the Vice-President and Ministry of Finance .. .. .				
V- 8. Ministry of Defence .. .. .	178,135	10.1	399,742	11.4
V-10. Ministry of Agriculture .. .. .	164,138	9.3	391,636	11.1
V-11. Ministry of Health .. .. .	125,852	7.1	249,040	7.1
V-12. Ministry of Local Government .. .. .	45,734	2.6	126,316	3.6
V-13. Ministry of Works .. .. .	207,615	11.8	406,013	11.5
V-14. Ministry of Power and Communications .. .. .	102,681	5.8	133,258	3.8
V-15. Ministry of Labour .. .. .	16,541	0.9	44,778	1.3
V-16. Ministry of Tourism and Wildlife .. .. .	32,146	1.8	88,982	2.5
V-17. Ministry of Lands and Settlement .. .. .	40,667	2.3	60,853	1.7
V-18. Ministry of Housing and Social Services .. .. .	35,380	2.0	91,936	2.6
V-19. Ministry of Information and Broadcasting .. .. .	19,157	1.1	43,949	1.3
V-20. Ministry of Water Development .. .. .	80,251	4.5	239,728	6.8
V-21. Ministry of Natural Resources .. .. .	26,546	1.5	56,083	1.6
V-22. Ministry of Co-operative Development .. .. .	9,293	0.5	22,363	0.6
V-23. Ministry of Commerce and Industry .. .. .	35,017	2.0	41,013	1.2
V-24. Ministry of Education .. .. .	342,419	19.4	584,783	16.6
V-25. Office of the Attorney-General .. .. .	4,449	0.3	10,080	0.3
V-26. Judicial Department .. .. .	6,033	0.3	11,504	0.3
V-27. Public Service Commission .. .. .	462	0.1	742	—
V-28. Office of the Controller and Auditor-General .. .. .	1,752	0.1	3,967	0.1
V-29. National Assembly .. .. .	4,841	0.3	7,600	0.2
Allowance for Reserve .. .. .	—	—	57,915	1.7
<b>TOTAL EXPENDITURE OF MINISTRIES</b>	<b>1,764,686</b>	<b>100.0</b>	<b>3,519,110</b>	<b>100.0</b>

\*1973/74-1976/77 figures are actual expenditures as per Appropriation Accounts. 1977/78 figures are revised estimates.

and Water Development. Taken together, these ministries, which represent development priorities, will receive 28 per cent of the new budget as compared with 21 per cent of expenditures over the last plan period.

4.26. The sharp increase in the share going to Defence and to some extent the increase in the share going to the Office of the President indicate the new emphasis on national security which the Government has decided is now necessary. These increases have necessarily meant that allocations to other ministries are not as high as they might otherwise have been. Hence, civil ministries (excluding Defence only) will receive only 88.6 per cent of total Government expenditure in this plan period as compared with 89.9 per cent in the last.

4.27. The significant changes in allocations between this plan period and the last will also be reflected in rates of expenditure growth during the plan period. Table 4.4 discloses that the civil expenditures of ministries will grow at 6.4 per cent per annum. The ministries whose expenditures will grow most rapidly are Agriculture (16.8 per cent), Housing and Social Services (12.6 per cent), Labour (11.8 per cent), Health (9.6 per cent) and Local Government (8.6 per cent). Because Water Development and Education have already achieved very high shares in total expenditure, their rates of growth over the planning period are more nominal.

### **Development Expenditure**

4.28. The changing composition of development expenditure is disclosed in Table 4.5. There are ten ministries which will receive larger shares of development expenditure in the new plan period than they did in the last. These include Agriculture, Local Government, Labour, Tourism and Wildlife, Housing and Social Services and Water Development. In addition, Health, Information and Broadcasting, Natural Resources and Co-operative Development will also increase their shares. Taken together these ten ministries will receive 58.5 per cent of the development budget as compared with 41.3 per cent previously.

4.29. Over the plan period, total development expenditure will grow at 3.5 per cent and civil development at 3.7 per cent, as shown in Table 4.6. These rates would be about 7.4 per cent based on 1976/77, but the investment bulge between 1976 and 1978 has had the effect of reducing it. During that period, it became necessary to invest 40 per cent above the normal rate of growth because of the take-over of former E.A. Community institutions, the implementation of large agricultural and water projects and security needs.

4.30. The ministries whose development expenditure will grow most rapidly over the planning period are Agriculture by 21.1 per cent per annum, Labour by 20.8 per cent, Housing and Social Services by 13.5 per cent, Local Government by 11.5 per cent, and Health by 10.7 per cent. These rates of growth demonstrate that the development priorities are being reflected throughout the planning period.

CENTRAL GOVERNMENT TOTAL FORWARD BUDGET 1978/79-1982/83  
(Thousands of Pounds in 1978/79 Prices)

Table 4.4

Vote	1978/79	1979/80	1980/81	1981/82	1982/83	Total	Average Annual Percentage Growth
V-1. Office of the President .. .. .	35,000	37,781	40,000	42,482	44,539	199,802	6.2
V-2. The State House .. .. .	664	4,194	642	669	4,973	3,249	1.2
V-3. Directorate of Personnel Management .. .. .	4,063	6,004	4,440	4,700	7,017	22,370	5.2
V-4. Ministry of Foreign Affairs .. .. .	5,670	12,070	6,322	6,659	12,802	31,672	5.5
V-5. Ministry of Home Affairs .. .. .	11,579	24,941	12,114	12,190	25,699	60,755	2.5
V-6. Ministry of Economic Planning and Community Affairs .. .. .	29,233	77,879	24,178	24,939	80,800	128,981	-0.1
V-7. Office of the Vice-President and Ministry of Finance .. .. .	84,163	71,000	77,400	79,500	102,348	399,742	-0.1
V-8. Ministry of Defence .. .. .	54,915	78,905	84,468	84,468	291,636	1,618	16.8
V-9. Ministry of Agriculture .. .. .	40,465	45,217	50,512	54,544	58,302	249,040	9.6
V-10. Ministry of Health .. .. .	19,268	26,137	27,068	26,069	26,774	126,316	8.6
V-11. Ministry of Local Government .. .. .	67,298	82,506	84,208	83,345	88,656	406,013	7.1
V-12. Ministry of Works .. .. .	51,208	23,407	17,453	19,535	21,655	133,258	-19.4
V-13. Ministry of Power and Communications .. .. .	7,048	8,172	8,649	9,889	11,020	44,778	11.8
V-14. Ministry of Labour .. .. .	16,498	18,499	18,731	17,485	17,769	88,982	1.9
V-15. Ministry of Tourism and Wildlife .. .. .	12,104	12,126	12,246	12,034	12,343	60,853	0.5
V-16. Ministry of Lands and Settlement .. .. .	13,288	17,837	18,784	20,438	21,489	91,936	12.6
V-17. Ministry of Housing and Social Services .. .. .	8,634	9,105	9,404	8,223	8,563	43,949	-0.7
V-18. Ministry of Information and Broadcasting .. .. .	45,154	47,700	48,870	48,602	49,402	239,728	2.3
V-19. Ministry of Water Development .. .. .	9,165	11,441	11,196	11,800	12,481	56,083	8.0
V-20. Ministry of Natural Resources .. .. .	3,816	4,125	4,460	4,804	5,158	22,363	7.8
V-21. Ministry of Co-operative Development .. .. .	8,850	7,865	8,541	7,818	7,939	41,013	-2.7
V-22. Ministry of Commerce and Industry .. .. .	100,196	107,892	117,065	125,360	134,270	584,783	7.6
V-23. Ministry of Education .. .. .	1,626	2,637	1,827	1,937	2,053	10,080	6.0
V-24. Office of the Attorney-General .. .. .	2,204	2,156	2,264	2,379	2,501	11,504	3.2
V-25. Judicial Department .. .. .	132	139	148	157	166	742	5.9
V-26. Public Service Commission .. .. .	690	738	790	845	904	3,967	7.0
V-27. Office of the Controller and Auditor-General .. .. .	1,348	1,429	1,515	1,606	1,702	7,600	6.0
V-28. National Assembly .. .. .	—	3,910	12,005	17,140	24,860	57,915	—
V-29. Allowance for Reserve .. .. .	—	—	—	—	—	—	—
EXPENDITURE OF MINISTRIES (= EOM) .. .. .	634,399	667,484	699,737	730,608	786,882	3,519,110	5.5
CIVIL EXPENDITURE OF MINISTRIES (= EOM - V8) .. .. .	550,236	589,605	622,337	651,108	706,082	3,119,368	6.4
CONSOLIDATED FUND SERVICES (= CFS) .. .. .	75,149	95,200	103,200	176,000	114,000	563,549	11.0
GRAND TOTAL FORWARD BUDGET (= EOM + CFS) .. .. .	709,548	762,684	802,937	906,608	900,882	4,082,659	6.2

N.B.—The budget of the Office of the President should be increased, and the budget for the Ministry of Labour decreased, by the amount allocated to the National Youth Service (see Chapter 9).

## Recurrent Expenditure

4.31. The expansion of services and the implementation of development projects generate recurrent expenditure liabilities. It is estimated that for every K£100 development expenditure incurred an annual recurrent expenditure ranging between K£10-15 will be required annually in subsequent years. This calls for action by Government in two respects. First, appropriate levels of development expenditure must be defined which do not impose too great a burden on Government revenues, not only in the initial period but in subsequent periods as well. Second, ways must be found to reduce the recurrent implications of development expenditure. In this Plan an attempt has been made to take actions on both of these lines.

COMPARISON OF DEVELOPMENT EXPENDITURES  
1973/74-1977/78 (ACTUAL)\* AND 1978/79-1982/83 (PROPOSED)

Table 4.5

Vote	1973/74-1977/78 (In Current Prices)		1978/79-1982/83 (In 1978/79 Prices)	
	K£'000	% Share	K£'000	% Share
D— 1. Office of the President .. ..	8,139	1.3	19,416	1.4
D— 2. The State House .. ..	632	0.1	1,031	0.1
D— 3. Directorate of Personnel Management .. ..	1,036	0.2	597	—
D— 4. Ministry of Foreign Affairs .. ..	1,831	0.3	3,467	0.3
D— 5. Ministry of Home Affairs .. ..	4,638	0.7	7,200	0.5
D— 6. Ministry of Economic Planning and Community Affairs .. ..	67,445	10.5	66,883	4.9
D— 7. Office of the Vice-President and Ministry of Finance .. ..				
D— 8. Ministry of Defence .. ..	13,173	2.0	37,730	2.8
D—10. Ministry of Agriculture .. ..	89,505	13.9	256,535	18.7
D—11. Ministry of Health .. ..	29,108	4.5	67,092	4.9
D—12. Ministry of Local Government .. ..	14,497	2.2	65,993	4.8
D—13. Ministry of Works .. ..	115,661	18.0	223,665	16.3
D—14. Ministry of Power and Communications .. ..	89,262	13.9	88,313	6.4
D—15. Ministry of Labour .. ..	1,896	0.3	14,080	1.0
D—16. Ministry of Tourism and Wildlife .. ..	16,428	2.6	49,055	3.6
D—17. Ministry of Lands and Settlement .. ..	25,410	4.0	32,949	2.4
D—18. Ministry of Housing and Social Services .. ..	27,868	4.3	73,030	5.3
D—19. Ministry of Information and Broadcasting .. ..	5,784	0.9	19,330	1.4
D—20. Ministry of Water Development .. ..	64,040	10.0	200,067	14.6
D—21. Ministry of Natural Resources .. ..	13,010	2.0	44,596	3.3
D—22. Ministry of Co-operative Development .. ..	3,620	0.6	12,017	0.9
D—23. Ministry of Commerce and Industry .. ..	30,254	4.7	28,300	2.1
D—24. Ministry of Education .. ..	18,743	2.9	35,845	2.6
D—26. Judicial Department .. ..	552	0.1	1,900	0.1
Allowance for Reserve .. ..	—	—	22,000	1.6
<b>TOTAL DEVELOPMENT EXPENDITURE OF MINISTRIES .. ..</b>	<b>642,532</b>	<b>100.0</b>	<b>1,371,091</b>	<b>100.0</b>

\*1973/74-1976/77 figures are actual expenditures as per the Appropriation Accounts. 1977/78 figures are revised estimates.

Table 4.5  
CENTRAL GOVERNMENT DEVELOPMENT FORWARD BUDGET 1978/79-1982/83  
(Thousands of Pounds in 1978/79 Prices)

	Vote	1978/79	1979/80	1980/81	1981/82	1982/83	Total	Average Annual Percentage Growth
D-1.	Office of the President .. .. .	3,000	3,861	4,045	4,370	4,140	19,416	8.4
D-2.	The State House .. .. .	271	160	200	200	200	1,031	-7.3
D-3.	Directorate of Personnel Management .. .. .	200	100	100	100	97	597	-16.5
D-4.	Ministry of Foreign Affairs .. .. .	667	700	700	700	700	3,467	1.2
D-5.	Ministry of Home Affairs .. .. .	1,200	1,500	1,500	1,500	1,500	7,200	5.7
D-6.	Ministry of Economic Planning and Community Affairs	18,583	12,100	12,100	12,100	12,000	66,883	-10.4
D-7.	Office of the Vice-President and Ministry of Finance	6,230	10,000	9,000	7,500	5,000	37,730	-5.3
D-8.	Ministry of Defence .. .. .	32,535	47,000	52,000	55,000	70,000	256,535	21.1
D-9.	Ministry of Agriculture .. .. .	10,339	12,091	14,047	15,064	15,551	67,092	10.7
D-10.	Ministry of Health .. .. .	8,567	14,794	15,044	14,324	13,264	65,993	11.5
D-11.	Ministry of Local Government .. .. .	38,798	48,687	47,338	43,437	45,405	223,665	4.0
D-12.	Ministry of Works .. .. .	43,313	15,000	8,500	10,000	11,500	88,313	-28.2
D-13.	Ministry of Power and Communications	1,880	2,500	2,500	3,200	4,000	14,080	20.8
D-14.	Ministry of Labour .. .. .	9,536	10,788	10,698	8,978	9,055	49,055	-1.3
D-15.	Ministry of Tourism and Wildlife .. .. .	7,499	6,800	6,600	6,050	6,000	32,949	-5.4
D-16.	Ministry of Lands and Settlement .. .. .	10,236	14,416	15,038	16,340	17,000	73,030	13.5
D-17.	Ministry of Housing and Social Services	4,330	4,500	4,500	3,000	3,000	19,330	-8.8
D-18.	Ministry of Information and Broadcasting	38,567	40,500	41,000	40,000	40,000	200,067	1.0
D-19.	Ministry of Water Development .. .. .	7,449	9,259	8,840	9,286	9,762	44,596	7.0
D-20.	Ministry of Natural Resources .. .. .	2,017	2,200	2,400	2,600	2,800	12,017	8.5
D-21.	Ministry of Co-operative Development	6,640	5,500	6,010	5,110	5,040	28,300	-6.7
D-22.	Ministry of Commerce and Industry .. .. .	5,645	6,500	7,800	7,900	8,000	35,845	9.1
D-23.	Ministry of Education .. .. .	—	350	350	350	350	1,900	8.5
D-24.	Judicial Department .. .. .	—	—	—	—	—	—	—
D-26.	Allowance for Reserve .. .. .	—	—	—	—	—	—	—
TOTAL DEVELOPMENT EXPENDITURE OF MINISTRIES (=EOM)		258,002	269,306	273,310	274,109	296,364	1,371,091	3.5
CIVIL EXPENDITURE OF MINISTRIES (=EOM - D8)		271,772	259,306	264,310	266,609	291,364	1,333,361	3.7

N.B.—The budget of the Office of the President should be increased, and the budget for the Ministry of Labour decreased, by the amount allocated to the National Youth Service (see Chapter 9).



4.32. Some structural changes in the amounts of outlays in various votes from the previous plan period to this Plan can be observed in Table 4.7. Only three votes have significant increments in the shares of total resources devoted to their activities. These are the Office of the President and the Ministries of Defence and Power and Communications. For the latter

COMPARISON OF RECURRENT EXPENDITURES  
1973/74-1977/78 (ACTUAL)\* AND 1978/79-1982/83 (PROPOSED)

Table 4.7

Vote	1973/74-1977/78 (In Current Prices)		1978/79-1982/83 (In 1978/79 Prices)	
	K£'000	% Share	K£'000	% Share
R- 1. Office of the President .. ..	86,372	7.7	180,386	8.4
R- 2. The State House .. ..	11,362	0.1	2,218	0.1
R- 3. Directorate of Personnel Management .. ..	9,631	0.8	21,773	1.0
R- 4. Ministry of Foreign Affairs .. ..	13,896	1.2	28,205	1.3
R- 5. Ministry of Home Affairs .. ..	65,882	5.9	53,555	2.5
R- 6. Ministry of Economic Planning and Community Affairs .. ..	24,708	2.2	62,098	2.9
R- 7. Office of the Vice-President and Ministry of Finance .. ..				
R- 8. Ministry of Defence .. ..	164,962	14.7	362,012	16.9
R-10. Ministry of Agriculture .. ..	74,633	6.7	135,101	6.3
R-11. Ministry of Health .. ..	96,744	8.6	181,948	8.5
R-12. Ministry of Local Government .. ..	31,237	2.7	60,323	2.8
R-13. Ministry of Works .. ..	91,954	8.2	182,348	8.5
R-14. Ministry of Power and Communications .. ..	13,419	1.2	44,945	2.1
R-15. Ministry of Labour .. ..	14,645	1.3	30,698	1.4
R-16. Ministry of Tourism and Wildlife .. ..	15,715	1.4	39,927	1.9
R-17. Ministry of Lands and Settlement .. ..	15,267	1.4	27,904	1.3
R-18. Ministry of Housing and Social Services .. ..	7,512	0.7	18,906	0.9
R-19. Ministry of Information and Broadcasting .. ..	13,373	1.2	24,619	1.1
R-20. Ministry of Water Development .. ..	16,211	1.4	39,661	1.8
R-21. Ministry of Natural Resources .. ..	13,536	1.2	11,487	0.5
R-22. Ministry of Co-operative Development .. ..	5,673	0.5	10,346	0.5
R-23. Ministry of Commerce and Industry .. ..	4,763	0.4	12,713	0.6
R-24. Ministry of Education .. ..	323,676	28.8	548,938	25.6
R-25. Office of the Attorney-General .. ..	4,449	0.4	10,081	0.5
R-26. Judicial Department .. ..	5,481	0.5	9,604	0.4
R-27. Public Service Commission .. ..	462	0.1	742	—
R-28. Office of the Controller and Auditor-General .. ..	1,752	0.2	3,967	0.2
R-29. National Assembly .. ..	4,841	0.4	7,600	0.4
Allowance for Reserve .. ..	—	—	35,915	1.7
<b>TOTAL RECURRENT EXPENDITURE OF MINISTRIES .. ..</b>	<b>1,122,153</b>	<b>100.0</b>	<b>2,148,019</b>	<b>100.0</b>

\*1973/74-1976/77 figures are actual expenditures as per Appropriation Accounts. 1977/78 figures are revised estimates.

ministry increments arise from the expansion of its services such as the new large airports and increased outlays to its corporations. For the Office of the President and Defence the increased expenditures arise mainly from the improvement of our national security.

4.33. The largest increments in recurrent expenditure occur for the Defence budget. In the past the Government has not devoted a great deal of its resources to national security, preferring instead to finance rapid economic development. The situation has now changed and the Government is forced by external circumstances to increase its allocations for national security. However, as expenditures made on Defence must be withdrawn from the development and income generating process, the Government will scrutinize carefully the amount of resources required for national security in order to ensure that this rate of development is not unnecessarily jeopardized.

4.34. The increase in spending on national security between the last and the present plan periods tends to disguise other recurrent priorities. In addition, the recurrent reserve established in this planning period and intended for use as particular problems are identified with respect to idle capacity reduces the shares computed for all ministries.

4.35. Total recurrent expenditures, as can be seen in Table 4.8, will increase at the rate of 7.3 per cent per annum during the plan period. Excluding consolidated fund services, the average rate of growth is 6.8 per cent. The ministries whose recurrent expenditure will grow more rapidly than this average are Agriculture, Health, Works, Labour, Lands and Settlement, Housing and Social Services, Water Development, Natural Resources, Co-operative Development, Commerce and Industry, and Education. This list represents a more accurate description of development priorities than that contained in Table 4.7.

4.36. Allocations among ministries are significant indicators of the intention of the Government to pursue vigorously the plan strategy and policies outlined in Chapters 1 and 2. Much of the Government effort, however, involves changes in emphasis and priorities within ministries. These changes cannot be inferred from the data in this chapter. They will, however, be discussed in considerable detail in each of the sectoral chapters which follow this one.

CENTRAL GOVERNMENT RECURRENT FORWARD BUDGET 1978/79-1982/83

(Thousands of Pounds in 1978/79 Prices)

Vote	1978/79	1979/80	1980/81	1981/82	1982/83	Total	Average Annual Percentage Growth
R-1. Office of the President .. .. .	32,000	33,920	35,955	38,112	40,399	180,386	6.0
R-2. The State House .. .. .	393	417	442	469	497	2,218	6.1
R-3. Directorate of Personnel Management .. .. .	3,863	4,094	4,340	4,600	4,876	21,773	6.0
R-4. Ministry of Foreign Affairs .. .. .	5,003	5,304	5,622	5,959	6,317	28,205	6.0
R-5. Ministry of Home Affairs .. .. .	10,379	10,570	10,614	10,690	11,302	53,555	2.2
R-6. Ministry of Economic Planning and Community Affairs .. .. .	10,650	12,841	12,078	12,830	13,699	62,098	4.8
R-7. Office of the Vice-President and Ministry of Finance .. .. .	77,933	67,879	68,400	72,000	75,800	362,012	-0.7
R-8. Ministry of Defence .. .. .	22,380	24,000	26,905	29,468	32,348	135,101	9.6
R-10. Ministry of Agriculture .. .. .	30,126	33,126	36,465	39,480	42,751	181,948	9.1
R-11. Ministry of Health .. .. .	10,701	11,343	12,074	12,745	13,510	60,323	6.0
R-12. Ministry of Local Government .. .. .	28,500	33,819	36,870	39,908	43,251	182,348	11.0
R-13. Ministry of Works .. .. .	7,895	8,407	8,953	9,535	10,155	44,945	6.5
R-14. Ministry of Power and Communications .. .. .	5,168	5,672	6,149	6,689	7,020	30,698	8.0
R-15. Ministry of Labour .. .. .	6,262	7,711	8,033	8,507	8,714	39,927	5.8
R-16. Ministry of Tourism and Wildlife .. .. .	4,605	5,326	5,646	5,984	6,343	27,904	8.3
R-17. Ministry of Lands and Settlement .. .. .	3,152	3,421	3,746	4,098	4,489	18,906	9.2
R-18. Ministry of Housing and Social Services .. .. .	4,324	4,605	4,904	5,223	5,563	24,619	6.5
R-19. Ministry of Information and Broadcasting .. .. .	6,587	7,200	7,870	8,602	9,402	39,661	9.3
R-20. Ministry of Water Development .. .. .	1,716	2,182	2,356	2,514	2,719	11,487	12.2
R-21. Ministry of Natural Resources .. .. .	1,799	1,925	2,060	2,204	2,358	10,346	7.0
R-22. Ministry of Co-operative Development .. .. .	2,210	2,365	2,531	2,708	2,899	12,713	7.0
R-23. Ministry of Commerce and Industry .. .. .	94,551	101,392	109,265	117,460	126,270	548,938	7.5
R-24. Ministry of Education .. .. .	1,626	2,637	1,827	1,937	2,053	10,080	6.0
R-25. Office of the Attorney-General .. .. .	1,704	1,806	1,914	2,029	2,151	9,604	6.0
R-26. Judicial Department .. .. .	132	139	148	157	166	742	5.9
R-27. Public Service Commission .. .. .	790	738	790	845	904	3,967	7.0
R-28. Office of the Controller and Auditor-General .. .. .	1,348	1,429	1,515	1,606	1,702	7,600	6.0
R-29. National Assembly .. .. .	—	3,910	9,005	10,140	12,860	35,915	—
Allowance for Reserve .. .. .	—	—	—	—	—	—	—
EXPENDITURE OF MINISTRIES (= EOM) .. .. .	376,397	398,178	426,427	456,499	490,518	2,148,019	6.8
CIVIL EXPENDITURE OF MINISTRIES (= EOM - R8)	298,464	330,299	358,027	384,499	414,718	1,786,007	8.4
CONSOLIDATED FUND SERVICES (CFS) .. .. .	75,149	95,200	103,200	176,000	114,000	563,549	11.0
TOTAL RECURRENT FORWARD BUDGET (= EOM + CFS) .. .. .	451,546	493,378	529,627	632,499	604,518	2,711,568	7.3

N.B.—The budget of the Office of the President should be increased, and the budget for the Ministry of Labour decreased, by the amount allocated to the National Youth Service (see Chapter 9).



## CHAPTER 5—BASIC NEEDS

5.1. The alleviation of poverty and the fulfilment of basic needs have always been a major concern of Kenyan development efforts. This chapter relates the Government's continuing concern for the basic needs of the population during the next five years in the fields of health and nutrition, education and training, housing, social services and water. The provision of basic needs will play the key role in the overall development strategy of this Development Plan whose principal theme is the alleviation of poverty.

### HEALTH

#### Objectives, Constraints and Strategies

5.2. The provision of health services for the purpose of alleviating and preventing disease, illness, and physical and mental impairment aims at satisfying a most basic requirement of human needs—good health—and contributes towards maintaining and enhancing the productive potential of the people. Improvement in the health status of the people is an investment in human capital.

5.3. The Government's main objectives for development of health services since Independence have been—

- i. strengthening and carrying out measures for the eradication, prevention and control of disease; such measures include protection of the environment against health hazards, vector disease control, immunization against disease, early detection and treatment of diseases and health education;
- ii. provision for adequate and effective diagnostic, therapeutic and rehabilitative services for the whole population, offered at hospitals, health centres, dispensaries and mobile units;
- iii. promotion and development of biomedical and health services research as means of identifying improved and cost effective methods for the protection of the health of the people.

5.4. However, the progress achieved towards these objectives has placed additional burdens on the newly established health services. More and more people are demanding modern medicine and are prepared to travel long distances and queue for better treatment. Not only has the population increased rapidly to a large extent due to this better health care, but demands for health

services by people from outside the boundaries of Kenya have also increased. These developments have constrained the attainment of the first two objectives and represent part of the challenge now facing the Government.

5.5. The major constraints which were recognized during the previous Development Plans, still exist. These include insufficient medical manpower, shortage of funds; as well as inefficient management and organization. However, there has been a shift in the general perception of the problems created by these constraints. The main deficiencies can now be summarized as follows—

- i. inadequate and uneven coverage of the population due to insufficient health service delivery points, made worse by the rapid population growth and under-utilization of some existing facilities;
- ii. inadequate level of service because of shortage of medical manpower due to severe shortages of trainers and teachers in the health field;
- iii. unsatisfactory patterns of utilization of manpower, since the majority of staff have been deployed in urban areas and in major hospitals;
- iv. unsatisfactory utilization of equipment and transport because of financial and managerial problems relating to operation and maintenance;
- v. shortages of drugs and other essential supplies due to the financial constraint and an inefficient distribution system;
- vi. inadequate flow of health information and utilization of that information.

5.6. The programme for health development outlined below will endeavour to overcome these major problems during the plan period. In order to attain the health objectives set out above, the following strategies will be pursued—

5.7. *Preventive Medicine and Promotive Health* services are those public health activities specifically aimed at preventing disease and promote good health. The programmes and activities are as follows: In the field of communicable and vector-borne diseases, activities will concentrate on epidemiological surveillance and control of diseases including the development of health information services. Vector control measures will be intensified with special attention being given to irrigation schemes, settlement schemes and areas of high population concentration. Family health programmes will continue to aim at reducing maternal, prenatal, infant and child mortality and morbidity and include the promotion of family planning. Nutrition programmes will receive increased emphasis and include nutrition education and research thereby promoting good health through the prevention of disease caused by malnutrition. Environmental health activities will concentrate on food safety, water quality, water supplies, waste disposal, prevention of

environmental hazards, environmental health education and information, and promotion of community participation in environmental health projects as well as promotion of research in environmental pollution.

5.8. *Rural Health Services* include all these services and facilities, primarily serving the rural population. Emphasis will continue to be placed on strengthening and developing such services. Existing but inadequate rural health facilities will be upgraded. Assistance will be given to on-going projects started on self-help basis, particularly in under-served areas in order to complete the projects quickly. New facilities will be provided in areas that are under-served. Community and non-Government agencies' participation will be promoted and encouraged.

5.9. Six rural health training centres, started during the last plan period, are expected to be fully operational, providing practical training in rural health during this plan period. Similarly, twenty-seven rural health demonstration centres, programmed to provide field training for students and enrolled nurses, are expected to be fully operational also during this plan period.

5.10. *Health Manpower*.—During the plan period, the existing basic, post-basic and in-service training programmes for nurses, public health officers and paramedical staff will be strengthened and expanded. Dental and psychiatric health and medical equipment maintenance personnel training programmes will be included. A programme for training of teachers for health and allied sciences will be started. The planning unit of the Ministry of Health will be strengthened to provide for manpower planning.

5.11. *Hospital Development*.—Hospitals at the national, provincial and district levels provide services which are basically curative. The increased emphasis on promotive and preventive health service cannot, however, ignore the demands for curative care. Increased attention will therefore be given to district hospitals, particularly those hospitals which are utilized for training of medical personnel and those which have inadequate or sub-standard facilities. At the provincial level, improvement and extension of existing hospitals will be undertaken. New hospitals are on the whole only to be built at district level and in areas where services are inadequate relative to need. Church hospitals, which contribute to and complement the health services to the rural population, will continue to receive Government grants.

5.12. *Medical Supplies and Equipment*.—Efforts will be intensified to ensure that essential medical supplies and equipment are available for use where and when requested. To this end the supplies system will be decentralized. A new central medical store will be constructed in Nairobi as will additional stores at strategic regional locations. Workshops for servicing and maintenance of equipment will also be built at strategic regional centres.

5.13. *Research*.—A medical research institute will be established to co-ordinate research activities including those disrupted through the breaking up of the East African Community. Priority areas of research will continue

to be communicable and vector-borne diseases, such as bilharzia, kala-zar, sleeping sickness, leprosy, tuberculosis, venereal disease, virus diseases, etc. Research in local traditional drugs will also be undertaken and promoted.

### **The Institutional Network of Health Care in the Rural Areas of Kenya**

5.14. Emphasis during the plan period is placed on the quantity and quality of health services being provided in the rural areas, and the importance these services might have in order to prevent diseases and illnesses, caused by lack of knowledge or lacking environment, and to promote good health. The network of institutions caring for the health of the people in the rural areas is made up of the rural health system, district hospitals, other services and facilities and private, modern and traditional medicine and health care.

### **The Rural Health System**

5.15. The Government rural health facilities include rural health centres, health sub-centres, dispensaries and mobile health units. The rural health unit concept, including the network of facilities, represents a joint responsibility exercised by the Ministry of Health and the District Development Committees. In 1978 the Government operated 191 health centres, 34 sub-centres and 536 dispensaries, compared with 131 health centres, 56 sub-centres and 416 dispensaries in 1973. The decline in the number of sub-centres during the period 1973-78 was due to the upgrading of a number of sub-centres to full health centres. However, the distribution of health centres amongst population varies from district to district, for instance, there is one health centre per 166,000 in Turkana but 1 health centre per 10,000 people in Lamu and the average for the whole country is 1 health centre per 72,000 people. In addition, there are 316 other rural health institutions, most of them dispensaries, run and managed by Church organizations. The eleven Municipalities run also a number of health centres, health sub-centres, dispensaries and maternity centres and these, though primarily servicing urban areas, also provide health services to peripheral rural areas.

5.16. The Maternal/Child Health and Family Planning clinical services, including information and education activities are provided through 325 delivery points of which 10 are mobile clinics. Most of the fixed service delivery points are located at health centres, health sub-centres and dispensaries.

5.17. The minimum staffing requirements in the different rural health units run by the Government is shown in Table 5.1. In 1978 there should have been a total of 3,056 health workers in the 191 health centres, 340 in the 34 sub-centres, 2,444 in the dispensaries and at least 60 manning the mobile health units. However, these requirements were not met. The output of manpower from existing training institutions has been low and difficulties in recruiting and deploying staff in rural areas have been encountered. During this plan period, efforts will be intensified to overcome these problems.



AVERAGE STAFFING NEEDS IN GOVERNMENT RURAL HEALTH UNITS

Table 5.1

Facility	Clinical Officers	Enrolled Nurses	Health Technicians	Family Health Field Educators	Statistical Staff	Attendants	Others	Total
Health Centre .. ..	1	4	1	2	1	3	4	16
Health Sub-Centres .. ..	1	2	1	1	—	2	3	10
Dispensary .. ..	—	1	1	—	—	1	1	4
Mobile Health Unit .. ..	1	1	1	1	—	1	1	6
<b>TOTAL .. ..</b>	<b>3</b>	<b>8</b>	<b>4</b>	<b>4</b>	<b>1</b>	<b>7</b>	<b>9</b>	<b>36</b>

5.18. The recent rapid growth in health services have created increased demands for health supplies, equipment and transport but the high costs of these items have caused significant shortages. Other problems facing the rural health services include shortage or lack of water, delays in repair or maintenance of buildings, equipment and transport, lack or shortage of stationery, etc. New approaches towards alleviating these problems will be sought during this plan period.

5.19. The construction programme for the period 1978-83 for the most part consists of the upgrading, improvement, and full equipping of existing facilities as well as the construction and equipping of a modest number of new institutions—

- i. greatest emphasis will be given to the improvement of existing facilities, 91 sub-standard health centres and 110 sub-standard dispensaries will be improved and upgraded, a further 6 health sub-centres and 32 dispensaries will be expanded and upgraded to full health centres. Construction of 5 new health centres and 40 new dispensaries will be undertaken. Out of additional number of health centres, 22 will be developed into rural health demonstration centres;
- ii. mobile health units (39 vehicles and 8 boats) will be provided to cover population particularly in areas where services are lacking or inadequate;
- iii. the Rural Health Planning and Implementation Unit in the Ministry of Health will be strengthened.

5.20. The National Family Planning Programme will continue during the plan period. Kenya's rate of population growth at 3.5 per cent per annum is among the highest in the world. Present high birth rates will have to be significantly reduced in order to have any impact on the rate of population growth, since continuous improvement of health conditions of the people will radically reduce the mortality rate. During the previous plan period, the main

emphasis of the Family Programme was on building up an efficient infrastructure for the delivery of family planning services throughout the country. In acknowledgement of the success of this phase, the emphasis will be shifted towards the process of implementation of the programme. Therefore, positive action will be taken during this plan period to involve and engage the families themselves in development activities through making them realize the benefits of family planning in terms of improved standard of living that will be had as a result of smaller and better planned families. Thus, the efficiency in implementing the programme in direct response to people's needs will be emphasized and achieved through the creation of an environment that is favourable to smaller households and family sizes. Families will be informed and educated on the consequences of high rates of births and the need to protect and care for the well-being of mothers and children. The components of the programme will continue to be: (i) to reduce maternal, perinatal, infant and child morbidity and mortality; and (ii) to increase the number of families planning their families by spacing their children, with the objective of reducing the size of their families.

5.21. The number of active users of the programme in relation to initial family planning accepters is very low, and the high drop-out ratio, at present about 80 per cent, is felt to be unnecessarily too high. Efforts will therefore be intensified during this plan period to retain as many initial family planning accepters as possible and to reduce the high drop-out ratios. The plan of action to achieve this involves the following—

- i. strengthening the capacity and capability of the National Family Welfare Centre in Nairobi to implement, administer, manage and technically support the programme;
- ii. intensifying efforts to increase public awareness of the consequences of high rates of population growth on both the national and family levels. All relevant ministries and non-Government organizations involved in development activities specifically related to improving the conditions of family life will be involved in this exercise. The services of the Ministry of Housing and Social Services will particularly be taken into account. This Ministry will work in close co-operation and consultation with the Ministries of Economic Planning and Community Affairs and Health in all matters relating to family planning. Its field officers will, further, be requested to work alongside the Family Health Field Educators of the Ministry of Health, in a joint effort to maximize the spreading and impact of the information and education programme;
- iii. supporting the Family Planning Association of Kenya so that the association may continue to support the National Programme through extension of information and education programmes, collection and

dissemination of knowledge and ideas concerning population, social and economic trends, co-operation with other agencies and through supplementing and complementing the Government's efforts in providing clinical services through a network of model clinics;

- iv. training and deployment of additional 1,175 field staff for the programme; by 1983 it is estimated that 1,334 Family Health Field Educators will be employed by the Government; the number employed in 1978 was 430;
- v. establishment of 315 additional fixed service delivery points, making a total of 630 by 1983;
- vi. strengthening and expansion of Family Planning Information and Education activities;
- vii. recruitment of 700,000 new family planning accepters; this compares with 280,000 recruited during 1974-78. As mentioned above, the experienced drop-out ratio is too high; an increase in the numbers of active users to 250,000 by 1983 is therefore seen as a minimum;
- viii. training and deployment of additional medical staff of various categories to cope with the expanded programme; it is proposed to achieve this by providing 6 additional training schools for enrolled nurses, 2 training schools for registered nurses, 1 school for clinical officers and 22 rural health demonstration centres for practical training of health staff;
- ix. establishment of maternal/child health/family planning wards, which would include treatment for infertility and malnutrition in selected medical institutions.

5.22. Further, in order to improve the overall level of health services in the rural areas, a start will be made during this plan period, to establish a radio communications network in selected districts which are remote and do not have adequate telephone services, and where other forms of communications are also poor.

### **District Hospitals (and Provincial Hospitals in that Role)**

5.23. Table 5.2 shows that there were 33 district hospitals and 24 sub-district hospitals run and managed by Government in 1978, providing a total of 6,568 hospital beds. District hospitals are a crucial link in the administrative supportive and referral chain of health services being provided to the population in the rural areas. District hospitals supply out-patient and important services primarily to rural populations and District Medical Officers in charge of district hospitals serve as heads of rural health units.

GOVERNMENT AND CHURCH HOSPITALS AND NUMBER OF BEDS, 1973-78

Table 5.2

Hospital	Number of Hospitals in 1973	Number of Hospital Beds in 1973	Number of Hospitals in 1978	Number of Hospital Beds in 1978	Percentage Increase in Beds Since 1973
Government National General Hospital (KNH), Nairobi	1	947	1	2,033	114.6
Government Provincial General Hospitals	7	2,034	7	3,103	52.6
Government District Hospitals	32	4,196	33	4,576	9.1
Government Sub-District Hospitals	22	1,555	24	1,992	28.1
Government Leprosy Hospitals (Alupe Tumbe)	2	106	2	201	89.6
Government Psychiatric Hospitals, Nairobi and Gilgil	2	1,322	2	1,612	21.9
Government Infectious Diseases Hospitals	2	228	1	237	3.9
Government Spinal Injury Units, Amani Nairobi	1	15	1	15	—
Armed Forces Hospitals (Nairobi and Lanet)	2	108	2	108	—
Government Prison Hospitals	7	303	8	329	8.6
Church General Hospitals	40	5,128	42	5,410	5.5
<b>TOTAL</b>	<b>118</b>	<b>15,942</b>	<b>123</b>	<b>19,616</b>	<b>23.0</b>

5.24. During the plan period a number of existing district hospitals will be improved and upgraded. Construction of new hospitals will start at Mkwewe (Lamu), Nairobi, Mombasa, Migori (South Nyanza), Iten (Elgeyo Marakwet) and Webuye (Bungoma). Consideration will also be given to taking over and completing self-help projects and health institutions which have been modified and extended to such an extent that they merit sub-district status. These are eleven projects.

5.25. Provincial hospitals are expected to serve primarily as referral hospitals to district hospitals and as institutions for training of staff for rural health units. However, currently the distribution of district hospitals is inadequate. Thus some provincial hospitals must undertake many of the administrative support, and referral functions of district hospitals in relation to rural health units, as well as performing functions normally expected of provincial hospitals.

5.26. In 1978, there were 42 church hospitals providing about 30 per cent of the total number of beds available in Government and church hospitals. Most of these hospitals are located in the rural areas and provide services on a non-profit basis. They depend on voluntary donations, fees paid for services by patients and grants from the Government. The churches have played, and continue to play a major role in the field of hospital services in rural areas and for the training of health manpower. The Government, therefore, will continue to support and assist these hospitals. Consideration will also be given to the provision of free out-patient medical care to adults and free in-patient medical care for children in some selected church hospitals. A committee has

been set up to look into the question of integration or a phased take-over by the Government particularly of those hospitals which have difficulty in continuing because of shortage of funds.

5.27. There are six municipalities which provide health care to the population in their respective areas. They are Nairobi, Mombasa, Nakuru, Kisumu, Eldoret and Kitale municipalities. While their basic function is to serve the population within the municipality boundaries, they, nevertheless, receive patients from outside the boundaries. The Government recognizes the financial problems facing these municipalities and the county councils as well. It is therefore proposed that the Government assist the municipalities through grants-in-aid to cover part of their recurrent and development expenditures. The additional or improved health facilities within the municipalities are expected to reduce congestion in the out-patient departments of the Government hospitals situated within the municipalities.

5.28. Psychiatric and dental health services will be extended beyond the major urban areas during this plan period. The development of psychiatric services will include the setting up of psychiatric units in provincial hospitals and in some selected district hospitals. Similarly, dental health units will be set up and equipped in the provincial hospitals and some selected district hospitals.

#### **Other Services and Facilities Being Part of the Comprehensive Health System**

5.29. Preventive medicine and promotive health activities are an integral part of the health and medical services. Community health education is seen as a most important activity of a preventive and promotive health strategy. Health education techniques will, therefore, be incorporated into the curricula of all health workers, and in-service training courses. Community health workers will co-ordinate their efforts with other health workers, such as nutrition workers and public health technicians. Activities in the field of health education will be concentrated on promotion of family planning, communicable diseases control, nutrition education and environmental health improvement. This will require co-ordination between the Ministries of Health, Education, Agriculture, (Home Economics Section), Housing and Social Services and Information and Broadcasting. The necessary training of all extension workers will be co-ordinated by the Rural Services Co-ordination and Training Unit (RSCTU) of the Ministry of Economic Planning and Community Affairs.

5.30. The plan of action during the planning period involves the following—

- i. to train additional health education officers to reach a target of at least one health education officer in each district by 1983;
- ii. to increase the use of mass media for the spreading of health information;

- iii. to design and distribute audio-visual education materials; and
- iv. to assess the effectiveness of currently used methods of communication.

5.31. The main focus of the environmental health services is the control and prevention of diseases which are spread through water and poor sanitation. About 270 new small-scale water supply systems will be provided during the plan period through the co-ordination of the Ministries of Health and Water Development. Co-ordination between the two Ministries will also be required in connexion with the 90 water quality improvement projects planned for the period. Construction through self-help of 2,690 pit latrines in selected areas during the plan period is part of the programme to improve the methods of waste disposal. Further, environmental control programmes will be extended to include sampling and inspection of foods, in order to ascertain their fitness for human and animal consumption.

5.32. The health component of nutrition during this plan period will focus on the following activities—

- i. the training and development of 300 additional nutrition field workers and 58 additional nutritionists to carry out nutrition surveillance activities, including rehabilitation and nutrition education aimed at preventing malnutrition through better nutritional habits. By 1983, it is estimated that 400 nutrition field workers will be employed by Government. The target population will include children under five years of age (33 per cent are estimated to be malnourished) and pregnant and lactating mothers;
- ii. the incorporation of nutrition education into the curricula of all health workers, so that preventive education can be provided by the staff at all the health facilities and not just by nutrition workers;
- iii. the introduction of nutrition education at all levels of schooling in order to reach young people when nutritional habits are being formed. The Ministry of Education will embark on designing a new curriculum for basic education during this plan period. Discussion between the Ministries of Health and Education will be held to determine suitable inputs in nutrition education;
- iv. the Karen College of Nutrition will be extended to provide additional teaching and research facilities, including necessary staff housing;
- v. supplementary feeding programmes for children for therapeutic and, in some cases, preventive and promotive purposes, will be promoted;
- vi. nutrition research and field studies, particularly on food fortification, will be undertaken.

5.33. Control methods specifically geared towards fighting communicable and vector-borne diseases are based on epidemiological surveillance supported by an accurate information system and research. Case finding, treatment,

immunization and other direct or indirect measures are part of the methods. During the plan period, emphasis for the control of communicable diseases will concentrate on—

- i. the strengthening and development of a "Health Information System" (HIS), i.e. collection of essential health data such as prevalence, morbidity and mortality from diseases;
- ii. the setting up of "Communicable Disease Control Units" (CDCUs) at all the provincial centres and "Border Post Control Units" (BPCUs) at selected but strategic border posts, in order to carry out epidemiological surveillance and control;
- iii. the development of a special immunization programme, "Expanded Programme on Immunization" (EPI), aimed at immunizing at least 80 per cent of all children between 0 and 4 years of age against diphtheria, measles, poliomyelitis, whooping cough, tetanus and tuberculosis. The programme is expected to reduce, for example, whooping cough, tetanus and poliomyelitis in the under-five age group by about 50 per cent. Status of "no smallpox case" is to be maintained;
- iv. the maintenance of facilities to deal with any emergency situation that may arise.

5.34. The control activities of the vector-borne diseases cover the whole country and are directed against diseases such as bilharzia, filariasis, leishmaniasis, malaria, trypanosomiasis, plague, onchocerciasis, arbo-virus, etc. During the plan period the following steps will be undertaken to strengthen and develop the relevant activities—

- i. to increase in-service training capacity to produce personnel for the epidemiological surveillance and control programmes;
- ii. to improve or set up vector-borne diseases control units in provincial centres and in strategic field areas for epidemiological surveillance and control activities;
- iii. to construct small-scale permanent anti-malarial works, such as water drains, particularly in places of high population concentration density where malaria is prevalent;
- iv. to plan and implement bilharzia control programmes; and
- v. to promote and carry out research into the major tropical vector-borne diseases.

#### **Private Modern and Traditional Medicine and Health Care**

5.35. A major gap in information which has existed throughout previous plans relates to the private health sector, both the traditional and the modern. The District Development Committees in their current efforts to formulate district plans will attempt to fill the gaps in the Ministry's knowledge on private modern medical services so as to enable the Ministry to assess the impact of these services on Government-supported institutions.

5.36. Through complementing the services provided by the Government, the private health institutions play an important role. Many patients, some of whom might not otherwise receive proper care, are treated by mission or church hospitals and dispensaries. Similarly, private clinics relieve heavy pressures created by demand and shortage of staff and facilities in Government institutions. The situation has, however, brought about negative side-effects, such as competition for medical staff between Government-supported and private services with consequent loss of Government medical personnel to the private sector. Solutions to this problem will be sought during the plan period.

5.37. Traditional medicine and health care are an important part of the life of the people in the rural areas. However, more information is needed and will be collected during this plan period to determine the importance and relevance of traditional medicine with regard to both its substantive aspects and its potential link with Government institutions. The University of Nairobi will be commissioned to undertake an exercise to evaluate the role and functions and to determine the extent of our need of traditional medicine. Once completed, the Traditional Medicine Unit of the Ministry of Health will undertake investigations on the value of a number of traditional medicines and herbs, including research in social rehabilitative methods, in an attempt to evaluate and promote such methods and substances that deserve merit. Further, consideration will be given to the manpower aspects of the traditional sector, for instance, the extent to which certain cadres of selected traditional sector practitioners, such as the midwives, might be encouraged to serve in Government health institutions in the rural areas.

5.38. Attention will also be paid to the constant blurring of the line between modern and traditional medicine, mainly as a result of traditional practitioners incorporating modern medicines (legitimately or illegitimately) into their treatments, at popular prices and alleviating the need by the patients to queue at Government hospitals. This also has had some undesirable effects, however, as control of drugs quality and maintenance of Government medical stores have suffered. In addition, the modern medical sector has increasingly been presented with resistant forms of disease or aggravated physical conditions as a result of ineffective use of modern drugs by "informal" practitioners.

### **Ministry of Health Headquarters and Relationships with Other Institutions**

#### **Programmes Internal to the Ministry of Health**

5.39. Effective administrative systems and proper management are essential for providing health services that will meet the basic needs of the people. The Ministry of Health has therefore set up a unit, the Administrative Support Unit (ASU), which is to assist the various departments in overcoming existing



managerial problems. The unit is expected to develop appropriate management and administrative techniques, that will be utilized for planning, organizing, controlling and evaluating health services and administration. The unit is located in the Ministry of Health Headquarters and is expected to be in full operation during the plan period. An attempt towards developing and strengthening administrative and management capabilities is made through formal and informal training, organizing workshops, seminars, discussion groups, study tours, etc.

5.40. The Rural Health Planning and Implementation Unit in the Ministry of Health Headquarters deals specifically with the planning, programming and implementation of services and facilities in the rural areas (*see* section on Rural Health System). Under the Health Unit concept, each unit will be assigned to serve the population in areas of about 50,000 people. The actual size of each individual Health Unit varies, however, in accordance with its geographical and settlement characteristics.

5.41. The need to integrate implementation of health programmes with adequate training and staffing of facilities calls for increased attention to be given to manpower planning. During the plan period, therefore, the Planning Unit of the Ministry of Health will be strengthened to include manpower.

5.42. In order to cope with the growing demand created by an increasing number of facilities throughout the country, the existing medical stores will be expanded. The decentralization process will start during this plan period and will require revision and improvement of existing procedures for procurement, storage and distribution of medical supplies to ensure that shortages of essential supplies, particularly drugs, do not occur. The programme will involve construction of a new Medical Store in Nairobi (Central Store) as well as construction of stores at strategic regional locations such as Mombasa, Nakuru, Kisumu and Nyeri. Larger stores at Kenyatta National Hospital, Garissa and Eldoret will also be constructed.

5.43. The Central Public Health Laboratories, situated in Nairobi, are organized to cater for public health laboratory services for the whole Republic. During this period, the existing laboratory facilities will be upgraded and extended through the provision of additional laboratory space, animal housing space and other facilities. Provision is also to be made for establishing provincial public health laboratories. The setting up of a drugs quality control services, which was programmed during last plan period, will be implemented during this plan period.

5.44. To alleviate the continuous problem of breakdown of equipment and vehicles for the delivery of services, a number of maintenance units will be set up at both central and regional levels.

5.45. The National Hospital Insurance Fund, established by the National Hospital Insurance Act in 1968, admits both compulsory and voluntary contributors and is open to all residents of Kenya. The Fund has grown considerably over the years but the scope of benefits to the contributors will be widened during the plan period to cover a number of additional services which may necessitate, *inter alia*, upwards revision of the contribution rate payable by members and possibly revision of the entire scheme, to keep pace with the increasing charges for private medical care and hospital fees. In addition, the Government intends to strengthen controls on private hospitals with particular reference to charges and services rendered by the profit-making health institutions.

### **Interministerial Institutional Issues**

5.46. The planning, construction and implementation of facilities and programmes requires close co-operation and integrated development efforts between the Ministry of Health and other relevant Government agencies and ministries. During the plan period interministerial ties will be strengthened further. Data collection systems will, for example, involve close co-operation with other data collecting and evaluating agencies, such as the Central Bureau of Statistics of the Ministry of Economic Planning and Community Affairs.

### **Institutional Issues Involving Other Agencies**

5.47. There are a number of private agencies involved in activities which are closely related to the health sector and the activities of the Ministry of Health, for example the Family Planning Association of Kenya, the National Christian Council of Kenya, Flying Doctors Services, etc. During the plan period an effort will be made to strengthen their functional ties with those of the Ministry of Health.

## **Manpower, Training and Education**

### **Kenyatta National Hospital and the Growth of Health Care Manpower**

5.48. Kenyatta National Hospital together with the provincial hospitals, (and selected district hospitals) are the main institutions for training and education of health personnel. When completed, the hospital will have a capacity of 2,250 beds, to be used largely for referral and teaching purposes.

5.49. The details of the health care manpower situation are shown in Table 5.3.

NUMBER OF MEDICAL AND HEALTH PERSONNEL IN THE MINISTRY OF HEALTH  
1974, 1978 AND 1983 (PROJECTED NUMBER)

Table 5.3

Staff Category	Number 1974	Number 1978	Projected Number 1983	Percentage Increase by 1983 over 1978 Figures
Doctors .. .. .	398	542	834	54
Dentists .. .. .	14	22	126	473
Pharmacists .. .. .	14	30	114	280
Clinical Officers .. .. .	760	1,002	1,474	47
Public Health Officers .. .. .	224	250	295	18
Registered Nurses .. .. .	890	1,223	1,607	31
Laboratory Technologists (Med.) .. .. .	126	180	212	18
Laboratory Technologists (Ent.) .. .. .	—			
Pharmaceutical Technologists .. .. .	200	221	306	38
Physiotherapists .. .. .	87	116	188	62
Occupational Therapists .. .. .	32	45	102	127
Dental Technologists .. .. .	13	15	24	60
Orthopaedic Technologists .. .. .	—	12	44	266
Radiographers (Diagnostic) .. .. .	68	115	168	46
Radiographers (Therap.) .. .. .	—			
Enrolled Nurses (all) .. .. .	3,241	4,009	5,243	31
Laboratory Technicians (Med.) .. .. .	199	284	472	66
Laboratory Technicians (Ent.) .. .. .	20			
Radiographic Film Processors .. .. .	74	102	116	14
Public Health Technicians .. .. .	528	642	979	52
Nutrition Field Workers .. .. .	52	210	406	93
Family Health Field Educators .. .. .	—	430	1,334	210
Dental Therapists .. .. .	—	—	44	—
Other Professions;				
Radiophysicists } .. .. .	12	14	17	23
Parasitologists } .. .. .				
Biochemists } .. .. .				
Entomologists } .. .. .				
TOTAL .. .. .	6,952	9,464	14,105	49

5.50. The Health Manpower Development Programme will be as follows.

5.51. *Doctors.*—The current annual output of doctors of about 90 will be raised to 100 during the plan period. Shortages of doctors will, however, continue. Provincial hospitals will be utilized for clinical teaching and at least three provincial hospitals (Mombasa, Kisumu and Nyeri) will be developed for this purpose during the plan period. Additional post-graduate courses for doctors will be introduced. Currently, 542 doctors are employed by the Ministry of Health.

5.52. *Dental Surgeons and Dental Therapists.*—Increasing dental problems throughout the country call for increased efforts to prevent and cure dental ailments. In 1978, 22 surgeons were employed by the Ministry of Health. The available dental training facilities at the School of Dental Surgery will be improved and the annual output of dental surgeons is expected to reach 20 to 25 from 1978. A programme for training Dental Therapists will be inaugurated during the plan period to undertake defined duties in areas where Dental Surgeons are not available.

5.53. *Pharmacists and Pharmaceutical Technologists.*—In 1978 the Ministry of Health employed 30 Pharmacists. The annual output from the School of Pharmacy from 1978 is expected to reach 20 pharmacists. The facilities of the school will be improved and strengthened during the plan period. The long waiting periods by patients at out-patient pharmacies in the hospitals has called for a need to train more Pharmaceutical Technologists and to increase the number of pharmacy counters in all hospitals. The training capacity for this cadre will, therefore, be increased during the plan period, as well as the number of pharmacy counters, particularly in provincial and district hospitals.

5.54. *Clinical Officers.*—Clinical officers are required in hospitals, health centres and health sub-centres. In 1978, 1,000 officers were in Government service. Present annual output is about 120, but will be increased through the building of a new school at Nyeri Provincial Hospital.

5.55. *Registered Nurses.*—The annual output of registered nurses is at present numbering about 150. Towards the end of the plan period, it is expected that two new schools will be started, one in Kisumu and the other one in Mombasa. The post-graduate training for registered nurses will be expanded, and the present diploma course in advanced nursing at the University of Nairobi will be phased out and replaced by a degree course.

5.56. *Enrolled Nurses.*—With the expansion of preventive, promotive and curative health services, the need for enrolled nurses in hospitals, health centres, health sub-centres and dispensaries will continue to grow. The number of enrolled nurses employed in 1978 by the Government was about 4,000, and the annual output is about 440. During this plan period, there will be an increase in the training output since training facilities will be expanded at Voi, Busia, Garissa, Marsabit, Kajiado and Embu hospitals.

5.57. *Public Health Officers and Public Health Technicians.*—In 1978 about 250 Public Health Officers were employed by the Government, and the annual output from training institutions is about 20. No major expansion of the training capacity is planned during the plan period, although considerations will be given to increase the annual intake, bearing in mind the need to try and achieve the target of having 2 public health officers in each of the 170 administrative divisions of the country. The training output of Public Health Technicians will, however, be increased during the plan period through the setting up of additional training facilities at Embu, Garissa, Kakamega, Kisumu, Matuga, Nakuru and Nyeri. The target is to have at least one Public Health Technician in each of the administrative sublocations of the country.

5.58. *Laboratory Technologists and Laboratory Technicians.*—The number of laboratory technologists in Government Service is about 180. Consideration will be given to increasing training capacity for this cadre. The current post-

graduate training course will be strengthened and a new post-graduate course will be introduced. The demand for Laboratory Technicians will continue and four schools are proposed at Nakuru, Kakamega, Machakos and Kisumu.

5.59.—*Radiographers*.—115 Radiographers are currently employed by the Ministry of Health. Training capacity will be improved and consideration is going to be given to giving opportunities to radiographers to specialize in radiation protection and therapeutic radiography.

5.60. *Physiotherapists, Occupation Therapists, Dental and Orthopaedic Technologists*.—The number employed by the Government was about 190 in 1978. Training of these cadres will continue, but training facilities cannot be expanded during this plan period.

5.61. *Radiographic Film Processors*.—Government employs about 100 Radiographic Film Processors. Training of this cadre will continue during the plan period.

5.62. *Family Health Field Educators*.—Training will continue and training facilities extended during the plan period. The total number expected to be in Government Service by the end of the period will be 1,334.

5.63. *Anaesthetic Officers*.—Training in anaesthetics will include a new course to be introduced during this plan period. Training facilities will, however, not be extended.

5.64. *Health Records Technicians and Equipment Maintenance Officers*.—The Health Records Technicians is a new cadre of health staff and will deal with collection, recording, coding, indexing, storage and interpretation of vital health data. Another cadre of staff for repair and maintenance of medical and allied equipment will also be trained.

5.65. *Nutrition Field Workers*.—The number of nutrition field workers in the employment of the Ministry of Health was about 210 in 1978. Facilities for training will be improved and expanded and the teaching staff will be strengthened.

### **The Role of Provincial and District Hospitals in Training and Curative Health**

5.66. Training facilities for health personnel are provided both at provincial and district hospitals but the provincial hospitals are usually better equipped for training than the district hospitals. The provincial hospitals are, further, required to provide a wide range of diagnostic, therapeutic, rehabilitative and medical care facilities which are necessary in referral hospitals in the provinces, and provide specialists' care in major branches of medicine. Each provincial hospital will eventually have about 800 general beds and will cater for all the major and common branches of medicine. The programme on upgrading and extension of the provincial hospitals is not likely to be completed during the plan period, but it is expected that the number of provincial hospital beds made available during the plan period will total about 1,000.

5.67. The existing Government Amenity Facilities, sometimes referred to as former European or Asian hospitals, are now part of the provincial or district hospitals near which they are located. The eight facilities which belong to this category are operated, maintained and staffed entirely by the Government. The total number of beds in these hospitals is about 200.

5.68. During the plan period training for psychiatric care and dental health will be extended and improved. Development of these services will involve setting-up and equipping of mental care and dental health units in provincial hospitals and in some selected district hospitals. Mathari Hospital, which is the main institution of training for psychiatric health, will be made suitable for training purposes and have a total number of 800 beds. Gilgil Psychiatric Hospital, originally a military institution, will be adequately improved.

### **Training Institutions in the Rural Areas**

5.69. In 1978 there were 27 Rural Health Demonstration Centres and another three, planned during previous plan period, are expected to be completed during this plan period. All of the centres are expected to be fully operational before 1983, and will provide field training for students and enrolled nurses in particular. Similarly, the six Rural Health Training Centres, started during the last plan period, are expected to be fully operational providing practical training in rural health. Construction of another 19 Rural Health Demonstration Centres will be started, to be utilized partly as health centres and partly for the purpose of providing field training for health students in rural health work, particularly at the paramedical level.

### **Health Care Extension and Education**

5.70. The network of health care providers in the rural areas includes public health officers, home economist extension workers (Ministry of Agriculture), nutrition field workers, family health field educators, community development officers, etc., as well as the direct health care field staff, such as physicians, nurses, etc. The network is complex and varying and requires that activities which affect the lives of the rural people be co-ordinated for greater effectiveness through elimination of duplication, overlaps and conflicts in advice. One of the main functions of the Rural Services Co-ordination and Training Unit (RSCTU) of the Ministry of Economic Planning and Community Affairs is to see to that the training of health extension workers is co-ordinated with the full range of field extension activities among the operating ministries.

### **Research and International Institutions**

#### **Institutional Development**

5.71. The Kenya Government has long recognized the importance of research in advancing medicine and bringing health to the people and has invested in research activities accordingly. The Government is now responsible for all medical research work in the country including that previously

undertaken by the East African Community. A medical research institute is now being formed, whose main function will be to organize, develop and co-ordinate all medical research activities, in collaboration with other research agencies, within and outside Kenya.

5.72. During the plan period, the following steps will be enacted: (i) the organization and co-ordination of all major research activities in the country; (ii) the co-operation and collaboration with reputable research organizations and bodies at local, regional and international levels; (iii) increased attention will be given to both biomedical and health services research. In the areas of biomedical research the following diseases will receive attention: bilharzia, filariasis, hydatidosis, laishmaniasis, malaria, trypanosomiasis, leprosy, tuberculosis, plague, selected virus diseases, sickle cell disease, cardio-vascular and metabolic and nutritional diseases. Data collection and epidemiological surveillance are to form part of the research activities. In health services research, priority will be given to research concerned with the improvements in the delivery of services; (iv) the establishment of appropriate communication channels between research activities and services within the Ministry of Health, in order to establish the link between the theoretical knowledge and action; and (v) the construction, extension, upgrading, equipping and staffing of the following research stations:

- i. The Central Institute of Medical Research in Nairobi to act as the headquarters and base for the co-ordinating role of research activities in the country.
- ii. Associate Research Stations in Alupe, Kisumu and Mombasa, to engage in various research activities such as leprosy, malaria, bilharzia, nutrition, etc.
- iii. Research Substations in Nairobi (Tuberculosis and Traditional Medicine), Lodwar (hydatidosis), Machakos (leishmaniasis), Muguga (human and animal typosomiasis), irrigation and other development project areas (changes in disease patterns as a result of development projects), etc.

5.73. The Central Public Health Laboratories in Nairobi deal with the laboratory aspects of medical research, apart from diagnostic and clinical services from outside Nairobi, toxicology, blood transfusion services, laboratory referral services, training of laboratory personnel and production of chemicobiological substances.

5.74. The proposed Drug Quality Control Laboratory will include facilities where pharmaceutical and other biological substances will be subjected to tests and analysis to ensure that they are of acceptable standard. All pharmaceutical and biological substances, produced in or outside Kenya, will be receiving the same treatment. The laboratory is to be located in Nairobi with adequate premises to house a planned Traditional Medicine Unit. It will work

in close co-operation with the Medical Stores, the Pharmacy Department of the Ministry of Health, the School of Pharmacy of the University of Nairobi, the Medical Training Centre and the Traditional Medicine Research Unit.

5.75. In the field of preventive medicine and promotive health, the Ministry of Health will undertake a number of health sector research projects, such as a comprehensive study to examine existing water supply and sanitary facilities, in order to provide the basis for a surveillance system; evaluation of the effectiveness of currently used methods of communication for the purpose of improving present system of health education and information; research and field studies related to food fortification, etc.

### **Relationship to Traditional Medicine**

5.76. The number of medicines, drugs and other methods used for treatment by "traditional medical practitioners" is considerable and some of them are effective. The Government has, therefore, decided to promote and encourage investigations and research into different fields and aspects of traditional healing. Thus, a Traditional Medicine Research Unit will be established during the plan period, to be located in Nairobi together with the Drug Quality Control Laboratory, with which it is to work in close co-operation.

### **The Health Forward Budget**

5.77. Tables 5.4 and 5.5 show Health Development and Recurrent expenditures during the plan period 1978/79-1982/83. A total of K£67.1 million is budgeted for development expenditure of the health sector. A major part of this amount is intended for development of health services and facilities in the rural areas. Thus, slightly less than half of the development budget is allocated for extension and upgrading, as well as construction of new rural health units and district hospitals. Preventive medicine and promotive health facilities are allocated one-tenth of the budget, which is considerably less than the amount allocated for hospitals and curative health. The high proportion of the development budget allocated to hospital facilities is, however, a reflection of the high cost of constructing and equipping hospitals rather than a reflection of priority. Furthermore, as indicated earlier in the text, district hospitals are part of the facilities available to the population in the rural areas, and the Kenyatta National Hospital, the provincial hospitals and some of the district hospitals are important as *inter alia*, training grounds for medical staff, who are required to man all health clinics and institutions in the country.

5.78. Some K£181.9 million are allocated for purpose of recurrent costs of the Ministry of Health during the plan period. About half of the recurrent costs are direct salaries and wages, while the remaining half covers operation and maintenance costs of facilities and equipment.



## HEALTH DEVELOPMENT EXPENDITURE 1978/79-1982/83

(K£'000)

Table 5.4

	1978/79	1979/80	1980/81	1981/82	1982/83	Total 1978-83
<b>RURAL HEALTH FACILITIES AND SUPPORTIVE SERVICES—</b>						
<b>Facilities:</b>						
Rural Health Units .. ..	1,435	2,645	3,989	4,407	4,707	17,183
Rural District Hospitals ..	3,323	2,990	2,583	2,992	2,443	14,331
Church Hospitals .. ..	100	200	250	250	250	1,050
*Preventive Medicine and Promotive Health ..	232	937	1,718	1,878	2,254	7,019
<b>Supportive Services:</b>						
<b>Training—</b>						
Medical Training Centre ..	69	54	—	—	—	123
Community Nurse Training Schools .. ..	730	587	550	547	500	2,914
Rural Health Demonstration Centres .. ..	232	319	689	683	684	2,607
Rural Health Training Centres .. ..	69	—	—	—	—	69
National Family Welfare Centres .. ..	30	—	—	—	—	30
**Other Training Institutions	198	200	360	750	965	2,473
<b>Supplies and Equipment—</b>						
Central Medical Stores ..	—	100	150	150	100	500
Regional Medical Stores ..	85	49	80	80	—	294
Equipment Maintenance ..	—	—	—	—	30	30
Drugs Quality Control ..	30	70	70	50	10	230
<b>CENTRAL AND/OR REFERRAL FACILITIES AND SERVICES—</b>						
Kenyatta National Hospital	1,159	1,316	1,000	40	40	3,555
Provincial Hospitals .. ..	2,271	1,987	1,728	2,172	1,713	9,871
***Urban District Hospitals	100	100	100	100	300	700
Psychiatric Units .. ..	40	175	350	450	900	1,915
Research .. ..	235	262	330	515	655	1,997
General Administration ..	1	100	100	—	—	201
<b>GRAND TOTAL ..</b>	<b>10,339</b>	<b>12,091</b>	<b>14,047</b>	<b>15,064</b>	<b>15,551</b>	<b>67,092</b>

\*Includes health education, environmental health, nutrition, communicable and vector-borne diseases, public health laboratories and family planning.

\*\*Includes both basic and post-basic or post-graduate training.

\*\*\*Nairobi and Mombasa Districts respectively.

## HEALTH RECURRENT EXPENDITURE 1978/79-1982/83

(K£'000)

Table 5.5

	1978/79	1979/80	1980/81	1981/82	1982/83	Total 1978-83
<b>RURAL HEALTH FACILITIES AND SUPPORTIVE SERVICES—</b>						
<b>Facilities:</b>						
Rural Health Units .. ..	2,903	3,560	3,984	4,322	4,688	19,457
Rural District Hospitals ..	8,035	9,105	10,023	10,852	11,713	49,765
Church Hospitals .. ..	1,072	1,152	1,268	1,373	1,488	6,353
*Preventive Medicine and Promotive Health ..	1,835	2,015	2,309	2,574	2,862	11,595
<b>Supportive Services:</b>						
<b>Training—</b>						
Medical Training Centre ..	1,016	1,006	1,117	1,207	1,313	5,659
Community Nurse Training Schools and other training institutions .. ..	2,045	2,030	2,080	2,180	2,280	10,615
<b>Supplies and Equipment—</b>						
Central Medical Stores ..	865	795	800	850	900	4,210
Regional Medical Stores ..	—	—	75	98	126	299
<b>CENTRAL AND/OR REFERRAL FACILITIES AND SERVICES—</b>						
Kenyatta National Hospital	4,322	4,889	5,382	5,827	6,310	26,730
Provincial Hospitals .. ..	4,846	5,198	5,752	6,252	6,795	28,843
Psychiatric Units .. ..	913	1,086	1,196	1,295	1,402	5,892
Research .. ..	756	783	829	872	920	4,160
National Health Insurance ..	176	182	191	199	207	955
General Administration ..	1,342	1,325	1,459	1,579	1,710	7,415
<b>GRAND TOTAL ..</b>	<b>30,126</b>	<b>33,126</b>	<b>36,465</b>	<b>39,480</b>	<b>42,751</b>	<b>181,948</b>

\*Includes health education, environmental health, nutrition, communicable and vector-borne diseases, public health laboratories and family planning.

## FOOD AND NUTRITION

5.79. Up to now food and nutrition activities in Kenya have been part of the responsibilities of many organizations and agencies who did not always co-ordinate their efforts. During this Plan the Government will integrate food and nutrition considerations into overall policy. Apart from the obvious human considerations there are also economic gains which ensue from good nutrition. Productivity of workers is increased through improved nutrient intake while better physical and intellectual development arising from improved diets tends to reduce the strain on public services.

5.80. *The Nutrition Situation.*—Over the past few years there have been a number of nutrition surveys which varied both in terms of the extent of populations covered and the specific problems analysed. In addition to these studies directly concerned with nutrition there is a considerable amount of data available on consumption patterns. The available data from these various sources may be synthesised to form a profile of the nutritional situation in Kenya and to identify some of the problems.

5.81. *Nutrition Problems.*—There is sufficient food in Kenya to satisfy the nutritional requirements of the population. However, because of inequalities in purchasing power, in supply between districts and fluctuations in availability from one season to another there are places and times when food is short. This is particularly evident among vulnerable groups such as pre-school children and pregnant and lactating mothers who also often suffer from uneven distribution of food within the family. Surveys show that about 30 per cent of pre-school children suffer from moderate protein energy malnutrition including about 5 per cent who are in the severe category resulting in marasmus and kwashiorkor. These figures vary little between provinces or between urban and rural areas. Seasonal variations are more noticeable in rural areas where the pre-harvested period is particularly difficult. There are also specific nutrient problems with widespread anaemia, goitre and vitamin A deficiency. The importance of this latter deficiency may have been overrated by some analysts. In recent years considerable progress has been made through requiring iodization for all salt. Legislation has been drafted and should shortly be enacted to enforce this requirement. Anaemia is common in coastal areas where it is associated with parasitic infections, hookworms in the intestine and schistosomiasis while any febrile disease will increase vitamin A requirements.

5.82. *Particular Nutrient Deficient Groups.*—While one may find some degree of malnutrition in most populations it facilitates the work of policy makers to identify where possible particular areas or population groups. These include:—

- i. Those smallholders whose income is particularly low. About 10 million of the 14 million population come under overall smallholder category.

Within this category it is estimated that 22 per cent have household income of about K£50.0 per annum.<sup>1</sup> This group is typically characterized by not producing any export crops, having livestock and dairy sales under K£35.0 and food crop sales under K£12.5. The majority of this group are in Western (32 per cent) and Nyanza (25 per cent) Provinces.

A third group of smallholders whose families exhibit malnutrition include some of those involved with cash crops. Paradoxically in certain instances their average annual income may be relatively high but because of the seasonal variations they tend to have insufficient food at certain times of the year. This is particularly true during preharvest periods for those who have neglected to provide for such contingencies and is usually evident on holdings of sugarcane out-growers or mono-cropping irrigation scheme.

- ii. Urban Poor. This group includes the unemployed and underemployed whose incomes are inadequate to purchase adequate food at the prices available. Most households with incomes below K£35 per month were spending more than one-half of total income on food.
- iii. Pastoralists number about 700,000. Their lack of an adequate food security system makes them vulnerable to inclement weather conditions particularly in the arid and semi-arid regions of the North and North-East.
- iv. Pre-school children and pregnant and lactating mothers who have special nutritional needs.

5.83. *Objectives.*—Government policy in recent years has achieved a certain degree of success in the nutrition area. Some of this has been an indirect outcome of higher food production on the farms, increased farm incomes and improved food marketing. During the current plan period the Government will bring into sharper focus the objective of achieving adequate nutrition for all.

5.84. *Strategy.*—Much of the strategy to achieve the designed nutrition objectives is covered in detail in other chapters such as those relating to agriculture, health, housing and social services.

5.85. Currently cereals, primarily maize, account for about 60 per cent of caloric and 50 per cent of protein intake. Maize holds a dominant role in both demand and supply while wheat occupies a secondly but expanding position. During the plan period the demand for maize should rise at about 3.9 per cent per year. Average per capita caloric intake should increase by about 1 per cent per year while protein levels should increase at twice this rate. This higher rate will result from the higher income elasticities of demand for animal protein. These will be primarily milk products and meat for which

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<sup>1</sup> Values in this section are in 1975 prices.

demand seems likely to increase at about 2.4 per cent per capita per annum. This substantial increase in demand for meat and meat products will require either a concomitant rise in supply or else the prices of these items can be expected to rise sharply.

5.86. While these figures offer encouragement with regard to nutrient intake they are average values and it is pertinent to see how some of the particularly deficient groups identified earlier may fare.

- i. (a) Low income smallholders who produce largely for themselves will benefit from the policy to increase yields of maize, in particular through improved seed, fertilizer and water availability. They will also benefit from efforts to encourage production of food legumes and pulses. In line with the overall basic needs strategy the agricultural extension service is to undergo a major reorganization with increased emphasis on group extension.
  - (b) The second sub-group is the rural landless poor. While increased effective demand will create added employment opportunities in agriculture, the experience of most countries suggests that most will have to be absorbed outside of the immediate agricultural production sector. The Government's increasing emphasis on rural public works like water and irrigation schemes, encouragement of food processing and marketing operations is aimed at providing employment opportunities for these people.
  - (c) The third sub-group of smallholders are those whose malnutrition results primarily from seasonal variations. Here extension service together with the Nutrition Advisers will encourage higher production of food crops. This group should benefit from improved marketing and storage facilities. Losses will be reduced while farmers will not have to sell at harvest time when prices are lowest. Later in the season, they are often obliged to pay much higher prices as consumers than they obtained as producers. More realistic efforts to stimulate savings should also help to smooth out the erratic consumption patterns in this group.
- ii. The vulnerable urban groups should benefit from higher incomes arising from increased employment opportunities. The investment programme should result in an increase of new openings in the modern sector at an annual rate of about 50,000 during the plan period. About forty-one per cent of their expenditure will come under the revised Government price control policy.
  - iii. Pastoralists will benefit to some extent from improved husbandry techniques. This, together with improved marketing linked to increased effective demand for meat products should lead to higher incomes. This will be coupled with a food security system which will exert a stabilizing influence on prices of essential foodstuffs

particularly that of maize. Some of this group are also being afforded the opportunity of adopting a more settled life. Care will be exercised to avoid two problems often associated with settling pastoral populations; increased malnutrition and a higher incidence of bacteriological and parasitological diseases.

- iv. The special nutritional needs of pre-school children and pregnant and lactating mothers, will be addressed by a variety of policies. When household income or purchasing power is adequate the Home Economic Division of the Ministry of Agriculture, together with the nutrition workers of the Ministry of Health will provide direction on improved nutritional practices. Their efforts will be further supported by establishment of a food and nutrition laboratory. However, many households simply will not be able to afford to take advantage of informed nutrition knowledge and in such cases there will be other programmes. These include the Pre-school Feeding Programme in arid and semi-arid areas, covering Garissa, Wajir, Mandera, Marsabit, Isiolo, Lamu and Tana River. During the plan period this will be extended to Turkana, Samburu, West Pokot, Elgeyo Marakwet and Baringo. This programme is under the Ministry of Housing and Social Services. The Family Life Training Programme in the same Ministry aims at preventing malnutrition and poor health among children by giving mothers instructions on preventive health measures. The programme also aims at treating malnourished children by providing a high protein-calorie diet. To meet the objectives of this programme, an additional ten new "Family Life Training Centres" (FLTCs) will be established in districts with high incidence of malnutrition.

#### **Other Nutrition Related Interventions**

5.87. The Ministry of Health will actively prevent the more severe forms of malnutrition by stepping up immunization against childhood diseases. It will expand the number of nutrition personnel and plans to extend the Karen College of Nutrition. Their role in prevention of malnutrition will be further enlarged through the construction of Malnutrition Rehabilitation Units. In conjunction with the Ministry of Commerce they will monitor the quality of foods and seek to ensure that packaged foods are accurately described. In particular they will ensure that the iodization of salt continues and will seek effective fortification of other foods.

5.88. The Government has a relief programme administered by the Office of the President. During this plan period the accuracy and timeliness for acting of relief operations will be strengthened. In normal years this programme might expect to provide relief to about 10,000 people but in a bad year this may be significantly expanded. In the 1970/71 famine year the number rose to 150,000 people. The Voluntary agencies, such as Catholic

Relief Service, Kenya Freedom From Hunger Council, Kenya Red Cross Society, will continue their contribution to nutrition education, feeding programmes while the Medical Research Centre will continue in its nutrition research efforts.

5.89. The Central Bureau of Statistics will continue as now to monitor and keep surveillance of nutritional status. The collection and analysis of nutrition data will be supplemented by analysis leading to a better quantitative understanding of the effectiveness of some policies in diverse sectors like education, agriculture, water, health on the nation's nutritional status.

### **Institutional Framework**

5.90. The increasing attention being given to food and nutrition planning will require some modification to the institutional framework. During this plan period, a major aspect of the Food and Nutrition strategy will be the establishment of a Food and Nutrition Planning Unit within the Ministry of Economic Planning and Community Affairs. This unit will be responsible for the overall co-ordination of food and nutrition related policies and programmes of all Ministries and non-Government organizations. Further, an Inter-Ministerial Co-ordinating Committee will be established, composed of representatives from relevant Government Ministries, as well as representatives from other non-Government organizations involved in food and nutrition related activities.

5.91. An essential feature of the institutional framework of the food and nutrition development programme during the plan period, will be the strengthening of existing planning divisions in all relevant Ministries. This should enable the likely nutrition impact of planned development projects to be weighed in advance. Initially, the Ministries of Agriculture and Health will each have a full-time planning officer responsible for nutrition planning. Other relevant Ministries, namely, Office of the President, Housing and Social Services, Water Development, Commerce and Industry, Co-operative Development, Education and Lands and Settlement, will assign responsibility to a planner for assessing nutrition implications in formulation of their development projects.

### **Expenditures for Specific Nutrition Intervention Programme**

5.92. The development and recurrent budgets respectively for the direct nutrition intervention programmes are given in the sections for Ministries of Agriculture, Health and Housing and Social Services. The total expenditure (both recurrent and development) for these programmes over the plan period is estimated to be K£4,531,271 of which K£1,163,250 constitute the capital budget on direct nutrition intervention programmes while K£3,368,021 is the recurrent cost associated with these nutrition programmes.

NUTRITION PROBLEMS IN KENYA, 1978<sup>1</sup>

Table 5.6

Nutritionally Deficient Group	Nutrition Problem		Cause of Problem	Policies to Alleviate Problem	Estimated Numbers in Group
1. SMALLHOLDERS— (a) Food crop producers average household income K£50 (1975) virtually no sales. (b) Landless poor .. .. .	Protein (PEM). PEM .. .. .	energy mainnutrition .. .. .	Insufficient food production .. Low income, consumer prices ..	Availability of improved inputs, hybrid maize, legume and pulse production. Increased non-agricultural employment, public works, control of essential food prices. Improved marketing, storage, stimulation of food production.	2,200,000 410,000
(c) Cash crop producers household income K£125 (1975).	Periodic PEM .. .. .	.. .. .	Low earnings with poor distribution throughout the year.		1,090,000
2. URBAN GROUPS— Unemployed, underemployed .. .. .	PEM .. .. .	.. .. .	Low income, consumer prices ..	Better employment opportunities, control of essential food prices.	250,000
3. PASTORALISTS .. .. .	Periodic PEM .. .. .	.. .. .	Vulnerability to weather, lack of food security.	Food security systems, better stocking practices, increased demand for produce.	670,000
4. SPECIAL GROUPS <sup>2</sup> (a) Pre-school children .. .. .	30% mild PEM, 5% severe PEM ..	.. .. .	Inadequate household purchasing power, poor feeding practices, infection.	Pre-school feeding programmes nutrition education more curative facilities.	3
(b) Pregnant and lactating mothers.	Anaemia .. .. .	.. .. .	Poor diet, malabsorption infection, hookworms.	Feeding programmes, education, improved water supply.	
(c) Xerophthalmia bitot spots .. .. .	Vitamin A deficiency .. .. .	.. .. .	Poor diet, malabsorption .. ..	Increased availability of fruits and vegetables, improved water supply.	
(d) Goitre .. .. .	Iodine deficiency. . . . .	.. .. .	Endemic particularly in Western, Nyanza and Rift Valley.	Iodisation of salt.	

<sup>1</sup> This is not a comprehensive analysis but is indicative of the situation.

<sup>2</sup> There are many other nutrition and nutritionally related problems which tend to be either more local or not as pervasive as those listed but would be included in a more comprehensive study.

<sup>3</sup> Estimates are not given as many overlap those in groups given above.

## EDUCATION

### Education Policy

5.93. Since the attainment of Independence, the Government has placed a high priority on the development of education. Although universal primary education has not yet been fully achieved, enrolment of primary school-age children has risen from less than 50 per cent in 1963 to over 85 per cent in 1978. During this plan period the quality and relevance of educational opportunities will be substantially improved and Plan projection enrolments will be achieved. In order to reach the target groups described in Chapter 2 it will be necessary to increase educational opportunities and assure their wider distribution particularly to remote areas. Quality of education must be improved. To this end, fuller utilization of existing facilities and equipment will be achieved. Education will be made more relevant by increasing emphasis on skills which enhance income-earning opportunities and promoting more constructive life styles for Kenya's youth. A better understanding of basic technologies will be incorporated into the various curricula as well as environmental education.

5.94. Secondary education enrolments have increased over ten-fold from 30,000 in 1963 to over 350,000 in 1978. Emphasis is now laid on science and mathematics and in 1976, for the first time since Form V science classes were established, science-based candidates filled all the available places. The Nairobi campus of the University of Nairobi has nearly reached its full physical capacity, giving way to the rapid development of its campus at the Kenyatta University College.

5.95. These achievements have, however, had the effect of creating a momentum for educational expansion beyond the financial capacity of the national budget. The availability of modern sector employment on the basis of formal education in the years after Independence convinced both parents and children that high economic returns automatically followed such education. At the present time, however, it is not possible for the education recurrent expenditure budget to be increased beyond its existing rate of growth, neither is it possible that, after achieving formal educational qualifications, every person can automatically be absorbed into urban area employment. These financial and employment constraints will influence the strategies for educational development during this plan period. The growth of the education recurrent budget in relation to other sectors is detailed in Chapters 2, 3 and 4.

5.96. Education and training will continue to be the means through which people become more economically productive in the modern sector of the economy as well as in the rural and the informal sector. There will, however, be a shift of emphasis in educational development from a mere quantitative expansion to one which is diversified, functional and of improved quality. To achieve this change of emphasis, there will be a review of the present pattern



of curricula with a view to consolidating and establishing a new pattern which takes account of the required manpower needs for craftsmen, technicians, graduates and other professions.

5.97. Training programmes to develop the country's human resources, to improve the productivity of the labour force, and to enhance individual opportunities are offered by a network of institutions in public and private sectors and voluntary organizations. A summary of the training programmes is given in Chapter 10.

5.98. The responsibility for adult and continuing education is vested with the Board of Adult Education in the Ministry of Housing and Social Services (*see* Chapter 10). During the plan period, Government's prime objective will be to eradicate illiteracy in the country by 1983, details of which are contained in the Social Development Section of Chapter 5. The Institute of Adult Studies will provide professional support in the form of training, planning and evaluation. The Ministry of Education will collaborate in this programme by making available school facilities and by encouraging school teachers to play a bigger part in literacy classes.

5.99. Enrolments in the polytechnics and in the teachers' colleges will increase partly through expansion and partly through better utilization of existing facilities. It is expected that most of the *Harambee* institutes of technology will be fully operational and the Government will continue providing grants to them and assisting in the training of teaching personnel for them. During the plan period the Jomo Kenyatta College of Agriculture and Technology will be established to promote improvements in agricultural technology.

5.100. All these measures require more efficient management of education programmes. It is, therefore, the intention of the Government to establish a Kenya education staff institute for training and in-servicing education personnel.

5.101. Furthermore, while general education policy issues will be handled by the Ministry headquarters, the following management improvement measures will be taken during the plan period:—

- i. Closer co-operation between school managers, teachers, parents and various institutional governing bodies will be encouraged in order to ensure stricter control and discipline in the schools.
- ii. Local communities, especially parents associations, will be involved in development and management of their schools.
- iii. Managerial functions undertaken by the Teachers Service Commission (TSC), will be decentralized by establishing operational posts for TSC officers at district and provincial levels to deal with all teachers' personnel matters.

5.102. There are three Parliamentary Acts that provide the legal framework for education, viz. the Education Act (1968), the University Act (1970) and the Teachers Service Commission Act (1966). These Acts will be reviewed to ensure adequate co-ordination and harmonization of the various activities and institutions concerned.

5.103. Pre-primary education activities are organized by a variety of institutions in the country. In the rural areas, they are handled by the Departments of Social Services of County Councils, while municipalities and private individuals run them in the towns. During the plan period all the local authorities will be expected to provide more pre-primary facilities even though this is not a prerequisite for admission to primary schools. To the extent that resources permit, the Ministry of Education will continue to train pre-primary teachers and undertake preparation of relevant curriculum materials.

5.104. The Government established a National Committee on Educational Objectives and Policies (NCEOP) during the 1974/78 plan period to "evaluate the present system of education, define a new set of educational goals for the second decade of independence and formulate a specific programme of action for achieving those goals". The Committee submitted its report to the Government proposing changes in both the structure and content of the formal education system. The NCEOP not only dealt with strictly educational matters, but also such issues as national unity, economic development, employment, and cultural and ethical values.

5.105. Those recommendations which are acceptable and consistent with the strategies contained in this Development Plan, have been incorporated in the Plan. The NCEOP Report is seen as a part of a continuous review of the country's system of education which has to be carried out periodically in relation to the changing social and economic framework of the country.

### **Primary Education**

5.106. The primary stage of education is the most important for any child since it is here that basic knowledge is given to the child and foundations for an economically productive and satisfying life are laid. The objectives in this plan period are to provide universal primary education of seven years, free of charge to all children of primary school-age, and to enhance the quality of this seven year primary education through provision of qualified teachers, suitable instructional materials and changes in the curriculum.

5.107. To achieve the objectives for primary education, the following programme will be undertaken:—

- i. Primary boarding schools (Arid Zone Education Centres) will be built in Garissa, Isiolo, Kajiado, Mandera, Marsabit, Narok, Samburu, Tana River, Turkana (2), Wajir, West Pokot, Baringo East and Lamu districts, to cater for additional 3,600 primary boarding places. These centres will also include facilities for adult education and various vocational training courses.

- ii. Primary school curriculum will be reviewed in order to strengthen the teaching of mathematics, science and pre-vocational subjects.
- iii. The primary school supervisory services will be further strengthened and expanded to ensure that, if possible, every thirty schools have an inspector.
- iv. Untrained primary school teachers will be gradually phased out.

5.108. The Government recognizes that mental and physical development of the child requires a balanced diet. Therefore, beginning May, 1979, the Government will provide milk regularly to all primary school children in the country. In addition, the National School Feeding Council of Kenya distributes food in the form of a daily midday meal to about 35,000 children of the pre-school and primary school-age.

5.109. During the plan period, the Council will—

- i. identify, promote and co-ordinate school nutritional programmes for an increased number of children; and
- ii. organize a co-ordinated national school feeding programme.

The cost of running this programme is met through Government grants to the Council.

5.110. It is anticipated that the free milk scheme for primary school children and the abolition of building and other school funds in primary schools will increase enrolments and classes beyond those indicated in Tables 5.7 and 5.8 which are based on past trends.

#### PROJECTED GROWTH OF PRIMARY SCHOOL ENROLMENTS, 1979—1983

Table 5.7 (in '000s)

	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7	Total
1979 ..	646	544	498	397	399	440	350	3,274
1980 ..	669	583	516	425	361	385	470	3,409
1981 ..	692	603	552	440	387	348	411	3,433
1982 ..	716	624	572	472	401	374	372	3,531
1983 ..	742	646	592	488	429	387	399	3,683

NOTE.—The above enrolment projections are combined for districts and municipalities. The actual figures for Standard 1, 1977, are taken as base and projected at an annual growth rate of 3½ per cent.

#### PROJECTIONS OF PRIMARY SCHOOLS CLASSES, 1979—1983

Table 5.8

Year	Districts	Municipalities	Total
1979 .. .. .	90,932	4,172	95,104
1980 .. .. .	95,856	4,269	100,125
1981 .. .. .	97,675	4,291	101,966
1982 .. .. .	100,405	4,366	104,771
1983 .. .. .	104,406	4,501	108,907

NOTE.—Average class size is assumed at 40 in Standard 1 in the districts and 45 in the municipalities.

5.111. The requirement for teachers to man these classes is indicated in Table 5.9. The projections are based on the general formula of "one teacher per class including the head teacher" for all areas. The projected expenditure for primary education is shown in Table 5.10.

PROJECTED PRIMARY SCHOOL TEACHER REQUIREMENTS, 1979—1983

Table 5.9

Year	DISTRICTS		MUNICIPALITIES		Total Teachers Required
	Projected Classes	Teachers Required	Projected Classes	Teachers Required	
1979 .. ..	90,932	92,751	4,172	4,255	97,006
1980 .. ..	95,856	97,773	4,269	4,354	102,127
1981 .. ..	97,675	99,630	4,291	4,377	104,007
1982 .. ..	100,405	102,413	4,366	4,453	106,866
1983 .. ..	104,406	106,494	4,501	4,591	111,085

PRIMARY EDUCATION EXPENDITURE, 1978/79—1982/83

Table 5.10

(in K£'000)

Primary Education	1978/79	1979/80	1980/81	1981/82	1982/83	Total
<b>RECURRENT—</b>						
District Education Board Offices .. ..	1,290	1,356	1,454	1,577	1,659	7,336
Primary Schools .. ..	54,164	58,034	62,345	67,123	72,281	313,947
School Equipment Scheme ..	3,275	3,500	3,700	3,900	4,100	18,475
<b>TOTAL RECURRENT</b>	<b>58,729</b>	<b>62,890</b>	<b>67,499</b>	<b>72,600</b>	<b>78,040</b>	<b>339,758</b>
<b>DEVELOPMENT—</b>						
Primary School and Arid Zone Education Centres ..	38	800	980	2,145	873	4,836
School Equipment for District Stores .. ..	110	40	180	—	—	330
Primary School Storage Facilities .. ..	—	—	—	410	207	617
<b>TOTAL DEVELOPMENT</b>	<b>148</b>	<b>840</b>	<b>1,160</b>	<b>2,555</b>	<b>1,080</b>	<b>5,783</b>

NOTE.—In this, and subsequent financial tables, the figures shown are the Government contribution to education. Other funds spent on education come from parents and the public in general, e.g. Harambee efforts, etc.

## Secondary Education

5.112. The demand for secondary education has resulted in an increase of maintained\* and assisted\* schools and also in a rapid expansion of *Harambee* secondary schools, the enrolments of which now exceed those of Government maintained secondary schools. In 1977, 444 secondary aided (maintained and assisted) schools had a total enrolment of 128,324 as opposed to 1,042 unaided secondary schools, having a total enrolment of 191,986. During the plan period, the aims and programmes of secondary education will be primarily oriented to suit the patterns of employment opportunities. This requires the teaching of relevant practical skills among other subjects, so as to facilitate direct employment, self-employment and employment in the informal urban and rural sectors.

5.113. The measures planned include the following:—

- i. Allowing a modest expansion in secondary education to correct the imbalances that exist between the districts and between boys and girls. This increase must be met with a minimal rise in cost through more efficient utilization of existing facilities, judicious curriculum offerings, and by increasing class sizes to their full capacity. Secondary education opportunities will be created where little or no opportunities exist; and the *Harambee* Package Programme started during the last plan period will be continued (See Tables 5.11 and 5.12 for the projected Government-aided secondary school enrolments.)
- ii. Integrating education with rural development through diversification of the curriculum. In particular, agricultural sciences will occupy a central position and students will be offered a broadly based education leading to competence in a variety of practical skills.
- iii. Promoting personal qualities of creativity and innovativeness which should relate to the needs of many students to create their own income-earning opportunities in areas like journalism and creative writing.
- iv. Promoting sense of ethical values and social obligation which will uphold the values of traditional African society while preparing for the challenges of modern society.
- v. Establishing programme of out-of-school education through extra-mural and correspondence studies and by radio and television for those not selected for secondary or post-secondary education.

5.114. *Secondary School Fees*.—The cost of secondary education has risen considerably in recent years, placing a heavy financial constraint on the Government budget (see Table 5.13). Early in the plan period, therefore, the secondary school fees structure will be reviewed to ensure that parents contribute more. The bursary system in secondary education will also be reviewed.

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\* Maintained schools receive full Government support and assisted ones receive only partial support, e.g. teachers.

**PROJECTED GOVERNMENT AIDED SECONDARY SCHOOL ENROLMENTS FORMS I—IV  
1979—1983**

*Table 5.11*

Year	Form I	Form II	Form III	Form IV	Total
1979 .. ..	32,270	31,470	30,670	30,230	124,640
1980 .. ..	33,070	31,270	30,470	30,670	125,480
1981 .. ..	33,870	33,070	30,270	31,470	128,680
1982 .. ..	34,670	33,870	33,070	32,270	133,880
1983 .. ..	35,470	34,670	33,870	33,070	137,080

**PROJECTED GOVERNMENT AIDED SECONDARY SCHOOL ENROLMENTS, FORMS V AND VI  
1979—1983**

*Table 5.12*

Year	FORM V		FORM VI		Total
	Arts	Science	Arts	Science	
1979 .. ..	2,848	4,340	2,515	4,116	13,819
1980 .. ..	2,912	4,536	2,848	4,340	14,636
1981 .. ..	2,944	4,732	2,912	4,536	15,124
1982 .. ..	2,976	4,928	2,944	4,732	15,580
1983 .. ..	3,008	5,156	2,976	4,928	16,068

- NOTES.— (i) The ratio of arts to science classes will be 1:2 by 1983;  
(ii) The average class size for science is 28 and for arts is 32 pupils;  
(iii) No drop-outs assumed between Forms V and VI.

**SECONDARY EDUCATION EXPENDITURE, 1978/79 TO 1982/83**

*Table 5.13*

*(in K£'000)*

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
<b>RECURRENT—</b>						
Government Maintained Schools .. ..	11,977	12,387	12,907	13,717	14,507	65,495
Harambee Schools (Grants for TSC Teachers) .. ..	986	1,076	1,176	1,276	1,396	5,910
<b>TOTAL RECURRENT</b>	<b>12,963</b>	<b>13,463</b>	<b>14,083</b>	<b>14,993</b>	<b>15,903</b>	<b>71,405</b>
<b>DEVELOPMENT—</b>						
Government Maintained Schools .. ..	950	950	1,436	1,069	1,297	5,702
Harambee School Micro-Projects .. ..	255	—	—	—	—	255
<b>TOTAL DEVELOPMENT</b>	<b>1,205</b>	<b>950</b>	<b>1,436</b>	<b>1,069</b>	<b>1,297</b>	<b>5,957</b>

## Secondary Technical Education

5.115. On-going projects to upgrade certain facilities and equipment in the existing technical schools and the construction of two new technical schools started during the last plan period, will be completed before 1983. By the end of the plan period, a total of 15 Government aided secondary schools will be offering full technical education programme (see Tables 5.14 and 5.15). Nakuru, Mombasa and Nairobi Technical High Schools will have completed a change-over from the Cambridge technical examinations to Basic Engineering or Basic Building trade courses by the beginning of 1979. The new engineering school at Kitale, with a particular emphasis on agricultural mechanics, is scheduled for completion by 1981/82. Shanzu School, offering engineering courses, will be ready by the end of the plan period.

### PROJECTED ENROLMENTS AND CLASSES IN SECONDARY TECHNICAL EDUCATION, 1979-1983

Table 5.14

	1979	1980	1981	1982	1983
Number of Classes .. ..	196	210	218	226	234
Enrolment .. .. .	7,056	7,560	7,848	8,136	8,424

NOTE.—Enrolment estimates are based on the on-going development programme, including the two new projects at Shanzu and Kitale.

### SECONDARY TECHNICAL EDUCATION EXPENDITURE, 1978/79 TO 1983/84

Table 5.15

(in K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
RECURRENT .. .. .	1,120	1,197	1,300	1,365	1,442	6,424
DEVELOPMENT .. .. .	910	800	521	544	579	3,354

5.116. The Government proposes to establish a pilot project at Thika Technical School to offer holiday courses in trade skills to people working as technicians in the informal sector. It has been discovered that there is considerable under-utilization of expensive equipment at most of the technical and industrial schools. The outcome of this experiment will determine the manner in which facilities in other technical schools are utilized in future.

## Special Education

5.117. The Government's participation in special education has been mainly confined to granting assistance to voluntary organizations who conduct programmes for the handicapped. During this plan period, Government will assume greater direct responsibility in special education. A committee consisting of representatives from the Ministry of Education, Ministry of Housing and Social Services, and voluntary organizations will be formed to co-ordinate

the work of all voluntary and Government agencies catering for the handicapped. Government assistance will be extended in the fields of pre-primary special education, establishment of sheltered workshops, and provision of adequate equipment for the handicapped. Tables 5.16 and 5.17 show the projected enrolments and expenditure respectively on special education.

#### PROJECTED ENROLMENTS IN SPECIAL SCHOOLS, 1979-83

Table 5.16

TYPE OF SCHOOL	YEARS				
	1979	1980	1981	1982	1983
Impaired Hearing .. ..	1,419	1,679	1,939	2,200	2,200
Visually Handicapped .. ..	1,195	1,345	1,495	1,645	1,645
Mentally Handicapped .. ..	170	513	856	1,200	1,200
Physically Handicapped .. ..	665	782	899	1,015	1,015
Multi-Handicapped .. ..	—	60	120	120	120
<b>TOTAL .. ..</b>	<b>3,449</b>	<b>4,379</b>	<b>5,309</b>	<b>6,180</b>	<b>6,180</b>

#### SPECIAL EDUCATION EXPENDITURE, 1978/79 TO 1982/83

Table 5.17

(in K£'000)

Years	1978/79	1979/80	1980/81	1981/82	1982/83	Total
<b>RECURRENT—</b>						
Primary Schools .. ..	302	331	379	405	440	1,857
Secondary Schools .. ..	29	32	36	40	45	182
DTechnical/Vocational Schools	72	79	105	134	159	549
<b>TOTAL RECURRENT</b>	<b>403</b>	<b>442</b>	<b>520</b>	<b>579</b>	<b>644</b>	<b>2,588</b>
<b>DEVELOPMENT—</b>						
Primary Schools .. ..	54	90	210	300	100	754
Post-Primary Schools .. ..	26	60	210	200	100	596
<b>TOTAL DEVELOPMENT</b>	<b>80</b>	<b>150</b>	<b>420</b>	<b>500</b>	<b>200</b>	<b>1,350</b>

#### Polytechnic Education

5.118. Polytechnic education has hitherto provided both the public and the private formal industrial sectors of the economy with technically qualified manpower; but there is a need to broaden the curricula offered to provide for the technical and economic demands of the formal and the informal sectors of the economy. To provide for more training to meet the shortages of technically qualified manpower, the Government will examine the possibility of starting a third polytechnic. The existing polytechnics will—

- i. strengthen existing courses and introduce new courses in industrial and commercial areas;



- ii. explore the possibility of establishing production workshops in conjunction with the Faculty of Engineering of the University of Nairobi. These workshops will provide work experience to non-sponsored students;
- iii. provide more bursary awards to private students.

5.119. Industry will be expected to sponsor increasingly more students for training. In addition it will be encouraged to allow the sponsored students to undergo more varied technical training at the polytechnics to create more job mobility (see Chapter 10 for details on industrial training).

5.120. The introduction of science courses and the Government's continuing support for polytechnic training are part of a broader strategy to meet Kenya's manpower needs with regard to incorporating technological changes into the economy. The role of the University in this strategy is discussed later.

5.121. The enrolments at the Kenya and Mombasa Polytechnics are expected to rise as indicated below and to provide for this increase, a construction programme estimated to cost about K£3.5 million will be completed during this plan period (see Tables 5.18 and 5.19).

PROJECTED STUDENT ENROLMENTS AND LECTURERS AT THE KENYA  
AND MOMBASA POLYTECHNICS, 1978/79-1982/83

Table 5.18

	1978/79	1979/80	1980/81	1981/82	1982/83
<i>Kenya Polytechnic</i>					
(a) Student Enrolments ..	2,140	2,250	2,360	2,480	2,600
(b) Lecturers Required ..	220	240	250	260	270
<i>Mombasa Polytechnic</i>					
(a) Student Enrolments ..	1,142	1,201	1,263	1,327	1,395
(b) Lecturers Required ..	89	93	98	103	109
TOTAL—					
(a) Student Enrolments ..	3,282	3,451	3,623	3,807	3,995
(b) Lecturers Required ..	309	333	348	363	379

### Harambee Institutes of Technology

5.122. The Government recognizes the significance of the *Harambee* institutes of technology in fulfilling the training needs of the secondary school-leavers. Accordingly, the basic Government grant per student was raised from K£80 to K£130 per annum from 1978. The co-ordinating committee which was set up in the Ministry of Education during the last plan period will continue to guide the institutes in their planning and development. It will also administer the Government grant system to the institutes in accordance with Government training priorities and make arrangements for the auditing of all funds available to the institutes.

POLYTECHNIC AND POST-SECONDARY EDUCATION EXPENDITURE, 1978/79—1982/83

Table 5.19

(in K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
<b>RECURRENT—</b>						
Kenya Polytechnic .. .. .	867	936	1,052	1,150	1,265	5,270
Mombasa Polytechnic .. .. .	353	382	436	486	551	2,208
Harambee Institutes of Technology .. .. .	136	162	195	234	289	1,016
Government Secretarial College, Nairobi .. .. .	89	99	109	120	132	549
<b>TOTAL RECURRENT</b>	<b>1,445</b>	<b>1,579</b>	<b>1,792</b>	<b>1,990</b>	<b>2,237</b>	<b>9,043</b>
<b>DEVELOPMENT—</b>						
Kenya Polytechnic .. .. .	944	650	100	—	—	1,694
Mombasa Polytechnic .. .. .	511	391	243	122	62	1,329
Jomo Kenyatta College of Agriculture and Technology .. .. .	—	200	500	500	1,000	2,200
<b>TOTAL DEVELOPMENT</b>	<b>1,455</b>	<b>1,241</b>	<b>843</b>	<b>622</b>	<b>1,062</b>	<b>5,223</b>

PROJECTED ENROLMENTS OF HARAMBEE INSTITUTES OF TECHNOLOGY, 1979—1983

Table 5.20

Institute	1979	1980	1981	1982	1983
1. Kaimosi .. .. .	168	192	216	216	216
2. Kiambu .. .. .	441	513	513	513	513
3. Murang'a .. .. .	240	288	312	312	312
4. WECO .. .. .	134	288	312	336	360
5. RIAT .. .. .	67	115	144	168	192
6. Gusii .. .. .	124	196	292	364	388
7. Sangalo .. .. .	75	130	160	185	210
8. Kirinyaga .. .. .	156	156	240	288	336
9. Kimathi .. .. .	108	180	52	288	300
10. Rift Valley .. .. .	48	120	216	252	288
11. Ukai .. .. .	—	24	72	120	168
12. Embu .. .. .	—	24	48	96	144
13. Meru .. .. .	—	24	72	120	168
14. Coast .. .. .	30	60	84	108	132
15. Taita .. .. .	30	60	84	108	132
<b>TOTAL</b> .. .. .	<b>1,621</b>	<b>2,370</b>	<b>2,917</b>	<b>3,474</b>	<b>3,859</b>

5.123. Fifteen *Harambee* institutes of technology have been proposed. Twelve of these are already operational and the others will be developed during the plan period (see Table 5.20). Most of the institutes will be following craft and technician courses for mechanical engineering, electrical engineering, building trades, agricultural engineering, food processing, irrigation and business studies. Final examinations will be based on syllabi approved by the

Ministries of Education and Labour, and the certificates will be signed by the Director of Education. The Inspectorate and the Education Media Service will continue their support services to the institutes. When all the institutes are fully operational, they will face the problem of increasing costs for teachers' salaries, boarding expenses and training materials, but self-reliance will continue to be encouraged in order to meet these financial requirements.

### Primary Teacher Education

5.124. Primary teacher education will receive greater emphasis during this plan period in order to improve teaching standards. The role of the teachers will gradually be changed from one of a classroom instructor to one of a more adaptable type of educator. The quality of professional staff in primary teacher colleges will be improved through training at the Kenyatta University College campus and short courses and seminars for college tutors. The in-service programme will be intensified to retrain primary school teachers to facilitate the introduction of a revised curriculum (*see* Kenya Institute of Education Section).

PRIMARY TEACHER TRAINING COLLEGES: PROJECTED  
ENROLMENTS AND TUTOR REQUIREMENTS  
1978/79—1982/83

Table 5.21

Year	Enrolment	Tutor Requirement
1979 .. ..	8,700	580
1980 .. ..	8,700	580
1981 .. ..	10,300	687
1982 .. ..	10,300	687
1983 .. ..	10,300	687

NOTE.—The student/teacher ratio is taken as 15:1.

5.125. Table 5.21 shows the increased enrolments in the 17 Primary Teachers' Colleges to help phase out the existing unqualified teachers in the primary schools. During this plan period, projects to train agricultural, technical and business teachers will be established with a view to making curricula more practical in orientation and diversified in subject matter.

### Secondary Teacher Education

5.126. The Government objectives in secondary teacher education remain as in the previous Development Plan, namely—

- i. to produce sufficient non-specialist and specialist teachers to allow the secondary (aided) programme to work efficiently;

- ii. to produce enough graduate and non-graduate, non-specialist and specialist teachers to staff the *Harambee* Package Programme;
- iii. to reduce to a minimum the country's dependence on non-citizen teachers.

A curriculum-based establishment system is at present being used to work out the number of teachers required by each school. In this way, the best possible staffing requirements for every school are taken into consideration depending on the curriculum of each school.

5.127. Teacher training for secondary education will continue to be based at Kenyatta University College campus (KUC), Kenya Science Teachers' College (KSTC), and Kenya Technical Teachers' College (KTTC).

5.128. Plans have been made for the extension of the KSTC so that by the end of the plan period it will be able to accommodate 25 per cent more students (*see* Table 5.22). It is envisaged that this College will continue to play an important role in the training of science teachers.

5.129. The KTTC has now been established to meet a range of needs in technical and business education. The long-term objective of the College is to increase the number and level of technically skilled Kenyan personnel for employment in all sectors of the economy including teaching. This long-term objective will be met by providing a series of educational programmes designed to meet the needs of skilled technical teachers and instructors in schools and training programmes throughout the country. The total projected expenditure on teacher training is shown in Table 5.23.

#### PROJECTED ENROLMENT GROWTH AT KTTC AND KSTC, 1979—1983

Table 5.22

Year	Total Enrolments at KTTC	Total Enrolments at KSTC	Total
1979	470	540	1,010
1980	530	594	1,124
1981	550	621	1,171
1982	550	648	1,198
1983	550	675	1,225
<b>TOTAL</b>	<b>2,650</b>	<b>3,078</b>	<b>5,728</b>

NOTE.—For enrolments at Kenyatta University College, *see* Table 5.24.

PROJECTED EXPENDITURE ON TEACHER EDUCATION PROGRAMMES, 1978/79—1982/83

Table 5.23

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
<b>RECURRENT—</b>						
Primary Teachers Colleges	2,427	2,574	3,104	3,205	3,458	14,768
Kenya Science Teachers College .. ..	447	483	528	553	603	2,614
Kenya Technical Teachers College .. ..	414	502	575	601	646	2,738
<b>TOTAL RECURRENT</b>	<b>3,288</b>	<b>3,559</b>	<b>4,207</b>	<b>4,359</b>	<b>4,707</b>	<b>20,120</b>
<b>DEVELOPMENT—</b>						
Primary Teachers Colleges	583	431	460	479	511	2,464
Kenya Science Teachers College .. ..	—	—	123	43	90	256
Kenya Technical Teachers College .. ..	629	—	—	—	—	629
<b>TOTAL DEVELOPMENT</b>	<b>1,212</b>	<b>431</b>	<b>583</b>	<b>522</b>	<b>601</b>	<b>3,349</b>

### University Education

5.130. The University of Nairobi (which includes Kenyatta University College) is required to produce trained manpower with motivation, skills and knowledge necessary to enhance Kenya's technological progress. During the plan period, the University will:—

- i. Address itself to the problem of manpower shortages to be indicated by the proposed manpower survey (see Chapter 10) through its undergraduate and graduate programmes while continuing to provide a home for basic research combined with teaching.
- ii. Engage in research relevant to the nation's needs. Some areas indicated in Chapter 2 are: (a) research on the nature and causes of social changes and the policies appropriate for guiding it in constructive directions; (b) research on identification and adaptation of appropriate technologies in the modern and informal sectors; and (c) research on the impact of development on the environment and the means of sound ecological management of the nation's resources.
- iii. Establish and operate a University Students Service Scheme whose aim will be to impart sound knowledge of the development problems in rural Kenya.

5.131. In order to cater for those who would like to further their academic studies but are not able to undergo a conventional university education, an external degree programme will be introduced.

5.132. The University will introduce scholarly studies of Kiswahili to facilitate the production of adequate literature and other educational materials for the teaching of Kiswahili in schools. The possibility of starting an Institute of Kiswahili for research will be explored during the plan period.

5.133. Post-graduate programmes will be planned according to national needs. Emphasis will be laid on training Kenyan university tutors and other specialized personnel.

PROJECTED ENROLMENTS IN UNIVERSITY EDUCATION, 1978/79—1982/83

Table 5.24

Year	University of Nairobi	Kenyatta University College	Total
1978/79 .. .. .	4,800	1,450	6,250
1979/80 .. .. .	5,025	1,600	6,625
1980/81 .. .. .	5,300	1,870	7,170
1981/82 .. .. .	5,625	2,200	7,825
1982/83 .. .. .	5,900	2,550	8,450

PROJECTED EXPENDITURE ON UNIVERSITY EDUCATION, 1978/79—1982/83

Table 5.25

(in K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
<b>RECURRENT—</b>						
University of Nairobi*	6,445	7,285	7,705	8,180	8,560	38,175
Kenyatta University College	1,890	2,305	2,725	3,200	3,725	13,845
University Students Loan Scheme	2,577	2,697	2,931	3,198	3,481	14,884
Higher Education Loan Fund†	5	5	5	5	5	25
<b>TOTAL RECURRENT</b>	<b>10,917</b>	<b>12,292</b>	<b>13,366</b>	<b>14,583</b>	<b>15,771</b>	<b>66,929</b>
<b>DEVELOPMENT—</b>						
University of Nairobi	200	975	1,088	550	1,363	4,176
Kenyatta University College	240	375	1,010	755	1,296	3,676
<b>TOTAL DEVELOPMENT</b>	<b>440</b>	<b>1,350</b>	<b>2,098</b>	<b>1,305</b>	<b>2,659</b>	<b>7,852</b>

NOTE.—\*Includes grants for a few Kenyan students in the University of Dar es Salaam.

†Loans for Kenyan students studying in foreign Universities.

5.134. The facilities at Kenyatta University College campus will be expanded to cater for the number of students indicated in Table 5.24, who will be training as secondary school teachers.

5.135. The need to improve Kenya's high-level manpower situation warrants the establishment of a second university in the country. Although the University of Nairobi is doing its best in this field, there are areas which have not yet been catered for, e.g. studies on: (a) arid and coastal zones; (b) marine science and engineering; (c) chemical engineering; (d) water engineering; and (e) mining engineering. The Government has, therefore, decided to

establish a second university, suitably located, to complement the work of the University of Nairobi. A working party will be appointed to make plans for another university. It is hoped that the new university will start functioning within this plan period.

5.136. The University Students' Loan Scheme was initiated during 1974/75 and will continue during this plan period. The Government accepts the obligation to pay the academic costs of all university students, but lodging and other expenses can be covered through the Students' Loan Scheme which makes advances to students while they are at university, to be repaid after they have commenced their post-university careers. Projected expenditure on University education is shown in Table 5.25.

### The Education Support Services

#### The Inspectorate

5.137. During the plan period, the Inspectorate will continue to perform its main function of maintaining and improving educational standards. It will undertake the following:—

- i. Supervise closely the development and implementation of the new primary and secondary school curriculum.
- ii. Guide and assess the work of all schools, including *Harambee* and private schools.
- iii. Intensify in-service training for all teachers including lecturers in teachers' colleges.
- iv. Advise and guide heads of educational institutions and teachers on their professional work and responsibilities.

5.138. To carry out these functions, the Inspectorate will be strengthened so that by 1983, there will be 54 inspectors at the headquarters, 60 secondary and teacher education inspectors in the provinces, 97 primary school inspectors and 300 assistant primary school inspectors in the districts.

#### Examinations Section

5.139. Examinations provide the means for assessing the degree of past achievement of the learning objectives and in the process, also serve to stimulate the learner to put the necessary effort into learning. The results of examinations are used in estimating an individual's future potential for continued learning and occupational competence. Examinations will, therefore, continue to be planned and organized as an integral part of the learning processes. During the plan period, examinations conducted by MOE will be streamlined and made more relevant to the needs of the country. To this end:—

- i. The Examinations Research and Development Unit will be strengthened with additional staff to enable it to carry out continuous research and analysis of the examinations.

- ii. Data processing and printing equipment will be acquired to ensure maximum security and efficiency in handling examinations.
- iii. The organization of examinations will be reviewed, in particular, the future of East African Examination Council.
- iv. The possibility of setting up a national body to co-ordinate all examinations in the public and private sectors will be studied.

#### **Kenya Institute of Education**

5.140. The changes in primary and secondary school curricula described in this Plan will have implications on the role and functions of the Kenya Institute of Education. The Institute will develop a curriculum to prepare students, especially those who are terminating their schooling, to fit better into adult life and the world of work.

5.141. Buildings and equipment for the production of educational media materials will be provided during this plan period. These new facilities will enable the Education Media Service to assist in the reorientation of the curricula. The Education Media Service will also provide a data bank for resource materials for assisting the Learning Resource Centres and Teachers Advisory Centres.

#### **Teachers Advisory Centres**

5.142. Teachers Advisory Centres (TAC) have proved very useful for inservicing of teachers and the development of ideas and teaching aids. During the plan period TACs and sub-centres will be better equipped and their functions intensified to make them more responsive to the needs of all teachers, especially in the rural areas.

#### **Guidance and Counselling**

5.143. The guidance and counselling service of the Ministry of Education was introduced in 1971. It has hitherto concentrated on guiding secondary school students into various career opportunities in the modern sector of the economy. During the plan period, the following measures will be instituted so that guidance and counselling can become effective at both primary and secondary school levels:—

- i. The present unit will be strengthened by the appointment of a team of eight professionally qualified officers, responsible for co-ordinating and organizing workshops for teachers involved in guidance service.
- ii. Guidance and counselling will form part of the teacher training curriculum in all teachers colleges and at university level.

#### **Educational Materials and Equipment**

5.144. Educational materials and equipment are basic tools for educational instruction. They must be available in the right qualities and quantities and at the time they are required. The main institutions involved in educational



materials and equipment are the Kenya Institute of Education, the Jomo Kenyatta Foundation (JKF), the Kenya Literature Bureau (KLB), the Science Equipment Production Unit, and the Kenya School Equipment Scheme.

5.145. During the plan period, the functions of the Kenya Institute of Education, JKF, and KLB will be reorganized so as to facilitate the publishing, printing, and selling of educational materials at reasonable prices and thus making them easily available to schools and other educational institutions.

5.146. The Science Equipment Production Unit, located at the KSTC will continue to specialize in the design and production of low-cost science kits and other teaching aids of good quality for secondary schools. During the plan period the Unit will develop teaching aids and equipment for use in primary schools. It will, further, make efforts to publicize its products to schools.

5.147. The Kenya School Equipment Scheme is responsible for supplying school equipment and materials to primary schools. During the plan period, the following specific measures will be undertaken to improve the services and efficiency of the Scheme:—

- i. Building of school equipment stores in the district headquarters will be completed to which suppliers will deliver equipment direct.
- ii. Primary school committees and parents' associations will build school equipment stores.
- iii. Transport and other facilities for efficient handling and delivery of school equipment will be increased.

Tables 5.26 and 5.27 summarize the total projected recurrent and development expenditure on education programmes.

SUMMARY OF EDUCATION RECURRENT EXPENDITURE, 1978/79—1982/83

Table 5.26

(in Kf'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
General Administration and Planning .. .. .	4,395	4,659	5,192	5,690	6,240	26,176
Primary Education .. .. .	58,729	62,890	67,499	72,600	78,040	339,758
Secondary Education .. .. .	12,963	13,463	14,083	14,993	15,903	71,405
Secondary Technical Education	1,120	1,197	1,300	1,365	1,442	6,424
Teacher Education .. .. .	3,288	3,559	4,207	4,359	4,707	20,120
Special Education .. .. .	403	442	520	579	644	2,588
Polytechnic and Post-Secondary Education .. .. .	1,445	1,579	1,792	1,990	2,237	9,043
University Education .. .. .	10,917	12,292	13,366	14,583	15,771	66,929
Miscellaneous* .. .. .	1,291	1,311	1,306	1,301	1,286	6,495
<b>TOTAL RECURRENT</b>	<b>94,551</b>	<b>101,392</b>	<b>109,265</b>	<b>117,460</b>	<b>126,270</b>	<b>548,938</b>

NOTE.—\*Item consists of contributions to local institutions which render service to education.

SUMMARY OF EDUCATION DEVELOPMENT EXPENDITURE, 1978/79—1982/83

Table 5.27

(in K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
General Administration and Planning .. .. .	195	738	739	783	522	2,977
Primary Education .. .. .	148	840	1,160	2,555	1,080	5,783
Secondary Education .. .. .	1,205	950	1,436	1,069	1,297	5,957
Secondary Technical Education	910	800	521	544	579	3,354
Teacher Education .. .. .	1,212	431	583	522	601	3,349
Special Education .. .. .	80	150	420	500	200	1,350
Polytechnic and Post-Secondary Education .. .. .	1,455	1,241	843	622	1,062	5,223
University Education .. .. .	440	1,350	2,098	1,305	2,659	7,852
<b>TOTAL DEVELOPMENT</b>	<b>5,645</b>	<b>6,500</b>	<b>7,800</b>	<b>7,900</b>	<b>8,000</b>	<b>35,845</b>

### HOUSING DEVELOPMENT

5.148. A central point for every Kenyan family is the home. The family house is valued not only for the shelter and facilities it provides but for the entire environment surrounding it, including accessibility to employment. It is also financially significant since, on the average, it absorbs between 15 per cent and 20 per cent of a family's income in the urban areas. To many families, it represents an important investment, yielding a flow of rental income over a long period of time. It is indeed one of the basic needs, such as food, water and clothing. In addition, housing construction contributes both directly and indirectly to increases in employment and output. Because of the special importance of housing, Government takes considerable interest in the entire housing situation and the need for its improvement.

5.149. In spite of the notable progress in housing development which has been made since Independence this area of development remains an important challenge to Government. In the urban areas, the main symptom of the housing problem is the extreme shortage of urban housing units needed to settle the population. Overcrowding and unauthorized construction of unplanned dwellings, built of unsuitable sub-standard materials are still visible in most urban areas. The general lack of essential services, such as sewerage and water facilities, that characterize these settlements, creates an unacceptably low standard of environment. Without water and sewerage, the population is exposed to the hazards of epidemic disease and fire outbreaks. It is currently estimated that approximately 35 per cent of all urban households exist in squatter settlements and slums.

5.150. The high rate of urban population growth, largely the result of the high rate of rural/urban migration, is one of the root causes of the urban housing problem. The financial base of most Local Authorities is weak

compared to the level of expenditure needed to service properly the urban population. Thus, the development of urban amenities and supporting services for housing development has lagged behind the desired level.

5.151. The urban housing problem is complicated by the lack of adequate purchasing power among a large section of the urban population. Those who migrate to urban areas have no immediate prospects for employment and lack the basic incomes needed to purchase essential goods and services. Of the existing 440,000 urban households, only about 30 per cent have sufficient incomes to afford minimum-cost conventional housing.

5.152. One of the biggest problems facing housing development in urban areas concerns land. The servicing of urban land and the whole mechanism of urban land assembly is proceeding at a very slow pace. Many projects therefore are unable to start when planned due to land being unavailable when it is needed. In particular, the shortage of land with minimum services for low-cost housing is a major bottleneck to the production of authorized housing. The Government will look into methods of controlling the use of urban land to ensure that sufficient land at reasonable prices is reserved for housing development.

5.153. The adoption of appropriate standards applicable to urban housing and particularly to low-cost housing is still an unresolved issue. The building code currently in use is in some places cumbersome to apply or completely out of date. A study of building by-laws will be undertaken with the aim of enacting new building legislation concerned with low-cost housing.

5.154. The total national housing requirement is estimated at some 290,000 housing units in urban areas. This estimate includes a current shortfall of 140,000 units and a requirement of 30,000 per annum to cater for the expected increase in households between 1978 and 1983. In the rural areas, about 90,000 units will be required annually. In addition, an estimated 125,000 units need to be constructed each year to replace existing houses which are beyond repair. The total estimated requirement in the rural areas during the plan period is, therefore, 1,075,000 housing units.

5.155. During the plan period, the Ministry will expand and strengthen the Housing Department, drawing in more professional and technical staff. The housing programme requires staff with both the technical knowledge and the ability to accept new concepts in housing development particularly for low-income earners. The Ministry will also review the efficiency and effectiveness of the National Housing Corporation in connexion with the implementation of the housing programme in both urban and rural areas. It will also look for ways and means of utilizing the rural village polytechnics in the implementation of the rural housing programme.

## Housing Policies and Objectives

5.156. Many of the objectives of the last plan period have not yet been fulfilled. They will be carried forward in the current plan period. Specifically the Government aims at—

- i. increasing the stock of housing in the urban areas so as to keep pace with the demand caused by urban population growth;
- ii. meeting the housing shortfall that already exists in major urban areas;
- iii. ensuring that the houses produced benefit in particular those families in the lowest income groups whose need for shelter is greatest;
- iv. maintaining a healthy and safe urban environment, free from danger of epidemics and fire;
- v. giving more emphasis to the improvement of rural housing conditions.

## Urban Housing

5.157. It is imperative that the greater part of resources allocated for urban housing should be to produce housing for low-income families. During the past plan period, there was considerable public and private investment in urban housing. However, the acceleration in construction costs have tended to push housing prices steadily beyond low-income families. In early 1973, the price of a self-contained two-roomed dwelling covering a floor area of about 32.8 square metres and of a minimum standard (excluding ceilings, electrical and hot water installation, and internal and external plastering) was about K.Sh. 30,000. A similar building now costs about K.Sh. 44,000 at 1978 prices.

5.158. The monthly repayment of a loan of K.Sh. 39,600 (purchase price less 10 per cent deposit) over a period of 20 years at an interest rate of 6.5 per cent (including insurance, land rent and rates) is about K.Sh. 570. Assuming a median monthly family income of K.Sh. 900 in urban areas and that a family could devote about 25 per cent (K.Sh. 225) of this income to purchase or rent such a minimum standard house, the housing of the standard described could not be afforded at the median income level. It is estimated that approximately 60 per cent of all urban families earn incomes that fall below the median urban income.

5.159. One proven method of reaching the majority of all urban families is through the development of site and service schemes. In these schemes the bulk of the construction work will be organized on an individual or collective self-help basis to keep the costs as low as possible.

5.160. Wherever possible, all site and service schemes will be located near industrial areas to minimize travel costs to and from places of employment. All site and service schemes will also include a spectrum of small scale informal income earning opportunities.

5.161. Site and service schemes are only one way of solving the low-income housing problem. Many people object to the development of these schemes on social and cultural grounds. The Ministry of Housing and Social Services is commissioning a study to evaluate the success and suitability of the site and service option in Kenya. The study will specifically address itself to the possibility and implications of an alternative low-income housing strategy.

5.162. The urban housing programme includes a squatter upgrading programme, specifically geared towards improving the standards of dwelling units in slum areas, whereas additional squatter housing will be discouraged within urban boundaries, it is Government policy that no squatter settlement should be demolished without the provision of alternative accommodation.

5.163. It is appreciated that rent levels should be determined by forces of demand and supply. However, under the circumstances in Kenya where there is a shortage of rental housing, it is not the policy of Government to allow the exploitation of tenants through unjustified evictions and extortionate charges by unscrupulous landlords. The policy is to keep rent levels under review and to impose some measure of rent control. This is to prevent abuses by landlords whilst ensuring that capital invested in housing yields profitable returns. The present Rent Restriction Act has been in operation since 1967. The Ministry of Housing and Social Services will review the effectiveness of this Act, in light of changed social and economic circumstances and propose amendments if required. It is, however, appreciated that in the final analysis the answer to high rents lies in getting more houses built. The rent policy will be geared towards this end.

5.164. Whereas the Government will continue to devote the greater part of its resources to low-cost housing, the need for medium and high cost housing is also recognized. The Government, through the National Housing Corporation, will therefore continue to provide tenant-purchase housing subject to the availability of funds. However, this category of housing will be provided largely by the private sector. The Government's main role will be the stimulation of this sector through the provision of appropriate policies and incentives.

### **Rural Housing**

5.165. The improvement of housing in the rural areas where the majority of the Kenya people live is of prime importance. Most rural housing is still mainly traditional, having been designed to reflect the cultural heritage and built by the use of traditional techniques and local building materials. During the plan period it is the intention that the initiative for the development of rural housing continue to be taken by the rural people themselves. The Government will, however, give much more emphasis to the improvement of rural housing conditions through the following measures:—

- i. Increase the share of development funds for rural housing from the K£1.5 million allocated during the last plan period to K£6.8 million in the current plan period.

- ii. Continue giving loans to individuals in rural areas to assist them in the construction of permanent houses. It is the Government's intention that funds allocated for loans for this type of rural housing benefit as many rural families as possible. The Ministry of Housing and Social Services will, therefore, formulate policy guidelines concerned with the administration, distribution of funds, and maximum ceilings on such loans.
- iii. Provide building type plans based on the needs and traditional requirements of rural families and make such plans available at nominal charges.
- iv. Provide technical, administrative and financial assistance to approved rural housing societies. These societies will enable their members to improve their housing conditions in accordance with their ability to pay for such improvements.
- v. Carry out research on the use of local building materials, techniques and suitable equipment, such as block-making machines, that could be used in the improvement of rural housing.
- vi. Carry out pilot rural housing projects in settlement areas and other small rural centres.
- vii. Increase the technical and administrative capacities of the Ministry, the National Housing Corporation and other organizations geared to the implementation of the housing programme.

#### **Housing Institutions and Research**

##### **Public Sector**

5.166. During the plan period, the Ministry of Housing and Social Services will strengthen and expand its Housing Department. In addition to the areas of responsibility listed below, this Department will provide administrative and technical assistance to the rural housing programme, be responsible for the development and provision of type building plans and techniques for rural house construction. In addition, the technical branch will carry out independent research on housing and housing-related fields.

5.167. Important aspects of the programme of the Housing Department include—

- i. research and data collection on housing needs and demand;
- ii. design standards and costs;
- iii. possible industrial production of low-cost housing;
- iv. environmental factors;
- v. cost reductions in the building and construction industry;
- vi. a study on house building by-laws;
- vii. the possibility of organizing housing agencies, local authorities and co-operatives for aided self-help site and service schemes in conjunction with the Ministry of Co-operative Development;

- viii. stimulation of the private sector;
- ix. the co-ordination of projects which are monitoring and evaluating the implementation of the national housing programme with a view to making it more efficient and effective.

5.168. The Ministry of Housing and Social Services, in conjunction with the Office of the President, will continue to formulate the overall policy on pool housing for Government servants. In line with the general theme of the Plan, the main part of the resource available for pool housing will be channelled towards houses for the junior cadres in the civil service. Government will also encourage civil servants to own their own houses through staff mortgage schemes so as to ease the pressure on pool housing. Schemes will be designed to cater for the needs of civil servants in the lower income brackets. The planning and implementation of institutional housing will remain the responsibility of individual ministries. However, the Ministry of Housing and Social Services will have overall responsibility for policy guidance and the standards applicable to housing.

5.169. The National Housing Corporation is the main Government agency under the Ministry of Housing and Social Services charged with the responsibility of implementing Government housing policy and programme. During this plan period, the Corporation will continue discharging these duties through the following activities:—

- i. Transmission of Ministry of Housing and Social Services housing funds to Local Authorities for the development of low-cost housing in towns and on farms.
- ii. Provision of technical assistance to inadequately staffed Local Authorities. Skills such as designing, tendering and supervising constructions will be provided.
- iii. Development and management of housing estates. This activity will either supplement the capacities of the Local Authorities concerned or meet the demand for housing in areas where Local Authorities are not able to initiate and/or manage housing estates themselves.
- iv. In conjunction with other ministries, the Corporation will support and encourage research work of the Housing Research and Development Unit at the University of Nairobi.
- v. Under the direction of the Development Unit of the Ministry of Housing and Social Services and in close liaison with the Housing Finance Company of Kenya and the Savings and Loans Company of Kenya, the Corporation will undertake to stimulate greater participation by the private sector by developing mortgage housing estates. The mortgage loans would be provided by these private mortgage companies. In this way, the Corporation will act as an estate developer for mortgage housing schemes designed for the middle income groups which are not catered for by the private sector.

## **Housing Research and Development Unit, University of Nairobi**

5.170. The Ministry of Housing and Social Services has been giving considerable support and finance to the housing research programme of the Housing Research and Development Unit at the University of Nairobi. The Unit explores social and technical problems of housing and community development with a view to establishing appropriate standards. It also provides services teaching in subjects concerned with housing and planning. The results achieved so far have proved of significant help in formulating a national housing policy and programme, and it is, therefore, the intention of the Government to continue giving support to this Research Unit. During this plan period, K£124,000 has been set aside for this purpose.

### **The Private Sector**

5.171. Since Independence, there has been considerable expansion in the role of the public sector in the provision of housing and related facilities. However, Government realizes that it does not have adequate resources or the administrative capacity to shoulder the entire responsibility of providing housing throughout the country. It is, therefore, encouraging to note that private investment plays the major role in house building in rural areas and in urban areas, particularly for middle and high income families. Enormous private investment has been made in squatter housing and unplanned urban settlements.

5.172. It is realized that there are problems of high rents, overcrowding, poor housing management and development of illegal squatting, particularly in urban areas. However, it is the Government intention to encourage the private sector and individual initiative to continue playing this significant role in housing development. At the same time Government will safeguard the people and environment from exploitation. It will ensure that proper land use and control is observed and that houses are well maintained and managed. Participation by the private sector in the development of housing will be secured through:—

- i. Injection of long-term finance into the mortgage market by such agencies as the Housing Finance Company of Kenya, Savings and Loans Company of Kenya, East African Building Society, insurance companies, National Social Security Fund, etc.
- ii. Examination of the lending terms of mortgage institutions with a view of finding ways of streamlining them.
- iii. Examination of the possibility of establishing a mortgage reinsurance or underwriting system.
- iv. Evaluation of the legislation governing the Local Authorities and the National Housing Corporation to guarantee part of the loans to citizens for house purchase in order to enable more people to obtain loans with smaller deposits.



- v. Provision of serviced sites on Government land either to individuals or to development organizations, such as housing co-operatives.
- vi. Provision of staff housing by industrial and commercial undertakings.
- vii. Provision of assistance by the National Housing Corporation to housing agencies for the design and construction of their houses.
- viii. The formation of housing co-operative societies.

### **Co-operative and Industrial Housing**

5.173. A significant feature of urban housing development is the substantial amount of private resources that go into the production of unauthorized low-cost housing. Demolition of such structures only reduces the stock of low-income housing. The housing problem is aggravated and considerable private resources are wasted. The Government has decided to find an alternative way of tapping these private resources. These resources will be channelled into authorized development, and accordingly the development of housing co-operatives will be encouraged. Legal title will be given to such co-operatives allowing them to collect money for loan funds designed to benefit members who want to develop their own houses.

5.174. Lack of housing for workers can be a serious impediment to setting up new industries and expanding existing ones. It is the policy of the Government to encourage major industrial enterprises in urban areas to include workers' housing as part of their total investment package. The Government will look into the appropriate incentives to encourage private enterprises to invest in workers' housing.

### **Building Materials and the Construction Industry**

5.175. An efficient and effective development of a building materials and construction industry is a prerequisite for an efficient implementation of the housing programme. In turn, the efficiency with which the housing programme can be implemented will have a positive impact on the development of the building materials and construction industry. With this inter-dependency in mind, the Ministry of Housing and Social Services in conjunction with the Housing Research and Development Unit at the University and other Government agencies will carry out a manpower study of all occupations required for an efficient implementation of the housing programme. Use and development of local contractors, particularly existing small building contractors, will be given adequate consideration.

5.176. Emphasis will be put on the exploitation of local building materials. Towards this end, the Ministry of Housing and Social Services will set up a fully-manned technical division that will carry out independent research and

experimentation on the use of local building materials, and on designs based on traditional techniques of building, etc. The technical division of the Ministry will work closely with the National Housing Corporation, the Housing Research and Development Unit and other research bodies and will ensure that the results from such research and experimentation are made available to others in the industry, particularly to Local Authorities.

### **Housing Programme**

5.177. For the plan period, the Government intends to spend a total of at least K£53.3 million on housing development through the Ministry of Housing and Social Services (*see* Table 5.28). The remaining K£12.52 million will be spent through other ministries for institutional housing. Local Authorities will be expected to spend K£7.5 million from their own sources. The remaining K£58.6 million will be spent by the private sector. It is expected that a total of about 74,000 housing units will be developed during the plan period excluding the traditional and informal sector development (*see* Tables 5.28, 5.29 and 5.30).

5.178. The present housing programme includes a substantial amount of external aid. It is the intention to continue with external assistance in the field of housing and at the same time to ensure that adequate evaluation of its effectiveness is carried out regularly.

5.179. During the implementation of the housing programme of the previous Development Plan, considerable problems were experienced as a result of which in many cases it was difficult to achieve both the planned financial and physical targets. Lack of suitable land for housing and slowness in land acquisition, lack of physical development planning, lack of adequate water supply and cumbersome approving procedures in Local Authorities were the principal contributing factors. There were also other administrative problems which arose during the planning and construction periods. In the course of the solution of these problems, considerable experience was gained which will provide a useful reference during the implementation of the current plan and in the future. It is the intention of the Ministry of Housing and Social Services to increase efficiency and effectiveness in programme implementation through:—

- i. Establishing new administrative procedures to enhance co-ordination among departments and institutions involved in housing development.
- ii. Formulating new ways and means of improving the existing projects and programmes, planning and management techniques.
- iii. Ensuring that there is adequate monitoring and evaluation of the effectiveness of programmes financed by Government funds.

PLANNED ALLOCATION OF DEVELOPMENT FUNDS BY PUBLIC SECTORS IN HOUSING, 1978/79—1982/83

1978/79 PRICES

Table 5.28

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
National Housing Corporation: Rural Housing ..	500-0	1,000-0	1,000-0	1,700-0	2,600-0	6,800-0
Urban Housing ..	2,925-0	2,712-0	2,016-0	2,663-0	3,836-0	14,152-0
Central Government Staff Housing: Nairobi Airport Provincial Pool	—	50-0	75-0	100-0	150-0	375-0
Housing ..	300-8	350-0	400-0	550-0	700-0	2,300-8
Staff Mortgage Housing ..	—	400-0	400-0	750-0	900-0	2,450-0
Kileleshwa Development ..	720-0	963-0	1,000-0	1,000-0	1,000-0	4,683-0
Loans to Savings and Loans (K) Limited for Medium Cost Housing ..	1,175-0	—	—	—	—	1,175-0
Loans to HFCK for Medium and High Cost Housing	—	100-0	125-0	600-0	800-0	1,625-0
Grants to HRDU ..	17-0	23-0	25-0	28-0	31-0	124-0
Forward Planning Studies ..	300-0	600-0	543-0	600-0	700-0	2,743-0
Second Urban Project: Nairobi ..	1,021-0	1,771-0	2,900-0	2,900-0	1,009-0	9,601-0
Mombasa ..	536-0	1,154-0	880-0	377-0	118-0	3,065-0
Kisumu ..	558-0	1,640-0	1,435-0	478-0	94-0	4,205-0
TOTAL .. .. .	8,052-8	10,763-0	10,799-0	11,746-0	11,938-0	53,298-8
Institutional Housing .. .. .	2,200-0	2,380-0	2,470-0	2,670-0	2,800-0	12,520-0
TOTAL CENTRAL GOVERNMENT .. .. .	10,252-8	13,143-0	13,269-0	14,416-0	14,738-0	65,818-8
Local Authorities from Income; other Local Sources and Foreign Aid .. .. .	1,242-0	1,360-0	1,482-0	1,630-0	1,793-0	7,507-0
TOTAL PUBLIC SECTOR .. .. .	11,494-8	14,503-0	14,751-0	16,046-0	16,531-0	73,325-8
Private Sector .. .. .	10,200-0	10,950-0	11,700-0	12,500-0	13,250-0	58,600-0
GRAND TOTAL .. .. .	21,694-8	25,453-0	26,451-0	28,546-0	29,781-0	131,925-8

**MINISTRY OF HOUSING AND SOCIAL SERVICES**  
**PLANNED DISTRIBUTION OF HOUSING DEVELOPMENT**  
**VOTE IN MUNICIPALITIES AND TOWNS**

Table 5.29

	Completion of those started during 1974-78 Period	TO START IN 1979-83		Total Number of Units	Total Funds Allocated K.£'000
		Identified	New Projects		
Nairobi ..	6,240	16,071	—	22,311	12,300.0
Mombasa ..	—	3,440	3,151	6,591	5,861.8
Kisumu ..	345	6,555	—	6,900	3,686.1
Eldoret ..	—	580	565	1,145	1,078.2
Thika ..	407	—	612	1,019	831.0
Nakuru ..	97	206	466	769	735.5
Kakamega ..	372	—	347	719	546.3
Embu ..	227	—	398	625	521.6
Meru ..	—	160	386	546	502.3
Kitale ..	—	—	460	460	465.5
Nyeri ..	250	63	246	559	415.5
<b>TOTAL MUNICIPALITIES ..</b>	<b>7,938</b>	<b>27,075</b>	<b>6,631</b>	<b>41,644</b>	<b>26,943.8</b>
<b>OTHER TOWNS ..</b>	<b>948</b>	<b>1,944</b>	<b>2,790</b>	<b>5,682</b>	<b>4,079.2</b>
<b>GRAND TOTAL ..</b>	<b>8,886</b>	<b>29,019</b>	<b>9,421</b>	<b>47,326</b>	<b>31,023.0</b>

A weighted average cost figure of K.£1,150 per unit is used for the Cost Estimates.

The total housing units quoted for each town will be subject to annual review by the Ministry of Housing and Social Services.

PLANNED PHYSICAL OUTPUT OF HOUSING DURING PLAN PERIOD

Table 5.30

	Serviced Plots	Rental	Upgrading	Mortgages and Tenant	Total
N.H.C. Urban Housing ..	11,532	5,800	—	4,000	21,332
Rural Housing ..	—	—	—	6,800	6,800
Central Government—					
Second Urban Project ..	16,000	—	10,000	—	26,000
Provincial Pool Housing ..	—	530	—	—	530
Nairobi Staff Housing ..	—	1,130	—	843	1,973
Institutional Staff Housing ..	—	2,600	—	—	2,600
Local Authority Housing ..	500	2,968	—	—	3,468
Private Sector—					
Private Housing Building Activities .. .. .	—	4,843	—	7,264	12,107
<b>TOTAL .. .. .</b>	<b>28,032</b>	<b>17,871</b>	<b>10,000</b>	<b>18,907</b>	<b>74,810</b>

These figures do not include the traditional sector.

House-building activities (i.e. informal sector is excluded).

### SOCIAL DEVELOPMENT

5.180. In Chapter 2 the social problems associated with economic development were outlined. During this plan period, the Ministry of Housing and Social Services, together with voluntary and other non-Governmental organizations, will direct attention to these problems. (See Tables 5.31, 5.32 and 5.33 for projected allocations of development and recurrent expenditures.) First, through its training programmes, the Ministry will impart technical skills among the youth and thereby facilitate self-employment. Second, through its extension services, the Ministry will help families to know better ways of spending their incomes. For example, in conjunction with the Ministry of Information and Broadcasting, it will establish guidelines on the reliability of advertisements. Third, through its support of the *Harambee* movement, the Ministry will assist in channelling private resources to investments which meet basic needs, like water, health, and educational facilities. Finally, through its family life programmes, especially those for family planning, the Ministry will assist in enhancing family life.

5.181. While these programmes will be intended for all Kenyans, priority will be given to the target groups indicated in Chapter 2. These include the landless, the unemployed, the urban and the rural poor and the handicapped. Programmes to assist these groups include vocational rehabilitation centres, social welfare programmes, family life training centres, and other similar programmes to help the people help themselves. These programmes are elaborated below. The allocation of funds for development expenditure is shown in Table 5.31.

PLANNED DEVELOPMENT OF SOCIAL SERVICES, 1978/79—1982/83

Table 5.31

(K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total 1978-83
Department of Social Services—						
Community Development .. ..	357	392	432	474	522	2,177
Adult Education .. ..	54	249	215	122	289	929
Social Welfare .. ..	20	22	24	27	29	122
Youth Development and Training .. ..	1,007	1,426	1,600	1,616	1,817	7,466
Vocational Rehabilitation .. ..	113	124	135	150	165	687
Sports .. ..	25	28	30	33	36	152
IRUDU .. ..	62	68	75	82	91	378
Culture .. ..	—	70	72	100	115	357
<b>TOTAL SOCIAL SER- VICES .. ..</b>	<b>1,638</b>	<b>2,379</b>	<b>2,583</b>	<b>2,604</b>	<b>3,064</b>	<b>12,268</b>

**Social Welfare Programmes**

5.182. The majority of the social welfare programmes are designed to assist disadvantaged groups, including the aged, helpless children, the sick, the infirm, the physically and mentally handicapped, and those whose difficulties stem from economic and social impediments. The Government's social welfare programmes include day-care centres, pre-school feeding programmes, adoption and foster care programmes, and public assistance programmes.

5.183. In 1978, there were 5,000 day-care centres catering for some 300,000 pre-school age children. These centres assist young children to develop socially, mentally, emotionally, physically and culturally. Some nursery education is introduced at this level. They also enable mother to engage in productive work outside the home. During the plan period, the day-care centre programme will be strengthened through extended courses for teachers, the construction of six additional national training centres, and the training of additional trainers and supervisors. The target is to have 1,830 qualified teachers by the end of 1983. Further, 400 model day-care centres will be established throughout the country for demonstration purposes. A new Division of Day-Care Centres programme will be set up within the Department of Social Services. This will include an inspectorate, curriculum development and educational materials production for the centres. County councils will continue to play a major role in the operation of the centres by employing and paying teachers.

5.184. Pre-school feeding programmes will be expanded. In 1978, this programme covered eight districts in remote areas: Mandera, Wajir, and Garissa (North-Eastern Province), Isiolo and Marsabit (Eastern Province), Tana River and Lamu (Coast Province) and Turkana (Rift Valley Province). During the plan period, approximately 15,000 children will be catered for and all remote districts will be covered. Co-ordination with other nutrition-oriented programmes will be promoted.

5.185. The adoption and foster care services will also be expanded and improved during the plan period through increased grants to the voluntary organizations which are involved in these programmes. Where necessary, the Department of Social Services will provide these services directly to those who need them.

5.186. Finally, the public assistance (relief of distress) programme which aims to meet the immediate needs of those socially and economically disadvantaged, will be expanded. Where possible, the emphasis will be on social and economic rehabilitation rather than on palliative doles in cash or kind. In this way, the programme will promote self-reliance through involvement in viable economic activities.

5.187. The year 1979 has been declared International Year of the Child (IYC) by the United Nations. Particular attention will be given to programmes and services rendered to children, especially the disadvantaged. Research will be carried out on the needs of these children so as to improve the services provided to them. Existing legislation will be reviewed, and if need be, new legislation will be introduced.

5.188. In addition to the Government's social welfare programmes, there are the activities of the many voluntary organizations which are co-ordinated by the Kenya National Council of Social Service. The Council's main tasks include—

- i. co-ordination of the efforts of voluntary organizations in the fields of social welfare;
- ii. advising the Government in the formation of social welfare policies;
- iii. linking the Government activities with those of the voluntary agencies in social welfare;
- iv. advising the Government on problems of voluntary agencies in social welfare work;
- v. advising the Government on allocation of grants-in-aid to the voluntary and charitable organizations.

### **Vocational Rehabilitation**

5.189. The purpose of the Government's vocational rehabilitation programme is to restore those persons suffering from physical or mental impairment to useful employment and economic independence. It is a continuous and co-ordinated process which involves assessment, training/retraining and settlement/resettlement.

5.190. The long-term objective of the vocational rehabilitation programmes is to reach all disabled persons. However, financial resources will allow only 7,000 cases to be handled during the plan period. In addition, a number of

disabled persons will be absorbed into programmes for the able-bodied, e.g. teacher training colleges, village polytechnics and direct employment, mainly general clerical and subordinate staff positions. Efforts will be made to train these persons in less competitive job areas.

5.191. During the plan period, the existing facilities for disabled persons will be expanded at Kisii, Kakamega, Murang'a, Bura, Embu, and the industrial rehabilitation centre and the orthopaedic workshop in Nairobi. A new rehabilitation centre will be constructed at Garissa to serve the North-Eastern Province. Production workshops, co-operatives and rural settlement programmes will be established at these vocational rehabilitation centres for the purpose of providing more resettlement and placement opportunities, particularly in the rural areas where job opportunities are particularly scarce for the disabled. There are 10 centres at present. During the plan period, three new centres will be established at Machakos, Kitale and Busia. A programme for training special teachers for the disabled will be expanded.

5.192. Other activities during the plan period include construction of "half-way" (residential) houses in Nairobi, Mombasa and Kisumu to provide temporary accommodation for disabled persons when they first obtain employment in urban areas. The Government will make funds available to subsidize the cost of orthopaedic aids to disabled persons and will provide loans to disabled people who settle on their own. Activities will also include participation in the International Year of the Disabled, grant-in-aid to approved vocational rehabilitation projects, legislation and review of the National Vocational Rehabilitation Committee, and a pilot project for the rehabilitation of alcoholics. A comprehensive survey of the disabled will be conducted to obtain more precise information on the numbers and specific needs.

### **Programmes Embracing the Whole Population**

5.193. The programmes discussed above cater for specific target groups. In addition, the Ministry conducts programmes designed to cover the entire population. The objective of these social development programmes is to improve the quality of life by raising social and educational levels and by uniting the various segments of society culturally and spiritually. The major programmes in these areas are described below.

### **Community Development**

5.194. Community development programmes mobilize people to co-operate in nation-building activities which benefit individuals and families in the local communities as well as the nation as a whole. The programmes include *Harambee* self-help projects, family life training centres, craft development, women's programmes and family planning activities.



5.195. *Harambee* has been a major strategy for accelerating rural development since Independence. The estimated value of *Harambee* projects during the previous plan period is K£28.0 million. During this plan period, the value is estimated at K£30.0 million or about 10 per cent of the total national development expenditure. At the village level, *Harambee* projects dominate development and will continue to do so. In recent years there has been a trend towards projects meeting basic needs such as water supplies and away from purely social projects. This trend will be encouraged by the Ministry in its grants to *Harambee* projects and its training of self-help leaders. Local projects will be registered in each district to prevent overlapping and waste of scarce resources. A monitoring unit within the Ministry's Community Development Division will be established to co-ordinate data on *Harambee* matters. In order to guard against misappropriation of self-help funds, a new audit unit will be set up to handle auditing matters.

5.196. Malnutrition has been identified as one of the serious problems facing the disadvantaged groups in Kenya. In order to curb it particularly among the children, Family Life Training Centres were started in 1974. Eight Family Life Centres have been established and some 6,400 mothers have been trained and 12,800 children rehabilitated. During the plan period, the target is to establish 15 additional centres. Apart from catering for mothers with malnourished children, the centres will run special courses on family life education for husbands, wives and youth, local women's groups, and leadership groups. Each centre will have an appropriate technology unit, extensions of the Karen Centre for Research and Training, for dissemination of simple technical knowledge. It is estimated that about 9,000 families and 27,000 children will be reached each year during the five-year plan period.

5.197. A small "task force" to carry out any remaining work connected with the Special Rural Development Programme will be retained within the Community Development Division. Its main function will be to follow up experimentations and to co-ordinate communication channels of all departmental programmes. It will work closely with the Rural Services Training and Co-ordination Unit of the Ministry of Economic Planning and Community Affairs.

5.198. The setting up of the Division of Women's Affairs in 1975 within the Ministry of Housing and Social Services was a recognition by the Government of the role played by women in the social, economic and cultural development of the country. The Division formulates relevant programmes to meet the needs of women and co-ordinates all the women's programmes in the country. It is estimated that there are more than 5,000 women's groups in Kenya having more than 250,000 members. Most of the groups started on a self-help basis and the majority of them are engaged in income-generating,

cultural and welfare activities. During the plan period, women will be encouraged to engage in agricultural, small industrial and small commercial businesses in order to improve their income-earning opportunities. To this end, the Government will allocate funds to enable the Department of Social Services provide inputs into approved women group projects. Resources directed to village technology programmes will assist in improving or introducing simple technologies for the preparation and storage of food including solar driers and cookers, oil pressers, storage cribs, simple grinders and shellers. This will be done in collaboration with the Centre for Research and Training at Karen and local village polytechnics.

5.199. Successful women's programmes require relevant training. A country-wide programme for training in leadership, craft development and other special skills was launched in 1975, and over 280 courses have been organized. During the plan period, this training will expand from rural women's groups to include women in urban areas.

### **Adult and Continuing Education**

5.200. The main responsibility for adult education is vested in the Ministry of Housing and Social Services (*see* Chapter 10). The various programmes cover the whole population with special emphasis on illiterate groups both in the rural and urban areas. During the plan period the eradication of illiteracy among the established 4,000,000 illiterate adults in Kenya will be given top priority. By the end of the plan period the majority should have learnt how to read and write.

5.201. *The Mass Literacy Programme.*—This will be a six months' work oriented literacy course to teach illiterates how to read and write. The main objective is to prepare the students for the more development work-oriented continuing education and training programme of the Government and the private sector. Enrolment in literacy classes will be accelerated from the present 35,000 to 200,000 in 1979, rising gradually to one million by the end of the plan period.

5.202. *The Continuing Education Programme* is a literacy post-primary school education programme for those wishing to pass public examinations at the CPE and higher levels. It is also intended for school dropouts or students who have failed the Certificate of Primary Education but who wish to complete their primary level education. The number of classes will be increased to match the increased enrolment in literacy classes. Distance teaching through correspondence system of instruction will be intensified to benefit a greater number of students (*see* Education section).

5.203. *The Vocational In-service Programme* is designed to improve the occupational skills of workers. Initially the programme will be conducted mainly in urban areas where efforts will be made to set up classes within commercial and industrial establishments.

5.204. The radio will be used more extensively in literacy programmes for mobilization of illiterate masses and literacy teachers. More instructional and training programmes for post-literacy groups will also be mounted on radio and to a lesser extent the television to reach a wider section of the rural communities and, where practical, radio sets will be provided as part of educational material.

5.205. The rural press is destined to play a pivotal role in literacy work to provide educationally simple, interesting and reasonably priced reading materials for the neo-literate. Experience already gained in a pilot project in Murang'a District of a four-page monthly vernacular newspaper confirms that a rural newspaper is by far the most effective method of maintaining and improving literacy and numeracy skills. It is proposed to launch a rural newspaper project for each province during the plan period. The local dailies of Kiswahili and vernacular will also be used to provide lessons for the literate.

5.206. To achieve effective co-ordination of literacy and continuing education programme the District and Provincial Adult Education Committees established under the Board of Adult Education in each of the districts will be strengthened to provide people's representation in the planning and execution of the programme in conjunction with the District Development Committees.

5.207. *Kiswahili*.—Training in Kiswahili as the national medium of communication will be stepped up by integrating Kiswahili in all literacy and continuing education programmes. However, instruction during the initial literacy course of six months will be provided in the local language to avoid overloading the programme.

5.208. To enable the department to achieve its objectives, a national resource, documentation, production and training centre will be established to be known as the National Adult Education Centre. This centre will enable the department to launch support multi-media programmes throughout the country and to provide curriculum and resource support to all rural training institutions for adults.

### **Youth Development**

5.209. The Youth Development Division of the Department of Social Services is concerned with the role of young persons in the development of the country. It is particularly interested in young people between the ages of 15 to 20 years who are school-leavers or who have never been to school. It is estimated that these persons number about 1.3 millions and that they are increasing very rapidly. The Sessional Paper on Youth and Development is the basis for extending the youth programme, with the objective of ensuring the maximum contribution by Kenya's youth to the development of the country. The following are the programmes of the Youth Development Division.

5.210. The growth of self-employment and the setting up of small-scale industries in the rural areas will be encouraged. The village polytechnic programme has made substantial progress during the two previous plan periods. In 1978 there were 220 village polytechnics (craft centres) with about 22,000 trainees and 1,200 instructors. During this plan period, the number of village polytechnics will increase to 370 and the enrolment will rise to 40,000. The young persons who graduate from these village polytechnics will be assisted to set up work groups or co-operatives. Already several work groups and co-operatives are playing a major role in rural construction works, notably rural housing. Self-employment and small-scale industries in rural areas are also encouraged.

5.211. A village technology unit (Centre for Research and Training) has been established at Karen for developing and testing appropriate technological devices which would save the time and labour of rural people. The unit has successfully developed such devices as water jars, solar driers (for vegetable preservation), groundnut and maize shellers, etc.

5.212. The Centre for Research and Training in Karen will continue its efforts to ensure that training programmes offered to youth are relevant and useful. Training activities will focus on Government staff (e.g. personnel to supervise district youth programmes), the staff (managers, instructors, etc.) of training programmes. The fields of research cover agricultural education, occupational surveys, appropriate technology, programmes for women and girls, and curriculum development.

5.213. Grants-in-aid to voluntary agencies will be distributed in order to enable the voluntary organizations to innovate and experiment with new ideas and programmes that can assist young people. During the plan period, about 100 youth programmes will receive assistance through grants to voluntary agencies.

5.214. Youth is a concern of many ministries and private organizations. The National Co-ordinating Committee on Youth and the National Youth Development Committee will be strengthened during the plan period to improve their effectiveness in co-ordinating youth programmes throughout the nation.

### **Cultural Programmes**

5.215. In Kenya, the promotion of culture is shared by the Government, private institutions and individuals. The Division of Culture in the Department of Social Services is charged with the promotion of drama, dance, music, languages and creative art. Its activities during the plan period will include the following:—

- i. Reactivation of the National Drama School, including recruitment of qualified theatre artists, increased enrolment and expansion of courses offered.

- ii. Promotion of African dance choreography and African music through various projects to be carried out in collaboration with the University, the Voice of Kenya Documentary Unit, and the Bomas of Kenya.
- iii. Establishment of drama, music and dance clubs in every municipality.
- iv. Documentation of oral history, covering the recent immigration patterns and events in the various tribes as narrated by people of 70 years of age and above.
- v. Documentation of the many rituals of the various tribes in Kenya.
- vi. Systematic documentation of traditional methods of food preparation, medicine, agriculture, hunting, and fishing, and other aspects of traditional life.
- vii. Documentation of the religious values, morals and beliefs systems of all the tribes in Kenya.
- viii. Systematic recording of poems and stories for children and adults, reflecting popular beliefs and histories of the various tribes.

5.216. In order to accomplish the above objectives a National Council of Arts and Culture will be established to co-ordinate cultural matters throughout the country. The Council will be responsible for the distribution of grants to cultural organizations, and will sponsor cultural festivals and research on cultural matters.

### **Sports**

5.217. Sports form an important part of national development. They assist in channelling juvenile energies into constructive activities and in uniting people from all walks of life. Kenya's sportsmen and women have put this country on the world map. During the plan period, the following objectives will govern sports performance development—

- i. promotion of sports activities, particularly in the rural areas and within urban low-income groups;
- ii. provision of adequate sporting facilities;
- iii. provision of effective training programmes for officials, sportsmen and women;
- iv. proper management of existing sports organizations; and
- v. establishment of committees for developing new games.

5.218. During the plan period, the National Sports Council will be strengthened both financially and in legal powers. Construction of provincial and district stadia will be undertaken at Garissa, Machakos, Wundanyi, Kiambu, Kirinyaga, Kapenguria and Busia. Existing stadia will also be improved. A national sports complex will be built, and funds have been allocated for the establishment of training centres and the provision of modern sports equipment.

## **Handicrafts**

5.219. About 500,000 people are estimated to be engaged in craft production and marketing, most of them on a full-time basis. It is a sector of increasing importance, producing about K£250,000 a year in foreign exchange, and offering possibilities of substantial growth in non-agricultural rural employment. During the plan period, co-ordinating body of all agencies involved in handicraft will be set up to ensure co-ordinated craft production. It will also accelerate the development of expertise in design, production methods and the marketing of goods.

## **National Library Services**

5.220. The Kenya National Library Services (KNLS) will continue to support education and literacy efforts of the Government through library centres and mobile library services particularly in the rural areas. During the previous plan period, library centres were opened in Nyeri, Nakuru, Mombasa, Kakamega, and Eldoret and two mobile libraries operated from Nyeri and Eldoret. During this plan period, district libraries will be opened at Malindi, Homa Bay, Kisii, Thika, Meru, Kericho, Machakos, Murang'a, Bungoma, and Wundanyi. Three mobile libraries will operate from Mombasa, Nakuru and Kisumu. Development funds totalling K£1,774,000 have been allocated for the KNLS during the plan period.

## **The National Archives**

5.221. The construction of the National Archives Headquarters will take place during this plan period. Other programmes involve the launching of a records management programme to appraise the public records that have accumulated in Government offices since Independence embarking on a programme of acquiring and preserving massive records of various political and social organizations in Kenya during colonial and the post-Independence period; establishing a national art gallery in Nairobi; the retrieval of migrated archives relevant to the Nation's history from overseas; the improvement of the Archives' administration, micrographies and conservation of records; the maintenance and improvement of national documentation and information services; and the establishment of a viable plan for audio-visual archives. Allocation of development funds is shown in Table 5.32.

## **National Museums**

5.222. The National Museums provide facilities and services essential for research and education including liaison with other cultural and scientific organizations in the Republic.

5.223. During the plan period, the following programmes will be pursued--

- i. development of regional museums with assistance from the District Development Committees;
- ii. the establishment of a single Department of Zoology in order to facilitate efficient overall expansion of national research programmes;

- iii. the establishment and construction of an Institute of Private Research to form an integral part of the International Programme on Tropical Diseases and Training;
- iv. the establishment of a marine institute to perform marine research related to the tropical western Indian Ocean; and
- v. expansion of the Snake Park.

### Antiquities

5.224. The term "antiquities" includes architectural monuments (ancient or recent), sites (archaeological, historical, palaeontological or natural), and relics. The main objective of the Division of Antiquities, in the Ministry of Housing and Social Services, is to preserve for posterity valuable antiquities through "in site" preservation and conservation of sites and monuments and by controlling the movements of artifacts both within and outside the country. The funds allocated for museums and antiquities total K£2,820,000 for the plan period (see Table 5.32).

### Social Indicators

5.225. During the plan period, the Ministry will co-operate with the Central Bureau of Statistics of the Ministry of Economic Planning and Community Affairs in extending its work on social indicators necessary to identify the extent, directions and nature of social change.

#### MINISTRY OF HOUSING AND SOCIAL SERVICES DEVELOPMENT EXPENDITURE, 1978/79—1982/83

Table 5.32 K£'000

	1978/79	1979/80	1980/81	1981/82	1982/83	Total 1978-83
Housing Development ..	8,053	10,763	10,799	11,746	11,938	53,299
Social Services .. .. .	1,638	2,379	2,583	2,604	3,064	12,268
National Library Services ..	240	305	345	420	464	1,774
Archives .. .. .	103	376	406	770	1,214	2,869
Museums and Historic Monu- ments .. .. .	202	593	905	800	320	2,820
<b>TOTAL DEVELOPMENT</b>	<b>10,236</b>	<b>14,416</b>	<b>15,038</b>	<b>16,340</b>	<b>17,000</b>	<b>73,030</b>

#### MINISTRY OF HOUSING AND SOCIAL SERVICES RECURRENT EXPENDITURE, 1978/79—1982/83

Table 5.33 K£'000

	1978/79	1979/80	1980/81	1981/82	1982/83	Total 1978-83
General Administration and Planning .. .. .	276	292	319	348	381	1,616
Social Services .. .. .	2,103	2,283	2,505	2,735	2,995	12,621
National Library Services ..	291	319	351	387	425	1,773
Archives, Museums and Historic Monuments .. .. .	482	527	571	628	688	2,896
<b>TOTAL RECURRENT ..</b>	<b>3,152</b>	<b>3,421</b>	<b>3,746</b>	<b>4,098</b>	<b>4,489</b>	<b>18,906</b>

## WATER DEVELOPMENT

5.226. The pattern of development of water supplies is determined very much by the great geographical variation in Kenya. Only about 12 per cent of the land receives more than 850 mm. of rainfall annually and is classified as high potential. Area of land receiving about 650 mm. of rainfall annually is classified as low potential and comprises about 74 per cent of the total land area. The small portion of land not included in this classification is regarded as having no agricultural potential. Even though there is wide variation in rainfall throughout the country and wide variation in rainfall from year to year, the major factor affecting Kenya's water development is adequate storage and distribution, not the total quantity of actual water available. The existing potential for supplying water for human consumption and livestock needs exceeds by a considerable amount the current demand for water; and with appropriate investment in storage works, and water conservation measures, Kenya should be able to cope with a much larger population. In addition to developing water supplies for both human and livestock consumption in rural and small urban areas, water conservation will receive higher priority as a development activity.

### Water Data Availability and Consumption

5.227. The data on water availability are concerned with water from two sources, surface and ground water. The supply of raw water from surface sources is determined mainly by annual rainfall and resultant runoff, Table 5.34 presents data on these two factors for the major drainage areas in Kenya.

MEAN ANNUAL RAINFALL AND RUNOFF BY MAJOR DRAINAGE BASINS

Table 5.34

Drainage Basin	Surface Area Sq. Km.	Mean Annual Rainfall	Mean Annual Runoff mm.
Lake Victoria .. .. .	46,024	1,282	180
Athi—Tsavo—Sabaki .. .. .	66,519	593	35
Rift Valley .. .. .	124,725	519	30
Tana River Area .. .. .	126,828	566	38
Ewaso—Nyiro Area .. .. .	209,230	431	8

5.228. One measure of the coverage achieved by improved water supplies in the country is population served and the relevant data are provided at Table 5.35. A total of 2,675,000 of the urban population and 1,476,000 of the rural population is currently served by an improved water supply.



POPULATION SERVED BY AN IMPROVED WATER SUPPLY (1977 FIGURES)

Table 5.35

Province	Urban Population	Rural Population	Total Population
Nairobi .. .. .	877,000	—	877,000
Mombasa (and Coast) .. .. .	680,000	200,000	880,000
Rift Valley .. .. .	315,000	250,000	565,000
Nyanza .. .. .	270,000	240,000	510,000
Eastern .. .. .	195,000	240,000	435,000
Central .. .. .	113,000	320,000	433,000
Western .. .. .	210,000	220,000	430,000
North-Eastern .. .. .	15,000	6,000	21,000
<b>TOTAL .. .. .</b>	<b>2,675,000</b>	<b>1,476,000</b>	<b>4,151,000</b>

5.229. Since 1970 it has been the Government's intention to bring to the entire population the benefits of a safe water supply sufficient to their requirements for livestock and domestic consumption by the year 2000. The pace of spending on water development programmes increased remarkably during the previous plan period. The Government will continue to lay much emphasis on the attainment of this long-term objective. In doing so, a number of factors will, however, need to be borne in mind. Water development must compete in scarce resources at a time when other very pressing needs are emerging and making their claim. In the very recent past cost increases for inputs to the water development programme have outstripped the rate of increase in resources available for water development. As development proceeds and implementation rates are slowed by the need to tackle larger and more complex schemes, and with the shortage of technical manpower, more time may be required to achieve the desired spread of water schemes throughout the country. With more and more schemes becoming operational, resources must be diverted into maintaining existing schemes. Many of the specific targets, programmes and projects described in this chapter are derived in the light of these factors. During 1978/79, the first financial year of the fourth Plan, phase one of the National Master Water Plan will be completed. Its completion will offer an excellent opportunity to review the long-term objectives for water development in Kenya.

### Pricing of Water Services

5.230. The policy of the Government is that everybody will pay for water service. But since water is a basic need, its pricing will be such that the water rates would cover direct operation and maintenance costs for the rural water supply schemes. Moreover, new tariffs will be introduced during the plan period. The new tariffs will take into account ability to pay of the water

users in different parts of the country. With regard to communal water supplies, water kiosks will be introduced to facilitate collection of water rates. Finally, provision of water, both in the urban and rural areas, will be viewed as a provision of service and not as a source of revenue.

### **Programme Targets**

5.231. Development activities in the water sector can be classified according to whether they are primarily concerned with the water supply needs of rural dwellers or primarily aimed at expanding water supplies in urban places. Within these two broad classes, and taking into account the resource constraint, programme targets have been set for the 1979-1983 plan period. These are:—

- i. To expand the coverage of improved water supplies to include more people residing in the rural areas thereby increasing the total rural population served to over 4 million people by 1983.
- ii. To increase the number of people served by an improved water supply in urban places by 1,360,000 so that the total urban population served will be approximately 3,945,000 people by 1983.
- iii. To achieve a better balance between the sewerage systems and the water supplies in some of the larger urban places.
- iv. To complete Stage I of the National Master Water Plan concerned with data collection, and then to move into Stage II concerned with the master plan for the national use of water resources over the next thirty years or so.
- v. To increase substantially the effort applied to water conservation over the plan period in recognition of the increasing importance of conserving as much as possible of the nation's water resources and relate it to the soil conservation programme.
- vi. To expand activities in the areas of flood protection and drainage of swamps and valley floors as part of the effort to increase the quantity of agriculturally productive land in the country.
- vii. To expand the use of water for minor irrigation activity throughout the country.
- viii. To upgrade substantially the role of the private sector water development activity and to integrate this effort more completely with planned public sector activities and self-help activities.

### **Rural Water Supplies**

5.232. Selection of rural water supplies schemes is done by the District Development Committees. This procedure will be continued during the plan period. Towards the middle of the plan period it is expected that the shift in emphasis called for in the basic needs approach will begin to affect the selection process for schemes in the rural water supply programme. Realization of the potential benefits of improved water supplies will be enhanced by

the activities of the District Development Committee in scheduling complementary investments and the education programme to be promoted through various ministries. By the end of the plan period, it is planned that a total of at least 100 new schemes will have become operational. Furthermore, in 1982 design activity for the next phase of the rural water supply programme will commence, with construction getting underway during the second half of 1983. To promote a more active involvement by local communities in the development of new water schemes and also as an attempt to spread public investments more widely, a new approach will be introduced to bring about closer integration of public rural water supply development and the self-help effort.

5.233. *Settlement Water Supplies.*—The installation of improved water supplies for settlement schemes, in line with the provision of water in all rural areas, will be continued during the plan period. The responsibility for policy and development of water in settlement areas falls on the Ministry of Water Development.

5.234. *Self-Help Water Supplies.*—Continuing on from the last plan, the provision of water supplies through self-help efforts will be fully integrated into the overall Government effort to improve water supplies throughout the rural areas. With the injection of K£3,000,000-worth of pipes, pumps and consultancy services by one interested donor, the scope of the self-help programme will be expanded considerably during this plan period. This programme is over and above the Government water supply projects in the country. This aid alone will be spread across 120 schemes in the country. Schemes included in the self-help programme are jointly financed by the local community and the Government. An indication of the importance attached to self-help by the Government is the recent establishment of a self-help section with the responsibility of co-ordinating all the Government's efforts in developing, operating and maintaining self-help water schemes throughout the country.

5.235. *Rehabilitation.*—During the previous Plan, the county council water supplies programme was directed towards the eventual take-over and rehabilitation of some 800 water schemes by the Ministry of Water Development. Of this number it was estimated that approximately 600 were not functioning properly. In addition to these schemes, a significant number of other water schemes in the country have proved to be inadequate for a number of reasons including insufficient resources for proper operation and maintenance and design features that were poorly suited to the location of the scheme. The county council water schemes not functioning properly will be rehabilitated as part of the Ministry of Water Development's rehabilitation programme. Ultimately, it is planned that the programme will spread across the country to encompass all schemes in need of rehabilitation. Over the plan period, development expenditure on rehabilitation programmes will increase substantially to about K£6.8 million by 1983.

5.236. *Livestock Water Supplies.*—This programme is an important input to the overall comprehensive development of livestock production in the range herding and ranching areas of the country. The objectives of the overall programme are given in the chapter on agriculture.

### **Water Supply Development in Urban Areas**

5.237. *Nairobi Water Supply.*—With a rapidly expanding population and industrial sector, the demand for water in Nairobi is increasing steadily. To cope with this, plans have been prepared which call for expansion of the Nairobi Water Supply based on the Chania River. Stage I of the Middle Chania Scheme has been completed and construction of Stage Ia began in mid-1978. Construction of Stage II will commence in 1979 and will be completed by 1981. Further expansion plans for Nairobi Water Supply are already underway, including studies of the possible future water sources.

5.238. *Mombasa and Coastal Water Supplies.*—Recent problems with the Mzima Pipeline have resulted in numerous disruptions in water supply for Mombasa Town. Construction of the Sabaki Water Pipeline, running from Baricho on the Sabaki River to Mombasa will be completed by the end of 1979. With this new supply of water, the water supply problems should be eased for some time to come. During this plan period, work will continue on linking up various North Coast towns to the pipeline. Water supply along the South Coast towns will be enhanced by the full utilization of the new supply of water from the Tiwi boreholes. With these facilities in place, attention will be turned to planning for future expansion of the Mombasa Water Supply, including studies of the Baricho aquifer and its potential. Consideration will be given to the construction of a second Mzima Water Pipeline to increase Mombasa water supply and to serve the area through which the pipeline would pass.

5.239. *Municipal Water Supplies.*—Relatively rapid growth of the major towns in Kenya has led to the need for expansions in their water supplies. Over this plan period, major augmentations are proposed for the water supplies for Kisumu, Eldoret, Kitale, Embu, Nakuru and Thika. Total development expenditure on all of these projects is channelled through the Ministry of Local Government. Each of these places acts as its own water undertaker and is thus responsible for covering the additional operational and maintenance costs. The Ministry of Water Development will provide necessary engineering services and carry out planning and implementation services for the local authorities.

### **Minor Urban/Service Centre Water Supplies**

5.240. The Ministry of Water Development has responsibility for the operation and maintenance of 84 public water supplies in designated service centres, throughout Kenya. Over the plan period, additional 25 schemes will become operational. The programmes for installation of improved water supplies in

service centres is receiving more emphasis in this plan period as a contributing factor in building up the network of small urban places that supply necessary goods and services to rural dwellers.

#### **Sewage Disposal Programme**

5.241. Most sewerage projects in Kenya are implemented through the Ministry of Local Government. The exceptions are Nairobi and rural service centres, the former being undertaken by Nairobi City Council, the latter, by the Ministry of Water Development. Local Government sewerage development projects have been ranked in priority. First priority has been assigned to improvement and extension of the sewerage systems for Mombasa, Kisumu, Eldoret, Kitale and Nyeri involving a total development expenditure of about K£9.0 million. Accounting for further expenditure of K£4.3 million are Nakuru, Isiolo, Nyahururu, Homa-Bay, Busia, Kapsabet, and Eldama Ravine, which comprise the second priority group. The third priority group consisting of Nanyuki, Kisii, Athi River, Malindi, Machakos, Murang'a, Lamu and Voi will require some K£4.7 million. In addition to these places, new sewerage systems will be constructed by the Ministry of Water Development in Garissa, Limuru, Naivasha, Muhoroni, Kitui, Ol Kalou, Ruiru and Wajir at a total cost of K£4.5 million.

#### **Land Reclamation**

5.242. Drainage of swamps and wet valley floors provides a way of augmenting the supply of agricultural land and keeping it productive. During this plan period approximately 2,200 hectares of land now too wet to use for agricultural purposes will be reclaimed.

#### **Minor Irrigation**

5.243. Minor irrigation activities are carried out by both the Ministry of Water Development and the Ministry of Agriculture. The Ministry of Agriculture is involved in dealing with land assessment, plan initiation, planning operation and maintenance and some drainage work. Water development focuses on water assessment, rational allocation of water to alternative uses and water abstraction. In all of these activities there is some overlap of functions between the two ministries. This overlap is dealt with from the institutional perspective in Chapter 10.

#### **Flood Protection**

5.244. During the last two years of the last plan period, heavy rains caused severe flooding problems in some parts of the country. Ultimately, controlling such flooding will entail afforestation and erosion control in the upper catchments of the river basins affected. The soil and water conservation programmes and the afforestation programme described elsewhere in the plan are aimed in this direction. However, the situation has deteriorated to such a degree in some areas that immediate remedial action is required. During this plan period embankment works will be undertaken in those areas most in jeopardy of heavy flooding. Activity will be concentrated initially along the Nzoia

River, around Bunyala and the Nyando River on the Kano Plain. Other areas will include Ewaso Nyiro and Yala rivers. Flood protection ensures that agricultural land can be kept in production.

#### **Integrated Development Programme**

5.245. The main objective of this programme is to move certain districts from a food deficit situation to a self-sufficient position by increasing total production per unit of land. The water development input to the programme described here is only one component, the other components are outlined in the Agriculture chapter. Although several water supply schemes primarily for human consumption are included in the programme, the major objective for the water component is implementing a wide range of conservation activities consisting of constructing earth dams on rivers, especially on source tributaries, as well as water holes connected to cut-off drains and artificial water ways. Sub-surface dams will be used in sandy river beds and water harvesting schemes will be used in conjunction with dams. In addition, a number of small existing dams that have silted up will be desilted to restore their full capacity. About 10 to 12 areas have been identified for development under this programme. Development activity will be organized on the basis of watersheds. Local Water and Management Committees will be established with strong local farmer representation to ensure effective participation in support of the programme by its intended beneficiaries. A total development expenditure of K£6.8 million has been allocated for the water component of the integrated development programme over the plan period.

#### **Water Quality and Pollution Control**

5.246. The goals set for this programme in the previous Plan were attained. A network of monitoring stations has been established and the National Water Quality Laboratory has been constructed. In addition, an audit sampling unit for drinking water supplies has been organized. Staff recruitment has progressed satisfactorily in its initial stages. During this plan period an important task will be to provide additional training for water quality control personnel including academic work at the University of Nairobi, special courses with various international organizations and in-service training programmes. Emphasis will also be put on the setting up of pollution control standards and strict monitoring will be carried out.

#### **Water Surveys and Planning**

5.247. The very large increases in the rate of development during the past plan period has placed considerable strain on existing knowledge of water resources. Good quality information on water resources is a necessary input for feasibility studies and design of proposed water projects. With greater emphasis now being directed towards development of the drier areas of the country where knowledge of resources is very incomplete, there is the need for better data for National Master Water Plan activity and it is proposed to strengthen the Hydrology Section in the Ministry of Water Development by building new operational centres in phases in the provinces and increasing

the number of professional staff. To improve the quality of ground water data, the development proposals call for a gradual build-up of the necessary technical equipment for sub-surface water surveys. By the end of 1979 the first phase of the National Master Water Plan will be complete. Phase II will begin then, using the data collected as the basis for planning the most effective utilization of the nation's water resources over the next 30 years. Total development expenditure for these activities will be about K£3 million for the plan period.

#### **Water Conservation**

5.248. The water conservation programme will concentrate its activity in marginal areas where settlements are now taking place and areas with population density of less than 40 persons per square kilometre. Ultimately, the aim is to create a network of water sources which will insure that the maximum walking distance to fetch water for either human or livestock consumption is five kilometres. Overall water conservation activities will be integrated with soil conservation work, afforestation and reafforestation, much along the lines proposed under the integrated development programme. The work of this programme will be concentrated in the arid districts. A twenty year programme has been drawn up for water conservation commencing during this plan period.

#### **Development of Tana River Basin**

5.249. The Tana River Basin occupies approximately 20 per cent of the land mass of Kenya and its optimal utilization is essential for the development of the whole country. Recognizing its importance led the Government to establish the Tana River Development Authority (TRDA) in 1974. The TRDA responsibilities include developing long-range plans for effective utilization of the basin's water resources and co-ordinating and monitoring all development projects in the catchment, both private and public. To date the major achievement for the TRDA has been the launching of the Upper Reservoir Project, which is central to all further development within the Tana River basin. Without such a large regulating reservoir to firm up the dry season flow, neither the hydropower nor the irrigation potential of the river could be fully realized. Construction activity on the project is now well underway with an expected completion date in 1981.

5.250. With the regulating reservoir underway, attention will be turned to the countless other ways in which the resources of the basin can be tapped and developed. Large scale hydro-electric projects such as Kindaruma, Kamburu and Gitaru will be followed by other developments being undertaken by the TRDA. The large-scale irrigation project at Bura, Phase I of which is under construction, is another well-known development taking place in the Tana River Basin. For the future, a wide range of development possibilities are being explored. These will include planning for irrigation on small-to medium-scale projects in the Upper Tana River region; small scale hydro-power development connected to development of rural industries; fisheries

development in the region; and fish ponds in areas where the soil is suitable. Irrigation agriculture on the delta and pre-delta lands will be assessed and compared to other possible uses of land such as ranching, rain-fed agriculture and game conservation. Assessing these and other development possibilities comprise the planning programme of the TRDA for this plan period.

### Manpower Training

5.251. The Ministry's total manpower requirements including casuals and trainees is projected to increase from about 7,800 staff to 12,300 over the plan period. The key cadres in which there will be major increases are engineering; geologists and hydrologists; accountants and personnel staff; water inspectors; water bailiffs; surveyors and many subordinate staff categories including in particular patrol men, pump attendants, water operators, drivers, artisans, clerks, storemen, water guards and mechanics.

ESTIMATED MANPOWER REQUIREMENTS, 1978/79 TO 1982/83  
EXCLUDING CASUALS AND TRAINEES

Table 5.36

Major Cadre Groups	1978/79	1979/80	1980/81	1981/82	1982/83
Professionals .. .. .	280	340	375	400	425
Sub-Professionals .. ..	830	985	1,135	1,260	1,385
Subordinate Staff .. ..	6,675	7,855	9,050	9,920	10,490
<b>TOTAL .. .. .</b>	<b>7,785</b>	<b>9,180</b>	<b>10,560</b>	<b>11,580</b>	<b>12,300</b>

The very rapid pace of development activity in the water sector has placed and will continue to place a heavy strain on the available trained manpower. There is an urgent need to mount effective training programmes at the local level both for professional and sub-professional personnel to help expand the existing numbers as fast as possible. The Ministry has started implementing a plan to employ at least twenty civil engineers per year from the University of Nairobi. In collaboration with the University of Nairobi, the Ministry has also developed one year post-graduate course in water engineering. This course is to be introduced during the first year of this plan period with an initial intake of five persons and subsequently 15 persons each year. Other training programmes to be introduced include an induction course and a course in additional theoretical training. These new training programmes will be in addition to the current technical programmes offered at the Water Training School. The intake of the technical training school is planned to increase from the present figure of 110 to 150 per year starting from July, 1978.

5.252. The major constraints in pursuing the training objectives will be in terms of skilled trainers and in certain areas, of sheer physical facilities. During the last plan period, work began on construction of a new training school in Nairobi. The main elements included a laboratory, workshops, temporary classrooms and residence facilities. This development has eased



the constraints under which the training programme was operating. It has, however, been realized that there is inadequate space available for planned future expansion of the school. Efforts are being made to acquire a new site for the training school. A development expenditure of K£894,000 over the plan period will enable the construction of temporary classrooms and acquisition of additional equipment.

5.253. Although the top priority of the Training School must continue to be the recruitment and training of subprofessional technical staff, it would be desirable to convert the training school into a national water institute.

### **Institutional Arrangements**

5.254. Recognizing the increasing importance attached to water development the Water Development Department was detached from the Ministry of Agriculture in 1974 and elevated to a separate ministerial status. The Ministry of Water Development is charged with overall responsibility for the development, operation and maintenance of supplies and conservation of the nation's water resources. In addition the Ministry has general responsibility for sewage disposal, monitoring and controlling water quality and preventing water pollution. In carrying out these duties, the Ministry co-operates with local authorities in implementing Government policies and planned development programmes.

5.255. Operation and maintenance of water schemes for local authorities is also a responsibility of the Ministry of Water Development. The Chief Technical Officer of the Ministry of Water Development advises the Water Apportionment Board on technical matters. The Board appointed by the Ministry of Water Development, controls water extractions from all sources and the use to which the water is put. Both provincial water advisory committees and catchment boards function to advise the Water Apportionment Board on issues falling within the Board's jurisdiction. Advice and technical assistance to self-help groups implementing water schemes are provided by the Ministry of Water Development. As a means of stimulating interest in water development in local areas, increased emphasis will be placed on the activities of the provincial water committees and the catchment boards. Both these agencies could play important educational roles in developing a better appreciation of the scarcity of our water resources and the need to use them most effectively.

5.256. A simple analysis of the institutions directly involved in water development activities reveals that at least 26 separate agencies or boards participate in decision making process and maintenance or provision of resources. The interactions between the institutions and the Ministry of Water Development, and among the institutions themselves, are varied and complex. A number of these institutional arrangements will receive special attention during this plan period.

5.257. A management study of the Ministry has been completed, and the implementation of the recommendations will be carried out during the plan

period. The recommendations include the transfer of general administrative services of personnel and accounting now provided by the Ministry of Agriculture to the Ministry of Water Development over a phased programme; the creation of a Central Water Resource Policy Planning section as the machinery for formulating long-term policies and plans for the allocation of water between different sectors, including domestic water supply, irrigation, hydro-power and industry; a revision of the Ministry's accounts coding structure which will permit the analysis of financial information to the level of the individual water schemes or development projects; the phasing out of the Ministry's works paid staff taking account of works paid staff in other ministries and ensuring equitable application throughout the civil service; increasing the effective training programmes at the local level both for professional and sub-professional personnel to help expand the existing numbers as fast as possible.

5.258. Responsibilities for revenue billing and collection are carried out by the Office of the President for the Ministry of Water Development on an agency basis. The Ministry of Water Development will assume full and direct responsibility for revenue billing and collection for large water schemes during this plan period. Further investigation will be carried out on medium size and small water schemes to determine the optimum extent of Ministry involvement in revenue billing and collection.

#### **Private Sector Water Development**

5.259. This comprises those investments undertaken by individuals or firms to develop water supplies for their own use. A review of applications for water abstractions made to the Water Apportionment Board reveals that most applicants are individuals rather than firms. Close to two-thirds of all applications list domestic use as one of the reasons for wishing to abstract water. Minor irrigation, however, is the use listed most frequently appearing on almost 80 per cent of the applications while a variety of miscellaneous uses are submitted such as private hydro-electric power generation and fish breeding. Although each user must apply to the Water Apportionment Board for permission to make use of the nation's water resource, the degree of co-ordination between private sector undertakings and public sector development activities has been insufficient. During this plan period the Ministry of Water Development will complete an analysis of the extent to which private sector efforts can be better integrated.

5.260. The boreholes subsidy programme which has been operating since 1964 will continue during this plan period. This programme subsidizes the cost of private, unsuccessful boreholes in agricultural areas. With approval by the Ministry of Water Development and subject to certain other conditions, any farmer who drills an unsuccessful borehole may apply for subsidy which currently covers 75 per cent of the cost of drilling up to a maximum of K.Sh. 50,000. With the increased costs of drilling boreholes, and subject to the availability of resources, the ceiling on the subsidy may be raised early in this plan period.

WATER DEVELOPMENT EXPENDITURE FOR 1978/79—1982/83

Table 5.37

	1978/79	1979/80	1980/81	1981/82	1982/83	Total Plan Period
Headquarters, Provincial and District Offices	1,370	1,675	2,000	1,600	1,100	7,745
Rural Water Supplies	4,595	5,820	8,700	9,300	11,900	40,315
W/S for Livestock Development	3,104	1,940	2,500	3,300	3,400	14,244
County Council Water Supplies	100	100	100	100	100	500
Self-Help Water Supplies	1,720	1,940	3,000	3,000	3,000	12,660
Mombasa Pipeline Board	800	240	60	160	160	1,420
Mombasa and Coastal Water Supplies	8,605	4,850	3,400	2,300	3,800	22,955
Water Resources and Pollution Control	1,160	980	650	460	500	3,750
Urban and Service Centres Water Supplies	2,290	2,960	4,210	5,000	5,400	19,860
Sewerage and Sewerage Research	410	1,400	1,700	2,300	2,300	8,110
Water Conservation	440	800	550	550	600	2,940
Miscellaneous Water Programmes	745	1,040	1,600	1,500	1,560	6,445
Rehabilitation of Water Supplies	290	1,500	1,600	1,600	1,800	6,790
Water Supplies for Integrated Rural Water Development	35	900	1,300	2,090	2,430	6,755
Training	59	165	200	220	250	894
Tana River Development Authority	12,845	14,190	9,430	6,520	1,700	44,685
<b>TOTAL DEVELOPMENT EXPENDITURE</b>	<b>38,567</b>	<b>40,500</b>	<b>41,000</b>	<b>40,000</b>	<b>40,000</b>	<b>200,067</b>

(In K£'000)

WATER FORWARD RECURRENT EXPENDITURE FOR 1978/79—1982/83

(In K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
General Administration Planning	238.6	260.8	285.1	311.6	340.6	1,436.7
Headquarters, Provincial and District Offices	2,314.2	2,529.6	2,764.9	3,022.2	3,303.1	13,934.0
Rural Water Supplies	559.5	611.6	668.5	730.7	798.6	3,368.9
Mombasa Pipeline Board	160.7	175.6	191.9	209.8	229.5	967.5
Mombasa and Coastal Water Supply	1,738.7	1,900.6	2,077.4	2,270.5	2,481.7	10,468.9
Water Resources and Pollution Control	494.7	540.7	591.1	646.1	706.1	2,978.7
Urban Water Supplies	908.3	992.8	1,085.3	1,186.2	1,296.1	5,468.7
Sewerage and Sewerage Research	19.3	21.1	23.1	25.2	27.6	116.3
Water Conservation	—	—	—	—	—	—
Miscellaneous Water Programmes	26.2	28.6	31.3	34.2	37.4	157.7
Training	126.8	138.6	151.4	165.5	180.9	763.2
<b>TOTAL</b>	<b>6,587.0</b>	<b>7,200.0</b>	<b>7,870.0</b>	<b>8,602.0</b>	<b>9,401.6</b>	<b>39,660.6</b>

## **CHAPTER 6—PRIMARY PRODUCTION: AGRICULTURE, NATURAL RESOURCES, LANDS AND SETTLEMENT, AND CO-OPERATIVES**

6.1. Primary production is the basis from which much of the planning for the nation springs. Not only is 85 per cent of the population dependent on primary production for its livelihood but it is from primary products that more than 50 per cent of export earnings come. The proportion that primary production contributes to the economy will be maintained during the plan period.

6.2. Primary production refers to those products which are generated from utilizing the country's natural resources. The principal products are agricultural, but fish, timber and mineral products are also included. To produce these products, the resources of labour and capital are combined with the nation's natural resources. Thus the primary production sector is concerned with expenditure into the sector, the employment engendered, and the exploitation of the natural resources themselves. The two basic natural resources are land and water. Water, although considered as a basic need in Chapter 5, is also a crucial resource along with land, labour and capital which are required for primary production. Therefore consideration of water use is found throughout this chapter. Land, the other basic resource, provides the soil for agriculture, the minerals for mining, and the forests for timber. Land utilization, ownership, tenure, and distribution are important aspects which impinge on production and thus their consideration is basic to the achievement of national objectives.

6.3. Planning for the development of the primary production sector deals with the policies and strategies for agricultural and other natural resources production, for the services that support this production, and programmes that affect the production. In terms of the Government's programmes, the concerned Ministries are Agriculture, Natural Resources, Fisheries Department of Tourism and Wildlife, Lands and Settlement, and Co-operative Development. The latter two are included as they are mainly concerned with technical and organizational support to the primary production sector.

6.4. The agricultural sector is dealt with at some length because of its principal role in national development not only in the past but in the present plan. This is evident from the growth of the planned expenditure for the Ministry of Agriculture—its development expenditure growing faster than other Ministries. The Vote for the Ministry of Agriculture will increase nearly two-fold with the last year of the Plan showing 23.6 per cent of total development expenditure compared to 12.6 per cent in the first year. It is not only

in terms of Government expenditure that agriculture is given prominence; it is because agriculture is the key to the Plan's objectives. An expansion of the objectives for the agricultural sector is given in the first section of the chapter.

6.5. The theme of this Fourth National Development Plan is the alleviation of poverty. Five target groups were identified in Chapter 2, and the first three of these, small farmers, landless rural workers, and pastoralists, are of direct concern to the primary production sector. The poverty found in these groups can be traced to low incomes and/or lack of access to employment opportunities, land, water, markets, credit and modern technological innovations, among other things. Throughout this chapter, these factors are addressed in relation to each target group. Small farms will be made more productive not only to meet overall growth objectives, but to increase rural income. Employment opportunities for rural workers will be increased through more intensive husbandry practices and programmes to rehabilitate and expand coffee and tea plantations. Arid and semi-arid lands will be developed to cater not just for the indigenous pastoralists, but for the small farmer in these areas.

6.6. The remaining sections of this Primary Production chapter cover the particular policies and programmes affecting the Ministries of Natural Resources, Lands and Settlement, Co-operative Development, and the Fisheries Department of Tourism and Wildlife. The Ministry of Tourism and Wildlife's other activities are discussed fully in Chapter 7. The development of the nation's forest, fishery, and mineral resources is concerned with their location and assessment in terms of their stocks and maximum sustainable yield, their exploitation, replacement and conservation. The increasing pressure on the nation's land resources requires intensified land use, development of new settlements and other means of increased access to the land, and rationalization of the complex system of land tenure, transfer and ownership. Various service functions of the Ministry of Lands and Settlement, in particular physical planning and survey and mapping, will be strengthened and decentralized. Finally, the valuable role of the co-operatives in mobilizing resources and promoting access to inputs, markets, and technology will be strengthened, as described in the Ministry of Co-operative Development section. These sections, however, cannot stand alone, as the general policies and programmes of the primary production sector apply to the above ministries and the performance of various parastatals and boards. Consequently, the agriculture section, and Chapters 2, 7 and 10 are closely related.

## AGRICULTURE

6.7. With the primary objective of the Plan as poverty alleviation, priority is being given to rural development as stated in Chapter 2. Rural development will in large measure be achieved through higher incomes, more rural employment and improved diet. It is agriculture which will principally provide these. While rural development includes non-agricultural production, provision of welfare services and improved infrastructure, it is agricultural production

which provides the core to rural development. The rural population depends on its own agricultural production to the extent that is reflected through the non-monetary sector which is 20.6 per cent of GDP. The surplus that agriculture creates fosters development throughout the economy. Thus attention to rural development not only meets welfare objectives but where it facilitates improved agriculture, it is an investment in the national economy.

6.8. There is still potential for considerably higher production in rural areas. The resources of land and labour are under-utilized. The higher potential land is now almost completely occupied but it can provide opportunities for greater productivity which would lead to greater production and further employment. These opportunities are available through land use intensification, and applying improved technologies. Attention is also given to the lower potential areas, where present untapped or only partly tapped resources could yield significant development potential. To achieve the agricultural development in both high and lower potential land, an integrated approach is required. The approaches that have evolved and are evolving are elaborated in the section on the programmes for action.

#### **Policy Framework and Targets**

6.9. Achievement of this Plan's objectives will be a major contribution to the solution of Kenya's most urgent socio-economic problems through the improvement of the living conditions in rural areas and the fuller development of agricultural production capacity. These developments are expected to benefit in particular, the lower income groups. Although poverty alleviation and the provision of basic needs are prime objectives of the Plan, the policies and programmes adopted will ensure that the continued expansion of productive investment and the growth of output will be maintained.

#### **Objectives**

6.10. Kenya's agricultural output doubled during the last 20 years and the contributions made by agriculture to overall growth and welfare have been substantial. By the middle 1970's, however, a number of problems emerged that threaten continued social and economic progress, particularly such distributional goals as employment and income distribution, as well as a continued concern with growth of national income. This implies a change in emphasis from the primarily growth oriented development pattern of earlier plans to a more pronounced multi-objective approach. There are five major inter-related objectives:—

6.11. *Poverty Alleviation.* Development in rural areas has been unequal and an important proportion of rural families have not yet shared the benefits of rising incomes. They are primarily farm families with an insufficient land base for full employment of their labour capacity, the landless, the unemployed and under-employed in rural areas, and pastoral and sedentary agricultural families who live on marginal land with insufficient and uncertain

income-earning opportunities. The objective is to alleviate poverty through the provision of income-earning opportunities in agriculture. The emphasis will be on those who have not benefited from previous development programmes.

6.12. *Agricultural Growth.* Policies for poverty alleviation also will be growth oriented. High rates of population increase necessitate growth in agricultural production. In 1965, Kenya had about 0.78 ha. of high potential land equivalents per person. Within twenty years it will be no more than 0.2 ha. The easy expansion of output in the 1960's when extensive areas of high potential land were transferred from grazing to arable use, is no longer possible. There has been a slowing down of the growth of agricultural output from the First to the Third Plans and the accelerating rate of population growth requires major changes in these output trends, otherwise *per capita* growth could become negative during the Fourth Plan period. The policies and programmes of the Plan aim to achieve this essential growth.

6.13. *Improvement of the Balance of Payments.* High growth rates in agriculture are also required so that basic food needs of the nation can be covered without imports and without inhibiting export production. Long-term trends of the Kenyan economy indicate increasing pressures from foreign payments. Recent short-term massive increases in coffee and tea prices produced a balance of payments surplus but these prices are now declining and increased agricultural production will be needed for import substitution and export expansion to avoid foreign exchange problems. Rural welfare objectives will be threatened in the long run under the conditions of severe foreign exchange shortage (see Chapter 2).

6.14. *Employment.* Increasing the incomes of the below average rural families is considered the major means to achieve basic needs targets. Income is primarily a function of employment, either as wage employment or as self-employment on family farms. The most successful industrial development will only absorb a small part of the rapidly growing number of workers entering the labour market. Most of the working population increase in the plan period will have to be absorbed in productive activities in rural areas, and mainly in agriculture.

6.15. *Conservation of Natural Resources.* Agricultural production in Kenya still relies on the exploitation and consumption of natural resources. Population pressure on the land and the resulting change to continuous cropping without intensive soil nutrient replacement tends to reduce the nutrient status of the soil and this must eventually lead to declining yields. Soil erosion has reached disquieting proportions, natural pastures are being degraded and the flow of water from catchment areas is threatened. The soil of Kenya is a stock resource, irreplaceable once destroyed and action is required to maintain it in a productive state for future generations. Forests and watersheds will be protected in the most appropriate manner.



## Constraints

6.16. Progress in rural Kenya has been impressive. The farming community is generally eager to improve husbandry and take up worthwhile innovations, and it has access to a relatively well developed system of transport and markets. There are, however, in addition to limits set by the scarcity of natural resources, a number of constraints which need to be considered, some of which can yield more easily to Kenya's own policies than others.

6.17. The price constraint necessitates the development of agriculture during the Fourth Plan at product prices which are unlikely to increase as fast as consumption prices and input costs in the rural areas. The sectoral terms of trade changed strongly in favour of agriculture in 1977, as a result of increased export prices and substantial increases in the administered domestic prices for wheat, maize and sugar-cane. Such an improvement cannot be maintained over the plan period. Pyrethrum extract and cashewnut export prices are the only prices expected to rise significantly. World prices for Kenya's main exports—coffee, tea and sisal—are likely to remain constant or even decline over the plan period. Price increases for maize and sugar are limited by the size of the domestic market and competition from cheaper world sources for these commodities. Livestock producer prices in contrast are expected to rise more quickly than consumer prices and input costs. On balance agricultural growth for the Plan will have to rely primarily on production development and improved market efficiency rather than higher producer prices.

6.18. The technology constraint will be more severe in the Fourth Plan period than over the past 20 years. In the past Kenya's agriculture benefited from a number of major agricultural innovations such as the introduction of hybrid and short-maturing maize, and the spread of dairying with grade cattle into smallholder farming. No research break-throughs of similar importance are currently available for immediate adoption. The targets of the Plan will have to be based on the wider application of known technologies. Long-term sustained agricultural growth will require a substantial increase of investment in agricultural research in this plan period.

6.19. The implementation constraint has been a continuing one on which great progress has been made but smallholder development and programmes for pastoralists will require even greater administrative resources than in the past. Successful programmes for large numbers of farmers and herders require public, co-operative and private organizations. Several of them require organizational changes and strengthening to become effective in these expanded roles. The implementation capacity of the Ministry's services are limited. Trying to achieve too much with limited personnel can lead to a rapid decline in effectiveness. Therefore, programmes and projects in the Plan are geared to the implementation capacity of the Ministry. Efforts are made to relieve this constraint by emphasizing activities carried out by parastatal

organizations. The limited capacity also means that framework setting policies, which do not require major implementing resources, affecting prices, land and employment are of even greater importance.

6.20. There are some financial constraints on allocating the available expenditures on agriculture. The Plan will have to operate under the conditions that relatively large portions of available funds had already been committed prior to plan formulation for major long-term investments such as irrigation settlements on the Tana River. This significantly limits the funds available to finance new programmes designed to meet the specific objectives of the Fourth Plan. Furthermore a large part of the funds allocated in this Plan are for long-term investments which will not yield full returns in the plan period but in subsequent years. Thus there is a lag effect, between Plan programme formulation and return on investment, which must be included in the planning process.

### **A Strategy for Overcoming Constraints**

6.21. In order to achieve high rates of performance in terms of the objectives of this Plan and in the presence of the constraints, a Plan strategy will be followed which consists of seven major and closely related elements.

6.22. *More intensive land use and development* is of paramount importance. The growing demands of feeding Kenya's rapidly growing population, meeting the need for industrial raw materials and for exports under the condition of land shortage, implies a fuller use of available soil and water resources. The emphasis will be on further intensive land use and thus on higher yield per hectare by the expansion of the hectareage under intensive crops, multiple cropping and intensification of grassland use. This is expected not only to increase output but to create considerable additional employment and to improve soil and water conservation. Land use intensification will require additional purchased inputs, especially fertilizer. This will be complemented by land development. More grassland will be put to arable use, valley bottom land will be made available for intensive cropping through drainage investments, and the irrigation potential of the nation will be more fully developed, particularly through small-scale and supplementary irrigation.

6.23. *Development of appropriate technologies* will be accelerated. Technological change is a major driving force in agricultural and rural development. Increased emphasis, including greater investments of human and financial resources, will be placed in those lines of agricultural research that are appropriate for land use intensification in smallholdings and on production techniques for areas of low and unpredictable rainfall. Research on developing viable mixed crop and livestock systems for arid areas will be emphasized. In the allocation of research resources, preference will be given to research which is likely to increase both employment and productivity.

6.24. *Smallholder development* has proved to be particularly effective in land use intensification, income growth and employment creation. Therefore major emphasis will be placed on the development of the production potential of smallholder farming. Research and extension services will be oriented to alleviating the production constraints in smallholder farming systems. In order to meet the objective of poverty alleviation, a major effort will be made to incorporate those smallholders with below average incomes and below average size holdings as beneficiaries of development projects and programmes.

6.25. *Arid and semi-arid land development* will assist both sedentary and pastoral agricultural populations. In both increasing agricultural output and alleviating poverty major attention must be focused on these areas. There is also the urgency of dealing with social problems related to the rapid population expansion in medium and low potential areas of Kenya where crop production is feasible but very risky. Special research and development programmes will be undertaken to raise incomes and production in marginal areas.

6.26. *A poverty alleviation focus* will be embedded in programmes and projects undertaken during the plan period to improve the economic welfare and viability of the rural poor. A large number of the agricultural development programmes which increase employment, subdivide large farms, assist small farmers, and develop marginal and arid areas will make a substantial contribution to the alleviation of poverty. Within the proposals for agricultural development emphasis is placed on the use of appropriate technology to meet the needs of small farmers and to generate maximum employment. The same objectives will guide choices for crop, livestock and mixed production. Maximum efforts will be made to ensure that comprehensive programme proposals, such as the Integrated Agricultural Development Programme (IADP) incorporate as many of the rural poor as possible among their beneficiaries. It is recognized, however, that the special circumstances of these poor rural families, their inadequate access to land and to agricultural inputs, their limited range of non-agricultural employment opportunities, and the seasonal nature of agricultural employment, means that farm development programmes will need to be complemented by income supporting programmes in other parts of the rural sector.

6.27. *Market incentives* will be used to achieve plan objectives because Kenyan farming is highly commercialized and farmers are particularly responsive to changes in relative prices for agricultural products. Agricultural pricing policies are therefore extremely important in influencing the composition of agricultural output. The strongest possible market incentives will be provided to producers in the Plan. Measures will be intensified to improve marketing efficiency, to reduce trading and processing margins, and increase

the share of market prices received by the farmers. This is especially important because most of the projected increases in agricultural prices are below the expected rate of inflation.

6.28. *Increased access to land and land based employment* for low income rural families will be necessary. Non-agricultural employment will be insufficient to absorb the growing labour force. There are already a significant number of landless families in rural Kenya and the pressure on land will increase during the plan period. This will be alleviated in part by the subdivision of large mixed farms in high potential areas and settlement projects on the Coast. A major reassessment of land tenure in Kenya through the National Lands Commission (refer to Chapter 2) will have the objective of recommending ways that those substantial parts of large and small-scale farms, in high and medium potential areas, which are under-utilized are brought into full production. Access to employment will be greatly enhanced through the expansion of labour intensive activities such as tea (smallholders and estates), pyrethrum, horticultural production, and intensive types of dairying. The Integrated Agricultural Development Programmes, which will be the major approach for small farm development, will generate much more paid employment in smallholder areas. More employment especially during agricultural slack seasons for farm labourers will be provided by investments in soil conservation, drainage and irrigation, fish pond development and other rural works.

### **Targets for Development**

6.29. Progress toward Plan objectives is measured by a series of targets. These have been established after a careful assessment of national objectives, constraints and available resources.

6.30. *Agricultural production targets*, the growth rate of Kenya agriculture over the last three Five Year Plans and the planned growth rate for the Fourth Plan are shown in Table 6.1. The growth rate of agricultural output declined from 4.5 per cent in the First Plan, to 3.7 per cent in the Third Plan. From 1976 to 1983, total output, including both marketed production and subsistence production, is planned to increase at a rate of 5 per cent annually (in constant prices on the 1976 base). During the Plan (1979-1983) output is expected to grow at a lower rate of 4.7 per cent. This is due to the high value of output in the "boom" year 1977, which serves as a base. Aggregate agricultural growth rates are strongly influenced by coffee output. The expectations are based on the assumption that during the plan period coffee prices will be at the 1976 level and that fertilizer inputs will increase substantially. A significant decline in coffee prices or slower increases in the use of fertilizer would reduce the growth in coffee production, reducing the growth rate of total agricultural production.

**GROWTH RATES IN KENYA AGRICULTURE**  
(Percentages)

Table 6.1

Sector	1st Five Year Plan 1966-1970		2nd Five Year Plan 1970-1974		3rd Five Year Plan 1974-1978		4th Five Year Plan(d)	
	Target	Actual	Target	Actual	Target	Actual	Target 1976-1983	Target 1978-1983(c)
Monetary production ..	6.7	4.2	6.0	5.2	6.7	4.8(a)	6.9	6.3
Non-monetary production	3.2	4.7	3.5	2.4	3.8	2.6(a)	3.0	3.0
TOTAL (b) ..	4.8	4.5	4.5	3.7	5.2	3.7(a)	5.0	4.7

**FOOTNOTES:**

- (a) Preliminary estimates from the Central Bureau of Statistics, based on information for 1974-1977.
- (b) The total growth rate is the weighted average of the actual or projected growth rates of the monetary and non-monetary sectors. During the period of the 4th Plan, monetary production will comprise slightly more than half (51 per cent) of total production and non-monetary slightly less than half (49 per cent). As the monetary sector is growing at a faster rate than the non-monetary sector, the monetary sector will have an increasing share of total production.
- (c) The plan period will start at the beginning of 1979 which is in the middle of the crop and financial year 1978/79. In this table and throughout this plan for Agriculture the plan period is noted as 1979-83 but covers the years 1978/79 to 1982/83.
- (d) These projections are slightly different from the GDP growth rates for the Agriculture sector (Chapter 3) because of different measures.

6.31. In previous development plans, a distinction was made between marketed output of major crops and livestock products marketed through official channels and output outside the monetary economy which consisted of subsistence production and sales in local markets. This convention has now been discontinued because of improved data sources. Total output figures are shown. To allow comparisons Table 6.1 shows the estimated growth rate in "marketed" and "non-marketed" production. The former amounts to 6.9 per cent per annum and the latter to 3 per cent, indicating that a growing proportion of the total production will be marketed.

6.32. The production targets for the various agricultural commodities, grouped under food crops, industrial crops, export crops and livestock products, are shown in Table 6.2. In terms of the overall increase in volume of production, the rates of increase in food and export crops have much more weight than industrial crops and livestock products. The growth rate for food crops, which is largely related to population and income growth of the internal market, is estimated at 4.1 per cent for the 1976-83 period and 4.3 per cent for the plan period. The planned growth rates for industrial crops, which will be internally processed before sale on the internal market are much higher, 10.7 per cent for the 1976-83 period, and 14.0 per cent for the plan period. The main objective with these is to reduce dependence on imports.

6.33. The slow increase or even decline in world market prices for sisal, coffee, and tea is expected to result in modest growth rates in production of export crops of 6.0 per cent for the 1976-83 period, and 4.2 per cent for the plan period. The planned growth rates for livestock products vary. The rates are substantial for milk, pigs, poultry and eggs, and reflect the growing domestic demand. Despite rapid increases in beef prices over the plan period, growth rates for beef production will be depressed because of the delayed effects of the 1973-75 drought and the reduced hectareage available for cattle in high and medium potential areas where arable cropping is expanding.

6.34. *Agricultural income targets* reflect a projected steady increase in income over the plan period. The number of people who derived their incomes from agriculture will grow less rapidly than the total population in Kenya. An estimated 40 per cent of rural incomes (Integrated Rural Survey) come from sources outside the family farm. Non-agricultural work in rural areas is likely to attract a growing share of the labour force of agricultural families and there will be some migration from rural areas to urban areas. It is estimated that the population dependent on agriculture will increase by 2.5 per cent annually over the plan period, compared with 3.5 per cent annual growth in the total population in Kenya.

6.35. The planned growth in total value of marketed and non-marketed agricultural production, measured in constant 1976 prices, will be 4.7 per cent annually during the Fourth Development Plan years. With the agricultural population growing at 2.5 per cent annually, the agricultural population

TOTAL VALUE OF PRODUCTION OF AGRICULTURAL COMMODITIES

Table 6.2

(K£'000 in 1976 Prices)

	1976 Actual	1978 Estimate	1983 Target	AVERAGE ANNUAL RATES OF GROWTH	
				1976-78 Per Cent	1978-83 Per Cent
<b>Food Crops:</b>					
Maize (1) (2) .. ..	94,486	101,188	120,224	3.5	3.5
Wheat .. .. .	11,248	11,429	12,030	1.0	1.0
Rice (paddy) .. ..	2,670	3,217	4,449	7.6	6.7
Sorghum, millets, etc. ..	14,196	15,372	19,614	4.7	5.0
Pulses .. .. .	22,946	24,994	32,340	5.0	5.5
Potatoes .. .. .	20,400	22,200	27,400	4.3	4.3
Other Starchy roots .. ..	11,900	12,776	15,241	3.6	3.6
Fruits and Vegetables .. ..	8,346	9,399	14,469	8.2	9.0
Bananas and plantains .. ..	11,600	12,650	16,550	5.2	5.5
<b>TOTAL .. .. .</b>	<b>197,792</b>	<b>213,225</b>	<b>262,317</b>	<b>4.1</b>	<b>4.3</b>
<b>Industrial Crops:</b>					
Oil seeds and nuts .. ..	3,354	3,659	5,286	6.7	7.6
Sugar-cane .. .. .	8,678	8,925	17,850	10.9	14.9
Seed cotton .. .. .	1,669	1,773	3,546	11.4	14.9
Tobacco .. .. .	237	444	1,096	24.5	19.8
Barley .. .. .	2,644	2,805	6,042	12.5	16.6
<b>TOTAL .. .. .</b>	<b>16,582</b>	<b>17,606</b>	<b>33,820</b>	<b>10.7</b>	<b>14.0</b>
<b>Export Crops:</b>					
Coffee (3) .. .. .	98,792	117,315	138,309	4.9	3.4
Tea .. .. .	32,763	45,975	57,601	8.4	4.6
Sisal .. .. .	3,856	3,739	4,674	2.8	4.6
Pineapples .. .. .	1,314	1,823	3,562	15.3	14.3
Pyrethrum .. .. .	4,347	4,347	7,763	8.6	12.3
Cashew-nuts .. .. .	1,159	1,546	2,318	10.4	8.5
Wattle .. .. .	515	515	552	1.0	1.0
<b>TOTAL .. .. .</b>	<b>142,746</b>	<b>175,260</b>	<b>214,779</b>	<b>6.0</b>	<b>4.2</b>
<b>Livestock Products (4):</b>					
Milk (dairy products) .. ..	60,900	67,515	86,100	5.1	5.0
Beef cattle .. .. .	34,198	33,223	39,770	2.2	3.7
Sheep and goats .. .. .	17,050	17,574	21,509	3.4	4.1
Pigs .. .. .	1,048	1,114	1,441	4.7	5.3
Poultry meat .. .. .	8,890	9,843	12,383	4.9	4.7
Eggs .. .. .	7,350	8,050	10,500	5.2	5.5
<b>TOTAL .. .. .</b>	<b>129,436</b>	<b>137,319</b>	<b>171,703</b>	<b>4.1</b>	<b>4.6</b>
<b>TOTAL AGRICULTURE</b>	<b>486,556</b>	<b>543,410</b>	<b>682,619</b>	<b>5.0</b>	<b>4.7</b>

FOOTNOTES:

- (1) The former major crops are maize, wheat, rice, sugar-cane, seed cotton, tobacco, barley, coffee, tea, sisal, pineapples, pyrethrum and cashew nuts. All estimates are of total production.
- (2) The production data presented for the majority of these minor crops and livestock products are much less accurate than for the "major crops" and are derived from various sources.
- (3) Based on the assumptions that over the plan period, 1976 Coffee price levels will be maintained and fertilizer applications rates will double.
- (4) Estimates without a reliable statistical base.

will achieve an increase in agricultural production *per capita* of 2.5 per cent annually in 1976-83 and 2.1 per cent annually over the plan period. The planned growth of income is shown in Table 6.3.

#### PLANNED DEVELOPMENT OF INCOME

Table 6.3

(K£'000 in 1976 Prices)

	1976 Actual	1978 Estimate	1983 Target	AVERAGE Annual Rates of Growth	
				1976-83	1978-83
Value of agricultural production ..	486,556	543,410	682,619	5.0	4.7
Value of purchased inputs .. ..	42,986	48,829	67,389	6.7	6.7
Income .. .. .	443,570	494,581	615,236	4.8	4.5

6.36. The planned increase in the value of purchased inputs used by the agricultural sector, measured in constant 1976 prices is shown in Table 6.4. Their utilization will increase more rapidly than agricultural output because land-use intensification will rely more heavily than in the past on industrial inputs, particularly fertilizers. The expected increase shown in Table 6.4 is 6.7 per cent annually, or 57 per cent between 1976 and 1983 and nearly 40 per cent during the Fourth Plan. Consequently, agricultural incomes will grow more slowly than agricultural output, or by 4.8 per cent annually for the 1976-83 period, and 4.5 per cent annually between 1978 and 1983. Adjusting for the growth in agricultural population, agricultural incomes *per capita* measured at constant 1976 prices, will expand by 2.2 per cent between 1976 and 1983, and by 2.0 per cent over the plan period itself.

#### PLANNED USE OF AGRICULTURAL INPUTS (1976-83)

Table 6.4

(K£'000 in 1976 Prices)

	1976 Actual	1978 Estimate	1983 Target	Annual Average Per Cent Increase	
				1976-83	1978-83
Fertilizer .. .. .	9,664	11,481	17,666	9.0	9.0
Fuel and power .. .. .	7,049	7,920	10,599	6.0	6.0
Bags .. .. .	3,466	3,821	4,877	5.0	5.0
Feeds .. .. .	5,441	6,113	8,181	6.0	6.0
Seeds .. .. .	2,796	3,261	4,792	8.0	8.0
Chemicals .. .. .	4,277	4,715	6,018	5.0	5.0
Livestock drugs .. .. .	2,669	2,999	4,013	6.0	6.0
Services .. .. .	5,344	6,005	8,035	6.0	6.0
Other .. .. .	2,280	2,514	3,208	5.0	5.0
<b>TOTAL .. .. .</b>	<b>42,986</b>	<b>48,829</b>	<b>67,389</b>	<b>6.7</b>	<b>6.7</b>



6.37. The assumption of constant 1976 prices is unrealistic given inflationary trends within Kenya and on the world market. Agricultural Price Projections to 1983 have been made and most of the projected increases are below the rate of inflation in recent years and expected inflation rates during the Plan. Only a few crops, such as pyrethrum, cashewnuts, and tobacco are expected to have substantial price increases during the Fourth Development Plan period and they have a minor weighting in total agricultural production. The situation is far less encouraging for maize and coffee; the two most important crops in terms of the value of production. Maize prices will be depressed because of the limitation of the internal market, while the expectation for coffee is the maintenance of 1976 prices levels. On the other hand substantial price increases are expected for livestock products, in particular beef, sheep, goats and pigs.

6.38. The annual growth rate of value of selected important agricultural commodities, at current prices for the period 1976-83 is 12.2 per cent and over the plan period itself it is 10.9 per cent. These are shown in Table 6.5. This rate needs to be greater than the sum of the growth rate of agricultural population and inflation in the agricultural sector, to achieve a real increase in per

TOTAL VALUE OF PRODUCTION OF SELECTED AGRICULTURAL COMMODITIES\*

Table 6.5

(Current Prices in K£'000)

	1976 Actual	1978 Estimate	1983 Target	AVERAGE ANNUAL RATES OF GROWTH	
				1976-83 Per Cent	1978-83 Per Cent
<b>Food Crops:</b>					
Maize .. .. .	94,486	117,436	180,493	9.7	9.0
Wheat .. .. .	11,248	12,664	17,250	6.3	6.4
Rice .. .. .	2,670	3,408	6,175	12.7	12.6
<b>Industrial Crops:</b>					
Sugar-cane .. .. .	8,678	11,305	31,450	20.2	22.7
Cotton (seed) .. .. .	1,669	2,814	5,950	19.9	16.2
Barley .. .. .	2,644	3,380	9,240	19.6	22.3
Tobacco .. .. .	237	564	2,035	36.0	29.3
<b>Export Crops:</b>					
Coffee .. .. .	98,792	118,750	145,600	5.7	4.2
Tea .. .. .	32,763	56,550	81,750	14.0	7.7
Sisal .. .. .	3,856	4,160	5,800	6.0	6.9
Pineapples .. .. .	1,314	1,935	4,385	18.8	17.8
Pyrethrum .. .. .	4,347	5,802	15,295	19.7	21.4
Cashew nuts .. .. .	1,159	1,920	4,320	20.7	17.6
<b>Livestock Products:</b>					
Milk (Dairy Products) .. .. .	60,900	85,519	155,800	14.4	12.8
Beef .. .. .	34,198	50,690	121,770	19.9	19.2
Sheep and Goats .. .. .	17,050	23,115	51,250	17.3	17.3
Pigs .. .. .	1,048	1,360	2,860	15.4	16.0
<b>TOTAL OF MAJOR COMMODITIES</b>	<b>377,059</b>	<b>501,372</b>	<b>841,423</b>	<b>12.2</b>	<b>10.9</b>

\*These are estimates and forecasts of total and not just marketed production.

*capita* agricultural incomes. If the agricultural dependent population expands by 2.5 per cent annually between 1976-83, then the purchasing power of *per capita* incomes in the agricultural sector will decline unless inflation in the agriculture sector averages less than 9.4 per cent between 1976-83 and less than 8.3 per cent through the plan period. An increase in the purchasing power of *per capita* agricultural incomes can only be expected if inflation is kept very much below the rates experienced since 1972. Therefore special efforts will be made to curtail inflation, particularly those items affecting agriculture. The terms of trade between rural and urban areas will also be closely monitored to analyse their effect on the purchasing power of agriculture incomes.

6.39. As a result of changes in relative producer prices and of Government programmes, the plan period will see the pattern of agricultural income shift more towards commodities grown mainly by smallholders and those in semi-arid areas. Significant increases in incomes are expected for the large number of small-farmers who produce pyrethrum, cashewnuts, milk, sugar-cane and tea. Farmers in marginal areas will benefit substantially from the expansion of such crops as cotton and oil-seeds and the research into other crops found suitable for those areas. Smallholders and pastoralists who produce beef, sheep and goats will receive much higher prices for their livestock products. On the other hand, the relatively wealthy coffee farmers who benefited greatly from the boom in coffee prices in 1977, will experience little increase in their incomes, as current coffee prices are not expected to rise above their 1976 levels while fertilizer costs are likely to increase. The income situation will be relatively unfavourable for the large commercial maize producers. The plan period is thus likely to bring about a redistribution of income within agriculture to the benefit of smallholders and pastoralists in low-income areas.

PLANNED IMPACT OF AGRICULTURAL DEVELOPMENT ON THE BALANCE OF PAYMENTS\*  
Table 6.6 (K£'000 1976 Prices)

	1976 Actual	1978 Estimate	1983 Target	AVERAGE Annual Rates of Growth Per Cent	
				1976-83	1978-83
Agricultural exports (including East Africa) .. ..	191,000	226,500	277,400	5.5	4.1
Import substitution .. ..	48,811	53,453	99,285	10.7	13.2
<b>SUB-TOTAL</b> .. ..	<b>239,811</b>	<b>279,953</b>	<b>376,685</b>	<b>6.7</b>	<b>6.1</b>
Foreign exchange content of inputs .. ..	19,817	22,686	31,945	7.1	7.1
Net contribution to balance of payments .. ..	219,994	257,267	344,740	6.6	6.0

\*The basis of these estimates can be found in the Agriculture Sector Plan, MoA, June 1978, Appendix I, Tables 33, 34, 35 and 36.

6.40. *Balance of payments targets* will be met if agriculture contributes by supplying exports and the raw materials for exported manufactured goods; and by import substitution. The agriculture sector also consumes foreign exchange through the use of imported inputs. Table 6.6 summarizes the projected net contributions to improving the balance of payments. Agricultural exports are expected to grow at rates of 5.5 per cent (1976-83) or 4.1 per cent (1979-83). The growth rates for import substitution during these periods are 10.7 and 13.2 per cent respectively. Imported inputs will grow at a rate of 7.1 per cent. The contribution of agriculture to the alleviation of the balance of payments problem is planned to grow at 6.6 per cent (1976-83) and 6.0 per cent over the Plan.

6.41. The volume of exports of coffee and tea is expected to increase at about the same rate as production because the domestic market for these products is still small. The increase in terms of value for coffee will not grow proportionately because unfavourable world markets are forecast. The value projections are rather more optimistic for tea, however; high rates of growth are projected for both the volume and value of exports of pyrethrum extract, and horticultural products including pineapples and cashews. Unfortunately these products have a relatively small weight in the total value of agricultural exports. The forecast trend in the exports in the unprocessed form of hides and skins, raw cotton and sisal is declining. This results from the desirable increase in the quantities of these products which will be processed domestically into tanned hides/skins or leather, yarn or textiles and sisal products respectively for both the domestic or export markets. Exports of other groups of processed agricultural products such as dairy products, cereal flour and other preparations, and cereal by-products are expected to show gains over the Plan but their contribution to total foreign exchange earnings will remain relatively small. It should be noted that in some cases the export projections in constant price value terms will exceed those made in volume terms. This results from the fact that in these cases an increasing proportion of the crop will be exported in a processed form, such as cashewnuts which will increasingly be exported as shelled kernels. Other products are projected to show absolute declines in both volume and value because of increasing competition from the domestic market; such products include canned beef. On the other hand, supplies of the higher grade cattle are expected to result in a moderate increase in the exports of chilled and frozen beef. Overall, exports of unprocessed and processed agricultural products are projected to show only modest rates of increase at constant 1976 prices.

6.42. The import substitution effect is relatively high, mainly because of rapid increases projected for sugar production, which accounts for over one half of the value of import substitution. Cotton lint, tobacco and barley malt also have a significant import substitution effect. Combining these two estimates, the value of direct exports and the value of import substitution, the

gross contribution of the agricultural sector to the balance of payments over the plan period is expected to grow at annual rates of 6.7 per cent and 6.1 per cent depending on the time base used. However, with the agricultural sector making increasing demands for imported inputs, there will be a slight reduction of agriculture's net contribution to the balance of payments to 6.6 per cent and 6.0 per cent per annum over the 1976-83 and 1978-83 periods respectively.

6.43. *Agricultural employment targets* for on-farm employment in agriculture are planned to increase at a rate of 2.7 per cent annually. This is above the expected rate of increase of the agricultural population of 2.5 per cent. In addition, heavy public expenditure for soil and water conservation and rural works will provide further off-season employment. Total rural employment is expected to increase at a rate of about 3 per cent per annum over the 1976-83 period which is significantly above the expected growth rate of the agricultural labour force. The benefits of the resulting reduction in agricultural unemployment and underemployment are particularly directed to the smaller farmers and the landless, thus contributing to the alleviation of poverty.

6.44. Expected employment changes deriving from on-farm developments are shown in Table 6.7. Most of the additional employment will originate from the expansion of the hectareage of labour-demanding crops such as tea, fruits, vegetables, sugar-cane, coffee and pyrethrum at the expense of less labour intensive crops. These crops, such as sorghums and grain legumes will increasingly be grown on marginal land as extensive grazing is transferred to arable use. There will be a shift in cropping patterns as more of the high potential land will be devoted to labour-demanding high potential crops. Major sources of increased employment will come from the increased labour demanded by more intensive husbandry methods for such crops as maize, tea, and cotton, and from the expected increase in labour demand from milk production in smallholder dairying.

6.45. *Food and nutritional targets* will be met by the output of food for domestic consumption which is expected to increase more rapidly than population during the Plan. Average *per capita* food intake will increase and the overall nutritional status will rise. Calorie availability will increase by 7.6 per cent *per capita* between 1976 and 1983 and protein availability will increase by 6.2 per cent. The disparity in the growth of calorie and protein availability is explained by the projected significant increases in the output of energy foods, especially sugar, with stagnant or even slightly declining trends in *per capita* consumption of meat because of expected sharp price increases. However, the reduced consumption of protein from meat products will be partly offset by increased consumption of milk, poultry and fish (see Chapter 5). The

## ESTIMATED DEVELOPMENT OF AGRICULTURAL EMPLOYMENT, 1976-83

Table 6.7

('000,000 hours)

Activity	1978 Total Hours	1983 Total Hours	Additional		Area <sup>1</sup> Effect Per Cent	Inten- sity <sup>1</sup> Effect Per Cent
			Hours	Per Cent		
<b>Foodcrops:</b>						
Maize .. .. .	1,651	1,810	159	11	19	81
Wheat .. .. .	8	9	1		0	100
Rice .. .. .	10	15	5		96	4
Sorghum/millet	124	223	99	7	82	18
Pulses .. .. .	52	67	15	1	50	50
Potatoes .. ..	57	71	14	1	86	14
Other starchy roots	149	159	10	1	100	0
Fruits and vegetables	54	102	48	4		
Bananas and plantains	41	59	18	1	100	0
<b>Industrial Crops:</b>						
Oilseeds .. .. .	11	21	10	1	100	0
Sugar-cane .. ..	112	196	84	7	40	60
Cotton .. .. .	87	131	44	3	32	68
Tobacco .. .. .	3	13	10	1		
Barley .. .. .	2	4	2			
<b>Export Crops:</b>						
Coffee .. .. .	314	402	88	7	93	7
Tea .. .. .	298	472	174	12	39	61
Pyrethrum .. ..	69	103	34	2	49	
Sisal .. .. .	23	23	0	0	0	0
Pineapples .. ..	8	20	12	1	100	0
Cashew .. .. .	1	3	2		50	50
Other crops .. ..	43	53	10	1		
<b>TOTAL CROPS .. ..</b>	<b>3,117</b>	<b>3,956</b>	<b>839</b>	<b>60</b>	<b>—</b>	<b>—</b>
<b>Livestock:</b>						
Dairy (improved cattle) <sup>2</sup> ..	516	731	215	16		
Zebu (beef) cattle .. ..	1,295	1,356	61	4		
Sheep and goats .. ..	164	184	20	1		
Pigs .. .. .	2	3	1			
Poultry .. .. .	16	23	7	1		
Pastoralist .. .. .	780	791	11	1		
<b>TOTAL LIVESTOCK<sup>3</sup> ..</b>	<b>2,773</b>	<b>3,088</b>	<b>315</b>	<b>23</b>		
General farmwork .. ..	609	840	231	17		
<b>TOTAL ALL ACTIVITIES ..</b>	<b>6,499</b>	<b>7,884</b>	<b>1,385</b>	<b>100</b>		

Rate of increase: 2.7 annually from 1976 to 1983.

## FOOTNOTES:

- <sup>1</sup> This is based on assumptions as to the additional hours of work due to additional hectareage (area effect) and due to higher yields (higher labour input for weeding and harvesting), which is called the "intensity effect."
- <sup>2</sup> It is assumed that labour input for milk production increases at the same rate as milk output, due to more intensive fodder production.
- <sup>3</sup> The increase in work hours for crop and livestock are mainly related to on-farm investments.

projected 1983 consumption is based on domestic production less seed, wastage, and exports, except for wheat, rice and vegetable oils, where imports will continue to supplement domestic production to satisfy total demand.

6.46. In general Kenyans depend on cereal based diet, supplemented with pulses (potatoes in some areas), milk and some meat. As long as sufficient quantities of the staple cereals are available there will be no serious calorie-protein imbalances. Problems could emerge in those few areas where starch-roots, cassava and sweet potatoes predominate in the diet. The Plan's target is to shift the emphasis towards smaller-scale farmers in marginal areas to ensure that adequate food supplies can be grown on these smallholdings in all but the worst drought affected years. In addition, the smallholder oriented programmes will promote the production of a wider range of foods, especially fruit and vegetables, leading to a more varied diet.

6.47. Estimates of human energy and protein requirements vary widely. Given the climatic conditions prevailing in Kenya, the age and sex structure of the population, the average weight for age and using estimates of normal physical activity, a crude estimate of around 2,200 calories and about 54 gm. of protein per day (with the range of amino acids found in typical Kenyan diets) gives an approximate measure of adequacy. On this basis the average Kenyan was adequately fed in 1976. But a definite improvement can be expected by 1983 if the Plan's targets are attained. Contrary to popular opinion the main nutrition factor in relatively shortest supply is not protein but energy. Even by 1983 there will still remain pockets of the population with nutritional problems which can become particularly acute for vulnerable groups such as children and the old and the sick. It will be the task of nutrition planners to identify these problems which normally do not stem from an inadequate total supply of food but from other causes, and to find solutions to them. Food production policies will be flexible to accommodate shifts in emphasis which the development of a nutrition policy may require. A projection of food balances by major commodity is contained in Table 6.8.

6.48. *Expenditure targets* for the Ministry of Agriculture, needed to achieve income and output targets described, are set out in Table 6.9. The increase needed is substantial; from K£46.9 million in 1977/78 to K£54.9 million in 1978/79 to K£102.4 million in 1982/83. This implies a 118 per cent growth of expenditure over the plan period. The following sections show in detail how these expenditures are to be used for specific projects, programmes, and on-going services.

### The Programme for Action

6.49. Improvement in the performance in the nation's 1.7 million farm holdings is the basis for achieving the Plan's targets. The Plan is directed to more productive private farming. It depends on the amount of labour and capital invested by a great number of farmers and their effectiveness in using

FOOD BALANCE SHEET, 1976 AND 1983

POPULATIONS: 1976=13,850,000; 1983=17,648,000

Table 6.8

Product	Consumable supplies '000 mt.		Consumption kg/Caput/annum		Per Cent Utilized as hu-man food	Gms/day/head		Cats/day/head		Protein gms/day/head	
	1976	1983	1976	1983		1976	1983	1976	1983	1976	1983
Maize ..	1,634.0	2,124.0	118.0	120.0	80	259	263	917	921	23.3	23.7
Other coarse grains ..	277.0	383.0	20.0	21.6	80	44	47	154	165	3.9	4.2
Wheat flour ..	140.0	204.0	10.1	11.5	100	28	32	98	112	2.8	3.2
Rice ..	34.6	47.6	2.5	2.7	100	7	7	25	25	0.5	0.5
Barley ..	41.6	112.0	—	—	—	—	—	—	—	—	—
Malt ..	26.6	71.5	—	—	—	—	—	—	—	—	—
Beer ..	163.0	439.0	11.8	24.8	100	32	68	13	28	—	—
Beans ..	150.0	213.0	11.0	12.0	93	27	31	80	102	5.3	6.0
Other pulses ..	98.0	137.0	7.0	7.7	93	13	20	59	65	3.6	4.0
Potatoes ..	376.0	485.0	25.0	27.4	85	58	64	44	48	1.2	1.3
Other starchy roots ..	1,191.0	1,534.0	86.0	86.7	60	142	143	234	236	1.4	1.4
Sugar ..	195.0	317.0	14.1	17.9	100	39	49	156	196	—	—
Bananas and plantains ..	209.0	300.0	15.1	16.9	85	35	39	36	40	0.5	0.6
Oilseeds and nuts ..	35.0	71.0	2.5	4.0	85	6	9	9	13	0.1	0.1
Fruits and vegetables ..	203.0	280.0	14.7	15.8	80	32	35	15	16	0.2	0.2
Milk and milk products in whole milk equivalent ..	652.0	928.0	47.1	52.4	100	129	144	83	92	4.1	4.6
Eggs ..	20.8	29.5	1.5	1.7	88	3.5	4	6	6	0.5	0.5
Beef ..	128.0	159.0	9.2	9.0	80	20	20	40	40	3.8	3.8
Mutton and goat meat ..	65.0	82.0	4.7	4.6	74	10	9	15	14	1.6	1.5
Pork ..	2.7	3.9	0.2	0.2	80	0.8	1	2	2	0.1	0.1
Poultry meat ..	27.8	38.5	2.0	2.2	80	3	5	6	10	0.6	1.0
Fish ..	42.4	59.8	3.1	3.4	70	6	7	9	10	1.2	1.3
Oil and fat including butter ..	44.3	74.0	3.2	4.2	100	9	12	81	100	—	—
TOTAL ..	—	—	—	—	—	—	—	2,082	2,241	54.6	58

PLANNED DEVELOPMENT AND RECURRENT EXPENDITURE—MINISTRY OF AGRICULTURE

Table 6.9

(in K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total Fourth Plan	Percentage	
General Administration and Planning.	Recurrent Development .. ..	2,342 573	2,400 1,237	2,472 974	2,546 910	2,622 1,017	12,382 4,711	
	TOTAL .. ..	2,915	3,637	3,446	3,456	3,639	17,093	4.4
Livestock Development	Recurrent Development .. ..	8,201 7,215	9,239 6,784	10,608 6,854	12,285 6,981	14,102 7,688	54,435 35,522	
	TOTAL .. ..	15,416	16,023	17,462	19,266	21,790	89,957	23.0
Crop Development	Recurrent Development .. ..	5,331 14,738	7,259 27,051	8,235 30,280	8,568 32,136	9,014 42,149	38,407 146,354	
	TOTAL .. ..	20,069	34,310	38,515	40,704	51,163	184,761	47.2
Land and Farm* Development	Recurrent Development .. ..	1,188 2,944	1,816 3,717	1,950 4,173	2,106 4,507	2,295 5,508	9,355 20,849	
	TOTAL .. ..	4,132	5,533	6,123	6,613	7,803	30,204	7.7
Agricultural Education .. ..	Recurrent Development .. ..	3,958 1,329	1,822 1,992	2,030 3,384	2,191 3,964	2,366 4,439	12,367 15,108	
	TOTAL .. ..	5,287	3,814	5,414	6,155	6,805	27,475	7.0
Agricultural Finance Corporation.	Total .. ..	3,620	4,495	5,365	5,484	7,976	26,940	6.9
	Total .. ..	1,750	1,300	510	510	520	4,590	1.1

(continued)



PLANNED DEVELOPMENT AND RECURRENT EXPENDITURE—MINISTRY OF AGRICULTURE

(in K£'000)

Table 6.9—(Contd.)

		1978/79	1979/80	1980/81	1981/82	1982/83	Total Fourth Plan	Percentage
Joint Research Services	..							
	Recurrent ..	1,360	1,464	1,611	1,772	1,949	8,156	
	Development ..	366	424	460	508	703	2,461	
	TOTAL ..	1,726	1,888	2,071	2,280	2,652	10,617	2.7
Ministry of Agriculture	..							
	Recurrent ..	22,380	24,000	26,906	29,468	32,348	135,002	
	Development ..	32,535	47,000	52,000	55,000	70,000	256,535	
	TOTAL ..	54,915	71,000	78,906	84,468	102,348	391,637	100.0

\*Includes subvote for Area Development.

these resources. Such private initiative, especially by smallholders who command the greater part of the nation's agricultural resources, depends on Government action in three major fields:

- i. The setting of a framework of incentives and regulations in terms of prices, market regulations and rules, and legislation concerning land and labour policies, which mobilize and guide private farm level initiative.
- ii. The provision of agricultural services for agricultural production development which supply knowledge, inputs, credit, and market services, etc.
- iii. The implementation of specific programmes and projects limited in time and area which concern major investments of capital and personnel.

### **Framework Setting Incentives and Regulations**

6.50. The distinction between modern and traditional agricultural sectors, and between commercial and subsistence holdings, is no longer relevant for Kenya agriculture. Agricultural production occurs primarily on commercialized smallholder farms, supplemented by an important plantation industry. Farmers in Kenya have shown themselves highly responsive to prices, markets and land policies. The level of technology applied by farmers, and the intensity of their land use is primarily determined by the availability of inputs, by land tenure, and by the level of farm gate prices for agricultural products in relation to the prices for agricultural inputs and consumer goods. These are critical in determining whether farmers' decisions in their holdings correspond to the national objectives. Therefore, the policies that establish the framework of incentives and regulations in which individuals will make their own decisions is the most important instrument the Government has in encouraging agricultural development. The sections which follow outline the framework the Government intends to establish in critical policy areas.

6.51. *The marketing system* will receive a high priority in the plan period. The Government will support and develop more genuinely competitive markets in Kenya. In principle, there will be direct intervention only in those areas of agricultural and food marketing where co-operatives and the private sector cannot or do not perform essential functions and services adequately or competitively. Direct intervention by the Government may be necessary to influence the price structure of basic commodities or to stimulate competition, but even then official marketing and pricing activities will be established in competition with private and co-operative marketing activities. The relaxation of the internal maize movement restriction is an important step towards reducing marketing costs and improving marketing efficiency. This

will not be a temporary measure but will be extended to other current restrictions and further development in order to encourage the private sector to build required storage facilities and establish communication and infrastructure links between buying and selling regions.

6.52. To stimulate this more competitively efficient system, there will be an assessment of the institutional and legal framework required for the implementation of Government agricultural and marketing policies. Many regulations affecting agricultural commodities are at present enforced by a number of frequently unrelated agencies, boards, and local and national authorities. These have applied independent policies and programmes that have sometimes had contradictory effects on the overall efficiency of the agricultural marketing systems. Present legislation will be examined to ensure that Government participation and regulations encourage the development of an efficient marketing system with increased competition between the public sector and private sector, including co-operatives.

6.53. The Ministry of Agriculture, as part of the annual Agricultural Price Review, will monitor deductions by marketing boards and co-operative societies for agricultural extensions, processing, and marketing services, to ensure that these overheads are kept to a minimum. There will be an evaluation of the performance of marketing agencies in terms of how they remunerate producers and where possible the size of their marketing overhead costs will be reduced. There will also be a review of existing grading, weighing and measurement standards, to ensure that they are consistent with market requirements and may be effectively followed. Consistent with this approach are specific projects designed to strengthen market and storage facilities. Proposals for a village development and agricultural support services project, aimed at providing every farm reasonable access to markets are in an earlier section. Marketing projects for physical development of marketing and storage facilities and dissemination of information are contained in later sections.

6.54. *Pricing policies* which the Government will adopt will be carefully integrated throughout the plan period. As mentioned earlier, any increase in the purchasing power for rural families will be achieved if inflation in the cost of consumer items and inputs purchased from outside the agricultural sector are kept well below the rate experienced since 1972. To alleviate rural poverty, favourable prices for the agricultural products and low prices for consumer goods and agricultural inputs are necessary. Past policies directed at protecting import substituting industries and at maintaining prices of domestically traded commodities above their international levels, have made it difficult to meet this objective. The resulting high prices for basic commodities, such as cooking oil, clothing, maize flour, washing soap, and kerosene, maintained in the interests of the processors and marketing organizations, do not benefit the poorest families in rural and urban areas and must be changed.

6.55. The agricultural sector in Kenya is highly monetized and farmers are particularly responsive to changes in relative prices for agricultural production. Agricultural pricing policies are therefore extremely important in influencing agricultural development. Both the benefits of a policy of self-sufficiency in basic foodstuffs, and the financial and resource costs associated with such a policy have to be assessed. Domestic agricultural prices need to be brought more into line with long term trends in world market prices, particularly for those commodities in which Kenya is close to or already self-sufficient. Once self-sufficiency is attained with an exportable surplus for a particular commodity, it becomes important to consider the domestic price in relation to the international market prices to minimize financial losses.

6.56. Official producer prices for agricultural commodities are determined in the Agricultural Price Review, undertaken annually by the Ministry of Agriculture. More attention will be focused in the Review, not only on the relationship between domestic prices and long term trends, but both on world market prices and the relationship among domestic agricultural prices, in order to emphasize the relative profitability of competing commodities which may be produced with the same resources. The use of parity pricing principles and economic analysis in this more general review of domestic producer prices will reduce the influence that a sudden change in a particular commodity can have on the structure of all agricultural commodities.

6.57. *Research and technology policies* are directed at developing and introducing technical innovations, new varieties and improved farming systems, which should have substantial impact within the agricultural sector. Research expenditure will be increased and will be viewed as an essential investment in achieving the objective as stated earlier.

6.58. To be effective research projects will be considered within a framework of specific objectives:

- i. New technologies will be developed which will encourage more intensive land use. Technological innovations will aim at increasing yields, for example through plant breeding programmes for new higher yielding varieties of presently grown crops. Crops will be identified which respond well to increased fertilizer application.
- ii. New technologies will be developed which open up semi-arid lands for agricultural and livestock production. These include generating drought-avoiding or drought-resisting plant materials for food crops, cash crops and pasture crops; developing livestock production systems which require minimal grazing areas and low water consumption levels; and designing more efficient soil and water conservation schemes.

- iii. Technology levels for Kenya's high potential areas are already quite advanced, but research should encourage the development and adoption of new varieties, techniques and farming systems that will maintain or increase this high level of productivity. Therefore agricultural research will be further improved as a service to all segments of the agricultural community.
- iv. Research must be of increasing relevance to the farmer's situation. This includes not only the physical environment which confronts him but the socio-economic setting of his farming activities. Any new technologies must be suited to the on-farm conditions. Economic analysis will be introduced both at the headquarters and the field research stations. The aim is to incorporate socio-economic constraints into design of the technology and to assess the farmer's ability to introduce and adopt new varieties and technologies. The whole process of adoption is considered an integral part of the research effort. The promotion of new technological designs, through a process of research trials, field demonstrations and extension campaigns, should lead to adoption by farmers. This objective will be closely monitored so as to indicate necessary adjustments or reappraisal of the process or technologies. Where constraints to adoption come from lack of adequate services, priority will be given to improving such services.

6.59. In guiding the research efforts and formulating specific research projects, both national objectives and constraints will be kept in mind. In Chapters 1 and 2, it was asserted that the period of easy options had ended, and the hard options now stem from the changing domestic and international situations. Thus research must be directed towards developing labour intensive rather than capital intensive methods of production. Increased export promotion, rather than import substitution is required. Research must take into account the wide variety of ecological conditions and methods of organizing production found in the nation. Pilot models, testing, and demonstrations must be employed in order to shorten the period between identification and employment of promising technologies. Finally, research must take into account the inadequacies of the present system of repair and maintenance before introducing any new technologies. This includes recommending the steps necessary to provide such facilities and training skilled manpower. As these are rather broad guidelines, crossing the agricultural and manufacturing sectors, the formal and informal sectors, and economies both of scale and location, it is essential that the research efforts be co-ordinated. The National Council of Science and Technology will address this role through various institutions and programmes in close co-ordination with the Ministries and quasi-governmental bodies.

6.60. *Employment policies* that foster productive employment are the key to welfare, adequate nutrition, proper housing, health and human dignity. Table 6.10 indicates current employment levels in Kenyan agriculture which

shows that some 6,500 million hours of work is provided for on Kenyan farms; 70 per cent of the aggregate capacity available. Agricultural employment is not spread evenly through the year, nor does it move well between the different areas of the country. As a result there is very substantial seasonal unemployment in most areas with labour shortages at times of peak demand. The employment problem is one of insufficient employment opportunities, seasonal changes in employment demands, and low labour productivity.

A PRELIMINARY ESTIMATE OF EMPLOYMENT IN KENYA AGRICULTURE<sup>1</sup>

Table 6.10

(millions of hours 1976)

	Hours	Per Cent of Total
<b>Smallholders<sup>2</sup>:</b>		
Food crops .. .. .	1,734.9	26.8
Industrial crops <sup>3</sup> .. .. .	170.7	2.6
Export crops <sup>4</sup> .. .. .	534.0	8.2
Livestock .. .. .	1,879.5	29.0
General farmwork .. .. .	517.9	8.0
<b>TOTAL .. .. .</b>	<b>4,837.0</b>	<b>74.6</b>
<b>Large farms:</b>		
Mixed crops .. .. .	89.1	1.4
Livestock .. .. .	56.7	0.9
Industrial and export crops .. .. .	309.0	4.7
Squatters .. .. .	240.0	3.7
Other farmers <sup>5</sup> .. .. .	160.0	2.5
National Irrigation Board Schemes .. .. .	10.5	0.2
<b>TOTAL .. .. .</b>	<b>865.3</b>	<b>13.4</b>
<b>Pastoralists<sup>6</sup> .. .. .</b>	<b>780.0</b>	<b>12.0</b>
<b>TOTAL .. .. .</b>	<b>6,482.3<sup>7</sup></b>	<b>100.0</b>

<sup>1</sup> Large farm hectares have been taken from the Statistical Abstracts and the employment figures have been derived from information about labour requirements per hectare. The small farm labour data are based on the Integrated Rural Survey, 1974/75.

<sup>2</sup> Only smallholders in the IRS 1974/75 Survey.

<sup>3</sup> For processing and internal consumption (sugar-cane, cotton, tobacco, etc.).

<sup>4</sup> Including export crops that are internally processed and then exported, such as pyrethrum.

<sup>5</sup> Larger farms in smallholder areas not included in IRS. The labour output is an estimate.

<sup>6</sup> An estimate.

<sup>7</sup> The total agricultural labour force in 1976 has been estimated as 4.66 million labour equivalents which is 85 per cent of the rural force. If 2,000 hours of work per annum are assumed to imply full employment, then agriculture provides full employment for 3.24 million labourers, or 70 per cent of total labour availability in agriculture, if agricultural employment was spread evenly through the year. Uneven seasonal demands however provide far less full employment opportunities while there are seasonal labour shortages at the same time.

Seventy-six per cent of the total agricultural labour input occurs on smallholder farms, the contribution of large mixed farms is negligible while plantation employment is important. Most employment is in maize, coffee, tea production and in dairying.

6.61. There is the need for increased agricultural employment during the plan period, both to absorb the growing rural labour force and to attain a fuller and more productive use of the existing family labour force in the smallholder sector. This will be achieved by—

- i. an emphasis on crop and livestock activities with a high employment content such as tea, coffee, dairying, pyrethrum, and cotton, tobacco, root crops, vegetables, etc. The hectarage under such intensive activities will increase at the expense of grazing and less intensive crops;
- ii. an emphasis on increasing employment through higher yields per hectare which imply higher labour inputs. This is closely related to fertilizer inputs. The Plan provides for an increase of fertilizer use from 96,000 tonnes in 1976 to 245,000 tonnes in 1983, which will have a major effect on employment;
- iii. the development of appropriate type of mechanization for smallholder farming to both increase labour productivity and to contribute to more employment of hired and family labour;
- iv. increased allocation of agricultural credit to labour intensive production, rather than for activities with a low employment content such as wheat, barley and beef production;
- v. a major nation-wide drive for soil and water-conservation as a contributor to employment particularly in seasons of high unemployment;
- vi. more intensive land development through the subdivision of large mixed farms in high potential areas, this will contribute to more employment through more intensive land use on the smaller holdings. The settlement of newly developed land on the Coast and land development in Narok District will have similar effects;
- vii. an increase of labour absorption in larger smallholdings, such as on the low density settlement schemes where output and employment could significantly be improved by making under-utilized land available to the landless;
- viii. encouragement of seasonal migration of agricultural labour. Unemployment in some parts of the country and labour shortages in others, occur at the same time. During the Plan a labour information service will be introduced at the district level to facilitate the flow of seasonal labour to places of productive employment (*see* Chapter 9).

6.62. *Land policies* in Kenya are crucial since agriculture is based predominantly on private, smallholder farming, supplemented by large private, co-operative and public enterprises where the economies of scale are very pronounced (i.e. seed production, plantation crops and ranching). Smallholder farming is considered the most suitable institutional structure to increase output and employment and to obtain at the same time a wide distribution of benefits and a high degree of participation in rural-agricultural decision making.

6.63. A shortage of agriculturally productive land will be experienced in the face of very high rural population growth during the period of the Fourth Plan. Policies and programmes concerned with access to land and its utilization will become increasingly critical in determining the overall growth of output, employment and welfare in rural areas. A problem requiring rapid action in the Plan is the emergence of a significant number of landless poor alongside substantial areas of under-utilized land. This implies costs both in terms of lost production and the maintenance of poverty. It reflects the rapid increase of the rural population, the limited amount of land available and a tenure system that encourages land ownership for its asset value rather than its full productive potential. To deal with this problem, the Government of Kenya will have first option purchase rights on any land offered for sale of more than twenty hectares. This size limit refers to the high potential zone II. The limit would be greater for lower potential areas. The land would be made available for leasehold settlement by landless families or other means of increasing the employment potential of the land if purchased by the Government.

6.64. Since Independence Kenya's land policy has been directed primarily towards ensuring an orderly and successful transfer of land from foreign to Kenyan ownership and the transformation to statutory rights through the process of land adjudication and registration. There is now, the need for a comprehensive assessment of land policies in Kenya. The last review of Kenya's Land Acts and Regulations was made ten years before Independence. During the first year of the Plan, a National Land Commission will be set up to consider all policy issues related to land. Detailed recommendations will be made by the Commission to ensure that land policies, laws, and regulations meet the country's future development needs, especially in terms of land use intensification, employment and poverty alleviation. These are to be implemented before the end of the plan period.

6.65. The Commission will deal with issues that include land tenure changes that are needed to suit land use intensification and the absorption of the growing number of landless and full land utilization. Freehold titles allow owners to use, underuse, or misuse their land. Qualifications on these rights need to be considered. There is also a need to consider regulations governing the subletting of land. Tenancies are likely to become more common. While



they can lead to an efficient allocation of resources, they need to be carefully regulated to prevent landlord exploitation and misuse of land by tenants. Problems of soil mining and erosion are emerging, partly because tenants do not have sufficient security to encourage them to undertake soil and water conservation measures. Many landless families could get access to land if adequate incentives and security were given to landholders to rent out their land. Associated with land rights is the question of water rights. With increasing emphasis on drainage and small-scale irrigation new and effective institutional structures for allocating limited water supplies and to ensure works maintenance will have to be devised. A careful balance needs to be maintained which does not undermine initiative, and at the same time ensures that such initiative is not at the expense of others in rural society (see Chapter 10). Land transactions are a further concern of tenure change. Controls on purchases and sale introduced by the programme of land adjudication and registration has restricted the market in practice. The controls do not recognize the unavoidable demands of population expansion and inheritance customs. As a result subdivisions of smallholding between heirs is done largely unofficially and the land registers become increasingly irrelevant. Once the National Lands Commission has completed its work, specific programmes of action will be established to deal with the problems brought out. These will receive the highest priority for implementation.

6.66. *Food policy to meet nutritional objectives* will begin with the preparation of a comprehensive long-term nutrition programme to be carried out during the Fourth Plan. A food plan as a component of the broader nutrition programme will be directed to ensure that adequate supplies of nutritious foods are continuously available for the rapidly growing population. While agricultural planning decisions are mainly concerned with rural output, income and employment, they will have important nutritional impacts. A more conscious effort will be made to incorporate nutritional factors in planning choices for agricultural investments. The Ministry of Agriculture will contribute to achieving nutritional objectives by a number of specific measures.

6.67. In food crop production, increased production of pulses will be emphasized, especially food beans mainly through varietal improvement. The Home Economics Section of the Ministry of Agriculture will test various methods of preparing food crops for their palatability. Maize remains the staple food for the majority of the people so research effort will be made to shorten the maturing period of Katumani maize to make it more tolerant of low moisture growing conditions. The *per capita* consumption of vegetable oils in Kenya is currently very low and it is planned to increase oilseed production, with initial emphasis on sunflower.

6.68. There will be an integration of crop policies at the farm level, using credit and other policies, to ensure that those farmers whose production is for export and industrial crops, also allow adequate resources to be used for their

own feed needs. Particular attention will be paid to crop packages in the Integrated Agricultural Development Programme and their foodcrop components.

6.69. Horticultural development conventionally has been oriented towards income generation rather than the improvement of nutrition. There will be a shift towards selecting projects directly influencing the nutritional status of the farm family including promoting the production and consumption of "traditional" fruits and vegetables and the establishment of homestead orchards and tree plots. There will be an integration of small stock production such as rabbits using horticultural waste. The increased commercial production of horticultural crops can have a useful spillover effect on nutrition through on-farm consumption of downgraded produce.

6.70 Animal production policies have also tended towards increased production and commercialization of animal products rather than increased on-farm consumption. Emphasis will now be geared to programmes such as increased poultry and pig production which lend themselves more easily to on-farm consumption than cattle.

6.71. The Home Economics Section of the Ministry of Agriculture has a direct involvement in nutrition intervention programmes including nutrition education, homestead food production, principles of meal planning and preparation, control of food wastage through preservation and storage, and food safety and sanitation. The numbers of extension personnel trained in home economics working in the field will be expanded during the Plan.

6.72. The maintenance of a strategic food grain reserve together with the careful monitoring of food supplies within the country will be considered as part of the overall food plan. The strategic food grain reserve will be expanded to cope with the growing population and the increased commercialization of the food sector. Additional foods may be included in strategic reserves in the future, such as dried milk powder. An inter-ministerial committee to monitor the food situation in the country has been recently established, and will further refine the collection, and analysis of food supply data. It is intended that this activity will become part of the nutrition surveillance component of the proposed nutrition plan.

6.73. Although food requirements or standards are difficult to establish, the Fourth Plan should see average food intake achieve or slightly exceed adequacy in terms of calories and protein as may be seen from the food balance sheet, Table 6.8. These are based on conservative estimates of food requirements and they represent average intake for the whole population.

6.74. *The institutional framework* for plan implementation is basic to the success of the Plan. Effective institutions, whether they be formal organizations, or established ways of achieving certain ends, are an outgrowth of the function they perform. For this reason, details of the institutional structure

for plan implementation are dealt with in the relevant sections of the Plan. For example, institutional structure to deal with small farm development is elaborated under that section, the institutional changes to deal with marketing are discussed under market development projects and the section in agricultural research lists the institutional alterations needed to these programmes. This section therefore refers only to implementation of those institutional changes that are very broad in scale and have application across the agriculture sector as a whole.

6.75. During the plan period there will be a review of all statutory boards involved in agriculture production, marketing and processing. This review will examine the basic purpose of each board, the efficiency of its operation, and the basic terms of reference under which it operates. Changes will be made as necessary in the interest of the farmer and of strengthening the performance of the agriculture sector.

6.76. In recent years the Ministry has shifted its development emphasis from a single crop to an integrated farm systems approach. Ministry organization has already begun to reflect this shift, but will continue to change over the coming plan period. The IADP represents a new integrated approach to small farm development. This organizational approach is being strengthened by the Department of Agriculture and other activities are being undertaken in the same process.

6.77. As integrated, multi-sectoral development programmes become more important, new systems for inter-ministerial co-ordination and collaboration must be developed. This is easiest at the local level, thus maximum use will be made of local institutions in creating administrative structures for integrated programmes. New organizational forms for promoting inter-ministerial co-operation are under active discussion for several new area programmes. The discussions on these are proceeding on the assumption that a new model for many future programmes is being established.

6.78. Institutions for the new programmes for arid and semi-arid lands will reflect both the integrated and farm systems approach. In addition programmes for these areas will have to incorporate systems for risk alleviation for high risk agriculture. Techniques and programmes for maximizing agricultural use of limited water resources are all discussed under the relevant sections that follow. These all involve institutional mechanisms which are being specifically designed for high risk semi-arid and arid environments.

6.79. Steps to strengthen the capacity of the Ministry itself continue. The Planning Division has been reorganized to increase the Ministry's capability for strategic planning, commodity analysis, and project preparation during the plan period. The IADP evaluation and monitoring system will be expanded to cover all agricultural programmes. Steps to strengthen the links between budgeting and planning will be taken. The Management Systems

Evaluation Unit will continue to work on strengthening implementation systems. Its focus initially is on vertically integrating responsibilities within the Ministry, from senior administrative staff to basic service units like accounting and personnel, to the technical divisions and to planning. This, linked with a monitoring system, will ensure a better division of responsibility and flow of information. The Ministry Agricultural Development Committee will be a major instrument for co-ordinating and reviewing development efforts.

### **Services for Agricultural Development**

6.80. Policies concerning technology, prices, markets, land tenure, labour, and nutrition provide the framework for agricultural development. This framework has to be supplemented by an effective agricultural service structure. Small and large farms require support services including agricultural research, agricultural education, agricultural extension, administration, and agricultural credit, all of which need to be organized through Government initiative. The Plan intends to strengthen and expand the existing structure of services. Projects and programmes involving substantial investments in personnel and capital may be more conspicuous, but they inevitably reach only a small segment of the farming community. The existing services cater for the majority and their effectiveness is therefore essential for the success of the Plan.

6.81. *Agricultural research*, which develops and introduces technical innovations for application in Kenya agriculture, is of crucial importance, for both output and export development, and for employment and poverty alleviation. The resources devoted to agricultural research will therefore be substantially increased in the plan period. The emphasis in research will be on innovations which lend themselves to land-use intensification. Particular care will be taken that innovations are produced which are readily adopted in smallholder farming.

6.82. During the plan period new agricultural research programmes will include the following projects:—

- i. The Dryland Farming Research Project is to be centred at Katumani Research Station and promotes on-farm improvement in the medium and lower potential (semi-arid) areas. It will focus on improvements to be implemented within small farms and will emphasize soil moisture use, plant breeding, pest management, animal nutrition and farm system economics. It will be integrated with the on-going projects concerned with the dryland areas.
- ii. The Natural Resource Conservation Project will be a major research component within the overall national programme of resource conservation. The emphasis will be on research which is expected to yield applicable results for on-going development programmes. The project

will be directed by a unit in the National Agricultural Laboratory, with major sections undertaken through the Kenya Agricultural Research Institute, and the University of Nairobi.

- iii. The Agricultural Engineering Project is to be concerned with the development of appropriate technologies for small farm production; power cultivation machinery, produce processing, and soil and water engineering. This will be done in association with crop research so that tillage equipment meets the need for early planting or intercropping, etc. It will be conducted at the Kenya Agricultural Research Institute in association with the University of Nairobi. It will also be related to the Agricultural Equipment Improvement Project.
- iv. The Coast Crop Research and Development Project is to be part of a general programme for agricultural development in Coastal Province. Initially, emphasis will be on tree crop improvement, through plant breeding. Pest control and improved husbandry will be part of the project.
- v. The Plant Protection Research Project is to expand the work of the Scientific Research Division in stored product entomology, pesticide residual problems, regulatory services, rodent control, field pest research, nematology, plant pathology, weed control and research liaison.

6.83. In addition to the new projects a number of on-going research programmes will continue during the plan period. There will be further work on maize to improve drought avoiding and drought resistance characteristics of varieties grown in drier areas; to breed heat tolerant varieties for lower altitudes; to adjust to small farm practices, especially intercropping; and to test such improvements in a whole farm system context. The sorghum and millet programme will increasingly be concerned with varieties and husbandry practices for drier areas where these crops form a major part of local diets. Research will be directed to improve palatability and pest resistance of food crops. Wheat research will continue to deal with fungal diseases, especially stem-rust, and efforts will be made to develop a wheat-growing technology adapted to small farm conditions in Kenya.

6.84. Triticale (a wheat-rye cross) has demonstrated drought resistance and impressive yield potential under less favourable soil and climatic conditions than are usually required for wheat. Research efforts to develop husbandry practices adapted to Kenya conditions will be undertaken. Efforts will be made by food technology and processing research to incorporate triticale into the national grain supply.

6.85. The responsibility for coffee and tea research is outside the direct responsibility of the Ministry of Agriculture. Coffee research will continue over a wide range of activities. Major innovations in developing coffee berry

disease resistant varieties and close spacing techniques, will be tested against smallholder farm constraints. A range of research activities will be carried out on tea with the emphasis on fundamental work to improve the efficiency of the tea bush. Problems in the adaption by smallholders of known technological improvements will be investigated to reduce the yield gap between estate and small farm production. Research is a major component of the national sugar development programmes. Emphasis will be on developing high yielding, high quality and disease resistant varieties at the new major breeding section of the National Sugar Research Station, Kibos. The Horticultural Research Project centred at Thika is expected to provide research based recommendations on choice of varieties, husbandry methods, pest and disease control and seed production and plant propagation. Research will also continue into a wide range of other commodities, especially potatoes, rice, cotton, pyrethrum and oilseeds. Varieties suitable for the different growing conditions in Kenya will be identified, and agronomic, pest and disease control, storage, and other improvements will be developed.

6.86. Livestock development, given Kenya's land shortage, requires particular efforts to improve the fodder economy for milk and beef in high and medium potential areas. The Dairy Cattle and the Pasture Research Project will continue with emphasis on smallholder dairying. These will be supplemented by research in range management and animal husbandry and breeding (recording system for performance and progeny testing). There will be an expanded research programme into other aspects of livestock production, particularly small stock development, pasture management, and the utilization of farm by-products and other local inputs for animal feed. Livestock development will continue to be supported by relevant efforts in veterinary research.

6.87. Generally, agricultural research in Kenya will be geared to the requirements of a land-short economy. Specifically it will be based on modern biology and on the development of appropriate husbandry methods for the use of yield increasing inputs such as fertilizer. High priority will be given to the continuation of the Soil Survey as the basis for land and crop development.

6.88. A central problem for agricultural development is to obtain a rapid adoption of research results by the farmers. There clearly has been a gap between on-farm practices and research recommendations. During the plan period a major effort will be made to deal with this problem, by incorporating an agricultural economics capacity into the agricultural research service. The assessment of on-farm constraints, the design and implementation of research experiments especially whole farm testing, and monitoring the adoption of research recommendations by liaising with farmers and the extension service, and on-farm testing will be of particular importance.

6.89. Qualified scientific manpower is the major constraint on research capacity. To alleviate the problem, funds will be made available through Research Division, Ministry of Agriculture to departments in the University of Nairobi and Egerton College, so that their scientists can be utilized for priority research within Government programmes. The implementation capacity of the Research Division will also be extended by: (i) establishing a scientific research scheme of service that will provide more attractive terms and promotional prospects based on research achievements to agricultural research scientists; (ii) combining the research services of the Ministry of Agriculture with the agricultural research services of the former East African Community to form a new comprehensive agricultural research organization to meet the needs of Kenya's agricultural development; (iii) providing a more effective co-ordination between the different research organizations through the Agricultural Research Advisory Council of the National Council of Science and Technology.

6.90. *Agricultural education and training* programmes in the past have established a clear structure on which to build. A survey of professional and sub-professional agricultural manpower completed at the beginning of 1978, revealed an acute shortage of trained agricultural manpower at all levels. The 1979-83 Plan provides for improvement in the quality and expansion of agricultural education programmes and facilities. Expansion which is summarized in Table 6.11 will be in the following areas:—

- i. More funds will be supplied to the Farmers Training Centres so that a greater number of farmers can attend courses. Additional Farmers' Training Centres will be constructed at Kapenguria, Tana River and Lamu. Mobile Units will be established to serve the needs of the arid areas.
- ii. Embu and Bukura Institutes of Agriculture will be expanded from the present student capacity of 250 to 400. A third 600 student capacity Institute of Agriculture will be built at the Coast. A new Animal Health and Industry Training Institute will be constructed at Ndomba Farm in Kirinyaga District to accommodate 400 students.
- iii. Diploma training at Egerton College will be expanded from the present enrolment of 650 to 1,632 by 1983. A new diploma course in Food Science and Technology will be introduced.
- iv. The Faculty of Agriculture at the University of Nairobi will introduce new courses at both under-graduate and post-graduate level. These will be expanded to include programmes in Agricultural Education, and Range Management. These courses will reduce the shortage of skilled graduate agriculturalists which still exists in Kenya. Enrolment at the Faculty will be increased from 300 to 750 students.

- v. The Naivasha Dairy Training School and the Meat Training Centre at Athi River will also be expanded from the present 100 and 22 to 150 and 60 respectively.

ENROLMENT<sup>1</sup> OF STUDENTS IN AGRICULTURAL TRAINING INSTITUTIONS

Table 6.11

	1978/79	1979/80	1980/81	1981/82	1982/83
Faculty of Agriculture (University of Nairobi) .. .. .	300	300	400	750	750
Faculty of Veterinary Medicine (University of Nairobi) .. .. .	225	225	225	225	225
Egerton College .. .. .	650	650	650	1,632	1,632
Jomo Kenyatta Agricultural and Technical College .. .. .	—	—	—	100	200
Embu Institute of Agriculture .. .. .	250	250	250	400	400
Bukura Institute of Agriculture .. .. .	250	250	250	400	400
Coast Institute of Agriculture .. .. .	—	—	—	600	600
Animal Health and Industry Training Institute (Kabete) .. .. .	250	250	250	250	250
Animal Health and Industry Training Institute (Ndomba) .. .. .	—	—	—	400	400
Meat Training Centre (Athi River) .. .. .	22	22	60	60	60
Dairy Training School (Naivasha) .. .. .	100	100	100	150	150

<sup>1</sup> The figures are for total number of students enrolled at each Institute each year. They do not give the numbers graduating each year.

6.91. Manpower development objectives during the plan period are primarily to improve the quality of personnel at all levels and in particular at the graduate level. This is part of a general effort in Kenya to make use of modern technology for the purpose of development. A systematic in-service training programme for all levels of staff in the Ministry of Agriculture will be intensified (see also Chapter 10).

6.92. *Agricultural extension and information services* will be strengthened by the introduction of new programmes providing significant change in the target groups of extension activities. Kenya has a long experience in extension work, and the extension staff-farmer ratio is more favourable than in most other developing countries. Most of the beneficiaries of the service have come from the above average sized and progressive farmers who form only a small proportion of the farming community. The emphasis on poverty alleviation, and the preparation of specific development programmes such as the Integrated Agricultural Development Programme for the below average farmers, requires the extension service to substantially reorientate itself to the needs of large numbers of these farmers. To achieve this reorientation there will be major changes in organization, control, and extension techniques. Group extension programmes designed to reach more farmers will become the normal approach. The use of appropriate media for disseminating information to a wider audience will be encouraged. Effective



research particularly for the small farm requires continuous contact with the farming community and vice versa. Further efforts will be made to close the gap between research and the farming community by the participation of extension personnel in pre-extension trials, a programme to bring farmers to cultivate plots in research stations and by the use of monitoring information on extension programmes as inputs into research problem identification. The altered focus of the extension and information activities on small farmers, and the farmer and pastoralist in semi-arid lands and stronger links to the research stations will be a crucial part of achieving Plan objectives.

6.93. To accelerate the transfer of agricultural land from foreign to Kenyan ownership, the Ministry of Lands and Settlement has successfully undertaken a number of major settlement schemes. These have been operated with independent management, so that in the settlement process, maximum assistance could be given to new farms in activities such as insuring availability of proper inputs or the regular and timely availability of extension services. Many of these schemes have been successfully established and farms on them have operated independently for many years. In these circumstances it is no longer efficient to provide separate extension services in these areas. Therefore, during the plan period, the Ministry of Lands and Settlement's extension services in the older settlement schemes will be phased out and the responsibilities taken over by the regular extension service of the Ministry of Agriculture. Extension workers under the Ministry of Lands and Settlement will either be transferred to the new settlement schemes outlined in a later section of this Chapter or incorporated in the Ministry of Agriculture extension service.

6.94. *Crop development and farm management services* expenditures by the Ministry of Agriculture will be increased significantly. Most of this will be channelled through specific programmes and projects. The major farm development effort will be directed to land use intensification. Much of this will be implemented through the Integrated Agricultural Development Programmes and related projects. Over time the IADP approach is expected to merge gradually into the permanent services supplied by the agricultural staff at the district and locational level. There are also special crop oriented services organized through publicly and privately owned boards, and corporations. The division of labour between the Ministry of Agriculture and these other organizations, developed over time to the benefit of the farming community, will be continued in the plan period. The operations of many of these enterprises supplying production services are self-financing. The more important of these require specific mention.

6.95. The Tea Board provides assistance to both large and small scale tea growers especially through its financing of a research service which will grow to meet the needs of the expanding tea industry. The Kenya Tea

Development Authority (KTDA) currently organizes 45,000 ha. of small-holder tea with 120,000 participating farmers. There will be an improvement of the services provided to the growers. A fifth KTDA plan, beginning in 1978, aims to increase the total area planted to 60,000 ha. by 1983, and increase the average area of tea planted per farm to at least 0.405 ha. to reduce transport costs, and to achieve a better utilization of existing factories.

6.96. Pyrethrum production, as has been indicated, will receive high priority. Development will be the responsibility of the Pyrethrum Board which will achieve a higher pyrethrin content of flowers through selection and breeding, while improving management practices to increase yield and reduce costs. The industry has expanded into new production areas in order to reduce the risk of production fluctuations and to even out deliveries at the Nakuru factory. Both factors of employment creation and favourable world market conditions make the combination of price incentives and improved services to expand production, an essential part of the Plan.

6.97. Cotton development is jointly implemented through the Cotton Lint and Seed Marketing Board and the Ministry of Agriculture. The Plan target is to increase cotton production to achieve self-sufficiency for domestic textile production. Cotton hectareage is expected to increase mainly in Western, Nyanza and Eastern Provinces. Output levels will also increase through the yield improvements expected from the cotton expansion programme. Assistance will be provided by Government mechanized ploughing services to supplement private contractors to overcome the bottleneck of land preparation. There will be an increase of field staff and technical officers. Inputs will be made available through the co-operatives. These efforts will be incorporated into the Integrated Agricultural Development Programmes wherever they operate. More storage facilities for cotton will be built in cotton-growing areas and transport will be streamlined. The payment system will be organized so that the growers are paid without delay.

6.98. Horticultural development, which will also receive high priority during the Plan, aims to increase production and improve the quality of horticultural produce in Kenya. Specific programmes to improve and maintain competitiveness in export markets to earn needed foreign exchange will be undertaken. This will include services to improve the flow of market information, and improved extension services designed to help producers respond rapidly to market opportunities. To improve nutritional standards in terms of minerals and vitamins a sectoral programme of diversified products based on the 1978 Horticultural Development Study will be implemented. The Horticultural Crop Development Authority will be reorganized to more effectively achieve these objectives.

6.99. Tobacco development plans have the objective of making Kenya self-sufficient. Services, including credit for the purchase of inputs, the construction of barns, and the payment of labour, will extend into new areas including

Bungoma, Kisii and Busia. This will be organized through the British American Tobacco Co., Ltd. Barley production will continue to be promoted by the Kenya Breweries who will expand their extension, input supply, and credit services to contracted barley growers. The target will be to improve husbandry to increase yields from the present average of 1.6 to 2.1 tonnes per hectare. The Wheat Board, Sisal Board, Dairy Board, and Pig Industry Board will continue to provide credits and other services to producers of their products. Major investment programmes will be carried out through the National Irrigation Board and the Kenya Sugar Authority.

6.100. *Livestock development services* in the high and medium potential areas are in a transitional phase because more and more grazing land is being turned to arable use. Therefore the livestock development services of the Ministry of Agriculture will increasingly aim at the intensification of fodder production. The services for smallholder dairy development are most important in terms of income, employment, improved nutrition and thus poverty alleviation. Particular attention will be paid to facilitate the gradual change towards minimum and zero grazing systems in high population density smallholder areas. These services will aim to increase the productive utilization of immature bull calves in smallholder dairy herds. Dairy herds in the highlands will increasingly be considered as double-purpose (milk and meat) enterprises. There will be an increased emphasis on fodder production. The objective is to develop intensified grass production systems in high potential areas and cassava production on the Coast for feeding pigs and poultry.

6.101. With the continuing reduction of grazing land, large animals become increasingly uneconomic. Therefore, a higher priority will be placed on projects to promote pig, sheep, goat and poultry production. These efforts will focus on breeding improvements to identify the varieties most appropriate for Kenyan conditions. Efforts will also be made to strengthen extension support for these activities and marketing facilities, and greater attention will be given to price incentives for producers. Programmes to popularize consumption of these products will also be undertaken.

6.102. Livestock development in the semi-arid and arid areas will be promoted through a variety of activities. In the range areas the present Livestock Development Project, which affects about 4 million hectares of land, will proceed as scheduled. The programme to develop group ranches will receive priority. Priority will also be placed in research and extension on developing mixed crop and livestock farming systems for the semi-arid areas. These efforts will place particular emphasis on sheep, goat and poultry husbandry. Goats appear to have a great, and yet unexploited potential in these areas, and particular efforts will be made to develop ecologically sound husbandry practices.

6.103. The Division of Veterinary Services which is responsible for controlling and preventing animal diseases has implemented a compulsory vaccination against Foot and Mouth disease, Rinderpest and C.B.P.P. in the high potential areas. These programmes have been spread into the adjacent districts in order to create a disease-free buffer zone all round the high potential zone. During the plan period there will be a further expansion to cover West Pokot, Elgeyo Marakwet, Machakos, Embu, Meru and other selected districts. The staff training programme will be expanded to provide for the extra personnel needed. The Division will also explore better ways of enforcing disease regulations through liaison with the Provincial Administration and the Police.

6.104. Tick-borne diseases will be controlled through strict supervision of the dipping programmes in various parts of the country. The Department will take over the control of all dips by the end of the plan period. Disease control will be facilitated by more and better equipped veterinary clinics and investigation laboratories.

6.105. The Artificial Insemination Programme will be improved and expanded. The handing over of artificial insemination services to local organizations, such as co-operatives, will be considered where possible. The Veterinary Meat Inspection Services will spread from Municipalities and urban areas into rural areas of Central Province, parts of Eastern Province (Machakos), Nakuru District and Coast Province. Meat grading will be introduced in and around Nairobi, Mombasa and Nakuru. The Hides and Skins Inspectorate will be strengthened as part of a programme to revitalize the hides and skins industry.

6.106. Livestock Marketing Development will continue to provide for market outlets for cattle, camels and small stock in those areas where private livestock trade is insufficient or unable to comply with the disease quarantine requirements. Over the plan period further buying and selling centres will be established with weighing bridges so that the farmers are fairly paid for their cattle. Efforts will also be made to reduce the time needed to keep the animals from these dry areas under quarantine so that the secondary producers get them in time for fattening. The Livestock Marketing Division is responsible for transporting these animals to the ranches or markets. It is planned that the existing fleet of 17 trucks will be expanded to at least 25 vehicles.

6.107. *Agricultural credit* will undergo a major expansion in the provision of public credit during the Plan. Most is provided through the Agricultural Finance Corporation to both large farmers and commercial smallholders. Co-operative credit will expand within the Integrated Agricultural Development Programme. Credit provided through the parastatal organizations will grow more rapidly than other sources as a growing share of Kenya agriculture is organized and financed through parastatals.

6.108. The expansion of credit services will be accompanied by a number of policy changes. There is need for the more effective use of agricultural credit. This will be achieved through better co-ordination between the district administration, agricultural and co-operative officers, and credit institutions. This will be related to appropriate technologies and adequate input supplies. A major effort will be made to obtain a better performance in loan repayment.

6.109. As seasonal labour is a major constraint for commercial small-holders, small farm credit will increasingly be provided for the financing of labour as well as other inputs. This will make a significant contribution to increased employment as well as output.

6.110. The Guaranteed Minimum Return Scheme, while supporting much large farm production, has encountered major repayment problems. It will be discontinued and replaced by an appropriately designed credit scheme that will better serve the needs of the GMR's present clients. The redesigned credit system will have the following features. The present GMR scheme provides most farmers using it with only about one third of the credit they need. The balance must be obtained from AFC or commercial banks. The present funds from the Cereals and Sugar Finance Corporation that finance GMR will be given to the AFC. Present levels of funding will be increased by approximately 50 per cent so that the AFC will be in a position to provide its clients with all their credit needs. The present minimum of 15 acres will be dropped and only the present title deed requirements of the regular AFC credit programmes will apply. The crop insurance element will be completely eliminated from the credit programme. However the crop insurance concept, based on rainfall data, that is to be tested for small farmers in IADP should also be tested for larger commercial farmers. The important difference, however, would be that the scheme would be voluntary and be financed from annual premiums paid into the scheme by participating farmers. Consideration will be given to subsidizing premiums for farmers with less than five acres in medium potential areas.

6.111. The AFC will re-evaluate its programmes to larger and more credit-worthy farmers to see if some of these programmes can be taken over by commercial banks. Government will continue to encourage commercial banks to extend their rural operations through branches in rural areas and designing credit programmes specifically tailored to the needs of agriculture. Commercial bank involvement will release AFC resources for more of the activities listed below.

6.112. The Agricultural Finance Corporation will become increasingly involved in small farm credit (*see* Chapter 2). Its operations will expand into an Agricultural Development Bank. There will be a further decentralization of AFC operations with higher loan ceilings for branch manager authority.

6.113. Within the Integrated Agricultural Development Programme a trial will be made providing loans for farmers in lower potential (high risk areas) through a Guarantee Scheme with costs of the risk premium to be included in the total loan value. This is considered as an important possibility in promoting marginal land development.

6.114. A number of credit activities will be part of specific programmes and projects. Thus credit for the Livestock Development Project is administered through the Agricultural Finance Corporation, and the credit distributed to smallholders in the IADP is administered through the co-operatives. These programmes, however, incorporate a relatively small part, about 20 per cent of total credit. The Commercial Small-scale Loans and the Smallholder Credit Scheme, organized by the co-operatives as general services provided to the smallholder community in most parts of the country are more significant in the Plan than special programmes and projects. Plan target achievement will therefore continue to depend mainly on the effectiveness of the existing agricultural credit service structure.

#### **Programmes and Projects for Agricultural Development**

6.115. The provision of ongoing services organized by the Ministry of Agriculture, parastatal organizations, and private enterprises will be strengthened by development-oriented special programmes and projects.

6.116. *Small farm development programmes* and projects are a key element of this Plan. The Integrated Agricultural Development Programme is the main programme for smallholder development. The major objective is to alleviate poverty through the mobilization of small-farm resources for food and cash crop production. The programme is built on the experience of several decades of smallholder development efforts in Kenya, especially its forerunners the Smallholder Production Services Programme. Its central component is a package of highly profitable innovations in crop and livestock production including increased application of inputs and improved technologies appropriate to the small scale farmers. The investment costs in terms of material inputs, land preparation, and hired labour are financed by credit through local co-operatives. A major investment in improving the farm service structure will be part of the IADP programme.

6.117. Improvements in staff, plant and equipment will be provided through the Kenya National Federation of Co-operative Societies, Co-operative Unions, and where relevant, local private stockists. Marketing institutions, through which the output from IADP will be channelled including the Maize and Produce Board, the Horticultural Crops Development Authority, the Coffee Board and the Cotton Lint and Seed Marketing Board, will be strengthened to improve their services for small farmers. Credit institutions including the Agricultural Finance Corporation, the Co-operative Bank of Kenya and local

co-operatives will receive direct support through IADP. Funds for infrastructure support will also be directed to extension and training services, soil conservation, local transport development and the establishment of local storage capacity.

6.118. A special effort will be made to reach those who have not previously benefited from past smallholder credit programmes, and to incorporate smallholders in both high-potential and dry land farming areas. Commercially marketed crops in the package, such as cotton, sunflower, and groundnuts, act as security for the loan, making it possible to extend credit to farmers with very small holdings, and in areas without land adjudication. Loan repayments are made through deductions from cash crop sales. The innovations will encourage the mobilization of smallholders' under-utilized land and labour resources. There will be substantial on-farm investments in soil and water conservation measures, and technical services for small scale livestock production. IADP will assist farmers in the semi-arid areas by reducing the credit risk of crop failures through an insurance programme which is to be tested for its wider applicability. A monitoring and evaluation system has been established within the programme management unit. This will identify the direction of project benefits, and allow the modification of programme activities to ensure targets are reached. A steering committee co-ordinates the programme activities of the different participating agencies including the Ministries of Agriculture and Co-operative Development.

6.119. A number of special crop sub-projects are in IADP including oil-crop production in drier areas, tobacco in Western Kenya, and cassava for the Coast. The Cotton Development Project in IADP areas will be a part of the comprehensive programme. The Coffee Rehabilitation Project is a major component directed toward low productivity smallholdings where increased input application and husbandry improvements can have a substantial impact. There will be an emphasis on farmer training, extension and credit through the coffee co-operative, and the improvement of processing facilities. 100,000 small-scale coffee growers are expected to directly participate in this project over five years.

6.120. The IADP is divided into four phases. Phase I started in 1977 and is expected to have a direct impact on 56,000 farmers by 1980. It is located in parts of Central, Eastern, Western and Nyanza Provinces. Phase II, to reach a further 33,000 farmers in Rift Valley and Coastal Provinces, is starting in 1978/79. Phase III, designed for the needs of the subdivided farms from the Group Farm Subdivision Project has a target of 37,500 and will begin in 1979/80. Phase IV, to begin in 1980/81, will consolidate the first three phases.

6.121. Substantial indirect impacts from IADP are expected in the long run in terms of the adoption of innovations, and increased use of material inputs by farmers not directly receiving IADP services. These are referred to

as indirect participants. It is expected that each direct participant induces two or three indirect participants to adopt the new technology. Improvements in farmer training, crop demonstration, marketing, supply services, and research will also directly benefit all smallholders in IADP regions. The IADP, including its sub-projects components such as the Machakos Project, will directly affect over 400,000 small-scale farmers, and indirectly over 800,000 farmers, thus reaching over 80 per cent of the country's 1.5 million smallholders in Kenya over the next two decades.

6.122. The Horticultural Development Project is based on a comprehensive sector study. The project will select priority areas, farmers and crops, establish a horticultural extension service, establish Horticultural Production Centres (HPC) to channel inputs and outputs, and rationalize smallholders' marketing via linkages between the HPC's and final markets. The areas, farmers and crops identified for development, will reflect national priority objectives, especially that of poverty alleviation. The project, to operate under the umbrella of IADP, will be introduced wherever possible to farmers having very small holdings, i.e. less than one hectare. In this way, the project should reach some 7,500-10,000 farm families by the end of the plan period who presently belong to the lowest 30 per cent of population in terms of their income.

6.123. The Tea Intensification Project will be implemented through the Kenya Tea Development Authority to increase the yield of smallholder tea by more intensive labour and input use. Low levels of fertilizer use on smallholdings in the past are a major reason why yield levels are significantly below those of estate production. The project will emphasize fertilizer use and the related organizational improvements in the collection of green leaf to encourage a more efficient plucking regime.

6.124. The Smallholder Credit Project, started in 1969, was extended in 1978 (Third Agricultural Credit Project) to provide assistance for medium-scale farmers, and it is now part of the Commercial Farming Project. It extends medium term credit to farmers to develop individual enterprises, or farms as a whole. Seasonal credit is also available. The project currently operates in 28 districts and will be extended during the Plan.

6.125. *Large farm development programmes* are an essential part of meeting the production goals. Kenya's large farms include plantations (400,000 ha.), large mixed farms (900,000 ha.) and ranches (1,200,000 ha.). Plantations occupy a relatively small part of total large farm land, but provide 80 per cent of the large farm contribution to the agricultural gross domestic product. They are important for employment, exports and Government revenue, and will continue to develop, mainly through intensification of the existing crop hectareage, with some additional planting in particular of tea. Investments will be carried from private sources including accumulated reserves and commercial banks.



6.126. Approximately half of the large mixed farms (430,000 ha.) have been bought by groups (companies and co-operatives) who, in most cases failed to achieve adequate levels of output and productivity. The Group Farm Rehabilitation Project, started in 1975, aimed at the improvement of such group owned farms and coffee estates. The progress has been modest with thirteen mixed farms and eleven coffee estates participating in 1977. The majority of group-owned farms, although bought collectively, were never meant to be farmed collectively. Owner's aspirations are generally to own and farm individual smallholdings. Sixty-two per cent of the group farm area has been informally, unofficially, and often illegally, subdivided without Government control or assistance. It is now recognized that for the mixed farms such subdivision meets both the wishes of the owners; and is more effective in meeting multiple development objectives, than attempting to maintain the farms as single large scale management units. The Group Farm Rehabilitation Project will therefore be reduced to deal with the coffee plantations only, where it has been more effective. Its original purpose will be met by two additional projects: the mixed Farm Improvement Project and the Group Farm Subdivision Project.

6.127. The *Group Farm Subdivision Project* will be initiated early in this Plan to implement the orderly subdivision of those group owned mixed farms whose owners wish to subdivide, and where climate and soils make it likely that commercial smallholder production will be viable. This programme will extend over eight years and it will concern about 700 large mixed farms with 410,000 ha. and 100,000 participants. The transfer into commercial smallholder production will be organized by task force teams, which will be staffed by personnel from the Ministries of Agriculture, Lands and Settlement, and Co-operative Development.

6.128. Development assistance for large-scale ranches recently bought from expatriate owners will be given through the Livestock Development Programme. The Group Farm Subdivision Project will allow future development assistance to the subdivided holdings to come under IADP—III which will be geared specifically to the needs in the newly established smallholdings. Both the Group Farm Subdivision Project and IADP—III transfers resources from inefficient types of large-scale production and squatter farming, to commercial smallholder production. The beneficiaries are mainly people who have been living at a subsistence level and who have no land elsewhere. They will both significantly contribute to the alleviation of poverty. Development assistance for large-scale ranches recently bought from expatriate owners will be given through the Livestock Development Programme.

6.129. The *Narok Agricultural Development Project* is considered a component of the Commercial Farming Programme. It will promote rational, settled, agricultural development of the high-potential land in western Narok

District and adjoining areas. The first phase, which becomes operational in 1978/79, will be implemented in Mau Division and will include an area of 70,000 ha. with 28,000 ha. of arable land, and 600 participating farmers. A second phase is planned for initiation in 1981/82 covering the remaining high potential land in the Narok District (about 250,000 ha.). This project will rehabilitate 15,000 ha. effected by erosion and weed infestation, and open up 13,000 ha. of new land for wheat and barley production. It will co-ordinate the services necessary for commercial farming and improved husbandry standards. Initially farm plans will be based on simple rotations involving wheat and rape.

6.130. A *village services and agricultural support programme* will be aimed at strengthening villages in rural areas to meet the basic needs of the rural population and to provide efficient support services to agriculture. It is essential that increased facilities be provided to the rural populace. All rural citizens should have reasonable access to education, health, communication and agriculture service facilities. Under this project villages with some concentrated population will be surveyed to see that they have minimum basic facilities. It will also encourage more intensive settlement which will reduce the cost of providing these necessary facilities. Other Ministries will be responsible for the social services, establishment of co-operative societies and infrastructure. The Ministry of Agriculture will be responsible for the agricultural support elements. These will include, a centre where basic inputs can be purchased, a credit and information centre where information on agricultural prices and markets and where either credit or information on how to obtain it is available. There will also be a transportation centre which provides quick access to markets. The centralization of these facilities in one location where a farmer can be sure of meeting all his needs in one place will do much to save the farmer unnecessary effort.

6.131. *The Sugar Development Programme* calls for a major additional expansion in sugar production. The programme so far has been very successful in terms of import substitution, employment, and welfare. Four major sugar projects will be completed. Two new factories, South Nyanza and Nzoia, will be producing in the first year of the Plan. In both cases planting is on both nucleus estates and on outgrowers' farms involving 9,400 participating smallholders. The Mumias factory will expand its capacity from 70,000 to 180,000 tonnes. The additional cane will be from outgrowers involving an additional 4,200 participating farmers. A further project is the rehabilitation of cane production in the four factory zones of Miwani, Muhoroni, Chemelil and Ramisi involving large-scale estate and small producers. The financial input in sugar development will be heavy. However, it is expected to achieve self-sufficiency in sugar for Kenya during the plan period. At least 20,000 farm households and workers, especially in Nyanza, Western, and Coast Provinces, will directly benefit from these programmes thus improving

employment and income in areas with relatively large proportions of low-income households. A review will be made to assess the feasibility of further investments in sugar production if exports will be economic in terms of world prices, and if the utilization of sugar as an industrial and fuel input is economically justified.

6.132. *The Livestock Development Project* will be in Phase III during the plan period. The integrated package provides for the further development of range management enterprises whose institutional forms were established in the earliest phases of the project including:—

- i. Grazing blocks—loose community grazing schemes involving demarcation of large land areas for controlled grazing. There are no changes in land and livestock ownership and the main investment is for range water development. Grazing blocks are developed in the arid north and north-eastern part of the country.
- ii. Group ranches—These are established on range lands (Trustlands) where land ownership is identified with groups of people. Land titles are conferred to groups of people who own livestock individually but develop communal facilities such as water and dips.
- iii. Company/Co-operative ranches—Ranching enterprises are being established in previously unoccupied or unclaimed land (e.g. Coast hinterland), or is leased from Government or County Councils to prospective contributing shareholders. The company/co-operative is the legal entity and owns all assets.
- iv. Commercial ranches, formerly expatriate owned livestock production units, most of which have changed hands and are currently owned by Kenyans.
- v. Provision of credit and grants for the development of the proposed enterprises.

6.133. The programme will continue several other aspects of Phases I and II of the Project. The most important of these are on-ranch management training, examination of relevant legislation governing each ranch type, preparation of long and short term management plans, assessment of landlessness in pastoral areas and continuation of the range/ranch monitoring programme. Improved marketing and transport facilities, which are organized through the Livestock Marketing Division of the Ministry of Agriculture, will be continued and strengthened.

6.134. Phase I of the project (1968-1973) affected 900,000 ha. of grazing blocks and 108 ranches (800,000 ha.). Phase II (1974-1979) aimed to incorporate a further 181 ranches (189,000 ha.) and approx. 4 million ha. of grazing blocks. These targets are unlikely to be met because of the economic crisis in

1974 and the drought of 1973-75. However, Phase III (1979-1984) is expected to benefit 4 million ha. of grazing blocks, 47 group ranches (1.5 million ha.), and 25 company/co-operative ranches (1.5 million ha.). In addition, commercial ranches which have been taken over by Kenyans will be included in the services of the project.

6.135. Considerable potential for increasing food production and livestock output and a large percentage of the Kenya livestock herd are in Kenya's high and medium potential areas. A number of projects are planned in order to build on present activities. The present policy is to encourage livestock enterprises as part of a plan for whole farm development in smallholder schemes. There is significant capacity for raising the productivity of dairy cattle throughout the country. This will be encouraged during the plan period by the livestock aspects of on-going programmes (e.g. veterinary services, artificial insemination (AI), and dipping facilities under IADP). In addition, the Ministry of Agriculture will introduce a National Dairy Improvement Project. This will be an integrated project involving all aspects of milk production and dairy cattle rearing including breeding by the supply of selected bulls at bull stations and a more effective AI service, improved husbandry through extension intensified and training, in fodder and feeding systems, buildings and management, young-stock handling, heifer-rearing, bull calf utilization and marketing improvements through milk collection centres. The Livestock and Milk Recording Scheme will continue to operate in the Plan as part of this National Project to provide data for dairy planning.

6.136. Pigmear offers a significant potential for contributing to filling the forecast deficit in domestic meat supplies. In its first phase the Pig Project will be oriented to development of an extension system, and the applied research aspects of smallholder pig production. The project will investigate and develop appropriate systems for pigmeat production and marketing in rural areas. Feeding and management systems, the scope for breeding strains of pigs better suited to Kenya smallholder conditions and the use of waste product feeding, will be emphasized. The project will lead to greater production in suitable areas of the country. It will be linked to the Commercial Farming Project which will extend loans to smallholders for 5-10 sow pigs units by line of credit arrangements with the AFC.

6.137. The Poultry Development Programme was begun in 1976 and will be extended to 1980, to promote and provide assistance to small-scale poultry production. Its components include the development of small-scale commercial poultry units, to provide cash income by the improvement of the productivity of indigenous poultry stock. There will be improvement in infrastructural aspects through strengthening research operations and facilities at Naivasha, training and orientation of field extension staff, and improving marketing facilities especially for rural producers. Provision of finance for commercial poultry units through the line of credit, initiated by the Smallholder Credit

Project, will be continued throughout the plan period, as part of the Commercial Farming Project. This will fund the establishment of 200-300 hen units or small broiler units for farmers proven capable of operating in the cash economy.

6.138. The on-going Bee Project will be expanded to replace imported honey by local production. This will create opportunities for cash earning by smallholders in semi-arid areas.

6.139. The objective of the Sheep and Goat Programme is to develop production of meat and milk while simultaneously promoting effective destocking in over-grazed areas. This will be achieved by establishing sheep and goat improvement and multiplication centres based on the successful research project under the Third Plan. The research findings and breeding stock from the research centre at Naivasha will be extended under appropriate programmes and projects including IADP (Phase II) and the Livestock Development Programme. Improved sheep and goat production will be a major component in the development of arid and semi-arid lands.

6.140. *Arid and Semi-arid Lands Development Programme* is a new high priority activity of the Government and the Ministry of Agriculture. The objective is to urgently develop these areas by means and techniques that will preserve and make more productive the basic semi-arid and arid environments. These areas incorporate 80 per cent of Kenya's land area, 50 per cent of its livestock, and 20 per cent of its population. They face major problems of increasing population pressure on a fragile ecology which has led to significant resource degradation, and low, risky income opportunities with a widespread increase of poverty. They have received limited benefits from past development programmes. The semi-arid and arid areas will receive major attention in the Plan to deal with the twin problems of the alleviation of poverty, and the rehabilitation of land and water resources for sustained development in these areas. The programme will contribute to national development by avoiding the extensive need for famine relief with considerable revenue savings, and by encouraging, through increased productivity, the integration of the areas into the national market economy.

6.141. Past efforts in these areas were focused primarily on livestock and improvement of the welfare of pastoralists. This has become too limited an approach. There are increasing opportunities for economic returns and for improvements in individual welfare by the development of improved mixed crop and animal farming systems aimed at reducing the risk element which is a major factor in limiting agriculture in these areas. Risks, however, cannot be completely eliminated. The specific plans of agriculture will be complemented by an enlarged rural works programme. This will both generate small scale service facilities needed for area development on a labour-intensive basis, and will provide an alleviating measure for those seasons in which there are serious shortages of rainfall. Livestock production will continue to be a major basis for arid land development. The Livestock Development

Project, the Sheep and Goat Projects, and the Bee Project will all be integrated within, and contribute to the Arid and Semi-arid Land Development Programme.

6.142. An integrated approach to area development for the arid and semi-arid lands will be based on several pre-project components. A report of an Inter-ministerial Task Force is being prepared giving a long-term framework for development of these areas including a statement of objectives, a development strategy, a set of priorities and programmes and an organizational framework. Recently, a Pre-investment Resource Inventory and Project Identification Study of Machakos, Kitui, Baringo and parts of Embu was completed. This inventory and quantification of dryland areas resources is to be used in the design of integrated regional projects. The Dry Land Farming Research and Development Project will develop suitable methods for integrated dry land mixed farming involving the production of annual crops, of perennial crops, and livestock. The objective is to develop farming systems for medium and low potential areas which allow reliable production for household needs and market sales of the rapidly growing population in these areas. There is a research project based in Marsabit specifically studying the problems of developing arid and very arid land. Other research projects will provide useful data on various aspects, e.g. tree suitability, erosion control, water utilization, and wildlife movement.

6.143. The Machakos Integrated Development Project is the first integrated project to be implemented. It concerns all aspects of economic and social development with an emphasis on agriculture. The approach will be basically the same as in the Integrated Agricultural Development Programme, with a specific major regional concentration. Twenty-four thousand farmers will directly benefit from a package of innovations (mainly improved crop varieties and fertilizers), financed by credit which is provided without the collateral of a title deed. Soil conservation is a serious problem in the district and a special effort will be made in the project to obtain farm-level participation in proper soil conservation to supplement the large scale public expenditure. The project is expected to cost K£4.7 million in public funds over a 4-year period.

6.144. The initial project has been organized on a district basis because that is the administrative unit of implementation. However, there has been concern with the lack of homogeneity within districts and the fact that district boundaries cut across physically and ecologically linked areas. To test an alternative organizational model, a Kerio Valley regional development project is being planned on a river catchment basis. This will be administered by a special authority whose sole purpose will be the planning, co-ordination and implementation of programmes for the development of the entire valley.

6.145. Other development projects in arid and semi-arid areas will follow. Some projects will be on a district, and some on a functional basis. Areas to be included are Baringo, Kitui, and the drier parts of Embu, Kirinyaga, Meru

and Murang'a Districts, all of North-Eastern Province, Isiolo, Kajiado, Laikipia, Marsabit, Samburu, Turkana and West Pokot Districts, and the dry areas (zones IV, V and VI)\* of Elgeyo Marakwet, Nakuru, Narok, South Nyanza and Tana River Districts and the dry areas of Coast Province.

6.146. Programmes in these areas will be backed up by common services for planning pre-investment studies and research, co-ordinated by the Inter-ministerial Committee for Arid and Semi-arid Lands and administered through the existing Kenyan administrative structures with the Ministry of Agriculture taking a major role. There will be a common evaluation system for all projects. Different aid donors will support particular functional or regional programmes, but this flow of foreign aid will be carefully regulated to ensure that it is consistent with the overall policies and organizational systems of the Kenya Government. These will be set out in the long-term framework for development of the semi-arid and arid areas to be prepared by the Inter-ministerial Task Force (see Chapter 10).

6.147. The establishment of a new drylands crops seed farm to be operated by the Kenya Seed Company Limited will complement other development programmes for dry land areas. This new farm will be in Eastern Kenya, with irrigation facilities to multiply dryland crop seeds, including food, oil, and horticulture crops seeds. It would be based on seeds bulked by the Ministry of Agriculture research stations. The farm will be started in 1979 to ensure sufficient supplies of seeds for the Arid and Semi-arid Land Development Programme.

6.148. *The Irrigation Programme* will undergo a major review in the first year of the Plan. Policy on the use of water for crop and annual production will be assessed. Also considered will be alternative systems of water use, irrigation settlement schemes with intensive water needs, and supplementary irrigation with lower water inputs per hectare, in view of limited water resources and the water needs of both high-potential and the semi-arid and arid lands. It will examine the feasibility of moisture conservation techniques and supplementary small-scale water management facilities, and it will identify administrative systems for implementing any proposed irrigation programme. It will also analyse the trade-offs between using water for consumption and for investment purposes. In the past the emphasis of water investments has been on irrigation settlement under the administration of the National Irrigation Board. Two major projects of this type Bura and Yala will be implemented in the plan period. The main objectives of the Plan will be met however by the significant efforts to develop a great number of small-scale irrigation projects, larger areas for supplementary irrigation in medium rainfall areas, and by drainage and flood control for valley bottoms and other areas of impeded drainage with the potential for intensive farming to include appropriate crop and livestock activities. The preparation of such projects is under the responsibility of the Small Scale Irrigation Unit which has been established in the Land and Farm Management Division of the Ministry of Agriculture.

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\*These zones are described in the *Kenya National Atlas*, page 28.

6.149. The Third Plan aimed for a 75 per cent increase in the irrigation hectareage under the National Irrigation Board. The actual increase was 25 per cent. However, minor irrigation expanded rapidly, with a remarkable increase in private irrigation. This indicates the scope of irrigation potential in Kenya if small-scale irrigation is emphasized, and private initiative supported. The major emphasis of the Plan will be on small-scale irrigation. To deal with a great number of projects a decentralized approach is therefore necessary. Officers will be appointed in the Coast, Central, Eastern, Nyanza and Western Provinces as co-ordinators. A number of projects are planned in Central and Eastern Provinces primarily for horticultural crops, cotton and tobacco, with a total irrigated hectareage of 45,000 ha. anticipated by 1983. Irrigation in arid areas, with a special relief function is planned to increase by 1,850 ha. by 1983.

6.150. Western and Nyanza Provinces contain extensive areas, in high and medium rainfall zones, which are mainly used for grazing due to impeded drainage and seasonal floods. A preliminary estimate by the Kenya Soil Survey indicates that 800,000 ha. of such *mbuga* soils are available. There are similar areas with impeded drainage at the Coast. Three thousand hectares of these lands will be developed for intensive valley bottom farming with wet rice as the main crop. Development of these areas will have a major impact in increasing output and employment by producing commodities with a high demand in the local markets. During the plan period a long term programme will be prepared for these areas. The expenditure for small-scale irrigation and drainage will increase from K£0.5 million in 1978/79 to K£1.9 million in 1982/83.

6.151. *Resource conservation* is the base on which agriculture is built. The soil of Kenya is a stock resource and irreplaceable once destroyed. It is an asset which must be maintained for future generations. The tasks in agriculture are therefore not only to feed the nation, to produce for export and to provide employment, but also to maintain the soil and water resources of the nation in a productive state. There is reason for great concern in this respect. Soil erosion is reaching disquietening proportions and water catchment areas are increasingly disrupted due to uncontrolled cultivation and overgrazing.

6.152. The solution of the soil-and-water conservation problem lies with the spread of resource-conserving land use systems which are profitable from the point of view of the farmers. Soil and water conserving husbandry practices need to be a permanent feature of the agricultural production process. Examples are found in intensive dairy systems based on perennial fodder grasses, and the use of fertilizer to maintain a dense vegetative cover. The introduction of biogas will reduce dependence on wood for fuel. Farmers, extension workers, administrators, politicians and the general public have to be made conscious of the threat to the future food base of the nation which is caused by erosion. Education and information services have to be directed



not only to inform the public about the various technical measures which contribute to resource conservation, but also to encourage resource conservation as a national duty (see Chapter 5—Education).

6.153. The provision of incentives to farmers is of crucial importance for soil-conservation. Modern, intensive farming, with a vigorous crop vegetation maintained throughout the hydrological growing season is the most effective protection against erosion. In agricultural extension, increasing emphasis will be placed on land use intensification and related soil-conservation techniques (drains, strips of perennial vegetation, terracing, etc.). Planting material of soil-conserving crops (tree crops, bananas, grasses) will be generally made available at low cost to the farmers. Each location in relevant erosion areas will be equipped with nurseries for trees and grasses. Loans will be made available on favourable terms for on-farm soil-conservation measures.

6.154. On-farm conservation measures will be complemented by investments in small-scale communal projects such as cut-off drains, stoppage of gullies, drainage works, minor dams and reforestation. These projects will be based on local participation in decision making and implementation. The beneficiaries will be expected to form a farmers' association responsible for the maintenance of the structures established with public funds. The projects will utilize labour intensive construction methods. Most of the work should be done in the off-season to provide employment for the seasonally unemployed. To increase the implementation capacity for resource conservation in smallholder areas the Tractor Hire Service will be transferred to substations of the Soil Conservation Service. Machine services could then be offered for minor communal soil and water conservation projects.

6.155. The basic land use rules of the 1965 Agricultural Act will be amended according to the recommendations of the Ministry of Agriculture to suit the present land use patterns in the country. The amendments will concern such aspects as the planting of trees and construction of terraces in relation to slopes. The Act will be firmly enforced.

6.156. *Input development* is an essential part of land use intensification. The last two decades saw the development of the systematic use of animal manure in a number of farming systems, in particular, in those which include smallholder dairy production. The expanded and more effective use of animal manure will be encouraged during the plan period.

6.157. More intensive manure use has, however, to be supplemented by chemical inputs, in particular by mineral fertilizers. They are essential in maintaining soil fertility and their use leads to increasing outputs, income and employment. Most chemical inputs are foreign exchange-saving, because they produce more in terms of foreign exchange than they cost, but have been used in relatively small amounts. Smallholders consumed only about 3 per cent of total fertilizer consumption. Roughly 44 per cent of all fertilizer in Kenya is applied to coffee, tea and sugar-cane. Most food crop production

still occurs without any fertilizer. Total fertilizer requirements, estimated in terms of what should be applied on the basis of current fertilizer recommendations for the various crops and locations amount to 258,000 tonnes in 1977 and 395,000 tonnes in 1983. Adoption rates are likely to be lower however. Farmers in Kenya are well aware of the benefits of fertilizer use, but rising fertilizer application has started with the Integrated Agricultural Development Programme. This will be intensified during the Plan. IADP together with other fertilizer related projects and programmes, will increase total fertilizer consumption from 96,000 tonnes in 1976 and 146,000 tonnes in 1977 to 245,000 tonnes in 1983. Fertilizer consumption is thus planned to grow at a rate of 9 per cent.

6.158. There will be significant improvements in fertilizer supply and credit. The distribution of the additional fertilizer for tea will go through established KTDA services. Coffee co-operatives will be responsible for the supply of fertilizer within the Coffee Rehabilitation Project. The IADP includes major efforts to equip the co-operatives with finance and personnel to ensure that input supplies are provided on time, and that loan distributions and repayments are effectively administered. The co-operative movement is the major vehicle for the provision of more effective fertilizer supply services to smallholders. The consumption of fertilizer will also be greatly increased through the involvement of private traders. The stockist system has emerged as an efficient channel of fertilizer sales to small farmers. This approach will be intensified in the plan period, with fertilizer sold by stockists throughout the country in large quantities of small packages suited for smallholder consumption. Supply services will be supplemented by efforts to obtain group purchases from farmers, who will be offered a discount for bulk buying and jointly guaranteeing repayment.

6.159. The provision of high quality seeds is also crucial for the success of land use intensification. The Kenya Seeds Company will expand its activities and a large seed farm in a semi-arid area will be established. The objective is to produce seed for local consumption and for export. The Seed Inspection Service will be adjusted to handle a significant increase in activities.

6.160. Low labour productivity, a major bottleneck in smallholder development, will be dealt with by appropriate mechanization to fully mobilize the ample labour capacities in rural areas. The Agricultural Machinery Testing Unit which tests imported equipment and adapts appropriate types of machinery will significantly expand its activities in the plan period, through the Agricultural Equipment Improvement Project. The general objective is to produce appropriate technology suitable under smallholder conditions and which lend themselves to manufacturing in Kenya (see Chapter 2).

6.161. *Marketing projects* are necessary to offset the pressures on existing marketing and processing facilities are expected to increase as the volume and variety of marketed agricultural commodities expand. The diversification

of diets, with greater demands for perishable and processed foods will require improved marketing efficiency and added investments in marketing facilities. However efficient marketing is best promoted by the adoption of rational marketing policies and the efficient operation of various marketing institutions. Therefore this set of activities need not make large demands on investment funds.

6.162. Projects in marketing organized through the Ministry of Agriculture, are concerned to alleviate specific needs arising from co-operative and private trade. The physical improvement of wholesale and retail marketing facilities will contribute to more efficiency and reduced marketing overheads. A food wholesale market in Nairobi will be constructed, based on the completed feasibility study. Further studies will be conducted for Mombasa and other larger urban markets in order to determine what, if any, physical improvements are economically justifiable.

6.163. Crop storage and handling facilities will be improved over the plan period. The Maize and Produce Board will expand the number of maize driers it operates including the provision of a drier at Kitale. Additional storage space for the Maize and Produce Board is also planned. Other parastatal bodies will continue their on-going improvements in storage and handling facilities. Additional cereal storage capacity will be provided under IADP. Pilot investments will be made in potato storage facilities in selected production areas to determine the best low-cost storage facilities for farm-level storage and co-operative type commercial storage.

6.164. The Marketing Project in the Ministry of Agriculture enters its Phase II in the first year of the plan period. In this phase, it will work with several Ministries in implementing policies and programmes identified in their studies, to strengthen marketing systems, facilities and information flows around the country. This will be supplemented by a new project to be started early in the plan period to work with relevant Ministries, Statutory Boards and other organizations to strengthen the marketing system at the local level and to ensure farmers easier access to markets. This will be closely linked to a village development and agricultural support services programme.

### **The Development of Agricultural Output 1978-83**

6.165. The policy measures established, the various services provided and the projects and programmes implemented during the plan period are expected to have a major impact on agricultural production and rural incomes. This section summarizes the output targets that are expected from the policies, services, programmes and projects that have been described.

#### **Projected Output Growth**

6.166. Projected increases in output and income are based on the development of hectares, yields and livestock numbers. Tables 6.12 and 6.13 indicate the levels of these projections. Crop hectareage is expected to increase at

6 per cent, mainly at the expense of grassland. Much of it will occur in semi-arid areas. The expansion of intensive farm systems at the expense of less intensive ones is even more important. Large percentage increases in crop hectareage are expected for rice, fruits and vegetables, oil seeds, sugar-cane, barley, coffee, tea and pineapples, i.e. crops which produce a high value added per hectare. The expansion of barley, pineapple and cashews is mainly at the expense of either extensively used grasslands, or under-utilized coastal land with relatively low opportunity costs. No major expansion in the hectareage of maize is expected.

PLANNED DEVELOPMENT OF THE HECTAREAGE UNDER CROPS AND OF YIELDS (1976-1983)  
(An Estimate of the Orders of Magnitude)

Table 6.12

	1976		1983			
	Hectares '000	ton/ha.	Hectares '000	Per cent increase in ha.	Yield ton/ha.	Per cent increase in yield
<b>Food Crops:</b>						
Maize <sup>1</sup> .. .. .	1,934	1.4	1,972	2	1.7	21
Wheat .. .. .	135	1.4	135	0	1.5	7
Rice .. .. .	12	3.2	18	50	3.6	11
Sorghum and millets ..	167	n.a.	200	20	n.a.	n.a.
Potatoes (pure stand) ..	51	3.0	62	22	8.8	10
Other root crops <sup>2</sup> ..	149	9.4	164	10	10.9	16
(including mixtures).						
Pulses and other tempo- rary crops .. .. .	194	n.a.	213	10	n.a.	n.a.
Fruit and vegetables ..	27	n.a.	46	70	n.a.	n.a.
Bananas and plantains	39	n.a.	56	44	n.a.	n.a.
<b>Industrial Crops:</b>						
Oil-seeds <sup>3</sup> .. .. .	17(10)	n.a.	29(10)	71	n.a.	n.a.
Sugar-cane .. .. .	85	19.5	113	33	30.0	54
Cotton (incl. mixtures)	71	0.2	85	20	0.4	100
Barley .. .. .	26	1.9	51	96	2.2	16
Other .. .. .	3	n.a.	3	0	n.a.	n.a.
<b>Export Crops:</b>						
Coffee .. .. .	87	0.9	120	38	0.93	4
Tea .. .. .	66	0.9	87	32	1.25	39
Pyrethrum .. .. .	25	0.6	31	24	0.8	33
Sisal .. .. .	77	0.4	70	neg	0.6	50
Pineapples .. .. .	5	25.0	13	260	25.0	0
Cashew <sup>4</sup> .. .. .	7(48)	0.3	12(48)	71	0.6	100
Wattle .. .. .	12	n.a.	12	0	n.a.	n.a.
Other .. .. .	10	n.a.	11	10	n.a.	n.a.
<b>TOTAL</b> .. .. .	<b>3,199</b>	<b>—</b>	<b>3,503</b>	<b>10</b>	<b>—</b>	<b>—</b>

<sup>1</sup> Including mixtures with sorghums, beans, potatoes, bananas, etc. Yield estimate includes 240,000 tons pulses and other cereals from interplanted crops.

<sup>2</sup> Sweet potatoes and cassava, including mixtures with coconut and cashew.

<sup>3</sup> The figures in parenthesis are crop mixtures with cassava and cashew.

<sup>4</sup> The figures in parenthesis are the hectareage of cashew with cassava.

## LIVESTOCK NUMBERS

Table 6.13

Type	LIVESTOCK NUMBERS			Total
	Large Farms (1976)	Small Farms <sup>1</sup> (1975)	Pastoralists <sup>2</sup> (1975)	
<b>Dairy Cattle:</b>				
Cows .. .. .	175.1	578.7		753.8
Heifers .. .. .	95.8	309.5		405.3
Bulls and Calves .. .. .	19.2	423.9		443.1
Other .. .. .	—	79.5		79.5
<b>TOTAL .. .. .</b>	<b>290.1</b>	<b>1,391.6</b>		<b>1,681.7</b>
<b>Beef Cattle:</b>				
Cows .. .. .	150.1	1,934.7	1,290.0	3,374.8
Other .. .. .	6.4	3,624.1	690.0	4,620.5
<b>TOTAL .. .. .</b>	<b>156.5</b>	<b>5,558.8</b>	<b>1,980.0</b>	<b>7,995.3</b>
Sheep .. .. .	325.7	2,698.6	4,500.0	7,524.3
Goats .. .. .		4,260.9	4,500.0	8,760.9
Pigs .. .. .	18.1	n.a.		18.1
Poultry .. .. .	236.4	n.a.	n.a.	n.a.

<sup>1</sup> As of October 1975, "Improved Stock" is listed under dairy cattle and "unimproved stock" under beef cattle.

<sup>2</sup> Cattle here may be regarded as dual purpose—milk and beef.

Source: Statistical Abstracts, 1977—Livestock and Meat Industry Development Study, Ministry of Agriculture, 1977.

6.167. Land use intensification will be reflected in higher yields per hectare. The expected increase for maize will be 26 per cent. Substantial increases in yields are also expected for sugar-cane, pyrethrum, cotton and tea.

6.168. Table 6.14 shows the planned growth of agricultural production to 1983. These production estimates are the predicted results of the Development Plan.

6.169. *Food crop* production increases are fundamental to Plan objectives. The provision of sufficient maize for on-farm consumption and local markets is crucial for welfare and poverty alleviation in Kenya. The objective in maize production policy is self-sufficiency with storage programmes to balance good and poor crops. Total output is expected to grow at the same rate as population (3.5 per cent), which implies an increase from 2.5 million tonnes in 1976 to 3.1 million tonnes in 1983. Market supplies will increase more rapidly. They are expected to grow at a rate of 8 per cent per annum, which would not only cover food demand, but would also leave an important margin for feeds and exports if commercially justified. Maize prices are expected to grow at a lower rate than general prices in the economy in order to avoid the need for uneconomic surplus disposal. The reduced relative price will be compensated through decreased costs arising from increased productivity.

PLANNED DEVELOPMENT OF TOTAL PRODUCTION OF AGRICULTURAL COMMODITIES<sup>1</sup>

Table 6.14

(in '000 tons)

	1976 Actual	1978 Estimate	1983 Target	AVERAGE ANNUAL RATES OF GROWTH	
				1976-83 Per Cent	Over Plan Period
<b>Food Crops<sup>2</sup>:</b>					
Maize .. .. .	2,467	2,642	3,139	3.5	3.5
Wheat .. .. .	187	190	200	1.0	1.0
Rice (paddy) .. .. .	39	47	65	7.6	6.7
Sorghum, millet and other food grains .. .. .	338	366	467	4.7	5.0
Pulses .. .. .	298	322	420	5.0	5.5
Potatoes .. .. .	408	444	548	4.3	4.3
Other starch roots .. .. .	1,400	1,503	1,793	3.6	3.6
Fruits and vegetables .. .. .	214	241	371	8.2	9.0
Bananas, plantains .. .. .	232	253	331	5.2	5.5
<b>Industrial Crops:</b>					
Oil-seeds and nuts .. .. .	33	36	52	6.7	7.6
Sugar-cane .. .. .	1,653	2,250	4,500	15.5	15.0
Seed cotton .. .. .	16	17	34	11.4	14.9
Tobacco .. .. .	0.8	1.5	3.7	24.5	19.3
Barley .. .. .	49	52	112	12.5	16.6
<b>Export Crops:</b>					
Coffee <sup>3</sup> .. .. .	80	95	112	4.9	3.4
Tea .. .. .	62	87	109	8.4	4.6
Sisal .. .. .	33	32	40	2.8	4.6
Pineapples .. .. .	124	172	336	15.3	14.3
Cashew nuts .. .. .	18	24	36	10.4	8.5
Pyrethrum .. .. .	14	14	25	8.6	12.3
Wattle .. .. .	28	28	30	1.0	1.4
<b>Livestock Products:</b>					
Milk (dairy products) .. .. .	1,160	1,286	1,649	5.1	5.0
Beef cattle .. .. .	141	137	164	2.2	3.7
Sheep and goats .. .. .	65	67	82	3.4	4.6
Hides and skins (dried) .. .. .	10	11	13	3.8	3.4
Pigs .. .. .	3.2	3.4	4.4	4.7	5.3
Poultry meat .. .. .	28	31	39	4.9	4.7
Eggs .. .. .	21	23	30	5.2	5.5

<sup>1</sup> The estimates concern total production and not just marketed production.

<sup>2</sup> The estimates are of total production.

<sup>3</sup> Based on the assumption that 1976 coffee prices will be maintained over the plan period and fertilizer application rates will double.

<sup>4</sup> The production data presented livestock products and "minor crops" is less accurate than for the "major crops".

6.170. Wheat production is expected to grow at an annual rate of 1 per cent. This will not be sufficient to keep up with increasing internal demand. There is an anticipated increase in production in the Narok area through the Narok Agricultural Development Project but most of this production increase will occur after the Plan. There may be a decline in other wheat-growing areas particularly on farms bought by groups of farmers, who tend to subdivide

and to plant more competitive crops for smallholders such as maize and potatoes. There will be some expansion of smallholder wheat in particular in low density settlement scheme areas. This is unlikely to lead to a growth in wheat output sufficient to cover demand—growth in which expands at a rate of about 7 per cent per annum.

6.171. Production of paddy rice is expected to grow at a rate of 7.4 per cent per annum, which implies an increase in output from 39,000 to 65,000 tonnes. The objective is to keep pace with increasing internal demand. Other food crops such as sorghum, millets, roots and pulses will benefit from land development in semi-arid areas, and from deliberate efforts in the Integrated Agricultural Development Programmes to improve the food base of small cultivators. Production is expected to grow at rates of about 5 per cent. A significant expansion of the production of potatoes and other starchy roots will occur. There is a growing consumer preference for potato consumption. Growth of cassava output is related to the growing demand of processed cassava for feeds and processed starch.

6.172. A significant increase in the production of fruits and vegetables is expected. The rapid growth of demand in internal and export markets, and the need for land use intensification and more employment, favour the expansion of fruit and vegetable production. There will also be a significant expansion in demand and supply of bananas and plantains.

6.173. *Industrial crops* growth rates will be high because they face rapidly growing internal markets and most of them have a high employment content in production, processing and marketing. The most important industrial crop in Kenya is sugar-cane. Output is expected to grow at a rate of 15 per cent. Expected sugar production by the end of plan period is likely to be around 480,000 tonnes. This will be extracted from 4,500,000 tonnes of cane.

6.174. Cotton production is expected to increase at a rate of 11.4 per cent from 15,800 tonnes in 1976 to 34,000 tonnes in 1983. Cotton production has been stagnant for a long time in Kenya. There will be an emphasis on producing short staple varieties that are needed for the domestic market.

6.175. Flue-cured tobacco production should increase to over 3,700 tonnes by 1983. The objective is to make Kenya self-sufficient in tobacco. Barley production will increase from 49,000 tonnes in 1976 to 112,000 tonnes by 1983. The aim of the development programme during the plan period is to raise yields rather than putting more land to barley, in order to maintain self-sufficiency.

6.176. *Export crop* development will be led by coffee production which reached 80,000 tonnes in 1976. This was due to both improved weather conditions and the incentives for more inputs provided by the very high coffee prices. This was 10,000 tonnes more than the target output for 1978 in the

**Third Plan.** The 1976 area under coffee was estimated at 86,389 ha. of which 56,595 ha. was in the smallholder sector served by co-operatives, and 28,389 ha. was under estate production. During the Plan 33,000 to 35,000 ha. of additional smallholder coffee will come into production. Most of it will be planted by 1979. Coffee production is expected to grow at a rate of 4.9 per cent, based on the assumption that prices will not decline below the 1976 levels and that fertilizer use in coffee will nearly double within the plan period (an increase of 14 per cent annually). If coffee prices decline, and fertilizer use does not expand at the expected rate then growth rates could fall to less than 2 per cent.

6.177. A major expansion will also take place in tea production. Total output of tea amounted to 61,984 tonnes in 1976 of which the small farms produced 21,463 tonnes (44,000 ha.) and the estates 40,521 tonnes (26,500 ha.). Smallholder tea planting programmes, organized by KTDA, will expand to 52,000 ha. so that total hectarage will be 87,000 ha. in 1983. Growth of output for 1976-1983 will be 8.4 per cent and production by 1983 is expected to amount to 109,000 tonnes.

6.178. Since 1975, as a result of world production decline, there has been an improvement of world price of raw fibre and sisal twine. The effect in Kenya was replanting of hybrid sisal which is expected to be harvested from 1979. No other major project to increase production is programmed. The establishment of a new spinning factory in the Rift Valley Province, and the installation of new machinery of larger capacity by the East African Bag and Cordage Co. Ltd., will allow more of locally produced sisal to be processed and used locally.

6.179. The Government's target to increase smallholder participation in pyrethrum production has been largely achieved. By 1976 over 88 per cent of total flowers deliveries to the Nakuru factory came from smallholders. The Nakuru factory has been renovated and expanded with its capacity increased from 12,000 tonnes per year to 30,000 tonnes. Further developments are underway in refining, and it is anticipated that during the plan period the Nakuru factory may be able to export refined pyrethrum products. Output is expected to increase by 79 per cent from 1976 to 1983.

6.180. Total production of wattlebark in 1976 was about 28,000 tonnes. Prospects for wattle extract exports are good, since Kenya faces increased demand for her wattle extract from countries boycotting South African production. The export prices of both bark and extract have been increasing rapidly, and this trend is expected to continue for the next few years. Kenya has plenty of land suitable for wattlebark production in Central, Eastern and Western Provinces but growers must wait for nine years for trees to mature for harvesting. Currently wattlebark farm prices are not competitive with those of other crops. Nevertheless production will increase to 30,000 tonnes by 1983.



6.181. Total production of pineapples in 1976, at 124,000 tonnes, was substantially higher than the previous Plan target of 98,000 tonnes by 1978, far exceeding the 18 per cent target annual growth rate. Most pineapples are exported and the market is expanding. Total production is expected to increase from 124,000 in 1976 to around 336,000 tonnes by 1983, an annual growth rate of 14.3 per cent over the plan period.

6.182. A new processing plant for cashew nuts will be located at Kwale. The Government will provide incentives to cashew nut farmers through a price increase in 1978. Production is expected to go up significantly through improved management.

6.183. *Livestock products* are important components of total production. Total milk production was estimated at about 1.2 million tonnes in 1976 of which 0.840 million tonnes came from smallholders, 0.153 million tonnes from large smallholders, 0.153 million tonnes from large farms and 0.193 million tonnes from pastoral areas. About 0.550 million tonnes are consumed by calves. Approximately 0.650 million tonnes are therefore available for human consumption, or about 47 kg. per head after allowing exports of around 16 million kg. whole milk equivalent. Total milk production is expected to grow by 5.1 per cent annually. With a higher proportion of milk fed to calves, milk supplies will increase by 4.9 per cent. KCC is expected to handle 17 per cent of this. A small surplus is expected by 1983 and would be available for export. This would imply a substantial increase in dairy exports and a major effort in finding suitable markets will be required. Although demand and supply projections are based on uncertain information it does seem likely that an increasing milk surplus will occur at the same time as the meat deficit increases. More milk supplies will contribute towards offsetting the welfare and nutritional losses caused by higher beef and other meat prices which are predicted.

6.184. Beef production in 1975 was estimated at 141,000 tonnes of which 13,000 tonnes were exported. Annual domestic consumption is about 9.2 kg. *per capita* and declining. The impact of various cattle-oriented livestock projects have been limited by drought, and beef output has stagnated since 1976. Beef prices will increase significantly. High rainfall in 1977 and 1978 has led to some recovery of stocks in pastoral and ranching areas. Total output is planned to grow at a rate of 2.2 per cent between 1976-83 and 3.7 per cent 1978-83. Production is expected to be 164,000 tonnes by 1983.

6.185. Drought and low prices led to a decline of sheep and goat meat production in the mid-1970's. High rainfall in 1977 and 1978 resulted in restocking and substantial herd development. This will be supported by favourable prices and a major sheep and goat project. 1976 production was estimated at around 65,000 tonnes and 1983 output is expected to be 82,000 tonnes which implies a growth rate of 4.6 per cent over the plan period.

6.186. The large-scale pig production in the highlands, which used to produce bacons for the local market and for export declined with changing prices relations, farm structure, and markets. Smallholder pig production for pork has developed gradually, based on the more diversified feed supply generally available in smallholdings. This type of pig production will be supported by the Pig Development Project in the Plan. Annual output is expected to increase by 4.7 per cent from 3,200 tonnes in 1976 to 4,400 tonnes in 1983.

6.187. Poultry meat production is expected to grow at a rate of 4.9 per cent from 28,100 tonnes in 1976 to 30,800 tonnes in 1983. Total egg production in 1976 was estimated at around 20,900 tonnes with a *per capita* consumption of about 1.5 kg. (26 eggs) per annum. Egg production is expected to grow at a rate of 5.2 per cent. The objective is to supply the internal market. Price policies for poultry meat and eggs will be adjusted to meet those objectives.

6.188. The limited impact of past efforts to increase beef supplies from Kenya's extended pastoral areas, the extension of cropping at the expense of grazing in much of the medium and high potential areas, and the increasing meat demand from the rapidly growing population, is leading to a decreasing *per capita* supply of beef and possibly of meat in general.

6.189. *The average annual growth rate* of the agriculture sector will be 4.7 per cent. This commendable achievement, given the constraints, will be realized through the implementation of the policies and programmes as outlined in the preceding sections. However, it is possible that if Kenya is the beneficiary of unexpectedly high prices for its agricultural exports as it was in the Third Plan period the growth rate could exceed this figure.

### **Agriculture in the Primary Production Sector**

6.190. The policies, services and programmes described in this Plan for agriculture cannot stand alone. They are closely linked with the nation's broad development policies, such as tax policy or to the programmes of other Ministries such as Works for development of infrastructure or Commerce and Industry for encouraging processing and manufacturing enterprises to create a demand for agricultural raw materials. However, the linkages to the Ministries of Lands and Settlement, Co-operative Development and Natural Resources are of crucial importance to the success of agricultural development. The continual reference to land scarcity and land use intensification and conservation in the preceding sections makes this clear. The references to the role of co-operatives in credit and import programmes also points up the importance of these linkages. Therefore the next sections of this chapter deal with the development plans of these Ministries.

## NATURAL RESOURCES

6.191. This section is concerned with developments proposed for a part of the natural endowment of the nation: forestry, fisheries and minerals. The development of these renewable and non-renewable resources is concerned with their location and assessment in terms of their stocks and maximum sustainable yield, their exploitation, their replacement and their conservation. Although these natural resources contribute directly only a small fraction of Kenya's monetary GDP (less than 2 per cent in 1976), they supply the greater part of the country's domestic fuel needs, vital inputs to the construction, chemical and paper industries, and they provide an important source of animal protein. Forestry and mineral resource development come within the purview of the Ministry of Natural Resources while the development of marine and freshwater fisheries comes under the Fisheries Department of the Ministry of Tourism and Wildlife.

### Forestry Development

#### Policy Framework

6.192. The nation's forests and trees contribute to the provision of basic needs of people in the form of domestic fuel and building materials. The proper development of the forestry resource will support the overall theme of the Plan through ensuring a sustained and growing supply of timber for these more traditional domestic needs and to satisfy the expanding industrial demand for forest products. However, forest and tree resources also play a vitally important role in conserving soil and protecting water catchments. Therefore a major objective of forest development during the plan period will be to promote the establishment and maintenance of vegetative cover on private and public lands. Such cover need not be limited to forest trees but will include other productive multi-purpose tree or shrub species. The promotion of this objective will not be restricted to high potential areas but will be extended into the more arid parts of the country where the avoidance of desertification is of utmost priority.

6.193. In achieving these objectives, some severe constraints must be overcome. Firstly, forest and tree resources have been seriously depleted through the uncontrolled felling of trees, especially for charcoal burning, in particular on private land and in local authority forests. Secondly, the encroachment of agricultural settlement onto forest land is a problem assuming major proportions. The growing conflict between the demands for land for agricultural use and for forestry purposes can be resolved only by seeking a consensus from a nation-wide range of expertise, interests and opinions. Therefore, this whole issue will be subject to review by the National Lands Commission which will be established early in the plan period. Thirdly, poor management of the sawmilling industry has led to the inefficient and wasteful exploitation of scarce forestry resources.

6.194. The following strategies will be employed to achieve the overall objectives underlying forest development:—

- i. There will be a complete review of the currently designated catchment forests in terms of their management and extent; from this review will arise a comprehensive programme of action which will direct the Forest Department's role in the nation's resource conservation programme.
- ii. A special campaign will be mounted to popularize among the rural population tree planting and nurturing and the establishment and correct management of farm wood lots. Such a campaign will require the provision of seedlings in every administrative division throughout the country; and the direct involvement of district forestry staff.
- iii. There will be a shift in emphasis in the forest research programme away from the needs of plantation forests, and towards the special needs of establishing and maintaining tree and shrub species in arid and semi-arid zones of the country.
- iv. The forest plantation programme will attain the target of 173,000 hectares which will continue to absorb the major part of the resources devoted to forestry development.
- v. Efforts will be made to increase the value of export sales through improving the quality of forest products and through promoting specific wood products aimed at particular export markets.
- vi. Local small-scale sawmills comply with Plan objectives of promoting employment in rural areas and rural industrialization and these will be assisted by programmes involving extension, training and credit.

### **Forests Resources and Targets**

6.195. In addition to their vital role in conserving water and soil resources, the nation's forests represent a valuable renewable resource. With careful management and exploitation both indigenous and plantation forests can meet domestic needs for timber and forest products, as well as make a greater contribution to export earnings. The estimates of supply and demand are summarized in Table 6.15 and described further in the following two sections.

### **Resources and the Supply of Timber**

6.196. The total gazetted forest area is 1.67 million hectares of which Government forest occupies 0.97 million hectares, and forest on Trust land accounted for 0.70 million hectares. Most of the gazetted forests are indigenous with plantation forests accounting for only 136,200 hectares of the gazetted total. In addition, there are an estimated 134,000 hectares of privately owned forest.

PROJECTED SUPPLY OF AND INDUSTRIAL DEMAND FOR ROUNDWOOD, 1978-1983

Table 6.15

(thousand cubic metres)

	1978	1979	1980	1981	1982	1983	Annual Rate of Growth Per Cent
Potential Extraction/Supply:							
Indigenous Forests .. ..	120	120	120	120	120	120	—
Plantation Forests .. ..	950	1,240	1,050	1,290	1,200	940	—
TOTAL .. .. .	1,070	1,360	1,170	1,410	1,320	1,060	—
Demand:							
Sawlog, ply board and fibreboard	520	640	699	744	794	829	9.8
Pulp and paper .. .. .	300	300	356	356	356	356	3.5
TOTAL .. .. .	820	940	1,055	1,100	1,150	1,185	7.6
Annual Surplus/Carry-over as							
Standing Forest .. .. .	250	420	115	310	170	(-125) <sup>1</sup>	
Cumulative Carry-over <sup>2</sup> .. ..	550	970	1,085	1,395	1,565	1,440	

N.B.—<sup>1</sup> Excess of Demand over Supply projected for 1983.

<sup>2</sup> Assumes carry-over of 300,000 cubic metres from period prior to 1978.

6.197. The indigenous forests have always been used as a source of fuel and building materials, but have been exploited for sawn timber only from the beginning of this century. Since the early 1970s, these forests also have provided increasing quantities of peeler logs for the plywood industry. The current estimate of the sustainable yield of the indigenous forests is 120,000 cubic metres of roundlog equivalent per annum. Greater emphasis must be given to the correct management of this resource to enable it to support the current rates of extraction while maintaining its soil and water catchment function. Supplies of timber from indigenous forest will be supplemented by rural and local afforestation programmes as trees planted under these programmes mature.

6.198. The plantation forests are both more productive and more easily exploited than the indigenous forests. The current area of plantation forests is some 136,200 hectares consisting mostly of exotic softwood and hardwood species. It is planned that 36,600 hectares of plantation forests will be planted during the five years of the plan period under the on-going Forest Plantation Programme. Thus by 1983, the area under plantation forest will be nearly 173,000 hectares, consisting of 142,000 hectares of sawlog and 31,000 hectares of pulpwood forest. The potential yield of timber from these plantations has increased significantly, rising from an estimated 512,000 cubic metres in 1970 to 950,000 cubic metres in 1978. This trend of an increasing supply of timber from this source will continue into the Plan period, attaining a projected 1,290,000 cubic metres by 1981. However, because of the interruption in the planting programme in the mid-1950s brought about by the Emergency, the use of the 30 year felling cycle will result in a reduction in

potential yield to around 900,000 cubic metres per annum through the mid-1980s, that is, beyond the extent of this Development Plan. The short term reduction in potential yield from this important sector of the nation's forest resources, has major implications for overall forestry policy. The estimated total supply of timber from indigenous plantation forests over the plan period is summarized in Table 6.15.

6.199. With the increased emphasis in forestry development being placed on the establishment and proper management of farm wood lots, improved management and controlled exploitation of privately owned forests and the rural afforestation programme itself, some increase in the supply of timber products from non-government-owned forest resources can be anticipated. Such an increase is difficult to quantify at this stage and will be subject to lags but certainly the rural community at large will become more self-sufficient on a sustained basis in forest products. Such an assumption includes the increasing demands being placed on forest resources for fuel. For example, tobacco farmers are expected and required to make a major contribution to their rising fuel needs for curing tobacco through on-farm planting of suitable tree species.

#### **The Demand for Forest Products**

6.200. The largest component of the domestic demand is for fuelwood. On the assumption that this demand is increasing at a rate comparable to that of population growth, then consumption of fuelwood either directly or as charcoal is estimated to be some 15 million cubic metres in 1978, or over 90 per cent of the total consumption. The consumption of timber products as traditional building materials is estimated to be around 500,000 cubic metres in 1978 while the consumption by the industrial sector of plywood and fibreboard and wood for pulp and paper manufacture is estimated at 820,000 cubic metres, a figure which includes exported forest products of less than 20,000 cubic metres per annum. The industrial demand for forest products, therefore, still constitutes but a small fraction of total demand, although this proportion will increase with the increasing industrialization and the gradual substitution of alternative forms of fuel for wood. The industrial demand for forest products as shown in Table 6.15, is projected to increase at an annual rate of 7.6 per cent, to 1,185,000 cubic metres, this figure including exported products, by 1983.

6.201. Unfortunately, the export performance of Kenya's sawmills has deteriorated in recent years. From 1968 to 1970, annual exports of timber were nearly 30,000 cubic metres, but this figure has declined to less than an estimated 17,000 cubic metres in 1978. Exports to Europe have declined because Kenyan wood products cannot meet the strict quality requirements of this market, and the collapse of the East African Community and the border closure with Tanzania have reduced exports to Tanzania and Uganda.

Although steps will be taken to improve product quality, it seems unlikely that exports will or can increase at a rapid rate during the Plan period. Therefore, the projection is for an annual increase in volume terms of 3 per cent from 16,900 cubic metres in 1978 to 19,680 cubic metres in 1983, the value of which should increase at a slightly higher rate: from K£700,000 in 1978 to about K£860,000 in 1983. In any case, the impact of export demand on the industrial demand for forest products, as the above volume figures show, is not expected to be very significant.

6.202. Considering supply and demand estimates for forest products, as summarized in Table 6.15, it is projected that an annual surplus or excess of potential supply over demand will occur until the end of the plan period, thus accumulating to some 1,440,000 cubic metres by 1983. However, this assumption must be carefully qualified. Firstly, it is assumed that the actual extraction rate of timber from indigenous forests is equal to the annual sustainable yield. Secondly, the yield from plantation forests is that calculated from the plantation areas reaching maturity, having been planted some 30 years earlier. The actual extraction rates, however, may differ from these assumed yields. This also explains the annual shifts in potential yield which in practice would be smoothed out over the years. However, the important point is that with the projected decline in yield of the plantation forests from the early 1980s for a period of about five years, Kenya will face an increasing deficit during these years and until plantations which were planted later, especially those aimed for the pulp and paper market, come into bearing. Therefore, it is proposed that, as a broad policy, the excess of potential supply over demand of the early years of the plan period will be held over as standing forest to cover the projected deficit. In fact, if industrial demand increases at the projected annual rate of 7.6 per cent, it will attain 1,700,000 cubic metres by 1984 by which time the potential supply from plantation forests will have resumed an upward trend, and the accumulated surplus of the 1970s will have been nearly exhausted. Therefore, the careful management of these forests on a sustainable yield basis must be an important part of Kenya's forestry policy during the plan period.

6.203. To underline this point, it is worthwhile to extend these projections of supply and demand beyond the period of this Development Plan into the critical 1984-86 period, as shown in Table 6.16 below. The basic assumptions are that the annual yield of plantations will bottom out at 900,000 cubic metres per annum during these three years while the yield of indigenous forests remains at 120,000 cubic metres per annum. The demand for forest products is projected to increase at an annual rate of 7.6 per cent, as in this Development Plan. From 1986, the yield from the plantation forests should expand rapidly so that supply should equate with demand from the late 1980s. However, although a small cumulative surplus is predicted from these projections, this surplus should be offset against the uncertainty of all such

projections. The uncertainty is with projections for both supply and demand, in particular the relatively great demand for fuelwood which by this time may well begin to spill over into supplies from gazetted forest areas.

PROJECTED SUPPLY AND INDUSTRIAL DEMAND FOR FOREST PRODUCTS, 1984-86

Table 6.16

(thousand cubic metres)

							1984	1985	1986
Supply:									
Indigenous	..	..	..	..	..	..	120	120	120
Plantations	..	..	..	..	..	..	900	900	900
TOTAL SUPPLY							1,020	1,020	1,020
Demand	..	..	..	..	..	..	1,275	1,372	1,476
Annual Excess:									
Demand	..	..	..	..	..	..	255	352	456
Cumulative balance	..	..	..	..	..	..	1,185*	833	377

N.B.—\*Carry-over of 1,440,000 cubic metres from 1983.

### The Programme for Action

6.204. The following are the main components of the proposed development programme of the Forest Department, involving both the implementation of and participation in development projects and the provision of research, training and marketing services.

#### Rural Afforestation Scheme

6.205. As a result of change of emphasis in forestry policy from promoting forest development through a commercial plantation programme towards the promotion of resource conservation and the development of arid and semi-arid lands, rural afforestation schemes are given high priority. Its purpose is to encourage rural people to plant trees and shrubs on their land so that adequate vegetative cover of the soil can be maintained. By the end of the Third Plan period, this programme had been introduced to 36 districts and it is the intention of the Department to extend it to all districts of the country within the period of this Plan. An important part of the scheme is the establishment of tree and shrub nurseries in every administrative division. In addition to the existing nurseries, 30 new nurseries will be developed during the next five years. Extension and other supporting services are also required. The projected expenditure of the scheme will require K£6.4 million of Government funds while an additional K£560,000 will be spent on the afforestation component of the Machakos Integrated Development Project.



### **Local Afforestation Programme**

6.206. The main objectives of this programme include the prevention of soil erosion, the protection of water catchment areas as well as the provision of fuelwood and building poles for the rural population. The scheme will cover Machakos, Kisii, Turkana, Kisumu, Taita-Taveta, Kericho, West Pokot, Trans Nzoia, South Nyanza, Baringo and Samburu Districts, requiring an expenditure of K£2.0 million during the plan period.

### **Masai Forest Development Programme**

6.207. These forest areas face particular problems regarding their future development and continued existence. These problems are especially important because the Masai forests are some of the largest remaining indigenous forest areas in the country, and they constitute an important water catchment for western Kenya and, indeed, for Lake Victoria. Of these forest areas, the Olposumaro Forest, which originally covered 36,000 hectares, was gazetted in 1957 although it was never demarcated. The remaining forest areas are under the control of the Narok County Council. As a result of the absence of demarcation of the gazetted forest area, half of the original area is now under agricultural settlement while the Narok County Council has permitted uncontrolled exploitation of its forests through charcoal burning and logging. During the plan period, the Government intends to take action in the development and preservation of these forests as a complement to the Narok Agricultural Development Programme. Firstly, an acceptable allocation of land between alternative use, agricultural and forestry will be determined; and proper management of the forest areas will be ensured, with the Narok County Council taking management responsibility. To back up the legal powers of the Forest Department in such situations, the Forests Act will be amended to enable the Department to take the action necessary to manage and preserve forests in the national interest. Overall, the sum of K£40,000 has been allocated to this programme during the plan period.

### **Forest-based Industrial Development**

6.208. The Forest Department is the main supplier of raw materials to the wood based industries. Sixty long-term licences have been issued to permit sawmillers to operate in Government forests and 300 short-term licences, to sawmillers in Government forests and county councils forests. The other users of roundwood include the Webuye Pulp and Paper Mill, Plywood Millers and the manufacturers of different kinds of boards. The programmes for these industries are briefly described below.

6.209. *The Sawmilling Industry.* This industry consists of a few large-scale, well-managed enterprises and a large number of small sawmills that are badly managed with insufficient technical resources and without proper management expertise. The Forest Department intends to encourage the latter to become more efficient and hence better able to utilize the projected supplies

of logs during the plan period. This will be accomplished mainly through the extension work from the Sawmills Advisory Section of the Forest Department. Work is also required on developing a technology appropriate to small-scale sawmilling operations and here assistance will be given by the National Council of Science and Technology.

6.210. *The Pulp and Paper Industry.* The pulp and paper mill at Webuye started operations in 1975 and by 1976 the mill was using annually 200,000 cubic metres of roundwood. It is expected that the mill will require over 360,000 cubic metres per year when it reaches its maximum capacity. The Government undertakes to make sure that the needs of the mill in terms of roundwood are fully met and for this purpose the Government will continue to support the Turbo Agricultural Scheme which is primarily for the establishment of forests to cater for the mill. The Turbo Scheme will require K£500,000 during the plan period.

6.211. *The Plywood, Fibreboard and Chipboard Mills.* By 1977, there were three major plywood mills in operation at Elburgon, Elgeyo and Eldoret. The peeler log intake by these three mills in operation in 1978 was 40,000 cubic metres per year. A fourth mill is already under construction at Trans Mara, and proposals have been made for one other mill on the slopes of Mount Kenya. The total peeler log requirements are projected to be 74,000 cubic metres per year when all the mills are in operation. The one fibre board mill in operation at Elburgon started operations in 1976 and at maximum capacity has a log intake of 15,000 cubic metres per year. The chipboard mill at Nakuru started operation at the same time and requires 100,000 cubic metres of logs per year.

### **Forestry Research**

6.212. Research should not be regarded merely as a supportive service. It is a means for injecting new and productive technologies into the industry and of projecting the required shifts in forestry development to stay in line with Government policy. A major recent development in the institutional side of forestry research has been the re-organization of the former East African Agricultural and Forestry Research Organization at Muguga which undertook several important components of forestry research having regional application. The best way of incorporating this institution into the existing scientific research structure is still under discussion.

6.213. Broadly the goals of forestry research activities in Kenya are:

- i. to support the intensive afforestation programmes based on highland species;
- ii. to develop and improve the afforestation techniques in the arid and semi-arid regions;
- iii. to initiate programmes to improve indigenous commercial hardwoods;

- iv. to intensify the afforestation programmes in the Coastal region;
- v. to breed commercial forest trees for the improvement of wood quality and site adaptation;
- vi. to collect and conserve forest tree germplasm;
- vii. to protect forest plantations against diseases, pests, fire and other hazards;
- viii. to study the interaction between forestry and agricultural practices to maximize total production from the land;
- ix. to study the nutrient cycling of forest soils under different agricultural cropping systems;
- x. to study more efficient methods of converting firewood into energy.

6.214. Such research activities would be undertaken by the following broadly defined areas of work: forest protection, which would include the study of pests and diseases as well as research on damage to trees by fire and game; tree protection and afforestation including both hardwood and softwood species, together with drought resistant and medicinal tree species; gene conservation and work on forest water catchments, agro-forestry and forest ecology; utilization and marketing, involving timber technology; production and economics, marketing strategies and timber grading standards.

6.215. One research project which is underway and which will be expanded during the plan period is directed towards afforestation of marginal lands, a subject to which little attention has been given in the past. Essentially this research project is concerned with the establishment and maintenance of various tree species in the arid and semi-arid regions of the country. Research stations have been established at Hola-Bura in the Coast Province, Kibwezi in Eastern Province, Ramogi and Wire in Nyanza Province and Lohima Hills (Lodwar) in Rift Valley Province and more stations will be started. This programme will require a total of K£376,000 during the plan period.

6.216. In all its research activities, the Forest Department will work closely with the Scientific Research Division of the Ministry of Agriculture and the National Council of Science and Technology.

### **Education and Training**

6.217. In order that the various forestry development programmes proposed for the plan period can be implemented successfully, an expanded manpower training programme is necessary. The training of foresters and forest assistants will continue to be undertaken at the Londiani Forest Training School where 103 foresters and 165 forest assistants will be trained by 1983. A new arrangement is for this school to undertake the vocational training of forest guards, the project total receiving this training being 375 over the 1979-83 period. The training of assistant conservators, 29 of whom will be required during the plan period, will be provided by the University of Nairobi where a Department

of Forestry was opened in the 1978/79 academic year. Additional academic training will be provided by institutions abroad. The Forest Department will also require additional cartographers, survey assistants and technologists who will receive their training at the Kenya Polytechnic.

6.218. Before it was destroyed by fire in 1975, the Forest Industrial Training Centre was giving valuable extension and training services to the owners of sawmills and their employees. It is expected that this Centre will be completely renovated and the old sawmill equipment replaced. In addition to training the sawmillers in technical aspects of sawmilling, it will now be necessary to extend the training to include business management and accounting. To supplement this training, facilities will be made available for financing sawmill improvements and K£212,000 has been budgeted for this purpose. Previously, the millers had no credit facilities of their own, and this contributed to the low performance of sawmilling industry, in particular, among the new local sawmillers. With this assistance and training, it is anticipated that the quality of milling operations will improve.

### **Marketing**

6.219. The marketing of forestry products, especially sawn timber, faces problems which largely stem from the dual nature of the sawmilling industry. On the one hand, there are the large-scale sawmills producing products which comply with timber grading rules which, in turn, are based on the requirements of the export markets. On the other hand, there are the many small-scale mills operated by people with little technical training who produce forest products for the domestic market. Due to the sustained demand for timber during the past decade which derives from the increase in building and construction work, these sawmills have been in a sellers market and have not been concerned much with the quality of their products. These market conditions may change and in any case it is desirable to improve steadily the quality of forest products overall by introducing more widely accepted grading standards. This will be achieved through the extension service of the Forest Department which will also assist sawmill operators to identify suitable markets. In addition, improvements are sought with the transportation system for timber, in particular, by urging provision of more suitable rolling stock on the railways.

### **Construction of Forest Roads**

6.220. During the previous plan period the Forest Industrial Development conservancy opened a new road unit in Nyeri District, in addition to the one at Eldoret. It is planned that 60 kilometres of primary and secondary forest roads will be constructed annually for new plantations and 100 kilometres of plantation tracks. In addition, 20 kilometres will be constructed to new stations. This will require K£1.8 million.

## Mineral Resources Development

### Policy Framework

6.221. The overall goal for mineral resources development will be to seek to obtain maximum benefits to the country through careful exploitation of these non-renewable resources. The discovery and subsequent exploitation of the nation's mineral wealth would contribute to long-term industrial development, employment creation and foreign exchange earnings through exports.

6.222. The efforts to achieve the objectives of mineral development face four major constraints. First, since the mining industry has remained relatively small in national terms it has not attracted major local and foreign investment capital. Directly related to this is the fact that Kenya does not have as yet an agreed and clearly defined mineral development policy to encourage private involvement in mineral development. The third, and most important, is the lack of technically qualified manpower in such fields as mining engineering, geology, mineral economics and mineral processing. Lastly, the lack of statistical information on mineral activities has made planning and control more difficult.

### Mineral Resources and Targets

6.223. The mining industry has steadily expanded as a result of an increase in the range of economic minerals that are being exploited. The output of the non-metallic mineral industry increased from K£4.2 million in 1973 to K£7.7 million in 1976, and it is projected to grow at the rate of 8.6 per cent per year to reach K£13.7 million by 1983. Major contributions to this total will come from soda ash, fluorspar, limestone products and salt. The value of the projected mineral output is shown in Table 6.17.

PROJECTED NON-METALLIC MINERAL OUTPUT, 1976-1983

Table 6.17

(K£'000 in 1976 Prices)

Mineral	1976*	1978	1983	1976-1983 (Per Cent)
Soda Ash .. .. .	3,019	3,291	5,519	9.0
Fluorspar .. .. .	1,788	1,922	2,966	7.5
Salt† .. .. .	669	758	1,039	6.5
Limestone Products .. .	433	498	1,151	15.0
Others .. .. .	1,807	2,108	3,097	8.0‡
TOTAL .. .. .	7,716	8,577	13,772	8.6

\**Economic Survey, 1978*, CBS, Govt. Printing Offices.

†Projections based on *Economic Survey, 1978*.

‡Estimated Growth Rate of other minerals, which include Barytes, Diatonite, Felspar, Glass sand and gemstones.

6.224. A substantial amount of Kenya's mineral output is exported. Nearly 80 per cent of the projected output in 1983 will go into export markets. Hence, the projected value of exports by that year will be K£10.7 million in 1976 prices. Because mining activities in Kenya are still relatively labour intensive, inputs financed with foreign exchange will only account for 30 per cent of the total value of mineral output. Hence, the total net foreign exchange earnings from direct exports would be K£7.5 million.

### **Programme for Action**

#### **Mineral Development, Geological Surveys and Mineral Exploration**

6.225. The main thrust of the geological surveys programme will involve three major activities; namely, regional mapping, economic geology, mineral prospecting and geothermal energy exploration. Regional mapping will involve the coverage of the remaining unmapped parts of the country at the scale of 1 : 250,000 and particular attention will be given to the Taita Taveta region and the areas north of Maralal. These are considered high potential areas for economic minerals. Further, a detailed ground follow-up to the recent airborne geophysical survey involving economic geology, geophysics, geochemistry and diamond drilling will be undertaken at the Coast and in Western Kenya aimed at locating base metals and uranium. In order to investigate the potential of geothermal energy, a geothermal section will be established within the Mines and Geological Department to conduct the necessary surveys and studies. Most of the exploration will include slim-hole drilling throughout the Rift Valley and other volcanic areas. This work will be closely co-ordinated with the newly established energy section of the Ministry of Power and Communications and the Kenya Power Company who will carry out production drilling in these areas.

6.226. As follow-up to the on-going geological surveys, mineral exploration activities involving both Government and the private sector will pay particular attention to the following priority areas:—

- i. *Metallic Minerals Exploration*: An exploration programme for base metals including iron ore, gold and silver will be undertaken in Western Kenya. Further, there will be an evaluation of known mineral occurrence in the Coast area, with the view to developing those with high economic potential.
- ii. *Non-metallic (industrial) minerals deposits assessment*: A programme to assess the potential for non-metallic industrial minerals will be undertaken in the prospective areas in the country. Available statistics show that these minerals contribute substantially to Kenya's mineral production and export. However, there has been no co-ordinated exploration effort for new deposits.

- iii. *Groundwater exploration*: The provision of clean water to the people is one of the priority areas in the Government's strategy for the provision of basic needs. The Mines and Geological Department, working closely with the Ministry of Water Development, will contribute towards the assessment of groundwater availability in the country. In particular, regional surveys will be undertaken to locate areas of groundwater occurrence with adequate potential for meeting substantial needs of the local people. The role of the Mines and Geological Department will, however, be limited to the location of aquifers which would then be turned over to the Ministry of Water Development for drilling.
- iv. *Energy minerals exploration*: Increased emphasis will continue to be placed on the exploration for energy minerals such as coal, oil and uranium. This will be closely related to the geothermal exploration programme.

6.227. The Government through the Mines and Geological Department, in addition to undertaking the exploration activities, will monitor and co-ordinate all private sector exploration and mineral prospecting. In this way effective Government authority will be exercised over the nation's mineral resources. This will involve the licensing and inspection of private company projects as well as the collection and compilation of mineral statistics and data. This information will be used for the economic assessment of the mining industry in order to provide the data base for advisory services to the Government so that mineral development and management policies can be formulated.

### **Education and Training**

6.228. As already mentioned, the lack of qualified technical manpower has been a major constraint to mineral development. The removal of this constraint through an expanded education and training programme will be given priority by the Government. The total needs of both the public and private sectors for qualified manpower is difficult to estimate. However, the Mines and Geological Department will prepare a comprehensive training programme for both professional and sub-professional staff required for the achievement of Plan objectives and targets. The training will involve both undergraduate and post-graduate programmes.

### **Mineral Marketing**

6.229. The marketing of mineral products is a highly specialized activity which has been carried out mainly by the private sector. Whereas much is known on the marketing of the major mineral products, such as soda ash, fluorspar, cement, salt and limestone products, very little is known about the marketing and trading practices for other minerals such as gemstones and ornamental stones. Whereas the Government does not intend to intervene in this area, the marketing of essential commodities such as salt and cement

will be subject to Government control when the marketing and general distribution system proves to be inefficient. The overall responsibility in this area belongs to the Ministry of Commerce and Industry. Because of the importance of essential commodities, general questions regarding prices, storage and general distribution will be subject to annual review by that Ministry. Apart from these, the Government is concerned by the lack of adequate information on the general marketing and export of gemstones. During the plan period, the Government will make every effort to get full information on the production and export of these gemstones.

### **The Role of the Private Sector in Mineral Industry**

6.230. The Government recognizes the value and importance of strong private sector involvement in exploration and development of mineral resources. The private sector is better able to provide the required technical, management, and marketing expertise and the financial resources without which rapid and efficient mineral exploration and development in Kenya will not be possible. Consequently, to ensure that adequate levels of private investment are forthcoming, the Government will pursue policies aimed at maintaining a favourable environment for private sector investment in this risky area, while at the same time, exercising effective control over mineral resources. The level at which the Government participate in mining projects will be determined by negotiations on an individual basis to ensure that maximum possible benefits to the country accrue from mineral development.

### **Remote Sensing**

6.231. Remote sensing involves acquisition and use of data about the earth from sources such as balloons, aircraft, rockets and satellites and is now widely used in surveying in the fields of agriculture, forestry, civil engineering, geology, hydrology, oceanography and climatology. The Government of Kenya intends to establish a ground receiving station with facilities for receiving, processing, analysing and distributing data transmitted by the specialized earth resources satellites. The ground receiving station will require K£840,000 for capital development and K£1.2 million in recurrent expenditure for the plan period. A new unit will be created within the Ministry of Natural Resources to promote utilization of remote sensing for development. The National Council for Science and Technology will co-ordinate remote sensing activities at the national, regional and international levels. The long-term objective of the programme is to improve the information base used by government agencies for planning national development.

### **Forward Budget**

6.232. The Forward Development and Recurrent Expenditures for the Forest Department and the Mines and Geological Department are given in Tables 6.18 and 6.19 respectively.



PLANNED DEVELOPMENT EXPENDITURE OF THE MINISTRY OF NATURAL RESOURCES  
(1978/79-1982/83)

Table 6.18

(KE'000 in 1978 Prices)

Title	1978/79	1979/80	1980/81	1981/82	1982/83	Total
General Administration Planning:						
Remote Sensing .. .. .	—	840	—	—	—	840
SUB-TOTAL ADMINISTRATION	—	840	—	—	—	840
Forestry Development:						
Forest Plantations Development .. . . .	5,447	5,697	5,994	6,294	6,608	30,040
Marginal Land Research .. . . .	68	72	75	78	83	376
Local Afforestation Scheme .. . . .	356	374	392	412	432	1,966
Rural Afforestation Extension Scheme .. . . .	818	1,289	1,353	1,420	1,492	6,372
Road Construction Units .. . . .	328	345	361	380	380	1,794
Masai Forest Development .. . . .	—	10	10	10	10	40
Turbo Agricultural Scheme .. . . .	100	100	100	100	100	500
Sawmill Industry .. . . .	39	40	42	44	47	212
Machakos Integrated Development Project .. . . .	—	135	140	140	145	560
UNIDO Timber Project .. . . .	—	34	26	26	25	111
SUB-TOTAL FORESTRY .. . . .	7,156	8,096	8,493	8,904	9,322	41,971
Mineral Development:						
Mineral Surveys and Exploitation .. . . .	293	323	347	382	440	1,785
TOTAL (GROSS) .. . . .	7,449	9,259	8,840	9,286	9,762	44,596

PLANNED RECURRENT EXPENDITURE OF THE MINISTRY OF NATURAL RESOURCES  
1978/79-1982/83

Table 6.19

(KE'000 in 1978 Prices)

Title	1978/79	1979/80	1980/81	1981/82	1982/83	Total
General Administration Planning:						
Headquarter Administration	288	445	542	570	600	2,445
Remote Sensing Project .. . . .	—	300	300	300	300	1,200
SUB-TOTAL (HQs) .. . . .	288	745	842	870	900	3,645
Forest Development:						
Headquarters, Forest Department .. . . .	369	357	372	400	452	1,950
Field Cons. Administration .. . . .	—	5	6	7	7	25
Forest Industrial Training Centres .. . . .	431	458	475	500	550	2,414
Forest Research Unit .. . . .	191	204	205	225	240	1,065
SUB-TOTAL (FOREST)	991	1,024	1,058	1,132	1,249	5,454
Mineral Development:						
Mines and Geological Department .. . . .	323	306	337	372	410	1,748
Provincial Geological Officer	40	37	42	50	60	229
Mineral Surveys and Exploitation .. . . .	74	70	77	90	100	411
SUB-TOTAL (MINERALS)	437	413	456	512	570	2,388
TOTAL (GROSS) .. . . .	1,716	2,182	2,356	2,514	2,719	11,487

## LANDS AND SETTLEMENT

6.233. Two key elements of the strategy for alleviating poverty are: (i) better access to income earning opportunities, and (ii) fuller utilization of productive capacity. Access to land is a problem for 410,000 landless families in Kenya. Helping these landless families and squatters to get their own plots has been a driving concern for decades, and indeed much has been accomplished towards this end.

6.234. While land is Kenya's most abundant natural resource only 17 per cent of it is potentially arable. Moreover, the population is growing at a faster rate than that at which new land can be made productive through drainage, irrigation, and improved inputs such as high yielding seed varieties and chemical fertilizers. Access to land is therefore, no longer a possibility for every family. And the increasing pressure on already cultivated land is leading to practices which cause greater erosion of soils, overgrazing of pastoral areas, deforestation, and eventual desertification. Clearly, when some families must struggle to grow enough food for the present, then conservation for the future may not matter to them. Alleviating their poverty and conserving the land resource are therefore interdependent objectives.

6.235. Furthermore, if the growing population is to maintain its present level of support from the land, then much more high and medium potential land must be brought under full utilization. Increasing land productivity will involve the entire range of issues concerning the use, ownership, transfer and conservation of land, water development, and improved cultivation and husbandry practices. The land tenure system embodies the legal and customary institutions which enable people to gain access to productive opportunities on the land. The on-going programme to adjudicate land holdings and give clear legal titles has benefited many people. However, removal of the safeguards of the customary tenure system has left some individuals without access to land. During the plan period, measures will be undertaken to reduce land sales among small-scale farmers. In addition, provisions of the Agriculture Act will be invoked to ensure that idle land in large farm areas is brought under productive use.

6.236. Land use and land policies were hot issues long before Independence. Now, fifteen years after Independence, many land problems remain unresolved and new ones have arisen. Special parliamentary committees have examined land use and abuse. Hard decisions must now be made, and these will require the careful analysis and review of the problems involved. Consequently, as indicated in Chapter 2 and referenced in the Agricultural Section, a special National Land Commission will be established with a clear charter for action. Listed below are some of the pressing issues which will confront the new Commission—

- i. rationalizing the existing land tenure system and the laws governing land adjudication and land transfers;

- ii. determining minimum viable holdings for the subdivision of land of a given potential;
- iii. ending speculation in the purchase and holding of land;
- iv. discouraging the hasty sale or illegal partition of already adjudicated land which increases the incidence of landlessness;
- v. penalizing absentee landlords who permit high potential land to sit idle;
- vi. seeing that settlement schemes are incorporated into the on-going agricultural and other rural development programmes;
- vii. legalizing the *de facto* subdivision of large-scale mixed farms;
- viii. stemming the fragmentation of adjudicated land which threatens to make land registries obsolete;
- ix. reclaiming and developing valley bottoms, swamps, and irrigable lands for productive use;
- x. encouraging people to live in towns and villages near to their land rather than building on valuable farm land;
- xi. assuring that conservation of soils, water, and forest resources shape both development policies and programmes;
- xii. Re-examining the laws concerning land tenure;
- xiii. Harmonizing the various laws and regulations relating to land;
- xiv. Developing criteria for determining range and non-range areas.

6.237. Agricultural programmes for land use intensification will lead to demands for labour in excess of family supply, contributing to the 80,000 work opportunities to be generated annually through more intensive use of land in smallholdings. This increase in the demand for labour will also increase the attractiveness of rural areas and moderate the migration from rural to urban areas. However, the policy stated in Chapter 2 to encourage migration to areas of productive opportunity within the rural areas requires that the issues listed above receive priority attention not only from the National Land Commission, but also from the various ministries directly concerned.

6.238. Through the programmes of its various departments, the Ministry of Lands and Settlement has figured prominently in past efforts of the Government to carry out land policies. Over 800,000 hectares have been purchased, some 71,000 families have been settled, 480,000 hectares have been adjudicated, and comprehensive physical planning and extensive survey mapping exercises have been carried out throughout the country. The function of the Ministry's departments are described in the context of the following strategies and programmes.

## Strategies for Land Development

6.239. There are five major components to the Land Development strategy :

- i. *Land Adjudication and Land Tenure Reform.*—The present system for making Government or Trust Land available to groups or individuals is to register and receive adjudication from the Land Adjudication Department. This activity will be supported and expanded during the plan period. Existing irregularities in land adjudication will be removed and the machinery streamlined to ensure speed and equity. However, the present land adjudication system only serves one generation; when the land is passed on to an owner's heirs, it is subdivided once again unofficially, and often illegally. If ownership is to act as an incentive to invest in land improvements and since it is a requirement for obtaining public services, then the adjudication procedure must be repeated. Because the system of land tenure is so complex and cumbersome, the National Lands Commission will take it under thorough review, and recommend ways to improve the system.
- ii. *Land Use Regulation.*—Legislation regulating the use of land will be modified during the plan period, and the resulting laws will be enforced in order to ensure that productive land is properly utilized. Even with measures to make productive use of land, there will still be some under-utilized land. Penalties on land still remaining idle will be levied by local authorities and a ceiling on the size of land transfers or purchases will be considered. The National Land Commission will explore potential systems to stimulate increased land utilization. The existing Land Use Committee and its Secretariat will have their terms of reference revised by the National Land Commission so that a more effective role in implementing policies may be played.
- iii. *Redistribution of High Potential Farmland.*—Small farms employ more labour and generate more income per hectare than do large farms. Therefore the process of subdividing large-scale mixed farms in the former Scheduled Areas will be regularized during the plan period. This programme will be directed by the Ministry of Agriculture, but will require substantial participation from the Ministry of Lands and Settlement.
- iv. *Development of Settlement Programmes.*—The Settlements Department will bring existing settlement schemes up to self-sustaining growth levels so as to be able to integrate them fully into the existing smallholder agricultural development programmes outlined in the Agricultural Section. Consequently, the Department will phase out extension services and development funds for old settlement schemes. However, new settlement schemes will be developed in the Chyulu Hills area, in Machakos District, near Lake Kenyatta and at Magongeni in Lamu District and Magarini in Kilifi District.

v. *Provision of Services.*—The adjudication programme and settlement scheme development depend upon the Physical Planning Department and the Survey of Kenya, in order to progress on schedule. When these services lag behind the whole process falters. Hence, these services will receive renewed support and impetus during the plan period as will their contribution to the development of infrastructure throughout the rural areas.

### **Kenya's Land Tenures System**

6.240. Land is held in Kenya under three types of land tenure. Table 6.20 outlines the major differences between the three and the three different land categories.

6.241. *Customary land tenure* stems from the indigenous land holding system practised by various ethnic groups prior to colonialism. Under this system land was owned, held, or controlled by a family group, a clan, a chief, or a group of elders. Land which was under customary land tenure is now classified as Trust Land and is administered by the Commissioner of Lands on behalf of local authorities. The Trust Land Act was established in 1963.

6.242. The second type of land tenure is *freehold* land which is held by an individual or group with minimal use restriction and there are no rents due. However, several legal Acts govern activities on freehold land; the major Acts being the Land Control Act of 1967, and the Land Planning Act of 1968.

6.243. The third land tenure type is *leasehold*. Leasehold land use is subject to the terms and conditions of the lease. Rent is extracted annually by the lessor, which is the Government or local authorities. Both freehold and leasehold land originated not only from the conversion of Trust land but also from the allocation of Government land. Once the land is leased or adjudicated to freehold it becomes private land.

6.244. Table 6.21 gives the areas of each land type by Province. It can be seen that only a small proportion of Kenya's land has been converted to freehold or leasehold, and that the amount of Government and Trust Lands accounts for 90 per cent of the total land area. However, much of this land is not arable. If arid lands are discounted, then 20 per cent of the land has been converted to freehold or leasehold, and 28 per cent is available for registration. The remaining 52 per cent is Government-owned land or Trust land.

### **Development Programmes**

#### **Land Acquisition**

6.245. Since Independence, the Government has made land available for various development projects from unalienated Government and unadjudicated Trust land. Although substantial amounts of Government land still remain for alienation, the Government has established a policy of compulsory acquisition of private land and of setting aside Trust land for development purposes. Where land acquisition for development displaces people, the people affected will be paid adequate compensation and accorded high priority in allocation

Table 6.20  
TYPES OF LAND TENURE AND LAND CATEGORIES WITH BASIC CHARACTERISTICS

Land Type	Tenure	Transfer	Use Restrictions	AREA		Legal Acts	Rent
				Locations	Sq. Km.		
Customary . . . . .	Group Held.	Group Perpetual or as Trust Land.	Communal Sub-sistence.	Trust Lands.	374,591	County Councils Section 115.	Social Obligations.
Freehold 1 (a) Crown Lands Ordinance. (b) Conversion of Lease Regulations (c) Adjudication of Former Special Area.	Individually or Group Held.	(a) Heirs. (b) to Gov't Sec. 8A, Lands Act, 1960. (c) to Gov't Land Acquisition Act, 1968.	Partial Restriction by Legislation.		54,834	Land Control 2 Act, 1967. Land Planning 3 Act, 1968. Town Planning Act. Local Authority By-Laws, 1929, 1963.	None.
Leasehold . . . . .	Individually Leased.	To leasor— (a) on death. (b) after period or lease (c) converted to freehold after 5 years.	According to condition of "Development Lease".		A small proportion of freehold	Same as Freehold	Annual Rent of a peppercorn 4 terms 1 to 99 years.
Government . . . . .	Unalienated Gov't Land (not leased or allotted) and reserves, Parks, Townships and alienated Gov't Land.	Distributed by Gov't for reserves, commercial, industrial, or other purposes	Restricted by Purpose.	Schedule Areas and Special Areas.	106,306	Gov't Lands Act, 1960, Registered Land Act, Registration of titles, 1919 Land Acquisition Acts.	None.
Trust . . . . .	County Council administered communal land and Gov't Reserves.	By Gov't to freehold or leasehold	Urban or Agricultural Act or Special Reserves.	Special Areas Special Reserves Special Leasehold Areas Special Settlement areas, African Customary lands.	409,556	Trust Land Act, 1963, African Customary Law.	None.

(Continued)

Table 6.20—(Contd.)

Land Type	Tenure	Transfer	Use Restrictions	AREA		Legal Acts	Rent
				Locations	Sq. Km.		
Private .. .. .	Land under leasehold or freehold by limited companies, co-operatives, statutory boards, or other institutions.	Subdivision and transfer governed by Land Control Act.	Conditions and lease, or Agricultural Act, or local authorities of urban areas.		54,834	Conversion of Land Titles Act, 1908, Land Adjudication, 1965, Gov't Land Act, Sect. 37.	Annual rent for leasehold. None for freehold.

1 Freehold type (a) and (b) are restricted to agricultural purposes, type (c) is non-restricted except for shop construction.

2 Land Control Act affects all agricultural land.

3 Land Planning Act covers municipalities, townships, and trading centres and within 400 feet of main tarmac roads.

4 A peppercorn was a common seed given as payment under old English Law when no rent was in fact required.

LAND CATEGORIES BY PROVINCE (Sq. Km.)

Table 6.21

Province	GOVERNMENT LAND				FREEHOLD/LEASEHOLD			TRUST LAND				Total Land Area
	Reserves and Parks	Townships	Alienated	Unalienated	Smallholder Schemes	Other	Adjudicated Trust Land	Reserves and Parks	Townships	Alienated	Available for Adjudication	
Western	621	—	35	—	816	3	5,838	265	81	1	628 (100%)	8,288
Nyanza	23	179	266	2	379	—	5,588	133	285	164	5,663 (100%)	12,682
Rift Valley	4,706	510	19,494	270	1,255	424	25,919	11,036	154	12,042	95,001 (25%)	170,811
Central	3,607	156	1,844	66	1,968	1,212	4,127	172	94	102	—	13,348
Eastern	8,724	227	4,580	7,919	580	21	3,818	5,802	390	547	123,152 (25%)	155,760
North-Eastern	—	—	—	—	—	—	—	533	254	—	126,115 (5%)	126,902
Coast	15,160	746	10,753	26,571	—	324	2,544	1,711	140	1,059	24,032 (40%)	83,040
TOTAL	32,841	1,818	36,972	34,828	4,998	1,984	47,834	19,652	1,398	13,915	374,591 (20%)	570,831
PERCENTAGE OF TOTAL	19%	1%	39%	1%	10%	2%	20%	6%	1%	13%	66%	100%

The number in parentheses gives a crude estimate of the amount of land available for adjudication which is considered arable land. This means that half the arable land is Government or Trust land, that roughly 20% is freehold/leasehold, and that 28% has yet to be registered.



of plots in new settlement schemes. In the case of any future acquisition of land for the purpose of sugar development the people around the factory will constitute the nucleus estate.

6.246. The provision of infrastructure is vital to urban development. The provision of service infrastructure has been governed by the dual system of land tenure in which the Government owns land in urban areas within the former scheduled areas, while the county councils are vested with Trust land in urban areas within the former special areas. To remove the problems which this dual system has created, the provision of service infrastructure will be undertaken by local authorities throughout the urban areas and will be based on specified development priorities. The projected expenditures for land development in urban areas is over K£2.7 million for the plan period.

### **Land Adjudication and Registration Programme**

6.247. Since the 1950s, the land adjudication and registration programme has been transforming customary rights land in the former special areas into freehold or leasehold rights. This has been seen as a major pre-condition for increasing land productivity by preventing uneconomic fragmentation, by encouraging long-term investments in the land, and by creating the collateral for farm credit. By the middle of 1977, 4.8 million hectares of Trust land (formerly special areas) had been adjudicated and 1.2 million titles issued. Also, 700,000 hectares of freehold/leasehold titles have been granted from Government land (formerly scheduled areas). In addition to the 2.6 million hectares which were within the adjudication process in 1977, it is expected that during the plan period, over 500,000 hectares will be adjudicated annually to bring the total land adjudicated to 8.4 million hectares by 1983.

6.248. The total cost of this programme during the plan period will be K£14.5 million. Efforts will be made to intensify adjudication in the remaining high potential land areas and eventually to extend the programme to the arid and semi-arid land areas.

6.249. In order to accelerate the adjudication programme, new District Land Registries will be opened at Samburu, Kapenguria and Nakuru and the existing Land Registries expanded in Kirinyaga, Elgeyo-Marakwet, Taita, Baringo, South Nyanza, Kisumu, Siaya, Machakos, Busia, Kericho and Murang'a districts. This will cost K£700,000 and make it possible to increase registration work by 80,000 new titles annually over the plan period. It is also proposed that K£440,000 will be spent on construction of staff houses in these areas. Table 6.22 gives the adjudication schedule by province through 1983.

6.250. The expansion of the adjudication process will bring three new problem areas. First, the extension of adjudication to the range areas requires a new approach. In these areas the framework for adjudication will be on the basis of groups of co-operative ranches, small numbers of families will

jointly own large tracts of land. Provision of social infrastructure, development loans and other inputs in these areas will be channelled through the Arid and Semi-arid Land Development Programme.

6.251. The second problem area has arisen because the Department of Adjudication lacks authority under the Adjudication Act to reserve land for soil and water conservation and social infrastructure purposes. The necessary authority will be given to the Department by amending the Adjudication Act.

6.252. Lastly, care will be taken to ensure that the process of adjudication and registration does not lead to landlessness, land speculation and other problems. Also settlement of disputes which arise in the process will be streamlined. The National Land Commission will consider these problems as matters of urgency.

### **Large Farm Subdivision Programme**

6.253. The subdivision of large scale mixed farms in the former scheduled areas contributes to economic growth and income distribution to the extent that small scale farms are more productive and more labour intensive. During the plan period, informal subdivision will be given permanent legal status and more farms will be subdivided.

6.254. The programme of subdivision will be co-ordinated through the Ministry of Agriculture with the necessary support services from the Ministry of Lands and Settlement. The Departments of Physical Planning, Land Adjudication, and Surveys will establish the legal basis for subdivision and carry out the required physical planning. The programme will be implemented through Task Force Teams. Each Task Force will consist of officers from the Adjudication and Physical Planning Department, Ministry of Co-operative Development and the Land and Farm Management Division of the Ministry of Agriculture.

6.255. The programme will be implemented in two phases. Phase one will be aimed at establishing the legal and economic basis of subdivision. The second phase will consist of extending the Integrated Agricultural Development Programme to these subdivided farms through extension and co-operative services, and through medium term loans to the new owners for the development of farm structure. The budget for this programme is found in the Agriculture Section. However, the Ministry of Lands and Settlement will increase its manpower in order to handle this programme.

### **Land Settlement Programme**

6.256. The Land Settlement Programme, which started in 1961 with the Million Acre Scheme, has to date settled 71,000 families on over 800,000 hectares of land, which was purchased for K£21.0 million. The programme was designed to transfer ownership of large scale foreign owned farms in the former scheduled areas to local ownership. During the plan period, all extension and agricultural development services in these areas will be shifted to the small scale farm programmes of the Ministry of Agriculture. As a result, the

LAND ADJUDICATION AND REGISTRATION BY PROVINCE

Table 6.22

Province	Total Area Registered as at 30-6-1977	(Square Kilometres)							Total Area to be Completed by 1982/83
		1977/78	1978/79	1979/80	1980/81	1981/82	1982/83		
Western .. .. .	5,838	130 (87) <sup>1</sup>	87	—	—	—	—	—	6,055
Nyanza .. .. .	5,588	625 (4,605)	534 (3,721)	968 (3,153)	850 (2,462)	758 (1,782)	906 (967)	—	10,229
Rift Valley .. .. .	25,919	3,563 (15,383)	4,259 (10,654)	3,032 (10,381)	3,968 (8,465)	4,381 (5,853)	2,610 (8,184)	—	47,732
Central .. .. .	4,127	—	—	—	—	—	—	—	4,127
Eastern .. .. .	3,818	771 (4,604)	855 (4,455)	799 (4,139)	1,040 (4,018)	1,012 (3,713)	1,029 (4,047)	—	9,324
Coast .. .. .	2,544	533 (2,106)	727 (2,716)	868 (1,855)	473 (1,382)	161 (1,335)	1,317 (28)	—	6,623
North-Eastern .. .. .	—	—	—	—	—	—	—	—	15
<b>TOTAL .. .. .</b>	<b>47,834</b>	<b>5,622</b>	<b>6,462</b>	<b>5,667</b>	<b>6,331</b>	<b>6,312</b>	<b>5,877</b>	<b>—</b>	<b>84,105</b>

<sup>1</sup> The numbers in parentheses represent the area in progress.

involvement of the Department of Settlement in the earlier settlement schemes will be phased out. In the Shirika and Haraka schemes, a period of regularization will be required prior to transfer to the IADP. The Sugar Settlement Scheme will be integrated into the Sugar Rehabilitation Project.

6.257. To deal with the problem of non-payment of loans by the settlers, a concerted effort will be made to step up the collection of the outstanding settlement loans amounting to over K£9.767 million. The aim is to start collecting about K£800,000 per year and to gradually collect K£2.0 million per year by the end of the plan period. Lastly, in some of the earlier settlement schemes plot sizes are now deemed too large for settlers to utilize fully. Hence, subdivision will be promoted through District Land Control Boards as and when freehold titles are available.

6.258. New settlement schemes will be designed to pursue the national objective of poverty alleviation by developing high density, and low cost schemes for the rural poor and especially the landless. The Department of Settlement will expand its activities to the following areas: State and Trust Land in Chyulu Hills area of Machakos District, Lake Kenyatta and Magononi areas of Lamu District and the Magarini area of Kilifi District. In order to contribute more directly to the poverty alleviation, a number of changes in settlement procedures will be instituted, in particular, the determination of plot sizes. Plot subdivisions in future schemes will be closely related to plot sizes in smallholder areas having similar agricultural potential.

6.259. In these new schemes, the Department of Settlement will finance the capital improvements that are required, and develop the schemes to self-sustaining growth levels. However, as soon as is feasible, the schemes will be integrated into on-going programme of the operating ministries such as these of the Department of Agriculture and its extension services. Foreign-owned plantations and ranches do not lend themselves to subdivision. Hence, Kenyan participation in these enterprises will be organized so that no serious disruption in overall production and export-earning capacity of these farms take place.

6.260. During the plan period, the Department of Settlement will work very closely with the Ministry of Agriculture in providing agricultural and veterinary extension services and with the Ministry of Co-operative Development in improving co-operative credit services in the existing and the new schemes in order to step up production and to improve the living standards of the people. Agricultural production in settlement schemes is expected to increase 6 per cent annually through intensifying land use and by expanding use of the uncultivated land that is known to exist in the settlement areas. In addition to the provision of extension services and seasonal credit services to the settlers, measures will also be taken to provide marketing, storage, water and road maintenance services so as to help in increasing productivity of the land. The provision of these services will require greater co-ordination with the Physical Planning Department of the Ministry of Lands and Settlement.

6.261. The programme is estimated to cost K£11.5 million in total development cost of which K£1.4 million is for pre-settlement development, and the rest is for capital expenditure. Boards and water facilities will be budgeted by their respective ministries.

### **Rural-Urban Infrastructure Development**

6.262. The growth of the primary production sector must proceed hand-in-hand with the development of service centres. The country-wide network of service centres described in Chapter 2 provides the distribution system for the marketed produce and the delivery of inputs and services for more intensive land use. Rural development strategy is coupled with the development of infrastructure in these urban, market, rural and local service centres.

### **Physical Planning**

6.263. During the plan period, the Physical Planning Department of the Ministry of Lands and Settlement will continue to prepare comprehensive development plans for the above centres for the orderly and guided distribution of opportunities and services. The emphasis shall be, however, on service centres in rural areas. The recent report on Human Settlements in Kenya elaborates on the methods of implementing the Designated Service Centre policy in order to control the pattern and scale of urbanization in the Kenyan context. The study has formulated objectives and proposals for planned and controlled development to accommodate 10 million urban inhabitants by the year 2000. Nevertheless, a short term view especially for the plan period is given within the report.

6.264. The Government will encourage a pattern of settlement away from homesteads dotted with houses and structures built on productive land. Yet encouraging the growth of concentrated human settlements demands priority planning for infrastructure and essential services. The Physical Planning Department in the Ministry of Lands and Settlement has too often been divorced from actual implementation decisions and hampered by staff shortages. As stated in Chapter 2, physical planning will be much more closely linked to decisions by other Ministries on the siting and scale of facilities and the phasing of construction. The Physical Planning Department must continue its guiding role in the strategies for urban development and for maintaining a rural-urban balance.

6.265. The greater emphasis which is being placed on the development of the rural areas, and the planning for the provision of basic needs in those areas requires the decentralization of support services. The Physical Planning Department will therefore open up eight district offices during the plan period, as shown in Table 6.23. These will serve 21 districts, and represent a significant stride towards making the district the basic unit of planning.

6.266. The expected contribution of the Physical Planning Department to the spatial planning and development of infrastructure in settlement schemes, irrigation schemes, tourist and remote areas requires increases in the establish-

ment. The Physical Planning Department expects to add some 152 staff positions by 1983. This should alleviate the past staffing problems which have limited the field role of the Department especially at district level.

### **Surveys and Mapping Services**

6.267. A crucial prerequisite for all the programmes described above is the provision of accurate and detailed maps. Inadequate maps of the low potential areas are hampering water and mineral explorations, irrigation and range management programmes. Since there will be considerable urban development during the plan period, many of the towns will require extension of their boundaries. New urban and rural centres will be designated, and these will increase the demand for aerial photographs and scale maps necessary to locate water and sewerage facilities as well as other infrastructure items. Survey services and accurate maps are needed for the adjudication programme and District Land Registries. Settlement schemes must be mapped for title purposes. Geodetic control points, which are the basis for all survey and mapping, need to be extended in a systematic manner to cover the entire country.

6.268. The Survey of Kenya is charged with providing the above services and information to other Departments in the Ministry of Lands and Settlement, as well as other Ministries, private organizations and members of the public. In addition the Department is responsible for the survey and maintenance of Kenya international boundaries as well as establishing the country-wide network of geodetic control points. During the previous plan period, most of the resources of the Department were employed in mapping for the Land Adjudication and Registration Programme, Urban and Rural Cadastral Surveys for registration of titles, final title mapping in the settlement schemes, provision of large-scale topographical maps for Physical Planning in urban and rural centres; production of maps for general use and special purposes such as tourist maps.

6.269. Due to the tremendous increase in demand for survey work, coupled with insufficient qualified manpower and other technical and budgetary constraints, a considerable backlog of survey work has to be carried forward to the current plan period. The following activities have been given priority:—

- i. Cadastral surveys—accurate numerical surveys and fixing surveys to provide registry maps for issue of titles—will be completed during the plan period at a cost of K£250,000.
- ii. Adjudication surveys and inspection of land parcels will continue at an annual cost of K£50,000.
- iii. Large-scale topographical maps for urban and rural centres and aerial photographs will be provided at a cost of K£1.10 million over the plan period.
- iv. Preparing maps for the international boundaries with Uganda and with Tanzania, inspecting and maintaining the Ethiopian boundary as required by treaty, and demarcating and surveying the Sudan boundary will cost K£250,000.

- v. Extension of the 1:50,000 scale maps to cover the entire country will cost K£2,000,000 during the plan period.
- vi. Half of the 1:250,000 scale series maps will become available.
- vii. Geodetic survey control points may be extended into Northern and North-Eastern Kenya at a cost of K£1,500,000 total, and geodetic levelling work on circuits north-west of Mt. Kenya will cost K£60,000.

SCHEDULE FOR OPENING OF DISTRICT PHYSICAL PLANNING OFFICES

Table 6.23

Year	District Office	District to be Covered	Expenditure
1979/80	Eldoret	Uasin Gishu, Nandi, Elgeyo Marakwet.	K£ 15,000
1980/81	Meru	Meru, Isiolo, Marsabit	15,000
	Kisii	Kisii, South Nyanza	16,000
1981/82	Malindi	Kilifi, Lamu, Tana River	16,000
	Machakos	Machakos, Kitui	17,000
1982/83	Kericho	Kericho, Narok, Kajiado	17,000
	Thika	Kiambu, Murang'a	20,000
	Kitale	Trans Nzoia, Turkana, West Pokot.	20,000

6.270. The Survey of Kenya now operates in seven provinces and 32 districts as compared to only four provinces, and 13 districts at the time of Independence. New district survey offices will be opened in Wajir, Lamu, Nyahururu, Kiambu, and Kitale; and staff houses will be built at these district offices as well as at Kapenguria and Iten. The organization of the Survey of Kenya will also be expanded with additional technical staff, surveyors, cartographers, photogrammetrists, and photolithographers. This will go hand-in-hand with the decentralization of most of the Department's operations to the provinces and districts.

### Manpower Requirements and Training

6.271. The needs of the Ministry of Lands and Settlement in terms of extension personnel are provided by the Ministry of Agriculture and their needs have therefore been included in the training programme of the Ministry of Agriculture. The training needs of the Physical Planning Department will be met primarily by the University of Nairobi, with the Kenya Polytechnic providing the supporting technical staff. The Department of Survey will need various cadres of technical staff who will be trained at the Kenya Polytechnic and the University of Nairobi. Manpower requirements for the various activities and departments are shown in Tables 6.24 through 6.28.

### The Forward Budget

6.272. The Development Forward Budget of the Ministry of Lands and Settlement is shown in Table 6.29.

STAFF ESTABLISHMENT OF THE DEPARTMENT OF SETTLEMENT

Table 6.24

Cadre	1978/79 Existing	1979/80 Additional	1980/81 Additional	1981/82 Additional	1982/83 Additional	Total Additional
<b>1. Agricultural Staff for Extension</b>						
Agricultural Officers I ..	4	1	1	—	—	2
Technical Officers I/A.O. II ..	5	1	—	—	—	1
Technical Officers III ..	7	3	3	—	—	6
Technical Officers III (Home Economics) ..	3	2	2	2	—	6
Technical Assistants I ..	15	20	30	30	35	115
Technical Assistants II ..	10	20	25	25	30	100
<b>2. Veterinary Staff for Extension</b>						
Veterinary Officers ..	6	2	2	2	1	7
Animal Husbandry Officers ..	9	3	1	2	3	9
Livestock Officers ..	8	3	3	3	2	11
Animal Health Assistants ..	173	35	35	35	35	140
<b>3. Co-operative Staff for Extension</b>						
Senior Co-operative Officers ..	1	1	1	1	—	3
Co-operative Officers ..	10	2	2	2	1	7
Assistant Co-operative Officers ..	9	3	3	3	2	11
Co-operative Assistants ..	73	6	6	6	4	22
Senior Auditors ..	1	—	—	—	—	—
Auditors ..	3	1	1	1	—	3
Assistant Auditors ..	5	3	3	3	3	12
Audit Examiners ..	9	3	3	3	—	9
Clerical Officers ..	11	2	2	2	1	7
Copy Typists ..	6	4	4	4	2	14
Drivers ..	4	4	4	4	14	26
Subordinate Staff ..	4	3	3	3	3	12



MANPOWER REQUIREMENTS (CUMULATIVE) FOR THE MIXED GROUP FARM  
SUBDIVISION PROJECT (MGFSP)

Table 6.25

Year	Adjudica- tion Officers (MLS)	Physical Planning Officers (MLS)	L and FM Officers (MOA)	Co-operative Officers (MOCD)	Draftsmen Surveyors (MLS)	Subordinate Personnel (MOA)	Ministerial H.Q. (MOA)	Provincial Level (MOA)
1978/79	1	1	1	1	10	8	1	1
1979/80	2	2	2	2	20	6	1	2
1980/81	4	4	4	4	40	12	1	3
1981/82	7	7	7	7	70	21	1	3
1982/83	..	..	..	..	..	..	..	..
1983/84	11	11	11	11	110	33	1	3
1984/85	12	12	12	12	120	36	1	3
1985/86	12	12	12	12	120	36	1	3
1986/87	2	2	2	2	20	6	1	3
1987/88	..	..	..	..	..	..	..	..

PERSONNEL REQUIREMENTS OF THE LAND USE SECRETARIAT

Table 6.26

	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84
Physical Planner I .. ..	1	1	2	2	2	2
Physical Planner II .. ..	—	1	1	2	4	4
Economic Planner .. ..	1	2	3	4	6	6
Agronomist .. ..	1	2	3	4	5	5
Forester ( (Silviculturalist) ..	1	2	3	4	5	5
Environmental Lawyer .. ..	—	2	2	2	2	2
Ecologist .. ..	1	1	2	2	2	2
Hydrologist .. ..	1	2	2	2	2	2
Soil Expert .. ..	—	1	1	2	2	2
Range Management Officer ..	—	1	2	2	2	2
Statistical Officer .. ..	—	—	1	1	2	2
Settlement Officer (Agriculturalist) .. ..	—	—	1	1	2	2
Settlement Officer (Legal) ..	—	—	1	1	1	1
Secretarial Staff .. ..	3	4	7	9	10	10
Clerical Staff .. ..	3	3	3	3	3	3
Technical Staff (Draughtsman) ..	1	1	1	1	2	2
Driver .. ..	1	2	3	3	3	3
Subordinate Staff .. ..	1	1	1	1	1	1
<b>TOTAL .. ..</b>	<b>15</b>	<b>26</b>	<b>39</b>	<b>46</b>	<b>56</b>	<b>56</b>

STAFF TRAINING AND ESTABLISHMENT IN PHYSICAL PLANNING PROGRAMME

Table 6.27

Category of Staff	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	Total
Physical Planners ..	10	10	10	10	10	10	60
Draughtsmen ..	8	8	8	8	8	8	48
Copy Typists ..	1	2	2	2	2	2	11
Clerical Officers ..	1	2	2	2	2	2	11
Drivers ..	1	2	2	2	2	2	11
Subordinate Staff ..	1	2	2	2	2	2	11
<b>TOTAL ..</b>	<b>22</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>152</b>

NOTE.—The output from the University of Nairobi is expected to continue at an annual rate of 6 physical planners and 4 draughtsmen from the Kenya Polytechnic. The balance of the professional staff and technicians shall be recruited by direct entry to the Department.

STAFF TRAINING AND ESTABLISHMENT IN SURVEY OF KENYA DEVELOPMENT PROGRAMME

Table 6.28

Category of Staff	1978/79	1979/80	1980/81	1981/82	1982/83	Total 1979/83
Staff Surveyors .. ..	6	6	6	6	6	30
Technician Surveyors .. ..	30	30	30	30	30	150
Cartographers .. ..	20	20	20	20	20	100
Photogrammetrists .. ..	10	10	10	10	10	50
Photo-lithographers .. ..	15	15	15	15	15	75
Drivers .. ..	9	9	9	9	10	46
Subordinate Staff .. ..	180	180	180	180	180	900
<b>TOTAL .. ..</b>	<b>270</b>	<b>270</b>	<b>270</b>	<b>270</b>	<b>271</b>	<b>1,351</b>

DEVELOPMENT FORWARD BUDGET OF THE MINISTRY OF LANDS AND SETTLEMENT

Table 6.29

(K£ 1978 Prices)

Title	1978/79	1979/80	1980/81	1981/82	1982/83	Total
<i>Land Settlement</i>						
Expanded Settlement Schemes and General (SFT) ..	226,010	250,000	275,000	275,000	275,000	1,301,010
Ol'Kalou Saliient (SFT) .. .. .	—	200,000	200,000	200,000	—	600,000
Sugar Settlement Organization (SFT) .. .. .	424,600	350,000	175,000	—	—	949,600
Shirika Settlement Schemes (SFT) .. .. .	813,500	222,150	222,150	244,365	250,000	1,752,165
Haraka Settlement Schemes (SFT) .. .. .	280,025	280,000	280,000	300,000	300,000	1,440,025
State Land Schemes (SFT) .. .. .	280,920	280,000	300,000	350,000	400,000	1,610,920
Settlement Staff Housing (SFT) .. .. .	15,900	28,630	75,000	75,000	50,000	244,530
Coast Settlement Project, Magarini .. .. .	656,075	100,000	100,000	100,000	100,000	1,056,075
Chyulu Settlement Schemes (SFT) .. .. .	—	612,500	584,000	344,000	160,000	1,700,500
Other Settlement Schemes .. .. .	—	—	175,000	350,000	350,000	875,000
Horticultural Development in Kinangop (Integrated Development) .. .. .	—	20,000	40,000	60,000	60,000	180,000
<i>Lands</i>						
Construction of Land Registries and Registry Staff House and Ministry Headquarters .. .. .	550,000	1,100,000	500,000	300,000	300,000	2,750,000
Development of Government Land .. .. .	585,000	600,000	600,000	500,000	450,000	2,735,000
Acquisition of Land for Industrial and Residential Purposes .. .. .	850,000	600,000	700,000	650,000	650,000	3,450,000
<i>Survey</i>						
Land Adjudication Surveys .. .. .	320,000	400,000	400,000	400,000	300,000	1,820,000
<i>Physical Planning</i>						
Departmental Headquarters .. .. .	50,000	100,000	100,000	100,000	100,000	450,000
<i>Land Adjudication and Registration</i>						
Headquarters, Department of Land Adjudication ..	151,440	160,526	175,000	180,000	192,000	858,966
Provincial and District Land Adjudication Programme .. .. .	2,294,925	2,350,000	2,350,000	2,445,000	2,433,000	11,872,925

## FISHERIES

### Framework to Policy

6.273. Kenya possesses over 10,000 sq. km. of lakes, mostly of freshwater, 3,200 km. of rivers, plus numerous small highland streams. Also there are several thousand fishponds and 640 km. of marine coast giving onto the western Indian Ocean. These resources and the fish stock they support, which has a potential annual yield of an estimated 150,000 metric tons, as yet make a very small contribution to GDP. Overall, they have only a local impact on employment and nutrition. In fact, although the recorded value of fish exports exceeds imports, in volume terms, Kenya is a net importer of fish and fish products.

6.274. The main objective of the fishery sector in this plan period is to promote the maximum exploitation, on a sustainable basis, of fishery resources in order to generate additional employment opportunities and income and increase the availability of animal protein. It must be recognized that fisheries constitute a very heterogeneous resource, consisting of a wide range of freshwater and marine species in different environments. The methods of harvesting fish, which remain largely artisanal, have the advantage of being labour-intensive and accessible to poorer people; unfortunately these methods are severely limited in capacity. Fishing, too, necessarily is confined to specific locations—lakesides, along rivers and streams and the coast. Therefore to broaden the beneficial impact of scientific fishing, greater emphasis will be given to the promotion of aquaculture or fish farming in the rural areas. Another constraint to achieving the overall fishery objective is the small amount of direct Government involvement in fishing activities. It can only provide extension, research and limited development services to the fishing community and foster an economic environment which will provide the incentives to expand output.

6.275. Given these constraints, the main thrust of the fisheries development strategy proposed for the plan period are: (i) the development of mechanized trawling fleets on Lake Victoria and at the coast to harvest hitherto unexploited fish resources; (ii) the improvement of traditional fishing methods by the provision of motorized boats, improved fishing gear and tackle and improved fishing practices; (iii) the improvement and provision of on-shore facilities such as landing beaches or stations, ice plants and markets; (iv) the promotion of fish farming in inland areas. The main components of this strategy will be the core of the activities of the Fisheries Department in this plan period and beyond.

### Fishery Resources and Fish Supplies: Constraints and Prospects

6.276. *Freshwater fisheries.* It will be seen from Table 6.30, that in 1976 about 90 per cent of the recorded fishlandings in the Republic, an estimated 41,000 metric tons, were made from freshwater fisheries. The Kenya portion

POTENTIAL SUSTAINABLE FISH YIELDS AND CURRENT (1976) AND PROJECTED (1983)  
FISH LANDINGS

Table 6.30

(Metric tons)

Fishery Area	Potential Yield	Landings		Average Annual Growth Rates 1976-1983, Percentage
		1976	1983	
<i>Marine</i>				
Inshore .. .. .	20,000 <sup>a</sup>	3,300 <sup>e</sup>	5,000	6.1
Offshore .. .. .	50,000 <sup>a</sup>	691 <sup>e</sup>	5,500	34.5
Crustaceans .. .. .	1,000 <sup>a</sup>	159	300	9.5
Fish Farming .. .. .	<sup>b</sup>	—	<sup>b</sup>	—
	71,000	4,150	10,800	14.6
<i>Inland</i>				
Lake Victoria .. .. .	30,000	18,680	25,000	4.3
Lake Turkana .. .. .	25,000 <sup>c</sup>	17,044	20,000	2.3
Lake Naivasha .. .. .	1,000	78	100	3.6
Lake Baringo .. .. .	1,500	257	260	0.2
Other Lakes and Rivers .. .. .	5,000	776	1,100	5.1
Fish Farming .. .. .	12,500 <sup>d</sup>	275 <sup>f</sup>	1,800 <sup>g</sup>	30.8
SUB TOTAL .. .. .	75,000	37,110	48,260	3.8
TOTAL .. .. .	146,000	41,260	59,060	5.3
<i>Trade</i>				
Imports .. .. .	—	1,607	1,600	—
Exports .. .. .	—	550	800	—
Net Excess Imports over Exports .. .. .	—	1,057	800	—
<i>Per capita Consumption, Kg.</i> .. .. .	—	3.1	3.4	—

NOTES.—<sup>a</sup> Very approximate estimates only. The off-shore potential assumes exploitation of a 200 mile economic zone.

<sup>b</sup> Currently there is no fish farming in marine brackish waters and a pilot project to assess this potential is planned.

<sup>c</sup> Some estimates are more conservative. Certainly the upper limit of the sustainable yield of edible fish is being approached.

<sup>d</sup> Assumed 10,000 fish ponds x 0.25 ha x 5 tons/ha annual yield.

<sup>e</sup> Landings of marine fish are not recorded as (inshore) or (offshore). Offshore landings are those by foreign registered boats plus some offshore sports fishing.

<sup>f</sup> Estimated 3,300 ponds x 0.25 ha x 0.3 tons/ha in Western areas plus 10% for other areas. The recorded yield for 1976 was 36 tons.

<sup>g</sup> Estimated 4,500 rehabilitated and new fish ponds x 0.25 ha x 1.5 tons/ha = 1,700 tons plus 100 tons from undeveloped ponds.

SOURCES.—1. FAO/UNDP Lake Victoria Regional Fishery Research Project, 1967-1971.

2. Lake Turkana Fisheries Survey, 1971-75.

3. Western Indian Ocean Fishery Resources Survey, 1975-1977.

4. Fishery Department Estimates.

of Lake Victoria provided the greater part although landings at Lake Turkana showed a dramatic increase (as a result, the 1978 target for fishlandings was exceeded in 1976). It is estimated that about 16,000 fishermen operate with 4,599 registered craft from the Kenyan shores of Lake Victoria. This estimate rises to as high as 18,000 when part-time and unregistered fishermen are included. About one quarter of all registered fishermen operate through 21 co-operative societies. Fishing is undertaken in shallow waters, with mainly sail canoes or beach seining techniques. Consequently, shallow water species of fish such as tilapia are becoming over-fished while the major stock of fish, the *haplochromis* species, are to be found in deeper waters further offshore. It is estimated that the annual harvest from the small but relatively rich Kenyan part of Lake Victoria could attain 30,000 metric tons per annum. This increment in yield, mostly of the *haplochromis* species, would demand the introduction of trawling methods of fishing and improved on-shore handling. Fishlandings have increased at an annual rate of 4 per cent in recent years, and it is projected that this rate will increase during the plan period.

6.277. *Lake Turkana* is the largest body of freshwater accessible to Kenyan exploitation, but it is located far from population centres and possesses a very limited local market. Landings have been about 5,000 tons per annum but these increased very significantly in 1976 to 17,000 metric tons, with the influx of more experienced fishermen from Lake Victoria. The total number of fishermen on Lake Turkana is thought to be about 2,300 operating from 450 canoes and about the same number from rafts. Studies have been undertaken on the maximum sustainable yield which the Lake Turkana fishery can support, and these are still being assessed. Controls on fishing were imposed in 1977 and therefore only a very modest increase over the 1976 landings, up to approximately 20,000 metric tons per annum is forecast during the plan period. This increase would possibly mark the upper boundary to the sustainable yield.

6.278. *Other freshwater fisheries.* Of these Lakes Naivasha and Baringo are the most important but for various reasons, they are fully fished. There has been some success in overcoming the salvinia infestation problem of Lake Naivasha, but fish landings remain low. Consequently, the immediate prospects for expanding the fishing industry on this lake are not good. It is estimated that there are about 50 active fishermen on Lake Naivasha. Lake Baringo, with about 300 active fishermen, has been affected by deterioration in land use in its water catchment area. This has led to heavy silting and water turbidity and a consequent reduction in fish landings. It is doubtful whether measures designed to overcome this problem, involving an integrated programme to improve land use, can have rapid results on the productivity of this lake. Other lakes, including reservoirs and man-made lakes on the Tana River and its subsidiaries offer some prospects for increased fish production. Also highland streams arising on Mt. Kenya and the Aberdare range

provide trout fishing with good tourist potential, but unfortunately they are subject to poaching and have depleted stocks.

6.279. A review of inland fishery resources would be incomplete without including fishponds associated with fish farming. These are mostly situated in the densely populated and fish-consuming Nyanza and Western Provinces, with some in Central Province. Although the estimated number of such ponds approaches 30,000 in western Kenya alone, the number in actual operation is only a fraction of this total, perhaps 3,000 only. Unfortunately, these have low levels of output, an estimated 300 kg./ha. of pond area. The main constraint to progress in fish farming has been the lack of a viable extension programme, with potential fish farmers having little or no first-hand experience to fall back on. The potential output from such fishponds is substantial and higher yields could have a profound effect on rural communities located far from traditional sources of fish. Therefore the development effort on aquaculture will be expanded. During the plan period, there is a target of 4,500 rehabilitated or new ponds, each of about 0.25 ha. and each yielding annually some 1.5 metric tons per ha. (only a fraction of the potential yield). This will give a total annual yield of 1,800 metric tons from inland aquaculture by 1983.

6.280. Overall, inland fisheries are projected to yield over 48,000 metric tons by 1983. This projection represents a modest but realistic growth rate of 3.8 per cent per annum over the 1976 base.

6.281. *Marine fisheries.* According to many conservative estimates, marine fisheries represent fully half of the potential source of fish available for exploitation by Kenya. However, the 1976 marine landings were only 4,000 metric tons and freshwater landings, 37,000 metric tons. Most marine fisheries are inshore, that is within the narrow continental shelf; therefore shallow water trawling areas are very limited. The bulk of marine fish landings are caught by an estimated 11,000 artisanal fishermen. They are using some 3,600 registered boats, mostly canoes with a limited range as only a small proportion are motorized. There are eight fishing co-operatives at the coast handling about 25 per cent of the landings. These are seen to offer scope for channeling investment funds to small-scale fishermen to enable them to upgrade their fishing technology. The coast is the sole location of more direct government involvement in fishery operations. Kenya Fisheries Industries (KFI) was established in 1970 as a joint venture between the Kenya Government through the Industrial and Commercial Development Corporation and Japanese fishing interests. In early 1978, the KFI became a wholly Government owned parastatal organization, whose initial activities included shrimp trawling. In addition, there is a handful of small commercial firms operating a few trawlers, none of which is capable of operating far offshore, ice-making and providing cold storage facilities; and there are some fish transporters collecting from artisanal fishermen to the north and south of Mombasa.

6.282. An assessment of the marine fishery resource available for Kenyan exploitation is dependent on the extent of the Indian Ocean over which Kenya holds legal right. Currently Kenya's control over marine resources is limited under the Territorial Waters Act of 1972, to the 12 nautical miles of the territorial waters of the Republic together with sea-bed fish species on the continental shelf where this extends beyond the 12 miles range. However, new legal documents are being drafted to reflect the concept of an "exclusive economic zone" extending for 200 nautical miles offshore. The potential sustainable yield shown in Table 6.30 for marine resources reflects the adoption of this concept.

6.283. The contribution of marine fisheries to total domestically landed fish supplies are projected to increase from 10 per cent in 1976 to over 18 per cent in 1983. This is an annual rate of growth in landings of 14.6 per cent. This projection is based on increased landings from both in-shore and offshore fisheries and also from offshore by Kenyan based trawlers.

6.284. Summarizing the targets for the fishery sector over the plan period, total landings are projected to be about 59,000 metric tons by 1983, representing an annual rate of increase of 5.3 per cent from 1976. The value of these landings should approach K£4.2 million in 1976 prices compared to K£2.9 million in 1976. In 1976, full-time employment in the fishery sector was estimated at about 36,000, including fishermen, fish traders and Fisheries Department employees, increasing to approximately 50,000 if part-time fishermen were included. Labour productivity in the fishing industry should increase somewhat during the plan period with wider use of mechanized trawling methods and improved artisanal fishing techniques. However, this increased productivity will be offset partially by the lower productivity of an increasing number of part-time fish farmers. With the assumption that labour productivity will increase by 1.3 per annum, actual employment will expand annually by 4 per cent or approximately by 32 per cent over the 1976-83 period. Therefore, full-time employment in fisheries, including fish-farming, can be expected to increase to some 48,000 to 50,000 by 1983, or approximately to 60,000 if part-time operators are included. In terms of nutrition, the gain in *per capita* consumption of fish as a result of increased fish yields is rather modest. This assumes little change in the overall external trade in fish and in the rate of population increase of 3.5 per cent per annum. Fish consumption is projected to increase from 3.1 kg. *per capita* in 1976 to 3.4 kg. in 1983, a gain of 10 per cent which will offset to some extent the projected decline in the consumption of meat.

### **The Demand for Fish and Fish Products**

6.285. The demand for fish is differentiated between freshwater and marine species of fish and tends to be local in character. The market for freshwater fish is centred largely on the densely populated areas close to Lake Victoria



and that for marine fish is mainly derived from the coastal population. The cosmopolitan population of Nairobi forms a substantial market for both types. But major parts of the population as a whole, especially in rural areas, do not consume fish at all. It is clear, though, that the national *per capita* consumption of fish, about 3.1 kg. per annum, is less than the demand for fish. This is because of a physical lack in the total supply, prices being high relative to other animal protein foods, or inferior marketing or of a combination of these. Demand tends to be greatest for fresh fish while often dried or salted fish is supplied, the marketing system being incapable of handling greater quantities of fresh fish. Fish consumption in Kenya is only a fraction of that in adjacent countries such as Uganda and Tanzania. It provides the population on average with only about 1.2 gm. of protein per day or less than 3 per cent of the average *per capita* daily intake of protein.

6.286. The proposed developments in fisheries which are discussed below will lead to increased landings and hence supplies of fish. Through improved marketing, supplies of fresh fish for which demand is strongest will be increased. The promotion of fish farming will lead to increased supplies of fish to rural consumers who, in general, are poorly supplied. Although it is difficult to forecast market prices, it seems likely that prices of fish will rise more slowly than those for other animal protein foods, especially meat; therefore, the projected 10 per cent increase in *per capita* fish consumption appears realistic.

6.287. There is a small domestic market for fishmeal used in compounded animal feeds (imports over the period 1975 to 1977 were 1,000 to 1,200 tons per annum of both meat and fishmeal). Its size is limited, however, by the relatively high price of the imported product together with the relatively small, though fast-growing, commercial livestock sector in Kenya which uses such feeds.

### Programme for Action

6.288. The proposed programme covers three main areas of fishery activities: fishery development, research and training. The total development expenditure during the plan period required to achieve its objectives and targets is estimated to be about K£4 million (*see* Table 6.31).

### Fishery Development

6.289. *Inland fisheries.* Provision is made for ten trawl boats equipped with diesel engines and the necessary gear, to be based on Lake Victoria. These will be used mainly to exploit *haplochromis* species offshore. Existing fish landing stations at Karungu and Port Southby have been selected for upgrading to serve as bases for these trawlers; improvements will include a landing jetty, fish sorting shed, ice plant, etc. It is envisaged that the trawlers

**FISHERIES DEPARTMENT FORWARD BUDGET  
DEVELOPMENT BUDGET**

**Table 6.31**

Title	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Fisheries Head Office	179,000	215,000	216,000	215,000	216,000	1,041,000
Fisheries Training	12,000	14,000	16,000	15,000	16,000	73,000
Kenya Fisheries Research Organizations	175,010	250,000	260,000	240,000	250,000	1,175,010
Fisheries Stations	265,650	370,000	310,000	360,000	400,000	1,705,650
<b>TOTAL</b>	<b>631,660</b>	<b>849,000</b>	<b>802,000</b>	<b>830,000</b>	<b>882,000</b>	<b>3,994,660</b>

K£

**RECURRENT BUDGET**

Title	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Fisheries Head Office	258,012	240,041	300,952	300,952	350,047	1,450,004
Fisheries Training	609	8,310	10,055	11,060	12,000	42,034
Fisheries Research	229,471	269,895	269,895	270,895	300,000	1,340,156
Fisheries Stations	503,405	521,349	610,833	653,961	673,800	2,963,348
Deep Sea Fishing Project	43,733	48,151	58,263	64,099	70,089	284,335
<b>TOTAL</b>	<b>1,035,230</b>	<b>1,087,746</b>	<b>1,249,998</b>	<b>1,300,967</b>	<b>1,405,936</b>	<b>6,079,877</b>
<b>TOTAL FISHERIES DEPARTMENT</b>	<b>1,666,890</b>	<b>1,936,746</b>	<b>2,051,998</b>	<b>2,130,967</b>	<b>2,287,936</b>	<b>10,074,537</b>

and the on-shore facilities will be operated through existing fishery co-operatives. In addition 30 improved traditional fishing craft equipped with small diesel engines will be provided on credit terms, primarily for long lining in Kisumu Bay. On-shore facilities will be improved by the provision of sorting sheds, water supplies and drying racks at approximately five selected fishing villages. The cost of this programme is estimated to be K£187,000 for fishing craft of all types plus about K£536,000 for improvements to on-shore facilities.

6.290. Although there are no plans to undertake a major expansion of existing Fisheries Department fishing stations, it is proposed to add a fishing station at Loyangalani to supplement the existing one at Ferguson's Gulf on Lake Turkana. Extension efforts will be strengthened at all the Lake Victoria fishing stations.

6.291. The fish farming station at Sagana will be upgraded to serve as a national centre for extension, research and training in fish farming, at an estimated cost of K£243,000. The main investment items include the rehabilitation of existing experimental ponds, the construction of additional ponds and the building of a laboratory, store, offices, etc. Approximately 20 demonstration ponds, will be constructed in Nyanza, Western and Central Provinces. The facilities of the fish farming stations at Kakamega, Kisii and Kiganjo (the latter, a trout hatchery) will be expanded, and the sub-station at Embu will be upgraded.

6.292. *Marine Fisheries.* The core of the development programme for marine fisheries will be the provision of eight trawlers, on credit terms, to fishing co-operatives for fish and shrimp trawling mainly in Ungama Bay. In addition, eighty craft equipped with small diesel-engines will be supplied through co-operatives on both the north and south coasts. On-shore facilities will be improved at the Lamu Archipelago on the north coast and at Shimoni and Vanga on the south coast. These improvements will include such facilities as ice plants, cold stores, jetties, ramps, etc. The total cost of the fishing boats to be supplied under the proposed project will be K£224,000 and, the associated on-shore facilities will require an estimated investment of K£567,000.

6.293. As with the improvements to be provided to the Fisheries Department extension services for inland fisheries, additional vehicles and equipment will be supplied to the Department's marine stations at Mombasa, Malindi, Lamu and Shimoni; it is also proposed to upgrade the substation at Kiunga, near the border with Somalia.

6.294. The projections regarding the exploitation of marine fishery resources assume that investments will also take place outside of the activities of the Fisheries Department itself. The main institution concerned is the

Kenya Fishing Industries (KFI), the parastatal organization mentioned earlier. The KFI development programme involves the purchase of trawlers for both in-shore and deep sea operations, the latter involving the exploitation of tuna and other deep sea fish which Kenya has not had the vessels to exploit in the past. Longer term proposals of the KFI include the establishment of a fish meal plant. The Kenyan commercial fishing enterprises, either alone or jointly with foreign firms, will expand their operations during this plan period.

### **Fishery Research**

6.295. Given the relatively minor role the fishery industry plays in the Kenyan economy, it is essential that any research undertaken must be of an applied and problem solving nature. However, as with other natural resources, Kenya is having to establish national fishery research institutions to provide services previously carried out by regional institutions of the former East African Community. It is proposed that the Mombasa substation of the former East African Marine Fisheries Research Organization (EAMFRO) be enlarged to carry out a broader research programme. Similarly, the Kisumu substation of the former East African Freshwater Fisheries Research Organization (EAFFRO) has been designated the national station covering this area of research. The expenditure to upgrade these former Community stations will be about K£1.2 million. The joint Fisheries Department/University of Nairobi project based at Naivasha will be continued. For inland fish farming research, the station at Sagana will be the centre. A trial project on the technical and economic feasibility of establishing fish farming on tidal swamplands at the coast, involving prawns, mullet and rabbit fish (siganids), will be set up at Mombasa, the Government expenditure being K£135,800. The research institutions will also be involved in providing training facilities for fishery staff.

### **Training**

6.296. The development programme for fisheries outlined in the above paragraphs will require a complementary effort in training additional professional and field staff, fishermen and fish farmers, boat builders and repairers, etc. The training of professional staff will be undertaken at the University of Nairobi and, if necessary, abroad, while a new National Wildlife and Training Institute at Naivasha which is to have its first intake of students in 1981, will provide training for middle and lower cadres of staff. This Institute which will be supported by an out-station at the Coast, will also offer concentrated technical and management courses to fishermen and others involved in the fishing industry. Similar courses will be provided at the Co-operative College in Karen for staff members of co-operatives, and in collaboration with the Ministry of Agriculture, at Farmer Training Centres in areas where fish farming can supplement agricultural activities. The fish farming

station at Sagana will offer more specialist training in this area. Practical or on-the-job training for fishermen, boat operators, fishing gear repairers, etc., will continue to be one of the tasks of the extension and project staff attached to the Fisheries Department. The sum of K£73,000 has been allocated under the development budget for fishery training during the plan period.

### **Sport Fishing**

6.297. This small but important (from a tourism and recreational point of view) part of the fishing industry deserves mention. Most commercial sport fishing boats are based on the coast although there are some on freshwater lakes, notably Lakes Turkana and Naivasha. Some improvements will be made to on-shore facilities such as docking ports and access roads. It is proposed also to promote recreational fishing on Lake Victoria. Kenya possesses trout streams, especially those rising on Mt. Kenya and its associated range. These are stocked with fingerlings from the Kiganjo station and a few commercial hatcheries. Efforts will be made to increase the stocking rates of these streams and to deploy more patrol staff to prevent poaching which is a continuing problem. In the 1974-78 Development Plan, it was the stated intention to undertake a feasibility study of the long-term development of the sport fishing industry. So far it has not been possible to mount such a study which requires very specialist skills and experience but the objective will be pursued during this plan period.

## **CO-OPERATIVE DEVELOPMENT**

### **Policy Framework**

6.298. The co-operative movement is an important instrument for achieving mass participation in national development and for providing a means of raising the living standard of the participants and of those who otherwise would not have access to inputs and services necessary for them to achieve a better standard of living. The co-operative movement, in fact the whole concept of co-operation, should be regarded as an organizational tool for promoting rural development generally and income-earning opportunities in both rural and urban areas. However, co-operatives have to prove themselves to be at least comparable with other organizational forms in providing goods and services in order to justify the continued investment of resources in them. Therefore during the plan period, the emphasis of the Ministry of Co-operative Development, which supervises and promotes co-operative activities in Kenya, will be towards improved performance, namely in the efficiency with which goods and services are provided to members; such goods and services include farm inputs, production credit, agricultural extension, marketing and processing services and education. As of 1977, 600,000 households received such

services through co-operatives. In addition, new innovations will be introduced, especially in the supply of credit, to exploit fully the opportunities that efficient co-operative participation in rural industrial development and housing can offer.

6.299. The development of co-operatives was strongly promoted during previous plan periods so that at the beginning of the current plan period, there are some 1,437 active co-operative societies in Kenya with a total membership of 976,545. Most of these societies are agricultural marketing societies, the estimated turnover of which was about K£106 million in 1977. Thus, at that time, smallholder co-operatives controlled nearly 50 per cent of the volume of the total coffee crop, nearly 90 per cent of the pyrethrum, over 80 per cent of the cotton, and over 50 per cent of all marketed milk. They were also involved in sugar-cane and fish marketing. The efficiency with which these societies handle, process and market the produce of their members and pass back the market proceeds to them, is central to achieving rural development through the co-operative movement. Table 6.32 shows the distribution of co-operative societies by province, total membership, co-operative turnover and share-capital for 1977, while Table 6.33 shows the projected co-operative turnover for major activities during the plan period.

6.300. The most serious constraint to further growth of the co-operative movement is an internal one, that is, the shortage of qualified and experienced personnel needed to carry out accounting and management functions. This personnel shortage is such that the Government, through the Ministry of Co-operative Development, has had to control and supervise many co-operatives to ensure their orderly growth. The removal of this constraint is vital to the continued development of the co-operative movement.

6.301. The movement also faces other constraints of a more external nature. These include the overall lack of technology appropriate to small-scale enterprises, typical of co-operative initiatives; the lack of fully co-ordinated and coherent extension and information services and limited transportation, storage and processing facilities with the necessary repair and service facilities to support them.

### **Strategies for Co-operative Development**

6.302. The following strategies have been developed to enable the co-operative movement to contribute fully to the Development Plan, and particularly to tackle the key development constraint, that is the shortage of properly qualified, motivated and experienced staff:—

- (1) The continued use of smallholder co-operatives, mainly the marketing societies, as the vehicle for disbursing smallholder credit. With the increased emphasis on integrated projects such as IADP and the Integrated Regional Development Projects, there will be a greatly

expanded role for co-operatives in the supply of agricultural inputs and produce marketing services. At the same time, co-operatives will benefit from investments in marketing infrastructure, such as storage and transport facilities, associated with these projects.

- (2) The promotion of co-operatives in existing and new areas of activity. These activities could include the procurement of inputs and the marketing of farm produce; the provision of services and facilities which, in the typical smallholder environment, would not be undertaken by commercial enterprises, such as credit and saving facilities; and housing. The more established marketing societies will be encouraged to undertake multiple functions so as to provide a wider range of services to the members.
- (3) The monitoring of the efficiency of co-operatives and the removal of specific functions from them if their performance is unsatisfactory, such functions being taken over by other institutions. The measures of co-operative performance and efficiency will be based on standardized or maximum charges levied on members for specified functions and on target payouts to members of market proceeds.
- (4) The strengthening of the Ministry of Co-operative Development so that its control, supervision, guidance and promotion of co-operatives will improve. In addition, training programmes for both the Ministry and co-operative staff will be expanded to cover some of the manpower constraints. A total sum of K£12.0 million for development and K£10.3 million for recurrent expenditure as shown in Tables 6.35 and 6.36, has been allocated to the Ministry to support its development activities during the plan period.

### **Co-operative Institutions**

6.303. The heart of the co-operative movement is the individual societies and unions themselves. In 1977 there were 769 agricultural marketing societies under the umbrella of 39 district co-operative unions. In addition there were 668 co-operative societies active in other fields: 81 farm purchase societies, 55 consumer societies, 29 housing co-operatives and 27 fishermen's co-operatives. While the above co-operatives were mainly in the rural areas, with the exception of consumer and credit societies, there are also 476 credit and saving societies with a total membership of 184,000 active mainly in urban areas. There are also several country-wide co-operative organizations which include the Kenya Planters Co-operative Union (KPCU) which handles the whole coffee crop for both large and small scale coffee producers, the Kenya Co-operative Creameries (KCC) which processes most of the marketed dairy output, the Horticultural Co-operative Union, and the Kenya Farmers

Association (Co-operative) Ltd. (KFA) which is a major distributor of agricultural inputs and markets farm produce, mainly cereals, for large- and small-scale farmers, especially in the Rift Valley Province. The total turnover of all co-operatives is expected to rise from K£90.3 million in 1976 to K£151.2 million in 1983. These figures are shown in Table 6.33.

6.304. In addition to these grass-roots institutions of the co-operative movement there are three other major institutions which will play increasingly important roles in co-operative development.

#### **The Co-operative Bank of Kenya**

6.305. The Co-operative Bank provides the financial support to the movement as well as banking facilities to the member co-operatives. One of the major roles of the Bank is to provide short-term loans to societies which have demonstrated a satisfactory performance to finance agricultural production under the Co-operative Production Credit Scheme (CPCS) which will be discussed below. The Bank also gives medium-term loans to societies to enable their members to diversify and improve their farm enterprises, such as for the purchase of dairy cattle, the installation of water facilities, fencing, expansion of crop area, etc. Well-managed co-operatives may be eligible for medium-term development loans of three to five years' duration for investment in agro-industrial activities such as cotton ginning. In the past, there has been a great demand for longer-term loans for financing housing in rural and urban areas and for more ambitious agro-industrial enterprises, but the Bank has had no capacity to meet such demand. Therefore, the Co-operative Finance Company of Kenya Ltd. has been established as a wholly-owned subsidiary of the Bank to assist with the provision of credit in these investment areas. The Government views the Bank as an important channel of funds to small-scale farmers for accelerating rural development and will continue to support it in these and its other activities during the plan period, allocating K£5.0 million to its various programmes.

#### **The Kenya National Federation of Co-operatives (KNFC)**

6.306. The Kenya National Federation of Co-operatives was established as the apex organization to the co-operative movement, uniting societies, unions and countrywide organizations under one umbrella. The KNFC lays special emphasis on certain aspects of the co-operative movement such as co-operative education and training programmes and co-operative publicity. It also provides to the movement as a whole commercial services such as supplying agricultural inputs and processing materials, office supplies and equipment, and printing. A sum of about K£0.7 million has been allocated from Government funds over the plan period to enable the KNFC to develop its activities in these areas and to enable it to undertake fully its advisory capacity to the Government on all matters concerning the future development of the movement.



## **The Co-operative College of Kenya**

6.307. The basic objective of the Co-operative College is to develop and implement the co-operative education and training programmes in administrative and managerial skills. The programmes are intended for staff members of the co-operative organizations, society committee members and staff of the Ministry of Co-operative Development. Given the importance of the objective of manpower development during the plan period, the key role of the College cannot be overemphasized. A total sum of K£0.6 million has been allocated to the College by the Government for the plan period.

### **Programmes of Action for Co-operative Development**

6.308. It must be emphasized that co-operatives have been given key roles in the Ministry of Agriculture on-going and proposed smallholder development programmes in the provision of farm credit, the supplying of inputs and the marketing of produce. The future role of the co-operative movement in rural development very much depends on how successful co-operatives prove to be in implementing such programmes as the Integrated Agricultural Development Programme. Therefore these various Ministry of Agriculture credit programmes will be discussed first before the other proposed co-operative activities more directly under the Ministry of Co-operative Development.

### **Co-operative Farm Credit Programmes**

6.309. Contemporary credit programmes have made a very significant shift in policy towards smallholder credit. In some programmes the requirement of a land title deed as a condition for a loan has been waived and replaced by a required "anchor" cash crop or other form of security. It is true that this shift increases the risk for the implementing co-operative society although mechanisms to minimize the financial consequences are provided. The main on-going or proposed programmes for the plan period are as follows:—

- (1) *Integrated Agricultural Development Programme (IADP)*. This project is designed to further the development of small-scale farmers providing the main vehicle for assisting subsistence farmers in joining the cash economy. It is based on the whole farm system of development and it provides a fully integrated support system including input supply, credit and marketing services channelled through the co-operatives. Phase I of IADP commenced in 1976 and a further two phases, each with a shift in farm coverage, are proposed; for the proposed phases, the target number of farmers to be covered directly is 125,000.
- (2) *The Smallholder Production Services and Credit Project (SPSCP)*. This project was aimed at providing services to smallholders "characterized as less progressive but who also have the potential to become progressive farmers". This project marked a major step in moving from

the conventional collateral requirement in smallholder credit programmes to a collateral based on a package of crops including both food and non-food "security" crops, the latter to cover the value of the loan. The marketing of the security crop is restricted to the co-operative society. The SPSCP will have covered 18,000 farmers by 1979, and from then on, the Government will decide on how the revolving fund created will be operated.

- (3) *The Co-operative Production Credit and Services Programme (CPCS)*. This operates through the co-operative system, providing credit to the more progressive small-scale farmers. The value of the loan to the society is equal to no more than two-thirds of the expected value of crops marketed through the district union while the individual member's loan is based on the average value of marketed produce based on the previous three years. This programme is not as closely tied to the "security" crop concept as other programmes. CPCS will continue through the plan period, the target number of farmers being about 424,000, and the estimated amount of loans to be given under the programme will be K£104.8 million as shown in Table 6.34.
- (4) *Integrated Regional Development Programmes (IRDP)*. The Machakos Integrated Development Programme (MIDP) is the first comprehensive regional development project which is to cover a four year period beginning in 1978. Several others are expected to be launched during the plan period. The major beneficiaries of MIDP will be small-scale farmers, 27,000 of whom will participate in farm credit programmes under the umbrella of IRDP and which will involve the co-operative societies. Most of the new regional programme will concentrate on the arid and semi-arid land areas and will essentially be the same in concept as the MIDP.
- (5) *Other Small-scale Farm Development Programmes Involving Co-operatives and Credit*. Several other projects which are at various stages of development are proposed for the plan period. All will involve to a greater or lesser extent, smallholder credit programmes being channelled through co-operatives and supported by extension services, marketing infrastructure, etc. Major projects which are in an advanced state of preparation are the Coffee Rehabilitation Project which is expected to cover 10,000 smallholder coffee farmers during the plan period, and the Horticultural Development Project, its target being 50,000 small-scale farmers over the same time frame. Other projects envisaged but not yet fully prepared are expected to cover an additional 50,000 farmers by the end of the plan period.

## **Other Proposals for Co-operative Development**

6.310. Developments which are more directly under the control of the Ministry of Co-operative Development, are now briefly considered. The most important of these are education and training.

### **Education and Training**

6.311. Proper education and training are important services that the Government will continue to provide with the view to improving the efficiency of the co-operative movement. Most of the training activities will be undertaken at the Co-operative College of Kenya, with the specific aim of providing the necessary managerial and administrative skills to graded staff, committee members of the movement and for the Ministerial staff. The college offers a diploma course in Co-operative Management, an Accounting and Business Management course (ABM); a certificate course in Co-operative Administration (CCA); seminars and the Banking/Saving and Credit course for the unions with banking sections. Some part of the training course is done in the field which provides for in-service training needs as well as in preparing the suitable candidates for further training.

6.312. During the plan period, it is expected that additional Assistant Co-operative Officers will be trained locally and some overseas training will be encouraged particularly in rural development, adult education, and co-operative management courses. As part of the Government effort to improve the efficiency of the co-operative movement, the Co-operative System Support Programme will be launched, aimed at providing advisory training services to the Ministry of Co-operative Development in four major areas. First, there will be a management study of the Co-operative Bank of Kenya and of union banking sections to determine their strengths and weaknesses and to increase their roles in the development of the co-operative credit system. Secondly, there will be an evaluation leading to recommendations for improvements in the co-operative education programme. Thirdly, there will be a study on the movement's needs for professional and sub-professional manpower covering the next ten years and fourthly, there will be a review of the curriculum and facilities at the Co-operative College to see where improvement can be made to suit the needs of the movement. This project will cost K£700,000 over the plan period.

### **Integrated Co-operative Development Projects**

6.313. The basic objective of integrated co-operatives is to improve the quality of life of the people by undertaking a variety of activities and services that go beyond the traditional marketing functions to the provision of farm extension services, crop storage, and such social amenities as education, health and water facilities. At the end of the previous plan period, there were five

integrated co-operatives in the country, and it is envisaged that this number will increase to ten during the current plan period. Basically integrated co-operative development projects will be developed by transforming existing co-operatives into multipurpose types. However, the Government will make very critical evaluation of existing integrated co-operatives before new ones are established.

### **Agro and Non-Agro Co-operative Industries**

6.314. During the previous plan period, surveys were made on the prospects of extending co-operative participation in both agro and non-agro processing industries, and these surveys indicated that co-operatives have a potential in these areas. The range of industries where co-operatives can participate is wide; however, the most obvious ones include cotton ginneries, coffee factories, milk processing plants, small-scale sugar factories, fish processing plants, horticultural products industries, forest industries, brick making factories and flour mills. Before these industries are acquired or established by co-operatives, detailed economic analysis will be made to show the costs and benefits of these projects. In addition, the Ministry of Co-operative Development will, in the initial stages, provide the management know-how to ensure their success. The Government intends to spend K£50,000 during the plan period to assist with the appraisal of these enterprises.

### **Urban Saving and Credit Co-operative Project**

6.315. There has been very rapid development of the urban savings and credit societies over the previous plan period. This development was not without problems. Most of the problems stem from the lack of qualified staff, and lack of adequate support from the Kenya Union of Savings and Credit Co-operatives to these societies. The Kenya Union of Savings and Credit Co-operatives (KUSCCO) is a nationwide central organization for the savings and credit societies having a membership of about 250 primary societies. KUSCCO provides centralized book-keeping services to its affiliates, and does promotional work, conducts education and training to staff working in the primary societies and provides insurance schemes covering some of the risks of non-repayment of loans issued by the savings and credit societies to their members. During the plan period, a number of steps will be taken to achieve efficient running of these societies. These will include improvement of the terms of service of society staff, more training of staff, control over the establishment of new societies through the establishment of inspectorate teams that will provide regular inspection of society accounts. The role of KUSCCO will be expanded to give guidance and support especially in accounting areas. The improvement of KUSCCO's accounting services will be beneficial to the societies, and a sum of K£750,000 will be available for the purchase of equipment for book-keeping centres of KUSCCO.

## **Co-operative Housing Development Programme**

6.316. Despite considerable progress made by the National Housing Corporation (NHC) and the local authorities in providing housing in urban and rural areas, the housing shortage is growing greater and greater every year. It is estimated for example, that 50,000 new dwelling units per year will be needed during the plan period, with Nairobi's needs alone accounting for 10,000 units per year. Outside the existing schemes undertaken by the NHC and the local authorities, provision of housing through the co-operative framework is seen to have great potential. The objective of this programme, therefore, will be to assist in the acquisition of houses by members of organized co-operative housing societies. A National Co-operative Housing Agency will be formed to administer the co-operative housing programme, and in the initial stages, the Government will be required to provide working capital for the new agency until its own income will be available. The National Co-operative Housing Agency will act as the primary promoter of housing co-operatives both at national and local levels. Its functions will include the planning and development of feasible housing schemes for low-income workers, and assisting them in securing land, finances and provision of estate management services. The working capital needed during the plan period is an estimated K£3.8 million. The programme will be implemented on a phased basis and will be co-ordinated by the Ministry of Co-operative Development working in conjunction with the Central Organization of Trade Unions, the National Social Security Fund, and with the Ministries of Housing and Social Services and of Finance. This programme will have provided a total of 4,520 new units by the 1983/84 financial year.

## **Building and Construction Co-operative Programme**

6.317. Co-operatives can play an important role in supporting Government's attempts to reduce the number of foreign companies and organizations in the building and construction section. One of the most significant constraints to the development of local building and construction companies is the lack of finance and managerial skills. Co-operatives are very convenient channels through which financial resources can be mobilized and training provided to potential managers. Initially, the building and construction co-operative programme will cover Eastern and Nyanza Provinces and upon gaining sufficient experience, it will be extended to cover the whole country. It is intended to establish six building and construction co-operatives in Eastern Province with a total membership of 2,000 over the first three years of the Plan. During the third year of the Plan, these societies will provide about 600 casual labourers with job opportunities. In Nyanza, the aim will be to consolidate the existing societies and to extend their membership. Financial resources will be required to assist these societies to buy tools and equipment. Total financial requirements for the programme will amount to K£2.7 million

during the plan period of which Government is expected to contribute K£786,000, with K£1.9 million being contributed from external sources.

### **Consumer Co-operative Development Programme**

6.318. A survey conducted by the Ministry of Co-operative Development has indicated that there is need for the establishment of single purpose consumer co-operatives in the major urban areas. Promising prospects also exist in the rural areas where retail trade services can be unreliable and expensive. Shortage of essential commodities occur from time to time in rural areas, and unfair trade practices are more prevalent than in the urban areas where price control is more effective and consumers more informed. The Government's efforts will firstly be directed towards developing operational tools and systems for the effective running of these societies in urban areas. Most important, the Government intends to encourage those societies in the rural areas where co-operatives have proved themselves capable of administering a wide range of activities. To achieve this objective, the Ministry of Co-operative Development will attach the necessary personnel to supervise the establishment and operations of these consumer co-operatives. In addition, K£5,000 will be made available for the printing of manuals and stationery.

### **Farm Purchase Co-operatives**

6.319. Farm purchase societies have proved to be important in the land transfer programme in the former scheduled areas. Ninety per cent of these societies are to be found in the Rift Valley Province. Out of a total of 1,600 large-scale farms purchased in that Province by the end of 1977, about 180 were purchased by farm purchase societies. While the number of farms purchased through the programme is not expected to increase significantly during the plan period, the Government intends to take steps to see that these societies and the farms they control are run efficiently. One way of achieving this will be to encourage legal subdivision of those farms where illegal subdivision has taken place. This programme will come under the Large-Scale Farm Subdivision Programme to be operated jointly by the Ministries of Agriculture, Lands and Settlement and Co-operative Development. In addition, the Government has secured financial resources from the World Bank for the rehabilitation of badly managed co-operative farms, a process which will be extended into the current plan period.

### **Fishing Co-operatives**

6.320. At the end of the third Development Plan period, there were 16 active fishermen's co-operative societies in Kenya, most of which were found around Lake Victoria and at the Coast. These societies have had management problems and in addition they have been faced with problems in marketing, storage and increasing prices of fishing equipment. Two other constraints

have also been identified, namely, the lack of credit facilities and extension services. The main focus of the development programme will be in the Lake Victoria and the Coastal areas and aimed at improving marketing, transport and storage facilities, supplying fishing equipment, the provision of credit facilities through the Fishermen's Credit Scheme, improving accounting procedures and stepping up the education and training of the fishermen. In addition to providing the required supervisory personnel from the Ministry of Co-operative Development, a total of K£1.0 million will be provided for the credit programme.

### **Handicraft Co-operative Development Programme**

6.321. An estimated 80,000 people are on a part-time basis involved in handicraft activities, while the number of full-time artisans is in the range of 3,000 to 4,000. The co-operative handicraft sector comprises eight active societies with 2,100 members and an annual turnover of approximately Sh. 1.5 million in 1978. The three woodcarving societies in Mombasa, Wamunyu and Nairobi account for the bulk of the membership and the turnover. A co-operative handicraft development programme has been devised on the basis of a recent survey carried out by the Ministry of Co-operative Development on the needs and potentials for expanded co-operative participation in the handicraft sector. The programme focuses on the establishment of a national co-operative handicraft marketing union; implementation of proper management and control systems in the societies; introduction of effective product planning and quality control procedures; and on product development and training of artisans. The programme will initially cover the woodcarving societies and the Maendeleo ya Wanawake. A total of K£100,000 will be required for implementation of the development scheme.

### **Small-scale Rural Industries**

6.322. So far the co-operatives have been only marginally involved in small-scale rural industrial development programmes. The potentials for co-operative participation in this sector have been surveyed by the Ministry of Co-operative Development and, on the basis of the survey, a pilot project covering Kisii and Kakamega Districts will be implemented. The pilot project will comprise ten multipurpose rural workshops organized on a co-operative basis for manufacturing of farm equipment, furniture, household utensils and appliances and clothing and footwear. Financial inputs to the tune of K£50,000 will be required for the project. For implementation of the programme, collaboration will be established with the Ministry of Commerce and Industry in order to ensure effective co-ordination with the Rural Industrial Development Programme.

SOCIETIES AND THEIR TURNOVER, 1977

Table 6.32

Item Province	Societies	Members	Turnover (K.£'000)	Share Capital (K.£'000)
Nairobi .. .. .	287	143,824	1,696.5	10,185.2
Nyanza .. .. .	185	212,078	11,886.2	790.3
Western .. .. .	99	65,808	3,338.7	89.7
Central .. .. .	192	236,301	49,138.5	4,005.4
Coast .. .. .	164	31,014	2,043.1	1,620.2
Eastern .. .. .	146	210,166	37,609.1	1,058.5
Rift Valley Settlement .. .. .	118	25,819	1,325.1	73.5
Unions .. .. .	211	51,535	5,998.5	519.6
	35	(458)	35,501.2	545.8
<b>TOTAL .. .. .</b>	<b>1,437</b>	<b>976,545</b>	<b>148,536.9</b>	<b>18,888.2</b>

FOURTH DEVELOPMENT PLAN  
 PROJECTED CO-OPERATIVE TURNOVER, 1978—83  
 (MAJOR ACTIVITIES)

Table 6.33

(K.£'000 in 1976 Prices)

Activity	1976	1978	1983	Average Annual Rate of Growth Percentage 1976-83
Maize .. .. .	3,795	4,800	7,285	9.8
Coffee* .. .. .	42,742	88,871	61,976	5.5
Cotton .. .. .	1,595	1,792	2,392	6.0
Pyrethrum .. .. .	2,960	2,592	4,452	6.0
Sugar Cane .. .. .	2,762	2,327	5,110	9.3
Dairy Products .. .. .	3,696	3,882	6,325	8.0
Cashewnuts .. .. .	950	1,250	2,700	16.1
Ranching—Sales .. .. .	551	553	925	7.6
Fisheries .. .. .	361	728	841	13.0
Consumer .. .. .	750	713	1,710	12.5
Savings and Credit .. .. .	1,020	2,218	2,713	15.0
Building and Construction .. .. .	56	61	109	10.0
Farm Purchase .. .. .	1,146	1,418	1,501	4.0
Others .. .. .	6,597	7,837	21,971	18.8
Unions .. .. .	21,307	35,500	31,185	5.6
<b>TOTAL .. .. .</b>	<b>90,288</b>	<b>154,542</b>	<b>151,195</b>	<b>7.7</b>

NOTE.—\*The total value of coffee turnover is expected to decline over the 1978—83 period due to expected lower prices. This will also affect Union turnover.



PROJECTED CPCS EXPANSION, 1978—1983

Table 6.34

	1978	1979	1980	1981	1982	1983	Total
Number of Unions Participating	20	22	24	27	27	29	—
Number of Societies	250	290	330	390	420	460	—
Number of Members	330,500	347,400	365,200	384,000	403,500	424,000	—
Amount of Loans (K.£'000)	11,050	13,250	15,750	18,500	21,500	24,750	104,800
Estimated Saving Balance in Banking Sections (K.£'000)	27,000	37,500	50,000	62,500	65,000	75,000	317,000
Number of Accounts in the Banking Sections	264,000	280,000	288,000	304,000	320,009	340,000	—

\*This money will be deposited with the Co-operative Bank of Kenya as well as the Commercial Banks.

VOTE D22—FORWARD DEVELOPMENT BUDGET, 1978/79—1982/83  
MINISTRY OF CO-OPERATIVE DEVELOPMENT

K£

Table 6.35

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Headquarters Administration Services .. .. .	4,000	4,400	4,600	5,000	5,300	23,300
Headquarters Professional and Administration Services .. .. .	854,840	943,300	928,000	878,200	895,500	4,499,840
Provincial Administration Services .. .. .	303,820	140,200	190,200	230,100	340,100	1,204,420
Co-operative College .. .. .	106,320	127,700	128,600	141,400	100,000	604,020
Co-operative Bank .. .. .	705,270	756,000	1,015,100	1,206,600	1,314,700	4,997,670
Kenya National Federation of Co-operatives Ltd. .. .. .	42,555	228,400	133,500	138,700	144,400	687,555
<b>D20—GROSS EXPENDITURE .. .. .</b>	<b>2,016,805</b>	<b>2,200,000</b>	<b>2,400,000</b>	<b>2,600,000</b>	<b>2,800,000</b>	<b>12,016,805</b>

VOTE R22—FORWARD RECURRENT BUDGET FOR 1978/79 TO 1982/83

MINISTRY OF CO-OPERATIVE DEVELOPMENT

K£

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Headquarters General Administration .. .. .	177,810	210,000	215,000	220,000	225,000	1,047,810
Headquarters Professional and Administration Services .. .. .	457,479	494,000	536,000	590,000	660,000	2,737,479
Provincial Administration Services .. .. .	953,583	990,000	1,054,000	1,114,000	1,165,000	5,276,583
Co-operative College and Training .. .. .	210,178	231,000	255,000	280,000	308,000	1,284,178
<b>R20—GROSS EXPENDITURE .. .. .</b>	<b>1,799,050</b>	<b>1,925,000</b>	<b>2,060,000</b>	<b>2,204,000</b>	<b>2,358,000</b>	<b>10,346,050</b>

Table 6.36



## CHAPTER 7—MANUFACTURING, COMMERCE AND TOURISM

7.1. The manufacturing, commerce and tourism sectors will play a major role in expanding incomes and in the alleviation of poverty during the Fourth Plan. These sectors will grow more rapidly than the economy as a whole, and will be important sources for the creation of income earning opportunities for the nation's growing labour force.

7.2. The rapid growth of manufacturing in the post-independence years has been largely the result of successful import substitution development. Continued expansion of employment and incomes in manufacturing and the satisfaction of basic needs goals will require a different set of policies during this Plan. New investment opportunities must be dispersed throughout the country in order to spread the benefits of industrial development more broadly. Proposed technologies will be critically examined from the viewpoint of labour requirements per unit of capital invested, to ensure that employment creation is made a principal thrust of manufacturing development. While substantial new inputs of investment capital are anticipated, it will be important to make sure that existing stocks of capital are fully utilized, through efficient production techniques and a high level of management competence. Criteria for Government participation in basic investment areas have been spelled out, and will be applied to public and private sector partnership investments in such essential areas as the production and distribution of farm products and inputs, agricultural processing enterprises and export promoting industries.

7.3. Export promotion together with the curtailment of imports will be of particular importance over the next five years. In this way, the impact of present unfavourable terms of trade can be minimized and in time reversed. This will require a major thrust to promote export industries, particularly those related to the processing of Kenya's raw materials, and to make them more competitive on world markets. The tariff will be the principal form of protection for infant industries, rather than quantitative restrictions on imports or other forms of privileges. The range of protective devices offered will be reduced to eliminate inefficiency and to encourage export promotion.

7.4. Internal trade will be opened up to more Kenyan participation by removing restrictions on licensing, and by expanded development and support services for informal sector activities. The efficiency of parastatals and in particular of marketing boards will be a subject of first priority for examination and modification. Price controls will play a subsidiary role during the

Fourth Plan. They will be retained only for a limited number of essential products. In general, the internal terms of trade will continue to be shifted in favour of rural areas, with a greater share of returns going to farmers.

7.5. The tourism sector will continue to play a crucial role in providing needed foreign exchange, and creating income earning opportunities in both private and public sectors. The continued development of the sector in the economy will depend on achieving a balance between the development of the economic potential of its resources (especially wildlife) and their conservation.

7.6. The foregoing policies summarize the pertinent sectoral issues raised in Chapters 1 and 2. This chapter presents objectives, policies, and programmes in detail by four major sections: Manufacturing, Internal Trade, Foreign Trade, and Tourism.

## MANUFACTURING

7.7. The manufacturing sector ranks second to agriculture in importance in our economy. With the planned high growth rate in this Plan and in subsequent plans the sector will become more important in terms of use of resources, production, employment and export earnings. The rate of growth of the sector between 1972 and 1977 was of the order of 10.5 per cent per annum, about twice as high as the overall rate of growth of the whole economy. During this Plan it is projected to grow at the rate of 9 per cent per annum.

7.8. There are other aspects of the sector that should be noted. The sector provides considerable opportunities for employment. In 1977 it employed 118,000 people which was 13.1 per cent of the total wage employment in the economy. With the future rapid expansion of the sector it will be looked upon as a major source of employment opportunities and income for urban as well as rural people. Furthermore, the sector produces items which are included in the basic needs basket of goods and services such as clothing, building materials and medicines. Its ability to produce these goods at the lowest cost will contribute to the attainment of the main objective of the Plan—the alleviation of poverty.

### Structure of the Manufacturing Sector

7.9. During the past years the manufacturing sector has been considerably diversified, as shown in Tables 7.1 and 7.2. It will be observed from these tables that the largest sub-sectors are food processing, basic metals, metal products, machinery and equipment, and chemical industries. It should also be indicated that although some of the most developed sub-sectors of manufacturing comprise of resource-based industries, the sector as a whole still relies to a very great extent on imported intermediate inputs. An analysis of Kenyan imports indicates that about 50 per cent of our import bill is

accounted for by capital and intermediate goods imports. Machinery and capital equipment account for approximately 20 per cent of all imports and intermediate industrial supplies account for 30 per cent. As the manufacturing sector is growing rapidly its demand for imported inputs is bound to increase at an equally fast rate. Hence the sector may be faced with a foreign exchange bottleneck in the future unless corrective measures are implemented well in advance. A strategy that should lead to the reduction of the sector's reliance on foreign intermediate goods is therefore called for.

7.10. Consumer goods imports, currently account for only 15 per cent of total imports. In view of this, there is limited scope for the future growth of our industrial sector to be based on import substitution of these goods. The industrial development strategy outlined below takes also into account this feature of the present structure of the sector.

7.11. As indicated above our manufacturing sector has over the years become complex and diversified. The relatively easier form of industrialization through import substitution has been the main impetus for our industrial development in the past. We have now to look for more difficult forms of industrialization and also to enlarge the markets for our manufactured items through exports as the scope for import substitution is limited. To achieve this the quality of our goods has to be improved and at the same time the costs of production by our industries must be reduced so that our products become competitive in price and quality in the external markets.

DISTRIBUTION OF MANUFACTURING SECTOR'S GROSS DOMESTIC PRODUCT, 1968-76

Table 7.1

(Current Prices) K£'000

Industry	1968	1976	Percentage Share in Total	
			1968	1976
Manufacture of food, beverages and tobacco ..	13,506	79,208	29.7	43.1
Manufacture of textiles, wearing apparel and leather industries ..	5,652	15,941	12.4	8.7
Manufacture of wood and wood products including furniture ..	2,758	6,184	6.1	3.4
Manufacture of paper and paper products, printing and publishing ..	3,453	14,673	7.6	8.0
Manufacture of chemicals and chemical products, petroleum, coal, rubber and plastic products ..	7,031	27,016	15.4	14.7
Manufacture of non-metallic mineral products, except products of petroleum and coal ..	2,694	9,676	5.9	5.3
Manufacture of basic metal industries, fabricated metal products, machinery and equipment ..	10,355	29,115	22.7	15.9
Other manufacturing industries ..	110	1,761	0.2	0.9
TOTAL ..	45,559	183,574	100.0	100.0

MANUFACTURING GROSS DOMESTIC PRODUCT, 1968-1976  
(GDP Shares by Industrial Sub-Sectors)

Table 7.2

(Current Prices) KE'000

Industry	1968	1976	Percentage Share of Total	
			1968	1976
Slaughtering, preparing and preserving meat ..	1,095	3,236	2.4	1.8
Dairy products .. .. .	1,205	318	2.7	0.2
Canning and preserving of fruits and vegetables ..	308	5,523	0.7	3.0
Canning, preserving and fish processing .. ..	—	37	—	—
Vegetable and animal oils and fats .. .. .	17	5,571	—	3.0
Grain mill products .. .. .	1,932	3,906	4.2	2.1
Bakery products .. .. .	726	1,759	1.6	1.0
Sugar and sugar refineries .. .. .	991	8,967	2.2	4.9
Cocoa, chocolate and sugar confectionery .. ..	76	489	0.2	0.3
Food products n.e.c.* .. .. .	201	27,815	0.4	15.1
Prepared animal feeds .. .. .	835	499	1.8	0.3
Distilling, rectifying and blending of spirits ..	34	191	0.1	0.1
Malt liquors and malt .. .. .	3,813	11,938	8.4	6.5
Soft drinks and carbonated water .. .. .	841	4,283	1.9	2.3
Tobacco manufacture .. .. .	1,432	4,676	3.1	2.5
Spinning, weaving and finishing textiles .. ..	1,429	4,031	3.1	2.2
Made-up textile goods except wearing apparel ..	254	1,532	0.6	0.8
Knitting mills .. .. .	405	1,301	0.9	0.7
Cordage, rope and twine .. .. .	670	1,901	1.5	1.1
Cotton, ginning and ginneries .. .. .	155	211	0.3	0.1
Textiles n.e.c.* .. .. .	—	—	—	—
Wearing apparel except footwear .. .. .	1,746	4,499	3.8	2.5
Tanneries and leather finishing .. .. .	222	762	0.5	0.4
Leather products except footwear and wearing apparel .. .. .	25	275	0.1	0.2
Footwear .. .. .	746	1,429	1.6	0.8
Sawmills, planing and other woodmills .. .. .	1,266	3,387	2.8	1.9
Wooden containers including carvings .. .. .	20	36	—	—
Wood and cork products n.e.c.* .. .. .	104	64	0.3	—
Furniture and fixtures except primarily of metal ..	1,368	2,697	3.0	1.5
Pulp, paper and paper board .. .. .	40	4,947	0.1	2.7
Containers, paper boxes and paperboard articles ..	694	3,086	1.5	1.7
Printing, publishing and allied industries .. ..	2,719	6,640	6.0	3.6
Basic industrial chemicals excluding fertilizers ..	404	666	0.9	0.4
Pyrethrum extraction .. .. .	236	2,516	0.5	1.3
Wattle bark extraction .. .. .	264	771	0.6	0.4
Fertilizer and pesticides .. .. .	379	1,885	0.8	1.0
Paints, varnishes and lacquers .. .. .	304	1,218	0.7	0.7
Drugs and medicines .. .. .	418	1,992	0.9	1.1
Soap, perfumes, cosmetics and others .. .. .	991	5,200	2.2	2.8
Chemical products n.e.c.* .. .. .	510	2,804	1.1	1.5
Petroleum and refineries .. .. .	2,298	5,135	5.0	2.8
Rubber products .. .. .	425	3,053	0.9	1.7
Plastic products .. .. .	802	1,776	1.8	1.0
Pottery, china and earthenware .. .. .	1	94	—	0.1
Glass and glass products .. .. .	386	813	0.9	0.4
Structural clay products .. .. .	59	238	0.1	0.1
Cement, lime and plaster .. .. .	1,981	6,797	4.3	3.7
Non-metallic products n.e.c.* .. .. .	267	1,734	0.6	0.9

\*n.e.c. is not elsewhere classified.



MANUFACTURING GROSS DOMESTIC PRODUCT, 1968-1976  
(GDP Shares by Industrial Sub-Sectors)

Table 7.2—(Contd.)

(Current Prices) K£'000

Industry	1968	1976	Percentage Share of Total	
			1968	1976
Basic metal industries .. .. .	—	2,417	—	1.3
Cutlery, handtools and general hardware .. .. .	28	222	0.1	0.1
Furniture and fixtures primarily of metal .. .. .	586	1,241	1.3	0.7
Structural metal products .. .. .	251	866	0.5	0.5
Fabricated metal products n.e.c. .. .. .	1,927	6,905	4.2	3.8
Machinery except electrical .. .. .	770	1,260	1.7	0.7
Electrical machinery, apparatus and appliances and supplies .. .. .	2,183	6,203	4.8	3.4
Ship building and repairing .. .. .	760	3,715	1.7	2.0
Railroad equipment .. .. .	2,170	4,050	4.7	2.2
Assembly of motor vehicles .. .. .	396	1,385	0.8	0.8
Motor cycles and bicycles .. .. .	186	184	0.4	0.1
Aircraft and repair .. .. .	1,098	612	2.5	0.3
Professional and scientific equipment, etc. .. .. .	—	55	—	—
Other manufacturing industries .. .. .	110	1,761	0.2	0.9
<b>TOTAL .. .. .</b>	<b>45,559</b>	<b>183,574</b>	<b>100.0</b>	<b>100.0</b>

### Industrial Development Objectives

7.12. *Production for Domestic and Foreign Markets.* A basic objective for the development of the manufacturing sector is to produce efficiently manufactured goods required for domestic consumption as well as for exports. Local production of these items among other things, leads to better utilization of our domestic resources, creation of employment opportunities, and saving or earning of foreign exchange. Industrial enterprises with the capacity to fulfil some of these conditions will be encouraged.

7.13. *Reduction of Dependence on Foreign Inputs.* As discussed above the manufacturing sector is a net consumer of foreign exchange. This feature of the sector has to be changed. Concerted efforts will be made to reduce the foreign content of goods manufactured in Kenya. This will be achieved by placing priority on the development of industries having comparative advantage for local production. Such industries will also have the capability of competing successfully in foreign markets. It can be seen from Table 7.3 that our import-dependence has fallen slightly between 1966 and 1974.

7.14. *Creation of Employment Opportunities.* One of the main objectives of our development is creation of a large number of employment opportunities both in the rural and urban areas. An increasing number of people are entering the employment market while the problem of the unemployed school-leavers is becoming acute. The programmes in the manufacturing sector will therefore be so designed as to promote the absorption of as many employees as possible in productive work.

**IMPORT DEPENDENCE OF MANUFACTURING SECTOR**

*(in K£)*

*Table 7.3*

Year	Output	IMPORTS				Percentage Share of (2) in (1)	Percentage Share of (3) in (1)	Percentage Share of (4) in (1)
		Intermediate Consumption	Capital Formation	Total Intermediate and Capital				
	1	2	3	4	5	6	7	
1966 ..	136,898,900	50,422,268	17,721,521	68,143,789	36.8	12.9	49.8	
1967 ..	154,936,000	53,896,385	23,600,605	77,496,990	34.8	15.2	50.0	
1968 ..	163,851,600	57,982,327	20,099,797	78,082,124	35.4	12.3	47.7	
1969 ..	186,892,970	60,839,261	20,932,338	81,771,599	32.6	11.2	43.8	
1970 ..	200,681,890	72,822,721	28,712,497	101,535,218	36.3	14.3	50.6	
1971 ..	251,145,583	95,021,600	36,203,936	131,225,536	37.8	14.4	52.3	
1972 ..	301,862,439	85,097,900	42,481,075	127,578,975	28.2	14.1	42.3	
1973 ..	368,340,282	112,086,317	46,145,159	158,231,476	30.4	12.5	43.0	
1974 ..	550,591,579	209,106,078	46,585,044	255,691,122	38.0	8.5	46.4	
1966-68 ..	455,686,500	162,302,980	61,421,923	223,724,903	35.6	13.5	49.1	
1972-74 ..	1,220,794,300	406,290,295	135,211,278	541,501,573	33.3	11.1	44.4	

7.15. The large investments to be made in the manufacturing sector will create considerable employment opportunities both in the formal and informal enterprises in the sector. In the past, employment has not kept pace with the growth of the sector. But the several strategies proposed in the Plan such as the choice of appropriate technologies, promotion of small-scale, rural and informal sector enterprises, and differential investment allowance based on the employment generated by each manufacturing unit are expected to induce manufacturing enterprises to be more labour intensive than in the past. During the Plan a minimum of 40,000 new employment opportunities will be created in the modern manufacturing units. Furthermore, the proposed development expenditure of K.Sh. 50 million for the informal sector will generate job opportunities for approximately 10,000 people. The total new jobs to be created in the sector during the Plan are therefore estimated at 50,000.

7.16. The manufacturing sector will be an important source of employment specially for school-leavers. It is therefore necessary to provide the potential job seekers in the sector with adequate facilities for basic skill formation. It will also be necessary to upgrade the existing skills of those already employed and those who have already undergone some training in different technical institutions in the country. To this end, the facilities available in the public and private sector institutions will be fully utilized and where necessary augmented. As indicated in Chapters 5 and 10 the enrolment in Government aided technical schools, Harambee Institutes of Technology, Polytechnics, facilities by the Directorate of Industrial Training, Ministry of Works, Management Training and Advisory Centre, Kenya Industrial Training Institute, Kenya Industrial Estates, etc., will be increased and the quality of training provided by them will be upgraded. Private agencies such as National Christian Council of Kenya and Partnership for Productivity will be encouraged to increase the training facilities provided by them and their activities will be co-ordinated with the requirements of the Development Plan through the informal sector development programmes. The Industrial Training Levy Scheme will be rationalized so as to cover a larger number of sub-sectors than the ten presently covered.

7.17. *Kenyanization.* Kenyanization in the manufacturing sector will continue to be an important national objective. As in the past, financial participation by parastatal organizations in joint ventures, promotion of small-scale industries through the Kenya Industrial Estates programme, employment of Kenyans in managerial, technical and all other grades have been used to achieve this objective. While continuing these measures, the Government will take positive steps to train local entrepreneurs and to promote rural and informal sector units, which are the seed-beds for the future industrial development of the country. Development finance institutions will be encouraged to provide increasing financial assistance to Kenyan entrepreneurs in the establishment of large, medium and small scale industrial enterprises.

7.18. *Expansion and Diversification.* A diversified pattern of industrial development will be encouraged so as to provide for the increasing variety of goods demanded by the people and to rapidly develop local production for export. Diversification undertaken by existing manufacturing enterprises will improve capacity utilization and lead to reduction of costs. This in turn will help to make local products competitive in the internal as well as external markets.

7.19. *Efficiency.* Efficiency in the manufacturing sector is crucial for production of quality goods at competitive prices. This implies fuller utilization of plant capacity, better use of local resources such as labour and raw materials and application of the most advanced management practices. Appropriate modifications in the tariff structure will be made to encourage domestic industries to become competitive in the international markets. These will include reduction of excessively high tariffs on consumer goods and introducing more uniform rates of duty for different items.

7.20. *High Growth Rates of those Industries Compatible with the Nation's Social Aspirations.* Small-scale and rural industries as well as labour intensive industries will, in particular, be encouraged. These industries by their very nature have a favourable impact on employment, use of local raw materials, and geographical dispersion of industrial activity. High growth rates in these industries which largely manufacture goods consumed by the lower income groups will contribute to the supply of essential goods to a large section of the population.

7.21. *Increased Government Revenue.* Profitable manufacturing activities are important sources of revenue to the Government. The criterion of profitability of industrial enterprises will therefore be given weight in evaluation of enterprises for establishment. This will promote the establishment of industrial enterprises which will generate profits, part of which will comprise Government revenue.

### Industrial Development Policy

7.22. The following industrial policies have been drawn up to enable the Government to pursue the specific industrial development objectives outlined above.

7.23. *Mixed Economy.* The Government will continue to maintain the policy of a mixed economy. The targeted high growth rate of the sector will require substantial resources for investment. The Government will only contribute a small proportion to this investment. Greater reliance will be placed on the private sector investment which will include investment from abroad.

7.24. *Encouragement of Foreign Investment.* As in the past, the Government will continue to welcome foreign investment and to provide adequate measures to safeguard such investments. The principal instrument for safeguarding foreign investment will continue to be the Foreign Investment Protection Act (FIPA) whose provisions are dealt with in more detail below.

**7.25. Geographical Dispersion of Industries.** The Government has played a major role in the geographical dispersion of industrial employment and earnings, mainly through equity and loan participation in medium and large-scale establishments outside of Nairobi and Mombasa. Industrial dispersion to intermediate-sized towns and rural areas has also been facilitated by the provision of infrastructure, essential services and other concessions individually tailored to the needs of particular firms. The continuation of these and the adoption of related policies will help to achieve greater employment and the alleviation of poverty in areas where the bulk of the population derives its livelihood. The Government will continue to pursue its past policy of industrial dispersion to ensure that the benefits of industrial growth are distributed as equitably as possible throughout the country. A variety of measures will be adopted in the pursuit of this policy. These will include promotion of resource-based and foot-loose industries, confining investment allowances to enterprises located in semi-urban and rural areas, and provision of infrastructural facilities such as roads, water supply, electricity and housing. The Ministry of Commerce and Industry will during the Plan expand industrial development extension services to cover provinces and districts to promote rural industrialization.

#### **Industrial Development Measures**

**7.26.** The achievement of each of the objectives outlined above needs a set of consistent and complementary strategies so that the industrial sector develops in a harmonious way. Specific measures for the fulfilment of each of these objectives have been formulated and are briefly described in the following paragraphs.

**7.27. Inventory of Projects.** To get the manufacturing sector to develop according to the desired pattern it is necessary that we have a large inventory of well prepared projects. These projects should predominantly be for those sub-sectors of manufacturing that have greater priority for development such as local resource-based, export-oriented as well as labour intensive industries. During this Plan detailed studies of industrial sub-sectors with potential for development will continue to be carried out. These studies are the basis for the identification of projects. To develop the inventory of projects, pre-investment studies will be prepared for potentially viable projects. The Ministry of Commerce and Industry, its Department of Industry and the Industrial Survey and Promotion Centre will be strengthened to enable them to intensify their efforts in identifying new industrial investment opportunities. Furthermore all industrial development finance institutions in the country will play an increased role in project identification and preparation.

**7.28. Project Evaluation.** The new projects to be implemented in the country will be rigorously evaluated to ensure that they conform to the overall national objectives. The improvement in evaluation will enable the Government to select and assist in the implementation of the most beneficial

industrial projects. In evaluating an industrial project for implementation, the Government and the development finance institutions will take into account various criteria, including the following: —

- i. domestic and export market prospects for the products to be manufactured;
- ii. financial rate of return for the project;
- iii. economic rate of return of the project;
- iv. capital cost comparison;
- v. technical and technological aspects of the project including its appropriateness for local resource utilization;
- vi. location including accessibility to essential facilities and scope for effluent disposal;
- vii. management capability including management fees;
- viii. programmes for training local personnel;
- ix. foreign exchange impact of the project taking into account import-substituting and export promotion effects; and
- x. potential degradation of the environment as indicated in the Environmental Impact Report (*see* Chapter 2).

7.29. *Project Approval.* The New Projects Committee will co-ordinate the evaluation of all industrial projects. The establishment of new projects as well as the importation of machinery and equipment will be undertaken only on the recommendation of this Committee. The New Projects Committee will be gazetted as the agency to approve all new projects. Projects not approved by the New Projects Committee will not be provided the Approved Enterprise Status under the Foreign Investment Protection Act, nor will they be entitled to any concessions or investment allowance.

7.30. *Industrial Development Finance.* As indicated above the greater proportion of investment in the industrial sector will be accounted for by the private sector. However, parastatal industrial development finance institutions will be expected to play a significant role in financing industrial development. Apart from the limited financial resources these institutions will receive from the Government, they will mobilize private sector financial resources, both local and foreign, for the development of the industrial sector. Efforts will be intensified to attract multilateral and bilateral aid as well as foreign private investments for the development of priority areas of the sector.

### **Foreign Investment in the Industrial Sector**

7.31. Foreign capital contributes a significant proportion of our industrial investments. Table 7.4 provides an indication of the extent of Kenya's utilization of foreign resources in her development process. In 1972 and 1976, foreign resources accounted for 15 and 14 per cent respectively of gross

FOREIGN RESOURCES AND GROSS INVESTMENT

Table 7.4

(K£ Million)

	1972	1973	1974	1975	1976	1977
<b>Gross Investment:</b>						
Gross Fixed Capital Formation .. ..	165.1	181.5	203.8	242.5	292.0	388.7
Increase in Stocks .. .. .	-5.6	-15.2	+85.8	-13.8	+6.6	-0.7
<b>TOTAL .. .. .</b>	<b>159.5</b>	<b>166.3</b>	<b>289.6</b>	<b>228.7</b>	<b>298.6</b>	<b>388.0</b>
<b>Financing of Gross Investment:</b>						
Net Borrowing and Capital Transfers from the Rest of the World .. .. .	24.3	46.8	112.0	90.7	42.0	-12.1
Domestic Savings (including consumption of Fixed Capital) .. .. .	135.2	119.5	177.6	138.0	256.6	400.1
Percentage of Gross Investment Foreign Financed .. .. .	15	28	39	39	14	—

Source: National Accounts—CBS.

investment. The sharp rise in the inflow of foreign resources in the years 1974 and 1975 was a result of the serious balance of payments problems experienced in those years that led to large external borrowings. There was a net outflow of capital representing repayment of loans and external investment by Kenya Commercial Bank. During the current Development Plan an amount of approximately K£317 million will be required for investment in the sector. The Government will therefore, as indicated earlier, encourage domestic and foreign capital to be directed to the development of the sector. In this regard Government will continue to maintain its open door policy to foreign capital. Foreign investment will be encouraged particularly in priority industries and in ventures which require large amounts of investment. Small-scale industries will be reserved mainly for local investors.

7.32. The major instrument for protection of foreign investment in Kenya is the Foreign Investment Protection Act. Under the Act, the Government issues a Certificate of Approved Enterprises to foreign nationals who invest foreign assets or reinvest their profits in Kenya. A holder of a certificate is entitled to the repatriation guarantees which permit the transfer out of the country in the approved foreign currency and at the prevailing official rate of exchange the following—

- i. the profits after taxation;
- ii. net proceeds of sale of all or any part of the foreign investment in an approved enterprise;
- iii. the principal and interest of foreign loans borrowed by an approved enterprise, which are included in the certificate.

7.33. It is provided for in the constitution that no property shall be compulsorily acquired by the Government, except in accordance with provisions contained therein. One of the major provisions is that in the event of the Government acquiring any property in public interest, it will make full and prompt compensation to the affected parties.

## **Protection of Local Industries**

7.34. During this Plan various measures will be taken to make the industrial sector more efficient and competitive. This will include rationalization of tariffs and gradually phasing out duty concessions to infant industries. Regarding the latter, enterprises, which have been in existence for more than five years, will not be accorded infant industry status. However, during the transition period, industrial enterprises which have been operating for more than ten years, if currently protected through duty concessions, will have these incentives withdrawn within a period of one year. Enterprises which have been in existence for at least five years, will have their duty concessions withdrawn within two years. No new enterprises will be entitled to infant industry treatment for more than five years. Furthermore, where it is found necessary to grant duty concessions to new infant enterprises, all new units within the industry will be given the same concession. In the case of established industries investing in new manufacturing lines, the new manufacturing facility created will be treated as a new unit. Concessions to infant industries will not be automatic but will be granted after thorough objective analysis by the Industrial Protection Committee.

7.35. As stated earlier, in order to induce local manufacturers to produce at internationally competitive prices, high tariffs on competing imports will be reduced. To eliminate large differences in the protection accorded to industries producing different goods, tariff rates levied on various items will be made more uniform. Furthermore, the bias against local manufacture of intermediate and light machinery industries will be removed by moderately raising tariffs on these items.

## **Import Administration**

7.36. In the past, procedures of import administration were developed in response to *ad hoc* situations arising from the need to conserve foreign exchange and to protect local industries. They provided discretionary powers in granting licences for imports. They also resulted in delays in considering the applications and often created uncertainties among industrialists. The system in some instances provided loopholes for repatriating of capital.

7.37. The Government will review the import licensing procedures with the aim of dovetailing them into the long-term industrial policies of the country and in particular—

- i. to introduce a degree of automaticity in import licensing, by placing essential raw materials in the open general licence list;
- ii. to ensure that import policy is consistent with the development of local industries which are competitive in the domestic as well as international markets; and
- iii. to discontinue the use of quantitative restrictions of imports as an instrument for industrial protection.



7.38. In the past, some importers were required to obtain a "No Objection Certificate" from local manufacturers before securing an import licence for competing goods. This practice has led to a number of anomalies when firms competing among themselves were required to obtain a "No Objection Certificate" for the import of raw materials and intermediate inputs from competitors. This practice will therefore be discontinued.

7.39. Dumping of manufactured goods and capital equipment by foreign countries has in the past constituted a major obstacle in the smooth operation of domestic industries. The Government recognizes that dumping practices disrupt local manufacturing activities through unfair competition between foreign dumped goods and products locally produced, resulting in both under-utilization of capacity, and local resources. In order to overcome the difficulties created through dumping practices the Government will take the following actions—

- i. establish a unit in the Ministry of Commerce and Industry to continuously monitor dumping practices and advise the Industrial Protection Committee;
- ii. effectively curtail or discontinue importation of such goods from the offending countries.

### **Export Promotion**

7.40. It has already been emphasized that during this Plan special efforts will be made to bring about changes in encouraging local industries to make them increasingly export-oriented. Although the major tasks in this respect will be undertaken by the enterprises themselves, the Government will also provide appropriate assistance to local industries to enter the international market. Some of the specific measures to be taken by the Government will include the following—

- i. strengthening Kenya External Trade Authority;
- ii. implementing the Export Credit Guarantee Scheme;
- iii. establishing export houses;
- iv. strengthening and extending the role of Kenya National Trading Corporation as an exporting agency;
- v. rationalizing export incentives.

7.41. Of the measures proposed in the above paragraph, (i) to (iv) are discussed in the Foreign Trade Section of this chapter. At present, exporters are entitled to either a 10 per cent export compensation on the value of their exports or a refund of duty paid on the imported inputs used in the manufacture of exports. The main objective of offering these incentives to exporters is to encourage export industries which provide maximum benefits to the country. Resource-based and labour intensive export industries fall in this

category. Therefore, the Government will examine the present scheme of export incentives and formulate measures to promote exports of products of these industries.

### **Promotion of Small-scale Industry**

7.42. The programme to encourage and support small-scale and rural industrial development in the country has high priority. It is recognized that there is great potential for small-scale and rural manufacturing activities for producing cheaply and profitably goods for both import substitution and export. These industries are by definition labour intensive and can be established on a decentralized basis.

7.43. However, most of the small-scale manufacturers are currently faced with a number of handicaps. They not only lack production expertise and capital, but also knowledge in cost control, accounting, marketing, management, and quality control. The Government will adopt major new initiatives concerning the promotion of small-scale industries and the alleviation of some of their handicaps. The proposed, comprehensive programme will include an expanded and restructured Kenya Industrial Estate Programme oriented towards modern small industries, and a number of measures including the establishment of a fund to assist informal small industries. These measures will be fully integrated with the Government's more broadly based programme of rural development. The following are some of the measures which will be taken up for implementation during the plan period:—

- i. The Kenya Industrial Estate will undertake a massive expansion programme, so that by the end of the five-year period at least one facility will be located in each of the 33 districts. Loans, training, extension and workshop facilities will be offered to small-scale and rural enterprises in all the areas covered by the KIE.
- ii. A fund of K.Sh. 50 million will be set up to assist informal sector enterprises to enable them to take advantage of the facilities available with the KIE network and other industrial development extension agencies.
- iii. A Programming and Evaluation Section for rural and urban small-scale industries will be established within the Ministry of Commerce and Industry. This section will assist the District Development Committees in the preparation of co-ordinated programmes for small-scale and informal sector manufacturing units. It will also undertake systematic evaluation of this programme annually in collaboration with other Ministries and institutions.
- iv. An increasing number of items will be transferred from the Central Tender Board to the District Tender Boards. Furthermore, the Government will ensure the prompt payment of Government accounts with small enterprises.

- v. Local authorities will review building and health regulations so that they clearly distinguish between those activities which are potentially harmful because of unsafe or unhealthy working conditions, pollution, etc., and those which are merely unaesthetic or untidy.
- vi. A wide variety of training programmes will continue to be offered by the Government to small business entrepreneurs. Most programmes, for example: Village Polytechnics, Kenya Industrial Training Institute, Management Training Advisory Centres, will be expanded during the plan period (see Chapter 10).
- vii. Studies will be carried out with respect to the profiles of typical occupations within the informal sector such as plumber, electrician, blacksmith, mason and carpenter. The results of these studies will be used in modifying Government Trade Tests procedures and to improve formal training programmes.
- viii. The Government will promote the establishment of credit guarantee schemes for loans given by commercial banks to small-scale industries.
- ix. The Government will identify small-scale manufacturing activities complementary to existing large-scale units. Examples in this category are: (a) sub-contracting from large units; and (b) manufacture of cheaper varieties of consumer items to meet the demand from lower income groups.
- x. An appropriate farm implements and equipment programme will be evolved to meet the requirements of simple implements of small farmers. Systematic testing and evaluation of farm implements will be carried out to identify the tools most suited to each area. Small-scale manufacturers in different areas will be encouraged to upgrade their level of technology and skill both in respect of design and fabrication to enable them to take up the manufacture of such items. The Land and Farm Management Division of the Ministry of Agriculture will co-ordinate all the institutions involved in this exercise.
- xi. The Kenya External Trade Authority will develop programmes to assist handicraft producers to modify and adapt their designs to meet the requirements of the export market.

### **Industrial Dispersion**

7.44. Industrial dispersion is one of the leading objectives of our industrial development. Our success in achieving this goal will make it possible for the benefits of industrial growth to be geographically distributed as widely as possible and for different regions of the country to develop harmoniously.

7.45. To promote dispersion of industries, more effective use will be made of investment allowances. To simultaneously promote employment through the use of labour intensive techniques, account will be taken of the amount of fixed capital involved in every new job opportunity created. In the recent past new enterprises have been eligible for investment allowances of 20 per cent if they were established outside the municipal limits of Nairobi and Mombasa. No distinction was made between semi-urban and rural areas and no account was taken as to whether the unit was labour intensive or capital intensive. The rules pertaining to this concession will be modified by providing differential investment allowances to new enterprises that take into consideration whether they are established in semi-urban or rural areas, and also whether they are labour intensive or capital intensive. For enterprises whose fixed investment per every new job created will be less than K.Sh. 100,000, the following investment allowances will apply:—

- i. 10 per cent in urban areas, other than Nairobi and Mombasa;
- ii. 15 per cent in semi-urban areas; and
- iii. 20 per cent in rural towns.

7.46. For enterprises with a high capital/labour ratio, i.e. those which entail investment exceeding K.Sh. 100,000 for each job created, the investment allowances will be as follows—

- i. 5 per cent for urban areas, other than Nairobi and Mombasa;
- ii. 10 per cent in semi-urban areas; and
- iii. 15 per cent in rural towns.

7.47. The differential rates of investment allowances will be determined by the New Projects Committee and will be implemented by the Income Tax Department after examining the actual fixed capital investment and the number of jobs created by each enterprise claiming the allowance. For the purpose of implementing this Scheme a rural town will be considered as having a population of less than 10,000, a semi-urban area as having a population of more than 10,000 but less than 30,000, and an urban area as having a population of more than 30,000 inhabitants.

#### **Promotion of Resource-based Industries**

7.48. Kenya's long-term prospects for achieving a high level of industrialization will depend on her ability to produce goods for which she has a comparative advantage. Priority will therefore be given to industries which make the maximum use of local resources. The wide variety of climatic and topographical conditions in Kenya offer scope for production of different types of resources. Industrial utilization of these resources affords backward linkage effects to the development of commercialized agriculture, horticulture, livestock, forestry and minerals. Products of domestic resource-based industries are also competitive in export markets.

7.49. Thus, the promotion of resource-based industries provides widely dispersed employment opportunities both in manufacturing and in production of raw materials, and at the same time helps to earn (or save) foreign exchange. Furthermore, agricultural processing industries will provide expanding markets for farmers, who in turn have more income to spend on goods produced by other rural-based industrial ventures.

7.50. To achieve these goals, the Government will adopt the following measures—

- i. extension services will be intensified to disseminate knowledge from Kenyan and foreign research institutions on the industrial utilization of local materials;
- ii. infrastructure will be developed to assist companies, co-operatives or individuals to establish commercial production of raw materials for industrial processing;
- iii. development institutions such as the AFC, ICDC, IDB, DFCK, and the Co-operative Bank will take equity and provide long-term loans to enterprises established to produce industrial raw materials;
- iv. the Ministry of Commerce and Industry, in collaboration with other ministries such as the Ministries of Agriculture and Natural Resources, will identify resources for development and promote manufacturing activities which utilize these resources;
- v. export promotion activities and the rationalization of industrial protection discussed above will make resource-based industries increasingly more attractive to investors *vis-à-vis* other types of investments.

#### **Dispersion of Foot-loose Industries**

7.51. There are a number of other industries including those based wholly or in part on imported raw materials which can be economically located outside of Nairobi and Mombasa. Examples of such industries include the manufacture of certain agricultural chemicals and equipment, synthetic fibres, textiles, garments and shoes. Some of the incentives offered to resource-based industries will also be relevant to foot-loose industries. In addition, the Government recognizes that the provision of infrastructure is one of the crucial factors that will attract new industrial concerns to establish outside the major urban centres of Nairobi and Mombasa. The provision of these facilities is mainly the responsibility of local authorities. In view of the fact that the financial resources of most of the local authorities are inadequate for this task, the Government will examine ways of solving this problem. Other forms of support will also be continued through such organizations as Kenya Industrial Estates (for the development of industrial sites) and the National Housing Corporation (for provision of housing for industrial workers). Where an

industry established for itself such facilities as road and power connexions, housing and water supply outside of Nairobi and Mombasa, the Government will consider providing assistance where appropriate. Finally, a sub-committee on infrastructure under the New Projects Committee will be established to improve inter-ministerial co-ordination in the provision of infrastructure and other basic services for industries outside of Nairobi and Mombasa, so that these services will be available when and where required with a minimum of delay. This sub-committee will include representatives from the Ministries of Finance, Economic Planning and Community Affairs, Commerce and Industry, Works, Power and Communications, Lands and Settlement, Local Government, and Water. The actual membership of each meeting will be determined by the problems at hand.

### **Industrial Technology**

7.52. Historically the machinery, equipment and manufacturing processes which in aggregate make up Kenya's present day industrial technology have mostly been imported from industrialized countries. Imported technology has, therefore, in many cases tended to be capital intensive and labour saving, whereas the reverse is more appropriate for Kenya. The main thrust of policies with regard to industrial technology during the plan period will be towards making better use of capital in new industrial investments to encourage increased opportunities for employment creation.

7.53. Because foreign investments will continue to be important in the industrial development of the country, industrial technology will continue to rely heavily on foreign investments and hence on technology to be imported from abroad. In order to ensure that appropriate technology is imported, our capability for negotiation will be improved. Emphasis will be laid on more systematic compilation and use of world technological information. This will facilitate better choices among available technological alternatives, more effective bargaining, and more emphasis on "unpackaging" and modifying manufacturing processes to utilize more efficiently Kenyan factor endowments, especially manpower. At the same time greater stimulus will be given to the local production of industrial machines, with the goal of improving our technological independence. In view of the important role that machines play in the production process, approval for establishment will be given only to those enterprises which will produce them efficiently.

7.54. Introduction of appropriate technologies will be another priority area, focusing in particular on smaller industrial units in rural areas and featuring linkages with agricultural production as well as provision of basic needs. Industrial information services will be established, to gather and effectively disseminate information available from the many international groups specializing in this field, as well as from Kenyan sources.

7.55. The Kenyan institutional base for industrial research will be strengthened, particularly in regard to development of appropriate technologies for processing indigenous materials. Programmes at the Kenya Industrial Research and Development Institute, the Industrial Survey and Promotion Centre and the new Industrial Research and Consultancy Unit of the Faculty of Engineering at the University of Nairobi will be expanded, carefully inter-related and, where appropriate, co-ordinated with developmental activities in agriculture, forestry and other sectors. The private sector manufacturers, particularly the multinational companies, will be encouraged to perform more of their research and development work in Kenya than has been the case in the past especially with a view to creating opportunities for increasing employment effects, wherever this can be done.

### **Development of Priority Industries**

7.56. Although in recent years the Government has made substantial investments in the manufacturing sector it has limited resources and will not continue to directly participate in financing the development of the majority of new industries. Its role, however, will comprise of promotion of industrial development through the creation of a favourable climate towards private investments both local and foreign, identification of new investment opportunities, finding partners for foreign investors in the country, assisting local investors in the preparation of pre-feasibility and feasibility reports, providing extension services and infrastructural facilities wherever desirable.

7.57. However, Government will play a direct role in the promotion of basic and strategic industries provided they are proven to be internationally competitive. Examples of such industries are basic steel, machinery, heavy chemical industries and machine tools. These industries lay the foundation for self-sustaining industrial growth. They generally need sophisticated technological and management skills and comparatively large investments. They may not also yield attractive profits in the initial stages. For these reasons, Government participation will be necessary for the establishment of these industries in order to lay a strong foundation for the long-term industrial development of the country. However, Government participation will be decided upon after a thorough examination of each case by the New Projects Committee.

7.58. For the purpose of qualifying for Government's assistance and participation, industries will be classified into the following categories: strategic, basic, foot-loose, export, small-scale and rural industries.

7.59. *Strategic Industries.* These are industries whose outputs are, in turn, inputs in industrial and other sectors of the economy. Examples are power, petroleum and fertilizers. In view of their importance to the economy, the Government will participate in the equity of such industries so as to ensure that they develop in accordance with the increase in domestic demand and to ensure the proper distribution of their products throughout the country.

7.60. *Basic Industries.* These are industries which form the foundation for the development of other industries and help in the self-sustained industrial development. Instances are basic chemical industries, basic steel, and engineering including machine tools. In appropriate cases, the Government will participate in the equity of these industries. Efforts will be made in obtaining soft loans for financing the development of such industries.

7.61. *Foot-loose Industries.* These are industries which are not tied to any location on account of such factors as raw material supply, access to market, or transportation. They facilitate a programme for dispersed industrial development. Examples are assembly of electronic equipment, manufacture of electronic parts, shoe and garment manufacture. The Government and other appropriate institutions will provide infrastructural facilities for the establishment of these industries on a dispersed basis.

7.62. *Export Industries.* Export industries need special consideration in terms of incentives to facilitate competition in the external markets. These include local credit facilities and export credit guarantees as well as advice on packaging and quality control. The types of assistance the Government proposes to make available to export oriented industries have already been discussed and are further dealt with in this Chapter's section on Foreign Trade.

7.63. *Small-scale and Rural Industries.* The reasons for giving high priority to the development of these industries have already been discussed in paragraphs 7.42-7.43 above. The assistance to small-scale industries will be of an integrated nature. The provision of building sites, pre-investment advice, concessionary loan facilities, extension services, marketing facilities, preferential treatment in Government purchase programmes and others are examples of the scope of assistance to small-scale and informal units.

### **Industrial Training Facilities**

7.64. The programme of industrialization envisaged during the plan period will need technical and managerial manpower at all levels. Since labour is an abundant resource in the economy, efforts will be made to raise its productivity by offering training facilities at all levels of skill formation in different institutions. A careful assessment of manpower requirements will be made, and training facilities will be developed to meet the needs of industry.

### **Institutional Framework and Development Expenditure**

7.65. Since Independence, the Government has established a network of institutions to promote and finance industrial development. These range from governmental agencies such as the Industrial Survey and Promotion Centre to wholly Government-owned investment corporations such as the Industrial and Commercial Development Corporation and the Industrial Development



Bank. Because these institutions will play a catalytic role in attaining the 9 per cent per annum growth rate envisaged for the manufacturing sector, they will be strengthened and expanded in order to achieve the plan objectives. The policies to streamline the institutional network outlined in Chapter 2 stress the need for greater co-ordination and operating efficiency. More timely and complete reporting by these institutions will enable the Government to more closely monitor the achievement of plan objectives.

7.66. To facilitate such co-ordination and monitoring, the Ministry of Commerce and Industry through its Department of Industry and the Planning Division will strengthen its capability to perform the following functions—

- i. co-ordinate the evaluation of industrial projects before submission to the New Projects Committee and negotiation of joint venture agreements;
- ii. initiate reviews of industrial policy measures;
- iii. monitor industrial development progress with particular reference to small-scale industry and the informal sector;
- iv. provide assistance to industries which qualify for it;
- v. monitor progress in the implementation of the Development Plan in liaison with the Ministry of Economic Planning and Community Affairs.

#### DEVELOPMENT EXPENDITURE IN THE MANUFACTURING SECTOR\*

Table 7.5

(K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Industrial Survey and Promotion Centre .. .. .	40	50	70	100	100	360
Industrial and Commercial Development Corporation ..	2,500	1,000	750	700	700	5,650
Development Finance Company of Kenya .. .. .	—	535	360	—	—	895
Kenya Industrial Estates .. .. .	2,000	1,690	2,529	1,870	2,095	10,184
Informal Manufacturing Units Programme .. .. .	—	400	500	600	1,000	2,500
Kenya Industrial Research and Development Institute ..	205	195	170	230	195	995
Kenya Bureau of Standards ..	645	455	380	305	310	2,095
Kenya Industrial Training Institute .. .. .	—	95	81	330	—	506
<b>TOTAL .. .. .</b>	<b>5,390</b>	<b>4,420</b>	<b>4,840</b>	<b>4,135</b>	<b>4,400</b>	<b>23,185</b>

\*Government equity and loan capital to the Industrial Development Bank are allocated in the Ministry of Finance Vote.

### **Industrial Survey and Promotion Centre**

7.67. The Government will develop the Industrial Survey and Promotion Centre in the Ministry of Commerce and Industry into the principal instrument for providing consultancy services in industrial development. The size and composition of the staff of the Centre will, therefore, be expanded to provide an adequate range of technical, economic, and financial skills for the complex functions assigned to the Centre. The Centre will undertake the following tasks during this Plan—

- i. continuous study and analysis of the manufacturing sector in order to identify new investment opportunities and prepare programmes to assist in planning the development of the sector;
- ii. regional studies to help plan for greater geographical distribution of industries;
- iii. identification of areas for industrial research and subsequent commercialization of research results;
- iv. preparation of pre-feasibility and feasibility studies;
- v. evaluation of projects to ensure that technology will be appropriate to local conditions and fair prices are paid for technical expertise, machinery and equipment. This will contribute to strengthening the capability of the Government in negotiating joint ventures;
- vi. financial and economic evaluation of project proposals to ensure that the projects approved for development have economic benefits to the country;
- vii. promotion of projects prepared by the Centre;
- viii. assisting industrialists in the establishment of approved projects;
- ix. liaison with local and international research institutions, in particular the National Council of Science and Technology, in identification, development and adaptation of appropriate industrial technologies;
- x. assisting the Government in evolving the industrial development strategy and policies;
- xi. establishment of a national repository for industrial and technological information.

7.68. Apart from the aforementioned roles, the ISPC will, during the plan period, carry out a survey of industrial investment opportunities with the prime objective of utilizing local natural resources and substituting for imported materials. In addition, the centre will identify growth sectors in the world market and examine how Kenya can share in the world industrial development. From these studies ISPC will develop a data bank of project ideas which will be made available to prospective investors for further development.

7.69. As the Industrial Survey and Promotion Centre further develops its capacity to undertake pre-investment studies, it will be possible for the Government to reduce the cost of pre-investment studies and to influence the formulation of projects to meet national objectives. The Government has therefore made a provision of K£360,000 to support field investigations including collection and testing of samples of raw materials, arranging for their laboratory analysis and where appropriate supporting pilot operations. This amount will supplement the aid provided by the United Nations Development Programme to support the industrial development activities.

### **Industrial and Commercial Development Corporation**

7.70. The Industrial and Commercial Development Corporation will continue to be one of the main channels of Government investment in the industrial sector. In recent years Government industrial development finance corporations (ICDC, DFCK, IDB) have taken equity and provided loan finance to enterprises which are already established. In the new Plan these institutions will take equity and provide finance only to new industrial enterprises. The limited resources available to them will thus promote, in a catalytic manner, the development of the industrial sector to a greater extent than they have done in the past. The ICDC will promote industrial development through the following measures—

- i. as in the past the Corporation will invest through equity participation in manufacturing enterprises. For this purpose an allocation of K£5.7 million has been made from the Exchequer sources. These resources will be supplemented with internally generated funds;
- ii. the Corporation will also provide long-term industrial loans and management guidance. It is planned that about K£600,000 per annum will be expended for this role;
- iii. continued assistance will be made by the Corporation to small African businessmen through the Revolving Funds Programme. It will further enhance the participation by African investors in industrial projects promoted or assisted by the Corporation. The latter assistance will be rendered through a loan programme for purchasing shares.

7.71. ICDC will participate in the equity of those enterprises which are accorded high priority in the Plan. Some of the industries in which the ICDC will take new equity are South Nyanza Sugar Company, Kwale Cashew Nuts Company, Freeze Dried Products, the National Machine Tool Project.

### **Development Finance Company of Kenya**

7.72. The Development Finance Company of Kenya whose role in the development of the manufacturing sector has grown steadily since its establishment in 1963 will extend and diversify its investment and financial assistance

to the industrial sector. DFCK will increase its resources considerably through additional equity subscription from its shareholders, both local and foreign, as well as its own internally generated funds. It has also concluded agreements with mainly foreign financial institutions for long-term loans that will augment its resources. The resources available to the company for investment during the plan period will be approximately K£22 million of which about 40 per cent will be funds internally generated from the operations of the Company. The activities of DFCK will mainly focus on the development of medium and large scale industrial enterprises to which it will provide both equity and loan capital. However, DFCK will, during the plan period, initiate a programme to assist small-scale industries. An allocation of K£0.9 million has been set aside for this purpose.

### **Industrial Development Bank**

7.73. The Industrial Development Bank has since its inception approved investments amounting to K£22 million. Its outlays on equity holdings in companies amounted to K£5 million, whereas the rest was spent on loan capital to industrial enterprises. The Bank has an authorized capital of K£12 million and had by September, 1978, established ten lines of credit amounting to K£22 million. During the current Plan the Bank will increase its resources substantially to be able to approve cumulatively K£95 million by the end of 1983. Both the equity of the Bank and external loans will be increased to achieve this target.

7.74. The Bank will continue to assist the manufacturing sector through equity and loan participation in co-operation with other development finance institutions in the country. It will particularly assist the Kenyan controlled industrial enterprises through its newly introduced aid to medium and small-scale enterprises development programme. It will finance 75 per cent of the cost of these enterprises by way of equity and loans if they are financially and economically viable. The Bank has also established a Project Advisory Services Department to advise existing and potential clients in their manufacturing and commercial operations. In a further effort to promote industrialization the Bank has also entered into new forms of financing by underwriting issue of securities on the Nairobi Stock Market and by issuing guarantees for loans given to credit worthy enterprises. These activities of the Bank will be increased during the Plan.

### **Kenya Industrial Estates Programme**

7.75. The Kenya Industrial Estates (KIE) has recently been reorganized to enable it to act as the main agency of the Government for promoting small scale and rural industrial development. During the plan period, KIE will establish additional industrial estates, Rural Industrial Development Centres (RIDC), and Industrial Promotion Areas (IPA). Together, these institutions

will make up a network which will eventually serve the entire country through regional clusters. At the centre of each region there is an industrial estate serving several RIDC's and subsidiary IPA's. The latter IPA's will be established under a new programme having the objective of attracting rural entrepreneurs and informal sector units to become involved in various industrial activities. The expansion of this programme and full utilization of existing facilities will, therefore, be directed to increasing income earning opportunities and dispersing these to rural areas.

7.76. In the Nairobi KIE Region, urban IPA's will be established in which clusters of workshops will be located. Dandora and Kawangware have been selected as the first priority areas for this development. New RIDC's will be established at Kajiado and Kiambu, and IPA's will be constructed at Ruiru and Limuru. In the Nyanza KIE Region, more use will be made of the factory space now established in the Kisumu Industrial Estate. Vacant premises in the Estate will be occupied. An RIDC will be established in Siaya and factory premises will also be constructed by KIE at various centres in the area including Migori and Yala. In the Coastal KIE Region the vacant premises in the Mombasa Industrial Estates as well as in the Malindi Rural Industrial Development Centre and Industrial Promotion Area will be occupied. At Voi, a new RIDC will be established, while an IPA will be constructed at Kwale. In the Rift Valley North KIE Region, the second phase of the Eldoret KIE will be implemented. New RIDC's will be established at Kericho and Kitale while IPA's will be constructed at Kabarnet and Kapsabet. In the Rift Valley South KIE Region, investigations will be carried out on establishment of new RIDC's and IPA's. The factory premises in the Nakuru Industrial Estate will be fully occupied. In the Central KIE Region, the RIDC at Nyeri will be upgraded to a full industrial estate. RIDC's will be established at Murang'a, Nanyuki and Nyahururu. It is also planned to have an IPA at Karatina. In Western KIE Region the RIDC at Kakamega will be converted into a full industrial estate and new IPA's will be established at Busia, Bungoma, Webuye and Vihiga. During this Plan the RIDC at Embu will be upgraded to a full KIE status and a regional KIE office established in this centre. The latter will assist in the establishment of RIDC's at Meru, Garissa and Kitui, and an IPA at Kerugoya.

7.77. The programme described above will lead to the establishment by KIE of 2,251 workshops and factories during this Plan. The geographical distribution of these facilities and the capital expenditure to be spent on their construction are shown in Table 7.6 below.

7.78. The Government has earmarked K£10 million as development expenditure for the KIE programme during the Plan. However, the KIE will supplement this with finance from foreign bilateral and multilateral institutions, and has an estimated expenditure budget of K£15 million.

WORKSHOP AND FACTORY FACILITIES AND CAPITAL EXPENDITURE BY K.I.E.

Table 7.6

Region	Workshops (Nos.)	Factories (Nos.)	Capital Expenditure (K£'000)
Nairobi .. .. .	339	287	1,815
Nakuru .. .. .	52	133	900
Mombasa .. .. .	167	124	2,427
Eldoret .. .. .	111	105	2,100
Nyeri .. .. .	172	74	2,214
Embu .. .. .	174	66	1,875
Kisumu .. .. .	181	129	2,313
Kakamega .. .. .	62	75	1,626
<b>TOTAL .. .. .</b>	<b>1,258</b>	<b>993</b>	<b>15,270</b>

N.B. The workshops are low-cost sheds meant to house only very small manufacturing units while factories are modern constructions required by the modern small industries.

**Informal Sector Development Programme and Extension Services**

7.79. The informal production units in the manufacturing sector will be assisted during the Plan to enable them to become more productive and to absorb more employees. A new programme will be co-ordinated by a unit to be established for this purpose in the Ministry of Commerce and Industry. It will be implemented through special sub-committees of the District Development Committees. The Government will encourage private extension agencies such as National Christian Council of Kenya, Young Men's Christian Association, Partnership for Productivity, Action in Distress, Village Polytechnics, etc., to play their rightful role in assisting small industrial units throughout the country. These agencies will be actively involved in the planning and implementation of assistance programmes for the informal sector. They will interact with the District Development Committees and supplement the extension service facilities provided through the KIE programme. A sum of K£2.5 million is set aside for this programme during the plan period.

**Kenya Industrial Research and Development Institute**

7.80. The Kenya Industrial Research and Development Institute (KIRDI) was established in 1978 initially to take over the functions of the East African Industrial Research Organization. The Government has decided to strengthen the Institute by developing in it a capability to conduct applied industrial research and to commercialize the research results. The Institute will undertake research relating to new designs, development and adaption of machinery, tools and equipment. It will also carry out research in appropriate processes and technologies in the priority industries. In conjunction with the University of Nairobi, the Industrial Survey and Promotion Centre and the National

Council of Science and Technology the institute will provide advice to industrial enterprises in the country. The Government has provided for K£995,000 in development expenditures to KIRDI.

### The Kenya Bureau of Standards

7.81. The Kenya Bureau of Standards (KBS) was established in 1973 with the main objective of preparing and establishing standards for quality specification and codes of practice on national and international basis by co-operation and agreement among all manufacturers, consumers, professional and academic bodies and Government departments and to promote their adaption and promulgation. The Bureau has completed basic work for implementing a standard scheme in respect of a number of products. During the plan period the scheme will be implemented. The manufacturers and producers will be required to mark their goods which attain the required standards with the standard KBS marking. This will enable the consumers to identify any goods that are of unacceptable quality in Kenya. Table 7.7 gives the proposed number of standards specifications to be prepared during the plan period. Apart from the above programme the Bureau will implement standards quality control in respect of 292 items.

PROPOSED STANDARD SPECIFICATION

Table 7.7

<i>Industry</i>	<i>No. of Standards to be Established</i>
Food .. .. .	139
Agriculture.. .. .	83
Textiles .. .. .	85
Chemicals .. .. .	91
Mechanical Engineering .. .. .	135
Electrical Engineering .. .. .	112
Building and Construction .. .. .	120
Pharmacy and Cosmetics.. .. .	50
TOTAL .. .. .	815

7.82. During the plan period the Bureau will complete the building of the biochemical, materials and metrology laboratories. The building is expected to cost K£1.5 million. The equipment for the laboratories will be secured for K£0.6 million. The purpose of these laboratories will be to test the goods produced within the country and also those which are imported and fall within the standards drafted by the Bureau.

### Kenya Industrial Training Institute

7.83. The Kenya Industrial Training Institute (KITI) was started in 1964 as a small-scale industry training and research centre. The purpose of the Institute was to promote rural industrialization and transfer of technology

through training of artisans who finally would get gainful employment or be self-employed. The Institute will, during the plan period undertake the following tasks—

- i. training technicians for already established industries;
- ii. training local artisans for self-employment especially in rural areas;
- iii. carrying out research in industrial projects which involves products that could accelerate rural industrialization; and
- iv. training middle managers for the industrial sector.

To avoid duplicating activities of existing village polytechnics and other technical institutions more emphasis will be laid on training of technicians and potential entrepreneurs to meet the requirements of the KIE programme. The training facilities for artisans at KITI will be substantially expanded during the plan period. For this purpose it is necessary to enlarge the accommodation currently available at the Institute. Most of the development expenditure of K£506,000 proposed during the Plan will be utilized towards the construction of the building for the Institute.

### **Industrial Development Programme**

7.84. The total new investments in the manufacturing sector are estimated at K£317 million on the basis of the projected growth rates in the different sub-sectors. In the following paragraphs the expected growth rates in the sector are summarized.

#### **Food Beverages and Tobacco**

7.85. This sector covers a number of resource based industries like meat processing, dairy, canning of fruits and vegetables, bakeries, sugar factories, tobacco, etc. The estimated growth rate in this sector is 10.6 per cent per year. Some of the investments in this field are the expansion programmes, Kenya Co-operative Creameries at Nairobi and Mombasa; the proposed second cashewnut factory at the Coast; a new planned facility to manufacture fats and edible oils by the East Africa Industries; a grain milling and oil extraction unit at Kakamega; a rice mill plant at Kisumu; new bakeries at Kiganjo, Molo and Kisumu; expansion of existing sugar mills and establishment of new ones; and a proposed brewery unit at Kisumu. Besides these, there is a number of small projects which will be established within the proximity of resources they will process. During the plan period many more new investment opportunities will be identified and promoted in this sub-sector which has considerable potential for development.

#### **Textile Apparel and Leather Industries**

7.86. This sub-sector covers spinning, weaving and finishing of textiles, manufacture of textiles, knitting mills, cordage rope and twine, wearing apparel, tanneries, leather products and footwear. Most of the products covered in this group fall under basic needs. The growth rate for this sector



will be 8.6 per cent per year. A number of existing spinning, weaving and knitting mills will increase their production capacity substantially during the plan period. A project to produce polyester staple fibre and textured filament yarn and another to produce nylon and polyester filament and yarn are being established and will come into operation during the early years of this Plan. A number of opportunities in garment making, leather cloaks and shoe manufacture are identified and these projects will be promoted during the plan period. Small scale and rural projects in tanning, garment and shoe-making will be encouraged through the KIE programmes.

### **Wood and Wood Products Including Furniture**

7.87. This group includes saw mills, manufacture of wooden containers, carvings, cork and furniture and wood based panel products. Industries in this group are indigenous resource based and should therefore be accorded priority in development. A number of new investments are envisaged in the plan period resulting in a growth rate of 5.9 per cent per year for this sub-sector. A number of saw mills will increase their throughput capacity while the establishment of a new plywood factory is under consideration. The utilization of waste materials from the saw mills to manufacture waferboard, chipboard and charcoal briquettes is also under examination. The manufacture of furniture for the local and export markets is another profitable activity to be encouraged during this Plan.

### **Paper and Paper Products, Printing and Publishing**

7.88. The growth rate in this sector is estimated to be 8.1 per cent during the plan period. Substantial new investments are expected. The scope for increasing the capacity for pulp and paper making will be examined with the aim of promoting the establishment of small-scale paper manufacturing plants. Manufacture of newsprint from sisal, waste and residue from saw-mills will be another avenue for recycling industrial wastes. Printing and publishing is also a potential area for new investments. Export potential of printed materials especially to African countries will be studied and promoted during the plan period.

### **Chemicals, Petroleum, Coal, Rubber and Plastic Products**

7.89. This sub-sector covers a heterogeneous group of items such as basic industrial and agricultural chemicals, extracts from pyrethrum and wattle bark, fertilizers and pesticides, paints, varnishes and lacquers, drugs and medicines, soaps and cosmetics, petroleum, rubber and plastics. A number of potential projects have been identified in this field. The growth rate in this sub-sector during this Plan is estimated to be 8.6 per cent per year. Among the new investments envisaged, the most important are the manufacture of caustic soda, fertilizers, low density polyethelene, diosogenin from fenugreek, and a new tyre plant. The Government will intensify the project identification and preparation activities in this sub-sector to promote its rapid development.

### **Non-metallic Mineral Products Except Products of Petroleum and Coal**

7.90. This group includes pottery, china and earthenware, glass and glass products, lime, cement, and structural clay products. The GDP from these activities is estimated to increase at the rate of 6.5 per cent per year. The main investments in this field are in respect of ceramic sanitary ware, ceramic tiles, structural clay products, refractories, sheet glass, glassware and the expansion of the cement factory at Athi River.

### **Basic Metal Industries**

7.91. Basic metal industries constitute the backbone for the development of engineering industries in the country. During the plan period action will be initiated to lay a strong foundation for the establishment of these industries. Some of the major new projects identified in this sector are a mini-integrated steel plant to produce 250-300,000 tonnes of steel per year and a tin plate manufacturing plant with a capacity of 85,000 tonnes per year. Besides these, existing steel rolling mills are expected to increase their capacity. Other potential investments are in the field of sanitary fittings, aluminium and zinc die castings and a tin recovery plant. The investments involved are substantially large and likely to be rolled into the next development plan.

### **Fabricated Metal Products, Machinery and Equipments**

7.92. This sub-sector covers hand tools, cutlery, agricultural implements, screws, nuts and bolts, diesel engines, electric motors, transformers and pumps, tractor assembly, machine tools and mini-heavy engineering plants. A sizeable number of projects have been identified in this group. The engineering activities, particularly the capacity to build and service machines is important in connexion with the development and adaptation of technology. The Government will, therefore, make concerted efforts for promoting some of the identified projects in this sub-sector. The growth rate of GDP for the sub-sector will be 8.1 per cent per year during the period of the Plan.

### **Other Manufacturing Industries**

7.93. This group of manufacturing industries, it is estimated, will grow at the rate of 5.5 per cent per annum. These industries comprise of processing jewellery and related articles particularly for tourist and export markets. Sporting and athletic goods, and toys manufacture are also expected to boost this sector.

7.94. The overall growth rate for the manufacturing sector is 9.0 per cent as indicated in Table 7.8. Details of the industrial programmes proposed for the five years of Plan are briefly described below.

## PROJECTIONS OF GROSS DOMESTIC PRODUCT, GROWTH RATES\* AND INVESTMENT

Table 7.8

K£'000

Industry	GDP			1978-1983	
	1976	1978	1983	Annual Growth Rates Per Cent	Investment
Slaughtering, preparing and preserving meat .. .. .	3,236.0	4,633.0	8,275.2	12.3	4,943.6
Manufacture of dairy products	318.0	3,734.0	6,940.7	13.2	6,936.2
Canning and preserving of fruits and vegetables .. .	5,523.0	8,186.0	13,795.3	11.0	9,671.0
Canning, preserving and fish processing .. .. .	37.0	53.0	74.3	7.0	37.3
Manufacture of vegetable and animal oils and fats .. .	5,571.0	2,778.0	5,685.3	15.4	2,838.7
Grain mill products .. .	3,906.0	7,552.0	12,725.5	11.0	13,176.9
Manufacture of bakery products .. .. .	1,759.0	2,514.0	3,364.3	6.0	3,119.7
Sugar factories and refineries ..	8,967.0	8,355.0	16,731.9	14.9	49,456.9
Manufacture of cocoa, chocolate and sugar confectionery	489.0	874.0	988.8	2.5	205.3
Manufacture of food products n.e.c.† .. .. .	27,815.0	16,137.0	24,376.3	8.6	1,730.2
Manufacture of prepared animal feeds .. .. .	499.0	385.0	672.4	11.8	644.0
Distilling, rectifying and blending of spirits .. .. .	191.0	277.0	410.7	8.1	83.6
Malt liquors and malt .. .	11,938.0	14,065.0	26,726.4	13.7	21,298.8
Soft drinks and carbonated waters industries .. .. .	4,283.0	4,998.0	6,139.4	4.2	1,116.5
Tobacco manufacture .. .	4,676.0	6,661.0	7,426.6	2.2	861.2
Spinning, weaving and finishing textiles .. .. .	4,031.0	11,287.0	16,142.6	7.5	26,923.9
Manufacture of made-up textile goods, except wearing apparel .. .. .	1,532.0	1,926.0	2,804.3	7.8	1,237.9
Knitting mills .. .. .	1,301.0	1,851.0	2,384.9	5.1	2,032.4
Cordage, rope and twine industries .. .. .	1,901.0	1,569.0	2,100.0	6.0	1,610.7
Cotton ginning and ginneries ..	211.0	53.0	102.0	14.0	205.6
Manufacture of textiles n.e.c.†	—	—	—	—	—
Manufacture of wearing apparel except footwear ..	4,499.0	4,420.0	6,800.7	9.0	2,531.8
Tanneries and leather finishing	762.0	1,277.0	2,458.7	14.0	2,006.8
Manufacture of leather products except footwear and wearing apparel .. .. .	275.0	241.5	372.0	9.0	226.3
Manufacture of footwear .. .	1,429.0	1,744.0	3,647.2	15.9	2,335.4
Sawmills, planing and other wood mills .. .. .	3,387.0	3,150.0	4,020.0	5.0	2,209.9
Printing, publishing and allied industries .. .. .	6,640.0	7,323.0	10,270.9	7.0	1,890.8
Manufacture of wooden containers including carvings ..	36.0	75.0	89.9	3.7	17.7

NOTE.—\*The projections of GDP and investment for 1978-83 were done on the basis of 1978 prices.

†n.e.c. is not elsewhere classified.

## PROJECTIONS OF GROSS DOMESTIC PRODUCT, GROWTH RATES AND INVESTMENT

Table 7.8—(Contd.)

K£'000

Industry	GDP			1978-1983	
	1976	1978	1983	Annual Growth Rates Per Cent	Investment
Manufacture of wood and cork products n.e.c.† .. ..	64.0	76.0	91.1	3.7	46.2
Manufacture of furniture and fixtures except primarily of metal.. ..	2,697.0	2,886.0	4,047.7	7.0	2,110.5
Manufacture of pulp, paper and paperboard .. ..	4,947.0	5,928.0	9,989.0	11.0	24,192.2
Manufacture of containers, paper boxes and paperboard articles .. ..	3,086.0	4,988.0	6,612.3	5.8	2,548.9
Manufacture of basic industrial chemicals excluding fertilizer	666.0	1,346.0	3,131.8	18.4	9,575.7
Pyrethrum extraction .. ..	2,516.0	1,633.0	2,512.6	9.0	1,098.8
Wattle bark extraction .. ..	771.0	586.0	1,153.2	14.5	2,738.2
Manufacture of fertilizer and pesticides .. ..	1,885.0	7,726.0	12,843.7	10.7	18,788.1
Manufacture of paints, varnishes and lacquers.. ..	1,218.0	1,699.0	1,979.1	3.1	147.3
Manufacture of drugs and medicines .. ..	1,992.0	3,047.0	4,862.7	9.8	2,349.7
Manufacture of soap, perfumes, cosmetics and other toiletries	5,200.0	6,822.0	9,977.3	7.9	2,496.8
Manufacture of chemical products n.e.c.†.. ..	2,804.0	3,623.0	4,848.4	6.0	1,714.2
Petroleum refineries .. ..	5,135.0	6,431.0	8,014.2	4.5	7,678.6
Manufacture of rubber products .. ..	3,053.0	6,563.0	10,617.8	10.1	9,356.8
Manufacture of plastic products .. ..	1,776.0	2,788.0	3,910.3	7.0	1,256.9
Manufacture of pottery, china and earthenware .. ..	94.0	84.0	151.3	12.5	330.5
Manufacture of glass and glass products .. ..	813.0	995.0	1,654.1	10.7	2,897.5
Manufacture of structural clay products .. ..	238.0	301.0	507.2	11.0	687.2
Manufacture of cement, lime and plaster .. ..	6,797.0	11,793.0	16,540.0	7.0	14,208.6
Manufacture of non-metallic products n.e.c.† .. ..	1,734.0	3,111.0	3,694.8	3.5	2,065.0
Basic metal industries .. ..	2,417.0	3,236.0	6,015.0	13.2	14,302.4
Manufacture of cutlery, hand-tools and general hardware	222.0	184.0	310.0	11.0	464.2
Manufacture of furniture and fixtures primarily of metal..	1,241.0	1,374.0	1,804.3	5.6	1,445.6
Manufacture of structural metal products .. ..	866.0	1,849.0	2,977.8	10.0	542.5
Manufacture of fabricated metal products n.e.c.† .. ..	6,905.0	9,464.0	14,034.9	8.2	5,906.1
Manufacture of machinery except electrical .. ..	1,260.0	2,480.0	5,208.8	16.0	5,184.7

PROJECTIONS OF GROSS DOMESTIC PRODUCT, GROWTH RATES AND INVESTMENT

Table 7.8—(Contd.)

K£'000

Industry	GDP			1978-1983	
	1976	1978	1983	Annual Growth Rates Per Cent	Investment
Manufacture of electric machinery apparatus, appliances, and supplies.. .. .	6,203·0	9,519·0	12,091·1	4·9	10,758·5
Ship building and repairing .. .. .	3,715·0	3,819·0	4,033·7	4·0	875·4
Manufacture of railroad equipment .. .. .	4,050·0	6,692·0	11,378·3	11·2	7,771·3
Manufacture or assembly of motor vehicles .. .. .	1,385·0	4,265·0	6,775·6	9·8	2,482·2
Manufacture of motorcycles and bicycles .. .. .	184·0	282·0	308·3	1·8	96·7
Manufacture of aircraft and repair .. .. .	612·0	1,139·0	1,665·8	7·9	1,317·7
Manufacture of professional and scientific equipment, photographic and optical goods .. .. .	55·0	36·0	73·3	15·3	46·1
Other manufacturing industries	1,761·0	2,391·0	3,124·5	5·5	649·6
<b>TOTAL .. .. .</b>	<b>183,574·0</b>	<b>235,274·5</b>	<b>362,466·3</b>	<b>9·0%</b>	<b>317,479·8</b>

**Slaughtering, Preparing and Preserving Meat**

7.95. Kenya's meat industry is relatively well developed both for local and export markets and can adapt readily to changing conditions if proper incentives are provided. GDP for the sub-sector is projected to grow at approximately 12.3 per cent per annum, and an investment of over K£4.9 million is expected to be made in the plan period. An expansion programme planned by Uplands Bacon Factory will cost K£160,000. Investment in this industry will mainly be made in the expansion and establishment of new privately owned abattoirs and the new poultry rearing and slaughtering facilities.

7.96. During the plan period several measures will be initiated to ensure that the country's potential for beef production is exploited to the maximum and the capacity for fattening cattle through feedlots is fully utilized. Among the measures proposed are the following—

- i. encouraging the use of feedlots by rationalizing the price relationship between feedlots, abattoirs and meat retail prices;
- ii. reappraising current export strategy to ensure that Kenya exporters do not face any handicaps as compared to their competitors;
- iii. setting aside fattening, slaughtering and processing facilities for export purposes.

7.97. The off-take of sheep, goats and poultry can at least be doubled by modern sheep and goat management techniques. Pig production both in large and small scale farms will be encouraged during the plan period so as to make available substantially larger quantities of pork for the export market. The existing processing facilities will be utilized more fully and the possibility for establishing new facilities investigated.

7.98. The manufacture of bouillon cubes from a mixture of meat extracts and hydrolysed vegetable proteins such as maize, wheat, groundnuts, or soya beans is proposed for the plan period.

### **Dairy Products**

7.99. The Kenyan dairy processing industry is fairly well developed. Certain areas of the country particularly the highlands near Nairobi and surrounding Mount Kenya are uniquely suited for the industry. The local demand for milk and milk products will increase substantially with the increasing income in the rural and urban areas and the supply of milk to primary school children programme. Furthermore, the prospects for export to other African countries are bright if the Kenyan prices can be competitive.

7.100. A total of over K£6.94 million will be invested in this industry mostly for the expansion of existing Kenya Co-operative Creameries plants in Nairobi and Mombasa and the bottling and refrigeration plant in Nanyuki. A UHT plant in Nakuru with a milk silo system will also be established. These facilities will make dried milk, butter, cheese and other products for the local and export markets. During the plan period, GDP in this industry will rise by 13.2 per cent per annum from K£3.7 million in 1978 to K£6.9 million in 1983.

### **Canning and Preserving of Fruits and Vegetables**

7.101. Kenya, with its uniquely varied climatic and soil conditions, is capable of growing a wide variety of temperate as well as tropical fruits and vegetables. This offers a good opportunity for the fruit and vegetable processing industry to procure different varieties of fruits and vegetables for processing within a limited area. Vegetables can be grown throughout the year offering opportunities to year-round processing plants and creating indirect employment and income in the production of raw materials by small growers. In view of these advantages efforts will be made to promote integrated processing units in selected areas. The total investments in these activities are estimated at K£10 million, while the growth rate in GDP will be 11 per cent per year.

7.102. The industry will be encouraged to expand and diversify during this plan period. The following projects will be promoted:—

- i. Two cassava processing factories in the coastal area to process cassava tubers for the animal feed industry. Each factory will have a capacity of producing 60,000 tons per year. Most of the end products will be exported to Europe.

- ii. A fruit and vegetable canning project will commence production towards the end of the plan period. It is expected that 30,000 tons per year of fresh fruits and vegetables will be commercially grown in the new irrigation scheme in the Upper Tana Basin. A nucleus estate to produce assorted horticultural products will be established and a large number of out-growers will be encouraged to provide the rest of the supply.
- iii. A horticultural crops processing plant will be established in the Sagana-Embu area, providing dehydration, freezing and canning facilities for about 50,000 tons a year of fresh horticultural products. Part of the area of 35,000 hectares of irrigated land opened up by the Masinga Dam, will be used for commercial cultivation of the crops to be delivered to this plant.
- iv. A new pineapple processing unit will be established to take advantage of the several areas where pineapples can be profitably grown. The existing pineapple factory has also programmes for expansion during the period of the Plan.
- v. A canning unit will be established at the Coast to utilize the large quantities of mangoes available in the coastal area.
- vi. The establishment of a mushroom processing unit will be encouraged as this high value product will provide high income-earning opportunities to small farmers.

### **Canning, Preserving and Processing of Fish**

7.103. Although fish processing is at an infant stage of development, the potential for catching and processing marine and fresh water fish is substantial. Fish processing is now limited to small-scale, sun-dried, salted fresh water fish, smoked fresh water fish, preparation and freezing of prawns and lobster and frozen fillets of Nile Perch and Tilapia from fresh water lakes. Because coastal waters are a high potential source of different varieties of fish suitable for local processing and export, a major effort will be made to establish commercial deep-sea fishing facilities. A fish meal and fish oil plant based on deep-sea fishing will be implemented during the plan period. The annual growth rate in the fish processing industry will be 7 per cent during the Plan.

### **Vegetable and Animal Fats and Oils**

7.104. Kenya is not self-sufficient in edible oils and fats. During recent years large amounts of foreign exchange have been used to import oils and oil seeds to meet the increasing domestic demand. It is estimated that the consumption of vegetable oils will increase from 40,000 tons in 1977 to 55,000 tons in 1983; while that of animal fats will increase from 6,700 tons to 8,800 tons during the same period. Apart from saving substantial foreign exchange, local production of oil seeds will provide increasing employment and income earning opportunities to farmers, particularly in arid and semi-arid

areas of the country where oil seeds can be successfully grown. Therefore, the growing of sun flower, soya beans, cotton, safflower, rapeseed, etc., will be encouraged. Investments in the edible oil and fats processing activities are estimated to be K£2.8 million in the plan period.

### **Grain Mill Products**

7.105. Maize is the staple food in the Kenyan diet. *Per capita* consumption is estimated at 120 kg. per annum. There has been a slow shift from whole maize meal towards sifted maize meal supplied by urban processors. This has increased the demand on urban maize mills at an average rate of 11 per cent per year, a trend which is expected to continue during the plan period. Two new maize mills with production capacities of 30-40,000 tons per year will be established at Naivasha and Kakamega. Rural *posho* mills as well as modern small-scale grain milling units will be encouraged during the plan period. The KIE-RIDC-IPA programme will also promote the development of rural *posho* and modern small-scale milling units throughout the country.

7.106. Wheat is grown mainly in the medium and high potential areas and is mostly confined to large-scale farmers using modern methods of cultivation. Processing is done by privately owned wheat flour mills, and no new processing capacity for wheat is envisaged. However, for rice, which has a limited number of mills, a new mill will be established at Kisumu to cater for the increase in production during the plan period. It will cost about K£2 million. The total investment in all grain milling activities will be K£13.2 million while the contribution to GDP by the industry will grow at 11 per cent per year.

### **Bakery Products**

7.107. The main items included in the bakery products are bread, biscuits and pasta products. Demand for bread and biscuits is steadily increasing in the rural as well as urban areas. Rural demand is largely catered for by the large-scale urban bakeries which have established distribution channels to the rural areas. During this plan three new medium-sized bakeries will be established. A bakery proposed for Kiganjo will produce 42 million loaves per year involving an investment of K£1.2 million. Another two will be established at Molo and Kisumu to produce 30 and 10 million loaves per year respectively. Besides these a number of small-scale rural bakeries will be established in various parts of the country during the plan period. The total investment in the bakery products industry is estimated to be K£3.1 million whereas the growth rate in GDP will be 6.0 per cent per year during the Plan.

### **Sugar Factories and Refineries**

7.108. Production of cane sugar is a priority area. Kenya's consumption of sugar has been consistently higher than local production for many years although the gap between production and consumption has continued to be



reduced through increased local production. It is planned to achieve self-sufficiency in the early years of this Plan. A major expansion is underway for the Mumias Sugar Factory which will be completed in 1979. Two major sugar factories are under construction, in Bungoma and South Nyanza Districts with production capacities of about 60,000 tons per year. The sugar rehabilitation programme which will be undertaken during the Plan will result in increasing production capacity of sugar by an additional 30,000 tons. The Government will also assist the establishment of a number of mini sugar plants in selected parts of the country with climatic conditions suitable for sugar-cane cultivation. Total investment in the sugar industry during the plan period is estimated to be K£49.5 million whereas the growth rate of GDP for the industry is estimated at 14.9 per cent per year.

### **Other Food Products**

7.109. The GDP of this sub-sector will rise from K£16.0 million in 1978 to K£24.3 million by 1983. Total estimated investment will be K£1.7 million. This will include investments in processing of tea, coffee roasting, edible salt refining and two more cashewnuts processing plants.

### **Distilling, Rectifying and Blending Spirits**

7.110. This sector will have an estimated investment of around K£83,600 during this Plan. It is proposed to study the prospects for local production of concentrates and the production of rum from molasses. GDP in this sector is projected to grow at the rate of 8.1 per cent per annum.

### **Malt Liquors and Malt**

7.111. The organized manufacture of beer has grown substantially during the last few years. Beer is largely made from local raw materials. Barley which is an important raw material is locally grown. The brewery industry has plans for substantial expansion during the plan period both to supply increasing local demand and for export. The total new investment planned by this industry is K£21.2 million and the growth rate of its GDP will be 13.7 per cent per year.

### **Soft Drinks and Carbonated Water Industries**

7.112. Two major suppliers of carbonated water account for about 90 per cent of the Kenyan market. The total new investments in this industry will be K£1.1 million and the growth rate in GDP will be 4.2 per cent per year.

### **Spinning, Weaving and Finishing of Textiles**

7.113. The estimated employment in the textile industry was around 18-19,000 people in 1978. The accumulated investment in the textile industry is estimated at K£42 million. In 1978, the combined production in weaving and knitting sectors was about 80 million square metres. The existing mills have plans to expand production capacity to reach 105 million square metres by 1983.

7.114. The estimated total demand for fabrics will increase from about 100 million square metres in 1978 to 122 million square metres by 1983. The planned expansion programmes of the existing mills when implemented will reduce Kenya's deficit in the supply of fabrics to 15-20 million square metres by 1983.

7.115. Two projects are under construction for production of nylon, polyester, filament, and texturized yarn at Thika and Nanyuki. The total investment in this sub-sector during the plan period is estimated to be K£26.9 million and GDP is expected to grow at the rate of 7.5 per cent per year.

7.116. Besides investments in the large-scale enterprises that have been indicated, there is also scope for establishing small-scale weaving units to produce specialized fabrics which are uneconomical to produce in large mills. Printing and finishing facilities for these small units will be provided by a centralized unit.

7.117. In view of the existence of idle capacity in the knitting mills industry, the growth in the GDP of this industry will mainly be achieved through the fuller utilization of capacity. The new investment that will be made will be for the purpose of balancing the utility equipment in various processing stages of the industry. To achieve this, a total investment of K£2.0 million will be made in the industry during the plan period. GDP will rise from K£1.8 million to K£2.3 million indicating a growth rate of 5.1 per cent per annum.

### **Cotton Ginning and Gineries**

7.118. During the plan period the Government will promote programme for a substantial increase in the cultivation of cotton to make the country self-sufficient in this commodity. In order to achieve this aim it is also necessary to increase the facilities for ginning cotton. The existing capacity in gineries will be fully utilized and the facilities in the Coast Province (at Lamu, Malindi and Hola), in Eastern Province (at Kitui, Meru and Mwea), in Nyanza Province (at Kendu Bay, Homa Bay, Kibos and Ndere) will be supplemented.

### **Wearing Apparel**

7.119. There is scope for substantial new investments in the garment industry both to cater for local demand as well as for export. Kenya should take advantage of lower labour costs prevailing in the country to develop the garment industry for exports. In order to develop this industry locally the Government will take the following actions—

- i. encourage joint venture enterprises with foreign collaborators to ensure export markets;
- ii. review the Export Compensation Scheme in order to facilitate Kenyan exporters to make major efforts in exporting;

- iii. establish facilities in the Bureau of Standards to inspect all garments manufactured for export;
- iv. promote small-scale garment making units in the Industrial Estate Programme;
- v. initiate a training programme for designing, cutting, stitching, etc., for existing and prospective garment manufacturers; and
- vi. facilitate small garment makers to participate in the Government tendering system.

The total investment in this activity is expected to be K£2.5 million and the estimated growth rate in GDP is 9 per cent per year during the plan period.

### **Tanneries and Leather Finishing**

7.120. Hides and skins are important raw materials which can be locally processed to the finished product stage and thus provide increased employment opportunities in the rural and urban areas as well as increase foreign exchange earnings from exports. Footwear, bags and wearing apparel can be manufactured in the country both for local consumption and for export.

7.121. It is estimated that in 1978 about 1.4 million hides and 4.0 million skins were locally available. The tanning capacity of seven medium-size urban and rural tanneries was estimated at 1.1 million hides at the end of 1978. With four new tanneries in the pipeline, the total capacity to produce semi-processed leather in the country will reach 1.38 million in 1979. When all these tanneries reach a capacity utilization factor of 85 per cent the maximum hides that will be processed in the country in 1979, will be 1.17 million pieces. Equipment is available only for semi-processing 600,000 hides per year. During the Plan semi-processing capacity for another 400,000 hides will be created. Substantial potential exists for further processing and finishing of skins after they are subjected to wet blue stage of tanning. The domestic GDP in the industry is expected to increase at the rate of 14 per cent per year. A total investment of K£2.0 million in this industry is envisaged during the Plan.

### **Leather Products—Except Footwear and Wearing Apparel**

7.122. The Government will encourage the manufacture of travel bags, handbags, pocket books, cigarette and key cases, coin purses and similar articles using locally available finished leather and skins. A number of traders and artisans engaged in the processing and sale of game skins and trophies will be encouraged to produce and sell handicrafts made out of bovine leather, sheep and goat skins.

### **Footwear**

7.123. Footwear is a basic need of the people. The objective during the Plan is to provide utility type of shoes to the urban poor and the rural people. The implementation of the programme for the local finishing of hides and

skins will make available sufficient quantities of local raw materials for processing into footwear. A leading shoe company has plans for the expansion of its activities and a new shoe factory is to be established at Voi. It is planned that at least 6-7 medium-size and a number of small-size units will be established during the plan period. Export markets will be investigated and appropriate export promotion measures implemented to export top quality durable shoes. An investment of K£2.3 million will be made in the industry during the Plan. The annual growth rate of the GDP of this industry will be 15.9 per cent per annum.

7.124. Shoe makers in the informal and small-scale business sector will be encouraged to increase production and supply cheaper types of footwear to the poorer section of the people. The KIE programme will be utilized to provide extension facilities and training opportunities to small-scale and informal sector units. Public and private extension agencies in different districts will be encouraged and assisted in preparing small schemes and promoting small and informal sector units.

### **Plywood**

7.125. There are plans to open up the Transmara and East Mount Kenya indigenous forests for the exploitation of logs for plywood manufacture and sawmilling during this Plan. The installation of these new mills will increase plywood production by 6 million square metres and will cost approximately K£2.2 million. New job opportunities for about 1,000 people will be made available when the project is implemented.

7.126. Government training facilities at the Forest Industrial Training Centre in Nakuru, will be properly utilized to improve the technical efficiency and management of units in the sawmilling industry. The unit for manufacture of pre-fabricated wooden buildings will be enlarged and equipped to produce more housing units.

### **Wooden Containers Including Carving**

7.127. Wood carving is a highly labour intensive industry with a great potential for high earnings by the artisans. Although a large number of carvers are co-operatively organized, the artisans need organized training in precision carving, practice in the use of fine wood carving chisels, and ideas for creative carving reflecting various African cultures. Stress on individual creativity should make for more marketable carving.

7.128. During the plan period, institutional measures will be taken to assist the artisans in upgrading their expertise and to enable them to be creative and original in their handicrafts. The Kenya External Trade Authority will assist this industry in finding market outlets abroad. The District Development Committees will on the other hand co-ordinate the activities of all extension agencies including the KIE programme in providing training and other services to the artisans.

### **Furniture and Fixtures (Excluding Metal Furniture)**

7.129. The furniture industry in the country is characterized by a few sophisticated large workshops in the towns producing high quality expensive furniture for the urban rich and a large number of small-scale workshops and individual carpenters producing cheaper furniture for the urban and rural poor. The large workshops will be encouraged to continue their present activities to meet the increasing demand arising from growth of urbanization. A new unit to manufacture knocked down furniture and parts for export out of soft wood is being established.

7.130. In the small-scale sector, the Government through the KIE programme will assist the small-scale enterprises and individual carpenters to upgrade their expertise through extension facilities and provide them financial assistance to purchase equipment, tools and raw materials. They will also be encouraged to tender for the furniture requirements of local government offices, schools, hospitals and other institutions.

### **Manufacture of Pulp, Paper and Paperboard**

7.131. Annual production of industrial paper at Webuye and Thika amounts to 64,000 air-dried tonnes. Demand for all paper except newsprint is estimated to be around 113,000 tonnes by 1983. There is scope for initiating another mill with 49,000 tonnes additional production to satisfy domestic demand and a further 10-15,000 tonnes for export. The demand for newsprint is estimated to increase from 5,700 tonnes in 1980 to 12,300 tonnes in 1990. It is planned to start manufacturing 10,000 tonnes of newsprint per year from sisal wastes and sawmill waste.

7.132. As a long-term policy it is envisaged that pulp will be centrally manufactured and, small-scale paper making units will be established on a decentralized basis to meet the increasing demand for different varieties of paper in the country. During this Plan, new investments to the extent of K£24.2 million will be made in these activities whose growth rate will be 11 per cent annually.

### **Printing, Publishing and Allied Industries**

7.133. Activities such as printing, lithographing, publishing newspapers, periodicals, books, directories and stationery are related both to the increasing rate of literacy and to industrial growth. Kenya has a well established modern printing and publishing industry which is expected to grow at least by 7 per cent per year during the plan period.

### **Industrial Chemicals Excluding Fertilizers**

7.134. At the commencement of this Plan, except for the availability of natural soda ash at Lake Magadi and a small sulphuric acid manufacturing unit, no other industrial chemicals of importance are manufactured in the country. During the Plan a number of industrial chemical projects will be implemented. A plant to manufacture 30,000 tons of caustic soda for use as

input material in the existing and proposed glass factories, soap units, paper units, textiles and others will be established. A furfural plant using maize cobs as raw material will be established. It will have a capacity to produce 5,000 tons of furfural and 2,500 tons of acetic acid for export. The sulphuric acid and aluminium sulphate plant will expand. Enterprises to manufacture hydrogen peroxide, sodium sulphate and zinc oxide will also be established. New investments will amount to K£9.6 million and the growth rate for the industry will on the other hand be 18.4 per cent per year.

### **Fertilizers and Pesticides**

7.135. Although the proposed fertilizer plant at Mombasa has been delayed due to unforeseen circumstances, a new project to manufacture nitrogenous fertilizers needed in the country will be implemented during this Plan. In addition to the manufacture of basic fertilizers, there is scope for small-scale units to be established in different consuming centres for granulating and compounding fertilizers. The existing mixing plants will also have scope for expansion.

7.136. A number of potential projects in the pesticides group include: (1) fenethion; (2) diazinon; (3) malathion; and (4) diamethonk. The processing and use of pyrethrum extract into end-products for export will also be investigated. The total investment in this group will amount to K£19.8 million.

### **Synthetic Resins, Plastic Materials, Man-made Fibres except Glass including Wattle Bark Extraction**

7.137. The potential projects in this group are the manufacture of the following: polyester resin, low-density polyethylene from locally available renewable organic raw materials, cashewnut shell liquid, and polypropylene fabrics. In addition to these the local demand for wattle bark extracts will increase due to the growing tanning industry. New investments amounting to K£2.7 million are expected to be undertaken during the current Plan. The growth rate in GDP in this group will be 14.5 per cent per year.

### **Paints, Varnishes and Lacquers**

7.138. The paints market in Kenya has registered a steady growth rate of 8-9 per cent in spite of the loss of exports to African markets. On account of the latter, there is an unutilized capacity in the industry ranging between 40 and 50 per cent of the installed capacity. Because paint manufacture is not a capital intensive operation and lends itself to quick increase in production, the constraint to the expansion of the industry is the market itself. It is planned not to add to the present capacity of the industry during this Plan.

### **Drugs and Medicines**

7.139. Drugs and medicines are basic needs. It is the intention of the Government to ensure that adequate quantities of drugs and medicines are available throughout the country and that their prices are within the reach of the poorer sections of the population.

7.140. There are a number of pharmaceutical manufacturing enterprises in the country which will be encouraged to expand their activities so that they are able to import their active ingredients from cheap sources abroad. Imports of drugs and medicines will be allowed in appropriate cases in the interest of the public. The main objective of the Government is to make available effective and cheap medicines and drugs to the people.

7.141. The Government is encouraging research in indigenous medicines (see Chapter 5). There are also a number of potential medicinal herbs and plants in the country which can be commercially cultivated and processed. Examples are: the extraction of diosgenin from Fenugreek, an annual legume grown in Kenya from which diosgenin used for the production of steroid hormones used in oral contraceptives production can be extracted. The other plants are senna, aloe and leuceana from which different ingredients of medicinal value can be extracted. Production of these and other medicinal herbs will be encouraged and processing enterprises for their production established.

7.142. The existing pharmaceutical units manufacturing different drugs and medicines have substantial surplus capacity which will be utilized during the Plan. New investment in the industry during the plan period will be limited to only K£2.4 million and the annual growth rate in GDP will be 9.8 per cent.

#### **Soaps, Perfumes, Cosmetics and Other Toilet Preparations**

7.143. This industry is dominated by four well established large plants, ten medium-size production units and a few small-scale units. The total soap and cleansing materials used in the country is estimated to increase from 27,000 tonnes in 1978 to about 40,000 tonnes in 1983.

7.144. The aggressive marketing techniques of the large units is responsible for the penetration of the detergents in the rural areas. However, there is still a large scope for laundry and bath soap as well as detergent soap to be produced for the rural population if their prices are competitive. As a long-term policy it is planned that the larger units will concentrate on the manufacture of high priced sophisticated soaps, non-soap detergents, cosmetics and perfumes, leaving the manufacture of ordinary laundry soap and bath soap consumed by the urban and the rural poor to the small-scale and informal units. The KIE programme will be involved in the preparation of small-scale schemes, loan provision for obtaining equipment and technical expertise for the manufacture of soap.

7.145. Among the organized units, two factories based in Nairobi have major expansion programmes while another medium-sized unit has also plans for expansion. New investments will amount to approximately K£2.5 million while the growth rate in GDP for the industry will be 8 per cent per year.

### **Manufacture of Rubber Products**

7.146. At the beginning of this Plan, the output of rubber products (mainly tyres manufactured by Firestone) is estimated to be 350,000 units. Tyre re-treading units expanded as prices of tyres continued rising. An expansion programme by the already established tyre manufacturing plant will increase production capacity to over 422,000 tyres and tubes per year. This will entail an investment of over K£5 million during the plan period. Another major tyre plant will be established during this Plan. Furthermore, projects to reclaim rubber from used tyres and to manufacture industrial rubber products such as transmission belts, fan belts, conveyor belts, rubber hoses, will be promoted. The total investment in the rubber products industry is estimated to be K£9.5 million during the Plan.

### **Pottery, China and Earthenware**

7.147. During the plan period an enterprise to manufacture ceramic ware amounting to 1,000-1,200 tonnes per annum and covering items such as cisterns, basins and various articles used in the toilets and baths will be established. Another project under consideration is the manufacture of ceramic tiles and electrical accessories.

### **Glass and Glass Products**

7.148. There are currently three enterprises engaged in glass and glass products manufacture. Of these, two units make such products as bottles, tableware, etc. While the third processes glass into motor vehicle windscreens, looking glass, security glass, etc. During the plan period, it is proposed to promote a unit to manufacture 20,000 tonnes of sheet glass per year for which basic raw materials are available locally. When fully developed this project will entail an investment of K£5.0 million. Only part of this, however, will actually be made during this plan period. The capacity of the existing glasswork units is being extended. A total of K£2.9 million worth of investments are estimated to be made in the sub-sector during the plan period. Its GDP will grow at the rate of 10.7 per cent per year.

### **Structural Clay**

7.149. As prices of concrete blocks and roofing materials continue to rise, structural clay products are gaining acceptance as substitutes. A new bricks and roofing tiles project will be established in Kakamega. A Nairobi based plant has plans to expand its capacity and extend its activities to Mombasa at a cost of more than K£200,000. Small plants will be promoted for implementation in rural areas to cater for demand in those areas.

### **Cement, Lime and Plaster**

7.150. There are two cement plants in the country catering for local demand as well as exporting substantial quantities abroad. Kenya is well endowed with basic raw materials required to manufacture cement. The growth rate



of the industry during the plan period will be approximately 7 per cent per annum. To cater for domestic demand the Athi River cement plant will undertake an expansion programme involving K£5.0 million. During this period the proposal to establish a cement plant with capacity to produce 150,000 tonnes of cement in Western Kenya will be studied and implemented.

### **Basic Metal Industries**

7.151. The following are some of the projects that are being developed in the basic metallic industries—

- i. a mini-integrated steel plant to make steel from imported iron-ore or pellets by the direct reduction process—the proposal envisages a plant with a capacity of 250-300 thousand tonnes of steel per year;
- ii. either as an extension of the mini-integrated steel plant or as a separate activity, it is proposed to establish a tin plate making unit to produce 80,000 tonnes of tin plate per year;
- iii. a press shop for simple automobile body components;
- iv. a 3,000 tonnes per year grey iron foundry to cast automotive components; and
- v. a project to manufacture pumps to meet the needs of small-scale irrigation schemes.

7.152. The Government will discourage the export of steel scrap from the country to help the local smelters obtain their required inputs. In the non-ferrous basic metal industries the projects being involved are: sanitary fittings, aluminium and zinc die castings, extruded aluminium sections and detinning plant. Most of the projects in the basic metal industries will be developed to the implementation stage during the latter part of the Plan. Investment in this industry during the Plan is estimated to be K£14.3 million.

### **Cutlery, Handtools and General Hardware**

7.153. Some engineering and agricultural implements manufacturing units produce a range of hardware including matchets, shovels, screwdrivers and others in the country. However, there is scope for the manufacture of a variety of handtools, cutlery, manual and circular cutting saw-blades for metal and wood, agricultural and garden implements, high quality locks and gas cookers. Projects for the manufacture of agricultural implements and high quality locks will be implemented during this Plan.

### **Metal Furniture and Fixture**

7.154. This includes furniture for households, office, public buildings and for professional use and restaurants. The growth in this activity is directly related to the developments in building and construction activities as well as infrastructural facilities such as hospitals, school buildings, etc. This is a labour intensive activity and the Government will encourage decentralized small-scale units to increasingly enter the area of the manufacture of metal

furniture and fixtures. Local authorities, schools and other institutions will be encouraged to buy their requirements of furniture and fixtures from local producers.

7.155. Enterprises in this sub-sector manufacturing gas cookers, cans, wood-screws and hardware products will diversify and expand their capacities. New projects that will be promoted during the plan period include: the manufacture of precision screws, bolts and nuts; and malleable pipe fittings. A total investment of K£5.9 million will be made in this industrial group.

### **Machinery (Except Electrical)**

7.156. Development of machines for use in an economy is a basic requirement to the acquisition of the capability to develop and adapt imported technology. The Government will therefore take steps to establish a machine tool factory in collaboration with a reputed public sector enterprise from a sister developing country. The objective is to manufacture within the country low cost simple machines for heavy engineering and precision work. The machine tools factory will be supported by a training centre and tool room. Besides establishing this basic capability several other projects will be promoted during the plan period. A project to manufacture diesel engines, electric motors, pumping sets and generating sets is likely to be established during the early part of the Plan. Two plants to manufacture agricultural machinery and implements will also be established. A unit to manufacture post-harvesting agricultural machinery such as threshers, chaff cutters and other agricultural processing machines will be promoted. A unit to assemble electric and pneumatic powered hand tools will be developed. Other projects that will be investigated are textile plants spare parts including ginnery spare parts; mini heavy engineering plants for the manufacture of cement, sugar and paper; road building machinery and spare parts; a project for the manufacture of pressure vessels and tanks; and manufacture of machinery required in chemical, pharmaceutical and textile industry from special steel. Investments in a number of these industries are likely to be initiated in this Plan and carried forward into the next one. Investment in this industrial group during the plan period will be K£5.1 million.

7.157. The machine tool and other engineering projects with prospects for implementation during the Plan will provide opportunities for the establishment of small-scale ancillary units. The KIE programme will be involved in promoting small-scale ancillary units in the engineering industry.

### **Electrical Industrial Machinery and Apparatus**

7.158. The products included in this group are the manufacture of radio and television receiving sets, sound reproducing and recording equipment, telephone and telegraph equipment, radio and television transmitting, signalling and direction equipment, etc. The Government is keen to promote the

industries falling under this group because they are labour intensive and skill oriented and can easily be established on a decentralized basis. To facilitate the development of this industry an electronics centre to develop local skills in the manufacture of various types of electronic parts will be established in the country.

7.159. Some of the products in the electrical industrial machinery proposed to be developed are (i) iron clad switches, switchgears and starters; (ii) transformers of 11 KVA and below; (iii) electric motors. In the electronics group the projects that will be developed will include the manufacture of loud speakers, capacitors, resistors, IF/RF coils, micro-switches, miniature relays, gang condensers, transformers, microphones, counters, magnetic tapes, cartridges, walkie-talkies, etc. In the home appliances group, a project to manufacture hot plates, toasters, electric irons and kettles will be developed.

7.160. In the electrical apparatus and supplies group the projects that will be developed are (i) dry battery cells; (ii) fixtures, sockets, condensers and chokes; (iii) low tension electric insulators including pin insulators, disc and shackle insulators and (iv) electric cables and conductors.

### **Ship Building and Repairing**

7.161. Ship building is a competitive activity. It is difficult for new entrants into the activity to make an impact on the world market. It is planned that local production be confined to boats, barges and crafts manufacture up to 1,000 tons deadweight for the local and the export markets. As the expansion of the dock in Mombasa is completed efforts will be made to increase ship repair services to vessels of all nations.

### **Railroad Equipment**

7.162. The railways workshop in Nairobi is one of the best equipped engineering workshops in independent Africa. The facilities available at this workshop can be effectively utilized to manufacture a wide variety of parts required for the maintenance of the railways. With the addition of more facilities, local building and re-building of locomotives can be started. The Government will provide all facilities to enable the workshop to provide for the increasing engineering requirements of the national railways. New investment in this industry is estimated to amount to K£7.7 million.

### **Assembly of Motor Vehicles**

7.163. The commercial motor vehicles assembly plants in the country are expected to attain the capacity to assemble about 15,000 vehicles per year during this Plan. Progressive manufacture of motor vehicle parts and components is an essential and important requirement which is stipulated in the agreements for establishment of these assembly plants. Besides the assembly

plants, the market for vehicle parts is substantial. The local manufacture of the following vehicle parts will be encouraged: door handles, window fittings, shock absorbers, filters for petrol and oil, valves and valve guides, spring washers, circling clips, shackles, bushes, kingpins, brake drums, oil and air cleaners, radiators, transmission cables and the total investment in these activities is estimated to be K£2.5 million.

### **Professional and Scientific Equipment, Photographic and Optical Goods**

7.164. The manufacture of professional and scientific measuring and controlling equipment, photographic and optical goods, school equipment such as educational microscopes, requires sophisticated technology. As these equipments are essential to the work done in most of the research units, hospitals and schools, new investment opportunities will be identified and viable projects implemented.

### **INTERNAL TRADE**

7.165. The internal trade sector is an indispensable link in the flow of goods between producers, middlemen and consumers. It is of prime importance, therefore, that it carries out the various functions of distribution in a manner that will facilitate the efficient performance of other sectors of the economy. The internal trade section of this chapter comprises of subsections which cover: the problems that have constrained the smooth development of this sector in the past; the strategies and policies to be adopted to attain the stated objectives; the institutional framework, and the development programmes of various organizations in the sector.

7.166. The broad objectives for the commerce sector during the plan period are as follows—

- i. to stimulate the growth of domestic marketed production so as to meet the requirements of consumers within the country as well as exports;
- ii. to advance further the programme of Kenyanization;
- iii. to promote a maximum degree of competition in the distribution sector;
- iv. to increase the efficiency of distribution system;
- v. to ensure the continuous availability of essential commodities throughout the country;
- vi. to increase viable employment opportunities in this sector;
- vii. to promote fair trade and to protect consumers interests;
- viii. to provide appropriate extension services to the business community.

## **Problems in the Commerce Sector**

7.167. Since Independence there have been rapid changes in the pattern of internal trade both in terms of ownership as well as content and character. The transfer of distribution activities to Kenyan hands has proceeded rapidly and at the same time, parastatal organizations have taken up major responsibilities in distribution. There has also been a remarkable shift from the semi-subsistence type of production to market-oriented production. In addition, the combined effects of population growth, rapid urbanization, and rising incomes have had a strong impact on the nature of demand for goods and services. These developments have, in turn created problems. These are described below: first for unprocessed commodities and secondly for processed goods.

### **Unprocessed Commodities**

7.168. Large seasonal price fluctuations of basic foodstuffs have been observed even in rural food markets that are situated relatively close together. Market surveys show that during seasons of low supplies food prices in these markets are 100 to 200 per cent higher than during post-harvest periods. As for the spatial price variations only a limited number of markets, particularly those clustered together, tend to have similar prices over the seasons. The majority of markets, however, are not connected with one another and prices differ substantially.

7.169. A reliable and accurate market information system is one of the first requirements before spatial imbalances in supplies to different markets can be redressed. The absence of such a system hinders an easy flow of goods from surplus to deficit areas causing large price variations to prevail. This naturally acts to the disadvantage of producers in the surplus areas as well as consumers in the deficit areas. In addition to these considerations, an extensive market information system would be instrumental to encouraging production of crops that command high prices due to insufficient supplies and thus be of assistance to farmers when making their production decisions. Furthermore, it would enable parastatal marketing boards, manufacturing firms and private traders to take into account seasonal and geographical price variations when deciding on the most appropriate purchase and sales policies.

7.170. There is a lack of market outlets for smallholders other than the nearest open-air market. In addition, due to the shortage of appropriate storage systems and the urgent need for cash, most farmers sell their produce immediately after harvest. These farmers then have to buy the same commodities during the low supplies season at much higher prices.

7.171. The lack of enforcement of the use of standardized weights and measures in the rural markets prevents price standardization and provides an opportunity for unfair trade practices which often act to the disadvantage of consumers. The use of different weight measures makes reliable price comparisons impossible. The quantities contained in most measures often differ.

7.172. Wholesale and retail activities in rural areas are most frequently carried out in old open-air markets that do not provide cover from rain and other adverse weather conditions. These facilities do not maintain desirable hygienic standards and often do not have adequate storage space. The development of basic facilities in these markets will therefore be accorded priority during this plan period.

7.173. There has been a tendency in the past for these markets to be established without appropriate evaluation of their viability. This has often resulted in under-utilization of these facilities. In future therefore, decisions on the construction of new rural markets will be made after feasibility studies have established their viability.

7.174. Marketing and pricing systems for agricultural products will be re-examined continuously to ensure that producers get reasonable prices and consumers are guaranteed adequate supplies. Improvements will be made in the present system. This will include the strengthening of the Costs and Prices Committee. In the past five years the Committee has not been functioning. It will be reactivated during this Plan and made to play a key role in determination of producer and consumer prices.

#### **Processed and Industrial Commodities**

7.175. Most of the problems discussed above also affect processed items. However, the following additional problems are encountered in the distribution of processed items:—

- i. Restrictions of entry of new traders into the commerce field through licensing have led to high mark-ups and profits by established traders.
- ii. Limited availability of commercial premises in urban areas has kept down the number of entrants in the distribution activities.
- iii. Shortages of basic commodities like sugar, salt, charcoal, oils and fat which have occurred from time to time, have arisen from smuggling, hoarding and flaws in the distribution system.
- iv. Availability of credit to small traders has presented problems particularly in the rural areas.
- v. The Kenyanization programme of the Government has provided business opportunities to Kenyans who need more training to carry out their trading activities efficiently. Assistance in modern methods of management, purchasing, accounting and control of stocks, etc., is needed.

The Government will intensify its efforts to take appropriate measures to raise the production of processed items, improve the distribution system of these products, encourage more traders to enter these activities and curb smuggling.

## **Strategy and Policies**

7.176. To achieve the objectives enumerated in the earlier paragraphs the Government will adopt the strategy of promoting as much as possible the role of private enterprises in the commerce sector. For this reason, the Government will desist from direct participation in the movement and distribution of goods when performance by the private sector is efficient, competitive and sufficient to meet consumer requirements. In pursuance of this strategy the Government will continue to review the usefulness and role of parastatal marketing boards and other institutions that have been assigned major responsibilities in internal trade.

7.177. Many of these institutions have been instrumental to fostering dynamic and systematic growth in the production and marketing of various commodities both for the domestic as well as the export markets. With a view to enhancing further the efficient operations of these institutions, the Government will encourage the establishment of inter-institutional, consultative and co-ordinative mechanisms at the policy and technical levels.

### **Efficiency and Competition**

7.178. In recognition of the fact that the internal trade sector has evolved to become a major economic activity which provides large numbers of people with remunerative employment opportunities the Government will take measures to remove the bottlenecks that may hinder a further orderly expansion of this sector in compliance with overall development goals. In particular, action will be taken to ensure that marketing processes are carried out at the minimum cost.

7.179. There are firms in the manufacturing sector which have either a monopoly or have one or two competitors. This situation encourages inefficiency in production and the prevalence of uncompetitive prices. Under such conditions a competitive distribution system is not likely to be effective in reducing inefficiencies and the high prices. Therefore, during this plan period the Government will study firms in this category and implement measures which will lead to efficiency and reduction of prices.

### **Kenyanization and Trade Licensing**

7.180. Since Independence the Government has encouraged Kenyans to enter the commerce sector through various measures, incentives and extension services. Notable among these measures, is the 1967 Trade Licensing Act. This Act gave powers to the Government to embark upon a programme of Kenyanization by limiting the number of trade licences given to non-citizens and raising the number to Kenyan traders. Partly as a result of this Act almost all businesses in rural centres have been acquired by Kenyans. In order to complete this programme, the Government henceforth will focus its attention on the urban general business areas where non-citizens are still legally free to operate as traders.

7.181. During this Plan the use of trade licensing will be confined to Kenyanization. Enterprises will be free as stated in Chapter 2 to enter the distribution business after registration. In addition a review of the existing legislation governing trade licensing procedures will be made with the objective of closing the loopholes that have enabled non-citizens, served with quit notices, to remain in business.

### **Import Licensing**

7.182. The import licensing system is used to attain a number of objectives including the following—

- i. protection of local industries;
- ii. Kenyanization of the import trade;
- iii. ensuring continuous availability of essential inputs and consumer goods;
- iv. conservation of foreign exchange.

The import control machinery will be strengthened to enable the Government to achieve the objectives outlined above. The major difficulties the system faced during the previous Plan were delays in processing applications for import licences and the formulation of sound and practical criteria for determining import priorities. An inter-ministerial committee comprising of the Ministries of Commerce and Industry, Finance, Economic Planning and Community Affairs, and the Central Bank will be established to study and recommend improvements in the operational structure of the Import/Export Department of the Ministry of Commerce and Industry.

### **Employment**

7.183. The total wage employment in the formal commerce sector is expected to increase from 39,000 in 1976 to 51,000 in 1983. As the sector accounts for a sizeable proportion of the national income it should also provide an important avenue for increased job opportunities for Kenyans both in the formal and informal activities. To facilitate this increase in employment, the Government will initiate new measures such as the reduction of licensing requirement as stated earlier, increase institutional credit facilities, extension services and management training opportunities. The informal activities in the commerce sector provide self-employment opportunities to a large number of rural and urban people. Programmes for establishing new open-air markets in various parts of the country, renovating existing enclosed markets and building new wholesale and retail markets for agricultural produce are some of the measures the Government will take during the plan period to increase self-employment opportunities in the informal sector.



## **Price Control**

7.184. An unrestricted rise in the prices of basic necessities such as food, transport, clothing and shelter would adversely affect the living standards of low-income groups and wage earners to a greater extent than that of other groups and would result in pressure for higher wages. Similarly, unrestricted rises in the prices of farm inputs and machinery would disrupt agricultural production and lead to increased farm produce prices. Control of price increases protects the vulnerable sections of the population and helps in raising their standards of living when there is a rise in wage levels. When price controls are restricted to essential consumption items they have a favourable income distribution effect. Therefore, the Government will continue to keep a close watch on the prices of essential goods, reviewing their effects on the supply of these goods as well as their effect on low-income consumers. The procedures involved in obtaining approval of cost-justified price increases by firms have involved long delays in the past and have caused firms to temporarily halt production of certain items. Unreasonably low levels of prices also curb investment, and in turn lead to shortages, defeating the purpose of price control. On the other hand, price increases if allowed without considering the costs of production allow firms to earn excessive profits. Bearing these points in mind, the Government intends to phase out price control on manufactured items except in cases of items which figure significantly in the normal expenditure of low income groups and of those items that directly affect production of basic commodities. Furthermore, prices of such items will only be regulated when the danger exists that producers might take advantage of their monopolistic position to fix prices and earn excessive profits. The Government Price Controller will be given detailed guidelines to this effect, and will be provided with efficient staff to enable him to carry out these new functions.

7.185. Prices of non-regulated manufactured goods will be kept within reasonable limits as a result of other policies discussed elsewhere in the Plan. These policies include the encouragement of price competition through lowering protection against competing imports.

## **Standardization of Weights**

7.186. It is the policy of the Government to ensure that justice prevails in all transactions involving the use of weighing and measuring equipment as a basis for determining the quantity of goods purchased during trade transactions. The Weights and Measures Department of the Ministry of Commerce and Industry which is assigned the responsibility of supervising and verifying weighing and measuring equipment in the country will extend its services to the rural areas of the country. The Department will also complete the metrication programme in economic activities where the metric system has not been applied in the past, for example: the construction and engineering industries.

## **Business Premises**

7.187. Availability of adequate business premises is essential for the expansion of the commercial sector. In the past few years the demand for these premises has exceeded supply. This has been a contributing factor to the rise in rent of these premises. The problems of inadequate supply of business premises and high rents will receive the attention of the Government during this plan period. To cater for the expansion of the commercial sector the Government will encourage financial institutions to extend to developers long-term loans for construction of business premises.

7.188. The Business Premises Rent Tribunal was established in 1965 by an Act of Parliament so as to protect the tenants in the business premises from eviction or exploitation by their landlords. This was necessary if the Government's policy of Kenyanizing the commercial sector of the economy was to be achieved.

7.189. During the plan period the Tribunal will be decentralized and re-organized so as to give better and faster services to *wananchi*. More responsibilities will be given to the Provincial and District Trade Offices in receiving and processing complaints. There will be more frequent sitting of Provincial and District Tribunals. For this to be realized, the following facilities will be required:—

- i. Additional offices will be opened up at District level especially in areas where commercial activities are thriving. Districts such as Kiambu, Nakuru and Eldoret will require more than one office.
- ii. Additional officers (Rent Inspectors) conversant with the Tribunal's activities and the legal implications of the Act will be recruited.
- iii. A full-time chairman will be recruited for each branch of the Tribunal.

7.190. There will also be a need for the Tribunals Act (Cap. 301) to be amended to provide for the following—

- i. to give additional and specified powers to the Tribunal to award damages for loss incurred if a tenant is locked out by his landlord illegally—at the moment the Tribunal has only powers to reinstate such tenants but without awarding any compensation;
- ii. to give specific powers to the Tribunal Inspectors to prosecute in cases where the parties fail to undertake various activities such as maintaining rent books;
- iii. to give specific powers to the Tribunal to fully protect the "protected tenants" from being levied distress charges under Cap. 293 without the knowledge and authority of the Tribunal;
- iv. to allow the Tribunal to prescribe fees for its services.

## **Market Information**

7.191. Lack of reliable information on the prices of different commodities, their quality and available quantities is, to a great extent, the cause of the considerable differences in prices of the same items in different areas. To overcome this problem a monthly market information bulletin compiled by the Central Bureau of Statistics has been introduced. This bulletin provides data on wholesale and retail prices of a number of essential food commodities. During the plan period it is proposed to expand the scope of the data coverage to include the prevailing prices in different markets, the quantities handled, trends in production and consumption, varieties and grades of produce offered for sale, the principal places of origin and destination, and price trends of competing crops. An endeavour will be made to disseminate as widely as possible this information to producers, businessmen and consumers.

## **Institutional Framework and Government Development Programmes**

7.192. Although direct Government participation in the internal trade sector is limited, marketing boards and governmental institutions have a sizeable impact on the functioning and development of the sector. The overall administration of internal trade is the responsibility of the Department of Trade of the Ministry of Commerce and Industry. This Department will be revitalized to ensure the effectiveness of activities relating to market research, planning, programme preparation, small business management and trade policy implementation. Furthermore measures will be taken to improve the effectiveness of the representatives of the Ministry at Provincial and District levels.

7.193. As shown in Table 7.10 an allocation of K£7.5 million has been set aside by the Ministry of Commerce and Industry for the development of the commerce sector. The development expenditure of the Ministry for the manufacturing sector is shown in Table 7.5 above and has already been discussed in paragraphs 7.66 to 7.83. Over 30 per cent of these funds are allocated to trade development loans mainly to the small traders all over the country. There are seven main programmes for which development expenditure will be outlaid. Elaborations on the allocations shown in Table 7.10 are given in sections below dealing with the relevant programmes.

7.194. The total recurrent expenditure of the Ministry of Commerce and Industry during the plan period will be K£12.5 million. A breakdown by expenditure head of these allocations is provided in Table 7.9. The recurrent expenditure of the Ministry will increase from K£2.09 million in 1978/79 to K£2.87 million in 1982/83, an increase of 6.5 per cent per year. As the manufacturing and commerce sectors together account for 23.7 per cent of the total national GDP and are projected to have annual growth rates of 9 and 5.5 per cent respectively during this plan period the growth rate in the recurrent expenditure is conservative.

RECURRENT EXPENDITURE FOR THE MINISTRY OF COMMERCE AND INDUSTRY  
1978/79—1982/83

Table 7.9

K£'000

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Headquarters Administration Services .. .. .	421	485	515	530	560	2,511
Planning and Feasibility Studies .. .. .	20	29	31	34	37	151
Rent Control Tribunal .. .. .	65	65	70	76	82	358
Domestic Commercial Services Headquarters and Provincial Trade Sections .. .. .	323	345	384	404	439	1,895
Management Training and Advisory Centre .. .. .	104	112	112	133	140	601
Import Control Section .. .. .	41	48	50	55	57	251
Kenya External Trade Authority .. .. .	238	255	270	288	311	1,362
Commercial Attaché's Section .. .. .	278	292	306	322	338	1,536
Inspectorate of Weights and Measures .. .. .	291	280	301	321	345	1,538
Headquarters Industrial Section .. .. .	49	68	73	80	88	358
Kenya Industrial Training Institute .. .. .	127	132	140	160	170	729
Industrial Survey and Promotion Centre .. .. .	61	72	79	85	94	391
Kenya Industrial Research and Development Institute .. .. .	192	182	200	220	238	1,032
<b>TOTAL</b> .. .. .	<b>2,210</b>	<b>2,365</b>	<b>2,531</b>	<b>2,708</b>	<b>2,899</b>	<b>12,713</b>

DEVELOPMENT EXPENDITURE, 1978/79—1982/83 FOR THE COMMERCE SECTOR BY THE  
MINISTRY OF COMMERCE AND INDUSTRY

Table 7.10

K£'000

Heads	1978/79	1979/80	1980/81	1981/82	1982/83	Total
ICDC Traders Revolving Fund .. .. .	300	600	600	600	600	2,700
ICDC Property Loan .. .. .	250	250	250	250	250	1,250
Management Training and Advisory Centre .. .. .	57	50	50	50	50	257
Traders Development Loans, District Joint Loans .. .. .	300	450	525	550	550	2,375
Kenya External Trade Authority .. .. .	—	30	55	55	55	195
Weight and Measures .. .. .	—	95	180	100	165	540
Pre-investment Commercial Feasibility Studies .. .. .	35	25	30	30	30	150
<b>TOTAL</b> .. .. .	<b>942</b>	<b>1,500</b>	<b>1,690</b>	<b>1,635</b>	<b>1,700</b>	<b>7,467</b>

## **Industrial and Commercial Development Corporation**

7.195. As stated earlier the Industrial and Commercial Development Corporation is one of the major Government institutions which promotes the development of commercial and industrial activities in the country. The activities of the Corporation in the commerce sector have been concerned mainly with the administration of loans to businessmen who have limited access to commercial bank credit. During the plan period the ICDC will embark on a major scheme to assist the existing small-scale businesses to enter wholesale trade in both urban and rural trading centres. It is therefore proposed that the present ceiling of individual loans to traders be raised from K£17,500 to K£25,000. At the same time the Corporation will undertake a scheme to encourage local participation in large scale and sophisticated commercial operations.

7.196. An allocation of an additional K£2.7 million has been made in the development estimates of the Ministry of Commerce and Industry for the ICDC revolving fund for traders loans. Internally generated funds of the Corporation will be available for lending to traders. As small-scale businesses in urban as well as rural areas become more experienced in making sound financial propositions to commercial banks, and as the latter acquire more experience in financing small businessmen, the role of ICDC in providing credit to small businesses will diminish.

7.197. In the past ICDC has played an important role in providing Kenyan businessmen with loans to enable them to acquire commercial properties. In the period 1974/75-1977/78 this programme was temporarily suspended. However, the severe shortage of business premises experienced in urban centres has led to the reactivation of this programme. For this plan period K£1.3 million has been allocated to finance the development of business premises mainly in small urban centres with populations below 30,000 where there is a great demand for such premises.

## **District Joint Loan Boards**

7.198. This scheme which was established in the 1960's was intended to give financial assistance to small traders in rural areas and other businessmen. By 1976, over 18,000 small traders had received loans from this source. For this plan period, an allocation of K£2.4 million has been made for this programme. As is the case with the ICDC Traders Revolving Fund, it is proposed to encourage small businessmen, who in the past have been covered by this programme, to avail themselves of commercial bank facilities. Criteria for obtaining these loans will be as follows:—

- i. The applicant must be established in an industry, trade or business. Persons having technical knowledge or holding certificates from recognized colleges or schools will be given preference.
- ii. Applicants will have to satisfy the local authority that basic books of accounts are maintained.

- iii. An undertaking will be required from the applicant that he will devote full time to the business in question and that the loan, if granted, will be used for the purpose for which it is issued.

### **Marketing Boards**

7.199. A considerable part of Kenya's marketed produce is directly or indirectly handled by a number of parastatal organizations which have varying degrees of statutory authority in respect to their development as well as production, processing and trading of these commodities. The performance of some of these parastatal marketing organizations has not always been commendable. Regrettably, some of them have had to be subsidized by the Government. During the plan period, evaluation of their structure and performance will be undertaken with the objective of restructuring them into more viable and efficient organizations. Furthermore, a review of the existing legislation governing the marketing of commodities will be carried out. At the same time the desirability of price controls at producer, wholesaler and retail levels, and control of the movement of produce between different parts of the country will be reviewed (*see* also Chapters 2, 6, and 10).

### **Kenya National Trading Corporation**

7.200. The Kenya National Trading Corporation, established in 1965, is a subsidiary of the Industrial and Commercial Development Corporation. Its main objective is to assist in the transfer of commerce from non-Kenyans to citizens and to engage in state trading activities. Other functions include commercial activities such as warehousing, wholesaling, importation and distribution of locally manufactured goods.

7.201. The Corporation operates through a network of traders and distributors who have been appointed by the Corporation. The Corporation statutorily controls the distribution of 40 commodities but over the years, it has reduced the number of items which it handles directly. This facilitates regular supplies and reduces the margin between the producers and consumers. Goods that are produced in adequate quantities in the country are now purchased directly from the manufacturer by any licensed wholesalers who in turn distribute them to retailers.

7.202. Essential goods are distributed exclusively by wholesalers appointed by the Corporation. These wholesalers enjoy a virtual monopoly in their respective areas of operation. The Government will re-examine such practices with a view to encouraging competition and to making the distribution system more efficient.

7.203. The reduction in the number of items handled by the Corporation in domestic trade will release its manpower and resources to undertake other tasks in developing the commerce sector. The Corporation will continue to play a vital role in the domestic distribution of essential commodities through its network of 27 depots. In addition to the already existing 27 depots, the

Corporation will open new depots in Bungoma, Siaya, Garissa, Narok and Kibwezi. Moreover, it will extend its existing facilities in Nairobi, Nakuru, Kisumu and Mombasa. The capital expenditure for these facilities will be some K£250,000.

7.204. During the plan period the Corporation will place greater emphasis on exporting agricultural and manufactured goods. The Corporation will be reorganized and strengthened so that it acquires the capacity to operate as an authentic state trading corporation.

7.205. The Corporation, through its subsidiary company Uchumi Supermarket, has opened four supermarkets in Nairobi. During the plan period, consideration will be given to opening more supermarkets in other major towns.

### **Non-durable Farm Produce Marketing**

7.206. Marketing of food and other non-durable farm produce both in the rural and urban areas is an important activity for three reasons. First, these products account for a substantial proportion of the total commercial transactions in the economy. Second, the items are important sources of income to farmers. Third, many of the items are important in the diets of the people. For these reasons, Government accords priority to the efficient marketing of these products. In the rural areas the products in question are largely marketed in open-air markets. In urban centres authorities have endeavoured to establish permanent buildings for wholesale and retail marketing activities. It is planned to improve the physical facilities of open-air markets by providing cover against sun, rain and wind, and developing facilities for marketing produce under hygienic conditions. Local authorities will have access to funds which will enable them to finance these proposed programmes.

7.207. In the past, one of the problems that was faced in developing rural market areas was the establishment of markets which were not fully utilized and the construction of buildings which remained idle. To prevent the recurrence of this problem, feasibility studies will be carried out for both the establishment of new markets and the construction of new buildings. It is planned that 35 new rural markets be established during the plan period.

7.208. The Government will also assist the local authorities to improve and extend the physical facilities available in the various urban markets. During the plan period, it is proposed to construct a new greatly expanded wholesale market in Nairobi for which an allocation of K£1.7 million has been made, and also it is proposed to undertake a study to establish the type and extent of physical facilities needed to replace the overcrowded Mombasa Wholesale Market. Adequate budgetary provisions have been made for the study and the construction of the market.

7.209. Informal traders operating mainly in market stalls, kiosks, and as hawkers provide an important service in the rural as well as urban areas. Because of their low capital outlays, they are able to sell their products cheaper than the formal sector enterprises. The Government will remove all unnecessary impediments to the activities of these traders.

### **Management Training**

7.210. The Government recognizes the importance of promoting proper use of modern business methods and systems in the fast growing commercial sector. It has therefore established a number of agencies to cater for management training of businessmen. These include the Management Training and Advisory Centre and other institutions which provide extension services to small businesses such as, Provincial and District Trade Officers, the Industrial Commercial Development Corporation, and the Kenya Industrial Estates. There are also voluntary agencies such as Partnership for Productivity and the Young Men's Christian Association which assist in providing training to businessmen. It is desirable that the training efforts of these agencies be co-ordinated and the Management Training and Advisory Centre will be assigned this co-ordinating role.

7.211. The Centre will expand its programme of training Kenyan entrepreneurs, with particular emphasis in the following areas—

- i. management training for small businessmen and industries with emphasis on better use of modern management methods and systems;
- ii. training of the staff of advisory services and extension services;
- iii. the staging of specially designed courses and seminars in small business management, marketing and supervision at district levels.

It has been allocated K£257,000 in the development expenditure vote and K£596,000 in recurrent expenditure. During the plan period, it will establish 10 small business training units in Mombasa, Nakuru, Kisumu, Kakamega, Nyeri, Kitale, Garissa, Machakos and Embu.

### **Government Management of the Distribution Sector**

7.212. As stated earlier the basic principles for the development of the commercial sector are to let the free market system determine the prices of goods and to refrain from imposing restrictions on the movement of these goods to different parts of the country. Departure from these principles in special circumstances requires that the criteria for doing so are spelt out clearly. The expected impact of Government intervention on the functioning of the sector must be assessed and evaluated against the efficiency of the sector under a free market system.

7.213. The Government's interest in the functioning of the marketing process is particularly relevant in Kenya where there is a vast smallholder sector and growing numbers of low-income urban dwellers. These disadvantaged groups require suitable channels and institutions to increase their



market bargaining power, both as sellers and purchasers of basic foods and other essential commodities. The main role of public marketing institutions is, therefore, to provide supporting market services particularly to those types of organizations, such as co-operatives, that serve large numbers of low-income consumers and thus have an important socio-economic impact.

7.214. During the plan period, criteria and priorities for Government intervention in the pricing and marketing of essential commodities for the low-income groups will be established. These essential items would include maize-meal, milk, meat, beans, fats and oils. Not only are those products of major importance in the national diet, but they are also those in which the farmer's share of the final consumer price is rather high.

### FOREIGN TRADE

7.215. The expansion of foreign trade is of prime importance to the development of the Kenya economy as a whole. On the one hand, the economy is heavily dependent on imported intermediate and capital goods and oil which account for over 80 per cent of our import bill. On the other hand, exports largely comprising of agricultural commodities constitute approximately a third of the output of goods and services of the economy. We will have to continue to expand our exports in order to pay for the growing import needs. The process of developing the economy will necessitate increasing imports of raw materials, industrial component parts and capital goods. Failure to expand exports at a relatively fast rate would lead to serious balance of payments problems.

7.216. The main objectives for the development of the foreign trade sector are as follows—

- i. long-term balance between export earnings and required outlays on imports so as to eliminate dependence on foreign aid and borrowing from abroad;
- ii. expansion of both export and import trade;
- iii. diversification of exports;
- iv. diversification of our markets abroad;
- v. attainment of high quality in our export products.

### Strategy

7.217. Elements of the strategy to be pursued to achieve the outlined objectives include the following. First the objective of balanced trade can be achieved either by increasing exports or producing imports, or a combination of both. With regard to the strategy of reducing imports, it has already been stated that we are fast approaching the limit of the import substitution type of industrial development, as consumer goods account for a mere 15 per cent of our import bill. The reduction of imports would therefore not hold much scope for dealing with the problem. Consequently, the main thrust

of our strategy will be towards the development of export-oriented activities both in the industrial and agricultural fields. Second, particular stress will be laid on the development of new industrial exports and the non-traditional agricultural exports such as cut flowers and fresh fruit and vegetables. Third, Government assistance will be given to exporters trying to establish themselves in new or relatively undeveloped markets. This applies not only to areas such as countries in Africa and the Middle East but also industrialized economies such as those of the United States, Japan and Eastern Europe where so far, relatively little headway has been made. Fourth, the required institutional framework will be established in order to achieve and maintain a high level of export quality including packaging and design.

7.218. The Government will actively support international efforts to improve the conditions of trade such as those proposed by international organizations including the United Nations Conference on Trade and Development. It will also endeavour to improve the scope and application of the Lome Convention between the European Economic Community and the African, Pacific and Caribbean countries. Furthermore, existing bilateral trade agreements will be revised and expanded in the light of changing economic conditions.

#### **Projected Foreign Trade Development**

7.219. The balance of trade is expected to remain in deficit throughout the plan period and this deficit is projected to rise to approximately K£350.0 million by 1983. Exports are expected to achieve a real growth of 5.8 per cent per annum as against a real growth rate of 6.0 per cent for imports.

7.220. Commodity exports, other than coffee and tea, are projected to increase over the plan period to K£111.7 million in 1983. The most dynamic growth is expected to take place in horticultural exports. By contrast sisal exports are expected to decline continuously over the period in terms of both quantity and price.

7.221. During the period of the Plan the average annual rate of growth of industrial exports is projected to be about 17.5 per cent in current prices while the projected real rate of growth is just under 6.5 per cent as shown in Table 7.11. This compares with the projected annual growth rate in current prices of some 11.5 per cent for agricultural and 15.4 per cent for petroleum products. Thus industrial exports as a proportion of total exports will rise to 19.5 per cent in 1983, as compared with 15.5 per cent in 1976. Among the major industrial export products, the largest increases over the plan period are expected to be achieved by canned fruit, cement and pyrethrum extract. In addition, new products which were not exported in 1976 are expected to bring to Kenya about K£7 million annually in terms of foreign exchange earnings.

INDUSTRIAL EXPORTS BY PRINCIPAL PRODUCTS

Table 7.11

(£ million)

Product	CONSTANT (1976) PRICES		Value 1983	CURRENT PRICES	
	Value 1976	Projected Annual Growth Rate (%) (1976-1983)		Projected Annual Growth Rate (%) (1976-1983)	Value 1983
	Cement	8.1	5.0	11.4	13.5
Canned Fruit and Juice	7.4	10.0	14.4	18.5	24.2
Meat Products	5.5	(-4.0)	4.1	1.0	5.8
Pyrethrum Extract	5.7	7.0	9.1	12.0	12.6
Paper and Paper Products	3.3	3.0	4.1	11.5	7.1
Sodium Carbonate	3.0	3.0	3.7	8.0	5.3
Wattle Extract	2.7	1.0	2.9	6.0	4.0
Leather	1.5	5.0	2.1	13.5	3.6
Preserved Vegetables	1.3	5.0	1.8	13.5	3.2
Machinery and Transport Equipment	1.2	3.0	1.5	11.5	2.6
Textile Yarn and Fabric	1.0	3.0	1.2	11.5	2.1
Insecticides	2.1	5.0	3.0	13.5	5.1
Pharmaceutical Products	2.9	5.0	4.1	13.5	7.0
Perfumery and Essential Oils	0.5	5.0	0.7	1.2	1.2
Soaps and Cleansing Materials	2.1	5.0	3.0	13.5	5.1
Handicrafts (including wood carvings)	0.6*	3.0	1.0	16.5	1.7
Iron and Steel	1.5	5.0	2.1	13.5	3.6
Metal Manufactures	4.1	5.0	5.8	13.5	10.0
Printed Matter	1.2	3.0	1.5	11.5	2.6
Glassware	0.9	5.0	1.3	13.5	2.2
Footwear	0.5	3.0	0.6	11.5	1.1
New Productst	—	—	4.0	—	7.1
Other Products	9.1	—	—	—	—
<b>TOTAL INDUSTRIAL EXPORTS</b>	<b>66.2</b>	<b>6.5†</b>	<b>—</b>	<b>17.5</b>	<b>—</b>

Estimated Total for 1976.

Plywood, leather products, clothing, canned mushrooms and chemicals.

The overall growth rate is based upon macro-economic projections (see Chapter 3).

7.222. Imports are projected to rise over the plan period to approximately K£1,136 million in 1983 as can be seen in Table 7.12. Apart from crude petroleum which will continue to account for about a quarter of the import bill, a large part of imports over the plan period will be accounted for by capital goods, industrial raw materials and component parts and transport equipment.

### Promotion of Exports

7.223. *Export Policy.* The aim is to build up a firmly based and diversified export trade both of agricultural produce and manufactured products, as far as possible based on local resources. Some of the measures to be implemented to achieve this are outlined below.

7.224. *Export Compensation.* The system of export compensation payments will be reviewed and modified. A variable rate of export compensation will be introduced covering both industry and a selected list of non-traditional agricultural products. In order to reduce administrative problems to a minimum there will initially be only two rates of compensation. Products will be allocated to a higher or lower category of compensation according to the level of local content. Export products which contain less than 30 per cent local content will be excluded from the Export Compensation Scheme. Those products included in the revised scheme will no longer be eligible for customs duty refund as this will already be covered in the higher rates of compensation. Products excluded from the scheme will be eligible for the duty drawback concession.

7.225. *Export Tax on Locally Produced Raw Materials.* In order to encourage the development of export-oriented industries based on locally produced raw materials, a special export tax will be imposed where considered necessary on certain types of exports which constitute raw materials for industry.

7.226. *Export Credit Guarantee Scheme.* A scheme will be introduced to guarantee commercial bank loans to cover pre- and post-shipment finance to exporters. This scheme will enable new and small exporters to obtain the necessary financing for manufacture and supply of firm export orders. At a later stage the guarantee institution will increase the scope of its activities to cover insurance against overseas payment risks.

7.227. The role of the Kenya National Trading Corporation will be expanded to include a number of functions in the export field. These will include the following activities—

- i. promoting of trade with Eastern European countries and other countries where trade is subject to bilateral trade arrangements;
- ii. pioneering trade with new markets and high risk markets where the private sector is reluctant to venture.

IMPORTS BY MAIN ITEM

(K£ million)

Table 7.12

Item	CONSTANT (1976) PRICES		Value 1983	CURRENT PRICES	
	Value 1976	Projected Annual Growth Rates (%) (1976-1983)		Projected Annual Growth Rates (%) (1976-1983)	Value 1983
Petroleum and Related Products	104.1	7.5	172.7	17.4	320.0
Industrial Machinery .. ..	67.9	7.5	112.7	17.3	207.8
Iron and Steel .. ..	27.5	6.0	41.3	15.8	76.8
Motor Vehicles and Chassis ..	23.6	3.0	29.0	12.7	54.6
Paper and Paper Products .. ..	7.6	3.0	9.3	12.7	17.6
Agricultural Machinery .. ..	7.1	5.0	10.0	14.7	18.6
Pharmaceutical Products .. ..	6.7	5.0	9.4	14.8	17.6
Fertilizers .. ..	5.2	3.0	6.4	12.7	12.0
Chemical Elements and Compounds	9.9	6.0	14.9	15.8	27.6
Textile Yarn and Fabrics .. ..	8.6	1.0	9.2	8.2	14.9
Telecommunications Equipment ..	5.7	2.0	6.6	11.7	12.4
Textile Fibres .. ..	7.1	3.0	8.7	12.7	16.4
Plastic Materials .. ..	7.2	5.0	10.1	14.8	18.9
Clothing .. ..	6.4	3.0	7.9	12.7	14.8
Scientific Instruments .. ..	3.4	5.0	4.8	14.9	9.0
Food and Beverages .. ..	26.3	2.0	30.2	8.1	45.4
All Other Products .. ..	83.6	6.5	129.9	17.0	250.7
<b>TOTAL</b> .. ..	<b>407.9</b>	<b>6.0</b>	<b>613.0</b>	<b>15.7</b>	<b>1,134.7</b>

## **Kenya External Trade Authority**

7.228. The building up and maintenance of a strong and expanding export sector, requires the development of an efficient institutional infrastructure. In order to compete successfully on the international market Kenyan exporters will have to meet high standards of quality both in regard to the product itself and for packaging and design. Exporters will need to exhibit their goods in international exhibitions, and will also need to comply with rigorously determined norms and standards. Furthermore they will have to grapple with a host of other problems in the areas of transportation, finance and insurance. Kenya exporters need help and advice in each of these highly specialized fields and institutions to extend this assistance are being developed.

7.229. The Kenya External Trade Authority is the central organization with overall responsibility for co-ordinating activities for the furtherance of Kenya's export trade. The aim of the Authority is to provide active assistance in increasing and developing Kenyan exports. To carry out its tasks, the Authority is to aid actively in the marketing of new products and services and the opening up of new markets as well as facilitating existing export trade and helping to expand it. The main operational divisions of KETA are: marketing, trade fairs and exhibitions, technical (product development), information and publicity, external trade policy, trade facilitation, export training, freight, informal (handicrafts) sectors, certification of origin. To these it will add two new units whose functions will be to advise exporters on packaging methods and in design of products destined for export markets. The Authority will be strengthened and provided with a capacity to deal with all these and other related activities.

## **TOURISM AND WILDLIFE**

7.230. The main objective of tourism and wildlife development is to maximize net returns, subject to important social, cultural and environmental constraints. Thus while every effort will be made to increase the tourism and wildlife sector's contribution to foreign exchange earnings, incomes, government revenues and employment, careful planning of development must ensure that adverse effects accompanying growth in tourism are kept to a minimum.

7.231. A key priority in formulating the development plans for this sector is to achieve an orderly and manageable growth of tourism. This requires the striking of a number of balances: between the demand for tourism and the supply of facilities, dispersing tourism flows to utilize facilities in different parts of the country; and between that investment made in direct tourist facilities and that made in the infrastructure necessary to support these direct facilities.

7.232. The objectives of this sector will be pursued against the background of two main types of constraints. The first relates to availability of funds for sector development. It will be imperative to ensure the most efficient use of

development funds in generating net returns to investments. The second constraint relates to the tourism resources themselves: beach, rangeland, water, wildlife, etc. These are highly vulnerable to over-exploitation, and therefore careful planning must ensure their long term survival as the basis for a viable tourism industry in the future. Moreover, some of these resources have high alternative productive potential with significant opportunity costs. Given the high priority afforded to an optimum land-use strategy in national planning, it will thus be vital to ensure that the returns from the tourism use of these resources exceeds those from alternate uses in order to justify their continued commitment to wildlife-based tourism.

7.233. Greater emphasis than hitherto will be placed on a more effective integration of wildlife development and management policies with the objectives of tourism development. Wildlife-based tourism is an important component of the sector's activities and yields significant and increasing economic returns. Thus any policy regarding wildlife utilization will be assessed, to a significant extent, in terms of the expected contribution to the future well-being of tourism development. Moreover, given the limited and vulnerable nature of the wildlife resource, there is need to balance the development and conservation objectives in the plans for wildlife development.

#### **Development of Tourism in the Past Decade**

7.234. The impressive growth of world tourism in the last decade was seriously interrupted in 1974 as a result of a combination of factors, principally economic stagnation in the main tourist generating countries and world-wide inflation. In 1974, there was a decline by some 3 per cent in international arrivals, the first such in 20 years. This adversely affected most destination areas, and East Africa as a whole experienced a sharp decline of arrivals in 1974 and 1975. Despite inflation and economic stagnation, tourism in Kenya held up remarkably well. Table 7.13 summarizes trends in the main tourism development indicators over the period 1968-76. The following observations highlight the salient features of this period and identifies the more detailed aspects of the overall growth of tourism.

#### **Volume of Tourism**

7.235. Total visitor departures grew at an average rate of 7 per cent between 1968 and 1975. Growth was uneven with a rapid increase in numbers up to 1972 followed by a significant decline in the subsequent three years with some recovery in 1976. Holiday tourism dominated in this period with an average growth rate of 11 per cent per year, and increased its share of the total market, from 58 per cent to 80 per cent during the period. Visitors from European countries, with the exception of the United Kingdom, increased appreciably, while those from North America fell by almost 32 per cent.

7.236. The total stay of visitors as measured by the number of days spent in Kenya, increased from 2.4 million nights in 1968 to 5.3 million by 1976, a rate of growth of 10.5 per cent per year. The share of stay of visitors in hotel

accommodation grew from 62 per cent in 1968 to 68 per cent in 1976. The faster rate of growth in total days spent in Kenya compared with total visitor numbers is explained by the increase in the average length of stay of visitors, from 9.5 days in 1968 to 12.5 days in 1976.

### The Accommodation Sector

7.237. Bednights attributed to foreign visitors grew at an impressive rate of 10 per cent per year, while the growth rate for East African residents was only 4.5 per cent per year. The increasing predominance of foreign demand

#### TOURISM DEVELOPMENT, 1968—1976

Table 7.13

Tourism Indicator	1968	1976	Average Annual Percentage Rate of Growth
1. Visitor Departures (000's) .. .. .	252.5	424.0	6.7
2. Total Stay (million nights) .. .. .	2.4	5.3	10.4
3. Bednights occupied (millions) .. .. .	1.5	3.6	11.6
4. Bednights available (millions) .. .. .	2.8	7.0	12.1
5. Total Tourist Expenditure (K.£m) .. .. .	17.3	42.0	11.7

for beds is highlighted by the fact that foreign bednights as a share of the total, grew from 49 per cent in 1968 to 70 per cent in 1976. Bednights spent at beach hotels had the fastest growth, 18 per cent a year, as compared with 13 per cent for Nairobi, and 10 per cent for the country as a whole. By 1976, the Coast had overtaken Nairobi in its share of total demand, with a share of 44 per cent compared with 41 per cent for Nairobi.

7.238. On the supply side, total bednights available grew by 10 per cent a year during the period 1968-76 with the Coast and Nairobi experiencing growth rates above this average. The area share of capacity however, changed very little over the period, with Nairobi increasing its share from 38 per cent to 42 per cent and the Coast from 35 per cent to 39 per cent. Average occupancy for all hotels increased from 52 per cent in 1968 to 53 per cent in 1976, the latter ratio however showing an improvement over the three years previous to 1976. Beach hotels recorded sizeable increases in occupancy rates in recent years and by 1976, the ratio had risen to 62 per cent. Nairobi, on the other hand, showed a marked decline, with the 1976 occupancy rate of 50 per cent, well below that of 1968, 65 per cent.

### Seasonality

7.239. Although not subject to the severe seasonal fluctuations of some countries Kenya tourism has a fairly pronounced seasonal pattern. Overall, seasonality has tended to even out slightly in recent years in response to efforts



to attract visitors in off peak periods. The interesting characteristic is the influence of residents' bednights as a factor in counter-balancing continuing non-resident seasonality, especially as regards the beach hotels. Hence use by residents has greater significance for the profitability of accommodation than their share of total bednights would suggest.

### **Tourism Expenditure**

7.240. Estimated expenditure rose considerably between 1968 and 1976, from K£17.3 million to K£42.0 million, an average annual growth of 11 per cent. In real terms, when allowance is made for the rise in prices and costs, expenditure by tourists increased by around 8 per cent per year. The contribution of tourism to foreign exchange earnings on current account was around 8 per cent in 1976. The role of tourism in the Kenya balance of payments is summarized in the travel account, travel credits minus travel debits, as indicated on Table 3.11 in Chapter 3. Over the 1968-76 period, the travel account was in a strong and increasing net credit position and contributed significantly in reducing the persistent deficit of the overall current account.

### **Sector Targets for the Plan Period**

7.241. The growth of the tourism and wildlife sector during the plan period to 1983 is expected to proceed at a slower rate than that recorded in the past decade. Table 7.14 summarizes the future trends in the main tourism growth indicators. The main characteristics of sector growth on the demand side are summarized as follows:—

- i. Total numbers of departures are expected to increase from 414,000 in 1979 to 508,000 in 1983, representing an average annual growth of 4.3 per cent.
- ii. Holiday tourists, the predominant segment of the market, are expected to grow from 329,000 to 408,000, a 4.5 per cent average annual rate of growth. Business visitors numbers are likely to rise by 4 per cent and transit visitors to increase by 3.0 per cent per year.
- iii. Total stay of visitors is projected to rise from 5.8 million days in 1979 to 7.9 million in 1983, a 6.5 per cent average annual rate of growth.
- iv. Total bednights spent in registered accommodation are expected to show an impressive increase during the period, from 4.1 million in 1979 to 6.3 million in 1983, 9.0 per cent growth rate per year. Of this total, bednights taken up by foreign tourists are expected to grow from 3.4 million to 5.5 million, a 10 per cent annual growth rate. Bednights attributable to residents are expected to accelerate after 1980.

7.242. As regards supply of accommodation to meet the expected demand, total bednights available are planned to reach 10.7 million by 1983 compared with 7.8 million in 1979. In physical terms this represents an increase in number of beds from 21,450 in 1979 to 29,250 in 1983, a rise of almost 8,000 beds.

TARGETS FOR TOURISM DEVELOPMENT PLAN PERIOD, 1979—1983

Table 7.14

	1976	1979	1980	1981	1982	1983	Average Percentage Growth p.a. 1979-83
1. Total Departures (000's)	424	414	420	444	485	508	5.3
2. Departures by Purpose (000's)—							
Holiday	337	329	333	349	386	408	5.5
Business	49	40	42	45	47	48	4.7
Transit	38	45	45	50	52	52	3.8
3. Total Stay (Million Days)	5.3	5.8	5.8	6.5	7.3	7.9	8.0
4. Total Bednights Occupied—							
(Millions)	3.6	4.1	4.6	5.3	5.9	6.3	11.4
Foreigners	2.5	3.4	3.9	4.5	5.1	5.5	12.8
Residents	1.1	0.7	0.7	0.8	0.8	0.8	3.3
5. Total Bednights Available (Millions)	7.0	7.8	9.0	9.3	10.0	10.7	8.2
6. Available Beds	19,170	21,450	24,570	25,360	27,170	29,250	8.0
7. Tourist Expenditures (K£m)—							
Current Prices	42.0	66.8	79.1	92.4	112.8	124.9	16.9
Constant 1976 Prices	42.0	46.2	46.2	51.3	57.8	62.5	7.8

7.243. The likely phasing of new bed capacity is given in Table 7.15 showing planned additions in the main tourist areas over the plan period.

PLANNED GROWTH IN BEDS AVAILABLE

Table 7.15

Year				Nairobi	Beach	Lodges	Other	Total
1979	..	..	..	8,000	7,600	1,650	4,200	21,450
1980	..	..	..	8,600	9,500	2,270	4,200	24,570
1981	..	..	..	8,600	10,000	2,560	4,200	25,360
1982	..	..	..	8,600	11,200	2,870	4,500	27,170
1983	..	..	..	9,000	12,500	3,070	4,680	29,250

7.244. The estimates for the tourism sector indicate the following expectations:—

- (a) Accommodation occupancy rates are expected to increase from 52 per cent in 1979 to 59 per cent in 1983.
- (b) The share of total nights spent in registered accommodation is expected to increase from 70 per cent in 1979 to 80 per cent in 1983.
- (c) The average length of stay of all visitors is expected to reach 15.5 days by 1983 compared with 14.0 in 1979. Average length of stay of foreign visitors should rise from 9.5 days in 1979 to 12.5 in 1983.
- (d) The share of bednights taken up by "foreign" residents is expected to increase from 83 per cent in 1979 to 87 per cent in 1983. This trend has important implications for revenues earned from tourism.

7.245. The value of this tourism growth, as measured by total tourist expenditures, will grow from K£67 million in 1979 to K£125 million in 1983, on a current price basis. In real terms, that is, after allowing for price and cost inflation, the expenditures at constant 1976 prices will reach a value of some K£62.5 million by 1983.

### Development Strategy

7.246. Given the various constraints to sector development, the development strategy will be to concentrate on those programmes and projects which strengthen the capacity of the sector to meet the most urgent demands while at the same time ensuring maximum effectiveness in resource usage.

7.247. Within this strategy, two programmes are regarded as vital to the viability of tourism development in the plan period: the Wildlife and Tourism Project, concerned with increasing the capacity of the primary tourism circuits; and the planned development of coast tourism resources. Other efforts will be directed to augment these programmes so that maximum returns to investments in the sector are realized. Hence operational plans in the major activities of promotion and marketing, pricing and investment will be formulated and implemented to ensure maximum support for these two key programmes.

## **Main Developments**

7.248. *Wildlife and Tourism Project.* A major development programme in the tourism field is the Wildlife and Tourism Project. The main objective of this project is to provide support to the Government in implementing its policies for wildlife based tourism. The project comprises a sizeable investment in various components to improve and expand the capacity of three key game areas in Kenya: Masai Mara, Amboseli and Samburu/Buffalo Springs. In addition to investments in direct tourist facilities and services, there are investments in support activities concerned with the sector's training, education, anti-poaching and planning capacities.

7.249. An important feature of the project is the provision of benefits to local people. This is done in two ways: firstly, the provision of improved facilities and services such as housing and water for staff working in the parks and secondly, the location of community service centres outside the parks so that local people have access to the services provided.

7.250. The main economic benefits expected from the project consists of receipts to Kenya from wildlife viewing and returns from other wildlife activities in the dispersal areas of the three parks. Furthermore, the project has been designed to achieve an equitable distribution of wildlife benefits to a number of different groups: the Government, through park fees and taxes on tourist expenditures; local county councils, through a share of the parks' revenue surpluses; group ranchers within the dispersal areas; and private sector investors.

7.251. The main macro-economic benefits to the country include the contribution to the balance of payments and employment opportunities. Between 1978 and 1983, it is estimated the net foreign exchange earnings of the project will amount to almost K£10 million cumulative over the six years and at 1976 prices.

7.252. As regards the employment opportunities, it is estimated that additional employment would amount to 1,700 jobs by 1980 and 2,700 by 1983, about half of which would occur in sectors other than tourism and wildlife. In the longer term, the direct experience gained from implementing the project in the management training and planning fields will provide essential know-how which will be applied in developing the wildlife resource in the rest of Kenya.

## **Coast Tourism Development**

7.253. Two significant concerns currently predominate in the formulation of the planned development of coast tourism resources. The first relates to the need to provide additional accommodation to meet the expected increased demand in the near future. The second is concerned with avoiding the dis-benefits which accompany tourism development of hotels and other facilities, sub-optimum employment of local resources, environmental hazards, and so on.

7.254. Future development strategy will seek a more equitable balance in the distribution of hotels between the north and south coast, and a diversification of tourist activities which will enhance the market image of coast holidays. Such a development strategy will require careful planning on the part of Government while at the same time encouraging the mobilization of private initiative and investment. Three types of initiative to achieve the development requirements will be undertaken during the plan period.

7.255. The first will be concerned with the extensions and modernization of existing hotels to meet the most urgent demand, a task largely for the Kenya Tourist Development Corporation (KTDC). The second thrust will be to encourage private investments which are commercially viable and relatively inexpensive in terms of infrastructure. The third will ensure that the design and location of facilities for tourists will take account of the social, cultural and environmental priorities of the area. At the same time, an adequate provision of basic services and infrastructure will be available to support the tourism growth and to bring benefits to the local population and local economic activities.

7.256. The success of the foregoing plans for coast tourism development will depend upon establishing an effective planning capacity with responsibility for all major aspects of the tourism development needs of the Coast.

7.257. For this purpose a specific planning unit will be set up within the Ministry of Tourism and Wildlife. It will be responsible for the planning of tourism development, ranging from the formulation of area tourism plans to the evaluation of the economic, social and environmental impacts of the proposed developments on the Coast.

### **Accommodation Development**

7.258. The increase in accommodation capacity as indicated in Table 7.15, will involve a fairly substantial investment. Investments in accommodation capacity at the Coast will provide almost 5,000 new beds by 1983, and selective investment as regards game lodges will provide around 1,600 beds.

7.259. The Kenya Tourist Development Corporation will play a significant role in accommodation development strategy. During the plan period the Corporation will invest, through its equity and loans programmes, in at least 3,000 to 3,500 beds. Apart from its investments in tourist locations at the Coast, game lodges and Nairobi, it will initiate a programme of developments in accommodation in other areas to serve the needs of business and commerce. Under this programme, hotels will be built at District Headquarters and other selected centres especially in western areas of Kenya. This will also form a base for tourism development in future years when planning for a western tourism circuit will be more advanced.

7.260. Within the KTDC policy for fostering accommodation development assistance to small hotels will be continued and strengthened. During the plan period KTDC will assist the smaller, less experienced local hoteliers through its loans programmes, especially through loans for hotel modernization and extension to raise the standard of tourist accommodation. The Corporation will continue to enable Kenyans to participate in ownership of assets in the tourist industry, in hotels primarily, but also in tour operations and other related activities. The emphasis will be placed on assisting individuals to form companies to enter the sector rather than supporting one-man enterprises, which have little chance of survival in modern competitive conditions.

7.261. In addition to the KTDC investment in accommodation, the private sector is expected to invest in around 5,000 new beds throughout the whole country. Appropriate measures to improve the level of profitability in these investments will be taken. An effective promotional programme to achieve higher occupancy rates, and other means of improving hotel profitability will be implemented, including selective decontrol of prices of certain tourist services.

7.262. In addition to development of hotel accommodation, the Government will strive to raise the standard of services offered by hotels. In this connection high priority will be given to the classification of hotels. The capacity of the Tourist Licensing Office will be expanded to enable it to carry out these and similar tasks.

7.263. As noted earlier, Government is concerned that the net benefits from tourism be maximized. One means of attaining this objective will be to secure a higher level of accommodation utilization in the future. In 1976 around 10,000 beds were occupied daily, while 9,000 were empty, this occurring largely in the low season but also to some extent in the peak periods. Promotional and marketing efforts will be directed to improving this situation.

7.264. Effective monitoring of and planning for tourism depends, to a significant extent, on accurate recording of number of tourists coming to Kenya. To enable the Government to have a more accurate picture of tourist numbers and related aspects, a central registration system will be set up. Such a system will also provide a basis for keeping better track of the foreign exchange receipts from tourism.

### **Promotion and Marketing**

7.265. To achieve the development targets set for tourism in the plan period, selective and resource efficient promotion and marketing programmes will be required. For each market area appropriate strategies will be applied to increase the number of visitors to Kenya. The operational plan will be based on a three-fold distinction of market areas: the well-established markets of North America and United Kingdom where in recent years performance has been disappointing; the growing markets of Germany, France, Italy,

Holland; and the newer markets of Australia, Japan, the Middle East and Spain. The potential of each of these market areas will be studied thoroughly and programmes formulated and implemented to exploit the travel-to-Kenya potential of each area.

7.266. The potential of the local markets, that is, Kenya residents, both indigenous and expatriate, will be afforded greater emphasis since this market possesses favourable development characteristics. The policy of exploiting this market by off-season incentives will be continued together with other measures designed to realize the local market potential.

7.267. A major priority of planning and programme design in this field will be to ensure maximum efficiency of the resources committed to promotion and marketing efforts. Careful evaluation of the marketing activities in various countries and the efficiency of expenditure in different promotional media will be undertaken to improve returns from resources committed to this activity.

### **Pricing Policy**

7.268. Within the overall objective of optimizing net economic benefits from tourist expenditures, the Government recognizes the key role which prices play in determining such benefits, both to the commercial and public sector. Appropriate pricing determines profitability of investment in tourism facilities and, therefore serves the purpose of attracting adequate investment in the sector to satisfy demand for tourist services. The Government accords importance to the macro-economic impacts of tourism and the extent to which various activity-prices affect them. Thus the consistency between the prices of services and goods supplied and optimization of net economic benefits is crucial.

7.269. During the very early stages of this Plan the Government will formulate a tourism pricing policy in very definitive terms. The Government has commissioned a study to this end and a number of recommendations will be implemented to improve the revenue-earning capacity and competitiveness of the tourism sector. The objectives of this study are to provide a better understanding of present pricing in tourism and the benefits generated by each component tourist service, to private and public interests. This will provide a basis for recommending pricing changes which will improve the benefits arising from tourism and which will ensure that Kenya maximizes gains from investing in sector development.

### **Civil Aviation Policy**

7.270. Tourism development and civil aviation are clearly inter-dependent. As regards tourism, the first precondition for sound promotional and marketing management is a clear and appropriate civil aviation policy. Access to Kenya must be certain and predictable, commercially viable and

satisfactory to airlines. Without these conditions, long-haul tourism to Kenya will be seriously jeopardized and long-term agreements among all relevant parties in the market will be impossible to formulate.

7.271. The main requirements of an effective policy to be considered in the plan period by the Ministry of Tourism and Wildlife, Civil Aviation Authority and Kenya Airways are—

- i. routing and timetable policy of Kenya Airways consistent with the needs of tourism and modern civil aviation policy;
- ii. increase in the share of Kenya Airways in tourist traffic coming to Kenya. Currently Kenya Airways share is only 7 per cent of holiday traffic;
- iii. establishing rational co-operation with foreign airlines which directly or indirectly give Kenya access to the widespread market outlets in generating countries, which is necessary for selling the Kenya tourist product in these countries. Such co-operation will be pursued through adopting an open sky policy so that more carriers are attracted to Kenya, thus expanding the number of interests likely to sell Kenya as a tourism destination.

### **Institutional and Organizational Development**

7.272. The achievement of the development objectives and strategies will depend on a sound institutional and organizational framework. There are a number of institutions, both in the public and private sector, whose activities exert an appreciable influence on the development of tourism. Essentially, the prime aim will be to make these institutions more effective instruments for development through greater exploitation of their potential. Furthermore, these efforts can be strengthened by establishing a closer liaison between public and private sector organizations.

7.273. In the public sector, emphasis will be given to improving the capacity of the Ministry of Tourism and Wildlife. To carry out its activities, the Ministry will be strengthened to meet the growing demand on its services in the future. Its staff will be increased to meet the growth and greater complexity of future planning.

7.274. Effective planning decisions require close and realistic co-operation between the Ministry and its officers in the field. Hence increased efforts will be made to involve the relevant personnel, who have to implement decisions, in the initial planning exercise. This will involve both a better information flow to the field regarding decisions, providing the necessary feedback on practical difficulties of implementation and so on. This will require a careful establishment of clear lines of communication between Headquarters and field personnel and appropriate participatory mechanisms to mobilize local interest and support.



7.275. The key role of promotion and marketing programmes in development of tourism and wildlife has already been emphasized. The main requirement for the future will be to streamline the functional framework within which the promotional and marketing effort takes place. Careful consideration will be given to the strengthening of these activities at both Headquarters level and at the level of field activities in the tourist generating countries. Organizationally, there will be stronger direction and control by the Ministry of the work of the Kenya Tourist Offices abroad on all aspects relevant to the promotion and marketing of Kenya as a tourist destination.

7.276. Successful promotion and marketing will also depend upon the quality of the services comprising the tourist product. It will be necessary to ensure that tourist services, individually and in combination, are of an acceptable international standard.

7.277. Similarly, more effective liaison and co-operation between the Ministry and the leading tour operators in Kenya in designing and marketing tourist packages, will be established. More systematic co-ordination of tourist matters will be achieved through the strengthening of the role of the Tourism Advisory Committee, which will have representation of all the relevant authorities and interests involved in the tourism field.

7.278. As noted earlier, KTDC is a key instrument for tourism development. This organization is now well established particularly in the area of accommodation development. During the plan period, the Corporation will expand its role and move towards greater diversification of its activities to the extent that such activities support its main efforts in the tourism development field. To this end, its major initiatives will still be directed to hotel and lodge development in line with sector priorities. However, among the newer activities under active consideration, one is the possibility of strengthening the capacity of the Corporation to invest surplus funds in activities closely associated with the tourism industry. The second initiative concerns a proposal to establish some form of vertical integration between hotels and the sources of basic hotel requirements such as furniture, furnishings, equipment, electrical goods and others. Evidence from the existing hotels and projected new hotels suggests that a substantial market exists for the setting up of a profitable venture to control the purchase and sale of such goods and services to KTDC hotels and others.

#### **Wildlife Development and Conservation**

7.279. The main development emphasis will be on conservation and utilization in the primary wildlife locations, mostly in the southern part of Kenya. Major attention will be given to tourism-based activities. The primary wildlife areas are characterized by relatively high livestock and substantial

human population densities. Hence while potential for wildlife revenues are high, the opportunity costs of the other non-wildlife activities such as ranching and agriculture are also high. Thus most of the development in wildlife in these areas will be aimed at maximizing returns while at the same time minimizing their costs to other sectors. This will be effected through generating sufficient revenues to offset the losses suffered by land owners through direct payments for such losses, through the provision of game-proof barriers, and through reduction cropping of wildlife.

7.280. In secondary wildlife areas where the conflict between wildlife and other forms of land use is small, selective tourism activities such as safari camps will be encouraged. Also, such areas will be given careful consideration as regards their potential for consumptive utilization of wildlife.

### **Wildlife Viewing**

7.281. Emphasis will be laid on developing two southern, a western, a northern inner and coastal circuit, thereby ensuring both an optimum use of the primary wildlife areas and a more equitable allocation of tourism revenues to these various areas.

7.282. Three types of development will be undertaken:—

- i. Those which serve to establish autonomous tourism circuits within Kenya. This will be achieved by a system of routing to increase the diversity of tourist attractions and to balance visitor traffic between the parks.
- ii. Careful planning of tourist facilities to achieve the objective under (i).
- iii. Development of services and infrastructure within and around the various parks and reserves—viewing circuits, lodges, parks headquarters, community centres—both to serve tourist demand and to increase provision of basic services to local populations.

### **Consumptive Utilization**

7.283. Consumptive utilization of wildlife has been banned by the Government. This decision, however, will be reviewed during the plan period. The introduction of the Hunting Ban in 1977 and the Trophy Ban in 1978 were designed to halt a widespread and rapid depletion of wildlife by both illegal and legal hunting. It is evident that for most species, except elephant and rhino, the bans have had the desired effect in reducing the decline. Many species have since shown signs of recovery and are posing serious threats to agricultural production in certain farming areas.

7.284. Hunting can be an important source of income and gives an incentive for conservation. However, the ready markets for wildlife trophies that existed prior to 1978 gave financial incentives for large-scale illegal hunting

both within and outside the national parks. In the event that hunting is allowed in designated areas, the trophy ban will probably remain in order to reduce the outlets for illegal trophies. Methods of marking legally acquired trophies and of disposing of wildlife products will be mandatory prior to the recommencement of hunting.

7.285. Other considerations that will figure in the question of whether hunting is legalized include the following—

- i. the development of more suitable systems of establishing hunting quotas based on reliable data such as those of the Kenya Rangeland Ecological Monitoring Programme, on existing stock of the various species;
- ii. implementation of methods of controlling offtakes;
- iii. acceptable schemes of revenue-earning for landowners;
- iv. rational designation of the hunting blocks and concessions.

It is likely that consumptive uses will be confined to those areas and circumstances where wildlife conflicts with other activities and has little direct value. This includes areas adjacent to high potential agricultural schemes where game barriers are too costly, or in those dispersal areas where increases in wildlife numbers must be contained or made profitable in the interests of landowners.

### **Conservation**

7.286. Conservation programmes will be undertaken to achieve a number of vital development objectives. One programme will be to secure additional areas for conservation which will serve to bridge existing gaps in the main tourism circuits and hence increase the tourism potential of the areas. Also, in order to prepare for the continued growth in tourism, especially to increase the attraction of the northern areas of Kenya, it will be necessary to identify areas of potential development and to ensure their adequate protection status in advance. This will involve the establishment of a system of new national reserves to achieve the protection objectives as well as to allow for non-depletive uses of these areas, and thereby not alienating the land from other forms of productive use.

### **Distribution of Wildlife Benefits**

7.287. A main objective of wildlife development is to contribute to increasing incomes of the rural people by a policy of allocating wildlife-generated benefits more equitably. In the plan period the following initiatives will be pursued to further this objective.

7.288. As regards the national parks, this objective will be pursued by encouraging location of lodges, camp sites, headquarters, community centres outside parks boundaries. Apart from the beneficial effects this policy is

expected to have for local people, it will also increase visitor capacity of the parks and minimize human impact on the ecosystems. Such developments are already underway at Amboseli, Masai Mara and Samburu, through the Wildlife and Tourism Project.

7.289. The national reserves will continue to benefit the county councils and landowners. Since councils cannot afford the necessary investments to increase the viability of reserves in their areas, the Wildlife Conservation and Management Department will assume day-to-day management of reserves. Management objectives for these areas will be agreed between the councils and the Wildlife Department.

7.290. The dispersal areas adjacent to the parks and reserves are crucial to the future of these wildlife areas. They also present the greatest opportunities for distributing revenues to rural populations. Consequently, mechanisms are currently being established to recompense landowners for the costs of supporting wildlife on their land. Currently, guaranteed minimum returns are being negotiated as a temporary measure until a policy for more direct revenue payment is fully worked out on the basis of the real costs incurred by landowners.

### **Institutional and Organizational Development**

7.291. *Planning:* In the planning field the Wildlife Planning Unit has been established under the Wildlife and Tourism Project to evaluate the options for wildlife development and to formulate plans for each park and management area. A Wildlife and Fisheries Training Institute will also be established at Naivasha to train junior level personnel for wildlife, fisheries and tourism management tasks. A new Anti-Poaching Unit has been set up to strengthen the work of the Wildlife Department in this field, and three more regional units will be established during this plan period. The Wildlife Fund Trustees will be responsible for raising donor finance to aid important wildlife development projects and will also serve as an advisory body in identifying priority areas for research and finance.

### **Research**

7.292. Within the Wildlife Conservation and Management Department, research is planned and co-ordinated by the Research Division with a view to providing base-line data on wildlife resources and their habitats for planning and management purposes. During the plan period, the Kenya Rangeland Ecological Monitoring Unit will improve its sampling methods and precision and continue its rangeland monitoring programmes. In particular its work will provide essential inputs for Government planning for the development of arid and semi-arid lands. Research to enable the Wildlife Planning Unit to

undertake its work and implement policies related to parks and reserves will concentrate on optimum usage aspects and the distribution of wildlife revenues.

### **Education and Training**

7.293. Owing to the diversification of wildlife management activities, the education and training programmes will be strengthened and extended during this plan period. The formal education thrust will continue to be at Utalii College, but this will be supplemented, for certain purposes, by the Wildlife and Fisheries Training Institute with education programmes for middle and high level personnel.

7.294. General education, reaching out to the population at large and developing an awareness of the value of wildlife, will be promoted through a number of purpose-designed facilities. The two operational education centres, at Nairobi National Park and Voi, will be strengthened and a new centre opened at Nakuru in the future. Information centres at individual parks and reserves will be used to provide information to visitors with a view to encouraging better use of these areas. The number of mobile education units will be increased from the three currently in use to an additional three units in the next three or four years.

7.295. In the extension field, the Wildlife Department will build on the experience gained in Kajiado District through the Wildlife Management Project to elaborate and test a further programme of extension to serve as a model approach for use in the country as a whole.

7.296. Technical and management training will be vested in the Wildlife and Fisheries Training Institute, both for Government and private sector personnel and at a basic and more advanced level of skills.

### **Cost and Benefits of the Sector Development Plan**

7.297. Government will spend K£45 million on the tourism and wildlife development programme and K£40 million on recurrent needs over the period of 1978/79-1982/83. On average wildlife services will receive 62 per cent of the development expenditure over the plan period.

7.298. Direct returns to Government from tourism and wildlife expenditures are estimated as follows: fees, and other receipts from parks, reserves and other wildlife services—K£10 million, hotel accommodation tax—K£11 million; and airport passenger tax—K£4.6 million. In addition to these revenues, totalling some K£26 million over the plan period, there are other receipts to Government from sales tax on tourist purchases, import duties and income tax factor incomes in the sector. These are estimated at between K£10-15 million, giving a total revenue to Government of K£35-40 million.

7.299. Benefits also arise in foreign exchange earnings and employment from tourism and wildlife development. Net foreign exchange earnings are estimated at K£43.3 million in 1979, rising to K£87.4 million by 1983, a cumulative total of K£325 million for the plan period. Employment associated with tourism and wildlife development is estimated at 32,000 in 1979 and 45,000 by 1983, an increase of 13,000 jobs, 5,000 of which occur in the non-tourist trades and services.

### **The Forward Budget**

7.300. The development forward budget 1978/79 to 1982/83 for the Ministry of Tourism and Wildlife is presented in Table 7.16. The priorities for development discussed earlier are reflected in these expenditure allocations.

7.301. Wildlife services, a key component of sector development, absorb over 60 per cent of the total development budget for the plan period. The appreciable expenditure devoted to the extension of the visitor capacity and local impact of the tourism circuits, through the Wildlife and Tourism project, is supplemented by substantial expenditures on research and training.

7.302. Accommodation development, detailed earlier, is reflected in the K£3.2 million to be spent by KTDC in this period; this will be augmented by substantial expenditures on hotel development by the private sector.

7.303. The policies to generate increasing demand for tourist trips to Kenya are reflected in the expenditures expected to be made in promotional and marketing activities which are a significant component of the Tourism Services Vote, amounting to K£3.3 million during the period.

7.304. Fisheries development attracts some K£4 million during the plan period. A substantial proportion of this expenditure will be devoted to the development of the fisheries stations around the country.

7.305. The expenditures for recurrent needs are shown in Table 7.17. The growth rate of this vote is almost 4 per cent per annum. The expenditures reflect the expansion of services carried out by the Ministry and the day-to-day costs of implementing the development projects, described earlier.

7.306. The substantial sums required to facilitate tourism services reflect the continuing need to improve overseas promotion, especially through increasing the efficiency of the work of tourist offices in generating countries.

7.307. Wildlife services account for 60 per cent of the total recurrent budget for the period, a sizeable proportion of this allocation is taken up by improvements in staffing and vehicles to increase the operational effectiveness of the work of game divisions and stations especially in areas developed under the Wildlife and Tourism Project.

FORWARD BUDGET  
 VOTE D16—MINISTRY OF TOURISM AND WILDLIFE—DEVELOPMENT EXPENDITURES

Table 7.16

Sub-Vote	Head	Title	1978/79	1979/80	1980/81	1981/82	1982/83
160	530	Headquarters Administrative Services .. .. .	1,292,160	1,308,000	1,265,500	127,500	124,700
	531	Radio Network .. .. .	284,450	175,000	198,000	205,000	294,510
		TOTAL 160—GENERAL ADMINISTRATION AND PLANNING .. .. .	1,576,610	1,483,000	1,463,500	332,500	419,210
161	539	Hotel Training College .. .. .	182,010	277,500	200,000	200,000	200,000
	540	Tourism Development .. .. .	409,500	493,000	581,000	598,000	520,000
		TOTAL 161—TOURISM SERVICES	591,510	770,500	781,000	798,000	720,000
162	543	Loans for Hotel Development .. .. .	365,140	863,700	1,315,700	427,000	275,000
	545	Others Loans .. .. .	280,000	890,000	480,000	450,000	450,000
	546	Pre-investment Studies .. .. .	20,000	20,000	20,000	20,000	20,000
		TOTAL 162 .. .. .	665,140	1,773,700	1,815,700	897,000	745,000
163	550	Wildlife Services—Department Headquarters	137,500	114,500	23,000	56,000	74,000
	551	Wildlife Research .. .. .	398,849	419,000	324,000	317,000	328,000
	552	Wildlife Training .. .. .	535,540	620,000	650,000	650,000	600,000
	556	Grants to County Councils .. .. .	354,000	414,500	445,000	478,000	537,000
	557	Extension Services .. .. .	4,644,609	4,518,602	4,500,000	4,600,000	4,600,000
	TOTAL 163—WILDLIFE SERVICES	6,070,498	6,086,602	5,942,000	6,101,000	6,139,000	
164	565	Fisheries Headquarters .. .. .	179,000	215,000	216,000	215,000	216,000
	566	Fisheries Training .. .. .	12,000	14,000	16,000	15,000	16,000
	567	Kenya Fisheries Research Organization .. .. .	175,010	250,000	260,000	240,000	250,000
	568	Fisheries Station .. .. .	265,750	360,000	310,000	380,000	400,000
	TOTAL 164—FISHERIES .. .. .	631,660	849,000	802,000	850,000	882,000	
	TOTAL D16—TOURISM AND WILDLIFE .. .. .	9,535,418	10,962,802	10,804,200	8,978,500	8,905,210	

FORWARD BUDGET, 1978/79—1982/83  
 VOTE R16.—MINISTRY OF TOURISM AND WILDLIFE  
 RECURRENT EXPENDITURE

*Table 7.17*

Sub-Vote	1978/79	1979/80	1980/81	1981/82	1982/83
160. General Administration and Planning .. ..	624,796	655,200	700,000	743,000	811,000
161. Tourism Services .. ..	1,338,571	1,120,321	1,105,825	1,130,391	1,160,346
163. Wildlife Conservation and Management .. ..	4,015,853	4,854,400	5,019,280	5,333,252	5,337,124
164. Fisheries .. ..	983,480	1,080,748	1,205,998	1,300,912	1,406,031
<b>TOTAL R16 ..</b>	<b>6,961,700</b>	<b>7,710,669</b>	<b>8,033,101</b>	<b>8,507,555</b>	<b>8,714,501</b>



## **CHAPTER 8—BASIC INFRASTRUCTURE: TRANSPORT, COMMUNICATIONS, BUILDING AND CONSTRUCTION, AND ENERGY**

8.1. This chapter covers the development of all the main modes of transport and communication: road, rail, maritime, and air transport; postal and telecommunication. Also covered are the building and construction and energy sectors. These services are vital inputs for all the sectors of the economy, and must, therefore, be developed at a rate consistent with that of the development of all other sectors. This need has been taken into account in formulating development programmes for the services and sectors dealt with in this chapter.

8.2. For all modes of transport, the Government will apply the principle of comparative advantage. Reliance on competition in promoting their development will encourage the use of those modes rendering services for which they are most suited. The rail-road-oil pipeline co-ordination measures outlined in this chapter are geared to achieve this competitive efficiency.

8.3. The transportation section devotes considerable attention to the construction and maintenance of roads. However, proper road use in terms of speeds, loading, vehicle safety and people's lives are also important considerations, and these aspects are, therefore, given appropriate attention.

8.4. Railway transport has been firmly established in this country and is the second major mode of transport of goods and people, particularly bulky goods over long distances. Railway services deteriorated between 1972 and 1977 largely due to limitations of finance for the acquisition of locomotives, rolling stock, equipment and spare parts. With the take-over of the Railway Corporation by the Kenya Government from the defunct East African Community in 1977 this problem has been reduced through substantial investment by the Government. A total of over K£50 million was invested in the corporation in 1977/78 and 1978/79 to provide it with capital for these items. The capacity of the railways has thus been considerably increased. The transportation section gives careful consideration to developments of railways transport.

8.5. The oil pipeline, constructed between Nairobi and Mombasa during the previous plan period, began operating in the middle of 1978. This pipeline is the cheapest mode of transporting "white" oil from Mombasa to Nairobi. Oil transport from Nairobi will enable the Railway Corporation to recoup part of the business it has lost through the installation of the oil pipeline.

8.6. The air transport section discusses aerodromes, the Directorate of Civil Aviation, the Civil Aviation Board, the Meteorological Department, and Kenya Airways. In 1977, the Government established Kenya Airways, a national air carrier operating international, regional and domestic scheduled flights. A variety of domestic air services are also provided by a number of small privately owned companies offering charter, unscheduled and some scheduled services. Since the airports at Nairobi and Mombasa are newly constructed, aerodrome development during the plan period will mainly comprise of minor improvements in these aerodromes. Improvements will also be made to smaller airports such as at Malindi and Kisumu, and to many of the airstrips throughout the country.

8.7. The bulk of the imports and exports of the country are transported by sea. In order to develop more fully this mode of transport, piers and cargo handling facilities must be established and maintained. The programmes for the establishment of the required capacity of these facilities are outlined later in the chapter.

8.8. The desirability of Kenya Government to participate in the sea transport of exports and imports led to the establishment of the East African National Shipping Line in 1969. This is owned jointly by the Governments of Kenya, Uganda, Tanzania and Zambia. Steps will be taken to initiate the establishment of a Kenyan national shipping line during this plan period.

8.9. In this Plan, programmes have been drawn up for the expansion and improvements of the postal and telecommunication services. These programmes will include: increasing the number of post offices, provision of quick mail delivery service, reduction of congestion on telephone lines, extension of telephone lines to rural areas, and improvement in external telecommunications.

8.10. The building and construction sector includes the construction of public buildings, houses, health centres, education buildings, business premises, sewerage, soil conservation works, road and other civil works which are essential for development in other sectors. These activities are divided almost half and half between Government and the private sector. The Government plays two roles. Firstly, it induces the private sector to respond to the requirements of the economy, and secondly, it participates directly in building and construction. The building and construction sector is expected to grow at the rate of 9 per cent per annum during this plan period.

8.11. The energy section covers activities relating to the importation, refining and distribution of oil; the generation and distribution of electricity, both thermal and hydro; geothermal energy development; the utilization of firewood and charcoal; and the exploration and utilization of new energy forms such as solar, biogas, and wind. It is planned to develop these non-conventional energy resources rapidly, during this plan period, with research and pilot projects directed, particularly, toward use in rural areas.

## TRANSPORT AND COMMUNICATIONS

### Roads

8.12. The development of Kenya and indeed any country requires adequate transport facilities. In this connection the road transport sector has a highly significant position. More than any other transport mode, roads can reach the remote parts of the country and a wide variety of people engaged in diverse activities.

8.13. Historically, the development of the road network in Kenya was subsidiary to that of the railway, particularly the main railway line from Mombasa to the western parts of the country. Some of the restrictive measures imposed in earlier years to protect the railways were lifted in 1959 when a programme was implemented to upgrade the road network. Since that time, expansion of the network has been rapid. At the time of Independence, there were some 1,811 km. of bitumen roads. By 1978, this figure had more than doubled, to 4,331 km.

8.14. Immediately after Independence, first priority was given to the up-grading of the principal highway arteries and the trunk roads. This was followed by the improvement of the primary network through selective bituminization of heavily used segments, realignment of critical bottleneck sections and the improvement to gravel standard of selected high priority earth roads. Thus the road network improvement programme has been undertaken on the basis of a long range plan aimed at creating a road system which will eventually provide all-weather access to all population, production and consumption centres.

### The Road Network

8.15. The Kenya road transport system consists of a network of roads ranging from little more than trails accessible only in the dry season to well engineered multi-lane tarmac highways. This road system is divided into classified and unclassified facilities, both totalling 150,600 km. Of this total, 50,600 km. are classified, some 3,200 km. being special purpose roads.

8.16. The classified system, which includes all road sections under the official responsibility of the Ministry of Works, is subdivided into five official classes:—

- (a) *International Trunk Roads*—link centres of international importance and cross international boundaries, or terminate at international ports;
- (b) *National Trunk Roads*—connect centres and/or areas of national importance;
- (c) *Primary Roads*—connect important provincial centres to each other or to higher class roads;

(d) *Secondary Roads*—link locally important centres to each other or to more important centres or to higher class roads; and

(e) *Minor Roads*—provide connections to minor centres in rural areas.

8.17. In addition to the five major categories of classified roads, there are other roads which are usually identified with the economic services they provide. These include the “Special Purpose Roads” which serve agricultural, tourism and settlement areas.

8.18. Table 8.1 shows the classified and special purpose roads by surface type and road class, as well as those bitumen and gravel roads programmed for improvement during the plan period.

### **Road Development Goals and Strategies During the Plan Period**

8.19. The road development programmes for this plan period have been prepared on the basis of the objectives set out below:—

- i. to institute a balanced system-wide highway development programme;
- ii. to improve the existing road system;
- iii. to improve transport services at low-demand levels and in remote areas;
- iv. to stimulate increased cash crop and livestock production and bring more farmers into the market economy;
- v. to provide rural employment by use of labour intensive construction methods; and
- vi. to co-ordinate highway transport with other transport modes.

8.20. The strategies that will be followed are:—

- i. according first priority to the completion of on-going and financially committed projects under the various programmes such as the Trunk and Primary Road Projects, the Gravelling, Bridging and Culverting Programme for secondary and minor roads and the Rural Access Roads Programmes;
- ii. the prompt strengthening and rehabilitation of excessively deteriorated portions of the paved trunk and primary network;
- iii. the implementation of appropriate maintenance programmes; and
- iv. the inclusion of high priority projects that either are important in opening up high potential areas, or are necessary in easing bottlenecks and improving overall road network.

### **Road Development Programme**

8.21. The roads development programme shown in Table 8.2 covers all the roads to be built or strengthened during the plan period, including trunk, primary, secondary and minor roads. It also includes road development work such as the Gravelling, Culverting and Bridging, plus Rural Access Roads Programmes and other support activities.

**CLASSIFIED AND SPECIAL PURPOSE ROADS BY ROADS CLASS AND TYPE OF SURFACE**

**Table 8.1**

Classification	EXISTING SITUATION AS AT JANUARY, 1979					PLANNED DURING 1979-83 DEVELOPMENT PLAN		
	Bitumen Km.	Gravel Km.	Earth Km.	Total Km.	Total Km.	Bitumen Km.	Gravel Km.	Total Km.
Trunk (A)	1,674	1,152	—	2,826	2,826	(1) 750	—	750
Trunk (B)	710	1,172	522	2,404	2,404	(1) 200	149	349
Primary (C)	1,135	4,271	2,474	7,880	7,880	(1) 600	685	1,285
Secondary (D)	341	3,617	6,206	10,164	10,164	85	2,159	2,244
Minor (E)	87	2,867	21,171	24,125	24,125	7	3,083	3,090
<b>TOTAL CLASSIFIED</b>	<b>3,947</b>	<b>13,079</b>	<b>30,373</b>	<b>47,399</b>	<b>47,399</b>	<b>1,642</b>	<b>6,076</b>	<b>7,718</b>
<b>Special Purpose</b>	<b>384</b>	<b>2,789</b>	<b>—</b>	<b>3,173</b>	<b>3,173</b>	<b>—</b>	<b>(2)</b>	<b>—</b>
<b>TOTAL CLASSIFIED AND SPECIAL PURPOSE</b>	<b>4,331</b>	<b>15,868</b>	<b>30,373</b>	<b>50,572</b>	<b>50,572</b>	<b>1,642</b>	<b>6,076</b>	<b>7,718</b>

N.B.—(1) Does not include the strengthening of already bituminized roads.

(2) Catered for by Client Ministries.

**ROAD DEVELOPMENT PLAN  
(1979-83)  
ESTIMATED DEVELOPMENT EXPENDITURES**

**Table 8.2**

Road Project Name	Length* (K.m.)	ESTIMATED EXPENDITURE IN K.£'000					Total
		78/79	79/80	80/81	81/82	82/83	
<b>I. Roads Works</b>							
1. Int. Trunk Roads (A) .. .. .	2,501	6,935	8,700	13,860	13,595	15,105	58,195
2. National Trunk Roads (B) .. .. .	858	6,000	7,865	7,740	5,860	4,250	31,715
3. Primary Roads (C) .. .. .	1,046	4,700	10,002	7,550	6,965	8,650	37,867
4. Others—Pri., Sec., and Minor Roads (C, D and E Roads plus 4 bridges and a jetty) .. .. .	1,475	5,830	4,950	3,250	2,445	2,335	18,810
5. Graveling Programme .. .. .	—	4,343	6,515	4,235	3,925	3,825	22,843
6. Rural Access Roads Programme .. .. .	—	3,500	3,500	3,500	4,200	4,300	19,000
<b>SUB-TOTAL OF ROAD WORKS</b> .. .. .	—	31,308	41,532	40,135	36,990	38,465	189,442
<b>II. Supporting Activities</b> .. .. .	—	1,395	3,155	3,010	3,040	2,540	13,140
<b>TOTAL OF I AND II</b> .. .. .	—	32,703	44,687	43,145	40,030	41,005	202,582

\*Includes portions of existing roads scheduled for improvements as well as new roads.

8.22. *Trunk and Primary Roads Programme.*—The trunk road system comprises 13 per cent of the total length of the classified road network while it carries about 62 per cent of the total vehicle kilometerage. The primary road system represents 18 per cent of the total classified system and carries about 27 per cent of the total vehicle kilometerage. The two classes of roads, therefore, carry between them a total of 89 per cent of the total national road traffic and their importance cannot be overemphasized. Table 8.3 shows the present distribution of traffic by type of road. Many of the more important trunk and primary roads were upgraded to bitumen standard during the first and second development plan periods. Due to the growing share of traffic on these two classes of roads, selective bituminization and improvement on those links carrying over 200 vehicles per day was continued during the third Development Plan. Four hundred and twenty-five km. of trunk and primary roads were upgraded to bitumen standard and 525 km. upgraded to gravel standard. Selective bituminization of high priority links, totalling some 1,550 km., will be undertaken during this plan period.

8.23. *The Secondary and Minor Roads System.*—The emphasis of this Plan on the development of rural areas requires a classified road network permitting all-weather access from rural farms to markets. It is with this objective in mind that the Graveling, Bridging and Culverting Programme for the secondary and minor roads was initiated. Under this programme, some 5,000 km. of classified D and E roads, which constitute the bulk of the rural road network, will be upgraded through minor realignment, provision of a gravel wearing course and improvement in drainage. Up to now some 350 km. of these roads have been completed. The length of roads to be constructed annually will increase with the planned establishment of four additional road building units during the 1979/80 financial year.

8.24. *The Special Purpose Roads Programme.*—The special purpose roads programme involves the construction and/or improvement of those roads which serve specific development objectives. These roads include agricultural access roads to areas which produce cash crops such as wheat, tea, sugar, rice and coffee; roads to regions with potential for tourism and fisheries; and those which serve settlement and other rural development efforts. Since Independence, approximately 500 km. of special purpose roads have been constructed or upgraded. Under this programme, the various ministries or agencies which require specific road improvements to support their activities, finance the needed improvements. The Ministry of Works acts only in an advisory and/or contractual capacity. Settlement roads which have not been repaired for some years will be reconstructed with funds obtained from re-allocations among the ministries.

8.25. *The Rural Access Roads Programme.*—The Rural Access Roads programme was initiated in late 1974 as a means of pursuing two important Government policies, namely:—

- i. the development of rural areas; and

Table 8.3  
 AMOUNT OF TRAVEL BY CLASS OF ROAD AND VEHICLE TYPE, 1978  
 (In 000's Km.)

Class of Roads	% of Total Network <sup>1</sup>	AVERAGE YEARLY VEHICLE TRAFFIC PER KILOMETRE OF ROAD CLASS (VEH/Km.)						Total (Veh/Km)	(%)
		Cars	Light Commercial Vehicles	Medium Commercial Vehicles	Heavy Commercial Vehicles	Buses			
Trunk ..	13	1,185	886	501	178	220	2,970	(62)	
Primary ..	18	339	553	300	12	71	1,275	(27)	
Secondary ..	23	71	258	95	1	53	478	(10)	
Minor ..	46	1	8	2	—	—	11	(1)	
All Roads ..	100	1,596	1,705	898	191	344	4,734	(100)	
Per cent Veh/Km ..	—	(34)	(36)	(19)	(4)	(7)	(100)	—	

<sup>1</sup>Excludes Special Purpose Roads.



- ii. the use of appropriate labour intensive techniques in all civil engineering works.

This programme caters for the construction of about 14,000 km. of farm to market access roads in 23 districts by 1982, with road priorities recommended by the District Development Committees. The programme will generate more than 90,000 man/years of casual labour and about 6,000 man/years of supervisory staff and skilled labour. Since its inception, some 856 km. of roads have been constructed. Of this total, about 150 km. have been gravelled. Some 19 construction units are operational. The rate of construction is expected to reach its peak in 1980.

8.26. *Road Maintenance Programme.*—Inadequate maintenance can cause delays in the implementation of development programmes and large outlays on road reconstruction. It is essential therefore that all roads are properly maintained. Some of the major factors that have hindered adequate road maintenance in the past are—

- i. the inadequacy of financial resources allocated to maintain the bitumen surfaced trunk and primary roads. Some have already deteriorated to such an extent that complete reconstruction and upgrading will be required to bring them to the desired standards;
- ii. the increase in the total number of kilometres under maintenance as a result of the increase of rural access roads;
- iii. the scarcity of equipment and trained manpower on which the successful implementation of any road maintenance programme depends;
- iv. the prevalence of technical and environmental problems associated with maintenance of gravel-surfaced roads, particularly in the arid areas, coupled with the depletion of gravel quarry sites throughout the country; and
- v. excessive damage to a number of trunk and primary roads due to overloading by heavy commercial vehicles.

In order to improve road maintenance during the plan period, definite maintenance targets will be established, and the required manpower will be trained and equipped with the right type and amount of equipment. The Government has already taken some specific steps which will strengthen and expand its road maintenance capabilities. These include the review of the road maintenance practice, the review of financing and accounting procedures, the assignment of qualified personnel to the district level, and the provision of additional maintenance plant and equipment. The level of recurrent funds which will be made available during the plan period for road maintenance activities are shown in Table 8.4.

1979/83 RECURRENT MAINTENANCE FUNDS FOR CLASSIFIED ROADS  
Table 8.4 K£'000

1978/79	1979/80	1980/81	1981/82	1982/83
9,590	12,197	13,310	14,339	15,498

## **Traffic Enforcement Measures**

8.27. In order to implement effectively the various road programmes and to enhance the safe, efficient and economical use of the road network, the Government will undertake a number of corrective measures as enumerated below.

8.28. *Enforcement of Axle-load Regulations.*—The progressive increase in the size of commercial vehicles using Kenya roads in recent years has resulted in axle loading in excess of the limits for which the roads were designed. This has resulted in the premature damage of important road sections along all the major roads of the country, particularly the Mombasa-Nairobi-Malaba and the Molo-Kericho-Kisumu-Busia roads. In order to safeguard road investments, the Government will revise the existing laws and vigorously enforce the traffic rules relating to axle-load and vehicle dimensions. Also to enforce the axle-load limits, the Government will provide the Police Department with three electronic mobile weigh-bridges to supplement the existing permanent weigh-bridges operating at Athi River and Mariakani on the Nairobi-Mombasa road.

8.29. *Road Safety.*—So that the incidence of accidents with their resultant suffering and loss of human life and heavy damage to property can be reduced, the following measures will be undertaken :—

- i. The Government will expand the number of vehicle inspection centres which deal with unroadworthy vehicles. The latter have been found to be a major cause of road accidents.
- ii. The number of police patrol bases to deal with speeding and other contraventions of the Traffic Act will be increased during this plan period.
- iii. *Matatus*, which form a very important component of both urban and intra-urban passenger travel and which have enhanced substantially the effective competition in the passenger transport field, will be required to comply with the requirements of the Traffic Act as it relates to speeding, overloading, roadworthiness and insurance.

## **Left-hand Versus Right-hand Driving**

8.30. With the construction of the Mombasa-Lagos Trans African and the Cairo-Gaberone Trans Eastern African Highways, Kenya will be linked by road to states which employ right-hand driving. The Government has decided to conform with this driving practice and will carry out a study on what is involved in changing from left to right-hand driving.

## Contribution of Road Programmes to Employment

8.31. The road development for this plan period will create many employment opportunities. The employment to be generated by the rural access roads programme has already been noted. Other components of the road programme will contribute to wage employment in the following ways:—

- i. Under the trunk and primary programmes which will be executed by contract, the contractors will be encouraged to use local personnel from the regions through which the roads pass, and to use local raw materials.
- ii. The Direct Labour Section of the Ministry of Works in conjunction with the National Youth Service will undertake the construction of a number of roads (refer also to Chapter 9). This arrangement has already proved useful, not only in providing employment to these youths, but also in the transfer of skills.
- iii. The road maintenance programme will continue to employ a large number of people (currently in the range of 10,000) to undertake the maintenance activities outlined above.

## Railways

8.32. The railways constitute the second most important mode of transport in the country. The rail network consists of 1,086 kilometres of the main line between Mombasa and the Uganda border, a total of 1,028 kilometres of branch lines, and the inland water-ways services. The objectives for the railways during the plan period are as follows:—

- i. to become the main carriers of traditional agricultural goods, i.e. maize, coffee, tea, etc., along the rail corridors of the country for distances greater than 100 km. At present a large proportion of these goods is carried by road;
- ii. to become the main mode of long distance transport for both cargo and passengers;
- iii. to transport goods and passengers in the shortest time possible through increased efficiency and improved scheduling of services;
- iv. to improve commercial performance; and
- v. to transport the bulk of the western-bound oil from Nairobi (*see* the next section on Rail-Road-Oil Pipeline co-ordination).

The attainment of these objectives will require rehabilitation of the railway transport system and streamlining of its operations with emphasis on efficiency.

8.33. In 1973, the volume of goods traffic on the then Kenyan region of the East African Railways Corporation was 3,956,000 metric tons. By 1975, the traffic had dropped to 3,538,000 metric tons. This volume rose to 3,794,000 metric tons in 1976 and is estimated at 4,078,000 metric tons in 1977. The

passenger transport services had to be reduced in 1975. The relatively weak performance by the railways between 1973-77 reflected the following factors: the poor performance of the economy in 1974 and 1975 as a result of the world-wide inflation and recession, the fall in the imports destined for Uganda, the drop in the traffic to and from Zambia and Northern Tanzania, and the lack of adequate financial support to the Railways Corporation for financing locomotives and wagons. The latter led to the deterioration of the capacity of the railways in transporting both passengers and goods.

8.34. With the establishment of Kenya Railways, efforts were made to revitalize rail services. In 1977, Government commenced the re-equipment of the railways by placing orders for locomotives and wagons. In all, 26 large main-line diesel-electric locomotives and 1,200 wagons were ordered at a total cost of over K£50 million. Delivery of these orders should be completed during 1979. These acquisitions will provide the railways with sufficient capacity to function effectively without additional large capital outlays in the near future.

### **Development Programme**

8.35. During this plan period, the development programme for the Kenya Railways will include measures to improve the efficiency of rail services in order to achieve the plan objectives. These include the following:—

- i. carrying out general improvements on yards, crossing stations and provision of rail facilities in the industrial areas;
- ii. undertaking renewals and re-laying and ballasting and formation works of the permanent way, in order to maintain and replace worn-out track materials. These are of importance for the safety of the tracks;
- iii. improving telecommunications by installing new telephone exchanges, train control and carrier equipment of modern electrical types, and improving the signalling equipment;
- iv. improving the workshop machinery and equipment in line with the change-over to diesel locomotives, and replacing outmoded plant and machinery;
- v. building a depot at Malaba to cater for trans-shipment of goods destined for countries to the west of Kenya and providing shunting facilities at various depots;
- vi. providing adequate and modern housing to improve the standard of living of employees;
- vii. strengthening the capacity of the Railway Workshop in order to enable it to manufacture a variety of equipment for Government and non-Government clients. Steel smelting furnaces will be installed for the re-cycling of scrap metals.

8.36. A summary of the Railways development expenditure programme for the period 1979-83 is given in Table 8.5. This programme entails a total expenditure of K£35 million. As shown in the Forward Budget of the Ministry of Power and Communications in Table 8.17 the Government will in the plan period invest K£31.75 million in the Corporation. However, K£26.75 million, which is part of the K£50 million referred to in paragraph 8.34, will be invested in the Corporation in the 1978/79 financial year. This leaves a balance of K£5 million investment by the Government in the Railways Corporation for the rest of the plan period. As the Railways will require K£35 million for development expenditure in the period 1979/80-1982/83 it will obtain the balance of K£30 million as loans for which the Government will provide guarantee. (Table 8.17 appears at the end of the chapter.)

### Railway Extensions

8.37. It is planned to implement railway extensions in the country that are determined to be viable. Feasibility studies have, in this regard, already been carried out for the Kampi ya Moto-Marigat, Butere-Bungoma extensions, and a railway terminal at Homa Bay to facilitate the ferrying of wagons between Kisumu and Homa Bay. During the plan period detailed feasibility studies will be undertaken on the Nanyuki-Meru, Thika-Garissa, Lumbwa-Sotik-Kisii and Homa Bay extensions.

KENYA RAILWAYS CORPORATION  
ESTIMATED CAPITAL EXPENDITURE, 1979-1983  
Table 8.5 (K£'000)

Projects	Total
Yards, Crossing Stations and Sidings .. .. .	3,000
Re-layings and Renewals ..	4,100
Ballasting and Formation Works	800
Signals and Telecommunications	7,000
Machinery and Equipment ..	1,500
Depots .. .. .	2,800
Workshops, Machinery and Equipment .. .. .	3,000
Water Transport .. .. .	500
Staff Quarters .. .. .	3,850
Others .. .. .	8,450
<b>TOTAL .. .. .</b>	<b>35,000</b>

### Management of Kenya Railways

8.38. To enable Kenya Railways to operate efficiently as a viable commercial enterprise and in accordance with the objectives outlined above, guidelines for its management and functioning are outlined in subsequent paragraphs.

8.39. First, co-ordination of road and rail transportation is necessary. This subject is discussed in detail in the section on rail-road-oil pipeline co-ordination. Here, attention is focused on the following guidelines relating to the railways:—

- i. For centres which are served by both rail and road, measures will be taken to encourage the transportation by rail of bulky goods over long distances.
- ii. Marketing boards handling non-perishable products will be encouraged to transport their products by rail in railway corridor areas.
- iii. The railways will be the major haulier of oil to the north and west of Nairobi, including oil exports to neighbouring countries. Tankers will be phased out on the main roads of Kenya, apart from those transporting oil from the rail terminals.

8.40. In order to attract increased volume, it will be essential for the railways to improve the delivery time for goods and to reduce the travel time for passengers. Part of the improvement will come through the completion of the dieselization programme and the improved system of telecommunications and signalling. Turn-round time will also be reduced by administering effectively the penalty imposed on shippers who delay in off-loading the wagons.

8.41. The efficiency of the railways in part depends on the competence and sense of responsibility of every railway worker. Kenya Railways will, therefore, select the best qualified management personnel and instil into all employees a sense of discipline and commitment to their work. Periodic staff assessments and management appraisals will be made.

8.42. The Corporation's financial and accounting system will be reviewed and reformulated with the objectives of providing accurate periodic reports, and developing a tariff based on clearly identified costs. Strict budgetary control will be maintained in order to reduce costs to the minimum.

8.43. A planning unit with professionally qualified economists, financial analysts and engineers will be established in Kenya Railways. It will examine all aspects of organization and operations and will prepare possible development policies and programmes for management's consideration. The unit will also monitor and review the performance of Kenya Railways, collecting and collating various data that are necessary for efficient management. The unit will also assist in furnishing quarterly financial and operational reports to the Government. As the Kenya Railways is a publicly owned corporation, it is subject to the Government concern both for increased efficiency and accountability (*see Chapters 2 and 10*).

8.44. The Railway tariff is a major tool of national transportation policy as it is also used as a determinant of charges on other modes of transport. With the measures to improve the efficiency of the Railways outlined above, its charges will be competitive. Kenya Railways will, however, retain some flexibility in applying a cost-based tariff, particularly on agricultural commodities. Particular emphasis will be placed on the collection of reliable cost data in order to develop a realistic tariff.

### **Oil Pipeline**

8.45. The Government owned Kenya Pipeline Company started operating the 449 kilometres Mombasa to Nairobi oil pipeline in February, 1978. This project was completed at a cost of K£42.5 million. White oil is transported from the Mombasa oil refinery to the company's depot in Nairobi for subsequent transfer to oil companies for local distribution and for re-export to neighbouring countries. The pipeline is designed for transporting up to 5,200 million litres of oil per annum. The Kenya Pipeline Company has carried out a preliminary study to determine the viability of extending the pipeline to Western Kenya to serve Nakuru, Kisumu, Eldoret and the neighbouring countries. During this Plan a more detailed feasibility study of these extensions will be carried out.

### **Rail/Road and Oil Pipeline Co-ordination**

8.46. The Government has made, and is continuing to make, large capital investments in both the railway and the road systems. Its objective is to ensure that these investments are utilized efficiently by preventing duplication of transport facilities.

8.47. The Government believes in the principle of permitting competitive forces to guide the shipper's choice of the mode of transport. However, under special circumstances, regulations must be enforced to prevent uneconomic waste of resources. In determining when such circumstances exist, the following considerations will apply:—

- i. It is costly to build roads and to maintain them. Severe damage is done to the roads by vehicles whose gross axle-loading weights are excessive, resulting in large public expenditure for maintenance and rebuilding.
- ii. The higher the cost of oil imports, the greater the economic advantage of rail over road transport. In terms of oil consumption per ton of freight moved, and the associated foreign exchange costs, preference for rail transport as against roads is justified. Similarly, the higher foreign exchange cost of imported road vehicles per ton of freight hauled favours the railway.
- iii. Unrestricted freedom of truckers to go into business and to compete with Kenya Railways and among themselves can result in excess capacity in the haulage industry.

8.48. In view of these considerations, entry of road carriers in competition with the Railways will be discouraged by limiting the number of licences issued to operate commercial road vehicles over certain routes and for certain commodities. This practice will be accompanied by measures that will ensure that truckers pay a proper economic price for using roads, and that their vehicles are not loaded in excess of the weight regulations in force. In granting road licences, the licensing authority will ensure that a balance between road and rail transport is maintained and that sufficient road transport capacity is available until Railways have developed the physical capability to move the commodities economically. For fair and competent evaluation of applicants for commercial road licences, the members of the licensing authority must themselves be well versed in transport economics.

8.49. Several measures will be taken to regulate the movement of goods along the Mombasa-Nairobi-Uganda road/rail corridor. The first of these relates to petroleum products transport from Nairobi to western Kenya, and on to Uganda, Ruanda, Burundi and Zaire. The completion of white oils pipeline from Mombasa to Nairobi has freed a considerable number of railway tankers that were in use on that route. These tankers will be available for the transportation of oil products from Nairobi westwards. All petroleum products to Uganda, Ruanda, Burundi and Zaire will be transported by rail inside Kenya. In order to ensure the smooth flow of such shipments, bulk storage and road tanker loading facilities will be built on the Kenya side of the Uganda border. This action will reduce the cost of transporting oil products into western Kenya and to our neighbouring states, utilize the Railways' spare capacity, and also reduce the damaging effects of heavy road tankers. The Railways' tariff on oil shipments will be supervised to ensure that its monopoly power on oil movements does not result in unnecessarily high rates. The Minister for Power and Communications shall issue permits to road hauliers in special circumstances where it is proved that alternative rail routing of oil shipments is neither practical nor economical.

8.50. Secondly, as indicated in the section on Railways above, all bulky goods and cargo transported over long distances, including the import and export trade with Kenya's neighbouring countries will be largely transported by rail. Appropriate warehouses will be constructed at the border post terminals for storage of transit cargo.

## **Marine Transport**

### **Kenya Ports Authority**

8.51. The Kenya Ports Authority was established in 1977 as a wholly-owned Government corporation succeeding the East African Harbours Corporation. The Authority is responsible for handling cargo entering and leaving the Port of Mombasa. It is also responsible for operating other minor ports along the coast of Kenya. Mombasa is Kenya's major seaport and also caters



for the trade of several eastern Africa countries. Smaller ports, including Kilifi, Lamu, Malindi, Mtwapa and Shimoni serve mainly the coastal trade, fishing and leisure vessels.

8.52. During this plan period, the major objectives of the Kenya Ports Authority will be to ensure the following:—

- i. provision of adequate facilities and more efficient utilization of equipment;
- ii. prompt offtake of import cargo to locations outside the port area and prompt delivery and loading of export cargo: in this regard, the Authority will work closely with Kenya Railways and other transport agencies as well as shipping lines;
- iii. further develop the programme of recruitment and training of staff in all areas of the Authority's employment: in this respect, the Authority will liaise with the Kenya Cargo Handling Services, a subsidiary organization of the Authority, so that co-ordinated training programmes can be implemented;
- iv. improve its financial and commercial practices, to ensure its ability to meet all its financial commitments.

8.53. Traffic through the Mombasa Port increased modestly from 5.8 million deadweight tons (DWT) in 1970 to 6.0 million DWT in 1975. A more rapid increase is forecast between 1978 and 1983, resulting into a rise in cargo handled by the port to 9.8 million DWT in 1983.

8.54. In order to improve the capacity and efficiency of Mombasa Port, a number of projects will be implemented during the plan period. These include the following projects:—

- i. Major dredging will be carried out for the entrance channel to allow for deeper draughted and lengthier vessels and to permit loaded tankers to leave the port at night.
- ii. Wharf and berth improvements will be carried out to meet the forecasted traffic and to improve efficiency. These projects include extension of the Mbaraki Wharf (Berth 3) by 225 m., to a total length of 537 m. There is no berth at present designed specifically for the use of coasters and short sea trade vessels. A coaster wharf designed specifically for small vessels up to 12,000 DWT will be constructed. The berth programme also includes construction of a new berth for general cargo and improvements to a number of the existing berths.
- iii. Traffic forecasts show that by 1980 about 12 per cent or 260,000 DWT, of all general cargo traffic will be containerized. A specialized berth has been built for this purpose, a heavy duty crane has been installed and the necessary back-up area and services are being developed. These are the first steps towards establishing a fully integrated containerization transport capacity in Kenya. During the plan period,

the container berth will be extended and measures will be taken to provide inland containerization depots, particularly in Nairobi. Improved facilities for the transport and distribution of containers will be established.

- iv. The building programme includes the extension of the office space to accommodate the Authority's own staff and to serve the Kenya Cargo Handling Services, Kenya Railways, Customs and Excise Department, the Kenya Police and other agencies which operate at the Mombasa Port. It is also planned to construct a new training school (Bandari College), 244 new staff housing units, welfare facilities and two new sheds.

8.55. The development programme necessitates the expenditure of investment funds of about K£5.8 million per year. It is planned to finance 60 per cent of the total investment from internal sources and 40 per cent externally in the form of loans. The estimated development expenditures in the plan period are summarized in Table 8.6.

KENYA PORTS AUTHORITY—ESTIMATED DEVELOPMENT EXPENDITURE

Table 8.6

(K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
1. Dredging .. .. .	840	735	0	0	0	1,575
2. Wharfs, berths .. .. .	3,255	3,236	2,679	555	570	10,295
3. Floating Craft .. .. .	253	217	195	1,180	87	1,932
4. Port and shore equipment .. .. .	1,909	1,763	1,388	2,030	1,358	8,448
5. Building and other works .. .. .	2,006	1,963	637	0	1,350	5,956
6. Other projects .. .. .	250	10	250	100	100	710
<b>TOTAL .. .. .</b>	<b>8,513</b>	<b>7,924</b>	<b>5,149</b>	<b>3,865</b>	<b>3,465</b>	<b>28,916</b>

8.56. The Authority currently employs over 3,000 persons. It is committed to developing appropriate training programmes for its employees. Broadly, these programmes will fall within the following categories:—

- i. There will be local courses for all cadres of staff, to provide the fundamental skills for the operation of the ports.
- ii. Bandari College, now under construction at an estimated cost of K£2 million will open in 1979. This College will be jointly serviced and used by Kenya Ports Authority and Kenya Cargo Handling Services. Courses at the College will cover clerical work, safety and accident prevention, and courses for crane operators, dockworkers, supervisors, port police, etc. Training will also be offered for middle and senior management.
- iii. There will be selective use of overseas courses dealing with management, administration, etc. Attendance of some of these courses will be financed through technical assistance arrangements.

The total annual budgeted costs for these training and manpower development activities will increase from K£127,000 in 1978 to K£182,000 in 1983.

### **Kenya's Second Port**

8.57. The Government has recognized the desirability of Kenya having a second major port in the future. Consideration is being given to a number of possible locations. To facilitate the development of the port, infrastructure will be developed in the coastal area and the hinterland subsequent to the selection of the site. Meanwhile the Ports Authority shall continue to improve Kenya's other ports.

### **Kenya's National Shipping Line**

8.58. The bulk of Kenya's export and import cargo is carried by foreign-owned vessels, resulting in large outlays of foreign exchange. In partnership with Tanzania, Uganda and Zambia, the Eastern African National Shipping Line was established in 1969 to participate in the transportation of import and export cargo. It is the Government's policy to play an active part in this activity which is so vital to Kenya's national interests. As an extension of this policy, the Government will establish a Kenyan national shipping line during the plan period. A total of K£2.1 million has been allocated for this purpose in the vote of the Ministry of Power and Communications.

### **Air Transport**

8.59. The Government, through the Ministry of Power and Communications, is responsible for a variety of air transport matters. The three departments which provide air transport services are the Aerodromes Department, Directorate of Civil Aviation, and the Meteorological Department. The functions and development programmes for these departments during this plan period are discussed below. Kenya Airways is dealt with in a later section of this chapter.

#### **Aerodromes**

8.60. Kenya has two large international airports in Nairobi and Mombasa, medium-sized aerodromes in Kisumu and Malindi, and Wilson Airport in Nairobi, which handles charter flights and provides flying training services. The Aerodromes Department administers these airports and a large number of airstrips.

8.61. During the previous plan period major aerodrome development projects were implemented. Notable among those were the construction of a new terminal complex for Jomo Kenyatta International Airport and the expansion of Mombasa Airport to a full international standard capable of catering for operations of high capacity jet aircraft. During this plan period, investment in development of aerodromes will be mainly devoted to building up the staff and services required by the new facilities. Outlays on maintenance work will not be large in the initial years of this Plan, but are expected to increase in the later years.

8.62. The development programme will concentrate on improvement of the smaller aerodromes, particularly those at Malindi and Kisumu, in order to include these towns in scheduled flights by Kenya Airways. Emphasis will

also be given to the development of minor airstrips located in highly populated areas which are important administrative and commercial centres. The airstrips, depending on traffic demand, will be developed in stages with the ultimate objective of their forming part of expanded regular scheduled flight services.

8.63. The air charter industry is centred on the Wilson Airport in Nairobi. In recognition of its importance for tourist and commercial interests, Wilson will be developed further to provide operational facilities and engineering services. Table 8.17 shows the development expenditures on airports and airstrips over the plan period.

### **Civil Aviation**

8.64. The management and provision of certain essential flight services are provided by the Directorate of Civil Aviation and the Civil Aviation Board. The Directorate of Civil Aviation is responsible for provision of air traffic control services at all major airports in the country. It also inspects and certifies aircraft for airworthiness, tests the competence and health of air crews, and issues flying licences. The Civil Aviation Board establishes an equitable division of air services between the international operations of Kenya Airways and foreign carriers into and through Kenya, and licenses the operations of all other air carriers flying within Kenya. An important development in the aviation sector during the plan period will be the establishment of a flying training school for advanced civil aviation education and training.

### **Meteorology**

8.65. The Kenya Meteorological Department is responsible for provision of meteorological and climatological services to civil aviation and shipping in the western Indian Ocean. It also provides services for agricultural, forestry and water development throughout the country. The Department is responsible for surface and upper air meteorological observations and for the publication of climatological data.

8.66. The Department's development programme for the planning period includes a variety of projects. First the meteorological stations at the airports of Nairobi, Mombasa and Kisumu will be improved and expanded. Second, additional stations for synoptic weather forecasting will be established in selected centres in the country in addition to the present 13 stations. This will improve the weather forecasting service. Third, the Department will establish five new agricultural meteorological stations. Fourth, a total of 1,000 rainfall data collection centres are to be established. Fifth, the Department data processing, which is semi-computerized, will be fully computerized. Finally, a number of projects aimed at the improvement of the telecommunication system and an extension of the headquarters building are to be implemented. An allocation of K£6.775 million has been made for financing these expenditures (see Table 8.17).

## Kenya Airways

8.67. Kenya Airways, which is wholly owned by the Kenya Government, was established in February, 1977, as a national air carrier serving international routes to Europe, Asia and the Middle East, regional routes inside Africa, and domestic services in Kenya. The airline has two subsidiary companies. The first, Flamingo Airways, operates cargo services abroad. The second, Kenya Airfreight Handling, Limited, provides cargo handling services in Nairobi and Mombasa.

8.68. The objectives of the airline are as follows: —

- i. to run a safe, profitable and reliable airline;
- ii. to provide air services within Kenya and internationally;
- iii. to provide airline related services, including cargo handling and engineering services;
- iv. to play a significant role in related industries of tourism, trade and commerce for the overall benefit of Kenya;
- v. to develop skills of Kenyans with the aim of Kenyanizing the running of the airline.

Although the airline has been in existence for only two years it is the aim of the Government that these goals be achieved during this Plan. The airline will, in this regard, commence making a return on investment in 1981. To ensure attainment of the objectives outlined above it will be necessary that a variety of actions which are discussed below are taken by the Government and the airline.

8.69. The airline will be provided with adequate capital to acquire an appropriate fleet of aircraft, equipment and base. Since its formation a total of K£15.6 million has been invested in the airline. During this plan period further investments will be made in it both as equity and loan capital. A sum of K£9.5 million has been provided in the forward budget of the Ministry of Power and Communications, as shown on Table 8.17 for investment in the airline.

8.70. The airline currently has a fleet of 7 medium- and long-range jets. It is planned that this fleet be increased. Three main considerations will determine the number of aircraft to be purchased. These are: the volume of traffic to be served by Kenya Airways, the routes to be operated and overall financial viability of the airline.

8.71. Apart from the routes already operated by the airline, new routes in the Eastern Africa region will be added if they are proved to be viable. These will include flights to such cities as Lusaka, Blantyre, Bujumbura, Kigali and Maputo. It should be emphasized that the airline will only operate services on profitable routes.

8.72. At present Kenya Airways employs a staff of 2,640. The success of the airline will depend substantially on the managerial and technical competence of its staff. To increase the efficiency of the staff in what is a technically sophisticated industry additional training will be provided for the work force of the airline. In particular, early actions will be taken to strengthen and improve the accounting, management, and planning functions of the airline.

8.73. The effectiveness of the sales offices of the airline in Kenya and abroad is important. These offices will be strengthened through the assignment of professionally competent sales personnel. They will aim at raising maximum loads for all flights. An appraisal of the Kenya Airways sales offices abroad will be carried out during the plan period and offices that will be found to be uneconomic will be closed.

### **Posts and Telecommunications**

8.74. The Kenya Posts and Telecommunications Corporation provides postal and telecommunication services both within Kenya and to foreign countries. In providing these services the Corporation is required to operate efficiently and to conduct its business as a viable commercial enterprise.

#### **Postal Services Development**

8.75. During the plan period, the postal services throughout the country will be expanded and improved in order to achieve the following:—

- i. Increasing the number of post offices serving an area leading to reduction of the number of people served by each post office;
- ii. reduction of the distances to the nearest post office for the area served by each post office;
- iii. improvement in postal efficiency and service level;
- iv. increasing the opportunities for rural savings and access to other Government services through the postal service system (*see* Chapter 2).

8.76. Post offices are divided into two categories: sub-post offices and departmental post offices. A sub-post office, which provides a limited range of services, is run on behalf of the Corporation by an agent who may be a private individual, usually a shopkeeper, a district Government official or a railways official. In most cases, postal services are initially provided through the establishment of a sub-post office which is later upgraded as and when circumstances warrant. In the years 1979 to 1983, it is proposed to establish a total of 134 sub-post offices as shown in Table 8.7.

8.77. A departmental post office provides all classes of postal business and is operated by the Corporation's own staff. One of the criteria used in the establishment of departmental post offices has been to provide one at every district headquarters in order to facilitate administration and economic activity in the district. This has now been achieved. During the plan period, postal

facilities in rural areas will be improved through the upgrading of sub-post offices. A total of 81 departmental post offices, the majority of them being in rural areas, will be established between 1979 to 1983, as shown in Table 8.7.

NUMBER OF POST OFFICES

Table 8.7

	1978	1979	1980	1981	1982	1983	Increase 1979-83
Sub-Post Offices .. .. .	488	527	551	578	594	622	134
Departmental Post Offices .. .. .	164	189	206	220	232	245	81
<b>TOTAL .. .. .</b>	<b>652</b>	<b>716</b>	<b>757</b>	<b>798</b>	<b>826</b>	<b>867</b>	<b>215</b>

8.78. The number of people served by each departmental post office is expected to decrease from 117,400 in 1976 to 67,700 people in 1983. The district variations in the level of postal services in 1977 ranged from under 25,000 people per departmental post office in one district to over 225,000 people per departmental office in 10 districts.

8.79. On a national basis, the coverage area per departmental office is expected to drop from 4,824 sq. km. in 1976 to 2,148 sq. km. in 1983. When combining departmental and sub-post offices land area served by a post office is expected to drop from over 1,027 sq. km. in 1976 to 736 sq. km. in 1983. Nairobi and Mombasa had a ratio of one post office to a coverage area of 20.7 and 30 sq. km. respectively in 1976. This ratio will change to 17.1 and 23.3 sq. km., respectively.

8.80. It is not possible to attain a uniform standard in all districts. Some districts for example those in the northern parts of Kenya, have low populations thinly spread over vast areas of land, while others, like Kisii, have a high population per post office, but a small land coverage area per post office. It is planned, therefore, to narrow the disparity between districts as far as is practicable rather than to put them all on one level.

8.81. In addition to the upgrading of 134 sub-post offices, money order and savings bank facilities will continue to be extended to selected sub-post offices in order to widen the range of services provided. This is an integral part of the Government efforts to promote constructive expenditure patterns in order to encourage savings for development (*see* Chapter 2).

8.82. The Corporation will continue with its efforts to improve mail services by using fast road transport where practicable. The Corporation relies mainly on buses for conveyance of mail and is handicapped in some areas by the absence of reliable bus operators. The Corporation is considering introducing on an experimental basis, its own vans to deliver mail at major centres, but the main mode of mail conveyance will continue to be the public transporters.

8.83. The Corporation will expand its programme of installing private letter boxes. These are provided at every departmental post office and will also be installed at selected sub-post offices. The postal development programme involves development expenditures of K£2.3 million during the plan period. The figures are shown in Table 8.8.

### **Telecommunications Development Programme**

8.84. Telecommunication services play a significant role in the various social and economic sectors of the economy. The development of these services also affects the development of postal services and vice versa; therefore the Telecommunications Plan takes into account the development of postal services discussed above.

8.85. Telecommunication services have been greatly expanded during the last fifteen years to meet requirements of industry and commerce. The telephone, telex and telegraph, in particular, have undergone far-reaching changes resulting in both expansion and improvement of facilities.

8.86. The local telephone network had, by June, 1978, 54 automatic and 185 manual exchanges and 64,656 subscribers exchange lines. A new aspect of development of the telephone network is the expansion of the services into the rural areas, with 77 new exchanges opened since 1963. In the urban areas, the introduction of the Subscribers Trunk Dialling facility has improved the quality of telephone service by enabling subscribers to dial their trunk calls directly. Currently, 80 per cent of all subscribers in urban areas have this facility.

8.87. The Radio Call Service serves the more remote and sparsely populated areas of the Republic which cannot be reached economically by the conventional telephone service. By June, 1978, there were seven channels serving 528 radiocall subscribers and five call offices.

8.88. The development and improvement of the local telephone network coupled with the introduction of international semi-automatic switching facilities and high quality satellite circuits have facilitated growth of international traffic. This traffic has been generated by the rapid development of Kenya's economy. Most of the incoming traffic is now connected automatically through the International Subscriber Dialling (ISD) facility with foreign countries.

8.89. The Telecommunications Plan envisages further expansion of the service with greater penetration into the rural areas to provide quick and reliable communications there. The existing trunk network will be expanded. Furthermore, the new systems linking Kenya with the neighbouring countries will be improved. The high capacity Pan African telecommunications microwave system is expected to be in service during the plan period. This will provide improved links with Ethiopia, Tanzania, Zambia and Malawi. It is planned to extend this system subsequently to provide links with the Sudan



and Somalia. Development expenditure in telecommunications will as shown in Table 8.9 amount to K£51.6 million. This will be financed from the Corporation's internally generated funds and external loans.

ESTIMATED POSTAL DEVELOPMENT EXPENDITURE

Table 8.8

K£'000

Description	1978/79	1979/80	1980/81	1981/82	1982/83	Total
1. Building Conversion on Upgrading ..	250	65	73.25	40	45	473.25
2. Equipment .. .. .	58.50	12	17	7.50	8.50	103.50
3. Staff Housing .. .. .	—	—	—	—	—	—
SUB-TOTAL .. .. .	308.50	77	90.25	47.50	53.50	576.75
4. New Buildings and Extensions to Existing Buildings .. .. .	454.25	256.50	222.75	249.25	112.50	1,295.25
YEARLY TOTAL .. .. .	762.75	333.50	313.00	296.75	166.00	1,872.00
TOTAL (including indirect cost) ..	853.44	416.88	391.25	370.94	207.50	2,240.00

TELECOMMS DEVELOPMENT PROGRAMME

Table 8.9

K£'000

Basic Programme Components	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Local and Long Distance Switching	2,506.3	3,517.4	3,509.7	1,450.6	1,040.9	12,024.9
Long Distance Transmission .. .. .	86.0	1,919.2	1,217.7	456.5	193.5	3,872.9
Local and Long Distance Mic Facilities	3,162.1	4,961.6	4,798.3	4,879.8	4,541.6	22,343.4
Building .. .. .	647.5	602.5	860.0	591.5	210.0	2,911.5
Base Costs .. .. .	6,401.9	11,000.7	10,385.7	7,378.4	5,986.0	41,152.7
Contingencies .. .. .	244.0	490.7	406.7	252.4	178.5	1,572.3
The Lag/Lead Adjustment .. .. .	-1,698.6	943.3	1,981.3	-937.3	-288.7	—
Estimated Total Costs .. .. .	4,947.3	12,434.7	12,773.7	6,693.5	5,875.8	42,725.0
Indirect Costs .. .. .	1,405.0	1,924.5	2,342.0	1,605.0	1,554.0	8,830.5
GRAND TOTAL .. .. .	6,352.3	14,359.2	15,115.7	8,298.5	7,429.8	51,555.5

8.90. The growth in demand for services puts a strain on available resources, both human and financial. To keep abreast with the demand for postal and telecommunications services, the total labour force in the Kenya Posts and Telecommunications will be increased by 20 per cent from 7,204 employees in 1978 to 8,666 in 1983. The highest percentage growth will be made in the managerial and supervisory categories which need strengthening. Furthermore the Corporation's manpower development will require more training facilities. In this regard the Kenya Posts and Telecommunications Training School at Mbagathi is to be expanded from its present capacity of 200 to 235 students. The expansion will require capital expenditure of K£200,000 in the plan period.

**Kenya External Telecommunications Company (KENEXTEL)**

8.91. The development programme of KENEXTEL, a wholly owned Kenya Government corporation, is geared towards improvement and expansion of telecommunication facilities to meet the needs of the expanding

economy for increased telephone, telex, telegram, photo-telegraph and television services. In order to meet the requirements of big business organizations in the country, the Government has included in KENEXTEL programme provision for data services. The programme also includes modifications to existing equipment so as to introduce international direct dialling system.

8.92. A major improvement which is being undertaken is the installation of a second dish at Longonot which will enable the country to communicate direct with countries in West Africa and beyond via the satellite over the Atlantic Ocean.

8.93. The importance of the port of Mombasa has already been discussed. In line with international practice for major ports, telecommunication equipment will be installed to ensure safety of lives at sea.

8.94. A major part of the planned capital expenditure of KENEXTEL will be to acquire new equipment to cater for circuit expansion, i.e. expanding the existing circuit and opening new destinations; modification of existing equipment to cater for various mandatory operational plans; replacement of outmoded existing equipment; and acquisition of new equipment to meet the requirements of new communication technologies. A small part of capital expenditure will be incurred on construction of residential quarters, improvement and expansion of buildings, replacement of vehicles and provision of office equipment and machinery. Table 8.10 gives the details of the planned capital expenditure.

KENYA EXTERNAL TELECOMMUNICATION DEVELOPMENT EXPENDITURE, 1978/83

Table 8.10

(K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Equipment .. .. .	885.00	3,280.00	1,335.00	2,250.00	700.00	8,450.00
Air-conditioning Plants .. .. .	66.00	—	207.50	150.00	—	423.50
Building Development .. .. .	10.00	815.00	675.00	380.00	250.00	2,130.00
Transport .. .. .	67.30	96.70	—	75.00	50.00	289.00
<b>TOTAL .. .. .</b>	<b>1,028.30</b>	<b>4,191.70</b>	<b>2,217.50</b>	<b>2,855.00</b>	<b>1,000.00</b>	<b>11,292.50</b>

## BUILDING AND CONSTRUCTION

8.95. Building and construction is one of the major sectors of the Kenyan economy. Its share of the total GDP in 1976 was 6 per cent and its contribution to capital formation was 42 per cent. During the Plan this sector will be an important contributor to the growth of the economy and will further be used as a means of achieving the Government's objectives of poverty alleviation through the creation of employment and provision of public buildings, hospitals, schools, water facilities, roads, and residential houses.

## Plan Objectives

8.96. The Government's objectives for the building and construction sector during the plan period are as follows:—

- i. to improve the planning and execution of the Government buildings and works programme;
- ii. to locate new buildings projects in the service centres scheduled for expansion by the Government and local authorities; these projects will create facilities for people living in the surrounding rural areas and also influence development in the private sector;
- iii. to create employment opportunities in the rural areas where building projects will be located;
- iv. to promote further the standardization of building practices and to sponsor measures aimed at the minimization of building costs.

The prime consideration in the objectives outlined above is the improvement of facilities and income generation, particularly, within the rural areas. The public interest will be best served if the buildings and construction industry is carried out at minimum cost.

## Public and Private Sectors Roles

8.97. The total output of the building and construction sector is split almost half and half between Government financed and privately financed projects. In 1976, the Government's contribution to capital formation in residential buildings construction was about 16 per cent, for non-residential buildings 62 per cent and for construction works 96 per cent. Government's participation *vis-à-vis* the private sector in these three categories of building and construction is explained by its desire to participate only where the private sector cannot operate efficiently.

8.98. Residential buildings are mostly composed of small units of houses which can be built easily by private individuals or contractors. Non-residential buildings are made up of commercial, industrial and office buildings. The Government plays a dominant role because of its obligation to provide the country's basic infrastructure such as schools, hospitals, and Government offices. Construction works involves the building of roads, bridges, dams, hydro-stations, canals, irrigation facilities, airports and airstrips, harbours, sewerage, mine shafts, etc. These are facilities which the Government provides directly and the private sector's share is, therefore, quite small. The private sector participation in construction works is (in terms of number of projects) dominated by *Harambee*.

8.99. Apart from its regulatory and supervisory functions the Government can influence the performance of the sector by the scheduling of the projects it finances. It also directly regulates the activities of the private sector as well as influencing it indirectly through demonstration effects from its own activities.

## **Public Sector**

8.100. The Buildings Department of the Ministry of Works is responsible for the design, construction, supervision and subsequent maintenance of all Government buildings within the country and abroad. The Government building programme over the plan period is shown in Table 8.11. At the request of the National Housing Corporation, the Buildings Department also maintains the Corporation's housing estates. It advises on standards of design and construction of Government buildings, giving consideration to the needs of the economy and the financial outlays involved. Through these functions, the Department is instrumental in planning and controlling the Government's building programmes. It is acknowledged that execution of building projects in Government experiences delays on account of a variety of reasons. These include, first, delays by client ministries in submissions of complete briefs and acquisition of sites twelve months in advance for design purposes, and second, by the MOW headquarters over-centralization of design, contracting and implementation of building projects. Steps have already been initiated to decentralize the activities of MOW Buildings Department by establishing design offices in the provinces. During the plan period the Department will increase technical staff to cope with the rapid growth in the Government building works and assign senior architects and quantity surveyors to the Provincial Engineers' offices. These officers will undertake most projects on their own. Officers of client ministries at provincial and district level will also be empowered to take on-the-spot decisions on matters relating to implementation of their building projects.

8.101. The Buildings Department has raised its capacity for forward project planning preparation and monitoring by the establishment of a Forward Planning Group, whose functions include the optimum scheduling of items in the Government building programme, as well as giving assistance to client ministries in preparing their cost estimates in conjunction with architects and quantity surveyors and the programming of their long-term building requirements. It has also systematized the presentation of expenditure by devising and implementing a "Project Classification and Numbering System" and standard "Project Submission Sheets". A monthly progress report system has also been implemented whereby client ministries, the Treasury and Provincial Authorities are kept informed of the physical progress made and of the expenditure incurred on their respective projects. Client ministries are expected to make use of the improved facilities of the Buildings Department so that Government buildings are completed as quickly as possible and under conditions of the lowest possible cost.

8.102. It is the aim of the Government to maximize employment opportunities in the building and construction sector. This can be achieved by pursuing a deliberate policy of fragmentation of large contracts, giving preference to construction of low cost buildings, and using appropriate combinations of labour intensive building methods. The Buildings Department has,

GOVERNMENT BUILDINGS PROGRAMME 1978/79 TO 1982/83

BUILDING REQUIREMENTS BY GOVERNMENT AGENCY

Table 8.11

(K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
1. Agriculture and Animal Husbandry Irrigation Schemes and Land Reclamation .. ..	586-0	927-0	1,015-0	1,915-0	916-0	5,359-0
2. Lands Settlement .. ..	672-0	128-6	250-0	200-0	150-0	1,400-6
3. Lands/Physical Planning and Adjudication .. ..	751-4	1,360-5	775-0	580-0	542-0	4,008-9
4. Water Development .. ..	31,457-0	30,570-0	31,060-0	31,788-0	31,628-0	157,503-0
5. Natural Resources .. ..	328-0	1,371-0	361-0	380-0	399-0	2,839-0
6. Gameparks and Fisheries ..	—	3,083-0	3,373-0	2,046-0	2,269-0	10,771-0
7. Information, Broadcasting, TV .. ..	254-0	292-0	780-0	1,010-0	1,200-0	3,536-0
8. Buildings and Works .. ..	—	4,000-0	4,193-0	4,347-0	4,400-0	16,940-0
9. Education .. ..	—	6,105-0	7,608-0	7,763-0	8,272-0	29,748-0
10. Health .. ..	10,362-0	12,263-0	12,779-0	12,667-0	10,123-0	58,204-0
11. Housing and Social Services						
Private .. ..	—	10,950-0	11,700-0	12,500-0	13,250-0	48,400-0
Public .. ..	—	14,503-0	14,751-0	16,046-0	16,531-0	61,831-0
12. Labour .. ..	1,541-0	1,977-0	1,977-0	2,633-0	3,289-0	11,417-0
13. Approved Schools and Remand Homes .. ..	—	100-0	100-0	100-0	200-0	500-0
14. Probation Hostels .. ..	—	100-0	100-0	100-0	100-0	400-0
15. Prisons .. ..	900-0	1,200-0	1,200-0	1,200-0	1,200-0	5,700-0
16. Defence .. ..	6,900-0	10,000-0	9,000-0	7,500-0	5,000-0	38,400-0
17. Co-operative Development ..	672-0	644-0	737-0	921-0	925-0	3,899-0
18. Finance and Planning .. ..	—	2,000-0	2,000-0	2,000-0	2,000-0	8,000-0
19. Office of the President .. ..	960-0	1,410-0	1,025-0	990-0	790-0	5,175-0
20. Staff Houses .. ..	271-0	160-0	260-0	200-0	200-0	1,091-0
21. Judiciary .. ..	100-0	116-0	134-0	156-0	181-0	687-0
22. Power and Communication						
Harbours .. ..	6,101-0	5,935-0	3,316-0	555-0	1,920-0	17,827-0
Railways .. ..	873-9	3,403-1	7,506-0	7,473-0	2,379-0	21,635-0
Posts and Telecommunications .. ..	3,870-0	1,688-0	1,046-0	1,423-0	954-0	8,981-0
Kenextel .. ..	200-0	324-0	225-0	27-0	90-0	866-0
Airport/Aerodromes/Civil Aviation/Meteorological ..	5,926-0	9,322-0	4,743-0	3,550-0	2,270-0	25,811-0
23. Local Government .. ..	8,177-0	14,794-0	14,744-0	14,421-0	12,964-0	65,100-0
<b>TOTAL .. ..</b>	<b>81,902-3</b>	<b>138,726-0</b>	<b>136,758-0</b>	<b>134,501-0</b>	<b>124,142-0</b>	<b>616,029-5</b>
<b>OTHER GOVERNMENT BUILDINGS AND CONSTRUCTION PROGRAMMES</b>						
MOW Roads Constructions	33,715	44,687	43,145	40,030	41,005	202,582-0
<b>TOTAL CONSTRUCTION AND BUILDINGS .. ..</b>	<b>115,617-3</b>	<b>183,413-2</b>	<b>179,903-0</b>	<b>174,531-0</b>	<b>165,147-0</b>	<b>818,611-5</b>

therefore, been charged with undertaking thorough examination of current building techniques, the effect of using different materials, the use of direct and indirect employment, and the labour demand generated by the construction of various types of buildings.

8.103. In order to promote the entry and participation of African contractors in the building and construction industry, the Government established the National Construction Corporation. The Corporation has, in recent years, placed emphasis on ensuring that African contractors have an increasing share in the construction industry, both public and private. To supplement the efforts

of the Corporation the Government will continue to give preference, where appropriate, to African contractors, through such measures as provision of loans.

8.104. Some of the objectives of the Government for the building and construction sector include the development of more efficient design processes, and the overall reduction of costs in the construction processes. During the plan period the Government will standardize building designs to facilitate the implementation of housing projects, particularly in the rural areas and of *Harambee* building projects. This will be achieved by designing buildings for optimum use whereby all space is fully utilized; avoiding unnecessary building elements and complicated forms and by selecting the appropriate quality standards for each type of building projects. All these aspects of design directly affect costs of building. Discretion will be applied in determining the designs that are appropriate.

8.105. Building and construction costs have been increasing year by year due to many factors. It is essential that these increases should be kept to the minimum so as to reduce the adverse effects they have on the building and construction industry. Particular attention will be focused on the production and use of local building components especially timber; local production of ceramics, pipes, softboards and ironmongery will also be promoted. New enterprises will be encouraged to establish production capacities for these items so as to reduce the monopolistic practices of the few enterprises that currently produce them.

8.106. The building industry produces a wide range of outputs from multi-storey buildings to simple single storey buildings, from large hospital complexes to schools, court-houses and police lines. Within this wide range of activities, there is scope for standardization of building practices and it is imperative that Government should establish desirable standards and practices, resulting in more efficient construction processes. By the simplification of construction procedures, avoidance of unnecessary variations in design and promotion of the use of standard building components and standard designs, much can be achieved in meeting the requirements of the Government's building programme. To promote the achievement of these objectives a Research and Development Unit has been established in the Buildings Department of the Ministry of Works. The Unit will be strengthened during the plan period and its work programme will focus on the following areas:—

- i. relating utility of buildings and works to design;
- ii. avoiding unnecessary building elements and complicated forms;
- iii. selecting appropriate quality standards for each new project;
- iv. avoidance of unnecessary variations in design;
- v. encouragement and improvement of traditional building components;
- vi. encouragement for import substitution of building components;

- vii. improved planning procedures to permit the further utilization of the available management skills and capital equipment in the sector;
- viii. simplification of construction procedures;
- ix. promotion of the use of standard building components and standard designs.

8.107. After the Research and Development Unit has been fully staffed, further work on the standardization of building practices will be carried out. Standardization will be developed in such areas as: types of buildings, pre-design and programming methodology and planning and layout design, contracting, usage period, maintenance, reconstruction and expansion. In regard to facilities, accommodation, and technical systems, standardization will cover activities relating to feedback of information, tests, establishment of requirements and standards, type drawings and specifications, and projects reports. To supplement this work, the Government will ensure that a number of agencies and institutions in Kenya will also continue to undertake research and development activities related to different aspects of the building and construction process (see Chapter 2—Science and Technology Policy).

#### **MOW Building Programme**

8.108. *Depot Housing.*—The junior staff of the Ministry of Works have not been adequately housed. The Government, therefore, plans to build better staff houses, particularly at depots and sub-depots in the rural areas where there is limited availability of rental houses.

8.109. *Border Control Posts.*—This item covers building projects of various Ministries other than the Ministry of Works, at Border Control Posts such as Police, Immigration, Vehicle Registration and Customs and Excise Departments. Construction has already commenced at Taveta, Lunga Lunga and Moyale and further construction is envisaged at Mandera, Liboi, Lwakhakha, Busia, Keekorok, Isebania, Namanga and Malaba.

8.110. *Electrification of Government Buildings.*—There is a long list of townships in the Republic which require electrification of Government buildings. Implementation of this programme is based on the work programme drawn up by the Ministry of Power and Communications and the East African Power and Lighting Company. The Buildings Department will draw up a programme on electrification conforming to the recommendations of these two organizations.

8.111. *Coast Protection Works.*—This programme provides protection against erosion in towns such as Lamu, Malindi and Mombasa as well as in settlement scheme villages, Government installations such as Navy Camps, Government Fisheries Department establishments, etc. Major roads in the coastal area also benefit from this programme.

8.112. *Public Works (Non-recurrent).*—Funds for this programme will be spent on minor works, not exceeding K£5,000 of an emergency, health or security nature.

8.113. *Mechanical Branch Buildings*.—There is an urgent need for new mechanical workshops in many locations in order to service Government vehicles and the Ministry's own fleet of vehicles. The Government intends to construct these workshops.

8.114. *Supplies Branch Buildings*.—The Supplies Branch is being re-organized in order to decentralize activities to the provinces. This decentralization will require the construction of new stores and the improvement of stores in provincial headquarters.

8.115. *Staff Training Department*.—In order to meet the increased demand for various supervisory staff such as mechanics, plant operators, road inspectors and road overseers, the Ministry's training activities will be augmented during the plan period. The Buildings Department will participate in the training schemes developed by the National Industrial Vocational Training Centre located in Nairobi and other technical institutions in the country. The objective is to ensure that the training programmes cover the tasks involved in key areas of building and construction, the core of the industry's activities, and the skills which are particularly scarce. The Ministry of Works will also develop in-service training programmes to ensure that its own staff are conversant with the necessary procedures and capable of fulfilling the functions which the Ministry has to carry out in its role as planner, supervisor and co-ordinator of the Government-wide buildings programme.

8.116. In order to enable the Buildings Department to implement efficiently the Government building programme, Accounting Officers in Government Ministries must ensure that the following Government regulations are adhered to:—

- i. Complete building requirements, including land sites demarcated by Commissioner of Lands, for every financial year are to be submitted to the Buildings Department at least 12 months before the beginning of the financial year in which funds are made available and the work is to commence. This is to allow for the necessary preliminary survey of sites and design work to be undertaken and to enable full spending of the funds properly estimated and made available during each financial year.
- ii. Sites for projects will be obtained by individual Ministries, well in advance, prior to submission of building requirements as preliminary survey and design work cannot be otherwise undertaken.
- iii. Ministries will set up their own forward planning units for the purpose of collection and co-ordination of briefs required for design purposes.
- iv. Tenders have a 60-day validity period. Ministries will be required to process "Letters of Acceptance" for recommended tenders within this time so as to obviate re-tendering of building projects and subsequent increase of prices.



- v. Progress payments to contractors are made within 14 days of receipt of invoices by each Ministry in accordance with contract procedures. Ministries will be required to make the payments within this period to avert delays of works by contractors.

### Private Sector Activity

8.117. During the previous plan period, investment by the private sector in Building and Construction in real terms was on the decline. This was mainly due to the high rate of inflation and recession that occurred in this period. However, the sector's performance started improving in 1977 and this trend is expected to continue over this plan period as shown in Table 8.12. Private investment in residential buildings is projected to grow at a rate of 6.2 per cent per annum and rise from K£34.6 million in 1976 to K£50.6 million in 1983. This includes activities in traditional residential houses that are expected to grow at the rate of 3.5 per cent. The non-residential building sub-sector is expected to register a rate of growth of about 9.0 per cent per annum in private investment. At 9 per cent rate of growth, investment in non-residential buildings will grow from K£10.06 million in 1976 to K£18.41 million in 1983. Private investment in construction activities will grow at the rate of 3.6 per cent per annum rising from K£4.67 million in 1976 to K£8.54 million in 1983.

#### PRIVATE SECTOR: PROJECTED CAPITAL INVESTMENT (K£ MILLION)

Table 8.12

1976 constant prices

	1976	1979	1983	Annual Growth Rate Percentage 1976/83
Residential Buildings .. .. .	34.6	39.9	50.6	6.2
Non-Residential .. .. .	10.06	12.44	18.41	9.0
Other Construction .. .. .	4.67	5.77	8.54	3.6
<b>TOTAL .. .. .</b>	<b>49.33</b>	<b>58.15</b>	<b>77.59</b>	<b>6.7</b>

Figures based on past trend of proportions between the private and public sectors and tied down to the GDP growth projections in Chapter 3.

8.118. Private sector building, both residential and non-residential, has shown a pattern of dispersion out of Nairobi. This trend is expected to continue over the plan period as other towns continue to grow. Nairobi accounted for 88 per cent of the total building activity in 1971. This proportion dropped to 72 per cent in 1976. Mombasa's share of total building activity in the same period was 10 and 14 per cent respectively. The share of other towns, rose from 2 per cent in 1971 to 14 per cent in 1976. The Government will continue to promote the geographical dispersion of building and construction activity.

8.119. It has been observed that rents charged for residential property are excessive. This is particularly so in the case of houses rented in urban areas. The high rents adversely affect the standard of living of medium and low

income groups. While recognizing that reasonable returns on investment in residential property is desirable, the Government has decided that rents should not rise to unacceptable levels. During this plan period appropriate actions will be taken to curb the high rents. This will take into account the actual relationship between construction costs and rentals.

### **Energy Sector**

8.120. The need to formulate comprehensive national energy development plans has become generally recognized by developed and developing countries alike in the aftermath of the 1973-74 energy crisis. The rising costs of energy supplies, and more particularly that of petroleum, have had adverse effects on the foreign exchange resources of many economies and raised costs of production. Kenya is no exception. About 85 per cent of commercially traded energy in Kenya is derived from imported petroleum. About one quarter of the nation's foreign exchange earnings is used for petroleum imports. This high dependence on foreign energy resources and the role energy plays in all economic activities necessitate high priority being accorded to the comprehensive planning of the development of the energy sector.

8.121. The rural population faces an equally severe problem due to their almost exclusive reliance on firewood. This dependency results in deforestation on a potentially catastrophic scale. Arresting this process will require a combination of programmes such as reforestation, introduction of renewable sources of energy, and changes in the management of available wood supply. On the positive side, Kenya has made important strides in developing some of her indigenous energy sources. Over one third of the total estimated hydroelectric potential of 700 MW has already been developed. Geothermal potential is estimated at about 500 MW, with the first geothermal station producing 15 MW coming into operation in 1981.

8.122. During this plan period, the development objectives for the energy sector will be:—

- i. increasing the supply of energy to meet the requirements of the economy;
- ii. rationalizing the use of imported petroleum;
- iii. developing indigenous energy resources; and
- iv. lessening dependence on imported fuels.

### **Energy Consumption**

8.123. The demand for energy will continue to rise with the growth of the economy. Table 8.13 indicates the overall consumption of the major forms of commercial energy during the period 1973-77 and projections for 1983. It will be observed that the consumption of petroleum fuels during the 1973-77 period grew at an annual rate of 4.2 per cent. Electricity consumption, on the other hand, rose during the same period at an annual rate of 8.1 per cent. Consumption of locally produced electricity rose from 97,900 tonnes oil

equivalent in 1973 to 140,000 tonnes oil equivalent in 1976. Imported electricity as a percentage of total electricity consumed dropped from 30 per cent in 1973 to 10 per cent in 1976. It should be noted that the share of oil out of the total energy consumed declined by 1.2 per cent during the period 1973-77 whereas the share of electricity in total energy consumed rose by 1.6 per cent. As can be seen in Table 8.13, the consumption of coal and coke, which is used mainly in industry, declined during the period at about 2.9 per cent per annum.

CONSUMPTION OF ENERGY EXPRESSED IN TERMS PRIMARY SOURCES

Table 8.13

Form of Energy	Oil Equivalent ('000 Tonnes)		Percentage Annual Rate of Increase 1973-77	Per cent of Total Energy Consumed		Forecast 1983	
	1973	1977		1973	1977	Oil Equivalent ('000 Tonnes)	Per cent share
Coal and Coke ..	50.0	43.8	-2.9	3.2	2.3	36.3	1.5
Oil ..	1,359.9	1,605.90	4.2	86.0	85.0	2,085.3	84.7
Electricity ..	170.4	232.6	8.1	10.8	12.4	339.0	13.8
<b>TOTAL ENERGY</b>	<b>1,580.3</b>	<b>1,806.5</b>	<b>4.5</b>	<b>100.0</b>	<b>100.0</b>	<b>2,460.6</b>	<b>100.0</b>
Import as percentage of total energy consumed ..	83.0	74.4					
<i>Per Capita</i> Consumption in terms of kg. Oil Equivalent ..	127	131					

### Electricity Consumption

8.124. Total consumption of electricity over the last five years rose from 860 Gega watt Hours (GWH) in 1973 to 1082 GWH in 1976. In view of the increased economic activity in urban and rural sectors, the demand for electricity is expected to grow at a rate of 9 per cent per annum over the next five years. In terms of Megawatts (MW), demand will increase from 200 MW in 1976 to 352 MW in 1983.

8.125. In 1976, the domestic installed generation capacity was about 295 MW. This will rise to 510 MW in 1983. The total exploitable potential of the Tana River is estimated to be 540 MW. In addition, the potential of other smaller rivers is estimated to be 230 MW. To this should be added the potential of geothermal resources, which for Olkaria alone is estimated to be about 170 MW. Table 8.14 shows the potential supply of electricity from different hydro-power and geothermal sources. From the table, it can be seen that demand for electricity at present and for the next 10-15 years can be met from available hydro and geothermal resources, if these are fully exploited.

EXPLOITABLE POWER FROM EXISTING AND POTENTIAL HYDRO\* AND GEOTHERMAL RESOURCES: 1976

Table 8.14

River	Location/Power Station	EXISTING		Planned Potential	Total Exploitable Potential
		Installed Capacity	Actual Average output		
Tana	Tana/Wanjii .. .. .	22	20		
	Kindaruma .. .. .	44	20		
	Kamburu .. .. .	84	51		
	Gitaru .. .. .	145	93		
	Upper Reservoir .. .. .	—	—	40	
	Kiambere .. .. .	—	—	120	
	Mutonga .. .. .	—	—	70	
	Grand Falls .. .. .	—	—	80	
	Karura .. .. .	—	—	40	
	Adamson's Falls .. .. .	—	—	50	
	Koreh .. .. .	—	—	80	
Usueni .. .. .	—	—	60		
	<b>TOTAL TANA</b> .. .. .	<b>295</b>	<b>184</b>	<b>540</b>	<b>835</b>
Nzoia ..	Broderick Falls .. .. .	—	—	10	
Yala ..	Kimundi Confluence .. .. .	—	—	40	
Sondu ..	Sondu .. .. .	—	—	60	
Aror ..	Kapsowar .. .. .	—	—	20	
Turkwel ..	Turkwel Gorge .. .. .	—	—	100	
	<b>TOTAL OTHER RIVERS</b>	<b>—</b>	<b>—</b>	<b>230</b>	<b>230</b>
Geothermal	Olkaria Valley .. .. .	—	—	30	174
	Other Areas .. .. .	—	—	0	326
	<b>TOTAL GEOTHERMAL</b>	<b>—</b>	<b>—</b>	<b>30</b>	<b>500</b>
<b>TOTAL</b>	<b>Power .. .. .</b>	<b>295</b>	<b>184</b>	<b>800</b>	<b>1,565</b>

\*Under average river-flow conditions.

**Fuel Consumption**

8.126. Table 8.15 indicates the consumption of petroleum fuels in 1976 and estimated for 1978 and 1983. From the table it will be observed that the rate of growth of consumption of all petroleum fuels was 7.2 per cent per annum between 1976 and 1978 as compared to 4.2 per cent per annum for the 1973-77 period. In the 1978-83 period the highest growth rate will be registered in the turbo fuel which is used by aircraft. Its consumption will

GROWTH OF DOMESTIC CONSUMPTION OF PETROLEUM FUELS

Table 8.15

Litres 000

Fuels	1976 Actual (Demand)	1978 Estimated	Growth Rates Percentage	1983 (Forecast)
Liquefied Petroleum Gas .. .. .	14,700	16,885	7.2	23,682
Motor Spirit .. .. .	333,553	376,267	6.3	503,530
Aviation Spirit .. .. .	8,281	10,500	12.7	19,345
Turbo Fuel .. .. .	407,490	530,132	14.0	1,020,723
Lighting Kerosene .. .. .	67,798	74,505	4.9	95,089
Power Kerosene .. .. .	254	190	-15.8	—
Light Diesel Oil .. .. .	340,806	409,083	9.5	643,999
Heavy Diesel Oil .. .. .	52,811	59,182	5.8	78,454
Fuel Oil .. .. .	534,012	549,719	1.5	592,207
<b>TOTAL FUELS.. .. .</b>	<b>1,759,705</b>	<b>2,026,461</b>	<b>7.2</b>	<b>—</b>

rise from 407 million litres in 1976 to 1,001 million litres in 1983. Most of the diesel oil and motor spirit which grew at about 9.5 per cent per annum and 6.3 per cent per annum respectively, between 1976 and 1978, are forecast to rise to about 644 million litres and about 504 million litres respectively in 1983.

### **Wood and Charcoal Consumption**

8.127. Wood and charcoal are the main sources of energy in the rural areas and in some industries. It is estimated that the annual consumption of fuel wood and charcoal is well in excess of 10 million tonnes per annum and will increase at a rate of at least 3.5 per cent per annum unless alternatives can be offered to the rural population. The programmes for the development of indigenous energy resources discussed below aim at providing these alternatives.

### **Development Programmes for Petroleum Fuels**

8.128. Development activities in the oil industry will mainly consist of investments in the refinery, improvement in the efficiency of distribution by oil companies, expansion programmes of oil companies, rationalization of use and conservation of oil, oil exploration, and the development of power alcohol.

8.129. *Rationalization of Use of Oil.*—According to the data on consumption of petroleum fuels, 15 per cent is used in industrial and commercial enterprises; 64 per cent in transport, of which 24 per cent is in road transport, and 8 per cent in rail transport. More rational use of petroleum will be effected especially in the transport sector which consumes the largest percentage of petroleum fuels. As indicated earlier, road transport consumes more oil per freight ton hauled than rail transport. Measures to be taken, as stated in the rail-road-oil-pipeline co-ordination section, will rationalize rail-road and oil pipeline modes of transportation and have the effect of reducing oil consumption in the transport sector.

8.130. *Oil Refinery.*—The Kenya oil refinery at Mombasa has a capacity of refining 4.8 million tonnes of crude oil per annum. Throughout the plan period, the refinery will operate with excess capacity, and no expansion is, therefore, planned. However, K£810,000 will be used to install a computerized process supervisory system to improve the overall efficiency and recovery of the finished products. This, along with the secondary processing units to be installed at the refinery, will improve product yields of crude oil imports.

8.131. *Power Alcohol.*—Alcohol can be used as a substitute for petrol. Some of the sources of power alcohol which are locally available are cassava and molasses. Two enterprises for the domestic manufacture of alcohol will be implemented during this plan period. The power alcohol produced will be blended with petrol. This will result in some reduction in imports of crude oil from overseas.

8.132. *Oil Exploration.*—Approximately one third of Kenya's land area is considered geologically to have oil bearing potential. A total of K£11.0 million has been spent since 1970 by the oil companies in their search for oil. While oil discovery has been unsuccessful, the search for oil and natural gas continues. These efforts will be intensified with planned Government participation, as the importance of being able to assess, with greater certainty, the country's resource potential is clearly recognized. The development of a national energy policy requires a thorough understanding of the resource base so that development planning can take into account realistic estimates of the potential.

### **Development Programmes for Electricity**

8.133. The completion of Gitaru Power Station has added 145 MW to the installed capacity. The Upper Reservoir (Masinga Power Station), which is being financed as a multi-purpose project costing about K£50 million, is to be completed in 1982, and will add 40 MW to the system. This will also increase the firm capacity of the existing hydro-stations during the dry periods, as the Tana River flows will be more uniformly regulated.

8.134. The construction of the next hydro station on the River Tana (at Kiambere Gorge) is scheduled to start in 1981 and to be completed by 1985. The project will cost about K£60 million and will add another 120 MW of installed capacity to the system.

8.135. A 220 kV. single-circuit transmission line will be constructed between the Tana River Hydro Station and Mombasa, to transfer the surplus hydro energy to Mombasa in order to save fuel costs on thermal generation. This transmission line, together with terminal equipment, will cost about K£16 million. Furthermore, about 250 km. of 132 kV. lines will be constructed in the Western and Mt. Kenya areas to reinforce the existing system and meet the future industrial demand in these areas.

### **Geothermal**

8.136. In the next five to six years, further exploration of geothermal potential of the country will be carried out in areas other than Olkaria. This will involve a total capital outlay of about K£2.0 million. Exploitation of the existing potential will include the construction of one 15 MW station at Olkaria which is planned for completion in mid-1981 at a cost of some K£12 million, followed by another 15 MW station the following year at an additional cost of K£8 million.

### **Rural Electrification**

8.137. The Rural Electrification Programme is a Government initiated scheme for the provision of electricity in rural areas. This will help develop these areas and raise the standard of living of the rural people. The programme will require an estimated K£4.2 million for the period 1979-83 compared to K£1.4 million for the period 1974-78. The selection of centres

for electrification will in general support the hierarchy of Designated Service Centres (*see* Chapter 2). However, priorities among the various centres will be determined on the basis of the following:—

- i. main rural centres with potential customers in densely populated surrounding areas;
- ii. all important administrative centres in sparsely populated areas;
- iii. remaining rural centres in densely populated areas; and
- iv. areas with interconnecting lines.

8.138. The rural electrification programme during the plan period comprises 48 projects. Table 8.16 indicates the number and costs of projects in each province.

RURAL ELECTRIFICATION PROJECTS, 1978/79–1982/83

Table 8.16

Province	Number of Projects	Cost K£
Central .. .. .	7	810,000
Coast .. .. .	6	400,000
Eastern .. .. .	14	825,000
North-Eastern .. .. .	2	285,000
Nyanza .. .. .	7	375,000
Rift Valley .. .. .	6	945,000
Western .. .. .	6	575,000
<b>TOTAL .. .. .</b>	<b>48</b>	<b>4,215,000</b>

### Electricity Tariffs

8.139. A new tariff structure which is both rational and simple was introduced by East African Power and Lighting Company with effect from 1st January, 1979. It has only 5 categories of consumers as against 7 in the old tariff structure. The categories are as follows:—

- i. consumers with monthly consumption not exceeding 7,000 kWh.;
- ii. consumers with monthly consumption between 7,000 and 100,000 kWh.;
- iii. consumers with consumption exceeding 100,000 kWh. per month;
- iv. off-peak supplies; and
- v. public lighting.

8.140. Each category of consumer will be charged at a rate that reflects more closely the cost of providing the supply to that customer. Consumers under category (iii) are also offered a reduced rate for units consumed during off-peak hours. This will be possible as their electricity supply will be provided when demand is low.

## **Development of Indigenous Resources**

8.141. To reduce dependence on imported fuels, indigenous resources of energy have to be developed. As indicated earlier, exploration findings on the geothermal fields indicate that the electrical power which can be exploited from these resources are as high as 170 MW for Olkaria. There are indications that the country has a potential of over 500 MW of geothermal energy. There will be a phased development of geothermal energy resources in the future.

8.142. Other forms of energy will be explored and developed. Afforestation programmes will be implemented to provide the required wood and charcoal fuel. Plans are underway to plant, as a pilot project, 20,000 hectares of eucalyptus species mainly for the production of fuelwood and poles in semi-arid areas during the plan period. Research on non-conventional sources of energy such as biogas, sun and wind will be intensified. Pilot projects on these forms of energy are already being implemented, mainly in the rural areas.

## **Institutional Arrangements**

8.143. The Ministry of Power and Communications has overall responsibilities for the development of the energy sector. This includes responsibility for formulation of the energy policy. Because of its heavy responsibility in this field, it will strengthen its capacity to plan comprehensive energy development. The recently established Inter-ministerial Committee on Energy Resources, now functioning under the auspices of the National Council for Science and Technology, will be supported by an adequately staffed division in the Planning Department of the Ministry of Power and Communications.

8.144. The petroleum industry, a major component of the energy sector, is largely composed of large international oil companies which import their crude oil supplies. The crude oil is refined at a fee, and the refined products are then distributed throughout the country. The companies will, during this plan period, be called upon to co-operate in implementing proposals described earlier to transport oil by rail to centres north and west of Nairobi. The implementation of this distribution programme will necessitate oil depots being constructed at selected terminals along the railways network and at Malaba for storage of oil to be exported to countries to the West of Kenya.

8.145. The Kenya Power Company and the Tana River Development Company, whose main functions are the development of resources for the generation of electricity, will investigate other power resource potentials from both hydro and geothermal sources. In performing this function, they will collaborate with such organizations as the Tana River Development Authority and the East African Power and Lighting Company, the main distributor of electricity. Kenya is one of the countries with the highest prices for electricity.



This may limit the use of electricity as a major form of energy. All organizations engaged in the generation and distribution of power will, therefore, be required to effect efficiency in production and distribution so as to lower these costs and thus cheapen the price of power.

### **Conservation of Energy**

8.146. In the past, insufficient attention has been given to the subject of conservation of energy. As a developing country, the prospects are that the use of energy will increase, particularly in the commercial and industrial sectors. To make the best use of the limited energy resources, the following measures will be taken. Firstly, most of the imported fuels are consumed in the transport industry. In order to save on fuel in this sector, emphasis will be put on encouraging the use of public transport as opposed to private transport. Secondly, the energy use/output ratio will be improved by all users of energy. The public, through the mass media, will be educated on energy conservation techniques. Thirdly, afforestation programmes will be speeded up particularly in the semi-arid areas. Fourthly, other fiscal measures will be introduced to help rationalize the use of imported fuels.

### **Environmental Impacts**

8.147. The generation and use of energy often has adverse environmental effects which should be avoided. Smoke and fumes from factories, houses and vehicles cause air pollution which affects the ecological patterns of an area. The construction of dams for electricity generation changes the pattern of the aquatic life downstream and the ecological balance in the surrounding areas. The development of geothermal resources for electricity development produces poisonous gases, effluent water and noise. The uncontrolled felling of trees for charcoal burning produces pollution, desertification and soil erosion. All of these factors will be considered before different forms of energy are developed or exploited. During the plan period, standards will be prescribed that will be observed by all enterprises that generate and transport or transmit energy. Existing anti-pollution laws will be strictly implemented. Environmental Impact Reports will be required before new projects are approved (*see Chapter 2*).

### **Ministry of Power and Communications Forward Budgets**

8.148. The development and recurrent expenditure forward budget for the Ministry of Power and Communications are shown in Tables 8.17 and 8.18 respectively. Development expenditures cover all the corporations and departments under the Ministry. However, although the development expenditures of the self-financing corporations are shown in the table, they are not included in the total of the allocations to the Ministry. The self-financing corporations are Harbours, Posts and Telecommunications, and Kenextel. The allocation to Kenya Railways amounting to K£31.75 million includes K£26.75 million which is part of the funds already passed on to the Corporation for the purchase of locomotives and wagons.

MINISTRY OF POWER AND COMMUNICATIONS—SUMMARY OF DEVELOPMENT EXPENDITURES, 1978/79-1982/83

Table 8.17

Head	Title	1978/79	1979/80	1980/81	1981/82	1982/83	Total
441	Planning and Feasibility Study	22.00	—	913.00	431.00	373.54	22.00
442	Meteorological Department	1,714.76	3,342.00	1,100.00	950.00	863.70	6,774.30
443	Directorate of Civil Aviation	2,829.88	2,056.80	1,450.00	1,500.00	1,000.00	7,799.88
444	Energy Development	1,500.03	1,950.00	15,507.00	8,629.30	7,637.00	7,400.03
450	Posts and Telecommunications*	7,305.65	14,775.95	5,143.50	3,865.00	3,464.50	53,854.90
454	Harbours*	8,513.00	7,924.50	1,930.00	386.80	—	28,885.50
457	Railways	26,753.51	2,683.20	1,640.00	386.80	300.00	31,753.51
461	Nairobi Airport	3,228.00	2,350.00	640.00	110.00	120.00	6,554.00
462	Mombasa Airport	830.00	750.00	225.00	110.00	120.00	2,185.00
463	Other Airports	422.00	660.00	645.00	440.00	305.00	2,472.00
464	Airstrips	561.50	748.00	1,003.00	1,305.00	1,318.00	4,935.00
469	Airways	5,350.00	—	—	1,000.00	3,155.00	9,505.00
471	E.A. Shipping Line	—	100.00	100.00	100.00	100.00	400.00
472	Kenya National Shipping Line	—	244.00	360.00	750.00	750.00	2,104.10
476	Road Transport	100.00	116.00	134.00	156.00	181.00	687.00
	Kenextel*	1,028.30	4,191.70	2,217.50	2,855.00	1,000.00	11,292.50
	Unallocated	—	—	—	2,585.20	3,034.27	5,619.47
	TOTAL	43,312.46	15,000.00	8,500.00	10,000.00	11,500.00	88,312.46

\*Self-Financing—Figures not included in Total of D.14.

MINISTRY OF POWER AND COMMUNICATIONS RECURRENT EXPENDITURE, 1978/79-1982/83

Table 8.18

Head	Title	1978/79	1979/80	1980/81	1981/82	1982/83	Total
440, 441, 443	General Administration	4,801.00	5,113.00	5,445.00	5,799.30	6,176.30	27,335.00
460, 464	Aerodromes	2,793.60	2,974.50	3,166.90	3,373.80	3,593.10	15,902.90
475	Road Transport	300.70	319.50	340.00	362.30	385.90	1,708.40
	Unallocated	0.30	1.00	1.70	1.60	1.70	5.70
	TOTAL	7,895.30	8,407.00	8,953.30	9,535.40	10,155.30	44,946.30

## CHAPTER 9—OTHER GOVERNMENT SERVICES

9.1. This chapter addresses itself to Government services not specifically covered in the previous chapters. These services include labour, information, local government, foreign affairs, internal security, defence, judiciary, statistics, planning, finance and administration.

### LABOUR

9.2. Kenya's most important resource for development is her people. In order to serve development aims effectively, workers at all levels must be equipped with useful skills in relation to the requirements of the economy. The Ministry of Labour participates in the development and application of skills through its responsibilities for manpower development, industrial relations and Kenyanization of personnel.

9.3. Medium- and high-level manpower continues to represent an area of shortage both in the public and private sectors. The Ministry of Labour will reduce manpower constraints through its various programmes of industrial and artisan skill training. Details on training and skilled manpower development are presented in Chapter 10.

9.4. The existence of good industrial relations is a prerequisite for high rates of economic development and employment. In Kenya, the number of industrial disputes has been declining since 1974. This is attributed to the reorganization and better management of the trade unions, provision of workers' education, better terms and conditions of employment, and the continuing review of the industrial relations charter.

9.5. The past development of the economy has resulted in rising wage levels. These levels vary among sectors and contribute to disparities in sectoral and occupational income distribution. In turn, a high labour turnover is experienced particularly within the high and middle level manpower groups. During this plan period, the Government will review wage structures within the public and private sectors and establish firm guidelines for the harmonization of wages throughout the economy.

9.6. During the plan period the following industrial relations strategy will be followed—

- i. establishment of a conciliation and investigation service to deal with trade disputes, and to advise management and labour on ways and means of preventing industrial conflicts;
- ii. expansion and strengthening of field staff in existing labour offices, and opening new offices in high employment areas;

- iii. development of a scheme of service for labour administrators to ensure adequate career prospects;
- iv. amendments to the Trade Disputes Act, Factories Act and Workmen's Compensation Act to bring them in line with changing circumstances;
- v. periodic review of the Wages Guidelines.

9.7. The previous Kenyanization policies and programmes have enhanced employment and manpower development. Since Kenyanization is almost complete, except in a few professional occupations, efforts will now be directed to employment services and enforcement of the Employment Service Rules, 1977, which require employers to notify employment offices of all job vacancies. Enforcement of this requirement will bring together potential employers and jobseekers in the labour market and limit the importance of economic status and personal networks of family and friends in gaining employment. A labour information service will be started in each district as indicated in Chapter 6.

9.8. Private placement agencies will be required to obtain a licence from the Labour Commissioner. This licensing requirement will help introduce equity and efficiency in the labour market by eliminating placement agencies which charge high fees for inadequate or non-existent services.

9.9. The importance attached to the development of adequate technical manpower at all levels for industry is reflected in the Industrial Training Act. In order to meet specific sectorial manpower requirements, training committees have been established to look after training needs in those sectors. A training levy is collected from employers and disbursed to industries that have training programmes in order to defray part of their training expenses. This approach induces individual firms to increase their own training provisions while providing a fair means of apportioning the cost among the employers, the employees, the consumers and the Government.

9.10. The Industrial Training Levy is mainly based on the number of employees. Collections of the levy have been disappointingly small due to the large number of defaulters. During the plan period, collection mechanisms will be strengthened and, the base will be changed from employment to capital invested. This change should encourage the more efficient use of capital, bringing excess plant capacity into operation before other capital expenditures are made. Employment will also be encouraged through changes in the relative prices of capital and labour. However, where this new base is inappropriate, other methods will be used.

9.11. To enhance industrial training, three industrial training centres have been opened in Nairobi, Kisumu and Mombasa. At present the full training capacities of these centres are not utilized because some of the levy contributors do not avail themselves of the training opportunities. However, the Government, together with the employers and employees, are studying this problem as it relates to overall national manpower development, and corrective measures will be introduced during this plan period.

9.12. The National Social Security Fund is the programme which provides for the old age retirement benefits for Kenyan workers in the modern sector. Contributions are calculated at 10 per cent of the basic wage and are shared equally between the employer and the employee, subject to a maximum monthly contribution of K.Sh. 160. Women employees, who prior to 1977 were not contributors, have now been registered. During this plan period, all employers irrespective of number of employees, will be registered and become contributors. For improved benefits, the Fund will be converted into a pension scheme.

9.13. The above programmes will be implemented primarily by the Ministry of Labour. The financial details of these programmes are given in Tables 9.1 and 9.2.

#### Ministry of Labour

##### PROJECTED DEVELOPMENT BUDGET K£'000

Table 9.1

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Industrial Relations .. ..	194	258	258	330	412	1,452
Industrial Training .. ..	350	465	465	596	745	2,621
<b>TOTAL .. ..</b>	<b>544</b>	<b>723</b>	<b>723</b>	<b>926</b>	<b>1,157</b>	<b>4,073</b>

##### PROJECTED RECURRENT BUDGET K£'000

Table 9.2

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
General Administration .. ..	209	229	249	247	284	1,218
Industrial Relations .. ..	662	727	788	857	899	3,933
Employment Services .. ..	135	148	160	175	184	802
Industrial Training .. ..	514	564	611	665	698	3,052
National Social Security Fund	910	999	1,083	1,178	1,236	5,406
<b>TOTAL .. ..</b>	<b>2,430</b>	<b>2,667</b>	<b>2,891</b>	<b>3,122</b>	<b>3,301</b>	<b>14,411</b>

### LOCAL GOVERNMENT

9.14. The Ministry of Local Government and the local authorities play an important role in the implementation of the national urban development strategy. This is part of the national policy to redress the imbalance of rural-urban development. Excess rural population will be absorbed in centres other than Nairobi and Mombasa which have potential for further and rapid growth.

9.15. The designated service centre policy is a framework to facilitate, *inter alia*, the choice of location of planned programmes and projects, including social and economic services. These centres form a hierarchy to provide

an equitable distribution of services to the people throughout the country. The hierarchy consists of centres on four levels: urban centres, rural centres, market centres and local centres (refer to Chapter 2 and its appendices).

9.16. The successful implementation of the urban development strategy requires—

- i. the use of the scheduled hierarchy of service centres as a planning guide for the allocation of sectorial infrastructure;
- ii. the development of service centres to guide migrants from the rural areas to centres and towns located in or in close vicinity to rural regions;
- iii. the promotion of efficiency and equity through concentrated development and economies of scale. This will enable as many people as possible to have access to the services supplied in medium-sized and large towns;
- iv. improving the network of communications so as to link economic and social centres with surrounding agricultural areas;
- v. the promotion and strengthening of the service centres strategy through co-ordination and integration with local authorities.

#### **Objective and Strategy Implication**

9.17. The policy of decentralization will continue to be followed. It will provide the basis for the development of local authorities in a period of rapid population growth. It is estimated that by 1983, the total population of the country will be about 17.5 million. The projected urban population growth rate of about 7.0 per cent per annum during the plan period will result in a growth in urban population from 2.1 million in 1978 to approximately 3.0 million by 1983. The rest of the population, approximately 14.5 million will be living in the rural areas.

9.18. As a result of the high growth rate of the urban population, the services available within the municipalities and town councils have been over-stretched. The development of infrastructure services like water, sewerage, housing, public health facilities and schools have not kept pace with the overall demand. In some cases, stop-gap measures have had to be taken to provide for industrial development. In the larger municipalities, many urban dwellers at very low income levels live in conditions that lack the basic minimum services. Hence the urban poor are a target group for the Plan (*see* Chapter 2).

9.19. The finances of local authorities have been deteriorating for a number of years. This decline reflects the elimination of the Graduated Personal Tax (GPT), the abolition of primary school fees in Standards 1 to 6, and increases in teachers salaries. Many municipalities have incurred heavy deficits. Others, like Nairobi and Eldoret, have been forced to utilize the reserves they had accumulated in order to finance recurrent expenditure. Although the Treasury

has paid compensation for loss of GPT, this annual grant has lacked the buoyancy that was in-built in the tax. Thus, the grant has tended to remain static in absolute terms despite increases in costs.

9.20. Other factors which have contributed to the creation of deficit financing in these municipalities stem directly from management shortcomings and the inability to retain qualified and competent staff. This is because the existing salary structure does not make Local Authorities, in general, as competitive as the private sector. In addition, the fact that elected councillors unduly influence the engagement, dismissal and advancement of staff have created situations in which qualified staff have had to resign. Finally, the debt collection effort has been poor.

9.21. The objectives of Local Government during the plan period will be:—

- i. Improvement in the finances of local authorities so that they can finance most of their own requirements for shelter and infrastructure as well as meet maintenance and other recurrent expenses. This objective will be achieved through fiscal and management reforms with appropriate training of staff. The goal will be to restore fiscal autonomy similar to that which existed prior to 1970, within the municipalities and town councils.
- ii. To develop a grant-in-aid system to assist local authorities with inadequate resources.
- iii. To continue to promote democratic local government and public participation through elected representatives.
- iv. To continue to train elected representatives for democratic leadership, and to train staff members in all categories of skills required to administer local authorities efficiently.

### Organization of Local Authorities

9.22. The structure of local authorities consists of four categories of councils, namely: municipal councils, town councils, county councils, and urban councils.

9.23. *Municipal Councils.*—There are eleven municipal councils for the following urban areas:—

Nairobi.	Thika.	Nyeri.
Mombasa.	Kitale.	Embu.
Kisumu.	Eldoret.	Meru.
Nakuru.	Kakamega.	

9.24. *Town Councils.*—The following are the eleven existing town councils:—

Machakos.	Malindi.	Kiambu.
Murang'a.	Kericho.	Nyahururu.
Kisii.	Bungoma.	Nanyuki.
Karatina.	Webuye.	

A number of these town councils have demonstrated vitality in providing increased services to their populations and attracting industrial investment. During the plan period some of the more progressive town councils will be elevated to municipal council status.

9.25. *County Councils.*—The boundaries for county councils are the same as for administrative districts. Any major adjustment in district boundaries will necessitate similar adjustments to county areas. All service centres with the exception of municipalities and town councils are in the jurisdiction of county councils.

9.26. *Urban Councils.*—There are three urban councils: Athi River, Homa Bay and Lamu. During the plan period, some urban centres will be given the status of urban council.

9.27. The elevation of councils to a higher status will depend on the size of the population served, and the ability of the council to raise and manage its own funds. Priority will be given to centres mentioned in Chapter 2 under the Rural-Urban Balance Section.

### **Functions of Local Authorities**

9.28. The seven largest municipalities provide the broadest range of services, including primary education, health services, sewerage, water supply, road construction and maintenance. The four smaller municipalities have fewer functions, with no responsibility for primary education. Town councils have a more limited range of functions.

9.29. The county councils serve the entire county except for areas that are constituted into municipalities or town councils. In the past, their functions were drastically reduced when their responsibilities for primary education, public health and roads were assumed by the Central Government. During the plan period, the county councils will be strengthened to take on more responsibilities.

9.30. Urban councils are under the jurisdiction of county councils. They assist county councils by preparing their own budget requirements and submit the budgets to the county councils. They are responsible for their own planning and development.

9.31. All four categories of local authorities have responsibilities for markets, beer halls and licences. In order to curtail the growing consumption of alcohol, the authorities will be strict in granting licences and will charge higher licensing fees. They will enforce strictly the hours when beer halls and clubs can open and also establish the age limits of customers. Licences will be forfeited when these regulations are abused.



## **Financial Programme for Local Government**

9.32. The Graduated Personal Tax compensation grant will continue to be paid to the municipalities. The Government will pay grants to the municipalities on the basis of ascertained teachers' salaries reflected in the payroll. The number of teachers in a given municipality will be determined not only by the number of classrooms available but also by pupil/teacher ratios, on the basis of a formula to be worked out in consultation with the Ministry of Education. In addition, the Government will also give assistance for health services, in the form of grants for the purchase of drugs.

9.33. Local authorities, especially the municipalities, will rely on rates as their main source of revenue. The Valuation Unit within the Ministry of Local Government, is expected to be fully staffed and effective by July, 1979. The Unit will assist local authorities to update their Valuation Rolls, and to revalue property at intervals of five years. In order to raise adequate revenue, the larger municipalities will introduce differential rating systems, taxing the prime areas of the municipalities at higher rates than the other areas. This approach should enable the larger municipalities to generate adequate revenue by the end of the plan period.

9.34. In addition, existing financial regulations will be reviewed to ensure that the costs of services such as markets and water supplies are fully covered by the fees charged. Fees must be adequate to cover operating expenses, debt service and any proposed expansion programmes.

9.35. County councils will continue to rely on agricultural cess as their major source of revenue. Other sources of revenue will be identified during the plan period. Government realizes that not all county councils are equally endowed with resources and will introduce a grant system to provide for the poorer local authorities. A formula will be worked out to provide funds on an annual basis so that in bad years, the funds will act as a buffer to the effects of a shortfall in revenue.

9.36. The development expenditure for the 1979-83 Plan period is summarized by type of authority in Table 9.3 and by activity in Table 9.4. The aggregate development expenditure for local authorities for the plan period is K£258.6 million. Municipalities including Nairobi will account for 75.6 per cent of this planned investment. Nairobi City Council alone will account for 57.8 per cent of the municipalities expenditure while Mombasa and Kisumu will account for 23.3 per cent and 7.4 per cent respectively. The remaining municipalities will account for 11.5 per cent of the development expenditure.

9.37. Table 9.5 presents the financing sources for the development expenditure. Approximately 32 per cent of the total comes from the Local Government Loans Authority and the Local Authorities own funds. The balance is provided by other Government ministries and the private sector.

**LOCAL AUTHORITIES  
PROJECTED DEVELOPMENT EXPENDITURE**

K£'000

Table 9.3

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
<b>MUNICIPALITIES:—</b>						
Nairobi ..	18,201-0	22,306-0	23,470-0	24,749-0	24,331-0	113,057-0
Mombasa ..	13,874-0	9,486-0	7,700-0	6,493-0	7,930-0	45,483-0
Kisumu ..	2,313-0	3,300-0	3,604-0	2,798-0	2,500-0	14,515-0
Nakuru ..	785-0	863-0	1,234-0	1,348-0	1,306-0	5,536-0
Eldoret ..	1,095-0	1,239-0	1,307-0	1,038-0	1,040-0	5,739-0
Thika ..	744-0	619-0	598-0	738-0	804-0	3,503-0
Kitale ..	694-0	775-0	702-0	626-0	564-0	3,361-0
Nyeri ..	284-0	342-0	379-0	448-0	480-0	1,933-0
Kakamega ..	258-0	150-0	131-0	153-0	193-0	885-0
Embu ..	151-0	146-0	127-0	148-0	186-0	758-0
Meru ..	146-0	142-0	124-0	145-0	180-0	737-0
<b>TOTAL</b>	<b>38,545-0</b>	<b>39,368-0</b>	<b>39,376-0</b>	<b>38,704-0</b>	<b>39,514-0</b>	<b>195,507-0</b>
<b>Town Councils ..</b>	<b>2,629-0</b>	<b>3,724-0</b>	<b>4,085-0</b>	<b>4,198-0</b>	<b>4,133-0</b>	<b>18,769-0</b>
<b>County Councils ..</b>	<b>4,596-0</b>	<b>7,427-0</b>	<b>9,479-0</b>	<b>11,372-0</b>	<b>11,451-0</b>	<b>44,325-0</b>
<b>GRAND TOTAL</b>	<b>45,770-0</b>	<b>50,519-0</b>	<b>52,940-0</b>	<b>54,274-0</b>	<b>55,098-0</b>	<b>258,601-0</b>

LOCAL AUTHORITIES  
PROJECTED MAJOR ANNUAL DEVELOPMENT EXPENDITURE

Table 9.4 K.£'000

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Housing .. .. .	20,912.0	23,292.0	24,077.0	24,801.0	24,661.0	117,743.0
Water .. .. .	15,785.0	15,040.0	15,350.0	14,830.0	16,470.0	77,475.0
Sewerage .. .. .	3,391.0	6,103.0	7,056.0	7,932.0	6,801.0	31,283.0
Roads .. .. .	1,912.0	2,062.0	2,104.0	2,138.0	2,184.0	10,400.0
Education .. .. .	1,334.0	1,406.0	1,474.0	1,545.0	1,615.0	7,374.0
Health .. .. .	1,328.0	1,328.0	1,338.0	1,348.0	1,348.0	6,690.0
Markets .. .. .	404.0	469.0	560.0	618.0	735.0	2,786.0
Others .. .. .	704.0	819.0	981.0	1,062.0	1,284.0	4,850.0
<b>TOTAL</b> .. .. .	<b>45,770.0</b>	<b>50,519.0</b>	<b>52,940.0</b>	<b>54,274.0</b>	<b>55,098.0</b>	<b>258,601.0</b>

**LOCAL AUTHORITIES  
SOURCE OF DEVELOPMENT FUNDS**

K:000

Table 9.5

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Local Government Loans Authority <sup>1</sup> ..	8,567-0	14,794-0	15,044-0	14,324-0	13,264-0	65,993-0
Ministry of Housing and Social Services { NHC <sup>2</sup>	2,925-0	2,712-0	2,016-0	2,663-0	3,836-0	14,152-0
Ministry of Water Development { Others <sup>3</sup>	4,310-0	6,428-0	7,215-0	7,155-0	5,621-0	30,729-0
Local Authorities own Funds ..	12,495-0	11,050-0	11,070-0	11,460-0	13,560-0	59,635-0
Other Government Institutions ..	5,073-0	2,205-0	3,425-0	3,502-0	2,767-0	16,972-0
Private Sector ..	2,200-0	2,380-0	2,470-0	2,670-0	2,800-0	12,520-0
	10,200-0	10,950-0	11,700-0	12,500-0	13,250-0	58,600-0
<b>TOTAL</b> .. .. .	<b>45,770-0</b>	<b>50,519-0</b>	<b>52,940-0</b>	<b>54,274-0</b>	<b>55,098-0</b>	<b>258,601-0</b>

<sup>1</sup>External aid component is about 49.0%.

<sup>2</sup>NHC—National Housing Corporation.

<sup>3</sup>Others includes Central Government staff housing, Second Urban Project, Savings and Loans (K) Ltd., and Housing Finance Corporation of Kenya.

LOCAL GOVERNMENT  
PROJECTED RECURRENT EXPENDITURE

K.E'000

Table 9.6

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
General Administration .. .. .	627.0	664.0	704.0	746.0	791.0	3,532.0
Contribution in Lieu of Rates .. .. .	1,350.0	1,431.0	1,517.0	1,608.0	1,704.0	7,610.0
GPT Compensation Grant .. .. .	2,160.0	2,290.0	2,427.0	2,572.0	2,727.0	12,176.0
School Fees Compensation .. .. .	550.0	583.0	618.0	654.0	694.0	3,099.0
Re-absorption of CDA <sup>1</sup> etc. County Council Staff .. .. .	440.0	466.0	494.0	525.0	556.0	2,481.0
Teachers' Salaries Grant .. .. .	4,512.0	4,783.0	5,070.0	5,374.0	5,697.0	25,436.0
Drugs and Dressings Grant .. .. .	500.0	530.0	562.0	596.0	631.0	2,819.0
Pumwani Maternity Hospital .. .. .	500.0	530.0	562.0	596.0	631.0	2,819.0
Grants to County Councils .. .. .	62.0	66.0	70.0	74.0	79.0	351.0
<b>TOTAL</b> .. .. .	<b>10,701.0</b>	<b>11,343.0</b>	<b>12,024.0</b>	<b>12,745.0</b>	<b>13,510.0</b>	<b>60,323.0</b>

<sup>1</sup>Community Development Assistance.

9.38. The 1979-83 aggregate recurrent expenditure shown in Table 9.6 for Local Government is K£60.3 million including the grants to municipal, town and county councils. This recurrent budget is projected to increase from K£10.7 million in 1978/79 to K£13.5 million in 1982/83 which gives an annual growth rate of 6.0 per cent, slightly less than the projected annual urban population growth rate.

### **Manpower Requirements for Implementation of Development Programme**

9.39. The Ministry of Local Government will continue to assist local authorities in determining their individual priorities and financial responsibilities. The Technical Division of the Ministry will be strengthened and will continue to give assistance in project implementation, particularly to rural areas, county councils and urban councils. The more established municipalities and town councils will be assisted to set up their own technical sections to operate and maintain their infrastructure development.

### **Institutional Arrangements**

9.40. The Ministry of Local Government is the prime agency for guiding and assisting local authorities in determining their individual policies, planning the development of their programmes, and administering their technical and financial responsibilities. A committee consisting of representatives of ministries involved in programming and implementing the engineering services in local authorities will continue to identify and co-ordinate projects concerned with water supplies, sewerage, roads, and land requirements. This committee will also establish priorities for financial allocation. Provincial physical planning will be made more effective in the planning of centres. The local authorities will abide by the plans of the physical planners and other land laws for the purposes of harmonization of overall development of these centres. The Physical Planning Department will undertake the planning in these centres and during this plan period, the relevant legislation will be reviewed to take this into account.

## **INFORMATION AND BROADCASTING**

9.41. The Ministry of Information and Broadcasting is entrusted with the responsibility of informing and educating the people and providing a wide range of entertainment through radio and television. It is also charged with the responsibility of gathering and disseminating news and information throughout the country.

9.42. At present, only the most densely populated parts of the Republic have good radio reception on medium-wave with a back-up of short-wave broadcast. In order to cover the whole nation adequately by radio, the existing radio network will be expanded. In this connection, two 250 kilowatt short-wave transmitting stations will be established in Nairobi for the National and General Services. In addition, the following stations will be constructed or

improved: Timboroa, Kakamega, Kisumu, Kisii, Kapenguria, Nyeri, Embu, Meru, Kitui, Garissa, Galole, Lamu, Mazeras, Voi, Kibwezi, Mbwa Hill, Limuru and Nakuru.

9.43. The expansion of television services will also be carried out but will take second priority to that of the radio. The primary objective is to cover the highly populated areas along the Coast, around Nairobi, Mt. Kenya, Nyanza, Western Kenya and the Rift Valley. The Kenya Posts and Telecommunication system will be used to convey programmes from one station to the other for both radio and television.

9.44. In the information field, the Government's ultimate objective is to establish fully equipped information offices at all provincial and district centres. The purpose is to serve accelerated economic and social development through effective and comprehensive mass communications. Since life styles of many Kenyans are unduly influenced by false and misleading advertising, the Government will establish an Advertising Council to ensure truth in advertising. The Council will be empowered to require advertisement for specified classes of goods and services to be filed with the Council, to demand proof of the validity of any claims made in advertisements and to ban those advertisements which tend to mislead and distort people's basic needs.

9.45. The success of this expansion programme will depend on the availability of sufficient numbers of skilled manpower to install, service and maintain the necessary sophisticated equipment. In the past, the Ministry of Information and Broadcasting depended on the University of Nairobi and overseas institutions for electronics engineers, and diplomates in journalism and graphic arts. During this plan period, the Ministry will make greater use of the Kenya Institute of Mass Communication (KIMC) to train information officers/assistants, technical operators, technicians, radio and television producers, and film projection personnel. In this connection, training facilities at the KIMC will be enhanced to produce at least 300 technicians within the plan period. For better use of resources, the technical training will continue to be done in conjunction with the Kenya Polytechnic.

9.46. The following tables (9.7 and 9.8) give details of the Ministry's financial ceilings allocation for the plan period.

## **FOREIGN AFFAIRS**

9.47. The Ministry of Foreign Affairs articulates national policies on international, political and economic developments and represents Kenyan interests in foreign countries and world councils. A wide network of diplomatic representation has been established in Africa and Europe while thinly distributed contacts exist in Asia. At present, Kenya has nineteen diplomatic missions abroad and one at home. These are: Washington, New York, London, Paris, Stockholm, Brussels, Bonn, Moscow, New Delhi, Jeddah, Cairo, Addis Ababa,

Kf'000

**MINISTRY OF INFORMATION AND BROADCASTING  
PROJECTED DEVELOPMENT EXPENDITURE**

Table 9.7

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Headquarters Administration Services	60-0	120-0	540-0	860-0	1,060-0	2,640-0
Radio Services	2,500-0	2,030-0	2,033-0	1,177-0	810-0	8,550-0
Television Services	840-0	1,475-0	1,440-0	480-0	760-0	4,995-0
Provincial and District Information Services	110-0	130-0	160-0	200-0	200-0	800-0
Press and Kenya News Agency	40-0	50-0	60-0	60-0	50-0	260-0
Mobile Cinema Vans and Libraries	74-0	78-0	82-0	88-0	90-0	412-0
KIMC	706-0	617-0	185-0	135-0	30-0	1,673-0
<b>TOTAL</b>	<b>4,330-0</b>	<b>4,500-0</b>	<b>4,500-0</b>	<b>3,000-0</b>	<b>3,000-0</b>	<b>19,330-0</b>



MINISTRY OF INFORMATION AND BROADCASTING  
PROJECTED RECURRENT EXPENDITURE

Table 9.8

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
General Administration .. .. .	248.6	264.6	282.6	301.6	321.6	1,419.0
Directorate of Information .. .. .	144.6	154.3	164.5	175.5	187.2	826.1
Provincial and District Information Services .. .. .	459.1	489.5	521.8	556.3	593.0	2,619.7
Press and Kenya News Agency .. .. .	514.9	546.7	580.4	616.6	654.8	2,913.4
Mobile Cinema Van and Libraries .. .. .	61.0	65.1	69.6	74.3	79.2	349.2
Presidential Press Unit .. .. .	91.4	96.9	102.8	109.2	115.7	516.0
Mobile Printing Unit .. .. .	22.2	23.6	25.0	26.7	28.3	125.8
Directorate of Broadcasting .. .. .	639.8	681.0	724.8	771.3	821.0	3,637.9
Television Services .. .. .	952.6	1,014.4	1,080.0	1,149.2	1,224.5	5,420.7
Radio Services .. .. .	935.1	997.0	1,062.6	1,132.3	1,207.0	5,334.0
Kenya Institute of Mass Communications .. .. .	254.7	271.8	289.8	309.8	329.7	1,455.8
TOTAL .. .. .	4,324.0	4,604.9	4,903.9	5,222.8	5,562.0	24,617.6

KE'000

Mogadishu, Lusaka, Kinshasa, Lagos, Peking, Ottawa, Tokyo and UNEP in Nairobi. The objective of the Ministry is to promote, project and protect Kenya's interests and image overseas through the Embassies and High Commissions.

9.48. The experience gained during the last fifteen years has revealed that operating diplomatic missions is an expensive undertaking. In order to control expenditure, the following measures will be undertaken:—

- i. Consolidate those Missions which have already been established.
- ii. Selectively open a few more Missions depending on Kenya's interests.
- iii. Continue to accredit Ambassadors and High Commissioners to more than one country.
- iv. Use the available staff more efficiently, through sharing servicing work between Missions on a regional basis.
- v. Discontinue renting buildings and houses by constructing or purchasing them.

9.49. Because of the emerging economic order and the global realignments, Kenya's Missions abroad will continue to play an increasing role in gathering necessary information to aid the Ministry in formulating policies commensurate with changed world situations in order to protect Kenya's economic interest. Further, the Ministry will continue to contribute its share in development and nation building efforts by working closely with the other functional Ministries such as Commerce and Industry, Agriculture, Tourism and Education. Through the Commercial Attachés, for example, the Ministry has been able to look for markets for Kenya's various export products as well as for cheaper sources of Kenya's imports. During the plan period Economic Counsellors will be posted in a few selected Missions to canvass for more economic and technical aid.

9.50. Tables 9.9 and 9.10 summarize expenditure projections for programmes to be implemented by the Ministry of Foreign Affairs.

#### Ministry of Foreign Affairs

##### PROJECTED DEVELOPMENT FORWARD EXPENDITURE, 1978/79—1982/83

Table 9.9

(in K£'000)

	1978/79 K£	1979/80 K£	1980/81 K£	1981/82 K£	1982/83 K£	Total K£
General Administration ..	320.0	—	400.0	400.0	400.0	1,520.0
Diplomatic Representation ..	347.0	700.0	300.0	300.0	300.0	1,947.0
<b>TOTAL .. ..</b>	<b>667.0</b>	<b>700.0</b>	<b>700.0</b>	<b>700.0</b>	<b>700.0</b>	<b>3,467.0</b>

Ministry of Foreign Affairs

PROJECTED RECURRENT EXPENDITURE, 1978/79—1982/83

Table 9.10

(in K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
	K£	K£	K£	K£	K£	K£
General Administration	905.5	907.6	909.5	911.3	913.0	4,546.9
Diplomatic Representation	4,097.8	4,395.4	4,711.5	5,046.7	5,402.0	23,653.4
<b>TOTAL</b>	<b>5,003.3</b>	<b>5,303.0</b>	<b>5,621.0</b>	<b>5,958.0</b>	<b>6,315.0</b>	<b>28,200.3</b>

**JUDICIAL, CIVIL REGISTRATION AND PUBLIC TRUSTEE SERVICES**

9.51. The judicial services are administered by the Judicial Department through the Court of Appeal, the High Court and the subordinate or magistrates courts. In 1978, there were 110 courthouses distributed in all parts of the country.

9.52. With the current pace of development, the work load in administering justice has increased considerably. This is a result of economic activities, awareness of rights, and the resultant social change including criminal aspects. In 1974 there were 486,412 cases filed for hearing. Going by the past trend, it is estimated that 700,000 cases were filed in 1978. This covers civil, divorce, probate and administration, criminal and other cases. To dispose of these cases, the Department besides its judicial officers, appoints provincial administrators in the field to perform judicial duties. Such appointments are made where the work-load does not justify posting full-time magistrates.

9.53. In the area of criminal jurisdiction the work-load depends on detection and filing of cases, and so effective crime control may reduce the number of cases. A Research Unit, planned for the Ministry of Home Affairs is to be accorded high priority, and be made operational to study crime and offer remedial measures.

9.54. In Kenya, the basic law training is done at the University of Nairobi up to a bachelor's degree in law. For those wishing to be admitted as advocates of the High Court of Kenya, further post-graduate training and examination is provided at the Kenya School of Law which has an established training capacity for 60 students. About one third of the qualified advocates are absorbed in the public sector. After some time and experience in the public sector, a substantial number of those qualified advocates elect to move into private practice or the private sector where returns or terms of service are much better. As a result, the Kenyanization targets of the professional cadre of magistrates have not been achieved as anticipated.

9.55. The development programme of the Department emphasizes construction and/or renovation of rural courthouses and staff houses as well as urban

courthouses. Within this programme, new courthouses will be built in Nairobi, Mombasa, Kericho, Murang'a, Naivasha, Malindi, Nyahururu, Homa Bay and Karatina. Rural courthouses are planned for Busia, Kibwezi, Mumias, Uaani, Kilifi, Wundanyi, Ndiwa, Eldama Ravine, Gatundu, Nyamira, Njabini, Narok, Limuru and Kahuro. The staff housing programme will give priority to rural areas.

9.56. Registration of new companies, businesses, trade marks, births and deaths is done by the Attorney-General. In the last few years, there has been a rapid build-up of registrations. This is because of the rapid economic development and the people's awareness of the need for registration of vital events. Envisaged legislation during this plan period will further increase the work-load.

9.57. To enable the standards of the civil registration system to improve, more officers in the field with transport will be provided. At the Central Registry, more staff and machines will be employed so that the country's vital statistics are maintained on a reliable basis.

9.58. As a result of the break-up of the East African Community, there has been a very considerable increase in the work of the Attorney-General's Chambers. Apart from undertaking the extensive legislative drafting required to replace Community Laws, the Attorney-General's Chambers now provides a legal advisory service to the corporations and companies which have replaced the former Community ones. The absorption of the Customs and Excise Department and the Community General Fund Services into various ministries will also increase the future legal work. In order to meet these requirements, additional trained staff will be required not only in Nairobi but at the provincial headquarters.

9.59. The backlog of deceased's estates awaiting action by the Public Trustee has risen steeply in recent years. Such estates now tend to be much larger in size and more complex than was formerly the case. This has inevitably led to delays and resultant hardships to the deceased's dependants. The administration of the deceased's estates is also made more difficult by the state of the present succession law and customs. However, it is hoped that most of these difficulties will be removed when the new Law of Succession is implemented. Under the new arrangements, it will be possible to obtain grant of administration from the Resident Magistrate's Courts. The proposed establishment of District Trust Officers at District Headquarters will aid the next of kin of persons dying in the rural areas to proceed with the administration of such estates with minimum delays.

9.60. Tables 9.11 and 9.12 summarize expenditure projections for the above services.

JUDICIAL, CIVIL REGISTRATION AND PUBLIC TRUSTEE SERVICES  
PROJECTED DEVELOPMENT EXPENDITURE, 1978/79—1982/83

Table 9.11

K£'000

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Judicial Services .. ..	500	350	350	350	350	1,900

PROJECTED RECURRENT EXPENDITURE

Table 9.12

K£'000

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
<i>Office of the Attorney-General</i> Legal Services Registration Services Training } ..	1,626	2,637	1,827	1,937	2,053	10,080
Judicial Services .. ..	1,704	1,806	1,914	2,029	2,151	9,604

### DEFENCE

9.61. Kenya's defence against external aggression is entrusted to the Armed Forces which consist of the Army, Air Force and Navy. Over the years the Armed Forces have undertaken a number of useful projects ranging from the construction of roads and bridges to disaster relief operations, desert locust control, crop harvesting and transportation in inaccessible areas.

9.62. Kenya's faith in peaceful co-existence in the spirit of the OAU and UN charters has resulted in moderate defence expenditures. Instead, resources have been directed to the sectors that contribute to the satisfaction of people's basic needs and alleviation of poverty. However, recent events in the region have forced Kenya to review her defences. As a result, defence expenditures will be increased to improve operational capacity.

9.63. The Armed Forces, through their non-combat training programmes, have contributed significantly in the development of skilled manpower. This includes engineering technicians, machine-tool operators, motor vehicle mechanics and electricians, aircraft mechanics, electronics fitters, welders, plumbers and pipe-fitters. During this plan period, emphasis will be made on the maximum utilization of the available training capacity to meet the Armed Forces technical manpower requirements and possibly to provide trained staff for other sectors.

### INTERNAL SECURITY

9.64. Rapid economic development plus high rates of population increase and urbanization, have increased the pressure on the law and order machinery.

From 1973, crimes reported to the Police increased at an average rate of over 8 per cent per annum. Over the same period, prison population has risen at even higher rates with peaks approaching 20 per cent. In order to meet these challenges, efforts have been made within limited resources to provide the training, equipment, buildings and other supporting services required for internal security.

9.65. The Police force is the primary and largest organ of internal security. It has its own self-contained basic and specialized training facilities in Nairobi and in the field. During the previous plan period, houses and buildings in a number of stations were renovated and upgraded while new stations were established. This has improved the efficiency of the force and the present Plan will continue in the directions already taken.

9.66. Effective crime control requires an efficient and reliable communications network. During the previous plan period, the Police embarked on a modernization programme of their radio communications network by the introduction of an independent system of Ultra High Frequency and Radio Trunk Network. The programme, which will be completed during the first part of this plan period will permit independent telephone communications between the Police Force Headquarters and all urban Police divisions. This programme will also provide teleprinter communications facilities and permit increasing vehicle coverage for mobile radio sets throughout the country.

9.67. As crime is becoming more sophisticated, the Police personnel will be given appropriate training to meet the challenge. The basic training for the Police personnel will continue to be provided at Kiganjo Police College. Specialized training is provided at the new CID Training School which has modern and advanced facilities, while the technical training is provided at the Kenya Polytechnic. Supervisory and management training is provided at the Kenya Institute of Administration and at times abroad, depending on individual requirements.

9.68. Past experience shows that the Police have not been fully involved in discussions on projects which may require Police services for their success. These projects include new settlements and urban development. As stated in Chapter 2 of this Plan, the population in smaller urban areas is expected to grow at 9.5 per cent per annum while the total number of urban areas is expected to increase from 68 in 1978 to 108 in 1983. Also, more settlement projects will be started in this period. As a result, the demand for Police services is expected to increase much more than in the previous plan period. In order to ensure provision of Police services to these projects, the Police will be fully involved when these projects are being discussed at the relevant stages.

9.69. As a result of Kenya's good economic performance and conditions in surrounding areas, Kenya will continue to receive increasing numbers of aliens, some of whom enter Kenya illegally. In order to check the influx, the Police and immigration services will be extended to cover all strategic border points. This will be complemented by the Registration of Persons exercise which was started during the previous plan period.

9.70. The prison services cater for convicted adult criminals whom the courts commit to jail. The number committed has been rising steadily, specially over the last three years, with the result that the service is over-stretched. It presently costs more than K£200 to maintain one prisoner in a year, and further increases are anticipated due to escalating costs of food and materials.

9.71. Successful crime prevention and control requires research on the causes of crime and on the effectiveness of programmes in existence. As mentioned above, the nucleus of a research unit is established in the Ministry of Home Affairs, but its effectiveness has been impaired by shortages of qualified manpower. As crime is now assuming more sophistication and severity, the Research and Planning Unit will be accorded high priority in this plan period.

9.72. Prison officers are trained in the Prison Training School which is now being moved from Nairobi to a new site at Tatu in Kiambu District where modern and advanced training facilities will be provided. Prisoners receive both skill training and general education so that they may be gainfully employed after their discharge. During the period of their internment, the prisoners make goods which are sold to the public and other Government departments to defray part of their maintenance cost.

9.73. The Prisons have over 20,000 acres of land which is used for instruction in agriculture and for the production of crops and livestock which are sold to the public or consumed by the prisoners. However, most of this land is under-utilized due to lack of equipment and vital farm inputs. During the plan period, the farm management section of the Department will be strengthened with personnel and equipment to ensure maximum utilization of the farms.

9.74. About 80 per cent of the prison population is composed of offenders serving sentences of six months or less. From an economic point of view, it costs the Government more to maintain a prisoner than it costs to rehabilitate a probationer. In view of cost and social considerations, the probation services will be expanded vigorously to reach a greater proportion of offenders who would otherwise be sent to prison for terms of less than six months. The Probation Department will be expanded and provided with adequate transport

facilities, trained manpower and office accommodation. Additional probation hostels will be constructed for probationers whose family environments make it impossible or undesirable for them to be based in their homes. These hostels will include training facilities to equip the probationers with skills which will facilitate their employment.

9.75. Rapid urbanization and stresses of development have contributed to an upsurge in juvenile delinquency. This has in turn put considerable pressure on the existing reformatory and remand homes. Opportunities for vocational training of juvenile delinquents is provided to rehabilitate the delinquents and prevent them from becoming hardened criminals. During the plan period, the strengthened Research and Planning Unit of the Ministry of Home Affairs will undertake studies on control of juvenile delinquency. In addition, more facilities, vocational training courses, staff and other infrastructure will be provided.

9.76. Tables 9.13 and 9.14 give projected expenditures to implement the above programmes.

#### **PLANNING, STATISTICS, COMMUNITY AFFAIRS AND NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY**

9.77. The Ministry of Economic Planning and Community Affairs was created in October, 1978, through a Presidential Order that redefined the functions of the former Ministry of Finance and Planning. The Ministry has three main departments: Planning, Central Bureau of Statistics, and Community Affairs, and is also responsible for the National Council for Science and Technology. The functions of the Departments and Council are discussed in the following paragraphs.

9.78. The Planning Department is responsible for the formulation of overall social and economic development goals, strategies, policies, and programmes for the nation. It carries out these functions in close collaboration with the Office of the Vice-President and Ministry of Finance and the operating Ministries. In many of the latter, Planning Divisions have been established to provide economic planning capacity at Ministerial level.

9.79. In accordance with the declared Government policy of taking planning to the local levels, the Ministry is developing planning capacities in the provinces and districts. At provincial level there are Provincial Planning Offices to provide professional and technical guidance to District Development Committees. District Development Officers, chosen by the Planning Department and seconded to the Office of the President, co-ordinate planning activities at the district level.

9.80. The Rural Development Fund has proved successful as a means of encouraging local initiatives for development activities. Implementation



INTERNAL SECURITY SERVICES  
PROJECTED DEVELOPMENT EXPENDITURE

K.£'000

Table 9.13

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Immigration Services .. .. .	25	25	25	25	30	130
Prisons Services .. .. .	975	1,225	1,225	1,225	1,170	5,820
Children's Services .. .. .	130	150	150	150	180	760
Frobation Services .. .. .	70	100	100	100	120	490
TOTAL	1,200	1,500	1,500	1,500	1,500	7,200
Police Services .. .. .	1,632	2,191	2,770	3,080	2,900	12,573

INTERNAL SECURITY SERVICES  
PROJECTED RECURRENT EXPENDITURE

K.£'000

Table 9.14

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Headquarters Services .. .. .	570	604	640	678	719	3,211
Immigration Services .. .. .	847	898	952	1,009	1,069	4,775
National Registration Bureau .. .. .	548	548	409	300	548	2,353
Prisons Services .. .. .	7,139	7,169	7,180	7,184	7,356	36,028
Children's Services .. .. .	742	786	834	884	937	4,183
Probation Services .. .. .	533	565	599	635	673	3,005
TOTAL	10,379	10,570	10,614	10,690	11,302	53,555
Police Services .. .. .	16,544	17,537	18,589	19,705	20,887	93,262

capacity and evaluation procedures will be augmented by the addition of engineers at provincial level and an Inspectorate Unit to provide audit and monitoring capability. Project selection will remain with the District Development Committees with final approval by MEPCA, but control of funds for implementation will be moved from province to district in order to increase the degree of local level control. Allocations to the Fund will more than double over the plan period, as shown below.

#### ALLOCATIONS TO THE RURAL DEVELOPMENT FUND

Table 9.15

(K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
District Development Grants ..	1,500	2,250	2,700	3,200	3,400	13,050
Rural Works Programme ..	1,000	1,500	2,000	2,400	2,800	9,700
<b>TOTAL FOR RURAL DEVELOPMENT FUND</b>	<b>2,500</b>	<b>3,750</b>	<b>4,700</b>	<b>5,600</b>	<b>6,200</b>	<b>22,750</b>

9.81. The Central Bureau of Statistics (CBS) undertakes all statistical work for the Government. This includes data collection and storage, analysis and interpretation. During the last few years the CBS has developed a comprehensive system of economic and socio-demographic statistics to improve the on-going exercise of evaluation and monitoring of the economy.

9.82. This system of data collection has been largely achieved through the first phase of National Integrated Sample Survey Programme (NISSP). The following are some of the surveys undertaken within the Programme: Integrated Rural Survey (IRS); National Demographic Survey (NDS); Rural and Urban labour force survey; Household purchasing pattern; National Fertility Survey (NFS); Half yearly crop monitoring and forecasting; Social indicators; Market prices in rural and urban areas.

9.83. A national population census will be conducted in August, 1979. The census will facilitate the establishment of an up-to-date and comprehensive sample frame to be used in the selection of the national sample which will be versatile and of the size sufficient to enable the data collected to be disaggregated to the district level. The implementation of the second phase of the NISSP will provide a comprehensive data base to evaluate and monitor the extent to which plan objectives are achieved.

9.84. The Community Affairs Department of the Ministry of Economic Planning and Community Affairs handles all matters concerning the winding up of the defunct East African Community (EAC). These include pensions and provident fund matters of the ex-employees of the EAC including the

corporations, negotiations with the other Partner States in respect of equitable, fair and permanent division of assets and liabilities of the Community. Further, the Department is still involved in exchange of documents—accounts, personnel and technical—between Kenya and the other States. During the Plan the Department will assist Kenya in the implementation of agreements reached as a result of East African mediation. The Department is also involved in negotiations concerning ACP and EEC matters and is the contact agency in Kenya Government on ECA matters.

9.85. The National Council for Science and Technology is responsible for the development of science and the use of technology for the social and economic development of Kenya. During the plan period, the council will undertake the approval and co-ordination of all public sector research activities in the country. Further, in order to achieve its objectives, several Government research institutes under the aegis of the Council will be established as discussed in Chapter 2.

9.86. Tables 9.16 and 9.17 present the projected development and recurrent expense for the Minister of Economic Planning and Community Affairs for the planning period.

MINISTRY OF ECONOMIC PLANNING AND COMMUNITY AFFAIRS  
PROJECTED DEVELOPMENT EXPENDITURE

Table 9.16 (K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Rural Development .. .. .	676	1,078	780	659	1,261	4,454
Planning and Feasibility Studies .. .. .	129	135	140	145	125	674
<b>TOTAL .. .. .</b>	<b>805</b>	<b>1,213</b>	<b>920</b>	<b>804</b>	<b>1,386</b>	<b>5,128</b>

MINISTRY OF ECONOMIC PLANNING AND COMMUNITY AFFAIRS  
PROJECTED RECURRENT EXPENDITURE

Table 9.17 (K£'000)

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Headquarters and Provincial Planning Administration .. .. .	558	610	630	664	696	3,158
National Council for Science and Technology .. .. .	115	524	692	972	1,249	3,552
Central Bureau of Statistics .. .. .	745	813	863	910	960	4,291
Research Surveys .. .. .	461	1,448	370	319	321	2,919
Computer Unit .. .. .	656	673	722	740	758	3,549
<b>TOTAL .. .. .</b>	<b>2,535</b>	<b>4,068</b>	<b>3,277</b>	<b>3,605</b>	<b>3,984</b>	<b>17,469</b>

### **Office of the Vice-President and Ministry of Finance (OVPMF)**

9.87. The OVPMF is responsible for the supervision, control and direction of all matters relating to the financial affairs of Kenya and for ensuring sound financial management of public funds. In exercising this role, the OVPMF determines annually the financial allocations to each Government Ministry or department. These allocations are based on the Central Government Forward Budget included in Chapter 4 of this Plan. During the annual allocations, adjustments are made to take into account any changes caused by revision of Government priorities, inflationary effects, additional commitments and the likely availability of revenue during the year.

9.88. The principal means through which the OVPMF controls matters relating to the financial affairs of Kenya are the monetary and fiscal policies discussed in Chapter 2. These policies are designed to promote economic development by dampening inflation, preventing serious and prolonged recessions and ensuring a healthy balance of payments.

9.89. Although the former Ministry of Finance and Planning has now been split between the Office of the Vice-President and Ministry of Finance on the one hand and the Ministry of Economic Planning and Community Affairs on the other, close co-ordination and consultation between the two ministries will be maintained for effective implementation of the Plan.

9.90. Projected expenditures for OVPMF are shown in Tables 9.18 and 9.19.

### **ADMINISTRATION**

9.91. The Office of the President provides administrative services and co-ordinates execution of Government policies and development programmes. As a result of the growth of the economy during the past years, the Office of the President has expanded rapidly to meet the new challenges and offer better and improved services to the people of Kenya.

9.92. The Office of the President exercises its co-ordinating role both at the headquarters and in the field. In the field, administrative services ensure the maintenance of law and order and general good government as well as supervising the implementation of Government development programmes. To ensure effective co-ordination, Development Committees have been established at provincial and district levels and are chaired by the officers of the provincial administration.

9.93. A major thrust of Government policy has been to improve the economic and social aspects of rural life. The Provincial Administration plays an important role in explaining and interpreting to the people the policies and programmes directed towards rural areas. The officers of the provincial administration also monitor development responses in order to inform the Government of the success or failure of development operations.

OFFICE OF THE VICE-PRESIDENT AND MINISTRY OF FINANCE  
PROJECT DEVELOPMENT EXPENDITURE

K£'000

Table 9.18

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
General Administration .. .. .	1,360.0	—	—	—	—	1,360.0
Revenue Collection .. .. .	2,355.0	2,000.0	2,000.0	2,000.0	2,000.0	10,355.0
Government investments:—						
(i) Capital contributions to Banks..	2,390.0	490.0	490.0	490.0	490.1	4,350.1
(ii) Other share services .. .. .	7,762.6	8,397.0	8,690.0	8,806.0	8,124.0	41,779.6
(iii) Loans to enterprise sector ..	3,800.0	—	—	—	—	3,800.0
(iv) Loans to other statutory organi- zations .. .. .	110.0	—	—	—	—	110.0
TOTAL .. .. .	17,777.6	10,887.0	11,180.0	11,296.0	10,614.1	61,754.7

OFFICE OF THE VICE-PRESIDENT AND MINISTRY OF FINANCE  
PROJECTED RECURRENT EXPENDITURE

K£'000

Table 9.19

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
General Administration .. .. .	1,051.0	1,100.0	700.0	650.0	720.0	4,221.0
Financial Services .. .. .	368.0	394.0	413.0	444.0	465.0	2,084.0
Revenue Collection .. .. .	5,003.0	5,432.0	5,815.0	6,177.0	6,493.0	28,920.0
Centralized Services .. .. .	1,356.0	1,497.0	1,523.0	1,604.0	1,687.0	7,667.0
Government Investment .. .. .	337.0	350.0	350.0	35.0	350.0	1,737.0
TOTAL .. .. .	8,115.0	8,773.0	8,801.0	9,225.0	9,715.0	44,629.0

9.94. The Office of the President provides other services which include: Police, which is discussed in the internal security section of this chapter; Personnel Management which is discussed in Chapter 10; Government Press; National Environment Secretariat, which is discussed in Chapter 2; and Inspectorate of Statutory Boards which is discussed in Chapter 10.

9.95. The Government Press is responsible for the printing of Government publications. At times, private printing is also undertaken and appropriate fees charged. The Press has now been expanded and is manufacturing exercise books for the schools at substantial savings compared with private printing costs. During the plan period, studies will be undertaken to establish the capability of the Press with a view to diversifying its operations further.

9.96. As indicated in Chapter 10, the National Youth Service (NYS) is involved in manpower development through its vocational training programmes. Young people of both sexes, between 16 and 30 years of age are brought together in a disciplined environment designed to inculcate good citizenship and improve national unity. Members of the NYS carry out important development projects contributing directly to the advancement of the economy. The training given to its members is aimed at enhancing their opportunities for wage employment or self-employment after their discharge. Recent figures on those who have gained wage employment are as follows: 1974: 670; 1975: 668; 1976: 687.

9.97. Since the Service was started, more than 24,000 young Kenyans have been enrolled as members and projects worth more than K£12 million have been undertaken. In addition, the Service has done considerable work for famine relief, and has been selected as the principal contractor for the K£40 million Tana River Irrigation and Settlement Scheme at Bura.

9.98. During this plan period, the Service will direct its project work towards the development of marginal lands and rural development in general. Secondly, the Service will continue to develop its farms, especially on the Yatta, so that better agricultural training may be afforded to Service members and also in order to build up appropriations-in-aid. Thirdly, existing vocational training courses will be improved both qualitatively and advanced training courses in certain selected trades will be started. Fourthly, recruitment will mainly be made from primary school-leavers, aged between 15 and 25 years.

9.99. Tables 9.20 and 9.21 give projection details of funds that have been earmarked for the Office of the President under which the above services are provided.

OFFICE OF THE PRESIDENT  
PROJECTED DEVELOPMENT EXPENDITURE

K£'000

Table 9.20

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
Field Administration Services ..	850.1	780.0	755.0	880.0	680.0	3,945.1
Administration Police Services ..	110.0	300.0	220.0	310.0	310.0	1,250.0
Government Press ..	350.0	280.0	—	—	—	630.0
Police Services ..	1,631.9	2,191.0	2,770.0	3,080.0	2,900.0	12,572.9
National Youth Service..	1,336.0	1,777.0	1,777.0	2,274.0	2,843.0	10,007.0
Government Chemist ..	58.0	310.0	300.0	100.0	250.0	1,018.0
<b>TOTAL</b> ..	<b>4,336.0</b>	<b>5,638.0</b>	<b>5,822.0</b>	<b>6,644.0</b>	<b>6,983.0</b>	<b>29,423.0</b>

OFFICE OF THE PRESIDENT  
PROJECTED RECURRENT EXPENDITURE

K£'000

Table 9.21

	1978/79	1979/80	1980/81	1981/82	1982/83	Total
General Administration ..	3,089.4	3,274.8	3,471.3	3,679.5	3,900.3	17,415.3
Field Administration Services ..	6,985.1	7,404.2	7,848.5	8,319.4	8,818.6	39,375.8
Administration Police Services ..	3,469.7	3,677.9	3,898.6	4,132.5	4,380.4	19,559.1
Government Press ..	1,148.0	1,216.8	1,289.9	1,367.2	1,449.3	6,471.2
Government Chemist ..	363.4	385.2	408.3	432.8	458.8	2,048.5
Kenyatta Conference Centre ..	63.7	67.5	71.5	75.8	80.4	358.9
National Environment Secretariat ..	16,544.3	17,536.9	18,589.2	19,704.5	20,886.8	93,261.7
Police Services ..	2,738.0	3,005.0	3,258.0	3,567.0	3,719.0	16,287.0
National Youth Service..	336.4	356.6	378.0	400.7	424.7	1,896.4
Government Chemist ..	..	..	..	..	..	..
<b>TOTAL</b> ..	<b>34,738.0</b>	<b>36,924.9</b>	<b>39,213.3</b>	<b>41,679.4</b>	<b>44,118.3</b>	<b>196,673.9</b>

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## **CHAPTER 10—MANPOWER, TRAINING AND DEVELOPMENT OF INSTITUTIONS**

10.1. Providing income-earning opportunities—employment—is a primary goal for the plan period. As discussed in Chapter 2, achieving rapid expansion of employment will require the close co-ordination of a wide range of policies and programmes, including land use, promotion of non-farm rural activities, increased utilization of capacity, and encouraging rather than harassing the informal sector. These programmes and policies can only be effective if the manpower is in place to carry them out and if the institutional network through which they are implemented is functioning efficiently. This final chapter of the Plan is therefore concerned with questions of manpower, training requirements to produce the needed skills for Kenya's work force, and finally an analysis of changes and improvements needed for the development of institutions that will permit the translation of policy initiatives into smooth functioning programmes for development.

### **Manpower Needs**

10.2. An average of more than 225,000 Kenyans will join the labour force in search of employment each year during the plan period. If plan goals are achieved, the rate of increase in employment will slightly exceed that of the labour force, but by 1983, there will still be a substantial pool of unemployed and under-employed persons looking for work.

10.3. At the same time as the pressure for employment is increasing, the economy's growth is limited by shortages of available labour. In some rural areas, peak season demands for labour exceed the supply. In industry and in the public service, efficiency is impeded by a shortage of capable management personnel. Government ministries find it difficult to spend the appropriations they are granted, due in part to shortages of technical skills for project implementation. These skills range from the highly trained graduate engineer to the technician and the artisan.

10.4. The problem is complex. Idle workers and idle capacity exist side by side. Production and implementation suffer from scarcities of technical skills, at the same time that there are empty places in the relevant training institutions. The problems differ by region of the country, by season of the year, and by type of activity. In a dynamic economy like Kenya's, the problems also change from year to year as the pattern of manufacturing alters, new products and technologies are introduced, and cropping patterns shift in response to changes in prices and in consumer and export demand.

10.5. Manpower development programmes within the public sector have achieved a level of Kenyanization which is about 99 per cent complete except in a few professions. At the same time, middle and upper level technical skills have represented bottlenecks in the past, and while improvements are expected over the next five years, this area continues to constitute a persistent manpower shortage. Table 10.1 provides projections to 1983 showing for the public sector the anticipated supply of personnel in a variety of categories, the additional needs, and the resulting deficit over the period. These deficits reflect accumulated manpower shortfall, growth of demand, the effects of Kenyanization and losses through death and retirement. The figures are

PUBLIC SECTOR MANPOWER PROJECTIONS 1979-83

Table 10.1

	Currently Employed 1978/79	Additional Requirements 1979/83	Additional Supply 1979/83	Surplus (+) or Deficit (-) 1979/83
Medical Doctors .. .. .	542	724	428	(-) 296
Dentists .. .. .	22	138	110	(-) 28
Pharmacists .. .. .	30	148	92	(-) 56
Clinical Officers .. .. .	1,002	835	552	(-) 283
Registered Nurses .. .. .	1,223	1,037	690	(-) 347
Enrolled Nurses .. .. .	4,009	3,891	2,236	(-) 1,655
Public Health Officers .. .. .	250	140	107	(-) 33
Public Health Technicians .. .. .	642	2,099	497	(-) 1,602
Pharmaceutical Technologists .. .. .	221	669	138	(-) 531
Laboratory Technologists .. .. .	180	540	77	(-) 463
Laboratory Technicians .. .. .	284	1,400	264	(-) 1,136
Radiographers .. .. .	217	933	122	(-) 811
Physiotherapists .. .. .	116	544	101	(-) 443
Occupational Therapists .. .. .	45	555	68	(-) 487
Dental Technologists .. .. .	15	115	13	(-) 102
Orthopaedic Technologists .. .. .	12	138	35	(-) 103
Family Health Field Educators .. .. .	430	930	1,012	(+) 82
Nutrition Field Workers .. .. .	210	280	248	(-) 32
Jurists .. .. .	217	527	250	(-) 277
Engineers .. .. .	421	999	325	(-) 674
Professional Agronomists/Veterinarians (Graduates) .. .. .	841	1,478	900	(-) 578
Physical Scientists .. .. .	107	297	300	(+) 3
Graduate Level Teachers .. .. .	2,864	3,829	3,700	(-) 129
Semi-professional Agronomists/Veterinarians (Diplomates) .. .. .	1,399	1,684	1,500	(-) 184
Other qualified workers in Agric./Veterinary (Certificated) .. .. .	4,399	8,404	2,250	(-) 6,154
Engineering Technicians .. .. .	1,760	3,365	3,600	(+) 235
Printing Technicians .. .. .	183	325	200	(-) 125
Scientific Technicians .. .. .	429	677	540	(-) 137
Other Technicians/Artisans .. .. .	523	1,225	900	(-) 325

approximations taken from Government and non-Government studies, and in some cases may overstate the size of the public sector shortage. The figures for skilled agricultural officers, for example, are based on field officers' statement as to the *desirable* level of skilled personnel in the light of actual and proposed programme activity. There are also skilled manpower shortages in the private sector, but detailed information is not now available. The Manpower Survey described in paragraph 10.8 will provide data on the economy-wide manpower position, and will indicate the larger overall shortages when public and private sectors are combined.

10.6. In making these projections, it has been assumed that all of the available training capacity is fully utilized. Adjustments have been made for the expected loss of trainees to the private sector. In light of these projections it will be important to ensure maximum use of training institutions. Double or triple shifts could be considered for some facilities. Foreign training is not reflected in the figures and offers possible relief in some areas. The continued use of technical assistance on a properly selective basis is also implied.

10.7. Achieving employment targets over the next five years requires a close co-ordination of supply and demand for a broad range of skills. There is a need for a comprehensive study of Kenya's manpower situation and requirements. The last review was conducted in 1972, and the national manpower situation has changed substantially in the subsequent years. Manpower studies cannot provide complete solutions to the problem of matching people with jobs, particularly in a dynamic economy and a society which permits its citizens wide latitude in deciding on and preparing for their choice of life work. A thorough analysis can, however, provide information on supply and demand for various types of employment and suggest areas for policy and programme formulation.

10.8. The Government is undertaking a Manpower Survey to be completed in mid-1979. The Directorate of Personnel Management is simultaneously carrying out a review of high and middle level manpower needs. Measures will be taken in the light of these studies' findings to achieve optimum employment targets during the plan period and to minimize the constraints produced by labour and skill bottlenecks.

### **Training**

10.9. Training is the bridge between the need for employment and the demand for particular skills. The next portion of this chapter will be concerned with training, and particularly with the need to achieve a co-ordination and balance between the many agencies involved in training activities. Each of the chapters of the Plan discusses specific training programmes related to the sector or the ministry in question. This section will provide an overview of some of the questions affecting the training approach for the nation as a whole.

## **The Training Network**

10.10. The network of training institutions is extensive and complex. While all educational institutions could be included as "training facilities", the discussion in this chapter will exclude primary and secondary schools. The university and the polytechnics are included since both at the degree and diploma levels, many of the skills imparted are in bottle-neck areas.

10.11. Training together with education make up a large part of total Government expenditure. Education represents more than 30 per cent of civil expenditures and 26 per cent of total budget outlays. Total Government training expenditures represent about 6 per cent of the budget, exclusive of armed forces training.

10.12. Table 10.2 summarizes the most important training institutions in the public and the private sectors. The institutions are grouped in subject areas which mirror the organization of the Fourth Plan: Basic Needs, Primary Production, Industry and Commerce and Other Government Services. The complexity of the network is apparent with over 2,000 institutions included. Of this total, over 200 are operated by more than 20 governmental agencies to train civil servants, teachers, extension workers and field technicians. These 200 facilities provide training for an estimated total enrolment of 27,000 trainees. The balance of the 2,000 facilities are directed by over 200 governmental, private sector and voluntary organizations. These organizations serve citizens directly by imparting industrial, commercial, agricultural and other vocational skills leading to employment in the rural and informal areas as well as the urban formal sector. No estimates are available as to the total number of trainee places in this group of institutions, but a partial enumeration exceeds 50,000.

10.13. The fifth column of the table, entitled "Actual/Proposed Co-ordinating Body", indicates both the actual co-ordinating group, where one exists, and the proposed additional co-ordination arrangements discussed in more detail below.

## **Need for Improved Co-ordination and Evaluation**

10.14. At present there is no mechanism for co-ordinating and evaluating this large set of training facilities. The result has been an unacceptably high level of duplication, overlap, and gaps in coverage and in content. Facilities in one institution may be overloaded while vacancies exist in other institutions serving similar training needs. At least six Government training programmes are presently offering vocational training in artisan skills such as carpentry, masonry and metal work. At least four ministries are engaged in training related to improvement of nutritional practices and standards.

NETWORK OF TRAINING INSTITUTIONS AND CAPACITY (1978)

Table 10.2

Sector	Institution/Ministry/Agency	Approximate Number of Institutions	Estimated Number of Places	Actual/Proposed Co-ordinating Body	Reference to Relevant Chapter of Plan
<i>Basic Needs</i>					
University Education ..	Nairobi University, Kenyatta University College, Primary Teacher Training College, KSTC, KTTC.	2	6,250	University Council/MOE/MEPCA Co-ordinating Unit.	5
Teacher Training ..	MOH Institutions ..	19	9,570	MOE/TSC/MEPCA Co-ordinating Unit.	5
Health Manpower Training ..	Private/MOH ..	39	3,780	Manpower Planning Unit MOH/MEPCA.	5
Family Planning ..	Karen College, MOH, MOA, MHSS, Private.	30	N/A	NEWC/MEPCA	5
Nutrition Training ..	MHSS/MOE/Private ..	7	N/A	Nutrition Planning Unit, MEPCA ..	5
Vocational Rehabilitation and Handicapped Schools ..	MHSS/Institute of Adult Studies ..	25	4,000	Kenya National Council of Social Services/MEPCA	5
Literacy and Adult Education ..	MHSS ..	1,500	N/A	Board of Adult Education/MEPCA	5
Family Life Training ..	Water Training School ..	8	N/A	MEPCA	5
Water Training ..	..	1	370	Ministry of Water Development ..	5
<i>Primary Production</i>					
Agriculture Manpower and Extension ..	Ministry of Agriculture Institutions, Farmers Training Centres, Co-operative College ..	39	2,050	Ministry of Agriculture/MEPCA ..	6
Co-operative Education ..	Forest Training College, Forest Training School, Londiani, KTDA, Coffee Board, Cotton Lint Board, etc.	2	140	Ministry of Co-operatives/MEPCA	6
Forestry Training and Extension ..	..	N/A	70	Ministry of Natural Resources/Co-ordinating Unit, MEPCA.	6
Training in Export Crops ..	..	N/A	N/A	Ministry of Agriculture/MEPCA ..	6
<i>Industrial, Commercial and Vocational</i>					
Modern Public Sector ..	Polytechnics/DIT/MOW/MTAC/KITI/NYS/HITS.	20	28,000	DIT/Co-ordinating Unit, MEPCA	5, 7, 8
Private Company-operated ..	Private Firms ..	14	2,000		
Private of Commercial Sector ..	Private Firms ..	136	N/A	Catering Levy Board of Trustees/Co-ordinating Unit, MEPCA.	8
Quasi-Governmental and Parastatal Corporations ..	Ministry of Power and Communications, Other.	7	N/A		
Tourist Sector ..	Utalii College, Ministry of Tourism and Wildlife.	1	470	Co-ordinating Unit, MEPCA ..	7
<i>Informal</i>					
Government Assisted Voluntary Organizations.	Village Polytechnic/RIDC/NCKK/PPF/etc.	220	22,000	Co-ordinating Unit, MEPCA ..	5, 7
<i>Other Government Services</i>					
Pre-service and In-service Training.	Government Ministries/KIA/GTIS/etc.	35	2,000	Co-ordinating Unit, MEPCA/DPM	5, 9

NOTE: The abbreviations used are defined in an appendix to the Plan. N/A means "Not Available."

10.15. Evaluation of on-going training programmes is an essential part of the required co-ordination. Government's own programmes require review and evaluation in terms of their cost effectiveness in relation to other forms of education and training. Comparative evaluation is required between Government and private sector training activities in order to minimize the variation in levels of attainment and the expensive duplication of equipment and facilities that exist in some cases. Fees, allowances, curricula and examination practices vary widely, as do standards for entrance and standards relative to the level of skills and accomplishments which are considered satisfactory.

10.16. A major emphasis for training programmes during the plan period will be to improve the services available in rural areas. Of particular importance are programmes designed to improve productivity and earnings, and to improve general levels of family welfare and community development. This emphasis on training programmes that affect rural people will require further decentralization of training institutions throughout the districts. Such dispersion carries with it increased needs for co-ordination and evaluation.

10.17. Several Government initiatives are projected for the next five years in order to rationalize the diverse components of the training network.

10.18. Early in the plan period a Co-ordinating Unit will be set up in the Ministry of Economic Planning and Community Affairs. This Division will have principal responsibility for the co-ordination of training activities at a national level. Working through the forward budget and the annual appropriations process, the Division will be responsible for recommendations on appropriate levels of training allocations between ministries. To carry out this responsibility, the Division will go beyond financial allocations and will concern itself with the evaluation, monitoring and control of all programmes in training and education, basing its assessment on national development goals, including manpower requirements and policies that will emerge from the forthcoming Manpower Survey.

10.19. Co-ordination and evaluation require the development of appropriate criteria. The Co-ordinating Division will be responsible for the development of standards, criteria and evaluation processes that will be applied to training activities in order to judge their appropriateness and effectiveness. It will be necessary for the training institutions themselves to develop measures of output and of effectiveness, relating these measures to costs on a per-trainee basis. The Division will work with the ministries and agencies involved to establish criteria to permit comparative assessment, particularly where many institutions are involved in the same areas of training, such as artisan skills. The Division will concern itself with broad areas of training co-ordination and evaluation, including content and duration of training, fees, allowances, examinations, placement facilities and actual success in trainee placement. Manpower, vocational education and other training data will be

published on an annual basis to aid in co-ordination. While the Division will have overall responsibility for the academic aspects of training programmes, it is anticipated that the substantive analysis in this area will be carried out under the proposed national examinations council.

10.20. In conjunction with the Co-ordinating Division, a broad-based Policy Steering Committee, including representatives from Government Ministries, educational, labour and employees' organizations, will be formed to draw up the Division's terms of reference, and to act as a continuing policy-level advisory body.

### **Training for Extension Services**

10.21. Over 30,000 extension workers are employed country-wide by the Ministries of Agriculture, Health, Housing and Social Services, Co-operative Development, Water Development and Commerce and Industry, as well as by voluntary and church-related agencies. In addition to co-ordination at the national level, there is need for co-ordination at district and lower levels, where extension agents contact their target groups—individual workers and families. It is important that overlapping and conflicting messages be avoided, and that extension agents from one ministry have a general view of the extension efforts conducted by other ministries in related areas.

10.22. To provide this local level co-ordination, the Ministry of Economic Planning and Community Affairs will sponsor two activities. First, a two tier system of training extension workers will be developed. The first tier of technical training will be supplemented by training in extension skills such as programme planning, communications and human relations. This training will be carried out on an in-service basis. The second activity will be the preparation of an inventory of all training and educational institutes, with emphasis on those facilities which train extension agents. Based on this inventory, an analysis will be conducted of the impact on the rural family of the extension messages they receive. The purpose of both activities is to increase the effectiveness of extension information at the point of delivery, to eliminate confusing or contradictory messages and to achieve greater coherence at the family level.

### **Training Programmes for Government Employees**

10.23. The public sector continues to be the largest employer of labour. In 1978, the total number of Central Government employees was estimated to be over 150,000. The Directorate of Personnel Management (DPM) is responsible for ensuring an adequate supply of manpower through direct hiring, pre-service training and departmental training schemes. Pre-service training is provided at Egerton College, AHITI and Embu Agricultural Institute. In-service training is offered at Maseno and Mombasa Government Training Institutes, at the Kenya Institute of Administration, and in some cases, overseas. The DPM contributes on behalf of the Government to the industrial training levy and is reimbursed on the basis of trainees placed

in approved training centres. During the plan period, the DPM will expand its activities for in-service training and upgrading of personnel at high, medium and low management levels.

### Standards and Requirements for Artisans and Technicians

10.24. Implementation of development projects is frequently delayed and conducted with low technical standards because of a shortage of artisans and technicians who meet the Government's qualifications for employment. These qualifications for Artisan Certification generally include written and theoretic components as well as practical skill assessment. The Co-ordinating Division in MEPCA will consider whether formal standards should be relaxed in order to increase the number of available skilled workers. The informal sector might well provide a supply of competent craftsmen capable of effective implementation work, but lacking the present formal requirements for Government employment.

### Training in the Private Sector

10.25. Government contributes to private sector training in a number of ways, including the operation of training facilities to serve the private sector, skill training programmes whose graduates seek employment both in the public and private sectors, industrial training through use of the Training Levy, and the continuing loss of public sector employees, often those with high levels of training and competence, to the private sector as a result of wide wage and salary differentials.

10.26. In terms of direct training facilities, the most important are listed in Table 10.3.

GOVERNMENT TRAINING FACILITIES FOR THE PRIVATE SECTOR

Table 10.3

Institution	Trainee Capacity (1977)
Kenya Polytechnic .. .. .	4,500
Mombasa Polytechnic .. .. .	3,200
Directorate of Industrial Training .. .. .	4,100
Utalii College .. .. .	358
Company-operated Centres .. .. .	1,730
Others (Including Harambee Institutes of Technology) .. .. .	2,112
<b>TOTAL .. .. .</b>	<b>16,000</b>

10.27. It is estimated that during the plan period the overall increase in demand for middle and high level manpower in both the public and private sector will be approximately 16 per cent per year. Many of those skills are developed through the institutions listed in Table 10.3, and yet trainee vacancy



rates of up to 30 per cent of capacity are recorded. The factors responsible for this under-utilization will be studied and appropriate remedial actions taken.

10.28. The Directorate of Industrial Training (DIT) within the Ministry of Labour and the National Industrial Training Council (NITC) play important roles in assisting and monitoring training activities undertaken to serve the private sector.

10.29. As the organization responsible for administering the Industry Training Levy Scheme, the DIT is involved in designing training programmes, organizing industrial training committees, reviewing incentive systems related to training, and reimbursing recognized training institutions. Several changes in DIT's activities are projected for the next five years. The Training Levy, as discussed in Chapter 2, will be shifted from an employment to a capital consumption base in order to encourage the use of labour rather than add to its cost. The number of industries subject to the levy will be increased from the present level of ten. Consideration will be given to using DIT or other funds to encourage companies in the private sector to train *beyond* their own staff requirements. Similar use of levy funds will be studied in relation to Government ministries, to see if mechanisms can be arranged for them to train beyond their own needs.

10.30. There will be greater Government regulation of private sector training to ensure harmonization between the interests of industry, the requirements of the individual and the needs of the economy. A DIT sub-committee will make recommendations to reflect Government's concern in this area. For example, contractors will be required to provide training opportunities for their employees in order to qualify for Government contracts.

10.31. Training activities under the NITC have thus far been restricted to technical skills, but during the plan period the Council will become more involved in higher technical education and training.

10.32. There are substantial wage and salary differentials between the public and private sectors. Excessive differentials, particularly for scarce management and administrative skills, reduce the effectiveness of the civil service by continued manpower losses at medium and high levels. This is a costly form of subsidized training for private sector firms. During the plan period, steps will be taken to reduce excessive differentials, not by raising public sector salaries, but by attacking the root causes of excessive private sector profits and hence the ability to pay extremely high salaries. These steps will include the encouragement of greater competition throughout the economy, direct price controls where needed, and a thorough review of trade, tariff, protection and industrialization policies that may produce unwarranted private sector returns.

## **Institutions**

10.33. This section pulls together the statements made about institutions in the other chapters of the Plan by highlighting several key issues. These are the internal performance of Government agencies and quasi-governmental bodies such as the statutory boards and other parastatals; the overlap in responsibilities; gaps which may require new institutions; repair and maintenance services; marketing institutions; arid and semi-arid lands development; and local development planning, administration and implementation.

10.34. Institutions are simply established ways of doing things—the central means to promoting and regulating development of the economy and of resources. These may be banks, ministries, voluntary agencies, or private companies, but all have one common trait: they are not temporary or *ad hoc* in nature. Chapters 1 and 2 have looked at the development and performance of institutions that relate to the policy framework and long range goals. Chapters 5 through 9 have addressed themselves to institutional issues and made proposals which are specific to each sector. In this chapter some representative issues from these sectors are highlighted and a broad indication of the categories of economic institutions is given.

### **The Diversity of Institutions and Network of Linkages Among Them**

10.35. Kenya's mixed economy permits a wide range of institutional forms covering the public, private, and voluntary sectors. Although social and cultural institutions directly affect economic development, the policy framework and development programmes proposed for the plan period are concerned primarily with economic institutions. These fall into the following categories:—

- i. Central Government (e.g. Ministries, Provincial and District Administration).
- ii. Local authorities (e.g. county and town councils).
- iii. Parastatals (e.g. statutory boards, authorities, and Government-owned companies).
- iv. Co-operatives (e.g. producer, consumer, and savings societies).
- v. Voluntary agencies (e.g. National Christian Council of Kenya).
- vi. Private sector enterprises (e.g. corporations, companies, partnerships, and individually-owned enterprises).
- vii. Informal sector institutions (e.g. food kiosks, metal fabricators).

10.36. The Government is concerned with the internal performance of economic institutions and the contribution of each to development. This concern focuses first on the performance of its ministries and institutions under its direct control, and then on the private and voluntary sector institutions. These institutions are linked together so that any function, marketing for example, requires the interaction of a broad range of institutions, both

public and private. The scheduled review of institutions described in Chapter 2 and subsequent chapters will examine changes both in specific institutions, and in the network of institutions as well. The aim is to improve performance, eliminate overlaps, and propose new institutions to fill gaps where needed.

### **Internal Performance**

10.37. While co-ordination between institutions is important, the first goal must be to ensure effective performance within individual institutions. Without internal effectiveness and efficiency co-ordination becomes irrelevant. Where the output of an institution can be measured in monetary terms, then profitability criteria will apply. Where services are the output, the criterion will be the cost effectiveness of the institution's performance. Improvement of internal effectiveness will therefore be the first priority for Government's concern with institutional performance.

10.38. Another key concept is accountability. Ultimately, those who manage must be held responsible for production losses, poor services, unco-ordinated field activities, and neglect of institutional responsibilities and commitments. Managers need also to look at the planning capability, responsiveness to the public's needs, adaptability to changing economic situations, and accountability to regulatory bodies. Furthermore, many ministries and agencies are to intensify their efforts to provide broader coverage of the population by reaching into more remote areas and to those lower income groups previously neglected or under-served. Directly addressing the problems and needs of the target groups identified in Chapter 2 will require many institutional changes.

10.39. Several ministries have started to make the necessary internal changes in order to improve their efficiency and effectiveness. The Ministry of Water Development undertook a study of its internal management and is implementing the recommendations. These should improve control over field staff and strengthen the technical planning capability of the Ministry. The Ministry of Agriculture has established a Management Systems Evaluation Unit and changes are presently under consideration, as indicated in Chapter 6. The major agriculture programme for small farm development, the Integrated Agriculture Development Project, has been strengthened by the creation of a Monitoring and Evaluation Unit which aims to tie more closely the project's results to management decisions and research. The Ministry of Commerce and Industry is also strengthening its management and planning capability. These initiatives are strongly endorsed by the Government, and the Management Unit of the Directorate of Personnel is ready to give further assistance to various ministries.

10.40. A final aspect of internal performance which will receive attention in the plan period is the flow of information within Ministries and between them. Immediate steps will be taken to speed up information flows including the response by Ministries to requests from citizens, private agencies, and

corporations. Every bureaucracy is plagued by red-tape which clogs information channels and unnecessarily delays development. The policy in this regard is clearly spelled out in Chapter 2. Improved accountability and responsiveness will be forthcoming from the various institutions under the Government's direct control, or these bodies may well find themselves declared redundant.

### **Overlaps in Responsibility**

10.41. Because of the importance placed on water development, and irrigation in particular, a number of institutions have arisen over the years in this area of development. Depending on the size of an irrigation scheme, the responsible institution is either the National Irrigation Board or Tana River Development Authority (large-scale), the Ministry of Agriculture (small-scale), the Ministry of Water Development, the Ministry of Co-operative Development, or local authorities. Publicly owned small scale schemes come under the Small Scale Irrigation Unit of the Lands and Farm Management Division, Ministry of Agriculture. The Ministry of Water Development gives assistance to some private schemes. Other privately irrigated farms get no Government assistance. Co-operative run schemes are assisted by the Ministry of Co-operative Development. In addition, some very small scale schemes, which are run by voluntary agencies such as National Christian Council of Kenya, usually in the more remote areas, get assistance from self-help grants from the Community Development Division of the Ministry of Housing and Social Services. Some schemes are funded through the Rural Development Fund having first been identified by the District Development Committee and then approved by the Ministry of Economic Planning and Community Affairs.

10.42. Approval for private scheme development must come from the local Water Apportionment Board. Responsibility for engineering and water source development falls on the Ministry of Water Development. Management of the scheme is typically left to the initiating Ministry or agency as described above. The overlap in responsibilities, and in some instances, the duplication of efforts, has the advantage of ensuring that this vital development thrust proceeds on a number of fronts: public, quasi-public, private, and voluntary. However, it makes co-ordinated planning difficult and may be inefficient given scarce resources.

10.43. Despite the diverse institutional involvement, responsibility for operation and maintenance of schemes appears to fall into an institutional gap. The need to establish viable local organizational arrangements which would take greater responsibility for maintenance and repair of existing schemes has been cited in Chapters 5 and 6. Local farmer associations must be developed which are capable of filling this gap. The Government will require that future irrigation development determine clearly during the planning stage, the institutional responsibilities for operation and maintenance.

10.44. Adult education is another area suffering from institutional overlaps. The institutional responsibility for adult education is shared between two

ministries, Education and Housing and Social Services. The Board of Adult Education under the latter ministry and the Institute of Adult Education under the Ministry of Education require a co-ordinated approach to their programmes. This is particularly true for the mass literacy campaign to be mounted during the plan period.

10.45. A third area of overlap concerns the Community Development structure at district and lower levels. Under present arrangements a fully organized district would have community development committees at the district, division, location, and sub-location levels. This arrangement parallels the structure of District Development Committees, Divisional Development Committees, and Locational and Sub-locational Committees. There is the danger of overlapping responsibility in such areas as the approval of self-help projects. The possibility of streamlining the committee structure in the district should be explored on a district by district basis, taking into account possible new roles for Community Development Officers such as helping promote the national family planning strategy, and the fact that Community Development Committees provide excellent opportunities for citizens' participation in planning and implementation.

#### **Gaps in the Network of Institutions**

10.46. The sectoral chapters have indicated some of the gaps which must be filled by the establishment of new institutions. However, no new institutions will be created by the Government unless there is a clearly identified need which cannot be filled by existing institutions. The emphasis during the plan period will be on rationalizing the existing institutions, and weeding out those which are outdated or which have failed to perform as expected.

10.47. If a new institution is established, a major concern will be to economize on overhead costs, so that the maximum amount of resources goes toward actual development programme rather than to maintaining a costly organizational structure.

#### **Repair and Maintenance Services**

10.48. A theme which appears in nearly every chapter of this Plan is the loss of development thrust if investments are not properly maintained. The problem of inadequate repair and maintenance facilities is both an institutional and manpower problem, and to some extent a budgetary and attitude problem.

10.49. The public's enthusiasm to undertake new development projects has often led to inadequate attention to the problems of operation and maintenance. As indicated in Chapter 1, some part of the idle capacity can be attributed to non-functioning equipment, poor management and neglect of basic principles of routine maintenance. This is compounded by acquisition

of equipment which may be ill-suited to the climate or work environment, such as dust, rough roads, excessive heat, silt-laden rivers or highly alkaline soils. The inadequacies of the distribution system for spares and lubricants, and the shortage of qualified operating and maintenance personnel add to these difficulties.

10.50. Positive steps are being initiated to overcome the above bottlenecks, as indicated in the various sectoral chapters of this Plan. To summarize briefly:—

- i. Tighter control will be exercised in the planning stage to see that provisions for operation and maintenance are not neglected. In some cases, the establishment of new institutions will be catered for in the plans, as in drainage and soil conservation associations formed to maintain physical structures.
- ii. Introduction of new models to rural areas makes it difficult and expensive to stock spares and to repair equipment. Consequently, before any new model, imported or domestic, is introduced, detailed arrangements for adequate repair, parts supply and maintenance facilities will be required. The Ministry of Commerce and Industry will assist in applying this restriction.
- iii. A larger and more widely dispersed system of repair facilities and shops will be encouraged through various programmes aimed at small businesses and the informal and voluntary sector. Government services for maintenance of vehicles and other equipment will be pooled and decentralized.
- iv. Changes will be made to the system of licensing technical skills so as to increase the number of repairmen, for example, by emphasizing technical aptitude rather than language skills.
- v. Government programmes such as the Kenya Industrial Estates and its network of Rural Industrial Development Centres and Industrial Promotion Areas will become more actively involved in setting up work places and training personnel in repair and maintenance skills. The Village Polytechnics, National Polytechnics and Harambee Institutes of Technology, will co-operate fully in this effort.
- vi. Finally, the programmes to build up the rural infrastructure and marketing facilities, as described in Chapters 2, 7 and 9, will ease communication obstacles and provide more concentrated services to make repair and maintenance enterprises more economically attractive.

10.51. In addition to adequate maintenance provisions, it is important that the technologies being operated and maintained are appropriate to Kenya. It makes little sense to train someone with the skills necessary to maintain a piece of equipment that results in more workers being displaced than are hired. Consequently, various institutions must continue their watchdog and research roles: the National Council of Science and Technology, the research

institutes, the New Projects Committee, the University of Nairobi, the Karen Centre for Appropriate Technology, and the Agricultural Machinery Testing Unit of the Ministry of Agriculture. The Science and Technology Section of Chapter 2 spells out specific policies and measures to assure the appropriateness of new technologies. Adaptation to the Kenya setting should take into account the existing repair and maintenance capability of rural areas.

### **Marketing System Institutions**

10.52. The institutions which make up the marketing system are of various types: Private sector, commercial, co-operative unions and societies, certain voluntary organizations (e.g. handling handicrafts and horticulture), and of course, the statutory boards and parastatals. These latter may be further classified as to whether they play an active role in marketing or a regulatory role, or both.

10.53. Consistent with Kenya's policy of promoting a mixed economy, all types of marketing institutions will be allowed to operate in the economic system. Efficiency will be the determining criterion as to whether an institution survives in the competition of the market place. The Government will not subsidize the inefficient nor protect the uncompetitive beyond the minimum time necessary to get established. (See Chapter 2 and Chapter 7.) Furthermore, for those marketing boards having statutory or natural monopolies, the Government will carry out exercises to determine appropriate operating margins. Excessive overheads and low returns to producers will not be tolerated in the long run.

10.54. In exercising the Government's regulatory function, the proposed review by the Office of the President of the performance and terms of reference of marketing boards and parastatals is seen as an immediate priority. One outcome of this review is likely to be the strengthening of the Inspectorate of Statutory Boards and changes in the accounting requirements and audits of various institutions. Long delays in furnishing periodic performance reports have hampered the Government in taking necessary corrective action. Changes in the information collection and feedback systems cited above apply to both boards and parastatals, not only as to the internal information flows, but also to the external accountability of the institution. Responsible Government Ministries will exercise tighter statutory control over the performance of parastatals engaged directly in marketing activities, as well as those acting as regulatory bodies. Efficiency and cost-effectiveness criteria will be used to restructure or to weed out inefficient or overlapping bodies.

10.55. In addition to poor information flows from marketing institutions toward the central regulatory bodies, there is also the problem of poorly timed or confusing signals outward to the private sector. A dynamic market requires unambiguous pricing information, minimal restrictions on trade and

movement of commodities, and strong incentives to the producers. As indicated in Chapter 2, changes are being made to rationalize licensing and reduce restrictions. Specific measures concerning price setting for agricultural commodities are spelled out in Chapter 6. Co-ordination between various boards dealing in similar commodities (e.g. grains) must be improved, perhaps by combining marketing functions of various agencies into a single board.

10.56. Despite the overlap in some marketing institution functions, many areas of the country suffer from an institutional gap. Many smallholder areas are without any local supplier of agricultural inputs such as fertilizers. Consequently, programmes for these areas have to include measures to distribute improved farm inputs. Other areas will require direct Government intervention to see that adequate supplies are made available.

### **Development of the Arid and Semi-arid Lands**

10.57. The policies and programmes to accelerate the development of the arid and semi-arid lands raise a number of institutional issues. The remoteness of these areas, their relatively underdeveloped communications and infrastructure, and the low level of income of the inhabitants complicate the tasks of planning, implementing and operating development projects. Hence, during this plan period, special emphasis will be placed on testing several institutional approaches to the development of the arid and semi-arid lands.

10.58. The first principle of such approaches is that these programmes shall be administered within the existing machinery and practices of the Kenya Government. Implementation will proceed through normal channels, relying on the District as the basic unit. Overhead costs of development programmes will therefore go toward strengthening Government organization in order to sustain development efforts. In order to increase local participation, the District Development Committees and the operating ministry field officers at district level and below will play important roles in the planning and implementation of programmes.

10.59. Many of the problems in the arid and semi-arid areas can be directly related to water—access to water for both humans and animals, conservation of water, and erosion of the soils. Consequently, water planning figures prominently in the development programmes for these areas, as indicated in Chapters 5 and 6. Because catchments frequently include several districts, an overall authority may be needed to integrate and co-ordinate planning within a given catchment. The Tana River Development Authority, for example, covers planning for many districts and several provinces. Establishment of other authorities may be the best way to provide for integrated planning of water development, agriculture, mining, forestry and tourism. Presently under consideration are authorities for the Kerio Valley and the Lake Victoria basin.



### **Local Development: Planning, Administration and Implementation**

10.60. During the planning period, Government is committed to moving further toward its goal of making the District the basic unit for planning and implementation. There is also an increased commitment to rural development as a principal strategy for improved incomes and access to basic needs. These two commitments will sharply increase the requirement for local level administrative competence, both institutionally and in terms of staffing. Two important links in this administrative and implementational chain are the District Development Committees (DDCs) and the planning staff at all levels.

10.61. The DDC is the principal vehicle for expressing district level aspirations and needs. It provides for popular participation through the inclusion of Members of Parliament and local Council officers. Through its network of subsidiary development committees, it reaches down to the grass roots at location and sub-location level.

10.62. During the planning period the functions of the DDCs will be expanded in a number of ways, some of which were described in Chapter 2. The principal changes include making other district committees involved in development matters subsidiary committees of the DDC and giving the DDC an expanded role in helping formulate and monitor ministerial development activities. These changes will require strengthening of planning and implementing capabilities at district, provincial and central levels.

10.63. In conclusion, this chapter has summarized the issues and policy questions included in the preceding chapters in relation to manpower, training and the development of institutions. Continuing shortages of high- and medium-level skills are forecast during the planning period. The on-going Manpower Survey will offer more detailed information to serve as the basis for specific programmes of action. In training, steps have been outlined to co-ordinate the present complex and overlapping network of training activities. The development of institutions to facilitate achievement of planning goals is an important Government objective. To this end, actions have been outlined to increase internal efficiency and accountability and to reduce overlaps and conflict. In these ways the institutional framework will be restructured to serve more effectively the goals of continued growth and alleviation of poverty within a mixed economy framework.

1. The first part of the document  
describes the general situation  
of the country and the  
state of the economy.  
It also mentions the  
main problems that  
the government is facing.  
The second part of the  
document discusses the  
measures that have been  
taken to address these  
problems. It also  
mentions the results of  
these measures and the  
prospects for the future.

The third part of the  
document discusses the  
role of the government  
in the economy and the  
social services. It also  
mentions the results of  
these measures and the  
prospects for the future.  
The fourth part of the  
document discusses the  
role of the private sector  
in the economy and the  
social services. It also  
mentions the results of  
these measures and the  
prospects for the future.  
The fifth part of the  
document discusses the  
role of the public sector  
in the economy and the  
social services. It also  
mentions the results of  
these measures and the  
prospects for the future.

The sixth part of the  
document discusses the  
role of the international  
community in the  
economy and the social  
services. It also  
mentions the results of  
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prospects for the future.  
The seventh part of the  
document discusses the  
role of the national  
community in the  
economy and the social  
services. It also  
mentions the results of  
these measures and the  
prospects for the future.  
The eighth part of the  
document discusses the  
role of the local community  
in the economy and the  
social services. It also  
mentions the results of  
these measures and the  
prospects for the future.

## SCHEDULE OF SERVICE CENTRES

Projected population in towns in 1983 in brackets after each town.

Underlined centres—Principal Towns.

## CENTRAL PROVINCE

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
THIKA (68,700) <u>Githunguri</u> (2,400) Kiambu (7,200) Kikuyu (2,800) Limuru (3,800) Ruiru (4,400)	Gatukuyu/ Mangu Gatundu Kalimoni Karuri Uplands	<b>KIAMBU DISTRICT</b> Cianda Kabati Karatu Kiganjo Ngenda (Kiamwangi) Kamwangi Ngorongo Mataara Tigoni Muguga Ngecha Wangige (Muthumu)	Mitubiri Kinyange Munyu Wamwangi Kimunyu Kamunyaka Gachika Gatitu Nyamangara Kanyoni Biberioni Makutano Mabroukite Kahutho
Kerugoya (4,900) Sagana (2,500) Wanguru (2,500)	Kianyaga Kutus Baricho	<b>KIRINYAGA DISTRICT</b> Mururi Kiamutugu Ithareni Mukarara Kimbimbi	Kirenga Thogoto Uthiru Rironi Mwimuto Lower Kabete Gikambura Kamangu Ndumberi Ruaka Kiambaa Miguta Kamburu Kamuchege
		Kilimabogo Kamangu Lusigeti Kagwe Githiga Githoro Ngewa Kairi Tinganga Marige Juja Kimende Kijabe	Gathangari Ikinu Kibicho Kiratina Gacoiri Ruiru Mills Ngoriba Korwaba Riuki Kambaa Kihara Magina Gacharage Gatunguru
		Mwea/Karima Kagumo Kagio Makutano Gatithi	Nguka Mutithi Kiamwanja Gitumbi Kangai Kiamichiri Kiangai Kiamaina Mutitu Kiburu
		Murinduku/ Tongonyes Githure Karucho Karumandi Kianguenyi Kimunye Gathigiri Nyangati Kiriko	Kibirigwi Rukanga Kiandai Kiamuthabi (Kanyekini) Riakania Rwambiti Kadongu Ndindiruku Muthigiini

SCHEDULE OF SERVICE CENTRES—(Contd.)  
CENTRAL PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES	
Murang'a (14,100) Makuyu (2,500) Kangema (2,500) Kandara (Gakarara) (2,500) Maragua (3,500)	Saba Saba Kahuro (Muriranjes) Kirwara (Gatanga) Kigumo Kiriaini Kabati	<b>MURANG'A DISTRICT</b> Kahuhia (Karuri) Gitugi Kanyenyaini Njumbi (Nyakianga) Gacharageini Githumu Gaichanjiru (Kangunduini) Kaharati Kareti Gatara	Gakurwe Gakuyu Gakoe Githunguri Kiamara Kimathe Kiange Muchungu Kirere Githembe Kipanga Getwa Giatutu Muruka Githunguri Makutano Mariaini Kagurumo (Muthithi)	Gaikojo Maragua Ridge Muri Kairo Niyagatugu Tuso Ichichi Ichigaki Kamahuha Rwathia Kahuti Kariua Kagumoini Ngutu Gitugu Muramrandia (1)
Nyahururu (22,300) Ol Kalou (6,300)	Ol Joro Orok N. Kinangop Njabini Kipipiri (Miharati)	<b>NYANDARUA DISTRICT</b> Ngano Ndaragwa Kaheho Rurii Ngorika	Igwamiti Kangui Dundori Sabugo Githoro (Mawingo) Koinange (Karati) Heni (Karati) Karangatha	Nyairoko (Passenga) Pondo Wanjohi Weru (Muruaki) Gathanji Kambaa (Pesi) Gathara (Tulaga)
			Kimathi (Malewa) Kiriko (Turasha) Gathundia (Tumaini) Mukeno Gichaka Munyaka (Githioro) Migaa Gichungo	

SCHEDULE OF SERVICE CENTRES—(Contd.)  
CENTRAL PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
Nyeri (40,200) Karatina (7,000) Othaya (2,500)	Mweiga Wamagana Mukurweini- Naro Moro - (Kiganjo— from 1980 part of Nyeri)	<b>NYERI DISTRICT</b> Ihururu Kinunga Gatitu Enderasha Kabiruni Ruthagati Giakanja Ihithe Kiandu  Tumutumu Giakaibai Cichichi Mahiga Gathinga Mihuti Gakindu Wataza	Ndathi Muthuaini Muruguru Gichira Gachika Kiamariga Gatunganga Ngorano Gachatha Mukarara Gatumbiri Gathuthi Kigwandi  Kangaita Kiawarigi Gikororo Ndimaini Kianjogu Ngandu Gakuyu Gatondo Ihuririo Karama Birithia Kagicha Chinga Kagere  Kaheti Kaharo Thageini Tambaya Ichamara Gumba Gikondi Kanunga Gararekwa Hombe Amboni Embaringo Muyogo
<b>COAST PROVINCE</b>			
Malindi (27,000) Kilifi (6,100) Mariakani (2,400)	Kakoneni Bamba Kaloleni Mazeras	<b>KILIFI DISTRICT</b> Gongoni Mamburi Gede Watumu Vigengeni Ganze  Takaungu Vipingo Majengo Rabal Kinagoni	Jilore Kakuyuni Maziwani (Ganda) Msabaha Roka Mtondio Sokoke Dida Jaribuni Junju  Fundisha (Kibaoni) Hadu Ngomeni Marikebuni Marafa Garashi Baricho Chakama Dagamra (Bate)  Ribe Jimba Kidutani Kwa Demu Gotani Kibaoni Mittangoni Gongoni Mbuyuni (Tsagwa) Jeuri

SCHEDULE OF SERVICE CENTRES—(Contd.)  
COAST PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
Kwale (2,800) Kinango (5,700)	Ukunda (Diani) Msambweni	<b>KWALE DISTRICT</b> Tiwani Ngombeni Ramisi Vanga  Lungalunga Kikoneni Ndavaya Samburu	Tsunza Gandini Matuga Waa Kigato Gazi Muhaka (Mwabungu) Shimoni  Majoreni Mwangeye (Mrima) Mkomba (Miwani) Mkongani Mwangulu Mwereni Gulanzi  Matumbi Kinangoni Mackinnon Road Maji ya Chumvi Silaloni Makamani Shambini (Vigurungani)
Lamu (11,200)	Witu	<b>LAMU DISTRICT</b> Mokowe Hindi Mpekatoni	Kiunga Mkunumbi- Matondoni  Siyu Majengo Faza (2,000)  Pate Bargoni Mangai Mararani
MOMBASA (503,800)		<b>MOMBASA DISTRICT</b>	
Voi (12,000) Wundanyi (9,900)	Taveta	<b>TAITA DISTRICT</b> Mwatate Bura Station Maktau Mgange  Ghazi Rukanga Sagala Kimorigo Msau  Dembwa (Wusi) Kungu (Wesu, Ngerenyi) Bura (Mission) Mrugua Mwanda  Mgambonyi Iriwa Kigombo Ndomie Kajire Bungule Ghala Ziwani Werugha	Mazera (Nghonji) Kilometa Saba Kiwaiwa Eldoro Kitobo Timbila

SCHEDULE OF SERVICE CENTRES—(Contd.)  
COAST PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
Hola (5,100)	Garsen	TANA RIVER DISTRICT Kipini Bura Masalani Balambala Mororo	Masabubu Saka Korokora Sankuri Wenje Tarasa/Ngao Nanighi Mnazini Makere
EASTERN PROVINCE			
EMBU (25,800) Runyenjes (2,500) Siakago (2,500)	Manyata (Kairuri) Ishiara Kiritiri Gachoka	EMBU DISTRICT Karingari (Nembure) Kianjokoma Kibugu Kanja Kathanjire Kanyambora Karaba Mbubori Makutano	Ena (Kangethia) Kiamuringa Musonoke Mukuuri Mufu Kathanjuri Kigumo Ugverti Kerie Gategi Mbondani Kiambere Mavuria Ngandure Gethemu Riakanau Kanguru Kevote Karurumo
Isiolo (16,200)	Mudo Gashe Garba Tula	ISILO DISTRICT Merti	Sericho Ol Donyo Nyiro Kinna Bulesa Kula Mawe

SCHEDULE OF SERVICE CENTRES—(Contd.)  
EASTERN PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
Kitui (9,100) Mwingi (2,500) Mutomo (2,500)	Ndoa (Mutito) Kyoso Migwani Kisasi Matinyani Ikutha	<b>KITUI DISTRICT</b> Mutune Katulani Mulango Nuu Mui Zombe Kanziko Voo Mutha	Kathibo Syongila Kakumuti Musebe Yatta Tiva Kavisuni Nguni Ikanga  Enziu Mwitika Inyuu Kyatune Kyoani Muthue Mosa Wikiliye Ithookwe Mbitini  Nzelumi Thitani Tharaka Kimangau Muvokoni Usueni Kamugwongu Mathunyani Kwa-Vonza
Machakos (18,500) Kangundo (3,900) Kilome (2,500) Athi River (13,700) Mbooni (2,500) Makueni Boma (2,500)	Masii Kithimani (Yatta) Uaani/Tawa Sultan Hamud Kibwezi Muito Andei Mwala/Siadhani Tala Mitaboni Emali	<b>MACHAKOS DISTRICT</b> Kaani Kimutwa Mirituni Muthetheni Wamunyu Kivaani Matuu Kikoko Kola Mumanduu Nzui Kalawa Tatulani  Masinga Ekarakara Katangi Kangondi Mbiuni Mathenei Kathiani Kawathe Kaviani Nzaini Konza Mulala Upete Kathonzweni	Kanzulu Kitwii Ikombe Nzukini Myanani Makutano Kwandoo Kitandi Kivani Kyangala Iiumi (Katuaa) Kali Utangwa  Kibandini Mutondoni Kiatineni Kamuthangu Ngelani Kivumbu Iiani Lema Kinyata Ithaeni Katoloni Vyulia Nguluni Kianzabe  Kyamue Kalili Kilili Thabu Maiana Okia Kavumbo Mutembuku Kithungo Ndauni Mwanyani Kithumani Wautu Wathini



SCHEDULE OF SERVICE CENTRES—(Contd.)  
EASTERN PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
		MACHAKOS DISTRICT—(Contd.) Mbumbuni Matiliku Kasikeu Maiyani Kilala	Mwaani Enzai (Mukaa) Kingogwani Masongalani Syumile Katangini Masumba Kiu
		Ndonyo Sabuk	Ngoleni/ Kaiani Kusyomuomo Makaweti Miu Kithioko Kabaa Mikuyuni Darajani Kaloleni
		MARSABIT DISTRICT	
		North Horr Laisamis	Loiengalani Ileret Maikona
Marsabit (10,000)	Moyale	Sololo	Illaut Log Logo
		MERU DISTRICT	
		Thimagiri Timau Kirua Githongo Kibirichia Mujwa (Imenti) Gaito Marieni Mitunguu Miruriri Mikumbune Kibugwa	Kanjuki Iriga Kanjora Tunyai Kalangachini Kanuti Karama Ruiru Mbaranga Anchenge Kiengu Milu Tatu Atheru Ruujine
MERU (20,800)	Igoji Kanyekine Marima/ Muthambe	Mukuuni Mitheru Kaanwa Chiakanyinga Chiokarige Gathunga Kianjai Muthara Mikinduri Kiguchwa Gatuntune Mutuati Kiriani	Nyandenc Keringa Itugururu Ikuu Mwiria Keria Mariani Kiereni Chera Weru Momboni Karimba Mkatuni Kathera Kaongo Kamau
Nkubu (2,500)	Marimante		
Chuka (2,500)	Miathene		
Chogoria (2,500)	Kangeta		
Maua (2,500)	Lare		

SCHEDULE OF SERVICE CENTRES—(Contd.)

NORTH-EASTERN PROVINCE

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
<p>Garissa (2,300)</p>	<p>Mudo Gashe Dadaab</p>	<p>GARISSA DISTRICT Hulugho Jiara Liboi  Balambala Bura Masalani</p>	<p>Alinjigur Benane Wardeglo  Hara Sankuri Korokora  Masabubu Saka</p>
<p>Mandera (2,300)</p>	<p>Rhamu El Wak</p>	<p>MANDERA DISTRICT Asahaba Malika Mari  Arabia Takaba</p>	<p>Asabito Kalaliyo El Roba Banisa Harere  Gololibia Ramo Dimtu Shimbirr Faduma Gadeir Wangai Dahan  Bur Mansa Omar Jilo Figho Dandu Koba Arba Fakat</p>
<p>Wajir (2,300)</p>	<p>Habaswein Buna</p>	<p>WAJIR DISTRICT Griftu Bute  Tarbai</p>	<p>Gurar Kulaley Ajao Banane  Batalu Elben Eldas Khorof Harar  Korondille Wahir Bor Leheley Wagala</p>

SCHEDULE OF SERVICE CENTRES—(Contd.)

NYANZA PROVINCE

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
<p>Keroka (2,600)</p> <p>Manga (2,600)</p> <p>Ogembo (2,600)</p> <p>Kisiti (17,900)</p>	<p>Nyambunwa</p> <p>Kebirigo</p> <p>Keumbu</p> <p>Nyamache</p> <p>Kenyenya</p> <p>Nyamarambe</p>	<p><b>KISII DISTRICT</b></p> <p>Nyamira</p> <p>Nyamata</p> <p>Gesima</p> <p>Mogonga</p> <p>Gesusu</p> <p>Igare</p> <p>Riosiri</p> <p>Kiamorkama</p> <p>Marani</p> <p>Ramasha</p> <p>Nyanturago</p> <p>Magombo</p> <p>Magwagwa</p> <p>Ikonge</p> <p>Nyangusu</p> <p>Tinga</p> <p>Etago</p> <p>Mosocho</p> <p>Birongo</p> <p>Chepnyalil</p> <p>Magenche</p>	<p>Makairo</p> <p>Kenyenya</p> <p>Musobeti</p> <p>Rigoma</p> <p>Nyamasisibi</p> <p>Nyacheki</p> <p>Magema Marabu</p> <p>Nyamesege</p> <p>Chengombet</p> <p>Matutu</p> <p>Mogumo</p> <p>Masimba</p> <p>Monianku</p> <p>Miruka (Riochanda)</p> <p>Obwari</p> <p>Tombe</p> <p>Riana</p> <p>Ikoba</p> <p>Pala</p> <p>Matongo</p> <p>Karota</p> <p>Nyarambe</p> <p>Itumba</p> <p>Montonto</p> <p>Kegogi</p> <p>Maroo</p> <p>Nyakoe</p> <p>Matongo</p> <p>Kamagambo</p> <p>Kiogoro</p> <p>Mukomoni</p> <p>Iseche</p> <p>Rioma</p> <p>Kerongo</p> <p>Kegati</p>
<p>KISUMU (168,600)</p> <p>Ahero (2,500)</p> <p>Maseno (see Western Province— Kakamega District)</p>	<p>Miwani</p> <p>Chemelil</p> <p>Sondu</p> <p>Muhoroni</p> <p>Kombewa</p> <p>Kiboswa</p>	<p><b>KISUMU DISTRICT</b></p> <p>Chiga</p> <p>Kibigori</p> <p>Rabuor</p> <p>Awach</p> <p>Kusa</p> <p>Paponditii</p> <p>Awasi</p> <p>Kisian</p> <p>Pawakuiche</p> <p>Awach</p> <p>Otonglo</p> <p>Daraja Mbili</p>	<p>Kipasi</p> <p>Kaloka</p> <p>Magwar</p> <p>Reru</p> <p>Akado</p> <p>Bodi</p> <p>Kondik</p> <p>Wath Orego</p> <p>Ulalo</p> <p>Nyag Bondo</p> <p>Kiboko</p> <p>Onyungo</p> <p>Nyamirimba</p> <p>Sigoti</p> <p>Bodi</p> <p>Nyangande</p> <p>Daraja Mbili</p> <p>Nyabondo</p> <p>Makindu (Kowawa)</p> <p>Koru</p> <p>Tamu</p> <p>Kibos</p> <p>Ramula (Ombeyi)</p> <p>God Abuoro</p> <p>Songhor</p> <p>Masogo</p> <p>Ambaka</p> <p>Nyamasaria</p> <p>Karowe</p> <p>Onjiko (Otho)</p>

SCHEDULE OF SERVICE CENTRES—(Contd.)

NYANZA PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
Ukwala (2,500) Yala (2,500) Siaya (2,500)	Bondo Asembo Rangala Nyagweso Ng'ya	<p>SIAYA DISTRICT</p> Boro' Ndere Ugunja Usengi Wagusu Aram Madiani Sega Ugunja Sigomere Sidindi Akala Ndori	God Kopolo (Nyagoma) Nylima Lwak Ragengni Manywanda Ndigwa Uwai Sifuyo Bondo Jera Ajigo Randago Kadengc Uranga Mwer Nyalungwa Nyapiedho (Maranda) Wangarot Anyuongi Nyamonye Siremba Nyang'oma Umina Nzoia Mbosie Mudhiero Malanga Muhanda Sianga Ramula Kudho Nyagondo Kambare
Kendu Bay (2,500) Migori (5,400) Homa Bay (11,000)	Mbita Oyugis Kihancha Karungu Ndhilwa Macalder Mine Sare Rongo	<p>SOUTH NYANZA DISTRICT</p> Omoya Lwanda Ogongo Homa Lime Kadel Doho Kosele Kabondo Mukoro Magunga Samba Orinda Miriu Gucha Suba Kuria Isibania Taranganya Mariwa Rapogi Uriri Mukoro Magunga Aora Chuodho Ratanga Kagaga Mawego Rodi Kopany	Pala Ringa Nyamburu Gangre (Sino) Oriang Rakwaro Nyambija Magna Kakrao God Jope Okenge Bondo Nyironge Sena Ukula Kwoyo Obando Gendia Ramula Karota Mambolea Kamasengre Nyaiuro Intimaru Ngonyo Kagaga Lieta (Kabunde) Ngegu Nyagweso Ndiru Awach Tende Bondo Sindo North Ruri Sidede Kandiege Kanam

SCHEDULE OF SERVICE CENTRES—(Contd.)  
 NYANZA PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
		<b>SOUTH NYANZA DISTRICT—(Contd.)</b>	
		Ranen	Omboga Wagwe Otaru Nyahera Rioma Kwoyo Oyombe Nyabisawa Masabe Nyangore Ikerege Kurtiange Mirogi
		Rangwe	Oyani Osogo Gogo Milkei Odiinya Opaya Dcdc Asumbi Nyawita Oboke Imbo Ongen'g Rapedhi
			God Kwer Othoch Rakuom Wath Onger Lwanda Magwar Nyandhiwa Kiabuya Agolo Muok Otati Osani
<b>RIFT VALLEY PROVINCE</b>			
		<b>BARINGO DISTRICT</b>	
Kabarnet (2,300) Eldama Ravine (5,300)	Marigat Mogotio	Kituro Kabartonjo Tenges Maji Mazuri  Kampi ya Samaki Kinyang Emehing	Kabimoi Sinonin Sabatia Saos Esageri Torongo Sirwa Makutano Radad Loiminange Loruk  Kabluk Kapturwo Scretunin Pemwai Kamungei Kipcherere Bartolimo Poi Bartabwa Timboiwo Mogorwo  Tangulbei Churo Kapeto Mugurir Kisanana Olkokwe Maji ya Moto Loboi Sagat Noiwet Katya

SCHEDULE OF SERVICE CENTRES—(Contd.)

RIFT VALLEY PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
Iten (2,400)	Chepkorio Chebiemit Kapsowar	<p>ELGEYO MARAKWET DISTRICT</p> <p>Tambach Kaptarakwa Kamwosor</p> <p>Tot Chebororwa Kapcherop Kimwarer</p>	<p>Kamorin Bugar Sergoit Biretwo Kessup Kapteren Nyeru</p> <p>Turesia Kipsaos Tumeiyo Musgut Chebloch Chesoi</p> <p>Cheptonpei Chebara Chesgon Chesongoch Koitiial Kaptalamwa Kipsoen</p>
Kajiado (4,100) Ngong (3,600)	Namanga Loitokitok Magadi (3,800)	<p>KAJIADO DISTRICT</p> <p>II Bisil Kiserian</p> <p>Mashuru</p>	<p>Nonkoopir Eiangata Waus Isinya Olioseri Ngata Taok Selengai</p> <p>Lengesim Rongai Kimana Lassit Rombo Oltepis</p> <p>Mosiro Oj Kilamatian Bulbul Waso Kedong Matasia Ongata Rongai</p>
Kericho (26,000) Sotik (2,500) Londiani (8,800)	Sosiot Litein Roret Longisa Lumbwa (Kipkelion) (5,100) Bomet Kaboson	<p>KERICHO DISTRICT</p> <p>Kaitui Isondo Kapkaket Kipsonoi Kapkoros Chemosit</p> <p>Ndanai Tenwek Chebunyo Sigor Kedowa Fort Ternan</p>	<p>Mogosiek Keбенet Koiwa Ainabkoi Kabianga Sotik North Kaitet Kabkuress Kapsarok Kipsitet Cheborge</p> <p>Chepelelwa Goror Gelegele Siongirroi Moyet Tarakawa Merigi Kapkimolwa Mulot Sorget</p>

SCHEDULE OF SERVICE CENTRES—(Contd.)

RIFT VALLEY PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
Nanyuki (26,200)	Rumuruti (2,600)	<b>LAIKIPIA DISTRICT</b> Doldol Ngarua	Lumuria Umande Kimanjo  Nyahuru Mutara Sosian  South Marmanet Mithigia North Marmanet
NAKURŪ (93,300) Njoro (8,800) Molo (12,300) Naivasha (20,300)	Mau Narok Elburgon (10,500) Gilgil (8,300)	<b>NAKURU DISTRICT</b> Dundori Bahati Solai Subukia  Rongai Olengurone Longonot Kijabe	Mabrūk Elementeita Banita Nyamamithi Kabasi Kandutura Siape Kampi ya Moto Kerisoi Mount Margaret (Mai Mahiu)  Ngwataniro Kibunja Turi Mausummit Molo South Keringet Ikumbi Eburru Kamwaura
Kapsabet (6,300) Nandi Hills (3,100)	Kabiyet (2,700) Lessos Kaptumo	<b>NANDI DISTRICT</b> Cheptarit Kaiboi Kipkarren Kaigat Chepterwai  Kilibwoni Mugondo Chemmase Kobujoi Serem	Chepsonoi Chepkumia Baraton Chepterit Kapsisya Kipsigak Mutwot Lelmokwo Lolkeringet  Sangalo Gurgung Ndalat Kabiemit Kipyesi Chernowet Arwos Chepkunyuk  Kamngoriam Ndurio Kemeloi Chepkunan Maraba Kosirai Birbriet Kabisaga

SCHEDULE OF SERVICE CENTRES—(Contd.)

RIFT VALLEY PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
Narok (6,700)	Nairangiengare Kilgoris	<b>NAROK DISTRICT</b> Enabelbel Narosura  Mulol Lolgorien	Mosiyo Rotian Enangiperi Olokurto Morijo Naikarra Meguarra  Entasekera Emarti Shartuka Enosaen Angata Baragoi Keekorok
Maralal (7,700)	Baragoi (3,600) Wamba (4,700)	<b>SAMBURU DISTRICT</b> Sukuta Marmar  South Horr Archer's Post	Kirimom Marti Illaut Nguronit  Tum Lodongokwe Serolevi
<b>KITALE</b> (34,300)	Endebess Kimimini	<b>TRANS NZOIA DISTRICT</b> Kwanza Saboti  Cherangani Suwewa	Kapretwa Kisawai Teldet Kipsoen Kibuswa  Makutano Nzoia Kapsara Sirende Sikhendu
Lodwar (2,500)	Kalokol Lokitaung (5,800) Lokori	<b>TURKANA DISTRICT</b> Kakuma Kaputir  Lorukumu	Loiya Khayekongole Lokichar Lowerengak  Todenyang Kaling Lomelo Kapedo Lochakula Nachakwi



SCHEDULE OF SERVICE CENTRES—(Contd.)

RIFT VALLEY PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
ELDORET (73,100)	Kipkabus Turbo Moiben Moi's Bridge	UASIN GISHU DISTRICT  Soy Timboroa Burnt Forest	Leseru Elgeyo Border Kapseret Plateau. Penon. Ziwa  Kiboloss Chepsaita Ngenyilel Osorangai Taisagoi Town Kaptabei
Kapenguria/ Makutano (6,100)	Kacheliba (Kongelai) Sigor	WEST POKOT DISTRICT  Kaibibich Kanyarkwat Kanyao	Morkwijiit Kisauret Serewa Kerengei Chepkono Kapsait Kapsangar Chepkobei  Kanyarus Koidich Nakuyen Kasel Kowriiong Chepnyal Proiyu Wakor
Webuye (11,600) Kimilili (2,600)	Sirisia Kapsakwany Chwele (2,200)	WESTERN PROVINCE  BUNGOMA DISTRICT  Mayanja Makacero Sangalo Kabula	Kapchemogen Chesegon Orwa Lomut Lotongot Tamkai Sebit  Sikhendu Ndivisi Namorii Chemoge
		Kaptama Kapkateny Bokoli Nalondo	Lukusi Siikho Mbakalo Makutano

SCHEDULE OF SERVICE CENTRES—(Contd.)

WESTERN PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
Bungoma (13,800)	Malakisi Tongareni	Cheptai Nyanga Kamakoiwa Misikhu  Lugulu Naitiri Ndalu Bumula	Chepkube Changara Chesakaki Mateka Nalianda Sibembe Butonge Chesamisi  Kaboywa Sikusi Lukhome Kuywa Khachonge Chebukwabi Mukhe Matisi  Kamukuywa Kongoli Majaha Milo Muchi Kandunyi Kibuke
Busia (3,700)	Amogoru (Kacholia) Nambale Hakati Butula Muandas Funyula (Nangina) Port Victoria	<b>BUSIA DISTRICT</b>  Chelelemuk Malaba Amukura Matayo Bumala  Sio Port Buhuyi Likoli Murumba Buyofu	Alupe Mabunge Tingolo Siribo Jairos Namuduru Machakus Lupida  Chamasiri Bukhalalire Bekayi Bukiri Lugare Luanda Lupida
KAKAMEGA (32,900) Mumias (12,300)	Malawa Khwisero Mbale Navakholo Kiboswa	<b>KAKAMEGA DISTRICT</b>  Shinyalu Bukura Lubao Kilingili Koyonzo  Kakunga (Mwanza) Ingotse Magada (Muhanda)	Manyula Ematundu (Wambulishi) Shiatsala  Mahanga Ekambuli Ilungu Jepronk Kinu  Lukume Samitsi Kambiri Chimangeti Vihiga

SCHEDULE OF SERVICE CENTRES—(Contd.)

WESTERN PROVINCE—(Contd.)

URBAN CENTRES	RURAL CENTRES	MARKET CENTRES	LOCAL CENTRES
Luanda-Maseno (4,400) Butere (2,500) Mayengo (Vihiga) (2,500) Khavega (Mukumu) (Sigalagala) (Ikolomani) (2,500) Kaimosi (2,500)	Hamisi Shianda Ebusiratsi (Esibuye) Chavakali Lumakanda	KAKAMEGA DISTRICT—(Contd.)  Shikulu (Musoli) Soy Kima Sabatia Serem  Eshibinga Gambogi Eregi Malinya Matete	Banja Senende Kiritu Cheptik Chamakanga Kagubdu (Ishiru) Litambitsa (Iguhu) Isulu Sabatia (Buchanya)  Musanda Virembe (Isechero) Bungasiwa Samanzi Munami Matungu Makunga Eshisuru Malaha Muregu  Butali (Chepwai) Chimuche Luandeti Nambirima Lugari Mabusi Likhuyani Mautuma Mbaraka
NAIROBI (1,334,600)			

## AUTHORITIES INVOLVED IN URBAN PLANNING AND DEVELOPMENT

Agency	Main Functions
Government Ministries .. .. } Provincial Development Committees .. .. } District Development Committees .. .. }	Policy, Planning, Finance and/or Co-ordination.
Commissioner of Lands .. .. } Physical Planning Department .. .. } Government Architect .. .. }	Provision of Land and Control. Physical Planning. Planning and Development of all Government buildings.
Local Authorities .. .. } Director of Surveys .. .. } Chief Engineer (Roads) .. .. } Ministry of Water Development .. .. }	Housing, Social, trading licences, etc. Survey and Mapping. Planning and Construction, Roads. Planning and Construction, Water Supply.
	DEVELOPMENT
Office of the President .. .. } Ministry of Agriculture .. .. } Judicial Department and High Court .. .. } Ministry of Commerce and Industry .. .. } Ministry of Co-operative Development .. .. } Ministry of Housing and Social Services .. .. } Office of the Vice-President and Ministry of Finance .. .. } Ministry of Defence .. .. } Ministry of Education .. .. } Ministry of Economic Planning and Community Affairs. .. .. } Ministry of Health .. .. } Ministry of Home Affairs .. .. }	Administrative Buildings and Police Offices, housing, educational, etc. Law Courts, staff housing, etc. Offices, staff housing. Offices and community buildings. Offices and community buildings. Staff offices. Offices Armed Forces buildings. Education and staff accommodation. Offices. Medical and staff buildings. Prisons, approved schools, etc.
Ministry of Information and Broadcasting .. .. } Ministry of Labour .. .. } Ministry of Lands and Settlement .. .. } Ministry of Local Government .. .. } Ministry of Natural Resources .. .. } Ministry of Power and Communications .. .. } Ministry of Tourism and Wildlife .. .. } Ministry of Works .. .. } Social Organizations .. .. } Religious Organizations .. .. } Private Developers .. .. } Kenya Harbours .. .. } Kenya Railways .. .. } Kenya Posts and Telecommunications .. .. } Kenya Airways .. .. }	Studios and staff housing. Staff offices and housing. Staff offices and housing. Staff offices and housing. Staff offices and housing. Aerodromes, Railways, Harbours, etc. Fisheries and tourist development. Offices, stores and works, depots. Social and Sports Clubs, etc. Missions, schools, etc. Banks, Industry, housing. Harbours. Railways. Post Offices. Airports, airstrips.

GUIDELINES FOR THE LOCATION OF INFRASTRUCTURAL FACILITIES AT THE VARIOUS LEVELS OF CENTRES

<i>Level of Centres</i>	<i>Administrative Services</i>	<i>Civic Services</i>	<i>Communication Services</i>
URBAN CENTRES	Principal Town National Capital		International Airport International Bus Services
	Principal Towns Municipalities	Fire Station	Served by International/National Trunk Road Head Post Office Facilities, Tele- phone (automatic exchange) Regional Bus Service Airfield
	Other Urban Cen- tres	District Administration District Court Divisional Police Headquarter	Served by National Trunk/Primary Road Airstrip
RURAL CENTRES	Divisional Administration Police Station	Sewage Disposal system Grid Water Supply Electricity	Served by Primary/Secondary Road Departmental Post Office
	Local and Sub-Local administration Police Post	Public Water Supply	Served by Secondary/Minor road Telephone (Manual exchange) Sub-Post Office Airstrip (only remote areas) Local Bus Services
MARKET AND LOCAL CENTRES			

**GUIDELINES FOR THE LOCATION OF INFRASTRUCTURAL FACILITIES AT THE VARIOUS LEVELS OF CENTRES—(Contd.)**

<i>Level of Centres</i>	<i>Educational Services</i>	<i>Health Services</i>	<i>Recreational and other Social Services</i>
<b>URBAN CENTRES</b>	Principal Town National Capital	University Teacher Training College (secondary level) Technical College	Hospital (national standard)
	Principal Towns Municipalities	Teacher training college (primary level) Technical school (secondary level)	Hospital (provincial standard)
	Other Urban Centres	Senior Secondary School (to form VI) Technical School (primary level)	Hospital (district standard)
<b>RURAL CENTRES</b>	Secondary School (at least to form IV) Village polytechnic	Health centre (+ maternity unit)	Stadium Public Library Recreational Park Cinema Showground
<b>MARKET CENTRES</b>	Secondary School	Dispensary Family Planning Service	Mobile Library Service Sports field Social hall Mobile cinema
<b>LOCAL CENTRES</b>	Full primary school (2-3 streams) Nursery school		

NOTES.—1. Private sector facilities, e.g. commercial and industrial undertakings, will be located in service centres according to the economic development potential.

2. To the services listed against each level of centre should be added those services listed against the centres at lower levels, e.g. in most cases a rural centre will also have all the services existing in market and local centres.

## ABBREVIATIONS IN THE PLAN

ABM	Accountancy and Business Management Course (Co-operative College of Kenya).
ACP	African, Caribbean and Pacific Countries associated with EEC under Lome Convention.
AFC	Agricultural Finance Corporation.
AHITI	Animal Health and Industry Training Institute.
AI	Artificial Insemination (MOA Programme).
AO	Agricultural Officer.
ASU	Administrative Support Unit (MOH).
BPCU	Border Post Control Units (MOH).
CBPP	Coast Bovine Pleuro-Pneumonia.
CBS	Central Bureau of Statistics.
CDA	Community Development Assistance.
CDCU	Communicable Disease Control Unit.
CID	Criminal Investigation Department (OOP).
CPCS	Co-operative Production Credit Scheme.
DDC	District Development Committee.
DFCK	Development Finance Company of Kenya.
DIT	Directorate of Industrial Training.
DPM	Directorate of Personnel Management.
EAC	East African Community.
EAFFRO	East African Freshwater Fisheries Research Organization.
EAMFRO	East African Marine Fisheries Research Organization.
ECA	Economic Commission for Africa.
EEC	European Economic Community.
EPI	Expanded Programme on Immunization (MOH).
FAO	Food and Agriculture Organization—(United Nations).
FIPA	Foreign Investment Protection Act.
FLTC	Family Life Training Centre (MOH).
GDP	Gross Domestic Product.
GMR	Guaranteed Minimum Return (MOA).
GPT	Graduated Personal Tax.
GTI's	Government Training Institutes.
HFCK	Housing Finance Company of Kenya Limited.
HIS	Health Information System (MOH).
HIT's	Harambee Institutes of Technology.
HPC	Horticulture Production Centre (MOA).
HQ	Headquarters.
HRDU	Housing Research and Development Unit (University of Nairobi).
IADP	Integrated Agricultural Development Programme.
ICDC	Industrial and Commercial Development Corporation.
IDB	Industrial Development Bank.
IPA	Industrial Promotion Area (KIE).
IRDP	Integrated Regional Development Programme.
IRS	Integrated Rural Surveys (Central Bureau of Statistics).

IRS I	Survey for 1974-1975.
IRS II	Survey for 1976-1977.
IRUDU	Integrated Rural and Urban Development Unit (MHSS).
ISD	International Subscriber Dialling.
ISPC	Industrial Survey and Promotion Centre (MCI).
IYC	International Year of the Child.
JKF	Jomo Kenyatta Foundation.
KANU	Kenya African National Union.
KBS	Kenya Bureau of Standards.
KCC	Kenya Co-operative Creameries Limited.
KENEXTEL	Kenya External Telecommunications Company.
KETA	Kenya External Trade Authority.
KFA	Kenya Farmers Association (Co-operative) Limited.
KFI	Kenya Fisheries Industry.
KIA	Kenya Institute of Administration.
KIE	Kenya Industrial Estates Limited.
KIMC	Kenya Institute of Mass Communication.
KIRDI	Kenya Industrial Research and Development Institute.
KITI	Kenya Industrial Training Institute.
KLB	Kenya Literature Bureau.
KNFC	Kenya National Federation of Co-operatives.
KNH	Kenyatta National Hospital.
KNLS	Kenya National Library Service.
KNTC	Kenya National Trading Corporation.
KPCU	Kenya Planters Co-operative Union.
KSTC	Kenya Science Teachers' College.
KTDA	Kenya Tea Development Authority.
KTDC	Kenya Tourist Development Corporation.
KTTC	Kenya Technical Teachers' College.
KUSCCO	Kenya Union of Savings and Credit Co-operatives.
LGLA	Local Government Loan Authority.
L and FM	Lands and Farm Management Division (MOA).
MCI	Ministry of Commerce and Industry.
MEPCA	Ministry of Economic Planning and Community Affairs.
MGFSP	Mixed Group Farm Sub-Division Project (MOA).
MHSS	Ministry of Housing and Social Services.
MIB	Ministry of Information and Broadcasting.
MIDP	Machakos Integrated Development Programme.
MLG	Ministry of Local Government.
MLS	Ministry of Lands and Settlement.
MNR	Ministry of Natural Resources.
MOA	Ministry of Agriculture.
MOCD, MCD	Ministry of Co-operative Development.
MOD	Ministry of Defence.
MOE	Ministry of Education.
MOH	Ministry of Health.



MOW	Ministry of Works.
MPC	Ministry of Power and Communications.
MTAC	Management Training and Advisory Centre.
MTW	Ministry of Tourism and Wildlife.
MWD	Ministry of Water Development.
N/A	Not available, Not applicable.
NCKK	National Christian Council of Kenya.
NCST	National Council for Science and Technology.
NCEOP	National Committee on Educational Objectives and Policies.
NDS	National Demographic Survey (CBS).
n.e.c.	not elsewhere classified.
NFS	National Fertility Survey (CBS).
NFWC	National Family Welfare Centre (MOH).
NHC	National Housing Corporation.
NISSP	National Integrated Sample Survey Programme (CBS).
NITC	National Industrial Training Council.
NYS	National Youth Service (OOP).
OAU	Organization of African Unity.
OOP	Office of the President.
OVPMF	Office of the Vice-President and Ministry of Finance.
PAYE	Pay As You Earn.
PEM	Protein Energy Malnutrition.
PEP	Partnership for Productivity (USA—Kenya).
RIDC	Rural Industrial Development Centres (KIE).
RSCTU	Rural Services Co-ordination and Training Unit (MEPCA).
SFT	Settlement Fund Trustees (MLS).
SPSCP	Smallholders Production Service and Credit Project (MCD).
TAC	Teachers Advisory Centres.
TAS	Automatic Telegraph Service.
TRDA	Tana River Development Authority.
TSC	Teachers Service Commission.
UHT	Ultra Heat Treatment (KCC milk product).
UNDP	United Nations Development Programme.
UNIDO	United Nations Industrial Development Organization.

## SYMBOLS AND UNITS OF MEASURE

DWT	Deadweight Tonnes.
GWH	Gegawatt Hours ( $10^9$ watt-hours).
ha.	hectares.
IF/RF	Intermediate frequency/Radio Frequency.
Kfm.	One million Kenya Pounds, equivalent to twenty million Kenya shillings.
kg.	kilogramme(s).
KVA	kilovolt-amperes.
kWh	kilowatt-hours
MW	Megawatt, equivalent to one million watts of electrical energy.
m.	metres.
sq. km.	square kilometres.
tons/ha.	tonnes per hectare.
VEH/KM	Vehicle traffic per kilometre of road.

SWAHILI WORDS USED IN THE TEXT

<i>Chang'aa</i>	A locally-brewed alcoholic drink.
<i>Harambee</i>	Let's Pull Together; the slogan for Self-help.
<i>Maendeleo ya Wanawake</i>	Women for Development, a national organization for women.
<i>Matatu</i>	A small passenger-carrying vehicle.
<i>Pombe</i>	Beer.
<i>Posho</i>	Maize flour.
<i>Wananchi</i>	Citizens.